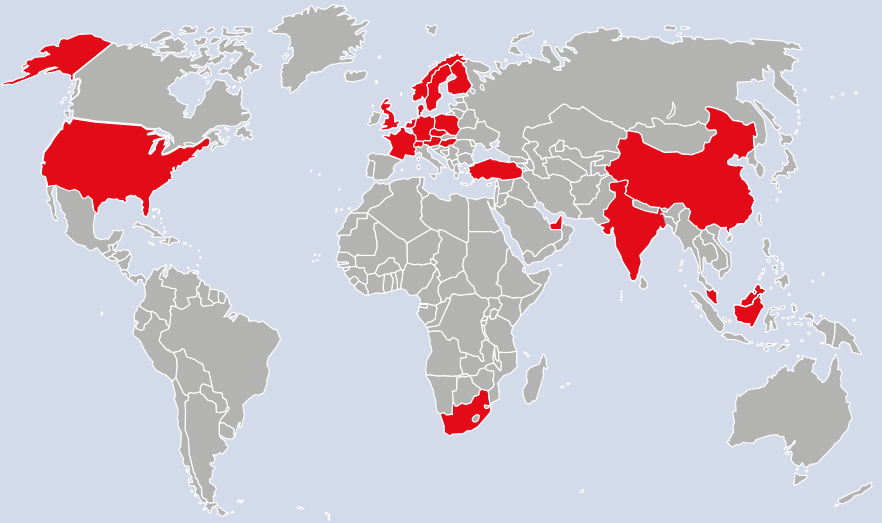
Carl Stahl®

GENERAL CATALOGUE LIFTING EQUIPMENT

Edition No. 10

Welcome to Carl Stahl

International Offices



Dear Customers and Friends of Carl Stahl,

We are proud to present to you the latest edition of our Carl Stahl U.A.E catalogue. Some of the products have been edited from the original German version to serve more our customers in ever growing region.
It is our goal to make our products and services more accessible to everyone looking for safe and reliable solutions in all aspects of lifting, lashing, handling, and personal safety.

We have worked to make this catalogue as concise and comprehensive as possible without omitting any information that could be important to you.
Continuous improvement of our products and services is not just an empty promise; it is basic principle of the whole Carl Stahl Group.

With more than 1,800 employees in 70 subsidiaries worldwide we are where you need us. Benefit from our international competence and experience. We take the time to give you technical advice. But not only the product itself, also its safe and efficient use is becoming increasingly important for many customers. Therefore we are offering training in Germany at the Carl Stahl Academy in Suessen as well as internationally by Carl Stahl Evita including the United Arab Emirates.
Please benefit from our wide range of products and services.

Offering an additional benefit you will not find anywhere else, we want to join a productive and trustworthy partnership with our customers, find tailor-made solutions to your specific problems and offer an after-sales service that will never leave you alone.

We hope you will find this catalogue a useful purchasing and reference tool and will be pleased to assist you with all your questions & queries and look forward to having you as a customer

Put us to the test; you will not be disappointed.

Carl Stahl U.A.E team

017-IB 004-CB-PRS 069-LB-CAL

All Range of Lifting Gears & Appliances • Third Party Inspection & Certification Services • Consultancy Services & Training • Certification of Persons • Calibration Laboratory Services

INDEX

Impressum

Introduction

The specialist company from Germany, founded in 1880, is consistently opening up new horizons with consistently thought-through applications and first-class quality.
Carl Stahl provides you with a complete range of materials handling products.
By contacting Carl Stahl UAE, you can receive up to minute prices & availability on all our below mentioned products & services.

OUR PRODUCTS:

- Steel Wire Rope Slings & Grommets
- Polyester Webbing Slings and Ratchet Lashing Assemblies.
- Grade 80, 100 & 120 Chain Slings (available in single leg & multi leg formats)
- Polypropylene, Nylon & Manila Rope Slings
- Chain Block, Lever Hoist, Pulling Machine, Shackle, Hook, Pallet truck, Beam Trolley, Turnbuckle etc.
- **WireCo WorldGroup** wire rope (CASAR, OLIVEIRA, DRUMET etc..)
- **"RUD"** - the only manufacturer of grade 120 chain systems & components and a Global specialist in Lifting & Lashing points
- **"YOKE"** – DNV type approved lifting accessories which has high R & D and production ability
- "**CROSBY**" - delivers the industry's most comperhensive portfolio of products, engineered to exceed the toughest demands.
- **"SCHILLING"** - German made Aluminium Mobile Gantry Cranes
- **"Hydraulics"** – Industrial hydraulics, Construction hydraulics, hydraulic tools and heavy load transport
- **"STRAIGHTPOINT UK"** - Load cells from 100kg to over 2000t and products offer dynamic load monitoring, weighing and force measurement solutions.

OUR SERVICES *(For more details, please refer to page no. 127):*

1. Inspection, testing and Certification services for the following:

- **Lifting Equipments** (All types of Onshore and Offshore Cranes and other customized cranes)
- **Lifting Accessories & Appliances** (Wire Rope/Chain/Webbing Slings, Shackles, Links, Hoists etc.)
- **Light Crane System** (Slewing Jib Crane, Monorail, A-Frame, Powered Hoists / Winches etc.)
- **Handling Equipments** (Forklift Truck, Telescopic Handler, Reach Truck, Pallet Stacker etc.)
- **Personnel Carrying Units** (Elevator / Passenger Lifts, Escalator, MEWP, Travellator, Suspended Access Platform, Construction Hoists, BMU, Man Basket, Spider Basket and Fixed / Mobile Scaffolding)
- **Cargo Carrying Units** (Offshore Containers, Material Baskets, Skids, Racks etc.)
- **Earth Moving Equipment** (Backhoe Loader, Skid Loader, Excavator, Dozer, Shovels etc.)
- **Pressure Equipments** (Pressure Vessels, Air Receiver, Boiler, Underground and Aboveground Tanks etc.)
- **Non Destructive Testing** (MPI, PT, UTG, ET and VT) and Destructive Testing (Break Test)

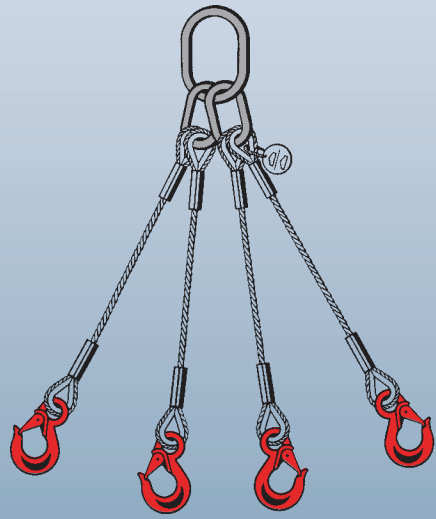
2. Training and personnel competency certification services in the lifting safety field

- **Lifting Equipment Operators** (All types of crane and Forklift Operators)
- **Rigger Level 1 and Level 2**
- **Signalman and Banksman**
- **Various other equipment and operators**

NEW **3. All types of Calibration services which covers Pressure, Mass/Balance, Electrical, Temperature, Force/Torque, Dimensional, Volume, Flow and other Miscellaneous equipments.**

APPROVALS:

- Quality, Health, Safety & Environmental Management System according to **ISO 9001:2015, ISO45001:2018& ISO 14001:2015** respectively certified by DNV-GL
- **Emirates International Accreditation Center (EIAC)** Accredited Inspection Body **ISO/IEC 17020:2012** (017-IB)
- **EIAC** Accredited Certification Body for Persons **ISO/IEC 17024:2012** (004-CB-PRS)
- **EIAC** Accredited Calibration Lab based on **ISO/IEC 17025: 2017** (069-LB-CAL)
- Approved by **Abu Dhabi Municipality** as a third party Inspection Body for Lifting Equipment and Gears
- **TRAKHEES - JAFZA** approved Third Party Inspection Body
- Approved by **Dubai Civil Defense** for Hazardous Storage Tank Inspection
- Full Member of **Lifting Equipment Engineers Association (LEEA)**, UK
- Regular Member of **Associated Wire Rope Fabricators (AWRF)**, membership no. 691



Wire Rope Slings & Accessories

1.) Improper use

The improper use of wire rope slings poses a risk to people and property.
People in close proximity to or beneath the load are at particular risk.
Beware of suspended loads.

2.) Before every use:

a. Conduct a careful visual inspection of the wire rope slings to check for damage and a safe usage condition.
b. Read the user information and comply with this during use.

3.) The product must not be used in the event of:

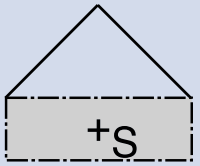
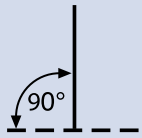
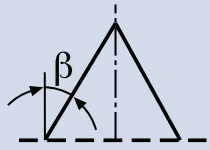
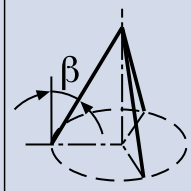
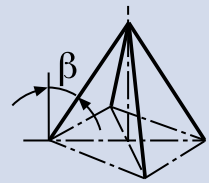
a. Broken strands
b. Wire breaks involving more than 6 wires over a length of 6xD
c. Wire breaks involving more than 14 wires over a length of 30xD
d. Expansion of the hook by more than 10%.
e. Kinks, bends, birdcages, protrusion of the rope core or other damage that causes the deformation of the wire rope construction.
f. Loosening of the outer layer in the free length.
g. Crushing in the free length.
h. Crushing in the support area with wire breaks in stranded ropes
i. Signs of corrosion
j. Damage or severe wear to the rope and/or the terminals.
k. Rope wear of 10% of the nominal diameter.
l. Wear, deformation, tears and similar damage to press fittings.
m Protruding rope ends when using grommets (in the impact area – red marking).
n. Heat-induced damage visible due to the discolouration of the strands and/or pitting on the strands due to electric arcs.
o. Pitting corrosion on strands or a reduction in the flexibility of the rope due to severe internal corrosion.
p. Faulty hook locking mechanism. (Not applicable to foundry hooks)
Grounds: Foundry hooks are only used for special purposes.
Their connection to anchors or similar is therefore not permitted!

4.) Determine the load weight and centre of gravity:

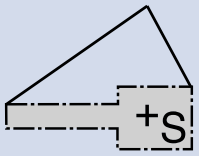
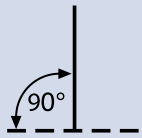
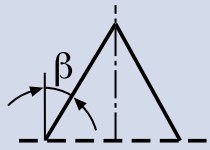
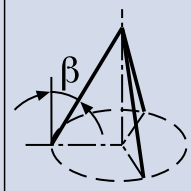
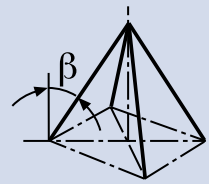
a. The wire rope sling's working load limit (WLL) must not been exceeded **(Table P. 6).**
b. Rope nominal diameter: **minimum 8 mm**
c. The angle of inclination of each leg must not exceed 60° **(Fig. 1).**
d. Note the reduced working load limit of the legs used!

Fig. 1

Symmetrical load

	1 leg	2 legs		3 and 4 legs	
					
Angle of inclination ß	0°	0°-45°	45°-60°	0°-45°	45°-60°
Load factor	1	1.4	1.0	2.1	1.5

Non-symmetrical load

	1 leg	2 legs		3 and 4 legs	
					
Angle of inclination ß	0°	0°-45°	45°-60°	0°-45°	45°-60°
Load factor	1	1	1	1.5	1

5.) Anchorage points: only use suitable anchorage points of a sufficient size.

6.) Basket hitch slinging:

The use of basket hitch slinging is prohibited!

This rule excludes:

a.) Large loads if the sling legs will not slide together and the load cannot shift **(Fig. 2a).**

b.) Long, bar-shaped loads may only be lifted using basket hitch slinging if the load is prevented from skewing, the sling legs are prevented from sliding and the load or parts thereof are prevented from shooting out **(Fig. 2b).**

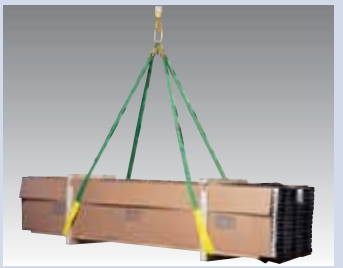


Fig. 2a

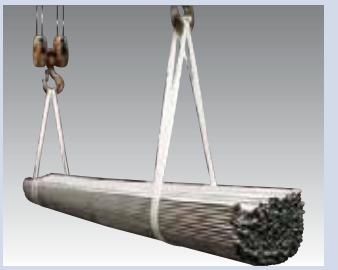


Fig. 2b

7.) Identification tags:

Wire rope slings with no or illegible test data tags and load indicators must not be used.

8.) Safety instructions:

a. Do not subject ferrules to bending stresses.

b. Do not knot wires or move them over sharp edges **(Fig. 3)** (edge radius smaller than nominal rope diameter). Protect the wire using an edge guard or buffers **(Fig. 4).**

c. Attached loads must not be welded **without** an isolating connection!

d. Loops, master links and thimbles must be freely movable on the crane hook **(Fig. 5).**

e. Strain must not be placed on the narrow ends of hooks.

f. The load must only be hoisted from the base of the hook and in the direction of the load.

g. Maximum sewn termination opening angle is 20°.

h. Do not grasp under the strapping.

Fig. 3

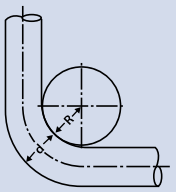
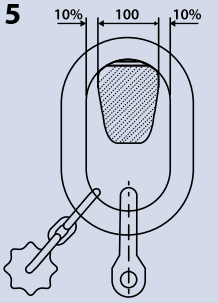


Fig. 4

Fig. 5



9.) Deviations from normal operating conditions

These require reductions to the working load limit, for example, in the case of:

a. Non–symmetrical (uneven) loads (reduced load lifting factors).
b. Using a choker hitch (20% reduction in the working load limit)

Reduction in the working load limit of slings at different angles of inclination (Fig. 6)

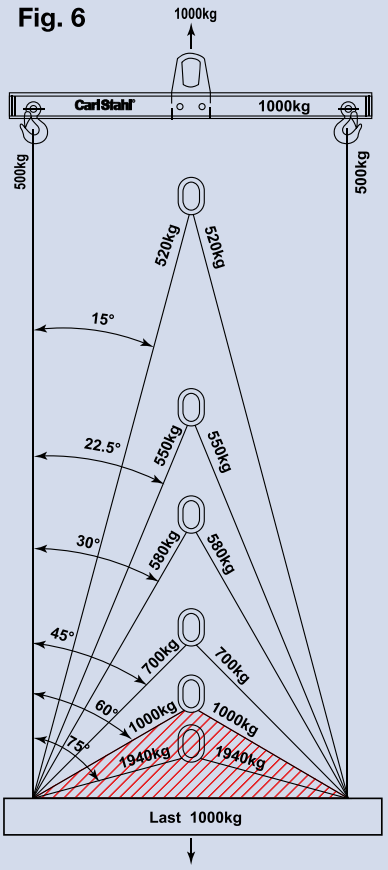
Reduction in the working load limit with:

- Choker hitch: Loss = 20%
- Angle of inclination:
  0° - 45° Loss = 30%
  45° - 60° Loss = 50%

Angles of inclination over 60° are prohibited!

c. Use outside the temperature range -40° to +100°C.

Fig. 6



10.) Ban on the use of wire slings:

In acids and lyes (corrosive) due to the invisible corrosion pits between the strands and wires.

11.) Fittings and accessories for wire rope slings:

The product must not be used in the event of:

a. Mechanical damage due to crushing, indentations or crack formation.
b. Deformation caused by bending, twisting, or impressions.
c. Damage to securing devices and cross-section reductions of 5% or more in the case of eyelets, bolts and brackets on shackles and hooks.
d. Damage to the terminals: wear, deformation or cracks on ferrules or extended splices.

12.) Wire rope sling inspections and repair:

a. Only to be conducted by qualified persons.
b. After at least six months.
c. Fittings must be inspected at least every 6 months to ensure they are free from cracks.
d. Implementation at or by Carl Stahl.
In the case of the continual use of wire rope slings, the inspection intervals must be shortened in accordance with the Local regulations.

HOW TO ORDER

All slings are fabricated to customer specifications. Therefore, your purchase order should contain the following specific details.

- Sling model number
- Sling length as indicated on schematics alongside tables
- Component rope diameter
- Eye terminations
- Any special fittings, such as sliding choker hooks
- Any other special requirements.

Bridles will be fabricated with oblong alloy steel links unless otherwise specified.

To minimize the chance for error in transmitting orders, use the model numbers given for each sling type, followed by the letter codes in the illustrations for indicating eye or end treatments.

Standard sling eye designations are as indicated on the drawings at left for both mechanically and hand spliced slings. Other combinations or other types of hooks or fittings can be specified.

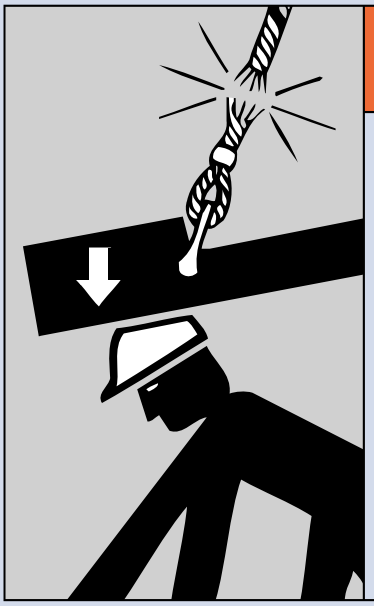
The sling body length is the length of wire rope between splices sleeves, or fittings.

The standard minimum body length for multi-part slings between splices is equal to forty times the component rope diameter.

Metal tags are available upon request.

PROTECT YOURSELF

Safety first: take special precautions. Before installing wire rope, wire rope slings or assemblies in your applications, always read and follow the warning label attached to each product.



⚠ WARNING

Wire rope WILL FAIL if worn out, overloaded, misused, damaged, improperly maintained or abused. Wire rope failure may cause serious injury or death!

Protect yourself and others:

• ALWAYS INSPECT wire rope for WEAR, DAMAGE or ABUSE BEFORE USE.

• NEVER USE wire rope that is WORN-OUT, DAMAGED or ABUSED.

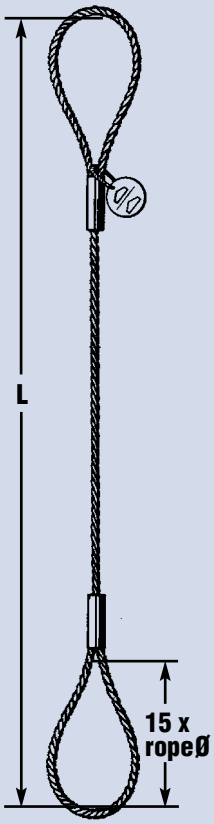
• NEVER OVERLOAD a wire rope.

• INFORM YOURSELF: Read and understand manufacturer's literature or " wire rope and wire rope sling safety bulletin"*

• REFER TO APPLICABLE CODES, STANDARDS and REGULATIONS for INSPECTION REQUIREMENTS and REMOVAL CRITERIA. *

Standard : BS EN 13414 - 1 , ASME B30.9

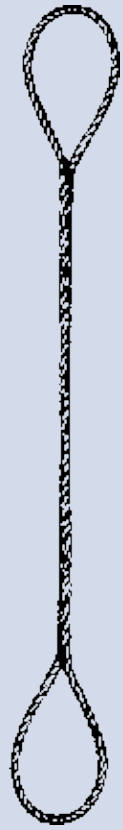
1102.
Wire rope sling
with pressed loops



1105.
Wire rope sling with
pressed thimble

1106.
Wire rope sling with
pressed loop and
shackle

Wire rope sling
with hand spliced
loops

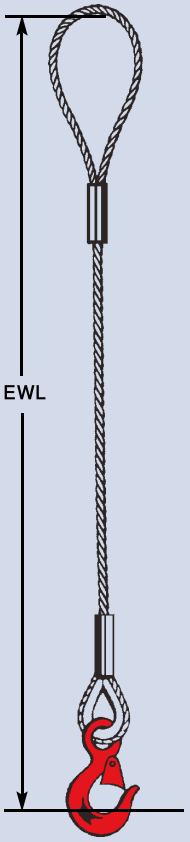


Choker hitch
will reduce load
capacity by 20%

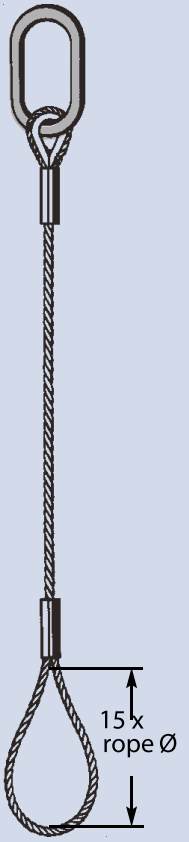
Rope ø in mm	WLL single direct in kg	Item no.	Item no.	Item no.
8	750	1102.01.08	1105.01.08	1106.01.08
10	1300	1102.01.10	1105.01.10	1106.01.10
12	1800	1102.01.12	1105.01.12	1106.01.12
13	2100	1102.01.13	1105.01.13	1106.01.13
14	2500	1102.01.14	1105.01.14	1106.01.14
16	3300	1102.01.16	1105.01.16	1106.01.16
19	4600	1102.01.18	1105.01.18	1106.01.18
20	5100	1102.01.20	1105.01.20	1106.01.20
22	6200	1102.01.22	1105.01.22	1106.01.22
24	7400	1102.01.24	1105.01.24	1106.01.24
26	8600	1102.01.26	1105.01.26	1106.01.26
28	10000	1102.01.28	1105.01.28	1106.01.28
32	13100	1102.01.32	1105.01.32	1106.01.32
36	16600	1102.01.36	1105.01.36	1106.01.36
38	18500	1102.01.40	1105.01.40	1106.01.40
44	25000	1102.01.44	1105.01.44	1106.01.44
52	35000	1102.01.48	1105.01.48	1106.01.48

Higher load capacities available on request. Please contact us.

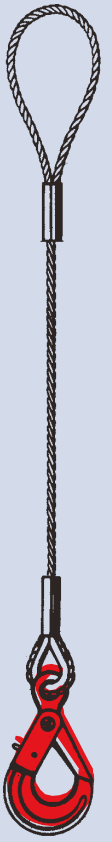
1112.
Wire rope sling with pressed loop and safety eye hook.



1113.
Wire rope slings with master link and pressed loop



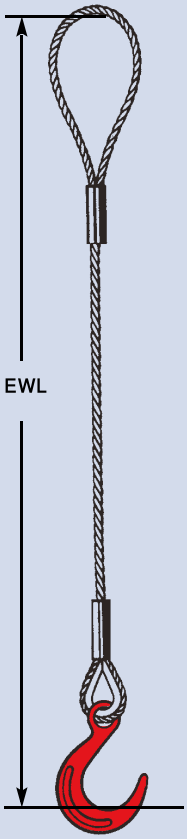
1115.
Wire rope sling with pressed loop and self-locking eye hook



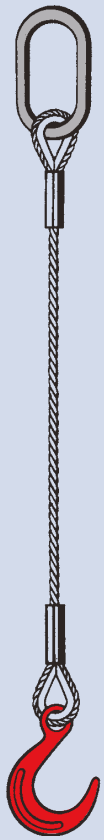
Rope ø in mm	WLL single direct in kg	Item no.	Item no.	Item no.
8	750	1112.01.08	1113.01.08	1115.01.08
10	1300	1112.01.10	1113.01.10	1115.01.10
12	1800	1112.01.12	1113.01.12	1115.01.12
13	2100	1112.01.13	1113.01.13	1115.01.13
14	2500	1112.01.14	1113.01.14	1115.01.14
16	3300	1112.01.16	1113.01.16	1115.01.16
19	4600	1112.01.18	1113.01.18	1115.01.18
20	5100	1112.01.20	1113.01.20	1115.01.20
22	6200	1112.01.22	1113.01.22	1115.01.22
24	7400	1112.01.24	1113.01.24	1115.01.24
26	8600	1112.01.26	1113.01.26	1115.01.26
28	10000	1112.01.28	1113.01.28	1115.01.28
32	13100	1112.01.32	1113.01.32	1115.01.32
36	16600	1112.01.36	1113.01.36	1115.01.36
38	18500	1112.01.40	1113.01.40	1115.01.40
44	25000	1112.01.44	1113.01.44	-
52	35000	1112.01.48	1113.01.48	-

Higher load capacities available on request. Please contact us.

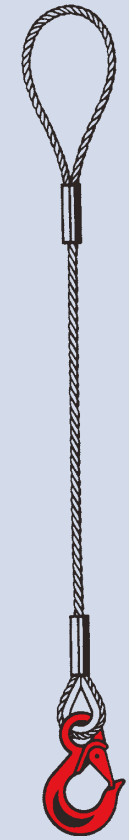
1117.
Wire rope sling with pressed loop and foundry hook



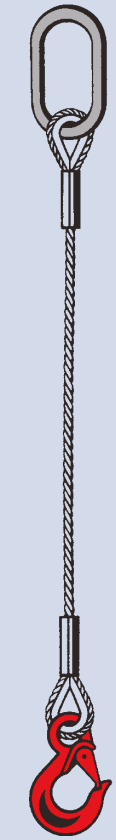
1118.
Wire rope sling with master link and foundry hook



1121.
Wire rope sling with pressed loop and safety hook



1122.
Wire rope sling with master link and safety hook

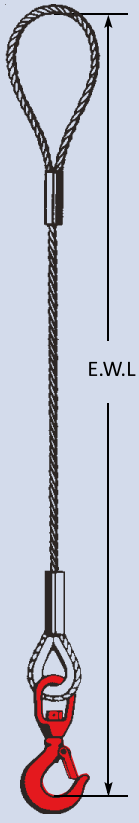


Rope ø in mm	WLL single direct in kg	Item no.	Item no.	Item no.	Item no.
8	750	1117.01.08	1118.01.08	1121.01.08	1122.01.08
10	1300	1117.01.10	1118.01.10	1121.01.10	1122.01.10
12	1800	1117.01.12	1118.01.12	1121.01.12	1122.01.12
13	2100	1117.01.13	1118.01.13	1121.01.13	1122.01.13
14	2500	1117.01.14	1118.01.14	1121.01.14	1122.01.14
16	3300	1117.01.16	1118.01.16	1121.01.16	1122.01.16
19	4600	1117.01.18	1118.01.18	1121.01.18	1122.01.18
20	5100	1117.01.20	1118.01.20	1121.01.20	1122.01.20
22	6200	1117.01.22	1118.01.22	1121.01.22	1122.01.22
24	7400	1117.01.24	1118.01.24	1121.01.24	1122.01.24
26	8600	1117.01.26	1118.01.26	1121.01.26	1122.01.26
28	10000	1117.01.28	1118.01.28	1121.01.28	1122.01.28
32	13100	1117.01.32	1118.01.32	1121.01.32	1122.01.32
36	16600	1117.01.36	1118.01.36	-	1122.01.36
38	18500	1117.01.40	1118.01.40	-	-
44	25000	1117.01.44	1118.01.44	-	-
52	35000	1117.01.48	1118.01.48	-	-

Higher load capacities available on request. Please contact us.

1133.
Wire rope sling with pressed loop and swivel hook

1134.
Wire rope sling with pressed loop and safety eye hook with swivel

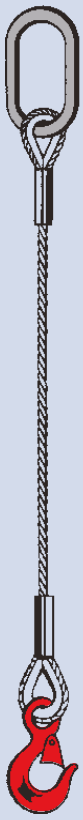


1141.
Wire rope sling master link and swivel hook

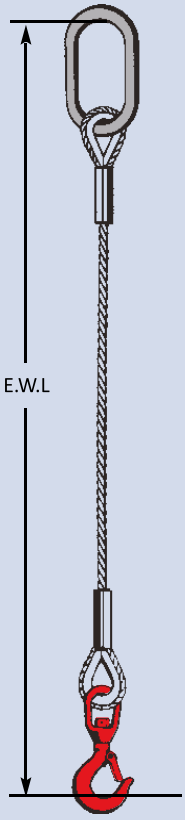
Rope ø in mm	WLL single direct in kg	Item no.	Item no.	Item no.
8	750	1133.01.08	1134.01.08	1141.01.08
10	1300	1133.01.10	1134.01.10	1141.01.10
12	1800	1133.01.12	1134.01.12	1141.01.12
13	2100	1133.01.13	1134.01.13	1141.01.13
14	2500	1133.01.14	1134.01.14	1141.01.14
16	3300	1133.01.16	1134.01.16	1141.01.16
19	4600	1133.01.18	1134.01.18	1141.01.18
20	5100	1133.01.20	1134.01.20	1141.01.20
22	6200	1133.01.22	1134.01.22	1141.01.22
24	7400	1133.01.24	1134.01.24	1141.01.24
26	8600	1133.01.26	1134.01.26	1141.01.26
28	10000	1133.01.28	1134.01.28	1141.01.28
32	13100	-	1134.01.32	-
36	16600	-	1134.01.36	-
38	18500	-	1134.01.40	-
44	25000	-	1134.01.44	-
52	35000	-	1134.01.48	-

Higher load capacities available on request. Please contact us.

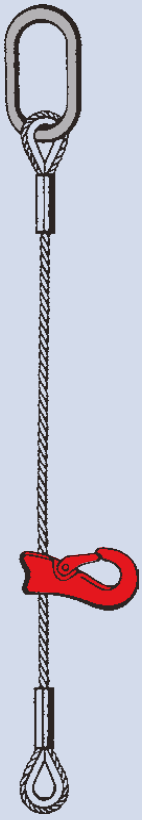
1142.
Wire rope sling with master link and safety eye hook



1143.
Wire rope sling with master link and safety eye hook with swivel



1144.
Wire rope sling with master link, pressed thimble and choker hook



1146.
Wire rope sling with master link and shackle

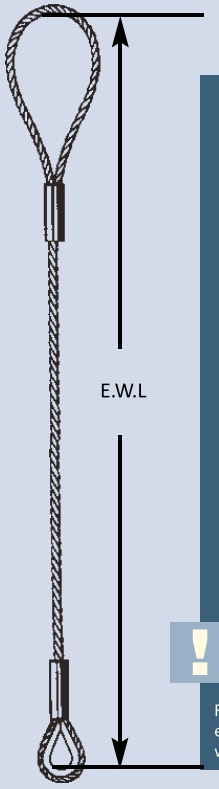
Rope ø in mm	WLL single direct in kg	Item no.	Item no.	Item no.	Item no.
8	750	1142.01.08	1143.01.08	1144.01.08	1146.01.08
10	1300	1142.01.10	1143.01.10	1144.01.10	1146.01.10
12	1800	1142.01.12	1143.01.12	1144.01.12	1146.01.12
13	2100	1142.01.13	1143.01.13	1144.01.13	1146.01.13
14	2500	1142.01.14	1143.01.14	1144.01.14	1146.01.14
16	3300	1142.01.16	1143.01.16	1144.01.16	1146.01.16
19	4600	1142.01.18	1143.01.18	1144.01.18	1146.01.18
20	5100	1142.01.20	1143.01.20	1144.01.20	1146.01.20
22	6200	1142.01.22	1143.01.22	1144.01.22	1146.01.22
24	7400	1142.01.24	1143.01.24	1144.01.24	1146.01.24
26	8600	1142.01.26	1143.01.26	-	1146.01.26
28	10000	1142.01.28	1143.01.28	-	1146.01.28
32	13100	1142.01.32	1143.01.32	-	1146.01.32
36	16600	1142.01.36	1143.01.36	-	1146.01.36
38	18500	1142.01.40	1143.01.40	-	1146.01.40
44	25000	1142.01.44	1143.01.44	-	1146.01.44
52	35000	1142.01.48	1143.01.48	-	1146.01.48

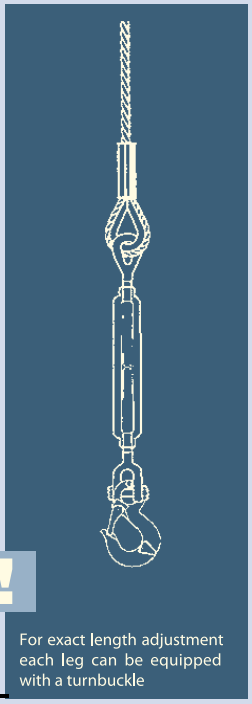
Higher load capacities available on request. Please contact us.

1148.
Wire rope sling with master link and pressed thimble

1149.
Wire rope sling with master link both ends

1170.
Wire rope sling with pressed loop and pressed thimble



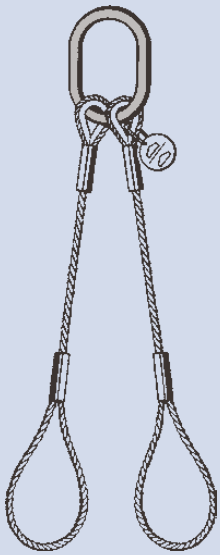


For exact length adjustment each leg can be equipped with a turnbuckle

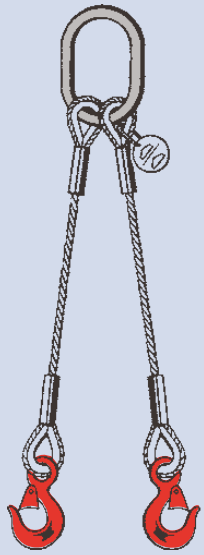
Rope ø in mm	WLL single direct in kg	Item no.	Item no.	Item no.
8	750	1148.01.08	1149.01.08	1170.01.08
10	1300	1148.01.10	1149.01.10	1170.01.10
12	1800	1148.01.12	1149.01.12	1170.01.12
13	2100	1148.01.13	1149.01.13	1170.01.13
14	2500	1148.01.14	1149.01.14	1170.01.14
16	3300	1148.01.16	1149.01.16	1170.01.16
18	4600	1148.01.18	1149.01.18	1170.01.18
20	5100	1148.01.20	1149.01.20	1170.01.20
22	6200	1148.01.22	1149.01.22	1170.01.22
24	7400	1148.01.24	1149.01.24	1170.01.24
26	8600	1148.01.26	1149.01.26	1170.01.26
28	10000	1148.01.28	1149.01.28	1170.01.28
32	13100	1148.01.32	1149.01.32	1170.01.32
36	16600	1148.01.36	1149.01.36	1170.01.36
38	18500	1148.01.38	1149.01.38	1170.01.38
44	25000	1148.01.44	1149.01.44	1170.01.44
52	35000	1148.01.52	1149.01.52	1170.01.52

Higher load capacities available on request. Please contact us.

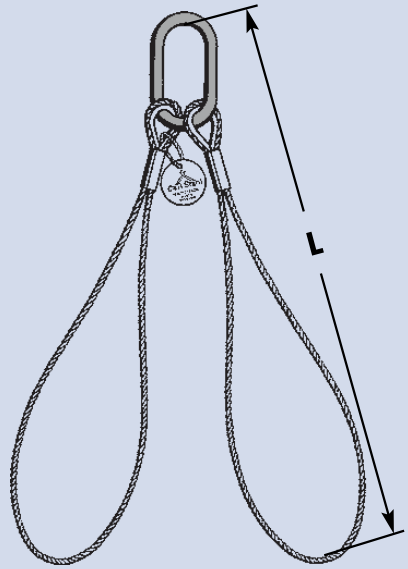
1214.
2-leg wire rope sling
with loops



1215.
2-leg wire rope sling
with safety eye hook



1230
2-leg wire rope sling
consisting of 1 master link & 2 wire rope loops

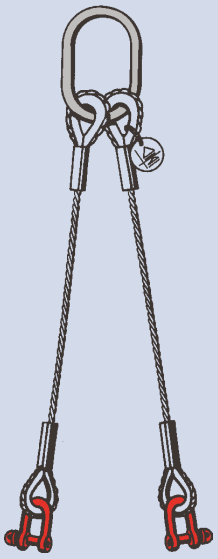


Wire rope slings according to DIN EN 13414-1 are manufactured and tested in accordance with the current requirements. Fittings and rope match exactly to guarantee the indicated load capacity. Strict quality control and clear marking ensure highest possible safety. Different configurations and lengths are available according to your individual requirements

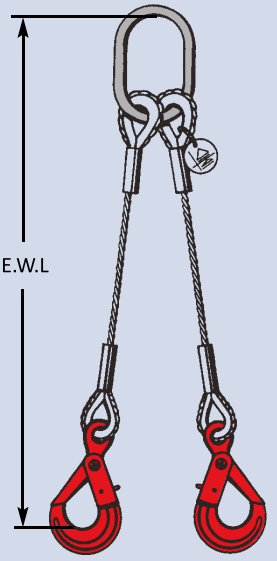
Rope ø in mm	Load capacity 2 leg in kg at angle 0-45°	Item no.	Item no.
8	1000	1214.01.08	1215.01.08
10	1830	1214.01.10	1215.01.10
12	2520	1214.01.12	1215.01.12
13	3000	1214.01.13	1215.01.13
14	3500	1214.01.14	1215.01.14
16	4600	1214.01.16	1215.01.16
19	6400	1214.01.18	1215.01.18
20	7100	1214.01.20	1215.01.20
22	8700	1214.01.22	1215.01.22
24	10300	1214.01.24	1215.01.24
26	12000	1214.01.26	1215.01.26
28	14000	1214.01.28	1215.01.28
32	18300	1214.01.32	1215.01.32

Higher load capacities available on request. Please contact us.

