

General

# General



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## About Hendrik Veder Group

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Hendrik Veder, RopeQuip, European Rope Services – together with Wire Rope Services and Industrial Ropes – have merged into the Hendrik Veder Group. The group officially came into being on 1 September 2012, and is now a single, market-oriented organization in which an enormous amount of knowledge and traditional skill is made available. Of the original trade names that are combined within the group, only two remain: Hendrik Veder and RopeQuip.

### European leader

The Group is a leading independent player on the European market. With an extensive distribution network and subsidiaries in six European countries, as well as the largest production and test facilities in Europe, the Hendrik Veder Group is well represented in this part of the world.

Hendrik Veder Group as a whole has a wide sphere of activities. It comprises activities in the area of heavy offshore lifting, with a specialism in cable-laid slings and grommets. Furthermore, the group is wholesaler of wire ropes in industrial, offshore, maritime, automotive, and agricultural markets. In addition, Hendrik Veder Group is active in the distribution, confectioning and testing of steel wire ropes, and lifting and towing materials for offshore as well as onshore customers.

### G. van der Lee Rope Factory

G. van der Lee Rope Factory is member of the Hendrik Veder Group since April 2013. Van der Lee was established in the 16th century and ever since managed by the direct descendants of Jan Pietersz van der Lee (1545-1613), making Van der Lee the oldest family-owned business in The Netherlands. Currently the company produces and distributes high-quality natural and synthetic fibre rope products under ISO 9001 certification. At the production location in Oudewater a complete range of ropes are manufactured, fabricated to final products and certified, serving predominantly customers in offshore and maritime industries, and government and defence. For example, British Special Forces use abseil ropes produced by Van der Lee.

### Myhre Rope Services

In December 2013, Hendrik Veder Group and Aberdeen based ATR Group have established a strategic partnership with both partners taking an equal stake in Myhre Rope Services AS, the new name for Cosalt Offshore Norway. The agreement brings together Hendrik Veder Group's strong supply chain, product availability and service capacity with the ATR Group's technical leadership in offshore lifting and mooring and its comprehensive offshore inspection, testing and safety. The new organisation will continue to manufacture and supply lifting slings and lifting, towing and mooring equipment from its premises with deep-water quay and yard in Stavanger. They also perform annual inspections, equipment service and re-certification.

### Headquarters

The Hendrik Veder Group is based in Rotterdam, the Netherlands, a location steeped in history when it comes to heavy industry, offshore, and shipping. People who know Rotterdam understand shipping and industry. Hendrik Veder has been doing business in this city since 1800, so we've had the chance to develop our expertise organically, step by step, year after year, sharpening our skills to the point of excellence.

### Other locations

Besides being the head office, Rotterdam is also the location of the main production facility. The organisation's other production facilities are located in Moerdijk and Oudewater, The Netherlands, and Rotherham, England. Warehouses and sales offices are located in the Netherlands, Great Britain, Germany, France, and Poland.

### At a glance

- One company: Hendrik Veder Group B.V.
- Two trade names: Hendrik Veder and RopeQuip.
- Founding date: 1 September 2012.
- Headquarters: Rotterdam, the Netherlands.
- Annual revenue: € 75 million per year.
- Employees: approximately 140.
- Locations: 10 locations in 7 countries.
- Annual steel wire rope processing: 21,000 tons.

## Trade names

Hendrik Veder Group B.V. operates with two distinct trade names: Hendrik Veder and RopeQuip. Both brands specialize in a particular area of the steel wire rope industry.

### Hendrik Veder

End-users with specific rigging needs will be served by Hendrik Veder. Since 1800, tailor-made services and solutions have been provided to end-users under this trade name. The brand has an excellent reputation in the heavy offshore lifting industry and specializes in cable-laid slings and grommets. Hendrik Veder creates these tailor-made steel wire rope solutions for its customers in the offshore, maritime services, lifting, towing, rigging, mooring, and lashing industry.

### RopeQuip

All other activities of the Hendrik Veder Group will be carried out under the name of RopeQuip: a trusted wholesaler of wire ropes in industrial, offshore, maritime, automotive, and agricultural applications. The brand provides up to date stock of a wide range of steel rope products.



**ROPEQUIP**

## Certified quality

We believe safety and quality to be inseparable, both for our customers as well as our employees. As a result, we comply with various internationally recognised certification and quality control institutions. These certifications and the approval of these institutions is your promise that the Hendrik Veder Group is a guarantee of excellence, sustainability, and safety.

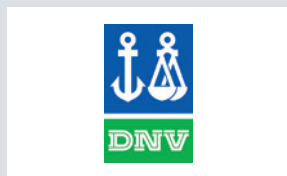
### ISO-certified Quality Management System

Our quality management system was approved by Lloyd's Register Quality Assurance and complies entirely with ISO 9001: 2008 standards. We have also received Lloyd's Gold Award for 10 years of continuous improvement under ISO 9001 certification.

Hendrik Veder Group is member of the International Marine Contractors Association (IMCA), as a supplier member in the Europe & Africa Section with participation in the Marine Division. We are also member of EKH (Erkende Keurbedrijven Hijs- en Hefmiddelen; the Dutch association of accredited companies in the hoisting and lifting equipment industry) and IRO (the Association of Dutch Suppliers in the Oil and Gas Industry). Another membership that we proudly hold is the International Marine Purchasing Association (IMPA) supplier membership.

RopeQuip UK Ltd is member of LEEA (Lifting Equipment Engineers Association), the leading representative body of all those involved in the lifting industry worldwide. We manufacture in accordance with established international guidelines and quality standards such as IMCA M 179, EN 13414-1, 13414-3 and ISO 7531.

The classification societies we work with are:



Our ship riggers are VCA certified, meaning their work will be carried out in such a way as to ensure that safety, health and environment will not be put in danger. VCA stands for (in Dutch) Safety, Health and Environment Checklist for Contractors.

Certificates



**CERTIFICAAT**

UITGEREIKT AAN

**Hendrik Veder Group BV**  
Eemhavenweg 131, 3089 KE Rotterdam, NEDERLAND

De Vereniging Erkende Keurbedrijven Hijs- & hefmiddeelen verklaart dat het keursysteem van bovengenoemd bedrijf door de EKH-auditor in overeenstemming is bevonden met de hieronder beschreven documenten en dat daarnaast het kwaliteitssysteem beoordeeld is door LRQA (Rotterdam)

EKH – Checklist versie 2011/13

Werkvoorschriften voor onder de haak, revisie 10

Toepassingsgebied

Het nieuw leveren, beproeven, herbeproeven, inspecteren, keuren en repareren van hijs- & hefmiddeelen.

De werkzaamheden worden uitgevoerd onder toezicht van een gecertificeerd vakbekwaam persoon.

Auditdatum: 4 september 2014

Behoudens de voortdurende en bevestigende werking van het kwaliteitssysteem van het bedrijf is dit certificaat geldig tot: 30 september 2015

Afgedatum: 9 september 2014

Certificaat Nr: 14.370




**CERTIFICATE OF APPROVAL**

This is to certify that the Quality Management System of:

**Hendrik Veder Group B.V.**  
Eemhavenweg 131  
3089 KE Rotterdam  
The Netherlands

has been approved by Lloyd's Register Quality Assurance to the following Quality Management System Standard:

**ISO 9001 : 2008**

The Quality Management System is applicable to:

**Stockholding, manufacture, assembly, testing, inspection, installation of steel wire & fibre rope and related equipment for lifting, mooring and towing purposes.**

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed


Approval Certificate No:	Original Approval	:	20 September 1993
RQA933858	Current Certificate	:	2 September 2014
	Certificate Expiry	:	30 September 2017

Issued by: Lloyd's Register Nederland B.V.




K.P. van der Meerplein 41a, 3052 MB Rotterdam, Nederland  
The approval is certified in accordance with the ISO standard and certification procedures and is issued by LRQA.

Lloyd's Register Group Limited, its affiliates and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this document as 'Lloyd's Register'. Lloyd's Register shall not be responsible for any loss or damage in any way whatsoever caused by reliance on the information or data provided hereunder, whether the person has signed a contract with the relevant Lloyd's Register entity, for the provision of this information or data and/or that such a responsibility or liability is excluded, in the terms and conditions set out in the contract.



**International Marine Purchasing Association**

*This is to certify that*

**Hendrik Veder Group BV**

*has been approved as a*


**SUPPLIER**

*Member of the*

**International Marine Purchasing Association**

*in*

**January 2015**




Henrik Steffensen - IMPA Chairman & C.E.O

**IMPA.NET**  
Network | Learn | Debate

This certificate is the property of the International Marine Purchasing Association and must be returned to the Administration Office on discontinuation from the Group.  
IMPA, East Bridge House, East Street, Colchester, Essex, CO1 2PL, UK.  
T: +44 (0) 2061 750000 F: +44 (0) 2061000000 E: info@impa.net

**HENDRIK VEDER GROUP BV**


IS A WORLD-WIDE  
**SUPPLIER MEMBER OF**



**International Marine Contractors Association**

OF THE  
**MARINE DIVISION**

BASED  
**EUROPE & AFRICA SECTION**



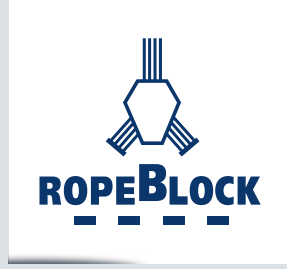
**Massimo Fontolan**  
IMCA President 2014

**2014**

VALID UNTIL 1 FEBRUARY 2015  
IMCA members are required to comply with relevant IMCA guidelines by their clients.  
IMCA is not liable for any loss or damage in any way whatsoever caused by reliance on the information or data provided hereunder, whether the person has signed a contract with the relevant IMCA entity, for the provision of this information or data and/or that such a responsibility or liability is excluded, in the terms and conditions set out in the contract.

## Key suppliers & brands

Our extensive supplier network contains a large number of the world's best and specialised manufacturers.



## Contact information

### Rotterdam office - The Netherlands (Registered Office, Sales Hendrik Veder, Operations)

131, Eemhavenweg  
3089 KE Rotterdam  
P.O. Box 54543  
3008 KA Rotterdam  
The Netherlands  
Phone: +31 (0) 10 299 23 44  
Fax: +31 (0) 10 429 21 217  
E-mail: info@hendrikvedergroup.com

### Moordrecht office - The Netherlands (Sales RopeQuip, Supply Chain)

527, Zuidbaan  
2841 MD Moordrecht  
The Netherlands  
Phone: +31 (0) 182 625 175  
Fax: +31 (0) 182 625 179  
E-mail: info@hendrikvedergroup.com

### Moerdijk office - The Netherlands (Finance & Administration, Operations)

2, Vlasweg  
4782 PW Moerdijk  
P.O. Box 6025  
4780 LA Moerdijk  
The Netherlands  
Phone: +31 (0) 168 35 85 45  
Fax: +31 (0) 168 35 83 65  
E-mail: info@hendrikvedergroup.com

### Hendrik Veder UK Ltd<sup>1</sup> - United Kingdom

Meadow Bank Road  
Rotherham  
S61 2NF  
United Kingdom  
Phone: +44 (0) 1709 740 978  
Fax: +44 (0) 1709 563 686  
E-mail: info@hendrikvedergroup.com

### Hendrik Veder Group GmbH<sup>2</sup> - Germany

4, Heinstraße  
35452 Heuchelheim  
Germany  
Phone: +49 (0) 641 98 42 645  
Fax: +49 (0) 641 98 42 647  
E-mail: info@hendrikvedergroup.com

### Hendrik Veder Group SARL<sup>3</sup>, France

271, Chaussée Jules César  
95250 Beauchamp  
France  
Phone: +33 (0) 134 181 733  
Fax: +33 (0) 134 181 787  
E-mail: info@hendrikvedergroup.com

### RopeQuip UK Ltd<sup>4</sup> - United Kingdom

2A, Meridian Street  
Montrose  
Angus  
DD10 8DS  
United Kingdom  
Phone: +44 (0) 1674 671 133  
Fax: +44 (0) 1674 676 523  
E-mail: info@hendrikvedergroup.com

### RopeQuip Sales Agency - Poland

35, Kruszyńska  
87-800 Włocławek  
Poland  
Phone: +48 (0) 544 271 647  
Fax: +48 (0) 544 295 041  
E-mail: info@hendrikvedergroup.com

### G. van der Lee Rope Factory<sup>5</sup>

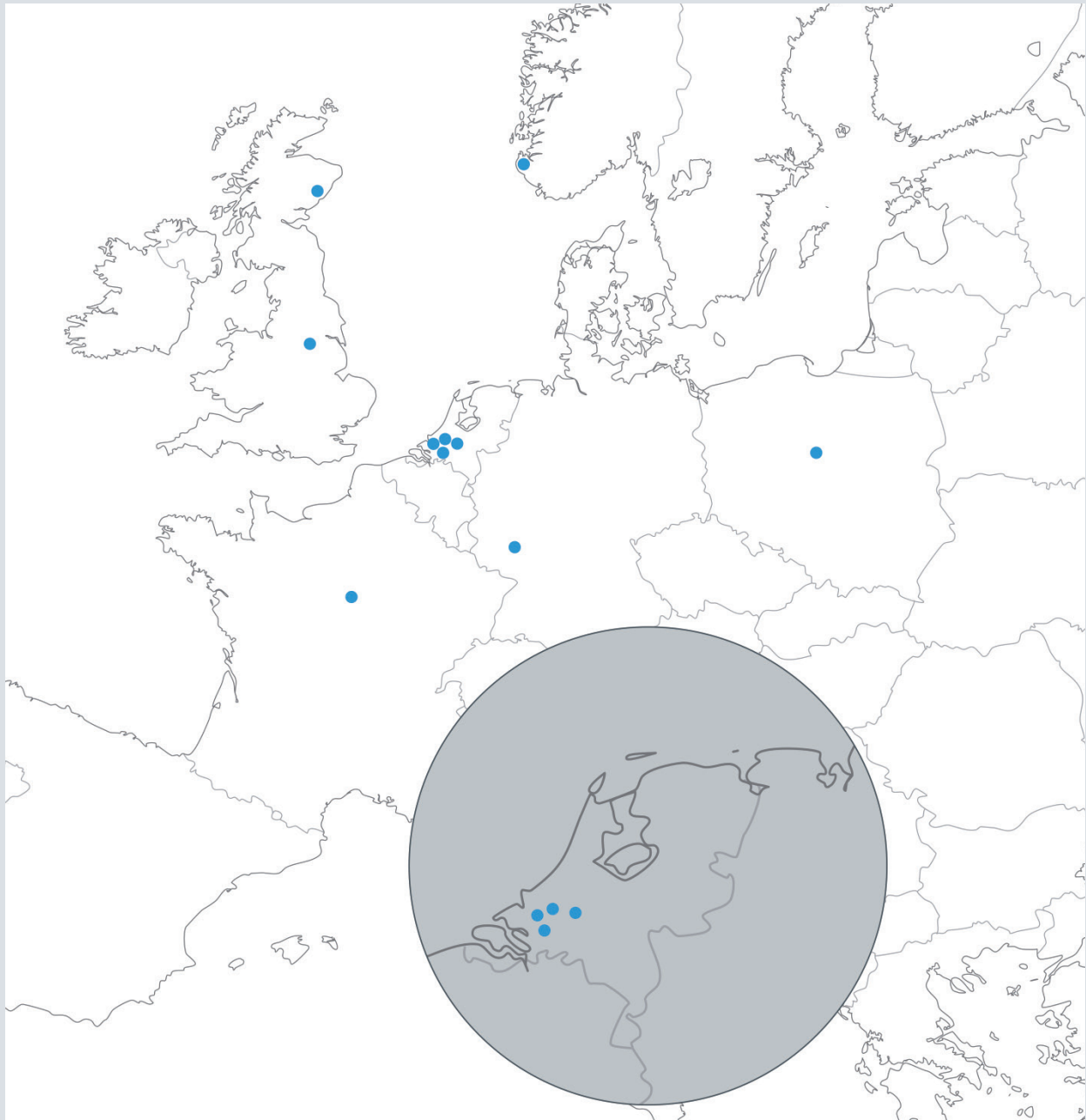
36, Hekendorperweg  
3421 VL Oudewater  
P.O. Box 5  
3420 DA Oudewater  
The Netherlands  
Phone: +31 (0) 348 404 640  
Fax: +31 (0) 348 564 274  
E-mail: info@touwfabriekvanderlee.nl

### Myhre Rope Services<sup>6</sup>

1, Bekhuskaien  
4013 Stavanger  
P.O. Box 100 Sentrum  
4001 Stavanger  
Norway  
Phone: +47 (0) 51 55 45 00  
Fax: +47 (0) 51 55 45 01  
E-mail: info@myhreropeservices.com



## Locations



- 1 Hendrik Veder UK Ltd is a subsidiary of Hendrik Veder Group B.V.
- 2 Hendrik Veder Group GmbH is a subsidiary of Hendrik Veder Group B.V.
- 3 Hendrik Veder Group SARL is a subsidiary of Hendrik Veder Group B.V.
- 4 RopeQuip UK Ltd is a subsidiary of Hendrik Veder Group B.V.
- 5 G. van der Lee Rope Factory is a subsidiary of Hendrik Veder Group B.V.
- 6 Myhre Rope Services is a joint venture between Hendrik Veder Group and ATR Group

## General terms and conditions

### Article 1 Hendrik Veder Group B.V.

Hendrik Veder Group B.V. (hereinafter referred to as 'HVG') is a private company with limited liability with its registered office in Rotterdam, the Netherlands. HVG, which is registered in the commercial register of the Chamber of Commerce of Rotterdam under number 24263260, trades under (inter alia) the names 'Hendrik Veder' and 'RopeQuip'.

### Article 2 Applicability of HVG General Terms and Conditions

These General Terms and Conditions apply to all contracts concluded between HVG and any other contracting party (hereinafter referred to as the 'Contracting Party'). These General Terms and Conditions are available in Dutch, English and German. In the event of inconsistency, the Dutch text will be binding.

### Article 3 Price adjustments by HVG

Changes in tax, excise and other government-imposed levies may be reflected in the price of both new and used goods, irrespective of whether the price is fixed or otherwise. In addition to these changes, HVG can also pass on other cost adjustments such as changes in prices charged by manufacturers and/or importers and exchange rate fluctuations. The Contracting Party is obliged to pay the additional cost together with the principal sum or upon payment of the next agreed instalment, whichever is appropriate.

### Article 4 HVG delivery times are approximate indications

Delivery times agreed by HVG are approximate indications only. Changes to the time of the delivery do not entitle the Contracting Party to terminate the contract and/or claim compensation.

### Article 5 Transfer of risk

HVG deliveries are ex-works. Risk in the goods transfers when HVG makes the goods available to the Contracting Party. The Contracting Party will even bear the risk after that time, if the parties agree that HVG will take responsibility and/or organise, for instance, for storage, loading, transport and unloading.

### Article 6 Call-off orders

Any call-off contract is deemed to be entered into for a period not exceeding twelve months; the goods will be shipped in approximately equal parts. Any delay in delivery that is attributable to the Contracting Party entitles HVG to extend the deadline commensurately, to terminate that part of the contract that is subject to the delay or to invoice and supply the goods to the Contracting Party, without prejudice to the provisions of Article 8.

### Article 7 Goods that are not taken up

Goods that are not taken up when the term of delivery has expired will remain at the Contracting Party's disposal and will be stored at the expense and risk of the Contracting Party. In such circumstances, HVG may enforce its legal authority to sell (Article 6:90 of the Dutch Civil Code) after 90 days.

### Article 8 Complaints

The Contracting Party may not claim defect in performance if it has not identified the defect within 14 days after actual delivery of the goods and notified HVG of the defect in writing. Complaints may not be submitted in respect of goods that have been modified, adapted or altered.

### Article 9 Retention of title

HVG retains title to the delivered goods until the Contracting Party has complied in full with all of its payment obligations under the relevant contract. HVG also retains title to goods delivered to the Contracting Party in partial deliveries until such time as the Contracting Party has paid the total contract price, even if payment in instalments is agreed for partial deliveries. The Contracting Party may not encumber goods that remain subject to a valid retention of title. The Contracting Party will bear the expense and risk of any damage to and/or loss or theft of goods that are subject to retention of title or in the possession of the Contracting Party (and subject to retention of title).

### Article 10 Set-off

The right of the Contracting Party to set-off any claim on HVG is expressly excluded.

### Article 11 Limitation of Liability

Should HVG be liable for any shortcoming or any wrongful act towards the Contracting Party, any liability to pay compensation will exclude indirect and/or consequential loss or damage and/or losses due to delays, loss of revenue and/or loss of profit. HVG's liability is further limited to the relevant invoice value, or alternatively to that part of the invoice value to which the liability relates.

Any claim for damage arising from shortcoming in compliance or a wrongful act on the part of HVG prescribes, in derogation from Article 3:310 of the Dutch Civil Code, one year after the start of the day following the day on which the Contracting Party has become aware of both the damage and the liability of HVG.

If HVG engages third parties in the framework of a contract, it will exercise the necessary caution and, where necessary, consult the Contracting Party in advance. HVG expressly excludes any liability for errors or shortcomings on the part of such third parties. Any agreement concluded by or on behalf of HVG also authorises HVG to accept on behalf of the Contracting Party any general conditions and/or limitations of liability applied by such third parties.

### Article 12 Indemnification

The Contracting Party indemnifies HVG against claims by third parties who suffer damage in connection with the performance of the contract.

### Article 13

Time limit for payment, default, notice of default and extrajudicial costs HVG must receive invoice payments on or before the 21st day after invoice date. The Contracting Party automatically becomes in default if it fails to pay an invoice punctually and will immediately owe statutory (commercial) interest. Interest is calculated from the date of default until the date on which payment of the due amount is received in full.

If the Contracting Party is in default of its obligations to HVG, all reasonable costs incurred in obtaining satisfaction extrajudicially or at law will be borne by the Contracting Party, including collection and consultancy costs and legal fees.

### Article 14 Termination of contract with immediate effect

In addition to the rights conferred on it by law and under the contract, HVG may terminate the contract with immediate effect without liability to pay compensation to the Contracting Party if the Contracting Party fails in any way to comply with its obligations, requests deferment of payment, files for bankruptcy or is shown to be or have become insolvent, voluntarily or involuntarily, or if a receiver is appointed for its business and goods.

### Article 15 Derogations

Any derogation from these terms and conditions must be expressly agreed in writing. Agreed derogations do not impair the validity of the remaining conditions and apply solely to the contract in question.

### Article 16 Amendments to the General Terms and Conditions

HVG is permitted to amend the General Terms and Conditions. The amended Terms and Conditions also apply in respect of existing contracts between HVG and the Contracting Party.

### Article 17 Applicable law and competent court

The legal relationship between HVG and the Contracting Party is governed exclusively by the laws of the Netherlands. Applicability of the Vienna Sales Convention and/or any other international regulation is excluded.

Any disputes which may arise will be heard exclusively by the competent court in Rotterdam.

### Article 18 Filing at the Chamber of Commerce and website

These General Terms and Conditions (version 010912) were filed at the office of the Chamber of Commerce in Rotterdam under number 24263260 and are also available on [www.hendrikvedergroup.com](http://www.hendrikvedergroup.com), [www.hendrikveder.com](http://www.hendrikveder.com) and [www.ropequip.com](http://www.ropequip.com).



## 2. Heavy lifting slings



# Heavy lifting slings

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## Operations overview

### Facilities

- Main production facility located on the waterfront in the heart of the Port of Rotterdam
- Office, manufacturing and warehouse space
- Additional manufacturing and/or warehouse facilities in Moerdijk, Moordrecht and Oudewater

### Workshop equipment

- Hydraulic wire rope swaging presses ranging from 300 to 3,000 tons
  - Super-loop capacity up to 128 mm
- Closer for cable-laid rope and sling fabrication up to 18"
- Testbeds from 800 to 12,500 kN; pull & push
- Spooling machines taking up to 250 tons unit weight
- Hydraulic wire rope tensioning machine up to 45 tons back tensioning

### Manufacturing strengths

- Wire rope slings up to 18"
- Cable-laid slings from 250 to 7,700 tons CRBL<sup>1</sup>
- Cable-laid grommet slings (endless) from 250 to 6,800 CGBL<sup>2</sup>
- Manufactured in accordance to international standards such as IMCA M 179; EN 13414-1, 13414-3; ISO 7531

<sup>1</sup> Calculated Rope Breaking Load

<sup>2</sup> Calculated Grommet Breaking Load



Hydraulic wire rope swaging press 3,000 tons



Pull and push testbed 16,000 kN



Cable-laid splice

## Single laid slings

Single laid slings are used for a wide variety of purposes. They are available in all required constructions, lengths and diameters with soft eyes or thimbles. The single laid slings can be supplied either swaged with aluminium ferrules (Talurit) up to 64 mm (2½") wire rope diameter or swaged with steel ferrules (Supersplice) up to 128 mm (5") wire rope diameter.

SINGLE LAID SLINGS				
Nominal diameter	Recommended eye size		Minimum Breaking Load	
	mm	length (cm)	width (cm)	metric ton
44	72	36	138	1,354
51	86	43	184	1,805
57	101	51	230	2,256
58	101	51	240	2,354
64	112	55	291	2,855
71	127	63	359	3,522
76	152	76	411	4,032
77	152	76	425	4,169
92	214	106	600	5,886
103	254	127	800	7,848
114	280	140	939	9,212
128	300	150	1,138	11,164

## Cable-laid & grommet slings

Slings can be supplied either manufactured as cable-laid slings up to 628 mm (24<sup>3</sup>/<sub>4</sub>"") diameter with Calculated Rope Breaking Loads (CRBL) up to 13,000 metric tons, with hand-spliced eyes at each end or as endless cable-laid grommet slings up to 304 mm (12"") diameter with breaking loads on double part up to 6,800 metric tons.



All cable-laid slings and grommet slings are manufactured in accordance with the current Guidance IMCA M179 from the International Marine Contractors Association, or other international standards such as EN 13414-1, EN 13414-3 and ISO 7531.

The Calculated Sling Breaking Load (CSBL) of a cable-laid sling, is equal to the sum of the minimum breaking loads of the individual outer and core rope unit ropes, multiplied by a spinning loss coefficient of 0.85 and a splice loss of 0.75 (according to IMCA M179). The calculated minimum breaking load of a cable-laid grommet sling equals 12 times the minimum breaking load of the unit rope, multiplied by a spinning loss coefficient of 0.85 (according to IMCA M179).

All cable-laid slings and cable-laid grommets supplied by Hendrik Veder are furnished with a separate test certificate for each component rope, showing the actual breaking loads. Also a consolidation certificate is provided, a certificate of dimensional conformity showing the calculated minimum breaking loads of the cable laid sling and a certificate of examination.



CABLE LAID ROPES 250 - 7,700 TONS					
Nominal diameter		Approximate weight		Minimum Calculated Rope Breaking Load (CRBL)	
inch	mm	kg/m	lb/ft	metric tons 1,000 kg	short tons 2,000 lbs
3¼	82	24	16	300	330
3½	89	27	18	345	380
3¾	96	30	20	395	425
4	102	31	21	470	515
4¼	108	38	25	505	555
4½	114	44	30	575	630
4¾	120	48	33	640	705
5	127	53	35	710	780
5¼	133	58	39	775	850
5½	139	67	45	860	945
6	152	80	54	1,030	1,135
6¼	159	82	55	1,140	1,255
7	178	100	68	1,425	1,570
7¾	197	122	82	1,780	1,960
8½	216	151	101	2,125	2,340
9½	241	196	131	2,540	2,800
10¼	260	215	144	2,785	3,070
11	280	260	175	3,235	3,565
11¾	298	295	198	3,630	4,000
12½	318	340	228	4,140	4,560
13¼	336	380	255	4,485	4,940
14	356	425	285	4,940	5,445
14¾	374	475	320	5,495	6,055
15¾	400	530	356	6,065	6,685
16½	419	590	396	6,670	7,350
17¼	438	640	430	7,185	7,920
18	457	695	467	7,700	8,485

**Higher capacities available upon request**

The table above gives an indication of the size and corresponding breaking loads of slings available. Also intermediate diameters or CRBL can be delivered.

For calculating the CSBL (Calculated Sling Breaking Load) the rope breaking load has to be multiplied by 0.75 (for handsplice losses).

GROMMETS MADE IN 7 (6 x 36WS + IWRC); TENSILE STRENGTH 1,960 N/MM <sup>2</sup>						
Grommet diameter	Component rope diameter	MBL acc. EN 13414-3	WLL acc. EN 13414-3	MBL acc. IMCA M 179	WLL acc. IMCA M 179	Safety factor
mm	mm	metric tons 1,000 kg	metric tons 1,000 kg	metric tons 1,000 kg	metric tons 1,000 kg	
24	8	49,22	9,84	46,49	9,31	5.00
27	9	62,33	12,47	58,87	11,77	5.00
30	10	76,87	15,37	72,60	14,52	5.00
33	11	93,06	18,61	87,89	17,58	5.00
36	12	111,23	22,25	105,05	21,01	5.00
39	13	129,95	25,99	122,73	24,55	5.00
42	14	150,88	30,18	142,50	28,50	5.00
48	16	197,13	39,43	186,18	37,24	5.00
54	18	248,89	49,78	235,06	47,01	5.00
60	20	307,26	61,45	290,19	58,04	5.00
66	22	372,24	76,28	351,56	72,04	4.88
72	24	442,72	93,20	418,12	88,03	4.75
78	26	519,81	112,76	490,93	106,49	4.61
84	28	602,41	134,47	568,94	127,00	4.48
90	30	691,61	158,99	653,19	150,16	4.35
96	32	787,42	186,59	743,68	176,28	4.22
102	34	888,74	217,30	839,37	205,22	4.09
108	36	996,67	252,32	941,30	238,30	3.95
114	38	1.110,10	290,60	1.048,43	274,46	3.82
120	40	1.230,14	333,37	1.161,80	314,85	3.69
126	42	1.356,79	381,12	1.281,42	359,95	3.56
132	44	1.488,95	434,11	1.406,23	409,98	3.43
144	48	1.771,98	560,75	1.673,54	529,60	3.16
156	52	2.079,24	719,46	1.963,73	679,49	2.89

CABLE-LAID GROMMET SLINGS (ENDLESS) 250 - 6,800 TONS					
Nominal diameter single part		Component rope diameter		Minimum Breaking Load on double part	
inch	mm	inch	mm	metric tons 1,000 kg	short tons 2,000 lbs
2¼	57	¾	19	262	289
2⅝	66	⅞	22	352	388
3	77	1	26	490	540
3½	89	1⅛	29	609	671
3¾	96	1¼	32	743	819
4	102	1⅜	34	839	925
4½	116	1½	38	1,050	1,157
5	127	1⅝	42	1,275	1,405
5¼	133	1¾	44	1,407	1,550
5¾	144	1⅞	48	1,672	1,843
6	152	2	51	1,968	2,169
6¾	171	2¼	57	2,350	2,580
7½	192	2½	64	2,800	3,080
8	201	2⅝	67	3,050	3,350
8¼	210	2¾	70	3,350	3,680
9	228	3	77	3,900	4,280
9¾	252	3¼	82	4,570	5,020
10½	267	3½	89	5,300	6,310
12	304	4	102	6,800	7,600



### 3. Services

# Services



Hendrik Veder is well aware of the complex regulations regarding lifting-, towing-, mooring-, rigging-, and lashing-equipment. In addition to providing superior quality products, we provide services that guarantee your safety. Our service- and fault-clearing service is available 24/7 in order to get you running again in no time. Have a closer look at the services we provide.

- [Inspection & \(re-\)certification](#)
- [\(Load-\)testing / load testing of cranes](#)
- [Reeving and unreeving of cranes and winches](#)
- [Reconditioning and overhaul](#)
- [Complete annual and quadrennial lifeboat surveys](#)

## Inspection & (re-)certification

As an owner of steel wire ropes, or lifting-, towing-, rigging-, mooring and lashing-equipment, you must maintain equipment safety, which means that an annual inspection is mandatory. These inspections should be done by a certified expert and reported in writing. In addition, mandatory inspections for other equipment are also necessary. Hendrik Veder performs maintenance inspections and equipment certification on site and in-house. An approved product receives a proof (re)certification or an inspection report. Please contact us to make an inventory of all necessary certifications.



## (Load-)testing / load testing of cranes

All materials, both new and assembled, can be inspected according to a customer's requirements and (re)certified by all international classification authorities. The breaking load of hauling and lifting equipment can be tested in the test-beds facility. We also have several in-house draw-benches with a capacity of up to 12,500 kN for the destructive testing and test loading of lifting equipment.



### Class 1 testing machine

Accuracy	± 1.0%
Capacity	12,500 kN pull & push
Max. length test items	7.5 meter

## Reeving and unreeving of cranes and winches

Hendrik Veder is an excellent choice for reeving and unreeving of cranes and winches.

We currently have 4 spooling machines with a capacity of up to 250 tons unit weight.

We also have a hydraulic wire rope tensioning machine with a back tensioning capacity of 45 tons. The machine is available for rental, with or without an operator.



**Diesel hydraulic spooler 250T**

Max. back tension:	52T
Drum speed:	Max. 11 rpm
Max. reel weight:	250T (working load reel capacity)
Max. reel dimensions:	4,500mm diameter x 4,500mm wide
Support shafts:	5" (reel max. 20T), 7" (50T), 9" (75T), 12" (250T)
Weight of unit:	23T excluding steel reel
Dimension of unit:	8,000mm long x 3,000mm wide x 3,885mm high



**Tensioning machine HV 7**

Max. cable tension:	45T
Rope speed:	Max. 9.75 M/min
Max. cable diameter:	4"
Drum rotation:	3.65 M
Weight of unit:	14T
Dimension of unit:	4,630mm long x 2,470mm wide x 2,320mm high



## Reconditioning and overhaul

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We also do the reconditioning and overhaul of steel wire ropes and lifting-, towing-, rigging-mooring and lashing-equipment.

## Complete annual and quadrennial lifeboat surveys

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It is mandatory to test lifeboats on a regular basis. With the help of water bags we test both lifeboats and related equipment. Any possible defect to the boat or the ropes is repaired immediately. An approved lifeboat receives a proof of (re)certification.

A close-up, black and white photograph of a steel wire rope, showing the intricate braided pattern of the strands. The lighting creates strong highlights and shadows, emphasizing the metallic texture and the three-dimensional structure of the rope.

# Steel wire rope

## 4. Steel wire rope

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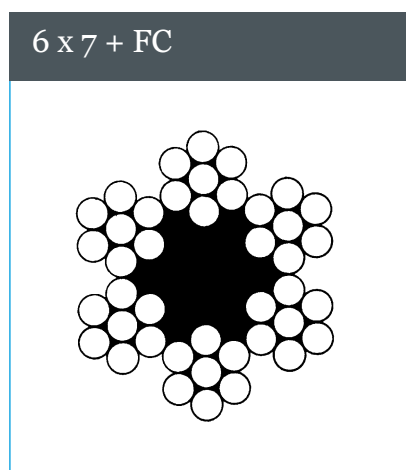
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## 6 x 7 + FC

Minimum breaking force factor: 0.332

Nominal rope length mass factor: 0.345

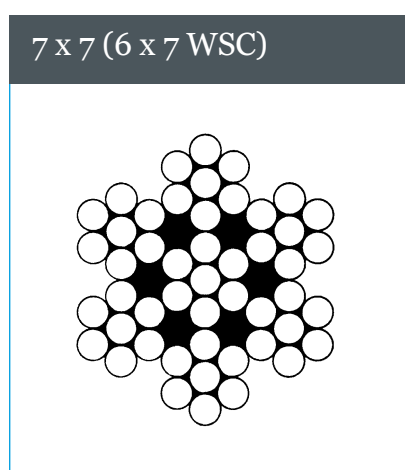


Nominal diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>	
		kN	kg
mm	kg		
2	1.38	2.35	240
3	3.11	5.29	540
4	5.52	9.40	960
5	8.63	14.70	1,500
6	12.40	21.20	2,160
7	16.90	28.80	2,940
8	22.10	37.60	3,840
9	27.90	47.60	4,860
10	34.50	58.80	6,000
11	41.70	71.10	7,250
12	49.70	84.60	8,620
13	58.30	99.30	10,100
14	67.60	115.00	11,700
16	88.30	150.00	15,300
18	112.00	190.00	19,400
20	138.00	235.00	24,000

## 7 x 7 (6 x 7 WSC)

Minimum breaking force factor: 0.359

Nominal rope length mass factor: 0.384

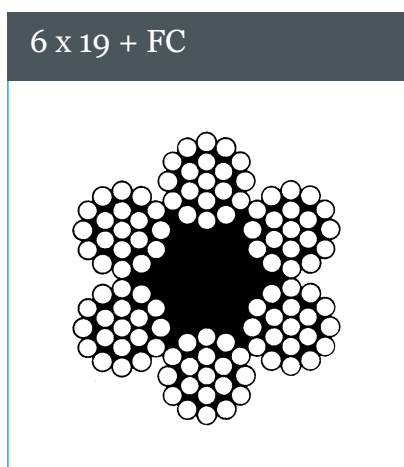


Nominal diameter	Weight 100 m	Minimum Breaking Load	
		1,770 N/mm <sup>2</sup>	
mm	kg	kN	kg
2	1.54	2.54	260
3	3.46	5.72	580
4	6.14	10.20	1,040
5	9.60	15.90	1,620
6	13.80	22.90	2,340
7	18.80	31.10	3,170
8	24.60	40.70	4,150
9	31.10	51.50	5,250
10	38.40	63.50	6,480
11	46.50	76.90	7,840
12	55.30	91.50	9,330
13	64.90	107.00	10,900
14	75.30	125.00	12,700
16	98.30	163.00	16,600
18	124.00	206.00	21,000
20	154.00	254.00	25,900

## 6 x 19 + FC

Minimum breaking force factor: 0.307

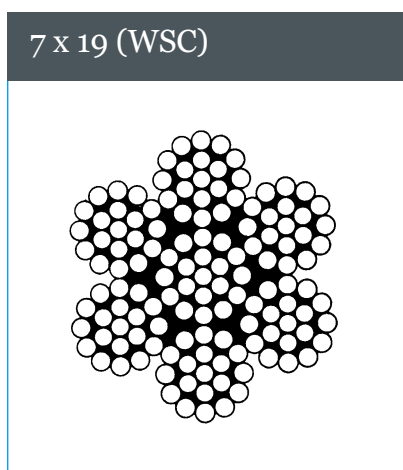
Nominal rope length mass factor: 0.346



Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
3	3.11	4.89	500	5.42	550
4	5.54	8.69	890	9.63	980
5	8.65	13.60	1,390	15.00	1,530
6	12.50	19.60	2,000	21.70	2,210
7	17.00	26.60	2,720	29.50	3,010
8	22.10	34.80	3,550	38.50	3,930
9	28.00	44.00	4,490	48.70	4,970
10	34.60	54.30	5,540	60.20	6,140
11	41.90	65.80	6,710	72.80	7,430
12	49.80	78.30	7,890	86.70	8,840
13	58.50	91.80	9,370	101.70	10,400
14	67.80	107.00	10,900	118.00	12,000
16	88.60	139.00	14,200	154.00	15,700
18	112.00	176.00	18,000	195.00	19,900
20	138.00	217.00	22,220	241.00	24,500
22	168.00	263.00	26,800	291.00	29,700
24	199.00	313.00	31,900	347.00	35,300
26	234.00	367.00	37,500	407.00	41,500
28	271.00	426.00	43,400	472.00	48,100
32	354.00	556.00	56,800	616.00	62,800
36	448.00	704.00	71,800	780.00	79,500
40	554.00	869.00	88,700	963.00	98,200

## 7 x 19 (WSC)

Minimum breaking force factor: 0.362  
Nominal rope length mass factor: 0.381

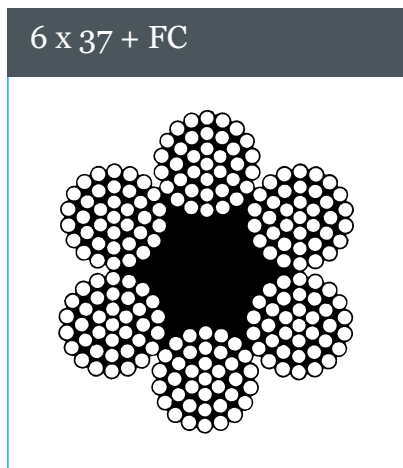


Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
3	3.43	5.77	590	6.39	650
4	6.10	10.30	1,050	11.40	1,160
5	9.53	16.00	1,630	17.70	1,810
6	13.70	23.10	2,350	25.50	2,610
7	18.70	31.40	3,200	34.80	3,550
8	24.40	41.00	4,180	45.40	4,630
9	30.90	51.90	5,290	57.50	5,860
10	38.10	64.10	6,540	71.00	7,240
11	46.10	77.50	7,910	85.90	8,760
12	54.90	92.30	9,410	102.20	10,400
13	64.40	108.30	11,000	119.90	12,200
14	74.70	126.00	12,800	139.00	14,200
16	97.50	164.00	16,700	182.00	18,500
18	123.00	208.00	21,200	230.00	23,400
20	152.00	256.00	26,100	284.00	28,900
22	184.00	310.00	31,600	343.00	35,000
24	219.00	369.00	37,600	409.00	41,700
26	258.00	433.00	44,200	480.00	48,900
28	299.00	502.00	51,200	556.00	56,700
32	390.00	656.00	66,900	727.00	74,100
36	494.00	830.00	84,700	920.00	93,800
40	610.00	1,025.00	105,000	1,135.00	116,000

## 6 x 37 + FC

Minimum breaking force factor: 0.295

Nominal rope length mass factor: 0.346



Nominal diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>	
		kN	kg
5	8.65	13.10	1,340
6	12.50	18.80	1,920
7	17.00	25.60	2,610
8	22.10	33.40	3,410
9	28.00	42.30	4,310
10	34.60	52.20	5,320
11	41.90	63.20	6,450
12	49.80	75.20	7,670
13	58.50	88.20	9,000
14	67.80	102.00	10,400
15	77.00	118.00	12,000
16	89.00	134.00	13,700
18	112.00	169.00	17,200
20	138.00	209.00	21,300
22	167.00	253.00	25,800
24	199.00	301.00	30,700
26	234.00	353.00	36,000
28	271.00	409.00	41,700
30	311.00	470.00	47,900
32	354.00	534.00	54,500
34	400.00	604.00	61,600
36	448.00	676.00	68,900
38	500.00	754.00	76,900
40	554.00	835.00	85,200
44	670.00	1,010.00	103,000
48	797.00	1,203.00	123,000
52	936.00	1,410.00	144,000
56	1,085.00	1,637.00	167,000
60	1,246.00	1,880.00	192,000

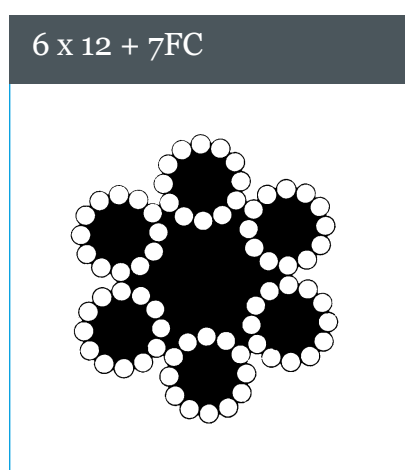
According EN 12385-4



## 6 x 12 + 7FC

Minimum breaking force factor: 0.209

Nominal rope length mass factor: 0.224

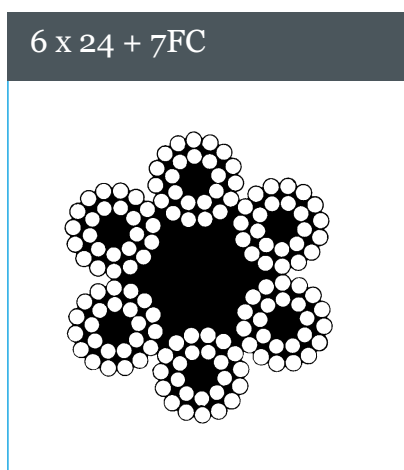


Nominal diameter	Weight 100 m	Minimum Breaking Load	
		1,770 N/mm <sup>2</sup>	
mm	kg	kN	kg
3	2.02	3.33	340
4	3.58	5.92	604
5	5.60	9.25	943
6	8.06	13.30	1,360
7	11.00	18.10	1,850
8	14.30	23.70	2,420
9	18.10	30.00	3,060
10	22.40	37.00	3,770
11	27.10	44.80	4,570
12	32.30	53.30	5,440
13	37.90	62.50	6,370
14	43.90	72.50	7,390
16	57.30	94.70	9,660
18	72.60	120.00	12,200
20	89.60	148.00	15,100

## 6 x 24 + 7FC

Minimum breaking force factor: 0.280

Nominal rope length mass factor: 0.295

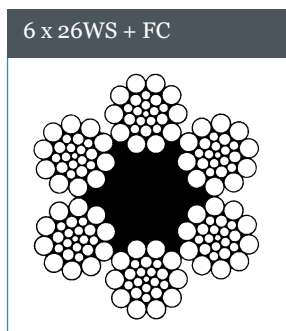
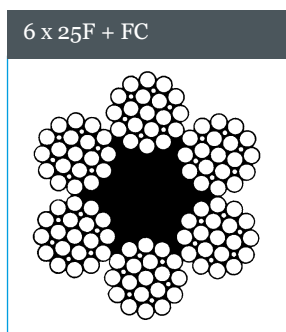
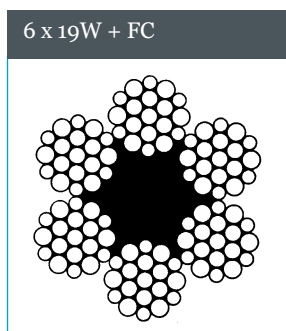
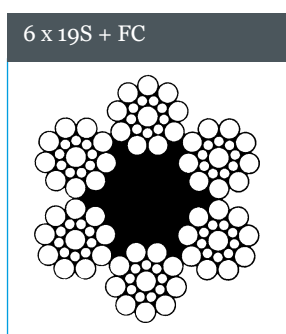


Nominal diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>	
		kN	kg
6	10.60	17.80	1,820
7	14.50	24.30	2,480
8	18.90	31.70	3,230
9	23.90	40.10	4,090
10	29.50	49.60	5,060
11	35.70	60.00	6,120
12	42.50	71.40	7,280
13	49.90	83.80	8,550
14	57.80	97.10	9,900
16	75.50	127.00	13,000
18	95.60	161.00	16,400
20	118.00	198.00	20,200
22	143.00	240.00	24,500
24	170.00	285.00	29,100
26	199.00	335.00	34,200
28	231.00	389.00	39,700
30	266.00	446.00	45,500

## 6 x 19S + FC / 6 x 19W + FC / 6 x 25F + FC / 6 x 26WS + FC

Minimum breaking force factor: 0.330

Nominal rope length mass factor: 0.359



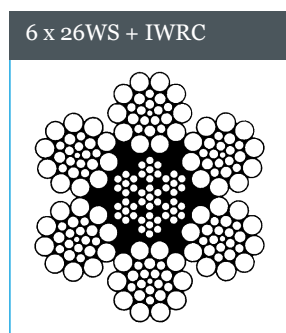
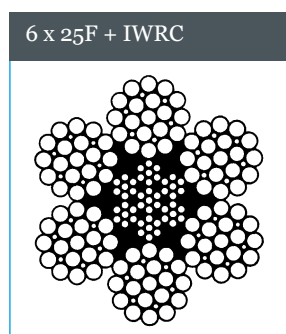
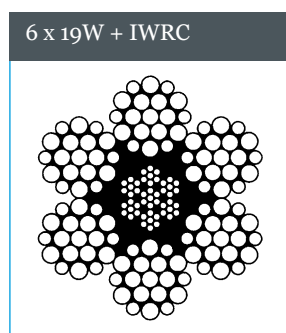
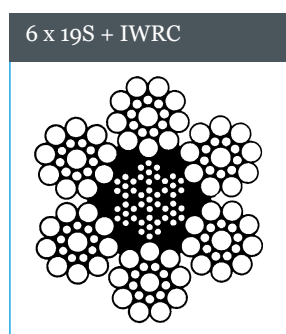
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
6	12.90	21.00	2,140	23.30	2,380
7	17.60	28.60	2,920	31.70	3,230
8	23.00	37.40	3,810	41.40	4,220
9	29.10	47.30	4,820	52.40	5,340
10	35.90	58.40	5,960	64.70	6,600
11	43.30	70.70	7,210	78.30	7,990
12	51.70	84.10	8,580	93.10	9,500
13	60.70	98.70	10,100	109.00	11,100
14	70.40	114.00	11,600	127.00	13,000
16	91.90	150.00	15,300	166.00	16,900
18	116.00	189.00	19,300	210.00	21,400
19	130.00	211.00	21,500	233.00	23,800
20	144.00	234.00	23,900	259.00	26,400
22	174.00	283.00	28,900	313.00	31,900
24	207.00	336.00	34,300	373.00	38,000
26	243.00	395.00	40,300	437.00	44,600
28	281.00	458.00	46,700	507.00	51,700
32	368.00	598.00	61,000	662.00	67,500
36	465.00	757.00	77,200	838.00	85,500
38	518.00	843.00	86,000	934.00	95,300
40	574.00	935.00	95,400	1,040.00	106,000

According EN 12385-4

## 6 x 19S + IWRC / 6 x 19W + IWRC / 6 x 25F + IWRC / 6 x 26WS + IWRC

Minimum breaking force factor: 0.356

Nominal rope length mass factor: 0.400



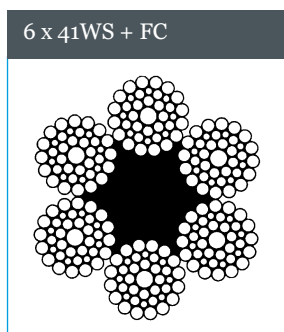
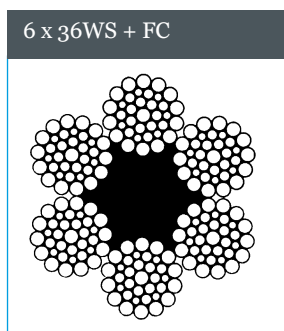
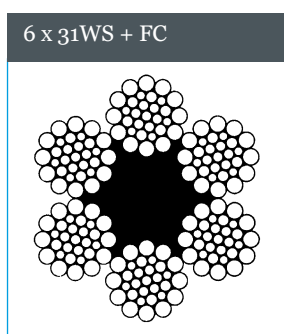
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
6	14.40	22.70	2,320	25.10	2,560
7	19.60	30.90	3,150	34.20	3,490
8	25.60	40.30	4,110	44.70	4,560
9	32.40	51.00	5,200	56.50	5,760
10	40.00	63.00	6,430	69.80	7,120
11	48.40	76.20	7,770	84.40	8,600
12	57.60	90.70	9,250	100.00	10,200
13	67.60	106.00	10,800	118.00	12,000
14	78.40	124.00	12,600	137.00	14,000
16	102.00	161.00	16,400	179.00	18,300
18	130.00	204.00	20,800	226.00	23,000
19	144.00	227.00	23,100	252.00	25,700
20	160.00	252.00	25,700	279.00	28,500
22	194.00	305.00	31,100	338.00	34,500
24	230.00	363.00	37,000	402.00	41,000
26	270.00	426.00	43,400	472.00	48,100
28	314.00	494.00	50,400	547.00	55,800
32	410.00	645.00	65,800	715.00	72,900
36	518.00	817.00	83,300	904.00	92,200
38	578.00	910.00	92,800	1,010.00	103,000
40	640.00	1,010.00	103,000	1,120.00	114,000

According EN 12385-4

## 6 x 31WS + FC / 6 x 36WS + FC / 6 x 41WS + FC

Minimum breaking force factor: 0.330

Nominal rope length mass factor: 0.367



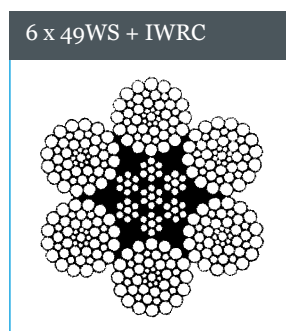
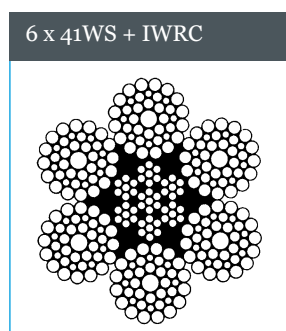
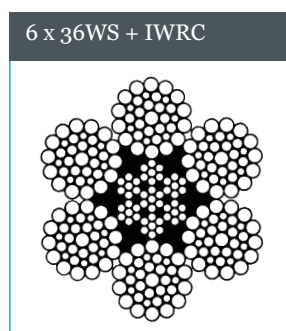
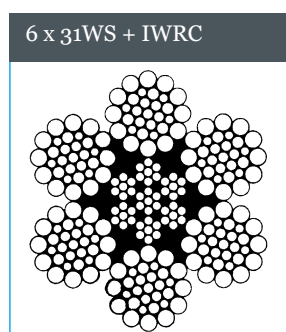
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	23.50	37.40	3,810	41.40	4,220
9	29.70	47.30	4,820	52.40	5,340
10	36.70	58.40	5,960	64.70	6,600
11	44.40	70.70	7,210	78.30	7,990
12	52.80	84.10	8,580	93.10	9,500
13	62.00	98.70	10,100	109.00	11,100
14	71.90	114.00	11,600	127.00	13,000
16	94.00	150.00	15,300	166.00	16,900
18	119.00	189.00	19,300	210.00	21,400
20	147.00	234.00	23,900	259.00	26,400
22	178.00	283.00	28,900	313.00	31,900
24	211.00	336.00	34,300	373.00	38,000
26	248.00	395.00	40,300	437.00	44,600
28	288.00	458.00	46,700	507.00	51,700
30	330.00	526.00	53,600	582.00	59,400
32	376.00	598.00	61,000	662.00	67,500
36	476.00	757.00	77,200	838.00	85,500
38	530.00	843.00	86,000	934.00	95,000
40	587.00	935.00	95,300	1,040.00	106,100
44	711.00	1,130.00	115,000	1,250.00	127,000
48	846.00	1,350.00	138,000	1,490.00	152,000
52	992.00	1,580.00	161,000	1,750.00	178,000
56	1,150.00	1,830.00	187,000	2,030.00	207,000
60	1,320.00	2,100.00	214,000	2,330.00	238,000

According EN 12385-4

## 6 x 31WS + IWRC / 6 x 36WS + IWRC / 6 x 41WS + IWRC / 6 x 49WS + IWRC

Minimum breaking force factor: 0.356

Nominal rope length mass factor: 0.409



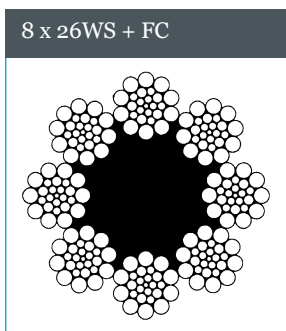
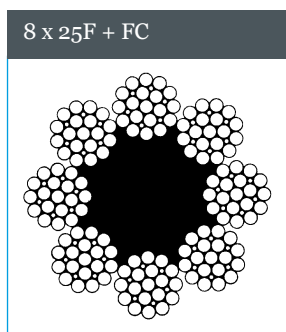
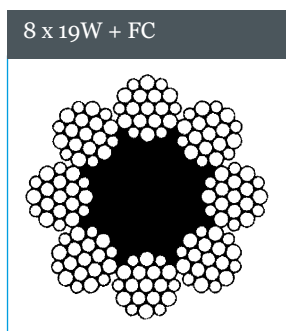
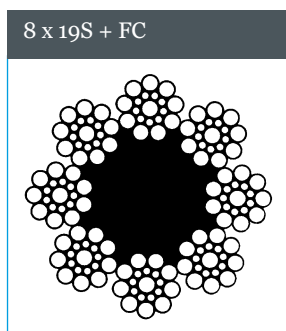
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	26.20	40.30	4,110	44.70	4,560
9	33.10	51.00	5,200	56.50	5,760
10	40.90	63.00	6,420	69.80	7,120
11	49.50	76.20	7,770	84.40	8,600
12	58.90	90.70	9,250	100.00	10,200
13	69.10	106.00	10,800	118.00	12,000
14	80.20	124.00	12,600	137.00	14,000
16	105.00	161.00	16,400	179.00	18,300
18	133.00	204.00	20,800	226.00	23,000
19	148.00	227.00	23,200	252.00	25,700
20	164.00	252.00	25,700	279.00	28,500
22	198.00	305.00	31,100	338.00	34,500
24	236.00	363.00	37,000	402.00	41,000
26	276.00	426.00	43,400	472.00	48,100
28	321.00	494.00	50,400	547.00	55,800
30	368.00	567.00	57,800	628.00	64,000
32	419.00	645.00	65,800	715.00	72,900
34	473.00	728.00	74,200	807.00	82,300
36	530.00	817.00	83,300	904.00	92,200
38	591.00	910.00	92,800	1,010.00	103,000
40	654.00	1,010.00	103,000	1,120.00	114,000
42	721.00	1,110.00	113,000	1,230.00	125,000
44	792.00	1,220.00	124,000	1,350.00	138,000
48	942.00	1,450.00	148,000	1,610.00	164,000
51	1,064.00	1,639.00	167,000	1,815.00	185,000
52	1,110.00	1,700.00	173,000	1,890.00	193,000
56	1,280.00	1,980.00	202,000	2,190.00	223,000
57	1,329.00	2,047.00	208,000	2,267.00	231,000
60	1,470.00	2,270.00	232,000	2,510.00	256,000
64	1,675.00	2,580.00	263,000	2,858.00	291,000

According EN 12385-4

## 8 x 19S + FC / 8 x 19W + FC / 8 x 25F + FC / 8 x 26WS + FC

Minimum breaking force factor: 0.293

Nominal rope length mass factor: 0.340



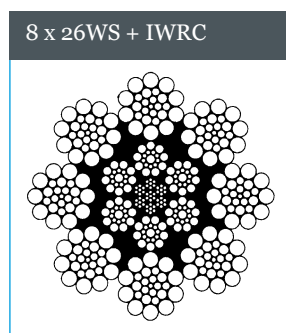
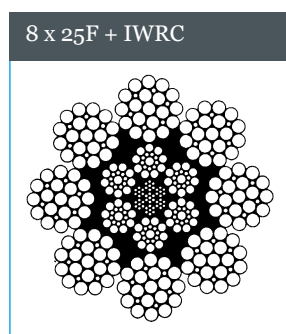
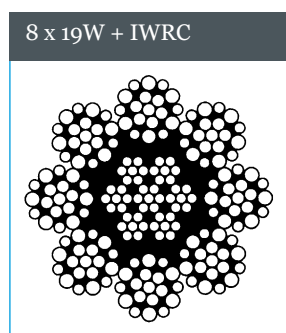
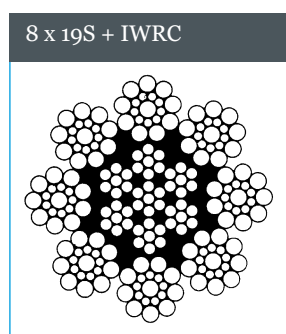
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	21.80	33.20	3,390	36.80	3,750
9	27.50	42.00	4,280	46.50	4,740
10	34.00	51.90	5,290	57.40	5,850
11	41.10	62.80	6,410	69.50	7,090
12	49.00	74.70	7,620	82.70	8,430
13	57.50	87.60	8,900	97.10	9,900
14	66.60	102.00	10,400	113.00	11,500
16	87.00	133.00	13,600	147.00	14,500
18	110.00	168.00	17,100	186.00	19,000
20	136.00	207.00	21,100	230.00	23,500
22	165.00	251.00	25,600	278.00	28,400
24	196.00	299.00	30,500	331.00	33,800
26	230.00	351.00	35,800	388.00	39,600
28	267.00	407.00	41,500	450.00	45,900
32	348.00	531.00	54,200	588.00	60,000
36	441.00	672.00	68,500	744.00	75,900
40	544.00	830.00	85,000	919.00	94,000
44	658.00	1,000.00	102,000	1,110.00	113,000
48	783.00	1,200.00	133,000	1,320.00	135,000
52	919.00	1,400.00	143,000	1,550.00	158,000
56	1,070.00	1,630.00	166,000	1,800.00	184,000
60	1,220.00	1,870.00	191,000	2,070.00	211,000

According EN 12385-4

## 8 x 19S + IWRC / 8 x 19W + IWRC / 8 x 25F + IWRC / 8 x 26WS + IWRC

Minimum breaking force factor: 0.356

Nominal rope length mass factor: 0.407



Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	26.00	40.30	4,110	44.70	4,560
9	33.00	51.00	5,200	56.50	5,760
10	40.70	63.00	6,430	69.80	7,120
11	49.20	76.20	7,770	84.40	8,610
12	58.60	90.70	9,250	100.00	10,200
13	68.80	106.00	10,800	118.00	12,000
14	79.80	124.00	12,600	137.00	13,400
16	104.00	161.00	16,400	179.00	18,300
18	132.00	204.00	20,800	226.00	23,000
20	163.00	252.00	25,700	279.00	28,500
22	197.00	305.00	31,100	338.00	34,500
24	234.00	363.00	37,000	402.00	41,000
26	275.00	426.00	43,400	472.00	48,100
28	319.00	494.00	50,400	547.00	55,800
32	417.00	645.00	65,800	715.00	72,900
36	527.00	817.00	83,300	904.00	92,200
40	651.00	1,010.00	103,000	1,120.00	114,000
44	788.00	1,220.00	124,000	1,350.00	138,000
48	938.00	1,450.00	148,000	1,610.00	164,000
52	1,100.00	1,700.00	173,000	1,890.00	193,000
56	1,280.00	1,980.00	202,000	2,190.00	223,000
60	1,470.00	2,270.00	232,000	2,510.00	256,000

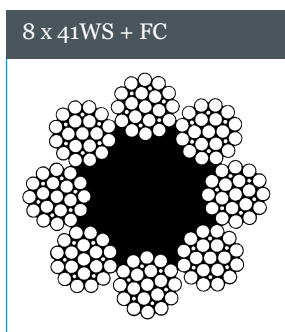
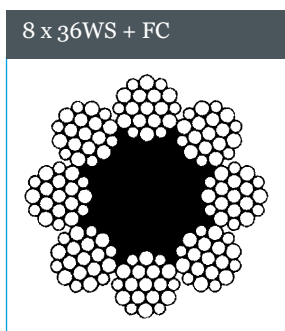
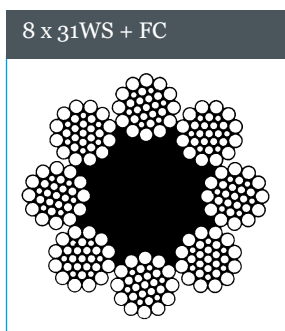
According EN 12385-4



## 8 x 31WS + FC / 8 x 36WS + FC / 8 x 41WS + FC

Minimum breaking force factor: 0.293

Nominal rope length mass factor: 0.348



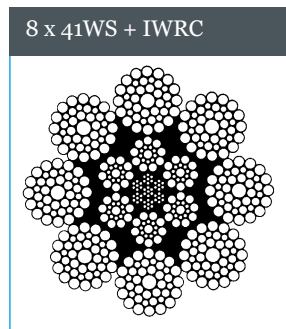
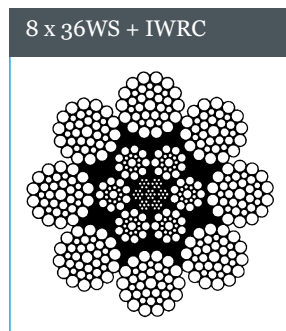
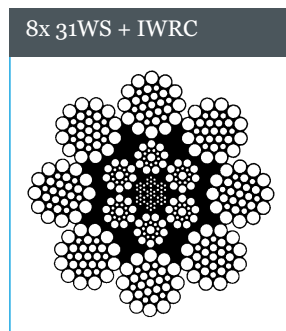
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	22.30	33.20	3,390	36.80	3,750
9	28.20	42.00	4,280	46.50	4,740
10	34.80	51.90	5,290	57.40	5,850
11	42.10	62.80	6,410	69.50	7,090
12	50.10	74.70	7,620	82.70	8,430
13	58.80	87.60	8,930	97.10	9,900
14	68.20	102.00	10,400	113.00	11,500
16	89.10	133.00	13,600	147.00	15,000
18	113.00	168.00	17,100	186.00	19,000
20	139.00	207.00	21,100	230.00	23,500
22	168.00	251.00	25,600	278.00	28,400
24	200.00	299.00	30,500	331.00	33,800
26	235.00	351.00	35,800	388.00	39,600
28	273.00	407.00	41,500	450.00	45,900
32	356.00	531.00	54,200	588.00	60,000
36	451.00	672.00	68,500	744.00	75,900
40	557.00	830.00	84,700	919.00	93,700
44	674.00	1,000.00	102,000	1,110.00	113,000
48	802.00	1,200.00	122,000	1,320.00	135,000
52	941.00	1,400.00	143,000	1,550.00	158,000
56	1,090.00	1,630.00	166,000	1,800.00	184,000
60	1,250.00	1,870.00	191,000	2,070.00	211,000

According EN 12385-4

## 8 x 31WS + IWRC / 8 x 36WS + IWRC / 8 x 41WS + IWRC

Minimum breaking force factor: 0.356

Nominal rope length mass factor: 0.417

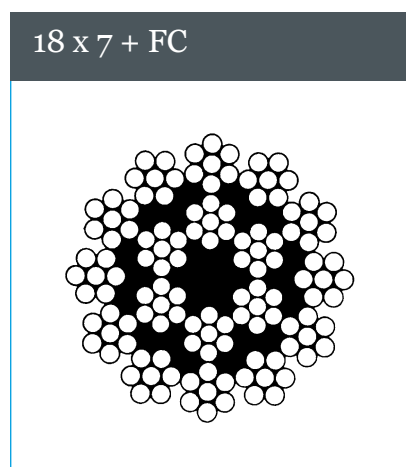


Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	26.70	40.30	4,110	44.70	4,560
9	33.80	51.00	5,200	56.50	5,760
10	41.70	63.00	6,430	69.80	7,120
11	50.50	76.20	7,770	84.40	8,610
12	60.00	90.70	9,250	100.00	10,200
13	70.50	106.00	10,800	118.00	12,000
14	81.70	124.00	12,600	137.00	14,000
16	107.00	151.00	15,400	179.00	18,300
18	135.00	204.00	20,800	226.00	23,000
20	167.00	252.00	25,700	279.00	28,500
22	202.00	305.00	31,100	338.00	34,500
24	240.00	363.00	37,000	402.00	41,000
26	282.00	426.00	43,400	472.00	48,100
28	327.00	494.00	50,400	547.00	55,800
32	427.00	645.00	65,800	715.00	72,900
36	540.00	817.00	83,300	904.00	92,200
40	667.00	1,010.00	103,000	1,120.00	114,000
44	807.00	1,220.00	124,000	1,350.00	138,000
48	961.00	1,450.00	148,000	1,610.00	164,000
52	1,130.00	1,700.00	173,000	1,890.00	193,000
56	1,310.00	1,980.00	202,000	2,190.00	223,000
60	1,500.00	2,270.00	232,000	2,510.00	256,000

## 18 x 7 + FC

Minimum breaking force factor: 0.328

Nominal rope length mass factor: 0.382



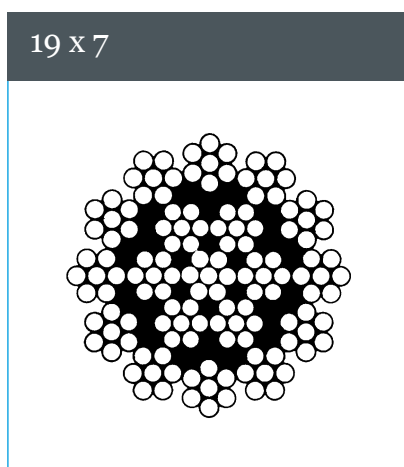
Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
4	6.10	9.30	947	10.30	1,049
5	9.60	14.50	1,480	16.10	1,639
6	13.80	20.90	2,132	23.10	2,360
7	18.70	28.40	2,901	31.50	3,213
8	24.40	37.20	3,789	41.10	4,196
9	30.90	47.00	4,796	52.10	5,311
10	38.20	58.10	5,921	64.30	6,557
11	46.20	70.20	7,164	77.80	7,934
12	55.00	83.60	8,526	92.60	9,442
13	64.60	98.10	10,007	108.60	11,081
14	74.90	113.80	11,605	126.00	12,851
15	86.00	131.00	13,322	145.00	14,752
16	97.80	149.00	15,158	165.00	16,785
18	124.00	188.00	19,184	208.00	21,244
19	138.00	210.00	21,375	232.00	23,670
20	153.00	232.00	23,684	257.00	26,227
22	185.00	281.00	28,658	311.00	31,734
24	220.00	334.00	34,105	370.00	37,766
26	258.00	392.00	40,026	435.00	44,323
28	299.00	455.00	46,421	504.00	51,404

According EN 12385-4

## 19 x 7

Minimum breaking force factor: 0.328

Nominal rope length mass factor: 0.401

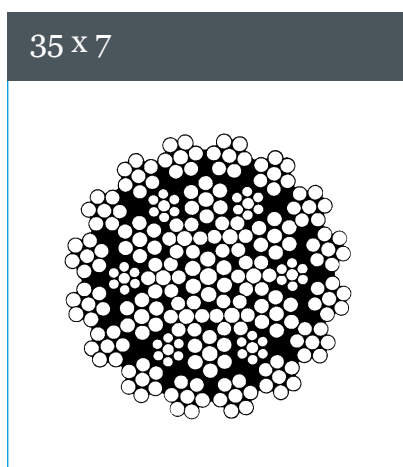


Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,770 N/mm <sup>2</sup>		Minimum Breaking Load 1,960 N/mm <sup>2</sup>	
		mm	kg	kN	kg
4	6.40	9.30	950	10.30	1,050
5	10.00	14.50	1,480	16.10	1,640
6	14.40	20.90	2,130	23.10	2,360
7	19.70	28.50	2,900	31.50	3,210
8	25.70	37.20	3,790	41.10	4,200
9	32.50	47.00	4,800	52.10	5,310
10	40.10	58.10	5,920	64.30	6,560
11	48.50	70.30	7,160	77.80	7,930
12	57.70	84.00	8,530	92.60	9,440
13	67.80	98.00	10,000	108.70	11,100
14	79.00	114.00	11,600	126.00	12,900
15	90.00	131.00	13,300	145.00	14,800
16	103.00	149.00	15,200	165.00	16,800
18	130.00	188.00	19,200	208.00	21,200
19	145.00	210.00	21,400	232.00	23,700
20	160.00	232.00	23,700	257.00	26,200
22	194.00	281.00	28,700	311.00	31,700
24	231.00	334.00	34,100	370.00	37,800
26	271.00	392.00	40,000	435.00	44,300
28	314.00	455.00	46,400	504.00	51,400

## 35 x 7 (non-rotating | non-compacted)

Minimum breaking force factor: 0.360

Nominal rope length mass factor: 0.454

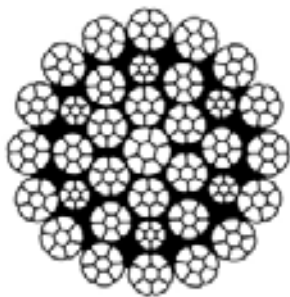


Nominal Diameter	Weight 100 m	Minimum Breaking Load 1,960 N/mm <sup>2</sup>		Minimum Breaking Load 2,160 N/mm <sup>2</sup>	
		mm	kg	kN	kg
8	29.10	45.20	4,610	48.40	4,940
9	36.80	57.20	5,830	61.20	6,240
10	45.40	70.60	7,200	75.60	7,710
11	54.90	85.40	8,710	91.50	9,930
12	65.40	102.00	10,400	109.00	11,100
13	76.70	119.00	12,100	128.00	13,100
14	89.00	138.00	14,100	148.00	15,100
16	116.00	181.00	18,500	194.00	19,800
18	147.00	229.00	23,400	245.00	25,000
20	182.00	282.00	28,800	302.00	30,800
22	220.00	342.00	34,900	366.00	37,300
24	262.00	406.00	41,400	435.00	44,400
26	307.00	477.00	48,600	511.00	52,100
28	356.00	553.00	56,400	593.00	60,500
32	465.00	723.00	73,700	774.00	79,000
36	588.00	914.00	93,200	980.00	100,000
38	656.00	1,020.00	104,000	1,090.00	111,000
40	726.00	1,130.00	115,000	1,210.00	123,000

According EN 12385-4

## 35 x 7 (non-rotating | compacted)

35 x 7

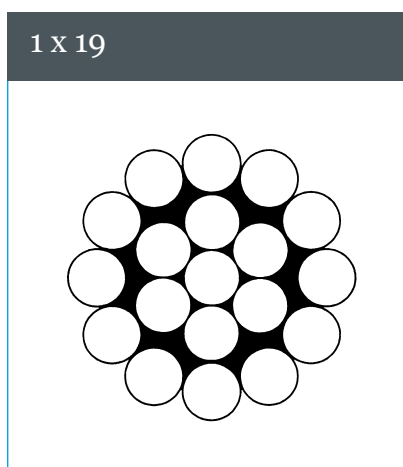


Nominal Diameter	Weight 100 m	Minimum Breaking Load 2,160 N/mm <sup>2</sup>	
		kN	kg
10	48	96	9,800
11	58	116	11,800
12	68	138	14,100
13	81	162	16,500
14	94	188	19,200
15	108	216	22,000
16	122	245	25,000
17	138	277	28,200
18	155	311	31,700
19	173	346	35,300
20	195	372	37,900
21	215	424	43,200
22	241	474	48,300
23	267	519	52,800
24	284	551	56,100
25	312	606	61,800
26	335	652	66,400
27	360	700	71,300
28	391	760	77,400
29	413	803	81,800
30	446	866	88,200
31	478	929	94,600
32	503	977	99,500
33	536	1,032	105,000
34	574	1,105	113,000
35	606	1,166	119,000
36	642	1,235	126,000
37	674	1,296	132,000
38	718	1,381	141,000
39	753	1,449	148,000
40	793	1,525	155,000
41	828	1,594	162,000
42	870	1,673	170,000
43	913	1,756	179,000
44	948	1,825	190,000
45	993	1,912	195,000
46	1,040	2,007	207,000
47	1,080	2,086	212,000
48	1,140	2,186	223,000

## 1 x 19

Minimum breaking force factor: 0.525

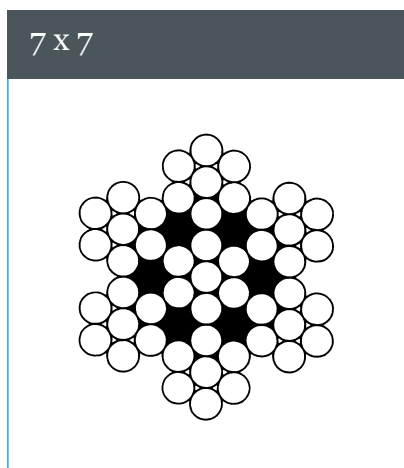
Nominal rope length mass factor: 0.495



Nominal diameter	Weight 100 m	Minimum Breaking Load 1,570 N/mm <sup>2</sup>	
		kN	kg
1.0	0.50	0.82	84
1.5	1.11	1.85	190
2.0	2.00	3.30	340
2.5	3.10	5.15	530
3.0	4.50	7.40	760
4.0	7.90	13.20	1,350
5.0	12.40	20.60	2,100
6.0	17.80	29.70	3,030
7.0	24.30	37.80	3,850
8.0	31.70	52.80	5,380
10.0	49.50	82.40	8,400
12.0	71.30	118.70	12,100

## 7 x 7

Minimum breaking force factor: 0.359  
Nominal rope length mass factor: 0.384



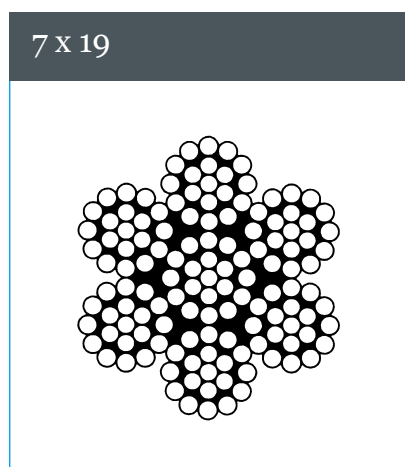
Nominal diameter	Weight 100 m	Minimum Breaking Load 1,570 N/mm <sup>2</sup>	
		kN	kg
1.0	0.38	0.56	57
1.5	0.86	1.27	130
2.0	1.54	2.25	230
2.5	2.40	3.52	360
3.0	3.50	5.10	520
4.0	6.10	9.00	920
5.0	9.60	14.10	1,440
6.0	13.80	20.30	2,070
8.0	24.60	36.10	3,680



## 7 x 19

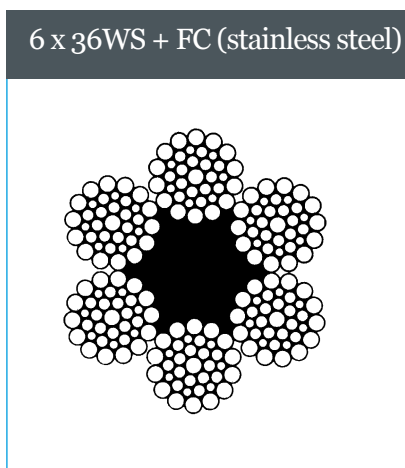
Minimum breaking force factor: 0.362

Nominal rope length mass factor: 0.381



Nominal diameter	Weight 100 m	Minimum Breaking Load 1,570 N/mm <sup>2</sup>	
		kN	kg
2.0	1.52	2.27	230
2.5	2.38	3.55	360
3.0	3.43	5.10	520
4.0	6.10	9.10	930
5.0	9.50	14.20	1,450
6.0	13.70	20.50	2,090
8.0	24.40	36.40	3,710
9.0	30.90	46.00	4,700
10.0	38.10	56.80	5,800
12.0	54.90	81.80	8,350

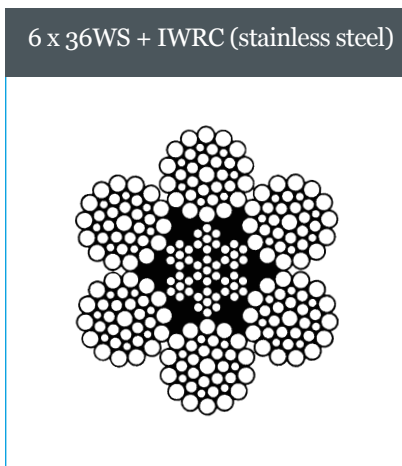
## 6 x 36WS + FC (stainless steel)



Nominal diameter	Weight 100 m	Minimum Breaking Load 1,570 N/mm <sup>2</sup>	
		kN	kg
mm	kg		
12	54.70	74.40	7,600
13	64.30	87.40	8,920
14	74.50	101.00	10,300
16	97.30	133.00	13,500
18	123.00	168.00	17,100
20	152.00	203.00	21,100
22	184.00	250.00	25,500
24	219.00	298.00	30,400
26	257.00	340.00	35,700

## 6 x 36WS + IWRC (stainless steel)

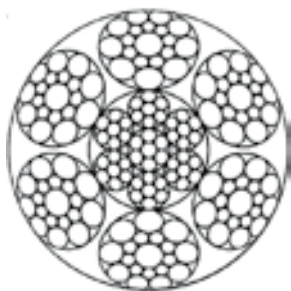
6 x 36WS + IWRC (stainless steel)



Nominal diameter	Weight 100 m	Minimum Breaking Load 1,570 N/mm <sup>2</sup>	
		kN	kg
12	60.20	80.60	8,210
13	70.70	94.60	9,630
14	82.00	109.00	11,200
16	107.00	143.00	14,600
18	135.00	181.00	18,500
20	167.00	221.00	22,800
22	202.00	271.00	27,600
24	241.00	322.00	32,800
26	283.00	378.00	38,500

## 6 x 19 (forestry)

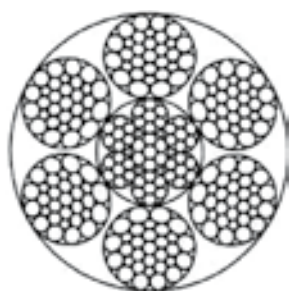
6 x 19 (forestry)



Nominal diameter	Weight 100 m	Minimum Breaking Load
mm	kg	kN
8	36.10	69.40
9	44.10	84.80
10	52.90	102.00
11	62.50	120.00
12	72.90	140.00
13	84.10	162.00
14	96.10	185.00
15	109.00	209.00
16	123.00	235.00

## 6 x 31 (forestry)

6 x 31 (forestry)



Nominal diameter	Weight 100 m	Minimum Breaking Load
mm	kg	kN
8	36.90	63.00
9	45.10	76.90
10	54.10	92.30
11	63.90	109.00
12	74.50	127.00
13	86.00	146.00
14	98.30	167.00
15	111.00	190.00
16	125.00	213.00

## Branded special wire ropes

Our extensive supplier network contains a large number of the world's best and specialised manufacturers.

### C.A.E.S.A. (Cables Y Alambres Especiales)

One of the oldest (founded in 1898) European manufacturers of steel wire and wire rope. Wire rope products for solutions in Mooring, Drilling, Offshore Handling, Towing and Well Service. Extensive range of products for crane related applications too.

### CASAR

The company CASAR Drahtseilwerk Saar was founded in 1948. CASAR is an abbreviation for the French term 'Câblerie Sarroise'. CASAR develops and produces Special Wire Ropes for cranes and other lifting devices.

### Chung Woo

For more than 20 years, Chung Woo manufacturers all kinds of quality steel wire rope, stainless steel wire rope, steel wire strand & wire for general and special purposes.

The Korean company produces products for hoist, crane drilling, offshore, oil field, mining and automobile industries.

### Diepa

DIEPA special wire ropes are manufactured by German company Drahtseilwerk Dietz.

Its first patent covering ropes produced in double parallel lay was granted in 1936 and the branded name Diepa was born (Diepa is an acronym for Dietz Patent). Diepa's special wire ropes are known for their long service life and high rope safety.

### DSR

Established in 1965. The Korean company is divided in two parts: DSR Wire Corp for steel wire ropes, and DSR Corp for fibre ropes. DSR's extensive range covers industries and applications such as crane, fishing, mooring, mining, logging, anchor, skyline, stainless rope and general purpose.

### Kiswire

Established in 1945 in Busan, Korea, Kiswire is the largest wire rope producer in the world.

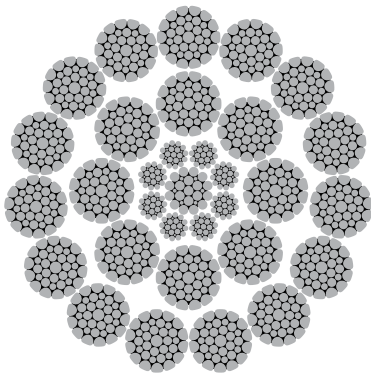
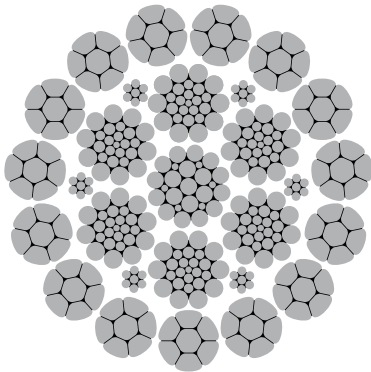
Kiswire has manufacturing facilities in Korea, Malaysia, China and the USA. Annually, about 130,000 tons of wire rope is delivered, worldwide. Meanwhile, it has acquired a reputable and leading position in a great variety of markets, offshore included.

### WDI

WDI Ropes is part of the Westfälische Drahtindustrie Group that traces its company history back to a wire production plant founded in 1856. Since 1890, it has run under its current name, WDI Group. The group has divisions that produce wire, bright steel, structural steel and steel wire ropes. WDI Ropes developed a portfolio of high performance wire ropes under the trade name PYTHON.

### ZDB

ZDB's wire rope division is part of ZDB GROUP, Bohumin, Czech Republic. The company has its own mill and offers a wide assortment of wire and wire ropes. ZDB products are used in many industries such as in automotive, aviation, food processing, chemical and building industries.

**PRODUCT**

DIEPA <b>B 50</b>	Ordinary lay
DIEPA <b>B 53</b>	Ordinary lay with internal plastic component
▶ DIEPA <b>B 55</b>	Lang lay
DIEPA <b>B 58</b>	Lang lay with internal plastic component

**PROPERTIES**

- Rotation resistant
- Compacted outer strands
- High breaking force

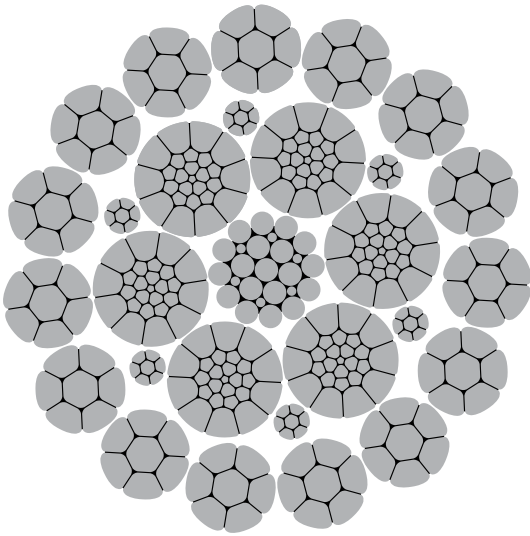
**TECHNICAL DATA**

Load-bearing wires	105 Ø 4 – 49 mm	RCN.23-2
in outer strands/	255 Ø 50 – 99 mm	RCN.27
RCN acc. to ISO 4309	540 Ø 100 – 120 mm	RCN.31
Total number	154 Ø 4 – 5 mm	
of wires	238 Ø 6 – 10 mm	
	328 Ø 11 – 49 mm	
	549 Ø 50 – 99 mm	
	1053 Ø 100 – 120 mm	
Fill factor	0.7145	
Spinning loss factor	0.8350 at 1770 N/mm <sup>2</sup>	
	0.8350 at 1960 N/mm <sup>2</sup>	
	0.8150 at 2160 N/mm <sup>2</sup>	

Diameter mm	inch	Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
			kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
48		1 118	1 906	194 300	428 300	2 117	215 850	475 800	2 273	231 750	510 900
49		1 165	1 986	202 450	446 300	2 207	224 950	495 900	2 370	241 550	532 500
50		1 214	2 068	210 800	464 700	2 298	234 250	516 400	2 467	251 500	554 400
	2	1 253	2 135	217 620	479 700	2 372	241 790	533 000	2 547	259 600	572 300
51		1 263	2 152	219 350	483 500	2 391	243 700	537 200	2 567	261 650	576 800
52		1 313	2 237	228 000	502 600	2 485	253 350	558 500	2 668	272 000	599 600
53		1 364	2 323	236 850	522 100	2 582	263 200	580 200	2 772	282 600	623 000
	2½	1 414	2 410	245 710	541 600	2 679	273 040	601 900	2 876	293 180	646 300
54		1 415	2 412	245 900	542 100	2 681	273 250	602 400	2 878	293 400	646 800
55		1 468	2 503	255 100	562 300	2 781	283 450	624 800	2 986	304 350	670 900
56		1 522	2 594	264 450	583 000	2 883	293 850	647 800	3 095	315 500	695 500
57		1 577	2 695	274 000	604 000	2 984	304 400	671 000	3 209	326 850	720 500
	2¼	1 585	2 702	275 430	607 200	3 002	306 010	674 600	3 223	328 570	724 300
58		1 633	2 790	283 650	625 300	3 090	315 250	695 000	3 324	338 450	746 100
59		1 690	2 887	293 550	647 100	3 197	326 150	719 000	3 438	350 200	772 000
60		1 747	2 986	303 600	669 300	3 307	337 300	743 600	3 557	362 150	798 300
	2¾	1 766	3 011	306 940	676 600	3 345	341 020	751 800	3 592	366 150	807 200
61		1 806	3 086	313 800	691 800	3 418	348 650	768 600	3 676	374 350	825 200
62		1 866	3 188	324 150	714 600	3 530	360 200	794 000	3 797	386 750	852 600
63		1 927	3 292	334 750	737 900	3 645	371 950	820 000	3 921	399 350	880 400
	2½	1 957	3 336	340 050	749 600	3 707	377 850	833 000	3 980	405 690	894 300
64		1 988	3 397	345 400	761 400	3 762	383 800	846 100	4 046	412 100	908 500
65		2 051	3 504	356 300	785 400	3 880	395 900	872 800	4 174	425 100	937 100
66		2 114	3 613	367 400	809 900	4 000	408 150	899 800	4 303	438 250	966 100
	2¾	2 158	3 678	374 960	826 600	4 087	416 620	918 400	4 388	447 300	986 100
67		2 179	3 723	378 550	834 500	4 122	420 650	927 300	4 434	451 600	995 500
68		2 245	3 835	389 950	859 600	4 247	433 300	955 200	4 568	465 200	1 025 500
69		2 311	3 949	401 550	885 200	4 373	446 100	983 400	4 703	479 000	1 056 000
	2¾	2 368	4 037	411 480	907 100	4 485	457 180	1 007 800	4 815	490 840	1 082 100
70		2 379	4 064	413 250	911 000	4 500	459 150	1 012 200	4 840	492 950	1 086 700

Diameter		Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
mm	inch		kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
71		2 447	4 181	425 100	937 100	4 630	472 400	1 041 400	On request		
72		2 516	4 299	437 200	963 800	4 761	485 800	1 070 900			
73		2 587	4 420	449 400	990 700	4 894	499 350	1 100 800			
	2 7/8	2 589	4 423	449 770	991 500	4 898	499 740	1 101 700			
74		2 658	4 542	461 800	1 018 000	5 029	513 100	1 131 100			
75		2 730	4 665	474 400	1 045 800	5 166	527 100	1 162 000			
76		2 804	4 790	487 100	1 073 800	5 305	541 250	1 193 200			
	3	2 819	4 816	489 730	1 079 600	5 333	544 140	1 199 600			
77		2 878	4 917	500 000	1 102 300	5 445	555 600	1 224 800			
78		2 953	5 046	513 100	1 131 100	5 588	570 100	1 256 800			
79		3 029	5 176	526 350	1 160 300	5 731	584 850	1 289 300			
	3 1/8	3 058	5 225	531 390	1 171 500	5 786	590 430	1 301 600			
80		3 107	5 308	539 750	1 189 900	5 878	599 700	1 322 000			
81		3 185	5 442	553 350	1 219 900	6 025	614 850	1 355 400			
82		3 264	5 577	567 050	1 250 100	6 176	630 100	1 389 100			
	3 1/4	3 308	5 652	574 750	1 267 000	6 258	638 610	1 407 800			
83		3 344	5 714	581 000	1 280 800	6 327	645 550	1 423 100			
84		3 425	5 852	595 100	1 311 900	6 480	661 200	1 457 600			
85		3 507	5 992	609 300	1 343 200	6 636	677 050	1 492 600			
	3 3/8	3 567	6 095	619 820	1 366 400	6 749	688 680	1 518 200			
86		3 590	6 134	623 750	1 375 100	6 793	693 050	1 527 800			
87		3 674	6 278	638 350	1 407 300	6 951	709 250	1 563 600			
88		3 759	6 423	653 100	1 439 800	7 113	725 650	1 599 700			
	3 1/2	3 836	6 555	666 580	1 469 500	7 258	740 640	1 632 800			
89		3 845	6 570	668 050	1 472 700	7 275	742 300	1 636 400			
90		3 932	6 718	683 150	1 506 000	7 439	759 050	1 673 400			
91		4 020	6 868	698 400	1 539 600	7 605	776 000	1 710 700			
92		4 109	7 020	713 850	1 573 700	7 773	793 150	1 748 500			
	3 3/4	4 115	7 031	715 040	1 576 300	7 786	794 490	1 751 500			
93		4 198	7 173	729 450	1 608 100	7 943	810 500	1 786 800			
94		4 289	7 329	745 200	1 642 800	8 115	828 000	1 825 400			
95		4 381	7 485	761 150	1 678 000	8 289	845 750	1 864 500			
	3 3/8	4 404	7 525	765 210	1 686 900	8 332	850 230	1 874 400			
96		4 474	7 644	777 300	1 713 600	8 464	863 600	1 903 800			
97		4 567	7 804	793 550	1 749 400	8 641	881 750	1 943 900			
98		4 662	7 965	810 000	1 785 700	8 820	900 000	1 984 100			
	3 3/8	4 702	8 035	817 070	1 801 300	8 897	907 860	2 001 400			
99		4 758	8 129	826 650	1 822 400	9 001	918 500	2 024 900			
100		4 854	8 294	843 400	1 859 300	9 184	937 100	2 065 900			
101		4 952	8 460	860 350	1 896 700	9 369	955 900	2 107 300			
	4	5 011	8 561	870 630	1 919 300	9 480	967 370	2 132 600			
102		5 050	8 629	877 500	1 934 500	9 555	974 950	2 149 300			
103		5 150	8 799	894 750	1 972 500	9 744	994 150	2 191 700			
104		5 250	8 970	912 200	2 011 000	9 933	1 013 600	2 234 500			
	4 1/8	5 329	9 105	925 900	2 041 200	10 082	1 028 770	2 268 000			
105		5 352	9 144	929 850	2 049 900	10 125	1 033 150	2 277 600			
106		5 454	9 319	947 650	2 089 100	10 319	1 052 950	2 321 300			
107		5 557	9 496	965 600	2 128 700	10 515	1 072 900	2 365 300			
	4 1/4	5 657	9 665	982 870	2 166 800	10 702	1 092 070	2 407 500			
108		5 662	9 673	983 750	2 168 700	10 712	1 093 050	2 409 700			
109		5 767	9 854	1 002 050	2 209 100	10 912	1 113 350	2 454 400			
110		5 873	10 036	1 020 500	2 249 700	11 113	1 133 900	2 499 700			
111		5 981	10 219	1 039 150	2 290 900	11 316	1 154 600	2 545 400			
	4 3/8	5 994	10 242	1 041 530	2 296 100	11 341	1 157 250	2 551 200			
112		6 089	10 404	1 057 950	2 332 300	11 520	1 175 550	2 591 600			
113		6 198	10 590	1 076 950	2 374 200	11 727	1 196 600	2 638 000			
114		6 308	10 779	1 096 100	2 416 400	11 935	1 217 850	2 684 800			
	4 1/2	6 342	10 835	1 101 890	2 429 200	11 999	1 224 330	2 699 100			
115		6 420	10 969	1 115 400	2 459 000	12 146	1 239 300	2 732 100			
116		6 532	11 160	1 134 850	2 501 800	12 358	1 261 000	2 780 000			
117		6 645	11 353	1 154 550	2 545 300	12 572	1 282 850	2 828 100			
	4 5/8	6 699	11 446	1 163 960	2 566 000	12 674	1 293 290	2 851 100			
118		6 759	11 548	1 174 350	2 588 900	12 788	1 304 850	2 876 600			
119		6 874	11 745	1 194 350	2 633 000	13 006	1 327 050	2 925 600			
120		6 990	11 943	1 214 500	2 677 400	13 225	1 349 450	2 974 900			



**PRODUCT**

DIEPA <b>B 60</b>	Ordinary lay
DIEPA <b>B 63</b>	Ordinary lay with internal plastic component
▶ DIEPA <b>B 65</b>	Lang lay
DIEPA <b>B 68</b>	Lang lay with internal plastic component

**PROPERTIES**

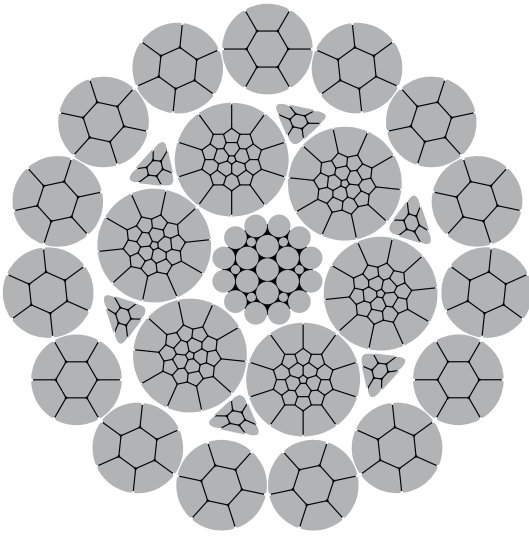
- Rotation resistant
- Compacted outer strands
- Very high breaking force

**TECHNICAL DATA**

Load-bearing wires	105 Ø 12–49 mm	RCN.23-2
in outer strands/ RCN acc. to ISO 4309	255 Ø 50–70 mm	RCN.27
Total number of wires	328 Ø 12–49 mm 549 Ø 50–70 mm	
Fill factor	0.7357	
Spinning loss factor	0.8450 at 1770 N/mm <sup>2</sup> 0.8450 at 1960 N/mm <sup>2</sup> 0.8250 at 2160 N/mm <sup>2</sup>	

Diameter mm    inch	Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
		kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
12	72	123	12 550	27 600	137	13 950	30 700	148	15 000	33 000
½	80	139	14 170	31 200	154	15 740	34 700	166	16 900	37 200
13	85	147	14 900	32 800	162	16 550	36 400	175	17 750	39 100
14	98	169	17 200	37 900	188	19 100	42 100	202	20 500	45 100
¼	102	176	17 890	39 400	195	19 890	43 800	209	21 340	47 000
15	112	194	19 650	43 300	215	21 900	48 200	232	23 500	51 800
⅝	125	218	22 270	49 000	243	24 790	54 600	261	26 650	58 700
16	130	223	22 650	49 900	248	25 200	55 500	266	27 100	59 700
17	145	250	25 450	56 100	278	28 300	62 300	299	30 400	67 000
18	163	281	28 650	63 100	313	31 850	70 200	337	34 200	75 300
19	181	312	31 750	69 900	347	35 300	77 800	373	37 950	83 600
¾	181	313	31 920	70 300	348	35 490	78 200	374	38 150	84 100
20	201	347	35 400	78 000	386	39 300	86 600	416	42 200	93 000
21	224	386	39 250	86 500	428	43 650	96 200	461	46 900	103 300
22	245	422	43 000	94 700	470	47 800	105 300	505	51 350	113 200
⅞	247	430	43 870	96 700	478	48 760	107 400	514	52 370	115 400
23	267	460	46 850	103 200	512	52 050	114 700	550	55 900	123 200
24	290	500	50 950	112 300	556	56 600	124 700	598	60 800	134 000
25	309	532	54 250	119 500	592	60 250	132 800	637	64 800	142 800



**PRODUCT**

DIEPA <b>B70</b>	Ordinary lay
DIEPA <b>B73</b>	Ordinary lay with internal plastic component
► DIEPA <b>B75</b>	Lang lay
DIEPA <b>B78</b>	Lang lay with internal plastic component

**PROPERTIES**

- Rotation resistant
- Compacted outer strands
- Extremely high breaking force

**TECHNICAL DATA**

Load-bearing wires in outer strands/ RCN acc. to ISO 4309	105 Ø 12–38mm	RCN.23-2
-----------------------------------------------------------------	---------------	----------

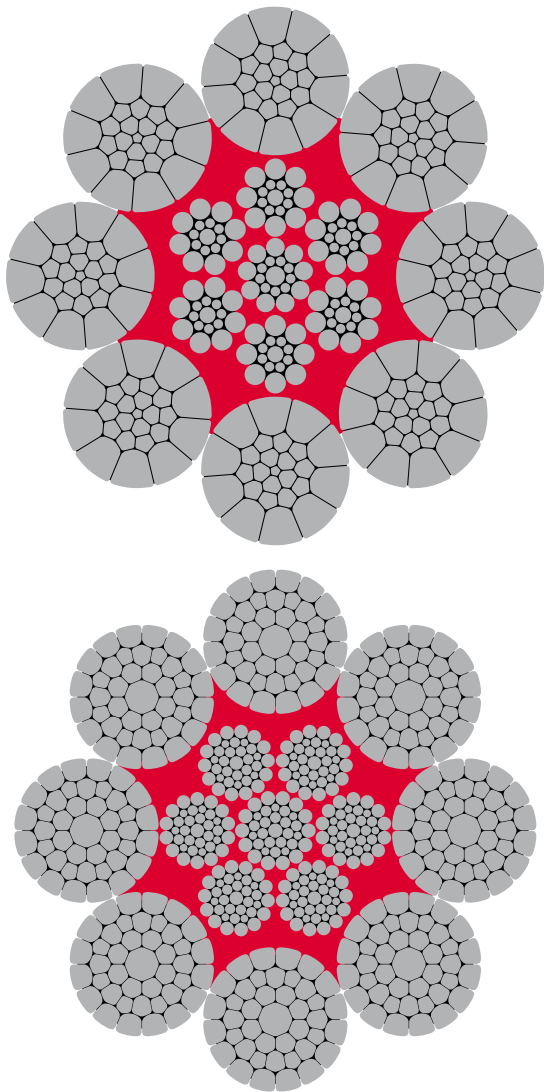
Total number of wires	328 Ø 12–38mm
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Fill factor	0.7550
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Spinning loss factor	0.8450
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Diameter mm    inch	Weight kg/100m	Min. breaking force <b>1770 N/mm<sup>2</sup></b>			Min. breaking force <b>1960 N/mm<sup>2</sup></b>			Min. breaking force <b>2160 N/mm<sup>2</sup></b>		
		kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
12	74	129	13 200	29 100	144	14 650	32 200	156	15 750	34 700
13	82	146	14 880	32 800	162	16 530	36 400	175	17 750	39 100
14	87	155	15 650	34 500	170	17 400	38 300	184	18 650	41 100
15	100	178	18 050	39 700	198	20 050	44 200	213	21 550	47 500
16	104	185	18 830	41 500	205	20 930	46 100	220	22 480	49 500
17	115	204	20 650	45 500	226	23 000	50 700	244	24 700	54 400
18	128	228	23 240	51 200	254	25 830	56 900	272	27 750	61 100
19	133	235	23 800	52 400	261	26 500	58 400	280	28 500	62 800
20	148	263	26 750	58 900	292	29 750	65 500	315	31 950	70 400
21	167	296	30 100	66 300	329	33 500	73 800	355	35 950	79 200
22	185	328	33 400	73 600	365	37 100	81 700	392	39 900	87 900
23	185	329	33 480	73 800	365	37 200	82 000	392	39 960	88 100
24	206	365	37 200	82 000	406	41 300	91 000	438	44 350	97 700
25	229	406	41 250	90 900	450	45 900	101 100	485	49 300	108 600
26	250	444	45 200	99 600	494	50 250	110 700	531	54 000	119 000
27	252	449	45 580	100 400	497	50 640	111 600	534	54 390	119 900
28	274	484	49 250	108 500	539	54 750	120 700	579	58 800	129 600
29	297	526	53 550	118 000	585	59 500	131 100	629	63 950	140 900

Diameter mm    inch	Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
		kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
25	317	560	57 050	125 700	623	63 350	139 600	670	68 150	150 200
	1	329	586	59 540	131 200	649	66 160	145 800	697	71 050
26	342	607	61 750	136 100	673	68 600	151 200	725	73 650	162 300
27	368	652	66 400	146 300	725	73 750	162 500	778	79 250	174 700
28	403	713	72 700	160 200	793	80 800	178 100	853	86 750	191 200
	1 1/8	417	741	75 350	166 100	821	83 730	184 600	884	89 920
29	427	756	77 100	169 900	842	85 700	188 900	905	91 950	202 700
30	457	810	82 500	181 800	901	91 700	202 100	967	98 400	216 900
31	485	861	87 650	193 200	956	97 400	214 700	1 028	104 600	230 600
	1 1/4	514	915	93 030	205 000	1 013	103 380	227 900	1 090	111 020
32	521	923	94 000	207 200	1 026	104 500	230 300	1 102	112 200	247 300
33	552	979	99 800	220 000	1 089	110 900	244 400	1 171	119 100	262 500
34	588	1 041	106 100	233 900	1 157	117 900	259 900	1 245	126 700	279 300
	1 3/8	623	1 108	112 570	248 100	1 227	125 090	275 700	1 318	134 340
35	626	1 109	112 950	249 000	1 232	125 550	276 700	1 323	134 850	297 200
36	662	1 173	119 550	263 500	1 304	132 850	292 800	1 401	142 700	314 500
37	700	1 239	126 250	278 300	1 377	140 300	309 300	1 479	150 750	332 300
38	737	1 308	133 200	293 600	1 453	148 000	326 200	1 560	158 950	350 400
	1 1/2	742	1 318	133 980	295 300	1 459	148 860	328 100	1 571	159 880

**PRODUCT**

DIEPA X50	Ordinary lay
▶ DIEPA X53	Ordinary lay with internal plastic component
DIEPA X55	Lang lay
DIEPA X58	Lang lay with internal plastic component

**PROPERTIES**

- Non-rotation resistant
- Compacted outer strands
- High breaking force
- Use without rope swivel

**TECHNICAL DATA**

Load-bearing wires	152 Ø 4 – 14 mm	RCN.04
in outer strands/	208 Ø 15 – 44 mm	RCN.09
RCN acc. to ISO 4309	288 Ø 45 – 69 mm	RCN.13
	328 Ø 70 – 100 mm	RCN.13

Total number	201 Ø 4 – 14 mm
of wires	329 Ø 15 – 44 mm
	409 Ø 45 – 69 mm
	580 Ø 70 – 100 mm

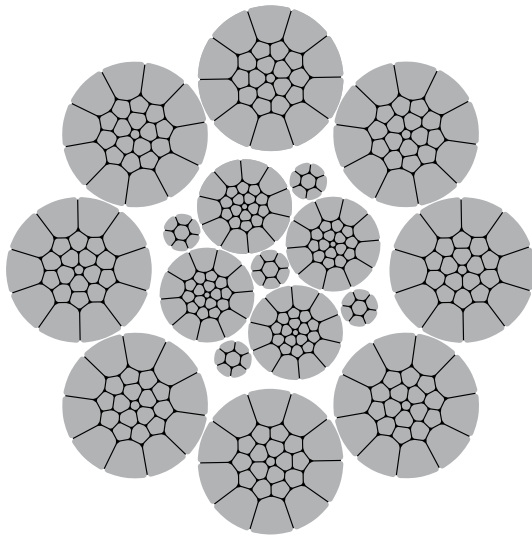
Fill factor	0.6750
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Spinning loss factor	0.8500 at 1770 N/mm <sup>2</sup>
	0.8500 at 1960 N/mm <sup>2</sup>
	0.8400 at 2160 N/mm <sup>2</sup>

Diameter mm	inch	Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
			kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
4		8	12.8	1 250	2 700	14.1	1 400	3 000	15.4	1 550	3 400
	3/16	11	18.1	1 830	4 000	20.0	2 040	4 400	21.8	2 210	4 800
5		12	19.9	1 950	4 200	22.1	2 250	4 900	24.0	2 400	5 200
6		17	28.7	2 850	6 200	31.8	3 200	7 000	34.6	3 450	7 600
	1/4	19	32.2	3 260	7 100	35.6	3 620	7 900	38.8	3 940	8 600
6.5		20	33.7	3 400	7 400	37.3	3 750	8 200	40.6	4 100	9 000
7		23	39.1	3 950	8 700	43.3	4 350	9 500	47.1	4 750	10 400
7.5		27	44.9	4 500	9 900	49.7	5 050	11 100	54.1	5 500	12 100
	5/16	30	50.3	5 100	11 200	55.6	5 670	12 500	60.6	6 160	13 500
8		30	51.0	5 150	11 300	56.5	5 700	12 500	61.6	6 250	13 700
8.5		34	57.6	5 800	12 700	63.8	6 500	14 300	69.5	7 050	15 500
9		38	64.6	6 500	14 300	71.5	7 250	15 900	77.9	7 850	17 300
9.5		43	72.0	7 300	16 000	79.7	8 100	17 800	86.5	8 800	19 400
	3/8	43	72.4	7 350	16 200	80.1	8 160	17 900	87.3	8 880	19 500
10		47	79.8	8 050	17 700	88.4	9 000	19 800	96.6	9 750	21 400
11		57	96.9	9 750	21 400	107	10 850	23 900	117	11 800	26 000
	7/16	58	98.5	10 010	22 000	109	11 120	24 500	119	12 090	26 600
12		68	115	11 600	25 500	128	12 950	28 500	139	14 050	30 900





**PRODUCT**

- ▶ **DIEPA H40** Ordinary lay
- DIEPA H43** Ordinary lay with internal plastic component

**PROPERTIES**

- Non-rotation resistant
- Compacted
- Very high breaking force
- Use without rope swivel

**TECHNICAL DATA**

Load-bearing wires	56 Ø 4–6 mm	RCN.02
in outer strands/	152 Ø 7–15 mm	RCN.04
RCN acc. to ISO 4309	208 Ø 16–44 mm	RCN.09
	288 Ø 45–64 mm	RCN.13
	328 Ø 65–76 mm	RCN.13

Total number	95 Ø 4–6 mm
of wires	263 Ø 7–15 mm
	319 Ø 16–24 mm
	347 Ø 25–44 mm
	427 Ø 45–64 mm
	487 Ø 65–76 mm

Fill factor	0.7403
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Spinning loss factor	0.8400
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Diameter mm	inch	Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
			kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
4		8	13.8	1 350	2 900	15.3	1 550	3 400	16.9	1 650	3 600
	3/16	11	19.0	1 940	4 200	21.3	2 170	4 700	23.1	2 350	5 100
5		13	21.6	2 150	4 700	23.9	2 400	5 200	26.4	2 600	5 700
6		18	31.1	3 150	6 900	34.5	3 450	7 600	38.0	3 850	8 400
	1/4	20	34.2	3 490	7 600	38.2	3 890	8 500	42.1	4 290	9 400
6.5		21	36.5	3 650	8 000	40.4	4 100	9 000	44.6	4 500	9 900
7		25	42.4	4 250	9 300	46.9	4 700	10 300	51.7	5 250	11 500
7.5		28	48.6	4 900	10 800	53.8	5 450	12 000	59.3	6 000	13 200
	5/16	32	53.6	5 460	12 000	59.8	6 100	13 400	65.7	6 700	14 700
8		32	55.3	5 550	12 200	61.3	6 200	13 600	67.5	6 800	14 900
8.5		36	62.5	6 300	13 800	69.2	7 050	15 500	76.2	7 700	16 900
9		40	70.0	7 050	15 500	77.5	7 850	17 300	85.7	8 650	19 000
9.5		45	78.0	7 850	17 300	86.5	8 750	19 200	94.9	9 650	21 200
	3/8	45	78.0	7 900	17 400	86.5	8 800	19 400	95.3	9 710	21 400
10		49	86.5	8 750	19 200	95.8	9 700	21 300	106	10 700	23 500
11		60	105	10 600	23 300	116	11 800	26 000	128	12 950	28 500
	7/16	62	106	10 790	23 700	118	12 010	26 400	129	13 180	29 000
12		71	123	12 450	27 400	136	13 850	30 500	150	15 200	33 500





Diameter mm	inch	Weight kg/100m	Min. breaking force 1770 N/mm <sup>2</sup>			Min. breaking force 1960 N/mm <sup>2</sup>			Min. breaking force 2160 N/mm <sup>2</sup>		
			kN	kp	lbs	kN	kp	lbs	kN	kp	lbs
	2¼	1 633	2 816	287 050	632 800	3 129	318 970	703 200	3 442	350 830	773 400
58		1 681	2 898	295 400	651 200	3 221	328 250	723 600	3 542	361 050	795 900
59		1 741	3 009	306 000	674 600	3 332	339 950	749 400	3 672	374 000	824 500
60		1 770	3 053	311 100	685 800	3 391	345 700	762 100	3 730	380 250	838 200
	2½	1 820	3 146	319 920	705 200	3 484	355 460	783 600	3 839	391 010	862 000
61		1 861	3 216	327 050	721 000	3 562	363 450	801 200	3 925	399 750	881 200
62		1 922	3 323	337 900	744 900	3 680	375 450	827 700	4 056	413 000	910 400
63		1 985	3 431	348 850	769 000	3 799	387 650	854 600	4 187	426 400	940 000
	2½	2 016	3 486	354 480	781 400	3 860	393 860	868 300	4 254	433 250	955 100
64		2 048	3 541	360 050	793 700	3 921	400 050	881 900	4 321	440 050	970 100
65		2 113	3 652	371 400	818 700	4 045	412 650	909 700	4 457	453 900	1 000 600
66		2 178	3 766	382 900	844 100	4 170	425 450	937 900	4 596	468 000	1 031 700
	2¾	2 223	3 843	390 810	861 500	4 256	434 230	957 300	4 690	477 660	1 053 000
67		2 245	3 881	394 600	869 900	4 297	438 450	966 600	4 736	482 300	1 063 200
68		2 312	3 998	406 450	896 000	4 427	451 650	995 700	4 878	496 800	1 095 200
69		2 381	4 116	418 500	922 600	4 558	465 000	1 025 100	5 022	511 550	1 127 700
	2¾	2 440	4 218	428 920	945 500	4 671	476 580	1 050 600	5 147	524 230	1 155 700
70		2 450	4 236	430 750	949 600	4 691	478 600	1 055 100	5 169	526 450	1 160 600
71		2 521	4 358	443 100	976 800	4 826	492 350	1 085 400	5 318	541 600	1 194 000
72		2 592	4 481	455 700	1 004 600	4 963	506 350	1 116 200	5 469	557 000	1 227 900
73		2 665	4 607	468 450	1 032 700	5 101	520 500	1 147 400	5 622	572 550	1 262 200
	2¾	2 666	4 610	468 800	1 033 500	5 105	520 890	1 148 300	5 626	572 980	1 263 100
74		2 738	4 734	481 400	1 061 200	5 242	534 850	1 179 100	5 777	588 350	1 297 000
75		2 813	4 863	494 450	1 090 000	5 384	549 400	1 211 200	5 934	604 350	1 332 300
76		2 888	4 993	507 750	1 119 300	5 529	564 150	1 243 700	6 093	620 550	1 368 000
	3	2 903	5 020	510 450	1 125 300	5 558	567 160	1 250 300	6 126	623 890	1 375 400

# PowerMax Rope

**• World best high quality**

Through DSR Wire Corp's unique drawing technique, our wire ropes ensure high ductility, our wire ropes consist of very fine microstructure, due to newest and brand new model of heat treatment equipment and unique technique.

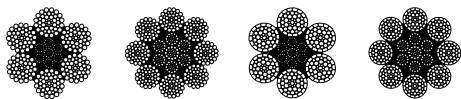
**• Best quality of component wire rope and excellent life time**

DSR wire ropes provide satisfactory quality in anti-fatigue and high breaking strength, therefore our wire ropes which guarantee over 20% longer lifetime will fit to customers' special needs.

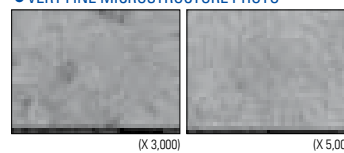
**• High structural stability**

Accumulated experience for Lubrication and Rope Construction.

