

## GENERAL CATALOGUE LIFTING EQUIPMENT

**DIRECT**

International Edition No. 6



# CONNECTED TO SAFETY



Dear customers and friends of Carl Stahl,

we are pleased to present you the fifth international edition of our general catalogue "Carl Stahl DIRECT". He gives you a comprehensive overview about the world of rope- and lifting technology. The Carl Stahl Group always works to the highest safety standards and offers worldwide high-quality products from leading manufacturers.

As one of the international leaders we ensure, that you will receive the perfect solution from us for your application regarding safety, ergonomics and efficiency. Therefore excellent trained and engaged employees are ready for you whether by phone or on-site.

Benefit from our extensive product and service range.

We look forward to hearing from you!

## YOUR UNBEATEN BENEFITS AT CARL STAHL

### **SOLUTIONS NOT JUST PRODUCTS**

We offer you perfect solutions to your special requirements regarding safety, ergonomics and efficiency.

### **POWERFUL PARTNERS**

High quality products and delivery performance based on the cooperation with international leading manufacturers.

### **CONSULTATION SERVICE ON-SITE**

70 Service-Centers worldwide - also close to you. Individual advice from our experts.

### **EXPERTISE OF THE MARKET LEADER**

Benefit from 138 years of international experience and a complete range of wire rope and lifting equipment.

### **REPAIR SERVICE**

Our experts in one of our Service-Centers will be pleased to repair your lifting equipment.

### **COMPREHENSIVE SEMINAR PROGRAM**

Recognised experts transmit knowledge in wire rope and lifting technology.

### **THE NEW KIND OF INDUSTRIAL SAFETY**

With Carl Stahl Integrated Services you will meet a major part of industrial safety requirements in your company.

### **ERGONOMIC WORK PROCESSES**

High grade work place solutions from Carl Stahl improve processes in your company and increase ergonomics.

### **PROJECT PLANNING**

Be it production halls, workshops, workplaces - we plan with you - right from the beginning.

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LIFTS YOUR BOXES  
SAFELY

**KLT-  
GRAB  
CGKG**

Suitable for the transport of the most regular  
small load carriers with the dimensions 400 x 300 mm.





# HORIZONTAL OR VERTICAL

# LIFTING CLAMPS

Carl Stahl offers a comprehensive range of high-quality lifting clamps in this three operating modes: Micro form closure, force closure and form closure.



Automatic Safety Lifting Clamp  
Type CGSMVZ, adjustable  
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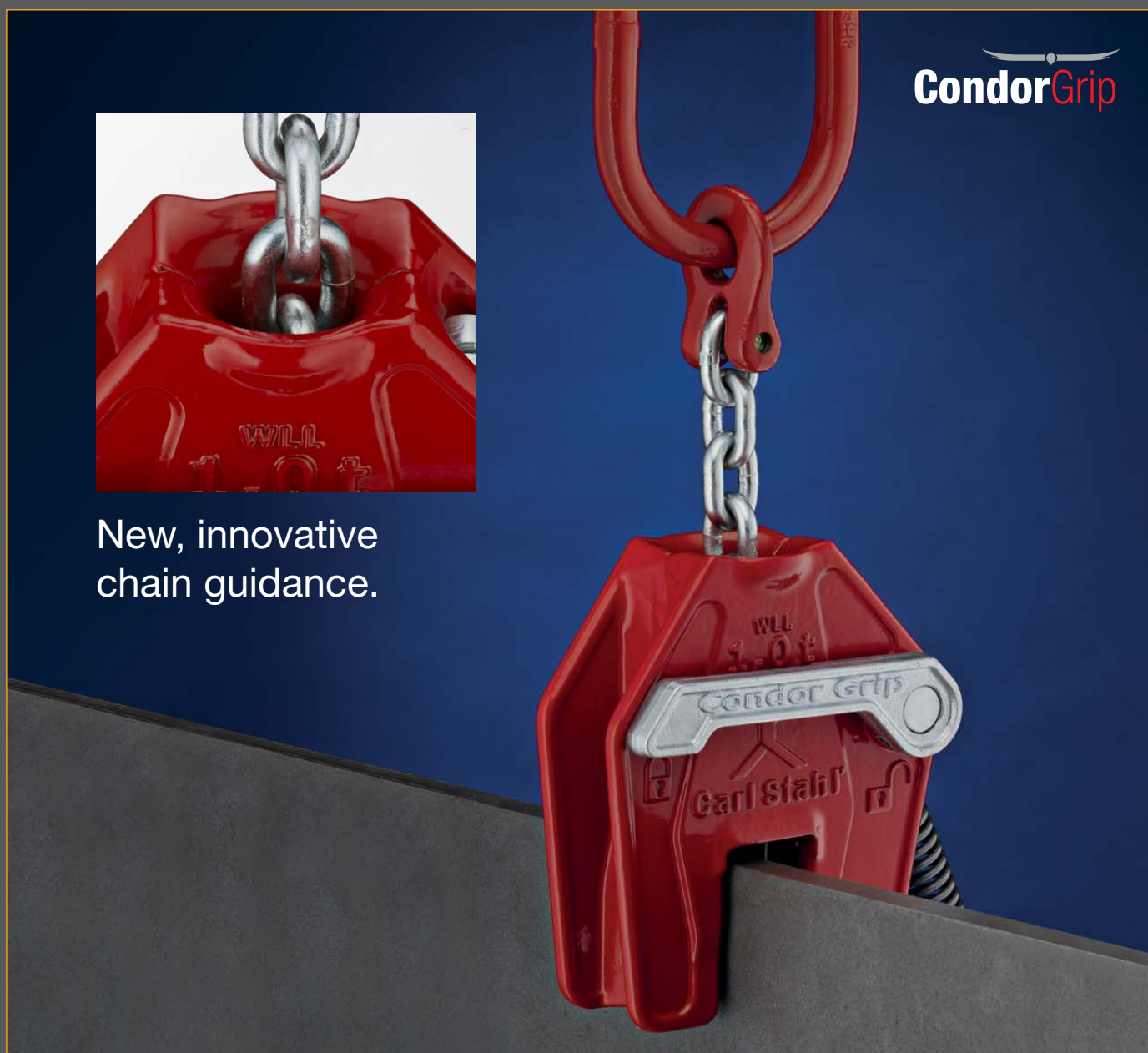


Automatic Safety Lifting Clamp  
Type CGSMVR, adjustable  
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Safety Lifting Clamp for  
sandwich panels  
Type CGSMVS  
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New, innovative  
chain guidance.

The CondorGrip CGUK Universal Lifting Clamp is an innovative new development for the horizontal and vertical transportation.

More information on page 186 f.

THE IDEAL ASSISTANT  
FOR SMALL LOADS

# ICE MINI COMPONENTS



# ICE ›mini‹

The smallest Ø 4 mm round steel chain in grade 12 ICE



**Example:**  
4-leg w/o shorteners  
with Master Link IAK 3/4-4  
and ICE Star Hook ISH 4



**Example:**  
2-leg w/ shorteners  
with Mini Lifter IML-2  
and ICE Star Hook ISH-4

The ideal assistant for small loads of up to 1.7 t, in incoming goods areas and for tool construction!

More information on page 250 f.

# SIMPLY ATTRACTIVE, THESE

# MAGNETS

Carl Stahl offers a comprehensive range of high-quality Lifting Magnets.

Depending on version these magnets can be used for a safe transport of flat material.



Lifting Magnet Type TML 250  
Page 208



Lifting Magnet Type TML 500  
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Lifting Magnet Type TML 100  
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Permanent Lifting Magnet Type TML in use

More information on page 204 f.



SIMPLY - BETTER -  
STRONGER

# PROTECTIVE TUBINGS

**NoCut® sleeve and NoCut® pad**

Protect your slings with a special designed edge protection for sharp edges. Increase the durability of your slings and enhance the safety of your employees.





More information on page 309 ff.

# TILT LOADS PRECISE WITH THE

## LOAD TILTING DEVICE

Thanks, all is in balance!

The CondorTilt Load tilting device with a capacity from 500 kg or 3000 kg meets highest requirements in accordance to DIN EN 13155.

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# CRANE TECHNOLOGY



Wall Jib Cranes | Pillar Jib Cranes | Attachments for Cranes | Crane Accessories  
Power lines | Pillar and wall-mounted jib cranes Movable Cranes | Outdoor Cranes  
Gantry Cranes | Crane Systems | Adapter Cranes | Aluminium Crane Systems  
Carbon Fibre Crane Systems | Aluminium Gantry Cranes | Workshop Cranes









Wall jib crane Type LW

Wall Jib Crane Type	Load capacity in kg	Jib range in mm	Page
CS/LW	80 - 1,000	2,000 - 7,000	25
CS/LWX	80 - 500	2,000 - 7,000	26
CS/VW	125 - 5,000	2,000 - 10,000	27



### Wall jib crane type CS/LW with electric chain hoist

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

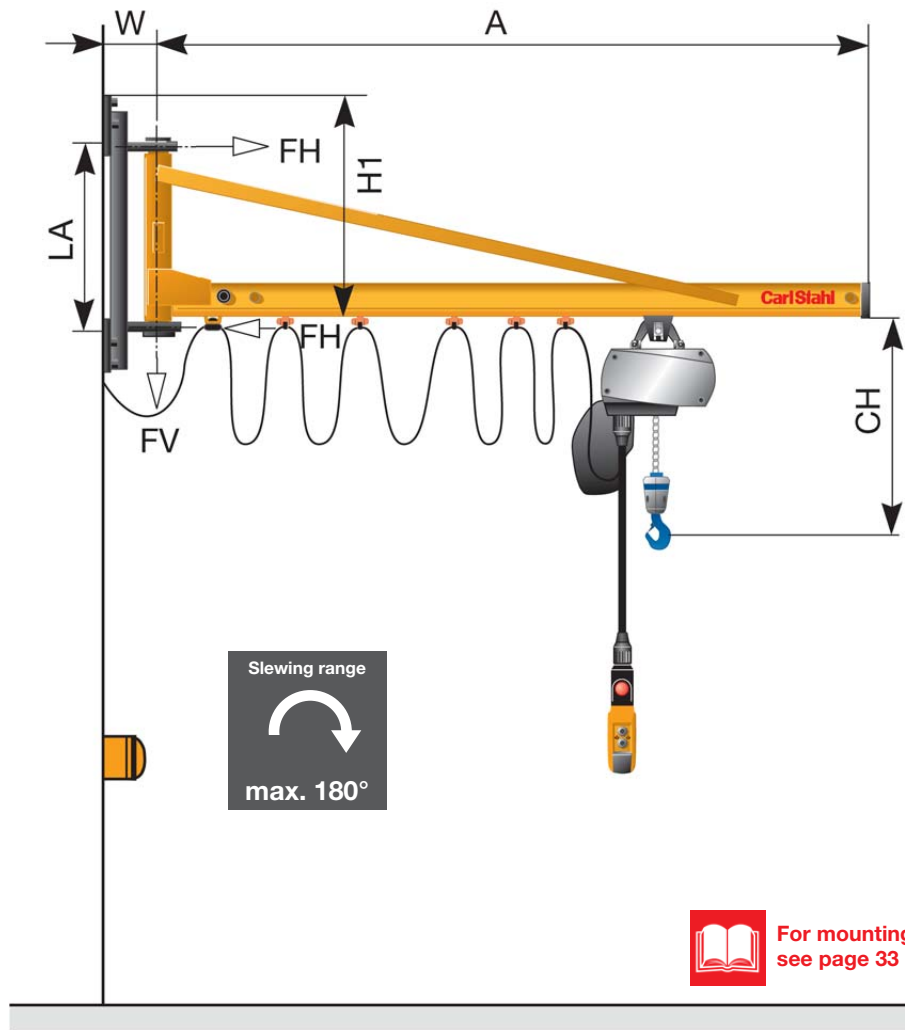
Jib arm complete with wall mount, electric chain hoist with push trolley, complete electric installation, mounting plan, manual slewing. A detailed data sheet is available on request.

#### Scope of delivery chain hoist:

Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking. We will gladly provide you with an explanation of any versions not included in these overviews on request.

#### Features:

- **Standard lifting height 3.0 m**
- Lightweight structure (DIN 15018 H2/B2)
- Slewing range will depend on mount
- According to EEC directive 2006/42 EC
- Easy moving jib mount
- Quality corrosion protection acc. to DIN 55 928
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With attachment diagram
- Mounting bolts to be provided by customer



Multi-lift only for the electric chain hoist, see page 94

Load capacity in kg	Jib length in mm	Type/Size	Lifting speed in m/min	CH	Measurements in mm			FH in kN	FV in kN	Weight in kg	Item no.
					H1	LA	W				
125	2000	LW25	8/2.0	389	614	492	160	6.31	2.18	100	10201000015001
125	3000	LW25	8/2.0	389	614	492	160	10.13	2.32	113	10201000015004
125	4000	LW25	8/2.0	389	614	492	160	14.23	2.46	127	10201000015009
125	5000	LW25	8/2.0	389	614	600	160	18.55	2.60	139	10201000015013
125	6000	LW36	8/2.0	389	665	600	190	21.23	3.25	208	10201000015017
250	3000	LW25	8/2.0	389	614	492	160	17.23	3.55	113	10201000015005
250	4000	LW36	8/2.0	389	665	600	190	20.48	4.05	166	10201000015010
250	5000	LW36	8/2.0	389	665	600	190	26.65	4.26	187	10201000015014
250	6000	LW36	8/2.0	389	665	600	190	33.18	4.48	208	10201000015018
250	7000	LW200	8/2.0	375	900	800	230	32.03	5.49	312	10201000015020
500	2000	LW36	4/1.0	470	665	600	190	17.19	6.21	135	10201000015002
500	3000	LW36	4/1.0	470	665	600	190	27.08	6.43	157	10201000015006
500	4000	LW36	4/1.0	470	665	600	190	37.15	6.64	178	10201000015011
500	5000	LW200	4/1.0	456	900	800	230	36.75	7.53	268	10201000015015
500	6000	LW200	4/1.0	456	900	800	230	45.35	7.81	296	10201000015019
1000	2000	LW200	4/1.0	516	900	800	230	22.46	11.61	199	10201000015003
1000	3000	LW200	4/1.0	516	900	800	230	36.21	11.91	228	10201000015007
1000	3500	LW200	4/1.0	516	900	800	230	43.39	12.10	247	10201000015008
1000	4000	LW200	4/1.0	516	900	800	230	50.30	12.19	256	10201000015012
1000	5000	LW235	4/1.0	516	980	880	230	59.53	12.79	320	10201000015016

No extra equipment available for this crane.

### Wall jib crane type CS/LWX with electric chain hoist

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

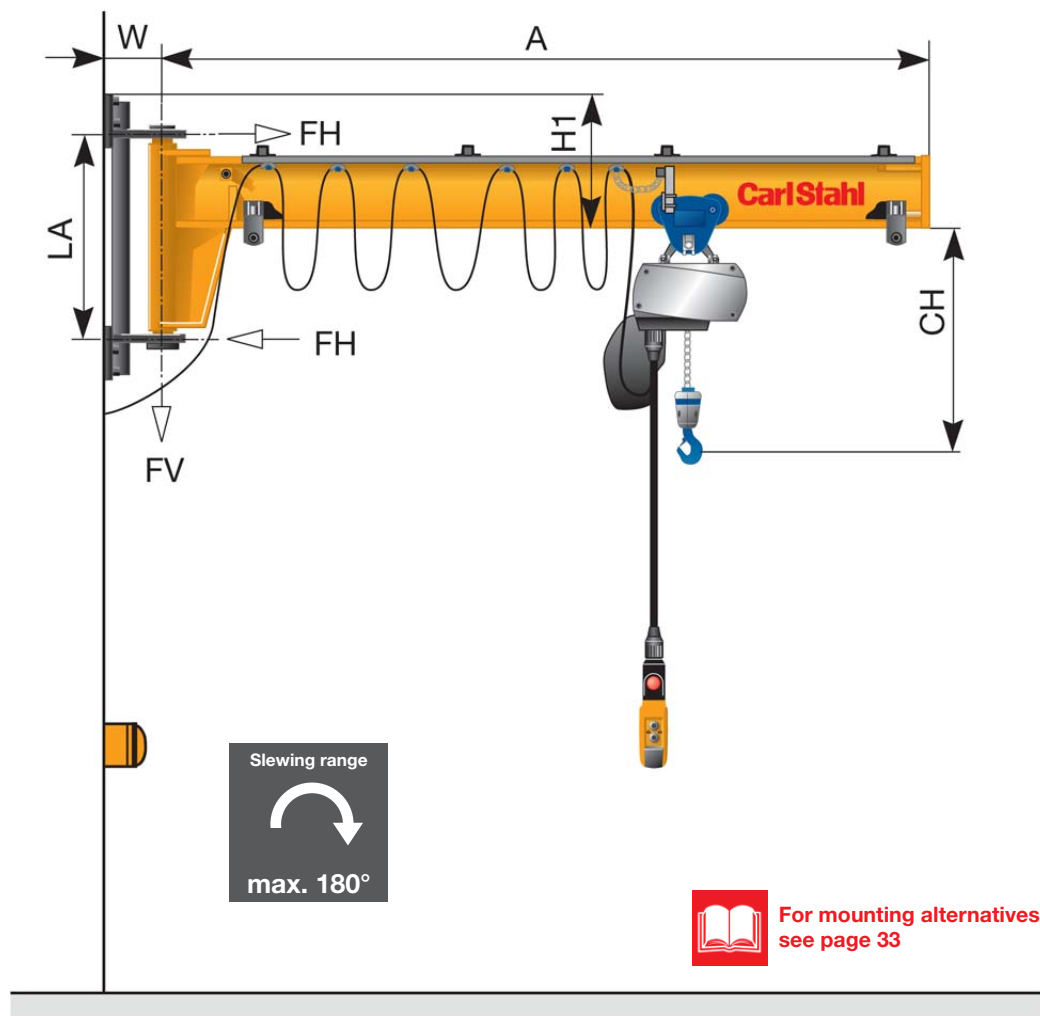
Jib arm complete with wall mount, electric chain hoist with push trolley, complete electric installation, mounting plan, manual slewing. A detailed data sheet is available on request.

#### Scope of delivery chain hoist:

Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking. We will gladly provide you with an explanation of any versions not included in these overviews on request.

#### Features\*:

- **Standard lifting height 3.0 m**
- Lightweight structure (DIN 15018 H2/B2)
- Slewing range will depend on mount
- According to EEC directive 2006/42 EC
- Quality corrosion protection acc. to DIN 55 928 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With attachment diagram.
- Mounting bolts to be provided by customer



Multi-lift only for the electric chain hoist, see page 94

Load capacity in kg	Jib length in mm	Type/Size	Lifting speed in m/min	CH	Dimensions in mm			FH in kN	FV in kN	Weight in kg	Item no.
125	2000	LWX25	8/2.0	383	296	492	160	5.60	2.50	121	10201000015021
125	2500	LWX25	8/2.0	383	296	492	160	7.20	2.60	131	10201000015022
125	3000	LWX25	8/2.0	383	296	492	160	8.90	2.70	141	10201000015023
125	3500	LWX25	8/2.0	383	296	492	160	10.70	2.80	151	10201000015026
125	4000	LWX36	8/2.0	382	350	600	190	12.10	3.30	202	10201000015029
125	4500	LWX36	8/2.0	382	350	600	190	14.00	3.40	213	10201000015032
125	5000	LWX36	8/2.0	382	350	600	190	16.00	3.50	223	10201000015034
125	5500	LWX200	8/2.0	381	452	800	230	14.80	4.50	321	10201000015036
125	6000	LWX200	8/2.0	381	452	800	230	16.60	4.60	336	10201000015038
250	3000	LWX36	8/2.0	382	350	600	190	13.70	4.30	179	10201000015024
250	3500	LWX36	8/2.0	382	350	600	190	16.30	4.40	190	10201000015027
250	4000	LWX36	8/2.0	382	350	600	190	19.10	4.60	210	10201000015030
250	4500	LWX200	8/2.0	381	452	800	230	17.10	5.40	292	10201000015033
250	5000	LWX200	8/2.0	381	452	800	230	19.40	5.60	307	10201000015035
250	5500	LWX200	8/2.0	381	452	800	230	21.80	5.70	323	10201000015037
250	6000	LWX200	8/2.0	381	452	800	230	24.30	5.90	338	10201000015039
500	3000	LWX36	4/1.0	469	350	600	190	24.50	6.90	196	10201000015025
500	3500	LWX200	4/1.0	468	452	800	230	22.00	7.70	277	10201000015028
500	4000	LWX200	4/1.0	468	452	800	230	25.50	7.80	293	10201000015031

#### \*Additional extras on request:

- Electric trolley drive



### Wall jib crane type CS/VW with electric chain hoist

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

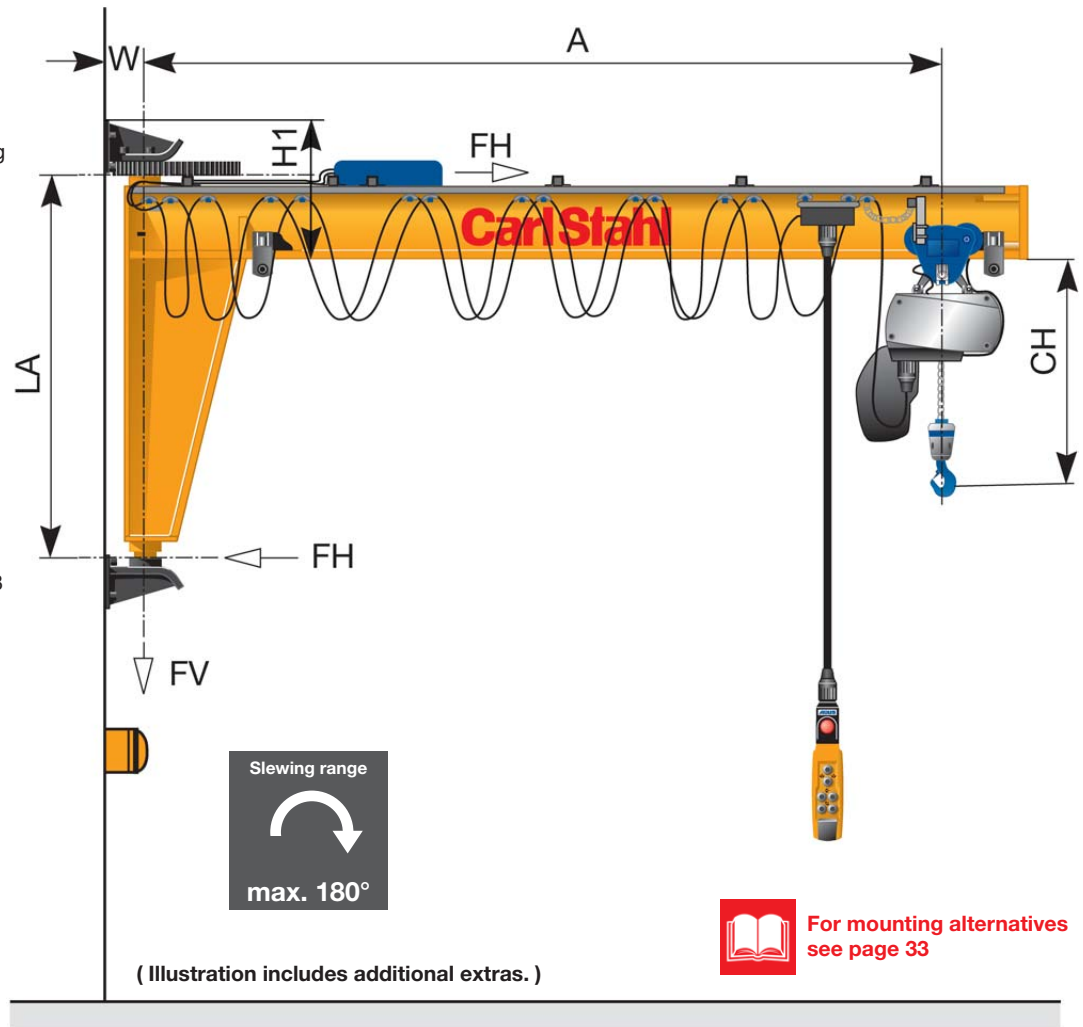
Jib arm complete with wall mount, electric chain hoist with push trolley, complete electric installation, mounting plan, manual slewing. A detailed data sheet is available on request.

#### Scope of delivery chain hoist:

Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking. We will gladly provide you with an explanation of any versions not included in these overviews on request.

#### Features\*:

- **Standard lifting height 3.0 m**
- Medium-weight structure (DIN 15018 H2/B3)
- Slewing range will depend on mount
- According to EEC directive 2006/42 EC
- Quality corrosion protection acc. to DIN 55 928 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With attachment diagram.
- Mounting bolts to be provided by customer



Multi-lift only for the electric chain hoist, see page 94

Load capacity in kg	Jib length in mm	Type/Size	Lifting speed in m/min	LA	Dimensions in mm CH	H1	W	FH in kN	FV in kN	Weight in kg	Item no.
125	3000	WL35	8/2.0	630	383	305	80	12.0	3.3	204	10201000015040
250	3000	WL35	8/2.0	630	382	345	80	18.1	4.7	228	10201000015041
250	4000	WL35	8/2.0	1000	382	385	80	16.6	5.4	301	10201000015043
250	5000	WL35	8/2.0	1000	382	385	80	21.4	5.8	337	10201000015048
500	3000	WL35	4/1.0	1000	469	385	80	19.8	7.7	278	10201000015042
500	4000	WL35	4/1.0	1000	469	385	80	26.8	8.0	313	10201000015044
500	5000	WL50	4/1.0	1250	469	505	110	29.2	9.7	485	10201000015049
1000	4000	WL50	4/1.0	1250	528	505	110	38.4	14.2	445	10201000015045
1000	4500	WL50	4/1.0	1250	528	565	110	44.8	15.2	545	10201000015047
1000	5000	WL50	4/1.0	1250	528	565	110	50.2	15.5	576	10201000015050
2000	4000	WL50	4/1.0	1250	630	605	110	56.6	25.6	607	10201000015046
2000	5000	WL60	4/1.0	1600	630	695	130	73.0	27.9	849	10201000015051

#### \*Available options:

- Electric trolley drive
- Electric jib drive
- Extra trolley for independent movement of pendant control

Pillar Jib Cranes



Pillar jib crane type VS

Pillar Jib Crane Type	Load capacity in kg	Jib range in mm	Page
CS/LS	80 - 1,000	2,000 - 7,000	29
CS/LSX	80 - 500	2,000 - 7,000	30
CS/VS	125 - 6,300	2,000 - 10,000	31

### Pillar jib crane type CS/LS with electric chain hoists

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

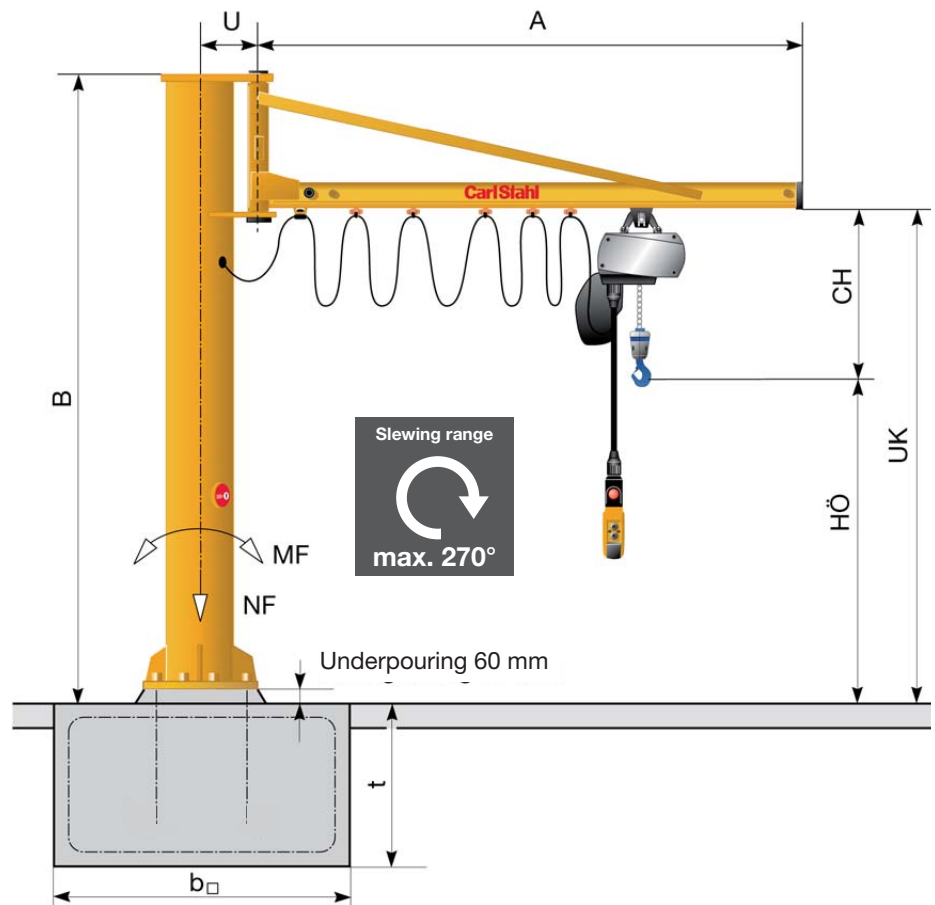
Pillar and jib arm complete with anchoring bolts and template, electric chain hoist with push trolley, movable rubber buffers, complete electric installation, foundation plan, manual slewing.

#### Scope of delivery chain hoist:

Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking.

#### Features:

- Lightweight construction (DIN 15018 H2/B2)
- According to EEC directive 2006/42/EC
- Quality corrosion protection acc. to DIN 55298 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With anchoring bolts, template and foundation plan



No extra equipment available for this crane.

Multi-lift only for the electric chain hoist, see page 94

Load cap. in kg	Jib length in mm	Type/ Size	Dowel plate	Lifting speed in m/min	Dimensions in mm							MF in kNm	NF in kN	Weight in kg	Item no.
					B*	UK*	CH	HO	U	b	t				
125	2000	LS25	L25-I	8/2.0	3140	2600	389	2211	250	800	800	3.4	3.2	219	10201500015001
125	2500	LS25	L25-I	8/2.0	3140	2600	389	2211	250	900	800	4.4	3.3	228	10201500015004
125	3000	LS25	L25-I	8/2.0	3140	2600	389	2211	250	1000	800	5.2	3.3	232	10201500015005
125	4000	LS25	L25-I	8/2.0	3140	2600	389	2211	250	1100	800	7.2	3.5	246	10201500015010
125	5000	LS25	L25-II	8/2.0	3140	2600	389	2211	250	1200	800	9.3	3.6	258	10201500015015
250	2000	LS25	L25-I	8/2.0	3140	2600	389	2211	250	1000	800	6	4.4	219	10201500015002
250	3000	LS25	L25-II	8/2.0	3140	2600	389	2211	250	1100	800	9	4.6	232	10201500015006
250	4000	LS36	L36-I	8/2.0	3200	2600	389	2211	290	1300	800	13	5.4	324	10201500015011
250	5000	LS36	L36-I	8/2.0	3200	2600	389	2211	290	1400	800	16.7	5.7	345	10201500015016
250	6000	LS36	L36-I	8/2.0	3200	2600	389	2211	290	1500	800	20.6	5.9	366	10201500015019
500	2000	LS36	L36-I	4/1.0	3200	2600	470	2130	290	1200	800	11.8	7.6	289	10201500015003
500	3000	LS36	L36-I	4/1.0	3200	2600	470	2130	290	1400	800	17.6	7.8	313	10201500015007
500	4000	LS36	L36-I	4/1.0	3200	2600	470	2130	290	1500	800	23.7	8	334	10201500015012
500	5000	LS200	L200-I	4/1.0	3390	2600	456	2144	350	1700	800	31.2	9.7	509	10201500015017
500	6000	LS200	L200-II	4/1.0	3390	2600	456	2144	350	1800	800	38.1	10	537	10201500015020
1000	3000	LS200	L200-I	4/1.0	3390	2600	516	2084	350	1700	800	33.1	14.3	471	10201500015008
1000	3500	LS200	L200-II	4/1.0	3390	2600	516	2084	350	1800	800	39	14.5	490	10201500015009
1000	4000	LS200	L200-II	4/1.0	3390	2600	516	2084	350	1800	800	44.5	14.6	499	10201500015013
1000	4500	LS235	L235-I	4/1.0	3470	2600	516	2084	385	1900	800	51.7	16.5	703	10201500015014
1000	5000	LS235	L235-I	4/1.0	3470	2600	516	2084	385	2000	800	56.4	16.4	712	10201500015018



\*The dimensions B and UK are variable. Different heights can result in a different crane size. Please contact us for pricing.

For mounting alternatives see page 32



## Pillar Jib Cranes

## Pillar jib crane type CS/LSX with electric chain hoist

- For indoor use only
- Delivery EXW

**Scope of delivery crane:**

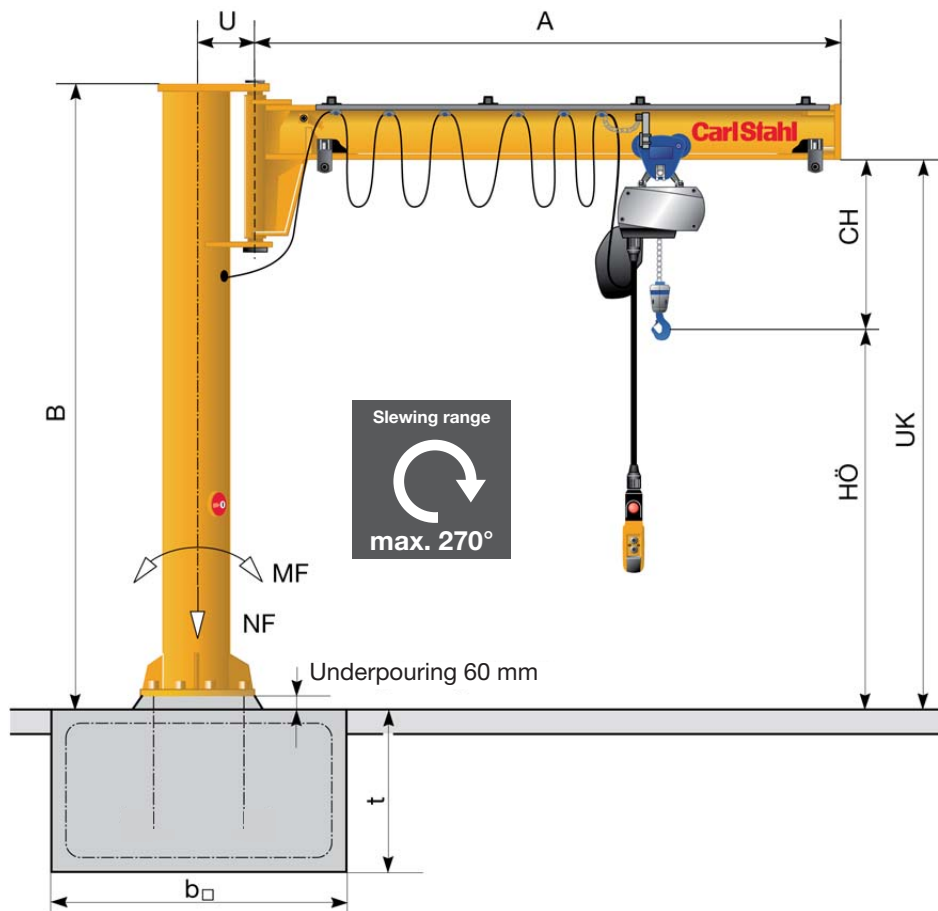
Pillar and jib arm complete with anchoring bolts and template, electric chain hoist with push trolley, movable rubber buffers, complete electric installation, foundation plan, manual slewing.

**Scope of delivery chain hoist:**

Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking.

### Features\*:

- Lightweight construction (DIN 15018 H2/B2)
- According to EEC directive 2006/42/EG
- Quality corrosion protection acc. to DIN 55298 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With anchoring bolts, template and foundation plan



**Multi-lift only for the electric chain hoist, see page 94**

Load cap. in kg	Jib length in mm	Type/ Size	Dowel plate	Lifting speed in m/min	Dimensions in mm							MF in kNm	NF in kN	Weight in kg	Item no.
					B**	UK**	CH	HÖ	U	b	t				
125	2000	LSX25	L25-I	8/2.0	2825	2600	383	2217	250	800	800	4.2	4	257	10201500015021
125	2500	LSX25	L25-I	8/2.0	2825	2600	383	2217	250	900	800	5.2	4	267	10201500015022
125	3000	LSX25	L25-I	8/2.0	2825	2600	383	2217	250	1000	800	6.3	4.1	277	10201500015023
125	3500	LSX25	L25-I	8/2.0	2825	2600	383	2217	250	1000	800	7.4	4.2	287	10201500015026
125	4000	LSX36	L36-I	8/2.0	2890	2600	382	2218	290	1100	800	9.3	5	381	10201500015029
125	4500	LSX36	L36-I	8/2.0	2890	2600	382	2218	290	1200	800	10.6	5.1	391	10201500015032
125	5000	LSX36	L36-I	8/2.0	2890	2600	382	2218	290	1200	800	12	5.2	402	10201500015034
125	5500	LSX200	L200-I	8/2.0	2950	2600	381	2219	350	1300	800	15.2	7.2	591	10201500015036
125	6000	LSX200	L200-I	8/2.0	2950	2600	381	2219	350	1400	800	17	7.3	607	10201500015038
250	3000	LSX36	L36-I	8/2.0	2890	2600	382	2218	290	1200	800	10.9	6	358	10201500015024
250	3500	LSX36	L36-I	8/2.0	2890	2600	382	2218	290	1200	800	12.8	6.1	369	10201500015027
250	4000	LSX36	L36-I	8/2.0	2890	2600	382	2218	290	1300	800	14.7	6.3	389	10201500015030
250	4500	LSX200	L200-I	8/2.0	2950	2600	381	2219	350	1400	800	18	8.1	562	10201500015033
250	5000	LSX200	L200-I	8/2.0	2950	2600	381	2219	350	1400	800	20.2	8.3	577	10201500015035
250	5500	LSX200	L200-I	8/2.0	2950	2600	381	2219	350	1500	800	22.5	8.4	593	10201500015037
250	6000	LSX200	L200-I	8/2.0	2950	2600	381	2219	350	1500	800	25	8.6	608	10201500015039
500	3000	LSX36	L36-I	4/1.0	2890	2600	469	2131	290	1400	800	19.5	8.6	375	10201500015025
500	3500	LSX200	L200-I	4/1.0	2950	2600	468	2132	350	1500	800	23.7	10.4	547	10201500015028
500	4000	LSX200	L200-I	4/1.0	2950	2600	468	2132	350	1600	800	27.1	10.5	563	10201500015031

**\*Available options:**

- Electric trolley drive



**\*\*The dimensions B and UK are variable. Different heights can result in a different crane size. Please contact us for pricing.**

**For mounting alternatives see page 32**

### Pillar jib crane type CS/VS with electric chain hoist

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

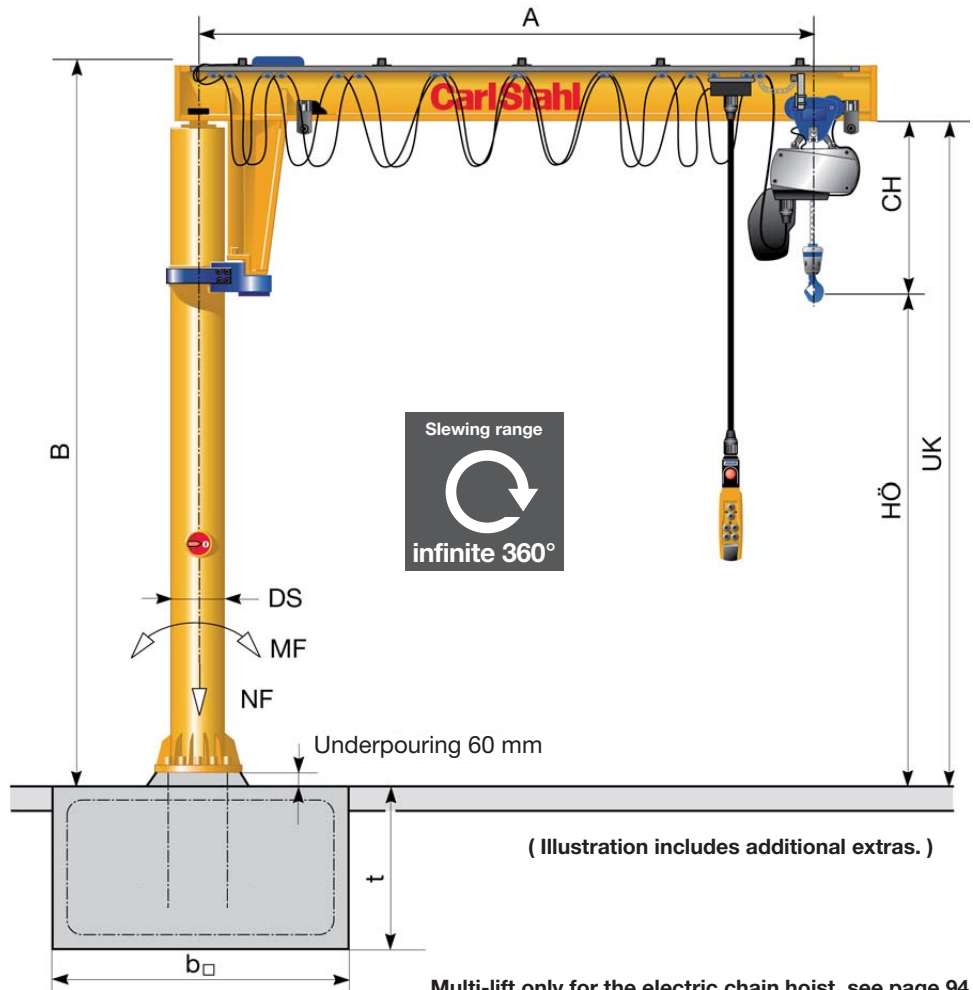
Pillar and jib arm complete with anchoring bolts and template, electric chain hoist with push trolley, movable rubber buffers, complete electric installation, foundation plan, manual slewing.

#### Scope of delivery chain hoist:

Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking.

#### Features\*:

- Medium-weight structure (DIN 15018 H2/B3)
- According to EEC directive 2006/42/EC
- Quality corrosion protection acc. to DIN 55298 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With anchoring bolts, template and foundation plan



( Illustration includes additional extras. )

Multi-lift only for the electric chain hoist, see page 94

Load cap. in kg	Jib length in mm	Type/ Size	Dowel plate	Lifting speed in m/min	Dimensions in mm							MF in kNm	NF in kN	Weight in kg	Item no.
					B**	UK**	CH	HÖ	DS	b	t				
125	2500	VS273	VS273-I	8/2.0	3560	3300	382	2918	273	1000	800	5.5	4.8	408	10201500015040
125	3000	VS273	VS273-I	8/2.0	3560	3300	382	2918	273	1100	800	6.7	4.9	421	10201500015041
125	4000	VS273	VS273-I	8/2.0	3560	3300	382	2918	273	1200	800	9.2	5.2	449	10201500015046
125	5000	VS273	VS273-I	8/2.0	3600	3300	382	2918	273	1300	800	12.1	5.5	520	10201500015052
250	3000	VS273	VS273-I	8/2.0	3560	3300	381	2921	273	1200	800	10.3	6.2	421	10201500015042
250	4000	VS273	VS273-I	8/2.0	3600	3300	381	2921	273	1300	800	14.9	6.8	484	10201500015047
250	5000	VS273	VS273-I	8/2.0	3720	3300	380	2920	273	1500	800	20.9	7.7	663	10201500015053
500	3000	VS273	VS273-I	4/1.0	3600	3300	469	2831	273	1400	800	18.3	8.9	461	10201500015043
500	4000	VS323	VS323-I	4/1.0	3660	3300	469	2831	323	1500	1000	25.2	10.4	661	10201500015048
500	4500	VS323	VS323-I	4/1.0	3660	3300	468	2832	323	1600	1000	30	11.1	685	10201500015051
500	5000	VS323	VS323-II	4/1.0	3720	3300	466	2834	323	1700	1000	35.8	12.1	788	10201500015054
1000	3000	VS323	VS323-II	4/1.0	3660	3300	528	2772	323	1600	1000	34.6	15.5	621	10201500015044
1000	4000	VS355	VS355-II	4/1.0	3720	3300	526	2774	355	1800	1000	48.1	17.2	793	10201500015049
1000	5000	VS406	VS406-I	4/1.0	3720	3300	526	2774	406	1900	1000	61.7	19	971	10201500015055
2000	3000	VS406	VS406-I	4/1.0	3660	3300	633	2667	406	1900	1000	65.7	27.5	825	10201500015045
2000	4000	VS457	VS457-I	4/1.0	3720	3300	631	2669	457	2100	1000	89.5	29.7	1057	10201500015050
2000	5000	VS457	VS457-II	4/1.0	3860	3300	627	2673	457	2400	1000	117.6	32.1	1298	10201500015056

#### \*Available options:

- Electric trolley drive
- Electric jib drive
- Extra trolley for independent movement of pendant control
- Swivelling stops

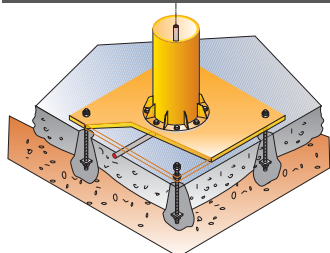


**\*\*The dimensions B and UK are variable. Different heights can result in a different crane size. Please contact us for pricing.**

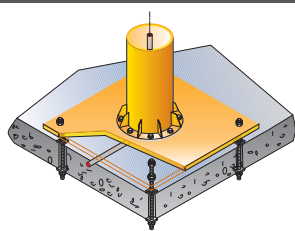
**For mounting alternatives see page 32**



### Intermediate plate for types LS, LSX and VS (with stone anchors)



Intermediate plate  
for a concrete floor



Intermediate plate  
for a concrete suspended ceiling

Attachment to existing, suitable concrete floors can occur using a square intermediate plate. Once holes have been drilled and chiselled out in the base plate, anchors are inserted and cast. Carl Stahl supplies the intermediate plate and, on request, the suitable base anchors.



- 1.) Floor/ceiling thickness according to the site inspection by the structural engineer
- 2.) Concrete strength C25/30 (formerly B25) acc. to DIN 1045
- 3.) Minimum age of freshly plastered ceilings = approx. 4 weeks
- 4.) Grouting: Intermediate plate to concrete base 60 mm  
Intermediate plate to concrete suspended ceiling 100 mm

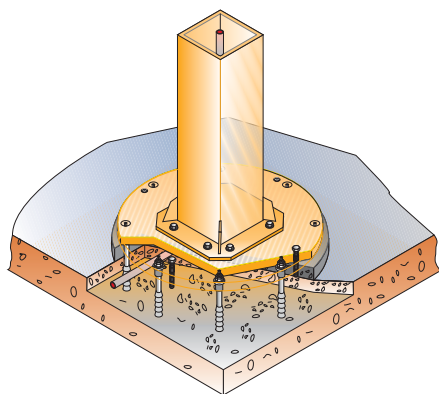
### Stone anchors 4 piece-set for intermediate plate for a concrete floor

Size	Item no.
M20 x 500	10401500015005
M24 x 500	10401500015006
M27 x 500	10401500015007
M30 x 500	10401500015008

### Stone anchors 4 piece-set for intermediate plate for a concrete suspended ceiling

Size	Item no.
M20 x 700	10401500015009
M24 x 700	10401500015010
M27 x 700	10401500015011
M30 x 700	10401500015012

### Dowel plate for types LS, LSX and VS (with composite anchor)



- 1.) Min. floor/ceiling thickness of 200 mm (250 mm for size VS 457 I/II)
- 2.) Concrete strength C25/30 (formerly B25) acc. to DIN 1045
- 3.) Minimum age of freshly plastered ceilings = ca. 4 weeks
- 4.) Grouting: dowel plate to concrete base 30 mm



Positioning and grouting: to work safely, a crane must be carefully positioned before it is used. The existing floor surfaces are not always even enough to ensure that this is possible. All attachment systems for our pillar jib cranes therefore have an assembly gap to offer the necessary adjustment possibilities. The subsequent grouting of the crane ensures its rigidity.

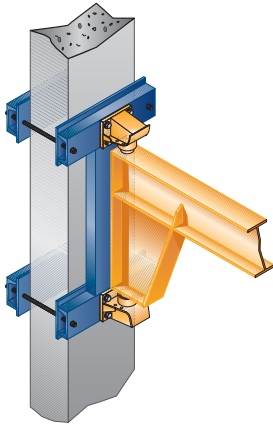
As an alternative to the intermediate plate on a concrete base, it is also possible to attach the intermediate plate to a suitable concrete ceiling with anchor bolts. Carl Stahl supplies the intermediate plate and, on request, the suitable anchor bolts.

Type/ Size	Length in mm	Width in mm	Thickn. in mm	Anchor	Ø dm in mm	Weight in kg	Item no.
LS 25	500	500	20	4	M20	38	10401500015045
LS 36	600	600	30	4	M27	82	10401500015046
LS 200	1000	1000	30	4	M30	235	10401500015047
LS 235	1000	1000	30	4	M30	235	10401500015048
LSX 25	500	500	20	4	M20	37	10401500015052
LSX 36	600	600	30	4	M27	82	10401500015053
LSX 200	1000	1000	30	4	M30	235	10401500015054
VS 273	600	600	35	4	M30	99	10401500015076
VS 323	1000	1000	35	4	M27	275	10401500015077
VS 355	1000	1000	40	4	M30	314	10401500015078
VS 406	1300	1300	35	8	M24	465	10401500015079
VS 457	1300	1300	40	8	M30	531	10401500015080

Attaching pillar jib cranes with up to medium load capacities using our dowel attachment system is particularly economical. This involves the use of angler compound anchors specially developed for dynamic loads and fully embedded into the round dowel plate during assembly. Carl Stahl supplies the dowel plate, the necessary dowels and a formwork ring for the grouting and the mortar.

Type/ Size	Diameter in mm	Thickness in mm	Anchor	Weight in kg	Item no.
L25-I	550	35	4	63	10401500015033
L25-II	630	35	4	84	10401500035990
L36-I	750	40	8	119	10401500015034
L200-I	850	40	12	175	10401500015035
L200-II	1000	45	12	244	10401500015036
L235-I	1100	40	16	332	10401500015037
VS273-I	800	40	8	155	10401500015038
VS323-I	800	40	12	155	10401500015039
VS323-II	900	45	12	197	10401500015040
VS355-II	1100	45	16	332	10401500015041
VS406-I	1150	50	16	364	10401500015042
VS457-I	1350	55	12	558	10401500015043
VS457-II	1550		16	811	10401500015044

### To reinforced concrete columns using clasp brackets for types LW, LWX and VW

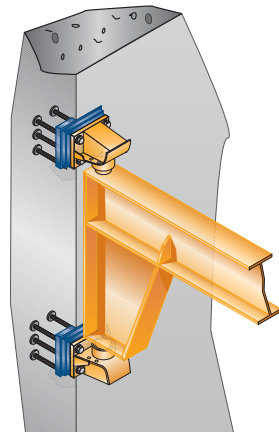


Wall-mounted jib cranes can be attached to structurally suitable square or rectangular reinforced concrete columns that are freely accessible from all sides using clasp brackets. Threaded bars are used to apply the necessary tension forces required to securely hold the crane at the desired height. The column must have the necessary minimum width. Carl Stahl supplies the clasp brackets designed for the column dimensions with the necessary attachment materials.

Type/Size	Dimensions	Item no.
LW 25		10401500015029
LW 36		10401500015030
LW 200	Depends on the column and pillar cross-sections available at the installation site.	10401500015031
LW 235		10401500015032
LWX 25	The width and depth of the pillars must be specified when ordering.	10401500015049
LWX 36		10401500015050
LWX 200		10401500015051
VW 35		10401500015062
VW 50		10401500015063

**Requirements:**  
**Minimum column width 300 mm**  
**Minimum column depth 300 mm**

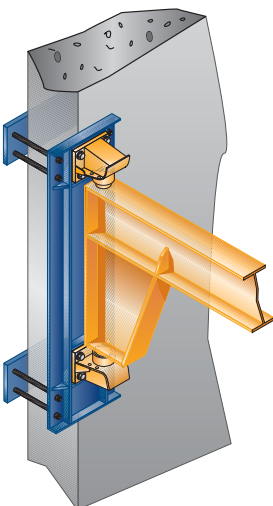
### To reinforced concrete walls or columns using weld plates for types LW, LWX and VW



By casting suitable mounting plates with back anchors, concrete walls and columns can be used as a substructure for the attachment of wall-mounted jib cranes by means of weld plates. From a structural perspective, it must be ensured that the mounting plates are precisely aligned and offer perpendicular connection surfaces. The weld plates are welded onto the substructure. The crane's wall brackets and wall bearings are screwed onto the weld plates.

Type/Size	Length in mm	Height in mm	Weight in kg	Item no.
VW 35	220	160	12	10401500015056
VW 50	320	220	30	10401500015058
VW 60	320	260	59	10401500015059
LW/LWX 25	320	140	15	10401500015055
LW/LWX 36	320	140	18	10401500015057
LW/LWX 200	320	215	29	10401500015060
LW 235	320	215	29	10401500015061

### To reinforced concrete walls using wall brackets and anchor bolts for type VW



Attachment to suitably solid reinforced concrete walls occurs using wall brackets. With types LW and LWX, the wall bracket forms part of the scope of delivery. For type VW it is available as an added extra. The wall brackets are attached to the wall using tie rods and counter plates. The Carl Stahl scope of delivery includes the anchor rods adapted to the wall thickness, the counter plates and the necessary attachment material.

Type/Size	Length max. in mm	Width max. in mm	Weight in kg	Item no.
VW 35	1260	390	36	10401500015064
VW 50	1950	570	149	10401500015065
VW 60	2450	670	205	10401500015066

**Check the building statics: jib cranes transfer forces and torques to the building and supporting structures. Sufficient static strength is a prerequisite for safe crane operation. Have a structural engineer confirm the existence of this.**

**All items on pages 32 and 33 are delivered from the production site.**

### Slewing stop using a buffer rod for types VW, VS, LWX and LSX



During everyday use, pillar and wall-mounted jib cranes can accidentally and independently slew right or left. A buffer rod prevents the crane jib from crashing into the building. A stop on the building is required.

Size	Item no.
64 - 120	10401500015004
150 - 180	10401500036753
190 - 300	10401500036754

### Adjustable jib slewing stops for types VS and LS



Adjustable jib slewing stops can be supplied for both pillar jib crane types VS and LS. These are attached to the support pillar and prevent the jib from crashing into the building or machinery.

Size	Slewing range	Item no.
VS 273	0 - 240°	10401500015071
VS 323	0 - 240°	10401500015072
VS 355	0 - 255°	10401500015073
VS 406	0 - 255°	10401500015074
VS 457	0 - 255°	10401500015075
LS 25	0 - 210°	10401500015067
LS 36	0 - 210°	10401500015068
LS 200	0 - 210°	10401500015069
LS 235	0 - 210°	10401500015070

### Electric slewing mechanism for wall and pillar jib cranes type VW and VS



Electric Slewing Mechanism VW



Electric Slewing Mechanism VS

Electrical slewing mechanism for rational material flows, easy positioning and safe working. Comes with 2 speeds as standard: a fast mode for rapid transportation and a precision mode for accurate positioning. The mechanism is controlled using the pendant control on the chain hoist.

**Caution: on the wall-mounted jib crane the installation height is reduced by the slewing drive at the top.**



**Surcharge on request.**

### Electric trolley for wall and pillar jib cranes type VW, VS, LWX and LSX



Electric trolley for high operating loads and secure handling especially with high jib lengths and a high load capacity. With 2 speeds as standard: the slow movement speed of 5 m/minute allows extremely sensitive and precise positioning, while the fast speed of 20 m/minute saves time in the case of longer travel distances.



**Surcharge on request.**



**All items on this page are delivered from the production site.**

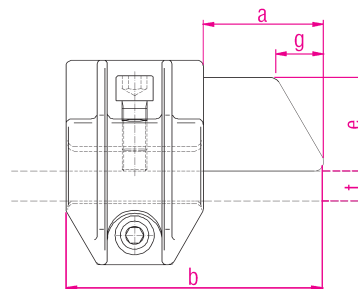
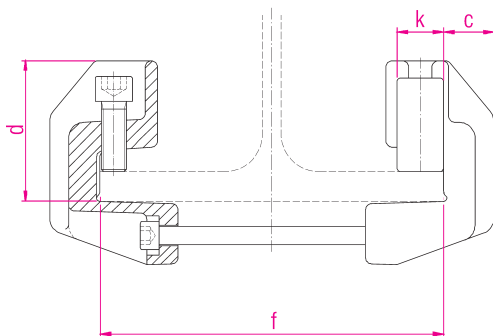
### Clamping Buffers

Clamping buffers can be used for a variety of purposes: for limiting crane travel, fixing hoists at specific positions, absorbing impact energy or securing trolleys against rolling away.

They are adjustable and can be installed as required. In particular they can be used temporarily, offering considerable versatility. Especially for monorail hoist trolleys, we offer clamping buffers designed for adaption to current conditions.

With jib cranes they can be used to avoid collisions of the load with obstacles within the slewing range.

All clamping buffers are also suitable for parallel flanges.



**According to German Crane Safety Regulations § 19, crane rails have to be fitted with endstops.**

Type	Size	Dimensions in mm							Max. flange thickness t in mm	Flange width f in mm	Weight in kg/pce.	Item no.
		a	b	c	d	e	g	k				
Type alpha 1	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	64 - 120	2.6	10401500015091
Type alpha 2	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	121 - 190	2.6	10401500015092
Type alpha 3	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	191 - 243	2.6	10401500015093
Type alpha 4	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	244 - 300	2.6	10401500015094
Type beta 1	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	110 - 160	5.9	10401500015095
Type beta 2	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	161 - 230	5.9	10401500015096
Type beta 3	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	231 - 283	5.9	10401500015097
Type beta 4	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	284 - 340	5.9	10401500015098
Type beta 5	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	341 - 405	5.9	10401500015099
Type gamma 1	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	151 - 230	6.0	10401500015100
Type gamma 2	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	231 - 283	6.0	10401500015101
Type gamma 3	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	284 - 340	6.1	10401500015102
Type gamma 4	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	341 - 405	6.1	10401500015103



### UNI end buffer - Travel limit for push trolleys and electric trolleys

**NEW!**

UNI end buffers have been well-proven in numerous applications and are the perfect trolley limit stop for your push trolleys and electric trolleys.

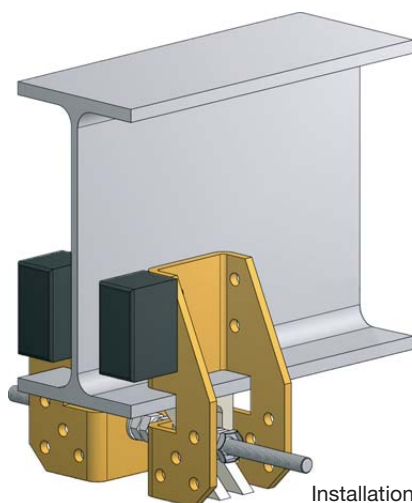
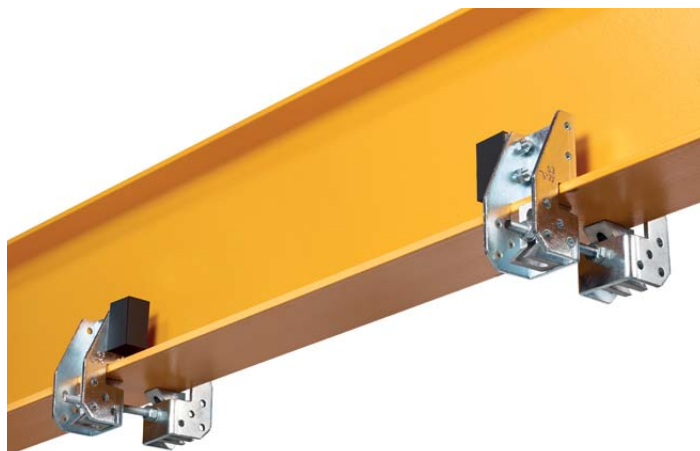
Use of the clamping buffers is quite versatile and ranges from mere limitation of travel, blocking of hoists in a certain position, protection against rolling to simple absorption of impact force. Our UNI end buffers are installed easily and quickly and do not require any gas-cutting, welding nor drilling. You are able to mount, position, and clamp them on the beam in no time.

We provide all your makes with capacities of up to 10,000 kg. You can mount the multi-purpose clamping buffers on the lower or upper beam.

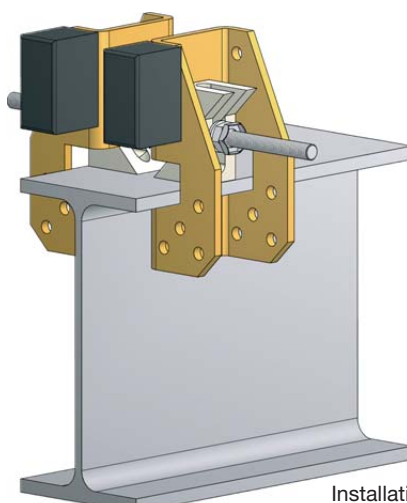
UNI end buffers are suitable for parallel-flanged beams of 91 to 300 mm (flange thickness of 8 to 25 mm) and are sold only in pairs (= 2 pieces).

#### Scope of pair delivery

- 4 galvanized and chromated sheet metal frames
- 8 clamping brackets
- 4 rubber buffers
- 2 threaded rods, 370 mm
- 2 sets of nuts, washers, and safety nuts



Installation below



Installation above



Regulation for safety and health protection during usage of work equipments

**(German Betriebssicherheitsverordnung - BetrSichV)**

2. Special regulations for the use of work equipments for lifting of goods  
2.3.3 Power-operated lifting movements of work equipment for the lifting of goods have to be limited.

**Crane rails have to be fitted with endstops.**

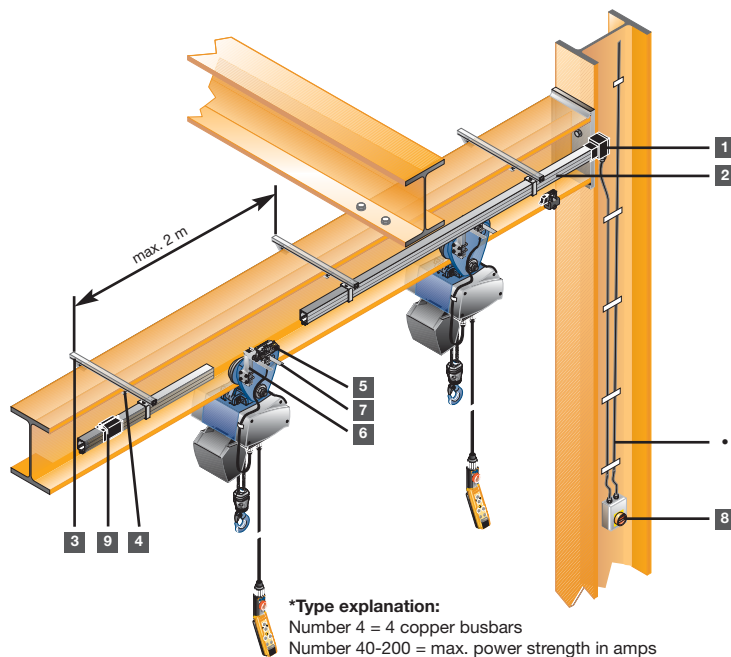
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03.02.2015

Flange width in mm	Overall length in mm	Item no.
91-300	370	10401500035591

Max. capacity of the hoist in kg	Max. admissible hoist weight in kg	Max. admissible trolley speed in m/min.
2000	180	28
2500	225	25
3200	225	22
4000	325	20
5000	600	16
6300	600	14
8000	1500	12
10000	1500	10



### Power supply from protected conductor system



#### Scope of delivery

- 1 Power supply end feed
- 2 Protected conductor
- 3 Mounting console
- 4 Clamping brackets
- 5 Current collector carrier
- 6 Trolley current collector (part of scope of delivery of hoist)
- 7 Collector fork
- 8 Mains connection switch
- 9 Power rails and housing connector

An intermediate power feed is necessary from a track length of 30 m.

- The riser (incl. accessories) to the mains connection switch and from there to the feed must be provided on site.

When selecting the conductor line type, the voltage drop in accordance with the track length must be considered.

#### Fixed components:

End cap, power supply end feed, anchor mounts, reinforcement clamps, current collector carrier with 4 m connecting cable, collector fork and mains connection switch.

#### Length-dependent components:

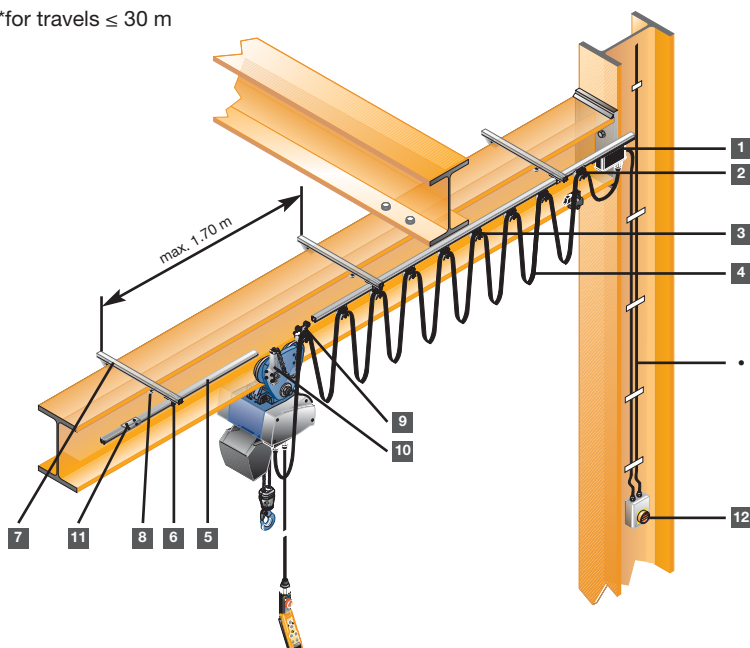
Conductor line, sliding suspension points, mounting consoles and clamping brackets.

Type*	Item no. (end cap, power supply end feed, anchor mounts, reinforcement clamps, current collector carrier with 4 m connecting cable, collector fork, mains connection switch).
CS-SL 4/63**	10401500015014
CS-SL 4/100	10401500015015
CS-SL 4/140	10401500015016
CS-SL 4/200	10401500015017

\*\* Power supply end feed

### Power supply from festoon system\*

\*for travels ≤ 30 m



#### Scope of delivery

- 1 Transitional terminal box (flat/round cable)
- 2 End clamp
- 3 Flat cable carrier
- 4 Flat cable
- 5 Rail
- 6 Rail support
- 7 Mounting console
- 8 Clamping brackets
- 9 Current collector carrier
- 10 Trolley current collector
- 11 Rail connector
- 12 Mains connection switch

- The riser (incl. accessories) to the mains connection switch and from there to the terminal box must be provided on site.

When selecting the conductor line, the voltage drop must be considered. Items delivered pre-assembled (i.e. flat cable on cable trolley, current collector carrier and end clamp attached).

#### Fixed components:

Transitional terminal box, end clamp, current collector carrier, mains connection switch, trolley current collector

#### Length-dependent components:

Flat cable carrier, flat cable, rail, rail support, rail connector, mounting consoles, clamping brackets

Type	Item no. (transitional terminal box, end clamp, current collector carrier, mains connection switch, trolley current collector)
CS-SK	10401500015104

# CRANE TECHNOLOGY

## Pillar and wall-mounted jib crane

### Pillar and wall-mounted jib crane type CS-BOY



Fast and secure handling of workpieces

The CS-BOY handling crane in a pillar or wall-mounted version can be used to rapidly handle workpieces, tools or small parts. The BOY can be used as a handling device with a high rationalisation effect. An electric chain hoist is available as a lifting device. When the load is manually touched, the jib jack-knifes so that all areas of the work area are precisely and easily accessible and the crane can quasi turn corners. All cranes come as standard with a manual slewing resistance control. The BOY can be used as a feed unit for energy and ventilation systems or as a welding set carrier.

Load capacity in kg	Jib length in m		
	2	3	4
125	✓	✓	✓
250	✓	✓	✓

Please ask us  
about your crane  
projects!

#### Features

- Classed under EN 13001 HC2 S2 HD2 as suitable for light industrial use
- Lightweight design
- Installation site: factory work floor
- Folding jib
- Painted in daffodil-yellow (RAL 1007)
- High-quality corrosion protection thanks to mechanical steel shot blasting
- With a manual slewing resistance control
- With a suspension system at the end of the jib for suspending a lifting device with a hook suspension point

#### Electrical specifications

- Lockable mains connection switch
- Round cable power supply, laid in the jib arms up to the end of the jib
- Operating voltage 400 V/50 Hz, control voltage 48 V

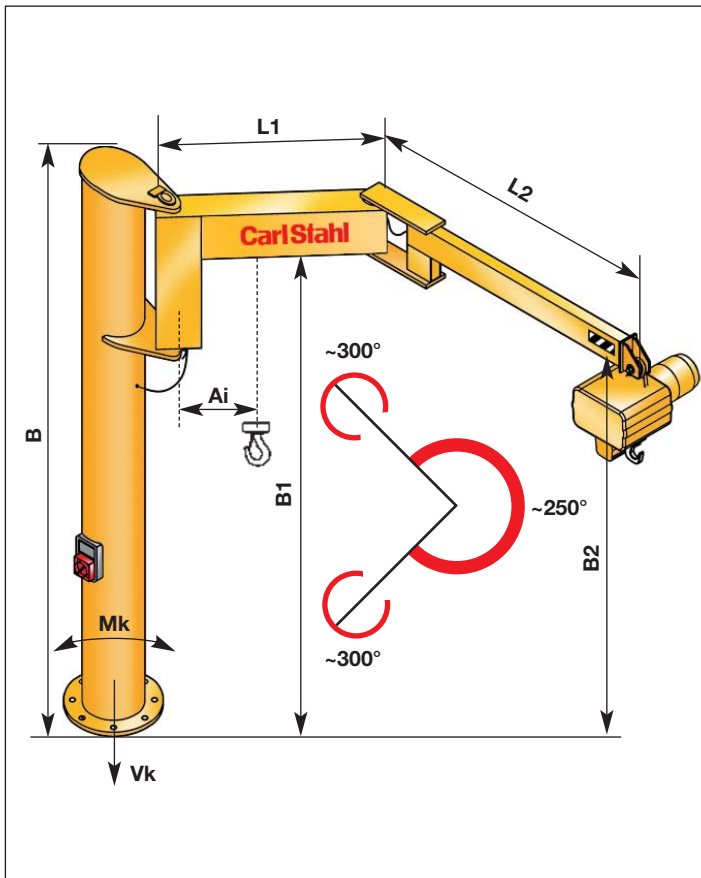
#### Electrical chain hoist

- Electrical chain hoist with hook suspension point
- 2 hoist speeds
- On the wall-mounted jib crane without the lower edge specified, the electric chain hoist comes with a standard hoist height of 3 m and a control cable length of 2 m.
- On the pillar jib crane, the hoist height and the control cable length are adapted to the lower edge unless a different length is ordered.

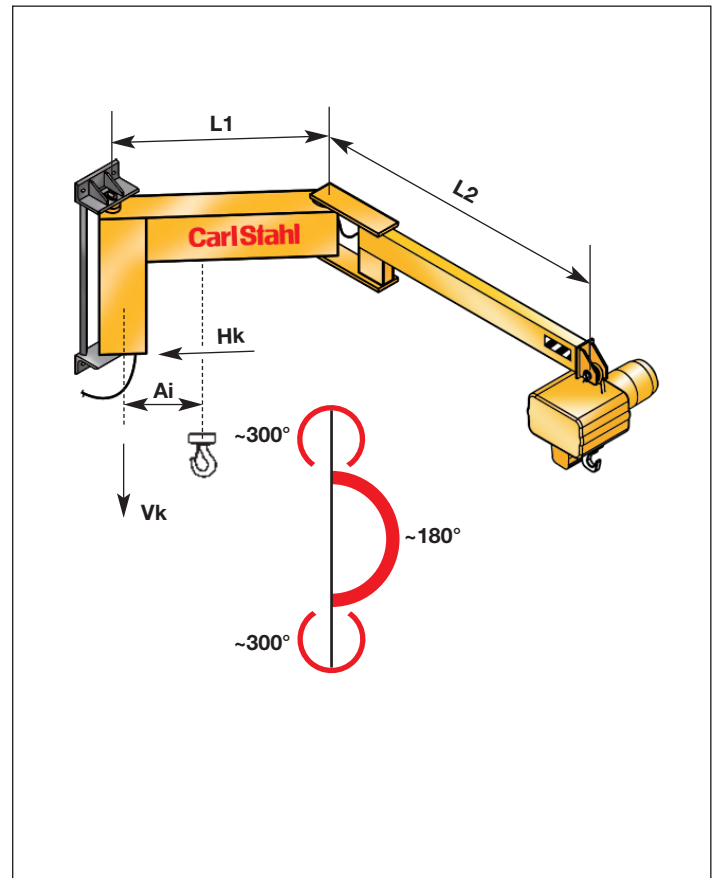
#### Attachment options

- Pillar jib crane: Compound anchor plate
- Wall-mounted jib crane: With standard bearing bracket without mounting screws. Other mountings on request (e.g. foundation mounting, wall bracket, pillar embracement bracket etc.)

### Pillar and wall-mounted jib crane type CS-BOY



Pillar jib crane type CS-BOY BS



Wall-mounted jib crane type CS-BOY BW

#### Pillar jib crane type CS-BOY BS - Slewing range ~250°/~300°

Load capacity in kg	Jib length in mm			Dimensions in mm				Compound anchor system in mm	Max. vertical force in kN Vk	Max. moment in kNcm Mk	Weight in kg	Item no.
	L (L1+L2)	L1	L2	Ai	B	B1	B2					
125	2000	1000	1000	517	2720	2340	2500	530	5	497	243	10201500035813
125	3000	1600	1400	800	2720	2340	2500	530	5	726	281	10201500035814
125	4000	2100	1900	1053	2720	2340	2500	530	5	961	303	10201500035815
250	2000	1000	1000	517	2720	2340	2500	530	6	773	250	10201500035816
250	3000	1600	1400	800	2720	2340	2500	530	6	1127	288	10201500035817
250	4000	2100	1900	1053	2720	2340	2500	630	7	1488	320	10201500035818

#### Matching electrical chain hoist

Lifting height in mm	Lifting speed in m/min	Weight in kg
2166	8/2	22
2166	8/2	22
2166	8/2	22
2166	6/1.5	22
2166	6/1.5	22
2166	6/1.5	22

#### Wall-mounted jib crane type CS-BOY BW - Slewing range ~180°/~300°

Load capacity in kg	Jib length in mm			Approach dim. in mm Ai	Max. horizontal force in kN Hk	Max. vertical force in kN Vk	Weight in kg	Item no.
	L (L1+L2)	L1	L2					
125	2000	1000	1000	517	6	3	110	10201000035412
125	3000	1600	1400	800	10	3	151	10201000035413
125	4000	2100	1900	1053	14	4	189	10201000035414
250	2000	1000	1000	517	10	4	118	10201000035415
250	3000	1600	1400	800	16	5	170	10201000035416
250	4000	2100	1900	1053	21	5	205	10201000035417

#### Matching electrical chain hoist

Lifting height in mm	Lifting speed in m/min	Weight in kg
3000	8/2	22
3000	8/2	22
3000	8/2	22
3000	6/1.5	22
3000	6/1.5	22
3000	6/1.5	22



Special versions on request.

Movable crane type WK 1



**Highly flexible with the movable crane**  
Without any fixing, this movable pillar jib crane can be used wherever it is needed. The crane can be transported within minutes using existing equipment like a forklift truck or an overhead crane or it may be moved by mounting the mechanical or hydraulic wheels, which are available as accessories. The 400 V electrical connection is provided via an extension cable to make the crane instantly ready for use. The jib range can be considerably increased with the articulated jib arm. Even corners or areas blocked with columns can be reached. The crane can be fitted with hoists or handling devices from many different manufacturers.

- The WK1 crane offers the following advantages:**
- Easy installation
  - Easy moving jib arm and trolley
  - Jib arm with adjustable strap brake
  - High stability

- Optionally available:**
- Slewing range restriction mechanism for restricting the slewing range in 30° intervals or slewing locking device to prevent the jib from slewing when the crane is being moved from one place to another.
  - Also available with an operating voltage of 230 V

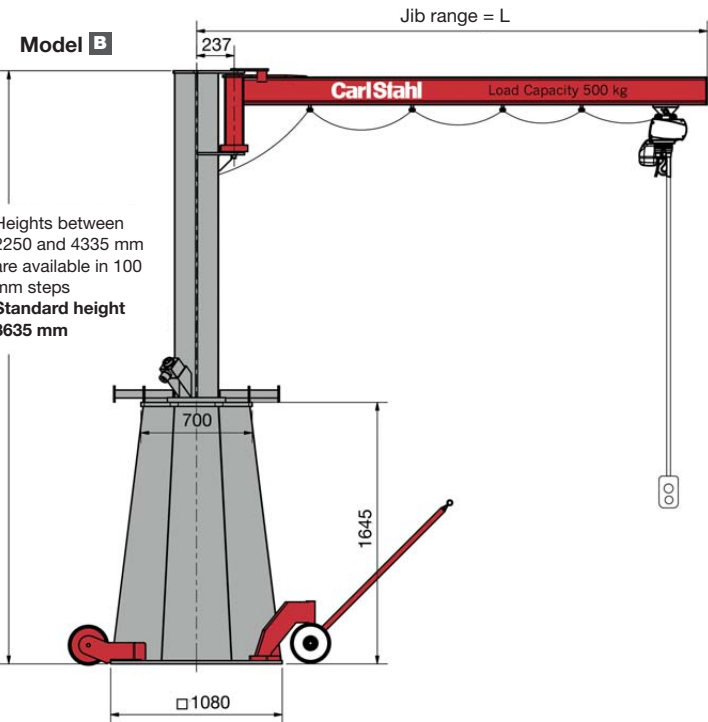
**!** **Pictured chain hoist and wheels not included in price and delivery.**  
**Attention! For safety reasons these cranes are only delivered with the original foundation filling material (see page 41).**



Movable crane WK 1 with articulated jib arm, slewing range 310°, model A

Load capacity in kg	L max. in mm	Overall height in mm	Crane weight in kg without hoist without filling material	Item no.
125	4400	3635	725	10201500015066
250	3000	3635	680	10201500015065
500	1750	3635	630	10201500015064

Total crane weight including filling material 3,200 kg



Movable crane WK 1 with standard jib arm, slewing range 270°, model B

Load capacity in kg	L max. in mm	Overall height in mm	Crane weight in kg without hoist without filling material	Item no.
100	4715	3635	635	10201500015063
160	4065	3635	627	10201500015062
200	3665	3635	610	10201500015061
250*	3215	3635	600	10201500015060
320	2600	3635	590	10201500015059
400	2150	3635	575	10201500015058
500	1750	3635	565	10201500015057

Total crane weight including filling material 3,200 kg

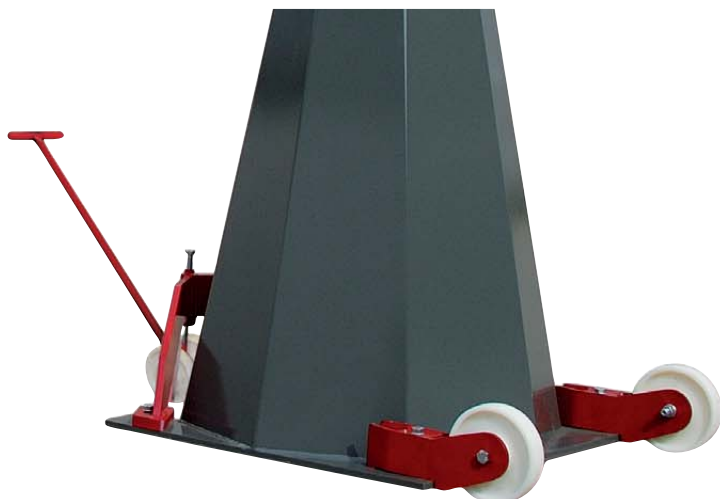
**!** **Attention: Please note that the model with articulated jib arm does not feature the push trolley. The hoist is attached directly to a support plate at the tip of the jib arm (see fig. A).**

Suitable chain hoists can be found from page 94.



### Mechanical Wheel Set

The mechanical wheel set allows fast and easy movement of the crane to its next site. High quality polyamid wheels (diameter 250 mm) and a robust draw bar ensure smooth running.



Type	Stroke in m	Weight in kg	Item no.
Mechanical wheel set for WK 1 and WK 3 (Load capacity 4,000 kg)	20	85	10401500015002

### Hydraulic Wheel Set

The hydraulic wheel set is the more convenient way to move the crane. It consists of 3 single-acting hydraulic cylinders with a stroke of 25 mm, 1 hydraulic hand pump preset to 350 bar, together with the complete piping and hose system.



Type	Stroke max. in mm	Weight in kg	Item no.
Hydraulic wheel set for WK 1 and WK 3 (Load capacity 4,000 kg)	25	90	10401500015081
Hydraulic wheel set for WK-SL (Load capacity 5,000 kg)	25	90	10401500015082

### Foundation Pillar Filling Material

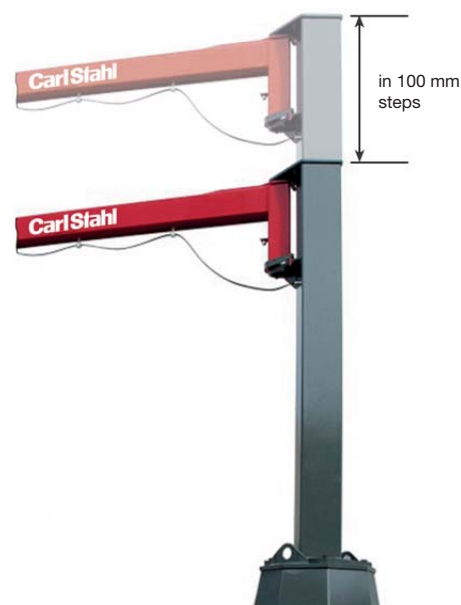
For best stability only use the original filling material!



Type	Item no.
Filling material for foundation pillar WK 1	10401500015001
Filling material for foundation pillar WK 3	10401500015001
Filling material for foundation pillar WK-SL	10401500015001

### Additional pillar height

The crane pillar may be heightened in 100 mm-steps to ensure the ideal ergonomic working height of the crane.



Type	
Additional pillar height for WK 1, Basic height 3,635 mm	
Additional pillar height for WK 3, Basic height 3,600 mm	
Additional pillar height for WK-SL Basic height 3,850 mm	





Movable crane WK3 - 360° slewing range



**Versatile and mobile for heavy loads**  
The movable crane WK3 with counterweight offers high mobility in connection with capacities up to 1,000 kg. As the WK1 also the WK3 can be transported within minutes using existing equipment like a forklift truck or an overhead crane or it may be moved by mounting the mechanical or hydraulic wheels, which are available as accessories. Electrically connected with an extension cord it is immediately ready for use. The crane can be fitted with hoists or handling devices from many different manufacturers.

- The WK3 crane offers the following advantages:**
- Thanks to counterweight high load capacities of up to 1,000 kg
  - Slewing range 360° (slewing limit stops available as option)
  - Easy installation
  - Easy moving jib arm and trolley
  - Jib arm with adjustable strap brake
  - Low space requirement
  - High stability

- Optionally available:**
- Slewing range restriction mechanism for restricting the slewing range in 30° intervals or slewing locking device to prevent the jib from slewing when the crane is being moved from one place to another.
  - Also available with an operating voltage of 230 V



**Pictured chain hoist and wheels not included in price and delivery.**

**Attention! For safety reasons these cranes are only delivered with the original foundation filling material (see page 41).**

Model A

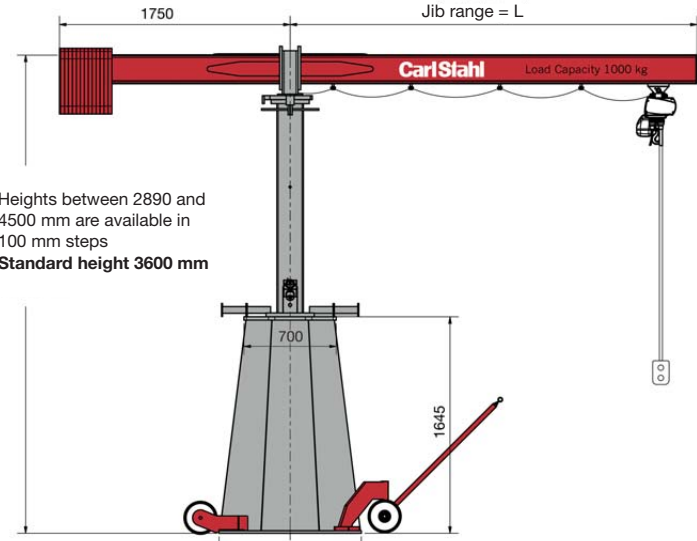


Movable crane type WK3 without counterweight, slewing range 360°, model A

Load cap. in kg	Jib range L in mm	Overall height in mm	Crane weight in kg without hoist without filling material	Item no.
100	4500	3600	700	10201500015080
160	4000	3600	680	10201500015079
200	3600	3600	660	10201500015078
250	3100	3600	650	10201500015077
320	2600	3600	640	10201500015076
400	2150	3600	625	10201500015075
500	1750	3600	600	10201500015074

Total crane weight including filling material 3,300 kg

Model B



Movable crane type WK3 with counterweight, slewing range 360°, model B

Load cap. in kg	Jib range L in mm	Overall height in mm	Crane weight in kg without hoist without filling material	Item no.
200	4500	3600	1230	10201500015073
320	4000	3600	1220	10201500015072
400	3600	3600	1210	10201500015071
500	3100	3600	1200	10201500015070
600	2750	3600	1190	10201500015069
800	2150	3600	1175	10201500015068
1000	1750	3600	1170	10201500015067

Total crane weight including filling material 3,800 kg

### Movable crane type WK-SL - 360° slewing range



#### Versatile and mobile for heavy loads with maximum jib length

The movable crane WK-SL offers both high mobility and good capacity at maximum jib length. Like the WK1 and the WK3, the WK-SL can also be transported within minutes using existing equipment like a forklift truck, an overhead crane or the optionally retrofittable hydraulic ground trolley. It is then instantly ready for operation with a 400 V electrical connection via an extension cable. The crane can be fitted with hoists or handling devices from many different manufacturers.

#### The WK-SL crane offers the following advantages:

- Thanks to counterweight high load capacities of up to 600 kg
- Slewing range 360° (slewing limit stops available as option)
- Easy installation
- Easy moving jib arm and trolley
- Jib arm with adjustable strap brake
- Low space requirement

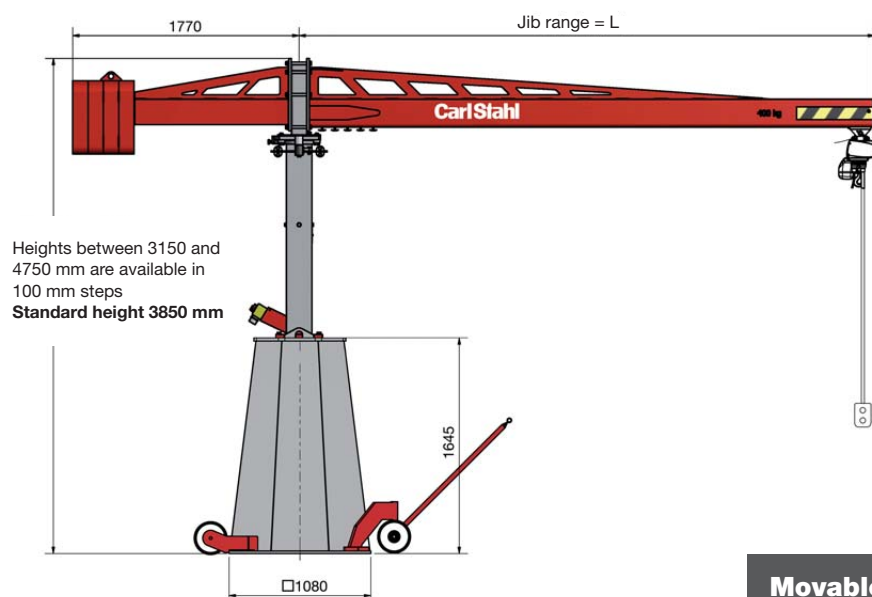
#### Optionally available:

- Also available with an operating voltage of 230 V



**Pictured chain hoist and wheels not included in price and delivery.**

**Attention! For safety reasons these cranes are only delivered with the original foundation filling material (see page 41).**



### Movable crane type WK-SL with counterweight, slewing range 360°

Load cap. in kg	Jib range L in mm	Overall height in mm	Crane weight in kg without hoist without filling material	Item no.
400	4500	3850	1800	10201500015084
500	4000	3850	1780	10201500015083
550	3600	3850	1765	10201500015082
600	3100	3850	1750	10201500015081

Total crane weight including filling material 4,800 kg

### Wall and Pillar Jib Cranes for Outdoor Use



**Suitable for outdoor use!**  
Ideal for stonemasonry, builders' merchants, sewage plants, etc.

Special measures have to be taken if jib cranes are operated outdoors. Apart from the mandatory weather protection for the idle position of the hoist, a fully galvanised steel construction and/or a weather-proof top coat is absolutely necessary. The jib arm has to be fitted with a locking device which also serves as a wind protection.

Furthermore UV and weather resistant electric cables are required. Depending on the use and actual site of the crane (under roofing, close to the water's edge, in a sewage plant etc.) further arrangements have to be made. We can offer you complete project planning for your jib crane, if requested also assembly and final inspection on site by our crane experts. Please contact us today for an offer.



Wall jib cranes are available as standard from 125 kg to 10,000 kg.  
Pillar jib cranes are available as standard up to 20,000 kg and 12,000 mm jib length.  
Special versions for up to 80,000 kg are possible at any time.

Special constructions always available on request. Please contact us for details.



## Gantry Crane type CS-PK



This versatile gantry crane is suitable for in- and outdoor use. Erection is quick and easy. Thanks to the lindapter connection the clearance width is adjustable.

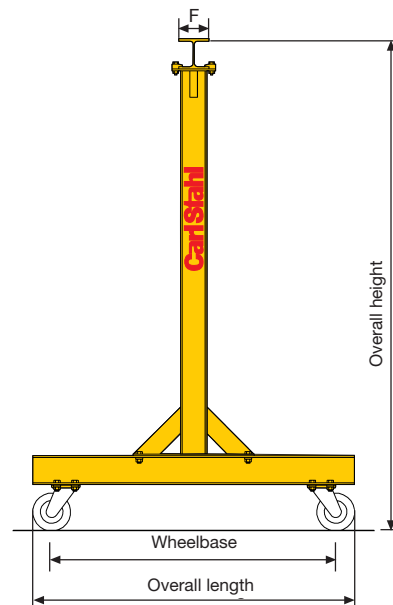
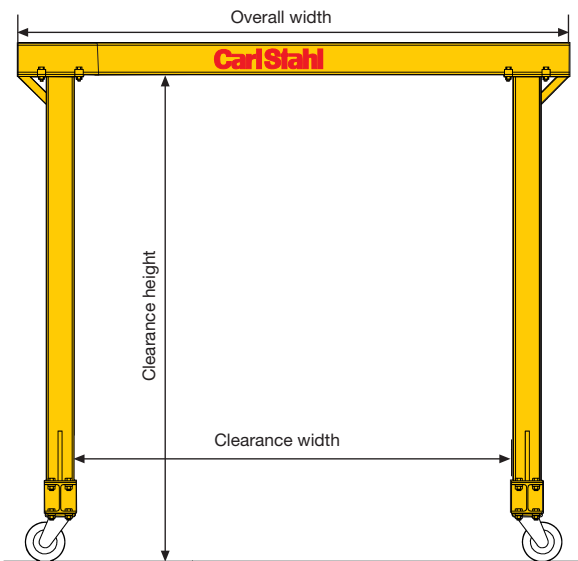
Load capacities between 50 and 5,000 kg and clearance widths between 2 and 6 m are available.

During erection at site the regulations of BGV D6 have to be observed. The following roller types are available:

- Polyamide: can be used for smooth industrial floors and for capacities between 50 and 5,000 kg.
- Solid rubber: can be used for rough, uneven floors and for capacities up to 1,000 kg (over 1,000 kg Vulkollan is much cheaper)
- Vulkollan: can be used on slightly uneven floors (with stones, holes, edges) and for capacities up to 3,200 kg

Scope of delivery:

- Gantry crane without hoist, power feed and clamping buffers
- Painted in RAL 1004 (golden yellow), other colours on request
- Carriage: 4 steerable rollers, 2 of them with stop brake
- Polyamide rollers are standard, other materials on request



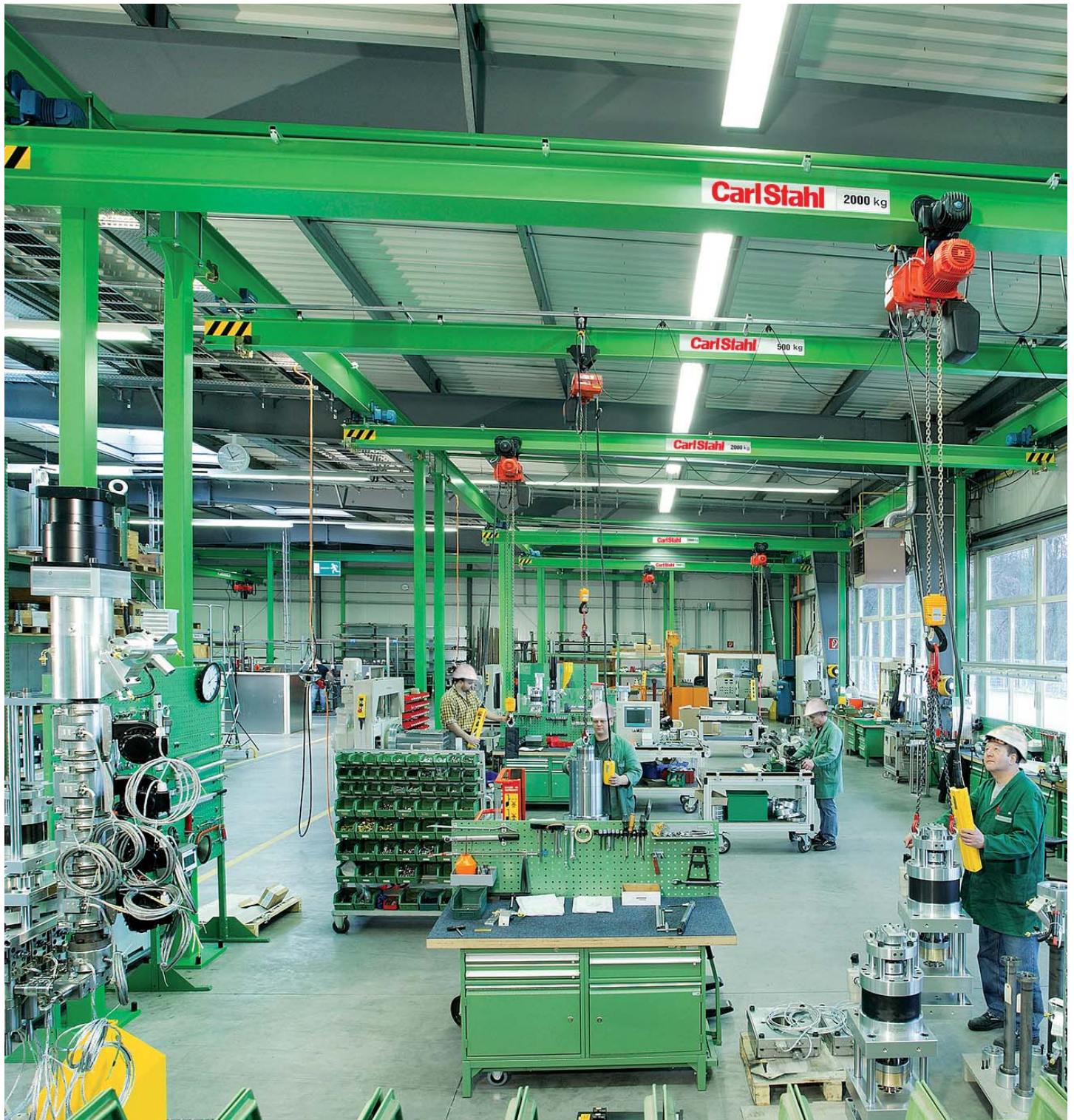
Load capacity in kg	Clearance height in mm	Clearance width in mm	Overall height in mm	Overall length (wheelbase) in mm	Overall width in mm	Weight approx. in kg	Flange width in mm	Item no.
250	3000	3000	3100	1500	3540	220	100	10251500015001
500	3000	3000	3120	1500	3540	245	120	10251500015002
500	3500	4000	3620	2000	4540	265	120	10251500015006
1000	3000	3000	3150	1500	3540	330	160	10251500015003
1000	3500	4000	3660	2000	4540	390	160	10251500015007
2000	3000	3000	3160	1500	3660	390	160	10251500015004
2000	4000	4000	4180	2000	4660	470	180	10251500015008
3000	3000	3000	3180	1500	3660	470	180	10251500015005



**We generally deliver the gantry crane systems straight to the customer from the production plant in Velten.  
 We will gladly inform you about the precise shipping and packaging costs on request.**

**Standard rollers: Polyamide.**

**Alternatively Vulkollan or solid rubber wheels are available. Please contact us for pricing.**



### Modular cranes

When cranes have to be provided for new buildings, or later on for existing workstations, the Carl Stahl gantry crane system is indispensable!

This gantry crane system is always mounted on its own legs, thereby eliminating the need for costly and complicated attachments to the building structure. The supports can be fastened to a sufficiently sized concrete floor or to small block foundations.

Carl Stahl gantry crane systems are manufactured with standardized system components and can be easily customized to meet specific installation conditions.

Various types are available with:

- Load capacities from 125 to 10,000 kg
- Spans of up to 15 m
- Field lengths of up to 10 m (infinitely extendable)
- Overhead cranes running above and below



### Monorail gantry crane type CS100

#### The fixed gantry crane

##### Basic data:

- Monorail gantry crane
- EN 15011 hoisting class: HC2
- EN 15011 stability class: S2
- Installation location: indoor/  
outdoor

##### Requirement:

A simple, effective means of transportation is often what it takes to cover continuously recurrent transport routes. Costly, time-intensive compromises are all too common when transportation a part from point A to point B.

##### Solution:

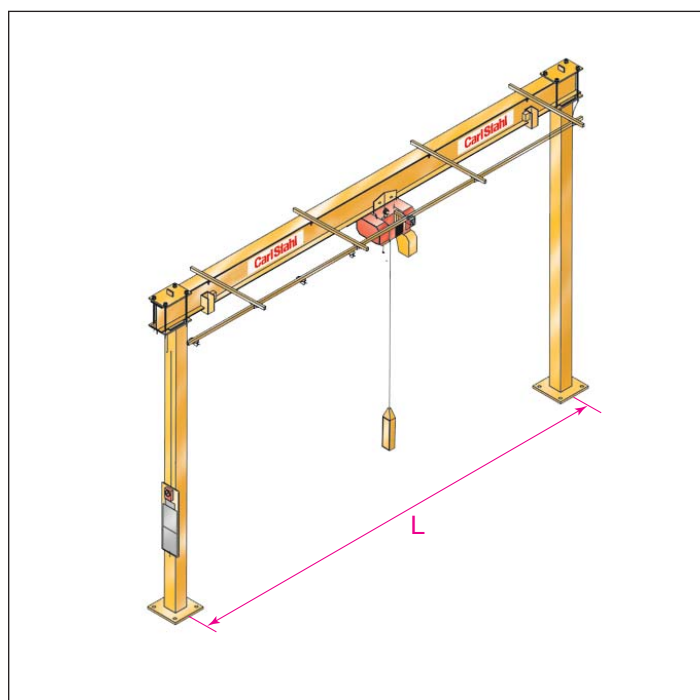
The CS100 fixed gantry with electric chain hoist is the simplest possible means of connecting transport routes. Loads can be lifted and transported effortlessly while carrying out stock movements, linking up two processing machines or loading and unloading vehicles with a crane located on either side of a roll-up door.



**Model:** CS100  
**Capacity:** 125 - 4,000 kg  
**Length (L):** 2,000 - 10,000 mm

Load capacity in kg	Length (L) in m									
	2	3	4	5	6	7	8	9	10	
125	■	■	■	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■	■	■	■
500	■	■	■	■	■	■	■	■	■	■
800	■	■	■	■	■	■	■	■	■	■
1000	■	■	■	■	■	■	■	■	■	■
1600	■	■	■	■	■	■	■	■	■	■
3200	■	■	■	■	■	■	■	■	■	■
4000	■	■	■	■	■	■	■	■	■	■

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# CRANE TECHNOLOGY

## CS Gantry Cranes

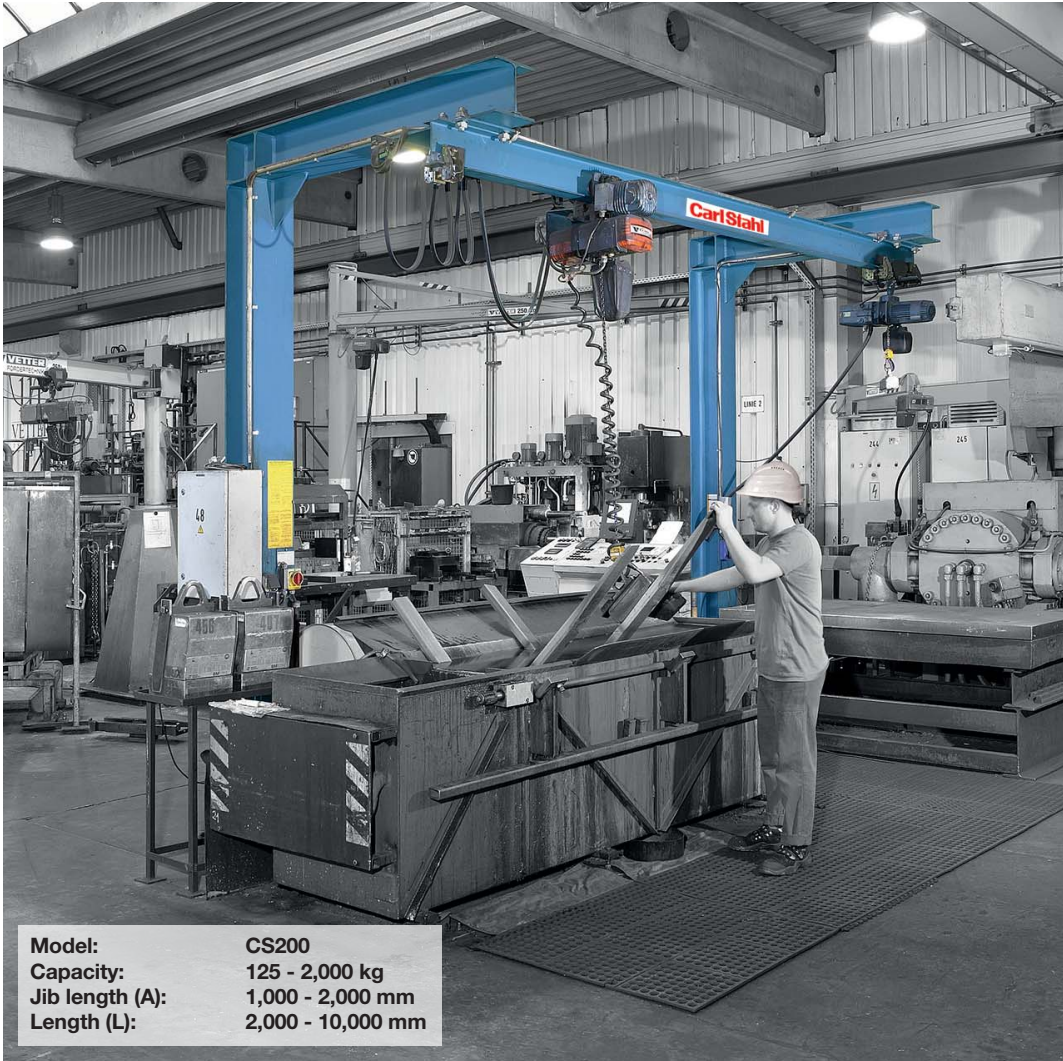
### Monorail gantry crane type CS200

#### The monorail on jib supports

- Basic data:**
- Monorail gantry crane
  - EN 15011 hoisting class: HC2
  - EN 15011 stability class: S2
  - Installation location: indoor/ outdoor
  - Unlimited max. crane rail length through combination of several fields

**Requirement:**  
Long transport routes must be bridged or several machines must be linked to achieve an optimum workflow. Conventional means of transportation, such as overhead cranes or forklifts must also be available for other applications, so that transport operations are constantly being interrupted.

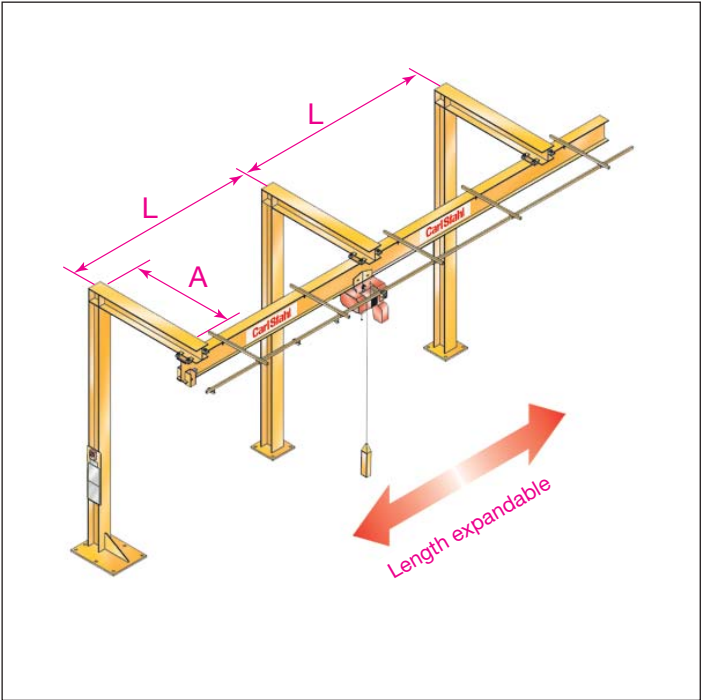
**Solution:**  
Intended for floor installation, the CS200 crane system is the classic monorail for an infinite number of applications. It can be used to overcome long distances, whereby automatic operations can also be set up. The crane rail can be equipped with one or more electric chain hoists, so work can be performed at different positions independently from one another. At the same time, this also makes it possible to feed downstream workstations.



**Model:** CS200  
**Capacity:** 125 - 2,000 kg  
**Jib length (A):** 1,000 - 2,000 mm  
**Length (L):** 2,000 - 10,000 mm

Load capacity in kg	Jib length (A) 1-2 m									
	Length (L) in m									
	2	3	4	5	6	7	8	9	10	
125	■	■	■	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■	■	■	■
500	■	■	■	■	■	■	■	■	■	■
800	■	■	■	■	■	■	■	■	■	■
1000	■	■	■	■	■	■	■	■	■	■
1600	■	■	■	■	■	■	■	■	■	■
2000	■	■	■	■	■	■	■	■	■	■

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### Gantry crane system type CS300

#### The two-rail gantry with an overhead crane

##### Basic data:

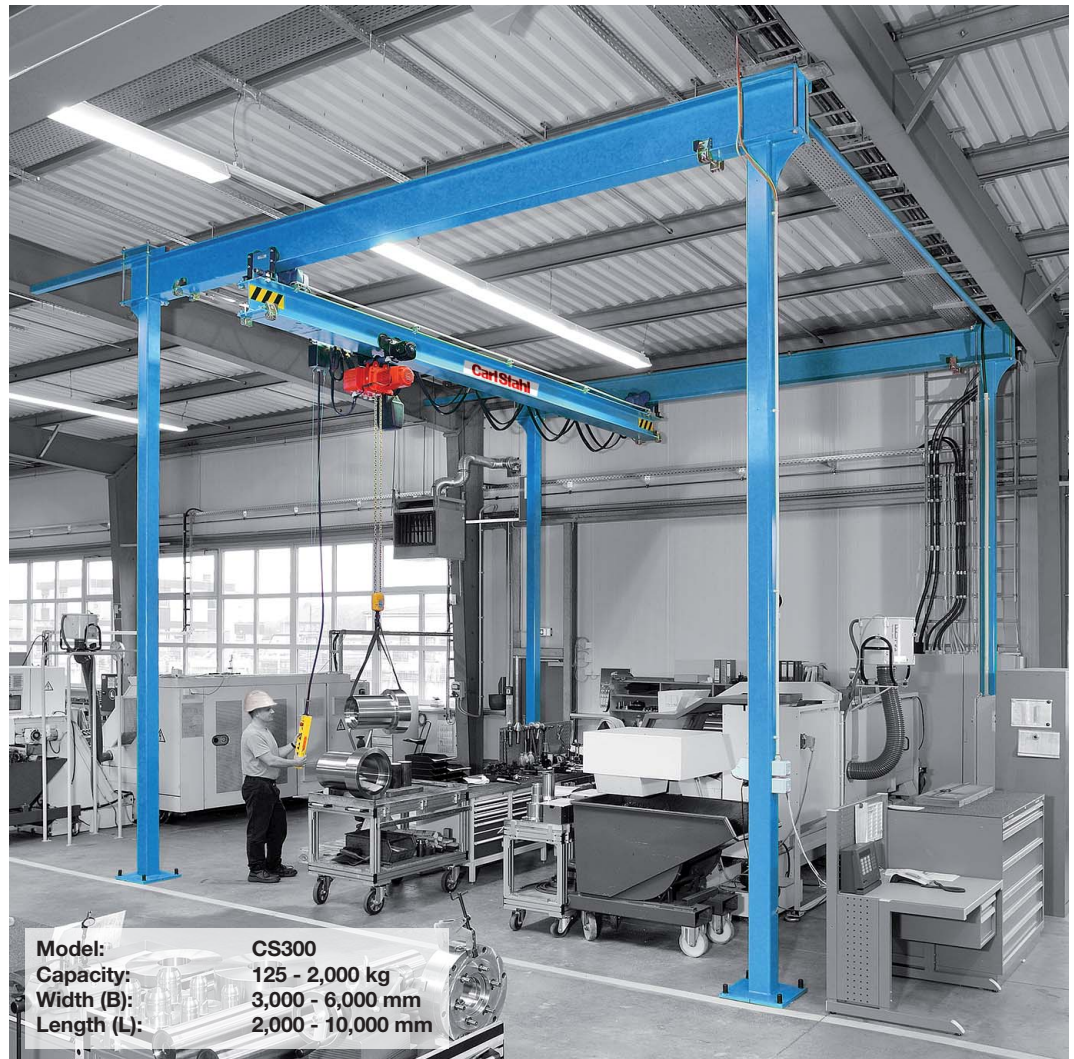
- Gantry crane system
- EN 15011 hoisting class: HC2
- EN 15011 stability class: S2
- Installation location: indoor/ outdoor

##### Requirement:

In an existing hall, a new workstation has to be set up and fitted with a crane system or two workplaces have to be linked. The high frequency of operations requires continuous access to a hoist. The existing buildings are too high, too weak or otherwise unsuitable to support suspended crane rails.

##### Solution:

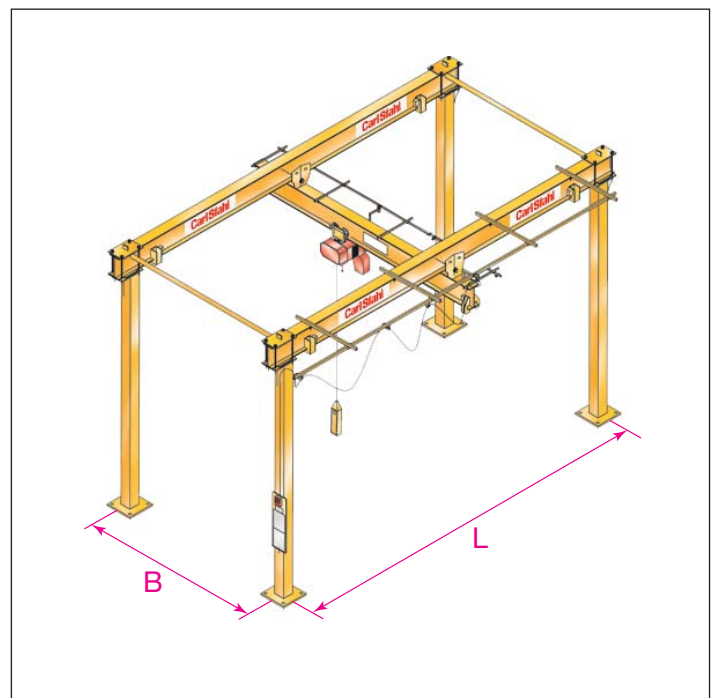
A fixed two-rail gantry covers the entire work area, takes up less space, stands on its own four legs and needs no extra support structures for installation. The system is operated like an overhead crane. Manual and electrical trolleys are available. The assembled heights can be adapted to meet individual building conditions.



Model: CS300  
Capacity: 125 - 2,000 kg  
Width (B): 3,000 - 6,000 mm  
Length (L): 2,000 - 10,000 mm

Load capacity in kg	Width (B) 3-6 m Length (L) in m									
	2	3	4	5	6	7	8	9	10	
125	■	■	■	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■	■	■	■
500	■	■	■	■	■	■	■	■	■	■
800	■	■	■	■	■	■	■	■	■	■
1000	■	■	■	■	■	■	■	■	■	■
1600	■	■	■	■	■	■	■	■	■	■
2000	■	■	■	■	■	■	■	■	■	■

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CS Gantry Cranes

Gantry crane system type CS400

The variable-length two-rail gantry

Basic data:

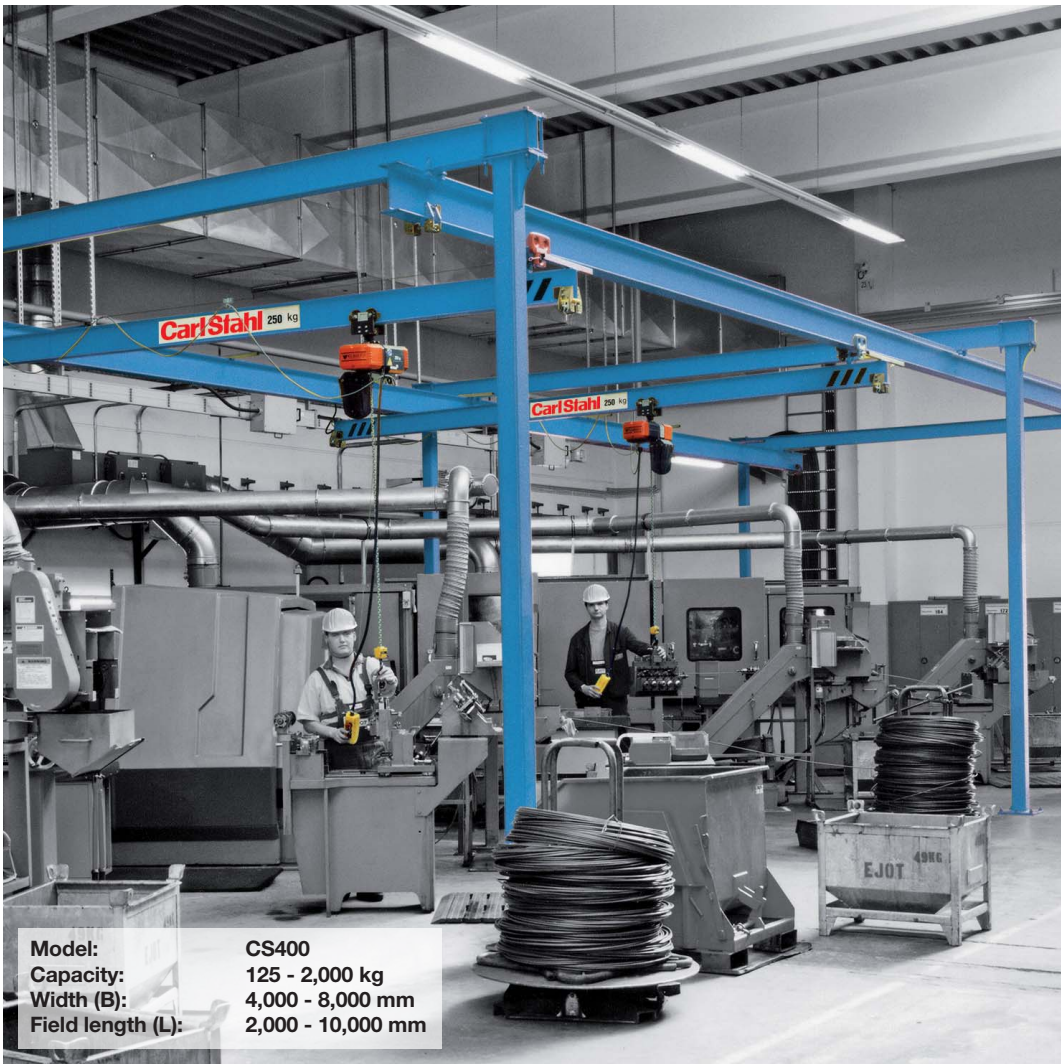
- Gantry crane system
- EN 15011 hoisting class: HC2
- EN 15011 stability class: S2
- Installation location: indoor/ outdoor
- Unlimited max. crane rail length through combination of several fields

Requirement:

Today modern factories put a high priority on the linkage of workstations. A high-traffic workstation must have continuous access to a means of transport for feeding and removal operations in order to lift, move and turn the workpieces being processed. These products should then be transferred easily to the next workstation without any extra effort.

Solution:

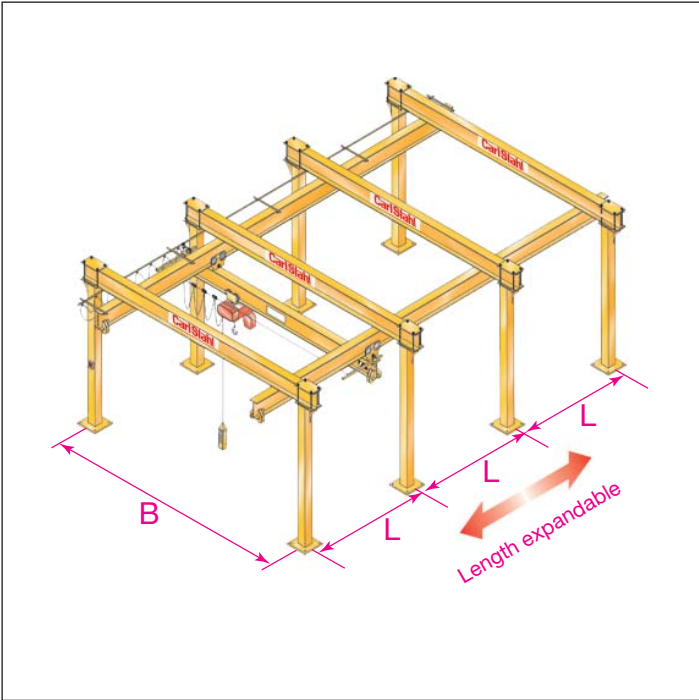
Designed for floor installation, this crane system makes it possible to link an unlimited number of workstations and to use several crane bridges within the system. So each workstation has access to its own lifting equipment. The hoists and crane bridges can be controlled manually or electrically. The rail length is variable and can be expanded. This system also stands on its own legs, eliminating the need to attach it to parts of the hall.



Model: CS400  
Capacity: 125 - 2,000 kg  
Width (B): 4,000 - 8,000 mm  
Field length (L): 2,000 - 10,000 mm

Load capacity in kg	Width (B) 4-8 m									
	Length (L) in m									
	2	3	4	5	6	7	8	9	10	
125	■	■	■	■	■	■	■	■	■	■
250	■	■	■	■	■	■	■	■	■	■
500	■	■	■	■	■	■	■	■	■	■
800	■	■	■	■	■	■	■	■	■	■
1000	■	■	■	■	■	■	■	■	■	■
1600	■	■	■	■	■	■	■	■	■	■
2000	■	■	■	■	■	■	■	■	■	■

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### Gantry crane system type CS500

#### The two-rail gantry with an overhead crane

##### Basic data:

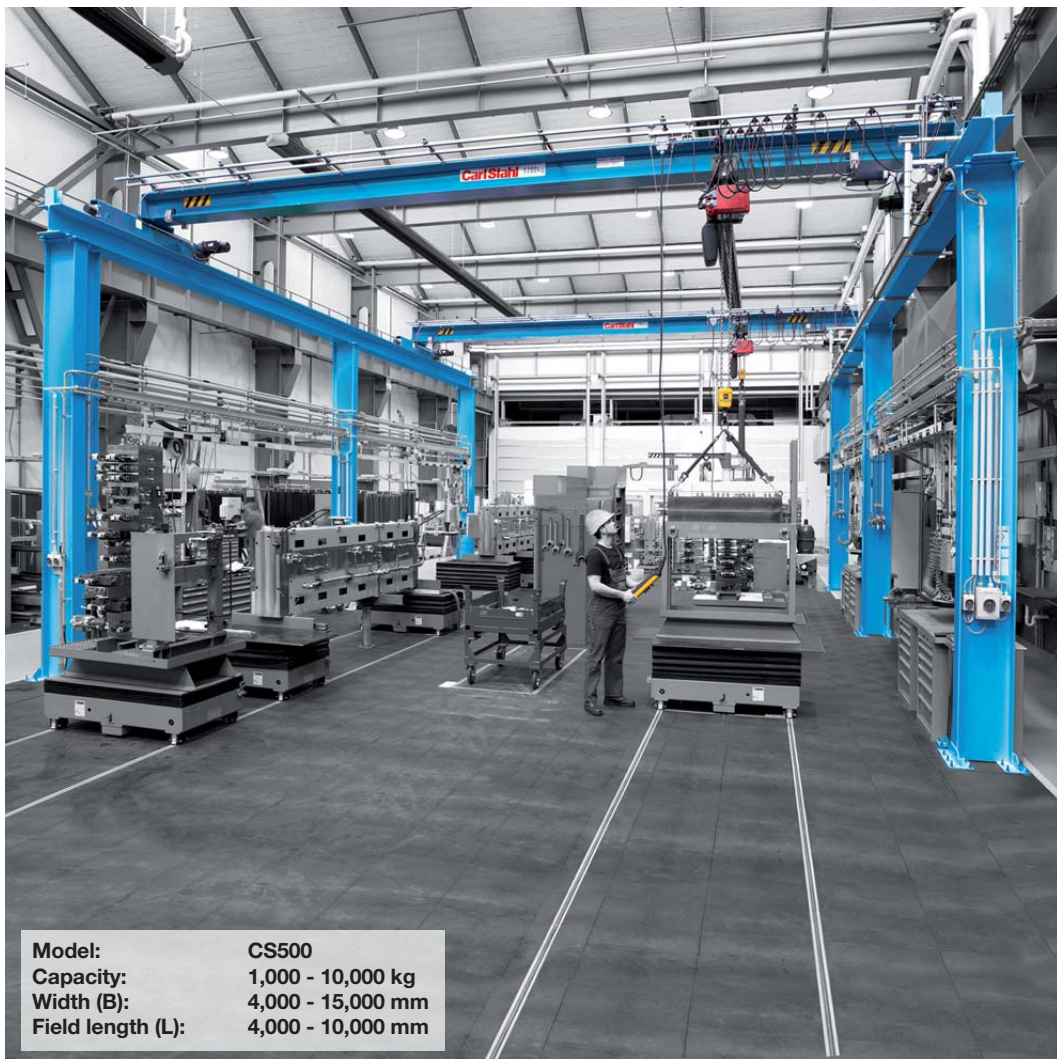
- Gantry crane system
- EN 15011 hoisting class: HC2
- EN 15011 stability class: S3
- Installation location: indoor/ outdoor
- Unlimited max. crane rail length through combination of multiple fields
- Full utilization of the hall height permits large lifting height

##### Requirement:

Applications change frequently in existing halls, and many production halls are not able to support the weight of an overhead crane. Often access to the full height of a hall must be available, as large workpieces have to be transported. At this point the low profile of the crane system becomes important.

##### Solution:

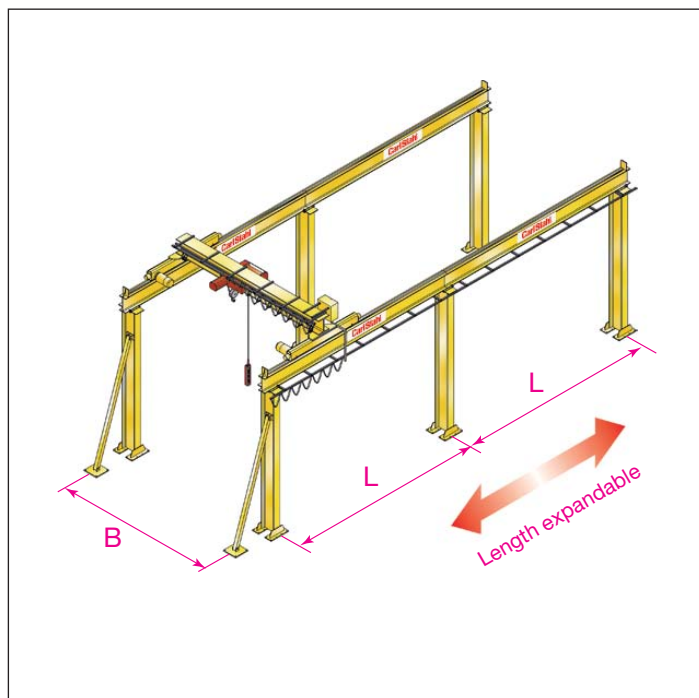
The CS500 crane system combines the advantages of the CS400 crane system with the convenience of an overhead crane. The rail length is variable and can be expanded. The fixing of the supports requires a sufficiently sized concrete floor or small foundations. Building structures have not to be integrated into the fixation of the rail. That means the CS500 crane system is independent and designed to meet the requirements of workstations.



**Model:** CS500  
**Capacity:** 1,000 - 10,000 kg  
**Width (B):** 4,000 - 15,000 mm  
**Field length (L):** 4,000 - 10,000 mm

Load capacity in kg	Width (B) 4-15 m Length (L) in m							
	4	5	6	7	8	9	10	
1000	■	■	■	■	■	■	■	■
1600	■	■	■	■	■	■	■	■
2000	■	■	■	■	■	■	■	■
2500	■	■	■	■	■	■	■	■
3200	■	■	■	■	■	■	■	■
4000	■	■	■	■	■	■	■	■
5000	■	■	■	■	■	■	■	■
6300	■	■	■	■	■	■	■	■
8000	■	■	■	■	■	■	■	■
10000	■	■	■	■	■	■	■	■

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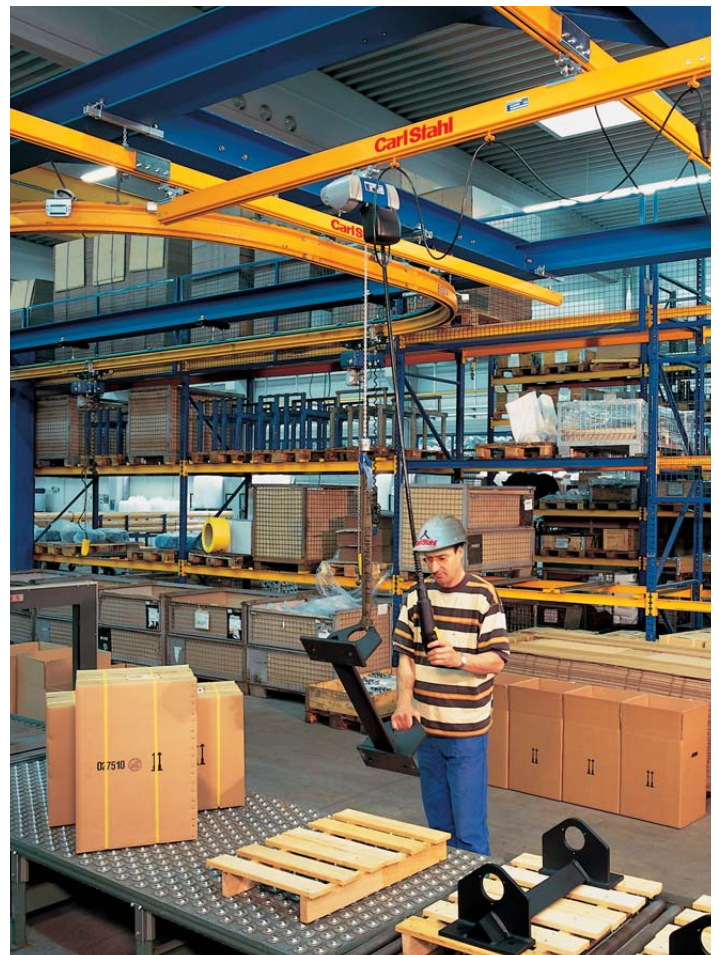
### HB Crane System



### HB Crane System

Facts at a glance:

- Load capacities 63 kg up to 2 tons
- Girder lengths up to 12 m
- Flexible and individual configuration
- Modularly extendable from a workplace crane to an area-covering system
- Comfortable handling and easy to move
- Low headroom and short end approach distance
- Extensive standard equipment
- Easy to install and maintain
- Optional electric long and cross travel
- Optional mobile control





Fax-Enquiry for HB Crane System Copy - Fill in - Fax

### Your contact details

Company name: .....

Phone: .....

Contact person: .....

Fax: .....

Street/P.O. Box: .....

Email: .....

ZIP/City: .....

We would like to receive:

- ☐ a quotation
- ☐ advice over the telephone
- ☐ a visit from a sales representative

### Technical characteristics of required crane system:

(Please fill in as completely as possible)

#### A. Area-Covering Transport:

Load capacity (GL):.....kg

Girder length (LT): .....mm

Crane rail length (L): .....mm

Suspension spacing (LB):.....mm

Number of cranes

per rail: .....pcs

Electric trolley: ☐ Yes ☐ No

Electric travel: ☐ Yes ☐ No

#### Ceiling construction:

☐ Steel construction

☐ Reinforced concrete

☐ Beam construction

☐ Inclined roof

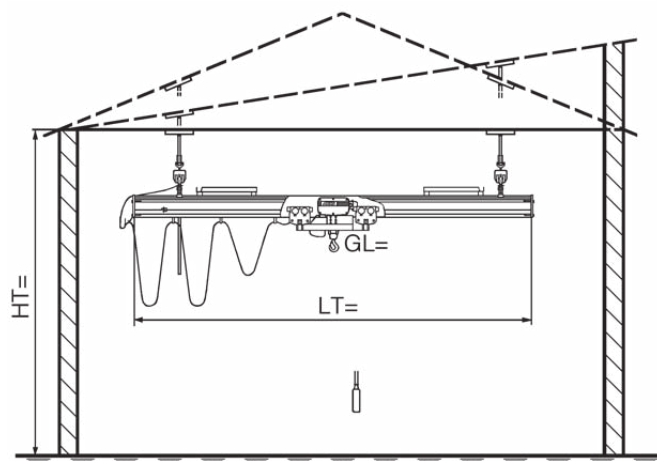
Inclination angle.....

#### On-site conditions:

Installation height (HT):.....mm

Required

Hook height (HÖ):.....mm



View A

—— possible roof inclination

#### B. Linear Transport:

Load capacity (GL):.....kg

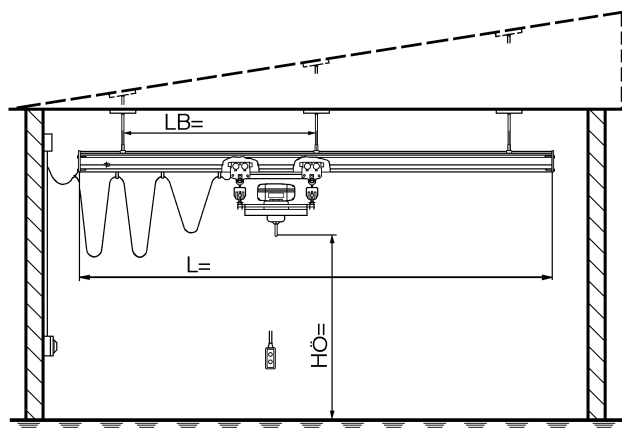
Crane rail length (L): .....mm

Suspension spacing (LB):.....mm

Number of chain hoists.....

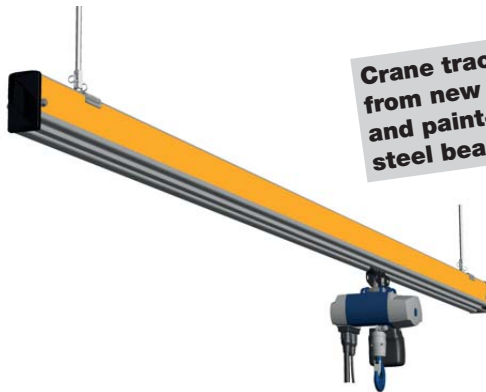
per rail: .....pcs

Electric trolley: ☐ Yes ☐ No



View B

### Monorail type ESB - Linear Transport

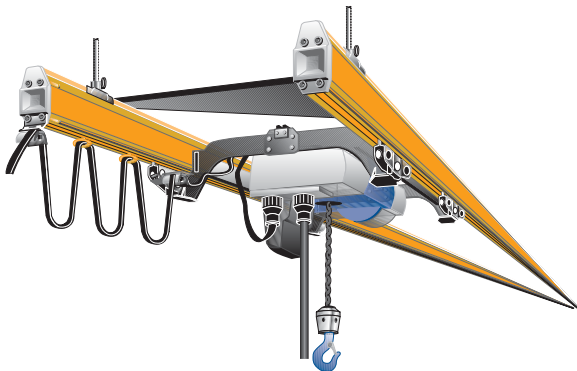


Crane track made from new galvanised and paint-coated steel beam

- Curved track possible
- Low headroom
- Wide suspension spacing
- Optional electric trolley

Load capacity in kg	Max. suspension spacing in mm
125	10500
250	10300
500	9000
1000	7300
2000	5100

### Double Girder Crane type ZSK - Linear Transport



- Wide suspension spacing
- Particularly favourable hoist height due to the chain hoist being positioned between the rails
- Very low headroom
- Optional electric travel
- Optional mobile control

Load capacity in kg	Max. suspension spacing in mm
125	10500
250	10500
500	10300
1000	9000
2000	7300

### Single Girder Crane type EHB - Area-Covering Transport

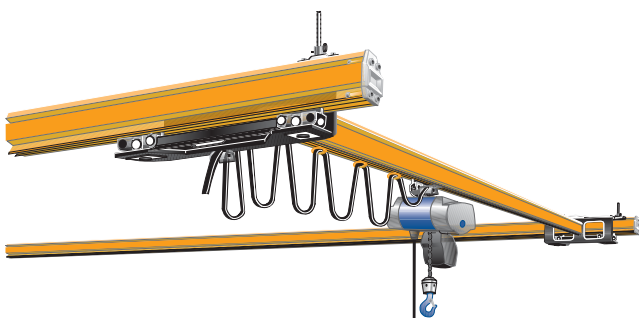


Crane track made from new galvanised and paint-coated steel beam - Crane bridge made from aluminium

- Very lightweight crane, ideal for lightweight constructions
- Easy to move manually
- Low headroom
- Short end approach dimensions
- Wide suspension spacing

Load capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	10300	10000
250	9500	10000
500	8200	10000
1000	6900	8000

### Single Girder Crane type EHB-X - Area-Covering Transport



- Optimum use of the room height thanks to stooled-up crane
- Easy to move manually
- Very low headroom
- Short end approach dimensions
- Wide suspension spacing
- Optional electric travel
- Optional mobile control

Load capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	10500	8000
250	9700	8000
500	8600	8000
1000	7200	7000

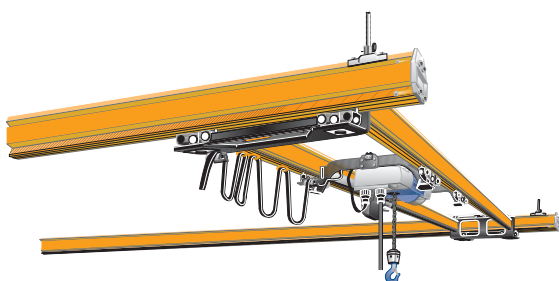
### Double Girder Crane type ZHB - Area-Covering Transport



- Wide suspension spacing
- Very low headroom
- Particularly favourable hoist height due to the chain hoist being positioned between the crane supports
- Optional electric travel
- Optional mobile control

Load capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	8900	12000
250	8400	12000
500	7300	12000
1000	6200	12000
2000	4100	8000

### Double Girder Crane type ZHB-X - Area-Covering Transport



- Optimum use of the room height thanks to stowed-up crane
- Very low headroom
- Wide max. suspension spacing
- Optional electric travel
- Optional mobile control

Load capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	9300	8000
250	8800	8000
500	7800	8000
1000	6700	8000
2000	5200	6000

### Single Girder Crane type EHB-I for an existing crane track on site (blue) - Area-Covering Transport



- Very lightweight crane, ideal for lightweight constructions
- Easy to move manually
- Crane track made from standard rolled sections
- Short end approach dimensions

Load capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	10300	10000
250	9500	10000
500	8200	10000
1000	6900	8000

### Double Girder Crane type ZHB-I for an existing crane track on site (blue) - Area-Covering Transport



- High load capacity
- Particularly favourable hoist height due to the chain hoist being positioned between the crane supports
- Crane track made from standard rolled sections
- Optional electric travel
- Optional mobile control

Load capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	8900	12000
250	8400	12000
500	7300	12000
1000	6200	12000
2000	4100	8000

### Adapter Cranes

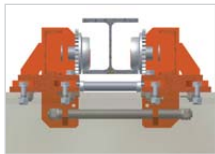
With adapter cranes you can build a complete crane system for all applications. Adapter cranes do not include the main beam. They are available either in a screwable or weldable version. The main beam can be bought nearby the site in the requested length. This helps to reduce transport costs to a minimum as only the components are supplied. Several adapter versions are possible.

#### Scope of delivery:

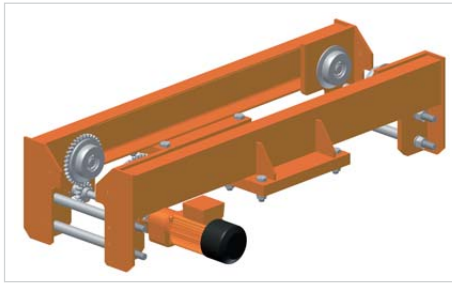
- 1 electric chain hoist with chain and pendant control for 3 m track height including contactor control 42 V/50 Hz and power supply for the hoist from the crane bridge. Operating voltage 400 V/50 Hz.
- 1 set end carriages. Crane components will be supplied sand-blasted and primed including screws.
- 1 set of adapter plates depending on the desired version



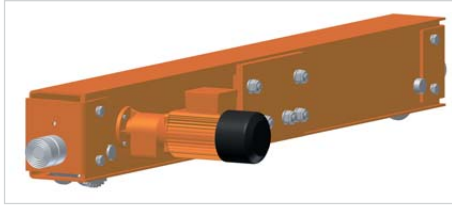
Electric chain hoist type 620R



e.g. adapter plate A screwable



End carriage EDEE



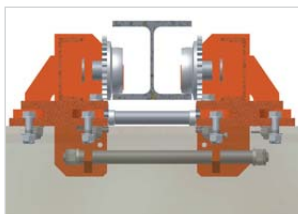
End carriage EEE

### Single girder underslung adapter crane EDEE

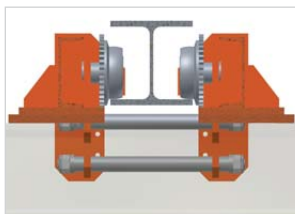
According to DIN 15018 H2/B3 with electric chain hoist 620R

Load cap. in kg	Span up to m	Wheel base in mm	Wheel diameter in mm	Lifting speed of electric chain hoist 620R in m/min.
1000	7	1200	120	4/1
1000	12	1600	150	4/1
1000	15	2000	200	4/1
2000	7	1200	120	5/1.25
2000	12	1600	150	5/1.25
2000	15	2000	200	5/1.25

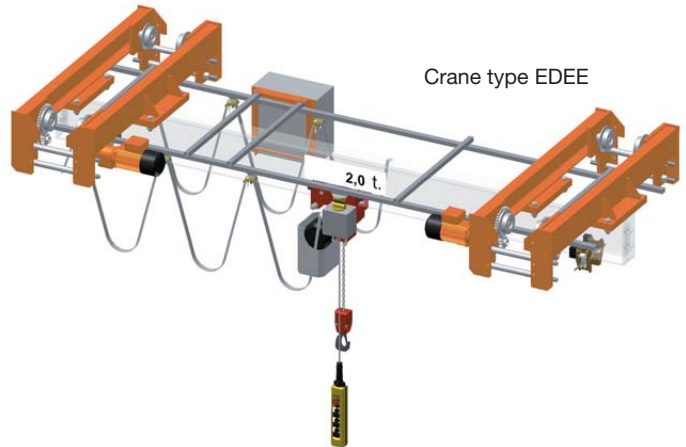
#### Adapters for crane type EDEE



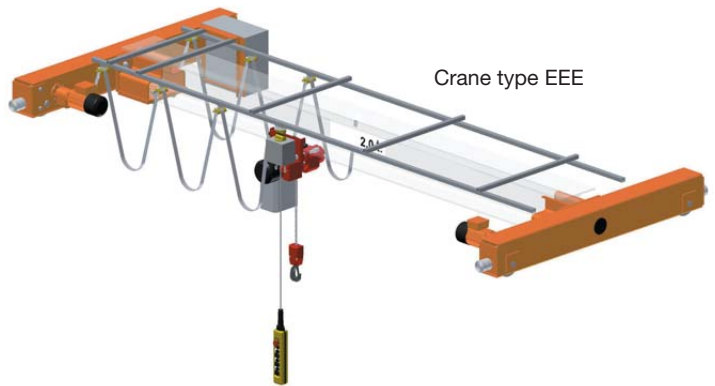
Version A screwable adapter plates



Version C weldable adapter plates



Crane type EDEE



Crane type EEE

#### Documentation:

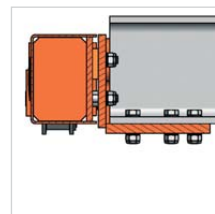
- CE declaration with the note 'Adapter crane'
- Set-up, operating and maintenance instructions for the crane type
- Test logbook without main beam entry. The crane constructor must complete this with the tare weight of the crane and the resulting wheel loads.

### Single girder overhead travelling adapter crane EEE

According to DIN 15018 H2/B3 with electric chain hoist 620R

Load cap. in kg	Span up to m	Wheel base in mm	Wheel diameter in mm	Lifting speed of electric chain hoist 620R in m/min.
1000	7	1200	125	4/1
1000	12	1600	160	4/1
1000	16	2200	200	4/1
2000	7	1200	125	5/1.25
2000	12	1600	160	5/1.25
2000	16	2200	200	5/1.25

#### Adapters for crane type EEE



Version A screwable adapter plates



Version B screwable for main beam fastened on end carriage



Version C weldable adapter plates



### Articulated single girder underslung adapter crane TA

With adapter cranes you can build a complete crane system for all applications. Adapter cranes do not include the main beam. The main beam can be bought nearby the site in the requested length. This helps to reduce transport costs to a minimum as only the components are supplied. The TA adapter crane stands out due to its low price and simple installation.

- According to DIN 15018 H1/B2
- Adjustable crane trolley
- Also available as complete crane with main beam
- Other spans and load capacities on request
- Version with manual hoist on request

#### Scope of delivery:

- Electric chain hoist 620 R with manual trolley, load chain and pendant control for 3 m track height
- Complete power supply from crane bridge
- 1 set articulated crane trolley
- Installation and safe use instructions

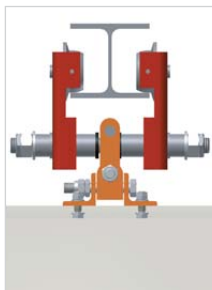


#### Documentation:

- CE declaration with the note 'Adapter crane'
- Set-up, operating and maintenance instructions for the crane type
- Test logbook without main beam entry. The crane constructor must complete this with the tare weight of the crane and the resulting wheel loads.



Electric chain hoist  
type 620R



Articulated  
crane trolley



**Please contact us for pricing!**

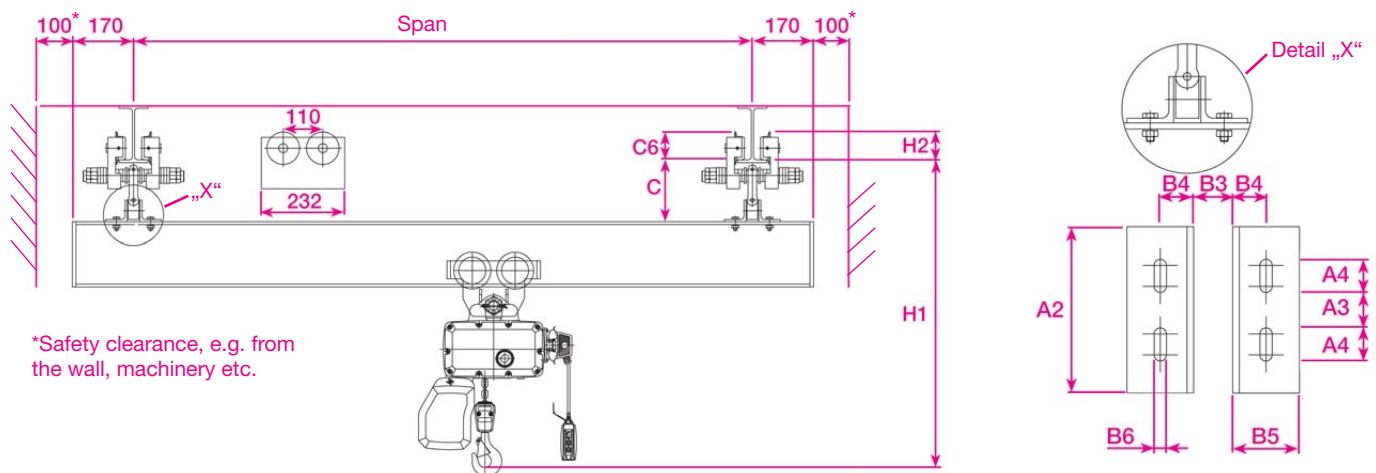
**Also available in explosion-proof version.  
For details see pages 86-87.**

**Electric chain hoist 620R see pages 98-99.**

Load capacity in kg	Lifting speed in m/min	FEM 9.511, ISO 4301	Span up to m	Max. flange width of track beam (1) in mm	Weight of crane without hois in kg	Main dimensions in mm											
						A2	A3	A4	B3	B4	B5	B6	C	C6	H1*	H2	
250	8/2	1Am M4	4	179	90	150	32	30	43	27	50	11	172	77	743	78	
250	8/2	1Am M4	7	179	170	150	32	30	43	27	50	11	172	77	743	78	
500	8/2	1Am M4	4	179	90	150	32	30	43	27	50	11	172	77	776	78	
500	8/2	1Am M4	7	179	240	150	32	30	43	27	50	11	172	77	776	78	
1000	4/1	1Am M4	4	179	130	150	32	30	43	27	50	11	172	77	859	78	
1000	4/1	1Am M4	7	179	320	150	32	30	43	27	50	11	172	77	859	78	

(1) Please indicate track beam profile with your order

\*depends on span



### Pillar Jib Crane made from steel/aluminium type UNILIFT US with electric chain hoist

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

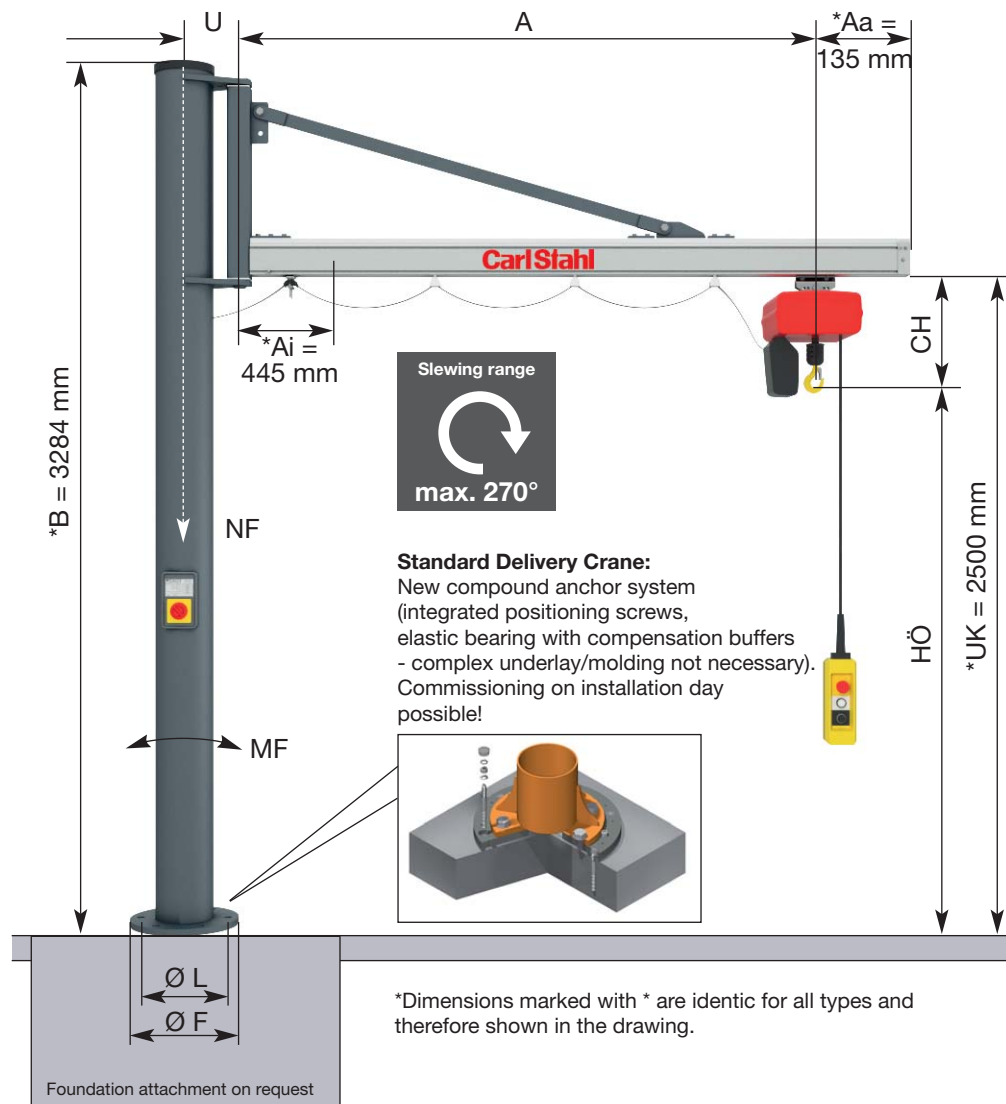
Steel pillar and aluminium jib arm, Innovative compound anchor system (easy installation without foundation), Electric chain hoist, internal light-running push trolley including buffer, complete electricity, manual slewing, complete crane documentation.

#### Scope of delivery chain hoist:

High-grade electric chain hoist (two-step lifting speed), protection rating IP 55, high-strength tested and galvanised steel chain, chain container, precision hoist, power supply 400 V/50 Hz, control voltage 24 V, control switch with plug connection and strain relief protection rating IP65.

#### Features:

- Classification to EN 13001 HC2 S2 HD2 for light industrial use
- Lockable main power switch, Power-line as festoon system with internal profile sliding blocks
- Power supply 400 V/50 Hz, control voltage 24 V
- Paint build-up for indoor use
- Crane construction shot-blasted
- Tubular column and crane bracket made from steel, painted in RAL 7016 anthracite grey
- Jib made from anodised aluminium hollow profile



\*Dimensions marked with \* are identic for all types and therefore shown in the drawing.

Load capacity in kg	Jib length A in mm	Type/Size	Compound anchor plate Ø	Lifting speed in m/min	CH	HÖ	U	Foot flange Ø F	Foot flange Ø L	MF in kNm	NF in kN	Weight in kg	Item no.
125	1910	US 1.25-2.0	530	8/2.0	412	2088	210	340	260	345	3	165	10201500035442
125	2910	US 1.25-3.0	530	8/2.0	412	2088	210	340	260	523	3	174	10201500035443
125	3910	US 1.25-4.0	530	8/2.0	412	2088	210	410	330	773	4	237	10201500035444
125	4910	US 1.25-5.0	530	8/2.0	412	2088	210	410	330	995	4	260	10201500035445
250	1910	US 2.5-2.0	530	6/1.5	412	2088	210	340	260	587	4	165	10201500035446
250	2910	US 2.5-3.0	530	6/1.5	412	2088	210	410	330	1024	5	227	10201500035447
250	3910	US 2.5-4.0	630	6/1.5	412	2088	310	510	430	1408	6	321	10201500035448
250	4910	US 2.5-5.0	630	6/1.5	412	2088	310	510	430	1811	6	346	10201500035449
500	1910	US 5-2.0	530	4.5/1.1	464	2036	210	410	330	1221	8	303	10201500035450
500	2910	US 5-3.0	630	4.5/1.1	464	2036	310	510	430	1867	8	312	10201500035451
500	3910	US 5-4.0	780	4.5/1.1	464	2036	310	510	430	2491	9	414	10201500035452



**Other heights, jib lengths and accessories on request. Subject to technical modifications.**  
**All cranes on this page: Receipt of order to shipping EXW within 10 workdays!**

### Wall Jib Crane made from steel/aluminium type UNILIFT UW with electric chain hoist

- For indoor use only
- Delivery EXW

#### Scope of delivery crane:

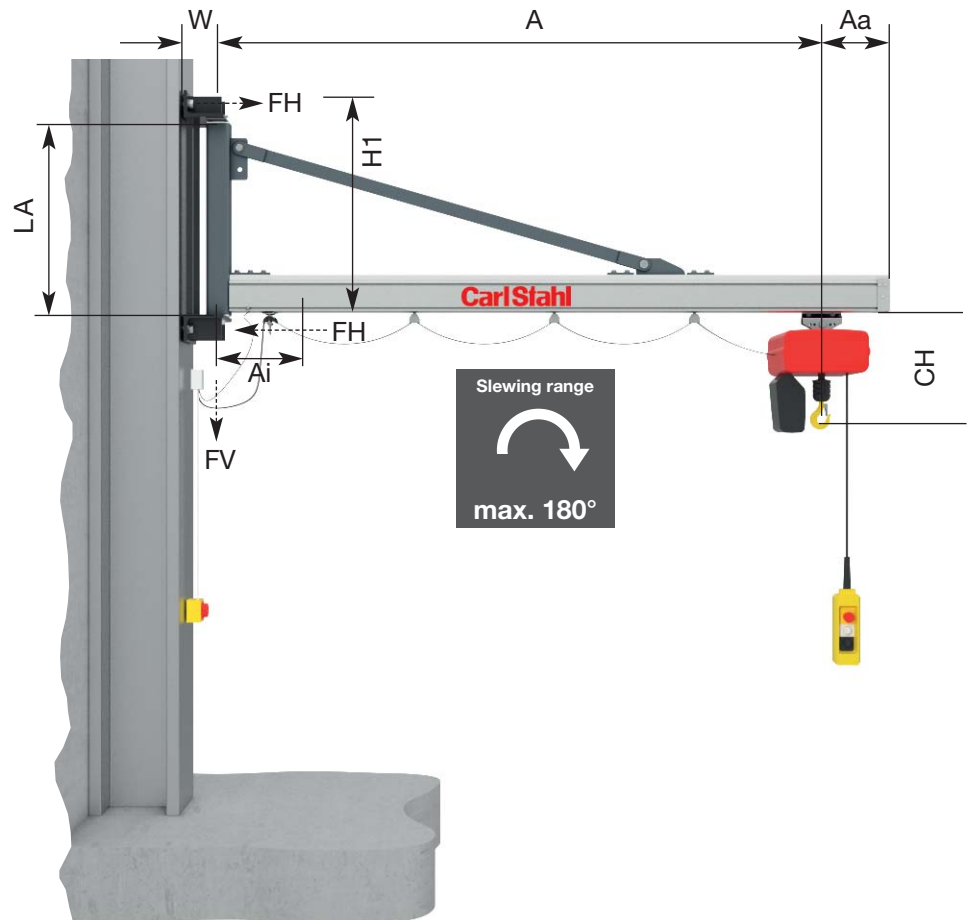
Wall-mounting and aluminium jib arm, Electric chain hoist, internal light-running push trolley including buffer, complete electricity, manual slewing, complete crane documentation.

#### Scope of delivery chain hoist:

High-grade electric chain hoist (two-step lifting speed), protection rating IP 55, high-strength tested and galvanised steel chain, chain container, precision hoist, power supply 400 V/50 Hz, control voltage 24 V, control switch with plug connection and strain relief protection rating IP65. Standard lifting height 5 m, Control cable length 3.8 m (please specify required length when placing order).

#### Features:

- Classification to EN 13001 HC2 S2 HD2 for light industrial use
- Lockable main power switch, Power-line as festoon system with internal profile sliding blocks
- Power supply 400 V/50 Hz, control voltage 24 V
- Paint build-up for indoor use
- Crane construction shot-blasted
- Tubular column and crane bracket made from steel, painted in RAL 7016 anthracite grey
- Bearing bracket made from steel, painted in RAL 9005 deep black (without mounting screws)
- Jib made from anodised aluminium hollow profile



#### Advantages of the crane types UW and US:

- Low weight of the jib arm
- Excellent rolling characteristics of the trolley
- Ergonomic handling

Load capacity in kg	Jib length A in mm	Type/Size	Lifting speed in m/min	Dimensions in mm						FH in kN	FV in kN	Weight in kg	Item no.
				CH	H1	LA	W	Aa	Ai				
125	1910	UW 1.25-2.0	8/2.0	412	810	740	135	135	445	5	2	84	10201000035215
125	2910	UW 1.25-3.0	8/2.0	412	810	740	135	135	445	8	2	93	10201000035218
125	3910	UW 1.25-4.0	8/2.0	412	810	740	135	135	445	10	2	103	10201000035219
125	4910	UW 1.25-5.0	8/2.0	412	810	740	135	135	445	14	3	126	10201000035220
250	1910	UW 2.5-2.0	6/1.5	412	810	740	135	135	445	9	3	84	10201000035221
250	2910	UW 2.5-3.0	6/1.5	412	810	740	135	135	445	13	3	93	10201000035222
250	3910	UW 2.5-4.0	6/1.5	412	810	740	135	135	445	18	4	113	10201000035223
250	4910	UW 2.5-5.0	6/1.5	412	810	740	135	135	445	23	4	138	10201000035224
500	1910	UW 5-2.0	4.5/11	464	810	740	135	135	445	15	6	95	10201000035225
500	2910	UW 5-3.0	4.5/11	464	810	740	135	135	445	24	6	104	10201000035226
500	3910	UW 5-4.0	4.5/11	464	810	740	135	135	445	32	6	134	10201000035227



**Other heights, jib lengths and accessories on request. Subject to technical modifications.**  
**All cranes on this page: Receipt of order to shipping EXW within 10 workdays!**

### CS ONE Aluminium module up to 2,000 kg

**Suspension crane system made of high-strength aluminium**  
**Type CS ONE for load carrying capacities up to 2,000 kg**

#### Carl Stahl system modules for aluminium cranes

- 7 coordinated profile sizes enable optimised and flexible system configuration
- Reinforcement profile for subsequent load increase
- 1 trolley with 8 castors for working without jamming
- Every trolley model is suitable for all profiles
- Universal mounting possibilities thanks to item®-compatible grooves in the exterior and interior of the profile geometry
- QS - quality seal
- Aluminium system modules with a broad range of accessories for the greatest diversity!
- Broad range of accessories

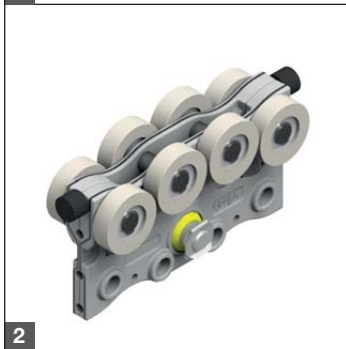
#### Your advantages compared to conventional steel systems

- Low noise thanks to special castors mounted on ball bearings
- Perfect smooth running (force for the process ~ 0.25% of the load, measured on a sample system)
- Low dead weight of profiles with maximum stability
- Low approach dimensions
- Smallest installation height
- Uncomplicated rail impact (without welding, drilling or varnishing)
- Various options for energy supply: internal or external conductor line, energy chain, cable drag
- Short delivery times
- Simple assembly

**Please ask us  
about your crane  
projects!**



1



2

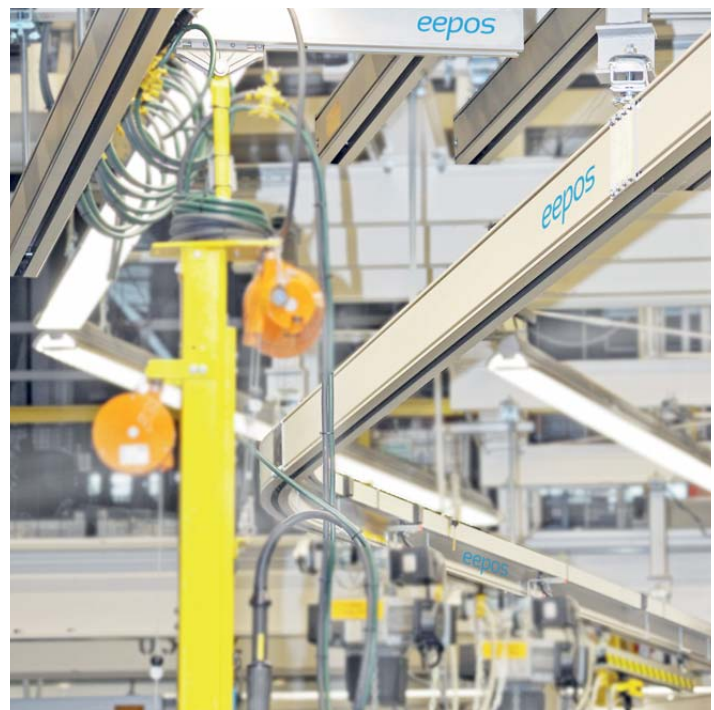


3

1 Profile overview XS to XXL with reinforcement profile

2 CS trolley with 8 castors for smooth running and ergonomics

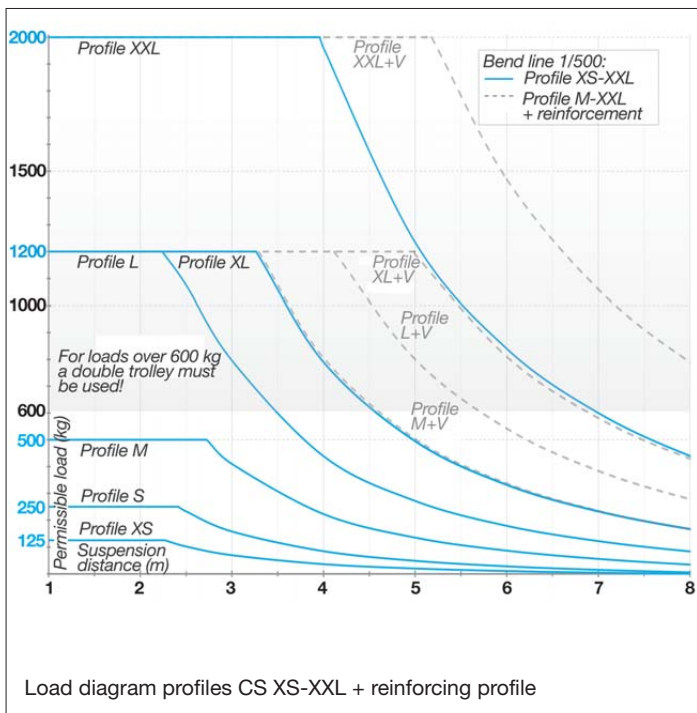
3 CS suspension as a pendulum or rigid suspension





### CS ONE Aluminium module up to 2,000 kg

Profile	Load in kg	Profile height in mm	Profile width in mm	Dead weight in kg/m	Moments of inertia (Iy/Iz) in cm <sup>4</sup>	Section modulus (Wy/Wz) in cm <sup>3</sup>
CS XS	125	100	73	3	114 / 90	25 / 21
CS S	250	105	96	5.3	253 / 221	47 / 46
CS M	500	140	100	7	640 / 351	90 / 70
CS L	1200	180	100	8.5	1229 / 440	133 / 88
CS XL	1200	220	100	10	2195 / 518	197 / 104
CS XXL	2000	260	100	16.5	5373 / 922	402 / 184



### CS NANO aluminium module up to 75 kg

#### Small aluminium module for workplace systems, type CS Nano

- Smooth-running properties and ergonomics for the handling of tools weighing up to 75 kg
- Ideal for work benches and work stations
- Three profile sizes: CS NANO 40, CS NANO 60, CS NANO 80
- 1 trolley for all CS NANO profiles
- Downward and upward load suspension possible
- 7 item®-compatible grooves for the attachment of further components

#### Your advantages compared to conventional steel systems

- Low noise thanks to special castors mounted on ball bearings
- Perfect smooth running
- Low dead weight of profiles with maximum stability
- Low approach dimensions
- Smallest installation height
- Uncomplicated rail impact (without welding, drilling or varnishing)
- Various options for energy supply: internal or external conductor line, energy chain, cable drag
- Short delivery times
- Simple assembly



1 Profile overview CS NANO 40 to 80

2 CS trolley with 6 castors for smooth running and ergonomics

3 CS suspension as a pendulum or rigid suspension

Profile	Load in kg	Profile height in mm	Profile width in mm	Dead weight in kg/m	Moments of inertia (I <sub>y</sub> /I <sub>z</sub> ) in cm <sup>4</sup>	Section modulus (W <sub>y</sub> /W <sub>z</sub> ) in cm <sup>3</sup>
CS NANO 40	15	40	40	1.4	9.6 / 10.2	4.8 / 5.1
CS NANO 60	50	60	40	1.9	28.5 / 13.6	9.1 / 6.8
CS NANO 80	75	80	40	2.1	59.5 / 16.2	14.9 / 8.1



### CS CARBON Slewing cranes made of carbon fibre/aluminium

#### Ultra-light crane beam made from carbon fibre, type CS CARBON

- Maximum ergonomics for loads up to 100 kg
- Weight-optimised trolley
- Ultra-light beam with a dead weight of just 1.7 kg/m
- Anchoring strut also made from carbon
- The crane boom is only glued and inserted
- Delivered pre-assembled, simply press and screw together on site

#### CS CARBON Swivel boom sets

- One-sided or two-sided boom up to 100 kg load capacity and 3 m boom length (from size M)
- Boom profiles available in aluminium and carbon
- Modules supply energy, data, compressed air, light, etc., to any work place and are freely configurable for any application
- Can be used as wall bracket or aluminium column

Standard set	Boom length in mm	Dead weight in kg/m
CS CARBON SK 2000	2000	10.40
CS CARBON SK 2500	2500	12.90
CS CARBON SK 3000	3000	13.70

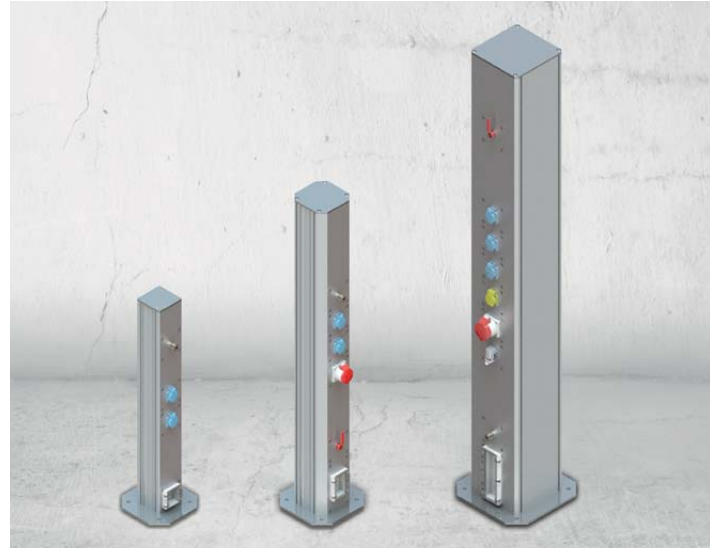
#### Optional connections

- Item®-compatible grooves inside and outside the column allow for own attachments
- Spacious interior design for cable and hose laying



#### Aluminium column versions

Aluminium column versions: S, M and L  
(S-columns cannot be used with the carbon boom)



#### Modular inserts for swivel crane column

- Modular inserts removed towards the front
- Removable cover profiles

Figure	Module insert	Versions
	Crane main switch	600 V, 20A 3-phase
	Harting plug	3a, 6-pin 6b, 6-pin
	Industrial socket	Schuko 230V CEE 400V, 16A CEE 400V, 32A
	Ethernet	2-fold, RJ45 CAT.6
	Frame for automatic fuse (with retaining clip for fuses)	4 TE 6 TE 12 TE
	Compressed air	Clutch DN 7.2 Hose 12 mm
	Compressed air shut-off valve	Connections 1 x clutch DN 7.2 1 x hose (Outer Ø 12 mm)



### Portable Aluminium Gantry Crane, stationary and movable version, single or double beam

#### Description:

- The aluminium gantry crane system is a highly mobile and flexible, height and length-adjustable, freestanding structure.
- The aluminium gantry crane can be constructed and dismantled effortlessly and with few actions.
- No structural changes (e.g. dowel attachments or similar) are required.

#### Features:

- All side frames can be easily folded up for compact short or long-term storage and transportation.
- Even when subjected to a load, the trolley on the single/double aluminium beam is infinitely movable and can be locked into place in any position.  
Double beam version: thanks to the lockable trolley being positioned at the top, the maximum lift can be used in proportion to the entire height.
- The stop buffers act as collision guards for the trolley.
- The usable length of the aluminium gantry crane can be infinitely moved between the side frames by using the horizontal adjustment mechanism. The runway width of the single/double aluminium beam is therefore variable.
- Double beam version: the two individual aluminium beams are placed and fixed onto the frame supports. These components are also used to ensure that the aluminium double beam is in a parallel position.



All standard products of pages 66 to 75:  
Order receipt until goods issue max. 1-2 weeks!



Special aluminium gantry crane, movable under load



Special aluminium gantry crane, stationary version, with chassis



Special aluminium gantry crane, 2 times telescopic with very large adjustment range



Special aluminium gantry crane, 2 times telescopic with very large adjustment range

## Rapid-assembly Aluminium Gantry Cranes

### Rapid-assembly aluminium gantry crane, type CS-SKE, stationary version, single beam

#### Description:

The stationary version of the aluminium gantry crane offers the advantage in many situations that it stands on its own feet. The 4 positioning feet can be individually and independently height adjusted and therefore adapted to the conditions on site. This crane type offers optimum stability for all load applications.



Further descriptions and features can be found on page 64.

#### Scope of delivery:

- 2 x side frames, foldable with height-adjustable beam supports (grid dimensions 50 mm) with height-adjustable positioning feet (grid dimensions 40 mm)
- 1 x aluminium beam
- 1 x lockable trolley
- 1 x stop buffer
- 1 x integrated horizontal adjustment mechanism

#### Variant (version):

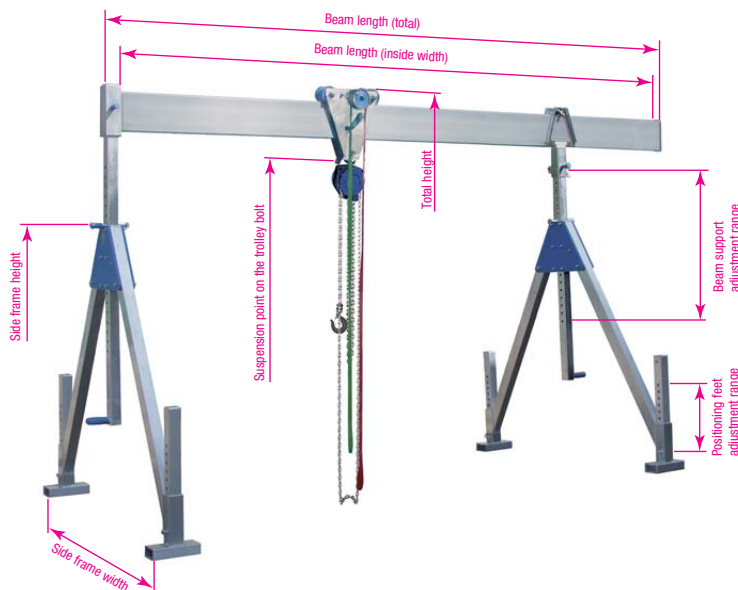
##### Aluminium gantry crane with divisible, push-fit aluminium beam

The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation.

The two pieces can be also be used as a single beam.

The following combinations are possible:

1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)



**Caution:**  
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 122.

#### Aluminium beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4164	1260/2360	1640/2740	700	400	1300	96	10251500015009
1000	4000/4164	1740/2990	2120/3370	850	400	1740	102	10251500015011
1000	4000/4184	2320/4020	2700/4400	1300	400	2240	154	10251500015013
1500	4000/4164	1260/2360	1640/2740	700	400	1300	104	10251500015014
1500	4000/4164	1740/2990	2120/3370	850	400	1740	110	10251500015015
1500	4000/4184	2320/4020	2700/4400	1300	400	2240	162	10251500015016

#### Aluminium beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	1260/2360	1640/2740	700	400	1300	91	10251500015017
1000	4000/4100	1740/2990	2120/3370	850	400	1740	97	10251500015018
1000	4000/4100	2320/4020	2700/4400	1300	400	2240	149	10251500015019
1500	4000/4100	1260/2360	1640/2740	700	400	1300	99	10251500015021
1500	4000/4100	1740/2990	2120/3370	850	400	1740	105	10251500015020
1500	4000/4100	2320/4020	2700/4400	1300	400	2240	157	10251500015022



Beam lengths of up to 8 m available for quick delivery (1.5 t up to 6 m). Special versions for many areas of use!

Please contact us with your questions!!

#### Accessories



Wall bracket, see page 70



Trolley, see page 70



Cabling/power supply, see page 70



Circumferential strap, see page 71



Hand winch, see page 71



Storage and transport box, see page 71



### Rapid-assembly aluminium gantry crane, type CS-SKD, stationary version, double beam

#### Description:

This aluminium gantry crane version is suited to uses in which the maximum lift should be used in proportion to the total height. Furthermore, the double beam version is used as the perfect aid for various uses at higher load capacities.



Further descriptions and features can be found on page 64.

#### Scope of delivery:

- 2 x side frames, foldable with height-adjustable beam supports (grid dimensions 50 mm) with height-adjustable positioning feet (grid dimensions 40 mm)
- 1 x aluminium double beam (1 set = 2 individual beams)
- 1 x top, lockable trolley
- 1 x stop buffer
- 1 x integrated horizontal adjustment mechanism
- 1 x push-fit support

#### Variant (version):

##### Aluminium gantry crane with divisible, push-fit aluminium beam

The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation. The individual pieces can be also be used as a double beam.

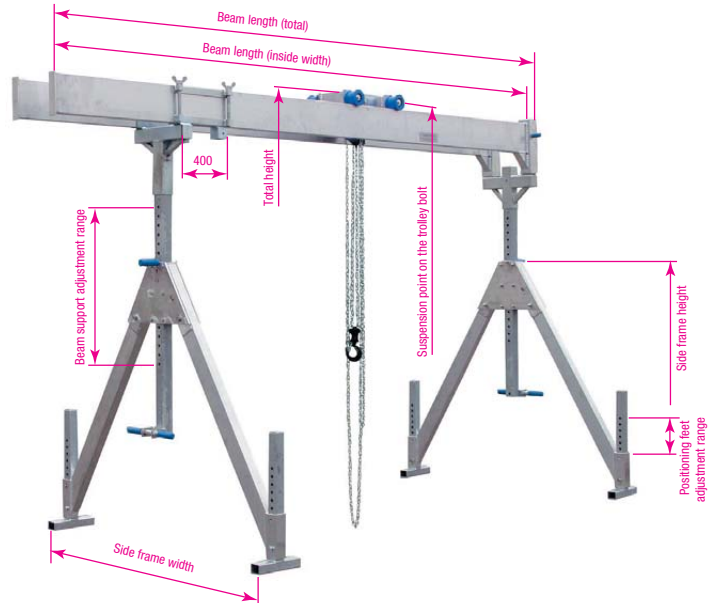
The following combinations are possible:

##### Beam length 4,000 mm

1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)

##### Beam length 6,000 mm

1. Beam length 2,000 mm
2. Beam length 4,000 mm
3. Beam length 6,000 mm (2,000 + 4,000 mm)



**Caution:**  
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 122.

#### Aluminium double beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4184	2150/3570	2240/3660	1020	400	1740	172	10251500015024
1000	6000/6184	2150/3570	2240/3660	1020	400	1740	224	10251500015030
2000	4000/4184	2640/3790	2730/3880	750	400	2230	258	10251500015026
2000	6000/6184	2640/3790	2730/3880	750	400	2230	294	10251500015032
3000	4000/4184	2640/3790	2730/3880	750	400	2230	258	10251500015028
3000	6000/6184	2640/3790	2730/3880	750	400	2230	294	10251500015034

#### Aluminium double beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	2150/3570	2240/3660	1020	400	1740	162	10251500015023
2000	4000/4100	2640/3790	2730/3880	750	400	2230	248	10251500015025
3000	4000/4100	2640/3790	2730/3880	750	400	2230	248	10251500015027



Beam lengths of up to 8 m available for quick delivery (3 t up to 6 m). Special versions for many areas of use!

Please contact us with your questions!

#### Accessories



Wall bracket, see page 70



Trolley, see page 70



Cabling/power supply, see page 70



Circumferential strap, see page 71



Hand winch, see page 71



Storage and transport box, see page 71

## Rapid-assembly Aluminium Gantry Cranes

### Rapid-assembly aluminium gantry crane, type CS-FKE, version 'movable under load', single beam

#### Description:

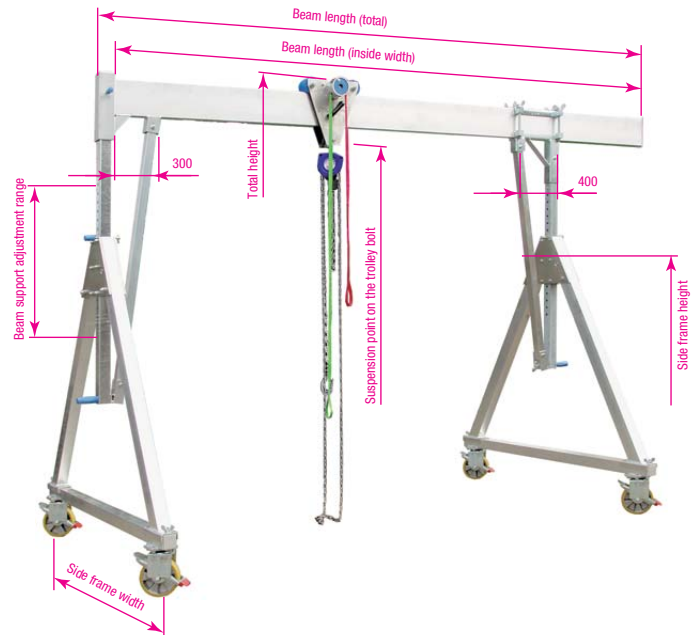
With this crane type, the load can be hoisted, moved to the aluminium beam using the trolley and set down. It is also possible to move the entire constructed aluminium gantry crane, even under load.



Further descriptions and features can be found on page 64.

#### Scope of delivery:

- 2 x side frame, foldable with height-adjustable beam support (grid dimensions 50 mm) incl. 4 sheet steel guide rollers, diameter 50 mm with heavy-duty polyurethane tread and with integrated wheel and slewing ring brake
- 1 x aluminium beam
- 1 x lockable trolley
- 1 x stop buffer
- 1 x integrated horizontal adjustment mechanism



#### Variant (version):

##### Aluminium gantry crane with divisible, push-fit aluminium beam

The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation. One of the two items (with sleeve) can also be used as a single beam.

The following combinations are possible:

1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)



**Caution:**  
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 122.

#### Aluminium beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	1730/2130	2110/2510	400	1490	180	10251500015036
1000	4000/4100	2170/3020	2550/3400	850	2000	202	10251500015040
1000	4000/4100	2500/3800	2880/4180	1300	2320	220	10251500015044
1500	4000/4100	1730/2130	2110/2510	400	1490	196	10251500015038
1500	4000/4100	2170/3020	2550/3400	850	2000	218	10251500015042
1500	4000/4100	2500/3800	2880/4180	1300	2320	236	10251500015046

#### Aluminium beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	1730/2130	2110/2510	400	1490	167	10251500015035
1000	4000/4100	2170/3020	2550/3400	850	2000	189	10251500015039
1000	4000/4100	2500/3800	2880/4180	1300	2320	207	10251500015043
1500	4000/4100	1730/2130	2110/2510	400	1490	175	10251500015037
1500	4000/4100	2170/3020	2550/3400	850	2000	197	10251500015041
1500	4000/4100	2500/3800	2880/4180	1300	2320	215	10251500015045

#### Accessories



Wall bracket, see page 70



Cabling/power supply, see page 70



Circumferential strap, see page 71



Hand winch, see page 71



Storage and transport box, see page 71



**Special versions for many areas of use!**  
Please contact us with your questions!

### Rapid-assembly aluminium gantry crane, type CS-FKD, version 'movable under load', double beam

#### Description:

In addition to the benefits of the 'stationary product with a double beam', this aluminium gantry crane also offers a further great feature: it can and may be moved with a suspended load, e.g. for positioning over machinery. The load capacity is up to 3,000 kg.



Further descriptions and features can be found on page 64.

#### Scope of delivery:

- 2 x side frame, foldable with height-adjustable beam support (grid dimensions 50 mm) including sheet steel guide rollers, diameter 50 mm with heavy-duty polyurethane tread and with integrated wheel and slewing ring brake
- Version 1,000 kg and 1,500 kg: x 4
- Version 2,000 kg and 3,000 kg: x 8
- 1 x aluminium double beam
- 1 x top, lockable trolley
- 1 x stop buffer
- 1 x integrated horizontal adjustment mechanism
- 1 x push-fit support

#### Variant (version):

##### Aluminium gantry crane with divisible, push-fit aluminium beam

The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation. One of the two items (with sleeve) can also be used as a double beam.

The following combinations are possible:

1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)

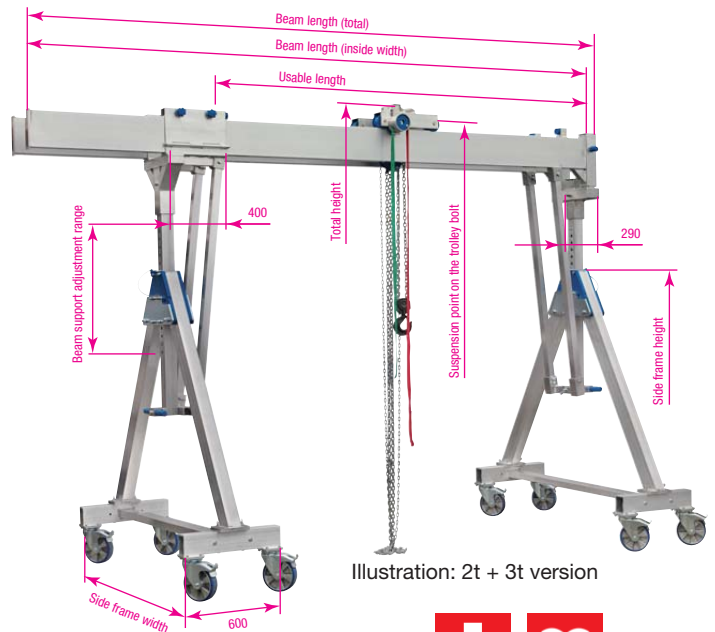


Illustration: 2t + 3t version



**Caution:**  
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 122.

#### Aluminium double beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	2060/2460	2150/2550	400	1490	244	10251500015048
1000	4000/4100	2500/3350	2590/3440	850	2000	270	10251500015054
1000	4000/4100	2830/4130	2920/4220	1300	2320	288	10251500015060
2000	4000/4100	2120/2470	2210/2560	350	1350/600	310	10251500015050
2000	4000/4100	2620/3370	2710/3460	750	1870/600	336	10251500015056
2000	4000/4100	3030/4180	3120/4270	1150	2220/600	358	10251500015062
3000	4000/4100	2120/2470	2210/2560	350	1350/600	310	10251500015052
3000	4000/4100	2620/3370	2710/3460	750	1870/600	336	10251500015058
3000	4000/4100	3030/4180	3120/4270	1150	2220/600	358	10251500015064

#### Aluminium double beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	2060/2460	2150/2550	400	1490	234	10251500015047
1000	4000/4100	2500/3350	2590/3440	850	2000	260	10251500015053
1000	4000/4100	2830/4130	2920/4220	1300	2320	278	10251500015059
2000	4000/4100	2120/2470	2210/2560	350	1350/600	300	10251500015049
2000	4000/4100	2620/3370	2710/3460	750	1870/600	326	10251500015055
2000	4000/4100	3030/4180	3120/4270	1150	2220/600	348	10251500015061
3000	4000/4100	2120/2470	2210/2560	350	1350/600	300	10251500015051
3000	4000/4100	2620/3370	2710/3460	750	1870/600	326	10251500015057
3000	4000/4100	3030/4180	3120/4270	1150	2220/600	348	10251500015063



Beam lengths of up to 8 m available for quick delivery (3 t up to 5 m).  
Special versions for many areas of use!  
Please contact us with your questions!

**Accessories**  
see type CS-FKE



### Wall bracket for aluminium gantry cranes in the versions 'stationary' and 'movable under load'

#### Description:

- The wall bracket facilitates the attachment of the beam to a wall. This widens the field of possible applications especially when used through door or window openings.
- The single/double aluminium beam can be slewed through 180° at the wall bracket (in unloaded condition)

For gantry crane 10251500015...	Item no.
stationary version: ...009, ...014, ...017, ...021 ...011, ...015, ...018, ...020	10401500015088
stationary version: ...013, ...016, ...019, ...022	10401500015089
version movable under load: all cranes on page 68	
all aluminium gantry cranes, double beam	10401500015090
stationary version: all cranes on page 65	
version movable under load: all cranes on page 69	



### Wheel sets for stationary aluminium gantry cranes

#### Description:

- Facilitates moving of the assembled, unloaded gantry crane easily to its next operating site
- The integrated forks permit the lateral stands to stay upright during assembly and disassembly of the crane
- The wheel sets are individually height-adjustable
- The spring-mounted wheels allow the lateral stands to rest directly on the supports when under load
- No need for assembly or disassembly
- Scope of delivery: 4 pcs 'forks' = 1 wheel set

#### Wheel set for indoor use:

##### Vulkollan wheels

For gantry crane	Item no.
stationary version	10401500015087



#### Wheel set for indoor and outdoor use:

##### Solid rubber wheels

For gantry crane	Item no.
stationary version	10401500015086



### Wiring/power supply for aluminium gantry cranes in the versions 'stationary' and 'movable under load'

#### Description:

- The portal crane is delivered ready to use
- Power supply 400 V/16A, 50 Hz, 5-pole with switch (standard version)
- Phase changing 5-pole CEE plug
- PUR coiled cable
- Electrical connection of the hoist is effected by a 6-pole plug
- All electrical components are suitable for indoor and outdoor use under normal operating conditions.

For gantry crane	Item no.
stationary version	10401500015084
version 'movable under load' 'single beam'	
stationary version	10401500015083
version 'movable under load' 'double beam'	



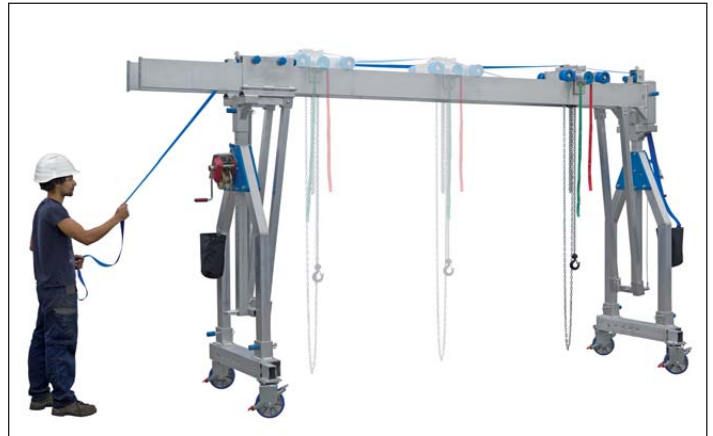
**When ordering an accessory indicate item no. of your aluminium gantry crane!**  
The manual hoist devices and electrical chain hoist shown are not included in the scope of delivery.

### Circumferential strap for aluminium cranes in the versions 'stationary' and 'movable under load'

#### Description:

- The circumferential strap can be used to move the trolley with the suspended load to the single/double aluminium beam.
- The operator can remain outside the hazardous area while moving the trolley. This makes work far easier.
- With integrated clamping plates at both ends of the strap. These components are used to weight load the circumferential strap.
- With integrated clamp device
  - on both face sides of the aluminium beam (single beam)
  - on the push-fit support and the horizontal adjustment mechanism (double beam)
- This gives the circumferential strap the necessary tension, i.e. the area under the lockable trolley is clear.
- With 2 storage options on the 2 side frames (the circumferential strap can be stored here).

For gantry crane	Item no.
stationary version version 'movable under load' 'single beam'	10401500035105
stationary version version 'movable under load' 'double beam'	10401500035106



### Hand winches for height adjustment for aluminium cranes in the versions 'stationary' and 'movable under load'

#### Description:

- For height adjustment (Not to be used under load).
- The aluminium gantry crane can be assembled on a low level.
- Afterwards it can be raised to the desired working height using the hand winches.
- Caution: the hand winch must be activated from both sides.
- Scope of delivery: 1 set = 2 winches (1 per lateral stand)

**!** When ordering an accessory indicate item no. of your aluminium gantry crane!  
The manual hoist devices and electrical chain hoist shown are not included in the scope of delivery.

For gantry crane	Item no.
Suitable for all aluminium gantry cranes	10401500015085



### Storage/transport box for aluminium gantry cranes in the versions 'stationary' and 'movable under load'

#### Description:

- Material: Aluminium. Rugged construction with hinged lid
- Plate for padlock
- Shell handles on the lid
- Ultra-elasticated solid rubber tyres with integrated wheel and slewing ring brake
- The storage and transport box can be moved individually and unassisted.
- The base is reinforced so it can be transported with a pallet truck or a forklift (e.g. for loading on a vehicle).
- The single components of the aluminium gantry crane can be stowed completely and in a space-saving way. Ideal for safe storage and transport.
- Mechanics at site always have a complete crane system at hand.

Item no.	10401500035826	10401500035427	10401500035412
Outer dimensions:			
Length in mm	2400	3000	4200
Width in mm	685	685	685
Height in mm	660	660	1000
Overall height with wheels	860	860	1200
Weight in kg	80	95	180



**!** Please inform us which aluminium gantry crane (plus accessories) you would like. We will then recommend the ideal storage and transport box.  
This product is continually tailored to the respective aluminium gantry crane.

**!** When ordering an accessory indicate item no. of your aluminium gantry crane!  
The manual hoist devices shown are not included in the scope of delivery.

### Aluminium Workshop Crane without counterweight

**Aluminium Workshop Crane**  
**Load capacity 250 kg**

**Version without counterweight**  
**Dead weight 70 kg**

#### Description:

- The Aluminium Workshop Crane has been specially developed for businesses in need of a mobile lifting device
- Folded for transport it will fit into a van
- Top of mast extension is detachable
- The lifting fork is height adjustable under load.
- The product can be individually moved and rotated almost 'on the spot'.
- With just a few turns the Aluminium Workshop Crane can be folded away
- It can be moved into both euro flat pallets and pallet cages.

#### Scope of delivery:

- With crane arm (ref. figure 1)
- With lifting fork (ref. figure 2)
- With wire rope winch, including fold-down handle
- Driving fork height 95 mm (from the floor to the upper edge of the driving fork)
- Driving fork width 560 mm
- With 2 heavy-duty wheels  
With a wheel and slewing ring brake  
With elasticated solid rubber tyres, diameter 160 mm  
These wheels are attached to the basic frame.
- With 2 guide rollers or fork wheels made from high-grade plastic, diameter 80 mm  
These wheels are attached to the driving fork.
- With safety load hook with swivel (rotatable by 360° under load)
- Dimensions when folded up: 496 x 750 x 1,300 mm

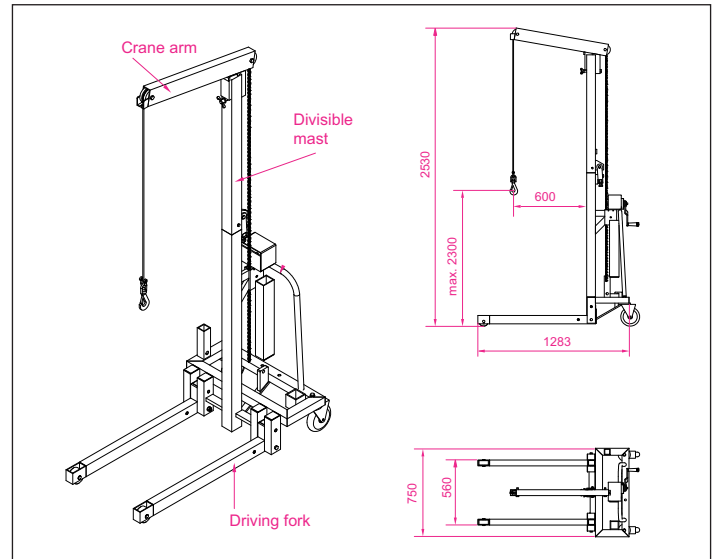
**Figure 1:**  
**Version with crane arm**

- Total height 2,530 mm
- Jib length 600 mm
- Hook path 0 - 2,300 mm

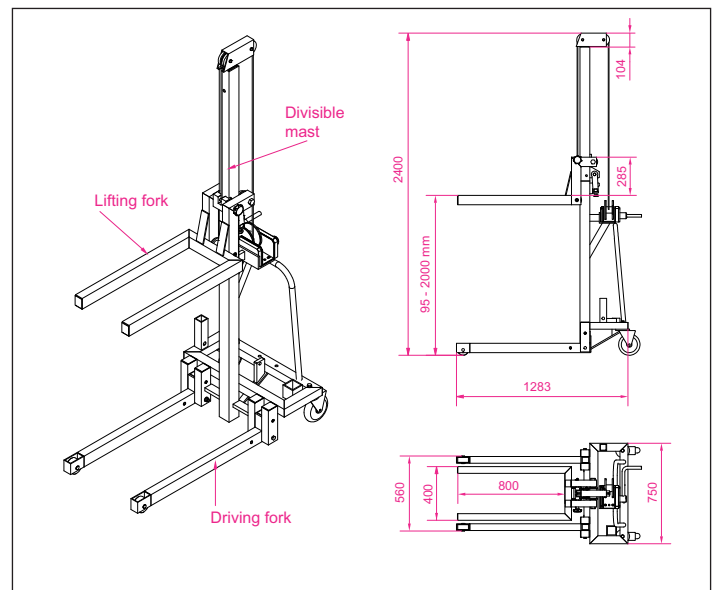
**Figure 2:**  
**Version with lifting fork**

- Total height 2,400 mm
- Width of lift. fork 400 mm
- Length of lift. fork 800 mm
- Lifting height 95 - 2,000 mm

**Version with crane arm - figure 1**



**Version with lifting fork - figure 2**



Load capacity in kg	Type	Lifting height w/ lifting fork in mm	Width of lift. fork in mm	Length of lift. fork in mm	Width of base forks in mm	With crane arm		Dimensions folded in mm	Weight in kg/pce	Item no.
250	without counterweight	2000	400	800	560	Jib length in mm	Hook path in mm	496 x 750 x 1300	70	10151000015001

**Special versions for many areas of use!**  
**Please contact us with your questions!**





### Aluminium Workshop Crane with counterweight

**Aluminium Workshop Crane**  
Load capacity 250 kg

**Version with counterweight**  
Dead weight 400 kg

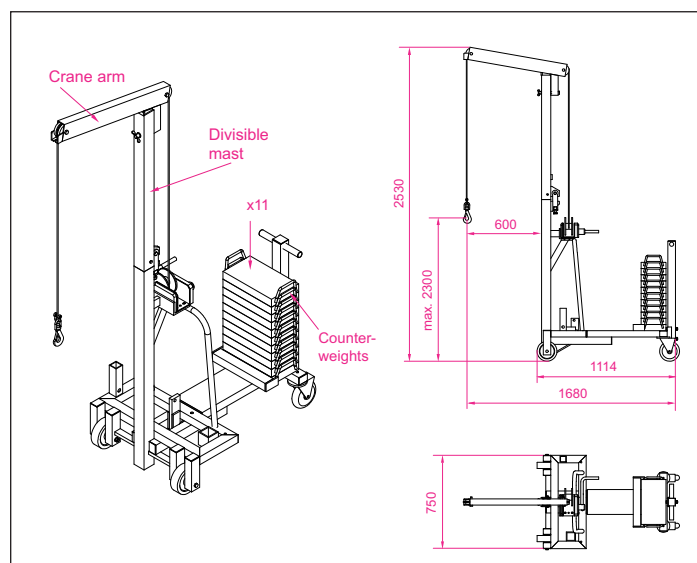
#### Description:

- The Aluminium Workshop Crane has been specially developed for businesses in need of a mobile lifting device
- Folded for transport it will fit into a van
- Top of mast extension is detachable
- The lifting fork is height adjustable under load.
- The product can be individually moved and rotated almost 'on the spot'.
- With just a few turns the Aluminium Workshop Crane can be folded away
- It can be moved into both euro flat pallets and pallet cages.
- The attachment part (including the counterweight) can be removed from the Aluminium Workshop Crane.

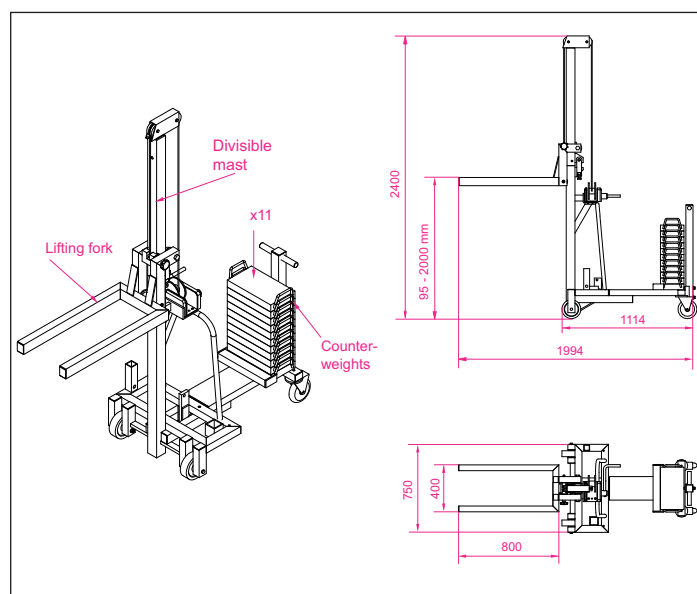
#### Scope of delivery:

- With crane arm (ref. figure 3)
- With lifting fork (ref. figure 4)
- With wire rope winch, including fold-down handle
- With 11 counterweights  
The counterweights are equipped with a lock to prevent them from being accidentally removed.
- With 2 heavy-duty wheels  
With elasticated solid rubber tyres, diameter 160 mm  
These wheels are attached to the basic frame (front).
- With 2 heavy-duty wheels  
With a wheel and slewing ring brake  
With elasticated solid rubber tyres, diameter 160 mm  
These wheels are attached to the attachment part (back).
- With safety load hook with swivel (rotatable by 360° under load)
- Dimensions when folded up: 432 x 750 x 1,300 mm + attachment part

Version with crane arm - figure 3



Version with lifting fork - figure 4



**Figure 3:**

#### Version with crane arm

- Total height 2,530 mm
- Jib length 600 mm
- Hook path 0 - 2,300 mm

**Figure 4:**

#### Version with lifting fork

- Total height 2,400 mm
- Width of lift. fork 400 mm
- Length of lift. fork 800 mm
- Lifting height 95 - 2,000 mm

Load capacity in kg	Type	Lifting height w/ lifting fork in mm	Width of lift. fork in mm	Length of lift. fork in mm	Width of base forks in mm	With crane arm Jib length in mm	Hook path in mm	Dimensions folded in mm	Weight in kg/pce	Item no.
250	with counterweight	2000	400	800	-	600	2300	432 x 750 x 1300 + attachm.part	400	10151000015002



**Special versions for many areas of use!**  
Please contact us with your questions!



Aluminium Tripod

Aluminium tripod with rubber-metal feet - Load capacity 3,000 kg

Description:

- Used to hoist loads, especially in places that are difficult for conventional devices to access.
- Wide adjusting range due to telescopic legs
- The ring bolt can be rotated 360° under load.
- High stability through anti-slip rubber-metal linings on bottom of legs
- Stability guaranteed.
- The sophisticated design means that no safety chain or similar is required with our standard version.

Description - Aluminium Tripod - fig. 1:

- Collapsible, overall height for transport 2 m, diameter approx. 450 mm (e.g. in transport condition).

Description - Aluminium Tripod with hand winch - fig. 2:

- Collapsible, overall height for transport 2,200 mm, diameter approx. 600 mm (e.g. in transport condition).
- The winch crank is equipped with a drum direct-gear allowing to quickly wind off the unloaded cable (with integrated safety hook)
- The winch is detachable and can be flange-mounted at any desired height on the tripod
- Rope length 25 m, rope ø 8 mm
- The load can be suspended from either the safety load hook on the rope or directly from the ring bolt.

Load capacity in kg	Type	Lifting height min./max. in mm	Weight in kg/pce	Item no.
1000	standard	1765-3195	54	10350000015001
1000	w/ hand winch	1765-3195	74	10350000015002
2000	standard	1765-3195	66	10350000015046
3000	standard	1765-3195	110	10350000015048

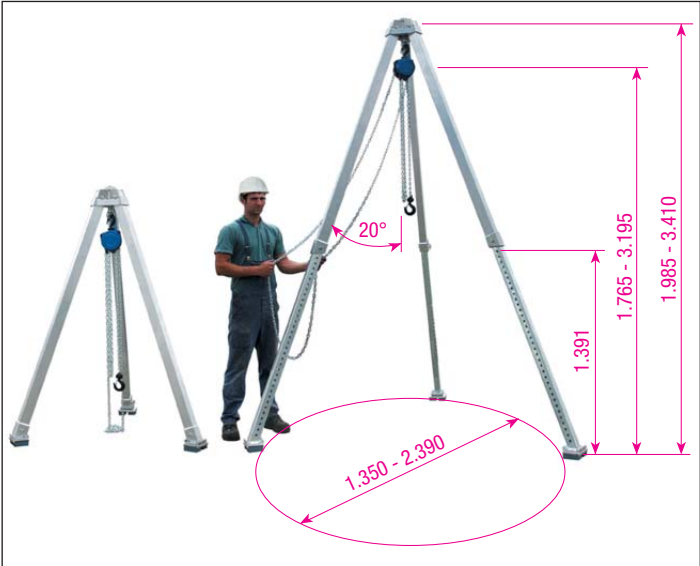
NEW!



Please note: Pictured chain block and securing chain not included.

For chain blocks see from page 122

Aluminium Tripod - figure 1



Aluminium Tripod with hand winch - figure 2



On request the aluminium tripods are also available with an electric wire rope winch. Please contact us for details!





Aluminium gantry cranes for the most individual and diverse applications





### Movable Workshop Cranes with Parallel or Spread Chassis, Foldable

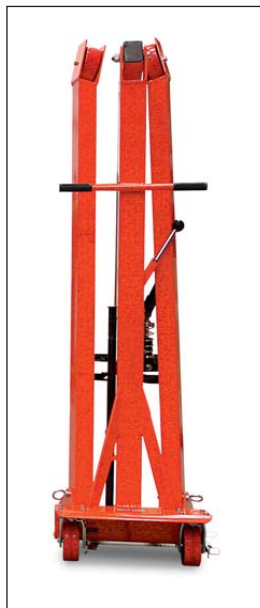
High-quality lightweight crane for occasional use with parallel or spread chassis. Optional working load limit of 500 kg or 1,000 kg.

#### Benefits:

- Can be quickly and easily folded up into a compact size for periods of non-use
- Easy-to-operate lever for manual hydraulic hoisting of the load
- Remains movable even when folded up (without load)
- Ideal assistant for occasional use with the largest lift in its device class
- 80 mm lift without load, 20 mm lift with load
- With locking device on the guide wheels



Type PKS folded



Type VKS folded



F500PKS  
F1000PKS



F500VKS  
F1000VKS

#### Parallel chassis

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in front of hydraulics in mm	Chassis outer/inner in mm	Lifting height* in mm	Weight in kg/pce	Item no. Parallel chassis
500 - 250	F500PKS	0	790-1090	1000/900	2100/2330	130	10151000015003
1000 - 500	F1000PKS	0	790-1090	1000/900	2100/2330	135	10151000015004

\* Max. with jib arm retracted/jib arm extended

#### Spread chassis

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in front of hydraulics in mm	Chassis outer/inner in mm	Lifting height* in mm	Weight in kg/pce	Item no. Spread chassis
500 - 250	F500VKS	0	790-1090	1000/900	2100/2330	125	10151000015013
1000 - 500	F1000VKS	0	790-1090	1000/900	2100/2330	125	10151000015014

\* Max. with jib arm retracted/jib arm extended

### Movable Workshop Cranes with Parallel Chassis 'Industry'

High-quality workshop crane 'made in Germany' for regular industrial use with a parallel chassis for straddling euro pallets or pallet cages. Optional working load limit of 1,000 kg, 2,000 kg or 3,000 kg.

#### Benefits:

- Robust design, therefore highly durable
- 13 jib positions for large jib lengths and lifting heights
- Adjustable manual pump reduces the effort in relation to heavy loads and enables faster pumping without or with small loads
- Pump enables the load to be held for a long time without being lowered
- Mechanical drive positioner reduces the effort required to move the crane and enables a controlled approach to expensive machinery or with sensitive loads
- The crane and load can be moved by a single person – even with a 3 ton load
- In connection with the 180°-steerable drawbar of the mechanical drive positioner, the crane is extremely versatile
- Manual device

**Robust and durable!**



Mechanical drive positioner

HB2000FaPo  
also straddles  
1,000 mm pallets



Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in front of hydraulics in mm	Chassis outer/inner in mm	Lifting height* in mm	Weight in kg/pce	Item no.
1000 - 90	HB1000FaPo	0-1488	650-2450	980/825	2350/3750	290	10151000015005
2000 - 155	HB2000FaPo	0-1730	1100-3200	1250/1050	3450/5390	520	10151000015006
3000 - 200	HB3000FaPo	0-1635	1100-3200	1600/1400	3475/5410	800	10151000015007

\* Max. with jib arm retracted/jib arm extended

Industry Crane with Counterweight 'Industry'

High-quality, particularly durable industrial crane with a counterweight 'made in Germany' for regular industrial use. Optional working load limit of 500 kg, 1,000 kg or 2,000 kg.

Benefits:

- Ideal for maintenance work conducted indoors or above machinery
- Thanks to the chassis being placed at the back, loads or machinery can be directly approached
- 13 jib positions for large jib lengths and load bearing capacities
- Adjustable manual pump reduces the effort in relation to heavy loads and enables faster pumping without or with small loads
- Pump enables the load to be held for a long time without being lowered
- Mechanical drive positioner reduces the effort required to move the crane and enables a controlled approach to expensive machinery or with sensitive loads
- Even the HB2000GKFapo can be moved by a single person
- In connection with the 180°-steerable drawbar of the mechanical drive positioner, the crane is extremely versatile
- Manual device



HB500GKFapo



Mechanical drive positioner

HB1000GKBRP is also available with electric operation ON REQUEST!



HB1000GKBRP  
Even more convenient and productive thanks to the electric lift and drive unit

Load capacity max. in kg	Type	Jib range in front of hydraulics in mm	Jib range in front of wheels in mm	Jib range in mm	Chassis outer in mm	Lifting height* in mm	Weight in kg/pce	Item no.
500 - 90	HB500GKFapo	630-2430	730-2530	1100-2900	800	2400/3750	360 +1000**	10151000015010
1000 - 90	HB1000GKFapo	630-2430	730-2530	1100-2900	800	2400/3750	365 +1000**	10151000015011
2000 - 155	HB2000GKFapo	1075-3175	1025-3125	1650-3750	1000	3240/5000	650 +2000**	10151000015012

\* Max. with jib arm retracted/jib arm extended

\*\* The crane is only operational with the counterweight box filled. Counterweight filling material can be ordered with your crane at extra cost.



### Counterweight Crane

High-quality, particularly durable industrial crane with a counterweight 'made in Germany' and a load capacity of 500 kg for occasional use.

#### Benefits:

- Dual-action manual hydraulics for securely lifting and lowering the load
- Thanks to the chassis being placed at the back, loads or machinery can be directly approached
- Simple manoeuvrability thanks to manual drawbar with steering control deflection of 180 degrees
- Device locked into place by positioning the drawbar vertically
- Drive-through width of just 800 mm, meaning the device fits through almost any door
- Convenient operation thanks to the large safety load hook and ergonomic handles for positioning the boom
- Comes with filled counterweight boxes



ITi500N folded away



ITi500N

**Greatest manual lift in its class! Lift of 1 m reached with just 8-16 strokes.**

#### Further advantages of the ITi500B07:

- Design with battery-operated electric lift
- Comes with battery and a separate charger
- With adjustable lowering speed as standard



ITi500B07

**The electric lift makes things even easier! The manual button enables you to choose whether to stand by the crane or the load.**

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in mm	Chassis outer in mm	Lifting height* in mm	Weight in kg/pce	Item no.
500 - 175	ITi500N	465-1625	925-2085	800	2300/2950	600	10151000015008
500 - 220	ITi500B07	465-1625	925-2085	800	2300/2950	745	10151000015009

\* Max. with jib arm retracted/jib arm extended

Hydraulic Counterweight Crane with collapsible Jib Arm

3 models with max. capacities of 250 kg, 350 kg and 550 kg

- Ideal for loading and unloading of trucks and for lifting and lowering of machines, work at loading ramps etc.
- All models with double-action hydraulic pump (lifting on every pump movement)
- Big jib range due to adjustable jib arm (5 positions)
- Collapsible jib arm for space-saving transport and storage
- Handle-controlled tandem steering wheels with locking mechanism on the basic frame
- Big wheels with ball bearing and foot guard
- Safety swivel hook with 360° rotation
- Delivery includes counterweight box and tool tray

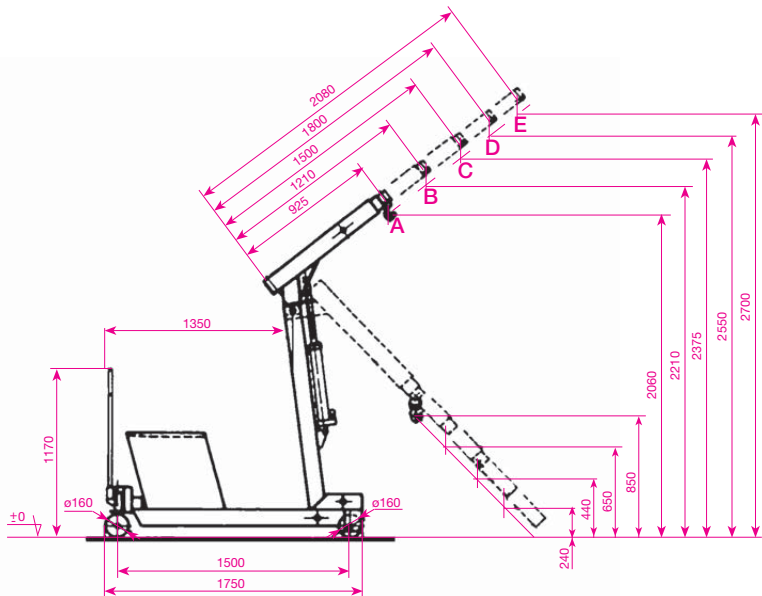
- Counterweight blocks:  
each block has a threaded jacket into which a ring bolt can be screwed so that the block can be easily removed/attached using a forklift/crane once the two mounting screws on the frame have been loosened.  
This makes the counterweight crane easier to transport and suitable for use on several building sites.  
The block is highly stable and has a tool tray.  
The rounded edges offer greater safety and make the block more attractive.
- Scope of delivery:  
Counterweight crane with counterweight block and tool tray (fully assembled ready for operation)
- Individual custom solutions available on request



MKS 550 G



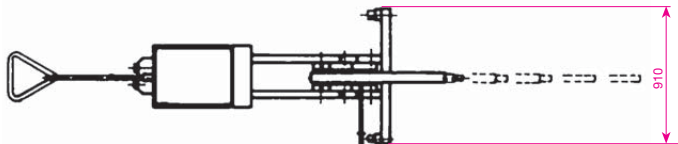
MKS 550 G  
folded away



Control lever/button



Tandem wheels



Load capacity max. in kg	Type	Load capacity at jib arm length in kg					Weight in kg/pce	Item no.
		925 mm A	1210 mm B	1500 mm C	1800 mm D	2080 mm E		
250	MKS 250G	250	200	150	100	50	390	10151000015021
350	MKS 350G	350	280	210	150	100	460	10151000015022
550	MKS 550G	550	450	350	250	150	600	10151000015023

### Workshop Crane with hinged jib arm and V-shaped chassis, for occasional use

#### Load capacities 500 and 1,000 kg

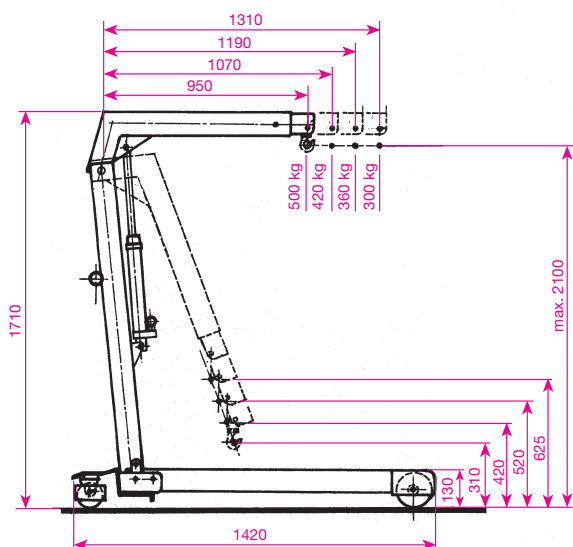
- All models with double-action hydraulic pump (pump lever works in both directions to lift the load faster)
- Jib arm adjustable in 4 positions
- Rugged hydraulics with precisely adjustable lowering speed
- Both steering wheels with foot brake
- Big wheels for easy movement
- All wheels with foot guard
- All cranes CE-marked



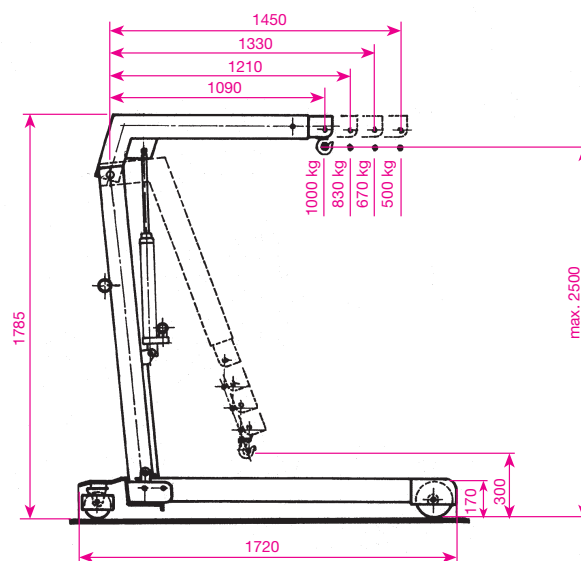
MKS 500 DW-S



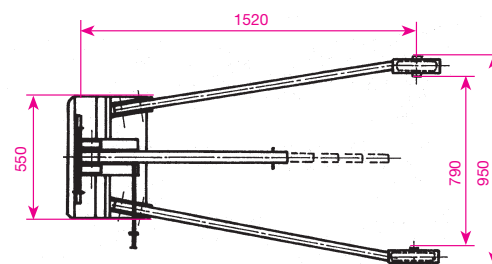
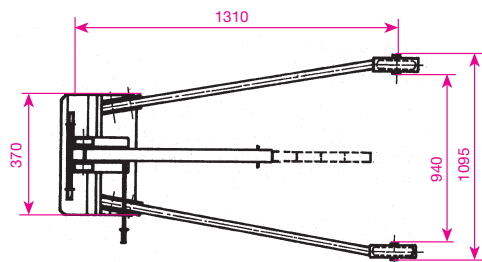
MKS 500 DW-S  
folded away



MKS 500 DW-S



MKS 1000 DW-S



Load capacity max. in kg	Type	Chassis	Characteristics	Weight in kg/pce	Item no.
500	MKS 500 DW-S	V-shaped	foldable	73	10151000015015
1000	MKS 1000 DW-S	V-shaped	foldable	108	10151000015016



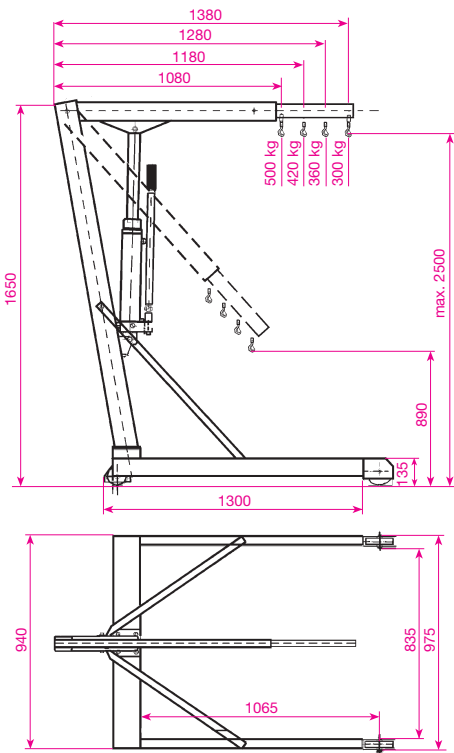
Workshop Crane, collapsible with parallel Chassis for Work over Pallets

Load capacities 500 and 1,000 kg

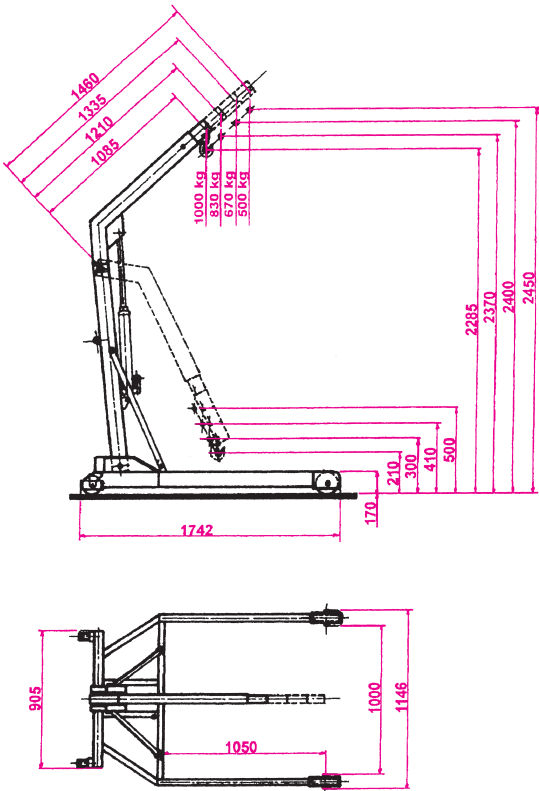
- All models with double-action hydraulic pump (pump lever works in both directions to lift the load faster)
- Jib arm adjustable in 4 positions
- Rugged hydraulics with precisely adjustable lowering speed
- Both steering wheels with foot brake (MKS 500 PDW + MKS 1000 PDW)
- Big wheels for easy movement
- All wheels with foot guard
- All cranes CE-marked



MKS 1000 PDW



MKS 500 PDW



MKS 1000 PDW

Load capacity max. in kg	Type	Chassis	Characteristics	Weight in kg/pce	Item no.
500	MKS 500 PDW	parallel	collapsible	73	10151000015017
1000	MKS 1000 PDW	parallel	collapsible	121	10151000015018

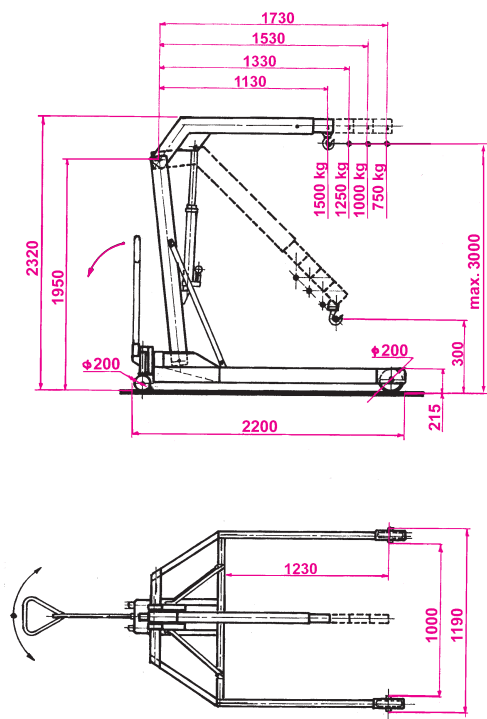
### Workshop Crane, collapsible with parallel Chassis for Work over Pallets

#### Load capacities 1,500 and 2,000 kg

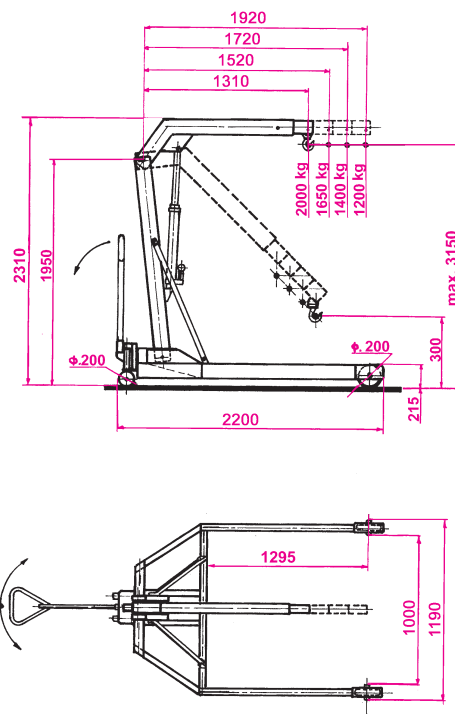
- All models with double-action hydraulic pump (pump lever works in both directions to lift the load faster)
- Jib arm adjustable in 4 positions
- Rugged hydraulics with precisely adjustable lowering speed
- PU wheels on aluminium rim. All 4 wheels with ball bearing, Ø 200 mm (MKS 1500 PDW + MKS 2000 PDW)
- Handle bar-steered tandem wheels with locking device at the frame (MKS 1500 PDW + MKS 2000 PDW)
- Big wheels for easy movement
- All wheels with foot guard
- All cranes CE-marked



Photo shows type  
MKS 2000 PDW



MKS 1500 PDW



MKS 2000 PDW

Load capacity max. in kg	Type	Chassis	Characteristics	Weight in kg/pce	Item no.
1500	MKS 1500 PDW	parallel	collapsible	230	10151000015019
2000	MKS 2000 PDW	parallel	collapsible	250	10151000015020

# LIFTING EQUIPMENT



Powered Lifting Equipment

Air Hoists | Electric Chain Hoists | Drum winches | Traction sheave winches

Rope pulling machines | Accessories





#### Manual Lifting Equipment

Lever Hoists | Chain Blocks | Hoist Chains | Trolleys | Retractors/Balancers

Drum winches | Gear rack winches, spindle jack | Rope pulling machines | Accessories



In order to harmonise explosion protection and to adapt it to a new guideline concept, the European Union issued the EU directive 94/9/EC in 1994. It governs the requirements for explosion protected equipment and protective systems by approximating essential safety requirements (GSA) of the EC treaty between the member states. This is also where the designation ATEX 95 used among experts derives from; formerly ATEX 100a.

The scope of this directive covers all industrial ex-areas including mining and also includes dust explosion protection. It applies to all electrical but also mechanical equipment and protective systems. Apart from the essential safety requirements also the classification of equipment and protective devices in groups has been newly regulated, as well as their certification and marking.

Only equipment which has been marked accordingly must be used in explosive environments.

For placing on the market of explosion protected equipment the EU directive 94/9/EC is in effect since 01 March 1996.

According to directive ATEX 95 (EU directive 94/9/EC) the manufacturer has to ensure that from 2003 his lifting devices are produced according to the valid rules, standards and regulations for explosion protected equipment. They also must be assigned to ex-classes and marked accordingly.

## Hazardous zones categories

Hazardous places are classified in terms of zones. For the zone classification refer to IEC 60079-10 and national standards. The chart below shows the zone classification in connection with the equipment category.

Gases, mists, vapours	Equipment category	Dusts	Equipment category	Presence of explosive atmosphere
Zone 0	1G	Zone 20	1D	continuously/for long periods/frequently
Zone 1	2G	Zone 21	2D	occasionally
Zone 2	3G	Zone 22	3D	only rarely and for a short period of time

## Temperature classes

The maximum surface temperature of the equipment must be lower than the ignition temperature of the gas/vapour/air mixture. Equipment approved for higher temperature classes, can of course be used in places where a lower temperature class is required. As in practice gas/air mixtures in T5 do not occur at all, and for T6 only occur occasionally with special gas/air mixtures like sulfur hydrocarbon (IIC), our lifting devices have not been assigned to these temperature classes.

Temperature class	Gas ignition temperature in °C	Max. surface temperature of the equipment in °C
T1	>450	450
T2	>300 < 450	300
T3	>200 < 300	200
T4	>135 < 200	135
T5	>100 < 135	100
T6	>85 < 100	85

## Explosion protected lifting devices and load suspension equipment

For use in explosive environments Carl Stahl offers a wide range of spur wheel chain blocks which can be combined either with a push trolley or a geared trolley, air-powered or electric chain hoists, manual, electric or air-powered monorail trolleys, and air driven winches.

Three different versions are offered: compact, low headroom and extremely low headroom to allow best possible adaption to all conditions even in confined spaces.



(1) Marking of explosion protection according to "ATEX 95"

(2) Equipment group:  
I = For underground workings/mines  
II = For all other areas subject to explosion hazard

(3) ATEX category:  
1 = Continuous, long-term and frequent danger (>1000 hrs/year) Zone 0  
2 = Occasional danger (10-1000 hrs/year) Zone 1  
3 = Infrequent or short-term danger (<10 hrs/year) Zone 2

(4) G(as) = Areas with explosive gas, vapour, mist and air mixtures  
D(ust) = Areas with explosive dust air mixtures

(5) Explosion group based on material: IIA, IIB, IIC

(6) Temperature class

## Gas explosion groups

Flammable gases and vapours can be assigned to temperature classes based on their ignitability.

Substance designation	Ignition temperature	Temperature class	Explosion group
Acetone	540°C	T1	IIA
Ammonia	630°C	T1	IIA
Benzene (pure)	555°C	T1	IIA
Acetic acid	485°C	T1	IIA
Ethane	515°C	T1	IIA
Ethyl acetate	460°C	T1	IIB
City gas (illumination gas)	560°C	T1	IIB
Hydrogene sulfide	270°C	T3	IIC
Hydrogene	560°C	T1	IIB
Ethylene	425°C	T2	IIC
Acetylene	305°C	T2	IIA
Heating oil	300°C	T3	IIA
Acetaldehyde	140°C	T4	IIB
Ethyl ether	180°C	T4	



## Explosion protected lifting devices and load suspension equipment

Air-powered chain hoist  
Type Mini

 Page 89

 II3 GD II A T4(X)



Air-powered chain hoist  
Type PROFI

 Page 90

 II2 GD II A T4(X)  
II3 GD II B T4(X)



Air-powered chain hoist  
Type PROFI  
with motor trolley

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 II2 GD II A T4(X)  
II3 GD II B T4(X)



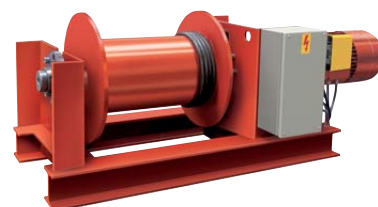
Electric and air-powered  
winch Type 43/86

 Page 102



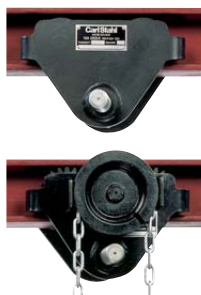
Electric wire rope winch  
with planetary gear

 Page 104



Trolleys type  
Type HTP and HTG

 Page 128



Yalelift360

 Page 123



Vacuum tube lifter Jumbo

 Page 218



The following items are available on request:

Electric chain hoist  
with trolley



Trolley



Chain block with  
geared trolley





POWERED LIFTING EQUIPMENT

Air Hoists



2 x 40 ton hoist for offshore use



Handling of wing sections with 2 air-powered hoists type Mini



Orin processing: Installation of a steam boiler with PROFI air hoists and motorized trolleys



of marine propellers with several PROFI air hoists  
Handling of high-pressure spray heads for cleaning of truck tanks with Mini air hoist



Dismantling of marine propellers with several PROFI air hoists



### Air Hoist Type Mini

#### The advantages of air hoists

Generally, air hoists can be used in the same areas as electric hoists. Being driven by compressed air, they are particularly suitable for use in hazardous environments. They are also resistant against moisture, vapours and dust and can be operated in temperatures between -20°C (-4°F) and +70°C (+158°F) (type Mini up to 50°C [122°F]). The duty time and availability is 100% - no dead time.

Load capacities: 125 kg, 250 kg, 500 kg, 980 kg  
Lifting heights: 3 m, 5 m, 8 m  
Control lengths: 2 m, 4 m, 6 m  
Air pressure: 6 bar

The Mini is a versatile hoist at a very reasonable price.

**Standard lifting height 3 m (max. 8 m)**

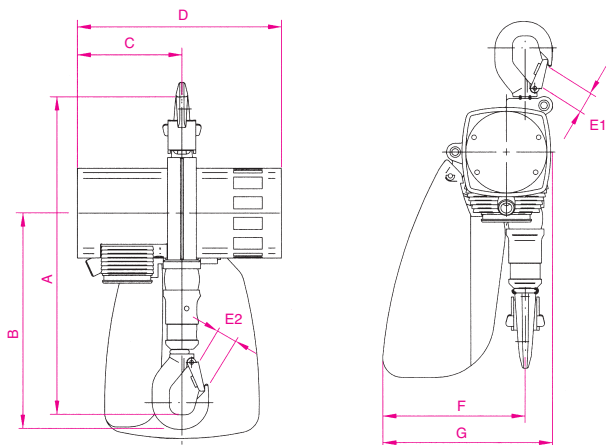
**Standard control cable length 2 m (max. 6 m)**

#### Benefits:

- Extremely compact at a minimum weight
- Suitable for oil-free operation
- Ideal and low-cost alternative to electric hoists
- Also suitable for horizontal pulling
- Aluminium push button control with emergency stop, maximum control cable length 6 m
- Also available with manual trolley
- Chain container for standard lifting height included



**Suitable for operation in hazardous areas according to 94/9/EC ("ATEX 100a"). Corresponds to II 3 GD II A T4(X). For detailed information on explosion protected hoists see pages 86-87.**



Type	Weight in kg/ pce	Item no. Standard lifting height 3 m	Weight in kg/ pce	Item no. Standard lifting height 5 m	Weight in kg/ pce	Item no. Standard lifting height 8 m
Mini 125	9.5	15121010015001	10.2	15121010015005	11.25	15121010015009
Mini 250	10.5	15121010015002	11.2	15121010015006	12.3	15121010015010
Mini 500	21.0	15121010015003	23.0	15121010015007	26.0	15121010015011
Mini 1000	23.0	15121010015004	25.0	15121010015008	28.0	15121010015012

Type	Load capacity in t	Chain falls	Power output in kW	Lifting speed at rated load m/min	Air consumption at rated load in m³/min		A lowest headroom	B	Dimensions in mm				F to centre hook	G max. width
									C	D	E1	E2		
Mini 125	0.125	1	0.4	15	0.5	0.7	328	232	109	213	19	19	148	177
Mini 250	0.250	1	0.4	8	0.5	0.7	328	232	109	213	19	19	148	177
Mini 500	0.500	1	1.0	10	1.2	1.6	458	316	148	292	28	28	194	234
Mini 1000	0.980	1	1.0	5	1.2	1.6	458	316	148	292	28	28	194	234

Lifting speed at 2 m control cable length. Longer control cable lengths reduce the lifting speed.



## Air Hoists

### Air Hoist PROFI

Load capacities: 250 kg to 16 ton  
(deliverable up to 100 t)

Standard lifting height 3 m  
Standard control cable length 2 m  
Air pressure: 6 bar

#### Advantages:

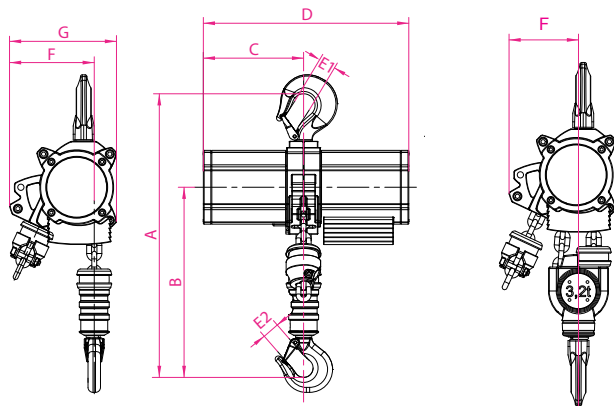
- Rugged construction, minimum headroom
- Suitable for oil-free operation
- Easy operation and low-maintenance
- Unlimited switching at non-stop operation
- Standard overload protection for load capacities 1,000 kg and over (in EC)
- Brass push button control with emergency stop
- Galvanised round steel chain according to EN 818



**Suitable for operation in hazardous areas according to 94/9/EG ("ATEX 100a")**  
**Corresponds to II2 GD II A T4(X) and II3 GD II B T4(X)**

**Improved spark protection for extremely high explosion-proof requirements. Please contact us for more information.**

**For detailed information on explosion protected hoists please see pages 86-87.**



1-leg

2-leg



Air hoists with load capacities up to 100 ton are available.

Type	Load capacity in t	Chain falls	Power output in kW	Lifting speed at rated load in m/min	Air consumption		A lowest headroom	B	Dimensions in mm								Weight kg/pce at height 3 m	Item no.
					Lifting	Lowering			C	D	E1	E2	F to centre hook	G max. width				
Profi 025 TI	0.25	1	1	20	1.2	1.5	450	288	145	297	28	28	137	176	27	15121010015013		
Profi 05 TI	0.5	1	1	11	1.2	1.5	450	288	145	297	28	28	137	176	27	15121010015014		
Profi 1 TI	1	1	1	5.5	1.2	1.5	450	288	145	297	28	28	137	176	28	15121010015015		
Profi 1,5 TI*	1.6	1	2	6	2.6	3.6	480	293	200	412	28	26	170	215	56	15121010015016		
Profi 2 TI	2	2	1	2.7	1.2	1.5	498	336	145	297	28	28	137	183	34	15121010015017		
Profi 3 TI*	3.2	1	3.5	5	4	5.5	593	373	233	483	40	30	187	233	86	15121010015018		
Profi 3 TI/2*	3.2	2	2	3	2.6	3.6	544	356	200	412	28	28	140	215	66	15121010015019		
Profi 6 TI*	6.3	2	3.5	2.5	4	5.5	674	454	233	483	40	40	154	233	110	15121010015020		
Profi 10 TI*	10	2	3.5	1.6	4	5.5	813	548	308	575	44	44	197	306	156	15121010015021		
Profi 16 TI*	16	3	3.5	1	4	5.5	898	598	382	692	53	53	199	308	240	15121010015022		

\* incl. chain container

Please note that higher lifting heights require a larger chain container which results in extra cost.



### Air Hoist PROFI with motorized Trolley

Load capacities: 250 kg to 16 ton  
(deliverable up to 20 t)

**Standard lifting height 3 m**

**Standard control cable length 2 m**

Air pressure: 6 bar

Make your PROFI go 'mobile' by means of an air-powered motor trolley. This combination stands out by its high availability and safety. The trolley is suitable for all I-beams according to DIN 1025 or similar types. Equipped with anti-climb and anti-drop devices the motor trolley is also suitable for curved track. Push button control with emergency stop.

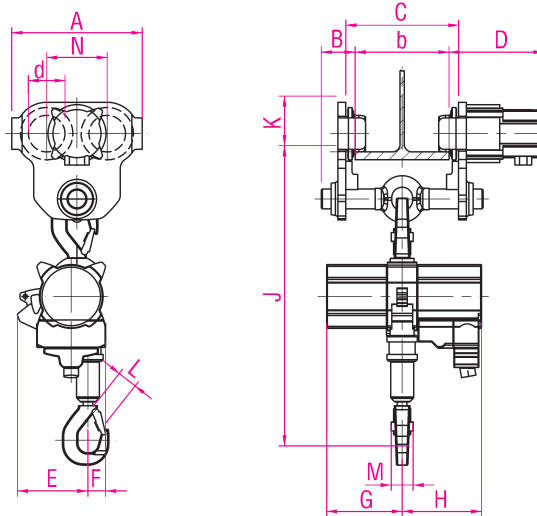
The motorized trolleys are easy to install, robust and low-maintenance (sealed bearings).

**Different energy feeding systems are available on request:**

- Energy chain
- C-rail
- Square rail
- Spiral hose
- Hose trolleys

**Special versions:**

- Low headroom trolleys where only low ceilings are available
- Locking device for securing the trolley in a certain position
- 2-step travelling speed
- Pneumatic stop switches as runway limit
- Increased spark protection for highest explosion-proof requirements



**Suitable for operation in hazardous areas according to 94/9/EG ("ATEX 100a"). Corresponds to II2 GD II A T4(X) and II3 GD II B T4(X).**

**For detailed information on explosion protected hoists please see pages 86-87.**



Load capacity in t	Trolley type	Dimensions in mm															Total weight in kg	Item no.
		A	B max.	C	d	D	E	F	G	H	J*	J**	K	L	M	N		
0.25	LM 2 t	250	130	b+36	70	185	137	39	145	152	-	563	95	28	42	116	53	15121010015023
0.5	LM 2 t	250	130	b+36	70	185	137	39	145	152	-	563	95	28	42	116	53	15121010015024
1.0	LM 2 t	250	130	b+36	70	185	137	39	145	152	-	563	95	28	42	116	54	15121010015025
2	LM 2 t	250	130	b+36	70	185	137	46	145	152	-	611	95	28	42	116	60	15121010015026
3.2	LM 3.2 t	292	113	b+60	84	191	187	46	233	250	635	798	107	30	42	136	119	15121010015027
6.3	LM 6.3 t	500	157	b+70	165	205	154	79	233	250	763	919	215	40	51	236	234	15121010015028
10	LM10-16 t	490	162	b+70	165	318	197	109	308	267	944	1131	215	42	66	236	376	15121010015029
16	LM10-16 t	490	162	b+70	165	318	199	109	382	310	997	1216	215	55	82	236	460	15121010015030

Travelling speed at rated load, capacities 0.25 – 6.3 ton: 9/14 m/min

Travelling speed at rated load, capacities 10-16 ton: 5/12 m/min

Max. lower flange width, load capacities 0.25 - 2 ton: 280 mm

Max. lower flange width, load capacities 3.2 - 16 ton: 310 mm

\* mounted

\*\* suspended

### Maintenance unit with holder

Consisting of filter regulator with pressure gauge and oiler

The vane motors of the air hoists Mini and PROFI are greased with a special lubricant during assembly which makes operation with oil-free air possible. If the hoists are used in continuous duty though or the compressed air does not meet the requirements, we recommend using this maintenance unit.

**Increase the service life of your air hoists!**

Version	Item no.
G 1/2" for Profi 025TI, 05TI, 1TI, 2TI, Mini	15401500015079
G 3/4" for Profi 3TI, 6TI, 10TI, 16TI	15401500015080



POWERED LIFTING EQUIPMENT

Electric Chain Hoists

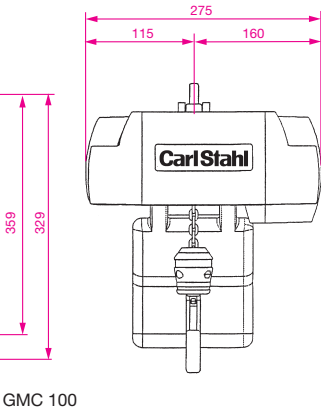
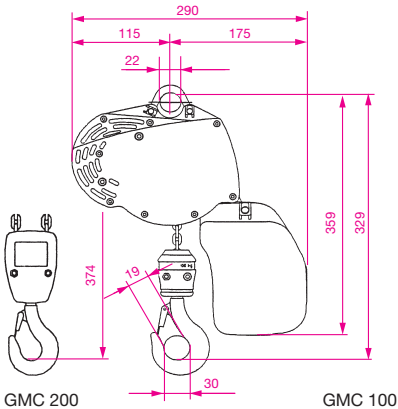
Electric Chain Hoist CS-Compact GMC

- Motor housing powder coated in RAL 5017 (traffic blue)
- Hinged, detachable suspension bracket
- Operating voltage: single-phase (AC), 230 V/50 Hz
- Protection rating IP21, insulation class F
- Pendant control with emergency stop, IP65
- Infinitely controllable lifting speed
- Overload protection thanks to non-adjustable slipping clutch
- High-strength, galvanised round steel chain with chain container
- **Hook path (standard lifting height) 3 m**
- Control cable in line with hook path

**Scope of delivery:**  
Electric chain hoist with pendant control and control cable, fully assembled ready for connection with chain container, retracted chain and approx. 3 m connection cable with mains plug.



Suitable  
clamping buffers  
see page 35 f.



Operates on 230 V  
wall socket!



Infinitely adjustable

Load capacity in kg	100	100	100	100	200	200	200
Type	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC200.6-2	GMC200.6-2	GMC200.6-2
Lifting speed in m/min	0.7 - 12	0.7 - 12	0.7 - 12	0.7 - 12	0.3 - 6	0.3 - 6	0.3 - 6
Chain falls	1	1	1	1	2	2	2
Duty ratio in % ED	40	40	40	40	40	40	40
Power output in kW	0.425	0.425	0.425	0.425	0.425	0.425	0.425
Drice group FEM 9.511/ISO	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4
Hook path in m	3	6	10	20	3	6	10
Switching frequency in c/h	300	300	300	300	300	300	300
Smallest hook dimensions in mm	300	300	300	300	345	345	345
Weight in kg with 3 m hook path	10	11	12	14	11	12	14
Item no. Version with suspension eye	15141000015001	15141000015002	15141000015003	15141000015004	15141000015005	15141000015006	15141000015007

Suitable Push Trolley for CS-Compact GMC

Load capacity in kg	Flange width in mm	Item no.
300	42-120	10301000015027
300	121-180	10301000015028

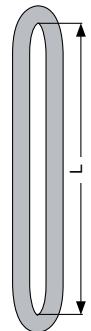
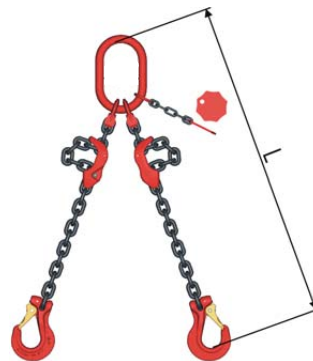
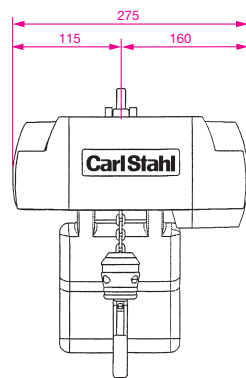
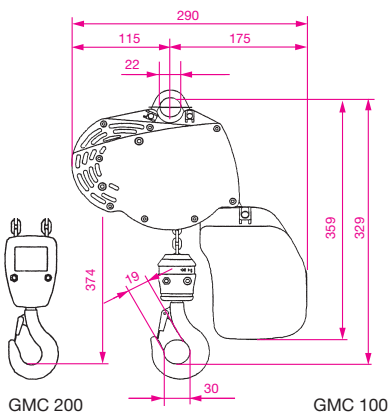


### Electric Chain Hoist CS-Compact GMC

- Motor housing powder coated in RAL 5017 (traffic blue)
- Hinged, detachable suspension bracket
- Operating voltage: single-phase (AC), 230 V/50 Hz
- Protection rating IP21, insulation class F
- Pendant control with emergency stop, IP65
- Infinitely controllable lifting speed
- Overload protection thanks to non-adjustable slipping clutch
- High-strength, galvanised round steel chain with chain container
- **Hook path (standard lifting height) 3 m**
- Control cable in line with hook path

#### Scope of delivery:

- 1 x electric chain hoist with pendant control and control cable, fully assembled ready for connection with chain container, retracted load chain and approx. 3 m connection cable with mains plug
- 1 x chain sling, twin leg, grade 80, shortenable, nominal chain thickness 6 mm, usable length (L) 1.5 m, load capacity at an angle of inclination of 0-45° = 1.6 t, load capacity at an angle of inclination of 45-60° = 1.12 t
- 1 x 'Liftfix' polyester grommet sling pursuant to DIN EN 1492-2, usable length (L) 1 m, load capacity 1 t
- 1 x conventional aluminium case with handle and two locking buckles



#### Technical data Electric Chain Hoist

Load capacity in kg	100	100	100	100	200	200	200
Type	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC200.6-2	GMC200.6-2	GMC200.6-2
Lifting speed in m/min	0.7 - 12	0.7 - 12	0.7 - 12	0.7 - 12	0.3 - 6	0.3 - 6	0.3 - 6
Chain falls	1	1	1	1	2	2	2
Duty ratio in % ED	40	40	40	40	40	40	40
Power output in kW	0.425	0.425	0.425	0.425	0.425	0.425	0.425
Drice group FEM 9.511/ISO	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4
Hook path in m	3	6	10	20	3	6	10
Switching frequency in c/h	300	300	300	300	300	300	300
Smallest hook dimensions in mm	300	300	300	300	345	345	345
Weight in kg with 3 m hook path	10	11	12	14	11	12	14

Item no. Complete set	15420000015005	15420000015006	15420000015007	15420000015008	15420000015009	15420000015010	15420000015011
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# POWERED LIFTING EQUIPMENT

## Electric Chain Hoists

### Electric Chain Hoist CS-Compact GM

- Motor housing powder coated in RAL 5017 (traffic blue)
- Hinged, detachable suspension bracket
- Operating voltage: three-phase current, 380 - 415 V/50 Hz
- Protection rating IP55, insulation class F
- Pendant control with emergency stop, IP65
- Direct control
- 48 V electronic control with semi-conductor technology for type GM8
- Quick-connectors with swivel screw
- 2 lifting speeds (main hoist/precision hoist)
- Overload protection thanks to externally adjustable slipping clutch
- High-strength, galvanised profiled steel chain with chain container
- **Hook path (standard lifting height) 3 m**
- Control cable in line with hook path

#### Scope of delivery:

Electric chain hoist with pendant control and control cable, fully assembled ready for connection with chain container, retracted chain and mains plug.