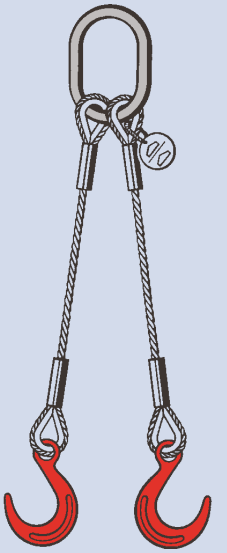
1216.
2-leg wire rope sling
with shackle



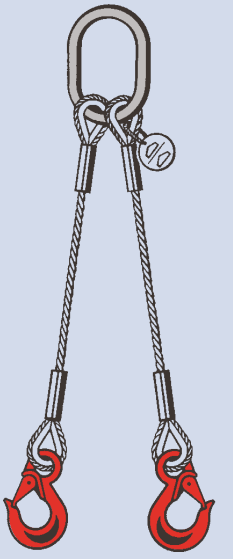
1217.
2-leg wire rope sling
with self-locking
eye hook



1218.
2-leg wire rope sling
with foundry hook

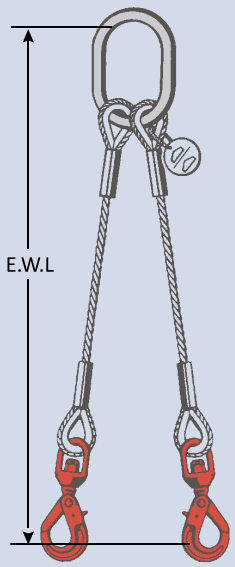


1219.
2-leg wire rope sling
with safety hook

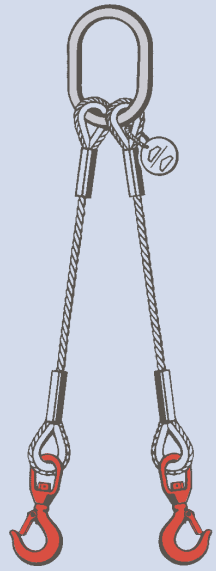


Rope ø in mm	Load capacity 2 leg in kg at angle 0-45°	Item no.	Item no.	Item no.	Item no.
8	1000	1216.01.08	1217.01.08	1218.01.08	1219.01.08
10	1830	1216.01.10	1217.01.10	1218.01.10	1219.01.10
12	2520	1216.01.12	1217.01.12	1218.01.12	1219.01.12
13	3000	1216.01.13	1217.01.13	1218.01.13	1219.01.13
14	3500	1216.01.14	1217.01.14	1218.01.14	1219.01.14
16	4600	1216.01.16	1217.01.16	1218.01.16	1219.01.16
19	6400	1216.01.18	1217.01.18	1218.01.18	1219.01.18
20	7100	1216.01.20	1217.01.20	1218.01.20	1219.01.20
22	8700	1216.01.22	1217.01.22	1218.01.22	1219.01.22
24	10300	1216.01.24	1217.01.24	1218.01.24	1219.01.24
26	12000	1216.01.26	1217.01.26	1218.01.26	1219.01.26
28	14000	1216.01.28	1217.01.28	1218.01.28	1219.01.28
32	18300	1216.01.32	1217.01.32	1218.01.32	1219.01.32

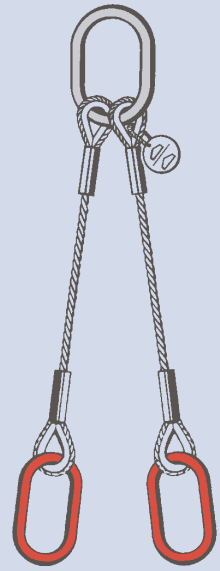
1224.
2-leg wire rope sling
with swivel hook



1225.
2-leg wire rope sling
with safety eye hook
with swivel

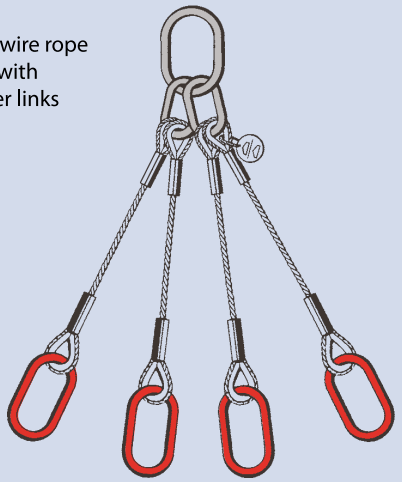


1226.
2-leg wire rope sling
with master links

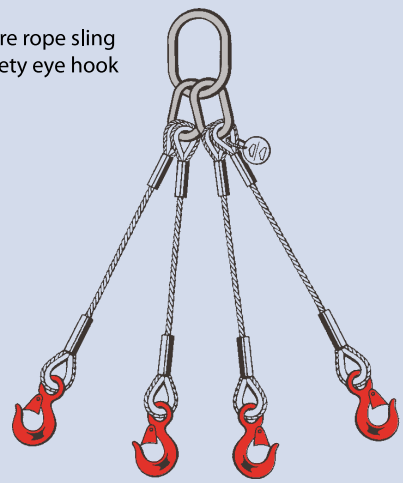


Rope ø in mm	Load capacity 2 leg in kg at angle 0-45°	Item no.	Item no.	Item no.
8	1000	1224.01.08	1225.01.08	1226.01.08
10	1830	1224.01.10	1225.01.10	1226.01.10
12	2520	1224.01.12	1225.01.12	1226.01.12
13	3000	1224.01.13	1225.01.13	1226.01.13
14	3500	1224.01.14	1225.01.14	1226.01.14
16	4600	1224.01.16	1225.01.16	1226.01.16
19	6400	1224.01.18	1225.01.18	1226.01.18
20	7100	1224.01.20	1225.01.20	1226.01.20
22	8700	1224.01.22	1225.01.22	1226.01.22
24	10300	1224.01.24	1225.01.24	1226.01.24
26	12000	1224.01.26	1225.01.26	1226.01.26
28	14000	1224.01.28	1225.01.28	1226.01.28
32	18300	1224.01.32	1225.01.32	1226.01.32

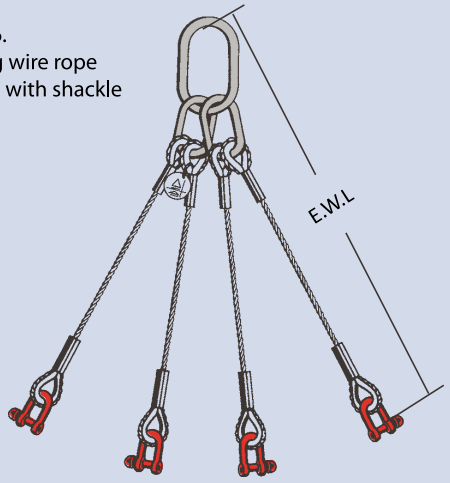
1426.
4-leg wire rope sling with master links



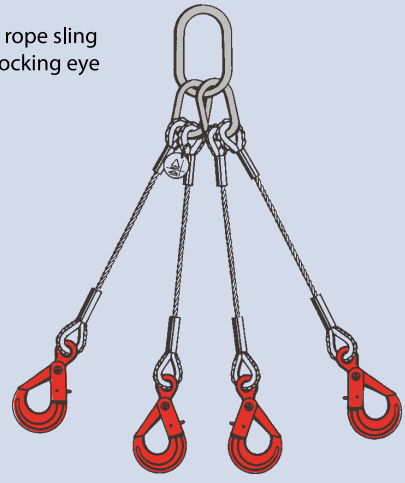
1415.
4-leg wire rope sling with safety eye hook



1416.
4-leg wire rope sling with shackle



1417.
4-leg wire rope sling with self-locking eye hook

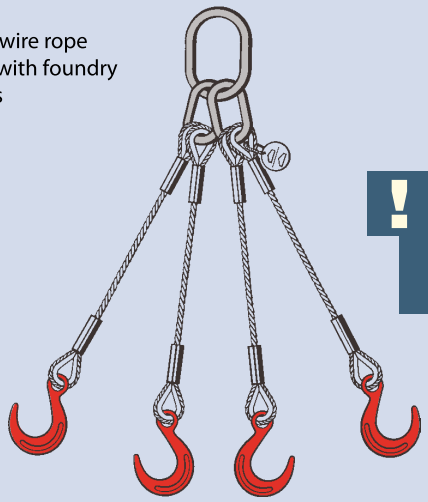


Rope ø in mm	Load capacity 4 leg in kg at angle 0-45°	Item no.	Item no.
8	1500	1426.01.08	1416.01.08
10	2700	1426.01.10	1416.01.10
12	3780	1426.01.12	1416.01.12
13	4400	1426.01.14	1416.01.14
14	5250	0000.00.00	0000.00.00
16	6900	1426.01.16	1416.01.16
19	9700	1426.01.18	1416.01.18
20	10700	1426.01.20	1416.01.20
22	13000	1426.01.22	1416.01.22
24	15500	1426.01.24	1416.01.24
26	18000	1426.01.26	1416.01.26
28	21000	1426.01.28	1416.01.28
32	27500	1426.01.32	1416.01.32

Rope ø in mm	Load capacity 4 leg in kg at angle 0-45°	Item no.	Item no.
8	1500	1415.01.08	1417.01.08
10	2700	1415.01.10	1417.01.10
12	3780	1415.01.12	1417.01.12
13	4400	0000.00.00	0000.00.00
14	5250	1415.01.14	1417.01.14
16	6900	1415.01.16	1417.01.16
19	9700	1415.01.18	1417.01.18
20	10700	1415.01.20	1417.01.20
22	13000	1415.01.22	1417.01.22
24	15500	1415.01.24	1417.01.24
26	18000	1415.01.26	1417.01.26
28	21000	1415.01.28	1417.01.28
32	27500	1415.01.32	1417.01.32

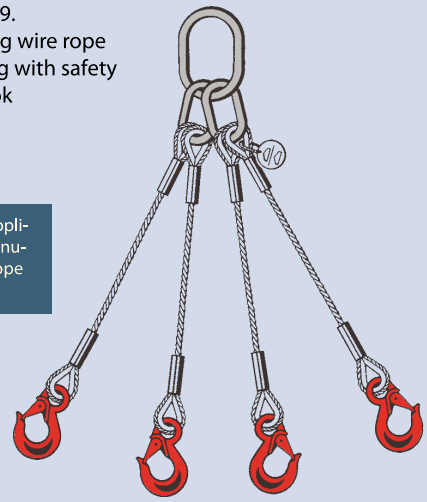
Higher load capacities available on request. Please contact us.

1418.
4-leg wire rope sling with foundry hooks

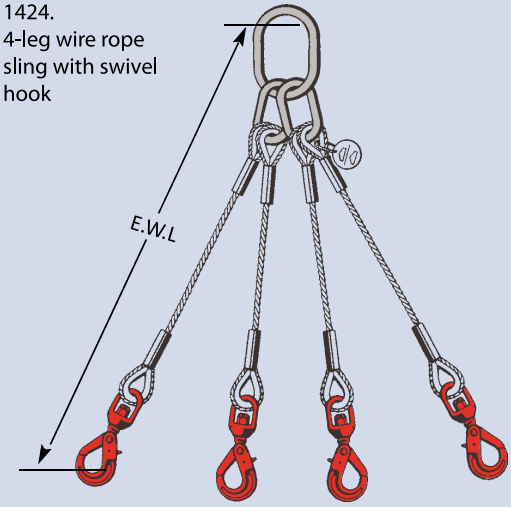


For your individual application we will also manufacture 3-leg wire rope slings.

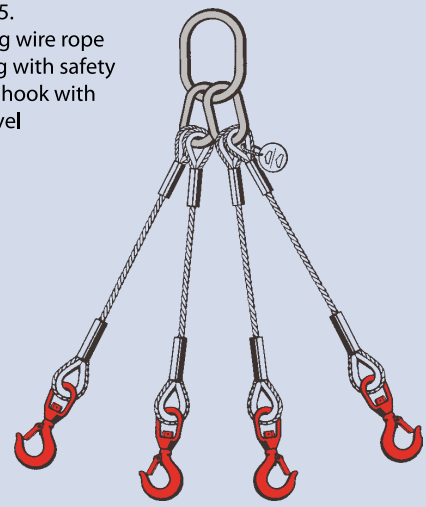
1419.
4-leg wire rope sling with safety hook



1424.
4-leg wire rope sling with swivel hook



1425.
4-leg wire rope sling with safety eye hook with swivel

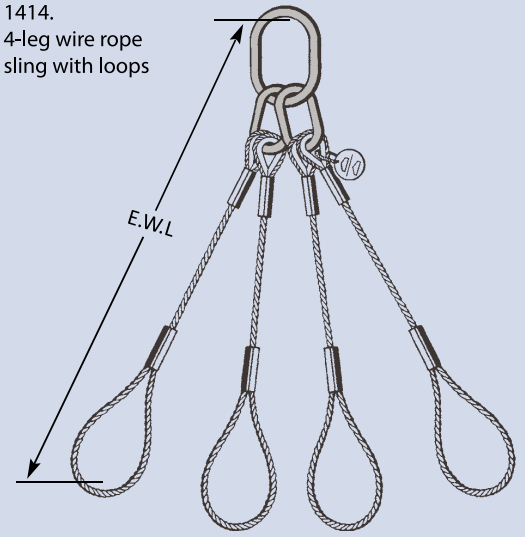


Rope ø in mm	Load capacity 4 leg in kg at angle 0-45°	Item no.	Item no.
8	1500	1418.01.08	1424.01.08
10	2700	1418.01.10	1424.01.10
12	3780	1418.01.12	1424.01.12
13	4400	0000.00.00	0000.00.00
14	5250	1418.01.14	1424.01.14
16	6900	1418.01.16	1424.01.16
19	9700	1418.01.18	1424.01.18
20	10700	1418.01.20	1424.01.20
22	13000	1418.01.22	1424.01.22
24	15500	1418.01.24	1424.01.24
26	18000	1418.01.26	1424.01.26
28	21000	1418.01.28	1424.01.28
32	27500	1418.01.32	1424.01.32

Rope ø in mm	Load capacity 4 leg in kg at angle 0-45°	Item no.	Item no.
8	1500	1419.01.08	1425.01.08
10	2700	1419.01.10	1425.01.10
12	3780	1419.01.12	1425.01.12
13	4400	0000.00.00	0000.00.00
14	5250	1419.01.14	1425.01.14
16	6900	1419.01.16	1425.01.16
19	9700	1419.01.18	1425.01.18
20	10700	1419.01.20	1425.01.20
22	13000	1419.01.22	1425.01.22
24	15500	1419.01.24	1425.01.24
26	18000	1419.01.26	1425.01.26
28	21000	1419.01.28	1425.01.28
32	27500	1419.01.32	1425.01.32

Higher load capacities available on request. Please contact us.

1414.
4-leg wire rope
sling with loops

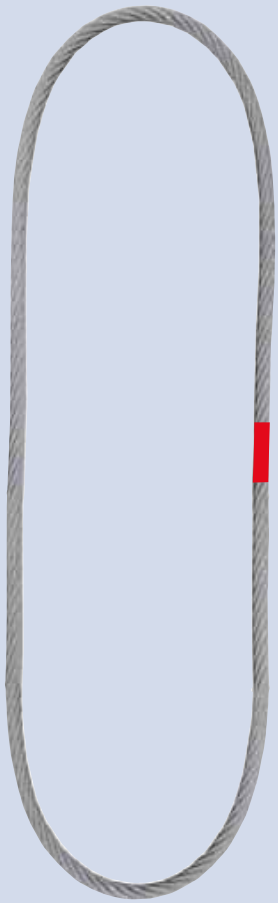


Rope ø in mm	Load capacity 4 leg in kg at angle 0-45°	Item no.
8	1500	1414.01.08
10	2700	1414.01.10
12	3780	1414.01.12
13	4400	1414.01.14
14	5250	1414.01.14
16	6900	1414.01.16
19	9700	1414.01.18
20	10700	1414.01.20
22	13000	1414.01.22
24	15500	1414.01.24
26	18000	1414.01.26
28	21000	1414.01.28
32	27500	1414.01.32

1415.
Braided Wire Rope Sling

1197.
Highly flexible cable laid wire rope sling as endless grommet according to BS EN 13414-3
Wire rope construction with steel core, tensile strength 1960 N/mm², minimum bending radius: 2 x Ø

Table G.1 — Working load limits for cable-laid endless slings (grommets) made of wire ropes with steel core of classes 6x19 and 6x36



	Endless sling (Grommet)	
Angle to vertical	0°	0°
	direct	choke hitch
Nominal rope diameter		
mm	t	t
24	9,00	7,00
27	11,5	9,00
30	14,0	11,0
33	17,0	13,5
36	20,0	16,0
39	23,5	19,0
42	27,0	21,5
48	35,5	28,5
54	45,0	36,0
60	55,5	44,5
66	69,0	55,0
72	84,0	68,0
78	102	81,0
84	121	97,0
90	144	115
96	168	135
102	196	157
108	227	182
114	262	210
calculation factors	2	1,6

Rope ø 24-60 mm: Safety factor 5
Rope ø 66-132 mm: Safety factor 4,9-3

Rope ø up to 470 mm available on request. Please contact us.

Chain Slings & Accessories

Grade 8,10 & 12

1.) Improper use
of chain slings poses a risk to people and property. People in close proximity to the load are at particular risk. Beware of suspended loads.

Only use different chain grades and chains from different manufacturers following consultation with the respective manufacturer.
Assembly must only be conducted by only suitably qualified persons!

Chains, chain components and lanyards **must** have manufacturer markings.

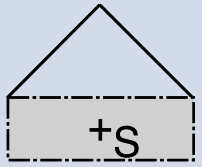
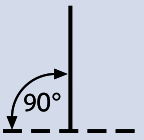
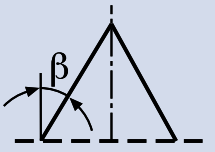
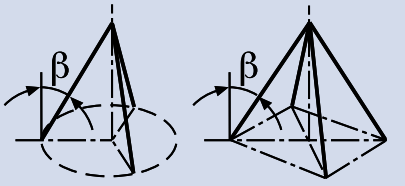
2.) Before every use:
a.) Conduct a careful visual inspection of the chain slings to check for damage and a safe usage condition.
b.) Read the user information and comply with this during use.

3.) The product must not be used in the event of:
a.) Mechanical damage due to crushing, indentations, crack formation or breakage.
b.) Deformation caused by bending, twisting, or impressions.
c.) Extension of the entire chain or a chain link interior by 5% or more.
d.) Reduction of the nominal thickness at any point by more than 10%.
e.) Damage to securing devices and cross-section reductions of 5% or more in the case of eyelets, bolts and brackets on shackles and hooks.
f.) Bluish discolouration of the grade 8 chain due to heat (welding).
g.) Expansion of the hook by more than 10%.
h.) Faulty hook locking mechanism.

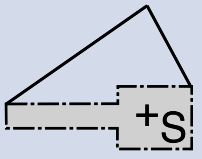
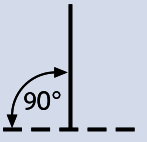
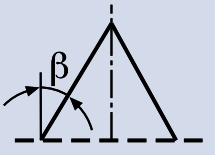
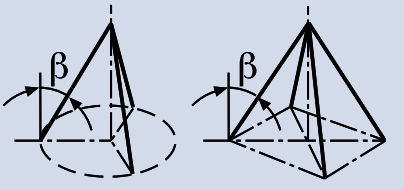
4.) Determine the load weight and centre of gravity:
a.) The working load limit (WLL) of the chain sling must not be exceeded
b.) The angle of inclination of each leg must not exceed 60° **(Fig. 1)**.
c.) Hang unused chain legs in the suspension head.

Fig. 1

Symmetrical load

	1 leg 	2 legs 		3 and 4 legs 	
Angle of inclin. ß	0°	0°-45°	45°-60°	0°-45°	45°-60°
Load factor	1	1.4	1.0	2.1	1.5

Non-symmetrical load

	1 leg 	2 leg 		3 and 4 leg 	
Angle of inclin. ß	0°	0°-45°	45°-60°	0°-45°	45°-60°
Load factor	1	1	1	1.5	1

5.) **Anchorage points:** only use suitable anchorage points of a sufficient size.

6.) **Shortening:** shortening is only permitted using shortening hooks or claws. **Comply with BS EN 1677 - 1** When using shortening hooks or claws, always ensure there is a consistent line of force.
Improper use can lead to falling loads.

7.) **Identification tags:** chain slings without identification tags or with illegible identification tags must not be used.

8.) Safety instructions:

a.) Untwist twisted chains before lifting.
b.) Do not knot chains or move them over sharp edges **(Fig. 2)**.
(Chain radius less than the chain's nominal thickness). Protect the chain using an edge guard or buffers **(Fig. 3)**.
c.) Attached loads must not be welded **without** an isolating connection!
d.) Suspension rings must be freely movable on the crane hook **(Fig. 4)**.
e.) Strain must not be placed on the narrow ends of hooks.
f.) The load must only be hoisted from the base of the hook and in the direction of the load.
g.) Three adjacent wire breaks on the outer wires of a strand or wire break nests.
h.) Chain components must not be subjected to bending stresses.
i.) Basket hitch slinging is only permitted if the chains are unable to slip **(Fig. 5)**.
j.) Do not grasp under the strapping.

Fig. 2

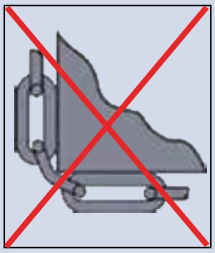


Fig. 3

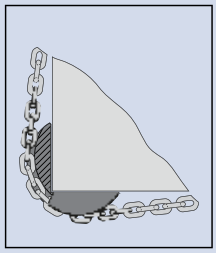


Fig. 4

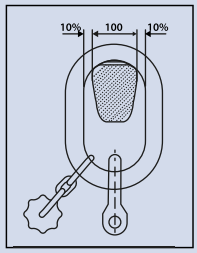
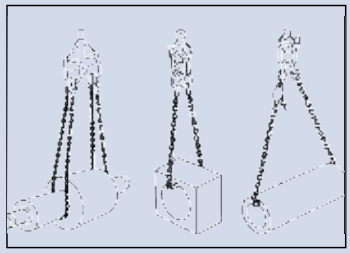


Fig. 5

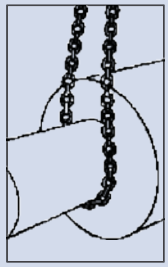


9.) Deviations from normal operating conditions

require reductions to the working load limit, for example, in the case of
a.) Non-symmetrical (uneven) loads (reduced load lifting factors).
b.) Using a choker hitch (20% reduction in the working load limit), **Fig. 6**).
c.) Use as a collar chain **(Fig. 7)**.
(Extract from BS EN 818-6)
As a general rule, the chain radius should be >2x the chain diameter.
When hoisting a load with a chain directly on the support arms, the use of a support arm diameter of >3x the chain pitch is recommended.
If using a support arm diameter that is smaller than that recommended above, the working load limit must be reduced by 50%.

Fig. 6 Lifting factor = 0.8

Fig. 7



d.) Use outside the following temperatures:

WLL	100%	90%	60%
Grade 8	-40°C to +200°C	Over 200°C to 300°C	Over 300°C to 400°C
WLL	**100%**	**90%**	**60%**
Grade 10	-40°C to +200°C	Over 200°C to 300°C	Over 300°C to 380°C
Grade 12 ICE	-60°C to +200°C	Over 200°C to 250°C	Over 250°C to 300°C

e.) On usage with more than 20,000 load changes and high dynamic stresses, increase by at least one chain nominal thickness (consultation with Carl Stahl).

f.) If chain slings are used for lifting magnets (battery or electrical magnets), one nominal size larger must be used for safety reasons.
See the user information on lifting magnets.

10.) Ban on the use of chain slings

The use of chain slings with grades 8, 10 and 12 is prohibited in acids, lyes, pickling plants, galvanising plants and other similar (corrosive) plants due to non-visible pitting corrosion in the joints as well as embrittlement or the formation of cracks (hydrogen embrittlement).
For uses in such areas, use grade 6 chain slings made from stainless steel.
Please note the lower nominal working load limits for grade 6 chain slings. These can also be used in explosion-proof environments.

11.) Chain record card (supplied with the delivery)

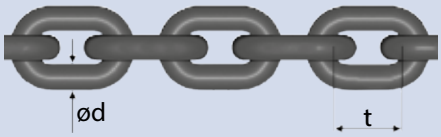
The chain record card shows the product specific information of the chain sling. The information includes the initial registration, inspection dates and repair and maintenance activities. In the case of repairs, the reason for the measure must be specified. The entries in the chain record card provide information about the user's ongoing monitoring measures during the use of the chain slings.
This is much needed by the user as evidence for the industrial inspectorate/employers' insurance association to demonstrate compliance with occupational health and safety/accident prevention measures (EU Machinery Directive).

12.) Chain sling inspections and repair

a.) Only to be conducted by qualified persons
b.) After at least six months.
c.) Chains must be inspected at least every 6 months to ensure they are free from cracks
d.) Implementation at or by Carl Stahl

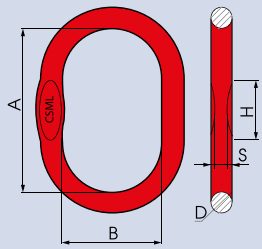
In the case of the continual use of chain slings, the inspection intervals must be shortened in accordance with the workplace safety ordinance!

6000. Sling chain BS EN 818-2



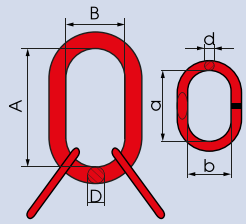
Dimensions Size d	Inner length t	WLL kg	Weight kg/m	Item No.
7	21	1500	0.9	6002.00.07
8	24	2000	1.4	6002.00.08
10	30	3150	2.2	6002.00.10
13	39	5300	3.7	6002.00.13
16	48	8000	5.7	6002.00.16
20	60	12500	8.75	6002.00.20
22	66	15000	10.9	6002.00.22
26	78	21200	15.10	6002.00.26
32	96	31500	22.85	6002.00.32

6020. Master Links BS EN 1677 - 2



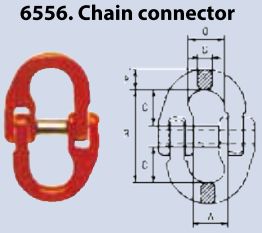
Code	Weight (Kg)	WLL (t)	A	B	D	S	H	Item No.
CS16ML	0.6	4.1	120	70	16	9	70	6020.00.16
CS20ML	1.1	6.7	150	80	20	11	50	6020.00.20
CS20MLL	1.25	6.5	170	90	20	11	70	6020.10.20
CS22ML	1.53	8.2	170	90	22	11	70	6020.00.22
CS22MLL	1.83	5.8	270	140	22	12	70	6020.10.22
CS25ML	2.21	10.7	190	100	25	12	80	6020.00.25
CS28ML	3.06	12.9	210	110	28	13	80	6020.00.28
CS28MLL	3.81	11.8	270	140	28	15	70	6020.10.28
CS32ML	5.05	17.1	270	140	32	15	70	6020.00.32
CS38ML	7.3	28.1	270	140	38	17	55	6020.00.38
CS38MLL	10.78	19.1	420	220	38	20	55	6020.10.38
CS45ML	12.2	38.3	320	170	45	20	60	6020.00.45
CS45MLL	18	27.6	470	250	45	25	60	6020.10.45
CS50ML	17.65	45.0	380	200	50	24	-	6020.00.50
CS60ML	28.85	65.3	430	220	60	-	-	6020.00.60
CS64ML	30.7	72.6	406	203	63.5	-	-	6020.00.64
CS76ML	52	103	457	229	76.2	-	-	6020.00.76

6030. Master Links Assembly



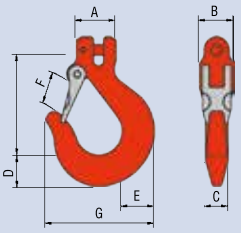
Code	Weight (Kg)	WLL (t)	A	B	D	a	b	d	Item No.
CS20QA	2.41	6.5	170	90	20	120	70	16	6030.00.20
CS22QA	3.77	8.2	170	90	22	150	80	20	6030.00.22
CS22QAL	3.3	5.8	270	140	22	150	75	16	6030.10.22
CS25QA	4.45	10.7	190	100	25	150	80	20	6030.00.25
CS28QA	6.12	12.9	210	110	28	170	90	22	6030.00.28
CS28QAL	7.2	11.8	270	140	28	150	70	20	6030.10.28
CS32QA	9.47	17.1	270	140	32	190	100	25	6030.00.32
CS38QA	17.4	28.1	270	140	38	270	140	32	6030.00.38
CS38QAL	15	17.0	420	220	38	180	100	25	6030.10.38
CS45QA	26.76	38.3	320	170	45	270	140	38	6030.00.45
CS50QA	33.2	45.0	380	200	50	270	140	38	6030.00.50
CS60QA	65.2	65.3	430	220	50	380	200	50	6030.00.60

6556. Chain connector



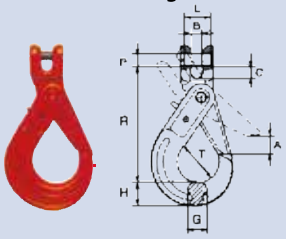
Nominal chain size in mm	Load capacity in kg	Dimensions in mm A	C	O	R	P	S	Weight in kg/pce	Item no.
7	1500	17.8	20	20.5	50.5	10.2	9	0.10	6556.00.15
8	2000	19	25.5	23.5	62	11.5	10	0.25	6556.00.20
10	3150	23.8	30	27.5	72	12.6	12.6	0.35	6556.00.32
13	5300	28	36	33.3	87.3	19	16.7	0.68	6556.00.50
16	8000	34.3	40.5	39.5	103	20.6	20.6	1.10	6556.00.80
20	12500	44	48	47	116	23	23	1.70	6556.01.25
22	15500	49	51	55	133	26.5	26.5	2.20	6556.01.50
26	21500	60	60	66	148	31.5	31.5	4.20	6556.02.00
32	31500	80	77	86	190	40	32	7.19	6556.03.20

6550. Clevis hook with latch



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm A	B	C	D	E	F	G	T	Weight in kg/pce	Item no.
2000	8	38	28	20	28	31	30	98	97	0.76	6550.00.08
3150	10	46	36	26	35	38	35	122	108	1.39	6550.00.10
5300	13	58	46	30	37	48	40	139	126	2.38	6550.00.13
8000	16	67	56	36	49	58	48	164	155	4.05	6550.00.16
12500	20	78	49	36	77	48	71	47	190	8,00	6550 00 20
15500	22	91	48	50	68	75	70	230	210	10.02	6550.00.22
21500	26	116	67	59	73	83	99	260	260	13.00	6550.00.26

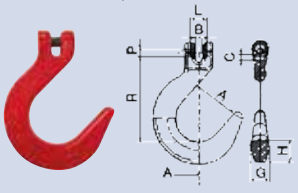
6554. Self-locking hook



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm A	B	C	G	H	R	T	PxL	Weight in kg/pce	Item no.
2000	7-8	34	9	10	20	26	123	43	9x22.5	0.934	6554.01.08
3150	10	45	12	14	25	30	143	56	13x31.5	1.580	6554.01.10
5300	13	51	15	17	35	40	180	69	16x42	3.200	6554.01.13
8000	16	60	19	19	36	50	215	80	21x51.5	5.950	6554.01.16
12500	20	70	23	26	60	67	253	90	24x73	9.800	6554.01.20
15500	22	80	26	32	62	70	287	100	26x72	14.400	6554.01.22

5210. 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 A	B	C	G	H	R	PxL	Weight in kg/pce	Item no.
1120	6	53.5	8.5	6.5	22	26	91	7.5x17.5	0.7	5210.C0.10
2000	7-8	64	10	11.5	26	31	120.4	9x22.5	1.1	5210.C0.20
3150	10	76	13	15	30	34	131	13x31.5	1.7	5210.C0.30
5300	13	89	17	17.5	40	44.5	148	16x42	3.6	5210.C0.50
8000	16	101	19	21.5	45	50.5	198.5	21x51.5	5.6	5210.C0.80

Shortening Clutch

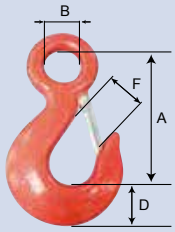
Nominal Chain Dia (mm)	Part No.	A/B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	P (mm)
7/8	CL7	9	11	10	16.5	56	9
10	CL10	12.5	13	12	25	81	13
13	CL13	16.5	17	15	32.5	102	16
16	CL16	20	22	19	39	128	20
20	CL20	23	24	24	48	138	24
22	CL22	24.5	28.5	27	60	170	28

Shortening Grab Hook

Nominal Chain Dia (mm)	A (mm)	O (mm)	H (mm)	R (mm)	G (mm)
7/8	10	9.5	20	53	33
10	12.7	13	31	74	46
13	16	16	42	93	57
16	20	19.5	49	101	72
20	23	24	58	127	74
22	26	25	72	145	91
26	28	28	80	175	102

5160. Safety Eye Hook

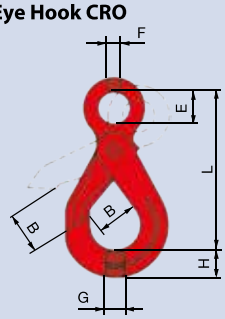
- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm A	B	D	F	Weight in kg/pce	Item no.
1000	6	80	19	21	25	0.25	5180.00.10
1500	7	93	23	22	27	0.4	5180.00.15
2000	8	103	28	28	26	0.65	5180.00.20
3000	10	118	31	30	31	0.8	5180.00.30
5000	13	146	39	41	34	1.65	5180.00.50
7000	16	188	50	49	49	3.4	5180.00.70
11000	20	226	62	64	60	5.35	5180.00.110
15000	22	256	72	70	68	6.7	5180.00.150

5150. Self-locking Eye Hook CRO

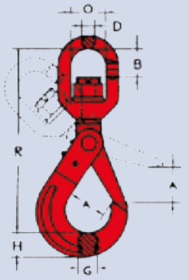
- Locks automatically under load
- Finish: painted red



Load capacity WLL in kg	Nominal chain size	Dimensions in mm L	B	E	F	G	H	Weight in kg/pce	Item no.
1120	6	109	28	21	11	16	21	0.5	5150.00.10
2000	7/8	135	34	25	12	20	26	0.9	5150.00.20
3150	10	168	45	33	16	25	30	1.6	5150.00.32
5300	13	205	51	40	20	35	40	3.25	5150.00.50
8000	16	251	60	50	27	36	50	6.0	5150.00.80
12500	18	290	70	60	30	60	67	9.8	5150.01.20
15500	22	322	80	70	32	62	70	14.4	5150.01.50

5190. Self-locking Swivel Hook CRG

- Locks automatically under load
- Finish: painted red

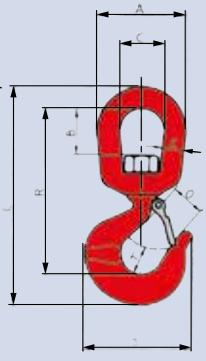


Load capacity WLL in kg	Nominal chain size	Dimensions in mm R	A	B	O	D	G	H	Weight in kg/pce	Item no.
1120	6	149	28	23	33	11	15	21	0.6	5190.00.10
2000	7/8	183	37	27	36	12	17	23	1.1	5190.00.20
3150	10	218	44	36	42	15	21	30	2.0	5190.00.32
5300	13	280	54	47	48	19	30	39	3.8	5190.00.50
8000	16	343	62	67	61	22	37	49	7.1	5190.00.80

Not suitable for rotation under load

5170. Safety Hook with Swivel

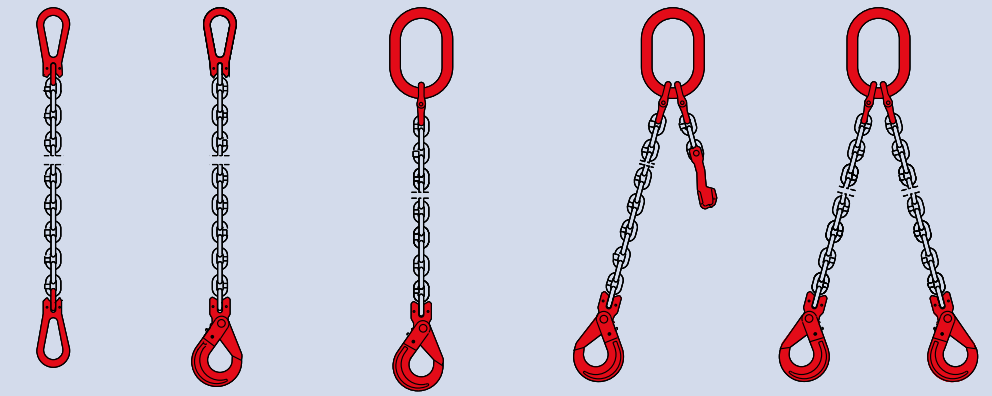
- Material: SAE 8620
- Forged load capacity details and manufacturer
- With deformation indicators
- Finish: painted gold

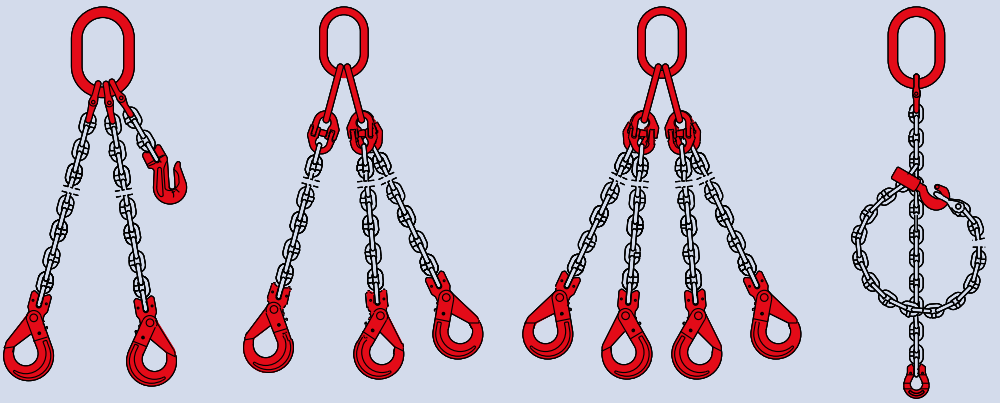


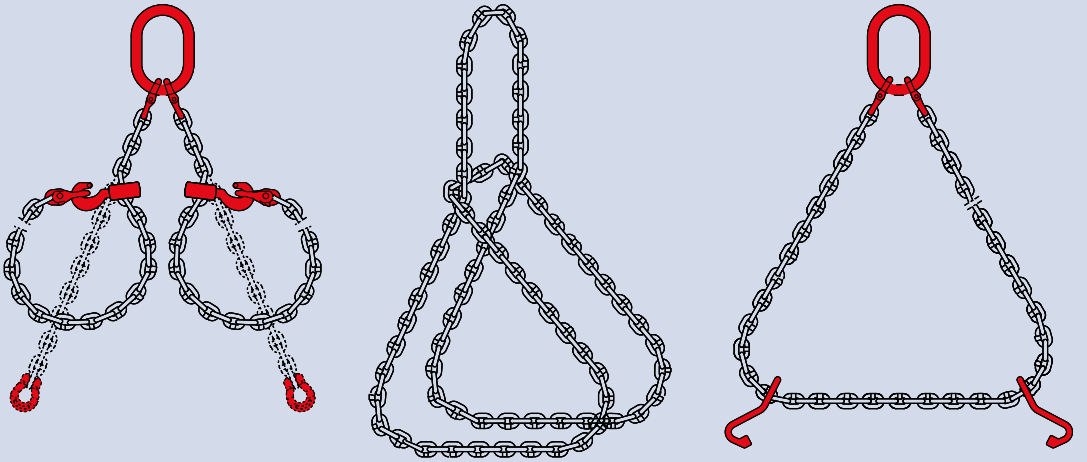
Load capacity WLL in kg	Dimensions in mm A	B	C	D	L	O	R	S	T	Weight in kg/pce	Item no.
1250	50.8	23.8	31.8	73.0	141	22.3	114	9.53	20.6	0.34	5170.00.12
1600	63.5	33.3	38.1	81.0	168	24.6	134	12.70	20.6	0.57	5170.00.16
2500	76.2	41.3	44.5	92.0	194	25.4	153	15.90	21.4	1.02	5170.00.25
3200	76.2	39.7	44.5	104.0	206	28.6	162	15.90	30.2	1.17	5170.00.32
5400	88.9	44.5	51.0	125.0	244	34.1	188	19.10	34.9	2.22	5170.00.54
8000	114.3	59.0	64.0	165.0	315	42.9	244	25.40	45.2	4.67	5170.00.80
11500	127.0	60.0	70.0	192.0	368	52.0	283	28.60	54.0	7.37	5170.01.15
16000	142.9	68.0	79.0	221.0	403	57.0	306	31.80	65.0	10.60	5170.01.60
22000	177.8	106.0	102.0	279.0	535	76.0	421	38.10	73.0	22.60	5170.02.20

Not suitable for rotation under load

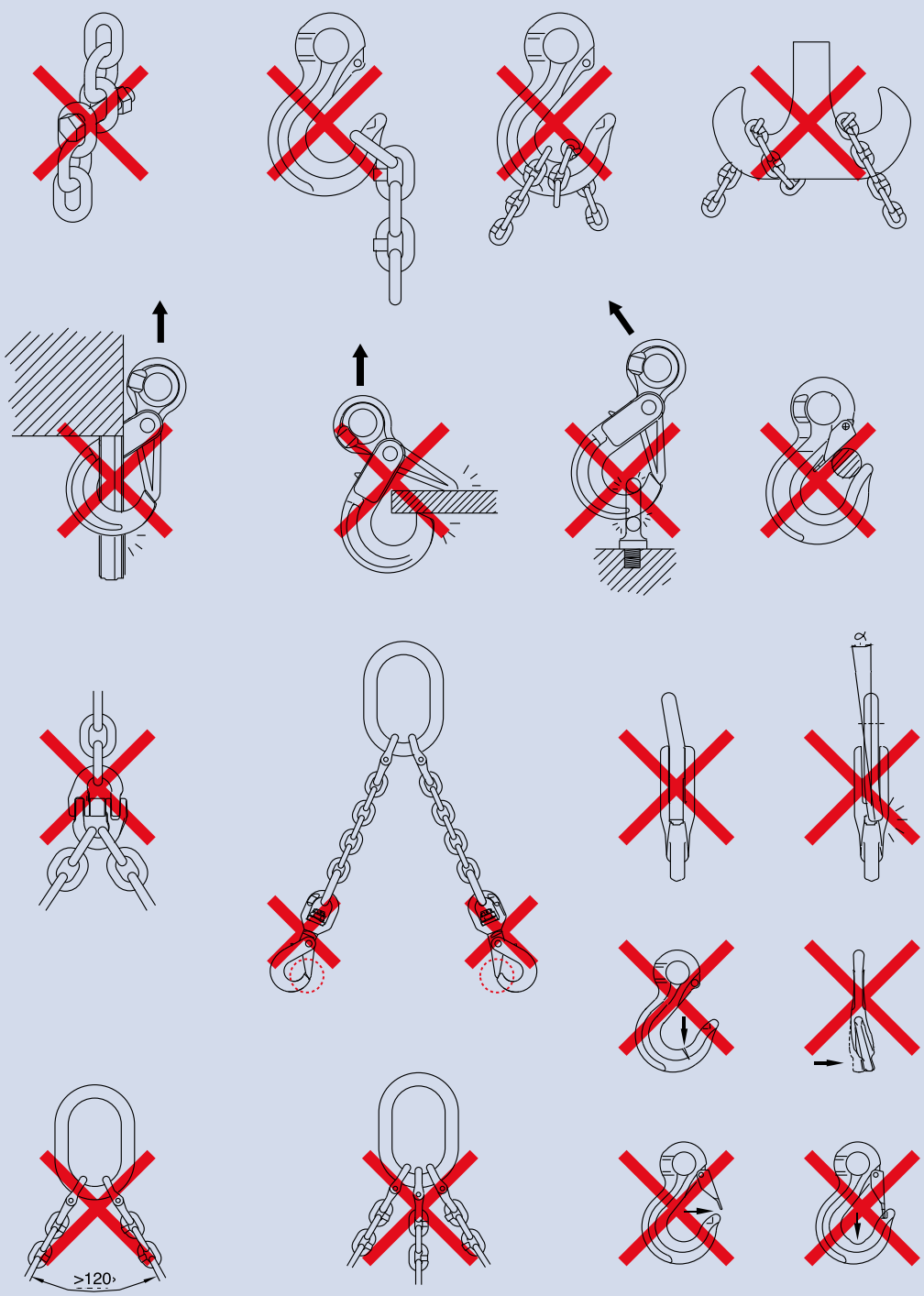
Examples Of Chain Slings







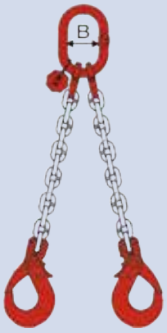
Incorrect Use



Standard : BS EN 818 - 4 , ASME B30.9

6108.
Chain sling, 1-leg,
with clevis self locking
hook

Chain size in mm	Load capacity 1-leg single direct in t	Item no.
7	1.5	6108.00.07
8	2	6108.00.08
10	3.15	6108.00.10
13	5.3	6108.00.13
16	8	6108.00.16
20	12.5	6108.00.20
22	15	6108.00.22
26	21.2	6108.00.26



6208.
Chain sling, 2-leg,
with clevis self locking
hook

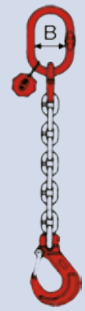
Chain size in mm	Load capacity 2-leg single direct in t 0-90°	Item no.
7	2.1	6208.00.07
8	2.8	6208.00.08
10	4.25	6208.00.10
13	7.5	6208.00.13
16	11.2	6208.00.16
20	17	6208.00.20
22	21.2	6208.00.22
26	30	6208.00.26

6408.
Chain sling, 4-leg
with clevis self lo
hook

Chain size in mm	Load capacity 4-leg single direct in t 0-90°	Item no.
7	3 1	6408.00.07
8	4.25	6408.00.08
10	6·7	6408.00.10
13	11·2	6408.00.13
16	17	6408.00.16
20	26·5	6408.00.20
22	31·5	6408.00.22
26	45	6408.00.26

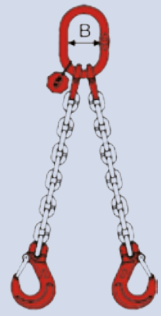
Chain size in mm	Load capacity 1-leg single direct in t	Item no.
7	1.5	6101.00.07
8	2	6101.00.08
10	3.15	6101.00.10
13	5.3	6101.00.13
16	8	6101.00.16
20	12.5	6101.00.20
22	15	6101.00.22
26	21.2	6101.00.26

6101.
Chain sling, 1-leg, with safety hook with latch



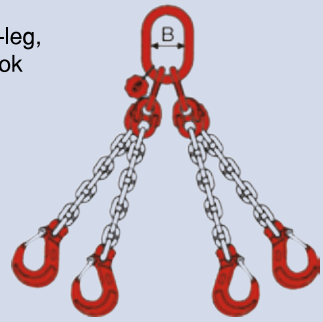
Chain size in mm	Load capacity 2 leg single direct in t (0 - 45°)	Item no.
7	2.1	6201.00.07
8	2.8	6201.00.08
10	4.25	6201.00.10
13	7.5	6201.00.13
16	11.2	6201.00.16
20	17	6201.00.20
22	21.2	6201.00.22
26	30	6201.00.26

6201.
Chain sling, 2-leg, with safety hook with latch



Chain size in mm	Load capacity 4-leg single direct in t 0-90°	Item no.
7	3.1	6401.00.07
8	4.25	6401.00.08
10	6.7	6401.00.10
13	11.2	6401.00.13
16	17	6401.00.16
20	26.5	6401.00.20
22	31.5	6401.00.22
26	45	6401.00.26

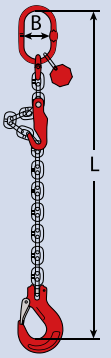
6401.
Chain sling, 4-leg, with safety hook with latch



Chain size in mm	Load capacity 1-leg single direct in t	Item no.
7	1.5	6101.01.07
8	2	6101.01.08
10	3.15	6101.01.10
13	5.30	6101.01.13
16	8	6101.01.16
20	12.5	6101.01.20
22	15	6101.01.22
26	21,5	6101.01.26

6101.01.