**PowerMax Rope is the DSR's own brand name for large diameter wire ropes used for offshore industry and various mining applications.**



• VERY FINE MICROSTRUCTURE PHOTO



Nominal Dia.	Offshore Powerlift 6, Powerlift 8 (Metric Ton)						Approximate Weight 6 × ROPE	Approximate Weight 8 × ROPE	Offshore Powerflex 6, Powerflex 8 (Metric Ton)					Approximate Weight 6 × ROPE	Approximate Weight 8 × ROPE
	mm	inch	EIPS	EEIPS	Z GRADE	ZZ GRADE			ZZ GRADE	EIPS	EEIPS	Z GRADE	ZZ GRADE		
50.8	2	180	197	226	234	244	11.3	11.4	199	218	246	259	270	12.1	12.2
52.0		189	206	236	245	258	11.8	11.9	201	220	252	271	283	12.7	12.8
54.0	2-1/8	200	221	243	255	264	12.8	12.8	224	245	269	281	284	13.7	13.8
56.0		215	238	262	274	284	13.7	13.8	241	264	290	326	306	14.7	14.9
57.2	2-1/4	224	247	278	290	302	14.3	14.4	250	275	306	323	326	15.3	15.5
58.0		230	254	285	299	311	14.7	14.8	257	283	315	333	336	15.8	15.9
60.3	2-3/8	249	274	300	315	337	15.9	16.0	281	307	340	349	363	17.1	17.2
63.5	2-1/2	274	301	337	355	369	17.7	17.7	304	336	375	394	398	18.9	19.1
66.7	2-5/8	299	330	371	390	407	19.5	19.6	333	367	413	435	439	20.9	21.1
69.9	2-3/4	333	360	411	430	448	21.4	21.5	364	401	452	475	484	22.9	23.1
71.0		343	372	424	444	463	22.1	22.2	376	414	467	491	500	23.7	23.9
73.0	2-7/8	361	392	449	470	490	23.4	23.5	392	435	497	520	529	25.0	25.3
74.0		371	403	461	483	503	24.0	24.1	403	447	510	534	543	25.7	25.9
76.2	3	389	425	488	516	538	25.4	25.5	423	472	545	574	581	27.3	27.5
77.0		397	434	498	527	549	26.0	26.1	432	482	557	586	593	27.8	28.1
79.4	3-1/8	435	458	523	550	572	27.6	27.7	458	508	579	610	618	29.6	29.8
82.6	3-1/4	470	493	560	587	611	29.8	30.0	494	548	618	652	668	32.0	32.3
83.0		475	498	566	593	618	30.2	30.3	499	554	625	659	676	32.3	32.6
85.7	3-3/8	504	528	607	639	666	32.2	32.3	527	586	674	707	719	34.5	34.8
87.0		519	544	625	658	686	33.1	33.3	543	604	694	728	741	35.5	35.8
88.9	3-1/2	537	563	659	692	723	34.6	34.8	565	627	735	770	781	37.1	37.4
90.0		550	577	675	709	741	35.5	35.6	579	643	753	789	800	38.0	38.4
95.3	3-3/4	610	640	716	752	785	39.7	39.9	642	713	795	836	848	42.6	43.0
96.0		620	650	727	764	797	40.4	40.5	652	724	808	849	861	43.3	43.6
101.6	4	687	720	796	836	874	45.2	45.4	719	799	884	928	943	48.5	48.9
103.0		706	740	818	859	898	46.5	46.7	739	821	909	954	969	-	50.2
108.0	4-1/4	752	788	845	887	928	51.0	51.3	796	884	978	1,027	1,027	-	55.2
109.0		767	803	862	904	946	52.0	52.3	812	901	997	1,047	1,047	-	56.3
114.3	4-1/2	835	876	939	986	1,031	57.2	57.5	874	971	1,074	1,127	1,146	-	61.9
120.7	4-3/4	921	967	1,036	1,088	1,138	63.7	64.0	953	1,059	1,172	1,230	1,250	-	68.9
122.0		942	989	1,059	1,112	1,164	65.2	65.5	974	1,083	1,198	1,258	1,278	-	70.5
127.0	5	1,015	1,063	1,138	1,195	1,250	70.6	70.9	1,034	1,149	1,271	1,334	1,356	-	76.4
128.0		1,031	1,080	1,156	1,214	1,270	71.7	72.1	1,050	1,167	1,291	1,355	1,377	-	77.6
133.4	5-1/4	1,085	1,138	1,219	1,278	1,337	-	78.2	1,140	1,232	1,363	1,431	1,454	-	84.2
135.0		1,112	1,166	1,249	1,310	1,370	-	80.2	-	-	-	-	-	-	-
139.7	5-1/2	1,163	1,223	1,310	1,375	1,437	-	85.8	-	-	-	-	-	-	-
141.0		1,185	1,246	1,334	1,401	1,464	-	87.4	-	-	-	-	-	-	-
146.1	5-3/4	1,250	1,315	1,406	1,477	1,545	-	93.8	-	-	-	-	-	-	-
148.0		1,284	1,350	1,444	1,517	1,587	-	96.3	-	-	-	-	-	-	-
152.4	6	1,339	1,410	1,508	1,583	1,656	-	102.2	-	-	-	-	-	-	-



# Wire rope accessories

## 5. Wire rope accessories

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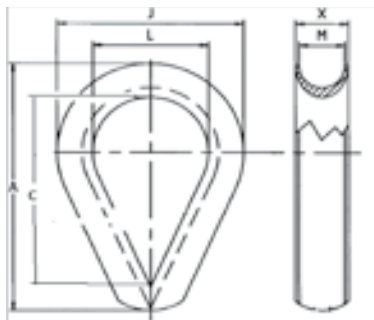
## 8 Lifting & rigging gears

- 8.1 Shackles
- 8.54 Links
- 8.87 Hooks
- 8.125 Turnbuckles
- 8.149 Load binders
- 8.156 Hoists
- 8.169 Lifting points
- 8.190 Blocks & sheaves
- 8.228 Lifting clamps
- 8.256 Swivels

## 9 Mooring & towing

- 9.1 Main tow bridle
- 9.2 Mooring points
- 9.3 Studlink chaincable test loads
- 9.4 Shackles
- 9.5 Thimbles
- 9.6 Hooks
- 9.7 Sockets
- 9.8 Swivels
- 9.9 Triangle plate
- 9.10 Towing & mooring, anchor and pennant lines
- 9.11 Mooring ropes (8 strand)
- 9.12 Wire tow rope protectors

## Heavy duty stub-end thimble

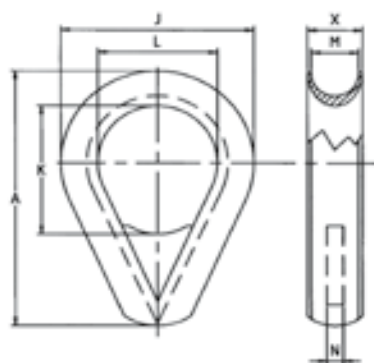


Suitable for wire rope  
Material: Mild steel  
Finish: Galvanized

Special dimensions on request.  
Tolerance 5%

A	J	C	L	M	X	Weight
Inch	mm	mm	mm	mm	mm	Kg/100pcs
2"	42	35	22	9	14	8
2 1/2"	50	45	30	11	16	10
3"	50	55	35	13	18	20
3 1/2"	73	65	45	15	20	26
4"	75	75	50	17	22	36
4 1/2"	85	80	53	19	25	50
5"	100	90	60	21	29	60
5 1/2"	110	95	65	23	33	70
6"	115	120	70	25	34	100
7"	135	140	80	30	38	160
8"	155	160	100	33	44	180
9"	175	185	115	38	49	350
10"	190	195	120	41	52	440
11"	210	215	130	46	60	520
12"	225	240	140	52	65	730
14"	240	250	150	60	72	1,100
17"	290	310	180	70	88	1,700

## Heavy duty stub-end thimble with plate



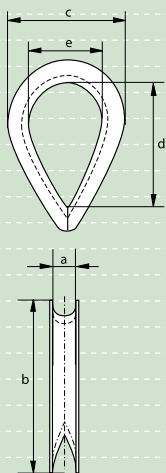
Suitable for wire rope  
Material: Mild steel  
Finish: Galvanized

Special dimensions on request.  
Tolerance 5%

A	J	K	L	M	N	X	Weight
Inch	mm	mm	mm	mm	mm	mm	Kg/100pcs
4"	75	50	50	17	5	22	40
4 1/2"	85	50	53	19	5	25	50
5"	100	60	60	21	5	29	80
5 1/2"	110	60	65	23	5	33	90
6"	115	70	70	25	10	34	100
7"	135	75	80	30	10	38	170
8"	155	80	100	33	10	44	250
9"	175	110	115	38	10	49	400
10"	190	120	120	41	15	52	450
11"	210	130	130	46	15	60	700
12"	225	140	140	52	15	65	830
14"	240	150	150	56	20	68	1,260
17"	290	185	180	72	20	88	1,880
19"	340	225	220	82	20	122	3,060
22"	372	280	240	92	20	132	3,700
24"	396	280	250	105	20	145	4,600
26"	445	290	280	135	33	173	5,600
26" special	490	290	308	135	33	173	7,100
30"	490	290	308	135	35	173	8,350



E-6110



## Thimbles

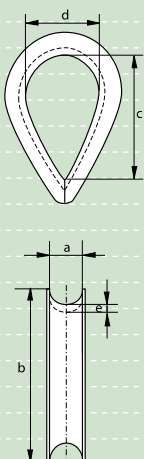
### standard commercial

- **Material** : mild steel
- **Finish** : electro-galvanized
- **Certification** : a works certificate can be supplied upon request

diameter rope	width groove	length	width	length inside	width inside	weight per 100 pcs
mm	a	b	c	d	e	kg
3	3	24	18	15	10	0.4
4	4	25	19	16	11	0.4
5	5	31	22	22	16	0.8
6	6	37	29	26	19	1.4
7	7	44	32	32	22	2
8	8	51	38	34	24	2.8
9	9	57	42	38	29	3
10	10	64	44	42	32	4.8
11	11	70	51	48	35	7.5
12	12	76	57	51	38	8
14	14	82	60	57	40	10
16	16	89	64	60	42	15
18	18	102	69	67	45	22
20	20	115	79	76	51	25
22	22	127	89	83	54	32
24	24	140	102	88	64	46
26	26	152	105	102	68	66
28	28	165	115	110	73	77
30	30	178	121	115	79	80
32	32	203	133	140	93	130



G-6120



## Thimbles

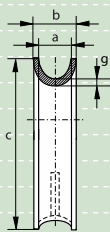
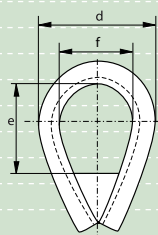
### heavy duty stub-end

- **Material** : mild steel
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate can be supplied upon request

diameter rope	width groove	length	length inside	width inside	thickness back	weight per 100 pcs
mm	a	b	c	d	e	kg
8	8	51	35	22	4	6
10	10	64	47	30	4	7
12	12	76	57	35	5	14
14	14	89	65	45	6	22
16	16	102	76	50	6	24
18	18	114	86	53	8	43
20	20	127	94	60	9	65
22	22	140	107	65	10	93
24	24	152	114	70	10	102
28	28	178	130	80	10.5	135
32	32	203	157	100	10.5	162
36	36	229	177	115	12	363
40	40	254	198	120	12	376
44	44	279	214	130	15	608
50	50	305	215	140	20	960
56	56	356	245	160	20	1400
64	64	407	275	180	20	1700



G-6128



## Thimbles

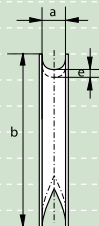
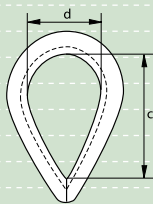
### Heavy Duty Stub-end, reinforced with welded fillet plate

- **Material** : mild steel
- **Finish** : hot dipped galvanized  
reinforced with a welded fillet plate
- **Certification** : a works certificate can be supplied upon request

width groove	width overall	length	width	length inside	width inside	thickness back	weight per piece
a	b	c	d	e	f	g	kg
mm	mm	mm	mm	mm	mm	mm	
35	55	220	150	100	80	10	3.2
40	65	245	160	120	90	12	5.1
50	80	290	200	125	110	16	9.2
62	100	360	250	160	140	20	17.4
72	115	390	265	175	160	20	19.4
85	125	470	300	245	190	20	29
100	150	540	370	290	200	25	39
115	165	570	380	300	210	25	52





E-6131  
G-6131

## Thimbles

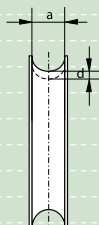
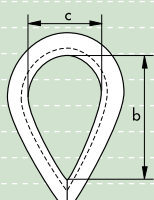
### generally to DIN 6899 (B)

- **Material** : mild steel
- **Standard** : generally to DIN 6899 (B)
- **Finish** : thimbles for rope diameters up to and including 6 mm are electro-galvanized, other diameters are hot dipped galvanized
- **Certification** : a works certificate can be supplied upon request

diameter rope	width groove	length	length inside	width inside	thickness back	weight per 100 pcs
mm	a mm	b mm	c mm	d mm	e mm	kg
2.5	3	22	19	12	1.6	0.6
3.5	4	26	21	13	1.6	0.7
4	5	32	23	14	1.9	0.9
5	6	38	25	16	2.4	1.8
6	7	44	28	18	2.4	1.9
7	8	51	32	20	2.8	2.7
9	10	57	38	24	3.1	4.1
11	12	64	45	28	3.3	6.9
13	13	70	48	30	3.3	7.6
13	14	76	51	32	3.7	9.2
15	16	83	58	36	3.8	16.4
16	17	89	61	38	4.7	19
17	18	95	64	40	4.7	20.3
18	20	102	72	45	5.7	27.3
20	22	114	80	50	5.7	28.6
22	24	127	90	56	6.5	44.8
24	26	140	99	62	6.8	57.7
26	28	152	112	70	8	72
28	30	165	120	75	8	104
30	32	178	128	80	8	115
32	34	203	152	95	8.5	153
34	36	216	160	100	8.5	176
36	38	229	176	110	8.5	195
38	40	241	184	115	10.5	292
40	42	254	192	120	10.5	320
42	45	305	240	150	10.5	364
47	50	360	265	160	12	535
57	60	380	275	170	12	790
63	65	420	300	180	13	830
72	75	460	350	200	15	1200
87	90	500	370	210	18	2600
97	100	550	380	220	20	3050



G-6133



## Thimbles

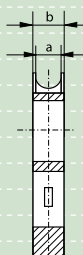
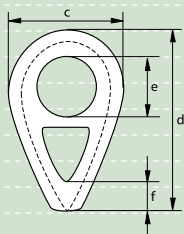
### generally to DIN 83311

- **Material** : mild steel
- **Standard** : generally to DIN 83311
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate can be supplied upon request

nominal size	width groove	length inside	width inside	thickness back	weight per 100 pcs
	a mm	b mm	c mm	d mm	kg
0.4	8	36	20	3	4.5
0.6	11	50	28	4	9.5
1	13	60	32	5	18
1.6	15	68	38	6	24
2	17	76	42	7	38
2.5	19	85	48	8	50
3	21	95	53	9	70
4	24	110	60	10	110
5	28	125	70	10.5	141
6	30	135	75	12	254
8	34	150	85	13	282
10	38	170	95	15	418
12	42	190	105	16	513
16	46	205	115	16	550
20	50	225	125	18	930
25	56	250	140	20	1303
31	62	280	155	21	1363
40	68	306	170	23	1930



S-6134

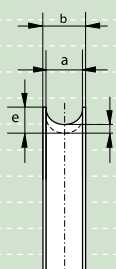
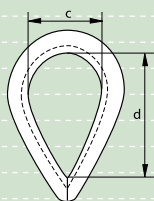


## Thimbles

### according to DIN 3091

- **Material** : cast mild steel, (GTW 40)
- **Standard** : according to DIN 3091
- **Finish** : self coloured
- **Certification** : a works certificate can be supplied upon request

diameter rope	width groove	width overall	width	length	diameter	length	weight per 100 pcs
mm	a mm	b mm	c mm	d mm	e mm	f mm	kg
8	9	15	40	66	14	-	18
10	11	17.5	50	82	18	-	32
12	13	20	60	98	21	-	52
14	16	23.5	70	114	25	-	80
16	18	26	80	130	28	16	90
18	20	28.5	90	145	31	18	121
20	22	31	100	161	35	20	161
22	24	33.5	110	177	38	22	211
24	26	36	120	193	41	24	271
26	29	39.5	130	209	44	26	355
28	31	42	140	224	47	28	420
32	35	47	160	256	53	32	630
36	40	53	180	288	59	36	884
40	44	58	200	320	65	40	1100
44	48	63	220	352	70	44	1500
48	53	69	240	384	76	48	2000
52	57	74	260	416	81	52	2500
56	62	80	280	448	86	56	3200
64	70	90	320	512	95	64	4600
72	79	101	360	576	104	72	6600
80	88	112	400	640	112	80	9000


 E-6135  
 G-6135


## Thimbles

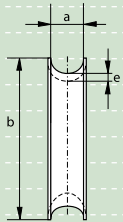
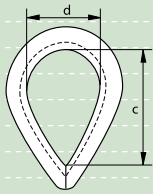
### generally to DIN 3090

- **Material** : mild steel
- **Standard** : generally to DIN 3090
- **Finish** : for diameter 4 and 6 mm electro-galvanized  
other diameters hot dipped galvanized
- **Certification** : a works certificate can be supplied upon request

diameter wire rope	width groove	width overall	width inside	length inside	thickness	thickness back	weight per 100 pcs
mm	a	b	c	d	e	f	kg
4	5	9	10	20	5.1	2.1	1.4
6	7	12	15	30	7.1	2.6	3
8	9	13	20	40	11	4	7.1
10	11	16	25	50	14	5	17
12	13	19	30	60	16	6	24
14	16	22	35	70	17	7	36
16	18	25	40	80	19	8	50
18	20	27	45	90	21	9	62
20	22	32	50	100	23	10	90
22	24	33	55	110	24	10	100
24	26	37	60	120	27	11	130
26	29	46	65	130	30	12	220
28	31	50	70	140	33	12	240
32	35	55	80	160	38	14	270
36	40	60	90	180	42	16	430
40	44	65	100	200	46	18	570
44	48	70	110	220	53	20	850
48	53	75	120	240	58	22	1120
52	57	80	130	260	64	25	1530
56	62	85	140	280	67	25	2148
60	66	90	150	300	70	25	2300
64	70	95	160	320	78	30	3500
68	75	100	170	340	81	30	3700
72	79	105	180	360	84	30	4100
76	84	115	190	380	87	30	4600
80	88	120	200	400	90	30	5400



G-6170



## Thimbles

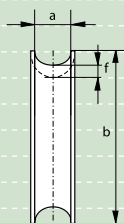
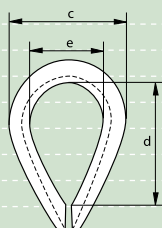
### generally to EN13411-1

- **Material** : mild steel
- **Standard** : generally to EN13411-1 formerly BS 464
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate can be supplied upon request

diameter rope		width groove	length	length inside	width inside	thickness back	weight per 100 pcs
inch	mm	a mm	b mm	c mm	d mm	e mm	kg
$\frac{3}{16}$	5	5.5	44	28	19	3	3.5
$\frac{1}{4}$	7	6	48	30	20	3.5	5.4
$\frac{5}{16}$	8	8	54	33	22	4	5.7
$\frac{3}{8}$	10	10	64	38	25	4.8	7.6
$\frac{7}{16}$	11	13	73	41	29	4.8	14.2
$\frac{1}{2}$	13	14	80	44	32	5.6	18
$\frac{9}{16}$	15	15	80	44	32	5.6	18.9
$\frac{5}{8}$	16	17	98	59	41	7.9	34
$\frac{11}{16}$	17	19	108	67	44	7.9	39.7
$\frac{3}{4}$	19	20	124	73	51	9.5	62.4
$\frac{13}{16}$	21	21	124	73	51	9.5	62.4
$\frac{7}{8}$	22	23	133	83	57	9.5	75.6
$\frac{15}{16}$	24	25	146	92	64	10.3	106
1	25	27	162	108	70	10.3	125
1 $\frac{1}{8}$	28	29	178	111	76	12.7	151
1 $\frac{1}{4}$	32	33	197	133	95	12.7	204
1 $\frac{3}{8}$	35	38	229	152	105	15.9	318
1 $\frac{1}{2}$	38	41	254	165	114	17.5	488
1 $\frac{5}{8}$	42	46	254	165	114	17.5	499
1 $\frac{3}{4}$	45	51	286	178	127	25.4	556
1 $\frac{7}{8}$	47	60	318	191	133	28.6	-
2	50	64	330	203	140	28.6	-
2 $\frac{1}{8}$	54	64	330	203	140	28.6	-
2 $\frac{1}{4}$	57	67	356	216	146	30.2	-
2 $\frac{1}{2}$	65	70	413	241	159	31.8	-
2 $\frac{3}{4}$	70	86	502	273	203	41.3	-



G-6142



## Thimbles

generally to US Fed. Spec. FF-T-276b type III

- **Material** : mild steel
- **Standard** : generally to US Federal Specification FF-T-276b type III
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate can be supplied upon request

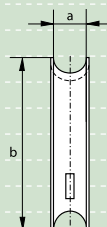
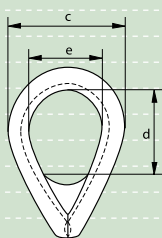
diameter rope	width groove	length	width	length inside	width inside	thickness back	weight per 100 pcs
mm	a	b	c	d	e	f	kg
6	7	55.5	38	41	22	1.6	3.4
8	9	63.5	46	47.5	27	2	6.3
9	10	73	54	54	28.5	2.8	11.3
11	12	82.5	60	60	32	3.2	16.2
13	13.5	92	70	70	38	3.6	23
14	15	92	68	70	38	3.6	23
16	16.5	108	79	82.5	44.5	4	33.8
19	20	127	97	95	51	5.5	66.2
22	24	140	108	108	57	5.5	83.3
25	27	156	125	114	63.5	6.3	135
28 - 32	30	178	149	130	73	6.3	185
32 - 35	33	205	173	159	89	12.7	375
35 - 38	36.5	229	181	165	89	12.7	540
41	43.5	286	206	203	102	12.7	731
45	47	310	216	229	114	12.7	810
48 - 51	50	384	264	305	152	12.7	1170
57	59.5	435	302	356	178	12.7	1935
64	66	464	311	378	178	19	2640
76	78.5	514	356	419	200	19	3850

In inch

diameter rope	width groove	length	width	length inside	width inside	thickness back	weight per 100 pcs
inch	a	b	c	d	e	f	lbs
1/4	9/32	2 3/16	1 1/2	1 5/8	7/8	1/16	7.5
5/16	11/32	2 1/2	1 13/16	1 7/8	1 1/16	5/64	13.9
3/8	13/32	2 7/8	2 1/8	2 1/8	1 1/8	7/64	24.9
7/16	15/32	3 1/4	2 3/8	2 3/8	1 1/4	1/8	35.7
1/2	17/32	3 5/8	2 3/4	2 3/4	1 1/2	9/64	50.7
9/16	19/32	3 5/8	2 11/16	2 3/4	1 1/2	9/64	50.7
5/8	21/32	4 1/4	3 1/8	3 1/4	1 3/4	5/32	74.5
3/4	25/32	5	3 13/16	3 3/4	2	7/32	146
7/8	15/16	5 1/2	4 1/4	4 1/4	2 1/4	7/32	184
1	1 1/16	6 1/8	4 15/16	4 1/2	2 1/2	1/4	298
1 1/8 - 1 1/4	1 3/16	7	5 7/8	5 1/8	2 7/8	1/4	408
1 1/4 - 1 3/8	1 5/16	8 1/16	6 13/16	6 1/4	3 1/2	1/2	827
1 3/8 - 1 1/2	1 7/16	9	7 1/8	6 1/2	3 1/2	1/2	1191
1 5/8	1 23/32	11 1/4	8 1/8	8	4	1/2	1612
1 3/4	1 27/32	12 3/16	8 1/2	9	4 1/2	1/2	1786
1 7/8 - 2	1 31/32	15 1/8	10 3/8	12	6	1/2	2579
2 1/4	2 11/32	17 1/8	11 7/8	14	7	1/2	4266
2 1/2	2 19/32	18 1/4	12 1/4	14 7/8	7	3/4	5820
3	3 3/32	20 1/4	14	16 1/2	7 7/8	3/4	8488



G-6151



## Thimbles

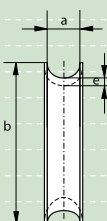
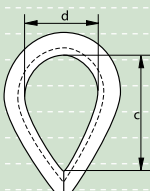
### pennant line type

- **Material** : mild steel
- **Finish** : hot dipped galvanized  
produced with a welded fillet plate
- **Certification** : a works certificate can be supplied upon request

diameter wire rope	width groove	length	width	length inside	width inside	weight each
mm	a	b	c	d	e	kg
16	17	102	75	50	50	0.4
18	19	114	85	50	53	0.5
20	21	127	100	60	60	0.8
22	23	140	110	60	65	0.9
24	25	152	115	70	70	1
28	30	178	135	75	80	1.7
30	33	203	155	80	100	2.5
36	38	229	175	110	115	4
40	41	254	190	120	120	4.5
44	46	279	210	120	130	7
50	52	305	225	140	140	8.3
56	60	356	240	150	150	12.5
64	70	432	290	185	180	19.5
76	81	483	320	225	220	29
82	92	559	375	280	240	35
90	105	610	410	280	250	42
120	130	660	450	280	280	58



E-6180



## Thimbles

### for rope

- **Material** : mild steel
- **Finish** : electro-galvanized
- **Certification** : a works certificate can be supplied upon request

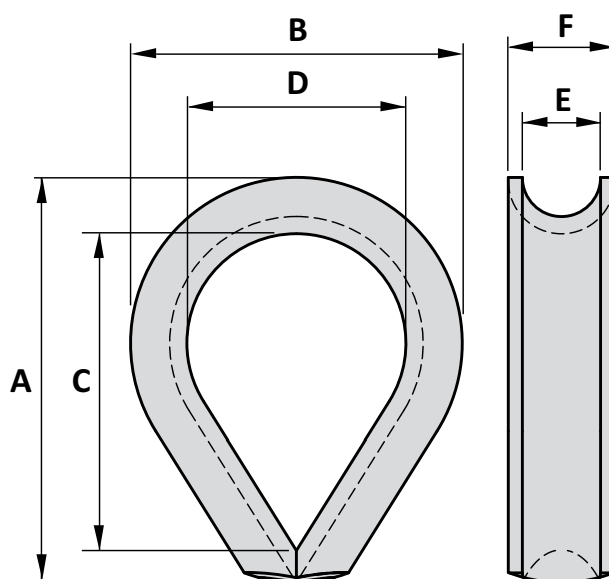
width groove	length	length inside	width inside	thickness back	weight per 100 pcs
a	b	c	d	e	kg
8	43	27	16	1	1.1
10	50	30	19	1.5	1.7
12	55	36	22	1.75	3
14	60	41	24	2	3.5
16	66	43	26	2.5	8
18	77	47	30	3	13
20	91	58	35	3	16
22	100	67	38	3	24
25	115	71	45	3	25
30	140	91	55	3	43
35	140	91	55	3	45
38	140	91	55	4	45

# HEAVY DUTY STUB-END THIMBLE

## TYPE K2

Suitable for wire rope

Material : Mild steel  
Finish : Galvanised  
Certificate : Certificate of Conformity  
on request



Art. No.	A inch	B mm	C mm	D mm	E mm	F mm	Packing	Weight kg/100
11020000	2"	42	35	22	9	14	600	8
11025000	2½"	50	45	30	11	16	400	10
11030000	3"	50	55	35	13	18	300	20
11035000	3½"	73	65	45	15	20	150	26
11040000	4"	75	75	50	17	22	150	36
11045000	4½"	85	80	53	19	25	75	50
11050000	5"	100	90	60	21	29	75	60
11055000	5½"	110	95	65	23	33	40	70
11060000	6"	115	120	70	25	34	40	100
11070000	7"	135	140	80	30	38	25	160
11080000	8"	155	160	100	33	44	20	180
11090000	9"	175	185	115	38	49		350
11100000	10"	190	195	120	41	52		440
11110000	11"	210	215	130	46	60		520
11120000	12"	225	240	140	52	65		730
11140000	14"	240	250	150	60	72		1100
11170000	17"	290	310	180	70	82		1700
11190000	19"	320	360	220	81	119		2800
11220000	22"	375	405	240	92	127		3400
11240000	24"	410	450	250	105	145		4400
11260000	26"	450	480	280	120	155		5600

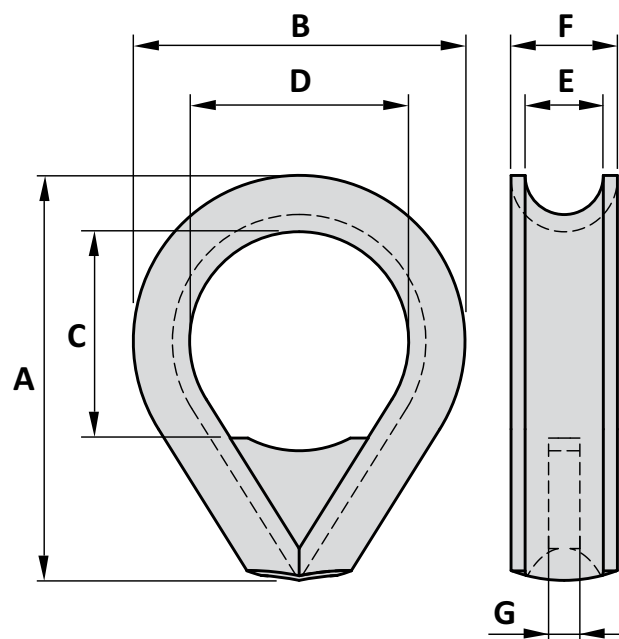
Tolerance: Forged parts ± 5%

# HEAVY DUTY STUB-END THIMBLE REINFORCED

## TYPE K2-B

Suitable for wire rope

Material : Mild steel  
Finish : Galvanised  
Certificate : Certificate of Conformity  
on request



Art. No.	A inch	B mm	C mm	D mm	E mm	F mm	G mm	Packing	Weight kg/100
11040999	4"	75	50	50	17	22	6	10	40
11045999	4½"	85	50	53	19	25	6	10	50
11050999	5"	100	60	60	21	29	8	10	80
11055999	5½"	110	60	65	23	33	8	10	90
11069999	6"	115	70	70	25	34	8	10	100
11079999	7"	135	75	80	30	38	10	10	170
11089999	8"	155	80	100	33	44	10		250
11099999	9"	175	110	115	38	49	10		400
11109999	10"	190	120	120	41	52	15		450
11119999	11"	210	120	130	46	60	15		700
11129999	12"	225	140	140	52	65	15		830
11149999	14"	240	150	150	60	72	20		1250
11179999	17"	290	185	180	70	82	20		1950
11199999	19"	320	225	220	81	119	20		2900
11229999	22"	375	280	240	92	127	20		3500
11249999	24"	410	280	250	105	145	25		4200
11269999	26"	450	280	280	120	155	30		5800

Tolerance: Forged parts ± 5%

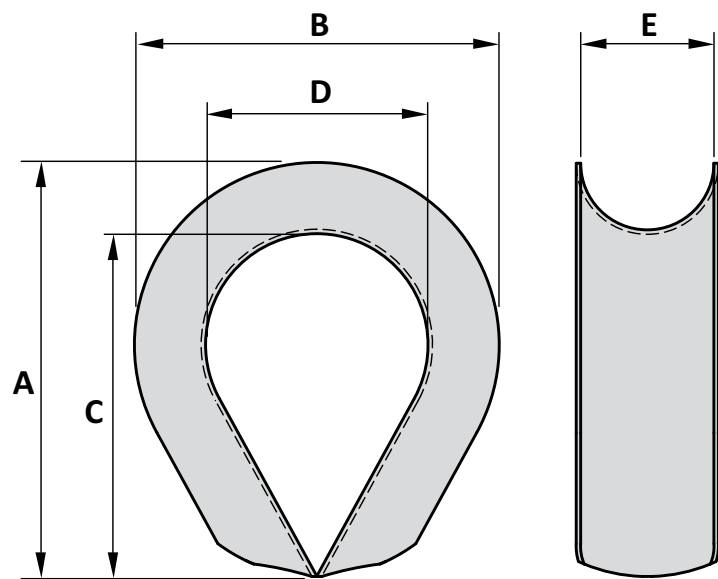


# FIBRE ROPE THIMBLE

# TYPE K3

## Suitable for fibre rope

Material : Mild steel  
 Finish : Galvanised  
 Certificate : Certificate of Conformity  
 on request



Art. No.	A inch	B mm	C mm	D mm	E mm	Packing	Weight kg/100
12022500	2¼"	47	42	26	16	25	8
12025000	2½"	55	48	32	18	25	14
12030000	3"	64	58	38	20	25	25
12032500	3¼"	73	60	39	22	25	26
12035000	3½"	80	74	47	25	25	28
12040000	4"	75	78	50	32	50	50
12050000	5"	110	95	65	40	25	80
12060000	6"	120	115	75	48	10	90
12070000	7"	140	140	85	56	10	180
12080000	8"	160	160	105	64		310
12090000	9"	180	175	110	72		530
12100000	10"	200	190	120	80		650
12110000	11"	220	210	145	88		800
12120000	12"	245	230	150	102		1000
12140000	14"	300	290	170	115		1600
12160000	16"	320	310	185	130		2000
12180000	18"	350	340	205	150		3000

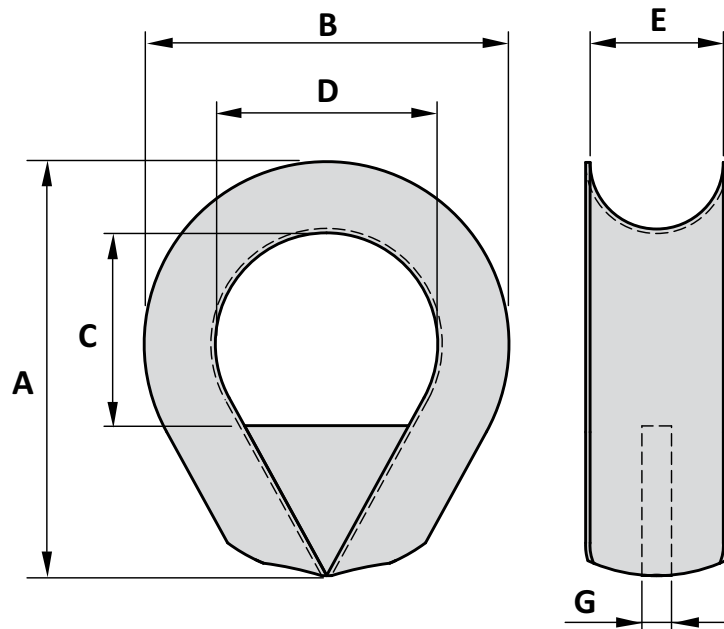
Tolerance: Forged parts  $\pm$  5%

# FIBRE ROPE THIMBLE REINFORCED

## TYPE K3-B

Suitable for fibre rope

Material : Mild steel  
Finish : Galvanised  
Certificate : Certificate of Conformity  
on request



Art. No.	A inch	B mm	C mm	D mm	E mm	G mm	Packing	Weight kg/100
12059999	5"	110	50	65	40	10	10	80
12069999	6"	120	65	75	48	10	10	130
12079999	7"	140	90	85	56	10	10	190
12089999	8"	160	95	105	64	10		340
12099999	9"	180	100	110	72	10		580
12109990	10"	200	115	120	80	10		690
12119999	11"	220	135	145	88	15		850
12129999	12"	245	135	150	102	15		1200
12149999	14"	300	135	170	115	15		1950
12169999	16"	320	150	185	130	20		2000
12189999	18"	350	200	205	150	20		3000

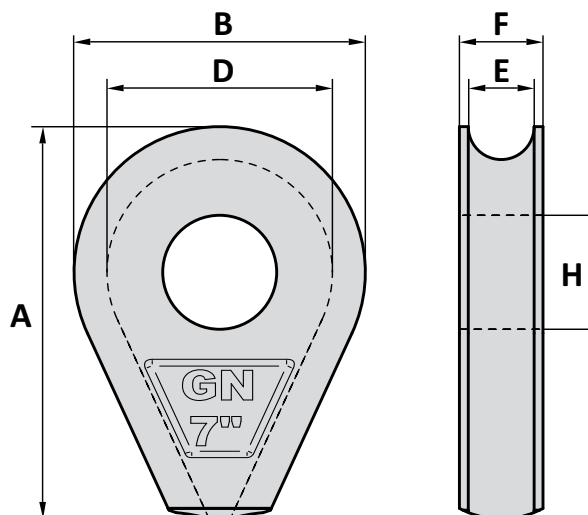
Tolerance: Forged parts  $\pm$  5%

## SOLID THIMBLE

## TYPE K5

## Suitable for wire rope

Material : Duc tail iron GGG50  
 Finish : Painted/galvanised on request  
 Certificate : Certificate of Conformity  
 on request



For the correct article number fill in the hole diameter on the grey and underscored numbers.

Special holes for fittings or holes with bushes on request.

Art. No.	Size inch	Rope size mm	A mm	B mm	D mm	E mm	F mm	H mm	Weight kg
16020000	2"	8	66	40	31	9	15	14	0.16
16027500	2½"	10	82	50	38	11	18	18	0.3
16030000	3"	12	98	60	45	13	20	21	0.5
16035000	3½"	14	114	70	53	16	24	25	0.7
16040 <u>40</u> 0	4"	16/18	110	75	58	19	26	30/38/40	0.7
16050 <u>45</u> 0	5"	20/22	130	92	65	23	30	30/40/45	1.2
16060 <u>55</u> 0	6"	23/25	150	110	82	26	33	30/40/45/55	2
16070 <u>60</u> 0	7"	28/30	180	127	96	32	40	30/40/52/60	3
16080 <u>70</u> 0	8"	32/34	200	140	100	35	43	30/42/55/70	4
16090 <u>100</u>	9"	36/38	225	160	122	39	47	50/70/90/100	5
16100 <u>100</u>	10"	40/42	250	170	127	43	57	50/70/90/100	8
16120 <u>105</u>	12"	44/48	305	210	160	54	69	60/80/105	15
16140 <u>110</u>	14"	50/55	355	240	181	61	80	75/110	24
16170 <u>122</u>	17"	58/65	431	290	230	68	92	85/122	44
16230130	23"	70/75	597	387	310	88	114	130	103

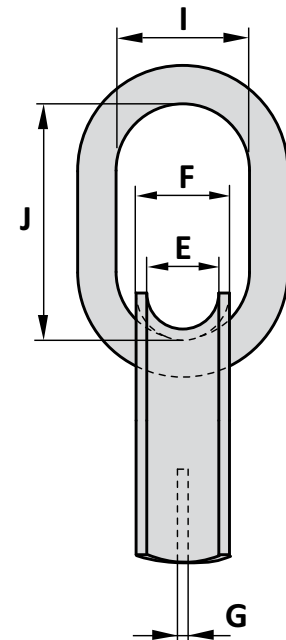
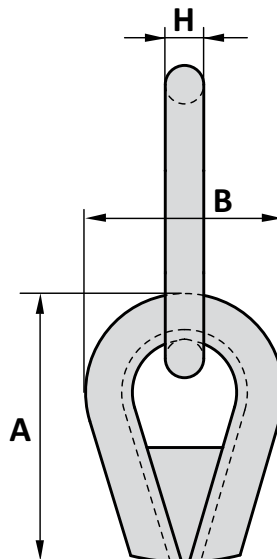
Tolerance: ± 5%

## THIMBLE WITH LINK

## TYPE K10

## Suitable for fibre rope

Material	: Thimble mild steel Link alloy steel queched and tempered
Finish	: Painted
Certificate on request	: Certificate of Conformity



Link can be connected to different types of thimbles on request.

Art. No.	Rope size inch	A mm	B mm	E mm	F mm	G mm	H mm	I mm	J mm	MBL link ton	Weight kg
17090000	9"/10½"	370	290	100	130	16	51	190	350	144	37
17090000	9"/10½"	370	290	100	130	16	57	200	400	188	45
17125000	12½"/13"	450	330	115	155	20	57	200	400	188	57
17125000	12½"/13"	450	330	115	155	20	63	230	430	232	64
17140000	14"/15"	520	370	135	175	20	63	230	430	232	80
17140000	14"/15"	520	370	135	175	20	72	250	440	336	94
17160000	16"/18"	580	390	155	195	20	72	250	440	336	98
17160000	16"/18"	580	390	155	195	20	80	250	450	420	114
17190000	19"/20"	600	440	170	210	20	80	250	450	420	127
17190000	19"/20"	600	440	170	210	20	90	300	460	524	140
17210000	20"/21"	600	440	180	220	20	90	300	460	524	180
17210000	20"/21"	600	440	180	220	20	100	300	500	628	195
17210000	20"/21"	600	440	180	220	20	115	400	600	1000	285

Tolerance: Forged parts ± 5%



## Wire rope thimbles

### G-411

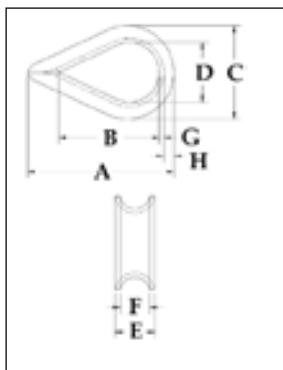


- Hot Dip galvanized steel.
- The standard choice for light duty applications and loading conditions.
- Meets the performance requirements of EN13411-1:2002.

G-411 meets the performance requirements of Federal Specification FF-T-276b Type II, except for those provisions required of the contractor.

### Standard Wire Rope Thimbles

Rope Dia.		G-411 Stock No	Weight Per 100 (kg)	Dimensions (mm)							
(mm)	(in.)			A	B	C	D	E	F	G	H
3-4	1/8	1037256	1.59	49.3	33.3	26.9	17.5	6.35	4.05	1.25	3.30
5	3/16	1037274	1.59	49.3	33.3	26.9	17.5	7.85	5.60	1.25	3.30
6-7	1/4	1037292	1.59	49.3	33.3	26.9	17.5	9.65	7.10	1.25	3.30
8	5/16	1037318	1.81	54.0	38.1	31.8	20.6	11.2	8.65	1.25	3.30
9-10	3/8	1037336	3.04	60.5	41.4	37.3	23.9	13.5	10.4	1.50	4.06
11-13	1/2	1037354	5.67	70.0	47.8	44.5	28.7	17.5	13.5	2.05	4.83
16	5/8	1037372	15.7	89.0	57.0	60.5	35.1	23.1	16.8	3.30	8.64
18-20	3/4	1037390	21.4	95.5	63.5	68.5	41.4	27.4	19.8	3.55	8.64
22	7/8	1037416	38.4	127	89.0	81.0	47.8	32.3	23.9	4.05	11.2
24-26	1	1037434	44.2	145	108	95.5	63.5	35.3	26.9	4.05	10.4
28-32	1-1/8 - 1-1/4	1037452	79	159	114	109	70.0	44.5	33.3	5.60	12.7



### G-414



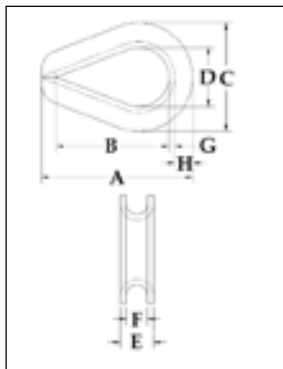
- Available in Hot Dip galvanized or Stainless Steel (Type 304).
- Meets the performance requirements of EN13411-1:2002.
- Stainless steel recommended for more corrosive environments where greater protection is required.
- Greater protection against wear and deformation of the wire rope eye.
- Longer service life.

G-414 meets the performance requirements of Federal Specification FF-T-276b Type III, except for those provisions required of the contractor.

### Extra Heavy Wire Rope Thimbles

Rope Dia.		Stock No.		Weight Per 100 (kg)	Dimensions (mm)							
(mm)	(in.)	G-414 Galv.	SS-414 Stainless		A	B	C	D	E	F	G	H
6-7	1/4	1037639	1037960	2.95	55.5	41.4	38.1	22.4	11.2	7.10	1.50	5.85
* 8	5/16	1037657	1037988	5.35	63.5	47.8	46.0	26.9	14.0	8.65	2.05	7.10
* 9-10	3/8	1037675	1038004	9.80	73.0	54.0	54.0	28.7	16.8	10.4	2.80	8.65
11-12	7/16	1037693	-	15.7	82.5	60.5	60.5	31.8	18.8	11.9	3.30	9.65
* 13-15	1/2 - 9/16	1037719	1038022	23.1	92.0	70.0	70.0	38.1	23.4	13.5	3.55	10.4
* 16	5/8	1037755	1038040	34.3	108	82.5	79.5	44.5	26.2	16.8	4.05	12.7
* 18-20	3/4	1037773	1038068	72	127	95.5	96.5	51.0	33.0	19.8	5.60	16.8
22	7/8	1037791	-	81	140	108	108	57.0	37.3	23.9	5.60	19.1
24-26	1	1037817	-	142	156	114	125	63.5	44.5	26.9	6.35	22.4
28-32	1-1/8 - 1-1/4	1037835	-	181	178	130	149	73.0	47.8	33.3	6.35	28.7
32-35	1-1/4 - 1-3/8	1037853	-	402	230	165	173	89.0	57.2	36.6	9.65	28.7
35-38	1-3/8 - 1-1/2	1037871	-	587	229	159	181	89.0	66.5	39.6	12.7	28.7
40	1-5/8	1037899	-	771	286	203	207	102	76.2	43.7	12.7	35.1
44	1-3/4	1037915	-	805	310	229	216	114	77.7	46.7	12.7	33.3
48-52	1-7/8 - 2	1037933	-	1259	384	305	264	152	85.9	53.0	12.7	38.1
56	2-1/4	1037951	-	1792	435	356	302	178	98.6	60.5	16.0	41.4

\*SS-414 sizes available in stainless steel type 304



## Wire rope thimbles

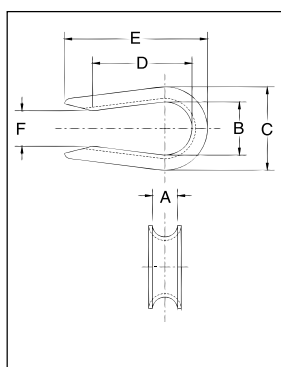
### G-408 (OPEN PATTERN)



#### Open Pattern Thimbles

- Hot Dip galvanized Steel.
- Meets the performance requirements of EN13411-1:2002.
- Recommended for light duty applications in which it is being assembled into another fitting (i.e., shackle or master link).

Rope Dia.		G-408 Stock No.	Weight Per 100 (kg)	Dimensions (mm)					
(mm)	(in.)			A	B	C	D	E	F
6-7	1/4	1037531	1.36	7.10	17.5	26.9	35.8	51.5	9.65
8	5/16	1037559	1.72	8.65	20.6	31.8	38.9	55.0	12.7
9-10	3/8	1037577	3.18	11.2	23.9	37.3	43.7	62.5	15.7
11-13	1/2	1037595	5.67	13.5	28.4	44.5	37.3	72.0	19.1
16	5/8	1037611	11.3	16.8	35.1	60.5	59.5	91.0	25.4



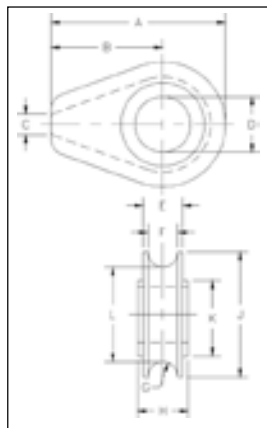
### S-412



#### Solid Wire Rope Thimbles

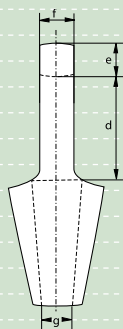
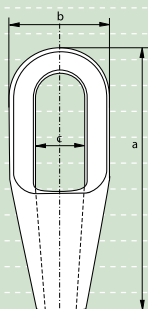
- Cast Ductile Iron.
- Fits pin for open wire rope socket, boom pendant clevis and wedge socket.

Rope Dia.		G-412 Stock No.	Weight Each (kg)	Dimensions (mm)										
(mm)	(in.)			A	B	C	D	E	F	G	H	J	K	L
1/2	13	1037121	.28	71.5	44.5	6.35	26.9	19.1	14.2	7.10	22.4	54.0	41.4	39.6
5/8	16	1037149	1.00	119	76.0	9.65	33.3	26.9	20.6	10.4	28.7	86.0	57.0	65.0
3/4	18-20	1037167	1.05	119	76.0	9.65	38.1	26.9	20.6	10.4	35.1	86.0	57.0	65.0
7/8	22	1037185	2.47	154	97.0	12.7	44.5	35.1	26.9	13.5	41.4	114	82.5	87.5
1	24-26	1037201	2.38	154	97.0	12.7	54.0	35.1	26.9	13.5	46.0	114	82.5	87.5
1-1/8	28-30	1037229	4.21	184	116	16.0	60.5	44.5	33.3	16.8	52.5	137	98.5	103
1-1/4 - 1-3/8	32-35	1037247	4.45	184	116	16.0	67.0	49.3	38.9	19.8	58.5	137	98.5	105





G-6411



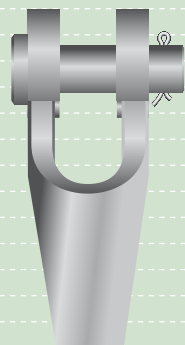
## Green Pin® sockets

### closed spelter socket

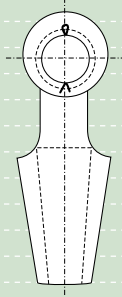
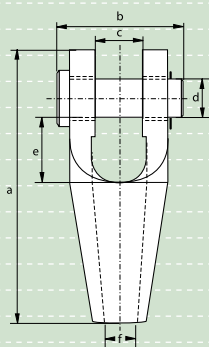
- **Material** : high tensile steel
- **Finish** : hot dipped galvanized
- **Temperature Range**: -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	width	width inside bow	length inside bow	thickness bow	thickness bow	opening	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
296	8	6 - 7	101	37	22	40	11	13	8.5	0.3
297	12	8 - 10	119	43	25	48	14	17.5	12	0.5
298	20	11 - 13	140	52	30	58	18	23.4	14.8	0.7
299	25	14 - 16	162	68	37	66	21	26	17.6	1.5
200	40	18 - 19	194	76	42	78	27	32	21.5	2.1
201	55	20 - 22	224	92	47	90	33	38	24	3.6
204	75	23 - 26	253	104	57	103	36	44	28	5.8
207	90	27 - 30	282	114	63	116	39	51	32	7
212	125	31 - 36	312	127	70	130	43	57	38	10.5
215	150	37 - 39	358	136	79	155	51	63	41	13
217	170	40 - 42	390	146	83	171	54	70	44	17
219	225	43 - 48	443	171	93	198	55	76	51	26
222	280	49 - 54	502	193	100	224	62	82	57	37.5
224	360	55 - 60	548	216	112	247	73	92	63	50
226	425	61 - 68	597	241	140	270	79	102	73	65
227	460	69 - 75	644	273	159	286	79	124	79	94
228	560	76 - 80	686	292	171	298	83	133	86	115
229	625	81 - 86	743	311	184	311	102	146	92	145
230	720	87 - 93	788	330	197	330	102	159	99	168
231	875	94 - 102	845	362	216	356	108	178	108	210
233	1200	108 - 115	1000	405	235	425	125	190	125	330
240	1300	120 - 130	1150	450	260	525	125	200	143	500





G-6412



## Green Pin® sockets

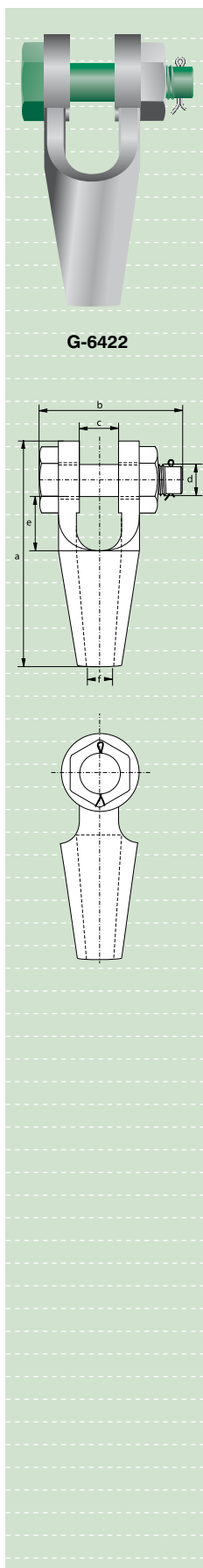
### open spelter socket

- **Material** : high tensile steel
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	width	width inside	dia- meter pin	length inside	opening	weight each
			a mm	b mm	c mm	d mm	e mm	f mm	kg
196	8	6 - 7	109	51	19	16	30	8.5	0.4
197	12	8 - 10	124	63	21	21	34	12	0.8
198	20	11 - 13	143	67	26	25	37	15	1
199	25	14 - 16	172	85	33	30	49	18	1.8
100	40	18 - 19	205	98	38	35	58	21	3
104	55	20 - 22	235	111	44	41	68	24	4.6
108	75	23 - 26	275	132	51	51	75	28	8
111	90	27 - 30	306	144	57	57	85	32	11
115	125	31 - 36	338	155	63	63	95	38	16
118	150	37 - 39	394	180	76	70	127	41	23
120	170	40 - 42	418	187	76	76	127	44	27
125	225	43 - 48	468	213	89	89	133	51	41
128	280	49 - 54	552	240	101	95	180	57	58
130	360	55 - 60	598	270	113	108	196	63	85
132	425	61 - 68	654	303	127	121	212	73	125
135	460	69 - 75	696	349	133	127	215	79	155
138	560	76 - 80	737	371	146	133	219	86	173
140	625	81 - 86	788	391	159	140	228	92	230
142	720	87 - 93	852	411	171	152	242	99	265
144	875	94 - 102	914	447	191	178	254	108	370
146	1200	108 - 115	1160	489	206	193	367	125	525
150	1300	120 - 130	1250	525	225	220	390	143	735







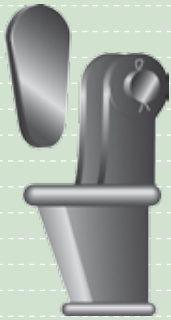
G-6422

## Green Pin® sockets open spelter socket with safety bolt

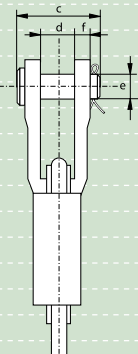
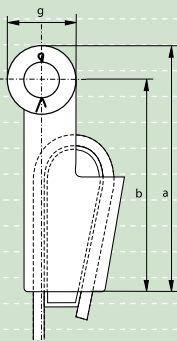
- **Material** : high tensile steel
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	width	width inside	diameter pin	length inside	opening	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	kg
196	8	6 - 7	109	62	19	16	30	8.5	0.4
197	12	8 - 10	124	75	21	21	34	12	0.8
198	20	11 - 13	143	109	26	25	37	15	1
199	25	14 - 16	172	133	33	30	49	18	1.8
100	40	18 - 19	205	145	38	35	58	21	3
104	55	20 - 22	235	161	44	41	68	24	4.6
108	75	23 - 26	275	189	51	50	75	28	8
111	90	27 - 30	306	208	57	57	85	32	11
115	125	31 - 36	338	226	63	63	95	38	16
118	150	37 - 39	394	246	76	70	127	41	23
120	170	40 - 42	418	256	76	77	127	44	27





G-6413



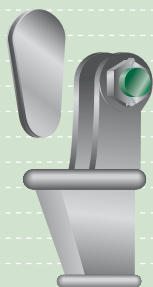
## Green Pin<sup>®</sup> sockets

### open wedge socket

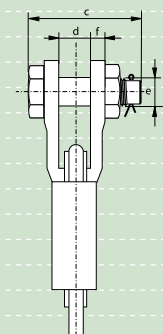
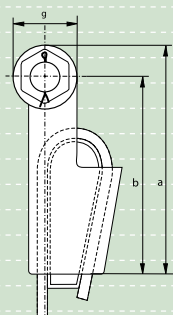
- **Material** : high tensile steel
- **Standard** : generally to EN 13411-6
- **Finish** : hot dipped galvanized
- **Temperature Range**: -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	length to center pin	width	width inside	dia- meter pin	thick- ness side plates	diameter eye	weight each
	t	mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.25	8	7 - 8	128	110	51	18	16	9	36	0.8
0.5	12	9 - 10	165	142	62	20	21	11	46	1.5
1	20	11 - 13	175	146	66	25	25	12	57	2.4
2	25	14 - 16	211	176	82	31	30	15	70	4
3	40	18 - 19	252	212	95	38	35	16	80	7
4	55	20 - 22	288	240	110	44	41	19	95	11
5	75	24 - 26	329	274	130	51	51	22	110	16
6	90	27 - 29	375	310	145	57	57	25	130	21
7	110	30 - 32	423	350	155	63	64	28	146	30
8	125	34 - 36	474	400	163	69	64	28	148	37
9	150	37 - 39	527	450	178	76	70	30	153	51
10	170	40 - 42	580	500	187	76	76	33	160	64
11	225	43 - 48	650	550	226	89	89	39	186	96
12	280	49 - 52	745	640	257	101	95	46	194	130
13	360	54 - 58	785	660	275	114	108	54	230	180
14	425	60 - 68	970	835	300	127	121	60	250	275
15	460	72 - 76	1150	1000	355	146	133	76	270	440
16	625	81 - 86	1252	1100	375	159	140	79	300	510

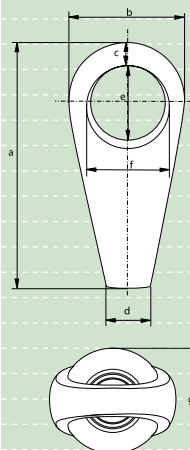




G-6423



G-6416



## Green Pin® sockets open wedge socket with safety bolt

- **Material** : high tensile steel
- **Standard** : generally to EN 13411-6
- **Finish** : hot dipped galvanized
- **Temperature Range**: -20°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and EC Declaration of Conformity can be supplied upon request

number	minimum breaking load	diameter wire rope	length	length to center pin	width	width inside	diameter pin	thickness side plates	diameter eye	weight each
	t	mm	a	b	c	d	e	f	g	kg
0.25	8	7 - 8	128	110	76	18	16	9	36	0.8
0.5	12	9 - 10	165	142	91	20	20	11	46	1.5
1	20	11 - 13	175	146	109	25	25	12	57	2.4
2	25	14 - 16	211	176	133	31	30	15	70	4
3	40	18 - 19	252	212	145	38	35	16	80	7
4	55	20 - 22	288	240	161	44	41	19	95	11
5	75	24 - 26	329	274	189	51	50	22	110	16
6	90	27 - 29	375	310	208	57	57	25	130	21
7	110	30 - 32	423	350	226	63	63	28	146	30
8	125	34 - 36	474	400	233	69	65	28	148	37
9	150	37 - 39	527	450	246	76	70	30	153	51
10	170	40 - 42	580	500	256	76	77	33	160	64

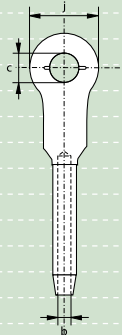
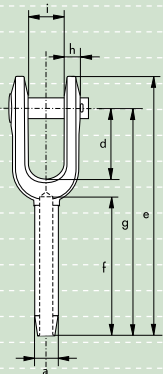
## Short bow sockets closed spelter socket

- **Material** : alloy steel
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate and a proof load test certificate can be supplied upon request

diameter wire rope	length	width	thickness bow	width	length eye	width eye	thickness	weight each
	a	b	c	d	e	f	g	kg
	inch	mm	mm	mm	mm	mm	mm	kg
1 1/4 - 1 3/8	246	122	38	48	83	76	97	18
1 1/2 - 1 5/8	305	152	40	57	104	92	123	22
1 3/4 - 1 7/8	356	178	47	66	121	112	140	28
2 - 2 1/8	391	202	53	76	133	121	158	32
2 1/4 - 2 3/8	438	221	61	80	146	133	184	44
2 1/2 - 2 5/8	457	264	68	96	165	149	217	56
2 3/4 - 2 7/8	540	273	74	105	178	163	222	68
3 - 3 1/8	584	295	76	115	194	174	243	100
3 1/4 - 3 3/8	626	319	82	121	216	194	260	120
3 1/2 - 3 5/8	670	340	92	127	219	202	270	145
3 3/4 - 3 7/8	698	356	98	133	235	214	290	190
4 - 4 1/4	803	412	112	152	270	242	318	250



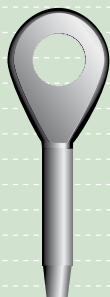
S-6414



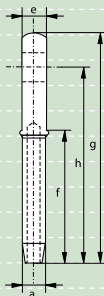
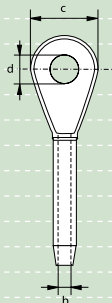
## Green Pin® swage sockets open type

- **Material** : drop forged steel C-1035
- **Finish** : self coloured

diameter rope	diameter before swage	diameter after swage		diameter inside	diameter pin	length	length	length	length	thickness	width inside	width eye	weight each
mm	a	a	a	b	c	d	e	f	g	h	i	j	kg
	mm	min	max	mm	mm	mm	mm	mm	mm	mm	mm	mm	
6	13	10.9	11.7	7	17	38	121	54	102	8	17	35	0.25
8	20	17.2	18.0	9	21	44	159	81	135	10	21	41	0.50
10	20	17.2	18.0	12	21	44	159	81	135	10	21	41	0.49
11	25	22.0	23.1	12	25	51	198	108	169	13	25	51	1.04
13	25	22.0	23.1	14	25	51	198	108	169	13	25	51	1.02
14	32	28.3	29.5	15	30	57	243	135	206	16	32	63	2.09
16	32	28.3	29.5	17	30	57	243	135	206	16	32	63	2.04
19	39	34.7	36.1	20	35	70	297	162	254	19	38	76	3.54
22	43	37.8	39.4	24	41	83	346	189	295	23	44	86	5.31
25	50	44.2	45.7	27	51	95	397	216	340	26	51	102	8.07
29	57	50.5	52.1	30	57	108	444	243	381	30	57	114	13.5
32	64	56.8	58.4	34	64	121	494	270	419	30	63	127	16.3
35	71	63.2	65.0	37	64	133	540	297	460	33	63	133	21.3
38	78	69.6	71.4	40	70	146	591	324	502	37	76	146	29.5
44	86	75.9	77.7	47	89	171	689	378	584	43	89	178	42.2
51	100	88.6	90.4	54	95	203	798	432	679	46	102	203	65.8
57	113	100.3	102.1	60	108	171	835	486	705	65	114	222	93.4
63	125	110.5	112.3	67	108	171	879	498	749	65	114	222	103
76	151	113.1	134.9	80	133	219	1045	603	905	76	146	241	181



S-6415



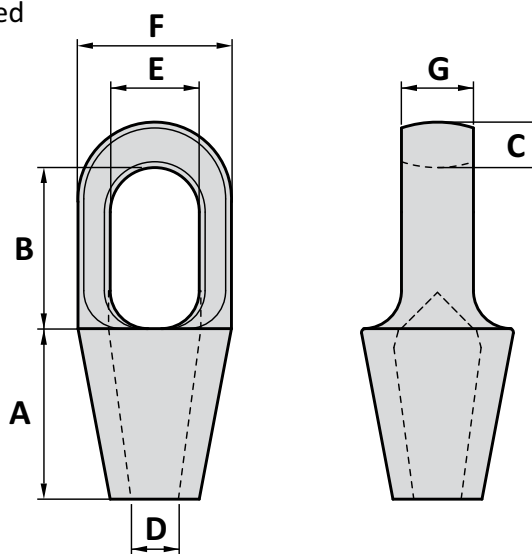
## Green Pin® swage sockets closed type

- **Material** : drop forged steel C-1035
- **Finish** : self coloured

diameter rope	diameter before swage	diameter after swage		diameter inside	diameter	diameter eye	thickness	length	length	length	weight each
	a	a	a	b	c	d	e	f	g	h	kg
mm	mm	min	max	mm	mm	mm	mm	mm	mm	mm	
6	13	10.9	11.7	7	37	19	13	54	111	89	0.15
8	20	17.2	18.0	9	43	22	17	81	140	114	0.36
10	20	17.2	18.0	12	43	22	17	81	140	114	0.35
11	25	22.0	23.1	12	51	27	22	108	176	146	0.66
13	25	22.0	23.1	14	51	27	22	108	176	146	0.63
14	32	28.3	29.5	15	63	32	29	135	222	184	1.26
16	32	28.3	29.5	17	63	32	29	135	222	184	1.25
19	39	34.7	36.1	20	76	37	33	162	264	219	2.27
22	43	37.8	39.4	24	89	43	38	189	308	257	3.40
25	50	44.2	45.7	27	102	52	44	216	349	292	5.08
29	57	50.5	52.1	30	114	59	51	243	387	324	7.17
32	64	56.8	58.4	34	127	65	57	270	438	365	10.4
35	71	63.2	65.0	37	133	65	57	297	479	400	14.1
38	78	69.6	71.4	40	140	71	63	324	518	432	17.7
44	86	75.9	77.7	47	171	91	76	378	610	508	23.6
51	100	88.6	90.4	54	197	97	83	432	698	584	40.8
57	113	100.3	102.1	60	219	110	102	486	756	632	55.3
63	125	110.5	112.3	67	219	110	102	498	791	667	64.4
76	151	113.1	134.9	80	235	135	137	603	959	816	114

# CLOSED SPELTER SOCKET

- Material : Cast steel  
 Safety : 5 times  
 Finish : Painted/galvanised  
           Up to Type No. 215 standard galvanised  
 Certificates : Material certificate 3.1  
 on request : Certificate of Conformity



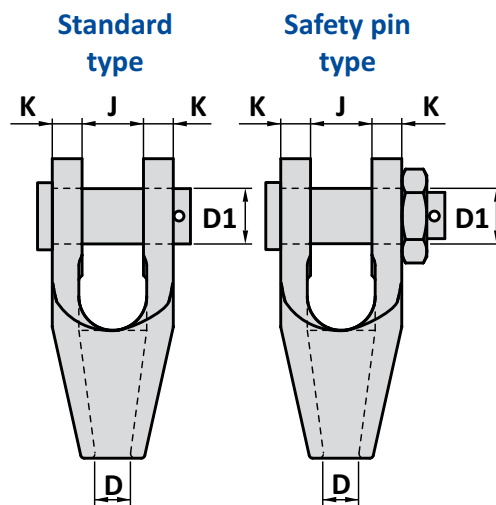
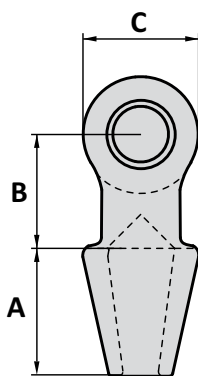
~ specification: 1 = Painted  
9 = Galvanised

Type No.	Wire dia mm	Wire dia inch	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight kg
290	6-7	¼"	3	51	46	11	8	20	37	13	0.3
292	8-10	⅜"	6	51	52	14	11	24	43	16	0.4
294	11-13	½"	12	64	59	18	14	29	51	22	0.8
296	14-16	⅝"	24	77	65	20	18	35	67	25	1.4
298	18-19	¾"	32	90	75	26	21	42	75	31	2.1
201	20-22	⅞"	45	101	90	33	24	47	92	38	4
204	23-26	1"	70	114	103	36	28	57	104	44	7
207	27-30	1⅛"	100	127	116	39	32	63	114	51	8
212	31-36	1¼"-1⅜"	125	139	130	43	38	70	127	57	11
215	37-39	1½"	150	152	155	51	41	79	136	63	13
217	40-42	1⅝"	200	165	171	54	44	82	146	70	17
219	43-48	1¾"-1⅞"	260	190	198	55	51	89	171	76	24
222	49-54	2"-2⅛"	280	216	224	62	57	96	193	82	37
224	55-60	2¼"-2⅜"	360	228	247	73	63	108	216	92	50
226	61-68	2½"-2⅝"	450	248	270	79	73	140	241	102	65
227	69-75	2¾"-2⅞"	480	279	286	76	79	159	273	124	93
228	76-80	3"-3⅛"	520	305	298	83	86	171	292	133	110
229	81-86	3¼"-3⅜"	600	330	311	102	92	184	311	146	142
230	87-93	3½"-3⅝"	700	356	330	102	99	197	330	159	170
231	94-102	3¾"-4"	875	381	356	108	108	216	362	178	225
233	108-115	4½"	1100	450	425	120	125	235	405	190	340
240	122-130	5"	1250	500	475	120	138	260	515	205	555
250	140-155	5½"-6"	1400	580	550	150	160	300	550	225	850
260	158-167	6½"	1600	675	600	175	175	325	600	300	1050

Tolerance: ± 5%, machined parts ± 1 mm

# OPEN SPELTER SOCKET

- Material : Cast steel
- Safety : 5 times
- Finish : Painted/galvanised  
Up to Type No. 115 standard galvanised
- Certificates : Material certificate 3.1  
on request Certificate of Conformity



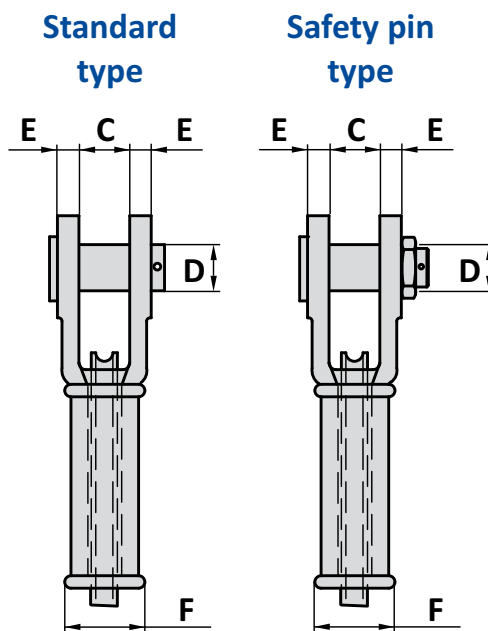
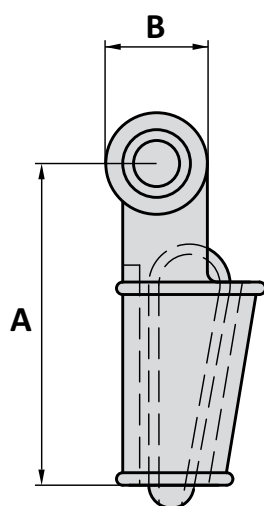
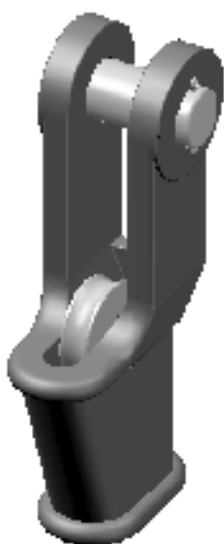
~ specification: 1 = Painted  
9 = Galvanised

Type No.	Wire dia mm	Wire dia inch	MBL ton	A mm	B mm	C mm	D mm	D1 mm	J mm	K mm	Weight kg
192	6-7	¼"	3	52	40	34	8	18	17	8	0.4
194	8-10	⅜"	6	58	45	40	11	21	20	11	0.6
196	11-13	½"	12	64	51	49	14	26	25	12	1.3
198	14-16	⅝"	24	76	64	62	18	30	32	14	2
100	18-19	¾"	32	89	76	80	21	35	38	16	3
104	20-22	⅞"	45	101	89	90	24	41	44	19	5
108	23-26	1"	70	114	101	120	28	51	51	22	8
111	27-30	1⅛"	100	127	114	130	32	57	57	25	12
115	31-36	1¼"-1⅜"	125	139	127	144	38	63	63	28	17
118	37-39	1½"	150	152	162	160	41	70	76	30	24
120	40-42	1⅝"	200	165	165	176	44	76	76	33	28
125	43-48	1¾"-1⅞"	260	190	178	200	51	89	89	39	41
128	49-54	2"-2⅛"	280	216	228	216	57	95	101	46	61
130	55-60	2¼"-2⅜"	360	228	250	236	63	108	113	53	90
132	61-68	2½"-2⅝"	450	248	273	264	73	121	127	60	122
135	69-75	2¾"-2⅞"	480	279	279	276	79	127	133	73	157
138	76-80	3"-3⅛"	520	305	286	284	86	133	146	76	195
140	81-86	3¼"-3⅜"	600	330	298	296	92	140	159	79	221
142	87-93	3½"-3⅝"	700	356	318	340	99	152	171	83	281
144	94-102	3¾"-4"	875	381	343	362	108	178	191	89	397
146	108-115	4½"	1100	460	480	440	125	190	208	101	570
150	122-130	5"	1250	500	500	560	138	250	210	120	980
160	140-155	5½"-6"	1400	580	500	600	160	275	230	140	1040
170	158-167	6½"	1600	675	600	650	175	290	310	175	1175

Tolerance: ± 5%, machined parts ± 1 mm

# OPEN WEDGE SOCKET

- Material : Cast steel
- Safety : 5 times
- Finish : Painted/galvanised  
Up to Type No. 5 standard galvanised
- Certificates : Material certificate 3.1  
on request Certificate of Conformity



~ specification: 1 = Painted  
9 = Galvanised

Type No.	Wire dia mm	Wire dia inch	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
0.5	9-10	3/8"	10	145	47	20	21	11	26	2
1	11-13	1/2"	16	146	57	25	25	12	32	3
2	14-16	5/8"	25	176	70	31	30	15	44	4
3	18-19	3/4"	32	212	80	38	35	16	44	6
4	20-22	7/8"	45	240	96	44	41	19	52	9
5	24-26	1"	70	274	114	51	50	22	58	15
6	27-29	1 1/8"	100	310	130	57	57	25	66	22
7	30-33	1 1/4"	125	350	146	63	64	28	79	25
8	34-36	1 3/8"	125	400	148	69	64	28	79	38
9	37-40	1 1/2"	150	450	160	76	70	30	93	51
10	41-43	1 5/8"	200	500	174	76	76	33	95	61
11	44-48	1 3/4"-1 7/8"	260	550	200	89	89	39	111	95
12	49-53	2"	280	650	200	101	95	46	140	121
13	56	2 1/4"	360	660	250	114	108	54	136	172
14	63	2 1/2"	450	840	270	127	121	60	161	271
15	75	3"	520	1000	300	146	133	76	186	437

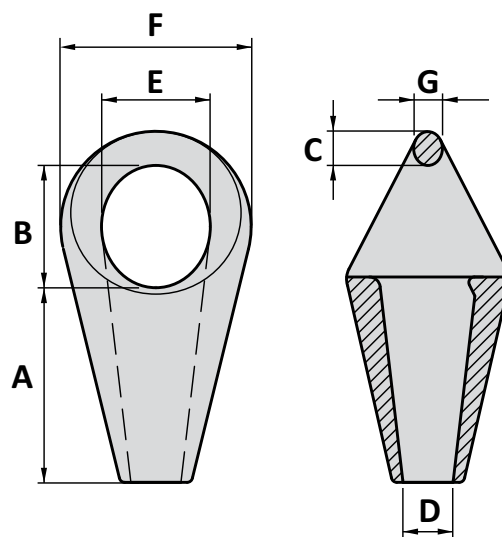
Tolerance: ± 5%, machined parts ± 1 mm



# CR SOCKET

Material	: Cast steel
Safety	: 5 times
Finish	: Painted/galvanised Up to Type No. 519 standard galvanised
Certificates on request	: Material certificate 3.1 Manufacturer certificate Certificate of Conformity NDT inspection certificate

*CR sockets give the best possible connection between a chain- and a rope anchoring system. These sockets are included our non-rotating system (NRS-system) which prevents the ramp for turning or slipping out of the cone and guaranty a high performance connection.*



~ specification: 1 = Painted  
9 = Galvanised

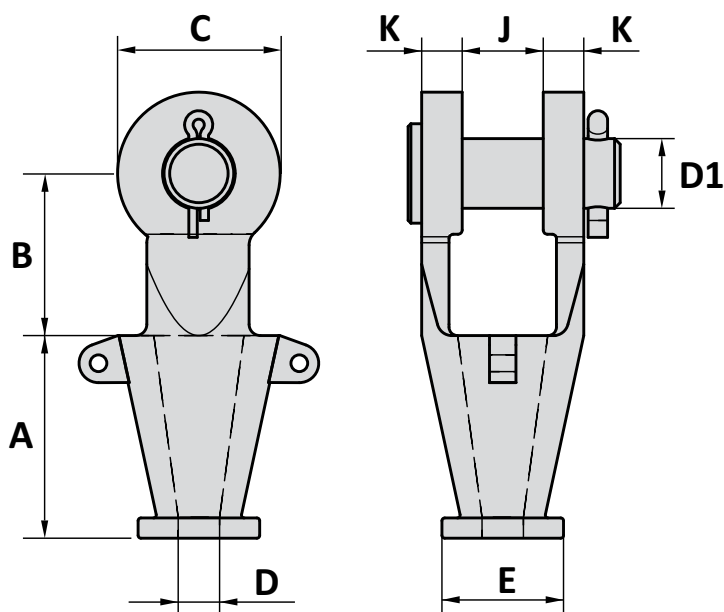
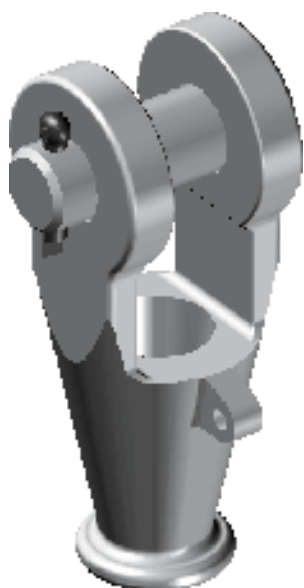
Type No.	Wire dia mm	Wire dia inch	WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight kg
512	31-36	1¼"-1⅝"	28	140	140	85	38	39	75	124	35	6.5
517	38-42	1½"-1⅝"	32	160	160	110	42	44	92	130	38	8
519	43-48	1¾"-1⅝"	40	200	188	128	50	51	110	180	45	17
522	49-54	2"-2⅞"	50	250	215	125	55	57	115	200	50	23
524	55-60	2¼"-2⅞"	60	300	230	145	65	63	135	230	57	33
526	61-68	2½"-2⅞"	80	400	250	160	75	73	160	265	65	50
527	69-75	2¾"-2⅞"	100	500	280	175	80	79	170	278	70	59
528	76-80	3"-3⅝"	120	600	315	210	85	86	184	300	75	74
529	81-86	3¼"-3⅝"	140	700	340	205	100	92	204	320	90	89
530	87-93	3½"-3⅝"	160	800	360	220	105	99	215	340	95	104
531	94-102	3¾"-4"	180	900	380	240	110	108	234	376	100	134
533	108-115	4¼"-4½"	200	1000	450	260	125	120	252	400	110	180
540	122-130	4¾"-5"	250	1250	517	293	140	140	275	460	125	310

Tolerance: ± 5%

# OPEN SPELTER SOCKET S-TYPE

Material	: Cast steel
Safety	: 5 times
Finish	: Galvanised
Certificates on request	: Material certificate 3.1 Manufacturer certificate Certificate of Conformity

*S-type open spelter sockets are prepared to operate in a wire-rope connection in combination with a flange-mounted bending stiffener. The stiffener protects the rope for buckling during transport and installation.*



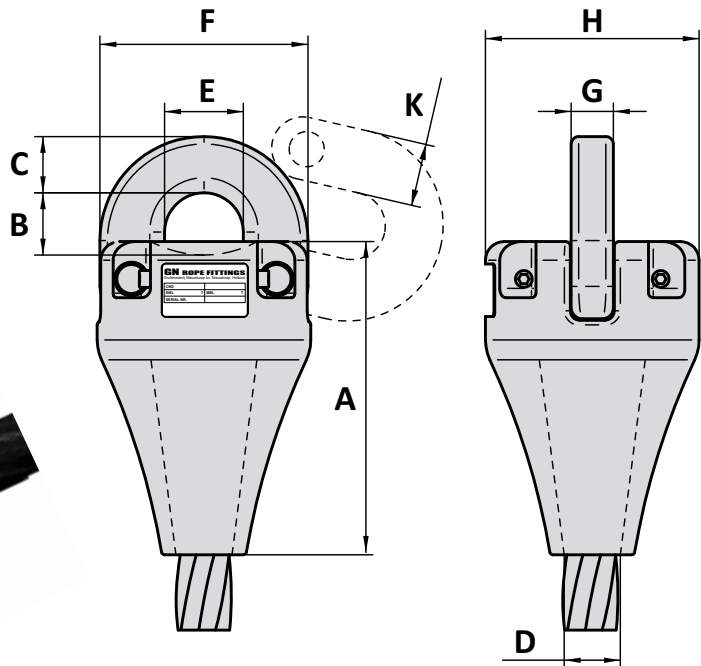
Type No.	Wire dia inch	Wire dia mm	A mm	B mm	C mm	D mm	D1 mm	J mm
338	3"	65-76	350	286	284	75-85	133	146
340	3½"	78-83	375	298	296	82-92	140	159
342	3½"	85-89	410	318	340	90-100	152	171
344	3¾"	92-96	425	343	362	98-108	178	191
346	4"	98-102	510	480	440	115-125	190	208
350	4½"	115	550	500	560	128-138	250	210
360	5"	126	630	500	600	140-160	275	230
370	5½"	138	725	600	650	150-175	290	250

Tolerance: ± 5%, machined parts ± 1 mm

# CR-D SOCKET

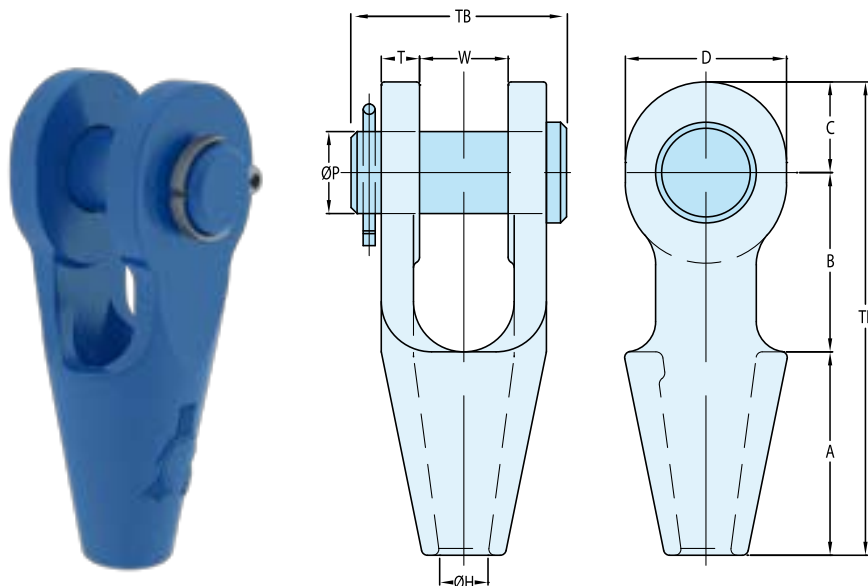
- Material : High grade steel
- Safety : 5 times
- Finish : Painted
- Certificates : Material certificate 3.1  
on request Manufacturer certificate  
Proofload certificate

5 - Wire rope accessories / Sockets



Type No.	Wire dia inch	Suitable chain	WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm
622	2"-2¼"	2"	50	250	300	70	60	59	84	222	45	238	69
626	2½"-2¾"	2½"	80	400				(in development)					
628	3"-3¼"	3"	120	600	465	120	100	86	112	340	70	380	114
630	3½"-3¾"	3½"	160	800	520	140	120	99	140	400	80	430	130
633	4"-4½"	4"	200	1000				(in development)					

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

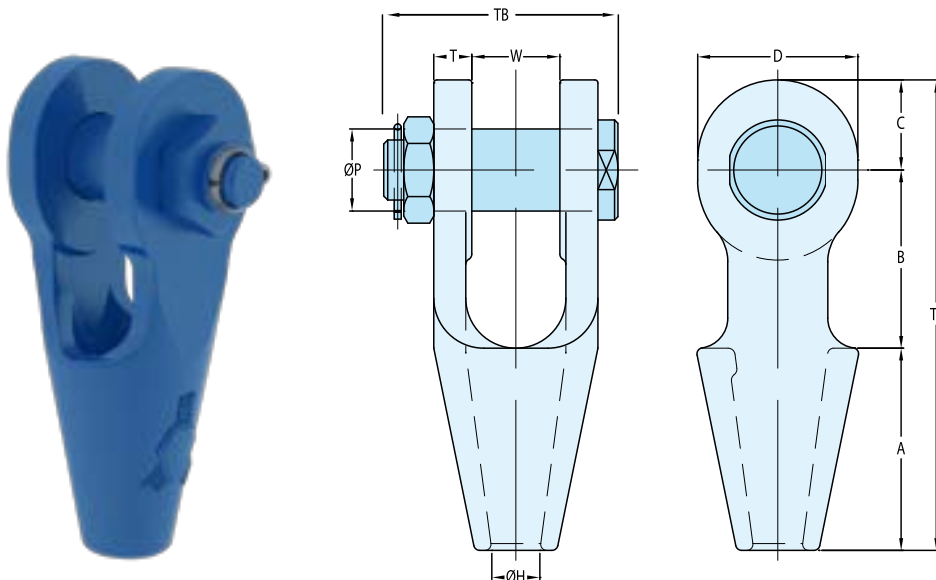
Alloy cast steel **Open spelter sockets with pin**

Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)										Weight (kg)
		mm	inch	A	B	C	D	ØH	ØP	T	TL	TB	W	
OSS 196 P	8	6 - 7	1/4	50	40	19	34	8.5	16	9	109	51	19	0.4
OSS 197 P	12	8 - 10	3/8	57	45	22	42	12	20.6	11	124	63	21	0.8
OSS 198 P	20	11 - 13	7/16 - 1/2	63.5	51	27	50	14	25	12	142	67	25	1
OSS 199 P	25	14 - 16	9/16 - 5/8	76	63	32	58	17.5	30	14	171	85	32	1.8
OSS 100 P	40	18 - 19	3/4	89	76	40	70	21	35	16	205	95	38	3.2
OSS 104 P	55	20 - 22	7/8	101	89	45	80	24	41	19	235	110	44	4.6
OSS 108 P	75	23 - 26	1	114	101	60	104	28	51	22	275	128	51	8
OSS 111 P	90	27 - 30	1 1/8	127	114	65	114	32	57	25	306	142	57	12
OSS 115 P	125	31 - 36	1 1/4 - 1 3/8	139	127	72	126	38	63	28	338	155	63	16
OSS 118 P	150	37 - 39	1 1/2	152	162	80	142	41	70	30	394	177	76	23
OSS 120 P	170	40 - 42	1 5/8	165	165	88	156	44	76	33	418	187	76	27
OSS 125 P	225	43 - 48	1 3/4 - 1 7/8	190	178	100	176	51	89	39	468	215	89	41
OSS 128 P	280	49 - 54	2 - 2 1/8	216	228	108	194	57	95	46	552	244	101	58
OSS 130 P	360	55 - 60	2 1/4 - 2 3/8	228	250	120	210	63	108	53	598	275	113	85
OSS 132 P	425	61 - 68	2 1/2 - 2 5/8	248	273	133	236	73	121	60	654	300	127	118
OSS 135 P	460	69 - 75	2 3/4 - 2 7/8	279	279	138	240	79	127	73	696	335	133	155
OSS 138 P	560	76 - 80	3 - 3 1/8	305	286	146	252	86	133	76	737	355	146	173
OSS 140 P	625	81 - 86	3 1/4 - 3 3/8	330	298	160	290	92	140	79	788	375	159	230
OSS 142 P	720	87 - 93	3 1/2 - 3 5/8	356	318	178	320	99	152	83	852	400	171	265
OSS 144 P	875	94 - 102	3 3/4 - 4	381	343	190	350	108	178	89	914	435	191	370
OSS 146 P	1200	108 - 115	4 1/4 - 4 1/2	450	480	215	400	125	195	100	1145	465	205	525
OSS 150 P	1300	120 - 130	4 3/4 - 5	500	500	250	450	143	220	110	1250	525	225	735

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

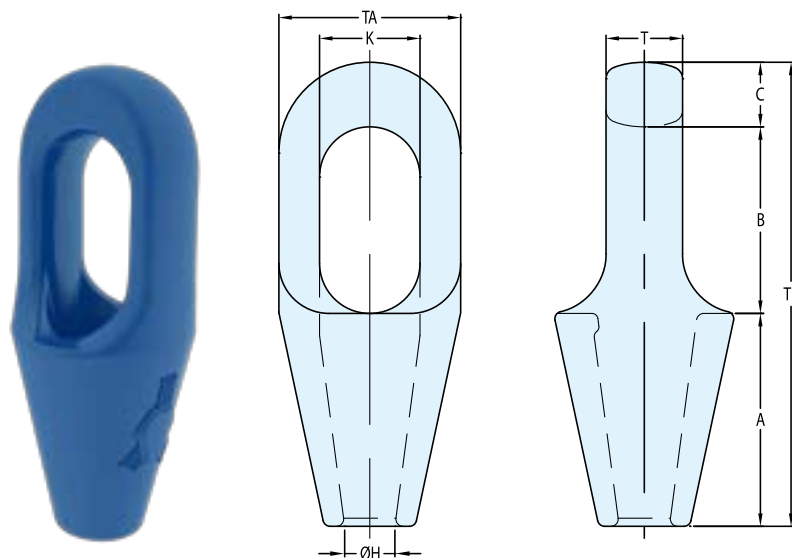
## Alloy cast steel Open spelter sockets with bolt and nut



Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)										Weight (kg)
		mm	inch	A	B	C	D	ØH	ØP	T	TL	TB	W	
OSS 196 B	8	6 - 7	1/4	50	40	19	34	8.5	16	9	109	62	19	0.4
OSS 197 B	12	8 - 10	3/8	57	45	22	42	12	20.6	11	124	75	21	0.8
OSS 198 B	20	11 - 13	7/16 - 1/2	63.5	51	27	50	14	25	12	142	80	25	1
OSS 199 B	25	14 - 16	9/16 - 5/8	76	63	32	58	17.5	30	14	171	96	32	1.8
OSS 100 B	40	18 - 19	3/4	89	76	40	70	21	35	16	205	107	38	3.2
OSS 104 B	55	20 - 22	7/8	101	89	45	80	24	41	19	235	123	44	4.6
OSS 108 B	75	23 - 26	1	114	101	60	104	28	51	22	275	138	51	8
OSS 111 B	90	27 - 30	1 1/8	127	114	65	114	32	57	25	306	160	57	12
OSS 115 B	125	31 - 36	1 1/4 - 1 3/8	139	127	72	126	38	63	28	338	165	63	16
OSS 118 B	150	37 - 39	1 1/2	152	162	80	142	41	70	30	394	201	76	23
OSS 120 B	170	40 - 42	1 5/8	165	165	88	156	44	76	33	418	209	76	27
OSS 125 B	225	43 - 48	1 3/4 - 1 7/8	190	178	100	176	51	89	39	468	237	89	41
OSS 128 B	280	49 - 54	2 - 2 1/8	216	228	108	194	57	95	46	552	263	101	58
OSS 130 B	360	55 - 60	2 1/4 - 2 3/8	228	250	120	210	63	108	53	598	298	113	85
OSS 132 B	425	61 - 68	2 1/2 - 2 5/8	248	273	133	236	73	121	60	654	330	127	118
OSS 135 B	460	69 - 75	2 3/4 - 2 7/8	279	279	138	240	79	127	73	696	359	133	155
OSS 138 B	560	76 - 80	3 - 3 1/8	305	286	146	252	86	133	76	737	380	146	173
OSS 140 B	625	81 - 86	3 1/4 - 3 3/8	330	298	160	290	92	140	79	788	397	159	230
OSS 142 B	720	87 - 93	3 1/2 - 3 5/8	356	318	178	320	99	152	83	852	417	171	265
OSS 144 B	875	94 - 102	3 3/4 - 4	381	343	190	350	108	178	89	914	450	191	370
OSS 146 B	1200	108 - 115	4 1/4 - 4 1/2	450	480	215	400	125	195	100	1145	504	205	525
OSS 150 B	1300	120 - 130	4 3/4 - 5	500	500	250	450	143	220	110	1250	525	225	735

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

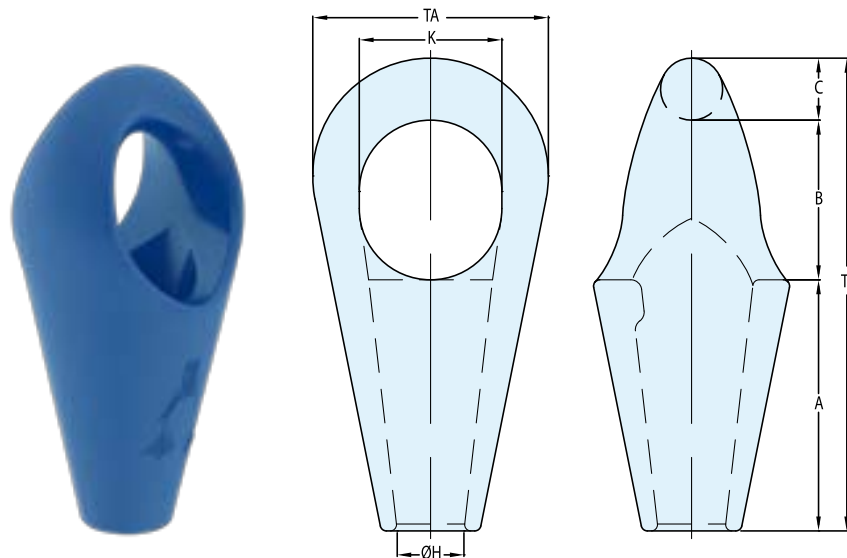
Alloy cast steel **Closed spelter sockets**

Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)								Weight (kg)
		mm	inch	A	B	C	ØH	K	T	TA	TL	
CSS 296	8	6 - 7	1/4	50	40	11	8.5	22	13	37	101	0.3
CSS 297	12	8 - 10	3/8	57	48	14	12	25	17.5	43	119	0.5
CSS 298	20	11 - 13	7/16 - 1/2	63.5	59	17.5	14	30	22.5	51	140	0.7
CSS 299	25	14 - 16	9/16 - 5/8	76	65	21	17.5	36	26	67	162	1.3
CSS 200	40	18 - 19	3/4	89	78	27	21	42	32	76	194	2.1
CSS 201	55	20 - 22	7/8	101	90	33	24	47	38	92	224	3.6
CSS 204	75	23 - 26	1	114	103	36	28	57	44	104	253	5.3
CSS 207	90	27 - 30	1 1/8	127	116	39	32	63	51	114	282	7
CSS 212	125	31 - 36	1 1/4 - 1 3/8	139	130	43	38	70	57	127	312	9.7
CSS 215	150	37 - 39	1 1/2	152	155	51	41	79	63	136	358	13
CSS 217	170	40 - 42	1 5/8	165	171	54	44	83	70	146	390	17
CSS 219	225	43 - 48	1 3/4 - 1 7/8	190	198	55	51	93	76	171	443	26
CSS 222	280	49 - 54	2 - 2 1/8	216	224	62	57	100	82	193	502	37.5
CSS 224	360	55 - 60	2 1/4 - 2 3/8	228	247	73	63	112	92	216	548	50
CSS 226	425	61 - 68	2 1/2 - 2 5/8	248	270	79	73	140	102	241	597	65
CSS 227	460	69 - 75	2 3/4 - 2 7/8	279	286	79	79	159	124	273	644	94
CSS 228	560	76 - 80	3 - 3 1/8	305	298	83	86	171	133	292	686	110
CSS 229	625	81 - 86	3 1/4 - 3 3/8	330	311	102	92	184	146	311	743	145
CSS 230	720	87 - 93	3 1/2 - 3 5/8	356	330	102	99	197	159	330	788	182
CSS 231	875	94 - 102	3 3/4 - 4	381	356	108	108	216	178	362	845	210
CSS 233	1200	108 - 115	4 1/4 - 4 1/2	450	425	125	125	235	190	405	1000	330
CSS 240	1300	120 - 130	4 3/4 - 5	500	525	125	143	260	200	450	1150	500

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

## High alloy cast steel Short bow sockets

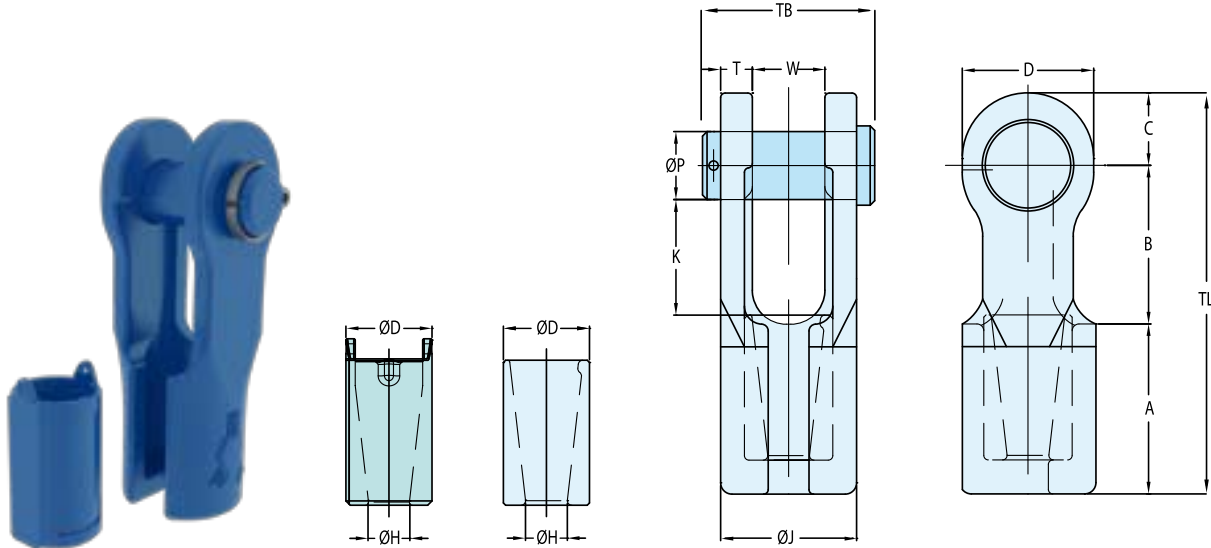


Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)							Weight (kg)
		mm	inch	A	B	C	ØH	K	TA	TL	
SBS 517	160	37 - 42	1½ - 1 <sup>5</sup> / <sub>8</sub>	162	103	38	44	92	147	300	11
SBS 519	200	43 - 48	1¾ - 1 <sup>7</sup> / <sub>8</sub>	188	120	42	51	112	178	348	15
SBS 522	250	49 - 54	2 - 2 <sup>1</sup> / <sub>8</sub>	204	132	54	57	120	200	390	22
SBS 524	320	55 - 60	2¼ - 2 <sup>3</sup> / <sub>8</sub>	230	148	62	63	135	220	440	27
SBS 526	400	61 - 68	2½ - 2 <sup>5</sup> / <sub>8</sub>	235	165	68	73	150	250	468	40
SBS 527	500	69 - 75	2¾ - 2 <sup>7</sup> / <sub>8</sub>	287	175	75	79	164	274	540	54
SBS 528	600	76 - 80	3 - 3 <sup>5</sup> / <sub>8</sub>	314	195	76	86	175	295	585	75
SBS 529	700	81 - 86	3¼ - 3 <sup>3</sup> / <sub>8</sub>	327	216	82	92	194	320	625	81
SBS 530	800	87 - 93	3½ - 3 <sup>5</sup> / <sub>8</sub>	258	220	92	99	202	350	670	115
SBS 531	900	94 - 102	3¾ - 4	365	235	100	105	215	375	700	130
SBS 533	1000	108 - 115	4¼ - 4½	420	270	110	115	240	410	800	180

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

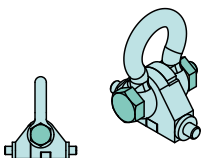
## Alloy cast steel Fast connector sockets with pin



Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)													Weight (kg)
		mm	inch	A	B	C	ØH	ØP	T	W	D	ØD	ØJ	K	TB	TL	
FCS 701 P	20	11 - 13	$\frac{7}{16} - \frac{1}{2}$	62	61	27	15	25	12	25	50	33	49	46	67	150	1.6
FCS 702 P	25	13 - 16	$\frac{1}{2} - \frac{5}{8}$	72	78	32	18	30	14	32	58	38	60	59	85	182	2.6
FCS 703 P	40	16 - 19	$\frac{5}{8} - \frac{3}{4}$	85	93	40	21	35	16	38	70	45	70	69	95	218	4.5
FCS 704 P	55	20 - 22	$\frac{7}{8}$	102	106	45	24	41	19	44	80	50	82	81	110	253	6.5
FCS 705 P	75	23 - 26	1	115	123	60	28	51	22	51	104	60	95	90	128	298	11
FCS 706 P	90	27 - 29	$1\frac{1}{8}$	140	152	65	32	57	25	57	114	70	107	116	142	357	16

### Spin Resistant Connector

FCS 705 P.SR	75	23 - 26	1	115	123	60	28	51	22	51	104	60	95	90	128	298	11
FCS 706 P.SR	90	27 - 29	$1\frac{1}{8}$	140	152	65	32	57	25	57	114	70	107	116	142	357	16
FCS 707 P.SR	125	30 - 32	$1\frac{1}{4}$	150	159	73	36	63	28	63	126	80	119	120	155	382	18
FCS 708 P.SR	125	33 - 36	$1\frac{3}{8}$	160	171	73	39	64	28	69	126	85	125	130	160	404	23
FCS 709 P.SR	150	37 - 39	$1\frac{1}{2}$	176	187	80	42	70	30	76	142	90	136	142	177	443	29
FCS 710 P.SR	170	40 - 42	$1\frac{5}{8}$	188	198	88	45	76	33	76	156	95	142	150	187	474	36



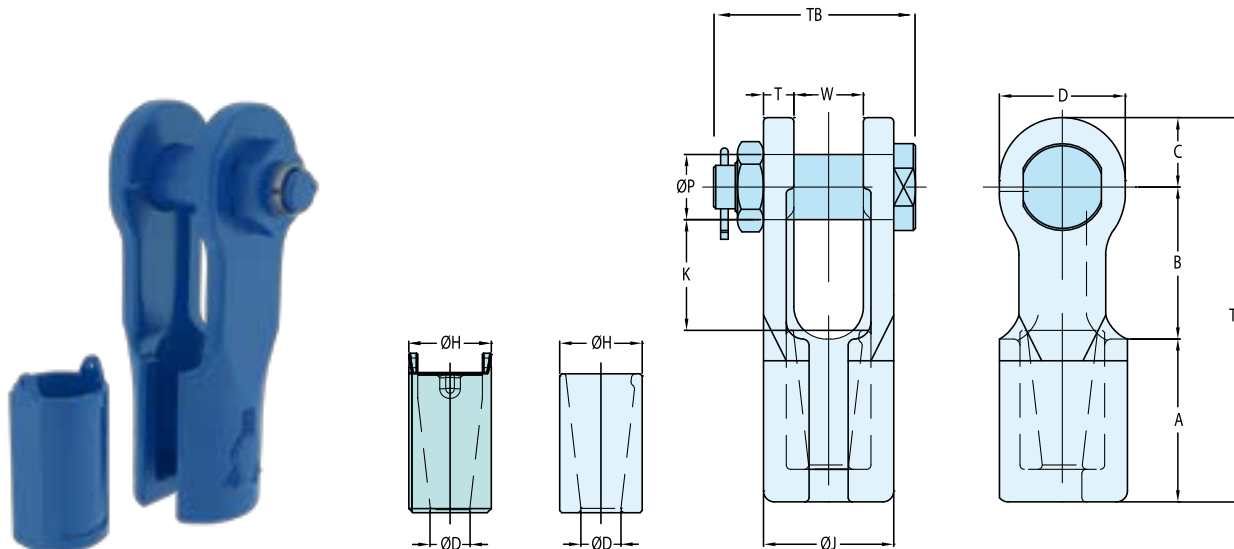
Special reeving tool available on request

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.



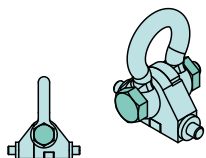
## Alloy cast steel Fast connector sockets with bolt and nut



Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)													Weight (kg)
		mm	inch	A	B	C	ØH	ØP	T	W	D	ØD	ØJ	K	TB	TL	
FCS 701 B	20	11 - 13	$\frac{7}{16} - \frac{1}{2}$	62	61	27	15	25	12	25	50	33	49	46	80	150	1.6
FCS 702 B	25	13 - 16	$\frac{1}{2} - \frac{5}{8}$	72	78	32	18	30	14	32	58	38	60	59	96	182	2.6
FCS 703 B	40	16 - 19	$\frac{5}{8} - \frac{3}{4}$	85	93	40	21	35	16	38	70	45	70	69	107	218	4.5
FCS 704 B	55	20 - 22	$\frac{7}{8}$	102	106	45	24	41	19	44	80	50	82	81	123	253	6.5
FCS 705 B	75	23 - 26	1	115	123	60	28	51	22	51	104	60	95	90	138	298	11
FCS 706 B	90	27 - 29	$1\frac{1}{8}$	140	152	65	32	57	25	57	114	70	107	116	160	357	16

### Spin Resistant Connector

FCS 705 B.SR	75	23 - 26	1	115	123	60	28	51	22	51	104	60	95	90	138	298	11
FCS 706 B.SR	90	27 - 29	$1\frac{1}{8}$	140	152	65	32	57	25	57	114	70	107	116	160	357	16
FCS 707 B.SR	125	30 - 32	$1\frac{1}{4}$	150	159	73	36	63	28	63	126	80	119	120	165	382	18
FCS 708 B.SR	125	33 - 36	$1\frac{3}{8}$	160	171	73	39	64	28	69	126	85	125	130	185	404	23
FCS 709 B.SR	150	37 - 39	$1\frac{1}{2}$	176	187	80	42	70	30	76	142	90	136	142	201	443	29
FCS 710 B.SR	170	40 - 42	$1\frac{5}{8}$	188	198	88	45	76	33	76	156	95	142	150	209	474	36

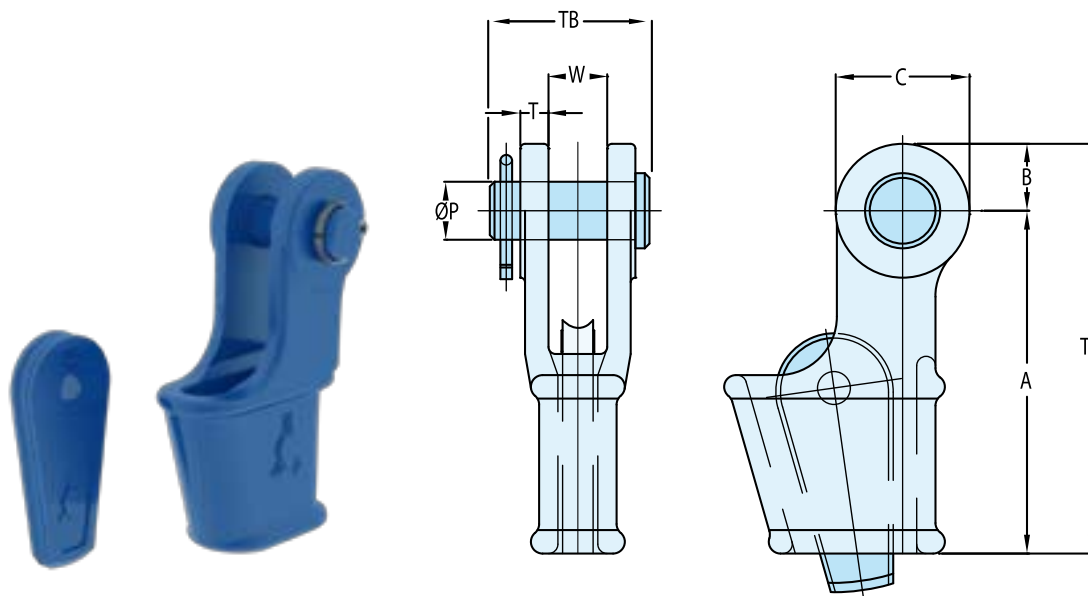


Special reeving tool available on request

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

## Alloy cast steel Open wedge sockets with pin

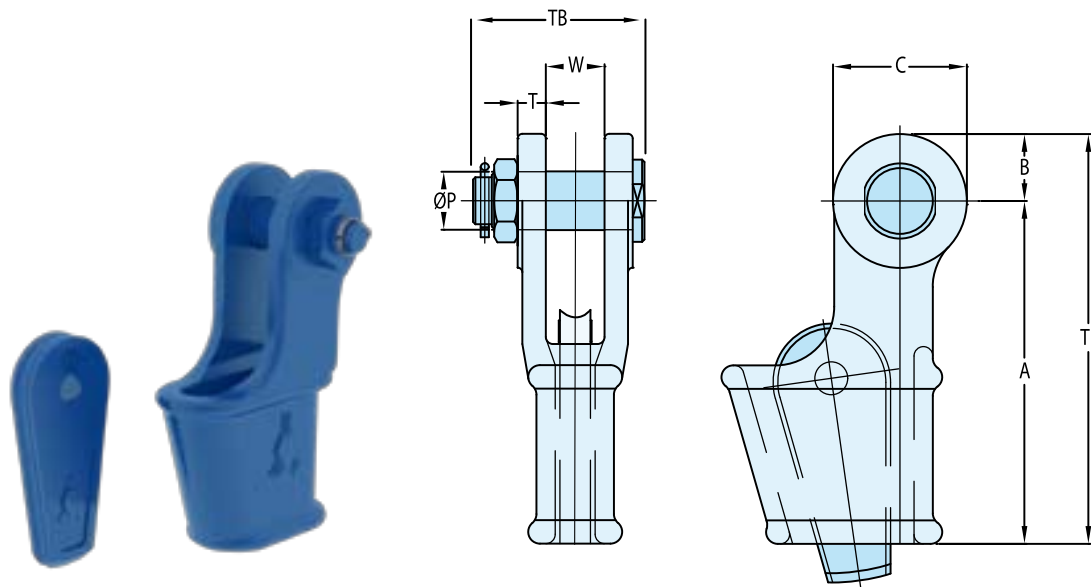


Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)								Weight (kg)
		mm	inch	A	B	C	ØP	T	TB	TL	W	
OWS 0.25 P	8	7 - 8	$\frac{5}{16}$	110	19	36	16	9	51	129	18	0.8
OWS 0.5 P	12	9 - 10	$\frac{3}{8}$	142	23	46	20.6	11	63	165	20.5	1.7
OWS 1 P	20	11 - 13	$\frac{1}{2}$	146	29	57	25	12	67	175	25	2.1
OWS 2 P	25	14 - 16	$\frac{5}{8}$	176	35	70	30	15	85	211	31	4
OWS 3 P	40	18 - 19	$\frac{3}{4}$	212	40	80	35	16	95	252	38	7
OWS 4 P	55	20 - 22	$\frac{7}{8}$	240	48	95	41	19	110	288	44	10
OWS 5 P	75	24 - 26	1	274	55	110	51	22	128	329	51	15
OWS 6 P	90	27 - 29	$1\frac{1}{8}$	310	65	130	57	25	142	375	57	21
OWS 7 P	110	30 - 32	$1\frac{1}{4}$	350	73	146	64	28	155	423	63	31
OWS 8 P	125	34 - 36	$1\frac{3}{8}$	400	74	148	64	28	160	474	69	37
OWS 9 P	150	37 - 39	$1\frac{1}{2}$	450	80	142	70	30	177	530	76	51
OWS 10 P	170	40 - 42	$1\frac{5}{8}$	500	87	160	76	33	187	587	76	64
OWS 11 P	225	43 - 48	$1\frac{3}{4} - 1\frac{7}{8}$	550	100	186	89	39	215	650	89	96
OWS 12 P	280	49 - 52	2	640	105	194	95	46	244	745	101	130
OWS 13 P	360	54 - 58	$2\frac{1}{4}$	660	125	230	108	54	275	785	114	180
OWS 14 P	425	60 - 68	$2\frac{1}{2}$	835	135	250	121	60	300	970	127	275
OWS 15 P	460	72 - 76	3	1000	150	270	133	76	355	1150	146	440
OWS 16 P	625	81 - 86	$3\frac{1}{4} - 3\frac{3}{8}$	1100	152	300	140	79	375	1252	159	510

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

## Alloy cast steel Open wedge sockets with bolt and nut

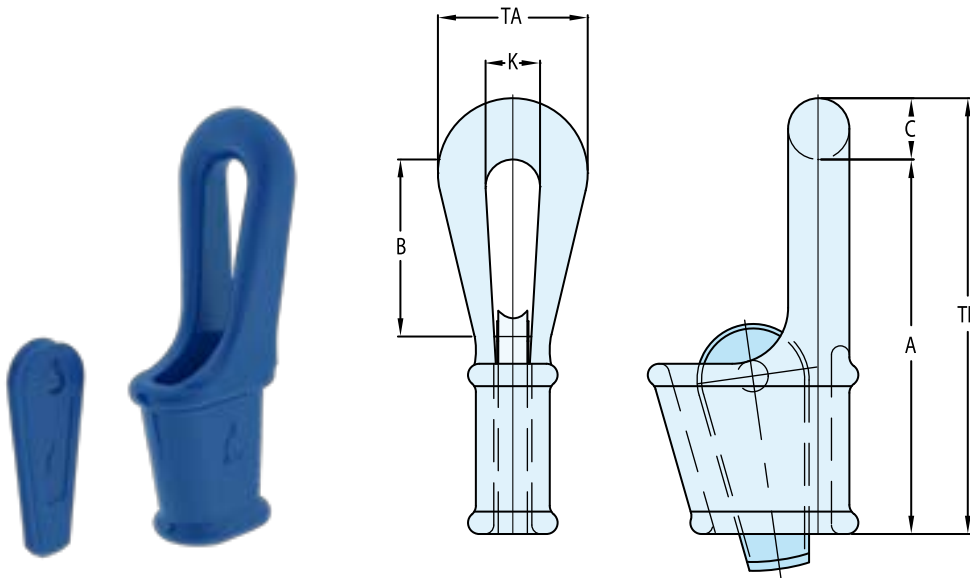


Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)								Weight (kg)
		mm	inch	A	B	C	ØP	T	TB	TL	W	
OWS 0.25 B	8	7 - 8	$\frac{5}{16}$	110	19	36	16	9	62	129	18	0.8
OWS 0.5 B	12	9 - 10	$\frac{3}{8}$	142	23	46	20.6	11	75	165	20.5	1.7
OWS 1 B	20	11 - 13	$\frac{1}{2}$	146	29	57	25	12	80	175	25	2.1
OWS 2 B	25	14 - 16	$\frac{5}{8}$	176	35	70	30	15	96	211	31	4
OWS 3 B	40	18 - 19	$\frac{3}{4}$	212	40	80	35	16	107	252	38	7
OWS 4 B	55	20 - 22	$\frac{7}{8}$	240	48	95	41	19	123	288	44	10
OWS 5 B	75	24 - 26	1	274	55	110	51	22	138	329	51	15
OWS 6 B	90	27 - 29	$1\frac{1}{8}$	310	65	130	57	25	160	375	57	21
OWS 7 B	110	30 - 32	$1\frac{1}{4}$	350	73	146	64	28	165	423	63	31
OWS 8 B	125	34 - 36	$1\frac{3}{8}$	400	74	148	64	28	185	474	69	37
OWS 9 B	150	37 - 39	$1\frac{1}{2}$	450	80	142	70	30	201	530	76	51
OWS 10 B	170	40 - 42	$1\frac{5}{8}$	500	87	160	76	33	209	587	76	64
OWS 11 B	225	43 - 48	$1\frac{3}{4}$ - $1\frac{7}{8}$	550	100	186	89	39	237	650	89	96
OWS 12 B	280	49 - 52	2	640	105	194	95	46	263	745	101	130
OWS 13 B	360	54 - 58	$2\frac{1}{4}$	660	125	230	108	54	298	785	114	180
OWS 14 B	425	60 - 68	$2\frac{1}{2}$	835	135	250	121	60	330	970	127	275
OWS 15 B	460	72 - 76	3	1000	150	270	133	76	380	1150	146	440
OWS 16 B	625	81 - 86	$3\frac{1}{4}$ - $3\frac{3}{8}$	1100	152	300	140	79	397	1252	159	510

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

## Alloy cast steel Closed wedge sockets

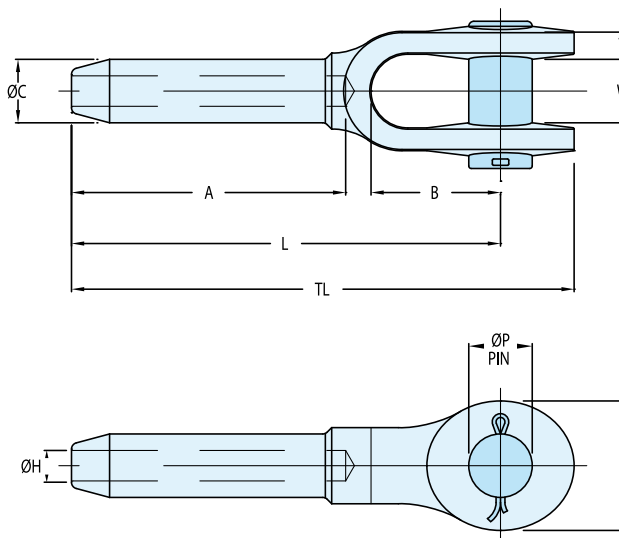


Model nr.	MBL (Mtons)	for wire Ø		Dimensions (mm)						Weight (kg)
		mm	inch	A	B	C	K	TA	TL	
CWS 303	40	18 - 19	$\frac{3}{4}$	220	100	34	40	90	254	7
CWS 304	55	20 - 22	$\frac{7}{8}$	225	125	42	47	110	267	9
CWS 305	75	24 - 26	1	290	130	50	55	125	340	14
CWS 306	90	27 - 29	$1\frac{1}{8}$	325	145	60	70	152	385	22
CWS 307	110	30 - 32	$1\frac{1}{4}$	360	160	68	75	165	428	30
CWS 308	125	34 - 36	$1\frac{3}{8}$	400	180	68	75	165	468	38
CWS 309	150	37 - 39	$1\frac{1}{2}$	500	240	72	80	185	572	49
CWS 310	170	40 - 42	$1\frac{5}{8}$	600	310	80	90	210	680	65
CWS 311	225	43 - 48	$1\frac{3}{4}$ - $1\frac{7}{8}$	640	325	90	100	225	730	100
CWS 312	280	49 - 52	2	720	375	100	110	245	820	150
CWS 313	360	54 - 58	$2\frac{1}{4}$	775	400	110	120	265	885	175
CWS 314	425	61 - 64	$2\frac{1}{2}$	900	470	120	130	290	1020	230
CWS 315	460	72 - 76	3	1000	500	130	150	330	1130	300
CWS 316	625	81 - 86	$3\frac{1}{8}$ - $3\frac{1}{4}$	1125	550	135	165	360	1260	425

MBL = Minimum Breaking Load.

Our standard sockets are delivered in blue colour paint. Hot dipped galvanized is also available. All sockets can be provided with Declaration of compliance according EN 10204-2.1, Material certificate according EN 10204-3.1 and EC Declaration according machine directive 98/37/EC.

## Forged carbon steel Swage sockets open



Model nr.	for wire Ø		Dimensions (mm)										Weight (kg)
	mm	inch	ØC	ØH	ØP	B	TL	A	L	T	W	D	
SSO 06	6	1/4	12.7	6.85	17.5	38	121	54	102	8	17	35	0.25
SSO 08	8	5/16	19.6	8.65	20.6	44	159	81	135	10	21	41	0.50
SSO 10	10	3/8	19.6	10.4	20.6	44	159	81	135	10	21	41	0.50
SSO 11	11	7/16	24.9	12.2	25.4	51	198	108	169	13	25	51	1.10
SSO 13	13	1/2	24.9	14	25.4	51	198	108	169	13	25	51	1.10
SSO 14	14	9/16	31.8	15.5	30.2	57	243	135	206	16	32	63	2.10
SSO 16	16	5/8	31.8	17	30.2	57	243	135	206	16	32	63	2.10
SSO 19	19	3/4	39.4	20.3	35.1	70	297	162	254	19	38	76	3.60
SSO 22	22	7/8	43.2	23.9	41.1	83	346	189	295	23	44	86	5.30
SSO 25	25	1	50.5	26.9	51	95	397	216	340	26	51	102	8.10
SSO 29	29	1 1/8	57	30.2	57	108	444	243	381	30	57	114	13.50
SSO 32	32	1 1/4	64.5	33.8	63.5	121	494	270	419	30	63	127	16.40
SSO 35	35	1 3/8	71	36.8	63.5	133	540	297	460	33	63	133	21.40
SSO 38	38	1 1/2	78	40.1	70	146	591	324	502	37	76	146	29.50
SSO 44	44	1 3/4	86	47.2	89	171	689	378	584	43	89	178	42.20
SSO 51	51	2	100	53.5	95.5	203	798	432	679	46	102	203	65.80
SSO 57	57	2 1/4	113	59.9	108	171	835	486	705	65	114	222	93.50
SSO 63	63	2 1/2	125.2	67.5	108	171	879	498	749	65	114	222	103.00
SSO 76	76	3	150.6	80.4	133.4	219	1045	603	905	76	146	241	181.50

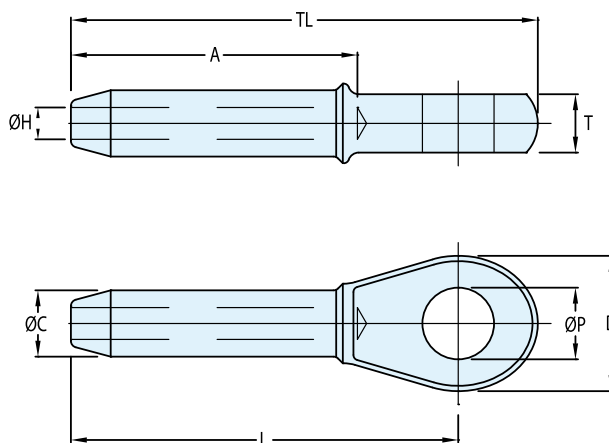
Swage sockets are recommended for use on 6x19 or 6x37 IWRC regular lay ropes and also satisfactory on galvanized bridge rope.

They are **not recommended** for use on fiber core ropes.

Before using swage sockets with other type lay, construction or grade of wire rope, it is recommended that the termination be proofloaded to prove the adequacy of the assembly.

Sockets properly applied have an efficiency rating of 100% based on the catalog strength of the used wire rope. Forged from special steel for cold swaging.

## Forged carbon steel Swage sockets closed



Model nr.	for wire Ø		Dimensions (mm)								Weight (kg)
	mm	inch	ØC	ØH	D	ØP	T	A	TL	L	
SSC 06	6	1/4	12.7	6.85	37	19.1	13	54	111	89	0.15
SSC 08	8	5/16	19.6	8.65	43	22.4	17	81	140	114	0.36
SSC 10	10	3/8	19.6	10.4	43	22.4	17	81	140	114	0.35
SSC 11	11	7/16	24.9	12.2	51	26.9	22	108	176	146	0.70
SSC 13	13	1/2	24.9	14	51	26.9	22	108	176	146	0.70
SSC 14	14	9/16	31.8	15.5	63	31.8	29	135	222	184	1.30
SSC 16	16	5/8	31.8	17	63	31.8	29	135	222	184	1.30
SSC 19	19	3/4	39.4	20.3	76	36.6	33	162	264	219	2.30
SSC 22	22	7/8	43.2	23.9	89	42.9	38	189	308	257	3.40
SSC 25	25	1	50.5	26.9	102	52.5	44	216	349	292	5.10
SSC 29	29	1 1/8	57	30.2	114	58.5	51	243	387	324	7.20
SSC 32	32	1 1/4	64.5	33.8	127	65	57	270	438	365	10.50
SSC 35	35	1 3/8	71	36.8	133	65	57	297	479	400	14.10
SSC 38	38	1 1/2	78	40.1	140	71.5	63	324	518	432	17.70
SSC 44	44	1 3/4	86	47.2	171	90.5	76	378	610	508	23.60
SSC 51	51	2	100	53.5	197	96.5	83	432	698	584	40.80
SSC 57	57	2 1/4	113	59.9	219	109.5	102	486	756	632	55.40
SSC 63	63	2 1/2	125.2	67.5	219	109.5	102	498	791	667	64.40
SSC 76	76	3	150.6	80.4	235	134.9	137	603	959	816	114.30

Swage sockets are recommended for use on 6x19 or 6x37 IWRC regular lay ropes and also satisfactory on galvanized bridge rope.

They are **not recommended** for use on fiber core ropes.

Before using swage sockets with other type lay, construction or grade of wire rope, it is recommended that the termination be proof-loaded to prove the adequacy of the assembly.

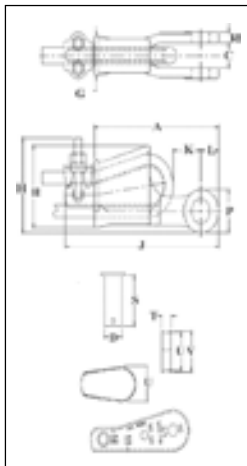
Sockets properly applied have an efficiency rating of 100% based on the catalog strength of the used wire rope. Forged from special steel for cold swaging.