#### Other versions available on request:

- Load capacities of up to 4,000 kg
- Higher/lower lifting speeds
- 48 V contactor control, as standard from 3,200 kg version
- Tiger G2 remote control
- Electronic hoist limit switch
- Operating hours meter
- Infinite lifting with inverter
- Special voltages



**Suitable clamping buffers see page 35 f.**

#### Version with manual trolley



#### Version with electric trolley



#### Version with suspension eye



**Main and precision hoist**



**Everything wirelessly under control - with the optional remote control (48 V contactor control required).**

**Prices on request!**

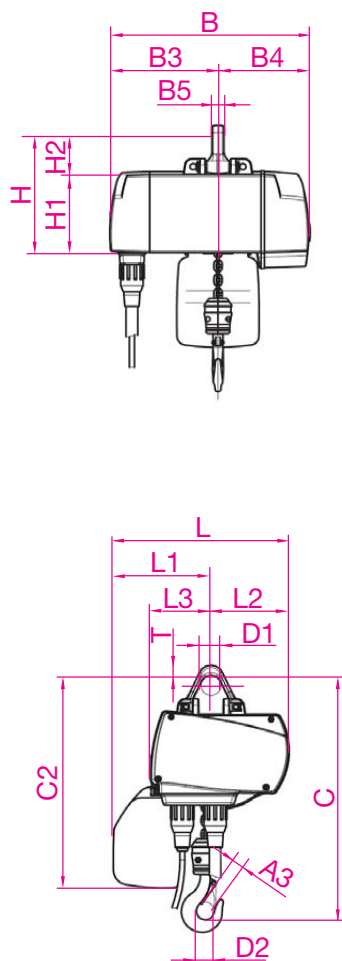
Load capacity in kg	125	250	500	1000	2000	3200
Type	GM2 125.8-1	GM2 250.8-1	GM2 500.4-2	GM4 1000.4-2	GM6 2000.4-2	GM8 3200.4-2
Lifting speed in m/min	8/2	8/2	4/1	4/1	4/1	4/0.7
Chain falls	1	1	2	2	2	2
Duty ratio in % ED	60	60	60	60	50	40
Power output in kW	0.09/0.35	0.09/0.35	0.09/0.35	0.22/0.9	0.4/1.7	0.75/3
Price group FEM 9.511/ISO	4m/M7	2m/M5	2m/M5	2m/M5	2m/M5	2m/M5
Weight in kg Version with suspension eye	22	22	25	38	64	102
Weight in kg Version with manual trolley	27	27	31	51	91	135
Weight in kg Version with electric trolley	55	55	58	71	100	142
Item no. Version with suspension eye	15141000015008	15141000015009	15141000015010	15141000015011	15141000015012	15141000015013
Item no. Version with manual trolley*	15141000015014	15141000015015	15141000015016	15141000015017	15141000015018	15141000015019
Item no. Version with electric trolley* (20/5 m/min.)	15141000015020	15141000015021	15141000015022	15141000015023	15141000015024	15141000015025



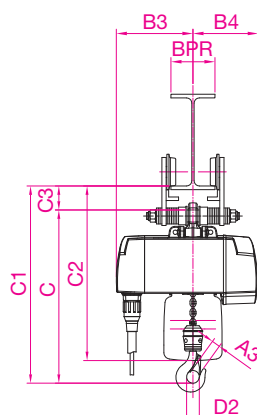
\* Please indicate flange width BPR of the carrier beam with your order

### Dimensions for standard version with 3 m lifting height

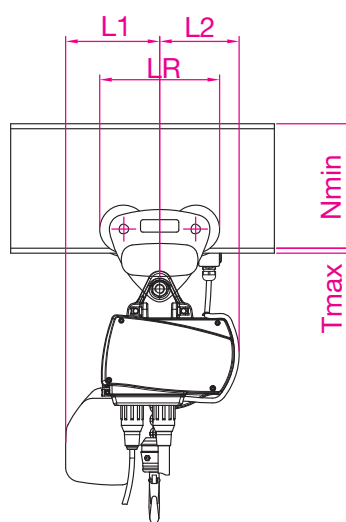
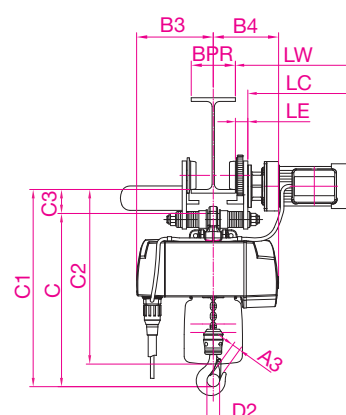
Version with suspension eye



Version with manual trolley (HF)



Version with electric trolley (EF)



Type	Dimensions in mm													
	B	B3	B4	B5	L	L1	L2	L3	H	H1	D1	H2	T	C2
GM2 125.8-1	346	175	171	24	297	165	132	103	198	129	40	69	21	365
GM2 250.8-1	346	175	171	24	297	165	132	103	198	129	40	69	21	365
GM2 500.4-2	346	175	171	24	297	165	132	103	198	129	40	69	21	365
GM4 1000.4-2	402	217	185	24	353	197	156	120	237	158	40	79	21	527
GM6 2000.4-2	472	281	191	28	466	255	211	160	303	196	63	107	28	551
GM8 3200.4-2	542	306	236	28	472	254	218	198	342	254	63	107	28	918

Type	Trolley	Dimensions in mm											
		C	C1	C3	D1	D2	A3	LR	N (min.)	T (max.)	LE	LW	LC
GM2 125.8-1	HF 3	348	390	46	40	30	19	165	110	20	-	-	-
	EF 14	348	416	68	40	30	19	265	130	25	34	389	355
GM2 250.8-1	HF 3	348	390	46	40	30	19	165	110	20	-	-	-
	EF 14	348	416	68	40	30	19	265	130	25	34	389	355
GM2 500.4-2	HF 6	424	477	52.5	40	43	31	205	120	20	-	-	-
	EF 14	424	492	68	40	43	31	265	130	25	34	389	355
GM4 1000.4-2	HF 14	476	544	68	40	43	31	250	130	20	-	-	-
	EF 14	476	544	68	40	43	31	265	130	25	34	389	355
GM6 2000.4-2	HF 22	566	645	79	63	50	34	320	160	21.5	-	-	-
	EF 22	566	645	79	63	50	34	335	160	28	39	394	349
GM8 3200.4-2	HF 36	695	779	84	63	50	34	320	160	21.5	-	-	-
	EF 36	695	779	84	63	50	34	335	160	28	44	393	349

Please indicate flange width BPR of the carrier beam with your order.

# POWERED LIFTING EQUIPMENT

## Electric Chain Hoists

### Electric Chain Hoist CS

Small overall dimensions and low headroom due to compact construction. Helical gearing ensures high load capacity and low noise level at all speeds. All gear wheels are case-hardened and micro-finished. The disc brake reacts quickly and safely at lowest wear. The hoist is resistant against dust and weather due to its fully enclosed housing and a specially sealed brake. The low-wear load chain according to DIN EN 818 is surface-hardened and galvanised.

Power supply: 400 VAC 50 Hz (other voltages on request), protected IP55, insulation class F

Standard lifting height is 3 m.

**Up to 2,000 kg capacity also available for 230 VAC**  
**Lifting equipment chains for powered lifting equipment can be found on page 127.**

**Load capacities up to 60 tons available**

Version with suspension eye    Version with manual trolley    Version with geared trolley



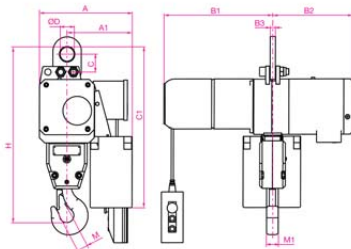
**Also available in explosionprotected version.**

Load capacity in kg	500	1.000	2.000	2.500	3.200	5.000	10.000	10.000
Type	CS 405	CS 410	CS 620	CS 825	CS 732	CS 850	CS 910	CS 1010
Lifting speed main/precision in m/min.	9.4 / 2.3	4.5 / 1.1	4.0 / 1.0	8.0 / 2.0	4.0 / 1.0	4.0 / 1.0	2.8 / 0.7	5.8 / 1.4
Chain falls	1	2	2	1	2	2	2	1
Duty ratio in % ED	40 / 25	40 / 25	30 / 20	40 / 25	40 / 25	40 / 25	40 / 40	40 / 25
Power output in kW	0.75 / 0.18	0.75 / 0.18	1.5 / 0.37	4.0 / 1.1	2.5 / 0.6	4.0 / 1.1	5.5 / 1.4	12.0 / 2.5
Drice group FEM 9.511/ISO	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6
Weight in kg Version with suspension eye	65	75	105	130	130	135	350**	750**
Weight in kg Version with manual or geared monorail trolley	79	89	131	172	172	177	437**	920**
Weight in kg Version with electric monorail trolley	91	101	146	186	186	203	450**	990**
Item no. Version with suspension eye	15141000015026	15141000015027	15141000015030	15141000015031	15141000015032	15141000015033	15141000015029	15141000015028
Item no. Version with manual trolley*	15141000015034	15141000015035	15141000015038	15141000015039	15141000015040	15141000015041	15141000015037	15141000015036
Item no. Version with geared monorail trolley*	15141000015042	15141000015043	15141000015046	15141000015047	15141000015048	15141000015049	15141000015045	15141000015044
Item no. Version with electric monorail trolley*	15141000015050	15141000015051	15141000015054	15141000015055	15141000015056	15141000015057	15141000015053	15141000015052

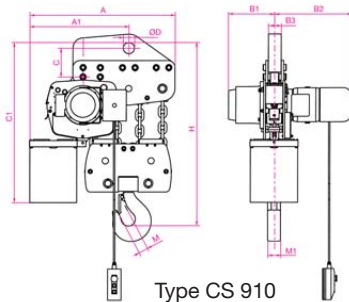
**\* Please indicate required flange width with your order!**  
**\*\* With 3 m lifting height**



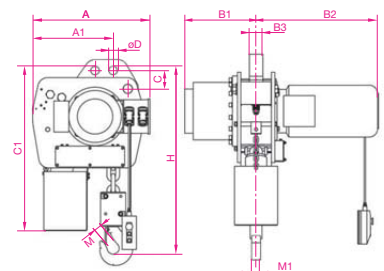
### Dimensions: versions with suspension eye



Type CS 405 - 850



Type CS 910



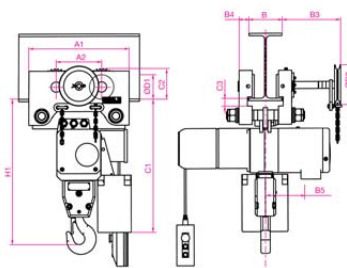
Type CS 1010

Type	Dimensions in mm										
	A	A1	B1**	B2**	B3	C	C*	D	H	M	M1
CS 405	290	235	225	330	12	40	465	40	400	23	17
CS 410	290	210	225	330	12	40	465	40	460	29	22
CS 620	320	225	265	390	15	80	560	55	640	39	29
CS 825	365	307	312	430	20	70	630	55	590	32	38
CS 732	365	256	312	430	20	70	635	55	710	48	36
CS 850	365	256	312	430	20	70	630	55	690	38	45
CS 910	635	486	290 (360)	520 (562)	80	148	1075	61	940	49	63
CS 1010	707	477	424	727	80	110	983	50	980	57	53

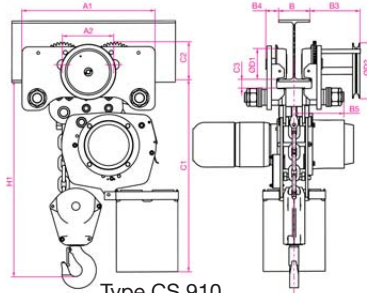
\*With chain container size 1

\*\*Dimensions in brackets with faster lifting speed

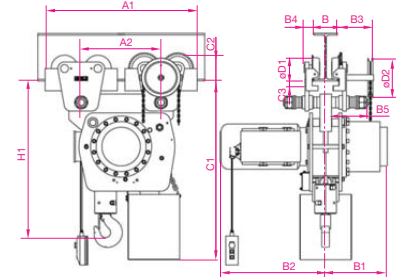
### Dimensions: versions with manual or geared monorail trolley



Type CS 405 - 850

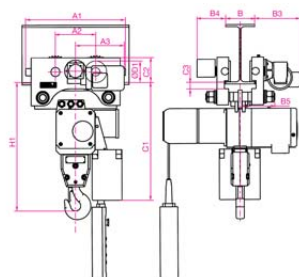


Type CS 910

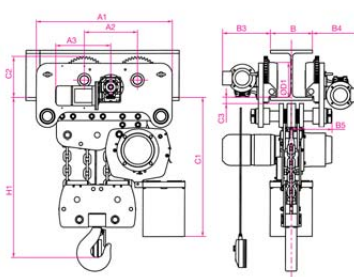


Type CS 1010

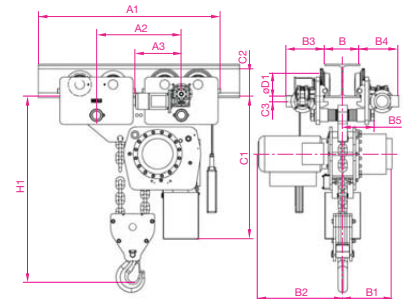
### Dimensions: versions with electric monorail trolley



Type CS 405 - 850



Type CS 910



Type CS 1010

Type	Flange width B from - to at load bolt size  in mm		Dimensions in mm																			
			A1 Typ 1	A1 Typ 2	A2	A3*	B1**	B2**	B3		B3*	B4	B4	B5 1N	B5 2N	C1	C2	C3	D1	D2	H1	
									Type 1	Type 2	Type 1	Type 2	Type 1								Type 2	
	1 N	2 N																				
CS 405	50-135	136-220	287	337	142	245	225	330	272	231	31	175	122	166	450	83	25	65	135	393	393	
CS 410	50-135	136-220	287	337	142	245	225	330	272	231	31	175	122	166	450	83	25	65	135	453	453	
CS 620	66-185	186-310	350	400	172	245	265	390	281	190	40	176	169	230	530	107	31	85	135	610	610	
CS 825	74-196	197-310	428	488	209	245	312	430	284	190	46	181	181	240	640	150	32	120	135	600	600	
CS 732	74-196	197-310	428	488	209	245	312	430	284	239	46	181	181	240	640	150	32	120	135	710	710	
CS 850	74-192	193-310	492	552	223	245	312	430	283	250	53	188	190	246	650	150	38	120	195	710	710	
CS 910	119-215	216-312	650	714	253	245	290 (360)	520 (562)	248	230	62	249	229	276	940	185	42	150	270	940	898	
CS 1010	160-310	-	1048	1160	550	283	424	727	246	299	69	299	291	-	1249	185	45	150	270	1145	1145	

Type 1 = Manual or geared monorail trolley

\*for travel speed 16/4 m/min.

Type 2 = Electric monorail trolley

\*\*Dimensions in brackets with faster lifting speed

# POWERED LIFTING EQUIPMENT

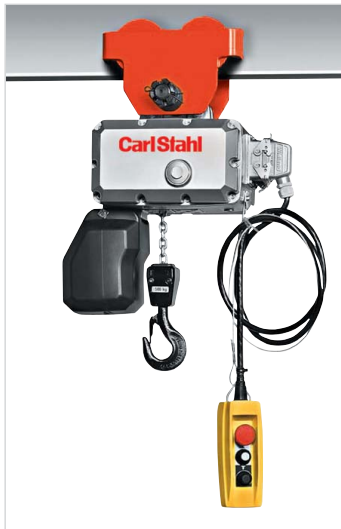
## Electric Chain Hoists

### Electric Chain Hoist Type 620

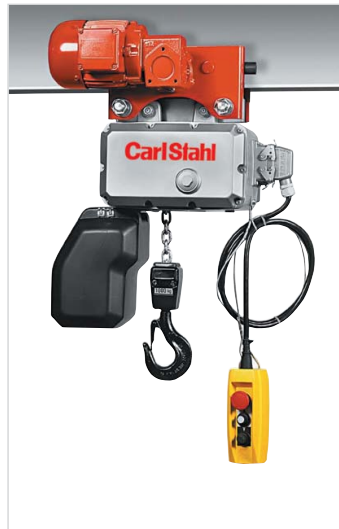
This electric chain hoist is an ideal supplement to our existing range of well-known and proven chain hoists. For many standard applications the type 620 is a real alternative due to its convincing price-performance-ratio.

- Power supply 400 VAC 50 Hz, direct control
- Protected IP55 – insulation class F
- Overload protection by slipping clutch
- Low noise level due to helical gear wheels
- High-strength galvanised round steel special grade chain
- AC brake motor with electro-magnetic spring-loaded disc brake
- German certificate of origin
- **Standard lifting height 3 m**

Version with manual trolley  
Type 'R'



Version with electric trolley  
Type 'E'



Version with  
suspension  
eye Type 'S'



**Lifting equipment chains for powered lifting equipment can be found on page 127.**

Load capacity in kg	125	250	500	1000	2000
Type	620/125-1	620/250-1	620/500-1	620/1000-2	620/2000-2
Lifting speed in m/min	8/2	8/2	8/2	4/1	5/1.25
Chain falls	1	1	1	2	2
Duty ratio in % ED	100	60	40	40	30
Power output in kW	0.18/0.05	0.36/0.09	0.75/0.18	0.75/0.18	1.9/0.45
Drice group FEM 9.511/ISO	2m/M5	1Am/M4	1Am/M4	1Am/M4	1Am/M4
Weight electric chain hoist in kg					
- Type S with suspension eye*	30	30	31	33	54
- Type R with manual trolley*	37	37	38	47	75
- Type E with electric trolley*	56	56	57	59	95
Item no. Version with suspension eye Type 'S'	15141000015058	15141000015059	15141000015060	15141000015061	15141000015062
Item no. Version with manual trolley Type 'R'	15141000015063	15141000015064	15141000015065	15141000015066	15141000015067
Item no. Version with electric trolley Type 'E'	15141000015068	15141000015069	15141000015070	15141000015071	15141000015072



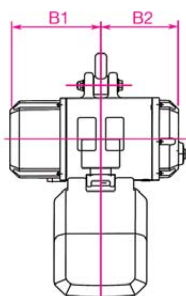
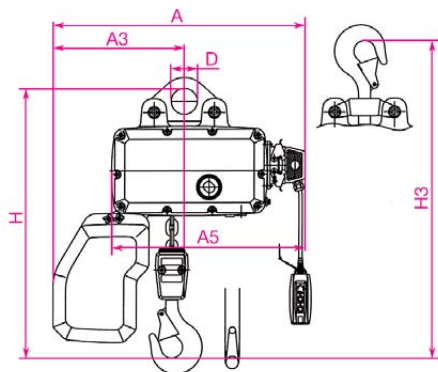
**\* At 3 m standard lifting height**

**\*\* Electric trolley speed 16/4 m/min**

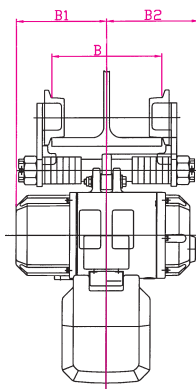
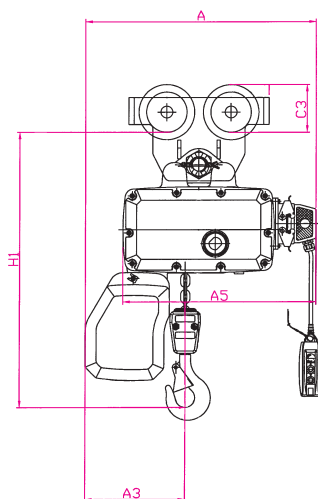
**\*\*\* Please note that higher lifting heights require a larger chain container which results in extra cost.**

### Dimensions for standard version with 3 m lifting height

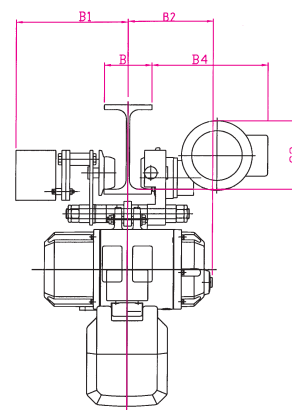
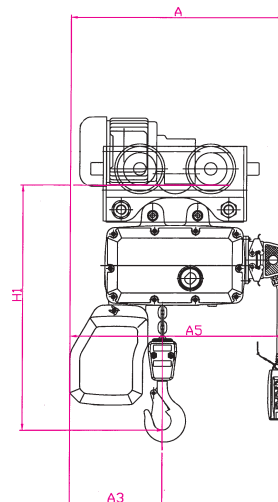
Version with suspension eye Type 'S'



Version with manual trolley Type 'R'



Version with electric trolley Type 'E'



Type	Dimensions in mm														
	A	A3	A5	B Type R*	B Type R**	B Type E*	B Type E**	B1***	B2	B4 Type E	D	H Type S	H1 Type R	H1 Type E	H3 Type S
620/125-1	426	209	357	64-152	153-310	50-135	136-220	165	168	230	36	367	411	393	435
620/250-1	426	209	357	64-152	153-310	50-135	136-220	165	168	230	36	367	411	393	435
620/500-1	426	209	357	64-152	153-310	50-135	136-220	165	168	230	36	400	444	426	489
620/1000-2	426	235	357	64-190	191-310	50-135	136-220	165	168	230	36	463	507	489	571
620/2000-2	502	284	380	88-190	191-310	66-186	187-306	196	185	231	52	570	620	588	679

\* At load bolt size 1 N

\*\* At load bolt size 2 N

\*\*\* With protected control lifting/moving – dimensions of the limit switch/operational limit switch increased by 70 mm



# POWERED LIFTING EQUIPMENT

## Electric Wire Rope Winches

### Electric Wire Rope Winch Model RPE

Load capacities 250 - 1,000 kg

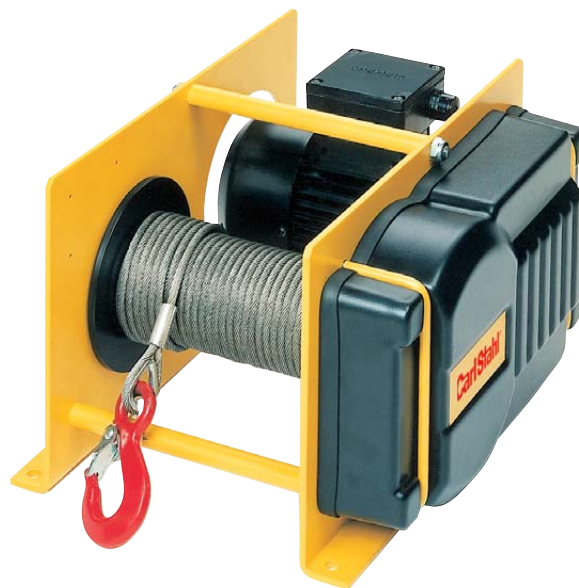
Universal and compact electric wire rope winch. The winch can be mounted on any even surface in any position.

Design according to DIN 15020, drive group 1 Bm/M3, accident prevention regulations DGUV 55 (winches, lifting- and pulling devices), and to EEC Machinery Directive.

- Designed in acc. to DIN EN 14492 and therefore suitable for lifting of loads
- Compact dimensions due to internal brake motor
- High efficiency due to spur gear with permanently lubricated ball bearings. Helical gear wheels in 1st gear.
- Motors are protected IP54, insulation class F
- Power supply: 230/400 V, 50 Hz, 3-phase
- Designed for direct control

#### Options available:

- 230 VAC, 50 Hz, single phase
- Protection IP55
- Extended capacity or grooved rope drum. Rope drum with 2 rope outlets
- Gear limit switch for limiting the rope travel in both directions and slack rope switch (only with protected control)
- Low voltage protected control, control voltage 42 V



#### Technical Data

Type	Pulling force in kg*	Lifting speed 1st layer in m/min	Lifting speed top layer in m/min	Rope Ø in mm	Power output in kW	Duty ratio ED** in %	Useful rope length in m 1st layer	Useful rope length in m top layer	Weight in kg***	Item no.
RPE 2-13	250	10.2	13.2	4	0.55	40	11.2	54.4	31.8	15181000015031
RPE 5-6	500	4.6	6.6	6	0.55	40	7.0	38.8	32.8	15181000015032
RPE 5-12	500	8.7	12.6	6	1.10	40	11.0	55.4	41.0	15181000015033
RPE 9-6	990	5.1	6.5	8	1.10	40	10.2	37.4	76.0	15181000015034
RPE 10-6****	1000	5.1	6.5	8	1.10	40	10.2	37.4	76.9	15181000015035

\* in top rope layer

\*\* at 120 c/h.

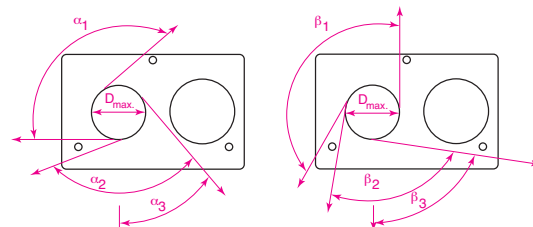
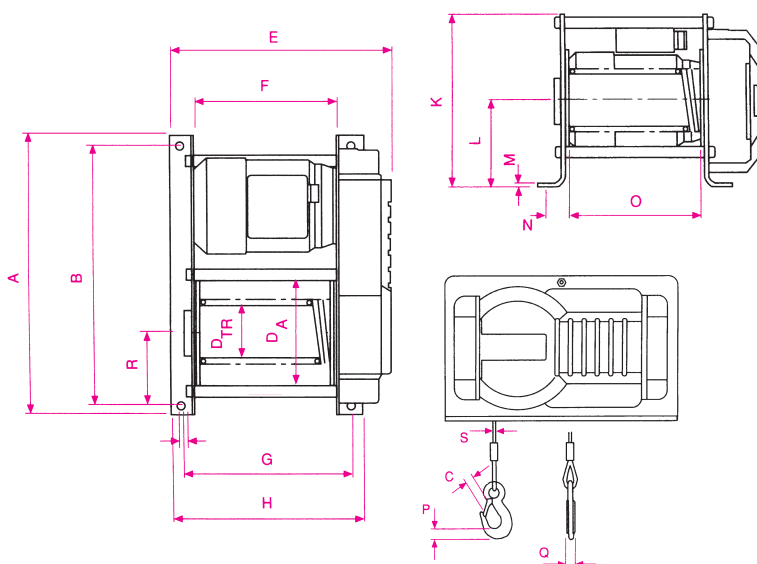
\*\*\* w/o rope

\*\*\*\* with slipping clutch

Rope accessories see next page.

#### Dimensions in mm

Type	Dimensions in mm																			
	A	B	C		Drum		E	F	G	H	I	K	L	M	N	O	P	Q	R	S
				D TR	D max.	D A														
RPE 2-13	405	375	18	76	104	150	338	210	260	290	11	250	125	6	33.0	194	19	13	125	4
RPE 5-6	405	375	18	76	118	150	338	210	260	290	11	250	125	6	33.0	194	19	13	125	6
RPE 5-12	405	375	18	76	118	150	428	300	350	380	11	250	125	6	33.0	284	19	13	125	6
RPE 9- 6	525	485	25	108	148	180	450	270	345	380	13	340	170	10	47.5	250	24	19	170	8
RPE 10-6	525	485	25	108	148	180	450	270	345	380	13	340	170	10	47.5	250	24	19	170	8



#### Rope outlet angles

Type	$\alpha_1$	$\alpha_2$	$\alpha_3$	$\beta_1$	$\beta_2$	$\beta_3$
RPE 2-13	130°	110°	40°	150°	90°	80°
RPE 5-6	130°	110°	40°	150°	90°	80°
RPE 5-12	130°	110°	40°	150°	90°	80°
RPE 9-6	145°	125°	50°	155°	100°	83°
RPE 10-6	145°	125°	50°	155°	100°	83°

### Accessories for electric Wire Rope Winch Model RPE

#### Different rope drums

e.g. for extended rope capacity, grooved for regular winding, with separation web and 2nd rope outlet for working with 2 ropes, traversing operation.



#### Gear limit switch

for limiting rope travel in both directions



#### Single phase AC motor

for 230 VAC, 50 Hz, single phase for mobile use of the winch



#### Air motor

for non-stop operation and infinitely variable rope speed



Special versions  
and accessories

#### Direct control

(pendant control with emergency stop and 2 m control cable)

#### Protected control

(Control voltage 42 V, pendant control with emergency stop and 3 m control cable)

#### Wall switch with emergency stop (lockable)

#### Control cable

Direct control

Protected control

#### Rope drum with separation web and 2 rope fasteners

#### Single phase 230 VAC, 50 Hz version (for RPE 2-13 and RPE 5-6)

(for RPE 5-12, 9-6 and 10-6)

#### IP 55 protection

#### Gear limit switch

(includes protected control)

#### Slack rope switch

(for RPE2-13, 5-6)  
(includes protected control)

#### Suitable steel wire rope

(one end pointed, other end with hook)

Extended rope capacity smooth	Pulling force in kg	Rope speed m/min.	Total rope capacity
<b>Size 2</b>	250	13.0	80 m
	500	6.5	57 m
	990	6.0	56 m
	1000	6.0	56 m
<b>Size 3</b>	250	13.0	206 m
	500	6.5	149 m
	990	6.0	107 m
	1000	6.0	107 m

Extended rope capacity grooved	Pulling force in kg	Rope speed m/min.	Total rope capacity
<b>Size 2</b>	250	13.0	64 m
	500	6.5	49 m
	990	6.0	47 m
	1000	6.0	47 m
<b>Size 3</b>	250	13.0	165 m
	500	6.5	128 m
	990	6.0	89 m
	1000	6.0	89 m

Special versions and accessories
<b>Smooth rope drum</b>
Size 2
Size 3

Special versions and accessories
<b>Grooved rope drum</b>
Size 1 up to 500 kg
Size 1 up to 1000 kg
Size 2 up to 500 kg
Size 2 up to 1000 kg
Size 3 up to 500 kg
Size 3 up to 1000 kg

Wire rope	Rope Ø in mm	Item no.
Wire rope sim.	4	20151500015079
DIN 3069 SE-	6	20151500015080
1770 N/mm²	8	20151500015081

# POWERED LIFTING EQUIPMENT

## Electric Wire Rope Winches

### Electric Winch Type 43/86 E

#### Rope pulling force 125 – 3,200 kg

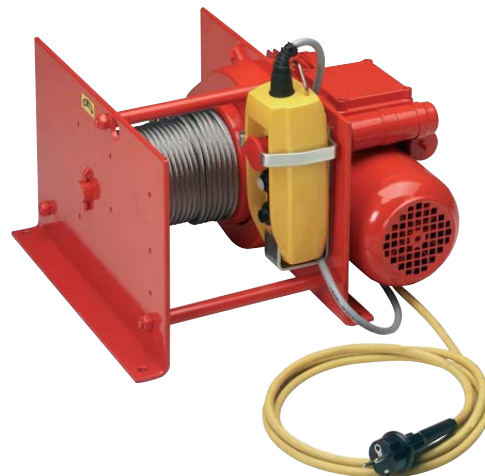
This compact electric winch is a robust and technically mature design for all applications. Due to the position of the motor the wire rope can run off in any direction.

**Available for 230/400 V, 50 Hz, 3-phase or 230 VAC single phase**

- Maintenance-free ball bearings
- Drive group 1 Bm
- Protected IP54
- Electric overload protection for capacities 1,000 kg and over (including protected control)

#### More options:

- Other protection classes
- Limit switch
- Grooved drum
- Extended rope capacity
- Double rope speed (for 125-500 kg) in 230 VAC version
- 2nd rope speed in 230/400 V 3-phase version



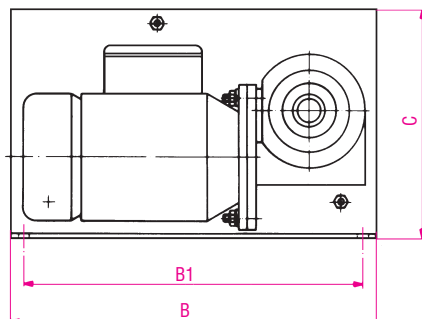
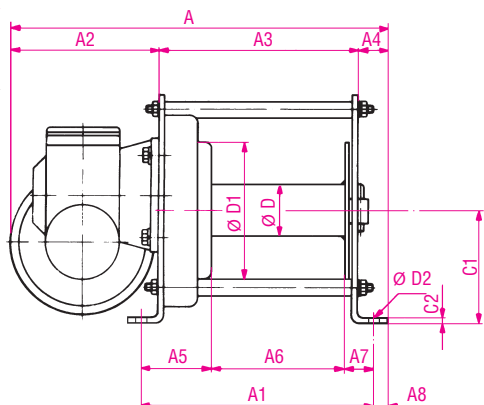
**In its standard version this winch is suitable for pulling. Equipped with a limit switch in connection with a protected control, this winch can also be used for lifting.**

### Wire Rope Winch Type 43/86 for AC 3- and single phase

Rope pulling force in 1st layer in kg	Rope speed in top layer in m/min	AC power output, 1-step in kW	Min. rope Ø at 1770 N/mm <sup>2</sup> in mm	Duty ratio ED in %	Rope capacity* in m		Weight in kg/pce	Item no. 3-phase AC	Item no. Single phase AC
					1st layer	Total			
125	8 (11)	0.37	4.0	40	6.4	32	27	15181000015018	15181000015025
250	5 (7)	0.37	4.0	40	7.1	35	37	15181000015019	15181000015026
500	2.5 (4)	0.37	6.0	40	5.7	30	40	15181000015020	15181000015027
990	4.5 (6)	1.30	8.0	40	8.4	30	88	15181000015021	15181000015028
1000	4.5 (6)	1.30	8.0	40	8.4	30	88	15181000015022	15181000015029
2000 **	4.5 (6)	2.60	11.0	40	8.0	30	160	15181000015023	15181000015030
3200 **	4.5 (5.5)	3.00	16.0	40	9.0	37	210	15181000015024	-

\* Useful rope length in smooth drum

\*\* For single phase AC 2.2 (3) m/min.

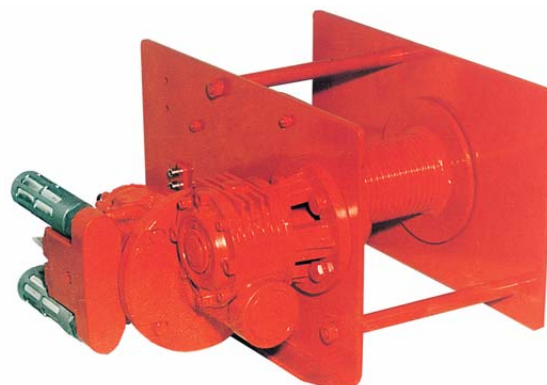


Rope pulling force in 1st layer in kg	Main dimensions in mm															
	A1	A2	A3	A4	A5	A6	A7	A8	B	B1	C	C1	C2	D	D1	D2
125	205	165	171	30	43	135	27	13	405	375	215	140	4	60	130	9
250	260	165	222	34	78	150	32	15	405	375	250	125	6	60	150	11
500	260	165	222	34	82	145	33	15	405	375	250	125	6	76	150	11
1000	345	216	289	45	99	198	48	17	575	535	270	155	10	108	180	13
2000	440	216	358	61	173	200	67	20	600	550	385	171	15	146	245	17
3200	525	198	443	61	193	257	75	20	600	550	405	191	15	216	370	17



### Pneumatic wire rope winch Type 43/86 P

- For lifting and pulling  
A lifting and lowering limiter is required for lifting applications
- Compressed air supply 6 bar  
The compressed air supply must be equipped with a maintenance unit (comprising a water separator, oiler and pressure reducer).



Rope pulling force in 1st layer in kg	Rope speed in top layer in m/min		Rope capacity* in m		Rope Ø at 1770 N/mm <sup>2</sup> in mm	Weight in kg/pce	Item no.
	Lifting	Lowering	1st layer	Total			
250	7	12	7.1	35	4	36	15181000015056
250	12	18	7.1	35	4	45	15181000015061
500	4	7	5.7	30	6	40	15181000015057
500	8	16	5.7	30	6	50	15181000015062
990	6	12	8.4	30	8	110	15181000015058
1000	6	12	8.4	30	8	110	15181000015059
2000	3	6	8.0	30	11	175	15181000015060

\* Useful rope length in smooth drum

### Accessories for Type 43/86

#### Additional options

Pendant control switch 1-step lifting

Pendant control switch 2-step lifting

Wall-mounted control switch 1-step lifting

Wall-mounted control switch 2-step lifting

Pendant control for air-powered winch

Surcharge Lockable switch

Emergency limit switch for external installation

Control cable per m

Air hose per m

Other voltages and frequencies

Radio remote control <sup>(1)</sup>

Frequency control

Electric overload protection (125-990 daN) <sup>(2)</sup>

Protected control (control voltage 42 V)

<sup>(1)</sup> Protected control and upper and lower rope limit switch necessary

<sup>(2)</sup> Protected control included



Electric and pneumatic wire rope winch type 43/86 also available in an explosion-protected version. For detailed information see pages 86-87.

# POWERED LIFTING EQUIPMENT

## Electric Wire Rope Winches

### Electric Wire Rope Winch with planetary Gear Type 45/10 for Lifting<sup>1)</sup> and Pulling

Rope pulling force 2,000 – 20,000 kg

This classic assembly winch has been developed using latest technology and offers a very reasonable price-performance ratio. Its rugged construction and big rope capacity form a solid basis for a wide variety of uses. For your individual application this new winch can be delivered with many different accessories.

#### The standard version offers the following benefits:

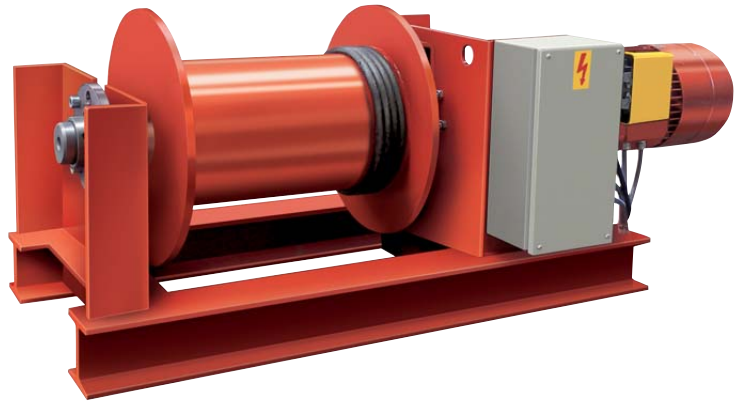
- Precision planetary gear
- FEM duty classification from 1Bm – 2m
- **Standard version - 1 Bm**
- Big rope capacity for all applications
- Rigid winch construction and welding
- Separated planetary gear for easy maintenance
- Manufactured in Germany

#### Additional options:

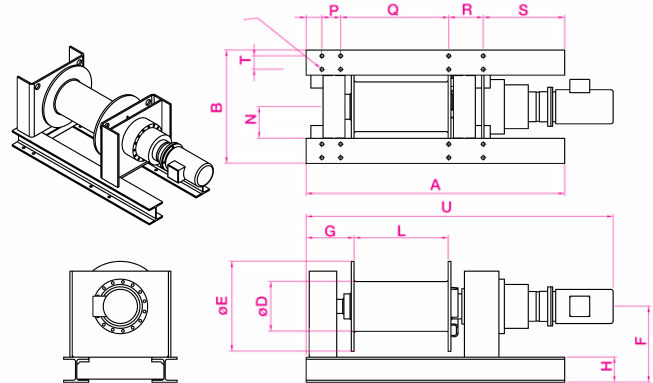
- Grooved rope drum
- 2nd brake as safety brake
- Rope pressure roller
- Rope spooling guide
- Slack rope monitoring
- Free-wheeling drum mechanism
- Separating partition and/or 2nd rope fastening on the drum
- Space-saving bevel gear
- Manual operation in case of emergency
- Operation hour counter
- Upper and lower rope limit

- Other rope speeds, rope capacities and voltages
- Radio remote control
- Protected control
- Infinitely adjustable rope speed
- Protection class IP66
- Air powered version
- Hydraulically powered version
- Protective hood for drum
- Capstan winch head
- Disengaging clutch
- Explosion-proof version

<sup>1)</sup> For lifting applications an upper and lower rope limit switch must be used.



Also available in explosion-proof version. For detailed information see pages 86-87.



Please note that other rope speeds and power ratings are available on request

Rope pulling force in 1st layer in kg*	Rope speed in m/min	Power output in kW	Rope Ø in mm	Duty ratio ED in %	Required MBL of rope in kN	Rope capacity in m 1st layer 5th layer	Weight in kg/pce	Item no.
2000	5.5 / 23	2 / 8.5	10	40	71	20 135	300	15181000015036
3200	3 / 12.5	2 / 8.5	12	40	114	23 160	345	15181000015037
4000	2.5 / 11	2 / 8.5	13	40	142	22 150	350	15181000015038
5000	2 / 8	2 / 8.5	14	40	178	25 165	450	15181000015039
6300	1.7 / 7	2 / 8.5	16	40	224	20 155	495	15181000015040
8000	1.3 / 5.5	2 / 8.5	18	40	284	22 155	725	15181000015041
10000	1 / 4	2 / 8.5	20	40	355	22 155	740	15181000015042
12500	0.3 / 3.5	2 / 8.5	22	40	444	22 160	855	15181000015043
16000	0.6 / 2.5	2 / 8.5	25	40	568	22 160	1250	15181000015044
20000	0.5 / 2.1	2 / 8.5	28	40	710	22 160	1320	15181000015045

Rope pulling force in 1st layer in kg*	Main dimensions in mm																
	A	B	D	E	F	G	H	L	M	N	O	P	Q	R	S	T	U**
2000	1450	544	133	300	320	215	100	530	13	172	70	100	700	100	480	56	1630
3200	1450	544	159	320	320	215	100	610	13	172	70	100	700	100	480	56	1750
4000	1450	544	178	350	320	215	100	580	13	172	70	100	700	100	480	56	1720
5000	1530	620	203	400	370	204	120	610	17	190	90	75	700	75	590	70	1770
6300	1530	620	219	430	370	204	120	610	17	190	90	75	700	75	590	70	1880
8000	1650	724	254	510	485	301	160	600	23	202	100	120	690	220	520	86	2000
10000	1650	724	279	550	485	301	160	600	23	202	100	120	690	220	520	86	2000
12500	1650	724	318	610	485	301	160	600	23	202	100	120	690	220	520	86	2130
16000	1850	1000	356	685	595	378	220	600	25	280	150	200	700	200	600	120	2240
20000	1850	1000	394	760	595	378	220	600	25	280	150	200	700	200	600	120	2310

\* subject to change

\*\* depends on type of drive

### Portable electric Wire Rope Hoist Type Minifor™

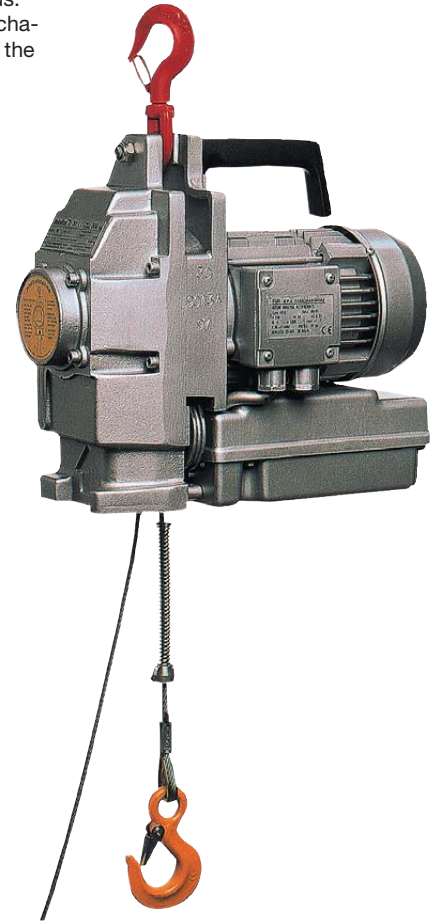
The Minifor™ is a portable, electric hoist with endlessly running wire rope for lifting and pulling of loads. The special self-clamping drive mechanism allows for a virtually unlimited rope length. This drive mechanism consists of a specially-profiled rope sheave and two pretensioned pressure rollers which clamp the rope under load.

#### Scope of delivery:

- Hoist with pendant control, length 2.5 m, without rope
- 2 limit switch springs with Allen key
- Type TR10 and TR30 with steel box, type TR30S to TR50S in cardboard box

#### Options and accessories:

- Capture pulley kit
- Rope reeling device
- Radio remote control, range appr. 50 m, frequency 433 Mhz
- Plug-in control cable
- For control cable lengths over 20 m a strain relief is recommended



Capacity in kg	Type	Lifting speed in m/min	Power supply	Power output in kW	Nominal current in A	Duty ratio** in %	Dimensions L x W x H in mm	Rope Ø in mm	Dead weight in kg*	Item no.
100	TR10	15	230 V / 50 Hz	0.37	4	60	356 x 209 x 427	6.5	21	15181500015001
300	TR30	5	230 V / 50 Hz	0.37	4	60	356 x 209 x 427	6.5	21	15181500015002
300	TR30s	13	230 V / 50 Hz	1.1	8	60	356 x 209 x 427	6.5	31.6	15181500015003
300	TR30s	13	400 V / 50 Hz	1.1	3.4	60	492 x 224 x 430	6.5	31.6	15181500015005
500	TR50	7	230 V / 50 Hz	1.1	8	60	492 x 224 x 430	6.5	31.6	15181500015004
500	TR50	7	400 V / 50 Hz	1.1	3.4	60	492 x 224 x 430	6.5	31.6	15181500015006

\* without rope \*\* at 120 c/h

**Wire rope for Minifor** (rope Ø = 6.5 mm), rope length 10 m with hook, on reel, 1 limit switch spring

Item no. 15401500035028

Other rope lengths on request.



POWERED LIFTING EQUIPMENT

Electric Wire Rope Winches

Winch for Material Transport Type tirak™

The tirak™ is an endless winch – it simply drives the rope without storing it. This makes lifting and pulling without rope length restrictions possible.

The rope run principle enables the tirak™ to ‘climb’ a rope without restriction.

Robust and powerful yet still easy to transport, the tirak™ offers outstanding reliability even in demanding environments, such as harsh construction site conditions.

Its key benefits

- low weight
- compact size
- any rope length

enable simple handling and make the tirak™ easier to integrate into proprietary applications in order to improve productivity and efficiency.

**Scope of delivery:** tirak™ winch, control panel  
Rope on demand.



Capacity in kg	Type	Lifting speed in m/min	Power supply	Power output in kW	Rope Ø in mm	Lifting force limiter	Dead weight in kg	Item no.
500	tirak™ X 500	9	400 V 3-phase	0.9	8	no	40	15181500015007
1500	tirak™ X 1530	9	400 V 3-phase	2.8	10	yes	49	15181500015008

Special rope for tirak™	Rope Ø in mm	One-sided assembly
tirak™ X 500	8	With tip and hook
tirak™ X 1530	10	With tip and hook

**!** Other capacities on request.  
With optional carry case for protecting the winches and/or integrated winder for long rope lengths on request.  
Version available for transporting people from 300 - 2,000 kg.

### G-smartrac® rope traction hoist

**NEW!**

G-smartrac® is a material rope traction hoist which drives a sheathed rope without rolling it up. This means any height can be reached. Durch den elektronischen Motorschutz werden HÜBE mit überhöhter Last vermieden. Electronic motor protection prevents lift operations from being overloaded, giving your hoist a long service life without wear.

#### Benefits of G-smartrac® vario:

- 2 speeds for pulling up and letting down
- Optimized handle for two-hand grip for transport purposes
- Plug & Play
- Flexible and light sheathed ropes made of synthetic fibres (available in all lengths)
- Quickly ready for use through easy installation by means of a safety hook
- Simple one-hand operation using pendulum control or radio remote control
- Very easy preparation of rope tip on the building site
- Height restriction in both directions using stop button

#### Optional accessories (prices on request):

- Kernmantle rope (9 mm Ø/11 mm Ø)
- Safety hook
- Load hook protection
- Radio remote control with transmitter
- Pendant control 2.5 m
- Protective housing (G-smartrac® 150 vario)
- Device case
- Rope bag
- Rope tip burner
- Cutter
- Railer coupling adapter (120 / 150 vario)
- Pulley
- Loading ramp (G-smartrac® 300 vario)



G-smartrac® 120

G-smartrac® 150 vario



G-smartrac® 300 vario



**!** Pendulum hoist rules out unloaded operations

Type	Voltage	Rope speed in m/min	Load capacity in kg	Weight in kg	Dimensions in mm	Item no.
G-smartrac 120	230 V AC / 50Hz	30	120	24	380 x 322 x 160	15181500035041
G-smartrac 150 vario	230 V AC / 50Hz	13/30	150	22	368 x 322 x 160	15181500035042
G-smartrac 300 vario	230 V AC / 50Hz	6/17	300	32	528 x 377 x 180	15181500035043

### G-trac® Material rope traction hoist

**NEW!**

G-trac® is a compact hoist in which the hauling cable is not accumulated on a drum. The cable tensioning system with capstan idler guarantees safe and slip-free starting and braking with the occurring peak loads.

#### Benefits of G-trac®:

- Powerful, reliable electric motor
- Sturdy aluminium housing ensures for low weight and high resistance
- Low-noise worm gear transmission
- Functional single point suspension or a customized four-point attachment system
- Electromagnetic, totally enclosed operating brake with manual release for emergency rescue via the centrifugal brake
- Operation hour counter
- Built-in, precise electromagnetic overload
- Ergonomic emergency hand wheel

**!** Lift construction:  
Ask for a scaffold free lift mounting with the G-trac®

Type	Load capacity in kg	Operating speed in m/min.	Rope Ø in mm	Power output in kW	Weight in kg	Item no.
G-trac 400	400	9	9	0.75	42	15181500035044
G-trac 500	500	9	9	1.1	43	15181500035045
G-trac 600	600	9	9	1.1	43	15181500035046
G-trac 800	800	9	9	1.5	48	15181500035047
G-trac 1000	1000	9	10.2	2.2	70	15181500035048

**!** Rope Ø and length on request  
Other traction hoists with higher operating speeds and personnel lifting on request



### How the Habegger rope pulling machines work

#### Functional principle

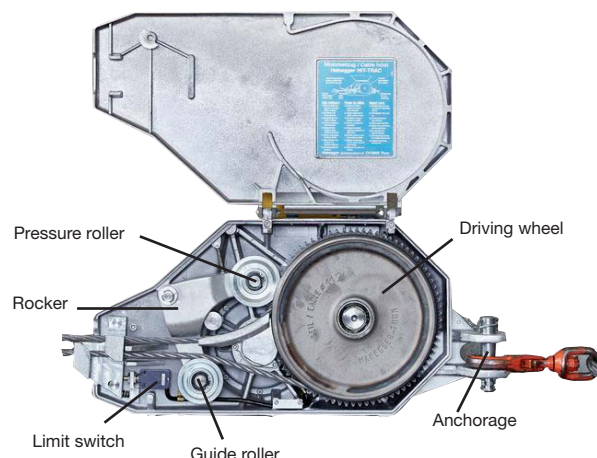
A wire rope of any length serves as the pulling medium. The rope is directed around the driving wheel by the pressure and guiding roller, and pushed out again without any load on it. This driving wheel system is patented. Force is transmitted from the flanks of the driving wheel via the three-point rocker onto the rope, which is looped around the driving sheave. The wire rope can be quickly and easily inserted and removed at any point along its length. There is no longer any need to laboriously thread it in from one end.

#### Overload protection

A built-in protective device in the form of a sliding clutch or a thermal protection device protects your wire rope hoist against overloads. The limit switch automatically switches off the electric motor if the load is pulled against the housing. Securely anchor the rope pulling machine to the work station with cords and slings.

#### Available as a powered rope pulling machine

- with an electric motor
- with an electric motor and a reel drive
- with a combustion motor
- with a hydraulic drive



Rope pulling machines can be found from page 139.

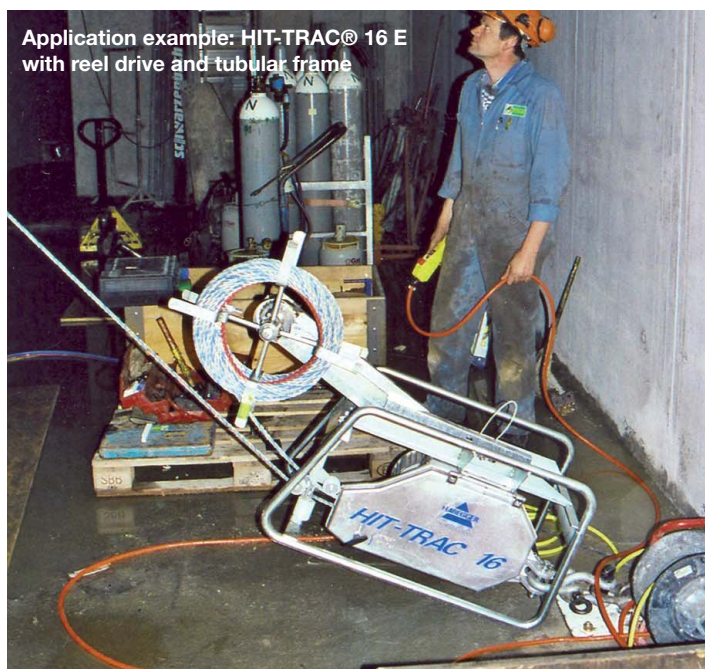
### HIT-TRAC® Motor-driven Rope Pulling Machine with Electric Motor

Suitable for lifting and pulling. With no rope drum involved this rope pulling machine's rope capacity is unlimited. Up/down movement by pendant control with emergency stop.

**HIT-TRAC® 8 E** with single phase electric motor 1.0 kW, 230 V 50 Hz, rope speed 1-6 m/min.

**HIT-TRAC® 16 E** with 3-phase electric motor 3.0 kW, 400 V 50 Hz, 7.8 A, rope speed 10 m/min

Application example: HIT-TRAC® 16 E with reel drive and tubular frame



**HIT-TRAC® 8 E**



Unmatched quality and performance!

**HIT-TRAC® 16 E**



Scope of delivery without rope.

Transport of people prohibited!

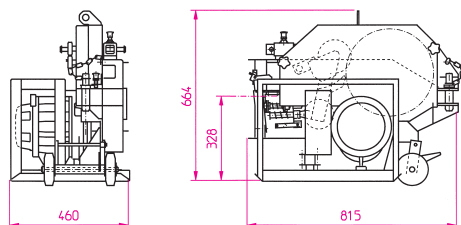
Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Duty cycle ED	Weight without rope in kg	Item no.
HIT-TRAC 8 E	800	8.2	30%	32	15220000015011
HIT-TRAC 16 E	1600	11.2	30%	58	15220000015012



### HIT-TRAC<sup>®</sup> Type 32 E with Electric Motor

with 3 kW 3-phase electric motor, 400 V, 6.8 A, 50 Hz

The professional rope pulling machine for heavy loads of up to 3.2 ton in direct pull. Lifting, lowering and pulling controlled by push-button pendant. Rope speed max. 5 m/min. Wire ropes of any length may be used as pulling medium. Power transmission from the flanges of the driving wheel directly to the rope. The wire rope can be quickly and easily inserted and withdrawn at any point along its length. The tedious job of feeding it in from one side is no longer required.



**Scope of delivery without rope.**

**Transport of people prohibited!**

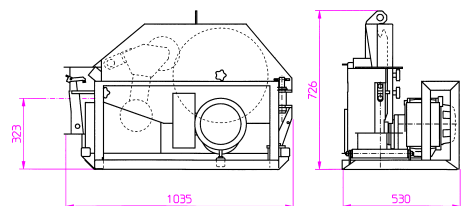
**HIT-TRAC<sup>®</sup>  
32 E**



Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Rope speed in m/min.	Duty cycle ED	Weight without rope in kg	Item no.
HIT-TRAC 32 E	3200	16	5	30%	160	15220000015013

### HIT-TRAC<sup>®</sup> Type 64 E with Electric Motor

with 3 kW 3-phase electric motor, 400 V, 6.8 A, 50 Hz



**Scope of delivery without rope.**

**Transport of people prohibited!**

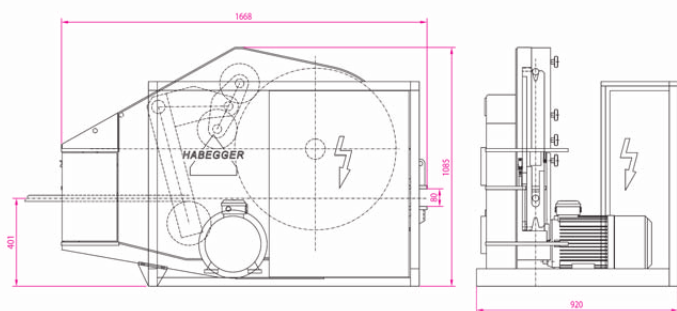
**HIT-TRAC<sup>®</sup>  
64 E**



Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Rope speed in m/min.	Duty cycle ED	Weight without rope kg	Item no.
HIT-TRAC 64 E	6400	20	2.5	30%	245	15220000015014

### HIT-TRAC<sup>®</sup> Type 128 E with Electric Motor

with 7.5 kW 3-phase electric motor, 400 V, 15.1 A, 50 Hz



**Scope of delivery without rope.**

**Transport of people prohibited!**

**HIT-TRAC<sup>®</sup>  
128 E**



Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Rope speed in m/min.	Duty cycle ED	Weight without rope kg	Item no.
HIT-TRAC 128 E	12800	28	2.5	100%	860	15220000015015

### HIT-TRAC® 16 E with Reel Drive and Tubular Skid

The ideal supplement for the HIT-TRAC® 16 E with electric motor when working with long rope lengths. The wire rope is automatically coiled and uncoiled. The rope lasts longer as it does not run over edges, gets buckled or unnecessarily dirty. The coiling device is directly driven by the HIT-TRAC® motor. The outrigger can be folded in for transport.

Max. rope length 120 m in Ø 11.2 mm



**Transport of people prohibited!**

#### HIT-TRAC® 16 E



Description	Dimensions in mm	Weight in kg	Item no.
HIT-Trac 16/11 E with reel drive and tubular skid w/o rope	630x1100x492	83	15220000015016

### HIT-TRAC® Motor-driven Rope Pulling Machine with Combustion Engine Type 8 B / 16 B

Suitable for lifting and pulling. With no rope drum involved this rope pulling machine's rope capacity is unlimited. Using the built-on disc brake the rope can be slackened or precisely lowered. Overload protection thanks to slipping clutch at 20% overload.

**HIT-TRAC® 8 B with Stihl combustion engine 2.6 kW,  
rope speed approx. 10 m/min**

**HIT-TRAC® 16 B with Stihl combustion engine 5.2 kW,  
maximum rope speed 10 m/min**



**Scope of delivery without rope.**

**Transport of people prohibited!**

#### HIT-TRAC® 8 B



#### HIT-TRAC® 16 B



Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Weight without rope in kg	Item no.
HIT-TRAC 8 B	800	8.2	30	15220000015009
HIT-TRAC 16 B	1600	11.2	44	15220000015010

### Reel Drive

The motor can permanently remain on and produces a pulling force of approx. 20 kg depending on the diameter.  
Depending on the force on the rope, this is either wound up or unwound.  
No automatic winding device

#### Reel Drive 4



#### Reel Drive 6



Type	Rope capture in m for	Winding speed in m/min.	Drive motor	Voltage in V	Current in A	Weight in kg	For reel width up to mm	Item no.
Reel Drive 4	Rope Ø 8mm = max. 600 m Rope Ø 11 mm = max. 300 m	0 – 10	Rotary field magnet	3 x 400	0.2	70	*	15401500015046
Reel Drive 6	Reels up to Ø 1.2 m	0 - 5	Rotary field magnet	3 x 400	0.2	162	780	15401500015047

\*Fixed reel



**Scope of delivery:**  
**Reel Drive 4 without rope**  
**Reel Drive 6 without rope and wooden reel**

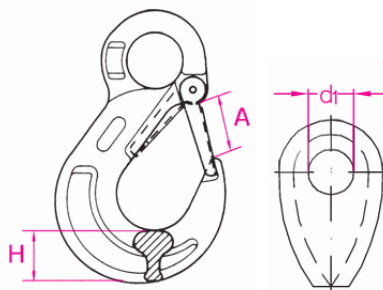
### Special Wire Rope for HIT-TRAC® Motor-driven Rope Pulling Machines

#### Rope for HIT-TRAC 8B, 8E, 16 B, 16 E, 32 E, 64 E:

One end with pressed thimble and safety eye hook, other end fused and tapered.

#### Rope for HIT-TRAC 128 E:

Both ends with pressed thimbles and safety eye hooks



**Available in almost any metre length thanks to the processing of piece goods.**  
**Also available with other hook dimensions on request.**

Description	Nominal capacity in kg	Rope Ø in mm	Hook dimensions in mm		Thimble dimensions in mm	Item no.
			A	H	Ø d1	
First metre Special wire rope for HIT-TRAC 8B, 8E	800	8.2	25	20	-	20151500015066
First metre Special wire rope for HIT-TRAC 16 B, 16 E	1600	11.2	29.5	27	-	20151500015067
First metre Special wire rope for HIT-TRAC 32 E	3200	16	38	37	-	20151500015068
First metre Special wire rope for HIT-TRAC 64 E	6400	20	52.5	49	-	20151500015069
First metre Special wire rope for HIT-TRAC 128 E	12800	28	-	-	55	20151500015070



### Hydraulic Drive

#### Make it easier for yourself

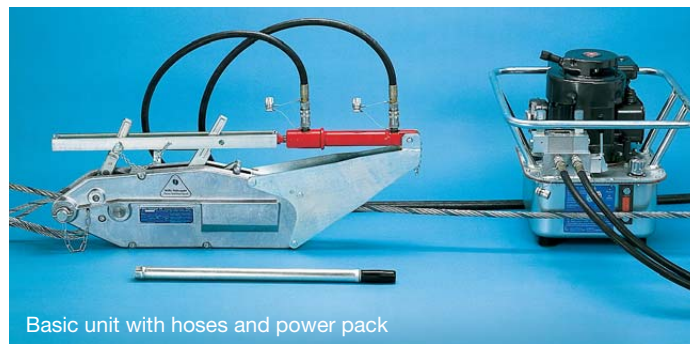
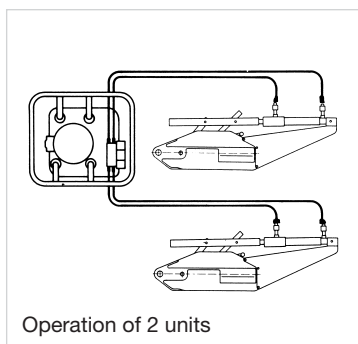
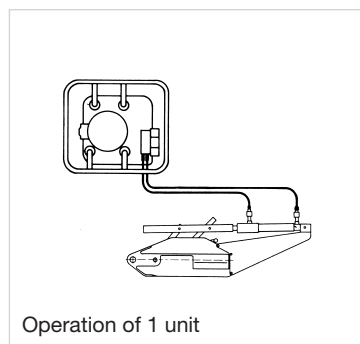
For frequent use the hydraulic drive soon pays off. Without much expense it can be retrofitted to the manual rope pulling machines HIT 16 and HIT 32. The units remain as easy to handle and as practical as before. If necessary they can be switched to manual operation. Change of direction can be achieved by relocating the cylinder fitting from the forward motion lever to the reverse motion lever. The hydraulic drive is separate.

To ensure optimum performance, the hydraulic drives must be adapted to every specific application. Therefore we supplement the basic equipment sets with suitable hydraulic hoses, cylinders, supports, and hydraulic power packs. An existing hydraulic installation can be completed with a control valve. In agricultural applications the tractor will provide the necessary pressure directly. On request you will receive all your material in strong wooden crates which simplify transport and protect it from damage.

#### Rope pulling machine with hydraulic drive



Type	Nom. capacity in kg	Rope speed in m/min		Weight in kg	Item no. Basic unit w/o rope	Item no. Support	Item no. Hydraulic cylinder
		forward/lifting	reverse/lowering				
HIT-16-H	1600	1.2	2.0	20	15220000015007	15401500015104	15401500015076
HIT-32-H	3200	0.3	1.2	31	15220000015008	15401500015103	15401500015070



Description	Information	Dimensions in m	Weight in kg	Item no.
Hydraulic hoses	with quick release connectors	3	2.1	15401500015071
	• Inside Ø 9.5 mm	5	3.3	15401500015072
	• Max. pressure 280 bar	10	6.7	15401500015073

Depending on the hydraulic power pack one or two units can be operated simultaneously. The power packs are either driven by a 4-stroke petrol engine or an electric motor for 400 V 50 Hz 3-phase.



Type	Drive	Connections rope pulling machines	Oil flow rate in l/min	Pressure in bar	Tank capacity in litres	Weight in kg	Power output in kW	Item no.
HE 1	400V 50Hz	1	8.4	160	13	50	1.5	15401500015075
HE 2	400V 50Hz	2	2 x 8.4	160	17	60	2.9	15401500015077
HB 1	petrol	1	9.2	160	13	46	3.7	15401500015074
HB 2	petrol	2	2 x 9.2	160	17	60	5.9	15401500015078

### Wedge Clamping Tool CONI-KLAM

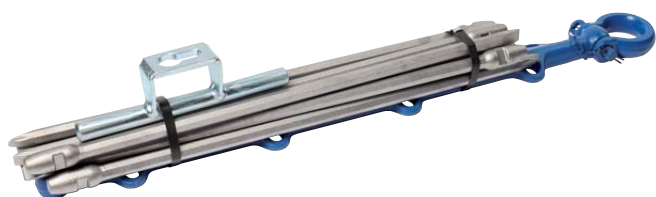
The wedge clamping tools CONI-KLAM are simple and practical devices for gripping and supporting the ropes during pulling. The rope is retained by parallel moveable gripping jaws. CONI-KLAM clamping tools are self-gripping; the retention force always adjusts itself to the pulling force. The mechanism is released by pushing back the wedge.



Nominal load in kg	Rope Ø in mm	Type	Weight in kg	Item no.
1000	5 - 10	EC 10	1.2	15401500015049
2000	10 - 14	EC 14	2.6	15401500015050
3200	14 - 21	EC 21	5.4	15401500015051

### Anchoring Systems

The anchoring system must always and everywhere be adapted to the pulling force of the device, taking into account the soil conditions and the weather. The titan field anchorage has proven very effective in open terrain.



**Titan field anchorage (closed)**



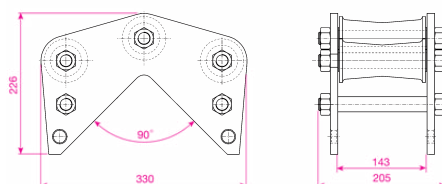
**HIT plate anchorage**



**HIT plate anchorage 1.5 m**

Description	For rope pulling machines	Weight in kg	Item no.
Titan field anchorage with 8 anchoring rods	HIT 16 / 32 / HIT-TRAC	31	15401500015052
HIT plate anchorage	HIT 6 / 10 / 16	1	15401500015053

### Rope Deflection Roller 90°



Designation	Rope Ø in mm	Rope force in kN	Item no.
Rope Deflection Roller 90°, 3 rollers	up to 16	max. 80	15401500015045



### Rope Deflection Roller, single

Total length in mm	Weight in kg	Item no. single
170	2.0	15401500015042



### Rope Deflection Roller, double

Total length in mm	Weight in kg	Item no. double
410	4.2	15401500015043



### Rope Deflection Roller, triple

Total length in mm	Weight in kg	Item no. triple
650	6.5	15401500015044



#### Admissible load:

A single roller can be loaded with up to 12 kN, i.e. with a pulling force of 16 kN it is sufficient to have 2 rollers to guide the rope around a 90° angle.



### Rope Pulleys, Steel and Aluminium, foldable

To deflect the special wire ropes using rope pulling machines if your position is not in the direction of pull or for use as block and tackle to double load capacity.



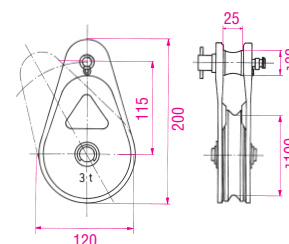
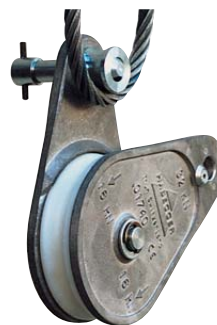
**Further sheave blocks and rope cylinders can be found on pages 442-443.**

#### Rope Pulley Type AL-A 32 kN

##### Model: Foldable

For deflection of ropes and for doubling the load capacity of rope pulling machines up to HIT 16.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
3200	AL-A 32 kN Alu-Friction bearing	100	11.2	200	1.2	15260000015054
3200	ST-A 32 kN Steel-Ball bearing	105	11.2	225	3.3	15260000015058



#### Rope Pulley Type AL-A 64 kN

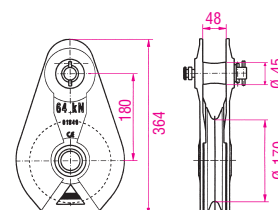
##### Model: Foldable

For deflection of ropes and for doubling the load capacity of rope pulling machines up to HIT 22.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
6400	AL-A 64 kN Alu-Friction bearing	170	16.2	364	5.0	15260000015055
6400	AL-A 64 kN Alu-Friction bearing	170	16.2	364	6.0	15260000015057
6400	ST-A 64 kN Steel-Ball bearing	170	16.2	348	8.0	15260000015059



Aluminium version

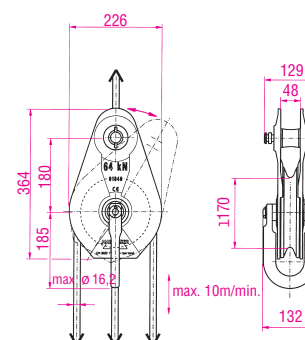


#### Rope Pulley Type AL-A 64 kN

##### Model: Foldable, aluminium, friction bearing, anchorage bracket

To increase pulling capacity of manual rope pulling machines HIT 16 up to the triple by multiple reeving of the rope.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
6400	AL-A 64 kN	170	16.2	365	5.0	15260000015056



#### Rope Pulley Type ST-A 128 kN

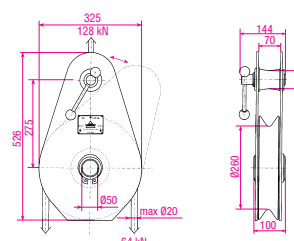
##### Model: Foldable, steel, ball bearing

1 and 2 sheave versions. For rope pulling machines up to 6.4 ton load capacity.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
12500	ST-A 128 kN Steel-KL, 1 sheaves	260	20.0	520	20.5	15260000015060
12500	ST-A 128 kN Steel-KL, 2 sheaves	260	20.0	520	23	15260000015061



1 sheave version

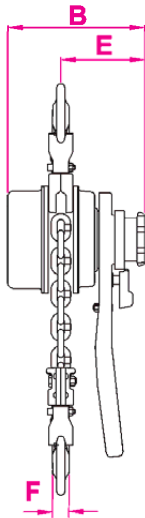
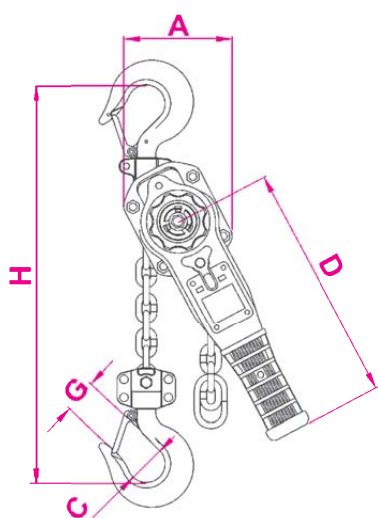


### Lever Hoist Type CLLH

**The compact and lightweight premium class ratchet hoist!**  
**Designed for demanding applications.**

- Tough and shock-resistant housing
- Forged hooks with reinforced safety latch made from cast steel
- Double safety free chaining device, optimized for fast height adjustment of the unloaded chain
- Optimized lever with improved ergonomics and reinforced cross-section
- High quality powder coating in RAL 3000 of the housing components
- All unpainted parts with high-grade corrosion protection
- Low-wear sintered brake linings
- Ratchet disc and pawl with additional wear- and corrosion protection
- Load wheel with needle bearing
- High-strength RUD load chain acc. to DIN EN 818-7-T
- Extensive spare parts and maintenance service

**Option:** Overload protection with slipping clutch



See a video of this product on our Youtube-Channel or with this QR-Code



**Load chain for manual hoists**  
**version RT see page 127.**

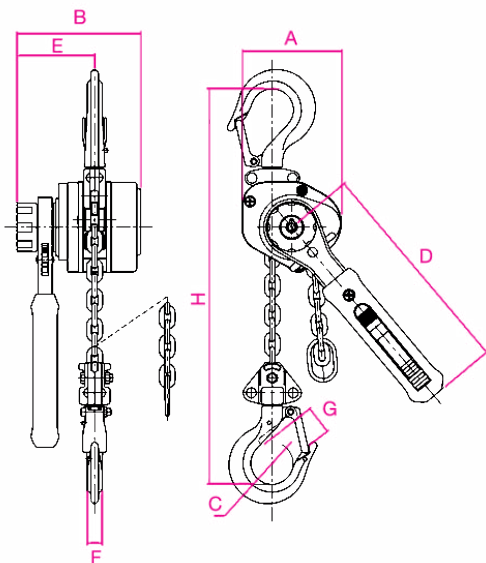
Load capacity in kg	Type	Standard lifting height in m	Lever force at rated load in daN	Chain falls	Dimensions in mm								Weight in kg/pce	Item no.
					A	B	C	D	E	F	G	H		
800	CLLH0008F	1.5	29	1	119	144	35.5	245	97	14	23.5	280	5.7	15201000015001
1000	CLLH0010F	1.5	36	1	119	144	42.5	245	97	15	29	300	5.9	15201000015003
1600	CLLH0016F	1.5	34	1	126	126	42.5	265	100	19	32	335	8	15201000015005
2500	CLLH0025F	1.5	37	1	150	150	47	265	102	21	36.5	375	11.2	15201000015007
3200	CLLH0032F	1.5	37	1	159	159	50	415	112	24.5	39	395	15	15201000015009
6300	CLLH0063F	1.5	38	2	217	217	60	415	112	34	50	540	26	15201000015011

### Lever Hoist Mini Type CLLM

**Our little powerhouse:  
Top-performance,  
top design in smallest  
dimensions**

The ultra-light premium class mini lever hoist. Holds more than 150 times its own weight! (with standard lifting height)

- Attractive high-quality aluminium housing
- Extended application range due to wide hook opening
- Easy handling with low physical effort on the lever
- Easy adjustment by free chaining mode
- Load drop protection in free-wheeling position
- High-strength RUD load chain of highest grade
- Fully protected mechanism for low maintenance cost



See a video of this product on our Youtube-Channel or with this QR-Code

Load capacity in kg	Type	Standard lift in m	Lever force at rated load in daN	Chain falls	Dimensions in mm								Weight in kg/pce	Item no.
					A	B	C	D	E	F	G	H		
250	CLLM003F	1.0	20	1	68	87	32	140	55.5	11	21	200	1.5	15201000015013
500	CLLM005F	1.0	24	1	81	100.5	34.5	180	62.5	12	24.5	250	2.5	15201000015015
750	CLLM075F	1.5	26	1	92	105	35.5	180	64	14	28.5	260	3.4	15201000015017
1500	CLLM150F	1.5	32	1	109	122	42.5	220	68.5	21.5	35	330	5.9	15201000015019



# MANUAL LIFTING EQUIPMENT

## Lever Hoists

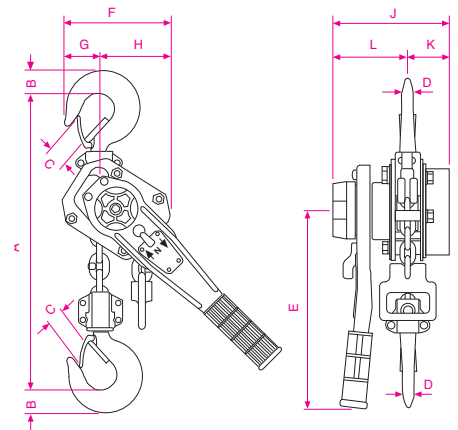
### Lever Hoist Type PT

Also available  
with slipping  
clutch!!!

An all-purpose hoist especially for applications where cost-performance ratio is decisive.

- Free chaining device (for fast pulling of the unloaded chain through the hoist)
- Galvanised and yellow-chromated round steel chain according to all national and international requirements
- Swivelling, forged hooks made of non-ageing heat-treated steel with safety latches
- Short lever with rubber grip for safe handling of the hoist

Each PT model is proof-tested with 50% overload and comes with a test certificate that includes the serial number.

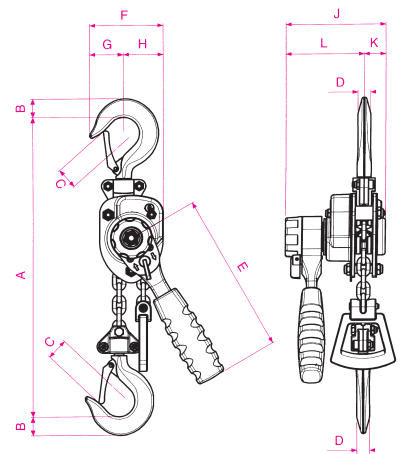


Load capacity in kg	Chain falls	Lever force at nominal load in daN	Lift with a lever twist in mm	Standard lifting height in m	Dimensions in mm											Weight with standard lift in kg	Item no.
					A	B	C	D	E	F	G	H	J	K	L		
800	1	26	24	1.5	290	21	24	13	235	120	38	82	142	52	90	5.5	15201000015021
1600	1	30	23	1.5	330	27	31	20	370	138	41	97	163	65	98	9.6	15201000015022
3200	1	38	16	1.5	430	36	35	24	370	177	53	124	185	83	102	16	15201000015023
6300	2	39	8	1.5	580	53	46	43	370	259	85	174	185	83	102	31	15201000015024

### Lever hoist Type CS-Mini

Big in performance!  
Fits in every tool box!

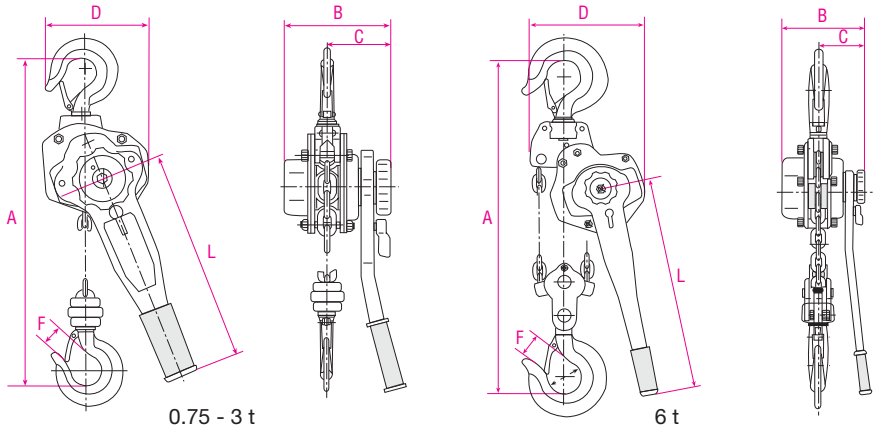
- For lifting, pulling, lashing
- **Dead weight only 2.2 kg** (in 250 kg version)
- Fits in every tool box
- Compact design, easy handling
- Galvanised, high-strength round steel chain according to EN 818-7
- Robust rubber grip with anti-slip profile
- Forged hooks
- **Standard lifting height 1.5 m**



Load capacity in kg	Lever force nom. load in daN	Chain falls	Lift with a lever twist in mm	Dimensions in mm											Weight w/ standard lift in kg	Item no.
				A min.	B	C	D	E	F	G	H	J	K	L		
250	25	1	80	240	20	21	14	160	72	33	39	98	21	77	2.2	15201000015025
500	25	1	40	282	17	24	12	160	104	38	66	116	36	80	2.8	15201000015026

### Lever Hoist Type RZ

- With round steel chain according to EN 818-7
- Standard lifting height 1.5 m



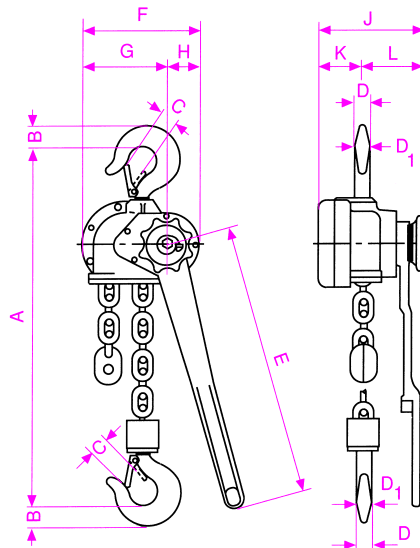
Load capacity in kg	Type	Lever force at nominal load in N	Chain falls	Dimensions in mm							Weight with standard lift in kg	Item no.
				A	B	C	D	H min.	F	L		
750	RZ 75	210	1	320	156	94	132	38	26	280	7.5	15201000015038
1500	RZ 150	240	1	360	176	103	162	42	32	410	11.5	15201000015039
2000	RZ 200	300	1	365	176	103	162	45	34	410	12.7	15201000015040
3000	RZ 300	320	1	470	202	112	185	50	34	410	21.0	15201000015041
6000	RZ 600	340	2	565	202	112	230	65	44	410	31.5	15201000015042

### Lever Hoist Type D 85 with flexible Round Steel Chain

- Portable and versatile hoist for lifting, pulling and tensioning
- Simple and safe use
- Low headroom for use in confined areas
- Short distance between hooks
- Housing of malleable cast iron
- Drop-forged hooks for rough industrial use
- Virtually unlimited applications in workshops, machine construction, steel mills, shipbuilding, assembly in civil engineering
- Ideal for positioning of heavy machinery, power line construction and lashing of heavy loads for transport
- The robust design makes the hoist suitable for use in damp environments

#### Option:

- Available with overload protection
- Type C 85 with roller chain



Type C 85 with roller chain

Capacity in kg	Lever force at nominal load in daN	Chain falls	Lift with a lever twist in mm	Dimensions in mm												Weight w/ standard lift in kg	Item no.
				A min.	B	C	D	D1	E	F	G	H	J	K	L		
750	38	1	111	322	21	27	15	17	443	112	56	56	142	39	103	8.2	15201000015033
1500	31	1	45	389	27	30	20	23	443	189	134	55	171	72	99	16.3	15201000015034
3000	40	1	33	403	35	34	25	25	570	197	142	55	179	76	103	19.6	15201000015035
6000	42	2	17	532	48	46	40	40	570	197	142	55	218	76	142	32.9	15201000015036
10000	37	3	11	805	61	54	40	45	570	305	163	142	218	76	142	60	15201000015037

MANUAL LIFTING EQUIPMENT

Lever Hoists

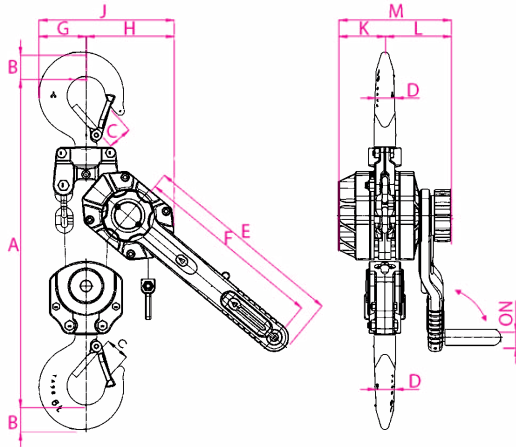
YaleERGO 360 - the ergonomic hoist

NEW!



- Ergonomic and safe supporting design
- Lever with integrated fold-down handle
- Up to 12 times faster working with 30% less lifting force
- Versatile, portable device for lifting, pulling and tensioning
- Easy and safe handling
- Low height ensures usage in extreme tight room conditions
- Unlimited applications in workshops, machinery, steel mills, shipbuilding industry, assembly facility and construction
- Ideal for moving and positioning of heavy machines, insertion of power lines and securing heavy loads on transport vehicles

- Option:
- Available with overload protection

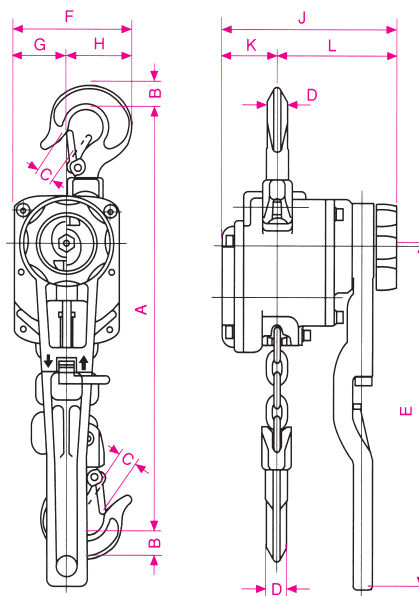


Load capacity in kg	Lever force at nominal load in daN	Chain falls	Lift with a lever twist in mm	Dimensions in mm												Weight with standard lift in kg	Item no. Standard lifting height 1.5 m
				A min.	B	C	D	E	F	G	H	J	K	L	M		
750	20	1	27.2	320	20	27	18	327	300	40	81	121	56	105	161	6.6	15201000035357
1500	26.5	1	21.7	375	26	31	21	327	300	51	96	147	69	110	179	9.5	15201000035358
3000	36	1	20.1	445	37	40	28	377	350	57	123	180	86	121	207	16.8	15201000035359
6000	38	2	10.1	563	45	44	35	377	350	71	162	233	86	121	207	28.6	15201000035360



### Lever Hoist Type AL

- Compact design
- Housing and lever made of aluminium alloy
- Low weight
- High-strength round steel chain according to EN 818-7
- Low operating effort
- Short lever
- Free chaining device
- Articulated swivel hooks



Load capacity in kg	Lever force at nominal load in daN	Lift with a lever twist in mm	Chain falls	Standard lifting height in m	Dimensions in mm											Weight at standard lift in kg	Item no.
					A	B	C	D	E	F	G	H	J	K	L		
750	16	30	1	1.5	315	20	22	14	300	106	47	59	154	49	105	6.4	15201000015053
1000	22	30	1	1.5	325	23	23	16	300	109	47	62	154	49	105	6.6	15201000015054
1500	18	16	1	1.5	380	27	26	20	300	138	60	78	177	74	103	10	15201000015055
3000	28	14	1	1.5	455	36	33	24	400	168	75	93	212	94	118	18	15201000015056

### Chain Lock for Lever Hoists

- The use of chain locks is limited to lever ratchet hoists.
- This helps to avoid the loose chain end from slipping through.
- They have to be mounted close to the hoist at the free unloaded end of the chain.
- Main application is overhead line construction.



Load capacity in kg	Nominal size	Chain size in mm	Weight in kg/pce	Item no.
800	6	6 x 18	0.3	15401000015292
1600	8	8 x 24	0.5	15401000015293
3200	10	10 x 30	0.8	15401000015294



**Not to be used for shortening or lifting!**

# MANUAL LIFTING EQUIPMENT

## Chain Blocks

### Spur Wheel Chain Block with integrated Push Trolley Type Yalelift ITP Spur Wheel Chain Block with integrated Geared Trolley Type Yalelift ITG

Load capacities 500 - 5,000 kg

The combination of a Yalelift 360 with a low headroom trolley provides more flexibility in applications.

- All units up to 3,000 kg are delivered with a single chain fall
- Low headroom, ideal for low ceilings
- The manual trolley is adjustable to fit a wide range of beam profiles
- The excellent running characteristics of the trolley wheels are guaranteed by ball bearings
- Anti-tilt device and wheel fracture supports are standard

#### Option:

- Corrosion-protected version
- Adjustable overload protection
- Lockable trolley
- Chain container
- Rubber approach bumpers (see fig. 1)
- Explosion-protected version



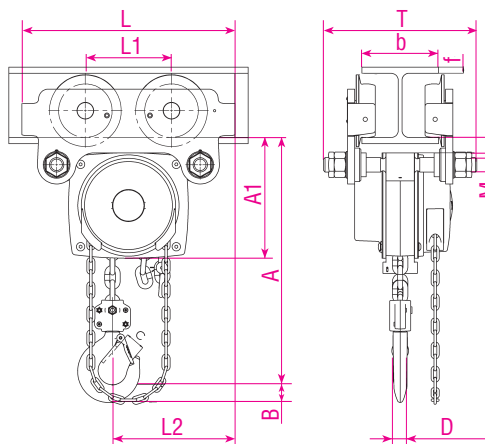
Fig. 1



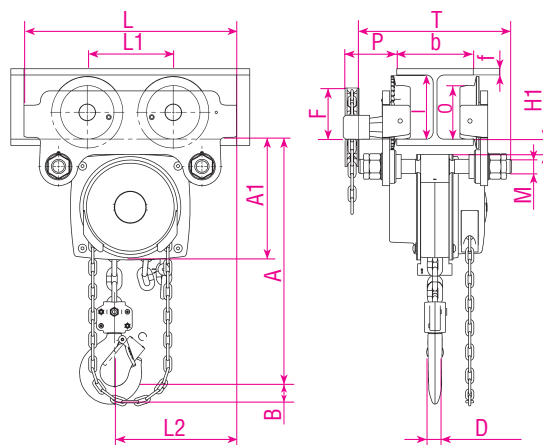
Capacities up to 20 t available.



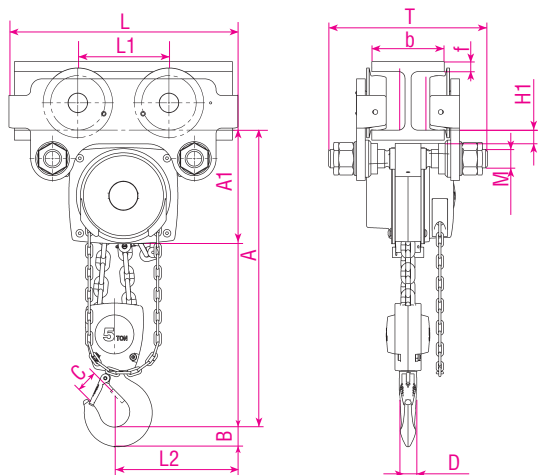
Also available in explosion-protected version.



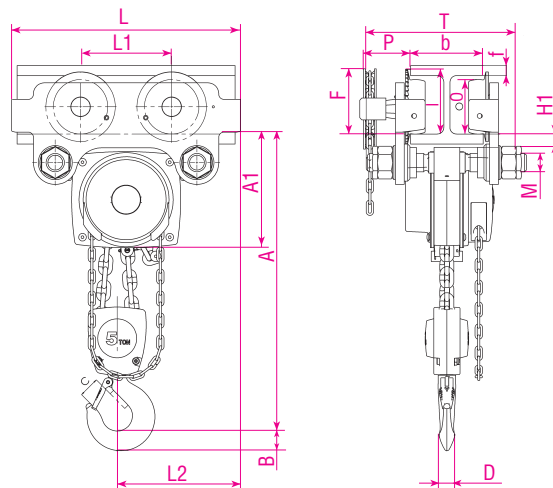
Type P Load capacity 0.5 - 3 t



Type G Load capacity 0.5 - 3 t



Type P Load capacity 5 t



Type G Load capacity 5 t

Load capacity in kg	Type	Dimensions in mm with 3 m lift																
		A min.	A1	B	C	D	F (Type -G)	H1	I (Type -P)	I (Type -G)	L	L1	L2	M	O	P	T (Range A)	T (Range B)
500	A	245	158	17	24	14	-	24.5	71.5	-	270	130	159	M18	60	-	280	400
500	B	245	158	17	24	14	92	24.5	-	76.5	270	130	159	M18	60	108	280	400
1000	A	272	178	22	29	19	-	24	71.5	-	310	130	175	M22	60	-	290	410
1000	B	272	178	22	29	19	92	24	-	76.5	310	130	175	M22	60	110	290	410
2000	A	323	205.5	30	35	22	-	23.5	95.5	-	360	150	207	M27	80	-	305	425
2000	B	323	205.5	30	35	22	91	23.5	-	98	360	150	207	M27	80	112	305	425
3000	A	382	252	38	40	30	-	32	131	-	445	180	256	M30	112	-	320	440
3000	B	382	252	38	40	30	107	32	-	132.5	445	180	256	M30	112	112	320	440
5000	A	550	260.5	45	47	37	-	30.5	142.5	-	525	209	283	M42	125	-	364	484
5000	B	550	260.5	45	47	37	149.5	30.5	-	148.5	525	209	283	M42	125	117	364	484

Load capacity in kg	Type	Beam width b in mm	Minimum curve radius in m	Max. flange thickness t in mm	Weight Type G in kg/pce	Item no. Type G	Weight Type P in kg/pce	Item no. Type P
500	A	50-180	0.90	19	24	15241000015012	20	15241000015032
500	B	180-300	0.90	19	25	15241000015013	21	15241000015033
1000	A	50-180	0.90	19	32	15241000015014	27	15241000015034
1000	B	180-300	0.90	19	33	15241000015015	29	15241000015035
2000	A	58-180	1.15	19	49	15241000015016	44	15241000015036
2000	B	180-300	1.15	19	50	15241000015017	46	15241000015037
3000	A	74-180	1.50	27	82	15241000015018	77	15241000015038
3000	B	180-300	1.40	27	84	15241000015019	79	15241000015039
5000	A	98-180	2.00	27	130	15241000015020	125	15241000015040
5000	B	180-300	1.80	27	134	15241000015021	129	15241000015041

### Type Yalelift360 - The 360° Chain Block with Round Steel Chain

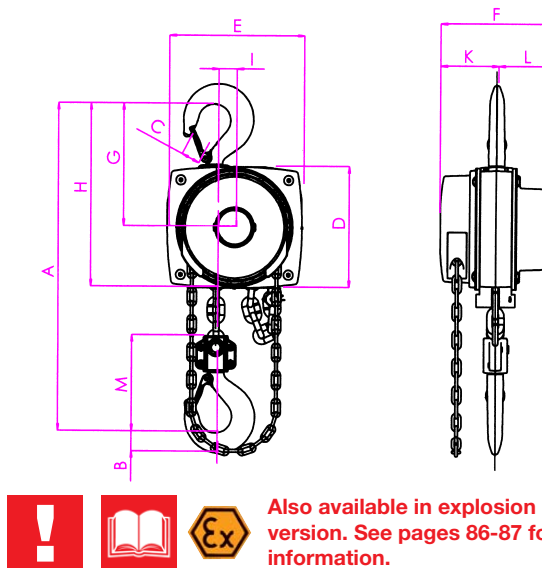
Standard lifting height 3 m  
Load capacity 500 - 5,000 kg

#### Your benefits:

- The new 360° rotating hand chain wheel cover allows the user to operate the hand chain from any angle
- Additional safety for the operator due to 360° rotating hand chain wheel cover
- New patented brake system provides quiet, smooth and safe lifting at low maintenance
- Durable and cost-saving due to first-class workmanship
- Even in the toughest outdoor conditions the internal gear is protected by the almost fully enclosed chain guide and gear group

#### Option:

- Available with overload protection



Also available in explosion protected version. See pages 86-87 for detailed information.



Load capacity in kg	Standard lifting height in m	Lift force at nominal load in daN	Chain falls	Lift per 1 m hand chain in mm	Dimensions in mm														Weight at standard lift in kg	Item no.
					A	B	C	D	E	F	G	H	I	K	L	M	N			
500	3	21	1	33	300	17	24	133	148	148	139	206	24	61	87	110	14	9	15241000015052	
1000	3	30	1	20	335	22	29	156	175	167	164	242	24	70	97	125	19	13	15241000015053	
2000	3	32	1	14	395	30	35	182	203	194	192	283	31	83	111	156	22	20	15241000015054	
3000	3	38	1	12	520	38	40	220	250	219	225	335	34	95	124	178	30	29	15241000015055	
5000	3	34	2	6	654	45	47	220	250	219	242	352	21	95	124	285	37	38	15241000015056	

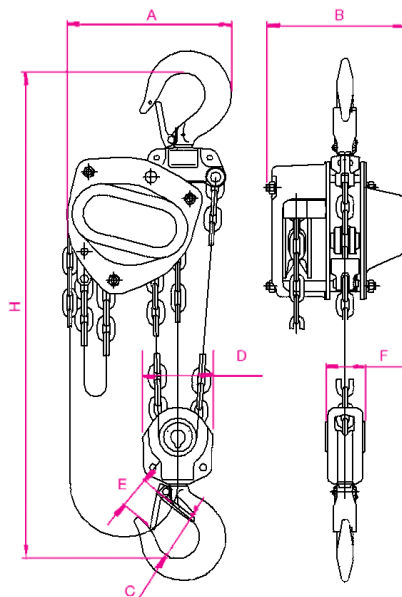
Higher load capacities up to 20 t available on request.



### Chain Block Type CLCB

The compact and lightweight premium class chain block! Designed for demanding applications.

- Highly shock-resistant housing, fully encapsulated against moisture and dust
- Forged hooks with reinforced safety latch made from cast steel
- Main axle with ball bearing to minimize effort
- Precision gear for long working life
- All unpainted parts with high-grade corrosion protection
- Ratchet disc and pawl with additional wear- and corrosion protection
- Low-wear sintered brake linings
- Completely redesigned connecting bolt, accessible from the outside, for fast and easy exchange of the suspension hook or attachment to a trolley
- Housing with high quality powder coating in RAL 3000
- Extensive spare parts and maintenance service



See a video of this product on our Youtube-Channel or with this QR-Code

Load capacity in kg	Type	Standard lift in m	Lift force at nominal load in N	Chain falls	Chain overhauled to lift load 1 m in m	Weight in kg/pce	Item no.
500	CLCB005F	3.0	22.8	1	25	11	15241000015001
1000	CLCB010F	3.0	28.4	1	43	13	15241000015002
1500	CLCB015F	3.0	34.3	1	57	16	15241000015003
3000	CLCB030F	3.0	35.3	2	114	24	15241000015005
5000	CLCB050F	3.0	33.3	2	198	41	15241000015006

Load capacity in kg	Type	Dimensions in mm						
		A	B	C	D	E	F	H
500	CLCB005F	139.5	130.5	32	43	27	25	285
1000	CLCB010F	161	161.5	40	51	33	30	295
1500	CLCB015F	182	170	42	64	33.5	34	350
3000	CLCB030F	235	170	52	106	43.5	53	510
5000	CLCB050F	282	192	60	133	51	64	600



Load capacities in similar versions available up to 50 tons.

Load chain for manual hoists version RT see page 127.

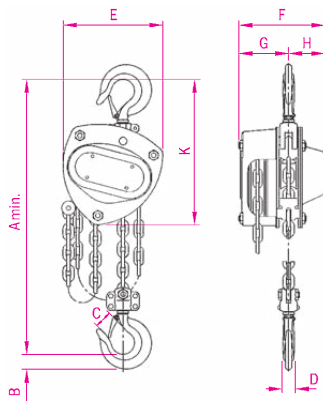
### Spur Wheel Chain Block Type VSIII

Improved  
version

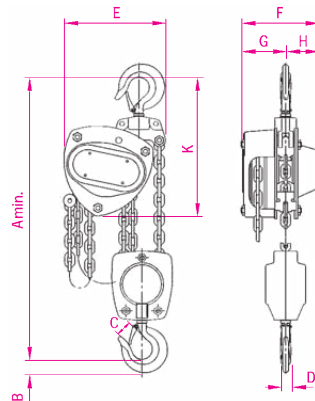
- The enhanced hand chain guide enables the hand chain to run smoothly without tilting or sticking.
- High-quality bearings in the side plates, the gear cover and the load chain wheel enable the smooth true running of the load chain wheel and drive pinion.
- Optimised manual forces enable simple handling.
- Precision machined guide rollers enable the load chain to run optimally.
- Ball bearings and roller bearings in the gearbox, side plates and load chain wheel guarantee durability and a maintenance friendly design.
- Zinc-plated and yellow-chromated brake parts and chain guide rollers ensure increased corrosion protection.
- The zinc-plated load chain supplied as standard provides added corrosion protection.

#### Option:

- Available with chain container
- Available with overload protection



Load-bearing chain falls: 1



Load-bearing chain falls: 2



Also available  
with chain  
container!!!



**Higher load capacities  
available. Please  
ask us.**

#### Standard lifting height 3 m

Load capacity in kg	Type	Lift force at nominal load in daN	Chain falls	Weight at standard lifting height in kg	Item no.
250	VSIII 0.25/1	20	1	3.9	15241000015062
500	VSIII 0.5/1	21	1	9.0	15241000015063
1000	VSIII 1/1	24	1	11.5	15241000015064
1500	VSIII 1.5/1	30	1	17.5	15241000015065
2000	VSIII 2/1	32	1	19.0	15241000015066
2000	VSIII 2/2	29	2	17.3	15241000015067
3000	VSIII 3/1	40	1	31.0	15241000015068
3000	VSIII 3/2	37	2	27.0	15241000015069
5000	VSIII 5/2	41	2	43.0	15241000015070

Load capacity in kg	Type	Dimensions in mm								
		A	B	C	D	E	F	G	H	K
250	VSIII 0.25/1	290	12	26	11	118	113	65	48	190
500	VSIII 0.5/1	350	21	23	16	145	140	80	60	240
1000	VSIII 1/1	380	28	27	20	158	155	87	68	270
1500	VSIII 1.5/1	450	33	36	22	180	175	85	90	300
2000	VSIII 2/1	460	36	35	29	205	180	94	86	320
2000	VSIII 2/2	490	36	35	29	170	155	87	68	285
3000	VSIII 3/1	570	45	40	29	240	210	110	100	370
3000	VSIII 3/2	580	45	40	29	220	175	94	81	340
5000	VSIII 5/2	700	47	45	40	250	190	95	95	410

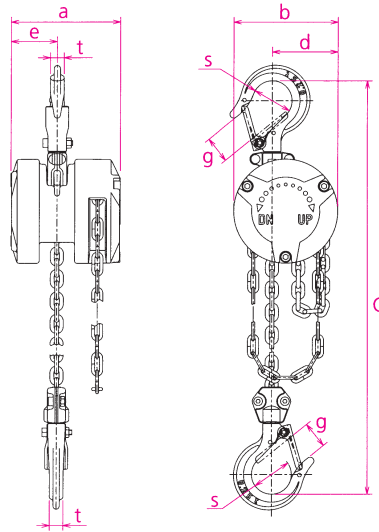
# MANUAL LIFTING EQUIPMENT

## Chain Blocks

### Mini Chain Block Type CX

The ultra-light premium class mini chain block.  
Holds up to 100 times its own weight!  
(with standard lifting height)

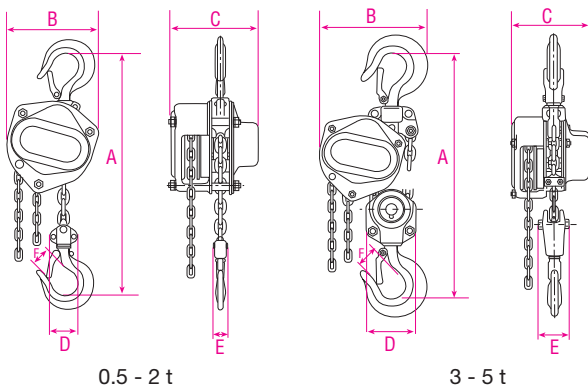
- Excellently crafted aluminium housing
- Extended application range due to wide hook opening
- Increased safety due to overload protection
- High-strength load chain of the highest quality class (BG tested)
- Lifting height: 3.0 m



Load capacity in kg	Type	Dimensions load chain in mm	Standard length hand chain in m	Lift force at nominal load in daN	Chain falls	Chain overhauled to lift load 1 m in m	Dimensions in mm								Weight in kg/pce	Item no.
							a	b	C	d	e	g	s	t		
250	CX003	3.2 x 9.0	2.5	14.7	1	33.8	88	84	217	53	37	21	32	11	2.4	15241000015079
500	CX005	4.3 x 12.0	2.5	19.0	1	42.8	102	102	260	66	44	24.5	35.5	12	4.5	15241000015080

### Spur Wheel Chain Block Type FZ

With round steel chain according to EN 818-7  
Standard lifting height 3 m



Load capacity in kg	Type	Lift force at nominal load in daN	Chain falls	Dimensions in mm							Weight at standard lift in kg	Item no.
				A	B	C	D	E	F	fl		
500	FZ 05	26	1	312	140	131	60	33	31	36	10	15241000015083
1000	FZ 10	31	1	360	156	151	61	31	33	39	12	15241000015084
1500	FZ 15	35	1	385	176	151	60	44	38	43	18.5	15241000015085
2000	FZ 20	39	1	430	223	183	67	58	40	45	20	15241000015086
3000	FZ 30	46	2	490	223	151	106	85	44	52	29	15241000015087
5000	FZ 50	47	2	675	252	183	133	64	49	58	45.5	15241000015088



### Hoist Chain Type RT for Manual Hoists



- Type **RT** for low/medium wear stress EN 818-7-T
- Tempered
- Surface: galvanised

Chain size in mm	Breaking load $F_{Bmin.}$ in kN	Weight kg/m	Item no.
3 x 9	20.1	0.210	15301000015035
4 x 12	20.1	0.350	15301000015016
4.2 x 12.2	20.1	0.350	15301000015036
5 x 15	31.4	0.540	15301000015017
5.6 x 15.8	39.4	0.680	15301000015031
5.6 x 17	39.4	0.680	15301000015018
6 x 18	45.2	0.800	15301000015019
6 x 18.5	45.2	0.800	15301000015020
6.3 x 19.1	49.9	0.860	15301000015021
7 x 22	61.6	1.100	15301000015022
7.1 x 20.1	67	1.100	15301000015032
7.1 x 21	63.3	1.100	15301000015023
7.1 x 21.2	67	1.100	15301000015024
8 x 24	80.4	1.400	15301000015025
9 x 24.8	102	1.800	15301000015033
9 x 27	102	1.800	15301000015026
10 x 28	126	2.200	15301000015027
10 x 28.1	126	2.200	15301000015034
10 x 30	126	2.200	15301000015028
11 x 31	152	2.700	15301000015029
13 x 36	212.3	3.800	15301000015030

### Hoist Chain Type RTS for Powered Hoists



- Type **RTS** for high wear stress EN 818-7-DAT
- Uniform surface hardness and case depth especially in the joints, high wear resistance, long service life
- Highest dynamic resistance, maximum operational reliability
- All RUD chains are 100% calibrated
- Surface: galvanised

Chain size in mm	Breaking load $F_{Bmin.}$ in kN	Weight kg/m	Item no.
3.1 x 9.3*	11.3	0.210	15301000015037
4 x 12	20.1	0.350	15301000015038
5 x 15	31.4	0.540	15301000015039
5 x 15.3	31.4	0.540	15301000015040
5 x 16	31.4	0.540	15301000015041
6 x 18	45.2	0.800	15301000015042
6 x 18.6	45.2	0.800	15301000015043
6.3 x 19.1	49.9	0.860	15301000015044
6.5 x 18.5	53.1	0.940	15301000015045
6.5 x 19.5	53.1	0.940	15301000015046
7 x 21	61.6	1.100	15301000015047
7 x 21.9	61.6	1.100	15301000015048
7 x 22	61.6	1.100	15301000015049
7.1 x 20.2	63.3	1.100	15301000015055
7.2 x 21	65.1	1.200	15301000015056
8 x 24	80.4	1.400	15301000015050
9 x 27	102	1.800	15301000015051
10 x 28	126	2.200	15301000015052
10 x 30.2	126	2.200	15301000015053
13 x 36	212.3	3.800	15301000015054

\*Dimensions out of EN 818-7.

### Hand Chain for Chain Blocks

- Surface: galvanised, not tested

Chain size in mm	Item no.
5 x 25	15301500015003



**Chain lock for hoist chains  
see page 121.**

## Trolleys

### Lower Flange Trolley Type HTP / Type HTG

Trolleys are used to precisely position and easily move larger loads in conjunction with manual or electric lifting equipment.

- Encapsulated ball bearings for smooth running
- Adjustable to fit a wide range of beams and profiles (INP, IPE and IPB)
- Precise adjustment by counter-threaded bol, centered load suspension – no side movement on the beam
- The trolleys comply with the applicable UVV regulations and the Machinery Directive.

#### Option:

- Pivoting hand chain guide
- Rust and acid-resistant hand chains
- Approach buffer
- Corrosion-protected design
- Explosion-proof version
- Locking mechanism for attaching the manual trolley to the beam without load (park position, e.g. in shipping).

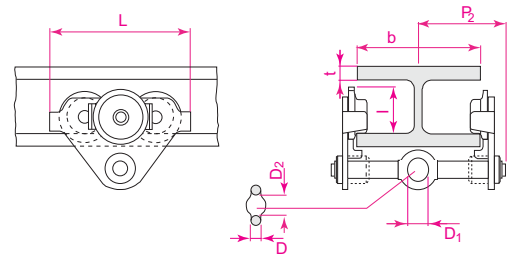


Also available in explosion-proof version. For detailed information see pages 86-87.

Beam attachments as suspension points for lifting equipment can be found on page 200.

### Lower flange trolley with roller trolley Type HTP

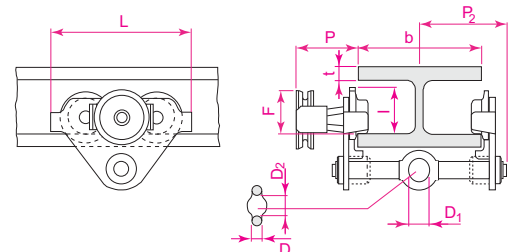
Continuously adjustable lower flange trolley as push trolley.



Load capacity in kg	b		Dimensions in mm							P2		t		Weight in kg		Item no.	Item no.
	Type A	Type B	D	D1	D2	I	L			Type A	Type B	Type A	Type B	Type A	Type B	Type A	Type B
500	50-220	160-300	16	25	30	71.5	260			146	187	25	40	8.0	10.6	10301000015007	10301000015012
1000	50-220	160-300	17	30	35	71.5	260			150	187	25	40	9.0	12.0	10301000015008	10301000015013
2000	66-220	160-300	22	40	47	95.5	310			155	189.5	25	40	16.0	19.3	10301000015009	10301000015014
3000	74-220	160-300	26	48	58	131	390			160	191.5	25	40	32.0	35.8	10301000015010	10301000015015
5000	90-220	180-300	33	60	70	142.5	450			167.5	191.5	25	40	48.0	52.2	10301000015011	10301000015016

### Geared Trolley Type HTG

Infinitely adjustable geared trolley for 3 m crane runway height.



Load capacity in kg	b		Dimensions in mm							P2		t		Weight in kg		Item no.	Item no.
	Type A	Type B	D	D1	D2	F	I	L	P	Type A	Type B	Type A	Type B	Type A	Type B	Type A	Type B
500	50-220	160-300	16	25	30	91.5	76.5	260	110	146	187	25	40	9.7	12.6	10301000015017	10301000015022
1000	50-220	160-300	17	30	35	91.5	76.5	260	110	150	187	25	40	11.2	14.1	10301000015018	10301000015023
2000	66-220	160-300	22	40	47	90.5	98	310	110	155	189.5	25	40	18.0	21.3	10301000015019	10301000015024
3000	74-220	160-300	26	48	58	107.5	132.5	390	110	160	191.5	25	40	35.4	39.2	10301000015020	10301000015025
5000	90-220	180-300	33	60	70	149.5	148.5	450	110	167.5	191.5	25	40	51.8	56.0	10301000015021	10301000015026

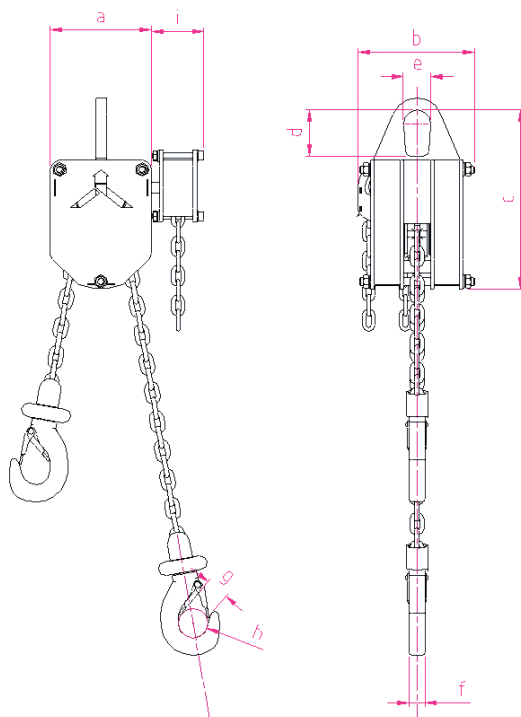
\*Type B available up to 20,000 kg load capacity

### Load tilting device

The load tilting device from the own brand series Condor with a load capacity of 500 kg or 3,000 kg for precisely tilting loads

- Fulfills the highest requirements under DIN EN 13155
- Robust and impact-resistant metal housing
- Self-locking worm gear unit results in a high level of transmission with minimal effort
- High-strength RUD load chain with a standard length of 2 m
- Rotating swivel hook with reinforced safety flap prevents the load chain from twisting
- Manual chain length: 1 m
- Individual solutions also possible

**!** Version with 6,000 kg load capacity on request

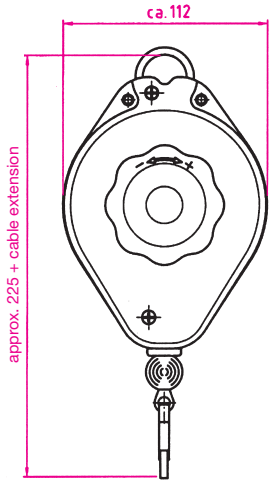
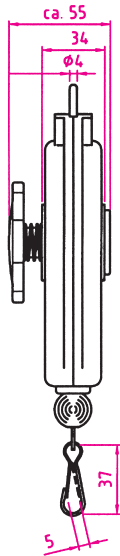


Load capacity in kg	Type	Dimensions in mm									Weight in kg/pce	Item no.
		a	b	c	d	e	f	g	h	i		
500	LNG05	110	127	195	50	30	12	21	32	57	6	25105500035001
3000	LNG30	250	260	448	122	90	28	42	52	87	45	25105500035003



Retractor

- Your advantages:**
- Easy load adjustment with hand wheel
  - Impact-resistant plastic housing
  - Small, light-weight and compact
  - Suitable for all assembly workstations
  - Steel suspension eye
  - Riveted special bearing spring
  - Polyamide cable, ø 2 mm

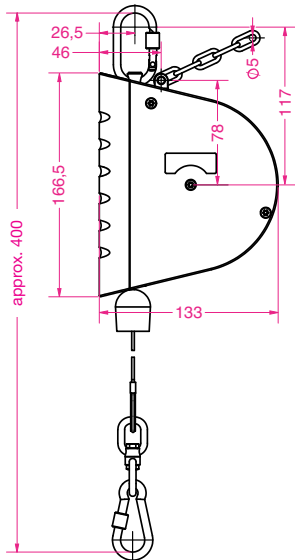
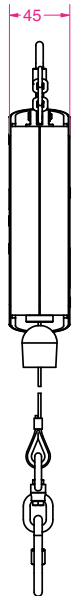


Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.5 - 1.2	2.0	0.6	15280000015073
1.0 - 2.0	2.0	0.6	15280000015074

Retractor

- Your advantages:**
- Very stable housing made of impact- and abrasion-resistant plastic
  - Easy load adjustment
  - Insulated suspension with swivelling snap hook with screw lock
  - Integrated load swivel
  - Snap hook with screw lock for load suspension
  - Also available with automatic ratchet lock

Ratchet lock must not be used to exchange loads!



Version without ratchet lock

Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.5 - 2.0	2.5	0.80	15280000015075
1.5 - 3.0	2.5	0.80	15280000015076

Version with ratchet lock

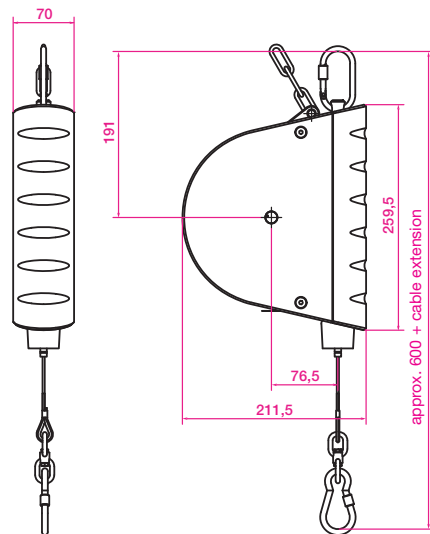
Load capacity in kg	Item no.
0.5 - 2.0	15280000015077
1.5 - 3.0	15280000015078

### Retractor

#### Your advantages:

- Very stable housing made of impact- and abrasion-resistant plastic
- Easy load adjustment thanks to positioning screw with over-twist protection
- Insulated suspension with swivelling snap hook with screw lock
- Factory equipped with spring fracture safeguard and safety chain as fall protection device
- Integrated load swivel
- Snap hook with screw lock for load suspension
- Also available with automatic ratchet lock

**Ratchet lock must not be used to exchange loads!**



#### Version without ratchet lock

Load capacity in kg	Cable length in m	Weight in kg	Item no.
2.0 - 5.0	3.0	3.30	15280000015079
4.0 - 8.0	3.0	3.70	15280000015080
7.0 - 10.0	3.0	3.70	15280000015081
10.0 - 14.0	3.0	3.90	15280000015082

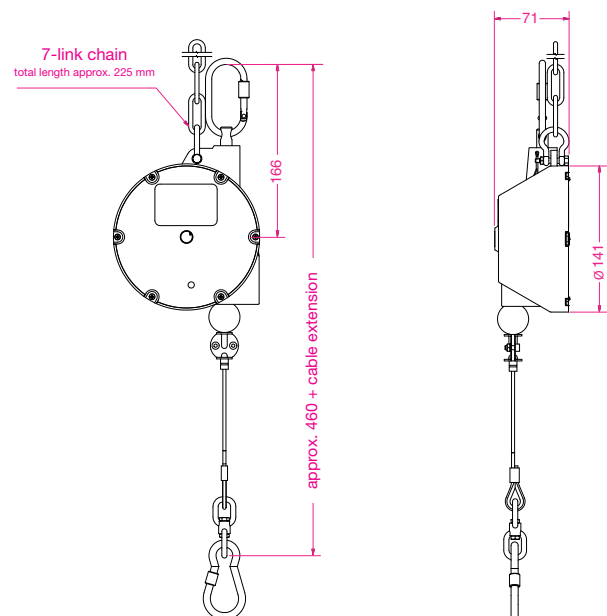
#### Version with ratchet lock

Load capacity in kg	Item no.
2.0-5.0	15280000015083
4.0-8.0	15280000015084
7.0-10.0	15280000015085
10.0-14.0	15280000015086

### Balancer

#### Your advantages:

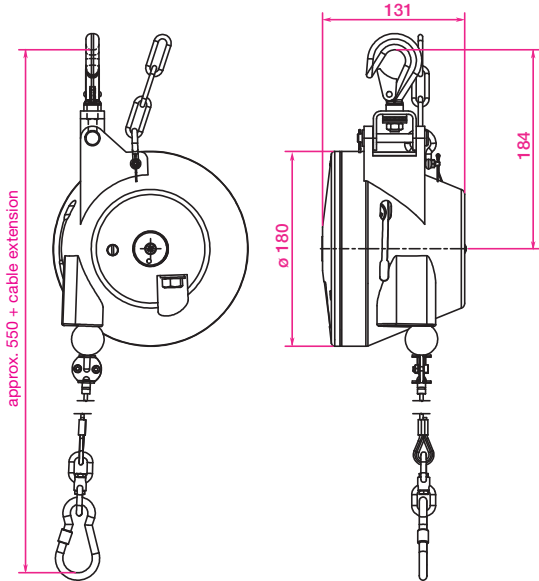
- High-strength, highly abrasion resistant housing
- Easy load adjustment
- Insulated suspension with swivelling snap hook with screw lock
- Factory equipped with spring fracture safeguard (from 3.0 kg load capacity range) and safety chain as fall protection device
- Factory equipped with integrated load swivel
- Lockable rope drum
- Snap hook with screw lock for load suspension



Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.4 - 1.2	1.6	1.3	15280000015033
1.2 - 2.6	1.6	1.4	15280000035013
2.6 - 3.8	1.6	1.5	15280000015035
3.8 - 5.2	1.6	1.5	15280000015036
5.2 - 6.5	1.6	1.5	15280000015037

Balancer

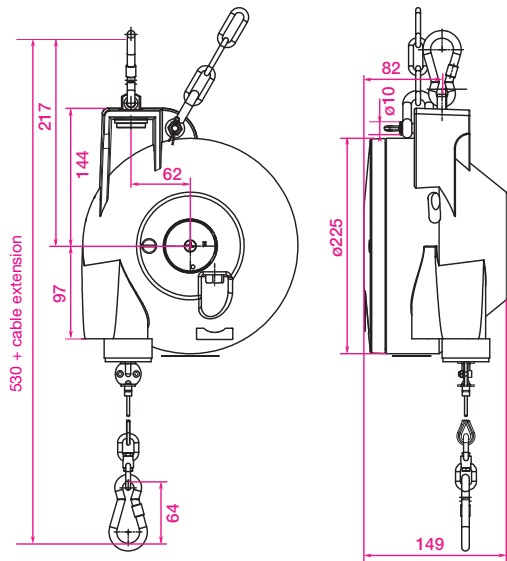
- Your advantages:**
- High-strength, highly abrasion resistant housing
  - Insulated suspension with swivelling and pivoting safety hook
  - Snap hook with screw lock for load suspension
  - Factory equipped with safety chain as fall protection device
  - All load capacities with spring fracture safeguard and integrated drum blocking device.
  - Load swivel integrated as standard



Load capacity in kg	Cable length in m	Weight in kg	Item no.
3.0 - 5.0	2.0	2.90	15280000015087
4.5 - 7.0	2.0	3.10	15280000015088
6.0 - 10.0	2.0	3.20	15280000015089
9.0 - 14.0	2.0	3.40	15280000015090
13.0 - 17.0	2.0	3.60	15280000015091
16.0 - 21.0	2.0	3.80	15280000015092

Balancer

- Your advantages:**
- Housing and drum of high-strength aluminium
  - Stepless load adjustment by hand screw
  - Integrated spring fracture safeguard
  - Integrated blocking device
  - Load swivel integrated as standard



Load capacity in kg	Cable length in m	Weight in kg	Item no.
15.0 - 25.0	2.0	7.80	15280000015099
25.0 - 35.0	2.0	8.90	15280000015100
35.0 - 45.0	2.0	9.50	15280000015101
45.0 - 55.0	2.0	9.75	15280000015102



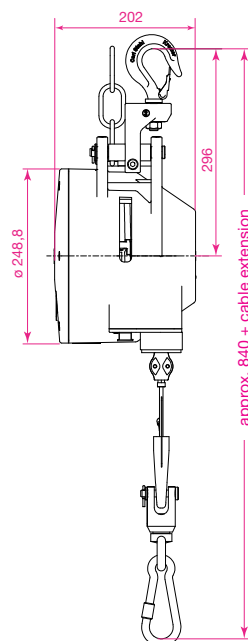
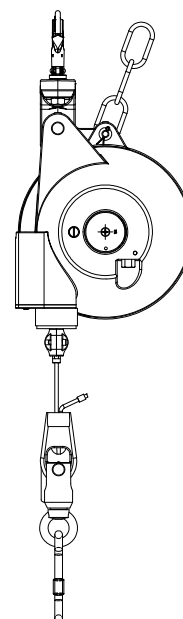
### Balancer

#### Your advantages:

- High-strength, shock-resistant aluminium housing
- Swivelling and pivoting safety hook
- Overload protection by cable extraction limiter
- Screw snap hook for suspending the load
- Factory equipped with safety chain as fall protection device
- All load capacities with spring fracture safeguard
- Integrated drum blocking device
- Rope clip for securing the cable end included
- With patented freewheel to protect the spring suspension
- Load swivel integrated as standard



**Also available as  
extra safety balancer  
with double cable!**

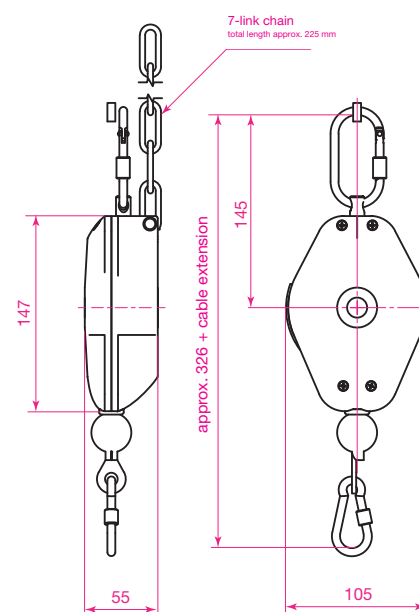


Load capacity in kg	Cable length in m	Weight in kg	Item no.
12.0 - 20.0	2.0	14.80	15280000015107
20.0 - 30.0	2.0	15.20	15280000015108
30.0 - 45.0	2.0	16.90	15280000015109
45.0 - 60.0	2.0	17.30	15280000015110
60.0 - 75.0	2.0	18.70	15280000015111
75.0 - 90.0	2.0	19.70	15280000015112
90.0 - 100.0	2.0	19.90	15280000015113

### Positioner

#### Your advantages:

- High-strength, shock-resistant housing
- Braking force adjustable using the positioning screw on the side
- Screw snap hook in swivelling and pivoting version as an isolated suspension point
- Factory equipped with safety chain as fall protection device
- Screw snap hook for suspending the load



Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.5 - 6.0	1.5	0.7	15280000035015
2.0 - 7.0	1.5	0.8	15280000035021

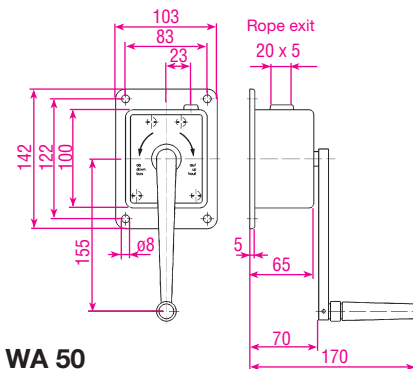
# MANUAL LIFTING EQUIPMENT

## Hand Winches

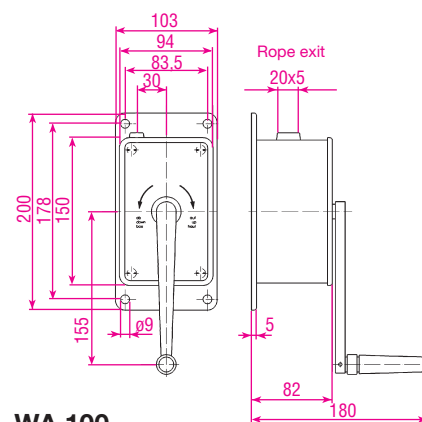
### Hand Winch Types WA 50, WA 100

#### Material: Cast aluminium

- Compact design
- Enclosed housing
- Corrosion resistant
- Low noise level
- Self-locking gear
- Proven safety concept
- Low crank effort
- Detachable crank
- Low weight
- Surface powder coated



WA 50



WA 100

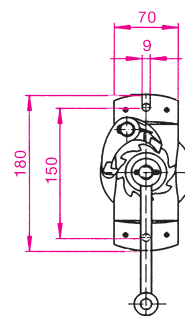
#### Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	20151500015025	20151500015026
Rope Ø in mm/length in m	2/12	3/8

### Light wall-mounted Winch

#### Material: Cast alloy or steel galvanised

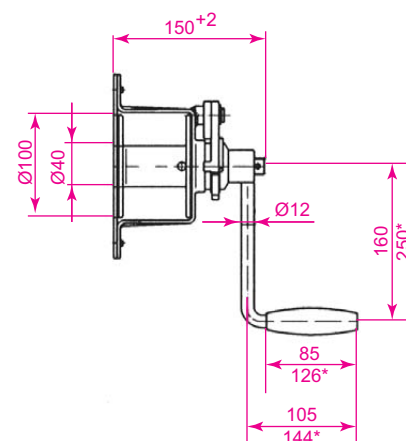
- Compact design
- Corrosion resistant
- Low noise level
- Self-locking gear
- Proven safety concept
- Low crank effort
- Detachable crank
- Low weight
- Surface powder coated



Item no.	15181000015002	15181000015003	15181000015001
Surface	galvanised	galvanised	cast iron varnished
Permissible load in kg	80	125	125
Crank Pressure in N	170	170	170
Lift per crank turn in mm	135	135	135
Rope capacity in m	20	15	15
Rope Ø (DIN 3060 FE zn k 1770 sZ) in mm	3	4	4
Weight without rope in kg	2.5	2.5	4

#### Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	20151500015017	20151500015018	20151500015018
Rope Ø in mm/length in m	3/20	4/15	4/15



\*Type 125

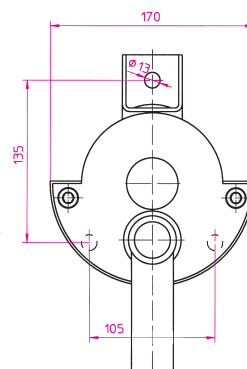
### Wall mounted Winch Type Tango

**This hand winch offers many advantages:**

- Corrosion resistant
- Large rope capacity
- Rope outlet independent of direction
- Encapsulated housing
- Self-locking gear
- Foldable crank handle

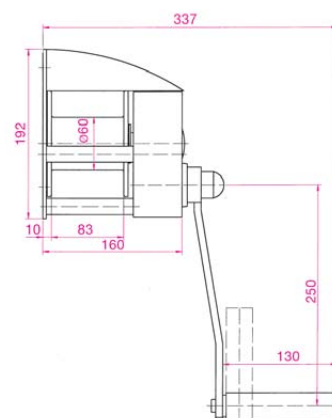


**Also available with detachable crank handle!  
Price on request.**



Item no.	15181000015048	15181000015049	15181000015050	15181000015051
Type	WV 300	WV 500	WE 300	WE 500
Surface	galvanised	galvanised	stainless steel	stainless steel
Permissible load in kg	300	500	300	500
Gear ratio	3.1	4.5	3.1	4.5
Lift per crank turn in mm	65	46	65	46
Rope capacity in m	29	22	29	22
Rope drum Ø in mm	60	60	60	60
Rope Ø in mm	4	5	4	5
Weight without rope in kg	5	5	5	5

For suitable wire ropes see bottom of this page



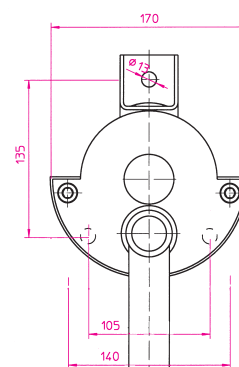
### Console-mounted Winch Type Tango

**This hand winch offers many advantages:**

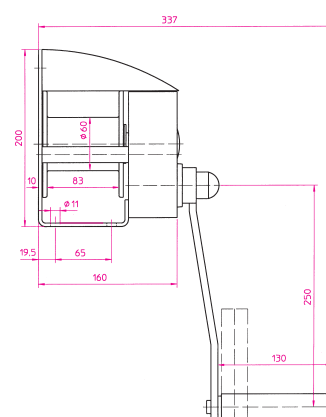
- Corrosion resistant
- Large rope capacity
- Rope outlet independent of direction
- Encapsulated housing
- Self-locking gear
- Foldable crank handle



**Also available with detachable crank handle!  
Price on request.**



Item no.	15181000015052	15181000015053	15181000015054	15181000015055
Type	KV 300	KV 500	KE 300	KE 500
Surface	galvanised	galvanised	stainless steel	stainless steel
Permissible load in kg	300	500	300	500
Gear ratio	3.1	4.5	3.1	4.5
Lift per crank turn in mm	65	46	65	46
Rope capacity in m	29	22	29	22
Rope drum Ø in mm	60	60	60	60
Rope Ø in mm	4	5	4	5
Weight without rope in kg	5	5	5	5



**Suitable wire rope, one end thimble and safety eye hook, other end pointed**

Item no.	20151500015027	20151500015028	20151500015029	20151500015030
Rope Ø in mm/length in m	4/29	5/22	4/29	5/22



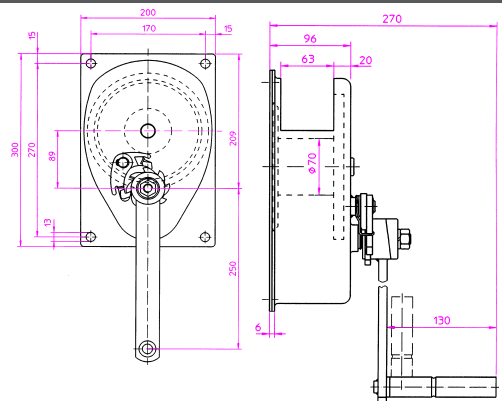
### Wall-mounted Spur Wheel Winch Type 220

- Robust and safe
- Self-locking, recoil-free safety crank with foldable crank handle
- Load brake to prevent unintentional run-off of the load
- Maintenance-free friction bearings
- Corrosion-protected
- Powder-coated
- Easy and space-saving wall mount
- Corresponds to accident prevention regulations BGV D8

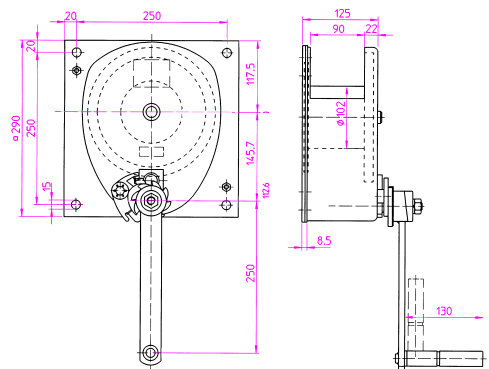


Galvanised version on request

Item no.	15181000015004	15181000015005	15181000015006	15181000015007
Perm. load 1st/4th rope layer in kg	300/203	500/336	750/520	1000/750
Crank Pressure in N	180	210	200	180
Lift per crank turn in mm	74	30	28	19
Rope capacity in m	11	10	12	10
Rope Ø in mm (DIN 3060 FE zn k 1770 sZ)	6	6.5	8	9
Weight without rope in kg	10	10	14	15



Capacity: 300 + 500 kg



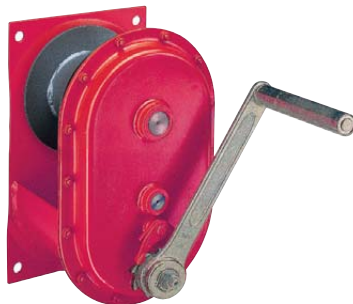
Capacity: 750 + 1000 kg

### Suitable wire rope, one end thimble and safety eye hook, other end pointed

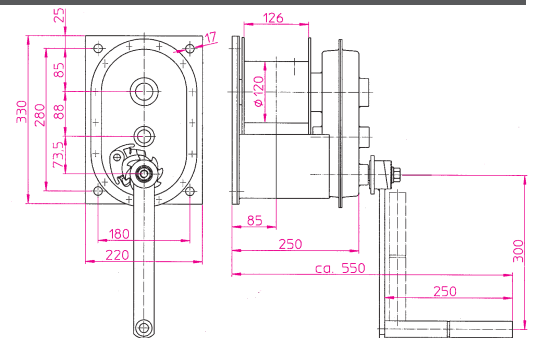
Item no.	20151500015019	20151500015024	20151500015020	20151500015021
Rope Ø in mm/length in m	6/11	6.5/10	8/12	9/10

### Heavy wall-mounted Winch Type St/W

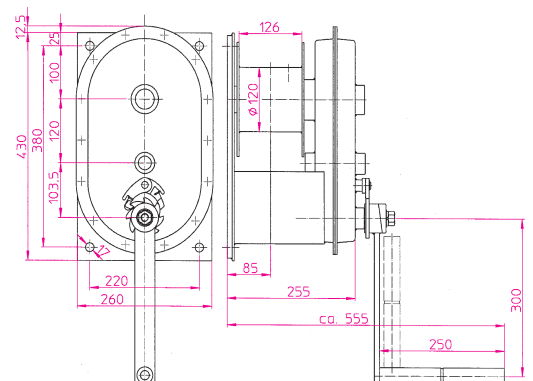
- Robust and safe
- Self-locking, recoil-free safety crank with foldable crank handle
- Load brake to prevent unintentional run-off of the load
- Maintenance-free friction bearings
- Corrosion-protected
- Varnished
- Easy and space-saving wallmount
- Corresponds to accident prevention regulations BGV D8



Item no.	15181000015008	15181000015009
Perm. load 1st/4th rope layer in kg	2000/1700	3000/2500
Crank Pressure in N	320	300
Lift per crank turn in mm	16	10
Rope capacity in m	8	7
Rope Ø in mm (DIN 3060 FE zn k 1770 sZ)	12	13
Weight without rope in kg	23	37



Capacity: 2000 kg



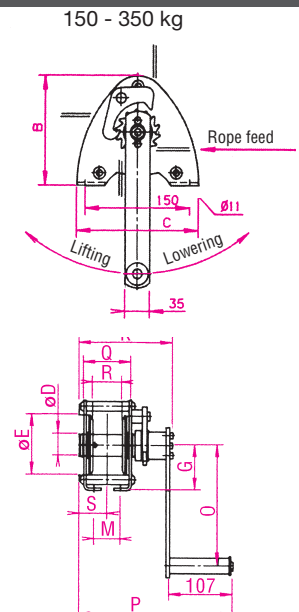
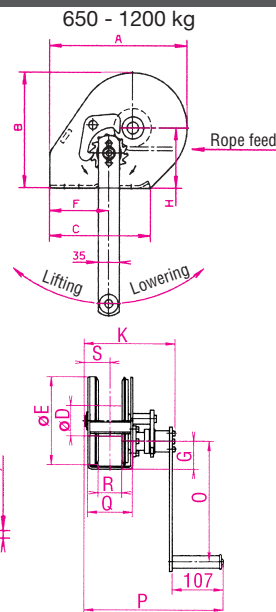
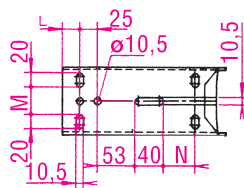
Capacity: 3000 kg

### Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	20151500015022	20151500015023
Rope Ø in mm/length in m	12/8	13/7

### Console-mounted Winch Type LB in galvanised Version

- **Console-mount**
- **Load capacities 150-1,200 kg**
- Outdoor use possible
- Specially suitable to be mounted on boat and auto trailers
- **Easy and safe handling**
- Easy mount on consoles
- Low self weight
- High efficiency due to spur wheel gear
- Smooth-running
- Corrosion resistant (all parts galvanised)
- Integrated load brake to prevent unintentional run-off of the load
- Delivery without rope and accessories



Capacity 1st/ top rope layer	Rope Ø in mm	Usable rope length 1st/top layer in m	Lift per crank turn in mm	Crank pressure in daN	Weight in kg	Dimensions in mm																		Item no.
in kg						A	B	C	D	E	F	G	H	K	L	M	N	O	P	Q	R	S		
150/75	4**	0.8/11	125	17	4.2	-	155	175	36	100	-	75	-	189	-	75	-	320	290	111	80	63	15181000015010	
350/170	4**	1.8/20	125	25	4.8	-	155	175	36	100	-	75	-	189	-	75	-	320	290	111	80	63	15181000015011	
650/290	6**	1.0/20	55	22	7.3	232	192	210	63.5	183	100	58	100	192	25	38	-	250	293	95	50	55	15181000015012	
900/400*	7**	0.8/14	58	24	10.0	232	192	210	63.5	183	100	58	100	192	25	38	-	320	293	95	50	55	15181000015013	
1200/430*	7***	1.0/26	45	24	12.1	273	266	240	63.5	255	78	75	138	192	35	30	53	320	293	95	50	65.5	15181000015014	

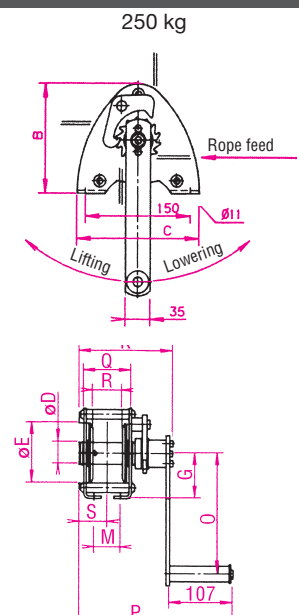
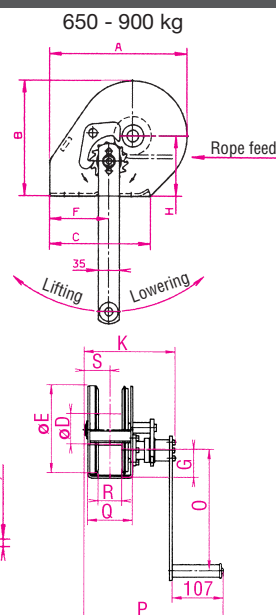
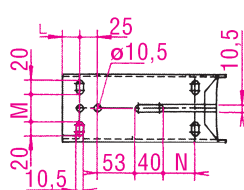
\*Also available with declutchable drum. Please contact us for pricing.

\*\*Recommended wire rope: DIN 3060 FE-znk 1770 sZ-spa

\*\*\*Recommended wire rope: DIN 3069 SE-znk 2160 sZ-spa

### Console-mounted Winch Type LB in Stainless Steel Version

- **Console-mount**
- **Load capacities 250-900 kg**
- Outdoor use possible
- Specially suitable for construction, sewage plants, chemical industry or off-shore applications
- **Simple and safe use**
- Load brake to prevent unintentional run-off of the load
- Low crank force
- Easy mount
- All parts made of stainless steel, therefore corrosion resistant
- Covered gear wheel
- Rotating crank handle
- Delivery without rope and accessories



Capacity 1st/ top rope layer in kg	Rope Ø in mm	Usable rope length 1st/top layer in m	Lift per crank turn in mm	Crank pressure in daN	Weight in kg	Dimensions in mm																	Item no.
						A	B	C	D	E	F	G	H	K	L	M	N	O	P	Q	R	S	
250/125	4	1.8/19.5	125	20	4.8	-	155	175	36.0	100	-	75	-	191.5	-	75	-	320	292.5	111	80	65.5	15181000015015
650/290	6	1.0/20	55	22	7.6	232	192	170	63.5	183	100	58	100	190.0	25	38	-	250	291	95	50	55	15181000015016
900/320	7	1.0/26	45	24	12.1	273	266	240	63.5	255	78	75	138	190.0	35	30	53	250	291	95	50	55	15181000015017

Recommended wire rope: DIN 3060 FE-znk 1770 sZ-spa

# MANUAL LIFTING EQUIPMENT

## Hand Winches

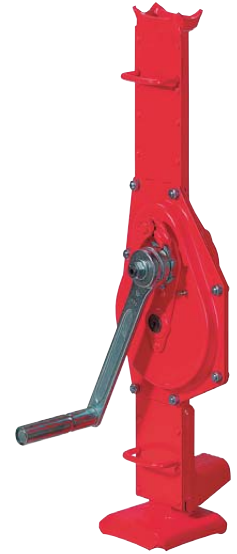
### Rack Jack with fixed Claw acc. to DIN 7355

Rack jacks according to DIN and factory standard with lifting housing and fixed claw

- Long service life due to spur wheel gear made from high-grade tempered steel
- Load attachment at claw or on top of housing
- Safe stand thanks to big and strong base plate
- Equipped with safety crank or ratchet crank for confined spaces
- Meets requirements of German Accident Prevention Regulations BGV D8

Load capacity on head or claw in kg	Overall height in mm	Lifting height in mm	Weight in kg	Item no. with safety crank
1500	725	350	12.5	15182000015001
3000	725	350	20.0	15182000015002
5000	722	300	27.0	15182000015003
10000	797	300	42.0	15182000015004

Item no. with ratchet crank
15182000015005
15182000015006
15182000015007
15182000015008



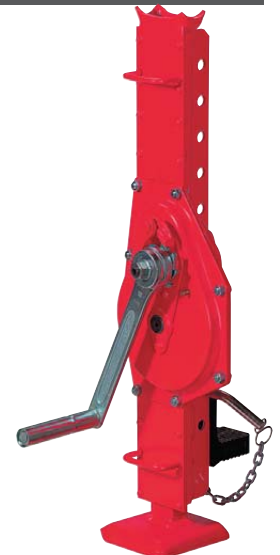
### Rack Jack with adjustable Claw acc. to DIN 7355

Rack jacks according to DIN and factory standard with lifting housing and adjustable claw

- Long service life due to spur wheel gear made from high-grade tempered steel
- Load attachment at claw or on top of housing
- Claw adjustable in 16 notches
- Safe stand thanks to big and strong base plate
- Equipped with safety crank or ratchet crank for confined spaces
- Meets requirements of German Accident Prevention Regulations BGV D8

Load capacity on head or claw in kg	Overall height in mm	Lifting height in mm	Min. height of claw in mm	Weight in kg	Item no. with safety crank
1500	725	350	60	16.5	15182000015009
3000	725	350	65	22.0	15182000015010
5000	722	300	75	32.0	15182000015011
10000	797	300	75	52.0	15182000015012

Item no. with ratchet crank
15182000015013
15182000015014
15182000015015
15182000015016



### Spindle Support

Hand-driven spindle support for ergonomic adjusting and supporting, for levelling and dislocating etc.

- Robust rectangular tube construction
- Spindle with self-locking trapezoidal thread
- Maintenance-free bevel gear
- Easy and safe operation
- Easy to mount

Option:

- Tension or tension/pressure load
- Other lifting or overall heights
- Other foot designs
- Other crank versions
- Additional fixing possibilities

Permissible load in kg	Overall height in mm	Lift in mm	Lift per crank turn in mm	Handle force in N	Weight in kg	Item no.
500	500	300	3.0	140	4.0	15182500015001
1000	525	300	1.9	140	5.5	15182500015002
3000	670	350	2.2	260	17	15182500015003

Item no. with detachable crank handle
15182500015004
15182500015005
15182500015006



Also  
available as  
telescopic  
drop type.





### Manual Rope Pulling Machine Type Greifzug™

Manual rope pulling machines are portable devices for lifting, pulling, and tensioning. Greifzug rope pulling machines can be operated with the same safety coefficient in all positions and all directions, if the device is allowed to align itself in the direction of pull. The rope length (= lifting or pulling distance) is virtually unlimited. The mechanism is self-locking; the loaded rope tightens the clamping jaws. The unloaded Greifzug device can be unlocked to insert the rope by hand, pre-tension it or remove it after work.

#### Greifzug™ Type TD

- Low weight
- Fast installation
- Unlimited rope length
- Handy, robust, powerful
- Overload protection

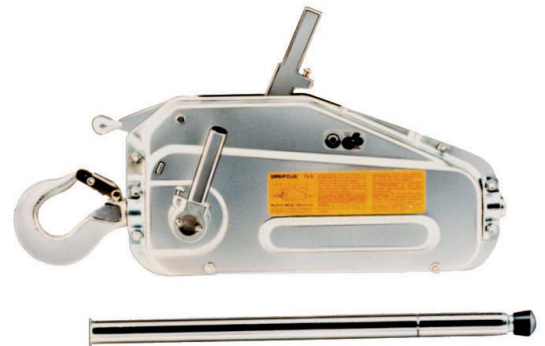


Type	Load capacity/kg	Weight/kg including lever tube	Length	Dimensions in mm			Rope feed / double stroke mm	Force at full load daN	Item no.
				Length with hook	Height	Width			
T 508 D	800	7.6	420	550	250	99	40	29	15220000035011
T 516 D	1600	15.8	530	650	315	127	42	40	15220000035012
T 532 D	3200	26.3	630	840	355	130	23	45	15220000035013

#### Greifzug™ Type TU

Additional properties to the above-mentioned of type TD:

- Comfortable handling
- Load placement with millimetre precision
- Less force required for two-hand activation
- Load capacity: The models of the TU series are designed for continuous use
- Higher forward speed compared to the TD devices (see table)
- Equipment: TU 8 and TU 16 are equipped with swivel hook, TU 32 is equipped with crank axles mounted on needle bearings



Type	Load capacity/kg	Weight/kg including lever tube	Length	Dimensions in mm			Rope feed / double stroke mm	Force at full load daN	Item no.
				Length with hook	Height	Width			
TU 8	800	9.4	527	-	285	120	65	30	15220000035014
TU16	1600	20.4	660	-	360	148	60	40	15220000035015
TU32	3200	29.4	676	860	373	156	35	45	15220000035016

# MANUAL LIFTING EQUIPMENT

## Rope Pulling Machines

### Small basic equipment set for Greifzug™ Type TD

Consisting of:

- Rope pulling machine Greifzug™ Type TD
- 20 m steel wire rope, one end fused and tapered, other ends with hook, on hand reel



Type Basic Unit	Rope Ø in mm	Item no.
T 508 D	8	15220000035021
T 516 D	11.5	15220000035022
T 532 D	16	15220000035023

### Small basic equipment set for Greifzug™ Type TU

Consisting of:

- Rope pulling machine Greifzug™ Type TU
- 20 m steel wire rope, one end fused and tapered, other ends with hook, on hand reel



Type Basic Unit	Rope Ø in mm	Item no.
TU 8	8	15220000035006
TU 16	11.5	15220000035017
TU 32	16	15220000035019

### Greifzug™ wire rope with tip and hook, on hand winch

in any length, rope-Ø according to table

for type	Rope Ø in mm	calculated breaking force in kg	Item no.
T 508 D / TU 8	8	5,200	-
T 516 D / TU16	11.5	10,000	-
T 532 D / TU 32	16	20,000	-

### Safety pins for rope pulling machines type Greifzug™

for type	Dimension in mm	Material	Item no.
T 508 D	30 x 5	Brass	15401000035096
T 516 D	34 x 6	Steel	15401000035097
T 532 D	39 x 6	Bronze	15401000035058
TU 8 and TU 16	14.5 x 6	Aluminium	15401000035573
TU 32	50 x 8	Aluminium	15401000035524







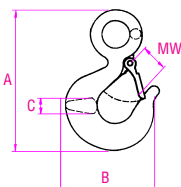
# MANUAL LIFTING EQUIPMENT



## Manual Rope Pulling Machines

Swiss  
Quality

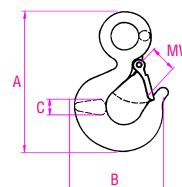
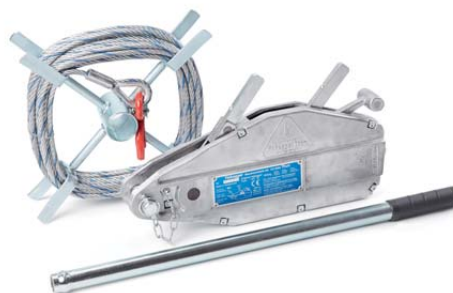
### Manual Rope Pulling Machine Type HIT 6



The mini rope pulling machine with great capacity for LIFTING, PULLING and TENSIONING of all kinds of loads. This handy unit comes stowed in a steel case complete with lever tube, special wire rope and wire rope sling.

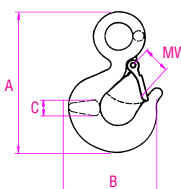
Type	Nominal capacity in kg	Overload safety device at kg	Special wire rope included		Hook dimensions in mm				Weight without rope in kg	Item no. with rope	Item no. without rope
			length in m	Ø in mm	A	B	C	MW			
HIT 6	600	900	10	6.4	110	76	14	21	4.2	15220000015001	15220000015005
HIT 10	1000	1500	20	8.4	130	81	16	21	6.5	15220000015002	15220000015006

### Manual Rope Pulling Machine Type HIT 10



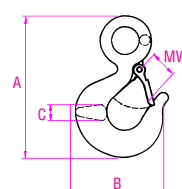
The compact and light unit within the HIT range with lever tube and special wire rope on coil. Ideal for all kinds of assembly work, recovery services, and heavy cargo lashing.

### Manual Rope Pulling Machine Type HIT 16



The versatile rope pulling machine with lever tube and special wire rope on coil for light, medium and heavy assembly work. Low weight and high capacity.

### Manual Rope Pulling Machine Type HIT 32



The largest hoist of the HIT series with lever tube and special wire rope. For a wide range of applications and its high load capacity it is suitable for heaviest lifting and pulling work.

Type	Nominal capacity in kg	Overload safety device at kg	Special wire rope included		Hook dimensions in mm				Weight without rope in kg	Item no. with rope	Item no. without rope
			length in m	Ø in mm	A	B	C	MW			
HIT 16	1600	2400	20	11.2	145	90	23	24	12	15220000015003	15220000015007
HIT 32	3200	4800	10	16.2	195	121	36	27	21.5	15220000015004	15220000015008

#### Safety pin for HIT manual rope pulling machines:

For Type	Dimension in mm	Item no.
HIT 6	5.5 x 20	15401000015218
HIT 10	7 x 22	15401000015238
HIT 16 / HIT 32	7.5 x 29	15401000015255



Any other requested rope length available at additional cost.

Reels for other rope lengths see page 144.

Motor-driven rope pulling machines see page 108.



### Basic Equipment Set HIT 6



Consisting of:

- HIT 06 manual rope pulling machine complete with lever tube
- 10 m special wire rope Ø 6.4 mm with eye hook
- 1 m wire rope sling Ø 6.4 mm, length 1 m, both ends pressed eyes
- Steel case for HIT 6

Type	Nom. cap. in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 6	600	900	15420000015001

### Basic Equipment Set HIT 10



Consisting of:

- HIT 10 manual rope pulling machine complete with lever tube
- 20 m special wire rope Ø 8.4 mm with eye hook on reel
- Wire rope sling Ø 8.4 mm, length 2 m, both ends pressed eyes
- Steel case for HIT 10

Type	Nom. cap. in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 10	1000	1500	15420000015002

### Basic Equipment Set HIT 16



Consisting of:

- HIT 16 manual rope pulling machine complete with lever tube
- 20 m special wire rope Ø 11.2 mm with eye hook on reel
- Wire rope sling Ø 11.2 mm, length 2 m, both ends pressed eyes
- Steel case for HIT 16

Type	Nom. cap. in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 16	1600	2400	15420000015003

### Basic Equipment Set HIT 32



Consisting of:

- HIT 32 manual rope pulling machine complete with lever tube
- 10 m special wire rope Ø 16.2 mm with eye hook on reel
- 2 m wire rope sling Ø 16.2 mm, length 2 m, both ends pressed eyes
- Steel case for HIT 32

Type	Nom. cap. in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 32	3200	4800	15420000015004

### Steel Cases for HIT Rope Pulling Machines

Type	Dimensions (L x W x H) in mm	Item no.
Case for HIT 6	430 x 280 x 110	15401500015038
Case for HIT 10	550 x 440 x 125	15401500015039
Rope pulling case HIT 16	670 x 212 x 360	15401500015040
Rope pulling case HIT 32	710 x 275 x 455	15401500015041



### Special Wire Rope on Reel for HIT Manual Rope Pulling Machines

The ropes are fitted with thimble and safety hook at one end, other end fused and tapered. We can only guarantee proper functioning of the rope pulling machines if our specially developed and permanently quality-controlled special wire rope is used.




Other lengths up to 100 m. Over 50 m in 10 m steps

Alternatively, the special wire rope can also be delivered without reel.  
As we use bulk wire rope, almost any requested rope length is possible.



 = in rope basket

 = on reel

Ropes are also available as coil without reel

Length		10 m	15 m	20 m	30 m	50 m
Type HIT 6	Item no.	20151500015044	20151500015048	20151500015052	20151500015056	20151500015062
Type HIT 10	Item no.	20151500015045	20151500015049	20151500015053	20151500015057	20151500015063
Type HIT 16	Item no.	20151500015046	20151500015050	20151500015054	20151500015058	20151500015064
Type HIT 32	Item no.	20151500015047	20151500015051	20151500015055	20151500015059	20151500015065

### Rope Basket (without rope)

An alternative to the conventional rope reel. For easy coiling and uncoiling of the rope. For special wire rope up to Ø 16.2 mm.



Type	Rope capacity in m			Item no.
	Ø 8.4 mm	Ø 11.2 mm	Ø 16.2 mm	
Rope basket (w/o rope)	40	25	10	15401500015037

### Cross Reel without Rope

Durable and sturdy welded construction, galvanised.



Type	Rope capacity in m				Weight in kg	Item no.
	Ø 6.4 mm	Ø 8.4 mm	Ø 11.2 mm	Ø 16.2 mm		
I	80	60	25	-	1.3	15401500015032
II	150	120	60	25	2.3	15401500015033
III	250	200	130	50	3.2	15401500015034

### Rope Coiler with Carrying Skid

For convenient coiling of wire ropes on the reel. The built-in hub brake ensures that the reel will stop immediately during uncoiling and no unnecessary rope will be unreel. The rope brake at the base of the skid allows proper coiling without slack rope layers.



Dimensions L x L x H in mm	Max. rope capacity in m	Weight without rope in kg	Item no.
530 x 220 x 650	max. 100	5	15401500015036

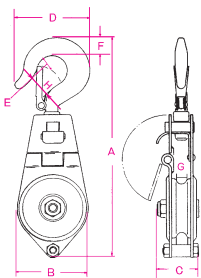
### Mobile reel with skid

Ideal for big rope lengths for easy reeling of the special wire rope. Turned over it is easy to move the rope to the next operating site. Good for your back and your damageable wire rope.



Type	Rope capacity in m				Weight in kg	Item no.
	Ø 6.4 mm	Ø 8.4 mm	Ø 11.2 mm	Ø 16.2 mm		
IV	1200	600	300	200	15.0	15401500015035

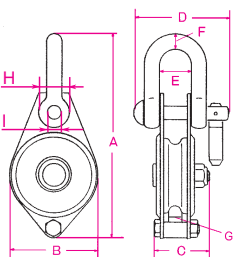
### Rope Pulley with swivelling Hook - Light version, foldable



**Must not be used for lifting purposes!**

Type	Load cap. in kg	For wire rope in mm	Sheave Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H		
CSS50	250	8	50	180	58	35	60	10	16	9	15	0.52	15260000015048
CSS75	350	10	75	240	85	40	73	15	21	12	18	1.25	15260000015049
CSS100	750	12	100	300	110	50	85	16	27	14	21	2.30	15260000015050

### Rope Pulley with Shackle - Light version

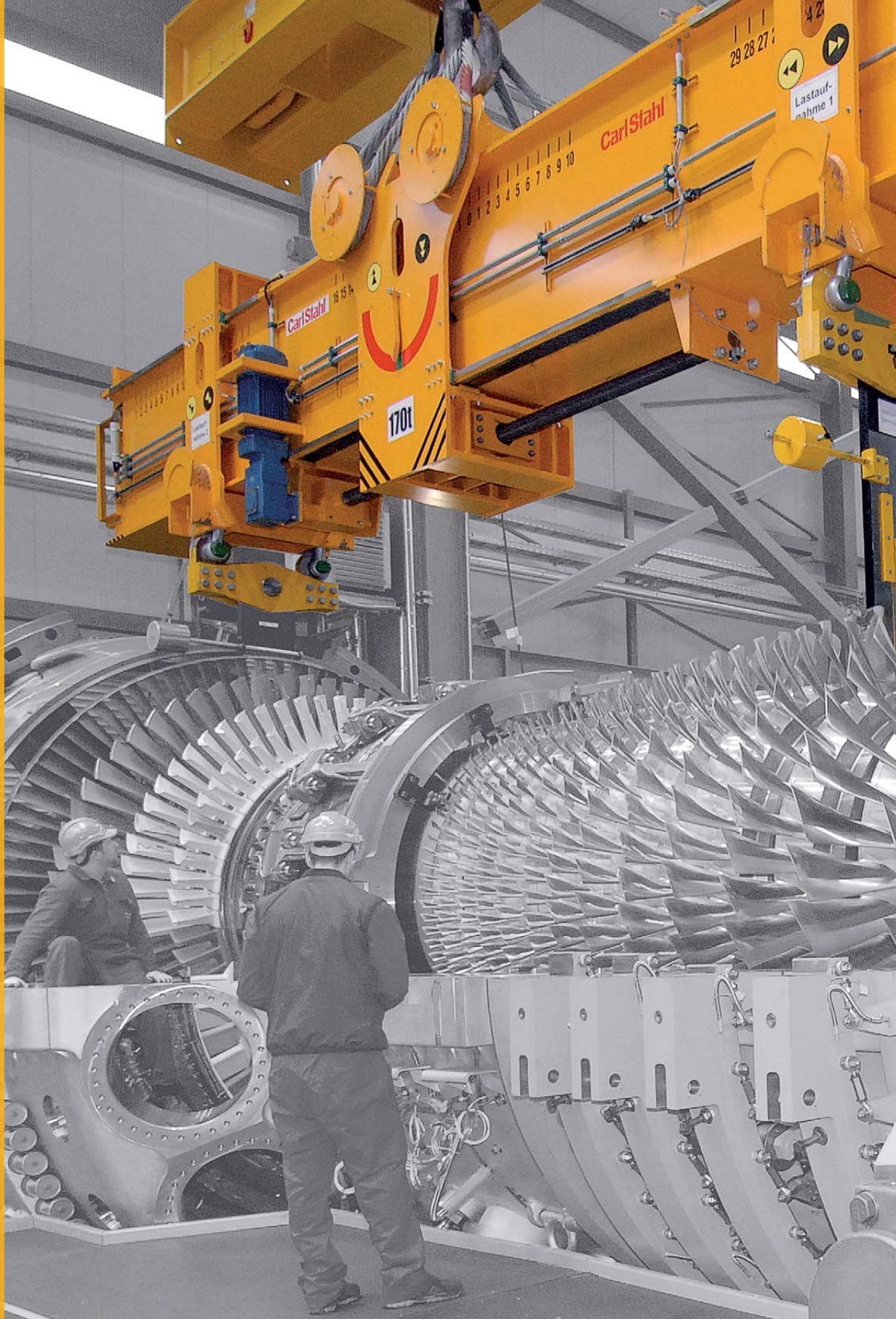


**Must not be used for lifting purposes!**

Type	Load cap. in kg	For wire rope in mm	Sheave Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H	I		
CSY50	250	8	50	135	58	35	62	22	10	9	21	9	0.45	15260000015051
CSY75	350	10	75	185	85	40	70	22	11	12	25	13	1.10	15260000015052
CSY100	750	12	100	240	110	50	100	32	16	14	32	16	2.20	15260000015053

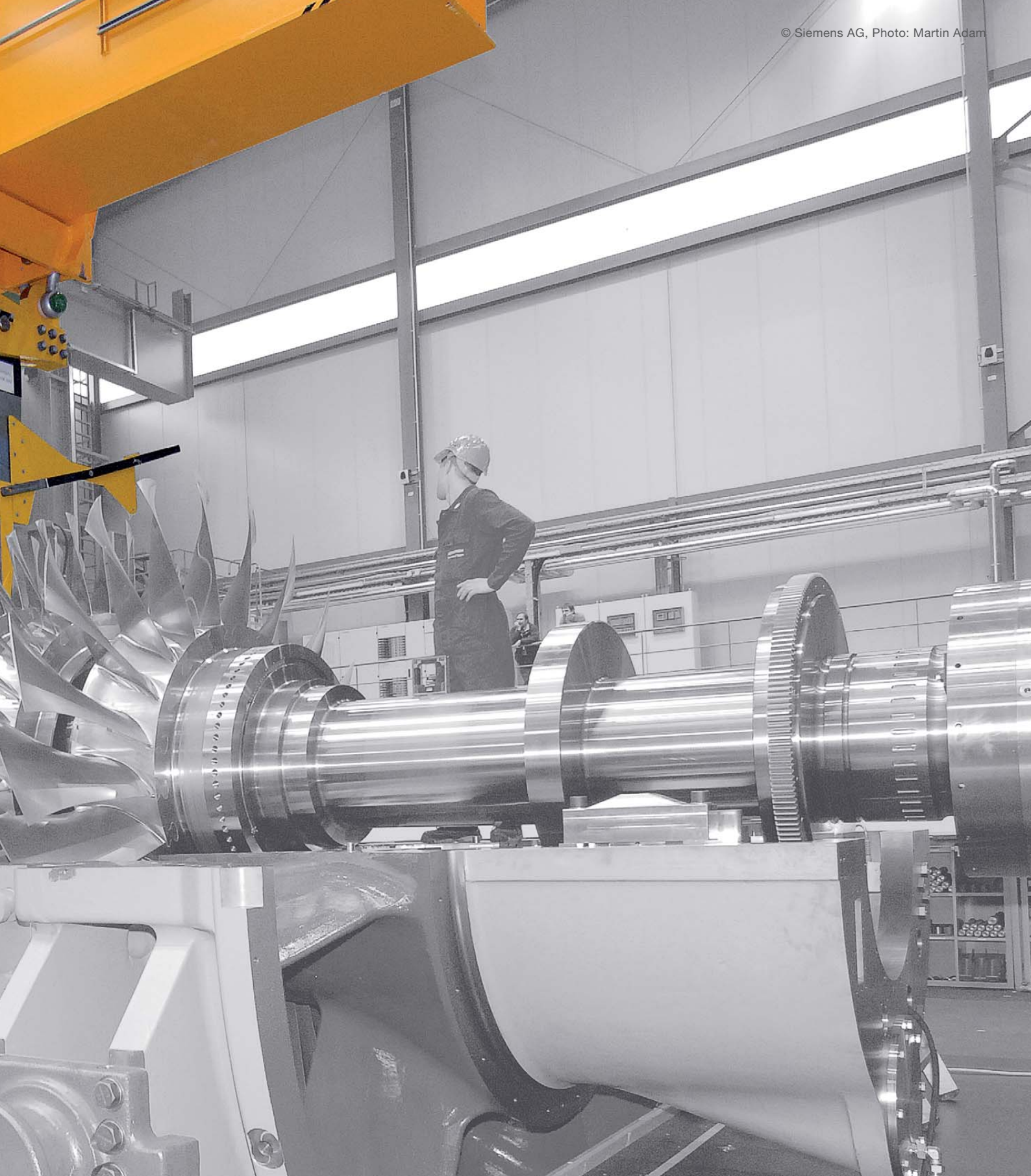


# LOAD SUSPENSION EQUIPMENT



Load Suspension Equipment in Stainless Steel | Lifting Beams | Load Turning Device | Special Beams | Lifting Forks | Sling Storage Device | C-Hooks | Grabs and Tongs | Barrel Handling Lifting Clamps | Beam Clamps | Lifting Magnets | Vacuum Lifters | Suction Lifters Hanging Scales/Crane Scales | Load Measuring Devices





# LOAD SUSPENSION EQUIPMENT

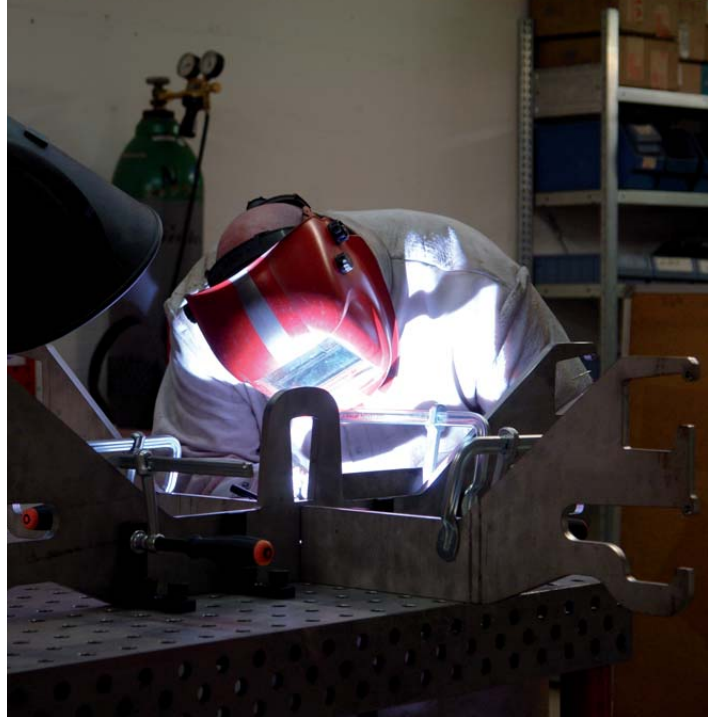
## in Stainless Steel

The production of load suspension in stainless steel, also known as chromium-nickel steel, offers many advantages as:



- Resistance against corrosion, water, steam, humidity, and food acids
- Limited resistance against weak organic and inorganic acids
- Low temperature tough
- Heat resistant
- Nonmagnetic
- Optically appealing

Due to these properties our stainless steel load suspension equipment may be used in the food industry, beverage industry, pharmaceutical industry, cosmetics industry, medical industry, chemical industry, as well as in clean rooms, and in saline or explosive environments.



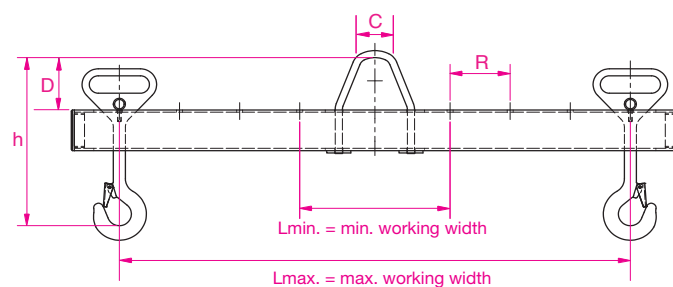
For technical data of our stainless steel load suspension equipment see page 495.



### Lifting Beam in modular Design



With bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with adjustable, flame-cut safety hooks.



Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size C x D in mm	Weight ca. in kg	Item no.
500	500 / 370	1 x 65	290	50 x 90	9	25302400015070
500	850 / 250	3 x 100	290	50 x 90	11	25302400015071
500	1850 / 850	5 x 100	290	50 x 90	21	25302400015073
1000	850 / 250	3 x 100	290	50 x 90	12	25302400015072
1000	1850 / 850	5 x 100	290	50 x 90	24	25302400015074
1000	2850 / 1350	6 x 125	290	50 x 90	48	25302400015075

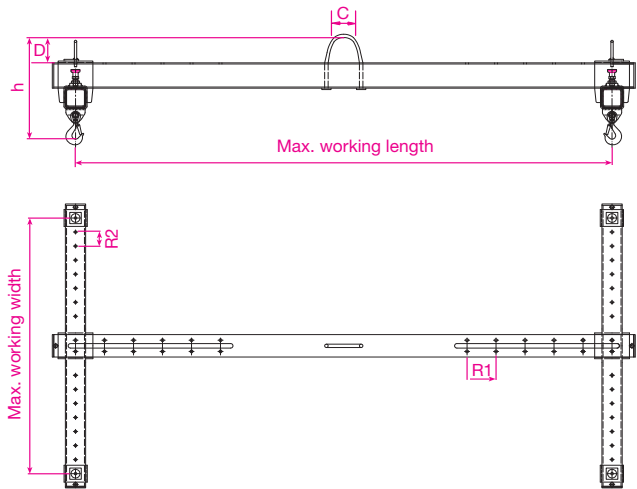


Also available in stainless steel version,  
see page 495.

Lifting Beam in modular Design, H-shape



Adjustable, with bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with 4 adjustable swiveling safety hooks.



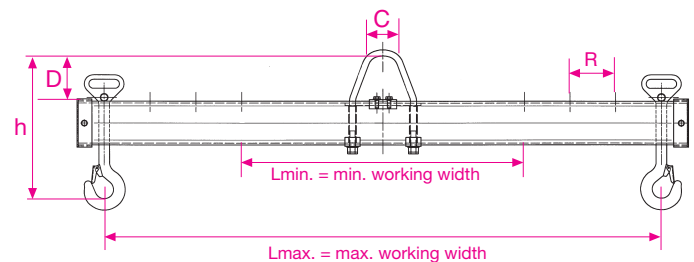
Load capacity in kg	Max. working length main beam in mm	Max. working width cross beam in mm	Adjustment grid main beam R1 in mm	Adjustm. grid cross beam R2 in mm	Headroom h in mm	Eye size C x D in mm	Weight ca. in kg	Item no.
500	850	510	3 x 100	3 x 50	390	50 x 90	28	25302400015060
500	1850	910	5 x 100	7 x 50	400	50 x 90	45	25302400015062
1000	850	510	3 x 100	3 x 50	380	50 x 90	28	25302400015061
1000	1850	910	5 x 100	7 x 50	400	50 x 90	50	25302400015063

  The pictured roundslings do not belong to the scope of delivery. Our range of roundslings can be found on page 302 et seq.

### OMEGA Lifting Beam in modular Design



With bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with adjustable, flame-cut safety hooks.



Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size C x D in mm	Weight ca. in kg	Item no.
1000	850/250	3 x 100	290	50 x 90	25	25302400015080
1000	1850/850	5 x 100	290	50 x 90	40	25302400015081
1000	2850/1350	6 x 125	290	50 x 90	58	25302400015085
2000	1850/850	5 x 100	400	70 x 130	58	25302400015082
2000	2850/1350	6 x 125	400	70 x 130	80	25302400015086
2000	3850/1750	7 x 150	400	70 x 130	115	25302400015089
3000	1830/830	5 x 100	480	80 x 150	70	25302400015083
3000	2830/1330	6 x 125	480	80 x 150	107	25302400015087
3000	3825/1725	7 x 150	480	80 x 150	185	25302400015090
5000	1820/820	5 x 100	530	90 x 170	115	25302400015084
5000	2820/1320	6 x 125	530	90 x 170	157	25302400015088
5000	3820/1720	7 x 150	530	90 x 170	217	25302400015091



The pictured roundslings do not belong to the scope of delivery. Our range of roundslings can be found on page 302 et seq.

All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

### Good reasons for Carl Stahl OMEGA lifting beams:

- Modular design
- Short delivery times
- All parts varnished or galvanised
- Low dead weight
- Full exchangeability of all parts



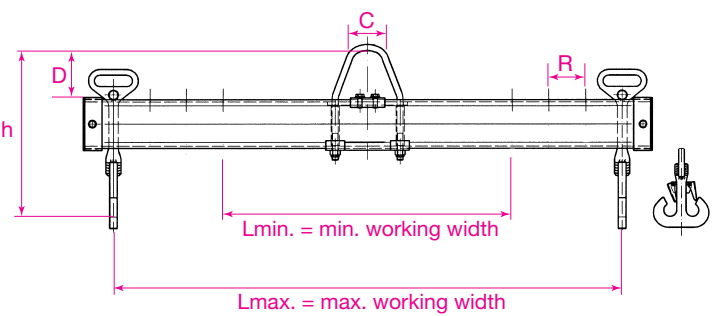
LOAD SUSPENSION EQUIPMENT

CondorLift Lifting Beams

OMEGA Lifting Beam in modular Design



With bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with adjustable, flame-cut safety hooks.



Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size C x D in mm	Weight in kg	Item no.
1000	850/250	3 x 100	300	50 x 90	25	25302400015170
1000	1850/850	5 x 100	300	50 x 90	41	25302400015171
1000	2850/1350	6 x 125	300	50 x 90	57	25302400015175
2000	1850/850	5 x 100	415	70 x 130	59	25302400015172
2000	2850/1350	6 x 125	415	70 x 130	80	25302400015176
2000	3850/1750	7 x 150	415	70 x 130	114	25302400015179
3000	1830/830	5 x 100	484	80 x 150	74	25302400015173
3000	2830/1330	6 x 125	484	80 x 150	111	25302400015177
3000	3825/1725	7 x 150	484	80 x 150	190	25302400015180
5000	1820/820	5 x 100	567	90 x 170	126	25302400015174
5000	2820/1320	6 x 125	566	90 x 170	166	25302400015178
5000	3820/1720	7 x 150	566	90 x 170	226	25302400015181

Good reasons for Carl Stahl OMEGA lifting beams:

- Modular design
- Short delivery times
- All parts varnished or galvanised
- Low dead weight
- Full exchangeability of all parts



The pictured roundslings do not belong to the scope of delivery. Our range of roundslings can be found on page 302 et seq.

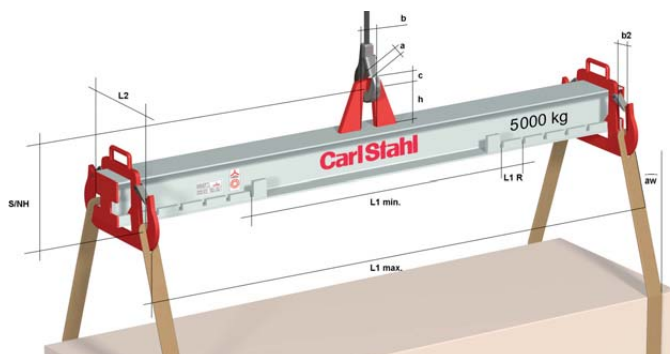
All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

### Lifting Beam with fixed or adjustable Double Safety Hooks



#### Girder beams type 8302.

With double hooks, you are able to accommodate two ends of a sling on each beam side. As a result, the mutual squeezing out as in the case of a single hook is avoided, particularly in the case of textile slings. The working width is adjusted with our tilt-reducing grid system (TGS). The very quick and simple implementation of the mounting links is ideally suited for frequent adjustment.



#### The benefits for you:

- Operating temperature ranges from 0° C to 80° C or -20° to 80°C possible.
- Reduced wear due to crane connection adapted to your crane hook
- Models with fixed working width possible.
- CE-compliant designed/manufactured according to
  - EC Machinery Directive
  - EN 13155
  - EN 1993
  - EN 1090-1 / 1090-2 until execution class 3 possible

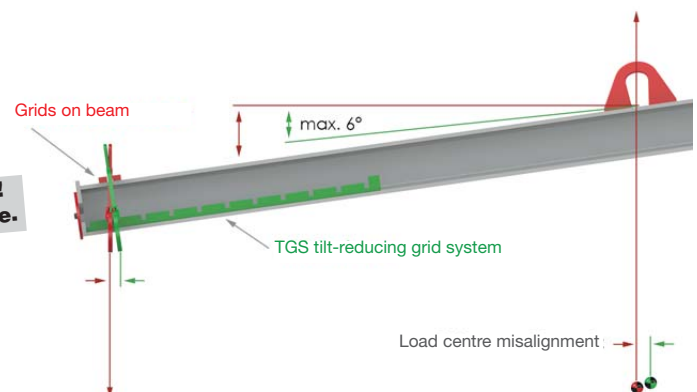
#### Optional versions

- Additional single hooks
- Forklift tine mounting
- Crane connection via
  - Two-strand slings
  - Pin connection
- Crane connection adjustable via centre of gravity
  - Manual
  - via spindle adjustment
- Crane connection for crane double hooks
- Including support feet
- Designed for continuous use
- And much more

**Please contact us with your questions!**  
**We would be pleased to offer you advice.**



- Stop angle up to 45° without loss of load capacity (see Fig.)
- High quality forged safety latches prevent unintentional detachment of the load



#### TGS grid

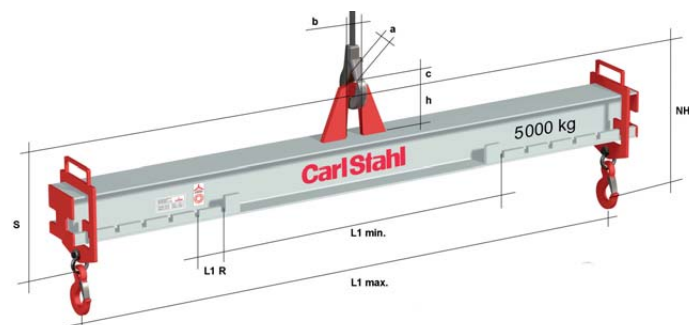
- Very easily and quickly adjustable working width.
- Due to a low point of the pendulum, the danger of exceeding the beam inclination of 6° is reduced.

### Lifting Beam with fixed or adjustable Double Safety Hooks



#### Girder beams type 8304.

Type 8304 girder beams have a higher stability test dimensions as standard. The working width is adjusted with our tilt-reducing grid system (TGS). The simple implementation of the mounting links is very suitable for frequent adjustment. The hooks have a pendulum suspension in two directions. This makes the suspension of the load easier.



We would be pleased to implement special solutions for your lifting process.

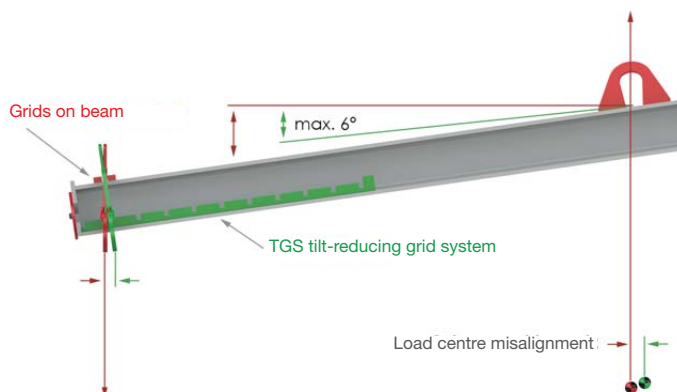
#### The benefits for you:

- Operating temperature ranges from  $-20^{\circ}$  to  $80^{\circ}\text{C}$  are possible
- Wear minimisation by eyelet adapted to your crane hook
- Models with fixed working width possible
- Easier attachment of the load due to the pendulum suspension of the hooks
- The TGS grid provides maximum stability during lifting
- Quick and easy adjustment of the working width
- Load hooks adapted to your attachment point/sling
- Paintwork in RAL signal colours as desired
- CE-compliant designed/manufactured according to
  - EC Machinery Directive
  - EN 13155
  - EN 1993
  - EN 1090-1 / 1090-2 until execution class 3 possible

#### Optional versions

- Additional single hooks
- Forklift tine mounting
- Crane connection via
  - Two-strand slings
  - Pin connection
- Crane connection adjustable via centre of gravity
  - Manual
  - via spindle adjustment
- Crane connection for crane double hooks
- Including support feet
- Designed for continuous use
- And much more

Please contact us with your questions! We would be pleased to offer you advice.

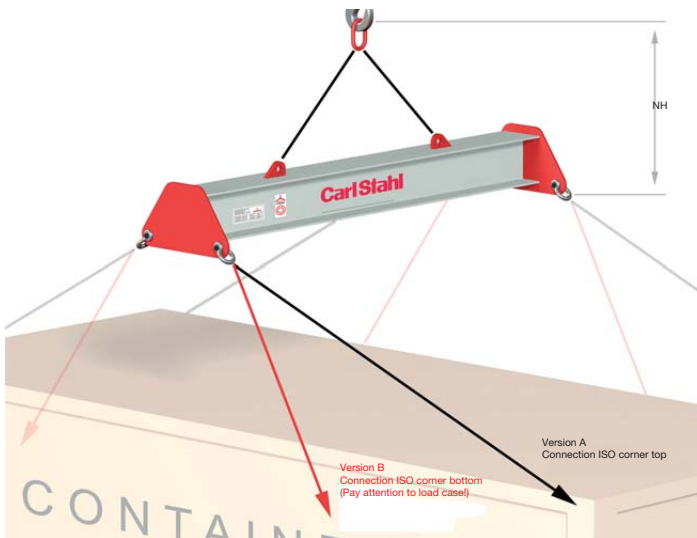


#### TGS grid

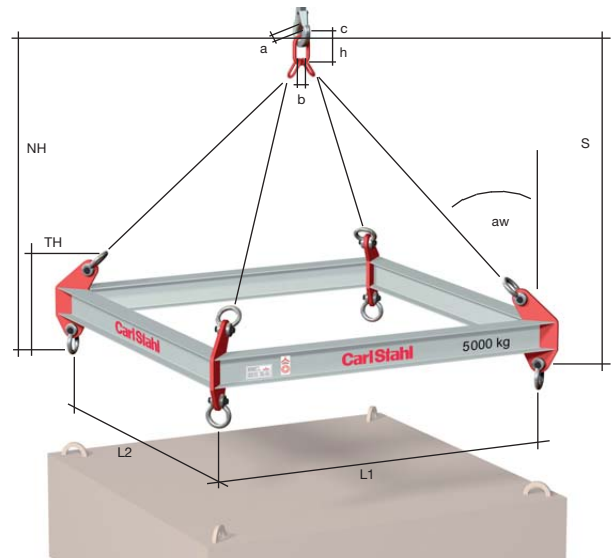
- Very easily and quickly adjustable working width.
- Due to a low point of the pendulum, the danger of exceeding the beam inclination of  $6^{\circ}$  is reduced.



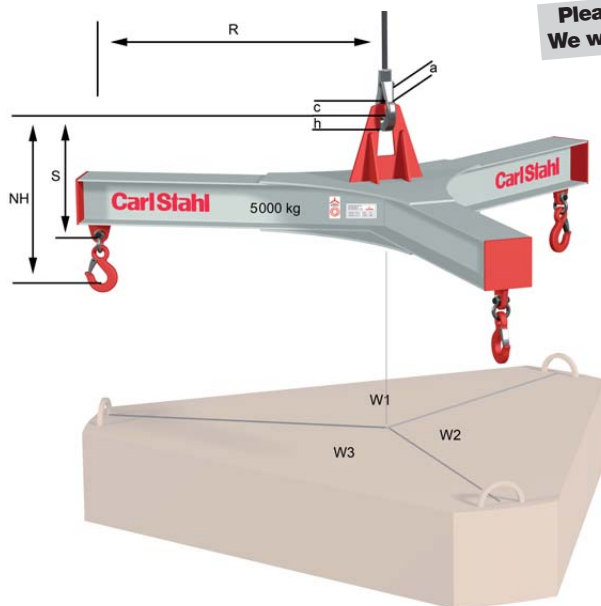
### Lifting beams in different designs for your specific lifting operations



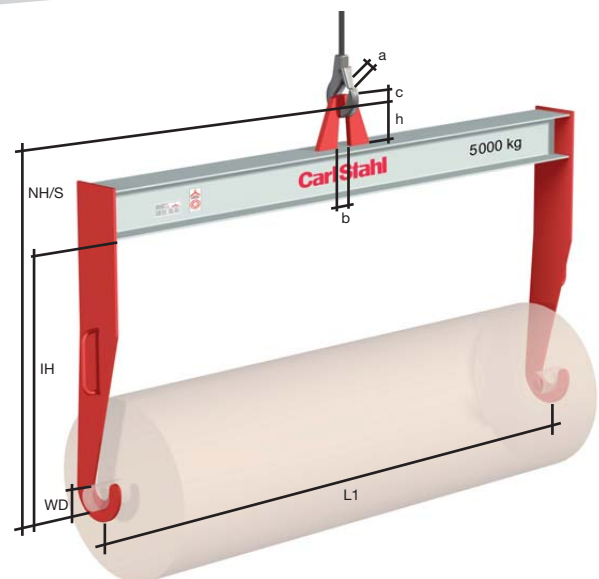
**Container lifting beams** with two-strand suspension and two two-strand slings are specifically designed to accommodate containers. Due to the tilt angles on the crane and load side, the load can also be stabilised below the centre of gravity during the attachment. The criteria for load case 6 must be met. As a connection to the container, various special hooks can be used. In models with shortened slings, a slight adjustment can also be made over the centre of gravity.



**Frame spreads** are a lighter alternative to H-beams if the available lifting height is sufficiently high. Very high load carrying capacities can still be achieved with standard profiles. They can be combined with different slings (that can also be shortened). This makes it possible to search the centre of gravity in the surface. Standard spreader beams are offered for symmetrical use. Thanks to the stability class A, they can be used universally. On the other hand, they are executed with fixed working widths. Load-side tilt angles are tested in individual cases. For larger lifting capacities and/or working widths (>2.4 m) it is advisable to use a demountable model, which facilitates transport considerably.



Please contact us with your questions!  
We would be pleased to offer you advice.



**Star or T beams** allow you to accommodate three or more lifting points. Star beams are usually for symmetrical use. The working widths are indicated in the diameter. T beams are usually designed for asymmetrical use. Asymmetry often requires counterweights to ensure a horizontal position during empty run. This increases the dead weight.

**Longitudinal hook beams** for lifting castors, rollers, shafts and similar loads. The hooks, rigidly designed downwards and adapted to the shafts, prevent slipping of the load. The hooks can optionally be provided with coating or wear pads. Versions with which the user is not endangered while suspending or unhooking are designed with safety devices.

LOAD SUSPENSION EQUIPMENT

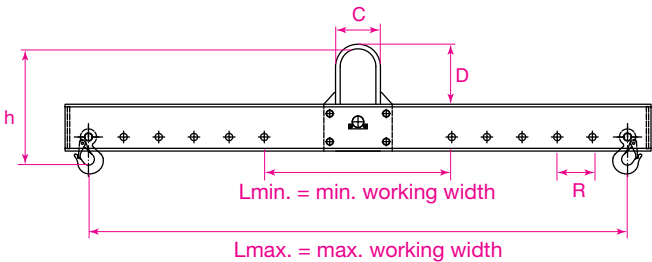
CondorLift Lifting Beams

Lifting beam with load-carrying safety hook adjustable in the grid



With central oval ring as single point suspension, suitable for load hooks according to DIN 15401 and with two load-carrying safety hooks adjustable in the grid.

**!** All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.



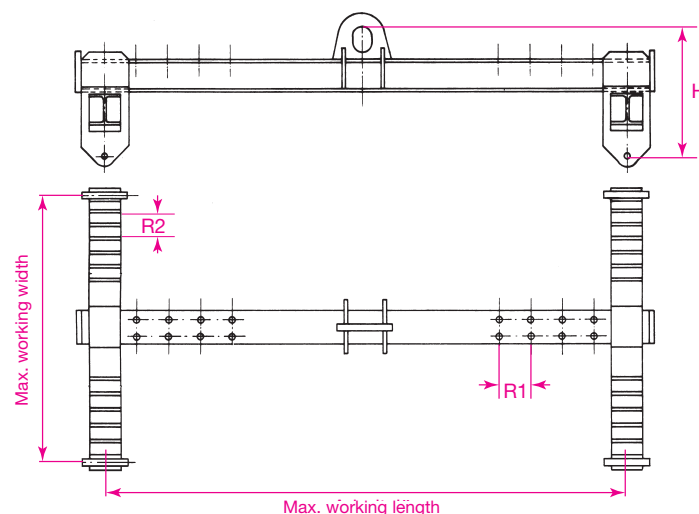
Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size C x D in mm	Weight in kg	Item no.
3000	2000/750	5 x 125	360	110 x 115	85	25302400015043
3000	3000/1500	5 x 150	380	110 x 115	138	25302400015049
3000	4000/2250	5 x 175	400	110 x 115	205	25302400015054
5000	2000/750	5 x 125	400	110 x 115	120	25302400015044
5000	3000/1500	5 x 150	415	110 x 115	185	25302400015050
5000	4000/2250	5 x 175	455	110 x 115	305	25302400015055
8000	2000/500	5 x 150	460	160 x 180	180	25302400015045
8000	3000/1250	5 x 175	480	160 x 180	265	25302400015051
8000	4000/2250	5 x 175	520	160 x 180	410	25302400015056
10000	2000/500	5 x 150	485	180 x 200	205	25302400015046
10000	3000/1250	5 x 175	580	180 x 200	335	25302400015052
10000	4000/2250	5 x 175	620	180 x 200	455	25302400015057

### H-shaped lifting beam with fired suspension eye as a single suspension point



Suitable for load hooks according to DIN 15401 and four load suspension points that can be adjusted from all sides within the grid, with pivoting, integrated safety single hooks.

**!** All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.



Load capacity in kg	Max. working length main beam in mm	Max. working width cross beam in mm	Adjustment grid main beam R1 in mm	Adjustm. grid cross beam R2 in mm	Headroom H in mm	Eye size in mm	Weight ca. in kg	Item no.
2000	2000	1000	5 x 100	3 x 100	594	80 x 120	160	25302400015221
2000	3000	2000	5 x 150	4 x 150	614	80 x 120	260	25302400015228
2000	4000	2000	7 x 150	4 x 150	614	80 x 120	295	25302400015307
2000	5000	3000	10 x 150	5 x 150	653	80 x 120	470	25302400015229
3000	2000	1000	5 x 100	3 x 100	630	80 x 120	185	25302400015222
3000	3000	2000	5 x 150	4 x 150	673	80 x 120	330	25302400015230
3000	4000	2000	7 x 150	4 x 150	673	80 x 120	370	25302400015309
3000	5000	3000	10 x 150	5 x 150	714	80 x 120	580	25302400015231
5000	2000	1000	5 x 100	3 x 100	710	80 x 120	240	25302400015223
5000	3000	2000	5 x 150	4 x 150	770	80 x 120	450	25302400015232
5000	4000	2000	7 x 150	4 x 150	790	80 x 120	555	25302400015310
5000	5000	3000	10 x 150	5 x 150	830	80 x 120	820	25302400015233
8000	2000	1000	5 x 100	3 x 100	860	100 x 150	340	25302400015224
8000	3000	2000	5 x 150	4 x 150	940	100 x 150	645	25302400015303
8000	4000	2000	7 x 150	4 x 150	960	100 x 150	775	25302400015225
8000	5000	3000	10 x 150	5 x 150	990	100 x 150	1090	25302400015304
10000	2000	1000	5 x 100	3 x 100	940	100 x 150	420	25302400015220
10000	3000	2000	5 x 150	4 x 150	1020	100 x 150	765	25302400015226
10000	4000	2000	7 x 150	4 x 150	1040	100 x 150	905	25302400015305
10000	5000	3000	10 x 150	5 x 150	1080	100 x 150	1255	25302400015227

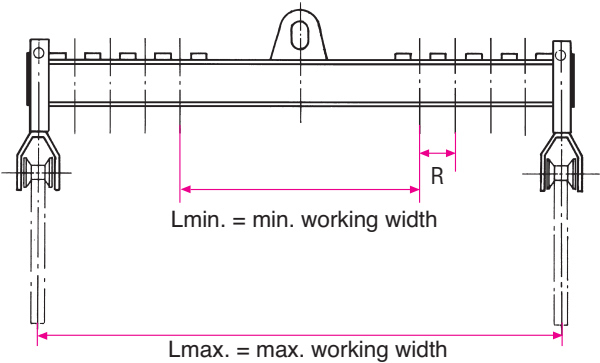


Load Turning Beam with flame-cut Eye as Single-Point Suspension

Suitable for hooks according to DIN 15401, with 2 adjustable roller segments.

The roller segments can be fitted with endless, galvanised and vulcanised woven wire rope slings. These slings are totally rotation-free to avoid any twisting. The work piece is protected by the vulcanisation.

Please note that the endless slings are not included in the price. They can be custom-made to your requirements.



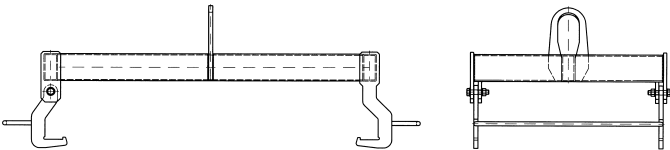
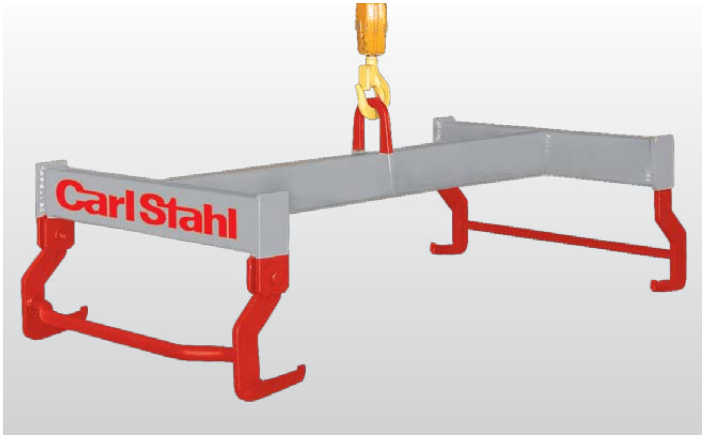
Load capacity in kg	Working width max. / min. L in mm	Adjustment grid R in mm	Eye size in mm	Weight in kg/pce	Item no.
1000	1000 / 400	3 x 100	60 x 90	45	25302400015160
1000	2000 / 1000	5 x 100	60 x 90	65	25302400015161
1000	3000 / 1600	7 x 100	60 x 90	80	25302400015163
3000	2000 / 1000	5 x 100	80 x 120	90	25302400015162
3000	3000 / 1600	7 x 100	80 x 120	170	25302400015164
3000	4000 / 1600	8 x 150	80 x 120	205	25302400015165

**!** All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost.

For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

Lifting Beam with flame-cut Eye as Single-Point Suspension

Suitable for hooks acc. to DIN 15401, with one fixed and one pivoting hook pair.



Load capacity in kg	Suitable for pallet size in mm	Eye size W x H in mm	Dead weight in kg	Item no.
1000	1240 x 810	80 x 150	60	25302400015240
2000	1240 x 810	80 x 150	70	25302400015241

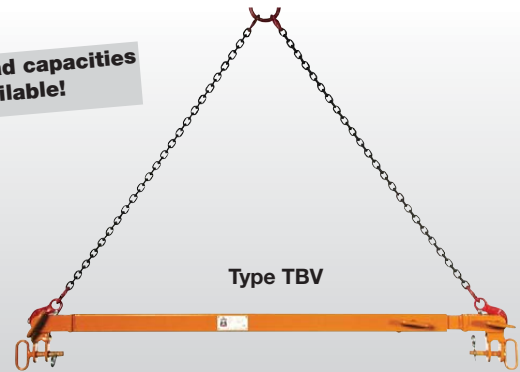
### Spreader Beam

#### Spreader beams in several designs:

- fixed with rocker
- adjustable with rocker
- fixed with pendulum
- adjustable with pendulum

The chains shown are not part of the scope of delivery.  
If necessary, please request the chain sling separately.

Higher load capacities  
available!

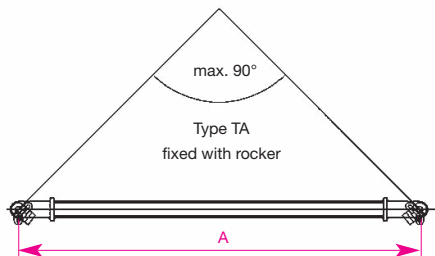


#### Type TB: Spreader beam with pendular slider

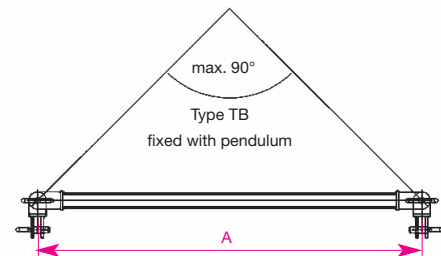
Non-adjustable spreader with fixed gripping width. The chain sling is attached to the spreader. The pendulum enables the detachable connection of the load to the spreader.

#### Type TA: Fixed spreader beam with rocker

Non-adjustable spreader with fixed gripping width. The chains run through the rockers at the ends of the spreader. These deflect the force. The spreader acts as a spacer.



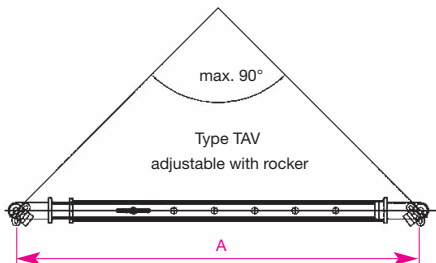
Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TA Rigid version A available from/to	Item no. Type TA
1400	6	1000	25302400015280
2800	8	1000-1500	25302400015281
4500	10	1000-1500	25302400015282
7100	13	1000-1500	25302400015283
11200	16	1250-2500	25302400015284



Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TB Rigid version A available from/to	Item no. Type TB
1400	6	1000	25302400015285
2800	8	1000-1500	25302400015286
4500	10	1000-1500	25302400015287
7100	13	1000-1500	25302400015288
11200	16	1250-2500	25302400015289

#### Type TAV: Adjustable spreader beam with rocker

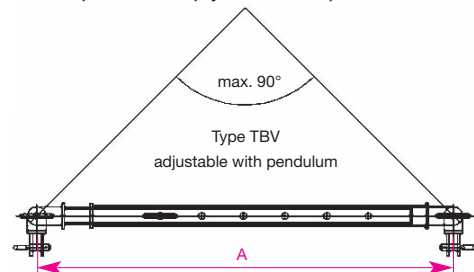
Spreader with positioning grid for variable gripping widths. The chain sling is attached to the spreader. The pendulum enables the detachable connection of the load to the spreader. Grommet slings, ropes or chains can be attached. The spreader simply acts as a spacer.



Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TAV adjustable A min.- A max.	Item no. Type TAV
1400	6	1000-1500	25302400015290
2800	8	1200-2000	25302400015291
4500	10	1200-2000	25302400015292
7100	13	1200-1600	25302400015293
7100	13	1400-2000	25302400035108
11200	16	1900-2500	25302400015311

#### Type TBV: Adjustable spreader beam with pendulum

Spreader with positioning grid for variable gripping widths. The chain sling is attached to the spreader. The pendulum enables the detachable connection of the load to the spreader. Grommet slings, ropes or chains can be attached. The spreader simply acts as a spacer.



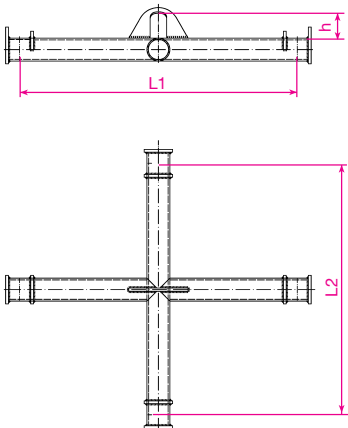
Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TBV adjustable A min.- A max.	Item no. Type TBV
1400	6	1000-1500	25302400015294
2800	8	1200-2000	25302400015295
4500	10	1200-2000	25302400015296
7100	13	1200-1900	25302400035184
7100	13	1400-2000	25302400015297
11200	16	1900-2500	25302400015298

LOAD SUSPENSION EQUIPMENT

CondorLift Lifting Beams

Lifting Beam for Big Bag Transport

As closed tubular construction in cross-shape, with central flame-cut eye as single-point suspension suitable for single crane hook acc. to DIN 15401.



Special versions on request.

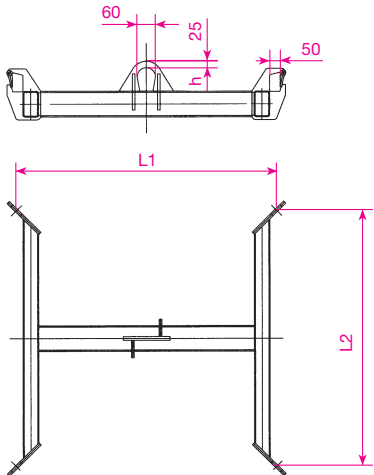
For Big Bags  
see pages 670-671.



Load capacity in kg	Working width L1 in mm	Working width L2 in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
1000	1000	1000	90	60 x 90	30	25302400015250
1500	1000	1000	90	60 x 90	40	25302400015251
2000	1000	1000	90	60 x 90	44	25302400015252

Lifting Beam for Big Bag Transport

With flame-cut eye as single-point suspension suitable for single crane hook acc. to DIN 15401, with four load acceptance points with safety latches.



Special versions on request.

Also available in stainless steel,  
see page 495.

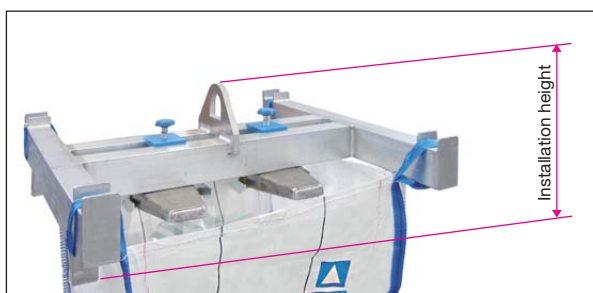


Load capacity in kg	Working width L1 x L2 in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
1000	1000 x 1000	90	70 x 90	40	25302400015253
1500	1000 x 1000	90	70 x 90	41	25302400015254
2000	1000 x 1000	90	70 x 90	43	25302400015255



### Aluminium lifting beam for big bag transport

- With mounting for crane hook
- The big bag beam can also be suspended directly in a hoist (such as a pulley block)
- With 2 holding fixtures for forklift tines
  - Continuously movable
  - Continuously adjustable to a maximum fork profile of 240 x 115 mm
- With 4 point suspension (front side)
  - For attaching the loop of the big bag



Load capacity in kg	Installation height in mm	Outer dimensions in mm	Working width in mm	Total weight in kg	Item no.
1000	360	1080 x 1080	1000 x 1000	45	25302400036830
2000	360	1080 x 1080	1000 x 1000	45	25302400037315
3000	360	1080 x 1080	1000 x 1000	45	25302400037436

### Forklift lifting beam for Big Bag Transport

**NEW!**

As accessory equipment for all forklift types. Made of a welded hollow profile metal sheet construction with full-length forklift pockets and four attachment points with safety metal sheet (Type TBB-E) or four down mounted safety swivel hooks (Type TBB-W). The locking of the forks in the forklift pockets is made by a safety chain.



Load capacity in kg	Type	Working width l x w x h in mm	Forklift pockets L x W x H - A	Total weight in kg	Item no.
1000	TBB-E	545 x 600 x 143	650 x 200 x 80 - 480	40	25302400038125
1250	TBB-W	800 x 800 x 360	900 x 130 x 60 - 800	46	25302400038138

LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift Forklift lifting beam

Lifting beam type 8451 as an attachment for all types of forklifts with a centrally integrated rotating and pivoting swivel hook, side-mounted support feet and tilting clamping lever for latching on the tines, optionally arranged at the bottom or on the side.

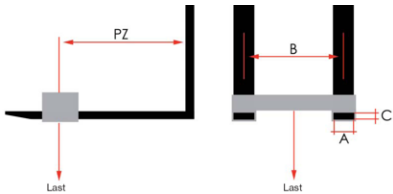
The benefits for you:

- Operating temperature ranges from -20° to 80°C.
- Easier attachment of the load due to the pendulum suspension of the hooks
- Paintwork in RAL signal colours as desired
- CE-compliant designed/manufactured according to
  - EC Machinery Directive
  - EN 13155
  - EN 1993
  - EN 1090-1 / 1090-2 until execution class 3 possible

Optional versions

- Additional single hooks
- Adjustable working width
- Securing on the forklift via safety chain
- Retaining pin
- Additional crane connection
- Without support feet
- Designed for continuous use
- And much more

Please contact us with your questions!  
We would be pleased to offer you advice.



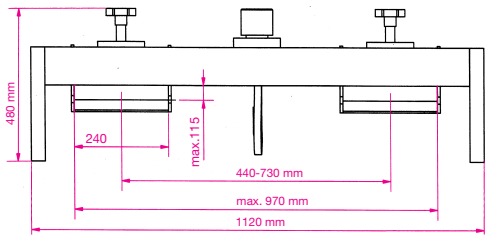
**Attention:** In your request please specify the dimensions of your fork tines (dimension A+C) as well as the centre to centre distance of the fork tines (dimension B) according to the type of your forklift in mm. PT indicates the position on the tines.

Aluminium Forklift Lifting Beam (Hook with axial Bearing for turning under Load)

A special feature of the new beam is the aluminium model. It is continuously adjustable up to a max. fork profile of 240 x 115 mm. Max. outer diameter: 970 mm, i.e. **this beam fits continuously on almost all forks**. Also suitable for fork extensions.

- The load to be lifted is taken symmetrically. The center of gravity is thus evenly distributed over both the fork tines
- With proper and careful handling it is ensured that the tilting safety of the forklift is also maintained during driving operation
- The movements of the aluminium forklift beam can also be limited by mechanical clamping components

Load capacity in kg	Max. prong profile in mm	Max. outer distance between prongs in mm	Total weight in kg	Item no.
3000	240 x 115	970	43	25302400015197
6300	240 x 115	970	43	25302400015198

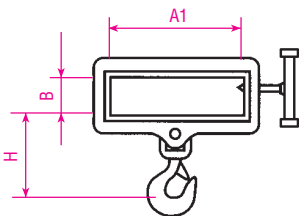


**The safety hook (with axial bearing) can be turned 360° under load.**

CondorLift Forklift Shoe

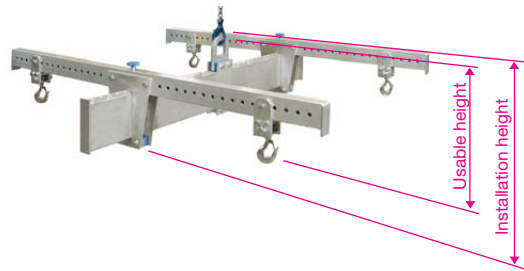
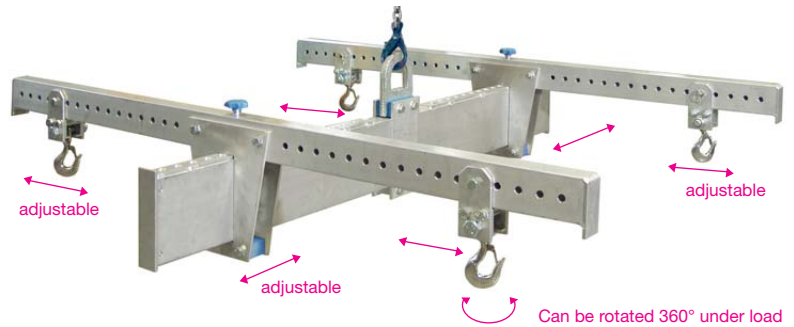
Single clip-on shoe with swivel hook. Dimensions A and B are variable.

Load capacity in kg	Dimensions in mm			Weight in kg/pce	Item no.
	A	B	H		
1000	120	50	160	5	25302400015299
1500	140	60	180	6	25302400015300
2000	160	60	200	8	25302400015301
3000	180	80	220	10	25302400015302



### Aluminium lifting beam in H version

- With four adjustable load-carrying safety hooks, which can be turned 360° under load.
- With beam suspension for crane hooks.
- Quick-lock system to quickly adjust and shift the hooks on the main or the cross beam in a grid dimension of 50 mm.
- All parts are either made of aluminium or very high quality plastic (except the pins, beam suspension and load-carrying safety hook).



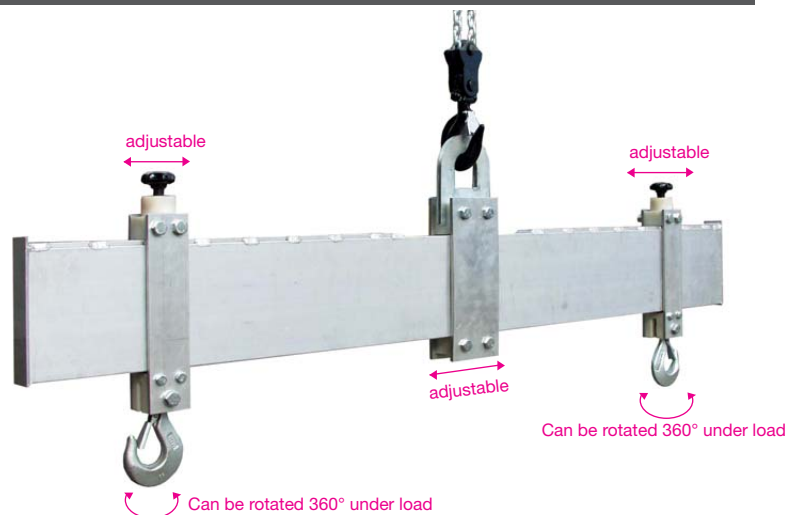
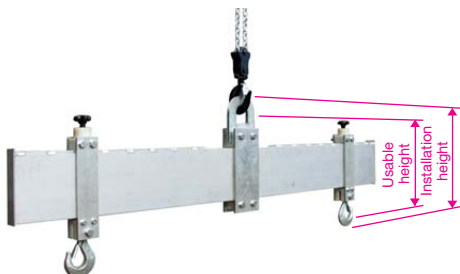
Both cross beams are removable from the main beam.



Load capacity in kg	Type	Working width main beam min/max in mm	Working width cross beam min/max in mm	Usable height in mm	Installation height in mm	Eye Size W x H in mm	Dead weight in kg	Item no.
1000	53102020	300 / 2000	400 / 2000	330	470	90 x 94	76	25302400037437
1000	53103020	300 / 3000	400 / 2000	330	470	90 x 94	89	25302400037438
1000	53104020	300 / 4000	400 / 2000	330	470	90 x 94	102	25302400037439
1000	53105020	300 / 5000	400 / 2000	330	470	90 x 94	115	25302400037440
2000	53202020	300 / 2000	400 / 2000	330	470	90 x 94	76	25302400036178
2000	53203020	300 / 3000	400 / 2000	330	470	90 x 94	89	25302400035121
3000	53302020	300 / 2000	400 / 2000	330	470	90 x 94	76	25302400037441

### Aluminium lifting beam

- With two adjustable load-carrying safety hooks which can be rotated 360° under load.
- With beam suspension for crane hooks.
- Quick-lock system to quickly adjust and shift the load hooks in a grid dimension of 50 mm.
- All parts are either made of aluminium or very high quality plastic (except the pins, beam suspension and load-carrying safety hook).



Load capacity in kg	Type	Working width min/max in mm	Usable height in mm	Installation height in mm	Eye Size W x H in mm	Dead weight in kg	Item no.
1000	521020	300 / 2000	570	630	90 x 94	45	25302400037442
1000	521030	300 / 3000	570	630	90 x 94	58	25302400037443
1000	521040	300 / 4000	570	630	90 x 94	71	25302400037444
1000	521050	300 / 5000	570	630	90 x 94	84	25302400037445
2000	522020	300 / 2000	570	630	90 x 94	45	25302400037046
2000	522030	300 / 3000	570	630	90 x 94	58	25302400037048
2000	522040	300 / 4000	570	630	90 x 94	71	25302400037447
3000	523020	300 / 2000	570	630	90 x 94	45	25302400037448
3000	523030	300 / 3000	570	630	90 x 94	58	25302400037449



# LOAD SUSPENSION EQUIPMENT

## Load Turning Device

### Load Turning Device Type ROTOMAX® R

Turning unwieldy and heavy work pieces is often a very dangerous issue and involves considerable risks. In the case of improper reversing manoeuvres, the risk of accidents is high: when the load is broken, the work piece is damaged and, in the worst case, personal injury can occur. The ROTOMAX® load turning devices can be used for this purpose, by which bulky work pieces can be turned and reversed safely and gently. The work piece can be stopped in any position for inspections and post-processing. The operator controls the turning operation himself from a safe distance e.g. with a radio remote control. ROTOMAX® load turning devices are manufactured for a wide range of applications, e.g. for turning machine bodies, marine diesel engines, welding structures, casting kits for the casting industry, etc.

#### Advantages:

- Turn and reverse bulky goods safely and smoothly
- The turning material can be stopped in any position
- No damage to the turned goods
- Avoid accidents during the turning process
- Mobile application option
- Standard equipment with fixed belt spacing or with manual/electrical adjustment
- Individual units for the tandem operation
- Individual solutions tailored to the respective application



### Load Turning Device Type ROTOMAX® R

#### Features:

- Basic unit with suspension for crane hooks without side adjustment
- Load capacity 1,000 - 20,000 kg
- Pushbutton command panel "left/right" and emergency stop including control cable 6,000 mm long
- Operating voltage: 400 V / 50 Hz / three-phase
- Control voltage: 48 V
- Protection class: IP54

- With CEE-plug, 5-pin
- Operation: Intermittent
- Detailed documentation
- Painting for indoor use, varnished in RAL 1007 daffodil yellow



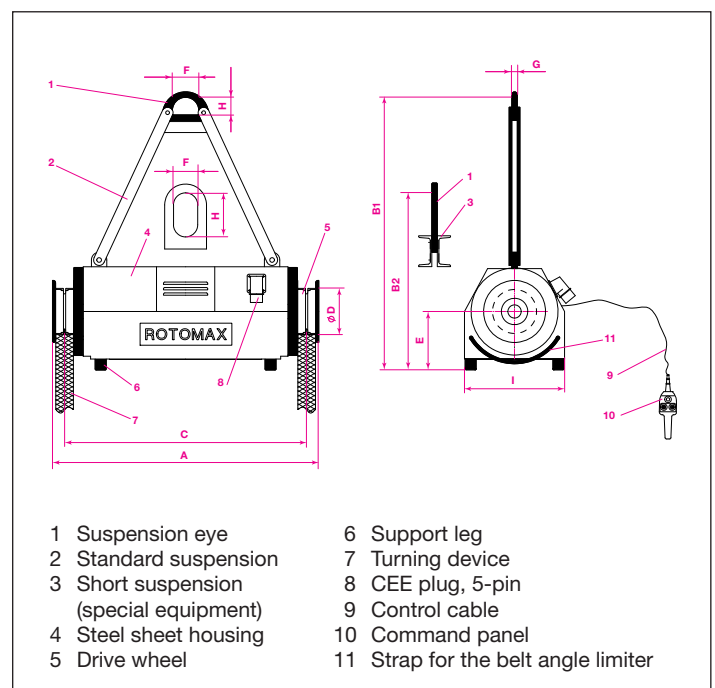
**The necessary slings (straps, shackles) are not included in the scope of delivery and must be requested separately with the required length.**

**We would be pleased to introduce the Rotomax for use at your place or provide you with a loan unit!**

Load capacity in kg	Type	Dimensions in mm										Power/ED in KW / %	Torque in Nm	Speed in m/min.	Weight (without turning device) in kg/pc.
		A	B1	B2	C	D	E	F	G	H	I				
1000	R 1000/0.6	710	770	-	600	210	265	120	25	80	455	0.4 / 10	825	2.5	190
1000	R 1000/1.1	1210	1240	805	1100	210	265	120	25	80	455	0.4 / 10	825	2.5	235
1000	R 1000/2.0	2110	-	865	2000	210	265	120	25	200	455	0.4 / 10	825	2.5	450
2000	R 2000/0.6	710	770	-	600	210	265	120	25	80	455	0.4 / 10	825	2.5	190
2000	R 2000/1.1	1210	1240	805	1100	210	265	120	25	80	455	0.4 / 10	825	2.5	235
2000	R 2000/2.0	2110	-	865	2000	210	265	120	25	200	455	0.4 / 10	825	2.5	450
3000	R 3000/0.6	710	770	-	600	210	265	120	25	80	455	0.4 / 10	825	2.5	190
3000	R 3000/1.1	1210	1240	805	1100	210	265	120	25	80	455	0.4 / 10	825	2.5	235
3000	R 3000/2.0	2110	-	865	2000	210	265	120	25	200	455	0.4 / 10	825	2.5	450
5000	R 5000/0.6	710	770	-	600	210	265	120	25	80	455	0.7 / 10	1650	2.5	200
5000	R 5000/1.1	1210	1240	805	1100	210	265	120	25	80	455	0.7 / 10	1650	2.5	255
5000	R 5000/2.0	2110	-	865	2000	210	265	120	25	200	455	0.7 / 10	1650	2.5	470
10000	R 10000/1.5	1665	1880	1165	1500	400	545	100	60	160	635	0.75 / 40	3200	2.8	1000
10000	R 10000/2.0	2165	-	1225	2000	400	545	100	60	160	635	0.75 / 40	3200	2.8	1150
10000	R 10000/3.0	3165	-	1265	3000	400	545	100	60	160	635	0.75 / 40	3200	2.8	1350
20000	R 20000/2.0	2415	1650	1355	2000	400	545	150	50	240	635	1.5 / 40	6400	2.8	1500
20000	R 20000/3.0	3415	-	1455	3000	400	545	150	50	240	635	1.5 / 40	6400	2.8	1900

Other lifting capacities (up to 200,000 kg), adjustment of the belt distance manually or electrically, etc., on request! - Subject to technical changes

Load capacity in kg	Type	Item no.
1000	R 1000/0.6	25105500035030
1000	R 1000/1.1	25105500035031
1000	R 1000/2.0	25105500035032
2000	R 2000/0.6	25105500035033
2000	R 2000/1.1	25105500035034
2000	R 2000/2.0	25105500035035
3000	R 3000/0.6	25105500035009
3000	R 3000/1.1	25105500035036
3000	R 3000/2.0	25105500035037
5000	R 5000/0.6	25105500035038
5000	R 5000/1.1	25105500035039
5000	R 5000/2.0	25105500035040
10000	R 10000/1.5	25105500035041
10000	R 10000/2.0	25105500035042
10000	R 10000/3.0	25105500035043
20000	R 20000/2.0	25105500035044
20000	R 20000/3.0	25105500035045



**Delivered from the production site**



# LOAD SUSPENSION EQUIPMENT

## Special and Turning Beams

### Special beams for all purposes

If your company requires a particular load suspension task for which the standard beam versions in this catalogue are unsuitable, we can gladly assist you with a customer-specific solution.

Challenge us and send us an enquiry with your specifications.

We specialise in custom solutions for all areas of use and will gladly send you a quotation.

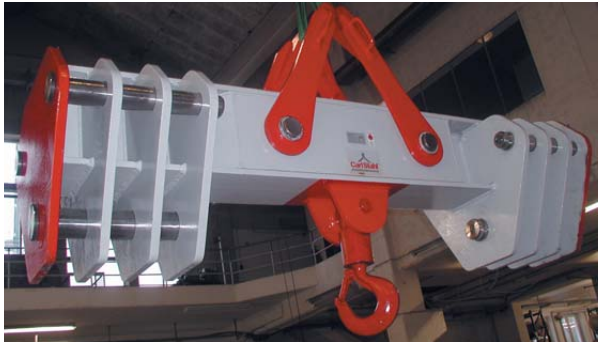


Photo: Sensoplan, Hohentengen, Germany





© Siemens AG, Photo: Martin Adam



# LOAD SUSPENSION EQUIPMENT

## Special Beams and Turning Beams

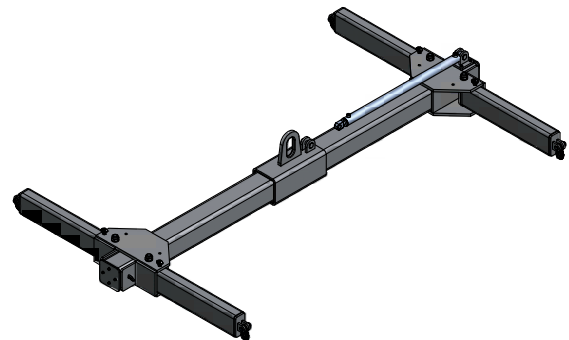
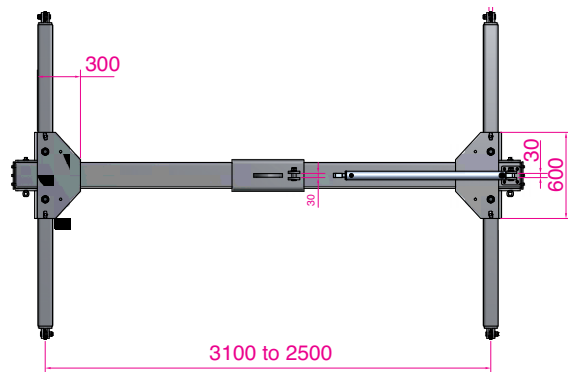
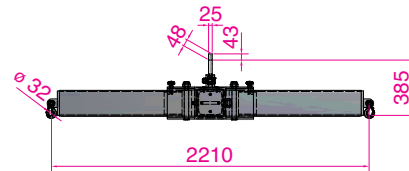
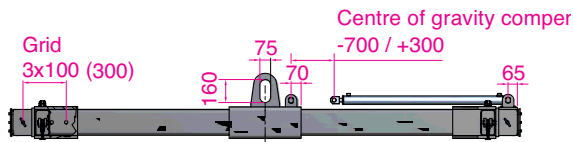


### Lifting Beam for Motor Vehicles

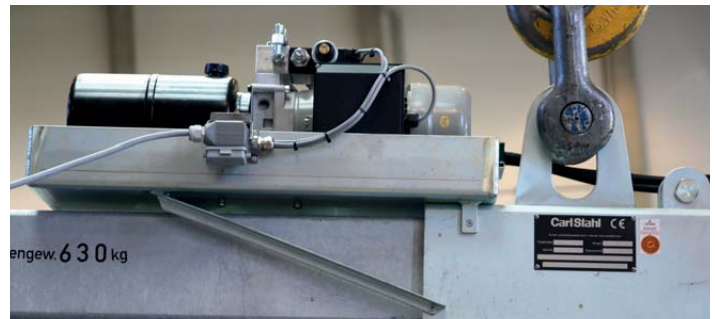
The ideal solution for lifting, lowering and transport of motor vehicles.

Optimised transport is only guaranteed in connection with genuine Carl Stahl lifting gear.

As all other Carl Stahl load suspension equipment, this lifting beam complies with the current German accident prevention regulations acc. to "Load Suspension Equipment for Lifting Operations BGR 500" as well as with the current EC Machinery Directive and the new EN Standard. The beam is CE-marked and comes with a works test certificate.



All standard parts/components with a safety chain – captive



#### Design parameters at a glance:

- Load capacity 3.5 ton
- Working width 2,200 mm
- Working length 2,500 mm - 3,100 mm
- Hydraulically adjustable suspension eye for centre of gravity balance
- Complete with hydraulic unit and all electrical components
- Can be operated with 230 V, 12 V or 24 V power supply



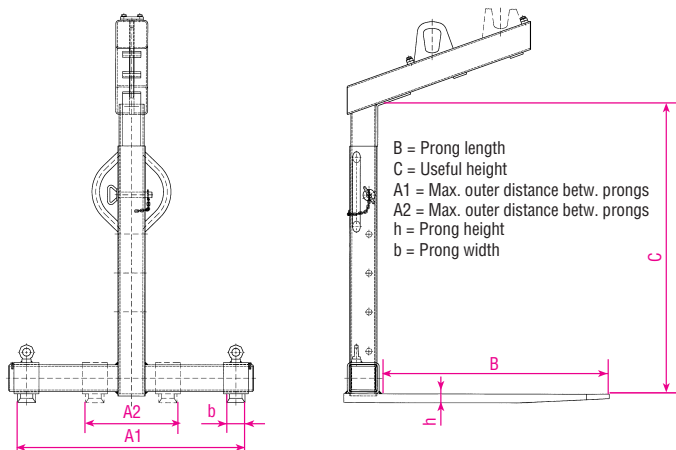
# LOAD SUSPENSION EQUIPMENT

## CondorLift Lifting Forks

### DELTA Lifting Fork

In a filigree design by using high-quality materials. Multifunctional application option through side-adjustable fork tines and the choice between fixed or adjustable useful height as well as manual or automatic centre of gravity adjustment.

The automatic balancing of the centre of gravity is carried out by means of mounted steel rollers and a gas pressure spring at the suspension eye. A prerequisite for the functionality is an even load distribution and a useful load of at least 25% of the load bearing capacity.



For fork protections  
see page 611.

Higher or lower load  
capacities on request.

Proven effective in  
countless applications!



#### Type 1 with manual centre of gravity

Load capacity in kg	1000	1500	2000	3000
Prong length in mm	1000	1000	1000	1000
Prong cross section in mm	80 x 40	80 x 40	100 x 40	120 x 45
Max. outer prong dist. max. mm	1000	1000	1000	1000
Min. outer prong dist. min. mm	350	400	400	450
Total height ca. in mm	1850	1850	1700	1900
Eye size in mm	75 x 100	75 x 100	75 x 100	75 x 100
Weight in kg	140	120	174	211
<b>With fixed useful height in mm</b>	1300	1300	1300	1300
Item no.	25303200015010	25303200015011	25303200015012	25303200015013
<b>With adjust. useful height in mm</b>	1300-2000	1300-2000	1300-2000	1300-2000
Item no.	25303200015018	25303200015019	25303200015020	25303200015021



#### Type 2 with automatic centre of gravity

Load capacity in kg	1000	1500	2000	3000
Prong length in mm	1000	1000	1000	1000
Prong cross section in mm	80 x 40	80 x 40	100 x 40	120 x 45
Max. outer prong dist. max. mm	1000	1000	1000	1000
Min. outer prong dist. min. mm	350	400	400	450
Total height ca. in mm	1850	1850	1900	1950
Eye size in mm	80 x 110	80 x 110	80 x 110	80 x 110
Weight in kg	132	140	170	200
<b>With fixed useful height in mm</b>	1300	1300	1300	1300
Item no.	25303200015014	25303200015015	25303200015016	25303200015017
<b>With adjust. useful height in mm</b>	1300-2000	1300-2000	1300-2000	1300-2000
Item no.	25303200015022	25303200015023	25303200015024	25303200015025

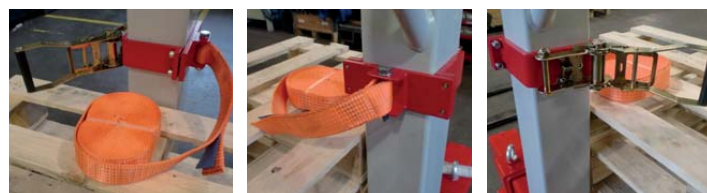


Higher or lower load capacities on request.

### Lifting Fork

With manually adjustable centre of gravity, fixed useful height and fixed prongs.

Load capacity in kg	750	1500
Useful height in mm	1100	1100
Prong length in mm	1000	1000
Prong cross section in mm	70 x 40	100 x 40
Max. outer dist. betw. prongs min. mm	700	740
Max. inner dist. betw. prongs min. mm	560	540
Total height ca. in mm	1400	1500
Eye size in mm	75 x 110	75 X 110
Weight in kg	90	126
Item no.	25303200015001	25303200015002



### Special Lifting Forks



# LOAD SUSPENSION EQUIPMENT

## Sling storage device

### Sling storage device

Finally, tidy operation!

The sling storage device saves time and prolongs the life of your expensive slings.

Available as mobile or stationary model.

- Very stable model made of hollow steel profiles
- Includes 12 adjustable double suspension hooks
- Height-adjustable cross beam
- High quality coating in RAL 7035 light grey
- Easy disassembly and reassembly for mobile use on construction sites
- Delivery as construction kit

Accessories:

- Adjustable double suspension hook galvanised (1 set = 6 pieces)
- Anti-theft device consisting of 4 locking bars including welded chain. Padlocks on site.



The illustrated slings, hoists and accessories are not included in the scope of supply.

Load carrying capacity max. in kg	Type	Model	Number of double suspension hooks	Load carrying capacity max. per hook in kg	W x H x D in mm	Weight ca. in kg/pce.	Item no.
1000	AG2000KS	Stationary	12	75	1890 x 1833 x 900	90	25303400035002
1000	AG2000KF	Movable	12	75	1890 x 1934 x 900	95	25303400035003

### Storage solutions for load suspension equipment and chain slings

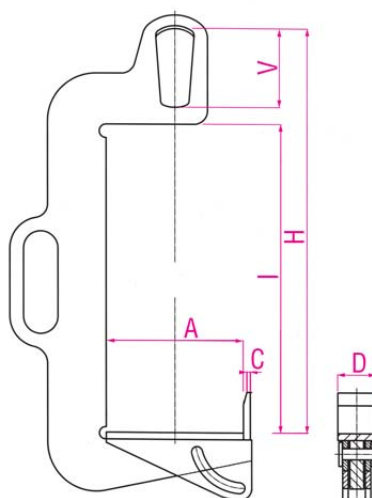




### Tilting Coil Hook

Suitable for tilting or erecting of steel coils or straps. They have to be well banded and rest on scantlings. Low dead weight due to use of high-grade steel.

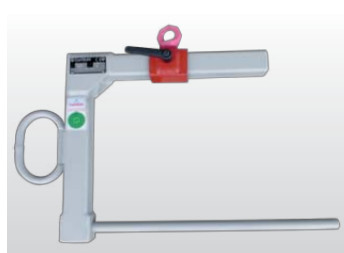
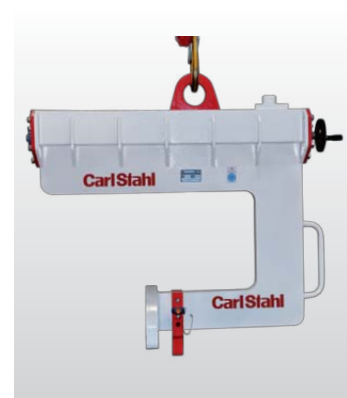
**!** All load suspension equipment is also available in safety yellow (RAL 1007) according to DIN 15026 at no extra cost.



Load capacity	Dimensions in mm						Weight	Item no.
in kg	A	C	D	I	H	V	in kg/pce	
500	100 - 200	8	60	400	520	100	12	25302025015001
1000	100 - 200	10	70	450	600	120	15	25302025015002
1000	200 - 300	10	70	500	650	120	20	25302025015003
2500	100 - 200	15	70	500	680	150	25	25302025015004
2500	200 - 300	15	70	500	680	150	35	25302025015005
3000	250 - 350	15	80	550	730	150	40	25302025015006
4000	250 - 400	15	90	600	800	190	55	25302025015007
5000	350 - 500	25	100	650	900	190	80	25302025015008

### Custom-made C-hooks

We would be pleased to send you an individual offer. Please contact us with your requirement in load suspension equipment!

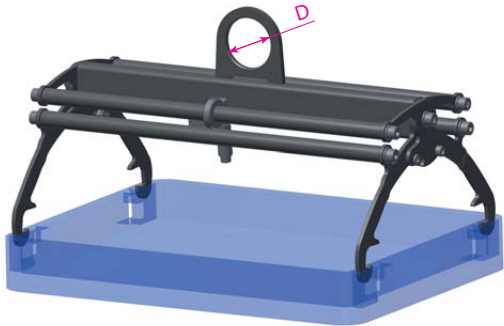


LOAD SUSPENSION EQUIPMENT

CondorGrip Tongs/Grabs

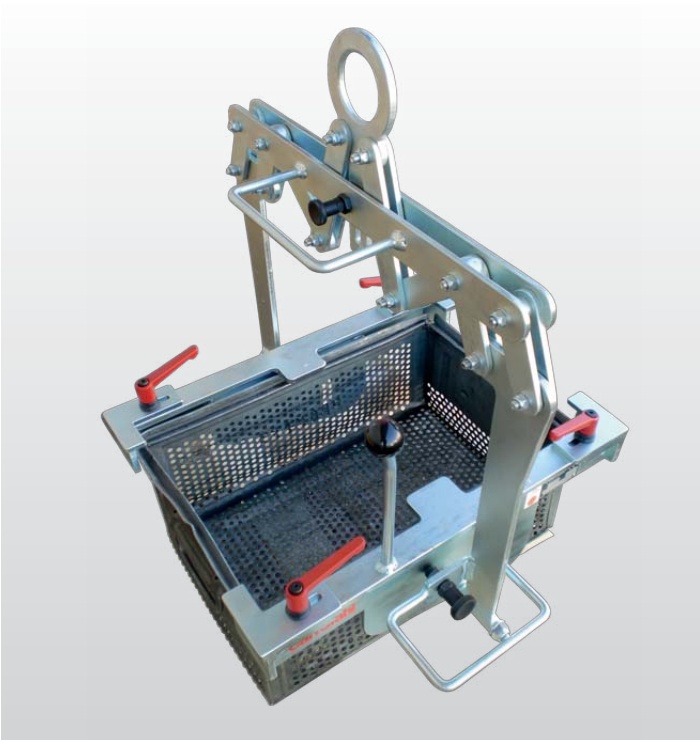
KLT grab in rigid version

For the transport of small load carriers. Consisting of a screwed profiled sheet construction with a central suspension eye and four mountings adapted to the lifting slots. The opening and closing mechanism is manually secured using a rotating latch.



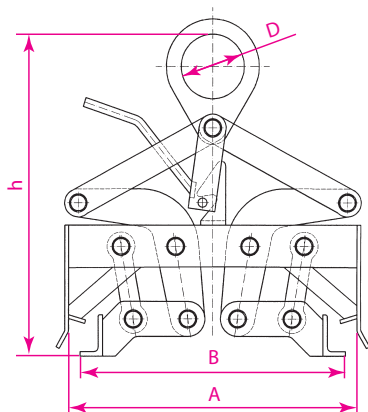
For KLT type	Load capacity in kg	KLT nominal dimensions		Eye Ø D in mm	Weight in kg/pce	Item no.
		Length in mm	Width in mm			
C-KLT3214	80	300	200	50	2.1	25302600035489
R-KLT3215, RL-KLT3147	80	300	200	50	2.3	25302600035487
C-KLT4314, C-KLT4321, C-KLT4328	80	400	300	50	2.6	25302600015001
C-KLT6414, C-KLT6417, C-KLT6421, C-KLT6428	80	600	400	50	2.9	25302600015003
R-KLT4315, R-KLT4329, RL-KLT4147, RL-KLT4280	80	400	600	50	2.6	25302600015005
R-KLT6415, R-KLT6429, R-KLT6147, R-KLT6280	80	600	400	50	2.9	25302600015007

Special versions of tongs, grabs and other load suspension devices



### Internal grabs for stacking and transport boxes

In a compact model as a welded profiled sheet construction with a central suspension eye and mountings adapted to the containers. The opening/closing process is controlled manually by means of a latching lever. Galvanised finish. Application in goods receipt, storage and production.

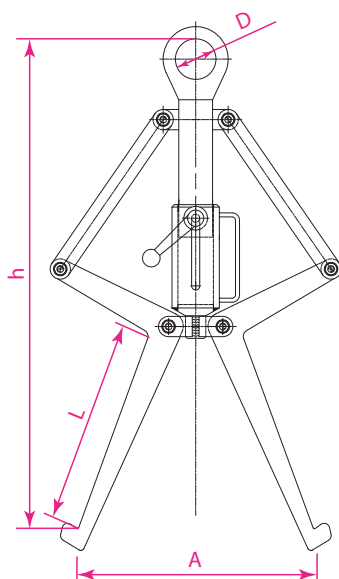


**Also available with turning device.**

Load capacity in kg	Grab range B in mm	Box width A in mm	Total height h in mm	Eye Ø D in mm	Weight in kg/pce	Item no.
50	170-210	180-220	290	50	8	25302600015012
100	270-290	280-320	350	70	9	25302600015013
150	420-465	430-480	350	70	12	25302600015014

### 3-arm Internal Grab

For centric pick-up of work pieces with cylindrical bore hole, positive locking by angled grab arms, opening width adjustable by clamping lever. Suspension eye suitable for single crane hook according to DIN 15401.



**Special versions on request.**

Load capacity in kg	Grab range A in mm	Grab arm length L in mm	Total height h in mm	Eye Ø D in mm	Weight in kg/pce	Item no.
300	100-350	300	680-750	60	17	25302600015016



# LOAD SUSPENSION EQUIPMENT

**CondorGrip** Tongs/Grabs

Small load carrier grab type CGKG

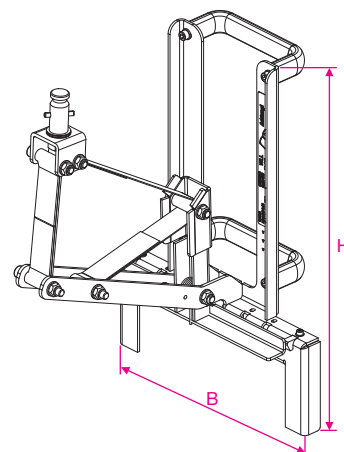
**NEW!**

For transport of small load carriers. Therefore the grab is put on the edge of the box. If the grab is lifted up on its suspension eye with a crane, the grab mechanism closes and clamps the edge of the box in the suspension device. As result a possitive locking between box and load suspension equipment occurs, so that the load is fixed safely. If afterwards the load is put to the ground, the grab opens automatically and releases the load.

- Suitable for the most regular small load carriers with the dimensions 400 x 300 mm (e.g. Type R-KLT 4315, R-KLT 4280, KLT-4314)
- Adjustable load attachment points for adaption to various boxes
- Perfect for workplaces, where small load carriers are regularly loaded and unloaded like assembly lines.
- The load suspension at the edge of the box ensures a lateral grabbing, if the box is not accessible from from above (e.g. intermediate shelves)
- Intuitive handling and no risk of injury thanks to ergonomic handles for moving the load
- Version with eye for single crane hook or adapter for DEMAG Manulift available



**We will be happy to advise you personally with a demonstration on your boxes! Please get in contact with us.**



Type CGKG 26



Type CGKG 50



Type	Type of suspension	Load capacity in kg	Max. Dimensions (L x B) of the box in mm	Total height H in mm	Total width B in mm	Weight in kg/pce	Item no.
CGKG 26	DEMAG Manulift adapter	26	400 x 300	410	350	3.5	25302600015076
CGKG 26	Pivoted suspension eye	26	400 x 300	410	350	3.5	25302600015077
CGKG 50	DEMAG Manulift adapter	50	400 x 300	435	370	4.5	25302600015078
CGKG 50	Pivoted suspension eye	50	400 x 300	435	370	4.5	25302600015079





# LOAD SUSPENSION EQUIPMENT

## CondorGrip Barrel Handling

### Vertical Barrel Grab

For the transport of standing steel barrels with an inherently stable edge. Consisting of a welded profiled sheet construction with a central suspension eye and form-fitting mountings adapted to the barrel diameter. The opening and closing mechanism is controlled using a manual stepping mechanism. Barrels can therefore be lifted and placed down from inaccessible positions.

Load capacity in kg	Barrel Ø in mm	Eye Ø in mm	Weight in kg/pce	Item no.
300	580	60	18	25302600015011



### Barrel Grab

For the transport of standing steel barrels with an inherently stable edge. Consisting of a welded profiled sheet construction with a central suspension eye and four mountings with bottom grips adapted to the barrel edge. The opening and closing mechanism is manually controlled using a hand lever.

Load capacity in kg	Barrel type	Barrel Ø in mm	Eye Ø in mm	Weight in kg/pce	Item no.
450	Steel	560-620	60	13	25302600015010



### Barrel Clamp

For transporting free-standing barrels with a stable edge. Made of a welded profiled sheet construction with a central suspension eye and a form-fitting mounting adapted to the barrel edge.

Load capacity in kg	Suspension eye size in mm	Weight in kg/pce	Barrel Ø in mm	Item no.
500	70 x 50	6.5	560	25303000015002
800	80 x 60	8	560	25303000015003





### Barrel Turning Grab

For safely transporting free-standing or lying barrels. Consisting of a welded profiled sheet construction with a central suspension eye and two swivel-mounted holding fixtures. The opening and closing mechanism is manually controlled in conjunction with a placement device via a hand lever.



Load capacity in kg	Barrel Ø in mm	Eye Ø in mm	Weight in kg/pce	Item no.
300	560	80	45	25302600015009

### Barrel Clamping Ring

For transporting free-standing barrels with cover beading without clamping ring. Consisting of a welded profiled sheet construction with integrated chain sling of quality class 8, nominal thickness 6 mm and a steel band ring which opens or closes by turning over the toggle lever closure. The gripping range can be adjusted with an adjusting screw.



Load capacity in kg	For barrel Ø in mm	Headroom in mm	Suspension eye L x W in mm	Weight in kg/pce	Item no.
800	560-600	445	80 x 130	9.7	25303000015001

### Barrel Tong

For standing barrels. This is a simple and robust tong that grabs directly under the upper bead. Equipped with open locking lever.



Load capacity in kg	Grab range in mm	Overall width in mm	Total height in mm	Suspension eye Ø in mm	Weight in kg/pce	Item no.
250	470-560	700	400-480	60	10	25302600015020
250	560-640	800	430-530	60	12	25302600015021
500	470-560	700	400-500	80	12	25302600015022
500	560-640	800	430-530	80	15	25302600015023

LOAD SUSPENSION EQUIPMENT

Barrel Handling

CondorGrip Barrel Tong for laying Barrels

Tong for beaded barrels according to DIN 6643 and 6635. Low headroom and self-activating open locking lever.

Load capacity in kg	Grab range in mm	Overall width in mm	Headroom in mm	Suspension eye Ø in mm	Weight in kg/pce	Item no.
250	760-910	930	400-500	60	10	25302600015024
500	760-910	930	400-500	70	12	25302600015025



Barrel turning device

For transport of laying and standing steel barrels of different size. Suitable for diameters 380-600 mm, max. barrel height 900 mm. With suspension eye for single crane hook, equipped with height-adjustable lateral stands with wheels. Clamping effected by horizontal adjusting spindle with hand wheel and safety locking. Horizontal turning (360°) of the barrel can be controlled precisely by a hand wheel in connection with a worm gear. Barrel beading required!