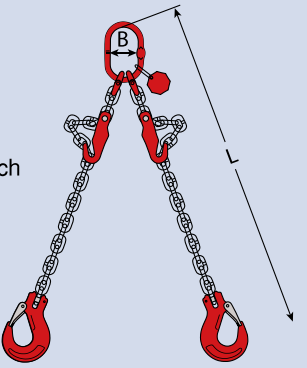
Chain sling, 1-leg, with shortening claw and safety hook with latch



Chain size in mm	Load capacity 2-leg single direct in t 0-90°	Item no.
7	2.1	6201.02.07
8	2.8	6201.02.08
10	4.25	6201.02.10
13	7.5	6201.02.13
16	11.2	6201.02.16
20	17	6201.02.20
22	21.2	6201.02.22
26	30	6201.02.26

6201.02.

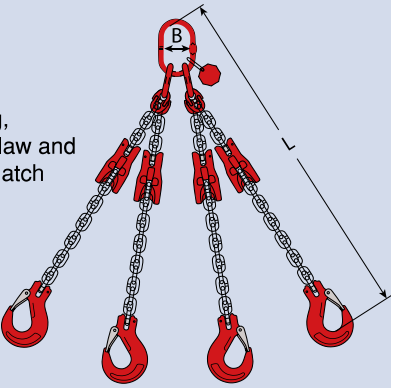
Chain sling, 2-leg, with shortening claw and safety hook with latch



Chain size in mm	Load capacity 4-leg single direct in t 0-90°	Item no.
7	3.1	6401.04.07
8	4.25	6401.04.08
10	6 7	6401.04.10
13	11. 2	6401.04.13
16	17.0	6401.04.16
20	26.50	6401.04.20
22	31.5	6401.04.22
26	45	6401.04.26

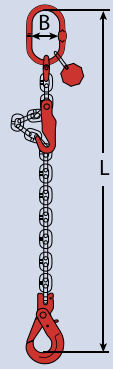
6401.04.

Chain sling, 4-leg, with shortening claw and safety hook with latch



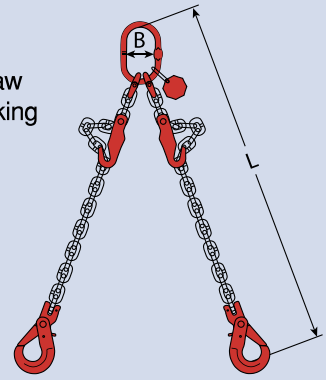
Chain size in mm	Load capacity 1-leg single direct in t	Item no.
7	1·5	6108.01.07
8	2	6108.01.08
10	3·15	6108.01.10
13	5·3	6108.01.13
16	8	6108.01.16
20	12·5	6108.01.20
22	15	6108.01.22
26	21·2	6108.01.26

6108.01.
Chain sling, 1-leg, with shortening claw and clevis self locking hook



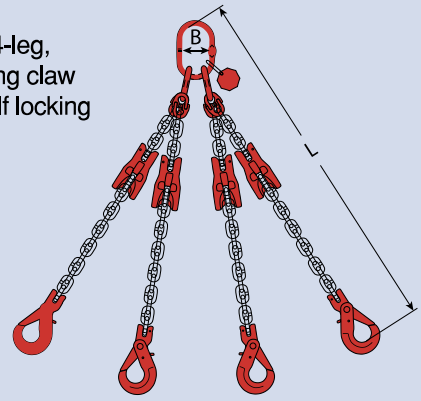
Chain size in mm	Load capacity 2-leg single direct in 1 0-90°	Item no.
7	2.1	6208.02.07
8	2.8	6208.02.08
10	4.25	6208.02.10
13	7.5	6208.02.13
16	11.2	6208.02.16
20	17	6208.02.20
22	21·2	6208.02.22
26	30	6208.02.26

6208.02.
Chain sling, 2-leg, with shortening claw and clevis self locking hook



Chain size in mm	Load capacity 4-leg single direct in 1 0-90°	Item no.
7	3.1	6408.04.07
8	4.25	6408.04.08
10	6.7	6408.04.10
13	11·2	6408.04.13
16	17	6408.04.16
20	26·5	6408.04.20
22	31·5	6408.04.22
26	45	6408.04.26

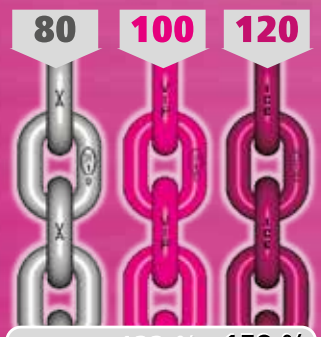
6408.04.
Chain sling, 4-leg, with shortening claw and clevis self locking hook



RUD-Quality in PINK!

Grade 80, Grade 100 (VIP) and WLL »in metric tons« of sling According to inclination angle at

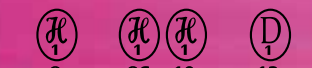
RUD quality grades



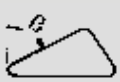
Grade 80

VIP 100

ICE 120



Methods of sling		1-leg	2-leg		3-4 leg	
inclination angle: β		0	0-45°	> 45-60°	0-45°	> 45-60°
load factor		1.0	1.4	1.0	2.1	1.5
Diam. of chains	Quality grade					
Ø 4	VIP	0.63	0.88	0.63	1.32	0.95
Ø 6	Gk 8	1.12	1,6	1.12	2.36	1.7
	VIP	1.5	2.1	1.5	3.15	2.25
	ICE	1.8	2.5	1.8	3.75	2.7
Ø 8	Gk 8	2.0	2.8	2.0	4.25	3.0
	VIP	2.5	3.5	2.5	5.25	3.75
	ICE	3.0	4.2	3.0	6.3	4.5
Ø 10	Gk 8	3.15	4.25	3.15	6.7	4.75
	VIP	4.0	5.6	4.0	8.4	6.0
	ICE	5.0	7.0	5.0	10.5	7.5
Ø 13	Gk 8	5.3	7.5	5.3	11.2	8.0
	VIP	6.7	9.5	6.7	14.0	10.0
	ICE	8.0	11.2	8.0	16.8	12.0
Ø 16	Gk 8	8.0	11.2	8.0	17.0	11.8
	VIP	10.0	14.0	10.0	21.0	15.0
	ICE	12.5	17.0	12.5	26.5	19.0
Ø 18	Gk 8	10.0	14.0	10.0	21.0	15.0
Ø 20	Gk 8	12.5	17.0	12.5	26.5	19.0
	VIP	16.0	22.4	16.0	33.6	24.0
Ø 22	Gk 8	15.0	21.2	15.0	31.5	22.4
	VIP	20.0	28.0	20.0	42.0	30.0
Ø 26	Gk 8	21.2	30.0	21.2	45.0	31.5
Ø 28	VIP	31.5	45.0	31.5	67.0*	47.5*
Ø 32	Gk 8	31.5	45.0	31.5	67.0	47.5



Attention:
WLL has to be reduced by 50 % when load is unsymmetrical!

Temperature °C

Subject to technical modifications. *Only 2 x 2-leg type available.

RUD®

Grade 120 (ICE) chains
symmetric loading

„Made in Germany"

endless* Basket sling chain with choke hitch	Basket sling chain* single		Basket sling chain* double		Choke hitch** single	Choke hitch** double	
–	0-45°	> 45-60°	0-45°	> 45-60°	0°	0-45°	> 45-60°
1.6	1.1	0.8	1.7	1.2	0.8	1.1	0.8
1.0	0.69	0.5	1.1	0.75	0.5	0.69	0.5
1.8	1.2	0.9	1.9	1.3	0.9	1.2	0.9
2.4	1.65	1.2	2.55	1.8	1.2	1.65	1.2
2.88	2.0	1.44	3.1	2.1	1.44	2.0	1.44
3.2	2.2	1.6	3.4	2.4	1.6	2.2	1.6
4.0	2.75	2.0	4.25	3.0	2.0	2.75	2.0
4.8	3.3	2.4	5.1	3.6	2.4	3.3	2.4
5.0	3.5	2.5	5.3	3.8	2.5	3.5	2.5
6.4	4.4	3.2	6.8	4.8	3.2	4.4	3.2
8.0	5.5	4.0	8.5	6.0	4.0	5.5	4.0
8.5	5.8	4.0	9.0	6.0	4.0	5.8	4.0
10.6	7.5	5.3	11.2	8.0	5.3	7.5	5.3
12.8	8.8	6.4	13.6	9.6	6.4	8.8	6.4
12.5	8.8	6.4	13.6	9.6	6.4	8.8	6.4
16.0	11.0	8.0	17.0	12.0	8.0	11.0	8.0
20.0	14.0	10.0	21.2	15.0	10.0	14.0	10.0
16.0	11.0	8.0	17.0	12.0	8.0	11.0	8.0
20.0	14.0	10.0	21.2	15.0	10.0	14.0	10.0
25.6	17.6	12.8	27.2	19.2	12.8	17.6	12.8
23.6	16.5	12.0	25.5	18.0	12.0	16.5	12.0
32.0	22.0	16.0	34.0	24.0	16.0	22.0	16.0
33.5	23.3	17.0	36.0	25.4	17.0	23.0	17.0
50.0	35.5	25.0	53.0*	37.5*	25.0	35.5	25.0
50.0	35.5	25.0	53.0	37.5	25.0	35.5	25.0

When sling chains are used in temperature higher 200°C (392°) the WLL has to be reduced. WLL in % at chain temperature of

Grade 80 + VIP 100	-40° up to +200° C (-40° F up to +392° F)	higher 200° up to 300° C (higher 392° F up to 572° F)	higher 300° up to 400° C (higher 572° F up to 752° F)
	100 %	90 %	75 %
ICE 120	-60° up to +200° C (-76° F up to +392° F)	higher 200° up to 250° C (higher 392° F up to 482° F)	higher 250° up to 300° C (higher 482° F up to 572° F)
	100 %	90 %	60 %

**20 % reduction for basket chains, due to sharp edges, is considered.

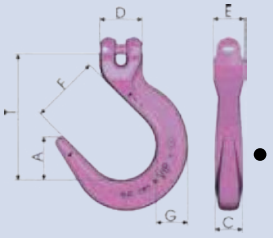
© Alstom

RUD Ketten
Rieger & Dietz GmbH u. Co. KG
Friedensinsel
73432 Aalen/Germany
Tel.: +49 7361 504-1316-1370-1224
Fax: +49 7361 504-1460
info@rud.com · www.rud.com

VIP Accessories Grade 100

6559.V0 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. A risk analysis must be performed before use.



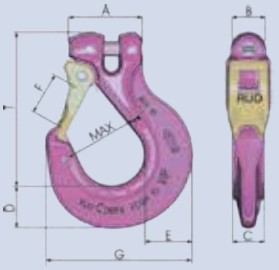
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	T		
6	1,5	VWH 6	30	22	18	30	22	50	22	87	0,5	6559.V0.06
8	2,5	VWH 8	40	29	26	40	29	64	30	115	0,9	6559.V0.08
10	4,0	VWH 10	46	37	30	50	36	76	37	130	1,7	6559.V0.10
13	6,7	VWH 13	51	45	37	64	46	90	51	168	3	6559.V0.13
16	10	VWH 16	64	56	40	75	56	100	58	190	5,7	6559.V0.16
20*	16	VWH 20	96	80	73	102	80	136	80	277	15,1	6559.V0.20
22*	20	VWH 22	96	80	73	102	80	136	80	277	15,1	6559.V0.22

* in Sceletto design with patented wear marks in the hook bottom

Not allowed for lifting over persons!

6550.V0 VIP Cobra Clevis Hook with Safety Latch VCGH

- Extremely rugged and further improved version.
- 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!
- $F_{max.}$ = Distance of the marker points.



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	VCGH 6	38	22	16	20	24	25	44,5	71	76	0,4	6550.V0.06
8	2,5	VCGH 8	50	28	20	28	32	30	52	94	97	0,9	6550.V0.08
10	4,0	VCGH 10	60	36	26	36	39	35	64,5	117	108	1,5	6550.V0.10
13	6,7	VCGH 13	76	46	30	37	48	40	72,5	133	126	2,7	6550.V0.13
16	10	VCGH 16	83	56	36	49	58	48	87	157	152	4,3	6550.V0.16
20	16	VCGH 20	112	68	50	69	78	63	114	218	195	10	6550.V0.20
22	20	VCGH 22	117	74	50	74	83	63	114	222	198	11,5	6550.V0.22
28	31,5	VCGH 28	150	101	69	88	109	90	155	295	275	26,4	6550.V0.28

6554. VIP self-locking hook VAGH (Sceletto)

- 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.
- Big mouth width dimension F.
- Wear marks >dimension B< protect the connected chain link.
- Complete with preassembled connecting bolt and securing sleeve.
- Spare part set available on request.
- Patented wear marks that indiacte discard criteria without measruring.
- Broad hook tip - prevents unallowed loading of the hook tip.
- Ergonomic and robust locking lever.

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	6554.V0.08
10	4,0	VAGH (S)-10	49	37	30	31	107	48	66	135	1,5	6554.V0.10
13	6,7	VAGH (S)-13	61	48	36	40	137	61	81	169	2,9	6554.V0.13

UNIQUE COST EFFICIENCY IN MARINE AND OFFSHORE LIFTING CHALLENGES.

The new RUD ROV-HOOK provides two efficient lifting solutions for demanding marine and offshore applications. Its innovative safety mechanism makes it impossible to accidentally open the hook. At the same time, the additional version, with up to 25 tonnes of WLL, opens up completely new applications.

Up to 25t WLL

- **No shedding of loads**
- **100 % crack-tested**
- **No snagging**
- **From 10t up to 25t WLL**
- **Innovative mechanism**

Twin trigger mechanism: The hook only opens when both locking mechanisms are pressed simultaneously.

Ultimate safety: Accidental opening of the hook and loss of load are impossible.

- **Developed for the market by the market**
- **Safety factor 4 : 1 (WLL)**

RUD RFID
CONNECT IT

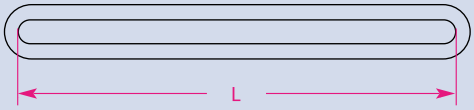
Up to 10t WLL

Synthetic Slings & Accessories

4503. Tubular Round Slings

Standard : BS EN 1492 - 2 , ASME B30.9

Specify length "L" when requesting prices!



SWL in kg	COLOUR Code	PART No.
1000	Violet	4503.00.25
2000	Green	4503.00.50
3000	Yellow	4503.00.75
4000	Grey	4503.01.00
5000	Red	4503.01.25
6000	Brown	4503.01.50
8000	Blue	4503.02.00
10000	Orange	4503.02.50
12000	Orange	4503.03.00
Higher Capacaties Available on Request		

4436. Flat webbing sling with loop both end

Standard : BS EN 1492 - 1 , ASME B30.9

Colour Code	Single Ply	Part No.	Double Ply	Part No.	4 Ply	Part No.
Violet	500 kg	4436.10.25	1000 kg	4436.20.25	2000kg	4436.40.25
Green	1000 kg	4436.10.50	2000 kg	4436.20.50	4000 kg	4436.40.50
Yellow	1500 kg	4436.10.75	3000 kg	4436.20.75	6000 kg	4436.40.75
Grey	2000 kg	4436.11.00	4000 kg	4436.21.00	8000 kg	4436.41.00
Red	2500 kg	4436.11.25	5000 kg	4436.21.25	10000 kg	4436.41.25
Brown	3000 kg	4436.11.50	6000 kg	4436.21.50	12000 kg	4436.41.50
Blue	4000 kg	4436.12.00	8000 kg	4436.22.00	16000 kg	4436.42.00
Orange	5000 kg	4436.12.50	10000 kg	4436.22.50	20000 kg	4436.42.50
Orange	6000 kg	4436.13.00	12000 kg	4436.23.00	24000 kg	4436.43.00
Manufactured to EN1492-1 Safety Factor 7 : 1						

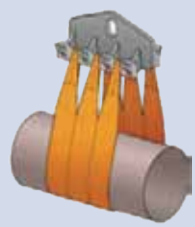
Carl Stahl-Roundsling multi-leg system
with safety hook

Other hook types available on request!

4551.
E-1-Single leg

4554.
E-4 leg

Pipe laying slings

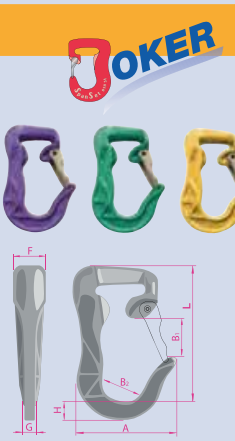


4109. Joker Hook

A perfect connection with twice the benefit

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



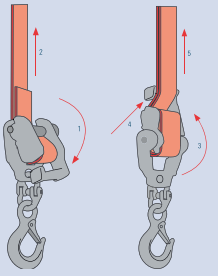
Type	Load capacity in kg	Dimensions in mm A	B1	B2	F	G	H	L	Weight in kg/pce	Item no.
ASH 1t	1000	84	27	32	30	20	25	112	0,6	4109.00.10
ASH 2t	2000	110	33	42	36	20	25	134	1,7	4109.00.20
ASH 3t	3000	132	30	50	46	22	28	145	2,5	4109.00.30
ASH 4t	4000	130	49	60	55	31	35	180	3,2	4109.00.40
ASH 5t	5000	130	49	60	55	31	35	180	3,3	4109.00.50
ASH 6t	6000	130	49	60	55	31	35	180	3,3	4109.00.60

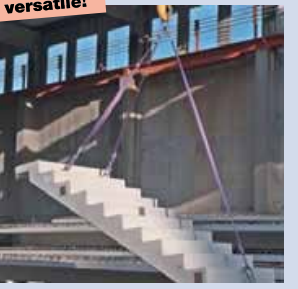
4449. VarioWeb Slings 1-, 2-, and 4-leg

VarioWeb: fully versatile!

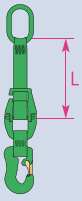
VarioWeb is not only flexible in application but also in maintenance. Should a part of your sling be damaged you can benefit from the modular conception: Only the damaged parts have to be replaced, the other components can be further used – saving costs.

- Continuously adjustable slings
- For lifting of asymmetric loads
- WLL indication according to DIN EN 1492-1
- Parts can be exchanged thanks to modular conception





4449. RSG 1-leg sling

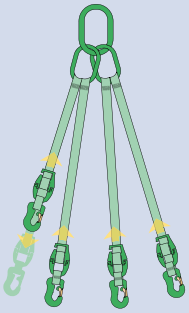


Item no. 1-leg sling	Load capacity / kg 1-leg single direct	Type	L1-min in mm	Can be shortened to (in mm)	Weight 1. metre in kg	Weight add. metre in kg
4449.10.10	1000	VW1-1000-1ASH	2000	730	2,62	0,20
4449.10.20	2000	VW1-2000-1ASH	2000	880	5,35	0,30

4449. RSG 2-leg sling

Item no. 2-leg sling	Load capacity / kg 2-leg angle 0-45°	Type	L1-min in mm	Can be shortened to (in mm)	Weight 1. metre in kg	Weight add. metre in kg
4449.20.14	1400	VW2-1400-2ASH	2000	730	5,04	0,40
4449.20.28	2800	VW2-2800-2ASH	2000	880	10,30	0,60

4449. RSG 4-leg sling



Item no. 4-leg sling	Load capacity / kg 4-leg angle 0-45°	Type	L1-min in mm	Can be shortened to (in mm)	Weight 1. metre in kg	Weight add. metre in kg
4449.40.21	2100	VW4-2100-4ASH	2000	890	10,08	0,80
4449.40.42	4200	VW4-4200-4ASH	2000	1060	20,00	1,20

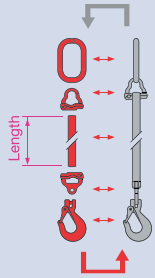
Other hook versions are available on request

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, custom-made 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



4551./4511. RSG 1-leg Sling

Item no. 1-leg sling	Load capacity 1-leg single direct in kg	Type
4551.00.10	1000	RSG-1-1000-LS
4551.00.20	2000	RSG-1-2000-LS
4551.00.30	3000	RSG-1-3000-LS
4551.00.40	4000	RSG-1-4000-LS
4551.00.50	5000	RSG-1-5000-LS
4551.00.60	6000	RSG-1-6000-LS
4551.00.80	8000	RSG-1-8000-LS
4511.01.00	10000	RSG-1-10000-LS
4511.01.50	15000	RSG-1-15000-LS
4511.02.00	20000	RSG-1-20000-LS
4511.02.50	25000	RSG-1-25000-LS
4511.03.00	30000	RSG-1-30000-LS

Min. length 2.5 m without fittings from type RSG-1-10000-LS and bigger

4552./4512. RSG 2-leg Sling

Item no. 2-leg sling	Load capacity 2-leg at angle 0-45°	45-60°	Type
4552.00.10	1400	1000	RSG-2- 1400-LS
4552.00.20	2800	2000	RSG-2- 2800-LS
4552.00.30	4200	3000	RSG-2- 4200-LS
4552.00.40	5600	4000	RSG-2- 5600-LS
4552.00.50	7000	5000	RSG-2- 7000-LS
4552.00.60	8400	6000	RSG-2- 8400-LS
4552.00.80	11200	8000	RSG-2-11200-LS
4512.01.40	14000	10000	RSG-2-14000-LS
4512.02.10	21000	15000	RSG-2-21000-LS
4512.02.80	28000	20000	RSG-2-28000-LS
4512.03.50	35000	25000	RSG-2-35000-LS
4512.04.20	42000	30000	RSG-2-42000-LS

Min. length 2.5 m without fittings from type RSG-2-14000-LS and bigger

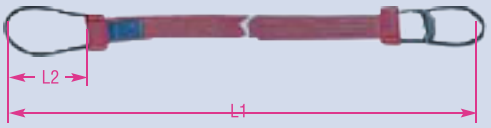
4554./4514. RSG 4-leg Sling

Item no. 4-leg sling	Load capacity 4-leg at angle 0-45°	45-60°	Type
4554.00.10	2100	1500	RSG-4- 2100-LS
4554.00.20	4200	3000	RSG-4- 4200-LS
4554.00.30	6300	4500	RSG-4- 6300-LS
4554.00.40	8400	6000	RSG-4- 8400-LS
4554.00.50	10500	7500	RSG-4-10500-LS
4554.00.60	12600	9000	RSG-4-12600-LS
4554.00.80	16800	12000	RSG-4-16800-LS
4514.02.10	21000	15000	RSG-4-21000-LS
4514.03.15	31500	22500	RSG-4-31500-LS
4514.04.20	42000	30000	RSG-4-42000-LS
4514.05.20	52500	37500	RSG-4-52500-LS
4514.06.30	63000	45000	RSG-4-63000-LS

Min. length 2.5 m without fittings from type RSG-4-21000-LS and bigger

4380. CondorLift Polyester Webbing Sling with Rope Loops and Choker Bracket

These slings are a low cost alternative to webbing slings with ordinary crane brackets. The rope loops are available in any length – even for biggest crane hooks – and thus can be exactly adapted to your individual requirements. The undetachable aluminium choker bracket protects webbing and rope and avoids twisting of the sling.



Save money with rope loops!

Push the choker bracket forward ...

... slip rope loop through loop with choker bracket ...

Rope loops are replaceable!

... and the perfect choker hitch is complete.

Load capacity single direct in kg	Load capacity in choker hitch in kg	Length L1 in m	Webbing width in mm	Webbing thickness in mm	Rope loops L2 in mm	Rope loops Rope Ø in mm	Weight 1st m in kg	Weight add. metre in kg	Item no.
1000	800	2,0	36	6	200	8	1,30	0,30	4380.01.10
1500	1200	2,0	65	6	200	8	1,60	0,50	4380.01.15

As Alternative to the Polyester Webbing Sling: Woven Wire Rope Sling with Rope Loops and Choker Bracket

- Galvanised
- Stainless Steel
- Polyurethane-coated
- Vulcanised
- Also available with protective tubing

Advantages:
- Longer service life
- Unbeatable for use on sharp edges, in chemical baths and with high temperatures

Prices on request.
For other woven wire rope sling version see the following pages

4390. CondorLift Polyester Webbing Sling "de Luxe"

Superkraft polyester webbing slings "de Luxe" rightly bear their name as they are unique in design, construction and workmanship. Due to their virtual unlimited service life (repairable) they offer great value for money!
4-ply webbing sling acc. to DIN EN 1492-1
All advantages at a glance:
Long service life due to:
- Endless belt construction (made from 1 piece)
- 4 load-bearing plies
- Anti-wear coating sewn on both sides
- Virtually indestructible as they are:
  - Always repairable
  - Rot-resistant
  - Fade-resistant
- Easy handling due to low weight
- Sufficient stiffness (to be slid under loads)
- Loop width = 0.5 x sling width
- Improved safety thanks to
  - Ideal construction
  - Unmistakeable colour coding
  - Safety factor 7
  - Crane loops are always in crosswise position to crane hook (no twisting of sling)
- Less cost due to
  - Virtually unlimited service life (sling can be repaired)
- On Request also available with protective tubing

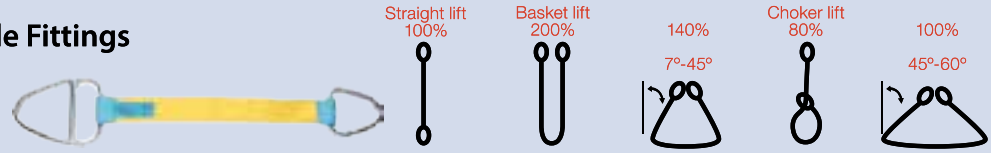
Construction of webbing sling:

Load capacity single direct in kg	Load capacity in basket hitch in kg	Colour	Webbing width in mm	Webbing thickness in mm	Loop width in mm	Loop length in mm	Item no.
1000	2000	violet	50	11	25	300	4390.00.10
2000	4000	green	80	13	40	300	4390.00.20
3000	6000	yellow	120	16	60	400	4390.00.30

Webbing Slings with Metal Fittings

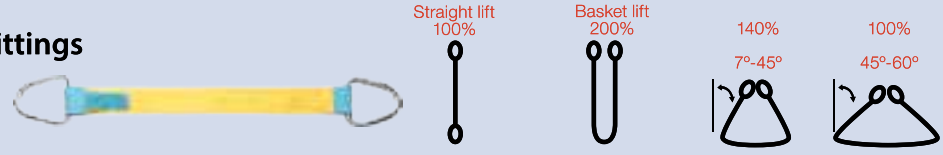
Slings with metal fittings are provided for more safety and durability

Male / Female Fittings
REEVING



REF	COLOUR	SWL/WLL	SWL / WLL IN KG AT DIFFERENT MODES				
1TMF	VIOLET	1T	1000	2000	1400	800	1000
2TMF	GREEN	2T	2000	4000	2800	1600	2000
3TMF	YELLOW	3T	3000	6000	4200	2400	3000
4TMF	GREY	4T	4000	8000	5600	3200	4000
5TMF	RED	5T	5000	10000	7000	4000	5000
6TMF	BROWN	6T	8000	12000	8400	4800	6000
8TMF	BLUE	8T	7000	16000	11200	6400	8000
10TMF	ORANGE	10T	10000	20000	14000	8000	10000

Male / Female Fittings
NON-REEVING



REF	COLOUR	SWL/WLL	SWL / WLL IN KG AT DIFFERENT MODES			
1TMM	VIOLET	1T	1000	2000	1400	1000
2TMM	GREEN	2T	2000	4000	2800	2000
3TMM	YELLOW	3T	3000	6000	4200	3000
4TMM	GREY	4T	4000	8000	5600	4000
5TMM	RED	5T	5000	10000	7000	5000
6TMM	BROWN	6T	6000	12000	8400	6000
8TMM	BLUE	8T	8000	16000	11200	8000
10TMM	ORANGE	10T	10000	20000	14000	10000

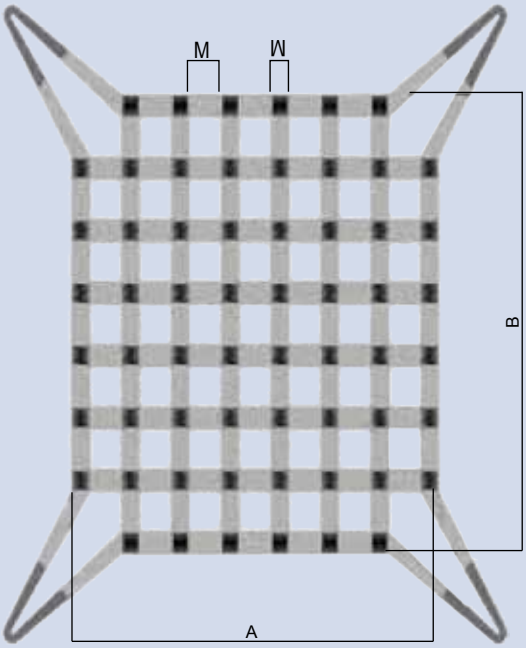
4ZG. Cargo lashing belt with ratchet assembly. Standard length 10mtr.

Width 1", 25 mm
Breaking strength 1000kg
Lashing capacity 400 kg

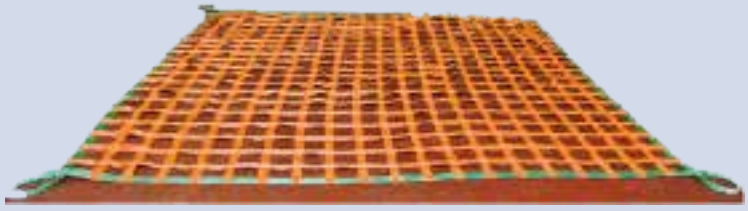
Width 2", 50 mm
Breaking strength 5000kg
Lashing capacity 1825 kg

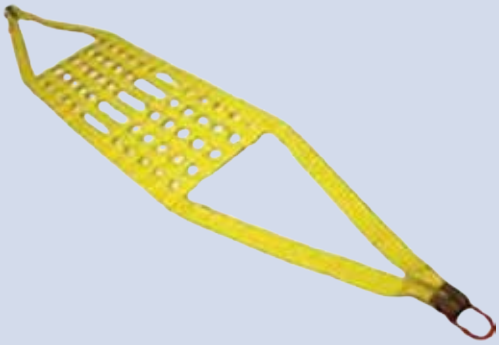
Width 3", 75 mm
Breaking strength 10000kg
Lashing capacity 3750 kg

Width 4", 100 mm
Breaking strength 12000kg
Lashing capacity 6000 kg



Cargo net systems are custom made of polyester, web cargo nets are considerably more flexible, lightweight and compact than ...nets,
All are designed and fabricated to meet specific application requirements.





Wire Ropes & Accessories

Steel Wire Rope

Carl Stahl offer a full range of steel wire ropes. From high performance special crane ropes to general purpose ropes for use in a variety of applications.

The guidelines on the following pages are principally directed towards crane operators who need to periodically replace steel wire ropes and to crane designers who are required to specify ropes for new build projects.

When replacing a steel wire rope on any crane or appliance reference should be made to the relevant original equipment manufacturers manual, the wire rope manufacturers test certificate originally supplied with the crane or appliance and to any other relevant documentation.

In order to ensure safe and efficient operation Carl Stahl recommend that any replacement wire rope should conform with the specified nominal diameter and at least equal the required strength originally specified by the manufacturer of the machine or appliance.

Additionally the wire rope construction selected should provide an equal or greater resistance to rotation, bend fatigue, crushing, abrasive wear, and corrosion when compared to the originally specified rope.







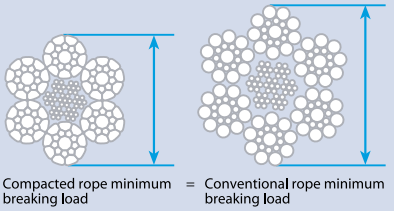

Strength

Wire rope strength is normally refered to as minimum breaking force or minimum breaking load. The minimum breaking load of any given rope diameter can be increased in two basic ways;

- An increase in the tensile strength of the wire used to manufacture the rope will increase the minimum breaking load of the final rope. Typical tensile grades of wire used for crane rope manufacture are 1770 N/mm² 1960 N/mm² and 2160 N/mm²

- Additionally it is possible to increase the steel fill factor of the wire rope. Fill factor means the ratio between the sum of the nominal cross sectional areas of all the wires in the rope and the circumscribed area of the rope based on its nominal diameter. More simply it measures the metallic cross sectional area of the rope.

It is possible to marginally increase the fill factor by varying the construction i.e. adding smaller filler wires. More effectively the individual strands of the rope can be compacted.



The resultant rope has a very high steel fill factor and consequently a relatively high minimum breaking load for any given diameter when compared with a conventional rope.

The high breaking load to diameter relationship offered by compacted ropes can allow crane manufacturers to optimise the design of crane components such as winding drums and sheaves whilst still complying with international crane design standards.

Lower stress levels which occur when crane operators replace a conventional rope with an identical diameter of high strength compacted rope can lead to more 'comfortable' operation and longer rope life.

Diameter

Correct and consistent wire rope diameter is critical to performance on a modern crane, and a rope which is too large or too small, for the drum and sheaves in which it is operating can cause premature rope failure.

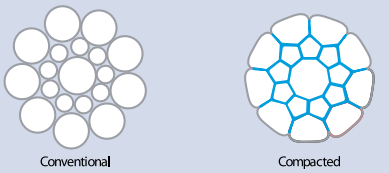
It is not only important to select a rope which has the correct nominal diameter according to the original equipment operating manual, but it is also important that the diameter of the rope is consistent throughout its entire length. Inconsistency in diameter, particularly short lengths where the rope is oversize, can cause premature localised wire breaks and short rope life.

Bend Fatigue Resistance

Bend fatigue resistance is the ability of the wire rope to withstand repeated bending under constant or fluctuating loads. As the load increases in any reeving system so the rate of fatigue will increase. As bending radii decrease in a reeving system so the rate of fatigue will increase.

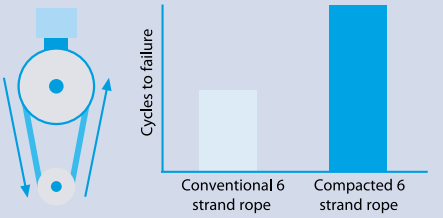
A wire rope which has an increased number of wires such as 6x36 construction will have greater resistance to fatigue than a 6x19 construction.

Extra fatigue life can be achieved by moving to compacted rope.

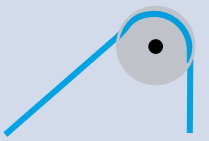


The compacted strand has very favourable internal and external contact conditions when compared with the point contact of round wires within a conventional strand.

The smooth surface of compacted rope offers a wider bearing surface to the sheave or drum groove. Increased fill factor, lowering internal stress levels, combined with improved internal and external contact conditions lead to longer rope life.



Laboratory fatigue testing indicates that it is possible to achieve up to two times normal rope life when comparing compacted rope with a conventional rope of equivalent construction.

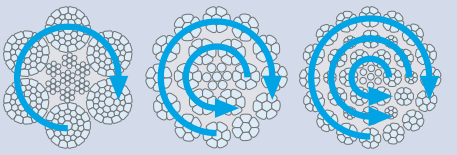


The smooth external surface of compacted rope can also lead to less wear on the sheave and winding drum.

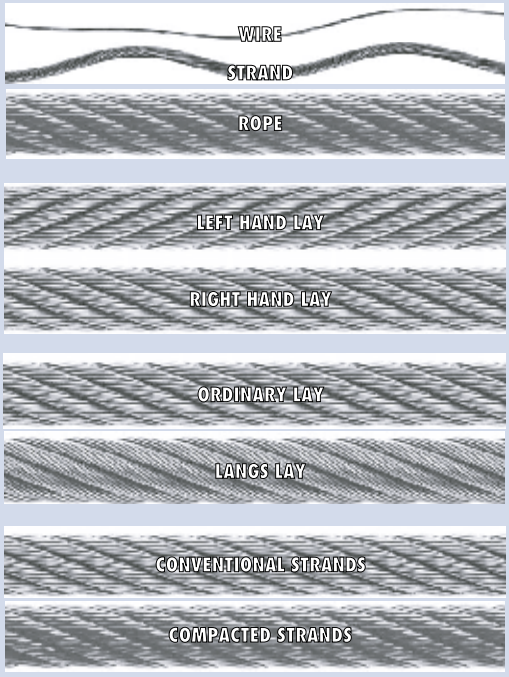
Rotation Resistance

Each wire rope construction will have an inherent torque characteristic where both ends of the rope are secured and an applied force will generate torque at the fixing points. Each wire rope construction will have an inherent turn characteristic where one end of the rope is free to rotate and an applied force will cause the free end of the rope to turn.

The torque or turn generated will depend upon the magnitude of the force applied and also upon the construction of the wire rope selected.In terms of resistance to rotation wire ropes can be divided into three basic catgories.

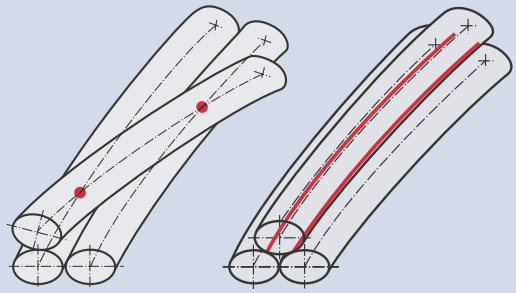


WHAT IS ...?



WHAT IS A PARALLEL LAY ROPE?

*In a cross (non-parallel) lay strand all wires have **different** lay lengths, and in a cross (non-parallel) lay rope all strands have **different** lay lengths. The high **stress concentration** at the crossover points leads to an early internal failure.*



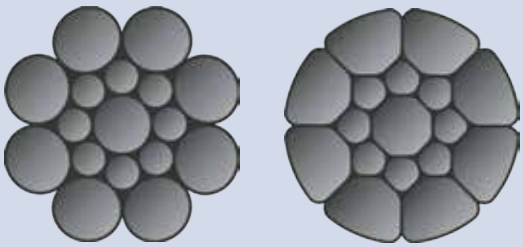
cross (non-parallel) lay stress concentration

parallel lay stress distribution

*In a parallel lay strand all wires have the **same** lay length, and in a parallel lay rope all strands have the **same** lay length. The linear contact leads to an optimal **stress distribution**.*

WHAT IS A COMPACTED STRAND?

Some of the Casar Special Wire Ropes are made out of conventional strands, some are made out of compacted strands.



conventional strand ***compacted strand***

In order to produce a compacted strand, a conventional strand made out of round wires is drawn through a compacting tool. During this procedure, the wires are plastically deformed, the strand diameter is reduced and the surface is made smooth. The contact conditions between the individual wires and the strand-to-strand contacts improve.

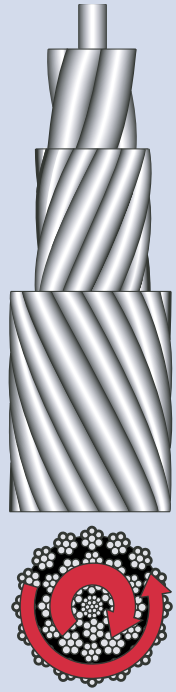
Ropes made out of compacted strands have a higher breaking load, a greater flexibility and better rope- to- sheave contact conditions than comparable ropes made out of conventional strands. Because of the larger outer wires and the smaller exposed area they are more resistant to abrasion and corrosion.

WHAT IS A ROTATION-RESISTANT ROPE?

In a conventional rope, an external load creates a moment which tries to untwist the rope and to rotate the load.