## S-421T wedge sockets

### S-421T



Wedge sockets meet the performance requirements of Federal Specification RR-S-550D, Type C, except those provisions required of the contractor.



- Wedge socket terminations have an efficiency rating of 80% based on the catalog strength of XXIP wire rope.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these sockets meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules. 1-1-17.7, and ABS Guide for Certification of Cranes.
- Basket is cast steel and individually magnetic particle inspected.
- Pin diameter and jaw opening allows wedge and socket to be used in conjunction with closed swage and spelter sockets.
- Secures the tail or "dead end" of the wire rope to the wedge, thus eliminates loss or "Punch out" of the wedge.
- Eliminates the need for an extra piece of rope, and is easily installed.
- The TERMINATOR™ wedge eliminates the potential breaking off of the tail due to fatigue.
- The tail, which is secured by the base of the clip and the wedge, is left undeformed and available for reuse.
- Incorporates Crosby's patented QUIC-CHECK® "Go" and "No-Go" feature cast into the wedge. The proper size rope is determined when the following criteria are met:
  - 1) The wire rope should pass thru the "Go" hole in the wedge.
  - 2) The wire rope should NOT pass thru the "No-Go" hole in the wedge.
- Utilizes standard Crosby Red-U-Bolt® wire rope clip.
- The 9-10mm through 28mm standard S-421 wedge socket can be retrofitted with the new style TERMINATOR™ wedge.
- Available with Bolt, Nut, and Cotter Pin.
- U.S. patent 5,553,360, Canada patent 2,217,004 and foreign equivalents.
- Meets the performance requirements of EN 13411-6: 2003.

### S-421T Wedge Sockets

#### Assembly includes Socket, Wedge, Pin and Wire Rope Clip

Wire Rope Dia.		S-421T Stock No.	Weight Each (kg)	S-421TW Stock No. Wedge Only	Wedge Only Weight Each (kg)	Optional G-4082 Bolt, Nut & Cotter	
(mm)	(in.)					G-4082 Stock No.	Weight Each (kg)
9-10	3/8	1035000	1.44	1035555	.23	1092227	.17
11-13	1/2	1035009	2.79	1035564	.48	1092236	.31
14-16	5/8	1035018	4.40	1035573	.81	1092254	.52
18-19	3/4	1035027	6.58	1035582	1.18	1092281	.86
20-22	7/8	1035036	9.75	1035591	1.82	1092307	1.46
24-26	1	1035045	13.9	1035600	2.44	1092325	2.44
28	1-1/8	1035054	20.5	1035609	3.56	1092343	3.40
30-32	1-1/4	1035063	29.4	1035618	4.80	1092372	4.70

Wire Rope Dia.		S-421T Stock No.	Dimensions (mm)														
(mm)	(in.)		A	B	C	D	G	H	J*	K*	L	P	R	S	T	U	V
9-10	3/8	1035000	145	69.1	20.6	20.6	35.1	77.7	198	47.8	22.4	39.6	11.2	54.1	11.2	31.8	35.1
11-13	1/2	1035009	175	88.1	25.4	25.4	41.1	95.5	226	32.0	26.9	49.3	12.7	65.0	13.5	44.5	47.8
14-16	5/8	1035018	210	109	31.8	30.2	53.8	114	273	50.5	31.0	57.2	14.2	82.6	17.5	51.0	55.5
18-19	3/4	1035027	251	130	38.1	35.1	62.0	134	314	61.2	35.6	66.8	16.8	92.2	19.8	59.5	65.0
20-22	7/8	1035036	286	149	44.5	41.4	68.5	156	365	63.0	42.4	79.5	19.1	109	22.4	68.5	74.5
24-26	1	1035045	325	161	51.0	51.0	74.7	177	414	77.2	51.0	95.5	22.4	119	26.2	73.0	83.5
28	1-1/8	1035054	365	176	57.0	57.0	84.0	194	466	65.0	57.0	108	25.4	138	27.9	82.6	90.5
30-32	1-1/4	1035063	415	222	66.5	63.5	90.5	239	520	74.7	59.5	114	26.9	156	30.2	117	125

\* Nominal **NOTE:** For intermediate wire rope sizes, use next larger size socket.

The S-423T Super TERMINATOR™ wedge is designed to be assembled only into the Crosby S-421T TERMINATOR™ socket body.

**IMPORTANT:** The S-423TW for sizes 14mm through 28mm will fit respective size standard Crosby S-421T basket. The 30-32mm S-423TW will only fit the Crosby S-421T 30-32mm basket marked with "TERMINATOR™"

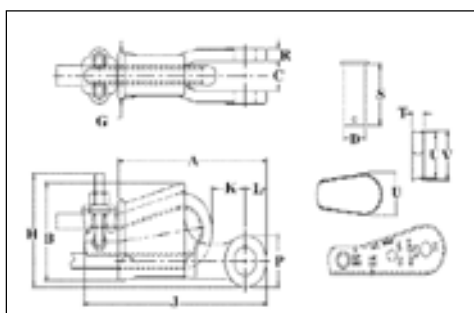
## US-422T utility wedge wockets

### US-422T



Most sizes now incorporate the "TERMINATOR™" design and may vary in shape from above product shown.

- Basket is cast steel and individually magnetic particle inspected.
- Wedge socket terminations have an efficiency rating of 80% based on the catalog strength of XXIP wire rope.
- Wedges are color coded for easy identification.
  - Blue - largest wire line size for socket.
  - Black - mid size wire line for socket.
    - 11mm on US4
    - 14mm on US5
  - Orange - smallest wire line size for socket.
- Cast into each socket is the name "McKissick", "Crosby" or "CG", its model number and its wire line range.
- By simply changing out the wedge, each socket can be utilized for various wire line sizes (Ensure correct wedge is used for wire rope size).
- Cast into each wedge is the model number of the socket and the wire line size for which the wedge is to be used.
- Load pin is forged and headed on one end.
- US-422T wedge sockets contain a hammer pad (lip) to assist in proper securement of termination.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these sockets meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- UWO-422T Wedges are to be used only with the US-422T Wedge Socket Assemblies.



### US-422T Utility Wedge Sockets

Model No.	Wire Rope Size		US-422T Stock No.	Weight Each (kg)	Wedge Only Stock No.	Weight Each (kg)	Dimensions (mm)														
	(mm)	(in.)					A	B	C	D	G	H	J	K	L	P	R	S	T	U	V
US4T	10	3/8	1044300	2.09	1047310	.27	173	90.2	25.4	25.4	41.4	71.4	214	35.1	26.9	49.3	12.7	64.3	11.2	48.5	54.4
US4T	11	7/16	1044309	2.09	1047301	.27	173	90.2	25.4	25.4	41.4	71.4	222	27.4	26.9	49.3	12.7	64.3	13.5	44.7	47.8
US4T	13	1/2	1044318	2.09	1047329	.27	173	90.2	25.4	25.4	41.4	71.4	222	25.9	26.9	49.3	12.7	64.3	13.5	44.7	47.8
US5T	13	1/2	1044327	3.86	1047338	.45	233	107	35.8	31.8	54.1	84.1	284	46.7	38.1	76.2	16.0	82.6	19.1	48.8	54.9
US5T	14	9/16	1044336	3.86	1047347	.45	233	107	35.8	31.8	54.1	84.1	291	61.0	38.1	76.2	16.0	82.6	17.5	50.8	55.4
US5T	16	5/8	1044345	3.86	1047356	.45	233	107	35.8	31.8	54.1	84.1	291	59.4	38.1	76.2	16.0	82.6	17.5	50.8	55.4
US6T	16	5/8	1044354	4.26	1047365	.64	240	119	38.1	31.8	56.9	92.2	303	63.0	38.1	76.2	14.2	82.6	22.4	60.5	69.9
US6T	19	3/4	1044363	4.26	1047374	.64	240	119	38.1	31.8	56.9	92.2	300	51.6	38.1	76.2	14.2	82.6	22.4	54.1	66.8
US8AT	16	5/8	1044372	9.0	1047383	1.9	269	144	46.0	41.4	60.5	140	335	48.5	38.9	73.2	19.1	105	17.5	82.8	88.9
US8AT	19	3/4	1044381	9.3	1047392	2.2	269	144	46.0	41.4	60.5	148	344	60.5	38.9	73.2	19.1	105	19.8	79.2	85.9
US7*	22	7/8	1038580	7.48	1046674	1.18	286	130	33.3	31.8	68.3	—	—	65.0	41.4	82.8	16.8	82.6	26.9	53.8	65.0
US7*	25	1	1038589	7.48	1046683	1.18	286	130	33.3	31.8	68.3	—	—	65.0	41.4	82.8	16.8	82.6	26.9	47.8	60.5
US8T	22	7/8	1044404	14.3	1047425	3.4	324	177	46.0	41.4	77.7	183	407	72.9	41.9	79.2	19.1	105	22.4	98.6	106
US8T	25	1	1044417	14.7	1047431	3.9	324	177	46.0	41.4	77.7	186	417	58.9	41.9	79.2	19.1	105	26.2	95.5	103
US10T	28	1-1/8	1044426	25.1	1047440	5.7	405	219	46.0	41.4	90.7	232	501	82.8	55.6	111	19.1	105	27.7	121	129
US10T	32	1-1/4	1044435	26.3	1047459	6.8	405	219	46.0	41.4	90.7	239	514	71.9	55.6	111	19.1	105	30.2	117	125
US11T	28	1-1/8	1044444	27.5	1047468	5.7	415	222	66.5	63.5	90.4	232	507	85.6	59.4	114	26.9	156	27.7	121	129
US11T	32	1-1/4	1044453	29.4	1047477	6.8	415	222	66.5	63.5	90.4	239	520	74.7	59.4	114	26.9	156	30.2	117	125

\* Non-"TERMINATOR™" Style





# S-423T Super Terminator™

## S-423T



Wedge sockets meet the performance requirements of Federal Specification RR-S-550D, Type C, except those provisions required of the contractor. Meets the performance requirements of EN13411-6:2003.

- Wedge socket terminations have a minimum efficiency rating on most high performance, high strength, compacted strand, rotation resistant wire ropes of 80% based on the catalog breaking strength of the various ropes.\*\*
- Patent Pending design eliminates the difficulty of installing high performance wire rope into a wedge socket termination.
- Proper application of the Super TERMINATOR™ eliminates the “first load” requirement of conventional wedge socket terminations.
- S-423TW Wedge Kit can be retrofitted onto existing Crosby S-421T TERMINATOR™ wedge sockets.
- Wedge and accessories provided with a zinc finish.
- Meets the performance requirements of EN13411-6:2003.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these sockets meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Basket is cast steel and individually magnetic particle inspected.
- Pin diameter and jaw opening allows wedge and socket to be used in conjunction with closed swage and spelter sockets.
- Secures the tail or “dead end” of the wire rope to the wedge, thus eliminates loss or “punch out” of the wedge.
- Eliminates the need for an extra piece of rope, and is easily installed.
- The TERMINATOR™ wedge eliminates the potential breaking off of the tail due to fatigue.
- The tail, which is secured by the base of the clip and the tension device, is left undeformed and available for reuse.
- Available with Bolt, Nut, and Cotter Pin.

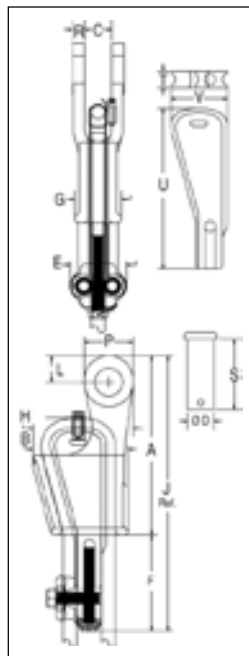
**\*\* NOTICE:** Due to the unique construction of various ropes, Crosby cannot make a broad general statement that all current and future design of ropes, when properly assembled with the Super TERMINATOR™, will achieve a minimum 80% termination efficiency. Contact wire rope manufacturer or Crosby engineering (918-834-4611) to determine efficiency rating for a specific rope.

## S-423T Wedge Sockets

Assembly includes Socket, Wedge, Pin, Wire Rope Clip, Tensioner, Bolts and Secondary Retention Wire.

Wire Rope Dia.		S-423T Assembly with Round Pin and Cotter Pin			S-423TB Assembly with Bolt, Nut and Cotter Pin			S-423TW** Wedge Kit		
(in.)	(mm)	S-423T Stock No.	S-423T Weight Each		S-423TB Stock No.	S-423TB Weight Each		S-423TW Stock No.	S423TW Weight Each	
			(lbs.)	(kg)		(lbs.)	(kg)		(lbs.)	(kg)
5/8	14- 16	1035123	12.7	5.8	1035218	13.1	5.9	1034018	5.2	2.4
3/4	18-19	1035132	19.4	8.8	1035227	19.1	8.7	1034027	7.2	3.3
7/8	20-22	1035141	28.8	13.1	1035236	27.8	12.6	1034036	10.3	4.7
1	24-26	1035150	39.2	17.8	1035245	37.3	16.9	1034045	11.9	5.4
1-1/8	28	1035169	57.1	25.9	1035254	57.9	25.9	1034054	19.9	9.0
1-1/4	30-32	1035178	88.6	40.2	1035272	88.1	39.9	1034063	33.8	15.3

\*\* Kit contains Wedge, Wire Rope Clip and Bolts, Tensioner, Tensioner Bolt and Secondary Retention Wire.



Wire Rope Dia.		S-423T Stock No.	Dimensions (mm)															
(mm)	(in.)		A	B	C	D	G	F	G	H	J*	L	P	R	S	T	U	V
14-16	5/8	1035123	210	114	31.8	30.2	76.2	103	54.1	117	313	31.0	57.2	14.2	82.6	19.1	175	66.0
18-19	3/4	1035132	251	132	38.1	35.1	82.6	122	62.0	136	373	35.6	66.5	16.8	92.2	22.4	194	76.7
20-22	7/8	1035141	286	149	44.5	41.4	96.8	146	68.3	156	431	42.4	79.5	19.1	109	25.4	241	88.1
24-26	1	1035150	325	167	50.8	50.8	96.8	146	74.7	179	471	51.1	95.3	22.4	119	28.7	264	97.0
28	1-1/8	1035169	365	176	57.2	57.2	102	174	85.9	198	539	57.4	108	25.4	138	31.8	300	107
30-32	1-1/4	1035178	415	219	66.5	63.5	114	197	90.7	238	612	59.4	114	26.9	168	35.1	352	148

\* Nominal

NOTE: For intermediate wire rope sizes, use next larger size socket.

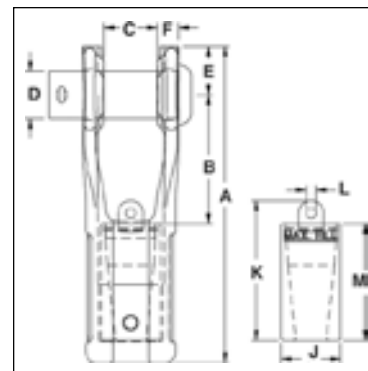
The S-423T Super TERMINATOR™ wedge is designed to be assembled only into the Crosby S-421T TERMINATOR™ socket body. IMPORTANT: The S-423TW for sizes 14mm through 28mm will fit respective size standard Crosby S-421T basket. The 30-32mm S-423TW will only fit the Crosby S-421T 30-32mm basket marked with “TERMINATOR™”.

## Button spelter sockets

### SB-427



- Available in six sizes from 13mm - 38mm.
- Button Spelter terminations have a 100% efficiency rating, based on the catalog strength of the wire rope.
- Designed for use with mobile cranes. Can be used to terminate high performance, rotation resistant ropes, and standard 6 strand ropes.
- Easy to install assembly utilizes Crosby® WIRELOCK® socketing compound.
- Sockets and buttons are re-usable.
- Replacement buttons and sockets are available.
- Locking feature available to prevent rotation of rope.
- Button contains cap with eye that can be attached to, and used to pull, rope during reeving process.



### SB-427 Button Spelter Sockets

Wire Rope Size		SB-427 Stock No.	Ultimate Load (t)	Weight Each (kg)	Socket Only Stock No.	Button Only Stock No.	Dimensions (mm)									
(mm)	(in.)						A	B	C	D	E	F	J	K	L	M
13-16	1/2 - 5/8	1052005	27	2.76	1052107	1052309	202	82	33	30	31	14	38	89	6	74
16-19	5/8 - 3/4	1052014	45	4.67	1052116	1052318	240	99	39	35	37	17	44	109	10	87
19-22	3/4 - 7/8	1052023	57	7.75	1052125	1052327	275	112	45	41	43	19	52	121	10	101
22-26	7/8 - 1	1052032	82	13.24	1052134	1052336	327	139	52	51	51	23	62	143	16	115
28-32	1-1/8 - 1-1/4	1052041	136	20.86	1052143	1052345	378	144	64	57	64	28	75	180	19	145
35-38	1-3/8 - 1-1/2	1052050	161	35.38	1052152	1052354	459	182	77	70	70	31	92	205	19	172

### SB-427TB (Bolt, Nut and Cotter Pin)

Wire Rope Size		SB-427 Stock No.	Ultimate Load (t)	Weight Each (kg)	Socket Only Stock No.	Button Only Stock No.	Dimensions (mm)									
(mm)	(in.)						A	B	C	D	E	F	J	K	L	M
13-16	1/2 - 5/8	1052406	27	2.76	1052107	1052309	202	82	33	30	31	14	38	89	6	74
16-19	5/8 - 3/4	1052415	45	4.67	1052116	1052318	240	99	39	35	37	17	44	109	10	87
19-22	3/4 - 7/8	1052424	57	7.75	1052125	1052327	275	112	45	41	43	19	52	121	10	101
22-26	7/8 - 1	1052433	82	13.24	1052134	1052336	327	139	52	51	51	23	62	143	16	115
28-32	1-1/8 - 1-1/4	1052442	136	20.86	1052143	1052345	378	144	64	57	64	28	75	180	19	145
35-38	1-3/8 - 1-1/2	1052451	161	35.38	1052152	1052354	459	182	77	70	70	31	92	205	19	172

### Wirelock Requirements

Wire Rope Size		WIRELOCK Required (cc)	WIRELOCK Stock No.	WIRELOCK Kit Size (cc)
(mm)	(in.)			
13-16	1/2 - 5/8	35	1039602	100
16-19	5/8 - 3/4	60	1039602	100
19-22	3/4 - 7/8	100	1039602	100
22-26	7/8 - 1	140	1039602*	100
28-32	1-1/8 - 1-1/4	250	1039604	250
35-38	1-3/8 - 1-1/2	420	1039606	500

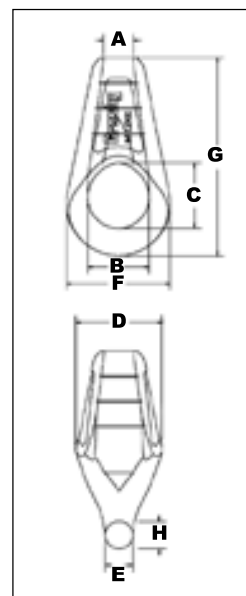
\* 2 kits required.

## Mooring sockets

### G-517



- Wide range of sizes available:
  - 32mm through 102mm Wire Line
- "M-Line" socket terminations have a 100% efficiency rating, based on the catalog strength of the wire rope. Ratings are based on recommended use with 6 x 7, 6 x 19, or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC, or IWRC wire rope. Strand constructed with minimal number of wires (e.g. 1 x 7) requires special consideration that socket basket be five (5) times the strand diameter or fifty (50) times the wire diameter, whichever is the greater.
- Galvanized finish.
- Designed for today's higher strength classes of wire rope.
- Design of bail allows for easy connection to shackles and other connecting links.
- Socket design utilizes features to keep cone from rotating.



NOTICE: All Cast Mooring Sockets are Individually Magnetic Particle Inspected and Ultrasonic Inspected.

### G-517 "M-Line" Mooring Sockets

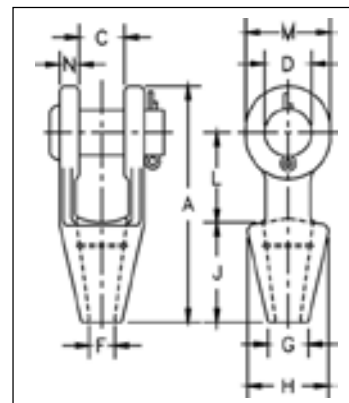
Wire Rope Size		Ultimate Load (t)	G-517 Stock No.	Weight Each (kg)	Dimensions (mm)							
(mm)	(in.)				A	B	C	D	E	F	G	H
32-35	1-1/4 - 1-3/8	113	1004943	7.7	41.4	78.5	92.2	113	36.6	130	277	38.9
38-41	1-1/2 - 1-5/8	136	1004961	13.6	49.5	93.7	110	138	40.6	160	330	46.0
44-48	1-3/4 - 1-7/8	181	1004989	19.5	56.6	106	115	160	46.7	183	358	53.1
50-54	2 - 2-1/8	227	1005002	25.9	63.5	121	134	178	53.1	210	407	56.9
57-60	2-1/4 - 2-3/8	277	1005020	34.5	70.6	133	146	196	58.7	233	455	66.6
64-67	2-1/2 - 2-5/8	363	1005048	48.1	77.5	149	170	217	68.3	257	505	67.6
70-73	2-3/4 - 2-7/8	454	1005066	62.6	84.6	165	181	237	76.2	282	549	63.0
76-79	3 - 3-1/8	544	1005084	87.5	89.9	184	197	262	82.6	313	597	82.3
82-86	3-1/4 - 3-3/8	635	1005105	104	96.8	194	224	278	88.9	334	654	87.1
88-92	3-1/2 - 3-5/8	735	1005123	127	105	203	230	298	93.7	355	703	105
95-102	3-3/4 - 4	907	1005141	174	112	222	267	328	93.7	403	765	113

## Open spelter sockets

### G-416 / S-416



- Forged Steel Sockets through 38mm, cast alloy steel 40mm through 102mm.
- Spelter socket terminations have an efficiency rating of 100%, based on the catalog strength of wire rope. Ratings are based on recommended use with 6 x 7, 6 x 19, or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC, or IWRC wire rope. Strand constructed with minimal number of wires (e.g. 1 x 7) requires special consideration that socket basket be five (5) times the strand diameter or fifty (50) times the wire diameter, whichever is the greater.



Open Grooved Sockets meet the performance requirements of Federal Specification RR-S-550D, Type A, except for those provisions required of the contractor.

NOTICE: All cast steel sockets 40mm and larger are magnetic particle inspected and ultrasonic inspected. Proof testing available on special order.

Drawing illustrates one groove used on sockets 6mm through 18mm. Sizes 20mm through 38mm use 2 grooves. Sizes 40mm and larger use 3 grooves.

### G-416 / S-416 Open Spelter Sockets

Rope Dia.		Structural Strand Dia. (mm)	Ultimate Load (t)	Stock No.		Weight Each (kg)	Dimensions (mm)									
(mm)	(in.)			G-416 Galv.	S-416 S.C.		A	C	D	F	G	H	J	L	M	N
6-7	1/4	-	4.50	1039619	1039628	.50	116	19.1	17.5	9.65	17.5	39.6	57.0	39.6	33.3	9.1
8-10	5/16-3/8	-	12.0	1039637	1039646	.59	123	20.6	20.6	12.7	20.6	42.9	57.0	44.5	38.1	11.2
11-13	7/16-1/2	-	20.0	1039655	1039664	1.02	141	25.4	25.4	14.2	23.9	47.8	63.5	51.0	47.8	12.7
14-16	9/16-5/8	12-13	27.0	1039673	1039682	1.63	171	31.8	30.2	17.5	28.7	57.0	76.0	63.5	57.0	14.2
18	3/4	14-16	43.0	1039691	1039708	2.64	202	38.1	35.1	20.6	31.8	66.5	89.0	76.0	66.5	15.7
20-22	7/8	18-19	55.0	1039717	1039726	4.38	235	44.5	41.4	23.9	38.1	82.5	102	89.0	79.5	20.3
24-26	1	20-22	78.0	1039735	1039744	7.03	268	51.0	51.0	28.7	44.5	95.5	114	102	95.5	22.4
28-30	1-1/8	24-26	92.0	1039753	1039762	9.75	300	57.0	57.0	31.8	51.0	105	127	117	105	25.4
32-35	1-1/4 - 1-3/8	28	136	1039771	1039780	14.1	335	63.5	63.5	38.1	57.0	121	140	127	121	28.7
38	1-1/2	30-32	170	1039799	1039806	21.4	384	76.0	70.0	41.4	70.0	133	152	152	137	30.2
* 40-42	* 1-5/8	33-35	188	1039815	1039824	24.9	413	76.0	76.0	44.5	76.0	140	165	165	146	33.3
* 44-48	* 1-3/4 - 1-7/8	36-40	268	1039833	1039842	37.2	464	89.0	89.0	51.0	79.5	162	191	178	165	39.6
* 50-54	* 2 - 2-1/8	42-45	291	1039851	1039860	59	546	102	95.5	57.0	95.5	187	216	229	178	46.0
* 56-60	* 2-1/4 - 2-3/8	46-48	360	1039879	1039888	76	597	114	108	63.5	102	210	229	254	197	54.0
* 64-67	* 2-1/2 - 2-5/8	50-54	424	1041633	1041642	114	648	127	121	73.0	114	235	248	274	216	60.5
* 70-73	* 2-3/4 - 2-7/8	56-62	511	1041651	1041660	143	692	133	127	79.0	124	267	279	279	229	73.0
* 75-80	* 3 - 3-1/8	64-67	563	1041679	1041688	172	737	146	133	86.0	133	282	305	287	241	76.0
* 82-86	* 3-1/4 - 3-3/8	70-73	722	1041697	1041704	197	784	159	140	92.0	146	302	330	300	254	79.0
* 88-92	* 3-1/2 - 3-5/8	76-80	779	1041713	1041722	255	845	171	152	98.5	165	314	356	318	274	82.5
* 94-102	* 3-3/4 - 4	-	875	1041731	1041740	355	921	191	178	108	184	346	381	343	318	89.0

\* Cast Alloy Steel.

NOTE: Available with bolt nut and cotter.

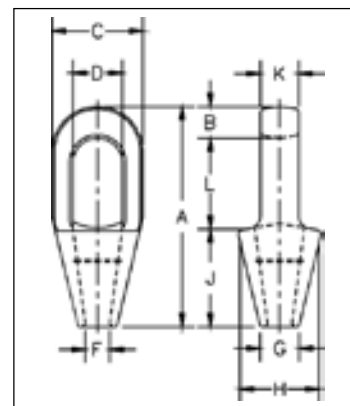


## Closed spelter sockets

### G-417 / S-417



- Forged Steel Sockets through 38mm, cast alloy steel 40mm through 100mm.
- Spelter socket terminations have an efficiency rating of 100%, based on the catalog strength of wire rope. Ratings are based on the recommended use with 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC wire rope. Strand constructed with minimal number of wires (e.g. 1 x 7) requires special consideration that socket basket be five (5) times the strand diameter or fifty (50) times the wire diameter, whichever is the greater.



Closed grooved Sockets meet the performance requirements of Federal Specification RR-S-550D, Type B, except for those provisions required of the contractor.

NOTICE: All cast steel sockets 40mm and larger are magnetic particle inspected and ultrasonic inspected. Proof testing available on special order.

Drawing illustrates one groove used on sockets 6mm through 18mm. Sizes 20mm through 38mm use 2 grooves. Sizes 40mm and larger use 3 grooves.

### G-417 / S-417 Closed Spelter Sockets

Rope Dia.		Structural Strand Dia. (mm)	Ultimate Load (t)	Stock No.		Weight Each (kg)	Dimensions (mm)									
(mm)	(in.)			G-417 Galv.	S-417 S.C.		A	B	C	D*	F	G	H	J	K	L
6-7	1/4	-	4.50	1039897	1039904	.23	116	12.7	39.6	22.4	9.65	17.5	39.6	57.2	12.7	46.0
8-10	5/16 - 3/8	-	12.0	1039913	1039922	.34	125	15.8	42.9	24.6	12.7	20.6	42.9	57.2	17.5	52.3
11-13	7/16 - 1/2	-	20.0	1039931	1039940	.68	140	17.5	51.0	29.5	14.2	23.9	51.0	63.5	22.4	58.7
14-16	9/16 - 5/8	12-13	30.8	1039959	1039968	1.13	162	20.6	67.0	35.8	17.5	30.2	67.0	76.2	25.4	65.0
18	3/4	14-16	43.5	1039977	1039986	1.92	194	26.9	76.2	42.2	22.4	33.3	70.0	89.0	31.8	77.7
20-22	7/8	18-19	65.3	1039995	1040000	3.28	226	33.3	92.0	49.3	25.4	38.1	82.5	102	38.1	90.5
24-26	1	20-22	81.6	1040019	1040028	4.76	254	36.6	105	58.5	28.7	44.5	95.5	114	44.5	103
28-30	1-1/8	24-26	100	1040037	1040046	6.46	283	39.6	114	65.0	31.8	51.0	105	127	51.0	116
32-35	1-1/4 - 1-3/8	28	136	1040055	1040064	8.95	309	41.4	127	71.0	38.1	58.5	119	138	56.5	129
38	1-1/2	30-32	170	1040073	1040082	13.24	355	49.3	137	81.0	41.4	70.5	132	151	62.5	155
† 40-42	† 1-5/8	33-35	188	1040091	1040108	16.32	390	54.0	146	82.5	44.5	76.2	140	165	70.0	171
† 44-48	† 1-3/4 - 1-7/8	36-40	268	1040117	1040126	25.96	445	55.5	171	95.5	51.0	79.5	162	191	76.2	198
† 50-54	† 2 - 2-1/8	42-45	309	1040135	1040144	35.83	505	62.0	194	111	57.2	95.5	187	216	82.5	224
† 56-60	† 2-1/4 - 2-3/8	46-48	360	1040153	1040162	47.62	546	70.0	216	127	66.8	105	210	229	92.0	248
† 64-67	† 2-1/2 - 2-5/8	50-54	424	1041759	1041768	63.50	597	79.5	241	140	74.5	114	235	248	102	270
† 70-73	† 2-3/4 - 2-7/8	56-62	549	1041777	1041786	99.79	645	79.5	273	159	79.5	124	259	279	124	286
† 75-80	† 3 - 3-1/8	64-67	656	1041795	1041802	125	689	85.6	292	171	86.0	133	292	305	133	298
† 82-86	† 3-1/4 - 3-3/8	70-73	750	1041811	1041820	142	743	102	311	184	92.0	146	311	330	146	311
† 88-92	† 3-1/2 - 3-5/8	76-80	820	1041839	1041848	181	787	102	330	197	98.5	160	330	356	159	330
† 94 - 102	† 3-3/4 - 4	-	1005	1041857	1041866	246	845	108	362	216	108	184	362	381	178	356

\* Diameter of pin must not exceed pin used on companion 416 socket. Reference adjacent page "D" dimension.

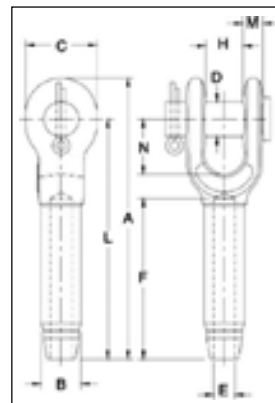
† Cast Alloy Steel.

## Open swage sockets

S-501



- Forged from special bar quality carbon steel, suitable for cold forming.
- Swage Socket terminations have an efficiency rating of 100% based on the catalog strength of wire rope.
- Hardness controlled by spheroidize annealing.
- Stamp for identification after swaging without concern for fractures (as per directions in National Swaging Brochure).
- Swage sockets incorporate a reduced machined area of the shank which is equivalent to the proper "After Swage" dimension. Before swaging, this provides for an obvious visual difference in the shank diameter. After swaging, a uniform shank diameter is created allowing for a QUIC-CHECK® and permanent visual inspection opportunity.
- Designed to quickly determine whether the socket has been through the swaging operation and assist in field inspections, it does not eliminate the need to perform standard production inspections which include gauging for the proper "After Swage" dimensions or proof loading.
- U.S. Patent 5,152,630 and foreign equivalents.



NOTE: S-501 Swage Sockets are recommended for use with 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC wire rope.

Before using any National Swage fitting with any other type lay, construction or grade of wire rope, it is recommended that the termination be destructive tested and documented to prove the adequacy of the assembly to be manufactured.

In accordance with ASME B30.9, all slings terminated with swage sockets shall be proof loaded.\*

### S-501 Open Swage Sockets

S-501 and S-501B Open Socket Specifications														Press / Die Data						
S-501 Stock No.	S-501B Stock No. **	Rope Size*		Wt. Each (kg)	Before Swage Dimensions (mm)										Max. After Swage Dim. (mm)	Die Description	Stock No.		Side Load	
		(mm)	(in.)		A	B	C	D	E	F	H	L	M	N			500 1000 1500 Ton 5 x 7	1500 3000 Ton 6 x 12	1500 Ton 6 x 12	3000 Ton 6 x 12
1039021	1054001	6	1/4	0.24	122	12.7	35.1	17.5	6.85	54.0	17.5	102	9.65	38.1	11.7	1/4 Socket	1192845	-	-	-
1039049	1054010	8	5/16	0.51	159	19.6	41.1	20.6	8.65	81.0	20.6	135	11.9	44.5	18.0	5/16-3/8 Socket	1192863	-	-	-
1039067	1054029	9-10	3/8	0.59	159	19.6	41.1	20.6	10.4	81.0	20.6	135	11.9	44.5	18.0	5/16-3/8 Socket	1192863	-	-	-
1039085	1054038	11-12	7/16	0.94	198	24.9	51.0	25.4	12.2	108	25.4	170	14.2	51.0	23.1	7/16-1/2 Socket	1192881	-	-	-
1039101	1054047	13	1/2	0.94	198	24.9	51.0	25.4	14.0	108	25.4	170	14.2	51.0	23.1	7/16-1/2 Socket	1192881	-	-	-
1039129	1054056	14	9/16	2.12	241	31.8	60.5	30.2	15.5	135	31.8	207	17.3	57.0	29.5	9/16-5/8 Socket	1192907	-	-	-
1039147	1054065	16	5/8	2.05	241	31.8	60.5	30.2	17.0	135	31.8	207	17.3	57.0	29.5	9/16-5/8 Socket	1192907	-	-	-
1039165	1054074	18-20	3/4	3.62	294	39.4	70.0	35.1	20.3	162	38.1	254	19.8	70.0	36.1	3/4 Socket	1192925	-	-	-
1039183	1054083	22	7/8	5.23	341	43.2	79.5	41.1	23.9	189	44.5	295	23.9	82.5	39.4	7/8 Socket	1192943	-	-	-
1039209	1054092	24-26	1	8.07	393	50.5	93.5	51.0	26.9	216	51.0	340	26.9	95.5	45.7	1 Socket	1192961	-	-	-
1039227	1054104	28	1-1/8	11.5	440	57.0	103	57.0	30.2	243	57.0	381	30.2	108	52.0	1-1/8 Socket	1192989	-	-	-
1039245	1054113	32	1-1/4	16.1	484	64.5	114	63.5	33.8	270	63.5	419	31.0	121	58.5	1-1/4 Socket	1193005	-	-	-
1039263	1054122	34-36	1-3/8	19.8	532	71.0	127	63.5	36.8	297	63.5	461	35.1	133	65.0	1-3/8 Socket	1193023	-	-	-
1039281	1054131	38-40	1-1/2	26.5	589	78.0	140	70.0	40.1	325	76.0	502	42.9	145	71.5	1-1/2 Socket	1193041	1191267	1195355	1195192
1039307	1054140	44	1-3/4	40.3	676	86.0	170	89.0	47.2	378	89.0	584	53.5	171	77.5	1-3/4 Socket	1193069	1191276	1195367	1195209
1042767	1054159	48-52	2	66	799	100	203	95.5	53.5	432	102	683	60.0	203	90.5	2 Socket	1193087	1191294	1195379	1195218

\* Maximum Proof Load shall not exceed 50% of XXIP rope catalog breaking strength.

\*\* Assembly with bolt, nut and cotter pin.

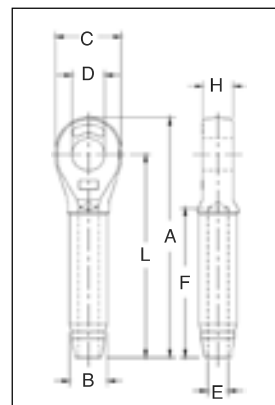


## Closed swage sockets

S-502



- Forged from special bar quality carbon steel, suitable for cold forming.
- Swage Socket terminations have an efficiency rating of 100% based on the catalog strength of wire rope.
- Hardness controlled by spheroidize annealing.
- Stamp for identification after swaging without concern for fractures (as per directions in National Swaging Brochure).
- Swage sockets incorporate a reduced machined area of the shank which is equivalent to the proper "After Swage" dimension. Before swaging, this provides for an obvious visual difference in the shank diameter. After swaging, a uniform shank diameter is created allowing for a **QUIC-CHECK®** and permanent visual inspection opportunity.
- Designed to quickly determine whether the socket has been through the swaging operation and assist in field inspections, it does not eliminate the need to perform standard production inspections which include gauging for the proper "After Swage" dimensions or proof loading.
- U.S. Patent 5,152,630 and foreign equivalents.



NOTE: S-502 Swage Sockets are recommended for use with 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC wire rope.

Before using any National Swage fitting with any other type lay, construction or grade of wire rope, it is recommended that the termination be destructive tested and documented to prove the adequacy of the assembly to be manufactured.

In accordance with ASME B30.9, all slings terminated with swage sockets shall be proof loaded.\*

### S-502 Closed Swage Sockets

S-502 Closed Socket Specifications												Press / Die Data					
S-502 Stock No.	Rope Size*		Wt. Each (kg)	Before Swage Dimensions (mm)								Max. After Swage Dim. (mm)	Die Description	Stock No.		Side Load	
	(mm)	(in.)		A	B	C	D	E	F	H	L			500 1000 1500 Ton 5 x 7	1500 3000 Ton 6 x 12	1500 Ton 6 x 12	3000 Ton 6 x 12
	1039325	6		1/4	.15	109	12.7	35.1	19.1	6.85	54.0			12.7	89.0	11.7	1/4 Socket
1039343	8	5/16	.34	138	19.6	41.1	22.4	8.65	81.0	17.0	114	18.0	5/16-3/8 Socket	1192863	-	-	-
1039361	9-10	3/8	.33	138	19.6	41.1	22.4	10.4	81.0	17.0	114	18.0	5/16-3/8 Socket	1192863	-	-	-
1039389	11-12	7/16	.64	176	24.9	51.0	26.9	12.2	108	21.8	146	23.1	7/16-1/2 Socket	1192881	-	-	-
1039405	13	1/2	.64	176	24.9	51.0	26.9	14.0	108	21.8	146	23.1	7/16-1/2 Socket	1192881	-	-	-
1039423	14	9/16	1.32	220	31.8	60.5	31.8	15.5	135	28.7	184	29.5	9/16-5/8 Socket	1192907	-	-	-
1039441	16	5/8	1.29	220	31.8	60.5	31.8	17.0	135	28.7	184	29.5	9/16-5/8 Socket	1192907	-	-	-
1039469	18-20	3/4	2.27	261	39.4	73.0	36.6	20.3	162	33.3	219	36.1	3/4 Socket	1192925	-	-	-
1039487	22	7/8	3.08	303	43.2	79.0	42.9	23.9	189	38.1	257	39.4	7/8 Socket	1192943	-	-	-
1039502	24-26	1	4.72	344	50.5	92.0	52.5	26.9	216	44.5	292	45.7	1 Socket	1192961	-	-	-
1039520	28	1-1/8	6.72	382	57.0	102	58.5	30.2	243	51.0	324	52.0	1-1/8 Socket	1192989	-	-	-
1039548	32	1-1/4	9.78	430	64.5	114	65.0	33.8	270	57.0	365	58.5	1-1/4 Socket	1193005	-	-	-
1039566	34-36	1-3/8	12.9	473	71.0	127	65.0	36.8	297	57.0	400	65.0	1-3/8 Socket	1193023	-	-	-
1039584	38-40	1-1/2	17.3	511	78.0	137	71.5	40.1	325	65.0	432	71.5	1-1/2 Socket	1193041	1191267	1195355	1195192
1039600	44	1-3/4	23.1	598	86.0	159	90.5	47.2	378	76.0	508	77.5	1-3/4 Socket	1193069	1191276	1195367	1195209
1042589	48-52	2	40.5	702	100	184	96.5	53.5	432	82.5	584	90.5	2 Socket	1193087	1191294	1195379	1195218

\* Maximum Proof Load shall not exceed 50% of XXIP rope catalog breaking strength.

## Socketing compound

Wirelock is a unique socketing compound for use with wire ropes. It is quite simply the best socketing solution for safety, dependability and unparalleled fatigue performance. Wirelock started life in 1962 and has been in general use for almost 50 years. Wirelock is part of the Millfield Group.

Wirelock is the original cold socketing compound and, therefore, eliminates the hazards of working with a molten metal, allowing socketing to be done on site in virtually all weather conditions. It is extremely difficult to produce a void free socket when using molten metal, but extremely easy to produce a void free socket using Wirelock. This ensures a quality socket every time.

Wirelock is the preferred socketing medium for offshore mooring systems worldwide. Moreover, it is the only socketing system that meets the requirements of DNV's Certification Notes no. 2.5 "Certification of Mooring Steel Wire Ropes" May 1995. It has both Lloyd's approval and ABS type approval.

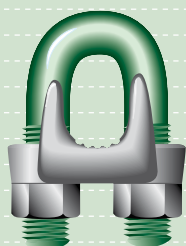
### Kit sizes:

- 100 cc
- 250 cc
- 500 cc
- 1,000 cc
- 2,000 cc
- 3,000 cc

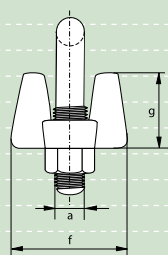
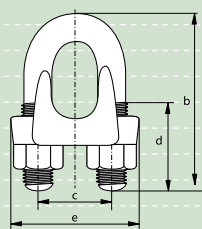
Other sizes available to order.

Guide to amount WIRELOCK® required					
Wire Rope Size		WIRELOCK® required (cc)	Wire Rope Size		WIRELOCK® required (cc)
(mm)	(in.)		(mm)	(in.)	
6-7	1/4	9	44	1-3/4	700
8	5/16	17	48	1-7/8	700
9-10	3/8	17	51	2	1,265
11	7/16	35	54	2-1/8	1,265
13	1/2	35	56	2-1/4	1,410
14	9/16	52	60	2-3/8	1,410
16	5/8	52	64	2-1/2	1,830
20	3/4	86	67	2-5/8	1,830
22	7/8	125	70	2-3/4	2,250
26	1	160	76	3	3,160
28	1-1/8	210	82	3-1/4	3,795
32	1-1/4	350	88	3-1/2	4,920
36	1-3/8	350	94	3-3/4	5,980
40	1-1/2	420	102	4	7,730
42	1-5/8	495	-	-	-





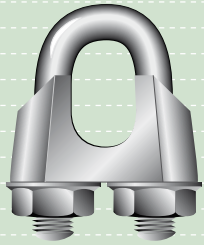
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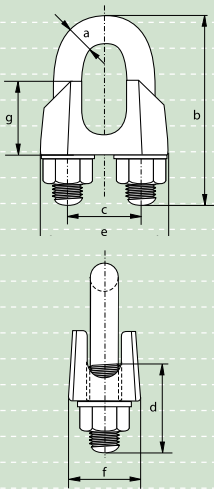
## Green Pin® wire rope clips generally to EN 13411-5 Type B

- **Material** : Bridge : drop forged high tensile steel SAE 1045  
U-bolt : SAE 1015
- **Standard** : EN 13411-5 Type B  
Formerly U.S. Federal Specification FF-C-450D
- **Finish** : hot dipped galvanized  
nuts for diameter bow 5 and 6 mm are electro-galvanized
- **Certification** : a works certificate can be supplied upon request

diameter wire rope		diameter	length bow	width inside	length thread	length base	thickness base	height base	weight per 100 pcs
inch	mm	a	b	c	d	e	f	g	kg
1/8	4	5	24	12	11	24	21	10	2
3/16	5	6	31	15	13	29	24	13	4
1/4	7	8	34	19	13	37	30	18	8
5/16	8	10	45	22	19	43	33	19	14
3/8	10	11	49	26	19	49	42	25	19
7/16	11	12	60	30	25	58	46	26	31
1/2	13	13	61	30	25	58	48	31	34
9/16	15	14	72	33	32	63	52	31	36
5/8	16	14	74	33	32	64	54	36	45
3/4	20	16	86	38	37	72	57	38	68
7/8	22	19	98	45	41	80	62	40	108
1	26	19	108	48	46	88	67	47	113
1 1/8	30	19	117	51	51	91	73	48	140
1 1/4	34	22	130	59	54	105	79	56	207
1 3/8	36	22	140	60	59	108	79	58	234
1 1/2	40	22	147	66	60	112	85	64	266
1 5/8	42	25	161	70	67	121	92	67	329
1 3/4	46	29	174	78	70	134	97	76	441
2	52	32	195	86	78	150	113	85	603
2 1/4	58	32	213	98	81	162	116	100	707
2 1/2	65	32	227	105	87	168	119	113	806
2 3/4	72	32	243	112	91	174	127	124	1000
3	78	38	271	121	98	194	135	136	1440



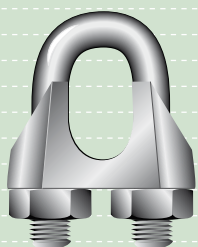
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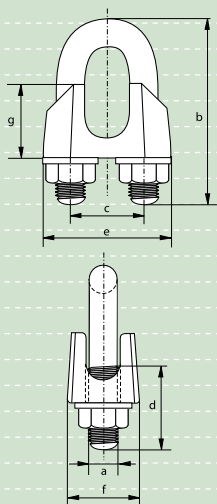
## Wire rope clips generally to EN 13411-5 Type A

- **Material** : Bridge : malleable steel  
U-bolt : mild steel
- **Standard** : EN 13411-5 Type A  
Formerly DIN 1142
- **Finish** : electro-galvanized
- **Certification** : a works certificate can be supplied upon request

diameter wire rope	diameter a	length bow b	width inside c	length thread d	length base e	thickness base f	height base g	weight per 100 pcs kg
5	5	25	12	14	25	13	13	2
6.5	6	32	14	17	30	16	14	4
8	8	41	18	20	39	20	18	8.2
10	8	46	20	24	40	20	21	9.2
12	10	56	24	28	50	25	24	21.5
13	12	64	29	29	55	28	29	27.5
14	12	66	28	31	59	30	28	39.5
16	14	76	34	35	64	32	35	43
19	14	83	37	36	68	33	40	49
22	16	96	41	40	74	34	44	68
26	20	111	46	50	84	38	51	117
30	20	127	54	55	95	41	59	140
34	22	141	60	60	105	45	67	213
40	24	159	68	65	117	49	77	268



E-6220



## Wire rope clips generally to DIN 741

- **Material** : Bridge : casted  
U-bolt : mild steel
- **Standard** : formerly DIN 741
- **Finish** : electro-galvanized
- **Certification** : a works certificate can be supplied upon request

diameter wire rope	diameter a	length bow b	width inside c	length thread d	length base e	thickness base f	height base g	weight per 100 pcs kg
3	4	20	9	12	21	10	10	1.4
5	5	24	11	13	23	11	10	1.5
6	5	28	13	15	26	12	11	2.1
8	6	34	16	19	30	14	15	4.1
10	8	42	19	22	34	18	17	6.8
11	8	44	20	22	36	19	18	7.2
13	10	55	24	30	42	23	21	13
14	10	57	25	30	44	23	22	13.5
16	12	63	29	33	50	26	26	21
19	12	75	32	38	54	29	30	28
22	14	85	37	44	61	33	34	40
26	14	95	41	45	65	35	37	44
30	16	110	48	50	74	37	43	66
34	16	120	52	55	80	42	50	75
40	16	140	58	60	88	45	55	104
45	18	163	65	75	97	49	60	134
50	20	170	72	77	106	51	65	175

## Forged wire rope clips

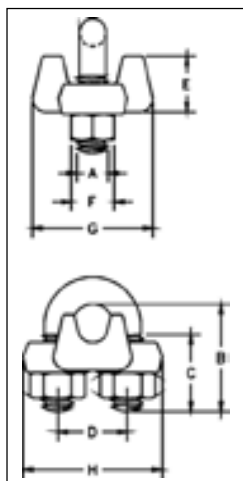
### G-450



- Each base has a Product Identification Code (PIC) for material traceability, the name CROSBY or CG, and a size forged into it.
- Based on the catalog breaking strength of wire rope, Crosby wire rope clips have an efficiency rating of 80% for 3-4mm to 22mm sizes, and 90% for sizes 24-26mm through 90mm.
- Entire Clip-Galvanized to resist corrosive and rusting action.
- Sizes 1/8" through 2-1/2" and 3" (3mm through 65mm and 75-78mm) have forged bases.
- All Clips are individually bagged or tagged with proper application instructions and warning information.
- Clip sizes up through 1-1/2" (38mm) have rolled threads.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these wire rope clips meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Look for the Red-U-Bolt®, your assurance of Genuine Crosby Clips.

Crosby Clips, all sizes except 68-72mm and 85-90mm meet the performance requirements of EN13411:2003. Crosby Clips, all sizes 6 mm and larger, meet the performance requirements of Federal Specification FF-C-450 TYPE 1 CLASS 1, except for those provisions required of the contractor.

### G-450 Crosby® Clips



Rope Size		G-450 Stock No.	Std. Package Qty.	Weight Per 100 (kg)	Dimensions (mm)							
(mm)	(in.)				A	B	C	D	E	F	G	H
3-4*	1/8*	1010015	100	2.72	5.60	18.3	11.2	11.9	10.4	9.65	20.6	23.9
5*	3/16*	1010033	100	4.54	6.35	24.6	14.2	15.0	12.7	11.2	23.9	29.5
6-7	1/4	1010051	100	8.62	7.85	26.2	12.7	19.1	16.8	14.2	30.2	36.6
8	5/16	1010079	100	12.7	9.65	35.1	19.1	22.4	18.3	17.5	33.3	42.9
9-10	3/8	1010097	100	21.8	11.2	38.1	19.1	25.4	23.1	19.1	41.4	49.3
11	7/16	1010113	50	35.4	12.7	47.8	25.4	30.2	26.2	22.4	46.0	58.0
12-13	1/2	1010131	50	36.3	12.7	47.8	25.4	30.2	28.7	22.4	48.5	58.0
14-15	9/16	1010159	50	49.4	14.2	57.0	31.8	33.3	31.0	23.9	52.5	63.5
16	5/8	1010177	50	49.9	14.2	60.5	31.8	33.3	34.0	23.9	52.5	63.5
18-20	3/4	1010195	25	64	15.7	70.0	36.6	38.1	35.8	26.9	57.0	72.0
22	7/8	1010211	25	96	19.1	79.0	41.1	44.5	40.4	31.8	62.0	80.5
24-26	1	1010239	10	114	19.1	89.0	46.0	47.8	45.2	31.8	67.0	88.0
28-30	1-1/8	1010257	10	128	19.1	98.5	51.0	51.0	48.5	31.8	71.5	91.0
32-34	1-1/4	1010275	10	199	22.4	108	54.0	59.4	55.5	36.6	79.5	105
36	1-3/8	1010293	10	200	22.4	118	58.5	59.4	58.5	36.6	79.5	106
38	1-1/2	1010319	10	247	22.4	125	60.5	66.5	62.0	36.6	86.5	113
41-42	1-5/8	1010337	Bulk	319	25.4	135	66.5	70.0	67.5	41.4	92.0	121
44-46	1-3/4	1010355	Bulk	424	28.7	146	70.0	77.5	74.5	46.0	97.0	134
48-52	2	1010373	Bulk	590	31.8	164	76.0	86.0	77.0	51.0	113	149
56-58	2-1/4	1010391	Bulk	726	31.8	181	81.0	98.5	81.0	51.0	114	162
62-65	2-1/2	1010417	Bulk	862	31.8	195	87.5	105	93.5	51.0	119	168
** 68-72	** 2-3/4	1010435	Bulk	1043	31.8	211	90.5	111	124	51.0	127	175
75-78	3	1010453	Bulk	1406	38.1	233	98.5	121	119	60.5	149	194
** 85-90	** 3-1/2	1010426	Bulk	1814	38.1	273	114	140	152	60.5	157	213

\* Electro-plated U-Bolt and Nuts. \*\* 70mm and 89mm base is made of cast steel.

- Each base has a Product Identification Code (PIC) for material traceability, the name CROSBY or "CG", and a size forged into it.
- Entire clip is made from 316 Stainless Steel to resist corrosive and rusting action.
- All components are Electro-Polished.
- All Clips are individually bagged or tagged with proper application instructions and warning information.

### SS-450



### SS-450 Stainless Steel Wire Rope Clips

Rope Size		SS-450 Stock No.	Std. Package Qty.	Weight Per 100 (kg)	Dimensions (mm)							
(mm)	(in.)				A	B	C	D	E	F	G	H
3-4	1/8	1011250	Bulk	2.72	5.60	18.3	11.2	11.9	10.4	9.65	20.6	23.9
5	3/16	1011261	Bulk	4.54	6.35	24.6	14.2	15.0	12.7	11.2	23.9	29.5
6-7	1/4	1011272	Bulk	9.07	7.85	26.2	12.7	19.1	16.8	14.2	30.2	36.6
9-10	3/8	1011283	Bulk	21.3	11.2	38.1	19.1	25.4	23.1	19.1	41.4	49.3
12-13	1/2	1011305	Bulk	34.9	12.7	47.8	25.4	30.2	28.7	22.4	48.5	58.0
16	5/8	1011327	Bulk	48.1	14.2	60.5	31.8	33.3	34.0	23.9	52.5	63.5

## 6. Fibre ropes

# Fibre ropes



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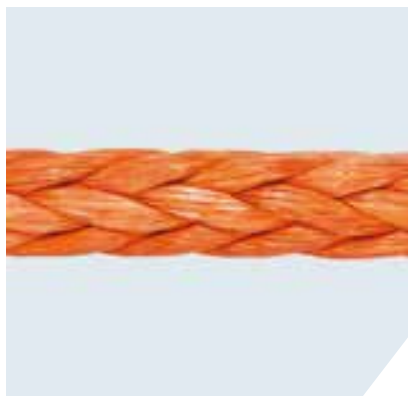
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## HIGH MODULUS POLYETHYLENE 'DYNEEMA® SK75'



## TECHNICAL SPECIFICATIONS

Specific gravity:	0.97
Melting point:	150 °C
Elongation at break:	4 - 5%
Colour:	Orange, grey, other colours on request
Construction:	8- and 12-strand

## FEATURES AND BENEFITS

- Maximum strength to weight ratio, and strength comparable to steel wire rope
- Lowest elongation
- Longer life, and easy handling
- Super abrasion resistance
- Non-kinking, and non-rotational
- Easy to splice
- Can be overbraided with a jacket for protection

## APPLICATIONS

- Mooring lines (to be used with tails)
- Anchor lines
- Towing rope
- Deep sea installation
- Pipe-laying A&R
- Lifting slings and grommets
- Seismic lines
- Fish farms

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN	OVERBRAIDED		
					Weight kg/100m	MBL Tons unspliced	MBL kN unspliced
6	¾	2.3	4.2	41.2			
8	1	3.9	6.7	65.7			
10	1¼	5.9	10.8	105.9			
12	1½	9.5	16.5	161.9			
14	1¾	12.8	22.0	215.8			
16	2	16.0	27.5	269.8			
18	2¼	20.8	35.0	343.3			
20	2½	25.5	41.5	407.1	24	27	271
22	2¾	30.5	50.0	490.5	29	34	341
24	3	35.8	58.0	569.0	34	41	402
26	3¼	41.0	66.0	647.4	40	48	471
28	3½	46.5	74.0	725.9	46	56	549
30	3¾	52.0	81.5	799.5	53	65	637
32	4	57.0	88.5	868.2	60	75	736
34	4¼	62.5	96.0	941.7	68	84	824
36	4½	68.0	104.0	1,020.2	77	93	912
38	4¾	74.0	112.0	1,098.7	85	103	1,010
40	5	84.0	127.0	1,245.8	94	116	1,140
42	5¼	93.0	140.0	1,373.4	105	128	1,260
44	5½	102.0	152.0	1,491.1	115	140	1,380
46	5¾	111.0	165.0	1,618.6	126	152	1,495
48	6	121.0	179.0	1,755.9	136	164	1,610
50	6¼	131.0	193.0	1,893.3	148	180	1,765
52	6½	141.0	206.0	2,020.8	160	195	1,920
56	7	163.0	236.0	2,315.1	185	223	2,190
60	7½	175.0	252.0	2,472.0	212	257	2,520
64	8	200.0	282.0	2,766.3	240	293	2,880
68	8½	226.0	316.0	3,099.9	272	332	3,260
72	9	254.0	348.0	3,413.8	307	370	3,630
80	10	313.0	422.0	4,139.7	375	460	4,510
88	11	379.0	503.0	4,934.3	450	545	5,350
96	12	451.0	588.0	5,768.1	530	640	6,280
104	13	531.0	641.0	6,284.3			
112	14	615.0	736.0	7,215.6			
120	15	710.0	836.0	8,196.0			
128	16	805.0	940.0	9,215.6			
136	17	915.0	1,047.0	10,264.7			
144	18	1,020.0	1,169.0	11,460.7			

## SuperLeoMix®

### HIGH STRENGTH POLYESTER/POLYPROPYLENE (50:50)



#### TECHNICAL SPECIFICATIONS

Specific gravity:	1.05
Melting point:	165 °C - 250 °C
Elongation at break:	30 - 35%
Colour:	White
Construction:	8-strand

#### FEATURES AND BENEFITS

- Optimum strength to weight ratio for ease of handling
- Wet strength equal to dry strength
- Does not absorb water
- Good abrasion resistance against internal and external friction
- Good resistance to frictional heat damage
- Excellent chemical resistance, except in the presence of alkalis
- Manufactured in accordance with OCIMF guidelines
- Remains flexible, easy to splice
- Fully UV stabilised

#### APPLICATIONS

- Mooring lines
- Mooring tails
- Inland shipping
- General fishing
- Merchant navy

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
32	4	68.5	30.6	300.0
36	4½	79.5	35.2	345.0
40	5	96.6	42.5	417.0
44	5½	112.0	49.1	482.0
48	6	128.0	55.7	546.0
52	6½	149.0	64.2	630.0
56	7	169.0	72.7	713.0
60	7½	190.0	81.1	796.0
64	8	211.0	90.3	886.0
68	8½	246.0	104.0	1,025.0
72	9	267.0	113.0	1,107.0
76	9½	315.0	134.0	1,315.0
80	10	348.0	148.0	1,448.0
88	11	415.0	175.0	1,719.0
96	12	489.0	205.0	2,014.0
104	13	563.0	235.0	2,308.0
112	14	813.0	250.0	2,451.0
120	15	934.0	286.6	2,809.0
128	16	1,060.0	324.0	3,176.0
136	17	1,200.0	365.6	3,584.0
144	18	1,340.0	407.0	3,990.0
152	19	1,500.0	455.4	4,464.0
160	20	1,664.0	505.0	4,951.0
168	21	1,830.0	557.0	5,460.0



## LeoMix®

### HIGH STRENGTH POLYESTER/POLYPROPYLENE (20:80)



Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
36	4½	52.9	20.8	204.0
40	5	72.2	30.2	296.0
44	5½	91.5	36.5	358.0
48	6	106.0	43.0	422.0
52	6½	126.0	50.5	495.0
56	7	145.0	58.0	569.0
60	7½	164.0	66.0	647.0
64	8	188.0	75.0	736.0
68	8½	213.0	84.5	829.0
72	9	237.0	94.5	927.0
76	9½	261.0	103.0	1,015.0
80	10	295.0	116.0	1,137.0
88	11	352.0	139.0	1,363.0
96	12	417.0	165.0	1,618.0
104	13	492.0	193.0	1,893.0

#### TECHNICAL SPECIFICATIONS

Specific gravity:	0.99
Melting point:	165 °C - 260 °C
Elongation at break:	25%
Colour:	White
Construction:	8- and 12-strand

#### FEATURES AND BENEFITS

- Floats in water
- Wet strength equal to dry strength
- Does not absorb water
- Excellent strength
- Excellent chemical resistance, except in the presence of alkalis
- Excellent resistance to frictional heat damage
- OCIMF (MEG3) compliant
- Flexible, easy to handle and splice
- Immense range of uses
- Fully UV stabilised

#### APPLICATIONS

- Mooring
- General marine applications
- Messenger lines

**LeoTec®**

**HIGH STRENGTH POLYPROPYLENE**



**TECHNICAL SPECIFICATIONS**

Specific gravity: 0.91  
 Melting point: 160 °C  
 Elongation at break: 25% - 30%  
 Colour: Blue, yellow;  
 depending on size  
 Construction: 3-, 4-, 8-, 12- and  
 24-strand

**FEATURES AND BENEFITS**

- Floats in water
- Wet strength equal to dry strength
- Does not absorb water
- Excellent strength
- Excellent abrasion resistance
- Flexible, easy to handle and splice
- Fully UV stabilised
- OCIMF (MEG3) compliant
- Immense range of uses

**Additional for 12 and 24 strand:**

- Flakes down easily and neatly
- Ideal for auto winches and drums
- Non-rotating, torque-free round construction

**APPLICATIONS**

- Mooring
- General marine applications
- Messenger lines

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
8	1	3.0	1.3	12.6
10	1¼	4.5	1.9	18.8
12	1½	6.5	2.9	28.3
14	1¾	9.0	3.8	37.7
16	2	11.5	4.8	47.2
18	2¼	14.8	6.2	60.7
20	2½	18.0	7.4	72.3
22	2¾	22.0	9.0	88.0
24	3	25.9	10.6	104.0
26	3¼	30.4	12.4	121.6
28	3½	35.4	14.1	138.3
30	3¾	40.4	16.0	157.0
32	4	45.9	17.9	175.6
36	4½	58.6	22.0	215.8
40	5	71.8	27.4	268.8
44	5½	88.1	34.0	333.5
48	6	104.0	39.6	388.5
52	6½	121.8	45.8	449.3
56	7	141.8	52.4	514.0
60	7½	163.1	60.0	588.6
64	8	185.0	67.9	666.1
68	8½	209.5	76.7	752.4
72	9	234.1	85.2	835.8
80	10	290.0	105.0	1,030.1
88	11	350.1	126.0	1,236.1
96	12	416.8	149.0	1,461.7
104	13	498.0	171.6	1,683.3
112	14	576.0	200.2	1,964.0
120	15	659.0	221.1	2,169.0
128	16	750.0	244.5	2,398.5
136	17	858.0	277.2	2,719.3
144	18	959.0	305.8	2,999.9

## LeoWinch®

### NYLON MONO AND MULTIFILAMENT



#### TECHNICAL SPECIFICATIONS

Specific gravity:	1.14
Melting point:	215 °C
Elongation at break:	15%
Colour:	White
Construction:	6-strand

#### FEATURES AND BENEFITS

- Excellent abrasion resistance
- Excellent UV resistance
- Good chemical resistance, except in the presence of acids
- Workable in sub-zero temperatures
- Resistance to rotting, corrosion and seawater
- Can be stowed wet without any special maintenance
- Very high breaking strength

#### APPLICATIONS

- Mooring winches
- Mooring lines
- Anchor ropes
- Other heavy duty cables

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
18	2¼	22.0	7.0	69.0
20	2½	27.5	9.0	88.0
22	2¾	34.5	11.0	108.0
24	3	40.0	13.0	128.0
26	3¼	46.4	15.3	150.0
28	3½	51.4	16.8	165.0
32	4	65.0	22.0	216.0
36	4½	83.2	26.0	255.0
40	5	100.0	31.0	304.0
44	5½	125.0	42.0	412.0
48	6	148.0	50.0	490.0
52	6½	160.0	54.0	530.0
56	7	200.0	66.5	652.0
60	7½	217.0	70.0	687.0
62	7¾	235.0	79.0	775.0
64	8	245.0	81.0	795.0
68	8½	280.0	94.0	841.0
70	8¾	310.0	103.0	922.0
72	9	335.0	108.0	1,060.0
78	9¾	363.6	120.0	1,177.0
84	10½	425.0	140.0	1,373.0
90	11¾	505.0	165.0	1,619.0
96	12	585.0	190.0	1,864.0

## WINCHLINE



Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
40	5	73.0	31.1	305.1
44	5½	89.0	38.6	378.7
48	6	106.0	47.8	468.9
52	6½	125.0	56.4	553.3
56	7	144.0	63.8	625.9
60	7½	166.0	74.0	725.9
64	8	188.0	84.0	824.0
68	8½	214.0	95.0	932.0
72	9	238.0	107.6	1,055.6

### TECHNICAL SPECIFICATIONS

Specific gravity:	0.91
Melting point:	185 °C
Elongation at break:	15%
Colour:	Yellow with blue marker
Construction:	Overbraided 12-strand core

### FEATURES AND BENEFITS

- Overbraided cover material made from LeoTec yarns but can also be supplied in pure nylon or polyester
- High strength
- Floats in water
- Good abrasion resistance
- Very easy to use on tension winches
- Excellent UV resistance
- Maintains shape under extreme tension

### APPLICATIONS

- Mooring line

## MOORING TAILS

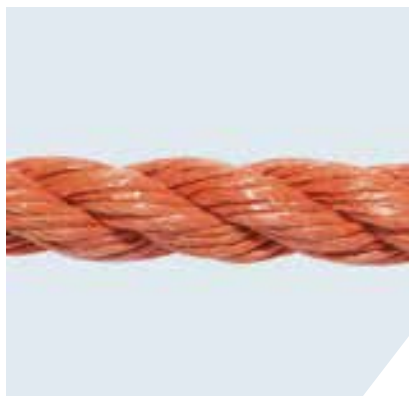
Van der Lee can also supply nylon and composite fibre mooring tails in order to provide elasticity in a mooring system. This helps to reduce damage to wire and ropes made with Dyneema® fibres by absorbing shock loads.

Grommet construction to give higher breaking strength on request.

All of the above comply with OCIMF (MEG3) guidelines. Synthetic tails should have an MBL of at least 25% higher than that of the mooring line to which they are attached. Polyamide tails should have a 37% higher MBL than the mooring line, to take account of loss of strength when wet.

8-strand SuperLeoMix tail		8-strand Nylon tail	
Diameter mm	MBL tons	Diameter mm	MBL tons
72	113.0	72	90.0
80	148.0	80	110.0
88	175.0	88	131.0
96	205.0	96	156.0

## POLYPROPYLENE



## TECHNICAL SPECIFICATIONS

Specific gravity:	0.91
Melting point:	160 °C
Elongation at break:	30%
Colour:	Salmon and Orange
Construction:	3-strand, 8- and 12-strand plaited

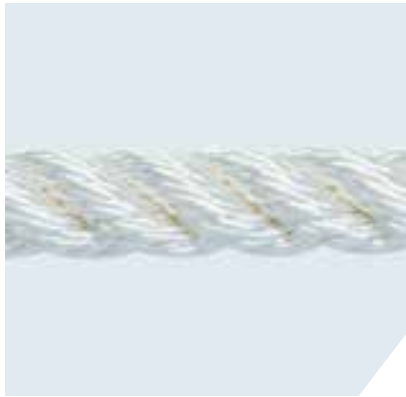
Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
8	1	3.0	1.0	9.4
10	1¼	4.5	1.4	14.0
12	1½	6.5	2.0	19.9
14	1¾	9.0	2.8	27.4
16	2	11.5	3.5	34.3
18	2¼	14.8	4.5	43.6
20	2½	18.0	5.4	52.6
22	2¾	22.0	6.5	63.7
24	3	26.0	7.6	74.5
26	3¼	31.0	8.9	86.8
28	3½	35.5	10.1	99.0
30	3¾	41.0	11.5	112.7
32	4	46.0	12.8	125.5
36	4½	58.5	16.1	157.8
40	5	72.0	19.4	190.2
44	5½	88.0	23.4	229.4
48	6	104.0	27.2	266.7
52	6½	122.0	31.5	308.8
56	7	142.0	36.0	352.9
60	7½	163.0	41.2	403.9
64	8	185.0	46.6	456.9
68	8½	210.0	52.6	515.7
72	9	234.0	58.5	573.5
80	10	290.0	72.0	705.9
88	11	351.0	86.4	847.1
96	12	417.0	102.0	1,000.0
104	13	482.0	118.0	1,156.9
112	14	568.0	138.0	1,352.9
120	15	648.0	156.0	1,529.4
128	16	740.0	176.0	1,725.5
136	17	838.0	197.6	1,937.3
144	18	940.0	219.6	2,152.9
152	19	1,047.0	242.0	2,372.5
160	20	1,160.0	266.2	2,609.8



G. VAN DER LEE

ROPE FACTORY SINCE 1545

POLYESTER



TECHNICAL SPECIFICATIONS

Specific gravity: 1.38  
 Melting point: 260 °C  
 Elongation at break: 30 – 35%  
 Colour: White  
 Construction: 3-strand, 8- and 12-strand plaited

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
8	1	5.1	1.3	12.5
10	1¼	8.1	2.0	19.5
12	1½	11.6	2.8	27.8
14	1¾	15.7	4.0	39.0
16	2	20.5	5.1	49.7
18	2¼	26.0	6.4	62.2
20	2½	32.0	7.9	77.8
22	2¾	38.4	9.5	93.3
24	3	46.0	11.4	112.0
26	3¼	53.7	13.3	130.7
28	3½	63.0	15.3	141.5
30	3¾	72.0	17.1	168.0
32	4	82.0	19.6	192.4
34	4¼	93.0	21.9	214.4
36	4½	104.0	24.1	236.5
38	4¾	116.0	27.0	264.7
40	5	128.0	29.9	292.8
44	5½	155.0	35.5	348.0
48	6	185.0	48.6	476.4
52	6½	215.0	56.7	555.8
56	7	251.0	65.7	644.1
60	7½	288.0	72.3	708.8
64	8	328.0	80.7	791.1
68	8½	372.0	91.0	892.1
72	9	415.0	99.5	975.4
80	10	512.0	121.9	1,195.1
88	11	619.0	146.3	1,434.3
96	12	735.0	173.4	1,700.0
112	14	1,000.0	234.4	2,298.0
120	15	1,150.0	268.0	2,627.4
128	16	1,310.0	303.2	2,972.5
144	18	1,660.0	383.2	3,756.8
160	20	2,050.0	474.1	4,648.0
176	22	2,350.0	543.5	5,328.4

## NYLON



### TECHNICAL SPECIFICATIONS

Specific gravity:	1.14
Melting point:	210 °C
Elongation at break:	50%
Colour:	White
Construction:	3-strand, 8- and 12-strand plaited

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
8	1	4.0	1.4	13.2
10	1¼	6.3	2.1	20.3
12	1½	9.0	3.0	29.4
14	1¾	12.3	4.1	40.2
16	2	16.0	5.3	51.9
18	2¼	20.3	6.7	65.6
20	2½	25.0	8.3	81.3
22	2¾	30.3	10.0	98.0
24	3	36.0	12.0	117.6
26	3¼	42.3	13.8	135.2
28	3½	49.0	15.8	154.9
30	3¾	56.3	17.8	174.5
32	4	64.0	20.0	196.0
34	4¼	72.3	22.3	218.6
36	4½	81.0	24.8	243.1
38	4¾	90.3	27.3	267.6
40	5	100.0	30.0	294.1
44	5½	121.0	35.8	350.9
48	6	144.0	42.0	411.7
52	6½	169.0	48.8	478.4
56	7	196.0	56.0	549.0
60	7½	225.0	63.8	625.4
64	8	256.0	72.0	705.8
68	8½	289.0	80.8	791.6
72	9	324.0	90.0	882.3
80	10	400.0	110.0	1,078.4
88	11	484.0	131.0	1,284.3
96	12	576.0	156.0	1,509.8
104	13	676.0	182.0	1,784.3
112	14	784.0	210.0	2,058.8
120	15	900.0	240.0	2,352.9
128	16	1,024.0	272.0	2,666.6
136	17	1,156.0	306.0	3,000.0
144	18	1,296.0	342.0	3,352.9
152	19	1,444.0	380.0	3,725.4
160	20	1,600.0	420.0	4,117.6



G. VAN DER LEE

ROPE FACTORY SINCE 1545

## MANILA



### TECHNICAL SPECIFICATIONS

Construction: 3-strand

Diameter mm	Circumference inches	Weight kg/100mtr	MBL tons	MBL kN
8	1	5.5	0.5	4.7
10	1¼	6.8	0.6	6.2
12	1½	10.5	1.0	9.3
14	1¾	14.1	1.3	12.5
16	2	19.1	1.8	17.4
18	2¼	22.3	2.1	20.8
20	2½	27.7	2.8	27.8
22	2¾	33.2	3.4	33.3
24	3	40.0	4.1	39.8
26	3¼	46.8	4.7	46.2
28	3½	53.6	5.3	52.2
30	3¾	62.7	6.1	59.8
32	4	70.5	6.9	67.2
34	4¼	80.0	7.6	74.7
36	4½	89.5	8.6	84.7
38	4¾	100.0	9.4	92.1
40	5	111.0	10.4	101.9
44	5½	135.0	12.7	124.5
48	6	160.0	14.7	144.1
52	6½	188.0	17.3	169.6
56	7	218.0	19.8	194.1
60	7½	250.0	22.6	221.5
64	8	290.0	25.7	251.9
68	8½	321.0	28.7	281.3
72	9	360.0	32.0	313.7
80	10	444.0	39.1	383.3
88	11	538.0	47.2	462.7
96	12	639.0	55.9	548.0



## 7. Synthetic slings

# Synthetic slings

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## Flat webbing &amp; round slings details and working load limits

Safety factor 7:1									
Flat webbing slings EN 1492-1									
Round slings EN 1492-2									
Lifting mode	Straight lift	Choked lift	Basket lift			2 - leg		3/4 - leg	
			$\beta = 0^\circ$	$\beta = 0^\circ-45^\circ$	$\beta = 46^\circ-60^\circ$	$\beta = 0^\circ-45^\circ$	$\beta = 46^\circ-60^\circ$	$\beta = 0^\circ-45^\circ$	$\beta = 46^\circ-60^\circ$
Load factor	x 1.0	x 0.8	x 2.0	x 1.4	x 1.0	x 1.4	x 1.0	x 2.1	x 1.5
Colour	kg	kg	kg	kg	kg	kg	kg	kg	kg
Violet	1,000	800	2,000	1,400	1,000	1,400	1,000	2,100	1,500
Green	2,000	1,600	4,000	2,800	2,000	2,800	2,000	4,200	3,000
Yellow	3,000	2,400	6,000	4,200	3,000	4,200	3,000	6,300	4,500
Grey	4,000	3,200	8,000	5,600	4,000	5,600	4,000	8,400	6,000
Red	5,000	4,000	10,000	7,000	5,000	7,000	5,000	10,500	7,500
Brown	6,000	4,800	12,000	8,400	6,000	8,400	6,000	12,600	9,000
Blue	8,000	6,400	16,000	11,200	8,000	11,200	8,000	16,800	12,000
Orange	10,000	8,000	20,000	14,000	10,000	14,000	10,000	21,000	15,000
<b>Other sling types and lifting capacities are available upon request</b>									



## 8. Lifting & rigging gears

# Lifting & rigging gears

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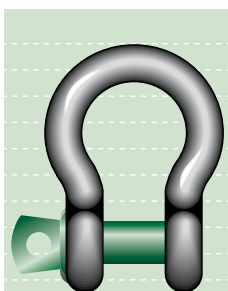
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## 8 Lifting & rigging gears

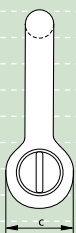
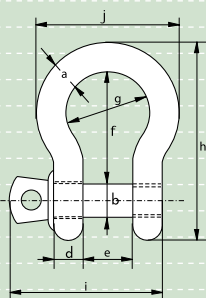
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## Green Pin® Standard Shackles

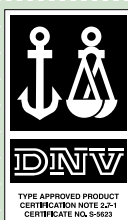
### bow shackles with screw collar pin

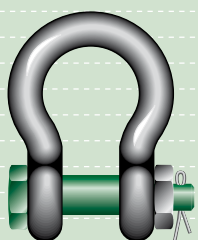
- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and  
meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 2, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 2 t can be supplied with DNV 2.7-1 certificate.

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	weight each
t	a	b	c	d	e	f	g	h	i	j	kg
0.33	5	6	12	5	9.5	22	16	36	29.5	26	0.02
0.5	7	8	16.5	7	12	29	20	48.5	38	34	0.05
0.75	9	10	20	9	13.5	32	22	56	46.5	40	0.1
1	10	11	22.5	10	17	36.5	26	63.5	54	46	0.14
1.5	11	13	26.5	11	19	43	29	74	59.5	51	0.19
2	13.5	16	34	13	22	51	32	89	73	58	0.36
3.25	16	19	40	16	27	64	43	110	89	75	0.63
4.75	19	22	46	19	31	76	51	129	103	89	1.01
6.5	22	25	52	22	36	83	58	144	119	102	1.5
8.5	25	28	59	25	43	95	68	164	137	118	2.21
9.5	28	32	66	28	47	108	75	185	153	131	3.16
12	32	35	72	32	51	115	83	201	170	147	4.31
13.5	35	38	80	35	57	133	92	227	186	162	5.55
17	38	42	88	38	60	146	99	249	203	175	7.43
25	45	50	103	45	74	178	126	300	243	216	12.84
35	50	57	111	50	83	197	138	331	272	238	18.15
42.5	57	65	130	57	95	222	160	377	310	274	26.29
55	65	70	145	65	105	260	180	433	344	310	37.6

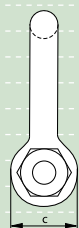
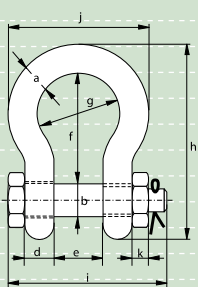
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	weight each
t	a	b	c	d	e	f	g	h	i	j	lbs
0.33	3/16	1/4	1/2	3/16	3/8	7/8	5/8	1 13/32	1 5/32	1 1/32	0.05
0.5	1/4	5/16	2 1/32	9/32	15/32	1 5/32	29/32	1 29/32	1 1/2	1 11/32	0.11
0.75	5/16	3/8	25/32	11/32	17/32	1 1/4	7/8	2 7/32	1 27/32	1 9/16	0.22
1	3/8	7/16	7/8	13/32	21/32	1 7/16	1 1/32	2 1/2	2 1/8	1 13/16	0.3
1.5	7/16	1/2	1 1/32	7/16	3/4	1 11/16	1 5/32	2 29/32	2 11/32	2	0.42
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	2 7/8	2 9/32	0.79
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	3 1/2	2 15/16	1.38
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	4 1/16	3 1/2	2.22
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	4 11/16	4 1/32	3.31
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	5 13/32	4 21/32	4.86
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	6 1/32	5 5/32	6.97
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	6 11/16	5 25/32	9.49
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	7 5/16	6 3/8	12.24
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/32	8	6 7/8	16.37
25	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/16	9 9/16	8 1/2	28.31
35	2	2 1/4	4 3/8	1 31/32	3 9/32	7 3/4	5 7/16	13 1/32	10 23/32	9 3/8	40.01
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	8 3/4	6 5/16	14 27/32	12 7/32	10 25/32	57.96
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	10 1/4	7 3/32	17 1/16	13 17/32	12 7/32	82.89





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## Green Pin® Standard Shackles

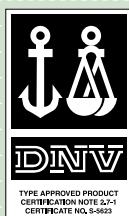
### bow shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20°C up to +200°C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 2 t can be supplied with DNV 2.7-1 certificate.

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
0.5	7	8	16.5	7	12	29	20	48.5	42	34	4	0.06
0.75	9	10	20	9	13.5	32	22	56	50	40	5	0.11
1	10	11	22.5	10	17	36.5	26	63.5	60	46	8	0.16
1.5	11	13	26.5	11	19	43	29	74	67	51	11	0.22
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66
12	32	35	72	32	51	115	83	201	178	147	30	4.91
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54
17	38	42	88	38	60	146	99	249	202	175	19	8.19
25	45	50	103	45	74	178	126	300	249	216	23	14.22
35	50	57	111	50	83	197	138	331	269	238	26	19.85
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33
55	65	70	145	65	105	260	180	433	330	310	32	39.59
85	75	83	162	73	127	329	190	527	380	340	39	62

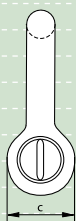
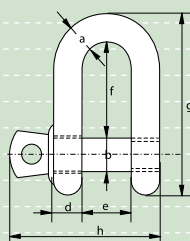
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
0.5	1/4	5/16	21/32	9/32	15/32	1 5/32	25/32	1 29/32	1 21/32	1 11/32	5/32	0.13
0.75	5/16	3/8	25/32	11/32	17/32	1 1/4	7/8	2 7/32	1 31/32	1 9/16	3/16	0.25
1	3/8	7/16	7/8	13/32	21/32	1 7/16	1 1/32	2 1/2	2 3/8	1 13/16	5/16	0.34
1.5	7/16	1/2	1 1/32	7/16	3/4	1 11/16	1 5/32	2 29/32	2 5/8	2	7/16	0.48
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	3 7/32	2 9/32	1/2	0.92
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	3 27/32	2 15/16	21/32	1.62
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	4 1/2	3 1/2	3/4	2.59
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	5 1/8	4 1/32	7/8	3.9
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	5 29/32	4 21/32	31/32	5.69
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	6 17/32	5 5/32	1 1/16	8.06
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 11/32	3 9/32	7 29/32	7	5 25/32	1 3/16	10.81
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	7 3/4	6 3/8	1 5/16	14.42
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	7 15/16	6 7/8	3/4	18.06
25	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/16	9 13/16	8 1/2	29/32	31.34
35	2	2 1/4	4 3/8	1 31/32	3 9/32	7 3/4	5 7/16	13 1/32	10 19/32	9 3/8	1 1/32	43.77
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	8 3/4	6 5/16	14 27/32	11 27/32	10 23/32	1 5/32	62.46
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	10 1/4	7 3/32	17 1/16	13	12 7/32	1 1/4	87.27
85	3	3 1/4	6 3/8	2 7/8	5	12 15/16	7 15/32	20 3/4	14 31/32	13 3/8	1 17/32	136.69





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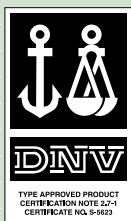
## Green Pin® Standard Shackles dee shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and  
meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 2, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 2 t can be supplied with DNV 2.7-1 certificate.

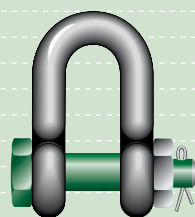
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	kg
0.33	5	6	12	5	9.5	19	33	29.5	0.02
0.5	7	8	16.5	7	12	22	41.5	38	0.05
0.75	9	10	20	9	13.5	26	50	46.5	0.09
1	10	11	22.5	10	17	32	59	54	0.14
1.5	11	13	26.5	11	19	37	68	59.5	0.19
2	13.5	16	34	13	22	43	81	73	0.32
3.25	16	19	40	16	27	51	97	89	0.54
4.75	19	22	46	19	31	59	112	103	0.87
6.5	22	25	52	22	36	73	134	119	1.34
8.5	25	28	59	25	43	85	154	137	2.08
9.5	28	32	66	28	47	90	167	153	2.77
12	32	35	72	32	51	94	180	170	3.72
13.5	35	38	80	35	57	115	209	186	5.14
17	38	42	88	38	60	127	230	203	6.85
25	45	50	103	45	74	149	271	243	11.45
35	50	57	111	50	83	171	305	272	16.86
42.5	57	65	130	57	95	190	345	310	24.61
55	65	70	145	65	105	203	376	344	32.65

In inch

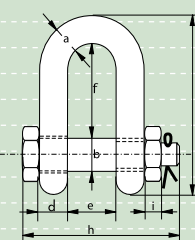
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	weight each
t	inch	inch	inch	inch	inch	inch	inch	inch	lbs
0.33	3/16	1/4	15/32	3/16	3/8	3/4	1 5/16	1 5/32	0.04
0.5	1/4	5/16	21/32	9/32	15/32	7/8	1 5/8	1 1/2	0.11
0.75	5/16	3/8	25/32	11/32	17/32	1 1/32	1 31/32	1 27/32	0.2
1	3/8	7/16	7/8	13/32	21/32	1 1/4	2 5/16	2 1/8	0.3
1.5	7/16	1/2	1 1/32	7/16	3/4	1 15/32	2 11/16	2 11/32	0.42
2	1/2	5/8	1 11/32	1/2	7/8	1 11/16	3 3/16	2 7/8	0.7
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2	3 13/16	3 1/2	1.19
4.75	3/4	7/8	1 13/16	3/4	1 7/32	2 5/16	4 12/32	4 1/16	1.92
6.5	7/8	1	2 1/16	7/8	1 13/32	2 7/8	5 9/32	4 11/16	2.95
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 11/32	6 1/16	5 13/32	4.59
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	3 17/32	6 9/16	6 1/32	6.1
12	1 1/4	1 3/8	2 27/32	1 1/4	2	3 11/16	7 3/32	6 11/16	8.2
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 7/32	7 5/16	11.33
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5	9 1/16	8	15.1
25	1 3/4	2	4 1/16	1 25/32	2 29/32	5 7/8	10 21/32	9 9/16	25.23
35	2	2 1/4	4 3/8	1 31/32	3 9/32	6 23/32	12	10 23/32	37.17
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	7 15/32	13 19/32	12 7/32	54.26
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	8	14 13/16	13 17/32	71.98







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## Green Pin® Standard Shackles

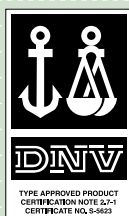
### dee shackles with safety bolt

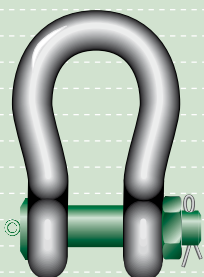
- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 2 t can be supplied with DNV 2.7-1 certificate.

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length bolt	length nut	thickness	weight each
t	a	b	c	d	e	f	g	h	i	kg
2	13.5	16	34	13	22	43	81	82	13	0.39
3.25	16	19	40	16	27	51	97	98	17	0.67
4.75	19	22	46	19	31	59	112	114	19	1.08
6.5	22	25	52	22	36	73	134	130	22	1.66
8.5	25	28	59	25	43	85	154	150	25	2.46
9.5	28	32	66	28	47	90	167	166	27	3.4
12	32	35	72	32	51	94	180	178	30	4.51
13.5	35	38	80	35	57	115	209	197	33	6.1
17	38	42	88	38	60	127	230	202	19	7.63
25	45	50	103	45	74	149	271	249	23	13.25
35	50	57	111	50	83	171	305	269	26	18.53
42.5	57	65	130	57	95	190	345	301	29	25.94
55	65	70	145	65	105	203	376	330	32	35.33
85	75	83	162	73	127	229	427	380	39	52.97

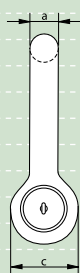
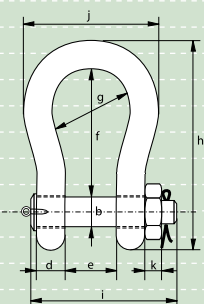
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length bolt	length nut	thickness	weight each
t	a	b	c	d	e	f	g	h	i	lbs
2	1/2	5/8	1 11/32	1/2	7/8	1 11/16	3 3/16	3 7/32	1/2	0.85
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2	3 13/16	3 27/32	21/32	1.48
4.75	3/4	7/8	1 13/16	3/4	1 7/32	2 5/16	4 13/32	4 1/2	3/4	2.39
6.5	7/8	1	2 1/16	7/8	1 13/32	2 7/8	5 9/32	5 1/8	7/8	3.66
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 11/32	6 1/16	5 29/32	31/32	5.42
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	3 17/32	6 9/16	6 17/32	1 1/16	7.5
12	1 1/4	1 3/8	2 27/32	1 1/4	2	3 11/16	7 3/32	7	1 3/16	9.95
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 7/32	7 3/4	1 5/16	13.45
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5	9 1/16	7 15/16	3/4	16.82
25	1 3/4	2	4 1/16	1 25/32	2 29/32	5 7/8	10 21/32	9 13/16	29/32	29.21
35	2	2 1/4	4 3/8	1 31/32	3 9/32	6 23/32	12	10 19/32	1 1/32	40.86
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	7 15/32	13 19/32	11 27/32	1 5/32	57.19
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	8	14 13/16	13	1 1/4	77.89
85	3	3 1/4	6 3/8	2 7/8	5	9 1/32	16 13/16	14 31/32	1 17/32	116.77





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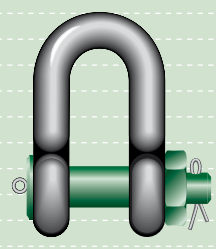
## Green Pin® Heavy Duty Shackles bow shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8 quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : shackle bow painted silver, pin painted green (120 tons shackle is hot dipped galvanized)
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 150 tons are supplied with a Lloyd's Register of Shipping Certificate on proof load

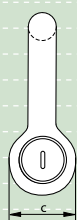
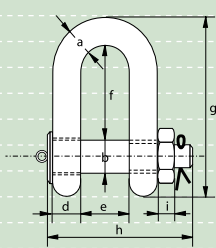
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
120	95	95	208	91	147	400	238	647	440	428	50	110
150	105	108	238	102	169	410	275	688	490	485	60	160
200	120	130	279	113	179	513	290	838	520	530	60	235
250	130	140	299	118	205	554	305	904	560	565	65	285
300	140	150	325	123	205	618	305	996	575	585	70	340
400	170	175	376	164	231	668	325	1114	690	665	70	560
500	180	185	398	164	256	718	350	1190	720	710	70	685
600	200	205	444	189	282	718	375	1243	810	775	70	880
700	210	215	454	204	308	718	400	1263	870	820	70	980
800	210	220	464	204	308	718	400	1270	870	820	70	1100
900	220	230	485	215	328	718	420	1296	920	860	70	1280
1000	240	240	515	215	349	718	420	1336	940	900	70	1460
1250	260	270	585	230	369	768	450	1456	1025	970	70	1990
1500	280	290	625	230	369	818	450	1556	1025	1010	70	2400

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	
120	3 3/4	3 3/4	8 3/16	3 19/32	5 25/32	15 3/4	9 3/8	25 15/32	17 5/16	16 27/32	1 31/32	243
150	4 1/8	4 1/4	9 3/8	4 1/32	6 21/32	16 5/32	10 13/16	27 3/32	19 9/32	19 3/32	2 3/8	353
200	4 23/32	5 1/8	10 31/32	4 7/16	7 1/16	20 3/16	11 13/32	33	20 15/32	20 7/8	2 3/8	518
250	5 1/8	5 1/2	11 25/32	4 21/32	8 1/16	21 13/16	12	35 19/32	22 1/16	22 1/4	2 9/16	628
300	5 1/2	5 29/32	12 25/32	4 27/32	8 1/16	24 11/32	12	39 7/32	22 5/8	23 1/32	2 3/4	750
400	6 11/16	6 7/8	14 13/16	6 15/32	9 3/32	26 5/16	12 25/32	43 27/32	27 5/32	26 3/16	2 3/4	1235
500	7 3/32	7 9/32	15 21/32	6 15/32	10 3/32	28 9/32	13 25/32	46 27/32	28 11/32	27 15/16	2 3/4	1510
600	7 7/8	8 1/16	17 15/32	7 7/16	11 3/32	28 9/32	14 3/4	48 15/16	31 7/8	30 1/2	2 3/4	1940
700	8 9/32	8 15/32	17 7/8	8 1/32	12 1/8	28 9/32	15 3/4	49 23/32	34 1/4	32 9/32	2 3/4	2161
800	8 9/32	8 21/32	18 9/32	8 1/32	12 1/8	28 9/32	15 3/4	50	34 1/4	32 9/32	2 3/4	2425
900	8 21/32	9 1/16	19 3/32	8 15/32	12 29/32	28 9/32	16 17/32	51 1/32	36 7/32	33 27/32	2 3/4	2822
1000	9 7/16	9 7/16	20 9/32	8 15/32	13 3/4	28 9/32	16 17/32	52 19/32	37	35 7/16	2 3/4	3219
1250	10 1/4	10 5/8	23 1/32	9 1/16	14 17/32	30 1/4	17 23/32	57 5/16	40 11/32	38 3/16	2 3/4	4387
1500	11 1/32	11 13/32	24 19/32	9 1/16	14 17/32	32 7/32	17 23/32	61 1/4	40 11/32	39 3/4	2 3/4	5291



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## Green Pin® Heavy Duty Shackles

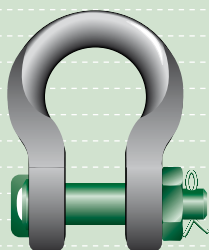
### dee shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity

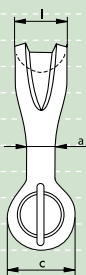
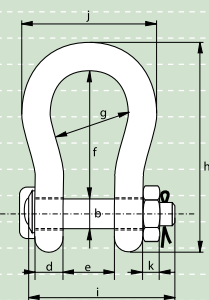
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
120	95	95	208	95	147	274	521	440	50	110

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	thickness nut	weight each
t	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
120	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	5 <sup>25</sup> / <sub>32</sub>	10 <sup>25</sup> / <sub>32</sub>	20 <sup>1</sup> / <sub>2</sub>	17 <sup>5</sup> / <sub>16</sub>	1 <sup>31</sup> / <sub>32</sub>	243



P-6033



## Green Pin® Sling Shackles

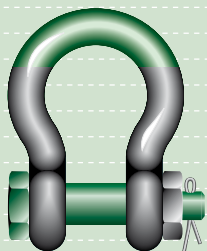
### bow shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : shackle bow painted silver, pin painted green
- **Temperature Range** : -20 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC declaration of Conformity and all shackles from 75 t are supplied with a Lloyd's Register of Shipping Certificate on proof load. An MPI and/or US inspection certificate can be supplied on request

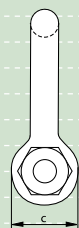
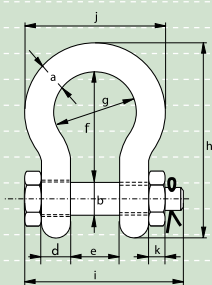
working load limit	diameter body	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	bearing surface	weight each
t	a	b	c	d	e	f	g	h	i	j	k	l	kg
18	35	35	69	30	52	147	102	239	165	180	29	64	7
30	40	42	90	35	69	165	126	279	207	200	34	79	13
40	55	51	109	45	84	199	140	331	252	235	38	97	21
55	60	57	115	55	90	240	160	389	294	270	45	100	30
75	68	70	125	54	110	290	185	473	327	317	54	120	48
125	85	80	154	85	137	366	220	583	426	390	64	150	92
150	94	95	179	89	147	391	253	645	435	434	50	170	140
200	110	105	199	100	158	481	280	759	470	482	50	205	205
250	126	120	227	110	179	542	300	859	519	530	60	240	264
300	135	134	245	122	195	601	350	947	575	620	70	265	360
400	160	160	293	145	231	576	370	985	675	690	80	320	580
500	170	180	328	160	263	681	450	1131	748	790	90	339	780
600	190	200	348	170	289	741	490	1234	809	865	100	370	980
700	200	215	392	190	315	751	540	1284	879	901	100	400	1360
800	218	230	420	200	342	851	554	1426	942	947	110	420	1430
900	242	255	466	220	368	851	580	1488	1023	1023	120	440	1650
1000	260	270	490	240	399	851	614	1532	1103	1107	120	460	2120
1250	285	300	510	260	452	931	650	1666	1227	1182	150	530	3700
1500	285	320	550	280	483	950	680	1710	1300	1253	150	560	4000

In inch

working load limit	diameter body	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	bearing surface	weight each
t	a	b	c	d	e	f	g	h	i	j	k	l	lbs
18	1 3/8	1 3/8	2 23/32	1 3/16	2 1/16	5 25/32	4 1/32	9 13/32	6 1/2	7 3/32	1 5/32	2 17/32	18
30	1 9/16	1 21/32	3 17/32	1 3/8	2 23/32	6 1/2	4 31/32	10 31/32	8 5/32	7 7/8	1 11/32	3 1/8	29
40	2 5/32	2	4 9/32	1 25/32	3 5/16	7 27/32	5 1/2	13 1/32	9 29/32	9 1/4	1 1/2	3 13/16	46
55	2 3/8	2 1/4	4 17/32	2 5/32	3 17/32	9 7/16	6 5/16	15 5/16	11 9/16	10 5/8	1 25/32	3 15/16	66
75	2 11/16	2 3/4	4 29/32	2 1/8	4 11/32	11 13/32	7 9/32	18 5/8	12 7/8	12 15/32	2 1/8	4 23/32	106
125	3 11/32	3 5/32	6 1/16	3 11/32	5 13/32	14 13/32	8 21/32	22 15/16	16 25/32	15 11/32	2 17/32	5 29/32	203
150	3 11/16	3 3/4	7 1/16	3 1/2	5 25/32	15 13/32	9 31/32	25 13/32	17 1/8	17 3/32	1 31/32	6 11/16	309
200	4 11/32	4 1/8	7 27/32	3 15/16	6 7/32	18 15/16	11 1/32	29 7/8	18 1/2	18 31/32	1 31/32	8 1/16	452
250	4 31/32	4 23/32	8 15/16	4 11/32	7 1/16	21 11/32	11 13/16	33 13/16	20 7/16	20 7/8	2 3/8	9 7/16	582
300	5 5/16	5 9/32	9 21/32	4 13/16	7 11/16	23 21/32	13 25/32	37 9/32	22 5/8	24 13/32	2 3/4	10 7/16	794
400	6 5/16	6 5/16	11 17/32	5 23/32	9 3/32	22 11/16	14 9/16	38 25/32	26 9/16	27 5/32	3 5/32	12 19/32	1279
500	6 11/16	7 3/32	12 29/32	6 5/16	10 11/32	26 13/16	17 23/32	44 17/32	29 7/16	31 3/32	3 17/32	13 11/32	1720
600	7 15/32	7 7/8	13 11/16	6 11/16	11 3/8	29 3/16	19 9/32	48 19/32	31 27/32	34 1/16	3 15/16	14 9/16	2161
700	7 7/8	8 15/32	15 7/16	7 15/32	12 13/32	29 9/16	21 1/4	50 9/16	34 19/32	35 15/32	3 15/16	15 3/4	2998
800	8 19/32	9 1/16	16 17/32	7 7/8	13 15/32	33 1/2	21 13/16	56 5/32	37 3/32	37 9/32	4 11/32	16 17/32	3153
900	9 17/32	10 1/32	18 11/32	8 21/32	14 1/2	33 1/2	22 27/32	58 19/32	40 9/32	40 9/32	4 23/32	17 5/16	3638
1000	10 1/4	10 5/8	19 9/32	9 7/16	15 23/32	33 1/2	24 3/16	60 5/16	43 7/16	43 19/32	4 23/32	18 1/8	4674
1250	11 7/32	11 13/16	20 3/32	10 1/4	17 25/32	36 21/32	25 19/32	65 19/32	48 5/16	46 17/32	5 29/32	20 7/8	8157
1500	11 7/32	12 19/32	21 21/32	11 1/32	19 1/32	37 13/32	26 29/32	67 5/16	51 3/16	49 11/32	5 29/32	22 1/16	8818



G-5263



## Green Pin® Super Shackles

### bow shackles with safety bolt

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Finish** : hot dipped galvanized (175 ton shackle is painted)
- **Temperature Range** : -20 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 150 tons are supplied with a Lloyd's Register of Shipping Certificate on proof load

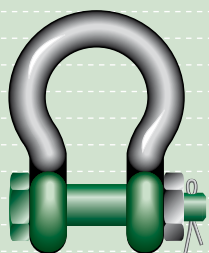
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
3.3	13.5	16	34	13	22	51	32	89	82	58	13	0.44
5	16	19	40	16	27	64	43	110	98	75	17	0.79
7	19	22	46	19	31	76	51	129	114	89	19	1.26
9.5	22	25	52	22	36	83	58	144	130	102	22	1.88
12.5	25	28	59	25	43	95	68	164	150	118	25	2.78
15	28	32	66	28	47	108	75	185	166	131	27	3.87
18	32	35	72	32	51	115	83	201	178	147	30	5.26
21	35	38	80	35	57	133	92	227	197	162	33	6.94
30	38	42	88	38	60	146	99	249	202	175	19	8.79
40	45	50	103	45	74	178	126	300	249	216	23	15
55	57	57	117	57	83	197	138	341	286	252	26	22
85	70	70	143	70	105	260	180	437	344	320	32	42
120	83	83	162	83	127	329	190	535	403	356	40	70
150*	95	95	208	91	147	400	238	647	511	428	50	112
175*	105	108	238	102	169	410	275	688	561	485	60	160

\* = round headed bolt

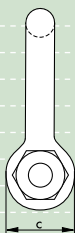
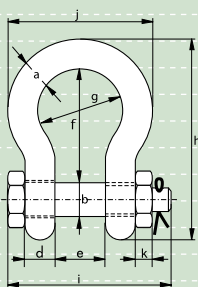
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
3.3	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	3 7/32	2 9/32	1/2	0.97
5	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	3 27/32	2 15/16	21/32	1.74
7	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	4 1/2	3 1/2	3/4	2.78
9.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	5 1/8	4 1/32	7/8	4.14
12.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	5 29/32	4 21/32	31/32	6.13
15	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	6 17/32	5 5/32	1 1/16	8.53
18	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	7	5 25/32	1 3/16	11.6
21	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	7 3/4	6 3/8	1 5/16	15.3
30	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	7 15/16	6 7/8	3/4	19.38
40	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/16	9 13/16	8 1/2	29/32	33.07
55	2	2 1/4	4 19/32	2 1/4	3 9/32	7 3/4	5 7/16	13 7/16	11 1/4	9 29/32	1 1/32	48.50
85	2 1/2	2 3/4	5 5/8	2 3/4	4 1/8	10 1/4	7 3/32	17 7/32	13 17/32	12 19/32	1 1/4	92.59
120	3	3 1/4	6 3/8	3 9/32	5	12 15/16	7 15/32	21 1/16	15 7/8	14 1/32	1 9/16	154.32
150*	3 3/4	3 3/4	8 3/16	3 19/32	5 25/32	15 3/4	9 3/8	25 15/32	20 1/8	16 27/32	1 31/32	246.92
175*	4	4 1/4	9 3/8	4 1/32	6 21/32	16 5/32	10 13/16	27 3/32	22 3/32	19 3/32	2 3/8	352.74

\* = round headed bolt



G-5163



## Green Pin® Polar Shackles

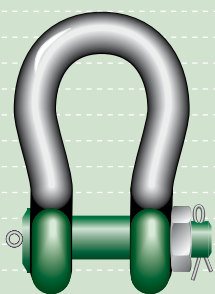
bow shackles with safety bolt, for use under extreme climatic conditions

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 8 x WLL
- **Standard** : EN 13889 and  
meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Finish** : hot dipped galvanized
- **Temperature Range** : -40 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied and/or a works certificate, material certificate, manufacturer test certificate, EC Declaration of Conformity and/or DNV 2.7-1 certificate.
- **Note** : for shackles with WLL 55 and 85 tons the MBL equals 6 x WLL

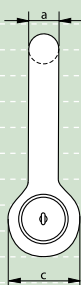
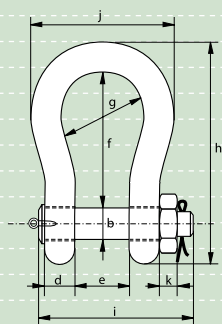
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66
12	32	35	72	32	51	115	83	201	178	147	30	4.91
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54
17	38	42	88	38	60	146	99	249	202	175	19	8.19
25	45	50	103	45	74	178	126	300	249	216	23	14.22
35	50	57	116	50	83	197	138	334	269	238	26	19.85
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33
55	65	70	145	65	105	260	180	433	330	310	32	39.59
85	75	83	162	73	127	329	190	527	380	340	40	62

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	3 7/32	2 9/32	1/2	0.92
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	3 27/32	2 15/16	21/32	1.62
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	4 1/2	3 1/2	3/4	2.59
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	5 1/8	4 1/32	7/8	3.9
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	5 29/32	4 21/32	31/32	5.69
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	6 17/32	5 5/32	1 1/16	8.06
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	7	5 25/32	1 3/16	10.81
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	7 3/4	6 3/8	1 5/16	14.42
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	7 15/16	6 7/8	3/4	18.06
25	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/16	9 13/16	8 1/2	29/32	31.34
35	2	2 1/4	4 9/16	1 31/32	3 9/32	7 3/4	5 7/16	13 5/32	10 19/32	9 3/8	1 1/32	43.77
42.5	2 1/4	2 9/16	5 1/8	2 1/4	3 3/4	8 3/4	6 5/16	14 27/32	11 27/32	10 25/32	1 5/32	62.46
55	2 1/2	2 3/4	5 23/32	2 9/16	4 1/8	10 1/4	7 3/32	17 1/16	13	12 7/32	1 1/4	87.27
85	3	3 1/4	6 3/8	2 7/8	5	12 15/16	7 15/32	20 3/4	14 31/32	13 3/8	1 9/16	136.69



P-6031



## Green Pin® Heavy Duty Polar Shackles

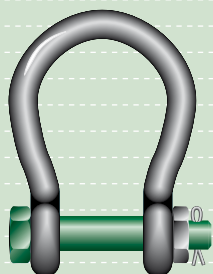
bow shackles with safety bolt, for use under extreme climatic conditions

- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : shackle bow painted silver, pin painted green (120 tons shackle is hot dipped galvanized)
- **Temperature Range** : -40 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity. All shackles starting from 150 tons are supplied with a Lloyd's Register of Shipping Certificate on proof load

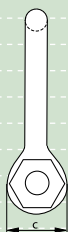
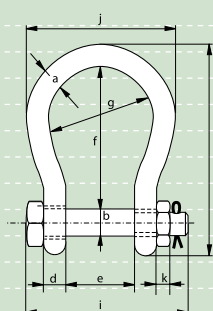
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
120	95	95	208	91	147	399	238	646	440	428	50	110
150	105	108	238	102	169	410	275	688	490	485	60	160
200	120	130	279	112	179	512	290	837	520	530	60	235
250	130	140	299	118	205	554	305	904	560	565	65	285
300	140	150	325	123	205	618	305	996	575	585	70	340
400	170	175	376	164	231	668	325	1114	690	665	70	560
500	180	185	398	164	256	718	350	1190	720	710	70	685
600	200	205	444	189	282	718	375	1243	810	775	70	880
700	210	215	454	204	308	718	400	1263	870	820	70	980
800	210	220	464	204	308	718	400	1270	870	820	70	1100
900	220	230	485	215	328	718	420	1296	920	860	70	1280
1000	240	240	515	215	349	718	420	1336	940	900	70	1460
1250	260	270	585	230	369	768	450	1456	1025	970	70	1990
1500	280	290	625	230	369	818	450	1556	1025	1010	70	2400

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
120	3 3/4	3 3/4	8 3/16	3 19/32	5 25/32	15 3/4	9 3/8	25 15/32	17 5/16	16 27/32	1 31/32	243
150	4 1/8	4 1/4	9 3/8	4 1/32	6 21/32	16 5/32	10 13/16	27 3/32	19 9/32	19 3/32	2 3/8	353
200	4 23/32	5 1/8	10 31/32	4 7/16	7 1/16	20 3/16	11 13/32	33	20 15/32	20 7/8	2 3/8	518
250	5 1/8	5 1/2	11 25/32	4 21/32	8 1/16	21 13/16	12	35 19/32	22 1/16	22 1/4	2 9/16	628
300	5 1/2	5 29/32	12 25/32	4 27/32	8 1/16	24 11/32	12	39 7/32	22 5/8	23 1/32	2 3/4	750
400	6 11/16	6 7/8	14 13/16	6 15/32	9 3/32	26 5/16	12 25/32	43 27/32	27 5/32	26 3/16	2 3/4	1235
500	7 3/32	7 9/32	15 21/32	6 15/32	10 3/32	28 9/32	13 25/32	46 27/32	28 11/32	27 15/16	2 3/4	1510
600	7 7/8	8 1/16	17 15/32	7 7/16	11 3/32	28 9/32	14 3/4	48 15/16	31 7/8	30 1/2	2 3/4	1940
700	8 9/32	8 15/32	17 7/8	8 1/32	12 1/8	28 9/32	15 3/4	49 23/32	34 1/4	32 9/32	2 3/4	2161
800	8 9/32	8 21/32	18 9/32	8 1/32	12 1/8	28 9/32	15 3/4	50	34 1/4	32 9/32	2 3/4	2425
900	8 21/32	9 1/16	19 3/32	8 15/32	12 29/32	28 9/32	16 17/32	51 1/32	36 7/32	33 27/32	2 3/4	2822
1000	9 7/16	9 7/16	20 9/32	8 15/32	13 3/4	28 9/32	16 17/32	52 19/32	37	35 7/16	2 3/4	3219
1250	10 1/4	10 5/8	23 1/32	9 1/16	14 17/32	30 1/4	17 23/32	57 5/16	40 11/32	38 3/16	2 3/4	4387
1500	11 1/32	11 13/32	24 19/32	9 1/16	14 17/32	32 7/32	17 23/32	61 1/4	40 11/32	39 3/4	2 3/4	5291



G-4263



## Green Pin® Wide Mouth Shackles

### bow shackles with safety bolt

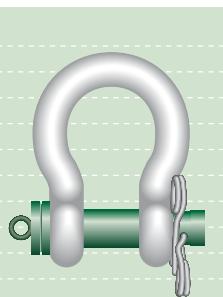
- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Finish** : hot dipped galvanized
- **Temperature Range** : -20 °C up to +200 °C
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
4.75	22	25	52	22	63	112	88	173	157	132	23	2.08
6.5	25	28	59	25	75	135	105	204	182	155	25	3.14
8.5	28	32	66	28	82	148	115	225	201	171	28	4.36
9.5	32	35	72	32	90	162	126	248	217	190	31	5.95
12	35	38	79	35	100	180	140	274	240	210	34	7.87
16	38	42	88	38	106	216	159	319	248	235	19	12.5
25	45	50	103	45	127	248	175	370	296	265	24	18
30	50	57	118	50	146	273	207	411	338	307	27	25
55	65	70	145	65	165	314	213	487	389	343	33	48
75	75	83	166	75	184	330	254	530	432	404	40	70

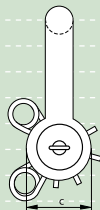
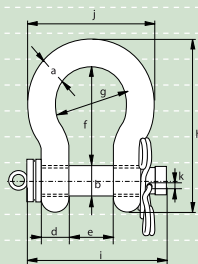
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	thickness nut	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	
4.75	7/8	1	2 1/16	7/8	2 15/32	4 13/32	3 15/32	6 13/16	6 3/16	5 3/16	29/32	4.59
6.5	1	1 1/8	2 5/16	31/32	2 15/16	5 5/16	4 1/8	8 1/32	7 5/32	6 3/32	31/32	6.92
8.5	1 1/8	1 1/4	2 19/32	1 3/32	3 7/32	5 13/16	4 17/32	8 27/32	7 29/32	6 23/32	1 3/32	9.61
9.5	1 1/4	1 3/8	2 27/32	1 1/4	3 17/32	6 3/8	4 31/32	9 3/4	8 17/32	7 15/32	1 7/32	13.12
12	1 3/8	1 1/2	3 1/8	1 3/8	3 15/16	7 3/32	5 1/2	10 25/32	9 7/16	8 9/32	1 11/32	17.35
16	1 1/2	1 5/8	3 15/32	1 1/2	4 3/16	8 1/2	6 1/4	12 9/16	9 3/4	9 1/4	3/4	27.56
25	1 3/4	2	4 1/16	1 25/32	5	9 3/4	6 7/8	14 9/16	11 21/32	10 7/16	15/16	39.68
30	2	2 1/4	4 21/32	1 31/32	5 3/4	10 3/4	8 5/32	16 3/16	13 5/16	12 3/32	1 1/16	55.12
55	2 1/2	2 3/4	5 23/32	2 9/16	6 1/2	12 3/8	8 3/8	19 3/16	15 5/16	13 1/2	1 5/16	105.82
75	3	3 1/4	6 17/32	2 15/16	7 1/4	13	10	20 7/8	17	15 29/32	1 9/16	154.32





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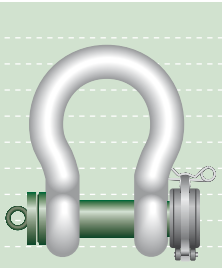


## Green Pin® ROV Release Polar Shackles with spring pins

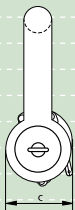
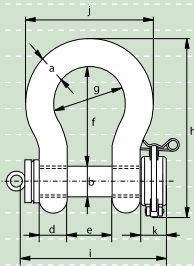
- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Finish** : body white painted, pin green painted
- **Temperature Range**: -40°C up to +200°C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity.
- **Note** : for in-line use only  
it is up to the user to attach the safety pins with wire ropes etc. and attaching loops or monkey's fists. Van Beest supplies the shackle body, the shackle pin and 2 spring pins.

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	diameter bolt	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
17	38	42	88	38	60	146	99	249	202	175	6.5	8.19
25	45	50	103	45	74	178	126	300	249	216	8.5	14.22
55	65	70	145	65	105	260	180	433	330	310	8.5	39.59
85	75	83	162	73	127	329	190	527	380	340	8.5	62





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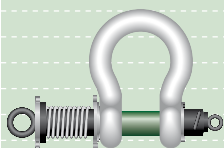


## Green Pin<sup>®</sup> ROV Release Polar Shackles with locking clamp

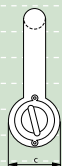
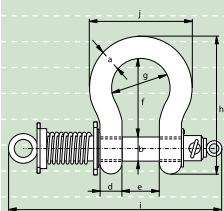
- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Safety Factor** : MBL equals 8x WLL for shackles with WLL 17 t and 25 t, MBL equals 6x WLL for shackles with WLL 55 t and 85 t
- **Finish** : body white painted, pin green painted
- **Temperature Range** : -40°C up to +200°C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity.
- **Note** : it is up to the user to attach the locking clamp with wire ropes etc. and attaching loops or monkey's fists. Van Beest supplies the shackle body, the shackle pin and locking clamp with spring pin.