On request also available with 2 m hand chain

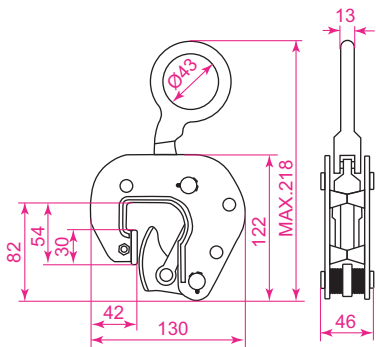
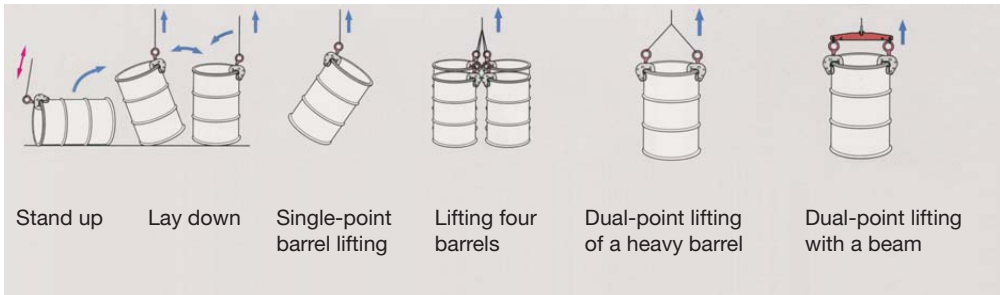
Load capacity in kg	Grab range/ barrel Ø in mm	Dim. of forklift pockets W x H x L in mm	Forklift pocket dist. (centre - centre) in mm	Weight in kg/pce	Item no. without forklift pockets	Item no. with forklift pockets
250	380 - 600	200 x 75 x 150	450	100	25302400015260	25302400015262
400	380 - 600	200 x 75 x 150	450	110	25302400015261	25302400015263



Barrel lifting clamp type DLC

Suitable for all steel barrel types regardless of the barrel diameter and lid rim shape. Low dead weight with high load capacity. Rapid, simple handling. Corrosion resistant thanks to special phosphate coating on all functional parts. Optimum reliability thanks to premium quality materials and continual production controls. Easily legible load capacity details forged into the clamp body.

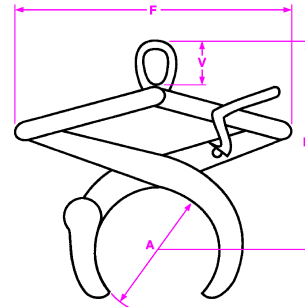
Load capacity in kg	Grab range in mm	Overall width in mm	Total height in mm	Suspension eye Ø in mm	Weight in kg/pce	Item no.
500	0-15	130	218	41	2	25301010015086



### Round Profile Grab

Round profile grabs for horizontal transport of round materials of all kind. Equipped with self-actuating open locking device. All round profile grabs are also available as shell grabs with protective pads for sensitive loads. On request all grabs can be supplied with an automatic step mechanism. Intermediate sizes, higher load capacities and other grab widths also available.

Load capacity in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	F	H	V		
250	40-150	200	400	300-500	65	6	25302600015026
250	60-250	250	600	400-800	65	11	25302600015027
500	40-200	300	500	350-700	75	15	25302600015028
500	100-350	300	700	500-800	75	25	25302600015029
500	200-500	400	900	600-900	75	30	25302600015030
1000	60-250	300	700	450-700	80	20	25302600015031
1000	100-350	300	800	500-800	80	35	25302600015032
1000	200-500	400	950	600-900	80	50	25302600015033
1000	300-800	440	1400	900-1400	80	95	25302600015034
1000	800-1200	500	2400	1400-2400	80	200	25302600015035
2500	60-250	330	700	500-800	95	50	25302600015036
2500	100-350	330	850	550-900	95	60	25302600015037
2500	200-500	400	1000	650-1000	95	95	25302600015038
2500	300-800	440	1400	900-1400	95	240	25302600015039
2500	800-1200	600	2450	1400-2500	95	360	25302600015040



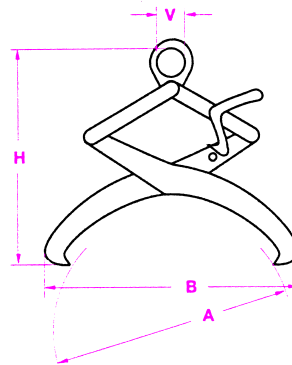
A firm grip on safety: Carl Stahl grabs!



### Log Clamps

Clamp with large grab range and small overall dimensions for lifting logs. From load capacity 2,500 kg the grab tips are replaceable. Equipped with open locking device.

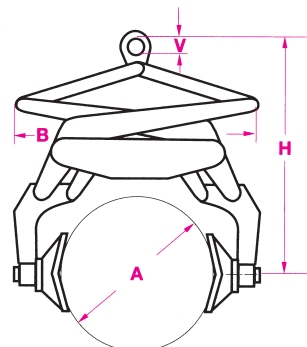
Load capacity in kg	Dimensions in mm				Weight in kg/pce	Item no.
	A	B	H	V		
500	200-500	650	500-700	85	12	25302600015041
1000	300-800	1100	750-900	85	23	25302600015042
2500	300-800	1150	750-900	95	60	25302600015043
2500	400-1000	1400	900-1200	95	75	25302600015044
5000	500-1000	1500	900-1200	95	130	25302600015045



### Turning Grab

This turning grab can be used for erecting, turning or rotating of loads. It works as a parallelogram grab with its jaws opening and closing parallel to each other. The jaws can be rotated and are equipped with 90° lock-in notches for best possible adaption to the load. This turning grab comes with an open locking device.

Load capacity in kg	Dimensions in mm				Weight in kg/pce	Item no.
	A	B	H	V		
125	150-250	600	500-900	60	35	25302600015046
125	250-350	600	550-950	60	38	25302600015047
250	150-300	700	600-1050	60	42	25302600015048
250	300-450	700	650-1100	60	45	25302600015049
500	300-450	720	700-1150	70	65	25302600015050
500	450-600	720	800-1250	70	75	25302600015051
1000	450-600	800	850-1300	85	100	25302600015052
1000	650-800	800	950-1500	85	200	25302600015053





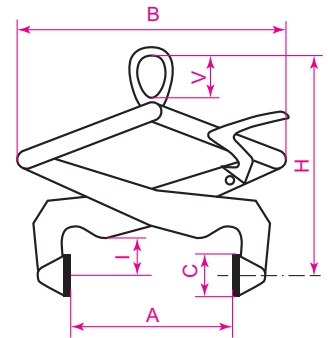
# LOAD SUSPENSION EQUIPMENT

## Clamps

### Rectangular Profile Clamp

The jaws of the rectangular profile clamp are fitted with wear-resistant protective pads. It is suitable for transport of goods made of steel, concrete and wood. Surfaces must be oil-free to ensure a safe grip. Please note that the friction factor between load and pad must not be less than 0.75  $\mu$ . Special versions for oily surfaces are available on request. All rectangular profile clamps are equipped with an open locking device. We manufacture all intermediate sizes, also with higher load capacities and other grab ranges. In case of oily or wet surfaces, the grabs can be equipped with specially hardened jaws at extra cost.

Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	C	H	I	V		
250	20-60	370	80	300-360	75	65	7	25302600015054
250	50-125	400	80	300-450	75	65	10	25302600015081
250	150-260	560	100	380-650	75	65	14	25302600015055
250	250-500	850	100	500-1000	75	65	18	25302600015056
500	20-60	380	80	300-360	75	75	10	25302600015057
500	50-125	400	80	300-450	75	75	12	25302600015058
500	150-260	480	100	380-670	75	75	16	25302600015059
500	250-500	850	100	500-1000	80	75	22	25302600015060
1000	50-125	500	100	360-500	90	75	23	25302600015061
1000	150-260	600	100	430-700	90	80	20	25302600015062
1000	250-500	850	120	500-1000	110	80	40	25302600015063
1000	480-750	1000	120	500-1100	110	80	45	25302600015064
1000	730-1000	1000	120	600-1200	110	80	50	25302600015065
2500	150-300	900	150	600-800	150	95	70	25302600015066
2500	250-500	1100	150	700-1200	150	95	90	25302600015067
2500	480-750	1100	150	700-1200	150	95	125	25302600015068

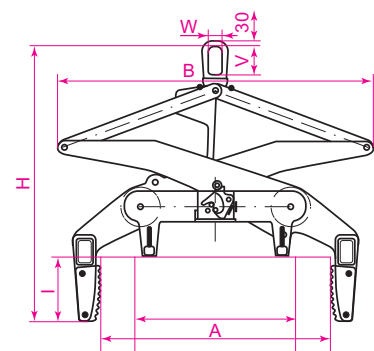


### Wire coil outer tongs

Wire coil outer tongs in a solid, torsion-resistant welding/screwing construction with a scissor design for transporting bound wire coils with a vertical axis. The wire coils are securely attached at four points in a combination of force-fitting and positive-locking grabbers with replaceable, reinforced gripper pads. The touchdown supports are used to position the clamps on the coil and ensure a sufficient gripping depth. The movable suspension eye is designed for single hooks in accordance with DIN 1501 and other similarly structured hooks. The automated touchdown function is activated in line with the lifting movement each time placement occurs in the grab or hold-open position. The load must be dry, free of both oil and grease and in the temperature range of 0°C to 80°C.

Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	H	I	V	W		
3000	1250-850	1740-1360	1250-2200	350-430	150	75	350	25302600015069

Please note the existing reel heights!

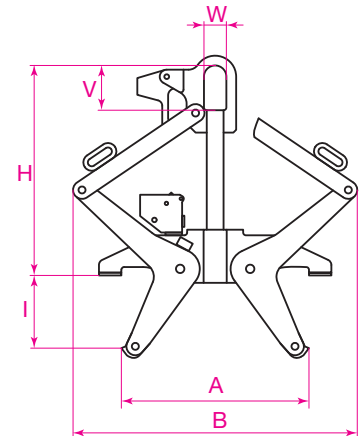


### Wire Coil Internal Grab, 2-arm

2-armed wire coil internal grab in a solid, torsion-resistant welding/screwing construction with an angled lift design with 2 grab points for the safe transportation of wire coils. Replaceable, positive-locking grab jaws with a largely abrasion-proof protective coating. The touchdown supports in conjunction with the 2 handles are used to precisely position the clamp on the coil. A guided central tube with a stepping mechanism holds the clamps open at the smallest of widths. Pivoting suspension eye suitable for crane hooks according to DIN 1501 and similar.

Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	H	I	V	W		
3000	650-500	1015-1165	750-430	260-315	160	80	120	25302600015070
3000	800-550	1075-1300	975-550	220-315	160	80	150	25302600015071
5000	630-550	1000-1200	1190-1420	270-315	190	90	290	25302600015072

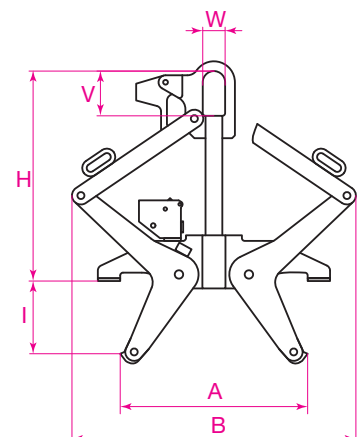
Other capacities and dimensions are available on request!



### Wire Coil Internal Grab, 3-arm

3-armed wire coil internal grab in a solid, torsion-resistant welding/screwing construction with an angled lift design with 3 grab points for the safe transportation of wire coils. Replaceable, positive-locking grab jaws with a largely abrasion-proof protective coating. The touchdown supports in conjunction with the 3 handles are used to precisely position the clamp on the coil. A guided central tube with a stepping mechanism holds the clamps open at the smallest of widths. Pivoting suspension eye suitable for crane hooks according to DIN 1501 and similar.

Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	H	I	V	W		
3500	650-500	1015-1165	750-430	260-315	160	80	130	25302600015073
3500	800-550	1075-1300	975-550	220-315	160	80	180	25302600015074
5000	650-500	1015-1165	750-430	260-315	160	80	130	25302600015075



# LOAD SUSPENSION EQUIPMENT

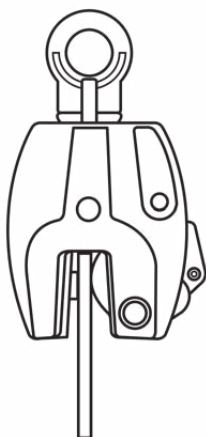
## How a lifting clamp works



There are three different types of lifting clamps: micro positive locking, force locking and positive locking clamps.

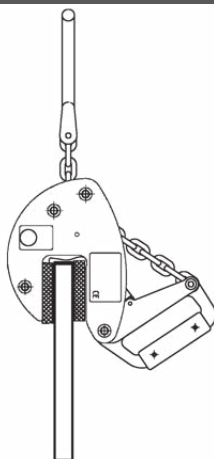
### Micro positive locking

Describes the penetration of the grab jaw (toothed segment, counter bearing) in the material to be moved. This creates indentation marks on the material to be lifted. The hardness (HRC, HB, HV) of the grab jaws is important in relation to these clamps. This must be equal to or greater than the surface hardness of the material in order to ensure safe lifting.



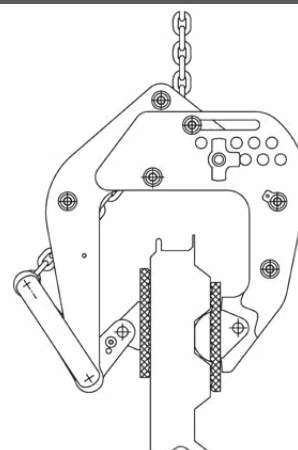
### Force fitting

Describes the application of two opposing normal forces to the material to be moved with the aid of grab jaws. This does not damage the material to be lifted as the surface of the grab jaws is usually coated. The adhesive friction of the material to be lifted is important in relation to these lifting clamps. Oil and other lubricants prevent the maximum load capacity from being achieved.

















### Positive locking

Describes the interlinking of at least two connecting elements, e.g. grab jaws and the material to be lifted. As a result of this positive locking, the connection cannot be severed whether with or without a force bond and safe lifting is thus guaranteed.





Lifting Clamps Type	Page	Attachment direction		Application							Functional principle		
		vertical	horizontal	Steel sheets, steel structures and profiles	Smooth, polished and machined surfaces	Sandwich panels	Stacks of thick and fine sheets	H and I standard profiles	Pipes / round objects		Micro positive locking	Force fitting	Positive locking
CGUK 	186	✓	✓	✓							✓		
IP 10	188	✓		✓							✓		
IPU 10	188	✓	✓	✓							✓		
SVC-HE	189	✓		✓							✓		
SVC-LE	189	✓		✓							✓		
CGS 	190	✓	✓	✓							✓		
SCC	192	✓		✓							✓		
CGSMVZ 	190	✓	✓	✓							✓		
CGSMVR 	191	✓							✓			✓	
AZG 	192	✓	✓	✓							✓		
SVC-EE	193	✓		✓							✓		
CGSM 	194	✓			✓							✓	
CGSMV 	194	✓			✓							✓	
CGSMVS 	195	✓				✓							✓
CGSMHT 	196	✓			✓								✓
IPNM 10N / IPNM10/p	196	✓	✓		✓							✓	
HKC	197		✓	✓							✓		
HLC-HE	197		✓	✓							✓		
SUC	198		✓	✓				✓			✓		
IPStartec 11	198		✓					✓			✓		
IPTKU	199		✓					✓				✓	
IPTK	199		✓					✓				✓	
TF 	200		✓					✓				✓	
T 	200		✓				✓					✓	
CGH1 	201		✓				✓				✓		
CGH2 	201		✓				✓				✓		
CGHV 	201		✓								✓		

# LOAD SUSPENSION EQUIPMENT

## CondorGrip Lifting Clamps for vertical/horizontal Transport

### Universal Lifting Clamp Type CGUK

The next generation of lifting clamps. The new lifting clamp 'made in Germany' represents ultimate quality.

The CondorGrip CGUK universal clamp is an innovative development for horizontal and vertical transportation. The lifting clamp impresses with its unique, patent-pending design, which enables optimum safety in all pull directions.

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
  - Rigid, FEM-optimised forged housing with a low dead weight
  - Load capacity and grab range forged into the housing
  - Traffic red (RAL 3020), powder-coated housing
  - Fewer wear parts thanks to the new and innovative chain guide
  - Permissible 360° pull at a 90° angle, therefore suitable for more universal use than comparable models
  - Two grab jaws enable optimum connection to the load
  - Ergonomically designed safety lever can also be operated when wearing gloves
  - The suspension eye can be directly hung on the crane hook (suitable for use up to crane hook size 2.5)
  - Version CGUK10 = standard version
  - Version CGUK18 = high-strength version
- 
- Permissible minimum load 10% of the load capacity/WLL
  - For transport goods with surface hardness up to 32 HRC (1,030/mm<sup>2</sup>)

#### Option:

- Oval ring for larger crane hooks



Type CGUK 1.8



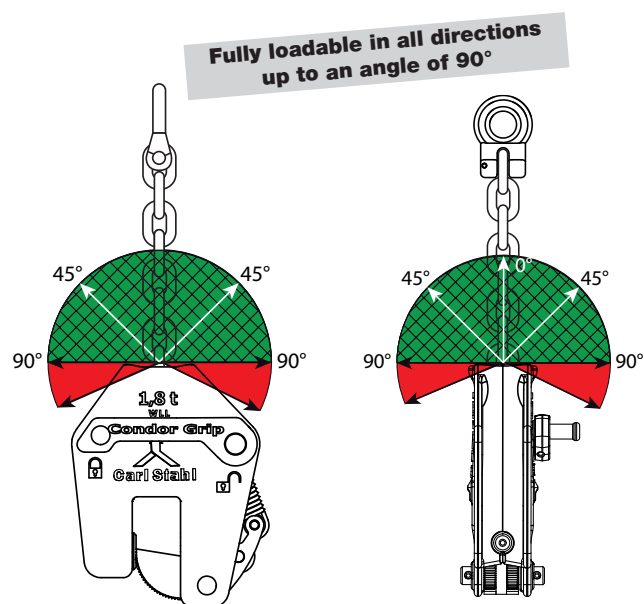
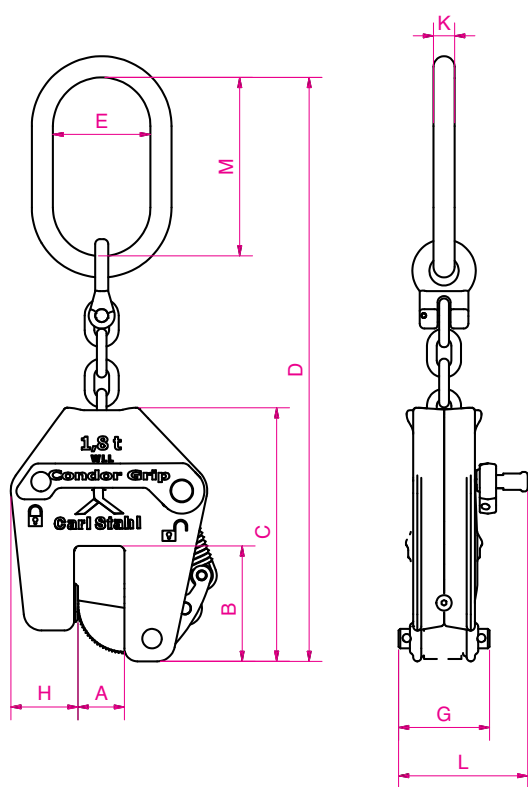
Type CGUK 1.0 Front side



Type CGUK 1.0 Back side

# LOAD SUSPENSION EQUIPMENT

**CondorGrip** Lifting Clamps for vertical/horizontal Transport



**Area of use 0° - 90°**  
= 100% Load carrying capacity (WLL)

**Area of use < 90°**  
= Not permitted

Load capacity in kg	Type	Grab range A in mm	B	C	D	E	G	H	K	L	M	Weight in kg/pce	Item no.
1000	CGUK 1.0	0 - 25	71	156	365	60	56	45	13	80	110	2.8	25301010015011
1800	CGUK 1.8	0 - 25	71	156	365	60	56	45	13	80	110	2.9	25301010015012
2000	CGUK 2.0	0 - 40	84	168	392	60	63	85	16	95	110	6.0	25301010035064
3000	CGUK 3.0	0 - 40	84	168	417	75	63	85	18	95	135	6.1	25301010035065



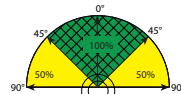
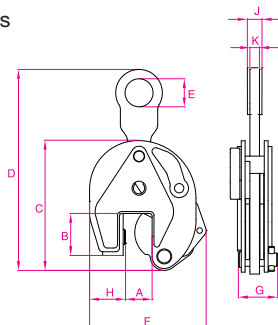
# LOAD SUSPENSION EQUIPMENT

## Lifting Clamps for vertical/horizontal Transport

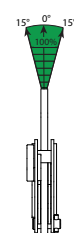
### Universal Lifting Clamp Type IP 10

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Lockable in open and closed position

- Permissible minimum load 10% of the load capacity/WLL
- For transport goods with surface hardness up to 37 HRC (1,155 N/mm<sup>2</sup>)



III. 1



III. 2



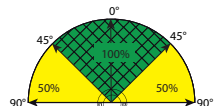
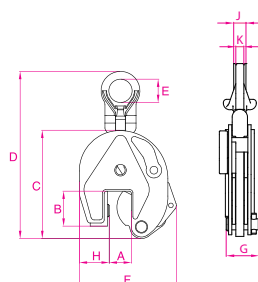
Load capacity in kg	Type	Grab range A in mm	Dimensions in mm									Weight in kg	Item no.
			B	C	D	E	F	G	H	J	K		
500	IP10	0 - 16	44	128	207	30	115	41	28	-	10	1.8	25301010015013
1000	IP10	0 - 20	45	139	215	30	126	41	38	-	10	2.2	25301010015014
2000	IP10	0 - 35	78	201	336	70	190	61	55	-	16	7.6	25301010015015
3000	IP10	0 - 40	100	253	436	75	225	78	60	-	20	13.8	25301010015016
4500	IP10	0 - 40	100	253	436	75	232	82	65	-	20	15.0	25301010015017
6000	IP10	0 - 50	126	302	515	80	292	84	95	40	20	23.5	25301010015018

Higher load capacities available.

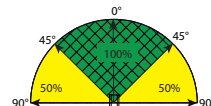
### Universal vertical Lifting Clamp IPU 10 with Cardan joint

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- This clamp can be used from all angles as it is fitted with a hinged lifting eye which is movable in all directions
- Lockable in open and closed position

- Permissible minimum load 10% of the load capacity/WLL
- For transport goods with surface hardness up to 37 HRC (1,155 N/mm<sup>2</sup>)



III. 1



III. 2



Load capacity in kg	Type	Grab range A in mm	Dimensions in mm									Weight in kg	Item no.
			B	C	D	E	F	G	H	J	K		
500	IPU10	0 - 16	44	128	228	40	115	41	28	-	11	1.9	25301010015019
1000	IPU10	0 - 20	45	139	222	40	126	41	38	-	11	2.2	25301010015020
2000	IPU10	0 - 35	78	201	372	70	190	61	55	-	16	7.6	25301010015021
3000	IPU10	0 - 40	100	253	445	75	225	78	60	-	20	14.8	25301010015022
4500	IPU10	0 - 40	100	253	445	75	232	82	65	-	20	16.0	25301010015023
6000	IPU10	0 - 50	126	302	525	80	292	84	95	44	20	24.0	25301010015024

Higher load capacities available.

### Other options available:

Depending on your individual application, you have the choice between several special versions of the basic types IP10 and IPU10. The most common ones are pictured here. Please contact us with your enquiries.



IPU10/R  
remote release by  
provided rope



IPU10/A  
with automatic  
locking



IPU10/S  
for stainless steel  
material 27-37 HRC

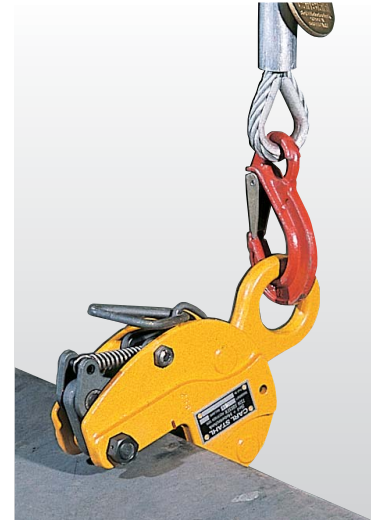
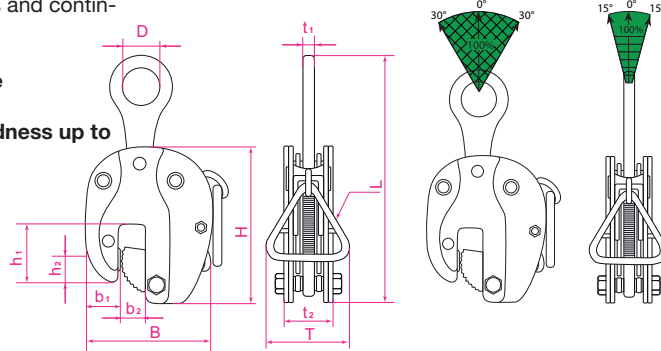


IPU10/H  
for hard materials  
37-47 HRC

### Universal Lifting Clamp Type SVC-HE

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Simple handling, snap bolt locking
- Corrosion resistant
- All parts are replaceable
- Clearly legible indication of load capacity and grab range forged into the body
- Low self weight at high load capacity
- Best safety by use of premium materials and continuous quality controls

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)**

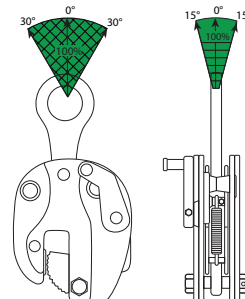


Load capacity in kg	Type	Grab range in mm	Dimensions in mm											Weight in kg/pce	Item no.
			L	t1	t2	T	h1	h2	H	b1	b2	B	D		
1000	SVC - 1 HE	0 - 19	250	12	45	86	60	24	158	36	26	131	36	3	25301010015025
2000	SVC - 2 HE	0 - 25	310	16	59	86	69	24	185	42	32	152	48	6	25301010015026
3000	SVC - 3 HE	0 - 30	375	18	71	86	77	30	210	48	39	172	60	10.5	25301010015027
4000	SVC - 4 HE	0 - 35	405	20	75	86	81	34	225	51	42	182	66	12.5	25301010015028
6000	SVC - 6 HE	0 - 40	455	22	86	86	94	45	260	60	52	213	84	20.5	25301010015029

### Universal Lifting Clamp Type SVC-LE

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Safety lever that can be unlocked from a distance using the rope supplied
- Corrosion resistant
- All parts are replaceable
- Clearly legible indication of load capacity and grab range forged into the body
- Low self weight at high load capacity
- Best safety by use of premium materials and continuous quality controls

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)**



Load capacity in kg	Type	Grab range in mm	Dimensions in mm											Weight in kg/pce	Item no.
			L	t1	t2	T	h1	h2	H	b1	b2	B	D		
1000	SVC - 1 LE	0 - 19	250	12	45	80	34	24	158	36	26	131	36	3.0	25301010015030
2000	SVC - 2 LE	0 - 25	310	16	59	105	47	24	185	42	32	152	48	6.0	25301010015031
3000	SVC - 3 LE	0 - 30	375	18	71	118	52	30	210	48	39	172	60	10.5	25301010015032
4000	SVC - 4 LE	0 - 35	405	20	75	129	59	34	225	51	42	182	66	12.5	25301010015033
6000	SVC - 6 LE	0 - 40	455	22	86	148	76	45	260	60	52	213	84	23.9	25301010015034

# LOAD SUSPENSION EQUIPMENT

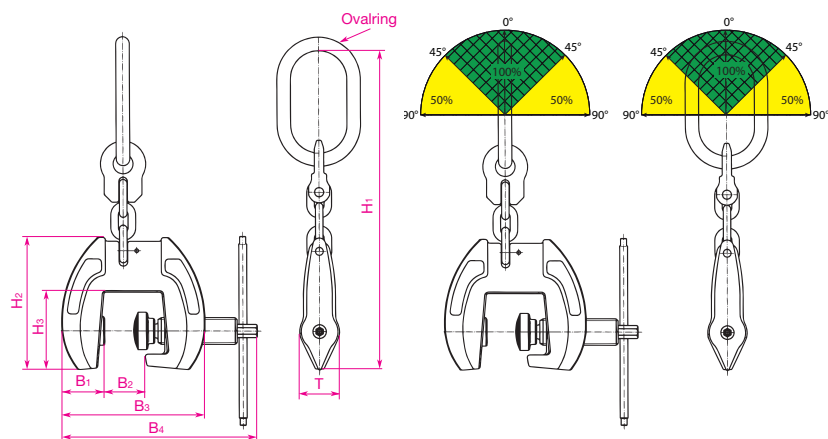
## CondorGrip Lifting Clamps for vertical/horizontal Transport

### Spindle Lifting Clamp Type CGS

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Forged clamp body
- Suitable for versatile use thanks to large grab range
- Low self weight at high load capacity
- Detachable spindle mandrel
- **For transport goods with surface hardness up to 32 HRC (1,030 N/mm²)**

#### Option:

- Oval ring for larger crane hooks
- Individually adjustable chain length



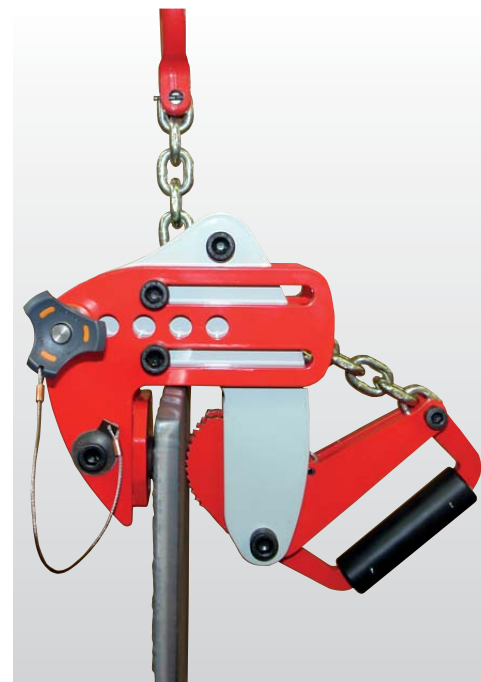
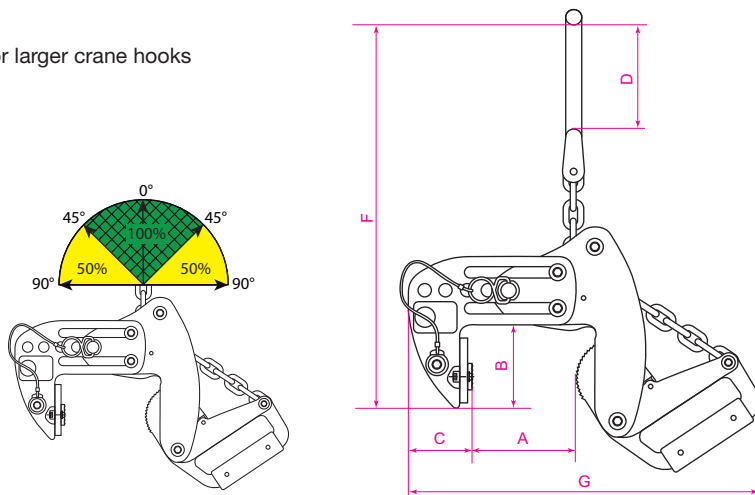
Load capacity in kg	Type	Grab range in mm	Dimensions in mm									Weight in kg/pce	Item no.
			B1	B2	B3	B4 max.	Oval ring	H1	H2	H3	T		
750	CGS 0.75	0-22	42	22	125	180	110 x 60 x 13	300	112	80	45	2.76	25301010015038
1500	CGS 1.5	0-32	47.6	32	150	215	110 x 60 x 16	340	142	90	45	4.1	25301010015039
3000	CGS 3.0	0-50	56.5	50	185	275	135 x 75 x 18	420	172	100	50	7	25301010015040

### Automatic Safety Lifting Clamp CGSMVZ, adjustable

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Large grab range (0-100 mm, stepped in 20 mm intervals)
- Easy handling due to different plate thicknesses due to wide adjustment range
- The clamp will lock automatically when it touches the load.
- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 32 HRC (1,030 N/mm²)**

#### Option:

- Oval ring for larger crane hooks

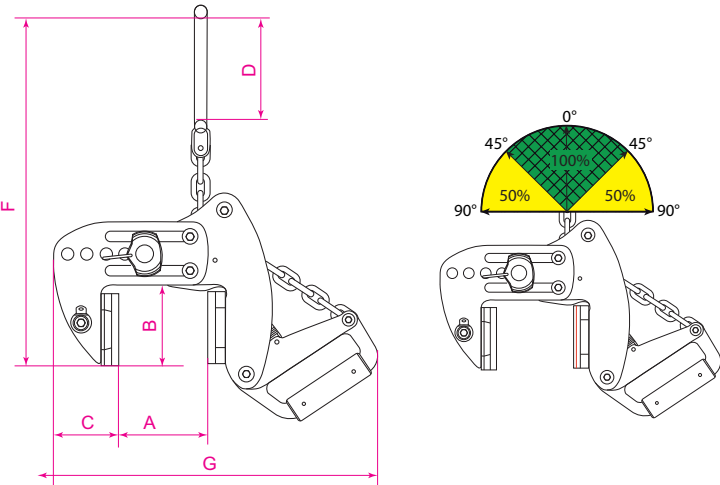


Load capacity in kg	Type	Grab range A in mm	Dimensions in mm					Weight in kg/pce	Item no.
			B	C	D	F	G		
500	CGSMVZ	0-100	75	81	100	368	336	6.3	25301010015052



Automatic Safety Lifting Clamp Type CGSMVR, adjustable

- For lifting, turning (180°) and transport of pipes
- Large grab range (3-90 mm stepped in 20 mm intervals)
- Easy handling of different thicknesses due to wide adjustment range
- The clamp will lock automatically when it touches the load
- Suitable for pipe dimensions 200-1000 mm



Load capacity in kg	Type	Grab range A in mm	B	C	Dimensions in mm			Weight in kg/pce	Item no.
500	CGSMVR	3-90	80	55	100	425	295	6.5	25301010035008

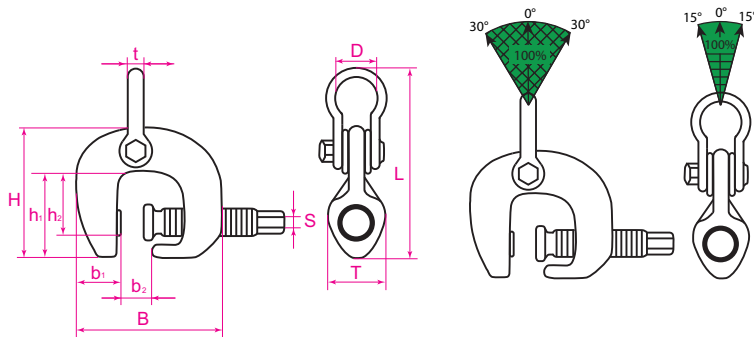


# LOAD SUSPENSION EQUIPMENT

## Lifting Clamps for vertical/horizontal Transport

### Spindle Lifting Clamp Type SCC

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Spindle lifting clamps with large grab range
- Versions from 500 to 6,000 kg BG-tested
- Detachable spindle mandrel to comply with regulations,
- Clearly legible indication of load capacity and grab range forged into the body
- **For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)**



SCC 500 kg



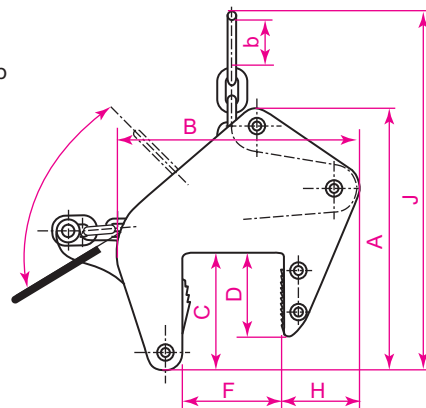
SCC 1000 kg



Load capacity in kg	Type	Grab range in mm	Dimensions in mm										Weight in kg/pce	Item no.
			H	h1	h2	B	b1	b2	T	t	L	D		
500	SCC - 1/2	0 - 28	76	42	26	104	34	30	30	10	113	17	0.8	25301010015036
1000	SCC - 1W	50 - 100	190	126	88	225	54	106	46	16	273	45	6	25301010015035
6000	SCC - 6	0 - 75	214	130	76	255	76	79	69	32	265	80	18	25301010015037

### CondorGrip Universal Lifting Clamp Type AZG

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- All-purpose grabs with a load capacity of up to 2.0 t are equipped with a round link chain; grabs with a higher load capacity are equipped with flyer chains.
- Versatile use and easy handling
- Automatic slip guard, even with slack in the traction mechanism
- Return bearing can be independently adjusted, ensuring the retention force and safety for longer
- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)**



#### Option:

- Up to 1,250 kg, also available with protective cover for the jaws



**Compact all-purpose grabs available for use in areas that are difficult to access (e.g. lathes).**

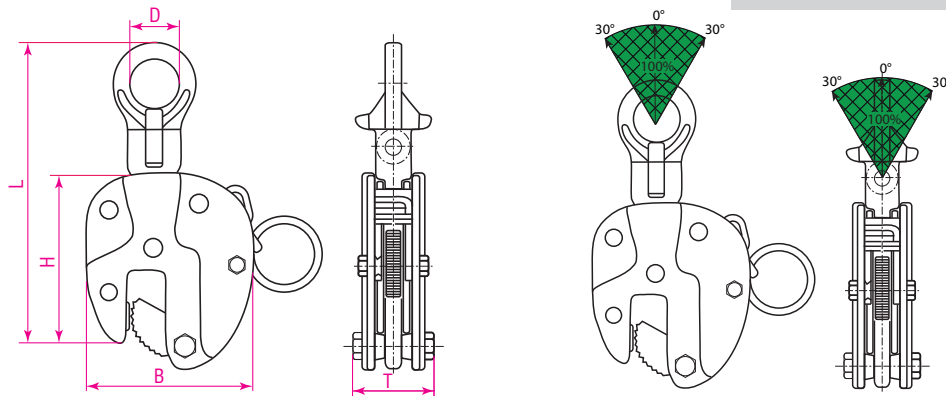
Load capacity in kg	Grab range in mm	Dimensions in mm									Weight in kg/pce	Item no.
		A	B	C	D	F	H	b	J			
									max.	min.		
350	0 - 100	264	259	128	100	100	85	121	800	550	8.7	25301010015041
350	90 - 200	382	434	195	156	200	120	121	1070	760	16.3	25301010015042
750	0 - 100	264	259	128	100	100	85	121	800	550	8.6	25301010015043
750	90 - 200	382	434	195	156	200	120	121	1070	760	16.6	25301010015044
1250	0 - 100	320	289	128	100	100	85	121	840	550	14.9	25301010015045
1250	90 - 200	382	434	195	156	200	120	121	1070	760	24.3	25301010015046
2000	0 - 100	328	415	135	115	100	105	121	840	570	20.8	25301010015047
2000	90 - 200	375	515	195	165	200	160	121	1055	750	29.1	25301010015048
3000	5 - 90	297	290	136	106	90	91	111	740	570	26.5	25301010015049
5000	5 - 90	297	290	136	106	90	91	111	740	570	30.5	25301010015050
5000	80- 170	354	423	180	155	170	118	111	870	620	43.8	25301010015051

Other jaw widths and intermediate sizes on request. \*Specify 5 t or 16 t crane hook with your order.

### Universal Lifting Clamp Type SVC-EE

- For turning and transport of steel sheets, steel profiles and constructions, especially when using 2 or more lifting clamps.
- A suspension eye that is mobile on all sides also ensures the functionality if the clamp position and pull direction differ.
- Versatile and with easy handling thanks to the compact design, low dead weight and large grab range.
- Safety locking thanks to the folding bar mechanism. With a large operating ring. This allows the clamp to be firmly attached to the item to be transported.
- The drop-forged clamp body and high-quality materials ensure excellent durability. Toothed segment and counter bearing plus all other functional parts are made from alloyed special steel.
- Clearly legible indication of load capacity and grab range forged into the surface-coated clamp body.

- Permissible minimum load 10% of the load capacity/WLL
- For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)



Load capacity in kg	Type	Grab range in mm	Dimensions in mm					Weight in kg/pce	Item no.
			D	L	H	B	T		
500	SVC-0.5 EE	0 - 16	26	157 - 176	110	100	49	1.5	25301010015053
1000	SVC-1.0 EE	0 - 19	30	180 - 204	125	110	54.5	2.1	25301010015054
1500	SVC-1.5 EE	0 - 25	35	223 - 257	160	130	65	3.7	25301010015055
2000	SVC-2.0 EE	0 - 28	45	254 - 290	174	150	74	5.5	25301010015056
3000	SVC-3.0 EE	0 - 32	55	292 - 335	194	162	76	7.0	25301010015057

Types with higher load capacities also available.



LOAD SUSPENSION EQUIPMENT

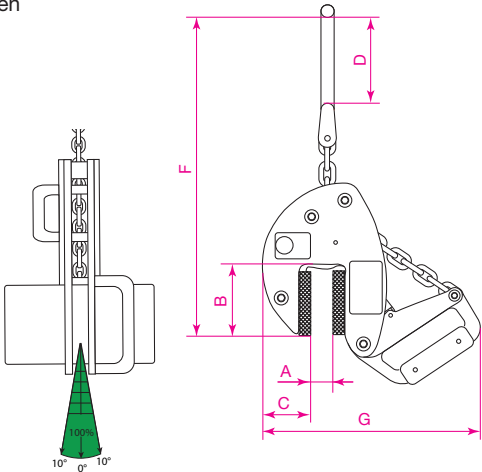
CondorGrip

Lifting Clamps for vertical/horizontal Transport

Automatic Safety Lifting Clamp Type CGSM

- Suitable for lifting and turning (180°) of smooth, machined or polished parts
  - Coated jaws protect the transport goods
  - The clamp will lock when attached to the load
  - Easy handling
- Option:

  - Oval ring for larger crane hooks

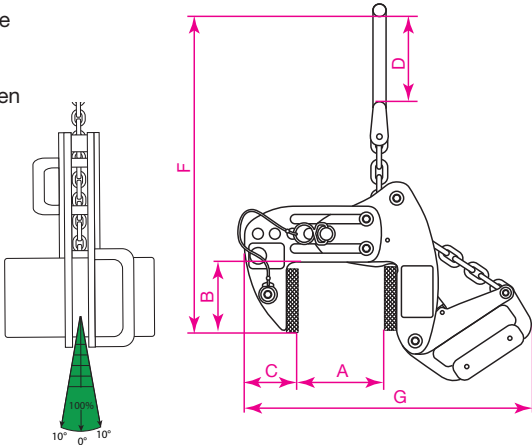


Load capacity in kg	Type	Grab range A in mm	B	C	Dimensions in mm			Weight in kg/pce	Item no.
500	CGSM 0.5	0-25	80	55	100	370	240	5.0	25301010015058
1500	CGSM 1.5	0-30	100	77	125	520	275	12.0	25301010015059
2000	CGSM 2.0	0-30	100	77	125	520	285	12.5	25301010015060

Automatic Safety Lifting Clamp Type CGSMV, adjustable

- Suitable for lifting and turning (180°) of smooth, machined or polished parts
  - Coated jaws protect the transport goods
  - Adjustable grab range
  - The clamp will lock when attached to the load
  - Easy handling
- Option:

  - Oval ring for larger crane hooks



See a video of this product on our Youtube-Channel or with this QR-Code

Load capacity in kg	Type	Grab range A in mm	B	C	Dimensions in mm			Weight in kg/pce	Item no.
500	CGSM 0.5V	0-100	80	55	100	425	295	6.5	25301010015061
1000	CGSM 1.0V	0-100	80	70	100	485	355	8.0	25301010015062

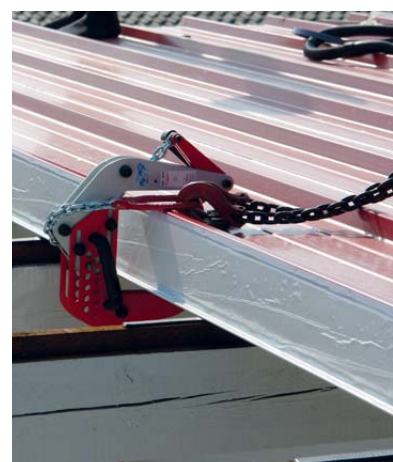
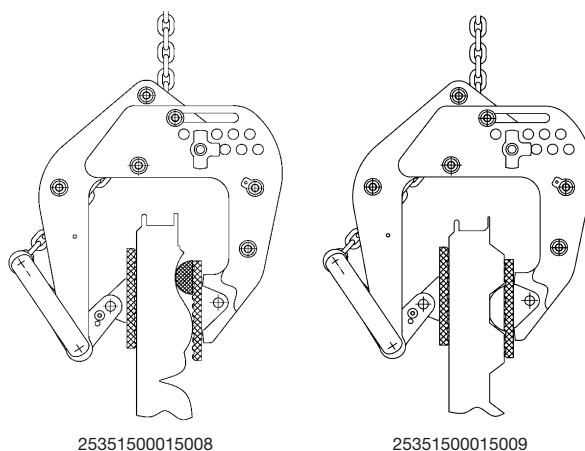
### Safety Lifting Clamp Type CGSMVS



- Suitable for lifting, turning and laying of sandwich panels
- Due to coated jaws no traces or damages on the material
- Adjustable grab range
- Uncomplicated exchange of the jaw for different profiles
- Form-locking transport provides additional safety
- Max. allowable diagonal pull is 30°
- Easy handling thanks to the wide jaw opening
- For longer panels we recommend use of two clamps on a spreader beam or on suitable slings.

Load capacity in kg	Type	Grab range in mm	Opening width in mm	Weight in kg/pce	Item no.
250	CGSMVS-120	30 - 120	160	11	25301010015063
250	CGSMVS-240	120 - 240	280	12	25301010015064

### Spare Jaws for Safety Lifting Clamp Type CGSMVS



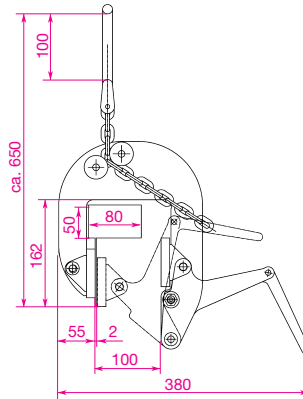
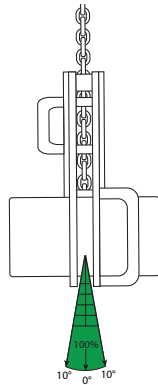
Type	Weight in kg/pce	Item no.
Grab jaw suitable for Metecno H-Wall 8-Wave	2	25351500015008
Grab jaw suitable for Metecno H-Wall 10-Trapeze	2	25351500015009

# LOAD SUSPENSION EQUIPMENT

## Lifting Clamps for vertical/horizontal Transport

### CondorGrip Safety Lifting Clamp Type CGSMHT

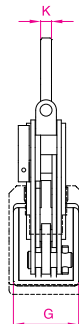
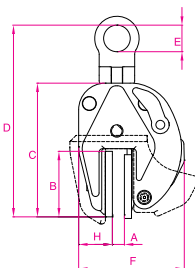
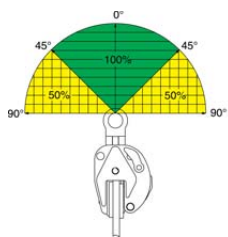
- Suitable for lifting and turning of sign-boards
- Due to coated jaws no traces on the material
- Thanks to the wide jaw opening it is easy to pass the frames of the thin boards.
- Only suitable for form-locking transport



Load capacity in kg	Type	Grab range A in mm	Opening width in mm	Weight in kg/pce	Item no.
350	CGSMHT	0-2	100	6.5	25301010015065

### Universal Lifting Clamp Type IPNM 10N / IPNM 10/P

- Suitable for lifting and turning (180°) of smooth, machined or polished surfaces
- Load protected by special rubber covers on the jaws
- High coefficient of friction makes it possible to hoist extremely hard and smooth materials without damaging their surfaces
- Extremely user-friendly and easy to handle
- **The model IPNM 10/P is equipped with a protection cap to avoid damage to the load.**



**Lifting, turning and transporting without damaging the load!**



Type IPNM 10 N



Protection cap

Type IPNM 10/P

Load capacity in kg	Type w/o protection cap	Grab range A in mm	Dimensions in mm								Weight in kg/pce	Item no.
500	0.5 IPNM 10N	0-10	B	C	D	E	F	G	H	K	2.5	25301010015066
1000	1 IPNM 10N	0-20	110	209	270	30	134	80	56	10	4.4	25301010015067
1000	1 IPNM 10N/J	20-37	86	196	265	30	177	80	51	10	5.3	25301010015069
1000	1 IPNM 10J1	0-25	86	225	314	30	194	80	59	10	5.5	25301010015068
2000	2 IPNM 10	0-40	153	258	396	70	196	100	161	16	14.5	25301010015070

Load capacity in kg	Type with protection cap	Grab range A in mm	Dimensions in mm								Weight in kg/pce	Item no.
500	0.5 IPNM 10/P	0-10	B	C	D	E	F	G	H	K	2.8	25301010015071
1000	1 IPNM 10/P	0-20	97	195	268	30	205	82	60	10	4.5	25301010015072



# LOAD SUSPENSION EQUIPMENT

## Lifting Clamps for horizontal Transport

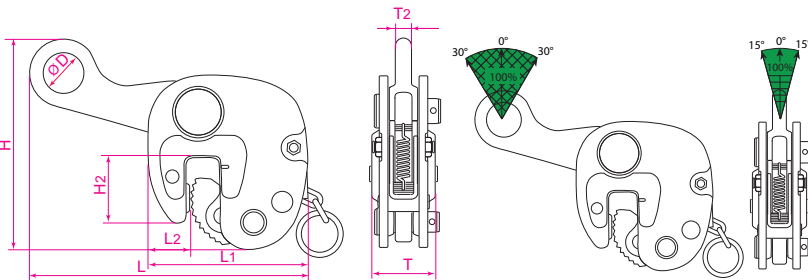
### Universal Lifting Clamp Type HKC

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- The beam hangs horizontally in the clamp without being top-heavy
- Safety lever guarantees pre-tensioned grip on the beam
- Locks in open or closed position

- Permissible minimum load 10% of the load capacity/WLL
- For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)



Please check the operation manual for the allowed lifting angles.



Load capacity in kg	Type	Grab range in mm	Dimensions in mm								Weight in kg/pce	Item no.
			H	H2	L	L1	L2	T	T2	D		
1000	HKC-1E	0 - 20	186	53.5	255	131	31	48	16	40	3.4	25301010015078
2000	HKC-2E	0 - 25	206	65	280	160	42.5	63	16	40	6.2	25301010015079

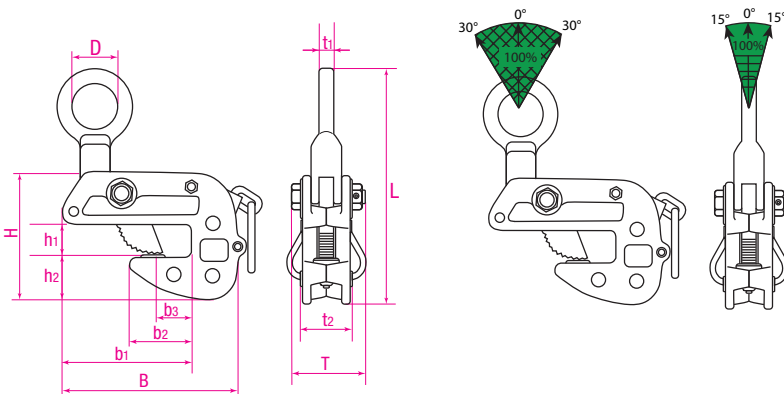
### Universal Lifting Clamp Type HLC-HE

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Slim clamp body for frontal attachment of profiles
- Standard safety snap bolt locking (clamping is retained even during brief unloading)
- Corrosion resistant due to special phosphate coating
- Clearly legible indication of load capacity and grab range forged into the body

- Permissible minimum load 10% of the load capacity/WLL
- For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)



Please check the operation manual for the allowed lifting angles.



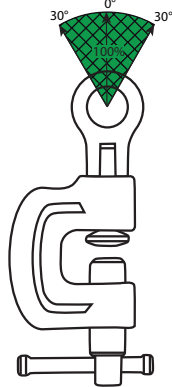
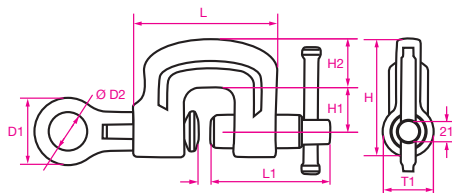
Load capacity in kg	Type	Grab range in mm	Dimensions in mm												Weight in kg/pce	Item no.
			L	t1	t2	T	H	h1	h2	B	b1	b2	b3	D		
1000	HLC - 1HE	0 - 25	208	12	41	65	115	27	38	169	118	56	34	40	2.8	25301010015073
2000	HLC - 2HE	0 - 30	246	16	51	79	135	32	48	188	138	65	40	50	4.5	25301010015074
3000	HLC - 3HE	0 - 35	292	18	59	92	163	37	58	219	156	74	45	60	7.5	25301010015075
4000	HLC - 4HE	0 - 40	337	20	67	104	190	42	68	249	174	83	50	70	12	25301010015076
6000	HLC - 6HE	0 - 45	386	22	75	117	218	47	78	281	193	90	55	80	20	25301010015077

# LOAD SUSPENSION EQUIPMENT

## Lifting Clamps for horizontal Transport

### Spindle Lifting Clamp Type SUC

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Also suitable for attaching lever hoists and chain blocks
- The suspension eye swivels through 360° and pivots through 180° allowing high flexibility and a wide range of applications
- The spindle and the discoid pad guarantee a stable and effective grip on the work piece
- The discoid pad automatically adjusts in the ideal angle for lifting
- The clamp body consists of heat-treated high grade steel
- For transport goods with surface hardness up to 30 HRC (965 N/mm<sup>2</sup>)



Load capacity in kg	Type	Grab range in mm	Dimensions in mm								Weight in kg/pce	Item no.
			L	L1	H	H1	H2	T1	D1	D2		
500	SUC 0.5	0 - 25	120	89	91	30	38	46	60	35	2.0	25301010015080
1000	SUC 1	0 - 30	130	109	108	40	45	46	60	35	2.8	25301010015081
1600	SUC 1.6	0 - 30	133	109	110	40	45	50	75	45	3.5	25301010015082
3200	SUC 3.2	0 - 40	165	136	130	45	55	62	80	50	5.1	25301010015083

### Universal Lifting Clamp Type IPStartec 11

- For lifting, turning and transport of standard profiles
- This clamp has been especially developed for lifting with the body in a vertical position
- Suitable for controlled tilting, transportation and stacking of H- and I-profiles

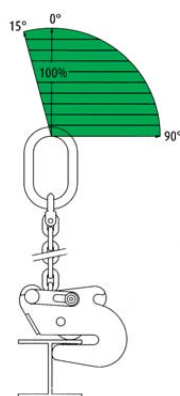
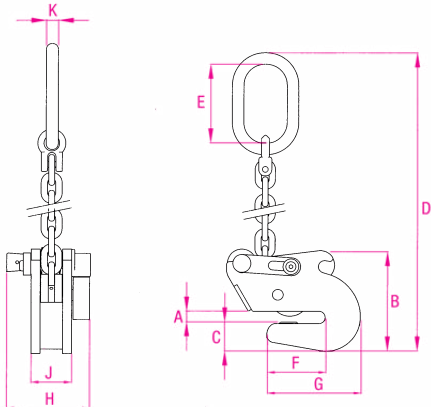


Fig. 1

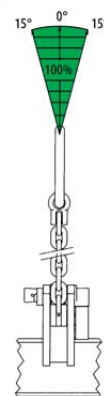


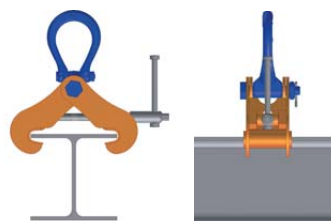
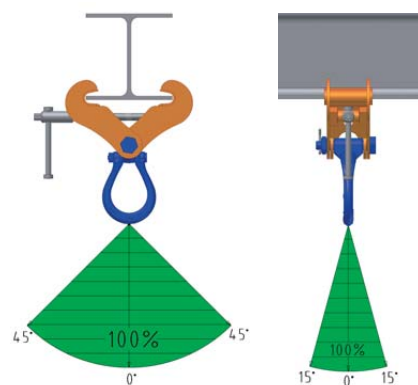
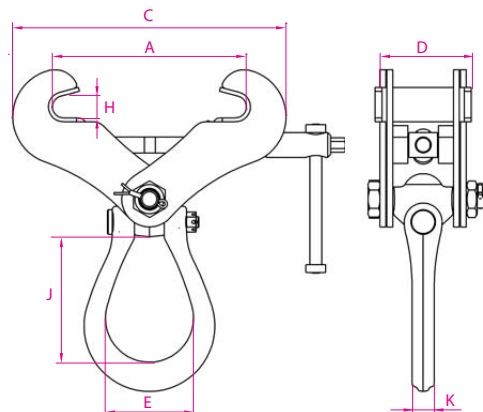
Fig. 2



Load capacity in kg	Type	Grab range A in mm	Dimensions in mm									Weight in kg/pce	Item no.
			B	C	D	E	F	G	H	J	K		
1500	IPStartec 11	6-12	140	39	575	110	81	129	54	126	16	6.6	25301010015084
2500	IPStartec 11	6-20	210	55	725	135	115	182	74	140	18	14.5	25301010015085

### Beam Clamp Type IPTKU with hinged Hoisting Ring

- Beam clamp for lifting or pulling steel beams
- Suitable as temporary tackle eye for a beam
- **With hinged hoisting ring**
- **Option:**
  - Special offshore version (model IPTKO) also available. Comes with 3.1B test certificate.
  - Version with double locking device available (model IPTKU/D).

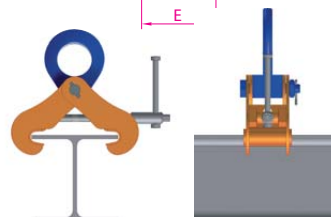
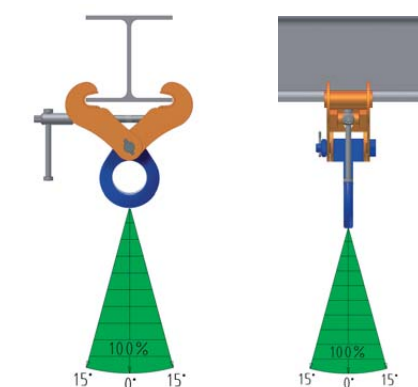
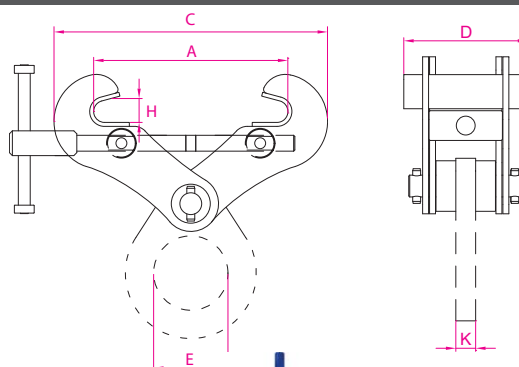


Various options for use as an anchorage point or a lifting clamp

Load capacity in kg	Type with hinged hoisting ring	Grab range A in mm	C	D	E	H	J	K	Weight in kg/pce	Item no.
2000	IPTKU	75-190	A+100	121	76	22	99	19	5.8	25301015015005
3000	IPTKU	75-190	A+100	121	89	22	122	22	6.5	25301015015006
4000	IPTKU	120-280	A+150	140	89	40	122	22	9.9	25301015015007
5000	IPTKU	120-350	A+175	140	89	40	122	22	12	25301015015008
10000	IPTKU	200-460	A+300	200	105	60	152	26	38	25301015015009

### Beam Clamp Type IPTK with Hoisting Ring

- Beam clamp for lifting or transport of steel beams
- Suitable as temporary tackle eye for a beam
- **With hoisting ring**



Load capacity in kg	Type with hoisting ring	Grab range A in mm	C	D	E	H	K	Weight in kg/pce	Item no.
2000	IPTK	75-190	A+80	125	75	25	20	6	25301015015001
3000	IPTK	75-190	A+80	125	75	25	20	6.5	25301015015002
4000	IPTK	150-280	A+100	125	75	35	20	8.5	25301015015003
5000	IPTK	120-350	A+195	125	75	40	20	11	25301015015004

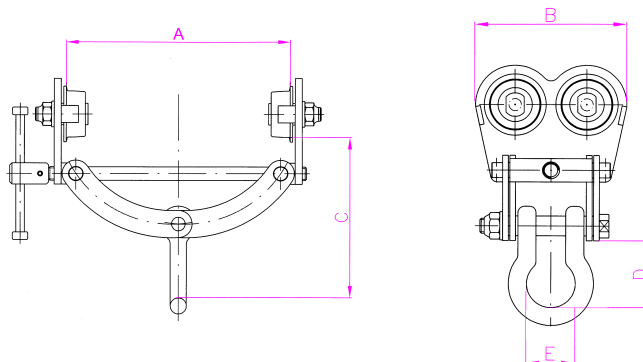


# LOAD SUSPENSION EQUIPMENT

## CondorGrip Lifting Clamps for horizontal Transport

### Beam Clamp Type TF with Trolley

- Beam clamps with a trolley can be quickly and easily attached to a beam without assembly tools or aids
- The castors are pressed onto the beam by the clamping spindle
- Ideal for assembly and repair work – easy to attach and remove
- Castors with precision ball bearings



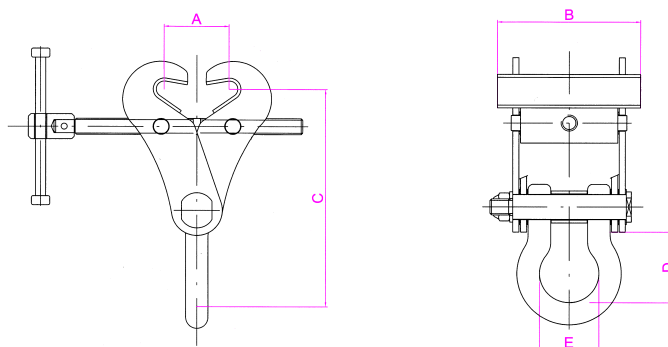
**Caution:**  
Not suitable for lifting

Load capacity in kg	Type	Grab range A in mm	B	Dimensions in mm C	D	E	Weight in kg/pce	Item no.
1000	TF 1	64 - 190	160	225-250	55	45	8	10301000015001
1500	TF 1.5	64 - 190	160	240-265	60	50	8	10301000015002
2000	TF 2	64 - 190	160	235-260	65	50	9	10301000015003
3000	TF 3	64-190	315	295-340	65	55	32	10301000015004
6000	TF 6	200-300	365	295-380	70	75	53	10301000015005

Subject to technical changes.

### Beam Clamp Type T

- The simple and secure attachment point
- Beam clamps with adjustable clamp areas can be quickly and easily attached to a beam without assembly tools or aids
- The jaws are pressed onto the beam by a clamping spindle, thus creating a suspension point for lifting equipment, pulleys etc.
- Structures or sections that are difficult to grab can be moved quickly and easily with these clamps



**Caution:**  
Not suitable for lifting

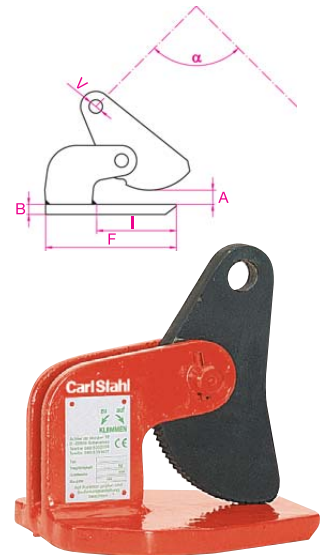
Load capacity in kg	Type	Grab range A in mm	B	Dimensions in mm C	D	E	Weight in kg/pce	Item no.
2000	T 2	64 - 190	130	180-220	60	50	5	25301015015010
3000	T 3	64 - 190	140	180-220	70	55	6	25301015015011
4000	T 4	150 - 300	195	240-295	79	65	14	25301015015012
5000	T 5	150 - 300	195	270-310	85	75	18	25301015015015
6000	T 6	200 - 300	195	375-400	85	75	21	25301015015013
10000	T 10	200 - 300	195	500-520	85	80	38	25301015015016
15000	T 15	200 - 300	240	540-560	110	95	65	25301015015014

Subject to technical changes.

### Lifting Clamp Type CGH1

- Designed to be used in pairs
- Suitable for the horizontal transport of rigid sheet metal, stacks of sheets and steel plates
- The notched grab ensures a safe grip on the sheet metal, even if suspended diagonally.
- For longer pieces of sheet metal we recommend using 2 pairs of lifting clamps together with a spreader beam.
- Max. spread angles 60° - **always observe the user information!**

Load capacity per pair in kg	Type	Dimensions ca. in mm					Dead weight in kg/pce	Item no.
		A	B	F	I	V		
1000	CGH1 10/40	0-40	15	155	100	16	3	25301010015087
1500	CGH1 15/50	0-50	15	170	110	18	4	25301010015089
2500	CGH1 25/50	0-50	15	170	110	18	4.5	25301010015090
3000	CGH1 30/70	0-70	20	185	125	22	8	25301010015091
5000	CGH1 50/60	0-60	20	205	115	23	12	25301010015092
6000	CGH1 60/51	0-51	25	230	150	36	13	25301010015093
8000	CGH1 80/65	0-65	60	270	185	36	18	25301010015094
12000	CGH1 120/100	0-100	70	280	175	36	28	25301010015088

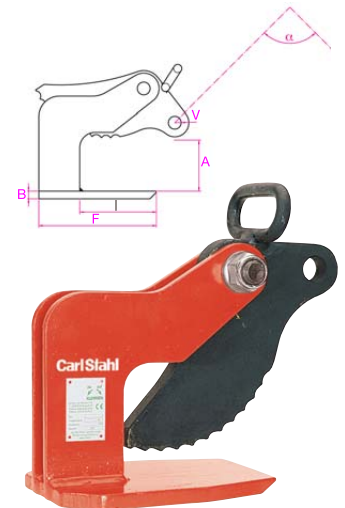


### Lifting Clamp Type CGH2

- Designed to be used in pairs
- They have a wide grab range and thus are particularly suitable for the horizontal transport of thin and thick metal plates.
- Max. spread angles 60° - **always observe the user information!**

Spread angle	Load capacity
30° - 60°	100%
60° - 90°	70%
90° - 120°	50%

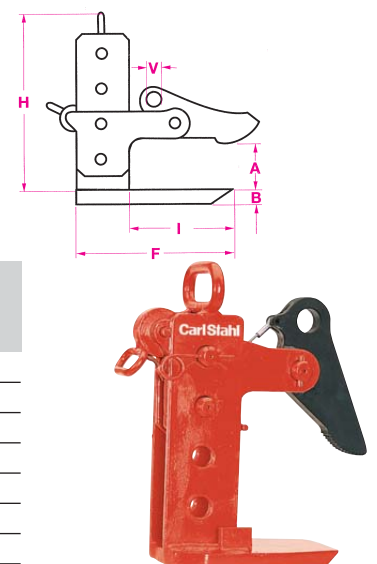
Load capacity per pair in kg	Type	Dimensions ca. in mm					Dead weight in kg/pce	Item no.
		A	B	F	I	V		
2500	CGH2 25/100	5-100	15	230	150	25	14	25301010015095
2500	CGH2 25/150	50-150	15	230	150	25	16	25301010015096
5000	CGH2 50/100	5-100	20	255	150	31	20	25301010015097
5000	CGH2 50/150	50-150	20	255	150	31	21	25301010015098
5000	CGH2 50/250	100-250	25	270	150	31	35	25301010015099
7500	CGH2 75/250	100-250	55	290	170	36	40	25301010015100



### Lifting Clamp Type CGHV

- Designed to be used in pairs
- Especially suitable for horizontal transport of sheet metal stacks
- Grab range quickly adjustable from 0-420 mm with a socket pin
- Respective clamp area 60 mm
- Maximum permissible diagonal pull 10°
- Max. spread angles 60° - **always observe the user information!**

Load capacity per pair in kg	Type	Dimensions ca. in mm					Dead weight in kg/pce	Item no.
		A	B	F	H	I		
1000	CGHV 10/150	0-150	15	200	250	110	25	25301010015101
1500	CGHV 15/300	0-300	20	200	400	110	25	25301010015102
3000	CGHV 30/180	0-180	20	200	300	120	30	25301010015103
3000	CGHV 30/300	0-300	20	200	420	120	30	25301010015104
3000	CGHV 30/420	0-420	20	200	550	120	30	25301010015105
6000	CGHV 60/180	0-180	30	230	350	120	30	25301010015106
6000	CGHV 60/300	0-300	30	230	470	120	30	25301010015107



# LOAD SUSPENSION EQUIPMENT

## How a Lifting Magnet works



Load-lifting magnets in our catalogue are divided into three types:  
Manual lifting magnets, permanent magnets and electro-permanent magnets.

### Manual lifting magnets

This type of magnets are suitable for the fast transport of small loads. They enable the transport of e.g. sharp-edged or hot steel plates.

It is indispensable for any company that needs to transport welded or flame-cut parts internally.

The activation is done with a hand lever.

### Permanent magnets

This type of magnets are suitable for the transport of small to medium loads. They enable the transport of flat and round materials in various sizes and load bearing capacities.

For any company that handles flat and round material frequently.

The activation is done with a hand lever.

### Electric permanent magnets



This type of magnets are suitable for transporting small to large loads. They enable the transport of flat and round materials in various sizes and load bearing capacities.

For every company that handles flat and round material very frequently and moves large steel plates.

The activation is carried out with electric power by manual activation or remote control. The load is also held securely if a power failure occurs.





Lifting magnet type	Page	Attachment direction		Application				Material type		Design		
		horizontal	vertical	Steel sheets	Standard profiles	Clamping device	Intensive material handling	flat material	round material	Manual lifting magnet	Permanent magnet	Electric permanent magnet
TML 250	204	✓		✓	✓			✓			✓	
TML 500	204	✓	✓	✓	✓			✓			✓	
TMC 300	205	✓				✓		✓			✓	
TMH 50	205	✓	✓	✓	✓			✓		✓	✓	
TML 100	205	✓	✓	✓	✓			✓			✓	
TMA 300	205	✓				✓		✓			✓	
CSN 	206	✓		✓				✓	✓		✓	
CSmag 	207	✓		✓				✓	✓		✓	
MaxX	208	✓		✓				✓	✓		✓	
GP 250	209	✓		✓	✓			✓			✓	
MaxX TG	209	✓		✓				✓	✓		✓	
NEO-EP	210	✓		✓			✓	✓	✓			✓
BM	210	✓		✓				✓				✓
BMP	210	✓		✓				✓	✓			✓
SB 500	211	✓		✓	✓		✓	✓	✓			✓
SafeBat	211	✓		✓	✓			✓	✓			✓

# LOAD SUSPENSION EQUIPMENT

## Lifting Magnets

### Permanent Lifting Magnet Model Type TML

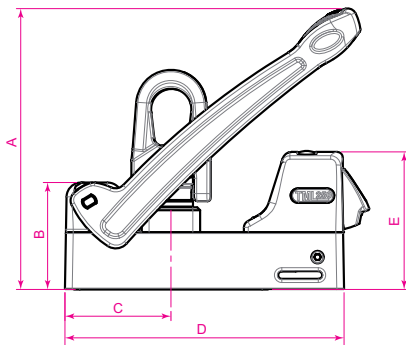
- Suitable for flat contact surfaces
- Brand new operating concept enables a broader action radius
- Magnet activated lengthways along its adhesive surface
- Ergonomic activation with minimum force
- Easy-moving lever with safety lock and additional rebound damper on type TML 500
- Outstanding performance features on thin-walled materials (suitable for use from as little as 2 mm)
- Type TML 500 also suitable for vertical applications, maximum load capacity: 150 kg
- Break-away force is at least 3 times the rated capacity
- Additional magnetic preloading enables enhanced magnet positioning
- Tare weight up to 50% lower than conventional magnets with at least the same power output
- 360° rotating and pivoting suspension eye
- Hardened, TiN-coated magnet adhesive surface
- Compact and sturdy design
- Each magnet comes with a test certificate and operating instructions



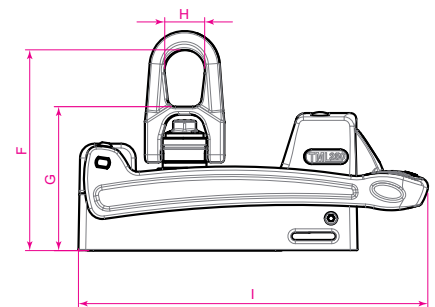
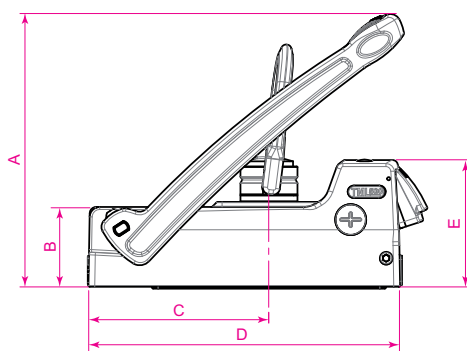
#### Attention:

- Specially suited for steel construction profiles and steel sheets
- Low dead weight
- Suitable for use from material thicknesses of 2 mm
- Optimised design and operation

#### Type TML 250



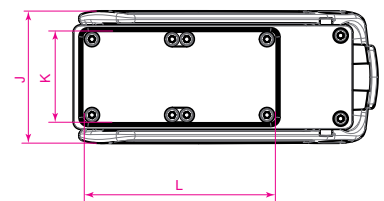
#### Type TML 500



De-magnetised



Magnetised



Type	Flat material		Dimensions in mm												Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm		A	B	C	D	E	F	G	H	I	J	K	L		
	Load capacity	Material thickness														
TML 250	250	10	193	73	73	191	94	138	99	27	240	91	65	135	3.7	25301210015001
TML 500	500	15	216	64.5	143	248	102	175	122	38	301	118	88	185	7.6	25301210015002

### Permanent Lifting Magnet Model Type TMC, TMH, TML and TMA

- Suitable for flat support surfaces
- Completely new operating concept allows extended action radius
- Ergonomic activation with minimal force
- Smooth lever with safety lock
- Outstanding performance properties on thin-walled materials (can be used from 2 mm upwards)
- Additional magnetic pre-load for better positioning of the magnet
- Outstanding weight/performance ratio
- Hardened magnetic adhesion surface with TiN coating
- Robust, compact design
- The specially oriented magnetic field (patented) permits "short-term" welding only about 15 mm from the magnet's outer side
- Type TMC 300 (basic unit) for clamping and welding applications
- Type TMH 50 with handle for the implementation of light steel plates. Protects hands and fingers from hot and sharp-edged steel.
- TYPE TML 100 with 360° rotating and pivoting suspension eye for use as load lifting magnet (also under full load)
- TYPE TMA 300 Welding angle, from 0° to 90° continuously adjustable angle side plates for holding/welding of material pieces
- Each load lifting magnet is individually tested and delivered with a test certificate



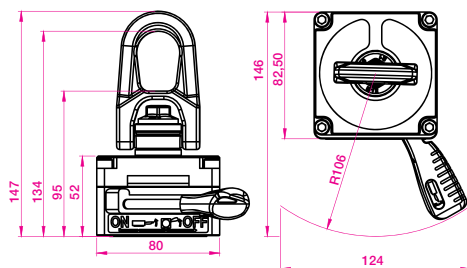
Base unit TMC 300



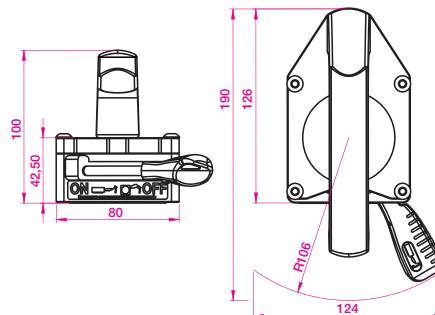
#### Attention:

- Particularly suitable for plate levelling, platform construction, fixing and tensioning technology of any kind
- Low dead weight
- Can be used from a material thickness of 2 mm
- Optimised design and operation
- TML 100 also available in model for round material

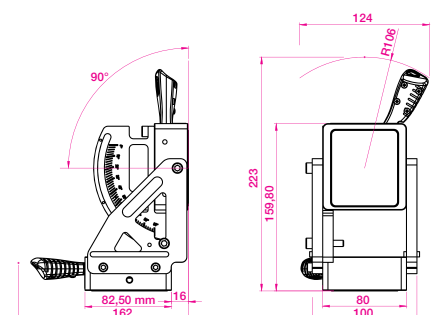
#### Load lifting magnet TML 100



#### Manual load lifting magnet TMH 50



#### Variable welding angle TMA 600



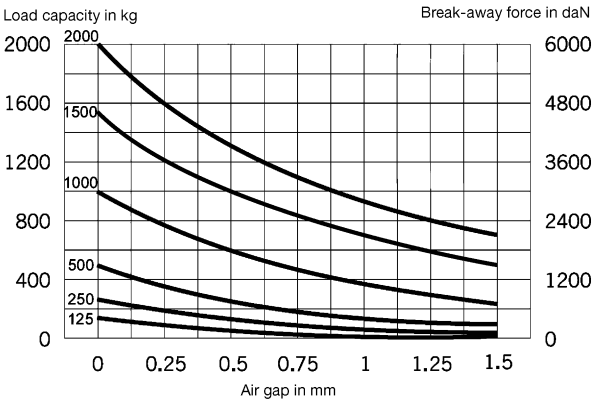
Type	Flat material		Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm			
	Load capacity	Material thickness		
TMC 300	300	6	1.0	25301210015003
TMH 50	50	3	1.6	25301210015004
TML 100	100	6	1.7	25301210015005
TMA 600	100	6	2.7	25301210015006



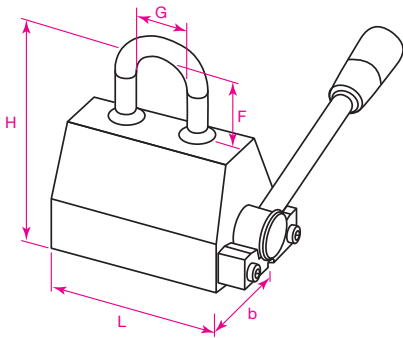
Permanent Lifting Magnet Type CSN

- Powerful permanent lifting magnet from the Condor own brand for maximum load capacity with enhanced security
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Each magnet comes with a test certificate and operating instructions

Performance graph



See a video of this product on our Youtube-Channel or with this QR-Code

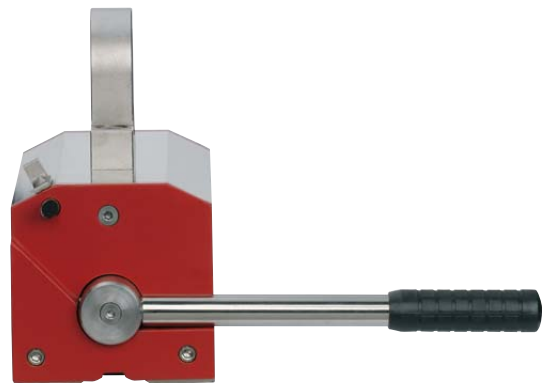
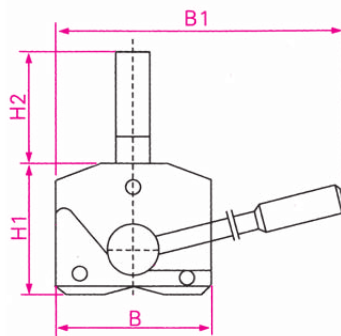
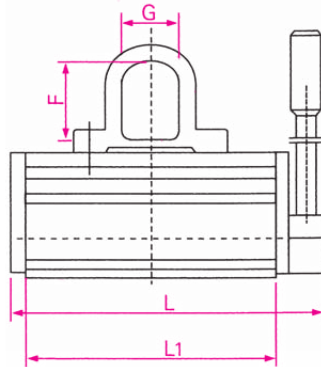


Type	Flat material		Round material			Dimensions in mm					Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm		Load capacity in kg at material Ø in mm			L	B	H	F	G		
	Load capacity	Mat. thickn.	Load capacity	Material Ø	Min. mat. thickn.							
CSN 125	125	25	40	50-100	10	95	60	110	40	30	3.0	25301210015018
CSN 250	250	30	125	60-200	12	151	100	164	65	50	10.0	25301210015019
CSN 500	500	40	250	65-270	20	246	120	168	65	50	19.0	25301210015020
CSN 1000	1000	60	500	100-300	28	306	146	216	95	64	36.0	25301210015021
CSN 1500	1500	70	750	150-350	34	375	165	253	92	64	68.0	25301210015022
CSN 2000	2000	80	1000	150-350	40	480	165	253	92	64	90.0	25301210015023

**Caution!**  
Ensure clean magnet and even work-piece surfaces!

### Permanent Lifting Magnet Type CSmag

- Powerful permanent lifting magnet from the Conдор own brand for maximum load capacity
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Each magnet comes with a test certificate and operating instructions



See a video of this product on our Youtube-Channel or with this QR-Code

Type	Flat material		Round material			Dimensions in mm									Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm		Load capacity in kg at material ø in mm			L	L1	B	H1	H2	B1	F	G			
	Load cap.	Mat. thickn.	Load cap.	max. material Ø	Min. mat. thickn.											
CSmag 100	100	20	50	100	10	135	110	60	65	46	150	32	32	3.5	25301210015007	
CSmag 300	300	20	150	300	12	203	165	87	89	68	223	45	38	10.0	25301210015008	
CSmag 600	600	30	300	400	20	266	226	112	109	86	287	58	45	21.0	25301210015009	
CSmag 1000	1000	40	500	450	28	330	290	148	125	95	364	60	52	40.0	25301210015010	
CSmag 1500	1500	45	750	500	34	385	330	178	145	118	447	70	65	65.0	25301210015011	
CSmag 2000	2000	55	1000	600	40	470	420	178	145	118	487	70	65	83.0	25301210015012	



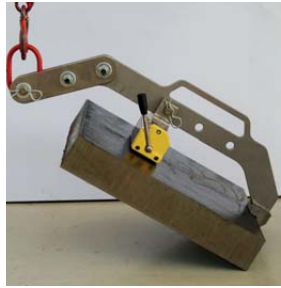
**Caution!**  
Ensure clean magnet and even work-piece surfaces!

# LOAD SUSPENSION EQUIPMENT

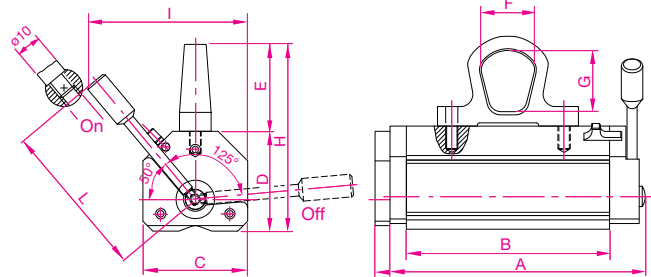
## Lifting Magnets

### Permanent Lifting Magnet Type MaxX

- Powerful permanent lifting magnet for maximum load capacity
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Large, screwed-on hook connection eye for load hooks in line with the nominal load capacity.
- Each magnet comes with a test certificate and operating instructions



- **Accessory:** Vertical lifting system MVS and lifting beam MFB



Type	Flat material		Round material			Dimensions in mm											Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm		Load capacity in kg at material ø in mm															
	Cap.	Material thickn.	Cap.	Max. material Ø	Min. mat. thickn.	A	B	C	D	E	F	G	H	I	L			
MaxX 250	250	20	100	300	10	189	143	79	79	63	35	43	142	130	137	6.0	25301210015014	
MaxX 500	500	25	200	400	15	250	199	106	101	88	52	60	189	165	170	15.0	25301210015015	
MaxX 1000	1000	40	400	450	25	342	284	133	131	88	52	60	219	225	240	36.0	25301210015016	
MaxX 1500	1500	45	600	500	30	383	316	166	171	122	64	87	293	330	377	66.0	25301210015017	



### Permanent claw Magnet Type GP 250

- Suitable for flat support surfaces
- Use in crane operation
- Locking of the crane hook eye possible, increased safety while lifting
- Outstanding performance characteristics on thin materials (can be used from 3 mm upwards)
- Smooth lever with safety lock
- The pull-off strength is at least 4 times the load-bearing capacity
- Robust, compact design
- Manufactured according to DIN EN 13155
- Each load lifting magnet is individually tested and delivered with a test certificate



- 1 Locked suspension eye allows a safe turning from the horizontal to the vertical
- 2 Abrasion resistant label with safety instructions
- 3 Smooth lever with safety lock
- 4 No damage to the material due to recessed cam
- 5 Vertical locking possible

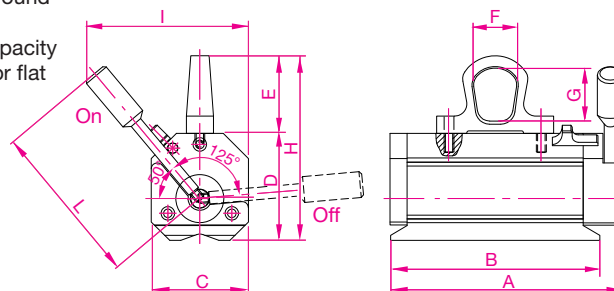


GP 250 in use

Type	Flat material		Towing capacity in kg	Base area in mm	Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm					
	Load capacity	Material thickness				
GP 250	250	20	80	288 x 200	9.7	25301210015039

### Permanent Lifting Magnet Type MaxX TG

- Powerful permanent lifting magnet for thin plates and thin-walled pipes
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Each magnet comes with a test certificate and operating instructions



#### Option:

- Mini Lifting Beam Type MFB

Type	Flat material		Round material			Dimensions in mm										Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm		Load capacity in kg at material Ø in mm			A	B	C	D	E	F	G	H	I	L		
	Cap.	Mat. thckn.	Cap.	Max. material Ø	Min. mat. thckn.												
MaxX TG 150	150	8	60	240	8	189	170	79	87	63	35	43	150	130	137	6.0	25301210015024
MaxX TG 300	300	10	120	290	10	250	230	106	101	88	52	60	189	165	170	16.0	25301210015025

# LOAD SUSPENSION EQUIPMENT

## Lifting Magnets

### Electro Permanent Lifting Magnet Type NEO-EP

**Powerful pneumatically operated permanent magnet for high load capacities due to high-energy Neodym magnets**

- Electrically operated permanent magnet
- Suitable for flat and round material
- Low power consumption after switching-on
- Magnetic force remains in case of power failure
- Strong holding force even on rough or uneven surfaces
- Push buttons for easy operation
- Low maintenance cost, no wearing parts

#### Typical fields of application:

- Loading and unloading of machine tools
- Lifting and transport in storage facilities
- Lifting and handling of workpieces in assembly and production
- Frequent handling with robots

#### Option:

- Remote control



Item no.		25301210015032	25301210015034	25301210015035
Type		NEO-EP 125	NEO-EP 500	NEO-EP 1000
Flat material	Load capacity in kg	125	500	1000
	at material thickn. in mm	25	25	25
Round material	Load capacity in kg	60	250	450
	at material ø in mm	56-120	90-200	90-200
Power supply in VAC		230	230	230
Power consumption in A		2.5	6.7	8
Dimensions length x width in mm		210 x 65	370 x 125/167	445 x 125/167
Height to crane hook in mm		170	425	425
Weight in kg		13.0	54.0	70.0

#### Remote control

Item no.	25351000015038	25351000015038	25351000015038
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### Battery Lifting Magnets Types BM and BMP

- Powerful permanent lifting magnet for high load capacities
- Model BM for lifting of flat materials
- Model BMP with prismic bottom for lifting of round and flat material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Robust steel housing with control and charge unit and maintenance free 12 V battery
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Safety switch connected with crane eye avoids switching-off during lifting
- LED display shows battery charge level, acoustic signal, switch lock
- Magnet can be operated either by infrared handheld control (range 4.5 m) or by push-buttons on the magnet.
- Delivery includes 12 V battery and infrared remote control

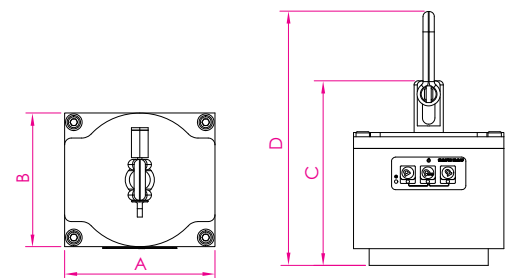


Item no.		25301210015027	25301210015029	25301210015030	25301210015028	25301210015026
Type		BM 1350	BM 2500	BM 3600	BM 5000	BMP 1800
Magnet details		flat /1 magnet	flat /1 magnet	flat /1 magnet	flat /2 magnets	prismic /1 magnet
Flat material	Load capacity in kg	1350	2500	3600	5000	1800
	at mat. thickn. in mm	38	50	50	25	50
Round material	Load capacity in kg	-	-	-	-	1130
	at material Ø in mm	-	-	-	-	25-300
Length x Width in mm		272 x 242	400 x 242	1050 x 240	1200 x 300	470 x 242
Height up to crane hook in mm		460	460	460	460	610
Battery capacity in Ah		31	73	73	73	73
Discharge time in hrs at 50% duty		8	8	8	8	8
Weight in kg		60.0	72.0	180.0	203.0	167.0

### Electric permanent battery magnet Type SB 500

The electric permanent battery magnets combine the safety of permanent magnets and the operating convenience of electric magnets. Even the magnetisation and demagnetisation of the load lifting magnet can be performed automatically.

- Can be used for flat and round material from 4 mm sheet thickness
- Current flows only during magnetisation/demagnetisation, which means that the load can be held indefinitely
- Lithium-ion battery with charge status indicator
- The safety mechanism prevents switching under load, which means that the load is not accidentally dropped
- Magnet is only connected to the power supply for recharging the battery, recharge time approx. 2 h, operating time approx. 1000 switching cycles
- Selectable between manual push button operation or automatic operation
- Also suitable for small sheet metal blanks
- Can be used for lifting beam operation with several magnets
- Suitable for a wide variety of finishes, e.g. raw materials, finished and bare surfaces
- In machinery, tools, equipment, steel, shipbuilding, steelworks, cutting, laser, transportation or material storage



Type	Flat material				Round material			Dimensions in mm				Switching cycles	Weight in kg/pce	Item no.
	max. load in kg	min. length in mm	min. width in mm	Min. thickness in mm	max. load in kg	Ø max. in mm	Minimum wall thickness in mm	A (length)	B (width)	C (height)	D (height with ring)			
SB 500	500	170	150	4	200	200	4	180	160	221	304	1000	24	25301210035115

### Electric permanent battery magnet Type SafeBat

The electric permanent battery magnets combine the safety of permanent magnets and the operating convenience of electric magnets.

While setting down, the SafeBat checks the maximum weight on the surface of the load, which can be safely lifted due to the surface texture and material thickness.

- Can be used for flat and round material from 4 mm sheet thickness
- Current flows only during magnetisation/demagnetisation, which means that the load can be held indefinitely
- Optical and acoustic safety device with battery charge status indicator
- The safety mechanism prevents switching under load, which means that the load is not accidentally dropped
- Magnet is only connected to the power supply for recharging the battery, recharge time approx. 8 h, operating time approx. 300 switching cycles
- Selectable between manual push button operation or automatic operation
- Also suitable for small sheet metal blanks
- Can be used for lifting beam operation with several magnets
- Suitable for a wide variety of finishes, e.g. raw materials, finished and bare surfaces
- In machinery, tools, equipment, steel, shipbuilding, steelworks, cutting, laser, transportation or material storage



Type	Flat material				Round material			Dimensions in mm			Switching cycles	Weight in kg/pce	Item no.
	max. load in kg	min. length in mm	min. width in mm	Min. thickness in mm	max. load in kg	Ø max. in mm	Minimum wall thickness in mm	length	width	height with ring			
SafeBat	1000	275	115	4	200	250	4	420	280	270	300	39.5	25301210035139



LOAD SUSPENSION EQUIPMENT

Suction Lifters with Pump

...play a major role when it comes to handling, transfer and assembly

Single Pad Suction Lifter with Hand Pump

- Ergonomic suction lifter with high load capacity
- Lifter made from robust plastic
- Handle with anti-slip coating and larger gripping space for optimum comfort
- The rounded pump tappet allows quicker and more convenient operation
- TÜV tested and certified with the GS mark
- Ergonomic designed handle with plastic coating
- Safety factor 2
- Carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
120	parallel	601BL	smooth	210	1.4	25301215015004

Single Pad Suction Lifter with Hand Pump

- Suction lifter with high load capacity for big loads
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Extra safety due to visual vacuum control
- Ergonomic designed handle with plastic coating
- Safety factor 2
- Carrying case included



Surface must be airtight to generate a vacuum.



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
120	parallel	601	smooth	210	1.63	25301215015001
110	parallel	601.45	slightly textured, curved	210	1.63	25301215015005

Single Pad Suction Lifter with Hand Pump

- Special suction pad for curved or highly textured surfaces
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Safety factor 2
- Carrying case included

Specially suitable for highly curved or textured surfaces



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
80	vertical	601.2	curved + textured	220	1.71	25301215015003

### Single Pad Suction Lifter with Hand Pump and Pressure Gauge

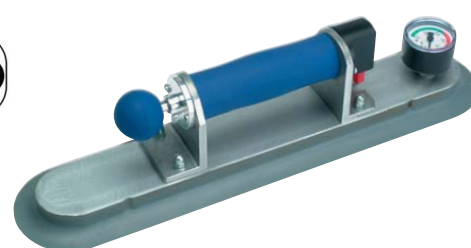
- Safety suction lifter made from strong aluminium with high load capacity for big and heavy loads
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Extra safety due to visual vacuum control
- TÜV tested and certified with the GS mark
- Safety factor 2
- Carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
120	parallel	601.1BL	smooth	210	1.97	25301215015002

### Single Pad Suction Lifter with Hand Pump and Pressure Gauge

- Slim single pad suction lifter with hand pump and pressure gauge
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Visual control allows permanent surveillance of vacuum
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Material	Suction pad Ø in mm	Weight in kg/pce	Item no.
80	vertical	BO 6018	Metal	80 x 380	1.63	25301215015014

### Single Pad Suction Lifter

- Single pad suction lifter for various load capacities
- Lifter made from strong aluminium
- Bow handle for one-handed use to enable quick, efficient working
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included



**Surface must be airtight  
to generate a vacuum.**

*blue line*



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. Ø mm x h	Weight in kg/pce	Item no.
30	vertical	600.0BL	smooth	120	120 x 100	0.51	25301215015007
30	vertical	S0.0BL	smooth	120	120 x 100	1.51	25301215015012
25	vertical	600.02BL	slightly curved + textured	120	120 x 100	0.51	25301215015006

# LOAD SUSPENSION EQUIPMENT

## Suction Lifters

### Two Pad Suction Lifter with integrated Vacuum Indication

- Great carrying comfort due significantly bigger gripping area
- Lifter made from robust plastic
- Rocker lever with integrated vacuum indicator
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Newly designed rubber pad offers better holding performance
- Brief transportation of sand-blasted glass possible
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
50	parallel	602.10BL	smooth	120	343 x 120 x 77	0.24	25301215015008

### Two Pad Suction Lifter with lengthwise Handle and integrated Vacuum Indication

- Rocker lever suction pad with integrated vacuum indicator for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Visual control allows permanent surveillance of vacuum
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
50	vertical	602.44BL	smooth	120	345 x 120 x 80	0.98	25301215015010

### Two Pad Suction Lifter with lengthwise Handle

- Rocker lever suction pad for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Ergonomic hand grip with plastic coating
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
60	parallel	602.4BL	smooth	120	345 x 120 x 80	0.98	25301215015011
60	parallel	S2.4BL	smooth	120	345 x 120 x 80	2.50	25301215015013
50	vertical	602.42BL	slightly curved + textured	120	345 x 120 x 80	1.00	25301215015009



### Two Pad Suction Lifter with crosswise Handle

- Two pad suction lifter for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
70	parallel	602.0BL	smooth	120	320 x 120 x 90	1.10	25301215015016
70	parallel	S2.0BL	smooth	120	320 x 120 x 90	2.67	25301215015018
50	vertical	602.02BL	slightly curved + textured	120	320 x 120 x 90	1.10	25301215015015

### Three Pad Suction Lifter

- Three pad suction lifter for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
100	parallel	603.0BL	smooth	120	345 x 230 x 80	1.43	25301215015017
100	parallel	S3.0BL	smooth	120	345 x 230 x 80	3.97	25301215015019

### Plate Carrying Device made from Light Alloy

- For gentle and safe transport of metal, wooden, light alloy, glass and plastic plates
- Made from strong aluminium
- The load is held firmly between 2 anti-slip rubber-lined pads: The heavier the load, the tighter the grip

Type 5000101



Type 5000200



Load capacity per pair in kg	Type	Grab range up to mm	Pad size in mm	Number of hand grips	Weight in kg/pce	Item no.
80	5000101	25	200 x 80	1	1.2	25301010015109
160	5000200	40	240 x 100	2	1.8	25301010015110

# LOAD SUSPENSION EQUIPMENT

## Vacuum Handling

Safe and ergonomic

Carl Stahl vacuum handling systems rationalise and humanise production processes allowing for effortless and efficient work piece handling. They convince by their functionality, safety, and ergonomics e.g. when loading machines. They combine an economic investment and an ergonomic work environment as they help to prevent health damage resulting from lifting and moving heavy loads. Vacuum handling systems rationalise production processes and reduce throughput times. Apart from that, they will improve motivation and productivity of your staff.

### Ergonomic control elements for all applications



Handling of stainless steel sheets



Handling of wood and plastic panels



Handling of windows



Handling of solar panels



Handling of sacks



Handling of jerrycans



Handling of buckets



Handling of cardboard boxes



Suction lifters for handling of glass plates etc.

Selection criteria	VacuMaster (Page 217)	Jumbo (Pages 218-221)	Suction lifters
Work piece	Sheets, coils, wood and plastic panels, windows, glass plates, concrete slabs	Airtight and porous parts such as cardboard boxes, sacks, barrels, furniture, wood panels etc.	Smooth and gastight surfaces, also slightly curved and textured depeding on lifter type
Weight	Work pieces up to 2,000 kg, mainly big and two-dimensional parts	Work pieces up to 300 kg	Work pieces up to 120 kg
Speed	Vacuum lifting device grabs work pieces, chain hoist is used for lifting and lowering	Frequent and quick lifting and moving with only one device	Manual handling
Handling	Horizontal, 90° swivelling, 180° turning,	Horizontal, 90° swivelling	By hand

### Vacuum Lifting Device VacuMaster

With the VacuMaster vacuum lifters, you can move heavy loads ergonomically and safely. They are ideal for the handling of plate-shaped, mainly suction-proof work pieces up to 750 kg, such as sheets, steel, wood and plastic plates, glass panes and windows.

- Efficiency increases through fast and time-saving work
- Gentle handling of work pieces
- Ergonomic and health-conscious lifting
- Modular design for flexible adaptation to changing workpiece formats
- High safety thanks to high-quality technical solutions, safety and warning devices
- Long service life due to robust design
- Complete solution: Vacuum lifter and smooth-running aluminium crane from a single source



VacuMaster Basic for horizontal handling, 250 kg load

### Controls and highlights



#### VacuMaster Basic

- Robust handle with manual slide valve for safe and ergonomic operation
- Vacuum generators, control brackets, suction plates and beams can be customised
- Integrated vacuum accumulator
- Acoustic warning device

#### VacuMaster Comfort

- Basic equipment like VacuMaster Basic
- Integrates all controls of the device ergonomically and in a convenient way at the control element
- Regulated vacuum generator with air separation function

#### Electric

##### swivel function

- Stepless swivelling of work pieces by 90° or turning by 180° at the push of a button

#### Flexible adaptation

- By the use of aluminium and high-strength plastic, cross beams and suction plates can be easily moved
- Quick adjustment to changing workpiece formats

### VacuMaster Basic for horizontal handling

Type	Load capacity in kg	Handle bar length in mm	Delivery volume of pump in m³/h	Suction pads		Beam length in mm		Selection help for metal sheets Format/thickness in mm	Dead weight in kg	Item no.
				Quantity	Ø in mm	Cross beam	Main beam			
VM Basic 125/2	125	645	4	2	210	-	1600	KF; 5.0-8.0	41	25301215015020
VM Basic 125/4	125	645	4	4	125	750	1600	KF; 1.5-8.0 and MF; 3.0-5.0	50	25301215015022
VM Basic 125/6	125	645	4	6	125	750	1600	KF; 0.5-8.0 and MF; 0.5-5.0	59	25301215015024
VM Basic 250/2	250	645	4	2	250	-	1600	KF; >8.0	42	25301215015021
VM Basic 250/4	250	645	4	4	210	750	1600	MF; >5.0	52	25301215015023
VM Basic 250/6	250	645	4	6	160	750	1600	MF; 0.5-3.0 and GF; >0.5	57	25301215015025
VM Basic 500/6	500	660	8	6	210	750	1600	GF; 0.5-10.0	75	25301215015026
VM Basic 750/6	750	660	8	6	250	750	2400	GF; 0.5-20.0	89	25301215015027

KF= small size: 1,000 x 2,000 mm, MF= medium size: 1,250 x 2,500 mm, GF = large size: 1,500 x 3,000 mm



LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

Vacuum Tube Lifter JumboErgo and JumboSprint

Versatile lifting and handling with a single device

The vacuum tube lifter Jumbo is used for frequent and fast lifting and handling of cardboard boxes, sacks, barrels, wood panels and many more loads up to 300 kg.

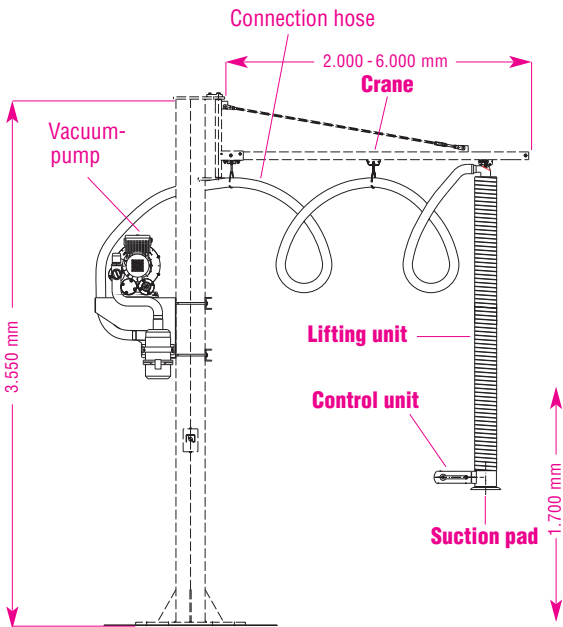
Jib cranes and crane systems complement a complete custom-built solution for your individual requirements.

JumboErgo

- Fast and sensitive handling of light and heavy loads using a turning handle (similar to motorcycle accelerator).
- Movable handle bar for load handling at great heights (option)

JumboSprint

- Precise and sensitive handling of heavy and bulky loads in rough environments or outdoors.
- Accurate handling of sacks, stones, slabs, raw rubber bales etc.



Crane, fastening kit for vacuum pump and connection hose suspension are not included.

Tube lifter Jumbo – basic unit

Type	Load capacity in kg	Lifting speed in m/min	Power output in kW	Dead weight in kg	Item no. Ergo	Item no. Sprint
Jumbo 35	35	0-70	3.0	12	15160000015001	15160000015007
Jumbo 45	45	0-70	3.0	12	15160000015002	15160000015008
Jumbo 65	65	0-60	3.0	15	15160000015003	15160000015009
Jumbo 85	85	0-55	4.0	17	15160000015004	15160000015010
Jumbo 110	110	0-45	4.0	20	15160000015005	15160000015011
Jumbo 140	140	0-40	4.0	24	15160000015006	15160000015012

**Scope of delivery:** Vacuum pump 230/400 V, 50 Hz (sound pressure level approx.72 dB (A)), lifting unit (lifting height approx.1,700 mm) with control unit, rotation insert for rotating the lifting hose and the handle bar, painted RAL 7035 light grey.

Necessary components

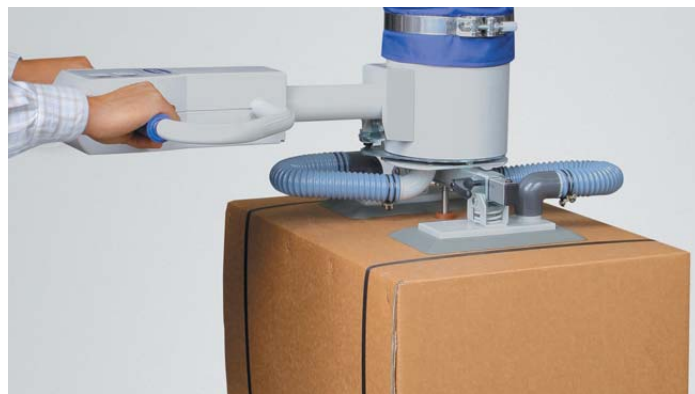
Description	Item no.
<b>Air hose with inner Ø of 50 mm</b> for connection between tube lifter and vacuum pump available in lengths of 9, 12, 15, 20 and 25 m	15401500015001
<b>Dust filter</b> to protect the pump from damage and dirt	15401500015002

When placing an order, a decision must be made as to whether the motor protection switch is selected as a built-in or surface switch. We will gladly help you to design your customised device.





**Single pad EG** with control unit Ergo (e.g. for smooth surfaces, big plates, cartons)



**Double pad DG** with beam and control unit Ergo (e.g. for open or closed cartons)



**Sack pad SG** with control unit Sprint (for plastic and paper sacks)



**Round pad RG** with control unit Sprint (for barrel and parts handling)

### Suction pads available

Type	Item no. Single pad	Item no. Double pad*	Item no. Sack pad	Item no. Round pad
Jumbo 35	15401500015003	15401500015009	15401500015013	15401500015018
Jumbo 45	15401500015004	15401500015010	15401500015014	15401500015019
Jumbo 65	15401500015005	15401500015011	15401500015015	15401500015020
Jumbo 85	15401500015006	15401500015012	15401500015016	15401500015021
Jumbo 110	15401500015007	-	15401500015017	15401500015022
Jumbo 140	15401500015008	-	-	15401500015023

\*Double pads: Jumbo 35-85 has a beam length of 400 mm

### On request:

- Remote control SRC integrated in the control unit for switching the electrical vacuum generator on and off
- Swivelling units (also pneumatic) for vertical turning of 2-dimensional loads
- Frequency-controlled air pump: Throughput is adjustable for work pieces of different porosity and also with variable weights
- Pneumatic noise insulation hood to reduce sound level of pump to approx. 65 dB(A)
- Adapter kit for attachment of vacuum pump to pillar jib crane
- Other lifting heights (up to 2,100 mm)
- Compressed air drive
- Country-specific electric versions
- Stainless steel versions
- Remote control SRC for electric vacuum pump integrated in hand-held control



Also available in explosion protected version.  
For detailed information see pages 86-87.

# LOAD SUSPENSION EQUIPMENT

## Vacuum Lifting Devices

### JumboFlex – the innovative Solution!

- Load capacity 20/35/50 kg
- Single-hand control for right- and left-handers
- Fast and sensitive
- High energy efficiency
- Many features like quick change adapter, flexible load suction, unlimited rotation, air filter, and “load balancing” setting are integrated.  
See description below.



JumboFlex for handling cardboard boxes

#### Tube lifter JumboFlex – basic unit

Type	Load capacity in kg	Lifting height in mm	Lifting speed in m/min.	Power output in kW	Sound pressure lev. dB (A)	Dead weight in kg	Item no.
JumboFlex 20	20	1500	0-40	0.8	67	4.0	15160000015013
JumboFlex 20	20	1800	0-40	0.8	67	4.2	15160000015014
JumboFlex 35	35	1500	0-50	1.25	67	4.7	15160000015015
JumboFlex 35	35	1800	0-50	1.25	67	4.9	15160000015016
JumboFlex 50	50	1500	0-60	2.4	72	6.1	15160000015017
JumboFlex 50	50	1800	0-60	2.4	72	6.5	15160000015018

**Scope of delivery:** Vacuum pump 400V/50Hz, lifting tube with control unit, rotating insert for free rotation of the lifting tube and the control unit, protective tube, quick change adapter, rotating unit, slewing unit

#### Necessary components

Description	Item no.
<b>Air hose with inner Ø 25 mm</b> for connection between tube lifter and vacuum pump (Price per m) for JumboFlex 20/35	15401500015027
<b>Air hose with inner Ø 32 mm</b> for connection between tube lifter and vacuum pump (Price per m) for JumboFlex 50	15401500015031

When placing an order, a decision must be made as to whether the motor protection switch is selected as a built-in or surface switch. We will gladly help you to design your customised device.



- Integrated quick change adapter**
- Tube lifter with quick change adapter
  - Suction pads can be changed within a second without any tools



- Flexible load suction**
- The suction pad swivels by 90° and allows lateral load suction
  - After being picked up, the load automatically moves into a horizontal position



- Unlimited rotation**
- The JumboFlex tube lifter rotates through 360°
  - The load can also be rotated below the control unit and can be locked in 90° steps



- Filter and “load balancing” setting**
- Filter is easy to remove for cleaning or replacement without any tools
  - Easy setting of the floating height without load





### Round pad RG

- Ideal adaption to different workpieces
- Integrated quick change adapter



### Double pad DG

- For handling cardboard boxes, solar panels and other objects
- Integrated quick change adapter



### Sack pad SG

- For handling plastic sacks up to 40 kg
- Integrated quick change adapter



### Hook EH

- For handling of buckets, jerrycans etc. up to 50 kg
- For mechanical connection of different workpieces
- Integrated quick change adapter



### Multiple suction pads



### Box grab



**Grabs for your specific application on request.**  
**Multiple suction pads and box grabs are shown**  
**here as examples of special grabs.**  
**Please contact us with your enquiries.**

### Suction pads available

Type	Item no.	Item no.	Item no.	Item no.
	Round pad RG	Double pad DG	Sack pad SG	Hook EH
JumboFlex 20	15401500015024	15401500015025	-	15401500015028
JumboFlex 35	15401500015024	15401500015025	15401500015026	15401500015028
JumboFlex 50	15401500015029	-	15401500015030	-

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

VacuMaster Eco



VacuMaster Eco for handling of sheet metal

Application

Horizontal handling of smooth and airtight work pieces without external energy supply.

- e.g. sheets, metal plates, barrels and stone slabs

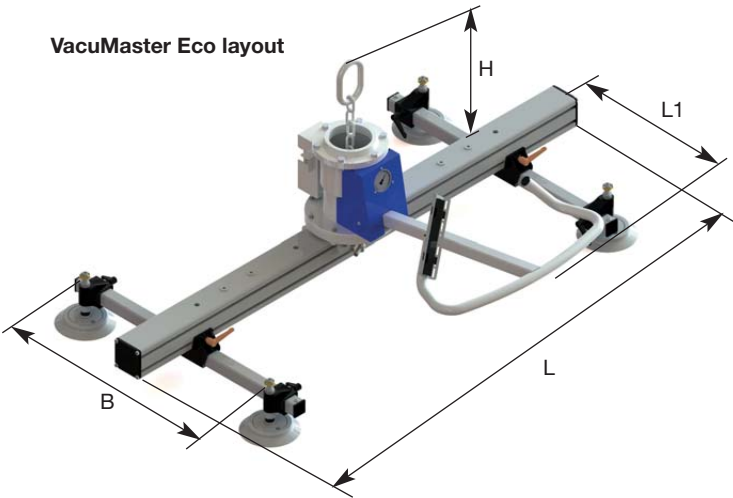
Layout and function

- Modular vacuum lifting device with piston-system for vacuum generation without external energy
- Vacuum generated by lifting movement of the chain hoist (not included)
- Aluminium main beam with integrated vacuum distributor
- Battery-powered warning device with battery test function for vacuum loss
- Suction pads are easily adjustable

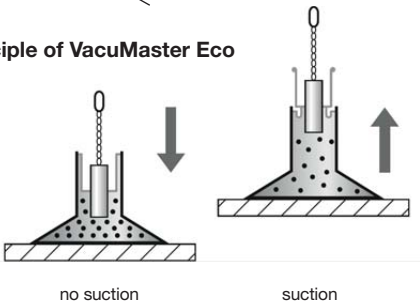
Your benefit

- Gentle and safe vacuum handling
- Flexible use as independent of energy source
- Fast installation and set-up
- Minimised operating costs

VacuMaster Eco layout



Technical principle of VacuMaster Eco



Versions with 1-8 suction pads are available. Prices on request

Please contact our specialists for product details!

Type	Max. load capacity* kg	Work piece size in mm		Dimensions in mm		Headroom h mm	Handle bar L1 mm	Number of suction pads	Dead weight in kg
		minimum	maximum	L	B				
Eco 75	75	220 x 220	1000 x 1000	210	210	368 - 382	-	1	8
Eco 250	250	360 x 360	3000 x 2000	800 - 2400	400 - 1500	450 - 825	400 - 1100	1, 2, 4, 6, 8	33 - 59
Eco 500	500	480 x 480	4000 x 2000	800 - 3200	400 - 1500	605 - 1130	500 - 1200	1, 2, 4, 6, 8	93 - 141
Eco 750	750	900 x 620	4000 x 2000	800 - 3200	400 - 1500	735 - 1130	500 - 1200	4, 6, 8	132 - 141

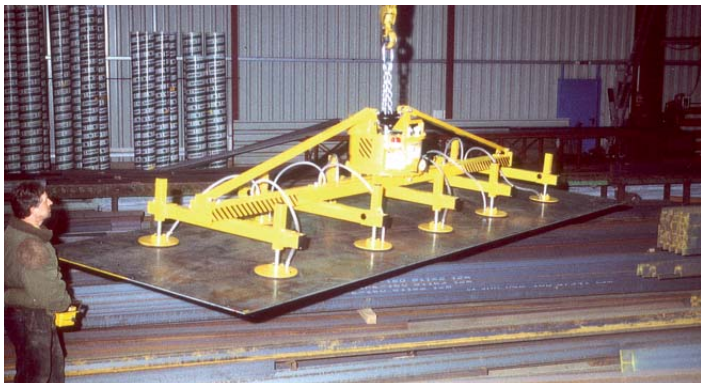
\* The minimum weight of the work piece must be at least 10% of the rated capacity.

### Self-suction Vacuum Lifting Device for smooth and non porous Loads

#### Load capacities up to 4,000 kg

- Independent from electric power supply
- Automatic switching mechanism
- Plug and play – immediately ready for use
- Standard and individual solutions for different surfaces
- Largely maintenance-free even under heavy duty conditions.
- Gentle transport of loads with sensitive surfaces.
- Enhanced safety by additional optical and acoustic warning device (according to DIN EN 13155) DIN EN 13155
- Easy operation e.g. by the crane control
- Suitable for in- and outdoor use

All versions of a specific type use the same basic unit. Different beam types, suction pad arrangements and high quality sealing rings are available. If required the devices can be fitted with oil- or heat-resistant sealing rings.



Type	Load capacity in kg	Number of suction pads / Ø D in mm	Pad arrangement	Dimensions in mm Length/Width/Height	Dead weight in kg	Item no.
U 01-E	75	1 / 210	single	- / - / 440	6.7	25301215015028
U 02-E	270	1 / 350	single	- / - / 615	25	25301215015029
U 02-2	300	2 / 350	single-row	150 / 815	67	25301215015032
U 02-4	300	4 / 250	single-row	2000 / 880	68	25301215015036
U 02-6	270	6 / 210	double-row	2000 / 1000 / 930	86	25301215015039
U 075-E	640	1 / 480	single	- / - / 850	78	25301215015030
U 075-6	650	6 / 250	double-row	2250 / 1000 / 1210	175	25301215015040
U 075-2	750	2 / 415	single-row	1500 / 1070	141	25301215015033
U 075-3	750	3 / 350	single-row	2000 / 1180	151	25301215015035
U 125-E	1100	1 / 625	single	- / - / 950	135	25301215015031
U 125-4K	1000	4 / 350	single-row	2500 / 1300	250	25301215015037
U 125-2	1250	2 / 625	single-row	1500 / 1220	250	25301215015034
U 125-4L	1250	4 / 415	single-row	4000 / 1320	355	25301215015038



**Available with a load capacity of up to 4,000 kg.  
Higher load capacities also possible when combining 2 devices.  
Prices on request.**



# LOAD SUSPENSION EQUIPMENT

## Vacuum Lifting Devices

### Electric Vacuum Lifting Devices for horizontal and vertical Transport

Load capacities up to 50,000 kg are possible

- Standard and individual solutions
- Flexible configurations for different loads and surfaces
- Easy control by lever valves, on request also cable remote control with key pad, radio remote or automatic control
- 90° or 180° rotation available as option
- Safe in case of power outage
- Enhanced safety thanks to optical-acoustic warning device acc. to DIN EN 13155
- Power supply (230 V - 500 V, 24 V, battery-powered on request)

Type	Load capacity in kg	Number suction pads/Ø D in mm	Dimensions L/W/H in mm	Dead weight in kg	Item no.
H-E-150	150	1 / 270	480 / 350 / 700	48	25301215015041
H-E-750	750	1 / 650	650 / 650 / 700	70	25301215015042
H-2-150	150	2 / 170	1500 / 350 / 800	90	25301215015043
H-2-1000	1000	2 / 495	1500 / 500 / 870	140	25301215015044
H-4Q-150	150	4 / 180	1800 / 800 / 770	110	25301215015045
H-4Q-500	500	4 / 270	1800 / 800 / 790	130	25301215015046
H-6Q-150	150	6 / 130	2200 / 1000 / 870	90	25301215015047
H-6Q-1250	1250	6 / 340	2200 / 1000 / 900	200	25301215015048
H-8Q-300	300	8 / 210	3200 / 1400 / 900	110	25301215015049
H-8Q-750	750	8 / 210	3200 / 1400 / 900	130	25301215015050

Configurations shown are exemplary. Customised versions are available on request.



Available up to 50,000 kg load capacity.  
Prices on request.

### Electronic Dynamometer Type LLZ2

**Cost-effective electronic load measuring device for measuring tensile forces and for load indication**

- Precision  $\pm 0.3\%$  of the measured value
- Digit height display 18 mm
- Load measuring device shock and weather-proof: protection class IP 65
- Safety factor 6
- Temperature range  $-20^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ )
- Low current consumption
- Operation by flat, weatherproof membrane keypad on the front
- Tare suppression over the entire measuring range
- Automatic zeroing when switching
- Automatic shutdown to protect the battery



Suitable bow shackles can be found on page 498



Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg	Item no.
1	1	191 x 83.5 x 36.4	0.75	25301400035055
3.2	2	191 x 99.5 x 36.4	0.93	25301400035056
6.3	5	236 x 121.5 x 36.4	1.44	25301400035051
12.5	10	277 x 120.5 x 59.4	3.22	25301400035057
20	20	342 x 147 x 59.4	4.95	25301400035058

Item no.
25301810015072
25301810015074
25301810015076
25301810015080
25301810015082

### Digital Dynamometer and Load Indicator Type LLX1

**Electronic dynamometer for precisely measuring tensile forces and displaying the load**

- High precision: 0.2% of full scale
- Digit height 18 mm
- Shock-proof and water-resistant: Protected IP 65
- Safety factor 4
- Operating temperatures  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $+104^{\circ}\text{F}$ )
- Low energy consumption - up to 450 hrs with 1 set of batteries
- Radio remote control with 40 m range
- Easy operation due to clear menu navigation
- Tare suppression for the full measuring range
- Automatic zero when switched on
- Automatic shutdown to save batteries

#### Option:

- Remote for Indicator Type LLX1 can be found on page 227



Suitable bow shackles can be found on page 498



Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg	Item no.
0.5	0.2	220 x 196 x 47.5	1.1	25301400015019
1	0.5	220 x 196 x 47.5	1.1	25301400015020
2	1	233 x 207 x 47.5	1.3	25301400015021
3.2	1	243 x 207 x 47.5	1.5	25301400015022
5	2	275 x 217 x 47.5	2.3	25301400015023
6.3	2	275 x 217 x 47.5	2.3	25301400015024
12.5	5	343 x 257 x 66.5	4.3	25301400015025
20	10	371 x 269 x 67	7.0	25301400015026

Item no.
25301810015072
25301810015072
25301810015074
25301810015074
25301810015076
25301810015076
25301810015080
25301810015082

For loads exceeding 20 tons please use dynamometers type LLXh.

# LOAD SUSPENSION EQUIPMENT

## Load Measuring Devices

### Digital Dynamometer Type LLXh

**Electronic dynamometer with detachable and network-capable remote control/display unit and USB port**

- High precision  $\pm 0.2\%$  of full scale
- LCD digit height 25 mm
- Shock and weather-proof: protected IP 65
- Remote shock and weather-proof: protected IP 54
- Safety factor 4
- Operating temperatures  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $+104^{\circ}\text{F}$ )
- Low energy consumption (1,000 hrs depending on application)
- Range of radio control up to 80 m
- Easy operation due to clear menu navigation
- Parallel anchorage points on a single level

#### Option:

- Also available with IP67 protection
- PC connection kit (see page 227)
- Remote for LLX2 and LLXh (see page 227)



Suitable bow shackles can be found on page 498



Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg	Item no. with remote	Item no. without remote
15	5	320 x 110 x 58	3.8	25301400015042	25301400015054
25	10	360 x 134 x 68	6.6	25301400015043	25301400015055
50	20	440 x 164 x 98	15.1	25301400015044	25301400015056
100	50	660 x 260 x 118	46.0	25301400015045	25301400015057
250	100	905 x 424 x 248	215.0	25301400015046	25301400015058

Item no.
25301810015081
25301810015082
25301810015085
25301810015176
25301810015182

### Digital Dynamometer Type LLX2

**Electronic dynamometer with detachable and network-capable remote control/display unit and USB port**

- High precision: 0.1% of full scale
- LCD digit height 25 mm
- Shock and weather-proof: protected IP66
- Remote shock and weather-proof: protected IP 54
- Safety factor 4
- Operating temperatures  $-20^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $+104^{\circ}\text{F}$ )
- Low energy consumption - up to 1,000 hrs
- Range of radio control up to 80 m
- Easy operation due to clear menu navigation
- Anchorage points on multiple levels, arranged in a cross formation

#### Option:

- Also available with IP67 protection
- PC connection kit (see page 227)
- Remote for LLX2 and LLXh (see page 227)
- Parallel (coplanar) anchorage points also possible



Suitable bow shackles can be found on page 498



Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg	Item no. with remote	Item no. without remote
0.5	0.1	248 x 100 x 100	2.3	25301400015035	25301400015047
1.0	0.2	248 x 100 x 100	2.3	25301400015036	25301400015048
2.0	0.5	248 x 100 x 100	2.3	25301400015037	25301400015049
3.2	0.5	248 x 100 x 100	2.3	25301400015038	25301400015050
5.0	1.0	290 x 100 x 100	3.4	25301400015039	25301400015051
6.3	1.0	290 x 100 x 100	3.4	25301400015040	25301400015052
10.0	2.0	341 x 100 x 100	6.5	25301400015041	25301400015053

Item no.
25301810015074
25301810015074
25301810015074
25301810015074
25301810015076
25301810015076
25301810015079



# LOAD SUSPENSION EQUIPMENT

## Load Measuring Devices, Accessories

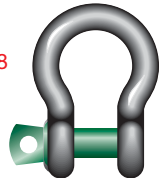
### Digital Dynamometer Type handifor

**Digital dynamometer used to measure forces and indicate loads in a miniature version**

- High precision  $\pm 0.5\%$  of full scale
- Digit height 14 mm
- Dynamometer, protected against foreign bodies: Protected IP 40
- Safety factor 4
- Operating temperatures  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $122^{\circ}\text{F}$ )
- Low energy consumption - up to 100 hrs with 1 set of batteries
- Units can be set to kg/lbs or daN
- Easy operation due to clear menu navigation
- Tare suppression for the full measuring range
- Automatic shutdown to save batteries



Suitable bow shackles can be found on page 498



Measuring range in kg	Min. value in kg	Dimensions L x W x D in mm	Weight in kg	Item no.
20	0.1	152 x 70 x 30	0.5	25301400015059
50	0.2	152 x 70 x 30	0.5	25301400015060
100	0.2	152 x 70 x 30	0.6	25301400015061
200	0.5	152 x 70 x 30	0.9	25301400015062

Item no.
25301810015072
25301810015072
25301810015072
25301810015072

### Remote Control for Dynamometer Type LLX1

**Detachable operating unit for remotely reading the measurements**

- Digit height: 25 mm
- Range: 40 m
- Remote shock and weather-proof: protected IP 54
- Display only for the dynamometer LLX1!



Measuring range in t	Dimension L x W x D in mm	Weight in kg	Item no.
0.5 - 20	131 x 26.7 x 82	0.2	25351500015011

### Remote Control for LLX2 & LLXh

**Detachable operating unit for remotely reading the measurements**

- Digit height: 25 mm
- Range: 80 m
- Remote shock and weather-proof: protected IP 54
- Display suitable for the dynamometers LLX2 and LLXh!
- Integrated alarm function on reaching a configurable measurement
- Suitable for the use of multiple dynamometers at the same time



Measuring range in t	Dimensions L x W x D in mm	Weight in kg	Item no.
0.5 - 250	131 x 26.7 x 82	0.2	25351500015012
Attachment set for the operating unit			25351500015013

### PC Connection-Kit

**The PC connection kit allows to record measuring results and process them on the PC.**

This software allows parallel display of the measuring results of up to 8 dynamometers. The results can be displayed as numerical values or diagrams. The values can also be saved in Excel format and printed as spreadsheets or diagrams.

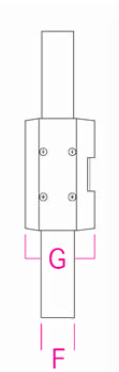
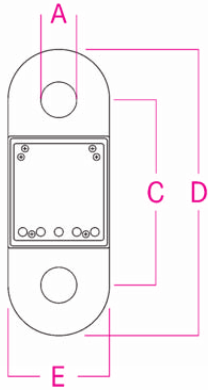
LOAD SUSPENSION EQUIPMENT

Hanging Scales, Crane Scales

Digital Crane Scale Type HFC

Electronic load measuring device for the measurement of tensile forces and for load indication with remote control

- Precision ± 0.2% of measured value
- Digit height 23 mm
- Load measuring device, shock- and splash-proof: protection class IP 54
- Temperature range is 5°C to + 35°C (41°F to 95°F);
- Low power consumption up to 40 operating hours with only one battery pack
- Possible settings of measuring units kg, lb or N
- Easy operation thanks to clearly structured menu navigation
- Tare suppression over the entire measuring range
- Data-hold function during scale stop
- Peak load display
- DAkkS calibration certificate available on request



Max. measuring range	Type	Readout in g	Dimensions in mm						Net weight in kg	Item no.
			A	C	D	E	F	G		
1500	HFC 1T-4	500	27	165	255	90	30	55	2.5	25301400015074
3000	HFC 3T-3	1000	27	165	255	90	30	61	4.4	25301400015075
5000	HFC 5T-3	2000	30	165	255	90	30	61	4.4	25301400015076
10000	HFC 10T-3	5000	40	185	275	90	40	71	5.5	25301400015077

Hydraulic Crane Scale Type WS-ZK

Robust, hydraulic industrial spring scale with large dial protected by shockproof Plexiglas.

- Accuracy: ± 1 % of full scale
- Long service life due to sturdy construction
- Dial and housing protected by Plexiglas and shock-absorbing edges
- Dustproof construction
- Accuracy 1% of result
- Low self weight
- With spring loaded safety device

- Option:
- Remote reading possible
  - Other measuring ranges available



Weighing range in kg	Scale divisions in kg	Overall length A in mm	Dead weight in kg	Item no.
0 - 1250	5	230	5.0	25301400015016
0 - 2000	10	230	5.0	25301400015017
0 - 5000	20	300	6.5	25301400015018

### Digital Crane Scale Type HTS, version suitable for calibration

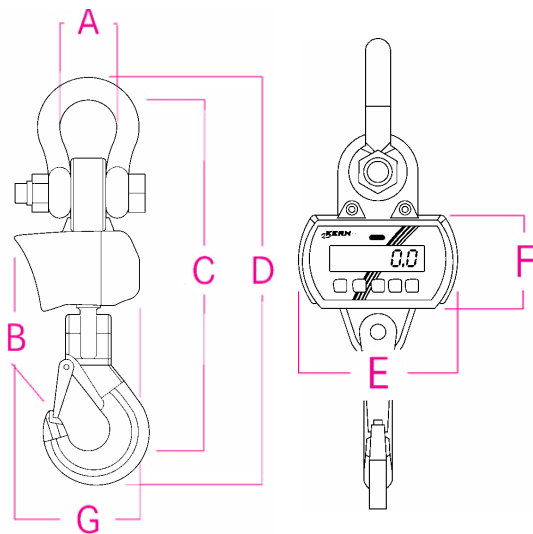
Professional scale for demanding applications in production, quality control, logistics etc.

Complies with the requirements of standards EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Safety requirements for electrical equipment)

- Precision 0.1% of full scale
- Digit height 25 mm
- Sturdy construction and robust design
- Large display
- Operating temperatures -20° C to + 40° C (-4°F to +104°F)
- Legibility can be adjusted to adapt the display to tougher ambient conditions
- Range of the infrared remote control: approx. 8 m.  
All functions can be selected. 9 V battery
- Infrared remote operation as standard. (WxDxH): 65x24x100
- Battery operation for up to 100 hours. Charging period: 12 hours via 230 V mains adapter
- Visual battery status indicator using LEDs
- Swivelling hook with safety latch
- Gross/tare/net indicator using LEDs
- Stand-by function: display switches off automatically after 5 minutes without a change to the load
- Tare range: 100% of the measured value
- Tare: Resets the display to „0“ while scale is loaded.  
Now removed or added loads will be displayed immediately.



Infrared remote operation



**Not suitable for transportation of loads!**

Max. measuring range	Type	Readout in g	Minimum value in in kg	Dimensions in mm							Net weight in kg	Item no.
				A	B	C	D	E	F	G		
1500	HTS 1T-4AM	500	10	33.3	29	314.6	359.3	200	121	181	20	25301400015063
3000	HTS 3T-3AM	1000	20	42.9	47	346.75	369.25	200	121	181	20	25301400015064
6000	HTS 6T-3AM	2000	40	58	55	440	518.6	200	121	181	20	25301400015065
10000	HTS 10T-3AM	5000	100	82.6	61	535.35	628.35	200	121	181	20	25301400015066



# LOAD SUSPENSION EQUIPMENT

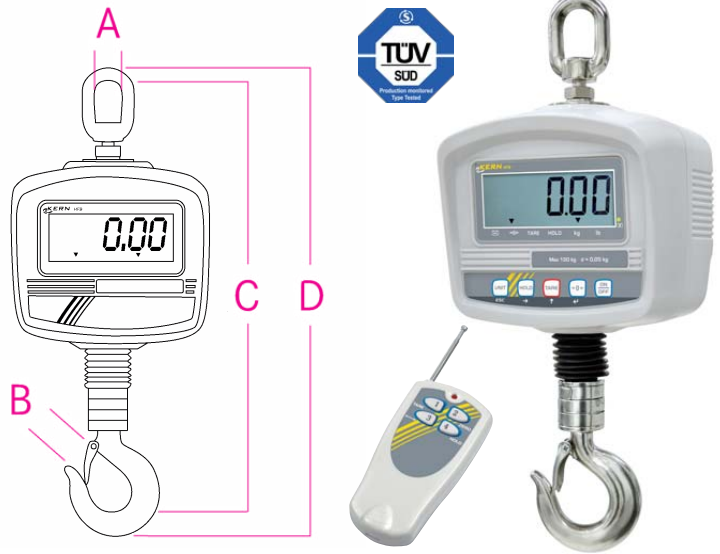
## Hanging Scales

### Digital Crane Scale Type HFB with Radio Remote Control and second rear-facing Display

Professional scale for demanding applications in production and for permanent use in industrial applications

Complies with the requirements of standards EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Safety requirements for electrical equipment)

- Precision 0.2% of full scale
- Digit height 25 mm
- Display size (WxDxH): 163x126x158.5
- Operating temperatures 0° C to + 40° C (32°F to 104°F)
- Range 20 m. All functions (except ON/OFF) can be selected.
- Large remote control unit (WxDxH): 48x10x95
- Battery operation for up to 40 h. Charging period: 14 h via 230 V mains adapter
- Visual battery status indicator using LEDs
- Swivelling hook with safety latch.
- Adjustment using adjustment program CAL
- Data-Hold mode. By pressing the HOLD key the last weighing result can be „frozen“ until it is pressed again.
- Tare: Resets the display to „0“ while scale is loaded. Now removed or added loads will be displayed immediately.



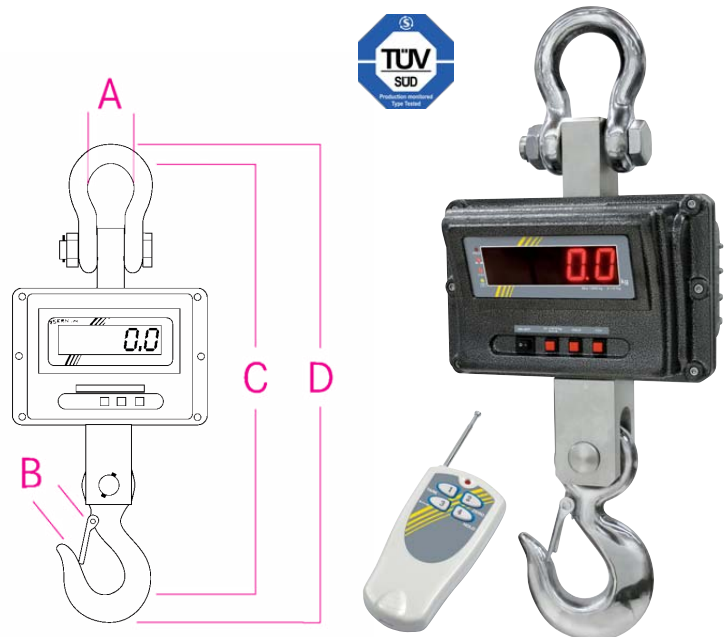
Max. weighing range in kg	Type	Readout in g	Housing dims. (W x D x H) in mm	Dimensions in mm				Net weight in kg	Item no.
				A	B	C	D		
150	HFB 150K50	50	163 x 126 x 158.5	26	25	358	390	3.2	25301400015071
300	HFB 300K100	100	163 x 126 x 158.5	26	25	358	390	3.2	25301400015072
600	HFB 600K200	200	163 x 126 x 158.5	26	25	358	390	3.2	25301400015073

### Digital Crane Scale Type HFM with Radio Remote Control

Professional scale for demanding applications in production and for permanent use in industrial applications

Complies with the requirements of standards EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Safety requirements for electrical equipment)

- Precision 0.2% of full scale
- Digit height 30 mm
- Display size (WxDxH): 163x126x158.5
- Operating temperatures 0° C to + 40° C (32°F to 104°F)
- Legibility can be adjusted to adapt the display to tougher ambient conditions
- Range 20 m. All functions (except ON/OFF) can be selected.
- Large remote control unit (WxDxH): 48x10x95
- Battery operation for up to 50 h. Charging period: 14 h via 230 V mains adapter
- Visual battery status indicator using LEDs
- Swivelling hook with safety latch.
- Adjustment using adjustment program CAL
- Data-hold function. The indicated weight can be "frozen" by pressing the HOLD key until this key is pressed again.
- Tare: Resets the display to "0" while scale is loaded. Now removed or added loads will be displayed immediately.



Max. weighing range in kg	Type	Readout in g	Housing dims. (W x D x H) in mm	Dimensions in mm				Net weight in kg	Item no.
				A	B	C	D		
1000	HFM 1T0.1	100	270 x 175 x 200	80	40	540	610	15.0	25301400015067
3000	HFM 3T0.5	500	270 x 175 x 200	75	50	540	610	16.5	25301400015068
5000	HFM 5T0.5	500	300 x 190 x 230	75	50	650	730	25.0	25301400015069
10000	HFM 10T1	1000	300 x 190 x 230	100	60	750	840	37.0	25301400015070

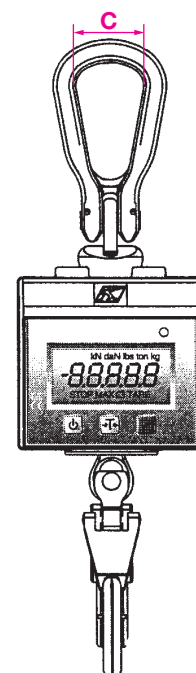
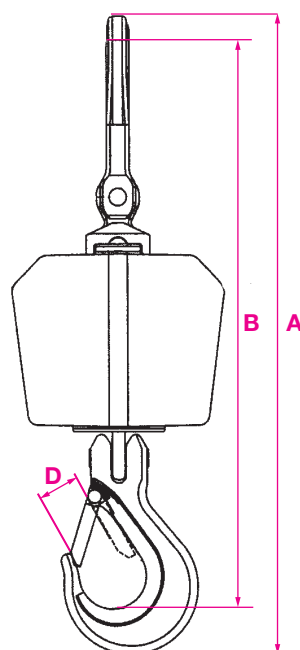
### Digital Crane Scale Type MWX++

The new generation of digital Carl Stahl crane scales with a measuring range up to 12.5 ton can be connected with any attachment point.

- Precision 0.1% of full scale
- Shock and weather-proof: protected IP65
- Scale with aluminium housing
- Safety factor 4
- Operating temperatures -10°C to +40°C (14°F to 104°F)
- Low energy consumption
- Operated by weather-proof plastic foil keypad located on the front side below the display
- Tare suppression over the whole measuring range
- Automatic zero when switched on
- Automatic shutdown to save batteries
- Made of aluminium

#### Option:

- PC connection kit (see page 227)



#### Type MWX++ including batteries

Max. measuring range in t	Minimum value in kg	Weighing unit dimensions (L x W x H) in mm	Digit height in mm	Dimensions in mm				Weight in kg	Item no.
				A	B	C	D		
0.5	0.2	136 x 160 x 126	25	470	423	50	30	4.3	25301400015092
1.0	0.5	136 x 160 x 126	25	470	423	50	30	4.3	25301400015093
2.0	1.0	136 x 160 x 126	25	470	423	50	30	4.3	25301400015094
3.2	1.0	136 x 160 x 126	25	470	423	50	30	4.3	25301400015095
5.0	2.0	206 x 203 x 167	44	694	620	85	41	9.0	25301400015096
6.3	2.0	206 x 203 x 167	44	694	620	85	41	9.0	25301400015097
12.5	5.0	206 x 203 x 167	44	913	800	98	63	20.5	25301400015098

#### Type MWX++IR with infrared remote control (Reach up to 10 m)

Max. measuring range in t	Minimum value in kg	Weighing unit dimensions (L x W x H) in mm	Digit height in mm	Dimensions in mm				Weight in kg	Item no.
				A	B	C	D		
0.5	0.2	136 x 160 x 126	25	470	423	50	30	4.3	25301400015078
1.0	0.5	136 x 160 x 126	25	470	423	50	30	4.3	25301400015079
2.0	1.0	136 x 160 x 126	25	470	423	50	30	4.3	25301400015080
3.2	1.0	136 x 160 x 126	25	470	423	50	30	4.3	25301400015081
5.0	2.0	206 x 203 x 167	44	694	620	85	41	9.0	25301400015082
6.3	2.0	206 x 203 x 167	44	694	620	85	41	9.0	25301400015083
12.5	5.0	206 x 203 x 167	44	913	800	98	63	20.5	25301400015084

#### Type MWX++TR with radio remote control (frequency 433.92 Mhz) (Reach up to 50 m)

Max. measuring range in t	Minimum value in kg	Weighing unit dimensions (L x W x H) in mm	Digit height in mm	Dimensions in mm				Weight in kg	Item no.
				A	B	C	D		
0.5	0.2	136 x 160 x 126	25	470	423	50	30	4.3	25301400015085
1.0	0.5	136 x 160 x 126	25	470	423	50	30	4.3	25301400015086
2.0	1.0	136 x 160 x 126	25	470	423	50	30	4.3	25301400015087
3.2	1.0	136 x 160 x 126	25	470	423	50	30	4.3	25301400015088
5.0	2.0	206 x 203 x 167	44	694	620	85	41	9.0	25301400015089
6.3	2.0	206 x 203 x 167	44	694	620	85	41	9.0	25301400015090
12.5	5.0	206 x 203 x 167	44	913	800	98	63	20.5	25301400015091

# LOAD SUSPENSION EQUIPMENT

## Hanging Scales

### Digital Crane Scale Type LD and LDN

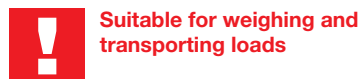
#### Digital crane scale for use in industrial applications

- 3 years warranty on accuracy and function of load cell
- Precision: 0.03 % of full scale
- Measuring principle: DMS load cell
- Digit height: 42 mm
- Digital display: LED 7-segment/1 indication per second
- Operating temperature: -30° C to + 80° C (-22°F to +176°F)
- Remote shock and weather-proof: protected IP 54
- Power supply: 6 V maintenance-free rechargeable battery
- Operating time at least 120 hrs
- Rapid display stabilisation through integrated measurement method

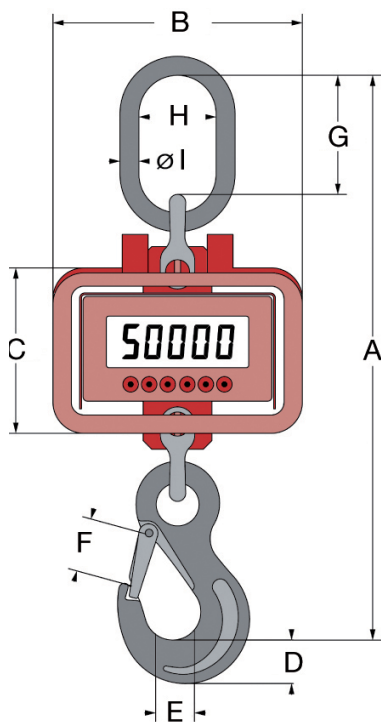
- Safety factor 5:1 (mechanical safety of all parts under tensile stress)
- Optical overload indicator
- Protective cage included ( $\geq 5$  ton)
- Calibrated commercial balance LDN class III with EC approval acc. to PTB-OIML R 76, up to 2,500 divisions
- In house calibration facility

#### Option:

- Radio data transmission to various receiving units



**Suitable for weighing and transporting loads**



LD/LDN



LD 50



Weighing range in kg	Increments in kg		Weight in kg	LD		Item no.	
	LD	LDN		Type	Item no.	Type	Item no.
0 - 500	0.1	0.2	12.0	LD 0.5	25301400015099	LDN 0.5	25301400015107
0 - 1000	0.2	0.5	12.0	LD 1	25301400015100	LDN 1	25301400015108
0 - 2000	0.5	1.0	12.0	LD 2	25301400015101	LDN 2	25301400015109
0 - 5000	1.0	2.0	18.0	LD 5	25301400015102	LDN 5	25301400015110
0 - 10000	2.0	5.0	35.0	LD 10	25301400015103	LDN 10	25301400015111
0 - 20000	10.0	10.0	50.5	LD 20	25301400015104	LDN 20	25301400015112
0 - 30000	10.0	20.0	94.0	LD 30	25301400015105	LDN 30	25301400015113
0 - 50000	20.0	20.0	182.0*	LD 50	25301400015106	-	-
0 - 50000	20.0	20.0	229.0	LD 50H**	25301400035116	-	-

\*Weight varies depending on the design

\*\* Version with single hook

Type	A	B	C	D	E	F	G	H	I
LD/LDN 0.5 - 2	484	228	135	35	27	31	97	60	16
LD/LDN 5	654	290	195	51	40	43	138	90	22
LD/LDN 10	798	290	195	58	48	53	170	110	32
LD/LDN 20	1089	290	195	82	60	73	225	140	36
LD/LDN 30	1347	290	195	83	80	95	303	190	50
LD 50	1623	290	195	116	89	124	375	240	63



### Digital Crane Scale Type LK and LKe

#### Digital crane scale for tough, industrial conditions

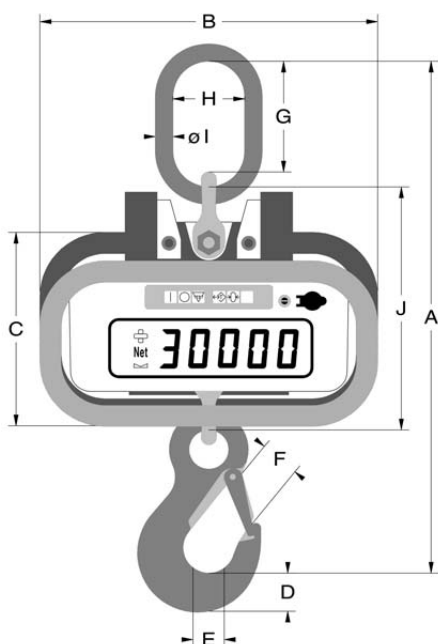
- 3 years warranty on accuracy and function of load cell
- Precision: 0.03 % of full scale
- Measuring principle: DMS load cell
- Digit height: 50 mm, red
- Digital display: LED 7-segment/1 indication per second
- Operating temperature: -30° C to +90° C (-22°F to +194°F)
- Remote shock and weather-proof: protected IP 54
- Power supply: 12 V maintenance-free rechargeable battery
- Operating time at least 120 hrs
- Rapid display stabilisation through integrated measurement method
- Auto shut-down

- Safety factor 5:1 (mechanical safety of all parts under tensile stress)
- Optical overload indicator
- Cast aluminium housing with impact guard
- Calibrated commercial balance LKe class III with EC approval acc. to PTB-OIML R 76, up to 3,000 divisions
- In house calibration facility

#### Option:

- Radio data transmission to various receiving units

**! Suitable for weighing and transporting loads**



LK/LKe



LK 100



Weighing range in kg	Increments in kg		Weight in kg	Standard version		Calibratable version	
	LK	LKe		Type	Item no.	Type	Item no.
0 - 1000	0.2	0.5	50.0	LK 1	25301400015114	LKe 1	25301400015121
0 - 2000	0.5	1.0	50.0	LK 2	25301400015115	LKe 2	25301400015122
0 - 5000	1.0	2.0	50.0	LK 5	25301400015116	LKe 5	25301400015123
0 - 10000	2.0	5.0	64.0	LK 10	25301400015117	LKe 10	25301400015124
0 - 20000	5.0	10.0	77.0	LK 20	25301400015118	LKe 20	25301400015125
0 - 30000	10.0	20.0	123.0	LK 30	25301400015119	LKe 30	25301400015126
0 - 100000	20.0	-	295.0*	LK 100	25301400015120	-	-

\*Weight varies depending on the design

Type	A	B	C	D	E	F	G	H	I	J
LK/LKe 1 - 5	652	424	246	51	40	45	138	90	22	309
LK/LKe 10	783	424	246	58	48	54	170	110	32	378
LK/LKe 20	1089	424	246	82	60	73	225	140	36	538
LK/LKe 30	1347	424	246	83	80	95	305	190	50	497
LK 100	-	424	246	-	-	-	-	-	-	1261



# SLINGS



Chain Slings

Chain Slings Grade 8 | Chain Slings Grade 10 | Chain Slings Grade 12

Accessories for Skip Bin Transport | Accessories for Container Transport | Bulk Sling Chain

Accessories for Chain Slings | Special Hooks | Isolating Connectors





Textile/Woven Wire Slings

Roundslings + Accessories | Webbing Slings + Accessories | Woven Wire Rope Slings

Edge Protectors | Fibre Ropes

Steel Wire Rope Slings

Wire Rope Slings 1-leg | Wire Rope Slings 2-, 4-leg | Wire Rope as Piece Goods

Wire Rope Slings, endless | Edge Protectors | Accessories



## RUD Chain Slings in Comparison



Load capacities of 1- and multiple leg chain slings at different inclination angles and with all legs symmetrically loaded (in kg)



Inclination angle $\beta$		0	0-45°	45-60°	0-45°	45-60°
Load factor		1	1.4	1.0	2.1	1.5
Nom. chain size	Grade	WLL in kg	WLL in kg	WLL in kg	WLL in kg	WLL in kg
4	VIP-10	630	880	630	1320	950
4	ICE-12	800	1120	800	1700	1180
6	GK-8	1120	1600	1120	2360	1700
6	VIP-10	1500	2100	1500	3150	2250
6	ICE-12	1800	2500	1800	3750	2700
8	GK-8	2000	2800	2000	4250	3000
8	VIP-10	2500	3500	2500	5250	3750
8	ICE-12	3000	4250	3000	6300	4500
10	GK-8	3150	4250	3150	6700	4750
10	VIP-10	4000	5600	4000	8400	6000
10	ICE-12	5000	7100	5000	10600	7500
13	GK-8	5300	7500	5300	11200	8000
13	VIP-10	6700	9500	6700	14000	10000
13	ICE-12	8000	11200	8000	17000	11800
16	GK-8	8000	11200	8000	17000	11800
16	VIP-10	10000	14000	10000	21000	15000
16	ICE-12	12500	17000	12500	26500	19000
18	GK-8	10000	14000	10000	21200	15000
20	VIP-10	16000	22400	16000	33600	24000
22	GK-8	15000	21200	15000	31500	22400
22	VIP-10	20000	28000	20000	42000	30000
26	GK-8	21200	30000	21200	45000	31500
28	VIP-10	31500	45000	31500	67000*	47500*
32	GK-8	31500	45000	31500	67000	47500

According to BGR 500/DGUV rule 100-500 section. 2.8:

- The 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling
- Choker hitch will reduce the capacity by 20%

\* Chain slings VIP-10, ND 28 = Load capacity (WLL) when using two 2-leg chain slings

If chain slings are used above temperatures of 200°C (392°F) the load capacity has to be reduced. Load capacities in % at a chain temperature of:



-60 to +200° C	over 200 to 250° C	over 250 to 300° C
100 %	90 %	60 %
-40 to +200° C	over 200 to 300° C	over 300 to 380° C
100 %	90 %	60 %
-40 to +200° C	over 200 to 300° C	over 300 to 400° C
100 %	90 %	75 %

ICE  
120



I = Innovative  
C = Chain  
E = Evolution

## The Best in Chain Technology

Because you can't afford to buy „cheap“

Thanks to the outstanding rigidity of the ICE material, the nominal thickness could be consistently increased compared to that of grade 8 chains even with thinner dimensions  $\leq$  NT 16 mm, i.e. when lifting or lashing, an ICE chain sling or lashing chain of any nominal thickness is able to replace a grade 8 chain of the **next nominal thickness up**.

Nominal chain size in mm	WLL-Load capacity kg	
	Grade 8	Grade 12 ICE
6	1120	1800
8	2000	3000
10	3150	5000
13	5300	8000
16	8000	12500
20	12500	-

## Easier handling due to 30% weight reduction

Your advantage

Weight reduction...  
... of over 30 %



ICE offers the following advantages compared to a grade 8 chain of the same load capacity:

- Easier handling due to 30% weight reduction
- Up to 60% higher breaking load/load capacity
- Cheaper than a comparable grade 8 RUD chain sling
- Temperature resistant from -60°C to +300°C (-76°F to 572°F)
- Considerably enhanced durability and impact resistance >55 J at -60°C (-76°F)
- Longer service life due to higher resistance against square edges (30% higher surface hardness than grade 8: 460 HV)
- 3-times lower wear of the ICE chain in blasting systems compared to grade 8

RUD -

ICE  
120



RUD - Gr. 8  
DIN EN 818-4



Comparison chain sling with  
hook ICE 120 to Grade 8  
length = 3000

Load capacity	8 t	8 t
Nominal chain size	13 mm	16 mm
Components	IAK-RG-13 IMVK-13 ICE chain (13 x 39) / length 3 m ICE-STAR hook ND 13	AK 1-16 BSEK Chain GK 8 (16 x 48) / length 3 m GSH hook GK 8 ND 16
Weight	20.5 kg = 100 %	27 kg = 130 %



RUD ICE chains and components are suitable for a dynamic load of 20,000 duty cycles at 50% overload according to DIN EN 818 and 1677.

The German BG stipulates: Under high dynamic loads with a high number of duty cycles (non-stop operation) the load strain has to be reduced according to group 1Bm (M3 acc. DIN EN 818-7), e.g. by using a bigger chain diameter.

### The modular ICE system Grade 12

#### ICE Master Links



- ICE master links have a welded-on ring fork that is movable from all sides
- This enables the unmistakable connection to the chain diameter and number of legs.
- The master link is supplemented by an identification tag with an integrated chain testing gauge.

#### ICE Shortening Elements



ICE Shortening Hook IVH



ICE Multi-shortening Claw IMVK



ICE Balancer IW

#### ICE>mini

The smallest Ø 4 mm round steel chain in grade 12

#### Terminations



ICE Automatic Clevis Hook IAGH



ICE Star-Hook (safety clevis hook)



ICE Foundry Hook IWH



ICE Connecting Link for skip bins IMEG



ICE Automatic Clevis Hook for skip bins IMAGH



ICE H-Connector IH

#### Various components



ICE CURT GAKO Ratchet tensioner



ICE CURT-K GAKO Lever tensioner



ICE Endless Chain with H-Connector



ICE Chain Connector

### ICE chain slings offer the following load capacities:

	1-leg	2-leg		3- and 4-leg		endless
Nominal chain size of chain sling in mm						
Inclination angle $\beta$	0°	0-45°	>45-60°	0-45°	>45-60°	-
Load factor	1	1.4	1	2.1	1.5	1.6
Ø 4	0.8	1.12	0.8	1.7	1.18	1.28
Ø 6	1.8	2.5	1.8	3.75	2.7	2.88
Ø 8	3.0	4.25	3.0	6.3	4.5	4.8
Ø 10	5.0	7.1	5.0	10.6	7.5	8.0
Ø 13	8.0	11.2	8.0	17.0	11.8	12.8
Ø 16	12.5	17.0	12.5	26.5	19.0	20.0



Acc. to BGR 500/DGUV rule 100-500 section 2.8, the 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling.

For lower or higher load capacities up to 126 tons please choose the suitable chain

	Endless chain				Choker hitch			
	single	double	single	double				
Inclination angle $\beta$	0-45°	>45-60°	0-45°	>45-60°	0°	0-45°	>45-60°	
Load factor	1.1	0.8	1.7	1.2	0.8	1.1	0.8	
Ø 4	0.88	0.64	1.36	0.96	0.64	0.88	0.64	
Ø 6	2.0	1.44	3.1	2.1	1.44	2.0	1.44	
Ø 8	3.3	2.4	5.1	3.6	2.4	3.3	2.4	
Ø 10	5.5	4.0	8.5	6.0	4.0	5.5	4.0	
Ø 13	8.8	6.4	13.6	9.6	6.4	8.8	6.4	
Ø 16	14.0	10.0	21.2	15.0	10.0	14.0	10.0	



Acc. to BGR 500/DGUV rule 100-500 section 2.8, the 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling.

#### Load capacities at a chain temperature of:

If chain slings are used above temperatures of 200°C (392°F) the load capacity has to be reduced.

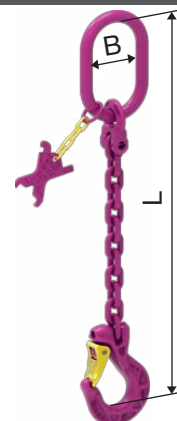
#### Load capacities in % at a chain temperature of:

-60 to +200° C	over 200 to 250° C	over 250 to 300° C
100 %	90 %	60 %



**ICE 1-leg Chain Sling, with preassembled Clevis Ring, without shortener, with ICE-Star-Hook**

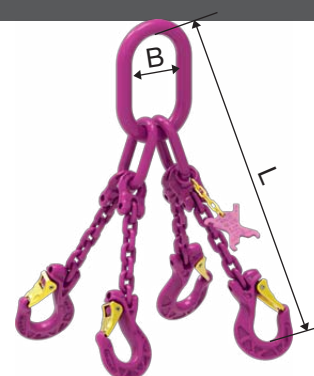
Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.8	60	25101000015700
8	3.0	75	25101000015718
10	5.0	90	25101000015737
13	8.0	100	25101000015756
16	12.5	140	25101000015774


**ICE 2-leg Chain Sling, with preassembled Clevis Rings, without shorteners, with ICE-Star-Hooks**

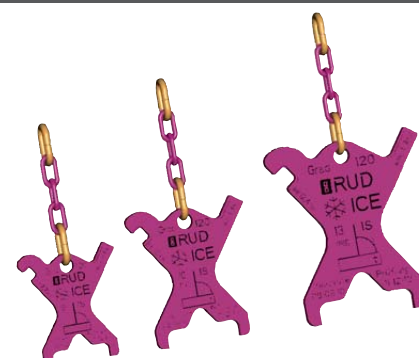
Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0 - 45°	45 - 60°		
6	2.5	1.8	75	25101000015706
8	4.25	3.0	90	25101000015724
10	7.1	5.0	100	25101000015743
13	11.2	8.0	110	25101000015762
16	17.0	12.5	180	25101000015780


**ICE 4-leg Chain Sling, with preassembled Clevis Rings, without shorteners, with ICE-Star-Hooks**

Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0 - 45°	45 - 60°		
6	3.75	2.7	90	25101000015712
8	6.3	4.5	100	25101000015731
10	10.6	7.5	110	25101000015750
13	17.0	11.8	140	25101000015768
16	26.5	19.0	190	25101000015786


**ICE Identification Tag with integrated Chain Gauge (without WLL marking) suitable for all ICE-Chain Slings**

Nominal chain size in mm	Bezeichnung	Configuration Number
6	IKZA-6	55101500015013
8	IKZA-8	55101500015014
10	IKZA-10	55101500015015
13	IKZA-13	55101500015016
16	IKZA-16	55101500015017

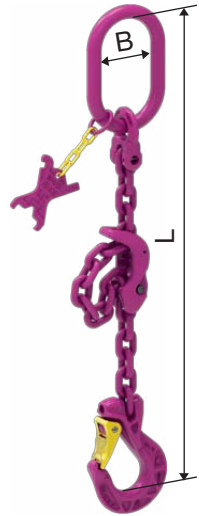


3-leg chain slings and endless chains are available at short notice!

Chain slings ICE-Mini ND 4 mm see page 250 et seq.

### ICE 1-leg Chain Sling, with preassembled Clevis Ring, with shortener, with Multi Shortening Claw IMVK and ICE-Star-Hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.8	60	25101000015792
8	3.0	75	25101000015828
10	5.0	90	25101000015864
13	8.0	100	25101000015900
16	12.5	140	25101000015936



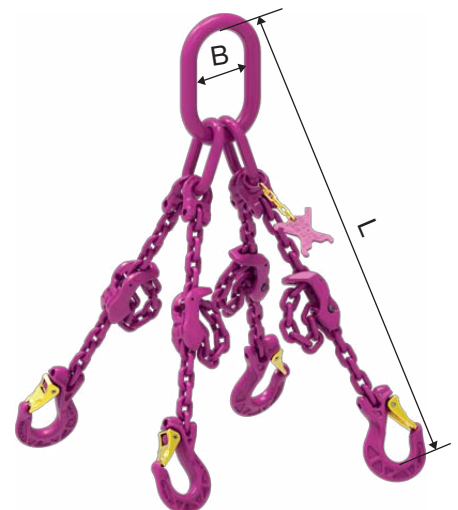
### ICE 2-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Multi Shortening Claws IMVK and ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.5	1.8	75	25101000015804
8	4.25	3.0	90	25101000015840
10	7.1	5.0	100	25101000015876
13	11.2	8.0	110	25101000015912
16	17.0	12.5	180	25101000015948



### ICE 4-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Multi Shortening Claws IMVK and ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	3.75	2.7	90	25101000015816
8	6.3	4.5	100	25101000015852
10	10.6	7.5	110	25101000015888
13	17	11.8	140	25101000015924
16	26.5	19	190	25101000015960



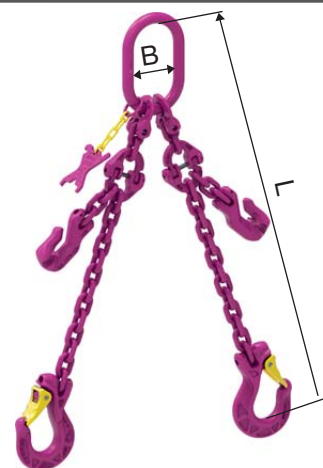
**!** 3-leg chain slings and endless chains are available at short notice!  
Chain slings ICE-Mini ND 4 mm see page 250 et seq.

**ICE 1-leg Chain Sling, with preassembled Clevis Ring, with shortener, with Shortening Hook IVH and ICE-Star-Hook**

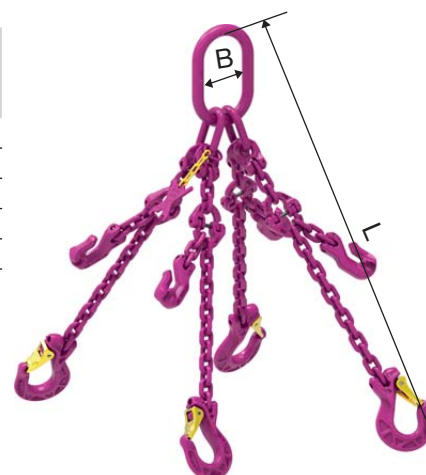
Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.8	60	25101000015798
8	3.0	75	25101000015834
10	5.0	90	25101000015870
13	8.0	100	25101000015906
16	12.5	140	25101000015942


**ICE 2-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Shortening Hooks IVH and ICE-Star-Hooks**

Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0 - 45°	45 - 60°		
6	2.5	1.8	75	25101000015810
8	4.25	3.0	90	25101000015846
10	7.1	5.0	100	25101000015882
13	11.2	8.0	110	25101000015918
16	17	12.5	180	25101000015954


**ICE 4-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Shortening Hooks IVH and ICE-Star-Hooks**

Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0 - 45°	45 - 60°		
6	3.75	2.7	90	25101000015822
8	6.3	4.5	100	25101000015858
10	10.6	7.5	110	25101000015894
13	17	11.8	140	25101000015930
16	26.5	19	190	25101000015966



3-leg chain slings and endless chains are available at short notice!

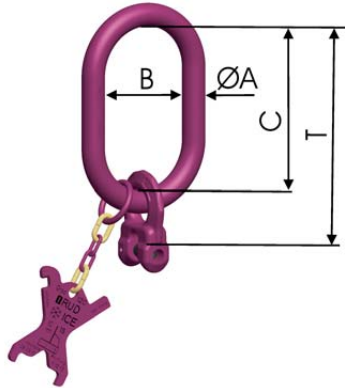
Chain slings ICE-Mini ND 4 mm see page 250 et seq.



### IAK-RG Master Links: useable for crane hook size acc. to DIN 15401

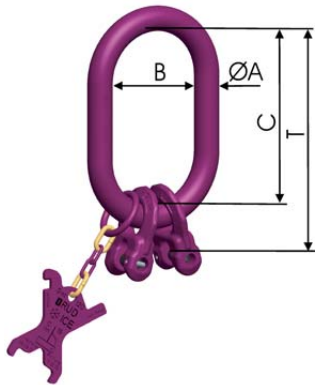
Size	6	8	10	13	16
IAK-RG 1	No. 2.5	No. 5	No. 6	No. 8	No. 16
IAK-RG 2	No. 5	No. 6	No. 8	No. 10	No. 25
IAK-RG 3/4	No. 6	No. 8	No. 10	No. 16	No. 32

### ICE Master Link 1-leg IAK-RG-1, with preassembled Clevis Ring, for Standard Crane Hooks



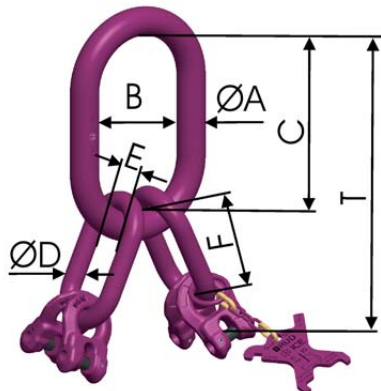
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
6	1.8	IAK-RG-1-6	13	60	110	144	0.57	25202000015081
8	3.0	IAK-RG-1-8	18	75	135	178	1.23	25202000015082
10	5.0	IAK-RG-1-10	22	90	160	213	2.19	25202000015083
13	8.0	IAK-RG-1-13	26	100	180	247	3.58	25202000015084
16	12.5	IAK-RG-1-16	32	140	260	343	7.20	25202000015085

### ICE Master Link 2-leg IAK-RG-2, with preassembled Clevis Ring, for Standard Crane Hooks



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45 - 60°		A	B	C	T		
6	2.5	1.8	IAK-RG-2-6	16	75	135	171	1.0	25202000015124
8	4.25	3.0	IAK-RG-2-8	22	90	160	203	2.1	25202000015125
10	7.1	5.0	IAK-RG-2-10	26	100	180	233	3.5	25202000015126
13	11.2	8.0	IAK-RG-2-13	32	110	200	267	6.7	25202000015127
16	17	12.5	IAK-RG-2-16	36	180	340	423	13.0	25202000015128

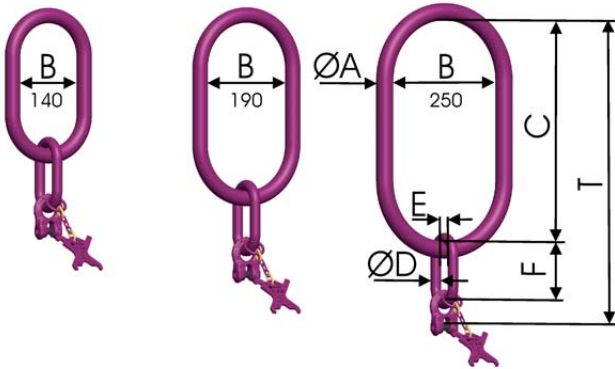
### ICE Master Link 4-leg IAK-RG-4, with preassembled Clevis Ring, for Standard Crane Hooks



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no.
	0-45°	45 - 60°		A	B	C	D	E	F	T		
6	3.75	2.7	IAK-RG-4-6	18	90	160	13	34	70	265	2.04	25202000015173
8	6.3	4.5	IAK-RG-4-8	26	100	180	18	40	85	309	4.59	25202000015175
10	10.6	7.5	IAK-RG-4-10	32	110	200	22	50	115	369	8.37	25202000015177
13	17.0	11.8	IAK-RG-4-13	36	140	260	26	65	140	467	14.44	25202000015179
16	26.5	19	IAK-RG-4-16	46	190	350	32	75	170	603	28.87	25202000015181

**ISAK-RG-Special Master Links:  
useable for crane hook size acc. to DIN 15401**

ISAK-RG Dim. B = 140	No. 16
ISAK-RG Dim. B = 190	No. 32
ISAK-RG Dim. B = 250	No. 50

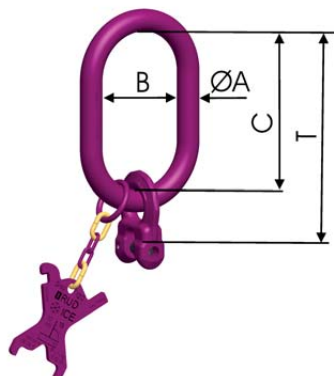
**ICE Special Master Link 1-leg ISAK-RG-1/140, 1/190, 1-250  
with preassembled Clevis Ring**


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-1/140
			A	B	C	D	E	F	T		
6	1.8	ISAK-RG-1-6/140	18	<b>140</b>	260	13	34	70	365	2.29	25202000015086
8	3.0	ISAK-RG-1-8/140	22	<b>140</b>	260	18	40	85	389	3.94	25202000015087
10	5.0	ISAK-RG-1-10/140	26	<b>140</b>	260	22	50	115	429	6.34	25202000015088
13	8.0	ISAK-RG-1-13/140	32	<b>140</b>	260	26	65	140	467	9.44	25202000015089

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-1/190
			A	B	C	D	E	F	T		
6	1.8	ISAK-RG-1-6/190	22	<b>190</b>	350	13	34	70	455	3.82	25202000015095
8	3.0	ISAK-RG-1-8/190	26	<b>190</b>	350	18	40	85	479	6.03	25202000015096
10	5.0	ISAK-RG-1-10/190	32	<b>190</b>	350	22	50	115	519	10.02	25202000015097
13	8.0	ISAK-RG-1-13/190	36	<b>190</b>	350	26	65	140	557	13.90	25202000015098

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-1/250
			A	B	C	D	E	F	T		
8	3.0	ISAK-RG-1-8/250	36	<b>250</b>	460	18	40	85	589	12.86	25202000015103
10	5.0	ISAK-RG-1-10/250	36	<b>250</b>	460	22	50	115	629	14.32	25202000015104
13	8.0	ISAK-RG-1-13/250	36	<b>250</b>	460	26	65	140	667	16.33	25202000015105
16	12.5	ISAK-RG-1-16/250	40	<b>250</b>	460	32	75	170	713	23.14	25202000015106

**ICE Master Link 1-leg IBK-RG-1,  
with preassembled Clevis Ring, for smaller Crane Hooks**

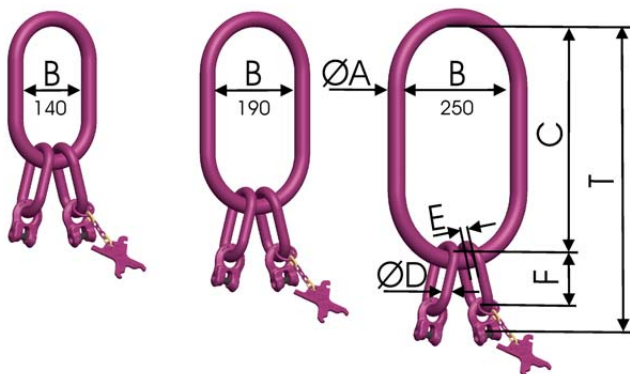


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
6	1.8	IBK-RG-1-6	13	34	70	105	0.43	25202000015061
8	3.0	IBK-RG-1-8	16	40	85	129	0.92	25202000015062
10	5.0	IBK-RG-1-10	22	50	115	169	1.76	25202000015063
13	8.0	IBK-RG-1-13	26	65	140	207	3.0	25202000015064
16	12.5	IBK-RG-1-16	32	75	170	253	5.5	25202000015065

**ICE Special Master Link 2-leg ISAK-RG-2/140, 2/190, 2/250  
with preassembled Clevis Ring**

**ISAK-RG Special Master Links:  
useable for crane hook size acc. to DIN 15401**

ISAK-RG Dim. B = 140	No. 16
ISAK-RG Dim. B = 190	No. 32
ISAK-RG Dim. B = 250	No. 50



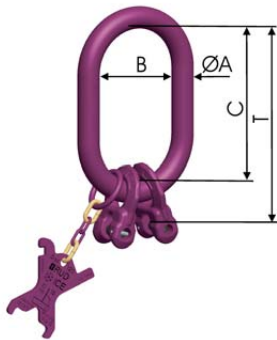
Nominal chain size in mm	Load cap. in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-2/140
	0-45°	45 - 60°		A	B	C	D	E	F	T		
6	2.5	1.8	ISAK-RG-2-6/140	18	140	260	13	34	70	365	2.36	25202000015129
8	4.25	3.0	ISAK-RG-2-8/140	22	140	260	18	40	85	389	4.03	25202000015130
10	7.1	5.0	ISAK-RG-2-10/140	26	140	260	22	50	115	429	6.63	25202000015131
13	11.2	8.0	ISAK-RG-2-13/140	32	140	260	26	65	140	467	10.47	25202000015132

Nominal chain size in mm	Load cap. in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-2/190
	0-45°	45 - 60°		A	B	C	D	E	F	T		
6	2.5	1.8	ISAK-RG-2-6/190	22	190	350	13	34	70	455	3.89	25202000015138
8	4.25	3.0	ISAK-RG-2-8/190	26	190	350	18	40	85	479	6.13	25202000015139
10	7.1	5.0	ISAK-RG-2-10/190	32	190	350	22	50	115	519	10.30	25202000015140
13	11.2	8.0	ISAK-RG-2-13/190	36	190	350	26	65	140	557	14.93	25202000015141

Nominal chain size in mm	Load cap. in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-2/250
	0-45°	45 - 60°		A	B	C	D	E	F	T		
8	4.25	3.0	ISAK-RG-2-8/250	36	250	460	18	40	85	589	12.95	25202000015146
10	7.1	5.0	ISAK-RG-2-10/250	36	250	460	22	50	115	629	14.61	25202000015147
13	11.2	8.0	ISAK-RG-2-13/250	36	250	460	26	65	140	667	17.37	25202000015148
16	17	12.5	ISAK-RG-2-16/250	40	250	460	32	75	170	713	25.16	25202000015149



### ICE Master Link 2-leg IBK-RG-2 with preassembled Clevis Ring, for smaller Crane Hooks

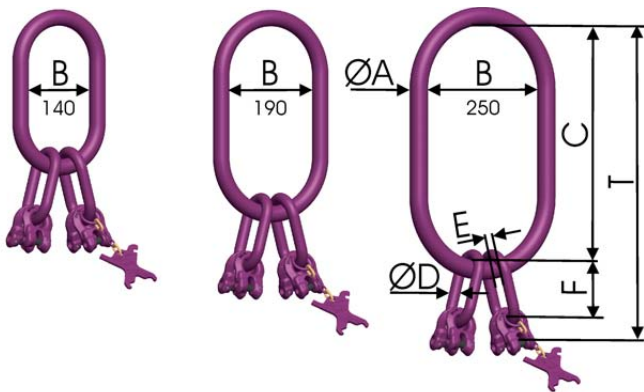


Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45 - 60°		A	B	C	T		
6	2.5	1.8	IBK-RG-2-6	13.5	<b>34</b>	70	105	0.68	25202000015112
8	4.25	3.0	IBK-RG-2-8	18	<b>40</b>	85	129	1.56	25202000015113
10	7.1	5.0	IBK-RG-2-10	22	<b>50</b>	115	169	2.14	25202000015114
13	11.2	8.0	IBK-RG-2-13	26	<b>65</b>	140	207	5.1	25202000015115
16	17	12.5	IBK-RG-2-16	32	<b>75</b>	170	253	9.05	25202000015116

### ICE Special Master Link 4-leg ISAK-RG-4/140, 4/190, 4/250 with preassembled Clevis Ring

#### ISAK-RG Special Master Links: useable for crane hook size acc. to DIN 15401

ISAK-RG Dim. B = 140	No. 16
ISAK-RG Dim. B = 190	No. 32
ISAK-RG Dim. B = 250	No. 50



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-4/140
	0-45°	45 - 60°		A	B	C	D	E	F	T		
6	3.75	2.7	ISAK-RG-4-6/140	22	<b>140</b>	260	13	34	70	365	3.24	25202000015183
8	6.3	4.5	ISAK-RG-4-8/140	26	<b>140</b>	260	18	40	85	389	5.47	25202000015185
10	10.6	7.5	ISAK-RG-4-10/140	32	<b>140</b>	260	22	50	115	429	9.70	25202000015187

Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-4/190
	0-45°	45 - 60°		A	B	C	D	E	F	T		
6	3.75	2.7	ISAK-RG-4-6/190	26	<b>190</b>	350	13	34	70	455	5.34	25202000015195
8	6.3	4.5	ISAK-RG-4-8/190	32	<b>190</b>	350	18	40	85	479	9.14	25202000015197
10	10.6	7.5	ISAK-RG-4-10/190	36	<b>190</b>	350	22	50	115	519	13.16	25202000015199
13	17.0	11.8	ISAK-RG-4-13/190	40	<b>190</b>	350	26	65	140	557	19.14	25202000015201

Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no. ISAK-4/250
	0-45°	45 - 60°		A	B	C	D	E	F	T		
8	6.3	4.5	ISAK-RG-4-8/250	36	<b>250</b>	460	18	40	85	589	13.45	25202000015211
10	10.6	7.5	ISAK-RG-4-10/250	36	<b>250</b>	460	22	50	115	629	15.60	25202000015213
13	17.0	11.8	ISAK-RG-4-13/250	40	<b>250</b>	460	26	65	140	667	22.12	25202000015215
16	26.5	19	ISAK-RG-4-16/250	47	<b>250</b>	460	32	75	170	713	32.98	25202000015217

### ICE-CURT-K-GAKO Ratchet Tensioner for Lifting and Length Adjustment

- Easy to use tensioner
- Patented and practical unscrewing protection
- Magnetic adherent locking device that can also serve as theft protection
- Innovative design - lightweight and strong
- Easy cleaning and lubricating

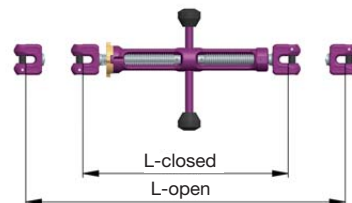


**Can also be used for cargo lashing, see page 646.**

**Must only be adjusted when not subject to a load.**



Example of an ICE chain sling with tensioner CURT-K-GAKO



Locking device disengaged



Locking device engaged and protected against theft

**Due to the enhanced handling properties (smaller turning circle), we recommend using the ICE-CURT-K-GAKO lever tensioner for length adjustments while lifting.**

Nominal chain size in mm	Lifting WLL in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			L-open	L-closed	Adjustment range		
6	1.8	ICE-CURT-K-6-GAKO	400	260	140	1.8	40154000015016
8	3.0	ICE-CURT-K-8-GAKO	520	350	170	3.2	40154000015017
10	5.0	ICE-CURT-K-10-GAKO	532	362	170	3.6	40154000015018
13	8.0	ICE-CURT-K-13-GAKO	830	530	300	6.9	40154000015019
16	12.5	ICE-CURT-K-16-GAKO	962	612	350	12.2	40154000015020

### ICE-CURT-GAKO Ratchet Tensioner for Lifting and Length Adjustment

- Easy to use tensioner
- Patented and practical unscrewing protection
- Magnetic adherent locking device that can also serve as theft protection
- Innovative design - lightweight and strong
- Easy cleaning and lubricating.

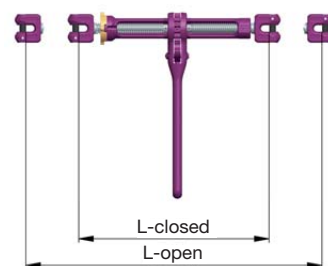


**Can also be used for cargo lashing, see page 646.**

**Must only be adjusted when not subject to a load.**



Example of an ICE chain sling with tensioner CURT GAKO



Locking device disengaged



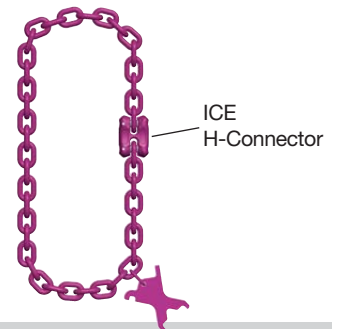
Locking device engaged and protected against theft

Nominal chain size in mm	Lifting WLL in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			L-open	L-closed	Adjustment range		
6	1.8	ICE-CURT-6-GAKO	400	260	140	1.5	40154000015011
8	3.0	ICE-CURT-8-GAKO	520	350	170	3.9	40154000015012
10	5.0	ICE-CURT-10-GAKO	532	362	170	4.3	40154000015013
13	8.0	ICE-CURT-13-GAKO	830	530	300	7.6	40154000015014
16	12.5	ICE-CURT-16-GAKO	962	612	350	13.0	40154000015015



**Length adjustment VLE for chain sizes 20, 22 and 28 see page 274**

## ICE endless Chain with H-Connector IKR-H



**Load capacity reduction of 20% due to sharp edges has already been considered.**

Nominal chain size in mm	Load capacity in t inclination angle		Endless chain in choker hitch Load capacity in t	Item no.
	0 - 45°	45 - 60°		
4	0.88	0.64	1.25	25101500035315
6	2.0	1.44	2.9	25101500015031
8	3.3	2.4	4.8	25101500015037
10	5.5	4.0	8.0	25101500015043
13	8.8	6.4	12.8	25101500015049
16	14.0	10.0	20.0	25101500015055

## ICE/VIP/GK8 H-Connector IH/VH

- Fast, easy and economic assembly of endless chains
- Pitch of H-Connector corresponds to pitch of chain
- Ergonomic shape
- Enhanced gliding over edges
- Highly flexible: Adapts to both, the shape of the chain and the load.



**Attention:**  
**Suitable for use with round steel chains DIN 818-2 in Gr. 8, VIP-Gr. 10 and ICE-Gr. 12**

Nominal chain size in mm	Load capacity Gr. 8 in t	Load capacity VIP in t	Load capacity ICE in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
					A	B	T		
4	0.5	0.63	0.8	IH-4	24	12	12	0.04	25202000035812
6	1.12	1.5	1.8	IH-6	34	19.6	18	0.11	25202000015376
8	2.0	2.5	3.0	IH-8	45	25.5	18	0.11	25202000015377
10	3.15	4.0	5.0	IH-10	56	31.5	30	0.55	25202000015378
13	5.3	6.7	8.0	IH-13	73	40	39	1.16	25202000015379
16	8.0	10.0	12.5	IH-16	89	49	48	2.16	25202000015380

## ICE Balancer 2-leg, complete IWK-2S

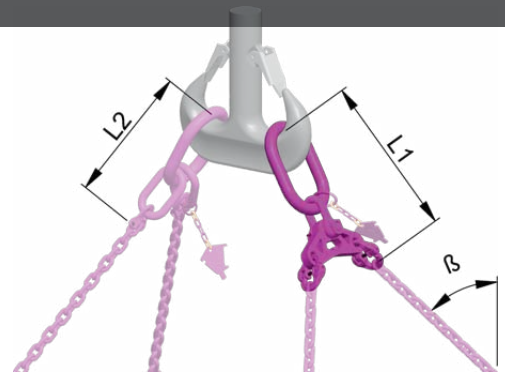
ICE-Balancer IWK-2S consists of:

- IA-Link with Identification tag
- VIP-Shackle
- ICE-Balancer
- 2 ICE-Connecting links



**Also with special master link (IW-SAK) for large crane hooks available.**

**During refitting or replacement please mind on correct performance of the Master Link!**



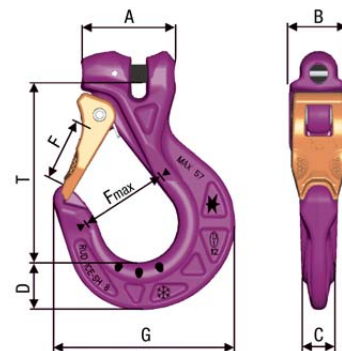
Nominal chain size in mm	WLL overall chain sling in t 2x2-leg β=0-45°	Designation Balancer IWK	Designation IAK 2-leg	Dimensions IAK link in mm	Division Balancer L1 in mm	Division VAK 2-leg L2 in mm	Weight Balancer in kg/pce
6	5.1	IWK-2S-6	IAK 2S-6	18x90x160	301	265	2.33
8	8.4	IWK-2S-8	IAK 2S-8	26x100x180	363	309	5.39
10	14.1	IWK-2S-10	IAK 2S-10	32x110x200	423	369	9.99
13	22.6	IWK-2S-13	IAK 2S-13	36x140x260	555	467	17.5
16	35.3	IWK-2S-16	IAK 2S-16	46x190x350	698	603	37.54



### ICE Safety Hook Star Hook ICE-SH

Up to 25% weight reduction compared to a grade 8 hook of the same capacity due to its groundbreaking skeletal design. The unmatched advantages of the VIP Cobra hook have been transferred and further enhanced. Mouth opening is the same like of the proven Granit super hook – of the next higher Nominal chain size.

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	F	F max.	G	T		
4	0.8	ICE-SH-4	22	15	13	14.5	20	-	53	55	0.16	25201500015166
6	1.8	ICE-SH-6	48	28	18	26	30	51	97	97	0.69	25201500015167
8	3.0	ICE-SH-8	45	36	20	29	36	58	112	110	1.1	25201500015168
10	5.0	ICE-SH-10	71	43	25	37	41	66	135	127	1.9	25201500015169
13	8.0	ICE-SH-13	85	52	31	48	50	80	163	153	3.5	25201500015170
16	12.5	ICE-SH-16	94	58	38	56	58	96	196	184	5.5	25201500015171

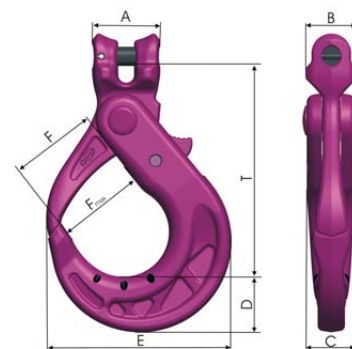


### ICE Self-locking Hook ICE-AGH

Up to 30% weight reduction compared to a grade 8 hook of the same capacity due to its skeletal design

- Wear ribs to protect the first chain link
- Thickened hook tip to prevent potentially dangerous and incorrect loading of the hook tip
- Marker points to check mouth opening
- Patented wear marks indicate the replacement state without measuring!
- Slip-proof operation of the safety button without risk of injury
- Big mouth opening corresponding to a grade 8 hook of the same capacity

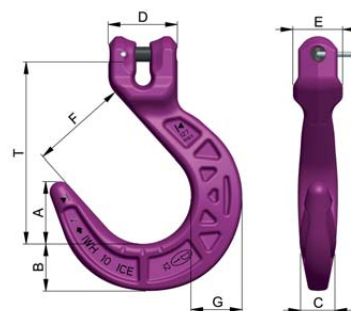
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	F max.	T		
6	1.8	ICE-AGH-6	34	24	27	28	97	44	60	113	0.9	25201500015181
8	3.0	ICE-AGH-8	45	31	30	31	106	48	66	124	1.3	25201500015182
10	5.0	ICE-AGH-10	50	38	36	40	136	61	81	154	2.4	25201500015183
13	8.0	ICE-AGH-13	73	50	44	51	173	78	107	201	4.9	25201500015184
16	12.5	ICE-AGH-16	90	61	49	53	192	85	121	232	7.4	25201500015185



### ICE Foundry Hook ICE-WH

- Weight optimised in Sceletto technology
- With unmistakable fork head connector
- Robust cross-section (dimensions C and G) protects against higher bending forces
- Protection and wear edges (dimension E)
- Patented wear marks in the base of the hook
- Only use in areas where accidental detachment is not possible (risk assessment)!

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	T		
6	1.8	ICE-WH-6	41	31	24	42	29	64	32	121	1.03	25201500015191
8	3.0	ICE-WH-8	49	37	29	50	36	76	40	143	1.76	25201500015192
10	5.0	ICE-WH-10	58	44	31	64	46	90	47	168	3.01	25201500015193
13	8.0	ICE-WH-13	66	50	39	75	56	100	55	193	4.7	25201500015194
16	12.5	ICE-WH-16	75	56	43	90	58	114	61	208	6.9	25201500015195



### ICE Shortening Hook ICE-VH

- Broad hook tip to avoid misuse like wrong insertion of the chain.
- Angled hook opening prevents the chain from falling out.
- In compliance with DIN 5692:2011-04

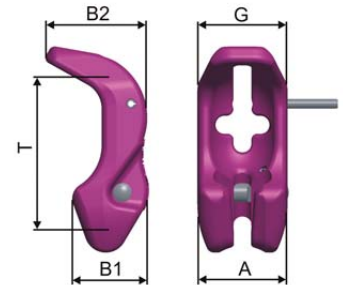
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	T			
6	1.8	ICE-VH-6	34	18	20	44	7.5	22	53	0.27	25202500015006	
8	3.0	ICE-VH-8	43	24	26	55	9.5	29	67	0.5	25202500015007	
10	5.0	ICE-VH-10	55	30	34	71	12	38	86	1.2	25202500015008	
13	8.0	ICE-VH-13	70	38	43	90	15	48	105	2.5	25202500015009	
16	12.5	ICE-VH-16	86	46	53	110	18.5	59	128	4.4	25202500015010	



### ICE Multi Shortening Claw ICE-MVK

- Can be captively fitted in any position along the chain leg.
- No additional chain or coupling components necessary.
- In compliance with DIN 5692:2011-04 for shortening elements.

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B1	B2	G	T		
6	1.8	ICE-MVK-6	35	34	40	36	66	0.3	25202500015011
8	3.0	ICE-MVK-8	46	41	52	48	88	0.55	25202500015012
10	5.0	ICE-MVK-10	58	50	64	60	110	1.1	25202500015013
13	8.0	ICE-MVK-13	74	64	86	76	143	2.4	25202500015014
16	12.5	ICE-MVK-16	91	79	105	98	176	4.4	25202500015015



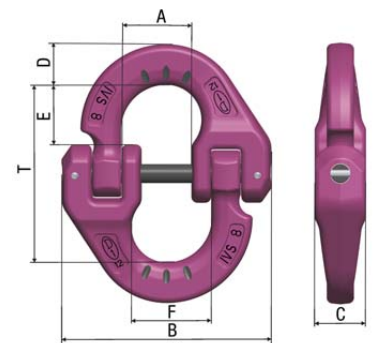
### ICE Chain Connector ICE-VS

#### The universal ICE chain connector

The bracket halves are suitable for attachment of chains, shackles, lifting points, plate clamps or others.

- Patent pending for design and function.
- No kinking of the assembled chain.
- The bracket halves can be combined among each other.
- No movement or damage of the otherwise used locking spring or securing pin of the bolt.
- Patented wear marks.

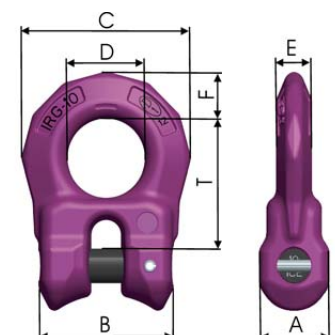
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	T			
6	1.8	ICE-VS-6	18	55	13	11	17	21	46	0.12	25202000015241	
8	3.0	ICE-VS-8	24	70	17.5	14	23	27.5	61	0.29	25202000015242	
10	5.0	ICE-VS-10	28	88	22	17	27	32	74	0.57	25202000015243	
13	8.0	ICE-VS-13	34	111	28	23	33	40	93	1.2	25202000015244	
16	12.5	ICE-VS-16	39	130	33	27	37	46	108	2.0	25202000015245	



### ICE Clevis Ring ICE-RG

- As separate part with clevis connection for attachment of foreign parts.
- Preassembled with connecting bolt and tensioning sleeve.

Nominal chain size in mm	Load capacity in t	Designa- tion	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	T			
6	1.8	ICE-RG-6	19	34	44	21	9	12	36	0.12	25202000015229	
8	3.0	ICE-RG-8	24	45	56	27	12	15	43	0.25	25202000015230	
10	5.0	ICE-RG-10	30	56	70	32	15	19	53	0.5	25202000015231	
13	8.0	ICE-RG-13	38	73	88	38	18	25	67	1.0	25202000015232	
16	12.5	ICE-RG-16	47	90	109	48	23	31	83	2.0	25202000015233	



# ICE mini

The smallest Ø 4 mm round steel chain in grade 12 ICE

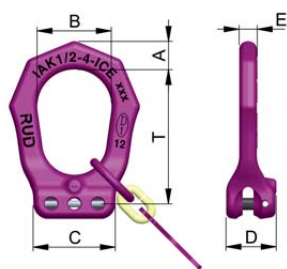
The ideal assistant for small loads of up to 1.7 t, in incoming goods areas and for tool construction!

**Example:**  
4-leg w/o shorteners  
with Master Link IAK 3/4-4  
and ICE Star Hook ISH 4

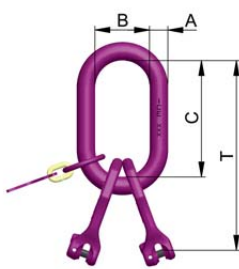
**Example:**  
2-leg w/ shorteners  
with Mini Lifter IML-2  
and ICE Star Hook ISH-4

## ICE Mini Modular System

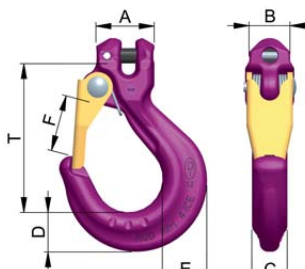
ICE Master Link  
IAK 1/2-4



ICE Master Link  
IAK 3/4-4



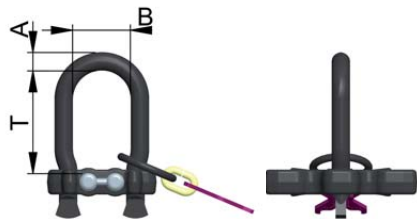
ICE-Star-Hook  
ISH-4



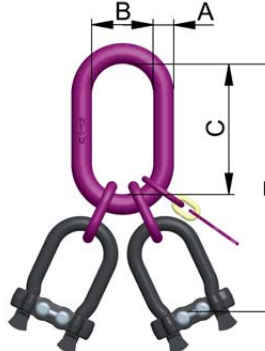
ICE round steel chain



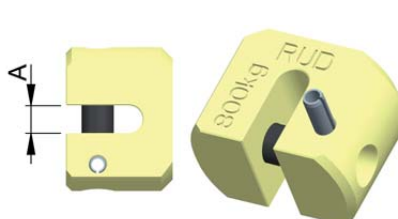
ICE Mini Lifter  
IML-2



ICE-Mini-Lifter  
IML-4



ICE end stop  
IEA-4



ICE-H-Connector  
IH-4



Designation	Nominal chain size in mm	Load capacity in t	Dimensions in mm							Weight in kg	Item no.
			A	B	C	D	E	F	T		
ICE Master Link IAK 1/2-4	4	0.8	13	34	38	22.5	8	-	58	0.2	25202000015066
ICE Master Link IAK 3/4-4	4	1.7/1.18	10	35	60	-	-	-	120	0.5	25202000015171
ICE Star Hook ISH-4	4	0.8	22	15	13	14.5	16.5	21	55	0.16	25201500015166
ICE round steel chain	4	0.8	-	5.2	-	4	-	-	12	0.44 kg/m	25201000015022
ICE-Mini Lifter IML-2	4	1.12/0.8	10	30	-	-	-	-	66	0.35	25202000015258
ICE-Mini Lifter IML-4	4	1.7/1.18	10	35	60	-	-	-	150	0.85	25202000015260
ICE end stop IEA-4	4	-	-	-	-	-	-	-	-	0.04	25202000015254
ICE-H-Connector IH-4	4	0.8	24	12	-	-	-	-	12	0.04	25202000035812



### ICE Chain Sling, 1-leg, without shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Item no.
4	0.8	25101000015695



IAK 1/2-4



ISH-4

### ICE Chain Slings, 2-leg, without shorteners, with clevis sling hook

Nominal chain size  in mm	Load capacity in t		Item no.
	2-leg at angle		
	0-45°	45-60°	
4	1.12	0.8	25101000015696



IAK 1/2-4



ISH-4

### ICE Chain Slings, 3- and 4-leg, without shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity in t		Item no.
	4-leg at angle		
	0-45°	45-60°	
4	1.7	1.18	25101000015698



IAK 3/4-4



ISH-4

### ICE Chain Slings, 2-leg, with shorteners, with clevis sling hook

Nominal chain size  in mm	Load capacity in t		Item no.
	2-leg at angle		
	0-45°	45-60°	
4	1.12	0.8	25101000015697



IML-2



ISH-4

### ICE Chain Slings, 3- and 4-leg, with shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity in t		Item no.
	4-leg at angle		
	0-45°	45-60°	
4	1.7	1.18	25101000015699



IML-4



ISH-4



**Larger crane hook? No problem!**

**Combine the master link ICE-Mini-Lifter IML-4 with the ICE Master link IAK-RG 1-10, see page 242. Master link therefore suitable up to crane hook no. 6 in DIN 15401.**

Grade 10



**VIP Grade 10**  
approved as first manufacturer according to PAS 1061 – prototype test by German BG (Employers Liability and Insurance Association)

V=Fool-proof / I=in / P=P=Pink + embossing

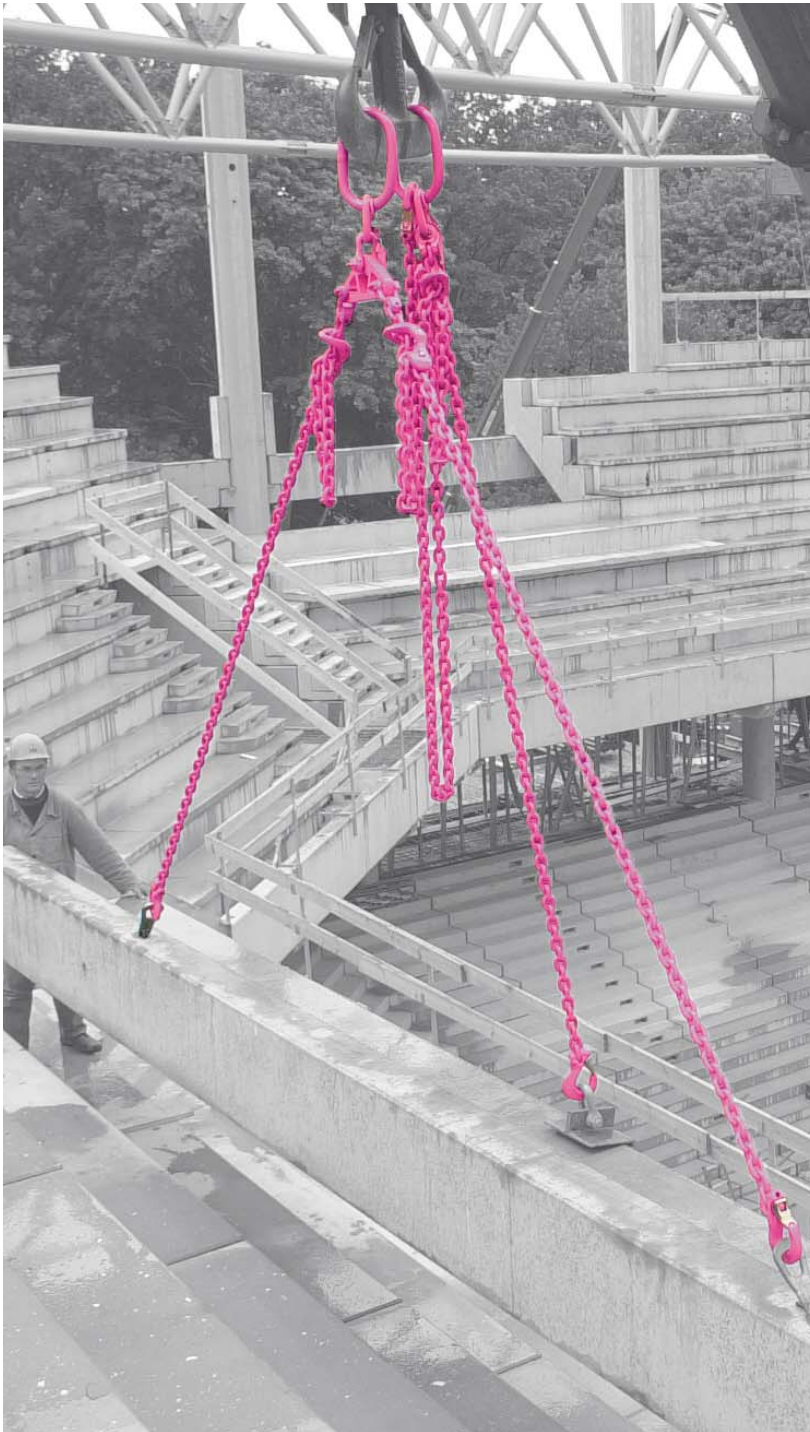
**Higher load capacity:** Considerably higher load capacity than the formerly highest grade 8.  
Material: CrNiMo-specially tempered alloy steel, high durability, minimum breaking elongation  $\geq 25\%$  in natural black. Less sensitive to notching and hydrogen embrittlement than grade 8. Bending tests according to DIN EN 818. Ratio of WLL : proof load : breaking load is given by 1 : 2.5 : 4. Owing to a special heat treatment procedure developed by RUD, the highly dynamic RUD-VIP-chains are less sensitive to mechanical abrasion and damage. Hence an **extended service life** is achieved.



**BG-tested**  
The approval of RUD's special quality VIP by the German BG is documented in short chain link intervals with the following: **H1** referring to the manufacturer's number i.e 1 = RUD and **10** meaning grade 10.

**Verification of quality:**  
At regular intervals, the chains are stamped with a serial and batch number.

**VIP stamp on each chain link:**  
VIP-stamped chains are powder-coated in the special fluorescent signal colour pink.



Load capacity in relation to temperature

If chain slings are used at temperatures over 200°C, the permissible load capacity must be reduced.  
Load capacity in % at chain temperature of:



-40 to +200° C	from 200 to 300° C	from 300 to 380° C
100 %	90 %	60 %

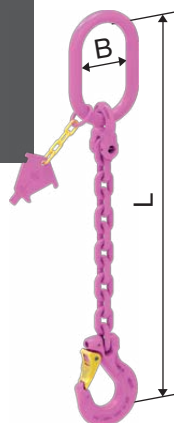


3-leg chain slings and endless chains available on request!  
Chain slings VIP-Mini ND 4 mm see pages 268 et seq.

**VIP Chain Sling,  
1-leg, with VIP-Cobra Hook**



VIP-Cobra Hook



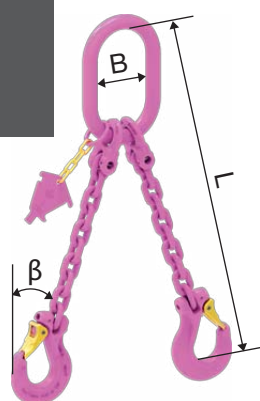
Nominal chain size	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
4	0.63	30	25101000016588
6	1.5	60	25101000016191
8	2.5	60	25101000016212
10	4	75	25101000016235
13	6.7	90	25101000016258
16	10	100	25101000016279
20*	16	180	25101000016299
22*	20	180	25101000016323
28*	31.5	250	25101000016347

\* EWL = 2 m

**VIP Chain Sling,  
2-leg, with VIP-Cobra Hooks**



VIP-Cobra Hook



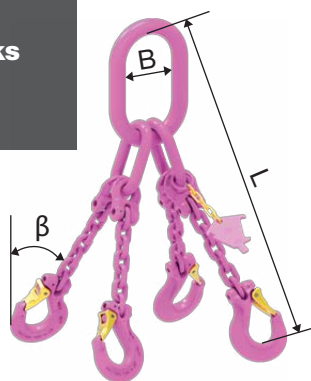
Nominal chain size	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
4	0.88	0.63	30	25101000016575
6	2.1	1.5	60	25101000016175
8	3.5	2.5	75	25101000016183
10	5.6	4	90	25101000016055
13	9.5	6.7	100	25101000016073
16	14	10	110	25101000016091
20*	22.4	16	180	25101000016109
22*	28	20	180	25101000016126
28*	45	31.5	250	25101000016143

\* EWL = 2 m

**VIP Chain Sling,  
4-leg, with VIP-Cobra Hooks**

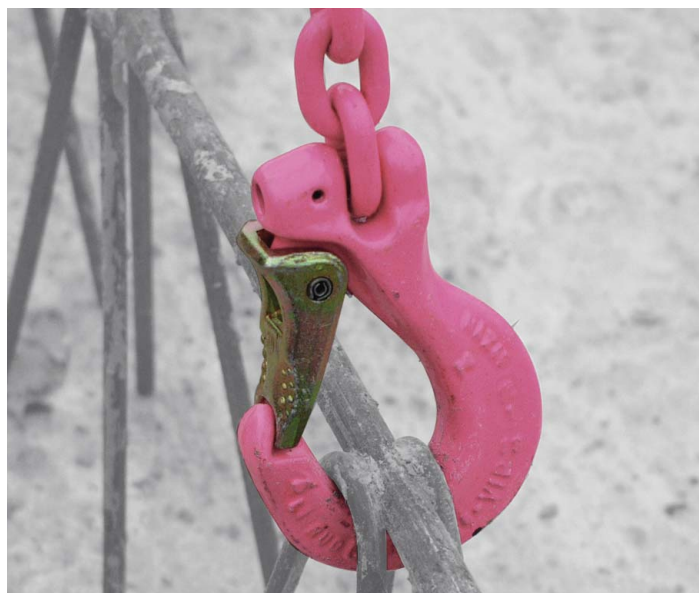
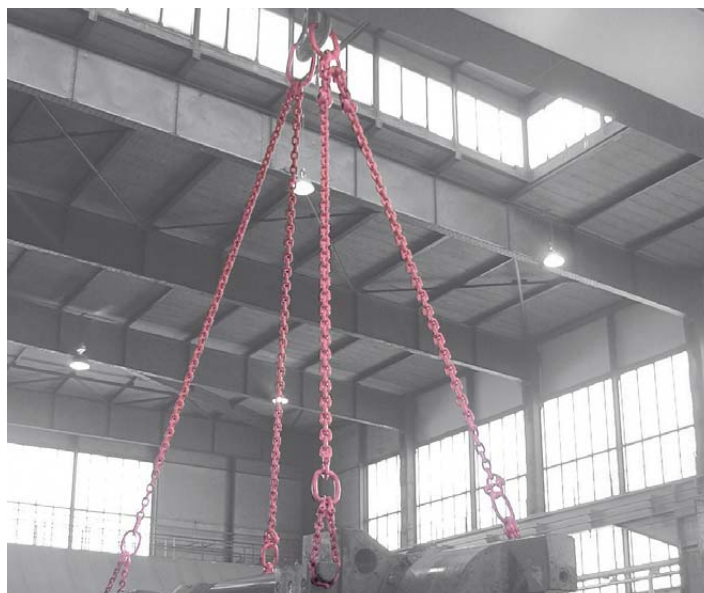


VIP-Cobra Hook



Nominal chain size	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
4	1.32	0.95	35	25101000016583
6	3.15	2.25	75	25101000016553
8	5.25	3.75	90	25101000016560
10	8.4	6	100	25101000016510
13	14	10	110	25101000016517
16	21	15	140	25101000016525
20*	33.6	24	190	25101000016533
22*	42	30	190	25101000016543

\* EWL = 2 m





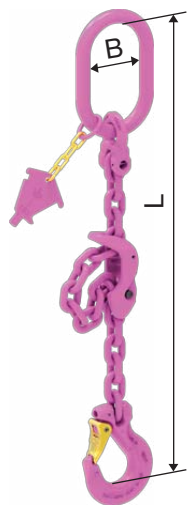
**VIP Chain Sling, 1-leg, with Multi Shortening Claw VMVK and Cobra Hook**



VIP-Cobra Hook



Shortening Claw VMVK  
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.5	60	25101000016199
8	2.5	60	25101000016220
10	4	75	25101000016243
13	6.7	90	25101000016266
16	10	100	25101000016287
20*	16	180	25101000016309
22*	20	180	25101000016333
28*	31.5	250	25101000016357

\* EWL = 2 m

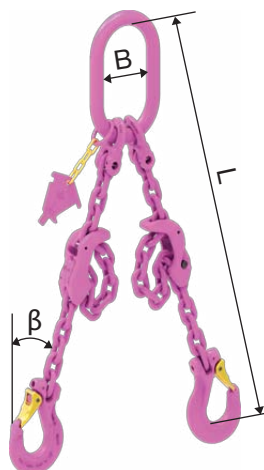
**VIP Chain Sling, 2-leg, with Multi Shortening Claws VMVK and Cobra Hooks**



VIP-Cobra Hook



Shortening Claw VMVK  
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.1	1.5	60	25101000016160
8	3.5	2.5	75	25101000016168
10	5.6	4	90	25101000016063
13	9.5	6.7	100	25101000016081
16	14	10	110	25101000016099
20*	22.4	16	180	25101000016119
22*	28	20	180	25101000016136
28*	45	31.5	250	25101000016153

\* EWL = 2 m

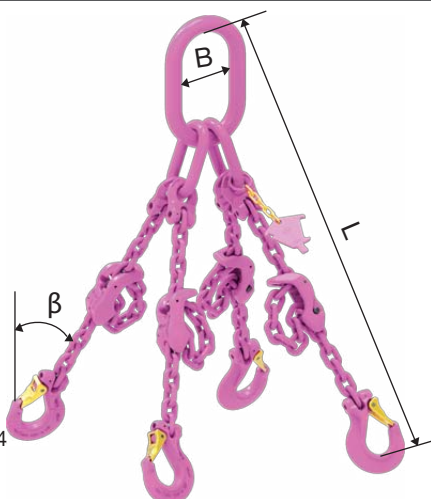
**VIP Chain Sling, 4-leg, with Multi Shortening Claw VMVK and Cobra Hook**



VIP-Cobra Hook



Shortening Claw VMVK  
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	3.15	2.25	75	25101000016456
8	5.25	3.75	90	25101000016466
10	8.4	6	100	25101000016478
13	14	10	110	25101000016484
16	21	15	140	25101000016490
20*	33.6	24	190	25101000016496
22*	42	30	190	25101000016503

\* EWL = 2 m



**In combination with the VIP rocker (see page 263), 33% higher load capacities are possible.**

**3-leg chain slings and endless chains available on request!**

**Chain slings VIP-Mini ND 4 mm see pages 268 et seq.**

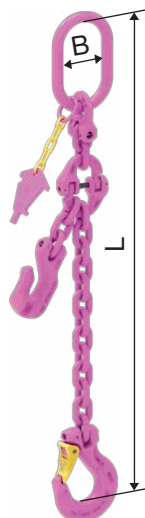
### VIP Chain Sling, 1-leg, with Grab Hook VVH and Cobra Hook



VIP-Cobra Hook



Grab hook VVH  
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.5	60	25101000016205
8	2.5	60	25101000016226
10	4	75	25101000016249
13	6.7	90	25101000016272
16	10	100	25101000016293
20*	16	180	25101000016316
22*	20	180	25101000016340

\* EWL = 2 m

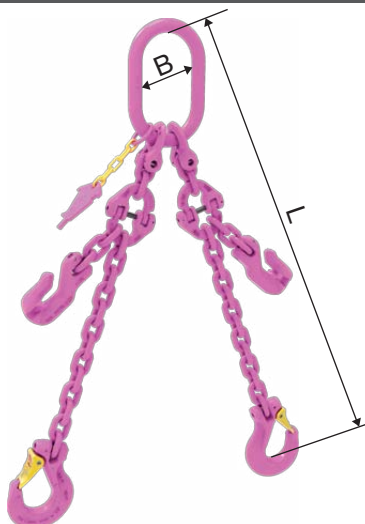
### VIP Chain Sling, 2-leg, with Grab Hooks VVH and Cobra Hooks



VIP-Cobra Hook



Grab hook VVH  
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0 - 45°	45 - 60°		
6	2.1	1.5	60	25101000016401
8	3.5	2.5	75	25101000016407
10	5.6	4	90	25101000016369
13	9.5	6.7	100	25101000016375
16	14	10	110	25101000016381
20*	22.4	16	180	25101000016387
22*	28	20	180	25101000016394

\* EWL = 2 m

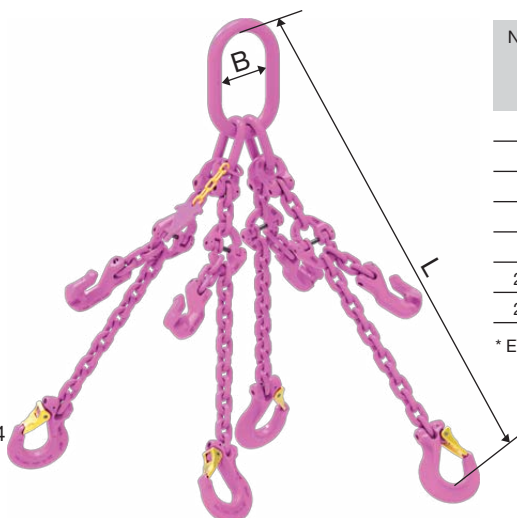
### VIP Chain Sling, 4-leg, with Grab Hooks VVH and Cobra Hooks



VIP-Cobra Hook



Grab hook VVH  
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0 - 45°	45 - 60°		
6	3.15	2.25	75	25101000016460
8	5.25	3.75	90	25101000016472
10	8.4	6	100	25101000016421
13	14	10	110	25101000016427
16	21	15	140	25101000016433
20*	33.6	24	190	25101000016439
22*	42	30	190	25101000016446

\* EWL = 2 m



**3-leg chain slings and endless chains available on request!**

**Chain slings VIP-Mini ND 4 mm see pages 268 et seq.**

### Master links VAK for standard crane hooks:

VAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.

Dimensions correspond to master link Form A acc. to DIN 5688.

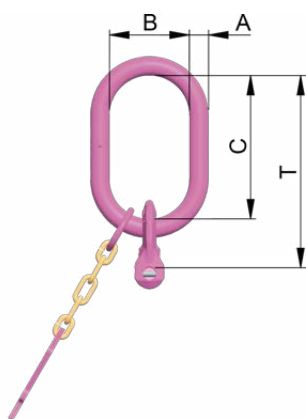
### Option:

Also available as master link VBK for smaller crane hooks.

### VAK Master Links: useable for crane hook size acc. to DIN 15401

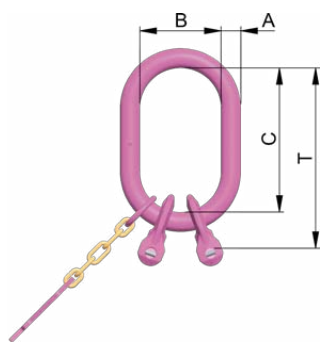
Dim.	6	8	10	13	16
VAK 1	No. 2.5	No. 2.5	No. 5	No. 6	No. 8
VAK 2	No. 2.5	No. 5	No. 6	No. 8	No. 10
VAK 3/4	No. 5	No. 6	No. 8	No. 10	No. 16

### VIP Master Link 1-leg VAK 1



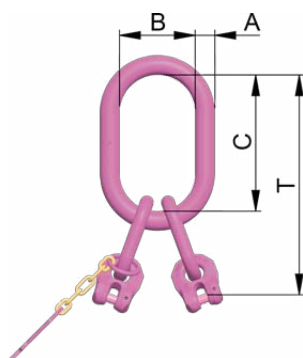
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
6	1.5	VAK 1-6	13	60	110	138	0.6	25202000015070
8	2.5	VAK 1-8	16	60	110	147	0.9	25202000015071
10	4.0	VAK 1-10	18	75	135	181	1.4	25202000015072
13	6.7	VAK 1-13	22	90	160	218	2.4	25202000015073
16	10.0	VAK 1-16	26	100	180	250	3.7	25202000015074
20	16.0	VAK 1-20	41	180	340	434	14.7	25202000015075
22	20.0	VAK 1-22	45	180	340	434	16.5	25202000015076

### VIP Master Link 2-leg VAK 2



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
6	2.1	1.5	VAK 2-6	13	60	110	138	0.7	25202000015117
8	3.5	2.5	VAK 2-8	18	75	135	172	1.4	25202000015118
10	5.6	4.0	VAK 2-10	22	90	160	206	2.3	25202000015119
13	9.5	6.7	VAK 2-13	26	100	180	238	3.9	25202000015120
16	14	10	VAK 2-16	32	110	200	270	6.6	25202000015121
20	22.4	16	VAK 2-20	41	180	340	434	16	25202000015122
22	28	20	VAK 2-22	45	180	340	434	20	25202000015123

### VIP Master Link 3- and 4-leg VAK 4



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
6	3.1	2.2	VAK 4-6	18	75	135	217	1.5	25202000015157
8	5.2	3.7	VAK 4-8	22	90	160	268	2.8	25202000015159
10	8.4	6.0	VAK 4-10	26	100	180	311	4.6	25202000015161
13	14	10	VAK 4-13	32	110	200	373	8.3	25202000015163
16	21	15	VAK 4-16	36	140	260	470	13.7	25202000015165
20	33.6	24	VAK 4-20	51	190	350	614	39	25202000015167
22	42	30	VAK 4-22	51	190	350	644	40.1	25202000015169



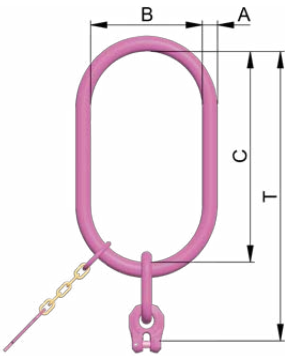
**Master links VSAK with bigger inner width B**

VSAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.

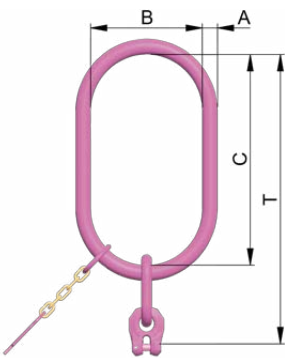
The bigger inner width "B" of the VSAK prevents improper use acc. to BGR 500 and excessive wear of the crane hook. No additional components for oversize hooks are necessary.

**VSAK-RG Special Master Links:  
useable for crane hook size acc. to DIN 15401**

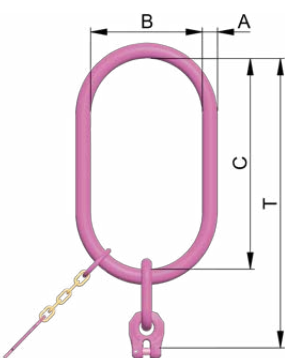
VSAK-RG Dim. B = 140	No. 16
VSAK-RG Dim. B = 190	No. 32
VSAK-RG Dim. B = 250	No. 50

**VIP Special Master Link 1-leg VSAK 1 for Single Hook No. 16**


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
6	1.5	VSAK 1-6/140	18	140	260	342	1.7	25202000015090
8	2.5	VSAK 1-8/140	22	140	260	367	3.1	25202000015091
10	4.0	VSAK 1-10/140	26	140	260	391	4.4	25202000015092
13	6.7	VSAK 1-13/140	32	140	260	433	7.6	25202000015093
16	10.0	VSAK 1-16/140	32	140	260	471	8.1	25202000015094

**VIP Special Master Link 1-leg VSAK 1 for Single Hook No. 32**


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
8	2.5	VSAK 1-8/190	22	190	350	457	4.0	25202000015099
10	4.0	VSAK 1-10/190	26	190	350	481	6.0	25202000015100
13	6.7	VSAK 1-13/190	32	190	350	523	9.9	25202000015101
16	10.0	VSAK 1-16/190	36	190	350	560	13.5	25202000015102

**VIP Special Master Link 1-leg VSAK 1 for Single Hook No. 50**


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
10	4.0	VSAK 1-10/250	36	250	460	590	12	25202000015107
13	6.7	VSAK 1-13/250	36	250	460	634	13	25202000015108
16	10.0	VSAK 1-16/250	36	250	460	670	14	25202000015109
20	16.0	VSAK 1-20/250	45	250	460	724	25	25202000015110
22	20.0	VSAK 1-22/250	51	250	460	754	33	25202000015111

### Master links VSAK with bigger inner width B

VSAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.

The bigger inner width "B" of the VSAK prevents improper use acc. to BGR 500 and excessive wear of the crane hook. No additional components for oversize hooks are necessary.

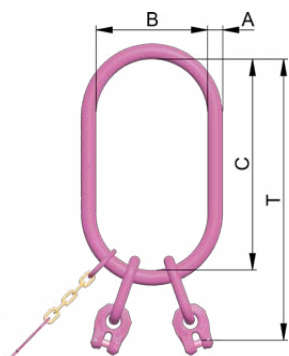
### VSAK Special Master Links: useable for crane hook size acc. to DIN 15401

VSAK Dim. B = 140 No. 16

VSAK Dim. B = 190 No. 32

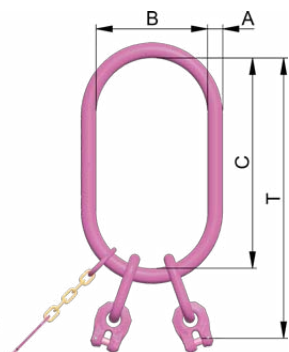
VSAK Dim. B = 250 No. 50

### VIP Special Master Link 2-leg VSAK 2 for Single Hook No. 16



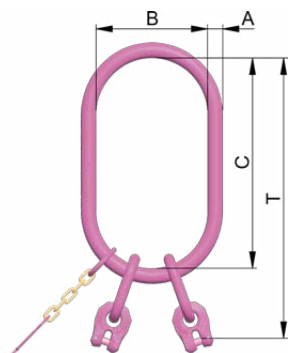
Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
6	2.1	1.5	VSAK 2-6/140	18	140	260	342	2.7	25202000015133
8	3.5	2.5	VSAK 2-8/140	22	140	260	367	3.2	25202000015134
10	5.6	4.0	VSAK 2-10/140	26	140	260	391	4.5	25202000015135
13	9.5	6.7	VSAK 2-13/140	32	140	260	433	7.8	25202000015136
16	14	10	VSAK 2-16/140	32	140	260	471	9.5	25202000015137

### VIP Special Master Link 2-leg VSAK 2 for Single Hook No. 32



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
8	3.5	2.5	VSAK 2-8/190	22	190	350	457	4.2	25202000015142
10	5.6	4.0	VSAK 2-10/190	26	190	350	481	6.2	25202000015143
13	9.5	6.7	VSAK 2-13/190	32	190	350	523	10.5	25202000015144
16	14	10	VSAK 2-16/190	36	190	350	560	14.5	25202000015145

### VIP Special Master Link 2-leg VSAK 2 for Single Hook No. 50



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
10	5.6	4.0	VSAK 2-10/250	36	250	460	591	12.8	25202000015150
13	9.5	6.7	VSAK 2-13/250	36	250	460	634	14.9	25202000015151
16	14	10	VSAK 2-16/250	40	250	460	671	20	25202000015152
20	22.4	16	VSAK 2-20/250	45	250	460	724	29	25202000015153
22	28	20	VSAK 2-22/250	51	250	460	754	42	25202000015154

**Master links VSAK with bigger inner width B**

VSAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.

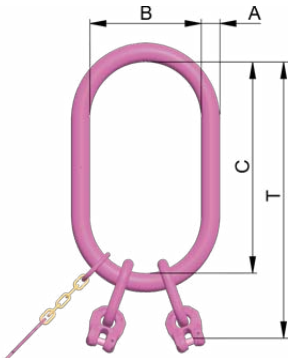
The bigger inner width "B" of the VSAK prevents improper use acc. to BGR 500 and excessive wear of the crane hook. No additional components for oversize hooks are necessary.

**VSAK Special Master Links:  
useable for crane hook size acc. to DIN 15401**

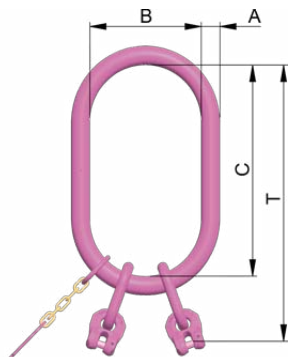
VSAK Dim. B = 140 No. 16

VSAK Dim. B = 190 No. 32

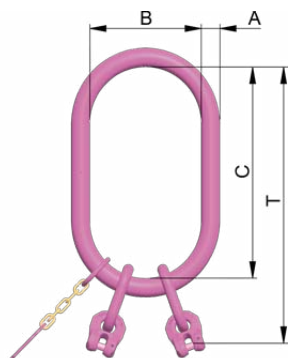
VSAK Dim. B = 250 No. 50

**VIP Special Master Link 3- and 4-leg VSAK 4 for Single Hook No. 16**

Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
6	3.1	2.2	VSAK 4-6/140	22	140	260	342	3.3	25202000015189
8	5.2	3.7	VSAK 4-8/140	26	140	260	367	5.0	25202000015191
10	8.4	6.0	VSAK 4-10/140	32	140	260	391	7.9	25202000015193

**VIP Special Master Link 3- and 4-leg VSAK 4 for Single Hook No. 32**

Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
6	3.1	2.2	VSAK 4-6/190	22	190	350	432	3.6	25202000015203
8	5.2	3.7	VSAK 4-8/190	26	190	350	457	5.5	25202000015205
10	8.4	6.0	VSAK 4-10/190	32	190	350	481	9.2	25202000015207
13	14	10	VSAK 4-13/190	36	190	350	523	13.5	25202000015209

**VIP Special Master Link 3- and 4-leg VSAK 4 for Single Hook No. 50**

Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45-60°		A	B	C	T		
10	8.4	6.0	VSAK 4-10/250	36	250	460	591	14.8	25202000015219
13	14	10	VSAK 4-13/250	40	250	460	634	20.4	25202000015221
16	21	15	VSAK 4-16/250	51	250	460	671	34.5	25202000015223
20*	33.6	24	VSAK 4-20/250	57	250	460	724	51	25202000015225
22*	42	30	VSAK 4-22/250	57	250	460	764	53	25202000015227

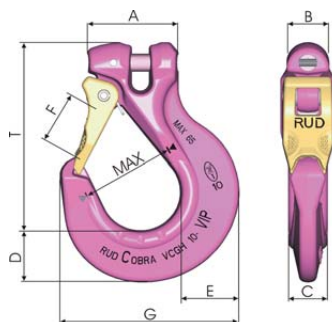
\* with VVS connection



### VIP Cobra Clevis Hook with Safety Latch VCGH

- No protruding hook tip
- Broad hook tip to prevent misuse
- Forged and tempered safety latch that locks on the hook tip to avoid lateral bending
- 3-times wound stainless steel double leg spring

- Both sides with wear marks.
- Wear marks for checking the mouth opening!
- F<sub>max.</sub> = Distance of the marker points
- Patented wear marks that indicate discard criteria without measuring

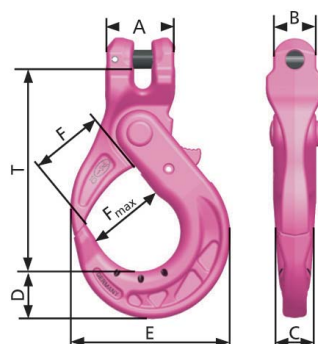


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm										Weight in kg/pce	Item no.
			A	B	C	D	E	F	F <sub>max</sub>	G	T			
4	0.63	VMH 4	20	14	12.5	13	14	18	-	52	56	0.12	25201500015172	
6	1.5	VCGH 6	38	22	16	20	24	25	44.5	71	76	0.4	25201500015173	
8	2.5	VCGH 8	50	28	20	28	32	30	52	94	97	0.9	25201500015174	
10	4.0	VCGH 10	60	36	26	36	39	35	64.5	117	108	1.5	25201500015175	
13	6.7	VCGH 13	76	46	30	37	48	40	72.5	133	126	2.7	25201500015176	
16	10	VCGH 16	83	56	36	49	58	48	87	157	152	4.3	25201500015177	
20	16	VCGH 20	112	68	50	69	78	63	114	218	195	10	25201500015178	
22	20	VCGH 22	117	74	50	74	83	63	114	222	198	11.5	25201500015179	
28	31.5	VCGH 28	150	101	69	88	109	90	155	295	275	26.4	25201500015180	

### VIP Self-locking Hook VAGH

- Extremely rugged and proven design
- Hook closes automatically when load is lifted
- Unlocks only by pressing the protected unlocking lever on the back of the hook.
- No protruding hook tip

- Broad hook tip - prevents unallowed loading of the hook tip
- Proven marker points for checking the mouth width dimensions (F<sub>max.</sub>)
- Patented wear marks that indicate discard criteria without measuring
- Wear marks >dimension B< protect the connected chain link.
- Ergonomic and robust locking lever
- Complete with preassembled connecting bolt and securing sleeve
- Spare part set available on request

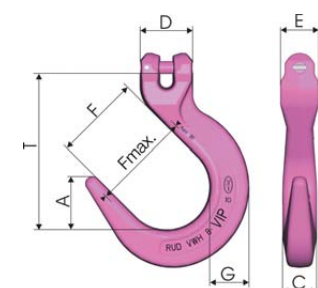


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	F max.	T		
8	2.5	VAGH (S)-8	40	30	27	28	97	44	60	121	1.0	25201500015187
10	4.0	VAGH (S)-10	49	37	30	31	107	48	66	135	1.5	25201500015188
13	6.7	VAGH (S)-13	61	48	36	40	137	61	81	169	2.9	25201500015189

### VIP Foundry Hook VWH

- Also called container hook
- With considerably larger opening, but without safety latch
- Only to be used where unintentional unhooking is impossible
- Special care and increased safety is necessary when using this hook and/or a risk analysis must be performed before use

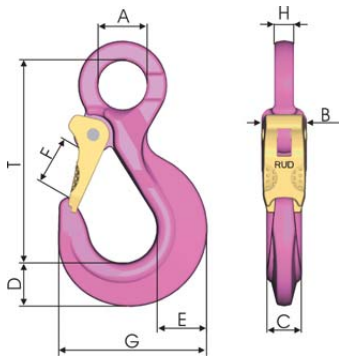
- Robust cross-section (dimensions C and G) protects against higher bending forces
- Chain guard and wear edges (dimension E)
- Marker points for checking the mouth width dimensions (F<sub>max.</sub>)



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm										Weight in kg/pce	Item no.
			A	B	C	D	E	F	F max.	G	T			
6	1.5	VWH 6	30	22	18	30	22	50	63	22	87	0.5	25201500015196	
8	2.5	VWH 8	40	29	26	40	29	64	81	30	115	0.9	25201500015197	
10	4.0	VWH 10	46	37	30	50	36	76	96	37	130	1.7	25201500015198	
13*	6.7	VWH 13	58	44	31	64	46	90	127	47	168	3	25201500015199	
16	10	VWH 16	64	56	40	75	56	100	129	58	190	5.7	25201500015200	
20*	16	VWH 20	96	80	73	102	80	136	183	80	277	15.1	25201500015201	
22*	20	VWH 22	96	80	73	102	80	136	183	80	277	15.1	25201500015202	

\* in Sceletto design with patented wear marks in the hook bottom

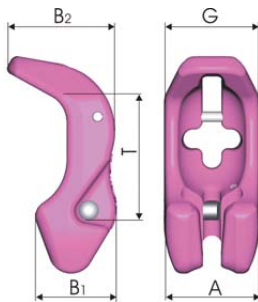
## VIP Cobra Eye Hook with Safety Latch VCOH



- The rugged and compact eye hook without protruding hook tip
- For VIP chain slings, special wire ropes, PowerPoint components or universal swivels

Nominal chain size in mm	Load capacity  in t	Designation	Dimensions in mm									Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	H	T		
4	0.63	VCÖH 4	18	18	12	13	14	18	52	8	75	0.14	25201500015150
6	1.5	VCÖH 6	24	22	16	22	24	25	73	11	98	0.5	25201500015151
8	2.5	VCÖH 8	32	28	20	28	31	30	95	13	126	0.8	25201500015152
10	4.0	VCÖH 10	38	36	26	36	39	35	118	17	150	1.6	25201500015153
13	6.7	VCÖH 13	48	45	30	37	48	40	135	21	170	2.9	25201500015154
16	10	VCÖH 16	63	56	36	49	58	50	161	27	208	4.2	25201500015155

## VIP Multi Shortening Claw VMVK / VV



- Further enhanced version of the proven RUD shortening claw
- Can be captively fitted in any position along the chain leg
- No additional chain or coupling components necessary
- Can be attached to any point on the chain leg or slid onto the chain (only applies to VMVK)
- Ideal support of the chain due to link-shaped pocket – no WLL-reduction
- The robust and spring-loaded safety bolt prevents accidental loosening of the fitted chain in loaded or unloaded condition.
- Attention: When using VMVK or BSEK without safety bolt (securing sleeve) make sure that the chain is completely inserted in the locking notch! During tensioning or lifting of the shortened chain it has to be completely inserted in the locking notch!
- Angled insertion opening prevents the chain from accidentally escaping – in accordance with DIN 5692

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B1	B2	T	G		
6	1.5	VMVK 6	34	37	44	66	38	0.30	25202500015016
8	2.5	VMVK 8	46	46	56	88	69	0.55	25202500015017
10	4.0	VMVK 10	58	60	75	110	66	1.1	25202500015018
13	6.7	VMVK 13	76	75	92	143	81	2.4	25202500015019
16	10	VMVK 16	94	93	115	176	99	4.4	25202500015020
20*	16	VV 20	117	101	102	209	123	8.8	25202500015021
22*	20	VV 22	117	101	102	140	90	8.5	25202500015022
28*	31.5	VV 28	150	130	130	170	130	16.9	25202500015023

\* Different version

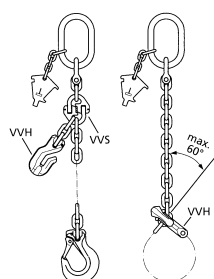
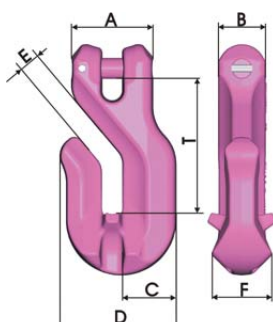
**100% Load capacity**



Type VV

## VIP shortening hook VVH

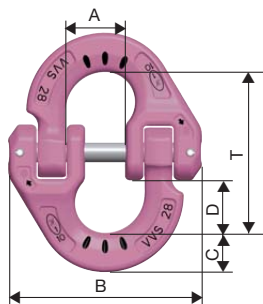
**100% Load capacity**



- No reduction of the load capacity (WLL)
- Broad hook tip to prevent misuse (e.g. wrong insertion of the chain)
- Ideal support of the chain in the hook bottom due to calibrated tooth lugs
- Angled hook opening prevents the chain from falling out - in accordance with DIN 5692
- Complete with preassembled connecting bolt and securing sleeve

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pc. or kg/pack	Item no.
			A	B	C	D	E	F	T			
6	1.5	VVH 6	34	18	20	44	7.5	23	53	0.25	25202500015046	
8	2.5	VVH 8	38	22	25	54	9.5	33	64	0.35	25202500015047	
10	4.0	VVH 10	47	28	31	68	12	42	80	0.80	25202500015048	
13	6.7	VVH 13	60	36	40	87	15	47	103	2.20	25202500015049	
16	10	VVH 16	75	45	50	108	18.5	57	125	3.5	25202500015050	
20	16	VVH 20	92	58	63	138	24	76	162	8.4	25202500015051	
22	20	VVH 22	102	62	69	151	26	83	179	11	25202500015052	

## VIP Chain Connector VVS



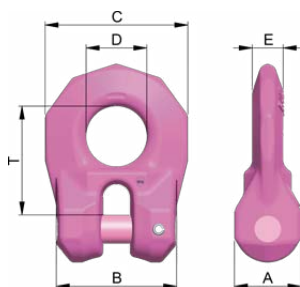
### The new and versatile VIP chain connector

The bracket halves are suitable for attachment of chains, shackles, lifting points, plate clamps or others.

- Patent pending for design and function
- No kinking of the assembled chain
- The bracket halves can be combined among each other
- No movement or damage of the otherwise used locking spring or securing pin of the bolt
- Patented wear marks

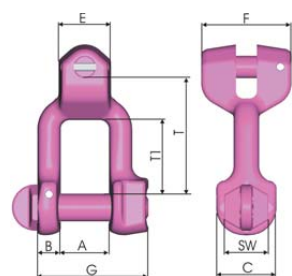
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B	C	D	T		
6	1.5	VVS-6	18	55	13	11	46	0.12	25202000015246
8	2.5	VVS-8	24	70	17.5	14	61	0.29	25202000015247
10	4.0	VVS-10	28	88	22	17	74	0.57	25202000015248
13	6.7	VVS-13	34	111	28	23	93	1.2	25202000015249
16	10.0	VVS-16	39	130	33	27	108	2.0	25202000015250
20	16.0	VVS-20	42	155	34	41	124	3.7	25202000015251
22	20.0	VVS-22	48	172	37	46	138	4.7	25202000015252
28	31.5	VVS-28	69	228	47	47	189	10.6	25202000015253

## VIP Clevis Ring VRG



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B	C	D	E		
6	1.5	VRG 6	17	30	37	16	7.5	0.07	25202000015234
8	2.5	VRG 8	23	40	50	22	10	0.2	25202000015235
10	4.0	VRG 10	28	50	60	26.5	12.5	0.3	25202000015236
13	6.7	VRG 13	36	64	75	32	16.5	0.7	25202000015237
16	10	VRG 16	45	75	92	40	20	1.1	25202000015238
20	16	VRG 20	58	92	118	52	28	3.1	25202000015239
22	20	VRG 22	62	102	124	52	28	3.5	25202000015240

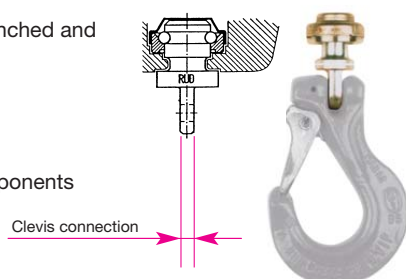
## VIP foolproof Clevis Shackle VV-GSCH



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm											Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	T	T1	SW			
6	1.5	VV-GSCH 6	17	8	22	10	16	28	40	36	21	17	0.15	25301810015307	
8	2.5	VV-GSCH 8	21	10	26	12	24	39	48	48	32	19	0.26	25301810015308	
10	4.0	VV-GSCH 10	27	13	34	16	28	44	62	61	35	24	0.65	25301810015309	
13	6.7	VV-GSCH 13	33	17	42	20	38	59	81	78	41	29	1.35	25301810015310	
16	10	VV-GSCH 16	38	22	49	24	45	69	95	96	49	36	2.5	25301810015311	
20	16	VV-GSCH 20	47	27	60	30	52	88	119	108	57	46	3.9	25301810015312	
22	20	VV-GSCH 22	53	30	76	36	62	95	130	122	72	55	6.7	25301810015313	

## Swivel Adapter HWA Lifting Device suitable for Demag Lifting Devices

- Complete with original Demag ball bearing
- Made from high-strength quenched and tempered special steel
- Tested according to EN 1677
- Suitable for
  - Single-leg hook blocks
  - Twin-leg hook blocks
  - All RUD clevis modular components



Clevis connection	Load capacity in t	Designation	Weight in kg/pce	Item no.
6	0.4	HWA 6 DK 400	0.15	20202000015088
6	0.8	HWA 6 DK 800	0.30	20202000015089
8	0.8	HWA 8 DK 800	0.40	20202000015090
8	1.25	HWA 8 DK 1250	0.55	20202000015091
10	2.5	HWA 10 DK 2500	0.9	20202000015092
13	5	HWA 13 DK 5000	1.3	20202000015095

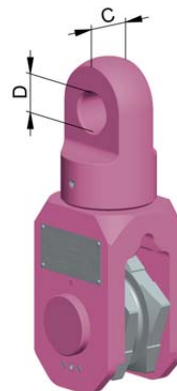


## VIP Chain Block VCB

- For force-balanced lifting of loads e.g. transport of windmill segments
- Pentagon chain wheel for chain deflection
- Pentagon chain wheel with brake to prevent the unloaded chain from falling down on one side.
- Shackle connection with ball bearing (see table)
- Compact size
- Scope of delivery: connector not included
- **Attention: Unsymmetrical loading is prohibited (see instructions)**

### Option:

- Replacement for rope capture pulley



Nominal chain size in mm	Load capacity in t			Designation	Dimensions in mm			Connector (not included)	Weight in kg/pce	Item no.
	0-7°	7-20°	20-45°		Division in mm					
					C	D				
16	20	18.5	14	VCB-16	ca. 210	50	45	VV-GSCH-22	25	20202000015096
22	40	37.5	28	VCB-22	ca. 285	80	68	Welded shackle 42.5 t	56.6	20202000015097
28	63	58	45	VCB-28	ca. 325	100	75	Welded shackle 85 t	99	20202000035100

## VIP Balancer 2-leg, complete VWK-2S

Load capacity can be increased by 33% compared to 4 load-bearing legs, when using two 2-leg slings and one is equipped with a balancer (V-W) (see illustration).

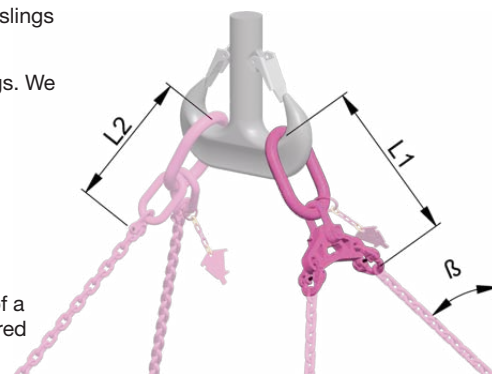
The dimensions of the overall chain sling must be individually adapted to align the two chain slings. We will gladly provide you with advice and support when combining the individual parts. Please contact us.

**Max. inclined position of balancer should not exceed 10°.**

### Comparison:

Nominal chain size in mm	WLL in t 4-leg chain sling	2x2-leg chain sling with VWK
6	3.15	<b>4.2</b>
8	5.25	<b>7</b>
10	8.4	<b>11.2</b>
13	14	<b>19</b>
16	21	<b>28</b>
20	33.6	<b>45</b>
22	42	<b>56</b>

The table illustrates the higher load capacity of a 2x2-leg chain sling with a rocker head compared to a 4-leg chain sling.



**Application:**  
Load capacity increased by 33%



**VIP Master Links**  
see page 256 et seq.

Nominal chain size in mm	WLL overall chain sling in t 2x2-leg $\beta=0-45^\circ$	Designation Balancer VWK	Designation VAK 2-leg	Dimensions VAK link in mm	Division Balancer L1 in mm	Division VAK 2-leg L2 in mm	Weight Balancer in kg/pce
6	4.2	VWK-2S-6	VAK 2S-6	18x75x135	276	217	1.5
8	7	VWK-2S-8	VAK 2S-8	22x90x160	343	268	2.8
10	11.2	VWK-2S-10	VAK 2S-10	26x100x180	403	311	6.8
13	19	VWK-2S-13	VAK 2S-13	32x110x200	475	373	10.7
16	28	VWK-2S-16	VAK 2S-16	36x140x260	599	470	20.2
20	45	VWK-2S-20	VAK 2S-20	51x190x350	717	614	35.3
22	56	VWK-2S-22	VAK 2S-22	51x190x350	823	644	50

During refitting or replacement please mind on correct performance of the Master Link!



**ICE 120**

**This balancing master link is also available in ICE 120.**

## VIP Endless Chain VKR-H with Connector IH/VH



- Fast, easy and economic assembly of endless chains
- Pitch of H-Connector corresponds to pitch of chain
- Ergonomic shape
- Enhanced gliding over edges
- Highly flexible: Adapts to both, the shape of the chain and the load

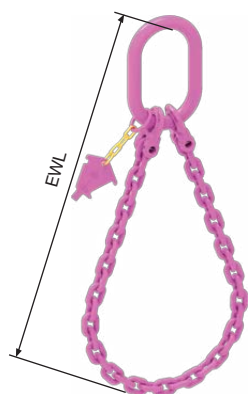
**Attention: Suitable for use with round steel chains DIN 818-2 in Gr. 8, VIP-Gr. 10 and ICE-Gr. 12**

Nom.chain size in mm	Load cap. GK 8 in t	Load cap. VIP in t	Load cap. ICE in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
					A	B	T		
4	0.5	0.63	0.8	IH-4	24	12	12	0.04	25202000035812
6	1.12	1.5	1.8	IH-6	34	19.6	18	0.11	25202000015376
8	2.0	2.5	3.0	IH-8	45	25.5	18	0.11	25202000015377
10	3.15	4.0	5.0	IH-10	56	31.5	30	0.55	25202000015378
13	5.3	6.7	8.0	IH-13	73	40	39	1.16	25202000015379
16	8.0	10.0	12.5	IH-16	89	49	48	2.16	25202000015380



**The load capacity must be adapted to the grade of the chain used.**

## VIP Endless Chain, single, Type VKRE



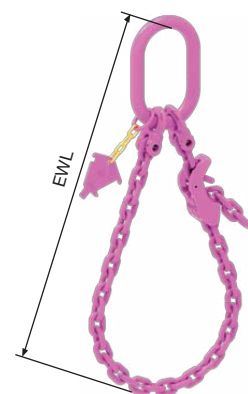
Nominal chain size in mm	Load capacity in t single		Item no.
	0-45°	45-60°	
6	1.65	1.2	25101500015061
8	2.75	2	25101500015066
10	4.4	3.2	25101500015071
13	7.5	5.3	25101500015076
16	11	8	25101500015081
20	17.6	12.8	25101500015086
22	22	16	25101500015091
28	44.1	31.5	25101500015096

**Nominal chain size 28 will be manufactured from Maxi 28 components (pages 270-273).**



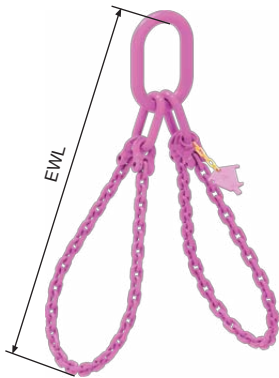
**Load capacity reduction of 20% due to sharp edges has already been considered.**

## VIP Endless Chain, single, with Shortener, Type VKREV



Nominal chain size in mm	Load capacity in t single		Item no.
	0-45°	45-60°	
6	1.65	1.2	25101500015101
8	2.75	2	25101500015106
10	4.4	3.2	25101500015111
13	7.5	5.3	25101500015116
16	11	8	25101500015121
20	17.6	12.8	25101500015126
22	22	16	25101500015131
28	44.1	31.5	25101500015136

## VIP Endless Chain, double, Type VKRD



Nominal chain size in mm	Load capacity in t single		Item no.
	0-45°	45-60°	
6	2.55	1.8	25101500015180
8	4.25	3	25101500015185
10	6.8	4.8	25101500015190
13	11.2	8	25101500015195
16	17	12	25101500015200
20	27.2	19.2	25101500015205
22	34	24	25101500015210

This endless chain version is only permissible for nominal sizes 6 - 22 mm. Other versions in nominal size 28 (VIP MAXI) see pages 270-273.



Load capacity reduction of 20% due to sharp edges has already been considered.