A rotation- resistant Special Wire Rope has a steel core which is an independent rope, closed in the opposite direction to the outer strands. Under load, the core tries to twist the rope in the one direction, the outer strands try to twist it in the opposite direction.

The geometrical design of a rotation-resistant Special Wire Rope is such that the moments in the core and the outer strands compensate each other over a wide load-spectrum, so that even with great lifting heights no rope twist occurs.



Single layer ropes have a much greater tendency to rotate under load than the two or three layer ropes which are often referred to as rotation resistant. Similarly the three layer rope will have less tendency to rotate when compared with the two layer rope.

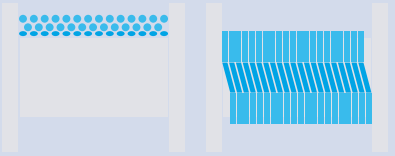
Both the two layer and three layer ropes depend on torsional balance between the outer and inner layers to create rotational stability. With correct rope selection rotation should not cause a problem in service provided that the rope has been correctly balanced in design and manufacture.

Before selecting a rotation resistant rope, consideration should be given to a single layer construction. If the application/duty in question does not require the rope to resist rotation then it is possible that a single layer rope can represent a more robust and more effective solution.

Safety note- Single layer Langs lay ropes (where the direction of strand lay is the same as the direction of rope lay) have exceptionally bad rotational characteristics and must only be used in applications where both ends of the rope are securely fixed.

Crush Resistance

Selection of a rope with an independent wire rope core or wire strand core as opposed to a fibre rope core can improve resistance to crushing.

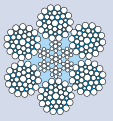


In multi-layer coiling situations where crushing of lower layers particularly at crossover point is unavoidable. Carl Stahl UK would recommend the use of compacted rope. The high steel fill factor, which is a feature of the compaction process, will offer greater resistance to crushing than an equivalent conventional rope.

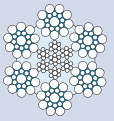
Sheaves

Sheaves are used to change the direction of a steel wire rope. When entering a sheave, a steel wire rope will be bent and subjected to half a bending cycle. When leaving the sheave on the other side, the rope section will be straightened and thereby be subjected to another half a bending cycle. The diameter of a sheave is often measured as a multiple of a rope diameter, the D/d ratio. Allow minimum rope D/d ratio of 18 and recommended D/d ratio to be higher than 20. The fatigue life of a steel wire rope will increase with increasing D/d ratio.

Resistance to Wear and Abrasion

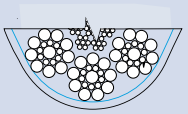


6x36

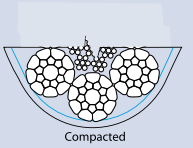


6x19

Larger external wires can provide greater resistance to wear and abrasion therefore a 6x19 construction might be selected in preference to a 6x36 construction in a situation in which wear and abrasion rather than bend fatigue are the principle cause of rope deterioration.



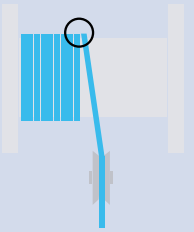
Conventional



Compacted

Maximum resistance to wear and abrasion can be achieved by selecting a compacted rope.

The smooth surface of the compacted rope offers a wider bearing surface to the sheave or drum groove resulting in improved resistance to wear and abrasion.



Abrasive wear can occur between the rope and any ancillary equipment such as sheaves and the surface of the winding drum but probably the most significant cause of abrasive wear on cranes takes place between adjacent laps of rope where the rope moves on and off the winding drum.

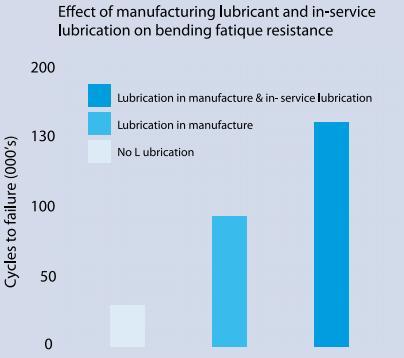
Selection of a compacted rope with its smooth external surface and very good contact condition will minimise abrasive wear between the rope and ancillary equipment and also between adjacent laps of rope.

Corrosion Resistance

It is normal to select a rope with galvanised finish if it is likely to be used in a corrosive environment.

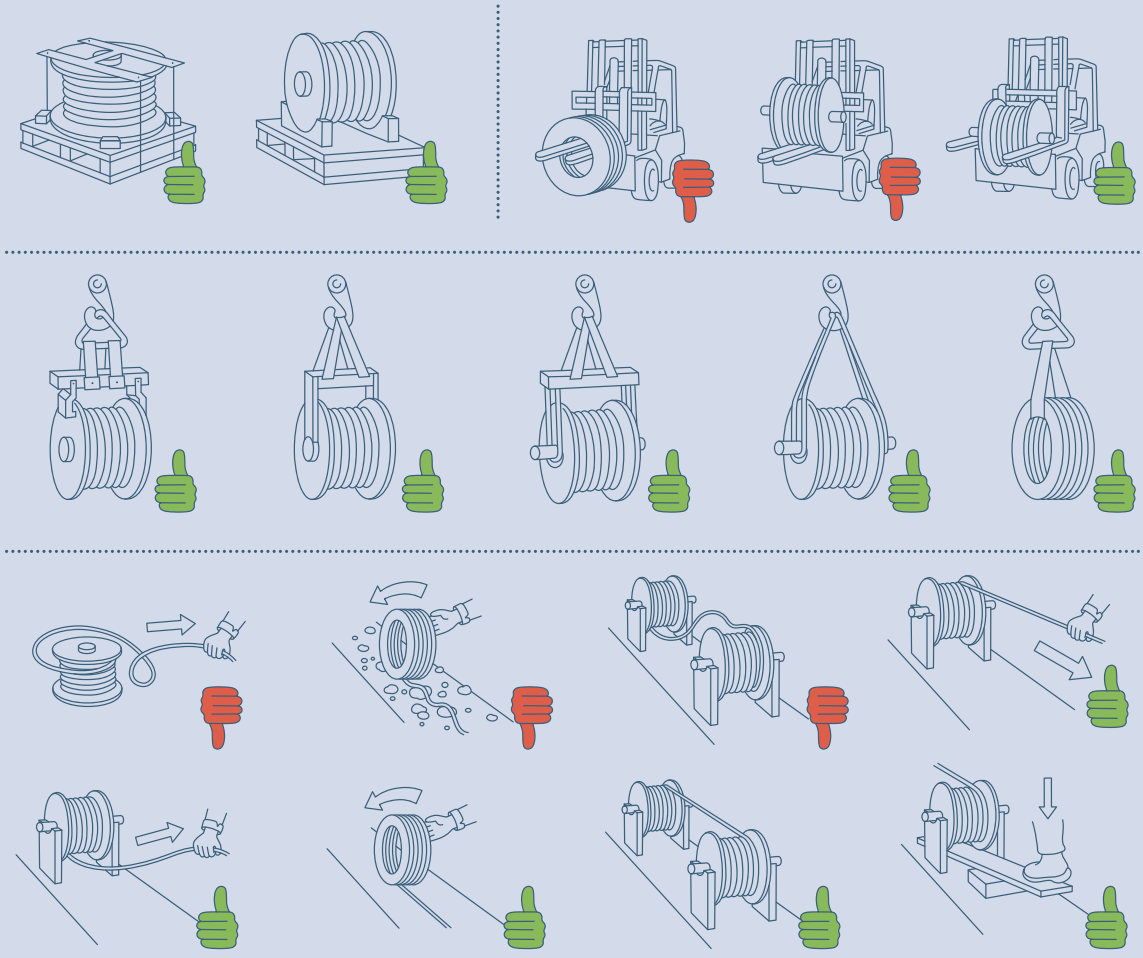
Lubrication

Effective lubrication with the correct rope lubricant can extend fatigue life, minimise abrasive wear and help to minimise corrosion.



Laboratory bend fatigue tests show the significant effect which high performance manufacturing lubricant and in-service lubrication has on rope life. In-service lubrication with a suitable lubricant should be carried out wherever possible however the best opportunity to introduce lubricant into the rope is during manufacture.

Instruction sheet



Please note

EN12385-3
ISO 4309

WARNING

Important technical terms

Abbreviations for core-types of parallel laid ropes and rotation-resistant ropes

Term	Abbrev.
Single layer ropes:	
Fibre core	FC
- Natural fibre core	NFC
- Synthetic fibre core	SFC
- Massive polymer core	SPC
Steel core	WC
- Wire strand core	WSC
- Independent wire rope core	IWRC
- Independent wire rope core, compacted, separately stranded	IWRC (K)
- Independent wire rope core, polymer-coated, separately stranded	EPIWRC
Parallel laid ropes:	
Wire rope core in parallel lay	PWRC
Wire rope core in parallel lay, compacted	PWRC (K)
Rotation-resistant ropes:	
Core element	
- Fibre core	FC
- Wire strand core	WSC

Lay and lay direction

z	=	right hand lay
s	=	left hand lay
sZ	=	right hand ordinary lay
zS	=	left hand ordinary lay
zZ	=	right hand lang's lay
sS	=	left hand lang's lay
aZ	=	right hand alternate lay
aS	=	left hand alternate lay

Compacting

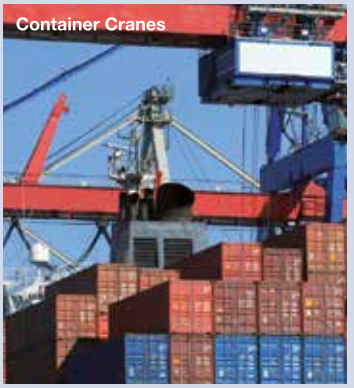
K	=	in front of rope or strand construction indicates a compacted strand or rope

Strand types

S	=	Seale
W	=	Warrington
F	=	Filler
WS	=	Warrington Seale
M	=	Cross lay
N	=	Compound lay

Special Wire Ropes for below:


Harbor Cranes


Container Cranes


Offshore Cranes

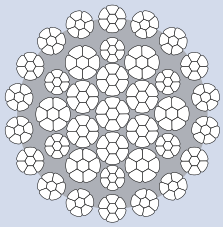

Mobile Cranes


Underground engineering equipment


Tower cranes

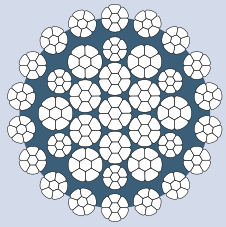
// **ROTATION-RESISTANT**
Option PPI
NR15 Maxilift (Option PPI)
Towerlift 15 (Option PPI)
LT 24 K (Option PPI)
LT 24 C
LT 18

// **NON-ROTATION-RESISTANT**



IMPROVED DESIGN

OPTION PPI



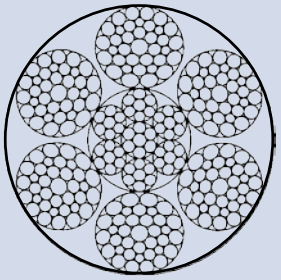
Diameter range [mm]	Construction	Number of outer strands	Number of wires	Number of outer load bearing wires	Average fill factor	Average spin factor
13 – 54	37xK7	18	259	126	0,716	0,85 (1960 N/mm²) 0,81 (2160 N/mm²)

- Tolerance on diameter: (EN: +0%; +5%)
- Temperature range of use: -50°C to +100°C
- Temperature range of use for option PPI: -50°C to +80°C
- Option PPI – only available for diameter ≥ 13mm
- Available in ordinary lay and Lang's lay
- Available in right hand and left hand

nominal diameter	metallic area	weight	calculated aggregate breaking force				minimum breaking force			
			1960 N/mm²		2160 N/mm²		1960 N/mm²		2160 N/mm²	
mm	mm²	kg/m	kN	t [metric]	kN	t [metric]	kN	t [metric]	kN	t [metric]
13	94,7	0,816	185,6	18,9	204,6	20,9	157,8	16,1	165,7	16,9
14	110,0	0,949	215,6	22,0	237,6	24,2	183,3	18,7	192,5	19,6
15	125,8	1,088	246,6	25,1	271,7	27,7	209,6	21,4	220,6	22,5
16	143,7	1,245	281,7	28,7	310,4	31,7	239,4	24,4	251,4	25,6
17	161,9	1,398	317,3	32,4	349,7	35,7	269,7	27,5	283,4	28,9
18	181,6	1,562	355,9	36,3	392,3	40,0	302,5	30,9	317,7	32,4
19	203,4	1,757	398,7	40,7	439,3	44,8	338,9	34,6	355,9	36,3
20	224,6	1,930	440,2	44,9	485,1	49,5	374,2	38,2	393,0	40,1
21	247,4	2,139	484,9	49,4	534,4	54,5	412,2	42,0	432,9	44,1
22	271,3	2,342	531,7	54,2	586,0	59,8	452,0	46,1	474,7	48,4
23	297,0	2,560	582,1	59,4	641,5	65,4	494,8	50,5	519,6	53,0
24	324,3	2,790	635,6	64,8	700,5	71,4	540,3	55,1	567,4	57,9
25	352,4	3,043	690,7	70,4	761,2	77,6	587,1	59,9	616,6	62,9
26	380,7	3,270	746,2	76,1	822,3	83,9	634,2	64,7	666,1	67,9
27	410,3	3,544	804,2	82,0	886,2	90,4	683,6	69,7	717,9	73,2
28	440,6	3,802	863,6	88,1	951,7	97,0	734,0	74,9	770,9	78,6
30	508,0	4,391	995,7	101,5	1097,3	111,9	846,3	86,3	888,8	90,6
32	576,0	4,977	1129,0	115,1	1244,2	126,9	959,6	97,9	1007,8	103
34	647,1	5,586	1268,3	129,3	1397,7	142,5	1079,3	110	1133,0	116
36	733,2	6,314	1437,1	146,5	1583,7	161,5	1221,5	125	1282,8	131
38	810,7	7,014	1589,0	162,0	1751,1	178,6	1352,4	138	1418,4	145
40	896,0	7,744	1756,2	179,1	1935,4	197,4	1495,0	152	1569,0	160
42	987,5	8,519	1935,5	197,4	2133,0	217,5	1645,2	168	1730,0	176
44	1091,6	9,400	2139,5	218,2	2357,9	240,4	1818,6	185	1909,9	195
46	1198	10,374	2347,9	239,4	2587,5	263,8	1995,7	204	2095,8	214
48	1311	11,320	2569,8	262,0	2832,0	288,8	2184,3	223	2293,9	234
50	1400	12,042	2743,2	279,7	3023,1	308,3	2331,7	238	2451,2	250
52	1529,7	13,226	2998,2	305,7	3304,2	336,9	2548,8	260	2676,4	273
54	1639,4	14,128	3213,2	327,7	3541,1	361,1	2731,2	279	2868,3	292

Special constructions and diameters available - please contact us directly.

Rope Type: Stranded Rope acc. to BS 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

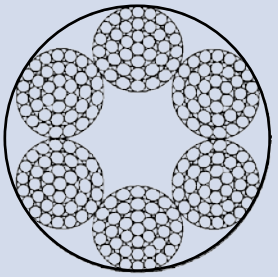
Categories:
not rotation-resistant

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	WR0015047B	44.70	WR0015223B	49.20	WR0015399B
9	33.1	51.00	WR0015048B	56.50	WR0015224B	62.30	WR0015400B
10	40.9	63.00	WR0015049B	69.80	WR0015225B	76.90	WR0015401B
11	49.5	76.20	WR0015050B	84.40	WR0015226B	93.00	WR0015402B
12	58.9	90.70	WR0015051B	100.00	WR0015227B	111.00	WR0015403B
13	69.1	106.00	WR0015052B	118.00	WR0015228B	130.00	WR0015404B
14	80.2	124.00	WR0015053B	137.00	WR0015229B	151.00	WR0015405B
16	105	161.00	WR0015054B	179.00	WR0015230B	197.00	WR0015406B
18	133	204.00	WR0015055B	226.00	WR0015231B	249.00	WR0015407B
19	150.8	227.00	WR0015055C	252.00	WR0015213C	304.10	WR0015407C
20	164	252.00	WR0015056B	279.00	WR0015232B	308.00	WR0015408B
22	198	305.00	WR0015057B	338.00	WR0015233B	372.00	WR0015409B
24	236	363.00	WR0015058B	402.00	WR0015234B	443.00	WR0015410B
26	276	426.00	WR0015059B	472.00	WR0015235B	520.00	WR0015411B
28	321	494.00	WR0015060B	547.00	WR0015236B	603.00	WR0015412B
30	376.2	566,00	WR0015060C	628.00	WR0015236C	692.00	WR0015412C
32	419	645.00	WR0015061B	715.00	WR0015237B	787.00	WR0015413B
34	483.2	730.00	WR0015061C	807.00	WR0015237C	889.00	WR0015413C
36	530	817.00	WR0015062B	904.00	WR0015238B	997.00	WR0015414B
38	590.6	910.00	WR0015062C	1008.00	WR0015238C	1,119.00	-
40	654	1,010.00	WR0015063B	1,120.00	WR0015239B	1,230.00	WR0015415B
42	737	1,196.00	WR0015063C	1,230.00	WR0015239C	1,300.00	-
44	792	1,220.00	WR0015064B	1,350.00	WR0015240B	1,490.00	WR0015416B
48	942	1,450.00	WR0015065B	1,610.00	WR0015241B	1,770.00	WR0015417B
52	1,110.00	1,700.00	WR0015066B	1,890.00	WR0015242B	2,080.00	WR0015418B
56	1,280.00	1,980.00	WR0015067B	2,190.00	WR0015243B	2,410.00	WR0015419B
60	1,470.00	2,270.00	WR0015068B	2,510.00	WR0015244B	2,770.00	WR0015420B
64	1,712.00	2,717.00	WR0015068C	2,858.00	WR0015244C	2,953.00	-

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	WR0019163B	14.50	WR0019227B
6	12.5	18.80	WR0019164B	20.80	WR0019228B
7	17	25.60	WR0019165B	28.30	WR0019229B
8	22.1	33.40	WR0019166B	37.00	WR0019230B
9	28	42.30	WR0019167B	46.80	WR0019231B
10	34.6	52.20	WR0019168B	57.80	WR0019232B
11	41.9	63.20	WR0019169B	70.00	WR0019233B
12	49.8	75.20	WR0019170B	83.30	WR0019234B

Rope class / Number of outer strands:
6x37M / 6

Surface available in:
U (ungalvanised) / B (galvanised)

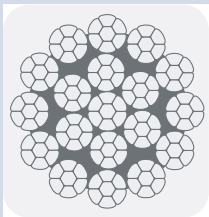
Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

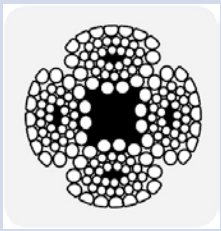
Plastic inlay:
no

19xK7



Semi-rotation resistant with **12 strands in external layer**, compacted strands

The very basic rotation resistant wire rope, extensively used the hoisting rope for various cranes (provision cranes, hose crane etc). Also used as life-boat falls.
Less flexible compared to 35(W)x 7 but more abrastion resisitant.
Its construction is according to EN 12385 standard



Explanation of products :

The rope is specially designed to be used where minimal rotation is a requirement. Comparing other multi-strand non-rotating constructions, this flattened 3 or 4 strands rope with fiber core construction enables this rope to have superior non-rotating characteristics and resistance to deformation. This rope is recommended for high altitude crane.

Properties

Superior non-rotating characteristics
Excellent deforming resistance
Longer fatigue life
High flexibility with fiber cores in each strand
Strong against abrasion

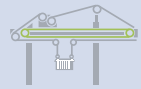
- Rugged 4 strand steel wire rope
- Recommended for severe applications
- Fully lubricated in manufacturing

NOM. ROPE DIA. mm	NOM. ROPE DIA. in	APPROX.* MASS kg/100m	MINIMUM BREAKING FORCE GALVANISED & UNGALVANISED ROPE GRADE 1770 N/mm² kN	1770 N/mm² tonnes	1960 N/mm² kN	1960 N/mm² tonnes
10		44.8	64.0	6.5	69.4	7.1
12		65.4	92.3	9.4	99.9	10.2
14		88.8	125.5	12.8	136.5	13.9
16	5/8	117.0	164.5	16.8	177.4	18.1
18		149.0	207.5	21.2	224.5	22.9
19	3/4	167.0	231.5	23.6	250.5	25.5
20		183.0	256.5	26.2	277.5	28.3
22		214.0	310.0	31.6	336.0	34.3
	7/8	218.0	317.0	32.3	343.0	35.0
24		253.0	369.0	37.6	400.0	40.8
25		275.0	399.0	40.7	432.0	44.1
	1	284.0	413.0	42.1	448.0	45.7
26		298.0	433.0	44.2	469.0	47.8
28		346.0	502.0	51.2	544.0	55.5
30		398.0	576.0	58.7	624.0	63.6
32	1 1/4	456.0	656.0	66.9	689.0	70.3
34		512.0	740.0	75.5	802.0	81.8
36		574.0	830.0	84.6	898.0	91.6
38	1 1/2	640.0	924.0	94.2	1002.0	102.0
40		709.0	1002.0	102.0	1082.0	110.0
42		782.0	1102.0	112.0	1192.0	122.0
44		859.0	1212.0	124.0	1312.0	134.0
45		898.0	1272.0	130.0	1372.0	140.0

Note: Rope Sizes and Breaking Force not shown in the standard table, may be available on request and prior confirmation.

Typical Applications

CONTAINER

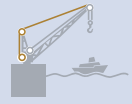


TROLLEY

LATTICE BOOM

BOOM HOIST

DOCKSIDE



BOOM HOIST

OFFSHORE PEDESTAL

BOOM HOIST

BOOM HOIST
TROLLEY

Wire rope terminations and fittings


Master Link


Master Link Assembly


Eye Self Locking Hook


Alloy Eye Hook


Swivel Hook


Foundry Hook


Chocker Hook


Sorting Hook

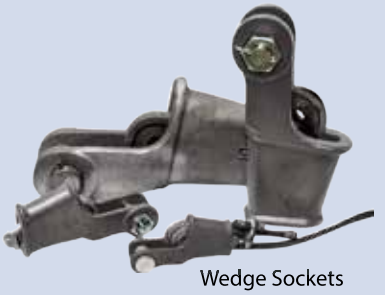

Wire Rope Clamp


Open Spelter Sockets


Closed Spelter Socket


Closed Swage Socket


Open Swage Socket


Wedge Sockets

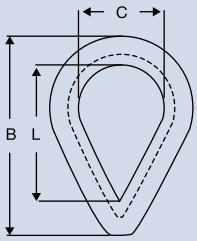

Aluminium Ferrule

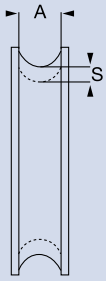

Steel Ferrule


Solid Thimble


Aluminium Thimble

5960. Thimble acc. to BS 464





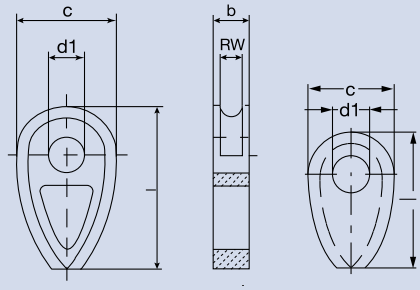
Galvanised BS 464 Thimbles

Rope Dia	A mm	B mm	L mm	C mm	S mm	Weight gs/10	Part No.
1/4"	7	45	26	18	4	4.1	5960.00.06
5/16"	8	54	33	22	4	6.5	5960.00.08
3/8"	10	64	38	25	4.8	9.5	5960.00.10
1/2"	14	80	44	32	5.6	13	5960.00.13
5/8"	16	98	59	41	7.9	30	5960.00.16
3/4"	21	123	73	51	9.5	51.5	5960.00.19
7/8"	22	133	83	57	9.5	69.0	5960.00.22
1"	27	162	108	70	10.3	99.5	5960.00.26
1 1/8"	29	178	111	76	12.7	129	5960.00.28
1 1/4"	33	197	133	95	12.7	145	5960.00.32
1 3/8"	38	229	152	105	15.9	238	5960.00.36
1 1/2"	41	254	165	114	17.5	340	5960.00.38
1 5/8"	43	254	165	114	17.5	499	5960.00.42
1 3/4"	51	286	178	127	25.4	532	5960.00.44
2"	64	330	203	140	28.6	695	5960.00.52

The thimbles detailed above will meet the performance requirements of the new Standard BS-EN-13411

5980. Solid Thimble acc. to DIN 3091

With standard bore hole (d1)
Surface: standard uncoated
Version: galvanised or hot-dipped galvanised on request



Solid Thimble acc. to DIN 3091

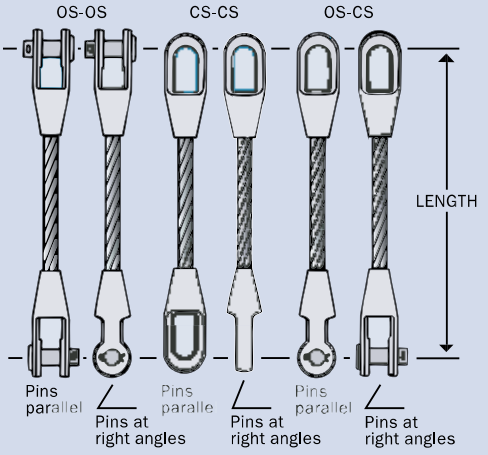
Rope Dia	RW mm	b mm	d1 mm	c mm	l mm	Weight gs/10	Part No.
8	9	15.0	14	40	66	0.181	5960.00.08
10	11	17.5	18	50	82	0.318	5960.00.10
12	13	20.0	21	60	98	0.515	5960.00.12
14	16	23.5	25	70	114	0.799	5960.00.14
16	18	26.0	28	80	130	0.895	5960.00.16
18	20	28.5	31	90	145	1,211	5960.00.18
20	22	31.0	35	100	161	1,610	5960.00.20
22	24	33.5	38	110	177	2,110	5960.00.22
24	26	36.0	41	120	193	2,710	5960.00.24
26	29	39.5	44	130	209	3,550	5960.00.26
28	32	42	47	138	223		5960.00.28
32	35	47	53	160	256		5960.00.32
36	42	53	60	172	290		5960.00.36

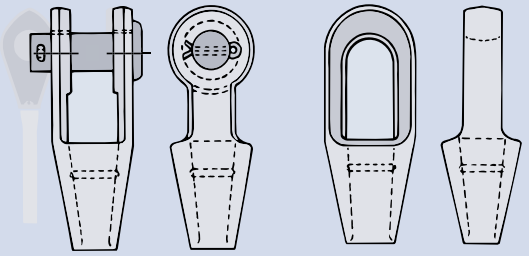
Available up to nominal size80.
Option: bore hole with tolerance zone acc. to DIN ISO 286

Wire Rope Assemblies.
Swaged and Spelter Sockets

Boom pandants, guylines, raising lines, backstays, lifting bridles and more. Those are the uses of our wire rope assemblies, offered in both poured (spelter) sockets and mecanically swaged sockets. A Design Factor of five has been used to establish the rated capacities.

please indicate your choice of end fittings "OS" or "CS". "OS" indicates your preference for an open socket fitting, while "CS" designates a closed fitting.

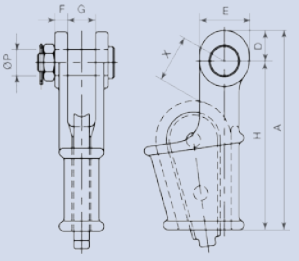




5884. Wedge socket

wedge socket, galvanised
for rope ø from 7 to 76 mm

Available with:
- Bolt and pin
- Bolt, nut, and pin



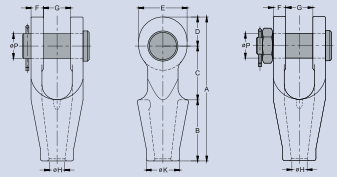
Type	Min. breaking load in kg	For rope Ø in mm	Dimensions in mm								Weight in kg/pce	Item no. with bolt and pin	Item no. with bolt, nut and pin
			A	D	E	F	G	H	ØH	X			
OWS025	8000	7-8	130	20	34	9	18	110	17.5	40	0.7	5884.A0.10	5884.B0.10
OWS0.5	12000	9-10	150	23	40	11	20.5	125	20.6	45	1.2	5884.A0.20	5884.B0.20
OWS1	20000	11-13	183	27	48	12.7	25.6	156	25.4	60	2.3	5884.A0.30	5884.B0.30
OWS2	25000	14-16	224	32	56	14.5	32	192	30	65	3.6	5884.A0.40	5884.B0.40
OWS3	40000	17-19	272	40	70	16.5	38	232	35	70	6.3	5884.A0.50	5884.B0.50
OWS4	55000	20-22	312	48	80	20.5	45	264	41	80	10.3	5884.A0.60	5884.B0.60
OWS5	75000	23-26	370	58	100	22.5	51	312	51	90	16	5884.A0.70	5884.B0.70
OWS6	90000	27-29	413	65	110	25	57	348	57	100	21.5	5884.A0.80	5884.B0.80
OWS7	110000	30-32	455	71	122	28	63	384	63	110	30	5884.A0.90	5884.B0.90
OWS8	125000	34-36	508	76	132	28	70	432	63	125	36	5884.A1.00	5884.B1.00
OWS9	150000	37-39	548	80	140	30	76	468	70	140	50	5884.A1.10	5884.B1.10
OWS10	170000	40-42	589	85	150	33	76	504	76	155	60	5884.A1.20	5884.B1.20
OWS11	225000	43-48	674	98	170	39	89	576	89	175	90	5884.A1.30	5884.B1.30

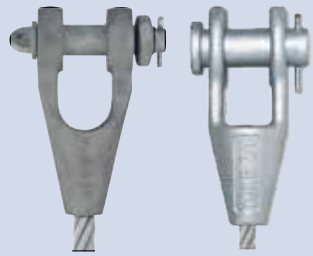
Open Spelter Socket Form B
Acc. to DIN 83313

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



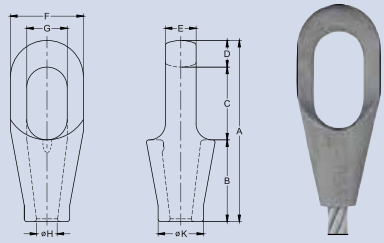


Open Speller Socket, METRIC DIMENSIONS.

Model No.	MBL (Mtons)	INCH DIMENSIONS		Approximate return volume (cc)	Daimention (mm)										Weight (kg)
		For Rope in mm	Wire Rope inch		A	B	C	D	E	F	G	oH	oK	oP	
1182.OSS.196P	8	6-7	1/4	10	106	46	40	19	34	9	18	10	20	1/5	0.4
1182.OSS.197P	12	8-10	3/8	20	122	54	45	23	40	11.2	20.6	13.5	26	20.6	0.8
1182.OSS.198P	20	11-13	7/16-1/2	35	142	64	51	27	45	12-7	25.6	15	30	25.0	1.1
1182.OSS.199P	25	14-16	9/16-5/8	50	171	70	63	32	56	14.5	32	18.5	38.5	30	1.0
1182.OSS.100P	40	18-19	3/4	60	205	89	76	40	68	16.5	38	22.5	46	35	3.2
1182.OSS.104P	55	20-22	7/8	125	236	101	89	46	80	20.5	45	26.5	55	41	5.3
1182.OSS.108P	80	23-26	1	160	273	114	101	58	98	22.5	51	29.5	62	53	4.4
1182.OSS.111 P	100	27-30	1 1/8	210	306	127	114	65	110	25	57	34	70	57	11.3
1182.OSS.115P	130	31-36	1 1/4-1 3/8	350	338	139	127	72	124	28	63	40	83	63	14
1182.OSS.118P	160	37-39	1 1/2	425	394	152	162	80	140	30	16	44.5	90	70	23
1182.OSS.120P	200	40-42	1 5/8	500	415	165	165	85	146	33.5	76	48	97	76	29
1182.OSS.125P	250	43-48	1 3/4-1 7/8	700	467	101	178	98	170	39	89	53	112	89	43
1182.OSS.128P	300	49-54	2-2 1/8	1250	552	216	228	108	180	46	101	58.5	126	95	44
1182.OSS.130P	375	55-60	2 1/4-2 3/8	1425	603	229	254	120	210	53	113	68.5	135	108	85
1182.OSS.132P	450	61-68	2 1/2-2 5/8	1850	654	248	273	133	230	60	127	77.5	150	121	119
1182.OSS.136P	500	69-75	2 3/4-2 7/8	2300	696	279	279	136	240	73	133	83	160	122	159
1182.OSS.138P	600	76-80	3-3 1/8	3400	736	305	286	145	250	76	148	89	170	113	186
1182.OSS.140P	650	81-86	3 1/4-3 3/8	4100	700	330	300	160	275	79	159	95	180	140	227
1182.OSS.142P	760	87-93	3 1/2-3 5/8	5200	849	355	318	318	300	82	172	99	200	152	280
1182.OSS.144P	900	94-102	3 3/4-4	7700	922	381	343	198	336	89	191	110	215	178	375
1182.OSS.146P	1200	108-115	4 1/4-4 1/2	10500	1110	440	450	220	370	100	205	125	250	195	525

Closed Spelter Socket Form A
Acc. to DIN 83313

Form A
Material GS-45.1
Finish: natural

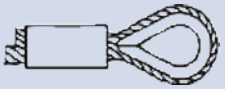


Closed Speller Socket, METRIC DIMENSIONS.

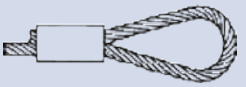
Model No.	MBL (Mtons)	INCH DIMENSIONS		Approximate return volume (cc)	Daimention (mm)									Weight (kg)
		For Rope in mm	Wire Rope inch		A	B	C	D	E	F	G	oH	oK	
1181.CSS.296	8	6-7	1/4	10	102	46	45	11	14	38	22	10	20	0.3
1181.CSS 297	12	8-10	3/8	20	120	54	52	14	17.5	44	24	13.5	26	0.5
1181.CSS 298	20	11-13	7/16 -1/2	35	140	64	59	17	23	53	30	15	30	0.7
1181.CSS 299	25	14-16	9/16 -5/8	60	162	76	65	21	26	67	36	18.5	38.5	1.3
1181.CSS 200	40	18-19	3/4	80	194	89	78	27	32	77	42	22.5	46	2.1
1181.CSS 201	55	20-22	7/8	125	224	101	90	33	38	92	50	26.8	55	3.6
1181.CSS 204	80	23-26	1	160	253	114	103	36	45	101	57	29.5	62	5.1
1181.CSS 207	100	27-30	1 1/8	210	282	127	116	39	51	114	65	34	70	7
1181.CSS 212	130	31-36	1 1/4-1 8/8	350	312	139	130	43	57	127	71	40	83	10.4
1181.CSS 216	160	37-39	1 1/2	425	358	152	155	51	63	140	80	44.6	90	15
1181.CSS 217	200	40-42	1 5/8	500	390	165	171	54	70	148	84	48	97	18.5
1181.CSS 219	250	43-48	1 3/4-1 7/8	700	443	190	198	55	76	171	95	53	112	27.5
1181.CSS 222	300	49-54	2-2 1/8	1250	502	216	224	62	82	193	111	58.5	125	39.5
1181.CSS 224	375	55-60	2 1/4-2 3/8	1425	550	229	248	73	92	219	125	68.5	135	51
1181.CSS 226	450	61-68	2 1/2-2 5/8	1850	597	248	270	79	102	241	140	77.5	150	57
1181.CSS 227	500	69-75	2 3/4-2 7/8	2300	644	279	285	79	124	273	159	83	160	96
1181.CSS 228	600	76-80	3-3 1/8	3400	689	305	298	86	133	292	171	89	170	116
1181.CSS 229	650	81-86	3 1/4-3 3/8	4100	738	330	311	95	146	311	184	95	180	142
1181.CSS 230	750	87-93	3 1/2-3 5/8	5200	788	356	330	102	159	330	197	99	200	176
1181.CSS 231	900	94-102	3 3/4-4	7700	845	381	356	108	178	362	216	110	215	230
1181.CSS 233	1200	108-115	4 1/4-4 1/2	10500	965	440	400	125	190	405	235	128	250	315

Wire rope terminations:

Pressed thimble DIN 6899-



Pressed Loop



Cast socket (incl. synthetic resin casting material)

Pointed end

Rope ø in mm	Item no. pressed thimble	Item no. pressed loop	Item no. cast socket	Item no. pointed end
5	PKZ0.00.50	PSZ0.00.50	–	1130.00.50
6	PKZ0.00.60	PSZ0.00.60	–	1130.00.60
7	PKZ0.00.70	PSZ0.00.70	–	1130.00.70
8	PKZ0.00.80	PSZ0.00.80	–	1130.00.80
9	PKZ0.00.90	PSZ0.00.90	–	1130.00.90
10	PKZ0.01.00	PSZ0.01.00	VE00.01.00	1130.01.00
11	PKZ0.01.10	PSZ0.01.10	VE00.01.10	1130.01.10
12	PKZ0.01.20	PSZ0.01.20	VE00.01.20	1130.01.20
13	PKZ0.01.30	PSZ0.01.30	VE00.01.30	1130.01.30
14	PKZ0.01.40	PSZ0.01.40	VE00.01.40	1130.01.40
16	PKZ0.01.60	PSZ0.01.60	VE00.01.60	1130.01.60
18	PKZ0.01.80	PSZ0.01.80	VE00.01.80	1130.01.80
20	PKZ0.02.00	PSZ0.02.00	VE00.02.00	1130.02.00
22	PKZ0.02.20	PSZ0.02.20	VE00.02.20	1130.02.20
24	PKZ0.02.40	PSZ0.02.40	VE00.02.40	1130.02.40

Cablegrips – also called cable socks, cable pulling sleeves or "Chinese Fingers" - are used to pull and support electrical cables, pipes or hoisting ropes

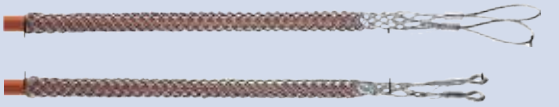
Cablegrip type K I

With single eye or pressed thimble

For quick and flexible fastening of cables, ropes or pipes free of damage to a traction or winch rope for towing in cable trenches, tubes etc. (Type K I-k ideal for use with swivel connectors)

Cablegrip type K II

With double eyes or pressed thimbles



The type K II may not only be used for towing cables and pipes. It can also be moved alongside the cable due to its open front end for readjustment.

Cablegrip type K N

With double eyes or pressed thimbles, open sided with lace-up strand

This open sided lace up type can be fitted anywhere along the cable, rope or pipe length. After the open side has been stitched together with the enclosed strand the cablegrip is ready for use.

Cablegrip type K O

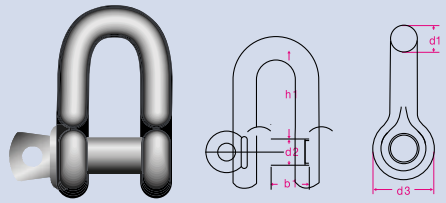
Open ended

This type is used for joining 2 cables or ropes. It is indispensable when replacing hoisting or elevator ropes. Use only if there is not too much torsion on the rope.