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	width locking clamp	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
17	38	42	88	38	60	146	99	250	217	175	48	8.19
25	45	50	103	45	74	178	126	300	250	216	48	14.22
55	65	70	145	65	105	260	180	433	330	310	48	39.59
85	75	83	162	73	127	329	190	527	380	340	48	62





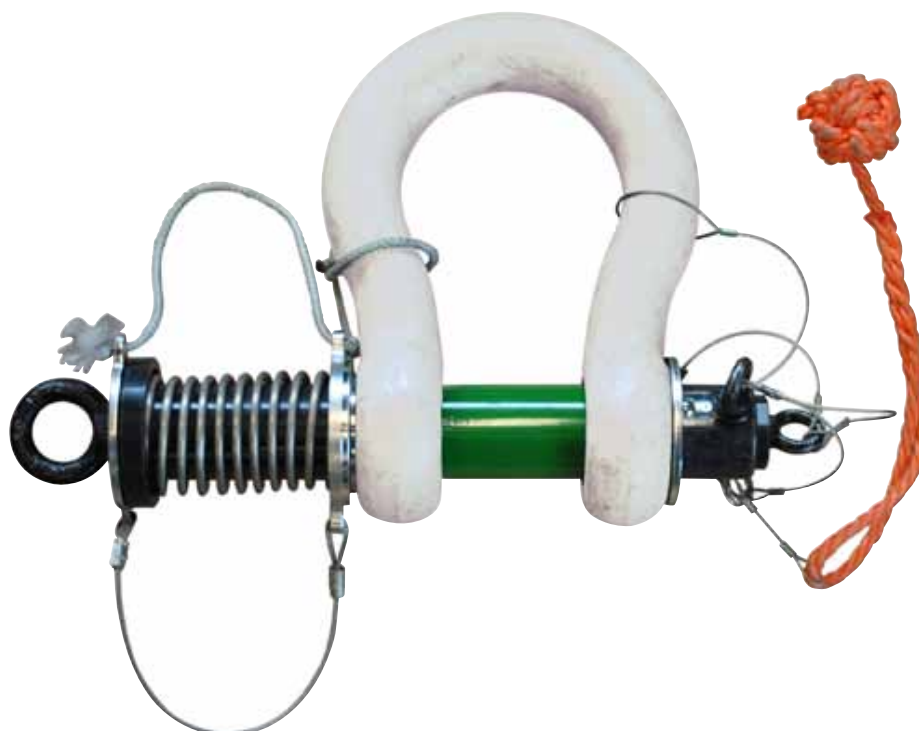
P-5367

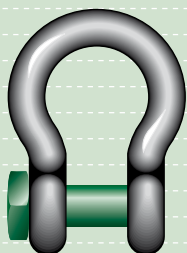


## Green Pin® ROV Spring Release Polar Shackles spring loaded

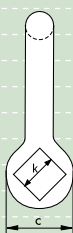
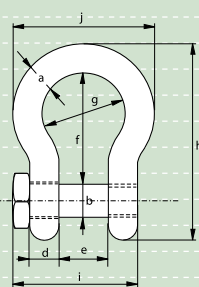
- **Material** : bow and pin alloy steel, Grade 8, quenched and tempered
- **Finish** : body white painted, pin green painted
- **Temperature Range**: -40°C up to +200°C
- **Certificates** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity.
- **Note** : for in-line use only  
this shackle is assembled with rope slings and monkey's fist for size starting from WLL 42.5 up to and including 150T a special mounting tool (tensioner) is required to assemble the shackle

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width	weight each
t	a	b	c	d	e	f	g	h	i	j	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
12	32	35	72	32	51	115	83	201	262	147	6
13.5	35	38	80	35	57	133	92	227	275	162	7
17	38	42	88	38	60	146	99	249	330	175	14
25	45	50	103	45	74	178	126	300	352	216	16
35	50	57	116	50	83	197	138	334	373	238	21
42.5	57	65	130	57	95	222	160	377	442	274	32
55	65	70	145	65	105	260	180	433	470	310	43
85	75	83	162	73	127	329	190	527	579	340	71
120	95	95	208	91	147	399	238	646	674	428	131
150	105	108	238	102	169	410	275	688	699	485	171





G-4164



## Green Pin® Trawling Shackles

### bow shackles with square headed screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity

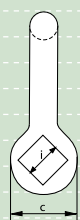
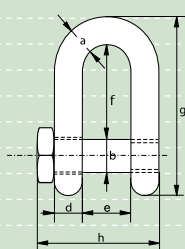
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	width bolt head	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
2	13.5	16	34	13	22	51	32	89	57.5	58	22	0.34
3.25	16	19	40	16	27	64	43	110	71	75	27	0.63
4.75	19	22	46	19	31	76	51	129	82	89	32	1
6.5	22	25	52	22	36	83	58	144	93	102	32	1.44
8.5	25	28	59	25	43	95	68	164	108	118	36	2.21
9.5	28	32	66	28	47	108	75	185	120	131	41	3.18
12	32	35	72	32	51	115	83	201	137	147	50	4.32
13.5	35	40	80	35	57	133	92	227	149	162	50	5.67
17	38	42	88	38	60	146	99	249	164	175	60	7.36
25	45	50	103	45	74	178	126	300	192	216	60	12.38

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width bolt	width bolt head	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	2 1/4	2 9/32	7/8	0.75
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	2 25/32	2 15/16	1 1/16	1.39
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	3 7/32	3 1/2	1 1/4	2.21
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	3 21/32	4 1/32	1 1/4	3.17
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	4 1/4	4 21/32	1 13/32	4.86
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	4 23/32	5 5/32	1 5/8	7.01
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	5 13/32	5 25/32	1 31/32	9.52
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	5 7/8	6 3/8	1 31/32	12.49
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	6 15/32	6 7/8	2 3/8	16.23
25	1 3/4	2	4 1/16	1 25/32	2 29/32	7	4 31/32	11 13/26	7 9/16	8 1/2	2 3/8	27.29



G-4154



## Green Pin® Trawling Shackles

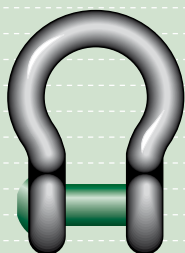
### dee shackles with square headed screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity

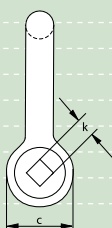
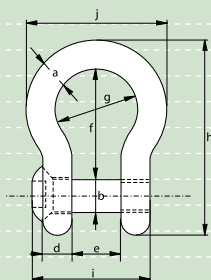
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length bolt	length bolt head	width bolt head	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
2	13.5	16	34	13	22	43	81	57.5	22	0.32
3.25	16	19	40	16	27	51	97	71	27	0.58
4.75	19	22	46	19	31	59	112	82	32	0.92
6.5	22	25	52	22	36	73	134	93	32	1.33
8.5	25	28	59	25	43	85	154	108	36	2.03
9.5	28	32	66	28	47	90	167	120	41	2.88
12	32	35	72	32	51	94	180	137	50	3.96
13.5	35	38	80	35	57	115	209	149	50	5.24
17	38	42	88	38	60	127	230	164	60	6.8
25	45	50	103	45	74	149	271	192	60	11.22

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length bolt	length bolt head	width bolt head	weight each
t	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
2	1/2	5/8	1 11/32	1/2	7/8	1 11/16	3 3/16	2 1/4	7/8	0.7
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2	3 13/16	2 25/32	1 1/16	1.28
4.75	3/4	7/8	1 13/16	3/4	1 7/32	2 5/16	4 13/32	3 7/32	1 1/4	2.03
6.5	7/8	1	2 1/16	7/8	1 13/32	2 7/8	5 9/32	3 21/32	1 1/4	2.93
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 11/32	6 1/16	4 1/4	1 13/32	4.48
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	3 17/32	6 9/16	4 23/32	1 5/8	6.35
12	1 1/4	1 3/8	2 27/32	1 1/4	2	3 11/16	7 3/32	5 13/32	1 31/32	8.72
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 7/32	5 7/8	1 31/32	11.56
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5	9 1/16	6 15/32	2 3/8	15
25	1 3/4	2	4 1/16	1 25/32	2 29/32	5 7/8	10 21/32	7 9/16	2 3/8	24.74



G-4169



## Green Pin® Sunken Hole Shackles

### bow shackles with square sunken hole screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity
- **Note** : key for unscrewing the pin must be ordered separately

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width hole	size hole	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
2	13.5	16	34	13	22	51	32	89	51	58	11	0.31
3.25	16	19	40	16	27	64	43	110	63	75	11	0.56
4.75	19	22	46	19	31	76	51	129	74	89	11	0.98
6.5	22	25	52	22	36	83	58	144	85	102	13	1.46
8.5	25	28	59	25	43	95	68	164	99	118	13	2.18
9.5	28	32	66	28	47	108	75	185	110	131	17	3.06
12	32	35	72	32	51	115	83	201	122	147	17	4.24
13.5	35	38	80	35	57	133	92	227	135	162	17	5.59
17	38	42	88	38	60	146	99	249	145	175	17	7.37

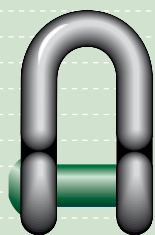
In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length bow	length bolt	width hole	size hole	weight each
t	a	b	c	d	e	f	g	h	i	j	k	lbs
2	1/2	5/8	1 11/32	1/2	7/8	2	1 1/4	3 1/2	2	2 9/32	7/16	0.68
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2 17/32	1 11/16	4 11/32	2 15/32	2 15/16	7/16	1.23
4.75	3/4	7/8	1 13/16	3/4	1 7/32	3	2	5 3/32	2 29/32	3 1/2	7/16	2.16
6.5	7/8	1	2 1/16	7/8	1 13/32	3 9/32	2 9/32	5 21/32	3 11/32	4 1/32	1/2	3.22
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 3/4	2 11/16	6 15/32	3 29/32	4 21/32	1/2	4.81
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	4 1/4	2 15/16	7 9/32	4 11/32	5 5/32	21/32	6.75
12	1 1/4	1 3/8	2 27/32	1 1/4	2	4 17/32	3 9/32	7 29/32	4 13/16	5 25/32	21/32	9.35
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	5 1/4	3 5/8	8 15/16	5 5/16	6 3/8	21/32	12.32
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5 3/4	3 29/32	9 13/16	5 23/32	6 7/8	21/32	16.25

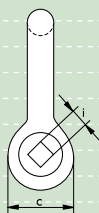
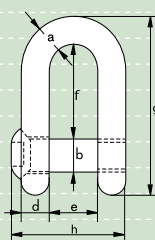


P-4170





G-4159



P-4170



## Green Pin® Sunken Hole Shackles

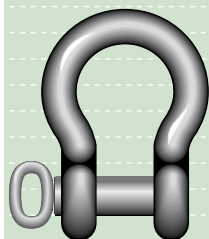
### dee shackles with square sunken hole screw pin

- **Material** : bow and pin high tensile steel, Grade 6, quenched and tempered
- **Safety Factor** : MBL equals 6 x WLL
- **Standard** : meets performance requirements of US Fed. Spec. RR-C-271, Grade A
- **Finish** : hot dipped galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate, material certificate, manufacturer test certificate and/or EC Declaration of Conformity
- **Note** : key for unscrewing the pin must be ordered separately

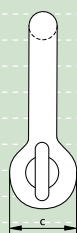
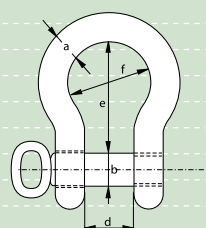
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	size hole	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
2	13.5	16	34	13	22	43	81	51	11	0.34
3.25	16	19	40	16	27	51	97	63	11	0.6
4.75	19	22	46	19	31	59	112	74	11	0.98
6.5	22	25	52	22	36	73	134	85	13	1.26
8.5	25	28	59	25	43	85	154	99	13	2.14
9.5	28	32	66	28	47	90	167	110	17	3.05
12	32	35	72	32	51	94	180	122	17	3.56
13.5	35	38	80	35	57	115	209	135	17	5.17
17	38	42	88	38	60	127	230	145	17	6.84

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	size hole	weight each
t	a inch	b inch	c inch	d inch	e inch	f inch	g inch	h inch	i inch	lbs
2	1/2	5/8	1 11/32	1/2	7/8	1 11/16	3 3/16	2	7/16	0.75
3.25	5/8	3/4	1 9/16	5/8	1 1/16	2	3 13/16	2 15/32	7/16	1.33
4.75	3/4	7/8	1 13/16	3/4	1 7/32	2 5/16	4 13/32	2 29/32	7/16	2.15
6.5	7/8	1	2 1/16	7/8	1 13/32	2 7/8	5 9/32	3 11/32	1/2	2.77
8.5	1	1 1/8	2 5/16	31/32	1 11/16	3 11/32	6 1/16	3 29/32	1/2	4.72
9.5	1 1/8	1 1/4	2 19/32	1 3/32	1 27/32	3 17/32	6 9/16	4 11/32	21/32	6.72
12	1 1/4	1 3/8	2 27/32	1 1/4	2	3 11/16	7 3/32	4 13/16	21/32	7.84
13.5	1 3/8	1 1/2	3 5/32	1 3/8	2 1/4	4 17/32	8 7/32	5 5/16	21/32	11.4
17	1 1/2	1 5/8	3 15/32	1 1/2	2 3/8	5	9 1/16	5 23/32	21/32	15.08



S-1165



## Mooring Shackles

### bow shackles with screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : self coloured
- **Note** : not to be used for lifting applications

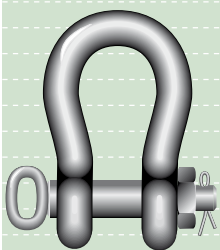
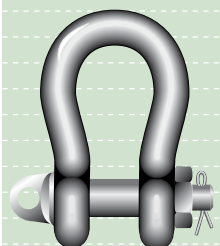
diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
a	b	c	d	e	f	kg
mm	mm	mm	mm	mm	mm	
32	32	74	64	134	96	4.2
38	38	89	76	160	114	7.8
45	45	104	90	189	135	12.5
50	50	111	100	210	155	17.4
65	65	145	130	273	195	35.6



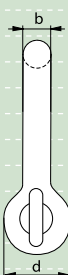
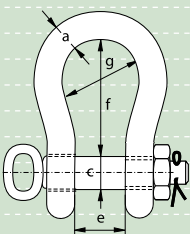
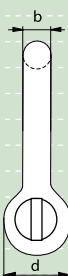
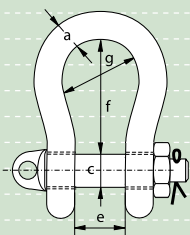
## Shackles generally to DIN 82016 type B bow shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to DIN 82016 type B
- **Finish** : hot dipped galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate.
- **Note** : with screw collar pin : up to size no. 25  
: with hand-grip : from size no. 32

no.	working load limit	thickness bow	thickness bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
	t	a	b	c	d	e	f	g	kg
		mm	mm	mm	mm	mm	mm	mm	
8	8	54	38	45	90	60	152	93	9.3
10	10	60	42	48	96	66	166	102	12
12	12	67	47	52	104	73	184	114	15.7
16	16	76	52	60	120	81	210	128	21
20	20	85	58	68	136	90	231	140	31.4
25	25	92	63	72	144	100	254	155	39.4
32	32	100	70	80	160	110	285	175	53.3
40	40	107	79	90	180	125	315	195	75.3
50	50	120	88	100	200	140	360	220	105
63	63	135	96	110	220	155	395	245	137
80	80	150	110	125	250	175	447	275	200
100	100	165	125	140	280	200	500	305	300



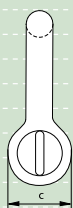
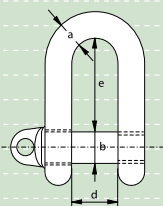
S-3466  
G-3466



## Shackles generally to DIN 82101 type A dee shackles with screw collar pin



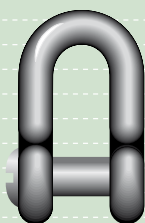
S-3351  
G-3351



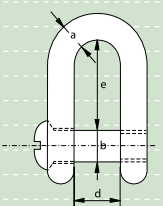
- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 5 x WLL
- **Standard** : generally to DIN 82101 type A
- **Finish** : hot dipped galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate.
- **Note** : shackle no. 0.1 is electro-galvanized and will not have any markings as it is too small

no.	working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
		a mm	b mm	c mm	d mm	e mm	kg
	t						
0.1	0.1	5	5	10	7	15.5	0.017
0.16	0.16	6	6	12	8	18	0.024
0.25	0.25	8	8	16	11	24	0.054
0.4	0.4	10	10	20	14	30	0.097
0.6	0.63	12	12	24	17	36	0.18
1	1	13	16	32	21	49	0.3
1.6	1.6	16	20	40	27	61	0.57
2	2	20	22	44	30	67	0.975
2.5	2.5	22	24	48	33	73	1.3
3	3.15	25	27	54	38	83.5	1.85
4	4	28	30	60	42	91	2.53
5	5	32	36	72	47	111	4
6	6.3	36	39	78	53	119.5	5.3
8	8	41	45	90	60	139.5	7.9
10	10	44	48	96	66	147	10
12	12	49	52	104	73	158	13.5
16	16	55	60	120	81	185	19.2
20	20	61	68	136	90	211	28
25	25	67	72	144	100	221	34

## Shackles generally to DIN 82101 type B dee shackles with counter sunk screw pin



S-3352  
G-3352



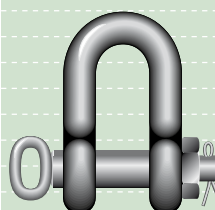
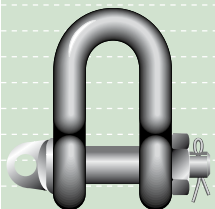
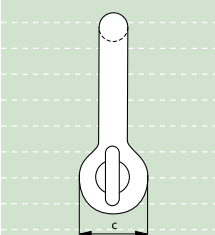
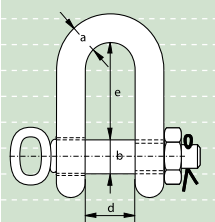
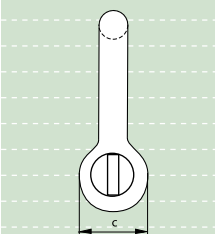
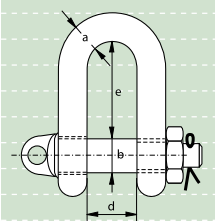
- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 5 x WLL
- **Standard** : generally to DIN 82101 type B
- **Finish** : hot dipped galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate.
- **Note** : shackle no. 0.1 is electro-galvanized and will not have any markings as it is too small

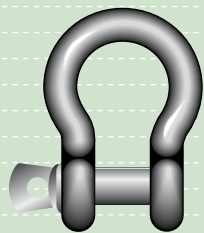
no.	working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
		a mm	b mm	c mm	d mm	e mm	kg
	t						
0.1	0.1	5	5	10	7	15.5	0.014
0.16	0.16	6	6	12	8	18	0.023
0.25	0.25	8	8	16	11	24	0.052
0.4	0.4	10	10	20	14	30	0.093
0.6	0.63	12	12	24	17	36	0.173
1	1	13	16	32	21	49	0.29
1.6	1.6	16	20	40	27	61	0.543
2	2	20	22	44	30	67	0.95
2.5	2.5	22	24	48	33	73	1.23
3	3.15	25	27	54	38	83.5	1.8
4	4	28	30	60	42	91	2.6
5	5	32	36	72	47	111	3.8
6	6.3	36	39	78	53	119.5	5.2
8	8	41	45	90	60	139.5	7.6
10	10	44	48	96	66	147	9.7

## Shackles generally to DIN 82101 type C dee shackles with safety bolt

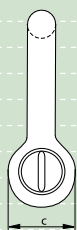
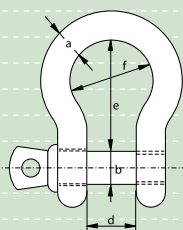
- **Material** : bow and pin high tensile steel, Grade 4
- **Safety Factor** : MBL equals 5 x WLL
- **Standard** : generally to DIN 82101 type C
- **Finish** : hot dipped galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate.
- **Note** : with screw collar pin : up to size no. 25  
with hand-grip : from size no. 32

no.	working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
	t	a mm	b mm	c mm	d mm	e mm	kg
0.4	0.4	10	10	20	14	30	0.113
0.6	0.63	12	12	24	17	36	0.2
1	1	13	16	32	21	49	0.37
1.6	1.6	16	20	40	27	61	0.686
2	2	20	22	44	30	67	1.125
2.5	2.5	22	24	48	33	73	1.5
3	3.15	25	27	54	38	83.5	2.15
4	4	28	30	60	42	91	2.93
5	5	32	36	72	47	111	4.7
6	6.3	36	39	78	53	119.5	6.33
8	8	41	45	90	60	139.5	8.5
10	10	44	48	96	66	147	10.8
12	12.5	49	52	104	73	158	14.4
16	16	55	60	120	81	185	20.5
20	20	61	68	136	90	211	29.5
25	25	67	72	144	100	221	36
32	32	74	80	160	110	246	49
40	40	75	90	180	125	276	75
50	50	88	100	200	140	307	100
63	63	96	110	220	155	339	140
80	80	110	125	250	175	385.5	200
100	100	125	140	280	200	430	280


 S-3356  
 G-3356




G-3161

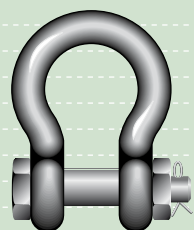


## Yellow Pin Shackles

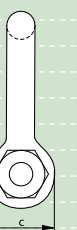
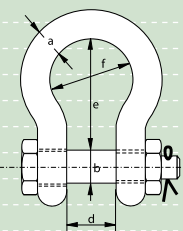
### bow shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized
- **Note** : import quality

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.33	5	6	14	9.5	22	15	0.03
0.5	6	8	16	12	29	20	0.05
0.75	8	10	19	13.5	31	21	0.09
1	10	11	23	17	37	26	0.14
1.5	11	13	27	19	43	29	0.2
2	13	16	30	20	48	33	0.33
3.25	16	19	38	27	60	43	0.62
4.75	19	22	46	32	71	50	1.07
6.5	22	25	53	36	84	58	1.64
8.5	25	28	61	43	95	68	2.28
9.5	28	32	68	46	108	74	3.36
12	32	35	76	51	119	82	4.31
13.5	35	38	84	57	133	92	6.14
17	38	42	92	60	146	98	7.81
25	45	50	106	73	177	127	12.61



G-3163



## Yellow Pin Shackles

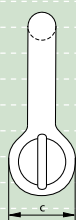
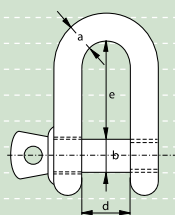
### bow shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized
- **Note** : import quality

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	kg
2	13	16	30	20	48	33	0.36
3.25	16	19	38	27	60	43	0.7
4.75	19	22	46	32	71	50	1.1
6.5	22	25	53	36	84	58	1.79
8.5	25	28	61	43	95	68	2.57
9.5	28	32	68	46	108	74	3.75
12	32	35	76	51	119	82	5.32
13.5	35	38	84	57	133	92	7.19
17	38	42	92	60	146	98	9.44
25	45	50	106	73	177	127	15.4



G-3151

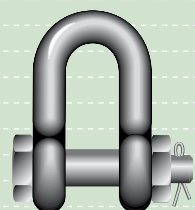


## Yellow Pin Shackles

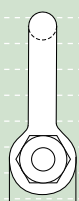
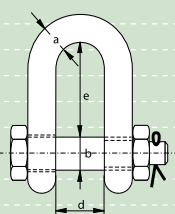
### dee shackles with screw collar pin

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized
- **Note** : import quality

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
t	a mm	b mm	c mm	d mm	e mm	kg
0.33	5	6	12	9.5	19	0.03
0.5	6	8	16	12	22	0.05
0.75	8	10	19	13.5	26	0.08
1	10	11	23	17	32	0.13
1.5	11	13	27	19	37	0.2
2	13	16	30	20	41	0.27
3.25	16	19	38	27	51	0.57
4.75	19	22	46	32	60	1.19
6.5	22	25	53	36	71	1.43
8.5	25	28	61	43	81	2.16
9.5	28	32	68	46	90	3.06
12	32	35	76	51	100	4.11
13.5	35	38	84	57	111	5.28
17	38	42	92	60	122	7.24
25	45	50	106	73	146	12.14



G-3153

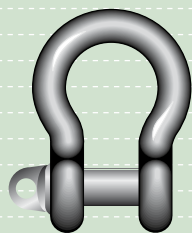


## Yellow Pin Shackles

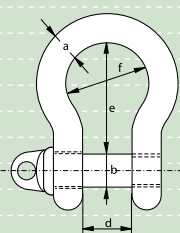
### dee shackles with safety bolt

- **Material** : bow and pin high tensile steel, Grade 6
- **Standard** : generally to US Fed. Spec. RR-C-271
- **Finish** : hot dipped galvanized
- **Note** : import quality

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
t	a mm	b mm	c mm	d mm	e mm	kg
2	13	16	30	20	41	0.35
3.25	16	19	38	27	51	0.65
4.75	19	22	46	32	60	1.02
6.5	22	25	53	36	71	1.75
8.5	25	28	61	43	81	2.52
9.5	28	32	68	46	90	3.5
12	32	35	76	51	100	4.91
13.5	35	38	84	57	111	5.84
17	38	42	92	60	122	8.4
25	45	50	106	73	146	11.9



S-2761  
E-2761  
G-2761



## Shackles generally to B.S. 3032 table 3

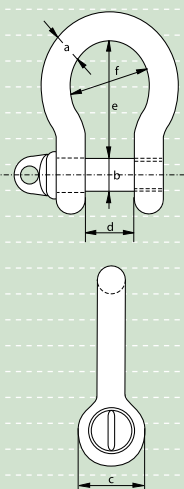
### large bow shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 3
- **Finish** : hot dipped galvanized, electro-galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.15	6	10	19	13	28	19	0.12
0.45	10	13	25	16	41	25	0.18
0.75	13	16	32	22	54	32	0.37
1.25	16	19	38	28	70	41	0.72
2	19	22	44	35	86	51	1.20
2.75	22	25	51	41	98	57	1.85
3.75	25	28	57	44	108	64	2.61
4.75	28	32	63	51	124	73	3.78
5.75	32	35	70	57	137	83	5.17
7.25	35	38	76	63	152	89	6.46
8.5	38	44	89	70	168	98	8.34
9.5	42	48	94	76	187	111	11.1
11.5	44	51	102	86	206	121	14.5
13	48	54	108	92	222	130	17.8
15	51	57	114	98	238	140	25.5
18.5	57	63	127	105	257	152	34.4
20	60	67	133	111	273	162	36.8
25	67	73	146	121	302	178	45
30	73	79	159	133	330	197	62.2
35	79	86	171	146	359	213	81.8
40	86	92	184	159	387	229	95
50	95	102	203	171	429	254	131
65	108	117	235	197	483	286	194
80	117	127	254	216	533	308	274



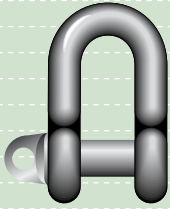
S-2765  
E-2765  
G-2765



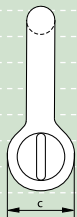
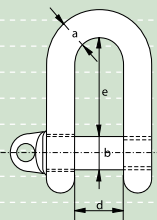
## Shackles generally to B.S. 3032 table 4 small bow shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 4
- **Finish** : hot dipped galvanized, electro-galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.2	6	10	19	13	25	16	0.11
0.5	10	13	25	16	38	22	0.17
1	13	16	32	22	51	29	0.35
1.5	16	19	38	28	64	38	0.66
2	19	22	44	35	76	44	1.06
3	22	25	51	38	89	51	1.68
4	25	28	57	44	102	60	2.47
5	28	32	63	51	114	67	3.48
6.25	32	35	70	57	127	76	4.79
7.5	35	38	76	60	140	83	5.95
9.25	38	44	89	67	152	89	7.55
10.5	41	48	95	73	165	98	9.79
12.5	44	51	102	79	178	105	12.5
14.25	48	54	108	86	191	114	15.3
16.5	51	57	114	92	203	121	21.8
18.5	54	60	121	95	216	127	28.9
20	57	63	127	105	229	137	30.9
25	63	70	140	114	254	152	37.8
30	70	79	159	127	279	168	52.6
35	76	86	171	137	305	184	69.5
40	79	89	178	143	318	191	78.1
50	89	98	203	159	356	213	109
65	102	114	229	184	406	244	163
80	114	127	254	206	457	273	235



S-2751  
E-2751  
G-2751

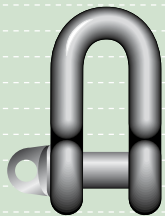


## Shackles generally to B.S. 3032 table 2 large dee shackles with screw collar pin

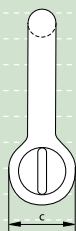
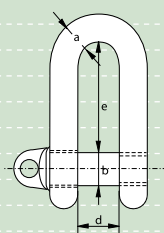
- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 2
- **Finish** : hot dipped galvanized, electro-galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
t	a mm	b mm	c mm	d mm	e mm	kg
0.25	6	10	19	13	25	0.11
0.5	10	13	25	19	38	0.17
0.75	13	16	32	28	54	0.35
1.5	16	19	38	32	64	0.66
2	19	22	44	38	73	1.02
3	22	25	51	44	83	1.57
3.75	25	28	57	51	95	2.3
5	28	32	64	54	105	3.2
6	32	35	70	60	114	4.3
7	35	38	76	67	127	5.4
9.5	38	45	83	70	137	6.8
11.25	42	48	89	76	146	8.7
13	44	51	95	83	156	11
14.25	48	54	108	92	178	14.3
16.25	51	57	114	98	187	20
18	54	60	121	105	197	26.4
20	57	64	127	108	210	28.3
25	64	73	146	121	235	35
30	70	79	159	133	260	49
35	76	86	171	146	279	63.6
40	79	89	178	149	292	71.7
50	89	102	203	171	330	101
65	102	114	229	191	375	151
80	114	127	254	219	419	215





S-2755  
E-2755  
G-2755

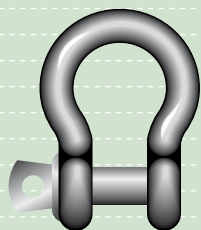
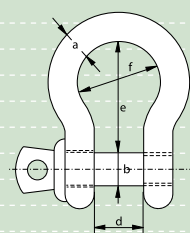


## Shackles generally to B.S. 3032 table 1

### small dee shackles with screw collar pin

- **Material** : bow and pin alloy steel, EN14a
- **Safety Factor** : MBL equals 4 x WLL
- **Standard** : generally to B.S. 3032 table 1
- **Finish** : hot dipped galvanized, electro-galvanized or self coloured
- **Certification** : at no extra charges this product can be supplied with a works certificate

working load limit	diameter bow	diameter pin	diameter eye	width inside	length inside	weight each
t	a mm	b mm	c mm	d mm	e mm	kg
0.3	6	10	19	9.5	22	0.1
0.6	10	13	25	16	35	0.16
1	13	16	32	22	48	0.31
1.75	16	19	38	25	57	0.59
2.5	19	22	44	32	70	0.98
3.5	22	25	51	35	83	1.55
4.5	25	28	57	38	92	2.2
5.5	28	32	64	44	105	3.1
7	32	35	70	48	114	4.2
8	35	38	83	54	127	5.1
10.75	38	45	89	60	140	6.6
13	42	48	95	64	149	8.1
14.75	44	51	102	70	162	10.5
16.75	48	54	108	73	171	13.3
19	51	57	114	76	184	19.2
20	54	60	121	83	197	22.4
25	60	70	140	92	219	25.3
30	64	73	146	98	229	31.5
35	70	79	159	108	254	47
40	73	83	165	111	264	60.2
50	83	95	190	127	298	68.5
65	92	108	216	140	333	98
80	102	117	235	156	368	147

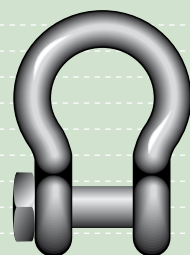
S-1161  
E-1161

## Commercial Shackles

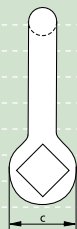
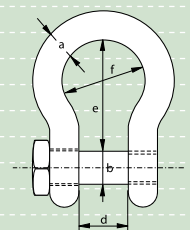
### bow shackles with screw collar pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	f mm	kg
5	5	10	10	20	15	1.54
6	6	12	12	24	18	2.66
8	8	16	16	32	24	6.29
10	10	20	20	40	30	12.3
11	11	22	22	44	33	16.4
12	12	24	24	48	36	21.2
14	14	28	28	56	42	33.7
16	16	32	32	64	48	50.3
19	19	38	38	76	57	98.3
22	22	44	44	88	66	131
25	25	50	50	100	75	192
28	28	56	56	112	84	270
32	32	64	64	128	96	403
38	38	76	76	152	114	674
45	45	90	90	180	135	1120
50	50	100	100	200	150	1536
57	57	114	114	228	171	2276
65	65	130	130	260	195	3375



S-1164

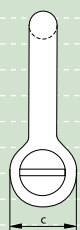
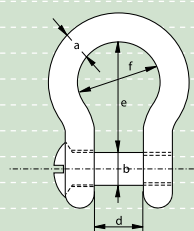


## Commercial Shackles

### bow shackles with square head screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	f mm	kg
6	6	12	12	24	18	2.7
8	8	16	16	32	24	6.4
10	10	20	20	40	30	12.5
11	11	22	22	44	33	16.6
12	12	24	24	48	36	21.6
14	14	28	28	56	42	34.3
16	16	32	32	64	48	51.2
19	19	38	38	76	57	100
22	22	44	44	88	66	133
25	25	50	50	100	75	195
28	28	56	56	112	84	275
32	32	64	64	128	96	410
38	38	76	76	152	114	686


 S-1162  
 E-1162


## Commercial Shackles

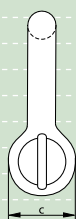
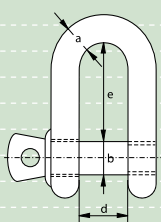
### bow shackles with counter sunk screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	width bow	weight per 100 pcs
a	b	c	d	e	f	kg
mm	mm	mm	mm	mm	mm	
8	8	16	16	32	24	6
10	10	20	20	40	30	11.6
11	11	22	22	44	33	15.5
12	12	24	24	48	36	20.1
14	14	28	28	56	42	31.9
16	16	32	32	64	48	47.6
19	19	38	38	76	57	93.1
22	22	44	44	88	66	124
25	25	50	50	100	75	182



S-1151  
E-1151



## Commercial Shackles

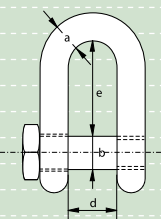
### dee shackles with screw collar pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a	b	c	d	e	kg
mm	mm	mm	mm	mm	
5	5	10	10	20	1.47
6	6	12	12	24	2.56
8	8	16	16	32	6.06
10	10	20	20	40	11.8
11	11	22	22	44	15.8
12	12	24	24	48	20.5
14	14	28	28	56	32.5
16	16	32	32	64	48.5
19	19	38	38	76	94.7
22	22	44	44	88	126
25	25	50	50	100	185
28	28	56	56	112	260
32	32	64	64	128	388
38	38	76	76	152	650
45	45	90	90	180	1080
50	50	100	100	200	1480
57	57	114	114	228	2192
65	65	130	130	260	3252



S-1154

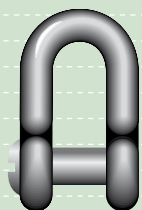
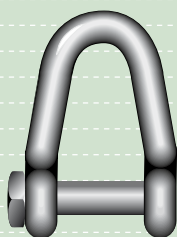
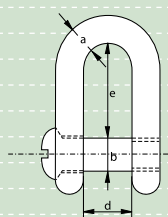


## Commercial Shackles

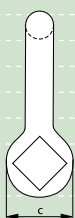
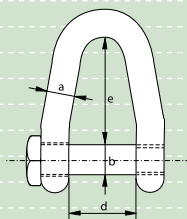
### dee shackles with square head screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a	b	c	d	e	kg
mm	mm	mm	mm	mm	
6	6	12	12	24	2.6
8	8	16	16	32	6.17
10	10	20	20	40	12
11	11	22	22	44	16
12	12	24	24	48	20.8
14	14	28	28	56	33.1
16	16	32	32	64	49.4
19	19	38	38	76	96.4
22	22	44	44	88	128
25	25	50	50	100	188
28	28	56	56	112	265
32	32	64	64	128	395
38	38	76	76	152	661


 S-1152  
 E-1152


S-1170



## Commercial Shackles

### dee shackles with counter sunk screw pin

- **Material** : mild steel, untreated, Grade 3
- **Finish** : electro-galvanized or self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	kg
8	8	16	16	32	5.72
10	10	20	20	40	11.2
11	11	22	22	44	14.9
12	12	24	24	48	19.3
14	14	28	28	56	30.7
16	16	32	32	64	45.8
19	19	38	38	76	89.5
22	22	44	44	88	119
25	25	50	50	100	175

## Commercial Shackles

### danlino V shackles with square head screw pin

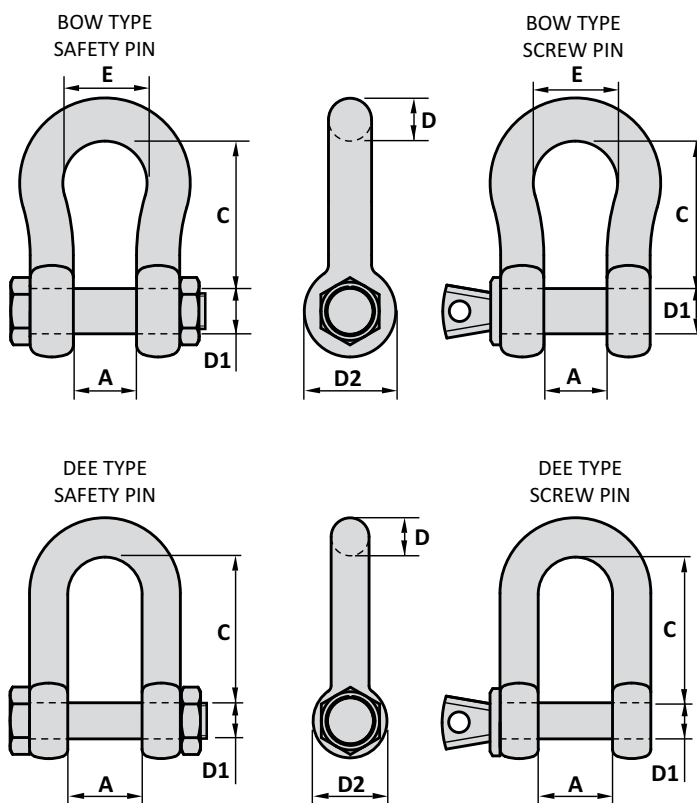
- **Material** : mild steel, untreated, Grade 3
- **Finish** : self coloured
- **Note** : not to be used for lifting applications

diameter bow	diameter pin	diameter eye	width inside	length inside	weight per 100 pcs
a mm	b mm	c mm	d mm	e mm	kg
32	32	64	78	120	470

# GN HIGH ALLOY SHACKLE

# TYPE H9

Material : Forged high tensile steel  
quenched and tempered  
Safety factor : 6 times  
Finish : Galvanised  
Certificate : Certificate of Conformity  
on request



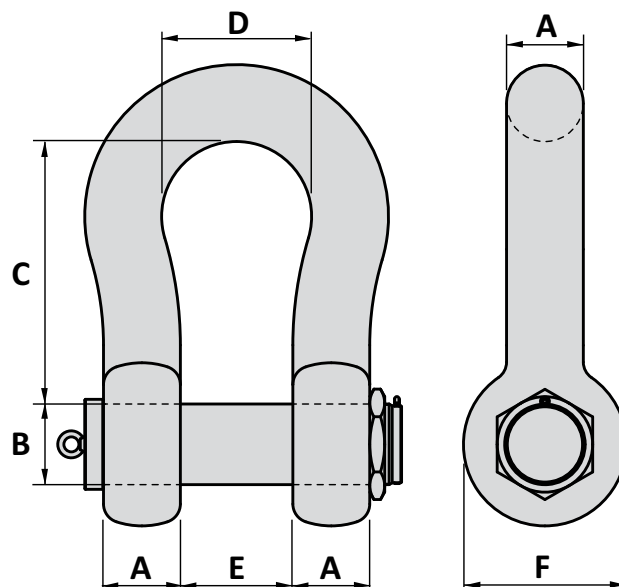
WLL ton	Art. No. Dee		Art. No. Bow		D mm	D1 mm	A mm	C Dee mm	C Bow mm	E mm	D2 mm	Weight Screw pin kg	Weight Safety pin kg
	screw pin	safety pin	screw pin	safety pin									
0.33	32000003		37000004		5	6	10	19	22	16	13	0.02	
0.5	32000005		37000006	37000009	6	8	12	25	29	20	16	0.05	0.06
0.75	32000007		37000008		8	10	13	27	32	21	20	0.10	
1	32000010		37000011	37000017	9	11	16	31	36	26	22	0.14	0.15
1.5	32000015	32000019	37000015	37000016	11	13	18	37	43	29	26	0.19	0.21
2	32000021	32000025	37000020	37000029	13	16	22	43	47	33	34	0.36	0.4
3.25	32000030	32000039	37000030	37000039	16	19	27	51	60	42	40	0.63	0.7
4.75	32000040	32000049	37000040	37000049	19	22	31	59	71	51	47	1.1	1.1
6.5	32000060	32000069	37000060	37000069	22	25	36	73	84	58	53	1.5	1.7
8.5	32000080	32000089	37000080	37000089	25	28	43	85	95	68	60	2.2	2.5
9.5	32000090	32000099	37000090	37000099	28	32	47	90	108	74	67	3.1	3.4
12	32000120	32000129	37000120	37000129	32	35	51	94	119	83	74	4.3	4.5
13.5	32000130	32000139	37000130	37000139	35	38	57	115	132	89	80	5.5	6.1
17	32000170	32000179	37000170	37000179	38	42	60	127	146	98	89	7.4	7.6
25	32000250	32000259	37000250	37000259	45	50	74	149	178	126	104	13	13
35	32000350	32000359	37000350	37000359	50	57	83	171	197	138	119	18	18
42.5	32000420	32000429	37000420	37000429	57	65	95	190	220	160	134	27	26
55	32000550	32000559	37000550	37000559	65	70	105	203	260	180	145	38	35
85		32000859		37000859	75	83	127	229	330	190	163		53

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

# GN BOW SAFETY PIN SHACKLE

## TYPE H10

- Material : Forged alloy steel quenched and tempered  
 Safety factor : 5 times  
 Standards : Generally to U.S. Federal Spec RR-C-271  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request Manufacturer certificate  
 Proofload certificate  
 NDT inspection certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



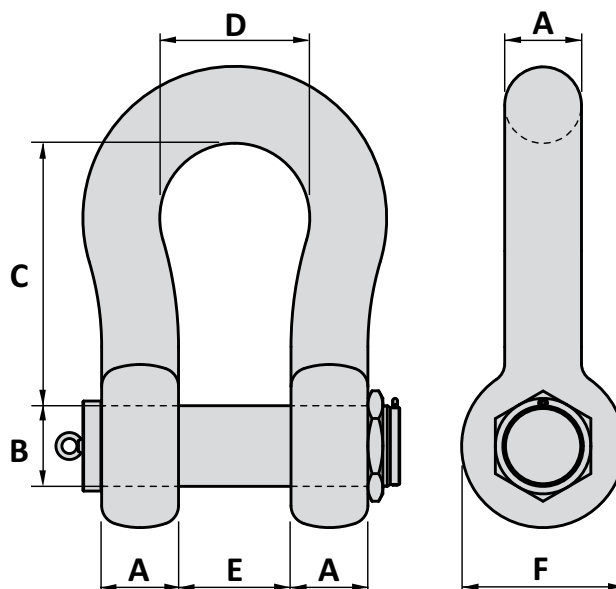
Art. No.	WLL ton	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
37001209	120	89	95	381	238	150	200	110
37001509	150	102	108	400	275	170	230	160
37002009	200	120	125	500	290	180	260	235
37002509	250	125	140	540	305	200	260	285
37003009	300	135	150	600	305	200	305	340
37004009	400	165	175	650	325	225	350	560
37005009	500	175	185	700	350	250	370	685
37006009	600	195	205	700	375	275	405	880
37007009	700	205	215	700	400	300	435	980
37008009	800	210	220	700	400	300	435	1100
37009009	900	220	230	700	420	320	465	1280
37010009	1000	230	240	700	420	340	480	1460
37012509	1250	270	270	750	450	360	570	2110
37015009	1500	280	290	800	450	360	610	2450

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

# GN BOW SAFETY PIN SHACKLE (SUPER)

## TYPE H10 SUPER

- Material : Forged alloy steel quenched and tempered  
 Safety factor : 5 times  
 Finish : Galvanised up to 120 ton  
           Painted above 120 ton  
 Certificates : Material certificate 3.1  
 on request : Manufacturer certificate  
               Proofload certificate  
               NDT inspection certificate  
               Classification inspection certificate  
               (DNV, Lloyds, ABS, BV etc.)



Art. No.	WLL ton	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
38000300	30	38	42	146	99	60	84	8
38000400	40	45	50	178	126	74	106	14
38000550	55	57	57	197	138	83	114	19
38000850	85	70	70	254	180	105	140	38
37001109	120	83	83	330	200	127	150	59
37001409	150	90	95	381	238	133	190	110
37001759	175	102	108	400	250	140	230	150
37002008	200	120	121	500	290	180	260	225
37002508	250	125	127	510	325	220	260	300
37003008	300	135	152	495	330	213	305	352
37004008	400	170	178	572	330	210	356	500

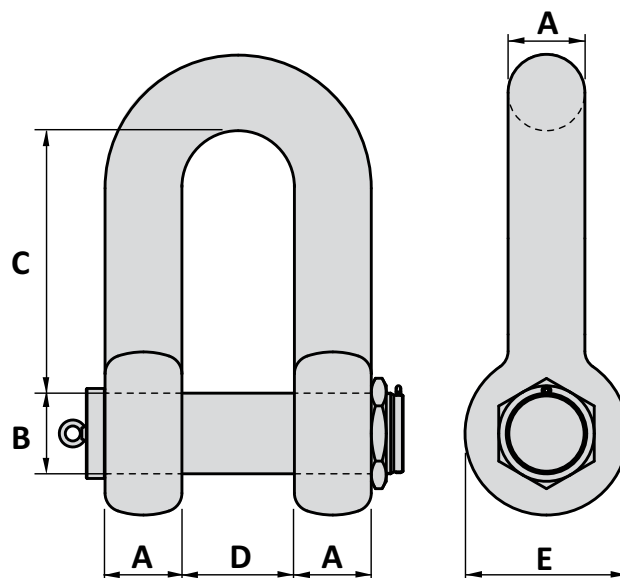
Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm



# GN DEE SAFETY PIN SHACKLE

## TYPE D15

- Material : Forged alloy steel quenched and tempered  
 Safety factor : 5 times  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request Manufacturer certificate  
 Proofload certificate  
 NDT inspection certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



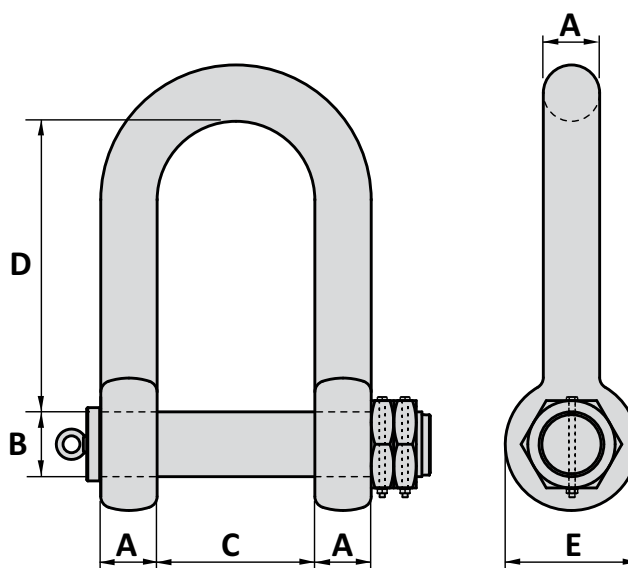
Art. No.	WLL ton	A mm	B mm	C mm	D mm	E mm	Weight kg
32001209	120	89	95	267	150	200	100
32090095	150	89	95	310	130	190	89
32001508	150	102	108	315	170	230	143
32001509	150	102	108	400	170	230	153
32100115	175	100	110	360	155	220	130
32002009	200	120	125	500	180	260	227
32130140	250	130	140	455	195	280	268
32140152	300	140	150	490	205	300	332
32150164	350	150	160	520	220	320	403
32160170	375	160	170	550	235	340	484
32170180	400	170	180	585	250	360	576
32180192	500	180	190	615	265	380	678

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

# GN HEAVY DUTY DOUBLE NUT SHACKLE

## TYPE H11

- Material : Forged alloy steel quenched and tempered  
 Safety factor : 5 times  
 Finish : Galvanised with stainless steel cotterpins  
 Certificates : Material certificate 3.1  
 on request : Manufacturer certificate  
 Proofload certificate  
 NDT inspection certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



Note: Ensure that the load is in the centre of the pin.

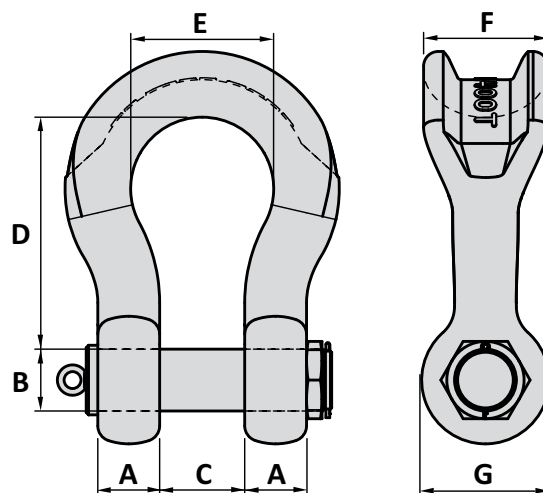
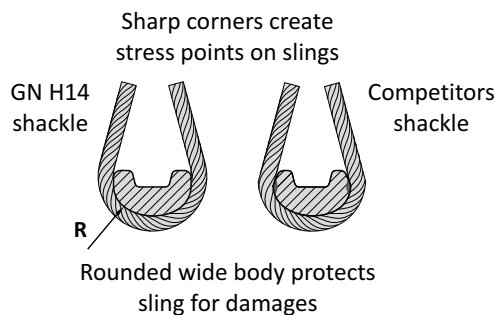
When there is too much space in the jaw gap, we advise to use washers.

Art. No.	WLL ton	MBL ton	Thimble size inch	A mm	B mm	C mm	D mm	E mm	Weight kg
38526509	34	170	8½"-10"	50	65	140	285	115	23
38657609	60	300	11"-13"	70	76	175	350	165	65
38769009	85	425	14"-15"	80	90	220	390	178	87
38891029	110	550	16"-18"	90	100	254	430	210	130
38902119	130	650	19"-21"	100	114	280	480	235	194
38910009	200	1000	22"-23"	125	133	300	600	265	354
38925139	225	1125	25"-27"	130	146	333	720	305	410
38925149	300	1500	28"-30"	140	165	366	850	305	560
<b>Special heavy duty double nut shackle</b>									
32105120	200	498	18"	105	120	254	500	228	187
32115125	200	498	21"	115	125	280	500	238	223
32115126	250	612	15"	115	125	220	400	238	198
32125131	250	612	18"	125	130	254	500	238	248

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

# GN FORGED ROPE SHACKLE TYPE H14 SLING PROTECTOR (WIDE BODY)

- Material : Alloy steel quenched and tempered  
 Safety factor : Up and including 1500 ton 5 times  
 Above 1500 ton 4 times  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request : Manufacturer certificate  
 Proofload certificate  
 NDT inspection certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



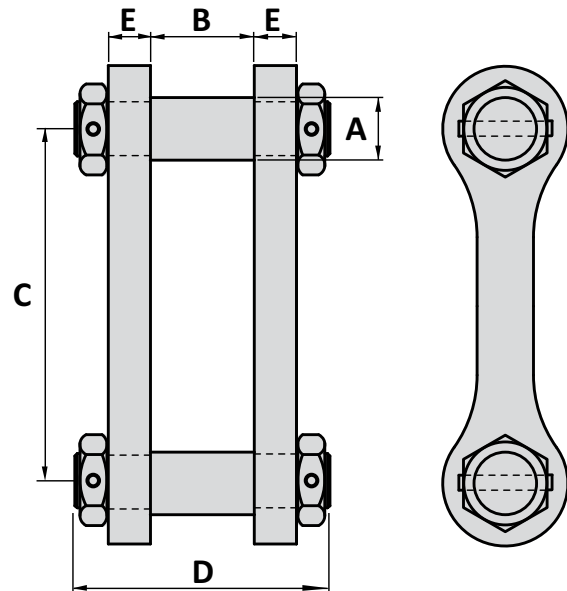
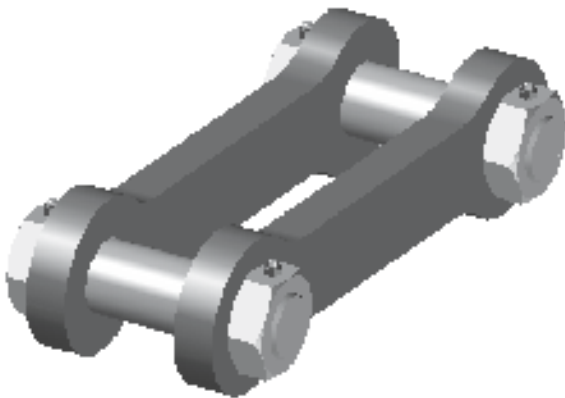
Art. No.	WLL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	R mm	Weight kg
36000025	30	35	45	60	176	128	80	89	45	12.5
36000040	40	45	50	73	210	140	95	105	50	16
36000055	55	60	56	90	240	160	115	116	60	33
36000075	75	70	70	105	290	185	120	150	70	53
36000125	125	80	80	130	365	220	150	165	80	84
36000150	150	90	95	140	390	250	170	200	90	115
36000200	200	105	105	150	480	275	205	225	110	183
36000250	250	120	120	170	550	300	240	240	130	255
36000300	300	140	134	185	600	350	265	280	140	368
36000400	400	160	160	220	600	370	320	330	170	571
36000500	500	170	180	250	650	450	340	350	180	719
36000600	600	180	200	275	720	490	370	405	190	960
36000700	700	210	215	300	750	540	400	465	210	1250
36000800	800	220	230	325	780	555	420	465	210	1400
36000900	900	238	250	350	850	585	440	480	220	2100
36001000	1000	240	270	380	850	615	460	530	230	2200
36001250	1250	260	300	430	930	645	530	570	270	2800
36001500	1500	280	320	460	950	680	560	610	290	3300
36001750	1750	310	360	480	1000	700	580	660	300	4700
36002000	2000	320	385	500	1050	720	600	680	300	4800

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

# DOUBLE PIN CONNECTOR SHACKLE

## TYPE H12

- Material : Body high tensile steel  
Pin alloy steel quenched and tempered
- Finish : Painted
- Certificates on request : Material certificate 3.1  
Manufacturer certificate  
Proofload certificate  
NDT inspection certificate  
Classification inspection certificate  
(DNV, Lloyds, ABS, BV etc.)



Note: Ensure that the load is in the centre of the pin.

When there is too much space in the jaw gap, we advise to use washers.

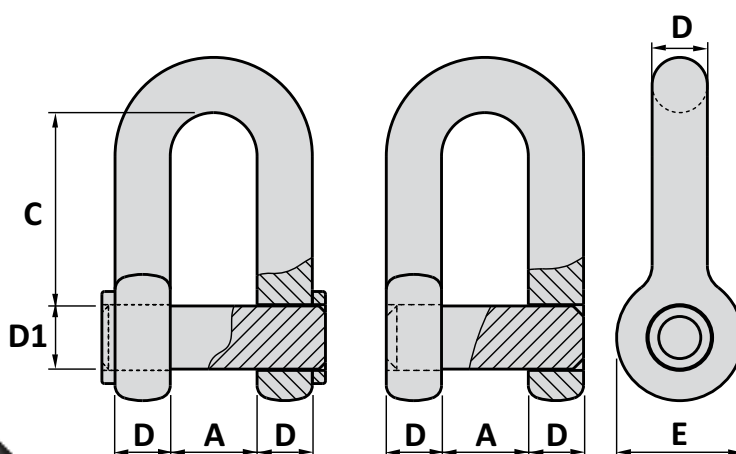
Art. No.	Thimble size inch	MBL ton	PL ton	A mm	B mm	C mm	D mm	E mm	Weight kg
38120000	12"	500	300	110	170	540	510	90	211
38150000	15"	500	300	110	200	540	540	90	216
38180000	18"	500	300	110	225	710	565	90	244
38210000	21"	500	300	110	250	710	590	90	250

Tolerance: Machined parts  $\pm 1$  mm

# CROWN PIN SHACKLE

# TYPE D10

Material : High tensile steel  
 Finish : Self coloured  
 Certificates : Material certificate 3.1  
 on request : Manufacturer certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



Art. No.	D mm	D1 mm	A mm	C mm	E mm	Weight kg
31485230	42	48	66	147	96	9.5
	48	52	73	158	104	13.5
	52	60	81	185	120	17
31606830	60	68	90	211	136	26
	65	72	100	221	150	33
31708040	70	80	110	246	160	49
31809040	80	90	125	276	185	70
31901004	90	100	140	307	200	90
31950000	100	110	155	339	230	125
31990000	110	125	175	385	250	180
31999999	125	140	200	430	280	260
	140	150	210	475	305	335
	150	160	220	525	330	413
	160	170	235	560	340	500
	170	180	250	610	350	601
	180	190	270	650	380	716
	190	200	280	690	405	839

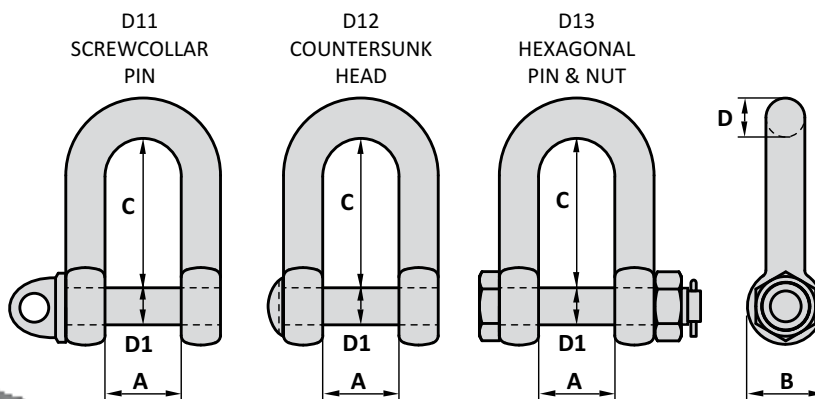
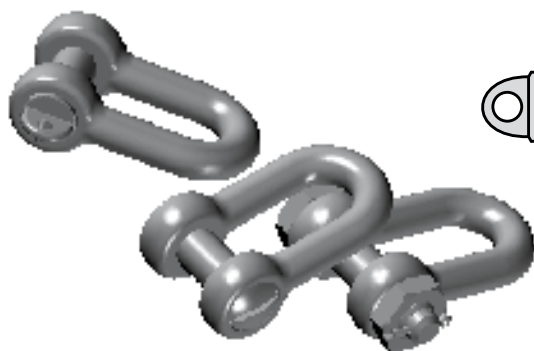
Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

# D-SHACKLE

## TYPE D11-D12-D13

### NEN 964/DIN 82101

Material : High tensile steel  
 Finish : Self coloured/galvanised  
 Certificate : Certificate of Conformity  
 on request



~ specification: 0 = Self coloured  
 9 = Galvanised

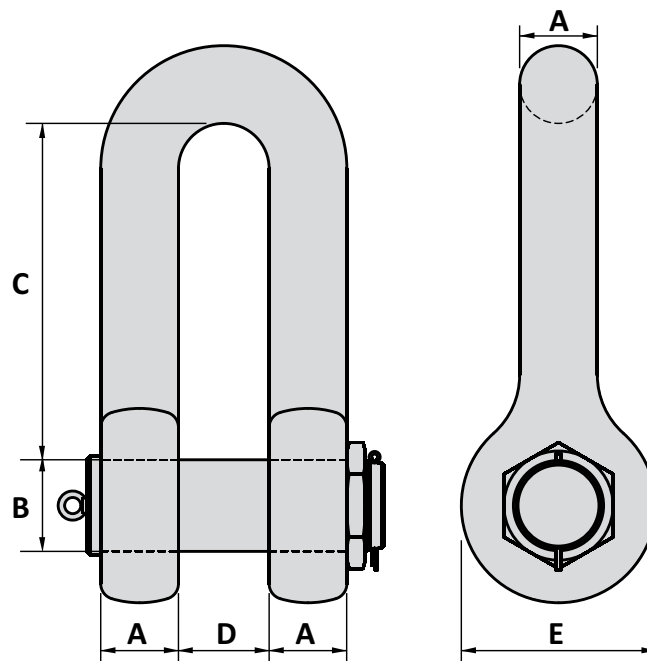
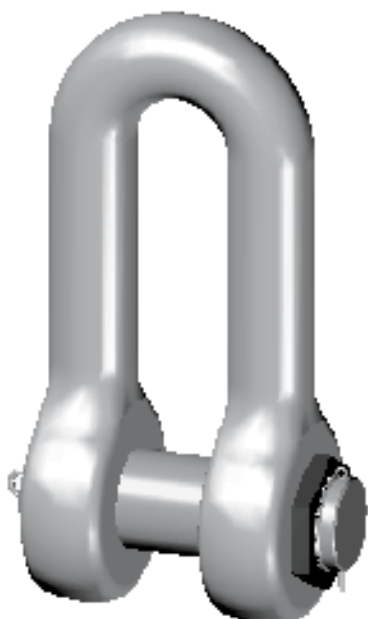
Art. No. D11	Art. No. D12	Art. No. D13	WLL ton	D mm	D1 mm	A mm	C mm	B mm	Packing	Weight kg
3107080~			0.25	7	8	11	25	16	100	0.08
3108100~	31081020	3108104~	0.4	8	10	14	30	20	100	0.12
3110120~	31101220	3110124~	0.63	10	12	17	36	24	50	0.15
3113160~	31131620	3113164~	1	13	16	21	49	32	50	0.35
3117200~	31172020	3117204~	1.6	17	20	27	61	40	20	0.65
3119220~	31192220	3119224~	2	19	22	30	67	44	20	0.85
3122240~	31222420	3122244~	2.5	22	24	33	73	48	10	1.25
3124270~	31242720	3124274~	3	24	27	38	84	54	10	1.8
3127300~	31273020	3127304~	4	27	30	42	91	60	10	2.5
3130360~	31303620	3130364~	5	30	36	47	111	72	5	3.6
3135390~	31353920	3135394~	6	35	39	53	119	78	5	5.2
3138450~	31384520	3138454~	8	38	45	60	139	90		7.5
3142480~	31424820	3142484~	10	42	48	66	147	96		9.5
3148520~	31485220	3148524~	12	48	52	73	158	104		13.5
3152600~	31526020	3152604~	16	52	60	81	185	120		17
3160680~	31606820	3160684~	20	60	68	90	211	136		26
3165720~		3165724~	25	65	72	100	221	144		33
			32	70	80	110	246	160		49
			40	80	90	125	276	180		70
			50	90	100	140	307	200		90
			63	100	110	155	339	220		125
			80	110	125	175	385	250		180
			100	125	140	200	430	280		260

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

# END JOINING SHACKLE WITH ROUND PIN

## TYPE D14

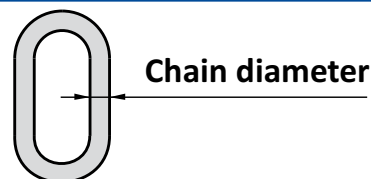
- Material : Forged steel R3/R3S/R4  
 Finish : Painted  
 Standards : ABNT NBR 13715  
 Certificates : Material certificate 3.1  
 on request : Manufacturer certificate  
 Material certificate 3.2  
 Proofload certificate  
 NDT inspection certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



Dimensions for shackles are calculated by multiplying the common link size by the factor shown in this drawing.

#### Dimensions related to nominal chain diameter

- A = 1.2 x chain diameter  
 B = 1.4 x chain diameter  
 C = 5.2 x chain diameter  
 D = 1.4 x chain diameter  
 E = 3.0 x chain diameter

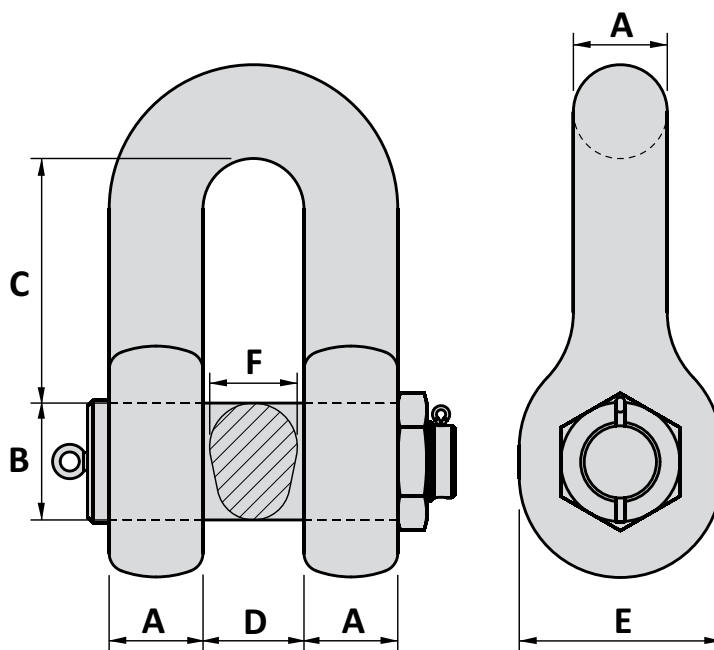


Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

# JOINING SHACKLE WITH PEAR SHAPE PIN

## TYPE D16

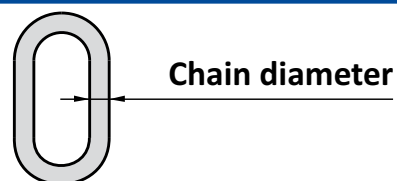
Material	: Forged steel R3/R3S/R4
Finish	: Painted
Standards	: ISO 1704
Certificates on request	: Material certificate 3.1 Manufacturer certificate Material certificate 3.2 Proofload certificate NDT inspection certificate Classification inspection certificate (DNV, Lloyds, ABS, BV etc.)



Dimensions for shackles are calculated by multiplying the common link size by the factor shown in this drawing.

### Dimensions related to nominal chain diameter

A	= 1.3 x chain diameter
B	= 1.6 x chain diameter
C	= 3.4 x chain diameter
D	= 1.4 x chain diameter
E	= 2.8 x chain diameter
F	= 1.2 x chain diameter



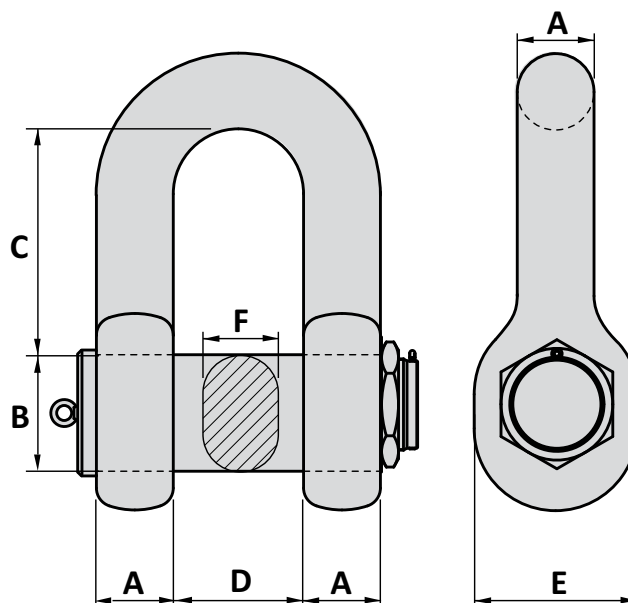
Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm



# ANCHOR SHACKLE WITH OVAL PIN

## TYPE D17

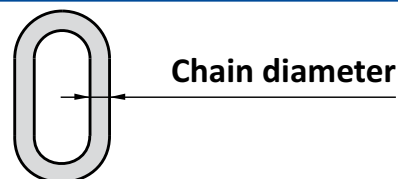
Material	: Forged steel R3/R3S/R4
Finish	: Painted
Standards	: ISO 1704
Certificates on request	: Material certificate 3.1 Manufacturer certificate Material certificate 3.2 Proofload certificate NDT inspection certificate Classification inspection certificate (DNV, Lloyds, ABS, BV etc.)



Dimensions for shackles are calculated by multiplying the common link size by the factor shown in this drawing

### Dimensions related to nominal chain diameter

A	= 1.4 x chain diameter
B	= 1.8 x chain diameter
C	= 4.6 x chain diameter
D	= 2.4 x chain diameter
E	= 3.1 x chain diameter
F	= 1.4 x chain diameter



Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

## Crosby® round pin shackles

### ROUND PIN ANCHOR SHACKLES



G-213 / S-213

G-213 Round pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 1, except for those provisions required of the contractor.

- Capacities 1/2 through 35 metric tons.
- Forged - Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Hot Dip galvanized or Self Colored.
- Fatigue rated.
- Shackles 25t and larger are **RFID EQUIPPED**.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Shackles are Quenched and Tempered and can meet DNV impact requirements of 42 joules (31 ft-lbs.) at -20 degree C (-4 degree F).
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



### ROUND PIN CHAIN SHACKLES



G-215 / S-215

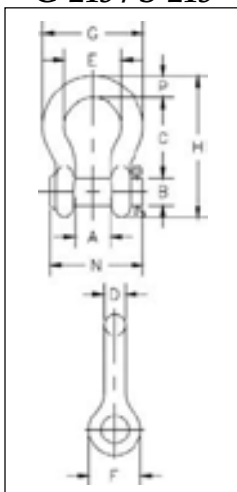
G-215 Round pin chain shackles meet the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 1, except for those provisions required of the contractor.

### G-213 / S-213 Round Pin Anchor Shackles

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)													Tolerance +/-	
		G-213	S-213		A	B	C	D	E	F	G	H	N	P	C	A			
1/4	1/2	1018017	1018026	.06	11.9	7.85	28.7	6.35	19.8	15.5	32.5	46.7	34.0	6.35	1.50	1.50			
5/16	3/4	1018035	1018044	.08	13.5	9.65	31.0	7.85	21.3	19.1	37.3	53.0	40.4	7.85	1.50	1.50			
3/8	1	1018053	1018062	.13	16.8	11.2	36.6	9.65	26.2	23.1	45.2	63.0	47.2	9.65	3.30	1.50			
7/16	1-1/2	1018071	1018080	.17	19.1	12.7	42.9	11.2	29.5	26.9	51.5	74.0	54.0	11.2	3.30	1.50			
1/2	2	1018099	1018106	.32	20.6	16.0	47.8	12.7	33.3	30.2	58.5	83.5	60.5	12.7	3.30	1.50			
5/8	3-1/4	1018115	1018124	.68	26.9	19.1	60.5	16.0	42.9	38.1	74.5	106	74.0	17.5	3.30	1.50			
3/4	4-3/4	1018133	1018142	1.05	31.8	22.4	71.5	19.1	51.0	46.0	89.0	126	87.0	20.6	6.35	1.50			
7/8	6-1/2	1018151	1018160	1.58	36.6	25.4	84.0	22.4	58.0	53.0	102	148	96.5	24.6	6.35	1.50			
1	8-1/2	1018179	1018188	2.27	42.9	28.7	95.5	25.4	68.5	60.5	119	167	115	26.9	6.35	1.50			
1-1/8	9-1/2	1018197	1018204	3.16	46.0	31.8	108	28.7	74.0	68.5	131	190	130	31.8	6.35	1.50			
1-1/4	12	1018213	1018222	4.42	51.5	35.1	119	32.8	82.5	76.0	146	210	140	35.1	6.35	1.50			
1-3/8	13-1/2	1018231	1018240	6.01	57.0	38.1	133	36.1	92.0	84.0	162	233	156	38.1	6.35	3.30			
1-1/2	17	1018259	1018268	7.82	60.5	41.4	146	39.1	98.5	92.0	175	254	165	41.1	6.35	3.30			
1-3/4	25	1018277	1018286	13.4	73.0	51.0	178	46.7	127	106	225	313	197	57.0	6.35	3.30			
2	35	1018295	1018302	20.8	82.5	57.0	197	53.0	146	122	253	348	222	61.0	6.35	3.30			

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit.

G-213 / S-213

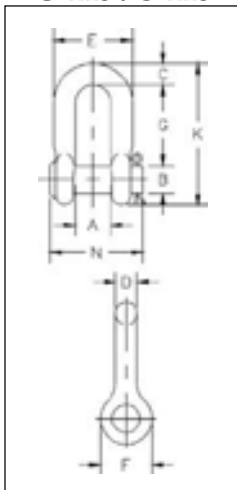


### G-215 / S-215 Round Pin Chain Shackles

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)													Tolerance +/-	
		G-215	S-215		A	B	C	D	E	F	G	K	N	G	A				
1/4	1/2	1018810	1018829	.05	11.9	7.85	6.35	6.35	24.6	15.5	22.4	40.4	34.0	1.50	1.50				
5/16	3/4	1018838	1018847	.08	13.5	9.65	7.85	7.85	29.5	19.1	26.2	48.5	40.4	1.50	1.50				
3/8	1	1018856	1018865	.11	16.8	11.2	9.65	9.65	35.8	23.1	31.8	58.5	47.2	3.30	1.50				
7/16	1-1/2	1018874	1018883	.18	19.1	12.7	11.2	11.2	41.4	26.9	36.6	67.5	54.0	3.30	1.50				
1/2	2	1018892	1018909	.23	20.6	16.0	12.7	12.7	46.0	30.2	41.4	77.0	60.5	3.30	1.50				
5/8	3-1/4	1018918	1018927	.55	26.9	19.1	15.7	16.0	58.5	38.1	51.0	95.5	74.0	3.30	1.50				
3/4	4-3/4	1018936	1018945	.91	31.8	22.4	20.6	19.1	70.0	46.0	60.5	115	87.0	6.35	1.50				
7/8	6-1/2	1018954	1018963	1.49	36.6	25.4	24.6	22.4	81.0	53.0	71.5	135	96.5	6.35	1.50				
1	8-1/2	1018972	1018981	2.15	42.9	28.7	25.4	25.4	93.5	60.5	81.0	151	115	6.35	1.50				
1-1/8	9-1/2	1018990	1019007	2.86	46.0	31.8	31.8	28.7	103	68.5	91.0	172	130	6.35	1.50				
1-1/4	12	1019016	1019025	4.08	51.5	35.1	35.1	31.8	115	76.0	100	191	140	6.35	3.30				
1-3/8	13-1/2	1019034	1019043	5.44	57.0	38.1	38.1	35.1	127	84.0	111	210	156	6.35	3.30				
1-1/2	17	1019052	1019061	7.33	60.5	41.4	41.1	38.1	137	92.0	122	230	165	6.35	3.30				
1-3/4	25	1019070	1019089	13.6	73.0	51.0	54.0	44.5	162	106	146	279	197	6.35	3.30				
2	35	1019098	1019105	19.6	82.5	57.0	51.0	53.3	184	122	172	312	222	6.35	3.30				

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit.

G-215 / S-215





# Crosby® screw pin shackles

## SCREW PIN ANCHOR SHACKLES



**G-209 / S-209**

G-209 Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 2, except for those provisions required of the contractor.

## SCREW PIN CHAIN SHACKLES



**G-210 / S-210**

G-210 Screw pin chain shackles meet the performance requirements of Federal Specification RR-C-271F, Type IVB, Grade A, Class 2, except for those provisions required of the contractor.

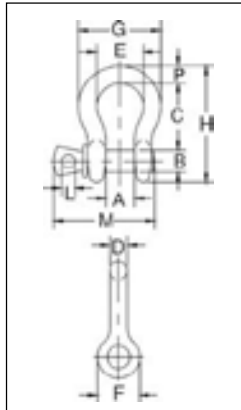


- Capacities 1/3 thru 55 metric tons, grade 6.
- Forged - Quenched and Tempered, with alloy pins.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Hot Dip galvanized or Self Colored.
- Fatigue rated.
- Shackles 25t and larger are RFID EQUIPPED.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Shackles are Quenched and Tempered and can meet DNV impact requirements of 42 joules (31 ft. lbs.) at -20 degree C (-4 degree F).
- Sizes 1/2t-25t meet the performance requirements of EN13889:2003.
- Meets or exceeds all requirements of ASME B30.26.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- Crosby has Type Approved to provide 2t through 25t 209 anchor shackles that meet the requirements of DNV Certification Notes 2.7-1 - Offshore Containers. These Crosby shackles (met by our current standard products) are: statistical proof test of 1% to 3%, based on lot size is required. Impact test of shackle bow and pin are provided. The tests are conducted by Crosby and we provide a 3.1 test certificate upon request, with test results.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.

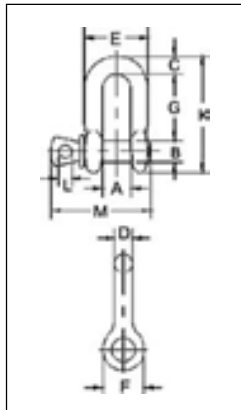
### G-209 / S-209 Screw Pin Anchor Shackles

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)														Tolerance +/-	
		G-209	S-209		A	B	C	D	E	F	G	H	L	M	P	C	A			
3/16	1/3	1018357	-	.03	9.65	6.35	22.4	4.85	15.2	14.2	24.9	37.3	4.06	28.4	4.85	15.0	1.50	1.50		
1/4	1/2	1018375	1018384	.05	11.9	7.85	28.7	6.35	19.8	15.5	32.5	46.7	4.85	35.1	6.35	1.50	1.50			
5/16	3/4	1018393	1018400	.09	13.5	9.65	31.0	7.85	21.3	19.1	37.3	53.0	5.60	42.2	7.85	3.30	1.50			
3/8	1	1018419	1018428	.14	16.8	11.2	36.6	9.65	26.2	23.1	45.2	63.0	6.35	51.5	9.65	3.30	1.50			
7/16	1-1/2	1018437	1018446	.17	19.1	12.7	42.9	11.2	29.5	26.9	51.5	74.0	7.85	60.5	11.2	3.30	1.50			
1/2	2	1018455	1018464	.33	20.6	16.0	47.8	12.7	33.3	30.2	58.5	83.5	9.65	68.5	12.7	3.30	1.50			
5/8	3-1/4	1018473	1018482	.62	26.9	19.1	60.5	16.0	42.9	38.1	74.5	106	11.2	85.0	17.5	6.35	1.50			
3/4	4-3/4	1018491	1018507	1.07	31.8	22.4	71.5	19.1	51.0	46.0	89.0	126	12.7	101	20.6	6.35	1.50			
7/8	6-1/2	1018516	1018525	1.64	36.6	25.4	84.0	22.4	58.0	53.0	102	148	12.7	114	24.6	6.35	1.50			
1	8-1/2	1018534	1018543	2.28	42.9	28.7	95.5	25.4	68.5	60.5	119	167	14.2	129	26.9	6.35	1.50			
1-1/8	9-1/2	1018552	1018561	3.36	46.0	31.8	108	29.5	74.0	68.5	131	190	16.0	142	31.8	6.35	1.50			
1-1/4	12	1018570	1018589	4.31	51.5	35.1	119	32.8	82.5	76.0	146	210	17.5	156	35.1	6.35	1.50			
1-3/8	13-1/2	1018598	1018605	6.14	57.0	38.1	133	36.1	92.0	84.0	162	233	19.1	174	38.1	6.35	3.30			
1-1/2	17	1018614	1018623	7.80	60.5	41.4	146	39.1	98.5	92.0	175	254	20.6	187	41.1	6.35	3.30			
1-3/4	25	1018632	1018641	12.6	73.0	51.0	178	46.7	127	106	225	313	25.4	231	57.0	6.35	3.30			
2	35	1018650	1018669	20.4	82.5	57.0	197	53.0	146	122	253	348	31.0	263	61.0	6.35	3.30			
2-1/2	55	1018678	1018687	38.9	105	70.0	267	69.0	184	145	327	453	35.1	330	79.5	6.35	6.35			

### G-209 / S-209



### G-210 / S-210



### G-210 / S-210 Screw Pin Chain Shackles

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)														Tolerance +/-	
		G-210	S-210		A	B	C	D	E	F	G	K	L	M	G	A				
1/4	1/2	1019150	1019169	.05	11.9	7.85	6.35	6.35	24.6	15.5	22.4	40.4	4.85	35.1	1.50	1.50				
5/16	3/4	1019178	1019187	.08	13.5	9.65	7.85	7.85	29.5	19.1	26.2	48.5	5.60	42.2	1.50	1.50				
3/8	1	1019196	1019203	.13	16.8	11.2	9.65	9.65	35.8	23.1	31.8	58.5	6.35	51.5	3.30	1.50				
7/16	1-1/2	1019212	1019221	.20	19.1	12.7	11.2	11.2	41.4	26.9	36.6	67.5	7.85	60.5	3.30	1.50				
1/2	2	1019230	1019249	.27	20.6	16.0	12.7	12.7	46.0	30.2	41.4	77.0	9.65	68.5	3.30	1.50				
5/8	3-1/4	1019258	1019267	.57	26.9	19.1	15.7	16.0	58.5	38.1	51.0	95.5	11.2	85.0	3.30	1.50				
3/4	4-3/4	1019276	1019285	1.20	31.8	22.4	20.6	19.1	70.0	46.0	60.5	115	12.7	101	6.35	1.50				
7/8	6-1/2	1019294	1019301	1.43	36.6	25.4	24.6	22.4	81.0	53.0	71.5	135	12.7	114	6.35	1.50				
1	8-1/2	1019310	1019329	2.15	42.9	28.7	25.4	25.4	93.5	60.5	81.0	151	14.2	129	6.35	1.50				
1-1/8	9-1/2	1019338	1019347	3.06	46.0	31.8	31.8	28.7	103	68.5	91.0	172	16.0	142	6.35	1.50				
1-1/4	12	1019356	1019365	4.11	51.5	35.1	35.1	31.8	115	76.0	100	191	17.5	156	6.35	3.30				
1-3/8	13-1/2	1019374	1019383	5.28	57.0	38.1	38.1	35.1	127	84.0	111	210	19.1	174	6.35	3.30				
1-1/2	17	1019392	1019409	7.23	60.5	41.4	41.1	38.1	137	92.0	122	230	20.6	187	6.35	3.30				
1-3/4	25	1019418	1019427	12.1	73.0	51.0	54.0	44.5	162	106	146	279	25.4	231	6.35	3.30				
2	35	1019436	1019445	19.2	82.5	57.0	60.0	51.0	184	122	172	312	31.0	263	6.35	3.30				
2-1/2	55	1019454	1019463	32.5	105	70.0	66.5	66.5	238	145	203	377	35.1	330	6.35	6.35				

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit.

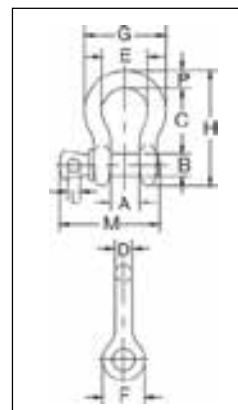
## Crosby® alloy screw pin shackles

### G-209A



G-209A Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade B, Class 2, except for those provisions required of the contractor.

- Capacities 2 thru 21 metric tons. Meets performance requirements of Grade 8 shackles.
- Forged Alloy Steel – Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Hot Dip Galvanized.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



### G-209A Crosby® Alloy Screw Pin Shackles

Nominal Size (in.)	Working Load Limit (t)*	G-209A Stock No.	Weight Each (kg)	Dimensions (mm)												Tolerance +/-	
				A	B	C	D	E	F	G	H	L	M	P	C	A	
3/8	2	1017450	.14	16.8	11.2	36.6	9.65	26.2	23.1	45.2	63.5	6.35	51.5	9.65	3.30	1.50	
7/16	2-2/3	1017472	.17	19.1	12.7	42.9	11.2	29.5	26.9	51.5	74.0	7.85	60.5	11.2	3.30	1.50	
1/2	3-1/3	1017494	.29	20.6	16.0	47.8	12.7	23.3	30.2	58.5	83.5	9.65	68.5	12.7	3.30	1.50	
5/8	5	1017516	.63	26.9	19.1	60.5	16.0	42.9	38.1	74.5	106	11.2	85.0	17.5	3.30	1.50	
3/4	7	1017538	1.02	31.8	22.4	71.5	19.1	51.0	46.0	89.0	126	12.7	101	20.6	6.35	1.50	
7/8	9-1/2	1017560	1.53	36.6	25.4	84.0	22.4	58.0	53.0	102	148	12.7	114	24.6	6.35	1.50	
1	12-1/2	1017582	2.41	42.9	28.7	95.5	25.4	68.5	60.5	119	167	14.2	129	26.9	6.35	1.50	
1-1/8	15	1017604	3.09	46.0	31.8	108	29.5	74.0	68.5	131	190	16.0	142	31.8	6.35	1.50	
1-1/4	18	1017626	4.31	51.5	35.1	119	32.8	82.5	76.0	146	210	17.5	156	35.1	6.35	1.50	
1-3/8	21	1017648	6.01	57.0	38.1	133	36.1	92.0	84.0	162	233	19.1	174	38.1	6.35	3.30	

\* Maximum Proof Load is 2 times the Working Load Limit (metric tons). Minimum Ultimate Load is 4.5 times the Working Load Limit based on metric tons.

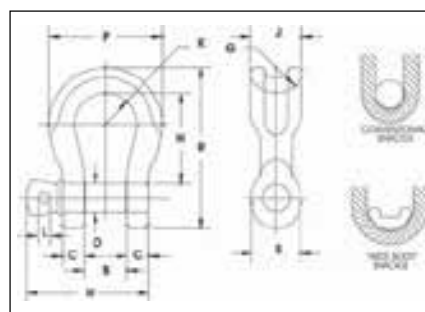
### G-2169



### S-2169



- Capacities of 7, 12.5 and 18 metric tons.
- Quenched and Tempered for maximum strength.
- Forged Alloy Steel.
- Available in galvanized and self colored finished.
- Individually proof tested and magnetic particle inspected. Crosby certification available at time of order.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



### G-2169 / S-2169 Screw Pin "Wide Body" Shackles

Working Load Limit (t)*	G-2169 Stock No.	S-2169 Stock No.	Weight Each (kg)	Dimensions (mm)											
				B +/- .25	C	D +/- .02	E	G	H	J	K	L	M	P	R
7	1021655	1021664	7.7	31.8	17.5	22.4	46.2	31.8	90.4	40.6	31.8	12.7	101	104	149
12.5	1021673	1021682	19.4	42.9	23.4	28.7	60.5	34.8	118	54.1	41.4	14.2	130	140	194
18	1021691	1021699	28.7	51.6	29.5	35.1	68.3	38.1	148	63.5	50.8	17.5	159	172	238

\* Ultimate Load is 5 times the Working Load Limit. Forged Alloy Steel. Proof Load is 2 times the Working Load Limit.

# Crosby® bolt type shackles

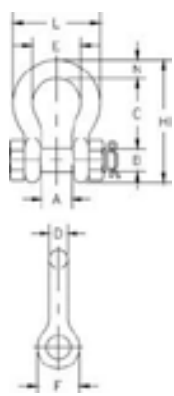
### BOLT TYPE ANCHOR SHACKLES



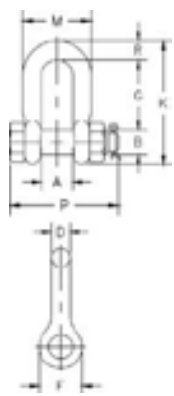
G-2130 / S-2130

G-2130 Bolt Type Anchor shackles with thin head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 3, except for those provisions required of the contractor.

G-2130 / S-2130



G-2150 / S-2150



- Capacities 1/3 thru 150 metric tons, grade 6.
- Working Load Limit and grade "6" permanently shown on every shackle.
- Forged — Quenched and Tempered, with alloy pins.
- Hot Dip galvanized or Self Colored. (85, 120, and 150-metric ton shackles are all hot dip galvanized bows and the bolts are Dimetcoated® and painted red)
- Fatigue rated (1/3t - 55t).
- Shackles 25t and larger are **RFID EQUIPPED**.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- 2t through 25t bow and bolt are Certified to meet Charpy impact testing of 42 joules (31 ft-lbs.) min. ave. at -20 degree C (-4 degree F)
- Meets or exceeds all requirements of ASME B30.26.
- Sizes 1/2t-25t meet the performance requirements of EN13889:2003.
- Shackles 55 metric tons and smaller can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification when requested at time of order.
- Shackles 120 metric tons and larger are proof tested, Magnetic Particle Inspected and provided with Serialized Pin and Bow.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- 3.1 Certification as standard available for Charpy and statistical proof test for pg 73 only up to 25 tons to DNV2.7-1 and EN13889.
- Crosby 2t through 25t G2130 anchor shackles are type approved to DNV Certification Notes 2.7-1- Offshore Containers. These Crosby shackles are statistical proof and impact tested. The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 76 for Crosby COLD TUFF® shackles that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gear.
- All other 2130 and all 2150 shackles can meet Charpy requirements of 42 joules (31 ft-lbs) avg at -20 degree C (-4 degree F) upon special request.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



### BOLT TYPE CHAIN SHACKLES



G-2150 / S-2150

G-2150 Bolt Type Chain shackles. Thin hex head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C-271F Type IVB, Grade A, Class 3, except for those provisions required of the contractors.

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)										Tolerance +/-	
		G-2130	S-2130		A	B	C	D	E	F	H	L	N	C	A	
3/16	1/3 ±	1019464	-	.03	9.65	6.35	22.4	4.85	15.2	14.2	37.3	24.9	4.85	1.50	1.50	
1/4	1/2	1019466	-	.05	11.9	7.85	28.7	6.35	19.8	15.5	46.7	32.5	6.35	1.50	1.50	
5/16	3/4	1019468	-	.10	13.5	9.65	31.0	7.85	21.3	19.1	53.0	37.3	7.85	3.30	1.50	
3/8	1	1019470	-	.15	16.8	11.2	36.6	9.65	26.2	23.1	63.0	45.2	9.65	3.30	1.50	
7/16	1-1/2	1019471	-	.22	19.1	12.7	42.9	11.2	29.5	26.9	74.0	51.5	11.2	3.30	1.50	
1/2	2	1019472	1019481	.36	20.6	16.0	47.8	12.7	33.3	30.2	83.5	58.5	12.7	3.30	1.50	
5/8	3-1/4	1019490	1019506	.62	26.9	19.1	60.5	16.0	42.9	38.1	106	74.5	17.5	6.35	1.50	
3/4	4-3/4	1019515	1019524	1.23	31.8	22.4	71.5	19.1	51.0	46.0	126	89.0	20.6	6.35	1.50	
7/8	6-1/2	1019533	1019542	1.79	36.6	25.4	84.0	22.4	58.0	53.0	148	102	24.6	6.35	1.50	
1	8-1/2	1019551	1019560	2.28	42.9	28.7	95.5	25.4	68.5	60.5	167	119	26.9	6.35	1.50	
1-1/8	9-1/2	1019579	1019588	3.75	46.0	31.8	108	28.7	74.0	68.5	190	131	31.8	6.35	1.50	
1-1/4	12	1019597	1019604	5.31	51.5	35.1	119	31.8	82.5	76.0	210	146	35.1	6.35	1.50	
1-3/8	13-1/2	1019613	1019622	7.18	57.0	38.1	133	35.1	92.0	84.0	233	162	38.1	6.35	3.30	
1-1/2	17	1019613	1019622	8.62	60.5	41.4	146	38.1	98.5	92.0	254	175	41.1	6.35	3.30	
1-3/4	25	1019659	1019668	15.4	73.0	51.0	178	44.5	127	106	313	225	57.0	6.35	3.30	
2	35	1019677	1019686	23.7	82.5	57.0	197	51.0	146	122	348	253	61.0	6.35	3.30	
2-1/2	55	1019695	1019702	44.6	105	70.0	267	66.5	184	145	453	327	79.5	6.35	6.35	
3	† 85	1019711	-	70	127	82.5	330	76.0	200	165	546	365	92.0	6.35	6.35	
3-1/2	† 120 ±	1019739	-	120	133	95.5	372	92.0	229	203	626	419	105	6.35	6.35	
4	† 150 ±	1019757	-	153	140	108	368	104	254	229	653	468	116	6.35	6.35	

Nominal Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)										Tolerance +/-	
		G-2150	S-2150		A	B	D	F	G	K	M	P	R	G	A	
1/4	1/2	1019768	-	.06	11.9	7.85	6.35	15.5	19.1	40.4	24.6	39.6	6.35	1.50	1.50	
5/16	3/4	1019770	-	.10	13.5	9.65	7.85	19.1	25.4	48.5	29.5	46.2	7.85	1.50	1.50	
3/8	1	1019772	-	.15	16.8	11.2	9.65	23.1	31.0	58.5	35.8	55.0	9.65	3.30	1.50	
7/16	1-1/2	1019774	-	.22	19.1	12.7	11.2	26.9	36.1	67.5	41.1	63.5	11.2	3.30	1.50	
1/2	2	1019775	1019784	.34	20.6	16.0	12.7	30.2	41.4	77.0	46.0	71.0	12.7	3.30	1.50	
5/8	3-1/4	1019793	1019800	.67	26.9	19.1	16.0	38.1	51.0	95.5	58.5	89.5	16.0	3.30	1.50	
3/4	4-3/4	1019819	1019828	1.14	31.8	22.4	19.1	46.0	60.5	115	70.0	103	20.6	6.35	1.50	
7/8	6-1/2	1019837	1019846	1.74	36.6	25.4	22.4	53.0	71.5	135	81.0	120	24.6	6.35	1.50	
1	8-1/2	1019855	1019864	2.52	42.9	28.7	25.4	60.5	81.0	151	93.5	135	25.4	6.35	1.50	
1-1/8	9-1/2	1019873	1019882	3.45	46.0	31.8	28.7	68.5	91.0	172	103	150	31.8	6.35	1.50	
1-1/4	12	1019891	1019908	4.90	51.5	35.1	31.8	76.0	100	191	115	165	35.1	6.35	1.50	
1-3/8	13-1/2	1019917	1019926	6.24	57.0	38.1	35.1	84.0	111	210	127	183	38.1	6.35	3.30	
1-1/2	17	1019935	1019944	8.39	60.5	41.4	38.1	92.0	122	230	137	196	41.1	6.35	3.30	
1-3/4	25	1019953	1019962	14.2	73.0	51.0	44.5	106	146	279	162	230	54.0	6.35	3.30	
2	35	1019971	1019980	21.2	82.5	57.0	51.0	122	172	312	184	264	60.0	6.35	3.30	
2-1/2	55	1019999	1020004	38.6	105	70.0	66.5	145	203	377	238	344	66.5	6.35	6.35	
3	† 85	1020013	-	56	127	82.5	76.0	165	216	429	279	419	89.0	6.35	6.35	

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit.

† Individually Proof Tested with certification.

‡ Furnished in Anchor style only and furnished with Round Head Bolts with welded handles.

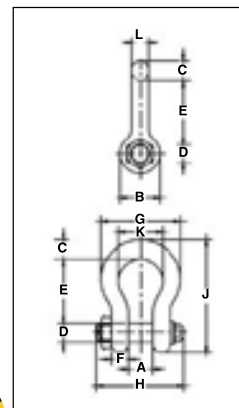
## Crosby® alloy bolt type shackles

### G-2140 / S-2140 ALLOY BOLT TYPE ANCHOR SHACKLES



G-2140 meets the performance requirements of Federal Specification RR-C-271E, Type IVA, Grade B, Class 3, except for those provisions required of the contractor.

- Quenched and Tempered.
- Alloy bows, Alloy bolts.
- Forged Alloy Steel 30 thru 175 metric tons. Cast Alloy Steel 200 thru 400 metric tons. Meets performance requirements of Grade 8 shackles.
- Working Load Limit is permanently shown on every shackle.
- 30, 40, 55, and 85 metric ton shackle bows are available galvanized or self colored with pins that are galvanized and painted red. 120, 150, 175 metric ton shackle bows are hot-dip galvanized; pins are Dimetcoted® and painted red.
- 200, 250, 300 and 400 metric ton shackle bows are Dimetcoted®; pins are Dimetcoted® and painted red.
- All sizes are **RFID EQUIPPED**.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Shackles are Quenched and Tempered and can meet DNV impact requirements of 42 joules (31 ft-lbs.) at -20 degree C (-4 degree F).
- All sizes are individually proof tested to 2.0 times the Working Load Limit.
- Refer to page 8.51 for Crosby COLD TUFF® shackles that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gear.
- Shackles 200 metric tons and larger are provided as follows.
  - Serialized Pin and Bow
  - Material Certification (Chemical)
  - Magnetic Particle Inspected.
  - Certification must be requested at time of order.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



### G-2140 / S-2140 Crosby® Alloy Bolt Type Shackles

Nominal Shackle Size (in.)	Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)											Tolerance + / -	
		G-2140	S-2140		A	B	C	D	E	F	G	H	J	K	L	A	E
1-1/2	30	1021110	1021129	8.52	60.5	91.9	41.1	41.4	146	35.3	175	196	254	98.6	38.9	3.3	6.4
1-3/4	40	1021138	1021147	15.4	73.2	106	57.2	50.8	178	44.5	224	237	313	127	46.7	3.3	6.4
2	55	1021156	1021165	23.6	82.6	122	61.0	57.2	197	50.8	258	264	347	146	52.8	3.3	6.4
2-1/2	85	1021174	1021183	43.5	105	148	79.2	69.9	267	66.5	324	345	455	184	68.8	6.4	6.4
3	120	1021192	-	81	127	165	92.2	82.6	330	76.2	371	384	546	200	79.2	6.4	6.4
3-1/2	† 150	1021218	-	120	133	203	111	95.3	372	95.3	432	448	632	229	91.9	6.4	6.4
4	† 175	1021236	-	153	140	229	116	108	368	102	457	517	652	254	102	6.4	6.4
4-3/4**	† 200	1021414	-	204	184	267	152	121	397	95.3	533	539	743	279	114	6.4	6.4
5**	† 250	1021432	-	272	216	305	165	127	508	98.6	622	576	889	330	114	6.4	6.4
6**	† 300	1021450	-	352	213	305	171	152	495	129	635	637	895	330	127	6.4	6.4
7**	† 400	1021478	-	500	210	356	184	178	572	165	660	728	1022	330	152	6.4	6.4

\* Note: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Load is 4 times the Working Load Limit on 200 thru 400 metric tons. For sizes 30 thru 175 metric tons, Minimum Ultimate Load is 5.4 times the Working Load Limit.

\*\* Cast Alloy Steel.

† Furnished with Round Head Bolts with an eyebolt for handling



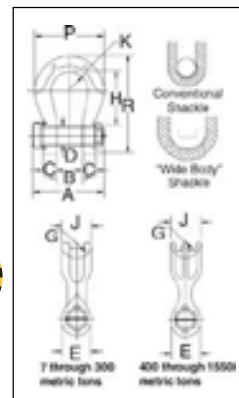
## Crosby® wide body shackles

### G-2160 / S-2160 "WIDE BODY" SHACKLES



Patented

- All sizes Quenched and Tempered for maximum strength.
- Forged alloy steel from 7 through 300 metric tons.
- Cast alloy steel from 400 through 1550 metric tons.
- Sizes 300 metric tons and smaller are proof tested to 2 times the Working Load Limit.
- Sizes 400 metric tons and larger are tested to 1.33 times Working Load Limit.
- All ratings are in metric tons, embossed on side of bow.
- G-2160, (7-55t), are Hot Dip Galvanized and pins are painted red.
- G-2160, (75t and larger), bows are furnished Dimetcoated, and pins are Dimetcoated, then painted red.
- S-2160 bows and pins are painted red.
- Shackles, 30t and larger, are **RFID EQUIPPED**.
- Greatly improves life of wire rope slings.
- Can be used to connect HIGH STRENGTH Synthetic Web Slings, HIGH STRENGTH Synthetic Round Slings or Wire Rope Slings.
- Increase in shackle bow radius provides minimum 58% gain in sling bearing surface and eliminates need for a thimble.
- Increases usable sling strength minimum of 15%.
- Pin is non-rotating, with weld-on handles for easier use (75t and larger).
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Bow and bolt are Certified to meet Charpy impact testing of 42 joules (31 ft-lbs.) min. ave. at -20 degree C (-4 degree F).
- All 2160 shackles are individually proof tested and magnetic particle inspected. Crosby certification available at time of order.
- Shackles requiring ABS, Lloyds and other certifications are available upon special request and must be specified at time of order.
- Shackles 18t and larger have DNV Type Approval to Rules for Certification of Lifting Appliances, and are produced in accordance with DNV MSA requirements. Databook is provided that includes required documents.
  - Serialization / Identification
  - Material Testing (Physical / Chemical / Charpy)
  - Proof Testing
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



### G-2160 / S-2160 Crosby® "Wide Body" Shackles

Working Load Limit (t)*	Stock No.		Weight Each (kg)	Dimensions (mm)											Effective Body Diameter
	G-2160	S-2160		A	B +/- 6.35	C	D +/- .5	E	G	H	J	K	P	R	
7	1021256	1021548	1.81	105	31.8	17.5	22.4	46.2	31.8	90.4	40.6	31.8	104	149	53.3
12.5	1021265	1021557	4.54	137	42.9	23.4	28.7	60.5	34.8	118	54.1	41.4	140	194	61.0
18	1021274	1021566	6.80	170	51.6	29.5	35.1	68.3	38.1	148	63.5	50.8	172	238	71.1
30	1021283	1021575	11.34	195	60.2	35.1	41.4	88.9	44.5	176	79.5	63.5	216	289	104
40	1021285	1021584	15.88	236	73.2	42.9	50.8	102	58.7	205	95.3	76.2	270	346	91.4
55	1021287	1021593	32.21	263	82.6	50.8	57.2	118	66.8	238	114	88.9	311	397	109
† 75	1021290	-	45	365	105	53.8	69.9	127	63.5	293	121	92.5	312	468	150
† 125	1021307	-	73	419	130	65.0	80.0	145	80.0	365	150	110	380	575	173
† 200	1021316	-	227	525	150	85.1	105	185	110	480	205	137	495	757	226
† 300	1021325	-	379	615	187	102	133	235	137	600	264	160	594	946	300
400	1021334	-	500	769	220	131	160	300	160	575	320	185	690	985	363
500	1021343	-	650	847	250	146	180	340	170	630	340	225	790	1085	376
600	1021352	-	860	915	275	158	200	394	185	700	370	247	865	1200	516
700	1021361	-	1109	988	300	167	215	376	200	735	400	270	940	1275	422
800	1021254	-	1368	1058	325	185	230	420	210	750	420	277	975	1323	457
900	1021389	-	1559	1111	350	198	250	430	220	757	440	293	1025	1373	569
1000	1021370	-	1824	1168	380	212	270	450	230	760	460	308	1075	1405	490
1250	1021272	-	2588	1266	430	232	300	533	265	930	530	323	1175	1660	620
1550	1021281	-	3650	1394	465	269	320	605	404	1075	580	338	1255	1865	693

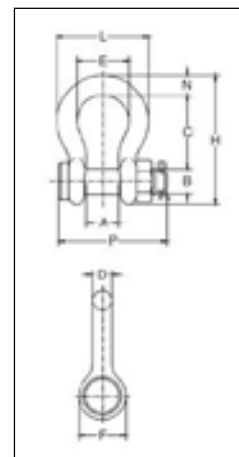
\* 7t-300t Proof Load is 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.  
400t-1550t Proof Load is 1.33 times the Working Load Limit. Ultimate Load is 4.5 times the Working Load Limit.  
† Available in Forged and Cast Alloy Steel.

## Crosby® COLD TUFF® shackles

### G-2130CT and G-2140CT



- Forged - Quenched and Tempered, with alloy bolt.
  - G-2130CT - Carbon Steel
  - G-2140CT - Alloy Steel
- Working Load Limit permanently shown on every shackle.
- Individually Serialized with Certification.
- Fatigue Rated (G-2130CT only).
- Shackles 25t and larger are **RFID EQUIPPED**.
- All sizes are individually proof tested to 2.0 times the Working Load Limit.
- Finish is Inorganic Zinc Primer or Hot Dipped Galvanized.
- Bow and Bolt are Certified to meet charpy impact testing of 42 joules (31 ft-lbs.) min. ave. at -20 degree C (-4 degree F).
- Individually Mag Inspected with certification.
- Type Approval and certification in accordance with DNV 2.7-1 Offshore Containers, and Rules for Certification of Lifting Appliances, and are produced in accordance with DNV MSA requirements, including required documents.
- COLD TUFF® shackles are suitable for use to -50° F.



### G-2130CT

- Bolt Type Anchor shackle with thin head bolt - nut with cotter pin. Meets the performance requirements of Federal Specification RR-C-271F Type IVA, Grade A, Class 3, except for those provisions required of the contractor.

Nominal Shackle Size (in.)	Working Load Limit (t)*	G-2130CT Stock No.	Weight Each (kg)	Dimensions (mm)										Tolerance +/-	
				A	B	C	D	E	F	H	L	N	P	A	C
3/4	4-3/4	1260568	1.23	31.8	22.4	71.5	19.1	51.0	46.0	126	89.0	20.6	108	1.50	6.35
7/8	6-1/2	1260577	1.76	36.6	25.4	84.0	22.4	58.0	53.0	148	102	24.6	120	1.50	6.35
1	8-1/2	1260586	2.57	42.9	28.7	95.5	26.2	68.5	60.5	167	119	26.9	137	1.50	6.35
1-1/8	9-1/2	1260595	3.75	46.0	31.8	108	28.7	74.0	68.5	190	131	31.8	150	1.50	6.35
1-1/4	12	1260604	5.31	51.5	35.1	119	32.8	82.5	76.0	210	146	35.1	168	1.50	6.35
1-3/8	13-1/2	1260613	6.85	57.0	38.1	133	35.1	92.0	84.0	233	162	38.1	183	3.30	6.35
1-1/2	17	1260622	9.43	60.5	41.4	146	39.1	98.5	92.0	254	175	41.1	195	3.30	6.35
1-3/4	25	1260633	15.4	73.0	51.0	178	46.7	127	106	313	225	57.0	233	3.30	6.35

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit.  
4-3/4t - 25t, Minimum Ultimate Load is 5.4 times the Working Load Limit.

### G-2140CT

- G-2140 meets the performance requirements of Federal Specifications RR-C-271F, Type IVA, Grade B, Class 3 except for those provisions required of the contractor.

Nominal Shackle Size (in.)	Working Load Limit (t)*	G-2140CT Stock No.	Weight Each (kg)	Dimensions (mm)										Tolerance +/-	
				A	B	C	D	E	F	H	L	N	P	A	C
1-1/2	30	1260801	9.43	60.5	41.4	146	38.9	98.6	91.9	254	175	41.1	196	3.3	6.4
1-3/4	40	1260812	15.4	73.2	50.8	178	46.7	127	106	313	224	57.2	237	3.3	6.4
2	55	1260823	23.6	82.6	57.2	197	52.8	146	122	347	258	61.0	264	3.3	6.4
2-1/2	85	1260834	43.5	105	69.9	267	68.8	184	148	455	324	79.2	345	6.4	6.4
3	120	1260843	81	127	82.6	330	79.2	200	165	546	371	92.2	384	6.4	6.4
3-1/2	† 150	1260852	120	133	95.3	372	91.9	229	203	632	432	111	448	6.4	6.4
4	† 175	1260861	153	140	108	368	102	254	229	652	457	116	517	6.4	6.4
4-3/4	† 200	1260870	204	184	121	397	114	279	267	743	533	152	539	6.4	6.4
5	† 250	1260889	272	216	127	508	114	330	305	889	622	165	576	6.4	6.4

\* NOTE: Maximum Proof Load is 2.0 times the Working Load Limit.  
30t - 175t, Minimum Ultimate Load is 5.4 times the Working Load Limit.  
200t and larger, Minimum Ultimate Load is 4 times the Working Load Limit.  
† Furnished with Round Head Bolts with welded handle.



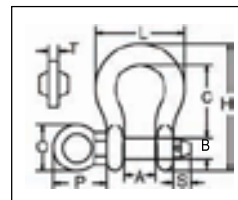


## Crosby® specialty shackles

### G-209R ROV SHACKLES



- Capacities from 6-1/2t through 55t.
- Forged Steel, Quenched & Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Fatigue rated.
- **QUIC-CHECK®** deformation and angle indicators forged on the bow.
- All ROV shackle bows, unless otherwise noted, are galvanized, then painted fluorescent yellow.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



### G-209R ROV Shackles

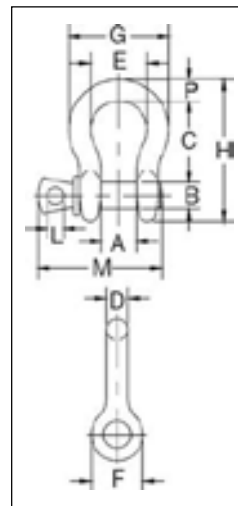
Working Load Limit (t)*	G-209R Stock No.	Weight Each (kg)	Dimensions (mm)								
			A +/- 6.35	B	C	H	L	O	P	S	T
6-1/2	1020872	1.69	36.6	25.4	84.0	148	102	50	58	17	10
8-1/2	1020902	2.59	42.9	28.7	95.5	167	119	50	61	18	10
9-1/2	1020932	3.77	46.0	31.8	108	190	131	70	83	18	12
12	1020952	5.02	51.5	35.1	119	210	146	70	84	23	12
13-1/2	1020972	6.65	57.0	38.1	133	233	162	75	91	23	15
17	1020992	8.58	60.5	41.4	146	254	175	75	93	24	15
† 25	1021102	14.1	73.0	51.0	178	313	225	90	114	29	17.5
† 35	1021125	21.4	82.5	57.0	197	348	253	106	132	30	20
† 55	1021158	42.8	105	70.0	267	453	327	120	145	45	25

\* Minimum Ultimate Load is 5 times the Working Load Limit.  
† Furnished with Galvanized Finish.

### S-209T THEATRICAL SHACKLES



- Sizes: 3/8" through 3/4"
- Capacities: 1 through 4-3/4 metric tonnes.
- Forged - Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Flat black baked on power coat finish.
- Fatigue Rated.
- Industry leading 6 to 1 design factor.
- Screw pin anchor shackles meet the performance requirement of Federal Specification RR-C-271F Type A, Grade A, Class 2, except for those provisions required of the contractor.
- Meets the performance requirements of EN 13889:2003.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



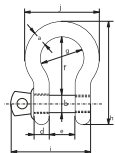
### S-209T Theatrical Shackles

Nominal Size (in.)	Working Load Limit (t)*	S-209T Stock No.	Weight Each (kg)	Dimensions (mm)											Tolerance +/-	
				A	B	C	D	E	F	G	H	L	M	P	C	A
3/8	1	1018706	.14	16.8	11.2	36.6	9.65	26.2	23.1	45.2	63.0	6.35	51.5	9.65	3.30	1.50
7/16	1-1/2	1018724	.17	19.1	12.7	42.9	11.2	29.9	26.9	51.5	74.0	7.85	60.5	11.2	3.30	1.50
1/2	2	1018742	.33	20.6	16.0	47.8	12.7	33.3	30.2	58.5	83.5	9.65	68.5	12.7	3.30	1.50
5/8	3-1/4	1018760	.62	26.9	19.1	60.5	16.0	42.9	38.1	74.5	106	11.2	85.0	17.5	6.35	1.50
3/4	4-3/4	1018778	1.07	31.8	22.4	71.5	19.1	51.0	46.0	89.0	126	12.7	101	20.6	6.35	1.50

## R.O.V.-kit for shackles, with double safety mechanism



The R.O.V.-kit can be supplied for all GreenPin shackles with screw collar pin, models G-4161 and G-4151 from WLL 6,5Te up to WLL 55Te.

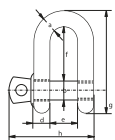


### G-4161

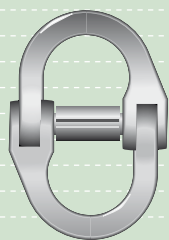
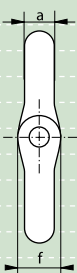
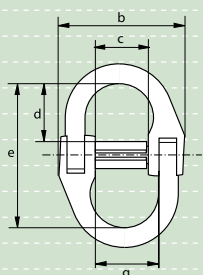
working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	weight each
	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	kg
6.5	22	25	53	22	36	83	58	157	123	107	1.5
8.5	25	28	60	25	43	95	68	176	141	124	2.21
9.5	28	32	67	28	47	108	75	197	158	137	3.16
12	32	35	74	32	51	115	83	218	176	154	4.31
13.5	35	38	80	35	57	133	92	240	192	170	5.55
17	38	42	89	38	60	146	99	262	208	183	7.43
25	45	50	104	45	74	178	126	314	250	226	12.84
35	50	57	111	50	83	197	138	358	281	250	18.15
42.5	57	65	134	57	95	222	160	414	321	287	26.29
55	65	70	145	65	105	260	180	463	355	329	37.6

### G-4151

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	length	length bolt	weight each
	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	kg
6.5	22	25	53	22	36	73	144	123	1.34
8.5	25	28	60	25	43	85	161	141	2.08
9.5	28	32	67	28	47	90	179	158	2.77
12	32	35	74	32	51	94	199	176	3.72
13.5	35	38	80	35	57	115	220	192	5.14
17	38	42	89	38	60	127	239	208	6.85
25	45	50	104	45	74	149	283	250	11.45
35	50	57	111	50	83	171	333	281	16.86
42.5	57	65	134	57	95	190	360	321	24.61
55	65	70	145	65	105	203	399	355	32.65



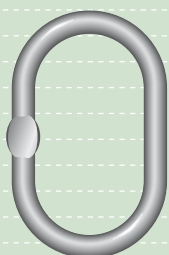
For more information regarding measurements for exact sizes, please contact Myhre Rope Services at [sales@myhreropeservices.com](mailto:sales@myhreropeservices.com)

P-6860Y  
P-6860R

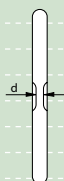
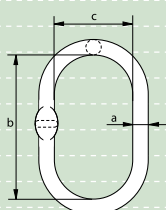
## Green Pin® connecting links for connecting Grade 8 chain-slings

- **Material** : Grade 8, alloy steel
- **Safety factor** : MBL equals 4 x WLL
- **Standard** : generally to EN 1677-1
- **Finish** : painted yellow or red
- **Certification** : test certificates can be supplied upon request

working load limit	for chain diameter	diameter	width outside	width inside	length inside	length inside	diameter eye	width inside	weight each
t	mm	a	b	c	d	e	f	g	kg
1.12	6	8	42	11	20	52	11	15	0.14
2	7-8	9	53	14	21	55	13	19	0.15
3.2	10	10	66	18	24	64	18	25	0.32
5.4	13	14	83	21	31	85	24	30	0.7
8.2	16	17	103	25	40	105	28	36	1.29
12.8	18-20	21	120	33	50	129	33	43	2.08
15.5	22	23	143	39	54	140	37	53	3.33
21.6	26	26	160	44	57	153	43	59	4.92
32.8	32	39	197	51	64	174	55	68	8.2



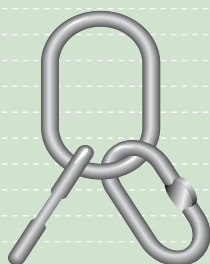
MS



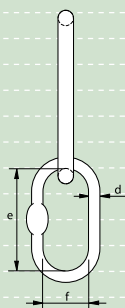
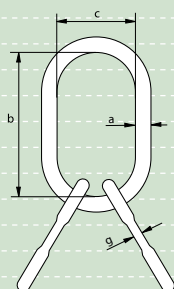
## Master links

- **Material** : Grade 8, alloy steel
- **Safety factor** : MBL equals 4 x WLL
- **Standard** : generally to EN 1677-4
- **Finish** : painted yellow or red
- **Certification** : at no extra charges this product can be supplied with a works certificate and/or EC Declaration. Test certificates can be supplied upon request.
- **Note** : from 50 t without flat part

working load limit	diameter	length inside	width inside	thickness	weight each
t	a mm	b mm	c mm	d mm	kg
1.6	13	100	60	7	0.33
3.2	16	120	70	7	0.56
4.5	18	135	75	9	0.8
6.2	20	150	90	9	1.11
8.2	22	150	90	11	1.36
10.6	25	170	95	13	1.96
12.8	28	200	120	13	2.92
15.5	30	200	120	17	3.4
20	36	250	150	17	6.1
25	38	250	150	21	6.8
30	44	280	170	21	10.8
37	45	300	200	23	11.7
50	50	300	200	-	14.75
63	55	350	200	-	20
100	70	400	250	-	39
125	80	400	250	-	52



MTS



## Master link assemblies

- **Material** : Grade 8, alloy steel
- **Safety factor** : MBL equals 4 x WLL
- **Standard** : generally to EN 1677-4
- **Finish** : painted yellow or red
- **Certification** : at no extra charges this product can be supplied with a works certificate and/or EC Declaration. Test certificates can be supplied upon request.
- **Note** : from 60 t without flat part

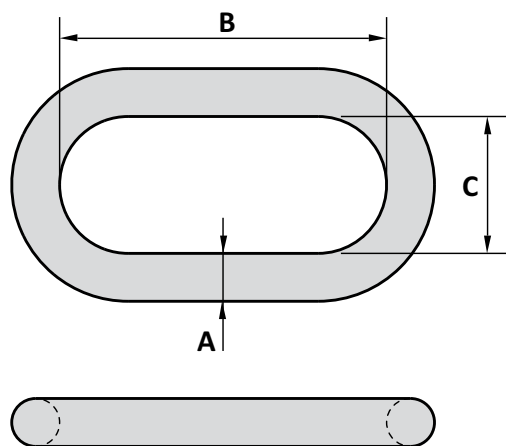
working load limit	diameter	length inside	width inside	diameter	length inside	width inside	thickness	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
2.5	16	120	70	13	100	60	7	1.2
3.5	18	135	75	16	100	60	6	1.8
6.5	22	150	90	18	120	70	9	2.9
8.5	25	170	95	20	120	70	11	3.9
10	28	200	120	20	120	70	11	4.9
13	30	200	120	22	135	75	14	6
17	36	250	150	25	135	75	14	9.6
20	38	250	150	28	170	95	17	12.6
27	45	280	170	33	200	120	17	19.7
30	45	300	200	36	200	120	21	22.5
40	50	300	200	38	150	90	21	24.5
50	55	300	200	38	150	90	23	28
60	58	350	200	42	150	90	-	34.6
80	70	400	250	55	300	150	-	74.7
100	80	400	250	58	300	150	-	92.4

# MASTER LINK

# TYPE SC1

Material	: Forged alloy steel quenched and tempered
Safety	: 4 times
Finish	: Painted
Certificate	: Material certificate
on request	Manufacturer certificate Proofload certificate NDT inspection certificate Classification inspection certificate (DNV, Lloyds, ABS, BV etc.)

Can be assembled with our range of thimbles



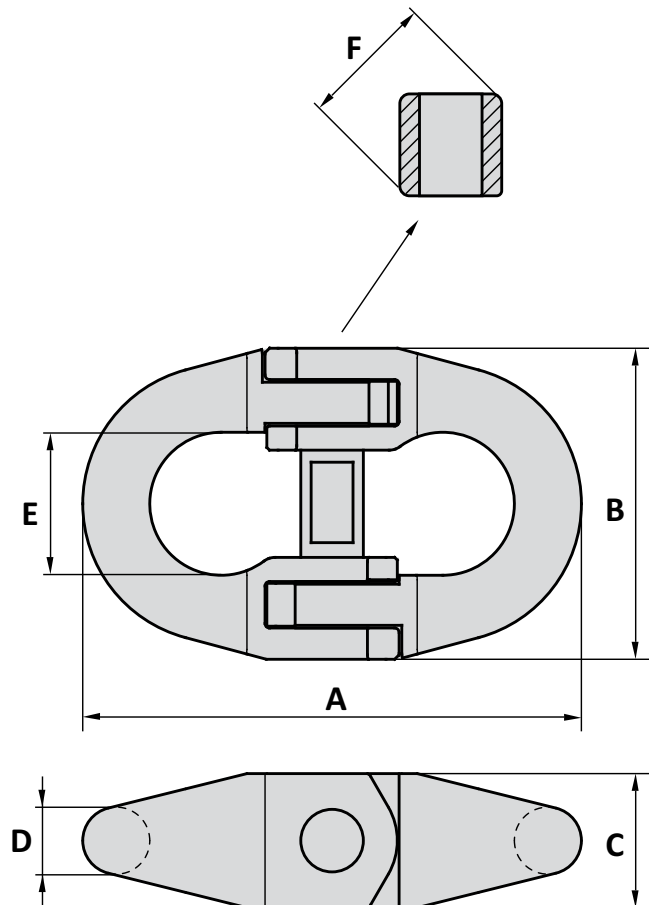
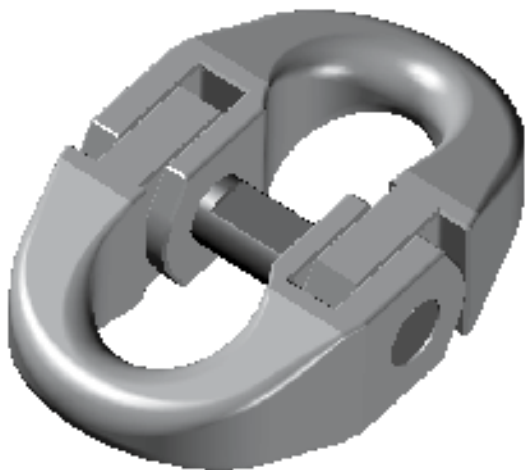
Art. No.	MBL ton	WLL ton	A mm	B mm	C mm	Weight kg
12220000	20	5	22	160	90	1.5
12260000	32	8	26	180	100	2.3
12320000	40	10	32	200	110	3.9
12360000	64	16	36	260	140	6.3
12450000	104	26	45	340	180	13
12510000	144	36	51	350	190	17
12570000	188	47	57	400	200	25
12630000	232	58	63	430	230	32
12720000	336	84	72	440	250	46
12800000	420	105	80	450	250	62
12900000	524	131	90	460	300	75
12910000	628	157	100	500	300	103
12912500	1000	250	115	600	400	165
12912510	1200	300	115	600	300	160
12913500	1600	400	115	700	250	165
12914000	1600	400	115	490	250	133
12915000	1600	400	152	800	400	380
12916000	2000	500	157	800	400	409
12917000	2400	600	167	800	400	460

Tolerance: Forged parts  $\pm 5\%$

# CONNECTING LINK FOR PENNANT LINES

## TYPE SC2

Material	: Forged alloy steel quenched and tempered
Safety	: 5 times
Finish	: Painted/self coloured
Certificates on request	: Proofload certificate Classification inspection certificate (DNV, Lloyds, ABS, BV etc.)



Art. No.	WLL ton	PL ton	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
40000001	110	220	558	368	150	75	160	180	75

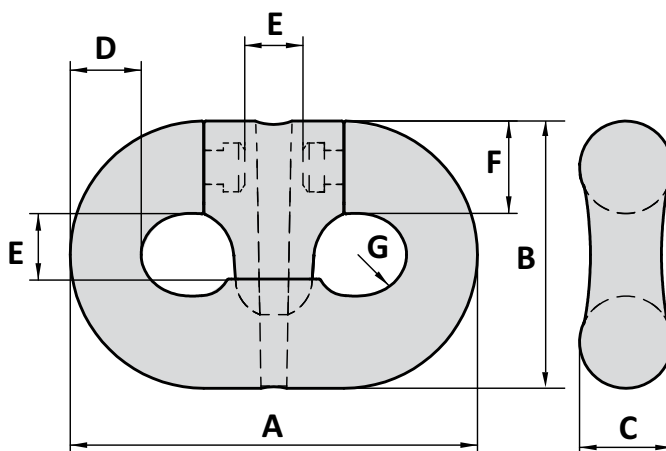
Tolerance:  $\pm 5\%$

## CR CONNECTOR

## TYPE SC3

Material : Fully forged steel R4  
 Finish : Painted/self coloured  
 Certificates : Material certificate 3.1  
 on request Proofload certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)

Can be assembled with our range of chains and CR-sockets



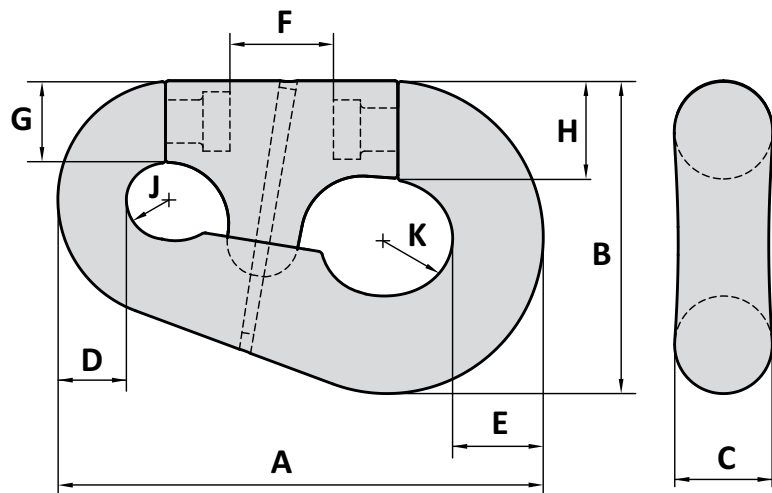
Art. No.	Chain mm	Chain inch	CR socket No.	PL kN	MBL kN	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Weight kg
40000002	70	2¾"	522-526	4064	5156	420	273	94	70	82	94	42	46
40000003	76	3"	522-528	4731	6001	456	296	103	76	89	103	46	58
40000005	83	3¼"	524-529	5930	7522	498	324	112	83	97	112	50	82
40000004	89	3½"	524-530	6310	8004	534	347	120	89	104	120	53	95

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

## PEAR CONNECTING LINK

## TYPE SC4

Material : Fully forged steel R4  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request Proofload certificate  
 Classification certificate  
 (DNV, Lloyds, ABS, BV etc.)