## VIP Endless Chain, double, with 2 Shorteners, Type VKRDV



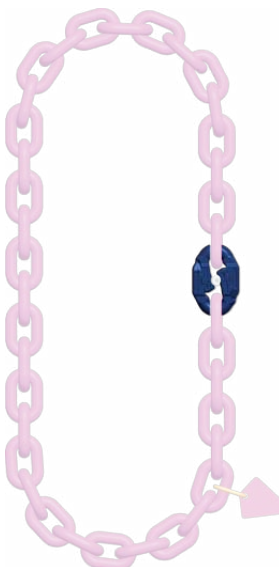
Nominal chain size in mm	Load capacity in t single		Item no.
	0-45°	45-60°	
6	2.55	1.8	25101500015215
8	4.25	3	25101500015220
10	6.8	4.8	25101500015225
13	11.2	8	25101500015230
16	17	12	25101500015235
20	27.2	19.2	25101500015240
22	34	24	25101500015245

This endless chain version is only permissible for nominal sizes 6 - 22 mm. Other versions in nominal size 28 (VIP MAXI) see pages 270-273.

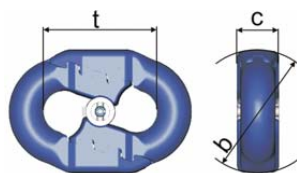


Load capacity reduction of 20% due to sharp edges has already been considered.

## VIP Dominator Coupler Link to make Endless Chains in size 20, 22, and 28 mm

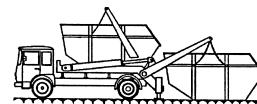


Nominal chain size in mm	Load capacity in t	Dimensions in mm			Weight in kg	Item no.
		t	c	b		
20	16	86	26	85	1.2	25202000015373
22	20	92	33	95	1.8	25202000015374
28	31.5	126	40	119	4.1	25202000015375



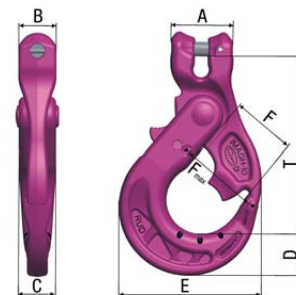
Max. inclination angle for endless chains with Dominator is 0°-7°.





### ICE Automatic Clevis Hook IMAGH for Skip Bins

- Suitable for standardised skip bin pins acc. to DIN/EN 30720
- Easy operation of bolt and hook safety devices
- Foolproof chain connection
- Wear marks for checking the mouth opening
- Patented wear marks that indicate discard criteria without measuring.
- Antislip securing lever without risk of injury



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	F <sub>max.</sub>	T		
10-ICE	5	IMAGH-10	61	37	36	40	137	50	81	171	3	25201500015186
13-ICE	8	IMAGH-13	70	37	40	40	140	50	81	167	3.6	25201500035311

### ICE-Suspension Eye IMEG for Skip Bins

- Fast attachment, no need to unlock
- Simplified attachment of the lifting eye thanks to ergonomic locking mechanism
- Antislip locking mechanism
- Protective ribs keep the locking mechanism from being damaged
- Suitable for standardised skip bin pins acc. to DIN/EN 30720

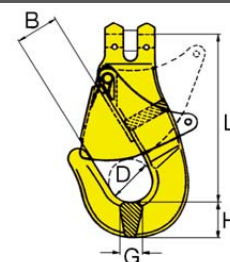


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
10-ICE	5	IMEG-10	37	66	128	20	64	46	153	1.6	25202000015255
13-ICE	8	IMEG-13	38	66	128	19	73	46	147	2.2	25202000035336

### Skip Bin Hook Type GKC

- This safety hook minimises the risk of accident.
- The self-locking mechanism guarantees for safe transport of skip bins.

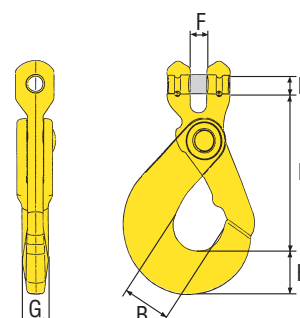
For nominal chain size in mm	Load capacity in kg	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			B	D	G	H	L		
13	5300	GKC-13	54	50	27	42	190	3	25201500015087

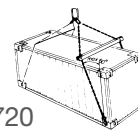


### Skip Bin Hook for Chain Slings BKGC

- Designed as a self-locking automatic hook
- When loaded the hook closes automatically and remains locked during the complete lifting procedure
- Accidental unhooking of the bin is excluded
- It is suitable for all standard bins

Nominal chain size in mm	Load capacity in kg	Designation	Dimensions in mm						Weight in kg/pce	Item no.
			L	B	E	F	G	H		
13	5300	BKGC-13-8	164	55	16	14.5	27	43	3.2	25201500015085
16	8000	BKGC-16-8	160	55	19.5	17.4	27	43	3.4	25201500015086

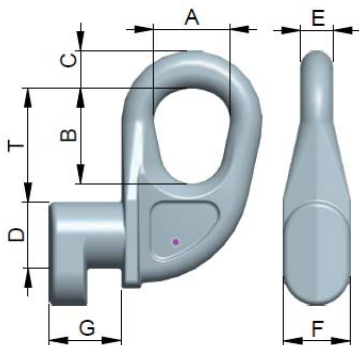
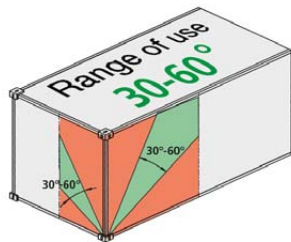




### VIP Container Hook VCH

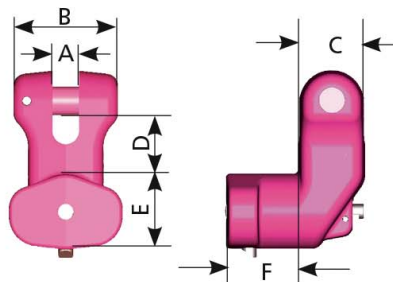
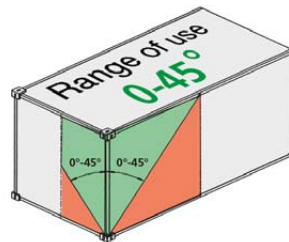
#### VCH-10 Load capacity 10 t

- VCH-10 suitable for ISO container corners
- Use a VIP chain connector VVS 16 and a VIP foolproof shackle VV-GSCH 16 for permanent attachment to a chain sling
- Separate component for hook suspension
- Suitable for an inclination angle of 30° to max. 60°



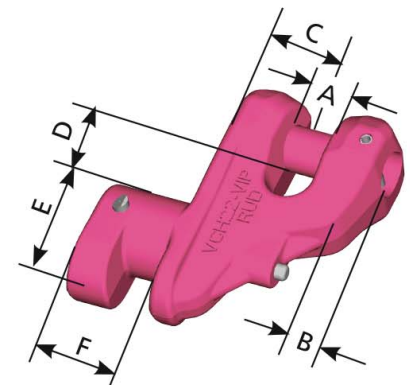
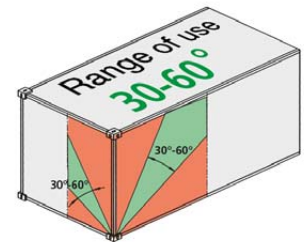
#### VCH SL-16 Load capacity 10 t

- VCH SL-16 suitable for ISO container corners
- With patented safety locking mechanism, accidental unhooking during lifting is thus ruled out
- With clevis connection for VIP chain Nominal chain size 16
- **Attachment:** without pressing the lock due to automatic opening and closing.
- **Detachment:** only possible if the unlocking bolt is pressed
- Suitable for vertical lifting up to an inclination angle of max. 45°



#### VCH SL-22 Load capacity 20 t

- VCH SL-22 suitable for ISO container corners
- With patented safety locking mechanism, function same as VCH SL-16.
- Accidental unhooking during lifting is thus ruled out
- With clevis connection for VIP chain Nominal chain size 22
- With VRG 16 reduction, the VIP chain 16 can be used
- Suitable for an inclination angle of 30° to max. 60°



Load capacity in t	Type	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	T		
12.5	VCH-12.5	56	70	28	50	24	50	53	83	3.2	25201500035658
10	VCH SL-16	18	71	42	40	50	47	-	-	2.5	25201500015204
20	VCH SL-22	24	62	48	45	76	45	-	-	4.2	25201500015205

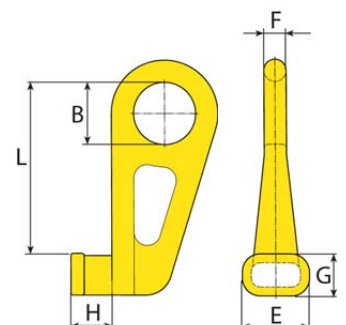
### Container Hook Type CH-3

Load capacity in t*	Type	Dimensions in mm						Weight in kg/pce	Item no.
		L	B	G	H	F	E		
12.5	CH-3 straight	187	70	47	46	25	75	4.0	25201500015072
12.5	CH-3 45° left	187	70	47	46	25	75	4.0	25201500015148
12.5	CH-3 45° right	187	70	47	46	25	75	4.0	25201500015149

\*Safety factor 4:1

#### Attention:

- CH-3 only suitable for vertical lifting
- CH-3 left and right must be used in pairs
- Observe the inclination angle
- Accidental unhooking not possible with both versions





The first and only 4 mm chain in grade 10

The VIP Mini chain is an everyday tool like hammer or vice and belongs to every lifting device. It covers 85% of all lifting operations with hoists up to 1,320 kg load capacity.



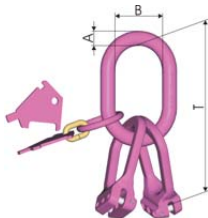
VIP Master Link VAK 1/2  
for 1- and 2-leg VIP Mini Chain Slings, without Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	0.63	VAK 1/2-4	8	28	55	0.1	25202000015068



VIP Master Link VAK 1/2  
for 1- and 2-leg VIP Mini Chain Slings, without Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	1.32	VAK 3/4-4	10	35	115	0.3	25202000015155





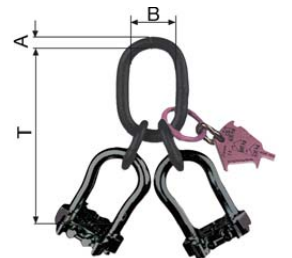
### VIP Mini Lifter VML 2 for 1- and 2-leg VIP Mini Chain Slings, with Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	0.8/0.63	VML 2-4	10	30	66	0.26	25202000015262



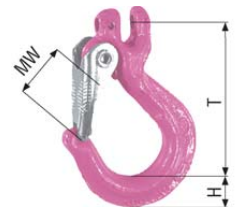
### VIP Mini Lifter VML 4 for 3- and 4-leg VIP Mini Chain Slings, with Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	1.32/0.95	VML 4-4	10	35	150	0.85	25202000015264



### VIP Mini Hook with Safety Latch

Nominal chain size in mm	Load capacity in t	Designation	Mouth width (MW) in mm	Dimensions in mm		Weight in kg/pce	Item no.
				T	H		
4	0.63	VMH-4	18	56	13	0.12	25201500015172



### VIP End Stop VEA-4

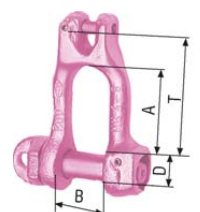
Nominal chain size in mm	Load capacity in t	Designation	Weight in kg/pce	Item no.
4	0.63	VEA-4	0.05	25202000015381



**Within the VIP-Minilifter the chain leg has to be secured by the VIP End Stop VEA-4!**

### VIP Mini Clevis Shackle

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	D	T		
4	0.63	VMKS-4	30	14	10	42	0.12	25301810015323





## »MAXI« Components






**Safely lift heavy loads of up to 126 t.  
From crane hooks to heavy loads, always the  
right aid!**





Previously, the weight limit when attaching loads with RUD-VIP chains with a diameter of 22 mm was 42 t.

The VIP chain generation with 28 mm NT in grade 100 made from patented special steel was developed for applications in which loads weighing between 50 and 126 t should be moved.

If the various components are suitably combined, loads with a total weight of up to 126 t can be attached.

## WLL overview for VIP-Maxi 28 x 84 for symmetric loads

							
Inclination angle $\beta$	90°	90°	0-45°	>45-60°	0-7°	>7-45°	0-45°
Load factor	1	2	1.4	1	4	2.8	2.1
Load capacity in t	31.5	63.0	45.0	31.5	126	88	67.0

								
Inclination angle $\beta$	0-7°	>7-45°	>45-60°	0-7°	>7-45°	0-7°	>7-45°	0-7°
Load factor	2	1.4	1	4	2.8	4	2.8	2
Load capacity in t	63*	45.0*	31.5*	126*	88*	126*	88*	63*

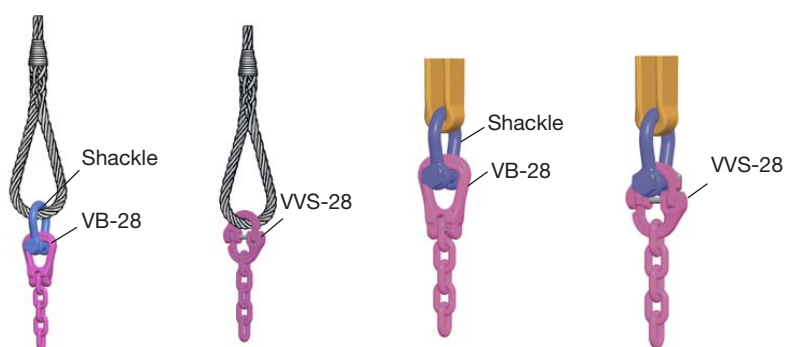
## Important notes:

- Acc. to BGR/DGUV rule 100-500, section. 2.8, the 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling
- \*Endless and loop chains: bollard-, bolt- or shackle-diameters must exceed 3 x pitch (>250 mm).  
For smaller diameters (edge load) the load capacity must be reduced by 20%. In case of doubt please contact us.
- \*\*To optimally introduce forces to the suspension heads when using parallel legs, we provide you with paired length-calibrated chains. Please contact us.

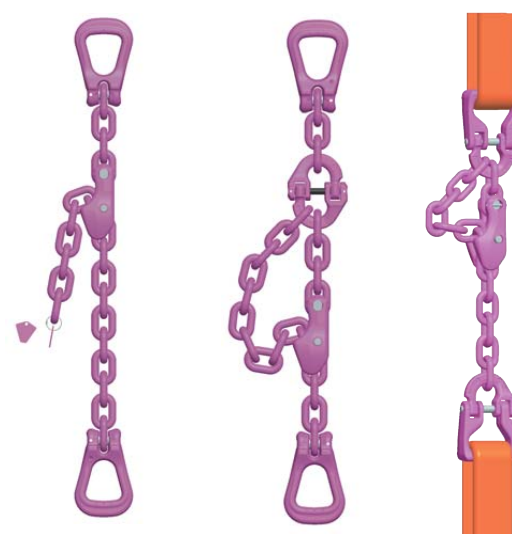


For basket hitch make sure that loads cannot shift or fall (German Industrial Safety Regulation, annex 1, § 7).

## Connecting possibilities



## Sling versions







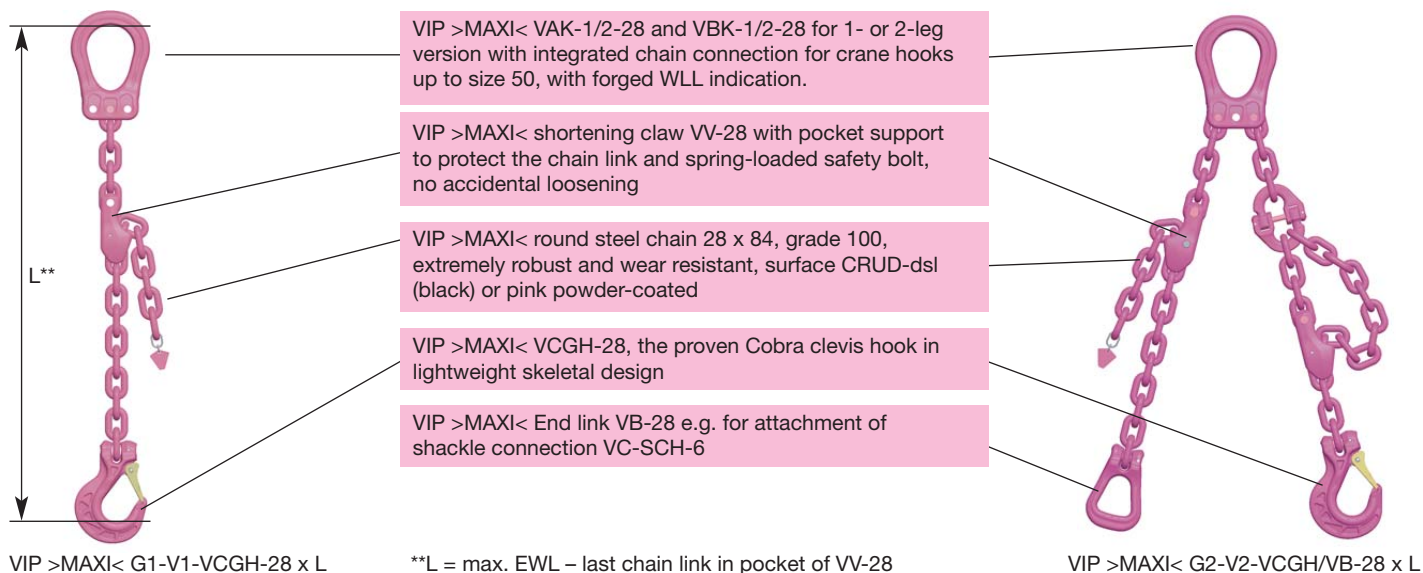
**Chain 28 x 84 mm grade 100**  
**Load capacity up to 126 ton**

**Easy length  
adjustment**

### The flexible modular system for capacities up to 126 ton

This new VIP chain generation with a diameter of 28 mm in grade 100 made from patented ICE-steel pushes chain slings to a new limit. For all applications where the load exceeds 50 ton (e.g. heavy turbines, large machinery etc.)

- Safe lifting of heavy loads
- Adjustable length, stabilised edges
- Separable (weight) but lockable slings

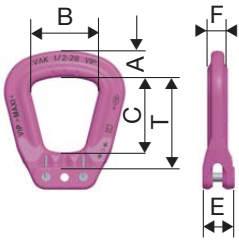


Designation	Load capacity in t	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	T		
VIP Master link VAK-1/2-28 MAXI*	31.5/45/63	100	250	280	208	120	76	-	360	64.3	25202000015077
VIP Master link VBK-1/2-28 MAXI**	31.5/45/63	60	190	265	240	120	55	-	322	35	25202000015079
VIP-End link VB 28 MAXI	31.5	62	130	150	130	80	100	52	209	13.7	25202000015257
VIP Cobra clevis hook VCGH-28 MAXI	31.5	150	101	69	88	-	90	295	275	26.4	25201500015180
VIP Chain connector VVS-28 MAXI	31.5	69	228	58	47	67	81	-	189	10.6	25202000015253
VIP Multi shortening claw VV-28 MAXI	31.5	150	130	130	-	-	-	-	170	16.9	25202500015023
VIP Roundsling coupler RS-VVS-28	31.5	69	163	100	47	33	-	-	245	20	25202000015372
VIP DOMINATOR 28	31.5	-	-	40	-	-	-	-	126	4.1	25202000015375
VIP Length adjustment VLE-28	31.5	650	172	138	120	-	-	-	478	44	25202500015087
VIP Universal swivel VUW-28 (under preparation)	31.5	148	-	-	-	-	-	-	183	27.3	20202000015093
VIP Universal swivel with link VUW-GLD-28	31.5	153	-	-	46	90	130	-	376	30.8	20202000015094
Combination VVS-28 and VC-SCH 6.0	31.5	-	-	-	-	-	-	-	309	16.5	-
Round steel chain VIP-28 x 84-dsl	31.5	28	37	-	-	-	-	-	84	18.6/m	25201000015037
Round steel chain VIP-28 x 84-pink	31.5	28	37	-	-	-	-	-	84	18.6/m	25201000015036
VIP Foolproof shackle VC-SCH-6	31.5	53	34	78	39	37	34	121	120	5.9	25301810015321
Identification tag VKZA 1S-28 with lettering	-	-	-	-	-	-	-	-	-	0.18	55101500015020
Identification tag VKZA 1S-28 without lettering	-	-	-	-	-	-	-	-	-	0.18	55101500015019
MAXI Test scale VG 28	-	-	-	-	-	-	-	-	-	0.37	55101500015022
Weld-on lifting ring VRBS-Fix 31.5	31.5	160	42	99	130	366	195	-	202	18.4	25250000015258
Weld-on lifting point ABA 31.5	31.5	108	64	320	-130	50	204	-	154	18.3	25250000015081
Weld-on lifting point B-ABA	31.5	230	64	320	130	50	215	175	165	29.5	25250000036638
VIP Weld-on lifting point VWBS-KA-28	31.5	28	-	-	170	-	-	-	147	24.0	25250000015453
Weld-on lifting point PowerPoint WPPH-KA-28	31.5	28	-	-	148	-	-	-	74	11.0	25250000015473
VIP Weld-on lifting ring VWBS 40 (50) t	40 (50)	46	170	110	170	-	-	161	380	27.9	25250000015454
VIP Weld-on lifting point VWBG 31.5 (40) t M72	31.5 (40)	46	130	90	170	-	108	159	338	29.9	25250000015376
VIP Weld-on lifting point VWBG-KA-28	31.5	-	-	-	170	-	108	-	146	26.4	25250000015434
VIP Bolt-on lifting ring VRBG 31.5	31.5	180	42	-	130	-	-	400	-	67.0	25250000015291

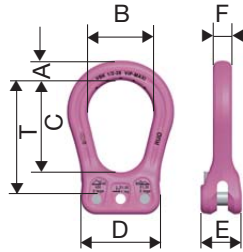
\* VIP Master Link VAK suitable for single crane hook (size 50) and double crane hook (size 80) acc. to DIN 15401/15402.

\*\* VIP Master Link VBK suitable for single crane hook (size 12-32) and double crane hook (size 12-32) acc. to DIN 15401/15402.

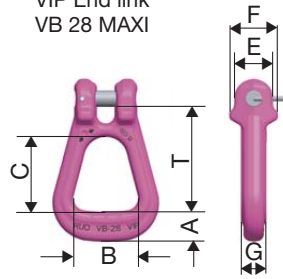
VIP Master link  
VAK-1/2-28 MAXI



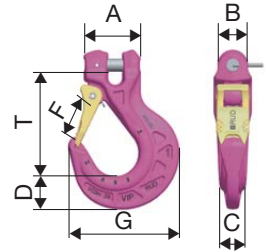
VIP Master link  
VBK-1/2-28



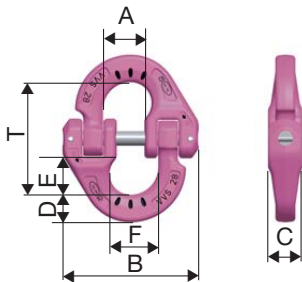
VIP End link  
VB 28 MAXI



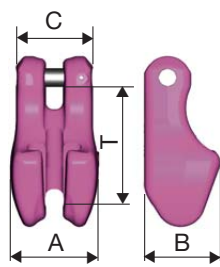
VIP Cobra clevis hook  
VCGH-28 MAXI



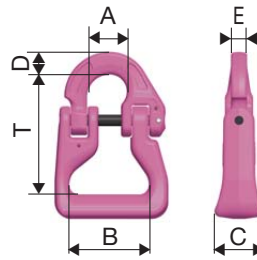
VIP Chain connector  
VVS-28 MAXI



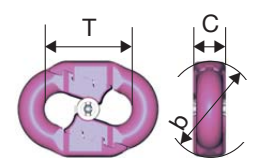
VIP Shortening claw  
VV-28 MAXI



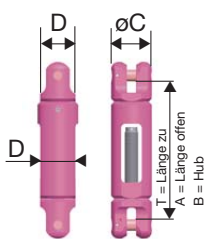
VIP Roundsling coupler  
RS-VVS-28



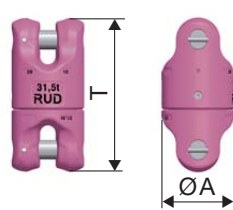
VIP DOMINATOR 28



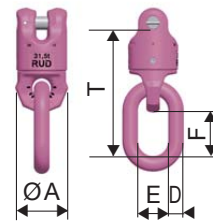
VIP Length adjustment  
VLE-28



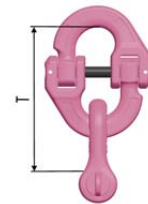
VIP Universal swivel VUW-28



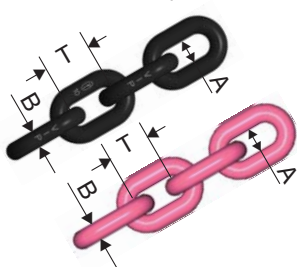
VIP Universal swivel with link  
VUW-GLD-28



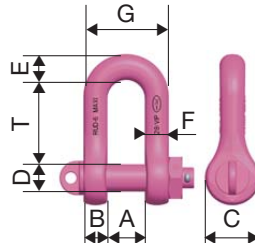
Combination VVS-28  
and VC-SCH 6.0



Round steel chain  
VIP-28 x 84-dsl + pink



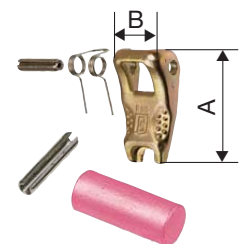
VIP Foolproof shackle  
VC-SCH-6



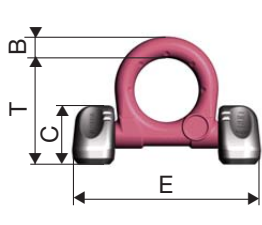
Identification tag  
VKZA 1S-28  
MAXI Test scale VG 28



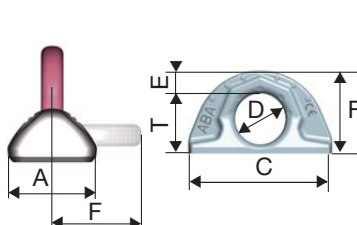
Safety latch VCGH-28  
Item no. 25351000015329  
Replacement bolt VG-28/Sp-28  
Item no. 25351000015337



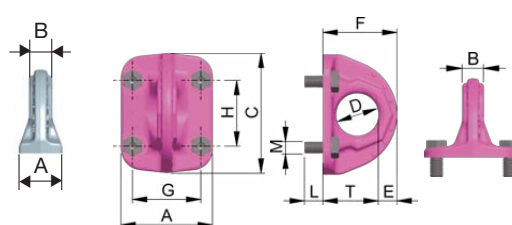
Weld-on lifting ring  
VRBS-Fix 31.5



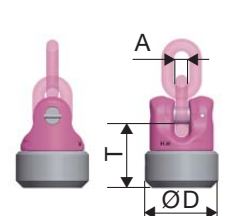
Weld-on lifting point  
ABA 31.5



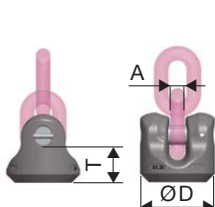
Weld-on lifting point  
B-ABA 31.5



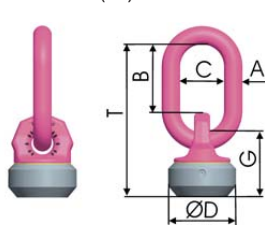
VIP Weld-on lifting point  
VWBS-KA-28



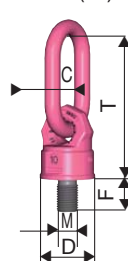
Weld-on lifting point  
PowerPoint  
WPPH-KA-28



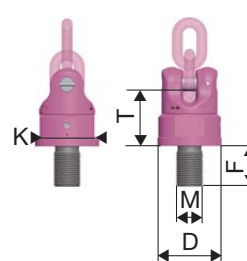
VIP Weld-on lifting ring  
VWBS 40 (50) t



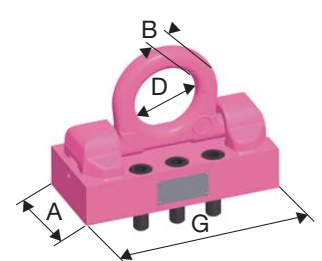
VIP Lifting ring  
VWBG 31.5 (40) t M72



VIP Lifting point  
VWBG-KA-28

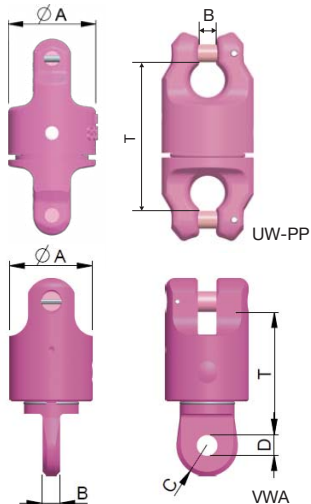


VIP Bolt-on lifting ring  
VRBG 31.5



### VIP Universal swivel UW-PP

- Patented clevis version
- Universal connection, can be loaded in all directions
- Short assembly lengths possible
- Only approved for use with original RUD components



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	0.63	UW PP-4	34	4.8	56	0.22	20202000015098
6	1.5	UW PP-6	38	7.0	68	0.41	20202000015099
8	2.5	UW PP-8	52	9.1	88	1.0	20202000015100
10	4.0	UW PP-10	66	11.0	106	2.0	20202000015101
13	6.7	UW PP-13	80	14.4	131	3.7	20202000015102
16	10	UW PP-16	86	17.6	141	4.9	20202000015103
20	16	VWA 20*	100	21.0	147	6.5	20202000015104
22	20	VWA 22*	102	23.0	147	6.8	20202000015105
28	31.5	VUW-28	148	-	183	27.3	20202000015093

\* Deviating form

### Overload Control VCG

The Safety Champion!

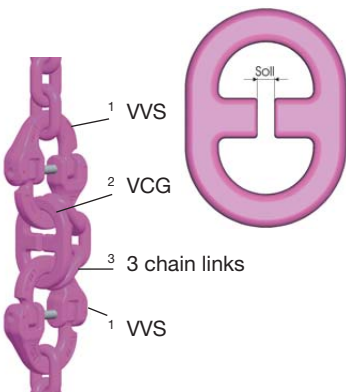
Immediate permanent optical indication in case of overload – by the specially calibrated control link VCGH. Assembled stationary but easy to replace.

Overload control VCG complete

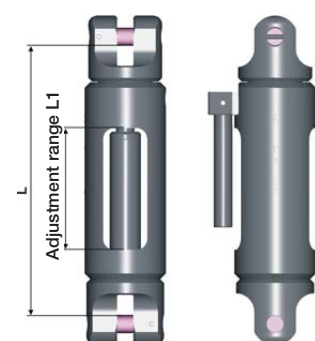
Nominal chain size in mm	Load capacity in t	Designation of single parts	Length T in mm	Weight in kg	Item no.
6	1.5	VVS <sup>1</sup> VCG <sup>2</sup> 3 chain links <sup>3</sup> VVS <sup>4</sup>	115	0.3	25351500015044
8	2.5		151	0.5	25351500015045
10	4.0		198	1.0	25351500015046
13	6.7		232	2.1	25351500015047
16	10.0		291	3.8	25351500015048

Control link VCG

Nominal chain size in mm	Load capacity in t	Designation of single parts	Initial dimension nom. in mm	Weight in kg	Item no.
6	1.5	VCG-6	4	0.06	25351500015049
8	2.5	VCG-8	6	0.10	25351500015050
10	4.0	VCG-10	7	0.20	25351500015051
13	6.7	VCG-13	10	0.40	25351500015052
16	10.0	VCG-16	11	0.80	25351500015053



### VIP Length adjustment VLE



- Allows exact length adjustment of chain falls
- In case of 4 load-bearing chain falls a precise horizontal alignment is possible.
- With eccentric centre of gravity it makes work much easier.
- Allows fine adjustment by one handle turn corresponding to 4.5 mm

For chain sizes 20, 22, and 28 mm a length adjustment by shortening claw (see page 261 VMVK) is only possible in pitch steps:  
Size 20 = 60 mm, size 22 = 66 mm and size 28 = 84 mm.

**Please note:**  
**No adjustment possible under load!**

Nominal chain size	Load capacity in t	L in mm	L1 in mm	Item no.
20	16	300	140	25202500015085
22	20	300	140	25202500015086
28	31.5	478	170	25202500015087



### Grade 8



This mark identifies the **highly dynamic, highstrength round steel chain** with manufacturer's number. (1) means here that as first manufacturer RUD received the official approval for production of round steel chains according to DIN 5687-7 from German BG (Employers' Liability Insurance Association) in 1971.

This mark can be found on every tenth chain link. Special product feature: Considerably improved corrosion protection compared with bright DIN versions.



Special marking for **foolproof, highly dynamic chain slings**, which are manufactured with tighter tolerances (dimension bi). Combined with RUD components an absolutely foolproof chain connection is guaranteed.

**Special product feature:**  
longer service life due to improved wear area.

The lot number can be found on every **highly dynamic round steel chain** once per running metre. It indicates the manufacturing and proof test data of the chain.

**Special product feature:**  
Up to 20% harder than a DIN chain sling.



#### Load capacity in relation to temperature

If chain slings are used at temperatures over 200°C, the permissible load capacity must be reduced.

Load capacity in % at chain temperature of:

-40 to +200° C	from 200 to 300° C	from 300 to 400° C
100 %	90 %	75 %

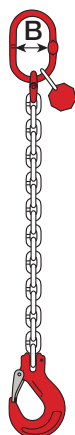


**Chain slings in piece goods can be found on pages 282-283**

### CS 1-leg Chain Sling Grade 8, without Shortener, with Clevis Hook



Clevis hook

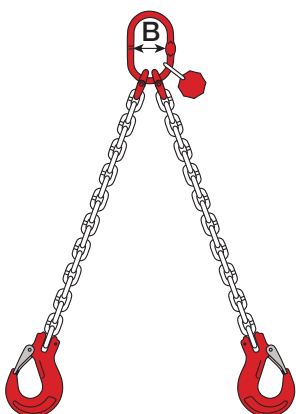


Nominal chain size mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.12	60	25101000015095
8	2	60	25101000015104
10	3.15	75	25101000015112
13	5.3	90	25101000015120
16	8	100	25101000015128
26	21.2		25101000015043
28	25		25101000015046
32	31.5		25101000015049
36	40		25101000015052

### CS 2-leg Chain Sling Grade 8, without Shortener, with Clevis Hooks



Clevis hook

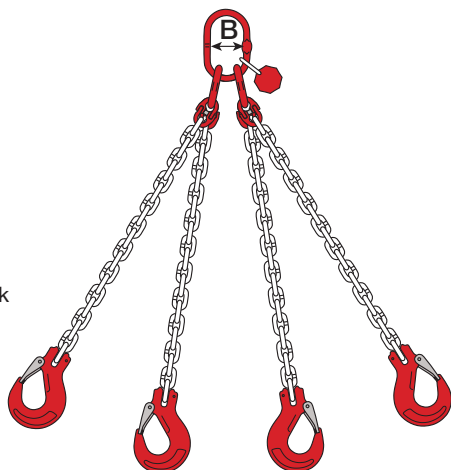


Nominal chain size mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	1.6	1.12	60	25101000015296
8	2.8	2	75	25101000015304
10	4.25	3.15	90	25101000015312
13	7.5	5.3	100	25101000015320
16	11.2	8	110	25101000015328
26	30	21.2		25101000015044
28	33.5	25		25101000015047
32	45	31.5		25101000015050
36	56	40		25101000015053

### CS 4-leg Chain Sling Grade 8, without Shortener, with Clevis Hooks



Clevis hook

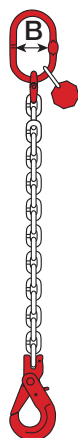


Nominal chain size mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.36	1.7	75	25101000015497
8	4.25	3	90	25101000015507
10	6.7	4.75	100	25101000015513
13	11.2	8	110	25101000015521
16	17	11.8	140	25101000015529
26	45	31.5		25101000015045
28	50	37.5		25101000015048
32	67	47.5		25101000015051
36	85	60		25101000015054

**CS 1-leg Chain Sling Grade 8,  
without Shortener, with self-locking Clevis Hook**



Self-locking  
clevis hook

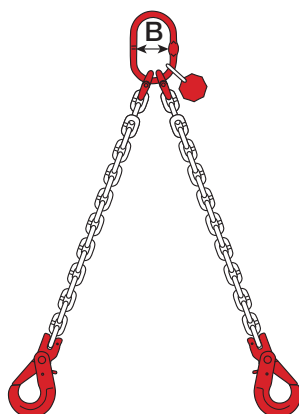


Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.12	60	25101000015055
8	2	60	25101000015063
10	3.15	75	25101000015071
13	5.3	90	25101000015079
16	8	100	25101000015087

**CS 1-leg Chain Sling Grade 8,  
without Shortener, with self-locking Clevis Hooks**



Self-locking  
clevis hook



Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	1.6	1.12	60	25101000015256
8	2.8	2	75	25101000015264
10	4.25	3.15	90	25101000015272
13	7.5	5.3	100	25101000015280
16	11.2	8	110	25101000015288

**CS 4-leg Chain Sling Grade 8,  
without Shortener, with self-locking Clevis Hooks**



Self-locking  
clevis hook



Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.36	1.7	75	25101000015456
8	4.25	3	90	25101000015464
10	6.7	4.75	100	25101000015473
13	11.2	8	110	25101000015481
16	17	11.8	140	25101000015489

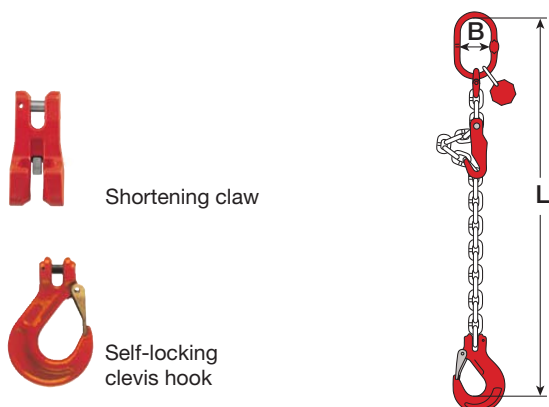


**High-strength chain slings are particularly suitable  
for angular loads and rough surfaces.**

**If higher load capacities are required, we recom-  
mend that you use our ICE 120 and VIP 100 chain  
sling range on page 236 et seq.**

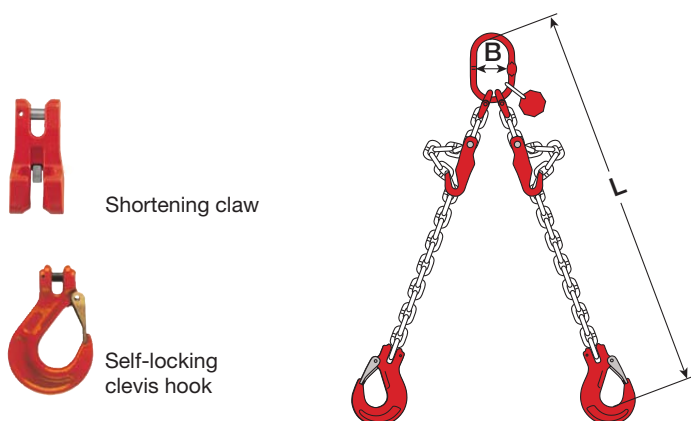


### CS 1-leg Chain Sling Grade 8, with Shortener, with Shortening Claw acc. to DIN 5692:2011-04 and self-locking Clevis Hook



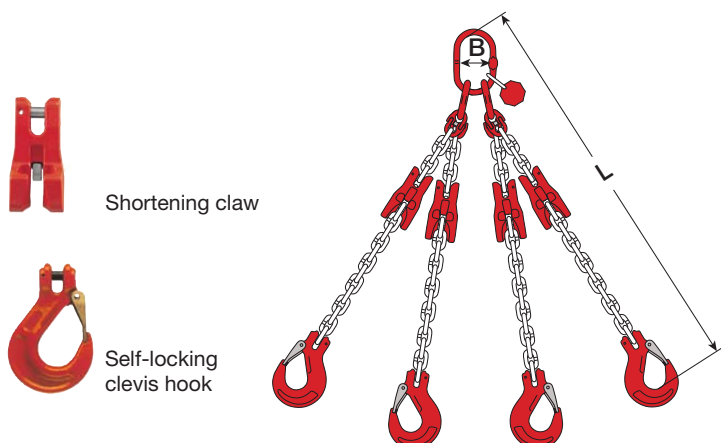
Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.12	60	25101000015216
8	2	60	25101000015224
10	3.15	75	25101000015232
13	5.3	90	25101000015240
16	8	100	25101000015248

### CS 2-leg Chain Sling Grade 8, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks



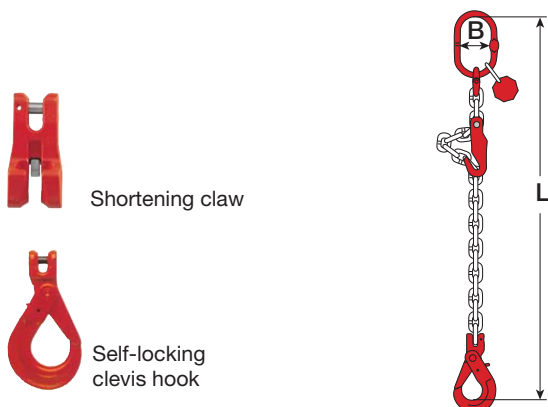
Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	1.6	1.12	60	25101000015416
8	2.8	2	75	25101000015424
10	4.25	3.15	90	25101000015432
13	7.5	5.3	100	25101000015440
16	11.2	8	110	25101000015448

### CS 4-leg Chain Sling Grade 8, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks



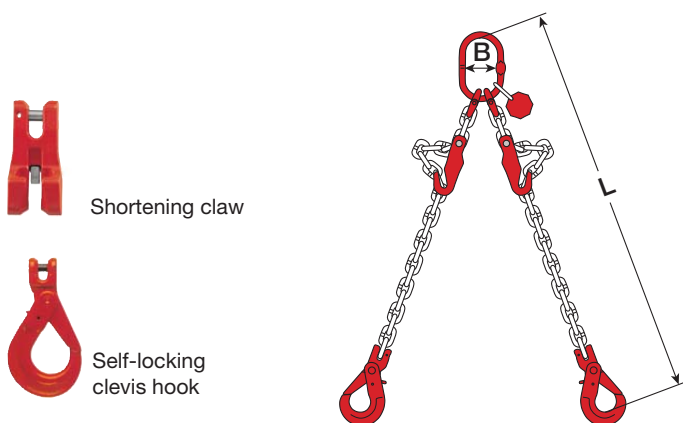
Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.36	1.7	75	25101000015617
8	4.25	3	90	25101000015625
10	6.7	4.75	100	25101000015633
13	11.2	8	110	25101000015641
16	17	11.8	140	25101000015649

**CS 1-leg Chain Sling Grade 80, with Shortener, with Shortening Claw acc. to DIN 5692:2011-04 and self-locking Clevis Hook**



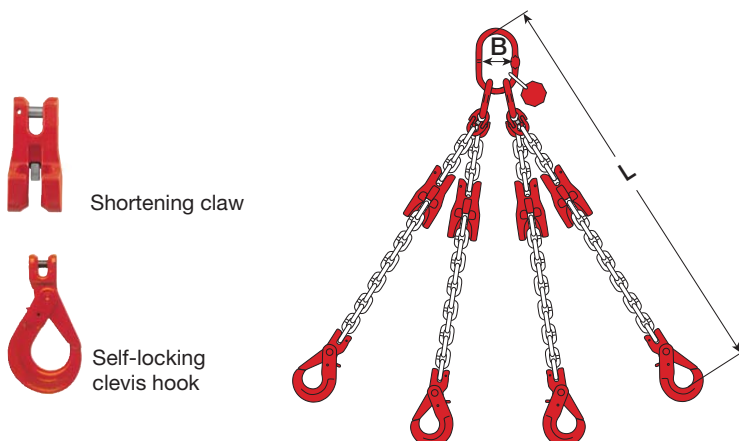
Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.12	60	25101000015136
8	2	60	25101000015144
10	3.15	75	25101000015152
13	5.3	90	25101000015160
16	8	100	25101000015168

**CS 2-leg Chain Sling Grade 80, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks**



Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	1.6	1.12	60	25101000015336
8	2.8	2	75	25101000015344
10	4.25	3.15	90	25101000015352
13	7.5	5.3	100	25101000015360
16	11.2	8	110	25101000015368

**CS 4-leg Chain Sling Grade 80, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks**



Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.36	1.7	75	25101000015537
8	4.25	3	90	25101000015545
10	6.7	4.75	100	25101000015553
13	11.2	8	110	25101000015561
16	17	11.8	140	25101000015569



**High-strength chain slings are particularly suitable for angular loads and rough surfaces.**

**If higher load capacities are required, we recommend that you use our ICE 120 and VIP 100 chain sling range on page 236 et seq.**

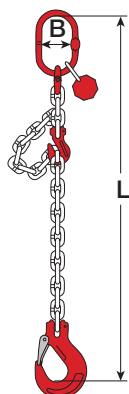
### CS 1-leg Chain Sling Grade 80, with Shortener, with Grab Hook acc to DIN 5692:2011-04 and Clevis Hook



Grab hook



Clevis hook



Nominal chain size mm	Load capacity 1-leg single direct in t	Dimension B in mm	Configuration Number
6	1.12	60	25101000015176
8	2	60	25101000015184
10	3.15	75	25101000015192
13	5.3	90	25101000015200
16	8	100	25101000015208

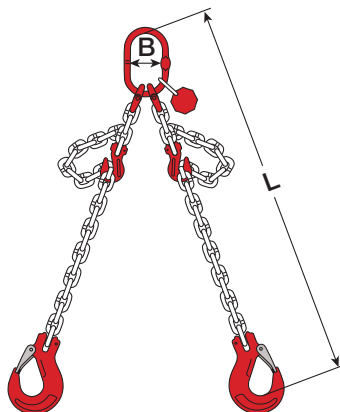
### CS 2-leg Chain Sling Grade 80, with Shortener, with Grab Hooks acc. to DIN 5692:2011-04 and Clevis Hooks



Grab hook



Clevis hook



Nominal chain size mm	Load capacity in t 2-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	1.6	1.12	60	25101000015376
8	2.8	2	75	25101000015384
10	4.25	3.15	90	25101000015392
13	7.5	5.3	100	25101000015400
16	11.2	8	110	25101000015408

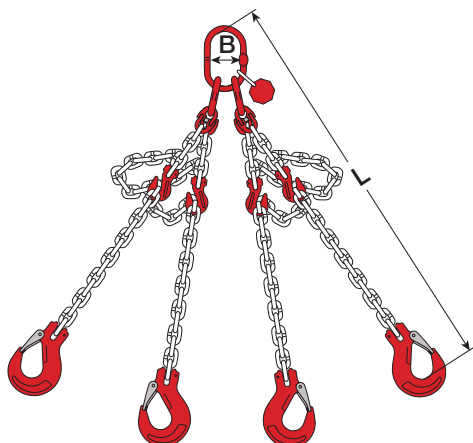
### CS 4-leg Chain Sling Grade 80, with Shortener, with Grab Hooks acc. to DIN 5692:2011-04 and Clevis Hooks



Grab hook



Clevis hook



Nominal chain size mm	Load capacity in t 4-leg at angle		Dimension B in mm	Configuration Number
	0-45°	45-60°		
6	2.36	1.7	75	25101000015577
8	4.25	3	90	25101000015585
10	6.7	4.75	100	25101000015593
13	11.2	8	110	25101000015601
16	17	11.8	140	25101000015609



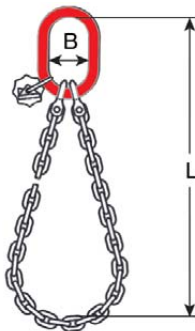
High-strength chain slings are particularly suitable for angular loads and rough surfaces.

If higher load capacities are required, we recommend that you use our ICE 120 and VIP 100 chain sling range on page 236 et seq.



### Endless Chain Grade 8, single with Master Link

- With Master link AK2 with welded ring fork
- Chain sling acc. to EN 818-2, Grade 8
- With load indicator



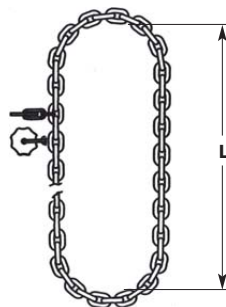
Nominal chain size mm	Load capacity/ WLL in t		Dimension B in mm	Item no.
	0-45°	45-60°		
6	1.23	0.9	60	25101500015001
8	2.2	1.6	60	25101500015007
10	3.6	2.5	75	25101500015013
13	5.8	4.24	90	25101500015019
16	9.0	6.4	110	25101500015025



**Load capacity reduction of 20% due to sharp edges has already been considered.**

### Endless Chain Grade 8, welded

- Endlessly welded from chain slings acc. to EN 818-2, Grade 8
- With test data tag and load indicator



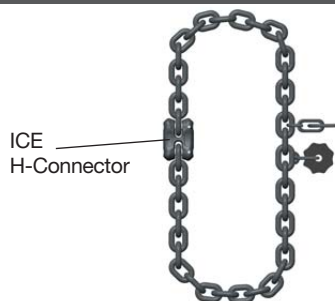
Available up to a nominal chain size of 56.

Nominal chain size mm	Load capacity / WLL in t		Item no.
	simply direct in t	tied in t	
6	2.24	1.8	25101500015147
8	4.00	3.15	25101500015153
10	6.30	5	25101500015159
13	10.60	8.5	25101500015165
16	16.00	12.5	25101500015171



**Load capacity reduction of 20% due to sharp edges has already been considered.**

### Endless chain Grade 8 with Connector



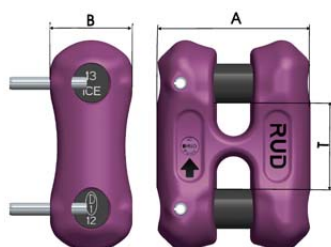
Nominal chain size mm	Load capacity / WLL in t		Item no.
	simply direct in t	tied in t	
6	2.24	1.8	25101500015141
8	4.00	3.15	25101500015142
10	6.30	5	25101500015143
13	10.60	8.5	25101500015144
16	16.00	12.5	25101500015145



**Load capacity reduction of 20% due to sharp edges has already been considered.**

### ICE/VIP/GK8 H-Connector IH/VH

- Fast, easy and economic assembly of endless chains
- Pitch of H-Connector corresponds to pitch of chain
- Ergonomic shape
- Enhanced gliding over edges
- Highly flexible: Adapts to both, the shape of the chain and the load



Nominal chain size mm	Cap. Gr. 8 in t	Cap. VIP in t	Cap. ICE in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
					A	B	T		
4	0.5	0.63	0.8	IH-4	24	12	12	0.04	25202000035812
6	1.12	1.5	1.8	IH-6	34	19.6	18	0.11	25202000015376
8	2.0	2.5	3.0	IH-8	45	25.5	18	0.11	25202000015377
10	3.15	4.0	5.0	IH-10	56	31.5	30	0.55	25202000015378
13	5.3	6.7	8.0	IH-13	73	40	39	1.16	25202000015379
16	8.0	10.0	12.5	IH-16	89	49	48	2.16	25202000015380



**Caution:**  
Suitable for use with round steel chains  
DIN 818-2 in Gr. 8, VIP-Gr. 10 and ICE-Gr. 12

**The load capacity must be adapted to the grade of the chain used.**

# SLINGS

## Bulk Sling Chain

### ICE Sling Chain PAS 1061 Grade 12

- Sling chain in accordance to DIN EN 818-2
- Material: patented steel, specially tempered, high durability
- Greater wear resistance
- 30% higher surface hardness than grade 8 therefore longer service lives
- Surface powder-coated in traffic purple



PAS = Publicly Available Specification

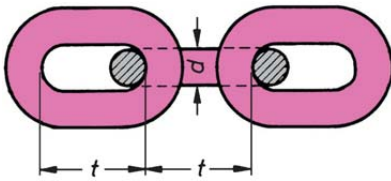
Dimensions in mm		Load capacity	Minimum	Weight	Item no.
Nom. chain size d	Pitch t	WLL in t	breaking load in kN	in kg/m	
4	12	0.8	31	0.44	25201000015022
6	18	1.8	71	0.98	25201000015023
8	24	3.0	118	1.66	25201000015024
10	30	5.0	196	2.62	25201000015025
13	39	8.0	314	4.25	25201000015026
16	48	12.5	503	6.72	25201000015027



**According to the BG recommendation, chains and components from different manufacturers should not be combined**

### VIP Sling Chain PAS 1061 Grade 10

- Sling chain in accordance to DIN EN 818-2
- Material: steel, specially tempered, high durability
- With patented overheating indicator
- Surface powder-coated in fluorescent marking colour magenta pink



PAS = Publicly Available Specification

Dimensions in mm		Load capacity	Minimum	Weight	Item no.
Nom. chain size d	Pitch t	WLL in t	breaking load in kN	in kg/m	
4	12	0.63	25	0.36	25201000015028
6	18	1.5	60	0.85	25201000015029
8	24	2.5	100	1.5	25201000015030
10	30	4.0	160	2.4	25201000015031
13	39	6.7	265	4.0	25201000015032
16	48	10	400	6.0	25201000015033
20	60	16	600	9.5	25201000015034
22	66	20	800	12.3	25201000015035
28	84	31.5	1236	18.6	25201000015036
28*	84	31.5	1236	18.6	25201000015037

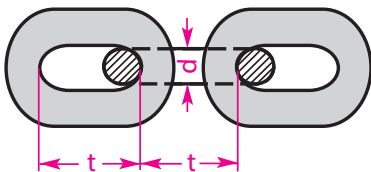
\*Surface in CRUD-dsl (black)



**According to the BG recommendation, chains and components from different manufacturers should not be combined.**

### Sling Chain DIN EN 818-2, Grade 8

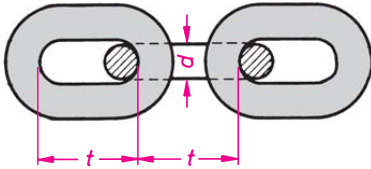
- Material: Steel, manufactured acc. to EN 818-2
- Blue matt-finished, oil-polished



Dimensions in mm		Load capacity	Minimum	Weight	Item no.
Nom. chain size d	Pitch t	WLL in t	breaking load in kN	in kg/m	
6	18	1.12	45.2	0.8	25201000015001
7	21	1.5	61.6	1.1	25201000015002
8	24	2.0	80.4	1.4	25201000015003
10	30	3.15	126	2.2	25201000015004
13	39	5.3	212	3.7	25201000015005
16	48	8.0	322	5.7	25201000015006

### Sling Chain DIN EN 818-2, Grade 8

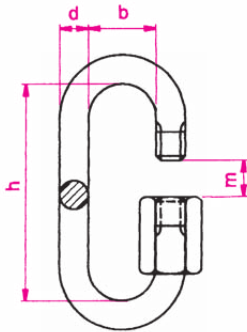
- Material: Steel, manufactured acc. to EN 818-2
- Surface black dipped RAL 9005



Nom. chain size d	Dimensions in mm		Load capacity WLL in t	Minimum breaking load in kN	Weight ca. in kg/m	Item no.
	Pitch t					
18	54		10	400	7.3	25201000015011
20	60		12.5	500	9.0	25201000015012
22	66		15	600	10.9	25201000015013
26	78		21.2	848	15.2	25201000015014
28	84		25	985	17.6	25201000015015
32	96		31.5	1290	23.0	25201000015016
36	108		40	1630	29.0	25201000015017
40	120		50	2010	36.0	25201000015018
45	135		63	2540	45.5	25201000015019
50	150		80	3140	56.0	25201000015020
56	168		100	3940	72.5	25201000015021

### Quick Link

- Safety factor 6
- Dimensions acc. to DIN 56926-A
- Material: Mild steel
- Surface: galvanised



Nom. chain size	WLL in t	Dimensions in mm				Weight in kg	Item no.
		b	d	h	m		
3.5	0.050	10	3.5	29	5.0	0.014	25302010015031
4	0.090	11.5	4	31.5	6.0	0.014	25302010015032
5	0.140	13	5	39.5	6.5	0.020	25302010015033
6	0.200	14.5	6	45	7.5	0.036	25302010015034
7	0.275	16	7	52	9.0	0.050	25302010015035
8	0.350	17.5	8	58	11.0	0.078	25302010015036
10	0.550	20.5	10	69	12.0	0.138	25302010015037
12	0.750	23.5	12	80.5	15.0	0.200	25302010015038



Load capacity (WLL) indicated on the items must not be exceeded.

### Lifting Set Grade 8 in portable Plastic Case

#### Contents:

- 1 x 2-leg chain sling,
  - Grade 80, nominal size 6
  - with shortening claws
  - with clevis hooks
  - Load capacity: 0-45° = 1,600 kg
  - 45-60° = 1,120 kg

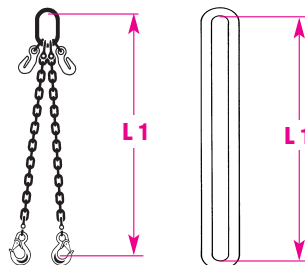
#### 1 Liftfix roundsling

- EWL L1: 1,000 mm = 2,000 mm circumference length
- Load capacity:
  - single direct 1,000 kg
  - in basket hitch 2,000 kg

#### 1 Plastic case

- colour as available from stock

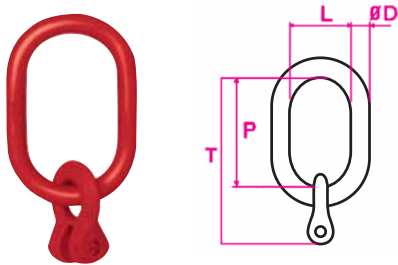
Item no.: 25400000015001



## Master Links Grade 8

### Master Link GK 8 with welded ring fork 1-leg

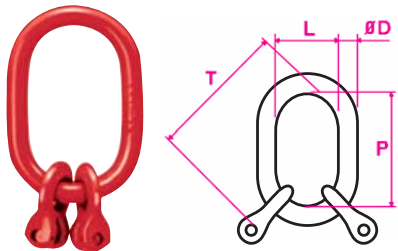
- Grade 8, no flattened section
- With welded ring fork
- For 1-leg chain sling acc. to EN 818



Load capacity / WLL in kg	Nominal chain size in mm	Ø D	Dimensions in mm			Weight in kg/pce	Item no.
			P	L	T		
1120	6	13	110	60	140	0.58	25202000035286
2000	8	16	110	60	151	0.88	25202000035284
3150	10	18	135	75	185	1.35	25202000035285
5300	13	22	160	90	223	2.40	25202000035287

### Master Link GK 8 with welded ring fork 2-leg

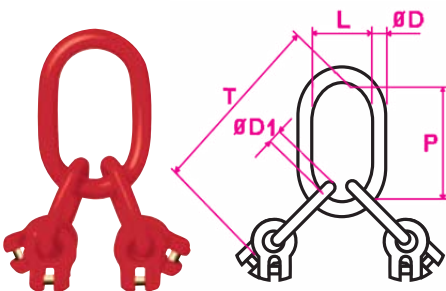
- Grade 8, no flattened section
- With welded ring fork
- For 1- and 2-leg chain slings acc. to EN 818



Load capacity / WLL in kg		Nominal chain size in mm	Ø D	Dimensions in mm			Weight in kg/pce	Item no.
0-45°	45°- 60°			P	L	T		
1600	1120	6	13	110	60	140	0.70	25202000035288
2800	2000	8	18	135	75	176	1.40	25202000035289
4250	3150	10	22	160	90	210	2.45	25202000035290
7500	5300	13	26	180	100	243	4.20	25202000035291

### Master Link GK 8 with welded ring fork 4-leg

- Grade 8, no flattened section
- With welded ring fork
- For 3- and 4-leg chain sling acc. to EN 818

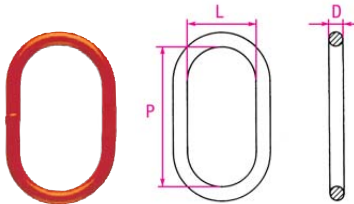


Load capacity / WLL in kg		Nominal chain size in mm	Ø D	Dimensions in mm				Weight in kg/pce	Item no.
0-45°	45°- 60°			P	L	Ø D1	T		
2360	1700	6	18	135	75	13	219	1.65	25202000035292
4250	3000	8	22	160	90	16	271	3.20	25202000035293
6700	4750	10	26	180	100	18	315	5.30	25202000035294
11200	8000	13	32	200	110	22	378	9.40	25202000035295



### Master Link

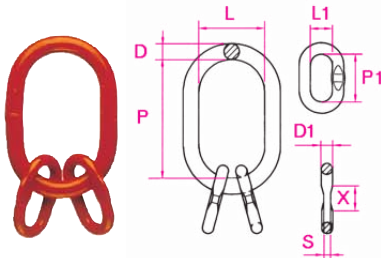
- Grade 80, no flattened section
- surface: red dipped
- For 1- and 2-leg wire rope slings acc. to DIN EN 13414-1
- For 1- and 2-leg chain slings acc. to EN 818



For wire rope slings, type N		For chain slings grade 8		Load capacity in kg	Dimensions in mm			Weight in kg	Item no.
1-leg rope Ø	2-leg rope Ø	1-leg nom. size	2-leg nom. size		P	L	D		
8, 10, 12	8, 10	7	6	1600	110	60	13	0.3	25202000015001
14	12	8	7	2120	110	60	16	0.5	25202000015002
16, 18	14	10	8	3150	135	75	18	0.9	25202000015003
20, 22	16, 18	13	10	5300	160	90	22	1.6	25202000015004
24, 26, 28	20, 22	16	13	8000	180	100	26	2.5	25202000015005
32	24, 26, 28	18	16	11200	200	110	32	4.1	25202000015006
36, 40	32	22	20	17000	300	160	40	9.0	25202000015008
44	36	26	22	21200	340	180	45	12.8	25202000015009
-	40	32	26	31500	350	190	51	16.6	25202000015010
-	-	36	32	45000	400	200	57	27.0	25202000015011
-	-	40	36	56000	400	200	57	27.0	25202000015012
-	-	45	40	71000	460	250	71	44.0	25202000015266
-	-	50	45	90000	500	270	80	62.0	25202000015268
-	-	56	-	112000	560	300	90	87.0	25202000015270

### Master Link Assembly

- 3-leg
- Grade 80, no flattened section
- surface: red dipped
- For 3- and 4-leg wire rope slings acc. to DIN EN 13414-1
- For 3- and 4-leg chain slings acc. to EN 818

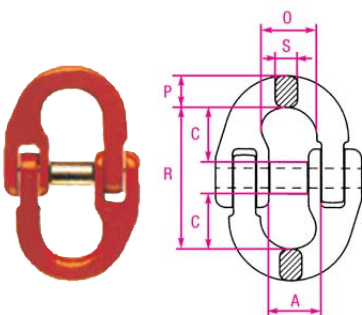


For wire rope slings, type N 3+4-leg rope Ø	For chain slings grade 8 3+4-leg nom. Ø	Load capacity in kg	Dimensions in mm						Weight in kg	Item no.
			P	A-link		B-link		D1		
				L	D	P1	L1			
8, 10	6	2360	135	75	18	54	25	13	1.3	25202000015045
-	7	3150	135	75	18	54	25	13	1.3	25202000015044
12, 14	8	4250	160	90	22	70	34	16	2.3	25202000015046
16, 18	10	6700	180	100	26	85	40	18	3.5	25202000015047
20, 22	13	11200	200	110	32	115	50	22	8.7	25202000015048
24, 26, 28	16	17000	260	140	36	140	65	26	9.56	25202000015049
-	18	21200	340	180	45	150	70	32	18.92	25202000015050
32	20	26500	350	190	51	150	70	32	22.65	25202000015051
36	22	31500	350	190	51	170	75	36	25.19	25202000015052
40	26	45000	400	200	57	170	80	40	36.01	25202000015053
-	32	67000	460	250	70	200	100	50	64.4	25202000015054



**Master links with an inner width up to 250 mm for big crane hooks are available on request. Please indicate size of crane hook (width measured at hook base). Load capacities 1,000 to 45,000 kg.**

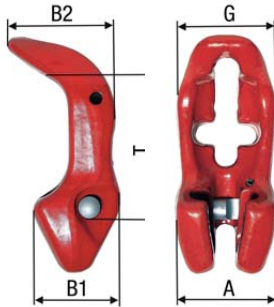
### Chain Connector



Nominal chain size in mm	Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
		A	C	O	R	P	S		
6	1120	16	18	16.5	43	7.2	6.8	0.07	25202000015034
7	1500	17.8	20	20.5	50.5	10.2	9	0.10	25202000015035
8	2000	19	25.5	23.5	62	11.5	10	0.25	25202000015036
10	3150	23.8	30	27.5	72	12.6	12.6	0.35	25202000015037
13	5300	28	36	33.3	87.3	19	16.7	0.68	25202000015038
16	8000	34.3	40.5	39.5	103	20.6	20.6	1.10	25202000015039
20	12500	44	48	47	116	23	23	1.70	25202000015040
22	15000	49	51	55	133	26.5	26.5	2.20	25202000015041
26	21200	60	60	66	148	31.5	31.5	4.20	25202000015042
32	31500	80	77	86	190	40	32	7.19	25202000015043

### Multi Shortening Claw BSEK acc. to DIN 5692:2011-04

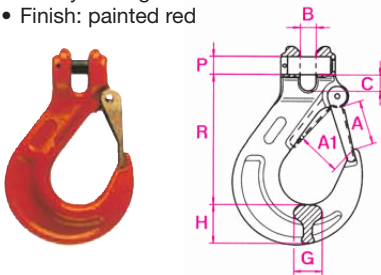
- Captively built in to the endless chain leg
- Can be fitted in any position along the chain leg
- No reduction of load capacity
- Complies with 5692:2011-04
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B1	B2	G	T		
1120	6	BSEK-6	38	34	40	38	66	0.3	25202500015001
2000	8	BSEK-8	46	41	52	48	88	0.55	25202500015002
3150	10	BSEK-10	58	50	64	60	110	1.1	25202500015003
5300	13	BSEK-13	74	64	86	76	143	2.4	25202500015004
8000	16	BSEK-16	91	79	105	98	176	4.4	25202500015005

### Fork Head Hook

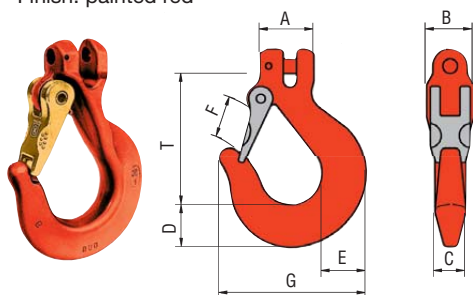
- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm								Weight in kg/pce	Item no.
		A	A1	B	C	G	H	P	R		
1120	6	25	19	6.7	8.5	14.5	20	7	73	0.24	25201500015258
2000	8	29.5	24.5	8.7	9.8	19	27	9	86.3	0.53	25201500015259
3150	10	35.7	29	12.2	13.5	23.5	33	13	105	0.95	25201500015260
5300	13	43.5	35	15.3	17	28.5	40	16	128.5	1.67	25201500015261
8000	16	56	45	18	22	37	48	20	155	3.00	25201500015262

### Safety Hook GSH

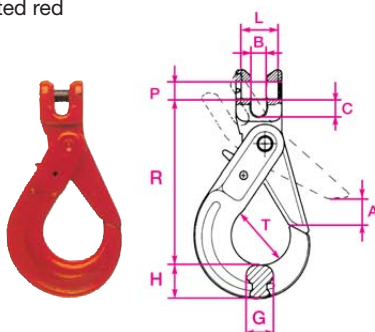
- Forged safety latch
- Locks on the hook tip
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm							Weight in kg/pce	Item no.
		A	B	C	D	E	F	G		
1120	6	27	22	16	20	24	25	74	0.37	25201500015073
2000	8	38	28	20	28	31	30	98	0.76	25201500015074
3150	10	46	36	26	35	38	35	122	1.39	25201500015075
5300	13	58	46	30	37	48	40	139	2.38	25201500015076
8000	16	67	56	36	49	58	48	164	4.05	25201500015077

### Self-locking Hook CRF

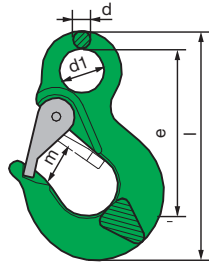
- Locks automatically under load
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	G	H	R	T	PxL		
1120	6	28	7	8	16	21	94	35	7.5x17.5	0.496	25201500015078
2000	7-8	34	9	10	20	26	123	43	9x22.5	0.934	25201500015079
3150	10	45	12	14	25	30	143	56	13x31.5	1.580	25201500015080
5300	13	51	15	17	35	40	180	69	16x42	3.200	25201500015081
8000	16	60	19	19	36	50	215	80	21x51.5	5.950	25201500015082
12500	20	70	23	26	60	67	253	90	24x73	9.800	25201500015083
15000	22	80	26	32	62	70	287	100	26x72	14.400	25201500015084

### Safety Eye Hook

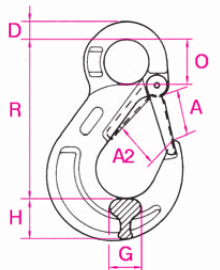
- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted green



Load capacity WLL in kg	Dimensions in mm					Weight in kg/pce	Item no.
	d1	d	l	m	e		
2500	34	16	190	34	137	1.5	25201500015039
3200	34	17	195	34	138	1.6	25201500015040
4000	40	20	227	40	164	2.8	25201500015041
6300	52	24	288	50	213	4.5	25201500015042
8000	54	26	299	57	216	5.4	25201500035131
10000	60	34	329	61	234	8.1	25201500035132

### Safety Eye Hook

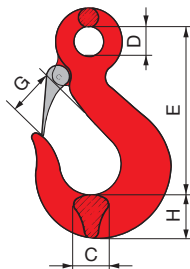
- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm							Weight in kg/pce	Item no.
		A	A2	D	G	H	O	R		
1120	6	25	20.5	8.5	14.5	20	20.5	80.5	0.27	25201500015114
2000	8	29.5	24.5	11	19	27	25	95.5	0.50	25201500015115
3150	10	35.7	29	14	23.5	33	34	120.5	0.90	25201500015116
5300	13	43.5	35.4	17.5	29	40	42.5	150	1.50	25201500015117
8000	16	52.5	44	22	35.5	49	52	183	2.75	25201500015118

### Safety Eye Hook

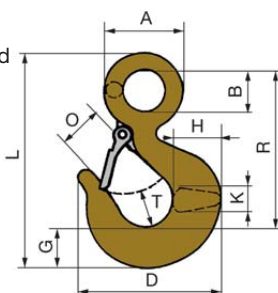
- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red



Load capacity WLL in kg	Dimensions in mm					Weight in kg/pce	Item no.
	E	D	G	H	C		
21200	277	52	66	73	56	11.13	25201500015160
31500	320	64	75	84	64	15.83	25201500015161
40000	388	72	90	103	78	32.30	25201500015162
50000	442	84	103	116	89	47.00	25201500015163
63000	494	90	114	130	99	64.40	25201500015164
80000	610	102	131	145	110	81.90	25201500015165

### Safety Eye Hook

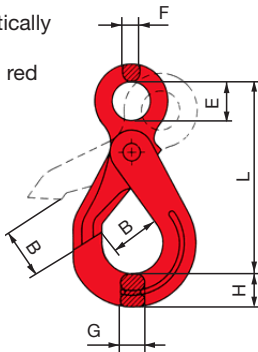
- Forged load capacity details and manufacturer
- Material: SAE 8620
- Safety latch galvanised
- With deformation indicators
- Finish: painted gold



Load capacity WLL in kg	Dimensions in mm										Weight in kg/pce	Item no.
	A	B	D	G	H	K	L	R	T	O		
1250	37.5	19.1	73	19	20.5	16	110	82	20.5	22	0.26	25201500015021
1600	44.5	23	81	21.5	24	18	125	93	20.5	24.5	0.31	25201500015022
2500	52	28.6	92	25.5	29.5	22	141	104	21.5	25.5	0.50	25201500015023
3200	61	32	104	28.5	33.5	24	163	119	30	28.5	0.84	25201500015024
5400	75	40	125	36.5	41.5	33	201	146	35	34	1.69	25201500015025
8000	97	51	165	46	52	43	256	187	45	43	3.72	25201500015026
11500	119	62	192	57	67	48	316	230	54	52	6.50	25201500015027
16000	137	72	221	66	75	56	354	256	65	57	9.50	25201500015028
22000	168	89	279	76	89	68	434	318	73	76	17.00	25201500015029

### Self-locking Eye Hook CRO

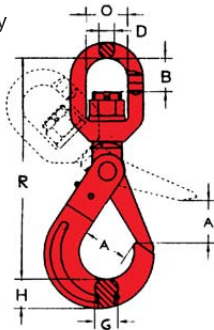
- Locks automatically under load
- Finish: painted red



Load capacity WLL in kg	Nominal chain size	Dimensions in mm						Weight in kg/pce	Item no.
		L	B	E	F	G	H		
1120	6	109	28	21	11	16	21	0.5	25201500015014
2000	7/8	135	34	25	12	20	26	0.9	25201500015015
3150	10	168	45	33	16	25	30	1.6	25201500015016
5300	13	205	51	40	20	35	40	3.25	25201500015017
8000	16	251	60	50	27	36	50	6.0	25201500015018
12500	18	290	70	60	30	60	67	9.8	25201500015019
15000	22	322	80	70	32	62	70	14.4	25201500015020

### Self-locking Swivel Hook CRG

- Locks automatically under load
- Finish: painted red



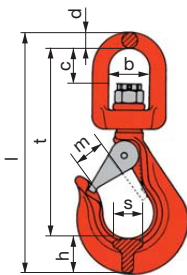
Load capacity WLL in kg	Nominal chain size	Dimensions in mm						Weight in kg/pce	Item no.
		R	A	B	O	D	G	H	
1120	6	159	28	23	33	11	15	21	0.6
2000	7/8	183	37	27	36	12	17	23	1.1
3150	10	218	44	36	42	15	21	30	2.0
5300	13	280	54	47	48	19	30	39	3.8
8000	16	343	62	67	61	22	37	49	7.1



Not suitable for rotation under load

### Safety Hook with Swivel

- Material: 1.6541 tempered
- With a large mouth width
- With extra sturdy safety latch
- Manufactured according to DIN 5691
- Safety latch galvanised
- Finish: painted red

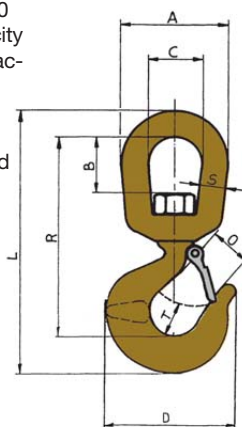


With ball bearings											With gliding bearings	
Load capacity WLL in kg		Dimensions in mm								Weight in kg/pce	Item no.	
	b	c	m	h	t	l	d	s				
1120	34	25	19	27	137	177	13	21	0.6	25201500015045		
1500	36	31	24	30	160	205	15	27	1.2	25201500015049		
2000	38	31	28	32	178	226	16	30	1.4	25201500015046		
3150	42	33	33	42	200	260	18	31	2.5	25201500015047		
5300	64	55	44	47	281	352	23	42	5.5	25201500015048		

Item no.	
25201500015050	
25201500015054	
25201500015051	
25201500015052	
25201500015053	

### Safety Hook with Swivel

- Material: SAE 8620
- Forged load capacity details and manufacturer
- With deformation indicators
- Finish: painted gold



Load capacity WLL in kg	Dimensions in mm									Weight in kg/pce	Item no.
A	B	C	D	L	O	R	S	T			
1250	50.8	23.8	31.8	73.0	141	22.3	114	9.53	20.6	0.34	25201500015030
1600	63.5	33.3	38.1	81.0	168	24.6	134	12.70	20.6	0.57	25201500015031
2500	76.2	41.3	44.5	92.0	194	25.4	153	15.90	21.4	1.02	25201500015032
3200	76.2	39.7	44.5	104.0	206	28.6	162	15.90	30.2	1.17	25201500015033
5400	88.9	44.5	51.0	125.0	244	34.1	188	19.10	34.9	2.22	25201500015034
8000	114.3	59.0	64.0	165.0	315	42.9	244	25.40	45.2	4.67	25201500015035
11500	127.0	60.0	70.0	192.0	368	52.0	283	28.60	54.0	7.37	25201500015036
16000	142.9	68.0	79.0	221.0	403	57.0	306	31.80	65.0	10.60	25201500015037
22000	177.8	106.0	102.0	279.0	535	76.0	421	38.10	73.0	22.60	25201500015038

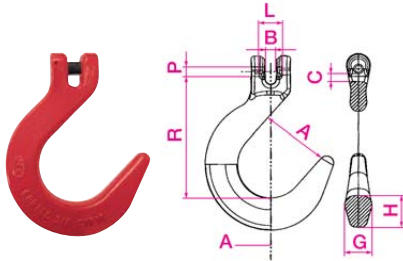


Not suitable for rotation under load



### Clevis Foundry Hook CYF

- With clevis connection
- Without safety latch
- Finish: painted red



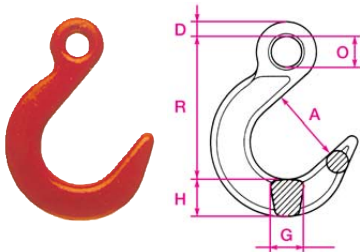
Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm							Weight in kg/pce	Item no.
		A	B	C	G	H	R	PxL		
1120	6	53.5	8.5	6.5	22	26	91	7.5x17.5	0.7	25201500015131
2000	7-8	64	10	11.5	26	31	120.4	9x22.5	1.1	25201500015132
3150	10	76	13	15	30	34	131	13x31.5	1.7	25201500015133
5300	13	89	17	17.5	40	44.5	148	16x42	3.6	25201500015134
8000	16	101	19	21.5	45	50.5	198.5	21x51.5	5.6	25201500015135



**Also called container hook. With considerable bigger opening but without safety latch. Use only where accidental unhooking is not possible!**  
**Not for overhead lifting! Not suitable for the transportation of people.**  
**Does not comply with the EEC Machinery Directive 89/392 EWG I/4.4.1.**

### Foundry Hook with Eye CY

- With clevis connection
- Without safety latch
- Finish: painted red



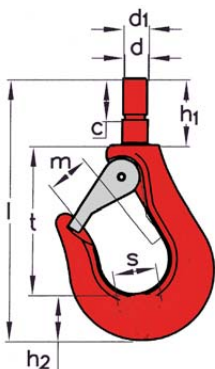
Load capacity WLL in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	D	G	H	O	R		
2000	64	13.5	25	29	18	125	0.92	25201500015065
3150	76	14	23	30	32	150	1.77	25201500015066
5300	89	19	38	40	27	173	2.82	25201500015067
8000	102	24	45	48	47	210	5.03	25201500015068
12500	114	28	54	60	56	260	7.6	25201500015069



**Also called container hook. With considerable bigger opening but without safety latch. Use only where accidental unhooking is not possible!**  
**Not for overhead lifting! Not suitable for the transportation of people.**  
**Does not comply with the EEC Machinery Directive 89/392 EWG I/4.4.1.**

### Safety Hook Shank Type

- Safety latch galvanised
- Painted red



Load capacity WLL in kg	Thread d	Dimensions in mm							Weight in kg/pce	Item no.
		l	t	c	h1	h2	s	m	d1	
1120	M12	140.0	75	25.0	37.0	27	21	19	12.7	0.4
1500	M14	161.5	89	24.5	39.5	30	27	24	15.0	0.8
2000	M16	180.0	101	28.7	46.0	32	30	28	17.0	0.9
3150	M20	210.0	116	33.0	51.0	42	31	33	21.3	1.5
5300	M24	275.0	152	49.1	75.0	47	42	44	25.5	3.3



**Shank type hooks must only be loaded in straight pull.**  
**During assembly the thread must not be prestressed.**

SLINGS

Special Hooks

Automatic Safety Hook with digital Remote Control



Lifting ring is attracted by the integrated magnet...



... and correctly aligned. The hook closes ...



... and the load can be lifted.


The patented hook generates a magnetic field. As the opened hook approaches the load the hook will automatically align itself in a 90° position to the lifting eye bringing it in the correct position. The (crane) operator can then close the hook by the digital remote control. This is a time-saving way of load attachment, lifting and transport without manual intervention of the operator. Under load the hook cannot be opened again.

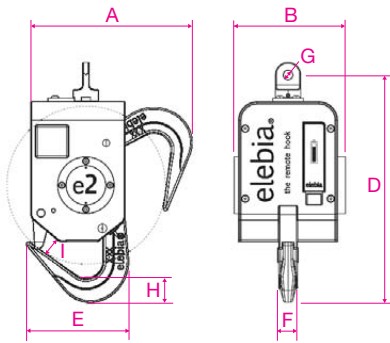
Your advantages:

- Saves time through automation
- Load can be attached without manually using the crane guide (greater safety)
- Range of digital remote control: ca. 100 m
- Button on the hook allows manual operation without remote control
- Protected IP65
- Automatic indication of yearly maintenance interval on the remote control
- Operating temperature -20°C (-4°F) to +85°C (185°F)
- Complies with DIN 1677 and MRL 2006/42/EG
- Digital radio frequency 868 MHz (alternative frequencies available)

Scope of delivery:

- elebia® load hook
- Digital remote control eMini
- Battery charger 230V
- Multilingual operating instructions

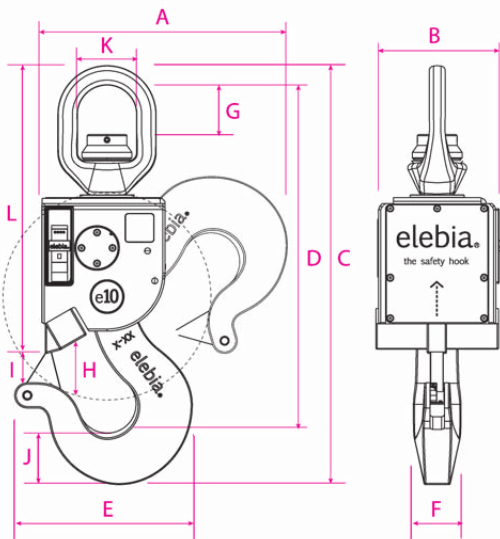
 **Arrange a no-obligation presentation appointment.**



Technical drawing evo2



evo2

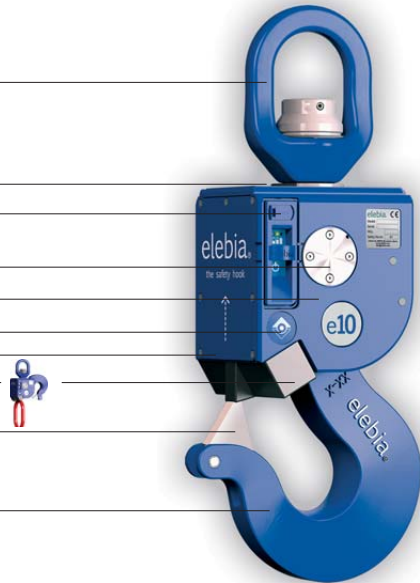


Technical Drawing evo5 up to evo20

Swivelling suspension eye (rotates through 360°)

- Weighing unit can be retrofit
- Removeable and rechargeable lithium battery with LED display
- Electric motor with slipping clutch
- Rugged steel housing
- Button for manual operation
- Impact and corrosion-resistant polyester paint
- Magnetic field generator (Optional: Magnetic sensor)
- Spring loaded stainless steel safety latch

Forged load hook  
(Under load the hook cannot be opened again.)

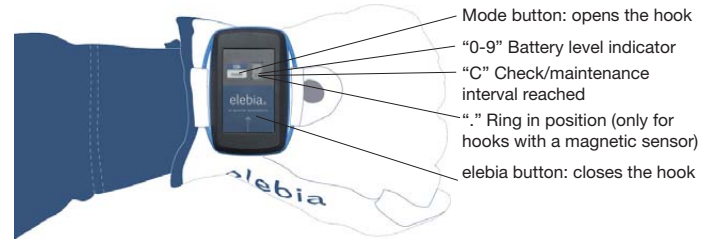


Load capacity in t	Type	Dimensions in mm												Weight in kg	Item no.
		A	B	C	D	E	F	G	H	I	J	K	L		
2.5	evo2	188	131	-	269	121	22	11	29	21	-	-	-	7	25302020035041
5.0	evo5	276	172.5	469	409	194	43	48.5	48.5	24.2	41.4	58	351	24	25302020015006
10.0	evo10	342	182.5	584	485	246	66	67.8	73	41.1	72	82	401	35	25302020015007
20.0	evo20	342	182.5	663	553	246	66	105	73	41.1	72	115	480	40	25302020015008

### Accessories for Automatic Safety Hooks

#### Remote Control

The range includes the mobile remote controls eMINI and eMAX plus a static remote control for direct installation into a crane system. All remote controls can be used to flexibly, precisely and reliably control the hook. A remote control can simultaneously manage one or more hooks. It is also possible for two or more remote controls to manage the same hook.

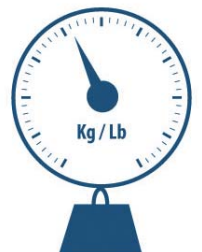


#### Weighing unit

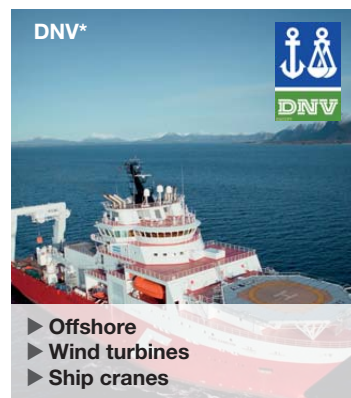
All evo devices can be equipped with a weighing unit for weighing the lifted load. This is precise, robust, compact, reliable and fully integrated into the automated hook. The weighing unit works in combination with the eMAX remote control and can also be retrofitted to older models.

##### The benefits for you:

- Prevents overloads due to visual signals or the vibration of the remote control
- Control of the lifted loads (load changes are stored by the eMAX and can be displayed in an Excel table)
- If the load has been distributed unevenly on the hook an alarm sounds (unless two or more hooks are used)



#### Use in special environments



\*available on request



SLINGS

Special Hooks

Automatic Safety Hook

Saves time and man-power in crane operation

- Prevents accidents as it fully automatically hooks up the load, safety locks and releases it. Loads can be picked up by the crane operator without helpers.
- Improved safety as no persons need to be close to the load
- Durable due to its rugged design and use of high grade alloy steel
- Easy to operate
- Highly reliable

L. cap. in t	Load capacity in t at safety factor		Dimensions in mm							Weight ca. in kg	Item no.
	4:1	5:1	A	B	C	D	E	F	G		
2	2	1.6	310	280	60	340	80	20	42	3	25302020015001
5	5	4.2	360	325	50	430	90	32	54	6.7	25302020015002
10	10	8	490	425	65	580	110	44	58	15	25302020015003
15	15	12	525	460	80	625	115	54	72	24	25302020015004
20	20	16	580	500	80	700	130	65	83	37	25302020015005
27	27	21.6	617.5	525	95	720	167.5	65	93	37	25302020035056

EVITA

QUALITY TRAINING WORLDWIDE

▶ Wire Rope  
 ▶ Fork Lift Trucks  
 ▶ Lifting Operations  
 ▶ Health and Safety  
 ▶ Confined Space  
 ▶ Welding



### Ramshorn Hook

If thick wire or fibre ropes (slings) or thick, large Master links do not fit in the normal single hooks (crane hook), the new CondorLift ramshorn hook offers the following advantages:

- Specially suitable to handle heavy load with synthetic belts or slings
- Greatest possible safety due to drop forged shape with rounded edges manufactured from high strength material
- Uniform load distribution with multistrand slings thanks to pivoting effect
- Rounded support surfaces for optimal placement of textile slings
- 2 forged safety latches with ergonomically formed finger recess. Safety latch engages in the hook tip and thus is protected against lateral bending.

#### Load:

angle

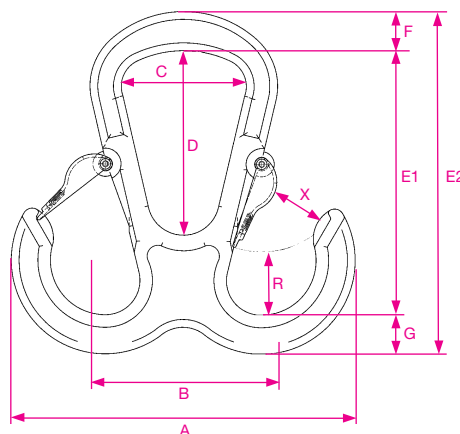
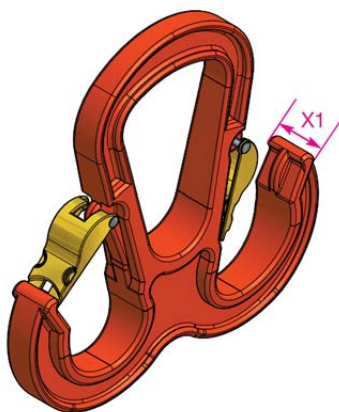
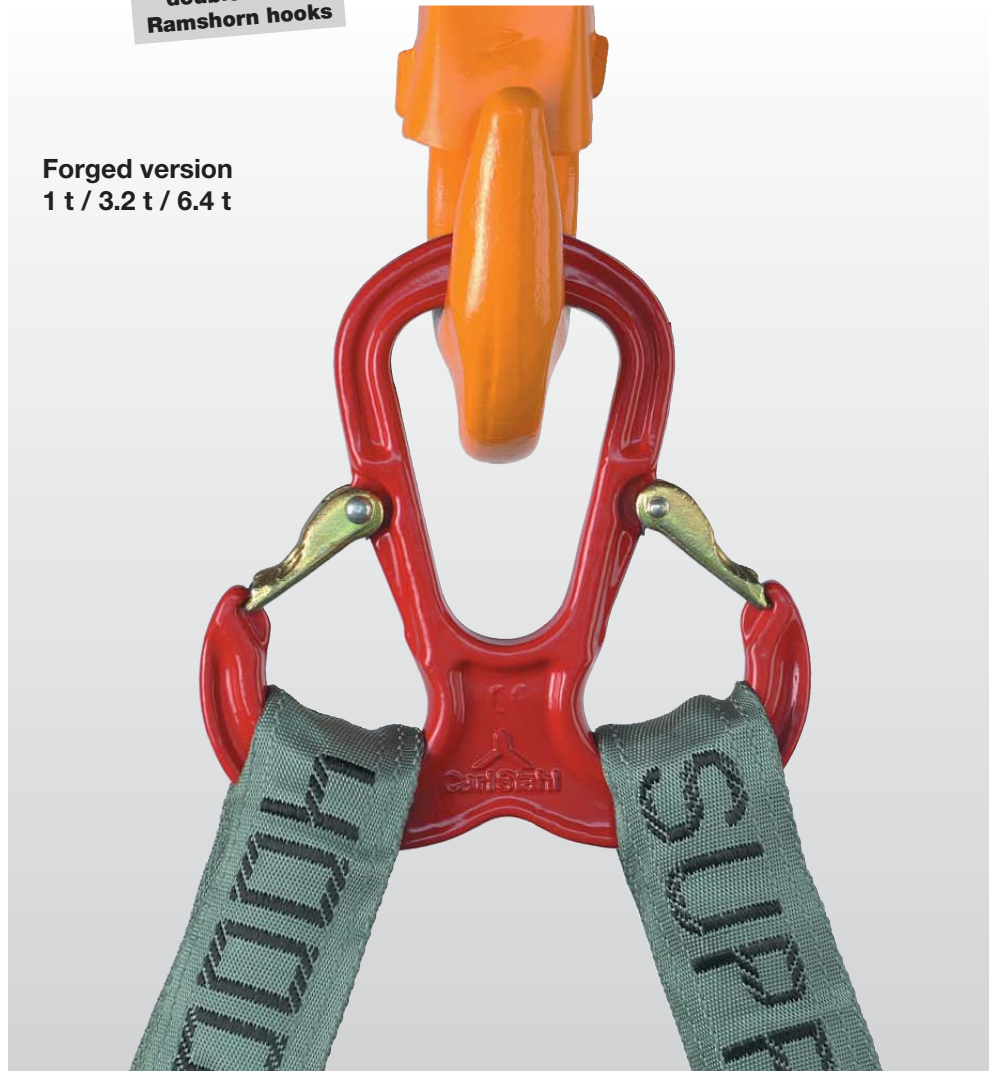
0°-30° = 100% WLL  
30°-45° = 70% WLL

#### Attention:

The load specifications are valid at equal load distribution to both hooks.  
A single-sided (one hook aperture) load distribution is prohibited.

From single to double hook:  
Ramshorn hooks

**Forged version**  
1 t / 3.2 t / 6.4 t



See a video of this product on our Youtube-Channel or with this QR-Code

#### Forged version

Load cap. in t	A	B	C	D	E1	E2	F	G	Opening X in mm	R in mm	Width X1 in mm	Weight in kg/pce	Item no.
1	175	80	55	75	115	150	19	26	27	32	20	1.0	25302030015001
3.2	220	100	80	120	160	220	26	33	32	37	24	2.6	25302030015002
6.4	255	135	95	120	165	230	28	35	40	55	31	3.75	25302030015003

#### Flamed version

8.0	594	330	140	230	320	461	60	80	51	60	35	36	25302030015004
10.0	650	355	160	260	355	521	60	105	57	65	40	50	25302030015005

Special versions and higher load capacities on request.

### Reducer Assembly for Hooks DIN 15402

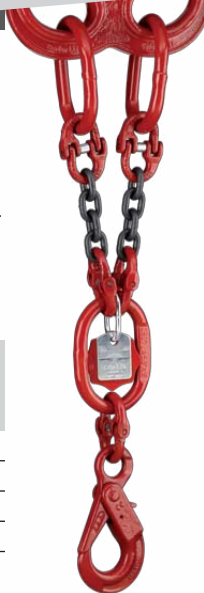
It's prohibited to place single slings in a double crane hook as this would result in a tilted position and involve the danger of the sling slipping out of the hook. In this case the reducer assembly offers 3 unmatched advantages:

- Easy to attach with 2 Master links or 2 rope loops
- The load is distributed uniformly on the double hook
- The single hook (at the bottom of the reducer assembly) connects safely with the sling

Type	Load capacity in kg	Overall length in mm	Inner clearance of Master link in mm	Weight ca. in kg	Item no.
RD 7/8 -8	2000	355	120 x 70 x 14	1.6	25101000016044
RD 10 -8	3150	371	120 x 70 x 14	2.6	25101000016045
RD 13 -8	5300	440	140 x 80 x 17	4.5	25101000016046
RD 16 -8	8000	525	160 x 95 x 22	9.0	25101000016047

Other capacities available. The shown ramshorn hook is not part of delivery.

From double to single hook:  
Reducer assembly



From a large crane hook to a small eye:

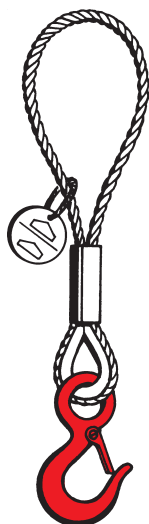
Safety hook eyes are used anywhere that the crane hook is too large for eye bolts, eyes or shackles. There is no better connection for such situations!



### Wire Rope Sling w/ Safety Eye Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter

Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	400	25102000015486
12	1500	450	25102000015487
16	2700	500	25102000015488
20	4000	650	25102000015489



### Wire Rope Sling w/ automatic Swivel Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter

Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	470	25102000015692
12	1500	530	25102000015693
16	2700	600	25102000015694
20	4000	780	25102000015695



### Wire Rope Sling w/ Safety Swivel Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter

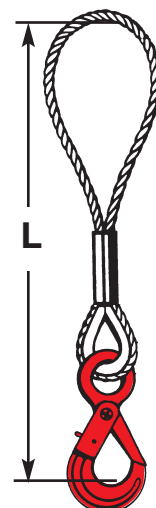
Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	430	25102000015688
12	1500	500	25102000015689
16	2700	540	25102000015690
20	4000	690	25102000015691



### Wire Rope Sling w/ automatic Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter

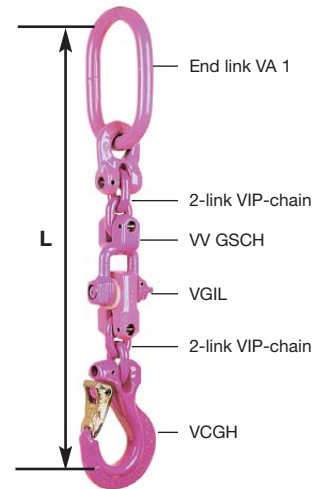
Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	430	25102000015490
12	1500	490	25102000015491
16	2700	550	25102000015492
20	4000	710	25102000015493



### VIP Insulating Sling/VIP Insulating Clevis Shackle VGIL + VVG SCH up to 1000 V

To be used when welding is carried out on suspended loads. It minimises the danger of current flowing through the sling to the crane; insulating latch: isolation up to max. 1,000 V, using a special plastic bearing for the shackle pin, max. operating temperature +80°C (176°F).

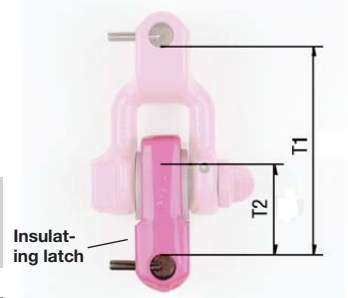
Nominal chain size in mm	Load capacity in t	Type	Dimensions in mm L	Weight in kg/pce	Item no. VIP insulating sling
6	1.5	VGIL-6	350	1.4	25101000016570
8	2.5	VGIL-8	425	2.4	25101000016572
10	4.0	VGIL-10	517	4.3	25101000016573
13	6.7	VGIL-13	632	8.2	25101000016574
16	10.0	VGIL-16	760	13.1	25101000016571



### VIP Insulating Latch VGIL

Welding on suspended loads involves the danger of current flowing to the crane. The VIP insulating clevis latch insulates up to 1,000 V using a special plastic bearing for the shackle pin. Max. operating temperature +80°C (+176°F).

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm T1 T2	Weight in kg/pce	Item no.
6	1.5	VGIL-6	64 28	0.15	25351500015054
8	2.5	VGIL-8	85 37	0.26	25351500015055
10	4.0	VGIL-10	108 47	0.65	25351500015056
13	6.7	VGIL-13	132 54	1.35	25351500015057
16	10.0	VGIL-16	166 70	2.5	25351500015058



### Insulated Roller Bearing Swivel Type SKLI

The insulated swivel SKLI with axial roller bearing prevents damage from crane ropes or crane electrics up to a voltage of 1000 V, coming from high amperages when welding suspended loads. This is effected by interrupting the current flow.

Consists of:

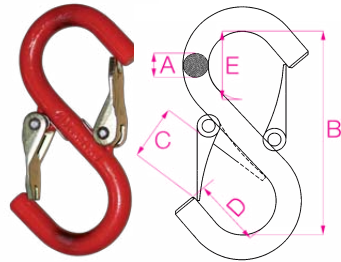
- Master link SKG
- Insulated swivel SKLI
- Safety hook SKN

Load capacity in t	Type	Overall length in mm	Weight in kg	Item no.
2.0	SKLI - 7/8 - 8	264	1.4	20202000015083
3.15	SKLI - 10 - 8	338	2.9	20202000015084
5.3	SKLI - 13 - 8	410	5.7	20202000015085
8.0	SKLI - 16 - 8	493	9.9	20202000015086
12.5	SKLI - 18/20 - 8	560	14.8	20202000015087



### Round Steel S-hook with forged safety latch on both sides

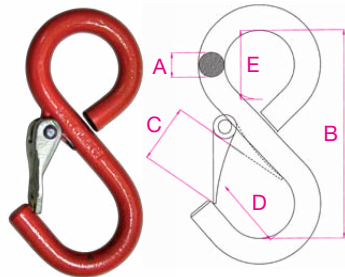
- High-strength design
- With forged safety latch on both sides
- Both ends chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity per hook in kg	Dimensions in mm				Weight in kg	Item no.
	A	B	C/E	D		
100	8	80	20	15	0.10	25302015015001
200	10	80	17	20	0.17	25302015015002
300	14	100	23	20	0.35	25302015015003
500	16	130	32	22	0.60	25302015015004
750	18	160	42	27	0.85	25302015015005
1000	20	180	48	37	1.14	25302015015006
1250	22	200	51	38	1.60	25302015015007
1500	26	220	55	50	2.50	25302015015008
2000	32	260	70	56	4.60	25302015015009
3000	36	320	84	65	7.00	25302015015010

### Round Steel S-hook with closed Eye and forged safety latch

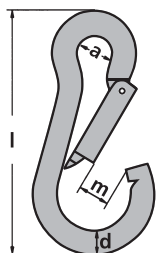
- High-strength design
- With forged safety latch
- Open end chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity per hook in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	C	D	E		
100	8	80	20	15	28	0.10	25302015015011
200	10	80	17	20	28	0.17	25302015015012
300	14	100	23	20	35	0.35	25302015015013
500	16	130	32	22	45	0.60	25302015015014
750	18	160	42	27	56	0.85	25302015015015
1000	20	180	48	37	63	1.14	25302015015016
1250	22	200	51	38	70	1.60	25302015015017
1500	26	220	55	50	77	2.50	25302015015018
2000	32	260	70	56	91	4.60	25302015015019
3000	36	320	84	65	112	7.00	25302015015020

### Snap Hook\*

- Similar to DIN 5299, Form C
- WLL and manufacturer embossed
- Surface: galvanised



Load capacity in kg	Dimensions in mm			Weight in kg / 100 pcs	Item no.
	l x d Ø	a	m		
50	40 x 4	6	7	1.10	25302010015001
120	50 x 5	8	7	1.90	25302010015002
120	60 x 6	9	8	2.70	25302010015003
180	70 x 7	10	8	4.40	25302010015004
230	80 x 8	10	10	6.50	25302010015005
250	90 x 9	12	10	8.80	25302010015006
350	100 x 10	15	11	12.70	25302010015007
450	120 x 11	18	16	18.00	25302010015008
510	140 x 12	20	19	26.00	25302010015009
600	160 x 13	22	23	35.00	25302010015010
650	180 x 14	22	33	48.00	25302010015011

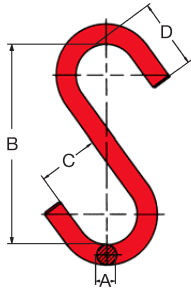


\*Snap hooks must not be used in conjunction with slings.  
Snap hooks are also available with a pressed round thimble.



### S-hook without safety latch, open

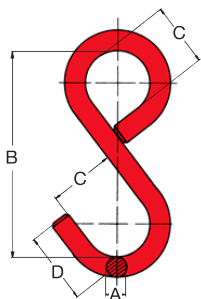
- High-strength design
- Both ends chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity in kg	Dimensions in mm				Weight in kg/pce	Item no.
A	B	C	D			
130	8	80	25	28	0.07	25302015015021
200	10	100	30	35	0.14	25302015015022
350	13	130	40	45	0.30	25302015015023
500	16	160	50	56	0.57	25302015015024
700	18	180	55	63	0.80	25302015015025
850	20	200	60	70	1.10	25302015015026
1000	22	220	65	77	1.46	25302015015027
1400	26	260	80	91	2.42	25302015015028
2000	32	320	95	112	4.50	25302015015029
2750	36	360	110	126	6.40	25302015015030
3500	40	400	120	140	8.80	25302015015031
4300	45	450	135	158	12.50	25302015015032

### S-hook without safety latch, closed Eye

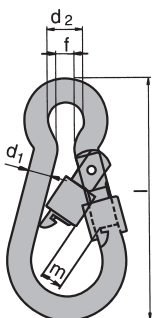
- High-strength design
- Open end chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity in kg	Dimensions in mm				Weight in kg/pce	Item no.
A	B	C	D			
130	8	80	25	28	0.07	25302015015033
200	10	100	30	35	0.14	25302015015034
350	13	130	40	45	0.30	25302015015035
500	16	160	50	56	0.57	25302015015036
700	18	180	55	63	0.80	25302015015037
850	20	200	60	70	1.10	25302015015038
1000	22	220	65	77	1.46	25302015015039
1400	26	260	80	91	2.42	25302015015040
2000	32	320	95	112	4.50	25302015015041
2750	36	360	110	126	6.40	25302015015042
3500	40	400	120	140	8.80	25302015015043
4300	45	450	135	158	12.50	25302015015044

### Snap Hook with Safety Screw\*

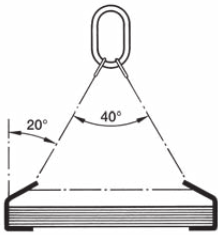
- Similar to DIN 5299, Form C
- WLL and manufacturer embossed
- Surface: galvanised



Load capacity in kg	Nominal size	Dimensions in mm					Weight in kg/100 pcs	Item no.
		d1	d2	f	l	m		
120	60 x 6	6	9	5	60	8	2.90	25302010015012
180	70 x 7	7	10	8	70	8	4.60	25302010015013
230	80 x 8	8	12	8	80	10	6.90	25302010015014
250	90 x 9	9	12	9	90	10	9.70	25302010015015
350	100 x 10	10	15	10	100	11	13.40	25302010015016
450	120 x 11	11	18	11	120	16	19.00	25302010015017
510	140 x 12	12	20	14	140	19	26.50	25302010015018



**\*Snap hooks must not be used in conjunction with slings.  
Snap hooks are also available with a pressed round thimble.**



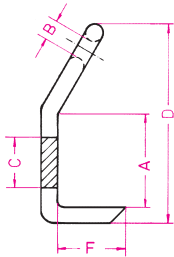
### Notice on use for Plate Hook and Split Hook

Plate hooks have the following specific features which distinguish them from regular hooks:

- The inclination angle must not exceed or fall below 20°.
- The chain length has to be adapted to the permissible inclination angle and the load.
- For lifting of stacked plates or similar loads at least 3 plate hooks must be used.
- For lifting of dimensionally stable tubes plate hooks may also be used in pairs.
- For lifting of long and slim materials it is advisable to work with a spreader beam and 4 plate hooks.
- The load has to rest on the full length of the hook. The hooks must not be loaded on the tips only!
- The load must be connected in such a way that it cannot slip or spring off the base of the hook when lifted or transported.
- The hooks must only be used to transport sheets, slabs or horizontal rings.
- Keep clear of suspended loads.

### Plate Hook

- Simple design
- High tensile steel
- Finish: painted red

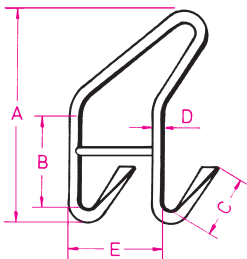


Load capacity per hook in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	C	D	E		
500	80	16	50	170	70	0.8	25301600015002
1000	90	20	60	210	90	1.4	25301600015003
1500	110	23	70	240	105	2.5	25301600015004
2000	125	25	80	275	110	3.5	25301600015005
2500	145	30	90	300	120	5.7	25301600015006
3000	185	35	100	380	135	7.4	25301600015007
4000	220	35	115	450	145	10.2	25301600015008
5000	260	40	130	520	160	15.0	25301600015009
7500	300	45	150	600	180	20.0	25301600015010

Other load capacities and dimensions available. On request also with B link.

### Split Hook

- Spread version
- High tensile steel
- Grooved contact surface
- Connecting link
- Finish: painted red

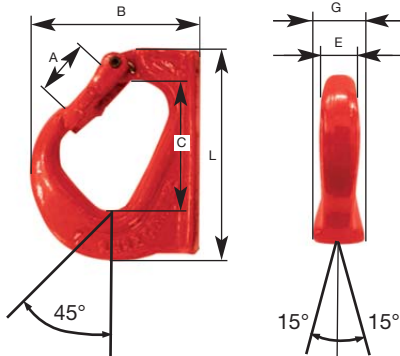


Load capacity per hook in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	C	D	E		
500	180	50	80	18	150	1.30	25301600015011
1120	210	60	95	20	170	1.80	25301600015012
1500	240	70	105	22	200	2.20	25301600015013
2000	280	80	115	26	220	3.30	25301600015014
2500	340	100	120	32	270	6.50	25301600015015
3200	400	120	140	32	320	8.30	25301600015016
4000	530	160	180	36	420	13.50	25301600015017
5300	660	200	210	40	520	19.00	25301600015018
6000	800	250	250	50	640	33.00	25301600015019
7500	980	300	300	60	760	60.00	25301600015020
10000	1000	400	350	70	800	75.00	25301600015021

Other load capacities and dimensions available. On request also with B link.

### Weld-on Hook

Applications:  
Hydraulic excavators, lifting and spreader beams



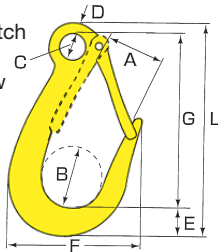
Load capacity in kg up to 45°	Dimensions in mm						Weight ca. in kg/pce	Item no.
	A	B	C	E	G	L		
1120	25	76	59.5	20	25	97	0.48	25250000015511
2000	26.5	92	65	22	34	114	0.85	25250000015512
3000	29	106	75	24	36	129	1.12	25250000015513
5000	34.5	130	92	30	45	171	2.50	25250000015514
8000	34.5	135	98	39	51	177	3.20	25250000015515
10000	51	171.5	134.5	39	53	223	5.20	25250000015516



**Range of application: 45°**  
**Permissible load: 15° in lateral direction of pull**

### Foundry Hook, with Safety Latch (not DIN-compliant)

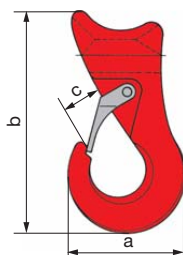
- With eye
- With forged safety latch
- WLL specification
- Finish: painted yellow



Load capacity in kg	Type	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	L		
1500	WHS 1.5	62	65	25	11	28	148	175	214	1.2	25201500015070
3000	WHS 3	73	80	32	14	33	164	216	263	2.3	25201500015071

### Choker Hook SGHS, with Safety Latch

- Material: grade 8
- Finish: painted red
- Safety factor 2:1



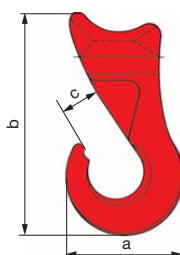
Max. pulling force in dN	Nominal size	For rope Ø in mm	Opening Ø in mm	Dimensions in mm			Weight in kg/pce	Item no.
				a	b	c		
4000	1.25	9-13	17	70	128	16	0.7	20202800015005
6300	2.00	14-16	22	80	147	21.5	1.0	20202800015006
8000	3.00	17-19	27	103	174	30	1.9	20202800015007
10000	5.00	20-26	33	133	210	40	4.2	20202800015008



**Not for lifting - horizontal pulling only!**  
**Indicated max. pulling force (in dN) for horizontal pull only.**

### Choker Hook SGH, without Safety Latch

- Material: grade 8
- Finish: painted red
- Safety factor 2:1



Max. pulling force in dN	Nominal size	For rope Ø in mm	Opening Ø in mm	Dimensions in mm			Weight in kg/pce	Item no.
				a	b	c		
4000	1.25	9-13	17	70	128	24	0.6	20202800015009
6300	2.00	14-16	22	80	147	28	0.9	20202800015010
8000	3.00	17-19	27	103	174	36	1.8	20202800015011
10000	5.00	20-26	33	133	210	47	4.0	20202800015012



**Not for lifting - horizontal pulling only!**  
**Indicated max. pulling force (in dN) for horizontal pull only.**

# TEXTILE SLINGS



Roundslings and Accessories | Webbing Slings and Accessories | Woven Wire Rope Slings  
Edge Protectors | Fibre Ropes



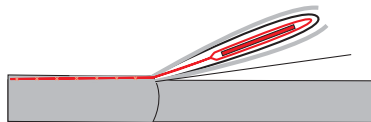


### SupraPlus Roundslings

Compact, particularly small  
and extreme rugged!

**Polyester roundsling according to DIN EN 1492-2 with extra strong sleeve**

All around the globe SupraPlus roundslings prove their quality each and every day. Now this top product has been further developed based on today's know-how. By optimising the manufacturing process the thickness could be reduced by 25% making handling much more comfortable. Also the reinforcement ribs have been improved: For the first time an extra-strong special fibre has been used, further improving the service life of the new SupraPlus.



**Unique Label**  
RFID-Transponder included as standard;  
tear-resistant and protected



Minimised wrinkling and smaller contact surface due to 20% reduced width makes SupraPlus more compact and durable.



Rib reinforcement on the tubing made from high-performance polyester doubles abrasion resistance and multiplies cut resistance, allowing a much longer service life.



The textile wire enforced tubing protects SupraPlus from damage and tear. Thus SupraPlus resists toughest conditions.



Raised woven in load capacity indication, remains clearly recognisable even under heavy soiling: Prevents mix-ups and enhances work safety.

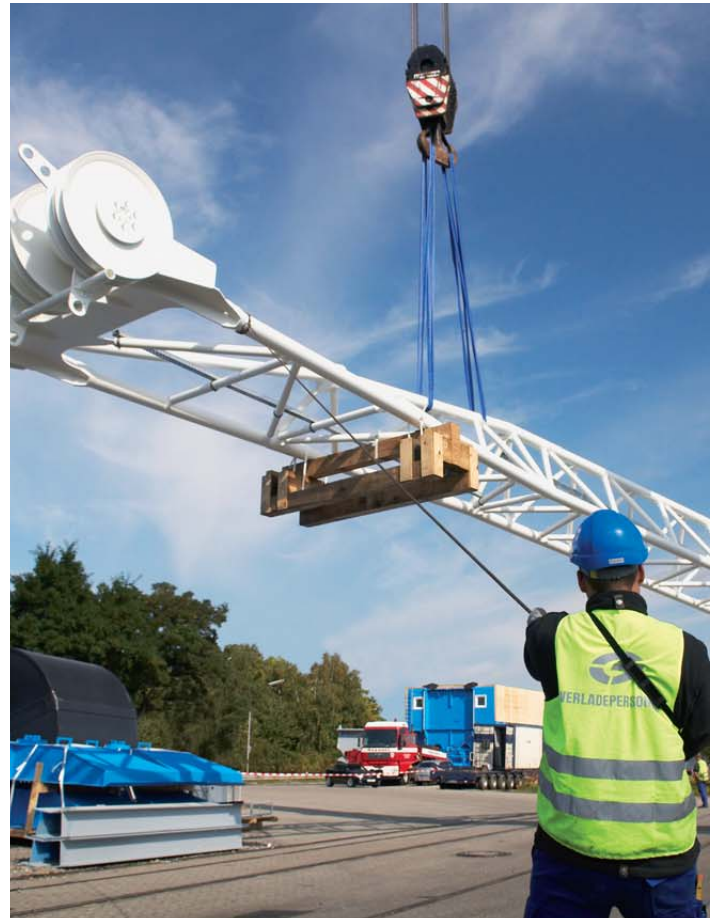


Unique, tear-proof and robust label, which can be retrofitted with the RFID transponder IDXpert. This enables a longer service life and the storage of inspection and servicing data.



Type	Load capacity single direct in kg	Thickness under load in mm	Width under load in mm	L min. in m	L max. in m	Item no.	Length L in m					
							1.0	1.5	2.0	3.0	4.0	5.0
Supra Plus 500	500	5	40	0.5	8	25104500...	...015437	...015438	...015439	...015440	-	-
Supra Plus 1000	1000	5	42	0.5	20	25104500...	...015443	...015444	...015445	...015447	...015448	...015449
Supra Plus 2000	2000	7	46	0.5	20	25104500...	...015450	...015451	...015452	...015454	...015455	...015456
Supra Plus 3000	3000	8	54	0.5	30	25104500...	...015460	...015461	...015462	...015464	...015465	...015466
Supra Plus 4000	4000	10	57	0.5	30	25104500...	...015470	...015471	...015472	...015474	...015475	...015476
Supra Plus 5000	5000	10	62	0.75	30	25104500...	...015478	...015479	...015480	...015482	...015483	...015484
Supra Plus 6000	6000	11	68	1	60	25104500...	...015486-	...015487	...015488	...015490	...015491	...015492
Supra Plus 8000	8000	13	73	1	60	25104500...	-	...015496	...015497	...015499	...015501	...015502





### Protective Tubings for SupraPlus Roundslings

\*Abrasion protection Powerflex also available accord. to fig.5, plant side only



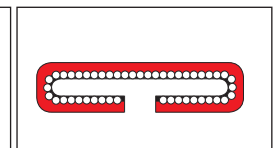
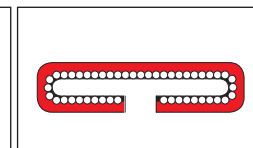
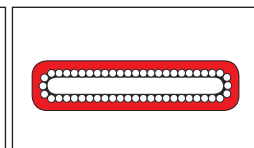
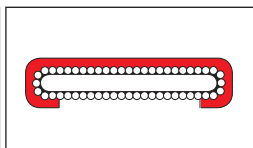
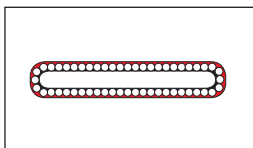
**Abrasion protection Powerflex\***  
for rough surfaces  
acc. to figure 3

**Protective tubing SF-1**  
one-sided for sharp edges  
acc. to figure 3

**Protective tubing SF-2**  
two-sided for sharp edges  
acc. to figure 3

**Protective tubing Clip-SC**  
as clip-on, exchangeable, for sharp edges  
acc. to figure 3

**Protective tubing Clip-SC**  
as clip-on, exchangeable, for sharp edges  
acc. to figure 5



Protective tubing for type	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...
	W	H		W	H		W	H		W	H	
Supra Plus 500	90	2	...015009	70	25	...015039	70	25	...015072	70	25	...015118
Supra Plus 1000	90	2	...015010	70	25	...015039	70	25	...015072	70	25	...015118
Supra Plus 2000	130	2	...015011	80	25	...015040	80	25	...015073	80	25	...015119
Supra Plus 3000	130	2	...015012	95	25	...015041	95	25	...015074	95	25	...015119
Supra Plus 4000	155	2	...015013	125	25	...015042	125	25	...015075	125	25	...015120
Supra Plus 5000	190	2	...015014	145	25	...015043	145	25	...015076	145	25	...015120
Supra Plus 6000	190	2	...015015	145	25	...015043	145	25	...015076	145	25	...015120
Supra Plus 8000	190	2	...015016	175	25	...015044	175	25	...015077	175	25	...015120



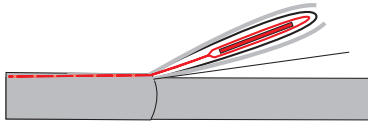
Protective tubing NoCut® made from high-performance fibre see page 309 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

### MagnumPlus Roundsling

Polyester roundsling acc. to DIN EN 1492-2 with rib reinforcement.

The MagnumPlus now features rib reinforcement as standard. An extrastrong special fibre has been used, further improving the service life of the MagnumPlus.



**Unique Label**  
RFID-Transponder included as standard;  
tear-resistant and protected



Minimised wrinkling and smaller contact surface due to adaptation of tubing and core makes SupraPlus more compact and durable.



Unique, tear-proof and robust label with RFID transponder for longer service life and storage of inspection service data.



The textile wire enforced tubing protects MagnumPlus from damage and tear. Thus MagnumPlus resists toughest conditions.



Rib reinforcement on the tubing made from high-performance polyester doubles abrasion resistance and multiplies cut resistance, allowing a much longer service life.



Raised woven in load capacity indication, remains clearly recognisable even under heavy soiling: Prevents mix-ups and enhances work safety.

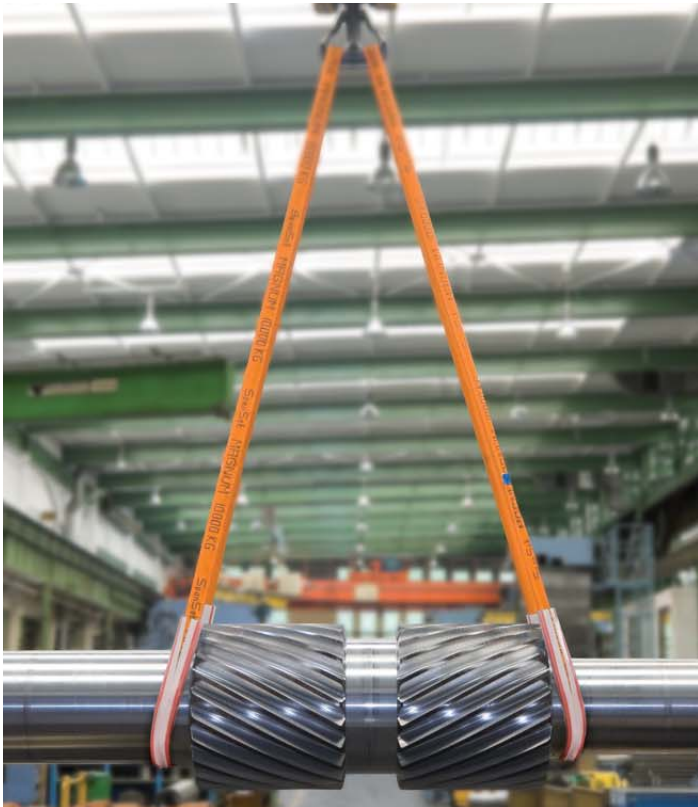


Type	Load capacity single direct kg	Thickness under load at WLL mm	Width under load at WLL mm	Weight in kg/m	L min. in m	L max. in m	Item no.	Length L in m				
								4.0	5.0	6.0	7.0	8.0
MagnumPlus 10000	10000	15	89	2.2	2.0	60	25104500...	...015306	...015307	...015308	...015309	...015310
MagnumPlus 15000	15000	18	112	2.7	2.0	60	25104500...	...015311	...015312	...015313	...015314	...015315
MagnumPlus 20000	20000	22	130	4.0	2.0	60	25104500...	...015316	...015317	...015318	...015319	...015320
MagnumPlus 25000	25000	24	150	5.0	2.0	60	25104500...	...015321	...015322	...015323	...015324	...015325
MagnumPlus 30000	30000	26	170	6.5	3.0	60	25104500...	...015326	...015327	...015328	...015329	...015330
MagnumPlus 40000	40000	34	190	9.7	3.0	60	25104500...	...015331	...015332	...015333	...015334	...015335
MagnumPlus 50000	50000	36	195	12.5	3.0	60	25104500...	...015336	...015337	...015338	...015339	...015340
MagnumPlus 60000	60000	47	220	16.6	3.5	30	25104500...	...015341	...015342	...015343	...015344	...015345
MagnumPlus 80000	80000	51	230	20.8	3.5	30	25104500...	...015346	...015347	...015348	...015349	...015350
MagnumPlus 100000	100000	61	265	24.3	3.5	30	25104500...	...015351	...015352	...015353	...015354	...015355



**MagnumPlus roundslings with capacities up to 300 t available on request.**





### Protective Tubings for MagnumPlus Roundslings

\*Abrasion protection Powerflex also available accord. to fig. 5, plant side only

Figure 3: 

Figure 5: 

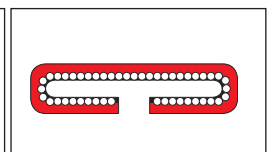
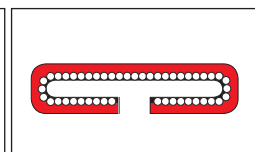
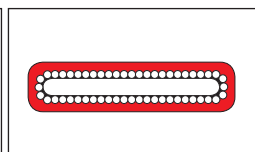
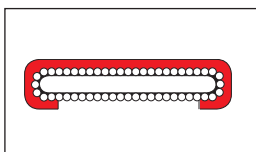
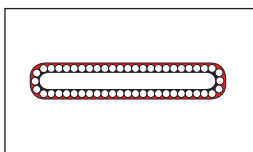
**Abrasion protection Powerflex\*\* for rough surfaces**  
acc. to figure 3

**Protective tubing SF-1 one-sided for sharp edges**  
acc. to figure 3

**Protective tubing SF-2 two-sided for sharp edges**  
acc. to figure 3

**Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges**  
acc. to figure 3

**Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges**  
acc. to figure 5



Protective tubing for type	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...
	W	H		W	H		W	H		W	H		W	H	
MagnumPlus 10000	245	3.3	...015017	165	35	...015045	165	35	...015078	165	35	... 015111	110	35	...015121
MagnumPlus 15000	245	3.3	...015018	210	50	...015046	210	50	...015079	210	50	...015112	130	45	...015122
MagnumPlus 20000	330	3.3	...015019	265	45	...015047	265	45	...015080	265	45	...015113	145	50	...015123
MagnumPlus 25000	330	3.3	...015020	275	45	...015048	275	45	...015081	275	45	...015114	145	50	...015124
MagnumPlus 30000	330	3.3	...015021	340	35	...015049	340	35	...015082	340	35	...015115	175	60	...015125
MagnumPlus 40000	-	-	...015022	365	60	...015050	365	60	...015083	365	60	... 015116	210	70	...015126
MagnumPlus 50000	-	-	-	365	60	...015051	365	60	...015084	365	60	...015117	240	75	...015127
MagnumPlus 60000	-	-	-	425	90	...015052	425	100	...015085	425	100	...015131	240	100	...015128
MagnumPlus 80000	-	-	-	480	90	...015053	480	90	...015086	480	90	...015132	-	-	...015129
MagnumPlus 100000	-	-	-	530	105	...015054	530	105	...015087	530	105	...015133	-	-	...015130



Protective tubing NoCut® made from high-performance fibre see page 309 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

### Magnum-X Roundsling

Easy lifting  
of heavy loads!

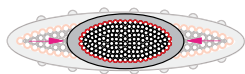
A new dimension in  
lifting technology!

#### 1. X-tremely compact:

With a core of high-performance polyester and a compact hose cover made of partially the same material the new Magnum-X is up to 50% narrower than comparable round slings with the same load bearing capacity. At the same time, it has a higher longitudinal and transverse stiffness.

##### Customer benefits:

The round sling is also not squeezed in smaller crane hooks and in lifting points and can simply be hung overhead.



Cross section under load (WLL) in comparison

#### 2. X-tremely wear resistant:

The hose cover is reinforced with an extremely abrasion and cut-resistant high-performance polyester. For this purpose, the special design reduces the formation of wrinkles at the deflection point, which significantly improves the wear behaviour.

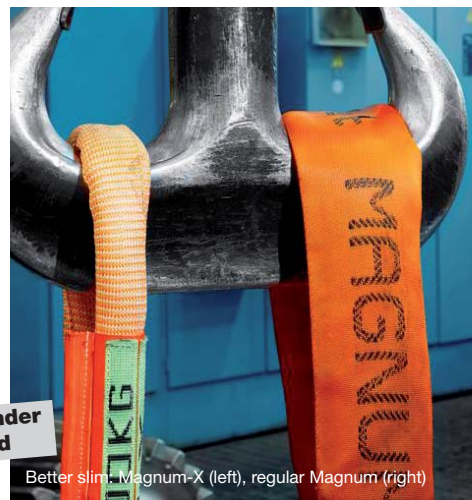
##### Customer benefits:

The Magnum-X demonstrably has the highest safety and long life even under the toughest conditions - an economic factor that you can count on.



Compact structure

RFID transponder  
as standard



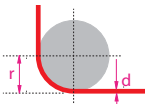
Better slim: Magnum-X (left), regular Magnum (right)

#### 3. X-tremely resistant:

The new high-performance fibre is significantly more resilient. This means less material has to be used in the core, which makes the Magnum-X up to 50% lighter than conventional round slings.

##### Customer benefits:

With the same load-bearing capacity, the Magnum-X can be applied to narrower edge radii than conventional PES slings. The work becomes more efficient, faster and safer.



Definition of a sharp edge:  
Edge radius < thickness of sling

#### 4. X-actly recognisable:

The Magnum-X carries an additional sleeve, which is equipped with a raised woven load-bearing capacity details - a safety feature that has proven itself.

##### Customer benefits:

The load-bearing capacity is always clearly recognisable even from a distance and with the strongest dirt accumulation. Mix-up of the round slings is thus effectively avoided, man and material protected from accidents.



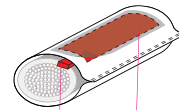
Woven-in load capacity indication

#### 5. X-actly identifiable:

The label, additionally protected by a film, is attached on a cuff that is sewn tightly to the hose and is tear-resistant. Integrated in this is an RFID transponder for storing the product data.

##### Customer benefits:

The Magnum-X is well protected against identity and data loss. This guarantees a long operating time and facilitates the storage of the data for the test service.



Tear-proof label with RFID transponder



Type	Load capacity single direct in kg	Thickness at WLL in mm	Width at WLL in mm	Weight in kg/m	L min. in m	L max. in m	Configuration Number
Magnum-X 10000*	10000	12	65	0.9	2*	60	25104500015356
Magnum-X 20000*	20000	19	67	1.8	2*	60	25104500015365
Magnum-X 30000*	30000	25	90	2.9	2*	60	25104500015374
Magnum-X 40000	40000	25	105	3.9	3	60	25104500015381
Magnum-X 50000	50000	19	146	5.2	3	60	25104500015389
Magnum-X 60000	60000	21	173	7.1	3.5	30	25104500015396
Magnum-X 80000	80000	24	192	9.4	3.5	30	25104500015404
Magnum-X 100000	100000	35	227	13.6	3.5	30	25104500015411
Magnum-X 125000	125000	45	301	18.7	6.0	30	25104500015418
Magnum-X 150000	150000	51	280	20.0	8.0	30	25104500015425



Magnum-X roundslings are  
available up to 400 ton capacity!  
Prices on request.



\*also available as  
Magnum-X short in  
short lengths of 1 m,  
1.5 m und 2 m in load  
capacities 10, 20, and  
30 ton.





### Protective Tubings for MagnumPlus Roundslings

Figure 3: 

Figure 5: 

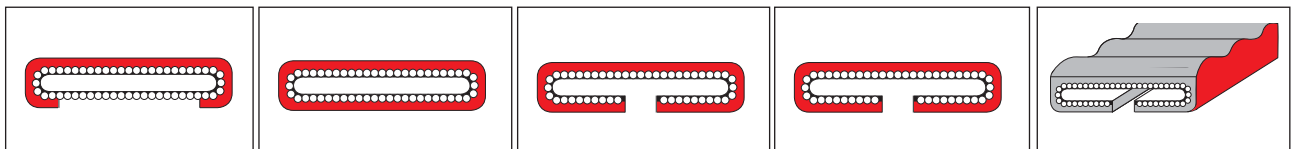
**Protective tubing SF-1 one-sided for sharp edges**  
acc. to figure 3

**Protective tubing SF-2 two-sided for sharp edges**  
acc. to figure 3

**Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges**  
acc. to figure 3

**Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges**  
acc. to figure 5

**Protective tubing secuwave as clip-on, exchangeable for sharp edges**  
acc. to figure 3



Protective tubing for type	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...
	W	H		W	H		W	H		W	H		W	H	
MagnumX 10000	80	35	...015055	80	35	...015088	80	35	...015134	60	35	...015143	90	55	...015250
MagnumX 20000	130	40	...015056	130	40	...015089	130	40	...015135	65	45	...015144	130	65	...015251
MagnumX 30000	160	45	...015057	160	45	...015090	160	45	...015136	90	55	...015145	150	75	...015252
MagnumX 40000	190	50	...015058	190	50	...015091	190	50	...015137	90	55	...015146	180	75	...015253
MagnumX 50000	190	50	...015059	190	50	...015092	190	50	...015138	–	–	...015147	–	–	...015254
MagnumX 60000	275	60	...015060	275	60	...015093	275	60	...015139	–	–	...015148	–	–	...015255
MagnumX 80000	400	60	...015061	400	60	...015094	400	60	...015140	–	–	...015149	–	–	...015256
MagnumX 100000	535	70	...015062	535	70	...015095	535	70	...015141	–	–	...015150	–	–	...015257
MagnumX 125000	–	–	...015063	–	–	...015096	–	–	...015142	–	–	...015151	–	–	...015258



**Protective tubing NoCut® made from high-performance fibre see page 309 et seq.**

**When calculating interim lengths, the figure must be rounded up to the nearest half a metre.**



**For length adjusters see page 378.**

### Magnum-X SMART Roundsling

Please contact us for details!

Magnum-X SMART roundsling acc. to DIN EN 1492-2

The high-performance roundsling Magnum-X SMART is specially suitable for wear-intensive applications. The high load capacities of 20, 30 and 40 ton are combined with an unmatched compactness and low weight of the Magnum-X roundslings. On one side, the Magnum-X SMART features a very robust outer tubing made from high-performance fibre material, which can be exchanged in case of damage. On the other side there is the inner, load-bearing tubing in yellow marking colour. As soon as it becomes visible, the outer tubing must be replaced. This is an added safety bonus for the operator. Replacing the outer tubing turns the repaired Magnum-X SMART into a virtually new roundsling. The useful life is extremely extended!



#### Extremely compact:

Core made from high-performance polyester and innovative tubing design. Considerably smaller cross section and width compared to regular roundslings of the same capacity.



#### Exactly identifiable:

Tear-proof and abrasion resistant label including RFID transponder. Label cannot get lost.



#### Extra wear-resistant:

Outer tubing reinforced with high-performance fibre material. Considerably enhanced wear and cut resistance.



#### Exactly recognisable:

Tubing with load capacity patch. Load capacity recognisable even under heavy soiling.



#### Extremely flexible:

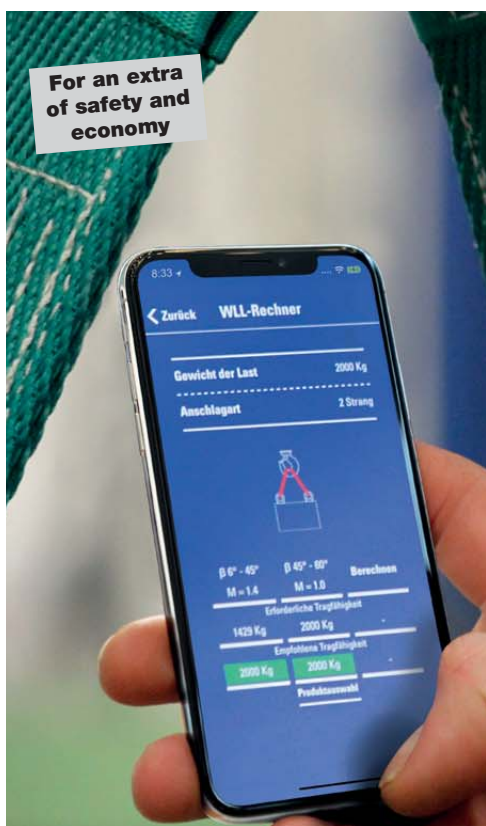
Fitted with extra and exchangeable tubing. Added safety by marking colour of the inner tubing. Cost reduction through exchangeability of outer tubing.



#### Extremely efficient:

Equipped with RFID transponder for electronic inspection documentation and administration.

Load capacity WLL single direct in kg	Weight in kg/m	Width under load in mm	Thickness under load in mm	L min. in m	L max. in m	Configuration Number
20000	2.5	80	15	2.0	30	25104500015432
30000	3.7	90	20	2.0	30	25104500015433
40000	5.3	110	24	3.0	30	25104500015434



For an extra of safety and economy

### The SpanSet Lifting app

**NEW!**

The SpanSet "Lifting Calculator" is the digital further development of the tried-and-tested analogue lifting force controller and is designed to determine the required lifting gear for any tasks involving lifting and moving loads. Because the same basic laws of physics apply to all types of lifting gear when lifting loads, the SpanSet app can be used not only for textile lifting gear such as flat slings and round slings, but also for chains and wire ropes.

Really easy to use. You just have to enter two parameters: The weight of the load and the slinging configuration, e.g. one leg, several legs, with or without an angle, noosed etc.

In total, the app allows you to choose between 14 different slinging configurations. The angles can then be entered manually if they are known. Alternatively, if the leg length and the length and width of the load are known, you can make measurements with calculations or using sensors on your smartphone. For this purpose, the app has an angle measuring device. To increase the safety and user friendliness, angles that are not within the permitted range are displayed in red and a warning indicates that only angles between 1 and 60 degrees are supported.

One special feature of the app is its high precision in the calculation of load capacities determined on the basis of DIN EN 1492-1 and 1492-2. This means that you do not have to simply choose angles in accordance with the norm in the prescribed ranges of 6° to 45° and 45° to 60°. The app also allows you to freely enter intermediate values for the angles. On the basis of these precise rather than approximate lifting angles, the app accurately determines the actually required load capacity of the lifting gear. As well as contributing to increased safety, this can have many economic advantages for the user. The load capacity is displayed as the WLL (Working Load Limit), after which the user can select a corresponding piece.



### Protective Sleeve NoCut® – made from high-performance fibre for more safety

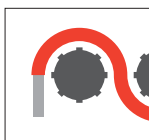
When handling items such as sharp-edged sheets, people often improvise and use inadequate solutions, such as a pile of gloves or cardboard as edge protection. This breaches legal regulations and can lead to fatal accidents. You should therefore always protect your slings with edge protection specially developed for use with sharp edges. This increases the service life of your slings and the safety of your employees.

#### High-performance fibres are finding their way into lifting technology

The high cut and wear resistance of HMPE (high-modulus polyethylene) have led to the development of the NoCut®sleeve and pad. A trend in the field of lifting technology! Thanks to their outstanding properties, high-performance fibres are increasingly being used to develop textile cut protection, hose sheaths and slings.

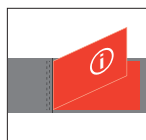
#### For more safety.

To develop NoCut®, a special testing system was designed and built that can be used to determine the cut resistance of the fabric by testing the cut impact under nominal load. The protective effect of the NoCut®sleeve and NoCut®pad has been determined on several different sharp edges and certified by Dekra. Specific results can therefore be offered that leave no unanswered questions during usage! NoCut® was naturally adapted to the various widths of the SpanSet lifting slings and round slings. It therefore provides ideal protection for textile slings such as PowerStar lifting slings and SupraPlus round slings, especially against damage from sharp edges when lifting loads.



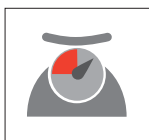
#### Flexible sleeve construction

The flexible fabric construction can be positioned easily and blends to the form of the edge.



#### Label

NoCut products are marked with a label containing the handling instructions and the general product information.



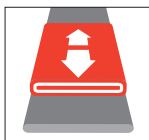
#### Lightweight

The lightweight construction ensures a simple and ergonomic handling.



#### Certified Safety

A high level of operational safety based on defined edge radii - DEKRA certified.



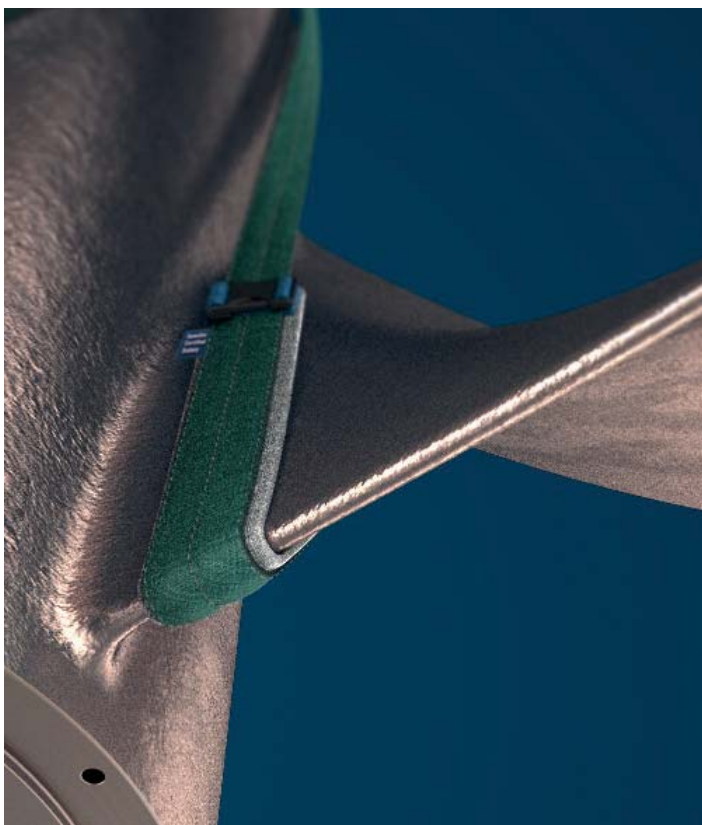
#### Free positioning

NoCut can be freely positioned over the lifting sling and offers protection at exactly the place where the sharp edge is connected.



#### Optimised process technology

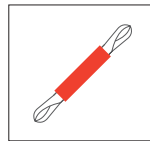
Improved cut protection, simplified handling and stronger material stability increase service life and safety.



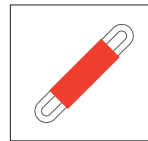
### NoCut® sleeve



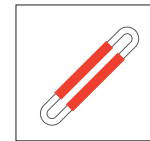
In order to protect the lifting sling, the NoCut sleeve may be used as follows:



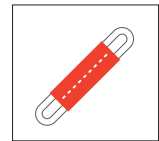
**Fig. 1**  
Simply fitted,  
for lifting slings



**Fig. 3**  
Using both legs,  
for roundslings



**Fig. 5**  
Single leg,  
for roundslings



**Fig. 3**  
With center seam  
across both legs,  
for roundslings

Weight g/m	Approx. hose inner width in mm	Approx. hose outer width in mm	Approx. hose thickness in mm	Combinable with webbing slings <b>acc. to fig. 1</b>	Combinable with round slings <b>acc. to fig. 3</b>	Item no.
0.5	55	65	13	PowerStar 1000 Liftfix 1000	-	25151500015176
0.6	75	85	13	PowerStar 2000 Liftfix 2000	SupraPlus 500, 1000, 2000 Liftfix 500, 1000, 2000	25151500015177
0.9	105	115	13	PowerStar 3000 Liftfix 3000	Supra Plus 3000, 4000 Liftfix 3000 MagnumX 10000	25151500015178
1.1	135	145	13	PowerStar 4000 Liftfix 4000	Supra Plus 5000, 6000 Liftfix 4000	25151500015179
1.4	165	175	13	PowerStar 5000 Liftfix 5000	Supra Plus 8000 Liftfix 5000, 6000, 8000 MagnumX 20000	25151500015180
1.6	195	205	13	PowerStar 6000 Liftfix 6000	Liftfix 10000 MagnumPlus 10000	25151500015181
1.9	255	265	13	PowerStar 8000 Liftfix 8000	Liftfix 15000	25151500015182
2.4	315	340	13	PowerStar 10000 Liftfix 10000	Liftfix 20000, 25000 MagnumPlus 20000, 25000	25151500015183

\* Special version on request

NoCut sleeve as of 1.00 m length for roundslings only available with SpanSet roundsling acc. to fig. 3 with center seam



Available in a min. length L of 500 mm. Increasing in 250 mm intervals,  
i.e.: L = 750 mm, 1000 mm, 1250 mm etc.

### NoCut® sleeve



**SIMPLY  
BETTER  
STRONGER**

#### NoCut® sleeve with center seam

The optional center seam simplifies the use of the NoCut sleeve when lifting with roundslings using both legs (shown in fig. 3). Fitted across both legs of the roundsling, manual adjustment is not required and two legs are bound together in such a way that the sleeve cannot be removed. Take advantage of longer service lives, additional safety and the variety of combinations with different lifting slings!

**NEW!**



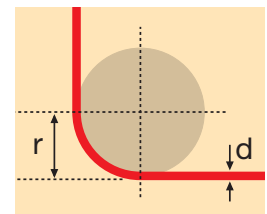
### NoCut® for use with even the smallest radii

Textile Slings		NoCut sleeve			NoCut pad 2-ply				NoCut pad 4-ply			NoCut bumper		
Radius [mm]		1	2	3	0	1	2	3	0	1	2	1	2	3
Webbing Sling HB (Liftfix)	≤ 5t	✓				✓			✓					
Webbing Sling PCS	≤ 10t	✓				✓			✓				✓	
Liftfix; SupraPlus; Twintex	≤ 5t	✓			✓								✓	
Liftfix; MagnumPlus; SupraPlus; Twintex	≤ 10t	✓				✓			✓				✓	
MagnumPlus, Liftfix	≤ 20t	✓				✓			✓				✓	
MagnumPlus, Liftfix	≤ 25t		✓			✓			✓				✓	
MagnumPlus, Liftfix	≤ 30t		✓			✓			✓				✓	
MagnumPlus, Liftfix	≤ 40t					✓			✓				✓	
MagnumPlus, Liftfix	≤ 50t					✓			✓				✓	
<b>NEW!</b> MagnumPlus, Liftfix	≤ 60t									✓				
Magnum-X	≤ 10t	✓					✓		✓				✓	
Magnum-X	≤ 20t							✓	✓				✓	
Magnum-X	≤ 30t						✓			✓				
<b>NEW!</b> Magnum-X	≤ 40t									✓				

#### Definition of a sharp edge:

If the radius 'r' of an edge is smaller than the diameter or thickness 'd' of a sling, the edge is classed as sharp. See DGUV regulation 100-500.

Sharp edges must be taken into consideration in relation to all slings, including wire rope slings, chain slings, textile slings such as round slings, webbing slings and lashing equipment. Appropriate edge guards and protective hoses must be used to avoid sharp edges and thus damage to slings that poses a high risk of accidents!



Values in the table marked with a tick refer to the minimum radius where NoCut may still be employed. Larger edge radii are included in the respective labelling.



### NoCut® pad 2-ply

During lifting of the load, roundslings and lifting slings are protected with the NoCut pad exactly in place between the sharp edge and the lifting device. This effectively avoids damage occurring to the textile lifting sling, as well as dropped loads.

New features include the simplified fixing of the NoCut pad with snap buckles or Velcro® fastener, the higher-performance fabric structure for stronger cut protection, and the enhanced recognition of the discard criteria through signal colour of an internal material. Your essential asset in performance, safety and efficiency!

Starting from a length of 75 cm, NoCut pad is factory-equipped with additional fabric loops on the reverse side. Webbing is quickly threaded through the loops and the NoCut pad is additionally fitted to the lifting sling.



#### Velcro



#### Velcro with frame buckle



#### Snap buckles



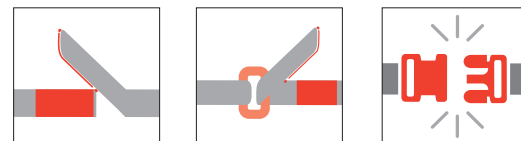
Pad outer width in mm	Combinable with webbing slings acc. to fig. 1	Combinable with round slings acc. to fig. 3	Combinable with round slings acc. to fig. 5	Item no. Velcro version	Item no. Velcro with frame buckle version	Item no. Version snap buckles	Length in m
<b>2- ply</b>							
65	PowerStar PB 1000 Liftfix HB 1000	No assignment possible	SupraPlus 500, 1000 Twintex 1000 Liftfix 500, 1000,	25151500015184 25151500035383 25151500015185	25151500035329 25151500035330 25151500035331	25151500035346 25151500035347 25151500035348	<b>0.5</b> <b>0.75</b> <b>1.0</b>
85	PowerStar PB 2000 Liftfix HB 2000 PCS 2000	No assignment possible	Supra Plus 2000, 3000, 4000, 5000 Twintex 2000, 3000, 4000, 5000 Liftfix 2000, 3000, 4000, 5000 MagnumX 10000	25151500015190 25151500035384 25151500015191	25151500035332 25151500035333 25151500035334	25151500035349 25151500035350 25151500035351	<b>0.5</b> <b>0.75</b> <b>1.0</b>
115	PowerStar PB 3000 Liftfix HB 3000 PCS 4000	Supra Plus 500, 1000, 2000, 3000 Twintex 1000, 2000 Liftfix 500, 1000	Supra Plus 6000, 8000 Twintex 6000, 8000 Liftfix 6000, 8000 MagnumX 20000	25151500035300 25151500035301 25151500035302	25151500015196 25151500035336 25151500015197	25151500035352 25151500035353 25151500035354	<b>0.5</b> <b>0.75</b> <b>1.0</b>
145	PowerStar PB 4000 Liftfix HB 4000 PCS 6000	SupraPlus 4000, 5000, 6000 Twintex 3000, 4000 Liftfix 2000, 3000, 4000 MagnumX 10000	Liftfix 10000, 15000 MagnumPlus 10000, 15000 MagnumX 30000	25151500035303 25151500035304 25151500035305	25151500015202 25151500035337 25151500015203	25151500035355 25151500035356 25151500035357	<b>0.5</b> <b>0.75</b> <b>1.0</b>
175	PowerStar PB 5000 Liftfix HB 5000 PCS 8000 PowerStar PB 6000	SupraPlus 8000 Twintex 5000 Liftfix 5000, 6000, 8000 MagnumX 20000	Liftfix 20000, 25000 MagnumPlus 20000, 25000	25151500035306 25151500035307 25151500035308	25151500015208 25151500035338 25151500015209	25151500035358 25151500035359 25151500035360	<b>0.5</b> <b>0.75</b> <b>1.0</b>
205	Liftfix HB 6000 PCS 10000	Twintex 6000, 8000, Liftfix 10000 MagnumPlus 10000 MagnumX 30000	Liftfix 30000 MagnumPlus 30000	25151500035310 25151500035311 25151500035312	25151500015214 25151500035339 25151500015215	25151500035361 25151500035362 25151500035363	<b>0.5</b> <b>0.75</b> <b>1.0</b>
265	PowerStar PB 8000 Liftfix HB 8000 PCS 12000	Liftfix 15000 MagnumPlus 15000	Liftfix 40000, 50000 MagnumPlus 40000, 50000	25151500035313 25151500035314 25151500035315	25151500015220 25151500035340 25151500015221	25151500035364 25151500035365 25151500035366	<b>0.5</b> <b>0.75</b> <b>1.0</b>
340	PowerStar PB 10000 Liftfix HB 10000 PCS 16000	Liftfix 20000, 25000 MagnumPlus 15000, 25000	No assignment possible	25151500035316 25151500035317 25151500035318	25151500015226 25151500035344 25151500015227	25151500035367 25151500035368 25151500035369	<b>0.5</b> <b>0.75</b> <b>1.0</b>

**Available in a min. length L of 500 mm. Increasing in 250 mm intervals, i.e.: L = 750 mm, 1,000 mm to max. 1,500 mm**



### NoCut® pad 4-ply

NoCut pad is offered in a 2-layer or 4-layer design. This multilayer design achieves an extremely high level of cut protection and offers the user a high level of protection during critical lifting processes.



Pad outer width in mm	Combinable with webbing slings acc. to fig. 1	Combinable with round slings acc. to fig. 3	Combinable with round slings acc. to fig. 5	Item no. Velcro version	Item no. Velcro with frame buckle version	Item no. Version snap buckle	Length in m
<b>4- ply</b>							
145	PowerStar PB 4000	SupraPlus 4000, 5000, 6000	Liftfix 10000, 15000	25151500035319	25151500015232	25151500035370	<b>0.5</b>
	Liftfix HB 4000	Twintex 3000, 4000	MagnumPlus 10000, 15000	25151500035321	25151500035341	25151500035371	<b>0.75</b>
	PCS 6000	Liftfix 2000, 3000, 4000	MagnumX 30000	25151500035322	25151500015233	25151500035373	<b>1.0</b>
		MagnumX 10000					
175	PowerStar PB 5000	SupraPlus 8000	Liftfix 20000, 25000	25151500035323	25151500015238	25151500035374	<b>0.5</b>
	Liftfix HB 5000	Twintex 5000	MagnumPlus 20000, 25000	25151500035324	25151500035342	25151500035375	<b>0.75</b>
	PCS 8000	Liftfix 5000, 6000, 8000		25151500035325	25151500015239	25151500035376	<b>1.0</b>
		MagnumX 20000					
205	PowerStar PB 6000	Twintex 6000, 8000,	Liftfix 30000	25151500035326	25151500015244	25151500035377	<b>0.5</b>
	Liftfix HB 6000	Liftfix 10000	MagnumPlus 30000	25151500035327	25151500035343	25151500035378	<b>0.75</b>
	PCS 10000	MagnumPlus 10000		25151500035328	25151500015245	25151500035379	<b>1.0</b>
		MagnumX 30000					

**!** Available in a min. length L of 500 mm. Increasing in 250 mm intervals, i.e.: L = 750 mm, 1,000 mm to max. 1,500 mm

### NoCut® pad bumper

**NEW!**



The newest addition to the NoCut product family, the NoCut bumper, also combines the most simple handling with a stronger fabric structure and improved cut protection.

During the lifting process, the NoCut bumper can be placed at critical points between the load and the lifting sling quickly and without fastening. Depending on use, the cut protection can be used in the crosswise or longitudinal direction.

The NoCut bumper is composed of a NoCut sleeve with interior layers of webbing which increase the radius at the deviating and attachment points of the load. It is always used if the NoCut sleeve or NoCut pad cannot be used due to difficult to access locations.

Length x Width in mm	Item no.
340 x 175	25151500035280
400 x 205	25151500035281
520 x 265	25151500035382

### Liftfix Roundsling

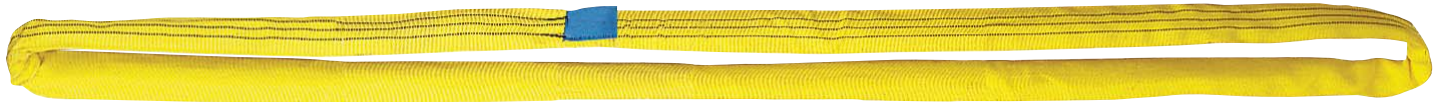
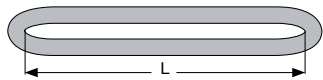
#### Well-proven standard roundsling

Liftfix roundslings are manufactured acc. to European Standard 1492-2.

They feature a colour-coded sleeve with woven-in tonnage stripes for easy identification of the correct sling in daily practise.

- Complies with current standard DIN EN 1492-2
- Fool-proof colour-coded acc. to DIN 1492-2
- From 10,000 kg load capacity/WLL outer sleeve orange
- Woven tonnage stripes

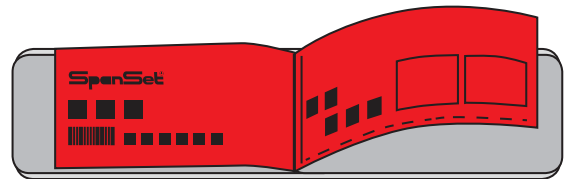
Great value for money!



#### Tear-proof label, double-layer sewn



**Slings with illegible or missing label have to be discarded. Therefore our fold-out label is double-layer sewn: Thus it is tear-proof and protected against abrasion.**



Type	Load capacity single direct in kg	Thickness under load in mm	Width under load in mm	L min in m	L max. in m	Item no.	Length in m					
							1.0	1.5	2.0	3.0	4.0	5.0
Liftfix 500	500	3	38	0.38	30	25104500...	...035003	...015115	...015116	...015118	...015119	...015120
Liftfix 1000	1000	5	42	0.38	30	25104500...	...015127	...015131	...015133	...015136	...015137	...015139
Liftfix 2000	2000	7	43	0.38	30	25104500...	...015146	...015147	...015148	...015151	...015153	...015155
Liftfix 3000	3000	7	57	0.38	30	25104500...	...015162	...015165	...015166	...015168	...015170	...015171
Liftfix 4000	4000	8	65	0.38	30	25104500...	...015178	...015179	...015180	...015182	...015183	...015184
Liftfix 5000	5000	9	68	0.75	30	25104500...	-	...015191	...015192	...015194	...015196	...015198
Liftfix 6000	6000	10	81	1.00	30	25104500...	-	-	...015205	...015207	...015209	...015210
Liftfix 8000	8000	13	84	1.00	30	25104500...	-	-	-	...015219	...015223	...015224



Type	Load capacity single direct in kg	Thickness under load in mm	Width under load in mm	L min in m	L max. in m	Item no.	Length in m					
							3.0	4.0	5.0	6.0	7.0	8.0
Liftfix 10000	10000	15	99	2.0	60	25104500...	...015234	...015236	...015237	...015238	...015239	...015240
Liftfix 15000	15000	16	115	2.0	60	25104500...	...015244	...015245	...015246	...015247	...015248	...015249
Liftfix 20000	20000	20	140	2.0	60	25104500...	...015253	...015254	...015256	...015257	...015258	...015259
Liftfix 25000	25000	23	153	2.0	60	25104500...	...015262	...015263	...015264	...015265	...015266	...015267
Liftfix 30000	30000	24	167	2.0	60	25104500...	...015268	...015269	...015270	...015271	...015272	...015273
Liftfix 40000	40000	34	190	3.0	60	25104500...	...015275	...015276	...015277	...015278	...015279	...015280
Liftfix 50000	50000	36	195	3.0	60	25104500...	...015281	...015282	...015283	...015284	...015285	...015286
Liftfix 60000	60000	27	220	3.5	30	25104500...	...015287	...015288	...015289	...015290	...015291	...015292
Liftfix 80000	80000	47	260	3.5	30	25104500...	-	...015293	...015294	...015295	...015296	...015297
Liftfix 100000	100000	58	300	3.5	30	25104500...	-	...015298	...015299	...015300	...015301	...015302





### Protective Tubings for Liftfix Roundslings

\*Abrasion protection Powerflex also available accord. to fig.5, plant side only



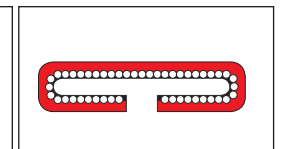
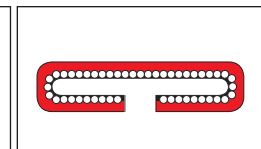
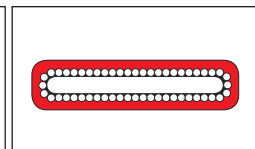
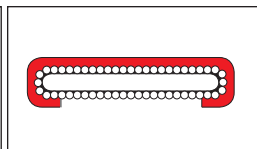
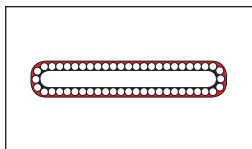
**Abrasion protection Powerflex\***  
for rough surfaces  
acc. to fig. 3

**Protective tubing SF-1**  
one-sided for sharp  
edges  
acc. to fig. 3

**Protective tubing SF-2**  
two-sided for sharp  
edges  
acc. to fig. 3

**Protective tubing Clip-SC**  
as clip-on, exchange-  
able, for sharp edges  
acc. to fig. 3

**Protective tubing Clip-SC**  
as clip-on, exchange-  
able, for sharp edges  
acc. to fig. 5



Protective tubing for type	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...
	W	H		W	H		W	H		W	H		W	H	
Liftfix 1000	90	2	...015010	70	25	...015039	70	25	...015072	70	25	...015105	55	25	...015118
Liftfix 2000	130	2	...015011	80	25	...015040	80	25	...015073	80	25	...015106	55	25	...015119
Liftfix 3000	130	2	...015012	95	25	...015041	95	25	...015074	95	25	...015107	80	25	...015119
Liftfix 4000	155	2	...015013	125	25	...015042	125	25	...015075	125	25	...015110	80	25	...015120
Liftfix 5000	190	2	...015014	145	25	...015043	145	35	...015076	145	35	...015109	80	25	...015120
Liftfix 6000	190	2	...015015	145	25	...015043	145	35	...015076	145	35	...015109	80	25	...015120
Liftfix 8000	190	2	...015016	175	25	...015044	145	40	...015077	145	40	...015110	90	35	...015120

Protective tubing for type	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...
	W	H		W	H		W	H		W	H		W	H	
Liftfix 10000	245	3.3	...015017	175	35	...015045	175	35	...015078	175	35	...015111	110	35	...015121
Liftfix 15000	245	3.3	...015018	210	50	...015046	210	50	...015079	210	50	...015112	130	45	...015122
Liftfix 20000	330	3.3	...015019	265	45	...015047	265	45	...015080	265	45	...015113	145	50	...015123
Liftfix 25000	330	3.3	...015020	265	45	...015048	265	45	...015081	265	45	...015114	145	50	...015124
Liftfix 30000	330	3.3	...015021	340	35	...015049	340	35	...015082	340	35	...015115	175	60	...015125
Liftfix 40000	-	-	...015022	365	60	...015050	365	60	...015083	365	60	...015116	210	70	...015126
Liftfix 50000	-	-	-	365	60	...015051	365	70	...015084	520	75	...015117	240	75	...015127
Liftfix 60000	-	-	-	425	90	...015052	425	100	...015085	520	100	...015131	240	100	...015128
Liftfix 80000	-	-	-	-	-	...015053	-	-	...015086	-	-	...015132	-	-	...015129
Liftfix 100000	-	-	-	-	-	...015054	-	-	...015087	-	-	...015133	-	-	...015130



Protective tubing NoCut® made from high-performance fibre see page 309 et seq.

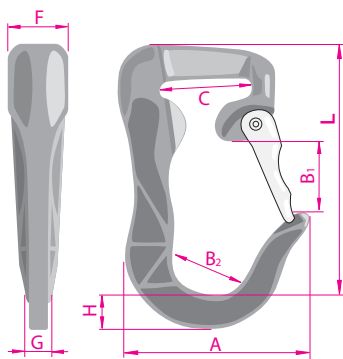
When calculating interim lengths, the figure must be rounded up to the nearest half a metre.



### Joker Hook

A hook with twice the benefit: Joker hooks are the perfect complement to your round- and webbing slings as they are real all-rounders: They can either be used to extend slings or as end hooks providing for a safe hold in the attachment points. In combination with one or more roundslings you can create your own bridle sling within seconds.

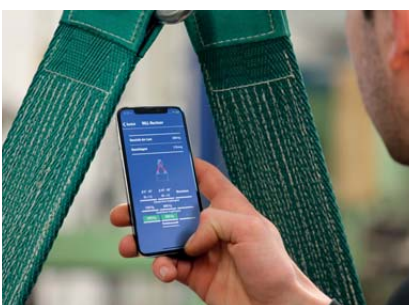
- Easy handling
- Turns roundslings into bridle slings
- Perfect connection between 2 slings



A perfect connection with twice the benefit



Type	Load capacity in kg	Dimensions in mm							Weight in kg/pce	Item no.
		A	B1	B2	F	G	H	L		
ASH 1t	1000	89	29	31	31	14	17	133	0.66	25201500015001
ASH 2t	2000	105	35	40	36	21	24	156	1.06	25201500015002
ASH 3t	3000	125	36	48	47	25	29	170	1.64	25201500015003
ASH 6t	6000	155	48	60	60	35	35	215	4.03	25201500015006
ASH 10t	10000	204	70	80	70	50	58	303	9.9	25201500035402

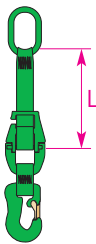


Lifting-App for Download  
available at [www.spanset.de](http://www.spanset.de)!

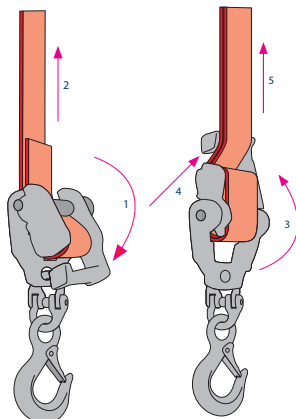
### VarioWeb Slings 1-, 2-, and 4-leg

VarioWeb is not only flexible in application but also in maintenance. Should a part of your sling be damaged you can benefit from the modular conception: Only the damaged parts have to be replaced, the other components can be further used – saving costs.

- Continuously adjustable slings
- For lifting of asymmetric loads
- WLL indication according to DIN EN 1492-1
- Parts can be exchanged thanks to modular conception



#### RSG 1-leg sling



- 1) Unthread strap, Turn down bracket,
- 2) Shorten/lengthen strap,
- 3) Turn down back bracket,
- 4) Thread strap,
- 5) Ready for lifting!

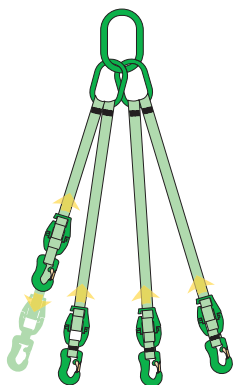
**VarioWeb:  
fully versatile!**



Load capacity / kg 1-leg single direct	Type	L1-min in mm	Can be shortened to mm	Weight 1st metre in kg	Weight add. metre in kg	Item no. 1-leg sling	Length L in m			
							3.0	4.0	5.0	6.0
1000	VW1-1000-1ASH	2000	730	2.62	0.20	25103500...	...015001	...015002	...015003	...015004
2000	VW1-2000-1ASH	2000	880	5.35	0.30	25103500...	...015005	...015006	...015007	...015008

#### RSG 2-leg sling

Load capacity / kg 2-leg angle 0-45°	Type	L1-min in mm	Can be shortened to mm	Weight 1st metre in kg	Weight add. metre in kg	Item no. 2-leg sling	Length L in m			
							3.0	4.0	5.0	6.0
1400	VW2-1400-2ASH	2000	730	5.04	0.40	25103500...	...015009	...015010	...015011	...015012
2800	VW2-2800-2ASH	2000	880	10.30	0.60	25103500...	...015013	...015014	...015015	...015016



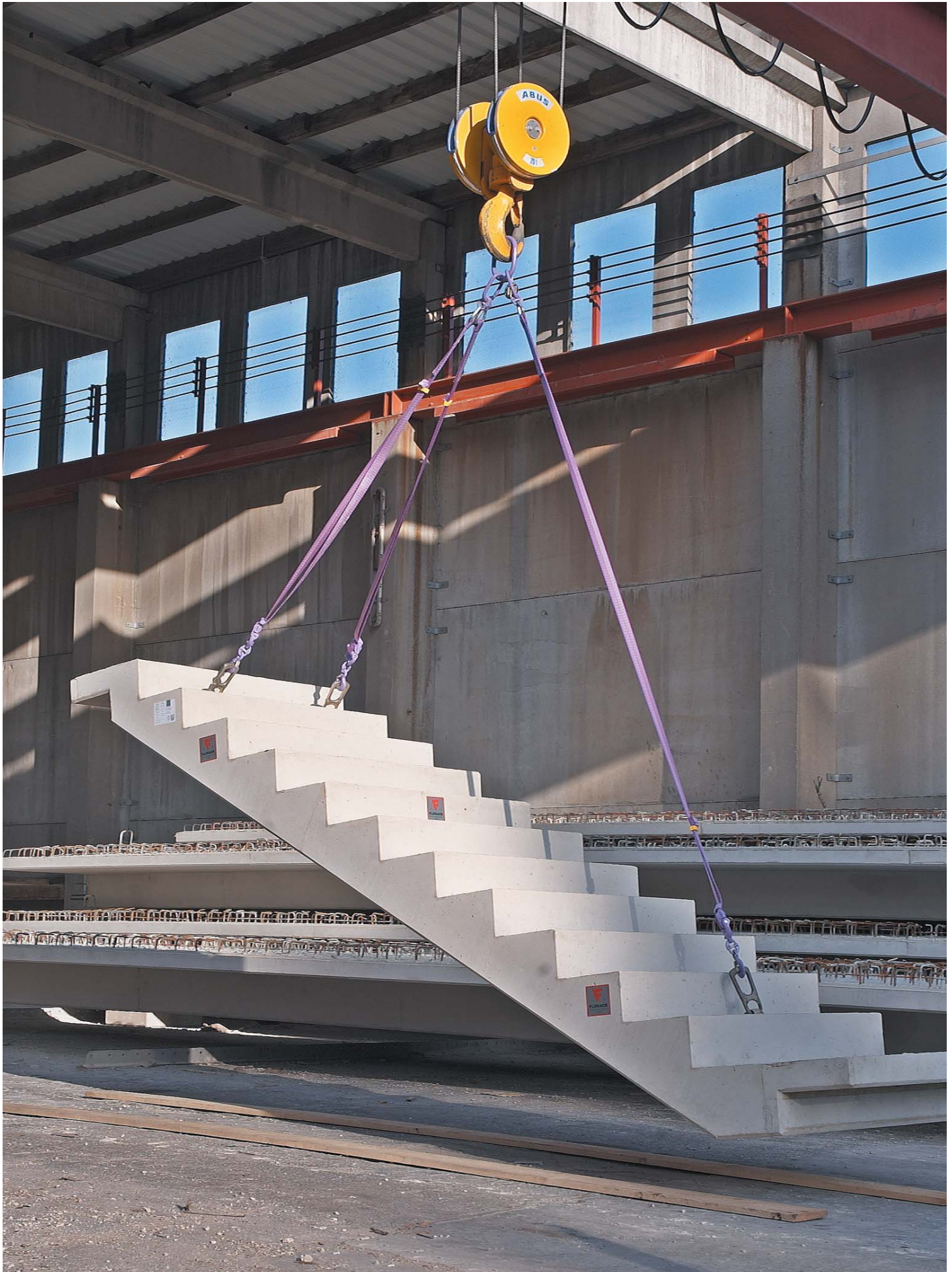
#### RSG 4-leg sling

Load capacity / kg 4-leg angle 0-45°	Type	L1-min in mm	Can be shortened to mm	Weight 1st metre in kg	Weight add. metre in kg	Item no. 4-leg sling	Length L in m			
							3.0	4.0	5.0	6.0
2100	VW4-2100-4ASH	2000	890	10.08	0.80	25103500...	...015017	...015018	...015019	...015020
4200	VW4-4200-4ASH	2000	1060	20.00	1.20	25103500...	...015021	...015022	...015023	...015024

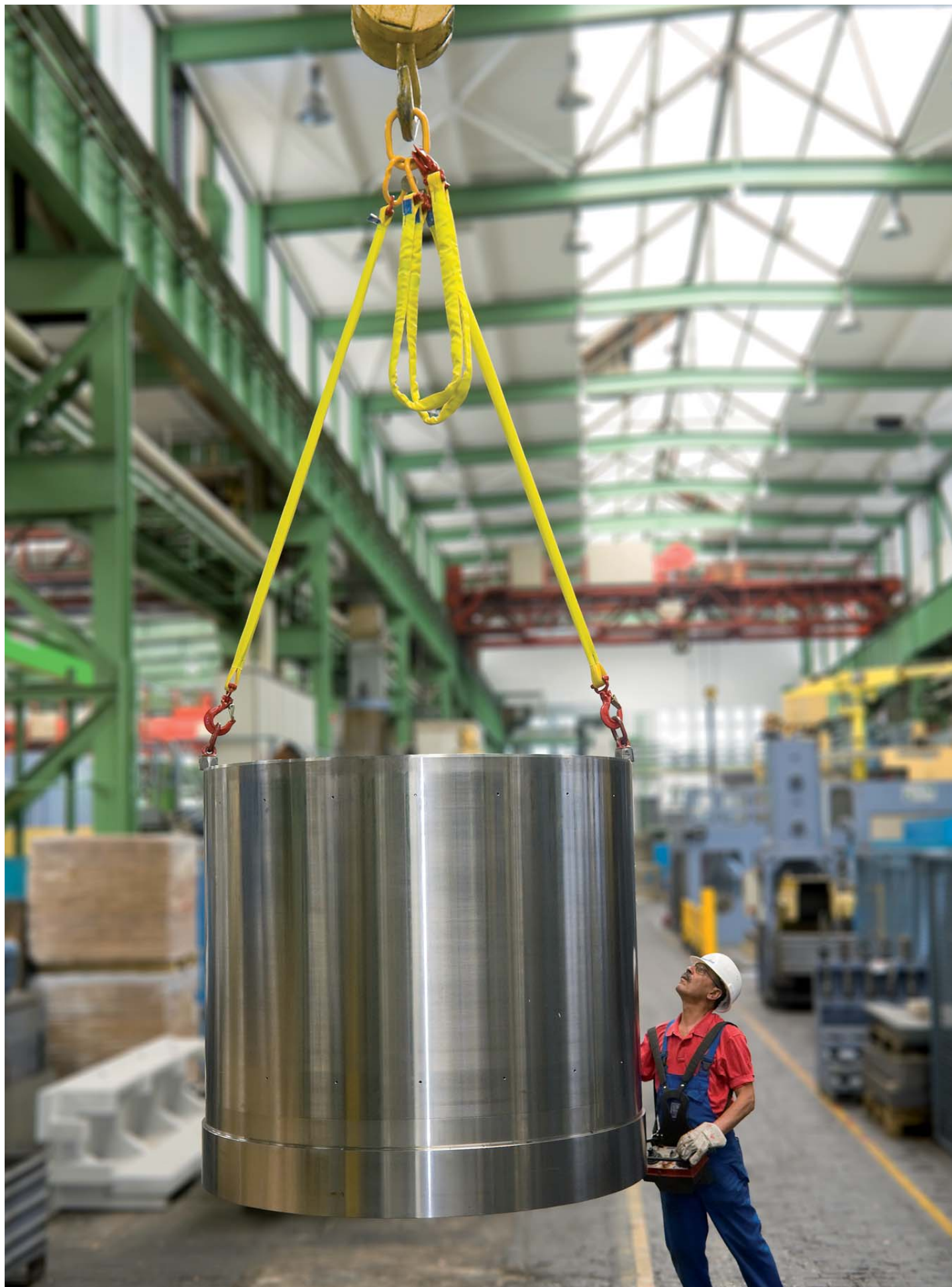


**Other hook versions  
are available on request**









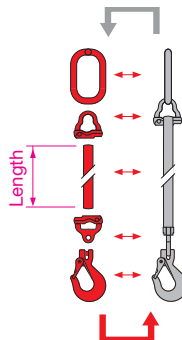


### Textile Bridle Slings

Have your load under control!

If your load has fixed attachment points, it is easy to choose the right sling: Without big effort, a textile bridle sling can be adapted to all situations. Be on the safe side when it comes to expensive machinery, custommade parts or investment goods. That's why SpanSet textile bridle slings combine reliable textile slings with high-quality forged parts.

- Acc. to DIN EN 1492-2
- A perfect combination with attachment points
- High-strength hardware according to DIN 1677
- Modular design - all components can be exchanged



#### RSG-1-leg Sling



Item no.	Load capacity 1-leg single direct in kg		Type	Length in m
25105000015016	1000		RSG-1-1000-LS	1.0
25105000015017	2000		RSG-1-2000-LS	1.0
25105000015018	3000		RSG-1-3000-LS	1.0
25105000015019	4000		RSG-1-4000-LS	1.0
25105000015020	5000		RSG-1-5000-LS	1.0
25105000015021	6000		RSG-1-6000-LS	1.0
25105000015022	8000		RSG-1-8000-LS	1.0
25105000015001	10000		RSG-1-10000-LS	3.0
25105000015002	15000		RSG-1-15000-LS	3.0
25105000015003	20000		RSG-1-20000-LS	3.0
25105000015004	25000		RSG-1-25000-LS	3.0
25105000015005	30000		RSG-1-30000-LS	3.0

Min. length 2.5 m without fittings from type RSG-1-10000-LS and bigger

#### RSG-2-leg Sling



Item no.	Load capacity 2-leg at angle		Type	Length in m
	0-45°	45-60°		
25105000015023	1400	1000	RSG-2- 1400-LS	1.0
25105000015024	2800	2000	RSG-2- 2800-LS	1.0
25105000015025	4200	3000	RSG-2- 4200-LS	1.0
25105000015026	5600	4000	RSG-2- 5600-LS	1.0
25105000015027	7000	5000	RSG-2- 7000-LS	1.0
25105000015028	8400	6000	RSG-2- 8400-LS	1.0
25105000015029	11200	8000	RSG-2-11200-LS	1.0
25105000015006	14000	10000	RSG-2-14000-LS	3.0
25105000015007	21000	15000	RSG-2-21000-LS	3.0
25105000015008	28000	20000	RSG-2-28000-LS	3.0
25105000015009	35000	25000	RSG-2-35000-LS	3.0
25105000015010	42000	30000	RSG-2-42000-LS	3.0

Min. length 2.5 m without fittings from type RSG-2-14000-LS and bigger

#### RSG-4-leg Sling



Item no.	Load capacity 4-leg at angle		Type	Length in m
	0-45°	45-60°		
25105000015030	2100	1500	RSG-4- 2100-LS	1.0
25105000015031	4200	3000	RSG-4- 4200-LS	1.0
25105000015032	6300	4500	RSG-4- 6300-LS	1.0
25105000015033	8400	6000	RSG-4- 8400-LS	1.0
25105000015034	10500	7500	RSG-4-10500-LS	1.0
25105000015035	12600	9000	RSG-4-12600-LS	1.0
25105000015036	16800	12000	RSG-4-16800-LS	1.0
25105000015011	21000	15000	RSG-4-21000-LS	3.0
25105000015012	31500	22500	RSG-4-31500-LS	3.0
25105000015013	42000	30000	RSG-4-42000-LS	3.0
25105000015014	52500	37500	RSG-4-52500-LS	3.0
25105000015015	63000	45000	RSG-4-63000-LS	3.0

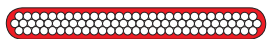
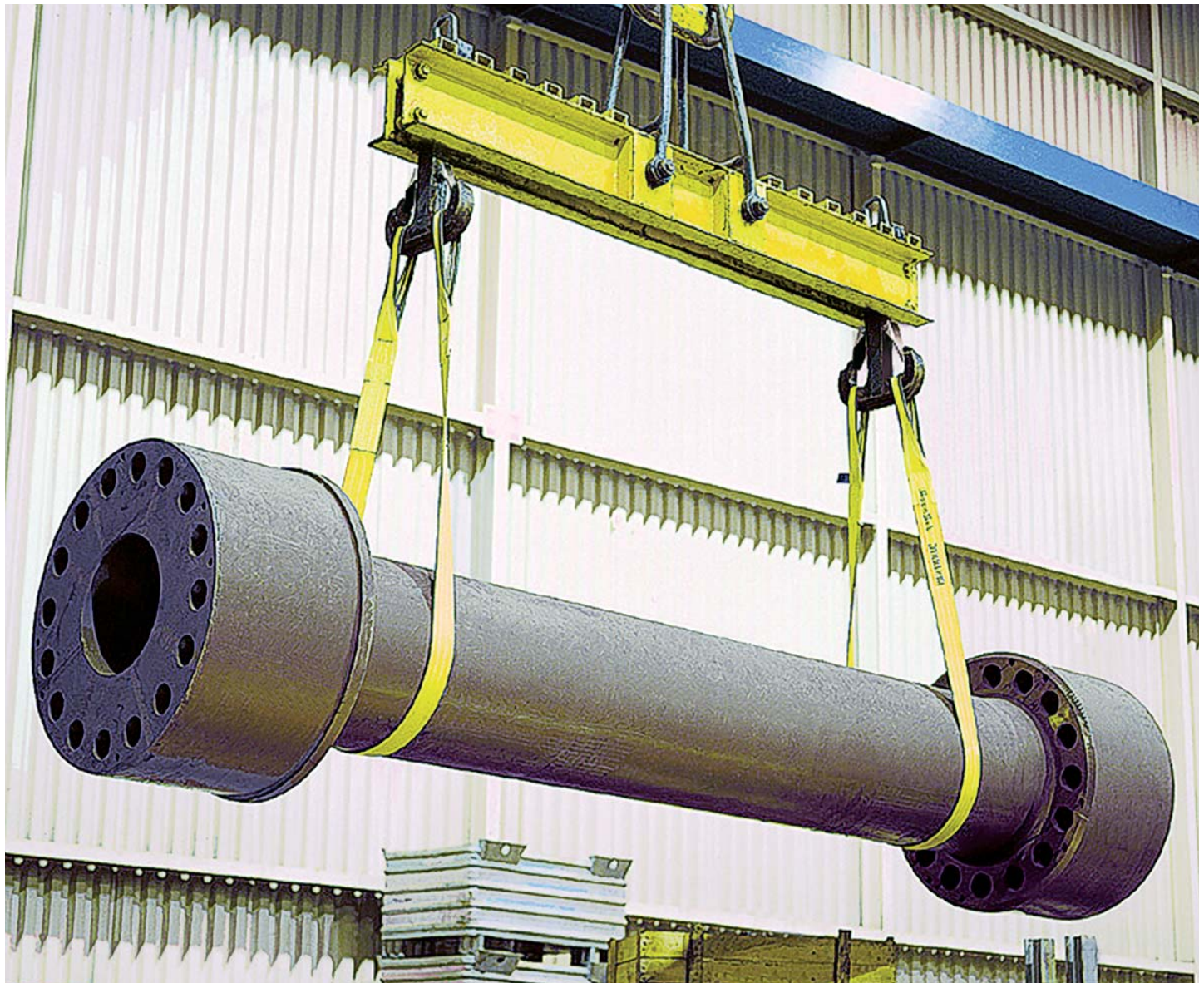
Min. length 2.5 m without fittings from type RSG-4-21000-LS and bigger

**Robust and reliable**

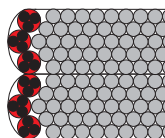
### PowerStar Webbing Sling, Two-ply, made from powerful High-Performance Webbing

Robust and reliable – PowerStar webbing slings keep to their promise: They carry up to 10 tons single direct. You can even measure that! The belt's weaving pattern changes every 30 mm, each "stripe" equals 1 ton load capacity. E.g. a 90 mm belt has a WLL of 3 tons.

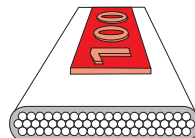
- 2-layer webbing sling according to DIN EN 1492-1
- Highly wear resistant PU coating
- Full surface reinforced loops
- Wear resistant edges
- Raised, woven-in WLL indication
- Load capacity can be "measured"
- Tear-resistant label with RFID transponder



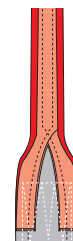
PU coating against wear



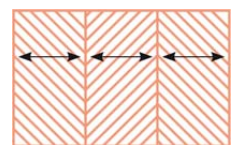
Reinforced edges



Raised, woven-in WLL indication



Loop reinforcement



Measurable load capacity

**Webbing Sling PowerStar acc. to DIN EN 1492-1 with all-round loop reinforcement**



Webbing sling profile in mm	Load capacity single basket kg	Load capacity single direct kg	Type	Loop size	Item no.	Length L in m				
						2.0	3.0	4.0	5.0	6.0
30 x 5.6	2000	1000	PB 1000 STAR	300	25103000...	...015002	...015003	...015004	...015005	...015006
60 x 5.6	4000	2000	PB 2000 STAR	300	25103000...	...015007	...015008	...015009	...015010	...015011
90 x 6.0	6000	3000	PB 3000 STAR	400	25103000...	...015012	...015013	...015014	...015015	...015016
120 x 6.2	8000	4000	PB 4000 STAR	400	25103000...	...015017	...015018	...015019	...015020	...015021
150 x 6.4	10000	5000	PB 5000 STAR	500	25103000...	...015022	...015023	...015024	...015025	...015026
180 x 7.6	12000	6000	PB 6000 STAR	700	25103000...	...015027	...015028	...015029	...015030	...015031
240 x 7.6	16000	8000	PB 8000 STAR	800	25103000...	-	...015032	...015033	...015034	...015035
300 x 7.6	20000	10000	PB 10000 STAR	900	25103000...	-	...015036	...015037	...015038	...015039

**Webbing Sling PowerStar acc. to DIN EN 1492-1 with 2 Crane Brackets**

The crane brackets offer more handling convenience and fit in every crane hook. They are made from wear-resistant high-grade steel and are perfectly suitable for basket hitch. Just put one bracket through the other and insert in the crane hook – the webbing sling cannot slip out.



Webbing sling profile in mm	Load capacity single basket kg	Load capacity single direct kg	Type	Bracket size	Item no.	Length L in m				
						2.0	3.0	4.0	5.0	6.0
30 x 5.6	2000	1000	PB 1000 DD STAR	65/120	25103000...	...015040	...015041	...015042	...015043	...015044
60 x 5.6	4000	2000	PB 2000 DD STAR	80/140	25103000...	...015045	...015046	...015047	...015048	...015049
90 x 6.0	6000	3000	PB 3000 DD STAR	100/180	25103000...	...015050	...015051	...015052	...015053	...015054
120 x 6.2	8000	4000	PB 4000 DD STAR	152/220	25103000...	...015055	...015056	...015057	...015058	...015059
150 x 6.4	10000	5000	PB 5000 DD STAR	187/250	25103000...	...015060	...015061	...015062	...015063	...015064
180 x 7.6	12000	6000	PB 6000 DD STAR	223/290	25103000...	...015065	...015066	...015067	...015068	...015069
240 x 7.6	16000	8000	PB 8000 DD STAR	290/370	25103000...	-	...015070	...015071	...015072	...015073
300 x 7.6	20000	10000	PB 10000 DD STAR	355/440	25103000...	-	...015074	...015075	...015076	...015077



### Protective Tubing secuwave for PowerStar Webbing Slings

#### secuwave rounds every edge

Many loads have edges that could damage textile slings. In many cases protective tubings will suffice but if edges are "razor-sharp" they are likely to damage even the high-strength material by abrasion after some time. secuwave tubings can actually be used on difficult edges. Their undulated surface distributes the bearing force uniformly, increases the bending radius and fixes the load at the edge. In this way the sling is protected reliably from being cut by the sharp edge.

#### Play it safe – and be quick!

The secuwave protective tubing is applied as a clip on the webbing sling. The protective tubing is open on the back side and can be applied to a roundsling or other lifting sling any time, even if the sling is already in the crane hook. Time-consuming unhooking is not necessary! Thus secuwave is always at hand when you need it.

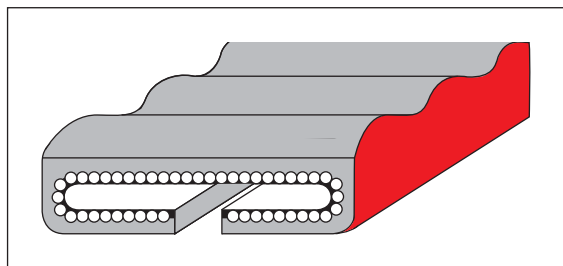


Special extra coating



For „razor-sharp“ edges

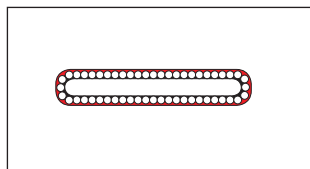
Protective tubing for PowerStar webbing sling	Load capacity WLL in kg	Item no.
1000	1000	25151500015259
2000	2000	25151500015260
3000	3000	25151500015261
4000	4000	25151500015262
5000	5000	25151500015263
6000	6000	25151500015264
8000	8000	25151500015265
10000	10000	25151500015266



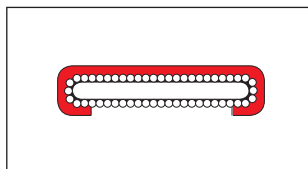
Distribution of bearing force due to undulated surface

### Protective Tubings for PowerStar Webbing Slings

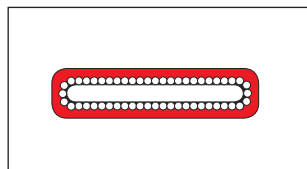
#### Abrasion protection made from PU / PVC



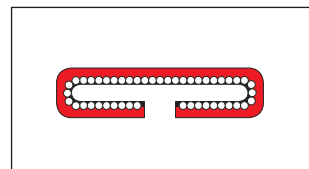
#### Protective tubing SF-1, one-sided, for sharp edges



#### Protective tubing SF-2, two-sided, for sharp edges



#### Protective tubing SC as clip-on, exchangeable, for sharp edges



Protective tubing for PowerStar B sling	Item no. 25151500...	Dims. in mm W	Dims. in mm H	Item no. 25151500...	Dims. in mm W	Dims. in mm H	Item no. 25151500...	Dims. in mm W	Dims. in mm H	Item no. 25151500...
1000	...015001	55	20	...015031	55	20	...015064	47	22	...015097
2000	...015002	85	23	...015032	85	23	...015065	85	23	...015098
3000	...015003	115	25	...015033	115	25	...015066	115	25	...015099
4000	...015004	145	25	...015034	145	25	...015067	145	25	...015100
5000	...015005	175	25	...015035	175	25	...015068	175	25	...015101
6000	...015006	210	30	...015036	210	30	...015069	210	30	...015102
8000	...015007	270	35	...015037	270	35	...015070	270	35	...015103
10000	...015008	340	35	...015038	340	35	...015071	340	35	...015104



Protective tubing NoCut® made from high-performance fibre see page 309 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

### Heavy Duty Webbing Sling “Powerband PCS”, Four-ply

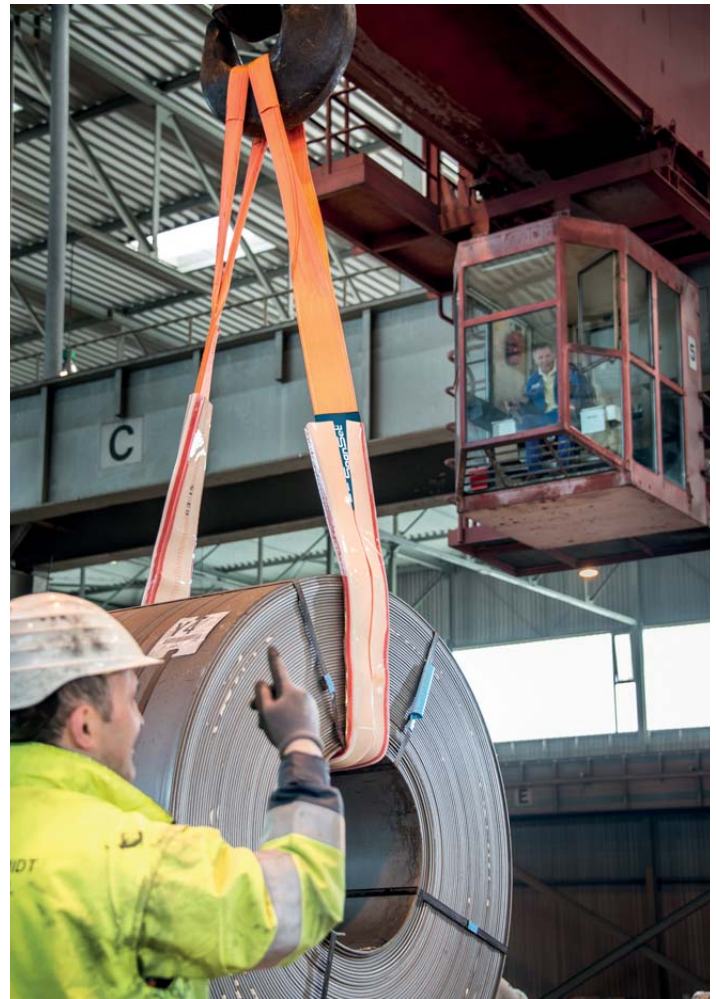
This power-pack is woven out of high-strength PES yarn and sewn in four plies. Thus this webbing sling has a much higher load capacity than one- or two-ply slings of the same width. Therefore PCS slings are perfect for heavy duty applications where slim belts are important e.g. if they have to be pulled under the load or if the only a small contact surface is available.

- Four-ply heavy duty webbing sling
- According to DIN EN 1492-1
- Raised, woven-in WLL indication
- High crosswise stability
- Loop reinforcement
- RFID-Transponder as option

Crane bracket  
available as option!

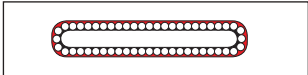
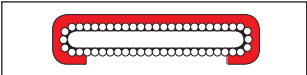
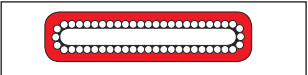
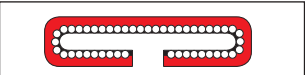
Crane  
bracket



**!** The crane brackets offer additional handling convenience e.g. when connecting to the crane hook or to load suspension equipment. Prices on request.



Webbing sling profile in mm	Load capacity single direct in kg	Load capacity basket hitch in kg	Loop size in mm	Type	Item no.	Length L in m					
						2.0	3.0	4.0	5.0	6.0	8.0
30 x 11.2	2000	4000	350	PCS 2000	25103000...	...015078	...015079	...015080	...015081	...015082	...015083
60 x 11.2	4000	8000	400	PCS 4000	25103000...	...015084	...015085	...015086	...015087	...015088	...015089
90 x 12.0	6000	12000	600	PCS 6000	25103000...	...015090	...015091	...015092	...015093	...015094	...015095
120 x 12.4	8000	16000	800	PCS 8000	25103000...	-	...015096	...015097	...015098	...015099	...015100
150 x 12.8	10000	20000	900	PCS 10000	25103000...	-	...015101	...015102	...015103	...015104	...015105
180 x 12.2	12000	24000	1100	PCS 12000	25103000...	-	...015106	...015107	...015108	...015109	...015110
240 x 15.2	16000	32000	1200	PCS 16000	25103000...	-	...015111	...015112	...015113	...015114	...015115
300 x 15.2	20000	40000	1400	PCS 20000	25103000...	-	-	...015116	...015117	...015118	...015119

Protective Tubings for Heavy Duty Webbing Sling PCS

Abrasion protection made from PU / PVC			Protective tubing SF-1, one-sided for sharp edges			Protective tubing SF-2 two-sided for sharp edges			Protective tubing Clip-SC exchangeable for sharp edges		
											
Protective tubing for webbing sling PCS	Item no. 25151500...	Dim. in mm Width Height	Item no. 25151500...	Dim. in mm Width Height	Item no. 25151500...	Dim. in mm Width Height	Item no. 25151500...	Dim. in mm Width Height	Item no. 25151500...	Dim. in mm Width Height	Item no. 25151500...
2000	...015023	55 30	...015152	55 30	...015160	55 30	...015168	55 30	...015168	55 30	...015168
4000	...015024	90 35	...015153	90 35	...015161	90 35	...015169	90 35	...015169	90 35	...015169
6000	...015025	110 35	...015154	110 35	...015162	110 35	...015170	110 35	...015170	110 35	...015170
8000	...015026	145 40	...015155	145 40	...015163	145 40	...015171	145 40	...015171	145 40	...015171
10000	...015027	210 40	...015156	210 40	...015164	210 40	...015172	210 40	...015172	210 40	...015172
12000	...015028	230 40	...015157	230 40	...015165	230 40	...015173	230 40	...015173	230 40	...015173
16000	...015029	280 45	...015158	280 45	...015166	280 45	...015174	280 45	...015174	280 45	...015174
20000	...015030	340 40	...015159	340 40	...015167	340 40	...015175	340 40	...015175	340 40	...015175



Protective tubing NoCut® made from high-performance fibre see page 309 et seq.

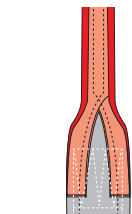
When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

P2 Webbing Slings, 2-ply, with two-sided secutex Coating

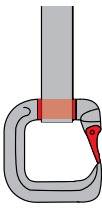
The P2 Powerflex webbing slings are made from high-strength fabric and have additional loop reinforcement. The P2 webbing sling is fully coated with secutex® Powerflex, making it highly wear and friction resistant to substantially extend its service life.

Create choker hitches quickly with the C-bracket. The C-bracket at the end of the Powerflex P2 strap also allows you to use the lifting strap as a choker hitch.

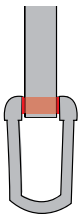
- Webbing sling according to DIN EN 1492-1
- secutex® coating on both sides
- Fabric is protected against dirt and the penetration of foreign particles
- Extremely wear resistant
- Flexible to use



Loop reinforcement

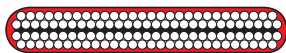


C-bracket

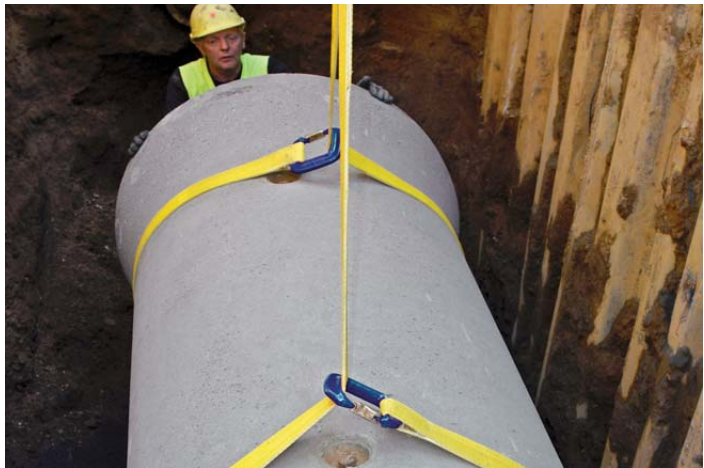


Cran Bracket

The C-bracket can be attached and detached quickly, whereby the forged safety catch prevents the lifting strap from accidentally escaping. If damaged, the safety catch can be easily replaced. The highly robust D-brackets are not only suitable for choker hitches but also fit in any crane hook. Both brackets have a guide channel in which the strap rests fully.



Powerflex coating





**P2 Powerflex Webbing Sling according to DIN EN 1492-1 with Loop and C-bracket**


Webbing sling profile in mm	Load capacity single direct in kg	Load capacity in basket hitch in kg	Loop size in mm	Type	Item no.	Length L in m					
						2.0	3.0	4.0	5.0	6.0	8.0
30 x 7	1000	800	300	PB 1000-P2-C	25103000...	...015212	...015213	...015214	...015215	...015216	...015217
60 x 7	2000	1600	300	PB 2000-P2-C	25103000...	...015218	...015219	...015220	...015221	...015222	...015223
90 x 7	3000	2400	400	PB 3000-P2-C	25103000...	...015224	...015225	...015226	...015227	...015228	...015229
150 x 7	5000	4000	500	PB 5000-P2-C	25103000...	...015230	...015231	...015232	...015233	...015234	...015235

**P2 Powerflex Webbing Sling with Cran Bracket and C-bracket**

**Cran Bracket for  
highly robust use**



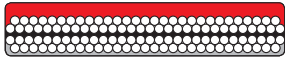
Webbing sling profile in mm	Load capacity single direct in kg	Load capacity in basket hitch in kg	Bracket size in mm Width B	Bracket size in mm Height H	Type	Item no.	Length L in m					
							2.0	3.0	4.0	5.0	6.0	8.0
30 x 7	1000	800	65	120	PB 1000-P2-CD	25103000...	...015236	...015237	...015238	...015239	...015240	...015241
60 x 7	2000	1600	79	140	PB 2000-P2-CD	25103000...	...015242	...015243	...015244	...015245	...015246	...015247
90 x 7	3000	2400	100	180	PB 3000-P2-CD	25103000...	...015248	...015249	...015250	...015251	...015252	...015253
150 x 7	5000	4000	187	250	PB 5000-P2-CD	25103000...	...015254	...015255	...015256	...015257	...015258	...015259

### SX Webbing Slings, 2-ply, with secuflex® and Powerflex Coating

SX webbing slings just hold out longer: The extremely tough secuflex coating protects the contact side of the belt against cuts and abrasion. Additionally the other side is coated with secutex® Powerflex abrasion protection. The standard SX slings have 2 loops with robust webbing reinforcement.

More applications with crane brackets: With crane brackets at both ends you gain a lot of flexibility: Simply put one end of the sling through the bracket at the other end and you can work in perfect choker hitch. Apart from that the crane brackets simplify the connection with lifting beams and crane hooks working in basket hitch as the brackets only have a small contact surface.

- Webbing sling according to DIN EN 1492-1
- secuflex coating on contact side
- secutex® Powerflex coating (yellow) on back side
- Suitable for rough surfaces
- Extremely wear resistant



secuflex® coating  
(Powerflex on reverse side)

**Robust  
and durable**

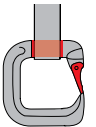


**SX Webbing Sling according to DIN EN 1492-1 with secuflex Coating on Contact Side and secutex® Powerflex Coating on Reverse, with 2 reinforced Crane Loops**


Webbing sling profile in mm	Load capacity basket hitch kg	Load capacity single direct kg	Type	Loop size	Item no.	Length L in m					
						2.0	3.0	4.0	5.0	6.0	8.0
30 x 13	2000	1000	PB 1000-SX	300	25103000...	...015260	...015261	...015262	...015263	...015264	...015265
60 x 13	4000	2000	PB 2000-SX	300	25103000...	...015266	...015267	...015268	...015269	...015270	...015271
90 x 13	6000	3000	PB 3000-SX	400	25103000...	...015272	...015273	...015274	...015275	...015276	...015277
120 x 13	8000	4000	PB 4000-SX	400	25103000...	...015278	...015279	...015280	...015281	...015282	...015283
150 x 13	10000	5000	PB 5000-SX	500	25103000...	...015284	...015285	...015286	...015287	...015288	...015289
180 x 13	12000	6000	PB 6000-SX	700	25103000...	...015290	...015291	...015292	...015293	...015294	...015295
240 x 13	16000	8000	PB 8000-SX	800	25103000...	-	...015296	...015297	...015298	...015299	...015300
300 x 13	20000	10000	PB 10000-SX	1000	25103000...	-	...015301	...015302	...015303	...015304	...015305

**SX Webbing Sling according to DIN EN 1492-1 with secuflex coating on contact side and secutex® Powerflex Coating on Reverse, with 2 Crane Brackets**


Also available with C-hook



Webbing sling profile in mm	Load capacity basket hitch kg	Load capacity single direct kg	Type	Bracket size in mm	Item no.	Length L in m					
						2.0	3.0	4.0	5.0	6.0	8.0
30 x 13	2000	1000	PB 1000-SX/DD	65/120	25103000...	...015330	...015331	...015332	...015333	...015334	...015335
60 x 13	4000	2000	PB 2000-SX/DD	80/140	25103000...	...015336	...015337	...015338	...015339	...015340	...015341
90 x 13	6000	3000	PB 3000-SX/DD	100/180	25103000...	...015342	...015343	...015344	...015345	...015346	...015347
120 x 13	8000	4000	PB 4000-SX/DD	152/220	25103000...	...015348	...015349	...015350	...015351	...015352	...015353
150 x 13	10000	5000	PB 5000-SX/DD	187/250	25103000...	...015354	...015355	...015356	...015357	...015358	...015359
180 x 13	12000	6000	PB 6000-SX/DD	223/290	25103000...	...015360	...015361	...015362	...015363	...015364	...015365
240 x 13	16000	8000	PB 8000-SX/DD	290/370	25103000...	-	...015366	...015367	...015368	...015369	...015370
300 x 13	20000	10000	PB 10000-SX/DD	355/440	25103000...	-	...015371	...015372	...015373	...015374	...015375

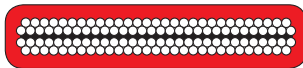


### S2 Webbing Slings, 2-ply, with two-sided secutex Coating

Double protection – far more durable. A real workhorse: SpanSet S2 webbing slings with secutex® protection on both sides. This material has an extremely high structural stability and adapts flexibly to sharp edges e.g. with rolled steel or concrete parts. Thus the pressure is evenly distributed, the belt material is protected and the service life extended.

More applications with crane brackets: With crane brackets at both ends you gain a lot of flexibility: Simply put one end of the sling through the bracket at the other end and you can work in perfect choker hitch. Apart from that the crane brackets simplify the connection with lifting beams and crane hooks working in basket hitch as the brackets only have a small contact surface.

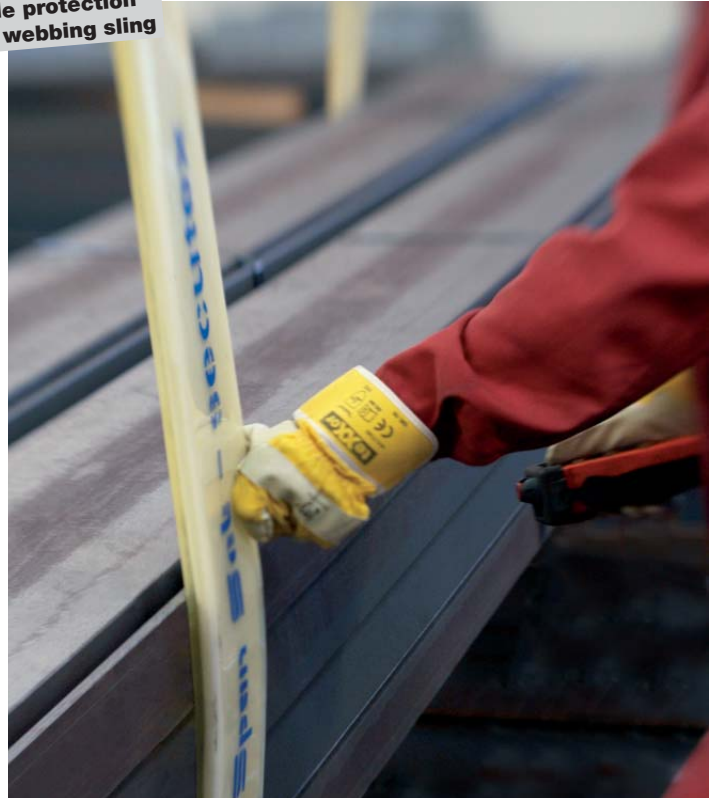
- Webbing sling according to DIN EN 1492-1
- secutex® coating on both sides
- Suitable for severe conditions of use
- Extremely wear resistant



secutex® coating on both sides



Double protection  
for the webbing sling



### S2 Webbing Sling according to DIN EN 1492-1, both Sides S2 coated, with 2 reinforced Crane Loops



Webbing sling profile ca. in mm	Load capacity in basket hitch kg	Load capacity single direct kg	Type	Loop size in mm	Item no.	Length L in mm					
						2.0	3.0	4.0	5.0	6.0	8.0
40 x 18	2000	1000	PB 1000-S2	300	25103000...	...015120	...015121	...015122	...015123	...015124	...015125
70 x 18	4000	2000	PB 2000-S2	300	25103000...	...015126	...015127	...015128	...015129	...015130	...015131
100 x 18	6000	3000	PB 3000-S2	400	25103000...	...015132	...015133	...015134	...015135	...015136	...015137
130 x 18	8000	4000	PB 4000-S2	400	25103000...	...015138	...015139	...015140	...015141	...015142	...015143
160 x 18	10000	5000	PB 5000-S2	500	25103000...	...015144	...015145	...015146	...015147	...015148	...015149
190 x 18	12000	6000	PB 6000-S2	700	25103000...	...015150	...015151	...015152	...015153	...015154	...015155
250 x 18	16000	8000	PB 8000-S2	800	25103000...	-	...015156	...015157	...015158	...015159	...015160
310 x 18	20000	10000	PB 10000-S2	1000	25103000...	-	...015161	...015162	...015163	...015164	...015165

**S2 Webbing Sling according to DIN EN 1492-1, both Sides S2 coated, with 2 Crane Brackets**


Webbing sling profile ca. in mm	Load capacity in basket hitch kg	Load capacity single direct kg	Type	Bracket size in mm	Item no.	Length L in m					
						2.0	3.0	4.0	5.0	6.0	8.0
40 x 18	2000	1000	PB 1000-S2/DD	65/120	25103000...	...015166	...015167	...015168	...015169	...015170	...015171
70 x 18	4000	2000	PB 2000-S2/DD	80/140	25103000...	...015172	...015173	...015174	...015175	...015176	...015177
100 x 18	6000	3000	PB 3000-S2/DD	100/180	25103000...	...015178	...015179	...015180	...015181	...015182	...015183
130 x 18	8000	4000	PB 4000-S2/DD	152/220	25103000...	...015184	...015185	...015186	...015187	...015188	...015189
160 x 18	10000	5000	PB 5000-S2/DD	187/250	25103000...	...015190	...015191	...015192	...015193	...015194	...015195
190 x 18	12000	6000	PB 6000-S2/DD	223/290	25103000...	...015196	...015197	...015198	...015199	...015200	...015201
250 x 18	16000	8000	PB 8000-S2/DD	290/370	25103000...	-	...015202	...015203	...015204	...015205	...015206
310 x 18	20000	10000	PB 10000-S2/DD	355/440	25103000...	-	...015207	...015208	...015209	...015210	...015211

**S2 Webbing Sling according to DIN EN 1492-1, both Sides S2 coated, with Crane Brackets and C-hooks**


Equipped with C-hook for choker hitch.

Webbing sling profile mm	Load capacity single direct in kg	Load cap. in choker hitch in kg	Bracket width in mm	Bracket length in mm	Type	Item no.	Length L in m					
							2.0	3.0	4.0	5.0	6.0	8.0
30 x 13	1000	800	65	120	PB 1000-SX-CD	25103000...	...015306	...015307	...015308	...015309	...015310	...015311
60 x 13	2000	1600	79	140	PB 2000-SX-CD	25103000...	...015312	...015313	...015314	...015315	...015316	...015317
90 x 13	3000	2400	100	180	PB 3000-SX-CD	25103000...	...015318	...015319	...015320	...015321	...015322	...015323
150 x 13	5000	4000	187	250	PB 5000-SX-CD	25103000...	...015324	...015325	...015326	...015327	...015328	...015329

### Liftfix Two-ply Webbing Sling with Loop Reinforcement according to EN 1492-1

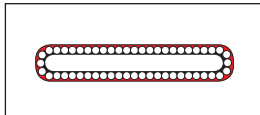
The Liftfix webbing slings offer nothing less than reliable standard quality: Load capacities up to 10 tons and manufactured according to DIN EN 1492-1. Like all our other slings they come with a tear-resistant sewn label. The sectional reinforcement protects where it is necessary – in the crane hook area. Standard colour-coding avoids mix-ups of load capacities.



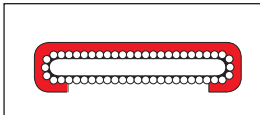
Webbing sling profile in mm	Load capacity single direct in kg	Load capacity in basket hitch in kg	Loop size in mm	Type	Item no.	Length L in m					
						2.0	3.0	4.0	5.0	6.0	8.0
30 x 5.2	1000	2000	300	HB 1000	25103000...	...015383	...015384	...015385	...015386	...015387	...015388
50 x 6.8	1500	3000	300	HB 1500	25103000...	...015389	...015390	...015391	...015392	...015393	...015394
60 x 5.0	2000	4000	300	HB 2000	25103000...	...015396	...015397	...015399	...015400	...015401	...015402
90 x 5.0	3000	6000	400	HB 3000	25103000...	...015403	...015404	...015405	...015406	...015407	...015408
120 x 6.8	4000	8000	400	HB 4000	25103000...	...015409	...015410	...015411	...015412	...015413	...015414
150 x 6.6	5000	10000	500	HB 5000	25103000...	...015415	...015416	...015417	...015418	...015419	...015420
180 x 7.2	6000	12000	700	HB 6000	25103000...	...015421	...015422	...015423	...015424	...015425	...015426
240 x 7.2	8000	16000	800	HB 8000	25103000...	...015427	...015428	...015429	...015430	...015431	...015432
300 x 7.4	10000	20000	1000	HB 10000	25103000...	-	...015433	...015434	...015435	...015436	...015437

### Protective Tubings for Liftfix Webbing Slings

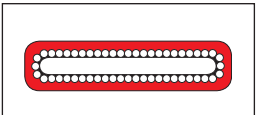
**Abrasion protection made from PU / PVC**



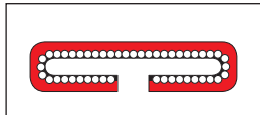
**Protective tubing SF-1 one-sided for sharp edges**



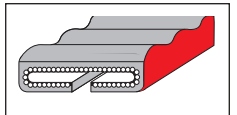
**Protective tubing SF-2 two-sided for sharp edges**



**Protective tubing Clip-SC, exchangeable for sharp edges**



**Protective tubing secuwave, exchangeable for sharp edges**



Protective tubing for Liftfix webbing slings	Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...	Dimensions in mm		Item no. 25151500...
		W	H		W	H		W	H	
1000	...015001	55	30	...015031	55	30	...015064	47	22	...015097
2000	...015002	85	23	...015032	85	23	...015065	85	23	...015098
3000	...015003	115	25	...015033	115	25	...015066	115	25	...015099
4000	...015004	145	25	...015034	145	25	...015067	145	25	...015100
5000	...015005	175	25	...015035	175	25	...015068	175	25	...015101
6000	...015006	210	30	...015036	210	30	...015069	210	30	...015102
8000	...015007	270	35	...015037	270	35	...015070	270	35	...015103
10000	...015008	340	35	...015038	340	35	...015071	340	35	...015104



**Protective tubing NoCut® made from high-performance fibre see page 309 et seq.**

**When calculating interim lengths, the figure must be rounded up to the nearest half a metre.**





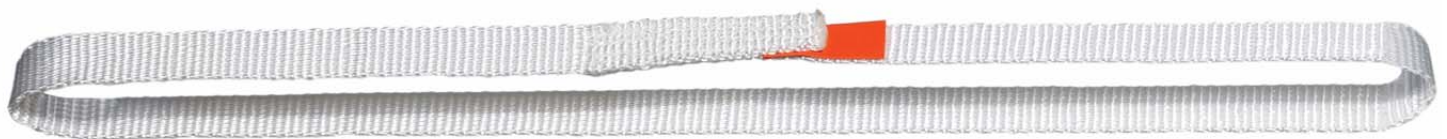
### Disposable belt slings according to DIN 60005

**NEW:** Standard safety – these disposable slings are used for heavy or bulky goods which have to be transported over long distances. After the goods have arrived at their destination, the slings are cut and disposed of after use. The advantage: They are cost-saving - as single-use slings they are much cheaper than slings for daily use. To avoid mix-ups with slings for multiple use, disposable slings are not standard colour-coded but normally come in white colour. The label in marking colour orange is another clear indication for a disposable sling.

- Low-cost lifting slings for single-use
- According to DIN 60005
- Label in standardised orange marking colour

#### More application safety

With these standardised slings we offer you a particularly cheap lifting means for single-use. In practise this means that the sling is only used for transport from the manufacturer to the construction site. As soon as the goods reach their destination they are cut off and disposed of. That's why these slings are specially suitable for use in timber and building construction. The new orange label indicates the load capacity, manufacturer's name, length, production date, WLL factors and more. Disposable belt slings may be used in all industry lines.



Nominal load capacity in kg	Load capacity in basket hitch in kg	Length L1 min. in m	Belt width ca. in mm	Belt thickness ca. in mm
400	800	1,000	25	1.3



Nominal load capacity in kg	Load capacity in basket hitch in kg	Length L1 min. in m	Belt width ca. in mm	Belt thickness ca. in mm
750	1500	0.300	50	1.3
1500	3000	0.300	50	2.8

**Please contact us for larger quantities.**

To ensure on time-delivery we recommend concluding a blanket order.

### Precision lifting device made of DynaOne® high-performance cables

#### Technical data:

- Permissible load capacity: 0.5 t – 350 t (SF7)
- Rope-Ø: 6 mm – 64 mm
- Length tolerance: rope-Ø x 0.5
- Weight: 1/7 of a steel wire rope
- Support width: from 7.2 mm
- Usable length: from 300 mm
- Elongation under load: max. 1.8%
- Individual design options
- Permissible temperature range: -40°C to +70°C
- According to DIN EN 1492-4
- GS mark and LA3 certification from DNV GL



#### User benefits:

- Extremely low dead weight
- High service life
- Very small contact surface
- Manufactured exactly to the length
- Exact lifting operations due to low elongation

#### Cost benefits:

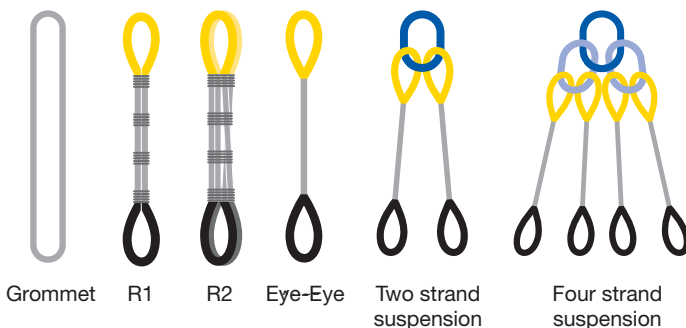
- Individually interchangeable due to low longitudinal tolerances
- Reduced workforce through easy handling
- Short set-up times
- Long life due to low sensitivity to weathering and high abrasion resistance
- Saving of additional fittings such as shackles or adapters



**INTERESTED?**  
Please let us know  
your requirement

### Application-specific individual production for all design options

even with integrated shackles, hooks, thimbles, etc.



### Selected examples from industry (R1 construction)

Load capacity	1.80 t	10.7 t	30.8 t	76.7 t
Usable length in m	2.00	3.0	4.0	5.0
Rope Ø in mm	8.00	20.0	38.0	64.0
Support width in mm	14.00	34.0	55.0	84.0
Weight in kg	0.25	2.4	11.2	41.0



**SLINGS**

**Gleistein Ropes**  
The Perfect Line

Lifting fibre ropes

**Carl Stahl**<sup>®</sup>





### Woven Wire Rope Sling

Woven Wire Rope Slings made in Germany

In accordance to DIN EN 13414 part 1-3

**Rugged-long lasting-extremely durable**

- Made from steel wire rope
- Absolutely free of twists
- Careful lifting of sharpe edged loads
- Resistant against acids, lyes and chemical baths
- Economical due to long lifetime

**All variants of woven wire rope slings are available from:**

- V4A Stainless Steel (see INOX-Program Page 487)
- Galvanised - pure strap without coating
- Vulcanized



Acc. to DGUV-R vulcanized woven wire rope slings are required for especially inspection every 3 years on wire breakage and corrosion.

- PU Coated



**ADVANTAGES towards vulcanization:**

- Woven strap can be checked directly, therefore no special inspection
- Identification label moulded in PU and "undetachable"
- higher cut resistance
- higher shore hardness - longer operation time

**With special PU-Coating**

- Reinforced (with metal plate insert) especially cut resistant



- With glass fibre interferences especially cut resistant



- With rubber granulate surface especially anti-slip



- With *Fusion* Coating

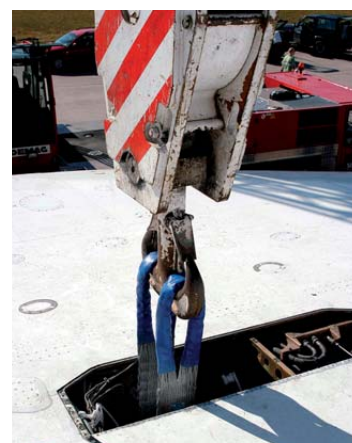


**THE INNOVATIVE PU-COATING**

Combines the advantages of vulcanization (slip-resistancy and grip) and PU-Coating (cut-resistancy and monitoring of woven strap)

**SPECIALLY DESIGNED FOR THE USE AT TURNING BEAMS**

- Excellent slip-resistance
- Extended lifetime
- No interference of the flexibility



## Mechanical characteristics of PU-coatings on woven wire rope slings

Characteristic	Measured values	Dimension	Test regulations
Shore-A hardness	80 ± 3		DIN 53505
Tensile strength	20	N/mm <sup>2</sup>	DIN 53504
Elongation at break	450	%	DIN 53504
Tear growth resistance	20	N/mm	DIN 53515
Abrasion	60	mg	DIN 53516
Rebound resilience*	ca. 40	%	

Usage temperatures: short time -40°C to +100°C, continuous -20°C to +70°C

\* Based on DIN 53 512.

The mechanical properties were measured on test plates made in the laboratory after 7 days of hardening in normal climatic conditions.

**Vulcanization was yesterday,  
PU is future!**

## Chemical properties

Chemical resistance of Carl Stahl PU-coatings measured on test objects after 200 hrs of storage at 20°C. Brief wetting is insignificant and is not the basis for the following classification.

- 1) = Deterioration of the mechanical values 0 - 5 %  
■ 2) = Deterioration of the mechanical values 5 - 15 %  
■ 3) = Deterioration of the mechanical values >15 %

Chemical	Concentration in %	Evaluation
Formic acid	5	2)
Ammonia	5	1)
Boric acid	4	1)
Chlorine lye	3	1)
Acetic acid	5	2)
Formaldehyde	37	3)
Tannic acid solution	20	1)
Potash lye	20	3)
Sodium chloride solution	10	1)
Linseed oil fatty acid		1)
Methanol		3)
Methylene chloride		3)

Chemical	Concentration in %	Evaluation
Lactic acid	45	2)
Sodium hydroxide solution	10	2)
Phosphoric acid	25	2)
Hydrochloric acid	10	1)
Nitric acid	10	3)
Sulphuric acid	25	2)
Soda solution	20	2)
Super petrol		3)
Hydrogen peroxide	10	1)
Xylene		3)
Citric acid	10	3)
Sugar solution	30	1)

## User instructions

High-quality polyurethane elastomers are used for all articles.

Please bear in mind the following to ensure that the protective function of the PU-coating remains unimpaired for a long period of time.

- Care when attaching the load!
- Operating temperature: -20°C to +70°C (short time -40°C to 100°C)
- Maximum permissible surface pressure (projected surface): 30 N/mm<sup>2</sup>
- Avoid combinations of chemicals
  - Please consult the manufacturer before use in chemical baths
- Avoid long or continuous contact with water
  - If the PU-coating has become wet, it must be ensured that it is completely dry before storage.
  - Avoiding drying under heat
- Store in dry and well ventilated places



## Storage capability

**3 years** if stored in a dry environment at room temperature with good ventilation



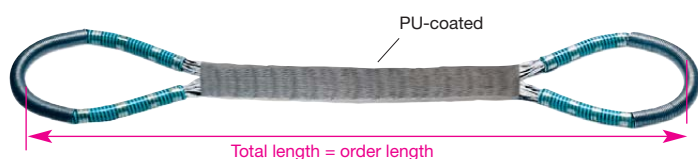
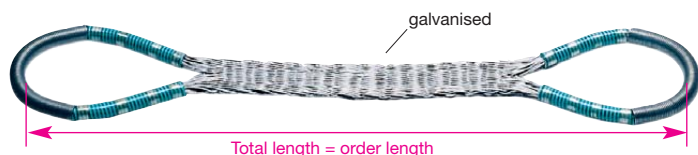
The innovative PU-Coating *Fusion* with the grip of vulcanisation. Specially developed for use in beams. See pages 342-343.



### Woven Wire Rope Sling

With 2 stranded loops and spring protection, galvanised  
Special sizes and widths on request!

- Low dead weight in relation to load
- Customised loop sizes for all applications
- The flexible spring protection allows inspection of the loops for wire breakages



**Direct load capacity up to  
100,000 kg**



Load capacity in kg		Belt width in mm	Belt thickness in mm	Loop length in mm	Item no.	Weight	
direct	basket hitch					1st metre in kg	add. metre in kg
750	1500	30	6	195	25104000015094	1.6	1.0
1250	2500	40	8	195	25104000015095	1.9	1.3
2000	4000	50	8	300	25104000015096	4.1	2.2
3000	6000	70	8	300	25104000015097	4.5	2.5
6000	12000	90	10	400	25104000015098	7.2	4.6

**Low dead weight in  
relation to load**



### Woven Wire Rope Sling

With standed loop and light roller bracket, galavnised and PU-coated

- Safe lifting and transport in choker hitch
- Easy handling due to lightweight roller bracket



**Safe lifting and  
transport  
in choker hitch!**



Load capacity in kg choker hitch	Belt width in mm	Belt thickness in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
600	50	16	25104000015143	1.8	1.0
1000	50	16	25104000015144	2.1	1.3
1600	80	18	25104000015145	4.3	2.2
2400	80	18	25104000015146	4.7	2.5
4800	120	20	25104000015147	8.0	4.8





## Woven Wire Rope Sling

with 2 replaceable crane brackets, galvanised and PU-coated

Special sizes and widths on request!

Suitable for the most common lifting method: basket hitch



Load capacity in kg		Belt width in mm	Belt thickness in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
direct	basket hitch					
750	1500	40	16	25104000015023	2.9	1.3
1250	2500	50	16	25104000015024	2.9	1.3
2000	4000	70	18	25104000015025	4.2	2.3
3000	6000	80	18	25104000015026	4.5	2.5

## Woven Wire Rope Sling

### The low cost alternative

With 2 crane brackets, galvanised and PU-coated.

Special sizes and widths on request!



Load capacity in kg		Belt width in mm	Belt thickness in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
direct	choker hitch					
1000	2000	40	16	25104000015223	2.6	1.3
2000	4000	70	16	25104000015225	3.7	2.3
3000	6000	80	18	25104000015226	4.0	2.5

Woven Wire Rope Sling

With replaceable crane and „Kombi“ bracket,  
galvanised and PU-coated.  
Special sizes and widths on request!

The versatile woven wire rope sling suitable for all lifting methods, flexible in use!

Please ask for our special catalogue!



direct	Load capacity in kg		Belt width in mm	Belt thickness in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
	basket hitch	choker hitch					
750	1500	600	50	16	25104000015054	3.2	1.0
1250	2500	1000	50	16	25104000015055	3.6	1.3
2000	4000	1600	70	18	25104000015056	5.8	2.3
3000	6000	2400	80	18	25104000015057	6.1	2.5

Woven Wire Rope Sling

With crane and feed-through bracket,  
galvanised and PU-coated.  
Special sizes and widths on request!

The low cost alternative



direct	Load capacity in kg		Belt width in mm	Belt thickness in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
	basket hitch	choker hitch					
1000	2000	800	40	16	25104000035690	3.6	2.9
2000	4000	1600	70	18	25104000035691	5.8	4.2
3000	6000	2400	80	18	25104000035692	6.1	4.9

## Woven Wire Rope Slings endless with Buckle

- Galvanised and additionally PU-coated or PU-coated with single-sided *Fusion* coating
- Totally twist-free version

Woven wire rope slings  
endless or with buckle  
for use with  
load turning devices



Load cap. up to 7° kg	Load cap. 7°-45° kg	Belt width in mm	Belt thickness in mm	Item no. PU-coated	Item no. PU with single-sided Fusion coating
1500	1050	40	16	25104000015178	25104000035700
2500	1750	50	16	25104000015179	25104000035701
4000	2800	70	18	25104000015180	25104000035702
6000	4200	80	18	25104000015181	25104000035703
12000	8400	120	22	25104000015182	25104000035704
24000	16800	150	22	25104000015183	25104000035705
34000	23800	200	30	25104000015184	25104000035706
44000	30800	230	35	25104000015185	on request
56000	39200	250	35	25104000015186	on request
100000	70000	350	40	25104000015187	on request

## Buckle for Woven Wire Rope Slings



Load capacity in kg	Belt width in mm	Bolt Ø in mm	Item no.
1500	40	14	25152000015001
2500	50	18	25152000015002
4000	80	30	25152000015003
12000	120	40	25152000015004
24000	150	45	25152000015005
34000	200	53	25152000015006
44000	230	65	25152000015007
56000	250	70	25152000015008
100000	350	88	25152000035001



### Woven Wire Rope Slings endless closed

- Galvanised and additionally PU-coated or PU-coated with single-sided *Fusion* coating
- Totally twist-free version



Turning beams  
see page 158



Load cap. up to 7° kg	Load cap. 7°-45° kg	Belt width in mm	Belt thickness in mm	Item no. PU-coated	Item no. PU with single-sided Fusion coating
1500	1050	40	16	25104000015158	25104000035707
2500	1750	50	16	25104000035009	25104000035708
4000	2800	70	18	25104000015160	25104000035709
6000	4200	80	18	25104000015161	25104000035710
12000	8400	120	22	25104000015162	25104000035711
24000	16800	150	22	25104000035010	25104000035712
34000	23800	200	30	25104000015164	25104000035713
44000	30800	230	35	on request	on request
56000	39200	250	35	on request	on request
100000	70000	350	40	on request	on request

### Woven Wire Rope Slings in Use



**Woven Wire Rope Sling, galvanised with Loop Ends and Flat Pressed Sleeve**


Capacity single bask. hitch kg	Sling profile in mm	Thickness of sleeve in mm	Loop length in mm	Item no.
2000	30 x 6	22	200	25104000015248
3000	45 x 8	24	200	25104000015249
4000	55 x 8	26	250	25104000015250
6000	65 x 8	26	250	25104000015251

**Woven Wire Rope Sling, galvanised and vulcanised with Loop Ends and Flat Pressed Sleeve**


Capacity single bask. hitch kg	Sling profile in mm	Thickness of sleeve in mm	Loop length in mm	Item no.
2000	40 x 13	22	200	25104000015252
3000	55 x 16	24	200	25104000015253
4000	75 x 16	26	250	25104000015254
6000	85 x 16	26	250	25104000015255

**Woven Wire Rope Sling, galvanised and PU-coated with Loop Ends and Flat Pressed Sleeve**


Capacity single bask. hitch kg	Sling profile in mm	Thickness of sleeve in mm	Loop length in mm	Item no.
2000	40 x 16	22	200	25104000015256
3000	55 x 18	24	200	25104000015257
4000	75 x 20	26	250	25104000015258
6000	85 x 20	26	250	25104000015259

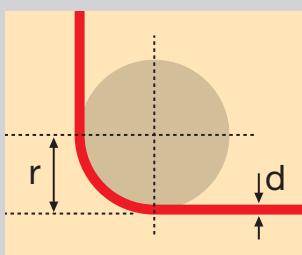
**CondorLift** Edge protectors from Carl Stahl offer you the following advantages:

### Protection of Sling and Load = Safety plus Economy

Edge protectors with magnetic adhesion save time, money and trouble. Your valuable slings are protected by smooth contact surfaces and do not touch the load. The smooth contact surfaces with the load reduce load reworking to a minimum.

Slings must be protected from **sharp edges**. Acc. to DGUV Rule 100-500 edges are considered as „sharp“ if the edge radius is smaller than

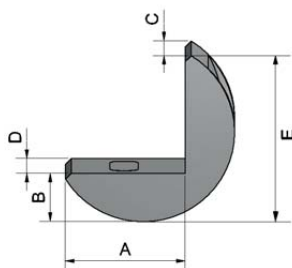
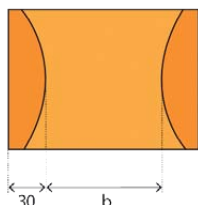
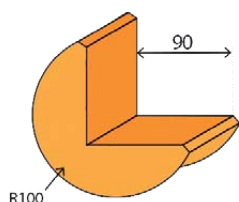
- the diameter of the wire rope sling
- the thickness (d) of the webbing or round sling
- the nominal size of the chain sling



### Edge Protectors for Webbing Slings and Roundslings

**NEW!**

- With magnetic adhesion (magnets not replaceable)
- Rigid version
- From Polyurethane

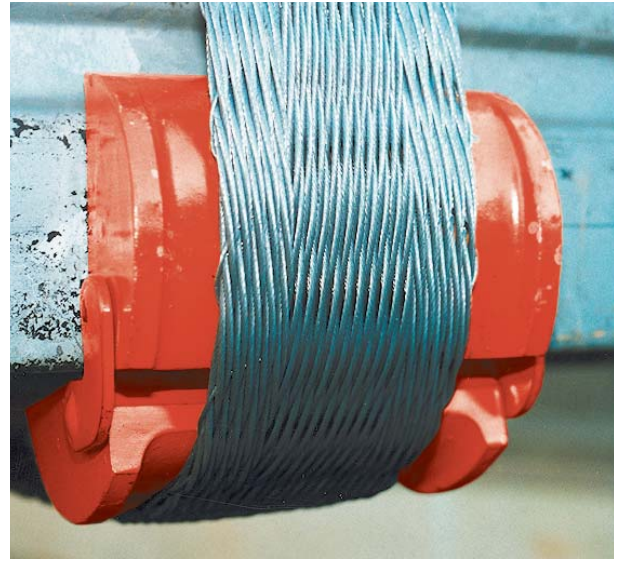
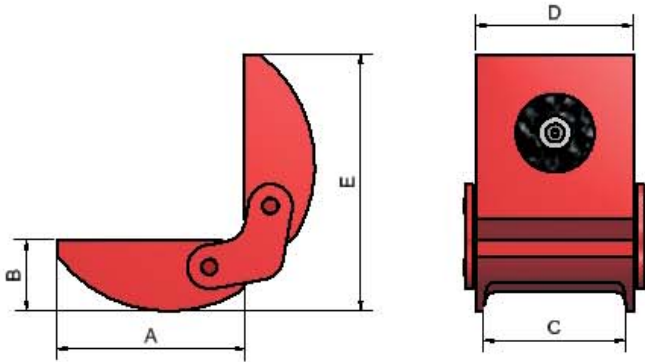


For webbing slings and roundslings up to mm contact width	Dimensions in mm					Number of magnets	Weight kg/pce	Item no.
	A	B	C	D	E			
65	90	50	65	125	160	2	1.0	25151000035083
100	90	50	100	160	160	4	1.5	25151000035084
200	90	50	200	260	160	6	2.6	25151000035085
300	90	50	300	360	160	8	3.5	25151000035086



## Edge Protectors for Webbing Slings and Roundslings

- With magnetic adhesion
- Material: aluminium, painted red
- **Hinged version**
- Attachment angles can be bigger or smaller than 90°



For webbing slings and roundslings up to mm contact width	Dimensions in mm					Number of magnets	Weight kg/pce	Item no.
	A	B	C	D	E			
90	110	45	90	100	180	2	2.4	25151000015001
155	102	60	155	182	190	4	5.1	25151000015002



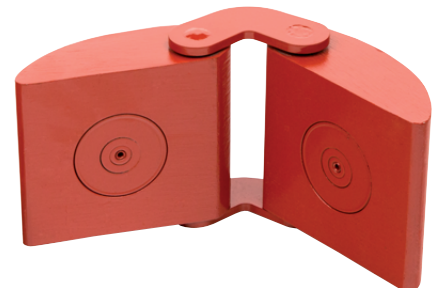
For edge protectors for ropes and chains  
see page 379

## Changeable flat magnet

Ø 50 mm equipped with thread hole and  
threaded pin with internal hexagon

### Your advantages:

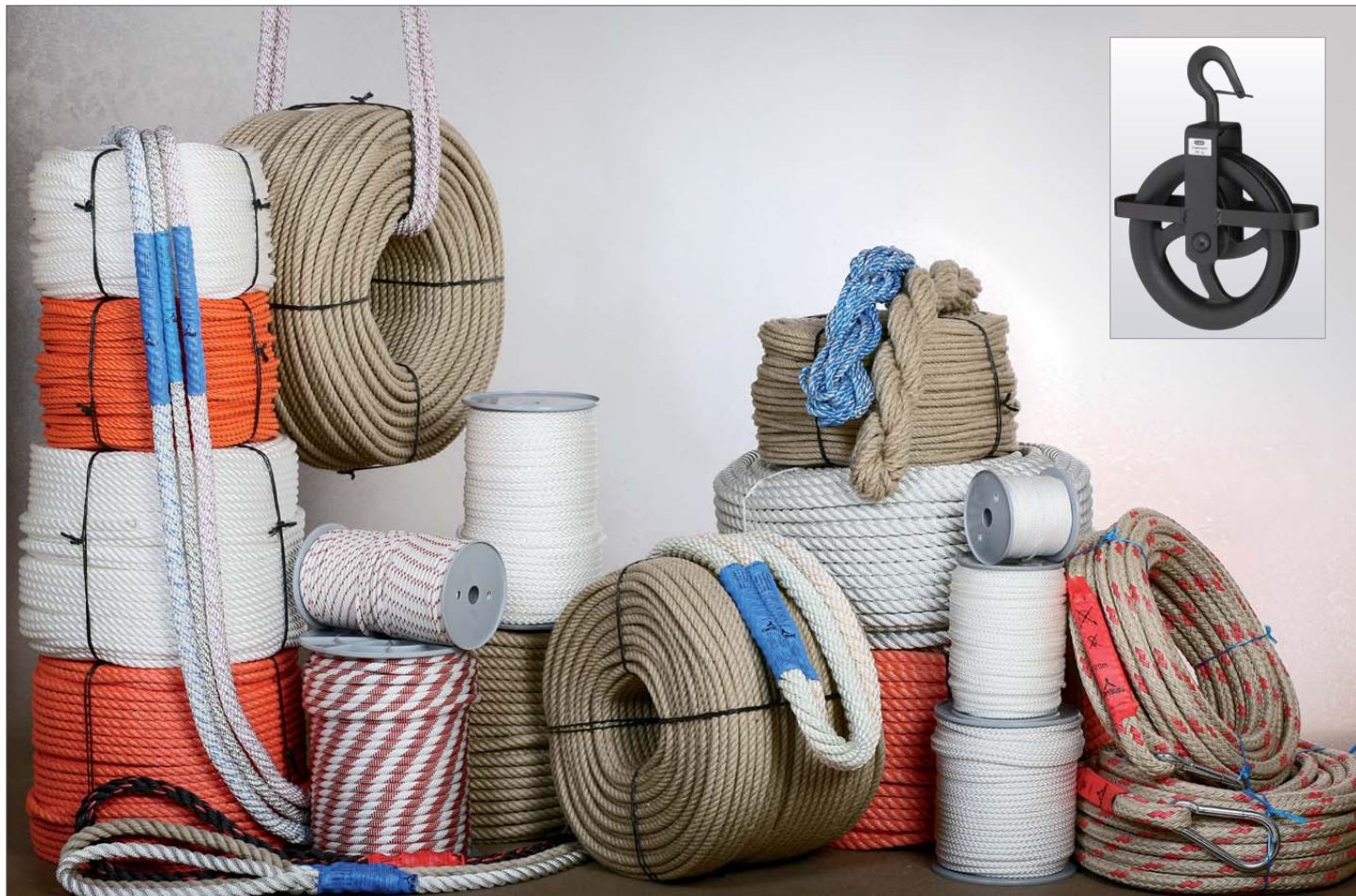
- flexible application
- usable with or without magnet
- Magnet renewable
- Higher adhesive force for a more safe grip





# FIBRE ROPES

## Notes



### Some notes on fibre ropes (instructions for use)

- We are offering fibre ropes made from many different raw materials and in top-quality makes. They comply with the Machinery Directive 2006/42/EC and are made, documented and tested in Germany. Just exactly define the requirements of your application and **choose your fibre rope sling carefully** based on this criteria. We will be pleased to assist you.
- Fibre ropes offer the advantage, that all load-bearing elements are visible from outside. Benefit from this advantage and **inspect your fibre rope sling before every use for visible damage!**
- Our fibre rope slings are marked with printed sleeves. This marking is very durable.
- **Do not use a fibre rope sling without knowing its load capacity (WLL) or which is missing WLL markings!**
- **Observe the lifting method!**
- Observe the general operating temperature limits:
  - Hemp not permanently over 100°C (212°F)
  - Polyamide not over 100°C (212°F)
  - Polyester (Polystar) not over 100°C (212°F)
  - Polyolefin not over 80°C (176°F)
- **Never knot fibre ropes!**
- The splices on our fibre ropes are manufactured and tested acc. to DIN 83319. You can trust them! Therefore:
- **Do not change splices! Do not cut off splice ends!**
- **Do not twist the ropes under load! Ropes with kinks (corkscrew shaped deformations of the strands) must be discarded immediately!**
- **With hemp, polyamide and polyester (Polystar) ropes avoid contact with aggressive chemicals! Before using polypropylene and polyolefin ropes with chemicals, the manufacturer must be consulted!**
- **Protect ropes against sharp edges and corners!**
- **Never use fibre ropes for harnessing or securing of persons! For this purpose we offer approved personal protective equipment.**
- **Do not wrap ropes around body parts – hazard of accident!**
- Refer to instructions DIN EN ISO 9554 , VDI 2500, BGR 500-chapter 2.8





### Twisted Hemp Rope DIN EN 1261 Form B

- Formerly DIN 83325
- 4-strand, made from bright, shive-free long long manila, decorative
- Packaging: coils (on request also on spools)
- Smooth handling, splicable
- Renewable raw material: may be burned or composted
- Colour: natural
- Antistatic

Rope Ø in mm	Weight in kg/100 m	Minimum breaking load (MBL) in daN	Item no.
6	2.6	256	20103000015001
8	4.7	450	20103000015002
10	6.5	700	20103000015003
12	9.5	1080	20103000015004
14	12.3	1375	20103000015005
16	15.8	1825	20103000015006
18	19.6	2250	20103000015007
20	24.6	2780	20103000015008
25	38.4	3980	20103000015009
30	50.9	6180	20103000015010



On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

### Twisted Polyamide Rope DIN EN ISO 1140 Form A, Type 1

- Formerly DIN 83330 and EN 696
- 3-strand, made from high-strength PA multifilament, UV-stabilised
- Packaging: coils (on request also on spools)
- Stretchable, impact-absorbing, abrasion-resistant, suitable for hot cutting
- Thermally stabilised
- Colour: white

Rope Ø in mm	Weight in kg/100 m	Minimum breaking load (MBL) in daN	Item no.
5	1.4	564	20103000015011
6	2.0	793	20103000015012
8	4.0	1380	20103000015013
10	6.0	2120	20103000015014
12	8.2	3010	20103000015015
14	11.2	4000	20103000015016
16	15.0	5190	20103000015017
18	19.2	6430	20103000015018
20	23.6	7920	20103000015019



On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).



# FIBRE ROPES

## Polypropylene Ropes

### Twisted Polypropylene Rope DIN EN ISO 1346 Form A

- Formerly DIN 83333 and EN 699
- 3-strand, made from PP split yarn (soft), UV-stabilised
- Packaging: coils (on request also on spools)
- Floatable, suitable for hot cutting, splicable
- Colour: orange, on request also available in black, white, and blue

Rope Ø in mm	Weight in kg/100 m	Min. break load (MBL) in daN	Item no.
5	1.0	423	20103000015029
6	1.5	592	20103000015030
8	2.7	1010	20103000015031
10	4.2	1540	20103000015032
12	6.0	2160	20103000015033
14	8.2	2890	20103000015034
16	11.0	3700	20103000015035
18	13.9	4620	20103000015036
20	17.2	5610	20103000015037
24	24.7	7880	20103000015038
26	29.0	9150	20103000015039
28	33.6	10500	20103000015040
30	38.7	11900	20103000015041
32	44.0	13400	20103000015042
36	55.7	16700	20103000015043
40	68.7	20400	20103000015044



On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

### Polypropylene Rope, multifil Form E

- DIN 83307, Form E, PP3 (high-strength)
- UV-stabilised
- 8 x braided
- Packaging: Spools (cross reels and coils available on request)
- Floatable, suitable for hot cutting, easy to knot
- Versatile in use
- Colour: white, other colours on request

Rope Ø in mm	Weight in kg/100 m	Min. break. load (MBL) in daN	Item no.
2	0.16	70	20103000015045
3	0.4	125	20103000015046
4	0.7	225	20103000015047
5	1.1	400	20103000015048
6	1.5	500	20103000015049
8	2.6	900	20103000015050
10	4.0	1300	20103000015051
12	5.5	1800	20103000015052



On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

### High-performance Polyamide Rope/Kernmantle Fabric

- Better than DIN 83307, form K, PA
- UV-stabilised
- Meets highest demands
- Packaging: Spools (cross reels and coils available on request)
- Stretchable, impact-absorbing, abrasion-resistant, suitable for hot cutting, easy to knot
- Suitable e.g. as motor starter rope or for flag hoisting systems
- Colour: red-white

Rope Ø in mm	Weight in kg/100 m	Minimum breaking load (MBL) in daN	Item no.
2	0.3	100	20103000015020
3	0.6	280	20103000015021
4	1.0	385	20103000015022
5	1.6	630	20103000015023
6	2.4	920	20103000015024
7	3.1	1220	20103000015025
8	4.0	1600	20103000015026
10	6.5	2500	20103000015027
12	8.8	3600	20103000015028



### Construction Pulley

Outer pulley Ø in mm	Groove Ø in mm	Axle length in mm	Overall length in mm	Hook opening in mm	Max. suitable rope Ø max. in mm	Load capacity in kg	Weight ca. in kg	Item no.
220	174	90	350	25	28	250	4.00	15260000035142

Other pulley diameters are available on request.



### Construction Elevator Rope Ø 20 mm, Material Polypropylen

- New: safely sewed loops, printed sleeve over seam
- Wear-and rotation resistant
- As coil (on request also on spools)
- Terminal: Carbine hook 160 x 13;  
other terminals like shackles or master links on request
- Colour: beige-red

Rope ø in mm	Assembled length in m	Item no.
20	10	20151500015031
20	15	20151500015032
20	20	20151500015033
20	25	20151500015034
20	30	20151500015035
20	40	20151500015036
20	50	20151500015037
20	75	20151500015038
20	100	20151500015039



Only for manually lifting loads of up to 50 kg (minimum breaking load of the sewn rope 3,500 daN)

### CondorLift Wire rope slings, galvanised with fibre core

#### 1-leg and multi-leg wire rope slings according to DIN EN 13414-1 and FSA recommendations

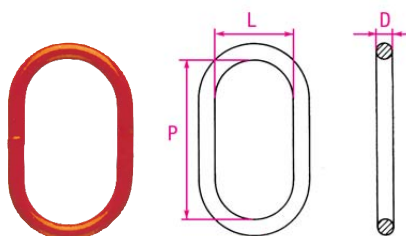
The wire rope slings offered on the next few pages are made from galvanised standard ropes with a fibre core, 6x36 WS-FC

- The load capacities comply with the recommendation of the FSA load capacity table based on the master links and end fittings used.
- The load capacities are specified in kg.
- For all rope diameters not listed in combination with rope class, core types, rope strength classes and rope end connections, the load capacity is calculated in accordance with standard DIN EN 13414-1 and indicated on the wire rope sling.

#### Carl Stahl wire rope slings in 1-leg version

- Master Links, no flattened section, Grade 80
- Load capacity acc. DIN EN 818-4
- Red dipped

For rope Ø mm	Load capacity kg	D	Dimensions in mm			Weight kg/pce	Item no.
			L	P			
8	1600	13	60	110		0.34	25202000015001
10	1600	13	60	110		0.34	25202000015001
12	2120	16	60	110		0.53	25202000015002
14	2120	16	60	110		0.53	25202000015002
16	3150	18	75	135		0.915	25202000015003
18	3150	18	75	135		0.915	25202000015003
20	5300	22	90	160		1.60	25202000015004
22	5300	22	90	160		1.60	25202000015004
24	8000	26	100	180		2.46	25202000015005
26	8000	26	100	180		4.14	25202000015005
28	8000	26	100	180		6.22	25202000015005
32	11200	32	110	200		8.95	25202000015006
36	14000	36	140	260		12.82	25202000015007
40	17000	40	160	300		16.55	25202000015008
44	21200	45	180	340		27.01	25202000015009

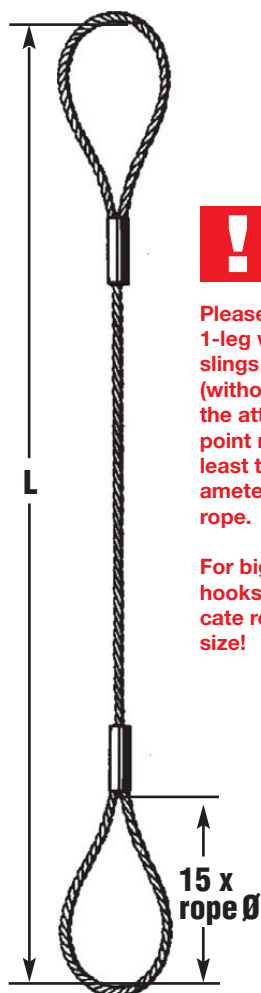




Wire Rope Sling, 1-leg, galva-  
nised, with Pressed Loops

Wire Rope Sling, 1-leg, galva-  
nised, with Pressed Loops and  
Thimbles

Wire Rope Sling, 1-leg, galv.,  
one side with Pressed Loop,  
Pressed Thimble and Green Pin  
shackle on the other side



Please note that for  
1-leg wire rope  
slings with loops  
(without thimbles)  
the attachment  
point must have at  
least twice the di-  
ameter of the wire  
rope.