Standard : BS EN 13889

5630. High Strength Dee Shackle with Screw Pin

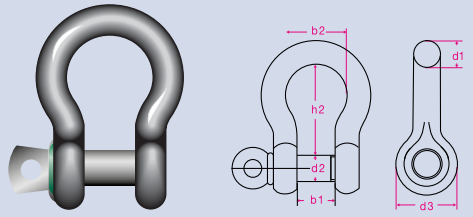
- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted
- With forged usable load and nominal size



WLL in t	Nominal size in inches	Dimensions in mm d1 Bow	d2	d3 Ball	b1	h1	Weight in kg/pce	Item no.
0.5	1/4	6	8	16	12	19	0.05	5630.00.05
0.75	5/16	8	10	19	13	25	0.08	5630.00.07
1.0	3/8	11	11	24	18	31	0.13	5630.00.10
1.5	7/16	11	14	27	18	36	0.19	5630.00.15
2.0	1/2	13	16	30	21	41	0.31	5630.00.20
3.25	5/8	17	19	38	27	51	0.55	5630.00.32
4.75	3/4	19	22	47	32	60	0.96	5630.00.47
6.5	7/8	22	25	54	36	71	1.41	5630.00.65
8.5	1	25	28	60	43	81	2.03	5630.00.85
9.5	1 1/8	29	33	66	46	90	2.97	5630.00.95
12.0	1 1/4	32	36	76	52	100	4.01	5630.01.20
13.5	1 3/8	35	39	84	57	113	5.40	5630.01.35
17.0	1 1/2	38	42	92	60	124	7.29	5630.01.70
25.0	1 3/4	44	52	109	73	146	11.25	5630.02.50
35.0	2	51	60	127	83	171	16.20	5630.03.50
55.0	2 1/2	63	72	150	106	203	33.30	5630.05.50

5650. High Strength Bow Shackle with Screw Pin

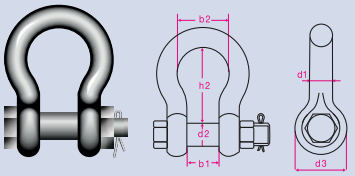
- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted
- With forged usable load and nominal size



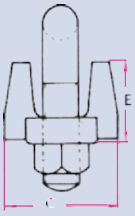
WLL in t	Nominal size in inches	Dimensions in mm d1 Bow	d2	d3 Ball	b1	b2	h2	Weight in kg/pce	Item no.
0.33	3/16	6	6	14	10	14	23	0.026	5650.00.03
0.5	1/4	6	8	17	12	17	28	0.05	5650.00.05
0.75	5/16	8	10	21	13	21	31	0.08	5650.00.07
1.0	3/8	11	11	24	18	25	35	0.14	5650.00.10
1.5	7/16	11	14	28	18	28	42	0.22	5650.00.15
2.0	1/2	13	16	30	21	30	48	0.33	5650.00.20
3.25	5/8	17	19	38	27	42	61	0.65	5650.00.32
4.75	3/4	19	22	48	32	48	71	0.97	5650.00.47
6.5	7/8	22	25	57	36	57	84	1.46	5650.00.65
8.5	1	25	28	62	43	62	95	2.39	5650.00.85
9.5	1 1/8	29	33	69	46	69	103	3.15	5650.00.95
12.0	1 1/4	32	36	78	52	78	119	4.32	5650.01.20
13.5	1 3/8	35	39	86	57	86	133	5.67	5650.01.35
17.0	1 1/2	38	42	94	60	94	146	7.79	5650.01.70
25.0	1 3/4	44	52	112	73	112	178	12.51	5650.02.50
35.0	2	51	60	135	83	135	197	18.50	5650.03.50
55.0	2 1/2	63	72	158	106	158	267	37.58	5650.05.50

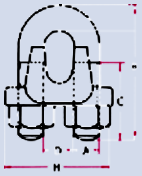
5660. High Strength Bow Shackle with Bolt, Nut and Cotter Pin

- With forged usable load and nominal size
- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted



WLL in t	Nominal size inches	Dimensions in mm d1	d2	d3	b1	b2	h2	Weight in kg/pce	Item no.
0.5	1/4	6	8	17	12	19	28	0.07	5660.00.05
0.75	5/16	8	10	21	13	21	31	0.10	5660.00.07
1.0	3/8	11	11	24	18	25	35	0.18	5660.00.10
1.5	7/16	11	14	28	18	29	42	0.25	5660.00.15
2.0	1/2	13	16	30	21	33	48	0.37	5660.00.20
3.25	5/8	17	19	38	27	42	61	0.71	5660.00.32
4.75	3/4	19	22	48	32	51	71	1.27	5660.00.47
6.5	7/8	22	25	57	36	58	84	1.78	5660.00.65
8.5	1	25	28	62	43	68	95	2.52	5660.00.85
9.5	1 1/8	29	33	69	46	74	109	3.53	5660.00.95
12.0	1 1/4	32	36	78	52	82	119	5.04	5660.01.20
13.5	1 3/8	35	39	86	57	92	133	6.84	5660.01.35
17.0	1 1/2	38	42	94	60	98	146	8.78	5660.01.70
25.0	1 3/4	44	52	112	73	127	178	14.09	5660.02.50
35.0	2	51	55	127	83	146	197	20.90	5660.03.50
55.0	2 1/2	64	70	152	105	184	267	39.90	5660.05.50
85.0	3	76	85	200	127	200	330	62.00	5660.08.50
120.0	3 1/2	92	95	203	133	232	374	109.00	5660.12.00
150.0	4	100	107	228	140	250	372	130.00	5660.15.00





5830. Galvanised Drop Forged Wire Rope Grips

Rope Size (in.)	Rope Size (mm)	Dimensions (in.) A	B	C	D	E	F	G	H	Part No.
1/4	6-7	.31	1.03	.50	.75	.66	.56	1.19	1.43	5830.00.06
5/16	8	.38	1.38	.75	.88	.73	.69	1.31	1.66	5830.00.08
3/8	9-10	.44	1.50	.75	1.00	.91	.75	1.63	1.94	5830.00.10
1 /2	12-13	.50	1.88	1.00	1.19	1.13	.88	1.91	2.28	5830.00.13
9/16	14.15	.56	2.25	1.25	1.31	1.34	.94	2.06	2.50	5830.00.14
5/8	16	.56	2.25	1.25	1.31	1.34	.94	2.06	2.50	5830.00.16
3/4	18-20	.62	2.75	1.44	1.50	1.39	1.06	2.25	2.84	5830.00.19
7/8	22	.75	3.12	1.62	1.75	1.58	1.25	2.44	3.16	5830.00.22
1	24-26	.75	3.50	1.81	1.88	1.77	1.25	2.63	3.47	5830.00.26
1-1/8	28-30	.75	3.88	2.00	2	1.91	1.25	2.81	3.59	5830.00.28
1-1/4	32-34	.88	4.44	2.22	2.34	2.17	1.44	3.13	4.13	5830.00.32
1-3/8	36	.88	4.44	2.22	2.34	2.31	1.44	3.13	4.19	5830.00.36
1-1/2	38	.88	4.94	2.38	2.59	2.44	1.44	3.41	4.44	5830.00.38
1-3/4	44-46	1.13	5.75	2.75	3.06	2.92	1.81	3.81	5.24	5830.00.44
2	48-52	1.25	6.44	3.00	3.38	3.03	2.00	4.44	5.88	5830.00.52
2-1/4	56-58	1.25	7.13	3.19	3.88	3.19	2.00	4.56	6.38	5830.00.56
2-1/2	62-65	1.25	7.69	3.44	4.13	3.69	2.00	4.69	6.63	5830.00.64
2-3/4	68-72	1.25	8.31	3.56	4.38	4.88	2.00	5.00	6.88	5830.00.72
3	75-78	1.50	9.19	3.88	4.75	4.44	2.38	5.31	7.61	5830.00.75
3-1/2	85-90	1.50	10.75	4.50	5.50	6.00	2.38	6.19	8.38	5830.00.85

Above grips meets the performance requirements of US Federal Spec FF-C-450

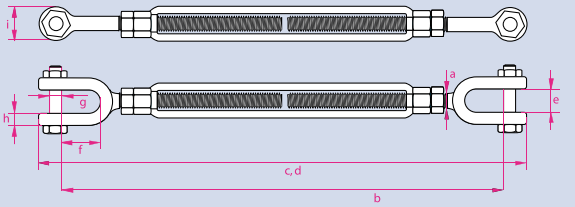
5732. Turnbuckles with extra long Adjustment Range, similar to ASTM F 1145-92, forged, Surface tempered, with 2 Eyes

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-T791b
Surface: hot-dip galvanised
Certificates: on request

WLL in t	Thread size a in inches	Adjustment range in inches	Dimensions in mm Length closed b	Length open c	Length d	Diametre e	Inner width of eye f	Inner length of eye g	Length closed h	Weight in kg/pce	Item no.
0,54	3/8	6	302	416	180	9	13	28	65	0,47	5732.38.06
1	1/2	6	338	452	190	12	18	36	80	0,84	5732.12.06
1	1/2	9	414	585	270	12	18	36	80	1,05	5732.12.09
1	1/2	12	490	719	345	12	18	36	80	1,26	5732.12.12
1,59	5/8	6	394	508	205	14	21	43	98	1,35	5732.58.06
1,59	5/8	9	470	641	280	14	21	43	98	1,60	5732.58.09
1,59	5/8	12	546	775	355	14	21	43	98	1,92	5732.58.12
2,36	3/4	6	432	546	210	17	25	53	113	2,03	5732.34.06
2,36	3/4	9	508	679	285	17	25	53	113	2,49	5732.34.09
2,36	3/4	12	584	813	365	17	25	53	113	2,65	5732.34.12
2,36	3/4	18	737	1080	520	17	25	53	113	3,06	5732.34.18
3,27	7/8	12	625	854	375	20	31	59	118	3,98	5732.78.12
3,27	7/8	18	778	1121	530	20	31	59	118	5,12	5732.78.18
4,54	1	6	524	638	230	22	36	74	155	4,35	5732.10.06
4,54	1	12	676	905	385	22	36	74	155	5,92	5732.10.12
4,54	1	18	829	1172	540	22	36	74	155	7,17	5732.10.18
4,54	1	24	980	1437	690	22	36	74	155	7,52	5732.10.24
6,91	1 1/4	12	760	989	390	29	45	88	197	9,8	5732.14.12
6,91	1 1/4	18	912	1255	540	29	45	88	197	11,31	5732.14.18
6,91	1 1/4	24	1064	1521	690	29	45	88	197	12,1	5732.11.24
9,71	1 1/2	12	823	1052	400	32	54	105	215	14,2	5732.11.12
9,71	1 1/2	18	975	1318	560	32	54	105	215	16,5	5732.11.18
9,71	1 1/2	24	1128	1585	710	32	54	105	215	17,1	5732.12.24
12,71	1 3/4	18	1060	1403	575	38	60	119	254	23,1	5732.13.18
12,71	1 3/4	24	1213	1670	725	38	60	119	254	26,3	5732.13.24
16,78	2	24	1315	1772	750	45	69	146	308	40,7	5732.20.24
27,22	2 1/2	24	1486	1943	800	51	79	165	344	64	5732.21.24
34,02	2 3/4	24	1562	2019	800	57	83	178	381	88	5732.23.24

On request, some sizes are also available as item no. 5731. turnbuckle with extra long adjustment range, acc. to US Federal specification FF-T791b, forged, surface termpered, with hook and eye.

5734. 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-T791b
Surface: hot-dip galvanised
Certificates: on request

WLL in t	Thread size a in inches	Adjustment range in inches	Dimensions in mm: Length closed b	Length closed c	Length open d	Inner width fork e	Inner length fork f	Bolt diametre g	Material thickness eye h	Diametre eye i	Weight in kg/pce	Item no.
0,54	3/8	6	274	302	416	13	22	8	8	21	0,57	5734.38.06
1	1/2	6	306	338	452	16	26	9,5	10	25	0,96	5734.12.06
1	1/2	9	380	414	585	16	26	9,5	10	25	1,18	5734.12.09
1	1/2	12	456	490	719	16	26	9,5	10	25	1,50	5734.12.12
1,59	5/8	6	346	394	508	18	33	13	13	33	1,84	5734.58.06
1,59	5/8	9	421	470	641	18	33	13	13	33	2,12	5734.58.09
1,59	5/8	12	497	546	775	18	33	13	13	33	2,56	5734.58.12
2,36	3/4	6	369	432	546	23	38	15,5	16	41	2,68	5734.34.06
2,36	3/4	9	443	508	679	23	38	15,5	16	41	3,03	5734.34.09
2,36	3/4	12	519	584	813	23	38	15,5	16	41	3,29	5734.34.12
2,36	3/4	18	671	737	1080	23	38	15,5	16	41	3,65	5734.34.18
3,27	7/8	12	551	618	854	27	44	19	18	48	4,90	5734.78.12
3,27	7/8	18	705	772	1121	27	44	19	18	48	5,95	5734.78.18
4,54	1	6	448	524	638	30	52	22	20	54	5,21	5734.10.06
4,54	1	12	598	676	905	30	52	22	20	54	6,96	5734.10.12
4,54	1	18	751	829	1172	30	52	22	20	54	8,95	5734.10.18
4,54	1	24	902	980	1437	30	52	22	20	54	7,85	5734.10.24
6,91	1 1/4	12	657	753	989	44	73	29	25	67	11,9	5734.14.12
6,91	1 1/4	18	809	905	1255	44	73	29	25	67	14	5734.14.18
6,91	1 1/4	24	962	1058	1521	44	73	29	25	67	13	5734.11.24
9,71	1 1/2	12	689	804	1052	52	70	35	27	80	16,9	5734.11.12
9,71	1 1/2	18	841	956	1318	52	70	35	27	80	18,7	5734.11.18
9,71	1 1/2	24	994	1109	1585	52	70	35	27	80	18,4	5734.12.24
12,71	1 3/4	18	918	1049	1403	59	85	41	33	90	25	5734.13.18
12,71	1 3/4	24	1070	1201	1670	59	85	41	33	90	28,7	5734.13.24
16,78	2	24	1136	1295	1772	64	93	51	39	108	45,4	5734.20.24
27,22	2 1/2	24	1276	1476	1943	75	114	57	38	143	73	5734.21.24
34,02	2 3/4	24	1334	1560	2019	89	110	70	42	156	98	5734.23.24

On request, some sizes are also available as item no. 5731. turnbuckle with extra long adjustment range, acc. to US Federal specification FF-T791b, forged, surface termpered, with fork and eye.

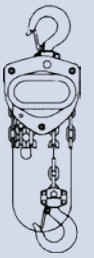
Chain Block
&
Lever Hoist

OPERATION : CHAIN BLOCK & LEVER HOIST

Lifting devices and cranes must only be operated by who have been suitably trained. They must be instructed to operate the device by the contractor. The contractor must ensure that the operating manual is provided with the device and accessible to the operating personnel.

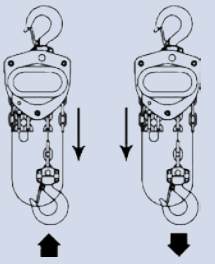
Structure : Chain Block

Spur wheel chain blocks are manual chain hoists with suspension hooks for stationary use. They can also be used with single-rail trolleys. They are operated manually using the hand chain. good condition.



Lifting and lowering by pulling the endless hand chain.

Lift – pull the right leg – hand chain wheel turns clockwise. Lower – pull the left leg – hand chain wheel turns anti-clockwise



Structure : Lever Hoist

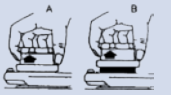
CARL STAHL lever hoists are compact devices

with a suspension hook for stationary use.

Pull up the free-run wheel in the direction of the arrow ▲

The chain can be pulled through

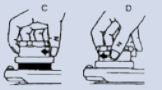
A) Free-run is OFF in both directions
B) Switch ON free-run



Use one hand to turn the free-run wheel in the direction of the arrow while simultaneously pulling on the load chain leg.

The free-run wheel jumps back to the OFF position. Chain free-run is switched off.

C) Switch OFF free-run
D) Free-run is OFF



Safety inspection

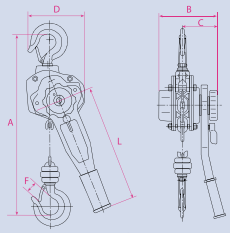
The following must be checked before the initial use and prior to subsequent use:

- Any mounting screws are tight and pins, Linchpins and safety fittings are present and secured.
- The chains are correctly positioned, oiled and in a good condition.

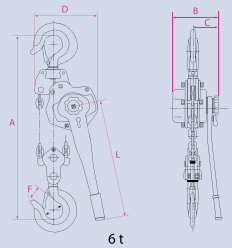
Standard : BS EN 13157

7311. Lever Hoist 1.5m standard lifting height Type RZ

- Excellent value for money
- Anti-corrosion treated chain
- Swivel hooks chain release
- Multi-purpose hoist, designed for work in any conditions



0,75 bis 3 t



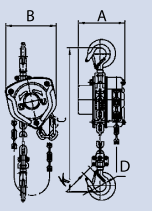
6 t

Lever hoist with 1.5m standard length of lift

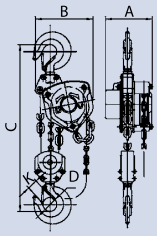
Load Capacity kg	Model	No of chains	Approx lever force N	Dimensions in mm A	B	C	D	H min.	F	L	Weight at 1.5m lift kg	Item No.
750	RZ 75	1	210	320	156	94	132	38	26	280	6.7	7311.50.07
1500	RZ 150	1	240	360	176	103	162	42	32	410	10.5	7311.50.15
2000	RZ 200	1	300	365	176	103	162	45	34	410	10.8	7311.50.20
3000	RZ 300	1	320	470	202	112	185	50	34	410	18.0	7311.50.30
6000	RZ 600	2	340	565	202	112	230	65	44	410	38.0	7311.50.60
9000	RZ 900	3	360	740	220	120	272	80	50	410	55.0	7311.50.90

7311. Spur Wheel Chain Block Type FZ

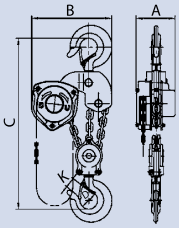
With round steel chain. Standard height of lift 3m.



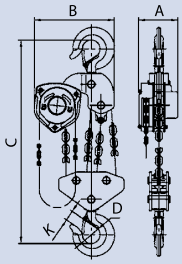
0.5T, 1T, 1.5T, 2T



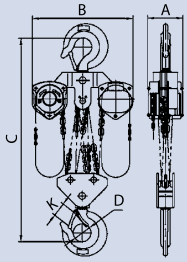
3T, 5T



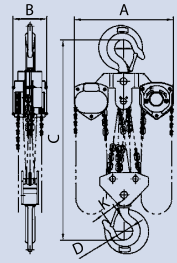
7.5T



10T



20T



30T

Spur Wheel Chain Block with 3m Standard Lifting Height

Capacity kg	Model	No of chain falls	Dimensions in mm A	B	C	D	K	Unit weight kg	Item No.
500	FZ 05	1	137.5	137	270	35	28	8.4	7311.40.05
1000	FZ 10	1	146.5	162	317	35.5	26	10.5	7311.40.10
1500	FZ 15	1	170	183	399	45	32.5	15.5	7311.40.15
2000	FZ 20	1	170	194	414	42.5	32	18.5	7311.40.20
3000	FZ 30	2	170	220	465	50	37	21.2	7311.40.30
5000	FZ 50	2	190.4	288	618	64	46	41.8	7311.40.50
7500	FZ 75	3	190	377	768	64	46	61.6	7311.40.75
10000	FZ 100	4	190	384	798	85	50	81.7	7311.41.00
20000	FZ 200	8	209	625	890	110	81	173	7311.42.00
30000	FZ 300	12	312	691	1380	110	81	238.5	7311.43.00

Also Available with Chain Bag

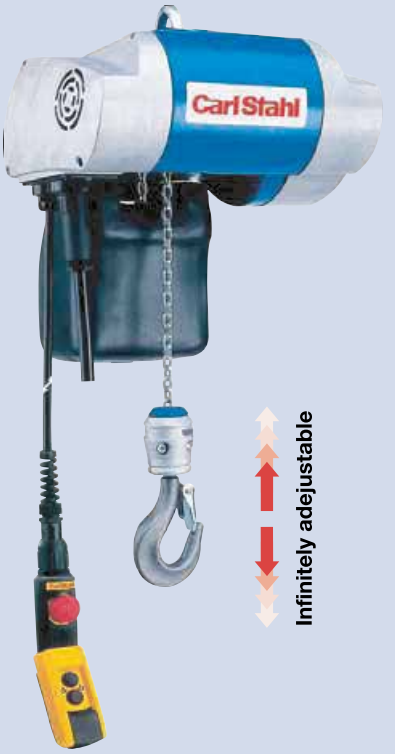
9020. Electric Chain Hoist CS-Compact

This electric chain hoist is used everywhere where loads up to 200 kg need to be lifted.

Your advantages:
- Low self weight
- Flexible in use
- Operates on conventional 230 V wall socket
- Infinitely variable lifting speed

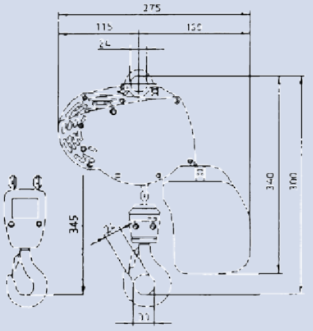
Operates on 230 V wall socket!

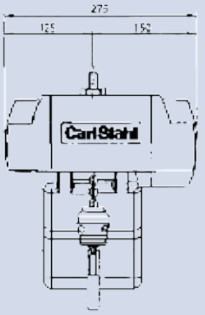
Scope of deliver of complete set:
Hoist, 2-leg chain sling, roundsling and handy aluminium case



9020. Suitable Push Trolley for CS-Compact

Load capacity in kg	Flange width in mm	Item no.
300	42-120	9020.HF.01
300	121-180	9020.HF.02



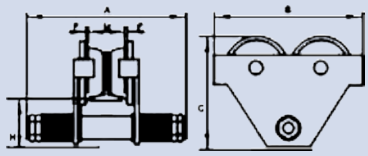


									Chain hoist			Complete set
Load capacity in kg	Lifting height in m	Chain falls	Lifting speed	Duty ratio	Operating cycles	Protection	Power supply	Power output in W	Total weight (3 m lifting height)	Minimum overall height in mm	Item no.	Item no.
100	3	1	0,7 - 12 m/min	50 %	300 c/h	IP21	230 V +5/-15%	430	10 kg	300	9020.30.01H03	902S.ET.01H03
100	6	1	0,7 - 12 m/min	50 %	300 c/h	IP21	230 V +5/-15%	430	10 kg	300	9020.30.01H06	902S.ET.01H06
100	10	1	0,7 - 12 m/min	50 %	300 c/h	IP21	230 V +5/-15%	430	10 kg	300	9020.30.01H10	902S.ET.01H10
100	20	1	0,7 - 12 m/min	50 %	300 c/h	IP21	230 V +5/-15%	430	10 kg	300	9020.30.01H20	902S.ET.01H20
200	3	2	0,3 - 6 m/min.	50 %	300 c/h	IP21	230 V +5/-15%	430	12 kg	345	9020.30.02H03	902S.ET.02H03
200	6	2	0,3 - 6 m/min.	50 %	300 c/h	IP21	230 V +5/-15%	430	12 kg	345	9020.30.02H06	902S.ET.02H06
200	10	2	0,3 - 6 m/min.	50 %	300 c/h	IP21	230 V +5/-15%	430	12 kg	345	9020.30.02H10	902S.ET.02H10

Standard : BS EN 13157

7213. Push/pull beam trolley type HTP

Low height due to compact design and construction. Can be set for a wide range of beam styles including different profiles (INP, IPE and IPB). Central load suspension, no side movement. Rollers of cast iron. Smooth running due to ball race bearings, tilting protection is standard. Continuously adjustable.

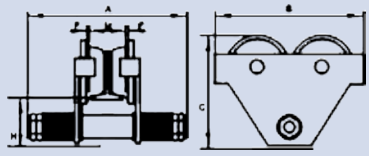


PLAIN TROLLEY SERIES SPECIFICATION

CAPACITY	I- BEAM WIDTH	N.W/KGS	A mm	B mm	C mm	H mm	F mm	M mm	ITEM NO.
0.5t	50-220	7	308.5	210	197	80	75	44	7213.05
1t	58-220	12	335	258	230	145	85	56	7213.1
2t	60-220	22	350	305	275	175	90	69	7213.2
3t	74-220	30	363	352	338	186	132	74	7213.3
5t	90-220	55	379	382	385	255	120	88	7213.5

7214. Geared beam trolley type HTG

Chain drive. Low height due to compact design and construction. Can be set for a wide range of beam sizes including different profiles (INP, IPE and IPB). Central load suspension, no side movement on the traverse. Rollers of cast iron. Smooth running due to ball bearings, tilting protection is standard. Smoothly adjustable chain traverse drive with chain for 3m track height.

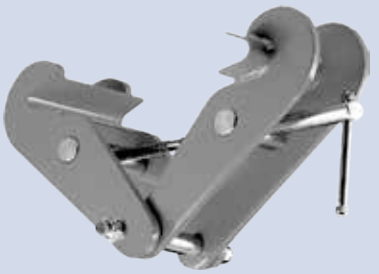


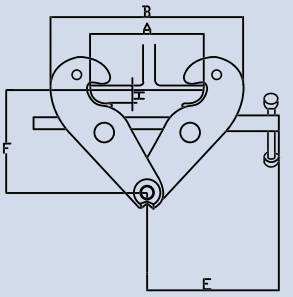
GEARED TROLLEY SERIES SPECIFICATIONS

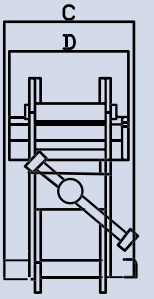
CAPACITY	I- BEAM WIDTH	N.W/KGS	A mm	B mm	C mm	H mm	F mm	M mm	ITEM NO.
0.5t	50-220	14	230	212	198.5	113	98	44	7214.05
1t	58-220	19	254	255	231.5	128	115	58	7214.1
2t	60-220	29	410	304	278	152	120	54	7214.2
3t	74-220	40	450	344	338	186	132	74	7214.3
5t	90-220	65	460	382	393	235	153	86	7214.5
10t	125-220	103	490	455	490	275.5	220	132	7214.100
20t	125-305	265	550	635	625	375	196	124	7213.200
30t	125-305	300	517	642	557	320	212	156	7213.300

Standard : BS EN 13157

7216. Beam Clamp (Heavy duty)







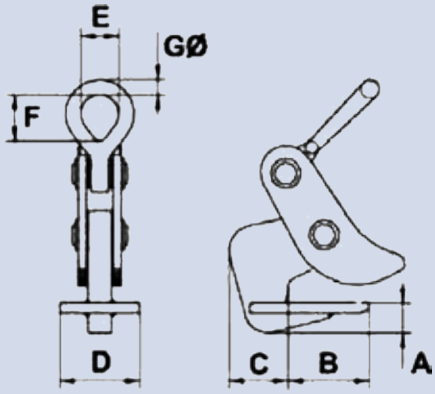
SAFE WORKING LOAD KG	ADJUSTABLE BEAM WIDTH MM	A MAX MM	B		C MM	D MM	E MM	F		G MM	H MM
			MIN MM	MAX MM				MIN MM	MAX MM		
1000	75-220	260	180	360	64	5	215	102	155	25	22
2000	75-220	260	180	360	74	6	215	102	155	25	22
3000	80-320	354	235	490	103	8	260	140	225	45	24
5000	80-320	354	235	490	110	10	260	140	225	45	28
10000	90-320	365	320	505	120	12	280	170	235	50	40

7312. Rope pulling machine "Red Pull"

- Manual rope pulling machine with lever tupe
- Overload protection by shear pins
- Neutral gear position for pulling out the unloaded rope
- Impact resistant aluminium housing
- Complies with UVV BGV D8 (German Accident Prevention Regulations)
- Special wire rop with safety hook included
- Available immdiately from stock

Nominal capacity in daN	Rope ø in mm	Rope length in m	Weight without rope in kg	Item no.
800	8	20	6	7312.00.08
1600	11,2	20	11	6312.00.16
3200	16	20	22	7312.00.32
5400	20	20	26	7312.00.54

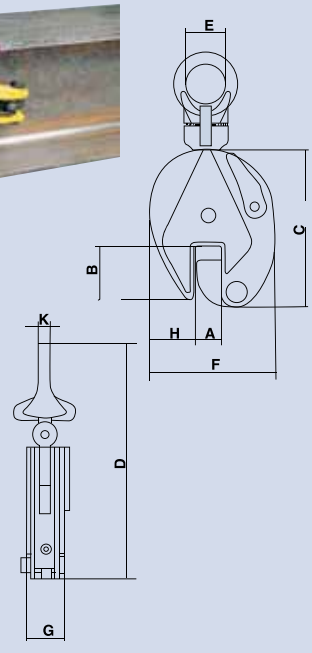
Standard : BS EN 13155



TCH. Horizontal clamp

Model	Capacity'	Jaw capacity	A	B	C	D	E	F	G	H
	[kg]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
TCH1	1000	0 - 50	15	82	60	100	32	44	13	8
TCH2	2000	5 - 32	30	82	60	100	50	73	18	11
TCH2L	2000	20 - 50	30	82	60	100	50	73	18	12
TCH3	3000	5 - 50	40	112	80	100	64	92	25	17
TCH3L	3000	50 - 100	40	112	80	100	64	92	25	23
TCH6	6000	5 - 75	55	172	100	130	90	130	35	46
TCH6L	6000	50 - 125	55	172	100	130	90	130	35	56
TCH8	8000	5 - 75	55	172	105	130	90	130	35	53
TCH8L	8000	50 - 125	55	172	105	130	90	130	35	60
TCH10	10000	5 - 100	65	215	120	150	114	114	35	95
TCH10L	10000	50 - 150	65	215	120	150	114	114	35	108
TCH15	15000	5 - 100	71	230	120	150	114	114	35	110
TCH15L	15000	50 - 150	71	230	120	150	114	114	35	123
TCH20	20000	5 - 100	70	220	118	220	80	80	38	165
TCH20L	20000	50 - 150	70	220	118	220	80	80	38	172

7125. Universal Clamp, Type SVC

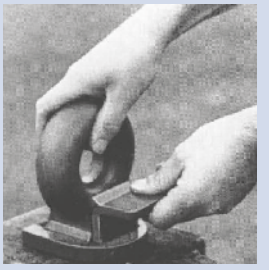


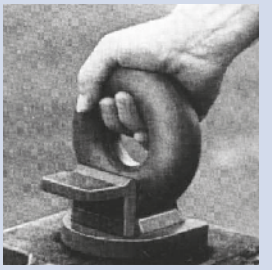
Model		PCD05	PCD10	PCD20	PCD30	PCD50	PCD100
Rated capacity	t	0.5	1.0	2.0	3.0	5.0	10
Test load	KN	7.35	14.7	29.4	44.1	73.5	146.5
Jaw Opening	mm	0-15	0-20	0-25	0-30	0-50	50-90
Dimensions mm	A	25	33	35	45	55	155
	B	37	63	76	83	90	145
	C	125	170	205	237	262	380
	D	205	295	370	418	480	705
	E	30	48	68	76	76	80
	F	98	145	175	215	232	390
	G	40	54	56	78	90	113
	H	29	42	54	57	59	100
	K	10	12	18	20	20	25
Net weight	kg	1.9	4.5	7.5	14.8	23	50
Item No.		7125.16.05	7125.19.10	7125.28.20	7125.32.30	7125.50.50	7125.90.10

Container Lifting Lugs (Sets of 4)

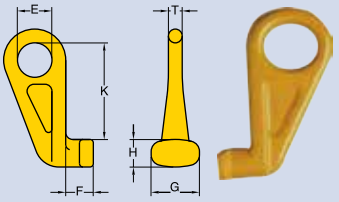
WLL TONNES SET OF 4	CHAIN ANGLE	TYPE	WEIGHT kg
56	VERTICAL	TOP LIFTING	28
40	DEG 36	SIDE LIFTING	18
32	DEG 50	SIDE LIFTING	18

Top Lifting

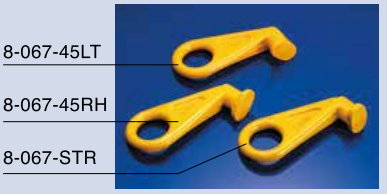




Eye Container Hook. Code"KA"



Item No.	Dsc.	Working Load Limit	Dimensions (mm)						N.W.
		tonnes*	E	F	G	H	K	T	kg
8-067-STR	Straight	12.5	70	45	75	48	192	25	3.9
8-067-45LT	Left 45°	12.5	70	45	75	48	192	25	3.9
8-067-45RH	Right 45°	12.5	70	45	75	48	192	25	3.9

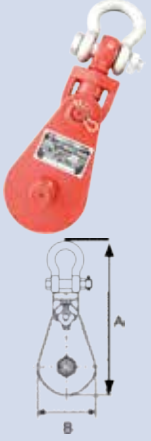


★ Design factor 4:1 proof tested and certified.

Available as a set of 4 with a total WLL of 56 tonnes. Two types are available for either top lifting or bottom side lifting.
Top lift - Self locking lugs for top lifting of containers. Suitable for splicing direct to 4 vertical slings.
The lug engages in the top corner aperture and when rotated through 90° a lock ring drops and firmly secures the lug.
These lugs are used for lifting with a spreader frame and do not project over the container.
Side lifting - these lugs are designed to eliminate the dangerous use of standard hooks and are haned left and right.
Maximum load is 40t at a sling angle of 36° or 32t at a sling angle of 50°.
These lugs cannot drop out when the slings become slack as they are secured by a spring loaded pin.

7541. Snatch Block

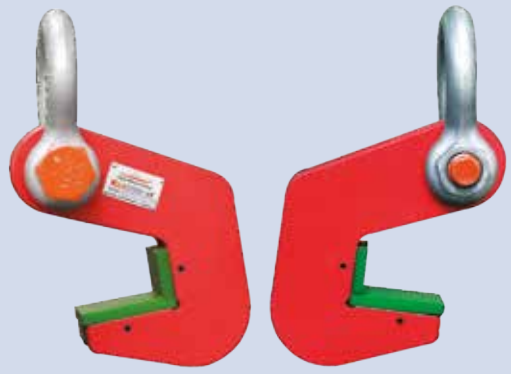
- Forged swivel hook
- Foldable for easy insertion of the wire rope
- High load capacity at low dead weight
- Bronze bushing

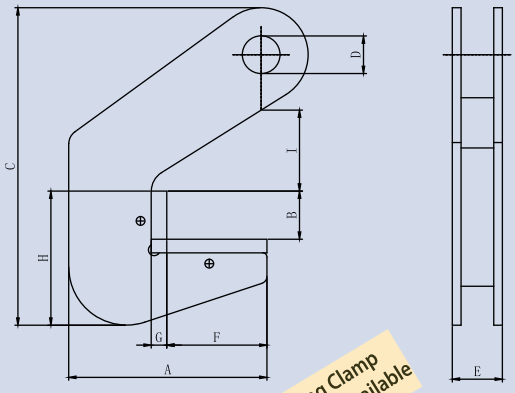


LOAD CAPACITY IN TON	FOR WIRE ROPE IN INCH	SHEAVE DIA IN INCH	SHEAVE-(B) IN MM	OVERALL LEGNTH (A) IN MM	WEIGHT IN KG	ITEM CODE
2	3/8	3	76	242	2	7541CSSBS3-2
4	1/2	41/2	108	356	6	7541CSSBS4.5-4
8	16-19 MM	8	203	510	16	7541CSSBS8-8
8	3/4	6	151	460	13	7541CSSBS6-8
12	7/8	6	156	555	21	7541CSSBS6-12
12	7/8	6	156	530	18	7541CSSBS6-12
15	7/8	12	313	770	44	7541CSSBS10-15
15	7/8	10	260	710	36	7541CSSBS10-15
15	19-22 MM	8	203	635	28	7541CSSBS8-15
20	11/8	10	255	785	55	7541CSSBS10-20

Meet the requirement of ASME B30.26

TECHNICAL INFORMATION





Pipe Lifting Clamp with Pads also available

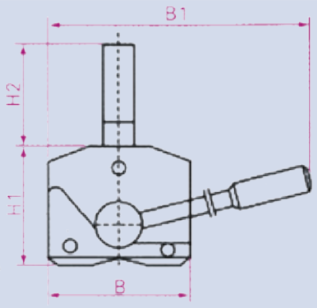
60° - 90° CHAIN TOP ANGLE / 30° - 45° FROM VERTICAL

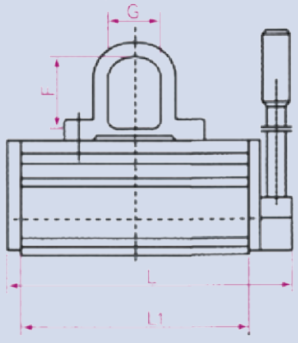
Code	Model	Load Capacity (per pair kgs)	Dimensions									Weight (per pair) kgs
			A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	
61301	TPHt.5T	1500	127	40	220	27	35	70	10	91	60	1.5
61302	TPH3T	3000	142	40	228	27	35	70	10	93	58	2
61303	TPH4T	4000	144	50	228	30	40	70	10	100	48	2.8
61304	TPH6T	6000	152	50	232	30	40	70	10	98	48	3.2
61305	TPH8T	8000	155	70	260	30	42	70	10	126	48	3.6
61306	TPH12T	12000	175	70	322	33	46	70	10	155	55	9
61307	TPH16T	16000	175	70	322	40	56	70	10	155	55	11
61308	TPH18T	18000	145	70	300	52	68	70	10	155	55	13

**NB. Coated hooks have a 6mm reduction in wall thickness handling capacities*

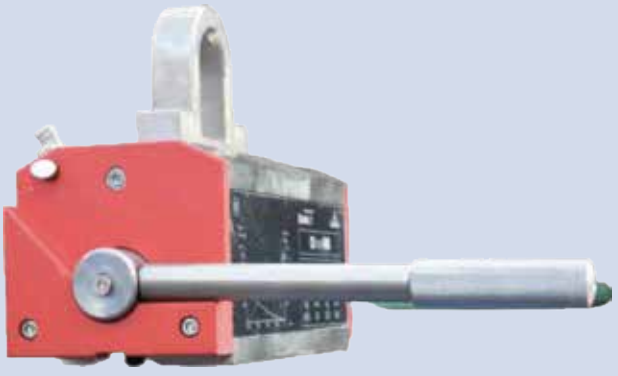
7631. CondorLift Permanent Lifting Magnet Model CSmag

- 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
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity.
- Each magnet comes with a test certificate and operating instructions





Caution!
Ensure clean magnet and even work-piece surfaces!!!



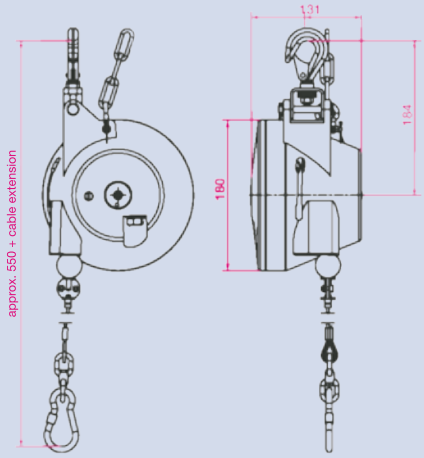
Type	Flat material		Round material		Dimensions in mm								Weight in kg/pce	Item no.
	Load capacity in kg at material thickness in mm		Load capacity in kg at material ø in mm		L	L1	B	H1	H2	B1	F	G		
	Load capacity	Material thickness	Load capacity	Material-Ø										
CSmag 100	100	20	50	300	135	110	60	65	46	150	32	32	3,5	7631.00.01
CSmag 300	300	20	150	300	203	165	87	89	68	223	45	38	10	7631.00.03
CSmag 600	600	30	300	400	266	226	112	109	86	287	58	45	21	7631.00.06
CSmag 1000	1000	40	500	450	330	290	148	125	95	364	60	52	40	7631.00.10
CSmag 1500	1500	45	750	500	385	330	178	145	118	447	70	65	65	7631.00.15
CSmag 2000	2000	55	1000	600	470	420	178	145	118	487	70	65	83	7631.00.20

Retractors and Balancers

CondorLift 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 Binders

5R25.
Ratchet Type Load Binders

5L25.
Lever Type Load Binders

Technical Data 5R25

Chain Dia (mm)	Lashing Capacity (kgs)	Minimum Breaking Load (kgs)	Weight (kgs)
5/16" - 3/8"	2450	8575	4.82
3/8" - 1/2"	4200	14700	5.92
1/2" - 5/8"	5900	20650	7.85

Technical Data 5L25

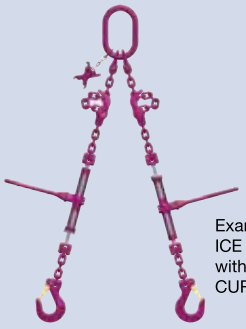
Chain Dia (inches)	W.L.L (lbs)	Proof Load (lbs)	M.B.S (lbs)	Weight (kgs)
5/16" - 3/8"	5400	10800	19000	2.81
3/8" - 1/2"	9200	18400	33000	5.08

6571. ICE Ratchet Tensioner CURT for Lifting and Length Adjustment

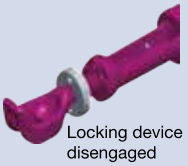
- Easy to use (also with gloves)
- Innovative design - lightweight and strong
- Patented and practical unscrewing protection
- Magnetic adherent locking device that can also serve as theft protection (by padlock)
- Easy cleaning and lubricating
- Exceeds the requirements of European Standard EN 12195-3

With clevis connector, open thread

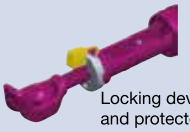
With shortening connector, open thread



Example of an ICE chain sling with tensioner CURT GAKO



Locking device disengaged



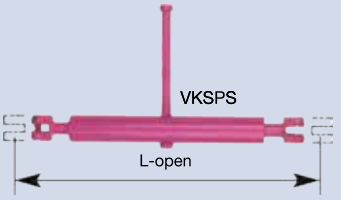
Locking device engaged and protected against theft

- With clevis connector for exact length adjustment of chain slings
- Right- and left-handed thread together ratchet allow precise length adjustment
- Under load only lowering (lengthening) is possible
- Adjustment is only allowed in unloaded or lightly loaded condition

Nominal chain size in mm	Lifting WLL in t	Lashing capacity in daN	Designation	Dimensions in mm L-open	L-closed	Adjustment range	Weight in kg/pce	Item no.
6	1,8	3600	ICE-CURT 6-SL		under preparation		-	6571.S7.06
6	1,8	3600	ICE-CURT-6-GAKO		under preparation		-	6571.S5.06
8	3,0	6000	ICE-CURT 8-SL	623	453	170	4,5	6571.S7.08
8	3,0	6000	ICE-CURT-8-GAKO	520	350	170	3,9	6571.S5.08
10	5,0	10000	ICE-CURT 10-SL	671	501	170	5,2	6571.S7.10
10	5,0	10000	ICE-CURT-10-GAKO	532	362	170	4,3	6571.S5.10
13	8,0	16000	ICE-CURT-13-GAKO	830	530	300	7,6	6571.S5.13
16	12,5	25000	ICE-CURT-16-GAKO		under preparation		-	6571.S5.16

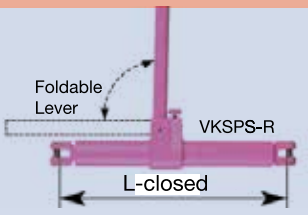
6571. VIP Compact Tensioner with axial Lever VKSPS

- In case this spindle tensioner is used with chain slings (for lifting) please refer to Load capacity WLL in tons, for cargo lashing please refer to admissible lashing capacity LC in daN.



6571. VIP Compact Tensioner with foldable Ratchet Lever VKSPS-R

- In case this spindle tensioner is used with chain slings (for lifting) please refer to Load capacity WLL in tons, for cargo lashing please refer to admissible lashing capacity LC in daN.