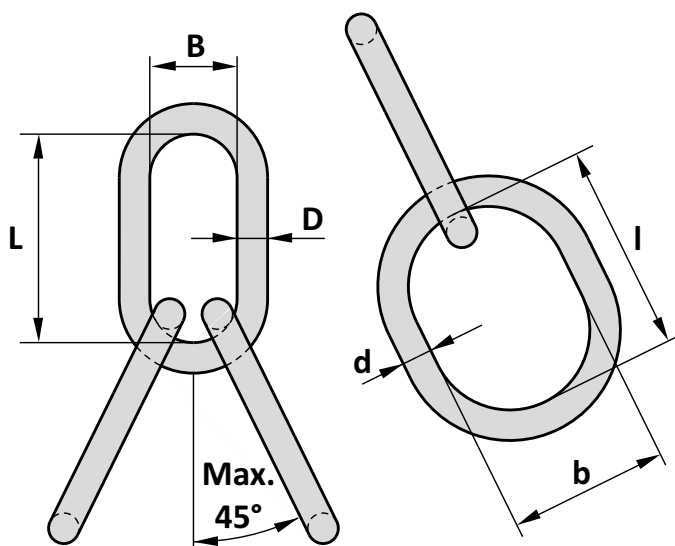
Art. No.	Type No.	Chain mm	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	Weight kg
40000104	4	32-40	298	207	60	41	50	89	45	60	26	42	12
40000105	5	42-51	380	264	84	52	65	100	60	84	33	55	29
40000106	6	52-60	480	337	103	66	83	125	81	103	43	71	61
40000107	7	62-79	570	370	113	85	96	155	92	113	49	70	100
40000108	8	81-92	655	430	131	99	129	162	119	131	58	81	150
40000110	10	97-102	900	580	181	127	168	192	151	181	75	104	385

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm



**MASTER LINK ASSEMBLY****TYPE SC5**

Material : Forged alloy steel quenched and tempered  
 Safety : 4 times  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request Proofload certificate  
 Certificate of Conformity



Art. No.	WLL ton	D mm	L mm	B mm	d mm	l mm	b mm	Weight kg
58000070	70	68	460	220	68	430	300	117
58000100	100	80	500	250	80	460	330	178
58000125	125	90	560	270	90	500	330	249
58000175	175	100	600	270	100	560	330	330
58000250	250	115	600	400	115	600	400	505
58000300	300	115	600	300	115	600	400	492

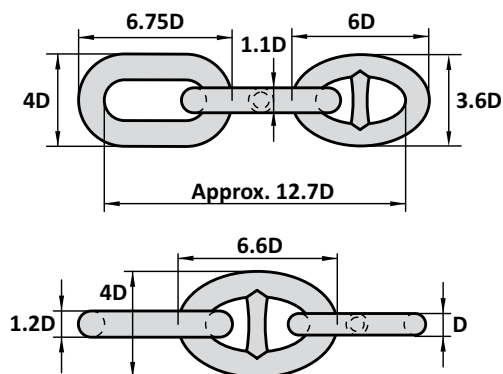
Tolerance: Forged parts  $\pm 5\%$

# CHAIN ADAPTER (THREE LINK ADAPTER)

Material : Forged steel R4  
 Finish : Self coloured  
 Certificates : Material certificate 3.1  
 on request Proofload certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



# TYPE SC6



Art. No.	Chain inch	D mm	1.1D mm	1.2D mm	3.6D mm	4D mm	6D mm	6.6D mm	6.75D mm	12.7D mm	Weight kg
59999998	3"	76	84	91	274	305	457	502	513	968	140

Tolerance: ± 5%

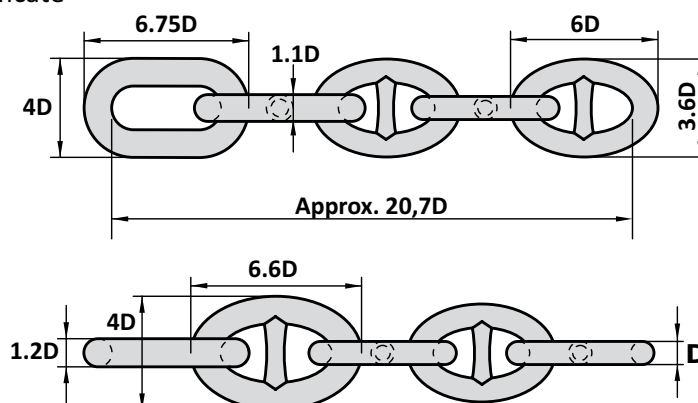
# CHAIN TAIL (FIVE LINK ADAPTER)

Material : Forged steel R4  
 Finish : Self coloured  
 Certificates : Material certificate 3.1  
 on request Proofload certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



# TYPE SC7

*Also available with special endlink 460x200 mm*



Art. No.	Chain inch	D mm	1.1D mm	1.2D mm	3.6D mm	4D mm	6D mm	6.6D mm	6.75D mm	20.7D mm	Weight kg
59999988	3"	76	84	91	274	305	457	502	513	1573	212

Tolerance: ± 5%

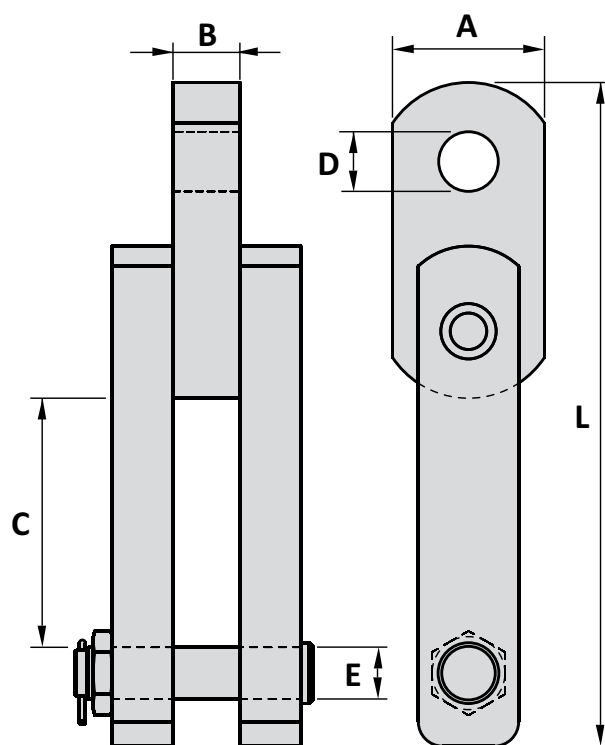
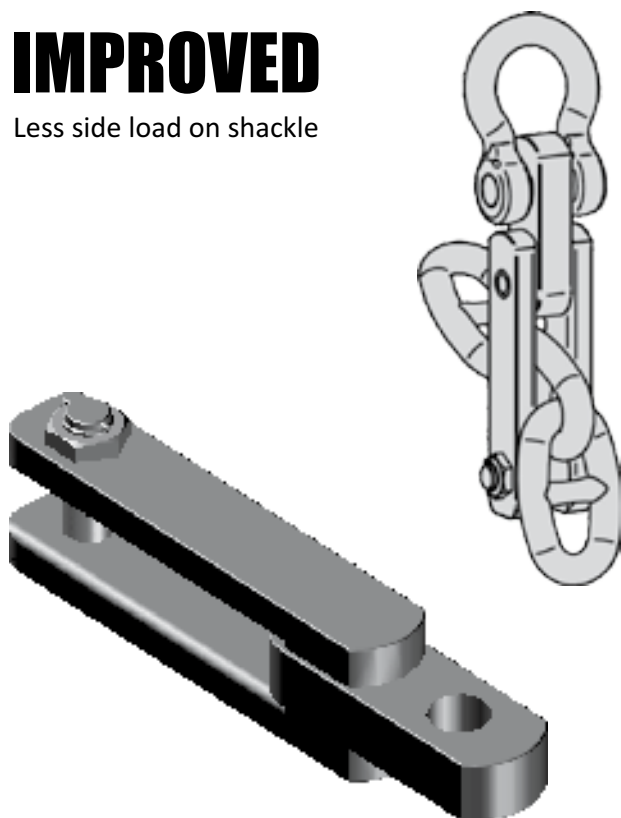
# TUNING FORK

# TYPE TF1

Material : High tensile steel  
 Safety : 4 times  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request Proofload certificate  
 Certificate of Conformity

## IMPROVED

Less side load on shackle

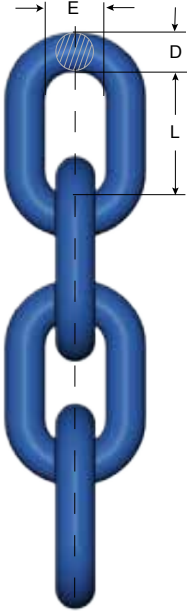


Art. No.	Chain inch	WLL ton	A mm	B mm	C mm	D mm	E mm	L mm	Weight kg
46000001	2½"	55	200	75	275	75	60	872	189
46000002	2¾"	85	220	85	300	85	60	892	201
46000003	3"	110	240	100	330	98	70	927	221
46000004	3¼"	110	240	100	360	98	80	957	237
46000005	3½"	120	250	110	390	98	85	993	271
46000006	3¾"	120	250	110	410	98	85	1091	315
46000007	4"	150	250	120	440	115	90	1262	433
46000008	4¼"	180	320	130	470	130	95	1325	543
46000010	4½"	225	350	150	520	145	105	1447	714

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

## Chain GrabiQ Grade 10

Short link, KL



### Heat treatment

Quenched and tempered.  
**Note!** For chain grade 10 the maximum in service temperature is 200°C.

### Surface treatment

Painted blue

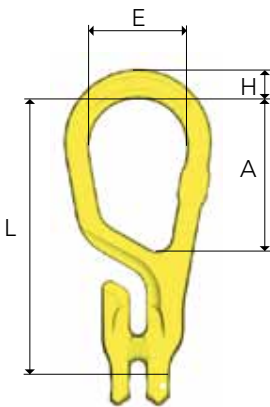
### Marking

10G

Art. no. Box	Code	D nom. mm	L » mm	E » mm	Weight kgs/m	WLL tonnes	MPF kN	Breaking force kN
Z801909 - 2x200 m	KLA 6-10	6	18	8	0.8	1.5	37	60
Z801915 - 3x100 m	KLA 8-10	8	24	11	1.4	2.5	62.5	100
Z801921 - 2x100 m	KLA 10-10	10	30	14	2.3	4	100	160
Z801927 - 1x125 m	KLA 13-10	13	39	18	3.8	6.7	162	260
Z801930 - 1x 92 m	KLA 16-10	16	48	22	5.6	10	250	402
Z802071 - 1 x 30.5 m	KLA 20-10	20	60	29	9.4	16	393	630

## Master Grab MG

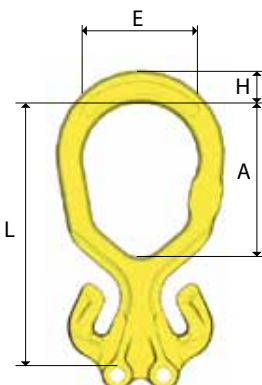
"All-in-one" compact top link.



Art. no.	Code	WLL tonnes*	L	A	E	D	Weight kgs
B14710	MG-6-10	1.5	145	88	60	15	0.5
B14711	MG-8-10	2.5	171	92	60	18	0.9
B14712	MG-10-10	4	211	113	75	22	1.8
B14713	MG-13-10	6.7	261	138	90	26	3.5
B14714	MG-16-10	10	311	157	105	31	6.1

## Master Grab Duo MGD

"All-in-one" compact top link for 2-leg slings.



Art. no.	Code	WLL tonnes*	L	A	E	D	Weight kgs
B14700	MGD-6-10	2.1	144	90	60	17	0.7
B14701	MGD-8-10	3.5	171	100	75	21	1.3
B14702	MGD-10-10	5.6	211	124	90	24	2.3
B14703	MGD-13-10	9.5	262	149	105	31	5.2
B14704	MGD-16-10	14	310	175	120	35	7.9

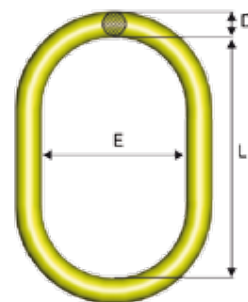
\*Safety factor 4:1

All dimensions in mm

## Master Link M

Art. no.	Code	WLL tonnes*	L	E	D	Weight kgs
Z101271	M-6-10	1.25	100	60	11	0.2
Z101272	M-86-10	2.5	125	70	14	0.4
Z101273	M-108-10	4	140	80	17	0.8
Z101274	M-13-10	5.4	150	90	19	1
Z101267	M-1310-10	7.5	160	95	22	1.5
Z101268	M-1613-10	10	190	110	28	2.3
Z101247	M-19-10	12	200	120	30	3.5
Z101269	M-2016-10	17	240	140	34	5.2
Z101270	M-2220-10	25	250	150	40	7.3
Z101284	M-32-10	33	300	180	45	11.7
Z101270	M-2622-10	28	250	150	42	7.8
Z101276	M-3226-10	43	300	200	50	14.8
Z101277	M-3632-10	56	350	200	55	20.7
Z101278	M-4536-10	70	375	210	60	26.4
Z101279	M-90T-10	90	450	250	70	42.8
Z101280	M-125T-10**	125	450	260	80	57

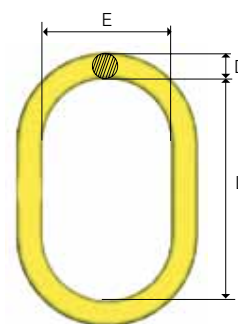
\*\* Dimension L and E not acc. to EN 1677-4.



## Master Link MF

For 1-, 2-, 3- and 4-leg slings.

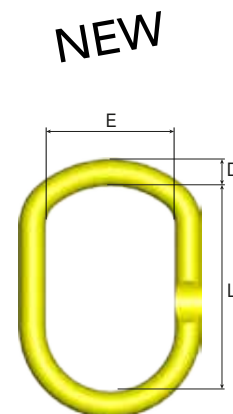
Art. no.	Code	WLL tonnes*	For chain size, mm			L	E	D	Weight kgs
			1-leg	2-leg	3-4-leg				
B14487	MF-6-10	1.25	6	-	-	100	60	11	0.2
B14481	MF-86-10	2.5	6, 8	6	-	125	70	14	0.4
B14482	MF-108-10	4	10	8	6	140	80	17	0.8
B14483	MF-1310-10	7.5	13	10	8	160	95	22	1.5
B14484	MF-1613-10	10	16	13	10	190	110	28	2.5
B14485	MF-2016-10	17	20	16	13	240	140	34	5.2
B14486	MF-2220-10	25	-	20	16	250	150	40	7.3



## Master Link MFH

Designed for crane hooks, DIN 15401 MAX

Art. no.	Code	WLL tonnes	For chain size, mm			L	E	D	DIN 15401	DIN 15402	Weight kgs
			1-leg	2-leg	3-4 leg						
Z101262	MFH-1310-10	7.5	13	10	8	230	125	22	≤ 12	≤ 16	1.9
Z101263	MFH-1613-10	10	16	13	10	250	135	28	≤ 12	≤ 16	3.2
Z101264	MFH-2016-10	17	20	16	13	280	135	32	≤ 16	≤ 20	4.6
Z101265	MFH-2220-10	28	-	20	16	320	175	40	≤ 25	≤ 32	8.6
Z101266	MFHW-2220-10	25	-	20	16	355	225	40	≤ 50	≤ 63	9.9

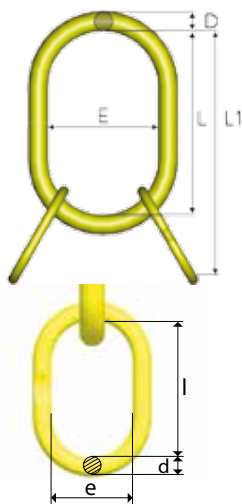


\*Safety factor 4:1

All dimensions in mm

## Master Link with Sublinks, MT

Designed for use with chain or wire rope. For 3- and 4-leg slings.

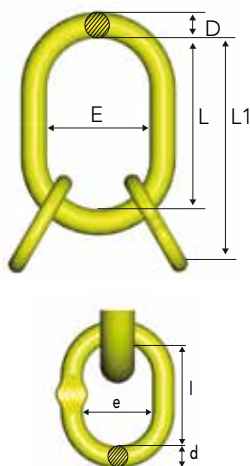


Art. no.	Code	WLL tonnes*	L1	L	E	D	I	e	d	Weight kgs
Z100902	MT-6-10	3.5	270	150	90	19	120	70	14	1.8
Z100903	MT-8-10	5.2	300	160	95	22	140	80	17	3
Z100904	MT-10-10	11.5	360	200	120	30	160	95	22	6.4
Z100905	MT-13-10	17	450	250	150	40	200	120	30	14.2
Z100906	MT-16-10	28	500	300	200	50	200	120	32	23
Z101074	MT-20-10	35	550	300	200	55	250	150	40	31.5
Z101281	MT-22-10	53	610	350	200	60	260	140	45	46
Z101282	MT-22-10	70	730	450	250	70	280	160	50	71
Z101283	MT-32-10	91	750	450	260	80	280	160	55	91

## Master Link with Sublinks, MTC

EN 1677 -4

Grade 10

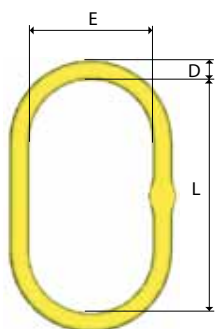


Art. no.	Code	WLL tonnes*	For Chain dim.mm 3-4-legs	L1	L	E	D	I	e	d	Weight appr. kgs
Z101248	MTC-6-10	3.15	6	210	150	90	19	60	38	13	1.4
Z101249	MTC-8-10	5.2	7, 8	230	160	95	22	70	46	16	2.3
Z101250	MTC-10-10	8.4	10	290	200	120	30	90	60	19	5
Z101251	MTC-13-10	14.1	13	380	240	140	34	140	65	28	8.3

If used for chain, check for corresponding WLL values in the WLL table acc EN818-4.

## Master Link, MFX

Oversized, for 1- and 2-leg sling.



Art. no.	Code	WLL tonnes*	For chain mm 1-leg	For chain mm 2-leg	L	E	D	Weight kgs
Z100550	MFX-108-10	4	8, 10	8	340	180	25	3.7
Z100551	MFX-1310-10	6.7	13	10	340	180	28	4.7
Z100552	MFX-1613-10	10	16	13	340	180	34	7.1
Z101125	MFX-2016-10	16	20	16	340	180	40	8.5

Designed for use with CL, CLD, CG and CGD.

\*Safety factor 4:1

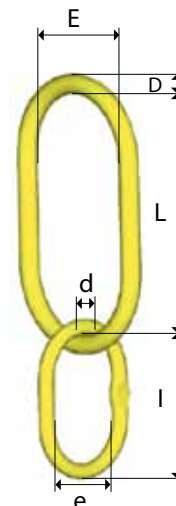
All dimensions in mm

## Master Link, MTX

Oversized, for 3- and 4-leg sling.

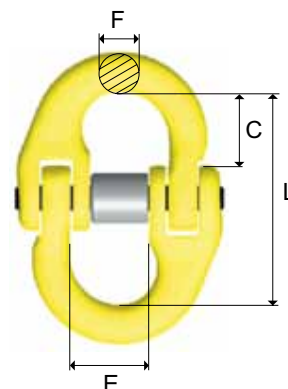
Art. no.	Code	WLL tonnes*	For chain mm, 3-4-leg	L	E	D	I	e	d	Weight kgs
Z100554	MTX-8-10	5.2	8	340	180	28	160	95	22	6.3
Z100555	MTX-10-10	8.4	10	340	180	34	200	120	30	10.6
Z100556	MTX-13-10	14	13	340	180	40	200	120	32	12.3
Z100629	MTX-16-10**	21	16	340	180	45	-	-	-	13.7

\*\* Note! Without sublink



## Coupling Link G

Art. no.	Code	WLL tonnes*	L	E	F	C	Weight kgs
Z100821	G-6-10	1.5	45	15	8	16	0.1
Z100822	G-8-10	2.5	56	18	9	22	0.2
Z100823	G-10-10	4	68	25	12	26	0.3
Z100824	G-13-10	6.7	89	29	15	33	0.7
Z100825	G-16-10	10	106	36	19	40	1.4
Z101119	G-20-10	16	125	43	26	44	2.2

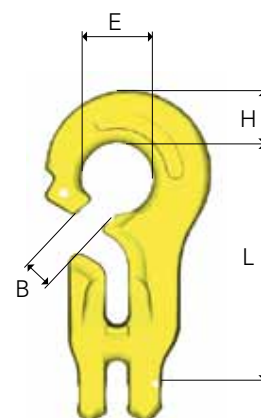


For larger sizes, see Classic range

## C-Grab CG

For use with master link, eye hooks and choke.

Art. no.	Code	WLL tonnes*	L	B	E	D	Weight kgs
B14730	CG-6-10	1.5	80	11	24	19	0.3
B14731	CG-8-10	2.5	107	12	32	24	0.7
B14732	CG-10-10	4	134	15	40	29	1.5
B14733	CG-13-10	6.7	172	18	52	38	3.2
B14734	CG-16-10	10	215	22	64	47	6.1

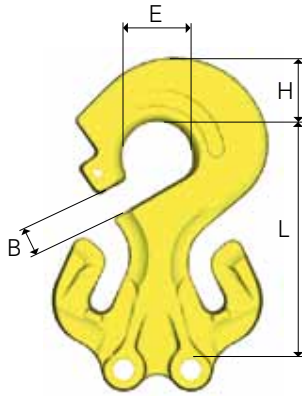


\*Safety factor 4:1

All dimensions in mm

## C-Grab CGD

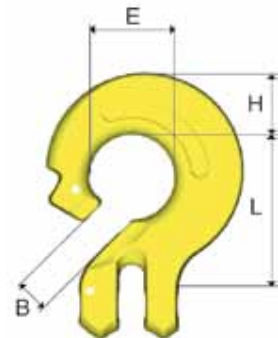
For use with master links.



Art. no.	Code	WLL tonnes*	L	B	E	D	Weight kgs
B14720	CGD-6-10	2.1	79	11	24	20	0.6
B14721	CGD-8-10	3.5	107	12	32	29	1.1
B14722	CGD-10-10	5.6	134	15	40	37	2.2
B14723	CGD-13-10	9.5	173	19	48	48	5.4
B14724	CGD-16-10	14	215	22	64	57	9.1

## C-Lok CL

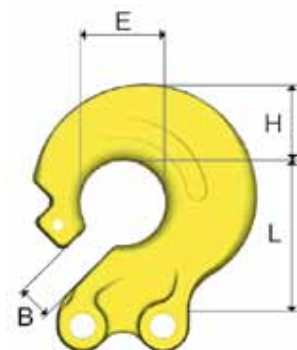
For use with master links, eye hooks and choke.



Art. no.	Code	WLL tonnes*	L	B	E	D	Weight kgs
B14750	CL-6-10	1.5	43	11	24	18	0.2
B14751	CL-8-10	2.5	58	12	32	24	0.5
B14752	CL-10-10	4	74	15	40	29	1.0
B14753	CL-13-10	6.7	94	18	52	38	2.0
B14754	CL-16-10	10	119	22	64	48	3.8

## C-Lok CLD

For use with master links.



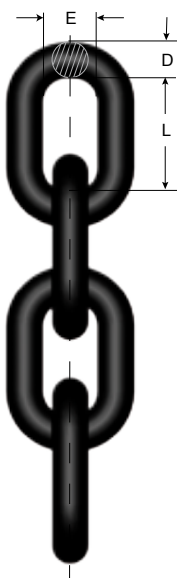
Art. no.	Code	WLL tonnes*	L	B	E	D	Weight kgs
B14740	CLD-6-10	2.1	43	11	24	22	0.4
B14741	CLD-8-10	3.5	58	12	32	29	0.6
B14742	CLD-10-10	5.6	74	15	40	37	1.2
B14743	CLD-13-10	9.5	94	18	52	46	3.1
B14744	CLD-16-10	14	119	25	64	57	5.5

\*Safety factor 4:1

All dimensions in mm



## Chain Classic Grade 8 EN 818-2 Short link chain, KL



### Heat treatment

Quenched and tempered.

### Surface treatment

Painted black (B)

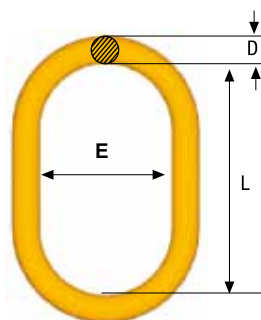
### Marking

8EG

Art.no Box	Code	D nom. mm	L mm	E mm	Weight kgs/m	WLL tonnes	Manufacturing proof force kN	Breaking force kN
Z802174 - 1 x 200 m	KLB 6-8E	6	18	8.5	0.8	1.12	28.3	45.2
Z802175 - 1 x 200 m	KLB 7-8E	7	21	10	1.1	1.5	38.5	61.6
Z802176 - 1 x 200 m	KLB 8-8E	8	24	11	1.4	2	50.3	80.4
Z802156 - 1 x 100 m	KLB 10-8E	10	30	14	2.2	3.15	78.5	126
Z802157 - 1 x 100 m	KLB 13-8E	13	39	18	3.7	5.3	133	212
Z802177 - 1 x 100 m	KLB 16-8E	16	48	22	5.6	8	201	322
Z801203 - 1 x 100 m	KLB 19-8E	19	57	26	7.8	11.2	284	454
Z801228 - 1 x 50 m	KLB 22-8E	22	66	30	10.6	15	380	608
Z801231 - 1 x 25 m	KLB 26-8E	26	78	35	14.8	21.2	531	849
Z801232 - 1 x 25 m	KLB 32-8E	32	96	43	21.6	31.5	804	1290

## Master Link M

EN 1677-4



Art. no.	Code	WLL tonnes*	L	E	D	Weight kgs
Z100866	M-6-10	1.25	100	60	11	0.2
Z100867	M-86-10	2.5	125	70	14	0.4
Z100868	M-108-10	4	140	80	17	0.8
Z100869	M-13-10	5.4	150	90	19	1
Z100870	M-1310-10	7.5	160	95	22	1.5
Z100871	M-1613-10	10	190	110	28	2.3
Z100872	M-19-10	12	200	120	30	3.5
Z100873	M-2016-10	17	240	140	34	5.2
Z100874	M-2220-10	25	250	150	40	7.3
Z101244	M-2622-10	28	250	150	42	7.8
Z100876	M-32-10	33	300	180	45	11.7
Z100877	M-3226-10	43	300	200	50	14.8
Z100878	M-3632-10	56	350	200	55	20.7
Z100879	M-4536-10	70	375	210	60	26.4
Z100880	M-90T-10	90	450	250	70	42.8
Z100881	M-100T-10	100	450	260	80	57
Z100882	M-125T-10**	125	450	260	80	57

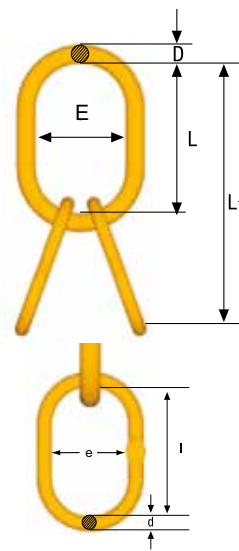
\*\* Dimension L and E not acc. to EN 1677-4.

## Master Link with Sub Links MT

EN 1677-4

Art. no.	Code	WLL tonnes*	For chain mm, 3-4-leg	L1	L	E	D	l	e	d	Weight kgs
Z100888	MT-6-10**	3.5	6	270	150	90	19	120	70	14	1.8
Z100889	MT-8-10**	5.2	7, 8	300	160	95	22	140	80	17	3
Z100897	MT-9-10	6.9	9	340	190	110	28	150	90	19	4.3
Z100890	MT-10-10**	11.5	10	360	200	120	30	160	95	22	6.4
Z100891	MT-13-10**	17	13	450	250	150	40	200	120	30	14.2
Z100892	MT-16-10**	28	16	500	300	200	50	200	120	32	23
Z100893	MT-20-10**	35	19, 20	550	300	200	55	250	150	40	31.5
Z100894	MT-22-10	53	22	610	350	200	60	260	140	45	46
Z100895	MT-26-10	70	26	730	450	250	70	280	160	50	71
Z100896	MT-32-10	90	32	750	450	260	80	280	160	55	91

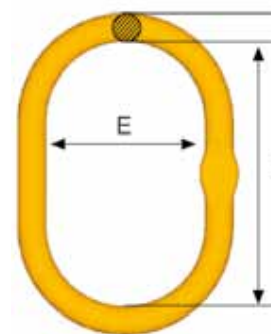
\*\* With flattened section for use with BL



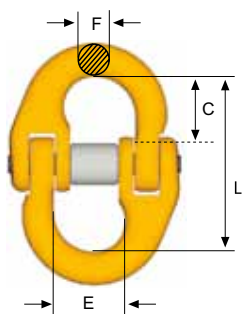
## Master Link MF

EN 1677-4

Art. no.	Code	WLL tonnes*	For chain mm, 1-leg	For chain mm, 2-leg	L	E	D	Weight kgs
Z100859	MF-6-10	1.3	6	-	100	60	11	0.2
Z100860	MF-86-10	2.5	7, 8	6	125	70	14	0.4
Z100861	MF-108-10	4	10	7, 8	140	80	17	0.8
Z100862	MF-1310-10	7.5	13	10	160	95	22	1.5
Z100863	MF-1613-10	10	16	13	190	110	28	2.5
Z100864	MF-2016-10	17	19, 20	16	240	140	34	5.2
Z100865	MF-2220-10	25	-	20	250	150	40	7.3

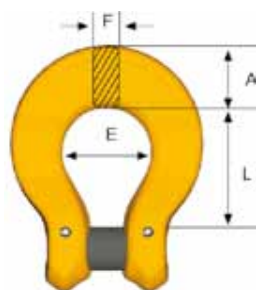


## Coupling Link G EN 1677-1



Art. no.	Code	WLL tonnes*	For chain dim. mm	L	E	F	C	Weight appr. kgs
Z622882	G-6-8	1.12	6	45	15	7	17	0.1
Z279333	G-7/8-8	2	7, 8	56	18	9	22	0.2
Z279430	G-10-8	3.2	10	68	25	12	26	0.3
Z279537	G-13-8	5.4	13	89	29	15	33	0.7
Z279634	G-16-8	8	16	105	36	19	40	1.2
Z279731	G-18/20-8	12.5	19	125	43	22	47	1.9
Z279838	G-22-8	15.5	22	152	50	24	59	3.0
Z349171	G-26-8	21.6	26	161	58	30	61	5.2
Z349189	G-32-8	32	32	200	70	38	77	9.5

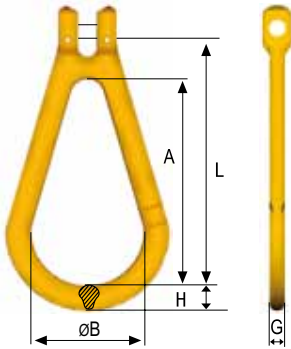
## Berglok Chain Coupler BL EN 1677-1



Art. no.	Code	WLL tonnes*	For chain dim. mm	L	E	F	A	Weight appr. kgs
Z622036	BL-6-8	1.12	6	27	20	9	14	0.1
Z195823	BL-7/8-8	2.0	7, 8	35	25	11	18	0.2
Z208022	BL-10-8	3.2	10	45	32	14	22	0.4
Z217820	BL-13-8	5.4	13	56	40	17	28	0.8
Z208226	BL-16-8	8.0	16	68	50	22	35	1.4
Z284632	BL-19-8	11.5	19	80	58	25	41	2.1

## Clevis egglink CEL

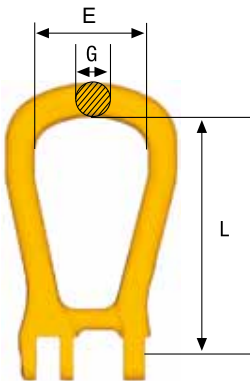
EN 1677-1



Art. no.	Code	WLL tonnes*	For chain dim. mm	A	B	G	H	L	Weight appr. kgs
Z700968	CEL-7/8-8	2	7, 8	80	40	14	15	100	0.4
Z700969	CEL-10-8	3.2	10	100	50	18	19	126	0.7
Z700970	CEL-13-8	5.4	13	130	65	23	25	162	1.5

## Master link (closed) SKG

EN 1677-1

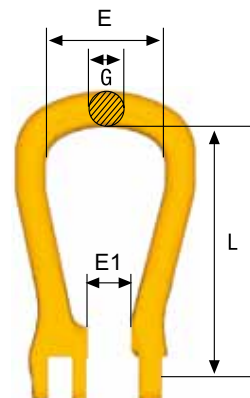


Art. no.	Code	WLL tonnes*	For chain dim. mm	L	E	G	Weight appr. kgs
Z419684	SKG-7/8-8	2	7, 8	99	50	14	0.3
Z419781	SKG-10-8	3.2	10	127	66	18	0.6
Z419888	SKG-13-8	5.4	13	145	72	22	1.1
Z419985	SKG-16-8	8	16	175	82	25	1.5
Z420086	SKG-18/20-8	12.5	19	204	105	30	3.0

**Master link (open) SKO**

EN 1677-1

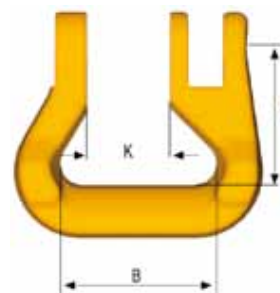
Art. no.	Code	WLL tonnes*	For chain dim. mm	L	E	G	E1	Weight appr. kgs
Z418683	SKO-7/8-8	2	7, 8	99	50	14	15	0.3
Z418780	SKO-10-8	3.2	10	127	66	18	20	0.6
Z419383	SKO-13-8	5.4	13	145	72	22	25	1
Z419480	SKO-16-8	8	16	175	82	25	30	1.5
Z419587	SKO-18/20-8	12.5	19	204	105	30	36	2.9

**Roundsling coupling SKR**

EN 1677-1

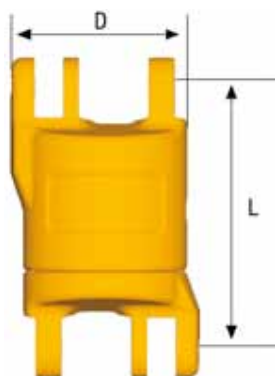
Special shape for full WLL of the roundsling.

Art. no.	Code	WLL tonnes*	L	B	K	Weight appr. kgs
Z127840	SKR-7/8-8	2	35	40	18	0.2
Z143143	SKR-10-8	3.2	42	47	24	0.4
Z302538	SKR-13-8	5.4	50	53	29	0.7
Z143240	SKR-16-8	8	62	67	35	1.3
Z143347	SKR-18/20-8	12.5	71	80	43	1.9
Z100057	SKR-22-8	15.5	111	125	50	5.3
Z100055	SKR-26-8	21.6	129	150	58	8.9



## Roller-Bearing Swivel SKLI/SKLU EN 1677-1

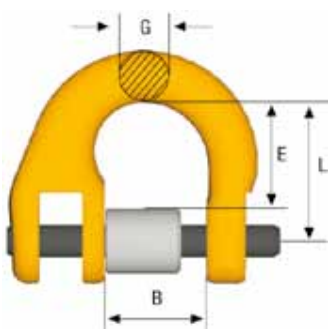
Electrically insulated, lubricated, sealed roller bearing swivel. Fully rotational even at maximum load. Tested to resist 1.000 V. Suitable for protection of overhead cranes during welding operations on suspended loads.



Art. no.	Code	WLL tonnes*	For chain dim. mm	L	D	Weight appr. kgs
Z100316	SKLI-7/8-8	2	7, 8	75	48	0.7
Z100414	SKLI-10-8	3.2	10	97	59	1.3
Z100415	SKLI-13-8	5.4	13	120	75	2.8
Z100416	SKLI-16-8	8	16	137	90	4.6
Z100417	SKLI-18/20-8	12.5	19	159	104	7.3
RS16520	SKLU-22-8*	15.5	22	160	109	9.2
RS16530	SKLU-26-8*	21.6	26	207	135	18.3

\* Uninsulated

## Half-link SKT (incl. locking set) EN 1677-1



Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	G	E	Weight appr. kgs
Z426286	SKT-7/8-8	2	7, 8	28	18	9	22	0.1
Z426383	SKT-10-8	3.2	10	34	25	12	26	0.2
Z426480	SKT-13-8	5.4	13	44	30	15	33	0.4
Z426587	SKT-16-8	8	16	52	36	19	40	0.6
Z426684	SKT-18/20-8	12.5	19	63	43	22	48	1.1
Z100225	SKT-22-8	15.5	22	76	50	24	60	1.7
Z100226	SKT-26-8	21.6	26	80	58	29	61	2.6
Z100227	SKT-32-8	32	32	100	70	36	78	4.9



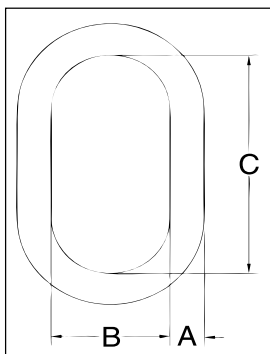
## Alloy master links

A-342



- Alloy Steel — Quenched and Tempered.
- Individually Proof Tested to values shown, with certification.
- Proof Tested with 60% inside width special fixtures sized to prevent localized point loading per ASME A-952 , reference page 251.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these links meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Forgings have a Product Identification Code (PIC) for material traceability, along with the size, the name Crosby and USA in raised lettering.
- Selected sizes designated with "W" in the size column have enlarged inside dimensions to allow additional room for sling hardware and crane hook.
- Crosby 32mm to 51mm 342/345 master links are type approved to DNV Certification Notes 2.7-1- Offshore Containers. These Crosby master links are 100% proof tested, MPI and impact tested. The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 8.76 for Crosby COLD TUFF® master links that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gear.
- Incorporates patented QUIC-CHECK® deformation indicators.

### A-342 Alloy Master Links



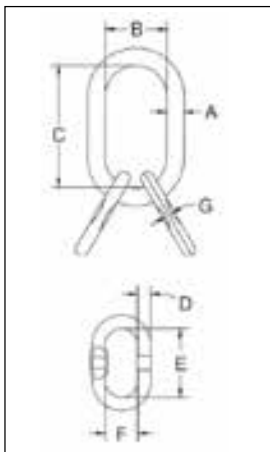
Size		A-342 Stock No.	Weight Each (kg)	WLL S.F.= 5/1 for Rope (t)*	Proof Load (kN)**	Dimensions (mm)			
(mm)	(in.)					A	B	C	Deformation Indicator
13W	1/2W	1014266	0.59	3.40	77	15.7	71.1	127	89
16	5/8	1014280	0.69	4.00	80	15.7	76.2	152	89
19W	3/4W	1014285	0.91	5.60	126	18.5	81.3	152	102
22W	7/8W	1014319	1.50	6.90	157	22.4	95.3	162	114
26W	1W	1014331	2.77	11.8	267	27.9	109	191	140
32W	1-1/4W	1014348	5.44	17.7	402	33.8	140	241	178
38W	1-1/2W	1014365	8.44	27.7	628	40.9	150	267	191
44	1-3/4	1014388	11.4	38.5	756	44.5	152	305	191
51	2	1014404	16.8	46.5	913	50.8	178	356	229
57	2-1/4	1014422	24.5	64.9	1287	57.2	203	406	254
63	2-1/2	1014468	31.1	72.6	1423	63.5	213	406	279
70	2-3/4	1014440	42.6	98.4	1930	69.9	251	457	318
76	3	1014486	52.0	103	2029	76.2	251	457	330
83	3-1/4	1014501	66.0	119	2332	82.6	254	508	343
89	3-1/2	1014529	91.0	126	2483	88.9	305	610	394
95	3-3/4	1015051	90.0	152	2990	95.3	254	508	343
102	4	1015060	120	169	3319	102	305	610	406
†† 108	†† 4-1/4	1015067	137	160	3150	108	305	610	-
†† 114	†† 4-1/2	1015079	156	163	3202	114	356	711	-
†† 121	†† 4-3/4	1015088	198	176	3460	121	356	711	-
†† 127	†† 5	1015094	234	179	3515	127	381	762	-

\*Ultimate Load is 5 times the Working Load Limit. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120 degrees. Applications with wire rope and synthetic sling generally require a design factor of 5. \*\* Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9. †† Welded Master Link.

A-345



### A-345 Master Link Assembly with Engineered Flat for use with S-1325A coupler link.



Size		A-345 Stock No.	Weight Each (kg)	Working Load Limit Based on 5:1 Design Factor (t)	Proof Load (kN)**	Dimensions (mm)							
(mm)	(in.)					A	B	C	D	E	F	G	Deformation Indicator
19W	3/4W	1014739	1.59	5.6	126	18.5	81.3	152	14.2	85.1	45.0	7.62	102
22W	7/8W	1014742	2.18	6.9	157	22.4	95.3	162	14.2	85.1	45.0	7.62	114
26W	1W	1014766	4.22	11.8	267	27.9	109	191	19.1	100	59.9	8.38	140
32W	1-1/4W	1014779	7.17	17.7	402	33.8	140	241	25.4	160	89.9	13.0	178
38W	1-1/2W	1014807	15.47	27.7	628	40.9	150	267	31.8	180	100	16.5	191
44	1-3/4	1014814	20.9	38.5	755	44.5	152	305	35.1	203	127	18.5	191
51	2	1014832	30.4	46.5	912	50.8	178	356	38.1	229	146	-	229
64	2-1/2	1014855	93.4	72.6	1423	63.5	213	406	63.5	406	213	-	279
70	2-3/4	1014864	128	98.4	1929	69.9	251	457	69.9	457	251	-	318
102	4	1014999	303	169	3319	102	305	610	89.0	610	305	-	394***

\*Ultimate Load is 5 times the Working Load Limit. The maximum individual sublink working load limit is 75% of the assembly working load limit except for 2-1/2" and 2-3/4", which are 100% of assembly working load limit. Applications with wire rope and synthetic sling generally require a design factor of 5. \*\* Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9.

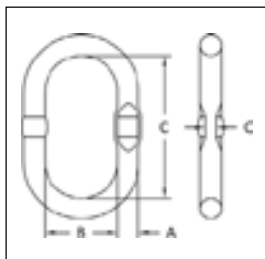
## Welded master links

- Alloy Steel - Quenched and Tempered.
- Individually Proof Tested to values shown, with certification.
- Proof Tested with 60% inside width special fixtures sized to prevent localized point loading per ASME A-952 , reference page 251.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these links meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Meets the performance requirements of EN1677-4:2001.
- Each link has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby® or “CG”.
- Large inside width and length to allow additional room for sling hardware and crane hook.
- Engineered Flat for use with S-1325A coupler link.
- Crosby 32mm to 51mm 342/345 master links are type approved to DNV Certification Notes 2.7-1- Offshore Containers. These Crosby master links are 100% proof tested, MPI and impact tested. The tests are conducted by Crosby and 3.1 test certification is available upon request. Refer to page 8.76 for Crosby COLD TUFF® master links that meet the additional requirements of DNV rules for certification of lifting applications - Loose Gear

A-344



A-347

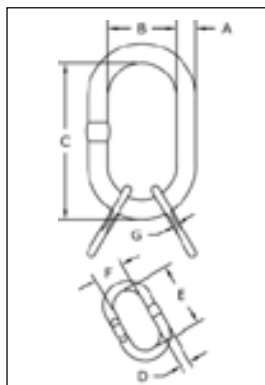


### A-344 Welded Master Link with Engineered Flat

Size		A-344 Stock No.	Weight Each (kg)*	Working Load Limit (t)*	Proof Load (kN)**	Dimensions (mm)				Engineered Flat Size for S-1325A (mm)
(mm)	(in.)					A	B	C	G	
12	7/16	1256862	.30	1.60	39	12.0	60.0	120	6.50	6
13	1/2	1256932	.36	2.50	61	13.0	60.0	120	6.50	7-8
17	11/16	1257002	.86	4.10	101	17.0	90.0	160	8.50	10
19	3/4	1257072	1.08	6.70	164	19.0	90.0	160	8.50	10
20	3/4	1257082	1.17	6.70	164	20.0	80.0	150	-	-
22	7/8	1257214	1.59	8.50	208	22.0	90.0	170	-	-
22	7/8	1257212	1.63	8.50	208	22.0	100	180	10.5	13
22	7/8	1257215	2.39	6.30	154	22.0	145	275	-	-
25	1	1257282	2.43	11.5	282	25.0	115	210	13.5	16
25	1	1257302	2.31	11.5	282	25.0	100	190	-	-
25	1	1257332	3.35	8.90	218	25.0	145	275	-	-
28	1-1/8	1257352	3.22	12.9	316	28.0	110	210	-	-
28	1-1/8	1257382	3.91	13.0	319	28.0	145	275	13.5	16
31	1-7/32	1257422	4.86	17.0	417	31.0	145	275	15.5	-
32	1-1/4	1257442	5.30	17.0	417	32.0	140	270	-	-
36	1-7/16	1257492	6.87	24.0	588	36.0	155	285	-	-
38	1-1/2	1257502	7.63	31.5	772	38.0	140	270	-	-
40	1-9/16	1257532	8.96	28.1	689	40.0	160	300	-	-
45	1-3/4	1257569	10.31	32.0	785	45.0	140	250	-	-
45	1-3/4	1257564	12.70	38.3	939	45.0	170	320	-	-
45	1-3/4	1257562	12.82	38.3	939	45.0	180	340	-	-
50	1-31/32	1257582	17.60	45.0	1103	50.0	200	380	-	-
51	2	1257632	18.72	45.0	1103	51.0	215	390	-	-
57	2-1/4	1257652	24.5	65.3	1601	57.0	203	406	-	-

Ultimate Load is 5 times the Working Load Limit. Applications with wire rope and synthetic sling generally require a design factor of 5. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120 degrees. \*\* Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9.

### A-347 Welded Master Link Assembly with Engineered Flat



Size		A-347 Stock No.	Weight Each (kg)*	Working Load Limit (t)*	Proof Load (kN)**	Dimensions (mm)							Engineered Flat Size for S-1325A (mm)
(mm)	(in.)					A	B	C	D	E	F	G	
13/12	1/2	1257692	.81	2.40	59	13.0	60.0	120	12.0	85.0	45.0	6.00	6
17/13	11/16	1257762	1.56	4.10	101	17.0	90.0	160	13.0	120	60.0	6.50	7
19/13	3/4	1257832	1.80	4.25	104	19.0	90.0	160	13.0	120	60.0	6.50	8
22/20	7/8	1257977	3.93	8.50	208	22.0	90.0	170	20.0	150	80.0	-	-
22/17	7/8	1257972	3.35	7.98	196	22.0	100	180	17.0	160	90.0	8.50	10
22/16	7/8	1257979	3.53	5.80	142	22.0	145	275	16.0	120	60.0	-	-
25/20	1	1258122	4.65	10.7	262	25.0	100	190	20.0	150	80.0	-	-
25/19	1	1258102	5.51	8.90	218	25.0	145	275	19.0	160	90.0	-	-
28/22	1-1/8	1258162	6.40	12.9	316	28.0	110	210	22.0	170	90.0	-	-
28/22	1-1/8	1258142	7.17	14.5	355	28.0	145	275	22.0	180	100	10.5	13
31/25	1-7/32	1258182	9.72	17.0	417	31.0	145	275	25.0	210	115	13.5	16
32/25	1-1/4	1258202	9.92	17.0	417	32.0	140	270	25.0	190	100	-	-
36/28	1-3/8	1258222	12.20	23.6	579	36.0	145	275	28.0	190	100	-	-
38/32	1-1/2	1258224	18.23	28.1	689	38.0	140	270	32.0	270	140	-	-
40/31	1-9/16	1258332	18.68	28.1	689	40.0	160	300	31.0	275	145	-	-
45/38	1-3/4	1258422	27.96	38.3	939	45.0	170	320	38.0	270	140	-	-
45/36	1-3/4	1258402	26.56	38.3	939	45.0	180	340	36.0	285	155	-	-
50/38	2	1258442	32.86	45.0	1103	50.0	200	380	38.0	270	140	-	-
51/45	2	1258462	42.92	45.0	1103	51.0	190	350	45.0	340	180	-	-
57/50	2-1/4	1258482	59.70	67.0	1643	57.0	203	406	50.0	380	200	-	-

\*Ultimate Load is 5 times the Working Load Limit. The maximum individual sublink working load limit is 75% of the assembly working load limit except for 2-1/2" and 2-3/4", which are 100% of assembly working load limit. Applications with wire rope and synthetic sling generally require a design factor of 5. \*\* Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9.

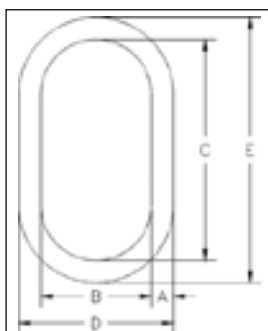


## COLD TUFF® fittings

### A-342CT



- Alloy Steel - Quenched and Tempered
- Individually proof tested at 2 times Working Load Limit with certification.
- Finish is Inorganic Zinc Primer.
- Certified to meet charpy impact testing of 42J. min. ave. at -20° C.
- Individually serialized and all certification shipped with each link.
- COLD TUFF® master links are suitable for use at -46° C.
- Type Approval and certification in accordance with DNV 2.7-1 Offshore Containers, and Rules for Certification of Lifting Appliances, and are produced in accordance with DNV MSA requirements, including required documents.
- Refer to page 8.51 for COLD TUFF® Shackles.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these fittings meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

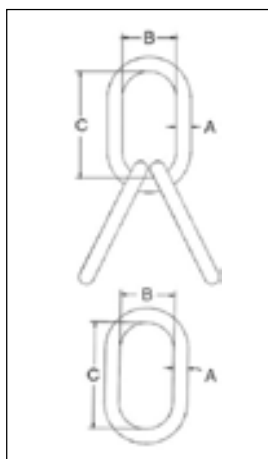


### A-342CT Master Links

Size (mm)	A-342CT Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)					Deformation Indicator
				A	B	C	D	E	
31.8W	1261407	15.9	5.44	33.8	140	241	207	309	178
38.1W	1261418	27.7	8.44	40.9	149	267	231	348	191
44.5	1261423	28.3	11.4	44.5	152	305	241	394	191
51.0	1261433	44.3	16.8	51.0	178	356	279	457	229

\*Minimum Ultimate Load is 5 times the Working Load Limit.

### A-345CT



### A-345CT Master Link Assembly

- Alloy Steel - Quenched and Tempered
- Individually proof tested at 2 times Working Load Limit with certification.
- Finish is Inorganic Zinc Primer.
- Certified to meet charpy impact testing of 42J. min. ave. at -20° C.
- COLD TUFF® master links are suitable for use at -46° C.
- Type Approval and certification in accordance with DNV 2.7-1 Offshore Containers, and Rules for Certification of Lifting Appliances, and are produced in accordance with DNV MSA requirements including required documents.
- Refer to page 8.51 for COLD TUFF® Shackles.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these fittings meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

Size (mm)	A-345CT Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)		
				A	B	C
31.8	1261609	15.9	13.6	31.8	111	222
38.1	1261620	21.7	23.1	38.1	133	267
44.5	1261631	28.3	35.4	44.5	152	305
51.0	1261642	44.3	56	51.0	178	356

\*Minimum Ultimate Load is 5 times the Working Load Limit.

## Links and rings

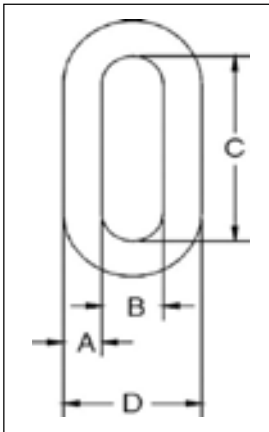
### G-340 S-340



G-340 from 16 mm thru 22 mm meet the performance requirements of Federal Specification RR-C-271F, Type XV, except for those provisions required of the contractor.

#### Weldless End Links

- Forged carbon steel - Quenched and Tempered
- Self Colored or Hot Dip galvanized.



Size (A) (mm)	Stock No.		Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)		
	G-340 Galv.	S-340 S.C.			B	C	D
8	1014057	1014066	1.13	.07	12.7	44.5	30.0
10	1014075	1014084	1.72	.10	14.2	47.8	35.1
13	1014093	1014100	2.95	.22	19.1	60.5	46.0
16	1014119	1014128	4.22	.44	25.4	82.5	59.0
19	1014137	1014146	6.35	.68	28.7	89.0	68.0
22	1014155	1014164	5.44	1.17	51.0	130	95.5
25	1014173	1014182	6.89	1.79	57.0	146	108
32	1014191	1014208	11.97	3.31	63.5	178	127
35	1014217	1014226	13.61	4.71	70.0	197	140

\*Ultimate Load is 5 times the Working Load Limit. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120°.

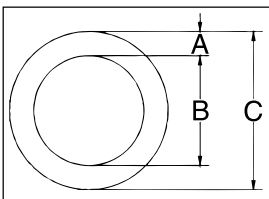
### S-643



Weldless Rings meet the performance requirements of Federal Specification RR-C-271F Type VI, except for those provisions required of the contractor.

#### S-643 Weldless Rings

- Forged carbon steel - Quenched and Tempered.
- Self Colored

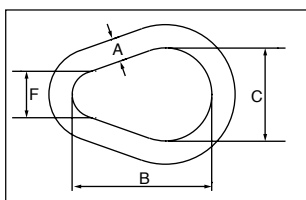


Size (A) (mm)	S-643 Stock No	Working Load Limit Single Pull (t)*	Weight Each (kg)	Dimensions (mm)	
				B	C
22.2 x 102	1013780	3.27	1.23	102	146
22.2 x 140	1013806	2.54	1.57	140	184
25.4 x 102	1013824	4.90	1.67	102	152
28.6 x 152	1013842	4.72	2.99	152	210
31.8 x 127	1013860	7.71	3.09	127	191
34.9 x 152	1013888	8.62	4.59	152	222

\*Ultimate Load is 6 times the Working Load Limit.

## Pear shaped links

### A-341



- Alloy Steel - Quenched and Tempered
- Individually Proof Tested at 2 times Working Load Limit with certification.
- Proof Test certification shipped with each link.
- Sizes 13mm, 16mm, 19mm, 22mm, 25mm, 32mm and 35mm are forged.

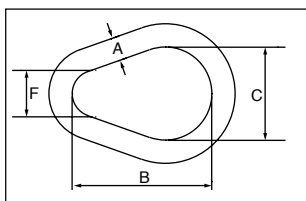
### A-341 Alloy Pear Shaped Links

Stock Size (A) (mm)	A-341 Stock No	Working Load Limit		Weight Each (kg)	Dimensions (mm)		
		(t)*	(lbs.)		B	C	F
13	1013575	3.15	7000	.25	76.2	50.8	25.4
16	1013584	4.09	9000	.50	95.3	63.5	31.8
19	1013595	5.59	12300	.80	114	76.2	38.1
22	1013604	6.81	15000	1.28	133	88.9	44.5
25	1013613	11.0	24360	1.91	152	102	51.0
†† 28	1013622	13.9	30600	2.83	171	114	57.0
32	1013631	16.4	36000	3.74	191	127	63.5
35	1013640	19.5	43000	5.10	210	140	70.0
†† 38	1013649	24.7	54300	6.46	229	152	76.0
†† 42	1013658	28.4	62600	8.39	248	165	82.5
†† 44	1013667	38.6	84900	10.2	267	178	89.0
†† 48	1013676	43.5	95800	13.2	286	191	95.5
†† 51	1013685	46.6	102600	15.4	305	203	102
†† 57	1013694	65.0	143100	21.8	343	229	114
†† 64	1013703	66.9	147300	29.9	381	254	127
†† 70	1013712	98.6	216900	39.9	419	279	140
†† 76	1013721	103	228000	52	457	305	152
†† 83	1013730	119	262200	66	495	330	165
†† 89	1013739	126	279000	82	533	356	178
†† 102	1013748	169	373000	123	610	406	203

\*Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120°. Minimum Ultimate load is 5 times the Working Load Limit.

†† Welded Link.

### G-341 / S-341



- Forged carbon steel - Quenched and Tempered.
- Self Colored or Hot Dip galvanized.

### G-341 / S-341 Weldless Sling Links

Size (A) (mm)	Stock No.		Working Load Limit Single Pull (t.)*	Weight Each (kg)	Dimensions (mm)		
	G-341 Galv.	S-341 S.C.			B	C	F
10	1013897	1013904	.82	0.10	57.2	38.1	19.1
13	1013913	1013922	1.32	.25	76.2	50.8	25.4
16	1013931	1013940	1.91	.48	95.5	63.5	31.8
19	1013959	1013968	2.72	.85	114	76.2	38.1
22	1013977	1013986	3.76	1.25	133	88.9	44.5
25	1013995	1014002	4.90	1.97	152	102	51.0
32	1014011	1014020	7.60	3.45	197	127	63.5
35	1014039	1014048	9.30	5.13	210	140	70.0

\*Ultimate Load is 6 times the Working Load Limit. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120°.

## Crosby ELIMINATOR® fittings

### A-1361



The Crosby ELIMINATOR® combines selected features and functionality of a master link, connecting link, grab hook and adjuster legs to provide you with one fitting that is suitable for applications that require an adjustable length chain sling.

- Forged Alloy Steel - Quenched and Tempered.
- Innovative two piece design allows for maximum flexibility.
- Individually Proof Tested with certification.
- The Crosby ELIMINATOR®, if properly installed and locked, can be used for personnel lifting applications and meets the intent of OSHA Rule 1926.1431(g).
- Suitable for use with Grade 100 and Grade 80 chain.
- Engineered to accommodate optional locking pins that can be inserted to “lock” the shortened chain legs into place.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- Use the A-1361 and A-1362 in combination to make 3 leg chain slings.
- “Look for the Platinum Color - Crosby Grade 100 Alloy Products.”
- All sizes are **RFID EQUIPPED**.

### A-1362



### A-1361 Crosby ELIMINATOR® Single Hook

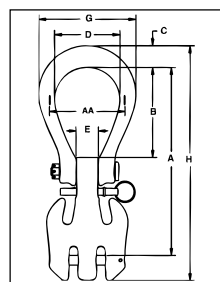
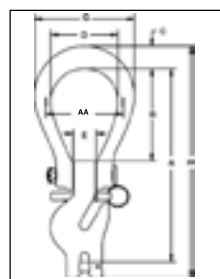
Chain Size		Frame Size	Working Load Limit (t)*	A-1361 Stock No.	L-1361 Stock No.	Weight Each (kg)	Dimensions (mm)							
(in.)	(mm)						A	B	C	D	E	AA	G	H
1/4	7	2	2.0	1049797	1049802	1.76	208	99.0	22.9	76.2	23.9	89.0	112	248
5/16	8	2	2.5	1049804	1049809	1.76	208	99.0	22.9	76.2	23.9	89.0	112	248
3/8	10	3	4	1049813	1049818	2.94	255	122	29.5	88.9	28.7	102	132	306
1/2	13	4	6.7	1049822	1049827	6.12	327	152	41.4	105	33.3	127	162	395
5/8	16	5	10	1049831	1049836	10.9	388	175	49.8	121	41.4	152	188	472

\* Proof tested at 2.5 times the Working Load Limit. Minimum Ultimate Load is 4 times the Working Load Limit.

### A-1362 Crosby ELIMINATOR® Double Hook

Chain Size		Frame Size	Working Load Limit (t)*	A-1362 Stock No.	L-1362 Stock No.	Weight Each (kg)	Dimensions (mm)							
(in.)	(mm)						A	B	C	D	E	AA	G	H
1/4	7	2	3.9	1049859	1049913	2.13	208	99.0	22.9	76.2	23.9	89.0	112	257
5/16	8	2	5.0	1049868	1049922	2.13	208	99.0	22.9	76.2	23.9	89.0	112	257
3/8	10	3	8.0	1049877	1049931	3.67	255	122	29.5	88.9	28.7	102	132	319
1/2	13	4	13.6	1049886	1049940	7.84	327	152	41.4	105	33.3	127	162	413
5/8	16	5	20	1049895	1049949	14.3	388	175	49.8	121	41.4	152	188	491

\* Proof tested at 2 times the Working Load Limit. Minimum Ultimate Load is 4 times the Working Load Limit.



### Using Crosby ELIMINATOR® in 3 and 4 Leg Slings

See page 199 for basic chain sling components.

Spectrum 10® Chain Size		Master Link A-342 Stock No.	Master Link A-1342 Stock No.	Crosby ELIMINATOR® Single A-1361 Stock No.	Crosby ELIMINATOR® Double A-1362 Stock No.
(in.)	(mm)				
1/4 (9/32)	7	1014285	1011412	1049797	1049859
5/16	8	1014319	1011421	1049804	1049868
3/8	10	1014331	1011430	1049813	1049877
1/2	13	1014348	1011449	1049822	1049886
5/8	16	1014365	1011458	1049831	1049895

Use one of either A-342 or A-1342 master link.  
Use one of each when making three leg sling.

Spectrum 10® Chain Size		Master Link A-342 Stock No.	Master Link A-1342 Stock No.	Crosby ELIMINATOR® Single A-1361 Stock No.	Crosby ELIMINATOR® Double A-1362 Stock No.
(in.)	(mm)				
1/4 (9/32)	7	1014285	1011412	–	1049859
5/16	8	1014319	1011421	–	1049868
3/8	10	1014331	1011430	–	1049877
1/2	13	1014348	1011449	–	1049886
5/8	16	1014365	1011458	–	1049895

Use one of either A-342 or A-1342 master link.  
Use two A-1362 fittings when making Quad leg sling.



## Crosby ELIMINATOR® fittings



### A-1360B Bail

Chain Size		Frame Size	A-1360B Stock No.	Weight Each (kg)	S-4103 Replacement Hinge Pin Kit Stock No.
(in.)	(mm)				
1/4 - 5/16	7 - 8	2	1049626	.95	1092916
3/8	10	3	1049635	1.67	1092925
1/2	13	4	1049644	3.35	1092934
5/8	16	5	1049653	5.89	1092943



### A-1360S Single Hook

Chain Size		Frame Size	Working Load Limit (t)*	A-1360S Stock No.	L-1360S Stock No.	Weight Each (kg)	S-4100 Replacement Load Pin Kit Stock No.
(in.)	(mm)						
1/4	7	2	2.0	1049671	1049790	.81	1091801
5/16	8	2	2.5	1049680	1049799	.81	1091810
3/8	10	3	4.0	1049699	1049808	1.27	1091829
1/2	13	4	6.7	1049706	1049817	2.76	1091838
5/8	16	5	10	1049715	1049826	5.03	1091847

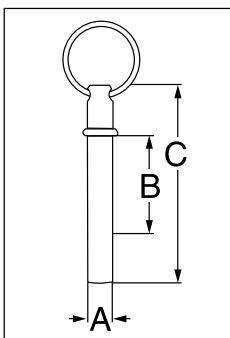
\* Ultimate Load is 4 times the Working Load Limit.



### A-1360D Double Hook

Chain Size		Frame Size	Working Load Limit (t)*	A-1360D Stock No.	L-1360D Stock No.	Weight Each (kg)	S-4102 Replacement Load Pin Kit Stock No.
(in.)	(mm)						
1/4	7	2	4.0	1049733	1049838	1.17	1092713
5/16	8	2	5.0	1049742	1049847	1.17	1092722
3/8	10	3	8.0	1049751	1049856	1.99	1092731
1/2	13	4	13.4	1049760	1049865	4.49	1092740
5/8	16	5	20	1049779	1049874	8.39	1092759

\* Ultimate Load is 4 times the Working Load Limit.



### S-4104N Latch Pin

- The new style S-4104N latch pin is colored yellow zinc.
- The old style S-4104 latch pin is colored silver zinc.

Chain Size		Frame Size	S-4104N Stock No.	Weight Each (kg)	Dimensions (mm)		
(in.)	(mm)				A	B	C
1/4 - 5/16	7 - 8	2	1092983	.06	7.95	34.5	65.5
3/8	10	3	1092992	.06	7.95	38.6	78.2
1/2	13	4	1093001	.06	7.95	46.5	97.3
5/8	16	5	1093010	.06	7.95	56.1	117

## Grade 100 alloy chain

### SPECTRUM 10<sup>®</sup> ALLOY CHAIN



- Alloy Steel.
- Heat Treated.
- 25% stronger than Grade 80 Alloy Chain.
- Permanently embossed with CG (Crosby Group) and 10 (Grade).
- Finish - Black rust preventative coating.
- Proof Tested at 2 times the Working Load Limit with certification.
- Standard container - fiber drum.

### Grade 100 Alloy Chain Recommended for Overhead Lifting Applications

Chain Size		Gr. 100 Stock No.	Meters Per Drum	Dimensions (mm)	Working Load Limit (t)*	Weight Per Meter (kg)
(in.)	(mm)					
9/32 (1/4)	7	1210055	200	7 x 21	2.00	1.05
5/16	8	1210076	200	8 x 24	2.50	1.25
3/8	10	1210097	200	10 x 30	4.00	2.20
1/2	13	1210118	100	13 x 39	6.70	3.80
5/8	16	1210139	100	16 x 48	10.0	5.70
3/4	20	1210160	75	19 x 57	14.0	8.03
7/8	23	1210202	50	23 x 69	18.8	10.9
1	26	1210223	25	26 x 78	26.5	15.2

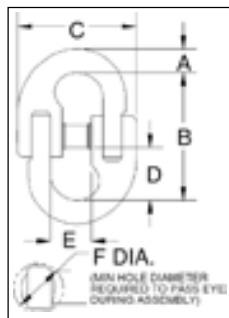
\* Proof loaded at 2 times Working Load Limit. Ultimate Load is 4 times the Working Load Limit.

### A-1337



- Suitable for use with both Grade 80 and Grade 100 chain.
- Individually Proof Tested at 2-1/2 times Working Load Limit with certification.
- Locking system that provides for simple assembly and disassembly - no special tools needed.
- 25% stronger than Grade 80.
- Meets ASTM A-952-96 standards for Grade 100 chain fittings.
- Forged Alloy Steel - Quenched and Tempered.
- Fatigue rated.

### A-1337 LOK-A-LOY<sup>®</sup> 10 Alloy Connecting Link



Chain Size		A-1337 Stock No.	Pkg. Qty.	Weight Each (kg)	Working Load Limit (t)*	Dimensions (mm)					
(in.)	(mm)					A	B	C	D	E	F
9/32 (1/4)	7	1015104	60	.12	2	9.7	49.3	48.3	20.6	17.5	14.5
5/16	8	1015113	50	.16	2.5	9.40	59.7	52.6	25.1	18.3	16.3
3/8	10	1015122	40	.34	4	12.2	68.6	62.7	28.4	22.9	19.8
1/2	13	1015136	12	.73	6.7	17.3	87.6	84.1	36.6	28.4	24.6
5/8	16	1015145	10	1.30	10	20.6	105	99.1	43.7	34.3	29.0
3/4	20	1015154	1	2.26	16	23.6	118	118	53.1	40.4	32.5
7/8	22	1015163	1	3.41	19.4	26.9	140	143	58.7	50.0	36.6
1	25	1015172	1	5.00	27	31.0	152	157	63.5	56.4	47.8
1-1/4	32	1015181	1	9.25	41	38.1	189	194	78.5	64.3	55.6

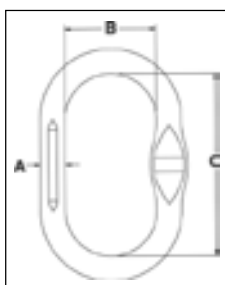
\* Ultimate Load is 4 times the Working Load Limit. For Grade 6 Lok-A-Loy, see page 222.

## Grade 100 alloy master links

### A-1342N



- Alloy Steel - Quenched and Tempered.
- Individually proof tested to 2.5 times the Working Load Limit with certification.
- Proof tested with fixture sized to prevent localized point loading per ASTM A952.
- Proof test certification shipped with each link.
- All sizes are forged.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products."
- Engineered Flat for use with S-1325A coupler link.



### A-1342N Master Link

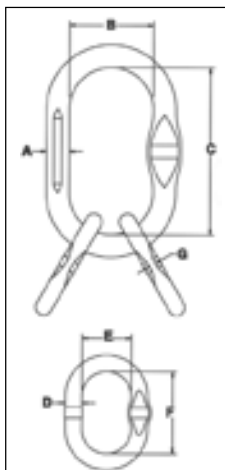
A-1342N Size		A-1342N Designation Marking	A-1342N Stock No.	Working Load Limit (t)*	Proof Load (t)	Weight Each (kg)	Dimensions (mm)		
(in.)	(mm)						A	B	C
1/4	6 - 7	X 1	1011403	3.12	7.8	.49	15.2	63.5	127
5/16	8	X 2	1011412	4.16	10.4	.77	17.8	69.9	140
3/8	10	X 3	1011421	6.40	16.0	1.22	21.3	76.2	152
1/2	13	X 4	1011430	10.92	27.3	2.81	27.7	102	203
5/8	16	X 5	1011449	16.40	41.0	4.80	34.0	127	229
3/4	19	X 6	1011458	25.7	64.2	8.52	41.4	133	267
7/8	22	X 7	1011467	31.0	77.6	13.1	47.8	152	305

\* Minimum Ultimate Load is 4 times the Working Load Limit based on single leg sling.

### A-1345N



- Alloy Steel - Quenched and Tempered.
- Individually proof tested to 2.5 times the Working Load Limit with certification.
- Proof tested with fixture sized to prevent localized point loading per ASTM A952.
- Proof test certification shipped with each link.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products."
- Engineered Flat for use with S-1325A coupler link.



### A-1345N Master Link Assembly

A-1345N Designation Marking	A-1345N Stock No.	Grade 100 Chain Size		Working Load Limit (t)*	Proof Load (t)	Weight Each (kg)	Dimensions (mm)						
		(in.)	(mm)				A	B	C	D	E	F	G
X 2	1011501	-	6	3.48	8.7	1.31	17.8	69.9	140	12.7	38.6	85.1	6.10
X 3	1011510	1/4-5/16	7 - 8	6.20	15.5	1.99	21.3	76.2	152	14.3	45.0	85.1	7.62
X 4	1011529	3/8	10	9.58	24.0	4.35	27.7	102	203	19.1	59.9	100	8.38
X 5	1011538	1/2	13	16.33	40.9	8.75	34.0	127	229	25.4	89.9	160	12.9
X 6	1011547	5/8	16	24.60	61.5	14.2	38.1	133	267	31.8	100	180	16.5
X 7	1011556	3/4	19	38.44	96.1	24.6	47.8	152	305	38.1	108	203	20.6
X 8	1011565	7/8	22	46.50	116.2	50.9	57.2	203	406	47.8	152	305	22.4

\* Minimum Ultimate Load is 4 times the Working Load Limit based on single leg sling.

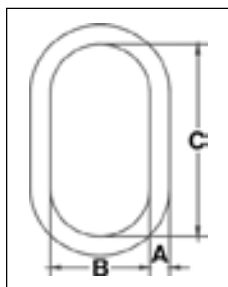
## Welded master links

### A-1343



- Ratings below are for use with chain slings fabricated in accordance with ASTM B30.9.
- Available in sizes A13 through A45.
- Alloy Steel - Quenched and Tempered.
- Design Factor of 4 to 1.
- Individually Proof Tested to values shown.
- Based on DIN 5688, part 3.
- Meets or exceed all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these master links meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Each link has a Product Identification Code (PIC) for material traceability, along with the size and "CG" stamped into it.

### A1346

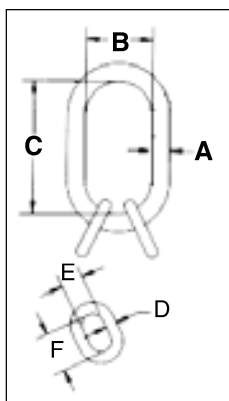


### A-1343 Welded Master Link

Size	A-1343 Stock No. S.C.	Weight Each (kg)	Single Leg		WLL Based on Grade 10 Chain (t)*	Double Leg		WLL Based on Grade 10 Chain 0-45° Sling Angle (t)*	Proof Load (kN)	Dimensions (mm)		
			Chain Size			Chain Size				A	B	C
			(mm)	(in.)		(mm)	(in.)					
A13	1246500	.34	6	-	1.4	6	-	2.00	50	13	60	110
A16	1246570	.53	7	1/4	2.0	-	-	-	62.5	16	60	110
			8	5/16	2.5	-	-	-				
A18	1246640	.82	10	3/8	4.0	7	1/4	2.80	100	18	75	135
			-	-	-	8	5/16	3.50				
A22	1246710	1.50	13	1/2	6.7	10	3/8	5.60	168	22	90	160
A26	1246780	2.31	16	5/8	10.0	13	1/2	9.50	250	26	100	180
A32	1246850	3.95	19	3/4	14.0	16	5/8	14.0	350	32	110	200
			20	-	16.0	18	-	18.0				
A36	1246920	6.35	22	7/8	19.0	19	3/4	20.0	500	36	140	260
			-	-	-	20	-	22.4				
A42	1246990	11.2	-	-	-	20	-	22.4	560	42	180	340
A45	1247060	12.8	26	1	27.0	22	7/8	26.5	663	45	180	340

\* Ultimate Load is 4 times the Working Load Limit. Based on single leg sling.

### A-1346 Welded Master Link Assembly



Size	A-1346 Stock No. S.C.	Weight Each (kg)	Three and Four Leg Sling		WLL Based on Grade 10 Chain 0-45° Sling Angle (t)*	Proof Load (kN)	Dimensions (mm)					
			Chain Size				A	B	C	D	E	F
			(mm)	(in.)								
A18-B13	1256507	1.13	6	-	3.0	75	18	75	135	13	25	54
A22-B16	1256577	2.22	7	1/4	4.2	133	22	90	160	16	34	70
			8	5/16	5.3							
A26-B18	1256647	3.37	10	3/8	8.0	200	26	100	180	18	40	85
A32-B22	1256717	6.07	13	1/2	14.0	350	32	110	200	22	50	115
A36-B26	1256787	10.00	16	5/8	21.2	530	36	140	260	26	65	140
A45-B32	1256867	18.92	19	3/4	30.0	736	45	180	340	32	70	150

\* Ultimate Load is 4 times the Working Load Limit.

† Working Load Limit with coupling links at 90 degrees included angle maximum.

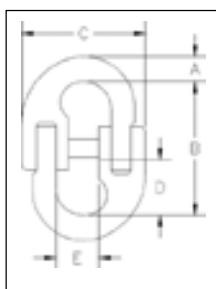


## Crosby® connecting links

### A-336



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Easy to assemble



### A-336 LOK-A-LOY® 6 Connecting Link

Chain Size (mm)	A-336 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)					Diameter of Hole to Accept Link (mm)
				A	B	C	D	E	
6-7	1014397	1.47	.11	7.85	52.5	42.9	19.8	19.8	12.7
8-10	1014413	3.00	.27	11.4	69.0	58.5	26.9	27.7	16.8
13	1014431	5.10	.54	14.7	85.0	80.5	32.5	35.8	22.4
16	1014459	7.48	1.10	19.8	99.5	100	39.6	42.9	26.9
19	1014477	10.45	1.76	22.6	123	113	50.0	51.0	30.2
22	1014495	13.04	2.75	25.4	148	135	60.5	64.0	35.1
26	1014510	17.58	3.19	27.4	165	154	72.0	65.0	37.3
32	1014538	26.00	6.00	35.1	215	194	96.0	96.0	44.0

\* Ultimate Load is 4 times the Working Load Limit.

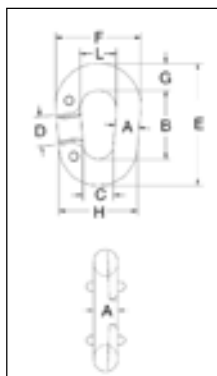
The WLL of the A-336 are less than Grade 80 chain ratings. When using in Grade 80 chain slings, ANSI B30.9c requires that the Working Load Limit of a sling must not exceed the lowest Working Load Limit of the components in the system.

## Crosby® connecting links

### G-334 / S-334



- Forged Steel - Quenched and Tempered.
- Has larger inside dimensions making it easier to attach hooks or other fittings to the chain.
- An exclusive Crosby product.
- After making connections, rivets must be peened.



### G-334 / S-334 Pear Shape "Missing Link"® Replacement Links

Chain Size (mm)	Stock No.		Working Load Limit (t)*	Weight Per 100 (kg)	Dimensions (mm)								
	G-334 Galv.	S-334 S.C.			A	B	C	D	E	F	G	H	L
10	1013432	1013441	.84	11.3	10.4	51.0	14.2	20.6	74.5	41.4	11.9	35.1	20.6
13	1013450	1013469	1.50	22.7	12.7	63.5	17.5	25.4	92.0	51.0	14.2	42.9	25.4
16	1013478	1013487	2.27	34.0	16.0	70.0	20.6	26.9	102	60.5	16.0	52.5	28.7
19	1013496	1013502	3.22	56.7	19.1	79.5	25.4	28.7	121	70.0	20.6	63.5	31.8
22	1013511	1013520	4.35	90.7	22.4	93.5	31.8	35.1	141	82.5	23.9	76.0	38.1

\* Ultimate Load is 4 times the Working Load Limit.

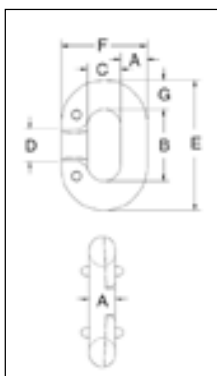
Not Suitable for use with Grade 80 or Grade 100 chain and chain slings used in overhead lifting.

### G-335 / S-335



- Forged Steel - Quenched and Tempered.
- Integral rivets join the two halves.
- After making connections, rivets must be peened.

Meets or exceeds the performance requirements of Federal Specifications RRC-271D, Type II, except for those provisions required of the contractor.



### G-335 / S-335 "Missing Link"® Replacement Links

Chain Size (mm)	Stock No.		Working Load Limit (t)*	Links Per Box	Weight Per 100 (kg)	Dimensions (mm)						
	G-335 Galv.	S-335 S.C.				A	B	C	D	E	F	G
** 5	1013094	1013101	.36	20	1.13	6.35	17.5	8.65	8.65	30.2	19.8	7.10
** 7	1013110	1013129	.60	10	2.83	7.10	22.4	11.2	11.2	38.1	25.4	7.85
** 8	1013138	1013147	.89	10	5.67	8.65	23.9	11.9	11.9	42.9	29.5	9.65
10	1013156	1013165	1.25	10	9.07	10.4	28.7	14.2	14.2	52.5	35.1	11.9
11	1013174	1013183	1.65	10	12.5	11.9	32.5	15.0	15.0	59.5	38.9	13.5
13	1013192	1013209	2.15	10	17.0	13.5	37.3	16.8	16.8	67.5	43.7	15.0
16	1013236	1013245	3.30	10	32.9	16.8	46.0	19.8	20.6	84.0	53.0	19.1
19	1013254	1013263	4.65	10	55.5	19.8	54.0	23.9	26.9	98.5	63.5	22.4
22	1013272	1013281	5.45	Bulk	79.5	23.1	63.5	28.7	28.7	114	74.5	25.4
† 26	1013290	1013307	7.00	Bulk	113	26.2	70.0	31.8	31.8	127	84.0	28.7

\* Ultimate Load is 4 times the Working Load Limit.

\*\* Rivets Only - No interlocking lugs.

† Has reinforced rivet holes. All sizes have countersunk rivet holes.

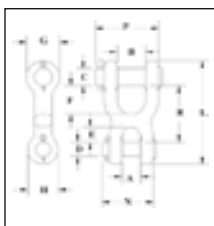


## Crosby® connecting links

### S-247



- All pins Alloy Steel - Quenched and Tempered.
- Body is forged and heat treated carbon steel.
- Designed for linking all popular sizes of Crosby Spectrum 3® and Spectrum 4® chain to rings, end links, eye hooks, pad eyes, tractor eye bolts, etc.
- Features quick and easy assembly.



### S-247 Double Clevis Link

Chain Size (mm)	S-247 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)											
				A	B	C	D	E	F	G	H	L	N	P	R
7	1013021	1.18	.17	12.7	19.1	12.7	7.85	9.65	19.1	25.4	20.6	71.5	35.1	42.2	38.1
8-10	1013049	2.45	.37	14.2	25.4	16.0	11.2	11.9	25.4	30.2	25.4	89.5	44.5	57.0	48.5
11	1013067	3.27	.57	17.5	28.7	17.5	14.2	15.0	27.7	33.3	30.2	103	51.0	63.5	55.5
13	1013085	4.17	.71	20.6	31.8	19.1	16.0	17.3	31.8	36.6	33.3	115	57.0	70.0	62.5

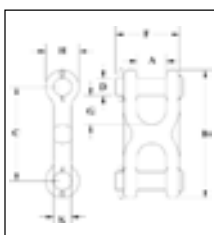
\* Ultimate Load is 4 times the Working Load Limit.

Not Suitable for use with Grade 80 or Grade 100 chain and chain slings used in overhead lifting.

### S-249



- Available in three popular sizes.
- Body is forged and heat treated carbon steel.
- All pins Alloy Steel - Quenched and Tempered.
- Features quick and easy assembly.
- Twin Clevis design provides a variety of uses and can be used with Crosby Spectrum 3®, Spectrum 4® and Spectrum 7® chain.

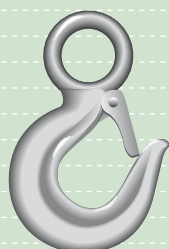


### S-249 Twin Clevis Link

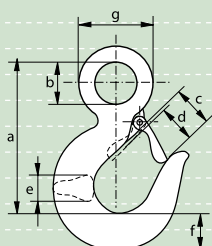
Chain Size (mm)	S-249 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)							
				A	B	C	D	F	G	H	K
7-8	1012861	2.13	.14	11.9	63.5	39.6	9.65	33.3	10.9	23.9	12.7
10	1012889	3.00	.20	13.5	71.5	46.0	11.2	38.9	12.7	25.4	14.2
11-13	1012905	5.10	.44	16.5	92.0	58.5	14.2	48.5	16.0	33.3	20.6

\* Ultimate Load is 4 times the Working Load Limit.

Not Suitable for use with Grade 80 or Grade 100 chain and chain slings used in overhead lifting.



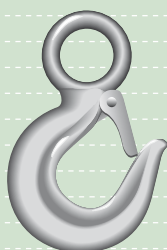
P-6714C



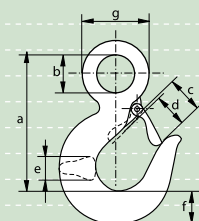
## Green Pin® large eye hooks, Grade 4 with safety latch

- **Material** : carbon steel, Grade 4
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to EN 1677-5
- **Finish** : painted green
- **Certification** : test certificates can be supplied upon request

working load limit	length	diameter eye inside	width opening	width opening	thickness	width	diameter eye outside	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.8	81	19	24	20	16	19	37	0.4
1	91	22	26	22	18	22	45	0.4
1.6	105	27	32	27	20	27	52	0.6
2	124	32	34	30	24	31	62	0.98
3.2	147	39	44	37	31	36	74	1.68
5	190	50	55	48	37	48	96	3.6



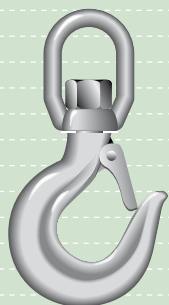
P-6714A



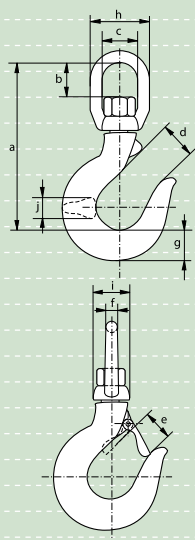
## Green Pin® large eye hooks, Grade 8 with safety latch

- **Material** : alloy steel, Grade 8
- **Safety factor** : MBL equals 4 x WLL
- **Standard** : generally to EN 1677-2
- **Finish** : painted red
- **Certification** : test certificates can be supplied upon request

working load limit	length	diameter eye inside	width opening	width opening	thickness	width	diameter eye outside	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
1.25	81	19	24	20	16	19	37	0.26
1.6	91	22	26	22	18	22	45	0.57
2.5	105	27	32	27	20	27	52	0.81
3.2	124	32	34	30	24	31	62	1.27
5.4	147	39	44	37	31	36	74	1.68
8	190	50	55	48	37	48	96	3.6
11.5	230	64	64	53	47	60	123	7
16	254	70	70	60	58	69	139	10.7
22	316	89	91	77	63	81	169	16.7



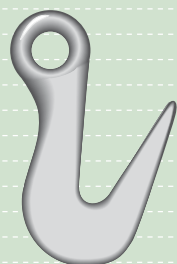
P-6703A



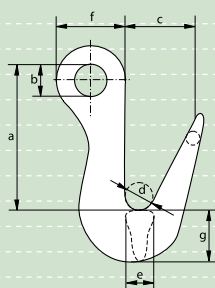
## Green Pin<sup>®</sup> swivel hooks, Grade 8 with safety latch

- **Material** : alloy steel, Grade 8
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : painted red
- **Certification** : test certificates can be supplied upon request

working load limit	length	length inside	width inside	width opening	width opening	diameter	width	width	width	thickness	weight each
t	a	b	c	d	e	f	g	h	i	j	kg
1.25	118	28	31	24	20	11	19	52	30	16	0.45
1.6	145	35	40	26	22	14	23	68	37	18	0.9
2.5	167	43	47	32	27	17	27	81	43	20	1.3
3.2	180	47	47	34	30	17	31	81	43	24	1.6
5.4	217	54	64	44	37	21	37	106	64	31	3.8
8	276	69	78	55	49	26	49	130	77	37	6.9
11.5	310	69	82	61	53	22	60	136	82	46	10.6
16	352	84	92	65	58	24	67	154	92	52	16
22	434	107	115	85	78	29	80	191	108	64	27
31.5	512	117	132	90	87	34	94	222	132	80	60



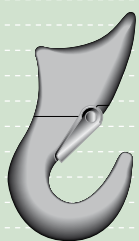
P-6731



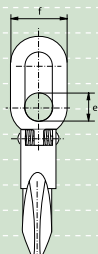
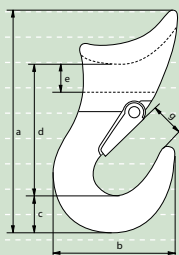
## Green Pin® pipe line hooks for handling large cylindrical shapes like pipe lines, tubes etc.

- **Material** : alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted red
- **Certification** : test certificates can be supplied upon request

working load limit at hook		length	diameter eye inside	width opening	diameter	thickness	diameter eye outside	width	weight each
top	bottom	a	b	c	d	e	f	g	kg
t	t	mm	mm	mm	mm	mm	mm	mm	kg
2	7.5	167	35	74	30	31	73	57	2.65



P-6706A



## Green Pin® sliding choker hooks, Grade 8 with safety latch

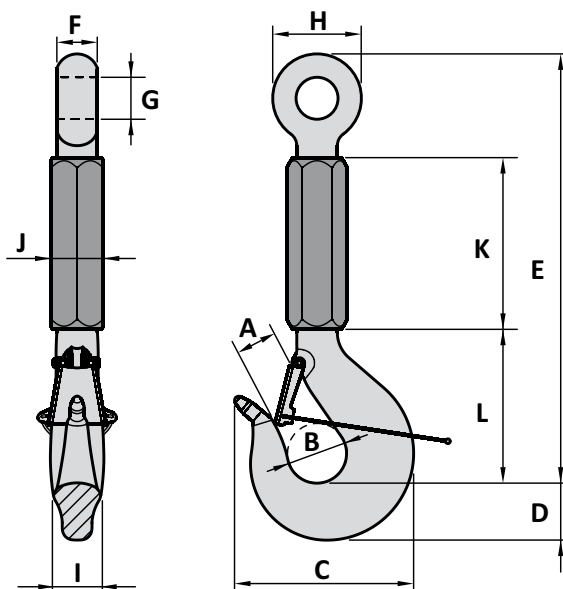
- **Material** : alloy steel, Grade 8
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted red
- **Certification** : test certificates can be supplied upon request

working load limit	diameter rope	length	width	thickness	length	diameter	thickness	opening	weight each
t	mm	a	b	c	d	e	f	g	kg
0.8	6 - 11	112	63	19	65	14	30	16	0.4
1.6	10 - 13	143	82	26	83	17	30	19	0.8
2.5	14 - 16	170	98	30	97	19	33	25	1.2
3.2	16 - 20	196	115	36	110	22	40	28	1.9
5.4	22 - 26	260	142	46	145	36	60	35	4.3

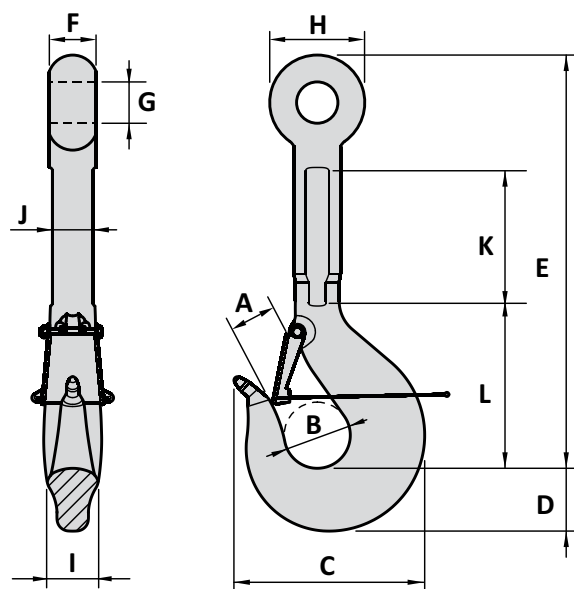
# ROV SHANK HOOK

# TYPE HK5

Material : Alloy steel quenched and tempered  
 Safety : 4 times  
 Finish : Painted  
 Certificates : Manufacturer certificate  
 on request Proofload certificate



Type for Hook WLL 5 ton up to WLL 80 ton



Type for Hook WLL 100 ton up to WLL 400 ton

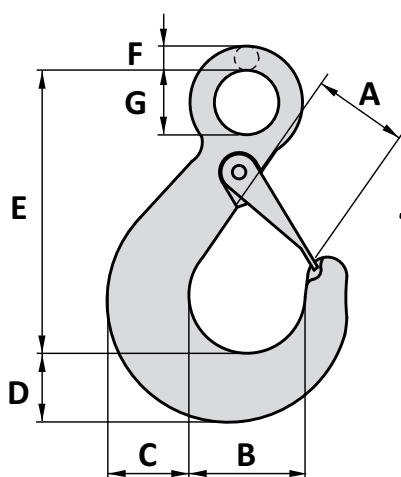
Art. No.	WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	Weight kg
53000005	5.4	21.6	35	50	161	40	515	34	31	68	32	45	250	150	7
53000012	12.5	50	40	63	200	58	565	45	40	90	45	60	260	180	12
53000016	16	64	45	70	224	67	610	48	44	102	53	60	280	190	18
53000025	25	100	50	80	248	75	650	56	52	105	60	70	270	230	22
53000032	32	128	60	90	288	85	800	65	60	140	67	80	360	265	34
53000040	40	160	70	100	316	95	820	70	70	150	75	85	330	285	45
53000050	50	200	75	112	343	106	850	75	72	160	85	100	350	285	62
53000063	63	252	85	125	376	118	900	85	85	180	95	110	360	322	79
53000080	80	320	100	140	418	132	950	100	85	210	106	120	290	390	108
53000100	100	400	110	160	462	150	1000	110	100	230	118	98	320	400	155
53000125	125	500	130	180	509	170	1050	125	100	260	132	106	280	450	207
53000160	160	640	140	200	584	190	1100	140	130	305	150	120	280	500	308
53000200	200	800	160	224	648	212	1200	160	130	350	170	136	280	560	367
53000250	250	1000	180	250	740	236	1200	180	145	370	190	150	300	630	460
53000320	300	1280	200	280	825	265	1250	200	160	405	212	165	300	700	650
53000400	400	1600	225	315	920	300	1300	220	185	465	236	180	300	800	900

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

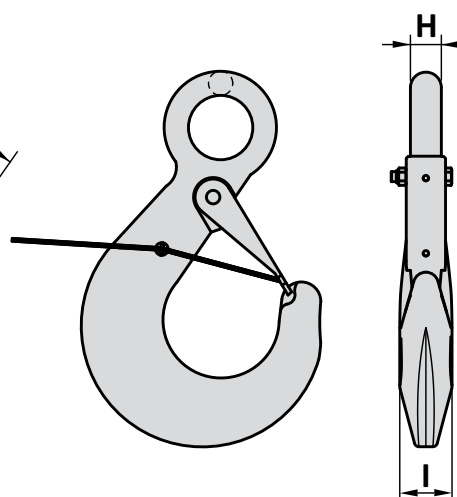
## EYE HOOK (ROV)

## TYPE HK2

Material	: Grade 80
Safety	: 4 times
Finish	: Painted
Certificates on request	: Proofload certificate Certificate of Conformity

Standard hook  
with safety latch

ROV-hook



Art. No.	WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	Weight kg
51000008	8	32	38	62	53	46	174	20	32	20	35	3
51000012	12.5	50	53	79	67	58	219	25	40	25	45	6
51000016	16	64	58	88	75	65	246	28	46	28	50	9
51000020	20	80	64	99	85	73	277	32	52	32	56	12
51000028	28	112	71	112	96	83	313	36	60	36	63	17
51000031	31	125	81	125	106	92	349	40	66	40	70	23
51000040	40	160	93	140	116	103	386	45	72	45	78	34
51000050	50	200	106	158	135	116	442	50	84	50	89	49
51000063	63	250	119	176	151	130	494	56	90	56	99	63
51000080	80	320	131	198	168	145	610	63	102	63	110	99
51000100	100	400	151	225	195	172	650	74	116	74	125	160
51000150	150	600	173	250	225	199	765	86	130	86	160	260
51000200	200	800	200	275	260	237	850	102	150	102	180	417
51000250	250	1000	233	310	290	269	928	120	170	120	200	576
51000300	300	1200	264	350	330	310	1052	140	190	140	220	820
51000400	400	1600	303	400	380	344	1195	170	210	170	240	1125

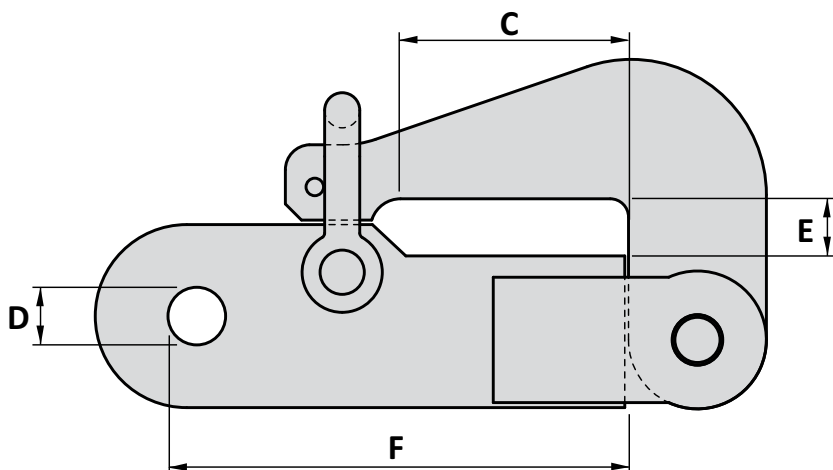
Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm



# HEAVY DUTY PELICAN SLIPHOOK

## TYPE HK3

Material	: High tensile steel
Safety	: 5 times
Finish	: Painted
Certificates on request	: Proofload certificate Certificate of Conformity



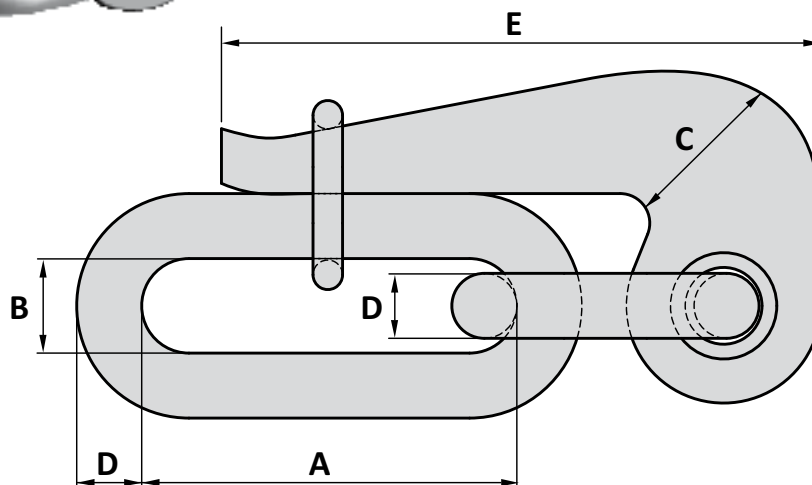
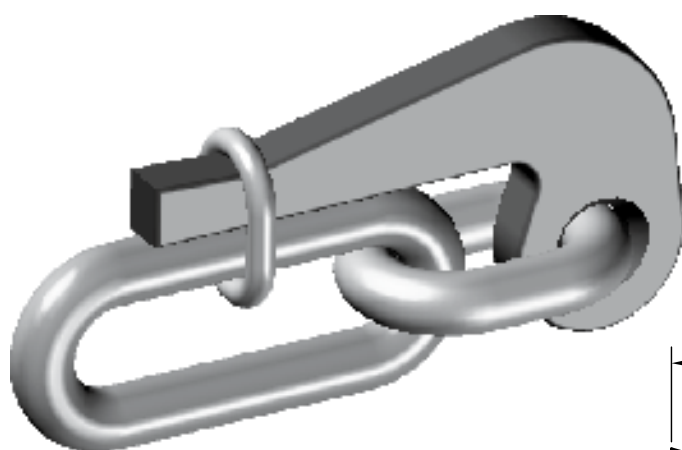
Art. No.	WLL ton	MBL ton	C mm	D mm	E mm	F mm	Weight kg
75000003	3.5	17.5	85	26	35	240	7
75000005	5	25	100	38	35	234	12
75000008	8	40	150	50	55	300	17
75000012	12.5	62.5	160	55	65	358	26
75000017	17	85	165	55	70	390	45
75000025	25	125	180	60	76	430	62
75000035	35	175	200	60	85	465	100
75000055	55	275	230	75	90	500	152
75000070	70	350	250	85	100	600	234
75000085	85	425	310	103	110	704	352
75000120	120	600	418	105	160	858	524
75000150	150	750	482	115	180	919	616

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

## SLIPHOOK

## TYPE HK4

Material : Low alloy steel  
 Safety : 4 times  
 Finish : Galvanised  
 Certificate : Certificate of Conformity  
 on request



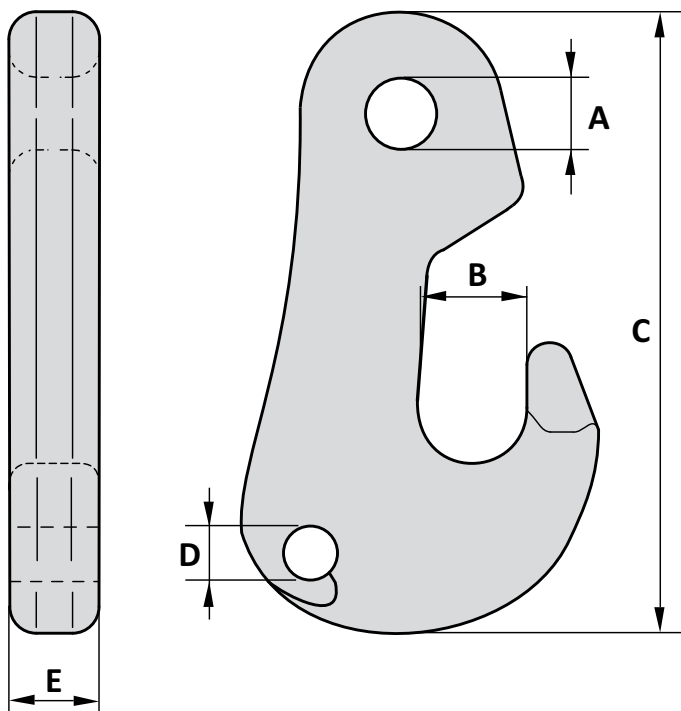
Art. No.	WLL ton	D mm	A mm	B mm	C mm	E mm	Weight kg
44100000	0.4	9	89	16	27	125	0.6
44120000	0.75	12	102	22	28	165	1
44160000	1.25	16	130	23	42	180	1.5
44200000	2	22	170	34	46	230	4
44250000	5	25	200	38	66	280	8
44350000	9	32	260	58	88	360	14

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

## ANCHOR LINE HOOK

## TYPE HK6

Material : Alloy steel  
 Safety factor : 4 times  
 Finish : Painted  
 Certificates : Proofload certificate  
 on request : Certificate of Conformity



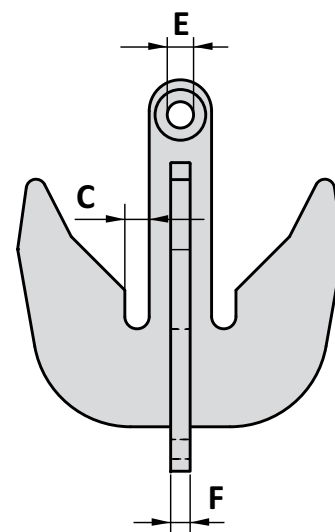
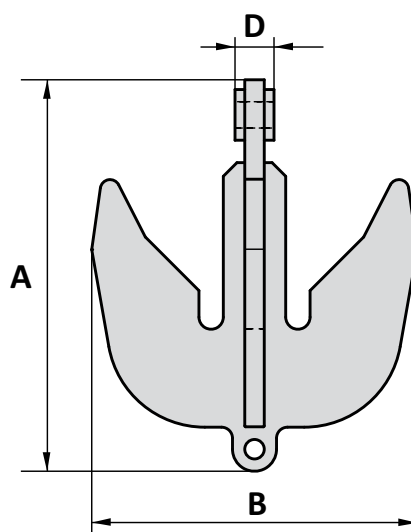
Art. No.	WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	Weight kg
74000015	15	60	38	58	343	32	45	11
74000020	20	80	40	74	343	32	60	14
74000025	25	100	52	86	440	38	65	26
74000050	50	200	80	112	618	45	90	67
74000080	80	320	90	130	709	62	110	116
74000100	100	400	100	150	850	70	120	255

Tolerance:  $\pm 5\%$

## CHAIN GRAPNEL

## TYPE HK7

Material : Forged steel  
 Safety : 4 times  
 Finish : Painted/self coloured  
 Certificate : Certificate of Conformity  
 on request



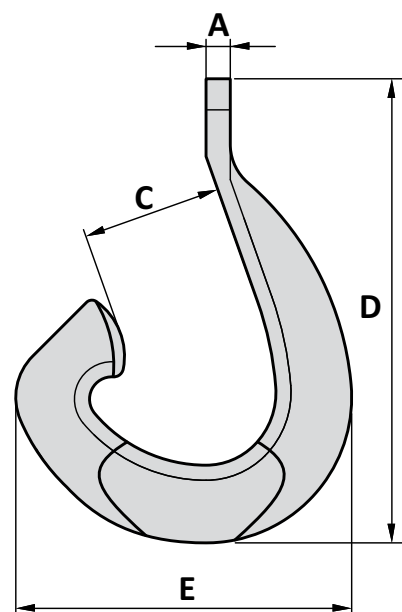
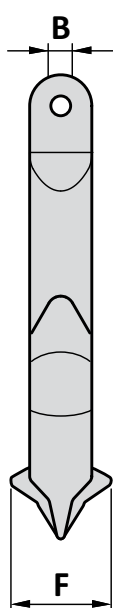
Art. No.	WLL ton	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
50000150	150	1778	1372	102	114	100	76	1266
50000200	200	2008	1670	125	200	145	100	2290
50000250	250	2008	1670	125	200	145	100	2290

Tolerance:  $\pm 5\%$

# J WIDE BODY CHASER

# TYPE HK10

Material	: Mild steel
Proofload	: 1.5 times WLL
Finish	: Painted
Certificate on request	: Material certificate 3.1 Certificate of Conformity



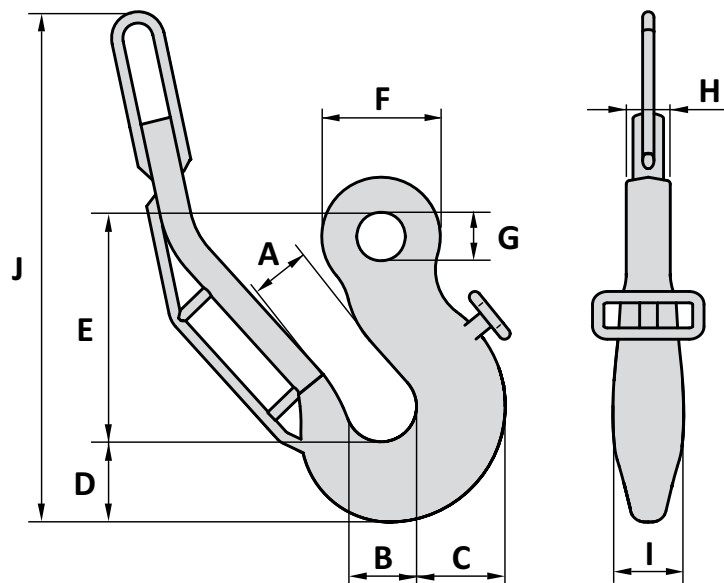
Art. No.	WLL ton	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
50001150	150	125	105	680	2220	1780	330	1800
50001200	200	180	150	680	2220	1780	550	2600
50001250	250	180	150	680	2220	1780	600	2730

Tolerance:  $\pm 5\%$

## KS HOOK

## TYPE HK12

Material : Forged steel R4  
 Finish : Painted, special specifications on request  
 Certificates : Material certificate 3.1  
 on request Manufacture certificate  
 Material certificate 3.2  
 Proofload certificate  
 NDT inspection certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)

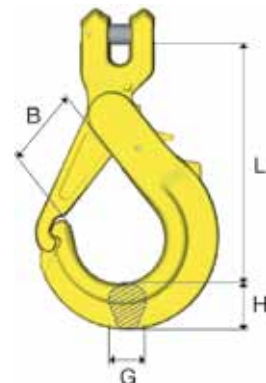


Art. No.	Hook No.	PL kN	MBL kN	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	Weight kg
53001040	40	7090	9000	170	200	250	235	646	335	135	130	220	1450	400
53001050	50	10700	13500	180	200	350	300	665	345	170	163	250	1500	540

Tolerance:  $\pm 5\%$

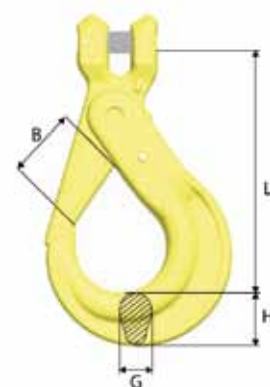
## Safety Hook GBK

Art. no.	Code	WLL tonnes*	L	B	G	H	Weight kgs
Z100758	GBK-6-10	1.5	87	26	15	17	0.4
Z100759	GBK-8-10	2.5	119	36	20	22	0.8
Z100760	GBK-10-10	4	150	47	22	29	1.4
Z100761	GBK-13-10	6.7	172	53	29	38	2.7
Z100762	GBK-16-10	10	208	68	30	45	4.4



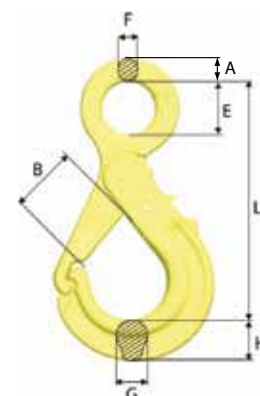
## Safety Hook BKG

Art. no.	Code	WLL tonnes*	L	B	G	H	Weight kgs
Z101110	BKG-6-10	1.5	91	29	15	21	0.5
Z101100	BKG-8-10	2.5	121	37	17	26	0.9
Z101026	BKG-10-10	4	144	45	21	31	1.5
Z101034	BKG-13-10	6.7	180	55	30	40	3.0
Z101042	BKG-16-10	10	219	62	37	50	5.5
Z101091	BKG-20-10	16	240	68	44	65	9.6



## Safety Hook OBK

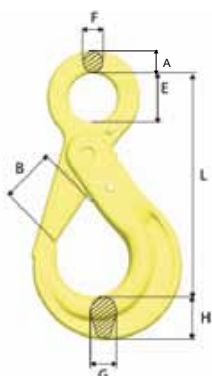
Art. no.	Code	WLL tonnes*	A	L	B	E	F	G	H	Weight kgs
Z101048	OBK-6-10	1.5	12	103	26	22	9	15	17	0.4
Z101143	OBK-7/8-10	2.5	14	139	37	28	10	20	22	0.8
Z101145	OBK-10-10	4	16	170	47	34	13	22	29	1.3
Z101147	OBK-13-10	6.7	21	206	53	44	15	29	38	2.6
Z101141	OBK-16-10	10	26	251	68	56	19	29	45	4.4
Z101240	OBK-18/20-10	16	28	293	74	60	22	44	56	7.3



\*Safety factor 4:1

All dimensions in mm

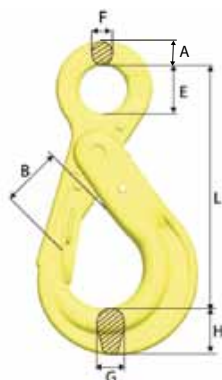
## Safety Hook BK



Art. no.	Code	WLL tonnes*	A	L	B	E	F	G	H	Weight kgs
Z101108	BK-6-10	1.5	12	109	29	22	10	15	21	0.5
Z101097	BK-7/8-10	2.5	14	138	37	28	11	17	26	0.9
Z101024	BK-10-10	4.0	16	168	45	34	13	21	31	1.5
Z101032	BK-13-10	6.7	20	207	55	44	16	30	40	3.0
Z101040	BK-16-10	10	26	254	62	56	20	37	50	5.5
Z101089	BK-18/20-10	16	30	289	68	60	22	44	65	8.7

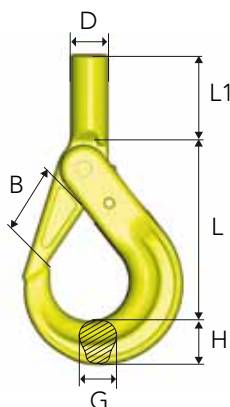
## Safety Hook BKD

The double latch BK-hook with recessed trigger.



Art. no.	Code	WLL tonnes*	A	L	B	E	F	G	H	Weight kgs
Z101154	BKD-13-10	6.7	20	207	44	45	16	30	40	3.2
Z101155	BKD-16-10	10	26	254	48	56	20	37	50	5.8
Z101156	BKD-18/20-10	16	30	290	57	60	22	44	65	9.1
Z101215	BKD-26-8 OFFS	21.6	35	345	72	80	25	50	69	14.5

## Shank Safety Hook BKT



Art. no.	Code	WLL tonnes*	L	B	L1	D	dmin	G	H	Weight appr. kgs
Z101112	BKT-6-10	1.5	90	29	36	20	11	15	21	0.5
Z101102	BKT-7/8-10	2.5	111	37	47	24	13	17	26	0.9
Z101069	BKT-10-10	4	133	45	51	29	16	21	31	1.6

d min = the smallest permitted shank dimension after machining.  
Note! After machining of the shank, proof loading must be carried out.

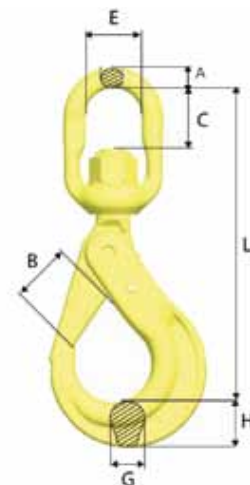
\*Safety factor 4:1

All dimensions in mm



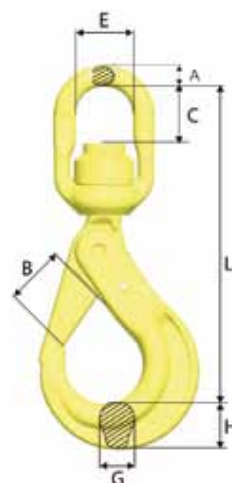
## Swivel Safety Hook BKL

Art. no.	Code	WLL tonnes*	L	B	C	E	A	G	H	Weight kgs
Z101114	BKL-6-10	1.5	149	29	23	33	11	15	21	0.7
Z101104	BKL-7/8-10	2.5	183	37	27	38	12	17	26	1.2
Z101028	BKL-10-10	4	218	45	37	44	15	21	31	2.0
Z101036	BKL-13-10	6.7	282	55	49	48	19	30	40	4.0
Z101044	BKL-16-10	10	341	62	65	61	25	37	50	7.2
Z101093	BKL-18/20-10	16	368	68	70	72	31	44	65	11.4



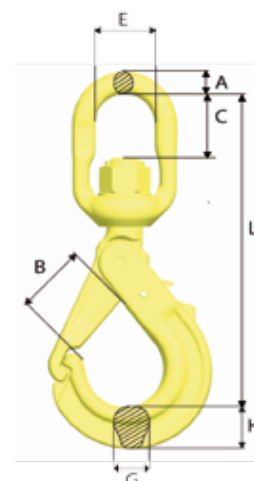
## Swivel Safety Hook BKLK with ball-bearing

Art. no.	Code	WLL tonnes*	L	B	C	E	A	G	H	Weight kgs
Z101116	BKLN-6-10	1.5	149	29	24	33	11	15	21	0.7
Z101106	BKLN-7/8-10	2.5	183	37	27	38	12	17	26	1.2
Z101030	BKLN-10-10	4	218	45	35	44	15	21	31	2.0
Z101038	BKLN-13-10	6.7	280	55	45	48	19	30	40	4.0
Z101046	BKLN-16-10	10	339	62	63	61	25	37	50	7.4
Z101095	BKLN-18/20-10	16	368	68	59	72	31	44	65	11.5



## Swivel Safety Hook with Griplatch LBK

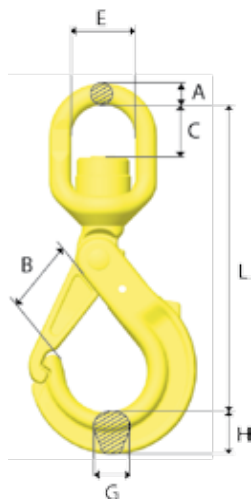
Art. no.	Code	WLL tonnes*	L	B	C	E	A	G	H	Weight kgs
Z100978	LBK-7/8-10	2.5	177	37	27	38	12	20	22	1.1
Z100960	LBK-10-10	4	214	47	37	44	15	22	29	2.0
Z100993	LBK-13-10	6.7	262	53	45	48	19	29	38	3.8
Z100995	LBK-16-10	10	324	68	66	61	25	30	45	7.1



\*Safety factor 4:1

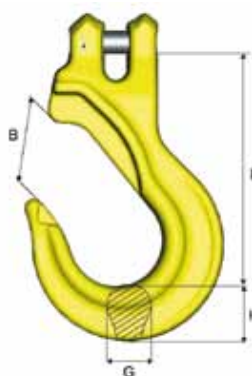
All dimensions in mm

## Swivel Safety Hook with Griplatch LKBK with ball-bearing



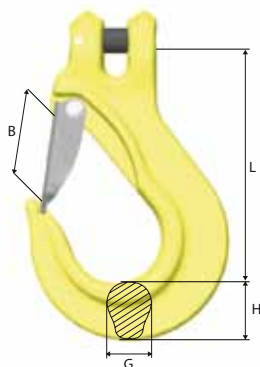
Art. no.	Code	WLL tonnes*	L	B	C	E	A	G	H	Weight kgs
Z100980	LKBK-7/8-10	2.5	176	37	27	38	12	20	22	1.2
Z100962	LKBK-10-10	4	213	47	35	44	15	22	29	2.1
Z100997	LKBK-13-10	6.7	261	53	43	48	19	29	38	4.0
Z100999	LKBK-16-10	10	323	68	61	61	25	30	45	6.8

## Sling Hook EGK



Art. no.	Code	WLL tonnes*	L	B	G	H	Weight kgs
Z100915	EGK-6-10	1.5	86	28	17	20	0.4
Z100938	EGK-8-10	2.5	95	32	17	23	0.5
Z100942	EGK-10-10	4	121	41	23	31	1.0
Z100946	EGK-13-10	6.7	145	49	28	38	2.0
Z100950	EGK-16-10	10	170	61	36	46	3.8
Z101138	EGK-20-10	16	209	70	42	60	7.3

## Sling Hook EGKN with latch



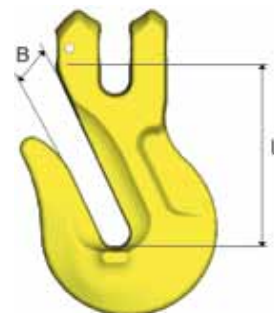
Art. no.	Code	WLL tonnes*	L	B	G	H	Weight kgs
B14460	EGKN-6-10	1.5	86	24,5	17	20	0.3
B14461	EGKN-8-10	2.5	95	28	17	23	0.5
B14462	EGKN-10-10	4	121	35	23	31	1
B14463	EGKN-13-10	6.7	145	42	28	38	2.1
B14464	EGKN-16-10	10	170	52	36	46	3.9
Z101127	EGKN-20-10	16	209	61	42	60	7.6

\*Safety factor 4:1

All dimensions in mm

## Grab Hook GG

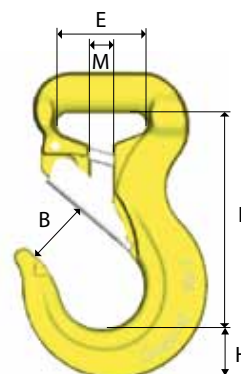
Art. no.	Code	WLL tonnes*	L	B	Weight kgs
B14771	GG-8-10	2.5	57	10.5	0.4
B14772	GG-10-10	4	76	12	0.9
B14773	GG-13-10	6.7	97	16	1.8
B14774	GG-16-10	10	124	20	3.1
Z101152	GG-20-10	16	147	26	7.0



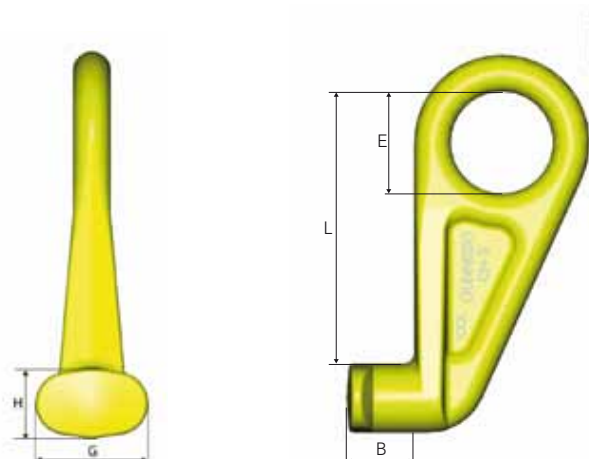
## Roundsling Hook RH

For polyester sling, colour coded

Art. no.	Code	WLL tonnes*	B	E	G	L	H	M	Weight kgs
B14490	RH-1-10	1	24	35	17	84	19	8	0.5
B14491	RH-2-10	2	28	40	17	96	22	10	0.7
B14492	RH-3-10	3	33	47	24	117	30	12	1.3
B14493	RH-5-10	5	43	73	27	155	36	16.5	3.2



## Container Hook CH-3

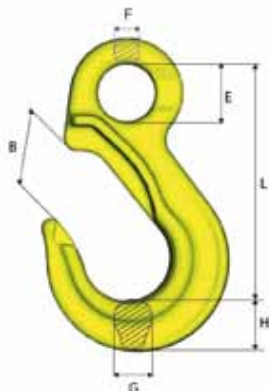


Art. no.	Code	WLL tonnes*	A	L	E	B	H	G	Weight appr. kgs
Z101220	CH-3	12.5	25	187	70	46	47	75	3.8
Z101221	CH-3, 45° left	12.5	25	187	70	46	47	75	3.8
Z101219	CH-3, 45° right	12.5	25	187	70	46	47	75	3.8

\*Safety factor 4:1

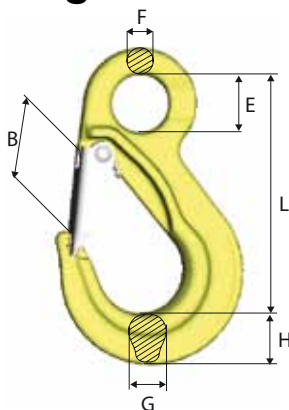
All dimensions in mm

### Sling Hook EK



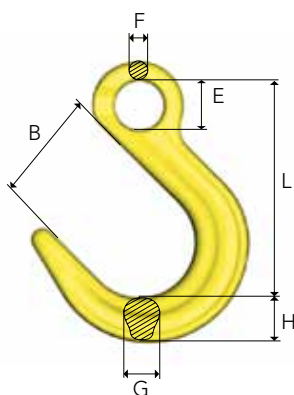
Art. no.	Code	WLL tonnes*	L	B	E	F	G	H	Weight kgs
Z101162	EK- 6-10	1.5	94	29	22	10	17	20	0.4
Z101164	EK- 8-10	2.5	109	32	28	12	17	23	0.5
Z101166	EK-10-10	4	134	42	34	14	23	30	0.9
Z101168	EK-13-10	6.7	166	49	44	18	28	38	2.0
Z101170	EK-16-10	10	203	60	56	22	36	47	3.8

### Sling Hook EKN with latch



Art. no.	Code	WLL tonnes*	L	B	E	F	G	H	Weight kgs
Z101128	EKN- 6-10	1.5	94	24	22	10	17	20	0.4
Z101130	EKN- 8-10	2.5	108	28	28	13	17	23	0.5
Z101132	EKN-10-10	4	134	37	34	14	23	30	1
Z101134	EKN-13-10	6.7	166	42	44	18	28	38	2.1
Z101136	EKN-16-10	10	203	50	56	22	36	47	3.9

### Foundry Hook OKE

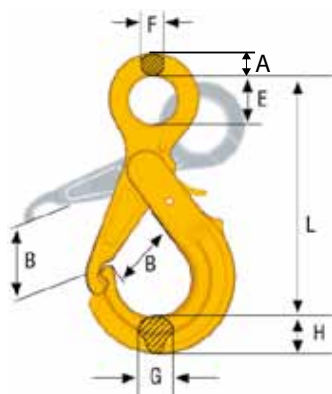


Art. no.	Code	WLL tonnes*	L	B	E	F	G	H	Weight kgs
Z100853	OKE-7/8-10	2.5	124	63	28	12	21	26	0.8
Z100854	OKE-10-10	4	151	76	34	15	26	30	1.4
Z100855	OKE-13-10	6.7	184	90	44	19	33	39	2.8
Z100898	OKE-16-10	10	218	102	56	23	40	46	4.9

\*Safety factor 4:1

All dimensions in mm

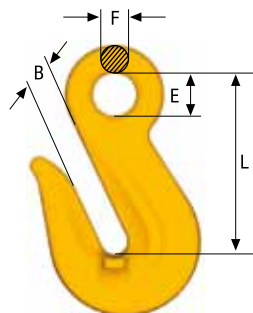
## Safety Hook OBK with griplatch EN 1677-3



Art. no.	Code	WLL tonnes*	For chain dim. mm	A	L	B	E	F	G	H	Weight appr. kgs
Z100218	OBK-22-8	15.5	22	30	335	87	70	22	40	57	10.2

## Grab hook OG EN 1677-1

Not for use with Berglok. No reduction of working load limit, thanks to supporting lugs on either side of hook to prevent chain link deformation.