For bigger crane  
hooks please indi-  
cate required loop  
size!



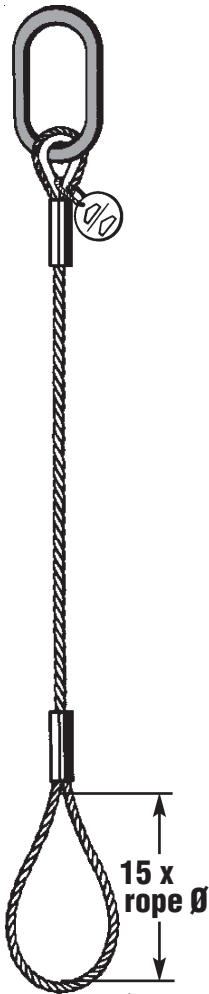
Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000015001	25102000015096	25102000015152
10	1000	25102000015009	25102000015102	25102000015158
12	1500	25102000015014	25102000015108	25102000015164
14	2000	25102000015022	25102000015114	25102000015170
16	2700	25102000015030	25102000015120	25102000015176
18	3150	25102000015036	25102000015126	25102000015182
20	4000	25102000015045	25102000015132	25102000015188
22	5000	25102000015054	25102000015138	25102000015194
24	6300	25102000015062	25102000015144	25102000015200
26	7000	25102000015068	25102000015145	25102000015201
28	8000	25102000015074	25102000015146	25102000015202
32	11000	25102000015080	25102000015147	25102000015203
36	14000	25102000015086	25102000015148	25102000015204
40	17000	25102000015087	25102000015149	25102000015205
44	21000	25102000015088	25102000015150	25102000015206
48	25000	25102000015089	25102000015151	25102000015207

Higher load capacities available on request. Please contact us.

Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble and  
Safety Eye Hook on the other  
side



Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link, Pressed Thimble and  
Pressed Loop on the other side



Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble with Self-  
locking Eye Hook on the other  
side



Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000015208	25102000015264	25102000015326
10	1000	25102000015214	25102000015270	25102000015332
12	1500	25102000015220	25102000015276	25102000015338
14	2000	25102000015226	25102000015282	25102000015344
16	2700	25102000015232	25102000015288	25102000015350
18	3150	25102000015238	25102000015294	25102000015356
20	4000	25102000015244	25102000015300	25102000015362
22	5000	25102000015250	25102000015306	25102000015368
24	6300	25102000015256	25102000015312	25102000015374
26	7000	25102000015257	25102000015313	25102000015375
28	8000	25102000015258	25102000015314	25102000015376
32	11000	25102000015259	25102000015315	25102000015377
36	14000	25102000015260	25102000015316	25102000015378
40	17000	25102000015261	25102000015317	25102000015379
44	21000	25102000015262	25102000015318	-
48	25000	25102000015263	25102000015319	-

Higher load capacities available on request. Please contact us.

**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Self-locking  
Eye Hook on the other side**

**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble and  
Foundry Hook on the other side**

**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Foundry  
Hook on the other side**



**Please note that for  
1-leg wire rope  
slings with loops  
(without thimbles)  
the attachment  
point must have at  
least twice the dia-  
meter of the wire  
rope.**

**For larger crane  
hooks please indi-  
cate loop size with  
your order!**

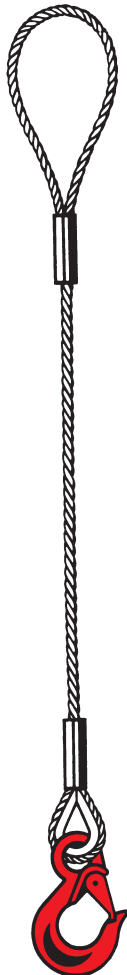


Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000015380	25102000015454	25102000015470
10	1000	25102000015386	25102000015455	25102000015471
12	1500	25102000015394	25102000015456	25102000015472
14	2000	25102000015402	25102000015457	25102000015473
16	2700	25102000015410	25102000015458	25102000015474
18	3150	25102000015418	25102000015459	25102000015475
20	4000	25102000015428	25102000015460	25102000015476
22	5000	25102000015438	25102000015461	25102000015477
24	6300	25102000015448	25102000015462	25102000015478
26	7000	25102000015449	25102000015463	25102000015479
28	8000	25102000015450	25102000015464	25102000015480
32	11000	25102000015451	25102000015465	25102000015481
36	14000	25102000015452	25102000015466	25102000015482
40	17000	25102000015453	25102000015467	25102000015483
44	21000	-	25102000015468	25102000015484
48	25000	-	25102000015469	25102000015485

**Higher load capacities available on request. Please contact us.**



**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble and  
Safety Eye Hook on the other  
side**



**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Safety Eye  
Hook on the other side**



**Wire Rope Sling, 1-leg, gal-  
vanised, on both sides with  
spliced Loops**



**Choker hitch  
will reduce load  
capacity by 20%.**

**For larger crane  
hooks please indi-  
cate loop size  
with your order!**

Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000015494	25102000015552	25102000015632
10	1000	25102000015500	25102000015560	25102000015638
12	1500	25102000015506	25102000015567	25102000015644
14	2000	25102000015512	25102000015575	25102000015650
16	2700	25102000015518	25102000015583	25102000015656
18	3150	25102000015524	25102000015591	25102000015662
20	4000	25102000015530	25102000015601	25102000015668
22	5000	25102000015536	25102000015611	25102000015674
24	6300	25102000015542	25102000015621	25102000015680
26	7000	25102000015543	25102000015622	25102000015681
28	8000	25102000015544	25102000015623	25102000015682
32	11000	25102000015545	25102000015624	25102000015683
36	14000	-	25102000015625	25102000015684
40	17000	-	-	25102000015685
44	21000	-	-	25102000015686
48	25000	-	-	25102000015687

Higher load capacities available on request. Please contact us.

**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble and  
Swivel Hook on the other side**



**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble and  
Safety Eye Hook with Swivel on  
the other side**



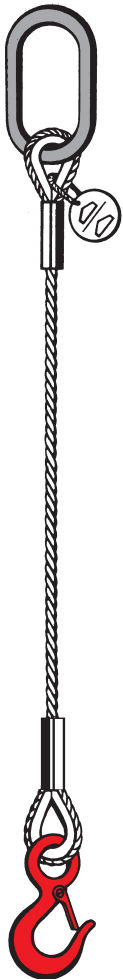
**Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Automatic  
Swivel Hook on the other side**



Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000015712	25102000015763	25102000015819
10	1000	25102000015718	25102000015769	25102000015825
12	1500	25102000015724	25102000015775	25102000015831
14	2000	25102000015730	25102000015781	25102000015837
16	2700	25102000015736	25102000015787	25102000015843
18	3150	25102000015742	25102000015793	25102000015849
20	4000	25102000015748	25102000015799	25102000015855
22	5000	25102000015754	25102000015805	25102000015861
24	6300	25102000015760	25102000015811	25102000015867
26	7000	25102000015761	25102000015812	25102000015868
28	8000	25102000015762	25102000015813	25102000015869
32	11000	-	25102000015814	-
36	14000	-	25102000015815	-
40	17000	-	25102000015816	-
44	21000	-	25102000015817	-
48	25000	-	25102000015818	-

**Higher load capacities available on request. Please contact us.**

Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Safety Eye  
Hook on the other side



Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Safety  
Eye Hook with Swivel on the  
other side



Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble and Green Pin  
straight Shackle on the other  
side



Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000015870	25102000015926	25102000015997
10	1000	25102000015876	25102000015932	25102000015998
12	1500	25102000015882	25102000015938	25102000015999
14	2000	25102000015888	25102000015944	25102000016005
16	2700	25102000015894	25102000015950	25102000016006
18	3150	25102000015900	25102000015956	25102000016007
20	4000	25102000015906	25102000015962	25102000016008
22	5000	25102000015912	25102000015968	25102000016009
24	6300	25102000015918	25102000015974	25102000016010
26	7000	25102000015919	25102000015975	25102000016011
28	8000	25102000015920	25102000015976	25102000016012
32	11000	25102000015921	25102000015977	25102000016013
36	14000	25102000015922	25102000015978	25102000016014
40	17000	25102000015923	25102000015979	25102000016015
44	21000	25102000015924	25102000015980	25102000016016
48	25000	25102000015925	25102000015981	25102000016017

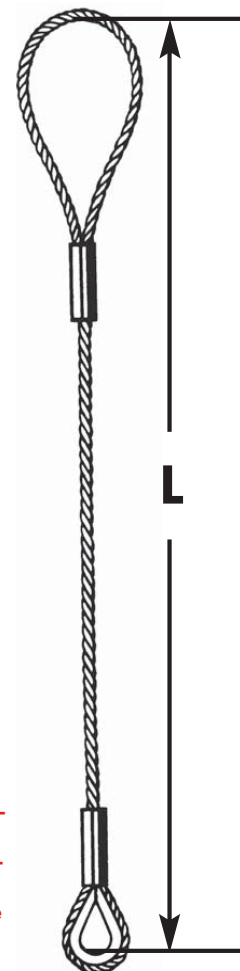
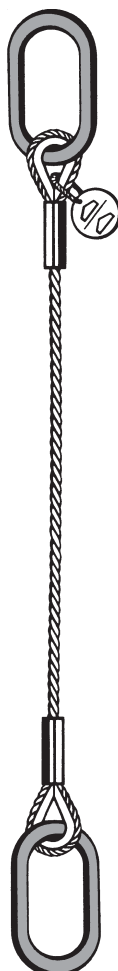
Higher load capacities available on request. Please contact us.



Wire Rope Sling, 1-leg, gal-  
vanised, one side with Master  
Link and Pressed Thimble,  
Pressed Thimble on the other  
side

Wire Rope Sling, 1-leg, gal-  
vanised, both sides with  
Master Links and Pressed  
Thimbles

Wire Rope Sling, 1-leg, gal-  
vanised, one side with Pressed  
Loop, Pressed Thimble on the  
other side



For an exact longitudi-  
nal adjustment each  
rope legs can be addi-  
tionally equipped with  
turnbuckles (see page  
510 and 511)

Rope Ø in mm	Load capacity single direct in kg	Configuration Number	Configuration Number	Configuration Number
8	700	25102000016018	25102000016064	25102000016126
10	1000	25102000016019	25102000016070	25102000016132
12	1500	25102000016020	25102000016076	25102000016138
14	2000	25102000016026	25102000016082	25102000016144
16	2700	25102000016032	25102000016088	25102000016150
18	3150	25102000016038	25102000016094	25102000016156
20	4000	25102000016044	25102000016100	25102000016162
22	5000	25102000016050	25102000016106	25102000016168
24	6300	25102000016056	25102000016112	25102000016174
26	7000	25102000016057	25102000016113	25102000016175
28	8000	25102000016058	25102000016114	25102000016176
32	11000	25102000016059	25102000016115	25102000016177
36	14000	25102000016060	25102000016116	25102000016178
40	17000	25102000016061	25102000016117	25102000016179
44	21000	25102000016062	25102000016118	25102000016180
48	25000	25102000016063	25102000016119	25102000016181

Higher load capacities available on request. Please contact us.

# SLINGS

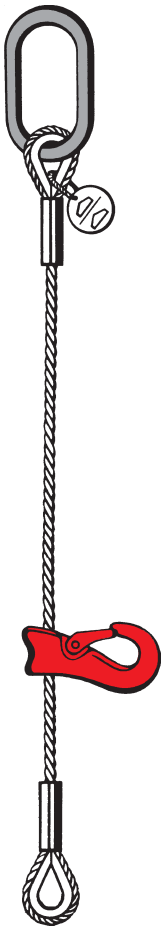
## Wire Rope Slings

### Pulling Sling with Pressed Loop, Pressed Thimble and Choker Hook

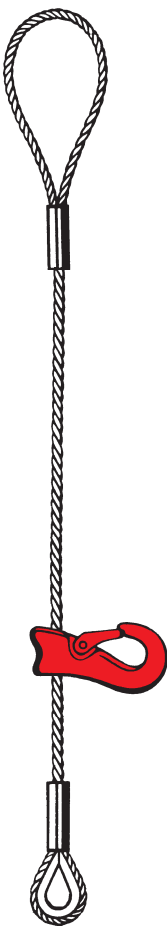
**!** These pulling slings must not be used for lifting!  
The indicated pulling forces (dN) are only valid for horizontal pull (safety factor 2:1).

Admissible pulling force in dN	Configuration Number	Configuration Number
1120	20151500015001	20151500015009
1600	20151500015002	20151500015010
2400	20151500015003	20151500015011
2800	20151500015004	20151500015012
3300	20151500015005	20151500015013
5000	20151500015006	20151500015014
6400	20151500015007	20151500015015
8000	20151500015008	20151500015016

Pulling sling, one side with Master Link, Choker Hook



Pulling sling, one side with Pressed Loop, Thimble and Choker Hook



### Kombi-Quick-Set, consisting of wire rope and chain

- For rough daily use equipped with high-strength chain in the wear area.
- The wire **rope loops/master links** at each end can be easily slid under the load and make this sling very easy to handle.
- Useful length 4 m = 2 x 1.5 m rope + 1 m of chain Grade 8

**Option:** Other lengths available at short notice. The wire rope and sling can be adapted depending on the use. Price on request.

#### Kombi-Quick-Set on both sides with pressed wire rope loop

Rope Ø in mm	Nominal chain size in mm	Load capacity in basket hitch at inclination angle in kg		Item no. with wire rope loops
		0-45°	45-60°	
10	6	1400	1000	25102000015696
14	8	2800	2000	25102000015698
18	10	4400	3150	25102000015700
22	13	7000	5000	25102000015702

#### Kombi-Quick-Set on both sides with Master links

Rope Ø in mm	Nominal chain size in mm	Load capacity in basket hitch at inclination angle in kg		Item no. with Master link
		0-45°	45-60°	
10	6	1400	1000	25102000015704
14	8	2800	2000	25102000015706
18	10	4400	3150	25102000015708
22	13	7000	5000	25102000015710



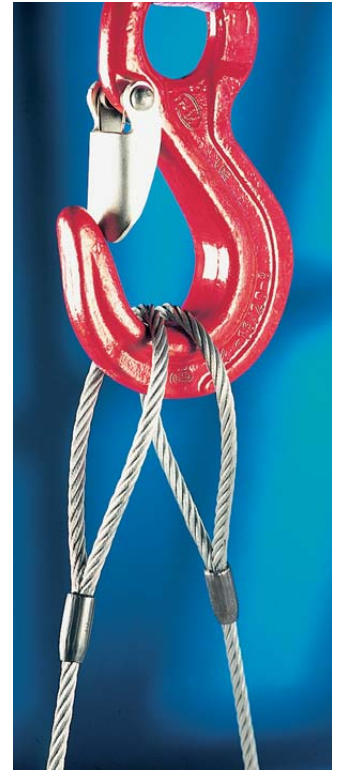
Safe, fast and economic handling of steel beams

### Wire Rope Sling with Flemish Eye, according to DIN EN 13414-1

- The loops are a nice combination of splice and pressed steel sleeve
- Loop length = 15 x d
- Little wear of steel clamps compared with aluminium sleeves
- Longer service life and enhanced efficiency due to conical sleeve

**Higher load capacity than standard slings!**

Rope Ø in mm	Load capacity single direct in kg	Load capacity in choker hitch in kg	Min. length in m	Configuration Number
8	750	600	0.56	25102000016182
10	1150	900	0.70	25102000016188
12	1700	1300	0.84	25102000016195
14	2250	1800	0.98	25102000016201
16	3000	2400	1.12	25102000016207
18	3700	2900	1.26	25102000016213
20	4600	3600	1.40	25102000016214
24	6700	5300	1.68	25102000016215
26	7800	6200	1.82	25102000016216
28	9000	7200	1.96	25102000016217
32	11800	9400	2.24	25102000016218
36	15000	12000	2.52	25102000016219



### Threaded Lifting Loops

#### Metric thread for machine transport and prefabricated concrete parts

Thread size	Load capacity* in kg	Dimensions in mm			Weight in kg/pce	Item no.
		E	H	Rope Ø		
M12	900	22	130	6	0.06	25250000015480
M14	1400	25	150	7	0.10	25250000015481
M16	1700	27	170	8	0.13	25250000015482
M20	3100	35	210	10	0.26	25250000015483
M24	3900	43	260	12	0.43	25250000015484
M27	4900	48	280	13	0.67	25250000015485
M30	5000	56	340	16	1.05	25250000015486
M36	7900	68	380	18	1.52	25250000015487
M42	10200	80	420	20	2.18	25250000015488
M52	17500	97	550	26	4.75	25250000015489

\*Load capacity based on safety factor 1:4

#### Round thread for prefabricated concrete parts

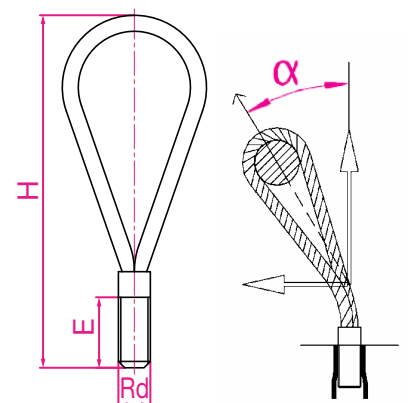
Thread size	Load capacity in kg	Dimensions in mm			Weight in kg/pce	Item no.
		E	H	Rope Ø		
Rd 12	500	22	130	6	0.06	25250000015490
Rd 14	800	25	150	7	0.10	25250000015491
Rd 16	1200	27	170	8	0.13	25250000015492
Rd 18	1600	34	190	9	0.19	25250000015493
Rd 20	2000	35	210	10	0.26	25250000015494
Rd 24	2500	43	260	12	0.43	25250000015495
Rd 30	4000	56	340	16	1.05	25250000015496
Rd 36	6300	68	380	18	1.52	25250000015497
Rd 42	8000	80	420	20	2.18	25250000015498
Rd 52	12500	97	550	26	4.75	25250000015499



**Max. allowable angle for diagonal pull  $\alpha=45^\circ$**



**Max. allowable angle for diagonal pull  $\alpha=45^\circ$**





### CondorLift Wire rope slings, galvanised with fibre core

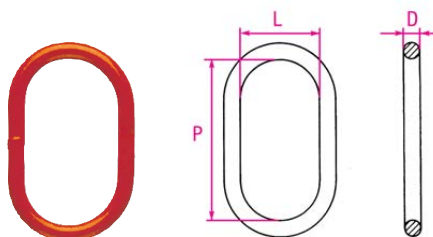
#### 1-leg and multi-leg wire rope slings according to DIN EN 13414-1 and FSA recommendations

The wire rope slings offered on the next few pages are made from galvanised standard ropes with a fibre core, 6x36 WS-FC

- The load capacities comply with the recommendation of the FSA load capacity table based on the master links and end fittings used.
- The load capacities are specified in kg.
- For all rope diameters not listed in combination with rope class, core types, rope strength classes and rope end connections, the load capacity is calculated in accordance with standard DIN EN 13414-1 and indicated on the wire rope sling.

#### Carl Stahl Wire Rope Slings in 2-leg version

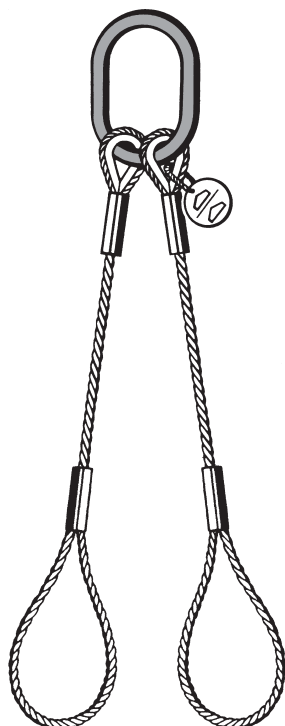
- Master Links, no flattened section, Grade 80
- Load capacity acc. DIN EN 818-4
- Red dipped



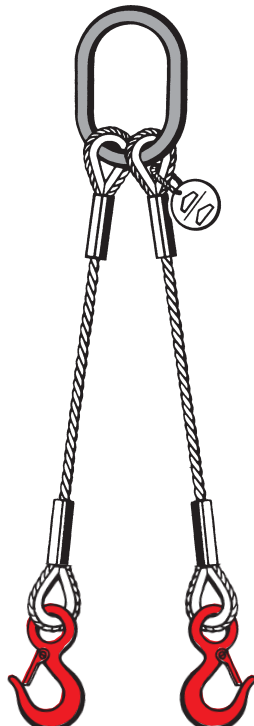
For Rope Ø mm	Load capacity kg	Dimensions in mm			Weight kg/pce	Item no.
		D	L	P		
8	1600	13	60	110	0.34	25202000015001
10	1600	13	60	110	0.34	25202000015001
12	2120	16	60	110	0.53	25202000015002
14	3150	18	75	135	0.915	25202000015003
16	5300	22	90	160	1.60	25202000015004
18	5300	22	90	160	1.60	25202000015004
20	8000	26	100	180	2.46	25202000015005
22	8000	26	100	180	2.46	25202000015005
24	11200	32	110	220	4.14	25202000015006
26	11200	32	110	220	4.14	25202000015006
28	14000	36	140	260	6.22	25202000015007
32	17000	40	160	300	8.95	25202000015008
36	19000	45	180	340	27.01	25202000015009
40	23500	50	190	350	16.55	25202000015010
44	31500	50	190	350	16.55	25202000015010



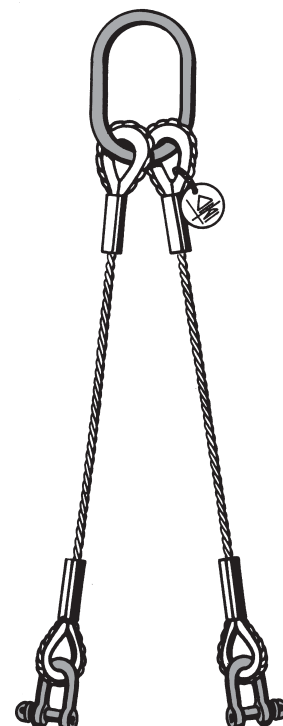
**2-leg Wire Rope Sling, galv.,  
one side with Master Link,  
Pressed Thimbles on the  
other side**



**2-leg Wire Rope Sling, galv.,  
one side with Master Link,  
Pressed Thimbles and Safety  
Eye Hooks on the other side**



**2-leg Wire Rope Sling, galv.,  
one side with Master Link,  
Pressed Thimbles and Green Pin  
Shackles on the other side**



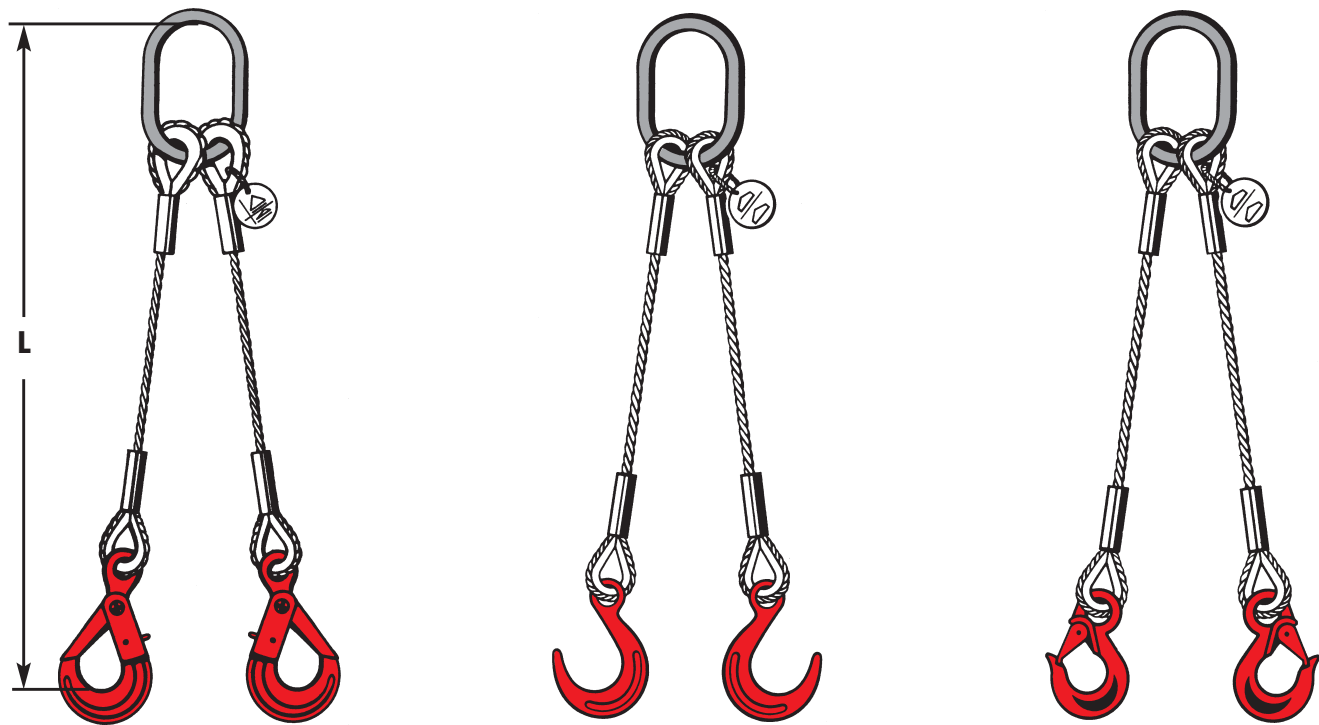
Rope Ø in mm	Load capacity 2-leg in kg at angle		Configuration Number	Configuration Number	Configuration Number
	0-45°	45-60°			
8	950	700	25102000016220	25102000016272	25102000016346
10	1400	1000	25102000016226	25102000016280	25102000016352
12	2100	1500	25102000016232	25102000016288	25102000016358
14	2800	2000	25102000016238	25102000016296	25102000016364
16	3800	2700	25102000016244	25102000016304	25102000016370
18	4400	3150	25102000016250	25102000016312	25102000016376
20	5600	4000	25102000016256	25102000016322	25102000016382
22	7000	5000	25102000016262	25102000016332	25102000016388
24	8800	6300	25102000016268	25102000016342	25102000016394
26	9800	7000	25102000016269	25102000016343	25102000016395
28	11200	8000	25102000016270	25102000016344	25102000016396
32	15400	11000	25102000016271	25102000016345	25102000016397

**Higher load capacities available on request. Please contact us.**

2-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and  
Automatic Safety Hooks on the  
other side

2-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Foundry  
Hooks on the other side

2-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Safety Eye  
Hooks on the other side



Rope Ø in mm	Load capacity 2-leg in kg at angle		Configuration Number	Configuration Number	Configuration Number
	0-45°	45-60°			
8	950	700	25102000016398	25102000016472	25102000016524
10	1400	1000	25102000016406	25102000016478	25102000016530
12	2100	1500	25102000016414	25102000016484	25102000016536
14	2800	2000	25102000016422	25102000016490	25102000016542
16	3800	2700	25102000016430	25102000016496	25102000016548
18	4400	3150	25102000016438	25102000016502	25102000016554
20	5600	4000	25102000016448	25102000016508	25102000016560
22	7000	5000	25102000016458	25102000016514	25102000016566
24	8800	6300	25102000016468	25102000016520	25102000016572
26	9800	7000	25102000016469	25102000016521	25102000016573
28	11200	8000	25102000016470	25102000016522	25102000016574
32	15400	11000	25102000016471	25102000016523	25102000016575

**!** Calculation of load capacity for 2 load-bearing legs  
and symmetric load attachment =

Nominal capacity of single leg x 2

Reduction of load capacity depending on angle:

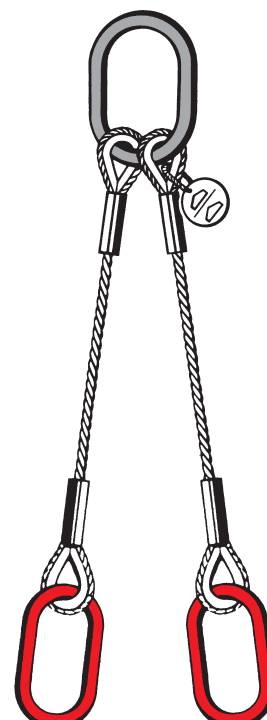
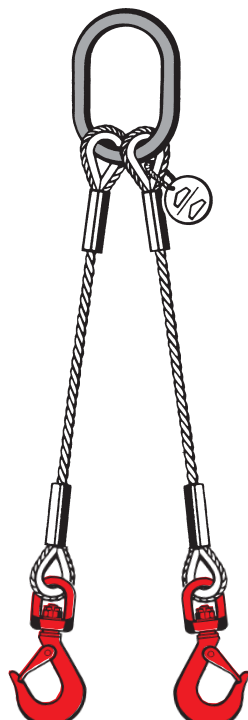
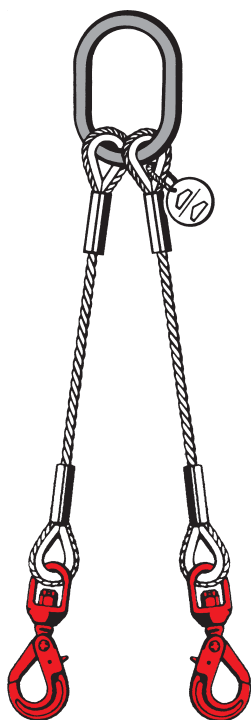
0-45° 30 %  
45-60° 50 %



**2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Automatic Swivel Hooks on the other side**

**2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Safety Eye Hooks with Swivel on the other one**

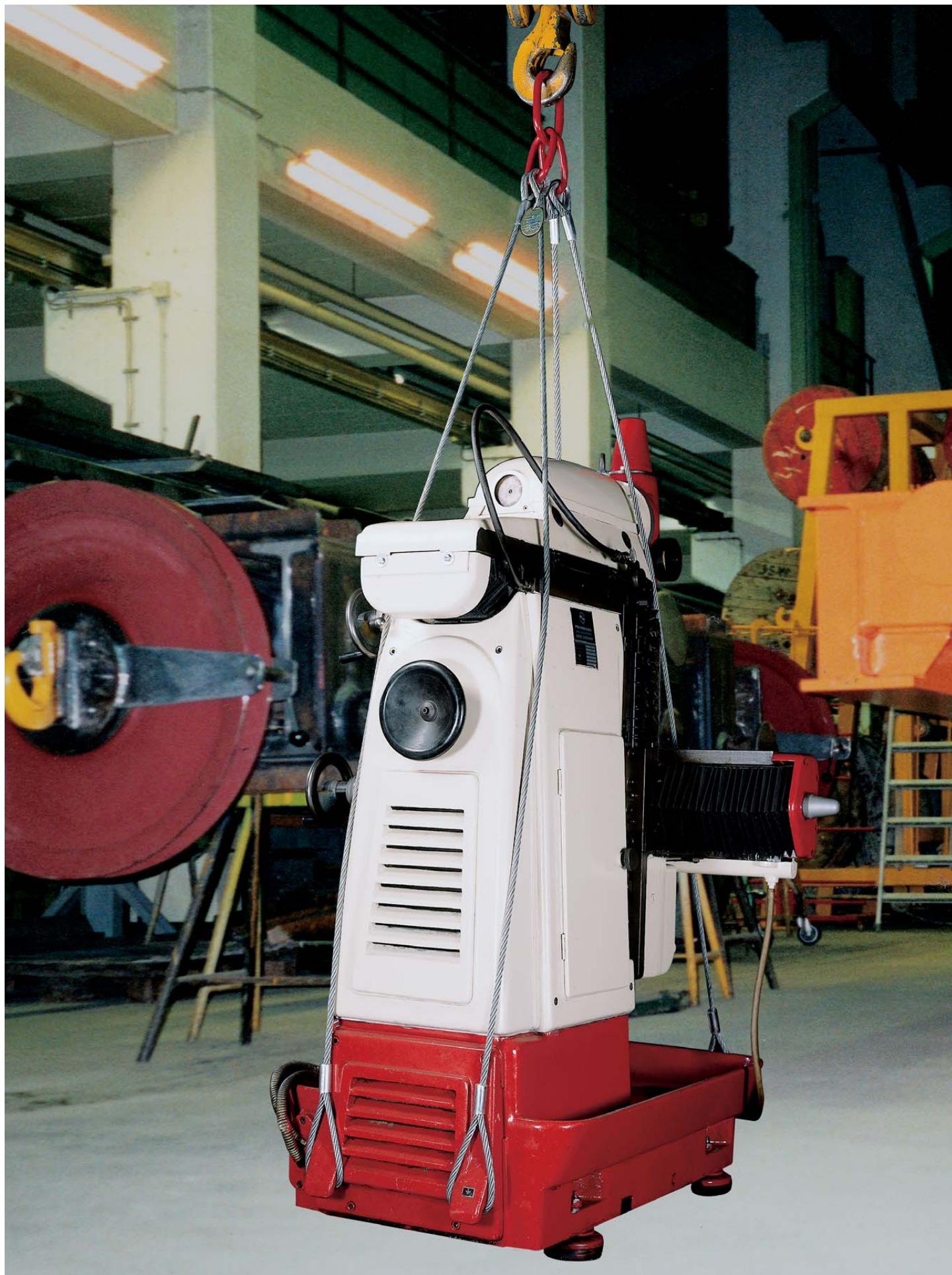
**2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles with Master Links on the other side**



Rope Ø in mm	Load capacity 2-leg in kg at angle		Configuration Number	Configuration Number	Configuration Number
	0-45°	45-60°			
8	950	700	25102000016582	25102000016634	25102000016686
10	1400	1000	25102000016588	25102000016640	25102000016692
12	2100	1500	25102000016594	25102000016646	25102000016698
14	2800	2000	25102000016600	25102000016652	25102000016704
16	3800	2700	25102000016606	25102000016658	25102000016710
18	4400	3150	25102000016612	25102000016664	25102000016716
20	5600	4000	25102000016618	25102000016670	25102000016722
22	7000	5000	25102000016624	25102000016676	25102000016728
24	8800	6300	25102000016630	25102000016682	25102000016734
26	9800	7000	25102000016631	25102000016683	25102000016735
28	11200	8000	25102000016632	25102000016684	25102000016736
32	15400	11000	25102000016633	25102000016685	25102000016737



**For your individual application we will also manufacture 3-leg wire rope slings.**



## CondorLift Wire rope slings, galvanised with fibre core

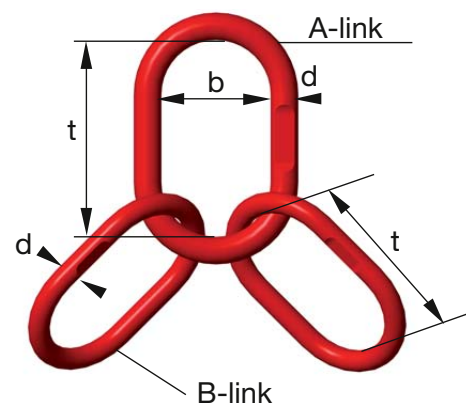
### 1-leg and multi-leg wire rope slings according to DIN EN 13414-1 and FSA recommendations

The wire rope slings offered on the next few pages are made from galvanised standard ropes with a fibre core, 6x36 WS-FC

- The load capacities comply with the recommendation of the FSA load capacity table based on the master links and end fittings used.
- The load capacities are specified in kg.
- For all rope diameters not listed in combination with rope class, core types, rope strength classes and rope end connections, the load capacity is calculated in accordance with standard DIN EN 13414-1 and indicated on the wire rope sling.

### Carl Stahl Wire Rope Slings in 4-leg version

- Master Links, no flattened section, Grade 80
- Load capacity acc. DIN EN 818-4
- Red dipped



Rope Ø in mm	Load capacity 4-leg in kg at angle		link	Dimensions in mm			Weight kg/pce	Item no.
	$\beta=45^\circ$	$\beta=60^\circ$		d	t	b		
8	1450	1050	A	20	160	95	2.21	25202000035726
			B	15	120	70		
10	2100	1500	A	20	160	95	2.21	25202000035726
			B	15	120	70		
12	3200	2300	A	20	160	95	2.21	25202000035726
			B	15	120	70		
14	4200	3000	A	23	160	110	3.19	25202000035756
			B	17	140	80		
16	5700	4000	A	27	190	110	5.07	25202000035760
			B	20	160	95		
18	6600	4700	A	27	190	110	5.07	25202000035760
			B	20	160	95		
20	8400	6000	A	33	230	130	10.08	25202000035727
			B	27	190	110		
22	10500	7500	A	33	230	130	10.08	25202000035727
			B	27	190	110		
24	13200	9400	A	38	275	150	17.06	25202000035761
			B	33	230	130		
26	14700	10500	A	38	275	150	17.06	25202000035761
			B	33	230	130		



Higher load capacities available on request. Please contact us.

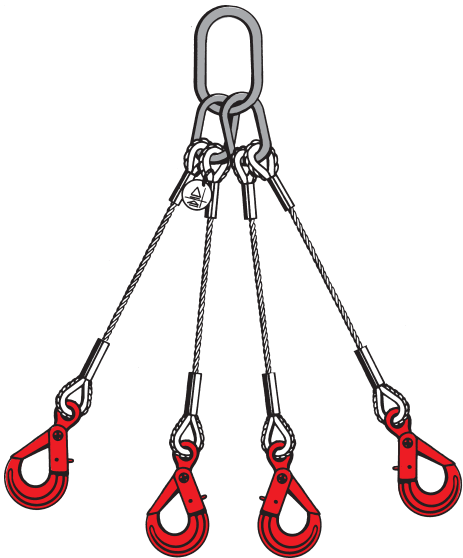
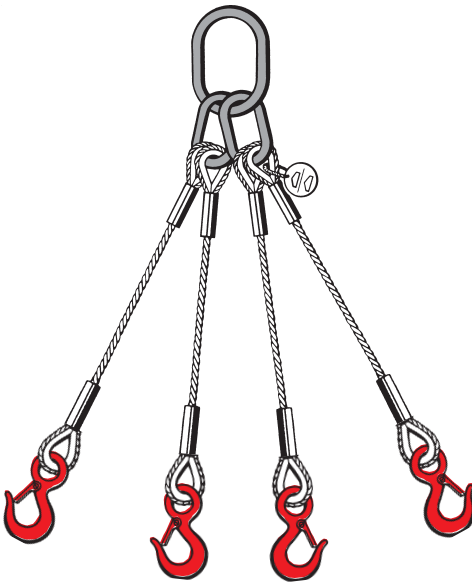
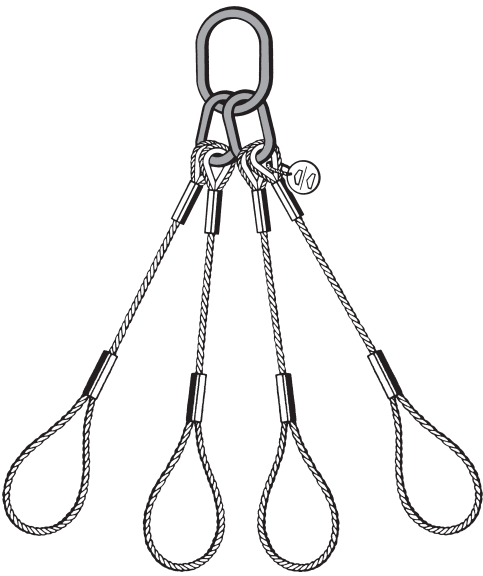
For your individual application we will also manufacture  
3-leg wire rope slings.



4-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles on the other  
side

4-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Safety Eye  
Hooks on the other side

4-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Automatic  
Safety Hooks on the other side

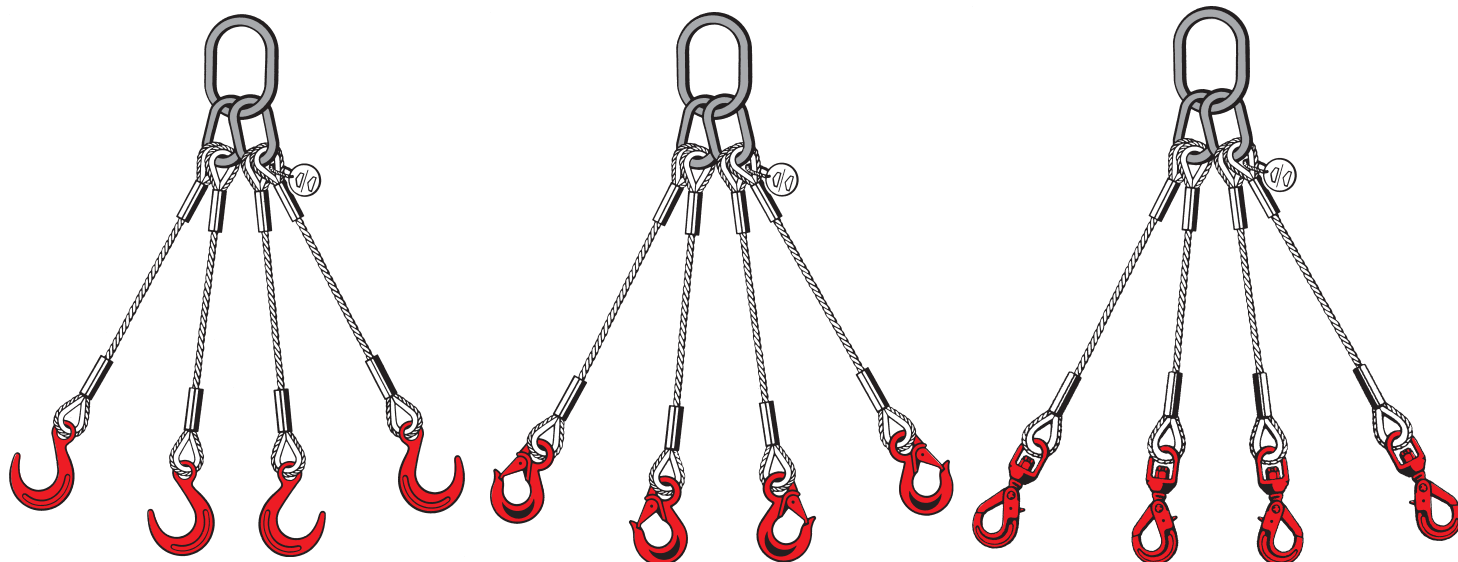


Rope Ø in mm	Load capacity 4-leg in kg at angle		Configuration Number	Configuration Number	Configuration Number
	0-45°	45-60°			
8	1450	1050	25102000016768	25102000016820	25102000016946
10	2100	1500	25102000016774	25102000016828	25102000016954
12	3200	2300	25102000016780	25102000016836	25102000016962
14	4200	3000	25102000016786	25102000016844	25102000016970
16	5700	4000	25102000016792	25102000016852	25102000016978
18	6600	4700	25102000016798	25102000016860	25102000016986
20	8400	6000	25102000016804	25102000016870	25102000016996
22	10500	7500	25102000016810	25102000016880	25102000017006
24	13200	9400	25102000016816	25102000016890	25102000017016
26	14700	10500	25102000016817	25102000016891	25102000017017
28	16800	12000	25102000016818	25102000016892	25102000017018
32	23000	16500	25102000016819	25102000016893	25102000017019

**4-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Foundry  
Hooks on the other side**

**4-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Safety Eye  
Hooks on the other side**

**4-leg Wire Rope Sling, galvanised,  
one side with Master Link,  
Pressed Thimbles and Automatic  
Swivel Hooks on the other side**

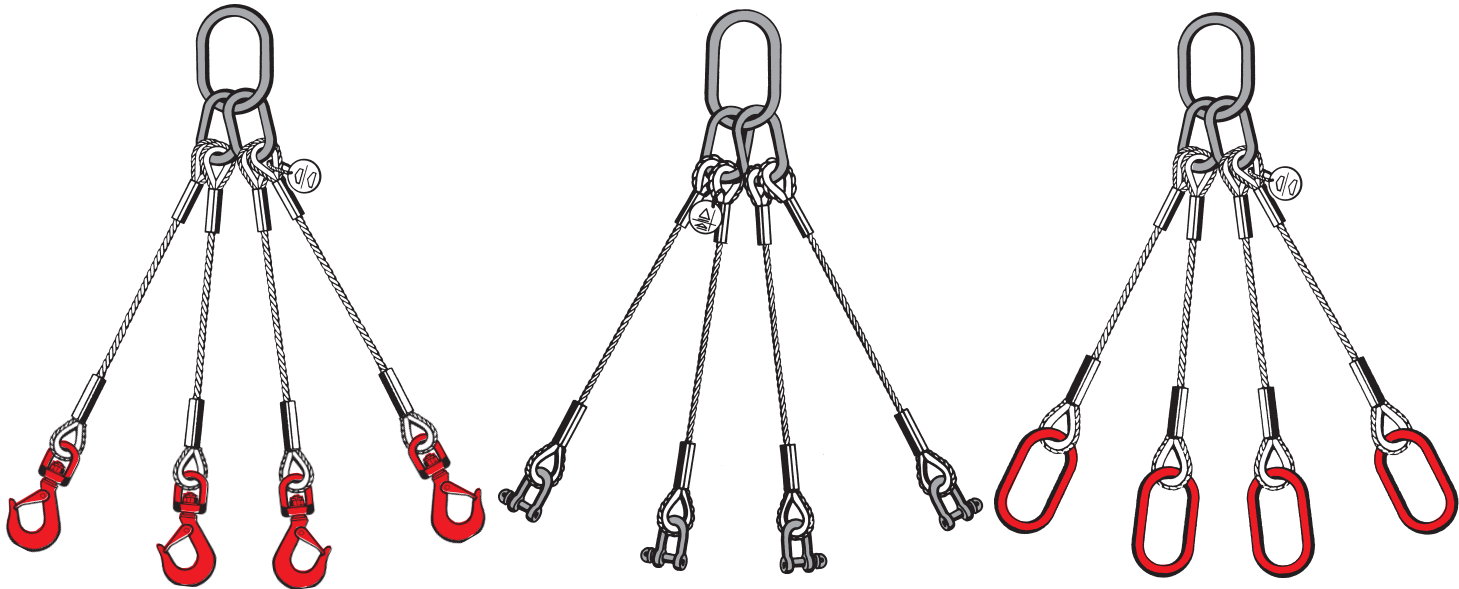


Rope Ø in mm	Load capacity 4-leg in kg at angle		Configuration Number	Configuration Number	Configuration Number
	0-45°	45-60°			
8	1450	1050	25102000017020	25102000017072	25102000017124
10	2100	1500	25102000017026	25102000017078	25102000017130
12	3200	2300	25102000017032	25102000017084	25102000017136
14	4200	3000	25102000017038	25102000017090	25102000017142
16	5700	4000	25102000017044	25102000017096	25102000017148
18	6600	4700	25102000017050	25102000017102	25102000017154
20	8400	6000	25102000017056	25102000017108	25102000017160
22	10500	7500	25102000017062	25102000017114	25102000017166
24	13200	9400	25102000017068	25102000017120	25102000017172
26	14700	10500	25102000017069	25102000017121	25102000017173
28	16800	12000	25102000017070	25102000017122	25102000017174
32	23000	16500	25102000017071	25102000017123	25102000017175

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Swivel Eye Hooks on the other side

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Green Pin Shackles on the other side

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Master Links on the other side



Rope Ø in mm	Load capacity 4-leg in kg at angle		Configuration Number	Configuration Number	Configuration Number
	0-45°	45-60°			
8	1450	1050	25102000017176	25102000016894	25102000017228
10	2100	1500	25102000017182	25102000016900	25102000017234
12	3200	2300	25102000017188	25102000016906	25102000017240
14	4200	3000	25102000017194	25102000016912	25102000017246
16	5700	4000	25102000017200	25102000016918	25102000017252
18	6600	4700	25102000017206	25102000016924	25102000017258
20	8400	6000	25102000017212	25102000016930	25102000017264
22	10500	7500	25102000017218	25102000016936	25102000017270
24	13200	9400	25102000017224	25102000016942	25102000017276
26	14700	10500	25102000017225	25102000016943	25102000017277
28	16800	12000	25102000017226	25102000016944	25102000017278
32	23000	16500	25102000017227	25102000016945	25102000017279

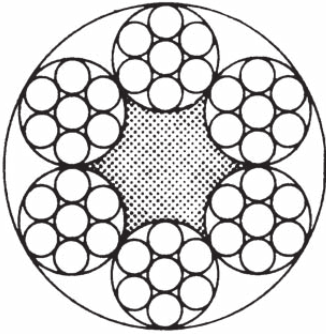
!

Higher load capacities available on request. Please contact us.

For your individual application we will also manufacture 3-leg wire rope slings.



## Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 6x7-FC



Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm <sup>2</sup> )		Weight in kg/m	Item no.
	kN	t		
2	2.60	0.265	0.014	20101000017079
3	5.80	0.597	0.032	20101000017080
4	10.40	1.060	0.057	20101000017081
5	16.30	1.661	0.089	20101000017266
6	23.40	2.385	0.129	20101000017083
8	41.60	4.239	0.229	20101000017085

Rope class / Number of outer strands:  
**6x7 / 6**

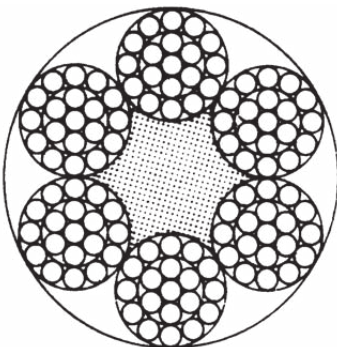
Surface available in:  
**B (galvanised)**

Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

## Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 6x19M-FC



Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm <sup>2</sup> )		Weight in kg/m	Item no.
	kN	t		
3	5.42	0.552	0.031	20101000015277
4	9.63	0.981	0.055	20101000015278
5	15.10	1.539	0.086	20101000015279
6	21.70	2.211	0.125	20101000015280
8	38.50	3.923	0.221	20101000035112
10	60.20	6.135	0.346	20101000035113
12	86.60	8.825	0.498	20101000035114
14	117.90	12.015	0.678	20101000035115
16	154.02	15.696	0.886	20101000035116

Rope class / Number of outer strands:  
**6x19M / 6**

Surface available in:  
**B (galvanised)**

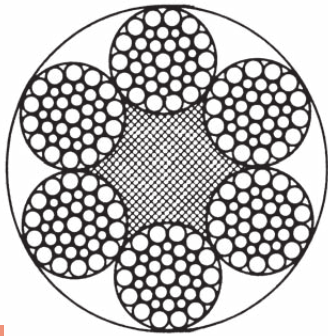
Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

# STEEL WIRE ROPES

## Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 6x36WS-FC



Rope class / Number of outer strands:  
**6x36 / 6**

Surface available in:  
**B (galvanised)**

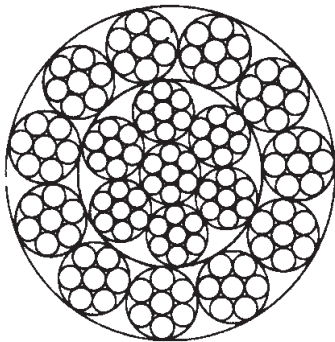
Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm²)		Weight in kg/m	Item no.
	kN	t		
8	41.40	4.22	0.235	20101000016655
10	64.70	6.59	0.380	20101000016657
12	84.00	8.56	0.547	20101000035175
14	127.00	12.94	0.745	20101000016661
16	165.60	16.88	0.973	20101000016662
18	210.00	21.40	1.230	20101000016663
20	256.70	26.16	1.520	20101000016664
22	313.00	31.90	1.840	20101000016665
24	336.00	34.24	2.190	20101000016686
26	437.20	44.55	2.570	20101000016666
28	507.00	51.67	2.980	20101000016667
30	582.00	59.31	3.490	20101000035118
32	662.00	67.46	3.890	20101000016668
36	883.00	85.40	4.930	20101000016669

## Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 17x7-WSC



Rope class / Number of outer strands:  
**18x7 / 11**

Surface available in:  
**B (galvanised)**

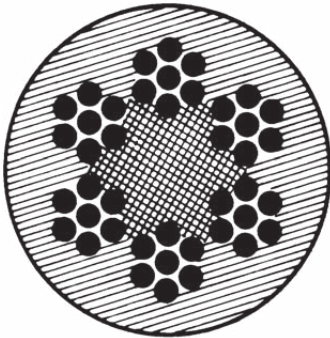
Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm²)		Weight in kg/m	Item no.
	kN	t		
4	10.70	1.09	0.064	20101000035156
5	16.67	1.70	0.100	20101000035157
6	23.45	2.40	0.145	20101000015065
8	41.67	4.25	0.257	20101000015067
10	65.74	6.70	0.402	20101000015069

**Rope Type: Stranded Rope acc. to EN 12385-4**  
**Rope Construction: 6x7-FC with plastic sheath (transparent PVC)**



Rope Ø in mm	Minimum breaking load (Tensile strength 1,770 N/mm²)		Weight in kg/m	Item no.
	kN	t		
2.0 / 3.0	2.35	0.240	0.020	20101000035134
2.5 / 3.5	3.63	0.370	0.030	20101000035135
3.0 / 4.0	5.29	0.530	0.040	20101000035136
3.0 / 5.0	5.29	0.530	0.049	20101000035138
4.0 / 5.0	9.41	0.950	0.067	20101000035139
4.0 / 6.0	19.41	0.950	0.078	20101000035140
5.0 / 7.0	14.70	1.470	0.114	20101000035142

Rope class / Number of outer strands:  
**6x7 / 6**

Surface available in:  
**B (galvanised)**

Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

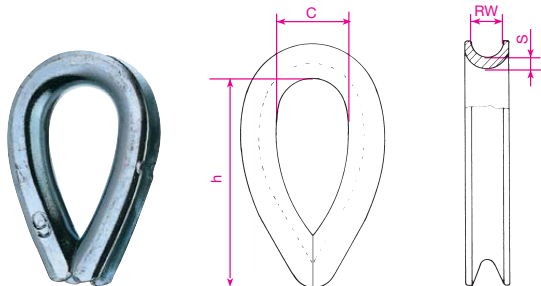




## Thimbles

### Thimble acc. to DIN EN 13411-1

Material: St 37-2  
Surface: galvanised

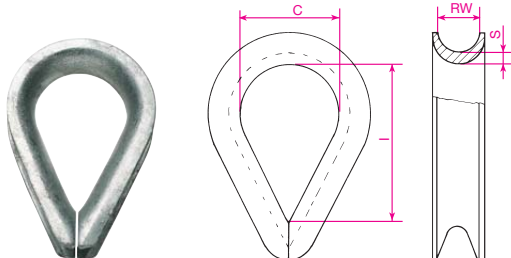


Nominal size	RW	Dimensions in mm			Weight in kg/100 pcs	Item no.
c	h	s				
4	5	10	29	2.1	1.20	20201200015013
6	7	15	42	2.6	2.80	20201200015014
8	9	20	46	4.0	5.70	20201200015015
10	11	25	70	5.0	15.20	20201200015016
12	13	30	85	6.0	24.00	20201200015017*
14	16	35	102	8.0	38.00	20201200015018
16	18	40	113	8.0	52.00	20201200015019
18	20	45	127	9.0	66.00	20201200015020
20	22	50	141	10.0	88.00	20201200015021
22	24	55	153	10.0	104.00	20201200015022*
24	26	60	165	10.0	129.00	20201200015023*
26	29	65	181	12.0	260.00	20201200015024
28	31	70	193	12.0	277.00	20201200015025
32	35	80	223	15.0	440.00	20201200015026*
36	40	90	247	15.0	460.00	20201200015027

\*Similar to DIN EN 13411-1

### Thimble, similar to DIN 6899, Form B

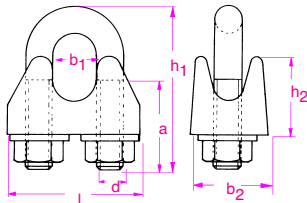
Medium-weight, with deep groove  
Surface: galvanised



Nominal size	RW	Dimensions in mm			Weight in kg/100 pcs	Item no.
c	l	s				
2.5	3	12	19	1.2	0.50	20201200015040
3.5	4	13	21	1.2	0.80	20201200015041
4	5	14	23	1.7	1.00	20201200015042
5	6	16	25	2.2	1.60	20201200015043
6	7	18	28	2.2	1.90	20201200015044
7	8	20	32	2.7	3.00	20201200015045
9	10	24	38	2.9	4.70	20201200015046
11	12	28	45	3.2	6.80	20201200015047
13	14	32	51	3.5	10.00	20201200015048
15	16	36	58	3.8	14.50	20201200015049
16	18	40	64	4.2	20.00	20201200015050
18	20	45	72	5.2	29.00	20201200015051
20	22	50	80	5.2	32.00	20201200015052
22	24	56	90	6.2	47.00	20201200015053
24	26	62	99	6.5	59.00	20201200015054
26	28	70	112	7.3	80.00	20201200015055
28	30	75	120	8.0	110.00	20201200015056
30	32	80	128	8.0	123.00	20201200015057
32	34	95	152	8.0	156.00	20201200015058
34	36	100	160	8.0	176.00	20201200015059
36	38	110	176	8.5	192.00	20201200015060

### Wire Rope Clip, acc. to DIN EN 13411-5

Clamping jaws  
galvanised  
Bracket + nut  
yellow chromated



Nom. size Rope Ø mm	Dimensions in mm							Weight in kg/100 pcs	Item no.
a	b1	b2	d	h1	h2	l			
5.0	13	7	13	M 5	25	13	25	2.10	20202200015009
6.5	17	8	16	M 6	32	14	30	4.00	20202200015010
8.0	20	10	20	M 8	41	18	39	8.20	20202200015011
10.0	24	12	20	M 8	46	21	40	9.20	20202200015012
12.0	24	14	24	M10	56	25	50	17.10	20202200015013
13.0	30	15	28	M 12	64	29	55	27.50	20202200015014
14.0	31	16	28	M12	66	30	59	27.70	20202200015015
16.0	35	18	32	M 14	76	35	64	43.00	20202200015016
19.0	36	22	32	M 14	83	40	68	49.00	20202200015017
22.0	40	24	34	M 16	96	44	74	68.00	20202200015018
26.0	50	26	38	M 20	118	51	84	117.00	20202200015019

**Please note:** Wire rope clips acc. to DIN EN 13411-5 are only approved for suspension of static loads or for a single lifting operation. **Available up to nominal size 40.**

### Wire Rope Clip, formerly DIN 741

Light version  
Wire rope clip for rope terminations.  
Only for secondary applications  
Surface: galvanised

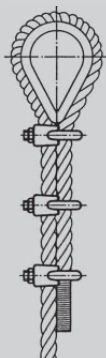


Nominal size Rope Ø mm	Nominal size in inches	Weight in kg/100 pcs	Item no.
3	1/8"	1.40	20202200015021
5	3/16"	1.50	20202200015022
6.5	1/4"	2.10	20202200015023
8	5/16"	4.10	20202200015024
9.5	3/8"	6.80	20202200015025
11	7/16"	7.20	20202200015026
13	1/2"	13.00	20202200015027
14	9/16"	13.50	20202200015028
16	5/8"	21.00	20202200015029

Available up to nominal size 50.

### Usage of wire rope clips

The first clip has to be mounted close to the thimble. The distance between the wire rope clips has to be at least 1.5-times the width of a wire rope clip. The brackets have to be on the unstressed rope end.



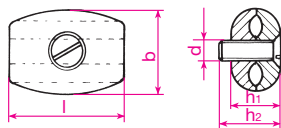
Nominal size	Tightening torque in Nm	Required number of wire rope clips
5	2	3
6.5	3.5	4
8	6	4
10	9	4
12	20	4
13	33	4
14	33	4
16	49	4
19	68	4
22	107	5
26	147	5

# ACCESSORIES

## Wire Rope Clips

### Egg shaped Wire Rope Clip

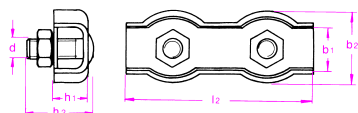
Material: malleable cast iron  
Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm					Weight in kg/100 pcs	Item no.
b	d	h1	h2	l			
2	15	M 5	11	13	28	2.20	20202200015030
3	15	M 5	12	13	28	2.30	20202200015031
4	20	M 6	14	18	34	4.00	20202200015032
5	21	M 6	15	18	34	4.00	20202200015033
6	25	M 6	15	18	35	5.00	20202200015034

### Duplex Wire Rope Clip with 2 Bolts

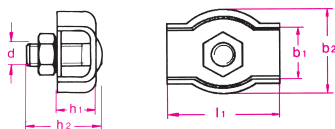
Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm						Weight in kg/100 pcs	Item no.
b1	b2	d	h1	h2	l2			
2	4	12	M 4	5	14	30	0.90	20202200015035
3	6	14	M 4	7	14	35	1.40	20202200015036
4	8	18	M 5	7	18	40	2.50	20202200015037
5	10	20	M 5	8	18	50	3.40	20202200015038
6	12	24	M 6	9	23	60	5.00	20202200015039
7	15	26	M 8	11	24	64	5.60	20202200015040
8	17	35	M 8	13	25	75	10.00	20202200015041
10	21	37	M 10	16	32	84	18.00	20202200015042

### Simplex Wire Rope Clip with 1 Bolt

Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm						Weight in kg/100 pcs	Item no.
b1	b2	d	h1	h2	l1			
2	4	12	M 4	5	14	15	0.46	20202200015043
3	6	14	M 4	7	14	17	0.72	20202200015044
4	8	18	M 5	7	18	20	1.27	20202200015045
5	10	20	M 5	8	18	25	1.46	20202200015046
6	12	24	M 6	9	23	30	2.52	20202200015047
7	15	28	M 8	11	25	32	2.80	20202200015048
8	17	35	M 8	13	25	37	5.42	20202200015049





Cable laid sling with spliced loops in use.

Photo: Voith Hydro, 89522 Heidenheim.



### Highly flexible cable laid Wire Rope Sling with spliced Loops DIN 13414-3

Wire rope construction with steel core, Tensile strength 1,960 N/mm<sup>2</sup>

#### Advantages only cable laid slings can offer:

- Absolutely indispensable when it comes to lifting of heavy loads
- Endless version offers highest load capacities and safety
- Easy handling due to flexible construction even with biggest diameters
- Diameters up to 470 mm can be produced
- Load capacities up to 5,000 tons are available
- When producing 2 or more wire rope slings of the same length production occurs in narrow length tolerances

Rope Ø 24-60 mm: Safety factor 5

Rope Ø 66-132 mm: Safety factor 3.5 acc. to DIN EN 13414-3 and depends on technical respectively

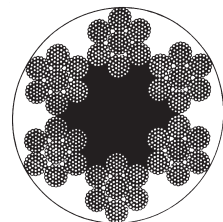
Rope Ø in mm	Load capacity single direct in kg	Min.length in m	Weight in kg for min. length	Weight in kg per additional m	Item no.
24	3,940	2.52	8.9	1.6	25102500015015
27	5,000	2.84	13.0	2.0	25102500015021
30	6,100	3.15	17.0	2.6	25102500015027
33	7,440	3.47	25.2	3.2	25102500015033
36	8,800	3.78	32.5	3.8	25102500015039
39	10,400	4.10	41.6	4.5	25102500015045
42	12,000	4.41	51.1	5.2	25102500015051
48	15,770	5.04	77.9	6.8	25102500015057
54	19,900	5.67	110	8.6	25102500015063
60	24,580	6.30	150	10.6	25102500015069
66	30,500	6.93	198.5	12.9	25102500015075
72	37,330	7.56	259.7	15.3	25102500015081
78	45,000	8.19	332.3	18	25102500015087
84	53,760	8.82	409	20.8	25102500015088
90	63,600	9.45	506	24	25102500015089
96	74,670	10.08	612	27.2	25102500015090
102	87,000	10.71	732	30.8	25102500015091
108	100,700	11.34	873	34.5	25102500015092
114	116,180	11.97	1024	38.4	25102500015093
120	133,700	12.60	1200	42.5	25102500015094
126	156,000	13.23	1374	47	25102500015095
132	173,980	13.86	1599	51.5	25102500015096

#### Option:

##### Splice protection

Wire rope slings with plastic splice protection prevent injuries and offer a significant longer service life. Thanks to the conical shape slings can be easily pulled under loads. **Please contact us.**

Cross section of a cable laid rope



Splice protection



### Highly flexible cable laid Wire Rope Sling as endless Grommet, with 2 tied loops, according to DIN EN 13414-3

Rope Ø in mm	Load capacity single direct in kg	Min.length in m	Weight per m circumference in kg	Item no.
24	9,800	0.84	1.92	25102500015179
27	12,400	0.95	2.43	25102500015180
30	15,300	1.05	3.1	25102500015181
33	18,600	1.16	3.7	25102500015182
36	22,100	1.26	4.4	25102500015183
39	25,900	1.37	5.2	25102500015184
42	30,100	1.47	6.0	25102500015185
48	39,300	1.68	7.9	25102500015186
54	49,800	1.89	9.9	25102500015187
60	61,500	2.10	12.3	25102500015188
66	76,250	2.31	14.9	25102500015189
72	93,250	2.52	17.7	25102500015190
78	112,600	2.73	20.7	25102500015191

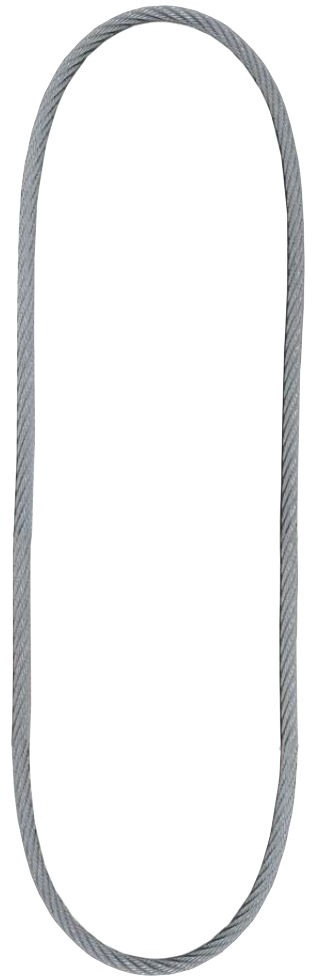


### CondorLift Highly flexible cable laid Wire Rope Sling as endless Grommet, according to DIN EN 13414-3

Rope Construction with steel core, Tensile strength 1,960 N/mm<sup>2</sup>, Minimum bending radius: 2 x Ø

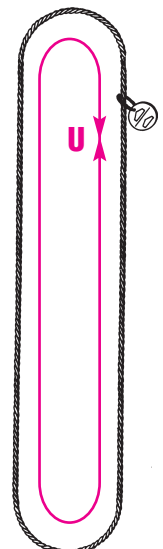
Rope Ø in mm	Load capacity single direct in kg	Min. circumference length in m	Weight per m circumference in kg	Item no.
24	9,800	0.84	1.92	25102500015097
27	12,400	0.95	2.43	25102500015102
30	15,300	1.05	3.1	25102500015107
33	18,600	1.16	3.7	25102500015112
36	22,100	1.26	4.4	25102500015117
39	25,900	1.37	5.2	25102500015122
42	30,100	1.47	6.0	25102500015127
48	39,300	1.68	7.9	25102500015132
54	49,800	1.89	9.9	25102500015137
60	61,500	2.10	12.3	25102500015142
66	76,250	2.31	14.9	25102500015147
72	93,250	2.52	17.7	25102500015152
78	112,600	2.73	20.7	25102500015157
84	134,400	2.94	24.0	25102500015162
90	159,000	3.15	27.6	25102500015167
96	186,550	3.36	31.4	25102500015172
102	217,400	3.57	35.5	25102500015173
108	251,800	3.78	39.8	25102500015174
114	290,300	3.99	44.3	25102500015175
120	333,200	4.20	49.0	25102500015176
126	381,000	4.41	54.1	25102500015177
132	434,200	4.62	59.4	25102500015178

Rope Ø 24-60 mm: Safety factor 5  
 Rope Ø 66-132 mm: Safety factor 3.5 acc. to DIN EN 13414-3 and depends on technical design respectively  
 Rope Ø up 470 mm: Available, please contact us for details.



### Braided Wire Rope Sling, as endless Grommet, acc. to DIN EN 13414-3

Rope Ø in mm	Load capacity single direct in kg	Min. circumference length in m	Item no.
8	1,400	0.31	25102500015001
10	2,200	0.38	25102500015002
12	3,000	0.46	25102500015003
14	4,200	0.54	25102500015004
16	5,500	0.61	25102500015005
18	6,900	0.69	25102500015006
20	8,500	0.77	25102500015007
22	10,300	0.84	25102500015008
24	12,300	0.92	25102500015009
26	14,400	1.00	25102500015010
28	16,700	1.07	25102500015011
32	21,800	1.23	25102500015012
36	27,600	1.38	25102500015013
40	34,000	1.53	25102500015014





SLINGS

Length Adjuster

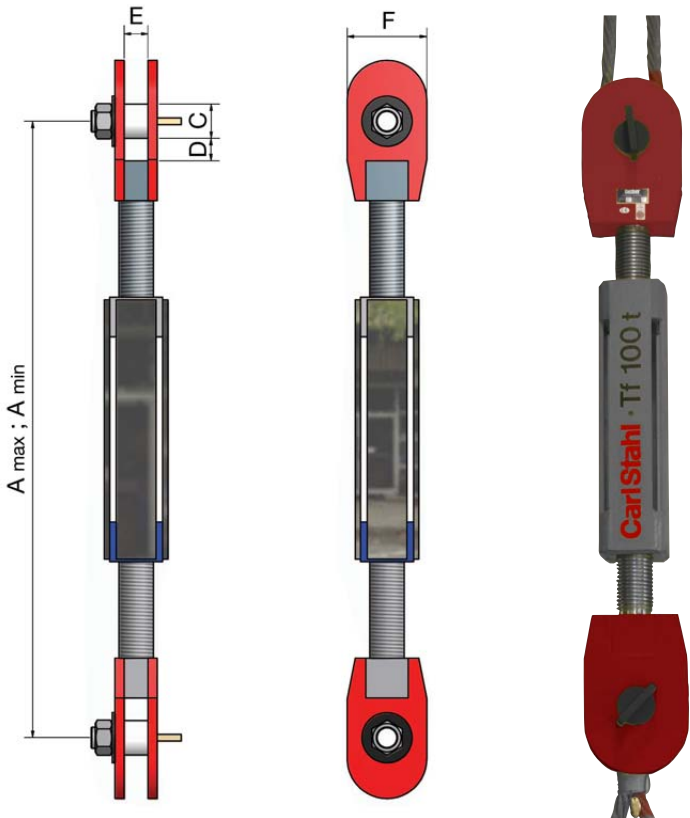


Photo: © Siemens AG

Length Adjuster for Slings

Equipped with fine thread. Suitable for roundslings or wire rope slings up to 100 tons capacity.

Fine thread allows exact length adjustment. The length adjuster can also be used with lifting beams as centre of gravity equilibrator or it can be connected directly to the crane hook. The adjustment range can be adapted to the customer's needs.



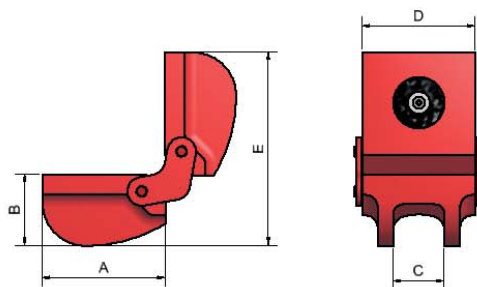
Load capacity in t	Dimensions in mm						Weight in kg	Item no.
	A max.	A min.	C	D	E	F		
60	2100	1500	110	90	80	300	300	25351500015059
80	2200	1600	120	85	85	320	450	25351500015060
100	2300	1700	130	85	85	360	600	25351500015061

## Edge Protectors for Ropes and Chains

- With magnetic adhesion
- Material: aluminium, painted red
- **Hinged version**
- Attachment angles can be bigger or smaller than 90°
- with changeable flat magnet



**Changeable flat magnet**  
see page 345



for ropes up to Ø 25 mm and chains up to nominal size 6

Dimensions in mm					Groove depth	Number of magnets	Weight kg/pce	Item no.
A	B	C	D	E	in mm			
115	48	25	72	165	10	2	2.20	25151000015003

for ropes up to Ø 50 mm and chains up to nominal size 13

Dimensions in mm					Groove depth	Number of magnets	Weight kg/pce	Item no.
A	B	C	D	E	in mm			
100	68	50	112	192	25	2	3.50	25151000015004

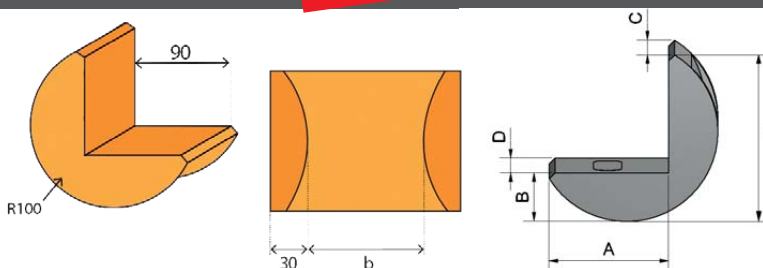
for ropes up to Ø 70 mm and chains up to nominal size 22

Dimensions in mm					Groove depth	Number of magnets	Weight kg/pce	Item no.
A	B	C	D	E	in mm			
105	102	85	162	225	47	4	6.40	25151000015005

## Edge Protectors for Ropes and Chains

**NEW!**

- With magnetic adhesion (magnets not replaceable)
- Rigid version
- From Polyurethane



for ropes up to Ø 25 mm and chains up to nominal size 6

Dimensions in mm					Number of magnets	Weight kg/pce	Item no.
A	B	C	D	E			
90	40	25	85	130	2	0.7	25151000035081

for ropes up to Ø 40 mm and chains up to nominal size 10

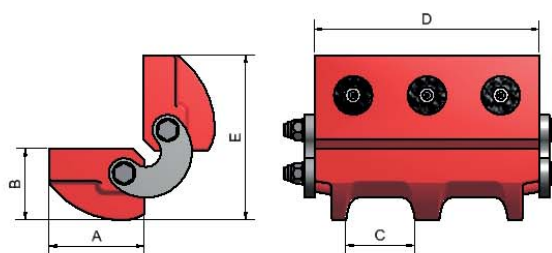
Dimensions in mm					Number of magnets	Weight kg/pce	Item no.
A	B	C	D	E			
90	40	40	100	130	2	0.8	25151000035082

## Special Edge Protectors with double Guide Channels

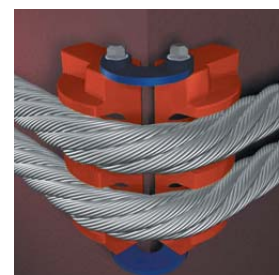
- For ropes up to ø 70 mm
- For chains up to nominal size 18
- With magnetic adhesion
- Material: aluminium, painted red
- Suitable for 2 legs
- Special construction for 20 mm metal sheet overhang
- Attachment angles can be bigger or smaller than 90°



**For an explanation of the term 'sharp edge' see page 344**



Version for shipbuilding



Dimensions in mm					Number of magnets	Weight kg/pce	Item no.
A	B	C	D	E			
110	95	85	255	230	6	15.50	25151000015007

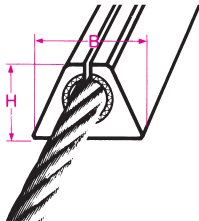
## Edge Protection and Carl Stahl Load Charts

### Wire Rope clip-on Protective Tubing SDC

With fabric reinforcement

- Protects the load
- Protects the rope
- Protects the operator
- Very flexible, wear-resistant, easy to mount, easily moveable

Max. length 3 m



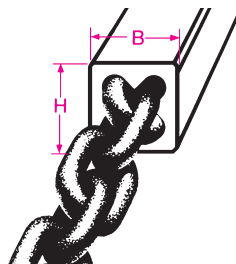
Rope Ø max. in mm	Type	Dimensions in mm		Weight in kg/m	Item no.
		H	B		
8	SDC 10	22	22	0.60	25151000015008
10	SDC 12	26	26	0.60	25151000015009
12	SDC 14	30	30	0.85	25151000015010
14	SDC 16	33	33	0.85	25151000015011
16	SDC 18	37	37	0.85	25151000015012
18	SDC 20	41	41	1.20	25151000015013
20	SDC 22	50	50	1.45	25151000015014
22	SDC 24	50	50	1.45	25151000015015

Also available for other rope diameters

### Chain Edge Protection RSK

Flexible in all directions.  
Moveable on the chain by hand.

Max. length 2.0 m.  
Only 1 and 2 m lengths  
available



Nominal chain size in mm	Designation	Dimensions in mm		Item no.
		H	B	
6	RSK 6	30	30	25151000015016
8	RSK 8	36	36	25151000015017
10	RSK 10	40	40	25151000015018
13	RSK 13	50	50	25151000015019
16	RSK 19	65	65	25151000015020
18	RSK 20	75	75	25151000015021
22	RSK 22	92	92	25151000015022

### Carl Stahl Load Chart add to your Safety!

In case of illegible or missing load labels or identification tags it is sometimes only possible to estimate the load capacity. Our poster-size load charts are of great help in this situation. The load capacities for wire rope slings, textile slings, high-strength chain slings or lifting points are very easy to read. Load capacity reductions caused by different angles and lifting methods have been considered.

A useful benefit for the safety of man and material!

Load chart for	Size in cm	Item no.
Wire rope slings, textile slings, high strength chain slings, lifting points	841 x 594 mm (DIN A1 landscape)	90151000035003

Pocket-size load chart for	Size in cm	Item no.
Wire rope and chain slings, eye bolts, webbing slings, round slings	27 x 16 open	90151500035018

Load Chart for Slings and Accessories			
<b>Steel Wire Rope Slings</b>	<b>Roundslings</b>	<b>Green Pin Shackles</b>	<b>Chain Slings</b>
<b>Webbing Slings</b>	<b>Sharp Edges</b>	<b>Ramhorn Hook</b>	

Wire rope slings	Roundslings	Webbing slings	Chain slings



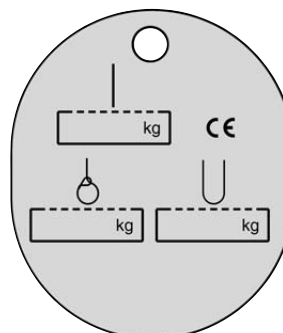
### Identification Tag, galvanised

Required to label multi-leg rope slings according to current standards, but also for 1-leg slings if the capacity is not determinable at site. The blank version allows retrofitting existing slings with the required information.

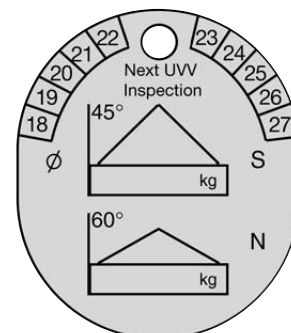
Item no.: 55101500015023

### Identification Tag in Stainless Steel

Item no.: 55101500015024



Front



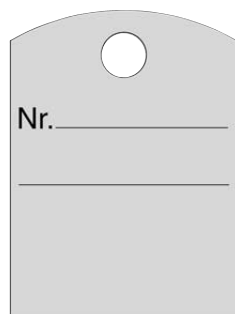
Back

### Inspection Data Tag

Item no.: 55101500015012



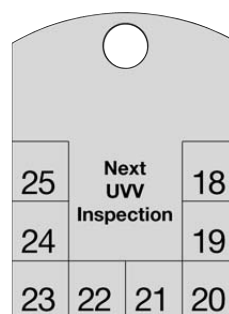
Front



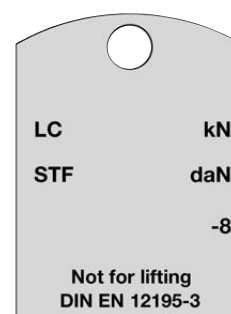
Reverse

### Lashing Chain Inspection Tag

Item no.: 55101500015021



Front



Reverse

### Marking Set

If you are using slings without load labels, they can easily be retrofitted with identification tags. This marking set comes with a carrying case of impact-resistant polystyrene.

A load chart for clear determination of the load capacity is included.

#### Contents Type A:

- 50 pcs blank identification tags
- 50 pcs wire rope segments
- 50 pcs wire rope sleeves
- 1 pce swaging tool
- 1 pce load chart
- 1 set punch numbers 0-9

Item no. 55102015015011

#### Contents Type B:

- 100 pcs blank identification tags
- 100 pcs wire rope segments
- 100 pcs wire rope sleeves
- 1 pce swaging tool
- 1 pce load chart
- 1 set punch numbers 0-9

Item no. 55102015015012

1 set punch numbers 0-9

Item no. 55102015015013



# STEEL WIRE ROPES



DIN Ropes | Special Wire Ropes | Forest Ropes | Accessories | Rope and Chain Lubricants | Cablegrips







# STEEL WIRE ROPES

## Performance Overview and Standard Terms

### Equipment and services

- ▶ Our warehouse constantly contains around 600 reels with special and stranded ropes in original manufacturer quality or high-quality CondorRope ropes in various diameters.
- ▶ Force pressing to Z 56/XL 76.
- ▶ Annealing and slicing machines for rope diameters 3-60 mm.
- ▶ Mobile rolling machines for rope diameters 2.5-28 mm.
- ▶ Casting platform with a height of 3 m. Casting possible up to a diameter of approx. 90 mm.
- ▶ Winding machines for winding wire ropes with a weight of up to 8 to.

CondorRope



BRIDON



CASAR  
A WireCo® WorldGroup Brand

OLIVEIRA  
A WireCo® WorldGroup Brand

drumet  
A WireCo® WorldGroup Brand





## Special Wire Ropes for:



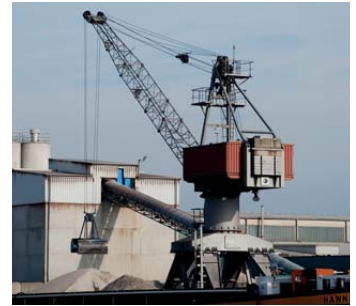
**Harbor Cranes**



**Container Cranes**



**Offshore Cranes**



**Unloading Cranes**



**Foundry Cranes**



**Gantry Cranes**



**Tower Cranes**



**Mobile Cranes**



**Vehicle Winches**



**Foundation Equipment**



**Floating Grabs**



**Elevators**



**Opencast Mining**



**Underground Mining**



**Vessel Cranes**

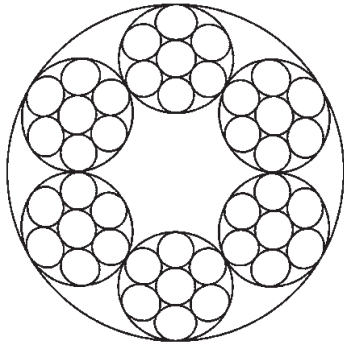


**Tow- and Chair Lifts**

# STEEL WIRE ROPES

## Stranded Ropes

**Rope Type: Stranded Rope acc. to EN 12385-4**  
**Rope Construction: 6x7-SFC (NFC on request)**



Rope class / Number of outer strands:  
**6x7 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

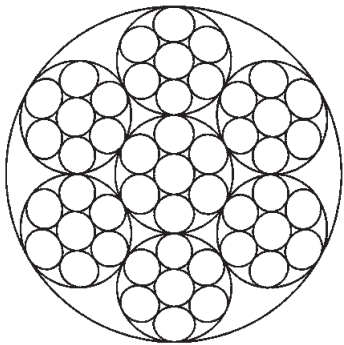
Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
2	1.38	2.35	20101000016987	2.60	20101000017079
3	3.11	5.29	20101000016988	5.86	20101000017080
4	5.52	9.40	20101000016989	10.40	20101000017081
5	8.63	14.70	20101000016990	16.30	20101000017082
6	12.4	21.20	20101000016991	23.40	20101000017083
7	16.9	28.80	20101000016992	31.90	20101000017084
8	22.1	37.60	20101000016993	41.60	20101000017085
9	27.9	47.60	20101000016994	52.70	20101000017086
10	34.5	58.80	20101000016995	65.10	20101000017087
11	41.7	71.10	20101000016996	78.70	20101000017088
12	49.7	84.60	20101000016997	93.70	20101000017089
13	58.3	99.30	20101000016998	110.00	20101000017090
14	67.6	115.00	20101000016999	128.00	20101000017091
16	88.3	150.00	20101000017000	167.00	20101000017092
18	112	190.00	20101000017001	211.00	20101000017093
20	138	235.00	20101000017002	260.00	20101000017094
22	167	284.00	20101000017003	315.00	20101000017095
24	199	338.00	20101000017004	375.00	20101000017096
26	233	397.00	20101000017005	440.00	20101000017097
28	270	461.00	20101000017006	510.00	20101000017098
32	353	602.00	20101000017007	666.00	20101000017099
36	447	762.00	20101000017008	843.00	20101000017100

Other rope diameters available on request.

**Rope Type: Stranded Rope acc. to EN 12385-4**  
**Rope Construction: 6x7-WSC**



Rope class / Number of outer strands:  
**6x7 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

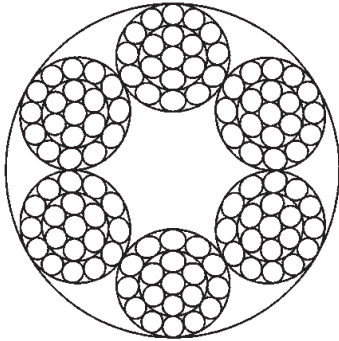
Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
2	1.54	2.54	20101000017171	2.81	20101000017263
3	3.46	5.72	20101000017172	6.33	20101000017264
4	6.14	10.20	20101000017173	11.30	20101000017265
5	9.6	15.90	20101000017174	17.60	20101000017266
6	13.8	22.90	20101000017175	25.30	20101000017267
7	18.8	31.10	20101000017176	34.50	20101000017268
8	24.6	40.70	20101000017177	45.00	20101000017269
9	31.1	51.50	20101000017178	57.00	20101000017270
10	38.4	63.50	20101000017179	70.40	20101000017271
11	46.5	76.90	20101000017180	85.10	20101000017272
12	55.3	91.50	20101000017181	101.00	20101000017273
13	64.9	107.00	20101000017182	119.00	20101000017274
14	75.3	125.00	20101000017183	138.00	20101000017275
16	98.3	163.00	20101000017184	180.00	20101000017276
18	124	206.00	20101000017185	228.00	20101000017277
20	154	254.00	20101000017186	281.00	20101000017278
22	186	308.00	20101000017187	341.00	20101000017279
24	221	366.00	20101000017188	405.00	20101000017280
26	260	430.00	20101000017189	476.00	20101000017281
28	301	498.00	20101000017190	552.00	20101000017282
32	393	651.00	20101000017191	721.00	20101000017283
36	498	824.00	20101000017192	912.00	20101000017284

Other rope diameters available on request.



**Rope Type: Stranded Rope acc. to EN 12385-4**  
**Rope Construction: 6x19M-SFC (NFC on request)**



Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
3	3.11	4.89	20101000015257	5.42	20101000015277
4	5.54	8.69	20101000015258	9.63	20101000015278
5	8.65	13.60	20101000015259	15.00	20101000015279
6	12.5	19.60	20101000015260	21.70	20101000015280
7	17	26.60	20101000015261	29.50	20101000015281

Rope class / Number of outer strands:  
**6x7 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

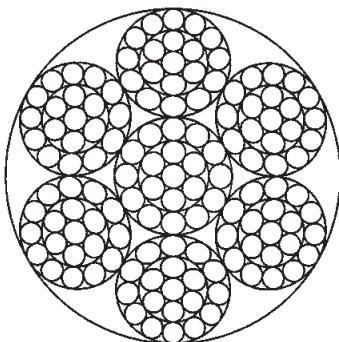
Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

**Rope Type: Stranded Rope acc. to EN 12385-4**  
**Rope Construction: 6x7-WSC**



Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
3	3.43	5.77	20101000015297	6.39	20101000015317
4	6.1	10.30	20101000015298	11.40	20101000015318
5	9.53	16.00	20101000015299	17.70	20101000015319
6	13.7	23.10	20101000015300	25.50	20101000015320
7	18.7	31.40	20101000015301	34.80	20101000015321

Rope class / Number of outer strands:  
**6x7 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

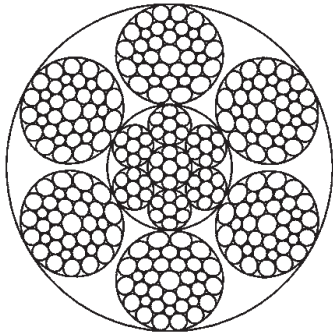
Swivel:  
**not allowed**

Plastic inlay:  
**no**

# STEEL WIRE ROPES

## Stranded Ropes

### Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 6x36WS-IWRC



Rope class / Number of outer strands:  
**6x36 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

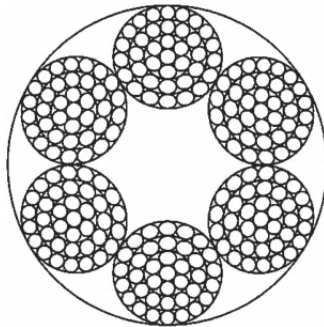
Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26.2	40.30	20101000016184	44.70	20101000016275	49.20	20101000016361
9	33.1	51.00	20101000016185	56.50	20101000016276	62.30	20101000016362
10	40.9	63.00	20101000016186	69.80	20101000016277	76.90	20101000016363
11	49.5	76.20	20101000016187	84.40	20101000016278	93.00	20101000016364
12	58.9	90.70	20101000016188	100.00	20101000016279	111.00	20101000016365
13	69.1	106.00	20101000016189	118.00	20101000016280	130.00	20101000016366
14	80.2	124.00	20101000016190	137.00	20101000016281	151.00	20101000016367
16	105	161.00	20101000016191	179.00	20101000016283	197.00	20101000016368
18	133	204.00	20101000016192	226.00	20101000016284	249.00	20101000016369
20	164	252.00	20101000016193	279.00	20101000016285	308.00	20101000016370
22	198	305.00	20101000016194	338.00	20101000016286	372.00	20101000016371
24	236	363.00	20101000016195	402.00	20101000016287	443.00	20101000016372
26	276	426.00	20101000016196	472.00	20101000016288	520.00	20101000016373
28	321	494.00	20101000016197	547.00	20101000016289	603.00	20101000016374
32	419	645.00	20101000016198	715.00	20101000016290	787.00	20101000016375
36	530	817.00	20101000016199	904.00	20101000016291	997.00	20101000016376
40	654	1,010.00	20101000016200	1,120.00	20101000016292	1,230.00	20101000016377
44	792	1,220.00	20101000016201	1,350.00	20101000016293	1,490.00	20101000016378
48	942	1,450.00	20101000016202	1,610.00	20101000016294	1,770.00	20101000016379
52	1,110.00	1,700.00	20101000016203	1,890.00	20101000016295	2,080.00	20101000016380
56	1,280.00	1,980.00	20101000016204	2,190.00	20101000016296	2,410.00	20101000016381
60	1,470.00	2,270.00	on request	2,510.00	on request	2,770.00	on request

### Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 6x37M-FC



Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
5	8.65	13.10	20101000018076	14.50	20101000018108
6	12.5	18.80	20101000018077	20.80	20101000018109
7	17	25.60	20101000018078	28.30	20101000018110
8	22.1	33.40	20101000018079	37.00	20101000018111
9	28	42.30	20101000018080	46.80	20101000018112
10	34.6	52.20	20101000018081	57.80	20101000018113
11	41.9	63.20	20101000018082	70.00	20101000018114
12	49.8	75.20	20101000018083	83.30	20101000018115

Rope class / Number of outer strands:  
**6x37M / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

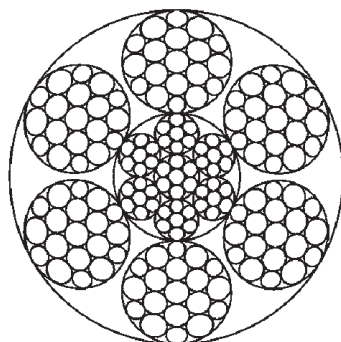
Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

### Rope Type: Stranded Rope acc. to EN 12385-4

#### Rope Construction: 6x19W-IWRC



Rope class / Number of outer strands:  
**6x19 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

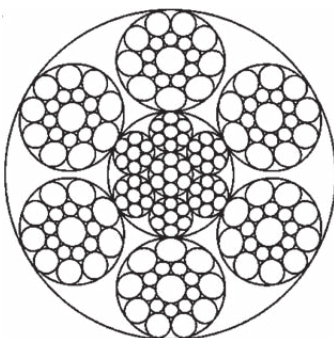
Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	14.4	22.70	20101000015625	25.10	20101000015675	27.70	on request
7	19.6	30.90	20101000015626	34.20	20101000015677	37.70	on request
8	25.6	40.30	20101000015627	44.70	20101000015679	49.20	on request
9	32.4	51.00	20101000015628	56.50	20101000015680	62.30	on request
10	40	63.00	20101000015629	69.80	20101000015681	76.90	on request
11	48.4	76.20	20101000015630	84.40	20101000015682	93.00	on request
12	57.6	90.70	20101000015631	100.00	20101000015683	111.00	on request
13	67.6	106.00	20101000015632	118.00	20101000015684	130.00	on request
14	78.4	124.00	20101000015633	137.00	20101000015685	151.00	on request
16	102	161.00	20101000015634	179.00	20101000015686	197.00	on request
18	130	204.00	20101000015635	226.00	20101000015687	249.00	on request
20	160	252.00	20101000015636	279.00	20101000015688	308.00	on request
22	194	305.00	on request	338.00	on request	372.00	on request
24	230	363.00	on request	402.00	on request	443.00	on request
26	270	426.00	on request	472.00	on request	520.00	on request
28	314	494.00	on request	547.00	on request	603.00	on request
32	410	645.00	on request	715.00	on request	787.00	on request
36	518	817.00	on request	904.00	on request	997.00	on request
40	640	1,010.00	on request	1,120.00	on request	1,230.00	on request
44	774	1,220.00	on request	1,350.00	on request	1,490.00	on request
48	922	1,450.00	on request	1,610.00	on request	1,770.00	on request
52	1,080.00	1,700.00	on request	1,890.00	on request	2,080.00	on request
56	1,250.00	1,980.00	on request	2,190.00	on request	2,410.00	on request

Other rope diameters available on request.

### Rope Type: Stranded Rope acc. to EN 12385-4

#### Rope Construction: 6x19S-IWRC



Rope class / Number of outer strands:  
**6x19 / 6**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	14.4	22.70	20101000015337	25.10	20101000015433	27.70	20101000015529
7	19.6	30.90	20101000015338	34.20	20101000015434	37.70	20101000015530
8	25.6	40.30	20101000015339	44.70	20101000015435	49.20	20101000015531
9	32.4	51.00	20101000015340	56.50	20101000015436	62.30	20101000015532
10	40	63.00	20101000015341	69.80	20101000015437	76.90	20101000015533
11	48.4	76.20	20101000015342	84.40	20101000015438	93.00	20101000015534
12	57.6	90.70	20101000015343	100.00	20101000015439	111.00	20101000015535
13	67.6	106.00	20101000015344	118.00	20101000015440	130.00	20101000015536
14	78.4	124.00	20101000015345	137.00	20101000015441	151.00	20101000015537
16	102	161.00	20101000015346	179.00	20101000015442	197.00	20101000015538
18	130	204.00	20101000015347	226.00	20101000015443	249.00	20101000015539
20	160	252.00	20101000015348	279.00	20101000015444	308.00	20101000015540
22	194	305.00	20101000015349	338.00	20101000015445	372.00	20101000015541
24	230	363.00	20101000015350	402.00	20101000015446	443.00	20101000015542
26	270	426.00	20101000015351	472.00	20101000015447	520.00	20101000015543
28	314	494.00	20101000015352	547.00	20101000015448	603.00	20101000015544
32	410	645.00	20101000015353	715.00	20101000015449	787.00	20101000015545
36	518	817.00	20101000015354	904.00	20101000015450	997.00	20101000015546
40	640	1,010.00	20101000015355	1,120.00	20101000015451	1,230.00	20101000015547
44	774	1,220.00	20101000015356	1,350.00	20101000015452	1,490.00	20101000015548
48	922	1,450.00	20101000015357	1,610.00	20101000015453	1,770.00	20101000015549
52	1,080.00	1,700.00	20101000015358	1,890.00	20101000015454	2,080.00	20101000015550
56	1,250.00	1,980.00	20101000015359	2,190.00	20101000015455	2,410.00	20101000015551

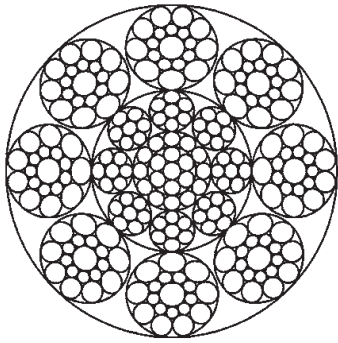
Other rope diameters available on request.



# STEEL WIRE ROPES

## Stranded Ropes

### Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 8x19S-IWRC



Rope class / Number of outer strands:  
**8x19 / 8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

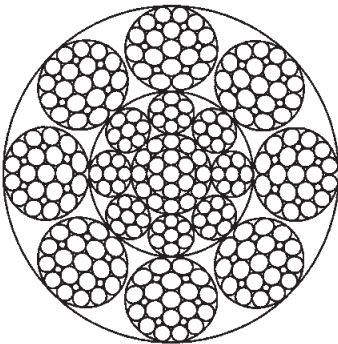
Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26	40.30	20101000017397	44.70	20101000017483	49.20	on request
9	33	51.00	20101000017398	56.50	20101000017484	62.30	on request
10	40.7	63.00	20101000017399	69.80	20101000017485	76.90	on request
11	49.2	76.20	20101000017400	84.40	20101000017486	93.00	on request
12	58.6	90.70	20101000017401	100.00	20101000017487	111.00	on request
13	68.8	106.00	20101000017402	118.00	20101000017488	130.00	on request
14	79.8	124.00	20101000017403	137.00	20101000017489	151.00	on request
16	104	161.00	20101000017404	179.00	20101000017490	197.00	on request
18	132	204.00	20101000017405	226.00	20101000017491	249.00	on request
20	163	252.00	20101000017406	279.00	20101000017492	308.00	on request
22	197	305.00	20101000017407	338.00	20101000017493	372.00	on request
24	234	363.00	20101000017408	402.00	20101000017494	443.00	on request
26	275	426.00	20101000017409	472.00	20101000017495	520.00	on request
28	319	494.00	20101000017410	547.00	20101000017496	603.00	on request
32	417	645.00	20101000017411	715.00	20101000017497	787.00	on request
36	527	817.00	20101000017412	904.00	20101000017498	997.00	on request
40	651	1,010.00	20101000017413	1,120.00	20101000017499	1,230.00	on request
44	788	1,220.00	20101000017414	1,350.00	20101000017500	1,490.00	on request
48	938	1,450.00	20101000017415	1,610.00	20101000017501	1,770.00	on request
52	1,100.00	1,700.00	20101000017416	1,890.00	20101000017502	2,080.00	on request
56	1,280.00	1,980.00	20101000017417	2,190.00	20101000017503	2,410.00	on request
60	1,470.00	2,270.00	on request	2,510.00	on request	2,770.00	on request

### Rope Type: Stranded Rope acc. to EN 12385-4 Rope Construction: 8x25F-IWRC



Rope class / Number of outer strands:  
**8x19 / 8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

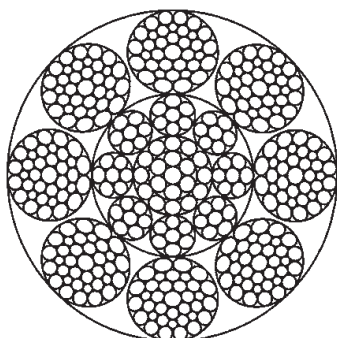
Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26	40.30	20101000017695	44.70	20101000017760	49.20	on request
9	33	51.00	20101000017696	56.50	20101000017761	62.30	on request
10	40.7	63.00	20101000017697	69.80	20101000017762	76.90	on request
11	49.2	76.20	20101000017698	84.40	20101000017763	93.00	on request
12	58.6	90.70	20101000017699	100.00	20101000017764	111.00	on request
13	68.8	106.00	20101000017700	118.00	20101000017765	130.00	on request
14	79.8	124.00	20101000017701	137.00	20101000017766	151.00	on request
16	104	161.00	20101000017702	179.00	20101000017767	197.00	on request
18	132	204.00	20101000017703	226.00	20101000017768	249.00	on request
20	163	252.00	20101000017704	279.00	20101000017769	308.00	on request
22	197	305.00	20101000017705	338.00	20101000017770	372.00	on request
24	234	363.00	20101000017706	402.00	20101000017771	443.00	on request
26	275	426.00	20101000017707	472.00	20101000017772	520.00	on request
28	319	494.00	20101000017708	547.00	20101000017773	603.00	on request
32	417	645.00	20101000017709	715.00	20101000017774	787.00	on request
36	527	817.00	20101000017710	904.00	20101000017775	997.00	on request
40	651	1,010.00	on request	1,120.00	on request	1,230.00	on request
44	788	1,220.00	on request	1,350.00	on request	1,490.00	on request
48	938	1,450.00	on request	1,610.00	on request	1,770.00	on request
52	1,100.00	1,700.00	on request	1,890.00	on request	2,080.00	on request
56	1,280.00	1,980.00	on request	2,190.00	on request	2,410.00	on request
60	1,470.00	2,270.00	on request	2,510.00	on request	2,770.00	on request

### Rope Type: Stranded Rope acc. to EN 12385-4

#### Rope Construction: 8x36WS-IWRC



Rope class / Number of outer strands:

**8x36 / 8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**not rotation-resistant**

Swivel:

**not allowed**

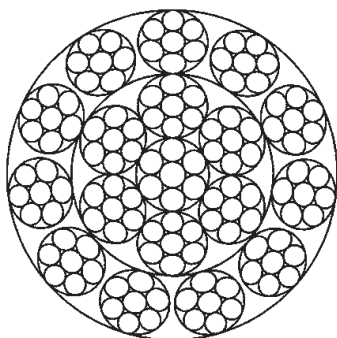
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26.7	40.30	20101000017952	44.70	20101000018017	49.20	on request
9	33.8	51.00	20101000017953	56.50	20101000018018	62.30	on request
10	41.7	63.00	20101000017954	69.80	20101000018019	76.90	on request
11	50.5	76.20	20101000017955	84.40	20101000018020	93.00	on request
12	60	90.70	20101000017956	100.00	20101000018021	111.00	on request
13	70.5	106.00	20101000017957	118.00	20101000018022	130.00	on request
14	81.7	124.00	20101000017958	137.00	20101000018023	151.00	on request
16	107	151.00	20101000017959	179.00	20101000018024	197.00	on request
18	135	204.00	20101000017960	226.00	20101000018025	249.00	on request
20	167	252.00	20101000017961	279.00	20101000018026	308.00	on request
22	202	305.00	20101000017962	338.00	20101000018027	372.00	on request
24	240	363.00	20101000017963	402.00	20101000018028	443.00	on request
26	282	426.00	20101000017964	472.00	20101000018030	520.00	on request
28	327	494.00	20101000017965	547.00	20101000018031	603.00	on request
32	427	645.00	20101000017966	715.00	20101000018032	787.00	on request
36	540	817.00	20101000017967	904.00	20101000018033	997.00	on request
40	667	1,010.00	on request	1,120.00	on request	1,230.00	on request
44	807	1,220.00	on request	1,350.00	on request	1,490.00	on request
48	961	1,450.00	on request	1,610.00	on request	1,770.00	on request
52	1,130.00	1,700.00	on request	1,890.00	on request	2,080.00	on request
56	1,310.00	1,980.00	on request	2,190.00	on request	2,410.00	on request
60	1,500.00	2,270.00	on request	2,510.00	on request	2,770.00	on request

### Rope Type: Stranded Rope acc. to EN 12385-4

#### Rope Construction: 17x7-WSC



Rope class / Number of outer strands:

**18x7 / 11**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**rotation-resistant**

Swivel:

**not allowed**

Plastic inlay:

**no**

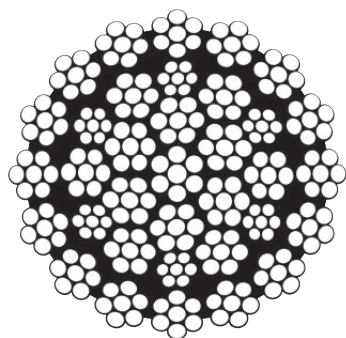
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	13.8	20.90	20101000015001	23.10	20101000015065
7	18.7	28.40	20101000015002	31.50	20101000015066
8	24.4	37.20	20101000015003	41.10	20101000015067
9	30.9	47.00	20101000015004	52.10	20101000015068
10	38.2	58.10	20101000015005	64.30	20101000015069
11	46.2	70.20	20101000015006	77.80	20101000015070
12	55	83.60	20101000015007	92.60	20101000015071
13	64.6	98.10	20101000015008	109.00	20101000015072
14	74.9	114.00	20101000015009	126.00	20101000015073
16	97.8	149.00	20101000015010	165.00	20101000015074
18	124	188.00	20101000015011	208.00	20101000015075
20	153	232.00	20101000015012	257.00	20101000015076
22	185	281.00	20101000015013	311.00	20101000015077
24	220	334.00	20101000015014	370.00	20101000015078
26	258	392.00	20101000015015	435.00	20101000015079
28	299	455.00	20101000015016	504.00	20101000015080

# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope

#### Rope Construction: Starlift



Number of outer strands:

**16**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

Plastic inlay:

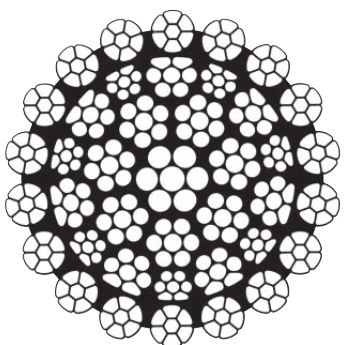
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
7	22.5	34.1	20101500016380	37.8	20101500016516
8	29.5	44.5	20101500016381	49.3	20101500016517
9	36.7	55.4	20101500016382	61.3	20101500016518
10	46.5	69.2	20101500016383	76.6	20101500016519
11	56	83.1	20101500016384	92.1	20101500016520
12	66.5	99.9	20101500016385	110.7	20101500016521
13	78.2	117.3	20101500016387	129.8	20101500016523
14	90.4	135.9	20101500016388	150.5	20101500016524
15	104.4	156.3	20101500016389	173.0	20101500016525
16	119.1	178.1	20101500016390	197.2	20101500016526
17	133	200.1	20101500016391	221.6	20101500016527
18	149	222.6	20101500016392	246.5	20101500016528
19	167.9	250.9	20101500016393	277.8	20101500016529
20	184.5	277.7	20101500016394	307.5	20101500016530
21	204	306.3	20101500016395	339.2	20101500016531
22	225	337.0	20101500016396	373.2	20101500016532
23	244.1	366.5	20101500016397	405.9	20101500016533
24	266.4	400.5	20101500016398	443.5	20101500016534
25	287.9	431.9	20101500016399	478.3	20101500016535
26	312.3	469.2	20101500016400	519.5	20101500016536
27	335.6	508.3	20101500016401	562.9	20101500016537
28	361.9	548.8	20101500016402	607.7	20101500016538

Other rope diameters available on request.

### Rope Type: Special Wire Rope

#### Rope Construction: Eurolift



Number of outer strands:

**18**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

Plastic inlay:

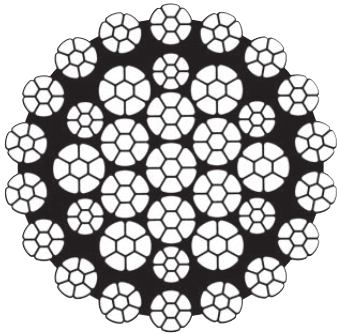
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	48.9	89.6	20101500016031	97.4	20101500016155
11	59.7	108.8	20101500016032	118.4	20101500016156
12	71.3	130.8	20101500016033	139.9	20101500016157
13	82.8	152.7	20101500016035	165.4	20101500016159
14	96.1	179.1	20101500016036	190.9	20101500016160
15	109.9	204.0	20101500016037	219.5	20101500016161
16	126.7	230.6	20101500016038	249.1	20101500016162
17	142.1	257.9	20101500016039	280.6	20101500016163
18	159.8	293.9	20101500016040	317.5	20101500016164
19	177.5	329.0	20101500016041	352.8	20101500016165
20	197.9	362.2	20101500016042	391.7	20101500016166
21	216.6	396.1	20101500016043	430.9	20101500016167
22	238.3	441.4	20101500016044	472.0	20101500016168
23	260.6	471.8	20101500016045	513.2	20101500016169
24	284.3	524.3	20101500016046	564.1	20101500016170
25	303.5	567.9	20101500016047	609.4	20101500016171
26	328.8	614.9	20101500016048	657.4	20101500016172
27	357.1	654.2	20101500016049	711.7	20101500016173
28	385	712.9	20101500016050	765.6	20101500016174
29	411.8	754.6	20101500016051	821.0	20101500016175
30	439.7	817.4	20101500016052	877.9	20101500016176
32	504	930.0	20101500016053	1,002.8	20101500016177
34	567.3	1,045.0	20101500016054	1,130.9	20101500016178
36	640	1,185.0	20101500016055	1,262.3	20101500016179

Other rope diameters available on request.



### Rope Type: Special Wire Rope Rope Construction: Powerplast



Number of outer strands:

**18**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

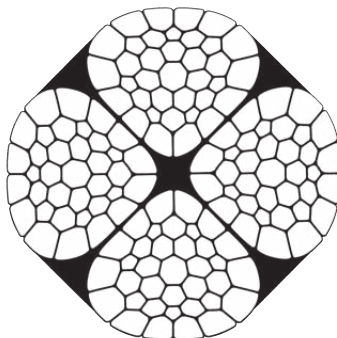
Plastic inlay:

**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.
12	72	130.8	20101500016255
13	85.6	152.7	20101500016256
14	98.3	179.1	20101500016257
15	112.3	204.0	20101500016258
16	129.4	230.6	20101500016259
18	164.3	293.9	20101500016260
19	182.4	329.0	20101500016261
20	200.4	362.2	20101500016262
22	243	441.4	20101500016263
24	287.2	524.3	20101500016264
25	315.3	567.9	20101500016265
26	342.5	614.9	20101500016266
28	393	712.9	20101500016267
30	452.7	817.4	20101500016268
32	514.7	930.0	20101500016269
34	578.1	1,045.0	20101500016270
36	650	1,185.0	20101500016271
38	727.3	1,319.0	20101500016272
40	815.4	1,462.0	20101500016273
42	891.8	1,611.2	20101500016274
44	974.6	1,767.0	20101500016275
46	1,074.10	1,935.0	20101500016276
48	1,164.90	2,113.3	20101500016277

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Quadrolift



Number of outer strands:

**4**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**rotation-resistant**

Swivel:

**not allowed**

Plastic inlay:

**no**

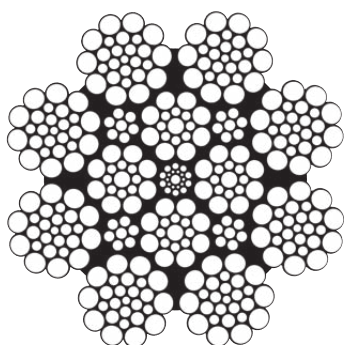
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	15.3	31.9	20101500015628	34.4	20101500015752
7	21.2	43.5	20101500015629	46.8	20101500015753
8	27.6	56.1	20101500015630	60.4	20101500015754
9	35.1	71.3	20101500015631	76.7	20101500015755
10	42.6	87.9	20101500015632	94.6	20101500015756
11	51.9	106.7	20101500015633	114.8	20101500015757
12	63.1	127.1	20101500015634	136.7	20101500015758
13	72.8	149.0	20101500015636	160.3	20101500015760
14	85.4	173.0	20101500015637	186.2	20101500015761
15	97.5	198.4	20101500015638	213.4	20101500015762
16	110.5	228.4	20101500015639	245.7	20101500015763
17	126.4	254.2	20101500015640	273.5	20101500015764
18	139.5	286.6	20101500015641	308.4	20101500015765
19	156.2	320.4	20101500015642	344.7	20101500015766
20	172.9	351.8	20101500015643	378.5	20101500015767
21	189.8	386.2	20101500015644	415.5	20101500015768
22	207.7	424.6	20101500015645	456.8	20101500015769
23	230.5	470.0	20101500015646	505.7	20101500015770
24	248.3	512.7	20101500015647	551.6	20101500015771
25	271.1	548.9	20101500015648	590.5	20101500015772
26	293.6	601.1	20101500015649	646.7	20101500015773
27	315.7	649.2	20101500015650	698.4	20101500015774
28	339.1	689.7	20101500015651	742.0	20101500015775

Other rope diameters available on request.

# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope Rope Construction: Alphalift



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

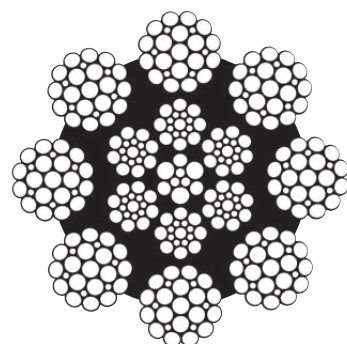
Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	6.8	13.0	20101500016737	14.3	20101500016861
4.5	8.6	16.7	20101500016738	18.4	20101500016862
5	10.6	21.1	20101500016739	23.2	20101500016863
5.5	12.8	26.1	20101500016740	28.8	20101500016864
6	15.7	31.5	20101500016741	34.7	20101500016865
6.5	19.2	37.9	20101500016742	41.8	20101500016866
7	21.4	42.6	20101500016743	47.0	20101500016867
7.5	24.5	49.6	20101500016744	54.6	20101500016868
8	28.4	55.0	20101500016745	60.6	20101500016869
8.5	31.9	58.7	20101500016746	64.6	20101500016870
9	35.6	72.0	20101500016747	79.3	20101500016871
10	43.2	87.3	20101500016748	92.5	20101500016872
11	52.2	107.2	20101500016749	117.0	20101500016873
12	62.2	126.3	20101500016750	137.8	20101500016874
13	72.9	146.6	20101500016752	159.9	20101500016876
14	84.6	168.7	20101500016753	184.1	20101500016877
15	97.1	197.0	20101500016754	214.9	20101500016878
16	110.5	222.5	20101500016755	242.8	20101500016879
17	124.7	250.3	20101500016756	273.1	20101500016880
18	139.8	282.8	20101500016757	308.5	20101500016881
19	155.8	319.9	20101500016758	349.0	20101500016882
20	172.7	352.0	20101500016759	384.0	20101500016883
21	190.4	391.6	20101500016760	427.2	20101500016884

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Stratoplast



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

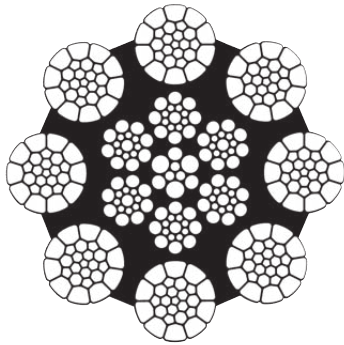
Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	27.3	47.2	20101500018211	52.3	20101500018475
9	34.5	60.0	20101500018212	66.4	20101500018476
10	43.4	74.0	20101500018213	82.0	20101500018477
11	53	88.5	20101500018214	98.0	20101500018478
12	60.8	106.6	20101500018215	118.0	20101500018479
13	72.7	125.5	20101500018217	138.9	20101500018481
14	84.6	144.6	20101500018218	160.1	20101500018482
15	98.6	166.3	20101500018219	184.1	20101500018483
16	111.6	189.0	20101500018220	209.3	20101500018484
17	124.8	211.5	20101500018221	234.2	20101500018485
18	140.4	239.8	20101500018222	265.5	20101500018486
19	159	264.5	20101500018223	292.9	20101500018487
20	176.4	295.3	20101500018224	327.0	20101500018488
21	193.2	324.2	20101500018225	359.0	20101500018489
22	218.4	356.2	20101500018226	394.5	20101500018490
23	229.7	386.8	20101500018227	428.3	20101500018491
24	249.2	423.4	20101500018228	468.9	20101500018492
25	268.8	464.3	20101500018229	514.2	20101500018493
26	290.8	504.7	20101500018230	558.8	20101500018494
27	314.3	535.8	20101500018231	593.3	20101500018495
28	333.9	576.2	20101500018232	638.0	20101500018496
29	362.9	618.0	20101500018233	684.3	20101500018497

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Turboplast



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

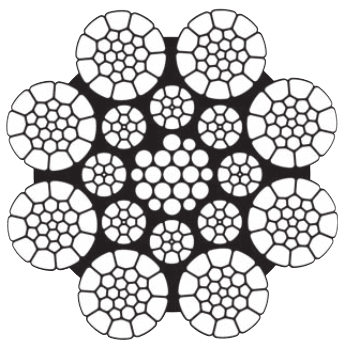
Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.
8	29	56.6	20101500020429
9	37.2	73.0	20101500020430
10	46.1	88.7	20101500020431
11	55.5	107.5	20101500020432
12	65.8	127.4	20101500020433
13	77.8	151.3	20101500020435
14	89.7	174.8	20101500020436
15	103.5	202.7	20101500020437
16	117.9	229.4	20101500020438
17	132.6	255.4	20101500020439
18	146.9	288.2	20101500020440
19	164.4	323.5	20101500020441
20	183.3	355.5	20101500020442
21	197.4	388.5	20101500020443
22	219.1	433.7	20101500020444
23	239.3	471.4	20101500020445
24	260.6	514.3	20101500020446
25	282	558.2	20101500020447
26	306.6	607.8	20101500020448
27	330.9	647.7	20101500020449
28	352.5	697.3	20101500020450
29	379.3	736.9	20101500020451
30	409.6	789.3	20101500020452

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Paraplast



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	46.1	93.5	20101500017654	100.7	20101500017942
11	55.9	113.4	20101500017655	122.1	20101500017943
12	67.6	137.2	20101500017656	147.8	20101500017944
13	78.7	159.7	20101500017658	172.0	20101500017946
14	91.1	184.8	20101500017659	199.0	20101500017947
15	104.6	212.3	20101500017660	228.6	20101500017948
16	118.5	240.4	20101500017661	258.9	20101500017949
17	134.7	273.3	20101500017662	294.4	20101500017950
18	150	304.3	20101500017663	327.7	20101500017951
19	168.8	342.0	20101500017664	368.4	20101500017952
20	187.1	379.7	20101500017665	408.9	20101500017953
21	204.3	414.7	20101500017666	446.6	20101500017954
22	225.1	456.8	20101500017667	491.9	20101500017955
23	254.8	517.1	20101500017668	556.9	20101500017956
24	276.9	561.8	20101500017669	605.0	20101500017957
25	300.1	609.0	20101500017670	655.9	20101500017958
26	326.3	662.2	20101500017671	713.1	20101500017959
27	350.4	711.0	20101500017672	765.8	20101500017960
28	374.8	760.6	20101500017673	819.1	20101500017961
29	404.3	820.3	20101500017674	883.5	20101500017962

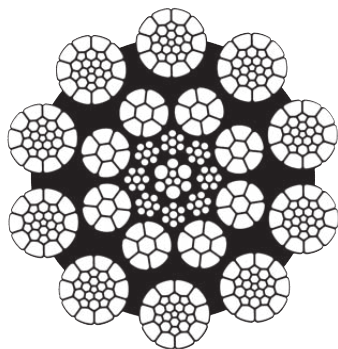
Other rope diameters available on request.



# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope Rope Construction: Superplast 8



Number of outer strands:  
**10**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

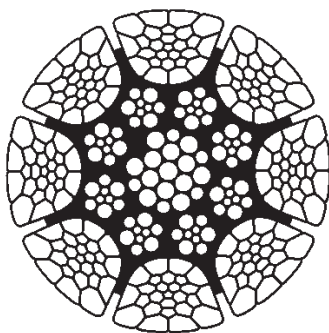
Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	46.9	90.9	20101500018977	99.6	20101500019225
11	56.7	108.9	20101500018978	119.3	20101500019226
12	66.2	127.2	20101500018979	139.4	20101500019227
13	78.2	151.8	20101500018981	166.2	20101500019229
14	89.3	173.8	20101500018982	190.4	20101500019230
15	103	199.8	20101500018983	218.9	20101500019231
16	117.8	226.5	20101500018984	248.1	20101500019232
17	134.7	260.0	20101500018985	284.8	20101500019233
18	151.4	292.8	20101500018986	320.8	20101500019234
19	166.8	320.4	20101500018987	351.0	20101500019235
20	185.3	358.2	20101500018988	394.8	20101500019236
21	204.4	396.8	20101500018989	434.7	20101500019237
22	223.6	432.2	20101500018990	473.5	20101500019238
23	246.3	473.0	20101500018991	518.2	20101500019239
24	268.5	517.4	20101500018992	566.9	20101500019240
25	289.4	559.6	20101500018993	613.4	20101500019241
26	312.8	604.9	20101500018994	662.7	20101500019242
27	336	646.8	20101500018995	708.6	20101500019243
28	361.4	698.9	20101500018996	762.0	20101500019244
29	383.4	737.8	20101500018997	808.3	20101500019245
30	413.2	796.8	20101500018998	872.9	20101500019246
31	438	846.7	on request	927.5	on request
32	481.8	925.9	on request	1,014.3	on request
33	503.2	968.4	on request	1,060.9	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Parafit



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

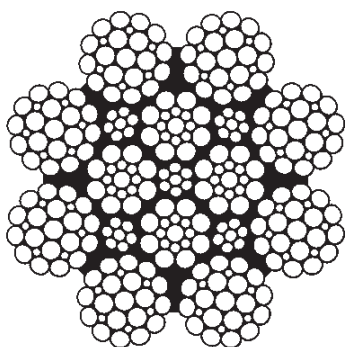
Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	48.5	97.3	20101500016993	106.0	20101500017121
11	60.6	121.5	20101500016994	132.4	20101500017122
12	70.3	141.0	20101500016995	153.6	20101500017123
13	83.2	166.9	20101500016996	181.8	20101500017124
14	97.6	195.8	20101500016997	213.4	20101500017125
15	111.2	223.2	20101500016998	243.1	20101500017126
16	127.1	255.1	20101500016999	277.9	20101500017127
17	145.4	291.8	20101500017000	317.8	20101500017128
18	160.8	322.7	20101500017001	351.5	20101500017129
19	181.6	364.4	20101500017002	397.0	20101500017130
20	198.6	398.5	20101500017003	434.1	20101500017131
21	218.1	437.5	20101500017004	476.5	20101500017132
22	241.8	485.2	20101500017005	528.5	20101500017133
23	263.3	528.3	20101500017006	575.5	20101500017134
24	287.2	576.1	20101500017007	627.6	20101500017135
25	311.2	624.4	20101500017008	680.2	20101500017136
26	334.8	671.7	20101500017009	731.7	20101500017137
27	362.5	727.2	20101500017010	792.2	20101500017138
28	390.2	782.8	20101500017011	852.7	20101500017139
29	417.7	838.0	20101500017012	912.9	20101500017140
30	449.7	902.2	20101500017013	982.9	20101500017141
32	507.9	1,018.9	20101500017014	1,110.0	20101500017142

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Stratolift



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

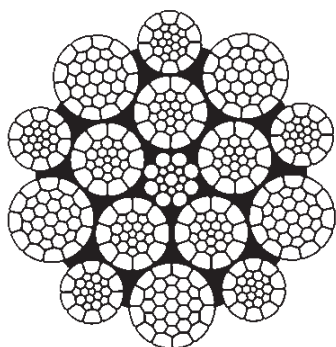
Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
29	377	666.4	on request	738.0	on request
30	402	711.9	on request	788.4	on request
31	428	756.5	on request	837.7	on request
32	455	805.5	on request	892.0	on request
33	482	853.2	on request	944.8	on request
34	509	901.1	on request	997.9	on request
35	578	1,022.3	on request	1,132.0	on request
36	649	1,149.0	on request	1,272.3	on request
38	715	1,265.3	on request	1,401.1	on request
40	792	1,401.2	on request	1,551.6	on request
42	866	1,533.0	on request	1,697.6	on request
44	948	1,677.8	on request	1,857.9	on request
46	1,033	1,827.7	on request	2,023.9	on request
48	1,115	1,972.8	on request	2,184.5	on request
50	1,206	2,127.9	on request	2,356.3	on request
52	1,293	2,302.8	on request	2,550.0	on request
54	1,400	2,475.7	on request	2,741.5	on request
56	1,502	2,653.7	on request	2,938.5	on request
58	1,607	2,813.5	on request	3,115.5	on request
60	1,716	3,028.9	on request	3,354.0	on request
62	1,828	3,074.6	on request	3,404.7	on request
64	1,944	3,266.7	on request	3,617.3	on request
66	2,064	3,488.7	on request	3,863.2	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: Superlift



Number of outer strands:  
**10**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

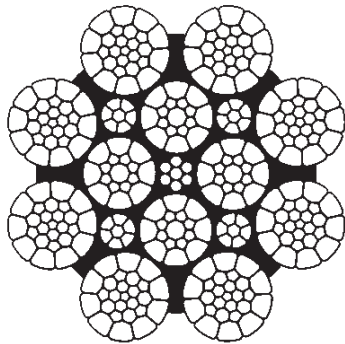
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
28	394.3	768.4	on request	846.8	on request
29	422.9	826.5	on request	910.8	on request
30	452.6	876.5	on request	966.0	on request
31	483.3	943.1	on request	1,039.3	on request
32	515	1,001.8	on request	1,104.1	on request
33	547.6	1,064.4	on request	1,173.0	on request
34	581.3	1,127.9	on request	1,234.0	on request
36	651.7	1,267.2	on request	1,396.5	on request
38	726.1	1,411.3	on request	1,555.3	on request
40	804.6	1,577.1	on request	1,738.0	on request
42	887.1	1,720.5	on request	1,896.0	on request
44	973.5	1,889.9	on request	2,082.7	on request
46	1,064.00	2,074.1	on request	2,285.8	on request
48	1,158.60	2,264.6	on request	2,495.7	on request
50	1,257.20	2,438.5	on request	2,687.3	on request
52	1,359.70	2,658.9	on request	2,930.3	on request
54	1,466.30	2,855.7	on request	3,147.1	on request
56	1,577.00	3,078.3	on request	3,392.4	on request
58	1,691.60	3,303.0	on request	3,640.0	on request
60	1,810.30	3,537.3	on request	3,898.2	on request
62	1,933.00	3,749.2	on request	4,131.8	on request
64	2,059.70	4,001.6	on request	4,409.9	on request
66	2,190.50	4,234.5	on request	4,666.6	on request
68	2,325.20	4,496.3	on request	4,955.1	on request

Other rope diameters available on request.

# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope Rope Construction: Turbolift



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**not rotation-resistant**

Swivel:

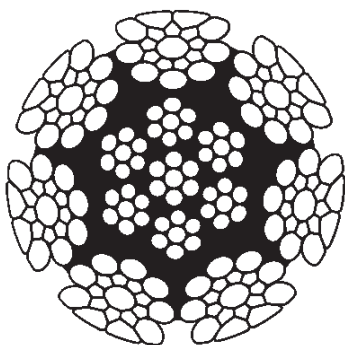
**not allowed**

Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	47.8	94.0	20101500019721	103.6	20101500019907
11	58	113.6	20101500019722	125.2	20101500019908
12	69.3	135.5	20101500019723	149.3	20101500019909
13	81.6	158.4	20101500019725	174.5	20101500019911
14	94.6	184.1	20101500019726	202.8	20101500019912
15	108.7	212.4	20101500019727	234.1	20101500019913
16	123.7	241.9	20101500019728	266.5	20101500019914
17	139.6	274.8	20101500019729	302.8	20101500019915
18	155.7	308.4	20101500019730	339.8	20101500019916
19	174.3	340.3	20101500019731	375.0	20101500019917
20	192.9	379.0	20101500019732	417.7	20101500019918
21	211	415.2	20101500019733	457.6	20101500019919
22	233.9	458.9	20101500019734	505.7	20101500019920
23	255.5	501.7	20101500019735	552.8	20101500019921
24	277.6	542.8	20101500019736	598.2	20101500019922
25	300.1	589.9	20101500019737	650.1	20101500019923
26	328.9	636.0	20101500019738	700.9	20101500019924
27	356.2	691.8	20101500019739	762.4	20101500019925
28	379.8	742.4	20101500019740	818.1	20101500019926
29	408.6	799.0	20101500019741	880.5	20101500019927
30	436.4	855.3	20101500019742	942.6	20101500019928
32	498.4	968.2	20101500019743	1,067.0	20101500019929

### Rope Type: Special Wire Rope Rope Construction: Ultrafit



Number of outer strands:

**7**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**not rotation-resistant**

Swivel:

**not allowed**

Plastic inlay:

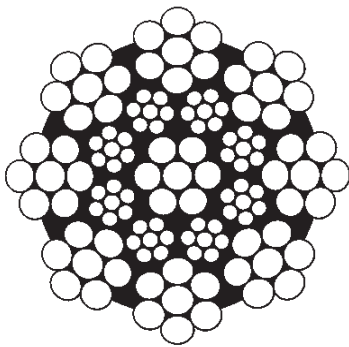
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	30.1	57.0	on request	62.1	on request
9	40.3	76.3	on request	83.1	on request
10	49.9	94.5	on request	102.9	on request
11	59	111.7	on request	121.7	on request
12	68.7	130.1	on request	141.7	on request
13	82.3	155.7	on request	169.6	on request
14	94.8	179.4	on request	195.4	on request
15	108.8	205.9	on request	224.2	on request
16	126.9	240.2	on request	261.6	on request
17	141.3	267.6	on request	291.4	on request
18	159.1	301.2	on request	328.1	on request
19	174.5	330.4	on request	359.8	on request
20	196.7	372.4	on request	405.5	on request
21	212.6	402.5	on request	438.8	on request
22	235.2	445.3	on request	485.0	on request
23	256.9	486.4	on request	529.7	on request
24	283.8	537.2	on request	585.1	on request
25	311.9	590.4	on request	643.0	on request
26	329	622.9	on request	678.4	on request
27	351.6	665.6	on request	724.9	on request
28	378.9	717.4	on request	781.3	on request
29	401.8	760.6	on request	828.3	on request
30	435	823.6	on request	897.0	on request
32	496.7	940.3	on request	1,024.1	on request

Other rope diameters available on request.



### Rope Type: Special Wire Rope Rope Construction: Unilift



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

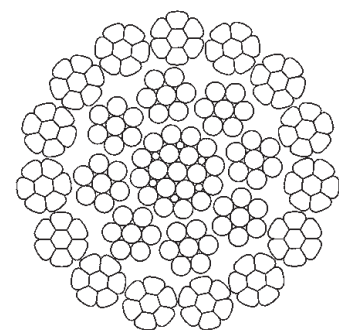
Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	15.7	29.2	on request	32.3	on request
7	21.5	40.7	on request	45.1	on request
8	28.2	49.9	on request	55.3	on request
9	35	64.4	on request	71.3	on request
10	44	79.9	on request	88.5	on request
11	52.9	98.1	on request	108.6	on request
12	63.2	116.5	on request	129.0	on request
13	74.8	136.7	on request	151.3	on request
14	85.9	158.6	on request	175.6	on request
15	99.2	181.9	on request	201.5	on request
16	113.5	207.0	on request	229.2	on request

### Rope Type: Special Wire Rope Rope Construction: C 45 (D 915 CZ)



Number of outer strands:  
**15**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**zZ / sS**

Categories:  
**non-rotating**

Swivel:  
**allowed**

Plastic inlay:  
**no**

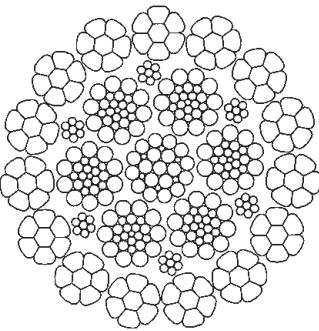
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	17	26.80	20101500022386	29.60	20101500022542
6.5	20	31.40	20101500022387	34.80	20101500022543
7	23	36.40	20101500022388	40.30	20101500022544
7.5	26	41.80	20101500022389	46.30	20101500022545
8	30	47.60	20101500022390	52.70	20101500022546
8.5	34	53.70	20101500022391	59.50	20101500022547
9	38	60.20	20101500022392	66.70	20101500022548
9.5	42	67.10	20101500022393	74.30	20101500022549
10	47	74.30	20101500022394	82.30	20101500022550
11	56	89.90	20101500022395	99.60	20101500022551
12	67	107.00	20101500022396	119.00	20101500022552
13	79	126.00	20101500022397	139.00	20101500022553
14	91	146.00	20101500022398	161.00	20101500022554
15	105	167.00	20101500022399	185.00	20101500022555
16	119	190.00	20101500022400	211.00	20101500022556
17	135	215.00	20101500022401	238.00	20101500022557
18	151	241.00	20101500022402	267.00	20101500022558
19	168	268.00	20101500022403	297.00	20101500022559
20	186	297.00	20101500022404	329.00	20101500022560
21	205	328.00	20101500022405	363.00	20101500022561
22	225	360.00	20101500022406	398.00	20101500022562
23	246	393.00	20101500022407	435.00	20101500022563
24	268	428.00	20101500022408	474.00	20101500022564
25	291	464.00	20101500022409	514.00	20101500022565

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: B 55 (D 1315 CZ)

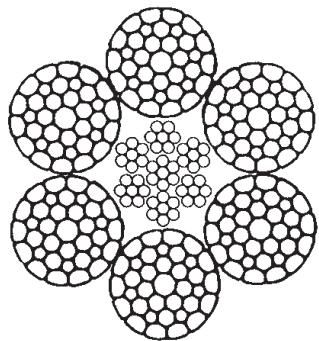


Number of outer strands:
15
Surface available in:
U (ungalvanised) / B (galvanised)
Lay / Lay direction available in:
zZ / sS
Categories:
non-rotating
Swivel:
allowed
Plastic inlay:
no

Table with 8 columns: Rope Ø in mm, Weight in kg/100 m, Tensile strength 1,770 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 1,960 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 2,160 N/mm² (Minimum breaking load in kN, Item no.). Rows 6 to 25.

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Z 299

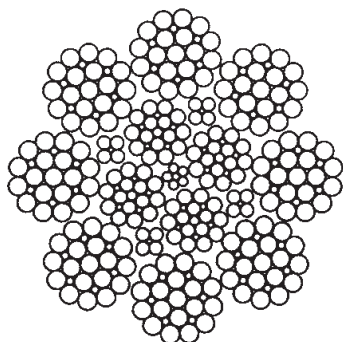


Number of outer strands:
6
Surface available in:
U (ungalvanised) / B (galvanised)
Lay / Lay direction available in:
sZ / zS
Categories:
not rotation-resistant
Swivel:
not allowed
Plastic inlay:
no

Table with 8 columns: Rope Ø in mm, Weight in kg/100 m, Tensile strength 1,770 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 1,960 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 2,160 N/mm² (Minimum breaking load in kN, Item no.). Rows 4 to 21.

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: S 417



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**not rotation-resistant**

Swivel:

**not allowed**

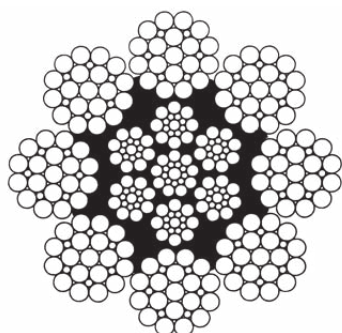
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	12.70	20101500023939	14.10	20101500024135	14.80	20101500024331
5	12	19.90	20101500023940	22.00	20101500024136	23.10	20101500024332
6	17	28.60	20101500023941	31.70	20101500024137	33.30	20101500024333
6.5	20	33.60	20101500023942	37.20	20101500024138	39.10	20101500024334
7	23	38.90	20101500023943	43.10	20101500024139	45.30	20101500024335
7.5	26	44.70	20101500023944	49.50	20101500024140	52.00	20101500024336
8	30	50.00	20101500023945	55.40	20101500024141	57.90	20101500024337
8.5	34	57.40	20101500023946	63.60	20101500024142	66.80	20101500024338
9	38	63.30	20101500023947	70.10	20101500024143	73.60	20101500024339
9.5	42	71.70	20101500023948	79.40	20101500024144	83.60	20101500024340
10	47	78.00	20101500023949	86.80	20101500024145	91.20	20101500024341
11	58	97.60	20101500023950	108.00	20101500024146	114.00	20101500024342
12	69	116.00	20101500023951	129.00	20101500024147	135.00	20101500024343
13	80	133.00	20101500023952	148.00	20101500024148	156.00	20101500024344
14	95	159.00	20101500023953	177.00	20101500024149	185.00	20101500024345
15	107	180.00	20101500023954	199.00	20101500024150	209.00	20101500024346
16	123	207.00	20101500023955	230.00	20101500024151	241.00	20101500024347
17	138	232.00	20101500023956	258.00	20101500024152	270.00	20101500024348
18	153	258.00	20101500023957	286.00	20101500024153	301.00	20101500024349
19	173	291.00	20101500023958	324.00	20101500024154	339.00	20101500024350
20	190	319.00	20101500023959	355.00	20101500024155	373.00	20101500024351
21	204	343.00	20101500023960	382.00	20101500024156	401.00	20101500024352
22	234	393.00	20101500023961	437.00	20101500024157	458.00	20101500024353

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: X 43 (P 825)



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**not rotation-resistant**

Swivel:

**not allowed**

Plastic inlay:

**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	7	11.70	20101500024527	13.00	20101500024723	14.10	20101500024919
5	11	18.30	20101500024528	20.20	20101500024724	22.00	20101500024920
6	16	26.30	20101500024529	29.20	20101500024725	31.70	20101500024921
6.5	19	30.90	20101500024530	34.20	20101500024726	37.30	20101500024922
7	22	35.80	20101500024531	39.70	20101500024727	43.20	20101500024923
7.5	25	41.10	20101500024532	45.60	20101500024728	49.60	20101500024924
8	27	43.70	20101500024533	48.60	20101500024729	53.40	20101500024925
8.5	33	52.80	20101500024534	58.50	20101500024730	63.70	20101500024926
9	35	56.90	20101500024535	63.30	20101500024731	69.30	20101500024927
9.5	41	66.00	20101500024536	73.10	20101500024732	79.60	20101500024928
10	42	68.20	20101500024537	76.00	20101500024733	83.00	20101500024929
11	54	86.30	20101500024538	96.10	20101500024734	105.00	20101500024930
12	65	106.00	20101500024539	118.00	20101500024735	129.00	20101500024931
13	76	122.00	20101500024540	136.00	20101500024736	148.00	20101500024932
14	85	137.00	20101500024541	152.00	20101500024737	166.00	20101500024933
15	103	166.00	20101500024542	184.00	20101500024738	201.00	20101500024934
16	116	187.00	20101500024543	208.00	20101500024739	227.00	20101500024935
17	130	210.00	20101500024544	233.00	20101500024740	254.00	20101500024936
18	146	236.00	20101500024545	262.00	20101500024741	286.00	20101500024937
19	161	260.00	20101500024546	289.00	20101500024742	316.00	20101500024938
20	178	288.00	20101500024547	320.00	20101500024743	348.00	20101500024939
21	195	315.00	20101500024548	351.00	20101500024744	382.00	20101500024940
22	223	361.00	20101500024549	401.00	20101500024745	437.00	20101500024941

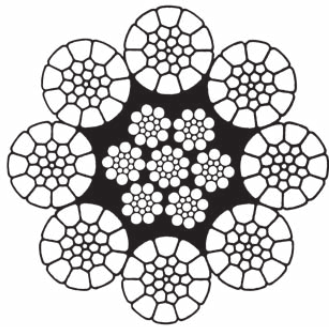
Other rope diameters available on request.



# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope Rope Construction: X 53 (PZ 371)



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

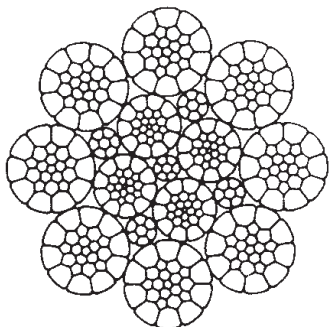
Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	12.80	20101500025115	14.10	20101500025311	15.40	20101500025507
5	12	19.90	20101500025116	22.10	20101500025312	24.00	20101500025508
6	17	28.70	20101500025117	31.80	20101500025313	34.60	20101500025509
6.5	20	33.70	20101500025118	37.30	20101500025314	40.60	20101500025510
7	23	39.10	20101500025119	43.30	20101500025315	47.10	20101500025511
7.5	27	44.90	20101500025120	49.70	20101500025316	54.10	20101500025512
8	30	51.00	20101500025121	56.50	20101500025317	61.60	20101500025513
8.5	34	57.60	20101500025122	63.80	20101500025318	69.50	20101500025514
9	38	64.60	20101500025123	71.50	20101500025319	77.90	20101500025515
9.5	43	72.00	20101500025124	79.70	20101500025320	86.50	20101500025516
10	47	79.80	20101500025125	88.40	20101500025321	96.60	20101500025517
11	57	96.90	20101500025126	107.00	20101500025322	117.00	20101500025518
12	68	115.00	20101500025127	128.00	20101500025323	139.00	20101500025519
13	80	135.00	20101500025128	150.00	20101500025324	163.00	20101500025520
14	92	156.00	20101500025129	173.00	20101500025325	188.00	20101500025521
15	106	179.00	20101500025130	199.00	20101500025326	217.00	20101500025522
16	121	204.00	20101500025131	226.00	20101500025327	246.00	20101500025523
17	136	230.00	20101500025132	255.00	20101500025328	278.00	20101500025524
18	153	258.00	20101500025133	286.00	20101500025329	312.00	20101500025525
19	170	288.00	20101500025134	319.00	20101500025330	347.00	20101500025526
20	189	319.00	20101500025135	354.00	20101500025331	385.00	20101500025527
21	208	352.00	20101500025136	389.00	20101500025332	424.00	20101500025528
22	228	386.00	20101500025137	428.00	20101500025333	465.00	20101500025529

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: H 43 (SKZ 8 P)



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**not rotation-resistant**

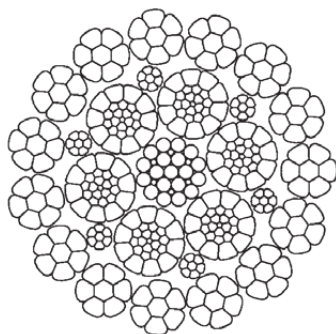
Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.80	20101500023267	15.30	20101500023463	16.90	20101500023659
5	13	21.60	20101500023268	23.90	20101500023464	26.40	20101500023660
6	18	31.10	20101500023269	34.50	20101500023465	38.00	20101500023661
6.5	21	36.50	20101500023270	40.40	20101500023466	44.60	20101500023662
7	25	42.40	20101500023271	46.90	20101500023467	51.70	20101500023663
7.5	28	48.60	20101500023272	53.80	20101500023468	59.30	20101500023664
8	32	55.30	20101500023273	61.30	20101500023469	67.50	20101500023665
8.5	36	62.50	20101500023274	69.20	20101500023470	76.20	20101500023666
9	40	70.00	20101500023275	77.50	20101500023471	85.70	20101500023667
9.5	45	78.00	20101500023276	86.50	20101500023472	94.90	20101500023668
10	49	86.50	20101500023277	95.80	20101500023473	106.00	20101500023669
11	60	105.00	20101500023278	116.00	20101500023474	128.00	20101500023670
12	71	123.00	20101500023279	136.00	20101500023475	150.00	20101500023671
13	83	143.00	20101500023280	159.00	20101500023476	175.00	20101500023672
14	98	168.00	20101500023281	187.00	20101500023477	206.00	20101500023673
15	111	191.00	20101500023282	212.00	20101500023478	233.00	20101500023674
16	128	221.00	20101500023283	245.00	20101500023479	270.00	20101500023675
17	144	248.00	20101500023284	275.00	20101500023480	302.00	20101500023676
18	163	281.00	20101500023285	311.00	20101500023481	343.00	20101500023677
19	179	308.00	20101500023286	343.00	20101500023482	377.00	20101500023678
20	200	344.00	20101500023287	383.00	20101500023483	421.00	20101500023679
21	225	387.00	20101500023288	430.00	20101500023484	474.00	20101500023680
22	245	422.00	20101500023289	469.00	20101500023485	516.00	20101500023681

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: B 60



Number of outer strands:  
**15**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**non-rotating**

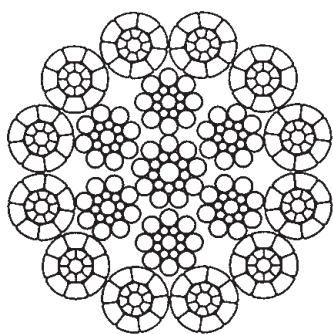
Swivel:  
**allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
12	72	123.00	on request	137.00	on request	148.00	on request
13	85	147.00	on request	162.00	on request	175.00	on request
14	98	169.00	on request	188.00	on request	202.00	on request
15	112	194.00	on request	215.00	on request	232.00	on request
16	130	223.00	on request	248.00	on request	266.00	on request
17	145	250.00	on request	278.00	on request	299.00	on request
18	163	281.00	on request	313.00	on request	337.00	on request
19	181	312.00	on request	347.00	on request	373.00	on request
20	201	347.00	on request	386.00	on request	416.00	on request
21	224	386.00	on request	428.00	on request	461.00	on request
22	245	422.00	on request	470.00	on request	505.00	on request
23	267	460.00	on request	512.00	on request	550.00	on request
24	290	500.00	on request	556.00	on request	598.00	on request
25	309	532.00	on request	592.00	on request	637.00	on request
26	334	577.00	on request	640.00	on request	689.00	on request
27	360	620.00	on request	689.00	on request	740.00	on request
28	394	678.00	on request	754.00	on request	811.00	on request
29	417	719.00	on request	800.00	on request	860.00	on request
30	446	770.00	on request	856.00	on request	919.00	on request
31	474	818.00	on request	909.00	on request	977.00	on request
32	509	877.00	on request	975.00	on request	1,048.00	on request
33	540	931.00	on request	1,035.00	on request	1,113.00	on request
34	575	990.00	on request	1,100.00	on request	1,183.00	on request
35	612	1,054.00	on request	1,171.00	on request	1,258.00	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: D 1200 Z



Number of outer strands:  
**12**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**rotation-resistant**

Swivel:  
**not allowed**

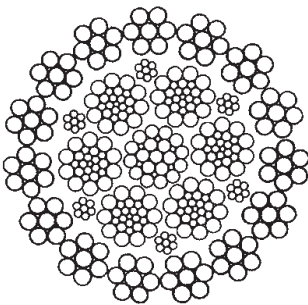
Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	17	27.50	on request	30.40	on request	32.70	on request
6.5	20	32.30	on request	35.70	on request	38.40	on request
7	23	37.40	on request	41.40	on request	44.50	on request
7.5	27	43.00	on request	47.60	on request	51.10	on request
8	30	48.90	on request	54.10	on request	58.10	on request
8.5	34	55.20	on request	61.10	on request	65.70	on request
9	38	61.90	on request	68.50	on request	73.60	on request
9.5	43	69.00	on request	76.40	on request	81.90	on request
10	47	76.40	on request	84.60	on request	90.90	on request
11	57	92.40	on request	102.00	on request	110.00	on request
12	68	110.00	on request	122.00	on request	131.00	on request
13	80	129.00	on request	143.00	on request	154.00	on request
14	93	150.00	on request	166.00	on request	178.00	on request
15	107	172.00	on request	190.00	on request	205.00	on request
16	122	196.00	on request	217.00	on request	233.00	on request
17	137	221.00	on request	245.00	on request	263.00	on request
18	154	248.00	on request	274.00	on request	295.00	on request
19	171	276.00	on request	305.00	on request	328.00	on request
20	190	306.00	on request	338.00	on request	364.00	on request

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: B 40 (D 1315)

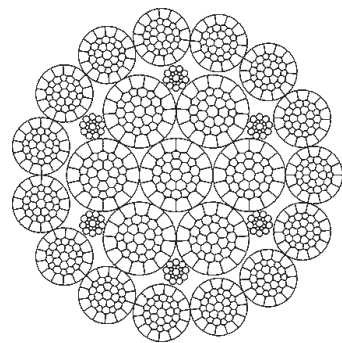


Number of outer strands:
15
Surface available in:
U (ungalvanised) / B (galvanised)
Lay / Lay direction available in:
sZ / zS
Categories:
non-rotating
Swivel:
allowed
Plastic inlay:
no

Table with 8 columns: Rope Ø in mm, Weight in kg/100 m, Tensile strength 1,770 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 1,960 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 2,160 N/mm² (Minimum breaking load in kN, Item no.). Rows 4 to 22.

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: B 50 (D 1315 Z)



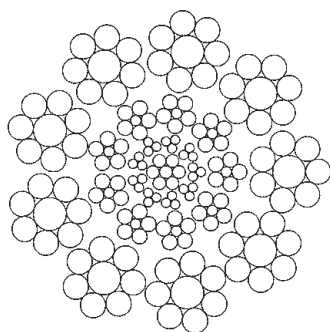
Number of outer strands:
15
Surface available in:
U (ungalvanised) / B (galvanised)
Lay / Lay direction available in:
sZ / zS
Categories:
non-rotating
Swivel:
allowed
Plastic inlay:
no

Table with 8 columns: Rope Ø in mm, Weight in kg/100 m, Tensile strength 1,770 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 1,960 N/mm² (Minimum breaking load in kN, Item no.), Tensile strength 2,160 N/mm² (Minimum breaking load in kN, Item no.). Rows 4 to 22.

Other rope diameters available on request.



### Rope Type: Special Wire Rope Rope Construction: K 114



Number of outer strands:

**9**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**not rotation-resistant**

Swivel:

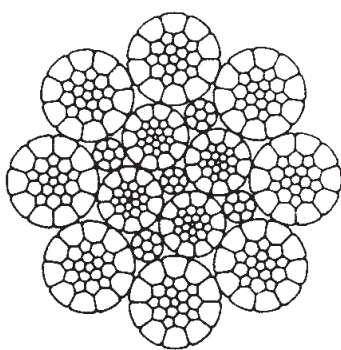
**not allowed**

Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	16	24.50	20101500023797	27.70	on request
6.5	19	30.70	20101500023798	34.00	on request
7	24	36.50	20101500023799	41.00	on request
7.5	26	40.90	20101500023800	45.30	on request
8	29	44.80	20101500023801	49.50	on request
8.5	33	52.50	20101500023802	58.20	on request
9	39	59.90	20101500023803	67.30	on request
9.5	41	65.60	20101500023804	72.70	on request
10	46	72.30	20101500023805	81.30	on request
11	59	91.60	20101500023806	103.00	on request
12	66	102.00	20101500023807	115.00	on request
13	76	116.00	20101500023808	133.00	on request
14	89	133.00	20101500023809	157.00	on request
15	101	155.00	20101500023810	178.00	on request
16	117	181.00	20101500023811	206.00	on request
17	133	210.00	20101500023812	233.00	on request
18	149	235.00	20101500023813	261.00	on request
19	166	263.00	20101500023814	291.00	on request
20	184	291.00	20101500023815	322.00	on request

### Rope Type: Special Wire Rope Rope Construction: H 40 (SKZ 8)



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS**

Categories:

**not rotation-resistant**

Swivel:

**not allowed**

Plastic inlay:

**no**

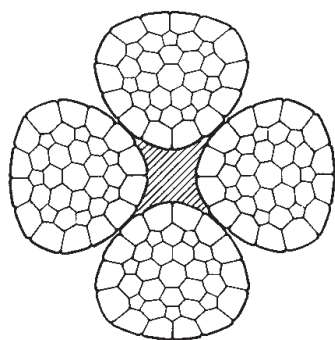
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.80	20101500022679	15.30	20101500022875	16.90	20101500023071
5	13	21.60	20101500022680	23.90	20101500022876	26.40	20101500023072
6	18	31.10	20101500022681	34.50	20101500022877	38.00	20101500023073
6.5	21	36.50	20101500022682	40.40	20101500022878	44.60	20101500023074
7	25	42.40	20101500022683	46.90	20101500022879	51.70	20101500023075
7.5	28	48.60	20101500022684	53.80	20101500022880	59.30	20101500023076
8	32	55.30	20101500022685	61.30	20101500022881	67.50	20101500023077
8.5	36	62.50	20101500022686	69.20	20101500022882	76.20	20101500023078
9	40	70.00	20101500022687	77.50	20101500022883	85.70	20101500023079
9.5	45	78.00	20101500022688	86.50	20101500022884	94.90	20101500023080
10	49	86.50	20101500022689	95.80	20101500022885	106.00	20101500023081
11	60	105.00	20101500022690	116.00	20101500022886	128.00	20101500023082
12	71	123.00	20101500022691	136.00	20101500022887	150.00	20101500023083
13	83	143.00	20101500022692	159.00	20101500022888	175.00	20101500023084
14	98	168.00	20101500022693	187.00	20101500022889	206.00	20101500023085
15	111	191.00	20101500022694	212.00	20101500022890	233.00	20101500023086
16	128	221.00	20101500022695	245.00	20101500022891	270.00	20101500023087
17	144	248.00	20101500022696	275.00	20101500022892	302.00	20101500023088
18	163	281.00	20101500022697	311.00	20101500022893	343.00	20101500023089
19	179	308.00	20101500022698	343.00	20101500022894	377.00	20101500023090
20	200	344.00	20101500022699	383.00	20101500022895	421.00	20101500023091
21	225	387.00	20101500022700	430.00	20101500022896	474.00	20101500023092
22	245	422.00	20101500022701	469.00	20101500022897	516.00	20101500023093
23	265	456.00	20101500022702	507.00	20101500022898	559.00	20101500023094

Other rope diameters available on request.

# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope Rope Construction: Super 4



Number of outer strands:  
**4**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

Categories:  
**rotation-resistant**

Swivel:  
**not allowed**

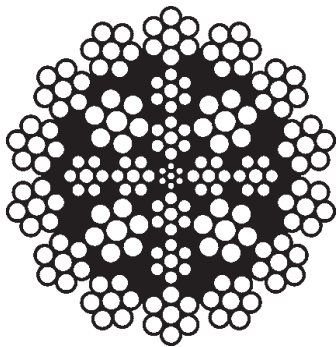
Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm <sup>2</sup>		Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.50	on request	14.90	on request	16.00	on request
5	12	21.00	on request	23.30	on request	25.10	on request
6	17	28.90	on request	32.40	on request	34.80	on request
6.5	21	35.60	on request	39.40	on request	42.40	on request
7	24	40.70	on request	45.10	on request	49.10	on request
7.5	27	47.30	on request	52.40	on request	56.40	on request
8	31	53.50	on request	58.90	on request	63.80	on request
8.5	35	60.80	on request	67.30	on request	72.40	on request
9	39	66.70	on request	74.60	on request	80.40	on request
9.5	44	76.00	on request	84.00	on request	90.20	on request
10	50	84.90	on request	94.70	on request	102.00	on request
11	57	98.60	on request	109.00	on request	118.00	on request
12	69	119.00	on request	132.00	on request	142.00	on request
13	81	140.00	on request	155.00	on request	167.00	on request
14	94	162.00	on request	181.00	on request	194.00	on request
15	109	188.00	on request	209.00	on request	225.00	on request
16	125	214.00	on request	238.00	on request	256.00	on request
17	140	242.00	on request	268.00	on request	288.00	on request
18	159	275.00	on request	305.00	on request	328.00	on request
19	177	305.00	on request	339.00	on request	364.00	on request
20	194	334.00	on request	371.00	on request	398.00	on request
21	219	378.00	on request	420.00	on request	451.00	on request
22	239	411.00	on request	457.00	on request	491.00	on request
23	258	444.00	on request	494.00	on request	530.00	on request

Other rope diameters available on request.



### Rope Type: Special Wire Rope Rope Construction: Endurance 50 DB



Number of outer strands:

**14**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**zZ / sS**

Categories:

**non-rotating**

Swivel:

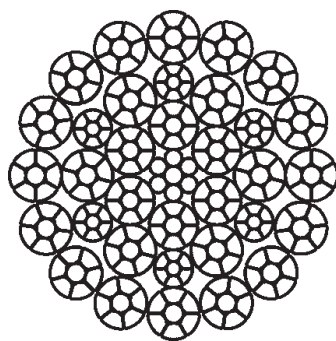
**allowed**

Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.
8	27.6	56.00	20101500015029
9	34.4	68.60	20101500015030
10	42.5	86.00	20101500015031
11	51.8	104.00	20101500015032
12	61.9	124.00	20101500015033
13	72.8	145.00	20101500015034
14	83.6	167.00	20101500015035
15	96	190.00	20101500015036
16	110	220.00	20101500015037
17	121	240.00	20101500015038
18	136	275.00	20101500015039
19	156	310.00	20101500015040
20	168	335.00	20101500015041
21	185	368.00	20101500015042
22	205	410.00	20101500015043

### Rope Type: Special Wire Rope Rope Construction: Endurance Dyform 34 LR/PI



Number of outer strands:

**16**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**zZ / sS**

Categories:

**non-rotating**

Swivel:

**allowed**

Plastic inlay:

**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	51.4	90.00	on request	98.10	on request
12	72.9	130.00	on request	140.00	on request
13	84.6	154.00	on request	166.00	on request
14	97.1	179.00	on request	191.00	on request
15	114	205.00	on request	220.00	on request
16	130	232.00	on request	251.00	on request
17	140	260.00	on request	284.00	on request
18	159	298.00	on request	319.00	on request
19	178	329.00	on request	356.00	on request
20	197	370.00	on request	397.00	on request
21	222	400.00	on request	432.00	on request
22	240	442.00	on request	482.00	on request
23	261	480.00	on request	525.00	on request
24	286	528.00	on request	569.00	on request
25	312	572.00	on request	620.00	on request
26	340	618.00	on request	658.00	on request
27	356	662.00	on request	718.00	on request
28	391	716.00	on request	784.00	on request
29	425	765.00	on request	829.00	on request
30	445	823.00	on request	900.00	on request
32	505	940.00	on request	1,030.00	on request
34	574	1,060.00	on request	1,150.00	on request
35	602	1,120.00	on request	1,210.00	on request
36	644	1,180.00	on request	1,280.00	on request

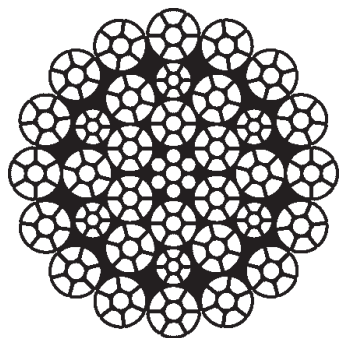
Other rope diameters available on request.



# STEEL WIRE ROPES

## Special Wire Ropes

### Rope Type: Special Wire Rope Rope Construction: Endurance Dyform 34 LR



Number of outer strands:  
**16**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**zZ / sS**

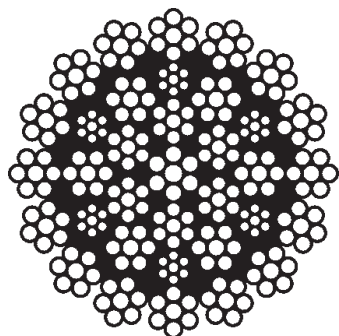
Categories:  
**non-rotating**

Swivel:  
**allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
14	97.1	179.00	20101500015063	191.00	20101500015127
16	114	232.00	20101500015064	251.00	20101500015128
18	130	298.00	20101500015065	319.00	20101500015129
20	140	370.00	20101500015066	397.00	20101500015130
22	159	442.00	20101500015067	482.00	20101500015131
24	178	528.00	20101500015068	569.00	20101500015132
26	197	618.00	20101500015069	658.00	20101500015133
28	222	716.00	20101500015070	784.00	20101500015134
30	240	823.00	20101500015071	900.00	20101500015135
32	261	940.00	20101500015072	1,030.00	20101500015136
34	286	1,060.00	20101500015073	1,150.00	on request
36	312	1,120.00	20101500015074	1,210.00	on request
38	340	1,180.00	20101500015075	1,280.00	on request
40	356	1,320.00	20101500015076	1,430.00	on request
42	391	1,470.00	20101500015077	1,580.00	on request
44	425	1,770.00	20101500015078	1,580.00	on request
48	445	2,110.00	20101500015079	1,580.00	on request
50	505	2,290.00	20101500015080	1,580.00	on request

### Rope Type: Special Wire Rope Rope Construction: Endurance 35 LS



Number of outer strands:  
**16**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS**

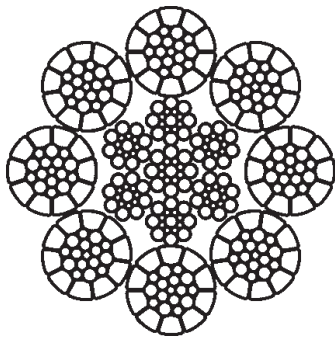
Categories:  
**non-rotating**

Swivel:  
**allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.
16	116	193.00	on request
17	130	216.00	on request
18	145	241.00	on request
19	165	275.00	on request
20	180	299.00	on request
21	200	333.00	on request
22	222	368.00	on request
23	240	398.00	on request
24	264	439.00	on request
25	284	471.00	on request
26	309	514.00	on request
27	329	546.00	on request
28	359	596.00	on request

### Rope Type: Special Wire Rope Rope Construction: Endurance Dyform 8 PI



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

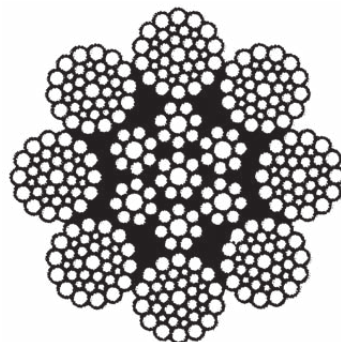
Categories:  
**rotating / not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
14	88.8	171.00	20101500015305	182.00	20101500015373
16	116	224.00	20101500015306	238.00	20101500015374
18	150	283.00	20101500015307	303.00	20101500015375
20	184	350.00	20101500015308	374.00	20101500015376
22	222	424.00	20101500015309	452.00	20101500015377
24	265	505.00	20101500015310	539.00	20101500015378
26	315	592.00	20101500015311	633.00	20101500015379
28	367	687.00	20101500015312	735.00	20101500015380
30	425	789.00	20101500015313	843.00	20101500015381
32	485	897.00	20101500015314	958.00	20101500015382
34	543	1,010.00	20101500015315	1,079.00	20101500015383
36	606	1,138.00	20101500015316	1,216.00	20101500015384
38	678	1,265.00	20101500015317	1,353.00	20101500015385
40	755	1,402.00	20101500015318	1,500.00	20101500015386
42	842	1,530.00	20101500015319	1,648.00	20101500015387
44	925	1,697.00	20101500015320	1,814.00	20101500015388
48	1,110.00	2,020.00	20101500015321	2,157.00	20101500015389

### Rope Type: Special Wire Rope Rope Construction: Endurance 8 PI



Number of outer strands:  
**8**

Surface available in:  
**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:  
**sZ / zS / sS / zZ**

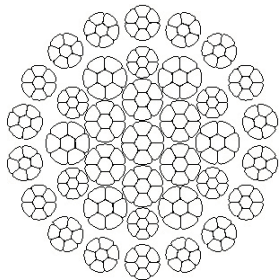
Categories:  
**rotating / not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
14	84.4	140.00	20101500015161	157.00	20101500015233
16	110	184.00	20101500015162	206.00	20101500015234
18	143	237.00	20101500015163	266.00	20101500015235
20	177	294.00	20101500015164	329.00	20101500015236
22	214	354.00	20101500015165	397.00	20101500015237
24	255	422.00	20101500015166	473.00	20101500015238
26	301	498.00	20101500015167	559.00	20101500015239
28	345	571.00	20101500015168	641.00	20101500015240
30	394	652.00	20101500015169	732.00	20101500015241
32	449	744.00	20101500015170	835.00	20101500015242
34	507	840.00	20101500015171	943.00	20101500015243
36	562	932.00	20101500015172	1,050.00	20101500015244
38	629	1,040.00	20101500015173	1,170.00	20101500015245
40	703	1,160.00	20101500015174	1,310.00	20101500015246
42	784	1,300.00	20101500015175	1,460.00	20101500015247
44	866	1,440.00	20101500015176	1,610.00	20101500015248
48	1,010.00	1,680.00	20101500015177	1,880.00	20101500015249
50	1,110.00	1,830.00	20101500015178	2,060.00	20101500015250

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 815



Number of outer strands:

**18**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

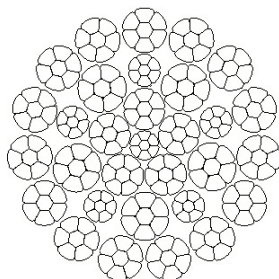
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
13	81.6	157.8	on request	165.7	on request
14	94.9	183.3	on request	192.5	on request
15	108.8	209.6	on request	220.6	on request
16	124.5	239.4	on request	251.4	on request
17	139.8	269.7	on request	283.4	on request
18	156.2	302.5	on request	317.7	on request
19	175.7	338.9	on request	355.9	on request
20	193.0	374.2	on request	393.0	on request
21	213.9	412.2	on request	432.9	on request
22	234.2	452.0	on request	474.7	on request
23	256.0	494.8	on request	519.6	on request
24	279.0	540.3	on request	567.4	on request
25	304.3	587.1	on request	616.6	on request
26	327.0	634.2	on request	666.1	on request
27	354.4	683.6	on request	717.9	on request
28	380.2	734.0	on request	770.9	on request
30	439.1	846.3	on request	888.8	on request
32	497.7	959.6	on request	1,007.8	on request
34	558.6	1,079.3	on request	1,133.0	on request
36	631.4	1,221.5	on request	1,282.8	on request
38	701.4	1,352.4	on request	1,418.4	on request
40	774.4	1,495.0	on request	1,569.0	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 813



Number of outer strands:

**15**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

Plastic inlay:

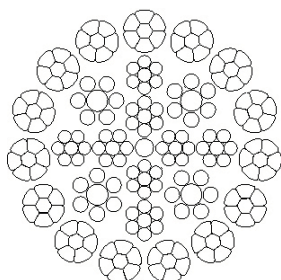
**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	48.0	92.2	on request	96.9	on request
11	56.3	108.4	on request	113.9	on request
12	68.3	130.8	on request	137.3	on request
13	79.3	152.4	on request	160.0	on request
14	92.9	178.8	on request	187.7	on request
15	107.5	206.3	on request	216.6	on request
16	121.9	234.1	on request	245.8	on request
17	138.3	265.4	on request	278.7	on request
18	155.3	298.4	on request	313.4	on request
19	171.8	329.5	on request	346.1	on request
20	190.9	370.0	on request	388.6	on request
21	210.7	406.3	on request	426.7	on request
22	231.5	446.3	on request	468.7	on request
23	251.9	487.0	on request	511.4	on request
24	275.7	531.5	on request	558.1	on request
25	298.8	576.3	on request	605.2	on request
26	322.9	624.1	on request	655.4	on request
27	346.8	669.1	on request	702.6	on request
28	373.7	721.0	on request	757.2	on request
30	429.9	828.8	on request	870.4	on request
32	484.8	935.5	on request	982.4	on request
34	551.2	1,063.9	on request	1,117.3	on request

Other rope diameters available on request.



### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 812



Number of outer strands:

**15**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

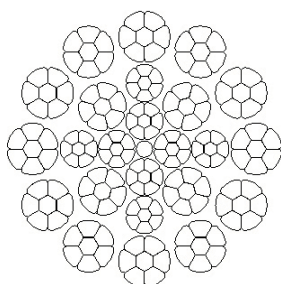
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26	-	-	53.5	on request
9	33	-	-	67.5	on request
10	43	83.7	on request	87.8	on request
11	52	101.5	on request	106.4	on request
12	62	120.8	on request	126.6	on request
13	74	142.4	on request	149.3	on request
14	85	164.7	on request	172.7	on request
15	100	193.4	on request	202.8	on request
16	113	218.9	on request	229.6	on request
17	128	247.7	on request	259.8	on request
18	143	277.4	on request	290.9	on request
19	160	310.2	on request	325.4	on request
20	176	339.6	on request	356.2	on request
21	196	377.2	on request	395.6	on request
22	218	421.4	on request	441.9	on request
23	238	459.8	on request	482.2	on request
24	258	496.9	on request	521.2	on request
25	280	540.9	on request	567.2	on request
26	299	578.0	on request	606.2	on request
27	329	634.6	on request	665.5	on request
28	355	684.6	on request	717.9	on request
29	405	782.1	on request	820.3	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 811



Number of outer strands:

**12**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sS / zZ**

Categories:

**non-rotating**

Swivel:

**allowed**

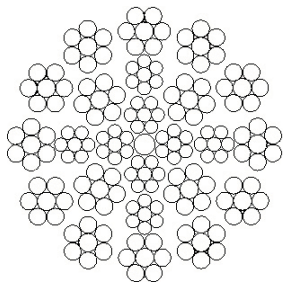
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.
7.2	22.9	43.7	on request
8	28.0	55.1	on request
9	35.6	69.6	on request
10	46.4	88.2	on request
11	56.0	108	on request
12	66.9	128	on request
12.7	74.8	142	on request
13	77.9	149	on request
14	90.7	174	on request
15	105.4	198	on request
16	120.4	230	on request
17	133.6	256	on request
18	150.8	294	on request
19	169.4	324	on request
20	188.3	354	on request
21	210.0	402	on request
22	228.4	433	on request
24	275.1	526	on request
26	320.3	610	on request
28	371.3	706	on request
30	424.3	808	on request
32	480.1	935	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 810



Number of outer strands:

**12**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**non-rotating**

Swivel:

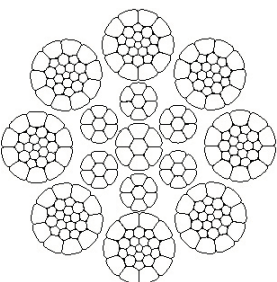
**allowed**

Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
7.2	20.9	39.5	on request	42.5	on request
8	26.6	50.1	on request	53.9	on request
9	33.3	62.7	on request	67.4	on request
10	43.3	80.5	on request	87.4	on request
11	52.7	98.8	on request	106	on request
12	61.4	116	on request	125	on request
13	72.7	136	on request	147	on request
14	82.9	156	on request	167	on request
15	95.6	180	on request	194	on request
16	110.5	207	on request	223	on request
17	123.5	232	on request	249	on request
18	138.5	260	on request	279	on request
19	156.1	293	on request	315	on request
20	171.5	322	on request	347	on request
22	206.0	386	on request	415	on request
24	244.9	460	on request	495	on request

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 825



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

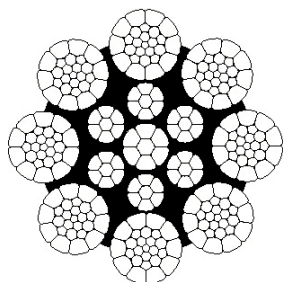
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	28.4	-	-	58.0	on request
9	36.2	-	-	73.6	on request
10	45.8	-	-	92.4	on request
11	55.3	-	-	112	on request
12	64.9	126	on request	133	on request
13	76.9	149	on request	156	on request
14	89.6	173	on request	182	on request
15	103.4	201	on request	211	on request
16	114.8	221	on request	232	on request
18	147.9	285	on request	299	on request
19	163.2	314	on request	330	on request
20	183.8	354	on request	372	on request
22	217.3	419	on request	439	on request
24	254.8	510	on request	535	on request
26	305.4	589	on request	618	on request
28	412.8	686	on request	719	on request
30	469.4	794	on request	833	on request
32	526.1	905	on request	949	on request
34	596.9	1,018	on request	1,067	on request
36	661.2	1,148	on request	1,204	on request
38	729.8	1,271	on request	1,332	on request
40	757.9	1,410	on request	1,479	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 818



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

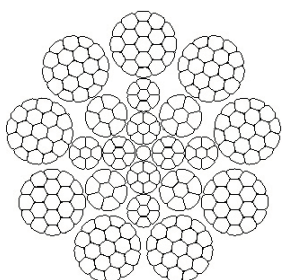
Plastic inlay:

**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	28.4	-	-	58.0	on request
9	36.2	-	-	73.6	on request
10	45.8	-	-	92.4	on request
11	55.3	-	-	112	on request
12	64.9	126	on request	133	on request
13	76.9	149	on request	156	on request
14	89.6	173	on request	182	on request
15	103.4	201	on request	211	on request
16	114.8	221	on request	232	on request
18	147.9	285	on request	299	on request
19	163.2	314	on request	330	on request
20	183.8	354	on request	372	on request
22	217.3	419	on request	439	on request
24	254.8	510	on request	535	on request
26	305.4	589	on request	618	on request
28	412.8	686	on request	719	on request
30	469.4	794	on request	833	on request
32	526.1	905	on request	949	on request
34	596.9	1,018	on request	1,067	on request
36	661.2	1,148	on request	1,204	on request
38	729.8	1,271	on request	1,332	on request
40	757.9	1,410	on request	1,479	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 826



Number of outer strands:

**9**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

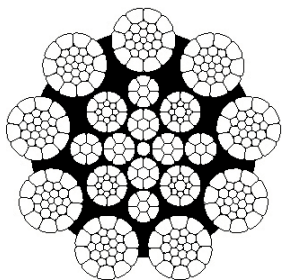
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
9	37.3	69.5	on request	74.9	on request
10	45.9	86.0	on request	92.2	on request
11	55.4	104	on request	111	on request
12	65.0	122	on request	132	on request
13	79.0	148	on request	159	on request
14	89.9	168	on request	181	on request
15	105.2	198	on request	213	on request
16	118.8	223	on request	240	on request
18	149.1	280	on request	301	on request
19	169.8	318	on request	343	on request
20	185.6	349	on request	375	on request
22	224.9	423	on request	455	on request
24	268.8	505	on request	543	on request
25	290.7	546	on request	587	on request
26	316.3	593	on request	638	on request
28	364.2	683	on request	734	on request
30	420.7	807	on request	848	on request
32	482.6	929	on request	975	on request
34	547.2	1,050	on request	1,102	on request
35	573.0	1,103	on request	1,159	on request
36	611.8	1,173	on request	1,232	on request
38	679.1	1,307	on request	1,372	on request



### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 817



Number of outer strands:

**9**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

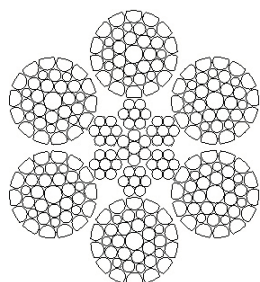
**not allowed**

Plastic inlay:

**yes**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>		Tensile strength 2,160 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
9	37.3	69.5	on request	74.9	on request
10	45.9	86.0	on request	92.2	on request
11	55.4	104	on request	111	on request
12	65.0	122	on request	132	on request
13	79.0	148	on request	159	on request
14	89.9	168	on request	181	on request
15	105.2	198	on request	213	on request
16	118.8	223	on request	240	on request
18	149.1	280	on request	301	on request
19	169.8	318	on request	343	on request
20	185.6	349	on request	375	on request
22	224.9	423	on request	455	on request
24	268.8	505	on request	543	on request
25	290.7	546	on request	587	on request
26	316.3	593	on request	638	on request
28	364.2	683	on request	734	on request
30	420.7	807	on request	848	on request
32	482.6	929	on request	975	on request
34	547.2	1,050	on request	1,102	on request
35	573.0	1,103	on request	1,159	on request
36	611.8	1,173	on request	1,232	on request
38	679.1	1,307	on request	1,372	on request

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 824



Number of outer strands:

**6**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

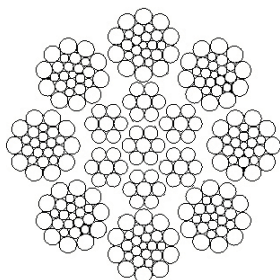
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm <sup>2</sup>	
		Minimum breaking load in kN	Item no.
10	44.4	87.7	on request
11	54.4	107	on request
12	63.6	126	on request
13	76.3	150	on request
14	87.4	169	on request
15	98.5	191	on request
16	112.9	219	on request
17	128.9	251	on request
18	142.8	277	on request
19	160.4	311	on request
20	178.1	345	on request
22	216.3	419	on request
24	261.4	504	on request
25	279.6	543	on request
26	308.7	598	on request
28	352.5	682	on request
29	380.7	738	on request
30	405.3	787	on request
32	460.6	891	on request
34	522.2	1,012	on request
35	555.9	1,076	on request
36	584.7	1,132	on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 819



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

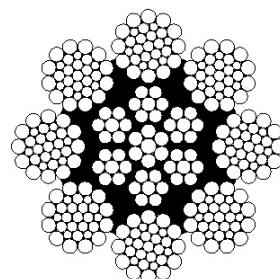
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Minimum breaking load in kN	Tensile strength 1,960 N/mm <sup>2</sup>	Item no.
8	26.2	49.7		on request
9	33.4	63.3		on request
10	41.2	78.1		on request
11	50.3	95.4		on request
12	60.4	115		on request
13	71.1	134		on request
14	83.0	157		on request
15	95.0	180		on request
16	110.7	209		on request
18	138.6	262		on request
19	153.1	289		on request
20	172.0	325		on request
22	206.6	391		on request
24	246.6	469		on request
26	286.0	541		on request
28	336.9	637		on request
30	386.8	733		on request
32	435.0	824		on request
34	490.1	925		on request
35	533.5	1,008		on request
36	620.5	1,052		on request
38	682.9	1,173		on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 820



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

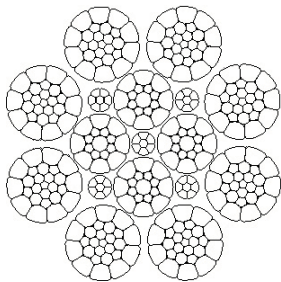
Plastic inlay:

**yes**

Rope Ø in mm	Weight in kg/ 100 m	Minimum breaking load in kN	Tensile strength 1,960 N/mm <sup>2</sup>	Item no.
8	26.2	49.7		on request
9	33.4	63.3		on request
10	41.2	78.1		on request
11	50.3	95.4		on request
12	60.4	115		on request
13	71.1	134		on request
14	83.0	157		on request
15	95.0	180		on request
16	110.7	209		on request
18	138.6	262		on request
19	153.1	289		on request
20	172.0	325		on request
22	206.6	391		on request
24	246.6	469		on request
26	286.0	541		on request
28	336.9	637		on request
30	386.8	733		on request
32	435.0	824		on request
34	490.1	925		on request
35	533.5	1,008		on request
36	620.5	1,052		on request
38	682.9	1,173		on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 821



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

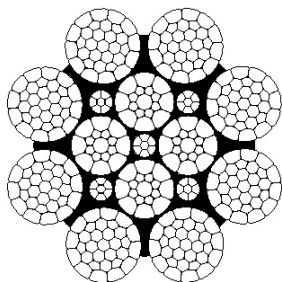
Plastic inlay:

**no**

Rope Ø in mm	Weight in kg/ 100 m	Minimum breaking load in kN	Tensile strength 2,160 N/mm <sup>2</sup>	Item no.
6.4	19.1	41.4		on request
7	23.3	50.5		on request
7.2	24.5	53.2		on request
8	30.1	64.1		on request
8.5	34.1	73.3		on request
9	38.8	82.3		on request
10	47.5	102		on request
11	56.7	123		on request
12	67.8	147		on request
13	81.4	176		on request
14	93.5	203		on request
15	109.2	237		on request
16	121.6	264		on request
17	139.8	303		on request
18	154.2	335		on request
19	172.9	376		on request
20	189.6	411		on request
22	230.8	501		on request
24	281.0	606		on request
26	322.9	701		on request
28	374.0	810		on request
30	433.8	942		on request

Other rope diameters available on request.

### Rope Type: Special Wire Rope Rope Construction: CondorRope CS 822



Number of outer strands:

**8**

Surface available in:

**U (ungalvanised) / B (galvanised)**

Lay / Lay direction available in:

**sZ / zS / sS / zZ**

Categories:

**rotating / not rotation-resistant**

Swivel:

**not allowed**

Plastic inlay:

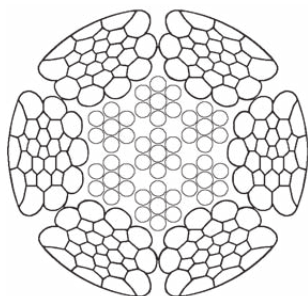
**yes**

Rope Ø in mm	Weight in kg/ 100 m	Minimum breaking load in kN	Tensile strength 2,160 N/mm <sup>2</sup>	Item no.
6.4	19.1	41.4		on request
7	23.3	50.5		on request
7.2	24.5	53.2		on request
8	30.1	64.1		on request
8.5	34.1	73.3		on request
9	38.8	82.3		on request
10	47.5	102		on request
11	56.7	123		on request
12	67.8	147		on request
13	81.4	176		on request
14	93.5	203		on request
15	109.2	237		on request
16	121.6	264		on request
17	139.8	303		on request
18	154.2	335		on request
19	172.9	376		on request
20	189.6	411		on request
22	230.8	501		on request
24	281.0	606		on request
26	322.9	701		on request
28	374.0	810		on request
30	433.8	942		on request

Other rope diameters available on request.



**Rope Type: Stranded Rope**  
**Rope Construction: CondorRope Forest K626**



Number of outer strands:  
**6**

Surface:  
**U (bk)**

Lay / Lay direction:  
**sZ**

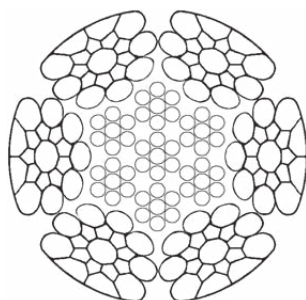
Categories:  
**rotating / not rotation-resistant**

Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Minimum breaking load in kN	Tensile strength 1,960 N/mm <sup>2</sup>	Item no.
6	22.5	41.9		on request
7	28.9	53.9		on request
8	36.1	67.4		on request
9	44.1	82.3		on request
10	52.9	98.8		on request
11	62.5	117		on request
12	72.9	136		on request
13	84.1	157		on request
14	96.1	180		on request
16	108.9	203		on request

**Rope Type: Stranded Rope**  
**Rope Construction: CondorRope Forest K619**



Number of outer strands:  
**6**

Surface:  
**U (bk)**

Lay / Lay direction:  
**sZ**

Categories:  
**rotating / not rotation-resistant**

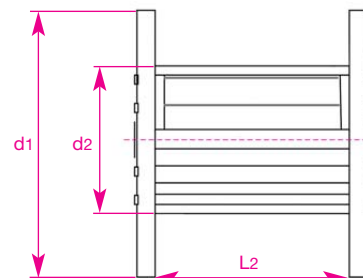
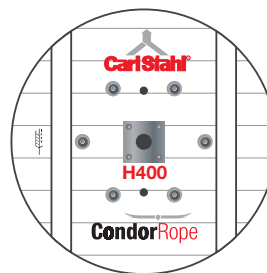
Swivel:  
**not allowed**

Plastic inlay:  
**no**

Rope Ø in mm	Weight in kg/ 100 m	Minimum breaking load in kN	Tensile strength 1,960 N/mm <sup>2</sup>	Item no.
6	22.5	41.9		on request
7	28.9	53.9		on request
8	36.1	67.4		on request
9	44.1	82.3		on request
10	52.9	98.8		on request
11	62.5	117		on request
12	72.9	136		on request

### 1X42 Carl Stahl Disposable Wooden Reels

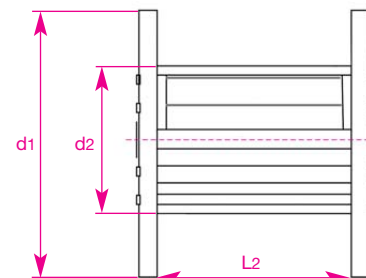
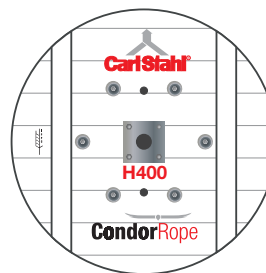
Wooden reels from pine or spruce.  
heat-treated with IPPC certification



Reel type		400	500	600	700	800
Dimensions	d1 in mm	400	500	600	700	800
	L2 in mm	300	300	400	400	500
	d2 in mm	200	200	250	300	350
Weight		6.2	8.8	18.2	25.8	37.0
Item no.		20201000035011	20201000035012	20201000035013	20201000035014	20201000035015
Rope Ø in mm		max. rope length in m				
	5	712	1478	2803	3897	6081
	6	466	996	1954	2702	4246
	7	356	723	1442	1954	3027
	8	251	560	1099	1520	2363
	9	196	431	855	1203	1815
	10	178	348	677	974	1479
	11	137	297	562	769	1251
	12	106	249	488	676	1027
	13	98	205	406	569	863
	14	89	166	343	489	757
	15	-	158	286	415	657
	16	-	131	275	362	565
	17	-	116	224	332	527
	18	-	-	214	285	445
	19	-	-	178	271	385
	20	-	-	169	229	370
	21	-	-	-	217	301
	22	-	-	-	179	288
	23	-	-	-	169	274
	24	-	-	-	169	240
	25	-	-	-	136	228
	26	-	-	-	-	216
	27	-	-	-	-	175
	28	-	-	-	-	175
	29	-	-	-	-	164
	30	-	-	-	-	164
	31	-	-	-	-	-
	32	-	-	-	-	-
	33	-	-	-	-	-
	34	-	-	-	-	-
	35	-	-	-	-	-
	36	-	-	-	-	-
	37	-	-	-	-	-
	38	-	-	-	-	-
	39	-	-	-	-	-
	40	-	-	-	-	-
	42	-	-	-	-	-
	44	-	-	-	-	-
	46	-	-	-	-	-
	48	-	-	-	-	-
	50	-	-	-	-	-

### 1X42 Carl Stahl Disposable Wooden Reels

Wooden reels from pine or spruce.  
heat-treated with IPPC certification



Reel type		900	1000	1200	1400	1600
Dimensions	d1 in mm	900	1000	1200	1400	1600
	L2 in mm	550	600	800	900	900
	d2 in mm	400	500	600	800	800
Weight		47.6	73.8	130	220	286
Item no.		20201000035016	20201000035017	20201000035018	20201000035019	20201000035020
Rope Ø in mm		max. rope length in m				
5		8591	10925	21326	27395	33297
6		6000	7600	15042	19002	23123
7		4383	5565	11042	13796	16829
8		3343	4234	8396	10689	13007
9		2599	3330	6505	8234	9957
10		2127	2708	5193	6809	8324
11		1777	2235	4337	5404	6601
12		1457	1846	3673	4751	5781
13		1247	1592	3064	3919	4747
14		1081	1391	2656	3421	4177
15		955	1203	2370	3009	3700
16		836	1059	2099	2672	3252
17		725	896	1845	2309	2833
18		621	796	1607	2059	2489
19		579	746	1421	1781	2168
20		506	633	1246	1702	2081
21		487	611	1181	1488	1788
22		421	529	1022	1287	1554
23		386	509	992	1221	1481
24		343	434	875	1188	1445
25		327	416	820	1009	1236
26		312	398	713	980	1171
27		259	333	689	845	1012
28		245	317	664	792	983
29		245	301	568	765	954
30		232	301	547	739	925
31		199	244	525	624	784
32		187	244	525	624	759
33		187	231	440	600	733
34		175	217	421	577	708
35		-	217	402	475	585
36		-	181	402	475	564
37		-	-	383	455	542
38		-	-	328	435	542
39		-	-	312	435	520
40		-	-	312	416	520
42		-	-	295	330	397
44		-	-	-	313	379
46		-	-	-	297	361
48		-	-	-	297	361
50		-	-	-	224	275

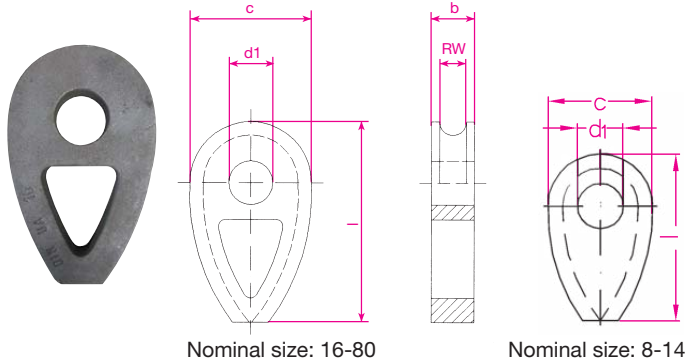


# STEEL WIRE ROPES

## Accessories

### Solid Thimble acc. to DIN 3091

With standard bore hole (d1)  
Surface: standard uncoated  
Version: galvanised or hot-dipped  
galvanised on request

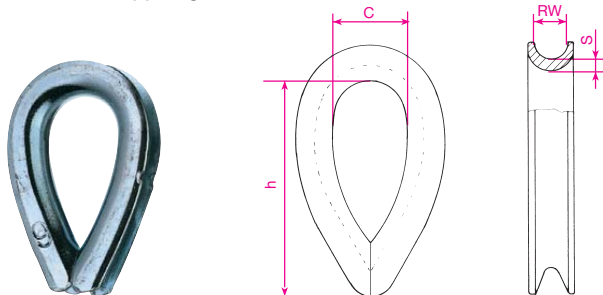


Nom. size	RW	Dimensions in mm				Weight in kg/pce	Item no.
b	d1	c	l				
8	9	15.0	14	40	66	0.181	20201200015001
10	11	17.5	18	50	82	0.318	20201200015002
12	13	20.0	21	60	98	0.515	20201200015003
14	16	23.5	25	70	114	0.799	20201200015004
16	18	26.0	28	80	130	0.895	20201200015005
18	20	28.5	31	90	145	1.211	20201200015006
20	22	31.0	35	100	161	1.610	20201200015007
22	24	33.5	38	110	177	2.110	20201200015008
24	26	36.0	41	120	193	2.710	20201200015009
26	29	39.5	44	130	209	3.550	20201200015010
28	31	42.0	47	140	224	4.200	20201200015011
32	35	47.0	53	160	256	6.300	20201200015012

Available up to nominal size 80.  
Option: bore hole with tolerance zone acc. to DIN ISO 286

### Thimble acc. to DIN EN 13411-1

Material: St 37-2  
Surface: hot-dipped galvanised

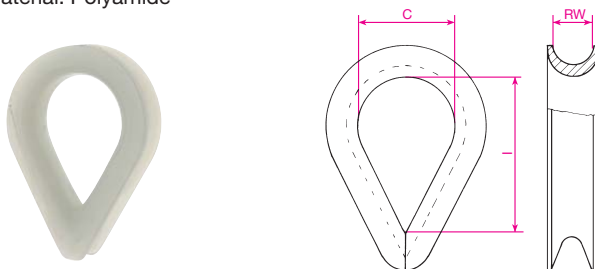


Nom. size	RW	Dimensions in mm			Weight in kg/100 pcs	Item no.
c	h	s				
4	5	10	29	2.1	1.20	20201200015013
6	7	15	42	2.6	2.80	20201200015014
8	9	20	46	4.0	5.70	20201200015015
10	11	25	70	5.0	15.20	20201200015016
12	13	30	85	6.0	24.00	20201200015017*
14	16	35	102	8.0	38.00	20201200015018
16	18	40	113	8.0	52.00	20201200015019
18	20	45	127	9.0	66.00	20201200015020
20	22	50	141	10.0	88.00	20201200015021
22	24	55	153	10.0	104.00	20201200015022*
24	26	60	165	10.0	129.00	20201200015023*
26	29	65	181	12.0	260.00	20201200015024
28	31	70	193	12.0	277.00	20201200015025
32	35	80	223	15.0	440.00	20201200015026*
36	40	90	247	15.0	460.00	20201200015027
40	44	100	281	20.0	700.00	20201200015028
44	48	110	305	20.0	1,000.00	20201200015029*
48	53	120	329	25.0	1,200.00	20201200015030

\*Similar to DIN EN 13411-1

### Polyamide Thimble

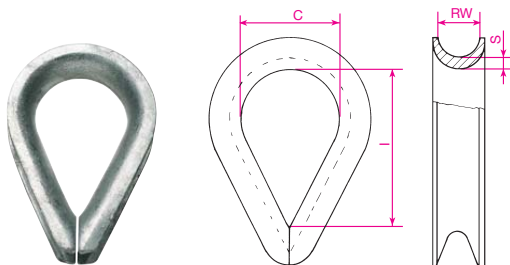
Material: Polyamide



Nom. size	RW	Dimensions in mm		Weight in kg/pce	Item no.
c	l				
2.5	3	6	9	0.004	20201200015031
3.5	4	9	13	0.006	20201200015032
5	6	12	18	0.018	20201200015033
6	7	14	21	0.027	20201200015034
8	9	20	29	0.046	20201200015035
11	12	24	42	0.100	20201200015036
12	13	26	45	0.126	20201200015037
15	16	30	49	0.170	20201200015038
16	18	36	53	0.280	20201200015039

### Thimble, similar DIN 6899, Form B

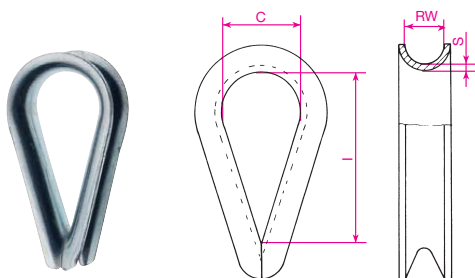
Medium-weight, with deep groove  
Surface: galvanised



Nom. size	RW	Dimensions in mm			Weight in kg/100 pcs	Item no.
c	l	s				
2.5	3	12	19	1.2	0.50	20201200015040
3.5	4	13	21	1.2	0.80	20201200015041
4	5	14	23	1.7	1.00	20201200015042
5	6	16	25	2.2	1.60	20201200015043
6	7	18	28	2.2	1.90	20201200015044
7	8	20	32	2.7	3.00	20201200015045
9	10	24	38	2.9	4.70	20201200015046
11	12	28	45	3.2	6.80	20201200015047
13	14	32	51	3.5	10.00	20201200015048
15	16	36	58	3.8	14.50	20201200015049
16	18	40	64	4.2	20.00	20201200015050
18	20	45	72	5.2	29.00	20201200015051
20	22	50	80	5.2	32.00	20201200015052
22	24	56	90	6.2	47.00	20201200015053
24	26	62	99	6.5	59.00	20201200015054
26	28	70	112	7.3	80.00	20201200015055
28	30	75	120	8.0	110.00	20201200015056
30	32	80	128	8.0	123.00	20201200015057
32	34	95	152	8.0	156.00	20201200015058
34	36	100	160	8.0	176.00	20201200015059
36	38	110	176	8.5	192.00	20201200015060
38	40	115	184	10.5	292.00	20201200015061
40	42	120	192	10.5	320.00	20201200015062
42	45	150	240	10.5	364.00	20201200015063

### Thimble acc. to DIN 65457

Surface: galvanised



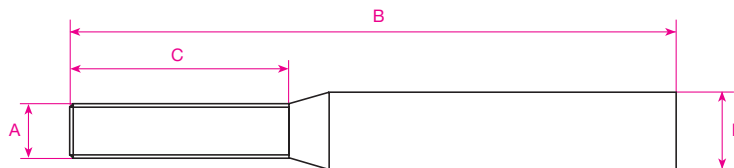
Nom. size	RW	Dimensions in mm			Weight in kg/100 pcs	Item no.
c	l	s				
2	2.5	9	20.0	0.5	0.13	20201200015065
2.5	3	10	21.5	0.5	0.14	20201200015066
3	3.5	11	23.5	1.0	0.35	20201200015067
3.5	4	12	26.5	1.0	0.38	20201200015068
4	5	13	28.5	1.0	0.42	20201200015069
5	6	14	30.0	1.0	0.80	20201200015070
6	7	15	33.0	1.0	0.81	20201200015071
7	8	16	35.0	1.2	1.10	20201200015072
8	9	18	39.0	1.2	1.70	20201200015073
9	10	20	43.0	1.5	2.10	20201200015074
10	11	22	47.5	1.5	3.50	20201200015075
11	12	24	51.0	1.5	3.70	20201200015076
12	13	26	56.0	1.8	5.25	20201200015077
13	14	28	61.0	2.5	7.25	20201200015078
15	16	32	69.0	3.0	8.33	20201200015079
16	18	35	78.0	3.0	17.90	20201200015080
18	20	40	86.0	4.0	27.00	20201200015081
20	22	44	95.0	5.0	35.50	20201200015082
24/26	26	48	105.0	6.0	52.00	20201200015083

### Threaded Terminal acc. to EN 13411-8

- Terminals forged from special steel
- Soft-annealed and ideal for cold forming due to fine grain structure
- Hexagonal swage
- Bright surface

#### Important note:

- Rope terminals can be used within a temperature range of -40°C (-40°F) and 150°C (302°F) without loss of load capacity
- Correctly swaged rope terminals reach a minimum of 90% of the minimum breaking load acc. to EN 13411-8 based on the indications in this catalogue.
- These rope terminals are not recommended for lang's lay ropes and steel wire ropes with fibre core.



Nominal size	Rope Ø		W accross flats D*	Dimensions after swage in mm			Weight in kg/pce	Item no. threaded terminal
	min	max		B	C	A		
1/4	5.8	6.7	10.7	111.0	40.0	M10	0.1	20201400015001
5/16	6.8	8.3	16.6	162.0	56.0	M14	0.3	20201400015002
3/8	8.4	10.0	16.6	170.9	64.0	M16	0.3	20201400015003
7/16	10.1	11.7	21.3	204.2	64.0	M20	0.5	20201400015004
1/2	11.8	13.3	21.3	222.0	80.0	M20	0.5	20201400015005
9/16	13.4	15.0	27.0	273.0	96.0	M24	1.1	20201400015006
5/8	15.1	16.7	27.0	286.3	108.0	M27	1.2	20201400015007
3/4	16.8	19.8	33.4	332.9	120.0	M30	2.0	20201400015008
7/8	19.9	23.3	36.3	366.2	120.0	M30	2.5	20201400015009
1	23.4	26.6	42.4	426.1	144.0	M36	4.0	20201400015010
1 1/8	26.7	29.8	48.4	486.1	168.0	M42	6.0	20201400015011
1 3/8	33.4	36.5	60.5	614.8	224.0	M56	12.4	-

\* tolerance nominal size 1/4-7/8: +0.4 / -0 mm

\* tolerance nominal size 1-1 1/8: +0.6 / -0 mm

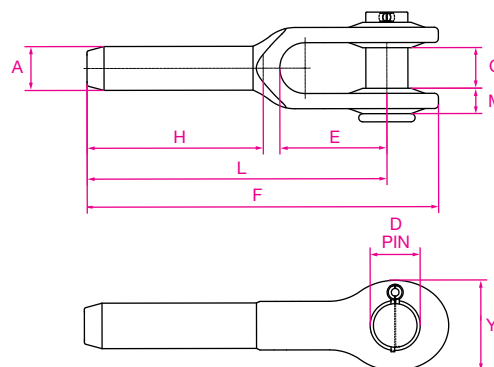


### Fork Terminal acc. to EN 13411-8

- Terminals forged from special steel
- Soft-annealed and ideal for cold forming due to fine grain structure
- Hexagonal swage
- Bright surface

#### Important note:

- Rope terminals can be used within a temperature range of -40°C (-40°F) and 150°C (302°F) without loss of load capacity
- Correctly swaged rope terminals reach a minimum of 90% of the minimum breaking load acc. to EN 13411-8 based on the indications in this catalogue.
- These rope terminals are not recommended for lang's lay ropes and steel wire ropes with fibre core.



Nominal size	Rope Ø		Dimensions after swage in mm									Weight in kg/pce	Item no. fork terminal
	min	max	A*	D	E	F	H	L	M	O	Y		
1/4	5.8	6.7	10.7	17.5	38.1	127.2	60.5	108.1	7.9	17.5	34.9	0.3	20201400015012
5/16	6.8	8.3	16.6	20.6	44.5	168.5	90.7	144.6	10.3	20.6	41.3	0.6	20201400015013
3/8	8.4	10.0	16.6	20.6	44.5	168.5	90.7	144.6	10.3	20.6	41.3	0.5	20201400015014
7/16	10.1	11.7	21.3	25.4	50.8	211.4	121.0	182.9	12.7	25.4	50.8	1.1	20201400015015
1/2	11.8	13.3	21.3	25.4	50.8	211.4	121.0	182.9	12.7	25.4	50.8	1.1	20201400015016
9/16	13.4	15.0	27.0	30.2	57.2	259.1	151.1	222.6	15.9	31.8	63.5	2.2	20201400015017
5/8	15.1	16.7	27.0	30.2	57.2	259.1	151.1	222.6	15.9	31.8	63.5	2.0	20201400015018
3/4	16.8	19.8	33.4	35.1	69.9	316.3	181.3	273.4	19.1	38.1	76.2	3.5	20201400015019
7/8	19.9	23.3	36.3	41.4	82.6	368.8	211.6	318.0	23.8	44.5	85.7	5.4	20201400015020
1	23.4	26.6	42.4	50.8	95.3	422.8	241.8	365.6	26.2	50.8	101.6	8.1	20201400015021
1 1/8	26.7	29.8	48.4	57.2	108.0	473.6	272.0	410.1	30.2	57.2	114.3	13.1	20201400015022

\* Width across flats: tolerance nominal size 1/4-7/8: +0.4 / -0 mm

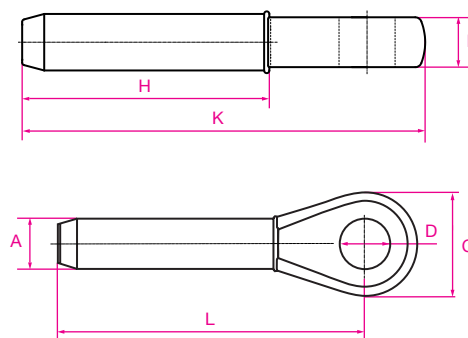
\* Width across flats: tolerance nominal size 1-1 1/8: +0.6 / -0 mm

### Eye Terminal acc. to EN 13411-8

- Terminals forged from special steel
- Soft-annealed and ideal for cold forming due to fine grain structure
- Hexagonal swage
- Bright surface

#### Important note:

- Rope terminals can be used within a temperature range of -40°C (-40°F) and 150°C (302°F) without loss of load capacity
- Correctly swaged rope terminals reach a minimum of 90% of the minimum breaking load acc. to EN 13411-8 based on the indications in this catalogue.
- These rope terminals are not recommended for lang's lay ropes and steel wire ropes with fibre core.



Nominal size	Rope Ø		Dimensions after swage in mm							Weight in kg/pce	Item no. eye terminal
	min	max	A*	C	D	E	H	K	L		
1/4	5.8	6.7	10.7	38.1	19.1	12.7	60.5	117.6	95.4	0.2	20201400015023
5/16	6.8	8.3	16.6	42.9	22.2	17.5	90.7	149.4	124.0	0.3	20201400015024
3/8	8.4	10.0	16.6	42.9	22.2	17.5	90.7	149.4	124.0	0.3	20201400015025
7/16	10.1	11.7	21.3	50.8	27.0	22.2	121.0	189.2	159.1	0.7	20201400015026
1/2	11.8	13.3	21.3	50.8	27.0	22.4	121.0	189.2	159.1	0.6	20201400015027
9/16	13.4	15.0	27.0	63.5	31.8	28.6	151.1	238.5	200.4	1.3	20201400015028
5/8	15.1	16.7	27.0	63.5	31.8	28.6	151.1	238.5	200.4	1.3	20201400015029
3/4	16.8	19.8	33.4	76.2	36.5	33.3	181.3	282.9	238.5	2.3	20201400015030
7/8	19.9	23.3	36.3	88.9	42.9	38.1	211.6	330.7	279.9	3.4	20201400015031
1	23.4	26.6	42.4	101.6	52.4	44.5	241.8	375.2	318.0	5.1	20201400015032
1 1/8	26.7	29.8	48.4	114.3	58.8	50.8	272.0	416.5	353.0	7.3	20201400015033

\* Width across flats: tolerance nominal size 1/4-7/8: +0.4 / -0 mm

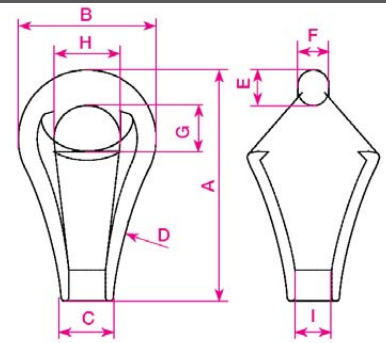
\* Width across flats: tolerance nominal size 1-1 1/8: +0.6 / -0 mm

## NEMAG Rope Pear Socket

The Nemag rope pear socket is a rope termination that has been specially developed for use with steel wire ropes. Use of the Nemag rope pear socket guarantees for the best possible connection with other ropes or chains – especially in combination with the Nemag quick release link. The Nemag rope pear socket is manufactured from high-grade austenitic manganese steel and generally lasts longer than the wire rope itself. The austenitic manganese steel combines great toughness and high wear resistance.

## NEMAG Rope Pear Socket

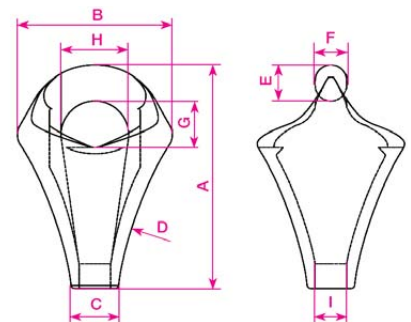
- Minimum breaking loads from 10,000 up to 240,000 kg
- Load capacities from 1,500 up to 42,500 kg (for use with grabs)
- Extremely robust design
- High-grade, wear-resistant cast steel
- Ideal fit, also suitable to run over pulleys or rope sheaves
- Reusable
- Easy handling, high safety and reliability and long useful life



Nominal size	Load capacity in kg	Minimum breaking load in kg	Rope Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H	I		
2	2000	14000	12-13	95	56	25	195	15.5	13.5	22	25	14	0.5	20201600015001
3	2500	17500	14-15	109	64	28	220	17.5	15.5	24	29	16	0.6	20201600015002
4	3000	22500	16-17	123	70	31	220	19.5	17.5	26	31	18	0.9	20201600015003
5	4500	27500	18-19	135	84	33	245	21	19	30	42	20	1.3	20201600015004
6	5000	35000	20-21	152	84	36	310	23	21	33	38	23	1.7	20201600015005
7	7000	42500	22-24	166	100	40	310	26	23	37	48	26	2.3	20201600015006
8	8000	52500	25-27	186	100	43	350	28	25	39	44	29	3.2	20201600015007
9	11000	70000	28-30	202	120	45	350	31	27	40	58	32	4.1	20201600015008
10	13000	85000	31-33	222	120	52	445	32	28.5	45	56	37	5.2	20201600015009
11	15000	95000	34-36	239	142	55	445	36	31.5	50	70	40	6.4	20201600015010
12	17000	110000	37-39	264	142	60	495	39	34.5	51	64	41	7.9	20201600015011
13	21000	125000	40-42	285	166	63	555	43	36.5	59	80	44	9.5	20201600015012
14	26000	155000	43-45	312	166	68	595	47	40	62	72	48	11.2	20201600015013
15	30000	180000	46-48	337	170	75	595	51	44	66	68	53	13	20201600015014
17	42500	240000	52-56	400	220	84	880	60	54	75	90	59	23	20201600015015

## NEMAG Rope Pear Socket Type S

- Specially suitable for compacted steel wire ropes
- Minimum breaking loads from 70,000 up to 215,000 kg
- Load capacities from 11,000 up to 36,000 kg (for use with grabs)
- Extremely robust design
- High-grade, wear-resistant cast steel
- Ideal fit, also suitable to run over pulleys or rope sheaves
- Reusable
- Easy handling, high safety and reliability and long useful life

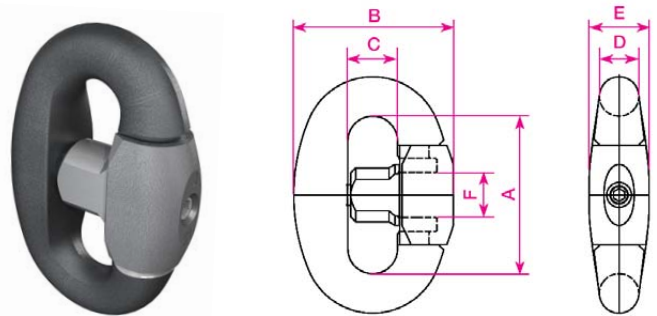


Nominal size	Load capacity in kg	Minimum breaking load in kg	Rope Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H	I		
924	11000	7000	22-24	192	133	40	325	31	27	40	58	27	4	20201600015016
1026	13000	85000	25-27	212	143	43	375	35	30.5	43	60	30	5	20201600015017
1130	15000	95000	28-30	239	156	45	400	36	31.5	50	70	33	7	20201600015018
1232	17000	110000	31-33	249	165	52	450	39	34.5	57	72	36	8.5	20201600015019
1336	21000	125000	34-36	285	184	62	450	43	36.5	60	80	40	9.5	20201600015020
1440	26000	155000	37-40	297	192	60	475	47	40	62	80	44	12	20201600015021
3221	32500	189000	42-44	314	204	66	425	53	46	70	80	47	13.5	20201600015022
1548	30000	180000	46-48	329	192	67	575	51	44	66	80	52	12.5	20201600015023
1648	36000	215000	46-48	343	218	70	500	56	50	75	80	52	18	20201600015024

## NEMAG Quick Release Link

The Nemag quick release link has been developed for quick and efficient coupling and uncoupling of grabs on cranes. Since many years the Nemag quick release link is also used in other applications, especially where loads have to be frequently coupled or uncoupled using steel wire ropes or chains. The Nemag quick release link consists of a C-section and a locking piece which are both manufactured from special steel. To increase useful life, the contact surfaces of the C-section have been specially hardened. The sealed locking piece is well protected against damage and dirt.

- Minimum breaking loads from 25,000 up to 260,000 kg
- Load capacities from 3,000 up to 42,500 kg (for use with grabs)
- C-section forged from high-grade steel with a tensile strength of 1,000-1,100 N/mm<sup>2</sup>
- Locking piece forged from high-grade steel with a tensile strength of 800-1,000 N/mm<sup>2</sup>
- Locking piece with safety lock
- Contact surfaces are specially hardened
- Safe locking mechanism, no accidental loosening during operation is possible
- Mounted in seconds
- Grab exchange possible within 10 minutes by just 1 person
- Also suitable as chain connecting link
- C-sections and locking pieces are interchangeable
- Individual test certificate for each quick release link

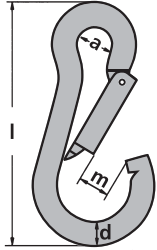


Nominal size	Load capacity in kg	Minimum breaking load in kg	Dimensions in mm						Weight in kg/pce	Item no.
			A	B	C	D	E	F		
4	3000	25000	76	76	24.5	19	30	21	0.9	20201600015025
5	4500	33000	84	84	27	21	32.5	23	1.2	20201600015026
6	5000	37500	92	92	29.5	23	35	25	1.5	20201600015027
7	7000	49000	100	100	32	25	38	28	2.0	20201600015028
8	8000	54000	108	108	34.5	27	40.5	31	2.5	20201600015029
9	9500	60000	116	116	37	29	43.5	34	3.1	20201600015030
10	12000	75000	128	128	40.5	32	48	37	4.4	20201600015031
11	15000	95000	140	140	44	35	53	40	5.7	20201600015032
12	17000	110000	152	152	47.5	38	57	43	7.2	20201600015033
13	21000	135000	164	164	51	41	61.5	46	8.7	20201600015034
14	26000	160000	176	173	54	44	66	50	11	20201600015035
15	30000	175000	188	188	58	47	70.5	52	13.5	20201600015036
17	42500	260000	222	222	68	56	84	62	23	20201600015037



### Firefighting Snap Hook\*

Similar DIN 5299, Form C  
Surface: galvanised



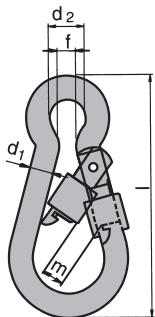
Load capacity in kg	Dimensions in mm			Weight in kg/100 pcs	Item no.
	l x d Ø	a	m		
100	40 x 4	6	7	1.10	25302010015001
120	50 x 5	8	7	1.90	25302010015002
120	60 x 6	9	8	2.70	25302010015003
180	70 x 7	10	8	4.40	25302010015004
230	80 x 8	10	10	6.50	25302010015005
250	90 x 9	12	10	8.80	25302010015006
350	100 x 10	15	11	12.70	25302010015007
450	120 x 11	18	16	18.00	25302010015008
510	140 x 12	20	19	26.00	25302010015009
600	160 x 13	22	23	35.00	25302010015010
650	180 x 14	22	33	48.00	25302010015011



**\*These snap hooks must not be used for lifting purposes.**

### Firefighting Snap Hook with Safety Screw\*

Surface: galvanised



Load capacity in kg	Nominal size	Dimensions in mm					Weight in kg/100 pcs	Item no.
		d1	d2	f	l	m		
120	60 x 6	6	9	5	60	8	2.90	25302010015012
180	70 x 7	7	10	8	70	8	4.60	25302010015013
230	80 x 8	8	12	8	80	10	6.90	25302010015014
250	90 x 9	9	12	9	90	10	9.70	25302010015015
350	100 x 10	10	15	10	100	11	13.40	25302010015016
450	120 x 11	11	18	11	120	16	19.00	25302010015017
510	140 x 12	12	20	14	140	19	26.50	25302010015018



**\*These snap hooks must not be used for lifting purposes.**

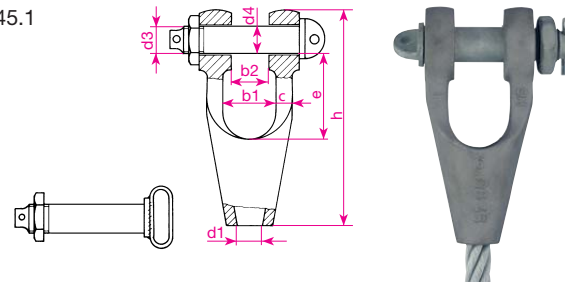


### Open Spelter Socket Form B acc. to DIN 83313 without Bolt

Material: GS-45.1  
Finish: natural

### Open Spelter Socket Form C acc. to DIN 83313 with Bolt, Nut, and Pin

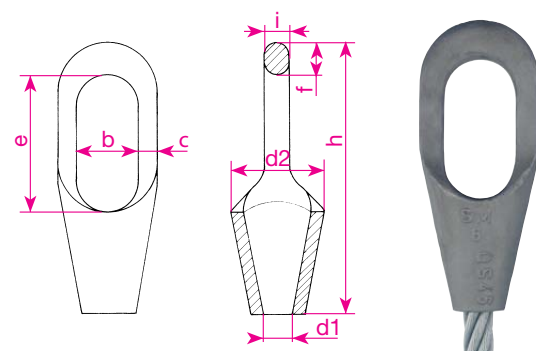
Material: GS-45.1  
Finish: natural



Load cap. in kg	Nominal size	For rope Ø in mm	Dimensions in mm							Weight in kg		Item no. Form B	Item no. Form C
			b1	b2	c	d3	d4	e	h	Form B	Form C		
1600	1.6	12-14	37	27	12	M20	20	55	147	0.9	1.1	20201800015001	20201800015091
2500	2.5	14-18	45	33	14	M24	24	67	175	1.4	1.8	20201800015002	20201800015092
3150	3.0	16-20	50	38	16	M27	27	73	195	1.8	2.4	20201800015003	20201800015093
4000	4.0	18-22	54	42	18	M30	30	81	212	2.4	3.2	20201800015004	20201800015094
5000	5.0	20-24	60	47	20	M36	36	88	237	3.7	5	20201800015005	20201800015095
6300	6.0	22-28	67	53	23	M39	39	94	262	5.0	6.7	20201800015006	20201800015096
8000	8.0	26-30	73	60	26	M45	45	104	289	7.0	9.5	20201800015007	20201800015097
10000	10.0	28-34	80	66	29	M48	48	116	320	10.0	13	20201800015008	20201800015098
12500	12.0	32-38	89	73	32	M52	52	130	356	13.0	17	20201800015009	20201800015099
16000	16.0	36-44	100	81	35	M60	60	143	397	18.0	24	20201800015010	20201800015100
20000	20.0	40-50	110	90	40	M68	68	157	435	23.0	31	20201800015011	20201800015101
25000	25.0	44-54	120	100	43	M72x6	72	179	480	31.0	41	20201800015012	20201800015102
31500	32.0	50-62	132	110	48	M80x6	80	191	525	42.0	55	20201800015013	20201800015103
40000	40.0	58-72	150	125	54	M90x6	90	218	595	60.0	80	20201800015014	20201800015104
50000	50.0	61-76	165	140	60	M100x6	100	238	655	80.0	105	20201800015015	20201800015105

### Closed Spelter Socket Form A acc. to DIN 83313

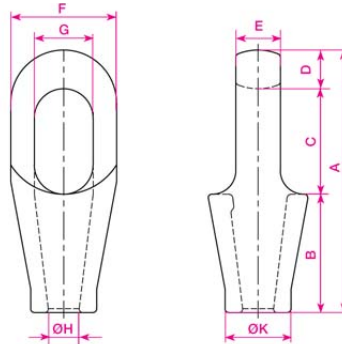
Form A  
Material: GS-45.1  
Finish: natural



Load cap. in kg	Nominal size	For rope Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
			b	c	d1	d2	e	f	h	l		
1600	1.6	12-14	37	12	17	55	76	19	155	15	0.7	20201800015016
2500	2.5	14-18	45	14	20	62	89	24	182	19	1.2	20201800015017
3150	3.0	16-20	50	16	22	69	98	26	202	21	1.5	20201800015018
4000	4.0	18-22	54	18	24	76	106	30	220	24	2.0	20201800015019
5000	5.0	20-24	60	20	27	85	117	34	245	27	3.1	20201800015020
6300	6.0	22-28	67	23	30	94	131	38	275	30	4.2	20201800015021
8000	8.0	26-30	73	26	33	103	143	42	300	33	5.8	20201800015022
10000	10.0	28-34	80	29	36	112	160	45	330	36	8.0	20201800015023
12500	12.0	32-38	89	32	40	125	179	51	370	41	11.0	20201800015024
16000	16.0	36-44	100	35	45	140	200	56	415	46	15.0	20201800015025
20000	20.0	40-50	110	40	50	156	224	62	460	50	20.0	20201800015026
25000	25.0	44-54	120	43	55	173	246	69	505	55	27.0	20201800015027
31500	32.0	50-62	132	48	60	188	270	76	555	61	35.0	20201800015028
40000	40.0	58-72	150	54	68	212	308	85	630	68	50.0	20201800015029
50000	50.0	62-76	165	60	75	235	339	94	695	75	67.0	20201800015030

### Closed Spelter Socket

Closed spelter socket, galvanised  
For rope Ø 6 to 102 mm



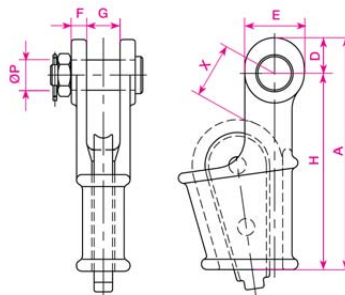
Type	Min. breaking load in kg	For rope Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	ØH	ØK		
CSS296	8000	6-7	102	46	45	11	14	38	22	10	20	0.3	20201800015031
CSS297	12000	8-10	120	54	52	14	17.5	44	24	13.5	26	0.5	20201800015032
CSS298	20000	11-13	140	64	59	17	23	53	30	15	30	0.7	20201800015033
CSS299	25000	14-16	162	76	65	21	26	64	36	18.5	38.5	1.3	20201800015034
CSS200	40000	18-19	194	89	78	27	32	75	42	22.5	46	2.1	20201800015035
CSS201	55000	20-22	224	101	90	33	38	90	50	26.8	55	3.6	20201800015036
CSS204	80000	23-26	253	114	103	36	45	101	57	29.5	62	5.1	20201800015037
CSS207	100000	27-30	282	127	116	39	51	114	65	34	70	7	20201800015038
CSS212	130000	31-36	312	139	130	43	57	127	71	40	83	10.4	20201800015039
CSS215	160000	37-39	358	152	155	51	63	140	80	44.5	90	15	20201800015040
CSS217	200000	40-42	390	165	171	54	70	148	84	48	97	18.5	20201800015041
CSS219	250000	43-48	443	190	198	55	76	171	95	53	112	27.5	20201800015042
CSS222	300000	49-54	502	216	224	62	82	193	111	58.5	125	39.5	20201800015043
CSS224	375000	55-60	550	229	248	73	92	219	125	68.5	135	51	20201800015044
CSS226	450000	61-68	597	248	270	79	102	241	140	77.5	150	67	20201800015045
CSS227	500000	69-75	644	279	286	79	124	273	159	83	160	96	20201800015046
CSS228	600000	76-80	689	305	298	86	133	292	171	89	170	118	20201800015047
CSS229	650000	81-86	736	330	311	95	146	311	184	95	180	142	20201800015048
CSS230	750000	87-93	788	356	330	102	159	330	197	99	200	175	20201800015049
CSS231	900000	94-102	845	381	356	108	178	362	216	110	215	230	20201800015050

### Wedge Socket

Wedge socket, galvanised for rope Ø  
from 7 to 76 mm

Available with:

- Bolt and pin
- Bolt, nut, and pin



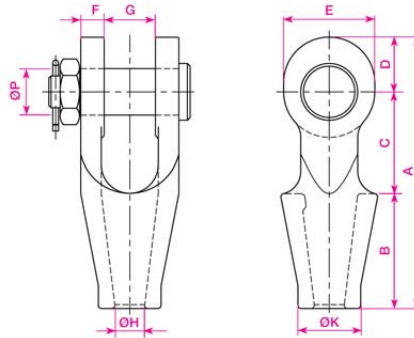
Type	Min. breaking load in kg	For rope Ø in mm	Dimensions in mm								Weight in kg/pce	Item no. with bolt and pin	Item no. with bolt, nut and pin
			A	D	E	F	G	H	ØP	X			
OWS025	8000	7-8	130	20	34	9	18	110	17.5	40	0.7	20202600015065	20202600015052
OWS0.5	12000	9-10	150	23	40	11	20.5	125	20.6	45	1.2	20202600015040	20202600015053
OWS1	20000	11-13	183	27	48	12.7	25.6	156	25.4	60	2.3	20202600015041	20202600015054
OWS2	25000	14-16	224	32	56	14.5	32	192	30	65	3.6	20202600015042	20202600015055
OWS3	40000	17-19	272	40	70	16.5	38	232	35	70	6.3	20202600015043	20202600015056
OWS4	55000	20-22	312	48	80	20.5	45	264	41	80	10.3	20202600015044	20202600015057
OWS5	80000	23-26	370	58	100	22.5	51	312	51	90	16	20202600015045	20202600015058
OWS6	100000	27-29	413	65	110	25	57	348	57	100	21.5	20202600015046	20202600015059
OWS7	120000	30-32	455	71	122	28	63	384	63	110	30	20202600015047	20202600015060
OWS8	130000	34-36	508	76	132	28	70	432	63	125	36	20202600015048	20202600015061
OWS9	160000	37-39	548	80	140	30	76	468	70	140	50	20202600015049	20202600015062
OWS10	200000	40-42	589	85	150	33	76	504	76	155	60	20202600015050	20202600015063
OWS11	250000	43-48	674	98	170	39	89	576	89	175	90	20202600015051	20202600015064

### Open Spelter Socket

Open spelter socket,  
galvanised for rope  $\varnothing$  6 to 102 mm

Available with:

- Bolt and pin
- Bolt, nut, and pin



Type	Min. breaking load in kg	For rope $\varnothing$ in mm	Dimensions in mm										Weight in kg/pce	Item no. with bolt and pin	Item no. with bolt, nut and pin
			A	B	C	D	E	F	G	ØH	ØK	ØP			
OSS196	8000	6-7	105	46	40	19	34	9	18	10	20	17.5	0.4	20201800015051	20201800015071
OSS197	12000	8-10	122	57	45	23	40	11.2	20.6	13.5	26	20.6	0.8	20201800015052	20201800015072
OSS198	20000	11-13	142	64	51	27	48	12.7	25.6	15	30	25.4	1.1	20201800015053	20201800015073
OSS199	25000	14-16	171	76	63	32	56	14.5	32	18.5	38.5	30	1.9	20201800015054	20201800015074
OSS100	40000	18-19	205	89	76	40	68	16.5	38	22.5	46	35	3.2	20201800015055	20201800015075
OSS104	55000	20-22	238	101	89	48	80	20.5	45	26.8	55	41	5.3	20201800015056	20201800015076
OSS108	80000	23-26	273	114	101	58	98	22.5	51	29.5	62	51	8.4	20201800015057	20201800015077
OSS111	100000	27-30	306	127	114	65	110	25	57	34	70	57	11.3	20201800015058	20201800015078
OSS115	130000	31-36	337	139	127	71	122	28	63	40	83	63	16	20201800015059	20201800015079
OSS118	160000	37-39	394	152	162	80	140	30	76	44.5	90	70	23	20201800015060	20201800015080
OSS120	200000	40-42	415	165	165	85	148	33.5	76	48	97	76	29	20201800015061	20201800015081
OSS125	250000	43-48	467	191	178	98	170	39	89	53	112	89	43	20201800015062	20201800015082
OSS128	300000	49-54	552	216	228	108	186	46	101	58.5	125	195	64	20201800015063	20201800015083
OSS130	375000	55-60	603	229	254	120	210	53	113	68.5	135	108	86	20201800015064	20201800015084
OSS132	450000	61-68	554	248	273	133	230	60	127	77.5	150	121	118	20201800015065	20201800015085
OSS135	500000	69-75	696	279	279	138	240	73	133	83	160	127	160	20201800015066	20201800015086
OSS138	600000	76-80	736	305	286	145	250	76	146	89	170	133	186	20201800015067	20201800015087
OSS140	650000	81-86	790	330	300	160	275	79	159	95	180	140	225	20201800015068	20201800015088
OSS142	750000	87-93	849	356	318	175	300	82	172	99	200	152	280	20201800015069	20201800015089
OSS144	900000	94-102	922	381	343	198	336	89	191	110	215	178	375	20201800015070	20201800015090

### Wedge Socket acc. to DIN 43148 / DIN EN 13411-6

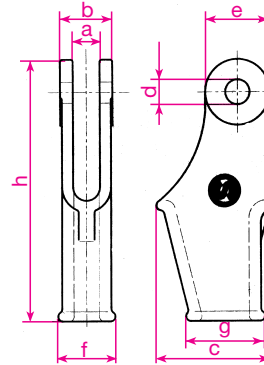
Finish: hot-dip galvanised

Suitable for passenger transportation

The eye screw strength must be tailored to the strength of the rope that is used.

Nominal size/rope Ø 2 - 15 mm acc. to DIN 43148  
(not suitable for forestry use)

Nominal size/rope Ø 16 - 26 mm acc. to DIN EN 13411-6



Load capacity in kg	Nominal size Rope Ø in mm	Dimensions in mm								Weight in kg	Item no.
		a	b	c	d	e	f	g	h		
50	2-3*	8	15	27	7.5	16	13	16.5	66	0.08	20202600015002
250	4-5*	12	23	37	12	31	23	27.5	108	0.36	20202600015003
500	6-7	14	26	61.5	14	35	30	39	150	0.75	20202600015004
500	8	14	26	61.5	14	35	30	39	150	0.69	20202600015001
500	9-12	14	26	61.5	14	35	30	39	150	0.65	20202600015005
1000	10-12	17	31	66	17	37	32	47	163	0.82	20202600015006
1000	12-14	17	31	66	17	37	32	47	163	0.78	20202600015007
2500	12-15*	20	40	99	20	54	44	65	220	2.56	20202600015008
5500	16-17	24	52	138	25	76	54	89	275	6.30	20202600015009
5500	18	24	52	138	25	76	54	89	275	6.30	20202600015010
8000	19-20	29	63	138	25	77	67	97	276	7.50	20202600015011
10000	21	30	66	175	33.5	80	69	124	370	12.90	20202600015012
10000	22-25	30	66	175	33.5	80	69	124	370	12.90	20202600015013
12000	26-32	38	92	200	48.5	112	78	135	486	27.00	20202600015014

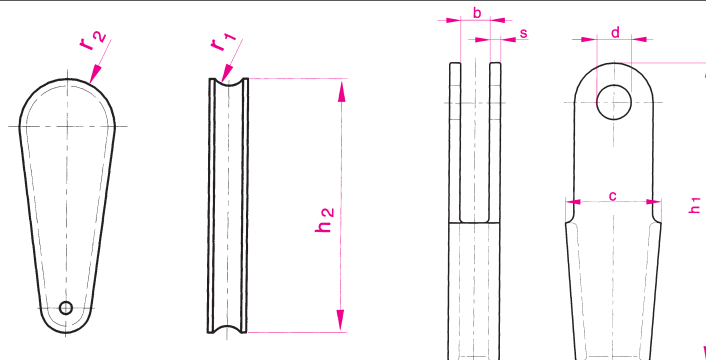
\* off standard

### Wedge Socket acc. to DIN EN 13411-7

Finish: galvanised

Suitable for passenger transportation

The eye screw strength must be tailored to the strength of the rope that is used.



Rope Ø in mm	b	c	d	Dimensions in mm					Weight in kg/pce	Item no.
				h1	s	r1	r2	h2		
4-5	12	33	10	110	3	2.5	9.5	68	0.17	20202600015015
5-6.5	10	35	10	100	4	3.25	9	58	0.21	20202600015016
6-8	14	45	12	150	4	4	12.5	92	0.50	20202600015017
9-11	17	60	16	190	6	5.5	16	117	1.04	20202600015018
12-14	22	78	18	230	8	7	19	141	2.07	20202600015019
15-17	25	92	22	260	10	8.5	23	162	3.66	20202600015020
18-20	27	106	25	300	12	10	26	186	5.35	20202600015021
21-25*	32	108	42.5	284	12	13	30	182	6.22	20202600015022
26-30**	38	127	52	335	14	15	30	180	10.10	20202600015023
31-35**	44	174	55	390	27	18	34	203	23.64	20202600015024
36-40**	50	189	60	460	29	21	35	227	33.22	20202600015025

\*cast version similar DIN EN 13411-7

\*\*similar DIN EN 13411-7, must only be used for minor requirements



**Wedge sockets acc. to DIN EN 13411-7 are not suitable for ropes with higher tensile strength than 1,770 N/mm².**

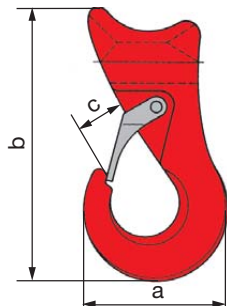


### Choker Hook

Material: grade 8  
Finish: painted red  
Safety factor 2:1

Option:  
Choker hook w/o safety latch

Max. pulling force in dN	Nominal size	For rope Ø in mm	Dimensions in mm			Weight in kg/pce	Item no.
			a	b	c		
4000	1.25	9-13	70	128	16	0.7	20202800015005
6300	2.00	14-16	80	147	21.5	1.0	20202800015006
8000	3.00	17-19	103	174	30	1.8	20202800015007
10000	5.00	20-26	133	210	40	3.4	20202800015008

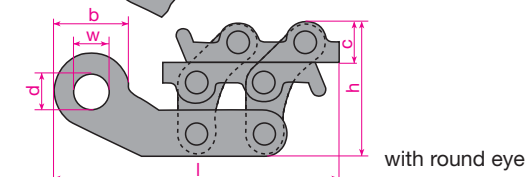
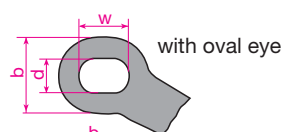


**Not for lifting - horizontal pulling only!**  
Indicated max. pulling force (in dN) for horizontal pull only.

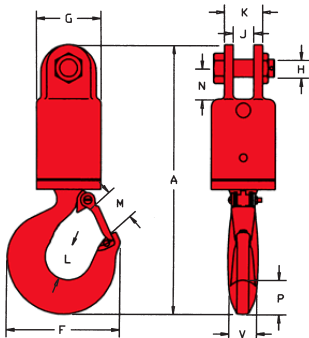
### Rope Tensioning Clamp for Wire Ropes

Forged steel, galvanised version  
Nominal size 4-10 with round eye  
Nominal size 16-38 with oval eye

Rope Ø in mm	Eye type	Nominal size	WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
				b	c	d	h	l	w		
1-4	round	4	0.5	36	16	19	52	126	19	0.25	20203000015001
3-8	round	8	1.0	38	24	22	76	166	21	0.85	20203000015002
5-10	round	10	1.7	44	26	27	84	202	27	1.10	20203000015003
8-16	oval	16	3.0	54	24	29	83	250	38	1.80	20203000015004
12-26	oval	26	3.5	62	34	29	108	275	38	3.50	20203000015005
20-38	oval	38	4.0	62	35	29	120	300	38	6.50	20203000015006



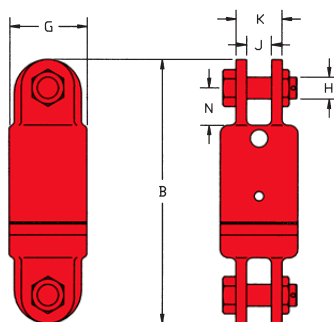
### Swivel with Jaw and Hook



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		F	G	H	J	K	L	M	N	P	V		
3	13	125	70	19.1	22.4	41.2	35.1	34.0	33.3	36.6	28.5	4.31	20202000015001
5	16	165	76	22.4	25.4	57.0	45.2	42.9	41.2	46.0	35.1	7.48	20202000015002
8.5	19	192	102	25.4	39.6	71.5	54.0	52.5	54.0	57.0	41.2	15.20	20202000015003
10	22	221	114	38.1	44.5	86.0	65.0	57.0	89.0	66.0	49.3	21.21	20202000015004
15	26	279	127	38.1	44.5	86.0	73.0	76.0	89.0	76.0	60.5	33.45	20202000015005
25	-	346	152	51.0	51.0	117	87.5	92.0	94.0	93.0	76.0	63.50	20202000015006
35	-	357	165	51.0	51.0	117	98.5	95.5	94.0	116	81.0	99.79	20202000015007
45	-	392	178	57.0	63.5	127	121	108	102	129	82.5	113.40	20202000015008

\*Individually proof tested to twice the working load limit.  
Minimum breaking load is 5 times the working load limit.

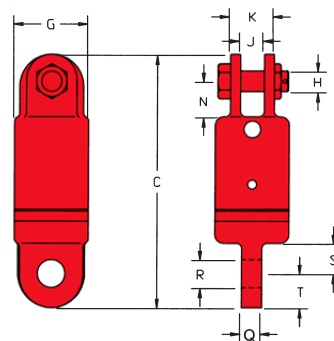
### Swivel with 2 Jaws



Load cap.* in t	Rope Ø in mm	Dimensions in mm						Weight in kg/pce	Item no.
		D	G	Q	R	S	T		
3	13	239	70	19.1	26.2	28.5	31.8	4.20	20202000015009
5	16	249	76	25.4	32.5	31.8	31.8	6.46	20202000015010
8.5	19	302	102	31.8	35.8	41.2	38.1	13.27	20202000015011
10	22	394	114	42.9	42.9	70.0	47.8	20.75	20202000015012
15	26	416	127	49.3	51.5	70.0	54.0	33.45	20202000015013
25	-	565	152	57.0	58.5	98.5	60.5	63.50	20202000015014
35	-	556	165	57.0	58.5	98.5	60.5	70.31	20202000015015
45	-	673	178	63.5	64.5	102	76.0	106.59	20202000015016

\*Individually proof tested to twice the working load limit.  
Minimum breaking load is 5 times the working load limit.

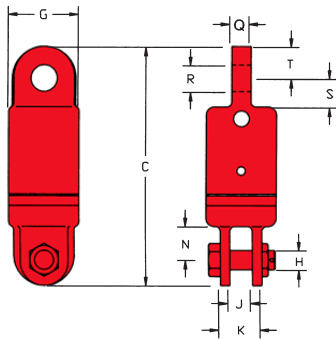
### Swivel with Jaw and Eye



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		G	H	J	K	N	Q	R	S	T			
3	13	70	19.1	22.4	41.2	33.3	19.1	26.2	28.5	31.8	4.08	20202000015017	
5	16	76	22.4	25.4	57.0	41.2	25.4	32.5	31.8	31.8	6.12	20202000015018	
8.5	19	102	25.4	39.6	71.5	54.0	31.8	35.8	41.2	38.1	13.27	20202000015019	
10	22	114	38.1	44.5	86.0	89.0	42.9	42.9	70.0	47.8	19.73	20202000015020	
15	26	127	38.1	44.5	86.0	89.0	49.3	51.5	70.0	54.0	28.46	20202000015021	
25	-	152	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	61.23	20202000015022	
35	-	165	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	68.04	20202000015023	
45	-	178	57.0	63.5	127	102	63.5	64.5	102	76.0	102.06	20202000015024	

\*Individually proof tested to twice the working load limit.  
Minimum breaking load is 5 times the working load limit.

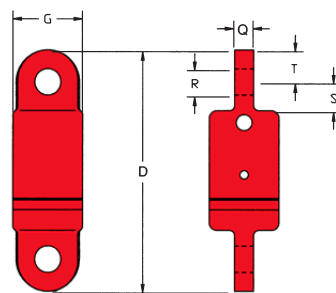
### Swivel with Eye and Jaw



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		C	G	H	J	K	N	Q	R	S	T		
3	13	237	70	19.1	22.4	41.2	33.3	19.1	26.2	28.5	31.8	4.08	20202000015025
5	16	256	76	22.4	25.4	57.0	41.2	25.4	32.5	31.8	31.8	6.24	20202000015026
8.5	19	311	102	25.4	39.6	71.5	54.0	31.8	35.8	41.2	38.1	13.15	20202000015027
10	22	409	114	38.1	44.5	86.0	89.0	42.9	42.9	70.0	47.8	19.96	20202000015028
15	26	525	127	38.1	44.5	86.0	89.0	49.3	51.5	70.0	54.0	27.67	20202000015029
25	-	546	152	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	61.23	20202000015030
35	-	546	165	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	68.04	20202000015031
45	-	657	178	57.0	63.5	127	102	63.5	64.5	102	76.0	102.06	20202000015032

\*Individually proof tested to twice the working load limit.  
Minimum breaking load is 5 times the working load limit.

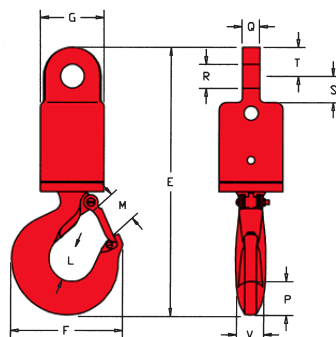
### Swivel with 2 Eyes



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		C	G	H	J	K	N	Q	R	S	T		
3	13	237	70	19.1	22.4	41.2	33.3	19.1	26.2	28.5	31.8	3.86	20202000015033
5	16	256	76	22.4	25.4	57.0	41.2	25.4	32.5	31.8	31.8	5.56	20202000015034
8.5	19	311	102	25.4	39.6	71.5	54.0	31.8	35.8	41.2	38.1	13.27	20202000015035
10	22	409	114	38.1	44.5	86.0	89.0	42.9	42.9	70.0	47.8	19.05	20202000015036
15	26	525	127	38.1	44.5	86.0	89.0	49.3	51.5	70.0	54.0	27.67	20202000015037
25	-	546	152	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	58.97	20202000015038
35	-	546	165	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	65.77	20202000015039
45	-	657	178	57.0	63.5	127	102	63.5	64.5	102	76.0	97.52	20202000015040

\*Individually proof tested to twice the working load limit.  
Minimum breaking load is 5 times the working load limit.

### Swivel with Eye and Hook



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		F	G	L	M	P	Q	R	S	T	V		
3	13	125	70	35.1	34.0	36.6	19.1	26.2	28.5	31.8	28.5	4.08	20202000015041
5	16	165	76	45.2	42.9	46.0	25.4	32.5	31.8	31.8	35.1	6.92	20202000015042
8.5	19	192	102	54.0	52.5	57.0	31.8	35.8	41.2	38.1	41.2	14.51	20202000015043
10	22	221	114	65.0	57.0	66.0	42.9	42.9	70.0	47.8	49.3	20.64	20202000015044
15	26	279	127	73.0	76.0	76.0	49.3	51.5	70.0	54.0	60.5	33.57	20202000015045
25	-	346	152	87.5	92.0	93.0	57.0	58.5	98.5	60.5	76.0	61.23	20202000015046
35	-	357	165	98.5	95.5	116	57.0	58.5	98.5	60.5	81.0	97.52	20202000015047
45	-	392	178	121	108	129	63.5	64.5	102	76.0	82.5	122.17	20202000015048

\*Individually proof tested to twice the working load limit.  
Minimum breaking load is 5 times the working load limit.

### Swivels with tapered roller thrust bearing

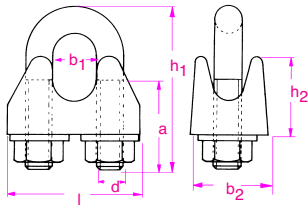
- Suitable for frequent rotation under load
- All swivels individually proof tested with certification
- All hooks furnished with latches assembled
- All jaws complete with bolts, nuts and cotter pins
- Pressure lube fitting provided
- Not to be used on demolition (wrecking) balls

# STEEL WIRE ROPES

## Accessories

### Wire Rope Clip, similar DIN EN 13411-5

Clamping jaw  
galvanised  
Bracket + nut  
yellow chromated



Nominal size Rope Ø in mm	Dimensions in mm							Weight in kg/100 pcs	Item no.
a	b1	b2	d	h1	h2	l			
5.0	13	7	13	M 5	25	13	25	2.10	20202200015009
6.5	17	8	16	M 6	32	14	30	4.00	20202200015010
8.0	20	10	20	M 8	41	18	39	8.20	20202200015011
10.0	24	12	20	M 8	46	21	40	9.20	20202200015012
12.0	24	14	24	M10	56	25	50	17.10	20202200015013
13.0	30	15	28	M 12	64	29	55	27.50	20202200015014
14.0	31	16	28	M12	66	30	59	27.70	20202200015015
16.0	35	18	32	M 14	76	35	64	43.00	20202200015016
19.0	36	22	32	M 14	83	40	68	49.00	20202200015017
22.0	40	24	34	M 16	96	44	74	68.00	20202200015018
26.0	50	26	38	M 20	118	51	84	117.00	20202200015019

**Please note:** Wire rope clips acc. to DIN EN 13411-5 are only approved for suspension of static loads or for a single lifting operation. **Available up to nominal size 40.**

### Wire Rope Clip, formerly DIN 741

Light version  
Wire rope clip for rope terminations.  
Only for secondary applications  
Surface: galvanised

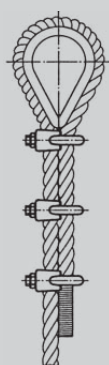


Nominal size Rope Ø in mm	Nominal size in inches	Weight kg/100 pcs	Item no.
3	1/8"	1.40	20202200015021
5	3/16"	1.50	20202200015022
6.5	1/4"	2.10	20202200015023
8	5/16"	4.10	20202200015024
9.5	3/8"	6.80	20202200015025
11	7/16"	7.20	20202200015026
13	1/2"	13.00	20202200015027
14	9/16"	13.50	20202200015028
16	5/8"	21.00	20202200015029

Available up to nominal size 50.

### Usage of wire rope clips

The first clip has to be mounted close to the thimble. The distance between the wire rope clips has to be at least 1.5-times the width of a wire rope clip. The brackets have to be on the unstressed rope end.

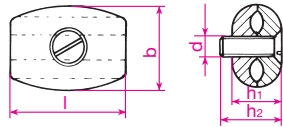


Nominal size	Tightening torque in Nm	Required number of wire rope clips
5	2	3
6.5	3.5	4
8	6	4
10	9	4
12	20	4
13	33	4
14	33	4
16	49	4
19	68	4
22	107	5
26	147	5



### Egg shaped Wire Rope Clip

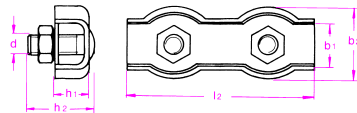
Material: malleable cast iron  
Surface: galvanised



Nominal size Rope Ø in mm	Dimensions in mm					Weight kg/100 pcs	Item no.
b	d	h1	h2	l			
2	15	M 5	11	13	28	2.20	20202200015030
3	15	M 5	12	13	28	2.30	20202200015031
4	20	M 6	14	18	34	4.00	20202200015032
5	21	M 6	15	18	34	4.00	20202200015033
6	25	M 6	15	18	35	5.00	20202200015034

### Duplex Wire Rope Clip with 2 Bolts

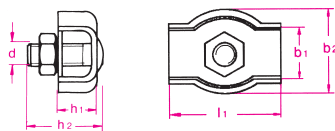
Surface: galvanised



Nominal size Rope Ø in mm	Dimensions in mm						Weight kg/100 pcs	Item no.
b1	b2	d	h1	h2	l2			
2	4	12	M 4.0	5	14	30	0.90	20202200015035
3	6	14	M 4.0	7	14	35	1.40	20202200015036
4	8	18	M 5.0	7	18	40	2.50	20202200015037
5	10	20	M 5.0	8	18	50	3.40	20202200015038
6	12	24	M 6.0	9	23	60	5.00	20202200015039
7	15	26	M 8.0	11	24	64	5.60	20202200015040
8	17	35	M 8.0	13	25	75	10.00	20202200015041
10	21	37	M 10.0	16	32	84	18.00	20202200015042

### Simplex Wire Rope Clip with 1 Bolt

Surface: galvanised



Nominal size Rope Ø in mm	Dimensions in mm						Weight kg/100 pcs	Item no.
b1	b2	d	h1	h2	l1			
2	4	12	M 4	5	14	15	0.46	20202200015043
3	6	14	M 4	7	14	17	0.72	20202200015044
4	8	18	M 5	7	18	20	1.27	20202200015045
5	10	20	M 5	8	18	25	1.46	20202200015046
6	12	24	M 6	9	23	30	2.52	20202200015047
7	15	28	M 8	11	25	32	2.80	20202200015048
8	17	35	M 8	13	25	37	5.42	20202200015049

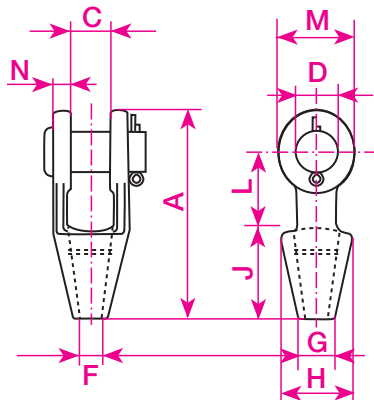
### Spelter sockets with fork type G-416

- Spelter sockets made from forged steel up to 38 mm and from alloyed cast steel from 40 to 100 mm.
- Based on the nominal breaking strength of the wire rope, spelter socket terminations have an efficiency rating of 100%. This is based on the use of the recommended wire ropes 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC. Strand made from minimum number of wires (e.g. 1 x 7). It must be ensured that the basket is five times (5 times) the strand diameter or fifty times (50 times) the wire diameter, depending on which is greater.