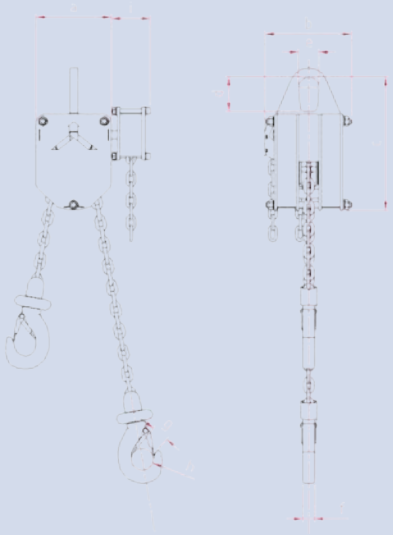
Nominal chain size in mm	Lifting WLL in t	Lashing capacity LC in daN	Designation	L open in mm	L closed in mm	Adjustment range in mm	Standard tensioning force STF in daN (kp)	Weight in kg/pce	Item no.
6	1,5	3000	VKSPS-6	323	204	120	1500	0,9	6571.V3.06
8	2,5	5000	VKSPS-8	518	308	210	2500	2,8	6571.V3.08
10	4,0	8000	VKSPS-10	533	324	210	2800	3,1	6571.V3.10
13	6,7	13400	VKSPS-13	787	487	300	3600	7,6	6571.V3.13
16	10,0	20000	VKSPS-16	807	507	300	3600	8,8	6571.V3.16
6	1,5	3000	VKSPS-R-6	323	204	120	1500	0,95	6571.V4.06
8	2,5	5000	VKSPS-R-8	518	308	210	2500	3,2	6571.V4.08
10	4,0	8000	VKSPS-R-10	533	324	210	2800	3,6	6571.V4.10
13	6,7	13400	VKSPS-R-13	787	487	300	3600	8,0	6571.V4.13
16	10,0	20000	VKSPS-R-16	807	507	300	3600	9,3	6571.V4.16

CondorTilt Load tilting device

NEW!

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

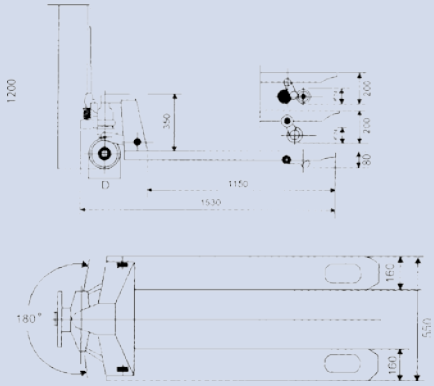
Maximum permissible spread angle:
up to 90°: 100% of the max. load capacity
90°-120°: 70% of the max. load capacity



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	7316.00.50

Note: 500 kg electric and 3,150 kg manual versions available

7785. Hand Pallet Trucks



Load capacity in kg	Fork width in mm	Fork length in mm	Lifting height in mm	Steering wheels	Weight in kg	Item no.
3000	550	1150	200	Polyurethane	65	7785.60.30T
5000	550	1150	200	Polyurethane	80	7785.60.50T

CONDOR GRIP BARREL CLAMP

Standard : BS EN 13155

For standing barrels with rigid bead.

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	NG-Z66005
800	80 x 60	8	560	NG-Z66008

CondorGrip Barrel Clamping Ring

For transport of standing barrels and drums with cover beading. Safe locking by simple lever turn. Safety lock and adjustment of grab width by set-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	7140.56.08

CondorGrip Barrel Tong

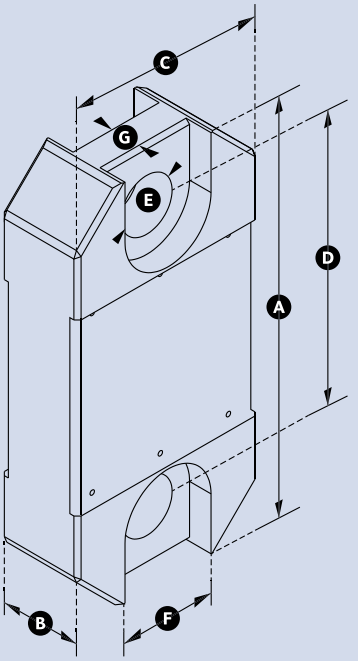
For standing barrels. This is a simple and robust tong that grabs directly under the upper bead. Equipped with open locking lever.

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	NG-Z59002056
250	560-640	800	430-530	60	12	NG-Z59002064
500	470-560	700	400-500	80	12	NG-Z59005056
500	560-640	800	430-530	80	15	NG-Z59005064

Load Monitoring System; Supply, Repair And Calibration

Radiolink plus

Wall or Cab Mount Bracket
available for handheld
Part No.
SU3282



Features and benefits:

- Proprietary 2.4 GHz wireless
- Industry leading wireless range
- Error free data transmission
- Unrivalled resolution
- Environmentally sealed
- Audible overload alarm
- Unmatched battery life
- Internal antennae
- Compact size
- Remote on-off
- Lightweight
- Peak hold
- Advanced options available
- Tare
- Design validated by F.E.A.

Also available with hazardous area approval

ATEX / IECEx
Ex ia II C T4 Ga

Certification numbers:
RLP ATEX
IECEx SIR 15.0071X / Sira 15ATEX2195X
SW-HHP ATEX
IECEx SIR 15.0072X / Sira 15ATEX2196X

Add 'ATEX' to the part number when ordering ATEX/IECEx products. For example: RLP5T-ATEX

Part Number	RLP1T	RLP2T5	RLP5T	RLP12T	RLP25T	RLP35T	RLP50T	RLP75T	RLP100T	RLP150T	RLP200T	RLP250T	RLP300T
Capacity	1,000kg	2.5te	5te	12te	25te	35te	50te	75te	100te	150te	200te	250te	300te
Resolution	0.5kg	0.001te	0.001te	0.002te	0.005te	0.005te	0.01te	0.01te	0.05te	0.05te	0.1te	0.1te	0.1te
Units	kg	te	te	te	te	te	te	te	te	te	te	te	te
Weight	1.4kg	1.4kg	2kg	3.2kg	5kg	8.6kg	11.5kg	16kg	34kg	46kg	72kg	72kg	118kg
Safety Factor	12:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	4:1	5:1	4:1	5:1
Battery Type	Handheld 2 x AA/Load cell 4 x AA												
Battery Life	Handheld 60 hours/Load cell 1200 hours continuous												
Display Type	6 digit 25mm LCD												
Operating Temp	-10°C to +50°C												
Accuracy	± 0.3 % of applied load												
Frequency	2.4 GHz												
System Range	700 metres												
Data Rate	3 Hz - up to 200 Hz can be ordered for dynamic load monitoring applications												
Protection	IP67												
Dimension A	204	204	249	305	340	393	424	470	608	670	700	700	806
Dimension B	43	43	43	47	60	75	75	75	99	99	144	144	150
Dimension C	101	101	101	101	115	126	163	202	255	303	320	320	426
Dimension D	146	146	165	193	215	225	230	260	320	360	350	350	350
Dimension E	24.5	24.5	38	47.5	55	60	76	76	109	109	132	132	160
Dimension F	48	48	66	Not available on this capacity									
Dimension G	19	19	32										
Crosby Shackle	G2130						G2140						
Loading Pin Ø	19	19	25	35	51	57	57	70	83	95	121	127	152

Loadlink plus

Known worldwide as the original electronic force measurement device to feature an integral display, the Loadlink plus has been in production since 1979. Over the years the line has been expanded and the Loadlink plus is now used on a daily basis for load monitoring and heavy lifts ranging in capacity from 1t to 300t, by a variety of industrial and commercial industries including manufacturing, transportation, agriculture, oil and gas, utilities, aerospace and clean energy.

This latest version of the well-known product has advanced features and benefits providing solutions for today's complicated load test and force monitoring needs. The Loadlink plus features full function push button controls for tare, choice of units (lbs, kg, kN, and tonnes), peak hold, preset tare, audible set-point alarm and an overload counter.

The advanced microprocessor based electronics provide the Loadlink plus with high speed read rates (500/sec), extreme resistance to industrial level noise and unprecedented stability. This high stability gives the Loadlink plus over 5,000 divisions and the highest standard resolution of any digital dynamometer on the market today. Constructed of high-grade aircraft quality aluminium, Straightpoint's advanced internal design structure allows the product to once again top the charts with an unmatched weight to strength ratio. Straightpoint's link style dynamometers are on average 30% lighter than our closest competitor with the same safety rating.

Features and benefits:

- Large 25mm/1" LCD display
- High accuracy
- Selectable units te, lbs, kN & kg
- High resolution
- 100Hz Peak hold
- Push button tare
- Light weight
- Preset tare
- Overload counter
- 90db Audible set point alarm
- RS-485 serial output
- Design validated by F.E.A.

Optional connection to Straightpoint's Handheld plus (SU3343) or Straightpoint's Desktop controller data logging software package (DCP10M).

" To ensure the safety and accuracy of your load measuring devices, Carl Stahl provides accurate and authorized repair & calibration services with quick turnaround time.

Carl Stahl is an ISO 17025 accredited laboratory by EIAC and Straightpoint authorized Repair/Calibration service agent in the MENA region"

making the lifting industry a safer place

Rud

Lifting & Lashing Point
Bolted & Welded

Maximum transport weight G in t with different lifting methods

4 design factor in all directions

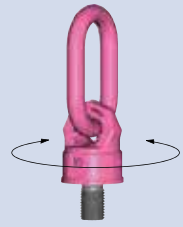
Thread sizes M 6-M 150
Imperial threads (UNC etc.) and special lengths on request.

DGUV Test

VLBG Lifting ring (Vario)

VWBG-V Lifting ring (Vario)

VWBG Lifting ring



Number of legs	Inclination angle	VLBG 0.3 t	VLBG 0.63 t	VLBG 1 t	VLBG 1.2 t	VLBG 1.5 t	VLBG 2.0 t	VLBG 2.5 t	VLBG 4 t	VLBG 4 t	VLBG 5 t	VLBG 7 t Special	VLBG 8 t	VLBG 10 t	VLBG 15 t	VLBG 20 t	LBG(3) M16 RS 1t	LBG(3) M20 RS 2t	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 t	VWBG-V 2 t	VWBG-V 3.5 t	VWBG-V 3.5 t	VWBG-V 5 t	VWBG 6(7.5)	VWBG 8(10)	VWBG 12(13)	VWBG 12(15) - M 45	VWBG 13(16) - M 48	VWBG 14(20) - M 52	VWBG 16(22) - M 56	VWBG 16(25) - M64	VWBG 31.5(40) - M 72	VWBG 35(48) - M 80	VWBG 35(48) - Spec.	VWBG 40(50) - M 90	VWBG 40(50) - Spec.
		M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	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 80	M 90	M 90
1	0°	0.3	0.6	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	1	2	0.6	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	50	50
2	0°	0.6	1.2	2	3	3	5	5	8	8	10	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	100	100
1	90°	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.45 (0.6)	0.6 (0.7)	1.0 (1.25)	1.3 (1.5)	1.8 (2.0)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	8 (10)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	35 (48)	35 (48)	40 (50)	40 (50)
2	90°	0.6	1.2	2	3	3	5	5	8	8	10	14	16	20	30	40	2	4	0.6 (0.8)	0.9 (1.2)	1.2 (1.5)	2.0 (2.5)	2.6 (3)	3.6 (4.0)	4 (5)	4 (5)	7 (8)	7 (8)	10 (12)	12 (15)	16 (20)	24 (26)	24 (30)	26 (32)	28 (40)	32 (44)	32 (50)	63 (80)	70 (96)	70 (96)	80 (100)	80 (100)
2	0-45°	0.4	0.8	1.4	2.1	2.1	3.5	3.5	5.6	5.6	7	9.8	11.2	14	21	28	1.4	2.8	0.4 (0.56)	0.6 (0.84)	0.8 (1.05)	1.4 (1.75)	1.8 (2.1)	2.5 (2.8)	2.8 (3.5)	2.8 (3.5)	4.9 (5.6)	4.9 (5.6)	7 (8.4)	8.4 (10.5)	11.2 (14)	16.8 (18.2)	16.8 (21)	18.2 (22.4)	19.6 (28)	22.4 (30.8)	22.4 (35)	44.1 (56)	49 (67.2)	49 (76.2)	56 (70)	56 (70)
2	45-60°	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.4 (0.6)	0.6 (0.75)	1.0 (1.25)	1.3 (1.5)	1.8 (2)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	6 (7.5)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	35 (48)	35 (48)	40 (50)	40 (50)
2	asymmetric	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.4 (0.6)	0.6 (0.75)	1.0 (1.25)	1.3 (1.5)	1.8 (2)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	6 (7.5)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	35 (48)	35 (48)	40 (50)	40 (50)
3+4	0-45°	0.6	1.3	2.1	3.1	3.1	5.2	5.2	8.4	8.4	10.5	14.7	16.8	21	31.5	42	2.1	4.2	0.6 (0.84)	0.9 (1.26)	1.2 (1.58)	2.1 (2.62)	2.7 (3.15)	3.7 (4.2)	4.2 (5.25)	4.2 (5.2)	7.3 (8.4)	7.3 (8.4)	10.5 (12.6)	12.6 (21)	16.8 (21)	25.2 (27.3)	25.2 (31.5)	27.3 (33.6)	29.4 (42)	33.6 (46.2)	33.6 (52.5)	66.15 (84)	73.5 (100.8)	73.5 (100.8)	84 (105)	84 (105)
3+4	45-60	0.4	0.9	1.5	2.2	2.2	3.7	3.7	6	6	7.5	10.4	12	15	22.5	30	1.5	3	0.4 (0.6)	0.6 (0.9)	0.9 (1.12)	1.5 (1.87)	1.9 (2.25)	2.7 (3)	3 (3.75)	3 (3.75)	5.2 (6)	5.2 (6)	7.5 (9)	9 (11.2)	12 (15)	18 (19.5)	18 (22.5)	19.5 (24)	21 (30)	24 (33)	24 (37.5)	47.2 (60)	52.5 (72)	52.5 (72)	60 (75)	60 (75)
3+4	asymmetric	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.4 (0.6)	0.6 (0.75)	1.0 (1.25)	1.3 (1.5)	1.8 (2)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	6 (7.5)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	34 (48)	34 (48)	40 (50)	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 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 80	M 90	M 90

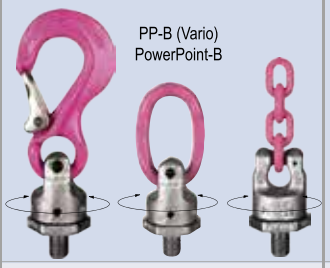
Maximum transport weight G in t with different lifting methods

Thread sizes
M 6-
M 150
Imperial threads (UNC etc.) and special lengths on request.

PP-S (Vario) PowerPoint-Star

PP-B (Vario) PowerPoint-B

PP-VIP (Vario) PowerPoint-VIP



Starpoint VRS (Vario) Eye Bolt

Starpoint VRM Eye Nut

Number of legs	Inclination angle	Type	PP-S 0.63 t	PP-S 1.5 t	PP-S 2.5 t	PP-S 4 t	PP-S 5 t	PP-S 8 t	VRS M6 / VRM M6	VRS M8 / VRM M8	VRS M10 / VRM M10	VRS M12 / VRM M12	VRS M14 / VRM M14	VRS M16 / VRM M16	VRS M18 / VRM M18	VRS M20 / VRM M20	VRS M22 / VRM M22	VRS M24 / VRM M24	VRS M27 / VRM M27	VRS M30 / VRM M30	VRS M33 / VRM M33	VRS M36	VRS M42	VRS M48
		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
1	0°		0.6	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
2	0°		1.2	3	5	8	13.4	20	1	2	2	4	4	8	8	12	12	16	16	24	24	32	48	64
1	90°		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
2	90°		1.2	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
2	0-45°		0.8	2.1	3.5	5.6	7.1	11.2	0.14	0.42	0.56	1	1	2.1	2.1	3.2	3.2	4.5	4.5	6.3	6.3	9.8	12.6	6.8
2	45-60°		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
2	asymmetric		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
3+4	0-45°		1.3	3.2	5.3	8.4	10.5	16.8	0.21	0.63	0.8	1.5	1.5	3.1	3.1	4.8	4.8	6.7	6.7	9.4	9.4	14.7	18.9	25
3+4	45-60		0.9	2.2	3.8	6	7.5	12	0.15	0.45	0.6	1.1	1.1	2.2	2.2	3.4	3.4	4.8	4.8	6.7	6.7	10.5	13.5	18
3+4	asymmetric		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
		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

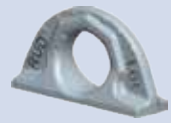
Maximum transport weight "G" in ton with different lifting methods

Weld-on Lifting Points

ANSCHLAG-PUNKTE

CE

DGUV Test

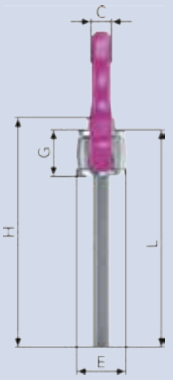
			WPP-Series PowerPoint rotation							WPPH-Series PowerPoint fixed						VLBS Weld-on Lifting Ring						VRBK Lifting ring for edges			ABA Lifting point loadable from all directions					
																														
			-40° C							-40° C						-20° C									-40° C					
			all versions							all versions																				
	No. of legs	Inclination angle	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	VRBK 4 t	VRBK 6,7 t	VRBK 10 t	ABA 1,6 t	ABA 3,2 t	ABA 5 t	ABA 10 t	ABA 20 t	ABA 31,5 t
	1	0°		0.6	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	4	6,7	10	1,6	3,2	5	10	20	31,5
	2	0°		1.2	3	5	8	13.4	20	1.2	3	5	8	13.4	20	3	5.0	8	13.4	20	32	8	13,4	20	3,2	6,4	10	20	40	63
	1	90°		0.6	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	4	6,7	10	1,6	3,2	5	10	20	31,5
	2	90°		1.2	3	5	8	10	16	1.2	3	5	8	10	16	3	5.0	8	13.4	20	32	8	13,4	20	3,2	6,4	10	20	40	63
	2	0-45°		0.8	2.1	3.5	5.6	7.1	11.2	0.8	2.1	3.5	5.6	7.1	11.2	2.1	3.5	5.6	9.38	14	22.4	5,6	9,38	14	2,2	4,5	7,1	14,1	28	45
	2	45-60°		0.6	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	4	6,7	10	1,6	3,2	5	10	20	31,5
	2	asymmetric		0.6	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	4	6,7	10	1,6	3,2	5	10	20	31,5
	3+4	0-45°		1.3	3.2	5.3	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	8,4	14,1	14,1	3,4	6,6	10,6	21,2	42	67
	3+4	45-60°		0.9	2.2	3.8	6	7.5	12	0.9	2.2	3.8	6	7.5	12	2.25	3.75	6	10.1	15	24	6	10,1	15	2,4	4,8	7,5	15	30	47,5
	3+4	asymmetric		0.6	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	4	6,7	10	1,6	3,2	5	10	20	31,5
Welding seam →				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	4+3	5+3	8+3	HY3	HY5	HY9	HY12	10	12

ACP-TURNADO

Automatic-Center-Point.

RUD RFID CONNECT IT

ACP-Turnado - Vario Length



PRODUCT FEATURES

- Large WLL range 1.35t 8-t.
- Higher WLL than comparable design sizes.
- Unlque RUD spring mechanism.
- Stuck position of suspension ring avoided.
- No dangerous transverse loads.
- No Kinks.
- Includes RUD ICE- Bolt up to size M24.
- Pivots 180°.
- Swivels 360°.

ACP-TURNADO - ICE - BOLT THREAD-METRIC.

Type	WLL [t]	Weight [....]	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	K [mm]	L [mm]	N	N [mm]	Tightening torque [Nm]	Ref. No.
ACP-TURNADO 1.35: M12	1.35	0.37	83	11	10.5	38	30	19	28	54.5	19	58	47	M12	8	80	7909314
ACP-TURNADO 2.5 : M16	2.5	0.82	107	14	14	50	40	22	36	68	24	76	59	M16	10	150	7909316
ACP-TURNADO 4: M20	4	1.34	118	17	17	50	50	20.5	43.5	82.5	30	89	70	M20	12	300	7909317
ACP-TURNADO 6.3: M24	6.3	3.03	154	23	23	66	66	34	55	104	36	121	83	M24	14	500	7909318
ACP-TURNADO 8: M30	8	5.66	183	29	27	75	75	41.5	68.5	123	46	148	110	M30	17	800	7909319

Subject to technical Changes!

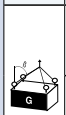
ACP-TURNADO - METRIC IN VARIABLE LENGTH INCL. SECURING NUT AND WASHER.

Type	WLL [t]	Weight [Kg/Unit]	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	Tightening torque [Nm]	Ref. No.
ACP-TURNADO 1.35: M12	1.35	0.37	83	11	10.5	38	38	12-117	28	55-153	19	58	40-145	M12	8	80	8600632
ACP-TURNADO 2.5 : M16	2.5	0.82	107	14	14	50	50	16-149	36	68-195	24	76	52-185	M16	10	150	8600634
ACP-TURNADO 4: M20	4	1.34	118	17	17	50	50	20-186	43.5	82-242	30	89	63-230	M20	12	300	8600636
ACP-TURNADO 6.3: M24	6.3	3.03	154	23	23	66	66	24-210	55	104-280	36	121	79-265	M24	14	500	8600638
ACP-TURNADO 8: M30	8	5.66	183	29	27	75	75	30-271	68.5	129-359	46	148	98-340	M30	17	800	8600640

Subject to technical Changes!

YP™

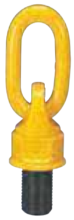
YOKE Yellow Point Series

			211-8 Lifting Point																291-8K / 291-8 Eye Point										
																													
	Number of legs	Load direction	Item No.	003-211-8	006-211-8	010-211-8	012-211-8	015-211-8	020-211-8	025-211-8	040-211-8	042-211-8	050-211-8	070-211-8	080-211-8	100-211-8	150-211-8	200-211-8	291-8K003-	291-8K004-	291-8K007-	291-8K015-	291-8K023-	291-8K032-	291-8K045-	291-8K070-	291-8K090-	291-8K120-	291-8K140-	291-8K150-
			Thread Size	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	M 36	M 42	M 42	M 48	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 56	M 64
	1	0°		0.3	0.63	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	1	1	2	4	6	8	12	16	24	32	32	32
	2	0°		0.6	1.26	2	2.4	3	4	5	8	8	10	14	16	20	30	40	2	2	4	8	12	16	24	32	48	64	64	64
	1	90°		0.3	0.63	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	0.3	0.4	0.75	1.5	2.3	3.2	4.5	7	9	12	12	12
	2	90°		0.6	1.26	2	2.4	3	4	5	8	8	10	14	16	20	30	40	0.6	0.8	1.5	3	4.6	6.4	9	14	18	24	24	24
	2	45-0°		0.42	0.88	1.4	1.7	2.1	2.8	3.5	5.6	5.6	7	9.8	11.2	14	21	28	0.42	0.56	1	2.1	3.2	4.5	6.3	9.8	12.6	16.8	16.8	16.8
	2	60-45°		0.3	0.63	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	0.3	0.4	0.75	1.5	2.3	3.2	4.5	7	9	12	12	12
	2	unsymm.		0.3	0.63	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	0.3	0.4	0.75	1.5	2.3	3.2	4.5	7	9	12	12	12
	4-3	45-0°		0.63	1.32	2.1	2.5	3.1	4.2	5.2	8.4	8.4	10.5	14.7	16.8	21	31.5	42	0.63	0.8	1.5	3.1	4.8	6.7	9.4	14.7	18.9	25	25	25
	4-3	60-45°		0.45	0.95	1.5	1.8	2.2	3	3.7	6	6	7.5	10.5	12	15	22.5	30	0.45	0.6	1.1	2.2	3.4	4.8	6.7	10.5	13.5	18	18	18
	4-3	unsymm.		0.3	0.63	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	0.3	0.4	0.75	1.5	2.3	3.2	4.5	7	9	12	12	12
			Thread Size	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	M 36	M 42	M 42	M 48	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 56	M 64

WARNING
NEVER EXCEED PUBLISHED WORKING LOAD LIMIT

CarlStahl

271-8 Swivel Point



Number of legs	Load direction																
	Item No.	003-271-8	004-271-8	006-271-8	013-271-8	020-271-8	035-271-8	060-271-8	080-271-8	120-271-8	130-271-8	140-271-8	160-271-8	161-271-8	310-271-8	350-271-8	400-271-8
	Thread Size	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 52	M 56	M 64	M 72	M 80	M 90
1	0°	0.6	0.9	1.2	2.6	4	7	10	15	17	18	25	28	28	50	50	50
2	0°	1.2	1.8	2.4	5.2	8	14	20	30	34	36	50	56	56	100	100	100
1	90°	0.3 (0.4)	0.45 (0.6)	0.6 (0.7)	1.3 (1.5)	2 (2.5)	3.5 (4)	5 (6)	8 (10)	13 (13)	14 (16)	20 (20)	20 (22)	20 (22)	40 (40)	40 (48)	40 (48)
2	90°	0.6 (0.8)	0.9 (1.2)	1.2 (1.5)	2.6 (3)	4 (5)	7 (8)	10 (12)	16 (20)	26 (26)	28 (32)	40 (40)	40 (44)	40 (44)	80 (80)	80 (96)	80 (96)
2	45-0°	0.4	0.6	0.8	1.8	2.8	4.9	7	11.2 (14)	18.2 (18.2)	19.6 (22.4)	28 (28)	28 (30.8)	28 (30.8)	56 (56)	56 (67.2)	56 (67.2)
2	60-45°	0.3	0.4	0.6	1.3	2	3.5	5	8 (10)	13 (13)	14 (16)	20 (20)	20 (22)	20 (22)	40 (40)	40 (48)	40 (48)
2	unsymm.	0.3	0.4	0.6	1.3	2	3.5	5	8 (10)	13 (13)	14 (16)	20 (20)	20 (22)	20 (22)	40 (40)	40 (48)	40 (48)
4-3	45-0°	0.6	0.9	1.2	2.7	4.2	7.3	10.5	16.8 (21)	27.3 (27.3)	29.4 (33.6)	42 (42)	42 (46.2)	42 (46.2)	84 (84)	84 (100)	84 (100)
4-3	60-45°	0.4	0.6	0.9	1.9	3	5.2	7.5	12 (15)	19.5 (19.5)	21 (24)	30 (30)	30 (33)	30 (33)	60 (60)	60 (72)	60 (72)
4-3	unsymm.	0.3	0.4	0.6	1.3	2	3.5	5	8 (10)	13 (13)	14 (16)	20 (20)	20 (22)	20 (22)	40 (40)	40 (48)	40 (48)
	Thread Size	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 52	M 56	M 64	M 72	M 80	M 90

231-8 Anchor Point

Number of legs	Load direction															
	Item No.	005-231-8	007-231-8	010-231-8	015-231-8	020-231-8	025-231-8	030-231-8	050-231-8	056-231-8	078-231-8	125-231-8	156-231-8	200-231-8	220-231-8	225-231-8
	Thread Size	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 48	M 56	M 64
1	0°	0.5	0.7	1	1.5	2	2.5	3	5	5.6	7.8	12.5	15.6	20	22	22.5
2	0°	1	1.4	2	3	4	5	6	10	11.2	15.6	25	31.2	40	44	45
1	90°	0.5	0.7	1	1.5	2	2.5	3	5	5.6	7.8	12.5	15.6	20	22	22.5
2	90°	1	1.4	2	3	4	5	6	10	11.2	15.6	25	31.2	40	44	45
2	45-0°	0.7	1	1.4	2.1	2.8	3.5	4.2	7	7.8	10.9	17.5	21.8	28	30.8	31.5
2	60-45°	0.5	0.7	1	1.5	2	2.5	3	5	5.6	7.8	12.5	15.6	20	22	22.5
2	unsymm.	0.5	0.7	1	1.5	2	2.5	3	5	5.6	7.8	12.5	15.6	20	22	22.5
4-3	45-0°	1.1	1.5	2.1	3.2	4.2	5.3	6.3	10.5	11.8	16.4	26.3	32.8	42	46.2	47.3
4-3	60-45°	0.8	1.1	1.5	2.3	3	3.8	4.5	7.5	8.4	11.7	18.8	23.4	30	33	33.8
4-3	unsymm.	0.5	0.7	1	1.5	2	2.5	3	5	5.6	7.8	12.5	15.6	20	22	22.5
	Thread Size	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 48	M 56	M 64

203-8 Hoist Ring

Number of legs	Load direction											
	Item No.	004-203-8	005-203-8	010-203-8	019-203-8	021-203-8	030-203-8	042-203-8	070-203-8	110-203-8	125-203-8	135-203-8
	Thread Size	M 8	M 10	M 12	M 16	M 20	M 20	M 24	M 30	M 36	M 42	M 48
1	0°	0.5	0.55	1.3	2.4	2.7	3.75	5.25	8.75	13.75	15.6	16.9
2	0°	1	1.1	2.6	4.8	5.4	7.5	10.5	17.5	27.5	31.2	33.8
1	90°	0.5	0.55	1.3	2.4	2.7	3.75	5.25	8.75	13.75	15.6	16.9
2	90°	1	1.1	2.6	4.8	5.4	7.5	10.5	17.5	27.5	31.2	33.5
2	45-0°	0.7	0.77	1.82	3.36	3.78	5.25	7.35	12.25	19.25	21.84	23.66
2	60-45°	0.5	0.55	1.3	2.4	2.7	3.75	5.25	8.75	13.75	15.6	16.9
2	unsymm.	0.5	0.55	1.3	2.4	2.7	3.75	5.25	8.75	13.75	15.6	16.9
4-3	45-0°	1.05	1.16	2.73	5.04	5.67	7.88	11.03	18.38	28.88	32.76	35.49
4-3	60-45°	0.75	0.83	1.95	3.6	4.05	5.63	7.88	13.13	20.63	23.4	25.35
4-3	unsymm.	0.5	0.55	1.3	2.4	2.7	3.75	5.25	8.75	13.75	15.6	16.9
	Thread Size	M 8	M 10	M 12	M 16	M 20	M 20	M 24	M 30	M 36	M 42	M 48

WARNING

NEVER EXCEED PUBLISHED WORKING LOAD LIMIT

				0573-8 Economic Point							057-8 Weld-on Point					082-8 Weld-on Ring					081-8 Weld-on Hook							
																												
	Number of legs	Load direction	Item No.	01-0573-8	03-0573-8	05-0573-8	08-0573-8	10-0573-8	20-0573-8	30-0573-8	1-057-8T	3-057-8T	5-057-8T	8-057-8T	10-057-8T	04-082-8	06-082-8	10-082-8	16-082-8	30-082-8	01-081-8	02-081-8	03-081-8	04-081-8	05-081-8	08-081-8	10-081-8	15-081-8
	1	0°		1	3	5	8	10	20	30	1	3	5	8	10	4	6.7	10	16	31.5	1	2	3	4	5	8	10	15
	2	0°		2	6	10	16	20	40	60	2	6	10	16	20	8	13.4	20	32	63	2	4	6	8	10	16	20	30
	1	90°		1	3	5	8	10	20	30	1	3	5	8	10	4	6.7	10	16	31.5	1	2	3	4	5	8	10	15
	2	90°		2	6	10	16	20	40	60	2	6	10	16	20	8	13.4	20	32	63	2	4	6	8	10	16	20	30
	2	45-0°		1.4	4.2	7	11.2	14	28	42	1.4	4.2	7	11.2	14	5.6	9.4	14	22.4	44.1	1.4	2.8	4.2	5.6	7	11.2	14	21
	2	60-45°		1	3	5	8	10	20	30	1	3	5	8	10	4	6.7	10	16	31.5	1	2	3	4	5	8	10	15
	2	unsymm.		1	3	5	8	10	20	30	1	3	5	8	10	4	6.7	10	16	31.5	1	2	3	4	5	8	10	15
	4-3	45-0°		2.1	6.3	10.5	16.8	21	42	63	2.1	6.3	10.5	16.8	21	8.4	14.1	21	33.6	66.2	2.1	4.2	6.3	8.4	10.5	16.8	21	31.5
	4-3	60-45°		1.5	4.5	7.5	12	15	30	45	1.5	4.5	7.5	12	15	6	10.1	15	24	47.3	1.5	3	4.5	6	7.5	12	15	22.5
	4-3	unsymm.		1	3	5	8	10	20	30	1	3	5	8	10	4	6.7	10	16	31.5	1	2	3	4	5	8	10	15

WARNING
NEVER EXCEED PUBLISHED WORKING LOAD LIMIT

DNV 2.7-1
TYPE APPROVAL
Offshore Container Lifting Operation

YOKE®

Safety is our first priority™

The Features of YOKE DA™ Offshore Container Lifting Series

YOKE DA™ Series are manufactured to meet the requirements of DNV 2.7-1 for offshore container lifting to fulfill the need for the critical requirements of charpy impact, strength and ductility.

Lower Temperature Demand

YOKE DA™ Series are designed to withstand impacts in extreme environments down to maximum -40° C.

-40°C

Higher Safety Factors

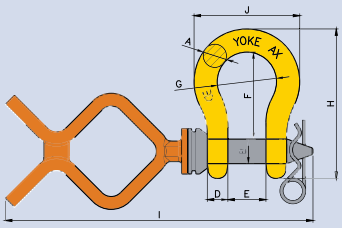
YOKE DA™ Shackles have a design factor of 6 for Grade 6 Shackles and a design factor of 8 for Grade 8 shackles, and YOKE DA™ Master Link & Assembly have a design factor of 5 to enable them to operate in the harshest environments.

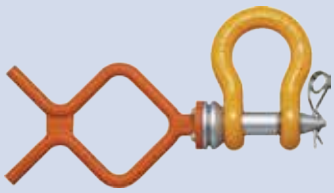
DNV 2.7-1 Specified Test Certificate

Test certificate with material and manufacturing process specified in DNV 2.7-1 for complete traceability.

To perform in the harshest weather and roughest sea conditions, YOKE DA™ Series are specially designed, manufactured and tested for the operating in the offshore container industry.

YOKE





- Forged alloy steel, quenched and tempered.
- Designed specifically for ROV application.
- Handles are Carbon Steel.
- Individually stamped with the Working Load Limit.
- Shackle Bows are painted yellow to ensure ease of sight in water.
- Convertible handles on ROV shackle bolts.

ROV Anchor Shackle

with Fishtail-handle and Safety Pin (ROV: Remotely Operated Vehicle)

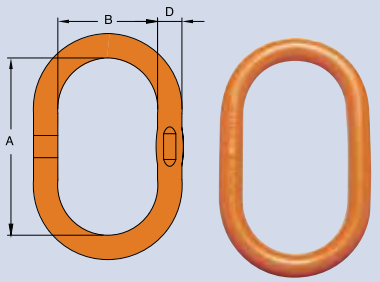
Item No.	Nominal Size	Working Load Limit	Dimensions (inch)									N.W.
	in.	tonnes	A	B	C	D	E	G	H	I	J	lbs
8-941-22	7/8	6.5	0.9	1.0	2.1	0.8	1.5	2.3	5.8	16.5	4.0	9.3
8-941-26	1	8.5	1.0	1.1	2.4	0.9	1.7	2.7	6.5	16.9	4.7	10.6
8-941-28	1-1/8	9.5	1.1	1.3	2.7	1.1	1.8	2.9	7.5	17.9	5.1	12.5
8-941-32	1-1/4	12.0	1.3	1.4	3.0	1.2	2.1	3.3	8.3	18.4	5.8	15.8
8-941-36	1-3/8	13.5	1.4	1.5	3.3	1.3	2.3	3.6	9.1	18.8	6.5	18.9
8-941-38	1-1/2	17.0	1.5	1.8	3.6	1.4	2.4	3.8	10.0	19.3	6.9	23.5
8-941-45	1-3/4	25.0	1.8	2.0	4.2	1.7	2.9	5.0	12.3	21.1	8.7	38.7
8-941-50	2	35.0	2.0	2.2	4.8	2.0	3.3	5.7	13.7	22.0	9.8	58.1

* Minimum Ultimate Load is 5 times the Working Load Limit.
Maximum Proof Load is 2 times the Working Load Limit.

Item No.	Nominal Size	Working Load Limit	Dimensions (mm)									N.W.
	mm	tonnes	A	B	C	D	E	G	H	I	J	kg
8-941-22	22	6.5	22	26	53	21.5	38	58	148	420	102	4.2
8-947-26	26	8.5	26	28	61	23	44	68	166	429	120	4.8
8-941-28	28	9.5	28	32	68	27	46	74	190	454	130	5.7
8-941-32	32	12.0	32	36	76	29.5	54	84	210	467	148	7.2
8-941-36	36	13.5	36	38	84	32	59	92	232	477	164	8.6
8-941-38	38	17.0	38	45	92	35	60.5	97	254	489	175	10.7
8-941-45	45	25.0	45	50	106	44	73	127	313	536	221	17.6
8-941-50	50	35.0	50	57	122	50.8	83.5	146	347.5	560	247.7	26.4

* Minimum Ultimate Load is 5 times the Working Load Limit.
Maximum Proof Load is 2 times the Working Load Limit.

YOKE



- Forged alloy steel, quenched and tempered.
- Tested and manufactured in accordance with DNV 2.7-1, EN 1677-4, ASME B30.26.
- Certified by DNV 2.7-1.
- Fatigue rated to 20,000 cycles at 1.5 times the Working Load Limit (WLL).
- Charpy tested in accordance with DNV 2.7-1.
- Proof Load tested to 2.5 times the Working Load Limit (WLL).
- Design factor 5:1.
- Charpy test of 42 joules (31ft. lbs.) at -40°C (-40°F) for normal section.
- Charpy test of 27 joules (20ft. lbs.) at -40°C (-40°F) for welded section.

-40°C

DA Master Link

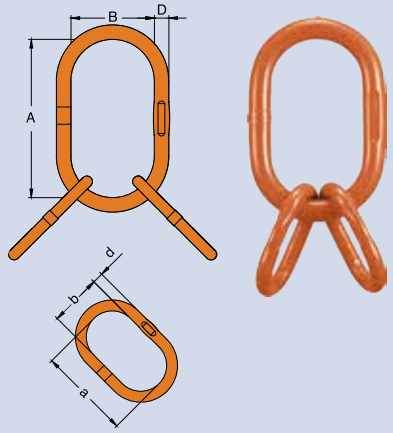
DNV 2.7-1
(Offshore Containers-Lifting Appliance)

Item No.	Code NO.	WLL β 0-45°	Proof Load	"can be used to single hook according to DIN 15401 NO."	Dimensions (inch)			N.W.
		tonnes	kN		D	A	B	lbs
DA-001-13	FD-13	2.8	69	2.5	0.51	4.72	2.36	0.8
DA-001-16	FD-16	4	98	6	0.63	6.30	3.54	1.6
DA-001-19	FD-19	6.7	164	6	0.75	6.30	3.54	2.4
DA-001-22	FD-22	8.9	218	8	0.87	7.09	3.94	3.6
DA-001-223	FD-223	6.3	142	16	0.87	10.63	5.51	5.0
DA-001-25	FD-25	11.5	282	10	0.98	8.27	4.53	5.3
DA-001-251	FD-251	11.5	282	16	0.98	10.83	5.71	6.7
DA-001-28	FD-28	13	319	16	1.10	10.83	5.71	8.5
DA-001-32	FD-32	17.1	417	16	1.26	10.83	5.71	11.3
DA-001-36	FD-36	24	588	20	1.42	11.22	6.10	15.1
DA-001-40	FD-40	28.1	688	20	1.57	11.81	6.30	19.7
DA-001-45	FD-45	38.3	938	25	1.77	13.39	7.09	28.2
DA-001-50	FD-50	45	1103	32	1.97	13.78	7.68	36.6

*Welded Master Link *Design Factor 5:1 *Proof tested at 2.5 times the WLL

Item No.	Code NO.	WLL β 0-45°	Proof Load	"can be used to single hook according to DIN 15401 NO."	Dimensions (mm)			N.W.
		tonnes	kN		D	A	B	kg
DA-001-13	FD-13	2.8	69	2.5	13	120	60	0.4
DA-001-16	FD-16	4	98	6	16	160	90	0.7
DA-001-19	FD-19	6.7	164	6	19	160	90	1.1
DA-001-22	FD-22	8.9	218	8	22	180	100	1.6
DA-001-223	FD-223	6.3	142	16	22	270	140	2.3
DA-001-25	FD-25	11.5	282	10	25	210	115	2.4
DA-001-251	FD-251	11.5	282	16	25	275	145	3.1
DA-001-28	FD-28	13	319	16	28	275	145	3.9
DA-001-32	FD-32	17.1	417	16	32	275	145	5.1
DA-001-36	FD-36	24	588	20	36	285	155	6.9
DA-001-40	FD-40	28.1	688	20	40	300	160	8.9
DA-001-45	FD-45	38.3	938	25	45	340	180	12.8
DA-001-50	FD-50	45	1103	32	50	350	195	16.6
Sub-links SPEC for DA-007. Items in grey area are not for sale individually.								
DA-001-131	FD-131	2.8	69	-	13	90	50	0.3
DA-001-161	FD-161	4	98	-	16	140	70	0.6
DA-001-191	FD-191	6.7	164	-	19	140	70	0.9
DA-001-222	FD-222	8.9	218	-	22	162	90	1.5
DA-001-281	FD-281	13	319	-	28	190	100	2.8
DA-001-282	FD-282	14.5	355	-	28	200	110	3.0
DA-001-361	FD-361	24	588	-	36	275	145	6.6
DA-001-401	FD-401	28.1	688	-	40	260	130	7.8

YOKE



- Forged alloy steel, quenched and tempered.
- Tested and manufactured in accordance with DNV 2.7-1, EN 1677-4, ASME B30.26.
- Certified by DNV 2.7-1.
- Fatigue rated to 20,000 cycles at 1.5 times the Working Load Limit (WLL).
- Charpy tested in accordance with DNV 2.7-1.
- Proof Load tested to 2.5 times the Working Load Limit (WLL).
- Design factor 5:1.
- Charpy test of 42 joules (31ft. lbs.) at -40°C (-40°F) for normal section.
- Charpy test of 27 joules (20ft. lbs.) at -40°C (-40°F) for welded section.