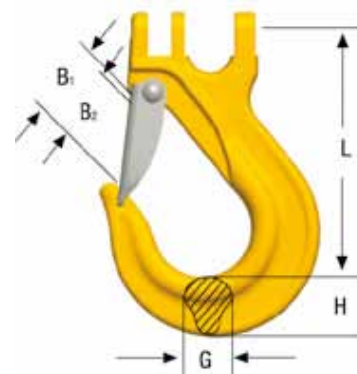


Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	E	F	Weight appr. kgs
Z100811	OG-7/8-8	2	7, 8	65	10	16	10	0.3
Z291022	OG-10-8	3.2	10	85	12	20	12	0.6
Z295220	OG-13-8	5.4	13	104	15	25	16	1.2
Z296221	OG-16-8	8	16	130	19	30	19	2.4
Z100548	OG-19/20-8	12.5	19	156	22.5	36	23	4
Z700913	OG-22-8	15.5	22	180	25.5	42	26	5.9

## Sling Hook ESKN/SKN with latch EN 1677-2

## Sling Hook ESKH/SKH without latch EN 1677-2

Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	G	H	Weight appr. kgs
Z424682	SKN-7/8-8	2.0	7, 8	90	27	18	21	0.4
Z424789	SKN-10-8	3.2	10	115	34	23	29	0.8
Z101214	ESKN-13-8	5.4	13	145	42	28	36	1,8
Z100786	ESKN-16-8	8.0	16	178	54	38	43	3.4
Z100781	ESKN-18/20-8	12.5	19	197	59	49	51	5.1
Z425188	SKH-7/8-8	2.0	7, 8	90	32	18	21	0.4
Z425285	SKH-10-8	3.2	10	115	40	23	29	0.8
Z101213	ESKH-13-8	5.4	13	145	51	28	36	1,7
Z100787	ESKH-16-8	8.0	16	178	62	38	43	3.2
Z100780	ESKH-18/20-8	12.5	19	197	67	49	51	4.5

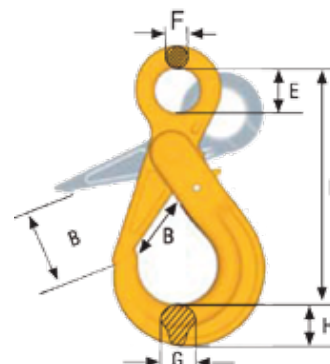


\*Safety factor 4:1

All dimensions in mm

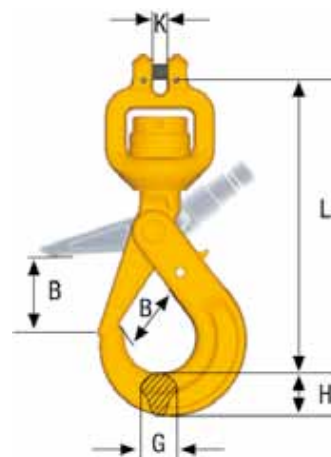
## Safety Hook BK EN 1677-3

Art. no.	Code	WLL tonnes*	For chain dim. mm	A	L	B	E	F	G	H	Weight appr. kgs
Z113241	BK-22-8	15.5	22	32	320	80	70	24	47	62	11.2
Z100222	BK-26-8	21.6	26	35	345	100	80	25	50	69	14.6
Z700960	BK-28-8	25	32	40	400	120	90	27	62	89	23



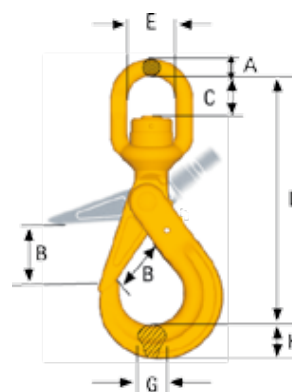
## Clevis Swivel Safety Hook BKH with ball bearing EN 1677-3

Art. no.	Code	For chain dim. mm	WLL tonnes*	L	B	K	G	H	Weight appr. kgs
Z336222	BKH-6-8	6	1.12	145	28	6.8	15	21	0.7
Z700809	BKH-7/8-8	7,8	2	181	37	8.8	17	26	1.2



## Swivel Safety Hook BCLK with ball bearing EN 1677-3

Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	C	E	A	G	H	Weight appr. kgs
Z101015	BCLK-26-8	21.6	26	477	100	110	102	35	50	68	23

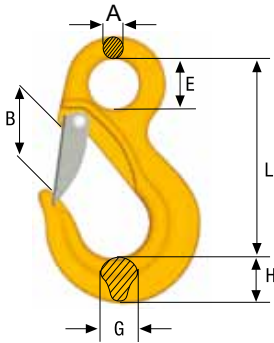


\*Safety factor 4:1

All dimensions in mm

## Sling Hook EKN with latch

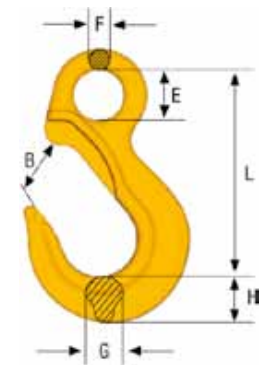
EN 1677-2



Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	E	A	G	H	Weight appr. kgs
Z100273	EKN-18/20-8	12.5	19	229	60	60	26	41	51	5.3
Z100276	EKN-22-8	15.5	22	267	73	64	31	43	69	8.7
Z100723	EKN-26-8	21.6	26	301	81	66	32	51	75	12.2
Z100725	EKN-32-8	32	32	333	93	76	38	61	80	17.9

## Sling Hook EK

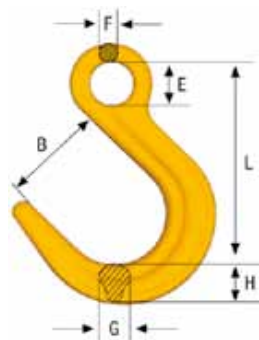
EN 1677-1



Art. no.	Code	WLL tonnes	For chain dim. mm	L	B	E	F	G	H	Weight appr. kgs
Z100700	EK-18/20-8	12.5	19	229	69	60	26	41	51	5.2
Z100703	EK-22-8	15.5	22	267	83	64	31	43	69	8.5
Z100717	EK-26-8	21.6	26	301	95	66	32	51	75	12.0
Z100720	EK-32-8	32	32	333	105	76	38	61	80	17.7

## Foundry Hook OKE

EN 1677-1

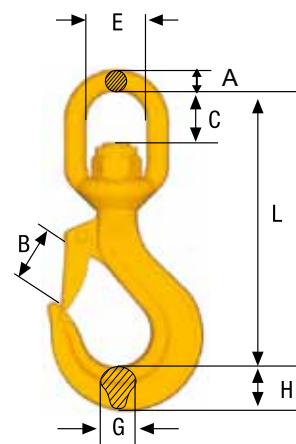


Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	E	F	G	H	Weight appr. kgs
Z316624	OKE-18/20-8	12.5	19	247	114	60	27	46	60	7.1
Z645548	OKE-26-8	21.6	26	300	113	70	35	64	73	15
Z645564	OKE-32-8	32	32	384	145	90	42	77	94	30

## Swivel Latch Hook LKN

EN 1677-2

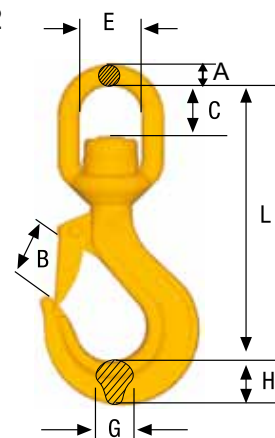
Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	C	E	A	G	H	Weight appr. kgs
Z142647	LKN-7/8-8	2	7, 8	154	28	28	36	12	18	24	0.8
Z142744	LKN-10-8	3.2	10	192	35	37	44	15	23	31	1.5
Z142841	LKN-13-8	5.4	13	238	40	47	48	19	28	36	3
Z142948	LKN-16-8	8	16	295	53	65	61	25	35	44	5.1



## Swivel Latch Hook LKNK with ball bearing

EN 1677-2

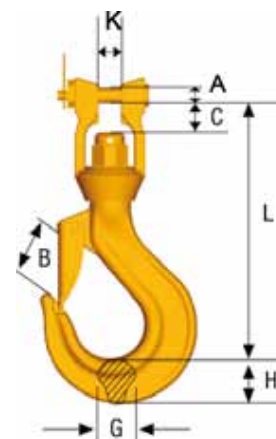
Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	C	E	A	G	H	Weight appr. kgs
Z700908	LKNK-7/8-8	2	7, 8	156	29	28	38	12	18	24	0.9
Z700909	LKNK-10-8	3.2	10	191	35	35	44	15	23	31	1.6
Z700910	LKNK-13-8	5.4	13	236	40	45	48	19	28	36	3.2
Z700911	LKNK-16-8	8	16	295	53	63	61	25	35	44	5.3



## Clevis Swivel Hook LKNG

EN 1677-2

Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	C	A	G	H	K	Weight appr. kgs
Z700494	LKNG-16-8	8	16	258	53	30	28	35	44	27	5.6



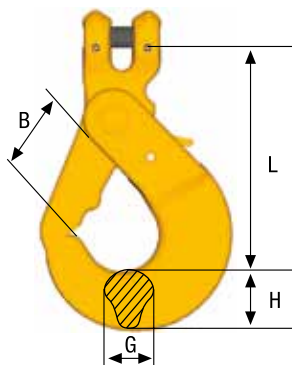
\*Safety factor 4:1

All dimensions in mm



## Container Hook BKGC

EN 1677-3



Art. no.	Code	WLL tonnes*	For chain dim. mm	L	B	G	H	Weight appr. kgs
Z100240	BKGC-13-8	5.4	13	164	55	27	43	3.2
Z100242	BKGC-16-8	8	16	160	55	27	43	3.4

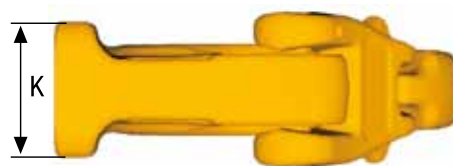
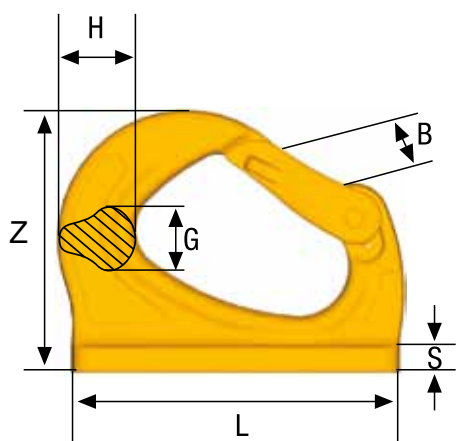
(Spare part: RDOBK-16 to both sizes)

## Universal Weld-On Hook UKN

Art. no.	Code	WLL tonnes**	B	G	H	K	L	S	Z	Weight appr. kgs
Z1002560	UKN-0,75*	0.75	20	13	20	19	81.5	5	56	0.2
Z6511810	UKN-1*	1	27	17	25	25	95	6	72	0.6
Z7009060	UKN-2*	2	33	20	30	30	114	8	86	0.9
Z6455730	UKN-3	3	30	23	32	35	132	10	105	1.3
Z6521160	UKN-4	4	30	29	38	42	140	11	114	2.0
Z6455800	UKN-5	5	34	30	47	45	165	12	131	3.2
Z6515390	UKN-8	8	34	40	51	50	172	13	133	3.6
Z6456030	UKN-10	10	47	43	58	55	220	14	170	8.2
Z1007850	UKN-15	15	55	50	67	60	240	15	188	9.8

\* Welding plate slightly curved

\*\* Safety factor 5:1



\*Safety factor 4:1

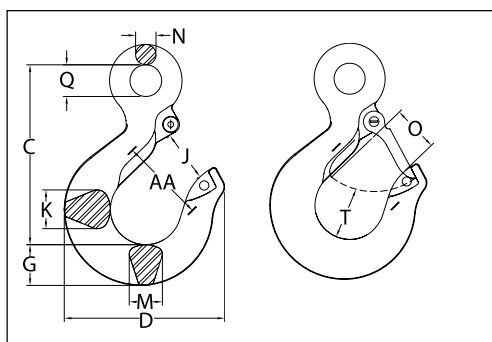
All dimensions in mm

## Crosby® grade 100 eye sling hooks

### S-1327



- Forged Alloy Steel - Quenched and Tempered.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- 25% stronger than Grade 80.
- Engineered Flat for use with S-1325A coupler link.
- Eye Sling hooks incorporate two types of strategically placed markings forged into the product which address two (2) **QUIC-CHECK®** features: Deformation Indicators and Angle Indicators.
- Low profile hook tip.
- Utilizes S-4320 integrated latch which meets the world standard for lifting.
  - Heavy duty stamped latch interlocks with the hook tip.
  - High cycle, long life spring.
  - When secured with the proper cotter pin through the hole in the tip of hook, meets the intent of OSHA Rule 1926.1431(g) for personnel lifting.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Suitable for use with Grade 100 and Grade 80 chain.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products."



### S-1327 Eye Sling Hook

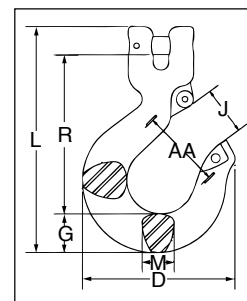
Grade 100 Alloy Chain Size		Working Load Limit (t)*	Hook ID Code	S-1327 Stock No.	L-1327 Stock No.	Weight Each (kg)	Dimensions (mm)											Replacement Latch Stock No.
(in.)	(mm)						C	D	G	J	K	M	N	O	Q	T	AA	
-	6	1.5	DA	1025857	1025860	.23	84.8	72.9	18.5	22.9	16.0	16.0	9.1	22.6	19.1	22.1	38.1	1096325
1/4-5/16	7-8	2.6	HA	1025866	1025869	.59	107	99.1	26.2	30.0	19.1	19.1	12.7	29.2	19.1	29.5	50.8	1096468
3/8	10	4.0	IA	1025875	1025878	1.04	127	110	30.2	38.9	30.2	25.4	14.2	35.6	23.9	31.2	63.5	1096515
1/2	13	6.8	JA	1025884	1025887	2.04	161	144	36.6	45.2	34.8	29.7	18.3	42.4	28.4	47.8	76.2	1096562
5/8	16	10.3	KA	1025893	1025896	3.81	189	172	47.8	60.5	42.2	36.6	22.4	56.1	33.3	51.6	102	1096609
3/4	18-20	16.0	K	1025911	-	6.80	230	189	57.2	58.2	47.8	41.4	28.2	52.8	62.0	62.7	102	1096609
7/8	22-23	20.0	L	1025920	-	9.39	256	211	65.8	63.5	55.6	49.3	32.3	57.7	72.1	66.5	102	1096657
1	26	27.1	N	1025929	-	17.9	326	262	76.2	83.8	68.3	60.5	39.6	76.7	88.9	71.9	127	1096704
1 1/4	32	41.0	P	1025938	-	47.6	462	357	116	108	95.3	81.0	50.8	76.2	114	98.6	178	1093717

\* Ultimate Load is 4 times the Working Load Limit.

## Crosby® grade 100 clevis hooks



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- Hoist hooks incorporate two types of strategically placed markings forged into the product which address two (2) QUIC-CHECK® features: Deformation Indicators and Angle Indicators.
- Low profile hook tip.
- New integrated latch (S-4320/S-4339) meets the world standard for lifting.
  - Heavy duty stamped latch interlocks with the hook tip.
  - High cycle, long life spring.
  - When secured with the proper cotter pin through the hole in the tip of hook, meets the intent of OSHA Rule 1926.1431(g) for personnel lifting.
- Suitable for use with Grade 100 and Grade 80 chain.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products."
- Meets the performance requirements of EN1677-2:2007 when assembled with a latch.



### A-1339 Clevis Sling Hook

Chain Size		Working Load Limit (t)*	Hook ID Code	A-1339 Stock No.	L-1339 Stock No.	Weight Each (kg)	Dimensions (mm)							S-4320 Rep. Latch Stock No.	S-4339 Rep. Latch Stock No.
(in.)	(mm)						D	G	J	L	M	R	AA		
-	6	1.5	DA	1048982	1049103	0.29	72.6	18.5	23.6	107	16.0	74.9	38.1	1096325	-
1/4	7	2.0	HA	1048991	1049112	0.72	98.0	26.4	30.2	144	19.1	101	50.8	1096468	-
5/16	8	2.6	HA	1049000	1049121	0.71	98.0	26.4	30.2	144	19.1	100	50.8	1096468	-
3/8	10	4.0	IA	1049009	1049130	1.17	111	30.2	38.9	171	25.4	120	63.5	1096515	-
1/2	13	6.8	JA	1049018	1049149	2.39	142	36.6	45.2	213	29.7	150	76.2	1096562	-
5/8	16	10.3	KA	1049027	1049158	4.45	172	48.0	61.2	259	36.6	177	102	1096609	-
3/4	18-20	16.0	-	1049036	1049167	8.30	211	71.9	68.3	332	50.0	203	114	-	1048714
7/8**	22-23**	20.0	-	1049045	1049176	11.2	233	78.0	77.5	355	50.0	223	127	-	1048732

\* Ultimate Load is 4 times the Working Load Limit.

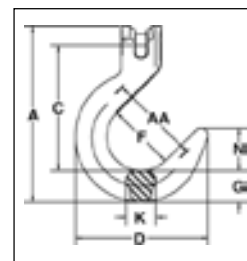
\*\* 7/8 in. (22-23 mm) size does not have cam, latch attaches to unique pin.

## Crosby® grade 100 foundry hooks

### A-1359



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- Suitable for use with Grade 100 and Grade 80 chain.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- “Look for the Platinum Color - Crosby Grade 100 Alloy Products.”
- Hook can be tip loaded at the reduced Working Load Limit, see below. Operator must ensure the load is retained properly in the hook.



### A-1359 Clevis Foundry Hook

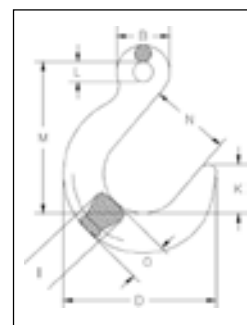
Chain Size		A-1359 Stock No.	Working Load Limit at Saddle of Hook (kg)*	Working Load Limit at Tip of Hook (kg)*	Weight Each (kg)	Dimensions (mm)							
(in.)	(mm)					A	C	D	F	G	K	N	AA
1/4	7	1049907	1950	975	0.95	159	112	122	63.5	28.7	22.4	39.9	88.9
5/16	8	1049911	2585	1293	0.95	159	111	122	63.5	28.7	22.4	39.9	88.9
3/8	10	1049916	3992	1996	1.95	197	141	148	76.2	35.1	33.0	47.8	102
1/2	13	1049925	6804	3402	3.60	238	169	179	88.9	41.4	38.1	57.2	114
5/8	16	1049934	10251	5126	6.44	286	195	208	102	55.6	44.5	64.3	127
3/4	18-20	1049943	16012	8006	11.2	367	249	245	127	61.0	55.9	86.1	152
7/8	22-23	1049952	20003	10002	19.9	413	280	280	140	78.0	69.1	95.0	165

\* Ultimate Load is 4 times the Working Load Limit.

### A-1329



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- Suitable for use with Grade 100 and Grade 80 chain.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- “Look for the Platinum Color - Crosby Grade 100 Alloy Products.”
- Hook can be tip loaded at the reduced Working Load Limit, see below. Operator must ensure the load is retained properly in the hook.



### A-1329 Eye Foundry Hook

Chain Size		A-1329 Stock No.	Working Load Limit at Saddle of Hook (kg)*	Working Load Limit at Tip of Hook (kg)*	Weight Each (kg)	Dimensions (mm)							
(in.)	(mm)					B	D	I	K	L	M	N	O
1/4	7	1026280	1950	975	1.09	39.6	121	25.4	39.6	16.0	121	63.5	31.2
3/8	10	1026289	3992	1996	2.04	50.8	145	32.3	47.8	19.1	146	76.0	38.1
1/2	13	1026297	6804	3402	3.22	63.5	171	38.1	56.5	25.4	175	89.0	44.5
5/8	16	1026306	10251	5126	5.53	76.2	198	46.0	67.0	31.8	205	102	51.5
3/4	19	1026315	16012	8006	8.75	88.9	232	56.0	89.0	38.1	235	114	65.0
7/8	22-23	1026324	20003	10002	11.9	102	256	57.0	86.0	44.5	264	127	70.5

\* Ultimate Load is 4 times the Working Load Limit.

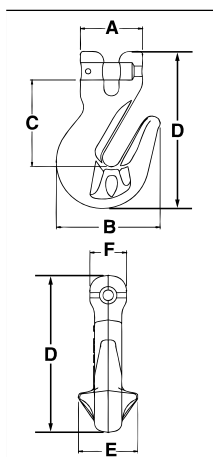


## Crosby® grade 100 clevis grab hooks

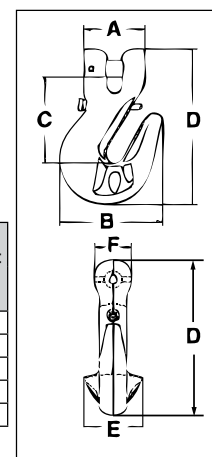
### A-1338



- Forged Alloy Steel - Quenched and Tempered.
- Innovative cradle design allows for 100% efficiency of Grade 100 chain.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- Suitable for use with Grade 100 and Grade 80 chain.
- The use of A-1338 Cradle Grab Hook will allow 100 percent of the chain sling capacity. When used to hook back to chain leg to form a choker, the angle of the choke must be 120 degrees or greater. When used as a chain shortener, minimize twist of chain and ensure chain is fully engaged in hook.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products."



### L-1338



### A-1338/L-1338 Cradle Grab Hook

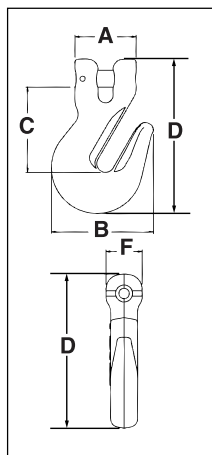
Chain Size		Working Load Limit (t)*	A-1338 Stock No.	L-1338 Stock No.	Weight Each (kg)	Dimensions (mm)						S-4338 Replacement Latch Kit Stock No.
(in.)	(mm)					A	B	C	D	E	F	
1/4	7	2.0	1049417	1049480	.20	43.7	64.5	55.9	98.5	38.1	22.4	1048426
5/16	8	2.6	1049426	1049489	.45	43.7	64.5	55.4	98.5	38.1	22.4	1048426
3/8	10	4.0	1049435	1049498	.82	47.0	78.5	65.5	119	46.5	27.7	1048435
1/2	13	6.8	1049444	1049507	1.78	60.7	97.3	83.3	149	57.2	36.1	1048444
5/8	16	10.3	1049453	1049516	3.18	67.8	115	97.8	179	74.5	44.5	1048453

\* Ultimate Load is 4 times the Working Load Limit.

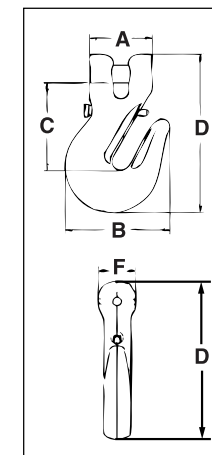
### A-1358



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- Suitable for use with Grade 100 and Grade 80 chain.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products."



### L-1358



### A-1358/L-1358 Grab Hook

Chain Size		Working Load Limit (kg)*	A-1358 Stock No.	L-1358 Stock No.	Weight Each (kg)	Dimensions (mm)						S-4338 Replacement Latch Kit Stock No.
(in.)	(mm)					A	B	C	D	F		
1/4	7	2.0	1049610	1049605	.20	43.7	64.5	55.9	98.5	22.4	1048426	
5/16	8	2.6	1049629	1049614	.45	43.7	64.5	55.4	98.5	22.4	1048426	
3/8	10	4.0	1049638	1049623	.82	47.0	78.5	65.5	119	27.7	1048435	
1/2	13	6.8	1049647	1049634	1.78	60.7	97.3	83.3	149	36.1	1048444	
5/8	16	10.3	1049656	1049643	3.18	67.8	115	97.8	179	44.5	1048453	

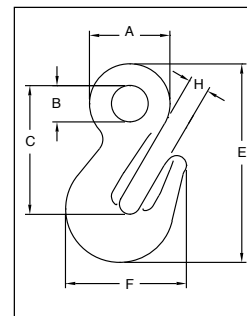
\* Ultimate Load is 4 times the Working Load Limit.

## Crosby® grade 100 eye grab hooks

### A-1328



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Each hook has a Product Identification Code (PIC) for material traceability, along with the size and the name Crosby & U.S.A. in raised letters.
- Suitable for use with Grade 100 and Grade 80 chain.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- "Look for the Platinum Color – Crosby Grade 100 Alloy Products."



### A-1328 Eye Grab Hook

Chain Size		Working Load Limit (kg)*	A-1328 Stock No.	Weight Each (kg)	Dimensions (mm)					
(in.)	(mm)				A	B	C	E	F	H
1/4 - 5/16	7 - 8	2585	1026169	.98	44.5	19.1	70.9	109	66.3	11.2
3/8	10	3991	1026187	1.6	52.3	23.9	84.6	130	78.5	13.5
1/2	13	6803	1026196	3.3	65.0	28.4	104	162	97.3	16.8
5/8	16	10249	1026205	6	78.0	33.3	125	194	115	20.0
3/4	18-20	16009	1026214	10.0	82.6	38.1	137	223	152	23.9
7/8	22-23	19999	1026223	13.1	100	46.0	165	257	166	27.7
1	26	27074	1026232	18.9	113	50.8	183	291	197	30.2
1 1/4	32	40996	1026241	39.4	143	60.5	231	371	241	38.1

\* Minimum Ultimate Load is 4 times the Working Load Limit.



## Crosby® grade 100 SHUR-LOC® hooks

### S-1316



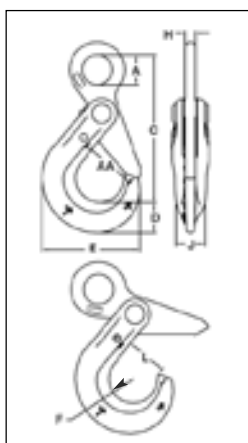
### SHUR-LOC® Hook Series with Positive Locking Latch

- Forged Alloy Steel - Quenched and Tempered.
- 25% stronger than Grade 80.
- Individually Proof Tested to 2-1/2 times the Working Load Limit with certification.
- Recessed trigger design is flush with the hook body, protecting the trigger from potential damage.
  - Easy to operate with enlarged thumb access.
- Meets the performance requirements of EN1677-3:2001
- Positive Lock Latch is Self-Locking when hook is loaded.
- Eye style is designed with "Engineered Flat" to connect to S-1325 chain coupler.
- Suitable for use with Grade 100 and Grade 80 chain.
- The SHUR-LOC® hook, if properly installed and locked, can be used for personnel lifting applications and meets the intent of OSHA Rule 1926.1431(g).
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- "Look for the Platinum Color - Crosby Grade 100 Alloy Products.

### S-1317



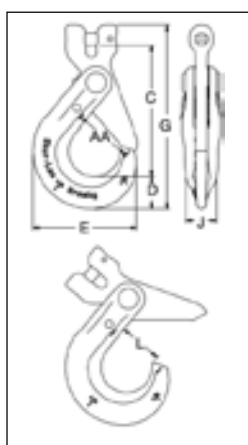
### S-1316 Eye Hook



Chain Size		Working Load Limit (t)*	S-1316 Stock No.	Weight Each (kg)	Dimensions (mm)								
(in.)	(mm)				A	C	D	E	F	H	J	L	AA
-	6	1.45	1022896	.39	19.8	100	20.1	66.0	17.0	7.87	16.0	29.5	38.1
1/4-5/16	7-8	2.60	1022914	.82	27.4	135	27.9	88.9	22.1	9.91	20.6	37.6	51.0
3/8	10	4.00	1022923	1.54	33.0	167	29.7	112	27.9	12.9	23.9	46.5	63.5
1/2	13	6.80	1022932	2.72	41.9	209	42.4	139	32.0	17.0	29.5	56.4	76.2
5/8	16	10.30	1022941	6.85	55.9	256	51.8	167	38.1	22.1	38.1	67.3	89.0
3/4	18-20	16.00	1022942	8.62	66.0	274	56.4	197	51.1	22.1	51.6	89.4	-
7/8	22	19.40	1022943	12.7	72.9	317	62.2	222	57.7	24.9	55.9	97.3	-
1	26	27.10	1022944	22.5	80.0	371	81.5	251	62.5	32.0	68.1	104	-

\* Minimum Ultimate Load is 4 times the Working Load Limit.

### S-1317 Clevis Hook



Chain Size		Working Load Limit (t)*	S-1317 Stock No.	Weight Each (kg)	Dimensions (mm)						
(in.)	(mm)				C	D	E	G	J	L	AA
-	6	1.40	1028991	.35	87.4	20.1	66.0	121	16.0	29.0	38.1
1/4	7	2.00	1029000	.82	114	27.9	89.0	159	20.6	35.1	51.0
5/16	8	2.60	1029009	.82	114	27.9	89.0	159	20.6	35.1	51.0
3/8	10	4.00	1029018	1.66	140	29.7	112	192	24.1	46.5	63.5
1/2	13	6.80	1029027	3.08	173	42.4	139	242	29.5	56.4	76.2
5/8	16	10.30	1029036	5.40	209	51.8	167	295	38.1	67.3	89.0
3/4	18-20	16.00	1029071	6.80	239	56.4	197	336	51.6	89.4	-
7/8	22	19.40	1029080	12.7	283	62.2	222	392	55.9	97.3	-
1	26	27.10	1029089	22.5	319	81.5	251	468	68.1	104	-

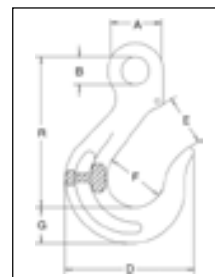
\* Minimum Ultimate Load is 4 times the Working Load Limit.

## Grade 80 alloy fittings

### A-327



- Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- S-4088 Latch Kit fits hooks.



### A-327 Eye Sling Hook

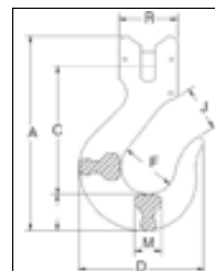
Chain Size (mm)	A-327 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)								Replacement Latch Stock No.
				A	B	D	E	F	G	R		
7	1003764	1.59	.36	34.0	14.2	88.0	36.6	44.7	22.9	94.5	1090250	
10	1003773	3.22	.95	46.2	19.1	116	45.2	56.9	31.8	123	1090251	
13	1003782	5.45	1.68	57.5	23.9	140	53.8	63.5	39.4	144	1090252	
16	1003791	8.21	2.90	70.0	29.2	165	61.2	73.2	47.8	168	1090253	
19	1003808	12.84	4.45	83.0	34.0	187	68.3	83.0	55.0	194	1090254	
22	1003817	15.51	7.00	94.5	36.6	215	77.7	92.0	62.2	217	1090255	

\* Ultimate Load is 4 times the Working Load Limit.

### A-339



- Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Pin locking requires no special tools.
- S-4088 Latch fits 19 and 22mm hooks.



### A-339 Clevis Sling Hook

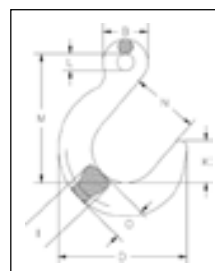
Chain Size		A-339 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)						
(in.)	(mm)				A	C	D	F	G	J	M
3/4	19	1027793	11.2	5.20	294	170	187	82.5	55.0	68.5	1019
7/8	22	1027800	15	8.00	334	193	215	92.0	62.0	77.5	1129

\* Ultimate Load is 4 times the Working Load Limit.

### A-329



- Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Hook can be tip loaded at the reduced Working Load Limit, see below. Operator must ensure the load is retained properly in the hook.



### A-329 Eye Foundry Hook

Chain Size (mm)	A-329 Stock No.	Working Load Limit at Saddle of Hook (kg)*	Working Load Limit at Tip of Hook (kg)*	Weight Each (kg)	Dimensions (mm)							
					B	D	I	K	L	M	N	O
7	1026280	1588	794	1.09	39.6	121	25.4	39.6	16.0	121	63.5	31.2
10	1026289	3221	1611	2.04	50.8	145	32.3	47.8	19.1	146	76.0	38.1
13	1026297	5443	2722	3.22	63.5	171	38.1	56.5	25.4	175	89.0	44.5
16	1026306	8210	4105	5.53	76.2	198	46.0	67.0	31.8	205	102	51.5
19	1026315	12837	6419	8.75	88.9	232	56.0	89.0	38.1	235	114	65.0
22	1026324	15513	7757	11.9	102	256	57.0	86.0	44.5	264	127	70.5

\* Ultimate Load is 4 times the Working Load Limit.

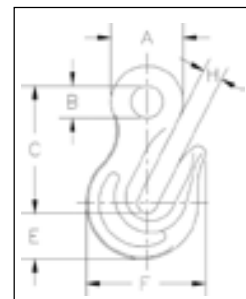


## Grade 80 alloy fittings

## A-328



- Alloy Steel – Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- The use of A-328 Eye Grab Hook will result in a 20 percent reduction in chain capacity. When used to hook back to chain leg to form a choker, the angle of the choke must be 120 degrees or greater. When used as a chain shortener, minimize twist of chain and ensure chain is fully engaged in hook.



## A-328 Eye Grab Hook

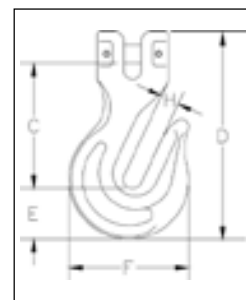
Chain Size (mm)	A-328 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)					
				A	B	C	E	F	H
7	1026017	1.59	.27	35.1	15.0	65.0	23.1	55.0	9.65
10	1026035	3.22	.54	45.7	20.3	82.5	29.5	76.0	12.7
13	1026053	5.45	1.36	57.0	24.9	106	42.9	102	16.0
19	1026099	12.84	3.74	82.0	34.5	151	55.5	139	22.4
22	1026115	15.51	5.40	94.0	39.4	175	65.0	160	26.9

\* Ultimate Load is 4 times the Working Load Limit.

## A-338



- Alloy Steel – Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Pin locking requires no special tools.
- The use of A-338 Clevis Grab Hook will result in a 20 percent reduction in chain capacity. When used to hook back to chain leg to form a choker, the angle of the choke must be 120 degrees or greater. When used as a chain shortener, minimize twist of chain and ensure chain is fully engaged in hook.



## A-338 Clevis Grab Hook

Chain Size (mm)	A-338 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)				
				C	D	E	F	H
7	1027659	1.59	.28	66.5	106	22.6	55.0	9.65
10	1027677	3.22	.57	81.5	132	29.5	76.0	12.7
13	1027686	5.45	1.56	106	177	42.9	102	15.7
16	1027695	8.21	2.56	128	210	47.8	118	19.1
19	1027702	12.84	4.72	151	253	55.5	134	22.4
22	1027711	15.51	6.18	176	294	65.0	155	25.4

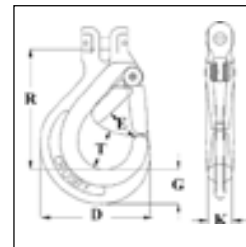
\* Ultimate Load is 4 times the Working Load Limit.

## Grade 80 latch hooks

### S-314A



- Hook is Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Integrated heavy duty latch.
- Large throat opening.
- Anti-fouling due to carefully designed contours.
- Meets ASTM A-952 for Grade 80 chain fittings.
- Fatigue rated.
- "Look for the color Gold – Crosby Alloy Hooks."



### S-314A Clevis Chain Hook with Integrated Latch

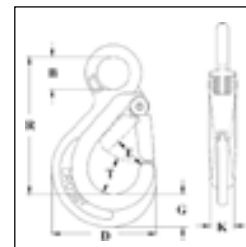
Chain Size		S-314A Stock No.	Grade 8 Alloy Chain Working Load Limit (t) 4:1*	Weight Each (kg)	Dimensions (mm)						Replacement Latch Stock No.
(in.)	(mm)				D	E	G	K	R	T	
-	6	1225020	1.12	.32	66.0	20.6	20.0	16.0	72.3	26.0	1291332
1/4 - 5/16	7 - 8	1225021	2	.70	89.0	27.4	28.0	20.5	98.0	32.6	1291402
3/8	10	1225091	3.15	1.29	110.5	36.1	29.3	24.0	125.3	42.2	1291472
1/2	13	1225161	5.3	2.34	138.5	38.6	42.1	29.5	144.5	49.2	1291542
5/8	16	1225162	8	3.67	166.5	48.5	52.0	38.0	172.6	58.9	1291612

\* Ultimate Load is 4 times the Working Load Limit.

### S-315A



- Hook is Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit.
- Integrated heavy duty latch.
- Large throat opening.
- Anti-fouling due to carefully designed contours.
- "Engineered Flat" for use with S-1325A Coupler Link.
- Meets ASTM A-952-96 for Grade 80 chain fittings.
- Fatigue rated.
- "Look for the color Gold – Crosby Alloy Hooks."



### S-315A Eye Chain Hook with Integrated Latch

Chain Size		S-315A Stock No.	Grade 80 Alloy Chain Working Load Limit (t) 4:1*	Working Load Limit for Wire Rope (t) 5:1	Weight Each (kg)	Dimensions (mm)							Replacement Latch Stock No.
(in.)	(mm)					B	D	E	G	K	R	T	
-	6	1029820	1.12	1	.25	20.1	66.0	20.6	20.1	16.0	84.5	25.9	1291332
1/4 - 5/16	7 - 8	1029825	2	2	.59	27.9	89.0	27.4	27.9	20.6	117	32.5	1291402
3/8	10	1029830	3.15	3	1.18	36.1	110	36.1	29.5	23.9	157	42.2	1291472
1/2	13	1029835	5.3	5	2.13	46.0	138	38.6	42.4	29.5	186	49.3	1291542
5/8	16	1029840	8	7	3.88	56.0	167	48.5	52.0	38.1	227	59.0	1291612

\* Ultimate Load is 4 times the Working Load Limit.



## Crosby® SHUR-LOC® swivel hooks

S-1326



- Forged Alloy Steel - Quenched and Tempered.
- Individually Proof Tested at 2-1/2 times the Working Load Limit with certification.
- Recessed trigger design is flush with the hook body, protecting the trigger from potential damage.
  - Easy to operate with enlarged thumb access.
- Positive Lock Latch is Self-Locking when hook is loaded.
- Rated for both Wire Rope and use with Grade 80/100 Chain.
- G-414 Heavy Thimble should be used with wire rope slings.
- Trigger repair Kit available (S-4316). Consists of spring, roll pin and trigger.
- S-13326 Swivel Hook utilizes anti-friction bearing design which allows hook to rotate freely under load.
- Fatigue rated.
- The SHUR-LOC® hook, if properly installed and locked, can be used for personnel lifting applications and meets the intent of OSHA Rule 1926.1431(g).
- "Look for the Platinum Color – Crosby Grade 100 Alloy Products".
- U.S. Patent 5,381,650 and foreign equivalents.

S-13326



Use in corrosive environment requires shank and nut inspection in accordance with ASME B30.10-1.10.4(b)(5)(c)2009.

### S-1326 SHUR-LOC® Swivel Hooks

- Suitable for infrequent, non-continuous rotation under load.

Chain Size		S-1326 Stock No.	Grade 100 Alloy Chain Working Load Limit (t) 4:1*	Weight Each (kg)	Dimensions (mm)									
(in.)	(mm)				A	B	C	D	E	F	H	J	L	AA
-	6	1004304	1.45	.57	38.1	33.5	189	20.1	66.0	170	12.7	16.0	28.7	38.1
1/4-5/16	7-8	1004313	2.59	1.18	44.5	40.4	235	27.9	88.9	22.1	16.0	20.6	35.1	51.0
3/8	10	1004322	3.99	2.13	50.8	43.9	274	29.7	112	27.9	19.1	23.9	44.5	63.5
1/2	13	1004331	6.80	3.92	63.5	60.5	351	42.4	139	32.0	25.4	29.5	53.6	76.2
5/8	16	1004340	10.3	7.71	69.9	64.3	410	51.8	167	38.1	28.7	38.1	63.2	89.0
3/4	18-20	1004349	16.0	10.9	71.9	64.0	442	56.4	197	51.1	27.9	51.6	89.4	127
7/8	22	1004358	20.0	13.2	87.4	81.0	418	62.2	222	57.4	33.0	55.9	97.3	152

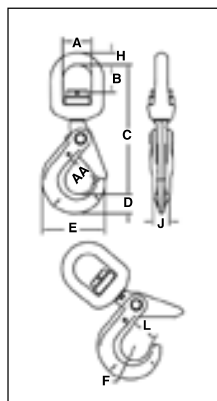
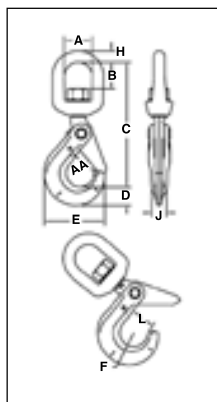
\* Ultimate Load is 4 times the Working Load Limit.

### S-13326 SHUR-LOC® Swivel Hooks with Bearing

- Suitable for frequent rotation under load.

Chain Size		S-13326 Stock No.	Grade 100 Alloy Chain Working Load Limit (t) 4:1*	Weight Each (kg)	Dimensions (mm)									
(in.)	(mm)				A	B	C	D	E	F	H	J	L	AA
-	6	1004404	1.45	.57	38.1	29.0	157	20.1	66.0	170	12.7	16.0	28.7	38.1
1/4-5/16	7-8	1004413	2.59	1.18	44.5	38.6	192	27.9	89.0	22.1	16.0	20.6	35.1	51.0
3/8	10	1004422	3.99	2.13	51.0	40.9	226	29.7	112	27.9	19.1	23.9	46.5	63.5
1/2	13	1004431	6.80	3.92	63.5	51.6	282	42.4	138	32.0	25.4	29.5	53.5	76.2
5/8	16	1004440	10.3	7.71	70.0	50.3	320	52.0	167	38.1	28.7	38.1	63.0	89.0

\* Ultimate Load is 4 times the Working Load Limit.



## Crosby® hook latch kits

### S-4320 LATCH KITS

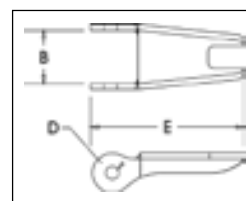


- Heavy duty stamped latch interlocks with the hook tip.
- High cycle, long life spring.
- Can be made into a "Positive Locking" Hook when proper cotter pin is utilized.
- Latch kits shipped unassembled and individually packaged with instructions.

**IMPORTANT:** The new S-4320 Latch Kit will not fit the old style 319, 320 and 322 hooks.

### S-4320 Replacement Latch Kits for NEW 319N, 320N, 322N and 339N Hooks

Hook Size (t)			Hook ID Code	S-4320 Stock No.	SS-4320 Stock No.*	Weight Each (kg)	Dimensions (mm)		
Carbon	Alloy	Bronze					B	D	E
.75	1.25	.5	D	1096325	1097100	.01	12.7	3.80	36.6
1	1.6	.6	F	1096374	1097109	.02	13.7	4.30	39.6
1.6	2	1	G	1096421	1097118	.02	16.0	4.30	42.2
2	3.2	1.4	H	1096468	1097127	.03	16.8	4.30	48.5
3.2	5.4	2	I	1096515	1097136	.05	21.1	5.10	58.5
5	8	3.5	J	1096562	1097145	.07	26.4	5.10	73.2
7.5	11.5	5	K	1096609	1097154	.13	31.8	6.85	90.5
10	16	6.5	L	1096657	1097163	.15	34.3	6.85	97.0
15	22	10	N	1096704	1097172	.38	42.2	9.90	132



\* SS-4320 is Stainless Steel construction with cad plated steel nuts.

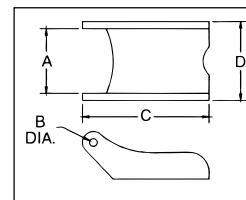
### S-4088 LATCH KITS



- To be used on A-327 and A-339 Grade 8 Sling Hooks.
- Latch Kits shipped unassembled and individually packaged with instructions.

### S-4088 Alloy Hook Latch Kits

Hook Chain Size (mm)	S-4088 Stock No.	Weight Each (kg)	Dimensions (mm)			
			A	B	D	D
6-7	1090250	.03	19.8	4.05	51.5	23.9
8-10	1090251	.06	26.2	4.85	68.5	31.8
13	1090252	.07	26.2	4.85	76.0	31.8
16	1090253	.07	26.2	4.85	82.5	31.8
19	1090254	.07	38.9	6.60	105	47.8
22	1090255	.07	38.9	6.60	118	51.0



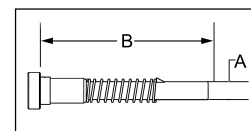
### S-4338 LATCH KITS



- Latch Kits shipped unassembled and individually packaged with instructions.
- For use only with Crosby L-1338 and L-1358 Grab Hooks (page 201).

### S-4338 Grab Hook Latch Kits

Hook Size		S-4338 Stock No.	Weight Each (kg)	Dimensions (mm)	
(mm)	(in.)			A	B
7	1/4	1048426	.01	4.7	40.4
8	5/16				
10	3/8	1048435	.01	4.7	45.2
13	1/2	1048444	.02	6.3	57.2
16	5/8	1048453	.03	7.9	65.2



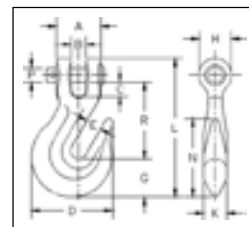


## Crosby® grab hooks

### H-330 / A-330



- Forged Steel - Quenched and Tempered.
- Design factor is 4:1.
- Features quick and easy assembly.
- H-330 designed for Crosby Spectrum 4® chain.
- A-330 designed for Crosby Spectrum 7® chain.



### H-330 / A-330 Clevis Grab Hooks

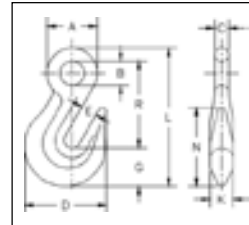
Chain Size (mm)	Stock No.		Working Load Limit (t)		Weight Each (kg)	Dimensions (mm)											
	H-330 Carbon	A-330 Alloy*	H-330 Carbon	A-330 Alloy		A	B	C	D	E	G	H	K	L	N	P	R
7	1027105	1027249*	1.18	1.59	.16	25.4	8.15	7.85	46.0	8.65	22.4	18.3	11.9	77.5	44.5	7.85	41.7
8	1027123	1027267*	1.77	2.04	.29	30.2	9.90	9.15	54.0	11.2	24.6	23.1	15.0	93.0	52.5	9.65	61.5
10	1027141	1027285*	2.45	3.22	.45	35.1	11.4	11.4	64.5	12.7	29.7	25.4	18.3	109	59.5	11.2	61.0
11	1027169	1027301	3.27	4.54	.59	42.2	16.8	15.7	78.5	14.2	33.3	28.7	17.5	125	67.5	14.2	70.0
13	1027187	1027329*	4.17	5.44	.95	47.8	14.5	17.8	90.5	16.8	38.9	31.8	19.8	145	75.5	16.0	81.0
16	1027203	1027347	5.90	8.2	1.91	58.0	23.1	21.3	112	19.8	45.2	39.6	27.7	179	109	19.1	104
19	1027221	1027365	9.16	11.2	2.95	66.5	23.9	23.9	133	23.9	54.0	47.8	33.3	207	129	22.4	118

\* These A-330 hooks are forged with an "8" designating Grade 80, and are suitable for use with Grade 8 chain in over head lifting applications as long as hook is proof-tested as part of the chain sling assembly or as an individual component per ASME B30.9. We recommend the use of the A-338 which is proof tested and supplied with a proof test certificate.

### H-323 / A-323



- Forged Steel - Quenched and Tempered.
- Design Factor is 4:1.
- H-323 designed for Crosby Spectrum 4® chain.
- A-323 designed for Crosby Spectrum 7® chain.



### H-323 / A-323 Eye Grab Hooks

Chain Size (mm)	Stock No.		Working Load Limit (t)		Weight Each (kg)	Dimensions (mm)											
	H-323 Carbon	A-323 Alloy*	H-323 Carbon	A-323 Alloy		A	B	C	D	E	G	K	L	N	R		
7	1026204	1026384*	1.18	1.59	.13	27.7	13.5	7.85	46.0	8.65	22.4	11.9	77.5	44.5	47.8		
8	1026222	1026400*	1.77	2.04	.20	33.3	15.7	9.65	54.0	11.2	24.6	15.0	91.0	52.5	58.0		
10	1026240	1026428*	2.45	3.22	.36	39.6	19.1	11.2	64.5	12.7	29.7	18.3	109	59.5	68.5		
13	1026286	1026464*	4.17	5.44	.79	49.3	22.4	13.5	90.5	16.8	38.9	19.5	138	75.5	86.0		
16	1026302	1026482*	5.90	8.21	1.47	60.5	26.9	16.8	112	19.8	48.0	25.4	169	96.0	104		
19	1026320	1026507	9.16	11.2	2.69	73.0	35.1	19.1	133	23.9	54.0	33.3	205	129	131		

\* These A-323 hooks are forged with an "8" designating Grade 80, and are suitable for use with Grade 8 chain in over head lifting applications as long as hook is proof-tested as part of the chain sling assembly or as an individual component per ASME B30.9. We recommend the use of the A-328 which is proof tested and supplied with a proof test certificate.

### BL-GRB

### BL-GRB Bullard Alloy Grab Hook with Latch



- Dimensions shown relate to H-323 / A-323 drawing scheme shown above.

Chain Size (mm)	BL-GRB Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)											
				A	B	C	D	E	G	K	L	N	R		
7	1051904	1.60	.23	31.8	14.2	7.11	62.7	10.2	21.8	13.5	93.5	55.4	63.5		

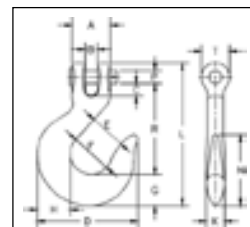
\* Ultimate Load is 4 times the Working Load Limit.

## Crosby® slip hooks

### H-331 / A-331



- Forged Carbon Steel or Forged Alloy Steel – Quenched and Tempered.
- All pins are Alloy Steel – Quenched and Tempered.
- **Not Suitable for use with Grade 80 chain and chain slings used in overhead lifting. For slings or lifting chains, Grade 80 or 100 alloy components are recommended.**



### H-331 / A-331 Clevis Slip Hooks

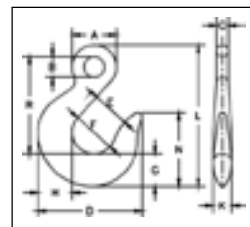
Chain Size (mm)	Stock No.		Working Load Limit (t)*		Weight Each (kg)	Dimensions (mm)													
	H-331 Carbon	A-331 Alloy	H-331 Carbon	A-331 Alloy		A	B	C	D	E	F	G	H	K	L	N	P	R	T
7	1027383	1027524	.89	1.25	.25	26.9	8.15	7.35	70.0	23.9	30.2	20.6	22.4	12.7	100	54.0	7.87	65.5	18.3
8	1027409	1027542	1.30	1.95	.36	31.0	10.9	8.65	77.5	26.9	31.8	23.9	25.4	14.2	115	57.0	9.65	73.0	24.6
10	1027427	1027560	1.81	2.38	.55	35.1	11.4	11.2	92.0	33.3	38.1	28.7	30.2	16.8	131	65.0	11.2	82.5	26.9
11	1027445	1027588	2.27	3.18	.93	43.9	15.0	15.2	110	39.6	46.0	35.1	36.6	20.6	152	77.5	14.2	94.0	30.2
13	1027463	1027604	2.95	4.08	1.25	47.8	14.5	13.5	122	42.9	49.3	39.6	41.4	23.1	166	87.5	16.0	102	33.3
16	1027481	1027622	4.20	6.12	2.15	58.5	18.0	18.0	143	51.0	60.5	46.0	49.3	27.7	200	102	19.1	125	39.6
19	–	1027640	–	8.73	5.12	81.0	30.0	32.8	187	63.5	76.2	60.5	63.5	36.6	255	129	25.4	155	53.0

\* Ultimate Load is 4 times the Working Load Limit.

### H-324



- Forged Carbon Steel – Quenched and Tempered.
- **Not Suitable for use with Grade 80 chain and chain slings used in overhead lifting. For slings or lifting chains, Grade 80 or 100 alloy components are recommended.**



### H-324 Eye Slip Hooks

Chain Size (mm)	H-324 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)															
				A	B	C	D	E	F	G	H	K	L	N	R				
7	1026749	.89	.18	26.9	12.7	7.10	70.0	23.9	30.2	20.6	22.4	12.7	93.0	54.0	65.0				
8	1026767	1.30	.29	31.8	16.0	8.65	77.5	26.9	31.8	23.9	25.4	14.2	107	57.0	75.0				
10	1026785	1.81	.50	38.9	18.3	10.4	92.0	33.3	38.1	28.7	30.2	16.8	124	65.0	85.5				
11	1026801	2.27	.71	42.9	20.6	11.2	110.2	39.6	46.0	35.1	36.6	20.6	145	77.5	98.5				
13	1026829	2.95	.95	49.3	23.9	12.7	122.2	42.9	49.3	39.6	41.4	23.1	161	87.5	109				
16	1026847	4.20	1.77	60.5	28.7	16.0	143.0	51.0	60.5	46.0	49.3	27.7	195	102	133				
19	1026865	5.67	3.14	73.0	35.1	19.1	171.5	54.0	70.0	55.5	58.5	33.3	222	121	147				

\* Ultimate Load is 4 times the Working Load Limit.

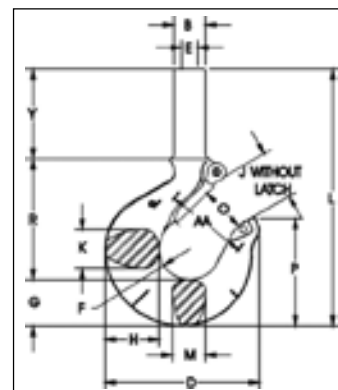


## Shank hooks for swaging

### S-319SWG



- Wide range of sizes available:
  - Working Load Limit: 0.4-14 Ton
  - Wire Rope sizes: 5mm through 30mm.
- Swage shank hook terminations have an efficiency rating of 95% based on the catalog strength of wire rope.
- Quenched and Tempered. Heat treat process allows for ease of swaging.
- Forged Carbon Steel.
- Design Factor of 5 to 1.
- Black Oxide finish on body (Shank is uncoated).
- Utilizes standard Crosby 319N shank hooks with interlocking hook tip. Each hook has a pre-drilled cam which can be equipped with a latch.
- Utilizes standard National Swage swaging dies.
- All hooks incorporate Crosby's patented **QUIC-CHECK**® markings



NOTE: For use with 6 X 19 or 6 X 37, IPS or XIP (EIP), XXIP (EEIP), RRL, FC, or IWRC wire rope.

Before using any Crosby fitting with any other type lay, construction or grade of wire rope, it is recommended that the termination be destructive tested and documented to prove the adequacy of the assembly to be manufactured. Refer to swage socket or swage button instructions in the National Swage Swaging Products and Procedures Brochure for proper swaging techniques.

### S-319SWG Shank Hooks for Swaging

Wire Rope Size		Hook ID Code	Working Load Limit (Tons)*	S-319SWG Stock No.	Weight Each (kg)	Required Swaging Die		Maximum After Swage Diameter (mm)
(mm)	(in.)					Die Description	Die Stock No.	
5	3/16	3/16	0.4	1053002	.25	1/8" Button	1191621	10.2
6-7	1/4	FC	0.7	1053011	.35	1/4" Socket	1192845	11.7
8	5/16	GC	1.1	1053020	.57	1/4" Button	1191621	14.7
8	5/16	HC	1.1	1053039	.83	3/8" Socket	1192863	18.0
9-10	3/8	HC	1.6	1053048	.82	3/8" Socket	1192863	18.0
11	7/16	IC	2.1	1053057	1.65	1/2" Socket	1192881	23.1
12-13	1/2	IC	2.8	1053066	1.62	1/2" Socket	1192881	23.1
14-15	9/16	JC	3.5	1053075	3.34	5/8" Socket	1192907	29.5
16	5/8	JC	4.3	1053084	3.31	5/8" Socket	1192907	29.5
18	3/4	KC	6.2	1053093	5.77	3/4" Socket	1192925	36.1
20-22	7/8	LC	8.3	1053100	7.97	7/8" Socket	1192949	39.4
24-26	1	NC	11.0	1053119	14.3	1" Socket	1192961	45.7
28-30	1-1/8	OC **	14.0	1053128	24.4	1-1/8" Socket	1192989	52.1

\* Minimum Ultimate Load is 5 times the Working Load Limit.

\*\* ID Code "O" is original 319 style hook.

Wire Rope Size		S-319SWG Stock No.	Dimensions (mm)														
(mm)	(in.)		B	D	E	F	G	H	J	K	L	M	O	P	R	Y	AA
5	3/16	1053002	11.2	72.5	5.10	16.0	18.5	20.6	23.6	16.0	132	16.0	23.6	49.8	60.5	51.0	38.1
6-7	1/4	1053011	12.7	80.0	6.85	17.5	21.3	23.9	24.6	18.0	145	18.0	24.6	56.5	67.0	57.0	51.0
8	5/16	1053020	16.5	91.0	8.65	19.1	25.4	29.5	26.9	22.4	162	22.4	26.9	62.0	70.0	63.5	51.0
8	5/16	1053039	19.6	101	8.65	20.6	29.0	33.3	30.2	23.9	182	23.9	29.5	70.5	81.5	70.0	51.0
9-10	3/8	1053048	19.6	101	10.4	20.6	29.0	33.3	30.2	23.9	182	23.9	29.5	70.5	81.5	70.0	51.0
11	7/16	1053057	24.9	123	12.2	25.4	36.6	41.4	38.1	33.3	221	28.7	35.8	88.0	99.5	82.5	63.5
12-13	1/2	1053066	24.9	123	14.0	25.4	36.6	41.4	38.1	33.3	221	28.7	35.8	88.0	99.5	82.5	63.5
14-15	9/16	1053075	31.8	159	15.5	31.8	46.2	52.5	45.2	42.2	267	36.6	42.9	117	123	95.5	76.0
16	5/8	1053084	31.8	159	17.0	31.8	46.2	52.5	45.2	42.2	267	36.6	42.9	117	123	95.5	76.0
18	3/4	1053093	39.4	192	20.3	38.1	57.5	67.0	61.0	47.8	321	41.4	56.4	133	152	108	102
20-22	7/8	1053100	43.2	212	23.9	41.4	66.0	74.7	66.5	55.5	345	49.3	61.2	145	165	111	102
24-26	1	1053119	50.5	264	26.9	54.0	76.5	89.0	86.5	68.5	427	60.5	81.0	175	211	137	102
28-30	1-1/8	1053128	57.0	346	30.2	63.5	92.0	117	102	76.0	586	76.0	82.6	223	240	248	165

## Replacement hooks for chain hoists

### O-318

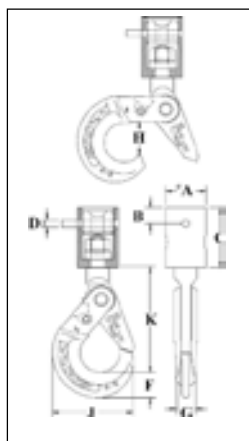


- Available in Working Load Limits of 1.7, 2.3, and 4.2 Tons (1.5, 2.1 and 3.8 tonnes).
- Fits 1/4" through 9/16" hoist chain (6mm through 14mm).
- Hooks are forged alloy steel – Quenched and Tempered.
- Chain connecting pin is alloy.
- A product Identification Code (PIC) for material traceability, the size, and the name Crosby or "CG" is forged or stamped onto each hook and swivel assembly (chain nest).
- Entire assembly is zinc plated.
- Fitted with ball bearings and is suitable for frequent rotation under load.
- Repair kit available consisting of bearing and spring pin.
- O-318 Hooks utilize Crosby SHUR-LOC® "Positive Locking" hooks. Latch is Self-Locking when hook is loaded.
- O-319 Hooks utilize Crosby® standard 319 Shank Hooks with the registered QUIC-CHECK® marking.
- Replacement latch kits are available.

### O-319



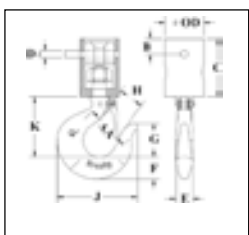
Use in corrosive environment requires shank and nut inspection in accordance with ASME B30.10-1.10.4(b)(5)(c)2009.



### O-318 Chain Nest Hooks

Chain Size (mm)	O-318 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)								
				A	B	C	D	F	G	H	J	K
6 - 7	1098409	1.5	1.59	44.5	17.8	66.5	7.87	27.9	20.6	37.1	89.0	117
8 - 10	1098427	2.1	2.72	54.0	17.8	81.0	9.65	29.2	23.9	46.5	110	144
10 - 11	1098445	3.8	6.24	76.0	25.4	111	12.7	42.2	29.5	53.5	138	179
13 - 14	1098463	3.8	6.24	76.0	25.4	111	16.0	42.2	29.5	53.5	138	179

\* Ultimate Load is 4 times the Working Load Limit.



### O-319 Chain Nest Hooks

Chain Size (mm)	O-319 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)										
				OD	AA	B	C	D	E	F	G	H	J	K
6 - 7	1098312	1.5	1.16	44.5	51.0	17.8	66.5	7.87	19.1	25.4	38.9	25.4	92.0	68.5
8 - 10	1098334	2.1	1.81	54.0	51.0	17.8	81.0	9.65	21.3	28.4	43.7	28.4	104	77.5
10 - 11	1098356	3.8	4.54	76.0	63.5	25.4	111	12.7	28.4	36.6	54.0	34.0	123	96.0
13 - 14	1098378	3.8	4.54	76.0	63.5	25.4	111	16.0	28.4	36.6	54.0	34.0	123	96.0

\* Ultimate Load is 4 times the Working Load Limit.





## Replacement hooks for chain hoists

### LINK CHAIN NEST



- Available in Working Load Limits of 1.7, 2.3, and 4.2 Tons (1.5, 2.1 and 3.8 tonnes).
- Fits 1/4" through 9/16" hoist chain (6mm through 14mm).
- Hooks are forged alloy steel - Quenched and Tempered.
- A Product Identification Code (PIC) for material traceability, the size, and the name Crosby or "CG" is forged or stamped onto each hook and swivel assembly (chain nest).
- Hooks utilize Crosby standard 319 Shank Hooks with the registered QUIC-CHECK® marking.
- Suitable for frequent rotation under load.
- Use in corrosive environment requires shank and nut inspection in accordance with ASME B30.10-1.2.1(b)(2)(c)2000.

### ROLLER CHAIN NEST



#### Link Chain Nest

- **BL-O** – with self-closing gate.
- **BL-P** – with manual-closing gate.
- With ball-bearing swivel; attaches to chain by alloy pin.

Hook Size	BL-O Stock No.	BL-P Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)		
						LA	LB	LC
4: 1/4 - 9/32	1051409	1051508	PIN-LOK	1.5	1.13	67.0	44.5	6.35 - 7.15
5: 5/16 - 3/8	1051442	1051541	ROLLOX	2.1	2.04	76.0	57.0	7.95 - 9.50
7: 3/8 - 7/16	1051464	1051563	ROLLOX	3.8	5.0	111	76.0	9.50 - 14.3
7: 1/2 - 9/16	1051486	1051585	ROLLOX	3.8	5.0	111	76.0	9.50 - 14.3

\* Ultimate Load is 4 times the Working Load Limit.

#### Roller Chain Nest

- **BL-S** – with self-closing gate.
- **BL-R** – with manual-closing gate.
- Attachment with ball-bearing swivel and full-floating connector.

Hook Size	BL-S Stock No.	BL-R Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)		
						RA	RB	RC
4: #50	1051310	1051200	PIN-LOK	.68	1.32	89.5	44.5	15.9
5: #60	1051321	1051211	ROLLOX	1.13	2.36	108	54.0	19.1
6: #60	1051332	1051222	ROLLOX	1.13	2.81	108	54.0	19.1

\* Ultimate Load is 4 times the Working Load Limit.

### OPEN SWIVEL BAIL

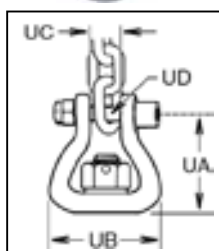


#### Open Swivel Bail

- Open Swivel Bail for attachment to link chain.
  - **BL-E** – with self-closing gate.
  - **BL-G** – with manual-closing gate.
- Use in corrosive environment requires shank and nut inspection in accordance with ASME B30.10-1.2.1(b)(2)(c)2000.

Hook Size	BL-E Stock No.	BL-G Stock No.	Gate Type	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)			
						UA	UB	UC	UD
3	1051607	1051706	PIN-LOK	1.3	.81	53.0	59.0	13.2	9.65
4	1051618	1051717	PIN-LOK	1.5	.95	54.5	59.0	13.2	9.65
5	1051629	1051728	ROLLOX	2.1	1.45	65.0	67.0	15.7	11.2

\* Ultimate Load is 4 times the Working Load Limit.

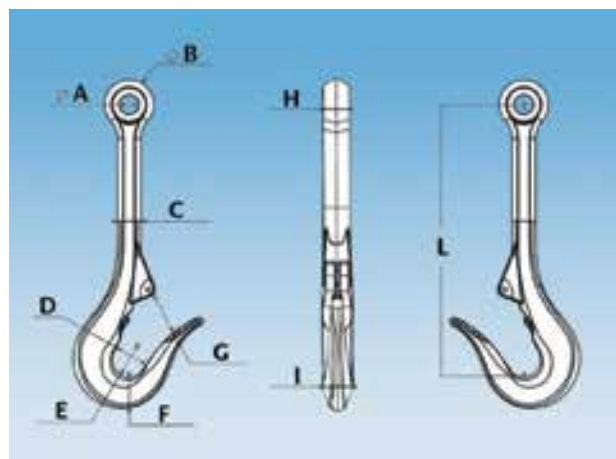


## Triton® - The ultimate R.O.V. Hook

It is of paramount importance that a remote operated hook for sub-sea use is safe and dependable.

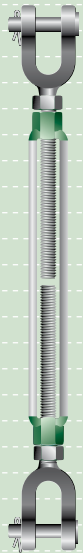
The Triton® R.O.V. Hook series was designed with this specific criteria in mind.

- One-piece construction for safety.
- Proper snag-free design with hexagonal long shank.
- Ergonomic safety latch with through body stainless release wire.
- Safety latch can be locked in closed position.
- Eye designed to correspond with shackles RR-C-271 U.S. Federal specification.
- Ergonomic entry guide tip.
- Made of Stainless Steel 2324.

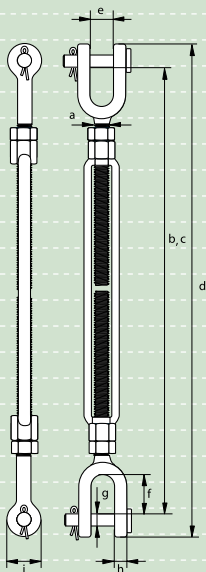


WLL	8.5T	12T	25T	35T
<b>A</b>	31 mm	37 mm	51 mm	51 mm
<b>B</b>	78 mm	93 mm	140 mm	140 mm
<b>C</b>	36 mm	44 mm	78 mm	78 mm
<b>D</b>	57 mm	70 mm	119 mm	119 mm
<b>E</b>	57 mm	51 mm	119 mm	119 mm
<b>F</b>	50 mm	61 mm	90 mm	90 mm
<b>G</b>	72 mm	64 mm	128 mm	128 mm
<b>H</b>	40 mm	45 mm	70 mm	70 mm
<b>I</b>	72 mm	48 mm	80 mm	80 mm
<b>L</b>	438 mm	527 mm	736 mm	736 mm
<b>Weight</b>	9 kg	13 kg	46 kg	46 kg

Tolerance 5%



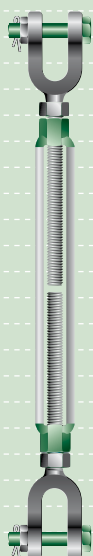
G-6313



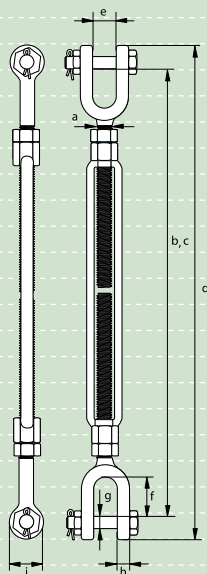
## Green Pin® turnbuckles Jaw - Jaw with cotter pin generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	length closed position	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
2.36	3/4	6	368	487	438	24	38	16	16	41	2.68
2.36	3/4	9	442	639	512	24	38	16	16	41	3.03
2.36	3/4	12	518	791	588	24	38	16	16	41	3.29
2.36	3/4	18	671	1095	740	24	38	16	16	41	3.65
3.27	7/8	12	559	825	636	27	42	19	19	48	4.90
3.27	7/8	18	712	1131	789	27	42	19	19	48	5.95
4.54	1	6	447	555	532	30	50	22	20	55	5.21
4.54	1	12	598	859	683	30	50	22	20	55	6.96
4.54	1	18	750	1164	835	30	50	22	20	55	8.4
4.54	1	24	902	1469	987	30	50	22	20	55	8.9
6.9	1 1/4	12	641	916	748	44	71	29	26	68	11.9
6.9	1 1/4	18	793	1218	900	44	71	29	26	68	13.6
6.9	1 1/4	24	961	1538	1069	44	71	29	26	68	14.2
9.71	1 1/2	12	675	941	806	52	71	35	28	80	16.9
9.71	1 1/2	18	825	1244	956	52	71	35	28	80	19.3
9.71	1 1/2	24	980	1550	1111	52	71	35	28	80	20.7
12.7	1 3/4	18	933	1310	1095	59	86	42	33	90	25
12.7	1 3/4	24	1084	1614	1246	59	86	42	33	90	28.7
16.8	2	24	1153	1672	1338	63	93	51	41	108	45.4
27.2	2 1/2	24	1254	1830	1479	75	114	57	41	143	88
34	2 3/4	24	1305	1878	1561	90	110	70	41	158	98



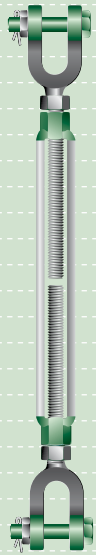
G-6323



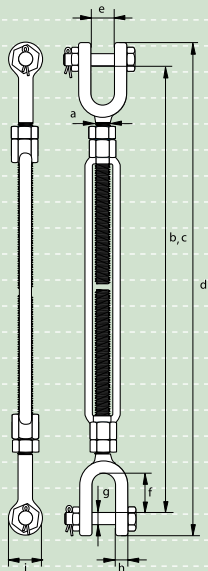
## Green Pin® turnbuckles Jaw - Jaw with safety bolt generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	length closed position	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
0.54	3/8	6	273	409	305	12	21	8	9	21	0.57
1	1/2	6	305	435	344	16	26	10	11	26	0.96
1	1/2	9	380	587	418	16	26	10	11	26	1.18
1	1/2	12	455	739	494	16	26	10	11	26	1.50
1.59	5/8	6	346	469	406	18	32	13	14	33	1.84
1.59	5/8	9	421	622	481	18	32	13	14	33	2.12
1.59	5/8	12	496	773	556	18	32	13	14	33	2.56
2.36	3/4	6	368	487	438	24	38	16	16	41	2.68
2.36	3/4	9	442	639	512	24	38	16	16	41	3.03
2.36	3/4	12	518	791	588	24	38	16	16	41	3.29
2.36	3/4	18	671	1095	740	24	38	16	16	41	3.65
3.27	7/8	12	559	825	636	27	42	19	19	48	4.90
3.27	7/8	18	712	1131	789	27	42	19	19	48	5.95
4.54	1	6	447	555	532	30	50	22	20	55	5.21
4.54	1	12	598	859	683	30	50	22	20	55	6.96
4.54	1	18	750	1164	835	30	50	22	20	55	8.4
4.54	1	24	902	1469	987	30	50	22	20	55	8.9
6.9	1 1/4	12	641	916	748	44	71	28	26	68	11.9
6.9	1 1/4	18	793	1218	900	44	71	28	26	68	13.6
6.9	1 1/4	24	961	1538	1069	44	71	28	26	68	14.2
9.71	1 1/2	12	675	941	806	52	71	35	28	80	16.9
9.71	1 1/2	18	825	1244	956	52	71	35	28	80	19.3
9.71	1 1/2	24	980	1550	1111	52	71	35	28	80	20.7
12.7	1 3/4	18	933	1310	1095	59	86	42	33	90	25
12.7	1 3/4	24	1084	1614	1246	59	86	42	33	90	28.7
16.8	2	24	1153	1672	1338	63	93	50	41	108	45.4
27.2	2 1/2	24	1254	1830	1479	75	114	57	41	143	88
34	2 3/4	24	1305	1878	1561	90	110	70	41	158	98



G-6333



## Green Pin® Polar turnbuckles Jaw - Jaw with safety bolt

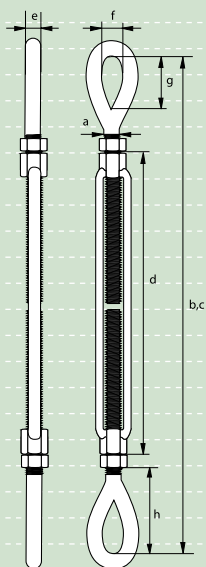
generally to ASTM F1145-92

- **Material** : drop forged alloy steel, Grade 8, quenched and tempered
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Temperature Range** : -40°C up to +200°C
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	length closed position	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	kg
1	1/2	12	455	739	494	16	26	10	11	26	1.50
1.59	5/8	12	496	773	556	18	32	13	14	33	2.56
2.36	3/4	18	671	1095	740	24	38	16	16	41	3.65
3.27	7/8	18	712	1131	789	27	42	19	19	48	5.95
4.54	1	18	750	1164	835	30	50	22	20	55	8.4
6.9	1 1/4	18	793	1218	900	44	71	29	26	68	13.6
9.71	1 1/2	18	825	1244	956	52	71	35	28	80	19.3
12.7	1 3/4	18	933	1310	1095	59	86	42	33	90	25



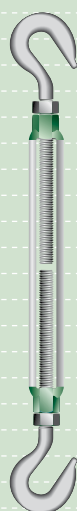
G-6311



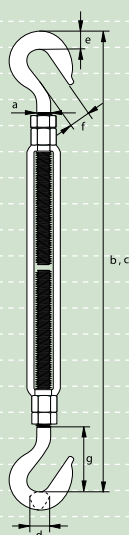
## Green Pin® turnbuckles Eye - Eye generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	length	diameter	width inside	length inside	length closed position	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	h mm	kg
0.54	3/8	6	292	428	183	10	13	29	49	0.47
1	1/2	6	325	455	193	12	18	36	58	0.84
1	1/2	9	400	607	269	12	18	36	57	1.05
1	1/2	12	476	760	346	12	18	36	57	1.26
1.59	5/8	6	381	503	203	14	21	44	79	1.35
1.59	5/8	9	455	655	279	14	21	44	78	1.60
1.59	5/8	12	531	808	356	14	21	44	78	1.92
2.36	3/4	6	414	532	213	17	25	54	90	2.03
2.36	3/4	9	488	684	289	17	25	54	89	2.49
2.36	3/4	12	564	837	366	17	25	54	89	2.65
2.36	3/4	18	717	1142	518	17	25	54	89	3.06
3.27	7/8	12	601	869	376	20	32	61	100	3.98
3.27	7/8	18	754	1174	528	20	32	61	101	5.12
4.54	1	6	497	604	233	24	36	75	118	4.35
4.54	1	12	647	909	386	24	36	75	117	5.92
4.54	1	18	800	1214	538	24	36	75	117	7.17
4.54	1	24	950	1517	690	24	36	75	116	7.52
6.9	1 1/4	12	711	984	385	30	46	90	145	9.8
6.9	1 1/4	18	861	1286	537	30	46	90	144	11.31
6.9	1 1/4	24	1014	1590	689	30	46	90	144	12.1
9.71	1 1/2	12	756	1023	401	32	54	105	156	14.2
9.71	1 1/2	18	916	1335	553	32	54	105	160	16.5
9.71	1 1/2	24	1065	1635	705	32	54	105	158	17.1
12.7	1 3/4	18	1019	1396	577	38	60	119	197	23.1
12.7	1 3/4	24	1171	1701	729	38	60	119	196	26.3
16.8	2	24	1264	1783	746	46	69	147	231	40.7
27.2	2 1/2	24	1429	1965	800	51	80	165	274	64
34	2 3/4	24	1503	2038	800	57	84	178	311	88



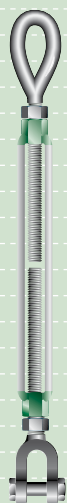
G-6312



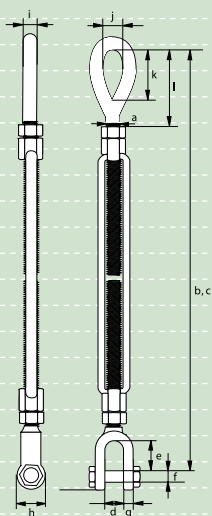
## Green Pin® turnbuckles Hook - Hook generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity  
can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	thickness hook	thickness hook	opening hook	length closed position	weight each
t	a inch	inch	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.45	$\frac{3}{8}$	6	280	415	10	15	14	43	0.36
0.68	$\frac{1}{2}$	6	311	440	13	19	16	51	0.62
0.68	$\frac{1}{2}$	9	385	592	13	19	16	50	0.85
0.68	$\frac{1}{2}$	12	461	745	13	19	16	50	1.04
1.02	$\frac{5}{8}$	6	357	480	16	23	21	67	0.98
1.02	$\frac{5}{8}$	9	432	632	16	23	21	67	1.18
1.02	$\frac{5}{8}$	12	508	785	16	23	21	67	1.71
1.36	$\frac{3}{4}$	6	393	511	20	27	24	79	1.53
1.36	$\frac{3}{4}$	9	467	663	20	27	24	78	1.88
1.36	$\frac{3}{4}$	12	543	816	20	27	24	78	2.3
1.36	$\frac{3}{4}$	18	695	1121	20	27	24	78	2.85
1.81	$\frac{7}{8}$	12	580	846	24	31	28	90	3.33
1.81	$\frac{7}{8}$	18	733	1152	24	31	28	90	4.24
2.27	1	6	479	586	26	35	31	109	3.87
2.27	1	12	625	886	26	35	31	106	5.09
2.27	1	18	778	1191	26	35	31	106	6
2.27	1	24	928	1495	26	35	31	105	7.52
2.95	1 $\frac{1}{4}$	12	683	952	31	38	37	131	8.12
2.95	1 $\frac{1}{4}$	18	835	1256	31	38	37	131	10.4
2.95	1 $\frac{1}{4}$	24	987	1560	31	38	37	130	12.1
3.4	1 $\frac{1}{2}$	12	763	1006	34	45	45	160	12.7
3.4	1 $\frac{1}{2}$	18	910	1305	34	45	45	157	15.1
3.4	1 $\frac{1}{2}$	24	1062	1610	34	45	45	157	17.1



G-6315

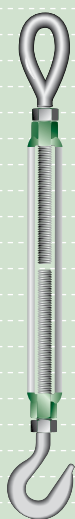


## Green Pin® turnbuckles Eye - Jaw generally to ASTM F1145-92

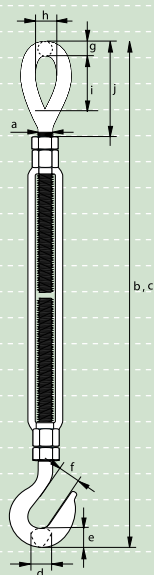
- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity  
can be supplied upon request
- **Note** : jaw ends up to and including 5/8" are fitted with bolts and nuts, sizes 3/4" and up  
are equipped with pins and cotters.

working load limit	diameter thread	take up	length closed position	length open position	opening jaw	length inside jaw	diameter pin jaw	thickness eye jaw	diameter eye jaw	diameter eye	diameter eye	width inside eye	length inside eye	length closed position	weight each
t	a	b	c	d	e	f	g	h	i	j	k	l	l	kg	
	inch	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0.54	3/8	6	283	418	12	21	8	9	21	10	13	29	49	0.51	
1	1/2	6	315	445	16	26	10	11	26	12	18	36	58	0.89	
1	1/2	9	389	597	16	26	10	11	26	12	18	36	57	1.10	
1	1/2	12	465	749	16	26	10	11	26	12	18	36	57	1.31	
1.59	5/8	6	363	486	18	32	13	14	33	14	21	44	79	1.58	
1.59	5/8	9	438	638	18	32	13	14	33	14	21	44	78	1.84	
1.59	5/8	12	514	790	18	32	13	14	33	14	21	44	78	2.22	
2.36	3/4	6	391	509	24	38	16	16	41	17	25	54	90	2.34	
2.36	3/4	9	465	661	24	38	16	16	41	17	25	54	89	2.72	
2.36	3/4	12	541	814	24	38	16	16	41	17	25	54	89	2.95	
2.36	3/4	18	694	1118	24	38	16	16	41	17	25	54	89	3.30	
3.27	7/8	12	580	847	27	42	19	19	48	20	32	61	100	4.35	
3.27	7/8	18	733	1152	27	42	19	19	48	20	32	61	101	5.46	
4.54	1	6	472	579	30	50	22	20	55	24	36	75	118	4.66	
4.54	1	12	623	884	30	50	22	20	55	24	36	75	117	6.35	
4.54	1	18	775	1189	30	50	22	20	55	24	36	75	117	7.98	
4.54	1	24	926	1493	30	50	22	20	55	24	36	75	116	8.39	
6.9	1 1/4	12	676	949	44	71	29	26	68	30	46	90	145	10.92	
6.9	1 1/4	18	832	1257	44	71	29	26	68	30	46	90	144	11	
6.9	1 1/4	24	988	1564	44	71	29	26	68	30	46	90	144	12.9	
9.71	1 1/2	12	716	982	52	71	35	28	80	32	54	105	156	13.1	
9.71	1 1/2	18	871	1289	52	71	35	28	80	32	54	105	160	14.7	
9.71	1 1/2	24	1022	1593	52	71	35	28	80	32	54	105	158	17.8	
12.7	1 3/4	18	980	1356	59	86	42	33	90	38	60	119	197	22.3	
12.7	1 3/4	24	1131	1661	59	86	42	33	90	38	60	119	196	27.5	
16.8	2	24	1208	1728	63	93	51	41	108	46	69	147	231	42.9	
27.2	2 1/2	24	1341	1866	75	114	57	41	143	51	80	165	274	68	
34	2 3/4	24	1404	1923	90	110	70	41	158	57	84	178	311	91	





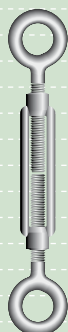
G-6314



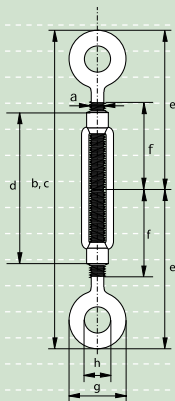
## Green Pin<sup>®</sup> turnbuckles Eye - Hook generally to ASTM F1145-92

- **Material** : drop forged high tensile steel SAE 1035 or 1045
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to ASTM F1145-92  
formerly U.S. Federal Specification FF-T-791b
- **Finish** : hot dipped galvanized
- **Certification** : a works certificate, proof load test certificate and/or EC Declaration of Conformity can be supplied upon request

working load limit	diameter thread	take up	length closed position	length open position	thickness hook	thickness hook	opening hook	diameter eye	width inside eye	length inside eye	length closed position	weight each
t	a	b	c	d	e	f	g	h	i	j	kg	
0.45	$\frac{3}{8}$	6	286	422	10	15	14	10	13	29	49	0.47
0.68	$\frac{1}{2}$	6	318	448	13	19	16	12	18	36	58	0.82
0.68	$\frac{1}{2}$	9	392	600	13	19	16	12	18	36	57	1.06
0.68	$\frac{1}{2}$	12	469	752	13	19	16	12	18	36	57	1.28
1.02	$\frac{5}{8}$	6	369	491	16	23	21	14	21	44	79	1.31
1.02	$\frac{5}{8}$	9	443	644	16	23	21	14	21	44	78	1.56
1.02	$\frac{5}{8}$	12	520	796	16	23	21	14	21	44	78	1.71
1.36	$\frac{3}{4}$	6	403	522	20	27	24	17	25	54	90	2.04
1.36	$\frac{3}{4}$	9	477	674	20	27	24	17	25	54	89	4.49
1.36	$\frac{3}{4}$	12	554	826	20	27	24	17	25	54	89	2.3
1.36	$\frac{3}{4}$	18	706	1131	20	27	24	17	25	54	89	2.85
1.81	$\frac{7}{8}$	12	590	858	24	31	28	20	32	61	100	3.33
1.81	$\frac{7}{8}$	18	744	1163	24	31	28	20	32	61	101	4.24
2.27	1	6	488	595	26	35	31	24	36	75	118	3.87
2.27	1	12	636	897	26	35	31	24	36	75	117	5.09
2.27	1	18	789	1202	26	35	31	24	36	75	117	6
2.27	1	24	939	1506	26	35	31	24	36	75	116	7.52
2.95	$1\frac{1}{4}$	12	697	968	31	38	37	30	46	90	145	8.12
2.95	$1\frac{1}{4}$	18	848	1271	31	38	37	30	46	90	144	10.4
2.95	$1\frac{1}{4}$	24	1000	1575	31	38	37	30	46	90	144	12.1
3.4	$1\frac{1}{2}$	12	760	1014	34	45	45	32	54	105	156	12.7
3.4	$1\frac{1}{2}$	18	913	1320	34	45	45	32	54	105	160	15.1
3.4	$1\frac{1}{2}$	24	1063	1623	34	45	45	32	54	105	158	17.1



E-6351



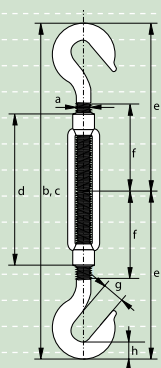
## Rigging screws Eye - Eye according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized

diameter thread	length closed position	length open position	length body	length end fitting	length thread	diameter eye outside	diameter eye inside	weight each
a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	kg
5	114	170	70	57	35	16	8	0.07
6	160	246	110	80	55	20	9	0.11
8	168	248	110	84	57	22	10	0.2
10	210	300	125	105	68	31	14	0.28
12	222	305	125	110	70	35	16	0.43
14	244	334	140	123	75	40	18	0.61
16	300	416	170	143	88	47	22	1
20	334	466	200	165	105	52	24	1.6
22	372	527	220	185	118	60	27	2.2
24	410	587	255	208	135	65	27	2.8
30	440	605	255	220	135	71	31	4.1
33	490	690	295	245	148	88	36	6
36	554	740	295	277	158	94	38	8.5
42	600	800	330	300	170	110	49	11



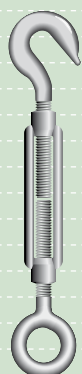
E-6352



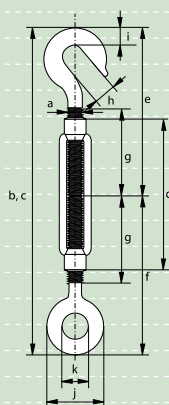
## Rigging screws Hook - Hook according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized

diameter thread	length closed position	length open position	length body	length end fitting	length thread	opening hook	thickness hook	weight each
a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	kg
6	184	270	110	92	55	8	15	0.11
8	200	280	110	100	57	10.5	15	0.2
10	234	323	125	117	68	13	11	0.28
12	260	343	125	130	70	16	13	0.43
14	278	368	140	139	75	18	15	0.61
16	322	438	170	161	88	20	17	1
20	382	514	200	191	105	21	21	1.6
22	456	601	220	228	118	24	28	2.2
24	496	673	255	248	135	26	33	2.8
30	550	715	255	275	135	34	35	4.1
33	600	799	295	300	148	38	40	6
36	640	825	295	320	158	46	45	8.3



E-6354



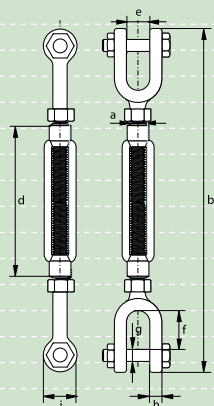
## Rigging screws Eye - Hook according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized

diameter thread	length closed position	length open position	length body	length end fitting	length end fitting	length thread	opening hook	thickness hook	diameter eye outside	diameter eye inside	weight each
a	b	c	d	e	f	g	h	i	j	k	kg
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
5	125	180	70	56	57	35	7	12	16	8	0.07
6	172	258	110	77	80	55	8	15	20	9	0.11
8	184	264	110	85	84	57	10.5	15	22	10	0.2
10	222	311	125	106	105	68	13	11	31	14	0.28
12	241	324	125	117	111	70	16	13	35	16	0.43
14	261	351	140	124	122	75	18	15	40	18	0.61
16	311	427	170	144	150	88	20	17	47	22	1
20	358	490	200	170	167	105	21	21	52	24	1.6
22	414	559	220	200	186	118	24	28	60	27	2.2
24	453	630	255	215	205	135	26	33	65	27	2.8
30	495	660	255	240	220	135	34	35	71	31	4.1
33	545	744	295	260	245	148	38	40	88	36	6
36	597	782	295	275	277	158	46	45	94	38	8.4



E-6353



## Rigging screws Jaw - Jaw according to DIN 1480

- **Material** : drop forged mild steel
- **Standard** : DIN 1480
- **Finish** : electro-galvanized
- **Note** : supplied with locking nuts

diameter thread	length closed position	length open position	length body	opening jaw	length inside	diameter pin	thickness jaw eye	diameter jaw eye	weight each
a	b	c	d	e	f	g	h	i	kg
mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
6	191	277	110	7.5	12	M 6	5	13	0.16
8	194	274	110	8.5	12	M 6	6	14	0.21
10	236	325	125	11	16	M 8	8	18	0.38
12	266	349	125	13	20	M 10	10	24	0.66
14	316	406	140	16	30	M 12	12	28	1.15
16	374	490	170	18	38	M 12	12	32	1.45
20	438	570	200	20	42	M 16	16	38	2.61
22	466	611	220	22	44	M 18	18	40	3.24
24	514	691	255	24	46	M 20	20	42	4.35
30	544	709	255	30	50	M 24	22	46	6.48

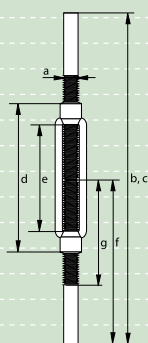
## Rigging screws with Welding Ends

according to DIN 1480

- Material : drop forged mild steel
- Standard : DIN 1480
- Finish : Body : electro-galvanized  
Welding ends : self coloured

diameter thread	length closed position	length open position	length body	length body inside	length stub-ends	length thread	weight per 100 pcs
a	b	c	d	e	f	g	kg
mm	mm	mm	mm	mm	mm	mm	
6	240	326	110	86	120	65	9.3
8	240	320	110	80	120	65	14
10	300	389	125	89	150	75	29
12	300	383	125	83	150	75	40
14	330	420	140	90	165	85	66
16	400	516	170	116	200	100	89
20	440	572	200	132	220	120	160
22	440	585	220	145	220	130	227
24	520	697	255	177	260	150	282
30	520	685	255	165	260	160	423
36	600	780	295	185	300	180	710

E-6355



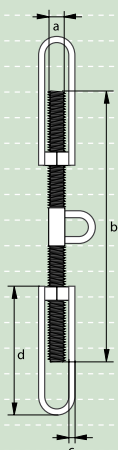
## Turnbuckles (hamburgers)

for deck lashing

- Material : mild steel
- Finish : self coloured

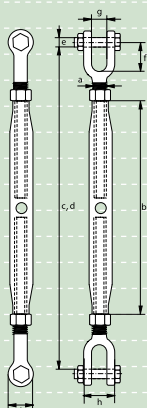
minimum breaking load	diameter thread	length thread	diameter bow	length bow	weight each
t	a	b	c	d	kg
	mm	mm	mm	mm	
13	24	400	16	210	3
13	24	500	16	260	3.8
18	27	400	18	210	4.4
18	27	500	18	260	5.5
20	30	400	20	210	5
20	30	500	20	260	6.3
21	36	400	20	210	7
21	36	500	20	260	8.8

S-6330





G-6343



## Closed body rigging screws

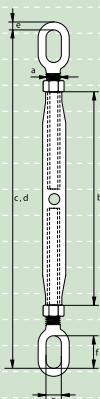
### Jaw - Jaw

- **Material** : mild steel
- **Safety factor** : MBL equals 5 x WLL,  
MBL equals 4 x WLL for diameter thread 45 and 50
- **Finish** : hot dipped galvanized
- **Note** : end fittings of 6 and 8 mm rigging screws are electro-galvanized

working load limit	diameter thread	length body	length closed position	length open position	diameter pin	length inside	opening jaw	width jaw	diameter jaw eye	weight each
t	a	b	c	d	e	f	g	h	i	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0.2	6	100	175	255	5	19	7	20	13	0.16
0.32	8	108	199	282	6	25	9	24	14	0.27
0.5	10	125	222	320	8	26	10.5	28	19	0.45
0.7	12	195	320	479	10	32	13	34	22	0.85
1.2	16	230	388	572	12	39	18	42	28	1.57
1.5	20	270	454	672	16	46	20	51	33	2.67
2.2	22	295	490	730	20	55	25	55	38	3.68
3.2	24	325	558	819	22	63	30	70	46	5.3
4.8	33	370	681	977	30	85	38	82	60	12
6	39	400	710	1017	33	86	45	85	76	14.2
8.5	45	407	810	1170	39	86	48	96	80	20.8
10	50	407	855	1215	45	98	50	101	92	24



G-6340

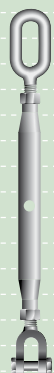


## Closed body rigging screws

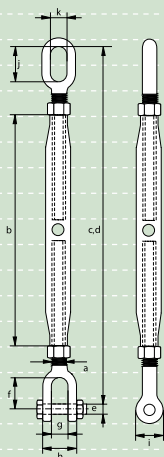
### Eye - Eye

- **Material** : mild steel
- **Safety factor** : MBL equals 5 x WLL,  
MBL equals 4 x WLL for diameter thread 45 and 50
- **Finish** : hot dipped galvanized
- **Note** : end fittings of 6 and 8 mm rigging screws are electro-galvanized

working load limit	diameter thread	length body	length closed position	length open position	diameter	length eye inside	width eye inside	weight each
t	a	b	c	d	e	f	g	kg
	mm	mm	mm	mm	mm	mm	mm	
0.2	6	100	165	245	5.5	11	11	0.13
0.32	8	108	178	261	6	12	12	0.2
0.5	10	125	210	308	8.5	13	13	0.6
0.7	12	195	325	484	11	30	15	0.8
1.2	16	230	380	564	12	40	20	1.4
1.5	20	270	455	673	16	50	24	2.4
2.2	22	295	495	736	16	50	24	3
3.2	24	325	545	806	19	56	28	4
4.8	33	370	665	961	29	70	35	9
6	39	400	725	1032	34	80	40	11.5
8.5	45	407	840	1200	30	85	40	20.8
10	50	407	890	1250	37	92	44	24



G-6345



## Closed body rigging screws

### Eye - Jaw

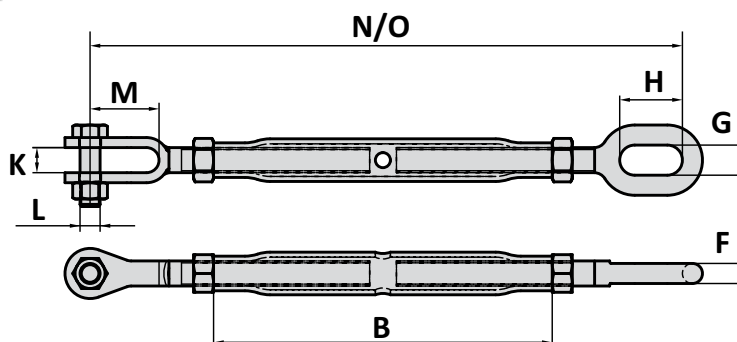
- **Material** : mild steel
- **Safety factor** : MBL equals 5 x WLL,  
MBL equals 4 x WLL for diameter thread 45 and 50
- **Finish** : hot dipped galvanized
- **Note** : end fittings of 6 and 8 mm rigging screws are electro-galvanized

working load limit	diameter thread	length body	length closed position	length open position	diameter pin	length jaw inside	opening jaw	width jaw	diameter jaw eye	length eye inside	width eye inside	weight each
t	a	b	c	d	e	f	g	h	i	j	k	kg
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0.2	6	100	170	248	M 5	19	7	20	13	11	11	0.14
0.32	8	108	189	273	M 6	25	9	24	14	12	12	0.24
0.5	10	125	216	306	M 8	26	10.5	28	19	13	13	0.53
0.7	12	195	323	478	M 10	32	13	34	22	30	15	0.83
1.2	16	230	384	569	M 12	39	18	42	28	40	20	1.49
1.5	20	270	455	665	M 16	46	20	51	33	50	24	2.54
2.2	22	295	493	723	M 20	55	25	55	38	50	24	3.34
3.2	24	325	552	802	M 22	63	30	70	46	56	28	4.65
4.8	33	370	673	963	M 30	85	38	82	60	70	35	10.5
6	39	400	718	1018	M 33	86	45	85	76	80	40	12.8
8.5	45	407	825	1185	M 39	86	48	96	80	85	40	20.8
10	50	407	870	1230	M 45	98	50	101	92	92	44	24

## TURNBUCKLE STANDARD

## TYPE T1

- Material : M6-M20 Mild steel  
Above M20 alloy, normalised
- Safety factor : Above M20 5 times  
Sizes M6-M20 with welded terminals are  
not recommended for lifting
- Finish : Hot dipped galvanized
- Certificate : Certificate of Conformity  
on request



~~ specification: 00 = Jaw - Jaw  
01 = Eye - Eye  
02 = Jaw - Eye

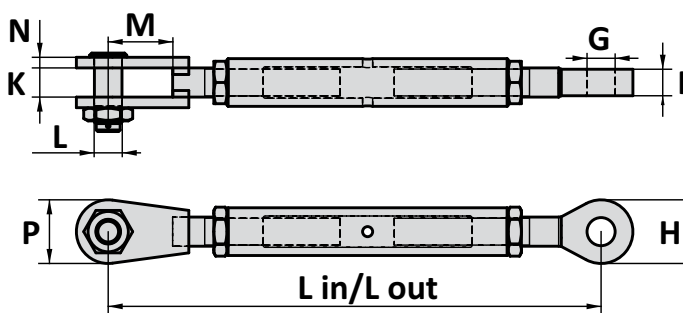
Art. No.	Size inch	WLL ton	Thread	B mm	F mm	G mm	H mm	K mm	L mm	M mm	N mm	O mm	Weight kg
430600~~	¼"	0.2	M6	100	5	11	11	7	5	14	145	220	0.1
430800~~	⅜"	0.32	M8	110	6	12	12	9	6	17	165	245	0.2
431000~~	½"	0.5	M10	125	7	13	13	11	8	20	190	290	0.3
431100~~	⅝"	0.6	M11	165	8	16	16	12	10	25	240	370	0.6
431200~~	¾"	0.7	M12	195	10	15	30	13	11	35	285	430	0.7
431600~~	⅝"	1.2	M16	230	12	20	40	16	12	44	370	540	1.2
431900~~	¾"	1.5	M20	270	16	24	50	20	16	50	425	625	2.3
432200~~	⅞"	2.2	M22	295	16	24	50	25	19	60	480	690	3.3
432500~~	1"	3.2	M24	325	19	28	56	30	22	65	520	740	4.6
433200~~	1¼"	4.8	1¼"	370	22	35	70	40	28	85	630	900	8.5
433800~~	1½"	6.0	1½"	400	25	40	80	42	32	100	690	980	14.5
434500~~	1¾"	8.5	1¾"	400	30	45	90	45	38	108	760	1060	20.8
435000~~	2"	11.0	2"	400	35	45	100	58	45	115	820	1125	24

Tolerance: ± 5%

# HEAVY DUTY TURNBUCKLE TYPE T2

Material : High tensile steel  
 Safety : 5 times  
 Finish : Painted  
 Certificates : Manufacturer certificate  
 on request Proofload certificate  
 Certificate of Conformity

This type of rigging screws meets the requirements as laid down in the Dutch, British, American and other dock regulations.  
 On request deliverable with 2 securing nuts or plates.  
 Custom designed screws can be constructed in any size and capacity.  
 Rigging screws are supplied with trapezium thread.



WLL ton	Art. No Jaw-Jaw	L in mm	L out mm	Art. No Eye-Eye	L in mm	L out mm	Art. No Jaw-Eye	L in mm	L out mm
13.5	42013000	935	1260	42013001	840	1165	42013002	890	1215
17	42017000	1010	1360	42017001	920	1270	42017002	965	1315
25	42025000	1085	1415	42025001	975	1305	42025002	1030	1360
30	42030000	1160	1530	42030001	1020	1390	42030002	1090	1460
35	42035000	1250	1650	42035001	1100	1500	42035002	1175	1575
45	42045000	1300	1780	42045001	1170	1650	42045002	1235	1715
55	42055000	1380	1890	42055001	1270	1780	42055002	1325	1835
70	42070000	1480	2025	42070001	1390	1940	42070002	1435	1985
85	42085000	1565	2200	42085001	1515	2150	42085002	1540	2175
100	42100000	1630	2360	42100001	1600	2330	42100002	1615	2345
120	42120000	1745	2340	42120001	1735	2330	42120002	1740	2335
160	42160000	1870	2470	42160001	1860	2460	42160002	1865	2465
200	42200000	2020	2640	42200001	2000	2620	42200002	2010	2630
250	42250000	2170	2840	42250001	2210	2880	42250002	2190	2860

WLL ton	Thread	K mm	N mm	M mm	L mm	P mm	F mm	H mm	G mm	Weight kg
13.5	Tr 55X8	55	20	122	51	120	50	120	53	52
17	Tr 65X8	65	28	130	63	140	55	140	65	69
25	Tr 70X8	76	30	145	70	140	70	140	72	85
30	Tr 75X8	80	35	160	72	150	70	150	74	100
35	Tr 80X8	90	40	175	80	170	80	170	82	140
45	Tr 90X8	100	45	175	90	190	90	190	93	180
55	Tr 100X8	110	50	175	100	210	100	210	103	240
70	Tr 110X8	110	55	175	108	230	100	230	111	340
85	Tr 120X8	130	75	175	127	270	125	270	130	420
100	Tr 130X8	140	90	175	140	290	125	290	143	510
120	Tr 140X8	155	90	190	152	340	140	340	155	600
160	Tr 160X8	170	100	210	178	380	160	380	181	700
200	Tr 180X8	190	110	250	190	400	170	400	193	960
250	Tr 200X8	210	120	280	250	520	190	520	253	1120

Tolerance: Forged parts  $\pm$  5%, machined parts  $\pm$  1 mm



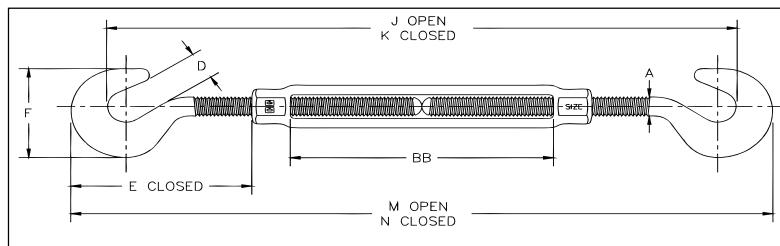
## Hook & hook turnbuckles

### HG-223



Meets the performance requirements of Federal Specifications FF-T-791b, Type 1 Form 1 - CLASS 5, and ASTM F-1145, except for those provisions required of the contractor.

- End fittings are Quenched and Tempered or Normalized, bodies heat treated by normalizing.
- Hot Dip galvanized steel.
- Hooks are forged with a greater cross sectional area that results in a stronger hook with better fatigue properties.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.
- Modified UNJ thread on end fittings for improved fatigue properties.
- Body has UNC threads.
- Lock Nuts available for all sizes
- Comprehensive end fitting data provided
- Fatigue Rated.



### HG-223 Hook & Hook

Thread Diameter & Take Up (mm)	HG-223 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)									
				A	D	E Closed	F	J Open	K Closed	M Open	N Closed	BB	
† 6.35 x 102	1030011	.18	.15	6.35	11.2	42.3	32.3	249	187	310	208	103	
† 7.94 x 114	1030039	.32	.24	7.94	12.7	50.7	38.1	294	218	358	243	116	
† 9.53 x 152	1030057	.45	.38	9.53	14.2	57.8	44.7	387	270	453	301	155	
12.7 x 152	1030075	.68	.85	12.7	16.5	89.7	57.9	457	335	527	375	153	
12.7 x 305	1030119	.68	1.26	12.7	16.5	89.2	57.9	769	495	839	535	314	
15.9 x 305	1030137	1.02	1.46	15.9	22.9	108	71.4	495	368	572	419	153	
15.9 x 305	1030173	1.02	2.08	15.9	22.9	107	71.4	809	529	885	580	315	
19.1 x 152	1030191	1.36	1.91	19.1	24.9	129	84.6	538	406	620	467	156	
19.1 x 305	1030235	1.36	3.14	19.1	24.9	128	84.6	853	568	935	630	320	
19.1 x 457	1030253	1.36	3.92	19.1	24.9	129	84.6	1158	721	1240	782	471	
22.2 x 305	1030271	1.81	4.47	22.2	28.7	148	96.0	886	597	972	667	309	
25.4 x 305	1030333	2.27	6.70	25.4	31.8	167	108	929	637	1019	714	309	

Proof Load is 2.5 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

† Mechanical Galvanized



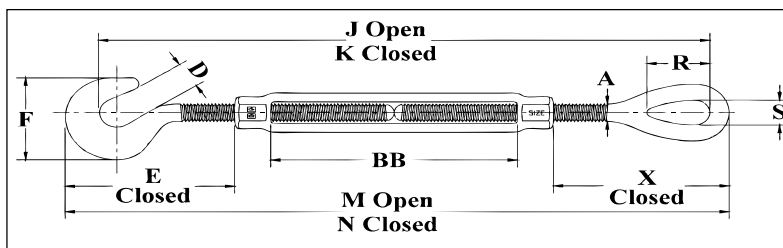
## Hook & eye turnbuckles

### HG-225



- End fittings are Quenched and Tempered or Normalized, bodies heat treated by normalizing.
- Hot Dip galvanized steel.
- Turnbuckle eyes are forged elongated, by design, to maximize easy attachment in system and minimize stress in the eye. For turnbuckles sizes 1/4" through 1", a shackle one size smaller can be reeved through eye.
- Turnbuckle hooks are forged with a greater cross sectional area that results in a stronger hook with better fatigue properties.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.
- Modified UNJ thread on end fittings for improved fatigue properties.
- Body has UNC threads.
- Lock Nuts available for all sizes
- Comprehensive end fitting data provided
- Fatigue Rated.

Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1 — CLASS 6, and ASTM F-1145, except for those provisions required of the contractor.



### HG-225 Hook & Eye

Thread Diameter & Take Up (mm)	HG-225 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)												
				A	D	E Closed	F	J Open	K Closed	M Open	N Closed	R	S	X Closed	BB	
† 6.35 x 102	1030636	.18	.14	6.35	11.2	42.3	32.3	296	195	312	211	20.6	8.64	44.6	103	
† 7.94 x 114	1030654	.32	.23	7.94	12.7	50.7	38.1	343	229	363	248	24.1	11.2	55.8	116	
† 9.53 x 152	1030672	.45	.36	9.53	14.2	57.8	44.7	434	282	458	306	28.7	13.5	62.9	155	
12.7 x 152	1030690	.68	.82	12.7	16.5	89.7	57.9	497	345	528	376	35.8	18.0	90.4	153	
12.7 x 305	1030734	.68	1.22	12.7	16.5	89.2	57.9	809	504	840	535	35.8	18.0	89.9	314	
15.9 x 152	1030752	1.02	1.35	15.9	22.9	108	71.4	536	384	574	422	45.7	22.4	110	153	
15.9 x 305	1030798	1.02	1.97	15.9	22.9	107	71.4	850	545	888	583	45.7	22.4	110	315	
19.1 x 152	1030814	1.36	1.91	19.1	24.9	129	84.6	574	422	621	469	53.1	25.4	130	156	
19.1 x 305	1030850	1.36	2.96	19.1	24.9	128	84.6	889	584	936	631	53.1	25.4	129	320	
19.1 x 457	1030878	1.36	3.74	19.1	24.9	129	84.6	1194	737	1241	784	53.1	25.4	130	471	
22.2 x 305	1030896	1.81	4.24	22.2	28.7	148	96.0	917	612	971	666	60.5	31.8	147	309	
25.4 x 305	1030958	2.27	6.29	25.4	31.8	167	108	956	652	1018	713	76.2	36.3	165	309	

Proof Load is 2.5 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

† Mechanical Galvanized

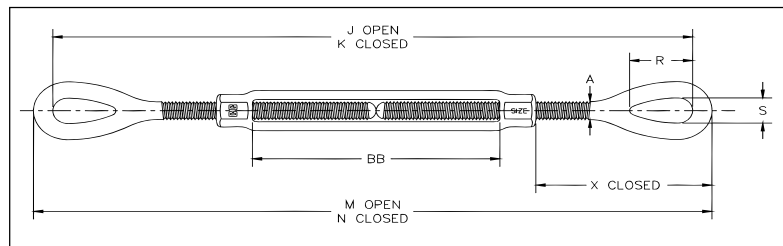
## Eye & eye turnbuckles

### HG-226



- End fittings are Quenched and Tempered or Normalized, bodies heat treated by normalizing.
- Hot Dip galvanized steel.
- Turnbuckle eyes are forged elongated, by design, to maximize easy attachment in system and minimize stress in the eye. For turnbuckle sizes 6 mm through 64 mm, a shackle one size smaller can be reeved through eye.
- Modified UNJ thread on end fittings for improved fatigue properties. Body has UNC threads.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.
- Lock Nuts available for all sizes
- Comprehensive end fitting data provided
- Fatigue Rated.

Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1 — CLASS 6, and ASTM F-1145, except for those provisions required of the contractor.



### HG-226 Eye & Eye

Thread Diameter & Take Up (mm)	HG-226 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)									
				A	J Open	K Closed	M Open	N Closed	R	S	X Closed	BB	
† 6.35 x 102	1031252	.23	.13	6.35	303	202	314	213	20.6	8.64	44.6	103	
† 7.94 x 114	1031270	.36	.22	7.94	354	239	368	253	24.1	11.2	55.8	116	
† 9.53 x 152	1031298	.54	.34	9.53	446	294	463	311	28.7	13.5	62.9	155	
12.7 x 152	1031314	1.00	.78	12.7	506	354	529	376	35.8	18.0	90.4	153	
12.7 x 305	1031350	1.00	1.19	12.7	819	514	841	536	35.8	18.0	89.9	314	
15.9 x 152	1031378	1.59	1.25	15.9	552	399	577	425	45.7	22.4	110	153	
15.9 x 305	1031412	1.59	1.87	15.9	865	560	891	586	45.7	22.4	110	315	
19.1 x 152	1031430	2.36	1.91	19.1	590	438	622	470	53.1	25.4	130	156	
19.1 x 305	1031476	2.36	2.78	19.1	905	600	937	632	53.1	25.4	129	320	
19.1 x 457	1031494	2.36	3.55	19.1	1210	753	1242	785	53.1	25.4	130	471	
22.2 x 305	1031519	3.27	4.01	22.2	932	627	970	665	60.5	31.8	147	309	
22.2 x 457	1031537	3.27	5.22	22.2	1249	792	1287	830	60.5	31.8	147	473	
25.4 x 152	1031555	4.54	4.36	25.4	666	514	711	559	76.2	36.3	165	157	
25.4 x 305	1031573	4.54	5.88	25.4	971	666	1016	711	76.2	36.3	165	309	
25.4 x 457	1031591	4.54	7.40	25.4	1276	819	1321	864	76.2	36.3	165	462	
25.4 x 610	1031617	4.54	9.14	25.4	1596	987	1641	1031	76.2	36.3	164	631	
31.8 x 305	1031635	6.89	9.01	31.8	1070	766	1127	822	91.2	46.2	216	306	
31.8 x 457	1031653	6.89	10.8	31.8	1375	918	1432	975	91.2	46.2	216	459	
31.8 x 610	1031671	6.89	12.6	31.8	1694	1085	1751	1141	91.2	46.2	216	625	
38.1 x 305	1031699	9.71	13.0	38.1	1124	819	1187	882	104	53.8	240	313	
38.1 x 457	1031715	9.71	15.4	38.1	1428	971	1492	1035	104	53.8	240	465	
38.1 x 610	1031733	9.71	17.9	38.1	1749	1139	1813	1203	104	53.8	240	633	
44.5 x 457	1031779	12.7	23.0	44.5	1457	1000	1534	1076	118	60.5	253	467	
44.5 x 610	1031797	12.7	26.4	44.5	1762	1153	1838	1229	118	60.5	253	619	
51.0 x 610	1031813	16.8	37.9	50.8	1922	1313	2011	1402	148	68.3	331	622	
63.5 x 610	1031831	27.2	67.4	63.5	2011	1402	2113	1503	165	79.2	350	625	
70.0 x 610	1031859	34.0	79.1	69.9	2066	1456	2180	1571	178	82.6	383	626	

Proof Load is 2.5 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

† Mechanical Galvanized



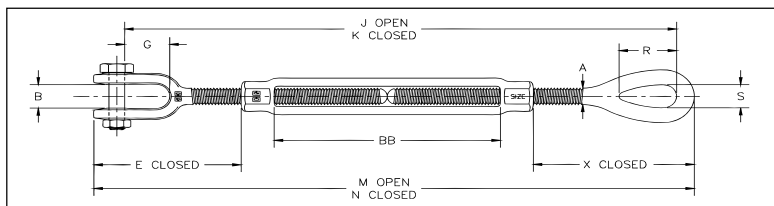
## Jaw & eye turnbuckles

### HG-227



Meets the performance requirements of Federal Specifications FF-T-791b, Type I, Form 1 - CLASS 8, and ASTM F-1145, except for those provisions required of the contractor.

- End fittings are Quenched and Tempered or Normalized, bodies heat treated by normalizing.
- Hot Dip galvanized steel.
- Turnbuckle eyes are forged and elongated, by design, to maximize easy attachment in system and minimize stress in the eye. For turnbuckles size 6 mm through 64 mm, a shackle one size smaller can be reeved through eye.
- Forged jaw ends are fitted with bolts and nuts for 6mm through 16mm, and pins and cotters on 19 mm through 70 mm sizes.
- Modified UNJ thread on end fittings for improved fatigue properties.
- Body has UNC threads.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.
- Lock Nuts available for all sizes
- Comprehensive End fitting data
- Fatigue Rated.