#### Note:

All cast steel spelter sockets from 40 mm are subjected to magnetic particle inspection and ultrasound testing. Acceptance testing possible on request.

The figure shows a groove for spelter sockets measuring 6 mm to 18 mm. There are 2 spelter sockets for sizes 20 mm to 38 mm. Sizes from 40 mm have 3 spelter sockets.



Spelter sockets with a fork fulfil the performance requirements established by RR-S-550E, type A, but with the exception of the provisions that must be fulfilled by the client.

The spelter sockets with a fork are supplied with a bolt, nut and cotter pin.

Breaking strength in t	For rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no. Uncoated version
		A	C	D	F	G	H	J	L	M	N		
4.5	6-7	116	19.1	17.5	9.65	17.5	39.6	57.0	39.6	33.3	9.1	0.50	20202400015001
12	8-10	123	20.6	20.6	12.7	20.6	42.9	57.0	44.5	38.1	11.2	0.59	20202400015002
20	11-13	141	25.4	25.4	14.2	23.9	47.8	63.5	51.0	47.8	12.7	1.02	20202400015003
27	14-16	171	31.8	30.2	17.5	28.7	57.0	76.0	63.5	57.0	14.2	1.63	20202400015004
43	18	202	38.1	35.1	20.6	31.8	66.5	89.0	76.0	66.5	15.7	2.64	20202400015005
55	20-22	235	44.5	41.4	23.9	38.1	82.5	102	89.0	79.5	20.3	4.38	20202400015006
78	24-26	268	51.0	51.0	28.7	44.5	95.5	114	102	95.5	22.4	7.03	20202400015007
92	28-30	300	57.0	57.0	31.8	51.0	105	127	117	105	25.4	9.75	20202400015008
136	32-35	335	63.5	63.5	38.1	57.0	121	140	127	121	28.7	14.1	20202400015009
170	38	384	76.0	70.0	41.4	70.0	133	152	152	137	30.2	21.4	20202400015010
188	40-42*	413	76.0	76.0	44.5	76.0	140	165	165	146	33.3	24.9	20202400015011
268	44-48*	464	89.0	89.0	51.0	79.5	162	191	178	165	39.6	37.2	20202400015012
291	50-54*	546	102	95.5	57.0	95.5	187	216	229	178	46.0	59	20202400015013
360	56-60*	597	114	108	63.5	102	210	229	254	197	54.0	76	20202400015014
424	64-67*	648	127	121	73.0	114	235	248	274	216	60.5	114	20202400015015
511	70-73*	692	133	127	79.0	124	267	279	279	229	73.0	143	20202400015016
563	75-80*	737	146	133	86.0	133	282	305	287	241	76.0	172	20202400015017
722	82-86*	784	159	140	92.0	146	302	330	300	254	79.0	197	20202400015018
779	88-92*	845	171	152	98.5	165	314	356	318	274	82.5	255	20202400015019
875	94-102*	921	191	178	108	184	346	381	343	318	89.0	355	20202400015020

\*Alloyed cast steel

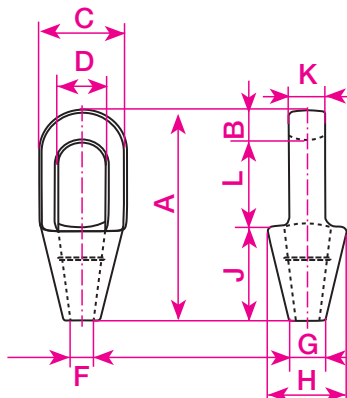
### Closed spelter sockets type G-417

- Spelter sockets made from forged steel up to 38 mm and from alloyed cast steel from 40 to 100 mm.
- Based on the nominal breaking strength of the wire rope, spelter socket terminations have an efficiency rating of 100%. This is based on the use of the recommended wire ropes 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC. Strand made from minimum number of wires (e.g. 1 x 7). It must be ensured that the basket is five times (5 times) the strand diameter or fifty times (50 times) the wire diameter, depending on which is greater.

#### Note:

All cast steel spelter sockets from 40 mm are subjected to magnetic particle inspection and ultrasound testing. Acceptance testing possible on request.

The figure shows a groove for spelter sockets measuring 6 mm to 18 mm. There are 2 spelter sockets for sizes 20 mm to 38 mm. Sizes from 40 mm have 3 spelter sockets.



Spelter sockets with an eyelet fulfil the performance requirements established by RR-S-550E, type B, but with the exception of the provisions that must be fulfilled by the client.

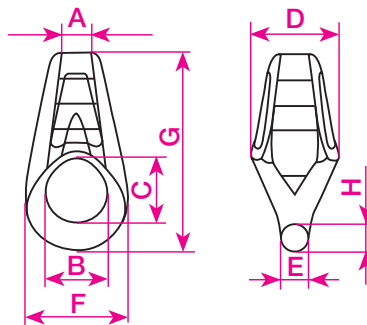
Breaking strength in t	For rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no. Uncoated version
		A	B	C	D**	F	G	H	J	K	L		
4.50	6-7	116	12.7	39.6	22.4	9.65	17.5	39.6	57.2	12.7	46.0	0.23	20202400015021
12.0	8-10	125	15.8	42.9	24.6	12.7	20.6	42.9	57.2	17.5	52.3	0.34	20202400015022
20.0	11-13	140	17.5	51.0	29.5	14.2	23.9	51.0	63.5	22.4	58.7	0.68	20202400015023
30.8	14-16	162	20.6	67.0	35.8	17.5	30.2	67.0	76.2	25.4	65.0	1.13	20202400015024
43.5	18	194	26.9	76.2	42.2	22.4	33.3	70.0	89.0	31.8	77.7	1.92	20202400015025
65.3	20-22	226	33.3	92.0	49.3	25.4	38.1	82.5	102	38.1	90.5	3.28	20202400015026
81.6	24-26	254	36.6	105	58.5	28.7	44.5	95.5	114	44.5	103	4.76	20202400015027
100	28-30	283	39.6	114	65.0	31.8	51.0	105	127	51.0	116	6.46	20202400015028
136	32-35	309	41.4	127	71.0	38.1	58.5	119	138	56.5	129	8.95	20202400015029
170	38	355	49.3	137	81.0	41.4	70.5	132	151	62.5	155	13.24	20202400015030
188	40-42*	390	54.0	146	82.5	44.5	76.2	140	165	70.0	171	16.32	20202400015031
268	44-48*	445	55.5	171	95.5	51.0	79.5	162	191	76.2	198	25.96	20202400015032
309	50-54*	505	62.0	194	111	57.2	95.5	187	216	82.5	224	35.83	20202400015033
360	56-60*	546	70.0	216	127	66.8	105	210	229	92.0	248	47.62	20202400015034
424	64-67*	597	79.5	241	140	74.5	114	235	248	102	270	63.50	20202400015035
549	70-73*	645	79.5	273	159	79.5	124	259	279	124	286	99.79	20202400015036
656	75-80*	689	85.6	292	171	86.0	133	292	305	133	298	125	20202400015037
750	82-86*	743	102	311	184	92.0	146	311	330	146	311	142	20202400015038
820	88-92*	787	102	330	197	98.5	160	330	356	159	330	181	20202400015039
1005	94-102*	845	108	362	216	108	184	362	381	178	356	246	20202400015040

\*Alloyed cast steel

\*\*The bolt must not be larger than that on the spelter socket with a fork. See dimension specifications in column 'D', Diameter.

### Mooring spelter sockets type G-517 'M-Line'

- Available in several sizes: Wire rope diameter 32 to 102 mm.
- Based on the nominal breaking strength of the wire rope, 'M-Line' spelter sockets have an efficiency rating of 100%. This is based on the use of the recommended wire ropes 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC. Strand made from minimum number of wires (e.g. 1 x 7). It must be ensured that the basket is five times (5 times) the strand diameter or fifty times (50 times) the wire diameter, depending on which is greater.
- Galvanised finish
- Developed for modern, high-strength wire ropes
- Eyelet shape for easy connection with shackles and other connecting links
- Socket design prevents the cone from rotating



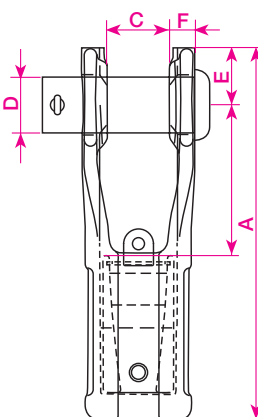
#### Note:

All mooring spelter sockets made from cast steel are individually subjected to magnetic particle inspection and ultrasound testing.

Breaking strength in t	For rope Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H		
113	32-35	41.4	78.5	92.2	113	36.6	130	277	38.9	7.7	20202400015041
136	38-41	49.5	93.7	110	138	40.6	160	330	46.0	13.6	20202400015042
181	44-48	56.6	106	115	160	46.7	183	358	53.1	19.5	20202400015043
227	50-54	63.5	121	134	178	53.1	210	407	56.9	25.9	20202400015044
277	57-60	70.6	133	146	196	58.7	233	455	66.6	34.5	20202400015045
363	64-67	77.5	149	170	217	68.3	257	505	67.6	48.1	20202400015046
454	70-73	84.6	165	181	237	76.2	282	549	63.0	62.6	20202400015047
544	76-79	89.9	184	197	262	82.6	313	597	82.3	87.5	20202400015048
635	82-86	96.8	194	224	278	88.9	334	654	87.1	104	20202400015049
735	88-92	105	203	230	298	93.7	355	703	105	127	20202400015050

### Button spelter sockets type SB-427

- Available in six sizes from 13 mm to 38 mm.
- Based on the nominal breaking strength of the wire rope, button spelter sockets have an efficiency rating of 100%.
- Developed for use on mobile cranes. Suitable for use terminating high-performance, rotation-resistant ropes and standard six-strand ropes.
- Simple attachment using a Crosby® WIRELOCK® socketting resin.
- Socket and button are re-usable.
- Replacement buttons and sockets are available.
- Locking feature available to prevent the rope from rotating.
- Button cap with eye that can be used to attach and pull the rope during the reeving process.



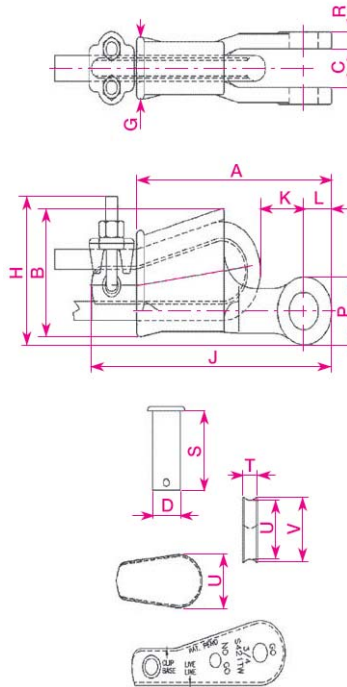
The button spelter sockets are supplied with a bolt, nut and cotter pin.

Breaking strength in t	For rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		A	B	C	D	E	F	J	K	L	M		
27	13-16	202	82	33	30	31	14	38	89	6	74	2.76	20203200015001
45	16-19	240	99	39	35	37	17	44	109	10	87	4.67	20203200015002
57	19-22	275	112	45	41	43	19	52	121	10	101	7.75	20203200015003
82	22-26	327	139	52	51	51	23	62	143	16	115	13.24	20203200015004
136	28-32	378	144	64	57	64	28	75	180	19	145	20.86	20203200015005
161	35-38	459	182	77	70	70	31	92	205	19	172	35.38	20203200015006



### Wedge socket type S-421T

- Based on the minimum breaking load of the XXIP wire rope, wedge sockets have an efficiency rating of 80%.
- Fulfills or exceeds all requirements established by the standard ASME B30.26, including labelling, ductility, safety factor, test load and temperature. These wedge sockets also meet other critical performance requirements that are not addressed in standard ASME B30.26 including fatigue strength, impact toughness and material batch traceability.
- Type approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7 and ABS Guide for Certification of Cranes.
- Basket is made from cast steel and individually subjected to magnetic particle inspection
- The bolt diameter and mouth width enable the use of the wedge and lock in conjunction with spelter or swaged sockets.
- The dead end of the wire rope is secured in the wedge in such a manner that prevents the wedge from being pressed out or lost.
- Additional piece of rope no longer required. Simple assembly.
- The TERMINATOR™ wedge prevents the dead end from breaking off due to fatigue.
- The end, which the clamp holds away from the socket and the wedge, is not deformed and can be re-used.
- Patented Crosby QUIC-CHECK® dimension inspection of the wedge ('Go' and 'No-Go'). The suitable rope diameter is determined as follows:
  - 1.) The wire rope must fit through the 'Go' hole.
  - 2.) The wire rope must NOT fit through the 'No-Go' hole in the wedge.
- Equipped with the Crosby Red-U-Bolt® standard wire rope clamp.
- The standard wedge sockets S-421 in sizes 9-28 mm can be retrofitted with the new TERMINATOR™ wedge.
- Protected by the US patent 5.553.360, the Canadian patent 2.217.004 and their international counterparts.
- Complies with standard EN 13411-6: 2003.



Wedge sockets fulfil the performance requirements established by RR-S-550E, type C, but with the exception of the provisions that must be fulfilled by the client.

The wedge sockets comprise the socket, wedge, bolt and wire rope clamp.

Rope Ø in mm	Dimensions in mm															Weight in kg/pce	Item no.
	A	B	C	D	G	H	J	K*	L	P	R	S	T	U	V		
9-10	145	69.1	20.6	20.6	35.1	77.7	198	47.8	22.4	39.6	11.2	54.1	11.2	31.8	35.1	1.44	20202600015026
11-13	175	88.1	25.4	25.4	41.1	95.5	226	32.0	26.9	49.3	12.7	65.0	13.5	44.5	47.8	2.79	20202600015027
14-16	210	109	31.8	30.2	53.8	114	273	50.5	31.0	57.2	14.2	82.6	17.5	51.0	55.5	4.40	20202600015028
18-19	251	130	38.1	35.1	62.0	134	314	61.2	35.6	66.8	16.8	92.2	19.8	59.5	65.0	6.58	20202600015029
20-22	286	149	44.5	41.4	68.5	156	365	63.0	42.4	79.5	19.1	109	22.4	68.5	74.5	9.75	20202600015030
24-26	325	161	51.0	51.0	74.7	177	414	77.2	51.0	95.5	22.4	119	26.2	73.0	83.5	13.9	20202600015031
28	365	176	57.0	57.0	84.0	194	466	65.0	57.0	108	25.4	138	27.9	82.6	90.5	20.5	20202600015032
30-32	415	222	66.5	63.5	90.5	239	520	74.7	59.5	114	26.9	156	30.2	117	125	29.4	20202600015033

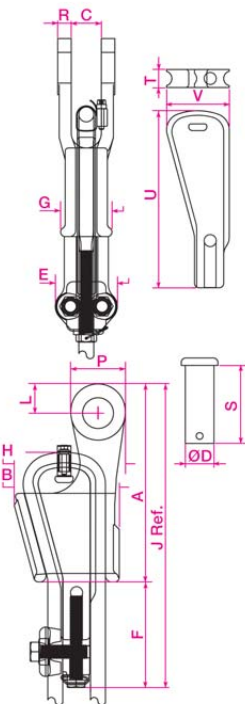
\*Nominal value – note: for non-listed wire rope diameters between two listed values, use the next largest socket. The S-423T Super TERMINATOR™ wedge has been specially developed for installation into the Crosby S-421T TERMINATOR™ wedge socket. Important: the S-423TW will only fit in the standard Crosby S-421T basket for sizes 14 mm to 28 mm. The 30-32 mm S-423TW will only fit the Crosby S-421T 30-32 mm basket labelled TERMINATOR™.

### Wedge socket Super TERMINATOR™ type S-423T

- Wedge sockets offer high-density crane ropes an efficiency rating of 80% of the minimum breaking strength.\*\*
- The patent-pending design makes it easier to insert a high-performance rope into a wedge socket.
- The proper application of the Super TERMINATOR™ eliminates the first load requirements in relation to conventional wedge sockets.
- The S-423TW wedge socket can be retrofitted to the existing Crosby S-421T TERMINATOR™ wedge sockets.
- Wedge and accessories with zinc finish.
- Complies with standard EN 13411-6: 2003.
- Fulfills or exceeds all requirements established by the standard ASME B30.26, including labelling, ductility, safety factor, test load and temperature. These wedge sockets also meet other critical performance requirements that are not addressed in standard ASME B30.26 including fatigue strength, impact toughness and material batch traceability.
- Basket is made from cast steel and individually subjected to magnetic particle inspection
- The bolt diameter and mouth width enable the use of the wedge and lock in conjunction with spelter or swaged sockets.
- The dead end of the wire rope is secured in the wedge in such a manner that prevents the wedge from being pressed out or lost.
- Additional piece of rope no longer required. Simple assembly.
- The TERMINATOR™ wedge prevents the dead end from breaking off due to fatigue.
- The end, which the clamp holds away from the socket and the wedge, is not deformed and can be re-used.

\*\*Note: due to the unique structure of many ropes, Crosby is unable to make a broad general statement that all current and future ropes types will achieve a minimum 80% termination efficiency even if properly connected to the Super TERMINATOR™.

S-423T wedge sockets: design comprises spelter socket, wedge, cotter pin, wire rope clip, spanner and a second retention wire.



Wedge sockets fulfil the performance requirements established by RR-S-550E, type C, but with the exception of the provisions that must be fulfilled by the client.

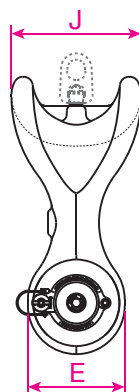
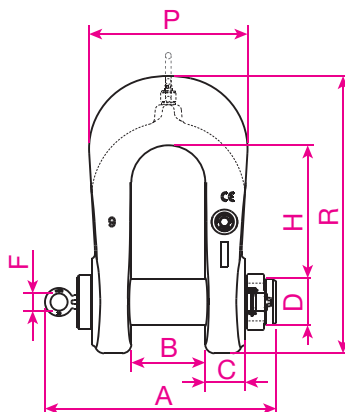
Rope Ø in mm	Dimensions in mm																Weight in kg/pce	Item no.
	A	B	C	D	E	F	G	H	J*	L	P	R	S	T	U	V		
14-16	210	114	31.8	30.2	76.2	103	54.1	117	313	31.0	57.2	14.2	82.6	19.1	175	66.0	5.8	20202600015034
18-19	251	132	38.1	35.1	82.6	122	62.0	136	373	35.6	66.5	16.8	92.2	22.4	194	76.7	8.8	20202600015035
20-22	286	149	44.5	41.4	96.8	146	68.3	156	431	42.4	79.5	19.1	109	25.4	241	88.1	13.1	20202600015036
24-26	325	167	50.8	50.8	96.8	146	74.7	179	471	51.1	95.3	22.4	119	28.7	264	97.0	17.8	20202600015037
28	365	176	57.2	57.2	102	174	85.9	198	539	57.4	108	25.4	138	31.8	300	107	25.9	20202600015038
30-32	415	219	66.5	63.5	114	197	90.7	238	612	59.4	114	26.9	168	35.1	352	148	40.2	20202600015039

\*Nominal

The S-423T Super TERMINATOR™ wedge has been specially developed for installation into the Crosby S-421T TERMINATOR™ wedge socket. Important: the S-423TW will only fit in the standard Crosby S-421T TERMINATOR™ basket for sizes 14 mm to 28 mm. The 30-32 mm S-423TW will only fit the Crosby S-421T 30-32 mm basket labelled TERMINATOR™.

### Grommet shackle Type G-2170

- All sizes quenched and tempered for maximum strength.
- All sizes made from cast alloy steel.
- The sizes with a load capacity of 300 tonnes and less have been overload tested to 200% of the maximum load capacity.
- The sizes with a load capacity of 500 tonnes have been overload tested to 133% of the maximum load capacity.
- The maximum load capacity in tonnes is embossed on the side of the stirrup.
- The shackle's stirrup and bolt are coated with Dimetecote and also painted red.
- All sizes come with RFID on the stirrup and bolt.
- Designed for use with eyelets with single or double diameters.
- Extra-large sling contact area improved the efficiency of the grommet sling.
- Use of a new Crosby Easy-Loc® shackle bolt system
- Large, machined area on the flaps can be adapted to other accessories by being drilled and tapped.
- Bearing surface is at least 5 times larger than that of a round shackle.
- Increases the usable sling strength by at least 60% and greatly improves the service life of grommet slings.
- The stirrup and bolt are certified to meet the Charpy impact test with 42 joules min. average at -20°C.
- All 2,170 shackles have been individually overload tested and electromagnetic crack tested.
- Shackles requiring certified to ABS, Lloyds and other standards are available upon special request and must be specified at the time of order.
- Upon special request, all 2,170 shackles can meet the requirements of the DNV standard for the certification of lifting appliances if this is specified at the time of order.



The new Crosby Easy-Loc® shackle bolt system



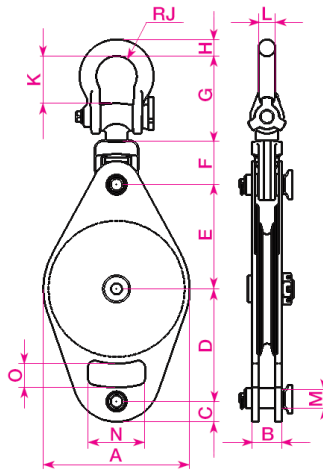
Load capacity in t*	Effective body diameter in mm	Dimensions in mm									Weight in kg/pce	Item no.
		A	B +/-0.02	C	D +/-0.02	E	H	J	P	R		
75	286	358	105	60.7	69.9	140	197	191	241	411	51.26	25301810015302
125	343	408	130	69.9	80	171	236	229	279	489	79.83	25301810015303
200	469	486	150	86.1	105	229	296	328	346	635	166.9	25301810015304
300	578	570	187	109	133	283	386	394	432	808	311.1	25301810015305
500	762	772	250	152	180	349	501	508	584	1053	756.6	25301810015306

\*The sizes with a load capacity of 75-300 tonnes have been overload tested to 200% of the maximum load capacity. The breaking strength is 500% of the maximum load capacity. The sizes with a load capacity of 500 tonnes have been overload tested to 133% of the maximum load capacity. The breaking strength is 450% of the maximum load capacity.

### McKissick® blocks for oil extraction types M-491S and M-491G

The new design provides the dependability of standard McKissick® snatch blocks and makes this range the ideal choice for high requirements, for example for use on tugger winches or drilling rigs.

- Finish painted or galvanised.
- 203 mm and 254 mm blocks suitable for two rope thicknesses.
- Swivels, connecting pieces, yokes and shackles make from hardened and tempered forged steel.
- Simple maintenance thanks to the sheave lubrication over the centrally positioned nipple.
- Safety factor of 4:1.
- All blocks measuring 356 mm and above are furnished with McKissick® Roll Forged™ sheaves with flame-hardened grooves.
- Recessed side plate design reduces the gaps between the sheave rim and the side plate, preventing the sheave from escaping from the block even if the central pin is lost.
- Sealed tapered roller bearings extend the life of the pins and bearings, while also allowing for faster rope speeds than with conventional snatch blocks.
- Shackle fitting swivels for easy positioning.
- Suitable for transporting people, providing that all employees, including the winch operator, have been trained to follow all applicable national, local and industry regulations.
  - 1.) Uses on tuggers/load cranes: API RP54
  - 2.) Uses on drilling rigs: OSHA regulation CPL 2-1.36
- Openings in the side plates for attaching a second device for securing the block.
- Produced in a factory certified to API Q1.
- Type approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7 and ABS Guide for Certification of Cranes.
- All sizes are RFID equipped.



M-491S

M-491G

Load capacity in t*	For wire rope in mm	Sheave diameter in inches	Item no. Painted Type M-491S	Item no. Galvanised Type M-491G
4	10-13	8	15260000015029	15260000015038
8	10-13	10	15260000015030	15260000015039
8	13-14	10	15260000015031	15260000015040
12	13-14	10	15260000015032	15260000015041
12	16	14	15260000015033	15260000015042
12	19	14	15260000015034	15260000015043
15	22	16	15260000015035	15260000015044
15	25	16	15260000015036	15260000015045
25	28.6	18	15260000015037	15260000015046
30	32	20	-	15260000015047

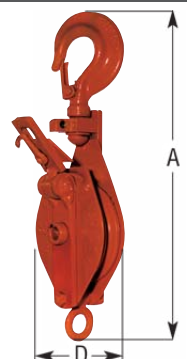
Load capacity in t*	For wire rope in mm	Sheave diameter in inches	Dimensions in mm														Weight in kg/pce
			A	B	C	D	E	F	G	H	J	K	L	M	N	O	
4	10-13	8	225.6	47.8	28.5	171.5	158.8	81.1	101.6	17.6	21.6	50.8	15.8	19.1	82.6	35.1	16
8	10-13	10	276.4	57.2	38.1	212.9	196.9	84.1	158.8	31.8	38.1	85.9	31.8	25.4	108.0	45.3	25
8	13-14	10	276.4	57.2	38.1	212.9	196.9	84.1	158.8	31.8	38.1	85.9	31.8	25.4	108.0	45.3	25
12	13-14	10	276.4	57.2	38.1	212.9	196.9	82.6	158.8	31.8	38.1	85.9	31.8	25.4	108.0	45.3	25
12	16	14	378.0	57.2	38.1	263.7	247.7	82.6	158.8	31.8	38.1	85.9	31.8	25.4	114.3	44.8	43
12	19	14	378.0	57.2	38.1	263.7	247.7	82.6	158.8	31.8	38.1	85.9	31.8	25.4	114.3	44.8	43
15	22	16	431.8	77.5	60.5	304.8	298.5	96.8	170.0	44.5	39.7	79.3	38.1	31.8	114.3	45.3	68
15	25	16	431.8	77.5	60.5	304.8	298.5	96.8	170.0	44.5	39.7	79.3	38.1	31.8	114.3	45.3	48
25	28.6	18	482.6	102.4	63.5	384.1	365.3	170.5	246.2	79.3	44.5	122.2	50.8	44.5	177.8	76.2	118
30	32	20	533.4	134.2	88.9	444.5	419.1	260.4	325.4	100.1	71.4	179.4	63.5	57.2	177.8	76.2	306

\*The breaking strength is 400% of the maximum load capacity.

### Wire rope block

Single pulley, foldable with load hook and suspension eyelet, pulley with red bronze bushing

Load capacity in t	Pulley outer Ø (D) in mm	For rope Ø mm	Pulley Ø in the base of the groove	Structural length A in mm	Weight in kg	Item no.
		1 Em max.				
0.5	75	8	62	315	1.5	15260000015001
1	100	10	86	355	2.6	15260000015002
1.5	125	13	105	430	4.8	15260000015003
2	150	16	126	495	7.4	15260000015004
3	178	19	150	555	11.9	15260000015005





### Snatch block

- Forged and rotatable hook
- Hinged design enables the rope to be seamlessly inserted
- High load capacity with low tare weight
- Bronze gliding bearing

#### Option:

- Special version for up to -40°C possible



Load capacity in t	For wire rope in mm	Pulley Ø (B) in mm	Structural length (A) in mm	Weight in kg	Item no.
2	8 - 10	76	242	2	15260000015006
4	10 - 13	114	356	5	15260000015007
8	16 - 19	152	478	12	15260000015008
8	16 - 19	203	529	15	15260000015009
8	16 - 19	254	581	19	15260000015010
8	19	305	653	22	15260000015011
8	19	356	691	25	15260000015012
15	22	406	810	59	15260000015013
15	26	457	842	68	15260000015014

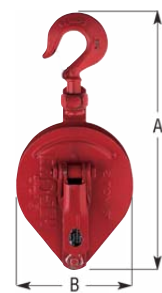
Version with shackle also available.

### Snatch block

- Forged and rotatable hook
- Hinged
- Self-lubricating bronze gliding bearing

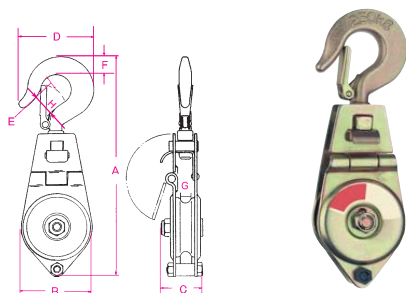
#### Option:

- With hook safety flap
- Special version for up to -40°C possible



Load capacity in t	For wire rope in mm	Pulley Ø in mm	Structural length (A) in mm	Outer width (B) in mm	Weight in kg	Item no.
2	10 - 13	152	409	185	5.4	15260000015015
3	13 - 16	203	513	235	8.4	15260000015016

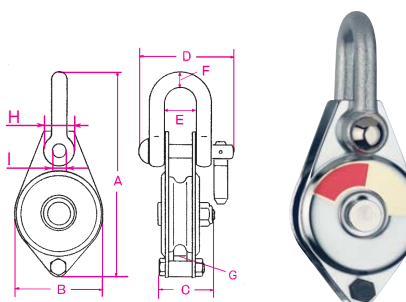
### Rope capture pulley with rotatable load hook, lightweight, hinged design



**!** Not for lifting - horizontal pulling only!

Type	Load capacity in kg	For wire rope in mm	Pulley Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
CSS50	250	8	50	A	B	C	D	E	F	G	H	0.52	15260000015048
CSS75	350	10	75	240	85	40	73	15	21	12	18	1.25	15260000015049
CSS100	750	12	100	300	110	50	85	16	27	14	21	2.30	15260000015050

### Rope capture pulley with rotatable load hook, lightweight



**!** Not for lifting - horizontal pulling only!

Type	Load capacity	For wire rope	Pulley Ø	Dimensions in mm									Weight	Item no.
	in kg	in mm		A	B	C	D	E	F	G	H	I		
CSY50	250	8	50	135	58	35	62	22	10	9	21	9	0.45	15260000015051
CSY75	350	10	75	185	85	40	70	22	11	12	25	13	1.10	15260000015052
CSY100	750	12	100	240	110	50	100	32	16	14	32	16	2.20	15260000015053

## Components of a premium quality sheave

Every McKissick® Roll-Forged™ sheave starts out as a single piece of AISI C-1035 carbon steel plate. A time-proven and protected forging process is used to give the sheave extra rigidity in the critical groove area. The sheave is cut by a precision flame. The hub is press-fitted so that it comes into contact with the metal all round. The deeper positioning of the weld seam also ensures a longer service life.

Before the name McKissick® is added, every sheave undergoes a thorough inspection in order to meet industry standards for usage and Crosby quality standards.

McKissick® Roll-Forged™ sheaves offer the following features in order to meet your application requirements:

- 1

**A smooth radius on the edge provides an outstanding transition between the outer diameter and the groove – eliminating any sharp-edged areas that could damage the rope.**

  - Following production, cold-formed steel sheaves can still have sharp areas along the groove. This also cuts into the material fabric and can vastly impair the service life and fatigue resistance.



- 2

**Size for size, McKissick® Roll-Forged™ sheaves have a thicker section under the groove and therefore offer additional strength in relation to changing loads.**

  - Cold formed steel sheaves are limited to a thinner section thickness under the groove, which reduces the service life of the sheave, especially under tough usage conditions and fatigue.
  - Thin areas create sharp-edged areas, which can potentially result in load peaks.



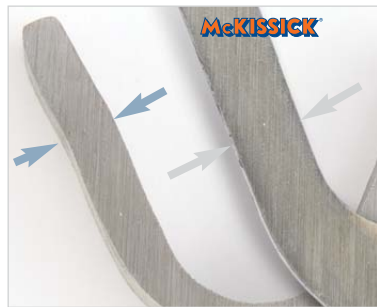
- 3

**Thick web on the sheave offers the necessary rigidity to support a stronger sheave with thicker flange sections.**

  - The thin web on cold-formed steel sheaves, which is inherent to the workmanship process, does not support thicker flange sections.
  - The sharp-edged areas formed when milling the groove during the cold-formed splitting process can lead to concealed cracks in the lower section of the groove.

	McKissick®	cold-formed and split sheaves
Smooth radius edge – better hold, less wire rope wear	X	
Thicker groove walls – better support, thicker profile	X	
Deeper positioning of the weld seam on the hub – longer life	X	
Flame-hardened groove – higher Rockwell C rating	35Rc	14Rc
Forging process – provides an outstanding material structure	X	





**4** Heavier flange sections – offer a far stronger wire rope/groove connection and maintain the proper groove angle to ensure a longer wire rope service life.

- Cold-formed steel wire ropes generally have thinner flange sections as well as variations in the sheave thickness, which restricts their performance, especially in tough applications.

- Cold-formed steel sheaves are restricted to 50% of the sheave flange thickness.



**5** Minimum 35Rc for greater hardness in the base of the groove, resulting in less wear to the sheave and thus a longer wire rope service life

- Unless otherwise specified when ordering, cold-formed steel sheaves have an extremely low hardness rating (approx. 14Rc).

- The standard material used for cold forming must not be harder than in the groove.



**6** The precise alignment of the hub with the subsequent addition of a deep weld seam ensures a proper fit, longer service life and good reliability even in the most extreme of applications.

#### Further key features of the McKissick® Roll-Forged™ sheaves

- The material structure combined with the McKissick® Roll-Forged™ forging process results in outstanding performance properties.
- Every sheave is labelled with a McKissick® Roll-Forged™ sheave outer diameter, wire rope size and product identification code (PIC) to ensure complete material traceability.

**Crosby® and McKissick® Roll-Forged™ sheaves**  
**Reliability that you can depend on**

The Crosby® sheave calculator can be found at <http://eu.crosbysheaveconfig.net/>

# STEEL WIRE ROPES

## Accessories

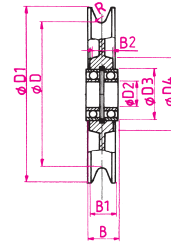
### Rope Sheave with maintenance-free Ball Bearing

Machined rope groove, considerably lower rope wear due to high quality surface.

Drive group 1Em, designed according to DIN 15020



**Also available in stainless steel!**



Rope sheave



Max. rope pulling force in kg	Max. rope ø (1 Em) in mm	Sheave Ø D in mm	Dimensions in mm								Weight ca. in kg	Item no.
			D1	B	B1	B2	D2	D3	D4	R		
250	6	60	85	17.5	21	-	12	28	-	3.2	0.7	20204200015001
500	9	90	125	30	30	-	20	47	-	4.8	1.9	20204200015002
1000	13	135	180	33	38	32	25	52	118	7	5.4	20204200015003
2000	18	185	240	45	50	44	35	80	165	9.5	12.8	20204200015004
3200	23	230	300	54	60	52	45	100	202	12.5	24	20204200015005
5000	27	280	360	67	70	64	60	130	254	15	40	20204200015006

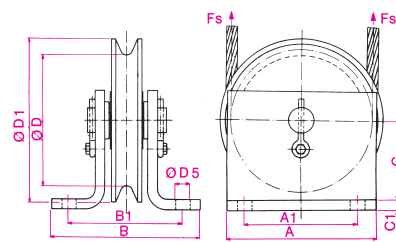
### Rope Sheave Block with maintenance-free Ball Bearing

Side plates of bent sheet steel. This rope sheave allows to deflect the rope in any direction or alter the direction of pull. Rope sheave details as above.

Drive group 1 Em, designed according to DIN 15020



**Also available in stainless steel!**



Rope sheave block



Max. rope pulling force in kg	Load capacity in kg	Max. rope Ø (1 Em) in mm	Dimensions in mm									Weight ca. in kg	Item no.
			A	A1	B	B1	C	C1	D	D1	D5		
250	500	6	80	60	86	66	60	5	60	85	9	1.4	15260000015017
500	1000	9	110	80	127	97	71	6	90	125	13	5.0	15260000015018
1000	2000	13	170	130	162	127	95	10	135	180	17	10.2	15260000015019
2000	4000	18	210	160	216	166	125	15	185	240	21	23.8	15260000015020
3200	6400	23	270	210	252	192	155	15	230	300	25	44	15260000015021
5000	10000	27	320	260	294	234	185	20	280	360	32	75	15260000015022

### Rope Guide Sheave for Wall and Hand Winches

Varnished steel housing, wire rope sheave of grey cast iron, turned rope grooves (115-260 mm sheave Ø), drilled hub hole.

On request also available with roller bearing.

Item no.	15260000015064	15260000015065	15260000015066	15260000015067	15260000015068
Sheave Ø in mm	115	155	220	260	310*
Up to rope Ø in mm	10	10	16	18	26
Permissible load in t	0,5	1	2	3	5
Size of baseplate in mm	125 x 65	150 x 115	175 x 165	255 x 200	270 x 240
Ø of screw holes in mm	12	14	17	21	21
Height to centre of axle in mm	69	85	126	148	184
Total height in mm	126	163	236	278	339
Weight in kg	1.5	3	6.5	12	23

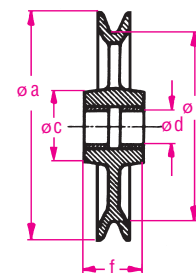
\*Rough groove





### Rope Sheave made of grey cast iron

Made of grey cast iron, with turned groove and bored hub hole, suitable for wire rope guide sheaves for wall-mounted and manual installation winches

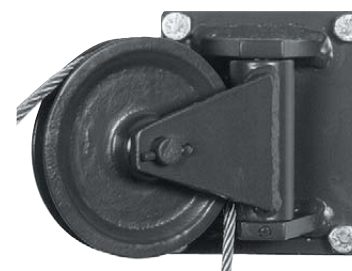
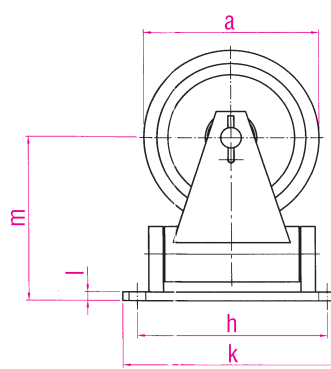
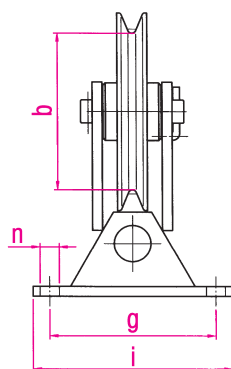


Item no.	20204200015007	20204200015008	20204200015009	20204200015010	20204200015011
Sheave Ø a in mm	115	155	220	260	310
Sheave Ø b in mm	89	129	184	222	250
Permissible load in kg	500	1.000	2.000	3.000	5.000
Groove width / Rope Ø in mm	10	10	16	18	26
Groove depth in mm	13	13	18	19	30
Bore for axle in mm	14	19	22	25	35
Hub length f in mm	26	28	35	43	56
Hub Ø c in mm	36	48	54	65	85
Weight ca. in kg	0.9	1.4	3.3	5.2	10.0

### Sleewable Rope Pulley, single Sheave

Mount and sheave frame made of steel. Sheave made of grey cast iron with self-lubricating bearing with grease chamber.

The sleewable rope pulley is also available in a 2-sheave version. Please contact us for pricing.



Max. rope load at manual use in kg*		250	500	750	1000	1500	2000
Max. rope load at powered use in kg**		125	250	375	500	750	1000
For rope Ø in mm		4-5	5-6	6-8	8-10	10-12	12-14
Outer sheave Ø in mm	Ø a	120	150	190	235	280	325
Groove Ø in mm	Ø b	100	125	160	200	240	280
Hole distance width in mm	g	100	140	140	160	180	220
Hole distance height in mm	h	130	200	210	260	310	330
Baseplate width in mm	i	120	170	170	200	220	270
Baseplate height in mm	k	150	230	240	300	350	380
Baseplate thickness in mm	l	6	8	10	12	14	16
Height axle centre in mm	m	112	142	165	199	239	227
Screw hole Ø in mm	Ø n	11.5	11.5	14	18	18	22
Weight per piece in kg		4	6.2	12	19	26.2	47
Item no.		15260000015023	15260000015024	15260000015025	15260000015026	15260000015027	15260000015028

\* 180° rope deflection \*\* 90° rope deflection

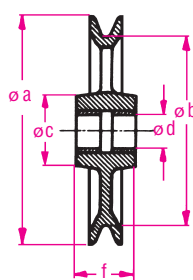
# STEEL WIRE ROPES

## Accessories

### Wire Rope Sheave

Made of grey cast iron, turned groove  
60 - 325 mm Ø : Self-lubricating bearing with grease chamber  
375 - 470 mm Ø : Bronze bushing with lubricating pockets

Suitable for wire rope guide sheaves for wall-mounted and manual installation winches



Item no.	20204200015012	20204200015013	20204200015014	20204200015015	20204200015016
Sheave Ø a in mm	60	90	120	150	190
Sheave Ø b in mm	48	72	100	125	160
Load capacity in kg	200	300	500	1,000	1,500
Groove width / rope Ø in mm	3	4	5	6	8
Groove depth in mm	6	9	10	12	15
Bore for axle Ø d in mm	8	14	14	22	32
Hub length f in mm	24	32	35	40	42
Hub Ø c in mm	22	32	35	46	62
Weight ca. in kg	0.3	0.52	0.85	1.45	2.6

Item no.	20204200015017	20204200015018	20204200015019	20204200015020	20204200015021
Sheave Ø a in mm	235	280	325	375	470
Sheave Ø b in mm	200	240	280	320	400
Load capacity in kg	2,000	3,000	4,000	6,400	10,000
Groove width / rope Ø in mm	10	12	14	16	20
Groove depth in mm	17	20	22	27	35
Bore for axle Ø d in mm	40	50	60	70	70
Hub length f in mm	50	62	70	85	90
Hub Ø c in mm	78	92	108	120	140
Weight ca. in kg	4.5	6.8	10.8	16.5	34.7

### Wire rope block sheave

Steel, painted housing, grey cast iron sheave, rope grooves (80 - 130 mm pulley Ø), bored hub hole

When ordering, please specify type A or type B

Type A = with horizontal plate

Type B = with transverse plate

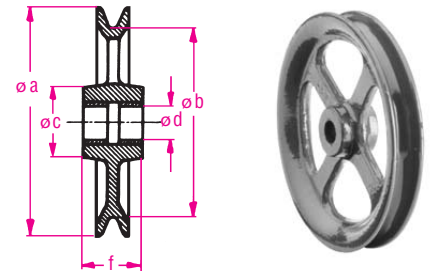


Item no.	15260000015069	15260000015070	15260000015071
Pulley Ø in mm	80	100	130
For rope Ø up to in mm	8	10	12
Load capacity in t	125	130	150
Dimensions of baseplate in mm	130 x 40	142 x 40	190 x 45
Diameter of the mounting holes in mm	10.5	10.5	10.5
Dimensions to the centre of the axis in mm	96	108	156
Overall height in mm	94	115	149
Weight ca. in kg	0.57	0.73	1.4

### Lightweight Rope Sheave made of grey cast iron

Made of grey cast iron, turned, narrow groove, rope grooves  
(80-130 mm pulley Ø), bored hub hole

Suitable for wire rope block sheave



Item no.	20204200015022	20204200015023	20204200015024
Pulley Ø a in mm	80	100	130
Pulley Ø b in mm	67	83	108
Load capacity in kg	125	130	150
Groove width / Rope Ø in mm	8	10	12
Groove depth in mm	6.5	8.5	11
Bore for axle Ø in mm	8	10	12
Hub length f in mm	17	19	23
Hub Ø c in mm	20	22	28
Weight ca. in kg	0.18	0.3	0.48

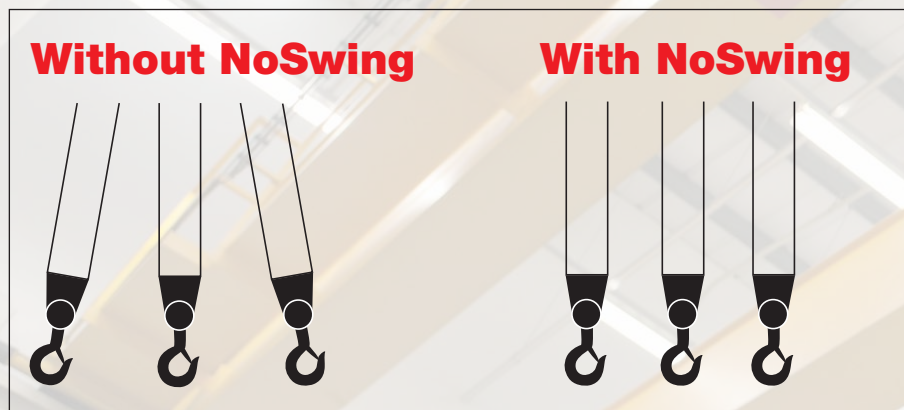
### Polyamide Rope Pulley



Item no.	20204200015025	20204200015026	20204200015027	20204200015028	20204200015029
Pulley Ø in mm	48	60/2	76	100/2	150/1
Groove width / max. rope Ø in mm	8	9	10	16	25
Groove depth in mm	4	4	5	12	20
Bore for axle in mm	8	8	11	15	20
Hub length in mm	15	27	17	27	42
Hub Ø in mm	17	20	20	38	46
Load capacity in kg	42	50	90	210	410

Bridge cranes are important in a production plant. Their reliability has a decisive influence on the smooth running of a production process.

Depending on the weight, type and shape of the load as well as the height of the halls, however, crane movements often occur in the so-called pendulum movements. This is done during empty run (without load) or during lifting and transporting itself. These pendulum movements always represent a high risk for man and material. NoSwing has been developed to reduce these pendulum movements. As an additional element, it is attached to an existing bridge crane (indoor or in open spaces).



## Mode of operation:

The NoSwing sensor continuously and automatically measures the angle of the hoisting ropes. These data are processed in the control unit and sent to the frequency converter of the crane. The swinging motion of the load is avoided by keeping the lifting ropes continuously upright and vertical. This works even when a long load object is lifted by one end.

Find out more in this video:





## **INTERESTED?**

**Contact us today  
and arrange a  
demonstration date  
with the DemoKit!**



### Environmentally friendly Rope and Chain Lubricant

- Excellent lubrication, penetration, conservation, and corrosion protection
- Nontoxic, bio-degradable, without harmful propellant
- According to HOCNF (Harmonised Offshore Chemical Notification Format) suitable for use in marine environments
- For use with moveable parts like ropes and chains but also for machine parts, hinges, padlocks etc.



### Product Application Chart

Application area	CondorLube Wire Grease 50-70 G NEW + CLASSIC	CondorLube Coating 10-15 G	CondorLube Universal Grease 54	CondorLube Coating 20-10 G	CondorLube EP Grease 53	CondorLube Wire & Chain Spray	CondorLube Bio Spray 2 in 1 81-10 G	CondorLube Storage Spray	CondorLube Paste 51-70 G	CondorLube Metal Polish 80-05 G
Machine Parts	*	**	***	**	***	**	*	**	**	
Anchors & shackles, hinges etc.	*	*	*	*		**	*	**	***	
Battery terminals							*			
Tools	*	**	***	**	**	**	**	**	***	**
Chains	*	**		**		*	*	*		
Auto Rustproofing	**	*		*		**		**		
Heavy Machinery	**	*	***	*	***	*		*		
Wire rope preservation / lubrication	***	**	*	**		***		*	**	
Irrigation plant & pipes		*					*		**	
Propellers & skegs		*		*		*		*		
Rubber gaskets & seals	*	**	*	*		*	*	*	*	**
Stabilizer Tank & Ballast Tank		*							***	
Rustproofing & preservation	**	***	*	**	*	**	*	***	**	
Trailers / trains / railways	*	**	***	**	***	**	*	**	***	**
Steel Preservations / Polish	***	***		**		*	*	**	***	***
Yacht Standard Rigging	*	*	**	*		*		*		
Leather									*	
Low / high volt connections									*	
Outboard motors	*	*	***	*	***	**		**	***	
Components vulnerable for corrosion	**	***	*	***		*		*	***	
Sporting equipment		*		*					*	**
Roller-bearing			***		***					
Stern drive legs	*		***		***	*		*	**	
Heavy gears and transmission	*				*				*	
Cleaning, rinse and protection							***			***

Excellent \*\*\*  
Good \*\*  
Suitable \*

### Wire Grease 50-70 G



CondorLube Wire Grease 50-70 G is a biodegradable lubrication and protection for steel wire ropes. It lubricates between the individual wires to avoid friction that can damage the steel wire rope.

#### Application

For all kinds of steel wire ropes, lead-in wires, seismological cables and yacht rigging.

Type	Package size	Type of packaging	Item no.
CondorLube Wire Grease 50-70G	5 kg	Tin bucket	20204000015001
CondorLube Wire Grease 50-70G	18 kg	Tin bucket	20204000015002
CondorLube Wire Grease 50-70G	180 kg	Tin bucket	20204000015003

### Coating 10-15 G



CondorLube Coating 10-15 G is a light brown thin coating. It penetrates to the pores of the material and has excellent corrosion resisting properties.

#### Application

For machine parts, anchors, shackles, hinges, tools, chains, irrigation plants and pipes it offers excellent corrosion protection.

Type	Package size	Type of packaging	Item no.
CondorLube Coating 10-15 G	5 L	Plastic canister	20204000015004
CondorLube Coating 10-15 G	20 L	Plastic canister	20204000015005
CondorLube Coating 10-15 G	196 L	Metal drum	20204000015006
CondorLube Coating 10-15 G	1000 L	Metal drum	20204000015007



### Corrosion Protection and Lubrication 20-10 G



CondorLube 20-10 G is a light brown and semi-dry thin coating. It has excellent penetration and corrosion resisting properties. It was developed for maximum corrosion protection.

#### Application

For machine parts, anchors, shackles, hinges, tools, chains, irrigation plants and pipes. Ideal for all corrosion protection applications.

Type	Package size	Type of packaging	Item no.
CondorLube Coating 20-10 G	5 L	Plastic canister	20204000015008
CondorLube Coating 20-10 G	20 L	Plastic canister	20204000015009
CondorLube Coating 20-10 G	196 L	Metal drum	20204000015010
CondorLube Coating 20-10 G	1000 L	Metal drum	20204000015011

### Metal Polish 80-05 G



CondorLube Metal Polish 80-05 G is a polish and protection product with excellent penetration and cleaning properties. It removes stains of dirt or other impurities and develops a thin protective film on the surface.

#### Application

Suitable for cleaning, maintenance and industrial applications (workshops, cranes, commercial vehicle and automotive industry). Also suitable for cleaning and protection of aluminium surfaces.

Type	Package size	Type of packaging	Item no.
CondorLube Metal Polish 80-05 G	0.5 L	Spray can	20204000015012
CondorLube Metal Polish 80-05 G	5 L	Plastic canister	20204000015013
CondorLube Metal Polish 80-05 G	20 L	Plastic canister	20204000015014
CondorLube Metal Polish 80-05 G	196 L	Metal drum	20204000015015



### Wire and Chain Spray 52-10 G



CondorLube Wire & Chain Spray 52-10 G is oily coating product which is completely non-toxic and leaves no environmental footprint. It is a premium grade coating and lubrication agent which has been specially developed for frequent use under extreme conditions. It also minimises lubricant build-up and contamination with abrasive particles.

#### Application

Chains, protection of steel wire ropes and parts, anchors, shackles, hinges, machine parts etc.

Type	Package size	Type of packaging	Item no.
CondorLube Wire & Chain Spray 52-10 G	510 ml	Spray can	20204000015017

### Storage Spray 11-10 G



CondorLube Storage Spray 11-10 G is an aerosol spray which leaves a thin brown protective film. It penetrates deeply into the pores of the material and has excellent corrosion protection properties. It is completely non-toxic and leaves no environmental footprint.

#### Application

Suitable for trailers, railway rolling stock, machine parts, outboard motors, yacht rigging, for protection of steel parts, rubber seals, irrigation plants and pipes.

Type	Package size	Type of packaging	Item no.
CondorLube Storage Spray 11-10 G	510 ml	Spray can	20204000015016

### Bio Spray 81-10 G



CondorLube Bio Spray 81-10 G is an aerosol spray which can be used for cleaning, rinsing and protection of surfaces. It penetrates deeply into the pores of the material and has excellent cleaning properties. It is a very versatile spray that has been specially developed for frequent use under extreme conditions. It dissolves oil and grease in many different areas and leaves a thin protective film.

#### Application

For cleaning, rinsing and corrosion protection

Type	Package size	Type of packaging	Item no.
CondorLube Bio Spray 2 in 1 81-10 G	510 ml	Spraydose	20204000015018

### EP Grease 53



Together with the thickener, biodegradable esters make this product perfect for excellent lubrication of heavily stressed bearings and under wet and corrosive conditions.

#### Application

For use in seawater, for agricultural, forestry, and construction vehicles.

Type	Package size	Type of packaging	Item no.
CondorLube EP Grease 53	400 g	Plastic cartridge	20204000015021
CondorLube EP Grease 53	18 kg	Tin bucket	20204000015022
CondorLube EP Grease 53	180 kg	Metal drum	20204000015023

### Universal Grease 54



This is a modern, high-performance biodegradable grease for both industrial and automotive applications. The product's excellent all-round properties make it first choice for all kinds of bearings.

#### Application

For industrial and automotive applications as well as for all kinds of bearings.

Type	Package size	Type of packaging	Item no.
CondorLube Universal Grease 54	400 g	Plastic cartridge	20204000015024
CondorLube Universal Grease 54	18 kg	Tin bucket	20204000015025
CondorLube Universal Grease 54	180 kg	Metal drum	20204000015026

### Paste 51-70 G



CondorLube Paste 51-70 G is a biodegradable lubricating grease with amorphous silica gel compound which has excellent greasing, penetration and corrosion protection properties.

#### Application

Suitable for all moveable parts, which are not subject to high stress (e.g. doors, hatches, slowly moving parts etc.) or as sliding agent. Suitable also for chains, steel wire ropes, drilling tools etc.

Type	Package size	Type of packaging	Item no.
CondorLube Paste 51-70 G	400 g	Plastic cartridge	20204000015020
CondorLube Paste 51-70 G	18 kg	Tin bucket	20204000015019

## Cablegrips for cables and ropes

Cablegrips – also known as cable socks, cable pulling sleeves or „Chinese Fingers“ - are used to pull and support electrical cables, pipes or hoisting ropes. The prerequisite for this is that the ropes are not subjected to a high level of torsion.

### Type K0

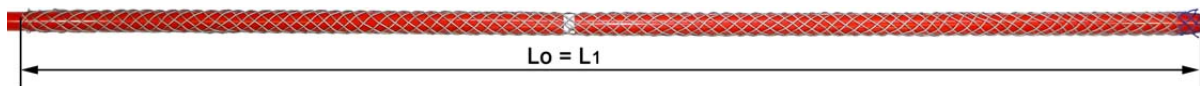


### Cablegrip, Type K0, Double Mesh, Galvanised or Stainless Steel, open ended on both sides, soldered on one side, Material Strand 1 x 19

The use of strands makes these types particularly suitable for cable laying in the ground and in channels. Other mesh lengths are available on request.

Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	6 - 10	900	900	3	2.8	0.100	25106000015001	25106000015286
	10.1 - 15	1000	1000	3	4.7	0.180	25106000015002	25106000015287
	15.1 - 20	1200	1200	3	5.7	0.240	25106000015003	25106000015288
	20.1 - 25	1300	1300	3	8.9	0.420	25106000015004	25106000015289
	25.1 - 30	1500	1500	3	12.6	0.680	25106000015005	25106000015290
	30.1 - 40	1500	1500	3	16.6	0.910	25106000015006	25106000015291
	40.1 - 50	1500	1500	3	23.2	1.490	25106000015007	25106000015292
	50.1 - 60	2000	2000	3	23.2	1.960	25106000015008	25106000015293
	60.1 - 70	2000	2000	3	28.6	2.350	25106000015009	25106000015294
	70.1 - 80	2000	2000	3	34.3	2.820	25106000015010	25106000015295
	80.1 - 90	2500	2500	3	40.0	4.140	25106000015011	25106000015296
	90.1 - 100	2500	2500	3	46.0	4.830	25106000015012	25106000015297
	100.1 - 130	2500	2500	3	51.0	5.520	25106000015013	25106000015298
	130.1 - 170	2500	2500	3	75.9	9.710	25106000015014	25106000015299
	160.1 - 200	2500	2500	3	79.7	10.790	25106000015015	25106000015300

### Type K0



**Flexible intermediate hose, Type K0, Material rope 7 x 7, Galvanised or stainless steel, open on both sides, soldered on one side, Material rope 7 x 7**

The use of ropes makes these hoses highly flexible and enables good grip in relation to metal cables and hoisting ropes. This makes them particularly suited for changes to hoisting ropes that run over pulleys. Other mesh lengths are available on request.

### Simple mesh



Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	6 - 10	1200	1200	3	1.8	0.080	25106000015143	25106000015476
	10.1 - 15	1300	1300	3	2.8	0.150	25106000015144	25106000015477

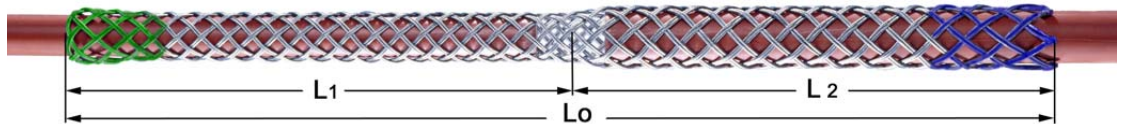
### Double mesh



Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	15.1 - 20	1400	1400	3	6.7	0.350	25106000015145	25106000015478
	20.1 - 25	1600	1600	3	9.5	0.570	25106000015146	25106000015479
	25.1 - 30	1650	1650	3	9.5	0.600	25106000015147	25106000015480
	30.1 - 35	1650	1650	3	15.8	1.000	25106000015148	25106000015481





































### Type K0-2



### Stepped cablegrip, Type K0-2, Galvanised, Double Mesh with 2 diameters, open ended on both sides, soldered on one side, Material Strand 1 x 19

These connection sleeves are used if the pull rope and the cable have different diameters so that both have an optimum grip. Other diameters, lengths and stainless steel models are available on request.

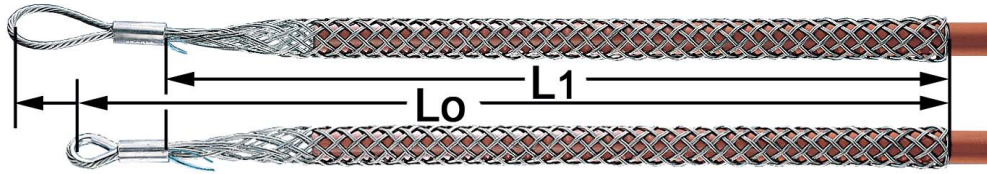
Colour code	Cable/Rope Ø Da 1 mm	Cable/Rope Ø Da 2 mm	Mesh length L1 mm	Mesh length L2 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no.
 	10.1 - 15	15.1 - 20	1200	1200	2400	3	4.7	0.440	25106000035059
 									
 	10.1 - 15	25.1 - 30	1200	1500	2700	3	4.7	0.640	25106000015150
 									
 									
 	10.1 - 15	30.1 - 40	1200	1500	2700	3	4.7	0.790	25106000015151
 									
 									
 	15.1 - 20	25.1 - 30	1200	1500	2700	3	8.9	0.840	25106000015152
 									
 									
 	15.1 - 20	30.1 - 40	1200	1500	2700	3	8.9	1.000	25106000015153
 									
 									
 	15.1 - 20	40.1 - 50	1500	1500	3000	3	8.9	1.450	25106000015154
 									
 									

### Cablegrips for Cables and Ropes

For quick and flexible fastening of cables, ropes or pipes free of damage to a traction or winch rope for pulling in cable trenches, pipes etc., usually with swivel connectors if twisting is to be expected.

#### Type K I

#### Type K I-K



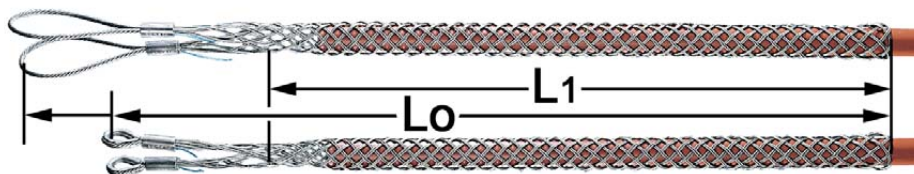
### Cablegrip, Type K I and K I-K, Galvanised or Stainless Steel, Double Mesh, open ended on one side, on the other side with Pressed Loop or Thimble, Material Strand 1 x 19

The use of steel strands makes it possible to achieve high tensile forces and good wear values.  
Other lengths are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type K I		Type K I-K		Safety factor	Per- missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 in mm	Clear loop dimensions in mm	Overall length L0 in mm	Clear thimble dimensions in mm					
	6 - 10	600	700	60	675	14	3	2.8	0.080	25106000015016	25106000015301
										25106000015046	25106000015331
	10.1 - 15	700	825	75	800	16	3	4.7	0.150	25106000015017	25106000015302
										25106000015047	25106000015332
	15.1 - 20	800	925	75	900	16	3	5.7	0.190	25106000015018	25106000015303
										25106000015048	25106000015333
	20.1 - 25	900	1050	90	1000	18	3	8.9	0.320	25106000015019	25106000015304
										25106000015049	25106000015334
	25.1 - 30	1000	1175	105	1125	20	3	12.6	0.500	25106000015020	25106000015305
										25106000015050	25106000015335
	30.1 - 40	1100	1300	120	1225	20	3	16.6	0.700	25106000015021	25106000015306
										25106000015051	25106000015336
	40.1 - 50	1200	1450	150	1350	24	3	23.2	1.290	25106000015022	25106000015307
										25106000015052	25106000015337
	50.1 - 60	1300	1550	150	1450	24	3	23.2	1.370	25106000015023	25106000015308
										25106000015053	25106000015338
	60.1 - 70	1400	1650	150	1550	24	3	28.6	1.720	25106000015024	25106000015309
										25106000015054	25106000015339
	70.1 - 80	1500	1800	180	1675	28	3	34.3	2.220	25106000015025	25106000015310
										25106000015055	25106000015340
	80.1 - 90	1500	1800	180	1700	28	3	40.0	2.680	25106000015026	25106000015311
										25106000015056	25106000015341
	90.1 - 100	1500	1850	210	1700	32	3	46.0	3.180	25106000015027	25106000015312
										25106000015057	25106000015342
	100.1 - 130	1500	1850	210	1700	32	3	51.0	3.590	25106000015028	25106000015313
										25106000015058	25106000015343
	130.1 - 170	1600	2050	270	1875	45	3	75.9	6.970	25106000015029	25106000015314
										25106000015059	25106000015344
	160.1 - 200	1600	2050	270	1875	45	3	79.7	7.660	25106000015030	25106000015315
										25106000015060	25106000015345

### Type K II

### Type K II-K



### Cablegrip, Type K II and K II-K, Galvanised or Stainless Steel, Double Mesh, open ended on both sides, on one side with 2 Pressed Loops or Thimbles, Material Strand 1 x 19

For gripping a cable or rope at a desired distance from the end. Other lengths are available on request. Can also be used as a tensioning grip to a limited extent.

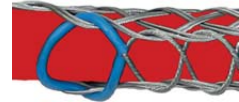
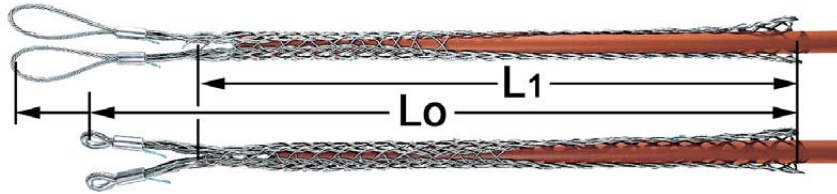
Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type K II		Type K II-K		Safety factor	Per- missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 in mm	Clear loop dimensions in mm	Overall length L0 in mm	Clear thimble dimensions in mm					
	6 - 10	600	725	45	725	12	3	2.8	0.080	25106000015031	25106000015316
										25106000015061	25106000015346
	10.1 - 15	700	875	60	850	14	3	4.7	0.150	25106000015032	25106000015317
										25106000015062	25106000015347
	15.1 - 20	800	975	60	975	14	3	5.7	0.190	25106000015033	25106000015318
										25106000015063	25106000015348
	20.1 - 25	900	1125	60	1100	14	3	8.9	0.330	25106000015034	25106000015319
										25106000015064	25106000015349
	25.1 - 30	1000	1250	75	1225	16	3	12.6	0.500	25106000015035	25106000015320
										25106000015065	25106000015350
	30.1 - 40	1100	1375	90	1325	18	3	16.6	0.710	25106000015036	25106000015321
										25106000015066	25106000015351
	40.1 - 50	1200	1525	105	1450	20	3	23.2	1.280	25106000015037	25106000015322
										25106000015067	25106000015352
	50.1 - 60	1300	1625	105	1575	20	3	23.2	1.360	25106000015038	25106000015323
										25106000015068	25106000015353
	60.1 - 70	1400	1775	120	1700	20	3	28.6	1.750	25106000015039	25106000015324
										25106000015069	25106000015354
	70.1 - 80	1500	1875	120	1800	20	3	34.3	2.200	25106000015040	25106000015325
										25106000015070	25106000015355
	80.1 - 90	1500	1925	150	1850	24	3	40.0	2.740	25106000015041	25106000015326
										25106000015071	25106000015356
	90.1 - 100	1500	1975	150	1875	24	3	46.0	3.180	25106000015042	25106000015327
										25106000015072	25106000015357
	100.1 - 130	1500	1975	150	1875	24	3	51.0	3.600	25106000015043	25106000015328
										25106000015073	25106000015358
	130.1 - 170	1600	2175	180	2050	28	3	75.9	6.930	25106000015044	25106000015329
										25106000015074	25106000015359
	160.1 - 200	1600	2175	180	2075	28	3	79.7	7.650	25106000015045	25106000015330
										25106000015075	25106000015360

### Cablegrips for Cables and Ropes

For the quick, flexible and damage-free gripping of cables, ropes or pipes in the middle of a strand by lashing an open grip braid for connection to a traction or winch rope when pulling in cable trenches, pipes etc., usually with swivel connectors if twisting is to be expected.

#### Type K II-N

#### Type K II-M



### Cablegrip, Type K II-N and K II-M, Galvanised or Stainless Steel, Double Mesh, open ended on both sides, on one side with 2 Pressed Loops or Thimbles, open-sided with lace-up Strand, Material Strand 1 x 19

Grips are used to grip and tighten the cable or rope at a great distance from the end. Other lengths are available on request. On grips that are open longitudinally, lace-up ropes are used, covered with a PU or PA hose at the most vulnerable point. These greatly reduce the Hertzian stress.

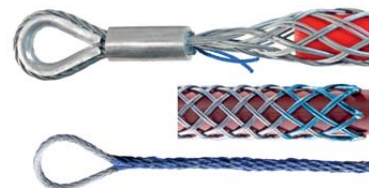
Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type K II-N		Type K II-M		Safety factor	Per- missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 in mm	Clear loop dimensions in mm	Overall length L0 in mm	Clear thimble dimensions in mm					
	10.1 - 15	700	875	60	850	14	3	4.0	0.180	25106000015076	25106000015361
										25106000015090	25106000015375
	15.1 - 20	800	975	60	975	14	3	4.8	0.220	25106000015077	25106000015362
										25106000015091	25106000015376
	20.1 - 25	900	1125	60	1100	14	3	7.5	0.370	25106000015078	25106000015363
										25106000015092	25106000015377
	25.1 - 30	1000	1250	75	1225	16	3	10.7	0.580	25106000015079	25106000015364
										25106000015093	25106000015378
	30.1 - 40	1100	1375	90	1325	18	3	14.1	0.790	25106000015080	25106000015365
										25106000015094	25106000015379
	40.1 - 50	1200	1525	105	1450	20	3	19.7	1.410	25106000015081	25106000015366
										25106000015095	25106000015380
	50.1 - 60	1300	1625	105	1575	20	3	19.7	1.510	25106000015082	25106000015367
										25106000015096	25106000015381
	60.1 - 70	1400	1775	120	1700	20	3	24.3	1.900	25106000015083	25106000015368
										25106000015097	25106000015382
	70.1 - 80	1500	1875	120	1800	20	3	29.2	2.490	25106000015084	25106000015369
										25106000015098	25106000015383
	80.1 - 90	1500	1925	150	1850	24	3	34.0	3.030	25106000015085	25106000015370
										25106000015099	25106000015384
	90.1 - 100	1500	1975	150	1875	24	3	39.1	3.480	25106000015086	25106000015371
										25106000015100	25106000015385
	100.1 - 130	1500	1975	150	1875	24	3	43.4	3.900	25106000015087	25106000015372
										25106000015101	25106000015386
	130.1 - 170	1600	2175	180	2050	28	3	64.5	7.240	25106000015088	25106000015373
										25106000015102	25106000015387
	160.1 - 200	1600	2175	180	2075	28	3	67.8	7.960	25106000015089	25106000015374
										25106000015103	25106000015388



### Practical tips and advice

#### • How can I read the colour coding for working diameter Da1?

Regardless of additional markings, the colour coding in line with the catalogue and operating instructions is binding. Two tracer threads indicate the max. working diameter of the cable grip. There must always be 2 tracer threads (from manufacture date 01/01/2014). If a thread is missing, the grip must be discarded or re-classified by a qualified person. Spliced and interim grips are colour coded.



#### • What can I do to prevent the pulling grip from slipping?

On certain cables or greased ropes with a very open structure, pulling grips can slip. This is dangerous! The following options exist in such situations:

- Ask us for a grip with a larger mesh length, indicating the pulling material.
- Simply use additional plastic or sheet metal hose clamps on the construction site to secure the cable grip at the end. This noticeably improves the force closure of the grip.
- Specify the item to be pulled and ask us for a more flexible mesh design. This particularly applies for support grips and in situations where greater safety is required.



- Ask us for a more flexible mesh form with determining the pulled load. Especially at support grips and applications with a highly necessary safety.



#### • How and when do pulling grips have to be checked?

In line with the regulations established by the professional associations for slings/ropes, pulling grips must be checked for mechanical wear (wire breaks etc.) before every use and at least once a year according to the same principles and discarded if necessary. Contact our service staff for assistance.

#### • What do the specified safety factors mean and who determines these?

The minimum breaking strengths of the cable grip calculated by the manufacturer (minimum tensile force required for destruction) divided by the specified safety factor results in the maximum permissible tensile forces. The manufacturer stipulates safety factors for the various usage situations on the basis of technical safety regulations. For a standard horizontal winch, we apply the safety factors for winch systems. For vertical static and dynamic loads, such as those with support grips and assembly grips, we use the same safety factors as for rope slings. For other grips, the safety factors are determined by the usage situations.

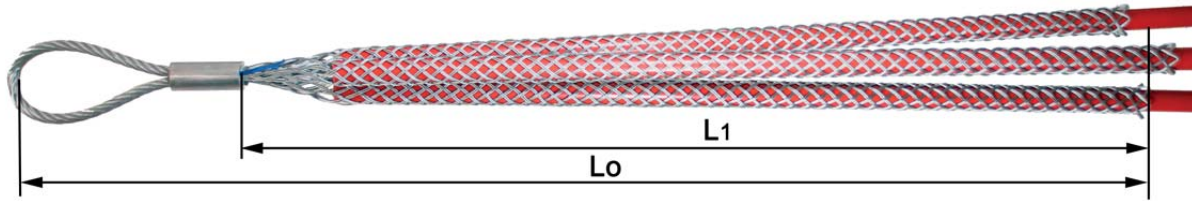
In practice, the user can increase the safety factors accordingly for specific situations but never reduce them!



### 3-way Cablegrips for Cables and Ropes

For the parallel, flexible, force-pressed and low-damage gripping and pulling of multiple cables, ropes or pipes using a traction or winch rope for pulling in cable trenches, pipes, etc. Usually with swivel connectors to prevent the individual strands from twisting.

#### Type K I-V



### 3-way Cablegrip, Type K I-V, Galvanised, Double Mesh, open ended on one side, on the other side with Pressed Loop

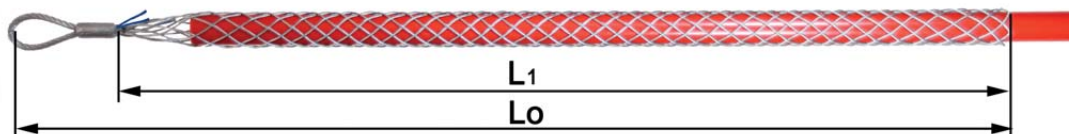
Multi-grips can be produced upon customer request, including with a different number of grips and different mesh lengths in line with the application on the construction site. This enables cables to be effectively laid.

Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Clear loop dimensions in mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no.
	6 - 10	600	750	90	3	8.3	0.240	25106000015155
	10.1 - 15	700	875	105	3	13.8	0.450	25106000015156
	15.1 - 20	800	1000	120	3	16.6	0.600	25106000015157
	20.1 - 25	900	1150	150	3	25.2	1.090	25106000015158
	25.1 - 30	1000	1300	180	3	34.8	1.710	25106000015159
	30.1 - 40	1100	1450	210	3	44.4	2.560	25106000015160
	40.1 - 50	1200	1575	240	3	59.1	4.440	25106000015161
	50.1 - 60	1300	1675	240	3	59.1	4.700	25106000015162

### Cablegrips for Fibre Optic Cables

For the flexible, fast, force-pressed and low-damage gripping a fibre optic cable using a traction or winch rope.

#### Type K I-L



### Cablegrip, Type K I-L, Galvanised, Single Mesh, open ended on one side, on the other side with Pressed Loop for Fibre Optic Cable, Material Strand 1 x 19

Pulling grips for fibre glass are made from a single mesh due to the sensitivity of the cable and the low loads. Other mesh lengths, the use of flexible ropes due to force locking and stainless steel grips are available on request.

Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Clear loop dimensions in mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no.
	10.1 - 15	600	675	45	3	2.4	0.070	25106000015105
	15.1 - 20	600	700	60	3	2.9	0.080	25106000015106
	20.1 - 25	700	800	60	3	4.5	0.130	25106000015107
	25.1 - 30	700	825	75	3	6.4	0.190	25106000015108
	30.1 - 40	700	875	105	3	12.1	0.420	25106000015109

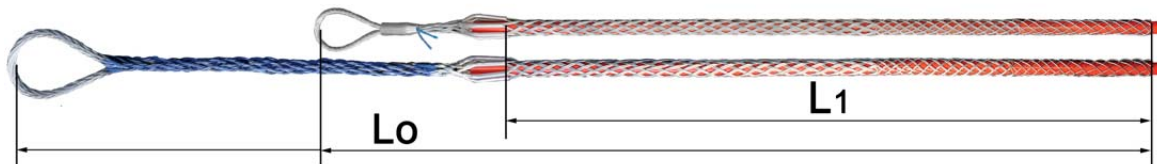


### Cablegrips for Stringing of Overhead Lines

The KF I cable grips are specially suited for stringing overhead lines (copper, aluminium or steel cables). They are characterised by a large mesh length and a three-stage mesh structure. This creates a highly secure force-locking grip on the lines. Permissible tensile forces are specified for the different lines. Intended for use at voltages of up to 1 kV.

#### Type KF I-P

#### Type KF I-S



### Cablegrip for Stringing of Overhead Lines up to 1 kV ,Type KF I-P and KF I-S, Galvanised, 3-stage Mesh, open ended on one side, Pressed or Spliced Loop on the other, Material Strand 1 x 19

The spliced loop design is particularly suited for smooth running over sheaves. The pressed loop design can also be used for overhead line construction providing the specified sheaves are used. Both versions have a fixed strand guard made from aluminium tubing at the closed end. When pulling lines over 1 kV, please consult with us to clarify further technical details. Other mesh lengths are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type KF I-P Pressed version		Type KF I-S Spliced version		Safety factor	Per- missible tensile strength kN	Weight/ pce		Item no. Pressed version	Item no. Spliced version
			Overall length L0 mm	Clear loop dimension in mm	Overall length L0 mm	Clear loop dimension in mm			Pressed version	Spliced version		
	11.0 - 15.9	1100	1325	120	1625	90	3	11.5	0.510	0.640	25106000015499	25106000015507
	16.0 - 20.9	1500	1775	150	2100	105	3	22.0	1.020	1.500	25106000015500	25106000015508
	21.0 - 26.9	1600	1925	180	2325	150	3	32.0	1.720	2.720	25106000035006	25106000035011
	27.0 - 35.9	1700	2075	210	2550	180	3	45.0	2.520	3.950	25106000035007	25106000035013
	36.0 - 44.9	1800	2200	210	2725	210	3	45.0	2.970	4.750	25106000035008	25106000035015
	45.0 - 55.0	1900	2325	210	2900	240	3	52.0	3.180	5.140	25106000035010	25106000035018



# STEEL WIRE ROPES

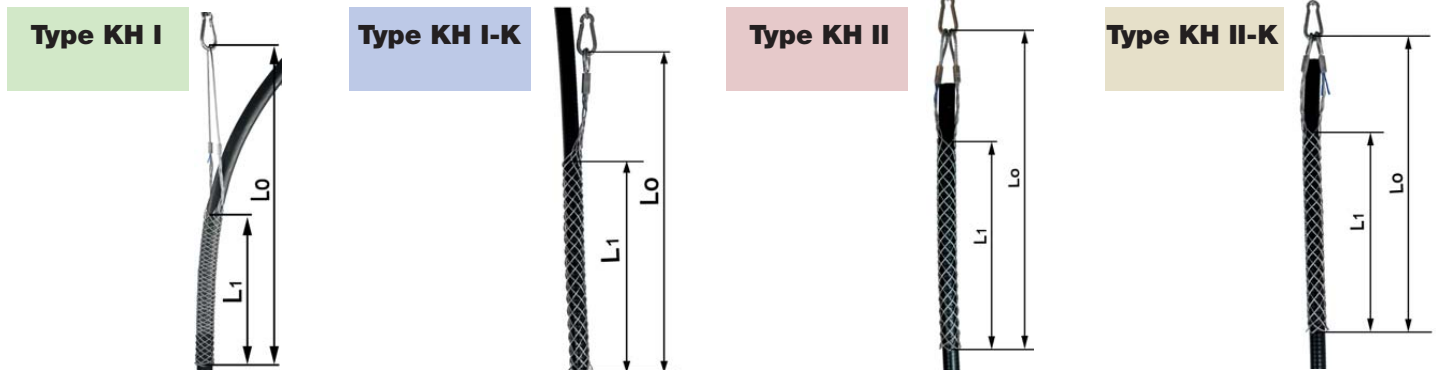
## Cablegrips





### Cable Support Grips

Cable support grips are reliable tools for the installation, attachment and strain relief of electric cables or similar. Various designs can be used in line with the usage situation. As cable support grips hold cables and lines vertically and have to be lifted during installation, a safety factor of 5 is specified.



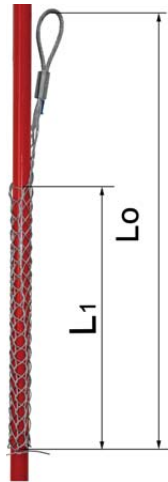
### Cable Support Grip, Type KH I, KH I-K, KH II, KH II-K, Galvanised or Stainless Steel, Single Mesh, open ended on one side, Pressed Single Eyelet, Eyelets or Thimble(s) on the other, Strand 1 x 19

Due to reduced loads, support grips are braided from a single-stranded wire union and have shorter braid lengths. Support grips with other braid lengths or design versions, higher holding forces and flexible braids from ropes with a particularly effective force closure are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type KH I		Type KH I-K		Type KH II		Type KH II-K		Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 mm	Clear loop dimensions in mm	Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear loop dimensions in mm	Overall length L0 mm	Clear thimble dim. in mm					
	6 - 10	150	350	120	300	12	325	45	300	12	5	1.4	0.040	25106000015167	25106000015389
														25106000015183	25106000015405
														25106000015175	25106000015397
														25106000015191	25106000015413
	10.1 - 15	180	400	120	375	14	375	45	350	12	5	1.4	0.040	25106000015168	25106000015390
														25106000015184	25106000015406
														25106000015176	25106000015398
														25106000015192	25106000015414
	15.1 - 20	200	425	120	425	14	425	45	400	12	5	2.7	0.080	25106000015169	25106000015391
														25106000015185	25106000015407
														25106000015177	25106000015399
														25106000015193	25106000015415
	20.1 - 25	250	525	150	500	16	500	45	500	12	5	2.7	0.090	25106000015170	25106000015392
														25106000015186	25106000015408
														25106000015178	25106000015400
														25106000015194	25106000015416
	25.1 - 30	300	600	150	575	16	600	60	575	14	5	3.8	0.140	25106000015171	25106000015393
														25106000015187	25106000015409
														25106000015179	25106000015401
														25106000015195	25106000015417
	30.1 - 40	350	700	200	650	18	650	60	625	14	5	5.1	0.190	25106000015172	25106000015394
														25106000015188	25106000015410
														25106000015180	25106000015402
														25106000015196	25106000015418
	40.1 - 50	450	825	200	800	20	800	75	775	16	5	7.2	0.360	25106000015173	25106000015395
														25106000015189	25106000015411
														25106000015181	25106000015403
														25106000015197	25106000015419
	50.1 - 60	500	900	200	875	20	900	90	875	18	5	8.8	0.450	25106000015174	25106000015396
														25106000015190	25106000015412
														25106000015182	25106000015404
														25106000015198	25106000015420

### Cable Support Grips

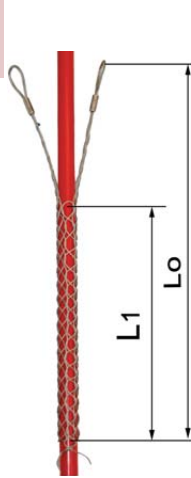
**Type KH I-N**



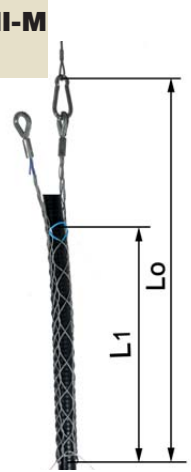
**Type KH I-M**



**Type KH II-N**



**Type KH II-M**



**Cable Support Grip, Type KH I-N, KH I-M, KH II-N, KH II-M, Single Mesh, Galvanised or Stainless Steel, open ended on both sides, open-sided with lace-up Strand, on one side Pressed Eyelet(s) or Thimble(s), Material Strand 1 x 19**

Support grips of the types KH I-N, KH II-N, KH I-M, KH II-M are open lengthwise and fastened with a binding wire at any point of the cable or rope to create a secure hold for the cable. They can also be attached retrospectively. Support grips with other braid lengths or design versions, higher holding forces and flexible braids from ropes with a particularly effective force closure are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type KH I-N		Type KH I-M		Type KH II-N		Type KH II-M		Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 mm	Clear loop dimensions in mm	Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear loop dimensions in mm	Overall length L0 mm	Clear thimble dim. in mm					
Red	10.1 - 15	180	400	60	375	14	375	45	350	12	5	1.2	0.050	25106000015199	25106000015421
														25106000015213	25106000015435
														25106000015206	25106000015428
														25106000015220	25106000015442
Green	15.1 - 20	200	450	60	425	14	425	45	400	12	5	2.3	0.090	25106000015200	25106000015422
														25106000015214	25106000015436
														25106000015207	25106000015429
														25106000015221	25106000015443
Blue	20.1 - 25	250	550	75	500	16	500	45	500	12	5	2.3	0.110	25106000015201	25106000015423
														25106000015215	25106000015437
														25106000015208	25106000015430
														25106000015222	25106000015444
Yellow	25.1 - 30	300	625	75	575	16	600	60	575	14	5	3.3	0.150	25106000015202	25106000015424
														25106000015216	25106000015438
														25106000015209	25106000015431
														25106000015223	25106000015445
Orange	30.1 - 40	350	700	90	650	18	650	60	625	14	5	4.3	0.220	25106000015203	25106000015425
														25106000015217	25106000015439
														25106000015210	25106000015432
														25106000015224	25106000015446
Brown	40.1 - 50	450	850	105	800	20	800	75	775	16	5	6.2	0.410	25106000015204	25106000015426
														25106000015218	25106000015440
														25106000015211	25106000015433
														25106000015225	25106000015447
Black	50.1 - 60	500	950	120	875	20	900	90	875	18	5	7.5	0.540	25106000015205	25106000015427
														25106000015219	25106000015441
														25106000015212	25106000015434
														25106000015226	25106000015448

### Support grips for Wind Turbines

Support grips in wind turbines are proven tools for the attachment and strain relief of electric cables when routing cables in turbines. As cable support grips hold cables and lines vertically, a safety factor of 5 is specified. These support grips are not suitable for assembly in the wind power sector.

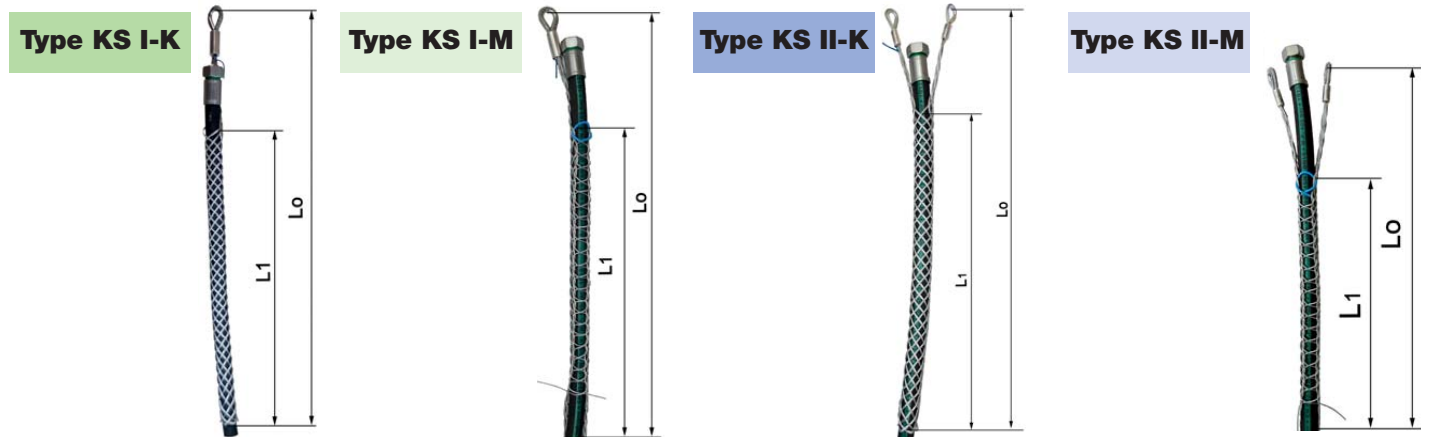


### Cable Support Grip (especially for Wind Turbines), Type KW I-K, Galvanised, Double Mesh, open ended on both sides, one side flat, extra-long Braided and Pressed Thimble, Material Strand 1 x 19

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Clear thimble dimensions in mm	Safety factor	Perm. tensile str. at x-times safety kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	6 - 10	500	825	14	5	1.7	0.090	25106000015227	25106000015449
	10.1 - 15	500	1000	16	5	2.8	0.160	25106000015228	25106000015450
	15.1 - 20	500	1100	16	5	3.4	0.190	25106000015229	25106000015451
	20.1 - 25	500	1100	18	5	5.3	0.300	25106000015230	25106000015452
	25.1 - 30	500	1125	20	5	7.6	0.420	25106000015231	25106000015453
	30.1 - 40	500	1125	20	5	9.9	0.550	25106000015232	25106000015454
	40.1 - 50	600	1250	24	5	13.9	1.020	25106000015233	25106000015455
	50.1 - 60	600	1250	24	5	13.9	1.020	25106000015234	25106000015456
	60.1 - 70	600	1250	24	5	17.2	1.210	25106000015235	25106000015457
	70.1 - 80	600	1275	28	5	20.6	1.490	25106000015236	25106000015458
	80.1 - 90	800	1500	28	5	24.0	2.040	25106000015237	25106000015459
	90.1 - 100	800	1600	32	5	27.6	2.540	25106000015238	25106000015460
	100.1 - 130	800	1600	32	5	30.6	2.860	25106000015239	25106000015461

### Hose Securing Grips

Hose securing grips provide safety in pneumatic and hydraulic systems. As well as acting as a static assembly aid and being suitable for attachment, they secure pressure-prone lines against accidental loosening of the fittings or protect against dangerous, uncontrolled movements in the case of defective cables. Due to the high expected forces, we apply a safety factor of 4.



**Hose securing grip, Type KS I-K, KS I-M; KS II-K, KS II-M, Galvanised, Double Mesh, open ended on both sides, on one side (2) Braided and (2) Pressed Thimble(s), Cablegrips Type -M open-sided with lace-up Strand, Material Strand 1 x 19**

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type KS I-K and KS I-M		Type KS II-K and KS II-M		Safety factor	Perm. tens. str. kN		Weight/ pce kg	Item no. Galvanised version
			Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear thimble dim. in mm		1S1K1- and 1S2K1-	1S1M1- and 1S2M1-		
	6 - 10	600	775	14	750	12	4	2.1	-	0.080	25106000015240
											25106000015252
	10.1 - 15	600	800	16	775	12	4	3.5	3.0	0.160	25106000015241
											25106000015264
											25106000015253
											25106000015275
	15.1 - 20	600	825	16	825	14	4	4.3	3.6	0.190	25106000015242
											25106000015265
											25106000015254
											25106000015276
	25.1 - 30	600	900	18	875	14	4	6.6	5.6	0.300	25106000015243
											25106000015266
											25106000015255
											25106000015277
	25.1 - 30	600	925	20	875	16	4	9.4	8.0	0.420	25106000015244
											25106000015267
											25106000015256
											25106000015278
	30.1 - 40	600	925	20	900	18	4	12.4	10.6	0.540	25106000015245
											25106000015268
											25106000015257
											25106000015279
	40.1 - 50	600	975	24	950	20	4	17.4	14.8	0.900	25106000015246
											25106000015269
											25106000015258
											25106000015280
	50.1 - 60	600	1025	24	975	20	4	17.4	14.8	0.930	25106000015247
											25106000015270
											25106000015259
											25106000015281



Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	Type KS I-K and KS I-M		Type KS II-K and KS II-M		Safety factor	Perm. tens. str. kN		Weight/ pce kg	Item no. Galvanised version
			Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear thimble dim. in mm		1S1K1- and 1S2K1-	1S1M1- and 1S2M1-		
	60.1 - 70	600	1025	24	1000	20	4	21.5	18.2	1.110	25106000015248 25106000015271 25106000015260 25106000015282
	70.1 - 80	600	1050	28	1000	20	4	25.8	21.9	1.370	25106000015249 25106000015272 25106000015261 25106000015283
	80.1 - 90	600	1075	28	1050	24	4	30.0	25.5	1.720	25106000015250 25106000015273 25106000015262 25106000015284
	90.1 - 100	600	1125	32	1075	24	4	34.5	29.3	1.980	25106000015251 25106000015274 25106000015263 25106000015285

**There are countless applications for flexible, tensile-loaded round braids. Contact us. We will find you a solution for your application.**



The expanded Condor Grip range includes many customer-related application options for cable pulling grips.

- Pulling grips for cable installations for homes 4-15 mm with special adapter heads
- Single, round braids by the metre for the electrostatic shielding of plastic pipes in sensitive buildings and rooms
- Special strain relief grips for electrical devices
- etc.

### Swivel Connector with Slide Bearing for Underground Cable Laying

For use between pulling rope and cablegrip



**Important: Slide bearings avoid twist, but do not untwist pull ropes. Do not use swivels with ball bearing for non rotation-free pull ropes!**

### Swivel Connector for Overhead Lines

Must only be used with non-rotating pull ropes!



Equipped with ball bearing, which eliminates the torsion of the soft aluminium or CU-conductors.

To discharge induction currents this swivel has an increased conductivity.

Ø in mm	Length in mm	Clevis width in mm	Max. perm. tens. str. s.fact. 3 kN	Weight in kg	Item no.
20	86	7	7	0.150	20202000015065
25	120	9	10	0.320	20202000015066
35	130	12	20	0.600	20202000015067
45	180	16	50	1.500	20202000015068
55	190	18	60	2.300	20202000015069
60	217	20	75	3.100	20202000015070
65	235	23	100	3.500	20202000015071
75	270	26	170	6.700	20202000015072
85	315	30	240	9.000	20202000015073

Ø in mm	Length in mm	Clevis width in mm	Max. perm. tens. str. s.fact. 3 kN	Weight in kg	Item no.
18	80	6.5	7	0.110	20202000015074
25	109	9	15	0.300	20202000015075
30	128	12	20	0.500	20202000015076
35	137	12	30	0.700	20202000015077
40	160	14	40	1.100	20202000015078
55	190	14	60	2.300	20202000015079
60	220	20	75	3.100	20202000015080
65	235	23	100	4.000	20202000015081
75	270	30	170	6.700	20202000015082

# STEEL WIRE ROPES

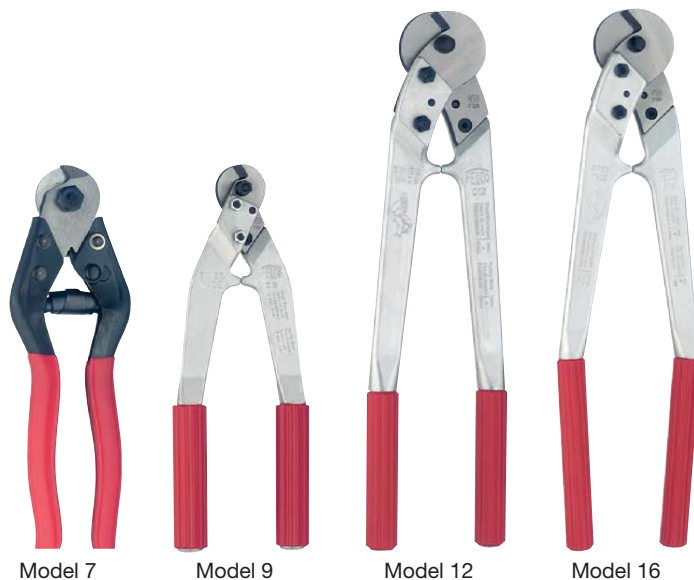
## Accessories

### Wire Rope and Cable Cutter

Material is cut smoothly without crushing. Handles forged of light alloy, hand grips plastic coated.

Application: For cutting wire ropes, steel rods, wires of all kind and wire-mesh.

Type	Max. cutting capacity ø in mm		Length in cm	Weight in kg	Item no.
	Steel wire ropes up 1,700 N/mm <sup>2</sup>	Electrical cables with steel core (aluminium or copper)			
7	5	7	19	0.270	20203400015001
9	7	9	32.5	0.750	20203400015002
12	8	12	50	1.500	20203400015003
16	14	16	63	2.300	20203400015004



### Hand Swaging Tools for mechanical swaging of Aluminium Sleeves

Rope Ø in mm	Length in mm	Weight in kg	Item no.
1	625	2.5	20203600015003
1.5	625	2.5	20203600015004
2.0	625	2.5	20203600015005
2.5	625	2.5	20203600015006
3.0	625	2.5	20203600015007
3.5	625	2.5	20203600015008
4	1000	8	20203600015009
4.5	1000	8	20203600015010



### Replacement Swaging Dies

Rope Ø in mm	Item no.
1	20251500015001
1.5	20251500015002
2	20251500015003
2.5	20251500015004
3	20251500015005
3.5	20251500015006
4	20251500015007
4.5	20251500015008



### Aluminium Sleeves

Rope Ø in mm	Item no.
1	20203800015001
1.2-1.5	20203800015002
1.6-2.0	20203800015003
2.5	20203800015004
3	20203800015005
3.5	20203800015006
4	20203800015007
4.5	20203800015008
5	20203800015009
6	20203800015010
8	20203800015013
10	20203800015015
12	20203800015017



### Oval Savapress loop sleeves

For self assembly of loops.

For rope Ø in mm	Minimum order quantity	Material	Suitable swaging	Item no.
0.72 - 1.00	100	zinc-plated copper	T185	20203800015090
1.20 - 1.50	100	zinc-plated copper	T185 / T188	20203800015084
1.80 - 2.00	100	zinc-plated copper	T185 / T188	20203800015085
2.50	50	zinc-plated copper	T188	20203800015086
3.00	50	zinc-plated copper	T188	20203800015087
4.00	50	zinc-plated copper	T188	20203800015088
5.00	50	zinc-plated copper	T188	20203800015089



### Swaging tools for oval Savapress loop sleeves

Due to the rope diameter tolerances it is recommended, to determine the actual clamp holding force by experiments. At strand constructions (1 x 7, 1 x 19) we recommend the use of 2 clamps.

For rope Ø in mm	Type	Length in mm	Weight in kg	Shape of swage	Item no.
0.45 - 2.00	T185	220	0.4	hexagonal	20203600015001
1.20 - 5.00	T188	510	2.27	round	20203600015002

Features for all hand crimping tools:

- Jaws of tough chrome alloy steel
- Handles coated with nonslip plastic grips





# STAINLESS STEEL PRODUCTS



Chain Slings and Accessories | Wire Rope Slings | Ropes as Piece Goods | Accessories  
Turnbuckles | Thimbles | Lifting Points screw-on | Lifting Points weld-on | Chain Hoists  
Lifting Beams





### Stainless steel slings and load suspension equipment for industrial use

- ▶ Chain Slings
- ▶ Wire Ropes and Accessories
- ▶ Safety Hooks
- ▶ Lifting Beams
- ▶ Pallet Trucks
- ▶ Superkraft Woven Wire Rope Slings

For use in the

- ▶ Food Industry
  - ▶ Chemical Industry
  - ▶ Dyeing Plants, Pickling Plants, Hardening Shops
  - ▶ Navigation
- and any place where corrosion is a problem!



### Corrosion resistance of stainless steel materials

Corrosive agent	Concentration	Temperature	1.4307	1.4401	1.4404	1.4462
Chloride	-	-	1 L	1 L	1 L	1 L
Acetic acid C <sub>2</sub> H <sub>2</sub> O <sub>2</sub>	-	-	1	0	0	0
Fatty acid C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	-	150 °C	1	0	0	0
Fluorine	40%	-	1-2	1-2	1-2	1-2
Gallic acid C <sub>6</sub> H <sub>2</sub> O <sub>2</sub> H	-	-	0	0	0	0
Hydroxyde (alkaline)	20%	-	0	0	0	0
	20%	boiling	1	1	1	1
Lactic acid	10%	boiling	1	0	0	0
Nitrosulphuric acids	1-2%	boiling	2	0	0	0
Phosphoric acid	60%	boiling	2	1	1	1
Nitric acid HNO <sub>3</sub>	1-66%	20%	0	0	0	0
	1-40%	boiling	0	0	0	0
	40-99%	boiling	1-2	1-2	1-2	1-2
Hydrochloric acid HCl	0-5%	20%	1 L	1 L	1 L	1 L
	1-2%	-	2 - 3 L	2 - 3 L	2 - 3 L	2 - 3 L
	1-2%	50°C	2 - 3 L	2 - 3 L	2 - 3 L	2 - 3 L
Sulphuric acid H <sub>2</sub> SO <sub>4</sub>	1-50%	20°C	1-2	1	1	1
	1-50%	70°C	1-2	0-2	0-2	0-2
	1-50%	boiling	2-3	2-3	2-3	2-3
Seawater*	-	< 60°C	0 - 2 L	0 - 1 L	0 - 1 L	0 L**
Sulphate	-	boiling	0-3	0-3	0-3	0-3
Tartaric acid	50%	boiling	2	1	1	1

0 = Resistant against erosive surface corrosion

1 = Slight attack by erosive surface corrosion

2 = Little resistance against erosive surface corrosion

3 = Not resistant against erosive surface corrosion

L = Pitting, crevice or stress corrosion might occur

\*No accumulation or concentration of chloride ions

\*\*Generally highly resistant against seawater

### Working load limit depending on the chain temperature

	-40°C to +250°C	above 250°C to 350°C*	above 350°C to 450°C
W.L.L.	100 %	75 %	50 %

\*1.4462 (AISI 318LN) max. 350°C allowed

Under unfavourable conditions corrosive attacks may occur in tight crevices.

The selection of the above-mentioned corrosive agents has been made according to their frequency of occurrence but may be extended in many areas. These indications result from laboratory tests of the material manufacturers and may only serve as a rough guide as practical application conditions cannot be compared with laboratory results.

# STAINLESS STEEL PRODUCTS

## cromox® Chain Slings, Welded/Modular System



### 1-leg Chain Sling CWH1, with welded ring clevis and eyelet hook



### 2-leg Chain Sling CWH2, with welded ring clevis and eyelet hook



### 4-leg Chain Sling CWH4, with welded ring clevis and eyelet hook



Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle		Item no.	Load capacity 4-leg in kg at angle		Item no.
			0-45°	45-60°		0-45°	45-60°	
4	400	25101000015973	550	400	25101000015974	800	600	25101000015975
5	630	25101000015977	850	630	25101000015979	1300	900	25101000015981
6	900	25101000015983	1250	900	25101000015987	1900	1350	25101000015991
7	1250	25101000015995	1750	1250	25101000015999	2650	1850	25101000016003
8	1550	25101000016007	2150	1550	25101000016011	3250	2300	25101000016015
10	2450	25101000016019	3450	2450	25101000016023	5150	3650	25101000016027
13	3850	25101000016030	5400	3850	25101000016032	8150	5750	25101000016034
16 (G5)	5000	25101000016036	7000	5000	25101000016038	10500	7500	25101000016040
18 (G5)	7000	25101000016042	9800	7000	25101000016043	-	-	-

### 1-leg Chain Sling with Safety Hook CML1, Modular system



### 2-leg Chain Sling with Safety Hook CML2, Modular system



### 4-leg Chain Sling with Safety Hook CML4, Modular system



Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle		Item no.	Load capacity 4-leg in kg at angle		Item no.
			0-45°	45-60°		0-45°	45-60°	
6	900	25101000015985	1250	900	25101000015989	1900	1350	25101000015993
7	1250	25101000015997	1750	1250	25101000016001	2650	1850	25101000016005
8	1550	25101000016009	2150	1550	25101000016013	3250	2300	25101000016017
10	2450	25101000016021	3450	2450	25101000016025	5150	3650	25101000016029

On request, nominal sizes 13 and 16 mm are also available with eye hook

# STAINLESS STEEL PRODUCTS

## cromox® Chain Slings in Modular Design

### 1-leg Chain Sling with Master Link CME1



### 2-leg Chain Sling with Master Link CME2



### 4-leg Chain Sling with Master Link CME4



Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle		Item no.	Load capacity 4-leg in kg at angle		Item no.
			0 - 45°	45 - 60°		0 - 45°	45 - 60°	
6	900	25101000015984	1250	900	25101000015988	1900	1350	25101000015992
7	1250	25101000015996	1750	1250	25101000016000	2650	1850	25101000016004
8	1550	25101000016008	2150	1550	25101000016012	3250	2300	25101000016016
10	2450	25101000016020	3450	2450	25101000016024	5150	3650	25101000016028
13	3850	25101000016031	5400	3850	25101000016033	8150	5750	25101000016035
16 (G5)	5000	25101000016037	7000	5000	25101000016039	10500	7500	25101000016041



Other end fittings like shackles or eye hooks are available on request.

### 1-leg Chain Sling, with shortener CMVL1, with Safety Hook



### 2-leg Chain Sling, with shortener CMVL2, with Safety Hook



### 4-leg Chain Sling, with shortener CMVL4, with Safety Hook

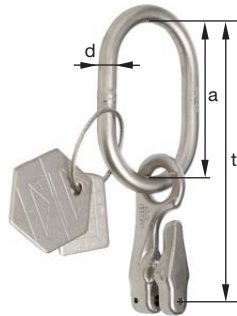


Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle		Item no.	Load capacity 4-leg in kg at angle		Item no.
			0-45°	45-60°		0-45°	45-60°	
5	630	25101000015976	850	630	25101000015978	1300	900	25101000015980
6	900	25101000015982	1250	900	25101000015986	1900	1350	25101000015990
7	1250	25101000015994	1750	1250	25101000015998	2650	1850	25101000016002
8	1550	25101000016006	2150	1550	25101000016010	3250	2300	25101000016014
10	2450	25101000016018	3450	2450	25101000016022	5150	3650	25101000016026



### Niro shortening system CVK, 1-leg, stainless

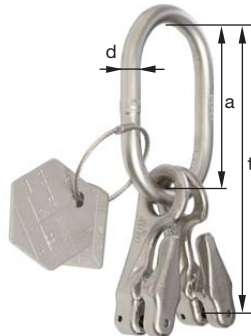
Grade 6,  
Material: 1.4462  
Surface: blasted



Type	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		d	t	a		
CVK 1 - 5	630	10	165	80	0.55	25202000015357
CVK 1 - 6	900	13	202	110	0.83	25202000015358
CVK 1 - 7	1250	13	186	110	1.20	25202000015359
CVK 1 - 8	1550	13	190	110	1.27	25202000015360
CVK 1 - 10	2450	16	185	110	2.07	25202000015361

### Niro shortening system CVK, 2-leg, stainless

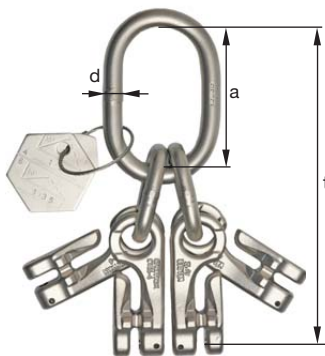
Grade 6,  
Material: 1.4462  
Surface: blasted



Type	Load capacity (WLL) in kg		Dimensions in mm			Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°	d	t	a		
CVK 2 - 5	850	630	13	195	110	1.09	25202000015362
CVK 2 - 6	1250	900	13	202	110	1.17	25202000015363
CVK 2 - 7	1750	1250	16	186	110	2.08	25202000015364
CVK 2 - 8	2150	1550	16	190	110	2.22	25202000015365
CVK 2 - 10	3450	2450	18	210	135	3.73	25202000015366

### Niro shortening system CVK, 4-leg, stainless

Grade 6,  
Material: 1.4462  
Surface: blasted



Type	Load capacity (WLL) in kg		Dimensions in mm			Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°	d	t	a		
CVK 4 - 5	1300	900	13	239	110	1.87	25202000015367
CVK 4 - 6	1900	1350	16	256	110	2.48	25202000015368
CVK 4 - 7	2650	1850	16	240	110	3.92	25202000015369
CVK 4 - 8	3250	2300	18	285	135	4.83	25202000015370
CVK 4 - 10	5150	3650	22	320	160	8.47	25202000015371

### Niro shortener CVE, stainless

Grade 6,  
Material: 1.4462  
Surface: blasted



Nominal size	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		d	t	a		
5	630	25	85.50	39.80	0.30	25202500015080
6	900	25	92.00	40.00	0.37	25202500015081
7	1250	32	113.00	50.50	0.70	25202500015082
8	1550	32	119.80	50.50	0.77	25202500015083
10	2450	38	149.00	61.00	1.39	25202500015084



**Scope of delivery:**  
Shortener (w/o chain  
and Master link)

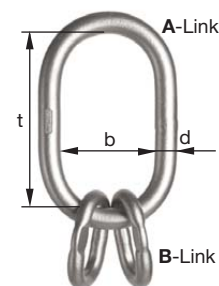
# STAINLESS STEEL PRODUCTS

## cromox® Master Links in Modular Design

### Niro Stainless Steel Master Link CAKF, 3- and 4-leg with flattened Section on B-Links, with welded B-Links

Grade 6  
Material: 1.4462  
Surface: blasted

All master links and master link assemblies have a flattened section for fitting of connecting elements (e.g. clevis shackle type CGS).

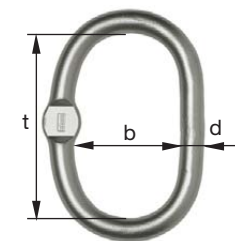


Type	Load capacity (WLL) in kg		Chain size	Dimensions in mm		Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°		d x t x b			
				A-Link	B-Link		
CAKF 13/10	1300	900	5	13 x 110 x 60	10 x 44 x 25	0.52	25202000015346
CAKF 16/13	2650	1850	6	16 x 110 x 60	13 x 54 x 25	0.97	25202000015347
CAKF 18/16	3250	2300	7/8	18 x 135 x 75	16 x 70 x 34	1.60	25202000015348
CAKF 22/18	5150	3650	10	22 x 160 x 90	18 x 85 x 40	2.76	25202000015349
CAKF 26/22	8150	5750	13	26 x 180 x 100	22 x 115 x 50	4.45	25202000015350
CAKF 32/26	10500	7500	16	32 x 200 x 110	26 x 140 x 65	7.55	25202000015351

### Niro Stainless Steel Master Link CAGF, 1- and 2-leg with flattened Section, A-Link

Grade 6  
Material: 1.4462  
Surface: blasted

All master links and master link assemblies have a flattened section for fitting of connecting elements (e.g. clevis shackle type CGS).

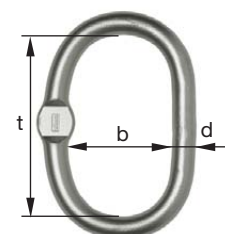


Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CAGF 10	630	5	4	10	80	50	0.15	25202000015326
CAGF 13	1550	6/7/8	5/6	13	110	60	0.34	25202000015327
CAGF 16	2450	10	7/8	16	110	60	0.53	25202000015328
CAGF 18	3550	-	10	18	135	75	0.80	25202000015329
CAGF 22	6000	13/16	13	22	160	90	1.50	25202000015330
CAGF 26	8000	18	16	26	180	100	2.30	25202000015331
CAGF 32	12000	20	18	32	200	110	3.90	25202000015332
CAGF 36	16000	-	20	36	260	140	6.35	25202000015333

### Niro Stainless Steel Master Link CBGF, 1- and 2-leg with flattened Section, B-Link

Grade 6  
Material: 1.4462  
Surface: blasted

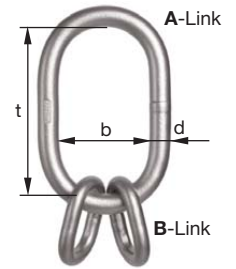
All master links and master link assemblies have a flattened section for fitting of connecting elements (e.g. clevis shackle type CGS).



Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CBGF 13	2450	-	-	13	54	25	0.195	25202000015334
CBGF 16	3850	-	-	16	70	34	0.370	25202000015335
CBGF 18	6000	-	-	18	85	40	0.530	25202000015336
CBGF 22	7600	-	-	22	115	50	1.065	25202000015337
CBGF 26	9600	-	-	26	140	65	1.825	25202000015338

### Niro Stainless Steel Master Link CAK, 3- and 4-leg without flattened section, with welded B-Links

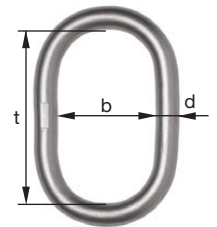
Grade 6,  
Material: 1.4404  
Surface: blasted



Type	Load capacity (WLL) in kg		Chain size	Dimensions in mm		Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°		A-Link	B-Link		
CAK 10/8	750	550	4	10 x 80 x 50	8 x 35 x 19	0.24	25202000015339
CAK 13/10	1250	900	5	13 x 110 x 60	10 x 44 x 25	0.52	25202000015340
CAK 16/13	2500	1800	6/7	16 x 110 x 60	13 x 54 x 25	0.97	25202000015341
CAK 18/16	3150	2250	8	18 x 135 x 75	16 x 70 x 34	1.60	25202000015342
CAK 22/18	5000	3600	10	22 x 160 x 90	18 x 85 x 40	2.76	25202000015343
CAK 26/22	8000	5700	13	26 x 180 x 100	22 x 115 x 50	4.45	25202000015344
CAK 32/26	10000	7500	16	32 x 200 x 110	26 x 140 x 65	7.55	25202000015345

### Niro Stainless Steel Master Links CAG, 1- and 2-leg Chain Slings without flattened section, A-Link

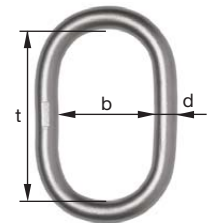
Grade 6,  
Material: 1.4404  
Surface: blasted



Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CAG 8	350	4	-	8	54	30	0.07	25202000015325
CAG 10	600	5	4	10	80	50	0.15	25202000015317
CAG 13	1500	6/7/8	5/6	13	110	60	0.34	25202000015318
CAG 16	2400	10	7/8	16	110	60	0.53	25202000015319
CAG 18	3350	-	10	18	135	75	0.80	25202000015320
CAG 22	6000	13/16	13	22	160	90	1.50	25202000015321
CAG 26	8000	18	16	26	180	100	2.30	25202000015322
CAG 32	12000	20	18	32	200	110	3.90	25202000015323
CAG 36	16000	-	20	36	260	140	6.35	25202000015324

### Niro Stainless Steel Master Links CBG, 1- and 2-leg Chain Slings without flattened section, B-Link

Grade 6,  
Material: 1.4404  
Surface: blasted



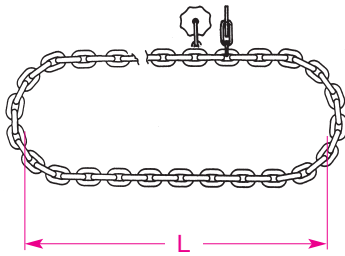
Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CBG 5	350	-	-	5	22	9	0.012	25202000015308
CBG 6	600	-	-	6	26	13	0.018	25202000015309
CBG 8	1200	-	-	8	35	19	0.046	25202000015310
CBG 10	1500	-	-	10	44	25	0.092	25202000015311
CBG 13	2400	-	-	13	54	25	0.195	25202000015312
CBG 16	3850	-	-	16	70	34	0.370	25202000015313
CBG 18	6000	-	-	18	85	40	0.530	25202000015314
CBG 22	7600	-	-	22	115	50	1.065	25202000015315
CBG 26	9600	-	-	26	140	65	1.825	25202000015316

# STAINLESS STEEL PRODUCTS

## CROMOX® Chains and Components

### Niro Endless Stainless Steel Chain, welded CELK

Grade 6,  
Material: 1.4404  
Surface: blank

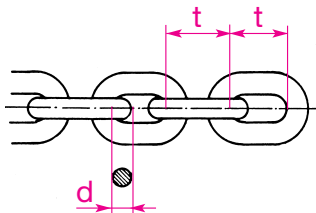


Standard length „L“ = 1 m  
Length „L“ 1 m = Circumference 2 m

Nominal chain size in mm	Load capacity (WLL) in kg at angle of			Item no.
	direct	0 - 45°	45 - 60°	
4 x 12	800	450	300	25101500015172
5 x 15	1260	700	500	25101500015173
6 x 18	1800	1000	700	25101500015174
7 x 21	2500	1400	1000	25101500015175
8 x 24	3100	1700	1200	25101500015176
10 x 30	4900	2700	1950	25101500015177
13 x 39	7700	4300	3050	25101500015178
16 x 48 (G5)	10000	5600	4000	25101500015179

### Niro Stainless steel round steel chain (sling chain)

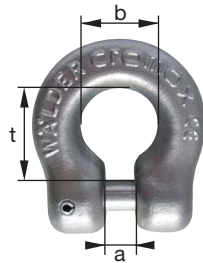
Grade 6,  
Material: 1.4404  
similar DIN 5687  
Surface: blank



Chain size d x t in mm	Load capacity (WLL) in kg	Weight ca. kg/m	Item no.
4 x 12	400	0.35	25201000015040
5 x 15	630	0.54	25201000015041
6 x 18	900	0.80	25201000015042
7 x 21	1250	1.10	25201000015043
8 x 24	1550	1.40	25201000015044
10 x 30	2450	2.20	25201000015045
13 x 39	3850	3.80	25201000015046
16 x 48 (G5)	5000	5.70	25201000015038
18 x 54 (G5)	7000	7.30	25201000015039

### Niro Stainless Steel Clevis Shackle CGS

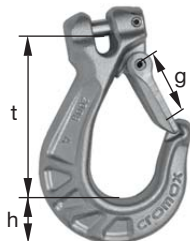
ND 6 - ND 13 Grade 6,  
ND 16 Grade 5  
Material: 1.4462  
Surface: blasted



Nominal size	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		t	b	a		
6	900	26	20	7	0.160	25202000015352
7/8	1550	30	23	9	0.230	25202000015353
10	2450	40	28	11	0.460	25202000015354
13	3850	48	38	14	0.675	25202000015355
16 (G5)	5000	50	44	17	1.130	25202000015356

### Niro Stainless Steel Clevis Hook CGHF, with Safety Latch

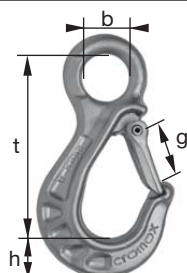
Grade 6,  
Material: 1.4462  
Surface: blasted



Nominal size	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		t	g	h		
5	630	79	25	22	0.400	25201500015227
6	900	78	25	22	0.400	25201500015228
7/8	1550	97	32	28	0.760	25201500015229
10	2450	121	40	34	1.440	25201500015230

### Niro Stainless Steel Eye Hook COHF, with Safety Latch

NG 4 - NG 13 Grade 6,  
NG 16 - NG 18 Grade 5  
Material: 1.4462  
Surface: blasted

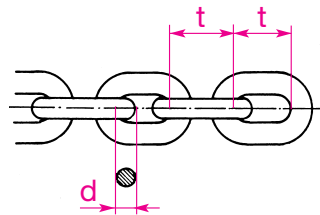


Nominal size	Load capacity (WLL) in kg	Dimensions in mm				Weight in kg/pce	Item no.
		t	g	b	h		
4	400	75	20	17	17	0.185	25201500015231
5/6	900	100	25	25	22	0.350	25201500015232
7/8	1550	126	32	27	28	0.790	25201500015233
10	2450	160	40	37	34	1.370	25201500015234
13	3850	190	51	48	45	3.000	25201500015235
16 (G5)	5000	230	66	55	51	4.800	25201500015236
18 (G5)	7000	230	66	55	51	4.800	25201500015237



### Niro Chain Sling CHK / Hand Chain NHC

Grade 6,  
Material: 1.4404  
similar DIN 5684  
Surface: blank  
Tested, true to gauge  
Calibrated to DIN 5684 for  
precise running over the  
chain wheels



a\* Manual lifting equipment  
SF 4:1



b\* Motorised lifting equipment 1 Bm  
SF 5:1



Type	Chain size d x t in mm	Load capacity (WLL) in kg		Weight ca. kg/m	Item no.
		a*	b*		
CHK	4 x 12	400	320	0.35	15301000015001
CHK	4 x 12.3	400	320	0.35	15301000015002
CHK	5 x 15	630	500	0.54	15301000015003
CHK	5 x 15.1	630	500	0.54	15301000015004
CHK	5 x 15.3	630	500	0.54	15301000015005
CHK	6 x 18	950	750	0.80	15301000015006
CHK	6.3 x 19.1	1000	800	0.86	15301000015007
CHK	7 x 21	1250	1000	1.10	15301000015008
CHK	7 x 22	1250	1000	1.10	15301000015009
CHK	7.1 x 21.2	1300	1000	1.12	15301000015010
CHK	8 x 24	1600	1250	1.40	15301000015011
CHK	8 x 24.2	1600	1250	1.40	15301000015012
CHK	9 x 27	2000	1600	1.80	15301000015013
CHK	10 x 28	2500	2000	2.20	15301000015014
CHK	10 x 30	2500	2000	2.20	15301000015015
NHC	5 x 25	-	-	0.45	15301500015001
NHC	5 x 25.2	-	-	0.45	15301500015002

### Swivel Load Hook CWHF for direct connection to hoist chain

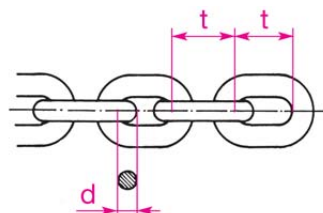
Grade 6,  
Material: 1.4462  
Surface: blasted  
Easy to swivel under full load (stainless steel ball  
bearing)  
Specially tailored to the lifting equipment and lif-  
ting equipment chains from several manufacturers  
Patented Sceletto principle for enhanced bracing  
Perfect handling thanks to compact design



Designation	Suitable for chain Ø in mm	Load cap. (WLL) kg	Dim. g in mm	Weight ca. kg	Item no.
CWHF 40	4x12/12.1/12.3	400	20	0.450	25201500015238
CWHF 43	4.3 x 12	400	20	0.450	25201500015239
CWHF 50	5x15/15.1/15.3	630	20	0.450	25201500015240
CWHF 60	6 x 16.7/18	950	25	1.100	25201500015241
CWHF 63	6.3x19.1	1000	25	1.100	25201500015242
CWHF 70	7x21/22	1250	25	1.100	25201500015243
CWHF 71	7.1 x 20.5/21.2	1300	25	1.100	25201500015244

### Niro Round Steel Chain, Short-Linked

Grade 6,  
Material: 1.4404  
similar DIN 766  
Surface: blank  
Tested, true to gauge



Nominal chain size in mm	Load capa- city (WLL) in kg	Weight ca. kg/m	Item no.
4 x 16	400	0.32	25301820015050
5 x 18.5	630	0.50	25301820015051
6 x 18.5	900	0.78	25301820015052
7 x 22	1250	1.10	25301820015053
8 x 24	1550	1.35	25301820015054
10 x 28	2450	2.25	25301820015055
13 x 36	3850	3.90	25301820015056



**Must not be used  
for transport and  
lifting of loads!**

# STAINLESS STEEL PRODUCTS

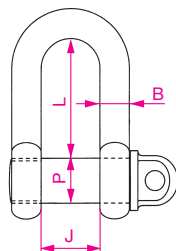


## Shackles

### High Strength Stainless Steel D-shackle, forged, stamped with Load Capacity

Higher load capacity  
due to special material

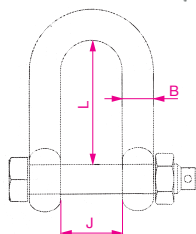
- **Material:** Bracket and pin forged high strength stainless steel
- **Material:** 1.4542
- **Safety factor:**  
Minimum breaking load = 6 times load bearing capacity
- **Labelling:** CE marking, batch number, manufacturer and load bearing capacity
- **Operating temperature range:**  
-40°C to + 250°C
- **Certificates:** A BS EN 10204 3.1b certificate for this product can be supplied on request
- **Test:** Each shackle is tested and certified for 2 times the load bearing capacity



Load capacity (WLL) in kg	Dimensions in mm				Weight ca. kg	Item no.
	P	B	J	L		
1000	10.0	8.0	16	32	0.085	25301810015001
2000	12.7	10	20	40	0.150	25301810015002
3000	16	12.7	25	50	0.350	25301810015003
5000	19	16	32	64	0.550	25301810015004
7000	22.2	19	38	76	1.000	25301810015005
9000	25.4	22.2	44	88	1.900	25301810015006
11000	28.6	25.4	51	102	2.900	25301810015007
13000	31.8	28.6	57	114	3.100	25301810015008
15000	34.9	31.8	64	128	4.350	25301810015009
18000	38	34.9	70	140	5.300	25301810015010

### Stainless Steel D-shackle with Nut and Pin, forged, stamped with Load Capacity

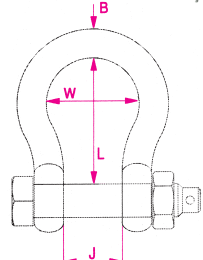
- **Material:** Bracket and pin forged stainless steel
- **Material:** 1.4401
- **Safety factor:**  
Minimum breaking load = 6 times load bearing capacity
- **Labelling:** CE marking, batch number, manufacturer and load bearing capacity
- **Operating temperature range:**  
-40°C to + 250°C



Load capacity (WLL) in kg	Nominal size	Dimensions in mm			Weight in kg/pce	Item no.
		B	J	L		
350	M6	6	13	25	0.048	25301810015011
500	M8	8	16	32	0.075	25301810015012
800	M10	9.5	19	38	0.136	25301810015013
1000	M12	11	22	44	0.212	25301810015014
1250	M12	12.7	26	52	0.331	25301810035065
1800	M16	14.3	29	58	0.585	25301810015015
2800	M20	16	32	64	0.760	25301810015016
3300	M22	19	38	76	1.180	25301810015017
4500	M24	22	44	88	1.750	25301810015018
5000	M27	25.4	50	100	2.600	25301810015019

### Stainless Steel Bow Shackle with Nut and Pin, forged, stamped with Load Capacity

- **Material:** Bracket and pin forged stainless steel
- **Material:** 1.4401
- **Safety factor:**  
Minimum breaking load = 6 times load bearing capacity
- **Labelling:** CE marking, batch number, manufacturer and load bearing capacity
- **Operating temperature range:**  
-40°C to + 250°C



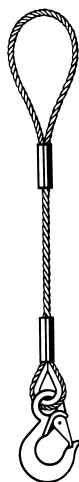
Load capacity (WLL) in kg	Nominal size	Dimensions in mm				Weight in kg/pce	Item no.
		B	J	W	L		
280	M6	6	13	19	28	0.052	25301810015020
400	M8	8	16	25	35	0.081	25301810015021
600	M10	9.5	19	28	38	0.147	25301810015022
800	M12	11	22	33	46	0.221	25301810015023
1000	M12	12.7	26	38	52	0.354	25301810015024
1500	M16	14.3	29	43	60	0.635	25301810015025
2500	M20	16	32	50	68	0.805	25301810015026
3000	M22	19	38	58	76	1.250	25301810015027
4000	M24	22	44	66	88	1.820	25301810015028
4500	M27	25.4	50	76	100	2.700	25301810015029

**Wire rope sling  
with pressed  
loops, 1-leg**



The load capacities assume that for one-legged wire rope slings without a thimble loop, the lifting point has a diameter of at least twice the rope nominal diameter.

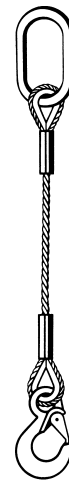
**Wire rope sling  
with pressed loop  
and safety hook**



**Wire rope sling  
with pressed loop  
and master link**



**Wire rope sling  
with master link  
and safety hook**

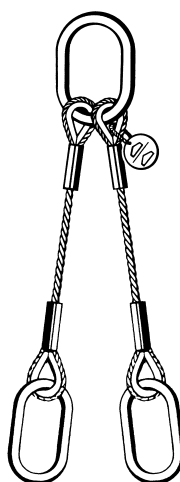


Rope Ø in mm	Load capacity 1-leg single direct in kg	Item no.	Item no.	Item no.	Item no.
8	600	25102000015090	25102000015546	25102000015320	25102000015626
10	1000	25102000015091	25102000015547	25102000015321	25102000015627
12	1300	25102000015092	25102000015548	25102000015322	25102000015628
14	1800	25102000015093	25102000015549	25102000015323	25102000015629
16	2300	25102000015094	25102000015550	25102000015324	25102000015630
20	3600	25102000015095	25102000015551	25102000015325	25102000015631

**Wire rope sling  
with 2 master links**



**2-leg wire rope  
sling with master links**

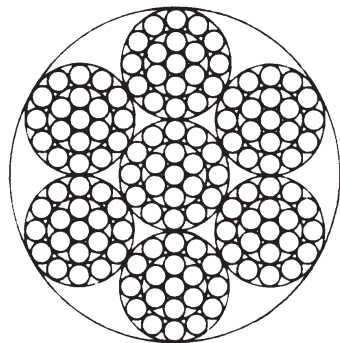


**2-leg wire rope  
sling with master  
links and safety hook**



Rope Ø in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle		Item no.	Item no.
			0 - 45°	45 - 60°		
8	600	25102000016120	840	600	25102000016738	25102000016576
10	1000	25102000016121	1400	1000	25102000016739	25102000016577
12	1300	25102000016122	1800	1300	25102000016740	25102000016578
14	1800	25102000016123	2500	1800	25102000016741	25102000016579
16	2300	25102000016124	3200	2300	25102000016742	25102000016580
20	3600	25102000016125	5000	3600	25102000016743	25102000016581

### Stainless Steel Stranded Rope, Material 1.4401, Construction 6x19M-WSC



Rope Ø in mm	Minimum breaking load (MBL) 1,570 N/mm <sup>2</sup>		Weight in kg/m	Item no.
	kN	kg		
2.0	2.08	291	0.017	20101000025007
3.0	4.69	478	0.034	20101000025008
4.0	8.34	850	0.060	20101000025009
5.0	13.0	1330	0.093	20101000025010
6.0	18.8	1920	0.134	20101000025011
7.0	27.41	2800	0.196	20101000025012
8.0	33.4	3410	0.238	20101000025013
10.0	52.1	5310	0.372	20101000025014
12.0	75.1	7660	0.536	20101000025015
16.0	133.0	13600	0.955	20101000025016

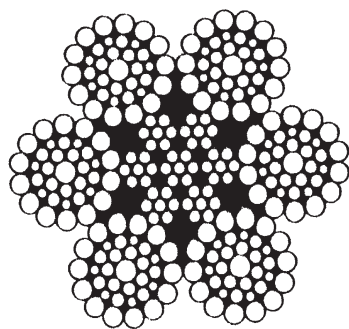
Rope class / Number of outer strands:  
**6x19/ 6**

Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

### Stainless Steel Wire Rope, Material 1.4401, Construction 6x36WS-IWRC



Rope Ø in mm	Minimum breaking load (MBL) 1,570 N/mm <sup>2</sup>		Weight in kg/m	Item no.
	kN	kg		
8.0	35.7	3641	0.260	20101000025017
10.0	55.9	5700	0.409	20101000025018
12.0	80.5	8210	0.589	20101000025019
14.0	110.0	11200	0.802	20101000025020
16.0	143.0	14600	1.050	20101000025021
18.0	181.0	18500	1.330	20101000025022
20.0	224.0	22800	1.640	20101000025023

Rope class / Number of outer strands:  
**6x36 / 6**

Lay / Lay direction available in:  
**sZ**

Categories:  
**not rotation-resistant**

Swivel:  
**not allowed**

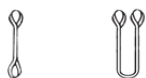


### CondorLift Woven Wire Rope Sling

Low dead weight  
in relation to load

With 2 stranded eyes, in stainless steel 1.4401/1.4310  
Special sizes and widths on request!

- Low dead weight in relation to load
- Customised loop lengths for different applications

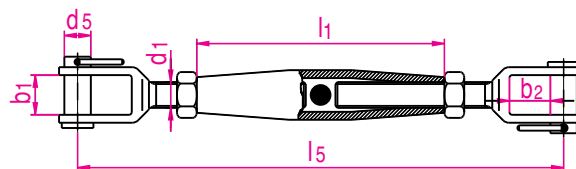


Load capacity (WLL) in kg		Width in mm	Thickness in mm	Loop length in mm	Item no.	Weight 1st metre in kg	Additional metre in kg
direct	umgelegt						
750	1500	30	6	195	25104000035017	1.6	1.0
1250	2500	40	6	195	25104000035018	1.9	1.3
2000	4000	40	10	300	25104000035019	4.1	2.2
3000	6000	60	10	300	25104000035020	4.5	2.5
6000	12000	90	10	400	25104000035021	7.2	4.6
8000	16000	120	10	410	25104000035022	9.2	6.2



Other versions of woven wire rope slings can be found starting on page 336.  
On request they are also available in stainless steel.

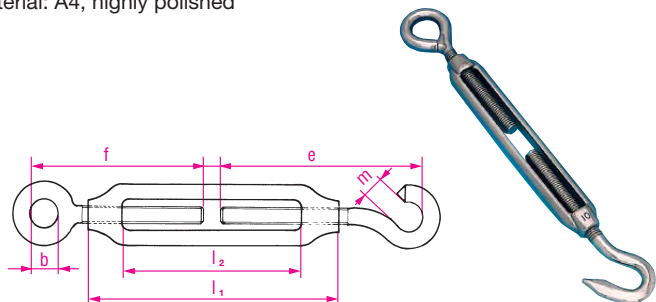
### Turnbuckle with 2 Forks, Material 1.4401



Thread d1	Load capacity (WLL) in t	Dimensions in mm			Weight in kg/100 pcs		Item no.
		b1	b2	d5	l1	l5	
M5	0.187	6	9	5.0	80	130 - 190	25301815015001
M6	0.275	8	10	6.0	95	150 - 220	25301815015002
M8	0.500	10	11	8.0	105	180 - 255	25301815015003
M10	0.775	12	13	9.0	125	220 - 300	25301815015004
M12	1.125	14	20	12.5	150	270 - 385	25301815015005
M14	1.500	14	22	12.5	165	300 - 425	25301815015006
M16	2.050	16	26	16.0	190	360 - 500	25301815015007
M20	3.200	20	30	19.0	210	390 - 560	25301815015008

### Turnbuckle similar to DIN 1480, with Hook and Eye

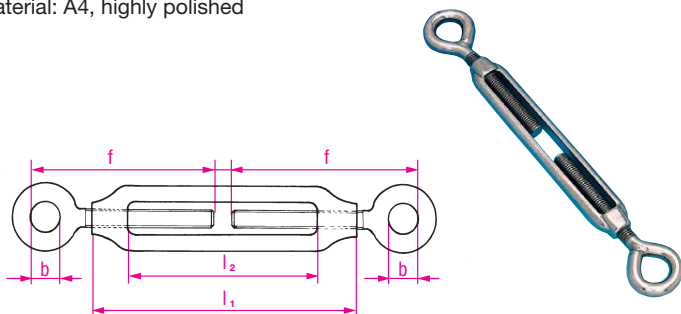
Hook and eye are forged  
Material: A4, highly polished



Nominal size = thread	Tens. dist. in mm	Dimensions in mm						Weight in kg/ 100 pcs	Item no.
b	e	f	l1	l2	m				
M5	45	8	53	58	70	55	9	5.03	25301815015009
M6	80	10	85	80	110	65	10	9.50	25301815015010
M8	75	11	85	84	110	95	11	16.50	25301815015011
M10	85	12	112	105	125	120	12	29.00	25301815015012
M12	80	14	117	115	125	165	14	43.00	25301815015013
M16	110	16	138	165	170	215	16	92.00	25301815015014

### Turnbuckle similar to DIN 1480, with 2 Eyes

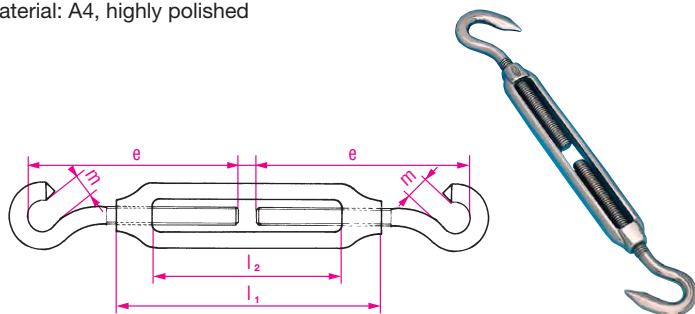
Eyes are forged  
Material: A4, highly polished



Nominal size = thread	Tens. dist. in mm	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
b	f	l1	l2	m			
M5	45	8	58	70	55	5.21	25301815015015
M6	80	10	80	110	65	9.00	25301815015016
M8	75	11	84	110	95	15.50	25301815015017
M10	85	12	105	125	120	27.00	25301815015018
M12	80	14	115	125	165	41.00	25301815015019
M16	110	16	165	170	215	100.00	25301815015020

### Turnbuckle similar to DIN 1480, with 2 Eyes

Eyes are forged  
Material: A4, highly polished



Nominal size = thread	Tens. dist. in mm	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
e	l1	l2	m				
M5	45	53	70	55	9	4.85	25301815015021
M6	80	85	110	65	10	9.50	25301815015022
M8	75	85	110	95	11	17.00	25301815015023
M10	85	112	125	120	12	30.00	25301815015024
M12	80	117	125	165	14	44.00	25301815015025
M16	110	138	170	215	16	95.00	25301815015026



All products on this page must not be used for lifting and transport of loads!

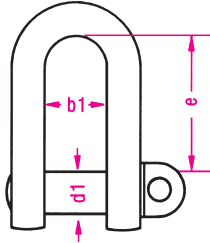
### D-Shackle

Stainless steel

Material: A4

Finish: highly polished

Marking: Manufacturer's mark, load capacity (WLL/kg)



Load capacity (WLL) in kg	Nominal size	Dimensions in mm			Weight in kg/ 100 pcs	Item no.
		b1	d1	e		
160	4	8	4	16	0.75	25301810015030
250	5	10	5	19	1.60	25301810015031
375	6	12	6	24	2.52	25301810015032
625	8	16	8	32	5.80	25301810015033
1000	10	20	10	40	11.10	25301810015034
1500	12	25	12	48	20.20	25301810015035
2750	16	32	16	64	47.40	25301810015036
3750	20	38	20	76	79.30	25301810015037
4750	22	44	22	88	126.00	25301810015038
5750	24	50	24	100	186.40	25301810015039

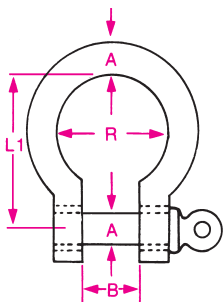
### Bow Shackle

Stainless steel

Material: A4

Finish: highly polished

Marking: Manufacturer's mark, load capacity (WLL/kg)

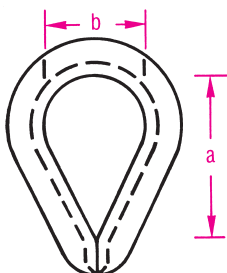


Load capacity (WLL) in kg	Nominal size	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
		A	B	R	L1		
160	4	4	8	12	16	0.80	25301810015040
250	5	5	10	15	20	1.80	25301810015041
375	6	6	12	18	24	2.60	25301810015042
625	8	8	16	24	32	5.80	25301810015043
1000	10	10	20	30	40	11.30	25301810015044
1500	12	12	25	36	48	20.90	25301810015045
2750	16	16	32	48	64	49.80	25301810015046
3750	20	20	38	60	80	92.50	25301810015047
4750	22	22	44	66	88	136.00	25301810015048
5750	24	24	50	75	100	192.40	25301810015049

### Stainless Steel Thimble

Material: A4

Finish: highly polished



Nominal size	Rope Ø in mm	Dimensions in mm		Weight in kg/ 100 pcs	Item no.
		a	b		
3	3	15	10	0.30	20201200015084
4	4	17	11	0.41	20201200015085
5	5	21	13	0.52	20201200015086
6	6	26	16	0.90	20201200015087
7	7	29	18	1.08	20201200015088
8	8	32	20	1.85	20201200015089
10	10	42	26	3.35	20201200015090
12	12	43	28	4.41	20201200015091
14	14	58	34	9.10	20201200015092
16	16	60	37	13.00	20201200015093
18	18	66	42	15.70	20201200015094
20	20	79	45	19.05	20201200015095



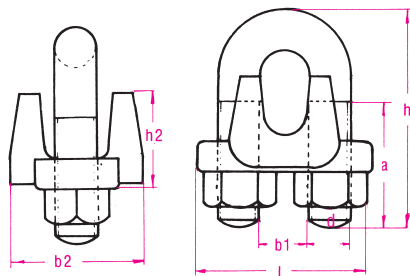
**All products on this page must not be used for lifting and transport of loads!**

**Load capacity is ca. 25% of the breaking load.**

**Max. load capacity indicated on the shackles must not be exceeded.**

### Stainless Steel Wire Rope Clip, heavy Version

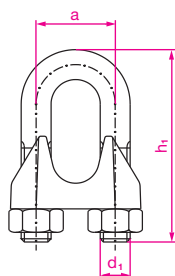
Similar DIN 741  
Material: A4  
Finish: polished



Nominal size	Dimensions in mm							Weight in kg/ 100 pcs	Item no.
	a	b1	b2	d	h1	h2	l		
2	9	4	13	M 3	18	11	14	0.8	20202200015050
3	12	5	16	M 4	25	12	17	1.5	20202200015051
4	13	6	18	M 4	25	14	19	2.9	20202200015052
5	15	7	20	M 5	29	15	24	3.1	20202200015053
6	18	8	21	M 6	31	17	27	4.0	20202200015054
8	23	10	27	M 8	41	21	34	7.7	20202200015055
10	28	12	34	M 10	52	25	45	17.0	20202200015056
12	35	14	38	M 12	61	28	51	26.5	20202200015057
14	42	15	43	M 12	68	32	53	31.0	20202200015058
16	42	18	47	M 14	76	36	60	50.0	20202200015059
19	50	20	51	M 14	79	40	62	58.0	20202200015060
22	60	26	61	M 16	98	46	72	80.0	20202200015061
25	62	29	61	M 16	110	49	76	108.0	20202200015062

### Stainless Steel Wire Rope Clip, light Version

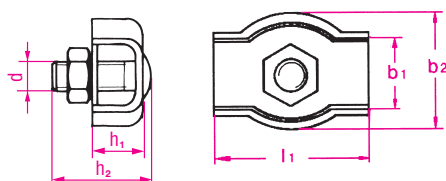
Similar DIN 741  
Material: A4  
Finish: polished



Nominal size	Dimensions in mm		a	Weight in kg/ 100 pcs	Item no.
	d1	h1			
2	M3	17	4	0.69	20202200015063
3	M4	20	5	1.20	20202200015064
4	M4	22	6	1.30	20202200015065
5	M5	24	6	1.40	20202200015066
6	M5	28	8	1.72	20202200015067
8	M6	34	10	4.10	20202200015068
10	M8	42	12	5.89	20202200015069
12	M10	55	15	13.0	20202200015070
16	M12	63	18	21.0	20202200015071
19	M12	75	21	28.0	20202200015072
22	M14	85	24	40.0	20202200015073

### Stainless Steel Simplex Clip with 1 Bolt

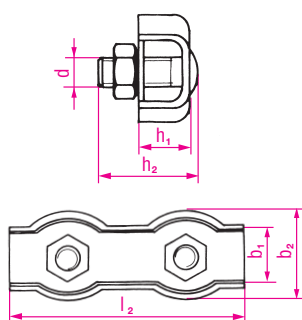
Material: A4  
Finish: polished



Nominal size Rope Ø	Dimensions in mm						Weight in kg/ 100 pcs	Item no.
	b1	b2	d	h1	h2	l1		
2	4	12	M 4.0	5	14	15	0.46	20202200015074
3	6	14	M 4.0	7	14	17	0.72	20202200015075
4	8	17	M 5.0	7	17	20	1.27	20202200015076
5	10	21	M 5.0	8.5	17	25	1.46	20202200015077
6	12	25	M 6.0	10	23	30	2.52	20202200015078
8	17	31	M 8.0	14	25	37	5.42	20202200015079

### Stainless Steel Duplex Clip with 2 Bolts

Material: A4  
Finish: highly polished

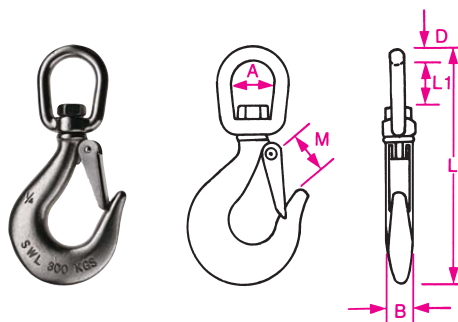


Nominal size Rope Ø	Dimensions in mm						Weight in kg/ 100 pcs	Item no.
	b1	b2	d	h1	h2	l2		
2	4	12	M 4.0	5	14	30	0.97	20202200015080
3	6	14	M 4.0	7	14	35	1.41	20202200015081
4	8	17	M 5.0	7	17	40	2.45	20202200015082
5	10	21	M 5.0	8.5	17	50	2.91	20202200015083
6	12	25	M 6.0	10	23	60	5.00	20202200015084
8	17	31	M 8.0	14	25	75	10.63	20202200015085
10	21	35	M 10.0	16	32	84	17.13	20202200015086



### Stainless Steel Safety Carbine Hook

Material: A4  
Finish: highly polished



Nominal size	Load cap. in kg	Dimensions in mm						Weight in kg	Item no.
		A	B	D	L	L1	M		
1/4	300	20	12	7	119	22	16	0.190	25302010015039
5/16	500	28	14	8.5	141	28	19	0.330	25302010015040
3/8	700	28	16	10	170	28	20	0.530	25302010015041
1/2	1000	32	20	13	199	36	30	1.040	25302010015042

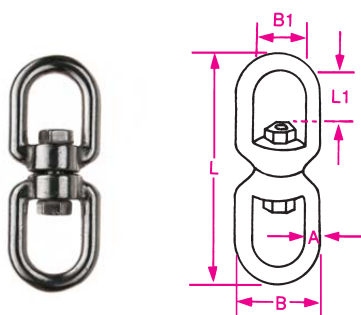
Also available as eye hook!



**This product must not be used for lifting and transport of loads!**

### Stainless Steel Swivel with 2 Eyes

Material: A4  
Finish: highly polished  
Marking: Manufacturer's mark, load capacity (WLL/kg)



Load cap. in t*	Nominal size	Dimensions in mm					Weight in kg/ 100 pcs	Item no.
		A	L	B	B1	L1		
0.17	5	5	60	23	13	13	3.30	20202000015049
0.25	6	6	65	27	15	15	5.50	20202000015050
0.65	8	8	90	36	20	22	14.80	20202000015051
1.00	10	10	115	44	24	27	26.70	20202000015052
1.40	13	13	154	58	32	32	57.40	20202000015053
2.50	16	16	188	71	39	42	101.30	20202000015054

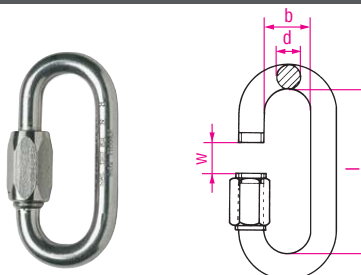
\* Load capacity = 20% of breaking load



**This product must not be used for lifting and transport of loads!**

### Stainless Steel Quick Link

Material: A4  
Finish: highly polished  
Marking: Manufacturer's mark



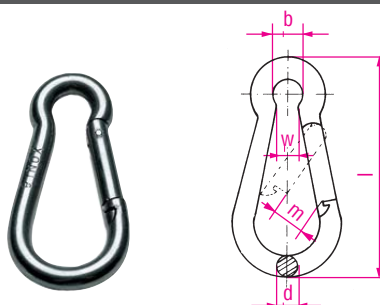
Nominal size	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
	l	b	w	d		
4	32	12	6	4	1.25	25302010015025
5	39	13	6.5	5	2.20	25302010015026
6	45	14	7.5	6	3.60	25302010015027
7	52	16	9.0	7	5.00	25302010015028
8	58	18	10.0	8	7.80	25302010015029
10	69	21	12.0	10	13.80	25302010015030



**This product must not be used for lifting and transport of loads!**

### Stainless Steel Snap Hook

Form C  
Material: A4, spring A2  
Finish: highly polished



Nominal size	Dimensions in mm					Weight in kg/ 100 pcs	Item no.
	b	d	l	m	w		
50 x 5	8	5	50	7	5	1.90	25302010015019
60 x 6	9	6	60	8	6.5	2.70	25302010015020
70 x 7	10	7	70	8	8	4.40	25302010015021
80 x 8	12	8	80	10	8.5	6.50	25302010015022
100 x 10	15	10	100	11	10.5	12.70	25302010015023
120 x 11	18	11	120	16	11.5	18.00	25302010015024



**This product must not be used for lifting and transport of loads!**

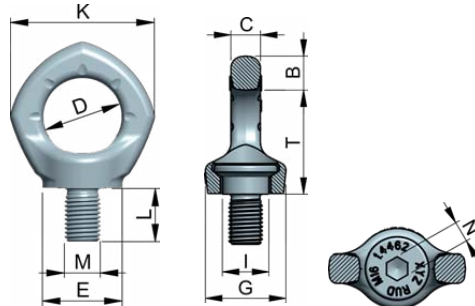
# STAINLESS STEEL PRODUCTS

## RUD Screw-on Lifting Points, Weldable

### Stainless Steel Eye Bolt Type INOX-STAR, Material 1.4462



Made from stainless steel  
50% higher load capacity than  
DIN Eye bolts in all directions



-40° C



Full information can be  
found in the lifting points  
section on page 541.



Also available as a lifting point for  
fall protection systems.  
Further information can be found in  
our latest catalogue  
„Work Protection/Fall Protection“

Type	Nominal capacity in t	Dimensions in mm											Weight in kg/pce	Item no.
		B	C	D	E	G	I	K	L	M	N	T		
INOX-STAR M12	0.5	14	12	30	30	32	20	56	18	M12	8	43	0.19	25250000015474
INOX-STAR M16	1.0	16	14	35	36	38	23.5	65	24	M16	10	50	0.31	25250000015475
INOX-STAR M20	2.0	19	16	40	42	47	29	74	30	M20	12	57	0.53	25250000015476
INOX-STAR M24	2.5	24	19	48	50	56	35	92	36	M24	14	69	0.92	25250000015477

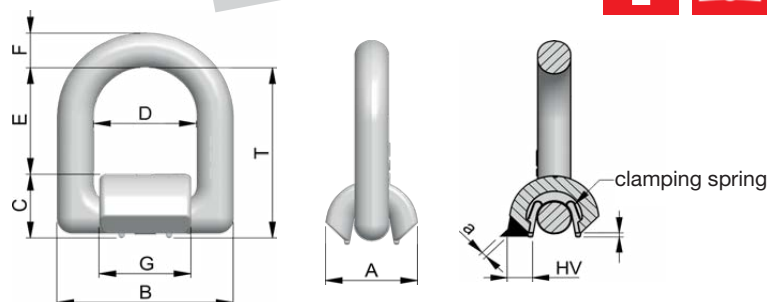
### Weld-on Stainless Steel Lifting Ring, Material 1.4571



-100° C












All Icons on this page  
see page 532 f.



Load capacity in t	Designation	Welding seam	Dimensions in mm									Weight in kg/pce	Item no. LBS stainless steel
			A	B	C	D	E	Ø F	G	H	T		
0.5	LBS (1) RS 0.5t	HV 5+3	32	65	36	25	39	13.5	33	69	64	0.3	25250000015073
1	LBS (3) RS 1t	HV 8+3	42	85	50	31	50	16.5	46	87	81	0.6	25250000015074
2	LBS (5) RS 2t	HV 12+4	61	110	65	44	72	22.5	60	125	116	1.6	25250000015075

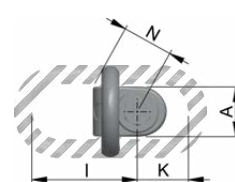
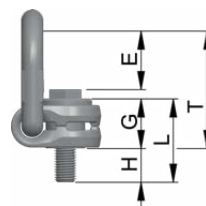
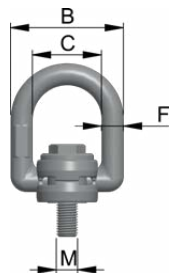
### Maximum transport weight G in t with different lifting methods:

Lifting method										
Legs	1	2	1	2	2	2	2	3 und 4	3 und 4	
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
LBS RS 0.5	0.5	1	0.5	1	0.7	0.5	0.5	1.05	0.75	0.5
LBS RS 1	1	2	1	2	1.4	1	1	2.1	1.5	1
LBS RS 2	2	4	2	4	2.8	2	2	4.2	3	2

### Threaded Lifting Ring in Stainless Steel, Material 1.4571



- Lifting point made from stainless steel
- Only 1 threaded bore or through bore required



Type	Load capacity in t	A	B	C	E	F	G	H	I	K	L	M	N	T	Max. torque bolt	Weight kg/pce	Item no.
LBG (3) M16 RS 1t	1	50	85	50	43	16.5	38	25	95	45	63	M16	45	88	100 Nm	1	25250000015478
LBG (3) M20 RS 2t	2	50	85	50	42	16.5	38	27	95	45	65	M20	45	88	200 Nm	1.1	25250000015479

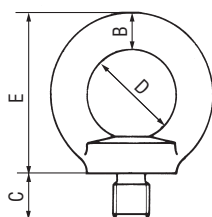
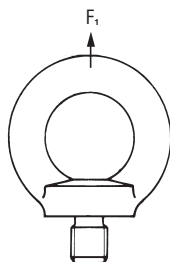
### Stainless Steel Eye Bolt, Material A4, DIN 580

Precisely drop-forged

Material: A4

Finish: highly polished

Marking: Manufacturer's mark, load capacity (WLL/kg)



Load capacity in t	Nominal size	Load cap. F1 in kg	Dimensions in mm				Weight in. kg/ 100 pce	Item no.
			B	C	D	E		
0.08	M6	80	8	13	20	36	6.00	25250000015018
0.14	M8	140	8	13	20	36	6.00	25250000015019
0.23	M10	230	10	17	25	45	11.00	25250000015020
0.34	M12	340	12	20.5	30	53	18.00	25250000015021
0.70	M16	700	14	27	35	62	28.00	25250000015022
1.20	M20	1200	16	30	40	71	45.00	25250000015023
1.80	M24	1800	20	36	50	90	74.00	25250000015024



**Load capacity (WLL/kg) indicated on the eye nuts must not be exceeded!**

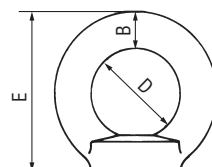
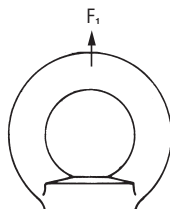
### Stainless Steel Eye Nut, Material A4, DIN 582

Precisely drop-forged

Material: A4

Finish: highly polished

Marking: Manufacturer's mark, load capacity (WLL/kg)



Load capacity in t	Nominal size	Load cap. F1 in kg	Dimensions in mm			Weight in kg/ 100 pce	Item no.
			B	D	E		
0.08	M6	80	8	20	36	5.00	25250000015042
0.14	M8	140	8	20	36	5.00	25250000015043
0.23	M10	230	10	25	45	9.00	25250000015044
0.34	M12	340	12	30	53	16.00	25250000015045
0.70	M16	700	14	35	62	24.00	25250000015046
1.20	M20	1200	16	40	71	36.00	25250000015047
1.80	M24	1800	20	50	90	72.00	25250000015048



**Load capacity (WLL/kg) indicated on the eye nuts must not be exceeded!**

### Electric chain hoists with stainless steel chain



These electric chain hoists can be fitted with stainless steel hook and chain. Please be aware that this will reduce the load capacity. This conversion is only possible for hoists with a single chain fall. Prices and capacities on request.

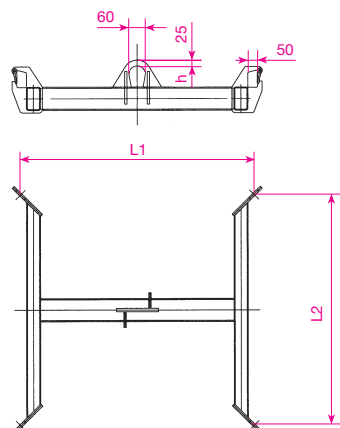
### Custom-made stainless steel load suspension equipment





### Lifting Beam for Big Bag Transport, Stainless Steel Version

With four load acceptance points with safety latches.  
Special versions e.g. low headroom, eccentric lifting eye etc. on request

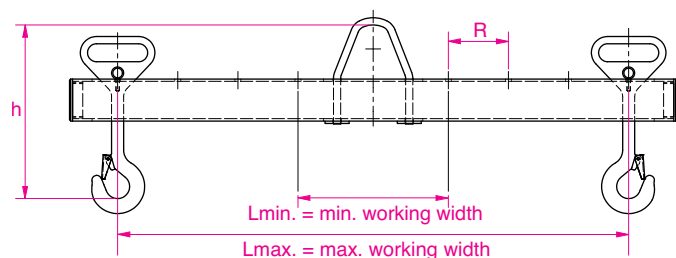


Load capacity in kg	Working width L1 x L2 in mm	Headroom h in mm	Eye size in mm	Weight ca. in kg	Item no.
1000	1000 x 1000	90	70 x 90	40	25302400015272
1500	1000 x 1000	90	70 x 90	40	25302400015273
2000	1000 x 1000	90	60 x 90	47	25302400015274

### Lifting Beam in modular Design, Stainless Steel Version

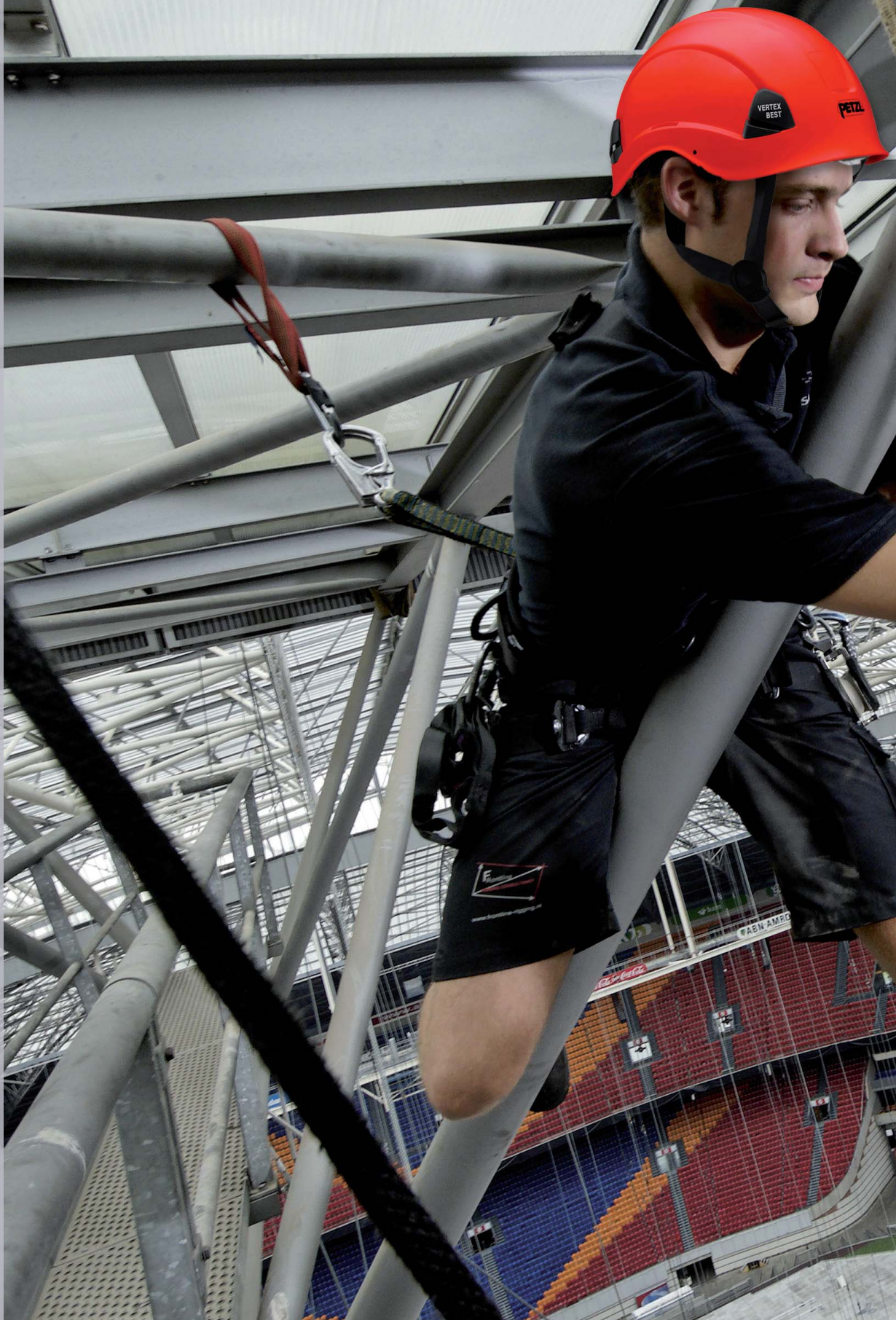


With bent lifting eye as single point suspension, suitable for crane hook according to DIN 15401 with adjustable, flame-cut safety hooks.



Load capacity in kg	Working width max./ min.L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
500	500 / 370	1 x 65	290	50 x 90	9	25302400035086
500	850 / 250	3 x 100	290	50 x 90	12	25302400035099
500	1850 / 850	5 x 100	290	50 x 90	22	25302400035100
1000	850 / 250	3 x 100	290	50 x 90	11	25302400035101
1000	1850 / 850	5 x 100	290	50 x 90	24	25302400035102
1000	2850 / 1350	6 x 125	290	50 x 90	48	25302400035104

# ACCESSORIES



Shackles | Turnbuckles | Eye Bolts/Nuts | Swivel Eye Bolts | Weld-on Hooks  
Chain Piece Goods | Submersible Pumps and Accessories







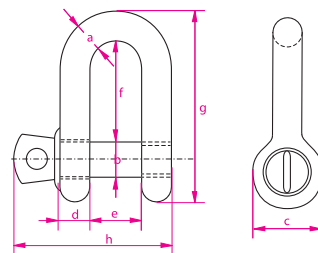
## ACCESSORIES



### Green Pin® Shackles

#### Green Pin® Standard Shackle DIN EN 13889, Dee Shackle with Screw Collar Pin

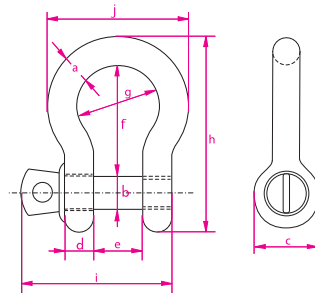
- **Material:** bow and pin in high-tensile steel, gr. 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 2, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available



WLL in t	Dimensions in mm								Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h		
0.33	5	6	12	5	9.5	19	33	29.5	0.02	25301810015050
0.5	7	8	16.5	7	12	22	41.5	38	0.05	25301810015051
0.75	9	10	20	9	13.5	26	50	46.5	0.09	25301810015052
1	10	11	22.5	10	17	32	59	54	0.14	25301810015053
1.5	11	13	26.5	11	19	37	68	59.5	0.19	25301810015054
2	13.5	16	34	13	22	43	81	73	0.32	25301810015055
3.25	16	19	40	16	27	51	97	89	0.54	25301810015056
4.75	19	22	46	19	31	59	112	103	0.87	25301810015057
6.5	22	25	52	22	36	73	143	119	1.34	25301810015058
8.5	25	28	59	25	43	85	154	137	2.08	25301810015059
9.5	28	32	66	28	47	90	167	153	2.77	25301810015060
12	32	35	72	32	51	94	180	170	3.72	25301810015061
13.5	35	38	80	35	57	115	209	186	5.14	25301810015062
17	38	42	88	38	60	127	230	203	6.85	25301810015063
25	45	50	103	45	74	149	271	243	11.45	25301810015064
35	50	57	111	50	83	171	305	272	16.86	25301810015065
42.5	57	65	130	57	94	190	345	310	24.61	25301810015066
55	65	70	145	65	105	203	376	344	32.65	25301810015067

#### Green Pin® Standard Shackle DIN EN 13889, Bow Shackle with Screw Collar Pin

- **Material:** bow and pin in high-tensile steel, grade 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 2, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available

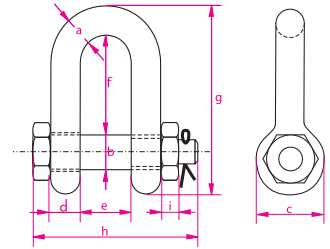
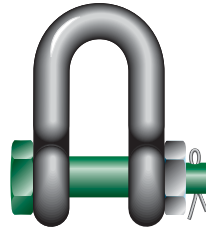


WLL in t	Dimensions in mm										Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j		
0.33	5	6	12	5	9.5	22	16	36	29.5	26	0.02	25301810015068
0.5	7	8	16.5	7	12	29	20	48.5	38	34	0.05	25301810015069
0.75	9	10	20	9	13.5	32	22	56	46.5	40	0.10	25301810015070
1	10	11	22.5	10	17	36.5	26	63.5	54	46	0.14	25301810015071
1.5	11	13	26.5	11	19	43	29	74	59.5	51	0.19	25301810015072
2	13.5	16	34	13.5	22	51	32	89	73	58	0.36	25301810015073
3.25	16	19	40	16	27	64	43	110	89	75	0.63	25301810015074
4.75	19	22	46	19	31	76	51	129	103	89	1.01	25301810015075
6.5	22	25	52	22	36	83	58	144	119	102	1.50	25301810015076
8.5	25	28	59	25	43	95	68	164	137	118	2.21	25301810015077
9.5	28	32	66	28	47	108	75	185	153	131	3.16	25301810015078
12	32	35	72	32	51	115	83	201	170	147	4.31	25301810015079
13.5	35	38	80	35	57	133	92	227	186	162	5.55	25301810015080
17	38	42	88	38	60	146	99	249	203	175	7.43	25301810015081
25	45	50	103	45	74	178	126	300	243	216	12.84	25301810015082
35	50	57	111	50	83	197	138	331	272	238	18.15	25301810015083
42.5	57	65	130	57	95	222	160	377	310	274	26.29	25301810015084
55	65	70	145	65	105	260	180	433	344	310	37.60	25301810015085



### Green Pin® Standard Shackle DIN EN 13889, Dee Shackle with Safety Bolt, Nut and Pin

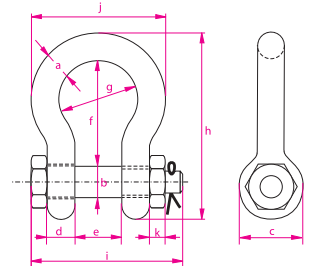
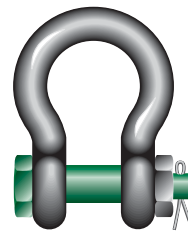
- **Material:** bow and pin in high-tensile steel, grade 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available



WLL in t	Dimensions in mm									Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i		
2	13.5	16	34	13	22	43	81	82	13	0.39	25301810015086
3.25	16	19	40	16	27	51	97	98	17	0.67	25301810015087
4.75	19	22	46	19	31	59	112	114	19	1.08	25301810015088
6.5	22	25	52	22	36	73	134	130	22	1.66	25301810015089
8.5	25	28	59	25	43	85	154	150	25	2.46	25301810015090
9.5	28	32	66	28	47	90	167	166	27	3.40	25301810015091
12	32	35	72	32	51	94	180	178	30	4.51	25301810015092
13.5	35	38	80	35	57	115	209	197	33	6.10	25301810015093
17	38	42	88	38	60	127	230	202	19	7.63	25301810015094
25	45	50	103	45	74	149	271	249	23	13.25	25301810015095
35	50	57	111	50	83	171	305	269	26	18.53	25301810015096
42.5	57	65	130	57	95	190	345	301	29	25.94	25301810015097
55	65	70	145	65	105	203	376	330	32	35.33	25301810015098
85	75	83	162	75	127	229	427	380	39	52.97	25301810015099

### Green Pin® Standard Shackle DIN EN 13889, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in high-tensile steel, grade 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available



WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
0.5	7	8	16.5	7	12	29	20	48.5	42	34	4	0.06	25301810015100
0.75	9	10	20	9	13.5	32	22	56	50	40	5	0.11	25301810015101
1	10	11	22.5	10	17	36.5	26	63.5	60	46	8	0.16	25301810015102
1.5	11	13	26.5	11	19	43	29	74	67	51	11	0.22	25301810015103
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42	25301810015104
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74	25301810015105
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18	25301810015106
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77	25301810015107
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58	25301810015108
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66	25301810015109
12	32	35	72	32	51	115	83	201	178	147	30	4.91	25301810015110
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54	25301810015111
17	38	42	88	38	60	146	99	249	202	175	19	8.19	25301810015112
25	45	50	103	45	74	178	126	300	249	216	23	14.22	25301810015113
35	50	57	111	50	83	197	138	331	269	238	26	19.85	25301810015114
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33	25301810015115
55	65	70	145	65	105	260	180	433	330	310	32	39.59	25301810015116
85	75	83	162	73	127	329	190	527	380	340	39	62.00	25301810015117

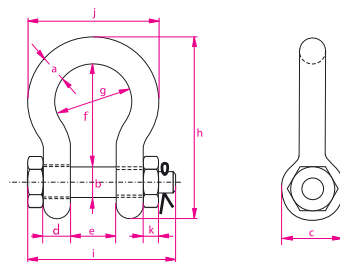
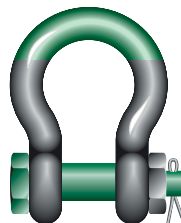
## ACCESSORIES



## Green Pin® Shackles

### Green Pin® Super Shackle, Bow Shackle with Safety Bolt, Nut and Pin

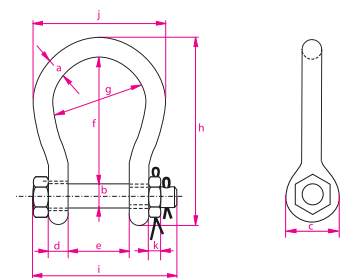
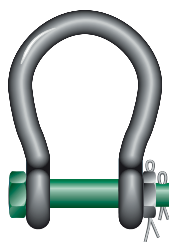
- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Standards:** meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Surface:** hot-dip galvanised
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available. All shackles starting from 150 tons come with a Lloyd's Register of Shipping proof load certificate.



WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
3.3	13.5	16	34	13	22	51	32	89	82	58	13	0.44	25301810015128
5	16	19	40	16	27	64	43	110	98	75	17	0.79	25301810015129
7	19	22	46	19	31	76	51	129	114	89	19	1.26	25301810015130
9.5	22	25	52	22	36	83	58	144	130	102	22	1.88	25301810015131
12.5	25	28	59	25	43	95	68	164	150	118	25	2.78	25301810015132
15	28	32	66	28	47	108	75	185	166	131	27	3.87	25301810015133
18	32	35	72	32	51	115	83	201	178	147	30	5.26	25301810015134
21	35	38	80	35	57	133	92	227	197	162	33	6.94	25301810015135
30	38	42	88	38	60	146	99	249	202	175	19	8.79	25301810015136
40	45	50	103	45	74	178	126	300	249	216	23	15	25301810015137
55	57	57	117	57	83	197	138	341	286	252	26	22	25301810015138
85	70	70	143	70	105	260	180	437	344	320	32	42	25301810015139
120	83	83	162	83	127	329	190	535	403	356	40	70	25301810015140
150	95	95	208	91	147	400	238	647	511	428	50	112	25301810015141
175	105	108	238	102	169	410	275	688	561	485	60	160	25301810015142

### Green Pin® Wide Mouth Towing Bow Shackle with Safety Bolt, Nut and Pin

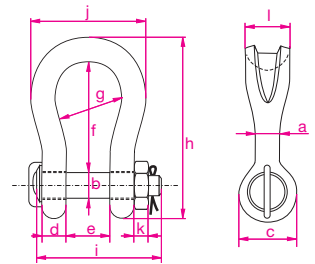
- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate and/or a certificate of basic raw material is available.



WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
4.75	22	25	52	22	63	112	88	173	157	132	23	2.1	25301810015118
6.5	25	28	59	25	75	135	105	204	182	155	25	3.2	25301810015119
8.5	28	32	66	28	82	148	115	225	201	171	28	4.4	25301810015120
9.5	32	35	72	32	90	162	126	248	217	190	31	6.0	25301810015121
12	35	38	79	35	100	180	140	274	240	210	34	7.9	25301810015122
16	38	42	88	38	106	216	159	319	248	235	19	12.5	25301810015123
25	45	50	103	45	127	248	175	370	296	265	24	18	25301810015124
30	50	57	118	50	146	273	207	411	338	307	27	25	25301810015125
55	65	70	145	65	165	314	213	487	389	343	33	45	25301810015126
75	75	83	166	75	184	330	254	530	432	404	40	70	25301810015127

### Green Pin® Sling Shackle, Bow Shackle with Safety Bolt, Nut and Pin

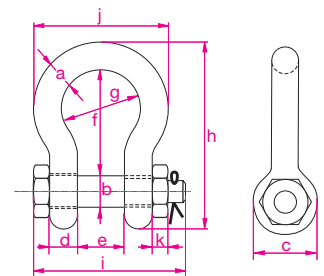
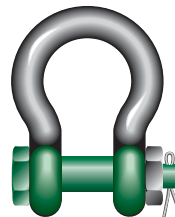
- **Material:** bow and pin in high-tensile steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** bow painted silver, pin painted green
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available. All shackles starting from 75 tons come with a Lloyd's Register of Shipping proof load certificate.
- **Note:** Inner width and length  $\pm 5\%$  forging tolerance



WLL in t	Dimensions in mm												Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k	l		
18	35	35	69	30	54	148	102	239	171	180	29	64	8	25301810015157
30	40	42	90	35	69	165	126	279	207	200	34	79	13	25301810015158
40	55	51	109	45	84	199	140	331	252	235	38	97	21	25301810015159
55	60	57	115	55	90	240	160	389	294	270	45	100	30	25301810015160
75	68	70	125	54	110	290	185	473	327	317	54	120	48	25301810015161
125	85	80	154	85	137	366	220	583	426	390	64	150	92	25301810015162
150	94	95	179	89	147	391	253	645	435	434	50	170	140	25301810015163
200	110	105	199	100	158	481	280	759	470	482	50	205	205	25301810015164
250	126	120	227	110	179	542	300	859	519	530	60	240	264	25301810015165
300	135	134	245	122	195	601	350	947	575	620	70	265	360	25301810015166
400	160	160	293	145	231	576	370	985	675	690	80	320	580	25301810015167
500	170	180	328	160	263	681	450	1131	748	790	90	339	780	25301810015168
600	190	200	348	170	289	741	490	1234	809	865	100	370	980	25301810015169
700	200	215	392	190	315	751	540	1284	879	901	100	400	1360	25301810015170
800	218	230	420	200	342	851	554	1426	942	947	110	420	1430	25301810015171
900	242	255	466	220	368	851	580	1488	1023	1023	120	440	1650	25301810015172
1000	260	270	490	240	399	851	614	1532	1103	1107	120	460	2970	25301810015173
1250	285	300	510	260	452	931	650	1666	1227	1182	150	530	3700	25301810015174
1550	285	320	550	280	483	950	680	1710	1300	1253	150	560	4000	25301810015175

### Green Pin® Polar Shackle, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in high-tensile steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Standards:** EN 13889 und erfüllt die Leistungsanforderungen der US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity and/or DNV 2.7-1 certificate are available.
- **Note:** Inner width and length  $\pm 5\%$  forging tolerance, for shackles with a WLL of 55 to and 85 to, the MBL is 6 times the WLL



WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42	25301810015143
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74	25301810015144
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18	25301810015145
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77	25301810015146
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58	25301810015147
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66	25301810015148
12	32	35	72	32	51	115	83	201	178	147	30	4.91	25301810015149
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54	25301810015150
17	38	42	88	38	60	146	99	249	202	175	19	8.19	25301810015151
25	45	50	103	45	74	178	126	300	249	216	23	14.22	25301810015152
35	50	57	116	50	83	197	138	334	269	238	26	19.85	25301810015153
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33	25301810015154
55	65	70	145	65	105	260	180	433	330	310	32	39.59	25301810015155
85	75	83	162	73	127	329	190	527	380	340	40	62.00	25301810015156

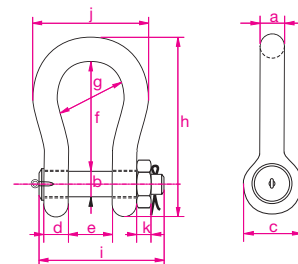
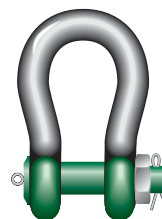
## ACCESSORIES



### Green Pin® Shackles

#### Green Pin® Heavy Duty Polar Shackle, Bow Shackle with Safety Bolt, Nut and Pin

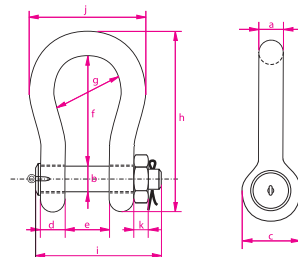
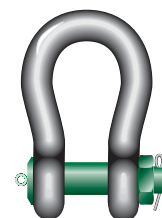
- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** bow painted silver, pin painted green,  
Exception: Shackle 120 to hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available. All shackles starting from 150 tons come with a Lloyd's Register of Shipping proof load certificate.
- **Note:** Inner width and length  $\pm 5\%$  forging tolerance



WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
120	95	95	208	91	147	400	238	647	440	428	50	110	25301810015176
150	105	108	238	102	169	410	275	688	490	485	60	160	25301810015177
200	120	130	279	113	179	513	290	838	520	530	60	235	25301810015178

#### Green Pin® Heavy Duty Shackle, Bow Shackle with Safety Bolt, Nut and Pin

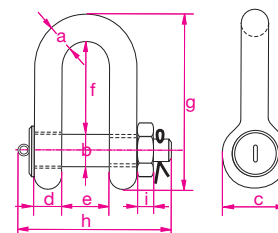
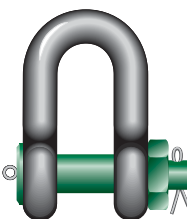
- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** bow painted silver, pin painted green,  
Exception: Shackle 120 to hot-dip galvanised
- **Temperature range:** -40°C to +200°C
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available. All shackles starting from 150 tons come with a Lloyd's Register of Shipping proof load certificate.
- **Note:** Inner width and length  $\pm 5\%$  forging tolerance



WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
120	95	95	208	91	147	400	238	647	440	428	50	110	25301810015179
150	105	108	238	102	169	410	275	688	490	485	60	160	25301810015180
200	120	130	279	113	179	513	290	838	520	530	60	235	25301810015181
250	130	140	299	118	205	554	305	904	560	565	65	285	25301810015182
300	140	150	325	123	205	618	305	996	575	585	70	340	25301810015183
400	170	175	376	164	231	668	325	1114	690	665	70	560	25301810015184
500	180	185	398	164	256	718	350	1190	720	710	70	685	25301810015185
600	200	205	444	189	282	718	375	1243	810	775	70	880	25301810015186
700	210	215	454	204	308	718	400	1263	870	820	70	980	25301810015187
800	210	220	464	204	308	718	400	1270	870	820	70	1100	25301810015188
900	220	230	485	215	328	718	420	1296	920	860	70	1280	25301810015189
1000	240	240	515	215	349	718	420	1336	940	900	70	1460	25301810015190
1250	260	270	585	230	369	768	450	1456	1025	970	70	1990	25301810015191
1500	280	290	625	230	369	818	450	1556	1025	1010	70	2400	25301810015192

#### Green Pin® Heavy Duty Shackle, Dee Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available.
- **Note:** Inner width and length  $\pm 5\%$  forging tolerance

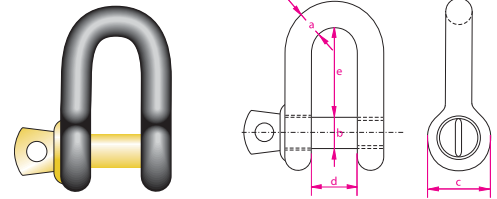


WLL in t	Dimensions in mm									Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i		
120	95	95	208	95	147	274	521	440	50	110	25301810015193



### High Strength Dee Shackle with Screw Pin

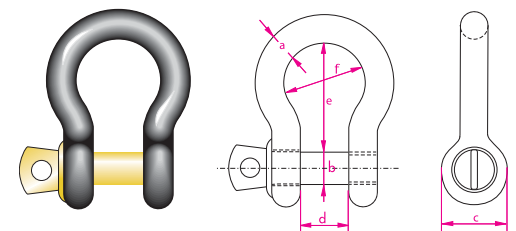
- **Material:** bow and pin in high-tensile steel, grade 6
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** similar US Fed. Spec. RR-C-271
- **Surface:** bow hot-dip galvanised, pin painted yellow
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a 2.1 test certificate or a EC declaration of conformity are available.
- **Stamped:** With forged usable load and nominal size



WLL in t	Dimensions in mm					Weight in kg/pce	Item no.
	a	b	c	d	e		
0.5	6	8	16	12	22	0.05	25301810015194
0.75	8	10	19	13.5	26	0.08	25301810015195
1.0	10	11	23	17	32	0.13	25301810015196
1.5	11	13	27	19	37	0.20	25301810015197
2.0	13	16	30	20	41	0.27	25301810015198
3.25	16	19	38	27	51	0.57	25301810015199
4.75	19	22	46	32	60	1.19	25301810015200
6.5	22	25	53	36	71	1.43	25301810015201
8.5	25	28	61	43	81	2.16	25301810015202
9.5	28	32	68	46	90	3.06	25301810015203
12.0	32	35	76	51	100	4.11	25301810015204
13.5	35	38	84	57	111	5.28	25301810015205
17.0	38	42	92	60	122	7.24	25301810015206
25.0	45	50	109	73	146	12.14	25301810015207

### High Strength Bow Shackle with Screw Pin

- **Material:** bow and pin in high-tensile steel, grade 6
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** similar US Fed. Spec. RR-C-271
- **Surface:** bow hot-dip galvanised, pin painted yellow
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a 2.1 test certificate or a EC declaration of conformity are available.
- **Stamped:** With forged usable load and nominal size



WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
	a	b	c	d	e	f		
0.33	5	6	14	9.5	22	15	0.03	25301810015208
0.5	6	8	16	12	29	20	0.05	25301810015209
0.75	8	10	19	13.5	31	21	0.09	25301810015210
1.0	10	11	23	17	37	26	0.14	25301810015211
1.5	11	13	27	19	43	29	0.20	25301810015212
2.0	13	16	30	20	48	33	0.33	25301810015213
3.25	16	19	38	27	60	43	0.62	25301810015214
4.75	19	22	46	32	71	50	1.07	25301810015215
6.5	22	25	53	36	84	58	1.64	25301810015216
8.5	25	28	61	43	95	68	2.28	25301810015217
9.5	28	32	68	46	108	74	3.36	25301810015218
12.0	32	35	76	51	119	82	4.31	25301810015219
13.5	35	38	84	57	133	92	6.14	25301810015220
17.0	38	42	92	60	146	98	7.81	25301810015221
25.0	45	50	106	73	177	127	12.61	25301810015222

# ACCESSORIES

## High Strength Shackles Grade 6

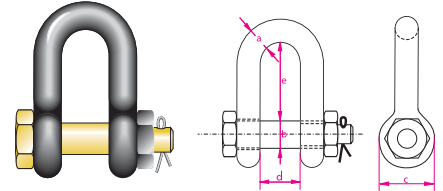
### Shackles with bolt, nut, and cotter pint

This type is recommended for permanent connections (e.g. with load suspension equipment or hoists). After assembly the bolt is secured by the cotter pin against unintentional loosening. This shackle type offers enhanced

safety as the bolt has full surface contact on both sides of the body. Breaking of the bolt at the thread lug is virtually impossible.

### High Strength Dee Shackle with Bolt, Nut and Cotter Pin

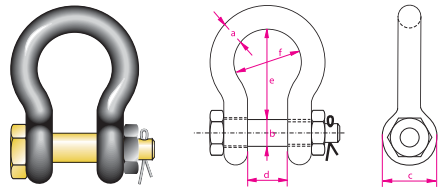
- **Material:** bow and pin in high-tensile steel, grade 6
- **Safety factor:** minimum breaking load = 6 times WLL
- **Standards:** similar US Fed. Spec. RR-C-271
- **Surface:** bow hot-dip galvanised, pin painted yellow
- **Temperature range:** 0°C (32°F) to +200°C (+392°F)
- **Certificates:** On request a 2.1 test certificate or a EC declaration of conformity are available.
- **Stamped:** CE, WLL, Grade, Manufacturer's symbol and Charge



WLL in t	Dimensions in mm					Weight in kg/pce	Item no.
a	b	c	d	e			
2.0	13	16	30	20	41	0.35	25301810015223
3.25	16	19	38	27	51	0.65	25301810015224
4.75	19	22	46	32	60	1.02	25301810015225
6.5	22	25	53	36	71	1.75	25301810015226
8.5	25	28	61	43	81	2.52	25301810015227
9.5	28	32	68	46	90	3.50	25301810015228
12.0	32	35	76	51	100	4.91	25301810015229
13.5	35	38	84	57	111	5.84	25301810015230
17.0	38	42	92	60	122	8.40	25301810015231
25.0	45	50	106	73	146	11.90	25301810015232

### High Strength Bow Shackle with Bolt, Nut and Cotter Pin

- **Material:** bow and pin in high-tensile steel, grade 6
- **Safety factor:** minimum breaking load = 6 times WLL
- **Standards:** similar US Fed. Spec. RR-C-271
- **Surface:** bow hot-dip galvanised, pin painted yellow
- **Temperature range:** 0°C (32°F) to +200°C (+392°F)
- **Certificates:** On request a 2.1 test certificate or a EC declaration of conformity are available.
- **Stamped:** CE, WLL, Grade, Manufacturer's symbol and Charge

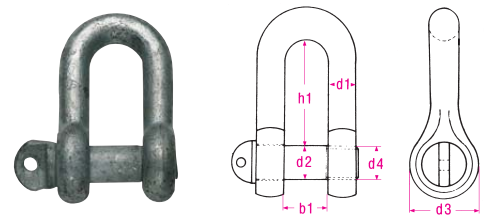


WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
a	b	c	d	e	f			
2.0	13	16	30	20	48	33	0.36	25301810015233
3.25	16	19	38	27	60	43	0.70	25301810015234
4.75	19	22	46	32	71	50	1.10	25301810015235
6.5	22	25	53	36	84	58	1.79	25301810015236
8.5	25	28	61	43	95	68	2.57	25301810015237
9.5	28	32	68	46	108	74	3.75	25301810015238
12.0	32	35	76	51	119	82	5.32	25301810015239
13.5	35	38	84	57	133	92	7.19	25301810015240
17.0	38	42	92	60	146	98	9.44	25301810015241
25.0	45	50	106	73	177	127	15.40	25301810015242

### Dee shackle with screw pin, similar DIN 82101 Form A

- **Safety factor:** minimum breaking load = 5 times WLL
- **Finish:** Galvanised
- **Stamped:** with load capacity (WLL/kg) and manufacturer's mark

On request with certificate acc. to EN 10204-3.1

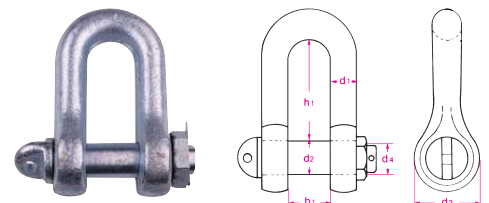


WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
	d1	d2	d3	d4	b1	h1		
0.1	4	5	10	M 5	7	15.5	0.013	25301810015243
0.16	5	6	12	M 6	8	18.0	0.021	25301810015244
0.25	7	8	16	M 8	11	24.0	0.042	25301810015245
0.4	8	10	20	M 10	14	30.0	0.082	25301810015246
0.6	10	12	24	M 12	17	36.0	0.173	25301810015247
1.0	13	16	32	M 16	21	49.0	0.360	25301810015248
1.6	17	20	40	M 20	27	61.0	0.750	25301810015249
2.0	19	22	44	M 22	30	67.0	1.030	25301810015250
2.5	21	24	48	M 24	33	73.0	1.430	25301810015251
3.0	24	27	54	M 27	38	83.5	2.110	25301810015252
4.0	27	30	60	M 30	42	91.0	2.890	25301810015253
5.0	30	36	72	M 36	47	111.0	3.900	25301810015254
6.0	34	39	78	M 39	53	119.5	5.020	25301810015255
8.0	38	45	90	M 45	60	139.5	6.750	25301810015256
10.0	42	48	96	M 48	66	147.0	9.760	25301810015257
12.0	47	52	104	M 52	73	158.0	13.100	25301810015258
16.0	52	60	120	M 60	81	185.0	17.700	25301810015259
20.0	58	68	136	M 68	90	211.0	23.800	25301810015260
25.0	63	72	144	M 72	100	221.0	32.700	25301810015261

### Dee Shackle with Screw Pin, Nut and Cotter Pin, similar DIN 82101 Form C

- **Finish:** galvanised, from 8 t hot-dip galvanised
- **Safety factor:** minimum breaking load = 5 times WLL
- **Stamped:** with load capacity (WLL/kg) and manufacturer's mark

On request with certificate acc. to EN 10204-3.1

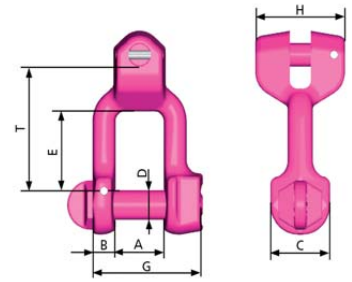


WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
	d1	d2	d3	d4	b1	h1		
0.4	8	10	20	M 10	14	30.0	0.082	25301810015262
0.6	10	12	24	M 12	17	36.0	0.173	25301810015263
1.0	13	16	32	M 16	21	49.0	0.360	25301810015264
1.6	17	20	40	M 20	27	61.0	0.750	25301810015265
2.0	19	22	44	M 22	30	67.0	1.030	25301810015266
2.5	21	24	48	M 24	33	73.0	1.430	25301810015267
3.0	24	27	54	M 27	38	83.5	2.110	25301810015268
4.0	27	30	60	M 30	42	91.0	2.890	25301810015269
5.0	30	36	72	M 36	47	111.0	3.900	25301810015270
6.0	34	39	78	M 39	53	119.5	5.020	25301810015271
8.0	38	45	90	M 45	60	139.5	6.750	25301810015272
10.0	42	48	96	M 48	66	147.0	9.760	25301810015273
12.0	47	52	104	M 52	73	158.0	13.100	25301810015274
16.0	52	60	120	M 60	81	185.0	17.700	25301810015275
20.0	58	68	136	M 68	90	211.0	23.800	25301810015276
25.0	63	72	144	M 72	100	221.0	32.700	25301810015277
32.0	70	80	160	M 80	110	246.0	49.500	25301810015278
40.0	79	90	180	M 90	125	276.0	69.000	25301810015279

### Foolproof VIP Clevis Shackle VV-GSCH

For technical description of the shackle see item VV-SCH

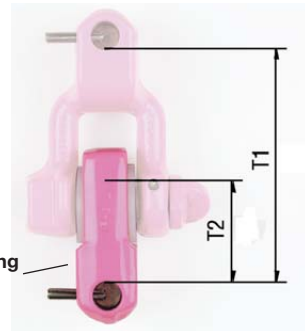
- Optimised design - max. opening width with smallest pin diameter
- High bending resistance due to 90° offset clevis head - cardan joint



Nominal chain size in mm	Load capacity in t	Type	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	G	H	T		
6	1.5	VV-GSCH 6	17	8	22	10	21	40	28	36	0.15	25301810015307
8	2.5	VV-GSCH 8	21	10	26	12	32	48	39	48	0.26	25301810015308
10	4.0	VV-GSCH 10	27	13	34	16	35	62	45	61	0.65	25301810015309
13	6.7	VV-GSCH 13	33	17	42	20	41	81	59	78	1.35	25301810015310
16	10.0	VV-GSCH 16	38	22	49	24	49	95	69	96	2.50	25301810015311
20	16.0	VV-GSCH 20	47	27	60	30	57	119	88	108	3.90	25301810015312
22	20.0	VV-GSCH 22	53	30	76	36	72	130	95	112	6.70	25301810015313

### VIP Insulating Latch VGIL

Welding on suspended loads involves the danger of current flowing to the crane. The VIP insulating clevis latch insulates up to 1,000 V using a special plastic bearing for the shackle pin. Max. operating temperature +80°C (+176°F).



Nominal chain size in mm	Load capacity in t	Type	Dimensions in mm		Weight in kg/pce	Item no.
			T1	T2		
6	1.5	VGIL-6	71	35	0.15	25351500015054
8	2.5	VGIL-8	91	43	0.26	25351500015055
10	4.0	VGIL-10	108	47	0.65	25351500015056
13	6.7	VGIL-13	132	54	1.35	25351500015057
16	10.0	VGIL-16	166	70	2.50	25351500015058

For VIP insulating chain slings see page 295.

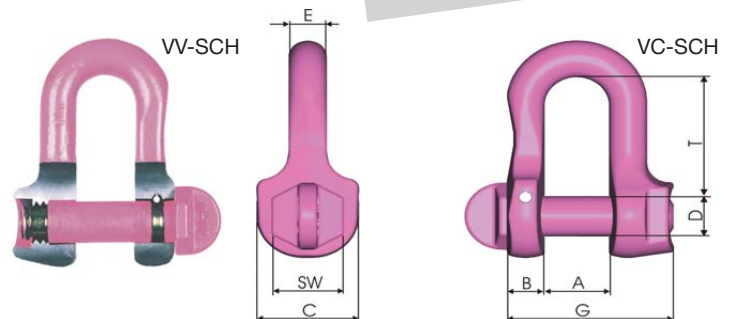
### Foolproof shackle VV-SCH/ High-strength Shackle VC-SCH

#### VV-SCH

High tensile, patented version with an integrated safety thread in the shackle body. Full surface support of the bolt in the body on both sides. The bolt is turnable. No load on the thread (securing function only). Pre-assembled with split pin.

#### VC-SCH

Shape acc. to DIN 82101-C with captive nut. Secured by split pin.



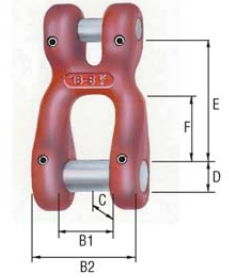
The shackle with the highest load capacity!

Load capacity in t	Type	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	G	SW	T		
1.5	VV-SCH 6	14	8	22	10	8	36	17	30	0.1	25301810015314
2.5	VV-SCH 8	17	10	26	12	10	44	19	36	0.2	25301810015315
4.0	VV-SCH 10	21	13	34	16	13	56	24	49	0.4	25301810015316
6.7	VV-SCH 13	27	17	42	20	17	75	29	63	0.8	25301810015317
10.0	VV-SCH 16	33	21	49	24	21	90	36	73	1.5	25301810015318
14.0	VC-SCH 4.0	42	27	60	30	29	96	-	91	2.7	25301810015319
22.4	VC-SCH 5.0	47	30	72	36	33	107	-	111	4.4	25301810015320
31.5	VC-SCH 6.0	53	34	78	39	37	121	-	120	5.9	25301810015321



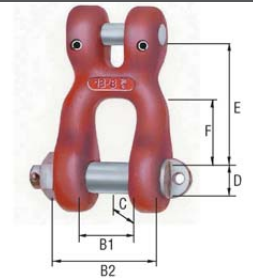
### Fork shackle with Screw Pin

Nominal chain size in mm	Load capacity in t	Nominal size	Dimensions in mm						Weight in kg/pce	Item no.
			E	D	C	F	B1	B2		
10	3.15	10-8	64	16	32	36	21	47	0.61	25301810015284
13	5.3	13-8	82.5	20	40	49	27	61	1.24	25301810015285
16	8	16-8	99	24	48	56	33	75	2.10	25301810015286
18	10	18-8	115	30	60	63	42	100	3.93	25301810015287



### Fork Shackle with Bolt, Nut and Cotter Pin

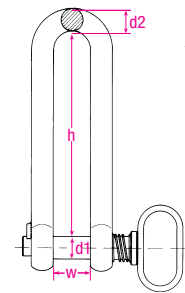
Nominal chain size in mm	Load capacity in t	Nominal size	Dimensions in mm						Weight in kg/pce	Item no.
			E	D	C	F	B1	B2		
10	3.15	10-8	64	16	32	36	21	47	0.67	25301810015288
13	5.3	13-8	82.5	20	40	49	27	61	1.37	25301810015289
16	8	16-8	99	24	48	56	33	75	2.28	25301810015290
18	10	18-8	115	30	60	63	42	100	4.32	25301810015291



### Sheet Pile Shackle

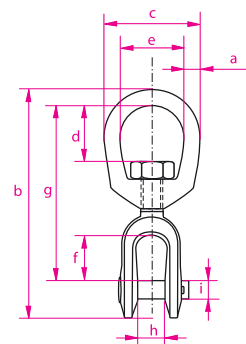
With patented quick release fastener. Material: body: steel C35, bolt: 42CrMo4, finish: painted green, bolt natural

Load capacity in kg	Nominal size	Dimensions in mm				Weight in kg/pce	Item no.
		d1	d2	w	h		
2500	2.5	25	30	50	250	4.8	25301810015280
3000	3	30	30	50	250	5.0	25301810015281
5000	5	36	30	50	250	5.9	25301810015282
10000	10	50	45	110	400	22.5	25301810015283



### Green Pin® Jaw-Eye Swivel

- **Material:** high tensile steel
- **Safety factor:** minimum breaking load = 5 times WLL
- **Standard:** acc. to US Federal Spec. RR-C-271, Type VII, Class 3
- **Surface:** hot-dip galvanised
- **Certificates:** available on request



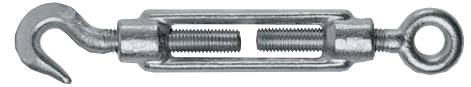
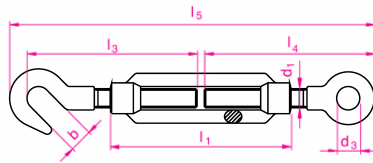
WLL in t	Material-ø	Outer length	Dimensions in mm						Pin ø	Weight in kg/pce	Item no.
			Width	Inner length	Inner width of eye	Inner length	Inner length	Inner width of fork			
	a	b	c	d	e	f	g	h	i		
0.39	6	84	32	17	19	22	67	12	6	0.11	20202000015055
0.57	8	98	41	21	25	22	75	13	8	0.17	20202000015056
1.02	10	121	51	24	32	27	92	16	10	0.32	20202000015057
1.6	13	154	64	33	38	33	114	19	13	0.65	20202000015058
2.4	16	186	76	40	44	38	135	24	16	1.12	20202000015059
3.3	19	211	89	44	51	44	154	28	19	1.76	20202000015060
4.5	22	242	102	52	57	52	178	30	22	2.66	20202000015061
5.7	25	290	114	59	64	71	217	44	29	4.46	20202000015062
8.2	32	329	143	68	80	71	230	52	35	7.14	20202000015063
20.5	38	501	178	106	102	113	364	73	50	24.8	20202000015064

# ACCESSORIES

## Turnbuckles

### Turnbuckles acc. to DIN 1480, with Hook and Eye

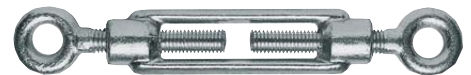
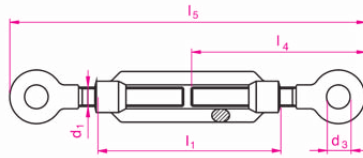
Material: steel  
Surface: galvanised



Nominal size	Thread size d1	d3	b	Dimensions in mm				Weight in kg	Item no.
				l1	l3	l4	l5		
6	M 6	9	8.5	110	85	80	172-252	0.095	25301815015027
8	M 8	10	11.0	110	85	84	182-257	0.165	25301815015028
10	M 10	14	13.5	125	112	105	213-298	0.290	25301815015029
12	M 12	16	15.5	125	117	115	238-318	0.430	25301815015030
14	M 14	18	18.5	140	122	122	263-353	0.620	25301815015031
16	M 16	22	19.0	170	138	165	320-430	0.920	25301815015032
20	M 20	24	20.5	200	170	167	367-497	1.630	25301815015033
22	M 22	27	26.0	220	185	167	398-543	2.200	25301815015034
24	M 24	27	26.0	255	205	205	447-617	3.000	25301815015035
30	M 30	31	33.0	255	225	255	512-662	4.600	25301815015036
36	M 36	43	44.0	295	255	276	568-748	4.680	25301815015037

### Turnbuckles acc. to DIN 1480, with 2 Eyes

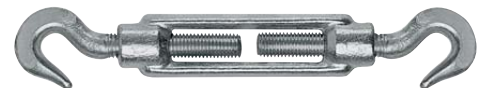
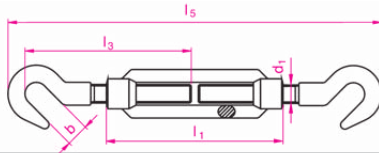
Material: steel  
Surface: galvanised



Nominal size	Thread size d1	d3	Dimensions in mm			Weight in kg	Item no.
			l1	l4	l5		
6	M 6	9	110	80	167-247	0.090	25301815015038
8	M 8	10	110	84	179-254	0.155	25301815015039
10	M 10	14	125	105	210-295	0.270	25301815015040
12	M 12	16	125	115	230-310	0.410	25301815015041
14	M 14	18	140	122	250-340	0.600	25301815015042
16	M 16	22	170	165	330-440	1.000	25301815015043
20	M 20	24	200	167	335-465	1.540	25301815015044
22	M 22	27	220	167	368-513	2.000	25301815015045
24	M 24	27	255	205	420-590	2.700	25301815015046
30	M 30	31	255	255	510-670	4.350	25301815015047
36	M 36	43	295	276	560-740	7.250	25301815015048

### Turnbuckles acc. to DIN 1480, with 2 Hooks

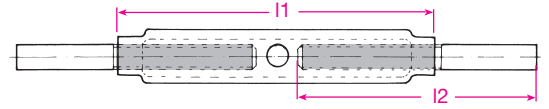
Material: steel  
Surface: galvanised



Nominal size	Thread size d1	b	Dimensions in mm			Weight in kg	Item no.
			l1	l3	l5		
6	M 6	8.5	110	85	180-260	0.095	25301815015049
8	M 8	11.0	110	85	195-270	0.170	25301815015050
10	M 10	13.5	125	112	230-315	0.300	25301815015051
12	M 12	15.5	125	117	250-330	0.440	25301815015052
14	M 14	18.5	140	122	280-370	0.670	25301815015053
16	M 16	19.0	170	138	320-430	0.950	25301815015054
20	M 20	20.5	200	170	400-530	1.750	25301815015055
22	M 22	26.0	220	185	428-573	2.400	25301815015056
24	M 24	26.0	255	205	490-660	3.220	25301815015057
30	M 30	33.0	255	225	530-690	4.880	25301815015058

### Turnbuckle acc. to DIN 1478, Pipe Body Type, with 2 Stub Ends acc. to DIN 34828: 2005-09

Material: St 37  
Surface: galvanised

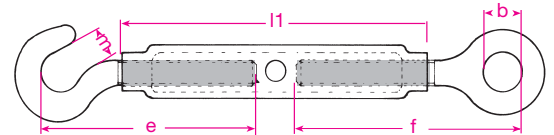


Nominal size	Thread size	Dimensions in mm		Weight in kg	Item no.
		l1	l2		
12	M 12	125	150	0.450	25301815015062
16	M 16	170	200	0.900	25301815015063
20	M 20	200	220	1.500	25301815015064
24	M 24	255	260	2.750	25301815015065
30	M 30	255	260	3.940	25301815015066
36	M 36	295	300	6.500	25301815015067

Bigger nominal sizes are available on request

### Turnbuckle acc. to DIN 1478, Pipe Body Type, with Hook and Eye

Material: St 37  
Surface: galvanised

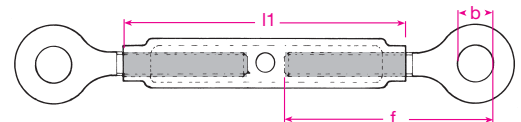


Nominal size	Thread size	Dimensions in mm					Weight in kg	Item no.
		l1	b	e	f	m		
8	M 8	110	10	84	84	11	0.190	25301815015068
10	M 10	125	14	105	105	13.5	0.310	25301815015069
12	M 12	125	16	115	105	15.5	0.420	25301815015070
16	M 16	170	22	165	165	19	0.890	25301815015071
24	M 24	255	27	205	205	26	2.920	25301815015072

Bigger nominal sizes are available on request

### Turnbuckle acc. to DIN 1478, Pipe Body Type, with 2 Eyes

Material: St 37  
Surface: galvanised



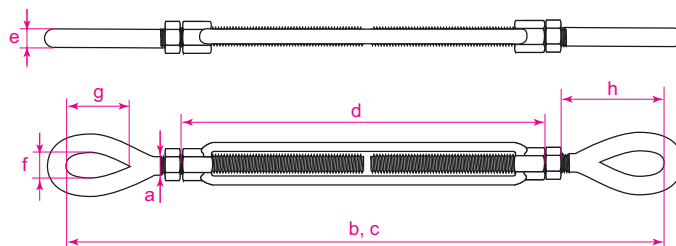
Nominal size	Thread size	Dimensions in mm			Weight in kg	Item no.
		l1	b	f		
8	M 8	110	10	84	0.190	25301815015073
10	M 10	125	14	105	0.310	25301815015074
12	M 12	125	16	105	0.420	25301815015075
16	M 16	170	22	165	0.890	25301815015076
20	M 20	200	24	167	1.580	25301815015077
24	M 24	255	27	205	2.920	25301815015078

Bigger nominal sizes are available on request

**Turnbuckles with extra long Adjustment Range, similar to ASTM F 1145-92, forged, Surface tempered, with 2 Eyes**



Material: drop-forged, high-tensile steel SAE 1035 or 1045  
 Safety factor: minimum breaking load = 5 times WLL  
 Standard: acc. to ASTM F1145-92  
 formerly U.S. Federal Specification FF-T-719b  
 Surface: hot-dip galvanised  
 Certificates: on request



WLL in t	Thread size a in inches	Adjustment range in inches	Dimensions in mm							Weight in kg/pce	Item no.
			Length closed b	Length open c	Length d	Diameter e	Inner width of eye f	Inner length of eye g	Length closed h		
0.54	3/8	6	292	428	183	10	13	29	49	0.47	25301815015079
1.00	1/2	6	325	455	193	12	18	36	58	0.84	25301815015080
1.00	1/2	9	400	608	270	12	18	36	57	1.05	25301815015081
1.00	1/2	12	476	760	346	12	18	36	57	1.26	25301815015082
1.59	5/8	6	380	503	203	14	21	45	79	1.35	25301815015083
1.59	5/8	9	455	656	280	14	21	45	78	1.60	25301815015084
1.59	5/8	12	531	808	356	14	21	45	78	1.92	25301815015085
2.36	3/4	6	413	532	214	17	26	54	90	2.03	25301815015086
2.36	3/4	9	490	685	291	17	26	54	89	2.49	25301815015087
2.36	3/4	12	564	837	367	17	26	54	89	2.65	25301815015088
2.36	3/4	18	718	1143	519	17	26	54	89	3.06	25301815015089
3.27	7/8	12	604	870	377	20	32	61	100	3.98	25301815015090
3.27	7/8	18	756	1174	529	20	32	61	101	5.12	25301815015091
4.54	1	6	498	604	234	24	37	76	118	4.35	25301815015092
4.54	1	12	649	909	387	24	37	76	117	5.92	25301815015093
4.54	1	18	801	1215	539	24	37	76	117	7.17	25301815015094
4.54	1	24	952	1518	692	24	37	76	116	7.52	25301815015095
6.9	1 1/4	12	712	985	385	29	47	91	145	9.8	25301815015097
6.9	1 1/4	18	862	1287	537	29	47	91	144	11.31	25301815015098
9.71	1 1/2	12	756	1023	401	32	55	106	156	14.2	25301815015099
9.71	1 1/2	18	916	1335	553	32	55	106	160	16.5	25301815015100
9.71	1 1/2	24	1065	1636	706	32	55	106	158	17.1	25301815015101
12.7	1 3/4	18	1020	1396	577	38	61	120	197	23.1	25301815015102
12.7	1 3/4	24	1171	1703	730	38	61	120	196	26.3	25301815015103
16.8	2	24	1264	1784	748	46	69	147	231	40.7	25301815015104
27.2	2 1/2	24	1430	1934	802	51	80	165	274	64	25301815015105
34	2 3/4	24	1450	1988	802	57	84	178	311	88	25301815015106



On request, some sizes are also available as item no. 5731. turnbuckle with extra long adjustment range, acc. to ASTM F 1145-92, forged, surface tempered, with fork and eye.



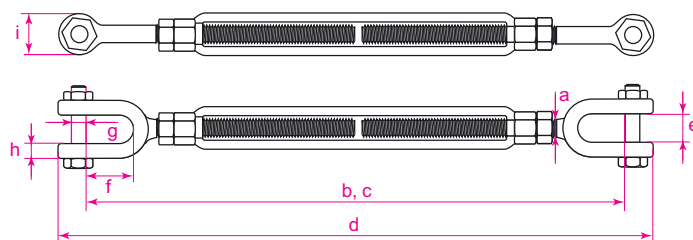
Turnbuckles authorized for lifting!



**Turnbuckles with extra long Adjustment Range, similar to ASTM F 1145-92, forged, Surface tempered, with 2 Forks**



Material: drop-forged, high-tensile steel SAE 1035 or 1045  
 Safety factor: minimum breaking load = 5 times WLL  
 Standard: acc. to ASTM F1145-92  
 formerly U.S. Federal Specification FF-T-719b  
 Surface: hot-dip galvanised  
 Certificates: on request



WLL in t	Thread size a in inches	Adjustment range in inches	Length closed b	Length open c	Length closed d	Dimensions in mm		Bolt diameter g	Material thickness eye h	Eye diameter i	Weight in kg/pce	Item no.
0.54	3/8	6	273	409	305	Inner width	Inner width					
1	1/2	6	305	435	344	fork	fork					
1	1/2	9	380	587	418	e	f					
1	1/2	12	455	739	494							
1.59	5/8	6	346	469	406							
1.59	5/8	9	421	622	481							
1.59	5/8	12	496	773	556							
2.36	3/4	6	368	487	438							
2.36	3/4	9	442	639	512							
2.36	3/4	12	518	791	588							
2.36	3/4	18	671	1095	740							
3.27	7/8	12	559	825	636							
3.27	7/8	18	712	1131	789							
4.54	1	6	447	555	532							
4.54	1	12	598	859	683							
4.54	1	18	750	1164	835							
4.54	1	24	902	1469	987							
6.9	1 1/4	12	641	916	748							
6.9	1 1/4	18	793	1218	900							
6.9	1 1/4	24	961	1538	1069							
9.71	1 1/2	12	675	941	806							
9.71	1 1/2	18	825	1244	956							
9.71	1 1/2	24	980	1550	1111							
12.7	1 3/4	18	933	1310	1095							
12.7	1 3/4	24	1084	1614	1246							
16.8	2	24	1153	1672	1338							
27.2	2 1/2	24	1254	1830	1479							
34	2 3/4	24	1305	1878	1561							



On request, some sizes are also available as item no. 5731. turnbuckle with extra long adjustment range, acc. to ASTM F 1145-92, forged, surface tempered, with fork and eye.



Turnbuckles authorized for lifting!

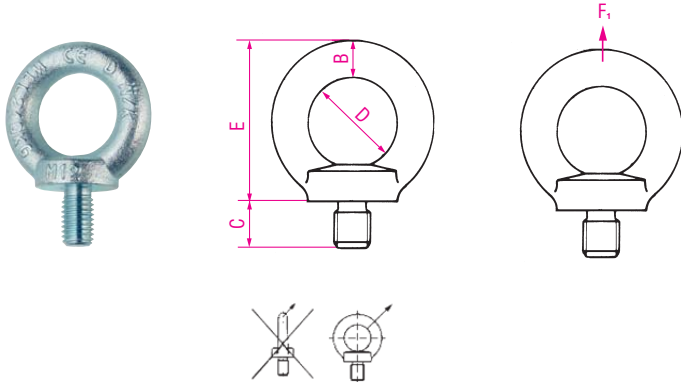
# ACCESSORIES

## Eye Bolts/Nuts

### Eye Bolt acc. to DIN 580 C 15 E, galvanised

Material: C15E

Please observe mounting instructions acc. to DIN 580!

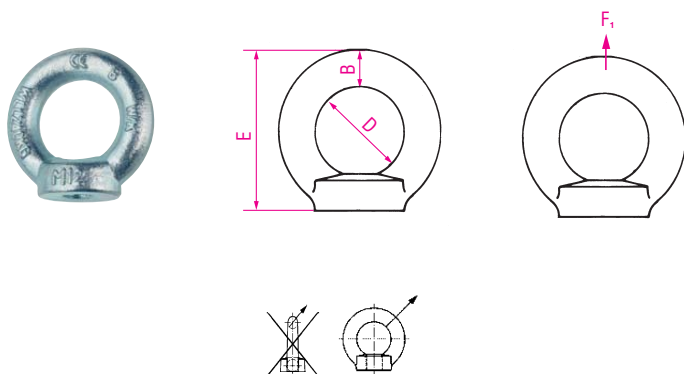


Nomi- nal size	Load cap. F1 1-leg in kg	Dimensions in mm				Weight in kg/ 100 pce	Item no.
		B	C	D	E		
M6	80	8	13	20	36	5.00	25250000015001
M8	140	8	13	20	36	6.00	25250000015002
M10	230	10	17	25	45	11.00	25250000015003
M12	340	12	20.5	30	53	18.00	25250000015004
M14	340	14	27	35	62	28.00	25250000015005
M16	700	14	27	35	62	28.00	25250000015006
M18	700	16	30	40	71	45.00	25250000015007
M20	1200	16	30	40	71	45.00	25250000015008
M22	1200	20	36	50	90	67.00	25250000015009
M24	1800	20	36	50	90	87.00	25250000015010
M27	1800	24	45	60	109	88.00	25250000015011
M30	3200	24	45	60	109	166.00	25250000015012
M36	4600	28	54	70	128	265.00	25250000015013
M42	6300	32	63	80	147	403.00	25250000015014
M48	8600	38	68	90	168	638.00	25250000015015
M56	11500	42	78	100	187	880.00	25250000015016
M64	16000	48	90	110	208	1,240.00	25250000015017

### Eye Nut acc. to DIN 582 C 15 E, galvanised

Material: C15E

Please observe mounting instructions acc. to DIN 582!



Nomi- nal size	Load cap. F1 1-leg in kg	Dimensions in mm			Weight in kg/ 100 pce	Item no.
		B	D	E		
M6	80	8	20	36	4.80	25250000015025
M8	140	8	20	36	5.00	25250000015026
M10	230	10	25	45	9.00	25250000015027
M12	340	12	30	53	16.00	25250000015028
M14	340	14	35	62	24.00	25250000015029
M16	700	14	35	62	24.00	25250000015030
M18	700	16	40	71	36.00	25250000015031
M20	1200	16	40	71	36.00	25250000015032
M22	1200	20	50	90	58.00	25250000015033
M24	1800	20	50	90	72.00	25250000015034
M27	1800	24	60	109	70.00	25250000015035
M30	3200	24	60	109	132.00	25250000015036
M36	4600	28	70	128	208.00	25250000015037
M42	6300	32	80	147	311.00	25250000015038
M48	8600	38	90	168	502.00	25250000015039
M56	11500	42	100	187	669.00	25250000015040
M64	16000	48	110	208	930.00	25250000015041



The ring screw and ring nut must:

- Be screwed in fully
- Lie evenly and fully on the contact surface
- Be positioned in such a way that avoids side drag
- Be subjected to loads in the direction of the ring plane



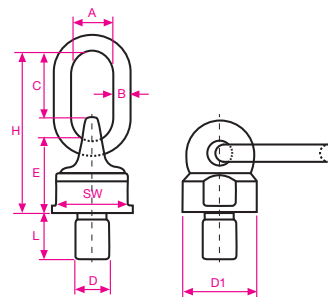
The load capacities/WLL of the next smaller nominal size apply to ring screws/ring nuts not listed in the norm table.

### Load capacities acc. to the standard table DIN 580 / DIN 582









Thread (d1)	M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	M56	M64
Axial load capacity (WLL) per ring screw/nut in kg	140	230	340	700	1200	1800	3200	4600	6300	8600	11500	16000
Load capacity per ring screw/nut ≤ 45° in kg	100	170	240	500	860	1290	2300	3300	4500	6100	8200	11000
Load capacity laterally screwed in per ring screw/nut ≤ 45° in kg	70	115	170	350	600	900	1600	2300	3150	4300	5750	8000

### Swivel Eye Bolt

360° rotation under load, safety factor 4, compact design, German BG (Employers' Liability Insurance Association) tested and approved  
Available up to M90 x 135 / load capacity 35 ton



Load capacity in t	Thread size D x L in mm	Dimensions in mm							Weight in kg/pce	Item no.
		A	B	C	E	H	SW	D1		
0.3	M10 x 18	30	13	46	50	105	30	38	0.480	25250000015331
0.5	M12 x 18	30	13	46	50	105	30	38	0.500	25250000015332
1.12	M16 x 20	30	13	46	50	105	30	38	0.530	25250000015335
2	M20 x 30	34	16	57	61	131	40	50	1.050	25250000015339
3.15	M24 x 30	40	19	70	68	153	48	58	1.630	25250000015344
5.3	M30 x 35	40	20	65	80	165	65	75	2.230	25250000015347
8	M36 x 54	50	22	90	95	205	75	85	5.500	25250000015349
10	M42 x 63	50	22	90	95	205	75	85	10.000	25250000015352
15	M56 x 78	70	30	120	130	280	95	120	10.000	25250000015354

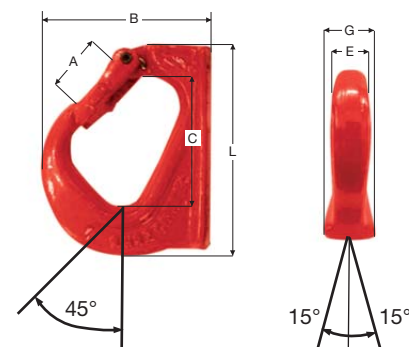
Lifting method								
								
Legs	1	2	1	2	2	2	3 and 4	
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	0-45°	45-60°
M10 x 18	0.6	1.2	0.3	0.6	0.42	0.3	0.63	0.45
M12 x 18	1	2	0.5	1	0.75	0.5	1.1	0.75
M16 x 20	2	4	1.12	2	1.5	1.12	2.36	1.6
M20 x 30	4	8	2	4	2.8	2	4	3
M24 x 30	6.3	12.5	3.15	6.3	4.25	3.15	6.3	4.75
M30 x 35	10.6	21.2	5.3	10.6	7.1	5.3	11.2	8
M36 x 54	12.5	25	8	16	11.2	8	16.8	12
M42 x 63	15	30	10	20	14	10	21.2	15
M56 x 78	25	50	15	30	21	15	31.5	22.5

### Weld-on Hook

Applications:  
Hydraulic excavators,  
lifting and spreader beams



**Range of application: 45°**  
**Permissible load: 15° in lateral direction of pull**



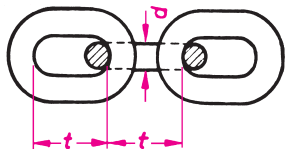
Load capacity in kg up to 45°	Dimensions in mm						Weight ca. in kg/pce	Item no.
	A	B	C	E	G	L		
1120	25	76	59.5	20	25	97	0.48	25250000015511
2000	26.5	92	65	22	34	114	0.85	25250000015512
3000	29	106	75	24	36	129	1.12	25250000015513
5000	34.5	130	92	30	45	171	2.50	25250000015514
8000	34.5	135	98	39	51	177	3.20	25250000015515
10000	51	171.5	134.5	39	53	223	5.20	25250000015516

# ACCESSORIES

## Special Chains – Piece Goods

### Round Steel Chain DIN 766-3 Grade 3

- Short link chain, **tested, true to gauge**
- Galvanised
- Load capacity for static suspended loads



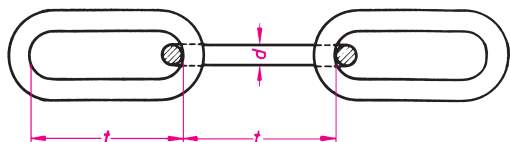
**Must not be used for lifting purposes!**

Dimensions in mm Nominal size d ± 0.5	Division t	Load capacity ca. in kg	Weight ca. kg/m	Item no.
4	16	200	0.32	25301820015001
5	18.5	320	0.50	25301820015002
6	18.5	400	0.75	25301820015003
7	22	630	1.00	25301820015004
8	24	800	1.35	25301820015005
10	28	1250	2.25	25301820015006
13	36	2000	3.80	25301820015007

**Length 30 m**

### Round Steel Chain DIN 763

- Short link chain, **tested, not true to gauge**
- Galvanised
- Load capacity for static suspended loads



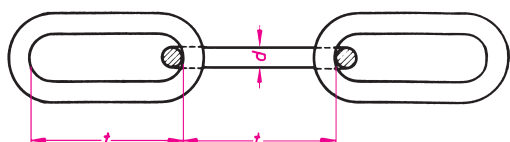
**Chains pursuant to this standard must not be used as load suspension equipment, slings or hoists as defined by DIN 15003.**

Dimensions in mm Nominal size d ± 0.5	Division t	Load capacity ca. in kg	Weight ca. kg/m	Item no.
4	32	100	0.27	25301820015008
5	35	160	0.43	25301820015009
6	42	200	0.63	25301820015010
7	49	300	0.86	25301820015011
8	52	400	1.10	25301820015012
10	65	630	1.75	25301820015013

**Length 30 m**

### Round Steel Chain similar to DIN 763 / 5685, Long Links

- Short link chain, **not tested, not true to gauge**
- Galvanised
- Load capacity for static suspended loads



**Chains pursuant to this standard must not be used as load suspension equipment, slings or hoists as defined by DIN 15003.**

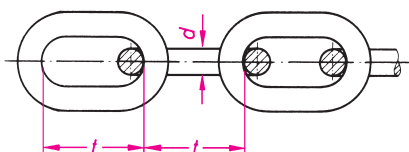
Dimensions in mm Nominal size d	Division t	Load capacity ca. in kg	Weight ca. kg/m	Item no.
2**	22	20	0.06	25301820015019
3	26	45	0.15	25301820015020
4	32	80	0.27	25301820015021
5	36	125	0.43	25301820015022
6	42	160	0.63	25301820015023
7	48	250	0.86	25301820015024
8	54	320	1.10	25301820015025
10	66	500	1.75	25301820015026

\*Computational, static load capacity

**Only available in 50 m chains except \*\* in 30 m chains**

### Round Steel Chain similar to DIN 766 / 5685, Short Links

- Short link chain, **not tested, not true to gauge**
- Galvanised
- Load capacity for static suspended loads



**Chains pursuant to this standard must not be used as load suspension equipment, slings or hoists as defined by DIN 15003.**

Dimensions in mm Nominal size d	Division t	Load capacity ca. in kg*	Weight ca. kg/m	Item no.
4	16	80	0.30	25301820015014
5	18.5	125	0.50	25301820015015
6	18.5	160	0.73	25301820015016
8	24	320	1.30	25301820015017
10	28	500	3.05	25301820015018

\*Computational, static load capacity

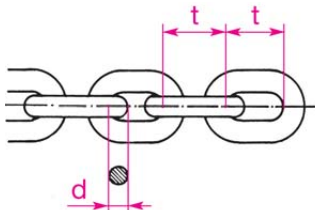
**Only available in 50 m chains.**



### Stainless Steel Short Link Chain, Dimensions acc. to DIN 766



Material 1.4401, corrosion- and acid-resistant,  
not tested, not true to gauge



Chain size d x t in mm	Break. load in kg	Weight ca. kg/m	Available length in m	Item no.
2 x 12*	125	0.07	100	25301820015027
3 x 16*	280	0.16	100	25301820015028
4 x 16	800	0.30	50	25301820015029
5 x 18.5	1250	0.50	50	25301820015030
6 x 18.5	1600	0.73	50	25301820015031
7 x 22	2500	1.10	50	25301820015032
8 x 24	3200	1.35	50	25301820015033
10 x 28	5000	2.25	50	25301820015034

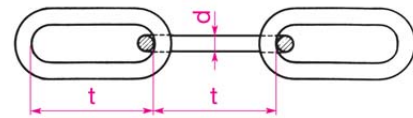
\*Dimensions acc. to DIN 5685

**!** Must not be used for lifting purposes!

### Stainless Steel Long Link Chain, Dimensions acc. to DIN 763/5685



Material 1.4401, corrosion- and acid-resistant,  
not tested, not true to gauge

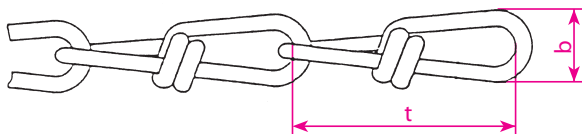


Chain size d x t in mm	Break. load in kg	Weight ca. kg/m	Available length in m	Item no.
2 x 22*	125	0.06	100	25301820015035
3 x 26*	280	0.15	100	25301820015036
4 x 32	630	0.27	50	25301820015037
5 x 35	1000	0.43	50	25301820015038
6 x 42	1250	0.63	50	25301820015039
8 x 52	2500	1.10	50	25301820015040
10 x 65	4000	1.75	50	25301820015041

\*Dimensions acc. to DIN 5685

**!** Must not be used for lifting purposes!

### Knotted Chain acc. to DIN 5686, galvanised



Chain nominal thickness in mm	Dimensions in mm t	b	Weight in kg/m	Item no.
1.4	20	6.5	0.037	25301820015042
1.6	23	7	0.050	25301820015043
1.8	25	8	0.060	25301820015044
2.0	28	9	0.088	25301820015045
2.2	31	10	0.093	25301820015046
2.5	35	11	0.125	25301820015047
2.8	39	12.5	0.154	25301820015048
3.1	41	14	0.182	25301820015049

**!** Must not be used for lifting purposes!

Only available in 30 m chains.

**!** Chain sling piece goods, grade 12  
Chain sling piece goods, grade 10  
Chain sling piece goods, grade 8

see page 282



With a wealth of experience and enthusiasm we produce high-quality submersible pumps for diverse professional applications.

Our brand stands for high-performance submersible pumps, characterized by greatest functionality, easy operation, and maximum robustness. The quality, durability and reliability of Auras pumps have been proven for decades in continuous operation under extreme conditions.

Your investment in Auras pumps is guaranteed to pay off! Benefit from our engineering Made in Germany.

#### **Sales and Financing**

We will arrange for professional equipment being quickly provided to you. Let our sales department assist you in selecting your future Auras pump and advising you on financing.

Rent, purchase or leasing? Contact us – we will find the perfect solution for your requirements.

#### **Maintenance and Inspection**

Auras pumps only require minimum maintenance during many years of operation under toughest conditions.

Your Auras Partner will ensure that your Auras pumps do their job always reliably.

You may have your pumps inspected and repaired economically by our experts on our premises or just conveniently at your site. All components are quickly available at any time.

#### **Rent**

For your immediate and temporary needs, you simply can rent Auras pumps at local rental stations in your region – for as long as you want.







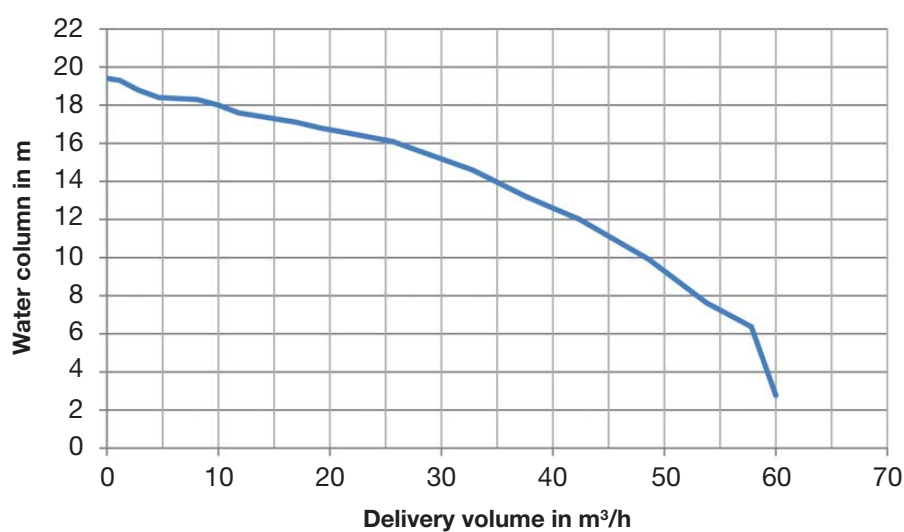
The tables show you how the delivery volume (m<sup>3</sup>/h) changes as the delivery height increases (water column in m).

### Submersible sewage pump P 20 + P 220



Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Power consumption P1 in kW	Item no.
P220	25 (420 l/min.)	13	5	22	210	510	C (2")	1.45	55121010015003
P220A w. autom. system	25 (420 l/min.)	13	5	22	210	510	C (2")	1.45	55121010015004
P20	25.5 (425 l/min.)	13	5	23	210	510	C (2")	1.3	55121010015001
P20A w. autom. system	25.5 (425 l/min.)	13	5	23	210	510	C (2")	1.3	55121010015002

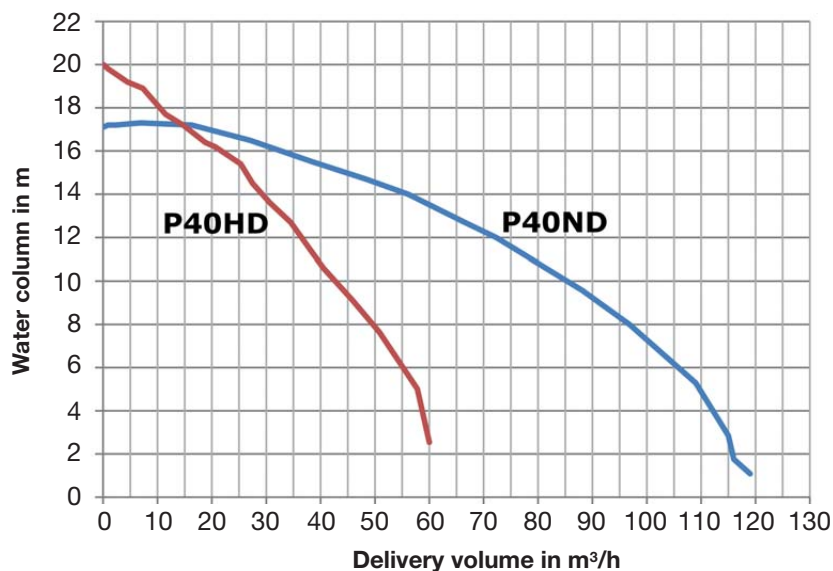
### Submersible sewage pump P 30



Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Power consumption P1 in kW	Item no.
P30	60 (1000 l/min.)	18	8	37	246	540	B (3")	3.5	55121010015005
P30A w. autom. system	60 (1000 l/min.)	18	8	37	246	540	B (3")	3.5	55121010015006

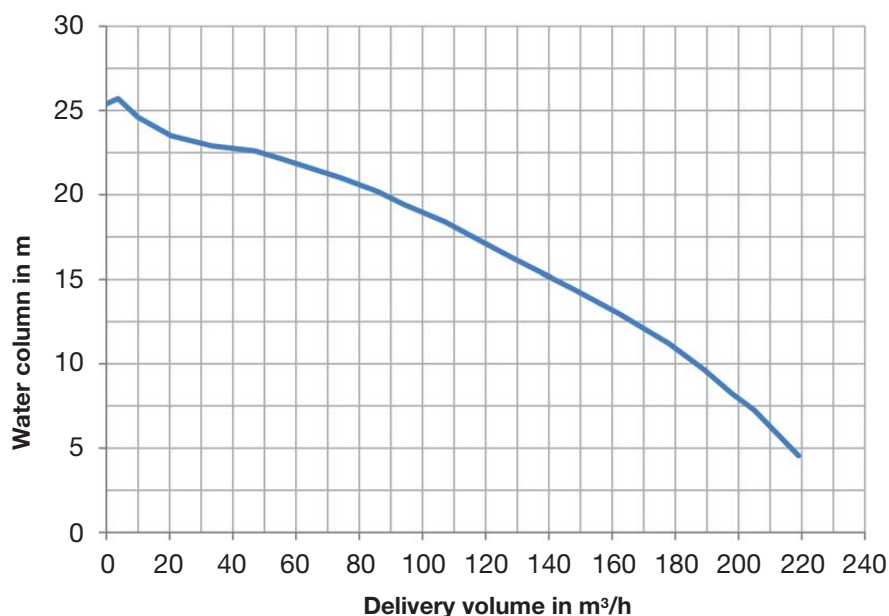


### Submersible sewage pump P 40 ND + HD



Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Power consumption P1 in kW	Item no.
P40ND	115 (1920 l/min.)	17	8	44	246	620	A (4")	4.7	55121010015009
P40NDA w. autom. system	115 (1920 l/min.)	17	8	44	246	620	A (4")	4.7	55121010015010
P40HD	55 (920 l/min.)	19.5	8	44	246	620	B (3")	4.7	55121010015007
P40HDA w. autom. system	55 (920 l/min.)	19.5	8	44	246	620	B (3")	4.7	55121010015008

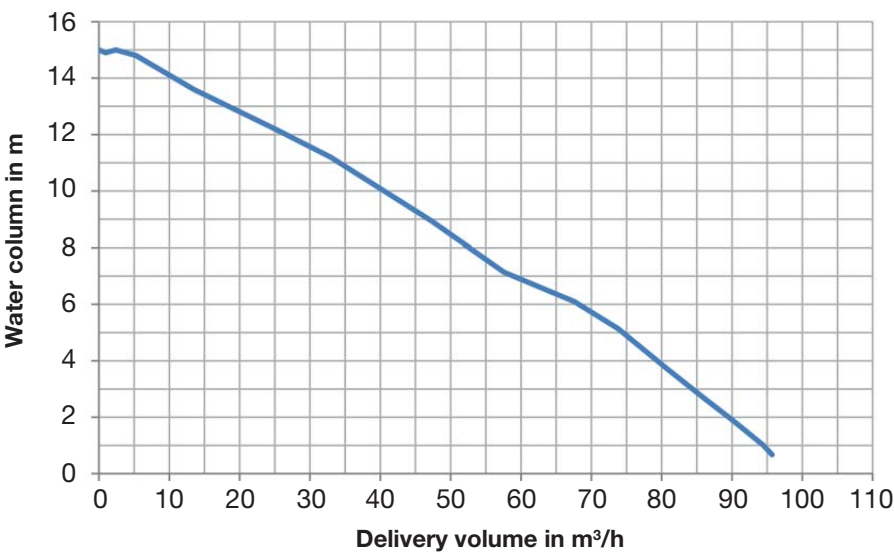
### Submersible sewage pump P 60 ND



Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Power consumption P1 in kW	Item no.
P60ND	215 (3580 l/min.)	25	10	120	350	910	F (6")	13.5	55121010015011
P60NDA w. autom. system	215 (3580 l/min.)	25	10	120	350	910	F (6")	13.5	55121010015012

Submersible Pumps for  
Toughest Conditions.

Submersible sewage pump P 40 CS



Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Power consumption in kW	Item no.
P40CS	89 (1480 l/min.)	15	44	61.5	420	670	A (4")	2.8	55121015015001

Construction and Industrial Hose

Rubberised interior, white exterior, with integrated LM-Storz couplings




Size	L. W. in mm	Length in m	Item no.
C	52	20	55121515015014
B	75	20	55121515015015
A	102	20	55121515015016
F	150	20	55121515015017

Tested pump safety chain

- For precision placement
- For securing
- For lifting the submersible pump

Made from stainless steel, material 1.4404, with welded Master links, basic length 1 m, chain nominal thickness 3-18 mm possible. Carrying capacity: 900 kg  
Various versions on request.



 Please contact us!

### Base Sucker



Suitable for lowering water level up to ground level.

For submersible pumps	Item no.
P20, P20A, P220, P220A	55121515015036

### LM-Divider



Size	Item no.
A / B / C	55121515015022

### LM-Fixed coupling with female thread



Size	Thread size in Zoll	Item no.
C	2	55121515015028
B	2 1/2	55121515015027
B	3	55121515015029
A	4	55121515015030
F	6	55121515015031

### Filter cage



Filter cage for pumps P 220/P 220A and P 20/P 20A. Ø 250 x 390 mm high, made from stainless steel 1.4301. Fixed at pump [Cage not suitable for lifting loads].

Item no.
55121515015035

### LM-Fixed coupling with male thread



Size	Thread size in Zoll	Item no.
C	2	55121515015024
B	2 1/2	55121515015023
B	3	55121515015025
A	4	55121515015026

### Floating switch 400 V



Cable m	Plug	Item no.
10	CEE16A	55121515015007
10	CEE32A	55121515015008

### LM-Reducer



Size	Item no.
C / GEKA	55121515015032
C / B	55121515015019
A / B	55121515015018
F / A	55121515015020

### Non-Return Valve



Thread in inches	Item no.
2	55121515015011
2 1/2	55121515015012
3	55121515015021
4	55121515015013



# AURAS SUBMERSIBLE PUMPS

## CLEVERLINE-Submersible Pumps

**CLEVERLINE** - high-quality  
- versatile - efficient

**CLEVERLINE** – the new dirt water & sewage pumps from AURAS are not only convenient in use and light, but also versatile. High-quality materials and a solid construction make the pumps robust and ensure a long service life.

All 230V-pumps are equipped with a high-grade class F engine with engine protection and a 10 m H07RNF cable. The maximum temperature of the medium to be pumped is 40°C.



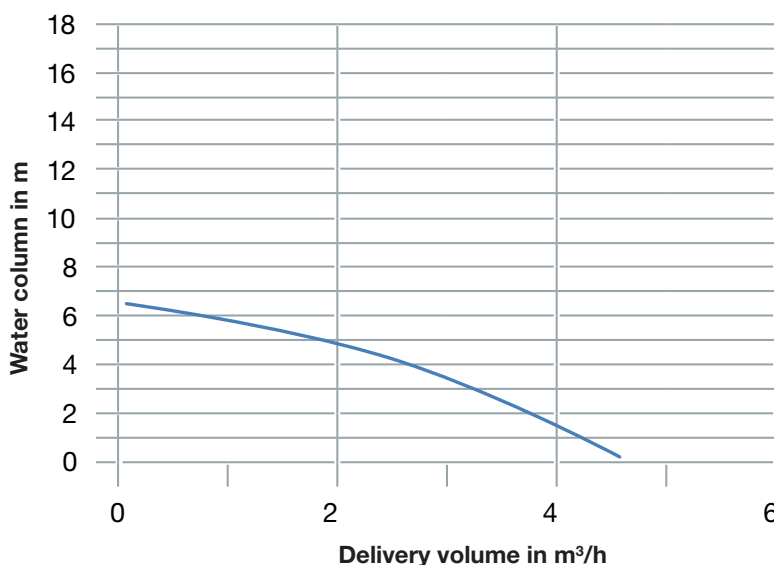


### Submersible pump CLEVERLINE CY 10 / CY 10A for clear water



Equipped with two hose connection adaptors, this small robust pump offers a cost-efficient solution for many submersible pump applications with clear water – at a pumping capacity of up to 70 l/min. This pump is also available with a float switch.

Areas of application include: pools, garden ponds, flat roofs, basements, water reservoirs and many more.

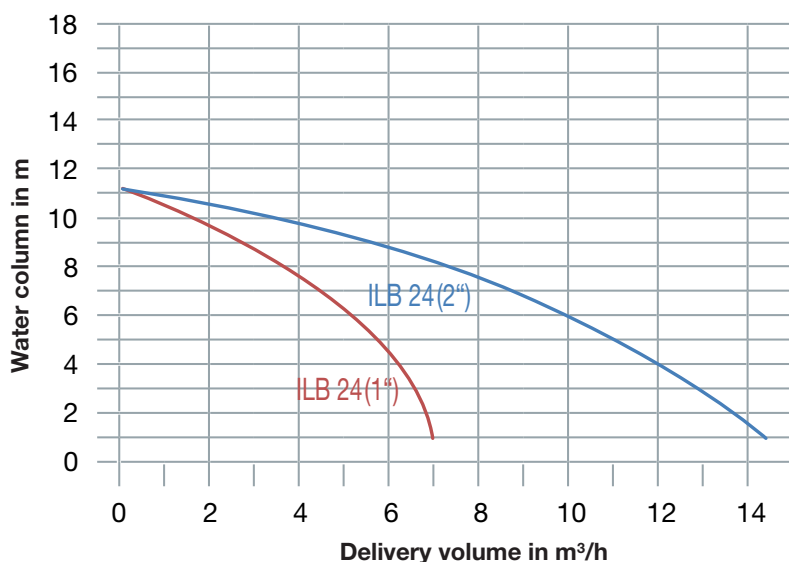


Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Motor power rating in kW	Item no.
CY 10	4.2	6	6	3.2	158	273	25 mm / 1"	0.15	55121010035010
CY 10A with float	4.2	6	6	3.2	158	273	25 mm / 1"	0.15	55121010035011

### Submersible sewage pump CLEVERLINE ILB 24 with 2" Storz coupling



The dirty water pumps are compact and light, but nevertheless powerful and robust. The maintenance of the pumps is really easy. An intelligent solution for a variety of applications.

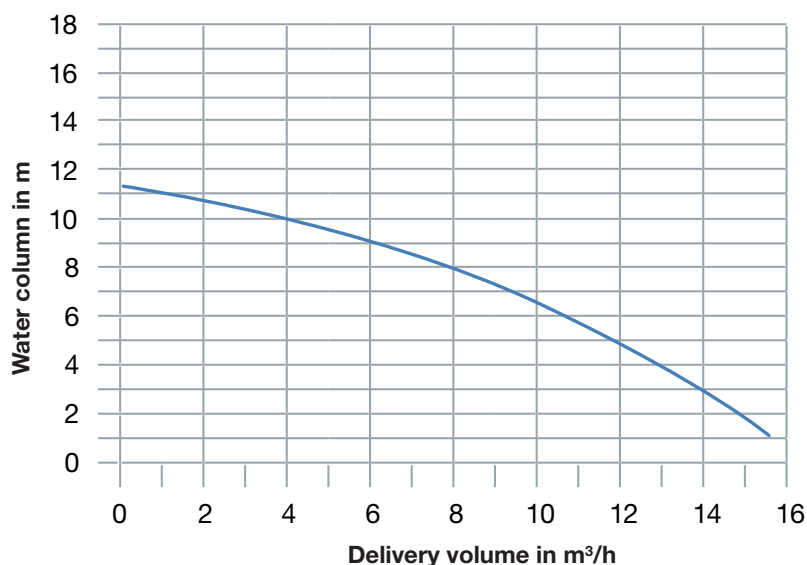


Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Motor power rating in kW	Item no.
ILB 24	15	11	2	10.5	215	304	1" or 2"	0.4	55121010035005

### Submersible sewage pump CLEVERLINE IL 24 / IL 24A with 2" Storz coupling



The dirty water pumps of the IL series are compact and light, but nevertheless powerful and robust. The ILB 24, for instance, can be used to drain water up to a water level of 2 mm – ideal for flat surfaces such as basements, parking garages, pools etc. The maintenance of the pumps is really easy. An intelligent solution for a variety of applications.

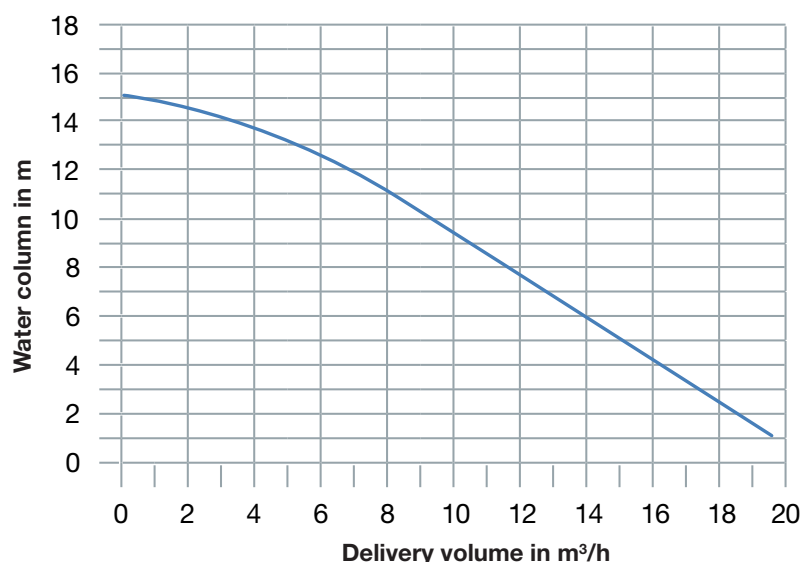


Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Motor power rating in kW	Item no.
IL 24	15	11	5.5	10.5	205	303	2"	0.4	55121010035006
IL 24A with float	15	11	5.5	10.5	205	303	2"	0.4	55121010035007

### Submersible sewage pump CLEVERLINE IL 27 / IL 27A with 2" Storz coupling



The dirty water pumps are compact and light, but nevertheless powerful and robust. The maintenance of the pumps is really easy. An intelligent solution for a variety of applications.

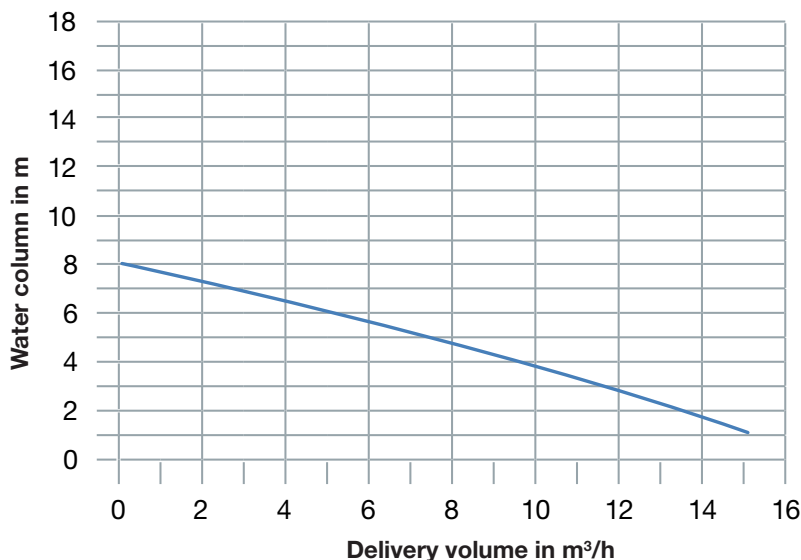


Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Motor power rating in kW	Item no.
IL 27	19	15	7	12.5	205	343	2"	0.75	55121010035008
IL 27A with float	19	15	7	12.5	205	343	2"	0.75	55121010035009

### Submersible sewage pump CLEVERLINE RV 24 / RV 24A



The sewage pumps of the RV series are light, easy to handle and equipped with a high-quality vortex impeller made of cast iron allowing for wastewaters with contents of fibers and solids to be easily drained. High-quality materials and a solid construction ensure a long service life.