-40°C

DA Master Link Assembly

DNV 2.7-1
(Offshore Containers-Lifting Appliance)

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

Item No.	Assembled with.	WLL β 0-45°	Proof Load	"can be used to single hook according to DIN 15401 NO."	Dimensions (inch)						N.W.
		tonnes	kN		D	A	B	d	a	b	lbs
DA-007-16	FD-161 +2 FD-131	4.1	100	4	0.63	5.51	2.76	0.51	3.54	1.97	2.7
DA-007-22	FD-222 +2 FD-191	8.9	218	6	0.87	6.38	3.54	0.75	5.51	2.76	7.4
DA-007-221	FD-223 +2 FD-161	6.3	154	16	0.87	10.63	5.51	0.63	5.51	2.76	7.9
DA-007-25	FD-251 +2 FD-19	8.9	218	16	0.98	10.83	5.71	0.75	6.30	3.54	11.5
DA-007-28	FD-28 +2 FD-22	12.9	316	16	1.10	10.83	5.71	0.87	7.09	3.94	15.7
DA-007-281	FD-282 +2 FD-223	14.5	355	10	1.10	7.87	4.33	0.87	5.51	2.76	12.2
DA-007-32	FD-32 +2 FD-25	17	417	16	1.26	10.83	5.71	0.98	8.27	4.53	22.0
DA-007-36	FD-361 +2 FD-281	23.6	578	16	1.42	10.83	5.71	1.10	7.48	3.94	26.9
DA-007-40	FD-40 +2 FD-32	28.1	688	20	1.57	11.81	6.30	1.26	10.83	5.71	42.4
DA-007-45	FD-45 +2 FD-36	38.3	938	25	1.77	13.39	7.09	1.42	11.22	6.10	58.4
DA-007-50	FD-50 +2 FD-401	45	1103	32	1.97	13.78	7.68	1.57	10.24	5.12	71.1

*Welded Master Link

*Design Factor 5:1

*Proof tested at 2.5 times the WLL

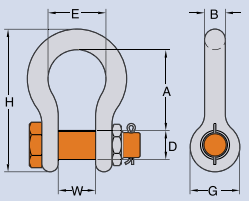
Item No.	Assembled with.	WLL β 0-45°	Proof Load	"can be used to single hook according to DIN 15401 NO."	Dimensions (mm)						N.W.
		tonnes	kN		D	A	B	d	a	b	kg
DA-007-16	FD-161 +2 FD131	4.1	100	4	16	140	70	13	90	50	1.2
DA-007-22	FD-222 +2 FD191	8.9	216	6	22	162	90	19	140	70	3.3
DA-007-221	FD-223 +2 FD161	6.3	154	16	22	270	140	16	140	70	3.6
DA-007-25	FD-251 +2 FD-19	8.9	218	16	25	275	145	19	160	90	5.2
DA-007-28	FD-28 +2 FD-22	12.9	316	16	28	275	145	22	180	100	7.1
DA-007-281	FD-282 +2 FD-223	14.5	355	10	28	200	110	22	140	70	5.5
DA-007-32	FD-32 +2 FD-25	17	417	16	32	275	145	25	210	115	10.0
DA-007-36	FD-361 +2 FD-281	23.6	578	16	36	275	145	28	190	100	12.2
DA-007-40	FD-40 +2 FD-32	28.1	688	20	40	300	160	32	275	145	19.2
DA-007-45	FD-45 +2 FD-36	38.3	938	25	45	340	180	36	285	155	26.5
DA-007-50	FD-50 +2 FD-401	45	1103	32	50	350	195	40	260	130	32.3

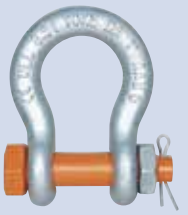
*Welded Master Link

*Design Factor 5:1

*Proof tested at 2.5 times the WLL

YOKE





- Forged alloy steel, quenched and tempered.
- Tested and manufactured in accordance with DNV 2.7-1, DNV GL-ST-0378, EN 13889, ASME B30.26, U.S. Fed. Spec. RR-C-271F Type IVA, Grade A, Class 3.
- Certified by DNV 2.7-1.
- Fatigue rated to 20,000 cycles at 1.5 times the Working Load Limit (WLL).
- Charpy tested in accordance with DNV 2.7-1.
- Hot dip galvanized.
- Charpy test of 42 joules (31ft. lbs.) at -40°C (-40°F) for normal section.

-40°C

DA 838 Shackle

Grade 6

DNV 2.7-1
(Offshore Containers-Lifting Appliance)

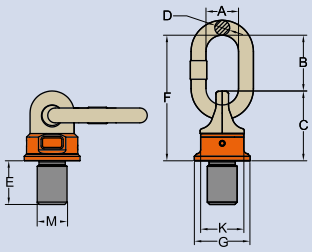
Item No.	Nominal Size	Working Load Limit	Dimensions (inch)							N.W.
	inch	tonnes*	A	B	D	E	G	H	W	lbs
DA-838-13	1/2	2.00	1.85	0.52	0.63	1.30	1.18	3.34	0.79	0.9
DA-838-16	5/8	3.25	2.40	0.63	0.75	1.70	1.50	4.17	1.06	1.5
DA-838-19	3/4	4.75	2.83	0.75	0.87	1.97	1.81	5.04	1.30	2.2
DA-838-22	7/8	6.50	3.39	0.87	1.02	2.28	2.09	5.91	1.50	3.7
DA-838-26	1	8.50	3.78	1.02	1.10	2.68	2.40	6.57	1.73	5.3
DA-838-28	1- 1/8	9.50	4.37	1.10	1.26	2.91	2.68	7.52	1.81	7.5
DA-838-32	1- 1/4	12.00	4.76	1.26	1.42	3.30	2.99	8.07	2.12	10.6
DA-838-36	1- 3/8	13.50	5.28	1.42	1.50	3.62	3.31	9.13	2.32	14.3
DA-838-38	1- 1/2	17.00	5.57	1.50	1.77	3.90	3.62	10.00	2.36	19.4
DA-838-45	1- 3/4	25.00	7.00	1.85	2.00	5.00	4.17	12.32	2.87	38.5
DA-838-50	2	35.00	7.76	2.09	2.24	5.75	4.80	13.66	3.27	53.2
DA-838-64	2- 1/2	** 55.00	10.51	2.62	2.76	7.24	5.71	17.83	4.13	95.7
DA-838-76	3	** 85.00	12.99	2.99	3.25	7.87	6.50	21.50	5.00	178.2
DA-838-89	3- 1/2	**120.00	14.65	3.62	3.76	9.02	7.99	24.65	5.24	264.0
DA-838-100	4	**150.00	14.49	4.09	4.25	10.00	9.02	25.71	5.51	336.6

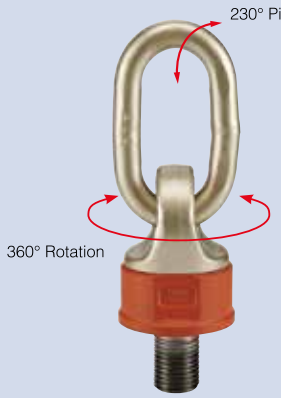
*2t to 35t are type approved of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.
**55t to 150t meet all requirements of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.

Item No.	Nominal Size	Working Load Limit	Dimensions (mm)							N.W.
	mm	tonnes*	A	B	D	E	G	H	W	kg
DA-838-13	13	2.00	47	13	16	33	30	85	20	0.4
DA-838-16	16	3.25	61	16	19	43	38	106	27	0.7
DA-838-19	19	4.75	72	19	22	50	46	126	33	1.0
DA-838-22	22	6.50	86	22	26	58	53	148	38	1.7
DA-838-26	26	8.50	96	26	28	68	61	166	44	2.4
DA-838-28	28	9.50	111	28	32	74	68	190	46	3.4
DA-838-32	32	12.00	121	32	36	84	76	210	54	4.8
DA-838-36	36	13.50	134	36	38	92	84	232	59	6.5
DA-838-38	38	17.00	146	38	44	99	92	254	60	8.8
DA-838-45	45	25.00	178	47	51	127	106	313	73	17.5
DA-838-50	50	35.00	197	53	57	146	122	347	83	24.2
DA-838-64	64	** 55.00	267	66.5	70	184	145	453	105	43.5
DA-838-76	76	** 85.00	330	76	82.5	200	165	546	127	81.0
DA-838-89	89	**120.00	372	92	95.5	229	203	626	133	120.0
DA-838-100	100	**150.00	368	104	108	254	229	653	140	153.0

*2t to 35t are type approved of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.
**55t to 150t meet all requirements of DNV 2.7-1. Minimum Ultimate Load is 6 times the Working Load Limit.

YOKE





DNV·GL

Certificate No: TA000000074

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Chain, shackles, swivels, sockets

with type designation(s):
Lifting points DA-271 for offshore cranes

Issued to:
Yoke Industrial Corp.
Taichung, Taiwan

is found to comply with:
DNV GL standard DNV GL-ST-0378 - Standard for offshore and platform lifting appliances

Application :
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

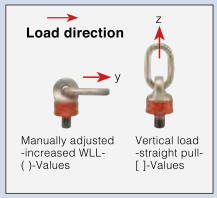
This Certificate is valid until 2022-05-31.
Issued at Høvik on 2017-05-31

DNV GL local station: Kaohsiung

for DNV GL

Approval Engineer: Antonio Sendin Alvarez

Aldo Mattiussi
Head of Section



- Forged alloy steel, quenched and tempered.
- Tested and manufactured in accordance with EN1677-1 and DNV GL-ST-0378 and ASME B30.26.
- Certified by DNV GL-ST-0378.
- Fatigue rated to 20,000 cycles at 1.5 times the Working Load Limit (WLL).
- Charpy tested in accordance with DNV GL-ST-0378.
- Proof Load tested to 2.5 times the Working Load Limit (WLL).
- Pivots to 230°, rotates through 360° due to its unique ball bearing design.
- Design factor 4:1.
- Easy to attach or dismantle due to the forged hexagon shaped body of the DA Swivel Point.
- Maximum WLL in axial direction when load ring is aligned.
- Capable of rotating under load. Do not turn continuously in 90 degree direction at full load.

-40°C

DA Swivel Point

Metric Thread (DA-271)

With Ball Bearing, which performs full swivel under load

DNV GL-ST-0378
(Offshore Crane- Lifting Appliance)

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

Item No.	Working Load Limit		Thread version			Dimensions (mm)							Torque in	N.W.
	(y)	[z]	M	E	Pitch	G	C	K	F	D	B	A		
	tonnes		mm	mm	DIN13				mm				Nm	kg
DA-271-003	0.4	0.6	M 8	12	1.25	35	40	30	72	8	32	29	10 - 40	0.2
DA-271-004	0.6	0.9	M 10	15	1.5	35	40	30	72	8	32	29	10 - 40	0.2
DA-271-006	0.7	1.2	M 12	18	1.75	40	45	36	95	10	50	35	15 - 40	0.3
DA-271-013	1.5	2.6	M 16	24	2	46	54	41	104	13	50	38	45 - 130	0.5
DA-271-020	2.5	4	M 20	30	2.5	62	68	55	122	13	54	38	100 - 170	1.0
DA-271-035	4	7	M 24	36	3	78	88	70	154	19	66	40	190 - 280	2.2
DA-271-060	6	10	M 30	45	3.5	90	120	80	206	22	86	50	270 - 600	4.5
DA-271-080	10	15	M 36	54	4	90	120	80	206	22	86	50	270 - 600	4.6
DA-271-120	13	17	M 42	63	4.5	98	122	84	235	25	110	65	350 - 800	5.5
DA-271-130	16	18	M 48	72	5	98	122	84	235	25	110	65	350 - 800	6.1
DA-271-140	20	25	M 52	78	5	120	150	94	270	32	120	70	350 - 900	10.5
DA-271-160	22	28	M 56	84	5.5	120	150	94	270	32	120	70	350 - 900	10.7
DA-271-161	22	28	M 64	96	6	120	150	94	270	32	120	70	500 - 1000	11.6

*Design factor 4:1 proof tested and certified.

DNV·GL

Certificate No:
TA500000S2

TYPE APPROVAL CERTIFICATE

This is to certify:
That the Lifting set for Offshore containers and Portable Offshore Units

with type designation(s)
Master Link - Type DA-003, Master Link Assembly - DA-007

Issued to
Yoke Industrial Corp.
Taichung, Taiwan

is found to comply with
DNV 2.7-1 Offshore Containers (2013)
DNV Standard for Certification No. 2.7-3 Portable Offshore Units (2011)
EN 1677-4 Components for slings - Safety - Part 4: Links, Grade 8
EN 12079-2 Offshore containers and associated lifting sets Part 2: Lifting sets Design, manufacture and marking
IMO/MSC Circular 860

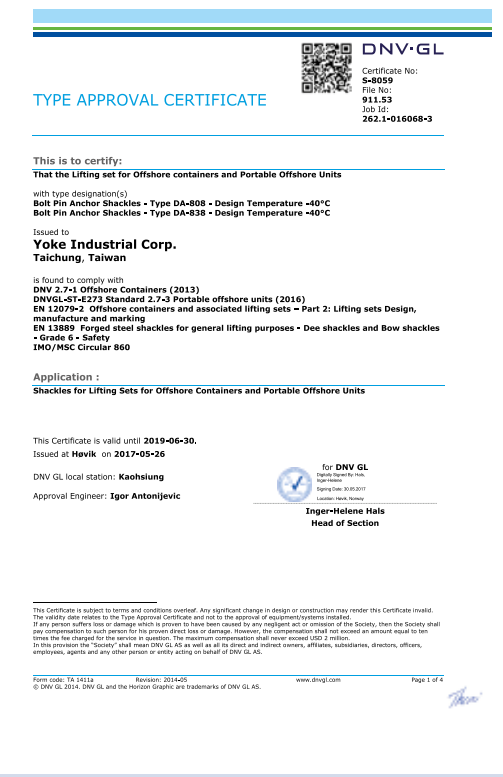
Application :
Grade 8 Links for Lifting Sets for Offshore Containers or Portable Offshore Units

This Certificate is valid until 2020-10-20.
Issued at Høvik on 2015-10-21

DNV GL local station: Kaohsiung

Approval Engineer: Nina Thorvaldsen Moberg

for DNV GL
Inger-Helene Hals
Head of Section



DNV·GL

Certificate No:
S-80S9
File No:
911.53
Job Id:
262.1-016068-3

TYPE APPROVAL CERTIFICATE

This is to certify:
That the Lifting set for Offshore containers and Portable Offshore Units

with type designation(s)
Bolt Pin Anchor Shackles - Type DA-808 - Design Temperature -40°C
Bolt Pin Anchor Shackles - Type DA-838 - Design Temperature -40°C

Issued to
Yoke Industrial Corp.
Taichung, Taiwan

is found to comply with
DNV 2.7-1 Offshore Containers (2013)
DNVGL-ST-E273 Standard 2.7-3 Portable offshore units (2016)
EN 12079-2 Offshore containers and associated lifting sets – Part 2: Lifting sets Design, manufacture and marking
EN 13889 Forged steel shackles for general lifting purposes - Dee shackles and Bow shackles - Grade 6 - Safety
IMO/MSC Circular 860

Application :
Shackles for Lifting Sets for Offshore Containers and Portable Offshore Units

This Certificate is valid until 2019-06-30.
Issued at Høvik on 2017-05-26

DNV GL local station: Kaohsiung

Approval Engineer: Igor Antonijevic

for DNV GL
Inger-Helene Hals
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.
If any person suffers loss or damage which is proven to have been caused by any negligent act or omission of the Society, then the Society shall pay compensation to such person for his proven direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question. The maximum compensation shall never exceed USD 2 million.
In this provision the "Society" shall mean DNV GL AS as well as all its direct and indirect owners, affiliates, subsidiaries, directors, officers, employees, agents and any other person or entity acting on behalf of DNV GL AS.

Form code: TA 1411a Revision: 2014-05 www.dnvgl.com Page 1 of 4

DNV·GL

Certificate No:
TA500001SK

TYPE APPROVAL CERTIFICATE

This is to certify:
That the Hook

with type designation(s)
Hooks DA-025 & DA-027N

Issued to
Yoke Industrial Corp.
Taichung, Taiwan

is found to comply with
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

Application :
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at Høvik on 2017-05-31

This Certificate is valid until 2022-05-30.
DNV GL local station: Kaohsiung

Approval Engineer: Antonio Sendin Alvarez

for DNV GL
Aldo Matteucci
Head of Section

DNV·GL

Certificate No:
TA500000T4

TYPE APPROVAL CERTIFICATE

This is to certify:
That the Chain, shackles, swivels, sockets

with type designation(s)
Lifting points DA-271 for offshore cranes

Issued to
Yoke Industrial Corp.
Taichung, Taiwan

is found to comply with
DNV GL standard DNVGL-ST-0378 – Standard for offshore and platform lifting appliances

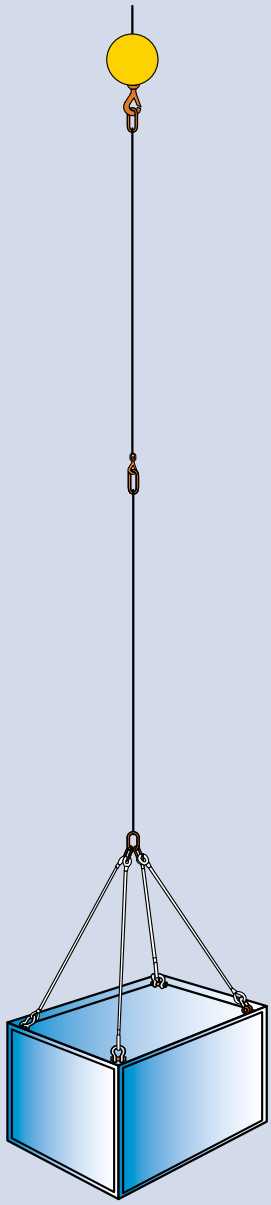
Application :
Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until 2022-05-29
Issued at Høvik on 2017-05-30

DNV GL local station: Kaohsiung

Approval Engineer: Antonio Sendin Alvarez

for DNV GL
Aldo Matteucci
Head of Section



Determination of Working Load Limit

Table 8-1 Determination of Working Load Limit		
Rating(kg)	**Enhancement factor**	**Mininum required Working Load Limit(WLLmin)(t)**
500	-	7.00
1000	-	7.00
1500	-	7.00
2000	3.500	7.00
2500	2.880	7.20
3000	2.600	7.80
3500	2.403	8.41
4000	2.207	8.83
4500	2.067	9.30
5000	1.960	9.80
5500	1.873	10.30
6000	1.766	10.60
6500	1.733	11.26
7000	1.700	11.90
7500	1.666	12.50
8000	1.633	13.07
8500	1.600	13.60
9000	1.567	14.10
9500	1.543	14.57
10000	1.501	15.01
10500	1.479	15.53
11000	1.457	16.02
11500	1.435	16.50
12000	1.413	16.95
12500	1.931	17.38
13000	1.368	17.79
13500	1.346	18.18
14000	1.324	18.54
14500	1.302	18.88
15000	1.280	19.20
15500	1.267	19.64
16000	1.254	20.06
16500	1.240	20.47
17000	1.227	20.86
17500	1.214	21.24
18000	1.201	21.61
18500	1.188	21.97
19000	1.174	22.31
19500	1.161	22.64
20000	1.148	22.96
20500	1.143	23.44
21000	1.139	23.92
21500	1.135	24.39
22000	1.130	24.86
22500	1.126	25.33
23000	1.121	25.79
23500	1.117	26.25
24000	1.112	26.70
24500	1.108	27.15
25000	1.104	27.59

FALL PROTECTION SYSTEMS / PERSONAL PROTECTIVE EQUIPMENT FOR THE PREVENTION OF FALLS

Carl Stahl – Your partner for fall protection systems and personal protective equipment for the prevention of falls.

Choose from the most comprehensive range of systems and equipment as there are:

- Collective protection, aluminium safety railings
- Safety and side protection nets
- Full body harnesses, seat harnesses and work positioning belts
- Personal protective equipment sets
- Lanyards
- Anchorage points
- Fall arresters
- Horizontal and vertical lifeline systems
- Anchorage points for self-assembly
- Rescue kits

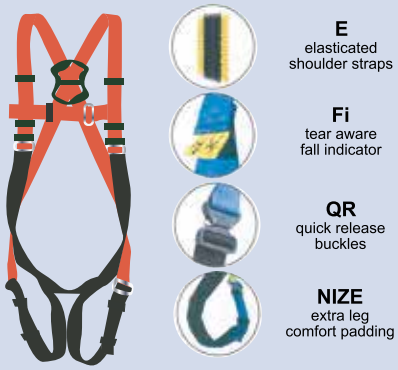
Please contact your closest Carl Stahl office for our special catalogue.

This catalogue is also available for download on our website www.carlstahl-fallprotection.com

PRO® 1-point fall arrest harness

Back D-ring, standard locks,
better adjustment possibilities, fall indicator

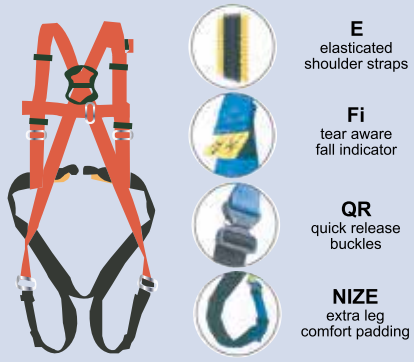
AB10112NG



PRO® 2-point fall arrest harness

Back and front D-ring, standard locks,
better adjustment possibilities, fall indicator

AB11312NG



Shock absorber Lanyard

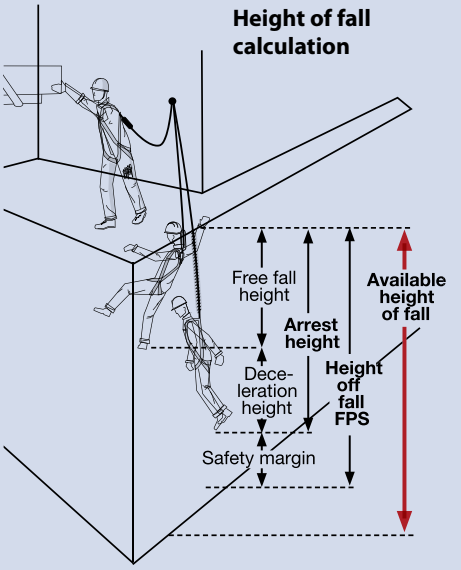
Energy absorbing lanyard AE5220WAE

Y-Energy absorbing lanyard AE5320WAF

PRO™ Stretch energy absorbing lanyard with impact indicator AE5220SAK

Type	Material	1-leg	2-leg	Length in m	Weight in kg	Connector	Item no.
AE5220WAE	25 mm polyester webbing	✔		2.0	0.81	1 karabiner - 17 mm, 1 carabiner - 18 mm opening width	49VMGB01
AE5320WAF	25 mm polyester webbing		✔	2.0	1.80	1 karabiner - 17 mm, 2 scaffold hooks - 60 mm opening width	49VMY002
AE5220SAK	50 mm stretch material	✔		2.0	1.03	Screw karabiner 17 mm, scaffold hook - 60 mm opening width	49VMST0SAK

Fall arrestor system



Rectractable Fall Arrest Block

Retractable Lifeline - Wire Rope

Art. No.	Length (Mtr)	Dimension (mm)			Class A or B	Weight (Kg)	Material
		A	B	C			
N-9420-33	10	650	166	88	Class B	4.0	Plastic
CS N-9410-33	10	650	166	88	Class B	4.0	Aluminium
N-9420-50	15	735	210	96	Class B	6.5	Plastic

EN 360 ANSI Z359.12-2009
& ANSI A10.14-1993
Meets OSHA 1910.66 & 1926.502

Fiber Rope

Some notes on fibre ropes (instructions for use)

- We are offering fibre ropes made from many different raw materials and in top-quality makes. 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 chemicls, the manufacturer must be consulted!**
- **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

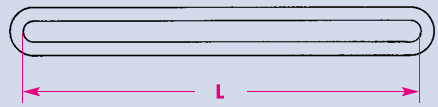
Rope Slings

3900. Polyester Rope Sling Type Polystar

Universal lifting sling for low and medium duty applications.

The 5 strand construction ensures round and full contact of the rope with the load and offers enhanced edge resistance. In extreme cases edge protectors should be used.

Your advantages:
- Endlessly laid without slub, no outer splice area
- 5-strand cable laid, resistant against twist
- Low elongation
- Long service life
- Smooth lifting
- With coloured capacity identification thread



Rope Ø in mm	Load capacity single direct in kg	Item no.
16	500	3900.00.16
20	1000	3900.00.20
24	1500	3900.00.24
28	2000	3900.00.28
32	3000	3900.00.32
40	4000	3900.00.40

3600. Polyamide Rope Slings (PA 6)

Fibre rope slings acc. to DIN EN 1492-4, both ends with spliced loops
Loop length = 15 x rope Ø, made from polyamide rope acc. to ISO 1140, Form A – 3-strand twistedt/type 1 – thermically stabilised

Rope Ø in mm	Load capacity with lifting method single direct	choker hitch	Item no.
16	0,68	0,54	3600.00.16
20	1,1	0,88	3600.00.20
24	1,5	1,2	3600.00.24
28	2,1	1,7	3600.00.28
32	2,6	2,1	3600.00.32
36	3,2	2,6	3600.00.36
40	3,8	3,0	3600.00.40
48	5,4	4,3	3600.00.48

Choose polyamide fibre rope slings if
- You have highest requirements regarding tensile strength and durability
- Impacts or blows must be expected
- High abrasive wear must be expected
- The ropes may sink in water
- Under permanent exposure to sunlight the rope is inspected in regular intervals (e.g. embrittlement)
- Under permanent effect of water or heat the residual shrinkage of < 5% is acceptable
- The rope has no contact with chemicals

Note: Polyamide (PA) is also known as „Perlon“ (PA 6) or „Nylon“ (PA 6.6)

Lifting Beam

© Siemens AG

Photo: Sensoplan, 79801 Hohentengen

Special lifting beams for all applications

If you have a special application that is not covered by our standard product range, we will be able to help you anyway.

Challenge us and send us your enquiry with all specifications.

We are specialised in custom-made solutions for all applications. We will be pleased to work out an offer for you.

Crane Technology

7170. Aluminium tripod with rubber-metal feet, load capacity 1,000 kg

Both types figure 1 and 2 have the following advantages:
- Wide adjusting range due to telescopic legs
- Collapsible, overall height for transport 2 m
- High stability through anti-slip rubber-metal linings on bottom of legs
- Eyebolt with axial bearing (for turning under load)

Version with hand winch (**figure 2**)
- 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 25m, rope ø 7 mm

Load capacity in kg	Type	Height of suspension point min./max. in mm	Weight in kg/pce	Item no.
1000	Standard	1750-3170	54	7170.10.10
1000	Wiht hand winch	1750-3170	74	7170.20.10

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

For chain blocks see from page 71.

Figure 1

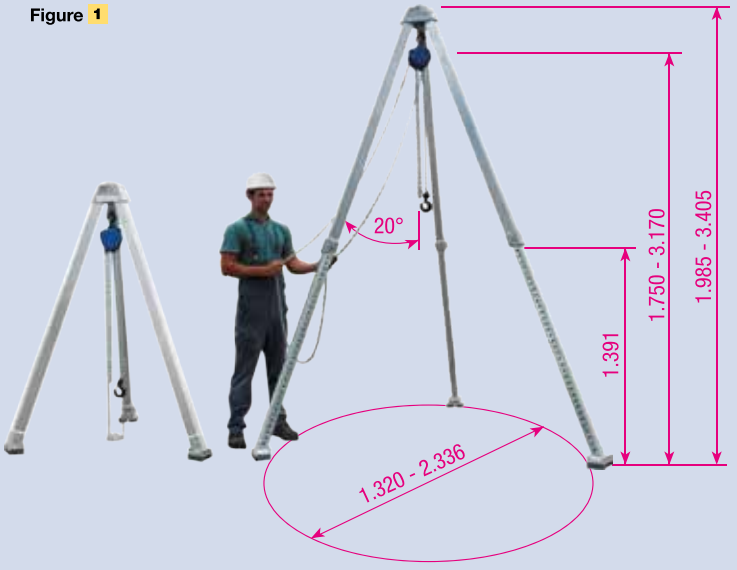


Figure 2

On request the aluminium tripods are also available with an electric wire rope winch.

Please contact us for details!

Mobile Aluminium Cranes

- Suitable for clean room work
- Tripods
- Multilifts
- Portal Cranes

Alu-Multilift

The Alu-Multilift – easy to carry! To facilitate your work.

7172. Alu-Multilift

Scope of delivery: With crane arm and lifting fork
without counterweight see figure 1 and 2
with counterweight see figure 3 and 4

Special versions available!

- The Alu-Multilift has been specially developed for businesses in need of a mobile lifting device
- Folded for transport it will fit into a van
- Hoisting is effected by a chain winch (approx.35 mm lift per crank turn)
- Top of mast extension is detachable
- With just a few turns the lifting device can be folded away
- The counterweight can be removed (from item-no.71720012)

	Load capacity in kg	Type	Lifting height with lifting fork in mm	Width of lifting fork in mm	Length of lifting fork in mm	Outer width of base forks in mm	With crane arm: Jib length in mm	With crane arm: Hook path in mm	Dimensions folded in mm	Weight in kg/pce.	Item no.
1 + 2	250	without conterweight	2000	400	800	560	600	2300	496 x 750 x 1300	70	7172.00.02
3 + 4	250	with counterweight	2000	400	800	-	600	2300	432 x 750 x 1300 + Anbauteil	400	7172.00.12

Figure 1 without counterweight, with crane arm

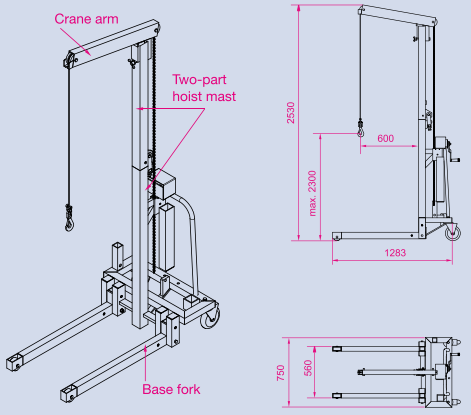


Figure 2 without counterweight, with lifting fork

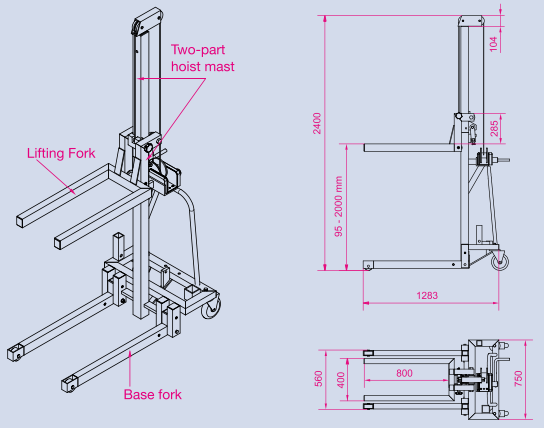


Figure 3 with counterweight, with crane arm

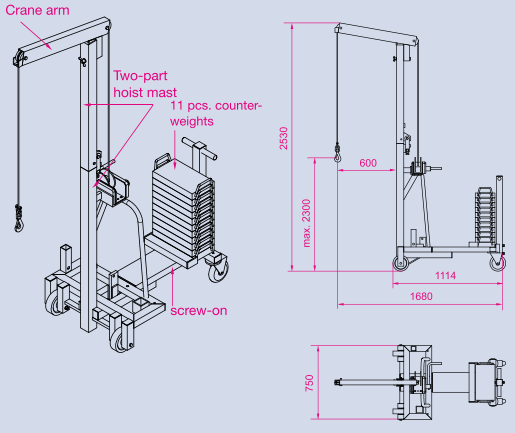
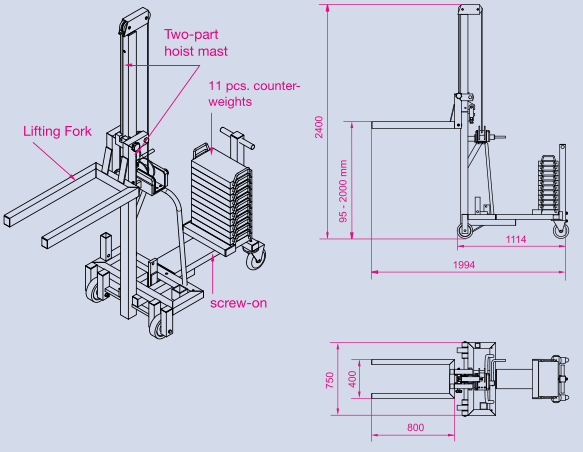


Figure 4 with counterweight, with lifting fork



Portable Aluminium Gantry Cranes

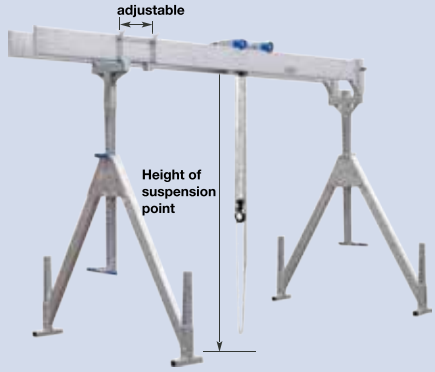
8030. Stationary version with collapsible lateral stands, lockable trolley, and integrated horizontal adjuster

Standard span (clearance width) 4 m

Capacity in kg	Height of suspension pointmin./max. in mm	Lateral stand span in mm	Weight in kg	Item no.
1000	1260/2360	1300	91	8030.4K.10
1000	1640/2990	1740	97	8030.5K.10
1000	2320/4020	2240	149	8030.6K.10
1500	1260/2360	1300	99	8030.4K.15
1500	1640/2990	1740	105	8030.5K.15
1500	2320/4020	2240	157	8030.6K.15

Spans up to 8 m are available at short notice Special versions for many applications are available! Please contact us for details!

8030. Stationary version with collapsible lateral stands, double beam, lockable overhead trolley and integrated horizontal adjuster



Standard span (clearance width) 4 m.
Lockable overhead trolley provides maximised lifting height.

Capacity in kg	Height of suspen-sion point min./max. in mm	Lateral stand span in mm	Weight in kg	Item no.
1000	2150/3570	1740	162	8030.5H.10
2000	2650/4350	2240	208	8030.5H.20
3000	2640/3790	2230	248	8030.5H.30

Two-piece aluminium beam as option or for retrofitting

NEW! Now for all aluminium gantry cranes!

As we are already offering all our lateral stands for our aluminium gantry cranes in a collapsible version, now even the longest and most bulky component is available in a 2-piece version.
The aluminium beam can either be used as a 4 m carrier beam or a 2 m-piece.

Please contact us for details!

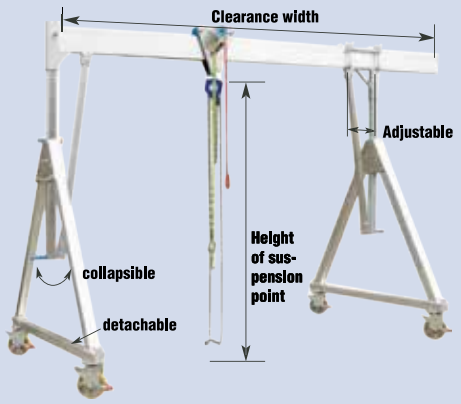
The plug-on aluminium beam is available for single and double beam aluminium gantry cranes.

Lateral stand for stationary gantry crane

Lateral stands for version movable under load

Portable Aluminium Gantry Cranes

8030. Movable under load with collapsible lateral stands, lockable trolley, and integrated horizontal adjuster



Standard span (clearance width) 4 m

Capacity in kg	Height of suspension point min./max. in mm	Lateral stand span in mm	Weight in kg	Item no.
1000	1730/2130	1490	167	8030.7V.0110
1000	2170/3020	2000	189	8030.7V.0210
1000	2500/3800	2320	207	8030.7V.0310
1500	1730/2130	1490	175	8030.7V.0115
1500	2170/3020	2000	197	8030.7V.0215
1500	2500/3800	2320	215	8030.7V.0315

8030. Movable under load with collapsible lateral stands, double beam, lockable overhead trolley, and integrated horizontal adjuster

Standard span (clearance width) 4 m
Lockable overhead trolley provides maximised lifting height.

Capacity in kg	Height of suspension point min./max. in mm	Lateral stand span in mm	Weight in kg	Item no.
1000	2060/2460	1490	234	8030.8V.0110
1000	2500/3350	2000	260	8030.8V.0210
1000	2830/4130	2320	278	8030.8V.0310
1500	2060/2460	1490	234	8030.8V.0115
1500	2500/3350	2000	260	8030.8V.0215
1500	2830/4130	2320	278	8030.8V.0315
2000	2060/2460	1490	234	8030.8V.0120
2000	2500/3350	2000	260	8030.8V.0220
2000	2830/4130	2320	278	8030.8V.0320
3000	2260/2610	1350	358	8030.8V.0130
3000	2760/3510	1870	390	8030.8V.0230
3000	3170/4320	2220	420	8030.8V.0330

Storage/Transport Box

Material: Aluminium

- Rugged construction with hinged lid
- Plate for padlock
- Shell handles on the lid
- 6 wheels (including brake), so the box can be moved individually
- 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.

Dimensions: The box is adapted to the particular crane size.

Contents of box depicted =
2-piece aluminium beam, foldable lateral stands and accessories

Portable Aluminium Gantry Cranes - Accessories

8030.ZA Hand Winch

- For height adjustment
- Not to be used under load
- The gantry crane can be assembled on a low level
- Afterwards it can be raised to the desired working height using the hand winches
- 1 set = 2 winches (1 per lateral stand)

For gantry crane	Item no.
all types	8030.ZA.01

Wheel Sets

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

8030.ZV Wheel set with Vulkollan wheels

- For indoor use

For gantry crane	Item no.
stationary version	8030.ZV.01

8030.ZL Wheel set with PU foam wheels

- For indoor and outdoor use

For gantry crane	Item no.
stationary version	8030.ZL.01

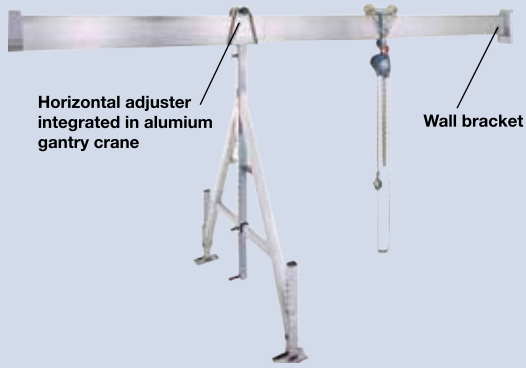
Vulkollan tyres

Puncturepoof PU foam tyres

8030.ZW Wall Bracket

- 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 beam can be slewed through 180° at the wall bracket (in unloaded condition)

For gantry crane	Item no.
8030.4K.xx 8030.5K.xx	8030.ZW.01
8030.6K.xx 8030.7V.xxx	8030.ZW.02
8030.5H.xx 8030.8V.xxx	8030.ZW.03



8030.SZ Wiring/power supply for aluminium gantry cranes

- The portal crane is delivered ready to use
- Power supply 400 V/16A, 50 Hz, 5-pole with switch
- Phase changing 5-pole CEE plug
- Electrical connection of the hoist is effected by a 6-pole plug (protected IP66 DIN EN 60259)
- All electrical components are suitable for indoor and outdoor use under normal operating conditions

For all gantry cranes	Item no.
with “single beam”: PUR spiral cable	8030.SZ.E04
with “double beam”: PUR spiral cable	8030.SZ.D04

NEW! All our aluminium gantry cranes can now also be fitted with an electrically powered trolley. Additionally to powered lifting and lowering with an Electric Chain Hoist the load can now also be moved electrically along the beam. A radio remote control is available as an option. Please contact us for pricing.

When ordering an accessory indicate item no. of your crane!