### HG-227 Jaw & Eye

Thread Diameter & Take Up (mm)	HG-227 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)												
				A	B	E Closed	G	J Open	K Closed	M Open	N Closed	R	S	X Closed	BB	
† 6.35 x 102	1031877	.23	.15	6.35	11.4	42.0	16.1	294	192	312	210	20.6	8.64	44.6	103	
† 7.94 x 114	1031895	.36	.24	7.94	12.7	51.2	22.0	343	228	363	249	24.1	11.2	55.8	116	
† 9.53 x 152	1031911	.54	.36	9.53	13.5	53.5	21.5	429	277	454	301	28.7	13.5	62.9	155	
12.7 x 152	1031939	1.00	.80	12.7	16.3	81.8	27.1	490	338	520	368	35.8	18.0	90.4	153	
12.7 x 229	1031957	1.00	1.02	12.7	16.3	81.3	27.1	650	421	680	451	35.8	18.0	89.9	238	
12.7 x 305	1031975	1.00	1.21	12.7	16.3	81.3	27.1	802	497	832	528	35.8	18.0	89.9	314	
15.9 x 305	1031993	1.59	1.35	15.9	20.1	99.1	33.5	527	374	566	413	45.7	22.4	110	153	
15.9 x 229	1032019	1.59	1.69	15.9	20.1	98.8	33.5	688	459	727	498	45.7	22.4	110	239	
15.9 x 305	1032037	1.59	1.97	15.9	20.1	98.8	33.5	840	535	879	574	45.7	22.4	110	315	
19.1 x 152	1032055	2.36	2.05	19.1	24.6	120	38.5	563	411	612	459	53.1	25.4	130	156	
19.1 x 229	1032073	2.36	2.52	19.1	24.6	119	38.5	726	497	774	546	53.1	25.4	129	244	
19.1 x 305	1032091	2.36	2.91	19.1	24.6	119	38.5	878	573	927	622	53.1	25.4	129	320	
19.1 x 457	1032117	2.36	3.69	19.1	24.6	120	38.5	1183	726	1232	774	53.1	25.4	130	471	
22.2 x 305	1032135	3.27	4.13	22.2	29.5	140	44.8	906	601	963	658	60.5	31.8	147	309	
22.2 x 457	1032153	3.27	5.28	22.2	29.5	140	44.8	1223	766	1280	822	60.5	31.8	147	473	
25.4 x 152	1032171	4.54	4.55	25.4	34.0	155	52.1	636	483	701	548	76.2	36.3	165	157	
25.4 x 305	1032199	4.54	6.06	25.4	34.0	155	52.1	941	636	1006	701	76.2	36.3	165	309	
25.4 x 457	1032215	4.54	7.58	25.4	34.0	155	52.1	1245	788	1310	853	76.2	36.3	165	462	
25.4 x 610	1032233	4.54	9.33	25.4	34.0	154	52.1	1565	956	1630	1021	76.2	36.3	164	631	
31.8 x 305	1032251	6.89	9.48	31.8	46.7	205	71.5	1035	730	1117	812	91.2	46.2	216	306	
31.8 x 457	1032279	6.89	11.3	31.8	46.7	205	71.5	1340	883	1422	965	91.2	46.2	216	459	
31.8 x 610	1032297	6.89	13.1	31.8	46.7	205	71.5	1659	1050	1741	1131	91.2	46.2	216	625	
38.1 x 305	1032313	9.71	13.9	38.1	52.3	227	71.4	1080	775	1174	869	104	53.8	240	313	
38.1 x 457	1032331	9.71	16.3	38.1	52.3	227	71.4	1384	927	1479	1021	104	53.8	240	465	
38.1 x 610	1032359	9.71	18.8	38.1	52.3	227	71.4	1705	1095	1799	1189	104	53.8	240	633	
44.5 x 457	1032395	12.7	23.6	44.5	66.0	238	85.0	1406	949	1518	1061	118	60.5	253	467	
44.5 x 610	1032411	12.7	27.1	44.5	66.0	238	85.0	1711	1101	1823	1213	118	60.5	253	619	
51.0 x 610	1032439	16.8	40.8	50.8	66.5	300	95.0	1846	1236	1980	1370	148	68.3	331	622	
63.5 x 610	1032457	27.2	71.7	63.5	77.7	337	113	1932	1323	2100	1490	165	79.2	350	625	
70.0 x 610	1032475	34.0	84.6	69.9	93.7	379	106	1982	1373	2176	1566	178	82.6	383	626	

\*Proof Load is 2.5 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

† Mechanical Galvanized

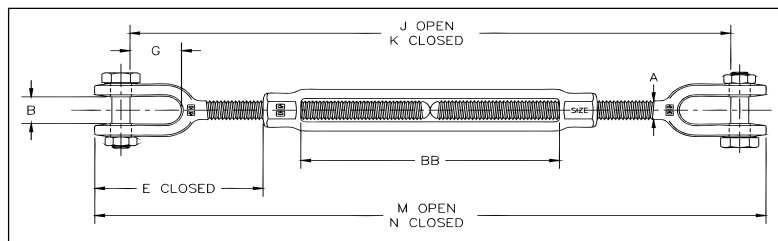
## Jaw & jaw turnbuckles

### HG-228



Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1 - CLASS 7, and ASTM F-1145, except for those provisions required of the contractor.

- End fittings are Quenched and Tempered or Normalized, bodies heat treated by normalizing.
- Hot Dip galvanized steel.
- TURNBUCKLES RECOMMENDED FOR STRAIGHT OR IN-LINE PULL ONLY.
- Forged jaw ends are fitted with bolts and nuts for 6 mm through 16 mm, and pins and cotters on 19 mm through 70 mm sizes.
- Modified UNJ thread on end fittings for improved fatigue properties.
- Body has UNC threads.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these turnbuckles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Lock Nuts available for all sizes
- Comprehensive end fitting data provided
- Fatigue Rated.



### HG-228 Jaw & Jaw

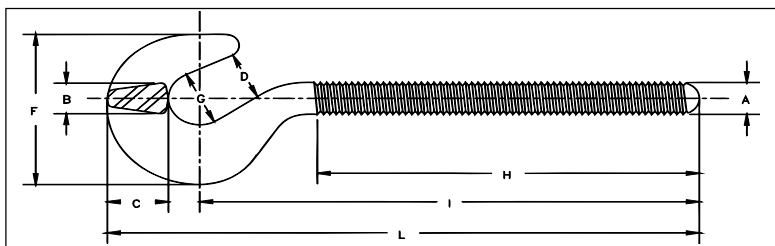
Thread Diameter & Take Up (mm)	HG-228 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)								
				A	B	E Closed	G	J Open	K Closed	M Open	N Closed	BB
† 6.35 x 102	1032493	.23	.17	6.35	11.4	42.0	16.1	284	183	309	208	103
† 7.94 x 114	1032518	.36	.25	7.94	12.7	51.2	22.0	332	218	359	244	116
† 9.53 x 152	1032536	.54	.39	9.53	13.5	53.5	21.5	413	260	445	292	155
12.7 x 152	1032554	1.00	.83	12.7	16.3	81.8	27.1	474	321	512	359	153
12.7 x 229	1032572	1.00	1.04	12.7	16.3	81.3	27.1	633	405	671	443	238
12.7 x 305	1032590	1.00	1.23	12.7	16.3	81.3	27.1	786	481	824	519	314
15.9 x 152	1032616	1.59	1.46	15.9	20.1	99.1	33.5	501	349	554	402	153
15.9 x 229	1032634	1.59	1.79	15.9	20.1	98.8	33.5	662	434	715	487	239
15.9 x 305	1032652	1.59	2.08	15.9	20.1	98.8	33.5	815	510	868	563	315
19.1 x 152	1032670	2.36	2.18	19.1	24.6	120	38.5	536	383	601	449	156
19.1 x 229	1032698	2.36	2.65	19.1	24.6	119	38.5	698	470	764	535	244
19.1 x 305	1032714	2.36	3.05	19.1	24.6	119	38.5	851	546	916	612	320
19.1 x 457	1032732	2.36	3.83	19.1	24.6	120	38.5	1155	698	1221	764	471
22.2 x 305	1032750	3.27	4.25	22.2	29.5	140	44.8	880	575	956	651	309
22.2 x 457	1032778	3.27	5.34	22.2	29.5	140	44.8	1197	740	1272	815	473
25.4 x 152	1032796	4.54	4.74	25.4	34.0	155	52.1	605	453	690	538	157
25.4 x 305	1032812	4.54	6.25	25.4	34.0	155	52.1	910	605	995	690	309
25.4 x 457	1032830	4.54	7.77	25.4	34.0	155	52.1	1215	757	1300	843	462
25.4 x 610	1032858	4.54	9.51	25.4	34.0	154	52.1	1535	925	1620	1010	631
31.8 x 305	1032876	6.89	9.94	31.8	46.7	205	71.5	1000	695	1107	802	306
31.8 x 457	1032894	6.89	11.7	31.8	46.7	205	71.5	1305	848	1412	955	459
31.8 x 610	1032910	6.89	13.5	31.8	46.7	205	71.5	1624	1014	1731	1121	625
38.1 x 305	1032938	9.71	14.8	38.1	52.3	227	71.4	1035	731	1160	855	313
38.1 x 457	1032956	9.71	17.2	38.1	52.3	227	71.4	1340	883	1465	1008	465
38.1 x 610	1032974	9.71	19.7	38.1	52.3	227	71.4	1661	1051	1786	1176	633
44.5 x 457	1033018	12.7	24.3	44.5	66.0	238	85.0	1355	898	1503	1045	467
44.5 x 610	1033036	12.7	27.7	44.5	66.0	238	85.0	1660	1050	1807	1198	619
51.0 x 610	1033054	16.8	43.7	50.8	66.5	300	95.0	1769	1159	1949	1339	622
63.5 x 610	1033072	27.2	75.9	63.5	77.7	337	113	1853	1244	2087	1478	625
70.0 x 610	1033090	34.0	90.1	69.9	93.7	379	106	1899	1289	2172	1562	626

Proof Load is 2.5 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.  
† Mechanical Galvanized

## Turnbuckle- hook end fittings

### HOOK END FITTINGS

- Quenched and Tempered or Normalized.
- Hot Dip galvanized steel.
- Hooks are forged with a greater cross sectional area that results in a stronger hook with better fatigue properties.
- Modified UNJ thread for improved fatigue properties.
- Fatigue Rated.



### HG-4037 Hook End Fittings

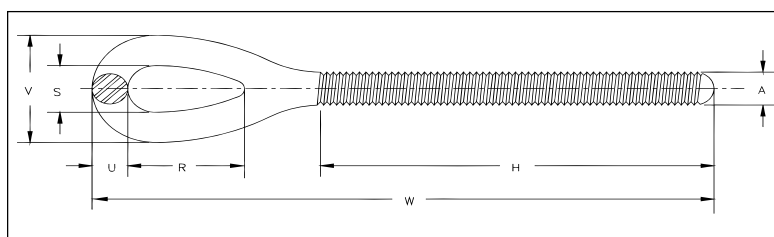
Shank Diameter & Take Up (mm)	RH Hook Stock No.	LH Hook Stock No.	Working Load Limit (t)	Weight Each (kg)	Dimensions (mm)								
					A	B	C	D	F	G	H	I	L
* 6.35 x 102	1070012	1070539	.18	.04	6.35	6.35	10.4	11.2	32.3	12.7	65.8	87.4	104
* 7.94 x 114	1070030	1070557	.32	.07	7.94	7.87	12.7	12.7	38.1	14.2	76.2	102	122
* 9.53 x 152	1070058	1070575	.45	.12	9.53	9.65	15.5	14.2	44.7	15.7	98.6	127	150
12.7 x 152	1070076	1070593	.68	.27	12.7	12.7	19.8	16.5	57.9	20.8	106	157	187
12.7 x 305	1070110	1070637	.68	.34	12.7	12.7	19.8	16.5	57.9	20.8	183	233	264
15.9 x 305	1070138	1070655	1.02	.48	15.9	16.0	25.4	22.9	71.4	25.4	113	171	210
15.9 x 305	1070174	1070691	1.02	.59	15.9	16.0	25.4	22.9	71.4	25.4	189	248	286
19.1 x 152	1070192	1070717	1.36	.61	19.1	19.1	30.7	24.9	84.6	28.4	116	189	234
19.1 x 305	1070236	1070753	1.36	.97	19.1	19.1	30.7	24.9	84.6	28.4	192	265	310
19.1 x 457	1070254	1070771	1.36	1.14	19.1	19.1	30.7	24.9	84.6	28.4	268	341	386
22.2 x 305	1070272	1070799	1.81	1.42	22.2	22.4	34.8	28.7	96.0	32.0	198	283	334
22.2 x 457	1070290	1070815	1.81	1.64	22.2	22.4	34.8	28.7	96.0	32.0	275	359	410
25.4 x 152	1070316	1070833	2.27	1.80	25.4	25.4	38.9	31.8	108	35.1	129	225	281
25.4 x 305	1070334	1070851	2.27	2.14	25.4	25.4	38.9	31.8	108	35.1	205	301	357

\*Mechanical Galvanized

## Turnbuckle- eye end fittings

### EYE END FITTINGS

- Quenched and Tempered or Normalized.
- Hot Dip galvanized steel.
- Turnbuckle eyes are forged elongated, by design, to maximize easy attachment in system and minimize stress in the eye. For turnbuckle sizes 6 mm through 64 mm, a shackle one size smaller can be reeved through eye.
- Modified UNJ thread for improved fatigue properties.
- Fatigue Rated.



### HG-4037 Eye End Fittings

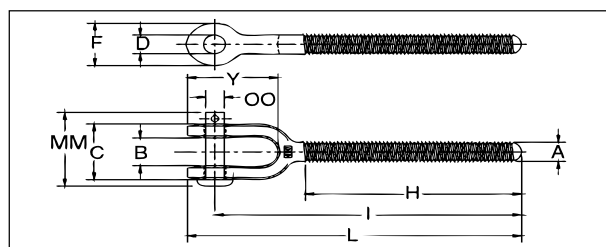
Shank Diameter & Take Up (mm)	RH Eye Stock No.	LH Eye Stock No.	Working Load Limit (t)	Weight Each (kg)	Dimensions (mm)						
					A	H	R	S	U	V	W
*6.35 x 102	1071057	1071672	.23	.03	6.35	65.8	20.6	8.64	5.59	19.8	106
* 7.94 x 114	1071075	1071690	.36	.06	7.94	76.2	24.1	11.2	7.11	25.4	127
* 9.53 x 152	1071093	1071716	.54	.10	9.53	98.6	28.7	13.5	8.64	30.7	155
12.7 x 152	1071119	1071734	1.00	.23	12.7	106	35.8	18.0	11.2	40.4	188
12.7 x 229	1071137	1071752	1.00	.27	12.7	145	35.8	18.0	11.2	40.4	226
12.7 x 305	1071155	1071770	1.00	.31	12.7	183	35.8	18.0	11.2	40.4	264
15.9 x 305	1071173	1071798	1.59	.37	15.9	113	45.7	22.4	12.7	47.8	212
15.9 x 229	1071191	1071814	1.59	.43	15.9	151	45.7	22.4	12.7	47.8	250
15.9 x 305	1071217	1071832	1.59	.49	15.9	189	45.7	22.4	12.7	47.8	289
19.1 x 152	1071235	1071850	2.36	.62	19.1	116	53.1	25.4	16.0	57.4	235
19.1 x 229	1071253	1071878	2.36	.70	19.1	154	53.1	25.4	16.0	57.4	273
19.1 x 305	1071271	1071896	2.36	.78	19.1	192	53.1	25.4	16.0	57.4	311
19.1 x 457	1071299	1071912	2.36	.95	19.1	268	53.1	25.4	16.0	57.4	387
22.2 x 305	1071315	1071930	3.27	1.18	22.2	198	60.5	31.8	19.1	69.9	333
22.2 x 457	1071333	1071958	3.27	1.42	22.2	275	60.5	31.8	19.1	69.9	409
25.4 x 152	1071351	1071976	4.54	1.43	25.4	129	76.2	36.3	22.4	81.0	279
25.4 x 305	1071379	1071994	4.54	1.73	25.4	205	76.2	36.3	22.4	81.0	356
25.4 x 457	1071397	1072010	4.54	2.03	25.4	281	76.2	36.3	22.4	81.0	432
25.4 x 610	1071413	1072038	4.54	2.34	25.4	357	76.2	36.3	22.4	81.0	508
31.8 x 305	1071431	1072056	6.89	3.21	31.8	213	91.2	46.2	28.4	103	411
31.8 x 457	1071459	1072074	6.89	3.68	31.8	289	91.2	46.2	28.4	103	487
31.8 x 610	1071477	1072092	6.89	4.15	31.8	365	91.2	46.2	28.4	103	564
38.1 x 305	1071495	1072118	9.71	4.68	38.1	222	104	53.8	31.8	117	441
38.1 x 457	1071510	1072136	9.71	5.37	38.1	298	104	53.8	31.8	117	517
38.1 x 610	1071538	1072154	9.71	6.05	38.1	375	104	53.8	31.8	117	594
44.5 x 457	1071574	1072190	12.7	7.93	44.5	309	118	60.5	38.1	137	538
44.5 x 610	1071592	1072216	12.7	8.85	44.5	385	118	60.5	38.1	137	614
51.0 x 610	1071618	1072234	16.8	13.1	50.8	396	148	68.3	44.5	157	701
63.5 x 610	1071636	1072252	27.2	21.0	63.5	446	165	79.2	50.8	181	752
70.0 x 610	1071654	1072270	34.0	27.3	69.9	449	178	82.6	57.2	197	785

\* Mechanical Galvanized

## Turnbuckle- jaw end fittings

### JAW END FITTINGS

- Quenched and Tempered or Normalized.
- Hot dip galvanized steel.
- Forged jaw ends are fitted with bolts and nuts on sizes 6 mm through 16 mm, and pins and cotters on sizes 19 mm through 70 mm.
- Modified UNJ thread for improved fatigue properties.
- Fatigue Rated.



### HG-4037 Jaw End Fittings

Shank Diameter & Take Up (mm)	RH Jaw Stock No.	LH Jaw Stock No.	Working Load Limit (t)	Weight Each (kg)	Dimensions (mm)										
					A	B	C	D	F	H	I Nom. Min.	L Nom. Min.	Y	MM	OO Bolt Pin
*6.35 x 102	1072298	1072911	.23	.05	6.35	11.4	23.1	7.62	16.0	65.8	94.5	104	28.7	35.8	6.35
*7.94 x 114	1072314	1072939	.36	.08	7.94	12.7	25.9	7.62	17.5	76.2	112	122	35.3	35.8	6.35
*9.53 x 152	1072332	1072957	.54	.13	9.53	13.5	29.2	9.14	20.6	98.6	134	146	37.3	40.1	7.87
12.7 x 152	1072350	1072975	1.00	.25	12.7	16.3	34.5	10.7	25.4	106	165	180	46.0	47.5	9.40
12.7 x 229	1072378	1072993	1.00	.29	12.7	16.3	34.5	10.7	25.4	145	203	218	46.0	47.5	9.40
12.7 x 305	1072396	1073019	1.00	.33	12.7	16.3	34.5	10.7	25.4	183	242	256	46.0	47.5	9.40
15.9 x 152	1072412	1073037	1.59	.48	15.9	20.1	44.5	14.0	33.3	109	181	201	59.9	62.0	12.7
15.9 x 229	1072430	1073055	1.59	.54	15.9	20.1	44.5	14.0	33.3	148	219	239	59.9	62.0	12.7
15.9 x 305	1072458	1073073	1.59	.59	15.9	20.1	44.5	14.0	33.3	186	257	277	59.9	62.0	12.7
19.1 x 152	1072476	1073091	2.36	.75	19.1	24.6	53.1	17.5	41.4	116	200	225	71.4	65.0	16.0
19.1 x 229	1072494	1073117	2.36	.83	19.1	24.6	53.1	17.5	41.4	154	238	263	71.4	65.0	16.0
19.1 x 305	1072519	1073135	2.36	.92	19.1	24.6	53.1	17.5	41.4	192	276	301	71.4	65.0	16.0
19.1 x 457	1072537	1073153	2.36	1.09	19.1	24.6	53.1	17.5	41.4	268	352	377	71.4	65.0	16.0
22.2 x 305	1072555	1073171	3.27	1.31	22.2	29.5	65.0	20.6	47.8	198	297	325	82.6	78.5	19.1
22.2 x 457	1072573	1073199	3.27	1.47	22.2	29.5	65.0	20.6	47.8	275	373	402	82.6	78.5	19.1
25.4 x 152	1072591	1073215	4.54	1.61	25.4	34.0	70.1	23.9	53.8	129	237	269	94.7	87.4	22.4
25.4 x 305	1072617	1073233	4.54	1.91	25.4	34.0	70.1	23.9	53.8	205	314	345	94.7	87.4	22.4
25.4 x 457	1072635	1073251	4.54	2.22	25.4	34.0	70.1	23.9	53.8	281	390	421	94.7	87.4	22.4
25.4 x 610	1072653	1073279	4.54	2.52	25.4	34.0	70.1	23.9	53.8	357	466	498	94.7	87.4	22.4
31.8 x 305	1072671	1073297	6.89	3.67	31.8	46.7	94.5	30.2	66.8	213	362	401	125	115	28.7
31.8 x 457	1072699	1073313	6.89	4.15	31.8	46.7	94.5	30.2	66.8	289	438	477	125	115	28.7
31.8 x 610	1072715	1073331	6.89	4.62	31.8	46.7	94.5	30.2	66.8	365	514	553	125	115	28.7
38.1 x 305	1072733	1073359	9.71	5.57	38.1	52.3	106	37.3	79.2	222	383	428	134	130	35.1
38.1 x 457	1072751	1073377	9.71	6.26	38.1	52.3	106	37.3	79.2	298	459	504	134	130	35.1
38.1 x 610	1072779	1073395	9.71	6.94	38.1	52.3	106	37.3	79.2	375	535	580	134	130	35.1
44.5 x 457	1072813	1073439	12.7	8.57	44.5	66.0	118	43.7	88.9	309	470	523	159	152	41.4
44.5 x 610	1072831	1073457	12.7	9.50	44.5	66.0	118	43.7	88.9	385	546	599	159	152	41.4
51.0 x 610	1072859	1073475	16.8	16.0	50.8	66.5	142	53.1	106	396	605	670	185	175	50.8
63.5 x 610	1072877	1073493	27.2	25.3	63.5	77.7	148	60.5	143	437	650	739	230	191	57.2
70.0 x 610	1072895	1073518	34.0	32.8	69.9	93.7	167	73.2	155	441	679	781	243	213	69.9

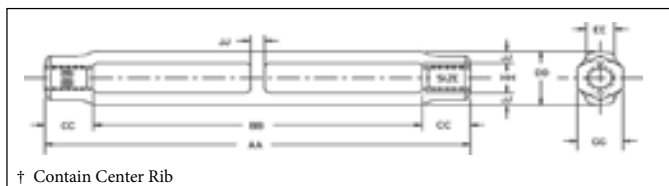
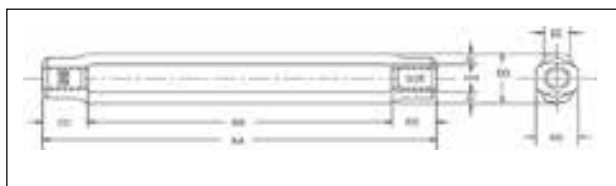
\* Mechanical Galvanized



## Turnbuckle- body only

### HG-2510 BODY

- Heat treat by normalizing.
- Hot Dip galvanized.
- UNC threads
- Fatigue Rated.
- Meets the performance requirements of Federal Specifications FF-T-791b, Type 1, Form 1 - Class 2, except for those provisions required by the contractor.



Shank Diameter & Take Up (mm)	HG-2510 Stock No.	Working Load Limit (t)	Weight Each (kg)	Dimensions (mm)							
				AA	BB	CC	DD	EE	GG	HH	JJ
* 6.35 x 102	1033893	.23	.07	124	103	10.2	18.3	8.64	12.7	9.65	4.32
* 7.94 x 114	1033919	.36	.10	142	116	12.7	20.8	9.65	14.2	11.2	4.83
* 9.53 x 152	1033937	.54	.13	185	155	15.0	22.4	9.65	16.0	12.7	4.83
12.7 x 152	1033955	1.00	.32	196	153	21.1	30.2	17.3	20.6	16.0	7.11
†12.7 x 229	1033973	1.00	.47	280	238	21.1	30.2	17.3	20.6	16.0	7.11
†12.7 x 305	1033991	1.00	.58	356	314	21.1	30.2	17.3	20.6	16.0	7.11
15.9 x 305	1034017	1.59	.50	204	153	25.1	36.3	21.1	25.4	19.1	8.64
†15.9 x 229	1034035	1.59	.72	289	239	25.1	36.3	21.1	25.4	19.1	8.64
†15.9 x 305	1034053	1.59	.89	365	315	25.1	36.3	21.1	25.4	19.1	8.64
19.1 x 152	1034071	2.36	.68	210	156	26.9	44.2	23.9	28.7	23.9	10.2
†19.1 x 229	1034099	2.36	.98	298	244	26.9	44.2	23.9	28.7	23.9	10.2
†19.1 x 305	1034115	2.36	1.21	374	320	26.9	44.2	23.9	28.7	23.9	10.2
†19.1 x 457	1034133	2.36	1.65	525	471	26.9	44.2	23.9	28.7	23.9	10.2
22.2 x 305	1034179	3.27	1.64	371	309	31.2	50.8	28.7	33.3	26.9	11.9
†22.2 x 457	1034197	3.27	2.39	536	473	31.2	50.8	28.7	33.3	26.9	11.9
25.4 x 152	1034213	4.54	1.51	229	157	35.8	62.2	31.8	38.1	31.8	15.2
25.4 x 305	1034231	4.54	2.42	381	309	35.8	62.2	31.8	38.1	31.8	15.2
25.4 x 457	1034259	4.54	3.33	533	462	35.8	62.2	31.8	38.1	31.8	15.2
†25.4 x 610	1034277	4.54	4.47	703	631	35.8	62.2	31.8	38.1	31.8	15.2
31.8 x 305	1034339	6.89	2.59	391	306	42.4	66.5	31.8	47.8	38.1	14.2
31.8 x 457	1034357	6.89	3.44	544	459	42.4	66.5	31.8	47.8	38.1	14.2
†31.8 x 610	1034375	6.89	4.29	710	625	42.4	66.5	31.8	47.8	38.1	14.2
38.1 x 305	1034437	9.71	3.63	402	313	44.5	75.9	38.1	57.2	44.5	15.7
38.1 x 457	1034455	9.71	4.72	554	465	44.5	75.9	38.1	57.2	44.5	15.7
†38.1 x 610	1034473	9.71	5.85	723	633	44.5	75.9	38.1	57.2	44.5	15.7
44.5 x 457	1034552	12.7	7.12	570	467	51.6	91.9	44.5	66.5	53.8	19.1
44.5 x 610	1034570	12.7	8.71	722	619	51.6	91.9	44.5	66.5	53.8	19.1
51.0 x 610	1034632	16.8	11.7	740	622	58.9	105	50.8	76.2	60.5	22.4
63.5 x 610	1034678	27.2	25.4	804	625	89.7	143	69.9	98.6	79.3	31.8
70.0 x 610	1034696	34.0	24.5	804	626	88.9	143	69.9	98.6	114	31.8

\* Mechanical Galvanized

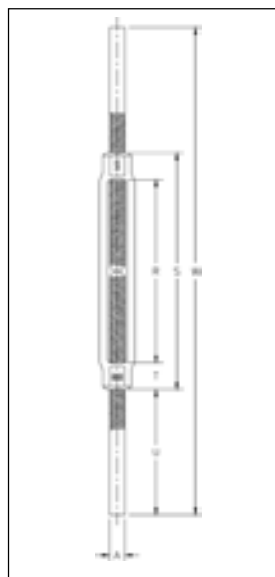
† Contains Center Rib for additional body support.

## Stub end turnbuckles

### HS-251



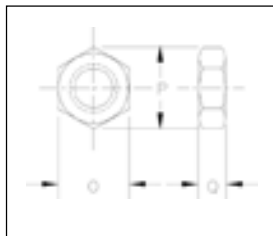
- End fittings are Quenched and Tempered or Normalized, bodies heat treated by normalizing.
- Complete assembly is self - colored.
- Reference American Welding Society Specifications for proper welding procedures.
- Meets the performance requirements of Federal Specifications FF-T-791b, Type 1 Form 1 - CLASS 3, and ASTM F-1145, except for those provisions required of the contractor.



### HS-251 Stub End Turnbuckles

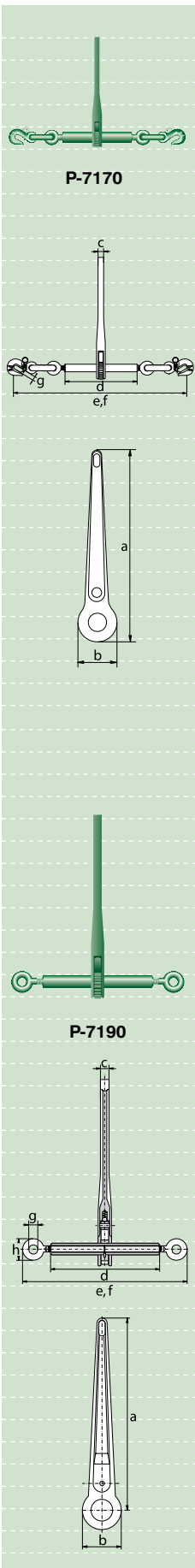
Shank Diameter & Take up (in.)	Shank Dia. & Take Up (mm)	HS-251 Stock No.	Working Load Limit (t)	Weight Each (kg)	Dimensions (mm)					
					A	R	S	T	U	W
3/8 x 6	9.53 x 152	1033143	.54	.34	9.65	152	181	14.2	113	406
1/2 x 6	12.7 x 152	1033161	1.00	.57	12.7	152	190	19.1	108	406
5/8 x 6	15.9 x 152	1033223	1.59	.96	16.0	305	200	23.8	103	406
3/4 x 6	19.1 x 152	1033287	2.36	1.48	19.1	152	209	28.7	111	431
7/8 x 6	22.2 x 152	1033367	3.27	2.17	22.4	152	219	33.2	119	457
1 x 6	25.4 x 152	1033429	4.54	2.88	25.4	152	228	38.1	127	482
1 x 12	25.4 x 305	1033447	4.54	3.99	25.4	304	381	38.1	127	635
1-1/8 x 6	28.6 x 152	1033508	5.62	4.03	28.7	152	231	39.6	125	482
1-1/4 x 6	31.8 x 152	1033526	6.89	4.62	31.8	152	231	39.6	138	508
1-1/4 x 12	31.8 x 305	1033544	6.89	6.17	31.8	304	384	39.6	138	660
1-1/2 x 12	38.1 x 305	1033642	9.71	9.27	38.1	304	400	47.7	137	673

### LOCK NUTS



### HG-4060 / HG-4061 Lock Nuts

Thread Diameter (in.)	Right Hand HG-4060 Stock No.	Left Hand HG-4061 Stock No.	Weight Per 100 (kg)	Dimensions (mm)		
				O	P	Q
1/4	1075115	1075491	.36	11.2	12.7	4.05
5/16	1075133	1075516	.59	12.7	14.2	4.85
3/8	1075151	1075534	.91	14.2	16.3	5.60
1/2	1075197	1075570	1.81	19.1	21.8	7.85
5/8	1075213	1075598	3.18	23.9	26.9	9.65
3/4	1075231	1075614	4.99	28.7	32.0	10.7
7/8	1075259	1075632	7.39	33.3	38.1	12.2
1	1075277	1075650	10.8	38.1	42.9	14.0
1-1/8	1075295	1075678	14.5	38.1	42.9	14.0
1-1/4	1075311	1075696	28.3	47.8	54.0	18.3
1-1/2	1075357	1075730	32.7	57.0	64.5	21.3
1-3/4	1075393	1075776	51	70.0	81.0	25.4
2	1075419	1075794	68	79.0	91.5	28.4
2-1/2	1075455	1075838	150	98.5	114	38.1
2-3/4	1075473	1075856	193	108	125	41.1



## Green Pin® ratchet type loadbinders with hooks, according to EN 12195-3

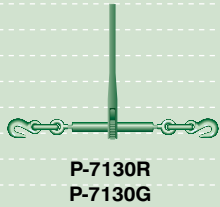
- **Material** : drop forged, Grade 8, quenched and tempered
- **Safety factor** : MBL equals 2 x Lashing Capacity
- **Standard** : EN 12195-3
- **Finish** : painted red
- **Certification** : test certificates can be supplied upon request
- **Note** : Stf = 3000 daN

chain size	length	diameter	thickness	length barrel	length open	length closed	width	take-up	lashing capacity	proof load	minimum breaking load	weight each
mm	a	b	c	d	e	f	g	mm	t	t	t	kg
8	387	65	14	255	754	590	11	164	4	5	8	4.5
10	387	65	14	255	775	610	12	165	6.3	7.9	12.6	5.4
13	387	65	14	260	870	700	15	170	10	12.5	21.2	7.7
16	387	65	14	260	896	736	19	160	16	20	32.2	10.2

## Green Pin® ratchet type loadbinders without hooks, according to EN 12195-3

- **Material** : drop forged, Grade 8, quenched and tempered
- **Safety factor** : MBL equals 2 x Lashing Capacity
- **Standard** : EN 12195-3
- **Finish** : painted red
- **Certification** : test certificates can be supplied upon request
- **Note** : Stf = 3000 daN

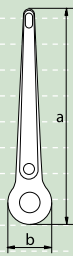
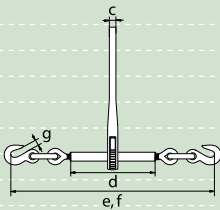
chain size	length	diameter	thickness	length barrel	length open	length closed	diameter eye inside	diameter eye outside	take-up	lashing capacity	proof load	minimum breaking load	weight each
mm	a	b	c	d	e	f	g	h	mm	t	t	t	kg
8	387	65	14	255	538	374	18	50	164	4	5	8	3.3
10	387	65	14	255	546	381	20	55	165	6.3	7.9	12.6	3.4
13	387	65	14	260	589	419	25	66	170	10	12.5	21.2	4
16	387	65	14	260	579	419	30	71	160	16	20	32.2	4.1



### Green Pin<sup>®</sup> ratchet type loadbinders with hooks

- **Material** : drop forged/cast steel, quenched and tempered
- **Safety factor** : MBL equals 3.5 x Lashing Capacity
- **Finish** : painted red or green
- **Certification** : test certificates can be supplied upon request

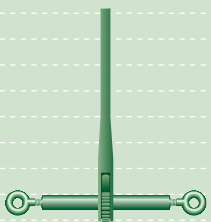
chain size	length handle	diameter	thickness	length barrel	length open	length closed	width	take-up	lashing capacity	proof load	minimum breaking load	weight each
mm	a	b	c	d	e	f	g	mm	t	t	t	kg
6 - 8	210	46	10	160	510	420	9	90	1.18	2.36	4.13	1.7
8 - 10	385	65	15	255	739	578	12	161	2.45	4.9	8.62	4.82
10 - 13	385	65	15	255	759	587	16	172	4.175	8.35	14.97	5.92
13 - 16	385	65	15	260	838	687	18	151	5.9	11.8	20.865	7.85



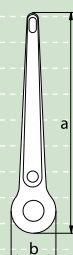
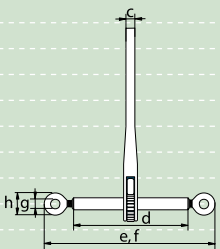
### Green Pin<sup>®</sup> ratchet type loadbinders without hooks

- **Material** : drop forged/cast steel, quenched and tempered
- **Safety factor** : MBL equals 3.5 x Lashing Capacity
- **Finish** : painted red or green
- **Certification** : test certificates can be supplied upon request

chain size	length handle	diameter	thickness	length barrel	length open	length closed	diameter eye inside	diameter eye outside	take-up	lashing capacity	proof load	minimum breaking load	weight each
mm	a	b	c	d	e	f	g	h	mm	t	t	t	kg
8 - 10	385	65	15	255	546	385	12	57	161	2.45	4.9	8.62	3.95
10 - 13	385	65	15	255	555	383	14	57	172	4.175	8.35	14.97	4.75
13 - 16	385	65	15	260	560	409	17	64	151	5.9	11.8	20.865	6.65

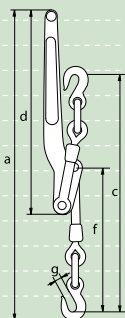
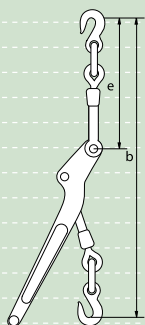


P-7150R  
P-7150G





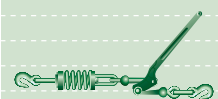
P-7110R  
P-7110G



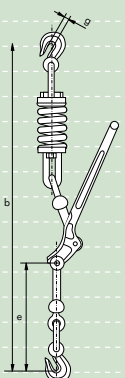
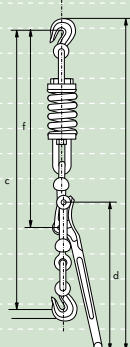
## Green Pin® lever type loadbinders with hooks

- **Material** : drop forged/cast steel, quenched and tempered
- **Safety factor** : MBL equals 3.5 x Lashing Capacity
- **Finish** : painted red or green
- **Certification** : test certificates can be supplied upon request

chain size	length	length open	length closed	length handle	length	length	width	take-up	lashing capacity	proof load	minimum breaking load	weight each
mm	a	b	c	d	e	f	g	mm	t	t	t	kg
8 - 10	610	592	488	408	287	287	12	104	2.45	4.9	8.62	2.81
10 - 13	768	680	550	458	325	325	16	130	4.175	8.35	14.97	5.08
13 - 16	830	833	680	547	395	395	18	153	5.9	11.8	20.86	9.5



P-7120



## Green Pin® spring type loadbinders with hooks

- **Material** : drop forged/cast steel, quenched and tempered
- **Safety factor** : 8-10 mm: MBL equals 3.5 x Lashing Capacity  
10-13 mm: MBL equals 3 x Lashing Capacity
- **Finish** : painted green
- **Certification** : test certificates can be supplied upon request

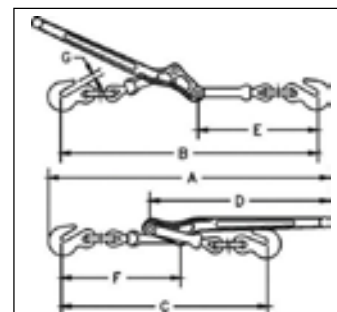
chain size	length	length open	length closed	length handle	length	length	width	take-up	lashing capacity	proof load	minimum breaking load	weight each
mm	a	b	c	d	e	f	g	mm	t	t	t	kg
8 - 10	873	836	739	392	285	450	13	97	2.45	4.9	8.575	7.2
10 - 13	940	903	791	438	330	475	15	112	4.175	8.35	12.525	9.0

## Lebus® load binders

### L-150



- Extra heavy construction at leverage point to prevent spreading. Heel of binder toggles away from load, permitting easy release.
- Ball and socket swivel joints at hook assemblies permit a straight line pull.



### L-150 Standard Lever Type Load Binders

- Meets or exceeds requirements of US DOT FMCSA Part 393 Subpart I.

Model	Stock No.	Std. Pkg.	Min-Max Chain Size (mm)	Working Load Limit (t)	Proof Load (kN)*	Ultimate Load (t)	Weight Each (kg)	Handle Length (mm)	Take Up (mm)	Dimensions (mm)						
										A	B	C	D	E	F	G
7-1	1048128	4	8 - 10	2.45	48	8.63	3.18	406	114	613	562	454	406	264	264	12.7
A-1	1048146	4	10 - 13	4.17	82	15.0	5.66	475	114	730	654	540	475	313	314	16.0
C-1	1048164	4	13 - 16	5.90	116	20.9	8.93	533	121	794	756	635	533	372	349	18.3

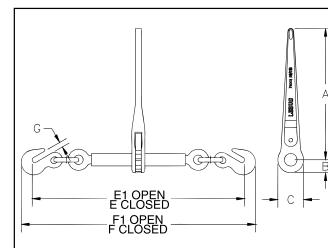
\* Binders shown with Proof Loads have been individually proof tested to these values shown, prior to shipment.

## Lebus® load binders

### L-140



- Upgraded for use with Grades 70, 80 and 100 Chain.
- Utilizes standard Crosby A-323 Alloy Eye Grab Hooks.
- New design “one piece” forged handle.
- Continuous take-up feature provides finite adjustment to tie down load.
- One piece assembly, no bolts or nuts to loosen.
- Ratchet spring is rust proofed.
- All load bearing or holding parts forged.
- Easy operating positive ratchet.



### L-140 Standard Ratchet Type Load Binders

- Meets or exceeds requirements of US DOT FMCSA Part 393 Subpart I.

Model	Stock No.	Min-Max Chain Size (mm)	Working Load Limit (t)*	Proof Load (kN)	Weight Each (kg)	Handle Length (mm)	Barrel Length (mm)	Take Up (mm)	Dimensions (mm)							
									A	B	C	E	E1	F	F1	G
R-7 **	1048404	8 - 10	4.00	79	5.49	356	254	203	356	35.1	70.0	583	786	638	842	12.7
R-A **	1048422	10 - 13	6.80	134	6.66	356	254	203	356	35.1	70.0	641	845	702	905	16.0
R-C ***	1048440	13 - 16	7.26	143	6.60	356	254	203	356	35.1	70.0	670	873	748	951	18.3

\* Ultimate Load is 3 times the Working Load Limit.

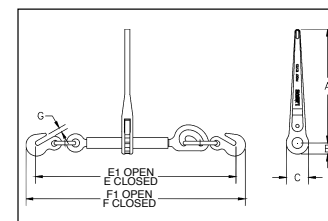
\*\* Matches the Working Load Limit of Grade 100 chain for both sizes.

\*\*\* Matches the Working Load Limit of Grade 100 chain for 1/2" size.

### R-7QL



- For use with Grade 7 Transport Chain.
- Utilizes standard Crosby A-323 Alloy Eye Grab Hooks.
- New design “one piece” forged handle.
- Continuous take-up feature, infinite adjustment, gets the last half of chain.
- One piece assembly, no bolts or nuts to loosen.
- Ratchet spring is rust proofed.
- All load bearings or holding parts forged.
- Easy operating positive ratchet.



### R-7QL QUIC-LINK Ratchet Load Binder

Model	Stock No.	Min-Max Chain Size (mm)	Working Load Limit (t)*	Proof Load (kN)	Weight Each (kg)	Handle Length (mm)	Barrel Length (mm)	Take Up (mm)	Dimensions (mm)							
									A	B	C	E	E1	F	F1	G
R-7QL	1048413	8 - 10	3.00	59	5.56	356	254	203	356	35.1	70.0	630	833	686	889	12.7

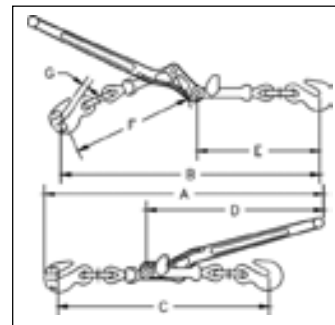
\* Ultimate Load is 3 times the Working Load Limit.

## Lebus® load binders

A-1W



- Forged steel – Quenched and Tempered.
- Used as a come-a-long for short take-up on chain.
- Binder toggles away from the load.

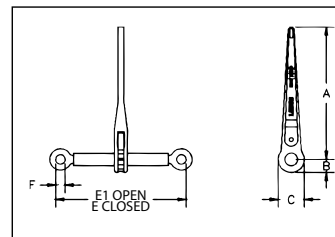


### A-1W Walking Load Binders

- Meets or exceeds requirements of US DOT FMCSA Part 393 Subpart I.

Model	Stock No.	Chain Size (mm)	Working Load Limit (t)	Proof Load (kN)	Ultimate Load (t)	Weight Each (kg)	Handle Length (mm)	Dimensions (mm)						
								A	B	C	D	E	F	G
A-1W	1048388	13 only	4.17	82	15.0	5.94	475	730	654	540	475	313	314	16.0

R-10



### R-10 Binder without Links and Hooks

- Meets or exceeds requirements of US DOT FMCSA Part 393 Subpart I.

Model	Stock No.	Working Load Limit (t)*	Weight Each (kg)	Handle Length (mm)	Barrel Length (mm)	Take Up (mm)	Dimensions (mm)					
							A	B	C	E	E1	F
R-10	1048468	7.26	3.65	356	254	203	356	35.1	70.0	356	559	25.4

\* Ultimate Load is 3 times the Working Load Limit.

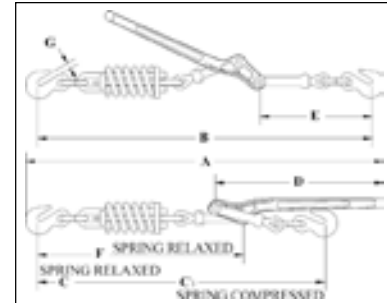


## Lebus® load binders

### L-150



- Forged steel – Quenched and Tempered.
- Spring cushion for load protection, cushions shock and sway.
- Binder toggles away from the load.



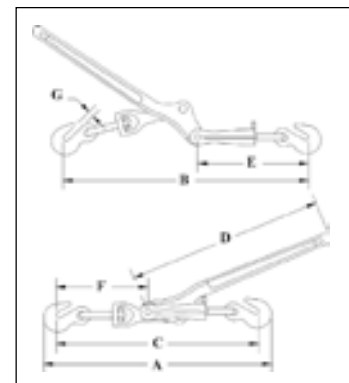
### L-150 Snubbing Load Binders

Model	Stock No.	Min-Max Chain Size (mm)	Working Load Limit (t)	Ultimate Load (t)	Weight Each (kg)	Handle Length (mm)	Take Up (mm)	Compression Strength of Spring (kg)	Dimensions (mm)							
									A	B	C	C1	D	E	F	G
7-12	1048280	8 - 10	2.45	7.27	5.10	406	108	1040	832	781	711	673	406	264	483	12.7
A-12	1048306	10 - 13	4.17	9.09	8.48	470	114	1500	945	864	749	773	475	313	530	16.0

### L-130



- Forged handle, hooks and swivel link.
- Steel swivels and clevis.
- Meets or exceeds requirements of US DOT FMCSA Part 393 Subpart I.



### L-130 Midget Load Binders

Model	L-130 Stock No.	Min-Max Chain Size (mm)	Working Load Limit (t)	Ultimate Load (t)	Weight Each (kg)	Take Up (mm)	Dimensions (mm)						
							A	B	C	D	E	F	G
W-1	1048100	5 - 6	.66	2.31	1.17	61.0	410	346	279	286	159	167	8.65

## ESTIL lever block

## Series: ETT

W.L.L. 0,25 till 6 Ton.

Standard height 1,5 mtr.

Housing and lever coated.

For lifting, pulling and positioning.

Hooks foresee from heavy safety latch.

Top hook and bottom hook 0,75 Ton and up, rotate 360°.

Brake disks asbestos free.

Premium grade alloy chain DIN 5684.

Solid construction.

Closed chain guide.

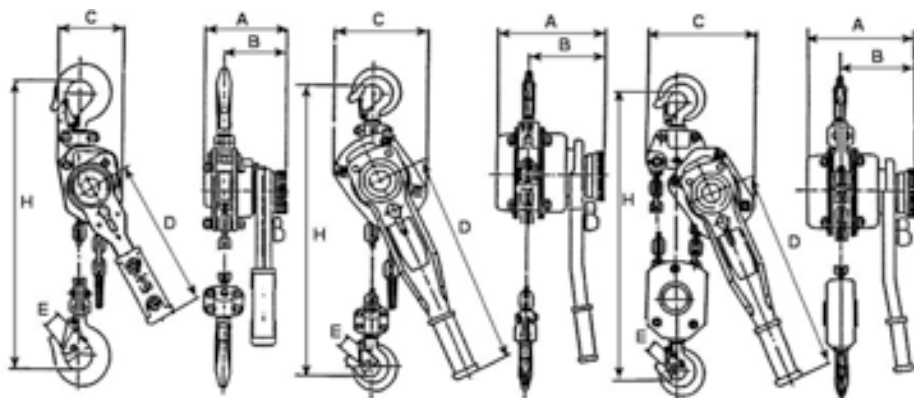
Easy free run system by turning hand-wheel to the left.

This can be done by one hand and will release the brakes.

Any height on request.



MODEL		ETT 2,5	ETT 7,5	ETT 15	ETT 30	ETT 60
W.L.L.	Ton	0,25	0,75	1,5	3	6
Test force	kg	375	1.125	2.250	4.500	9.000
Stand. height	mtr	1,5	1,5	1,5	1,5	1,5
Chain falls		1	1	1	1	2
Chain diam. x l	mm	4x12	6x18	7x21	10x30	10x30
Min. dist. betw. hooks	mm	245	310	385	460	600
Pull to lift load	kg	30	25	31	38	39
Length lever	mm	168	308	308	408	408
Features mm	A	87,5	144	168	204	204
	B	66	87	99	114	114
	C	70	128	145	203	243
	E	20	26	36	44	50
Weight with 1,5m chain.	kg	2,1	6,2	9,5	20,2	32
Extra weight m/height	kg	0,4	0,8	1,1	1,8	3,6



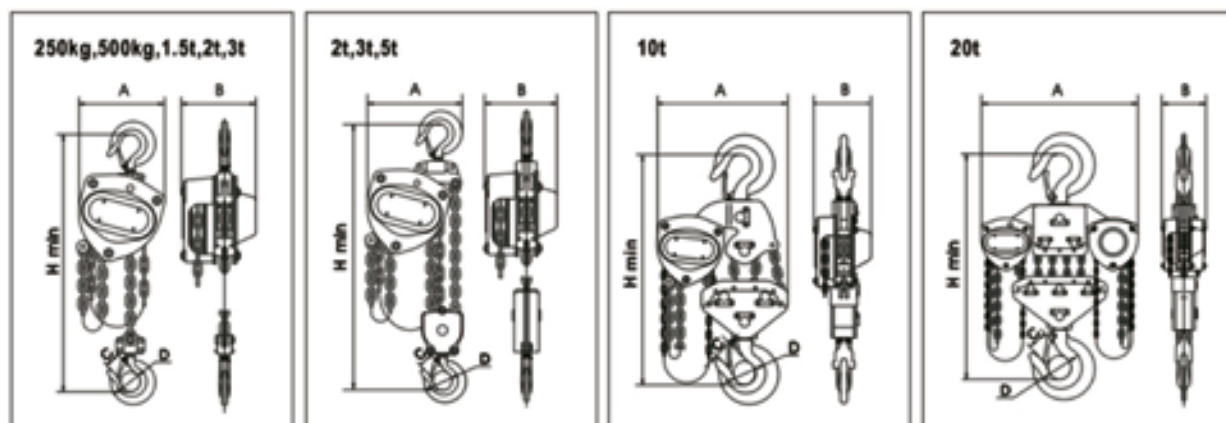
# ESTIL chain-block

## Series: EST

- Standard height 3 meters.
- W.L.L. 0,25 till 20 Ton.
- From EST205 and up extra safety by overload limiter
- Top hook and bottom hook rotate 360°.
- Hooks foresee from safety latch.
- Brake disks asbestos free.
- Premium grade alloy chain DIN 5684.
- Dubbel chain-guide.
- Any height on request.
- Solid construction.
- Also available with chain-bucket.
- Ask the documentation for 30 and 50 Ton.



MODEL		EST 2025	EST 205	EST 210	EST 215	EST 220	EST 230	EST 250	EST 2100	EST 2200
W.L.L.	Ton	0,25	0,5	1	1,5	2	3	5	10	20
Test force	kg	375	750	1.500	2.250	3.000	4.500	7.500	12.500	25.000
Stand. height	mtr	3	3	3	3	3	3	3	3	3
Chain falls		1	1	1	1	1 / 2	1 / 2	2	4	8
Chain diam. x l	mm	4x12	5x15	6x18	7x21	8x24/ 6x18	10x28/ 7x21	10x30	10x30	10x30
Min. dist. betw. hooks	mm	280	345	376	442	470/ 445	548/ 565	660	765	950
Pull to lift load	kg	24	24,5	25,5	27	34,2	38	37	39	39
Features mm	A	121	148	172	196	210/ 172	288/ 230	280	463	840
	B	114	132	151	173	175/151	205/ 176	189	189	200
	C	21	23	27	33	35/35	39/39	45	61	82
	D	31	35	40	45	50/50	55/55	65	85	106
Weight with 1,5m chain.	kg	6,2	11	12,5	17,8	20/18,5	35/29	41	78	190
Extra weight m/height	kg	0,7	1,4	1,7	2,3	2,5/3,2	3,7/4	5,3	9,7	19,4



## ESTIL trolleys

## Series: EDLV / EHLV

ESTIL push EDLV and geared EHLV trolley for low headroom hoist. These trolley can only be used in combination with the ESTIL manual hoist series EST2. The trolley and hoist are built direct to each other without using a top hook. Because of this is the combination very stable and solid and compared to a normal combination of hoist and trolley is the total height is reduced up to 35 %.

The trolleys can be used on almost every beam.

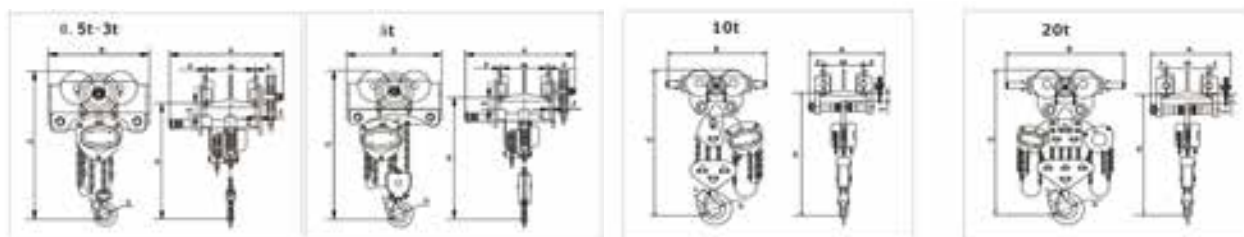
The wheels are foreseen from bearings which provide easy running.

All the trolleys have wheel-brake support.

ESTIL trolley EDLV and EHLV are available from 0,5 up to 20 Ton



MODEL	EDLV 5	EDLV/ EHLV 10	EDLV/ EHLV 15	EDLV/ EHLV 20	EDLV/ EHLV 30	EDLV/ EHLV 50	EDLV/ EHLV 100	EHLV 200
W.L.L. Ton	0,5	1	1,5	2	3	5	10	20
Test load Ton	0,75	1,5	2,25	3	4,5	7,5	12,5	30
Control height m		2,7	2,7	2,7	2,7	2,7	2,7	2,7
Beam mm	50 - 203	64 - 203	74 - 203	88 - 203	100 - 203	114 - 203	124 - 305	136 - 305
Min. radius mtr	0,85	1	1,1	1,1	1,3	1,4	2	3,5
Weight kg	17	24 / 28	33 / 37	46 / 50	61 / 65	88 / 91	140 / 145	328
Dimensions A stand.	286	303	310	317	333	352	480	551
B	258	292	319	358	434	448	636	887
C	385	451	489	551	629	741	965	1200
H	299	331	383	411	460,5	613	745	915
S	30	35	38	38	40	42	45	58
Z	7,5	10,5	10,5	12	14	15		
F	1,5~3						2~3,5	



## ESTIL push and geared trolley

## Series: EDL / EHL

The solid ESTIL push and geared trolley is adjustable with a bolt, nuts and various rings.

W.L.L. from 0,25 up to 20 Ton.

Wheels on bearings for easy running.

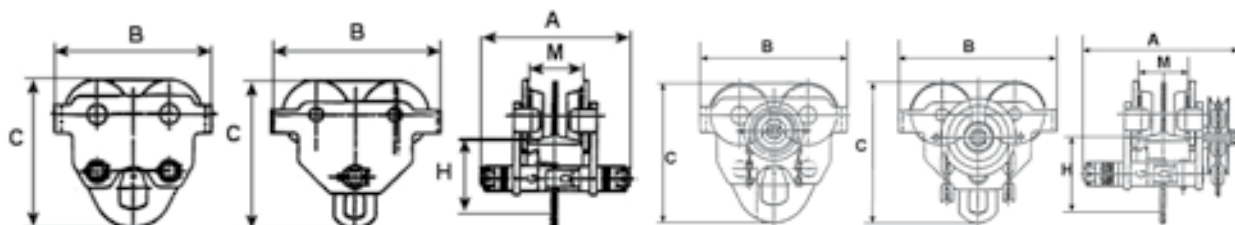
Trolleys are foreseen from wheel-brake support.

Two buffers can be placed on these supports.

Standard control height on the type EHL is ca. 2,5 mtr.



MODEL		EDL 2,5	EDL 5	EDL/ EHL 10	EDL/ EHL 20	EDL/ EHL 30	EDL/ EHL 50	EDL/ EHL 100	EDL/ EHL 200
W.L.L. Ton		0,25	0,5	1	2	3	5	10	20
Control height m				2,5	2,5	2,5	2,5	2,5	2,5
Beam mm		52-152	52-125	64-203	88-203	100-203	114-203	124-203	136-203
Min. radius mtr		0,8	0,8	1	1,1	1,3	1,4	2	3,5
Weight kg		5	6,5	10,5/14,5	17,5/21,5	27/31	41/46	71/75	172
Features mm	A	236	245	311/338	327/349	343/362	355/374	388/408	499
	B	194	199	246	276	332	377	424	555
	C	176	187	222	263	309	353	396	498
	D	18	24	30	36	42	48	48	55
	G	28	34	40	52	58	64	64	75
	H	95	105	125	150	171	196	190	295
	S	26	30	38	38	40	42	45	58
Wheel H.O.H. mm		100	100	120	131	154	168	200	270
Wheel diam d1 / d2 mm		55 / 80	55 / 80	68 / 96	80 / 108	100 / 131	110 / 145	136 / 176	175 / 225



## ESTIL push and geared trolley

## Series: EDS / ESH

The solid ESTIL push and geared trolley is easy adjustable by turning the spindle.

W.L.L. from 0,5 up to 5 Ton.

Wheels on bearings for easy running.

The axle can be secured by two screws and two nuts.

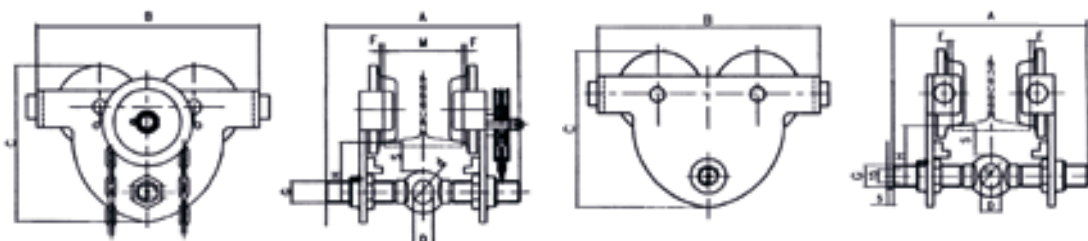
Trolleys are foreseen from wheel-brake support.

Two buffers are placed on these supports.

Standard control height from the ESH is ca. 2,5 mtr.



MODEL		EDS/ESH 5	EDS/ESH 10	EDS/ESH 20	EDS/ESH 30	EDS/ESH 50
W.L.L.	Ton	0,50	1	2	3	5
Control height	m	2,5	2,5	2,5	2,5	2,5
Beam wide	mm	50-203	64-203	88-203	100-203	114-203
Min. curve radius	mtr	0,8	1	1,1	131	1,4
Weight	kg	6,5	10,5/14,5	17,5/21,5	27/31	41/46
Features mm	A stand.	270	302	314	328	346
	to 300 mm		388	400	414	432
	B	206	252	276	335	377
	C	155,5	189,7	222,2	257,5	284
	D	25	30	40	46	52
	d	30	36	48	58	65
	G	M24	M30	M36	M42	M48
	H	70,5	87	100	113	127
	S	31,5	38	38	39	42,5
	F	1,5 - 3				
Wheel H.O.H.	mm	100	120	131	154	168
Wheel diam. d1 / d2	mm	55/80	68/96	80/108	100/131	110/145



## ESTIL wire rope pulling hoist

Series: EPS

ESTIL wire rope pulling hoist can be used for horizontal, vertical and diagonal pulling or hoisting.

Housing from light steel.

Overload protection by bronze breaking pins which will break at 25% overload

Extra breaking pins in handle or lever.

The pins can be replaced under load.

W.L.L. 0,8 - 1,6 - 3,2 Ton.

Standard with 20 mtr. wire on reel.

Standard supplied with connection pin

Option rotating hook.



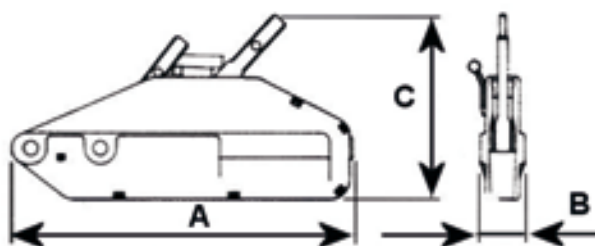

### Use of the free run (only with no load)

Push the disconnections handle and backwards handle together

forward until the disconnections handle is secured behind the cam in the housing.

The wire can now run free through the housing.

MODEL		EPS 8	EPS 16	EPS 32
W.L.L.	Ton	0,8	1,6	3,2
Pull load	Ton	1,2	2,4	4,0
Length of lever	mm	800	1.200	1.200
Rated forward travel	mm	52	51	28
Standard length of wire	mm	20	20	20
Diam wire	mm	8,5	11,5	16
Rated forward hand power	kg	28	41	44
Features mm	A	428	545	660
	B	65	97	116
	C	230	260	320
Weight without wire	kg	9,5	16	27
Weight of wire	kg	8	12	24



## ESTIL wire rope pulling hoist

## Series: EPH

ESTIL wire rope pulling hoist can be used for horizontal, vertical and diagonal pulling or hoisting.

Housing from light aluminium.

Overload protection by bronze breaking pins which will break at 25% overload

Extra breaking pins in handle or lever.

The pins can be replaced under load.

W.L.L. 0,8 - 1,6 - 3,2 Ton.

Standard with 20 mtr. wire on reel.

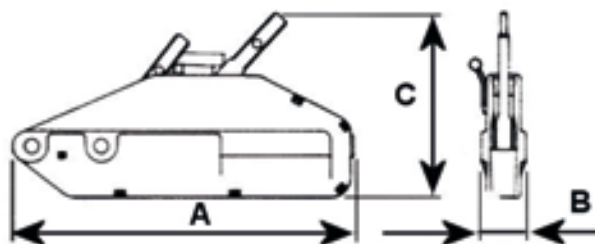
### Use of the free run (only with no load)

Push the disconnections handle and backwards handle together forward until the disconnections handle is secured behind the cam in the housing.

The wire can now run free through the housing.



MODEL		EPH 8	EPH 16	EPH 32
W.L.L.	Ton	0,8	1,6	3,2
Pull load	Ton	1,2	2,4	4,0
Length of lever	mm	740	1.120	1.120
Rated forward travel	mm	52	55	28
Standard length of wire	mm	20	20	20
Diam wire	mm	8,5	11	16
Rated forward hand power	kg	28	40	43
Features mm	A	428	545	660
	B	65	97	116
	C	230	260	320
Weight without wire	kg	8	16	27
Weight of wire	kg	8	12	24





## Hoisting Equipment Hand chain hoists



### Hand chain hoist model VSplus

Capacity 500 - 5000 kg

The new Yale hand chain hoist VSplus is through further technical development the successor of our proven VS model. We set new standards with the extremely robust all-steel construction and high quality bearings for drive pinion, load chain sheave and gearbox. A maximum of corrosion prevention and maintenance friendliness are special features of this model.

#### Features

- 4 strong bolts between the side plates and the reinforced housing covers ensure increased stability.
- Precision machined guide rollers ensure smooth running of the load chain.
- Encapsulated, life-time lubricated bearings ensure a long service life.
- Brake system protected against the ingress of dust, foreign particles and corrosion.
- Zinc-plated load chain as standard for added corrosion protection.

#### Option

- Overload prevention device.
- Chain container
- Corrosion and acid resistant load and hand chains.



Chain hoists in complete corrosion- and/or sparking resistance design on request.

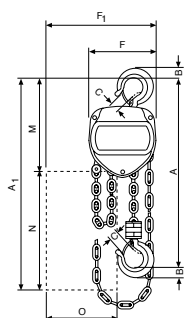
## Hoisting Equipment Hand chain hoists

### Technical data model VSplus

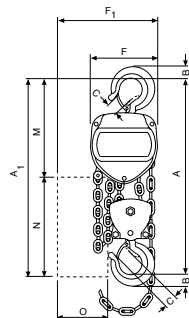
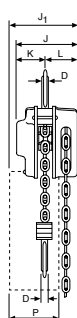
Model	EAN-No. 4025092*	Capacity kg	Number of chain falls	Chain dimensions d x p mm	Hand chain overhaul for 1 m lift m	Lift per 1 m hand chain overhaul mm	Pull on hand chain at WLL daN	Net weight at standard lift (3 m) kg
VSplus 0.5/1	*078832	500	1	6 x 18	28	35	26	9.0
VSplus 1.0/1	*078726	1000	1	6 x 18	42	23	36	11.2
VSplus 2.0/1	*079358	2000	1	8 x 24	54	18	54	18.0
VSplus 2.0/2	*079136	2000	2	6 x 18	84	12	37	15.3
VSplus 3.0/1	*079372	3000	1	10 x 30	83	12	52	28.0
VSplus 3.0/2	*079129	3000	2	8 x 24	108	9	41	24.7
VSplus 5.0/2	*079341	5000	2	10 x 30	165	6	44	38.7

### Dimensions model VSplus

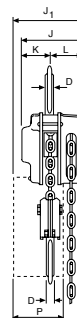
Model	VSplus 0.5/1	VSplus 1.0/1	VSplus 2.0/1	VSplus 2.0/2	VSplus 3.0/1	VSplus 3.0/2	VSplus 5.0/2
Amin., mm	320	370	450	530	530	620	620
A1, mm	455	484	596	491	644	596	644
B, mm	17	15	33	31	38	41	48
C, mm	29	30	33	34	38	37	43
D, mm	11	15	23	24	27	24	33
F, mm	125	147	183	147	215	183	215
F1, mm	213	232	314	232	333	314	333
J, mm	115	125	142	125	163	142	163
J1, mm	146	153	174	153	179	174	179
K, mm	51	57	68	57	79	68	79
L, mm	64	68	74	68	84	74	84
M, mm	195	224	266	231	316	286	334
N, mm	260	260	310	260	310	310	310
O, mm	140	140	200	140	200	200	200
P, mm	110	110	130	110	130	130	130



Model VSplus, 500 - 3000 kg, single fall



Model VSplus, 2000 - 5000 kg, double fall



Optional: Chain container

**!** Yale hoists and trolleys are not designed for passenger elevation applications and must not be used for this purpose.

## Hoisting equipment Ratchet lever hoists



### Ratchet lever hoist with roller chain model C 85

Capacity 750 - 10000 kg

### Ratchet lever hoist with link chain model D 85

Capacity 750 - 10000 kg

Enclosed housing with housing cover, handlever and bottom block made from high tensile white malleable cast iron for overall rugged construction.

Almost unlimited applications in maintenance, mining, construction, steel fabrication, shipbuilding and utility work. Ideal for moving and positioning heavy machines and securing heavy loads, simplifies setting pipes etc. in manholes and trenches.

#### Features

- The graphite cast iron load sheave for the link chain has precision machined chain pockets for accurate fit and durability of the load chain.
- The roller chain sprocket is made from heat treated chromium-molybdenum steel with precision machined teeth to ensure smooth chain movement.

#### Option

- All models can be optionally equipped with an overload prevention device in the form of a slip clutch which is factory preset to approx. 25% ± 15% overload.
- Free chaining device to quickly attach the load or to pull the chain through the hoist in both directions.

! Since 1936 more than 1 million units have been built in Velbert.



Optional:  
Overload protection for  
D95 and C/D85.

- ! This ratchet lever hoist is suitable for cargo tie down applications, since it has an automatic screw-and-disc type load brake
- preventing an unintentional loosening of the load.

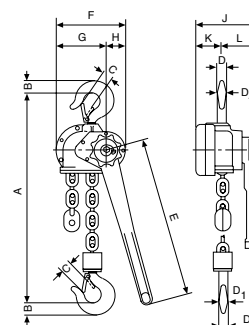
## Hoisting equipment Ratchet lever hoists

### Technical data model C 85

Model	EAN-No. 4025092*	Capacity kg	Number of chain falls	Chain dimensions d x p mm	Lift with one full lever turn mm	Handle pull at WLL daN	Net weight at standard lift (3 m) kg
Pul-lift C85 750	*050173	750	1	5/8" x 3/8"	115	38	8.7
Pul-lift C85 1500	*050180	1500	1	1" x 1/2"	45	31	17.0
Pul-lift C85 3000	*050197	3000	1	1 1/4" x 5/8"	36	40	22.2
Pul-lift C85 6000	*050203	6000	2	1 1/4" x 5/8"	18	44	38.0
Pul-lift C85 10000	*050326	10000	3	1 1/4" x 5/8"	12	44	67.0

### Dimensions model C85

Model	Pul-lift C85 750	Pul-lift C85 1500	Pul-lift C85 3000	Pul-lift C85 6000	Pul-lift C85 10000
Amin., mm	322	389	403	560	785
B, mm	21	27	35	48	61
C, mm	27	30	34	46	54
D, mm	15	20	25	40	40
D1, mm	17	23	25	40	45
E, mm	443	443	570	570	570
F, mm	112	189	197	197	305
G, mm	56	134	142	142	163
H, mm	56	55	55	55	142
J, mm	142	171	179	218	218
K, mm	39	72	76	76	76
L, mm	103	99	103	142	142



Model C/D85

### Technical data model D 85

Model	EAN-No. 4025092*	Capacity kg	Number of chain falls	Chain dimensions d x p mm	Lift with one full lever turn mm	Handle pull at WLL daN	Net weight at standard lift (3 m) kg
Pul-lift D85 750	*050548	750	1	6 x 18.5	111	38	8.2
Pul-lift D85 1500	*050555	1500	1	9 x 27	45	31	16.3
Pul-lift D85 3000	*050562	3000	1	11 x 31	33	40	19.6
Pul-lift D85 6000	*050579	6000	2	11 x 31	17	42	32.9
Pul-lift D85 10000	*050784	10000	3	11 x 31	11	37	60.0

### Dimensions model D85

Model	Pul-lift D85 750	Pul-lift D85 1500	Pul-lift D85 3000	Pul-lift D85 6000	Pul-lift D85 10000
Amin., mm	322	389	403	532	805
B, mm	21	27	35	48	61
C, mm	27	30	34	46	54
D, mm	15	20	25	40	40
D1, mm	17	23	25	40	45
E, mm	443	443	570	570	570
F, mm	112	189	197	197	305
G, mm	56	134	142	142	163
H, mm	56	55	55	55	142
J, mm	142	171	179	218	218
K, mm	39	72	76	76	76
L, mm	103	99	103	142	142

**!** Yale hoists and trolleys are not designed for passenger elevation applications and must not be used for this purpose.

## Hoisting equipment Ratchet lever hoists

Ratchet lever hoist  
with link chain model D95

## Capacity 1500 - 3000 kg

The D95 in its cast malleable iron design has taken key technical features from the proven D85 but excels due to low tare weight and an extremely small measurement between suspension and load hooks.

A versatile unit for moving, positioning and securing loads.

## Features

- It has an automatically acting load pressure brake which works on the self-locking principal. For example, when used to secure loads an unintentional loosening of the brake is prevented when the load vibrates.
- Alloyed steel link chain with zinc-plated resp. yellow chromated finish, in accordance with national and international standards and regulations.
- Standard free chaining device to quickly attach the load or to pull the chain through the hoist in both directions.
- Body and handle made from impact resistant malleable cast iron.
- The short ergonomic handle is fitted with a rubber grip.

## Option

- All models can be optionally equipped with an over-load prevention device in the form of a slip clutch which is factory preset to approx. 25% ± 15% overload.
- Hoist with sling chain.

- ! This ratchet lever hoist is suitable for cargo tie down applications, since it has an automatic screw-and-disc type load brake
- preventing an unintentional loosening of the load.



Pul-lift D95 with sling chain.

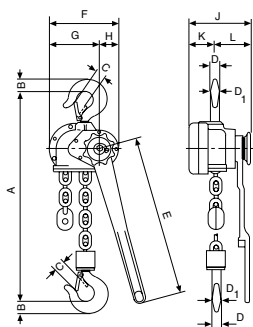
## Hoisting equipment Ratchet lever hoists

## Technical data model D 95

Model	EAN-No. 4025092*	Capacity kg	Number of chain falls	Chain dimensions d x p mm	Lift with one full lever turn mm	Handle pull at WLL daN	Net weight at standard lift (3 m) kg
Pul-lift D95 1500	*050807	1500	1	6.2 x 18.5	35	27	9.9
Pul-lift D95 3000	*050821	3000	1	9 x 27.2	38	49	16.5

## Dimensions model D 95

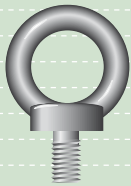
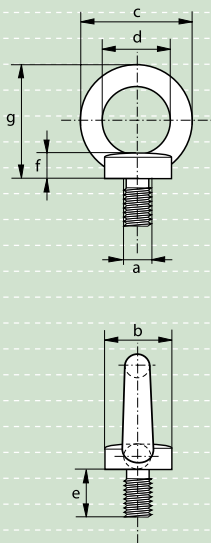
Model	D95 1500	D95 3000
Amin., mm	314	376
B, mm	23	30
C, mm	23	25
D, mm	18	22
D1, mm	18	22
E, mm	315	443
F, mm	156	189
G, mm	112	134
H, mm	44	55
J, mm	141	177
K, mm	49,5	72
L, mm	92	105



Pul-lift D95



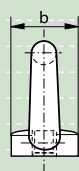
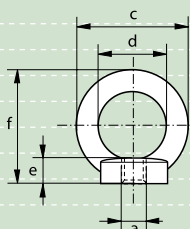
! Yale hoists and trolleys are not designed for passenger elevation applications and must not be used for this purpose.

S-8140  
E-8140

## Green Pin<sup>®</sup> eye bolts generally to DIN 580

- **Material** : carbon steel, C15
- **Safety factor** : MBL equals 6 x WLL
- **Standard** : generally to DIN 580
- **Finish** : self coloured  
electro-galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate and/or EC Declaration of Conformity. Test certificates can be supplied upon request

working load limit	diameter thread	diameter base	diameter eye outside	diameter eye inside	length	thickness base	height	weight per 100 pcs
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.07	M 6 x 1.00	20	36	20	13	6	36	3
0.14	M 8 x 1.25	20	36	20	13	6	36	6
0.23	M 10 x 1.50	25	45	25	17	8	45	10.3
0.34	M 12 x 1.75	30	54	30	20.5	10	53	17.7
0.49	M 14 x 2.00	35	63	35	27	12	60	27.7
0.7	M 16 x 2.00	35	63	35	27	12	62	28
0.9	M 18 x 2.50	40	72	40	30	14	71	40.5
1.2	M 20 x 2.50	40	72	40	30	14	71	42.4
1.5	M 22 x 2.50	45	81	45	35	14	80	67.3
1.8	M 24 x 3.00	50	90	50	36	18	90	83.4
2.5	M 27 x 3.00	50	90	50	36	18	90	122
3.2	M 30 x 3.50	65	108	60	45	22	109	166
4.3	M 33 x 3.50	65	108	60	45	22	110	216
4.6	M 36 x 4.00	75	126	70	54	26	128	265
6.1	M 39 x 4.00	75	126	70	54	26	130	334
6.3	M 42 x 4.50	85	144	80	63	30	147	403
8	M 45 x 4.50	85	144	80	63	35	150	521
8.6	M 48 x 5.00	100	166	90	68	35	168	632
11.5	M 56 x 5.50	110	184	100	78	38	187	880
16	M 64 x 6.00	120	206	110	90	42	208	1240
21	M 72 x 6.00	150	260	140	100	50	260	2330
28	M 80 x 6.00	170	296	160	112	55	298	3420
40	M 100 x 6.00	190	330	180	130	60	330	4910

S-8142  
E-8142

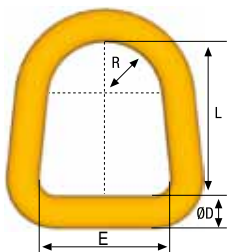
## Green Pin<sup>®</sup> eye nuts generally to DIN 582

- **Material** : carbon steel, C15
- **Safety factor** : MBL equals 6 x WLL
- **Standard** : generally to DIN 582
- **Finish** : self coloured  
electro-galvanized
- **Certification** : at no extra charges this product can be supplied with a works certificate and/or EC Declaration of Conformity. Test certificates can be supplied upon request

working load limit	diameter thread	diameter base	diameter eye outside	diameter eye inside	thickness base	height	weight per 100 pcs
t	a mm	b mm	c mm	d mm	e mm	f mm	kg
0.07	M 6 x 1.00	20	36	20	8.5	36	4.2
0.14	M 8 x 1.25	20	36	20	8.5	36	5.2
0.23	M 10 x 1.50	25	45	25	10	45	9.4
0.34	M 12 x 1.75	30	54	30	11	53	16
0.49	M 14 x 2.00	35	63	35	13	60	22
0.7	M 16 x 2.00	35	63	35	13	62	24
0.9	M 18 x 2.50	40	72	40	16	71	36
1.2	M 20 x 2.50	40	72	40	16	71	35.2
1.5	M 22 x 2.50	45	81	45	18	80	58.6
1.8	M 24 x 3.00	50	90	50	20	90	70.6
2.5	M 27 x 3.00	50	90	50	20	90	102
3.2	M 30 x 3.50	65	108	60	25	109	132
4.3	M 33 x 3.50	65	108	60	25	110	170
4.6	M 36 x 4.00	75	126	70	30	128	208
6.1	M 39 x 4.00	75	126	70	30	130	260
7	M 42 x 4.50	85	144	80	35	147	311
8	M 45 x 4.50	85	144	80	35	150	407
8.6	M 48 x 5.00	100	166	90	40	168	502
8.6	M 52 x 5.00	110	184	100	45	187	830
11.5	M 56 x 5.50	110	184	100	45	187	669
16	M 64 x 6.00	120	206	110	50	208	930
21	M 72 x 6.00	150	260	140	60	260	1500



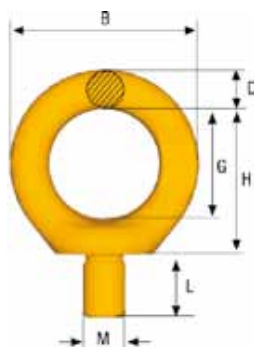
## Master Link D



Art. no.	Code	WLL tonnes*	E	D	L	R	Weight appr. kgs
Z700877	D-14-8	2.5	55	14	65	24	0.4
Z700878	D-17-8	4	64	17	62	29	0.5
Z700880	D-22-8	8	76	22	90	33	1

The loadbearing width must be at least 0.5 x E

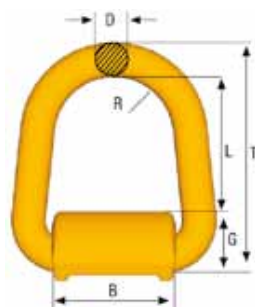
## Eye Lifting Point ELP



Art. no.	Code	WLL tonnes*	B	D	G	H	L	M	Weight appr. kgs
Z100434	ELP-16-8	1**	72	16	42	55	24	M16	0.4
Z100435	ELP-20-8	1**	72	16	42	58	30	M20	0.4
Z100436	ELP-24-8	2**	88	19	48	69	36	M24	0.9
Z100437	ELP-30-8	3**	106	22	60	84	45	M30	1.4

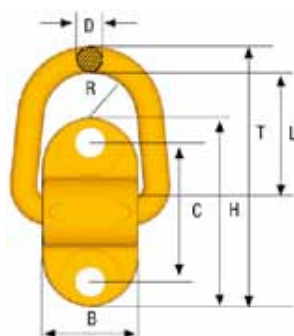
\*\* In case of 1-leg application where loading is limited to straight loading in the direction of thread (no bending force) it is possible to use ELP with four times higher WLL. Note! Threaded depths need to be at least 1xM for steel, 1,25xM for cast iron and 2xM for aluminium alloy.

## Weldable Lifting Point WLP



Art. no.	Code	WLL tonnes*	B	D	G	L	R	T	Weight appr. kgs
Z700900	WLP-1T	1	50	14	27	53	24	95	0.5
Z700901	WLP-3T	3	58	17	34	48	29	97	0.8
Z700902	WLP-5T	5	64	22	41	73	33	135	1.8

## Screw-on Lifting Point SLP

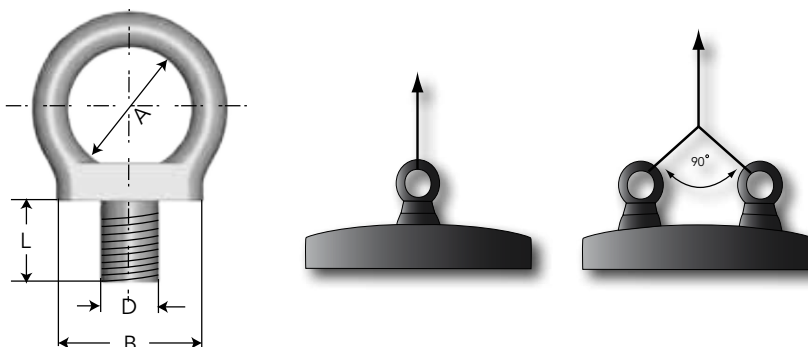


Art. no.	Code	WLL tonnes*	B	C	D	H	L	M	T	R	Weight appr. kgs
Z700903	SLP-1T	1	50	72	14	98	55	M14	139	24	0.8
Z700904	SLP-3T	3	58	84	17	114	50	M16	144	29	1.3
Z700905	SLP-5T***	5	64	116	22	160	74	M20	203	33	2.6

\*\*\* Can be supplied with spring for stay up function

## Eye Bolt Metric

Normalized DIN 580  
Safety factor: 4:1



Art. no.	Thread D	WLL kgs		Measurement, mm			Weight appr. kgs/100 pcs	Note!	Pack. size
		1. Eye axial	2. Eye 90°	A	B	L			
G006754080	M 8	140	95	20	20	13	5.7		50
G006754100	M 10	230	170	25	25	17	10.7		50
G006754120	M 12	340	240	30	30	20.5	18		50
G006754160	M 16	700	500	35	35	27	28	Hot dip galv.	25
G006754200	M 20	1200	830	40	40	30	44.4		10
G006754240	M 24	1800	1270	50	50	36	73.5		10
G006754300	M 30	3600	2600	60	65	45	166		
G006754360	M 36	5100	3700	70	75	54	265		
G006754420	M 42	7000	5000	80	85	63	403		
G006754480	M 48	8600	6100	90	100	68	638	Self colour	
G006754640	M 64	16000	11000	208	206	90	999		

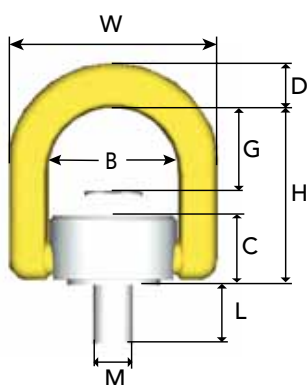
## Eye Nut Metric

Normalized DIN 582  
Safety factor: 4:1



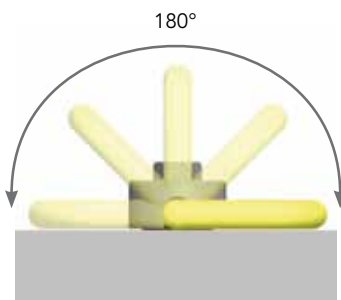
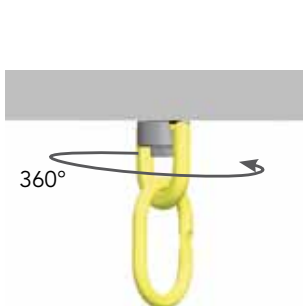
Art. no.	Thread D	WLL kgs		Measurement, mm		Weight appr. kgs/100 pcs	Note!	Pack. size
		1. Eye axial	2. Eye 90°	A	B			
G006755080	M 8	140	95	20	20	4.9		50
G006755100	M 10	230	170	25	25	9.3		50
G006755120	M 12	340	240	30	30	15.6		50
G006755160	M 16	700	500	35	35	23.8	Hot dip galv.	25
G006755200	M 20	1200	830	40	40	36		10
G006755240	M 24	1800	1270	50	50	71.8		10
G006755300	M 30	3600	2600	60	65	132		
G006755360	M 36	5100	3700	70	75	208		
G006755420	M 42	7000	5000	80	85	311	Self colour	

## Rotating Lifting Point RLP



Art. no.	Code	L	M	B	D	G	C	H	W	Weight kgs
Z100095	RLP-M8-10**	15	M8	Ø42	12	35	17.5	60	64	0.3
Z100096	RLP-M10-10**	20	M10	Ø42	12	34	17.5	60	64	0.3
Z100097	RLP-M12-10**	19	M12	Ø57	19	46.5	28	85	91	1.0
Z100098	RLP-M16-10**	24	M16	Ø57	19	44	28	85	91	1.0
Z100092	RLP-M20-10**	32	M20	Ø83	28	56	39.3	111	133	2.8
Z100094	RLP-M24-10**	37	M24	Ø83	28	53	39.3	111	133	3.0
Z100714	RLP-M30-10**	49.5	M30	Ø114	34	69.5	56	144	182	7.0
Z100713	RLP-M36-10	61	M36	Ø114	34	65.5	56	144	182	7.3
Z100707	RLP-M42-10	65.5	M42	Ø149	40.4	90	70	185	229	14.0
Z100708	RLP-M48-10	75.5	M48	Ø149	40.4	86	70	185	229	14.5

For extra long bolt for RLP, see page 7:24

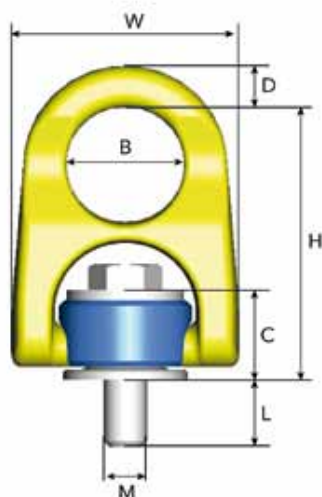


\*\*\* The WLL of the RLP may be double in case of 1-leg applications provided only axial loading takes place, i.e. no bending force applied in the direction of the thread.

## Rotating Lifting Point ERLP

The new lifting point with slim design to fit in confined spaces.

**NEW**



Art. no.	Code	WLL (tonnes)	L	M	B	D	C	H	W	Weight (kgs)
Z101260	ERLP-M8-10	0.3	15	M8	Ø27	10	20	63	52	0.2
Z101261	ERLP-M10-10	0.5	20	M10	Ø27	10	20	63	52	0.2
Z101252	ERLP-M12-10	0.75	19	M12	Ø38	15	31	91.8	73	0.8
Z101253	ERLP-M16-10	1.5	24	M16	Ø38	15	31	91.8	73	0.8

\*Safety factor 4:1

All dimensions in mm



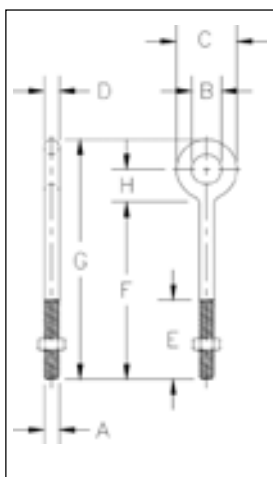
## Forged eye bolts

### G-291



- Forged Steel - Quenched and Tempered.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- All Bolts Hot Dip galvanized after threading (UNC).
- Furnished with standard Hot Dip galvanized hex nuts.
- Recommended for in-line pull.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these bolts meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.

### G-291 Regular Nut Eye Bolts



Shank Dia. & Length (mm)	G-291 Stock No.	Working Load Limit (t)*	Weight Per 100 (kg)	Dimensions (mm)							
				A	B	C	D	E	F	G	H
6.35 x 51.0	1043230	.29	3.72	6.35	12.7	25.4	6.35	38.1	51.0	77.5	14.2
6.35 x 102	1043258	.29	5.31	6.35	12.7	25.4	6.35	63.5	102	129	14.2
7.94 x 57.0	1043276	.54	6.03	7.85	15.7	31.8	7.85	38.1	57.0	90.5	17.5
7.94 x 108	1043294	.54	11.3	7.85	15.7	31.8	7.85	63.5	108	141	17.5
9.53 x 63.5	1043310	.70	10.6	9.65	19.1	38.1	9.65	38.1	63.5	105	22.4
9.53 x 114	1043338	.70	13.4	9.65	19.1	38.1	9.65	63.5	114	155	22.4
9.53 x 152	1043356	.70	16.0	9.65	19.1	38.1	9.65	63.5	152	194	22.4
12.7 x 82.5	1043374	1.18	22.8	12.7	25.4	51.0	12.7	38.1	82.5	137	28.4
12.7 x 152	1043392	1.18	30.0	12.7	25.4	51.0	12.7	76.0	152	206	28.4
12.7 x 203	1043418	1.18	37	12.7	25.4	51.0	12.7	76.0	203	257	28.4
12.7 x 254	1043436	1.18	40	12.7	25.4	51.0	12.7	76.0	254	308	28.4
12.7 x 305	1043454	1.18	52	12.7	25.4	51.0	12.7	76.0	305	359	28.4
15.9 x 102	1043472	2.35	47	15.7	31.8	63.5	15.7	51.0	102	170	36.6
15.9 x 152	1043490	2.35	54	15.7	31.8	63.5	15.7	76.0	152	221	36.6
15.9 x 203	1043515	2.35	61	15.7	31.8	63.5	15.7	76.0	203	272	36.6
15.9 x 254	1043533	2.35	70	15.7	31.8	63.5	15.7	76.0	254	322	36.6
15.9 x 305	1043551	2.35	76	15.7	31.8	63.5	15.7	102	305	373	36.6
19.1 x 114	1043579	3.26	76	19.1	38.1	76.0	19.1	51.0	114	195	42.9
19.1 x 152	1043597	3.26	84	19.1	38.1	76.0	19.1	76.0	152	233	42.9
19.1 x 203	1043613	3.26	94	19.1	38.1	76.0	19.1	76.0	203	284	42.9
19.1 x 254	1043631	3.26	107	19.1	38.1	76.0	19.1	76.0	254	335	42.9
19.1 x 305	1043659	3.26	117	19.1	38.1	76.0	19.1	102	305	386	42.9
19.1 x 381	1043677	3.26	135	19.1	38.1	76.0	19.1	127	381	462	42.9
22.2 x 127	1043695	4.80	122	22.4	44.5	89.0	22.4	63.5	127	222	51.0
22.2 x 203	1043711	4.80	140	22.4	44.5	89.0	22.4	102	203	298	51.0
22.2 x 305	1043739	4.80	181	22.4	44.5	89.0	22.4	102	305	400	51.0
25.4 x 152	1043757	6.03	191	25.4	51.0	102	25.4	76.0	152	262	58.5
25.4 x 229	1043775	6.03	213	25.4	51.0	102	25.4	102	229	338	58.5
25.4 x 305	1043793	6.03	245	25.4	51.0	102	25.4	102	305	414	58.5
25.4 x 457	1043819	6.03	295	25.4	51.0	102	25.4	178	457	567	58.5
31.8 x 203	1043837	9.52	340	31.8	63.5	127	31.8	102	203	340	73.0
31.8 x 305	1043855	9.52	408	31.8	63.5	127	31.8	102	305	441	73.0
31.8 x 508	1043873	9.52	549	31.8	63.5	127	31.8	152	508	645	73.0

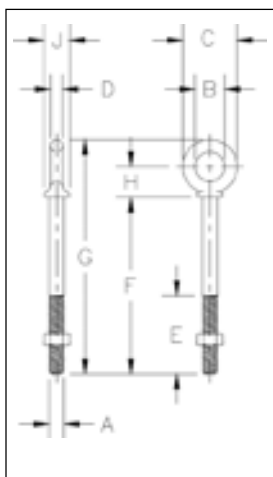
\*Ultimate Load is 5 times the Working Load Limit. Working Load Limit shown is for in-line pull. Maximum Proof Load is 2 times the Working Load Limit.

## Forged eye bolts

### G-277



- Forged Steel - Quenched and Tempered.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- Working Load Limits shown are for in-line pull. For angle loading, see page 180.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these bolts meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- All Bolts Hot Dip galvanized after threading (UNC).
- Furnished with standard Hot Dip galvanized, heavy hex nuts.



### G-277 Shoulder Nut Eye Bolts

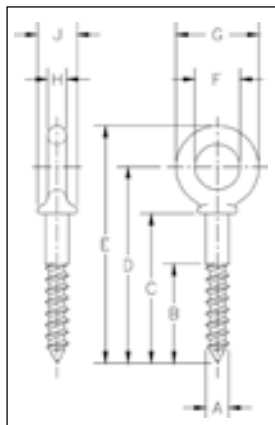
Shank Diameter & Length (mm)	G-277 Stock No.	Working Load Limit (t)*	Weight Per 100 (kg.)	Dimensions (mm)									
				A	B	C	D	E	F	G	H	J	
6.35 x 51.0	1045014	.29	2.99	6.35	12.7	22.4	4.85	38.1	51.0	74.5	12.7	11.9	
6.35 x 102	1045032	.29	4.13	6.35	12.7	22.4	4.85	63.5	102	125	12.7	11.9	
7.94 x 57.0	1045050	.54	5.67	7.85	15.7	28.4	6.35	38.1	57.0	89.0	17.5	14.2	
7.94 x 108	1045078	.54	8.53	7.85	15.7	28.4	6.35	63.5	108	140	17.5	14.2	
9.53 x 63.5	1045096	.70	9.71	9.65	19.1	35.1	7.85	38.1	63.5	101	19.8	16.8	
9.53 x 114	1045112	.70	11.5	9.65	19.1	35.1	7.85	63.5	114	152	19.8	16.8	
12.7 x 82.5	1045130	1.18	19.3	12.7	25.4	44.5	9.65	38.1	82.5	130	25.4	23.1	
12.7 x 152	1045158	1.18	25.8	12.7	25.4	44.5	9.65	76.0	152	200	25.4	23.1	
15.9 x 102	1045176	2.35	31.1	15.7	31.8	57.0	12.7	51.0	102	164	33.3	28.4	
15.9 x 152	1045194	2.35	46.4	15.7	31.8	57.0	12.7	76.0	152	214	33.3	28.4	
19.1 x 114	1045210	3.26	66	19.1	38.1	70.0	15.7	51.0	114	189	39.6	35.1	
19.1 x 152	1045238	3.26	76	19.1	38.1	70.0	15.7	76.0	152	227	39.6	35.1	
22.2 x 127	1045256	4.80	102	22.4	44.5	82.5	19.1	63.5	127	215	46.7	39.6	
25.4 x 152	1045292	6.03	166	25.4	51.0	95.5	22.4	76.0	152	253	53.0	46.0	
25.4 x 229	1045318	6.03	192	25.4	51.0	95.5	22.4	102	229	329	53.0	46.0	
31.8 x 203	1045336	9.52	295	31.8	63.5	114	25.4	102	203	323	62.5	58.0	
31.8 x 305	1045354	9.52	361	31.8	63.5	114	25.4	102	305	425	62.5	58.0	
38.1 x 381	1045372	10.8	646	38.1	76.0	140	31.8	152	381	527	76.0	70.0	

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

### G-275



- Forged Steel — Quenched and Tempered.
- Hot Dip galvanized.



### G-275 Screw Eye Bolts

Shank Diameter & Length (mm)	G-275 Stock No.	Weight Per 100 (kg)	Dimensions (mm)									
			A	B	C	D	E	F	G	H	J	
6.35 x 51.0	1046111	1.95	6.35	38.1	51.0	63.5	74.5	12.7	22.4	4.83	11.9	
7.94 x 57.0	1046139	4.49	7.85	42.9	57.0	74.5	89.0	16.0	28.7	6.35	14.2	
9.53 x 63.5	1046157	8.56	9.65	47.8	63.5	83.5	101	19.1	35.1	7.87	16.8	
12.7 x 82.5	1046175	17.0	12.7	62.0	82.5	108	130	25.4	44.5	9.65	23.1	
15.9 x 102	1046193	38.8	16.0	76.0	102	135	164	31.8	57.0	12.7	28.4	

## Machinery eye bolts

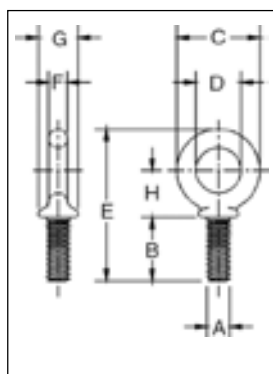
### S-279 / M-279



- Forged Steel - Quenched & Tempered.
- Working Load Limits shown are for in-line pull. For angle loading, see page 180.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor proof load and temperature requirements. Importantly, these bolts meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Recommended for in-line pull.
- S-279 threaded UNC.
- M-279 metric threaded.

### Shoulder Type Machinery Eye Bolts

#### S-279 UNC



Size	S-279 Stock No.	Working Load Limit (t)*	Weight Each (kg.)	Dimensions (mm)							
				A** Thread	B	C	D	E	F	G	H
6.35 x 25.4	9900182	.29	.02	1/4 - 20	25.9	28.7	19.1	58.0	4.85	13.5	19.6
7.94 x 28.6	9900191	.54	.04	5/16 - 18	29.2	35.1	22.4	69.5	6.35	15.0	24.1
9.53 x 31.8	9900208	.70	.06	3/8 - 16	32.3	41.1	25.4	78.0	7.85	17.5	26.7
12.7 x 38.1	9900217	1.18	.12	1/2 - 13	38.9	49.5	30.2	94.0	9.65	23.1	32.3
15.9 x 44.5	9900226	2.35	.24	5/8 - 11	45.5	60.5	35.1	113	12.7	28.7	38.9
19.1 x 51.0	9900235	3.26	.43	3/4 - 10	52.0	70.0	38.1	129	16.0	35.1	43.4
22.2 x 57.0	9900244	4.80	.70	7/8 - 9	58.5	82.5	44.5	149	19.1	39.6	50.8
25.4 x 63.5	9900253	6.03	1.1	1 - 8	65.5	95.5	51.0	169	22.4	46.0	58.4
28.5 x 70.0	9900257	6.80	1.5	1-1/8 - 7	69.8	107	57.1	183	24.6	52.3	59.7
31.8 x 76.0	9900262	9.52	1.8	1-1/4 - 7	78.5	114	63.5	202	25.4	58.0	69.3
38.1 x 89.0	9900271	10.8	3.2	1-1/2 - 6	91.5	140	76.0	241	31.8	70.0	83.3
44.5 x 95.0	9900280	15.4	4.7	1-3/4 - 5	95.2	159	88.9	266	35.0	76.2	91.4
51 x 102	9900289	19.0	8.6	2 - 4-1/2	102	194	101	313	46.0	85.9	114
63.5 x 127	9900298	29.5	14.5	2-1/2 - 4	127	223	114	378	53.8	108	140

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

\*\* All bolts threaded UNC.

#### M-279 METRIC

Size	M-279 Stock No.	Working Load Limit (t)*	Weight Each (kg.)	Dimensions (mm)							
				A** Thread	B	C	D	E	F	G	H
M6 x 13	1045753	.20	.03	M6 x 1.0	13.0	28.7	19.1	47.0	4.9	13.5	19.6
M8 x 13	1045789	.40	.05	M8 x 1.25	13.0	35.1	22.4	54.6	6.4	15.0	24.1
M10 x 17	1045833	.64	.07	M10 x 1.5	17.0	41.1	25.4	64.3	7.9	17.5	26.5
M12 x 20.5	1045869	1.0	.11	M12 x 1.75	20.5	49.5	30.2	77.7	9.7	23.1	32.8
M16 x 27	1045913	1.8	.25	M16 x 2.0	27.0	60.5	35.1	96.0	12.7	28.7	38.9
M20 x 30	1045995	2.5	.42	M20 x 2.5	30.0	70.0	38.1	108	16.0	35.1	43.4
M24 x 36	1046029	4.0	1.05	M24 x 3.0	36.0	95.5	51.0	142	22.4	46.0	58.4
M27 x 69.8	1046038	5.0	1.42	M27 x 3.0	69.8	107	57.1	183	24.6	52.3	59.7
M30 x 45	1046075	6.0	1.77	M30 x 3.5	45.0	114	63.5	171	25.4	58.0	69.3
M36 x 54	1046109	8.5	3.12	M36 x 4.0	54.0	140	76.0	207	31.8	70.0	83.3
M42 x 95.2	1046118	14.0	4.58	M42 x 4.5	95.2	159	88.9	266	35.0	76.2	91.4
M48 x 102	1046127	17.3	8.71	M48 x 5.0	102	194	101	313	46.0	85.9	114
M64 x 127	1046136	29.5	14.74	M64 x 6.0	127	223	114	378	53.8	108	140

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

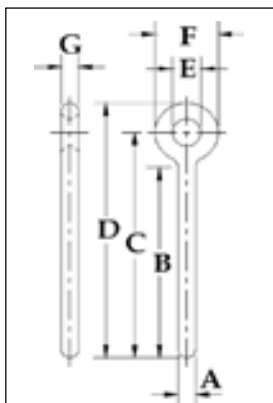
\*\* On Request: Special threading or as forged bolts for customer conversion.

# Forged rivet eye bolts

## S-293



- Forged Steel — Quenched and Tempered.



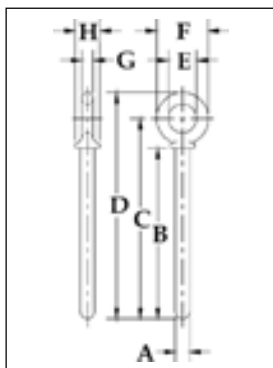
### S-293 Rivet Eye Bolts

Shank Diameter & Length (mm)	S-293 Stock No.	Weight Per 100 (kg)	Dimensions (mm)						
			A	B	C	D	E	F	G
6.35 x 51.0	1043882	2.85	6.35	51.0	67.0	79.5	12.7	25.4	6.35
6.35 x 102	1043908	5.12	6.35	102	118	130	12.7	25.4	6.35
7.94 x 57.0	1043926	5.44	7.94	57.0	76.0	92.0	16.0	31.8	7.87
7.94 x 108	1043944	8.30	7.94	108	127	143	16.0	31.8	7.87
9.53 x 63.5	1043962	11.33	9.53	63.5	86.0	104	19.1	38.1	9.65
9.53 x 114	1043980	12.51	9.53	114	137	155	19.1	38.1	9.65
9.53 x 152	1044006	14.28	9.53	152	175	193	19.1	38.1	9.65
12.7 x 82.5	1044024	19.86	12.7	82.5	111	136	25.4	51.0	12.7
12.7 x 152	1044042	28.34	12.7	152	181	206	25.4	51.0	12.7
15.9 x 102	1044060	42.5	15.9	102	140	171	31.8	63.5	15.8
15.9 x 152	1044088	51.2	15.9	152	190	222	31.8	63.5	15.8
19.1 x 114	1044104	65.2	19.1	114	159	196	38.1	76.0	19.1
19.1 x 152	1044122	73.7	19.1	152	197	234	38.1	76.0	19.1
22.2 x 127	1044140	108	22.2	127	178	222	44.5	89.0	22.2
22.2 x 203	1044168	132	22.2	203	254	298	44.5	89.0	22.2
25.4 x 152	1044186	170	25.4	152	213	263	51.0	102	25.4
25.4 x 229	1044202	204	25.4	229	289	339	51.0	102	25.4
31.8 x 203	1044220	327	31.8	203	279	340	63.0	127	31.8
31.8 x 305	1044248	388	31.8	305	378	441	63.0	127	31.8

## S-276



- Forged steel - Quenched and Tempered.



### S-276 Shoulder Rivet Eye Bolts

Shank Diameter & Length (mm)	S-276 Stock No.	Weight Per 100 (kg)	Dimensions (mm.)							
			A	B	C	D	E	F	G	H
6.35 x 51.0	1045746	2.49	6.35	51.0	63.5	74.5	12.7	22.4	4.85	11.9
6.35 x 102	1045764	3.18	6.35	102	114	125	12.7	22.4	4.85	11.9
7.94 x 57.0	1045782	2.86	7.85	57.0	74.5	89.0	16.0	28.7	6.35	14.2
7.94 x 108	1045808	6.71	7.85	108	125	140	16.0	28.7	6.35	14.2
9.53 x 63.5	1045826	8.53	9.65	63.5	83.5	101	19.1	35.1	7.85	16.8
9.53 x 114	1045844	11.3	9.65	114	134	152	19.1	35.1	7.85	16.8
12.7 x 82.5	1045862	15.0	12.7	82.5	108	130	25.4	44.5	9.65	23.1
12.7 x 152	1045880	22.7	12.7	152	178	200	25.4	44.5	9.65	23.1
15.9 x 102	1045906	31.2	16.0	102	135	164	31.8	57.0	12.7	28.4
15.9 x 152	1045924	34.0	16.0	152	186	214	31.8	57.0	12.7	28.4
19.1 x 114	1045942	57	19.1	114	154	189	38.1	70.0	15.7	35.1
19.1 x 152	1045960	68	19.1	152	192	227	38.1	70.0	15.7	35.1
22.2 x 127	1045988	91	22.4	127	174	215	44.5	82.5	19.1	39.6
25.4 x 152	1046022	135	25.4	152	205	253	51.0	95.5	22.4	46.0
25.4 x 229	1046040	193	25.4	229	282	329	51.0	95.5	22.4	46.0
31.8 x 203	1046068	297	31.8	203	266	323	63.5	114	25.4	58.0
31.8 x 305	1046086	323	31.8	305	368	425	63.5	114	25.4	58.0
38.1 x 381	1046102	646	38.1	381	457	527	76.0	140	31.8	70.0

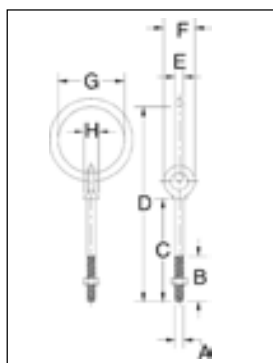
## Ring bolts- pad eyes

**G-257**



- Forged Steel - Quenched and Tempered.
- Hot Dip galvanized.
- All Bolts Hot Dip galvanized after threading.
- Diameter of ring stock is same as shank diameter.

**G-257  
Shoulder Nut Ring Bolts**



Ring Bolt Size (mm)	G-257 Stock No.	Working Load Limit (t)*	Weight Per 100 (kg)	Dimensions (mm)							
				A	B	C	D	E	F	G	H
9.53 X 114	1046335	.54	25.7	9.65	63.5	114	195	9.70	35.1	51.0	16.8
12.7 X 152	1046371	1.00	45.4	12.7	76.0	152	254	12.7	44.5	63.5	23.1

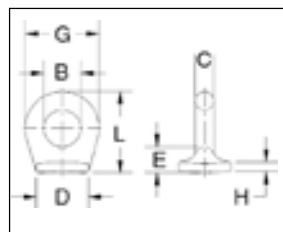
\*Ultimate Load is 5 times the Working Load Limit.

**S-264**



- Forged Steel — Quenched and Tempered.
- Forged from 1035 Carbon Steel.
- Excellent welding qualities.
- Widely used on farm machinery, trucks, steel hulled marine vessels and material handling equipment.
- Reference American Welding Society specifications for proper welding procedures.

**S-264  
Pad Eyes**



Size No.*	S-264 Stock No.	Weight Per 100 (kg)	Dimensions (mm)						
			B	C	D	E	G	H	L
* 0	1090722	1.27	6.35	4.85	16.0	7.85	16.0	2.30	19.1
* 1	1090740	2.95	9.65	6.35	22.4	10.4	22.4	3.30	26.2
* 1.5	1090768	4.72	16.0	6.35	25.4	11.2	28.7	4.05	33.3
2	1090786	9.57	19.1	9.65	26.9	12.7	38.1	4.85	41.4
4	1090802	23.7	25.4	14.2	36.6	19.8	54.0	5.60	59.5
5	1090820	37.4	31.8	17.5	44.5	20.6	67.0	6.35	70.0

\*Meets the requirements of Military Specification MS-51930A.

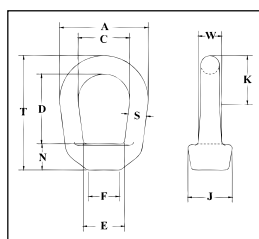


## Forged eye nuts

### G-400



- Forged Steel - Quenched and Tempered.
- Hot Dip galvanized.
- Tapped with standard UNC class 2 threads after galvanizing.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these products meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Also available in blank (as forged) item (S-4028) or on request with metric threading (M-400).
- Recommended for In-Line pull.



### G-400 Eye Nuts

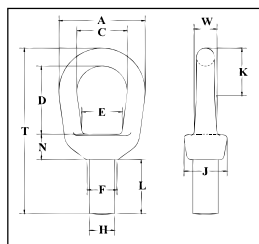
Size No.	"S" Stock Size (mm)	G-400 Stock No	Std. Tap Size (in.)	Working Load Limit (t)*	Weight Each (kg)	Dimensions (mm)										
						A	C	D	E	F	J	K	N	T	W	
1	6.35	1090438	1/4	.24	.04	31.8	19.1	25.4	19.1	12.7	17.5	16.0	11.7	43.7	7.85	
2	7.85	1090474	3/8	.57	.08	41.1	25.4	30.5	21.1	14.2	20.6	22.6	14.7	53	10.4	
3A	9.65	1090517	1/2	1.02	.13	51.0	31.8	36.6	27.4	20.6	25.4	27.7	15.7	63.5	12.7	
4	12.7	1090535	5/8	1.63	.27	63.5	38.1	48.8	34.3	25.4	33.3	33.3	17.5	82.5	17.5	
5	16	1090553	3/4	2.36	.45	76.0	44.5	60.5	40.4	28.4	38.1	39.9	22.4	98.8	21.3	
6	19.1	1090571	7/8	3.27	.75	89.0	51.0	66.8	49.8	35.1	47.8	45.0	23.9	110	25.4	
7	22.4	1090599	1	4.54	1.22	102	57.0	77.7	56.0	39.6	54.0	51.5	27.2	127	30.2	
8	25.4	1090633	1-1/4	7.03	1.98	114	63.5	88.9	62.5	47.8	60.5	57.5	31.8	147	35.1	
9	28.7	1090651	1-3/8	8.39	2.27	127	70.0	102	68.5	51.0	65.0	64.5	35.1	165	38.1	
10	31.8	1090679	1-1/2	10.21	3.08	143	79.0	109	78.5	57.0	76.0	71.5	38.1	179	42.2	
11	38.1	1090697	2	18.14	6.62	181	104	157	104	79.5	95.5	93.5	52.3	252	49.3	

\*Working Load Limit shown is for In-Line pull. Ultimate Load is 5 times the Working Load Limit. Rating based on standard tap size.

### S-405



- Forged Steel — Quenched and Tempered.
- On request: threaded to customer specification.



### S-405 Lifting Eyes

Size No.	S-405 Stock No.	Working Load Limit Threaded (t)*	Maximum Thread Diam. (mm)	Weight Each (kg)	Dimensions (mm)											
					A	C	D	E	F	H †	J	K	L	N	T	W
1	1090269	.39	7.85	.05	31.8	19.1	25.9	16.8	12.7	8.65	17.5	17.0	17.5	10.7	62.5	7.85
2	1090287	.57	9.65	.09	41.1	25.4	30.5	19.1	14.2	10.4	20.6	23.4	23.9	14.0	76	10.4
3	1090303	1.02	12.7	.23	51.0	31.8	36.6	25.4	20.6	13.5	28.7	28.7	31.8	17.3	93.5	12.7
4	1090321	1.63	16.0	.36	63.5	38.1	48.8	30.2	25.4	16.8	33.3	35.1	38.1	20.3	116	17.5
5	1090349	2.36	19.1	.57	76.0	44.5	58.0	35.1	28.4	19.8	38.1	42.2	44.5	24.9	140	21.3
6	1090367	3.27	22.4	1.02	89.0	51.0	63.5	41.4	35.1	23.1	47.8	48.5	47.8	26.9	156	25.4
7	1090385	4.54	25.4	1.47	102	57.0	74.0	47.8	39.6	26.2	54.0	55.0	52.5	30.5	179	30.2
8	1090401	5.67	28.7	2.13	114	63.5	85.0	49.3	47.8	29.5	60.5	62.5	63.5	35.6	207	35.1
10	1090410	8.16	38.1	4.23	143	79.0	97.0	70.0	57.0	38.9	76.0	75.5	81.5	42.9	252	42.2

\*Ultimate Load is 5 times the Working Load Limit. Rating based on UNC thread size shown in Max Thread Diameter column.  
† Dimension before machining (as forged)

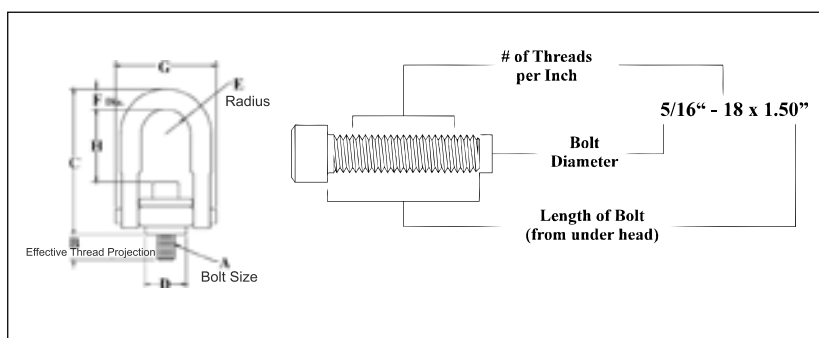


## UNC swivel hoist rings

### HR-125



- Top washer has the following features:
  - The Working Load Limit and Recommended Torque value are permanently stamped into each washer.
  - Washer is color coded for easy identification: Red - UNC thread.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A 574. All threads listed are UNC. Illustration shows meaning of each dimension given.
- **BOLT SIZE IDENTIFICATION:** The size of the bolt will be stated as in the drawing below.
- Frame 2 and larger are **RFID EQUIPPED**.



### HR-125 UNC Threads

Frame Size No.	HR-125 Stock No.	Working Load Limit (lbs.)*	Torque in Ft. Lbs.	Bolt Size A ‡ (in.)	Dimensions (mm)								Weight Each (kg.)
					Effective Thread Projection Length B	C	D	Radius E	Diameter F	G	H		
1 †	1016887	800	7	5/16 - 18 x 1.50	14.7	69.1	24.6	11.7	8.60	47.5	28.4	.17	
1 †	1016898	1000	12	3/8 - 16 x 1.50	14.7	69.1	24.6	11.7	8.60	47.5	26.7	.18	
2	1016909	2500	28	1/2 - 13 x 2.00	17.8	123	49.8	22.1	17.5	85.1	58.2	1.06	
2 †	1016912	2500	28	1/2 - 13 x 2.50	30.5	123	49.8	22.1	17.5	85.1	58.2	1.07	
2	1016920	4000	60	5/8 - 11 x 2.00	17.8	123	49.8	22.1	17.5	85.1	54.9	1.09	
2 †	1016924	4000	60	5/8 - 11 x 2.75	36.8	123	49.8	22.1	17.5	85.1	54.9	1.12	
2	1016931	5000	100	3/4 - 10 x 2.25	24.1	123	49.8	22.1	17.5	85.1	51.8	1.14	
2 †	1016935	5000	100	3/4 - 10 x 2.75	36.8	123	49.8	22.1	17.5	85.1	51.8	1.17	
3	1016942	7000 **	100	3/4 - 10 x 2.75	22.6	167	75.2	34.5	23.9	124	75.4	3.05	
3 †	1016946	7000 **	100	3/4 - 10 x 3.50	41.7	167	75.2	34.5	23.9	124	75.4	3.09	
3	1016953	8000	160	7/8 - 9 x 2.75	22.6	167	75.2	34.5	23.9	124	72.1	3.10	
3 †	1016957	8000	160	7/8 - 9 x 3.50	41.7	167	75.2	34.5	23.9	124	72.1	3.16	
3	1016964	10000	230	1 - 8 x 3.00	29.0	167	75.2	34.5	23.9	124	69.1	3.22	
3 †	1016969	10000	230	1 - 8 x 4.00	54.4	167	75.2	34.5	23.9	124	69.1	3.32	
4	1016975	15000	470	1-1/4 - 7 x 4.50	56.1	221	94.2	44.5	30.2	157	99.8	6.58	
5	1016986	24000	800	1-1/2 - 6 x 6.50	69.3	315	120	60.7	44.5	215	143	17.1	
5	1016997	30000	1100	2 - 4-1/2 x 6.50	69.3	315	120	60.7	44.5	215	131	18.5	
6	1017001	50000	2100	2-1/2 - 4 x 8.0	102	429	146	76.2	57.2	279	204	39.9	
7	1017005	75000	4300	3 - 4 x 10.5	127	495	184	95.3	69.9	360	216	75.3	
8	1017009	100000	5100	3-1/2 - 4 x 13.0 #	178	561	197	102	82.6	404	236	120	

Ultimate Load is 5 times the Working Load Limit.

\*\* Ultimate Load is 4.5 times the Working Load Limit for 7000# Hoist Ring when tested in 90 degree orientation.

† Long Bolts are designed to be used with soft metal (i.e., aluminum) work piece. While the long bolts may also be used with ferrous metal (i.e., steel & iron) work piece, short bolts are designed for ferrous work pieces only.

‡ Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A 574.

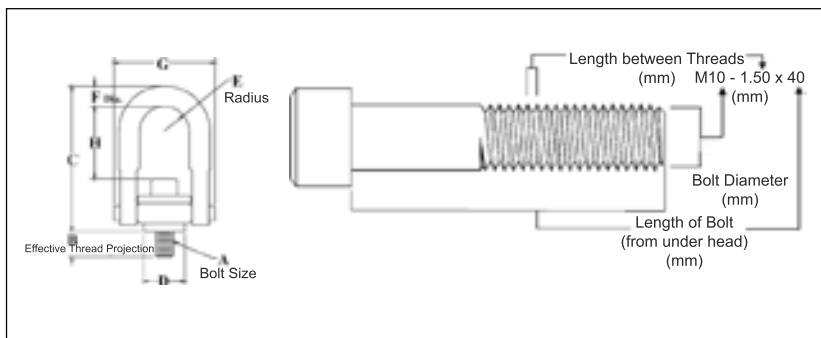
# Hex head bolt used on Frame 8 (100,000lb.) Hoist Ring.

## Metric swivel hoist rings

### HR-125M



- Top washer has the following features:
  - The Working Load Limit and Recommended Torque value are permanently stamped into each washer.
  - Washer is color coded for easy identification: Silver - Metric thread.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- Bolt specification is a Grade 12.9 Alloy socket head cap screw to Din 912. All threads listed are metric (ASME/ANSI B18.3.1m).
- Designed to be used with ferrous work piece only.
- **BOLT SIZE IDENTIFICATION:** The size of the bolt will be stated as in the drawing below. Illustration shows meaning of each dimension given.
- Frame 2 and larger **RFID EQUIPPED.**



### HR-125M Metric Threads

HR-125M Stock No.	Working Load Limit (kg)		Torque in Nm*	Dimensions (mm)								Weight Each (kg)
	At a 5:1 Design Factor †	At a 4:1 Design Factor †		Bolt Size (A) ‡	Effective Thread Length (B)	C	D	Radius E	Diameter F	G	H	
1016602	400	500	10	M8 X 1.25 X 40	16.9	68.1	25.4	11.8	8.5	42.9	28.2	.19
1016613	450	550	16	M10 X 1.50 X 40	16.9	68.1	25.4	11.8	8.5	42.9	27.69	.19
1016624	1050	1300	38	M12 X 1.75 X 50	17.2	124.5	50.8	22.3	17.5	82.7	58.17	1.13
1016635	1900	2400	81	M16 X 2.00 X 60	27.2	124.5	50.8	22.3	17.5	82.7	56.13	1.22
1016644	2150	2700	136	M20 X 2.50 X 65	31.2	124.5	50.8	22.3	17.5	82.7	52.07	1.36
1016657	3000	3750	136	M20 X 2.50 X 75	28.1	167.0	76.2	34.7	25.4	120.1	75.69	3.18
1016668	4200	5250	312	M24 X 3.00 X 80	33.1	167.0	76.2	34.7	25.4	120.1	74.93	3.18
1016679	7000	8750	637	M30 X 3.50 X 120	65.1	220.0	95.3	44.5	30.5	152.4	102.0	6.70
1016690	11000	13750	1005	M36 X 4.00 X 150	60.6	315.3	120.7	57.2	44.5	203.2	124.2	14.95
1016701	12500	15600	1005	M42 X 4.50 X 160	70.6	315.3	120.7	57.2	44.5	203.2	150.6	16.33
1016712	13500	16900	1350	M48 X 5.00 X 160	70.6	315.3	120.7	57.2	44.5	203.2	137.9	16.33

\*The tightening torque values shown are based upon threads being clean, dry and free of lubrication.

† Individually proof loaded to 2-1/2 times the Working Load Limit based on the 4:1 design factor.

‡ Bolt specification is a Grade 12.9 Alloy socket head cap screw to Din 912. All threads are metric (ASME/ANSI B18.3.1m).