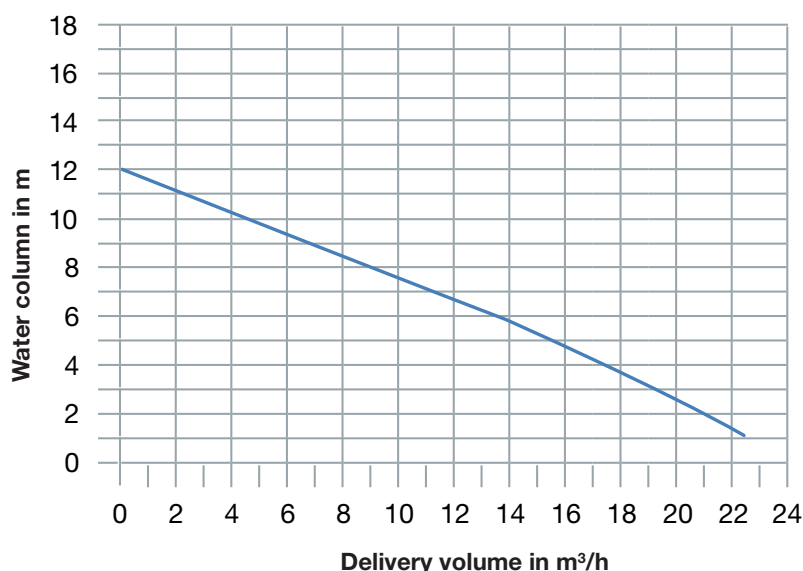


Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Motor power rating in kW	Item no.
RV 24	15	8	32	13.5	243	395	2"	0.4	55121015035005
RV 24A with float	15	8	32	13.5	243	395	2"	0.4	55121015035006

### Submersible sewage pump CLEVERLINE RV 28 / RV 28A



The sewage pumps of the RV series are light, easy to handle and equipped with a high-quality vortex impeller made of cast iron allowing for wastewaters with contents of fibers and solids to be easily drained. High-quality materials and a solid construction ensure a long service life.



Type	Maximum discharge flow m³/h	Maximum discharge head in m	Hole-Ø of strainer in mm	Weight in kg	Ø in mm	Height in mm	Hose connection	Motor power rating in kW	Item no.
RV 28	21	12	37	19.5	243	473	2"	0.75	55121015035007
RV 28A with float	21	12	37	19.5	243	473	2"	0.75	55121015035008

# LIFTING POINTS



Screw-on Lifting Points | Weld-on Lifting Points





LIFTING POINTS

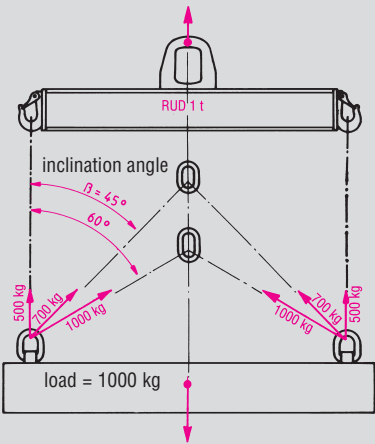
RUD® Screw-on Lifting Points

Select the correct lifting points

When selecting the capacity, please be aware that in most cases the load is lifted with multi leg slings. Depending on the inclination angle of the sling the stress on the lifting point will increase. For load capacities please refer to the load chart. In case of 4 leg slings and symmetrical load only 3 legs are assumed as load-bearing.

Also see EN 818-6.

Rule of thumb: The capacity of the single lifting point (also in case of multi leg slings) must correspond to the total weight of the load.



Screw-on Lifting Points

Thread sizes

M 8-  
M 30

Imperial threads (UNC etc.) and special lengths on request.



ICE-LBG-SR SUPER ROTATION



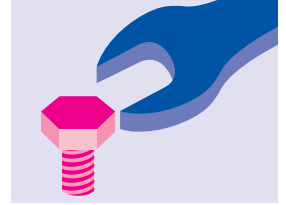
	Number of legs Inclination angle	ICE-LBG-SR 0.3 t						
		ICE-LBG-SR 0.3 t	ICE-LBG-SR 0.63 t	ICE-LBG-SR 1.0 t	ICE-LBG-SR 1.5 t	ICE-LBG-SR 2.5 t	ICE-LBG-SR 4.0 t	ICE-LBG-SR 5.0 t
		M 8	M 10	M 12	M 16	M 20	M 24	M 30
	1 0°	0.6	0.9	1.35	2.5	3.5	4.5	6.7
	2 0°	1.2	1.8	2.7	5.0	7.0	9.0	13.4
	1 90°	0.6	0.9	1.35	2.5	3.5	4.5	6.7
	2 90°	1.2	1.8	2.7	5.0	7.0	9.0	13.4
	2 0-45°	0.8	1.2	1.9	3.5	4.9	6.3	9.4
	2 45-60°	0.6	0.9	1.35	2.5	3.5	4.5	6.7
	2 asymmetric	0.6	0.9	1.35	2.5	3.5	4.5	6.7
	3+4 0-45°	1.2	1.9	2.8	5.3	7.4	9.5	14.2
	3+4 45-60°	0.9	1.3	2.0	3.7	5.2	6.7	10.0
	3+4 asymmetric	0.6	0.9	1.35	2.5	3.5	4.5	6.7
		M 8	M 10	M 12	M 16	M 20	M 24	M 30

















### Screw-on Lifting Points

Maximum transport weight „G“ in „t“ with different lifting methods

**4** design factor in all directions



Thread sizes <b>M 8- M 90</b> Imperial threads (UNC etc.) and spe- cial lengths on request.		<b>VLBG-PLUS Lifting ring</b>  <div>From M8 up to M30 an average of 45 % higher load capacity as previous model.</div> 																<b>VWBG-V Lifting ring (Vario)</b> 																<b>VWBG Lifting ring</b> 															
Number of legs Inclination angle		VLBG-PLUS 0.63 t VLBG-PLUS 0.9 t VLBG-PLUS 1.35 t VLBG-PLUS 1.2 t VLBG-PLUS 2.0 t VLBG-PLUS 2.0 t VLBG-PLUS 3.5 t VLBG-PLUS 4.5 t VLBG-PLUS 4.0 t VLBG-PLUS 6.7 t VLBG-PLUS 7.0 t Spec. VLBG-PLUS 8.0 t VLBG-PLUS 10.0 t VLBG-PLUS 15.0 t VLBG-PLUS 20.0 t LGB-RS M16 1 t LGB-RS M20 2 t																VWBG-V 0.3 t VWBG-V 0.45 t VWBG-V 0.6 t VWBG-V 1.0 t VWBG-V 1.3 t VWBG-V 1.8 t VWBG-V 2.0 t VWBG-V 2.0 t VWBG-V 3.5 t VWBG-V 3.5 t VWBG-V 5.0 t VWBG 6(7.5) VWBG 8(10) VWBG 12(13) VWBG 12(15) VWBG 13(16) VWBG 14(20) VWBG 16(22) VWBG 16(25) VWBG 31.5(40) VWBG 35(48) VWBG 40(50)																															
		M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	M 42	M 42	M 48	M 16	M 20	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 45	M 48	M 52	M 56	M 64	M 72	M 80	M 90										
	1 0°	0.63	0.9	1.35	1.2	2	2	3.5	4.5	4	6.7	7	8	10	15	20	1	2	0.42	0.9	1.2	2.0	2.6	3.6	4	4	7	7	10	15	15	17	18	18	25	28	28	50	50	50									
	2 0°	1.26	1.8	2.7	2.4	4	4	7	9	8	13.4	14	16	20	30	40	2	4	1.2	1.8	2.4	4.0	5.2	7.2	8	8	14	14	20	30	30	34	36	36	50	56	56	100	100	100									
	1 90°	0.63	0.9	1.35	1.2	2	2	3.5	4.5	4	6.7	7	8	10	15	20	1	2	0.3	0.45	0.6	1.0	1.3	1.8	2	2	3.5	3.5	5	6	8	12	12	13	14	16	16	31.5	35	40									
																		(0.4)	(0.6)	(0.75)	(1.25)	(1.5)	(2.0)	(2.5)	(2.5)	(4)	(4)	(6)	(7.5)	(10)	(13)	(15)	(16)	(20)	(22)	(25)	(40)	(48)	(50)										
	2 90°	1.26	1.8	2.7	2.4	4	4	7	9	8	13.4	14	16	20	30	40	2	4	0.6	0.9	1.2	2.0	2.6	3.6	4	4	7	7	10	12	16	24	24	26	28	32	32	63	70	80									
																		(0.8)	(1.2)	(1.5)	(2.5)	(3)	(4.0)	(5)	(5)	(8)	(8)	(12)	(15)	(20)	(26)	(30)	(32)	(40)	(44)	(50)	(80)	(96)	(100)										
	2 0-45°	0.88	1.3	1.9	1.68	2.8	2.8	4.9	6.3	5.6	9.4	9.8	11.2	14	21	28	1.4	2.8	0.4	0.84	0.8	1.4	1.81	2.52	2.8	2.8	4.9	4.9	7	8.4	11.2	16.8	16.8	18.2	19.6	22.4	22.4	44.1	49	56									
																		(0.56)	(1.04)	(1.05)	(1.75)	(2.1)	(2.8)	(3.5)	(3.5)	(5.6)	(5.6)	(8.4)	(10.5)	(14)	(18.2)	(21)	(22.4)	(28)	(30.8)	(35)	(56)	(67.2)	(70)										
	2 45-60°	0.63	0.9	1.35	1.2	2	2	3.5	4.5	4	6.7	7	8	10	15	20	1	2	0.3	0.45	0.6	1.0	1.3	1.8	2	2	3.5	3.5	5	6	8	12	12	13	14	16	16	31.5	35	40									
																		(0.4)	(0.6)	(0.75)	(1.25)	(1.5)	(2)	(2.5)	(2.5)	(4)	(4)	(6)	(7.5)	(10)	(13)	(15)	(16)	(20)	(22)	(25)	(40)	(48)	(50)										
	2 asymmetric	0.63	0.9	1.35	1.2	2	2	3.5	4.5	4	6.7	7	8	10	15	20	1	2	0.3	0.4	0.6	1.0	1.3	1.8	2	2	3.5	3.5	5	6	8	12	12	13	14	16	16	31.5	35	40									
																		(0.4)	(0.6)	(0.75)	(1.25)	(1.5)	(2)	(2.5)	(2.5)	(4)	(4)	(6)	(7.5)	(10)	(13)	(15)	(16)	(20)	(22)	(25)	(40)	(48)	(50)										
	3+4 0-45°	1.32	1.9	2.8	2.52	4.2	4.2	7.4	9.5	8.4	14.2	14.7	16.8	21	31.5	42	2.1	4.2	0.63	0.941	1.26	2.1	2.73	3.78	4.2	4.2	7.35	7.35	10.5	12.6	16.8	25.2	25.2	27.3	29.4	33.6	33.6	66.15	73.5	84									
																		(0.84)	(1.26)	(1.57)	(2.62)	(3.15)	(4.2)	(5.25)	(5.25)	(8.4)	(8.4)	(12.6)	(21)	(21)	(27.3)	(31.5)	(33.6)	(42)	(46.2)	(52.5)	(84)	(100.8)	(105)										
	3+4 45-60°	0.95	1.35	2.0	1.8	3	3	5.25	6.75	6	10	10.5	12	15	22.5	30	1.5	3	0.45	0.67	0.9	1.5	1.9	2.7	3	3	5.2	5.2	7.5	9	12	18	18	19.5	21	24	24	47.25	52.5	60									
																		(0.6)	(0.9)	(1.12)	(1.87)	(2.25)	(3)	(3.75)	(3.75)	(6)	(6)	(9)	(11.2)	(15)	(19.5)	(22.5)	(24)	(30)	(33)	(37.5)	(60)	(72)	(75)										
	3+4 asymmetric	0.63	0.9	1.35	1.2	2	2	3.5	4.5	4	6.7	7	8	10	15	20	1	2	0.3	0.45	0.6	1.0	1.3	1.8	2	2	3.5	3.5	5	6	8	12	12	13	14	16	16	31.5	34	40									
																		(0.4)	(0.6)	(0.75)	(1.25)	(1.5)	(2)	(2.5)	(2.5)	(4)	(4)	(6)	(7.5)	(10)	(13)	(15)	(16)	(20)	(22)	(25)	(40)	(48)	(50)										
		M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	M 42	M 42	M 48	M 16	M 20	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 45	M 48	M 52	M 56	M 64	M 72	M 80	M 90										



Nominal load capacities for screw-on lifting points are indicated in the charts on pages 534-550. Operational capacities for the different inclination angles can be found in the chart above.















Please also observe the different operating temperatures!

# LIFTING POINTS

## RUD® Screw-on Lifting Points

### Screw-on Lifting Points

### Maximum transport weight „G“ in „t“ with different lifting methods

Thread sizes <b>M 6- M 48</b> Imperial threads (UNC etc.) and special lengths on request.			<b>PP-S (Vario) PowerPoint-Star</b>			<b>PP-VIP (Vario) PowerPoint-VIP</b>			<b>Starpoint VRS (Vario) Eye Bolt</b>			<b>Starpoint VRM Eye Nut</b>			<b>B-ABA all direction durable Lifting point</b>																	
																																
	Number of legs Inclination angle	Type	Thread						Thread												Thread											
			PP-S 0.63 t M 12	PP-S 1.5 t M 16	PP-S 2.5 t M 20	PP-S 4.0 t M 24	PP-S 5.0 t M 30	PP-S 8.0 t M 36	VRS M6 / VRM M6 M 6	VRS M8 / VRM M8 M 8	VRS M10 / VRM M10 M 10	VRS M12 / VRM M12 M 12	VRS M14 M 14	VRS M16 / VRM M16 M 16	VRS M18 M 18	VRS M20 / VRM M20 M 20	VRS M22 M 22	VRS M24 / VRM M24 M 24	VRS M27 M 27	VRS M30 / VRM M30 M 30	VRS M33 M 33	VRS M36 M 36	VRS M42 M 42	VRS M48 M 48	VRS M56 M 56	VRS M64 M 64	B-ABA 1.6 t 4 x M10	B-ABA 3.2 t 4 x M12	B-ABA 5.0 t 4 x M16	B-ABA 10.0 t 4 x M20	B-ABA 20.0 t 6 x M24	B-ABA 31.5 t 6 x M30
	2 0°		0.63	1.5	2.5	4	6.7	10	0.5	1	1	2	2	4	4	6	6	8	8	12	12	16	24	32	50	60	1.6	3.2	5.0	10	20	31.5
	1 90°		0.63	1.5	2.5	4	5	8	0.1	0.3	0.4	0.75	0.75	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12	16	20	1.6	3.2	5.0	10	20	31.5
	2 90°		1.26	3	5	8	10	16	0.2	0.6	0.8	1.5	1.5	3	3	4.6	4.6	6.4	6.4	9	9	14	18	24	32	40	3.2	6.4	10	20	40	63
	2 0-45°		0.88	2.1	3.5	5.6	7	11.2	0.14	0.42	0.56	1	1	2.1	2.1	3.22	3.22	4.5	4.5	6.3	6.3	9.8	12.6	6.8	22.4	28	2.2	4.5	7.1	14.1	28	45
	2 45-60°		0.63	1.5	2.5	4	5	8	0.1	0.3	0.4	0.75	0.75	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12	16	20	1.6	3.2	5	10	20	31.5
	2 asymmetric		0.63	1.5	2.5	4	5	8	0.1	0.3	0.4	0.75	0.75	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12	16	20	1.6	3.2	5	10	20	31.5
	3+4 0-45°		1.32	3.15	5.25	8.4	10.5	16.8	0.21	0.63	0.84	1.6	1.6	3.15	3.15	4.83	4.83	4.48	4.48	9.4	9.4	14.7	18.9	25	33.6	42	3.4	6.8	10.6	21.2	42	67
	3+4 45-60°		0.95	2.25	3.75	6	7.5	12	0.15	0.45	0.6	1.12	1.12	2.25	2.25	3.45	3.45	4.8	4.8	6.7	6.7	10.5	13.5	18	24	30	2.4	4.8	7.5	15	30	47.5
	3+4 asymmetric		0.63	1.5	2.5	4	5	8	0.1	0.3	0.4	0.75	0.75	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12	16	20	1.6	3.2	5	10	20	31.5
Thread			M 12	M 16	M 20	M 24	M 30	M 36	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 48	M 56	M 64	4 x M10	4 x M12	4 x M16	4 x M20	6 x M24	6 x M30



Nominal load capacities for screw-on lifting points are indicated in the charts on pages 534-550.  
Operational capacities for the different inclination angles can be found in the chart above.

Please also observe the different operating temperatures!

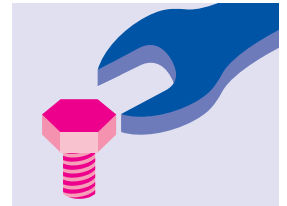


















# LIFTING POINTS

**RUD** Screw-on Lifting Points



**4** design factor in all directions




































































































Thread sizes <b>M6- M48</b> Imperial threads (UNC etc.) and special length on request. 		<b>INOX-STAR</b>  				<b>RS &amp; RM</b> High Strength Eye Bolt/Eye Nut 												<b>VRBG</b> Lifting Ring 					<b>WBPB</b> Hoist ring on plate for bolting 					
<div>Number of legs</div> <div>Inclination angle</div>		INOX M12				RSRM M6												RBG 3.0 t					WBPB 85.0 t					
		INOX M16	INOX M20	INOX M24		RSRM M8	RSRM M10	RSRM M12	RSRM M14	RSRM M16	RSRM M20	RSRM M24	RSRM M30	RSRM M36	RSRM M42	RSRM M48	2x M 16	4x M 20	4x M 30	6x M 30	8x M 36	6x M 48	6x M 48	6x M 48	10x M 42	10x M 48	12x M 48	
	1 0°	1.2	2.4	3.6	5.2	0.4	0.8	1	1.6	3	4 (3.2)	6	8	12	16	24	32	3	10	16	31.5	50	85	100	120	150	200	250
	2 0°	2.4	4.8	7.2	10.4	0.8	1.6	2	3.2	6	8 (6.4)	12	16	24	32	48	64	6	20	32	63	100	170	200	240	300	400	500
	1 90°	0.5	1.0	2.0	2.5	0.1	0.2	0.25	0.4	0.75	1 (0.8)	1.5	2	3	4	6	8	3	10	16	31.5	50	85	100	120	150	200	250
	2 90°	1.0	2.0	4.0	5.0	<div>We recommend to use either „VRS Starpoint“ or „PowerPoint“ which can be adjusted to the direction of pull</div>												6	20	32	63	100	170	200	240	300	400	500
	2 0-45°	0.7	1.4	2.8	3.5													4.2	14	22.4	45	70	119	140	168	210	280	350
	2 45-60°	0.5	1.42	2.83	3.53													3	10	16	31.5	50	85	100	120	150	200	250
	2 asymmetric	0.5	1.0	2.0	2.5													3	10	16	31.5	50	85	100	120	150	200	250
	3+4 0-45°	1.06	2.12	4.24	5.3													6.3	21	33.6	66.2	105	178	210	252	315	420	525
	3+4 45-60°	0.75	1.5	3.0	3.75													4.5	15	24	47.5	75	127	150	180	225	300	375
	3+4 asymmetric	0.5	1.0	2.0	2.5	3	10	16	31.5	50	85	100	120	150	200	250												
		M 12	M 16	M 20	M 24	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 24	M 30	M 36	M 42	M 48	2x M 16	4x M 20	4x M 30	4x M 36	6x M 50	6x M 48	6x M 48	6x M 48	10x M 42	10x M 48	12x M 48

( ) = divergent WLL of RM

# LIFTING POINTS

## RUD® Selection Matrix/Product Features

								
		ICE-LBG-SR	VWBG-V	VWBG	PP-S /-B /-VIP	WBPB	VLBG-PLUS	LGB-RS
Load capacities		0.6 t – 6.7 t	0.63 t – 5 t	6 t – 40 t	0.63 t – 8 t	85 t – 250 t	0.63 t – 20 t	1 t / 2 t
Ideal for rotating and turning							-	-
Ball bearing type							-	-
Safety factor								
RUD-ID-System®								
All load directions possible						-		
DGUV-tested				-		-		-
Swivel range								
Hitch link slewing range								
Possible Thread Types	Metric	 M8 M30	 M8 M30	 M33 M150	 M12 M42	 M42 M48	 M8 M48	 M16/ M20
	Metric fine pitch	-	 M12x1.5 M30x1.5	 M33x2 M160x4	 M12x1.5 M42x3	-	 M12x1.5 M30x2	-
	Imperial (UNC)	-	 5/16"- 18UNC -1 1/4"- 7UNC	 1 1/2"- 6UNC -5"	 1/2"- 13UNC -1 1/2"- 6UNC	-	 3/8"- 16UNC -2"- 4.5UNC	-
	Imperial (8UN)	-	-	 8UN	-	-	 1 1/4"- 8-UN	-
	Imperial (UNF)	-	-	 UNF	-	-	-	-
	BSW-British Standard Whitworth	-	-	 BSW 1 1/2" 5"	-	-	-	-
	G pipe inches (acc. to ISO 228)	-	-	 G	-	-	-	-
Variable thread lengths						-		-
Retaining spring			-	-	-	-		
Application temperature range W/O reduction in load capacity								
Max. application temperature W/ reduction in load capacity								



Lifting points with this product feature are ideal for rotating and turning loads.



The lifting point has the innovative double SR ball bearing (continuous rotary movement and turning under load).



Ball bearing: suitable for rotating and turning. However, not suitable for continual rotary movements under load!



Testing and Documentation made easy! With the RUD-ID-System® (Equipped with a RFID-Chip)




























































































4 x safety against breakage with lifting points (2 x safety against breakage with lashing points).



Load can be applied to the lifting point from all directions.





Lifting point is able to rotate 360°. However, this does not equate to rotating and turning under load!


									
VRS	VRM	INOX-STAR	B-ABA	RBG / VRBG	FLARIBO	VABH-B	VCGH-G	RS	RM
0.1 t - 12 t	0.1 t - 4.5 t	0.5 t / 2.5 t	1.6 t - 31.5 t	3 t - 50 t	18 t - 31.5 t	1.5 t - 6.7 t	10 t - 20 t	0.1 t - 8 t	1 t / 8 t
-	-	-	-	-		-	-	-	-
-	-	-	-	-	-	-	-	-	-
									
									
						-	-	-	-
	-	-		-	-	-	-	-	-
			-	-	-	-	-	-	-
-	-	-	-		-	-	-	-	-
 M6 M48	 M6 M30	 M16 M24	 M10 M30	 M16 M36	 M20 M64	 M10 M20	 M24	 M6 M48	 M6 M48
 M8x1 M36x3	-	-	-	-	-	-	-	 M10x1 M48x3	 M14x1.5 M48x3
 1/4"- 20UNC -2"- 4.5UNC	-	-	-	-	-	-	-	 1/4"- 20UNC -2"- 4.5UNC	 3/8"- 16UNC -1 1/4"- 7UNC
-	-	-	-	-	-	-	-	 1/4"- 8-UN- 1 3/4"- 8-UN	 1 3/4"- 8-UN
 3/4" 16UNF	-	-	-	-	-	-	-	 3/8"- 24UNF -1"- 12UNF	-
-	-	-	-	-	-	-	-	 1/4" 2"	 1/2" 1 1/8"
 1/4" 3"	-	-	-	-	-	-	-	 1/4" 3/4"	 1/4" 3/4"
	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
 -40°C 100°C	 -40°C 100°C	 -40°C 280°C	 -40°C 100°C	 -20°C 100°C	 -40°C 100°C	 -40°C 200°C	 -20°C 100°C	 -40°C 200°C	 -40°C 200°C
 350°C max.	 100°C max.	 280°C max.	 350°C max.	 350°C max.	 350°C max.	 350°C max.	 350°C max.	 400°C max.	 400°C max.


 Lifting point has a slewing range of XXX° (represents several values) in the hitch link.

 Possible lifting point thread types. Icons correspond to: M, MF, UNC, 8-UN, UNF, BSW, G.

 Lifting point available with variable/different thread lengths.

 Retaining spring holds the hitch link/hitch stirrup in a set position – prevents rattling and makes painting easier.

 Application temperature range for the lifting point without permanent load capacity reduction.

 Maximum application temperature of the lifting point with product-dependent load capacity reduction in percent.

# LIFTING POINTS

## RUD® ICE Screw-on Lifting Points

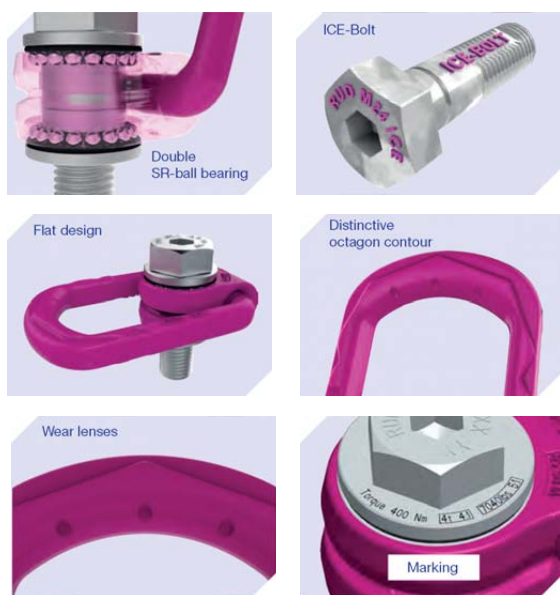
THE RIGHT TURN!

### ICE-LBG-SR Super Rotation®



**NEW! SuperRotation® turns more than just heads.**

With the same design and without any change to the previous installation dimensions of the former VLBG, the **ICE-LBGS® can now be rotated in all directions under full load.** Whether vertically upwards or at 90° to the screw, the innovative, double SR-ball bearing smoothly converts the load capacity forces into a rotary movement without the attachment screw releasing itself. The ICE bolts made from patented fine-grained steel furthermore guarantee high static and dynamic strength with the smallest screw diameter.



# SUPER ROTATION®

- First lifting point that can be rotated under load while subjected to non-symmetrical forces:
  - for rotating, turning and tilting all loads
  - attachment screws do not accidentally come undone
  - tested min. 5,000 rotations
- Dual SR-ball bearing and ICE bolt enable new dimensions – full introduction of forces from all possible directions
- Bearing seal prevents undesired rotary movements and thus dampens noise
- Screw is captive but can still be replaced
- Special CORRUD-DT finish protection, at least 20 x better corrosion protection than electro-galvanized versions
- ICE bolt from patent steel with up to 40% higher, unbelievable strength properties – and all at -60°C
- Suspension bracket with
  - clamping spring, sound dampening and holds in the desired direction
  - patented wear lenses for easily determining the discard stage
- All load-bearing parts 100% crack tested
- ICE pink powder coating with overheating indicator
- BG authorisation (DGUV) in line with the acceptance conditions of GS OA 15-04



- Eliminate any risk of damage to the sling by sharp-edged loads.



- The bracket must not rest on edges.

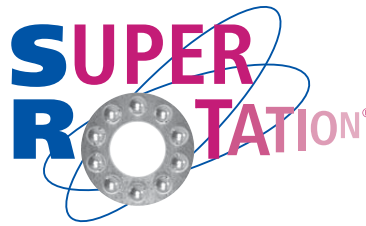
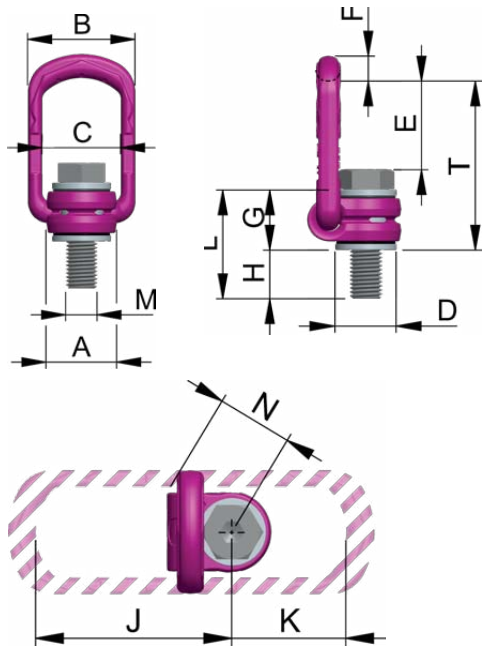


- Note that the sling must be freely moveable in the ICE-LBR-SR lifting point. No areas that pose a risk of crushing, catching, cutting or impact must exist when attaching or detaching the sling (chain sling).



### ICE-LBG-SR Lifting Ring Super Rotation®

**-40° C**



**!** Version with special lengths on request.



Standard

Type	Load capacity in t	Dimensions in mm															Max. tightening torque of bolt	Weight kg/ pce	Item no.
		A	B	C	D	E	F	G	H	J	K	L	M	N	T				
ICE-LBG-SR 0.3 t M8	0.6	32	50	34	24	40	10	29	12	75	43	41	M8	32	75	30 Nm	0.3	25250000036254	
ICE-LBG-SR 0.63 t M10	0.9	32	50	34	24	39	10	29	15	75	43	44	M10	32	74	60 Nm	0.31	25250000036255	
ICE-LBG-SR 1 t M12	1.35	32	50	34	26	38	10	29	18	75	43	47	M12	32	74	150 Nm	0.34	25250000036256	
ICE-LBG-SR 1.5 t M16	2.5	36	54	40	30	39	13.5	34	24	86	46	58	M16	38	84	150 Nm	0.52	25250000036257	
ICE-LBG-SR 2.5 t M20	3.5	54	82	60	45	53	17	45	30	113	61	75	M20	48	110	400 Nm	1.3	25250000036258	
ICE-LBG-SR 4 t M24	4.5	54	82	60	45	66	18	45	36	130	76	80	M24	48	125	760 Nm	1.4	25250000036259	
ICE-LBG-SR 5 t M30	6.7	63	102	69	55	66	22.5	60	50	151	79	110	M30	66	145	1000 Nm	3.2	25250000036260	

### Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle $\beta$	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
ICE-LBG-SR 0.3 t M8	0.6	1.2	0.6	1.2	0.8	0.6	0.6	1.2	0.9	0.6
ICE-LBG-SR 0.63 t M10	0.9	1.8	0.9	1.8	1.2	0.9	0.9	1.9	1.3	0.9
ICE-LBG-SR 1 t M12	1.35	2.7	1.35	2.7	1.9	1.35	1.35	2.8	2.0	1.35
ICE-LBG-SR 1.5 t M16	2.5	5.0	2.5	5.0	3.5	2.5	2.5	5.3	3.7	2.5
ICE-LBG-SR 2.5 t M20	3.5	7.0	3.5	7.0	4.9	3.5	3.5	7.4	5.2	3.5
ICE-LBG-SR 4 t M24	4.5	9.0	4.5	9.0	6.3	4.5	4.5	9.5	6.7	4.5
ICE-LBG-SR 5 t M30	6.7	13.4	6.7	13.4	9.4	6.7	6.7	14.2	10.0	6.7

# LIFTING POINTS

## RUD<sup>®</sup> ICE Screw-on Lifting Points

### Lifting Ring VLBG-PLUS

-40° C



Lifting point with 100% crack tested hexagonal nut, BG (German Employers' Liability and Assurance Association)-tested.

**Hinged load bracket, 360° rotation, full WLL in all load directions.**

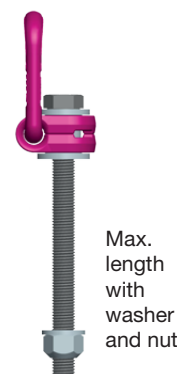
Only 1 tapped hole or through hole required.

Operating temperature up to -40°C (-40°F).

4 design factor in all directions



- ! Safety Instructions:**
- Adjustable in the direction of pull.
  - A plane bolting surface must be guaranteed.
  - The material to which the lifting point is attached should be of adequate strength to withstand forces during lifting without deformation. The German testing authority BG, recommends the following lengths of engagement:
  - 1 x M in steel
  - 1.25 x M in cast iron
  - 2 x M in aluminium alloys
  - 2.5 x M in aluminium-magnesium alloys
  - With patented captive screw, 100% crack tested!
  - Not intended to rotate under load.
  - The German BG stipulates: For frequent rotation only use the ball bearing types VWBG, WBGV or PP.
  - Only use genuine bolts supplied by the manufacturer!



- ! The following sizes as VLBG-PLUS are in preparation / on request:**
- with fine thread M12 x 1.5; M14 x 1.5; M16 x 1.5; M18 x 1.5; M20 x 1.5; M24 x 1.5
  - with UNC-thread
  - with UN-thread
  - M14, M18, M22, M27

Contact us!

Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle $\beta$	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VLBG-PLUS 0.63 t M8	0.63	1.26	0.63	1.26	0.88	0.63	0.63	1.32	0.95	0.63
VLBG-PLUS 0.9 t M10	0.9	1.8	0.9	1.8	1.3	0.9	0.9	1.9	1.35	0.9
VLBG-PLUS 1.35 t M12	1.35	2.7	1.35	2.7	1.9	1.35	1.35	2.8	2.0	1.35
VLBG-PLUS 1.2 t M14	1.2	2.4	1.2	2.4	1.68	1.2	1.2	2.52	1.8	1.2
VLBG-PLUS 2.0 t M16	2.0	4.0	2.0	4.0	2.8	2.0	2.0	4.2	3.0	2.0
VLBG-PLUS 2.0 t M18	2.0	4.0	2.0	4.0	2.8	2.0	2.0	4.2	3.0	2.0
VLBG-PLUS 3.5 t M20	3.5	7.0	3.5	7.0	4.9	3.5	3.5	7.4	5.25	3.5
VLBG-PLUS 4.5 t M24	4.5	9.0	4.5	9.0	6.3	4.5	4.5	9.5	6.75	4.5
VLBG-PLUS 4.0 t M27	4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
VLBG-PLUS 6.7 t M30	6.7	13.4	6.7	13.4	9.4	6.7	6.7	14.2	10.0	6.7
VLBG-PLUS 7.0 t M36 Spec.	7.0	14.0	7.0	14.0	9.8	7.0	7.0	14.7	10.5	7.0
VLBG-PLUS 8.0 t M36	8.0	16.0	8.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0
VLBG-PLUS 10.0 t M42	10.0	20.0	10.0	20.0	14.0	10.0	10.0	21.0	15.0	10.0
VLBG-PLUS 15.0 t M42	15.0	30.0	15.0	30.0	21.0	15.0	15.0	31.5	22.5	15.0
VLBG-PLUS 20.0 t M48	20.0	40.0	20.0	40.0	28.0	20.0	20.0	42.0	30.0	20.0

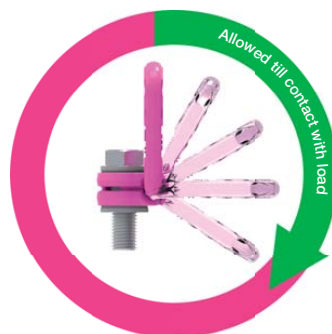
**! Operation temperature range:**

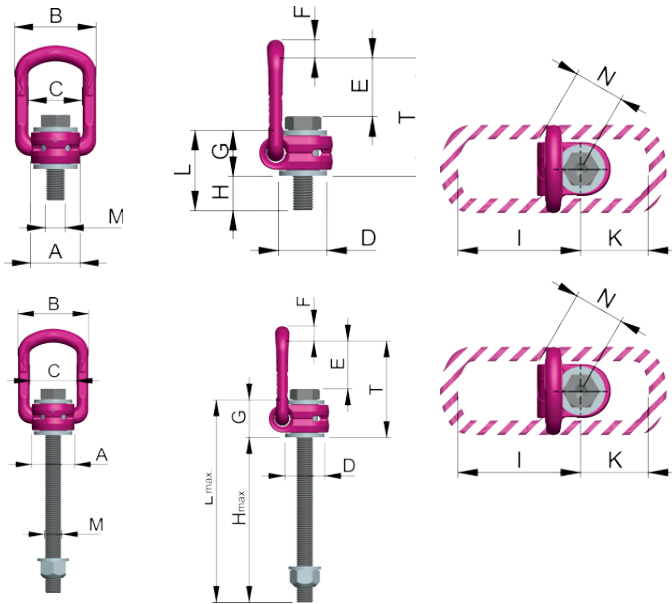
The load capacities of the lifting rings VLBG have to be reduced as follows based on the screw material according to EN 1677-1:

- 40°C to 100°C (-40°F to 212°F) no reduction
- 100°C to 200°C (212°F to 392°F) -15%
- 200°C to 250°C (392°F to 482°F) -20%
- 250°C to 350°C (482°F to 662°F) -25%

Use at temperatures over 350°C (662°F) is prohibited.

When used at prohibited temperatures of over 350°C (662°F) the pink colour will turn into a deep black.





### Lifting Rings (Metric Thread)

Type	Load capacity in t	Dimensions in mm																Max. tightening torque of bolt	Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H	H	I	K	L	L	M	N	T			
VLBG-PLUS 0.63t M8	0.63	30	54	34	24	40	12	29	11	76	75	45	40	105	M8	32	75	30 Nm	0.3	25250000036162
VLBG-PLUS 0.9t M10	0.9	30	54	34	24	39	12	29	15	96	75	45	44	125	M10	32	75	60 Nm	0.32	25250000036166
VLBG-PLUS 1.35t M12	1.35	32	54	34	26	38	12	29	18	116	75	45	47	145	M12	32	75	150 Nm	0.33	25250000036167
VLBG-PLUS 2t M16	2	33	56	36	30	39	13.5	36	22	149	86	47	58	185	M16	38	85	150 Nm	1.3	25250000036168
VLBG-PLUS 3.5t M20	3.5	50	82	54	45	55	16.5	43	32	187	113	64	75	230	M20	48	110	400 Nm	1.3	25250000036169
VLBG-PLUS 4.5t M24	4.5	50	82	54	45	67	18	43	37	222	130	78	80	265	M24	48	125	760 Nm	1.5	25250000036170
VLBG-PLUS 6.7t M30	6.7	60	103	65	60	67	22.5	61	49	279	151	80	110	340	M30	67	147	1000 Nm	3.3	25250000036171
VLBG-PLUS 8t M36	8	77	122	82	70	97	26.5	77	63	223	205	110	140	300	M36	87	197	800 Nm	3.4	25250000036172
VLBG-PLUS 10t M42	10	77	122	82	70	94	26.5	77	73	273	205	110	150	350	M42	70	197	1000 Nm	6.7	25250000036173
VLBG-PLUS 15t M42	15	95	156	100	85	109	36	87	63	413	230	130	150	500	M42	100	222	1500 Nm	11.2	25250000036174
VLBG-PLUS 20t M48	20	95	156	100	95	105	36	87	73	303	230	130	160	350	M48	100	222	2000 Nm	11.6	25250000036175

**!** The item numbers and prices apply for lifting ring threads VLBG in standard version (Dimensions HStand. and LStand.). Other thread lengths and prices on request.

### Lifting Rings (Imperial Thread)

Type	Load capacity in t	Dimensions in mm																Max. tightening torque of bolt	Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H	H	I	K	L	L	M	N	T			
VLBG-Z 1 t 1/2"-13 UNC	1	32	54	34	26	38	10	29	22	-	75	45	50	-	1/2"	32	75	100 Nm	0.36	25250000015322
VLBG-Z 1.5 t 5/8"-11 UNC	1.5	33	56	36	30	39	13.5	36	24	-	86	47	60	-	5/8"	38	85	150 Nm	0.50	25250000015323
VLBG-Z 2.5 t 3/4"-10 UNC	2.5	50	82	54	45	55	16.5	43	28	-	113	64	71	-	3/4"	48	110	250 Nm	1.3	25250000015324
VLBG-Z 2.5 t 7/8"-9 UNC	2.5	50	82	54	45	55	16.5	43	27	-	113	64	70	-	7/8"	48	110	250 Nm	1.25	25250000015325
VLBG-Z 4 t 1"-8 UNC	4	50	82	54	45	67	18	43	41	-	130	78	84	-	1"	48	125	400 Nm	1.50	25250000015326
VLBG-Z 5 t 1 1/4"-7 UNC	5	60	103	65	60	64	22.5	61	41	-	151	80	102	-	1 1/4"	67	147	500 Nm	3.33	25250000015327

**!**  Lifting ring threads in stainless steel also see page 493

# LIFTING POINTS

## RUD® Screw-on Lifting Points

### PowerPoint

-40° C



- Suitable for all slings, be it hooks, eyes or loops
- Can be turned and loaded in 90° angle to the bolt centre line
- Sufficient distance to load to avoid damage during turning
- Can be used up to -40°C (-40°F)
- Double ball bearing for smooth tilting, rotating and turning
- All parts 100% crack tested
- Variable screw length – including for through bores – (F-vario)
- **Tightening torque according to instructions**
- **Not suitable for continual rotation under full load**

Optional: Also in M14, M27 and with UNC-thread available

Screw-on lifting points with double ball bearing. Suitable for all applications.

4 design factor in all directions



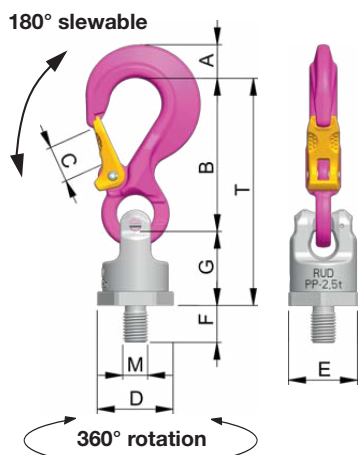
#### PP-S with safety hook

- No protruding hook tip
- Thickened hook tip to prevent improper use
- Forged and tempered safety latch which locks in the hook tip
- 3 times wound, stainless steel double leg spring
- Wear edges on both sides
- Wear indicators and measurable overload indicator

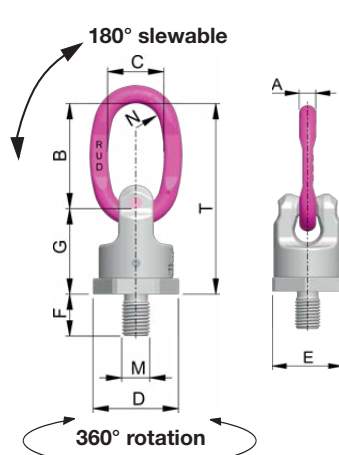


Please specify the type, thread dimensions and F vario.

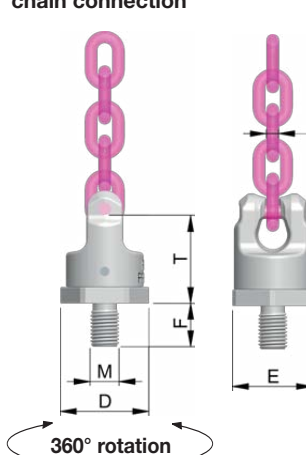
#### PP-S with safety hook



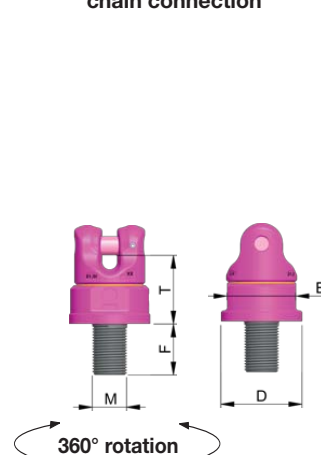
#### PP-B with oblong ring



#### PP-VIP for direct chain connection



#### VWBG-KA-28 for direct chain connection



Type	Load capacity in t	Dimensions in mm										Weight in kg	Tightening torque in Nm	Item no.
		A	B	C	D	E	F	G	M	N	T			
PP-S-0.63t-M12	0.63	13	75	18	40	36	18	41	M12	-	116	0.4	10	25250000015416
PP-S-1.5t-M16	1.5	20	97	25	46	41	25	50	M16	-	147	0.9	30	25250000015417
PP-S-2.5t-M20	2.5	28	126	30	61	55	30	61	M20	-	187	1.7	70	25250000015418
PP-S-4t-M24	4	36	150	35	78	70	36	77	M24	-	227	3.5	150	25250000015419
PP-S-5t-M30	5.0 (6.7)	37	174	40	95	85	45	93	M30	-	267	7.5	225	25250000015420
PP-S-8t-M36	8 (10)	49	208	48	100	90	54	102	M36	-	310	9.2	410	25250000015421
PP-B-0.63t-M12	0.63	9	65	35	40	36	18	41	M12	15	106	0.35	10	25250000015422
PP-B-1.5t-M16	1.5	11	65	35	46	41	25	50	M16	15	115	0.6	30	25250000015423
PP-B-2.5t-M20	2.5	13	74	40	61	55	30	61	M20	18	135	1.1	70	25250000015424
PP-B-4t-M24	4	16	95	45	78	70	36	77	M24	20	172	2.4	150	25250000015425
PP-B-5t-M30	5 (6.7)	19	130	60	95	85	45	93	M30	25	223	5.2	225	25250000015426
PP-B-8t-M36	8 (10)	24	140	65	100	90	54	102	M36	28	242	6.3	410	25250000015427
PP-VIP4-0.63t-M12	0.63	4	-	-	40	36	18	-	M12	-	41	0.25	10	25250000015428
PP-VIP6-1.5t-M16	1.5	6	-	-	46	41	25	-	M16	-	50	0.45	30	25250000015429
PP-VIP8-2.5t-M20	2.5	8	-	-	61	55	30	-	M20	-	61	0.95	70	25250000015430
PP-VIP10-4t-M24	4	10	-	-	78	70	36	-	M24	-	77	2.2	150	25250000015431
PP-VIP13-5t-M30	5 (6.7)	13	-	-	95	85	45	-	M30	-	93	3.5	225	25250000015432
PP-VIP16-8t-M36	8 (10)	16	-	-	100	90	54	-	M36	-	102	5.2	410	25250000015433
VWBG-KA-28*	31.5	-	-	-	170	145	108	-	M72	-	146	26.4	1200	25250000015434

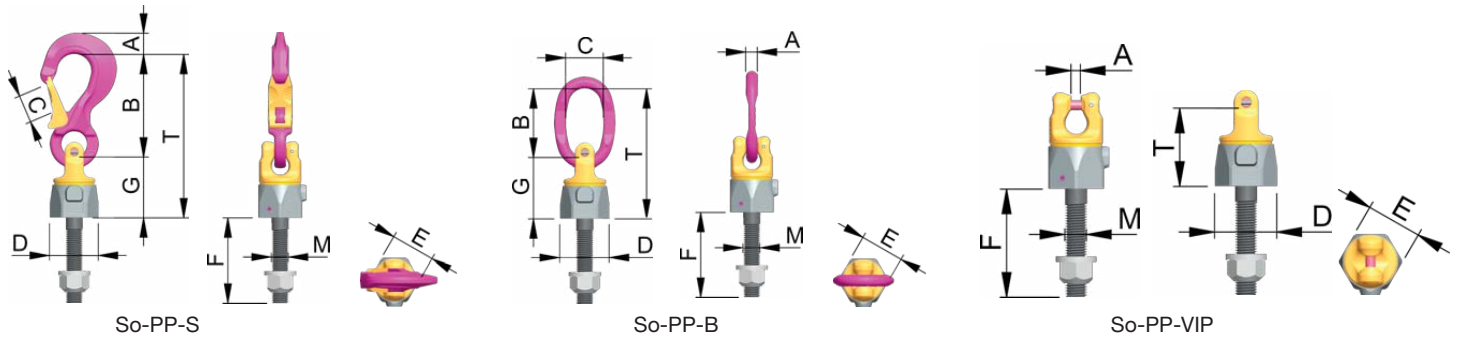
( ) higher load capacity with axial load

\* Slewing range: 180°



### Special PowerPoint











For available thread lengths see column Fvario. Please contact us for details!



Type	Load capacity in t	Dimensions in mm							Tightening torque in Nm		
		A	B	C	D	E	F vario	G	M	T	
So-PP-S-0.6t (0.63) M12	0.6 (0.63)	13	75	18	42	36	12-140	45	12	120	10
So-PP-S-1.0t (1.5) M14	1.0 (1.5)	20	97	25	48	41	14-65	54	14	151	25
So-PP-S-1.3t (1.5) M16	1.3 (1.5)	20	97	25	48	41	16-180	54	16	151	30
So-PP-S-2.5 M20	2.5	28	126	30	61	55	20-200	73	20	199	70
So-PP-S-3.5t (4.0) M24	3.5 (4.0)	36	150	35	81	70	24-255	87	24	237	150
So-PP-S-3.5t (4.0) M27	3.5 (4.0)	36	150	35	81	70	27-92	87	27	237	200
So-PP-S-5.0t (6.7) M30	5.0 (6.7)	37	174	40	99	85	30-330	105	30	279	225
So-PP-S-8.0t (10) M36	8.0 (10)	49	208	48	100	90	36-300	100	36	308	410
So-PP-B-0.6t (0.63) M12	0.6 (0.63)	9	65	35	42	36	12-140	45	12	110	10
So-PP-B-1.0t (1.5) M14	1.0 (1.5)	11	65	35	48	41	14-65	54	14	119	25
So-PP-B-1.3t (1.5) M16	1.3 (1.5)	11	65	35	48	41	16-180	54	16	119	30
So-PP-B-2.0t (2.5) M20	2.0 (2.5)	13	74	40	61	55	20-200	73	20	147	70
So-PP-B-3.5t (4.0) M24	3.5 (4.0)	16	95	45	81	70	24-255	87	24	182	150
So-PP-B-3.5t (4.0) M27	3.5 (4.0)	16	95	45	81	70	27-92	87	27	182	200
So-PP-B-5.0t (6.7) M30	5.0 (6.7)	19	130	60	99	85	30-330	105	30	235	225
So-PP-B-8.0t (10.0) M36	8.0 (10)	24	140	65	100	90	36-300	100	36	240	410
So-PP-VIP-0.6t (0.63) M12	0.6 (0.63)	4	-	-	42	36	12-140	-	12	45	10
So-PP-VIP-1.0t (1.5) M14	1.0 (1.5)	6	-	-	48	41	14-65	-	14	54	25
So-PP-VIP-1.3t (1.5) M16	1.3 (1.5)	6	-	-	48	41	16-180	-	16	54	30
So-PP-VIP-2.0t (2.5) M20	2.0 (2.5)	8	-	-	61	55	20-200	-	20	73	70
So-PP-VIP-3.5t (4.0) M24	3.5 (4.0)	10	-	-	81	70	24-255	-	24	87	150
So-PP-VIP-3.5t (4.0) M27	3.5 (4.0)	10	-	-	81	70	27-92	-	27	87	200
So-PP-VIP-5.0t (6.7) M30	5.0 (6.7)	13	-	-	99	85	30-330	-	30	105	225
So-PP-VIP-8.0t (10) M36	8.0 (10)	16	-	-	100	90	36-300	-	36	100	410

( ) higher load capacity with axial load

### Maximum transport weight G in t for all PowerPoint types with different lifting methods:

Lifting method	         									
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle β	0°	90°	90°	0°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
PP-...-0.63t-M12	0.63	1.26	0.63	1.26	0.88	0.63	0.63	1.32	0.95	0.63
PP-...-1.5t-M16	1.5	3.0	1.5	3.0	2.1	1.5	1.5	3.15	2.25	1.5
PP-...-2.5t-M20	2.5	5.0	2.5	5.0	3.5	2.5	2.5	5.25	3.75	2.5
PP-...-4t-M24	4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
PP-...-5t-M30	6.7	13.4	5.0	10.0	7.0	5.0	5.0	10.5	7.5	5.0
PP-...-8t-M36	10.0	20.0	8.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0
So-PP-...-0.6t (0.63) M12	0.63	1.26	0.6	1.2	0.84	0.6	0.6	1.26	0.9	0.6
So-PP-...-1.3t (1.5) M16	1.5	3.0	1.3	2.6	1.82	1.3	1.3	2.73	1.95	1.3
So-PP-...-2.5 M20	2.5	5.0	2.0	4.0	2.8	2.0	2.0	4.2	3.0	2.0
So-PP-...-3.5t (4.0) M24	4.0	8.0	3.5	7.0	4.9	3.5	3.5	7.35	5.25	3.5
So-PP-...-3.5t (4.0) M27	4.0	8.0	3.5	7.0	4.9	3.5	3.5	7.35	5.25	3.5
So-PP-...-5.0t (6.7) M30	6.7	13.4	5.0	10.0	7.0	5.0	5.0	10.5	7.5	5.0
So-PP-...-8.0t (10) M36	10.0	20.0	8.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0

# LIFTING POINTS

## RUD® Screw-on Lifting Points

### Starpoint Eye Bolt in Pink, Star-shaped design Type VRS without Key Plate / Type VRS-F with Key Plate



**-40° C**  
**4** design factor  
in all directions

**Shape:** Star-shaped – and therefore easily distinguishable from DIN 580 eye bolts

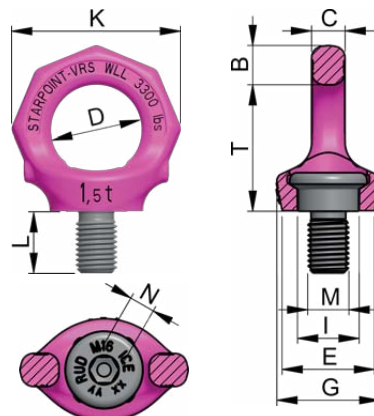
**Finish:** Striking fluorescent pink powder coated

**Marking:** Clearly marked load capacity for all load directions F

- Forged, material 1.6541, high strength tempered, 100% electro-magnetic crack-tested according to DIN EN 1677-1
- Safety factor 4  
Mounting material  $\geq$  St37  
Countersinking of the thread bore = nominal thread  $\phi$   
Ensure tight fit of the hexagon socket screw when mounting  
VRS must rotate freely through 360° after screw is tightened
- Adjustable in pull direction, therefore no unintentional loosening or overtightening
- 100% crack-tested, captive hexagon socket screw.  
This part is patented: EP 654 611
- Can be used up to -40°C (-40°F)



360° rotation



**For mounting without any tools the Starpoint eye bolt is also available with a tempered key plate: Type VRS-F**

The application is simple:

Just insert key plate in hexagon socket – turn – ready!

The Starpoint can be screwed in and out by hand.

Disengage the key plate: VRS will rotate through 360°.



**The cranked socket wrench for VRS makes it easier to tighten the bolt with a regular torque wrench. This item is available for sizes M8-M24 (item nos. 5556.V1.08-5556.V1.24).**

**Starpoint VRS are available with the following special thread lengths:**

**VRS M10 (Lmax 70 mm) VRS M20 (Lmax 160 mm)**

**VRS M12 (Lmax 150 mm) VRS M24 (Lmax 140 mm)**

**VRS M16 (Lmax 120 mm) VRS M30 (Lmax 190 mm)**



**Also available with UNC thread and fine pitch as well as in sizes M14, M18, M22, M27 and M33.**

Type	Nominal load capacity F1 in t	Dimensions in mm												Weight in kg/pce	Item no. w/o key plate version VRS	Item no. with key plate version VRS-F
		B	C	D	E	G	I	K	L	M	N	T				
VRS-M 6	0.1	9	7	20	23	28	13	37	9	M6	6	28	0.07	25250000015143	25250000015187	
VRS-M 8	0.3	11	9	25	25	30	16.3	47	12	M8	6	35	0.1	25250000015144	25250000015188	
VRS-M 10	0.4	11	9	25	25	30	16.3	47	15	M10	6	35	0.1	25250000015145	25250000015189	
VRS-M 12	0.75	13	10	30	30	34	19.8	56	18	M12	8	42	0.2	25250000015146	25250000015190	
VRS-M 16	1.5	15	13	35	36	40	23.5	65	24	M16	10	49	0.33	25250000015148	25250000015191	
VRS-M 20	2.3	17	16	40	41	50	29.3	76	30	M20	12	58	0.5	25250000015150	25250000015192	
VRS-M 24	3.2	20	19	49	51	60	35	92	36	M24	14	70	0.86	25250000015152	25250000015193	
VRS-M 30	4.5	26	24	60	66	75	44	114	45	M30	17	87	1.5	25250000015154	25250000015194	
VRS-M 36	7	32	29	72	76	97	53	135	54	M36	22	103	3.3	25250000015156	25250000015195	
VRS-M 42	9	37	33	84	86	111	62	158	63	M42	24	121	4.6	25250000015157	25250000015196	
VRS-M 48	12	42	42	94	100	128	70	180	72	M48	27	138	7.44	25250000015158	25250000015197	
VRS-M 56	16	50	44	110	112	145	82	210	84	M56	32	161	12	25250000037541	-	
VRS-M 64	20	55	49	120	122	158	90	229	96	M64	36	177	16.4	25250000037394	-	

#### Maximum transport weight G in tons with different lifting methods:

Lifting method									
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°
VRS/VRM-M 6	0.5	1	0.1	0.2	0.14	0.1	0.1	0.21	0.15
VRS/VRM-M 8	1	2	0.3	0.6	0.42	0.3	0.3	0.63	0.45
VRS/VRM-M 10	1	2	0.4	0.8	0.56	0.4	0.4	0.84	0.6
VRS/VRM-M 12	2	4	0.75	1.5	1	0.75	0.75	1.6	1.12
VRS/VRM-M 16	4	8	1.5	3	2.1	1.5	1.5	3.15	2.25
VRS/VRM-M 20	6	12	2.3	4.6	3.22	2.3	2.3	4.83	3.45
VRS/VRM-M 24	8	16	3.2	6.4	4.48	3.2	3.2	6.7	4.8
VRS/VRM-M 30	12	24	4.5	9	6.3	4.5	4.5	9.4	6.7
VRS-M 36	16	32	7	14	9.8	7	7	14.7	10.5
VRS-M 42	24	48	9	18	12.6	9	9	18.9	13.5
VRS-M 48	32	64	12	24	16.8	12	12	25.2	18
VRS-M 56	50	100	16	32	22.4	16	16	33.6	24
VRS-M 64	60	120	20	40	28	20	20	42	30

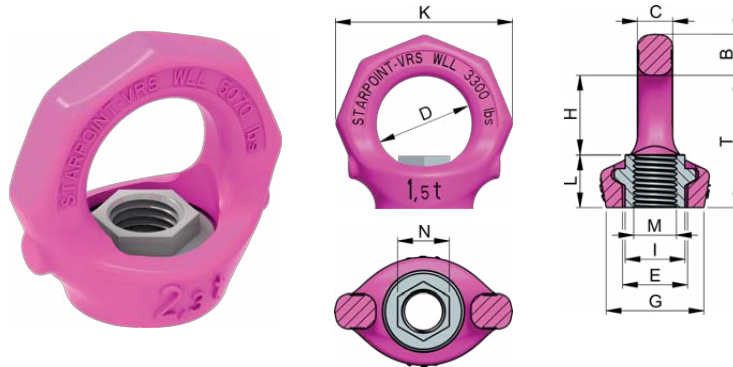
**-40° C**

### Starpoint Eye Nut in Pink, Type VRM

**4** design factor in all directions



- Body of the eye nut Starpoint must rotate freely through 360° after tightening of the screw. Before attaching the sling adjust the eye nut in the direction of pull.
- Ensure plane mounting surface (E). The internal thread has to be 100% engaged in the bolt thread. The threaded stud must guarantee that the plane area of the eye nut rests perfectly flat on the work piece.
- Load capacity indications are only valid with screws of at least grade 10.9.
- For dimensions of VRM see drawing of the Starpoint eye bolt. Dimension "L" must be the minimum length of the screw.
- Patented
- Can be used up to -40°C (-40°F)



**Attention: Please refer to the safe use instructions!**

Type	Nominal load capacity F1 in t	Dimensions in mm												Weight in kg/pce	Item no.
		B	C	D	E	G	H	I	K	L	M	N	T		
VRM-M6	0.1	9	7	20	23	28	17	13	37	11	M6	9	28	0.05	25250000015228
VRM-M8	0.3	11	9	25	25	30	21	16	47	14	M8	12	35	0.1	25250000015229
VRM-M10	0.4	11	9	25	25	30	21	16	47	14	M10	12	35	0.1	25250000015230
VRM-M12	0.75	13	10	30	30	34	25	20	56	17	M12	14	42	0.2	25250000015231
VRM-M16	1.5	15	13	35	36	40	31	22	65	21	M16	19	49	0.3	25250000015232
VRM-M20	2.3	17	16	40	41	50	35	29	76	23	M20	24	58	0.5	25250000015233
VRM-M24	3.2	20	19	49	51	60	41	35	92	29	M24	30	70	0.9	25250000015234
VRM-M30	4.5	26	24	60	66	75	51	44	114	36	M30	36	87	1.5	25250000015235

### Stainless Steel Eye Bolt Type INOX-STAR

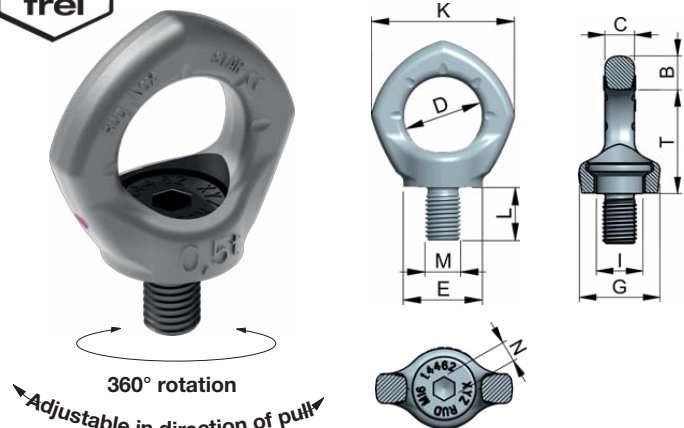


**Made from stainless steel**  
**50% higher load capacity than DIN eye bolts in all directions**

- Pentagonal design - clearly distinctive in comparison to the DIN 580 eye bolt
- 360° rotation, adjustable in the direction of pull
- Forged ring body
- Material of body and screw: Duplex steel 1.4462 (High resistance against sea water and in environments with a high concentration of chlorine ions)
- 100% crack-tested
- Captive screw
- Adjust in direction of pull before loading
- Patented wear indicators on the ring body
- Item protected by European Patent EP 654611
- When using an allen key or an adapter piece only torque hand tight. Do not use an extension.
- After screw is tightened INOX-STAR must rotate through 360°
- Can be used up to -40°C (-40°F)
- Complies with EEC Machinery Directive 2006/42/EC



**-40° C**



**For cranked allen key suitable for eye bolt and nut see page 540**

Type	Nominal load capacity in t	Dimensions in mm												Weight in kg/pce	Item no.
		B	C	D	E	G	I	K	L	M	N	T			
INOX-STAR M12	0.5	14	12	30	30	32	20	56	18	M12	8	43	0.19	25250000015474	
INOX-STAR M16	1.0	16	14	35	36	38	23.5	65	24	M16	10	50	0.31	25250000015475	
INOX-STAR M20	2.0	19	16	40	42	47	29	74	30	M20	12	57	0.53	25250000015476	
INOX-STAR M24	2.5	24	19	48	50	56	35	92	36	M24	14	69	0.92	25250000015477	

# LIFTING POINTS

## RUD® Screw-on Lifting Points

### Lifting Ring Vario VWBG-V with Ball Bearing



The swivelling lifting point

- 360° rotation/230° slewable
- Can be loaded from all directions, safety factor 4
- Intended to rotate under load
- Easy attachment, requires just a tapped bore
- Bolts 100% crack-tested
- High-strength, tested oblong ring acc. to DIN EN 1677-4
- Surface: pink powder-coated and galvanised
- Wear marks for the most common directions of pull: 45°, 60° and 90°
- Can be used up to -40°C (-40°F)

**Vario = variable thread lengths (Fmax. in mm):**

- Suitable for through-holes
- Type Vario with washer and 100% crack-tested nut
- Additional slide bearing washer for smooth rotation

**4** design factor in all directions



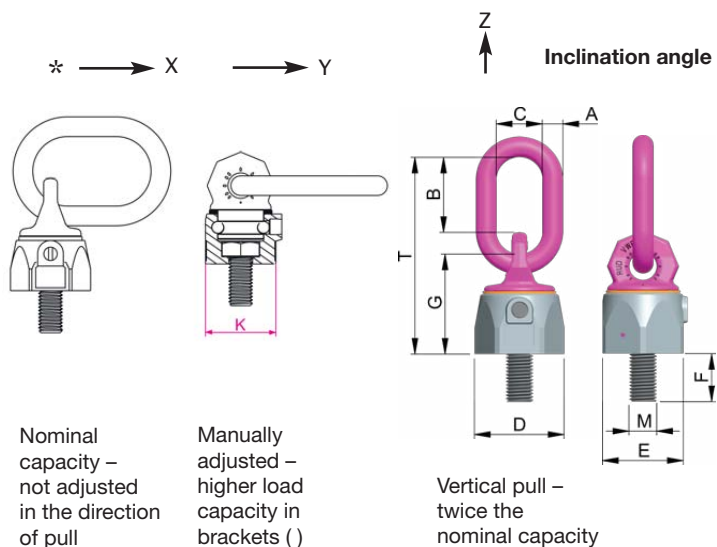
Type Vario with washer and 100% tested nut



**\*Attention:** The VWBG-V/VWBG are designed to be used in different directions of pull. Therefore the oblong ring can engage in any position. The indicated **WLL (load capacity)** is based on the **worst case situation** (figure X). If the ring is manually adjusted in the direction of pull (figure Y) the higher values in brackets ( ) can be used.

**F\*** = Standard thread length

**F<sub>vario</sub>** = individual thread length















Type	Load capacity in t	Dimensions in mm										Weight cpl. ca. in kg	Standard thread length F* in mm	Item no.	Individual thread length F max. in mm	Item no.
		A	B	C	D	E	F	G	M	T						
VWBG-V 0.3-M 8**	0.3 (0.4)	8	31	29	30	28	13	36	M8	76	0.18	13	25250000015383	102	on request	
VWBG-V 0.45-M10**	0.45 (0.6)	8	31	29	33.5	30	17	38	M10	78	0.29	17	25250000015384	122	on request	
VWBG-V 0.6-M12	0.6 (0.75)	10	49	35	42	36	21	47	M12	107	0.41	21	25250000015385	140	on request	
VWBG-V 0.6-M14	1.0 (1.25)	13	46	38	48	41	21	56	M14	114	0.63	21	25250000015386	65	on request	
VWBG-V 1.3-M16	1.3 (1.5)	13	46	38	48	41	25	56	M16	114	0.59	25	25250000015387	180	on request	
VWBG-V 1.8-M18	1.8 (2.0)	13	54	35	62	55	27	67	M18	137	1.18	27	25250000015388	83	on request	
VWBG-V 2.0-M20	2.0 (2.5)	13	54	35	62	55	33	67	M20	137	1.42	33	25250000015389	223	on request	
VWBG-V 2.0-M22	2.0 (2.5)	13	54	35	62	55	33	67	M22	137	1.45	33	25250000015390	94	on request	
VWBG-V 3.5-M24	3.5 (4.0)	18	66	40	81	70	40	88	M24	173	2.63	40	25250000015391	255	on request	
VWBG-V 3.5-M27	3.5 (4.0)	18	66	40	81	70	41	88	M27	173	2.65	40	25250000015392	92	on request	
VWBG-V 5.0-M30	5.0 (6.0)	22	90	50	99	85	50	106	M30	221	5.09	50	25250000015393	330	on request	

\*\*w/o slide bearing washer

### Maximum transport weight G in t with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VWBG-V 0.3-M 8	0.6	1.2	0.3 (0.4)	0.6 (0.8)	0.42 (0.56)	0.3 (0.4)	0.3 (0.4)	0.63 (0.84)	0.45 (0.6)	0.3 (0.4)
VWBG-V 0.45-M10	0.9	1.8	0.45 (0.6)	0.9 (1.2)	0.63 (0.84)	0.45 (0.6)	0.45 (0.6)	0.94 (1.26)	0.67 (0.9)	0.45 (0.6)
VWBG-V 0.6-M12	1.2	2.4	0.6 (0.75)	1.2 (1.5)	0.84 (1.05)	0.6 (0.75)	0.6 (0.75)	1.26 (1.57)	0.9 (1.12)	0.6 (0.75)
VWBG-V 1.0-M14	2.0	4.0	1.0 (1.25)	2.0 (2.5)	1.4 (1.75)	1.0 (1.25)	1.0 (1.25)	2.1 (2.62)	1.5 (1.87)	1.0 (1.25)
VWBG-V 1.3-M16	2.6	5.2	1.3 (1.5)	2.6 (3)	1.81 (2.1)	1.3 (1.5)	1.3 (1.5)	2.73 (3.15)	1.95 (2.25)	1.3 (1.5)
VWBG-V 1.8-M18	3.6	7.2	1.8 (2.0)	3.6 (4.0)	2.52 (2.8)	1.8 (2.0)	1.8 (2.0)	3.78 (4.2)	2.7 (3.0)	1.8 (2.0)
VWBG-V 2.0-M20	4	8	2 (2.5)	4 (5)	2.8 (3.5)	2 (2.5)	2 (2.5)	4.2 (5.25)	3 (3.75)	2 (2.5)
VWBG-V 2.0-M22	4	8	2 (2.5)	4 (5)	2.8 (3.5)	2 (2.5)	2 (2.5)	4.2 (5.25)	3 (3.75)	2 (2.5)
VWBG-V 3.5-M24	7	14	3.5 (4)	7 (8)	4.9 (5.6)	3.5 (4)	3.5 (4)	7.35 (8.4)	5.25 (6)	3.5 (4)
VWBG-V 3.5-M27	7	14	3.5 (4)	7 (8)	4.9 (5.6)	3.5 (4)	3.5 (4)	7.35 (8.4)	5.25 (6)	3.5 (4)
VWBG-V 5.0-M30	10	20	5 (6)	10 (12)	7 (8.4)	5 (6)	5 (6)	10.5 (12.6)	7.5 (9)	5 (6)

# LIFTING POINTS

## RUD® Screw-on Lifting Points

### Lifting ring VWBG with Ball Bearing

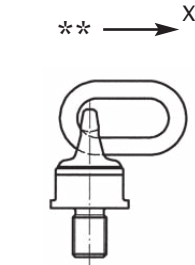
-40° C



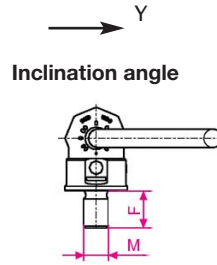
For rotating and turning heavy loads

- Equipped with ball bearing, 360° rotation under load
- Can be loaded in all directions with a safety factor of 4.
- Oblong ring manufactured acc. to DIN EN 1677-4 grade 80 (100% crack-tested and proof-loaded)
- Wear marks for the most common directions of pull: 45°, 60° and 90°

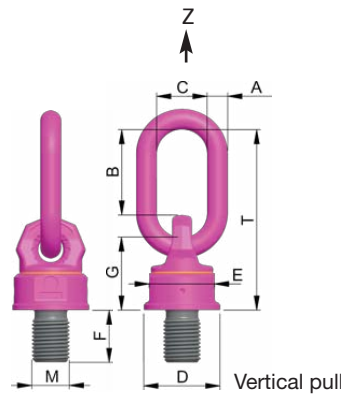
**4** design factor in all directions



Nominal capacity – not adjusted in the direction of pull



Manually adjusted – higher load capacity in brackets ( )



**\*\* Caution:** The VWBG-V/VWBG are designed to be used in different directions of pull. Therefore the oblong ring can engage in any position. The indicated **WLL (load capacity)** is based on the **worst case situation** (figure X). If the ring is manually adjusted in the direction of pull (figure Y) the higher values in brackets ( ) can be used.



Type	Load capacity in t	Dimensions in mm										Tightening torque in Nm	Weight in kg/pce	Item no.
		A	B	C	D	E	F	Fvario	G	M	T			
VWBG 6(7.5) - M 33	6 (7.5)	22	86	50	90	80	50	33- 300	96	M33	208	350	5.6**	25250000015363
VWBG 8(10) - M 36	8 (10)	22	86	50	90	80	54	36- 300	94	M36- M39	208	410	4.7**	25250000015364
VWBG 8(10) - special thread*	8 (10)	22	86	50	90	80	***	***	94	***	208	410	**	25250000015365
VWBG 12(13) - M 42	12 (13)	26	111	65	98	85	63	42- 300	95	M42- M45	234	550	6.1**	25250000015366
VWBG 12(13) - special thread*	12 (13)	26	111	65	98	85	***	***	95	***	234	550	**	25250000015367
VWBG 12(15) - M 45	12(15)	26	111	65	98	85	67	-	95	M45	234	550	6.24**	25250000015368
VWBG 13(16) - M 48	13 (16)	26	111	65	98	85	68	48- 300	95	M48- M52	234	550	6.37**	25250000015369
VWBG 13(16) - special thread*	13 (16)	26	111	65	98	85	***	***	95	***	234	550	**	25250000015370
VWBG 14(20) - M 52	14 (20)	32	119	70	120	95	78	52- 300	120	M52	271	750	10.55**	25250000015371
VWBG 16(22) - M 56	16 (22)	32	119	70	120	95	84	56- 300	120	M56- M60	271	800	10.68**	25250000015372
VWBG 16(22) - special thread*	16 (22)	32	119	70	120	95	***	***	120	***	271	800	**	25250000015373
VWBG 16(25) - M64	16 (25)	32	119	70	120	95	94	64- 300	120	M64- M76	271	800	11.4**	25250000015374
VWBG 16(25) - special thread*	16 (25)	32	119	70	120	95	***	***	120	***	271	800	**	25250000015375
VWBG 31.5(40) - M 72	31.5 (40)	46	130	90	170	145	108	72- 300	159	M72- M76	338	1200	29.96**	25250000015376
VWBG 31.5(40) special thread*	31.5 (40)	46	130	90	170	145	***	***	159	***	338	1200	**	25250000015377
VWBG 35(48) - M 80	35 (48)	46	130	90	170	145	120	80- 300	159	M80- M85	338	1500	31.19**	25250000015378
VWBG 35(48) - special thread*	35 (48)	46	130	90	170	145	***	***	159	***	338	1500	**	25250000015379
VWBG 40(50) - M 90	40 (50)	46	168	110	170	145	135	90- 300	159	M90- M150	378	2000	34.5**	25250000015380
VWBG 40(50) - special thread*	40 (50)	46	168	110	170	145	***	***	159	***	378	2000	**	25250000015381
VWBG (40)50 - M 90-150	40 (50)	46	168	110	170	145	150	-	159	M100	378	2000	36.5**	25250000015382










\* also with fine pitch and imperial thread (UNC and Whitworth)

\*\* Weight of Vario-version is version-dependent

\*\*\* F / Fvario and thread measurement are version-dependent

Type VWBG-Inch thread with special length up to Fmax = 300 mm possible




### Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VWBG 6(7.5) - M 33	15	30	6 (7.5)	12 (15)	8.4 (10.5)	6 (7.5)	6 (7.5)	12.6 (15.75)	9 (11.2)	6 (7.5)
VWBG 8(10) - M 36	15	30	8 (10)	16 (20)	11.2 (14)	8 (10)	8 (10)	16.8 (21)	12 (15)	8 (10)
VWBG 8(10) - special thread	15	30	8 (10)	16 (20)	11.2 (14)	8 (10)	8 (10)	16.8 (21)	12 (15)	8 (10)
VWBG 12(13) - M 42	17	34	12 (13)	24 (26)	16.8 (18.2)	12 (13)	12 (13)	25.2 (27.3)	18 (19.5)	12 (13)
VWBG 12(13) - special thread	17	34	12 (13)	24 (26)	16.8 (18.2)	12 (13)	12 (13)	25.2 (27.3)	18 (19.5)	12 (13)
VWBG 12(15) - M 45	18	36	12 (15)	24 (30)	16.8 (21)	12 (15)	12 (15)	25.2 (31.5)	18 (22.5)	12 (15)
VWBG 13(16) - M 48	18	36	13 (16)	26 (32)	18.2 (22.4)	13 (16)	13 (16)	27.3 (33.6)	19.5 (24)	13 (16)
VWBG 13(16) - special thread	18	36	13 (16)	26 (32)	18.2 (22.4)	13 (16)	13 (16)	27.3 (33.6)	19.5 (24)	13 (16)
VWBG 14(20) - M 52	25	50	14 (20)	28 (40)	19.6 (28)	14 (20)	14 (20)	29.4 (42)	21 (30)	14 (20)
VWBG 16(22) - M 56	28	56	16 (22)	32 (44)	22.4 (30.8)	16 (22)	16 (22)	33.6 (46.2)	24 (33)	16 (22)
VWBG 16(22) - special thread	28	56	16 (22)	32 (44)	22.4 (30.8)	16 (22)	16 (22)	33.6 (46.2)	24 (33)	16 (22)
VWBG 16(25) - M64	28	56	16 (25)	32 (50)	22.4 (35)	16 (25)	16 (25)	33.6 (52.5)	24 (37.5)	16 (25)
VWBG 16(25) - special thread	28	56	16 (25)	32 (50)	22.4 (35)	16 (25)	16 (25)	33.6 (52.5)	24 (37.5)	16 (25)
VWBG 31.5(40) - M 72	50	100	31.5 (40)	63 (80)	44.1 (56)	31.5 (40)	31.5 (40)	66.15 (84)	47.25 (60)	31.5 (40)
VWBG 31.5(40) - special thread	50	100	31.5 (40)	63 (80)	44.1 (56)	31.5 (40)	31.5 (40)	66.15 (84)	47.25 (60)	31.5 (40)
VWBG 35(48) - M 80	50	100	35 (48)	70 (96)	49 (67.2)	35 (48)	35 (48)	73.5 (100.8)	52.5 (72)	35 (48)
VWBG 35(48) - special thread	50	100	35 (48)	70 (96)	49 (67.2)	35 (48)	35 (48)	73.5 (100.8)	52.5 (72)	35 (48)
VWBG 40(50) - M 90	50	100	40 (50)	80 (100)	56 (70)	40 (50)	40 (50)	84 (105)	60 (75)	40 (50)
VWBG 40(50) - special thread	50	100	40 (50)	80 (100)	56 (70)	40 (50)	40 (50)	84 (105)	60 (75)	40 (50)
VWBG (40)50 - M 90-150	50	100	40 (50)	80 (100)	56 (70)	40 (50)	40 (50)	84 (105)	60 (75)	40 (50)

### High Strength Eye Bolt RS / High Strength Eye Nut RM



-40° C

Thread size	Load capacity in t			Dimensions in mm								Weight in kg	Item no. eye bolt	Item no. eye nut
				A	B	C	D	E	M	T				
M 6	0.1	0.4	0.8	12	11	10	25	25	M6	34	0.1	25250000015049	25250000015061	
M 8	0.2	0.8	1.6	12	11	10	25	25	M8	34	0.1	25250000015050	25250000015062	
M 10	0.25	1	2	15	11	10	25	25	M10	34	0.1	25250000015051	25250000015063	
M 12	0.4	1.6	3.2	18	13	12	30	30	M12	41	0.18 (0.12)	25250000015052	25250000015064	
M 14	0.75	3	6	21	15	14	35	35	M14	48	0.3 (0.26)	25250000015053	25250000015065	
M 16	1.0 (0.8)	4 (3.2)	8 (6.4)	24	15	14	35	35	M16	48	0.3 (0.26)	25250000015054	25250000015066	
M 20	1.5	6	12	30	17	16	40	40	M20	55	0.47 (0.4)	25250000015055	25250000015067	
M 24	2.0	8	16	36	21	20	50	50	M24	70	0.88 (0.7)	25250000015056	25250000015068	
M 30	3.0	12	24	45	26	24	60	60	M30	85	1.62 (1.32)	25250000015057	25250000015069	
M 36	4.0	16	32	54	43	38	90	100	M36	130	6.5 (5.8)	25250000015058	25250000015070	
M 42	6.0	24	48	63	43	38	90	100	M42	130	6.5 (5.5)	25250000015059	25250000015071	
M 48	8.0	32	64	67	43	38	90	100	M48	130	6.5 (5.3)	25250000015060	25250000015072	

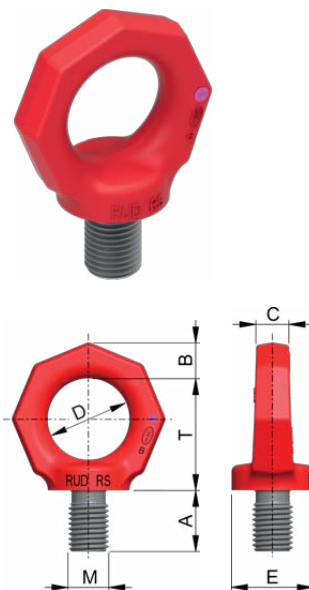
If the direction of pull is in a 90° angle to the mounting surface the load capacity is 4 times the indicated WLL.

We recommend using versions VRS or VRM on pages 540/541 which can be adjusted in the direction of pull.

Thread sizes M18, M22, M27, and M33 available on request.

( ) = divergent WLL/Weight of RM

UNF and 8UN sizes only available at RS



### Thread Adapter for RUD Lifting Points

For all applications where loads only have bore holes for old DIN eye bolts and modern high strength lifting points are to be used. In comparison the modern lifting points will be oversized and quite expensive due to the bigger thread size of the DIN eye bolts. This thread adapter is the solution!

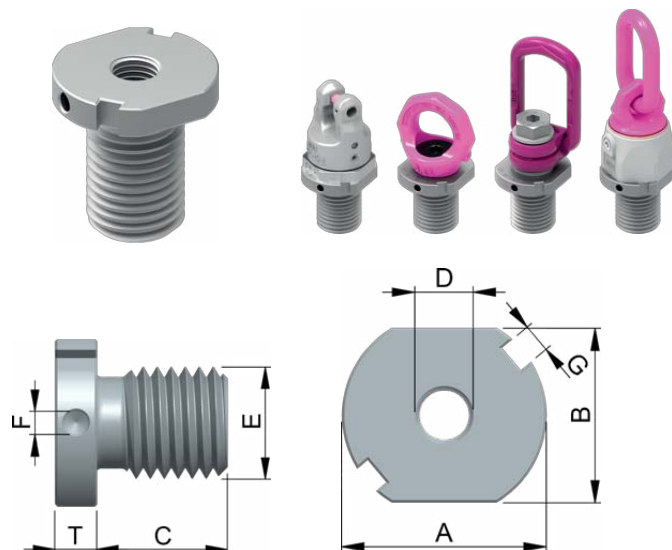
The load capacity corresponds to the RUD lifting point mounted in the internal thread of the adapter.

Length of engagement = 1.2 x external thread

The thread adapters are fitted with:

- Spanner flat >B< for open-ended spanners
- Notch >G< for hook spanners
- Bore >Ø F< for mounting pin
- Permanently marked thread sizes

Also available with fine pitch and imperial thread



Thread size outside/inside E/D	Type	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	T		
M16/M8	ASP-A	35	30	20	M8	M16	5	6	8	0.07	25351500015032
M20/M10	ASP-A	39	32	24	M10	M20	5	6	9	0.11	25351500015033
M24/M12	ASP-A	42	36	28	M12	M24	5	6	9	0.15	25351500015034
M30/M16	ASP-A	51	46	36	M16	M30	6	7	10	0.27	25351500015035
M36/M20	ASP-A	65	55	43	M20	M36	6	8	12	0.48	25351500015036
M42/M24	ASP-A	82	70	50	M24	M42	8	10	16	0.8	25351500015037
M48/M24	ASP-A	82	70	58	M24	M48	8	10	16	1.1	25351500015038
M56/M30	ASP-A	100	90	67	M30	M56	8	10	16	1.75	25351500015039
M64/M36	ASP-A	110	95	77	M36	M64	8	10	16	2.3	25351500015040
M72/M42	ASP-A	110	95	86	M42	M72	8	10	16	2.8	25351500015041
M80/M48	ASP-A	110	95	96	M48	M80	8	10	16	3.4	25351500015042



### Lifting Ring RBG

With patented relief lugs!

-40° C

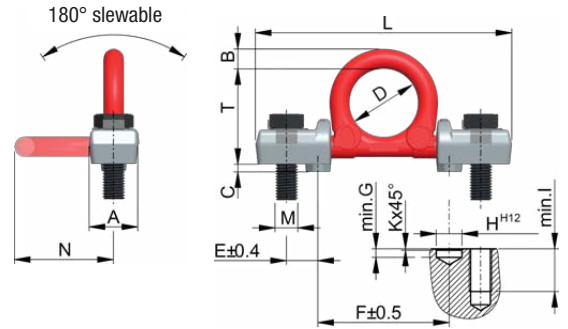


- Patented relief lugs protect the fastening bolts from bending and shear stress which adds to your safety.
- Smaller bolt diameters, very low design height due to hinged construction!
- Favourable load transmission
- Mounting material  $\geq 1.0037$  (St37-2)
- Bolts provided are 100%-crack tested
- After longer usage check bolts for tight fit
- Marking and drilling according to the tolerance range of RBG



RBG 3 t

4 design factor in all directions



Type	Load capacity in t	Tightening torque in Nm	Weight in kg/pce	Item no.
RBG 3	3	120	1.07	25250000015510

Type	Load capacity in t	Dimensions in mm													
		A	B	C	D	E	F	G	H	I	K	L	M	N	T
RBG 3	3	34	16	5	48	22	92	6	18	30	1	178	2 x M16	71	67

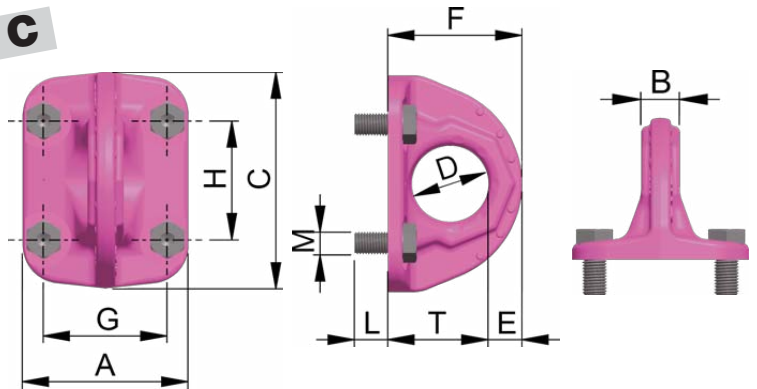
### Screw-on lifting point B-ABA



- Durable in all load directions
- ICE-Screws
- 4:1 safety against breaking
- Tempered base body, therefore wear-resistant
- Patented markings for easy determination for withdraw of service
- No sharp edges



-40° C



Type	Nominal WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H	T	L	M		
B-ABA 1.6 t	1.6	75	16	100	35	16	62.5	55	55	46.5	13	4 x M10	0.9	25250000036030
B-ABA 3.2 t	3.2	92	23	137	50	21	86	70	75	65	16	4 x M12	2.0	25250000035808
B-ABA 5 t	5	113	27	172	60	28	108	84	95	80	24	4 x M16	4.1	25250000036572
B-ABA 10 t	10	146	38	228	80	36	141	110	125	105	25	4 x M20	9.3	25250000036636
B-ABA 20 t	20	200	52	272	115	40	188	150	75	148	30	6x M24	18.8	25250000036637
B-ABA 31.5 t	31.5	230	64	320	130	50	215	175	87.5	165	40	6x M30	29.5	25250000036638

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
B-ABA 1.6 t	1.6	3.2	1.6	3.2	2.2	1.6	1.6	3.4	2.4	1.6
B-ABA 3.2 t	3.2	6.4	3.2	6.4	4.5	3.2	3.2	6.8	4.8	3.2
B-ABA 5 t	5.0	10	5.0	10	7.1	5	5	10.6	7.5	5
B-ABA 10 t	10.0	20	10.0	20	14.1	10	10	21.2	15	10
B-ABA 20 t	20.0	40	20.0	40	28	20	20	42	30	20
B-ABA 31.5 t	31.5	63	31.5	63	45	31.5	31.5	67	47.5	31.5

# LIFTING POINTS

## RUD® Screw-on Lifting Points

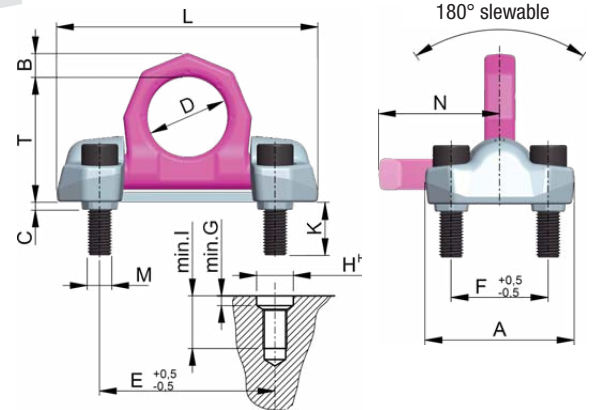
### Lifting Ring VRBG 10/16 t



**4** design factor  
in all directions



**-20° C**



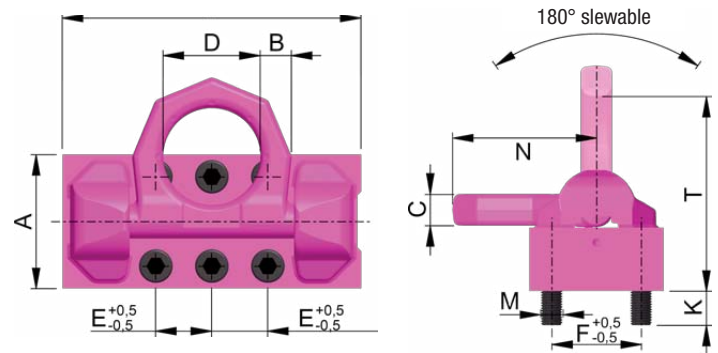
Type	Load capacity in t	Tightening torque in Nm	Weight in kg/pce	Item no.
VRBG 10	10	300	5.4	25250000015289
VRBG 16	16	600	11.3	25250000015290

Type	Load capacity in t	Dimensions in mm														
		A	B	C	D	E	F	G	H	I	K	L	M	N	T	
VRBG 10	10	125	22	6	65	143	78	8	30	50	43	213	4 × M20	100	103	
VRBG 16	16	170	30	8	90	198	104	10	46	70	63	270	4 × M30	134	131	

### Lifting Ring VRBG 31.5/50 t

**-20° C**

**4** design factor  
in all directions



Type	Load capacity in t	Dimensions in mm											Tightening torque in Nm	Weight in kg	Item no.
		A	B	C	D	E	F	K	L	M	N	T			
VRBG 31.5	31.5	180	42	42	130	75	120	46	400	6 × M30	195	265	900	67.5	25250000015291
VRBG 50	50	270	70	55	230	100	200	58	650	8 × M36	340	412	1000	198	25250000015292

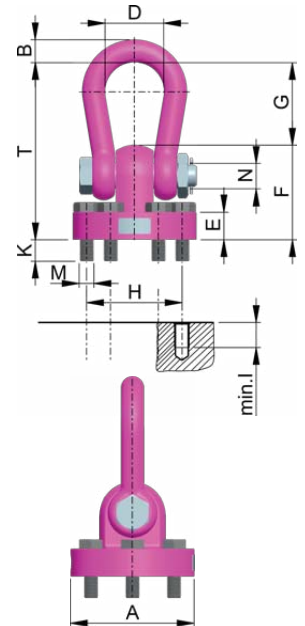
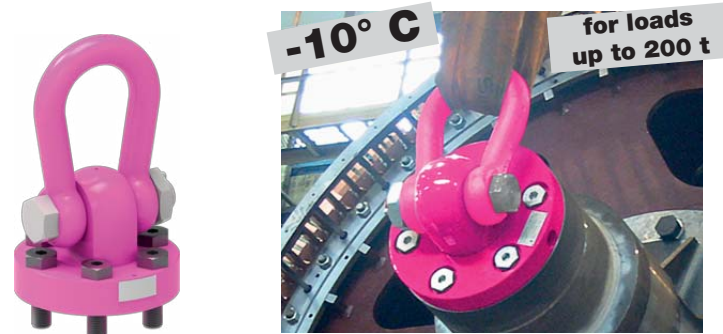
### Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	90°	0°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
RBG 3	3	6	3	6	4.2	3	3	6.3	4.5	3
VRBG 10	10	20	10	20	14	10	10	21	15	10
VRBG 16	16	32	16	32	22.4	16	16	33.6	24	16
VRBG 31.5	31.5	63	31.5	63	44.1	31.5	31.5	66.2	47.5	31.5
VRBG 50	50	100	50	100	70	50	50	105	75	50

### HD Lifting Ring Vario WBPB with Ball Bearing



- Detachable shackle as suspension ring for attachment of cable-laid grommets or heavy duty thimbles
- All load directions possible in the suspension bracket's folding area, therefore suitable for rotating and turning loads.
- Tapped hole for a Starpoint-VRS eye bolt for easy vertical mount
- Available on request with sling shackle for direct hitching and careful use of cable lay grommets.



Type	Load capacity in t	Weight in kg	Dimensions in mm											Angular pitch	Bolts	Tightening torque in Nm
WBPB 85 t/400 mm Standard	85	170	A	B	D	E	F	G	H	I	K	M	N	T	6x RUD - Combi-head M48x160 - 10.9	6000
WBPB 100 t/400 mm Standard	100	198	400	83	190	89	304	273	310	73	71	6 x M48	83	577	60°	6000
WBPB 120 t/570 mm Standard	120	360	571	95	238	110	344	307	445	77	75	6 x M48	95	651	60°	6000
WBPB 200 t/650 mm Standard	200	678	650	120	290	100	460	426	500	73	71	10 x M48	130	880	36°	6000
WBPB 250t/730mm 12 x M48	250	992	730	130	305	138	496	424	580	74	72	12 x M48	140	1110	36°	6000

**Option:** other load capacities and hole patterns on request

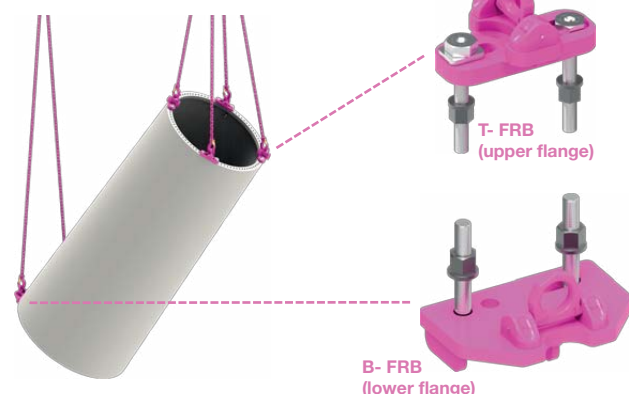
#### Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle-β	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
WBPB - 85 t	85	170	85	170	119	85	85	178	127	85
WBPB - 100 t	100	200	100	200	140	100	100	210	150	100
WBPB - 120 t	120	240	120	240	168	120	120	252	180	120
WBPB - 200 t	200	400	200	400	280	200	200	420	300	200
WBPB - 250 t	250	500	250	500	350	250	250	525	375	250

### FLARIBO



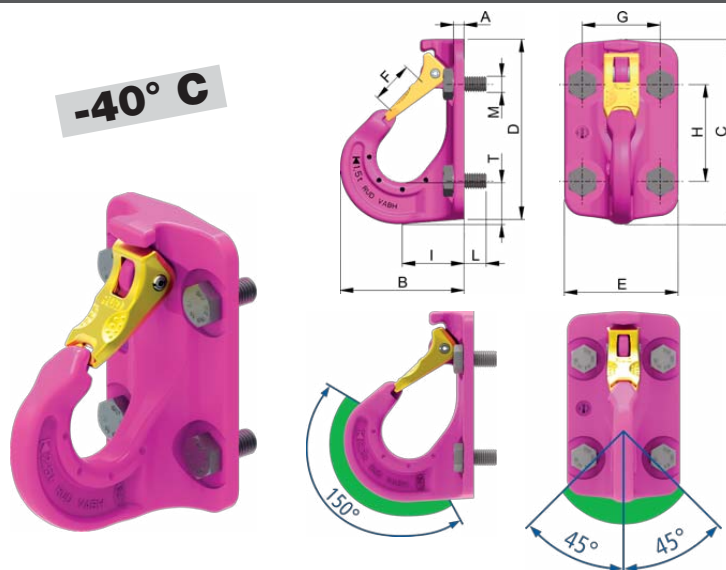
#### The lifting point for assembly of pipe segments (application example)



**RUD®** Screw-on Lifting Points

4:1 RUD ID M -40°-200°C 350°C max.

- Patented wear indicators on the hook
- Measurable overload indicator
- Special bolts included are 100% crack-tested
- Thickened hook tip to prevent improper use
- Solid safety latch
- No protruding hook tip
- Can be used up to -40° C (-40° F)
- Can also be used as excavator hook



### ▲ Wear Indicators

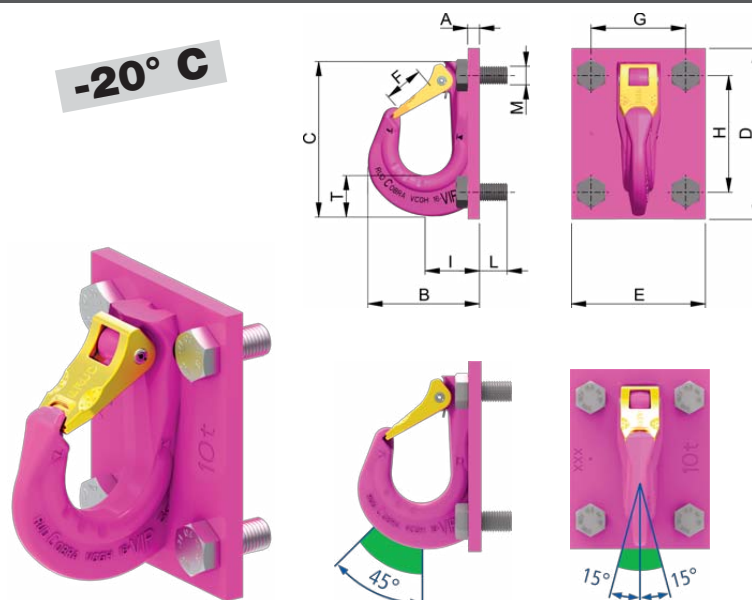
Area of application:

- max. 150° in ring plane
- 45° at lateral load

Type	Load capacity up to 120° in t	Dimensions in mm												RUD universal bolt	Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H	I	L	M	T			
VABH-B 1.5t	1.5	6.5	76	115	111	70	26	48	60	38	13.5	4 × M10	26	4 × M10	0.78	25250000015088
VABH-B 2.5t	2.5	7.5	98	148	143	85	31.5	60	75	49	18	4 × M12	39	4 × M12	1.73	25250000015089
VABH-B 4t	4	11	119	168	164	104	35	70	90	59	25	4 × M16	40	4 × M16	3	25250000015090
VABH-B 6.7t	6.7	13	147	205	200	120	40	85	110	70	28	4 × M20	51	4 × M20	5.58	25250000015091

4:1 RUD ID M -20°-100°C 350°C max.

- Patented wear indicators on the hook
- Measurable overload indicator
- Special bolts included are 100% crack-tested
- Thickened hook tip to prevent improper use
- Solid safety latch
- No protruding hook tip
- Can be used up to -20° C (-4° F)
- Can also be used as excavator hook



### ▲ Wear Indicators

Area of application:

- max. 45° in ring plane
- 15° at lateral load

Type	Load capacity up to 45° in t	Dimensions in mm												RUD universal bolt	Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H	I	L	M	T			
VCGH-G16	10	15	141	200	220	170	48	120	150	69	35	4 × M24	49	4 × M24	8.49	25250000015085
VCGH-G20	16	20	187	272	288	210	63	150	2 × 110	87	30	6 × M24	69	6 × M24	18	25250000015086
VCGH-G22	20	20	196	276	292	240	63	150	2 × 110	92	30	6 × M24	74	6 × M24	18.9	25250000015087



Carl Stahl DIRECT International No. 6 | [www.carlstahl-lifting.com](http://www.carlstahl-lifting.com)





**Please note the following points when welding:**

- All welding has to be carried out by a qualified welder acc. to DIN EN ISO 9606-1.
- Material of welding block is S 355J2 + H (1.0570).
- The welding surfaces have to be free from dirt, oil, paint etc.
- Do not weld at the tempered lifting ring.

**Please note the following points when choosing the material:**

- The complete construction may be annealed stress-free one time at  $\leq 600^{\circ}\text{C}$  ( $1,112^{\circ}\text{F}$ ) without any reduction of WLL.
- The welding spot has to be suitable to absorb the induced forces.

# LIFTING POINTS

## RUD® Weld-on Lifting Points






### Weld-on Lifting Points

### Maximum transport weight „G“ in ton with different lifting methods



Nominal load capacities for weld-on lifting points are indicated in the charts on pages 556-563.

Please also observe the different operating temperatures!

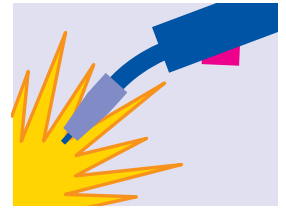
  			 <b>WPP-Series PowerPoint rotation</b> <b>-40° C</b>							 <b>WPPH-Series PowerPoint fixed</b> <b>-40° C</b>							 <b>VLBS Weld-on Lifting Ring</b> <b>-20° C</b>							 <b>VLBS-RS Stainless Steel</b> <b>-100° C</b>			 <b>VLBS-U-LT</b> <b>-45° C</b>			 <b>VLBS-P for Pipes</b> <b>-20° C</b>		
 Number of legs Inclination angle			all versions							all versions																						
			Type	WPP 0.63 t	WPP 1.5 t	WPP 2.5 t	WPP 4 t	WPP 5 t	WPP 8 t	WPPH 0.63 t	WPPH 1.5 t	WPPH 2.5 t	WPPH 4 t	WPPH 5 t	WPPH 8 t	VLBS 1.5 t	VLBS 2.5 t	VLBS 4 t	VLBS 6.7 t	VLBS 10 t	VLBS 16 t	LBS(1) RS 0.5 t	LBS(3) RS 1 t	LBS(5) RS 2 t	VLBS-U-LT 2.5 t	VLBS-U-LT 4 t	VLBS-U-LT 10 t	VLBS-P 4 t				
1 0°				0.63	1.5	2.5	4	6.7	10	0.6	1.5	2.5	4	6.7	10	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	4				
2 0°				1.26	3	5	8	13.4	20	1.2	3	5	8	13.4	20	3	5.0	8	13.4	20	32	1	2	4	5.0	8	20	8				
 1 90°				0.63	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	4				
 2 90°				1.26	3	5	8	10	16	1.2	3	5	8	10	16	3	5.0	8	13.4	20	32	1	2	4	5.0	8	20	8				
 2 0-45°				0.88	2.1	3.5	5.6	7	11.2	0.8	2.1	3.5	5.6	7.1	11.2	2.1	3.5	5.6	9.5	14	22.4	0.7	1.4	2.8	3.5	5.6	14	5.6				
 2 45-60°				0.63	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	4				
 2 asymmetric				0.63	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	4				
 3+4 0-45°				1.32	3.15	5.25	8.4	10.5	16.8	1.3	3.2	5.3	8.4	10.5	16.8	3.15	5.25	8.4	14.1	21	33.6	1.05	2.1	4.2	5.25	8.4	21	8.4				
 3+4 45-60°				0.95	2.25	3.75	6	7.5	12	0.9	2.2	3.8	6	7.5	12	2.25	3.75	6	10	15	24	0.75	1.5	3	3.75	6	15	6				
 3+4 asymmetric				0.63	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	4				
				3.5	4.5	3+5	3+6	3+8	3+10	3.5	4.5	3+5	3+6	3+8	3+10	5+3	7+3	8+3	12+4	16+4	25+6	5+3	8+3	12+4	7+3	8+3	16+4	8+3				

# LIFTING POINTS















**RUD** Weld-on Lifting Points



**4** design factor  
in all directions



**!** For all weld-on lifting points please refer to the welding instructions!  
For your workshop detailed welding instructions are also available as posters.

			<b>VRBS-FIX</b> Weld-on Lifting Ring								<b>VRBS</b> Weld-on Lifting Ring						<b>VRBK-FIX</b> Lifting Ring for edges						<b>ABA</b> Lifting Point loadable from all directions							
 			 <b>-40° C</b>								 <b>-40° C</b>						 <b>-40° C</b>						 <b>-40° C</b>							
	Number of legs Inclination angle		VRBS-FIX 4 t VRBS-FIX 6.7 t VRBS-FIX 10 t VRBS-FIX 16 t VRBS-FIX 31.5 t VRBS-FIX 50 t VRBS-FIX 100 t								VRBS 4 t VRBS 6.7 t VRBS 10 t VRBS 16 t VRBS 31.5 t VRBS 50 t						VRBK-FIX 4 t VRBK-FIX 6.7 t VRBK-FIX 10 t VRBK-FIX 31.5 t VRBK-FIX 50 t						<div>NEW!</div> ABA 0.8 t ABA 1.6 t ABA 3.2 t ABA 5 t ABA 10 t ABA 20 t ABA 31.5 t							
	1	0°	4	6.7	10	16	31.5	50	100	4	6.7	10	16	31.5	50	4	6.7	10	31.5	50	0.8	1.6	3.2	5	10	20	31.5			
	2	0°	8	13.4	20	32	63	100	200	8	13.4	20	32	63	100	8	13.4	20	63	100	1.6	3.2	6.4	10	20	40	63			
	1	90°	4	6.7	10	16	31.5	50	100	4	6.7	10	16	31.5	50	4	6.7	10	31.5	50	0.8	1.6	3.2	5	10	20	31.5			
	2	90°	8	13.4	20	32	63	100	200	8	13.4	20	32	63	100	8	13.4	20	63	100	1.6	3.2	6.4	10	20	40	63			
	2	0-45°	5.6	9.4	14	22.4	44.1	70	140	5.6	9.38	14	22.4	44.1	70	5.6	9.4	14	44.1	70	1.12	2.2	4.5	7.1	14.1	28	45			
	2	45-60°	4	6.7	10	16	31.5	50	100	4	6.7	10	16	31.5	50	4	6.7	10	31.5	50	0.8	1.6	3.2	5	10	20	31.5			
	2	asymmetric	4	6.7	10	16	31.5	50	100	4	6.7	10	16	31.5	50	4	6.7	10	31.5	50	0.8	1.6	3.2	5	10	20	31.5			
	3+4	0-45°	8.4	14.1	21	33.6	66.2	105	210	8.4	14.1	21	33.6	66.2	105	8.4	14.1	21	66.2	105	1.6	3.4	6.8	10.6	21.2	42	67			
	3+4	45-60°	6	10.1	15	24	47.3	75	150	6	10.1	15	24	47.3	75	6	10.1	15	47.3	75	1.18	2.4	4.8	7.5	15	30	47.5			
	3+4	asymmetric	4	6.7	10	16	31.5	50	100	4	6.7	10	16	31.5	50	4	6.7	10	31.5	50	0.8	1.6	3.2	5	10	20	31.5			
Welding seam →			HY3	HY5	HY6	HY9	HY12	HY19	HY28	4+3	5.5+3	8.5+4	8.5+4	18+4	25+8	4+3	5+3	8+3	HY17	HY25	a3	a4	a6	a7	a8	a12	a15			

# LIFTING POINTS

## Selection Matrix / Weld-on Lifting Points

	 <b>WPP/-B/-VIP</b>	 <b>WPPH/-B/-VIP</b>	 <b>ABA</b>	 <b>VRBS-FIX</b>
Load capacities	0.63 t – 8 t	0.63 t – 8 t	0.8 t – 31.5 t	4 t – 100 t
Ideal for rotating and turning		-	-	-
Ball bearing type		-	-	-
Safety factor	<b>4:1</b>	<b>4:1</b>	<b>4:1</b>	<b>4:1</b>
RUD-ID-System®	-	-	-	-
All load directions possible		-		
DGUV-tested				
Swivel range		-	-	-
Hitch link slewing range			-	
Metric	-	-	-	-
Retaining spring	-	-	-	
Application temperature range W/O reduction in load capacity				
Max. application temperature W/ reduction in load capacity				



Lifting points with this product feature are ideal for rotating and turning loads.



The lifting point has the innovative double SR ball bearing (continuous rotary movement and turning under load).



Ball bearing: suitable for rotating and turning. However, not suitable for continual rotary movements under load!



Testing and Documentation made easy! With the RUD-ID-System® (Equipped with a RFID-Chip)



4 x safety against breakage with lifting points (2 x safety against breakage with lashing points).



Load can be applied to the lifting point from all directions.




Lifting point is able to rotate 360°. However, this does not equate to rotating and turning under load!





 VRBK-FIX	 VRBS	 VLBS	 LBS-RS	 VABH-W	 VCGH-S
4 t – 50 t	4 t – 50 t	1.5 t – 16 t	1.5 t – 6.7 t	1.5 t – 10 t	10 t – 20 t
-	-	-	-	-	-
-	-	-	-	-	-
					
-	-	-	-	-	-
				-	-
	-		-	-	-
-	-	-	-	-	-
				-	-
-	-	-	-	-	-
	-		-	-	-
					
					


 Lifting point has a slewing range of XXX° (represents several values) in the hitch link.

 Possible lifting point thread types. Icons correspond to: M, MF, UNC, 8-UN, UNF, BSW, G.

 Lifting point available with variable/different thread lengths.

 Retaining spring holds the hitch link/hitch stirrup in a set position – prevents rattling and makes painting easier.

 Application temperature range for the lifting point without permanent load capacity reduction.

 Maximum application temperature of the lifting point with product-dependent load capacity reduction in percent.

# LIFTING POINTS

## RUD® Weld-on Lifting Points

### PowerPoint, weld-on Lifting Points, Type WPP, 360° Rotation, double Ball Bearing



PowerPoint -WPP-

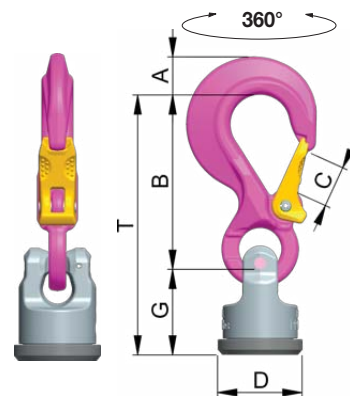
### Weld-on Lifting Point, 360° Rotation, PowerPoint Type WPP-S

Weld-on, universal connector for slings with Master link, eye or loop.  
Double ball bearing, 360° rotation!

-40° C

Type	Load capacity in t	Dimensions in mm						Welding seam	Weight in kg/pce	Item no.
		A	B	C	D	G	T			
WPP-S-0.63 t	0.63	13	75	18	40	40	115	3.5	0.4	25250000015435
WPP-S-1.5 t	1.5	20	97	25	46	50	147	4.5	1.0	25250000015436
WPP-S-2.5 t	2.5	28	126	30	61	61	187	HY3+5	1.5	25250000015437
WPP-S-4 t	4	36	150	35	78	77	227	HY3+6	3.3	25250000015438
WPP-S-5 t	5 (6.7)	37	174	40	95	93	267	HY3+8	7.1	25250000015439
WPP-S-8 t	8 (10)	49	208	48	100	102	310	HY3+10	8.2	25250000015440

( ) higher load capacity in 90° angle to mounting surface



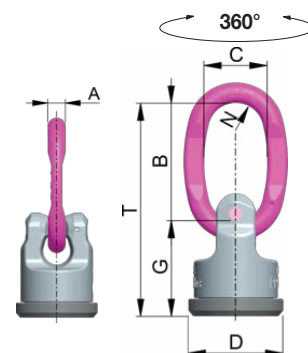
### Weld-on Lifting Point, 360° Rotation, PowerPoint Type WPP-B

Weld-on, universal connector with oblong ring for slings with hook.  
Double ball bearing, 360° rotation!

-40° C

Type	Load capacity in t	Dimensions in mm							Welding seam	Weight in kg/pce	Item no.
		A	B	C	D	G	N	T			
WPP-B-0.63 t	0.63	9	65	35	40	34	15	105	4	0.35	25250000015441
WPP-B-1.5 t	1.5	11	65	35	46	44	15	115	5	0.6	25250000015442
WPP-B-2.5 t	2.5	13	74	40	61	53	18	135	HY3+5	1.0	25250000015443
WPP-B-4 t	4	16	95	45	78	66	20	172	HY3+6	2.3	25250000015444
WPP-B-5 t	5 (6.7)	19	130	60	95	79	25	223	HY3+8	4.7	25250000015445
WPP-B-8 t	8 (10)	24	140	65	100	88	28	242	HY3+10	5.3	25250000015446

( ) higher load capacity in 90° angle to mounting surface



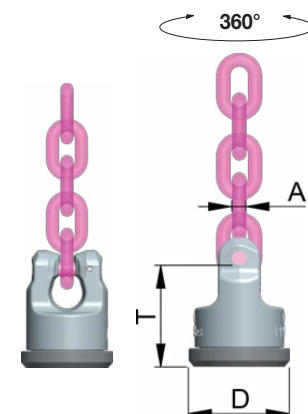
### Weld-on Lifting Point, 360° Rotation, PowerPoint Type WPP-VIP

Weld-on, universal connector for direct VIP chain connection.  
Double ball bearing, 360° rotation!

-40° C

Type	Load capacity in t	Dimensions in mm			Welding seam	Weight in kg/pce	Item no.
		A VIP Chain connection	D	T			
WPP-VIP4-0.63 t	0.63	4	40	41	4	0.23	25250000015447
WPP-VIP6-1.5 t	1.5	6	46	50	5	0.45	25250000015448
WPP-VIP8-2.5 t	2.5	8	61	61	HY3+5	0.85	25250000015449
WPP-VIP10-4 t	4	10	78	77	HY3+6	2.1	25250000015450
WPP-VIP13-5 t	5 (6.7)	13	95	93	HY3+8	3.4	25250000015451
WPP-VIP16-8 t	8 (10)	16	100	102	HY3+10	4.5	25250000015452
VWBS-KA-28-31.5 t	31.5	28	170	146	HY22+19	24	25250000015453

( ) higher load capacity in 90° angle to mounting surface



### Powerpoint, weld-on Lifting Points, Type WPPH, fixed



PowerPoint-WPPH-... fixed

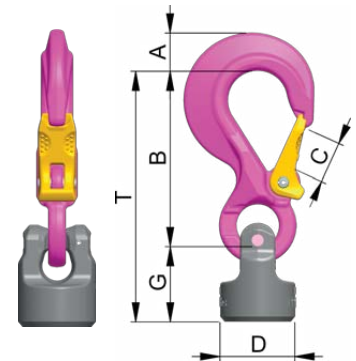
### Weld-on Lifting Point, fixed, PowerPoint Star Type WPPH-S

The universal connector for slings with Master link, eye or loop.

-40° C

Type	Load capacity in t	Dimensions in mm						Welding seam	Weight in kg/pce	Item no.
		A	B	C	D	G	T			
WPPH-S-0.63t	0.63	13	75	18	34	34	109	5	0.35	25250000015455
WPPH-S-1.5t	1.5	20	97	25	40	44	141	5	1.0	25250000015456
WPPH-S-2.5t	2.5	28	126	30	53	53	179	HY3+5	1.4	25250000015457
WPPH-S-4t	4.0	36	150	35	68	66	217	HY3+6	3.2	25250000015458
WPPH-S-5t	5.0 (6.7)	37	174	40	83	79	253	HY3+8	7.0	25250000015459
WPPH-S-8t	8.0 (10)	49	208	48	88	88	296	HY3+10	8.0	25250000015460

( ) higher load capacity in 90° angle to mounting surface



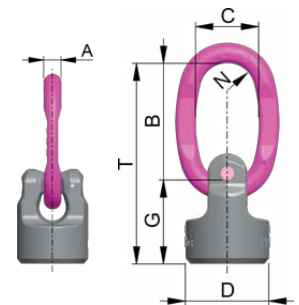
### Weld-on Lifting Point, fixed, PowerPoint Star Type WPPH-B

The universal connector for slings with hook.

-40° C

Type	Load capacity in t	Dimensions in mm							Welding seam	Weight in kg/pce	Item no.
		A	B	C	D	G	N	T			
WPPH-B-0.63t	0.63	9	65	35	34	34	15	99	4	0.25	25250000015461
WPPH-B-1.5t	1.5	11	65	35	40	44	15	109	5	0.5	25250000015462
WPPH-B-2.5t	2.5	13	74	40	53	53	18	137	HY3+5	0.9	25250000015463
WPPH-B-4t	4.0	16	95	45	68	66	20	163	HY3+6	2.2	25250000015464
WPPH-B-5t	5.0 (6.7)	19	130	60	83	79	25	209	HY3+8	4.5	25250000015465
WPPH-B-8t	8.0 (10)	24	140	65	88	88	28	228	HY3+10	5.1	25250000015466

( ) higher load capacity in 90° angle to mounting surface



### Weld-on Lifting Point, fixed, PowerPoint Star Type WPPH-VIP

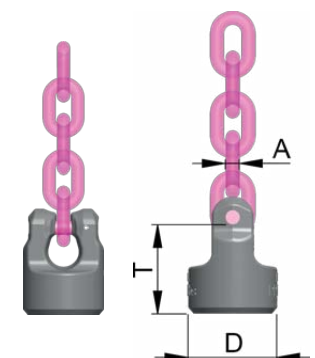
The universal connector for direct VIP chain connection.

-40° C

Type	Load capacity in t	Dimensions in mm			Welding seam	Weight in kg/pce	Item no.
		A VIP Chain connection	D	T			
WPPH-VIP4-0.63t	0.63	4	34	34	4	0.2	25250000015467
WPPH-VIP6-1.5t	1.5	6	40	44	5	0.35	25250000015468
WPPH-VIP8-2.5t	2.5	8	53	53	HY3+5	0.75	25250000015469
WPPH-VIP10-4t	4.0	10	68	66	HY3+6	2.0	25250000015470
WPPH-VIP13-5t	5.0 (6.7)	13	83	79	HY3+8	3.1	25250000015471
WPPH-VIP16-8t	8.0 (10)	16	88	88	HY3+10	4.3	25250000015472
WPPH-KA-28-31.5 t**	31.5	28	148	74	HY22+19	11	25250000015473

( ) higher load capacity in 90° angle to mounting surface

\*\* Slewing range: 180°



# LIFTING POINTS

## RUD® Weld-on Lifting Points

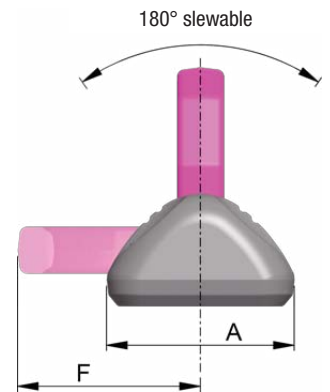
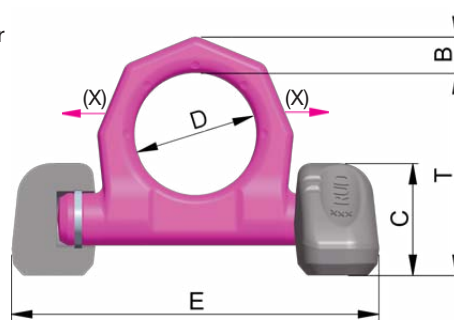
### VIP weld-on Lifting Ring with Fixing Type VRBS-FIX



- No dangerous subsurface corrosion on weld-on parts due to circular HY-weld seam. Smaller weld seam compared to the old VRBS.
- The time-consuming alignment of the weld-on blocks and ring bracket is not necessary any more.
- Protected retaining spring within the weld-on block. The spring fixes the weld-on blocks to the ring bracket and also creates a radial clamping. No loose parts – 1-piece construction.
- Retaining spring reduces vibration induced noise.
- Easy recognition of inclination angle due to markings on the ring bracket and weld-on blocks.
- Overall dimensions have remained unchanged compared to the old VRBS.
- The VRBS-FIX can also be fitted with an axial slide bearing washer (in case of permanent load in 90° angle (direction X).
- Can be used up to -40°C (-40°F)
- Patented design

4 design factor in all directions

-40° C



**Caution:**  
Please refer to the welding instructions!

Load capacity in t	Type	Welding seam HY+ a	Dimensions in mm							Weight in kg	Item no.
			A	B	C	D	E	F	T		
4	VRBS-FIX 4 t	HY 3	60	14	39	48	132	69	74	0.94	25250000015254
6.7	VRBS-FIX 6.7 t	HY 5	88	20	50	60	167	91	97	2.24	25250000015255
10	VRBS-FIX 10 t	HY 6	100	22	60	65	191	100	108	3.72	25250000015256
16	VRBS-FIX 16 t	HY 9	130	30	72	90	267	134	140	8.23	25250000015257
31.5	VRBS-FIX 31.5 t	HY 12	160	42	99	130	366	195	202	18.36	25250000015258
50	VRBS-FIX 50 t	HY 19	246	70	148	230	596	335	330	64.86	25250000035111
100	VRBS-FIX 100 t	HY 28	320	97	195	250	763	392	390	126.85	25250000035110

### Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VRBS-FIX 4 t	4	8	4	8	5.6	4	4	8.4	6	4
VRBS-FIX 6.7 t	6.7	13.4	6.7	13.4	9.4	6.7	6.7	14.1	10.1	6.7
VRBS-FIX 10 t	10	20	10	20	14	10	10	21	15	10
VRBS-FIX 16 t	16	32	16	32	22.4	16	16	33.6	24	16
VRBS-FIX 31.5 t	31.5	63	31.5	63	44.1	31.5	31.5	66.2	47.3	31.5
VRBS-FIX 50 t	50	100	50	100	70	50	50	105	75	50
VRBS-FIX 100 t	100	200	100	200	140	100	100	210	150	100

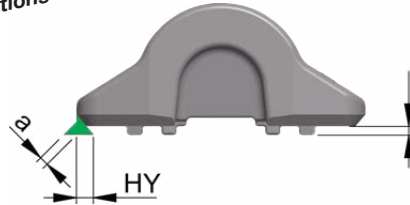


### VIP weld-on Lifting Ring Type VRBS

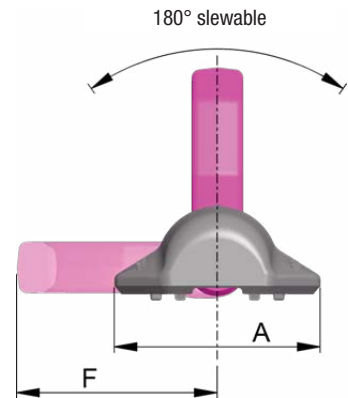
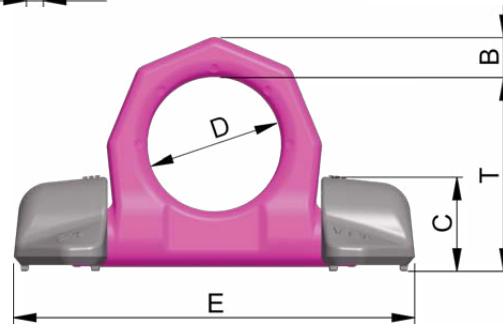


- Even distribution of induced forces due to 2-point anchoring
- Design factor 4 in all directions
- Forged ring bracket acc. to DIN EN 1677-1
- No protruding ring eyes (tripping hazard)
- Low overall height
- High dynamic and static strength
- The welding block is forged out of a good welding material 1.0577+N (St 52-3)
- Can be used up to -40°C (-40°F)

**4** design factor in all directions



**-40° C**



**Caution:**  
Please refer to the welding instructions!

Load capacity in t	Type	Welding seam HY+ a	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
4	VRBS 4	HY 4 + 3	62	14	28	48	135	71	65	0.8	25250000015248
6.7	VRBS 6.7	HY 5.5 + 3	88	20	39	60	170	92	84	1.6	25250000015249
10	VRBS 10	HY 6 + 4	100	22	46	65	195	100	95	3.0	25250000015250
16	VRBS 16	HY 8.5+4	130	30	57	90	263	134	127	6.6	25250000015251
31.5	VRBS 31.5	HY 18+4	160	42	79	130	375	195	178	15.6	25250000015252
50	VRBS 50 t	HY 25+8	240	70	120	230	620	340	313	54.0	25250000015253

### Maximum transport weight G in tons with different lifting methods:

Lifting method									
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°
VRBS 4 t	4	8	4	8	5.6	4	4	8.4	6
VRBS 6.7 t	6.7	13.4	6.7	13.4	9.4	6.7	6.7	14.1	10.1
VRBS 10 t	10	20	10	20	14	10	10	21	15
VRBS 16 t	16	32	16	32	22.4	16	16	33.6	24
VRBS 31.5 t	31.5	63	31.5	63	45	31.5	31.5	67	47.5
VRBS 50	50	100	50	100	70	50	50	105	75

LIFTING POINTS

RUD® Weld-on Lifting Points

VIP weld-on Lifting Ring for Edges with moveable tempered High Strength Ring Bracket VRBK-FIX

4:1



DGUV  
Test

270°



-40° - 200°C

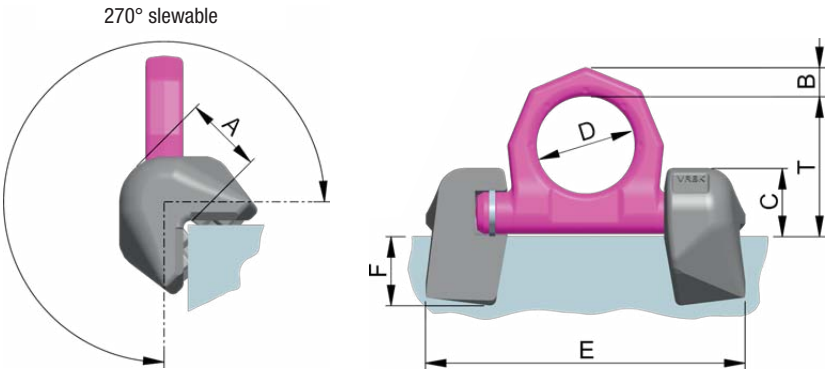
400°C max.

- Placed on the edge it saves you half the number of lifting points
- Forged ring bracket acc. to EN 1677-1, electromagnetically crack-tested, pink powder-coated.
- Can be loaded in all directions
- Safety factor 4 against breaking
- Even distribution of induced forces due to 2-point anchoring
- Very low profile due to slewable construction (270°)
- Weld-on blocks and ring bracket are connected by a special radial clamping spring.
- Easy adjustment of lifting ring
- Ring bracket remains in desired position
- Easy painting
- No loose parts
- No rattling
- Safe welding process: Dimension E is guaranteed
- Protected by patent

Option:  
Ring bracket also available as single part.









4 design factor in all directions

-40° C



Load capacity in t	Type	Welding seam	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
4	VRBK-FIX 4	HY 4+3	32	14	28	48	140	29	65	1.05	25250000015259
6.7	VRBK-FIX 6.7	HY 5+3	40	20	35	60	180	33	84	2.16	25250000015260
10	VRBK-FIX 10	HY 8+3	52	22	46	65	212	46	94	4.4	25250000015261
31.5	VRBK-FIX 31.5	HY 17	89	42	78	130	394	70	177	24.84	25250000035130
50	VRBK-FIX 50	HY 25	133	70	118	230	626	96	303	76.35	25250000035131

Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VRBK-FIX-4	4	8	4	8	5.6	4	4	8.4	6	4
VRBK-FIX-6.7	6.7	13.4	6.7	13.4	9.4	6.7	6.7	14.1	10.1	6.7
VRBK-FIX-10	10	20	10	20	14	10	10	21	15	10
VRBK-FIX-31.5	31.5	63	31.5	63	44.1	31.5	31.5	66.2	47.3	31.5
VRBK-FIX-50	50	100	50	100	70	50	50	105	75	50



### VIP weld-on Lifting Ring Type VLBS / VLBS-U-LT

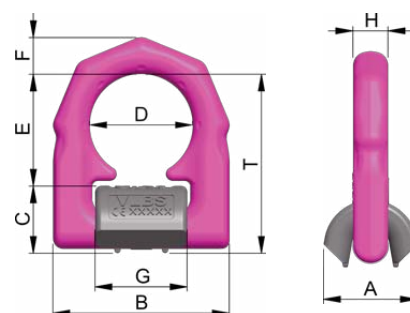


- Quick and easy mounting
- 2 internal patented distance lugs enhance the seat of the hook and support the springs
- High dynamic and static strength
- 100% electromagnetically crack-tested
- The welding block is forged out of a good welding material S355J2+N (St 52-3N)
- With the VLBS-U a protected spring holds the ring bracket in any desired position
- The spring also reduces vibration induced noise
- VLBS can be used up to -20° C (-4° F)

**4** design factor in all directions



**-20° C**



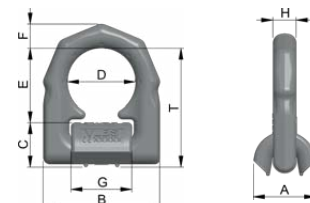
Load capacity in t	Type	Welding seam	A	B	C	D	E	F	G	H	T	Weight in kg	Item no. with spring	Type	Item no. w/o spring
1.5	VLBS 1.5	HV 5+3	33	66	25	38	40	14	33	14	65	0.35	25250000015274	VLBS 1.5 OF	25250000015279
2.5	VLBS 2.5	HV 7+3	38	77	28	45	47	16	40	14	75	0.53	25250000015275	VLBS 2.5 OF	25250000015280
4	VLBS 4	HV 8+3	42	87	31	51	52	18	46	16	83	0.76	25250000015276	VLBS 4 OF	25250000015281
6.7	VLBS 6.7	HV 12+4	61	115	44	67	73	24	60	22	117	1.9	25250000015277	VLBS 6.7 OF	25250000015282
10	VLBS 10	HV 16+4	75	129	55	67	71	26.5	60	26	126	2.9	25250000015278	VLBS 10 OF	25250000015283
16	VLBS 16	HV 25+6	96	192	70	100	106	40	90	26	176	7.1	25250000037521	VLBS 16 OF	25250000015284

### VLBS-U-LT for ultralow temperatures up to -45°C (-49°F)

- Notch impact strength  $\geq 27$  J at -45°C (-49°F)
- Ring bracket phosphated
- Aside from the low-temperature property, same as type VLBS above



**-45° C**



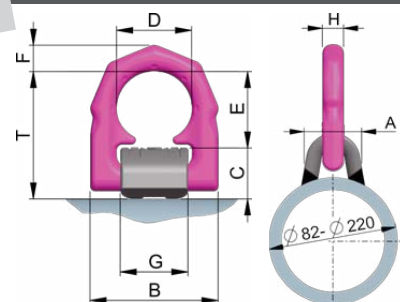
Load capacity in t	Type	Welding seam	A	B	C	D	E	F	G	H	T	Weight in kg	Item no. with spring
2.5	VLBS-U-LT 2.5	HV 7+3	36	77	27	45	48	16	40	14	75	0.47	25250000015285
4	VLBS-U-LT 4	HV 8+3	42	87	31	51	52	18	46	16	83	0.76	25250000015286
6.7	VLBS-U-LT 6.7	HV 12+4	61	115	44	67	73	24	60	22	117	1.9	25250000035107
10	VLBS-U-LT 10	HV 16+4	75	129	55	67	71	26.5	60	26	126	2.9	25250000015287

### VIP weld-on Lifting Ring Type VLBS-P

- Ideal for welding to pipes
- For pipe outer diameter of 82 to 220 mm
- The standard version VLBS can be used for larger pipe diameters



**-20° C**



Load capacity in t	Type	Welding seam	A	B	C	D	E	F	G	H	T	Weight in kg	Item no.
4	VLBS-P 4	HV 8+3	45	87	35	51	52	18	46	16.5	87	0.8	25250000015288

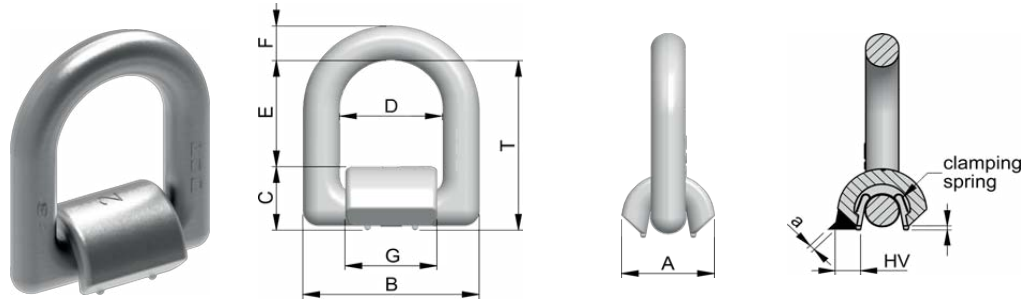
### Maximum transport weight G in tons with different lifting methods:

Lifting method									
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°
VLBS-1.5	1.5	3	1.5	3	2.1	1.5	1.5	3.15	2.25
VLBS-2.5	2.5	5	2.5	5	3.5	2.5	2.5	5.25	3.75
VLBS-4 / VLBS-P 4	4	8	4	8	5.6	4	4	8.4	6
VLBS-6.7	6.7	13.4	6.7	13.4	9.5	6.7	6.7	14	10
VLBS-10	10	20	10	20	14	10	10	21	15
VLBS-16	16	32	16	32	22.4	16	16	33.6	24

# LIFTING POINTS

## RUD® Weld-on Lifting Points

### Weld-on Stainless Steel Lifting Ring LBS, Material 1.4571



Load capacity in t	Type	Welding seam	Dimensions in mm									Weight in kg/pce	Item no. LBS stainless steel
			A	B	C	D	E	Ø F	G	H	T		
0.5	LBS (1) RS 0.5t*	HV 5+3	32	65	36	25	39	13.5	33	85	64	0.3	25250000015073
1	LBS (3) RS 1t*	HV 8+3	42	85	50	31	50	16.5	46	108	81	0.6	25250000015074
2	LBS (5) RS 2t	HV 12+4	61	110	65	44	72	22.2	60	155	116	1.6	25250000015075

\*without holding spring

### Maximum transport weight G in tons with different lifting methods:

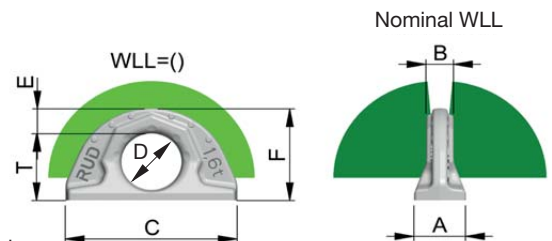
Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
LBS RS 0.5	0.5	1	0.5	1	0.7	0.5	0.5	1.05	0.75	0.5
LBS RS 1	1	2	1	2	1.4	1	1	2.1	1.5	1
LBS RS 2	2	4	2	4	2.8	2	2	4.2	3	2

### Weld-on Lifting Point ABA, loadable from all directions

-40° C



- Loadable from all directions
  - Safety factor 4 against breaking
  - Quenched and tempered body, enhanced wear resistance
  - Patented wear marks in- and outside
  - Circular fillet welding seam
  - Surface phosphated
  - If item is used as weld-on lifting point, the indicated WLL (t) must be observed.
- When used as a lashing point, the max. allowable lashing capacity LC in daN can be induced.



Type	Nominal WLL in t	Dimensions in mm							Fillet welding seam thickness in mm	Weight in kg/pce	Item no.
		A	B	C	D	E	F	T			
ABA 0.8 t	<b>0.8 (2)</b>	22	12	70	32	12	50	38	3	0.20	25250000036717
ABA 1.6 t	<b>1.6 (4)</b>	30	16	100	35	16	57	42	4	0.45	25250000015076
ABA 3.2 t	<b>3.2 (9)</b>	41	23	137	50	21	80	59	6	1.15	25250000015077
ABA 5 t	<b>5.0 (12)</b>	51	27	172	60	28	99	72	7	2.25	25250000015078
ABA 10 t	<b>10.0 (20)</b>	70	38	228	80	35	130	95	8	5.37	25250000015079
ABA 20 t	<b>20.0</b>	90	52	272	115	40	175	135	12	10.72	25250000015080
ABA 31.5 t	<b>31.5</b>	108	64	320	130	50	204	154	15	18.33	25250000015081

Lifting method										
Number of legs	2	1	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
ABA 0.8 t	2.0	4.0	0.8	1.6	1.12	0.8	0.8	1.6	1.8	0.8
ABA 1.6 t	4.0	8.0	1.6	3.2	2.2	1.6	1.6	3.4	2.4	1.6
ABA 3.2 t	9.0	18.0	3.2	6.4	4.5	3.2	3.2	6.8	4.8	3.2
ABA 5 t	12.0	24.0	5	10	7.1	5	5	10.6	7.5	5
ABA 10 t	20.0	40.0	10	20	14.1	10	10	21.2	15	10
ABA 20 t	20.0	40.0	20	40	28	20	20	42	30	20
ABA 31.5 t	31.5	63.0	31.5	63	45	31.5	31.5	67	47.5	31.5



### VIP weld-on Hook VABH-W

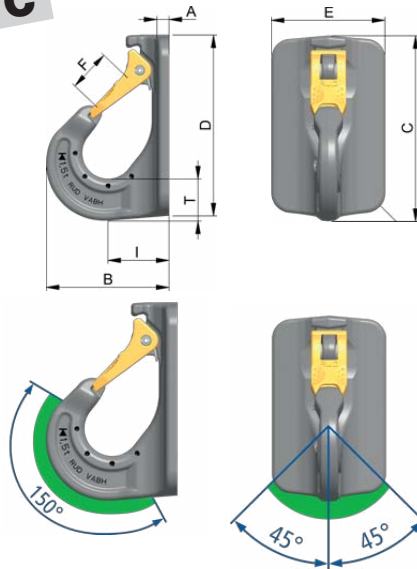
**4:1** **-40°C** **350°C max.**

Weld-on hook as lifting point on spreader beams. Suitable for wire rope slings, round slings and slings with loop or Master link.

- If possible mount in the direction of pull
- Solid safety latch
- No protruding hook tip – no unintentional hooking
- Thickened hook tip to prevent improper use
- Patented wear indicators on the hook
- Measurable overload indicator
- Surface phosphated
- Can also be used as excavator hook



**-40°C**



▲ Reading Point Overload

▲ Wear Indicators

Area of application:  
- Use area: max. 150°  
- Admissible lateral pull: 45°

Type	Load capacity up to 120° in t	Dimensions in mm								Fillet weld seam thickness in mm	Weight in kg/pce	Item no.
		A	B	C	D	E	F	I	T			
VABH-W 1.5t	1.5	7.5	76	115	111	70	26	38	26	4	0.8	25250000015092
VABH-W 2.5t	2.5	8.5	98	148	143	85	31.5	49	33	5	1.8	25250000015093
VABH-W 4t	4	12	119	168	164	104	35	59	46	6	3.12	25250000015094
VABH-W 6.7t	6.7	13	147	205	200	120	40	70	51	6	5.89	25250000015095

### VIP weld-on Hook VCGH-S

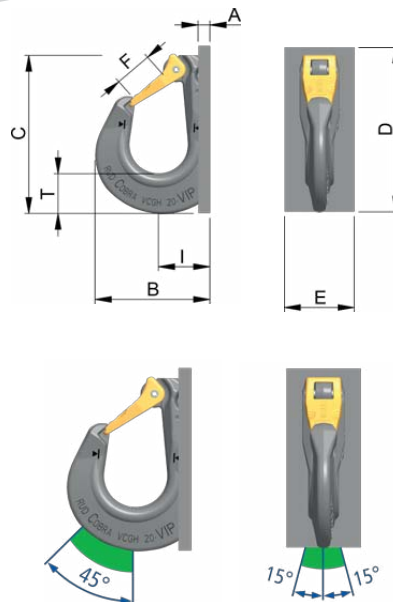
**4:1** **-20°C** **350°C max.**

Weld-on hook as lifting point on spreader beams. Suitable for wire rope slings, round slings and slings with loop or Master link.

- Solid safety latch
- If possible mount in the direction of pull
- No protruding hook tip – no unintentional hooking
- Thickened hook tip to prevent improper use
- Surface phosphatised



**-20°C**



▲ Reading Point Overload

▲ Wear Indicators

Area of application:  
- Use area: max. 45°  
- Admissible lateral pull: 15°

Type	Load capacity up to 45° in t	Dimensions in mm								Fillet weld seam thickness in mm	Weight in kg/pce	Item no.
		A	B	C	D	E	F	I	T			
VCGH-S16	10	15	141	200	220	100	48	69	49	8	5.67	25250000015082
VCGH-S20	16	20	187	272	288	120	63	87	69	8	8.4	25250000015083
VCGH-S22	20	20	196	276	292	120	63	92	74	8	14.5	25250000015084



Please note the welding instructions on page 551.  
For screw-on hooks see page 550.

# HYDRAULIC



Hydraulic Cylinders | Hydraulic Accessories | Hydraulic Pumps | Hydraulic Tools and Accessories





**The complete  
hydraulic range**

All Carl Stahl Hi-Force hydraulic products are designed and manufactured according to ISO 9001:2000 and comply with CE standards. All products are delivered with a test certificate according to national and international standards and bear an individual serial number.

### Single acting very low Height Pancake Cylinder Type HVL

- Working pressure up to 700 bar
- Capacities from 10 to 104 t
- Stroke length 6 mm
- No spring assisted return
- Surface treated piston rod
- Types HVL 10 to HVL 50 with adapter coupler



HVL100

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Weight in kg	Item no.
HVL 10	10	6	28	9	87	1.6	15341000015117
HVL 20	20	6	32	17	104	2.6	15341000015118
HVL 30	32	6	34	27	120	3.0	15341000015119
HVL 50	50	6	45	43	158	7.2	15341000015120
HVL 100	104	6	65	88	200	15.6	15341000015121



### Single acting low Height Pad Cylinder Type HPS

- Working pressure up to 700 bar
- Capacities from 4.5 to 147 t
- Stroke length 6 to 16 mm
- Spring assisted return
- Surface treated piston rod
- Collar threads withstand full load



HPS100

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Weight in kg	Item no.
HPS 50	4.5	6	32	4	60	0.8	15341000015074
HPS 51	4.5	16	42	10	60	0.9	15341000015075
HPS 100	10	10	46	14	81	1.6	15341000015076
HPS 200	20	11	52	31	100	2.6	15341000015077
HPS 300	32	12	59	55	115	4.2	15341000015078
HPS 500	50	15	67	107	140	6.6	15341000015079
HPS 750	73	16	81	164	165	10.4	15341000015080
HPS 1000	109	16	91	245	215	23.2	15341000015081
HPS 1500	147	16	100	330	215	28.5	15341000015082



### Single acting low Height Cylinder Type HLS

- Working pressure up to 700 bar
- Capacities from 10 to 147 t
- Stroke length 25 to 60 mm
- Spring assisted return
- Surface treated piston rod
- Collar threads withstand full load



HLS301

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Weight in kg	Item no.
HLS 101	10	40	95	58	70	2.4	15341000015064
HLS 201	20	44	102	126	90	4.8	15341000015065
HLS 301	32	25	83	114	102	5.0	15341000015066
HLS 302	32	60	119	274	102	7.0	15341000015067
HLS 501	50	25	91	178	127	8.4	15341000015068
HLS 502	50	60	126	428	127	10.4	15341000015069
HLS 1001	109	25	108	384	178	19.8	15341000015070
HLS 1002	109	60	143	921	178	24.0	15341000015071
HLS 1501	147	25	130	516	216	37.0	15341000015072
HLS 1502	147	50	155	1031	216	42.0	15341000015073





**Single acting Multi Purpose Cylinder Type HSS**

- Working pressure up to 700 bar
- Capacities from 4.5 to 109 t
- Stroke length 25 to 330 mm
- Spring assisted return
- Surface treated piston rod
- Collar threads withstand full load
- Base and piston rod mounting on most models
- Mounting thread in the base plate
- Capacities 50 t and over with carrying handle



HSS106



Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Inlet thread specification in inches	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HSS 51	4.5	25	107	16	1.1/2" Un	38	24	1.0	15341000015083
HSS 52	4.5	50	132	32	1.1/2" Un	38	24	1.2	15341000015084
HSS 53	4.5	75	157	48	1.1/2" Un	38	24	1.4	15341000015085
HSS 54	4.5	100	182	64	1.1/2" Un	38	24	1.5	15341000015086
HSS 55	4.5	125	207	80	1.1/2" Un	38	24	1.8	15341000015087
HSS 57	4.5	176	258	113	1.1/2" Un	38	24	2.0	15341000015088
HSS 59	4.5	227	308	146	1.1/2" Un	38	24	2.4	15341000015089
HSS 101	10	25	100	36	2.1/4" Un	57	35	1.8	15341000015090
HSS 102	10	56	131	81	2.1/4" Un	57	35	2.4	15341000015091
HSS 104	10	100	175	144	2.1/4" Un	57	35	3.0	15341000015092
HSS 106	10	150	225	217	2.1/4" Un	57	35	4.2	15341000015093
HSS 108	10	206	281	297	2.1/4" Un	57	35	5.0	15341000015094
HSS 1010	10	250	325	361	2.1/4" Un	57	35	5.4	15341000015110
HSS 1012	10	305	379	440	2.1/4" Un	57	35	6.2	15341000015111
HSS 152	14.5	50	154	101	2.3/4" Un	70	41	3.4	15341000015095
HSS 154	14.5	100	204	203	2.3/4" Un	70	41	5.0	15341000015096
HSS 156	14.5	150	254	304	2.3/4" Un	70	41	6.6	15341000015097
HSS 1510	14.5	250	354	507	2.3/4" Un	70	41	8.8	15341000015112
HSS 252	25	51	174	178	3.5/16" Un	86	54	6.5	15341000015098
HSS 254	25	102	225	356	3.5/16" Un	86	54	8.0	15341000015099
HSS 256	25	150	273	524	3.5/16" Un	86	54	9.6	15341000015100
HSS 2510	25	250	374	874	3.5/16" Un	86	54	12.6	15341000015113
HSS 2514	25	356	480	1242	3.5/16" Un	86	54	16.8	15341000015114
HSS 2518	25	457	611	1597	3.5/16" Un	86	54	21.4	15341000015115
HSS 308	29	205	374	860	3.5/16" Un	102	57	18.6	15341000015101
HSS 502	50	51	150	364	5" Un	127	79	13.0	15341000015102
HSS 504	50	102	201	728	5" Un	127	79	16.8	15341000015103
HSS 506	50	152	251	1084	5" Un	127	79	20.0	15341000015104
HSS 508	50	203	302	1448	5" Un	127	79	23.2	15341000015105
HSS 5013	50	330	429	2354	5" Un	127	79	33.6	15341000015116
HSS 756	73	152	272	1561	5.3/4" Un	146	95	31.0	15341000015106
HSS 1004	109	102	223	1565	6.7/8" Un	185	114	41.6	15341000015108
HSS 1006	109	153	274	2347	6.7/8" Un	185	114	49.8	15341000015109
HSS 10010	109	254	375	3896	6.7/8" Un	185	114	65.5	15341000015107

**Single acting hollow Piston Cylinder Type HHS**

- Capacities from 11 to 102 t
- Stroke length 25 to 152 mm
- Spring assisted return
- Other features as with HSS series



HHS302

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Inlet thread specification in inches	Cylinder Ø in mm	Piston Ø in mm	Through hole in mm	Weight in kg	Item no.
HHS 101	11	25	110	39	2.3/4" UN	70	38	20	2.8	15341000015053
HHS 102	11	50	140	79	2.3/4" UN	70	38	20	3.0	15341000015054
HHS 106	11	152	297	240	2.3/4" UN	70	38	20	10.2	15341000015055
HHS 202	23	50	160	167	3.7/8" Un	100	51	30	7.0	15341000015056
HHS 206	23	150	306	500	3.7/8" Un	100	51	30	13.8	15341000015057
HHS 302	33	50	165	233	4.1/2" Un	115	60	35	10.6	15341000015058
HHS 306	33	152	320	710	4.1/2" Un	115	60	35	19.2	15341000015059
HHS 603	61	76	226	651	6.1/4" Un	160	92	55	28.0	15341000015060
HHS 606	61	150	315	1285	6.1/4" Un	160	92	55	40.6	15341000015061
HHS 1003	102	76	276	1088	8.3/8" Un	213	127	81	64.0	15341000015062
HHS 1006	102	150	350	2147	8.3/8" Un	213	127	81	75.0	15341000015063



**Double action cylinders and heavy duty cylinders  
(up to 2,000 t capacity) are available on request.**

### Hollow Piston Cylinder Type HHR, double acting

- Working pressure up to 700 bar
- Capacities from 33 to 247 t
- Stroke length 51 to 305 mm
- Double acting version
- Corrosion-resistant QPQ coated piston rod
- Full-load-bearing stahl stop ring
- Base and piston rod mounting on most models
- Mounting thread in the base plate (up to 102 t types)



Type	Capacity in t	Tensile strength in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Piston Ø in mm	Through hole in mm	Weight in kg	Item no.
HHR302	33	24	51	180	238	115	60.3	35	12.2	15341000015043
HHR306	33	24	150	279	701	115	60.3	35	17.6	15341000015044
HHR3012	33	24	305	434	1424	115	60.3	35	25.7	15341000015051
HHR603	61	38	76	239	652	160	92	55	30.6	15341000015045
HHR606	61	38	152	315	1304	160	92	55	41.6	15341000015046
HHR6010	61	38	254	417	2179	160	92	55	52.5	15341000015052
HHR1003	102	43	76	310	1087	213	140	80	68.5	15341000015047
HHR1006	102	43	152	386	2174	213	140	80	90.0	15341000015048
HHR1508	152	71	203	503	4320	270	184	102	170.0	15341000015049
HHR2508	247	76	203	505	7039	350	254	150	269.0	15341000015050



### Heavy duty cylinder Type HFG with adjusting ring, single acting

- Working pressure up to 700 bar
- Capacities from 50 to 520t
- Stroke length 51 to 152 mm
- Single acting version
- Corrosion-resistant QPQ coated housing, piston rod and pressure fitting
- Equipped with a moving pressure fitting



Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HFG502	50	51	173	360	127	95	16.2	15341000035135
HFG504	50	102	224	730	127	95	20.6	15341000015026
HFG506	50	150	272	1070	127	95	25.0	15341000015027
HFG1002	109	51	189	760	185	140	35.0	15341000035136
HFG1004	109	100	240	1530	185	140	50.3	15341000015028
HFG1006	109	150	311	2300	185	140	65.4	15341000015029
HFG1504	152	100	288	2140	216	165	84.0	15341000015030
HFG1506	152	150	338	3210	216	165	89.5	15341000015031
HFG2002	203	50	261	1420	254	190	95.4	15341000015032
HFG2006	203	152	362	4330	254	190	137.0	15341000015033
HFG2506	256	152	401	5500	273	216	171.0	15341000035137
HFG3006	326	150	417	6870	310	241	228.5	15341000015034
HFG4006	398	151	459	8440	360	267	308.5	15341000015035
HFG5006	520	152	498	11100	400	305	457.0	15341000015036
HFG8006	809	152	565	17470	480	380	735.0	15341000035001
HFG10006	1012	152	620	21610	540	425	1,016.0	15341000035002

### Heavy duty cylinder Type HFL with adjusting ring, single acting



Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HFL502	50	51	125	360	127	95	14.2	15341000015037
HFL1002	109	50	137	770	185	140	27.9	15341000015038
HFL1502	152	45	150	1070	216	165	44.0	15341000015039
HFL2502	260	45	159	1650	273	216	69.4	15341000015040
HFL4002	398	45	178	2510	360	267	121.0	15341000015041
HFL5002	520	45	192	3290	400	305	186.0	15341000015042



### Heavy duty cylinder Type HDA, double acting

- Working pressure up to 700 bar
- Capacities from 25 to 520 t
- Stroke length 152 to 330 mm
- Double acting version
- Corrosion-resistant QPQ coated piston rod
- Collar threads withstand full load
- Housing and piston thread
- Mounting thread in the base plate (up to 203 t types)
- Equipped with a moving or standard pressure fitting



HDA 506

Type	Capacity in t	Tensile strength in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HDA256	25	10	152	287	530	92	50	15.0	15341000015014
HDA506	50	15	152	295	1080	127	79	28.4	15341000015015
HDA5013	50	15	330	473	2350	127	79	42.6	15341000015025
HDA1006	109	36	152	304	2330	185	114	64.5	15341000015017
HDA10013	109	36	330	482	5060	185	114	89.0	15341000015016
HDA1506	152	79	152	310	3260	210	114	90.0	15341000015019
HDA15012	152	79	305	463	6530	210	114	120.5	15341000015018
HDA2006	203	94	152	327	4330	254	140	129.8	15341000015021
HDA20012	203	94	305	480	8690	254	140	167.4	15341000015020
HDA3006	326	-	152	409	6950	312	165	193.0	15341000015022
HDA4006	398	-	152	431	8490	360	216	286.0	15341000015023
HDA5006	520	-	152	470	11090	397	203	372.0	15341000015024
HDA8006	809	-	152	535	17280	500	300	650.0	15341000035004
HDA10006	1012	-	152	590	21620	540	320	900.0	15341000035005

### Features of the HDA range, double acting heavy duty cylinder

Up to and including 203 tons:

- Flat pressure fitting
- Piston rod with female thread
- Cylinder collar thread with protective cap
- Mounting thread in the base plate

From 326 tons:

- Moving pressure fitting
- Piston rod without female thread
- Without cylinder collar thread
- Without mounting thread in the base plate

### Single acting Hydraulic Aluminium Cylinder Type HAS / HHA

- Working pressure up to 700 bar
- Approx. 50% weight reduction compared to a stahl cylinder
- Capacities from 32 to 110 t
- Stroke length 152 mm
- Spring assisted return
- Collar threads withstand full load

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity cm³	Cylinder Ø in mm	Through hole in mm	Weight in kg	Item no.
HAS306	32	152	282	672	104	-	6.0	15341000015011
HAS506	51	152	287	1077	135	-	9.0	15341000015012
HAS1006	110	152	317	2340	195	-	23.0	15341000015013
HHA182	18	51	175	129	98	26	3.6	15341000035006
HHA372	37	51	193	266	136	39	7.2	15341000035007
HHA504	52	105	280	765	160	51	13.4	15341000035008



HAS1006

### Single acting Pull Cylinder Type HPC

- Working pressure up to 700 bar
- Capacities from 10 to 50 t
- Stroke length 152 mm
- Replaceable pulling
- Scraper ring avoids dirt penetration
- Spring assisted return
- Protective bellows for piston rod
- HPC106C with clevis connection



HPC106

Type	Tensile strength in t	Stroke in mm	Length in mm	Oil capacity cm³	Weight in kg	Item no.
HPC 106	10	152	752	228	12.0	15341500015001
HPC 106C	10	152	754	228	15.5	15341500015002
HPC 306	30	152	847	636	31.0	15341500015003
HPC 506	50	152	971	1078	54.0	15341500015004

### Hydraulic Sets

Set	Set contents	Item no.
Set 1	1 x Low height cylinder 10 t x 40 mm stroke, type HLS 101 1 x Low height pad cylinder 20 t x 11 mm stroke, type HPS 200 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	35250000015001
Set 2	1 x Multi purpose cylinder 10 t x 150 mm stroke, type HSS 106 1 x Low height cylinder 20 t x 44 mm stroke, type HLS 201 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	35250000015002
Set 3	1 x Low height cylinder 50 t x 60 mm stroke, type HLS 502 1 x Multi purpose cylinder 25 t x 150 mm stroke, type HSS 256 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	35250000015003
Set 4	1 x Low height cylinder 10 t x 40 mm stroke, type HLS 101 1 x Hollow piston cylinder 11 t x 50 mm stroke, type HHS 102 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	35250000015004



### Manually and Foot operated Pumps Type HP

- Single or two speed operation
- 2- or 4-way valves
- Working pressure up to 700 bar



#### Manually operated pumps for single acting cylinders and double acting cylinder

Type	Valve Type	Material	Displacement per stroke in cm³		Usable oil capacity in litres	Weight in kg	Item no.
			1st stage	2nd stage			
HP 110	2-way	Steel	2.9	-	1.00	5.6	35151000015044
HP 211	2-way	Aluminium	12.9	1.0	0.5	2.0	35151000015047
HP 212	2-way	Aluminium	12.9	2.3	1.00	4.0	35151000015048
HP 227	2-way	Steel	12.9	2.3	2.30	10.5	35151000015049
HP 232	2-way	Aluminium	12.9	2.3	2.00	6.9	35151000015052
HP 257	2-way	Steel	12.9	2.3	5.00	15.2	35151000015058
HP 252	2-way	Aluminium	12.9	2.3	5.00	9.6	35151000015056
HP 245	2-way	Steel	113.0	4.0	10.00	29.5	35151000015054
HP 232D	4-way	Aluminium	12.9	2.3	2.00	8.7	35151000015053
HP 252D	4-way	Aluminium	12.9	2.3	5.00	13.6	35151000015057
HP 245D	4-way	Steel	113.0	4.0	10.00	31.0	35151000015055

#### Foot operated pumps

Type	Valve Type	Material	Displacement per stroke in cm³		Usable oil capacity in litres	Weight in kg	Item no.
			1st stage	2nd stage			
HP 227 FP	2-way	Steel	12.9	2.3	2.30	12.5	35151000015050
HP 227 FPC*	2-way	Steel	12.9	2.3	2.30	14.5	35151000015051

\*complete with hydraulic hose and pressure gauge Ø 100 mm



**Accessories for hand and foot pumps: gauges and mounting blocks page 571. Hoses and couplings page 574.**

HP227 FPC with hose and pressure gauge





## Pressure Gauges Type HG

- Accuracy  $\pm 1\%$

Type	Reading inner scale in bar	$\varnothing$ in mm	Inlet thread	Weight in kg	Item no.
HG 1	0 - 700	100	1/2" NPT AG	0.9	35161500015002
HG 1G*	0 - 700	100	1/2" NPT AG	1.0	35161500015003
HG 63G*	0 - 700	63	1/4" NPT AG	0.2	35161500015001

\* filled with glycerine    **Other versions available.**



HG1

## Gauge Mounting Blocks Type HGA

Type	Length in mm	Width in mm	Height in mm	Gauge thread	Inlet thread	Outlet thread	Weight in kg	Item no.
HGA1	75	32	32	1/2"-14NPT	3/8"-18NPT male	3/8"-18NPT female	0.25	35163000015039
HGA2	170	32	32	1/2"-14NPT	3/8"-18NPT male	3/8"-18NPT female	0.85	35163000015040
HGA1-25	75	32	32	1/4"-18NPT	3/8"-18NPT male	3/8"-18NPT female	0.30	35163000015041
HGA2-25	170	32	32	1/4"-18NPT	3/8"-18NPT male	3/8"-18NPT female	0.90	35163000015042
AGA1-25	75	32	50	1/4"-18NPT	3/8"-18NPT male	3/8"-18NPT female	0.55	35163000015043



AGA1-25

HGA1

HGA2

## Air driven Pumps Type AHP

- Working pressure up to 700 bar
- Internal safety valve against overload
- Reservoir oil level sight gauge
- Max. air consumption 9.44 l/s at 7 bar
- Max. flow rate 0.8 l/min
- Air connection 1/4" G



AHP1120

Type	Valve Type	Usable oil capacity in litres	Weight in kg	Item no.
AHP1120	2-way	2.4	4.70	35151000015010
AHP1121	2-way	5.0	9.00	35151000015011
AHP1122	2-way	10.0	17.80	35151000015012
AHP1141	4-way	5.0	9.50	35151000015013
AHP1142	4-way	10.0	18.30	35151000015014



**Other air driven hydraulic  
pumps on request.**

## Electric driven Pumps Type HEP

- Working pressure up to 700 bar
- Two stage – automatic changeover at 150 bar
- With manual or solenoid valves
- Oil capacity 4 litres
- Voltage 240 V – 1 phase
- Power output 450 W
- Standard version with pressure gauge and remote control

Type	Valve Type	Displacement per stroke in cm <sup>3</sup>		Weight in kg	Item no.
		1st stage	2nd stage		
HEP103242LS	2-way solenoid	2.5	0.35	19.2	35151000015015
HEP103242S	2-way solenoid	2.5	0.35	20.5	35151000015016
HEP103342	3-way hand	2.5	0.35	18.1	35151000015017
HEP103442	4-way hand	2.5	0.35	18.1	35151000015018
HEP103442LS	4-way solenoid	2.5	0.35	20.5	35151000015019

LS versions are fitted with solenoid valve and hold function.  
S versions are fitted with solenoid valve and auto retract.



HEP103442LS

### Electrohydraulic Pumps Type HEP - Medium Use

- Working pressure up to 700 bar
- Two stage
- Standard version with hold function
- Motor 240V-1Ph-50Hz
- With solenoid valve on request



HEP 207422

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate 1st stage l/min	Flow rate 2nd stage l/min	Weight in kg	Item no.
HEP207112	P-T plate	hand	10	7.0	0.65	47.0	35151000015020
HEP207122	P-T plate	hand	25	7.0	0.65	63.0	35151000015021
HEP207212	2-way	hand	10	7.0	0.65	47.5	35151000015022
HEP207222	2-way	hand	25	7.0	0.65	63.5	35151000015023
HEP207312	3-way	hand	10	7.0	0.65	47.5	35151000015024
HEP207322	3-way	hand	25	7.0	0.65	63.5	35151000015025
HEP207412	4-way	hand	10	7.0	0.65	47.5	35151000015026
HEP207422	4-way	hand	25	7.0	0.65	63.5	35151000015027

#### Further options:

- Voltage 110V-1Ph-50Hz or 380V-3Ph-50Hz
- Protective frame
- Trolley
- Electric motor 60 Hz



### Electrohydraulic Pumps Type HEP - Continual Use

- Working pressure up to 700 bar
- Two stage
- Standard version with hold function
- Motor 240V-1Ph-50Hz
- With solenoid valve on request



HEP 310322S\*

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate 1st stage l/min	Flow rate 2nd stage l/min	Weight in kg	Item no.
HEP310122	P-T plate	hand	25	10.0	1.0	63.5	35151000015028
HEP310142	P-T plate	hand	40	10.0	1.0	88.5	35151000015029
HEP310222	2-way	hand	25	10.0	1.0	64.0	35151000015030
HEP310242	2-way	hand	40	10.0	1.0	89.0	35151000015031
HEP310322	3-way	hand	25	10.0	1.0	64.0	35151000015032
HEP310342	3-way	hand	40	10.0	1.0	89.0	35151000015033
HEP310422	4-way	hand	25	10.0	1.0	64.0	35151000015034
HEP310442	4-way	hand	40	10.0	1.0	89.0	35151000015035

#### Further options:

- Voltage 110V-1Ph-50Hz or 380V-3Ph-50Hz
- Protective frame
- Trolley
- Electric motor 60 Hz



\*Version shown with electromagnetic valve

### Electrohydraulic Pumps Type HEP - Heavy Duty Use

- Working pressure up to 700 bar
- Two stage
- Standard version with hold function
- Motor 240V-1Ph-50Hz
- With solenoid valve on request



HEP 517464

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate 1st stage l/min	Flow rate 2nd stage l/min	Weight in kg	Item no.
HEP517142	P-T plate	hand	40	17.0	2.0	88.5	35151000015036
HEP517162	P-T plate	hand	60	17.0	2.0	120.0	35151000015037
HEP517242	2-way	hand	40	17.0	2.0	89.0	35151000015038
HEP517262	2-way	hand	60	17.0	2.0	120.5	35151000015039
HEP517342	3-way	hand	40	17.0	2.0	89.0	35151000015040
HEP517362	3-way	hand	60	17.0	2.0	120.5	35151000015041
HEP517442	4-way	hand	40	17.0	2.0	89.0	35151000015042
HEP517462	4-way	hand	60	17.0	2.0	120.5	35151000015043

#### Further options:

- Voltage 110V-1Ph-50Hz or 380V-3Ph-50Hz
- Protective frame
- Trolley
- Electric motor 60 Hz



### Electrically Driven Multi-Flow Pumps Type HSP

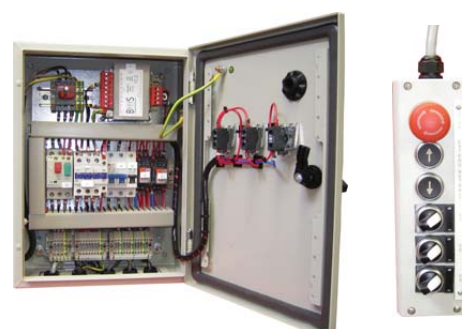
- Working pressure up to 700 bar
- Usable oil capacity up to 240 litres
- Flow rate up to 1.8 l/min, per valve
- Identical flow rate irrespective of the operating pressure
- Valve structure up to max. 12 valves
- Remote control with valve switching system, for individual or synchronous activation of the electric valves
- Externally controllable pressure valve for setting the maximum system pressure on each control valve
- Special versions on request



HSP 44E104

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate per exit l/min	Motor voltage V	Weight in kg	Item no.
HSP23E54	2 x 3-way	solenoid 24V	50	0.9	380/440V-3Ph	180	35151000035010
HSP24E54	2 x 4-way	solenoid 24V	50	0.9	380/440V-3Ph	180	35151000015061
HSP33E104	3 x 3-way	solenoid 24V	100	1.8	380/440V-3Ph	335	35151000035002
HSP34E104	3 x 4-way	solenoid 24V	100	1.8	380/440V-3Ph	335	35151000015063
HSP43E104	4 x 3-way	solenoid 24V	100	1.1	380/440V-3Ph	274	35151000035004
HSP44E104	4 x 4-way	solenoid 24V	100	1.1	380/440V-3Ph	274	35151000015064
HSP63E104	6 x 3-way	solenoid 24V	100	0.9	380/440V-3Ph	335	35151000035008
HSP64E104	6 x 4-way	solenoid 24V	100	0.9	380/440V-3Ph	335	35151000015065
HSP83E104	8 x 3-way	solenoid 24V	150	0.7	380/440V-3Ph	370	35151000035009
HSP84E104	8 x 4-way	solenoid 24V	150	0.7	380/440V-3Ph	370	35151000015066

Type	Length in mm	Width in mm	Container height in mm	Overall height in mm
HSP2*E54	500	570	460	817
HSP3*E104	920	570	460	920
HSP4*E104	920	570	460	920
HSP6*E104	750	800	470	920
HSP8*E104	1010	800	470	1085



**Versions with manual valves available on request**

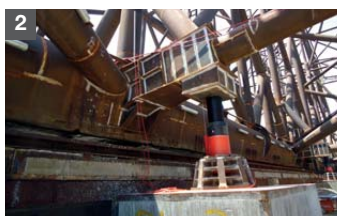
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### PLC-Controlled Synchronous Lifting Systems

Fully-automated PLC-controlled synchronous lifting systems are optionally available with a number of settings that can be customised by the user, such as the target lifting height, maximum tolerance between the lifting points and other important settings, which are all controlled using a central touch screen.

- Synchronous lifting of irregularly distributed loads
- Automatic stopping if a lifting height is preset
- Suitable for use with single or dual-action cylinders



- 1 Oil rig foundations, dim. 151 x 80 metres, total weight: 10,455 tons
- 2 Cylinder positioned under foundation, ready to lift the huge load
- 3 Load lifted. Daylight is clearly visible between the foundation and the base
- 4 16 cylinders and 4 pumps are simultaneously operated via a touchscreen and controlled using a PLC
- 5 One of 16 single-action cylinders with adjusting nuts, capacity 1,012 tons, lifting height 915 mm

### Hydraulic Hoses Type HC, 700 bar with one Male Coupler, 1 x 3/8" NPT-AG

Type	Length in m	Item no.
HC 0.5	0.5	35161000015036
HC 1	1	35161000015037
HC 2	2	35161000015038
HC 3	3	35161000015039
HC 4	4	35161000015040
HC 5	5	35161000015041
HC 6	6	35161000015042
HC 10	10	35161000015043
HC 12	12	35161000015044

Oil volume of hose per metre: 31.65 cm<sup>3</sup>

HC2



### Hydraulic Hoses Type HH, 700 bar without Couplers, 2 x 3/8" NPT-AG

Type	Length in m	Item no.
HH 0.5	0.5	35161000015010
HH 1	1	35161000015011
HH 2	2	35161000015012
HH 3	3	35161000015013
HH 4	4	35161000015014
HH 5	5	35161000015015
HH 6	6	35161000015016
HH 10	10	35161000015017
HH 12	12	35161000015018

Oil volume of hose per metre: 31.65 cm<sup>3</sup>

HH2



### Manifolds Type HM

Type	Description	Connections	Weight in kg	Item no.
HM2	manifold	3x 3/8" NPT IG	1.0	35162000015001
HM4	manifold	5x 3/8" NPT IG	1.5	35162000015002
HM2C	controlled manifold	3x 3/8" NPT IG	2.0	35162000015008
HM4C	controlled manifold	5x 3/8" NPT IG	3.5	35162000015009
HM2C-SU	2-way controlled manifold with pressure gauge	3 x CF1 female coupler	2.0	35162000015010
HM4C-SU	4-way controlled manifold with pressure gauge	5 x CF1 female coupler	3.5	35162000015012

Other versions available.



### Couplings Type CF and CM

Type	Description	Connection	Item no.
CF1	Female coupler	3/8" NPT AG	35163000015023
CM1	Male coupler	3/8" NPT IG	35163000015024
CMF1	Coupler set, CF1 and CM1	-	35163000015025
PPC1	Plastic dust cap CF1 and CM1	-	35163000015033



PPC1



CF1



CM1



### Fittings Type HF

Type	Description	Connections	Item no.
HF12	Equal tee	3/8" NPT IG	35163000015007
HF14	Adaptor	3/8" NPT IG x 3/8 NPT IG	35163000015011
HF16	Elbow	3/8" NPT IG x 3/8 NPT AG	35163000015013
HF17	Nipple (length 39 mm)	3/8" NPT AG x 3/8 NPT AG	35163000015014
HF19	Nipple (length 51 mm)	3/8" NPT AG x 3/8 NPT AG	35163000015015
HF27	Adapter	1/4" NPT AG x 3/8 NPT AG	35163000015017
HF55	Adapter	3/8" NPT IG x 1/4 NPT AG	35163000015021

Other fittings available on request.



### Lightweight aluminium jacks Type JAH

- Lightweight aluminium construction
- Available as plain ram jack, claw jack or "failsafe" locking ring design
- Can be used vertically or horizontally
- Internal safety valve against overload



JAH630



JAH1230SR



JAH1230C



JAH630C

Type	Capacity in t		Stroke in mm	Height in mm	Weight in kg	Item no.
	Piston	Claw				
JAH 620	20	-	152	263	10.9	15341000015122
JAH 620 C	20	8	152	280	14.5	15341000015123
JAH 620 SR	20	-	152	289	12.5	15341000015124
JAH 1220	20	-	305	438	16.7	15341000015131
JAH 1220 C	20	8	305	456	22.2	15341000015132
JAH 1220 SR	20	-	305	464	18.0	15341000015133
JAH 630	30	-	152	263	15.4	15341000015125
JAH 630 C	30	12	152	281	20.3	15341000015126
JAH 630 SR	30	-	152	292	16.5	15341000015127
JAH 1230	30	-	305	451	23.4	15341000015134
JAH 1230 C	30	12	305	472	31.0	15341000015135
JAH 1230 SR	30	-	305	479	24.5	15341000015136
JAH 660	60	-	152	293	27.4	15341000015128
JAH 660 C	60	24	152	327	43.1	15341000015129
JAH 660 SR	60	-	152	330	30.0	15341000015130
JAH 1260	60	-	305	500	43.7	15341000015137
JAH 1260 C	60	24	305	540	64.9	15341000015138
JAH 1260 SR	60	-	305	536	44.0	15341000015139

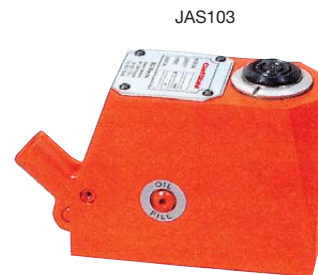


### Light metal lifting devices Type JAS

- Lightweight construction
- Operates in any position
- Spring assisted return
- Integral stop ring
- Internal safety valve against overload



Type	Capacity in t	Stroke in mm	Overall height in mm	Weight in kg	Item no.
JAS 103	10	75	131	4.35	15341000015140
JAS 105	10	125	181	5.70	15341000015141



### Compact Jack Type JCS

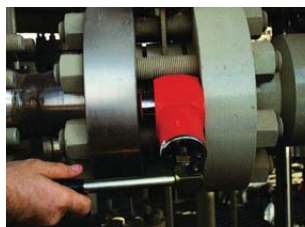
- Operates in any position
- Pump handle rotates through 360°
- Spring assisted return
- Capacities from 10 to 30 ton

Type	Material	Capacity in t	Stroke in mm	Overall height in mm	Weight in kg	Item no.
JCS 10	Steel	10	35	76	4.5	15341000015144
JCS 20	Aluminium	20	41	102	5.5	15341000015145
JCS 30	Aluminium	30	45	112	8.0	15341000015146

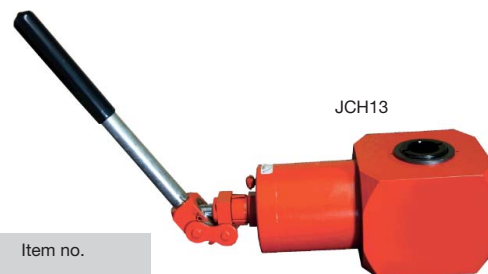


### Hollow Piston Compact Jack Type JCH

- Operates in any position
- Pump handle rotates through 360°
- Spring assisted return
- Capacities from 13 to 21 t
- Suitable for push and pull work
- Through-hole JCH13: 25 mm
- Through-hole JCH21: 30 mm



Type	Material	Capacity in t	Stroke in mm	Overall height in mm	Weight in kg	Item no.
JCH 13	Aluminium	13	41	95	5.5	15341000015142
JCH 21	Aluminium	21	45	114	8.0	15341000015143



### Steel Bottle Jacks Type JSS

- Suitable for industrial and automotive use
- Capacities 16 t and over with carrying handle
- Capacities up to 16 t with screw extension to span the gap



Type	Capacity in t	Stroke in mm	Screw extension in mm	Height in mm	Weight in kg	Item no.
JSS 35	3	135	70	195	3.0	15341000015147
JSS 55	5	135	90	200	4.0	15341000015148
JSS 106	10	174	90	243	7.0	15341000015149
JSS 166	16	178	95	255	10.0	15341000015150
JSS 207	20	190	-	280	15.0	15341000015151
JSS 327	32	190	-	285	22.0	15341000015152
JSS 507	50	195	-	300	32.0	15341000015153
JSS 1007	100	195	-	340	69.0	15341000015154



**Hydraulic Torque Wrenches Type TWS-N with Square Drive**

- Working pressure up to 700 bar
- Easy handling, compact and lightweight aluminium construction
- Accuracy +/- 3 %
- Multi position reaction foot with safety lock feature
- Reversible square drive
- Fitted with 360° Uni-Swivel quick release coupler



Type	Suitable pump	Torque capacity in Nm	Square drive size	Minimum radius in mm	Weight in kg	Item no.
TWS 17N	HTWP214**	1.727	3/4"	25	1.9	35101000015006
TWS 45N	HTWP214**	4.529	1"	34	4.8	35101000015007
TWS 100N	HTWP214**	10.064	1 1/2"	46	9.0	35101000015008
TWS 150N	TPE / TPA	14.974	1 1/2"	54	15.0	35101000015009
TWS 370N	TPE / TPA	36.992	2 1/2"	66	32.5	35101000015010

**Socket types MS and IS for torque wrench Type TWS-N**

- For driving squares from 3/4" to 2.1/2"
- For wrench widths of up to 145 mm or 6.7/8"
- Complete with locking ring and pin.

**Metric versions**

Type	Square drive size	Wrench width in mm	
		from	to
MS2-xx	3/4"	24	60
MS9-xx	1"	24	100
MS5-xx	1.1/2"	36	130
MS6-xx	2.1/2"	80	145

**Imperial versions**

Type	Square drive size	Wrench width in mm	
		from	to
IS2-xx	3/4"	1.1/16"	2.3/8"
IS9-xx	1"	1.1/16"	3.7/8"
IS5-xx	1.1/2"	1.13/16"	5.3/8"
IS6-xx	2.1/2"	3.1/8"	6.7/8"



### Hydraulic Torque Wrench Type TWH-N with Internal Hexagon Nut

- Working pressure up to 700 bar
- Easy handling, very low overall height and low clearance design
- Accuracy +/- 3 %
- Interchangeable cassettes (ratchet heads) with minimum radius
- Fitted with 360° Uni-Swivel quick release coupler



TWH120N

**Important:** To order a complete hydraulic torque wrench of the TWH-N series both components must be indicated with your order. Example: A TWH-N54N with 60 mm ratchet head consists of the item numbers TWH54N + TWH54NRH-60.

Type	at SW	Nm	at SW	Nm	Suitable pump	Weight* in kg/pce	Item no. Hydraulic unit
TWH27N	24-46	2.625	50-60	3.068	HTWP214**	3.0	35101000015001
TWH54N	36-65	5.372	70-80	6.037	HTWP214**	6.0	35101000015002
TWH120N	50-80	11.737	85-100	14.349	HTWP214**	11.5	35101000015003
TWH210N	70-100	21.216	105-115	23.124	TPE / TPA	16.0	35101000015004
TWH430N	80-115	43.792	130-175	48.181	TPE / TPA	28.0	35101000015005

\* Approximate weight including ratchet head

### Torque Wrench Exchangeable Cassettes Type TWH-NRH suitable for TWH-N

- Available in metric and imperial sizes
- Simple bolt connection with drive unit
- Strong steel construction
- Non standard and special design ratchet heads can be made to order



TWH120NRH-65

Type	Hexagon nut size				min. radius in mm
	min. mm	max. mm	min. inches	max. inches	
TWH27NRH-**	24	60	1.1/16"	2.3/8"	9.5-12.1
TWH54NRH-**	36	80	1.7/16"	3.1/8"	10.7-14.6
TWH120NRH-**	50	100	2.3/16"	3.7/8"	14.7-18.7
TWH210NRH-**	70	115	2.3/4"	4.5/8"	18.1-20.7
TWH430NRH-**	80	175	3.1/8"	6.7/8"	25.0-31.3

\*\* Please indicate internal hexagon nut size either in mm (metric) or in inches (imperial)

**! Please see our comprehensive hydraulics catalogue!**





## Hexagon Reducer Bushes Type MB

- The economical solution when different sizes are required
- To reduce the female hexagon size of the ratchet heads
- Attention: Hexagon reducer bushes increase the radius size of the ratchet heads



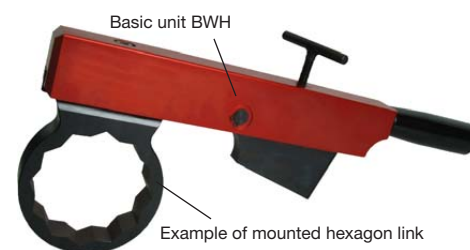
MB54-70-55

Outside AF size	Inside AF size	for TWH27NRH	for TWH54NRH	for TWH120NRH	for TWH210NRH	for TWH430NRH
30	24	MB27-30-24	-	-	-	-
32	24, 27	MB27-32-**	-	-	-	-
36	30	MB27-36-30	MB54-36-30	-	-	-
41	36	MB27-41-36	MB54-41-36	-	-	-
46	41, 36	MB27-46-**	MB54-46-**	-	-	-
50	41, 46	MB27-50-**	MB54-50-**	-	-	-
55	41, 46, 50	MB27-55-**	MB54-55-**	-	-	-
55	50	MB27-55-50	MB54-55-50	MB120-55-50	-	-
60	46	MB27-60-46	MB54-60-46	-	-	-
60	50, 55	MB27-60-**	MB54-60-**	MB120-60-**	-	-
65	50, 55, 60	-	MB54-65-**	MB120-65-**	-	-
70	55, 60, 65	-	MB54-70-**	MB120-70-**	-	-
75	60, 65	-	MB54-75-**	MB120-75-**	-	-
75	70	-	MB54-75-70	MB120-75-70	MB210-75-70	-
80	65	-	MB54-80-65	MB120-80-65	-	-
80	75, 70	-	MB54-80-**	MB120-80-**	MB210-80-**	-
85	75, 70	-	-	MB120-85-**	MB210-85-**	-
85	80	-	-	MB120-85-80	MB210-85-80	MB430-85-80
90	85, 80, 75	-	-	MB120-90-**	MB210-90-**	MB430-90-**
95	90, 85, 80	-	-	MB120-95**	MB210-95-**	MB430-95-**
100	95, 90, 85	-	-	MB120-100-**	MB210-100-**	MB430-100-**
105	100, 95, 90	-	-	-	MB210-105-**	MB430-105-**
110	105, 100, 95	-	-	-	MB210-110-**	MB430-110-**
115	110, 105, 100	-	-	-	MB210-115-**	MB430-115-**
130	115, 110, 105	-	-	-	-	MB430-130-**
145	130, 115, 110	-	-	-	-	MB430-145-**

\*\* Choose suitable inner hexagonal size

## Backup Wrench Type BW

- Suitable for use with TWS-N and TWH-N torque wrenches
- One basic unit for all applications
- Positive release mechanism



Type	Hexagon AF size				Item no.
	min. mm	max. mm	min. inches	max. inches	
BWH Basic unit	-	-	-	-	35201500015007
BWI-SET Imperial	-	-	1.7/16"	3.7/8"	35201500015008
			Basic unit with 12 pcs link set - imperial		
BWM-SET Metric	36	100	-	-	35201500015009
			Basic unit with 14 pcs link set - metric		

On request basic units and hexagonal links are also available separately.

### Hydraulic Torque Type HTWP Wrench Pumps

Type	Motor voltage	Version automatic control	Displacement 1st stage	Displacement 2nd stage	Displacement 3rd stage	Dimensions L x W x H in mm	Weight in kg	Item no.
Version with air engine 7 Bar (air)								
HTWP2140P	Standard	-	6.1 l/min	0.51 l/min	-	468x205x445	28	35151500015001
TPA07A	Premium	-	7.0 l/min	1.0 l/min	0.8 l/min	456x286x476	30	35151500035003
Version with electric engine 230V-1Ph-50Hz								
HTWP2142AR	Standard	Semi-automatic	3.9 l/min	0.36 l/min	-	468x205x445	34	35151500015002
TPE25A	Premium	Fully automatic	6.5 l/min	1.5 l/min	0.75 l/min	456x286x476	39	35151500035004



HTWP2142AR

### Split Block Type HTWM with Couplers

- 4-way split block, including quick connect couplers and hydraulic hoses
- Suitable for use of up to 4 hydraulic wrenches from one pump

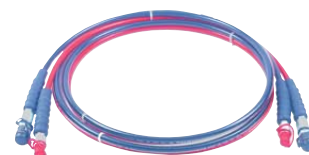
Type	Item no.
HTWM 4	35162000015014



HTWM4

### Hydraulic Hoses Type HTWH for Torque Wrenches

Type	Length in m	Item no.
HTWH 4	4	35161000015005
HTWH 5	5	35161000015006
HTWH 6	6	35161000015007
HTWH 8	8	35161000015008
HTWH 10	10	35161000015009



HTWH4

### Drip-free Couplers for Torque Wrenches Type CF and CM

Type	Thread size in inches	Description	Item no.
CF 4F	1/4" NPT IG	Female half coupler	35163000015008
CM 4F	1/4" NPT IG	Male half coupler	35163000015010



CF4F



CM4F

### Hydraulic Spreader Type JS

- Made from high-strength steel
- For spreading and wedging
- Working pressure up to 700 bar
- Single acting with spring assisted return



JS4

Type	Capacity in t	Oil capacity in cm³	Initial height in mm	max. spread in mm	Length in mm	Weight in kg/pce	Item no.
JS4	0.9	10.0	12	69	230	2.2	35103500015001

### Stepped Jaw Spreaders Type SJS

- Spring assisted return
- Spreading fully supported by wedge
- 5 Operation heights
- Supplied with safety block & stepped blocks



SJS10

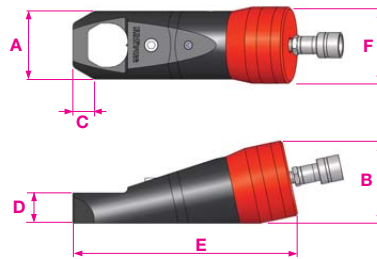


SJS10M

Type	Capacity in t	Oil capacity in cm³	Initial height in mm	max. spread in mm	Length in mm	Weight in kg/pce	Item no.
SJS10	13	74	8	60	279	5.5	35103500015002
SJS10M	13	74	8	60	433	7.5	35103500015003

### Nut Splitter Type NS with oil connection

- Suitable for nuts up to HRC 44 hardness and sizes up to 75 mm hexagonal
- Working pressure up to 700 bar
- Oil connection with swivel adapter
- Angled body design
- Spring assisted return
- Compact and easy to use
- Models with integrated pump are available on request



NS 104

Type	Hexagon AF Sizes in mm	Thread sizes	Dimensions in mm						Weight in kg/pce	Item no.
			A	B	C	D	E	F		
NS 104	17-32	M10-M22	64	77	12.5	30	210	67	4.0	35101500015004
NS 110	32-41	M22-M27	78	96	20	37	268	88	7.4	35101500015005
NS 200	41-50	M27-M33	96	116	21	43	315	108	10.6	35101500015006
NS 206	50-60	M33-M39	115	138	24	52	336	126	15.8	35101500015007
NS 215	60-75	M39-M48	156	175	27	75	426	162	39.3	35101500015008

### Nut Splitter Type HMNS with Integrated Manual Pump

- For splitting nuts with a wrench width of 17 - 50 mm
- Suitable for mobile use thanks to integrated manual pump



HMNS110

Type	Hexagon AF Sizes in mm	Thread sizes	Dimensions in mm					Weight in kg/pce	Item no.
			A	B	C	D	E		
HMNS 104	17-32	M10-M22	64	88	12.5	30	380	5.8	35101500015001
HMNS 110	32-41	M22-M27	78	101	20	37	440	7.9	35101500015002
HMNS 200	41-50	M27-M33	94	112	21	43	471	13.6	35101500015003

### Other hydraulic Products from our Range

#### Hydrotest Pumps

- Manually operated pumps up to 1,000 bar pressure
- Air-driven pumps up to 3,000 bar pressure
- Suitable for use with various fluids, including water
- Perfectly suited for pressure testing of valves, pipes and tanks
- Air-driven pumps with Ø 150 mm pressure gauge as standard
- On request air-driven pumps are also available with chart recorder



#### Cutting Tools

- Cutters for wire ropes, chains and bars
- Also available with integrated pump
- Max. cutting Ø 114 mm and up to 140 ton output
- Single or double acting
- Robust and powerful
- Chain cutters suitable for grade 100 chains



#### Punching Tools

- Single or double acting
- With integrated pump or oil connection
- Punching capacity from 7 to 50 ton
- Punch hole diameters from 10.5 to 60.5 mm
- Max. stahl plate thickness 15.0 mm
- Different versions available



#### ToughLift Jacking Systems

- The right tool for tyre change of wheel loaders or big dumpers
- Capacities from 50 to 200 ton
- Patented lifting system for safe and correct positioning
- Strokes from 254 to 530 mm are available
- Electric or air-driven pumps
- Wide range of accessories for higher flexibility





## Other hydraulic Products from our Range

### Socket removal kit

- Aluminium cylinder for removing sockets
- 18 t capacity at a maximum operating pressure of 700 bar
- Particularly suited for commercial vehicle manufacturers, service centres and garages for construction vehicles



### Hydraulic Pullers

- With integrated pump or oil connection
- Operates in any position
- Capacities up to 50 ton
- Auto-Centre versions available
- 2- and 3-way grips available
- Delivery complete with hydraulic components



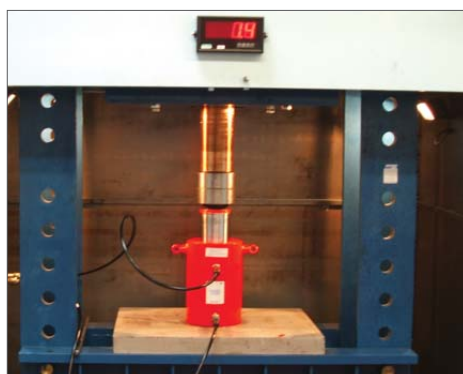
### Crimping Tools

- With integrated pump or oil connection
- Perfectly suitable for crimping eyelets on electric cables
- Delivery complete with 1 set of dies
- 6 to 18 ton output
- Dies from 10 to 630 mm²
- Also available in battery operated version



### Workshop Presses

- With manual, air or electric powered pumps
- Single or double acting
- Complete with pressure gauge with ton scale
- Available with a rope winch for the work table
- V-shape press surface available as accessory
- Capacities from 10 to 100 ton





# HEAVY DUTY TRANSPORT



Heavy Duty Lifting | Heavy Duty Transport | Industrial Trucks | Forklift Attachments







# HEAVY DUTY LIFTING

## Hydraulic Jacks

### Hydraulic Jacks JH-G plus Series

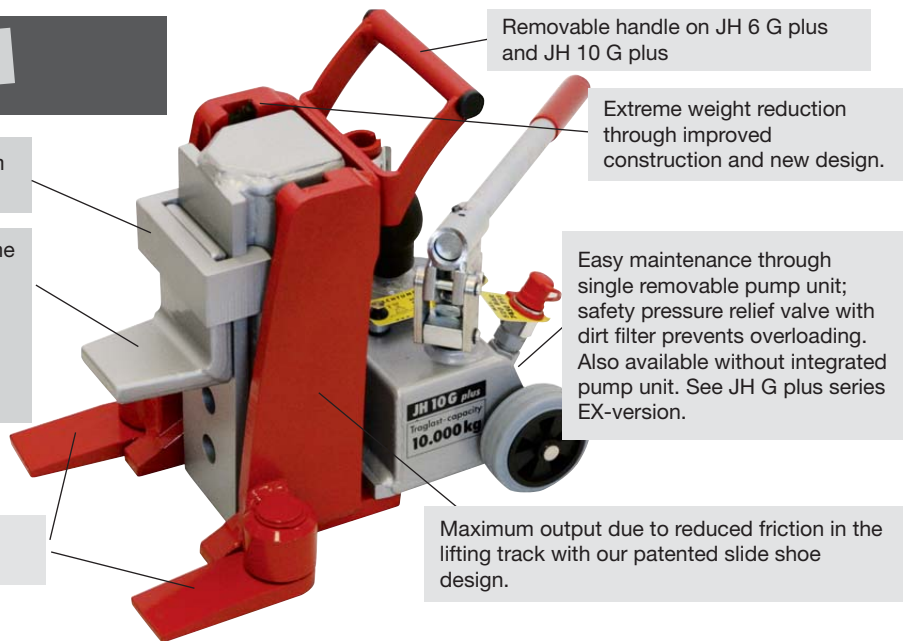
**New and  
lightweight!**

Work and lift safely with our patented lifting toe system (Pat.-No. 4413478).

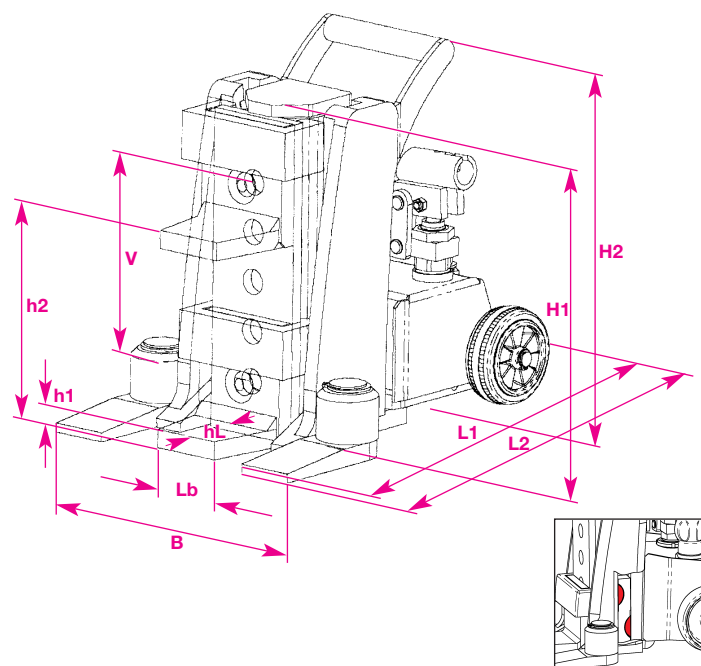
Swiveling safety toe made from forged steel for extreme robustness that prevents fractures. The advanced strength steel is impact resistant and provides optimal safety.

Swiveling lifting toe for safe and optimal adjustment to loads on varying inclines up to  $\pm 6^\circ$ .

Sturdy swiveling feet - for easy and safe positioning in every situation.



**For suitable accessories  
(pumps and hoses) see  
pages 592**



#### Advantages in detail:

- **Less friction.** Slide shoe design inside the guiding track prevents twisting of the piston inside the lifting cylinder. This guarantees better force distribution, less friction and reduced wear compared to conventional jacks (see figure left).
- **Reduced maintenance costs** due to easy to change slide shoes and removable pump unit.
- **Extremely lightweight** with high performance due to the use of high-quality material and innovative design.
- **Continuous adjustment** to the load due to swiveling safety toe. Secure stableness in every situation even in lifted position (see pictures above).
- **Fast stroke.** JH 15 / JH 20 G plus serial outfitted with fast stroke. Also available with spring return.

Item no.		15341000015001	15341000015002	15341000015006	15341000015003	15341000015004
Type		JH 6 G plus	JH 10 G plus	JH 10 G plus kurz	JH 15 G plus	JH 20 G plus
Load capacity on top plate in kg		6000	10000	10000	15000	20000
Stroke in mm		140	150	108	175	190
Minimum lifting toe height	h1 in mm	12	15	15	20	20
Maximum lifting toe height	h2 in mm	157	180	138	205	225
Lift toe adjustment	V in mm	6 x 29	5 x 41	4 x 41	5 x 46	5 x 51
Top plate height	H1 in mm	245	275	235	310	340
Toe width front	Lb in mm	50	60	60	80	80
Toe depth	nL in mm	50	55	55	66	66
Length feet in front	L2 in mm	326	346	346	415	425
Length feet on side	L1 in mm	311	330	330	401	405
Width	B in mm	233	247	247	300	322
Overall height	H2 in mm	280	310	235	310	340
Cylinder volume in l		0.18	0.3	0.21	0.5	0.73



### Hydraulic Jacks JH-G plus Ex Series without integrated Pump

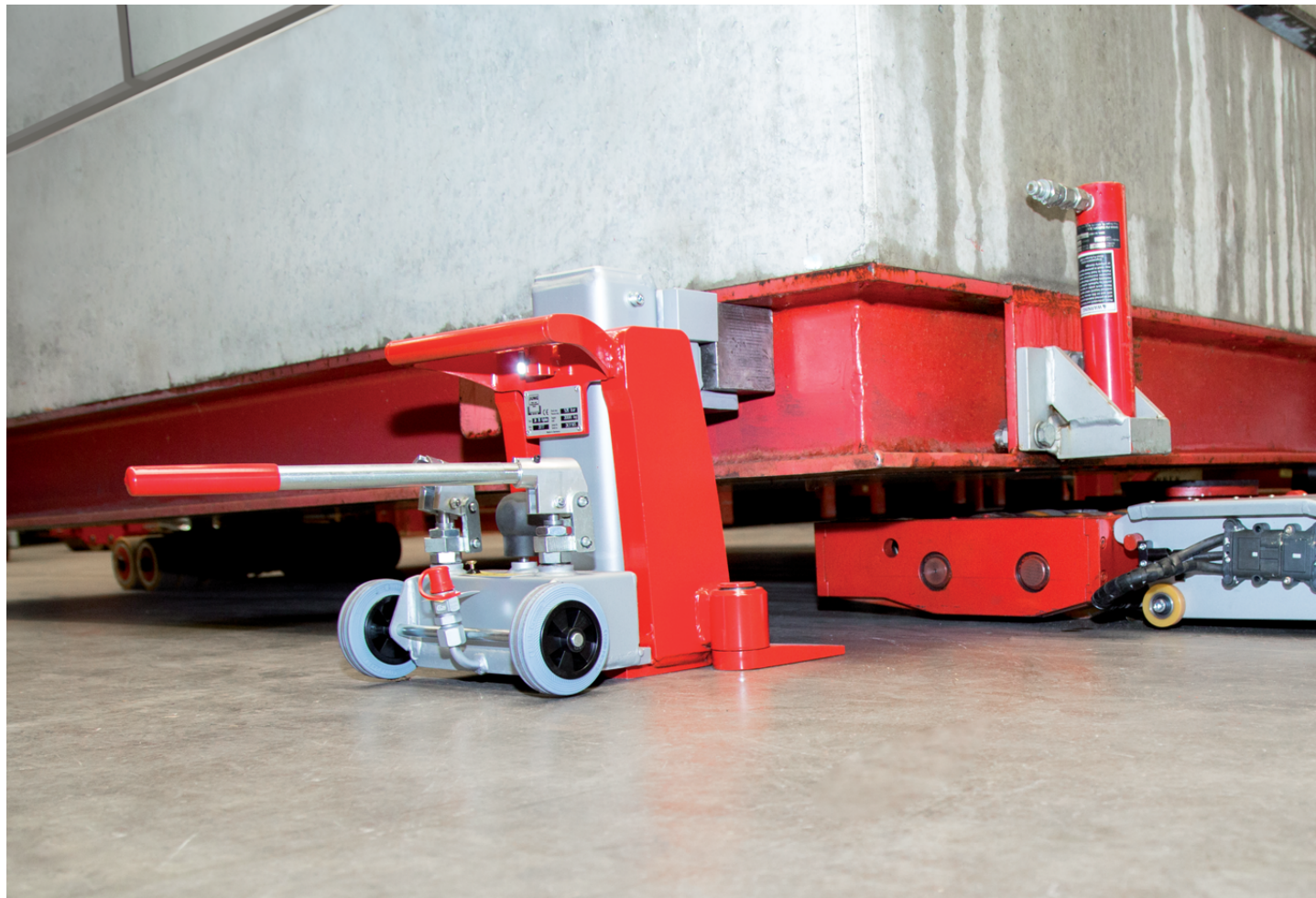
**For technical details please refer to the hydraulic jack JH-G plus**

- JH 15G to JH 30G plus Ex are equipped with spring return, therefore no force effort to reset in lowest position.
- External pumps are necessary to operate the JH-G plus Ex series (see below).

These jacks are usually combined with manually or electrically operated hydraulic pumps. This configuration offers an ideal solution for heavy duty lifting in confined spaces or other tricky situations.



Item no.		15341000015010	15341000015007	15341000015008	15341000015005
Type		JH10G plus Ex	JH15G plus Ex	JH20G plus Ex	JH30G plus Ex
Load capacity on top plate in kg		10000	15000	20000	30000
Stroke in mm		150	175	190	200
Minimum lift toe height	h1 in mm	15	20	20	20
Maximum lift toe height	h2 in mm	180	205	225	305
Lift toe adjustment	V in mm	5 x 41	5 x 46	5 x 51	5 x 71
Top plate height	H1 in mm	275	310	340	420
Toe width front	Lb in mm	60	80	80	80
Toe depth	nL in mm	55	66	66	66
Length feet in front	L2 in mm	270	340	360	380
Length feet on side	L1 in mm	210	230	230	270
Width	B in mm	247	300	322	375
Overall height	H2 in mm	310	310	340	420
Cylinder volume in l		0.3	0.5	0.73	1.27
Weight approx. in kg		24	41	52	92



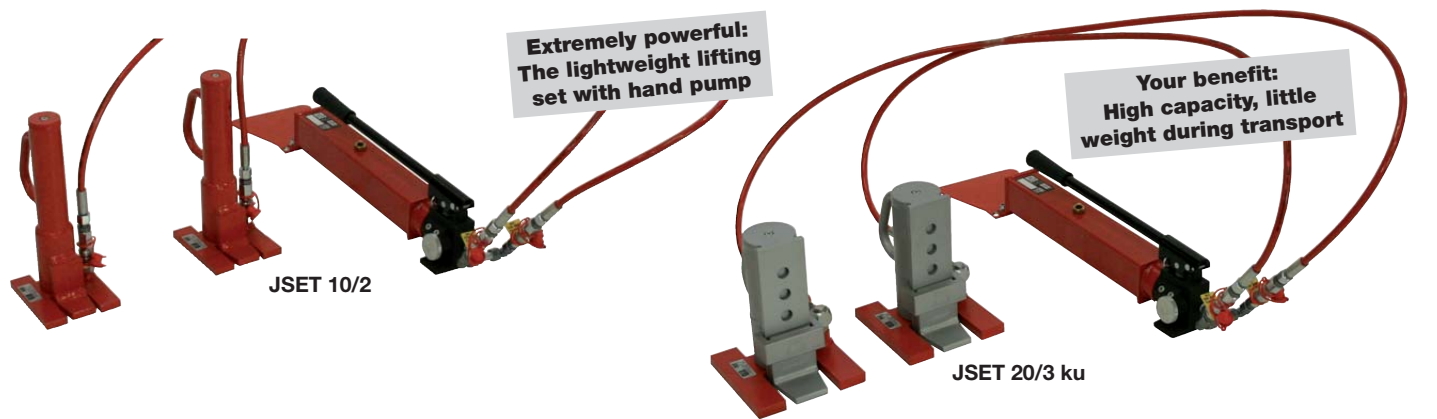
HEAVY DUTY LIFTING

Hydraulic Jack Sets

Hydraulic Jack Set Type JSET  
Capacity up to 20 ton

Directions for use:  
2 lifting jacks are connected to a pump by hydraulic hoses with non-drip quick couplers. The 2 lifting jacks are controlled by the external pump. Thus it is made sure that the jacks are not unintentionally overloaded during lowering.

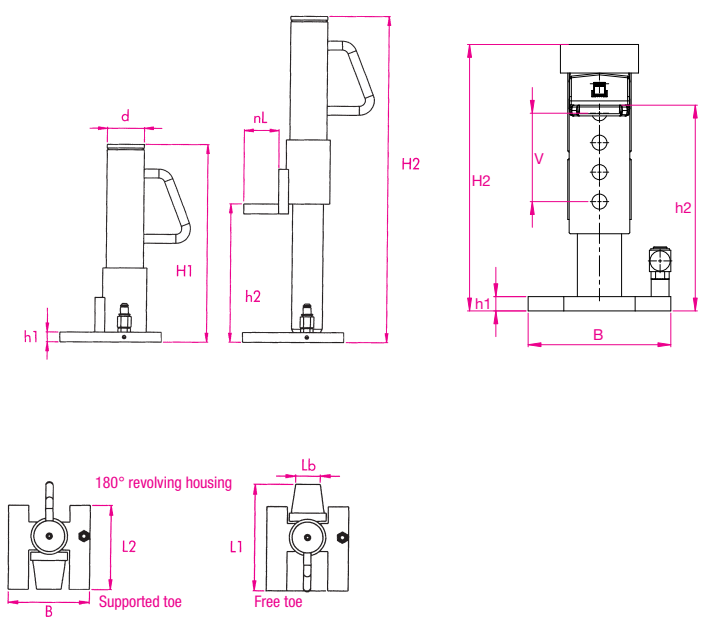
- Lifting claw rotates through 180° to lift with or without supporting feet
- High capacity at low weight
- Pump and jacks are separate units and can therefore be used flexibly in confined spaces. Horizontal operation is also possible.
- Swivelling lifting toe on JHS 10 ku assures optimal adjustment to the load, along with safe and stable support even in raised position.



Item no.	15420000015012	15420000015013	15420000015014
Lifting set	JSET 10/2	JSET 20/3	JSET 20/3 ku
Max. capacity in kg	10000	20000	20000
Lifting set consisting of:			
2 x Hydraulic jack	JHS 5	JHS 10	JHS 10 ku
2 x Hydraulic hose	JS 2	JS 3	JS 3
1 x Hand pump	JP 26	JP 26	JP 26

Technical data for hydraulic jacks JHS 5 and JHS 10

Type	JHS 5	JHS 10	JHS 10 ku
Capacity on top plate in kg	5000	10000	10000
Minimum lift toe height h1 in mm	15	20	20
Maximum lift toe height h2 in mm	240	240	288
Top plate height H1 in mm	350	370	265
Overall height H2 in mm	590	610	373
Toe width front Lb in mm	45	60	60
Usable toe depth nL in mm	40	55	55
Lift toe adjustment V in mm	-	-	5 x 41
Ø d top plate in mm	60	80	95
Length L2 toe supported in mm	170	205	205
Length L1 toe exposed in mm	220	260	260
Width B in mm	145	200	200
Cylinder volume in l	0.3	0.47	0.21
Weight in kg	10	19	19



For suitable accessories  
(pumps and hoses) see  
pages 592

### Hydraulic Lifting Set Type JSET

#### Advantages of the hydraulic lifting set JSET:

- Complete lifting set including all hoses, pumps, lifting jacks and the retraction/transport truck JRS 1
- Effortless transport and retraction of the cylinder with the included retraction/transport truck JRS 1
- Jacks and pump as separate units for high flexibility

Item no.	15420000015015
Lifting set	JSET 50/3
Lifting device	1 x JH 50 P
Hose	2 x JS 3
Pump	1 x JPE 55 NVR
Retraction/transport truck	1 x JRS 1



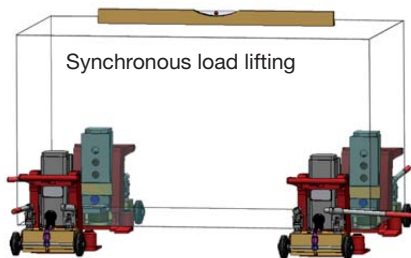
JSET 50/3

### Pressure Blocks Type JD

Safety provided by synchronous pressure block

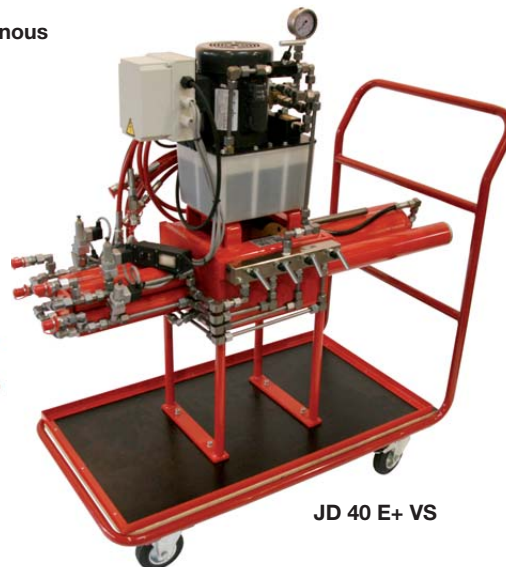
#### Benefits when working with the synchronous pressure block:

- Safe working without a risk of tipping
- Time savings
- One-man operation



#### Caution! Risk of tipping without synchronous pressure block

In the case of heavy loads with a small footprint in particular, 'lifting on demand' using four independent hydraulic lifting device can easily lead to the load tipping over. The risk when setting down the load is even greater, as this often occurs more quickly than lifting it and the realisation that a load is tipping often comes too late.



JD 40 E+ VS



JD 40 E+ VS  
4x JHS 10

Item no.	35151000015005	35151000015007	35151000015009
Type	JD 40+	JD 40 E+ VS	JD 80 E+ VS
Fully assembled on trolley with electr. pump	no	yes	yes
Spring return	no	yes	yes
Length in mm	1200 / 47.2"	1200 / 47.2"	1200 / 47.2"
Width in mm	650 / 25.6"	650 / 25.6"	650 / 25.6"
Height in mm	1300 / 51.2"	1300 / 51.2"	1300 / 51.2"
Electric pump working pressure in bar	520	520	520

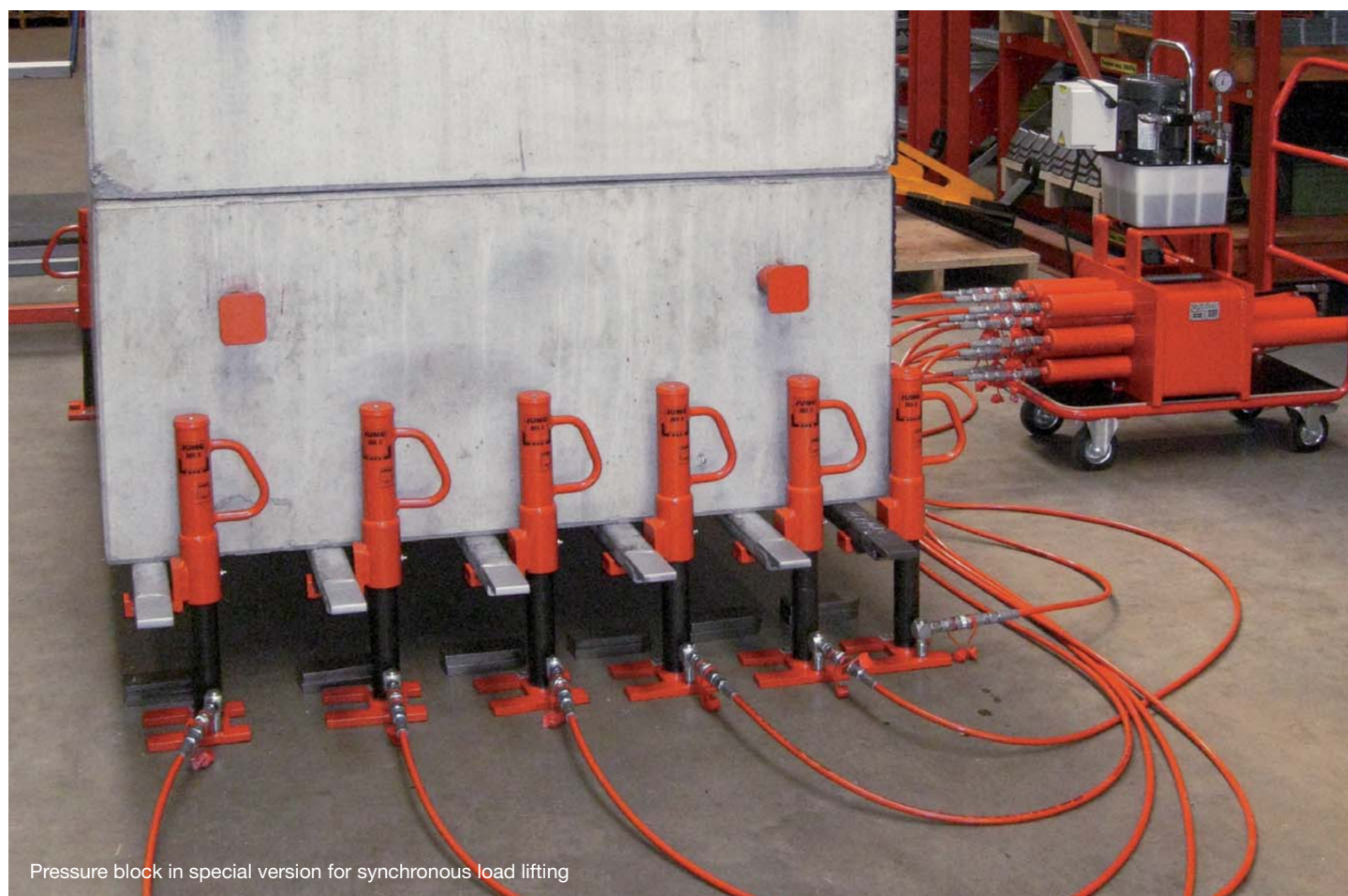


# HEAVY DUTY LIFTING

## Pressure Blocks



Pressure block JD 80+



Pressure block in special version for synchronous load lifting

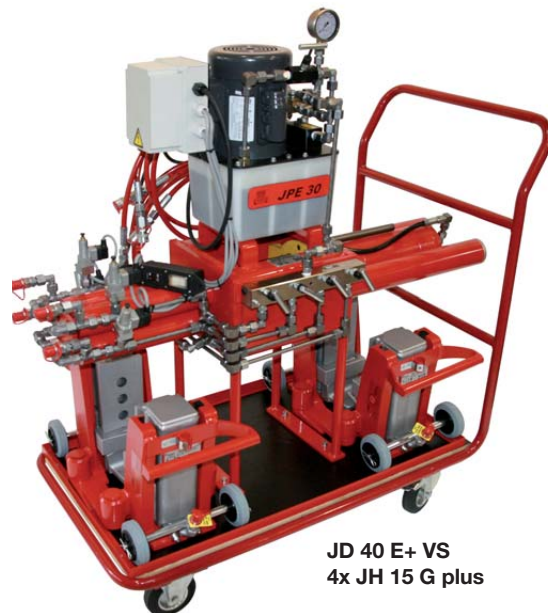


### Pressure Block Type JD 40 E+ VS

With a push back system

#### Benefits when working with the synchronous pressure block:

- Synchronized lifting of multiple jacks. For loads with decentralized center of gravity. Simple and safe.
- Uncomplicated operation via push button (remote control).
- All slave-cylinders equipped with 520 bar safety pressure switches. Controls monitor pressure switches with LED indicator preventing any possible overloading.
- Retracting of the hydraulic jacks also without load (JH 15 - 20 G plus EX).
- Load independent, maintains constant lifting speed.
- Controllable lowering speed.
- The complete system is mobile and conveniently situated on a utility cart.
- Electrical pump JPE 30 and VS-control unit for driving individual lifting devices.
- Clear and simple control unit, switchable to control all or individual jacks. Configurable also for using three-point lifting system.
- Oil volume in the system is sufficient for up to 4 pcs. JH 10 G plus / JH 10 G plus EX / JHS 10. Larger jacks can be operated, but you need to lift twice to reach the full stroke.
- The cylinders in the pressure block are outfitted with spring return to retract the pistons automatically.



JD 40 E+ VS  
4x JH 15 G plus



Pressure block JD 40 E+ VS



JD 40 E+ VS  
4x JH 10 G plus

Suitable lifting devices for the JD 40 E+ VS	Load capacity in kg
4x JH 6 G plus (full stroke, without spring return)	24 000
4x JHS 5 (full stroke, without spring return)	20 000
4x JH 10 G plus (full stroke, without spring return)	40 000
4x JHS 10 / JH 10 G plus ku (full stroke, without spring return)	40 000
4x JH 15 G plus (lift twice to reach full stroke, without spring return)	60 000
4x JH 15 G plus EX (lift twice to reach full stroke, with spring return)	60 000
4x JH 20 G plus (lift twice to reach full stroke, without spring return)	80 000
4x JH 20 G plus EX (lift twice to reach full stroke, with spring return)	80 000

# HEAVY DUTY LIFTING

## Pumps, Accessories

### Air and electrical Pumps Types JPL and JPE

- These electric pumps are very easy to operate.
- They offer the best possible weight/flow rate ratio.



Item no.	35151000015002	35151000015003	35151000015004
Type	JPL 15	JPE 30 NVR	JPE 55 NVR
Total/useful oil capacity in l	1.5	7.6 / 4.8	9.5 / 8.4
Working pressure in bar	0-700	520	520
Number of connections	2 drip-free hydraulic connections	2	2
Flow rate low pressure in l/min.	1.07	3.9 at 7 bar	7.1 at 50 bar
Flow rate high pressure in l/min.	0.18	0.33 at 520 bar	0.95 at 520 bar
Weight in kg	9	40	40
Dimensions L x W x H in mm	380 x 136 x 185	530 x 300 x 560	530 x 300 x 560
Hose length in mm	-	variable	variable
Motor facts	-	230 V, 50 Hz, 5 A	230 V, 50 Hz, 13 A
For use with	single acting cylinders	-	-
Compressed air connection in bar	7-14	-	-

### Hydraulic Hand Pump Type JP 26

#### Your advantages in detail:

- Sturdy construction, yet lightweight and easy to handle
- Pressure limiting valve provides safety against overloading
- Equipped with integrated quick-lift for faster working



Item no.	35151000015001
Type	JP 26
Total/useful oil capacity in l	2.1 / 2.0
Working pressure in bar	520
Number of connections	2
Dimensions L x W x H in mm	770 x 170 x 169
Weight in kg	13

\*up to 15,000 mm

#### Jacks to use with the hand pump

Jacks	JP26
JH 6 G plus	for 2 hydraulic jacks
JH 10 G plus	for 2 hydraulic jacks
JH 15 G plus	for 2 hydraulic jacks
JH 20 G plus	for 2 hydraulic jacks
JH 10 G plus ku	for 2 hydraulic jacks
JH 13 P	for 2 hydraulic jacks
JHS 5	for 2 hydraulic jacks
JHS 10	for 2 hydraulic jacks
JHS 10 G ku	for 2 hydraulic jacks

### Hydraulic Hoses Type JS

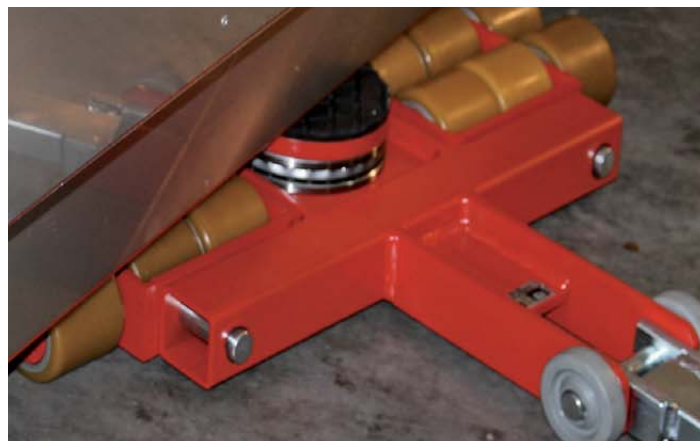
- Both ends fitted with non-drip couplers, evacuated oil-filled, ready to use
- Safety factor 4:1

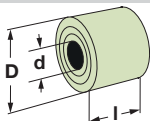




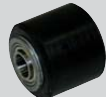
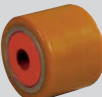





Item no.	35201500015003	35201500015004	35201500015005	35201500015006
Type	JS 2	JS 3	JS 4	JS 6
Number of drip free couplings	2	2	2	2
Dimensions (Length) in mm	2000	3000	4000	6000

Available up to 15,000 mm

## Castor finishes for the broadest range of flooring



Type	Steel	JUWAmid	JUWathan®	JUWathan®plus	JUWathan®Professional
<b>Details</b>	<p>The castor body is made of a seamless, precision steel tube.</p> <p>2 ball bearings are pressed into the castor body.</p>	<p>2 ball bearings are pressed into a highquality polyamide castor.</p>	<p>The coating is moulded around a steel core. 2 precision ball bearings are pressed into the steel core.</p>	<p>A special polyurethane coating is moulded around an aluminium core.</p> <ul style="list-style-type: none"> <li>• Due to optimised coating the rolling resistance is reduced by almost 30%</li> <li>• Almost 35% weight reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Higher load capacity compared to JUWathan® plus rollers due to partition of rollers and bearings (2x2 ball bearings)</li> <li>• Considerably reduced friction between flooring and rollers as the double rollers can rotate in opposite directions.</li> <li>• Reduced turning effort</li> <li>• More directional stability due to reduced friction also for the trailing axles</li> </ul>
<b>Usage</b>	<p>Very uneven areas and poor floor conditions with high levels of dirt</p> 	<p>Smooth, level industrial floors without dirt/chips</p>	<ul style="list-style-type: none"> <li>• Smooth, level industrial floors without dirt/chips</li> <li>• Industrial floors with dirt/chips and slight indents or areas of unevenness</li> </ul>		
<b>Trolley type and castor dimensions</b>	<b>JKB</b> D x d x l (mm) 85 x 25 x 43				
	<b>M</b> D x d x l (mm) 85 x 25 x 43				
	<b>K</b> D x d x l (mm) 85 x 25 x 85				
	<b>K Prof.</b> D x d x l (mm) 85 x 25 x 85				
	<b>G Prof.</b> D x d x l (mm) 140 x 35 x 59				
	<b>H</b> D x d x l (mm) 200 x 70 x 170 200 x 70 x 85				



# HEAVY DUTY TRANSPORT

## Revolving Transport Trolleys

### Revolving Transport Trolleys Sets JKB, Clearance 110 mm

#### Your advantages in detail:

- High load capacity at low weight
- Bearing supported swiveling rollers allow 360° maneuverability
- Same height trolleys provide interchangeability. Mix and match revolving trolleys with Series K transport trolleys
- Unrivalled: The double roller system reduces rolling and turning resistance to a minimum
- Using the slots in the platform the trolleys JKB 3-7,5 can be affixed to the load with standard tiedown belts.
- In addition, all the trolleys have a platform center hole to allow attachment to the load.
- For choosing the adequate revolving trolley we recommend a load of two-third of the maximum capacity. This will be the most advantageous compromise between load, ergonomic and handling of the equipment.

#### Options:

- Pulling handle and connecting bars available as accessories
- Alignment bar can be fixed to the carrying handle without using tools



**Optionally available  
with the following castor types:  
(for details, see page 593)**

Type	JKB 1.5/3	JKB 3/6	JKB 4/8	JKB 6/12	JKB 7.5 / 15	JKB 10 / 22
Load capacity of single trolley/set in kg	1500 / 3000	3000 / 6000	4000 / 8000	6000 / 12000	7500 / 15000	10000 / 22000
Number of castors per trolley	6	8	12	16	20	12
Castor dimensions, Ø x width in mm	85 x 43	85 x 43	85 x 43	85 x 43	85 x 43	140 x 59
Supporting surface of turntable in mm	150	250	250	250	250	250
Dimensions of trolley in mm	530 x 490	675 x 435	675 x 475	675 x 525	895 x 740	975 x 730
Weight with JUWAmid single trolley/set in kg	20/40	38/76	43/86	44/88	63.5/127	260/574
Item no. Set (consisting of 2 single trolleys)	30250000015002	30250000015003	30250000015004	30250000015005	30250000015006	30250000035041
Item no. single trolley	30101030015001	30101030015002	30101030015003	30101030015004	30101030015005	30101030035041
Item no. draw bar	30201500015001	30201500015001	30201500015001	30201500015001	30201500015001	30201500035111
Item no. alignment bar	30201500015002	30201500015002	30201500015003	30201500015003	30201500015003	-



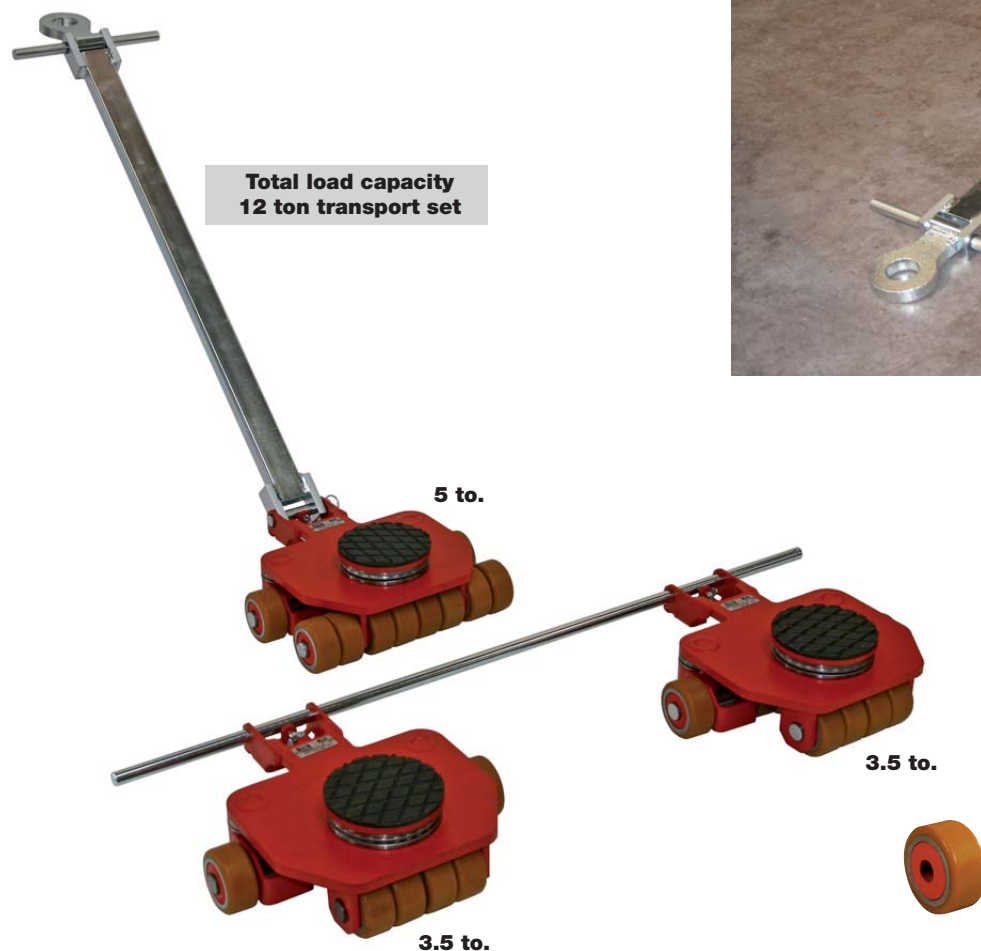
### Multi-Purpose trolleys series M

#### Your advantages in detail:

- 80% easier to steer thanks to two steering wheels
- Held on track by the rigid axis
- Suitable for steering and straight-line movements
- Steering forces from a standing position reduced by up to 80%.  
This protects the castors and the floor covering and vastly enhances the device ergonomics for the user.
- Enables the load to be pushed transversely to the direction of movement.



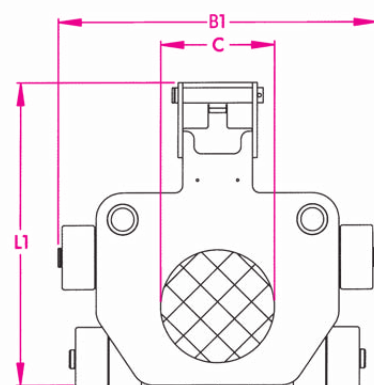
**Total load capacity  
12 ton transport set**



**5 to.**

**3.5 to.**

**3.5 to.**



**All trolleys are equipped with JUWathan® plus castors. For details see page 593.**

Item no.	30101025015001	30250000015007	30101025015002	30250000015008
Type	JLF 3.5	JLF Set 12	JLF 5	JLF Set 15
Load capacity in kg	3500	1 x 5000 + 2 x 3500	5000	3 x 5000
Number of castors	8	1 x 12 + 2 x 8	12	3 x 12
Castor dimensions in mm	85 x 43	85 x 43	85 x 43	85 x 43
Height in mm	150	150	150	150
Supporting surface per cassette Ø C in mm	150	150	150	150
Overall width B1 in mm	420	420	420	420
Trolley length L1 in mm	410	410	410	410
Weight with JUWathan plus in kg	25	95	28	102

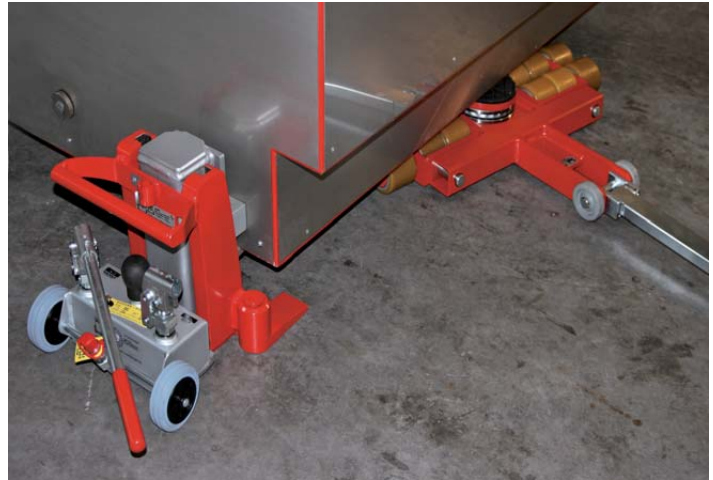
# HEAVY DUTY TRANSPORT

## Transport trolleys

### Adjustable and steerable Transport trolleys Type K, Load Capacity 6-24 ton, Overall Height 110 mm

#### Your advantages in detail:

- Galvanised axles and safety clip ring for improved corrosion resistance
- Fitted with top quality rollers as standard
- Reduced weight due to optimised cassette design
- All transport trolleys are immediately ready for use.
- The steerable trolley is equipped with a roller bearing turntable and the pictured steering handle.
- The fixed trolleys can be connected with the included alignment bar as pictured on the below.



**Total load capacity  
24 ton transport set**



**Optionally available with the following castor types:  
(for details see page 593)**



Steel



JUWAmid-Belag



JUWathan® plus

Steerable trolley JL 12 K

**12 to.**

**6 to.**

Fixed trolleys JFB 12 K  
(adjustable)

**6 to.**

Item no.	30101010015001	30101015015001	30101010015002	30101015015002	30101010015003	30101015015003	30101010015004	30101015015004
Type	JLB 3 K	JFB 3 K	JLB 6 K	JFB 6 K	JL 9 K	JFB 9 K	JL 12 K	JFB 12 K
Load capacity kg	3000	3000	6000	6000	9000	9000	12000	12000
Number of castors	4	4	8	8	12	12	16	16
Castor dimensions mm	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85
Overall height mm	110	110	110	110	110	110	110	110
Supporting surface per cassette mm		120 x 80		170 x 170		170 x 170		170 x 170
Cassette dimensions mm		190 x 115		325 x 200		325 x 390		325 x 390
Length of connecting bar mm		1000**		1230		1230		1230
Cassettes adjustable from-to mm		125-880		400-1030		400-1030		400-1030
Turntable Ø mm	150		150		170		170	
Dimensions of steerable trolleys mm	225 x 280		445 x 590		580 x 820		580 x 1000	
Length of steering handle mm	990*		1120		1120		1120	
Weight with JUWathan plus kg	12	11	33	25	54	32	64	35

\* JLB 3 K steering bar without pulling eye, \*\* JFB 3 K connecting bar without joint

### Adjustable and steerable Transport trolleys Type K Professional, Load Capacity 14-28 ton, Overall Height 110 mm

#### Your advantages in detail:

- Galvanised axles and safety clip ring for improved corrosion resistance
- Less turning effort due to divided rollers. Considerably reduced friction when negotiating curves. The drastically lower friction also provides enhanced directional stability for the trailing axles.
- Higher load capacity at identical dimensions compared to K series.
- All transport trolleys are immediately ready for use.
- The steerable trolley is equipped with a roller bearing turntable and the pictured steering handle.
- **The fixed trolleys can be connected with the included alignment bar as pictured on the below.**



**Total load capacity  
14 ton transport set**



**All trolleys are equipped with JUWathan®  
Professional castors (for details see page 593)**



**Steerable trolley JLB 7 K**

**7 to.**

**3.5 to.**

**Fixed trolleys JFB 7 K  
(adjustable)**

**3.5 to.**

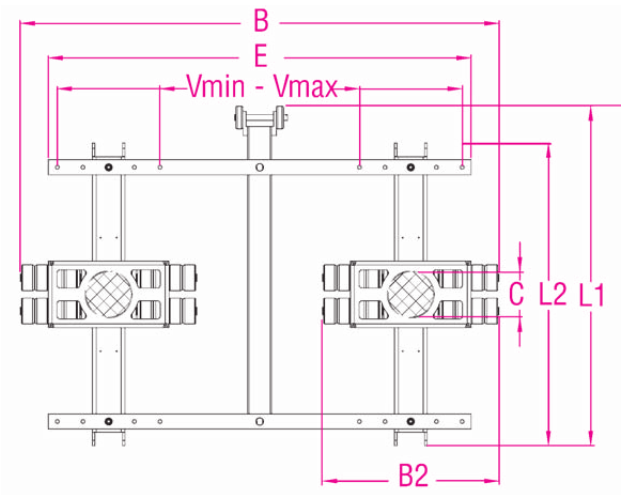
Item no.	30101010015005	30101015015005	30101010015006	30101015015006	30101010015007	30101015015007
Type	JLB 7 K	JFB 7 K	JL 10 K	JFB 10 K	JL 14 K	JFB 14 K
Load capacity kg	7000	7000	10000	10000	14000	14000
Number of castors	8	8	12	12	16	16
Castor dimensions Ø mm	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85
Overall height mm	110	110	110	110	110	110
Supporting surface per cassette mm		170 x 170		170 x 170		170 x 170
Cassette dimensions mm		325 x 200		325 x 390		325 x 390
Length of connecting bar mm		1230		1230		1230
Cassettes adjustable from-to mm		400-1030		400-1030		400-1030
Turntable Ø mm	150		170		170	
Dimensions of steerable trolleys mm	445 x 590		580 x 820		580 x 1000	
Length of handlebar with pulling eye mm	1120		1120		1120	
Weight with JUWathan Professional kg	35	27	56	34	65	39

Tandem trolleys

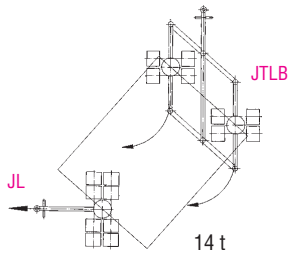
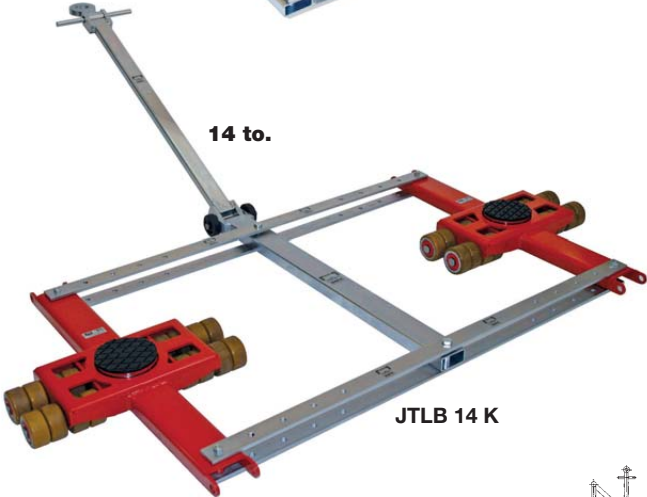
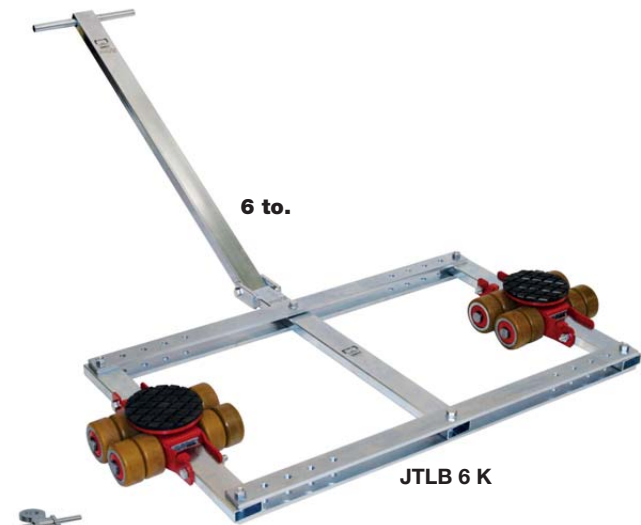
Tandem trolleys Series K Professional, Capacity up to 14 ton, Overall Height 110 mm

Your advantages in detail:

- These tandem trolleys are specially suitable for loads with no leading or trailing edge centre support.
- Galvanised axles, bolts, and safety clip ring for improved corrosion resistance
- Less turning effort due to divided rollers. Considerably reduced friction when negotiating curves. The drastically lower friction also provides enhanced directional stability for the trailing axles.
- Immediately ready for use.
- 2 steering handles and 1 each alignment bar.
- Multi-purpose use: Can also be used as single trolleys. Without any further accessories the steerable trolleys can be used as single units with half the load capacity.
- Angle lock of 45° possible
- Delivery includes 2 steerable trolleys



All trolleys are equipped with JUWathan® Professional castors. For details see page 593.



Example: Negotiating a curve under restricted space conditions

Item no.	30101020015001	30101020015002
Type	JTLB 6 K Professional	JTLB 14 K Professional
Load capacity kg	6000	14000
Number of castors	8	16
Castor dimensions mm	85 x 85	85 x 85
Overall height mm	110	110
Cassette dimensions L2 x B2 mm	600 x 280	1000 x 590
Supporting surface per cassette Ø C mm	150	150
Width of connecting bar E mm	1000	1400
Adjustable from-to Vmin - Vmax mm	560 - 960*	660 - 1340*
Adjustable	5 x	5 x
Overall length L1 x overall width B1 mm	760 x 1240	1070 x 1580
Length of handlebar with pulling eye mm	990**	1120
Weight with JUWathan Professional castors kg	46	104

\*other lengths available on request    \*\*without pulling eye



**Weld-on Cone for Container Transport up to 28 ton, Overall Height 180 mm**  
**Twistlock for Container Transport up to 60 ton, Overall Height 330 mm**

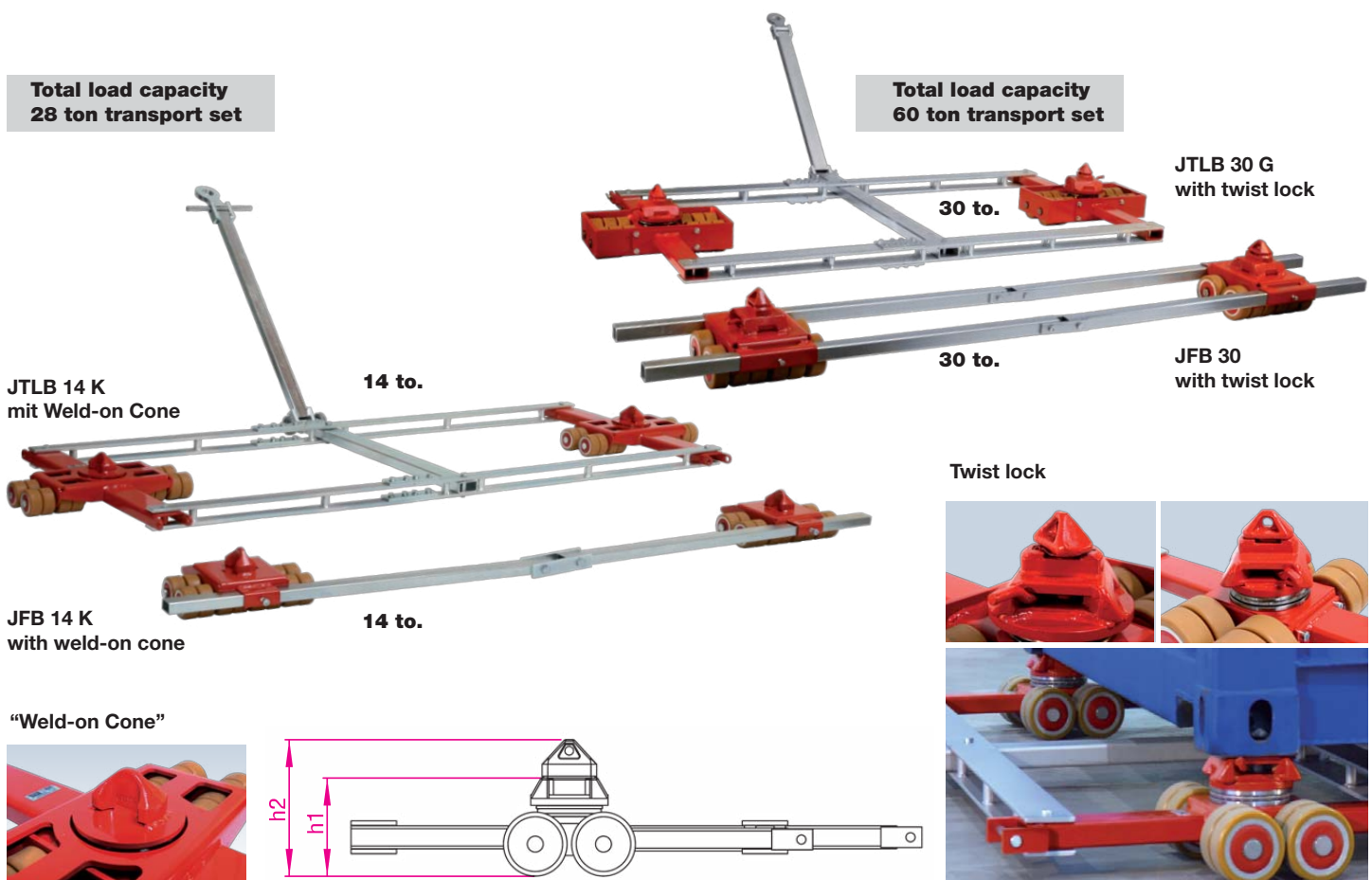
### Your advantages in detail:

- Safe transport of ISO containers.
- Low height for moving containers low to the ground.
- Positive and force-locking connection between trolleys and container (twist lock system) and only positive connection respectively („weld-on cone“ system).

**Even more convenient by 2-parts connecting bar**

- **Weld-on cone version** with 2 modified turntables and cassettes with container receptacles, not lockable, and lengthened connecting bars (2.26 m) suitable for ISO containers instead of the standard connecting bars.
- Delivery includes tandem trolleys with 2 draw bars with towing eyes.

- Lockable **twist lock** version with 2 modified turntables and cassettes and lengthened connecting bars suitable for ISO size (2.26m; not adjustable) instead of standard connecting bars.
- Delivery includes tandem trolleys with 2 draw bars with towing eyes.
- **Option:** A longer connecting bar is available on request.



### “Weld-on cone” system for K series trolleys

Item no.	30101020015003	30101015015008
Type	JTLB 14 K WC	JFB 14 K WC
Load capacity in kg	14000	14000
Overall height h1 in mm	110	110
Overall height h2 in mm	180	180

### Twist lock system for G series trolleys

Item no.	30101020015004	30101020035001	30101015015009	30101015015011
Type	JTL 20 G TW	JTL 30 G TW	JFB 20 G TW	JFB 30 G TW
Load capacity in kg	20000	30000	20000	30000
Overall height h1 in mm	215	215	215	215
Overall height h2 in mm	300	300	300	300

HEAVY DUTY TRANSPORT

Tandem trolleys

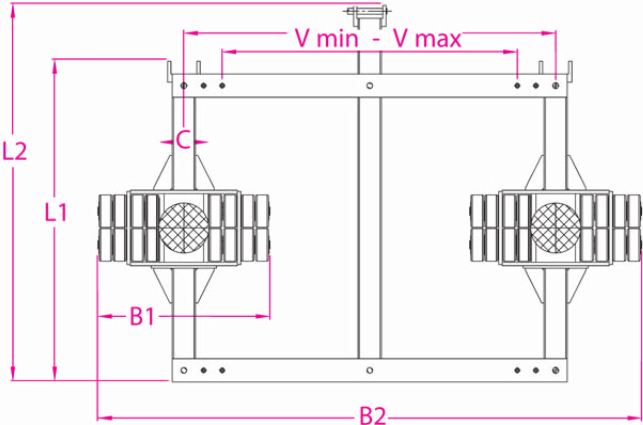
Tandem trolleys Series G Professional, Capacity up to 30 to, Overall Height 180 mm

Your advantages in detail:

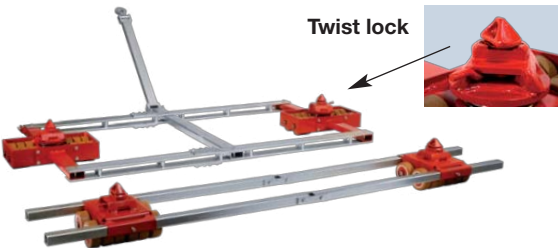
- Excellent running characteristics on uneven ground and yard surfaces due to big roller Ø of 140 mm and width of 59 mm.
- Safe crossing of small ledges and floor-embedded rails
- Multi-purpose use: Can also be used as single trolleys. Without any further accessories the steerable trolleys can be used as single units with half the load capacity.
- Customized versions are possible; other widths or adjustment ranges available. Please contact us for other alignment bar lengths.
- Angle lock of 45° possible



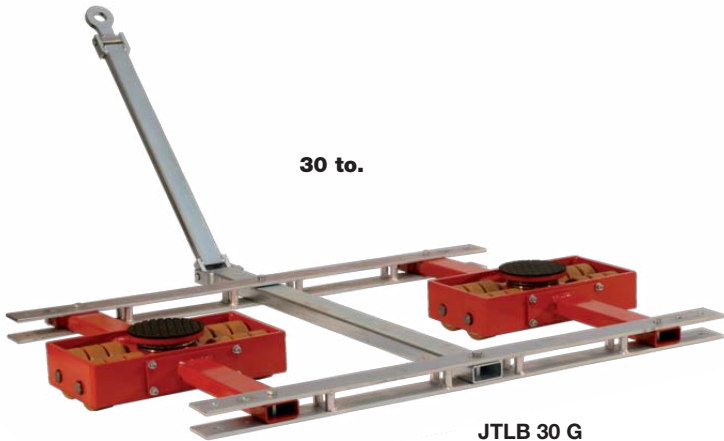
All trolleys are equipped with JUWathan® plus castors. For details see page 593.