Hydraulic Lifting

The complete hydraulic range

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 in cm^3	Cylinder Ø in mm	Weight in kg	Item no.
HVL 10	10	6	28	9	87	1.6	78HV.L0.10
HVL 20	20	6	32	17	104	2.6	78HV.L0.20
HVL 30	32	6	34	27	120	3.0	78HV.L0.30
HVL 50	50	6	45	43	158	7.2	78HV.L0.50
HVL 100	104	6	65	88	200	15.6	78HV.L1.00

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 in cm^3	Cylinder Ø in mm	Weight in kg	Item no.
HPS 50	4.5	6	32	4	60	0.8	78HP.S0.050
HPS 51	4.5	16	42	10	60	0.9	78HP.S0.051
HPS 100	10	10	46	14	81	1.6	78HP.S0.100
HPS 200	20	11	52	31	100	2.6	78HP.S0.200
HPS 300	32	12	59	55	115	4.2	78HP.S0.300
HPS 500	50	15	67	107	140	6.6	78HP.S0.500
HPS 750	73	16	81	164	165	10.4	78HP.S0.750
HPS 1000	109	16	91	245	215	23.2	78HP.S1.000
HPS 1500	147	16	100	330	215	28.5	78HP.S1.500

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 in cm^3	Cylinder Ø in mm	Weight in kg	Item no.
HLS 101	10	40	95	58	70	2.4	78HL.S0.101
HLS 201	20	44	102	126	90	4.8	78HL.S0.201
HLS 301	32	25	83	114	102	5.0	78HL.S0.301
HLS 302	32	60	119	274	102	7.0	78HL.S0.302
HLS 501	50	25	91	178	127	8.4	78HL.S0.501
HLS 502	50	60	126	428	127	10.4	78HL.S0.502
HLS 1001	109	25	108	384	178	19.8	78HL.S1.001
HLS 1002	109	60	143	921	178	24.0	78HL.S1.002
HLS 1501	147	25	130	516	216	37.0	78HL.S1.501
HLS 1502	147	50	155	1031	216	42.0	78HL.S1.502

78HP. Manually and Foot operated Pumps 700 bar

- Single or two speed operation
- 2- or 4-way valves (D-types)

Accessories for manually and foot operated pumps: pressure gauges and mounting blocks

HP212

Manually operated pumps for single acting cylinders

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	78HP.01.10
HP 211	2-way	Aluminium	12,9	1,0	0,5	2,0	78HP.02.11
HP 212	2-way	Aluminium	12,9	2,3	1,00	4,0	78HP.02.12
HP 227	2-way	Steel	12,9	2,3	2,30	10,5	78HP.02.27
HP 232	2-way	Aluminium	12,9	2,3	2,00	6,9	78HP.02.32
HP 257	2-way	Steel	12,9	2,3	5,00	15,2	78HP.02.57
HP 252	2-way	Aluminium	12,9	2,3	5,00	11,6	78HP.02.52
HP 245	2-way	Steel	113,0	4,0	10,00	29,5	78HP.02.45
HP 232D	4-way	Aluminium	12,9	2,3	2,00	8,7	78HP.02.32D
HP 252D	4-way	Aluminium	12,9	2,3	5,00	13,6	78HP.02.52D
HP 245D	4-way	Steel	113,0	4,0	10,00	29,5	78HP.02.45D

HP227 FPC with hose and pressure gauge

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	78HP.02.27FP
HP 227 FPC*	2-way	Steel	12,9	2,3	2,30	14,5	78HP.02.27FPC

*complete with hydraulic hose and pressure gauge ø 100 mm

78AHP. Air driven Pumps

- 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“

AHP1120

Type	Valve Type	Usable oil capacity in litres	Weight in kg	Item no.
AHP1120	2-way	2,4	4,70	78AH.P1.120
AHP1121	2-way	5,0	9,00	78AH.P1.121
AHP1122	2-way	10,0	17,80	78AH.P1.122
AHP1141	4-way	5,0	9,50	78AH.P1.141
AHP1142	4-way	10,0	18,30	78AH.P1.142

Other air driven hydraulic pumps on request.

Stainless Steel Products

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 $C_2H_2O_2$	-	-	1	0	0	0
Fatty acid $C_{18}H_{34}O_2$	-	150 °C	1	0	0	0
Fluorine	40%	-	1-2	1-2	1-2	1-2
Gallic acid $C_6H_{20}O_2H$	-	-	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_3	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_2SO_4	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

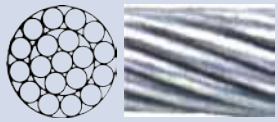
	-40°C bis +250°C	über 250°C bis 350°C*	über 350°C bis 450°C
W.L.L.	100 %	75 %	50 %

*1.4462 (AISI 318LN) max. 350°C allowed

Under unfavourable conditions corrosive attacks may occur in tight crevices.

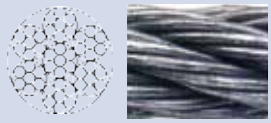
The selection of the above-mentioned corrosive agents has been made according to their frequency of occurrence but may be extended in many areas. These indications result from laboratory tests of the material manufacturers and may only serve as a rough guide as practical application conditions cannot be compared with laboratory results.

0153. Stainless Steel Strand, Material 1.4401, Constructions 1x19*, 1 x 37**, 1 x 61***



Rope Ø in mm	Minimum breaking load (MBL) kN	kg	Weight in kg/m	Construc-tion	Item no.
2,0	3,3	337	0,020	1 x 19	0153.10.20
3,0	7,42	757	0,045	1 x 19	0153.10.30
4,0	13,2	1350	0,079	1 x 19	0153.10.40
5,0	20,6	2100	0,124	1 x 19	0153.10.50
6,0	29,7	3030	0,178	1 x 19	0153.10.60
8,0	49,4	5040	0,317	1 x 19	0153.10.80
10,0	72,2	7364	0,495	1 x 19	0153.11.00
12,0	104,0	10608	0,713	1 x 19	0153.11.20
14,0	131,0	13362	0,971	1 x 19	0153.11.40
16,0	176,0	17952	1,100	1 x 19	0153.11.60

0155. Stainless Steel Wire Rope, Material 1.4401, Construction 6x7M-WSC

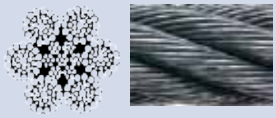


Rope Ø in mm	Minimum breaking load (MBL) 1570 N/mm² kN	kg	Weight in kg/m	Item no.
2,0	2,24	228	0,015	0155.10.20
3,0	5,03	513	0,035	0155.10.30
4,0	8,94	912	0,061	0155.10.40
5,0	14,0	1430	0,096	0155.10.50
6,0	20,1	2050	0,138	0155.10.60
8,0	35,8	3650	0,246	0155.10.80

0160. Stainless Steel Wire Rope, Material 1.4401, Construction 6x19M-WSC

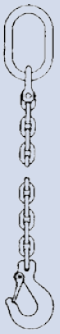
Rope Ø in mm	Minimum breaking load (MBL) 1570 N/mm² kN	kg	Weight in kg/m	Item no.
2,0	2,08	291	0,017	CG71.92.00
3,0	4,69	478	0,034	0160.10.30
4,0	8,34	850	0,060	0160.10.40
5,0	13,0	1330	0,093	0160.10.50
6,0	18,8	1920	0,134	0160.10.60
8,0	33,4	3410	0,238	0160.10.80
10,0	52,1	5310	0,372	0160.11.00
12,0	75,1	7660	0,536	0160.11.20
16,0	133,0	13600	0,955	0160.11.60

0164. Stainless Steel Wire Rope, Material 1.4401, Construction 6x36WS-IWRC

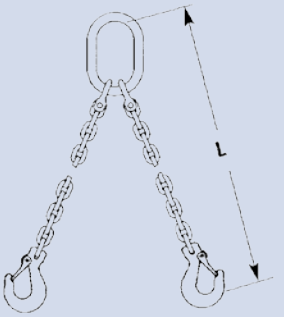


Rope Ø in mm	Minimum breaking load (MBL) 1570 N/mm² kN	kg	Weight in kg/m	Item no.
6,0	20,1	2048	0,146	0164.10.60
8,0	35,7	3641	0,260	0164.10.80
10,0	55,9	5700	0,409	0164.11.00
12,0	80,5	8210	0,589	0164.11.20
14,0	110,0	11200	0,802	0164.11.40
16,0	143,0	14600	1,050	0164.11.60
18,0	181,0	18500	1,330	0164.11.80
20,0	224,0	22800	1,640	0164.12.00
22,0	271,0	27600	1,980	0164.12.20
24,0	322,0	32800	2,360	0164.12.40
26,0	354,0	36100	2,760	0164.12.60

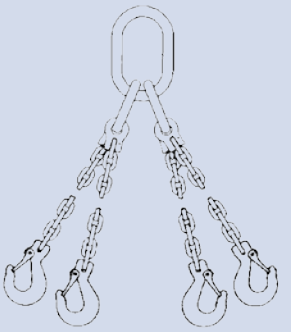
6101.0E.
1-leg Chain Sling
with Safety Hook CML1



6201.0E.
2-leg Chain Sling
with Safety Hook CML2



6401.0E.
4-leg Chain Sling
with Safety Hook CML4

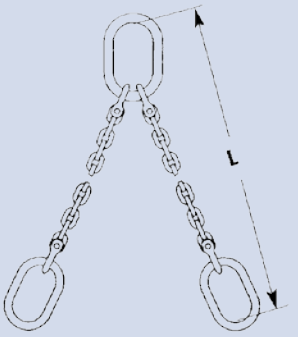


Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle 0-45°	45-60°	Item no.	Load capacity 4-leg in kg at angle 0-45°	45-60°	Item no.
6	900	6101.0E.06	1250	900	6201.0E.06	1900	1350	6401.0E.06
8	1500	6101.0E.08	2100	1500	6201.0E.08	3150	2250	6401.0E.08
10	2400	6101.0E.10	3350	2400	6201.0E.10	5000	3600	6401.0E.10

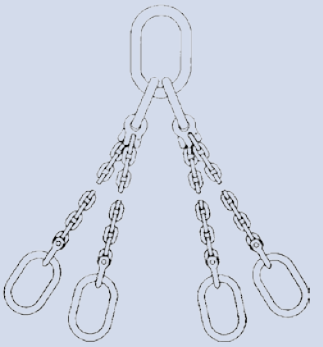
On request, nominal sizes 13 and 16 mm are also available with eye hook

6102.0E.
1-leg Chain Sling
with Master Link CME1

6202.0E.
2-leg Chain Sling
with Master Link CME2



6402.0E.
4-leg Chain Sling
with Master Link CME4



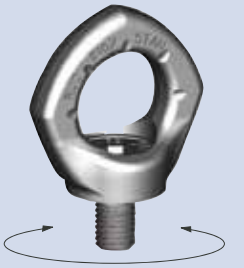
Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle 0 - 45°	45 - 60°	Item no.	Load capacity 4-leg in kg at angle 0 - 45°	45 - 60°	Item no.
6	900	6102.0E.06	1250	900	6202.0E.06	1900	1350	6402.0E.06
8	1500	6102.0E.08	2100	1500	6202.0E.08	3150	2250	6402.0E.08
10	2400	6102.0E.10	3350	2400	6202.0E.10	5000	3600	6402.0E.10
13	3850	6102.0E.13	5400	3850	6202.0E.13	8000	5700	6402.0E.13
16 (G5)	5000	6102.0E.16	7000	5000	6202.0E.16	10000	7500	6402.0E.16

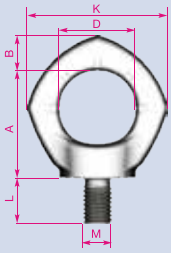
Other end fittings like shackles or eye hooks are available on request

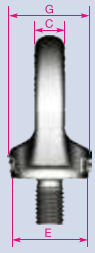
Eye Bolt, Lifting Ring

5555.E. Stainless Steel Eye Bolt Type INOX-STAR

Stainless steeel
50% higher load capacity than DIN
Can be loaded in all directions!



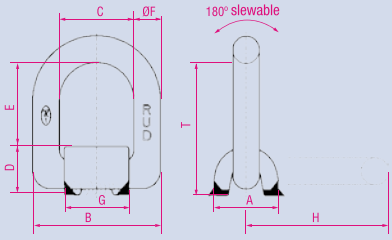


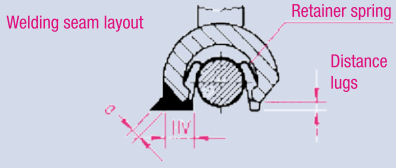


Also available as attachment point for fall protection systems.

Type	Nominal load capacity in t	Dimensions in mm										Weight in kg/pce	Item no.
		A	B	C	D	E	G	K	L	M	SW		
INOX-STAR M12	0,5	43	14	10	30	30	32	56	18	M12	8	0,2	5555.E0.12
INOX-STAR M16	1,0	50	16	14	35	35,5	38	65	24	M16	10	0,3	5555.E0.16
INOX-STAR M20	2,0	57	19	16	40	41,5	46,5	74	30	M20	12	0,6	5555.E0.20
INOX-STAR M24	2,5	70	24	19	48	50	56	92	36	M24	14	1,0	5555.E0.24

5563. 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	5563.10.05
1	LBS (3) RS 1t	HV 8+3	42	85	50	31	50	16,5	46	108	81	0,6	5563.10.10
2	LBS (5) RS 2t	HV 12+4	61	110	65	44	72	22,2	60	155	116	1,6	5563.10.20

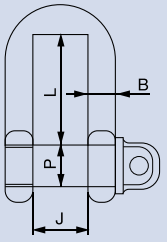
Maximum transport weight G in ton with different lifting methods

Lifting method										
Number of 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

5672. High Strength Stainless Steel D-shackle, forged, stamped with Load Capacity

Stainless steel material,
Safety factor 6:1
Material: AISI 630

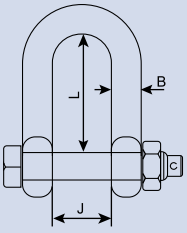
Higher load capacity due to special material



Load capacity in kg (WLL)	Nominal size	Dimensions in mm P	B	J	L	Weight in kg	Item no.
1000	10	10,0	8,0	16	32	0,085	5672.00.10
2000	12,7	12,7	10	20	40	0,150	5672.00.13
3000	16	16	12,7	25	50	0,350	5672.00.16
5000	19	19	16	32	64	0,550	5672.00.19
7000	22,2	22,2	19	38	76	1,000	5672.00.22
9000	25,4	25,4	22,2	44	88	1,900	5672.00.25
11000	28,6	28,6	25,4	51	102	2,900	5672.00.29
13000	31,8	31,8	28,6	57	114	3,100	5672.00.32
15000	34,9	34,9	31,8	64	128	4,350	5672.00.35
18000	38	38	34,9	70	140	5,300	5672.00.38

5673. Stainless Steel D-shackle with Nut and Pin, forged, stamped with Load Capacity

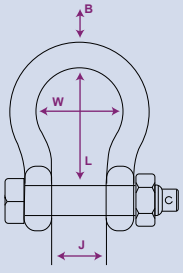
Stainless steel material,
Safety factor 6:1
Material: AISI 630



Load capacity in kg	Nominal size	Dimensions in mm B	J	L	Weight in kg/pce	Item no.
350	M6	6	13	25	0,048	5673.00.06
500	M8	8	16	32	0,075	5673.00.08
800	M10	9,5	19	38	0,136	5673.00.10
1000	M12	11	22	44	0,212	5673.00.12
1250	M12	12,7	26	52	0,331	5673.00.13
1800	M16	14,3	29	58	0,585	5673.00.16
2800	M20	16	32	64	0,760	5673.00.20
3300	M22	19	38	76	1,180	5673.00.22
4500	M24	22	44	88	1,750	5673.00.24
5000	M27	25,4	50	100	2,600	5673.00.27

5674. Stainless Steel Bow Shackle with Nut and Pin, forged, stamped with Load Capacity

Stainless steel material,
Safety factor 6:1
Material: AISI 630



Load capacity in kg	Nominal size	Dimensions in mm B	J	W	L	Weight in kg/pce	Item no.
280	M6	6	13	19	28	0,052	5674.00.06
400	M8	8	16	25	35	0,081	5674.00.08
600	M10	9,5	19	28	38	0,147	5674.00.10
800	M12	11	22	33	46	0,221	5674.00.12
1000	M12	12,7	26	38	52	0,354	5674.00.13
1500	M16	14,3	29	43	60	0,635	5674.00.16
2500	M20	16	32	50	68	0,805	5674.00.20
3000	M22	19	38	58	76	1,250	5674.00.22
4000	M24	22	44	66	88	1,820	5674.00.24
4500	M27	25,4	50	76	100	2,700	5674.00.27

OUR SERVICES

017-IB
161-IB

004-CB-PRS

069-LB-CAL

Full Member

All Range of Lifting Gears & Appliances • Third Party Inspection & Certification Service • Consultancy Services & Training • Certification of Persons • Calibration Laboratory Service

INTRODUCTION

ABOUT US

Established in 1880 as a small rope maker in Süssen-Germany, Carl Stahl has grown through innovation and vision to employ over 1800 people operating all around the world. Today Carl Stahl serves customers from 70 locations on four continents.

As Carl Stahl remains committed to providing the highest quality product and services to the industry and customers, we have now become a unique enterprise for various integrated facilities where our valuable clients have the convenience to avail the different amenities under our same Carl Stahl patronage:

- Carl Stahl delivers third party services in **"Test, inspection & certification"** of all types of onshore and offshore lifting equipment and associated various plant machinery including lifting equipment carrying persons.

- **"Test and certification of Aviation maintenance tools and instruments"**

- **"Competency assessment and Training for Persons"** in the lifting/hoisting field and as per the various industry requirements.

- **"Calibration Services"** including a wide range of common and specific instruments, tools and equipment covering Mass/Balance, Pressure, Temperature, Electrical, Dimensional, Force, Volume, Flow and other miscellaneous equipments including aviation maintenance industry instruments.

Our engineers and Technicians are among the most qualified and experienced in the field.
Carl Stahl has developed an enviable reputation in all major industries and is well placed and heavily supported both nationally and internationally.

REGULATORY COMPLIANCE

All our services are in accordance with the Federal Laws, local Regulation, International standards, Directives of code and practices as follows, but not limited to:

LOCAL REGULATIONS:	INTERNATIONAL:
• Emirates International Accreditation Center (EIAC) • TRAKHEES • Public Health and Safety Department (PHSD) • Dubai & Abu Dhabi Municipality • Dubai Civil Defense • TECOM • Ministry of Labor and Social Affairs • Emirates National Accreditation System (ENAS) • Abu Dhabi Occupational Safety and Health Center (OSHAD) • Abu Dhabi Quality and Conformity Council (QCC) • ZONESCORP / IDB • Abu Dhabi Center for Technical and Vocational Education and Training (ACTVET) • Oil and Gas Field companies requirements	• British Standards Institution (BSI) • German Institutes for Standardization (DIN) • American Welding Society (AWS) • American Society for Testing and Materials (ASTM) • American National Standards Institute (ANSI) • American Society of Mechanical Engineers (ASME) • American Petroleum Institute (API) • Det Norske Veritas (DNV) • American Bureau of Shipping (ABS) • Lifting Operations and Lifting Equipment Regulations (LOLER) • Provision and Use of Work Equipment Regulations (PUWER) • Machinery Directive 2006/42/EC • Lifting Equipment Engineers Association (LEEA)

SAFETY

Carl Stahl consistently strives to enhance safety. Well trained safe employees are our assets. We use and provide appropriate technology & solutions to make people and environment safe.

Our work places are equipped with most modern equipments and PPE to perform activities safety on site. Carl Stahl serves safety services and solutions to the client who cares their people & environment.

COST BENEFIT

Our International acceptability and recognition would be the prime reason to choose Carl Stahl Services. We are offering unique value added services to our clients apart from statutory and regulatory requirements. Carl Stahl family is ready to serve as per the customer's convenience regardless of geographical limits and around the clock.

THIRD PARTY INSPECTION & TESTING

LIFTING EQUIPMENT

- Mobile Crane
- EOT Crane
- Tower Crane
- Portal Crane
- Deck Crane / Pedestal Crane
- Offshore Crane
- Harbor Crane

LIGHT CRANE SYSTEM

- Slewing Jib Crane
- Monorail / Runway Beam
- A – Frame
- Electrical Chain Hoist
- Electric Wire Rope Winch
- Pneumatic Winch Hoist
- Davits

PERSONAL CONVEYING UNITS

- Elevator / Passenger Lifts
- Escalator
- MEWP (Mobile Elevating Work Platform)
- Suspended Access Platform
- Construction / Passenger Hoist
- Building Maintenance Unit (BMU)
- Man Basket

AVIATION TOOLS

- Various Lifting Slings
- Pedestals
- Supports
- Stands
- Tripods
- Axel Jacks
- Fixtures
- Lifting Beams

CARGO CARRYING EQUIPMENT

- Offshore Containers
- Material Baskets
- Skids
- Racks
- Garbage / Muck Skips
- Buckets and Tankers

HANDLING EQUIPMENT

- Forklift Truck
- Telescopic Handler
- Pallet Stacker
- Container Handler
- Low Level Order Picker (LLOP)
- Fork Attachments

NON-DESTRUCTIVE TESTING (NDT)

- Magnetic Particle Examination technique
- Dye Penetrant Examination technique
- Eddy Current Examination technique
- Ultrasonic Thickness Gauging
- Visual Examination technique
- Ultrasonic Leak Detection Test

LIFTING ACCESSORIES / GEARS

- Steel Wire Rope Slings
- Endless Grommet Slings
- Chain Slings
- Webbing Slings
- Shackles
- Master links & Hooks
- Eye bolts
- Chain Blocks / Lever Hoists

TRAINING SERVICES

RIGGER LEVEL 1 (CSTC-001) – COURSE OUTLINE

- Introduction
- Site safety measures and PPE
- Centre of Gravity
- Lifting, Controlling
- Hazard identification & Prevention
- Slinging Accessories
- Pre-use examination & safe use
- Weight Estimating
- Communication
- Choosing the right sling

RIGGER LEVEL 2 (CSTC-002) – COURSE OUTLINE

- Introduction
- Site safety measures and PPE
- Types of slings & choices
- Forces on slings
- Centre of Gravity
- Lifting, Controlling
- Hazard identification & Prevention
- Slinging Accessories
- Statutory Requirements
- Pre-use examination & safe use
- Planning the lift
- Weight Estimation
- Communication
- Choosing the right sling

FORKLIFT OPERATOR (CSTC-003) – COURSE OUTLINE

- Introduction
- Personal Protective Equipment's
- What is a Forklift
- Types of Forklifts
- Major Parts
- Different Forklift Attachments
- Types Of Inspection
- Maintenance
- Stacking Materials
- Machine Stability & Safe Handling
- Offloading trucks
- Handling irregular Shapes
- Safety of site personnel
- General use for operation
- Safety Precautions
- Weight Estimation
- Summary

EARTH MOVING EQUIPMENT (CSTC-004) – COURSE OUTLINE

- Introduction
- Training Objective
- Personal Protective Equipments
- What is an earth moving equipment
- Types of Earth moving equipments
- Pre Use inspection
- Common Hazards
- General rules of safety of moving plants
- Site traffic control
- Do's & don'ts
- Summary

EOT CRANE OPERATOR (CSTC-005) – COURSE OUTLINE

- Introduction
- Personal Protective Equipment's
- Types of overhead/Gantry Cranes
- Crane parts & Terminology
- Hazard & Precautions
- Operating conditions
- Communication & Eligibility
- Pre Use inspection
- Slinging & Lifting Practices
- Lifting Gears
- Weight Estimation
- Summary

MOBILE ELEVATING WORK PLATFORM (MEWP) OPERATOR (CSTC-006) – COURSE OUTLINE

- Introduction
- Training Objective
- Personal Protective Equipment's
- Operator Qualification
- What is an Ariel Lift
- Types of MEWP
- Parts of MEWP
- Types Of Inspection
- Pre operational Inspection
- Operational Inspection
- Load Test
- Proof Load Test
- Machine Stability & Safe Handling
- Placards& Decals
- Functions & Symbols
- Safety rules
- Safety Precautions
- Grade & Side Slopes
- Summary

TRAINING SERVICES

MOBILE/CRAWLER/TOWER/PEDESTAL CRANE OPERATOR (CSTC-007) – COURSE OUTLINE

- Introduction
- Training Objective
- Personal Protective Equipment's
- Types of Mobile Cranes
- Parts
- Fly Jibs& fixed jibs
- Crawler Cranes
- Parts
- Load Chart
- Tower Cranes
- Types of tower Crane
- Parts
- Utility
- Advantages & disadvantages
- Pedestal Cranes
- Types of pedestal Cranes
- Parts
- Load Charts
- Terminologies
- Planning Before Set Up
- Knowing the weight of load
- Load Limiting factors
- Communication & Eligibility
- Pre Use inspection
- Slinging & Lifting Practices
- Centre of gravity of load
- Lifting Gears
- Weight Estimation
- Good lifting Practices
- Major Causes of crane accidents
- Crane Hazards
- Summary

SCAFFOLD SAFETY (CSTC-008) – COURSE OUTLINE

- Introduction
- Training Objective
- Personal Protective Equipment's
- What is a Scaffold
- Types of Scaffold
- Parts
- Scaffolding Accessories
- General Safety
- Height to Width ratio
- Erection & Dismantling
- Usage
- Tagging Details
- Basic fall protection
- Hazards
- Falling Object protection
- Overhead Power lines
- Scaffold support
- Essential elements of safe scaffold construction
- Competent person
- Scaffold inspection
- How to avoid hazards
- Summary

WORK AT HEIGHT (CSTC-009) – COURSE OUTLINE

- Introduction
- What is working at height
- Hazards associated with working at Heights
- Control of Hazards
- Steps for safe working at Height
- Safe working on ladders, scaffolds, work platforms
- and roofs
- Fall Prevention
- Techniques and equipment to be used
- Permit to Work
- Emergency Rescue Plan
- Local Regulation
- Summary

MOBILE CRANE OPERATOR (EIAC ACCREDITED)

Written Examination

Core examination consist of 30 multiple choice questions
Specialty examination consist of 20 multiple choice questions
Duration of the examination is 50 minutes
Candidate minimum passing score is 75%

Practical Examination

4 tasks to be completed
Each task shall have optimum time limit based on the complexity of the task
Candidate minimum passing score is 75%

TOWER CRANE OPERATOR (EIAC ACCREDITED)

Written Examination

Core examination consist of 30 multiple choice questions
Specialty examination consist of 20 multiple choice questions
Duration of the examination is 50 minutes
Candidate minimum passing score is 75%

Practical Examination

4 tasks to be completed
Each task shall have optimum time limit based on the complexity of the task
Candidate minimum passing score is 75%

OVERHEAD CRANE OPERATOR (EIAC ACCREDITED)

Written Examination

Core examination consist of 30 multiple choice questions
Specialty examination consist of 20 multiple choice questions
Duration of the examination is 50 minutes
Candidate minimum passing score is 75%

Practical Examination

4 tasks to be completed
Each task shall have optimum time limit based on the complexity of the task
Candidate minimum passing score is 75%

FORKLIFT OPERATOR (EIAC ACCREDITED)

Written Examination

Written examination consist of 50 multiple choice questions
Duration of the examination is 50 minutes
Candidate minimum passing score is 75%

Practical Examination

4 tasks to be completed
Each task shall have optimum time limit based on the complexity of the task
Candidate minimum passing score is 75%

RIGGER LEVEL-1 (EIAC ACCREDITED)

Written Examination

Written examination consist of 30 multiple choice questions
Duration of the examination is 30 minutes
Candidate minimum passing score is 75%

Practical Examination

4 tasks to be completed
Each task shall have optimum time limit based on the complexity of the task
Candidate minimum passing score is 75%

RIGGER LEVEL-2 (EIAC ACCREDITED)

Written Examination

Written examination consist of 40 multiple choice questions
Duration of the examination is 40 minutes
Candidate minimum passing score is 75%

Practical Examination

4 tasks of Rigger Level-1 + additional 2 tasks to be completed
Each task shall have optimum time limit based on the complexity of the task
Candidate minimum passing score is 75%

SIGNALMAN / BANKSMAN (EIAC ACCREDITED)

Written Examination

Written examination consist of 30 multiple choice questions
Duration of the examination is 30 minutes
Candidate minimum passing score is 75%

Practical Examination

2 tasks with various signals to be completed
Candidate minimum passing score is 75%

CALIBRATION SERVICES

INTRODUCTION

Carl Stahl offers a wide range of Calibration Services to a wide range of common and specific instruments, tools and equipment. Our Calibration Laboratory is equipped with the latest and high-accuracy reference instruments which are traceable to national and international standards.

Our engineers and technicians are highly qualified and experienced and our calibrations are in accordance to procedures, manufacturer specifications and international standards.

CALIBRATON SERVICES

PRESSURE (COVERS -1 BAR TO 2800 BAR)

- Analogue or Bourdon Tube pressure/Vacuum Gauge
- Digital Pressure/ Vacuum Gauge
- Pressure/ Vacuum Switch
- Pressure/ Vacuum Transmitter
- Pressure Calibrator
- Pressure Transducer
- Manometer
- Pressure Chart Recorder
- Compound Gauge
- Diff. Pressure Gauge
- Diff Pressure Transmitter

MASS/BALANCE (BALANCE UP TO 60 TON AND MASS UP TO 5 TON)

- Digital Weighing Balance
- Analogue Weighing Balance
- Batch Weighing Scale
- Hopper Weighing Scale
- Weighing Bridge
- F2 Class Weights
- M1, M2, M3 Class Weights
- Platform Scale
- Weight Adjustment
- Weighing Bridge up to 120 ton

ELECTRICAL

- Multi Meter
- Clamp Meter
- Volt Meter
- Ampere Meter
- Resistance Meter
- Capacitance Meter
- Power Measuring Instrument

ELECTRICAL (continues...)

- Energy Meters Single Phase or Three Phase
- Resistance Box
- Signal Generator
- Oscilloscope / Scope Meter
- Power Supply
- Megger
- Earth Resistance
- Insulation Tester
- Battery Tester
- Welding Machine
- Multifunction Calibrators
- Temperature Simulation
- High Voltage Tester
- RCD Tester
- Loop Tester
- Timer / Stop Watch
- Tachometer

Meter

VOLUME

- Pipette
- Burette
- Micropipette
- Glass Beaker
- Measuring Flask
- Visi Gauge

FLOW

- Air flow meter
- Gas Flow Meter
- Rota Meter
- Inclinometer
- Air Velocity
- Hepa Filters
- Water Flow Meter
- Ultrasonic Flow Meter

FORCE AND TORQUE

- Torque Wrench (Up to 2000 Nm)
- Torque Screw Driver (Up to 2000 Nm)
- Torque Multiplier (Up to 2000 Nm)
- Torque Transducer (Up to 2000 Nm)
- Load Cell (Up to 300 ton)
- Push / Pull Gauge (Up to 100 ton)
- Universal Testing Machine ((Up to 100 ton)
- Compression Testing Machine (Up to 100 ton)
- Force Gauge (Up to 1000 KN)
- Rubber / Shore Hardness Tester

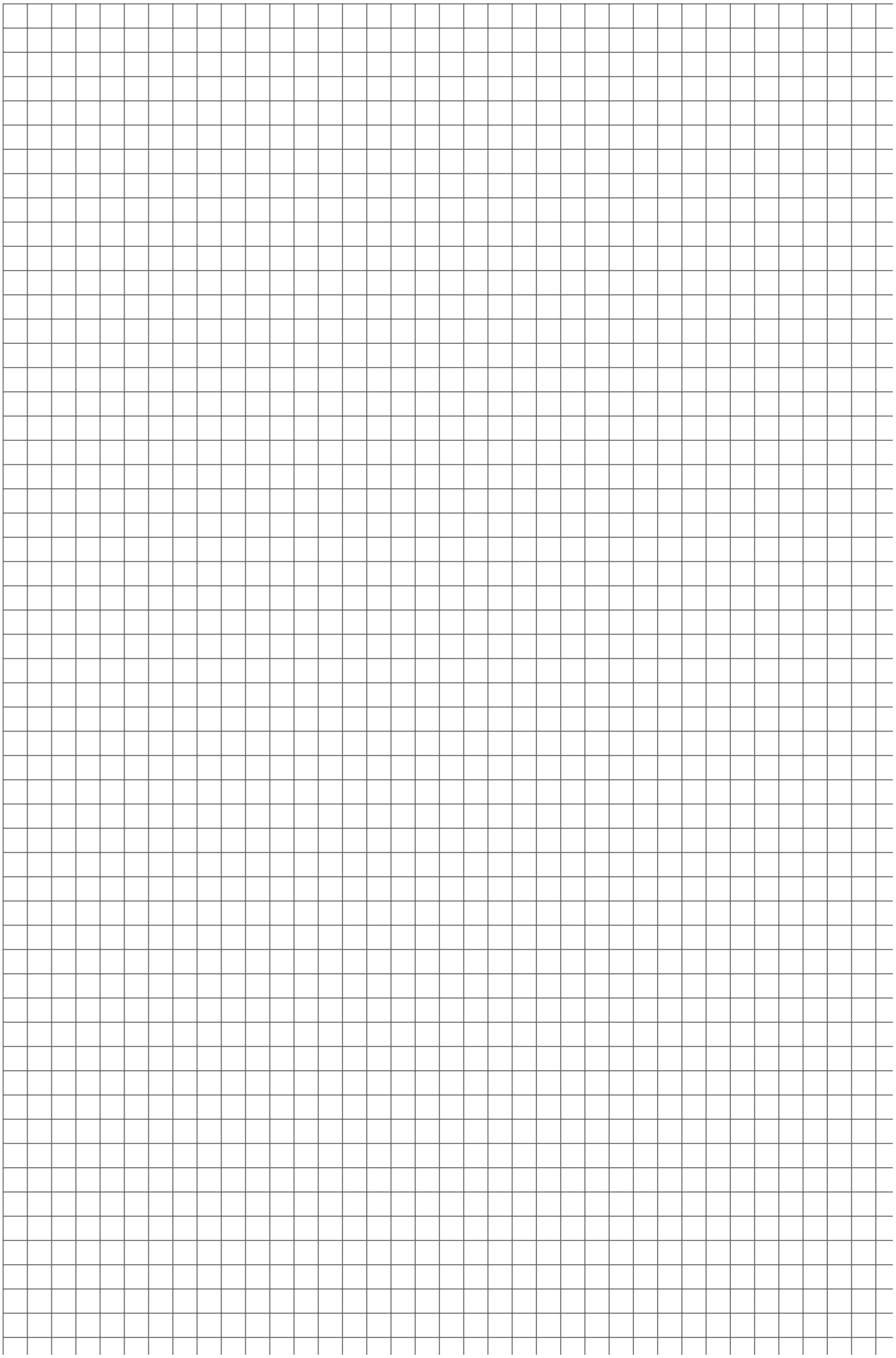
TEMPERATURE

- Glass Thermometer (-20 to 200°C)
- Digital Thermometer (-20 to 650°C)
- Probe Thermometer (-20 to 650°C)
- Temperature Transmitter/Switch
- RTD Sensor (-20 to 650°C)
- Thermocouple Sensor (-20 to 650°C)
- IR Thermometer (-20 to 650°C)
- Thermal Imager (-20 to 650°C)
- Chiller / Freezer (-35 to 50°C)
- Incubator (-35 to 50°C)
- Vehicle Chiller (-35 to 50°C)
- Refrigerator (-35 to 50°C)
- Dry Block (-35 to 1200°C)
- Liquid Bath (- 35 to 200°C)
- Autoclave (Amb. to 123°C)
- Environment Chamber (-35 to 100°C)
- Walk-in Chamber / Chiller / Freezer (-35 to 400°C)
- Single / Multipoint Temp. / Humidity Room Mapping
- Temperature Gauge (-20 to 650°C)
- Temp. Chart Recorder (-20 to 650°C)
- Temp Controller/ Indicator (RTD /Thermocouple) (-20 to 650°C)
- Temp. / Humidity Data Logger (-20 to 650°C& 10% to 90 %RH)
- Humidity Meter (10% to 90 %RH)
- Thermo Hygrometer (-20 to 650°C& 10% to 90 %Rh)
- Dew Point Meter (0 to 100°C)
- Pyrometer (-20 to 650°C)
- Dish Washer (Amb. to 90°C)
- Ice Machine (Up to -35°C)
- Oven / Furnace (Amb. to 1200°C)

DIMENSIONAL

- Digital / Analogue / Dial Calipers
- (Up to 600 mm)
- Micrometer (Up to 100 mm)
- Dial Gauge (up to 25 mm)
- Lever Gauge (up to 25 mm)
- Dial Test Indicator (Up to 25)
- Height Gauge (up to 600 mm)
- Depth Gauge (up to 100 mm)
- Bore Gauge (up to 100 mm)
- Steel / Glass Scale (up to 600 mm)
- Meas uring Tape (up to 100 Mtr)
- Laser Distance Meter
- Angle Gauge (0° to 180°)
- Feeler Gauge (up to 5 mm)
- Bevel Protector (0° to 180°)
- Thickness Gauge (up to 25 mm)
- Coating Thickness Gauge (up to 500 µm)
- Profile Projector

NOTES



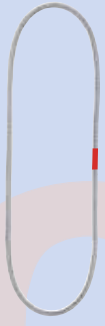
LOAD CHART

Wire rope slings acc. to BS EN 13414-1

Rope-Ø mm	WLL in kg 1-leg	2-leg 0 - 45°	2-leg 45 - 60°	3- and 4-leg 0 - 45°	3- and 4-leg 45 - 60°
8	750	1 000	750	1 500	1 125
10	1 300	1 830	1 300	2 700	1 950
13	2 100	3 000	2 100	4 400	3 150
14	2 500	3 500	2 500	5 250	3 750
16	3 300	4 600	3 300	6 900	4 950
19	4 600	6 400	4 600	9 700	6 900
22	6 200	8 700	6 200	13 000	9 300
24	7 400	10 300	7 400	15 500	11 100
26	8 600	12 000	8 600	18 000	12 900
28	10 000	14 000	10 000	21 000	15 000
32	13 100	18 300	13 100	27 500	19 650
36	16 600	23 200	16 600	34 900	25 000
38	18 500	26 000	18 500	39 000	27 750
44	25 000	35 500	25 000	52 500	37 500
52	35 000	49 000	35 000	73 500	52 500

Load capacity is reduced by 20% in case of choker hitch.

Cable laid wire rope sling as endless grommet, acc. to BS EN 13414-3



Rope Ø 24-60 mm:
Safety factor 5

Rope Ø 66-132 mm:
Safety factor 4,9-3

Rope Ø up to 470 mm
available on request.

Nominal rope diameter	0° direct	0° choke hitch
24	9,00 t	7,00 t
27	11,5 t	9,00 t
30	14,0 t	11,0 t
33	17,0 t	13.5 t
36	20,0 t	16,0 t
39	23,5 t	19,0 t
42	27,0 t	21,5 t
48	35,5 t	28,5 t
54	45,0 t	36,0 t
60	55,5 t	44,5 t
66	69,0 t	55,0 t
72	84,0 t	68,0 t
78	102 t	81,0 t
84	121 t	97,0 t
90	144 t	115 t
96	168 t	135 t
102	196 t	157 t
108	227 t	182 t
114	262 t	210 t

Polyester round slings acc. to BS EN 1492-2

Load capacity in kg	WLL in kg Single direct	Choker hitch	Basket hitch up to 7°	Inclination angle β over 7° to 45°	over 45° to 60°
500	500	400	1 000	700	500
1000	1 000	800	2 000	1 400	1 000
2000	2 000	1 600	4 000	2 800	2 000
3000	3 000	2 400	6 000	4 200	3 000
4000	4 000	3 200	8 000	5 600	4 000
5000	5 000	4 000	10 000	7 000	5 000
6000	6 000	4 800	12 000	8 400	6 000
8000	8 000	6 400	16 000	11 200	8 000
10000	10 000	8 000	20 000	14 000	10 000
15000	15 000	12 000	30 000	21 000	15 000
20000	20 000	16 000	40 000	28 000	20 000
30000	30 000	24 000	60 000	42 000	30 000

Load capacities up to 100 ton are available.

Polyester webbing slings acc. to BS EN 1492-1

Load capacity in kg	WLL in kg Single direct	Choker hitch	Basket hitch Inclination angle β to 7°	Inclination angle β direct up to 45°	direct > 45°-60°
1 000	1 000	800	2 000	1 400	1 000
2 000	2 000	1 600	4 000	2 800	2 000
3 000	3 000	2 400	6 000	4 200	3 000
4 000	4 000	3 200	8 000	5 600	4 000
5 000	5 000	4 000	10 000	7 000	5 000
6 000	6 000	4 800	12 000	8 400	6 000
8 000	8 000	6 400	16 000	11 200	8 000
10 000	10 000	8 000	20 000	14 000	10 000

Attention!
In case of asymmetric load the capacities for inclination angle 45° to 60° apply.

Chain slings acc. to BS EN 818. Grade 80

Inclination angle β / Load factor / Chain ø	Grade	0 1 1-Leg	0-45° 1,4 2-Leg	45-60° 1,0 2-Leg	0-45° 2,1 3 & 4-Leg	45-60° 1,5 3 & 4-Leg
7	80	1500	2100	1500	3100	2250
8	80	2000	2800	2000	4250	3000
10	80	3150	4250	3150	6700	4750
13	80	5300	7500	5300	11200	8000
16	80	8000	11200	8000	17000	11800
20	80	12500	17000	12500	26500	19000
22	80	15000	21200	15000	31500	22400
26	80	21200	30000	21200	45000	31500
32	80	31500	45000	31500	67000	47500

Chain slings. Grade 100

Inclination angle β / Load factor / Chain ø	Grade	0 1 1-Leg	0-45° 1,4 2-Leg	45-60° 1,0 2-Leg	0-45° 2,1 3 & 4-Leg	45-60° 1,5 3 & 4-Leg
6	100	1.5	2.1	1.5	3.15	2.25
8	100	2.5	3.5	2.5	5.25	3.75
10	100	4.0	5.6	4.0	8.4	6.0
13	100	6.7	9.5	6.7	14.0	10.0
16	100	10.0	14.0	10.0	21.0	15.0
20	100	16.0	22.4	16.0	33.6	24.0
22	100	20.0	28.0	20.0	42.0	30.0
28	100	31.5	45.0	31.5	67.0*	47.5*

* Only 2 set x 2 leg type available

Chain slings. Grade 120

Inclination angle β / Load factor / Chain ø	Grade	0 1 1-Leg	0-45° 1,4 2-Leg	45-60° 1,0 2-Leg	0-45° 2,1 3 & 4-Leg	45-60° 1,5 3 & 4-Leg
6	120	1.8	2.5	1.8	3.75	2.7
8	120	3.0	4.2	3.0	6.3	4.5
10	120	5.0	7.0	5.0	10.5	7.5
13	120	8.0	11.2	8.0	16.8	12.0
16	120	12.5	17.0	12.5	26.5	19.0

Your contact:

Carl Stahl®

You can reach us by:

Dubai:
P.O. Box 26607

Phone
+971-4-33334 94

Fax
+971-4-33334 89

Email:
Dubai@carlstahl.ae

Abu Dhabi:
P.O. Box 92607

Phone
+971-2-55044 43

Fax
+971-2-55044 34

Email:
AbuDhabi@carlstahl.ae