Also available with twist lock system for formlocking container transport (see page 599)



JTL 20 G



JTLB 30 G

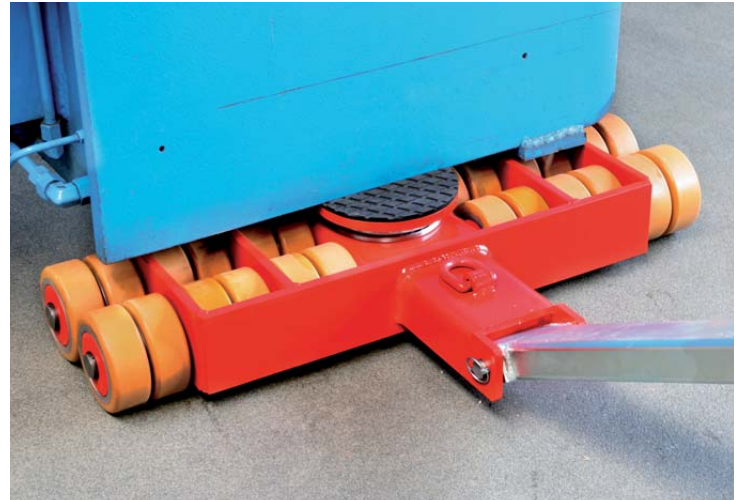
Item no.	30101020015006	30101020015007
Type	JTL 20 G Professional	JTLB 30 G Professional
Load capacity kg	20000	30000
Number of castors	16	24
Castor dimensions mm	140 x 59	140 x 59
Overall height mm	180	180
Dimensions L1 x B1 mm	1020 x 440	1328 x 610
Supporting surface of turntable Ø C mm	170	215
Width of track and connection rod mm	1330*	1700*
Adjustable from-to Vmin - Vmax mm	900 - 1230	1270 - 1600
Adjustable	3 x	3 x
Overall length L1 x overall width B1 in mm	1260 x 1670	1620 x 2200
Length of handlebar with pulling eye in mm	1230	1230
Weight with JUWathan plus in kg	168	283

\*other lengths available on request

### Adjustable and steerable Transport trolleys Type G, Load Capacity 30-60 ton, Overall Height 180 mm

#### Your advantages in detail:

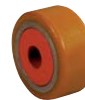
- The rollers are mechanically pivoted. Therefore equal load distribution on all wheels and the floor. No elaborated and failure-prone hydraulic compensation needed.
- All transport trolleys are immediately ready for use. The steerable trolley is equipped with a roller bearing turntable and the pictured steering handle.
- Less turning effort with half the roller width and twice the number of rollers. Considerably reduced friction when negotiating curves. The drastically lower friction also provides enhanced directional stability for the trailing axles.
- **The fixed trolleys can be connected with the included alignment bars as pictured below.**



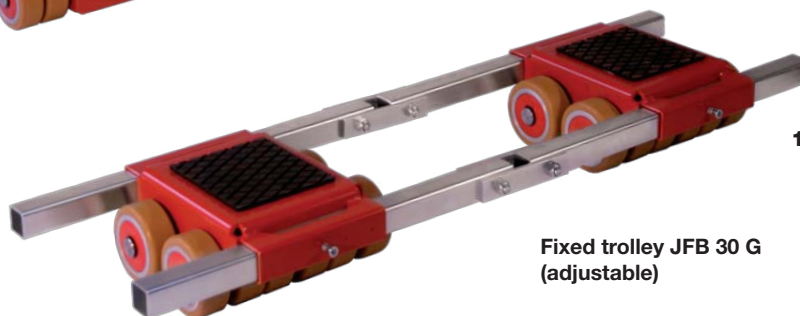
**Total load capacity  
60 ton transport set**

Steerable trolley 30 G

30 to.



All trolleys are equipped with JUWathan® plus castors. For details see page 593.



15 to.

Fixed trolley JFB 30 G  
(adjustable)

15 to.

Item no.	30101010015008	30101015015012	30101010015009	30101015015013	30101010035030	30101015035071	30101010015010	30101020035002
Type	JLB 15 G	JFB 15 G	JLB 20 G	JFB 20 G	JLB 25 G	JFB 25 G	JLB 30 G	JFB 30 G
Load capacity kg	15000	2 x 7500	20000	2 x 10000	25000	2 x 12500	30000	2 x 15000
Number of castors	12	12	16	16	20	20	24	24
Castor dimensions Ø mm	140 x 59	140 x 59	140 x 59	140 x 59	140 x 59	140 x 59	140 x 59	140 x 59
Overall height mm	180	180	180	180	180	180	180	180
Supporting surface per cassette mm		220 x 120		220 x 200		220 x 120		220 x 200
Cassette dimensions mm		460 x 205		460 x 285		460 x 330		460 x 400
Length of connecting bar mm		2 x 1540		2 x 1540		2 x 1540		2 x 1540
Cassettes adjustable from - to mm		415 - 1300		475 - 1300		530 - 1300		530 - 1300
Supporting surface of turntable Ø mm	215		215		215		215	
Dimensions of steerable trolleys mm	565 x 610		565 x 741		590 x 890		565 x 995	
Length of handlebar with pulling eye mm	1230		1230		1480		1480	
Weight with JUWathan plus kg	90	82	96	88	128	86	135	113

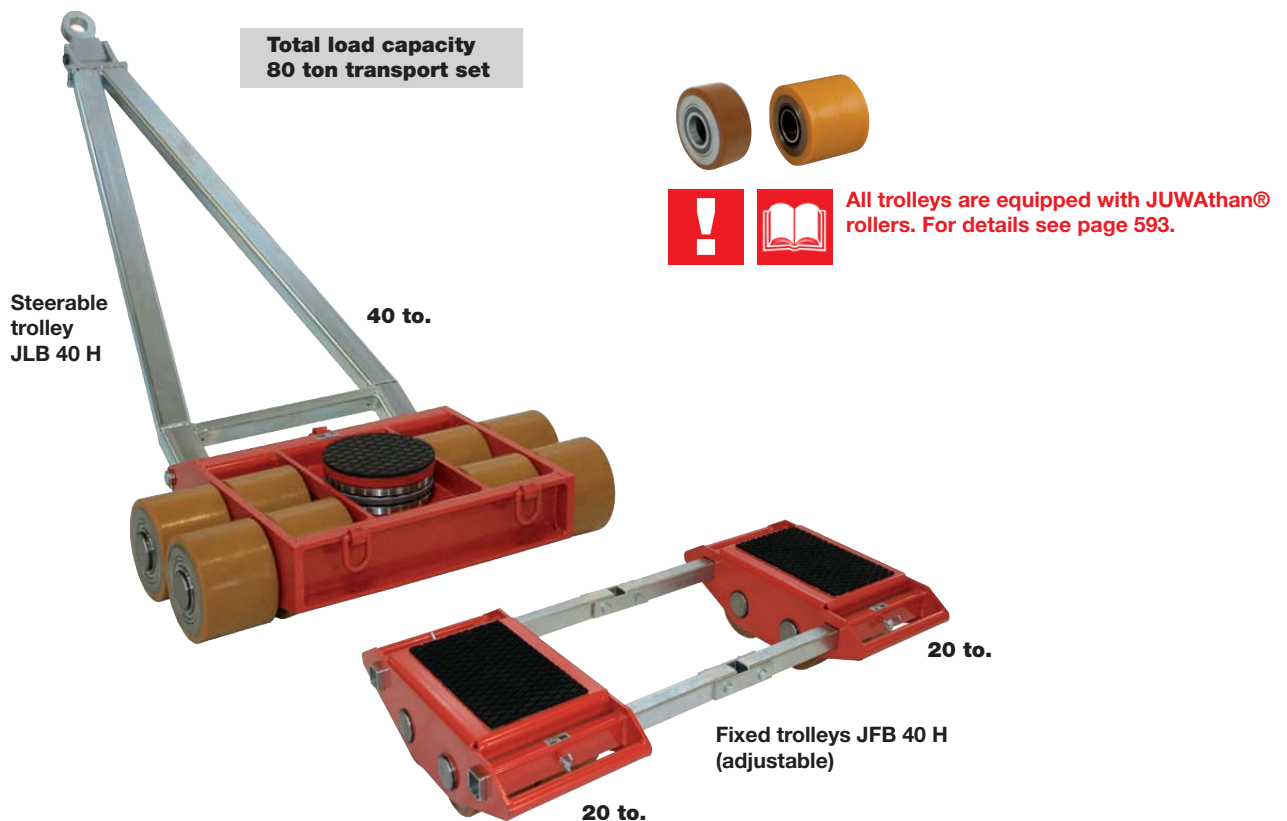
# HEAVY DUTY TRANSPORT

## Transport trolleys

### Adjustable and steerable Transport trolleys Type H, Load Capacity 80-120 ton, Overall Height 230 mm

#### Your advantages in detail:

- In comparison to the capacity unequalled compact and lightweight construction.
- Mechanically pivoted rollers for equal load distribution on all wheels and the floor.
- All transport trolleys are immediately ready for use.
- The steerable trolley is equipped with a roller bearing turntable and a drawbar.
- The fixed trolleys can be connected with the included alignment bars.



Item no.	30101010015011	30101015015015	30101010015012	30101015015016
Type	JLB 40 H	JFB 40 H	JLB 60 H	JFB 60 H
Load capacity kg	40000	40000	60000	60000
Number of castors/twin castors	8	8	8/8	8/8
Castor/twin castor dimensions Ø x l mm	200 x 170	200 x 170	200 x 170 / 85	200 x 170 / 85
Overall height mm	230	230	230	230
Supporting surface per cassette mm		395 x 260		395 x 260
Cassette dimensions mm		740 x 395		740 x 580
Length of connecting bar with joint mm		2 x 1540		2 x 1540
Cassettes adjustable from - to mm		585-1155		700- 2800
Supporting surface of turntable Ø mm	250		250	
Dimensions of steerable trolleys mm	650 x 1060		650 x 1400	
Length of handlebar with pulling eye mm	1590		1590	
Weight with JUWathan in kg	320	289	450	410



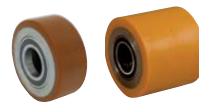
### Transport trolleys Type H, Load Capacity 160 ton, Overall Height 240 mm

#### Your advantages in detail:

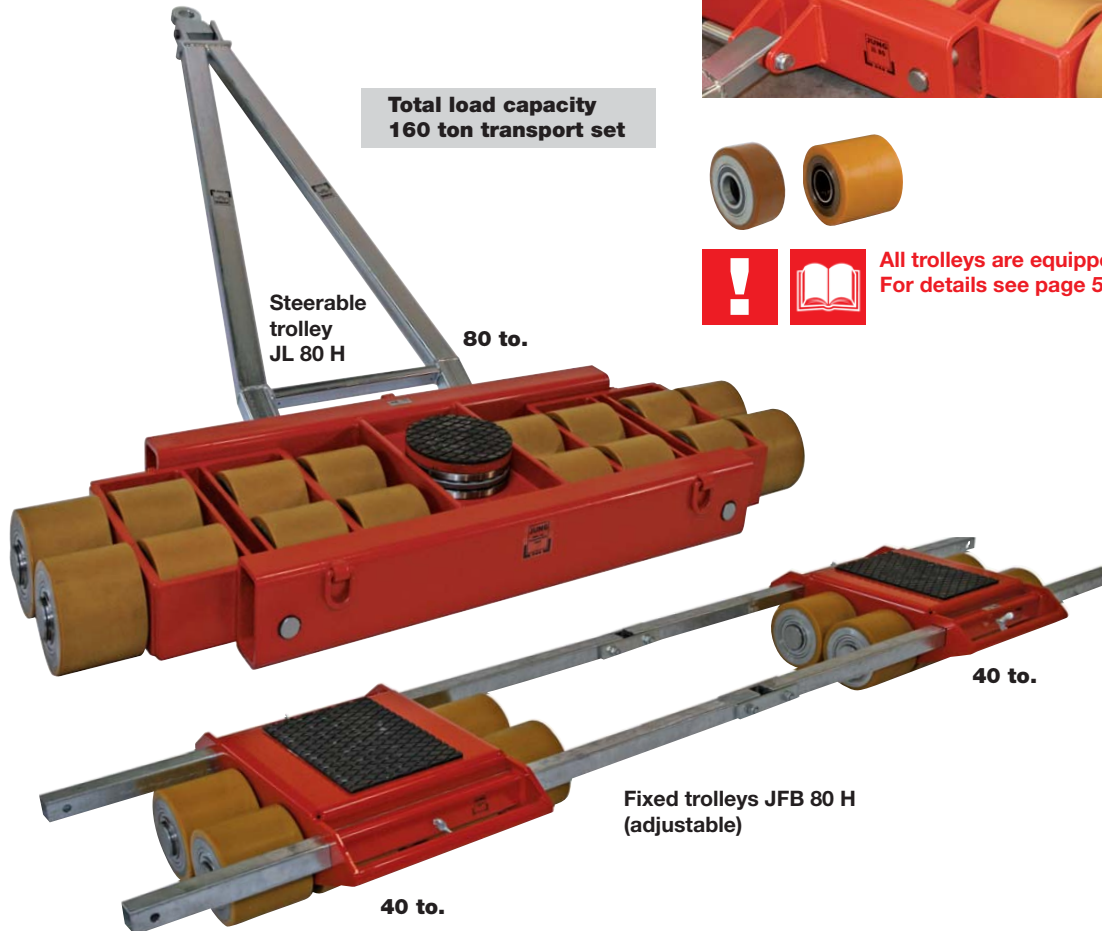
- In comparison to the capacity unequalled compact and lightweight construction.
- Mechanically pivoted rollers for equal load distribution on all wheels and the floor.
- All transport trolleys are immediately ready for use.
- The steerable trolley is equipped with a roller bearing turntable and a drawbar.
- The fixed trolleys can be connected with the included alignment bars.



**Total load capacity  
160 ton transport set**



All trolleys are equipped with JUWathan® rollers.  
For details see page 593.



**Steerable  
trolley  
JL 80 H**

**80 to.**

**40 to.**

**Fixed trolleys JFB 80 H  
(adjustable)**

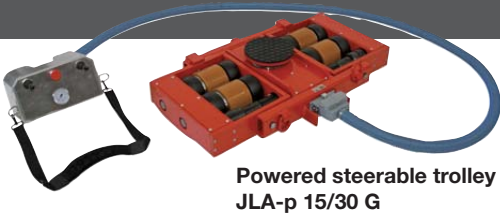
Item no.	30101010015013	30101015015017	30101015015018
Type	JL 80 H	JFB 80 H	JFB 120 H
Load capacity kg	80000	80000	120000
Number of castors	16	16	24
Castor/twin castor dimensions Ø x l mm	200 x 170	200 x 170	200 x 170
Overall height mm	240	240	240
Supporting surface per cassette mm		400 x 260	440 x 300
Cassette dimensions L2 x B2 mm		750 x 820	960 x 830
Length of connecting bar with joint mm		2 x 3000	2 x 3000
Cassettes adjustable from - to mm		1630 - 3380	1630 - 3380
Supporting surface of turntable Ø mm	250		
Dimensions of steerable trolleys mm	820 x 1900		
Length of handlebar with pulling eye in mm	1590		
Weight with JUWathan in kg	723	565	815

HEAVY DUTY TRANSPORT

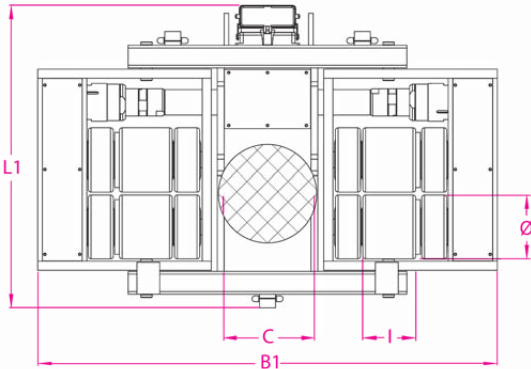
Transport trolleys

Air-Powered trolley JLA-p Set 3 (15/30 G), Load Capacity 15 ton, Pulling Capacity 30 ton, Overall Height 180 mm

- Your advantages in detail:**
- Quick set up. Connect air supply hose and go
  - No need for tugger
  - Low maintenance propulsion system
  - All hoses are detachable for compact and easy transport
  - 360° rotatable
  - No electric power needed
  - Requires standard shop air connection with 8 bar (116 psi) and air volume of 1500 L/min (25 L/s) or (53 SCFM)
  - Infinitely variable speed and direction
  - Compatible with G-series transport trolleys



Arrange a presentation appointment



- Options:**
- All components are also available separately
  - Higher load capacities are available on request



- Scope of delivery of JLA-p Set 3:**
- JLA-p 15/30 G includes control unit
  - Hose cart complete with hose reel
  - 30 m air supply hose with Ø 19 mm
  - 1 Liter oil for pneumatic motors
  - 400 ml chain spray
  - Transport trolley JFB 15 G

Type	Load capacity in kg	Pulling capacity in kg	Number of castors	Dimension of castors in mm	Overall height in mm	Supporting surface of turntable Ø C in mm	Dimensions L1 x B1 in mm	Weight in kg	Air consumption / required air pressure	Item no.
JLA-p Set 3	15000	30000	16	140 x 120 / 140 x 59	180	215	650 x 1000	175*	25 L/s / 8 bar constantly	30250000015001

\*Without control box

Electric-Powered Trolleys Sets JLA-e 15/30 G and JLA-e 25/50 H

- Set 1 contains:**
- JLA-e 15/30 G
  - High performance accumulator with pulse charging device
  - Remote control with battery, charger and belt holder
  - Trolley JFB 15 G

- Set 2 contains:**
- JLA-e 25/50 H
  - High performance accumulator with pulse charging device
  - Remote control with battery, charger and belt holder
  - Trolley JFB 25 G

Arrange a presentation appointment



Handy remote control



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## ► Cylinders



## ► Pumps



## ► System components



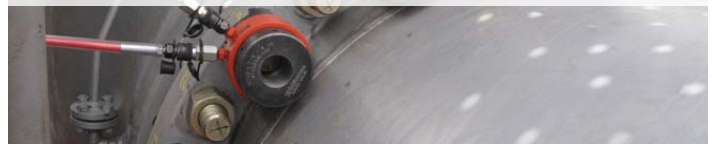
## ► Lifting devices



## ► Torque tools



## ► Pressurising cylinders



## ► Hydrostatic test pumps



## ► Stripper sets



## ► Crimpers & cutting tools



## ► Tools



## ► Toughlift lifting system for 50/100/150 and 200 tons



## ► Heavy duty lifting and transport



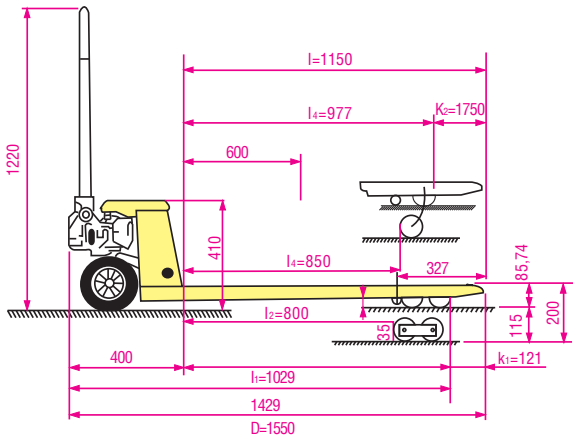
INDUSTRIAL TRUCKS

Hand pallet trucks

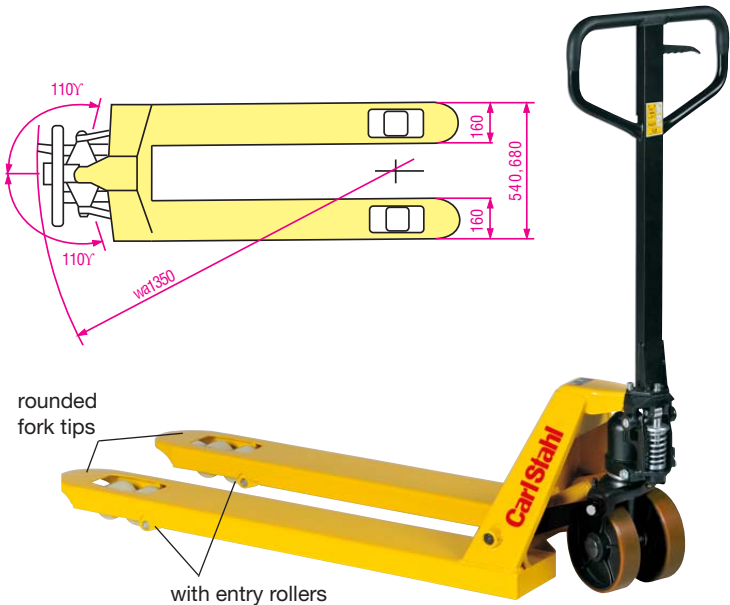
Hand Pallet Truck „Made in Europe“

Load capacity 2,500 kg

Steering wheels of abrasion-resistant polyurethane  
Tandem load rollers of Polyamide



 Design modifications possible



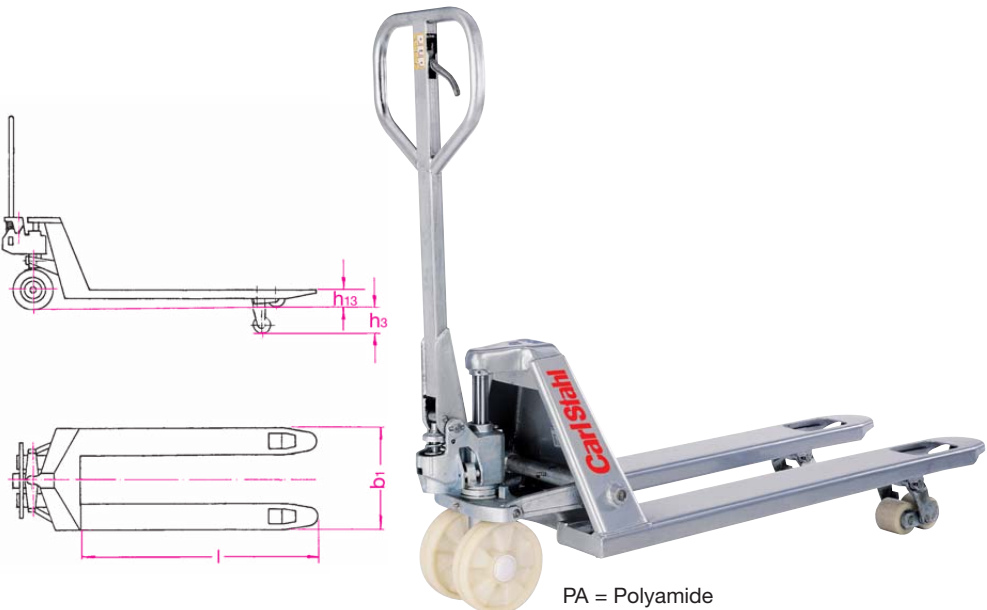
Load capacity n kg	Lifting height in mm	Steering wheels Ø in mm	Load rollers Ø in mm	Weight in kg/pce	Item no.
2500	85 x 200	200 x 50	80 x 70	68	30151000015012

Hand Pallet Truck in Galvanised Version

Load capacity 2,500 kg

The ideal pallet truck for use in corrosive environments of the chemical or food industry.

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Low-maintenance high-performance hydraulic pump with hard-chrome plated piston and overload protection.
- Hot-dip galvanised frame with a coat thickness of 100 µm, cold galvanised draw bar and pump housing, stainless steel running gear, ball bearings and axles guarantee for a high chemical resistance.
- Easy handling also in confined spaces, angle lock of 105° to both sides.



Type	Load capacity in kg	Lifting Height h3 in mm	Height, lowered h13 in mm	Fork length l in mm	Fork width b1 in mm	Steering wheels Ø in mm	Load rollers Ø in mm	Weight in kg/pce	Item no.
CS HU 25-115 GAL	2500	115	85	1150	160	200 x 50 PA	82 x 70 PA	86	30151000015013



### Hand Pallet Trucks with special Fork Lengths and higher Load Capacities

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Rubber-lined hand grips for safe handling.
- Low-maintenance high-performance hydraulic pump with hard-chrome plated piston and overload protection.
- Frame and forks in robust steel construction, adjustable driving rod, specially hardened axles and the high-quality powder coat guarantee for a long service life of the pallet truck.
- Fork lengths from 800 to 3,000 mm are available.
- Easy handling also in confined spaces, angle lock of 105° to both sides.

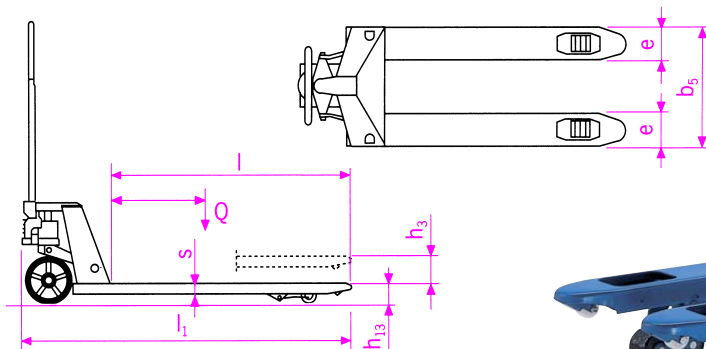
#### Load capacity 2,000 - 3,500 kg

For professional transport of palettised goods and lattice boxes even under demanding conditions.

The CS models are available with fork lengths from 800 mm to 3,000 mm.

#### Option:

- Drive and parking brake



#### Special fork length pallet trucks

VG = Solid rubber, PUR = Polyurethane

Item no.	30151000015001	30151000015002	30151000015003	30151000015004	30151000015005	30151000015006	30151000015007	30151000015008
Type	CS 25-80 TP	CS 25-90 TP	CS 25-100 TP	CS 25-130 TP	CS 30-150 TP	CS 35-180 TP	CS 35-200 TP	CS20-250 TP
Load capacity in kg	2500	2500	2500	2500	3000	3500	3500	2000
Steering wheels / Load rollers	VG / PUR	VG / PUR	VG / PUR	VG / PUR	PUR / PUR	PUR / PUR	PUR / PUR	PUR / PUR
Lifting height (h3) in mm	115	115	115	115	115	115	115	115
Height, lowered (h13) in mm	85	85	85	85	85	85	85	85
Overall length (l) in mm	1185	1285	1385	1685	1885	2185	2385	2885
Fork prong length in mm	800	900	1000	1300	1500	1800	2000	2500
Overall width (b5) in mm	540	540	540	540	540	550	550	550
Weight in kg	71	76	81	96	106	108	129	275

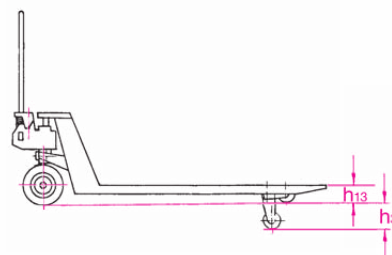
### Stainless Steel Hand Pallet Truck Type CS 20-115 VATP

#### Load capacity 2,000 kg

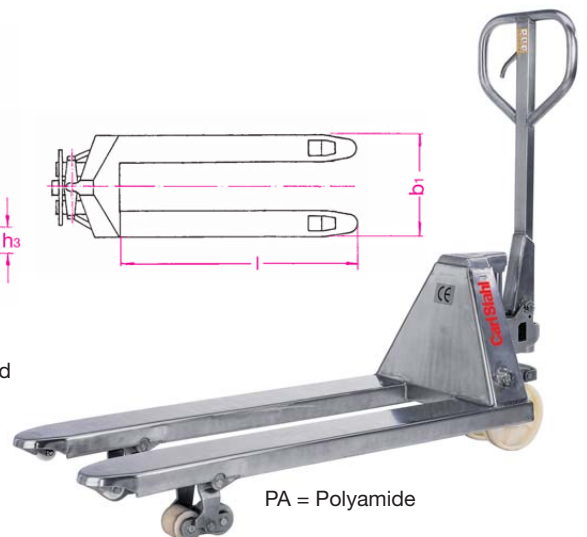
Pallet truck for use in all corrosive environments of the chemical and food industry.



**Stainless steel lasts longer!**



- Ergonomic safety handle bar for single-hand operation of lifting, driving and lowering.
- Low-maintenance high-performance hydraulic pump with hard chromium plated rod and overload protection. Pump housing made from stainless steel V4A-316.
- Body, adjustable handle bar, bolt and torque tube are manufactured from high-quality stainless steel V4A-316.
- Easy handling, even in confined spaces, thanks to an angle lock of 105°.



PA = Polyamide

Load capacity in kg	Steering wheels Ø in mm	Load rollers Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
2000	200 x 50	82 x 70	h3	h13	l	s	e	l	b5		86	30151000015010
			115	85	1200	50	160	1150	540			

INDUSTRIAL TRUCKS

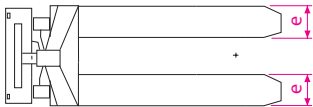
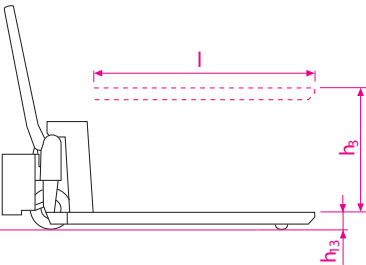
Hand pallet trucks

Scissor Pallet Truck Type CS HS 10 B, Type CS ES 10 B

Load capacity 1,000 kg  
Max. fork height 800 mm

A combination of pallet truck und lifting table for transport and lifting of palettized loads, allowing flexible heights in production, assembly and shipping.

- Safety handle bar with the following functions:  
Quick lift - Lifting - Lowering.
- Sensitive lowering of the load due to adjustable lowering speed.
- Extremely robust due to single-stage hydraulics.
- Quick lift up to 250 kg.
- Overload protection with safety valve.
- Safety supports for improved stability with raised forks.
- Low-noise and smooth running due to polyurethane tyres (PUR) on steering wheels and load rollers.



Scope of delivery:  
battery and charger

Model CS HU ES 10 B

Expands the performance characteristics of the HU HS 10 B by time-saving electrical operation in case of frequent lifting and lowering.

- Ergonomic control pad for hydraulic unit, integrated in the head of the handle bar.
- In case of battery failure lifting and lowering is still be possible by hand.
- Quick lifting of the load with the electrically powered hydraulic pump, overload protection by safety valve.
- Low-noise and smooth running due to polyurethane tyres on steering wheels and load rollers.
- Additional tilt protection on load rollers.

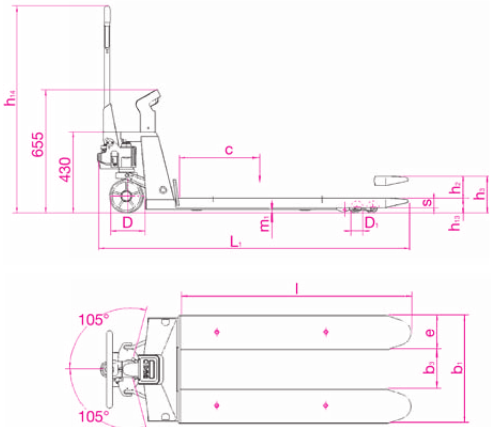
Type	Load capacity in kg	Lifting h. h3 in mm	Height, lowered h13 in mm	Fork length l in mm	Fork width e in mm	Steering wheels Ø in mm	Load rollers Ø in mm	Weight in kg/pce	Item no.
CS HU HS 10B	1000	715	85	1150	160	200 x 50 PUR	78 x 60 PUR	140	30152000015001
CS HU ES 10B	1000	715	85	1150	160	200 x 50 PUR	78 x 60 PUR	167	30152000015002

Pallet Truck with Scale Type CS HU W-20 S

Load capacity 2,000 kg

For transport and weighing  
of palettised goods and lattice boxes

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Rubber-lined hand grips for safe handling.
- Low-maintenance high-performance hydraulic pump with hard-chrome plated piston and overload protection.
- Frame and forks in robust steel construction, adjustable driving rod, specially hardened axles and the high-quality powder coat guarantee for a long service life of the pallet truck.
- Easy handling also in confined spaces, angle lock of 105° to both sides.
- Weighing range from 0 to 2,000 kg in 1 kg-steps.
- Easy to read LCD display.
- Accuracy +/- 0.25% of result.
- Minimum value 1.0 kg.
- System is factory-calibrated.
- Suitable for simple weighing procedures like dispensing or filling.
- Delivery with batteries 4 x 1.5 V (sufficient for approx. 3,000 weighings)



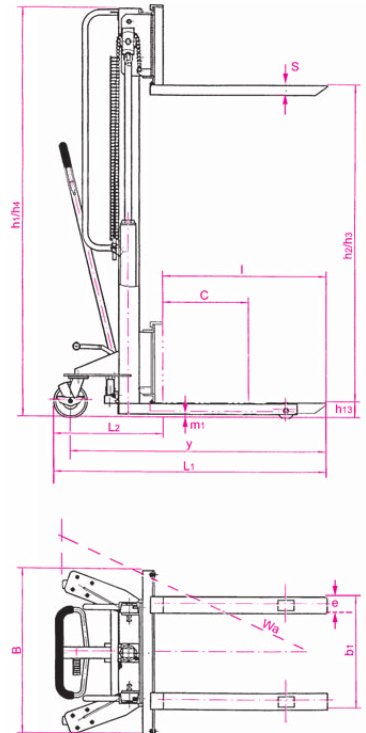
Type	Load capacity in kg	Steering wheels PU Ø in mm	Load rollers PA Ø in mm	Lifting h. h3	h13	h14	l1	s	e	l	b5	Weight in kg/pce	Item no.
CS HU W-20 S	2000	180 x 50	74 x 70	195	85	1210	1580	50	180	1150	570	135	30151000015011

### Manual Stacker with hand-hydraulic Lift Type CS HV 0516

#### Load capacity 500 kg

For occasional in-plant use for lifting and transport of goods, loading and unloading of shelves or trucks.

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Lateral hand grips for easy movement of the stacker.
- Sensitive lowering of the load due to adjustable lowering speed.
- Single-acting hand pump with big lift per lever movement.
- Robust chassis with 2 each load rollers and steering wheels, with parking brake on one steering wheel.
- Parking brake on one steering wheel.
- Please contact us for technical details.
- Fork lengths from 270 mm to 810 mm are available.



PA = Polyamide

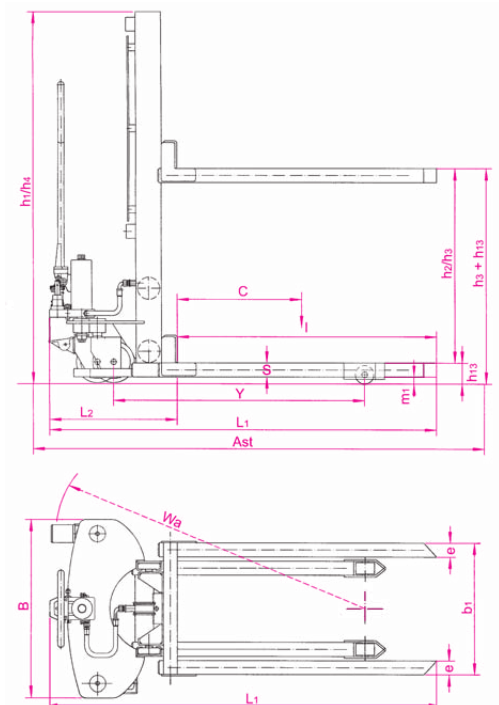
Type	Load capacity in kg	Steering wheels Ø in mm	Load rollers Ø in mm	Lifting h. h3 in mm	Overall height of frame h4 in mm	Overall length l1 in mm	Weight in kg/pce	Item no.
CS HV 0516	500	150 x 40 PUR	80 x 35 PA	1520	2000	1750	217	30151500015001

### Manual Stacker with hand-hydraulic Lift Types CS HV 1008 and HV 1016

#### Load capacity 1,000 kg

For occasional in-plant use for lifting and transport of goods, loading and unloading of shelves or trucks.

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering
- Forced steering of the steering wheels for easy movement of the stacker
- Sensitive lowering of the load due to adjustable lowering speed
- Single-acting hand pump with big lift per lever movement
- Quick lift for loads up to 100 kg
- Robust design with hard chromated piston rod
- Parking brake on one steering wheel
- Please contact us for technical details



PA = Polyamide

Type	Load capacity in kg	Steering wheels Ø in mm	Load rollers Ø in mm	Lifting h. h3 in mm	Overall height of frame h4 in mm	Overall length l1 in mm	Weight in kg/pce	Item no.
CS HV 1008	1000	180 x 50 PUR	80 x 55 PA	810	1300	1675	179	30151500015002
CS HV 1016	1000	180 x 50 PUR	80 x 55 PA	1510	1965	1675	205	30151500015003

# FORK EXTENSIONS

## Fork extensions

### Fork Extension without Coating

Ideal fork extension for lifting and transporting loads

- stable steel construction, 8 mm wall thickness
- low dead weight
- fork arms can be inserted quickly and easily
- without any tools it can simply be slid over the prong
- secured by bolt and pin
- surface painted in RAL 2000 yellow-orange (standard) or RAL 7021 black-grey



open bottom version



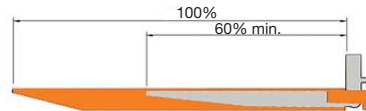
closed all around version



secured by bolt and pin



**Please note:**  
For structural reasons, the fork arm length must be at least 60% of the total extension!



### GO-Standard, open bottom, without coating

	Suitable for prong profiles W x H (mm)	Dimensions W x H (mm)	Item no. L = 1.6 m	Item no. L = 1.8 m	Item no. L = 2.0 m
	80 x 40	106 x 48	25302210015001	25302210015002	25302210015003
	100 x 40	128 x 48	25302210015004	25302210015005	25302210015006
	100 x 45	128 x 53	25302210015007	25302210015008	25302210015009
	100 x 50	128 x 58	25302210015010	25302210015011	25302210015012
	120 x 40	148 x 48	25302210015013	25302210015014	25302210015015
	120 x 50	148 x 58	25302210015016	25302210015017	25302210015018
	125 x 45	153 x 53	25302210015019	25302210015020	25302210015021
	125 x 50	153 x 58	25302210015022	25302210015023	25302210015024
	150 x 50	181 x 58	25302210015025	25302210015026	25302210015027
	150 x 70	181 x 78	25302210015028	25302210015029	25302210015030

### GG-Standard, closed all around, without coating

Closed version also suitable for loads that are outside the basic fork arms

	Suitable for prong profiles W x H (mm)	Dimensions W x H (mm)	Item no. L = 1.6 m	Item no. L = 1.8 m	Item no. L = 2.0 m
	80 x 40	106 x 66	25302210015031	25302210015032	25302210015033
	100 x 40	128 x 66	25302210015034	25302210015035	25302210015036
	100 x 45	128 x 71	25302210015037	25302210015038	25302210015039
	100 x 50	128 x 76	25302210015040	25302210015041	25302210015042
	120 x 40	148 x 66	25302210015043	25302210015044	25302210015045
	120 x 50	148 x 76	25302210015046	25302210015047	25302210015048
	125 x 45	153 x 71	25302210015049	25302210015050	25302210015051
	125 x 50	153 x 76	25302210015052	25302210015053	25302210015054
	150 x 50	181 x 76	25302210015055	25302210015056	25302210015057
	150 x 70	181 x 96	25302210015058	25302210015059	25302210015060

Other dimensions on request.



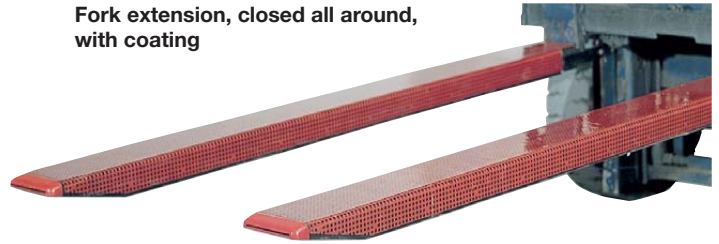
**The maximum allowable extension length = existing fork length x 1.65! e.g. Fork length 1,200 mm; Extension length max. 2,000 mm**



### Fork Extension with Coating

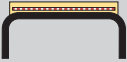
Special extension of the fork for any use in fields, where the prongs have to be protected against intruding dirt. If required, the tool can be supplied with a secutex-coating. The secutex-coating is particularly robust and resistant, poor of noise and antiskid. Without any tools it can be slid over the prong and is secured by bolt and pin.

Fork extension, closed all around, with coating

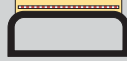


**!** The maximum allowable extension length = existing fork length x 1.65!  
e.g. Fork length 1,200 mm; Extension length max. 2,000 mm

### secutex-GVO-Standard, open bottom, top side with secutex coating

	Suitable for prong profiles W x H (mm)	Item no. L = 1.2 m	Item no. L = 1.4 m	Item no. L = 1.6 m	Item no. L = 1.8 m
	80 x 30, 80 x 35, 80 x 40	25302210015061	25302210015062	25302210015063	25302210015064
	100 x 30, 100 x 35, 100 x 40	25302210015065	25302210015066	25302210015067	25302210015068
	100 x 45, 100 x 50	25302210015069	25302210015070	25302210015071	25302210015072
	120 x 40	25302210015073	25302210015074	25302210015075	25302210015076
	125 x 40, 125 x 45, 120 x 50	25302210015077	25302210015078	25302210015079	25302210015080

### secutex-GVG-Standard, closed all around, top side with secutex coating

	Suitable for prong profiles W x H (mm)	Item no. L = 1.2 m	Item no. L = 1.4 m	Item no. L = 1.6 m	Item no. L = 1.8 m
	80 x 30, 80 x 35	25302210015082	25302210015083	25302210015084	25302210015085
	100 x 30, 100 x 35, 100 x 40	25302210015086	25302210015087	25302210015088	25302210015089
	100 x 45	25302210015090	25302210015091	25302210015092	25302210015093
	120 x 40, 120 x 45, 120 x 50	25302210015094	25302210015095	25302210015096	25302210015097
	125 x 50	25302210015098	25302210015099	25302210015100	25302210015101

### secutex Fork Protection SZ-S

secutex fork protection shoe (detachable)

This is a special version within the **secutex** range of impact protection for use with **forklift prongs**.

- secutex protects the load
- secutex prevents the load from slipping
- secutex is sound absorbing

Width in mm	Item no.
80	25302210015102
100	25302210015103
120	25302210015104

Other dimensions on request.

**!** Special runs in different materials on request!  
Permanent fork arm coating on request.



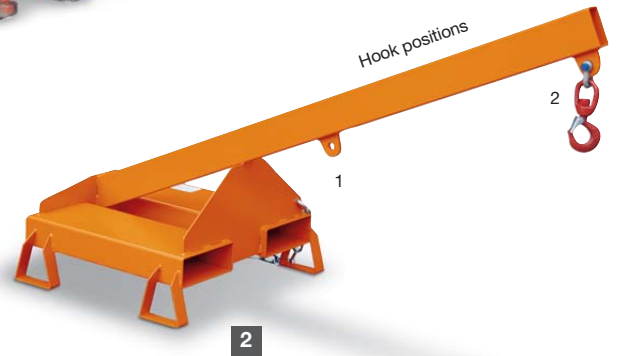
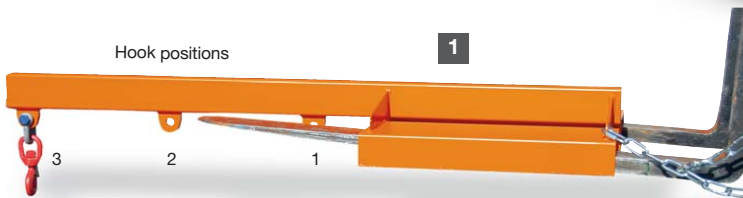
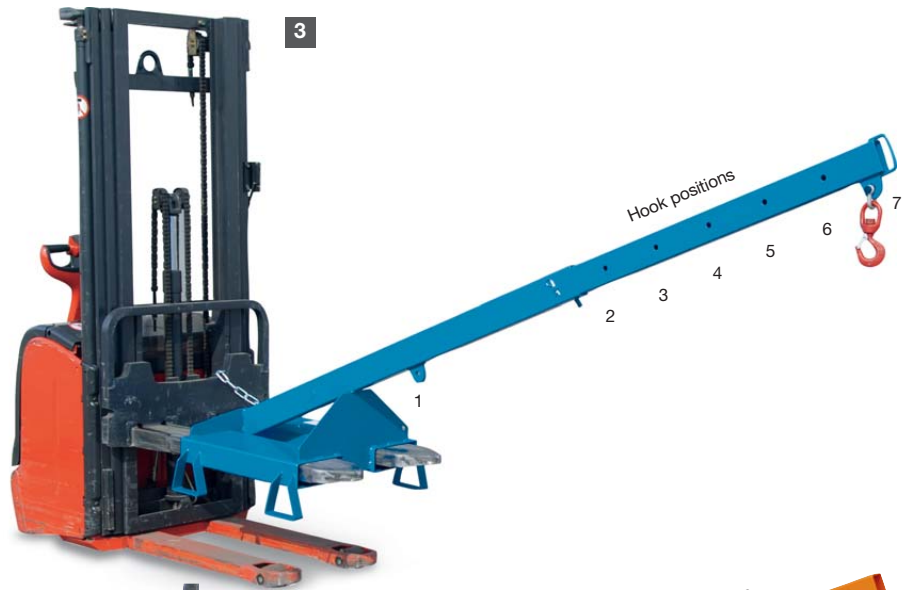
# FORK ATTACHMENTS

## Crane Arms

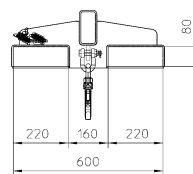
### Crane Arms - to extend the Reach of your Forklift Truck

- Extends the reach of your forklift
- Telescopic arm held by forks
- Safety chain to prevent accidental slipping
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005, hot-dip galvanised acc. to EN ISO 1461

- 1** Rigid arm, without gradient
  - 3 lifting points for swivel load hooks
- 2** Rigid arm, with gradient
  - Incline 25°
  - With support feet, therefore also suitable for cantilever forklifts, ground clearance 100 mm
- 3** Telescopic arm
  - 2 lifting points for swivel load hooks
  - Each position secured with bolt
  - Incline 25°
  - With support feet, therefore also suitable for cantilever forklifts, ground clearance 100 mm
  - 2 lifting points for swivel load hooks



Type	Basic length	Hook position	not telescoping			telescoping			
			1	2	3	4	5	6	7
1	1600	Distance mm	780	1165	1550				
		Capacity kg	1000	350	200				
1	2400	Distance mm	780	1565	2350				
		Capacity kg	1000	200	100				
1	1600	Distance mm	780	1165	1550				
		Capacity kg	2500	850	500				
1	2400	Distance mm	780	1565	2350				
		Capacity kg	2500	500	250				
1	1600	Distance mm	780	1165	1550				
		Capacity kg	5000	1700	1000				
1	2400	Distance mm	780	1565	2350				
		Capacity kg	5000	1000	500				
2	1600	Distance mm	875	1600					
		Capacity kg	1000	300					
3	1600	Distance mm	875	1600	1780	1960	2140	2320	2500
		Capacity kg	1000	300	225	200	175	150	125



Inner dimensions of forklift pockets

Type	1 fixed not telescopic						2 Incline 25°	3 Incline 25° not telescopic
Basic length in mm	1600	2400	1600	2400	1600	2400	1600	1600
Load capacity max. in kg	1000	1000	2500	2500	5000	5000	1000	1000
Weight varnished /galvanised kg/pce	42/45	49/53	73/79	88/95	104/112	124/134	47/51	55/61
Item no. RAL 2000	25302215015001	25302215015002	25302215015003	25302215015004	25302215015005	25302215015006	25302215015013	25302215015015
Item no. hot-dip galvanised	25302215015007	25302215015008	25302215015009	25302215015010	25302215015011	25302215015012	25302215015014	25302215015016



Without indication of requested colour, we will deliver in yellow orange RAL 2000.

Please note the forklift's load capacity!

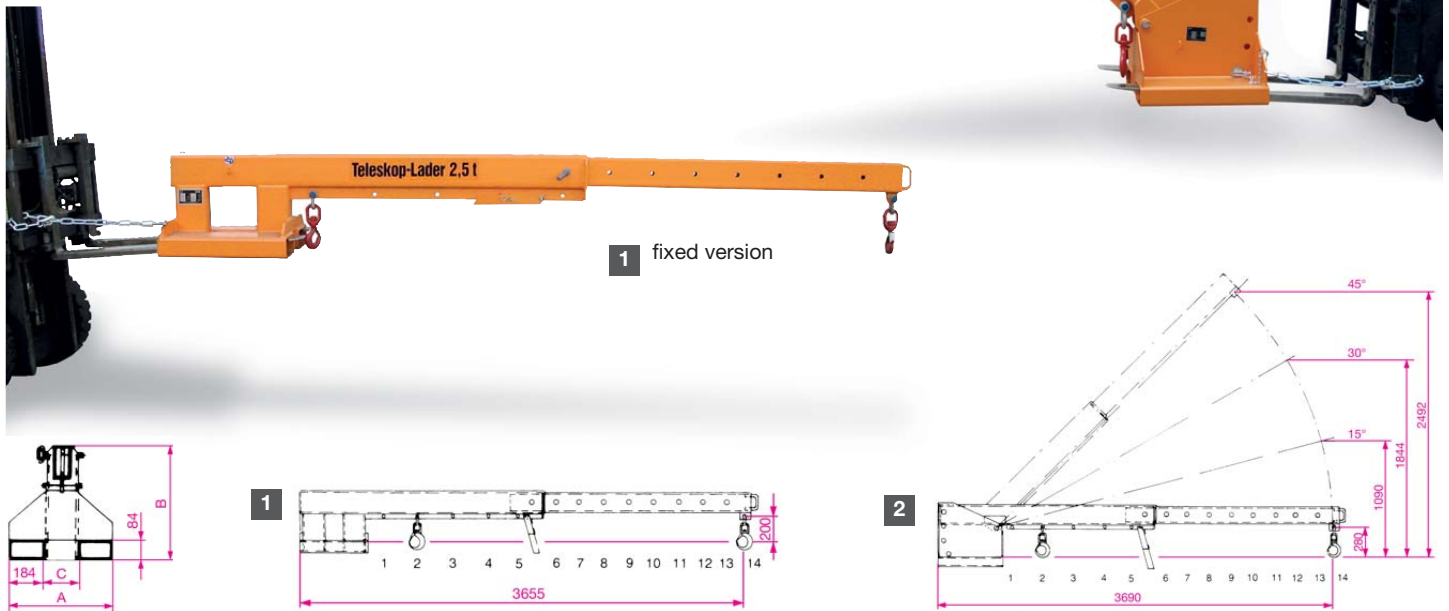
### Telescopic Crane Arm Type KT (fixed), Type KTH (height-adjustable)

- Interior boom, adjustable in 8 steps
- Each position secured by locking pin
- Extends the reach of your forklift
- With 2 safety swivel hooks as standard
- Optionally with or without gradient adjustment 15°/30°/45°
- End position secured to prevent extraction
- 14 hook positions
- Telescopic arm held by forks
- Securing chain against unintentional slipping
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

**2** height-adjustable in 3 steps

**1** KT fixed version

**2** KTH height-adjustable in 3 steps



Hook positions Version		not telescoping						telescoping							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>1</b> KT	Distance mm	710	1000	1290	1590	1870	2055	2255	2455	2655	2855	3055	3255	3455	3655
	Capacity kg	2500	2500	2500	1800	1400	1200	1050	950	850	770	700	650	600	560
	Capacity kg	5000	3550	2750	2250	1950	1700	1550	1400	1300	1200	1150	1050	1000	950
<b>2</b> KTH	Distance mm	695	990	1285	1580	1825	2090	2290	2490	2690	2890	3090	3290	3490	3690
	Capacity kg	2500	2500	2500	1800	1400	1200	1050	950	850	770	700	650	600	560
	Capacity kg	5000	3550	2750	2250	1950	1700	1550	1400	1300	1200	1150	1050	1000	950

Type	<b>1 fixed KT</b>	<b>2 height-adjustable KTH</b>
Basic length in mm	3655	3690
<b>Load capacity max. in kg</b>	2500	5000
Weight varnished/galvanised kg/pce	175/192	218/239
Dimensions L x W x H in mm	2160 x 490 x 480	2210 x 540 x 555
Inside dim. fork pocket A x B x C in mm	106 x 184 x 84	156 x 184 x 84
Item no. RAL 2000	25302215015017	25302215015021
Item no. hot-dip galvanised	25302215015018	25302215015022



Without indication of requested colour, we will deliver in yellow orange RAL 2000.

Please note the forklift's load capacity!

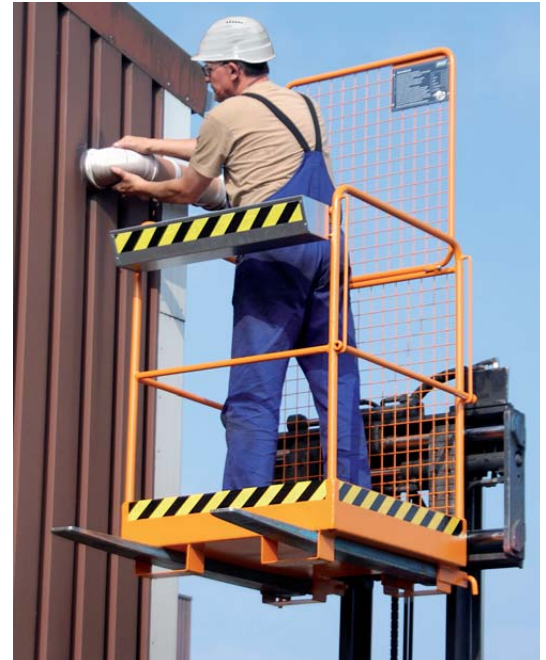


# FORK ATTACHMENTS

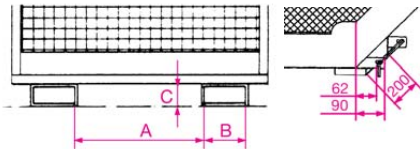
## Safety Cages

### Safety Cage Type SIKO-M

- Sturdy round pipe construction
- Non-slip working platform
- Permitted for 2 persons
- Through fork pockets with safety mechanism to prevent slipping
- German TÜV approved, complies with German Accident Prevention Regulations UVV
- Underrun protection ensures pick-up only through fork pockets
- Galvanised tool tray
- Surface varnished orange RAL 2000



Fork pocket dimensions



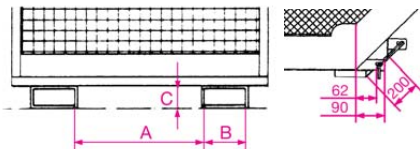
Type	Dimensions L x W x H in mm	Platform area in mm	Perm. total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no.
SIKO-M	1040 x 835 x 1895	740 x 740	240	54	280 x 200 x 80	25302220015014

### Safety Cage Type SIKO and SIKO/L

- Sturdy round pipe construction
- Non-slip working platform
- Permitted for 2 persons
- Through fork pockets with safety mechanism to prevent slipping
- German TÜV approved, complies with German Accident Prevention Regulations
- Underrun protection ensures pick-up only through fork pockets
- Galvanised tool tray
- Surface varnished orange RAL 2000



Fork pocket dimensions



#### Accessories:

- Set consisting of 2 steering + 2 fixed polyamide rollers Ø 180 mm, one steering roller with parking brake, clearance height 220 mm, max. load capacity 1,000 kg

**SIKO/L:**  
Lengthwise pick-up with forklift truck

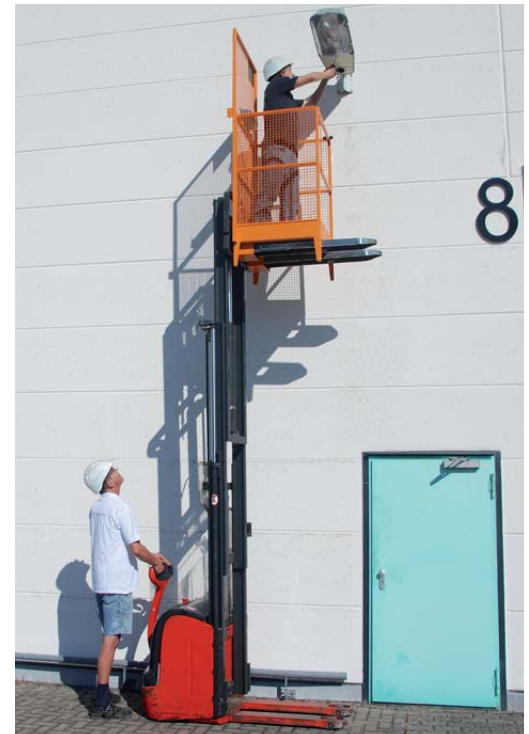
**SIKO:**  
Crosswise pick-up by forklift truck

Type	Dimensions L x W x H in mm	Platform area in mm	Perm. total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no.
SIKO/L	1290 x 800 x 1890	1200 x 800	300	96	160 x 200 x 80	25302220015013
SIKO	1115 x 1200 x 1890	800 x 1200	300	90	600 x 200 x 80	25302220015012

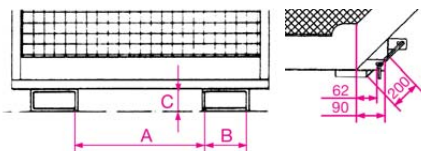


### Access Platform Type MB-I

- Suitable for use with pedestrian stackers and forklifts
- Offers safety during maintenance and repair work at heights
- Permitted for 1 person
- Through fork pockets with safety mechanism to prevent slipping
- Galvanised tool tray
- German TÜV approved, acc. to BGV
- 4 support feet
- Surface varnished orange RAL 2000



Fork pocket dimensions



Type	Dimensions L x W x H in mm	Platform area in mm	Perm. total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no.
MB-I	775 x 800 x 2050	645 x 650	180	60	165 x 210 x 85	25302220015007

### Access Platforms Type MB-D and MB-D/L

- Approved for 2 persons
- Fork pockets with anti-slip mechanism
- Galvanised tool tray
- German TÜV approved, acc. to BGV
- Surface varnished orange RAL 2000, blue RAL 5012 or hot-dip galvanised acc. to EN ISO 1461

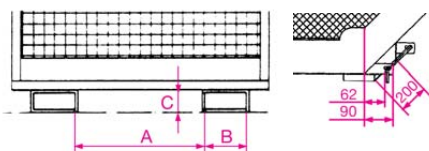
**MB-D/L with wheels:**  
Lengthwise pick-up by forklift truck (wheels are not included but available as accessory)



**MB-D:**  
Crosswise pick-up by forklift truck



Fork pocket dimensions



#### Accessories:

- 2 steering + 2 fixed polyamide rollers Ø 180 mm, one steering roller with parking brake, clearance height 220 mm, max. load capacity 1,000 kg



If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Type	Dimensions L x W x H in mm	Platform area in mm	Perm. total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no. RAL 2000	Item no. hot-dip galvanised
MB-D	1115 x 1200 x 1890	800 x 1200	300	120	600 x 200 x 80	25302220015001	25302220015002
MB-D/L	1290 x 800 x 1890	1200 x 800	300	120	160 x 200 x 80	25302220015003	25302220015004

# FORK ATTACHMENTS

## Access Platforms

### Access Platform Type MB-F / MB-K-IV / MB-ST/T

#### MB-F:

- German TÜV approved, complies with German Accident Prevention Regulations
- Foldable version
- Ready for use in a minute
- Crosswise pick-up by forklift truck



If no colour is specified, we deliver painted in RAL 2000 (yellow orange). On request also available in light blue RAL 5012 or hot-dip galvanized acc. to EN ISO 1461.



#### Accessories:

- Personal protective equipment for the prevention of falls Lifting Points



#### MB-K-IV:

- German TÜV approved, complies with German Accident Prevention Regulations
- Acc. to DIN EN 14502-1
- Payload 300 kg
- Support feet, ground clearance 135mm
- With galvanised top
- Supplied with 4-leg chain sling
- For crane operation
- With lifting points for PPE



#### MB-ST/T:

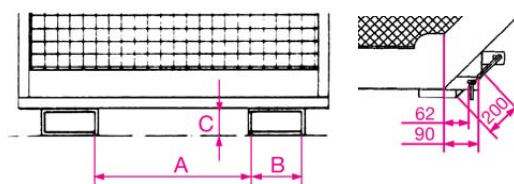
- Two-hand control contact switch, strobe light, cable retractor drum with 8 m electric cable, plug, socket and additional plug, door disconnecting switch
- Crosswise pick-up by forklift truck

#### Accessories:

- Personal protective equipment for the prevention of falls Lifting Points



Drawings of inside dimensions of fork pockets, not applicable for MB-K-IV



#### Accessories for access platforms (except version MB-K-IV):

2 steering + 2 fixed polyamide rollers Ø 180 mm, one steering roller with parking brake  
Clearance height 220 mm



Type	Dimensions L x W x H in mm	Platform area in mm	Permissible total weight in kg	Weight varnished kg/pce	Fork pocket dim. BxC in mm	Fork pocket dim. A in mm	Item no. RAL 2000	Item no. hot-dip galvanised
MB-F	1090 x 1200 x 1890	1000 x 1200	300	120	200x80	600	25302220015006	25302220015005
MB-K-IV	800 x 1200 x 2300	800 x 1200	470	170	-	-	25302220015009	25302220015008
MB-ST/T	1115 x 1200 x 1890	800 x 1200	300	130	200x80	600	25302220015010	25302220015011

### Tipping Containers Type Expo

#### Compact tipping container with roller system

- Low load centre of gravity
- Tipping is possible from the forklift seat at any height by cable pull
- Pan sheet with circumferential edge profile
- Robust base frame with forklift pockets
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

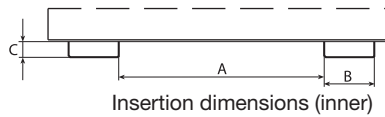


If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



#### Accessories:

- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg



Volume ca. m <sup>3</sup>	0.15	0.30	0.60	0.90	1.20	1.70	2.10
Capacity in kg	750	750	1000	1000	1500	1500	1500
Dimensions L x W x H in mm	960 x 640 x 550	1260 x 770 x 835	1260 x 1070 x 835	1260 x 1570 x 835	1720 x 1070 x 1103	1720 x 1570 x 1103	1720 x 1870 x 1103
Inner dimensions of forklift pockets A x B x C in mm	170 x 200 x 80	300 x 200 x 80	600 x 200 x 80	600 x 200 x 80	600 x 200 x 80	600 x 200 x 80	600 x 200 x 80
Weight varnished/galvanised kg/pce	74/80	112/121	131/141	173/190	205/220	240/258	265/285
Item no. varnished	25302225015001	25302225015003	25302225015005	25302225015007	25302225015009	25302225015011	25302225015013
Item no. galvanised	25302225015002	25302225015004	25302225015006	25302225015008	25302225015010	25302225015012	25302225015014

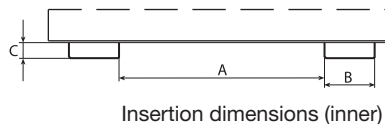
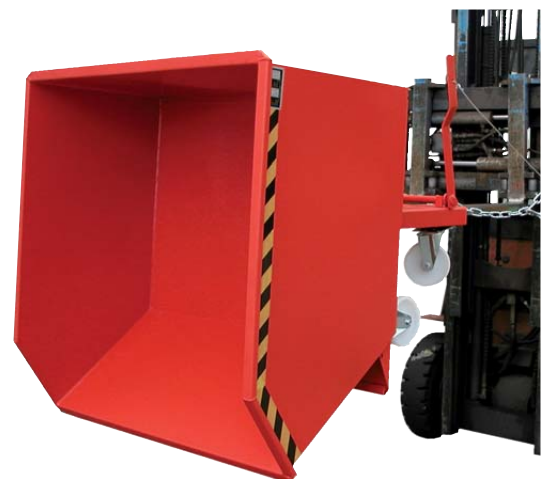
### Tipping Containers Type GU

#### Tipping container with low construction height

- Favourable tipping angle
- Low construction height
- Tipping is possible from the forklift seat at any height by cable pull
- Pan sheet with circumferential edge profile
- Robust base frame with forklift pockets
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



#### Accessories:

- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

Volume ca. m <sup>3</sup>	0.30	0.50	0.75	1.00	1.50	2.00
Capacity in kg	750	1000	1000	1500	1500	1500
Dimensions L x W x H in mm	1440 x 680 x 580	1440 x 780 x 680	1440 x 1280 x 680	1640 x 1280 x 780	1640 x 1280 x 1090	1640 x 1680 x 1090
Inner dimensions of forklift pockets A x B x C in mm	12 x 200 x 60	150 x 200 x 60	495 x 200 x 60	495 x 200 x 60	495 x 200 x 60	495 x 200 x 60
Weight varnished/galvanised kg/pce	108/118	121/133	156/171	184/202	215/236	246/271
Item no. varnished	25302225015015	25302225015017	25302225015019	25302225015021	25302225015023	25302225015025
Item no. galvanised	25302225015016	25302225015018	25302225015020	25302225015022	25302225015024	25302225015026



# FORK ATTACHMENTS

## Flap Bottom Containers

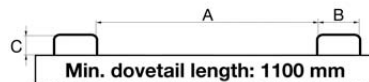
### Flap Bottom Containers Type FB

Flap bottom container for collecting, storing and discharging materials

- Robust steel design with smooth interior walls
- Bottom flap can be unlocked by cable pull from the forklift seat
- Rubber shock absorber dampens the sudden dropping of the flap during the emptying process
- Bottom flap closes automatically when the container is placed down
- Safety mechanism to prevent accidental slipping and the opening of the bottom flap
- Brackets for forklifts and cranes
- 100 mm ground clearance – transportable with pallet truck
- 4 crane eyelets with 40 mm diameter
- Up to 3 containers can be stacked
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



Fork pocket inner dimensions



#### Accessories:

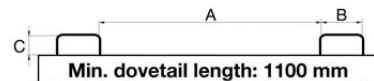
- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

Volume ca. m <sup>3</sup>	0.50	0.75	1.00	1.50	2.00
Capacity in kg	1000	1000	1250	1500	1500
Dimensions L x W x H in mm	800 x 1200 x 860	800 x 1200 x 1160	1000 x 1200 x 1160	1000 x 1800 x 1160	1000 x 1800 x 1460
Fork pocket inner dimensions A x B x C in mm	415 x 185 x 75	415 x 185 x 75	415 x 185 x 75	615 x 185 x 75	615 x 185 x 75
Weight varnished/galvanised kg/pce	125/178	144/207	158/228	202/286	232/328
Item no. varnished	25302225015027	25302225015029	25302225015031	25302225015033	25302225015035
Item no. galvanised	25302225015028	25302225015030	25302225015032	25302225015034	25302225015036

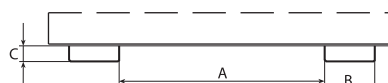
### Flap Bottom Containers Type BKB

Conical flap bottom container with base discharge

- Stackable one inside the other
- Bottom flap can be unlocked by cable pull from the forklift seat
- Bottom flap closes automatically when the container is placed down, 90° opening
- Robust design with circumferential edge profile
- Brackets for forklifts and cranes
- 100 mm ground clearance, transportable with pallet truck
- Safety mechanism to prevent slipping and the bottom flap from opening
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



Fork pocket inner dimensions



Inner dimensions of forklift pockets



#### Accessories:

- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

Volume ca. m <sup>3</sup>	0.50	0.70	1.00
Capacity in kg	1000	1500	2000
Dimensions L x W x H in mm	1040 x 1200 x 721	1040 x 1200 x 971	1040 x 1200 x 1271
Fork pocket inner dimensions A x B x C in mm	600 x 180 x 65	600 x 180 x 65	600 x 180 x 65
Fork pocket inner dimensions A x B x C in mm	600 x 190 x 90	600 x 190 x 90	600 x 190 x 90
Weight varnished/galvanised kg/pce	126/136	145/156	169/182
Item no. varnished	25302225015037	25302225015039	25302225015041
Item no. galvanised	25302225015038	25302225015040	25302225015042



### Stacking tipper Type BSK

Stacking tipper made from profiled sheet steel for robust applications

- Made from profiled sheet steel
- Up to 3 containers can be stacked when filled
- Dumped with cross beam by cable pull from the forklift seat
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



Volume ca. m <sup>3</sup>	0.30	0.55	0.70	0.90	1.50	2.0
Capacity in kg	500	1000	1500	2000	2000	2000
Dimensions L x W x H in mm	800 x 600 x 600	1000 x 800 x 900	1200 x 800 x 900	1200 x 1000 x 900	1200 x 1500 x 1000	1200 x 2000 x 1000
Weight varnished/galvanised kg/pce	50/55	80/88	90/99	100/110	140/154	170/187
Item no. varnished	25302225015043	25302225015045	25302225015047	25302225015049	25302225015051	25302225015053
Item no. galvanised	25302225015044	25302225015046	25302225015048	25302225015050	25302225015052	25302225015054

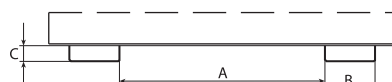
### Cross beam for stacking tipper Type BST

Cross beam for dumping the BSK stacking tipper

- Tipping is possible from the forklift seat at any height by cable pull
- Safety mechanism to prevent accidental slipping
- Fork pocket for forklifts
- Stacking tipper can be grasped using the holding pins
- For stacking tippers with a capacity of 0.30 – 2.00 m<sup>3</sup>
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



Insertion dimensions (inner)

Cross beam for container m <sup>3</sup>	0.30	0.55	0.70	0.90	1.50	2.0
Capacity in kg	500	1000	1500	2000	2000	2000
Dimensions L x W x H in mm	945 x 730 x 845	945 x 930 x 975	945 x 930 x 975	945 x 1130 x 975	940 x 1630 x 1085	940 x 2130 x 1085
Inner dimensions of forklift pockets A x B x C in mm	110 x 200 x 80	250 x 200 x 80	250 x 200 x 80	450 x 200 x 80	450 x 200 x 80	590 x 200 x 80
Weight kg/pce	71	79	79	85	156	173
Item no. varnished	25302230015001	25302230015002	25302230015003	25302230015004	25302230015005	25302230015006

# FORK ATTACHMENTS

## Box Wagon, Tipping Trough

### Box Wagon Types KW and KW-ET

Box wagon for any kind of bulk materials, with optional emptying at ground level

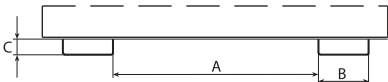
- Robust steel sheet design with edge reinforcement
- Base frame made from profiled steel
- Oil tight and waterproof
- Spring protection against tipping
- 2 wheels + 1 steering castor (from 600 l content: + 2 steering wheels) made from solid rubber Ø 250 x 60 mm, of which one steering castor with arrestor
- Handle for pushing
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



KW



KW-ET



Insertion dimensions (inner)

**!** If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Volume ca. m³		0.25	0.40	0.60	1.0
Capacity in kg		300	300	300	300
	Dimensions L x W x H in mm	1120 x 820 x 990	1330 x 900 x 1090	1400 x 1070 x 1220	1430 x 1340 x 1285
	Dumping edge height mm	690	740	830	870
	Weight varnished/galvanised kg	69/76	84/93	128/141	156/172
Type KW	without forklift pockets	Item no. varnished	25302225015055	25302225015057	25302225015059
		Item no. galvanised	25302225015056	25302225015058	25302225015060
Type KW-ET	with forklift pockets and safety mechanism to prevent accidental slipping or dumping	Inner dimensions of forklift pockets A x B x C in mm	465 x 170 x 55	465 x 170 x 55	465 x 170 x 55
		Weight varnished/galvanised kg/pce	80/88	96/106	140/154
		Item no. varnished	25302225015063	25302225015065	25302225015067
		Item no. galvanised	25302225015064	25302225015066	25302225015068

### Tipping Trough Type KN

Low tipping trough for collecting and disposing of bulk goods and industrial waste for bulk goods of any kind, with optional ground-level emptying

- Robust steel sheet design with edge reinforcement
- Trough in a tippable position with handle
- Base frame with forklift pockets
- Easy to move using a forklift
- Oil tight and waterproof
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

**!** If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

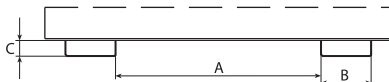


KN

Volume ca. m³		0.25	0.40
Capacity in kg		300	300
	Dimensions L x W x H in mm	1320 x 670 x 535	1390 x 840 x 610
	Dumping edge height mm	535	610
	Inner dimensions of forklift pockets A x B x C in mm	285 x 170 x 55	455 x 170 x 55
	Weight varnished/galvanised kg/pce	70/77	77/85
	Item no. varnished	25302225015071	25302225015073
	Item no. galvanised	25302225015072	25302225015074

#### Accessories:

- 2 steering and 2 fixed castors made from solid rubber Ø 200 x 50 mm, 1 steering castor with arrestor – construction height 235 mm



Insertion dimensions (inner)

### Tipping Trough Type KK

**Box-shaped tipping trough for collecting and disposing of bulk goods and industrial waste for bulk goods of any kind, with optional ground-level emptying**

- Robust steel sheet design with edge reinforcement
- Trough in a tippable position with handle
- Base frame with forklift pockets
- Easy to move using a forklift
- Oil tight and waterproof
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

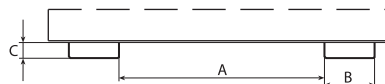


**KK**

#### Accessories:

- 2 steering and 2 fixed castors made from solid rubber Ø 200 x 50 mm, 1 steering castor with arrestor – construction height 235 mm

**!** If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



Insertion dimensions (inner)

Volume ca. m³	0.25	0.40	0.60	0.80	1.00
Capacity in kg	300	300	300	300	300
Dimensions L x W x H in mm	1130 x 590 x 740	1320 x 670 x 840	1390 x 840 x 910	1420 x 910 x 980	1420 x 1110 x 980
Dumping edge height mm	440	490	520	560	560
Inner dimensions of forklift pockets A x B x C in mm	205 x 170 x 55	285 x 170 x 55	455 x 170 x 55	525 x 170 x 55	725 x 170 x 55
Weight varnished/galvanised kg/pce	70/77	77/85	125/138	133/147	145/160
Item no. varnished	25302225015075	25302225015077	25302225015079	25302225015081	25302225015083
Item no. galvanised	25302225015076	25302225015078	25302225015080	25302225015082	25302225015084

### Tipping Trough Type KS

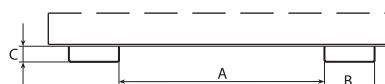
**Tipping trough for transporting and dumping bulk goods with great flexibility**

- Wheels and pushing handle enable simple manual transportation
- Forklift pockets for transportation with a forklift
- Emptying at ground level or over a large container using a forklift
- Robust steel design
- Base frame with forklift pockets
- Trough in a tippable position
- Safety mechanisms to prevent accidental slipping and dumping
- 2 steering and 2 fixed castors made from polyamide Ø 180 mm, of which one steering castor with arrestor – construction height 220 mm, max. load capacity 1,000 kg
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005



**KS**

**!** If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

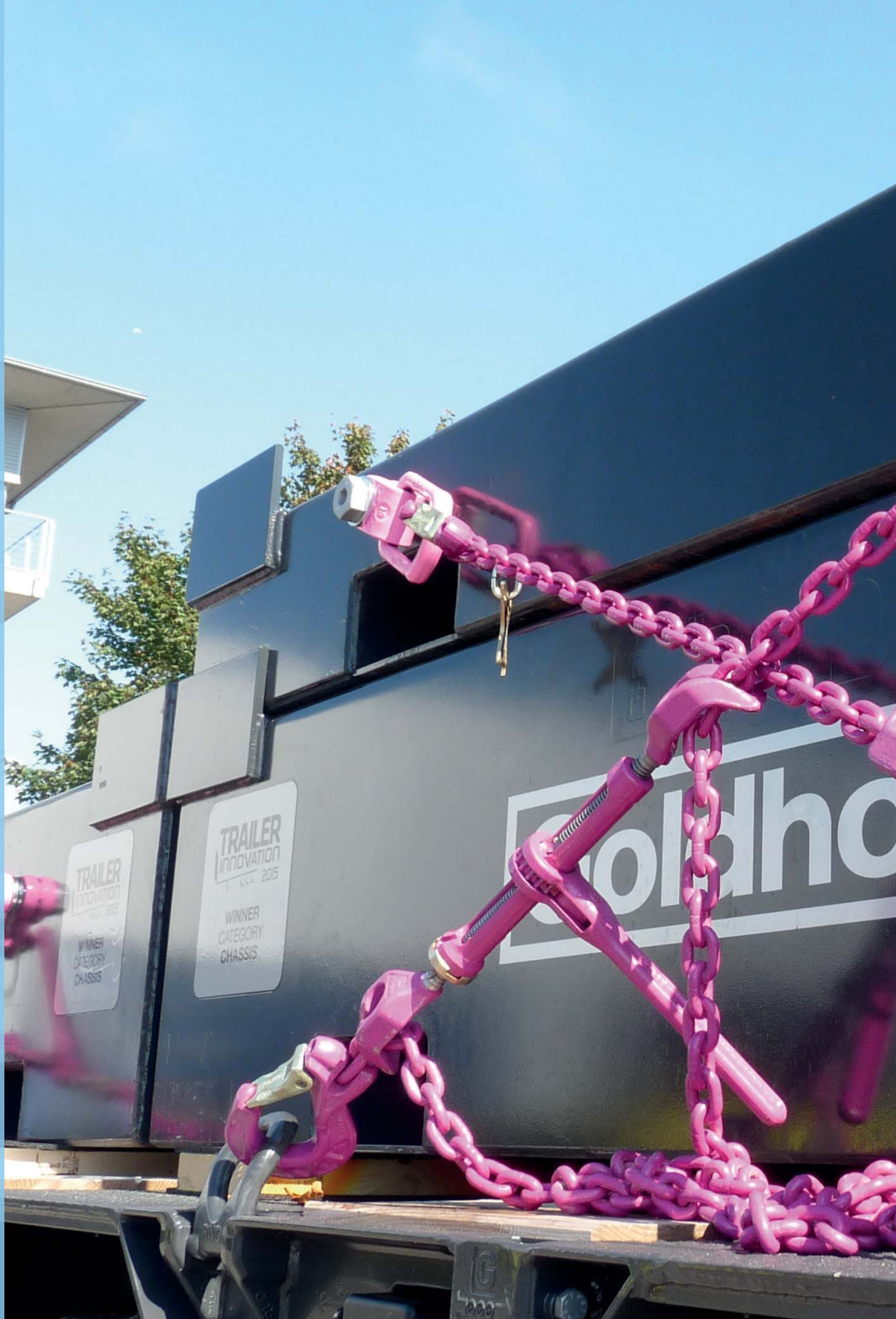


Insertion dimensions (inner)

Volume ca. m³	0.40	0.55	0.70
Capacity in kg	1000	1000	1000
Dimensions L x W x H in mm	1220 x 1010 x 1115	1245 x 1200 x 1170	1340 x 1200 x 1275
Dumping edge height mm	1020	1055	1175
Inner dimensions of forklift pockets A x B x C in mm	100 x 200 x 80	180 x 200 x 80	180 x 200 x 80
Weight kg/pce	107	120	132
Item no. varnished	25302225015085	25302225015086	25302225015087



# LOAD RESTRAINT SYSTEMS



Lashing straps | Edge Protectors | Disposable Lashings | Anti-Slip Mats |  
Lashing Chains Grade 12 | Lashing Chains Grade 8 | Lashing Points |  
Nets and Tarpaulins | Stowage Cushions | Load Restraints for Curtainsiders |  
Cargo Nets for Trucks and Vans | Big Bags

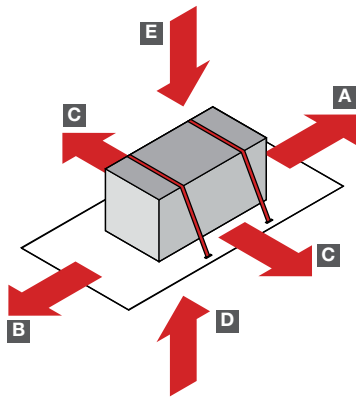




### Selection of the correct cargo strap

EN 12195-1: 2011 is not consistent with the results of many scientific tests that have been proved by daily practise. The status of an acknowledged rule of technology within the meaning of § 22, para. 1 StVO (German Road Traffic Regulations) is doubtful and for the time being has not been confirmed by jurisdiction. In order to ensure a sufficient level of safety, the following explanations refer to DIN EN 12195-1: 2004 and VDI 2700 ff. respectively.

#### Calculating acceleration values



Acceleration in g	Lorry	Train	Ship
<b>A</b> Forwards (Cx)	0.8	4.0	0.4
<b>B</b> Backwards (Cx)	0.5	4.0	0.4
<b>C</b> Sideways (Cy)	0.5	0.5	0.8
<b>D</b> Up (Cz)	-	0.3	0.8
<b>E</b> Down (Cz)	1.0	1.0	1.0



#### Securing loads through positive locking

Load restraint by means of positive locking exists if the load can be supported against a front wall, side wall and/or stanchions. The front wall, side wall and stanchions must be able to withstand the forces that arise. A further kind of load securing through positive locking is angular or diagonal lashing, where the lashing equipment, lashing points and lifting points must be able to withstand the forces that arise. The aim is always to prevent the load from moving. Secure loads with positive locking whenever possible as this form of load restraint is particularly effective and safe.

#### Calculating the necessary restraint force (minimum LC) when securing a load through positive locking: VDI 2700 part 2:2014 and DIN EN 12195-1:2004

$$F_R = \frac{m \times g (C_x - \mu \times C_z)}{2 (\cos \alpha \times \cos \beta + \mu \times \sin \alpha)}$$

- $F_R$  – Min. LC (Lashing Capacity)
- $\mu$  – Friction value
- $\alpha$  – Vertical lashing angle (in relation to the loading area)
- $\beta$  – Horizontal lashing angle (in relation to the loading area)
- $C_x$  – Acceleration forwards and backwards
- $C_z$  – Acceleration up and down
- $m$  – Mass
- $g$  – Weight

#### DIN EN 12195-1:2011

$$F_R = \frac{m \times g (C_x - \mu \times f_{\mu} \times C_z)}{2 (\cos \alpha \times \cos \beta + \mu \times f_{\mu} \times \sin \alpha)}$$

- $F_R$  – min. LC (Lashing Capacity)
- $f_{\mu}$  – 0.75
- $\mu$  – Friction value
- $\alpha$  – Vertical lashing angle (in relation to the loading area)
- $\beta$  – Horizontal lashing angle (in relation to the loading area)
- $C_x$  – Acceleration forwards and backwards
- $C_z$  – Acceleration up and down
- $m$  – Mass
- $g$  – Weight

In the case of angled and diagonal lashing, the lashing angles must be considered. Ideally, the vertical angle should be between 0° and 60° and the lengthways horizontal angle between 20° and 45°.

#### Securing loads through force locking

The load is prevented from falling or slipping by being tied down, i.e. through load restraint based on force locking. When using tie-down lashing, two forces work together to secure the load: the pre-tension force and the dynamic friction. The lashing straps are used to apply the pre-tension force. The number of lashing straps to be used depends on the pre-tension force required. The friction created by the material pairing of the load and the loading area reduces the pre-tension force required to secure the load to the loading area. You can increase the dynamic friction by placing an anti-slip mat under the load.

#### Calculating the number of lashing straps required when securing a load through force locking: VDI 2700 part 2 and DIN EN 12195-1:2004

$$n = \frac{m \times g (C_x - \mu \times C_z)}{k \times \mu \times \sin \alpha \times S_{TF}}$$

#### DIN EN 12195-1:2011

$$n = \frac{m \times g (C_x - \mu \times C_z)}{2 \times \mu \times \sin \alpha \times S_{TF}} \times f_s$$

- $n$  – Number of straps
- $f_s$  – For road transportation in  $X = 1.25$
- $k$  – Transmission coefficient (k-factor)
- $\mu$  – Friction coefficient
- $\alpha$  – Vertical lashing angle (in relation to the loading area)
- $C_x$  – Acceleration forwards and backwards
- $C_z$  – Acceleration up and down
- $m$  – Mass
- $g$  – Weight

#### Example:

Tie-down lashing of a load weighing 20 tons with an anti-slip mat placed underneath it  
 $\mu = 0.6$ , lashing angle  $\alpha = 80^\circ$ ,  
 $S_{TF} = 400 \text{ daN}$ ,  $k = 1.5$ ,  $f_s = 1.25$

#### DIN EN 12195-1:2004

$$n = \frac{20000 (0.8 - 0.6)}{1.5 \times 0.6 \times \sin 80^\circ \times 400} = 11.28 = 12 \text{ straps}$$

#### DIN EN 12195-1:2011

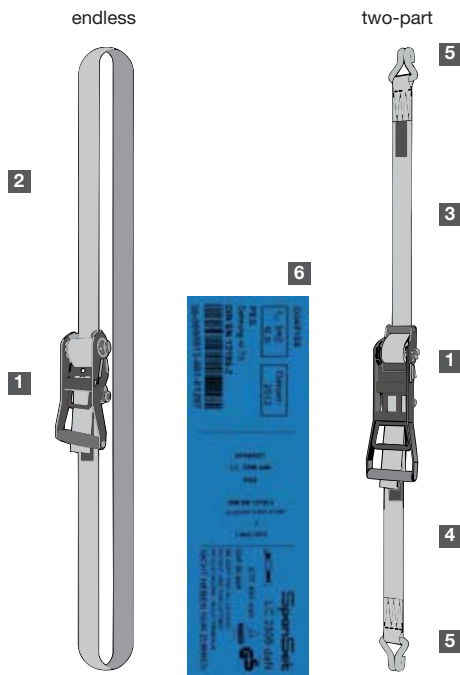
$$n = \frac{20000 (0.8 - 0.6)}{2 \times 0.6 \times \sin 80^\circ \times 400} \times f_s = 10.58 = 11 \text{ straps}$$



### Structure of textile lashingstraps

The **endless lashing strap** comprising a **tensioner (1)** and **webbing (2)** is strapped around the load, meaning that no connectors such as eyelets or hooks are required.

The **two-part lashing strap** comprises the **fixed end (FE) (4)**, **connector (C) (5)**, **tensioner (T) (1)** and **adjustable end (AE) (3)**, which is also equipped with a connector (5).



### The label

According to standard DIN EN 12195-2, the fixed and adjustable ends must each have a label (6) that shows all technical details. The fixed end label specifies the standard tension force (STF). If this information is missing, the lashing strap must not be used for tie-down lashing. Lashing straps with a CE mark are a widespread problem. As Section 7 of the German Product Safety Act (ProdSG) prohibits this mark, CE marks on lashing strap labels therefore lead to straps needing to be discarded!

### Inspection and servicing

Lashing straps must be inspected by an expert at least once a year. More regular inspections may be required depending on the usage conditions and frequency. Servicing work may only be conducted by the manufacturer or persons commissioned by the manufacturer.



### TFI – Tension Force Indicator

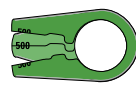
SpanSet developed a unique mechanical aid over ten years ago – the tension force indicator (TFI). This is installed directly on the tensioner and reliably indicates the pre-tension force that has been achieved.

### Demonstrably achieve the maximum pre-tension force with the TFI

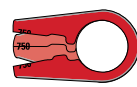
The TFI makes it possible to use your lashing straps optimally and with maximum performance. The pre-tension measurement indicator makes it easier for you to measure the pre-tension force applied as well as to provide evidence of this for any checks.

The tension force indicator is designed for 50 mm straps and available in several designs with 500 (green), 750 (red) and 1,000 (yellow) daN/STF pre-tension indicator tailored to the respective lashing system.

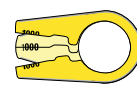
- Demonstrably use up to 60% fewer lashing straps
- For the fixed end and the adjustable end
- Optimal legibility thanks to signal colour



TFI 500 daN



TFI 750 daN



TFI 1,000 daN



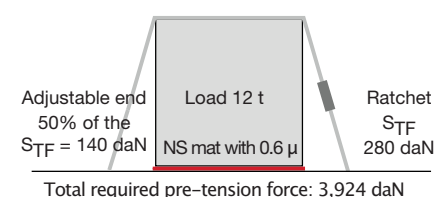
### Secure the load – minimise the lashing equipment

By using the tension force indicator on the fixed end of the lashing equipment, the number of lashing straps can be vastly reduced. If a further TFI is attached to the adjustable end, up to 60% fewer lashing straps can demonstrably be used to secure the load. The fixed end of the 2.5 tonne ErgoABS pull-down ratchet – with a proven STF of 350 daN – is equipped as standard with a 750 daN TFI. If we consider the k-factor of 1.5, an STF of 1,125 daN is achieved with tie-down lashing. If a 750 daN TFI is also used on the adjustable end, a pre-tension force of 1,500 daN can even be reached and evidenced.

### STF values for lashing systems with and without TFI

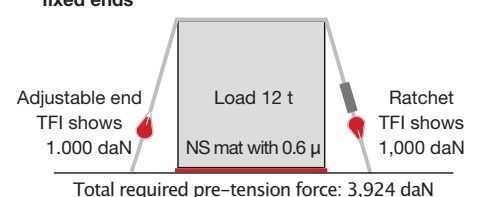
Lashing system	LC in the strapping in daN	LC in the strapping in daN	STF simply direct in daN	STF in the strapping k = 1.5 in daN	STF with TFI simply direct in daN	STF with TFI in the strapping k = 2 in daN	Number of lashing straps
2t lash. strap (ext. prod.)	2,000	4,000	280	420	-	-	10
2.5t lash. strap (ext. prod.)	2,500	5,000	280	420	-	-	10
2t lash. strap w/ TFI 500	2,000	4,000	-	-	500	1,000	4
2.5t lash. strap w/ TFI 500	2,500	5,000	-	-	500	1,000	4
2t Ergo ABS	2,000	4,000	440	660	-	-	6
2.5t Ergo ABS	2,500	5,000	350	525	-	-	8
2t-Ergo ABS w/ TFI 750	2,000	4,000	-	-	750	1,500	3
2.5t Ergo ABS w/ TFI 750	2,500	5,000	-	-	750	1,500	3
ErgoMaster	2,000	4,000	720	1,080	-	-	4
ErgoMaster w/ TFI 1,000	2,000	4,000	280	420	1,000	2,000	2

### 2t lashing strap (external product), without TFI



**Result: the necessary pre-tension force is achieved with 10 (external product) lashing straps!**

### ErgoMaster 2t with TFI at the adjustable and fixed ends



**Result: the necessary pre-tension force is achieved with 2 ErgoMaster pull-down ratchets!**

# LOAD RESTRAINT SYSTEMS



## The key benefits of the ratchet systems

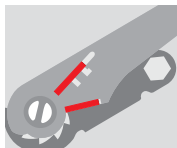
### Longer ratchet lever



**For better force transmission and enhanced ergonomics; kind on the back**

The longer lever not only means that higher pre-tension forces can be achieved but also makes lashing far easier. High pre-tension forces can be achieved with far less muscle power. The pull-down ratchets with a long lever in particular are kinder on the back and comply more with ergonomic requirements.

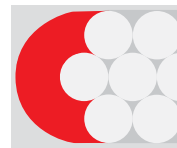
### Dual slider



**More tensioning force, less muscle power**

When tightening the lashing strap, the dual slider also secures the load at interim stages. Two sliders engage in an existing gear ring in smaller steps. This enables you to achieve a greater tensioning force while using less muscle power.

### Reinforced web edge



**Makes the strap less sensitive to wear and friction**

Straps with a reinforced web edge are less sensitive to wear and friction. The benefit to you: longer service lives and lower costs!

### Tension force indicator



**Indicator for proving the pre-tension force actually achieved**

By using the TFI, you can prove the pre-tension forces applied when tying down loads with a lashing system and calculate the load restraint requirements. Three TFI versions are available with 500 (green), 750 (red) and 1,000 daN (yellow). Using a TFI on the adjustable and fixed ends is particularly effective and makes it possible to prove pre-tension forces of 1,000, 1,500 and 2,000 daN. As a result, fewer lashing straps are required to secure the load, which in turn accelerates the loading and unloading processes and offers major financial benefits.

### „Anti-belt-slip“ procedure



**Makes it possible to release the pre-tension in small steps**

The ratchet is opened, the tension is suddenly released and you lose control of the load: anyone who has ever experienced this knows the importance of ABS. The ABS system has been developed for loads at risk of tipping over and makes it possible to release the pre-tension force in small steps. This enables you to straighten up any loads at risk of tipping that are leaning into the strap. This helps to prevent damage and accidents. The lashing system can also be immediately fully opened so that no time is lost when transporting more stable loads.

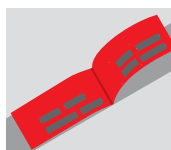
### Self-locking ratchet lever



**Prevents the ratchet from accidentally opening**

We have developed the self-locking ratchet lever for maximum safety when lashing loads. When lashing the load, pull the integrated slider. If the ratchet is closed, it automatically moves to the locked position. This effectively prevents the ratchet from accidentally opening while on the move – even with the strongest vibrations and highest amount of shaking.

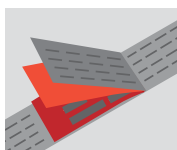
### Centre fold label



**For protection against damage with internal text**

SpanSet clamp-lock lashing straps have a centre-fold label that is double-layered to make it more resistant to being torn off. The writing on the inside is protected against friction. A fold in the centre makes the label shorter to minimise the area subjected to the wind and sheering forces.

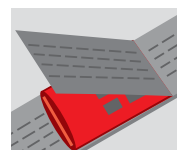
### Strap overlap



**Protected label thanks to 'fabric protection shield'**

The labels on all SpanSet ratchet lashing straps are also protected by a strap overlap. The 'fabric protection shield' combined with the benefits of the centre fold label extends the service life of your lashing straps.

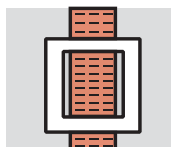
### Protective sleeve label



**Optimally protected, reinforced with insert**

In addition to the non-tear-out workmanship thanks to the fabric insert, a robust plastic sleeve optimally protects the text against wear and dirt. The strap overlap used as standard also extends the service life.

### Optimum tailoring



**From the strap to the clamping lock**

The SpanSet clamp-lock lashing straps are optimally designed in line with the width and thickness of the straps that can be used with them. This prevents premature wear and ensures that the strap is securely held in the clamp lock.

### Precision strap



**Low strap elongation**

Spannfix ratchets comply with a strap elongation of less than 7% of the norm. Our quality systems even show evidence of just 4% of the standard strap elongation. Less elongation makes sense as this means that additional tensioning is required less frequently.

### Epoxy resin coating



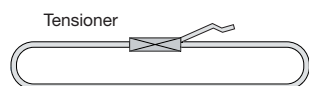
**Coating on chromated and galvanised sheet steel ratchet**

We place the greatest value on the quality of every component. The ratchets are first galvanised, then chromated and covered with an impact-resistant epoxy resin coating, which additionally protects them against rusting, for example.



### Polyester Strap with Cambuckle, Width 25 mm

- Endless
- For light load restraint and in-plant storage
- Acc. to DIN EN 12195-2



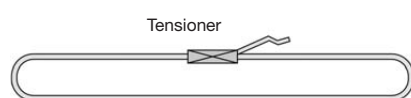
Structure of endless lashing strap

Lashing capacity LC in daN	Length in m	Max. elongation at LC in %	Item no.
250	4	< 7	40101000015003
250	6	< 7	40101000015004

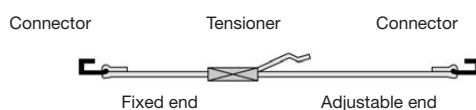
Other lengths are available on request.

### Polyester Ratchet Strap, Width 25 mm

- Specially suitable for use with roof racks and auto trailers for light duty
- Endless or two-part, with double J or snap hook
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



Structure of two-part lashing strap

endless

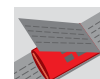
two-part

with double J hook

with snap hook



EPX



endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Length in m	Pretensioning force ST <sub>F</sub> in daN	Max. elongation at LC in %	Item no.
endless	—	800	—	4	-	< 7	40101000015007
		800	—	6	-	< 7	40101000015008
two-part	Double j hook	—	400/800	4	140	< 7	40101000015011
		—	400/800	6	140	< 7	40101000015012
two-part	Snap hook	—	400/800	4	140	< 7	40101000015009
		—	400/800	6	140	< 7	40101000015010

Other lengths are available on request.



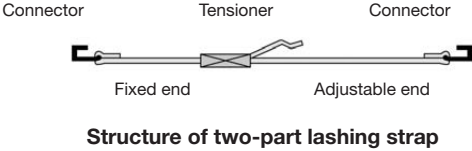
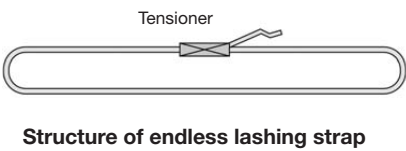
Tie-down Controller (in German language only!)

Item no. 40251500015006



Polyester Straps with Pressure Ratchet, Width 35 mm

- With extra wide ratchet handle,
- In endless or two-part version available
- For medium duty
- Epoxy resin coated tensioner
- Acc. to DIN EN 12195-2



endless		two-part					
		with double J hook	with claw hook	with snap hook			
endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Length in m	Pretensioning force ST <sub>F</sub> in daN	Max. elongation at LC in %	Item no.
endless	—	2000	—	4	-	< 7	40101000015042
		2000	—	6	-	< 7	40101000015043
two-part	Double j hook	—	1000/2000	4	440	< 7	40101000015048
		—	1000/2000	6	440	< 7	40101000015049
two-part	Claw hook	—	1000/2000	4	440	< 7	40101000015044
		—	1000/2000	6	440	< 7	40101000015045
two-part	Snap hook	—	1000/2000	4	440	< 7	40101000015046
		—	1000/2000	6	440	< 7	40101000015047

Other lengths are available on request.



### The SpanSet Lashing force app

**NEW!**

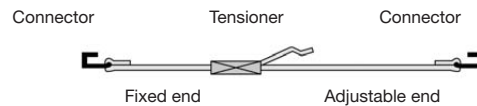
The useful app, based on the tried-and-tested SpanSet lashing force controller, provides a clear and easily-comprehensible user interface that makes calculating the lashing straps required child's play. Calculation of the load control values takes place either in line with the guidelines of VDI 2700 et seq. and/or DIN EN 12195, as you choose.

- Input of dynamic friction coefficients, angle of inclination, pre-tensioning forces and of the acceleration in the direction of travel and the K-factor
- Languages: German, English, Dutch, Italian, Portuguese, Spanish
- Easy-comprehensible user interface
- Documentation of the load distribution plan
- Display of inclination angle by sensors within the Smartphone

The free lashing force app is available to download for iOS and Android under Google Play in the App Store.

### Polyester Straps with Pressure Ratchet, Width 50 mm

- With extra wide ratchet handle
- In endless or two-part version available
- For medium duty
- Epoxy resin coated tensioner
- Acc. to DIN EN 12195-2



Structure of two-part lashing strap







#### two-part

#### with double J hook

#### with claw hook

#### with snap hook



two-part	with hook type	Lashing capacity LC in daN	Length in m	Pretensioning force ST <sub>F</sub> in daN	Max. elongation at LC in %	Item no.
two-part	 Double j hook	600/1200	4	228	< 7	40101000035898
two-part	 Double j hook	600/1200	6	228	< 7	40101000035900
two-part	 Claw hook	600/1200	4	228	< 7	40101000035891
two-part	 Claw hook	600/1200	6	228	< 7	40101000035893
two-part	 Snap hook	600/1200	4	228	< 7	40101000035886
two-part	 Snap hook	600/1200	6	228	< 7	40101000035889

Other lengths are available on request.

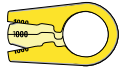


# LOAD RESTRAINT SYSTEMS

**SpanSet®** Lashing straps

## Polyester Strap with ErgoMaster Ratchet, Width 50 mm

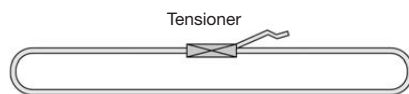
**ABS + TFI**



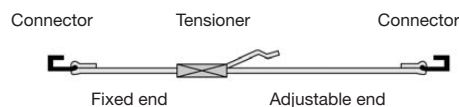
Enhanced safety with the  
**Tension Force Indicator**  
Indication of Pretension Force

With the ErgoMaster, ergo again stands for high pre-tension forces and the back-friendly functional principle of 'pull don't push'. Thanks to a new geometric design and innovative mechanics, the lashing system can be used to achieve a standard tension force (STF) of 720 daN – or with a tension force indicator (TFI) even of up to 1.000 daN – in a straight line. The system, which is preferably used for tie-down lashing, is offered with a lashing capacity (LC) of 2.000 daN and various hook combinations.

- Standard length 8 m, fixed end 0.5 m
- Available in endless or two-part version
- With tension force indicator (TFI) as standard, enabling an achievable and readable pre-tension force of 1.000 daN
- Unique slit shaft system for ideal force transmission
- Low elongation, wear-resistant strap with cord edge and identification stripes
- Epoxy resin coated tensioner
- Robust label secured against being torn out and protected by a plastic sleeve and strap overlap
- The self-locking ratchet lever: lash – pull safety lever – close ratchet – anchor safety lever in the gear ring. This stops the ratchet from subsequently springing open. Even the strongest vibrations and shaking movements have no effect!
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



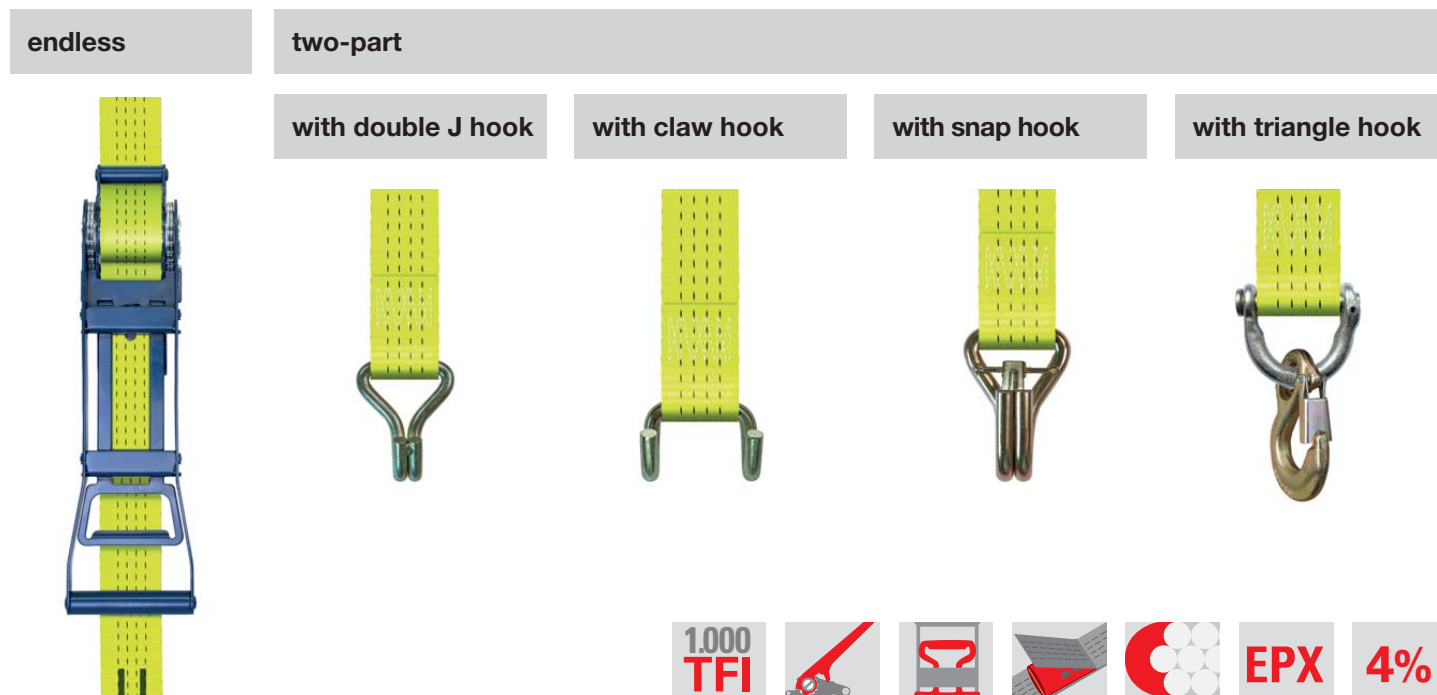
Structure of two-part lashing strap









# LOAD RESTRAINT SYSTEMS

**SpanSet®** Lashing straps



endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Pretensioning force ST <sub>F</sub> in daN	Pretensioning force ST <sub>F</sub> mit TFI in daN	Width in mm	Thickness in mm	Item no.
endless	—	4000	—	—	—	50	2.9	40101000015025
two-part	 Double j hook	—	2000/4000	720	1000	50	2.9	40101000015026
two-part	 Claw hook	—	2000/4000	720	1000	50	2.9	40101000015027
two-part	 Snap hook	—	2000/4000	720	1000	50	2.9	40101000015028
two-part	 Triangle hook	—	2000/4000	720	1000	50	2.9	40101000015029

Other lengths are available on request.



# LOAD RESTRAINT SYSTEMS

**SpanSet®** Lashing straps

## Polyester Strap with ErgoABS Ratchet, Width 50 mm

**ABS + TFI**



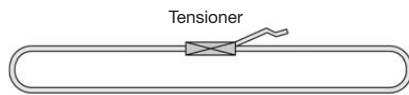
Enhanced safety with the  
**Tension Force Indicator**  
Indication of Pretension Force

Option: additional  
**TFI** at the loose end

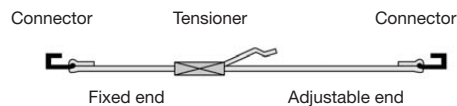
WEBBING  
ELONGATION **<4%**

### Powerful and ergonomic tightening safe and controlled releasing

- Standard length 8 m, fixed end 0.5 m
- Available in endless or two-part version
- With tension force indicator (TFI) as standard, enabling an achievable and readable pre-tension force of 750 daN
- Epoxy resin coated tensioner
- Controlled release of the lashed load with the ABS ratchet
- The double latch brings more tension in less time! More tension through smaller steps
- The self-securing ratchet handle: Tightening – pull the function slider – lock the ratchet – let the function slider engage in the toothed ring. Subsequent unintentional unlocking of the ratchet is excluded. The system even resists strongest vibrations and jolts!
- Acc. to DIN EN 12195-2



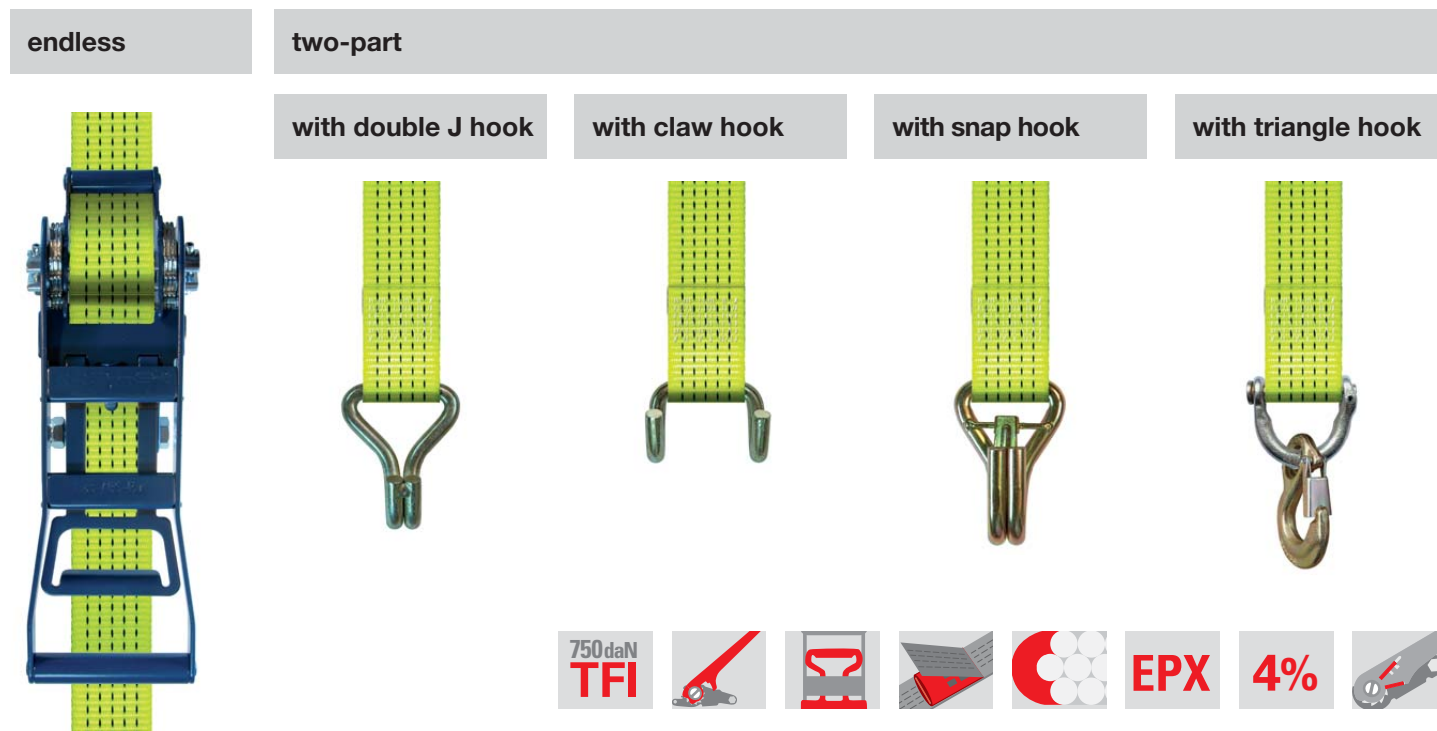
Structure of endless lashing strap







Structure of two-part lashing strap

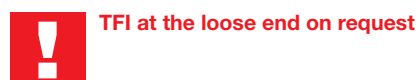






endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Pretensioning force ST <sub>F</sub> in daN	Pretensioning force ST <sub>F</sub> mit TFI in daN	Width in mm	Thickness in mm	Item no.
endless	—	5000	—	—	—	50	2.9	40101000015031
two-part	 Double j hook 1201	—	2500/5000	350	750	50	2.9	40101000015032
two-part	 Claw hook 1204	—	2500/5000	350	750	50	2.9	40101000015033
two-part	 Snap hook 1215	—	2500/5000	350	750	50	2.9	40101000015034
two-part	 Triangle hook 1253S	—	2500/5000	350	750	50	2.9	40101000015035

Other lengths are available on request.



# LOAD RESTRAINT SYSTEMS

**SpanSet®** Lashing straps

## Polyester Strap with ABS Pressure Ratchet, Width 50 mm

**ABS + TFI**

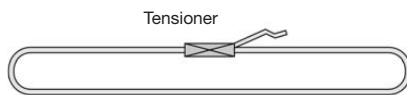
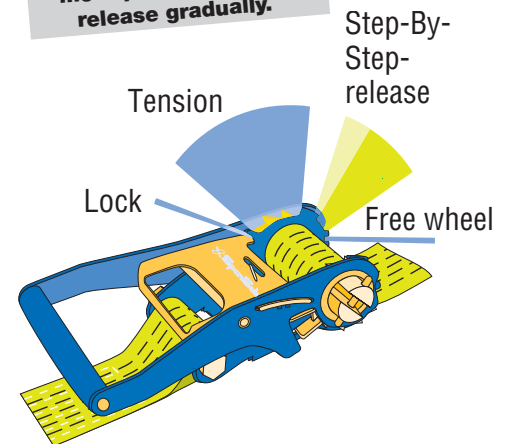


Enhanced safety with the  
**Tension Force Indicator**  
Indication of Pretension Force

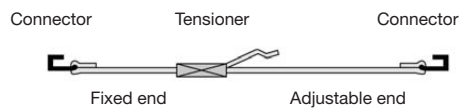
- Standard length 8 m, fixed end 0.5 m
- Available in endless or two-part version
- With tension force indicator (TFI) as standard, enabling an achievable and readable pre-tension force of 500 daN
- Epoxy resin coated tensioner
- Controlled release of the lashed load with the ABS ratchet
- The pretension force is released gradually, whereas conventional ratchets will release the webbing tension all at once. This is particularly dangerous if the load is not properly balanced.
- The ABS ratchet is released gradually. Thus the risk is avoided that shifted load will tip over when loosening the ratchet and endangers man and material.
- Acc. to DIN EN 12195-2

WEBBING  
ELONGATION **<4%**

**ABS ratchet: Tighten more powerfully and release gradually.**



Structure of endless lashing strap



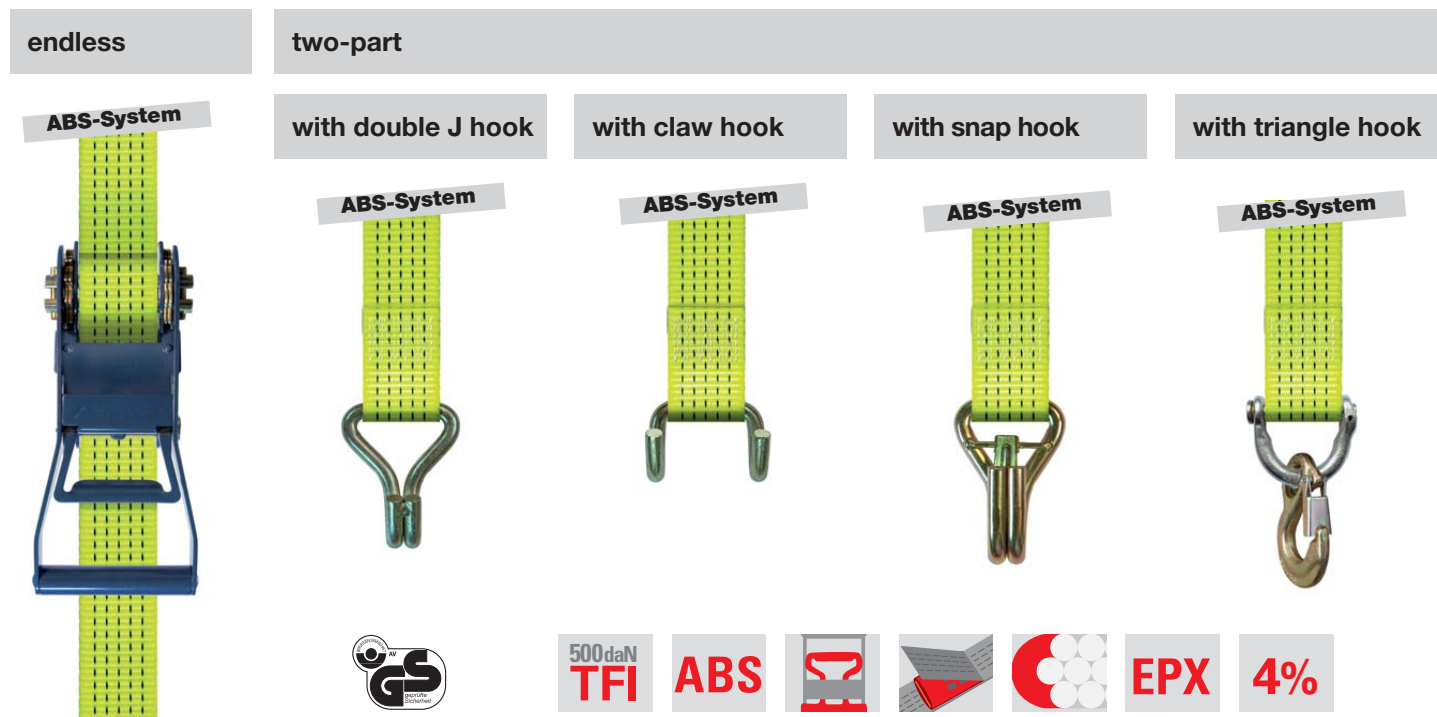
Structure of two-part lashing strap





# LOAD RESTRAINT SYSTEMS

**SpanSet®** Lashing straps



endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Pretensioning force ST <sub>F</sub> in daN	Pretensioning force ST <sub>F</sub> mit TFI in daN	Width in mm	Thickness in mm	Item no.
endless	—	5000	—	—	—	50	2.9	40101000015020
two-part	Double j hook	—	2500/5000	350	500	50	2.9	40101000015021
two-part	Claw hook	—	2500/5000	350	500	50	2.9	40101000015022
two-part	Snap hook	—	2500/5000	350	500	50	2.9	40101000015023
two-part	Triangle hook	—	2500/5000	350	500	50	2.9	40101000015024

Other lengths are available on request.



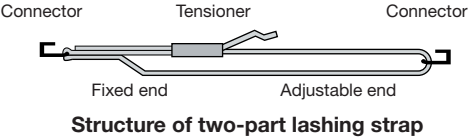
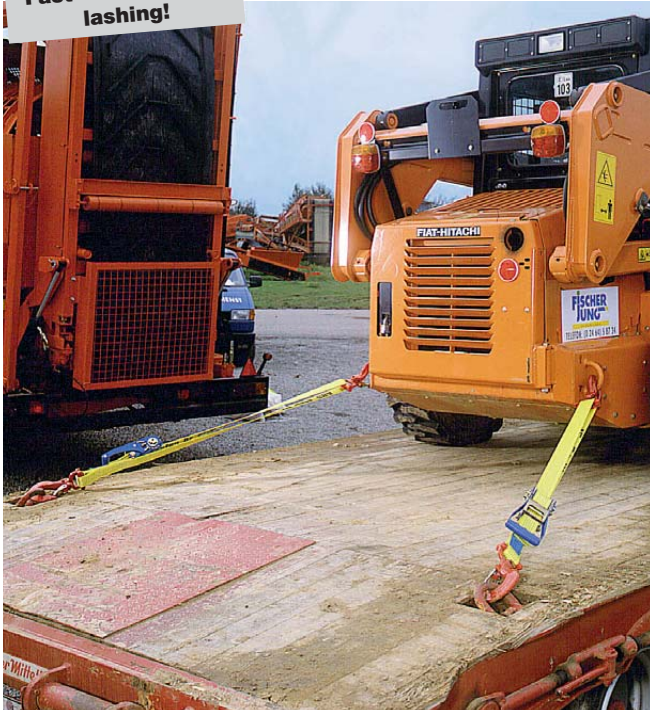
Polyester Strap with ABS Heavy Duty Ratchet, Width 50 mm

- Standard length 4 m, fixed end 0.5 m
- Two-part version
- Epoxy resin coated tensioner
- Self-locking tensioner, can be gradually released with ABS and equipped with dual slider
- The double-layer belt material together with high-strength hooks and the ABS ratchet ensure a reliable lashing capacity of up to 10,000 daN
- Ideal for direct lashing of vehicles and machinery
- Also available with woven logo or individual print
- Acc. to DIN EN 12195-2

WEBBING ELONGATION <4%



Fast and powerful lashing!



two-part

with triangle

with safety hook

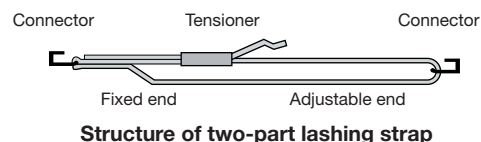


with hook type			Lashing capacity LC in daN	Width in mm	Thickness not impregnated in mm	Item no.
two-part		triangle	5000/10000	50	2.8	40101000015016
two-part		safety hook	5000/10000	50	2.8	40101000015017

Other lengths are available on request.

### Polyester Strap with ABS Heavy Duty Ratchet, Width 75 mm

- Standard length 4 m, fixed end 0.5 m
- Available in two-part version
- Epoxy resin coated tensioner
- Self-locking tensioner, can be gradually released with ABS and equipped with dual slider
- Ideal for direct lashing of heavy vehicles and machinery
- Also available with individual print
- Reliable tie-down lashing capacity of 20,000 daN due to double-layer belt material
- Acc. to DIN EN 12195-2



### two-part

#### with triangle

#### with safety hook

**ABS-System**



**ABS-System**







**ABS**



**EPX**



with hook type		Lashing capacity LC in daN	Width in mm	Thickness not impregnated in mm	Item no.
		 			
two-part	 triangle	10000/20000	75	4.2	40101000015019
two-part	 safety hook	10000/20000	75	4.2	40101000015018

Other lengths are available on request.





Polyester Strap with Ergo Ratchet, Width 50 mm

The highest performing ratchet assembly available is a reverse action type which maximises ergonomic efficiency and utilises an extended handle for greater leverage. The pretension forces are 50% higher than with conventional ratchets!

- Standard length 8 m, fixed end 0.5 m
- Two-part version with double J hook
- The required pretension is reached without effort
- Less tie-down effort
- Easy handling
- Spine-friendly
- Sturdy design
- Acc. to DIN EN 12195-2

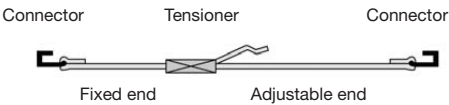
The low-cost alternative -  
Please contact us for pricing!

Pulling is better  
than pushing!

Less effort -  
more safety!



Also available with  
TFI



Structure of two-part lashing strap

two-part

with double J hook



Optional  
on request:



with claw hook

with snap hook



Also available with your individual print.



Lashing capacity LC in daN	ST <sub>F</sub> in daN	Width in mm	Thickness not impregnated in mm	Length in m	Item no.
 					
2500/5000	500	50	3.0	8	40101000037313
2500/5000	500	50	3.0	9	40101000037314



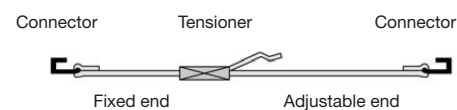


### Polyester Strap with Pressure Ratchet, Width 50 mm

The low-cost alternative -  
Please contact us for pricing!

- Standard length 8 m, fixed end 0.5 m
- Two-part version with double J hook
- The required pretension is reached without effort
- Less tie-down effort
- Easy handling
- Sturdy design
- No unintended loosening – even with strong vibrations or shaking motion – due to self-locking ratchet handle
- Acc. to DIN EN 12195-2

Self-locking  
ratchet handle



Structure of two-part lashing strap

### two-part

with double J hook



Optional  
on request:


with claw hook

with snap hook



Also available with your individual print.



Lashing capacity LC in daN 	ST <sub>F</sub> in daN	Width in mm	Thickness not impregnated in mm	Length in m	Item no.
2500/5000	350	50	3.0	8	40101000036730
2500/5000	350	50	3.0	9	40101000035952

Belts with individual Weaving for Lashing Straps ABS and ErgoABS

Individual weavings with your company name or phone number in black yarn.

The black weaving on the yellow belt material provides high contrast and offers additional advertising space as well as property protection against theft.

**Weaving available for 35 mm and 50 mm belts.**

Length of weaving max. 1.5 m in repeat.  
Minimum order quantity: 250 m belt material, corresponding to approx. 30 straps/8 m length.  
Over- or underdeliveries of 10% are possible.



The weaving is generated during the belts' production by colored yarn.



Individual Print on the Belt

This is the cost-saving alternative to weaving. Your logo or logotype as monochrome print in repeat as property marking.

**Screen printing.**

**Continuous printing.**

(Minimum order quantity 250 m, corresponding to approx. 30 lashing straps)

Max. length of print image: 1.0 m, max. 40 characters at 25 mm width.



The print colours will only penetrate the top layer of the belt.

2<sup>nd</sup> Label

On request your ratchet strap can be fitted with an additional label. This label offers pace for individual information as your own numbering as property protection, vehicle plate number etc.

Please contact us for details!

Retrofitting with transponder possible



Ratchet Pads

This useful pad protects your load against marks of the tightly fitted ratchet parts. The pad is simply threaded on the strap.

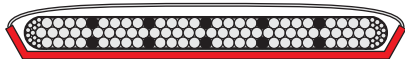


Suitable for belt width in mm	Item no.
to 36	40251500015001
50	40251500015002
75	40251500015003

### Protective Sleeve SF-LSP

Roll length 5 m

Specially suitable for transport of prefabricated concrete parts, steel- or metal elements or similar sharp-edged goods.



Suitable for belt width in mm	Item no.
25	40154500015008
35	40154500015003
50	40154500035049
75	40154500015005



### Protective Sleeve LSP-SF1

The coated fabric layer enables it to be quickly pushed onto or removed from a strap. Item length 1,000 mm.

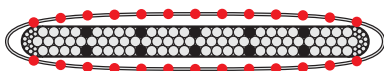


Suitable for belt width in mm	Item no.
50	40154500015001
75	40154500015002

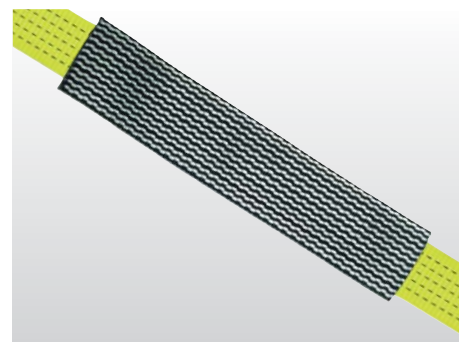


### Abrasion Protection sliP

This very low-friction protective sleeve lets the belt slip through very smoothly. Flexible and easy to roll up together with the strap.



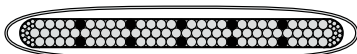
Suitable for belt width 50 mm	Item no.
length 500 mm	40154500015007
5 m roll	40154500015006



### Protective Sleeve PF/2

Length 1 m

PF/2 – the ultra-low-friction protective sleeve enables the straps to glide particularly smoothly. Flexible and easy to roll up together with the strap.



Suitable for belt width in mm	Item no.
35	40154500015009
50	40154500015010
75	40154500015011





# LOAD RESTRAINT SYSTEMS

## SpanSet® Edge Protectors/Accessories

### Edge Protector KaSi Plus

The innovative KaSi Plus edge protector uses a hollow to protect the sensitive edge of paper reels when they are secured for transportation with lashing straps. This effectively prevents indents and damage to the paper reels.

Suitable for max. belt width in mm	Packing unit	LxWxH in mm	Item no.
55	1	200 x 150 x 145	40152500015002



### Edge Protector UWI

#### The versatile edge protector

The UWI is a particularly low cost edge bracket for everyday use during transportation. Specially designed for straight loads where the securing forces are transmitted over a large area, the UWI relieves the burden on the load edge.

Suitable for max. belt width in mm	LxWxH in mm	Item no.
50	145 x 135 x 90	40152500015004



### Edge Protector UWI Plus

#### Edge protection for straight loads

The UWI Plus has been specially developed for highly sensitive loads. The inset hollow on the edge protection bracket particularly protects your load's sensitive edges. The UWI Plus is suitable for lashing systems with a strap width of 50 mm.

Suitable for max. belt width in mm	LxWxH in mm	Item no.
50	200 x 150 x 145	40152500015001



### Velcro® Fastener at Fixed End

For fixing the loose end.

**\*Firmly sewn to the strap and thus undetachable!!!**

Suitable for max. belt width in mm	Type	Item no.
50	Standard version*	40251500015004
50	Retrofittable version	40251500015005

\*Available from a minimum quantity of 30 ratchet straps



Edge protectors for ropes and chains can be found on page 379



### Edge Protector Type LaWi 1636

#### Advantages

- Strong version for all applications
- Easy handling due to big contact surface, edge protector cannot fall down
- Can be cut to any length
- Pressure-resistant, hard polyethylene, avoids deformation
- Temperature range from -30°C (-22°F) to +100°C (+212°F)
- The cross section has sufficient stiffness to bridge gaps in the load (e.g. barrel lashing with 1 strap)
- Depending on the application, a maximum belt tension of 750 daN is possible without causing permanent deformation
- The concave channel on the inside protects the edge of the load, the curve on the outside prevents damage from the strap and increases the pretension force due to a better load transmission



Type	Most suitable for ratchets	Length in mm	Height and width in mm	Inner contact surface in mm	Colour	Weight in kg	Item no.
LaWi 1636	Ergo ABS, ABS, Ergo	800	210 x 120	180 x 90	black	2.0	40152500015006
LaWi 1636	Ergo ABS, ABS, Ergo	1200	210 x 120	180 x 90	black	3.0	40152500015007
LaWi 1636	Ergo ABS, ABS, Ergo	2400	210 x 120	180 x 90	black	6.0	40152500015008

### Edge Protector Type LaWi 1637

#### Advantages

- Budget-priced version for standard applications
- Easy handling due to big contact surface, edge protector cannot fall down
- Can be cut to any length
- Pressure-resistant, hard polyethylene, avoids deformation
- Temperature range from -30°C (-22°F) to +100°C (+212°F)
- Sufficient stiffness to bridge gaps in the load
- Depending on the application, a maximum belt tension of 450 daN is possible without causing permanent deformation
- Two white softstripes with increased friction value, each 8 mm wide and placed in distances of 22 and 57 mm from the edge simplify attachment to the load and prevent the edge protectors from sliding
- The concave channel on the inside protects the edge of the load, the curve on the outside prevents damage from the strap and increases the pretension force due to a better load transmission
- Fitted with punch holes (ø 10 mm) on the upper side in distances of 60 and 70 mm from the edge to attach the strap guides



Type	Most suitable for ratchets	Length in mm	Height and width in mm	Inner contact surface in mm	Colour	Weight in kg	Item no.
LaWi 1637	Spannfix 5-/4-/2-/1-t	800	140 x 100	120 x 80	red	1.1	40152500015009
LaWi 1637	Spannfix 5-/4-/2-/1-t	1200	140 x 100	120 x 80	red	1.63	40152500015010
LaWi 1637	Spannfix 5-/4-/2-/1-t	2400	140 x 100	120 x 80	red	3.25	40152500015011

### Strap Guide for LaWi 1637

These guides can be plugged in the punch holes of the red LaWi 1637. They hold both the strap and the edge protector in place and increase the contact pressure from above.

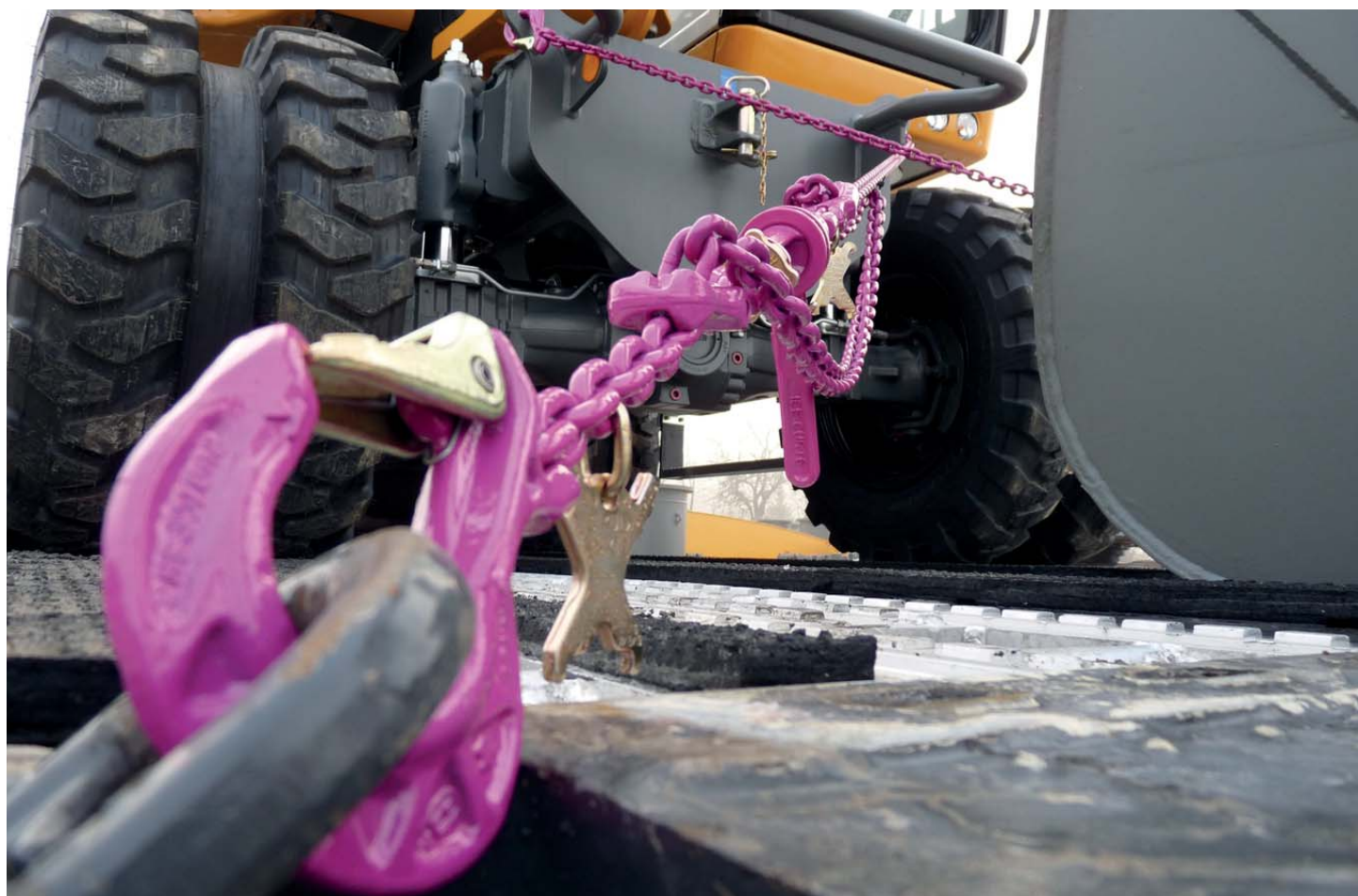
Type	Colour	Item no.
Gubafü 1637	blue	40251500015007





## LOAD RESTRAINT SYSTEMS

**RUD** ICE Lashing Chains Grade 12



### Use the strongest RUD Lashing Chain

In comparison with a grade 80 lashing chain ICE 120 offers up to 60% more lashing capacity (LC) and lashing force respectively. The ICE 120 lashing chain complies with all requirements of EN 12195-3 and even exceeds them for some decisive criteria.

- Fitted with preparation for theft protection by padlock
- Easy to clean and lubricate
- New and practice-oriented locking device
- Easy handling - also with gloves
- Innovative design - lightweight and robust

### Please note the following regarding revision of EN 12195-1: 2011

EN 12195-1: 2011 is not consistent with the results of many scientific tests that have been proved by daily practise. The status of an acknowledged rule of technology within the meaning of § 22, para. 1 StVO (German Road Traffic Regulations) is doubtful and for the time being has not been confirmed by jurisdiction. In order to ensure a sufficient level of safety, the following explanations refer to DIN EN 12195-1: 2004 and VDI 2700 ff. respectively.

Material pair	Friction values $\mu$ according to VDI 2700-2		
	dry	wet	greasy
wood/wood	0.20-0.50	0.20-0.25	0.05-0.15
metal/wood	0.20-0.50	0.20-0.25	0.02-0.10
metal/metal	0.10-0.25	0.10-0.20	0.01-0.10

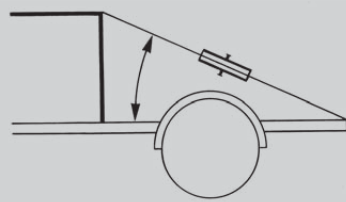
### Which lashing chain for which load?

#### Direct lashing

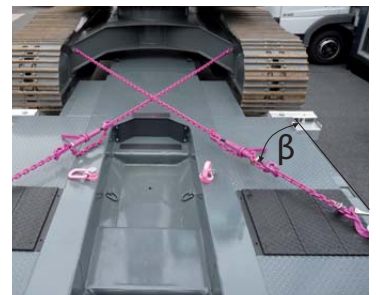
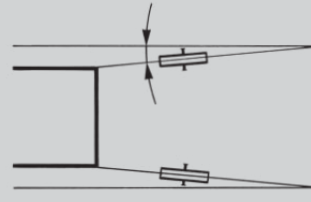
RUD chain type	LC in daN	Max. load weight in t (horizontal angle $\beta$ : 20° - 45°; 2 chains in each direction)											
		Vertical angle $\alpha$ : 0° - 30°						Vertical angle $\alpha$ : 30° - 60°					
		$\mu = 0.1$	$\mu = 0.2$	$\mu = 0.3$	$\mu = 0.4$	$\mu = 0.5$	$\mu = 0.6$	$\mu = 0.1$	$\mu = 0.2$	$\mu = 0.3$	$\mu = 0.4$	$\mu = 0.5$	$\mu = 0.6$
ICE-VSK 6	3000	6.2	8.4	10.4	13.0	17.4	26.2	4.5	6.3	9.0	12.8	19.2	32.0
ICE-VSK 8	6000	10.5	14.0	17.4	21.8	29.1	43.9	7.6	10.7	15.0	21.4	32.0	53.4
ICE-VSK 10	10000	17.5	23.4	29.0	36.4	48.6	73.1	12.8	17.9	25.0	35.6	53.4	89.0
ICE-VSK 13	16000	28.0	37.5	46.4	58.2	77.8	117.0	20.5	28.6	40.0	57.1	85.5	142.4
ICE-VSK 16	25000	43.7	58.6	72.6	91.0	121.6	182.8	32.0	44.7	62.5	89.1	133.6	222.5



Vertical angle  $\alpha$



Horizontal angle  $\beta$



#### Tie-down

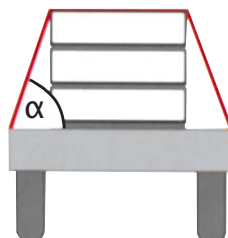
RUD chain type	STF in daN	Necessary number of VIP or ICE lashing chains for tie-down (Number of lashing chains = factor from chart x load weight in t)											
		Vertical angle $\alpha$ : 60° - 90°						Vertical angle $\alpha$ : 30° - 60°					
		$\mu = 0.1$	$\mu = 0.2$	$\mu = 0.3$	$\mu = 0.4$	$\mu = 0.5$	$\mu = 0.6$	$\mu = 0.1$	$\mu = 0.2$	$\mu = 0.3$	$\mu = 0.4$	$\mu = 0.5$	$\mu = 0.6$
ICE-VSK 6	1500	3.6 x	1.6 x	0.9 x	0.6 x	0.4 x	0.2 x	6.3 x	2.7 x	1.5 x	0.9 x	0.6 x	0.3 x
ICE-VSK 8/10/13	2800	2.0 x	0.9 x	0.5 x	0.3 x	0.2 x	0.1 x	3.4 x	1.5 x	0.8 x	0.5 x	0.3 x	0.2 x

Values of both charts are valid for: stable load, road transport, no combined load restraint.



Should there be a considerable deviation from the indicated lashing angles, additional load securing measures are necessary (e.g. bigger chain size and/or chocks - **friction increasing pads see 696-697 and 700 et seq.**).

When it comes to transporting heavy construction machinery the bucket should rest on the platform of the low loader. Apply hand brake and engage gear.



The ICE lashing chain replaces quality grade 8 in the next nominal thickness up.

It doesn't get any lighter – weight savings of up to 45%!

Nominal thickness in mm	Permissible lashing force in daN	
	GK 8	ICE
6	2,200	3,600
8	4,000	6,000
10	6,300	10,000
13	10,000	16,000
16	16,000	25,000

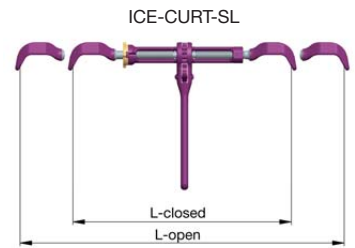
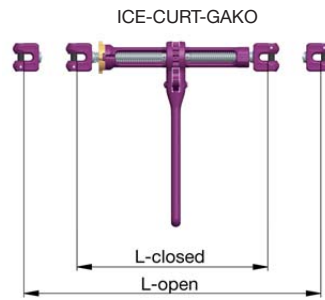


### ICE-CURT-GAKO Ratchet Tensioner / CURT-SL Ratchet Tensioner

- Easy-to-handle ratchet tensioner
- Patented and practical locking device to prevent loosening
- Magnetically adhesive locking joint – secured against opening, also suitable as an anti-theft device (lockable)
- Exceeds EN 12195-3
- Innovative forged design – light and robust
- Easy to clean and lubricate



**Authorised for tie-down and direct lashing!**



Locking joint open



Locking joint closed



Locking joint closed and with anti-theft lock

#### ICE-CURT-GAKO with clevis connector

Ø chain in mm	Pretension force STF in daN	Lashing cap. LC in daN	Description	Dimensions in mm			Weight in kg/pce	Item no.
				L-open	L-closed	Stroke		
6	1500	3600	ICE-CURT-6-GAKO	400	260	140	1.5	40154000015011
8	2800	6000	ICE-CURT-8-GAKO	520	350	170	3.9	40154000015012
10	2800	10000	ICE-CURT-10-GAKO	532	362	170	4.3	40154000015013
13	2800	16000	ICE-CURT-13-GAKO	830	530	300	7.6	40154000015014
16	Direct lashing only	25000	ICE-CURT-16-GAKO	962	612	350	13.0	40154000015015

#### ICE-CURT-SL with shortening connector

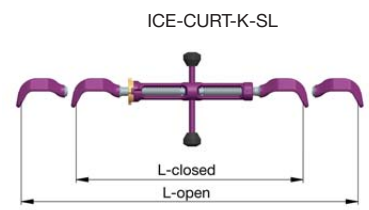
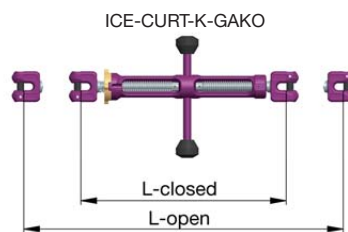
Ø chain in mm	Pretension force STF in daN	Lashing cap. LC in daN	Description	L-open	L-closed	Stroke	Weight in kg/pce	Item no.
6	1500	3600	ICE-CURT-6-SL	470	330	140	1.6	40154000015021
8	2800	6000	ICE-CURT-8-SL	623	453	170	4.5	40154000015022
10	2800	10000	ICE-CURT-10-SL	671	501	170	5.2	40154000015023

### ICE-CURT-K-GAKO Ratchet Tensioner / CURT-K-SL Ratchet Tensioner

- Easy-to-handle ratchet tensioner
- Patented and practical locking device to prevent loosening
- Magnetically adhesive locking joint – secured against opening, also suitable as an anti-theft device (lockable)
- Exceeds EN 12195-3
- Innovative forged design – light and robust
- Easy to clean and lubricate



**Only authorised for direct lashing!**



Locking joint open



Locking joint closed



Locking joint closed and with anti-theft lock

#### ICE-CURT-K-GAKO with clevis connector

Ø chain in mm	Lashing cap. in daN	Description	Dimensions in mm			Weight in kg/pce	Item no.
			L-open	L-closed	Stroke		
6	3600	ICE-CURT-K-6-GAKO	400	260	140	1.8	40154000015016
8	6000	ICE-CURT-K-8-GAKO	520	350	170	3.2	40154000015017
10	10000	ICE-CURT-K-10-GAKO	532	362	170	3.6	40154000015018
13	16000	ICE-CURT-K-13-GAKO	830	530	300	6.9	40154000015019
16	25000	ICE-CURT-K-16-GAKO	962	612	350	12.2	40154000015020

#### ICE-CURT-K-SL with shortening connector

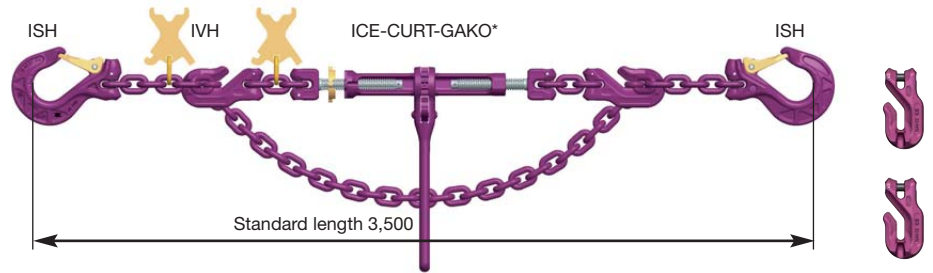
Ø chain in mm	Pretension force STF in daN	Lashing cap. LC in daN	Description	L-open	L-closed	Stroke	Weight in kg/pce	Item no.
6	3600	3600	ICE-CURT-K-6-SL	470	330	140	1.9	40154000015008
8	6000	6000	ICE-CURT-K-8-SL	623	453	170	3.6	40154000015009
10	10000	10000	ICE-CURT-K-10-SL	671	501	170	4.4	40154000015010



### ICE-VSK-CURT GAKO with IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO ratchet tensioner and ICE shortening hook ICE-VH.

\*Tensioner can be slid along the chain leg.

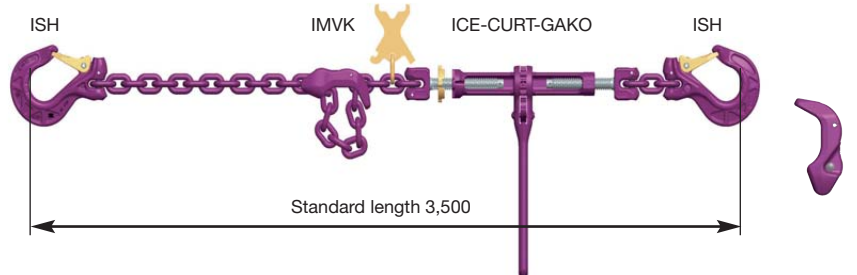


**! Authorised for tie-down and direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force STF in daN	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-IVH	3600	ICE-CURT-6-GAKO	1500	140	780	7.0	40101500015014
8	ICE-VSK-8-CURT-IVH	6000	ICE-CURT-8-GAKO	2800	170	1040	13.2	40101500015022
10	ICE-VSK-10-CURT-IVH	10000	ICE-CURT-10-GAKO	2800	170	1210	20.1	40101500015035
13	ICE-VSK-13-CURT-IVH	16000	ICE-CURT-13-GAKO	2800	300	1600	35.5	40101500015045
16	ICE-VSK-16-CURT-IVH	25000	ICE-CURT-16-GAKO	Direct lashing only	350	1910	58.8	40101500015050

### ICE-VSK-CURT GAKO with IMVK

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO ratchet tensioner and ICE multi-shortening claw ICE-MVK.

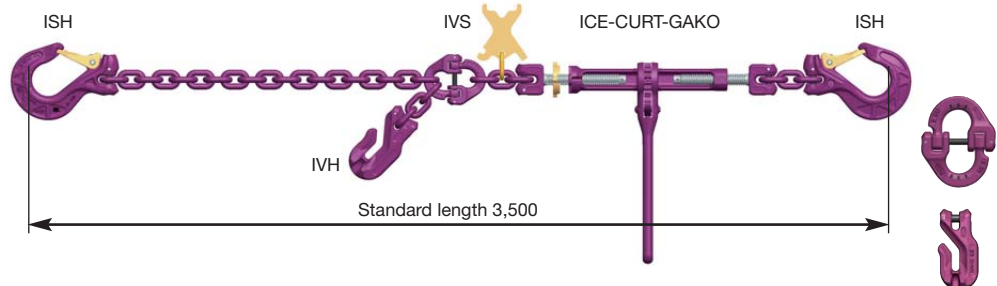


**! Authorised for tie-down and direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force STF in daN	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-IMVK	3600	ICE-CURT-6-GAKO	1500	140	770	6.3	40101500015013
8	ICE-VSK-8-CURT-IMVK	6000	ICE-CURT-8-GAKO	2800	170	1010	11.7	40101500015021
10	ICE-VSK-10-CURT-IMVK	10000	ICE-CURT-10-GAKO	2800	170	1170	17.0	40101500015001
13	ICE-VSK-13-CURT-IMVK	16000	ICE-CURT-13-GAKO	2800	300	1540	28.6	40101500015005
16	ICE-VSK-16-CURT-IMVK	25000	ICE-CURT-16-GAKO	Direct lashing only	350	1840	46.0	40101500015009

### ICE-VSK-CURT GAKO with IVS and IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO ratchet tensioner, ICE shortening lock ICE-VS and ICE shortening hook ICE-VH.



**! Authorised for tie-down and direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force STF in daN	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-IVS	3600	ICE-CURT-6-GAKO	1500	140	680	6.4	40101500015015
8	ICE-VSK-8-CURT-IVS	6000	ICE-CURT-8-GAKO	2800	170	870	11.9	40101500015026
10	ICE-VSK-10-CURT-IVS	10000	ICE-CURT-10-GAKO	2800	170	1000	17.7	40101500015002
13	ICE-VSK-13-CURT-IVS	16000	ICE-CURT-13-GAKO	2800	300	1330	29.9	40101500015006
16	ICE-VSK-16-CURT-IVS	25000	ICE-CURT-16-GAKO	Direct lashing only	350	1590	48.8	40101500015010

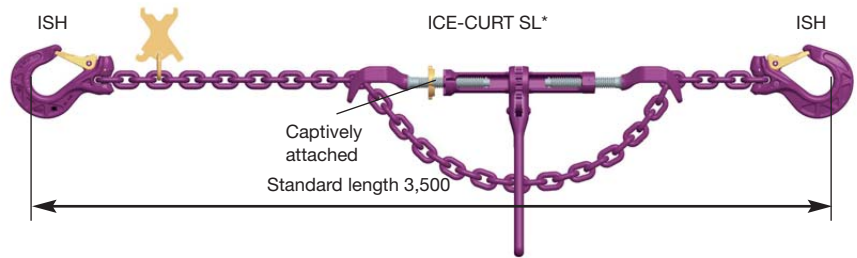
# LOAD RESTRAINT SYSTEMS

## ICE Lashing Chains Grade 12

### ICE-VSK-CURT SL

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO SL ratchet tensioner with captively attached shortening connector.

\*Tensioner can be slid along the chain leg.

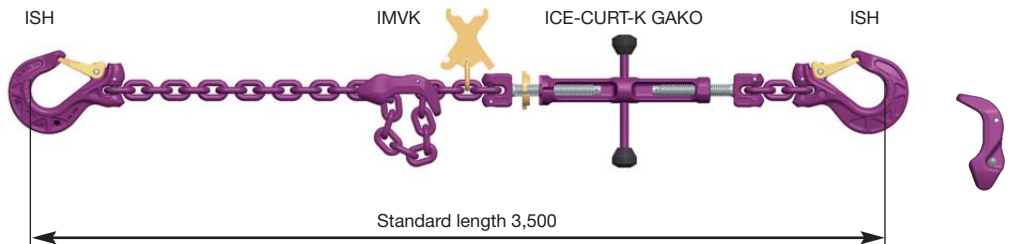


**! Authorised for tie-down and direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet tensioner type	Spannschloss erreichbare Vorspannkraft STF in daN	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-SL	3600	ICE-CURT-6-SL	1500	140	640	6.5	40101500015020
8	ICE-VSK-8-CURT-SL	6000	ICE-CURT-8-SL	2800	170	817	12.6	40101500015031
10	ICE-VSK-10-CURT-SL	10000	ICE-CURT-10-SL	2800	170	935	18.1	40101500015041

### ICE-VSK-CURT-K GAKO with IMVK

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO lever tensioner and ICE multi-shortening claw ICE-IMVK.

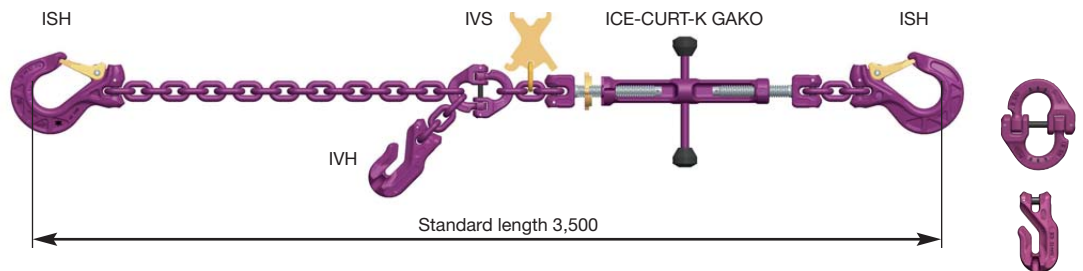


**! Only authorised for direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet tensioner type	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-IMVK	3600	ICE-CURT-K-6-GAKO	140	770	6.6	40101500015016
8	ICE-VSK-8-CURT-K-IMVK	6000	ICE-CURT-K-8-GAKO	170	1010	11.0	40101500015027
10	ICE-VSK-10-CURT-K-IMVK	10000	ICE-CURT-K-10-GAKO	170	1170	16.3	40101500015003
13	ICE-VSK-13-CURT-K-IMVK	16000	ICE-CURT-K-13-GAKO	170	1540	27.6	40101500015007
16	ICE-VSK-16-CURT-K-IMVK	25000	ICE-CURT-K-16-GAKO	350	1840	44.9	40101500015011

### ICE-VSK-CURT-K GAKO with IVS and IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO lever tensioner, ICE shortening lock ICE-VS and ICE shortening hook ICE-VH.



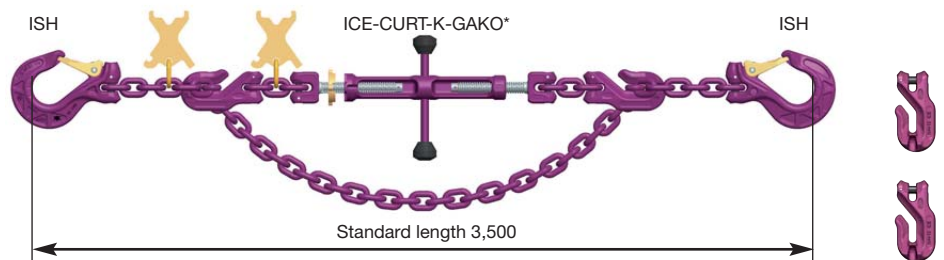
**! Only authorised for direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet tensioner type	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-IVS	3600	ICE-CURT-K-6-GAKO	140	680	6.7	40101500015018
8	ICE-VSK-8-CURT-K-IVS	6000	ICE-CURT-K-8-GAKO	170	870	11.2	40101500015029
10	ICE-VSK-10-CURT-K-IVS	10000	ICE-CURT-K-10-GAKO	170	1000	17.0	40101500015004
13	ICE-VSK-13-CURT-K-IVS	16000	ICE-CURT-K-13-GAKO	170	1330	28.9	40101500015008
16	ICE-VSK-16-CURT-K-IVS	25000	ICE-CURT-K-16-GAKO	350	1590	47.7	40101500015012

### ICE-VSK-CURT-K GAKO with IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO lever tensioner and ICE shortening hook ICE-VH.

\*Tensioner can be slid along the chain leg.



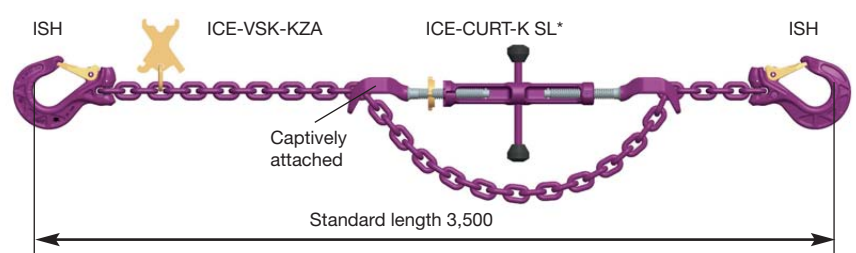
**Only authorised for direct lashing!**

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet tensioner type	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-IVH	3600	ICE-CURT-K-6-GAKO	140	780	7.3	40101500015017
8	ICE-VSK-8-CURT-K-IVH	6000	ICE-CURT-K-8-GAKO	170	1040	12.5	40101500015028
10	ICE-VSK-10-CURT-K-IVH	10000	ICE-CURT-K-10-GAKO	170	1210	19.4	40101500015039
13	ICE-VSK-13-CURT-K-IVH	16000	ICE-CURT-K-13-GAKO	170	1600	34.5	40101500015049
16	ICE-VSK-16-CURT-K-IVH	25000	ICE-CURT-K-16-GAKO	350	1910	57.7	40101500015051

### ICE-VSK-CURT-K SL

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO SL lever tensioner with captively attached shortening connector.

\*Tensioner can be slid along the chain leg.



**Only authorised for direct lashing!**

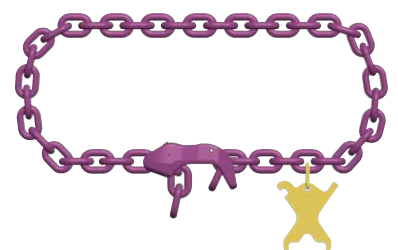
Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet tensioner type	Stroke in mm	L <sub>min</sub> in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-SL	3600	ICE-CURT-K-6-SL	140	640	6.8	40101500015019
8	ICE-VSK-8-CURT-K-SL	6000	ICE-CURT-K-8-SL	170	817	11.7	40101500015030
10	ICE-VSK-10-CURT-K-SL	10000	ICE-CURT-K-10-SL	170	935	17.3	40101500015040

### ICE-VSK-Endless chain

A problem often occurring with direct lashing is the fact that no adequate lashing points are available at the load or the connection dimensions of the existing „lashing points“ (often just holes) do not allow a correct attachment of the lashing hook. The endless chain is a highly flexible alternative. An endless chain should be selected in the same nominal size and quality class as the lashing chain; thanks to the „doubling“ of the chain, sharp edges at the endless chain will no longer represent a problem. A special flexible endless chain can be generated by the ICE-Multi shortening claw, by just connecting a piece of ICE-chain with the ICE-Multi shortening claw to a closed loop.

Special advantages:

The endless chain can be opened without tools and can be adjusted in its loop diameter.



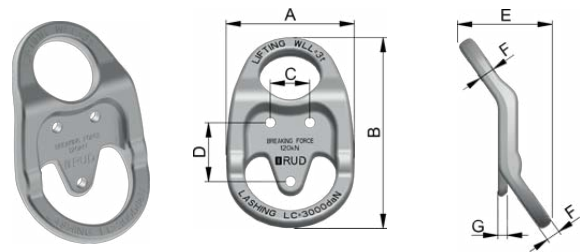
Ø chain in mm	Description	Lashing capacity LC in daN	Chain length in mm	Weight in kg/pce	Item no.
6	ICE-VSK-KK-6	3600	1000	1.2	40101500035086
8	ICE-VSK-KK-8	6000	1200	2.5	40101500035087
10	ICE-VSK-KK-10	10000	1200	4.2	40101500035088
13	ICE-VSK-KK-13	16000	1500	8.8	40101500035089
16	ICE-VSK-KK-16	25000	1500	13.4	40101500035090

# LOAD RESTRAINT SYSTEMS

## RUD® Weldable Lashing Points

### SMILEY BI Combined Lifting- and Lashing Point

- Forged from one piece
- Silent – no rattling of the lugs
- Galvanised surface
- Body and bolts 100% crack-tested
- Easy fixing with only 3 screws M12 property class 10.9
- Load capacity indication for lifting WLL in ton
- Lashing capacity for lashing LC in daN
- Safety factor 4 for lifting and lashing



Lashing capacity LC in daN	Load capacity WLL in t	Description	Dimensions in mm							3 x bolt	Weight in kg	Item no. with bolts
			A	B	C	D	E	F	G			
3000	3.0	SMILEY BI	163	244	50	75	116	19	12	M12x30 Fk. 10.9	3.7	40151000015014

### SMILEY - The RoRo Lashing Point

- Lashing and fastening point for road vehicles and sea transport on RoRo ships
- Forged from one piece – therefore silent
- 100% crack-tested
- Complies with DIN EN 29367-2 Tensile properties with a proof load of 120 kN and a breaking load of 200 kN
- Easy fixing with only 3 bolts M12 property class 10.9
- Galvanised surface
- Suitable for all common lashing means
- The point of load incidence to the frame has been chosen in a way that the direction of force lies in the centroid of the screw triangle. The advantage: Stress on the screws is minimised, a smaller screw size can be used

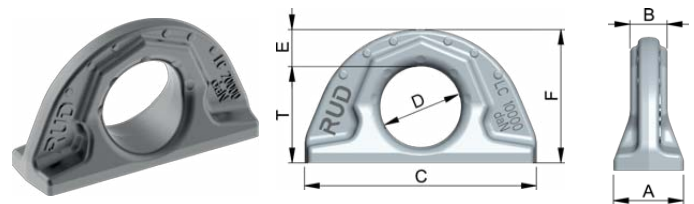


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Lashing capacity LC in daN	Description	Dimensions in mm					3 x bolt	Weight in kg	Item no. with bolts
		A	B	C	D	E			
6000	SMILEY	160	160	50	75	72	M12x50 Fk. 10.9	1.8	40151000015015

### Weld-on Lashing Point L-ABA, loadable from all directions

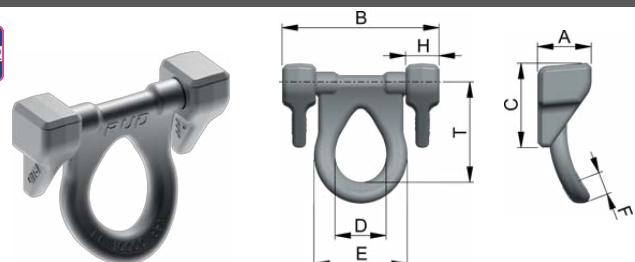
- Loadable from all directions
- Safety factor 2 against breaking
- Quenched and tempered body, enhanced wear resistance
- Patented wear marks in- and outside
- Circular fillet welding seam
- Surface phosphated
- With lashing capacity LC indication in daN



Lashing capacity LC in daN	Description	Dimensions in mm							Fillet welding seam thickness in mm	Weight in kg	Item no.
		A	B	C	D	E	F	T			
3200	L-ABA 3200 daN	30	16	100	35	16	57	41.5	4	0.45	40151000015010
6400	L-ABA 6400 daN	41	23	137	50	21	80	59	6	1.15	40151000015011
10000	L-ABA 10000 daN	51	27	172	60	28	99	71.5	7	2.26	40151000015012
20000	L-ABA 20000 daN	70	38	228	80	35	130	95	8	5.37	40151000015013

### Star Lashing Point SLP

- Loadable from all directions
- Slewing range 225°, with integrated clamping spring
- Lashing also possible with protruding loads
- No subsurface corrosion of the weld-on blocks
- With lashing capacity LC indication in daN
- Patent pending

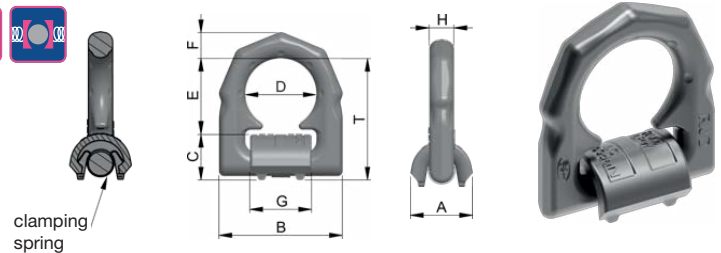


Lashing capacity LC in daN	Description	Dimensions in mm							Weight in kg	Item no.
		A	B	C	D	E	F	H	T	
10000	SLP 10000	63	185	100	60	110	25	40	115	40151000015016



### VIP Lashing Point Type LPW-U

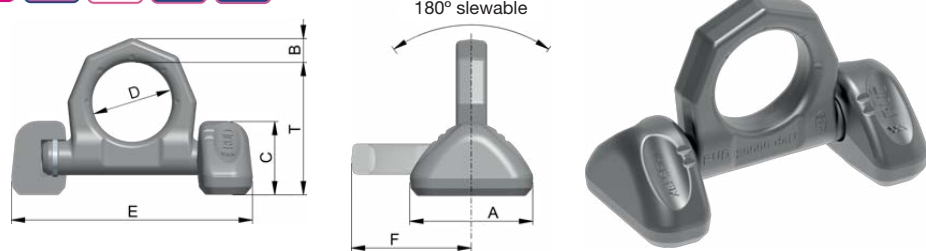
- Manufactured from VIP material, ...up to 50% higher lashing capacity than conventional design
- Sleek design, zinc-phosphated
- Weld-on block is marked with LC in daN
- Also available with spring for noise reduction
- Optimised 90° load support
- 2 patented lugs in the eye improve hook fit



Lashing capacity LC in daN	Description	A	B	C	Dimensions in mm					T	Weld seam HV + Δa	Weight in kg/pce	Item no.
					D	E	F	G	H				
3000	LPW-U 3000	33	66	25	38	40	14	33	14	65	HV 5 + 3	0.35	40151000015005
5000	LPW-U 5000	36	77	27	45	48	16	40	14	75	HV 7 + 3	0.47	40151000015006
8000	LPW-U 8000	42	87	31	51	52	18	46	16	83	HV 8 + 3	0.76	40151000015007
13400	LPW-U 13400	61	115	44	67	73	24	60	22	117	HV 12 + 4	1.9	40151000015008
20000	LPW-U 20000	75	129	55	67	71	26.5	60	26	126	HV 16 + 4	2.9	40151000015009
32000	LPW-U 32000	96	192	70	100	106	40	90	26	176	HV 25 + 6	7.1	40151000035022

### VIP Lashing Point Type LRBS-FIX

- Circular HY welding seam
- No subsurface corrosion of the weld-on blocks
- Weld-on blocks and ring bracket are connected by radial clamping spring
  - Easy adjustment of ring bracket
  - Ring bracket remains in position
  - Easy painting in the gap
  - No loose parts
  - No rattling
  - Secured welding process: dimension E is predetermined

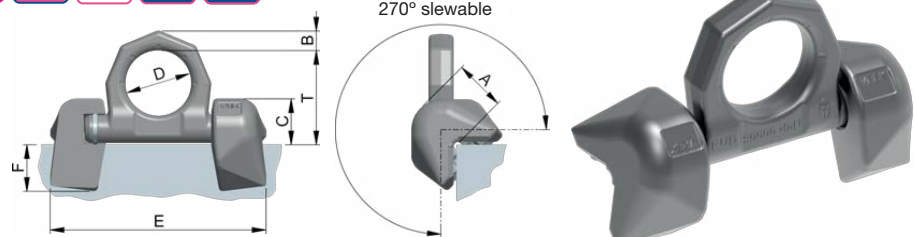


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Lashing capacity LC in daN	Description	A	B	C	Dimensions in mm					T	Weld seam HY + Δa	Weight in kg/pce	Item no.
					D	E	F						
8000	LRBS-FIX 8000	60	14	39	48	132	69			74	HY 3	0.94	40151000015001
13400	LRBS-FIX 13400	88	20	50	60	167	91			97	HY 5	2.24	40151000015002
20000	LRBS-FIX 20000	100	22	60	65	191	100			108	HY 6	3.72	40151000015003
32000	LRBS-FIX 32000	130	30	72	90	267	134			140	HY 9	8.23	40151000015004

### VIP Lashing Point LRBK-Fix

- Circular HY welding seam. No subsurface corrosion of the weld-on blocks
- Weld-on blocks and ring bracket are connected by radial clamping spring
  - Easy adjustment of ring bracket
  - Ring bracket remains in position
  - No loose parts
- Positioned on the edge, it halves the number of lashing points required
- Loadable from all directions



Lashing capacity LC in daN	Description	A	B	C	Dimensions in mm					T	Weld seam HY + Δa	Weight in kg/pce	Item no.
					D	E	F						
8000	LRBK-FIX 8000	32	14	28	48	141	30			65	HY 4	1.05	40151000015017
13400	LRBK-FIX 13400	40	20	35	60	181	34			84	HY 5	2.16	40151000015018
20000	LRBK-FIX 20000	52	22	46	65	212	46			94	HY 6	4.40	40151000015019

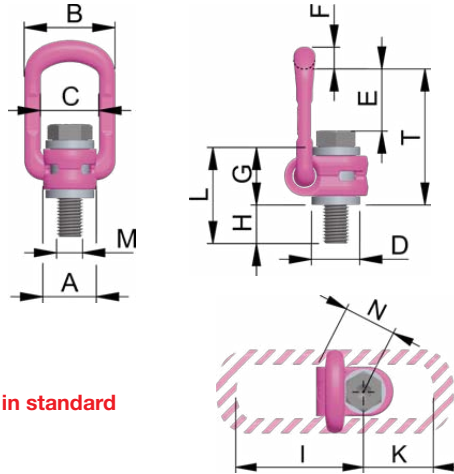
# LOAD RESTRAINT SYSTEMS

## Weldable Lashing Points, Lashing Chains Grade 8

### VIP Lashing point L-VLBG

**NEW!**

- Clear marking of the minimum lashing capacity for all loading directions. LC marking with daN.
- Lashing point pivots 360°. Suspension ring pivots 180°.
- Full load in all directions
- Original-RUD bolt with special corrosion protection Corrud-DT is included in delivery as well as available as a spare part. Clear marking at the bolt head: RUD, thread size, batch-no., class of strength.
- Captive but exchangeable special bolt (this reduces the usage of improper standard bolts).
- Clamping spring works as a noise reduction and holds the suspension ring in the requested position; therefore simple hinge of lashing mean possible.
- Variable bolt lengths available for tapped or through holes.
- Quick and easy installation with just one bolt connection.



**!** **Icons see page 532 f.**  
**Item no. only valid for VIP Lashing Point L-VLBG in standard version (Dimension H<sub>Stand.</sub> and L<sub>Stand.</sub>)**  
**Other thread lengths on request.**

Lashing capacity LC in daN	Description	Dimensions in mm																Max. tightening torque of bolt in Nm	Weight in kg	Item no.
		T	A	B	C	D	E	F	G	H Stand.	H max.	I	K	L Stand.	L max.	M	N			
16000	L-VLBG 16000	197	77	122	82	70	97	26.5	77	63	36-223	205	110	140	113-300	M36	87	800	6.2	40151000035065

### Ratchet tensioner

According to DIN EN 12195-3, grade 8.

- Shortening hook can be connected to any chain link
- Hook is welded to threaded eye by connecting link
- Corrosion resistant ratchet springs
- With end stop
- All load-bearing and structural parts are of forged steel
- Hooks are of tempered alloy steel and equipped with support bulges
- Safe and smooth-running ratchet
- **NEW: shorter ratchet lever**

### Ratchet Tensioner with 2 Shortening Hooks



Suitable for chain size in mm	Lashing capacity LC in daN	Pretension force STF in daN	Lever length in mm	Adjustment range in mm	Item no.
8	4000	1000	237	145	40154000015005
10	6300	1575	237	145	40154000015006
13	10000	1500	355	145	40154000015007

### Ratchet Tensioner with 2 Eyes



Suitable for chain size in mm	Lashing capacity LC in daN	Pretension force STF in daN	Lever length in mm	Adjustment range in mm	Item no.
8	4000	1000	237	145	40154000015002
10	6300	1575	237	145	40154000015003
13	10000	1500	355	145	40154000015004

**!** **For lashing only, must not be used for lifting!**

### Lashing Chain with Ratchet Tensioner

According to DIN EN 12195-3, grade 8

Both ends with safety hooks, one end can be shortened by shortening hook, tensioner with end stop, standard length 3500 mm.

Other lengths are available at short notice.



Ø chain in mm	Lashing capacity LC in daN	Pretension force STF min in daN	Adjustment range in mm	Item no.
8 - 8	4000	1000	145	40101500015074
10 - 8	6300	1575	145	40101500015056
13 - 8	10000	1500	145	40101500015064



**For lashing only, must not be used for lifting!**

**Lashing chains must be inspected at regular intervals pursuant to VDI 2700-3.1. Arrange an appointment with our inspection service department.**

### Lashing Chain consisting of Ratchet Tensioner and Chain Piece

According to DIN EN 12195-3, grade 8

Both ends with safety hooks, both ends can be shortened by shortening hook, continuous chain piece, tensioner with end stop, standard length 3500 mm.

Other lengths are available at short notice.



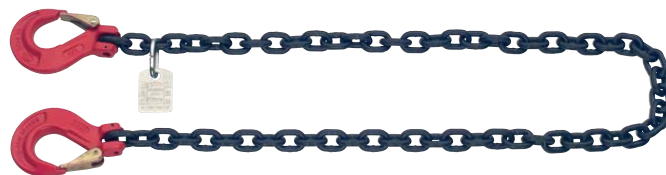
Ø chain in mm	Lashing capacity LC in daN	Pretension force STF min in daN	Adjustment range in mm	Item no.
8	4000	1000	145	40101500015070
10	6300	1575	145	40101500015052
13	10000	1500	145	40101500015060

### Single Chain Piece for Lashing Chain with Ratchet Tensioner

According to DIN EN 12195-3, grade 8

Both ends with safety hooks, standard length 3500 mm

Other lengths are available at short notice.



Ø chain in mm	Lashing capacity LC in daN	Item no.
8	4000	40251500015038
10	6300	40251500015039
13	10000	40251500015040

# LOAD RESTRAINT SYSTEMS

## TRUCKS

### Nets and tarpaulins as cargo lashing and load protection

Due to their flexibility, nets adapt to different load shapes and can compensate volume changes. Nets may be used to secure unsorted loads (e.g. waste paper). Nets keep the load from coming apart and thus protect from loss or partial loss.

Tarpaulins permeable to air protect the load from dust, dirt and sunlight.

#### Cover Nets for Flatbed Trucks

Cover nets made from high-strength polypropylene with integral fastening cable

##### Net size: 2.70 m x 2.50 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015005

##### Net size: 2.70 m x 3.10 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015006

##### Net size: 2.70 m x 3.50 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015007

##### Net size: 2.70 m x 4.10 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015008



Cover nets in other sizes, colours and mesh widths are available.

#### Air permeable Tarpaulins for Flatbed Trucks

These tarpaulins are made from UV-resistant, air permeable knitted fabric with reinforced edges and metal eyes in a distance of 0.50 m. All tarpaulins are fitted with a 6 mm rubber fastening cable.

##### Tarp size: 2.70 m x 2.50 m, includes rubber fastening cable

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015005

##### Tarp size: 2.70 m x 3.10 m, includes rubber fastening cable

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015006

##### Tarp size: 2.70 m x 3.50 m, includes rubber fastening cable

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015007

##### Net size: 2.70 m x 4.10 m, includes rubber fastening cable

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015008



Tarpaulins in other sizes, colours and mesh widths are available.



### Container Cover Nets, Standard Width 3.50 m (w/o Rubber Fastening Cable)

Cover nets made from high-strength polypropylene for safe transport or covering of loaded containers or skip bins. All nets are fitted with a hemmed border line.

**Option:** Also available with bordering or fastening cable

#### Net size: 3.50 m x 5 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015001

#### Net size: 3.50 m x 6 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015002

#### Net size: 3.50 m x 7 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015003

#### Net size: 3.50 m x 8 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	40151500015004



Cover nets in other sizes, colours and mesh widths are available.

### Air permeable Tarpaulins, Standard Width 3.50 m for Skip Bins and Containers

Specially suitable to keep sand, gravel and other small particles from flying away. These tarpaulins are made from UV-resistant, air permeable knitted fabric with reinforced edges and metal eyes in a distance of 0.50 m. The air permeable material avoids bloating of the tarp under the influence of strong winds or during transport.

#### Net size: 3.50 m x 5 m

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015001

#### Net size: 3.50 m x 6 m

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015002

#### Net size: 3.50 m x 7 m

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015003

#### Net size: 3.50 m x 8 m

Weight ca. g/m <sup>2</sup>	Material	Colour	Item no.
200	PE-tape yarn	dark green	40152000015004



Tarpaulins in other sizes, colours and mesh widths are available.

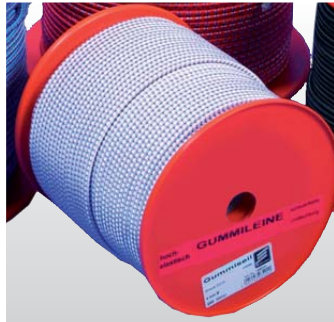
# LOAD RESTRAINT SYSTEMS

## Accessories

### Lashing Cord

Ideal for container nets, canvas covers and tarps

- Rubber cord on spools, elongation approx. 110%
- Covering from 100% BIROLEN (PES), abrasion resistant, colour: white, identifier: red/blue
- Available on spools



Rope ø in mm	Reel length in m	Item no.
4	200	40251500015008
6	200	40251500015009
8	150	40251500015010
10	80	40251500015011
12	100	40251500015012

**Caution!** Available in complete reels only

### Rubber Cord with Hooks

For tensioning and easy fastening of nets and tarps

- Diameter 4 mm
  - Latex core
  - Elongation approx. 110% with plastic hook
  - Minimum order quantity: 1 packing unit = 50 pcs
  - Also available in black
- Please contact us for pricing



Length in cm	Packing unit	Item no.
20	50	40251500015031
30	50	40251500015032
40	50	40251500015033
50	50	40251500015034
60	50	40251500015035
70	50	40251500015036
80	50	40251500015037

### Rubber Tensioning Ropes, fixed Length

Length in cm	Version	Diameter in mm	Item no.
80	adjustable	8	40251500015019
80	not adjustable	8	40251500015013
2000	with hook + rope termination	10	40251500015014

### Rigging Ropes for Cover Nets and Tarps

Length must be twice the circumference of the net!



**Rigging ropes for cover nets and tarps can be found on page 347.**  
We recommend braided Polyamide ropes acc. to DIN EN ISO 1140 form A, type 1.

### Rubber Tensioning Ropes

With stainless steel hooks, extra strong

- Fast tensioning with 8 mm rubber rope
- Elongation approx. 110%
- Braid from abrasion-resistant BIROLEN (Polyester)
- Completely assembled



Length in cm	Packing unit	Item no.
50	10	40251500015015
100	10	40251500015016
200	10	40251500015017
500	10	40251500015018

### Stainless Steel Wire Hook

For rubber ropes

- Stainless steel hook for assembly of your own rubber ropes
- Minimum order quantity: 1 packing unit = 100 pcs



Rope ø in mm	Packing unit	Item no.
6	100	40251500015020
8	100	40251500015021
10	100	40251500015022

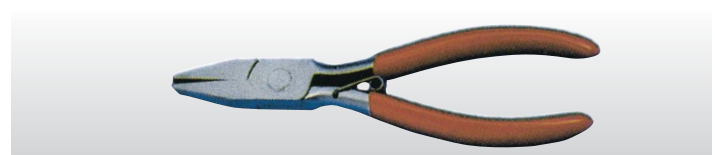
### Stainless Steel Crimps

- For assembly of your own rubber ropes
- Minimum order quantity: 1 packing unit = 100 pcs



Rope ø in mm	Packing unit	Item no.
4	100	40251500015024
6	100	40251500015025
8	100	40251500015026
10	100	40251500015027

### Crimping Tool for Stainless Steel Crimps

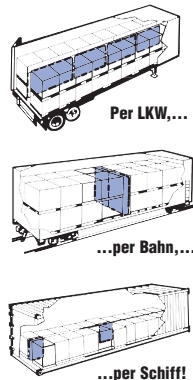


Packing unit	Item no.
1	40251500015023



## AIRflex inflatable Stowage Cushions

- Ideal load restraint for containers, on vessels, for rail and road transport
- Perfect stabilisation of the load by large-area contact and formlocking filling of stowage gaps - what cannot shift will not be damaged.
- High strength due to specially strong kraft paper
- Quick filling



**Fill the gaps between pallets to avoid safety risks during transport!**



## TRUXAFE System for Curtainsiders

Curtainsiders (also called Tautliners) have one main problem: The insufficient stability of their side walls to secure heavy or high loads by formlock. TRUXAFE is the ideal solution:

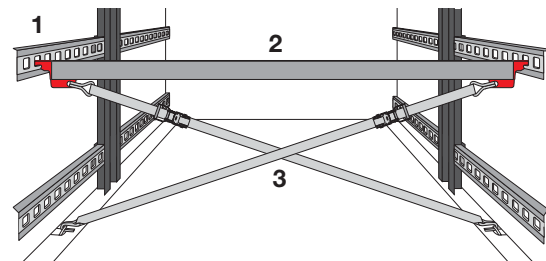
- **Certified by German DEKRA**
- **Safety for man and material**
- **In compliance with the regulations**

**Please contact us! We solve your load restraint problems!**



The TRUXAFE system consists of 3 different components which build on each other:

1. Reinforced side slat with perforation
2. Shoring beam with hooked ends
3. Diagonal straps



### Truxafe Side Slat

- With its adjustable ends the side slat can be adapted to the required length. This aluminium slat (weight 11.7 kg) stabilizes the side walls.
- 400 daN point load
- 800 daN distributed load



### Truxafe Shoring Beam

- The shoring beam (weight 12 kg) provides additional hold
- Standard version 2,500 daN distributed load
- Narrow version 1,000 daN distributed load at a height of 175 mm
- Can be inserted in the anchoring holes of the side slats



### Truxafe Diagonal Straps

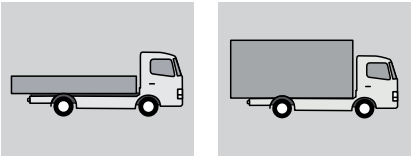
- This diagonal strapping deflects the lateral forces to the platform floor and relieves the stanchions and side slats.
- On the top they are inserted in the standard lashing eyes of the shoring beam, on the bottom in the lashing points of the platform.



### Truxafe Pro Ratchet Strap

- Increases the stanchion stability by embracing 2 opposing stanchions and tying them together

PaXafe Net Kit DIN EN 12195-2, VDI 2700 Bl. 3.3



German BG\*-tested load restraint nets for trucks

PaXafe truck nets are versatile load restraint systems, that can be used for both loose and palletized loads.

- Material: sewn belt strap, width 50 mm
- Mesh width: 250 mm
- Colour: orange
- Operating temperature range: from -40°C (-40°F) to +100°C (+212°F)
- BG-approved as load restraint net and labelled accordingly
- DIN EN 12195-2, VDI 2700 Bl. 3.3

These nets are also available separately without shoring beam and quick fastener. Please contact us for details!



Type	Set contents	Mesh	Outer size in mm	Fastening points	Total LC in daN	Max. LC per fastening point in daN	Item no.
LKW1 Basic Set	Basic net LKW1 including 6 ratchet straps 2.0 m and shoring beam 2.3 m	8 x 9	2450 x 2750	20 triangles	3000	1600	40300000015001
LKW E1.1* Extension Set	Extension net LKW E1.1 including 2 ratchet straps 2.0 m	4 x 9	1250 x 2750	12 triangles, 6 snap hooks	3000	1600	40300000015002
LKW E1.2* Extension Set	Extension net LKW E1.2 including 4 ratchet straps 2.0 m	8 x 9	2450 x 2750	20 triangles, 6 snap hooks	3000	1600	40300000015003
LKW2 Basic Set	Basic net LKW2 including 8 ratchet straps 2.0 m and shoring beam 2.3 m	10 x 10	3050 x 3050	44 triangles	3000	1600	40300000015004
LKW E2.1 Extension Set	Extension net LKW E2.1 including 2 ratchet straps 2.0 m	4 x 10	1250 x 3050	18 triangles, 6 snap hooks	3000	1600	40300000015005
LKW E2.2 Extension Set	Extension net LKW E2.2 including 4 ratchet straps 2.0 m	8 x 10	2450 x 3050	30 triangles, 6 snap hooks	3000	1600	40300000015006
LKW3 Basic Set	Basic net LKW3 including 6 ratchet straps 2.0 m, with triangles all around	8 x 9	2450 x 2750	28 triangles	3000	1600	40300000015007

\*Extension-Set can also be combined with Basic Set LKW3

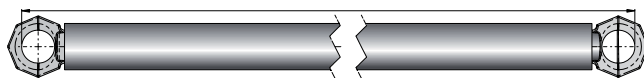


### Separate Shoring Beam

- Material: galvanised steel
- Both ends with eye nut M16

Length in mm	Dims in mm	Fastening	Item no.
2300	2300 x 45	2 eye nuts	40251000015001

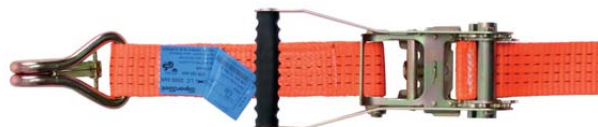
Length 2300 mm



### Separate Ratchet Strap

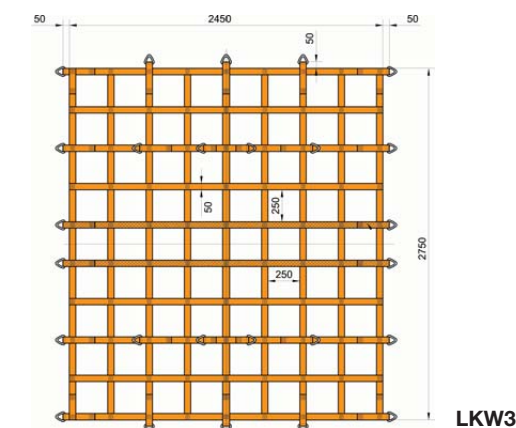
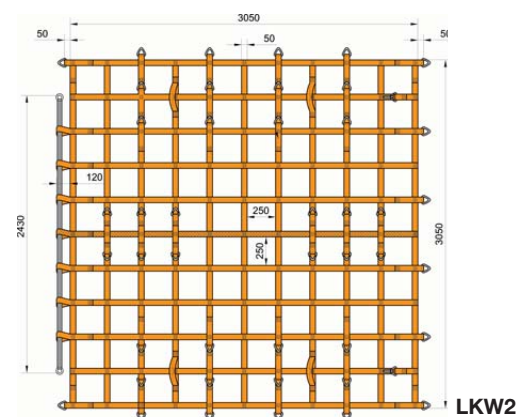
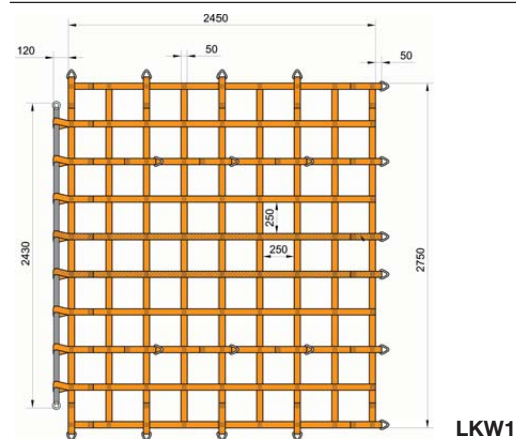
- One end snap hook
- Other end double J hook
- Width 50 mm

Length in mm	FE in mm	LC in daN	Item no.
2000	320	2000	40101000015057

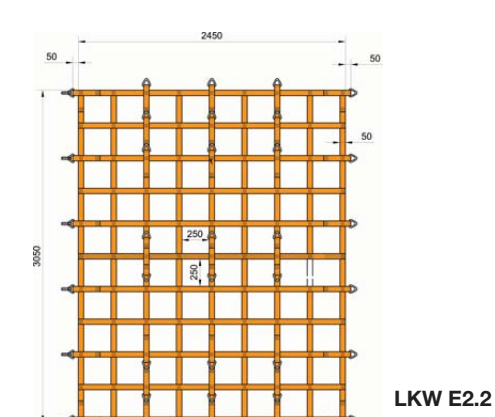
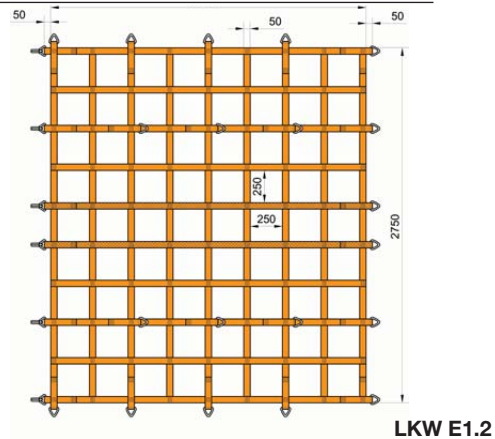
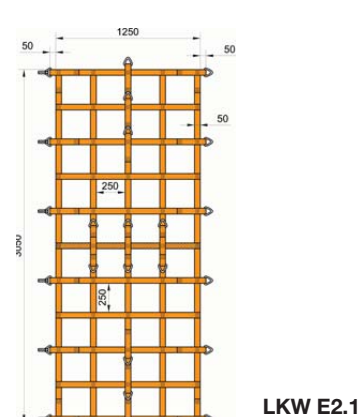
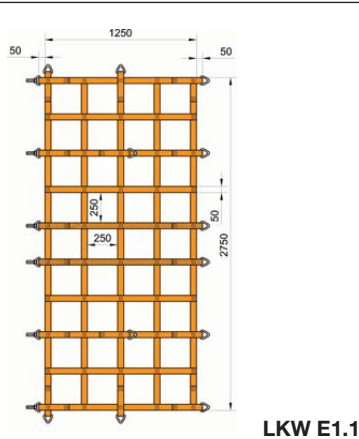


### Selection of net type

#### Basic net



#### Extension net

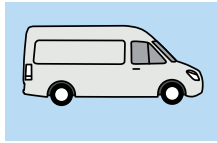


Other cargo nets for cars and flatbed trucks can be found on our website:  
[www.carlstahl-lifting.com](http://www.carlstahl-lifting.com)

# LOAD RESTRAINT SYSTEMS

## SpanSet® Webbing strap nets

### PaXafe Netz Net Kit DIN EN 12195-2, VDI 2700 Bl. 3.3



#### German BG-tested load restraint nets for CEP (Courier, Express und Parcel) and flat bed trucks

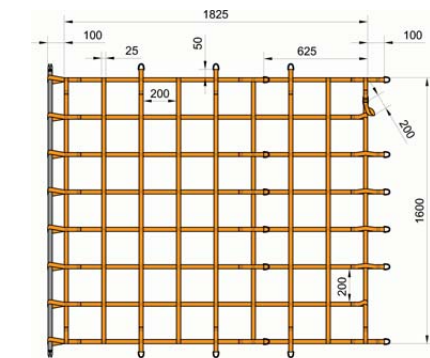
Loads for CEP vehicles are always different and never predictable regarding size and volume. Therefore load restraint systems have to be very flexible, so they can be used with small parcels as well as with bulky pallets or other packaged goods.

- Material: sewn belt strap, width 25 mm
- Mesh width: 200 mm
- Colour: orange
- Operating temperature range: from -40°C (-40°F) to +100°C (+212°F)
- BG-approved as load restraint net and labelled accordingly
- DIN EN 12195-2, VDI 2700 Bl. 3.3

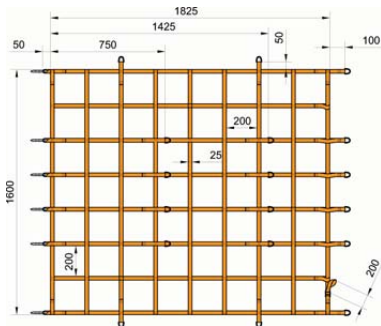
**These nets are also available separately without shoring beam and quick fastener. Please contact us for details!**

#### Selection of net type Basic net

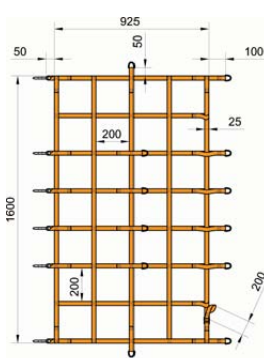
#### Extension net



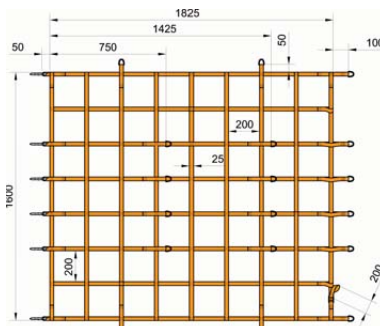
KEP1



KEP2

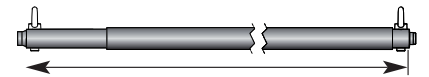


KEP E1.1



KEP E2.1

#### Telescoping shoring beam



Length adjustable from 1,500 to 1,800 mm  
Serves as additional bulk head



Type	Set contents	Meshes	Outer size in mm	Fastening points	Total LC in daN	Max. LC per fastening point in daN	Item no.
KEP1 Basic Set	Basic net KEP1 including 4 quick fasteners with buckle, telescoping shoring beam and 2 adapter straps**	8 x 7	1825 x 1600	18 triangles	800	400	40300000015008
KEP2 Basic Set	Basic net KEP2 including 4 quick fasteners with buckle, telescoping shoring beam und 2 adapter straps**	12 x 7	2725 x 1600	28 triangles	800	400	40300000015010
KEP E1.1* Extens. Set	Extension net KEP E1.1 including 2 quick fasteners with buckle	4 x 7	925 x 1600	12 triangles, 6 snap hooks	800	400	40300000015009
KEP E2.1* Extens. Set	Extension net KEP E2.1 including 2 quick fasteners with buckle	8 x 7	1825 x 1600	18 triangles, 6 snap hooks	800	400	40300000015011

\*Extension Set can be combined with both Basic Sets.

\*\*Adapter strap for telescoping beam, both ends with snap hooks

#### Separate Telescoping Shoring Beam

Length in mm	Item no.
1500 - 1800	40251000015002

#### Separate Adapter Strap for Shoring Beam

Both ends with snap hook

Length in mm	Item no.
140	40251000015003

#### Separate Quick Fastener with Buckles



- One end with snap hook
- Other end with double J hook
- Width 35 mm

Length in mm	LC in daN	Item no.
2000	750	40101000015001





### Securing container doors with SpanSet CTUXafe

**NEW!**

**The simple and cost-effective solution prevents nasty surprises when unlocking the container door.**

When opening a container, the unloading person always knows what's inside the container - but he never knows what it looks like behind the doors. Cargo that has become loose or has shifted during transport can exert pressure on the door of the container from the inside. If a container door is unlocked, the load can suddenly push open the doors and injure the persons standing in front of the container. For this reason, the new CTU Code recommends opening the door with a safety strap (chapter 12.2.2) or a diagonal safety chain (Appendix 5 Chapter 6.3).

#### Operating principle of securing cargo via the locking bars

Before opening a door, the locking bars of both doors are connected to one another using a one-piece lashing strap with a clip buckle. If the door is under pressure from the inside after unlocking, the strap prevents the door from being opened wider than a small gap. The door is restrained by the CTUXafe safety strap. This allows the user to take appropriate securing action to open the doors safely. Afterwards, the strap is released and removed from the doors.

#### Requirements that SpanSet CTUXafe meets

The strap has a breaking load of 1.8 t and thus a maximum retention force of 3.6 t when strapped around the load. It is thus wholly sufficient. It should be possible to quickly attach the strap. It should not be possible to release the strap under load to prevent a container door that is slightly ajar from being opened uncontrolled under tension.

Please ask us for your requirements



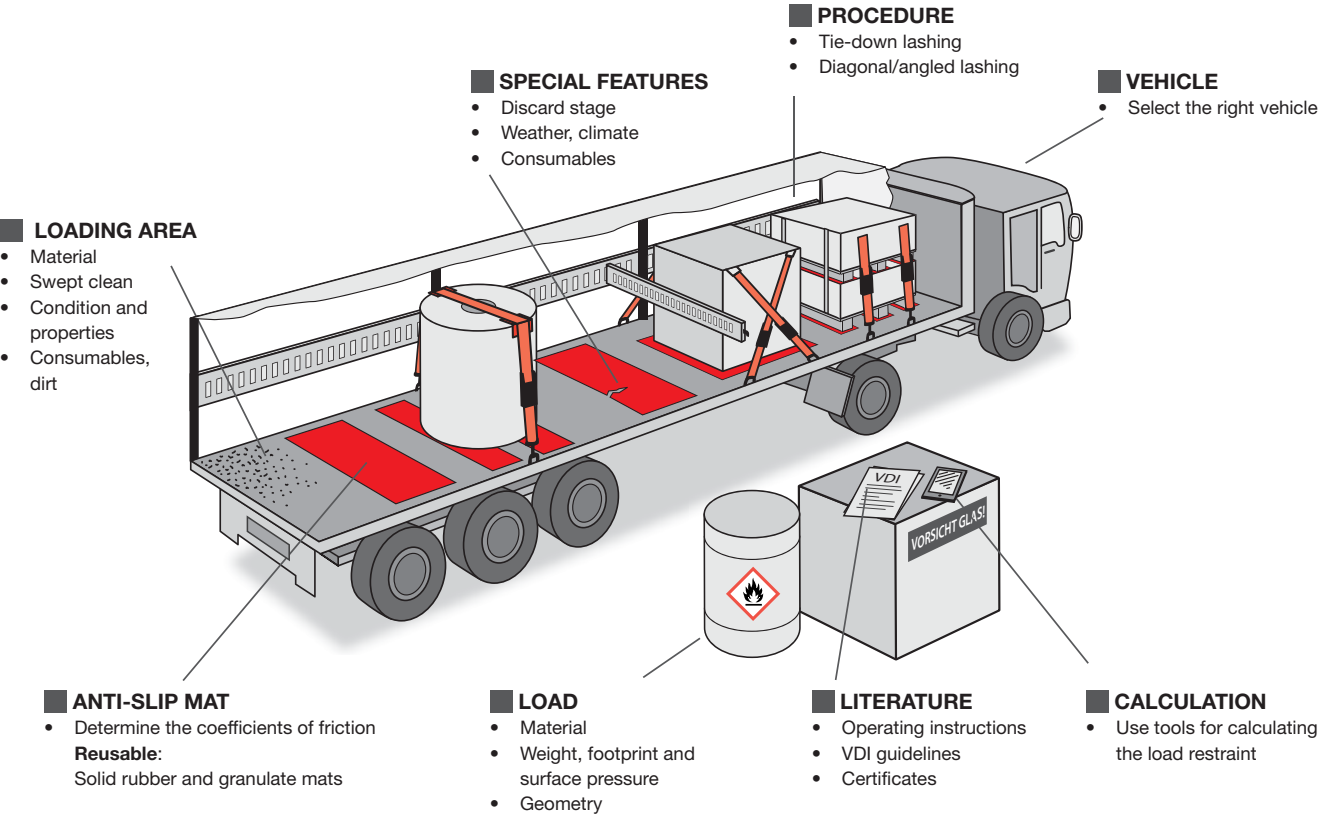
Anti-Slip Mat acc. to VDI 2700 ff

Anti-slip-mats – for added safety

When loads start to slide

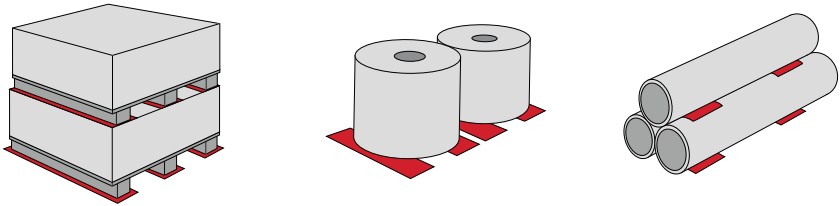
- Sliding loads are hard to stop, uncontrollable and can lead to far-reaching consequences during transportation on roads
- The anti-slip mats vastly reduce this hazard source – with very little effort on your part.

Observe the service life, area of use and manufacturer details about the anti-slip mats.



Only as many as necessary

The anti-slip mat is particularly efficient as it only needs to be placed under the areas where the contact between the freight and loading area is interrupted. Two narrow strips suffice for pallets and one mat suffices for a motor block under the part that touches the loading area. Small cuts are therefore sometimes all that are needed to prevent the entire load from slipping. The anti-slip mats are therefore not only available in standard sizes but also as custom-sized cuts on request.



Dynamic friction coefficients with different material pairs

Dynamic friction coefficients $\mu$ pursuant to VDI 2700-2			
Material pair	Dry	Wet	Greasy
Wood/wood	0.20-0.50	0.20-0.25	0.05-0.15
Metal/wood	0.20-0.50	0.20-0.25	0.02-0.10
Metal/metal	0.10-0.25	0.10-0.20	0.01-0.10





### Grip-S Anti-Slip Mat, Solid Rubber, the Reusable Anti-Slip Mat

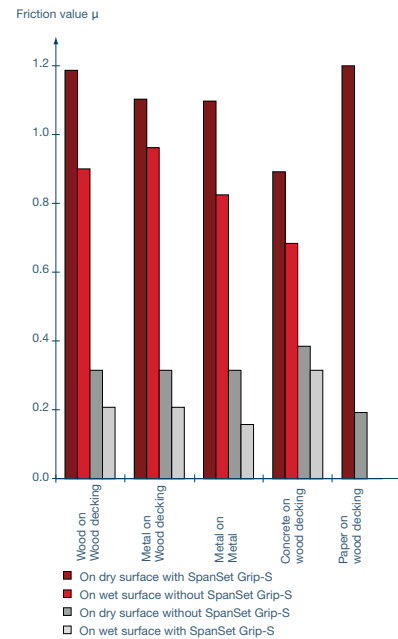
- Optimum supplement for tie-down lashing
- Reusable many times
- High resistance against consumables
- Complies with VDI guideline 2700 parts 14+15
- Robust, highly durable solid rubber mat
- Friction coefficients tested and certified by TÜV Rheinland
- 9 mm material thickness, for area pressures of several 100 t during heavy duty transport



Custom formats on request



### Certified friction coefficients



\* 1.76 t/m² surface pressure and material 9 mm thick



#### Note:

Particle boards are multi-layered wooden boards for constructing the loading area on the lorry.

Type	Dimensions in mm	Thickness in mm	Weight in kg	Item no.
GRIP-S	200 x 200	2.0	0.1	40153000015006
GRIP-S	5,000 x 266	2.0	3.0	40153000015007
GRIP-S	20,000 x 150	2.0	6.7	40153000015008
GRIP-S	200 x 200	9.0	0.4	40153000015009
GRIP-S	5,000 x 266	9.0	13.7	40153000015010

### Grip-G Anti-Slip Mat, Granulate

The popular anti-slip mat made from rubber granulates is produced in consistently high quality, complies with VDI 2700 et seq. and is suitable for universal use. Friction coefficients of 0.6 and more are achieved and documented by test certificates for the common material pairs.

During manufacture, pressure is used to adhere and process rubber granules of a specified quality and size to form anti-slip mats.

- Complies with VDI 2700 et seq.
- Friction coefficients of 0.6 for the common material pairs
- Custom formats possible



See the table for standard cuts and roll goods

Custom formats on request

Type	Dimensions in mm	Thickness in mm	Weight in kg	Item no.
GRIP-G	20,000 x 150	3.0	7.7	40153000015001
GRIP-G	200 x 200	8.0	0.3	40153000015002
GRIP-G	5,000 x 250	8.0	8.2	40153000015004

secugrip 95 Anti-Slip Mat

secugrip 95 – spray coating

Load carriers, beams and pallets can all be permanently anti-slip coated with the new spray coating secugrip 95. The coloured coating is applied with a thickness of approx. 2 mm. secugrip 95 achieves a friction coefficient of 0.6  $\mu$  with common material pairs and is highly robust and durable. If necessary, the coating thickness can be increased by respraying. To provide a specific quotation, we need to know your load carrier's size, condition and material.

Simply contact us – we are happy to help!

- secugrip is acid-, alkali- and UV-resistant
- Reusable
- DEKRA certified



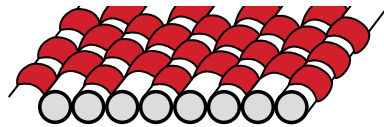
Type	Dimensions in mm	Coefficient of friction $\mu$	PU pce	Item no.
secugrip 90	2400 x 100 x 80	0.6	10	-



### EasyLashtex – woven strap

The woven straps are suitable for even the more sensitive of surfaces. Whereas steel straps often dirty the surface of loads with flecks of rust, textile straps do not corrode. This makes it possible to minimise transport damage costs. Thermal setting ensures low elongation of below 7%.

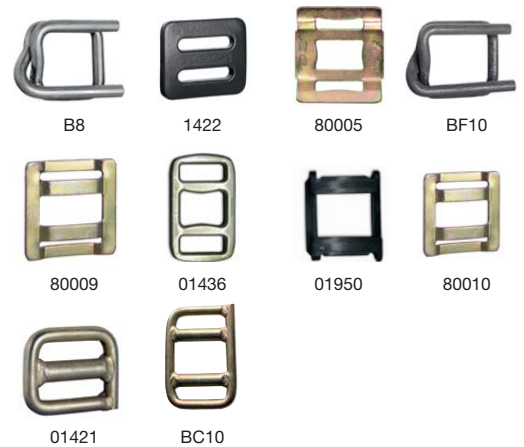
- Ideal for transporting goods by container, train or ship
- Protects sensitive goods
- Weather resistant and non-corrosive
- System strengths of up to 7,500 daN
- High strength yet low tare weight
- Easy to handle



Cross-section through a strap: thermal setting minimises the material elongation to below 7%.



### EasyLashtex Buckle types



### EasyLashtex Selection matrix

Strap strength in daN	Buckle types									
	B8	1422	80005	BF10	80009	01436	01950	80010	01421	BC10
1200	x	x	x							
3000				x	x					
5000						x				
1900							x	x		
4800								x	x	
6000										x

### EasyLashtex Strap

Width in mm	Strap strength in daN	For max. strap width in mm	Weight per PU in kg
25	1200	400	10.5
35	3000	300	21.5
40	5000	200	20.2
49	1900	300	12
49	4800	200	18.9
49	6000	200	23.4

### EasyLashtex Tensioner

Type	For max. strap width in mm	Dimension in mm	Integrated cutting device	Weight in kg/pce
Tensioner 25	25	320 x 185 x 105	yes	1.5
Tensioner 40	40	330 x 180 x 95	yes	2.5
Tensioner 50	50	320 x 185 x 105	yes	2.6

### Tensioner



### EasyLashtex Buckles

Type	Finish	Number per PU in pcs	Weight per PU in kg
B8	Galvanised	250	9.0
1422	Powder-coated	200	6.0
80005	Chromated	300	16.2
BF10	Phosphated	125	11.2
80009	Chromated	200	18.8
01436	Chromated	40	11.2
01950	Powder-coated	50	11.2
80010	Chromated	125	22.5
01421	Chromated	100	23.0
BC10	Chromated	50	19.5



# LOAD RESTRAINT SYSTEMS

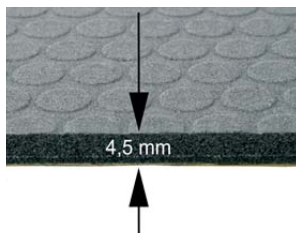
## Anti-Slip Mats

### “BLACK-CAT”-Panther Safety Anti-slip Mat

For universal use in industry, transport, logistics, and production.

**Tested and certified for load restraint up to 82.5 t/m<sup>2</sup>. Friction values of  $\mu$  0.94 at 10 t/m<sup>2</sup> and  $\mu$  1.49 at 0.5 t/m<sup>2</sup> (depending on material and surface pressure)! Exceeds all requirements!**

- Extremely strong and tearproof. Very flexible, tightly rollable and therefore easy to stow
- Material thickness only 4.5 mm, dimensionally stable, easy to cut, double-sided
- Outdoor use possible, temperature range -40°C (-40°F) to +120°C (+248°F)
- Complies with police marking requirements for certified anti-slip mats
- Closed surface, no fluid absorption and no frost heave, great cost saving due to year-round use
- Suitable for forklift and pallet truck traffic, safe and skidproof stand, easy to clean
- Extremely sturdy textile inlay with hard-wearing special coating
- Resistant against most acids, leaches, gasoline and diesel
- Tested and certified by FLog, Dortmund University, Logistics Faculty
- Endurance test proves constant friction value. Even after 100 test serials no noteworthy wear (as per to FLog test report).



With nub structure, thickness only 4.5 mm



„Black-Cat“-Panther octagon load restraint pad 15x15 cm

#### The many uses of “BLACK-CAT”-Panther (BCP):

##### For load restraint in transport, logistics and industry

Versatile use for all load restraint measures for vans, trucks, rail, ship or air transport. Today many logistic service providers rely on the durability and longevity of “Black-Cat”-Panther anti-slip mats.

##### As pallet overlay for shippers, logistics companies and courier services

“BLACK-CAT”-Panther as strips, pads or complete overlays for pallets avoid shifting of loads. They are the perfect load restraint according to German High-way Code § 22 StVO and VDI 2700 and following dated 5/2009. “BLACK-CAT”-Panther is available as BCP octagon pad (15x15 cm) as pallet underlay or perfect intermediate layer between pallet and load.

##### As floor cover in industry, trade and production

Make work more productive by using this safe and healthy stand underlay. Long standing at workbenches, assembly lines or in laboratories puts a high strain on muscles and joints. Due to its elasticity “BLACK-CAT”-Panther as floor cover protects the joints and ensures a safe stand.

##### As trunk insert BCP “MegaMate XL” (1.20 x 0.80 m), “CombiMate” (0.60 x 0.80 m) or “CompactMate” (0.50 x 0.70 m) for all cars, station wagons, vans, and trailers

“BLACK-CAT”-Panther is the new all-rounder for versatile use in your trunk. For easy securing of parcels, crates or cages in all vehicles.

**Strong ... Safe ... Indestructible... The No.1 on the market!**



**MADE IN GERMANY**

Tested and certified by

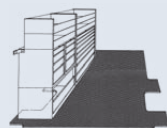
**FLog**

DORTMUND  
UNIVERSITY  
LOGISTICS  
FACULTY



**Fraunhofer**  
2012 IML

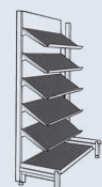
#### „BLACK-CAT“-Panther ...



... as floor cover



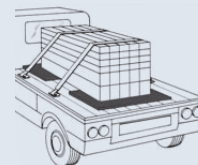
... for workshop carts



... on inclined shelves



... on all workbenches



... for load securing

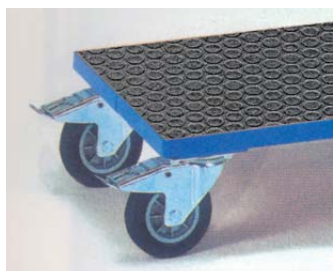


... on and under pallets





Versatile use in industry, transport, logistics and production



### Standard mats Black-Cat-Panther

Description	Applications	Width x Length in m	Weight ca. kg/pce	PU	Item no.
BCP 8-kant-LaSi-Pad	Load restraint - 6 or 9 pads as pallet over- or underlay	0.15 x 0.15	0.037	100	40153000015048
BCP 4-kant-LaSi-Pad	Load restraint - as underlay for pallet skids	0.20 x 0.20	0.08	100	40153000015034
BCP Multipad	Load restraint - as underlay for packages	0.20 x 0.24	0.01	100	40153000015035
BCP 0.12 x 1.25 m	Load restraint - two mats as pallet underlay	0.12 x 1.25	0.30	1	40153000015029
BCP CompactMate	Trunk insert for all cars, station wagons, vans, and trailers	0.50 x 0.70	0.70	1 roll	40153000015039
BCP CombiMate	Trunk insert for all cars, station wagons, vans, and trailers	0.60 x 0.80	1.00	1 roll	40153000015041
BCP MegaMate XL	Trunk insert for all station wagons, vans, and trailers	1.20 x 0.80	1.65	1 roll	40153000015043

### Standard sizes for different applications

Description	Applications	Width x Length in m	Weight ca. kg/pce	PU	Item no.
BCP 0.12 x 4 m	Load restraint for load areas up to 4 m	0.12 x 4	1.00	1	40153000015032
BCP 0.15 x 4 m	Load restraint for load areas up to 4 m	0.15 x 4	1.25	1	40153000015033
BCP 0.20 x 4 m	Load restraint for load areas up to 4 m	0.20 x 4	1.65	1	40153000015036
BCP 0.30 x 4 m	Universal use / Load restraint	0.30 x 4	2.45	1	40153000015038
BCP 0.60 x 4 m	Universal use / Load restraint	0.60 x 4	4.90	1	40153000015040
BCP 0.80 x 4 m	Universal use / Load restraint	0.80 x 4	6.40	1	40153000015042
BCP 1.00 x 4 m	Universal use / Floor cover / Load restraint	1.00 x 4	8.20	1	40153000015044
BCP 1.20 x 4 m	Universal use / Floor cover / Load restraint	1.20 x 4	9.80	1	40153000015046
BCP 1.60 x 4 m	Universal use / Floor cover / Load restraint	1.60 x 4	12.80	1	40153000015049
BCP 0.20 x 8 m	Load restraint systems for loading areas of up to 8 m	0.20 x 8	3.30	1	40153000015037
BCP 1.00 x 8 m	Floor cover / Load restraint systems for loading areas of up to 8 m	1.00 x 8	16.40	1	40153000015045
BCP 1.20 x 8 m	Floor cover	1.20 x 8	19.70	1	40153000015047
BCP 1.60 x 8 m	Floor cover	1.60 x 8	25.80	1	40153000015050
BCP 0.12 x 2.45 m	Load restraint for trucks - crosswise	0.12 x 2.45	0.60	1	40153000015031
BCP 0.12 x 13.8 m	Load restraint for curtainsiders - lengthwise	0.12 x 13.8	3.40	1 roll	40153000015030

Any special sizes width from 0.02 m to 1.60 m and up to 60 m length are possible! Individual sizes available on request.

# LOAD RESTRAINT SYSTEMS

## Anti-Slip Mats

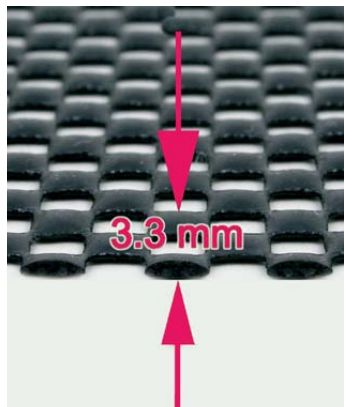
### “BLACK-CAT” Safety Anti-Slip Mat (BC)

One product for  
thousands of  
applications!

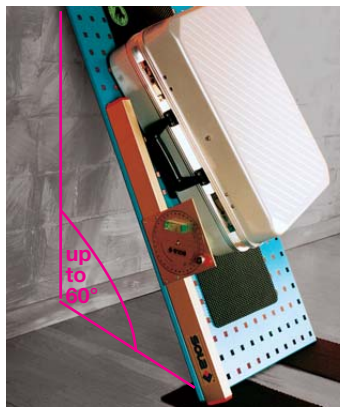
Flexible, highly tear-resistant and long-lasting ... for small trade, industry, office, and home.

**The highly tear-resistant anti-slip mat with open lattice structure – only 3.8 mm thick. Versatile – holds everything safely in place – even on inclined surfaces up to 60°!**

- Once placed the mat will firmly adhere to the surface. Usable everywhere where nothing must shift – on almost any material without sticking!
- Hand and machine washable up to 60°C (140°F) with any mild detergent. Can be cut to size
- Tested and certified by FLog, Dortmund University, Logistics Faculty
- Free from toxic substances, harmless under food law, manufactured according to EC standards
- Temperature range approx. -40°C (-40°F) to +120°C (+248°F), flame resistant
- Good resistance against acids and leaches, oil, petrol and diesel
- High friction value of  $\mu$  0.70 to 1.23
- Only mat of its kind certified for load restraint
- Highest quality for long-term use – made in Germany



Open lattice structure,  
thickness only 3.8 mm



Up to 60° inclination!

### The many applications of original “BLACK CAT” (BC):

#### Commerce, industry and transport:

E.g. for allocation and transport of sensitive parts: Considerable simplification of production and picking in workshops, industry and commerce.  
E.g. for reliable tidiness and safe storage in drawers, workshop carts and inclined surfaces.

E.g. for fixing of items for automatic or semi-automatic workpiece handling: On conveyor belts, turntables and feeders metal parts, glass, die cast components and galvanised parts can be fixed, transported, picked up and returned again – without any gripping, plugging, magnetic or positioning devices.

#### Car, home and hobby:

E.g. for anti-slip transport of sensitive parts: Holds mirrors, equipment of all kind, tool boxes and bags at their place.

E.g. for inclined surfaces in office, home and hospitals.

#### Small trade:

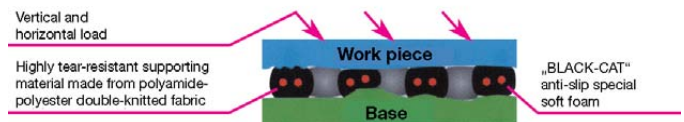
E.g. safe grip and transport of any item on clean surface: Original “Black Cat” anti-slip mats ensure hassle-free work in many fields without use of holding tongs, grippers or clamps. (Planing, sanding, sawing, drilling etc.).



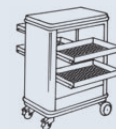
“BLACK-CAT” – the only  
foam plastic mat with  
lattice structure certified  
for load restraint

### How “BLACK-CAT” works

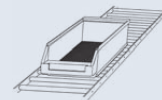
“BLACK-CAT” holds tight thanks to its adhesive power, even on rough surfaces. The “BLACK-CAT” special soft foam adapts to surface irregularities and is held in place by the double-reinforced tear-resistant support material.



### Original „BLACK-CAT“ ...



... for workshop  
carts



... for transport  
boxes and inserts



... for drawers



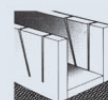
... in shelves



... for removals approved for load restraint



... as anti-slip pad



... for sawing  
and planing



... as car trunk mat ap-  
proved for load restraint





One product for thousands of applications



### Standard sizes for different applications Black-Cat

Description	Applications	Size in mm	Item no.
Piccolo octagon	Dashboard pad and intermediate layer load restraint	150 x 150	40153000015022
HandyMate	Dashboard pad and intermediate layer load restraint	200 x 240	40153000015011
Uni-CarMate	Small car trunk mat with certification	450 x 600	40153000015025
Work mat	For manual work – grinding, planning, sawing	600 x 1200	40153000015026
Car mat	Big car trunk mat with certification	800 x 1200	40153000015028
Mini tool mat	For industry and small trade for lockers, carts and tables	300 x 1800	40153000015023
Midi tool mat	Drawer inserts, workshop carts and shelves	450 x 1800	40153000015024
Maxi tool mat	As inserts for paternoster lifts or rotating racks	600 x 2400	40153000015027

### Rolls

Description	Roll width in mm	Item no.
Rolls of 10 m length	200	40153000015012
	250	40153000015013
Can be cut to any desired size with scissors or a utility knife.	300	40153000015014
	350	40153000015015
	430	40153000015016
	450	40153000015017
	500	40153000015018
	600	40153000015019
	1000	40153000015020
	1200	40153000015021

### Special sizes:

Any roll width from 0.20 m to 0.99 m is available in lengths of 10 m or 20 m from a minimum quantity of 10 pcs. **Bigger roll widths from 1.00 m to 2.40 m** in lengths of 10 m or 20 m only require a minimum quantity of 6 pcs. Special lengths from 2 to 9 m, as well as 25, 50 or 100 m are also possible! Please contact us for the respective minimum order quantities.



# LOAD RESTRAINT SYSTEMS

## CondorLift Bulk Containers (BIG-BAG)

### Flexible Intermediate Bulk Containers (FIBC's or Big Bags) for Transport and Storage

**BIG-BAGS** are the cost-saving alternative for transport of bulk goods

Our customers use **BIG-BAGS** successfully in the following areas:

- **Disposal** (asbestos-BB, plate bags 260 + 320 cm, mineral wool sacks 140 x 220 cm, mineral wool-BB)
- **Recycling** (e.g. for plastic, granules etc.)
- **Aggregates and Mining** (e.g. for gravel, sand or as stone-BB e.g. 90 x 90 x 90 cm or 90 x 90 x 120 cm, SWL 1,500 kg)
- **Chemicals** (e.g. UN-BB, type B + C, liner, dust-tight etc.)
- **Agricultural** (e.g. harvest-BB for grain or potatoes)
- **Wood products** (e.g. for pellets, fire wood etc.)

**BIG-BAGS** suit standard pallet sizes and can be picked up by forklifts or transported using special cross beams.

Carl Stahl **BIG-BAGS** are made from sturdy **UV-stabilized PP**-(polypropylene) woven tape fabric, not impregnated or impregnated against humidity absorption, with four strong lifting loops (loop length = 25-35 cm)

Load capacity (SWL): 1,000 kg / 1,250 kg / 1,500 kg / up to 2,000 kg (on request)

Safety factor (SF): 5:1 (single use), 6:1 (multiple use)

Manufactured according to DIN 55461



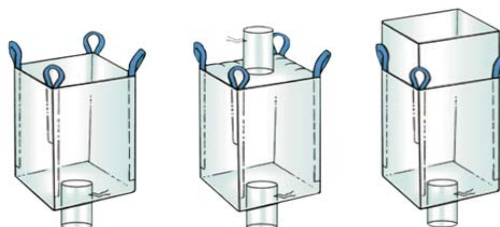
Lifting beams for Big-Bags can be found on page 160 f.

Other sizes and versions are available on request. A suitable automatic safety load hook with digital remote control can be found on pages 290-291.

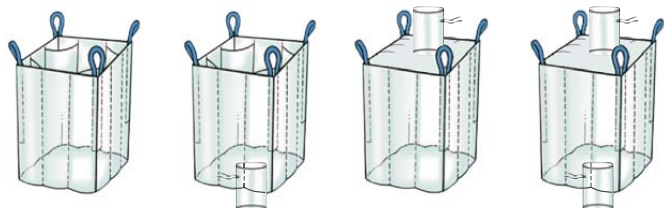
#### Big-Bag types (examples):



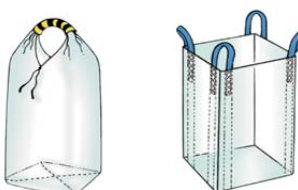
Fabric:  
impregnated/not impregnated  
Top:  
open, filler pipe, duffle top  
Bottom:  
closed, discharge spout



#### Big-Bag plain bottom



#### Big-Bag dimensionally stable (schematic)



#### Big-Bag 1-loop or cross corner



### Application examples:

#### Example 1:

Asbestos Big-Bag 90 x 90 x 110 cm  
Duffle top, closed bottom, impregnated, asbestos warning print,  
SWL 1,000 kg, SF 5:1

Item no. 25303600015006



#### Example 2:

Asbestos plate bag  
Duffel top + cover, bottom closed, impregnated asbestos warning print  
260 x 125 x 30 cm

Item no. 25303600015003

320 x 125 x 30 cm

Item no. 25303600015004



#### Example 3:

Mineral wool sack 140 x 220 cm  
Impregnated, white, duffle top with lacing  
Print "Mineral Fibre Waste! Contents Release Carcinogenic Fibre Dust"

Item no. 25303600015002



#### Example 4:

Stone Big-Bag, 90 x 90 x 90 cm  
SWL 1,500 kg, SF 5:1, not impregnated, 180 g/m<sup>2</sup>, open top,  
closed bottom

Item no. 25303600015005



#### Example 5:

Container sack, 620 x 240 x 115 cm (17 m<sup>3</sup>)  
Duffel + cover, closed bottom, impregnated, asbestos print

Item no. 25303600015001



# LOAD RESTRAINT SYSTEMS

## Woven Fabric Bags, Disposable Lashings

### CondorLift CPP Woven Fabric Bags

Our PP woven fabric bags can be used for:

- as sand bags for coast and building protection
- for transport of screws, nails, nuts
- for storage of plastic fittings for cardboard packing
- for transport and storage of bed springs
- for transport and storage of food



**Application example as sandbag:**

Sand bag 40 x 60 cm

- duffle top
- Colour: white
- with or without lacing

**Item no. 25303600015007**



**Other sizes and versions on request.**

**Stock sizes**

- 50 x 80 cm
- 55 x 75 cm
- 60 x 105 cm
- 60 x 115 cm
- 65 x 115 cm
- 65 x 135 cm
- 70 x 110 cm
- 75 x 125 cm
- 90 x 130 cm
- 90 x 140 cm blue
- 120 x 180 cm blue
- 120 x 220 cm blue

**With PE liner, with UN approval e.g.**

- 55 x 95 cm (UN 5 H3)
  - 50 x 85 cm (UN 5 H3)
- available on request**

### Multitex - The Low Cost Alternative

The alternative for 95% of all possible applications.

Caution: Strap and dispenser of this alternative programme are not compatible with the Stahltex® system.

Width in mm	Breaking strength in kg	Roll length in m	Straps	Buckles*	Pallet needle
			Item no.	Item no.	Item no.
13	400	1100	40153500015007	40153500015204	40251500015028
16	480	850	40153500015008	40153500015205	40251500015028
19	580	600	40153500015009	40153500015206	40251500015028

\* 1 Package of 1,000 pcs

Width in mm	Breaking strength in kg	Roll length in m	Dispenser	Tensioner	Complete system	
			Item no.	Item no.	Content: 1 strap reel (see below), 1,000 buckles, 1 tensioner, pallet needle, dispenser	Item no.
13	400	1100	40251500015030	40153500015302	1 roll 13 mm à 1100 m	40300000015015
16	480	850	40251500015030	40153500015302	1 roll 16 mm à 850 m	40300000015016
19	580	600	40251500015030	40153500015302	1 roll 19 mm à 600 m	40300000015017



### Stahltex® System - The versatile Strapping and Tie-down System off the Reel

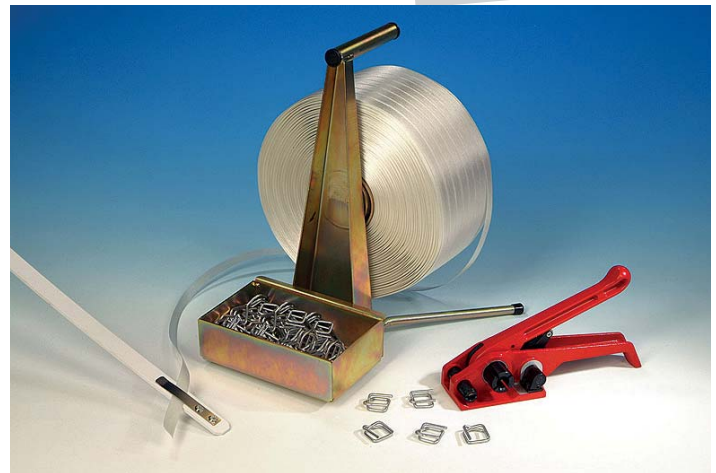
**Soft:** The flexible straps prevent load damage, fit all shapes and involve no risk of injury. They do not burst open and have no sharp edges.

**Fast:** The self-closing buckles allow fast and safe tightening according to the belt principle.

**Advertising:** Have your company name printed on the Stahltex® strap and it will advertise for you by its durability, strength and clean looks.

**and ... Stahltex®** can be retightened, leaves no rust stains, is absolutely weather-proof, resistant to chemicals, reusable and can be adapted to your individual requirements by our sales team.

**Strong as steel -  
flexible as textile!**



#### Stahltex® System

Disposable polyester straps, elastic to impacts and jolts, weather-proof, for extreme loads of 610-2,000 kg (system strength), simple and safe buckle lock.



			Straps	Buckles*	Pallet needle
Width in mm	Breaking strength in kg	Roll length in m	Item no.	Item no.	Item no.
13	610	1100	40153500015001	40153500015201	40251500015028
16	790	850	40153500015002	40153500015202	40251500015028
19	880	600	40153500015003	40153500015203	40251500015028

\* System strength with clamp

\* Package of 1,000 pcs, for strap width 19 mm: 500 pcs

			Dispenser	Tensioner	Complete system	
Width in mm	Breaking strength in kg	Roll length in m	Item no.	Item no.	Content: 1 strap reel (see below), 1,000 buckles, 1 tensioner, pallet needle, dispenser	Item no.
13	610	1100	40251500015029	40153500015301	1 roll 13 mm à 1100 m	40300000015012
16	790	850	40251500015029	40153500015301	1 roll 16 mm à 850 m	40300000015013
19	880	600	40251500015029	40153500015301	1 roll 19 mm à 600 m	40300000015014

## Quality Training Worldwide

- ▶ Wire Rope
- ▶ Fork Lift Trucks
- ▶ Lifting Operations
- ▶ Health and Safety
- ▶ Confined Space
- ▶ Welding



### About Carl Stahl Evita

We specialise in helping you to maintain a safe, legal and cost effective operational environment through Consultancy and Essential Training. Our range of courses are grouped under six main headings, Wire Rope, Lifting Operations, Fork Lift Trucks, Health and Safety, Confined Spaces and Welding.

Training packages are proven and accepted as industry benchmarks throughout the world and courses are delivered by consultants with extensive background, technical and 'hands-on' knowledge that never fails to make course material relevant and interesting to delegates.

### Legality

Well trained, competent people are the foundation of any successful business, but for lifting operations, an industry driven by rapid changes in the legal framework, training is even more important.

### Safety

In situations where human survival is at stake, acceptance of second best is a risk nobody can afford to take. Wire ropes and lifting equipment often quite literally provide a lifeline for industry in hostile and demanding conditions. Your operational safety depends not only on your equipment, but also on the awareness, skill and performance of the people who manage and use it.

### Codes of Practice

All training is carried out in association with or in accordance with relevant professional trade associations, approved training suppliers, standards bodies, and Codes of Practice such as ISO, EN, BS, DIN, ASME, API, HSE, LEEA, IOSH, IRATA, RTITB, ITSSAR, ECITB.

### Cost Benefit

Safe and competent operation of equipment brings direct bottom line benefits with reductions in downtime, handling times and the avoidance of damage to jobs and equipment. Effective training also increases motivation and commitment.

### Our Training Promise

We offer continued support to all newly trained delegates via telephone, email, or online web site support. If appropriate, one of our consultants will visit.

### Our Training Commitment

The Carl Stahl Group is committed to helping customers improve standards and safety. A training and conference centre is located at the groups' headquarters site in Süssen, Germany and Carl Stahl Evita Limited provides an internationally accredited portfolio of programmes at its new purpose developed building in the UK.

Built upon many years of experience, our technical expertise is unrivalled anywhere in the world. Our qualifications are exemplary, the group is certified to the European Quality Standard ISO 9001 and we are a member company of the Lifting Equipment Engineers Association (LEEAA). Presenters and Consultants are members of prestigious national associations such as CIPD, IM, IQA, IOSH, IAM, and ISM, and are amongst the most highly qualified and experienced in the world. They include Chartered Engineers, Mechanical Engineers, Professional Training Practitioners and Technicians.

### Further Information

If you would like any further information, please feel free to contact us. You can also visit our website, where you can download comprehensive details for all of our training courses.



**Worldwide Coverage:** We have delivered successful training in Morocco, Iceland, Ireland, Columbia, Canada, South America, Norway, France, Dubai, Singapore and of course all over the UK.



#### Don't take our word for it...

'The training facility at Carl Stahl Evita Ltd was excellent! The course was tailored to our needs and delivered by friendly, professional instructors who were clearly knowledgeable. An all round great learning experience!' Allianz Engineering – United Kingdom.

'The delegates are in agreement that it was an excellent day and one where they learnt a great deal to enhance their every day examination of wire rope... The presenters experience was of great value to add a 'hands on' feel to the academic content.'

'... with reference to the Evita Wire Rope Examiners and Lifting Gear Inspection Course – in Halifax, Nova Scotia, we would like to thank you for your choice of instructors... they presented the programme in a most professional and informative manner.'

'... our member was very impressed with the presentation of the course and benefited considerably from the knowledge received... I shall be most pleased to pass on the Evita name.'

'... whatever it was you did out there it worked, the accident rate has been considerably reduced.'

'May I take this opportunity on the way your instructors conducted their training lessons. They were very professional and their delivery method made it easier for the trainee to understand the subject matter and that is an asset to your company. You make your customers feel very welcome and from what I have seen and experienced Fendercare will be doing more training at Carl Stahl Evita.'

'Just a note to say thanks for an enjoyable and informative course over the last couple of days. It just proved to me once again that no matter how long a person has been doing a job or how experienced they may think they are at that job there will always be something new to learn and every day at that!!.'

**Carl Stahl Evita Limited**  
**Carl Stahl House, Farfield Park, Manvers Estate**  
**Rotherham, S63 5DB, England**

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**Int Tel: +44 (0)1709 763051**  
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**Email: [training@carlstahlevita.co.uk](mailto:training@carlstahlevita.co.uk)**  
**Web: [www.carlstahlevita.co.uk](http://www.carlstahlevita.co.uk)**

Course Name
<b>Forklift Truck</b>
Fork-Lift Truck Operator Basic and/or Refresher FL01
Fork-Lift Truck Instructor Development FL02
Fork-Lift Truck Instructor FL03
Pedestrian Operated Pallet Trucks FL04
Sideloader Training Course FL05
Mobile Elevated Work Platforms FL06
<b>Wire Rope Training</b>
Wire Rope Examiners WR01
Wire Rope Inspection LEEA Accredited WR02
Wire Rope Inspection Refresher LEEA Accredited WR03
Wire Rope Appreciation WR04
Vehicle Lift Wire Rope Inspection WR05
Wire Rope Product Safety, Handling and Installation WR06
Wire Rope Socketing WR07
<b>Lifting Operations</b>
Lifting & Slings Safety LO01
Lifting & Slings Safety LEEA Accredited LO02
Lifting Gear Examiners LO03
Lifting Gear Examination Refresher LO04
Lifting Operations Instructor LO05
Management of Lifting Operations LO06
Lorry Mounted Crane (HIAB) LO07
Safe Operation of an Overhead Travelling Crane LO08
Safe Operation of Overhead Travelling Crane – LEEA Accredited (LO09)
Appointed Person LO10
Vehicle Banksman LO11
Safe Use of Permanent Lifting Magnets LO12
<b>Confined Space</b>
Water UK City & Guilds 6150-02
Water UK City & Guilds 6150-03
Water UK City & Guilds 6150-05
CS1 Confined Space Entry including escape sets
<b>Health &amp; Safety</b>
IOSH Managing Safely HS01
Risk Assessment HS02
Manual Handling Instructor HS03
Manual Handling HS04
Abrasive Wheels Safety HS05
Abrasive Wheel Instructor HS06
<b>Welding</b>
Welding – Metal Inert/Active Gas Welding WEL01
Welding – Manual Metal Arc Welding WEL02
Welding – Tungsten Inert Gas Welding WEL03
Welding – Oxy-Fuel Gas Safety and Cutting WEL04

# Forklift Truck



Make sure your drivers have a recognised licence and up-to-date knowledge of current standards. These courses can help to increase competence and productivity, and reduce the number of accidents caused by under-qualified workers. Choose the appropriate courses from the list below.

## Fork-Lift Truck Operator Basic and/or Refresher FL01

Suitable for all identified personnel who are required to use or responsible for work carried out involving the use of forklift trucks.

## Fork-Lift Truck Instructor Development FL02

Those identified as potential forklift instructors on-site. Trainees must hold a valid certificate of training on the equipment they are required to teach on. They must have undergone a test by an accredited instructor within 12 months prior to the course, have the ability to adapt their approach to suit the needs of different trainees, be able to communicate effectively, and be able to lead and control.

## Fork-Lift Truck Instructor FL03

Those identified as potential nationally recognised forklift instructors. Trainees must hold a valid certificate of training on a forklift truck. They must have undergone a test (or retest) by an accredited instructor within 6 months prior to the course.

## Pedestrian Operated Pallet Trucks FL04

All identified personnel who are required to use or responsible for work carried out involving the use of Pedestrian Operated Powered Pallet Trucks. It is recommended that all operators should have the benefit of a formal course and test before operating a truck in a normal working environment.

## Sideloader Training Course FL05

All identified personnel who are required to operate a Sideloader in the workplace.

## Mobile Elevated Work Platforms FL06

Courses for experienced operators and/or novices. Programmes are designed to meet client needs and delivered on-site as and when required.

## Wire Rope Training



Are you sure that your wire ropes are correctly examined and suitable to use?

Many people aren't. Accidents and fines can be prevented with the appropriate knowledge and skills. Don't take any chances.

### Wire Rope Examiners WR01

Those with a working knowledge of wire ropes and involved in the inspection, statutory examination, and/or safe use of wire rope in service. It is also suitable for those who are involved with, or give advice to, users of wire rope and associated equipment/products.

### Wire Rope Inspection LEEA Accredited WR02

Companies/Units who require employee training on the examination and safe use of wire rope carried out at their premises. Specifically those with a working knowledge of wire ropes and involved in the inspection, statutory examination, and/or safe use of wire rope in service. It is also suitable for those who are involved with, or give advice to, users of wire rope and associated equipment/products.

### Wire Rope Inspection Refresher LEEA Accredited WR03

Those with a working knowledge of wire ropes and involved in the inspection, statutory examination, and/or safe use of wire rope in service. It is also suitable for those who are involved with, or give advice to, users of wire rope and associated equipment/products.

### Wire Rope Appreciation WR04

Companies/Units who require employee training on the examination and safe use of wire rope carried out at their premises. Specifically those who require an overall appreciation of the wire ropes in service and likely to be involved in the inspection, statutory examination, and/or safe use of those ropes. It is also suitable for those who are involved with, or give advice to, users of wire rope and associated equipment/products.

### Vehicle Lift Wire Rope Inspection WR05

Targeted at those involved in the selection and management of wire rope. It is also suitable for those who give advice to, users of wire rope and associated equipment/products. Candidates should have a good working knowledge of conventional wire ropes. There are potential cost saving benefits to those who take advantage of the valuable information given on this course.

### Wire Rope Product Safety, Handling and Installation WR06

Those who are involved with the handling, installation and maintenance of steel wire ropes.

### Wire Rope Socketing WR07

Those involved in the maintenance and socketing of wire ropes.

## Lifting Operations



### Lifting & Slings Safely LO01

Those who have, or required to have 'hands on' knowledge and/or responsibilities involving the use of lifting equipment used within their operational environment.

### Lifting & Slings Safely LEEA Accredited LO02

Those who have, or required to have 'hands on' knowledge and/or responsibilities involving the use of lifting equipment used within their operational environment.

### Lifting Gear Examiners LO03

Users of lifting gear and those involved in the inspection or statutory examination of lifting gear in service. It is also suitable for those who are involved with, or give advice to, users of lifting gear.

### Lifting Gear Examination Refresher LO04

Users of lifting gear and those involved in the inspection or statutory examination of lifting gear in service. It is also suitable for those who are involved with, or give advice to, users of lifting gear.

### Lifting Operations Instructor LO05

This course is aimed at employees who have been identified and/or selected to carry out 'in-house' instruction on lifting operations.

### Management of Lifting Operations LO06

Those with a working knowledge of lifting equipment and responsible for, or involved in, the practical aspects of lifting and slinging operations. It is especially suitable for those who manage or likely to manage other Banksmen/Slingers e.g. Service Engineers, Technicians and Supervisors, Managers, Safety Officers etc., and any person who offers or is likely to offer advice and/or assistance to, users of lifting equipment.

### Lorry Mounted Crane (HIAB) LO07

A course for candidates wishing to achieve a nationally recognised operator qualification, enabling them to operate a lorry mounted crane safely within the workplace.

Have your staff been properly trained to use lifting equipment safely and correctly?

Can you prove it? Delegates of these courses will leave with all the knowledge and skills needed for the safe use of lifting equipment. Properly trained employees can help to reduce risks and increase productivity. Choose the appropriate courses from the list below.

### Safe Operation of an Overhead Travelling Crane LO08

Those identified to use, or responsible for others who use overhead travelling cranes. Delegates must be over the age of 17, be physically fit, have good eyesight, hearing ability and be able to judge distances.

### Safe Operation of Overhead Travelling Crane – LEEA Accredited (LO09)

Those identified to use, or responsible for others who use an overhead travelling cranes and the associated lifting equipment and accessories to be able to perform a lifting operation. Delegates must be over the age of 17, be physically fit, have good eyesight, hearing ability and be able to judge distances.

### Appointed Person LO10

A four day course aimed at those with a good working knowledge and understanding of cranes and lifting operations and selected for duties as an 'Appointed Person' within their own organisation.

### Vehicle Banksman LO11

All identified personnel who are required to/and or are responsible for assisting in the manoeuvring and loading/unloading of vehicles.

### Safe Use of Permanent Lifting Magnets LO12

Users of permanent magnetic lifters. Those carrying out "in service" inspection of permanent magnetic lifters. It is also suitable for those who are involved with, or give advice to, users of permanent magnetic lifting equipment.



## Confined Space



Do you work in sumps, pits, pipes, tanks, silos, or tunnels at your job?

Employees who may enter confined spaces with potential hazards are required to receive confined space safety training.

### Water UK City & Guilds 6150-02

Obtain the skills and knowledge required to carryout safe working within the Water UK categories Low, Medium risk confined spaces including using compressed air escape breathing apparatus as a planned means of self rescue

### Water UK City & Guilds 6150-03

Obtain the skills and knowledge required to carryout safe working within the Water UK categories High risk confined spaces including using compressed air self contained breathing apparatus as a planned means of entry and self rescue.

### Water UK City & Guilds 6150-05

Obtain the skills and knowledge required to carryout safe rescue procedures within the Water UK categories Low, Medium and High risk confined spaces including using compressed air self contained breathing apparatus as a planned means of assisted rescue.

### CS1 Confined Space Entry including escape sets

On completion of the course candidates will have obtained the skills and knowledge required to carryout safe working within confined spaces including using compressed air escape breathing apparatus as a planned means of self rescue

## Health & Safety



Are you and your staff aware of the current Health and Safety regulations?

Knowing and abiding by the Health and Safety regulations can save lives, time and money. These courses aim to make delegates increasingly more aware of their responsibilities within a working environment. Choose the appropriate courses from the list below.

### IOSH Managing Safely HS01

The course is designed for those required to manage safely and effectively in compliance with both their organisation's policy and best practice in health and safety. Managing Safely's target audience is people in an organisation who have to manage risk and resources. The course's aim is to provide these people with the competencies they require.

### Risk Assessment HS02

All who have to carry out risk assessments, including managers, supervisors or others who assist in the risk assessment process.

### Manual Handling Instructor HS03

This course is aimed at all employees who have been identified and/or selected to carry out 'in-house' instruction on Manual Handling.

### Manual Handling HS04

All indicated personnel required to carry out and/or supervise Manual Handling operations.

### Abrasive Wheels Safety HS05

Supervisors and other employees involved in the mounting, changing and safe use of Abrasive Wheels.

### Abrasive Wheel Instructor HS06

This course is aimed at all employees who have been identified and/or selected to carry out instruction on the safe use of Abrasive Wheels.

## Welding



Welding training is carried out by our associates who have over 20 years experience. A unique friendly expert service based on quality and reliability is guaranteed.

Optional certificate to any National or International Standard including:

- BS4872 welder competency
- ASME IX and BS EN 287 coding
- ASME IX and BS EN 288 procedures
- AWS, ANSI, API, AESS & CAA

### Welding – Metal Inert/Active Gas Welding WEL01

This course is for delegates who are required to carry out Mig/Mag welding operations, either to company specification, or to an appropriate coding. The course can be adapted to suit the client's specific requirements, including material types, grades and forms, joint configuration and welding positions.

### Welding – Manual Metal Arc Welding WEL02

This course is for delegates who are required to carry out MMA welding operations, either to company specification, or to an appropriate coding. The course can be adapted to suit the client's specific requirements, including material types, grades and forms, joint configuration and welding positions.

### Welding – Tungsten Inert Gas Welding WEL03

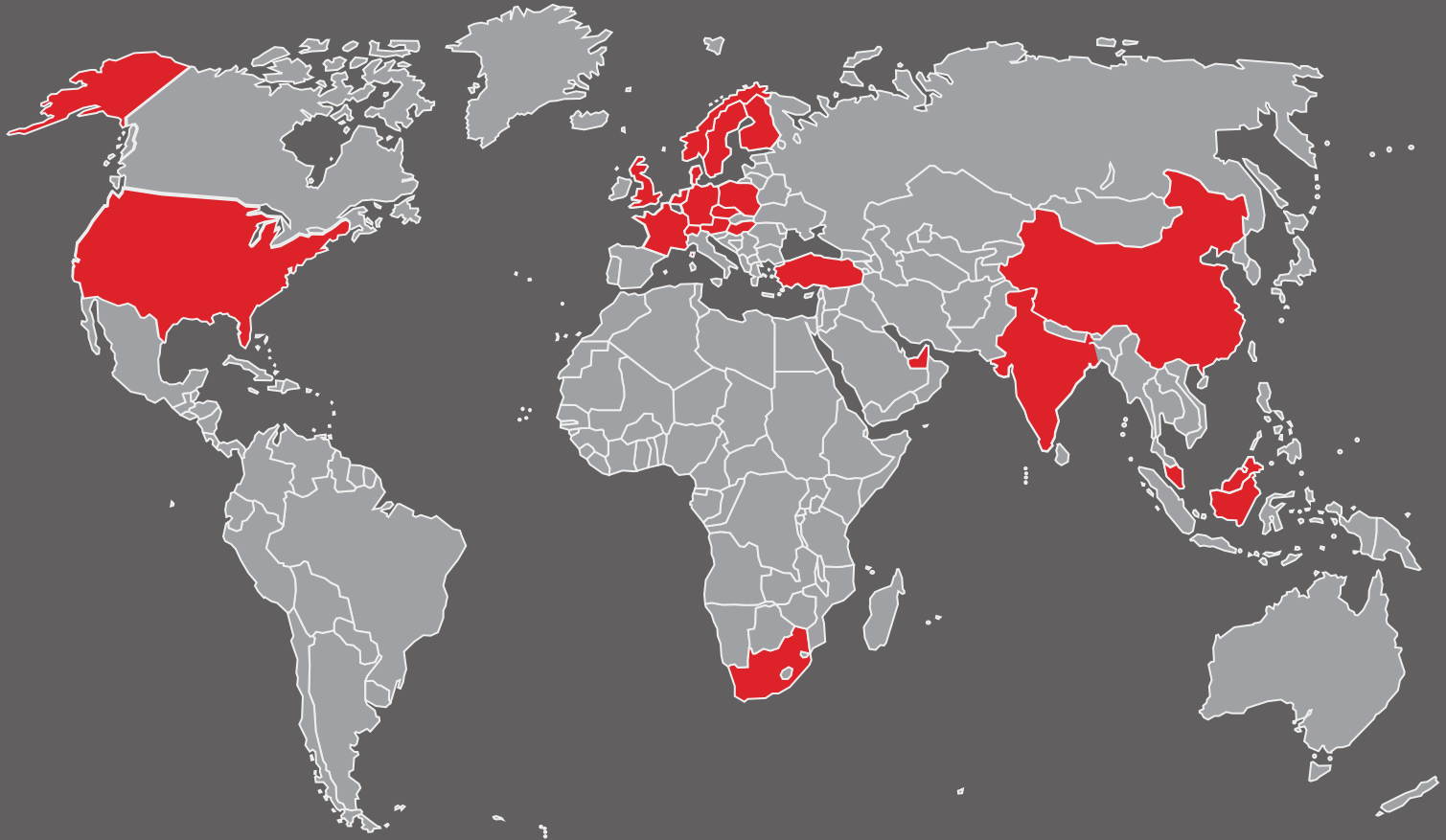
This course is for delegates who are required to carry out TIG/TAG welding operations, either to company specification, or to an appropriate coding. The course can be adapted to suit the client's specific requirements, including material types, grades and forms, joint configuration and welding positions.

### Welding – Oxy-Fuel Gas Safety and Cutting WEL04

This course is for delegates who are required to carry out Oxy-Fuel Gas Cutting operations, either to company or individuals specification.

## NOTES





■ Countries with Carl Stahl locations

### **MATERIAL SURCHARGE**

The currently very unstable price situation on the world steel markets might make it necessary to impose a material surcharge on certain products. Anyway as one of the world market leaders we will try to keep prices stable during the validity period of our price lists.

### **SMALL ORDERS**

Your minimum order value is only € 250,-. For smaller orders we will charge a processing fee of € 25,-.

### **RETURNS**

Only special constructions are non-returnable. All other products can be returned if freight is prepaid, if they are unused and in a reasonable condition. We will only charge a small processing fee.