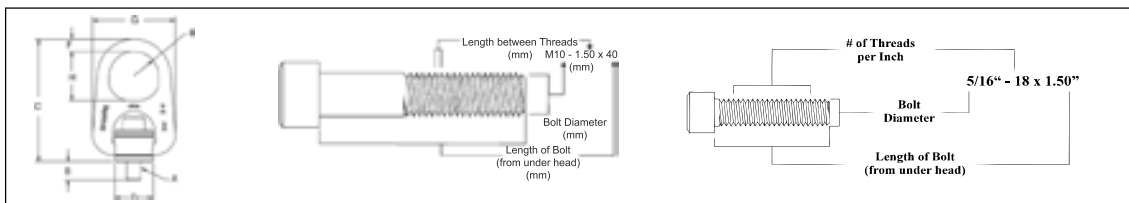


# Heavy lift swivel hoist rings

## HR-1000



- Forged bail provides the following:
  - Easily readable "Raised Lettering" showing the name Crosby or "CG" and PIC Code for material traceability.
  - Greater durability providing the increased "Toughness" desired in potentially abusive field conditions.
  - Larger opening than standard Hoist Ring bail.
- Top washer is color coded for easy identification (Red for UNC threads and Silver for Metric threads)
- The Working Load Limit and Recommended Torque value are permanently stamped into each washer.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- Available in both UNC Thread and Metric Thread style.
- **BOLT SIZE IDENTIFICATION:** The size of the bolt will be stated as in the drawing below. Illustration shows meaning of each dimension given.
- Frame 2 and larger are **RFID EQUIPPED**.



### HR-1000 UNC Threads

Frame Size No.	HR-1000 Stock No.	Working Load Limit (lbs.)*	Torque in Ft. Lbs.	Bolt Size A ‡ (in.)	Dimensions (mm)								Weight Each (kg.)
					Eff. Thread Projection Length B	C	D	Radius E	Diameter F	G	H		
1	1068002	800	7	5/16 - 18 x 1.50	13.2	93.7	24.6	15.7	11.2	57.7	35.1	.27	
1	1068006	1000	12	3/8 - 16 x 1.50	13.2	93.7	24.6	15.7	11.2	57.7	35.1	.28	
2	1068010	2500	28	1/2 - 13 x 2.25	17.5	159	49.8	31.8	15.7	107	63.5	1.38	
2 †	1068014	2500	28	1/2 - 13 x 2.75	30.2	159	49.8	31.8	15.7	107	63.5	1.39	
2	1068018	4000	60	5/8 - 11 x 2.25	17.5	159	49.8	31.8	15.7	107	63.5	1.41	
2 †	1068022	4000	60	5/8 - 11 x 3.00	36.6	159	49.8	31.8	15.7	107	63.5	1.44	
2	1068026	5000	100	3/4 - 10 x 2.50	23.9	159	49.8	31.8	15.7	107	63.5	1.47	
2 †	1068030	5000	100	3/4 - 10 x 3.00	36.6	159	49.8	31.8	15.7	107	63.5	1.50	
3	1068034	7000 **	100	3/4 - 10 x 3.00	21.6	220	75.2	41.4	25.4	159	82.6	4.58	
3 †	1068038	7000 **	100	3/4 - 10 x 3.50	34.3	220	75.2	41.4	25.4	159	82.6	4.63	
3	1068042	8000	160	7/8 - 9 x 3.00	21.6	220	75.2	41.4	25.4	158	82.6	4.63	
3 †	1068046	8000	160	7/8 - 9 x 3.50	34.3	220	75.2	41.4	25.4	158	82.6	4.71	
3	1068050	10000	230	1 - 8 x 3.50	34.3	220	75.2	41.4	25.4	158	82.6	4.76	
3 †	1068054	10000	230	1 - 8 x 4.50	59.7	220	75.2	41.4	25.4	158	82.6	4.86	
4	1068058	15000	470	1-1/4 - 7 x 5.00	53.1	285	94.2	50.8	31.8	199	102	9.93	
4	1068062	24000	800	1-1/2 - 6 x 5.50	65.8	285	94.2	50.8	31.8	199	102	10.4	

### HR-1000M Metric Threads

Frame Size No.	HR-1000M Stock No.	Working Load Limit (kg)*		Torque in Nm	Bolt Size A ‡ ‡	Dimensions (mm)								Weight Each (kg.)
		At a 5:1 Design Factor***	At a 4:1 Design Factor ***			Eff. Thread Projection Length B	C	D	Radius E	Diameter F	G	H		
1	1068307	400	500	10	M8 x 1.25 x 40	15.2	93.7	24.6	15.7	11.2	57.7	35.1	.3	
1	1068316	450	550	16	M10 x 1.50 x 40	15.2	93.7	24.6	15.7	11.2	57.7	35.1	.3	
2	1068325	1050	1300	38	M12 x 1.75 x 55	15.5	162	49.8	31.8	19.1	107	63.5	1.5	
2	1068334	1900	2400	81	M16 x 2.00 x 65	25.5	162	49.8	31.8	19.1	107	63.5	1.5	
2	1068343	2150	2700	136	M20 x 2.50 x 70	30.5	162	49.8	31.8	19.1	107	63.5	1.6	
3	1068352	3000	3750	136	M20 x 2.50 x 80	25.4	220	75.2	41.4	25.4	159	82.6	4.6	
3	1068361	4200	5250	312	M24 x 3.00 x 90	35.4	220	75.2	41.4	25.4	159	82.6	4.8	
4	1068370	7000	8750	637	M30 x 3.50 x 140	66.2	285	94.2	50.8	31.8	199	102	9.7	
4	1068389	11000	13750	1005	M36 x 4.00 x 130	56.2	285	94.2	50.8	31.8	199	102	10.2	

\*Ultimate Load is 5 times the Working Load Limit.

\*\* Ultimate Load is 4.5 times the Working Load Limit for 7000# Hoist Ring when tested in 90 degree orientation.

\*\*\* Individually proof loaded to 2-1/2 times the Working Load Limit based on the 4:1 design factor.

† Long Bolts are designed to be used with soft metal (i.e., aluminum) work piece. While the long bolts may also be used with ferrous metal (i.e., steel & iron) work piece, short bolts are designed for ferrous work pieces only.

‡ Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A 574. ‡‡ Bolt specification is a Grade 12.9 Alloy socket head cap screw to DIN 912.

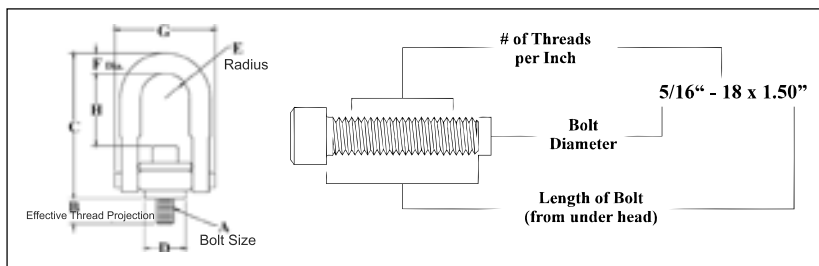
NOTE: The tightening torque values shown are based upon threads being clean, dry and free of lubrication.

# Stainless steel swivel hoist rings

## SS-125



- All components are 316 stainless steel, except bolt retainers, which are made from 15-7 PH (UNS 15700) magnetic stainless steel.
- Available in capacities from 400 lbs. to 25,000 lbs.
- Rated at 100 percent at 90 degree angle.
- Each product has a Product Identification Code (PIC) for material traceability, along with the Working Load Limit and the name Crosby or "CG" stamped into it.
- Individually proof tested to 2 times the Working Load Limit with certification.
- Fatigue Rated to 20,000 cycles at 1-1/2 times the Working Load Limit.
- Washer is color coded for easy identification (Red - UNC thread).
- Bolt specification is 316 Stainless Steel socket head cap screw to ASTM F 837 Group 1 (316). All threads listed are UNC.
- **BOLT SIZE IDENTIFICATION:** The size of the bolt will be stated as in the drawing below. Illustration shows meaning of each dimension given.
- Frame 2 and larger are **RFID EQUIPPED**.



## SS-125 UNC Threads

Frame Size No.	SS-125 Stock No.	Working Load Limit (lbs.)*	Torque in Ft. Lbs.	Bolt Size A ‡ (in.)	Dimensions (mm)							Weight Each (kg.)
					Effective Thread Projection Length B	C	D	Radius E	Diameter F	G	H	
1	1065000	400	3.5	5/16 - 18 x 1.0	7.40	67.8	18.0	10.9	8.60	46.7	32.3	.14
1	1065004	400	3.5	5/16 - 18 x 1.25	13.7	67.8	18.0	10.9	8.60	46.7	32.3	.14
1	1065008	500	6	3/8 - 16 x 1.25	13.7	67.8	18.0	10.9	8.60	46.7	32.3	.14
2	1065016	1250	14	1/2 - 13 x 2.0	19.8	121	36.8	22.4	17.5	89.4	58.7	1.18
2	1065020	1250	14	1/2 - 13 x 2.25	26.2	121	36.8	22.4	17.5	89.4	58.7	1.18
2	1065024	1250	14	1/2 - 13 x 2.5	32.5	121	36.8	22.4	17.5	89.4	58.7	1.18
2	1065028	2000	30	5/8 - 11 x 2.0	19.8	121	36.8	22.4	17.5	89.4	55.4	1.18
2	1065032	2000	30	5/8 - 11 x 2.25	26.2	121	36.8	22.4	17.5	89.4	55.4	1.18
2	1065036	2000	30	5/8 - 11 x 2.5	32.5	121	36.8	22.4	17.5	89.4	55.4	1.18
2	1065040	2500	50	3/4 - 10 x 2.25	26.2	121	36.8	22.4	17.5	89.4	52.3	1.36
2	1065044	2500	50	3/4 - 10 x 2.75	38.9	121	36.8	22.4	17.5	89.4	52.3	1.36
3	1065048	3500	50	3/4 - 10 x 2.75	26.4	166	55.9	35.6	23.9	131	77.7	3.18
3	1065052	3500	50	3/4 - 10 x 3.25	39.1	166	55.9	35.6	23.9	131	77.7	3.18
3	1065056	4000	80	7/8 - 9 x 2.75	26.4	166	55.9	35.6	23.9	131	74.4	3.18
3	1065060	4000	80	7/8 - 9 x 3.0	32.8	166	55.9	35.6	23.9	131	74.4	3.18
3	1065064	5000	115	1 - 8 x 3.0	32.8	166	55.9	35.6	23.9	131	71.4	3.40
3	1065068	5000	115	1 - 8 x 3.25	39.1	166	55.9	35.6	23.9	131	71.4	3.40
3	1065072	5000	115	1 - 8 x 4.0	58.2	166	55.9	35.6	23.9	131	71.4	3.40
4	1065080	7500	235	1-1/4 - 7 x 4.0	48.0	222	81.0	44.5	31.8	165	105	6.35
5	1065084	12000	400	1-1/2 - 6 x 5.5	68.6	317	124	57.2	44.5	217	163	15.4
5	1065088	15000	400	2 - 4.5 x 5.75	75.2	317	124	57.2	44.5	217	150	16.3
6	1065092	25000	1050	2-1/2 - 4 x 8.0	102	428	166	76.2	57.2	296	204	39.9
6	1065096	25000	1050	2-1/2 - 8 x 8.0	102	428	166	76.2	57.2	296	204	39.9
7	1065100	37500	2150	3 - 4 x 10.25	127	495	206	95.3	69.9	359	215	75.3
8	1065104	50000	2550	3-1/2 - 4 x 13	178	561	218	102	82.6	404	236	120

\*Ultimate Load is 5 times the Working Load Limit.

‡ Bolt specification is 316 Stainless Steel socket head cap screw to ASTM F 837 Group 1 (316).

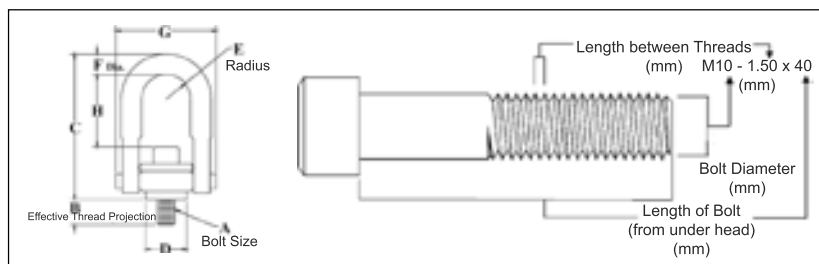


## Stainless steel swivel hoist rings

### SS-125M



- All components are 316 stainless steel, except bolt retainers, which are made from 15-7 PH (UNS 15700) magnetic stainless steel.
- Available in capacities from 200 kg. to 22.300 kg.
- Rated at 100 percent at 90 degree angle.
- Each product has a Product Identification Code (PIC) for material traceability, along with the Working Load Limit and the name Crosby or "CG" stamped into it.
- Individually proof tested to 2 times the Working Load Limit with certification.
- Fatigue Rated to 20,000 cycles at 1-1/2 times the Working Load Limit.
- Washer is color coded for easy identification (Silver - Metric thread).
- Bolt specification is 316 Stainless Steel socket head cap screw to ASTM F 837M (316).
- All threads listed are Metric (ASME/ ANSI B18.3.1M).
- **BOLT SIZE IDENTIFICATION:** The size of the bolt will be stated as in the drawing below. Illustration shows meaning of each dimension given.
- Frame 2 and larger are **RFID EQUIPPED**.



### SS-125M Metric Threads

Frame Size No.	SS-125M Stock No.	Working Load Limit (kg)*	Torque in Nm	Dimensions (mm)								Weight Each (kg.)
				Bolt Size A ‡	Effective Thread Projection Length B	C	D	Radius E	Diameter F	G	H	
1	1065203	200	4	M8 x 1.25	13	68	18	11	8.5	47	32	.17
1	1065207	250	8	M10 x 1.50	18	68	18	11	8.5	47	30	.17
2	1065211	525	18	M12 x 1.75	19	121	37	22	17.5	89	60	1.1
2	1065215	950	40	M16 x 2.00	29	121	37	22	17.5	89	56	1.1
2	1065219	1075	68	M20 x 2.50	34	121	37	22	17.5	89	52	1.2
3	1065223	1500	68	M20 x 2.50	32	166	56	36	25	131	78	3.0
3	1065227	2100	108	M24 x 3.00	37	166	56	36	25	131	74	3.1
3	1065231	2100	108	M30 x 3.50	58	206	56	36	25	131	108	3.1
4	1065235	3500	318	M30 x 3.50	42	222	81	45	31	165	106	6.3
4	1065239	3500	318	M30 x 3.50	62	222	81	45	31	165	106	6.4
5	1065243	5500	542	M36 x 4.00	64	317	124	57	43	217	166	15.5
5	1065247	6250	542	M42 x 4.50	82	317	124	57	43	217	160	16.0
5	1065251	6750	542	M48 x 5.00	82	317	124	57	43	217	154	16.8
6	1065255	11150	1423	M64 x 6.00	101	428	165	76	56	296	204	39.0
7	1065259	15750	2915	M72 x 6.00	132	495	206	95	69	359	220	74.0
8	1065263	22300	3459	M90 x 6.00	177	561	216	102	83	404	235	118.0

\*Ultimate Load is 5 times the Working Load Limit.

‡ Bolt specification is 316 Stainless Steel socket head cap screw to ASTM F 837M (316).

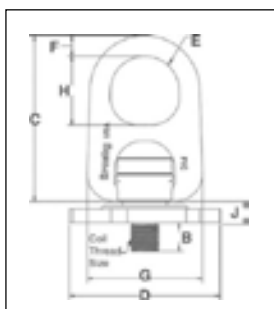
## Trench cover hoist rings

### HR-500



- Designed to simplify the lifting and placement of steel plates used to cover trenches in streets.
- Provides a standard fitting to be used in place of products not designed for trench cover applications.
- Capacities of 2.27, 4.54 & 6.82t for plate thicknesses of 19mm to 38mm.
- Detailed welding instructions included with every hoist ring.
- Forged bail provides the following:
  - Easily readable "Raised Lettering" showing the name Crosby or "CG" and PIC code for material traceability.
  - More durability provides the increased "Toughness" desired in potentially abusive field conditions.
- 180 degree pivot and 360 degree rotation at full capacity.
- Design Factor of 5 to 1.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- All sizes are **RFID EQUIPPED**.

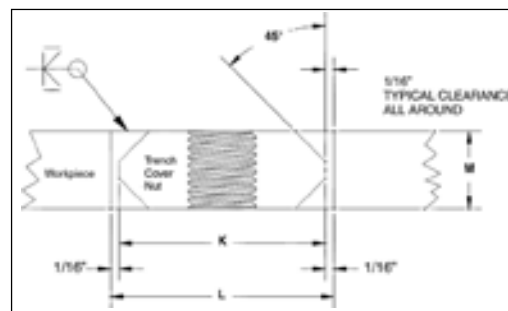
### HRN-500



### HR-500 Trench Cover Hoist Rings Coil Threads

HR-500 Stock No.	Working Load Limit (t)*	Weight Each (kg)	Coil Thread Size "A"	Effective Thread Projection Length B	Dimensions (mm)						
					C	D	Radius E	F	G	H	J
1017907	2.27	2.5	1" - 3.5	25.4	150	140	31.8	19.1	107	63.5	19.6
1017916	4.54	7.1	1-1/4" - 3.5	25.4	210	178	41.4	25.4	159	82.5	20.6
1017925	6.82	13.5	1-1/2" - 3.5	38.1	270	232	51.0	31.8	199	102	20.3

\*Ultimate Load is 5 times the Working Load Limit.



### HRN-500 Trench Cover Nuts

HRN-500 Stock No.	Working Load Limit (t)	Weight Each (kg)	Coil Thread Size	Dimensions (mm)		
				Nut Diam. "K"	Trench Cover Hole Diam. "L"	Nut Thickness "M"
1063405	2.27	.45	1" - 3.5	76.2	79.2	19.1
1063414	2.27	.64	1" - 3.5	76.2	79.2	22.4
1063423	2.27	.73	1" - 3.5	76.2	79.2	25.4
1063432	4.54	.50	1-1/4" - 3.5	76.2	79.2	19.1
1063441	4.54	.59	1-1/4" - 3.5	76.2	79.2	22.4
1063450	4.54	.68	1-1/4" - 3.5	76.2	79.2	25.4
1063454	4.54	.86	1-1/4" - 3.5	76.2	79.2	31.8
1063458	4.54	1.04	1-1/4" - 3.5	76.2	79.2	38.1
1063469	6.82	.91	1-1/2" - 3.5	88.9	91.9	25.4
1063478	6.82	1.18	1-1/2" - 3.5	88.9	91.9	31.8
1063487	6.82	1.41	1-1/2" - 3.5	88.9	91.9	38.1

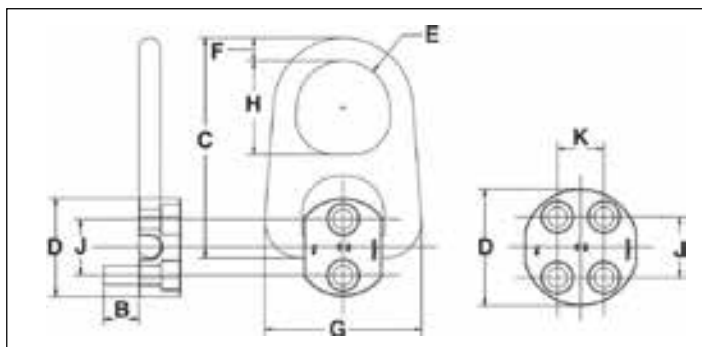


## Pivot hoist rings

### HR-100 UNC HR-100M METRIC



- Forged bail provides the following:
  - Easily readable "Raised Lettering" showing the name Crosby or "CG" and PIC code for material traceability.
  - More durability provides the increased "Toughness" desired in potentially abusive field conditions.
  - Larger opening than standard Hoist Ring bails.
- 180 degree pivot action at full capacity.
- Bolts included as part of assembly.
- Design Factor of 5 to 1.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- UNC Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A 574.
- Metric Bolt specification is a Grade 12.9 Alloy socket head cap screw to DIN 912.
- Frame 2 and larger are **RFID EQUIPPED**.



### HR-100 Pivot Hoist Rings UNC Threads

Frame Size No.	HR-100 Stock No.	Working Load Limit (lbs.)*	Torque in Ft-Lbs.	No. of Bolts	Weight Each (kg.)	Bolt Size "A" (in.)	Dimensions (mm)									
							Effective Thread Projection Length B	C	Diameter D	Radius E	F	G	H	J	K	
1	1067408	2000	7	2	.30	5/16-18 x 1.25	20.8	87.1	50.8	15.7	11.2	57.7	35.1	25.4	-	
2	1067417	2500	12	2	1.40	3/8-16 x 1.25	16.5	153	57.2	31.8	19.1	107	63.5	28.6	-	
2	1067426	5000	28	2	1.50	1/2-13 x 2.00	35.6	153	66.8	31.8	19.1	107	63.5	38.1	-	
3	1067435	12000	28	4	4.80	1/2-13 x 2.75	41.9	210	79.5	41.4	25.4	159	82.6	41.3	31.8	
4	1067444	20000	60	4	10.0	5/8-11 x 3.25	41.9	270	114	50.8	31.8	199	102	52.4	31.8	

\*Ultimate Load is 5 times the Working Load Limit.

### HR-100M Pivot Hoist Rings Metric Threads

Frame Size No.	HR-100M Stock No.	Working Load Limit (kg.)*	Torque in Nm.	No. of Bolts	Weight Each (kg.)	Bolt Size "A"	Dimensions (mm)									
							Effective Thread Projection Length B	C	Diameter D	Radius E	F	G	H	J	K	
1	1067905	900	10	2	.3	M8-1.25 x 30	19.1	87.1	51.0	15.8	11.2	57.7	35.1	25.4	-	
2	1067914	1150	16	2	1.4	M10-1.50 x 30	14.8	153	57.2	31.8	19.1	107	63.5	28.6	-	
2	1067923	2150	38	2	1.5	M12-1.75 x 50	34.8	153	66.8	31.8	19.1	107	63.5	38.1	-	
3	1067932	5100	38	4	4.8	M12-1.75 x 70	42.1	210	79.5	41.4	25.4	159	82.6	41.3	31.8	
4	1067941	9000	81	4	10.0	M16-2.00 x 80	39.4	270	114	51.0	31.8	199	102	52.4	31.8	

\*Ultimate Load is 5 times the Working Load Limit.

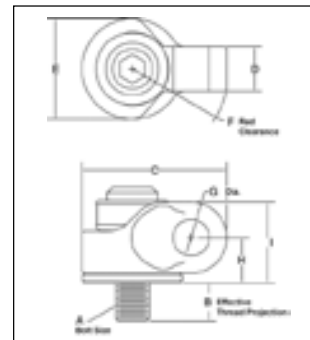


## HR-1200 side pull hoist rings

### HR-1200



- Wide range of capacities available:
  - 650 lbs. to 29,000 lbs.
  - Metric sizes from 300 kg. to 13,000 kg.
- Body components are Alloy Steel - Quenched and Tempered.
- Rated at 100% of Working Load Limit for angles up to 90 degrees.
- Each product is stamped with a Product Identification Code (PIC), for material traceability, along with a Working Load Limit, and the name Crosby or "CG".
- Hoist Ring body is furnished with Yellow Chromate finish for improved corrosion resistance.
- Utilize standard Crosby Red Pin® Shackles to connect to wire rope or synthetic slings. (sold separately)
- Multiple bolt lengths available to meet specific application requirements.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- All sizes are **RFID EQUIPPED**.



### HR-1200 UNC Side Pull Hoist Rings

Weight Each (kg.)	Working Load Limit (lbs.)*	HR-1200 Stock No.	Hoist Ring Bolt Torque (Ft. Lbs.)	(A) Bolt Size (in.)	(B) Eff. Thread Proj. (In.)	Dimensions (mm)							Recommended Shackles			
						C	D	E	F	Dia. G	H	I	Red Pin® Shackles 209,210,213, 215,2130,2150		Red Pin Web Shackles S-281	
													Nominal Size (in.)	WLL (t)	Web Size (mm)	WLL (t)
.16	650	1067700	7	5/16-18x1.50	15.0	49.0	18.3	25.4	39.6	20.3	21.6	31.8	1/2, 5/8	2, 3-1/4	50	2.95
.16	800	1067704	12	3/8-16x1.50	15.0	49.0	18.3	25.4	39.6	20.3	21.6	31.8	1/2, 5/8	2, 3-1/4	50	2.95
.64	2000	1067708	28	1/2-13x2.00	18.0	75.4	24.6	50.8	54.1	23.6	27.2	45.5	5/8, 3/4	3-1/4, 4-3/4	50, 35	2.95, 4.08
.64	2000	1067712	28	1/2-13x2.50	30.7	75.4	24.6	50.8	54.1	23.6	27.2	45.5	5/8, 3/4	3-1/4, 4-3/4	50, 35	2.95, 4.08
.68	3000	1067716	60	5/8-11x2.00	18.0	75.4	24.6	50.8	54.1	23.6	27.2	45.5	5/8, 3/4	3-1/4, 4-3/4	50, 35	2.95, 4.08
.68	3000	1067720	60	5/8-11x2.75	37.1	75.4	24.6	50.8	54.1	23.6	27.2	45.5	5/8, 3/4	3-1/4, 4-3/4	50, 35	2.95, 4.08
2.04	5000	1067724	100	3/4-10x2.75	22.9	110	34.0	76.2	76.2	27.2	34.3	61.5	7/8	6-1/2	50	5.67
2.09	5000	1067728	100	3/4-10x3.50	41.9	110	34.0	76.2	76.2	27.2	34.3	61.5	7/8	6-1/2	50	5.67
2.09	6500	1067732	160	7/8-9x2.75	22.9	110	34.0	76.2	76.2	27.2	34.3	61.5	7/8	6-1/2	50	5.67
2.18	6500	1067736	160	7/8-9x3.50	41.9	110	34.0	76.2	76.2	27.2	34.3	61.5	7/8	6-1/2	50	5.67
2.18	8000	1067740	230	1-8x3.00	29.2	110	34.0	76.2	76.2	27.2	34.3	61.5	7/8	6-1/2	50	5.67
2.27	8000	1067744	230	1-8x4.00	54.6	110	34.0	76.2	76.2	27.2	34.3	61.5	7/8	6-1/2	50	5.67
4.63	14000	1067748	470	1-1/4-7x4.5	56.4	142	39.9	95.3	99.3	37.3	48.8	86.9	1, 1-1/8, 1-1/4	8-1/2, 9-1/2, 12	75	7.70
10.7	17200	1067756	800	1-1/2-6x6.5	75.7	186	52.3	121	132	53.6	61.2	109	1-3/8, 1-1/2, 1-3/4	13-1/2, 17, 25	-	-
11.5	29000	1067764	1100	2-4.5x6.5	75.7	186	52.3	121	132	53.6	61.2	109	1-3/8, 1-1/2, 1-3/4	13-1/2, 17, 25	-	-

\*Ultimate Load is 5 times the Working Load Limit.

### HR-1200M Metric Side Pull Hoist Rings

Weight Each (kg.)	Working Load Limit (kg)*	HR-1200M Stock No.	Hoist Ring Bolt Torque (Nm.)	(A) Bolt Size (mm)	(B) Eff. Thread Proj. (mm)	Dimensions (mm)							Recommended Shackles			
						C	D	E	F	G	H	I	Red Pin® Shackles 209,210,213, 215,2130,2150		Red Pin Web Shackles S-281	
													Nominal Size (in.)	WLL (t)	Web Size (mm)	WLL (t)
.18	300	1067803	10	M8x1.25x40	16.9	49.0	18.3	25.4	39.6	20.3	21.6	36.3	1/2, 5/8	2, 3-1/4	50	2.95
.18	400	1067807	16	M10x1.50x40	16.9	49.0	18.3	25.4	39.6	20.3	21.6	36.3	1/2, 5/8	2, 3-1/4	50	2.95
.63	1000	1067811	38	M12x1.75x50	17.2	75.4	24.6	50.8	54.1	23.6	27.2	45.5	5/8, 3/4	3-1/4, 4-3/4	50, 35	2.95, 4.08
.68	1400	1067815	81	M16x2.0x60	27.2	75.4	24.6	50.8	54.1	23.6	27.2	45.5	5/8, 3/4	3-1/4, 4-3/4	50, 35	2.95, 4.08
2.0	2250	1067823	136	M20x2.5x75	28.1	110	34.0	76.2	76.2	27.2	34.4	61.5	7/8	6-1/2	50	5.67
2.2	3500	1067827	312	M24x3.0x80	33.1	110	34.0	76.2	76.2	27.2	34.4	61.5	7/8	6-1/2	50	5.67
4.5	6250	1067831	637	M30x3.5x120	65.1	142	39.9	95.3	99.3	37.3	48.8	86.9	1, 1-1/8, 1-1/4	8-1/2, 9-1/2, 12	75	7.70
10.4	7750	1067835	1005	M36x4.0x150	60.6	186	52.3	121	132	53.6	61.2	109	1-3/8, 1-1/2, 1-3/4	13-1/2, 17, 25	-	-
10.7	10000	1067839	1005	M42x4.5x160	70.6	186	52.3	121	132	53.6	61.2	109	1-3/8, 1-1/2, 1-3/4	13-1/2, 17, 25	-	-
11.0	13000	1067843	1350	M48x5.0x160	70.6	186	52.3	121	132	53.6	61.2	109	1-3/8, 1-1/2, 1-3/4	13-1/2, 17, 25	-	-

\*Ultimate Load is 5 times the Working Load Limit.

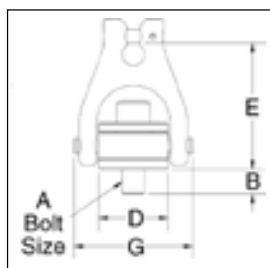


## Hoist ring to chain or webbing

### HR-125C



- Available in capacities from 2 to 8.2 tonnes.
- Fits Grade 8 Chain size 7, 8, 10, 13 and 16mm.
- Forged Alloy Steel.
- Design factor of 4 to 1.
- Individually Proof Tested to 2-1/2 times Working Load Limit.
- "Yellow Chromate" finish for increased corrosion protection.
- Full 360 degrees swivel and 180 degrees pivot action.
- Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A574. All threads are UNC.
- All sizes are **RFID EQUIPPED**.



### HR-125C Hoist Ring to Chain

HR-125C Stock No.	Working Load Limit (t)*	Torque in Ft.-Lbs.	Effective Thread Projection Length (mm)	Spectrum 8 Chain Size (in. - mm)	Dimensions (mm)					Weight Each (kg)
					UNC Thread A ‡	B	D	E	G	
1067492	2	60	18.0	1/4-5/16 7-8	5/8-11 x 2.00	17.8	49.8	90.0	85.0	.95
1067494	2	60	37.1	1/4-5/16 7-8	5/8-11 x 2.75	30.5	49.8	90.0	85.0	.95
1067500	3.2	100	22.9	3/8 10	3/4-10 x 2.75	22.6	75.0	121	124	2.45
1067502	3.2	100	41.9	3/8 10	3/4-10 x 3.50	41.7	75.0	121	124	2.45
1067509	5.4	230	29.2	1/2 13	1-8 x 3.00	29.0	75.0	122	124	2.90
1067511	5.4	230	54.6	1/2 13	1-8 x 4.00	54.5	75.0	122	124	3.04
1067518	8.2	470	56.4	5/8 16	1-1/4-7 x 4.50	56.0	94.0	166	157	5.81

Ultimate load is 4 times the Working Load Limit. Individually tested to 2-1/2 the Working Load Limit.

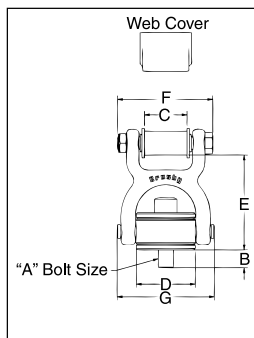
‡ Long Bolts are designed to be used with soft metal (i.e., aluminum) work piece. While the long bolts may also be used with ferrous metal (i.e., steel & iron) work piece, short bolts are designed for ferrous work pieces only.

### HR-125W



U.S. Patent No. 5,927,780

- Available in capacities from 2.8 to 5.6t.
- Fits webbing sizes 50 to 100mm.
- Forged Alloy Steel
- Durable plastic cover protects the sling at the eye as well as keeps the sling positioned correctly on the spool.
- Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A574. All threads are UNC.
- Design Factor of 5 to 1.
- Individually Proof Tested to 2-1/2 times the Working Load Limit.
- Designed for use with Type III (Eye & Eye), class 7, 2 ply webbing & synthetic round slings. Also accommodates single ply endless slings.
- All sizes are **RFID EQUIPPED**.



### HR-125W Hoist Ring to Web

HR-125W Stock No.	Round Sling Size (No.)	Web Width (mm)	Eye Width (mm)	Working Load Limit (t)*	Torque in Ft.-lbs.	Eff. Thread Proj. Length (mm)	Spool bolt & nut Torque in Ft.-Lbs.	Dimensions (mm)							Weight Each (kg)
								UNC Thread A ‡	B	C	D	E	F	G	
1067610	1 & 2	50	50	2.8	100	22.9	90	3/4-10x2.75	22.6	54.0	75.0	121	121	124	2.81
1067615	1 & 2	50	50	2.8	100	41.9	90	3/4-10x3.50	41.7	54.0	75.0	121	121	124	2.86
1067629	3	75	35	4.0	230	29.2	110	1-8x3.00	29.0	41.4	75.0	121	115	124	3.22
1067634	3	75	35	4.0	230	54.6	110	1-8x4.00	54.5	41.4	75.0	121	115	124	3.31
1067638	4	100	50	5.6	470	56.4	130	1-1/4-7x4.5	56.0	54.0	94.0	158	109	157	6.21

Ultimate load is 5 times the Working Load Limit. Individually tested to 2-1/2 times the Working Load Limit.

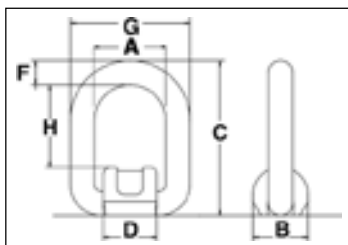
‡ Long Bolts are designed to be used with soft metal (i.e., aluminum) work piece. While the long bolts may also be used with ferrous metal (i.e., steel & iron) work piece, short bolts are designed for ferrous work pieces only.

## Weld-on pivot link

### S-265

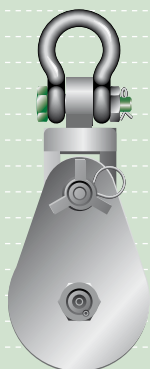


- Forged Steel — Quenched and Tempered.
- Forged from 1035 Carbon Steel.
- Excellent welding qualities.
- Widely used on farm machinery, trucks, steel hulled marine vessels and material handling equipment.
- Appropriate welding instructions are available upon request.

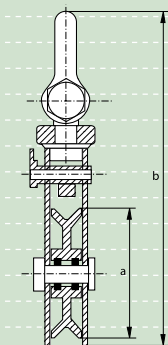
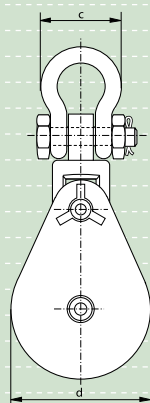


### S-265 Weld-On Pivot Link

Working Load Limit (t)		S-265 Stock No	Weight Each (kg.)	Dimensions (mm)							Minimum Fillet Weld Size (mm)
Design Factor 5:1	Design Factor 4:1			A	B	C	D	F	G	H	
1	1.2	1290740	.40	40	36	83	35	13	66	42	3
2.5	3.2	1290768	.60	45	44	99	42	18	81	48	3
4.2	5.3	1290786	1.20	55	50	123	49	22	99	57	6
6.4	8	1290802	2.40	70	64	144	64	26	122	67	6
12	15	1290820	5.90	97	90	193	86	34	165	94	8



P-6951



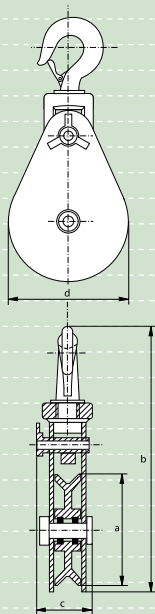
## Green Pin® Snatch blocks type 601S, with Green Pin® Shackle

- **Material** : carbon steel, fitted with conical roller bearings, except for blocks with WLL 2 t and 4 t, these are equipped with bronze bushes
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : painted
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

working load limit	diameter wire rope	diameter outside sheave	length	width	width outside	weight each
t	mm	a mm	b mm	c mm	d mm	kg
2	7 - 9	75	293	79	82	3.8
4	10 - 12	115	363	107	120	6.1
4	12 - 14	152	417	107	160	9.5
8	14 - 16	152	477	124	160	12.6
12	14 - 16	152	555	154	160	25
8	20 - 22	152	477	124	160	14.6
12	20 - 22	152	555	154	160	25
15	24 - 26	152	585	170	160	30
4	10 - 12	203	478	107	210	12
12	14 - 16	203	580	154	210	27.5
8	20 - 22	203	526	124	210	16
12	20 - 22	203	580	154	210	32
15	24 - 26	203	646	170	210	35
8	14 - 16	254	582	124	260	19.5
8	20 - 22	254	582	124	260	18
12	20 - 22	254	680	154	260	39
15	24 - 26	254	705	170	260	43
8	20 - 22	305	612	124	310	27
12	20 - 22	305	745	154	310	53
15	24 - 26	305	771	170	310	55
8	20 - 22	357	662	124	360	31
12	20 - 22	357	770	154	360	60
15	24 - 26	357	798	170	360	63
8	20 - 22	406	712	124	410	35
12	20 - 22	406	820	154	410	67
15	24 - 26	406	848	170	410	70
8	20 - 22	457	762	124	460	42
12	20 - 22	457	878	154	460	75
15	24 - 26	457	898	170	460	78



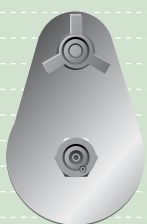
P-6952



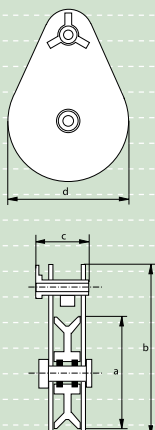
## Snatch blocks type 601H, with hook

- **Material** : carbon steel, fitted with conical roller bearings, except for blocks with WLL 2 t and 4 t, these are equipped with bronze bushes
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : painted
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

working load limit	diameter wire rope	diameter outside sheave	length	thickness	width outside	weight each
t	mm	a mm	b mm	c mm	d mm	kg
2	7 - 9	75	292	57	82	4
4	10 - 12	115	343	83	120	6.1
4	12 - 14	152	384	83	160	6
8	20 - 22	152	445	108	160	11.8
12	20 - 22	152	572	127	160	23
15	24 - 26	152	587	127	160	23
4	10 - 12	203	435	83	210	8
8	20 - 22	203	495	108	210	16.9
12	20 - 22	203	622	127	210	25
15	24 - 26	203	638	127	210	26
8	20 - 22	254	546	108	260	19
12	20 - 22	254	673	127	260	28
15	24 - 26	254	689	127	260	28
8	20 - 22	305	597	108	310	23
12	20 - 22	305	724	127	310	31
15	24 - 26	305	740	127	310	31
8	20 - 22	357	648	108	360	31
12	20 - 22	357	775	127	360	33
15	24 - 26	357	791	127	360	33
8	20 - 22	406	699	108	410	36
12	20 - 22	406	825	127	410	36
15	24 - 26	406	841	127	410	36
8	20 - 22	457	749	108	460	40
10	20 - 22	457	876	127	460	42
15	24 - 26	457	892	127	460	43



P-6953



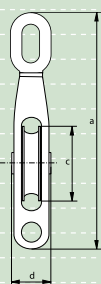
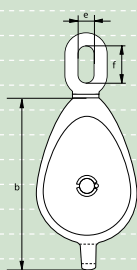
## Snatch blocks type 601T

- **Material** : carbon steel, fitted with conical roller bearings, except for blocks with WLL 4 t, these are equipped with bronze bushes
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : painted
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

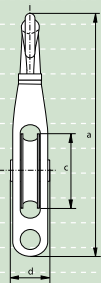
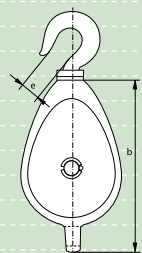
working load limit	diameter wire rope	diameter outside sheave	length	thickness	width outside	weight each
t	mm	a mm	b mm	c mm	d mm	kg
4	10 - 12	115	213	83	120	4
8	20 - 22	152	305	108	160	9
8	20 - 22	203	357	108	210	12
8	20 - 22	254	406	108	260	16



G-6917



G-6918



## Galvanized malleable iron blocks with eye, one sheave, for use with wire or fibre rope

- **Material** : galvanized malleable iron
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

working load limit	diameter rope	length	length	diameter	thickness	width inside	length inside	weight each
t	mm	a	b	c	d	e	f	kg
0.4	12	164	118	45	39	14	25	0.7
0.8	16	232	158	62	45	18	37	1.4
1	18	270	178	82	49	24	52	1.8
2	24	340	233	98	60	30	59	3.7
2.2	28	350	246	111	64	30	59	4.9
2.6	30	390	280	136	68	30	59	7.2
3	32	420	314	159	75	44	70	10.8
3.6	34	460	350	174	75	44	70	12.6

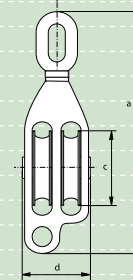
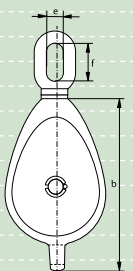
## Galvanized malleable iron blocks with hook, one sheave, for use with wire or fibre rope

- **Material** : galvanized malleable iron
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

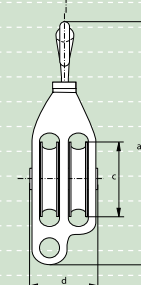
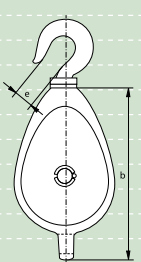
working load limit	diameter rope	length	length	diameter	thickness	width inside	weight each
t	mm	a	b	c	d	e	kg
0.4	12	203	118	45	39	24	0.9
0.8	16	262	158	62	45	28	1.5
1	18	278	173	82	49	28	2
2	24	346	233	98	60	30	3.8
2.2	28	388	246	111	64	30	5.1
2.4	30	415	280	136	68	30	7.7
3	32	450	314	159	75	48	11.4
3.6	34	492	350	174	75	48	13.5



**G-6922**



**G-6923**



## Galvanized malleable iron blocks with eye, two sheaves, for use with wire or fibre rope

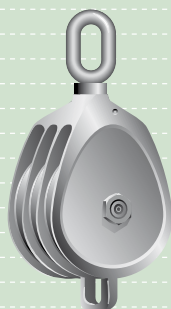
- **Material** : galvanized malleable iron
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

working load limit	diameter rope	length	length	diameter	thickness	width inside	length inside	weight each
t	mm	a	b	c	d	e	f	kg
0.4	12	164	118	45	62	14	25	1.2
0.9	16	232	158	62	70	18	37	2.1
1.1	18	270	175	82	74	24	52	3.1
2	24	340	233	98	102	30	59	6.0
2.3	28	350	246	111	112	30	59	7.4
2.6	30	390	280	136	119	30	59	9.0
3	32	420	314	159	130	44	70	16.2
3.6	34	460	350	174	130	44	70	18.3

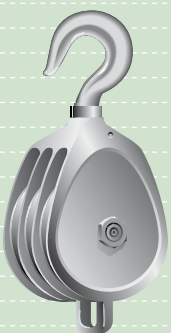
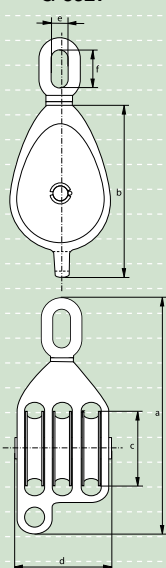
## Galvanized malleable iron blocks with hook, two sheaves, for use with wire or fibre rope

- **Material** : galvanized malleable iron
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

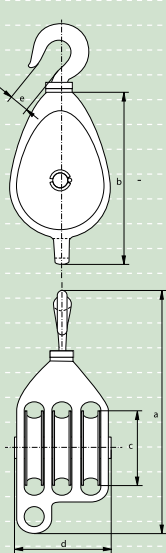
working load limit	diameter rope	length	length	diameter	thickness	width inside	weight each
t	mm	a	b	c	d	e	kg
0.4	12	203	118	45	62	24	1.3
0.9	16	262	158	62	70	28	2.3
1.1	18	278	175	82	74	28	3.3
2	24	346	233	98	102	30	6.2
2.3	28	388	246	111	112	30	7.6
2.6	30	415	280	136	119	30	11.3
3	32	450	314	159	130	48	16.8
3.6	34	492	350	174	130	48	19.3



G-6927



G-6928



### Galvanized malleable iron blocks with eye, three sheaves, for use with wire or fibre rope

- **Material** : galvanized malleable iron
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

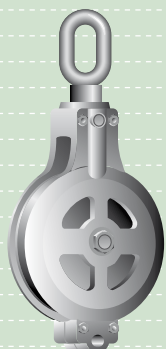
working load limit	diameter rope	length	length	diameter	thickness	width inside	length inside	weight each
t	mm	a	b	c	d	e	f	kg
0.6	12	170	120	45	83	14	25	1.5
1	16	229	154	62	90	18	37	2.6
1.5	18	287	190	82	103	24	52	4.1
3	24	342	235	98	133	30	59	7.8
3.9	28	392	284	136	155	30	59	14.5
5.4	30	485	350	174	166	44	70	25

### Galvanized malleable iron blocks with hook, three sheaves, for use with wire or fibre rope

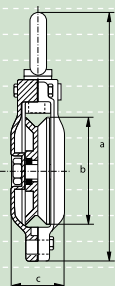
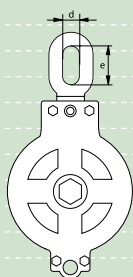
- **Material** : galvanized malleable iron
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

working load limit	diameter rope	length	length	diameter	thickness	width inside	weight each
t	mm	a	b	c	d	e	kg
0.6	12	205	120	45	83	24	1.6
1	16	259	154	62	90	28	2.7
1.5	18	294	190	82	103	28	4.3
3	24	348	235	98	133	30	8.1
3.9	28	397	284	136	155	30	14.7
5.4	30	510	350	174	166	48	26.2





P-6916



## American pattern cargo blocks with eye, one sheave

- **Material** : carbon steel  
sheave with taper roller bearing
- **Safety factor** : MBL equals 4 x WLL
- **Finish** : painted
- **Certification** : test certificates can be supplied upon request
- **Note** : Working Load Limit is on the headfitting

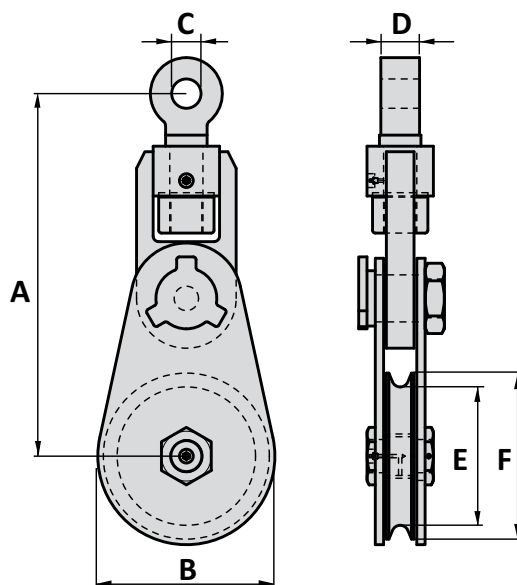
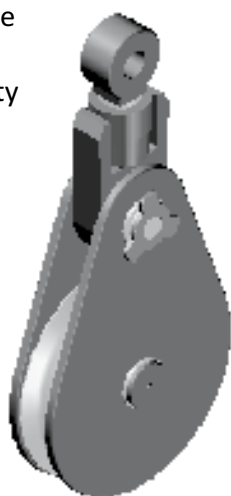
working load limit	diameter wire rope	length	diameter	thickness	width inside	length inside	weight each
t	mm	a mm	b mm	c mm	d mm	e mm	kg
4	10 - 13	437	156	82	35	75	11
6	20 - 22	512	200	104	35	75	20
6	20 - 22	610	260	130	40	85	27
10	20 - 22	750	305	165	54	125	40
10	20 - 24	840	355	165	54	125	55
20	24 - 26	1040	410	190	73	170	100
32	26 - 28	1018	430	192	73	170	125
40	26 - 28	1095	460	210	73	170	150

# GN SNATCH BLOCKS FOR SHACKLE LIFTING TYPE BL3

Material : Mild steel  
 Safety factor : 4 times  
 Finish : Painted  
 Certificates : Manufacturer certificate  
 on request Proofload certificate  
 Certificate of Conformity

Sheaves with bronze bearing

Groove size can be changed  
 on request for bigger rope sizes



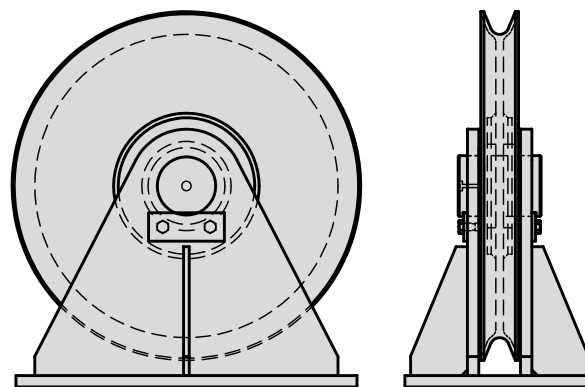
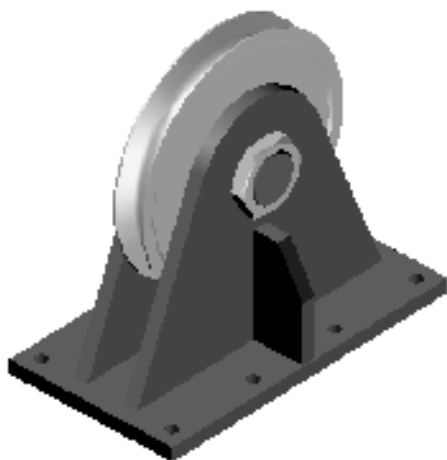
Art. No.	Type No.	WLL eye pull ton	WLL line pull ton	Rope size inch	Rope size mm	A mm	B mm	C mm	D mm	E mm	F mm	Weight kg
<b>Light Type</b>												
20041903	H41903	3.25	1.62	3/8"	8-10	188	82	20	26	56	76	3
20041905	H41905	4.75	2.37	1/2"	11-14	250	122	24	30	86	114	8
20041906	H41906	8.5	4.25	3/4"	18-20	356	162	30	40	112	152	17
20041908	H41908	8.5	4.25	3/4"	18-20	381	216	30	40	163	203	23
20041910	H41910	9.5	4.75	3/4"	18-20	406	270	34	44	214	254	28
20041912	H41912	9.5	4.75	3/4"	18-20	446	320	34	44	265	305	34
20041914	H41914	12	6	3/4"	18-20	516	396	37	48	315	365	43
20041916	H41916	13.5	6.75	7/8"	22-25	645	430	42	54	356	406	100
20041918	H41918	17	8.5	1"	22-25	690	490	44	57	408	458	120
<b>Heavy Type</b>												
20043106	H43106	17	8.5	1"	22-25	490	160	44	57	110	150	49
20043108	H43108	25	12.5	1 1/8"	25-28	602	220	53	70	150	200	80
20043110	H43110	25	12.5	1 1/4"	28-32	632	270	53	70	190	250	93
20043112	H43112	25	12.5	1 1/4"	28-32	662	320	53	70	240	300	109
20043114	H43114	25	12.5	1 1/4"	28-32	692	370	53	70	290	350	116
20043118	H43118	35	17.5	1 1/2"	32-38	835	470	60	80	380	450	211
20043120	H43120	35	17.5	1 1/2"	32-38	865	520	60	80	430	500	238
20043124	H43124	35	17.5	1 1/2"	32-38	925	625	60	80	535	605	284
20043224	H43224	55	27.5	1 5/8"	38-42	1040	625	73	100	520	605	460
20043230	H43230	85	42.5	1 7/8"	44-48	1212	780	85	120	630	750	890
20043234	H43234	120	60	2"	50-55	1327	880	100	140	740	860	1200
20043236	H43236	150	75	2 1/2"	60-70	1427	930	113	160	760	910	1530
20043242	H43242	200	100	3"	75-85	1630	1080	135	170	870	1060	2285
20043246	H43246	250	125	3 1/2"	88-93	1785	1190	145	190	970	1170	3015

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

# VERTICAL LEAD SHEAVE

# TYPE BL1

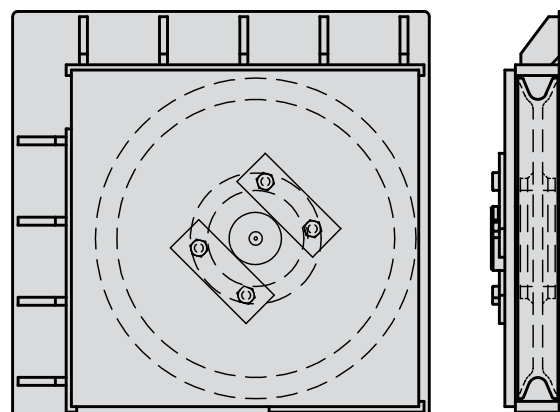
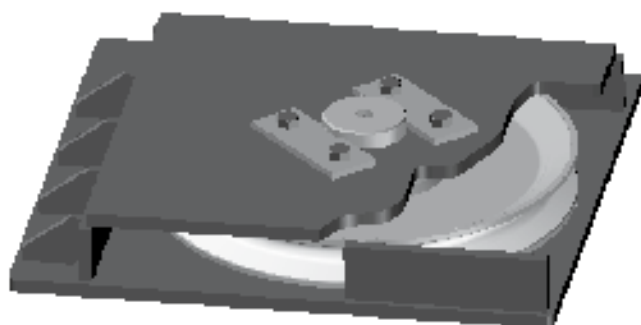
Material : Steel  
 Finish : Painted  
 Suitable for wire rope sizes untill 3½".



# HORIZONTAL LEAD SHEAVE

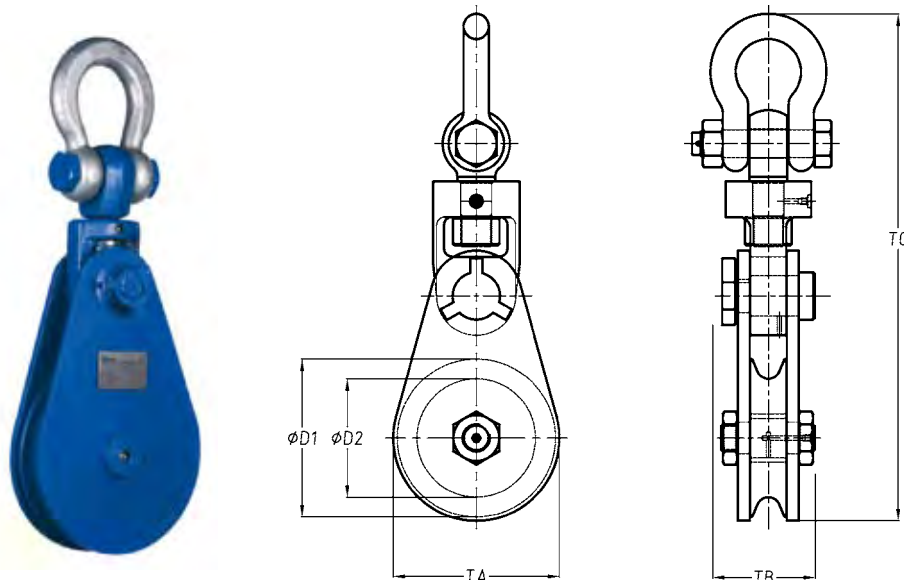
# TYPE BL4

Material : Steel  
 Finish : Painted  
 Suitable for wire rope sizes untill 3½".



## Snatch Blocks with Shackle

S series



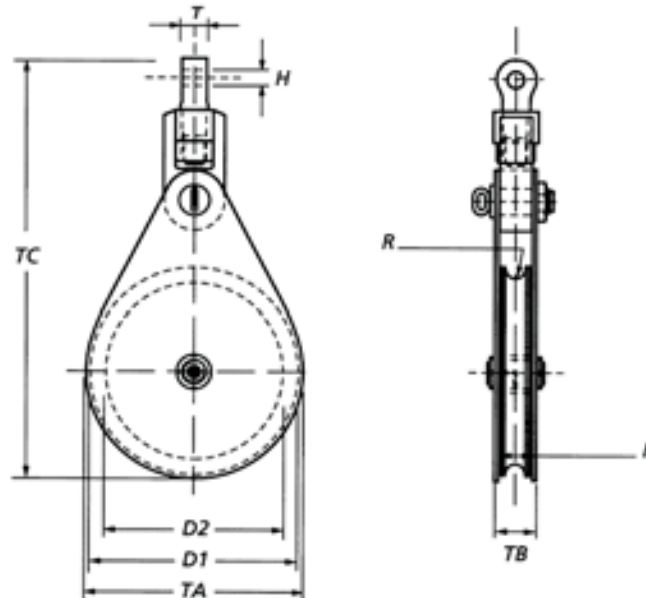
Stock No.	WLL (Mtons)	For wire $\phi$ d		Dimensions (mm)					Bearing type	Weight (kg)
		(mm)	(inch)	D1	D2	TA	TB	TC		
12.103.02.15	2	7-9	$\frac{9}{32} - \frac{3}{8}$	75	60	82	70	286	BB	4
12.104.04.15	4	10-12	$\frac{3}{8} - \frac{1}{2}$	115	90	120	70	345	BB	6
12.106.04.15	4	16-19	$\frac{5}{8} - \frac{3}{4}$	150	120	160	70	399	BB	14
12.106.08.15	8	19-22	$\frac{3}{4} - \frac{7}{8}$	150	120	160	93	475	RB	15
12.108.08.15	8	19-22	$\frac{3}{4} - \frac{7}{8}$	200	165	210	93	528	RB	16
12.110.10.15	10	24-26	1	250	205	260	115	679	RB	38
12.110.12.15	12	24-26	1	250	205	260	115	679	RB	42
12.112.12.15	12	24-26	1	300	255	310	133	767	RB	56
12.108.15.15	15	22-24	$\frac{7}{8} - \frac{15}{16}$	200	160	210	102	663	RB	24
12.112.15.15	15	24-26	1	300	255	310	133	884	RB	65
12.114.22.15	22	28-32	$1\frac{1}{8} - 1\frac{1}{4}$	355	300	365	140	952	RB	90
12.116.22.15	22	28-32	$1\frac{1}{8} - 1\frac{1}{4}$	400	350	415	140	1019	RB	108
12.118.22.15	22	28-32	$1\frac{1}{8} - 1\frac{1}{4}$	450	380	465	180	1088	RB	120
12.112.30.15	30	28-30	$1\frac{1}{8} - 1\frac{3}{16}$	300	245	310	193	1023	RB	125
12.116.30.15	30	32-35	$1\frac{1}{4} - 1\frac{3}{8}$	400	300	415	155	1126	RB	135
12.120.30.15	30	32-35	$1\frac{1}{4} - 1\frac{3}{8}$	500	440	514	162	1256	RB	210
12.114.35.15	35	32-35	$1\frac{1}{4} - 1\frac{3}{8}$	350	280	365	193	1058	RB	130
12.124.50.15	50	46-50	$1\frac{13}{16} - 2$	600	500	625	275	1525	RB	418

Minimum Ultimate Strength = 4 x WLL.

WLL = Working Load Limit on head fitting.  
RB = Roller bearing.  
BB = Bronze brushing.

## Snatch Blocks

HL series



Stock No.	WLL (Mtons)	For wire $\phi$ d	Bearing type	Dimensions (mm)									Weight (kg)
				D1	D2	F	H	R	T	TA	TB	TC	
12.008.20.03	20	26-28	RB	200	150	70	52	14.5	70	212	96	751	70
12.008.20.13	20	26-28	BB	200	150	70	52	14.5	70	212	96	751	70
12.010.20.03	20	26-28	RB	250	190	70	52	14.5	70	262	96	801	81
12.010.20.13	20	26-28	BB	250	190	70	52	14.5	70	262	96	801	81
12.012.20.03	20	26-28	RB	300	240	70	52	14.5	70	312	96	851	95
12.012.20.13	20	26-28	BB	300	240	70	52	14.5	70	312	96	851	95
12.014.20.03	20	26-28	RB	350	290	70	52	14.5	70	362	96	901	100
12.014.20.13	20	26-28	BB	350	290	70	52	14.5	70	362	96	901	100
12.016.20.03	20	26-28	RB	400	340	70	52	14.5	70	412	96	951	110
12.016.20.13	20	26-28	BB	400	340	70	52	14.5	70	412	96	951	110
12.018.30.03	30	28-32	RB	450	390	80	60	16.5	80	462	112	1121	155
12.018.30.13	30	28-32	BB	450	390	80	60	16.5	80	462	112	1121	155
12.020.30.03	30	28-32	RB	500	430	80	60	16.5	80	512	112	1171	180
12.020.30.13	30	28-32	BB	500	430	80	60	16.5	80	512	112	1171	180
12.024.30.03	30	28-32	RB	600	520	80	60	16.5	80	612	112	1271	250
12.024.30.13	30	28-32	BB	600	520	80	60	16.5	80	612	112	1271	250



Minimum Ultimate Strength = 4 x WLL.

WLL = Working Load Limit on head fitting.

RB = Roller bearing.

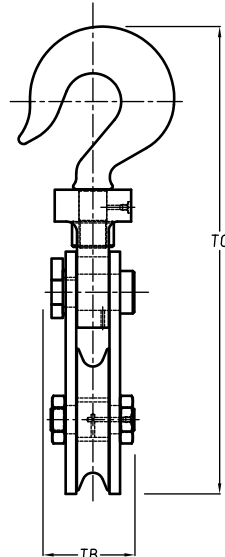
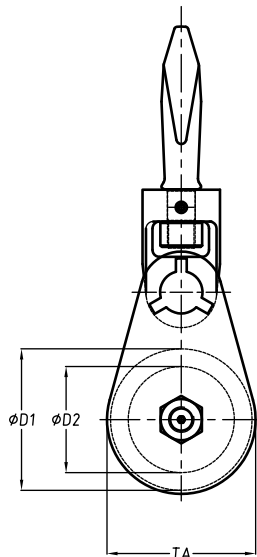
BB = Bronze brushing.

Groove in sheave may be adjusted to other wire rope diameters.

Can also be delivered with:  or: 

## Snatch blocks with Hook

S series



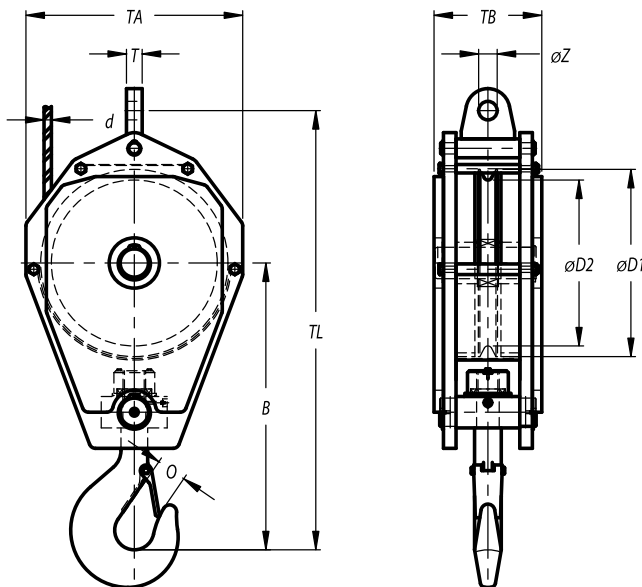
Stock No.	WLL (Mtons)	For wire $\phi$ d		Dimensions (mm)					Bearing type	Weight (kg)
		(mm)	(inch)	D1	D2	TA	TB	TC		
12.103.02.14	2	7-9	$\frac{9}{32} - \frac{3}{8}$	75	60	82	70	292	BB	4
12.104.04.14	4	10-12	$\frac{3}{8} - \frac{1}{2}$	115	90	120	70	358	BB	6
12.106.04.14	4	16-19	$\frac{5}{8} - \frac{3}{4}$	150	120	160	70	412	BB	14
12.106.08.14	8	19-22	$\frac{3}{4} - \frac{7}{8}$	150	120	160	93	498	RB	15
12.108.08.14	8	19-22	$\frac{3}{4} - \frac{7}{8}$	200	165	210	93	549	RB	16
12.110.10.14	10	24-26	1	250	205	260	115	695	RB	38
12.110.12.14	12	24-26	1	250	205	260	115	701	RB	42
12.112.12.14	12	24-26	1	300	255	310	133	797	RB	56
12.108.15.14	15	22-24	$\frac{7}{8} - \frac{15}{16}$	200	160	210	102	672	RB	24
12.112.15.14	15	24-26	1	300	255	310	133	797	RB	65
12.114.22.14	22	28-32	$1\frac{1}{8} - 1\frac{1}{4}$	355	300	365	140	960	RB	90
12.116.22.14	22	28-32	$1\frac{1}{8} - 1\frac{1}{4}$	400	350	415	140	1027	RB	108
12.118.22.14	22	28-32	$1\frac{1}{8} - 1\frac{1}{4}$	450	380	465	180	1058	RB	120
12.112.30.14	30	28-30	$1\frac{1}{8} - 1\frac{3}{16}$	300	245	310	193	993	RB	125
12.116.30.14	30	32-35	$1\frac{1}{4} - 1\frac{3}{8}$	400	300	415	155	1085	RB	135
12.120.30.14	30	32-35	$1\frac{1}{4} - 1\frac{3}{8}$	500	440	514	162	1177	RB	210
12.114.35.14	35	32-35	$1\frac{1}{4} - 1\frac{3}{8}$	350	280	365	193	1028	RB	130
12.124.50.14	50	46-50	$1\frac{13}{16} - 2$	600	500	625	275	1495	RB	418

Minimum Ultimate Strength = 4 x WLL.

WLL = Working Load Limit on head fitting.  
RB = Roller bearing.  
BB = Bronze brushing.

## Standard Reeve Crane Blocks

1 sheave



Model Nr.	WLL (Mtons)	For wire $\varnothing d$	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
SRB 250.1.8	8	11-12	280	250	460	49	360	195	730	22	27	100
SRB 285.1.10	10	13-14	320	285	550	55	400	195	850	28	32	125
SRB 320.1.12	12	15-16	365	320	590	55	450	215	915	28	32	170
SRB 355.1.16	16	17-18	410	355	665	59	500	215	1005	35	37	210
SRB 400.1.20	20	19-20	460	400	740	69	570	230	1120	40	43	250
SRB 450.1.25	25	21-22	515	450	770	69	600	230	1180	40	43	300
SRB 520.1.32	32	24-26	595	520	900	76	700	230	1365	45	52	400
SRB 570.1.40	40	28-29	650	570	975	84	750	313	1515	50	59	600
SRB 630.1.50	50	30-32	720	630	1025	97	825	333	1495	60	65	850

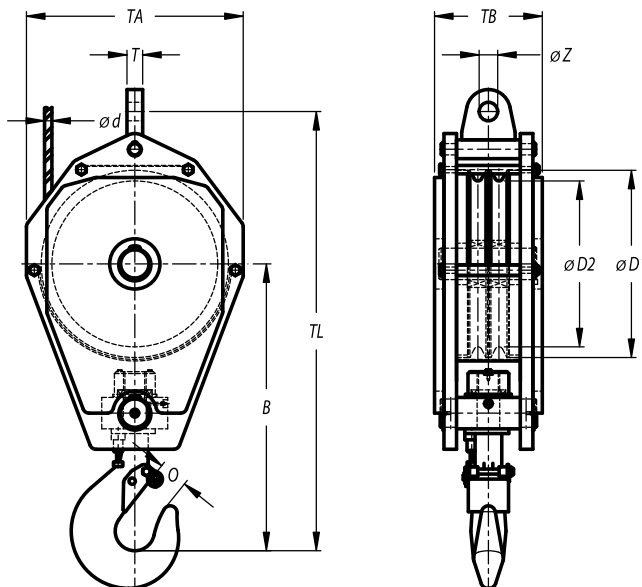
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow (no striping).  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Standard Reeve Crane Blocks

2 sheaves



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
SRB 260.2.16	16	11-12	300	260	575	59	400	165	860	28	32	130
SRB 285.2.16	16	15-16	320	285	585	59	400	165	885	28	32	130
SRB 285.2.20	20	15-16	320	285	660	69	400	165	960	28	32	130
SRB 285.2.20	20	17-19	320	285	660	69	400	165	960	28	32	150
SRB 320.2.20	20	15-16	365	320	690	69	450	180	1115	28	32	160
SRB 355.2.29	29	17-19	410	355	760	69	500	250	1100	35	37	250
SRB 400.2.20	20	24-26	460	400	825	69	570	180	1180	45	52	180
SRB 400.2.25	25	24-26	460	400	825	69	570	180	1205	45	52	200
SRB 400.2.29	29	20-22	460	400	750	69	570	240	1130	40	43	320
SRB 450.2.30	30	24-26	515	450	850	69	605	220	1275	45	52	300
SRB 450.2.50	50	24-26	515	450	850	84	605	325	1275	45	52	550
SRB 520.2.63	63	27-28	596	528	1085	97	710	405	1565	50	59	980
SRB 520.2.80	80	27-28	596	528	1150	110	710	440	1610	50	59	1000

Minimum Ultimate Strength = 4 x WLL.

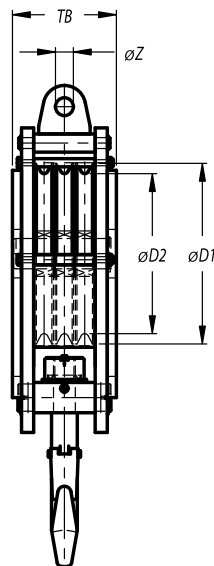
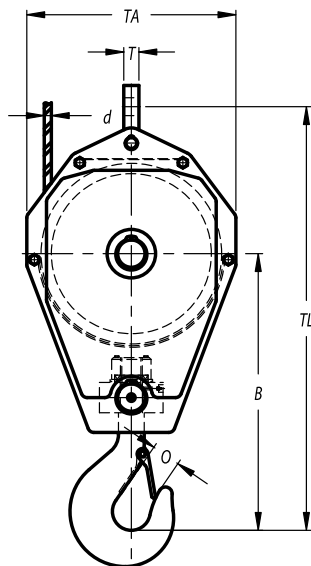
Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow (no striping).  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 



## Standard Reeve Crane Blocks

3 sheaves



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
SRB 250.3.16	16	11-12	280	250	640	59	360	220	910	22	27	175
SRB 285.3.20	20	13-14	320	285	700	69	400	230	995	28	32	200
SRB 320.3.25	25	15-16	365	320	725	69	450	230	1045	28	32	250
SRB 355.3.32	32	17-18	410	355	820	76	500	250	1160	35	37	310
SRB 400.3.40	40	19-20	460	400	940	84	570	292	1320	40	43	460
SRB 450.3.50	50	21-22	515	450	945	97	600	333	1355	40	43	600
SRB 520.3.63	63	24-26	595	520	980	97	700	333	1445	45	52	850
SRB 570.3.80	80	28-29	650	570	1195	110	750	372	1615	50	59	1100
SRB 630.3.100	100	30-32	720	630	1300	132	825	392	1770	60	65	1400

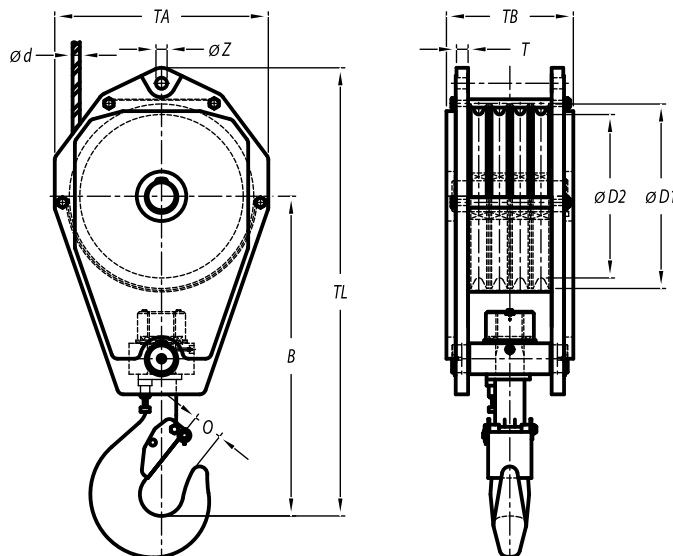
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow (no striping).  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Standard Reeve Crane Blocks

4 sheaves



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
SRB 285.4.35	35	15-16	320	285	670	75	400	312	980	28	32	260
SRB 355.4.50	50	17-19	410	355	835	84	500	363	1175	25	37	475
SRB 355.4.50	50	20-22	410	355	835	84	500	363	1185	40	43	475
SRB 400.4.63	63	20-22	465	400	915	97	570	350	1295	40	43	525
SRB 450.4.63	63	20-22	515	450	950	97	600	400	1360	40	43	725
SRB 450.4.80	80	24-26	515	450	1065	110	600	517	1455	40	52	960
SRB 520.4.100	100	27-28	596	528	1290	132	710	462	1765	40	59	1250

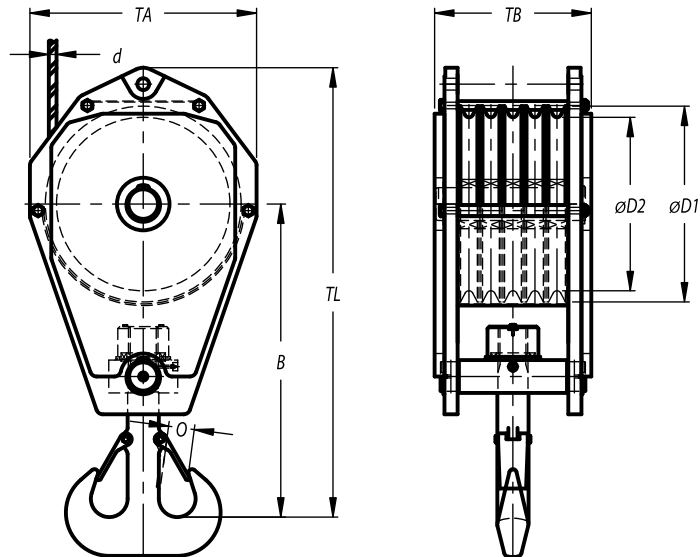
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow (no striping).  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Standard Reeve Crane Blocks

5 sheaves



Model Nr.	WLL (Mtons)	For wire $\varnothing d$	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
SRB 250.5.25	25	11-12	280	250	650	47	360	310	850	22	27	250
SRB 285.5.32	32	13-14	320	285	725	57	400	310	950	28	32	300
SRB 320.5.40	40	15-16	365	320	800	60	450	440	1035	28	32	420
SRB 355.5.50	50	17-18	410	355	840	60	500	440	1100	35	37	500
SRB 400.5.63	63	19-20	460	400	880	63	570	450	1175	40	43	620
SRB 450.5.80	80	21-22	515	450	1100	73	600	450	1425	40	43	750
SRB 520.5.100	100	24-26	595	520	1250	87	680	450	1600	45	52	900
SRB 570.5.125	125	28-29	650	570	1350	108	750	575	1750	50	59	1250
SRB 630.5.160	160	30-32	720	630	1540	112	850	575	2000	60	65	1600

Minimum Ultimate Strength = 4 x WLL.

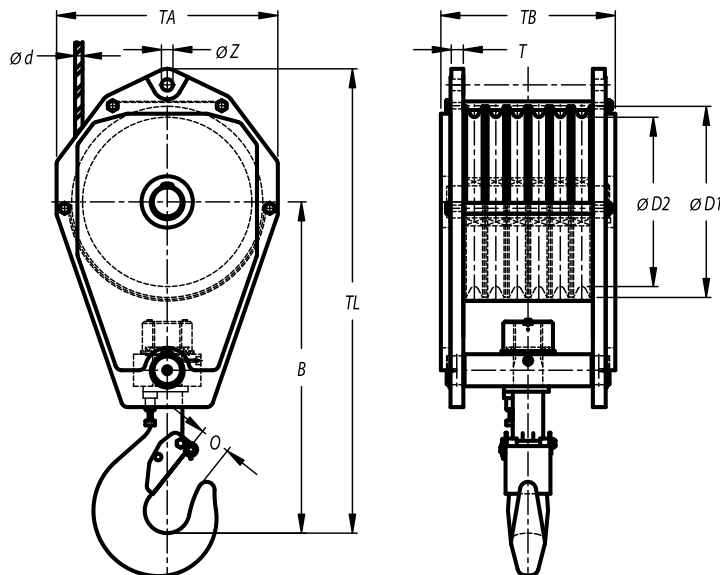
Standard fitted with cylindrical roller bearing and becket.  
 Standard painted in yellow (no striping).  
 Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
 Third party testing with certification available upon request.

Can also be delivered with:



## Standard Reeve Crane Blocks

6 sheaves



Model Nr.	WLL (Mtons)	For wire $\varnothing d$	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
SRB 400.6.72	72	17-19	460	400	1000	110	570	397	1350	30	37	650
SRB 450.6.80	80	20-22	515	450	1090	110	600	612	1480	40	43	1200
SRB 520.6.125	125	24-26	596	528	1250	137	710	652	1690	45	52	1750
SRB 520.6.160	160	24-26	596	528	1325	167	710	842	1825	45	52	2970
SRB 520.6.200	200	27-28	596	528	1525	188	710	882	2035	50	59	3680

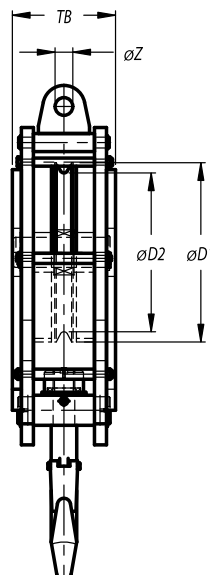
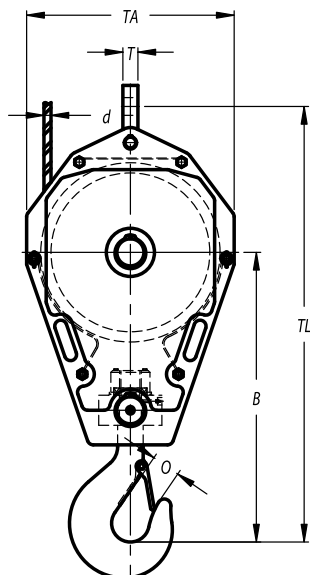
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow (no striping).  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Fast Reeve Crane Blocks

1 sheave



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
FRB 250.1.8	8	11-12	280	250	560	49	360	195	830	22	27	115
FRB 285.1.10	10	13-14	320	285	600	55	400	195	900	28	32	150
FRB 320.1.12	12	15-16	365	320	680	55	450	215	1005	28	32	200
FRB 355.1.16	16	17-18	410	355	730	59	500	215	1070	35	37	250
FRB 400.1.20	20	19-20	460	400	820	69	570	215	1200	40	43	300
FRB 450.1.25	25	21-22	515	450	895	69	600	230	1305	40	43	375
FRB 520.1.32	32	24-26	595	520	1000	76	700	230	1455	45	52	450
FRB 570.1.40	40	28-29	650	570	1150	84	750	335	1625	50	59	700
FRB 630.1.50	50	30-32	720	630	1220	97	850	335	1750	60	65	950

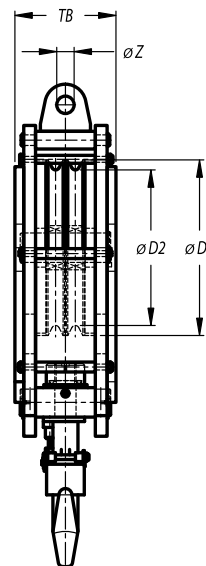
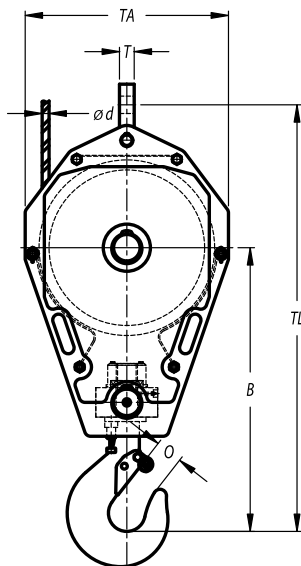
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow with black stripes.  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Fast Reeve Crane Blocks

2 sheaves



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
FRB 260.2.16	16	12-14	300	260	650	59	400	165	935	28	32	120
FRB 320.2.20	20	15-16	365	320	765	69	450	180	1085	28	32	160
FRB 355.2.29	29	17-19	410	355	860	69	500	250	1200	35	37	275
FRB 400.2.20	20	24-26	460	400	900	69	570	180	1255	45	52	200
FRB 400.2.25	25	24-26	460	400	900	69	570	180	1280	45	52	220
FRB 400.2.29	29	20-22	460	400	875	69	570	240	1255	40	43	340
FRB 450.2.30	30	24-26	515	450	925	69	605	220	1350	45	52	315
FRB 450.2.50	50	24-26	515	450	925	84	605	395	1350	45	52	725
FRB 520.2.63	63	27-28	596	528	1160	97	710	405	1640	50	59	1000
FRB 520.2.80	80	27-28	596	528	1200	110	710	440	1660	50	59	1050

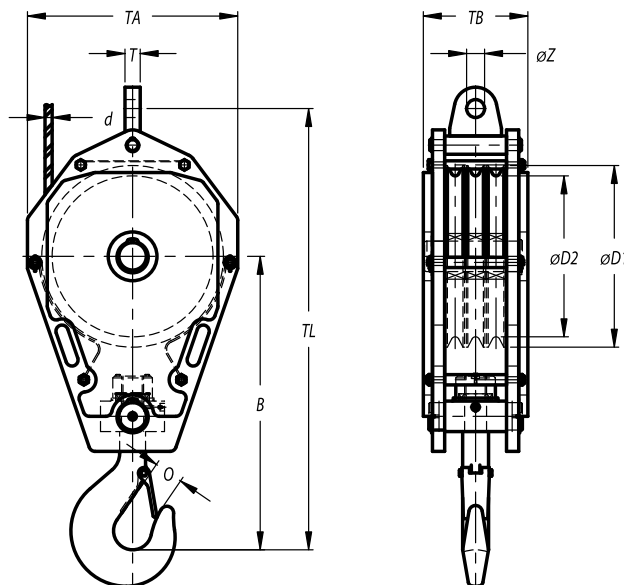
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow with black stripes.  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Fast Reeve Crane Blocks

3 sheaves



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
FRB 250.3.16	16	11-12	280	250	700	59	360	220	975	22	27	200
FRB 285.3.20	20	13-14	320	285	770	69	400	220	1075	28	32	230
FRB 320.3.25	25	15-16	365	320	780	69	450	220	1100	28	32	290
FRB 355.3.32	32	17-18	410	355	860	76	500	240	1200	35	37	350
FRB 400.3.40	40	19-20	460	400	950	84	550	310	1325	40	43	500
FRB 450.3.50	50	21-22	515	450	1000	97	600	335	1400	40	43	650
FRB 520.3.63	63	24-26	595	520	1050	97	680	335	1500	45	52	900
FRB 570.3.80	80	28-29	650	570	1350	110	750	370	1825	50	59	1300
FRB 630.3.100	100	30-32	720	630	1550	132	850	370	2075	60	65	1600

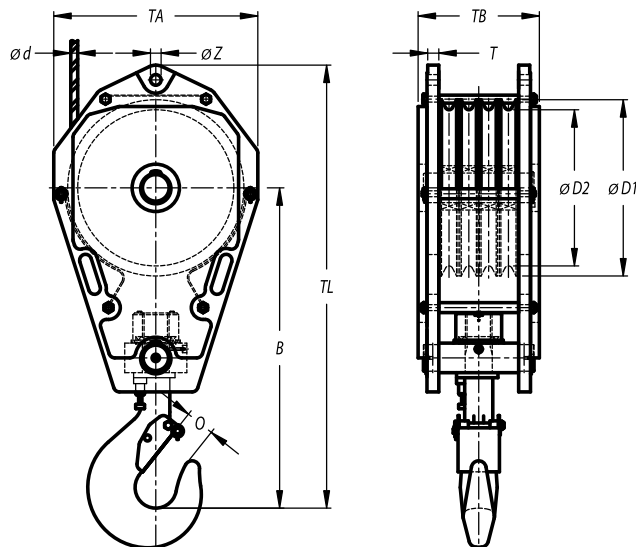
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow with black stripes.  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Fast Reeve Crane Blocks


4 sheaves



Model Nr.	WLL (Mtons)	For wire $\phi d$	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
FRB 285.4.35	35	15-16	320	285	720	76	400	312	1030	28	32	275
FRB 355.4.50	50	17-19	410	355	915	84	500	363	1255	35	37	500
FRB 355.4.50	50	20-22	410	355	915	84	500	363	1265	40	43	500
FRB 400.4.63	63	20-22	465	400	985	97	570	350	1365	40	43	550
FRB 450.4.63	63	20-22	515	450	1025	97	600	400	1435	40	43	750
FRB 450.4.80	80	24-26	515	450	1190	110	600	517	1580	40	52	1000
FRB 520.4.100	100	27-28	596	528	1290	132	710	462	1765	40	59	1250

Minimum Ultimate Strength = 4 x WLL.

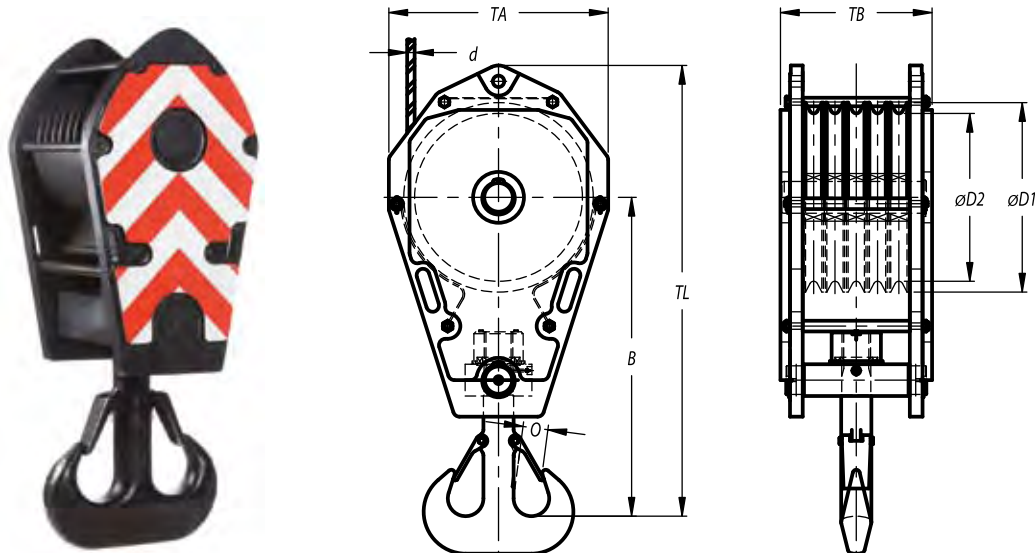
Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow with black stripes.  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 



## Fast Reeve Crane Blocks

5 sheaves



Model Nr.	WLL (Mtons)	For wire $\varnothing d$	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
FRB 250.5.25	25	11-12	280	250	780	47	360	310	980	22	27	290
FRB 285.5.32	32	13-14	320	285	850	57	400	310	1075	28	32	350
FRB 320.5.40	40	15-16	365	320	920	60	450	440	1150	28	32	475
FRB 355.5.50	50	17-18	410	355	950	60	500	440	1200	35	37	600
FRB 400.5.63	63	19-20	460	400	1025	63	550	450	1325	40	43	700
FRB 450.5.80	80	21-22	515	450	1250	73	600	450	1575	40	43	850
FRB 520.5.100	100	24-26	595	520	1350	87	680	450	1700	45	52	1050
FRB 570.5.125	125	28-29	650	570	1560	108	750	575	1950	50	59	1400
FRB 630.5.160	160	30-32	720	630	1800	112	850	575	2250	60	65	1800

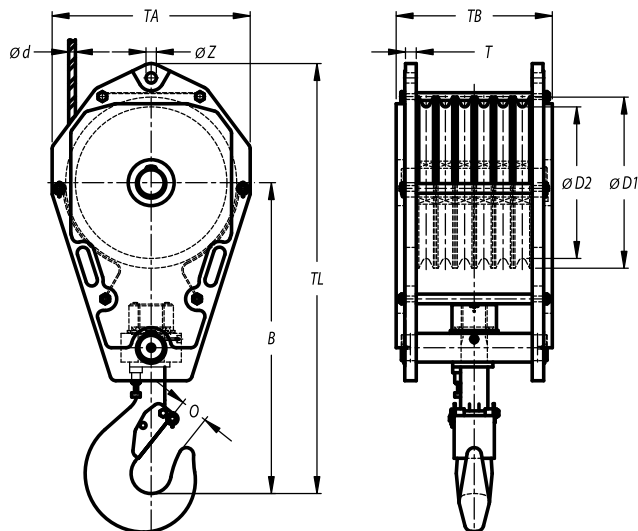
Minimum Ultimate Strength = 4 x WLL.

Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow with black stripes.  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Fast Reeve Crane Blocks


6 sheaves



Model Nr.	WLL (Mtons)	For wire ø d	Dimensions (mm)									Weight (kg)
			D1	D2	B	O	TA	TB	TL	T	Z	
FRB 400.6.72	72	17-19	460	400	1100	110	570	397	1450	30	37	650
FRB 450.6.80	80	20-22	515	450	1190	110	600	612	1580	40	43	1200
FRB 520.6.125	125	24-26	596	528	1325	137	710	652	1765	45	52	1750
FRB 520.6.160	160	24-26	596	528	1400	167	710	842	1900	45	52	2970
FRB 520.6.200	200	27-28	596	528	1600	188	710	882	2110	50	59	3680

Minimum Ultimate Strength = 4 x WLL.

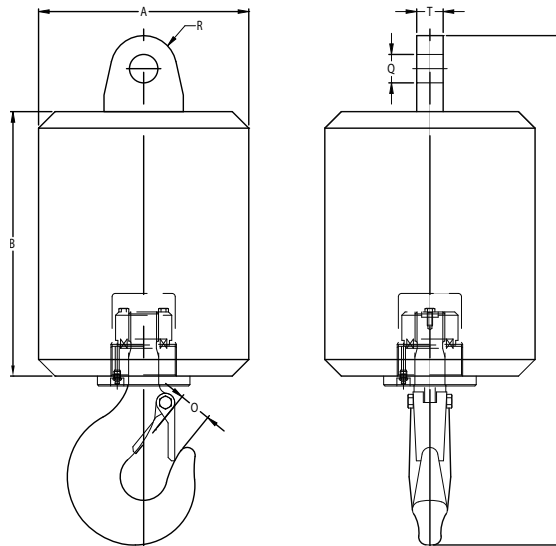
Standard fitted with cylindrical roller bearing and becket.  
Standard painted in yellow with black stripes.  
Standard sheaves of reeve blocks can be adjusted to other wire rope diameters.  
Third party testing with certification available upon request.

Can also be delivered with: 

## Overhaul Ball



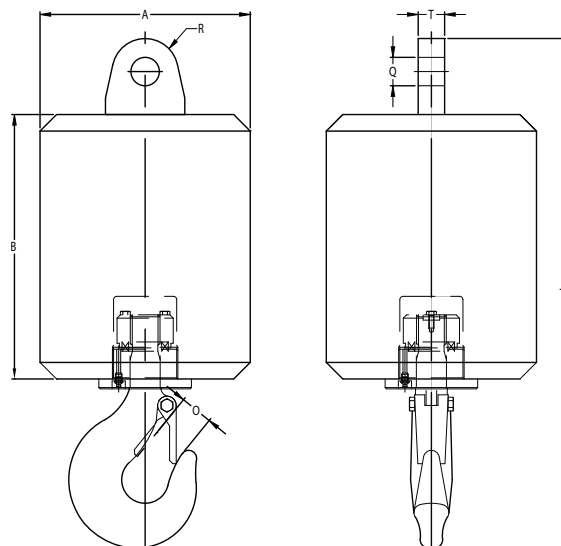
## DIN Hook



Model Nr.	Type	Hook DIN	WLL (Mtons)	Dimensions (mm)							Weight (kg)
				A	B	O	Q	R	T	TL	
OHB 3,2.20.C	Eye-Hook	2.5 P	3,2	145	145	41	27	30	22	441	20
OHB 3,2.60.C	Eye-Hook	2.5 P	3,2	200	225	41	27	30	22	521	60
OHB 3,2.80.C	Eye-Hook	2.5 P	3,2	220	255	41	27	30	22	551	80
OHB 3,2.100.C	Eye-Hook	2.5 P	3,2	240	275	41	27	30	22	571	100
OHB 5.40.C	Eye-Hook	2.5 P	5	170	190	41	32	35	28	500	40
OHB 5.80.C	Eye-Hook	2.5 P	5	220	255	41	32	35	28	566	80
OHB 5.100.C	Eye-Hook	2.5 P	5	240	275	41	32	35	28	586	100
OHB 5.130.C	Eye-Hook	2.5 P	5	260	310	41	32	35	28	621	130
OHB 6,3.100.C	Eye-Hook	4 P	6,3	240	275	49	37	45	35	630	100
OHB 6,3.130.C	Eye-Hook	4 P	6,3	260	310	49	37	45	35	665	130
OHB 6,3.170.C	Eye-Hook	4 P	6,3	280	340	49	37	45	35	695	170
OHB 8.040.C	Eye-Hook	4 P	8	170	190	49	37	45	35	556	40
OHB 8.130.C	Eye-Hook	4 P	8	260	310	49	37	45	35	665	130
OHB 8.170.C	Eye-Hook	4 P	8	280	340	49	37	45	35	695	170
OHB 8.210.C	Eye-Hook	4 P	8	300	335	49	37	45	35	735	210
OHB 10.045.C	Eye-Hook	5 P	10	170	190	55	43	50	40	643	45
OHB 10.170.C	Eye-Hook	5 P	10	280	340	55	43	50	40	747	170
OHB 10.210.C	Eye-Hook	5 P	10	300	335	55	43	50	40	787	210
OHB 10.250.C	Eye-Hook	5 P	10	320	400	55	43	50	40	807	250

## << Overhaul Ball

## DIN Hook



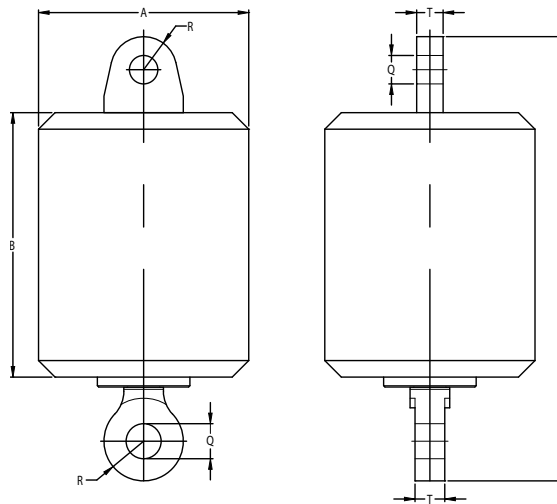
Model Nr.	Type	Hook DIN	WLL (Mtons)	Dimensions (mm)							Weight (kg)
				A	B	O	Q	R	T	TL	
OHB 12,5.045.C	Eye-Hook	5 P	12,5	170	190	55	52	60	45	663	45
OHB 12,5.210.C	Eye-Hook	5 P	12,5	300	355	55	52	60	45	807	210
OHB 12,5.250.C	Eye-Hook	5 P	12,5	320	400	55	52	60	45	827	250
OHB 12,5.350.C	Eye-Hook	5 P	12,5	350	450	55	52	60	45	877	350
OHB 16.050.C	Eye-Hook	6 P	16	170	190	59	59	70	50	723	50
OHB 16.250.C	Eye-Hook	6 P	16	320	400	59	59	70	50	934	250
OHB 16.350.C	Eye-Hook	6 P	16	350	450	59	59	70	50	984	350
OHB 16.500.C	Eye-Hook	6 P	16	410	500	59	59	70	50	1034	500
OHB 20.350.C	Eye-Hook	8 P	20	350	450	69	65	75	60	1022	350
OHB 20.500.C	Eye-Hook	8 P	20	410	500	69	65	75	60	1072	500
OHB 20.650.C	Eye-Hook	8 P	20	430	550	69	65	75	60	1122	650

Minimum Ultimate Strength = 4 x WLL.

Ball Swivel with roller thrust bearing, grease lubricated.  
Ball swivel for higher WLL and of higher weights available on request.  
Hole can be made larger on request.  
Standard painted in yellow (no striping).  
On request, swivels can be made suitable for subsea use.

## Overhaul Ball Swivel

Eye-eye

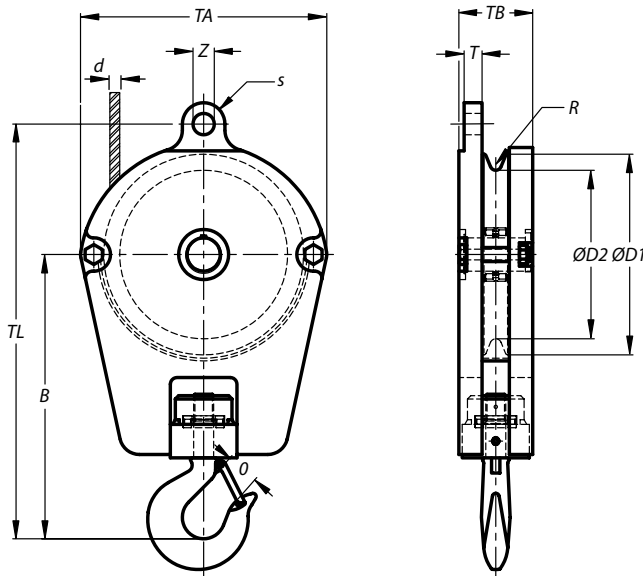


Model Nr.	Type	WLL (Mtons)	Dimensions (mm)						Weight (kg)
			A	B	Q	R	T	TL	
OHB 3,2.20.C	Eye-eye	3,2	145	145	27	30	22	300	20
OHB 5.20	Eye-eye	5	145	145	32	35	28	320	20
OHB 5.40	Eye-eye	5	170	190	32	35	28	365	40
OHB 8.40	Eye-eye	8	170	190	37	45	35	405	40
OHB 10.45	Eye-eye	10	170	190	43	50	40	435	45
OHB 12,5.45.C	Eye-eye	12,5	170	190	52	60	45	475	45
OHB 16.50	Eye-eye	16	170	190	59	70	50	525	50
OHB 20.105	Eye-eye	20	250	265	65	75	60	630	105
OHB 25.110	Eye-eye	25	250	265	72	80	70	660	110
OHB 35.125.C	Eye-eye	35	250	265	79	90	70	685	125
OHB 55.140	Eye-eye	55	250	265	92	105	80	760	140
OHB 70.200	Eye-eye	70	300	330	98	120	90	885	200
OHB 85.225	Eye-eye	85	300	330	111	135	100	965	225
OHB 120.500	Eye-eye	120	380	430	100	125	130	1020	500
OHB 150.600	Eye-eye	150	400	450	115	140	150	1110	600
OHB 200.800	Eye-eye	200	460	480	140	170	160	1265	800
OHB 250.1000	Eye-eye	250	500	600	150	185	180	1455	1000
OHB 300.1500.C	Eye-eye	300	580	670	160	200	190	1590	1500

Minimum Ultimate Strength = 4 x WLL.

Ball Swivel with roller thrust bearing, grease lubricated.  
 Ball swivel for higher WLL and of higher weights available on request.  
 Hole can be made larger on request.  
 Standard painted in yellow (no striping).  
 On request, swivels can be made suitable for subsea use.

## Single Action Hook

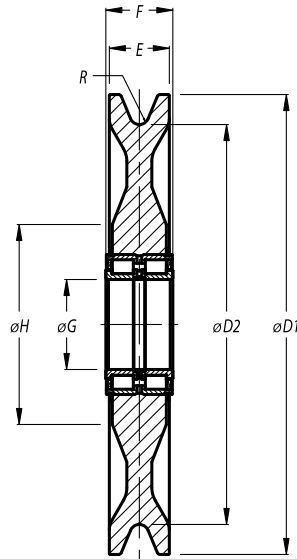


Stock No.	WLL (Mtons)	For wire $\varnothing d$	Dimensions (mm)										Weight (kg)	
			D1	D2	B	O	R	S	TA	TB	TL	T		Z
21.250.05.11	5	11	250	210	346	34	6	25	320	115	546	20	25	41
21.260.05.11-13	5	13	260	221	348	34	7	27	330	109	517	20	27	67
21.260.08.11-14	8	14	260	218	390	43	7.5	32	330	121	565	27	32	80
21.260.10.11-14	10	14	260	218	425	52	7.5	32	330	131	600	27	32	90
21.300.08.11	8	13	300	255	451	43	7	32.5	410	146	651	30	33	80
21.300.08.11-16	8	16	300	252	420	43	8.5	32	370	110	695	27	32	95
21.300.10.11-16	10	16	300	252	455	52	8.5	32	370	120	740	27	32	100
21.350.10.11	10	16	350	305	499	52	8.5	32.5	460	146	744	30	33	125
21.400.12.11	12	18	400	345	554	57	9.5	37.5	510	166	834	35	39	150
21.450.16.11	16	20	450	390	589	57	11	47.5	560	179	914	35	45	175
21.500.20.11	20	22	500	430	682	76	12	47.5	610	199	1032	40	45	260

Minimum Ultimate Strength = 4 x WLL.

Standard fitted with becket, cylindrical roller bearing and wire rope guiding device.  
Standard painted in yellow (no striping).  
Standard fitted with only the hook swivelling, incl. safety latch and cotter pin.  
Groove in sheave can be adjusted to other wire rope diameters.

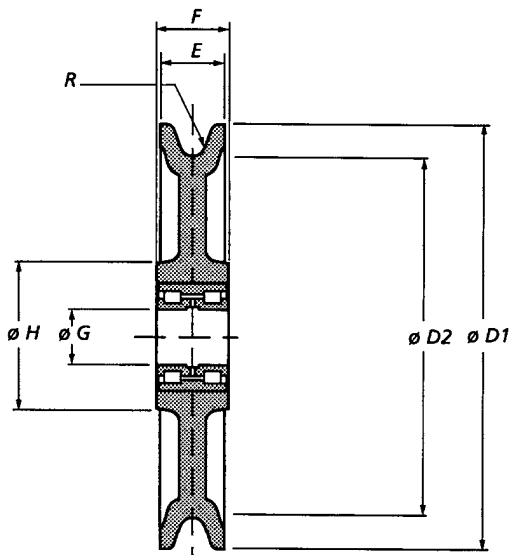
## Sheaves Nylon / Polyamid with cylindrical roller bearings



Model Nr.	For wire ø d	Dimensions (mm)							Bearing type	Material	Weight (kg)
		D1	D2	E	F	G	H	R			
SE 260.5010.7.K	12	300	260	34	40	50	95	7.0	SL04 5010	PA 6G	2.86
SE 285.5012.7.K	12	325	285	34	46	60	-	7.0	SL04 5012	PA 6G	3.86
SE 352.5013.8.5.K	16	400	352	42	46	65	185	8.5	SL04 5013	PA 6G	5.63
SE 352.5016.8.5.K	16	400	352	50	60	80	185	8.5	SL04 5016	PA 6G	7.61
SE 400.5018.9.5.K	18	460	400	60	67	90	200	9.5	SL04 5018	PA 6G	10.81
SE 400.5024.9.5.K	18	460	400	72	80	120	225	9.5	SL04 5024	PA 6G	14.04
SE 482.5018.11.5.K	21	560	482	62	67	90	255	11.4	SL04 5018	PA 6G	14.01
SE 482.5024.11.5.K	21	560	482	72	80	120	255	11.4	SL04 5024	PA 6G	17.54
SE 482.160.11.4.K	21	560	482	72	80	160	262	11.4	SL04 160	PA 6G	17.2
SE 528.5018.12.K	22	596	528	60	67	90	220	12.0	SL04 5018	PA 6G	15.01
SE 528.5024.13.K	24	596	528	72	80	120	255	13.0	SL04 5024	PA 6G	21.14
SE 528.160.13.K	24	596	528	72	80	160	262	13.0	SL04 160	PA 6G	21.9

Other sizes possible.  
Groove may be adjusted to other wire rope diameters.

## Cast Sheaves with cylindrical roller bearings



Model Nr.	For wire ø d	Dimensions (mm)							Bearing type	Material	Weight (kg)
		D1	D2	E	F	G	H	R			
31.150.70.03	12	150	120	36	40/34	30	80	6.5	SL04 5006	GGG-60	3
31.200.70.03	14	200	165	36	40/34	30	80	7.5	SL04 5006	GGG-60	4.5
31.250.70.03	18	250	210	40	45/36	35	90	9.5	SL04 5007	GGG-60	8
31.300.70.03	20	300	255	45	50/38	40	100	11	SL04 5008	GGG-70	12
SE 280.5010.7	13	320	280	36	40	50	140	7	SL04 5010	GGG-50	8.5
SE 280.5012.7	13	320	280	38	46	60	140	7	SL04 5012	GGG-50	9.2
SE 285.5012.8.5	16	320	285	38	46	60	140	8.5	SL04 5012	GGG-50	9.3
31.350.70.03	22	350	305	45	50/40	45	115	12	SL04 5009	GGG-70	17
SE 320.5013.9	16	365	320	42	46	65	160	9	SL04 5013	GGG-50	13.3
31.400.70.03	24	400	345	55	60/40	50	140	13	SL04 5010	GGG-70	24
SE 355.5013.8.5	16	410	355	42	46	65	160	8.5	SL04 5013	GGG-50	16.3
SE 355.5018.9	17	410	355	42	67	90	160	9	SL04 5018	GGG-50	20.4
SE 360.5016.9.5	18	420	360	50	60	80	160	9.5	SL04 5016	GGG-50	23.7
31.450.70.03	28	450	390	60	70/46	55	140	15	SL04 5011	GGG-70	48
SE 400.5013.9.5	18	460	400	42	46	65	175	9.5	SL04 5013	GGG-50	22.3
SE 400.5014.9.5	18	460	400	48	54	70	175	9.5	SL04 5014	GGG-50	21.8
SE 400.5016.11.5	22	460	400	50	60	80	200	11.5	SL04 5016	GGG-50	22.7
SE 410.5018.11.5	22	460	400	61	67	90	200	11.5	SL04 5018	GGG-50	23.7
SE 410.5013.9	17	460	410	42	46	65	200	9	SL04 5013	GGG-50	22.3



## &lt;&lt; Cast Sheaves with cylindrical roller bearings

Model Nr.	For wire ø d	Dimensions (mm)							Bearing type	Material	Weight (kg)
		D1	D2	E	F	G	H	R			
SE 410.5018.9	17	460	410	61	67	90	200	9	SL04 5018	GGG-50	24.7
31.500.70.03	30	500	430	70	80/46	60	150	16	SL04 5012	GGG-70	44
SE 450.5018.10	19	515	450	61	67	90	200	10	SL04 5018	GGG-50	39.7
SE 450.5018.11.5	20	515	450	61	67	90	200	11.5	SL04 5018	GGG-50	39.7
SE 450.5024.10	19	515	450	70	80	12	270	10	SL04 5024	GGG-50	45
31.550.70.03	34	550	480	70	80/54	70	170	18	SL04 5014	GGG-70	55
SE 482.5018.11	20	560	482	62	67	90	200	11	SL04 5018	GGG-50	38.7
SE 500.5018.13.5	25	570	500	59	67	90	200	13.5	SL04 5018	GGG-50	38.7
SE 528.5018.13	24	595	528	61	67	90	200	13	SL04 5018	GGG-50	48.7
SE 528.5024.13.5	25	595	528	75	80	120	270	13.5	SL04 5024	GGG-50	55.2
31.600.70.03	36	600	520	85	105/60	80	190	19	SL04 5016	GGG-70	80
SE 575.5022.14	27	650	575	75	80	100	280	14	SL04 5022	GGG-50	55.5
SE 575.5024.14	27	650	575	72	80	120	280	14	SL04 5024	GGG-50	64
31.665.70.03	38	665	560	100	110	100	210	20.5	SL04 5020	GGG-70	110
SE 630.5022.16	30	710	630	70	80	110	230	16	SL04 5022	GGG-50	66.5
SE 630.5024.17	32	710	630	70	80	120	230	17	SL04 5024	GGG-50	92
31.710.70.03	40	710	630	85	110/80	120	260	21.5	SL04 5024	GGG-70	125
SE 710.5022.18	36	800	710	72	80	110	230	18	SL04 5022	GGG-50	86.5
SE 710.5024.20	38	800	710	72	80	120	230	20	SL04 5024	GGG-50	87
SE 710.5026.18	36	800	710	78	95	130	230	18	SL04 5026	GGG-50	94
31.810.60.03	44	810	710	98	100	150	270	23.5	SL04 5030	GGG-60	190
SE 710.5026.20	38	860	760	85	95	130	300	20	SL04 5026	GGG-50	100
SE 710.5030.20	38	860	760	85	100	150	300	20	SL04 5030	GGG-50	103
SE 800.5022.16	30	890	800	70	80	110	270	16	SL04 5022	GGG-50	102.5
SE 800.5024.16	30	890	800	70	80	120	270	16	SL04 5024	GGG-50	103
SE 800.5026.20	38	890	800	75	95	130	270	20	SL04 5026	GGG-50	106
SE 800.5030.20	38	890	800	85	100	150	270	20	SL04 5030	GGG-50	128

Different shaft sizes possible.

Groove may be adjusted to other wire rope diameters.



## McKissick® snatch blocks

### 418 WITH HOOK



### New Improved Light Champion

- Forged alloy heat treated hooks.
- Forged steel swivel tees, yokes and shackles.
- Hook and shackle assemblies on 4-1/2" through 14" sizes can be interchanged.
- Can be furnished with bronze bushings or roller bearings.
- Opening feature permits insertion of rope while block is suspended from gin-pole.
- 3" thru 18" 418 and 419 blocks have exclusive bolt retaining spring to assure no lost bolts.
- Can be furnished with S-4320 hook latch.
- Pressure lube fittings.
- 3" - 10" feature dual rated wireline sheaves.
- Fatigue rated.
- 4-1/2" and larger are **RFID EQUIPPED**.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



### 419 WITH SHACKLE



### 418 / 419 / 404 Snatch Blocks

Sheave Diameter (mm)	Bearing Code	Stock No.			Wire Rope Size (mm)	Working Load Limit (t)*	Weight Each (kg.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		418 with Hook	419 with Shackle	404 Tail Board			418 with Hook	419 with Shackle	404 Tail Board		
* 3	BB		109091	—	8-10	2	—	1.90	—	460147	—
** 3	BB	108038	109037 †	102016	8-10	2	2.04	1.81	1.22	460147	1096421
**4-1/2	BB	108065	109064	102025	10-13	4	5.31	5.44	2.99	2000232	1096468
6	BB	108127	109126	102098	16-19	8	12.2	12.6	6.80	460815	1096562
6	RB	108154	109153	102114	16-19	8	12.2	12.6	6.80	472688	1096562
8	BB	108225	109224	102169	16-19	8	15.0	15.4	9.53	461164	1096562
8	RB	108252	109251	102187	16-19	8	15.0	15.4	9.53	473277	1096562
10	BB	108323	109322	102230	16-19	8	18.6	19.1	13.2	461805	1096562
10	RB	108350	109359	102258	16-19	8	18.6	19.1	13.2	473776	1096562
12	BB	169169	202961	178890	16	8	21.8	22.2	16.3	462270	1096562
12	RB	199911	169347	178934	16	8	21.8	22.2	16.3	474141	1096562
12	BB	108421	109420	102301	19	8	21.8	22.2	16.3	462289	1096562
12	RB	108458	109457	102329	19	8	21.8	22.2	16.3	474150	1096562
14	BB	194920	169356	—	16	8	24.9	25.4	—	463625	1096562
14	RB	199948	167857	—	16	8	24.9	25.4	—	474766	1096562
14	BB	108528	109527	—	19	8	24.9	25.4	—	463634	1096562
14	RB	108546	109545	—	19	8	24.9	25.4	—	474775	1096562
16	BB	199975	203041	—	19	15	59	61	—	4100056	1096609
16	RB	200008	203087	—	19	15	59	61	—	4200028	1096609
16	BB	108608	109607	—	22	15	59	61	—	4100065	1096609
16	RB	108626	109625	—	22	15	59	61	—	4200037	1096609
18	BB	200099	203130	—	22	15	68	70	—	464571	1096609
18	RB	200151	203176	—	22	15	68	70	—	475792	1096609
18	BB	108644	109643	—	26	15	68	70	—	4104640	1096609
18	RB	108662	109661	—	26	15	68	70	—	6000000	1096609

\* Ultimate Load is 4 times the Working Load Limit.

\*\* Available in Bronze Bushed only. 3" and 4-1/2" have self lubricating Bronze Bushing.

† Fitted with 1-1/4" ID Swivel Eye.

‡ May be furnished in other rope sizes.

NOTE: When ordering, please specify: size, block number, hook or shackle, bronze bushed or roller bearing, and wire rope size.

NOTE: Tail Board does not contain the spool that is required with the hook (418) and shackle (419) snatch blocks.

## McKissick® snatch blocks

### 420 WITH HOOK



### Champion

- Hooks and side plates are forged alloy steel and heat treated.
- Shackles and yokes are forged and heat treated steel.
- All parts are forged.
- Side plates are designed to eliminate possibility of rope jamming.
- Can be furnished with bronze bushings or sealed roller bearings.
- Opening feature permits insertion of rope while block is suspended from gin-pole.
- Can be furnished with S-4320 hook latch.
- Pressure lube fittings.
- Hook and shackle assemblies can be interchanged.
- Blocks furnished with dual rated wireline sheaves.
- Fatigue Rated.
- All sizes are **RFID EQUIPPED**.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



### 421 WITH SHACKLE



### 420 / 421 / 406 Snatch Blocks

Sheave Diameter (in.)	Bearing Code	Stock No.			Wire Rope Size (mm) †	Working Load Limit (t)*	Weight Each (kg.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		420 with Hook	421 with Shackle	406 Tail Board			420 with Hook	421 with Shackle	406 Tail Board		
6	BB	169374	169481	167973	19-22	12	18.1	21.8	10.9	460940	1096609
6	RB	169392	204120	167982	19-22	12	18.1	21.8	10.9	473035	1096609
8	BB	169418	169515	167991	19-22	15	23.1	25.9	13.6	461360	1096609
8	RB	169445	204193	168008	19-22	15	23.1	25.9	13.6	473534	1096609
10	BB	110221	110720	103186	19-22	15	28.6	31.3	19.1	462001	1096609
10	RB	110258	110757	103202	19-22	15	28.6	31.3	19.1	474025	1096609

\* Ultimate Load is 4 times the Working Load Limit.

† May be furnished in other rope sizes.

NOTE: When ordering, please specify: size, block number, hook or shackle, bronze bushed or roller bearing, and wire rope size.

NOTE: Tail Board does not contain the spool that is required with the hook (420) and shackle (421) snatch blocks.

### 406 TAIL BOARD





## McKissick® snatch blocks

### 430 WITH HOOK



### Super Champion

- Drop forged, heat treated swivel hook or swivel shackle.
- Hook and shackle assemblies on 8" through 14" sizes can be interchanged.
- Can be furnished with bronze bushings or roller bearings.
- Pressure lube fittings.
- 430 and 431 blocks have exclusive bolt retaining spring to assure no lost bolts.
- Can be furnished with hook latch.
- 8" and 10" models furnished with dual rated wireline sheaves.
- Fatigue Rated.
- All sizes are **RFID EQUIPPED**.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



### 431 WITH SHACKLE



### 430 / 431 / 407 Snatch Blocks

Sheave Diameter (in.)	Bearing Code	Stock No.			Wire Rope Size (mm)	Working Load Limit (t)*	Weight Each (kg.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		430 with Hook	431 with Shackle	407 Tail Board			430 with Hook	431 with Shackle	407 Tail Board		
8	BB	120023	121022	103523	26-28	20	34.0	39.5	19.1	461440	1096657
8	RB	120041	121040	103541	26-28	20	34.0	39.5	19.1	473614	1096657
10	BB	120096	121095	103603	26-28	20	40.4	45.8	24.9	462083	1096657
10	RB	120112	121111	103621	26-28	20	40.4	45.8	24.9	474105	1096657
12	BB	208536	169917	184375	26	20	46.7	52	31.8	462680	1096657
12	RB	208554	209303	184393	26	20	46.7	52	31.8	474524	1096657
12	BB	120176	121175	103685	28	20	46.7	52	31.8	462699	1096657
12	RB	120194	121193	103701	28	20	46.7	52	31.8	474533	1096657
14	BB	208572	209321	184419	26	20	56	61	40.8	463457	1096657
14	RB	208590	170424	184437	26	20	56	61	40.8	475024	1096657
14	BB	120256	121255	103765	28	20	56	61	40.8	463466	1096657
14	RB	120274	121273	103783	28	20	56	61	40.8	475033	1096657
18	BB	208689	209410	184552	26	25	109	118	75	4100298	1090143
18	RB	208732	209465	184605	26	25	109	118	75	4200331	1090143
18	BB	119482	119561	119641	28	25	109	118	75	4103348	1090143
18	RB	119491	119570	119650	28	25	109	118	75	4200322	1090143
20	BB	208750	209483	184623	28	30	170	181	98	4103936	1090189
20	RB	208787	169864	184650	28	30	170	181	98	4200769	1090189
20	BB	119507	119589	119669	32	30	170	181	98	4103945	1090189
20	RB	119516	119598	119678	32	30	170	181	98	4200778	1090189
24	BB	208812	209526	184687	28	30	204	215	132	4104114	1090189
24	RB	208858	209553	184721	28	30	204	215	132	4200983	1090189
24	BB	119525	119605	119687	32	30	204	215	132	4104123	1090189
24	RB	119534	119614	119696	32	30	204	215	132	4200992	1090189

\* Ultimate Load is 4 times the Working Load Limit.

† May be furnished in other rope sizes.

NOTE: When ordering, please specify: size, block number, hook or shackle, bronze bushed or roller bearing, and wire rope size.

NOTE: Tail Board does not contain the spool that is required with the hook (430) and shackle (431) snatch blocks.

Contact our Special Sales Department for blocks up to 350 Tons or reference the special request form on page 461.

### 407 TAIL BOARD



## McKissick® snatch blocks

### 408 WITH HOOK



#### Light Champion Double Sheave

- Light champion snatch block as a double sheave block.
- Drop forged swivel hook or swivel shackle.
- Can be furnished with bronze bushings or roller bearings.
- Opening feature permits easy insertion of wire rope in both sheaves with removal of one bolt.
- Can be furnished with hook latch.
- Pressure lube fittings.
- 4 1/2" - 10" models furnished with dual rated wireline sheaves.
- Fatigue Rated.
- All sizes are **RFID EQUIPPED**.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26



### 409 WITH SHACKLE



#### 408 / 409 Snatch Blocks

Sheave Diameter (in.)	Bearing Code	Stock No.		Wire Rope Size (mm)	Working Load Limit (t)*	Weight Each (kg.)		Rep. Sheave Stock No.	Rep. Latch Stock No.
		408 with Hook	409 with Shackle			408 with Hook	409 with Shackle		
† 4-1/2	BB	104023	105022	10-13	4	8.16	8.16	2000232	1096468
6	BB	104103	105102	16-19	12	20.4	22.7	460815	1096609
6	RB	104121	105120	16-19	12	20.4	22.7	472688	1096609
8	BB	104185	105184	16-19	12	24.0	26.3	461164	1096609
8	RB	104201	105200	16-19	12	24.0	26.3	473277	1096609
10	BB	104265	105264	16-19	12	31.8	34.0	461805	1096609
10	RB	104283	105282	16-19	12	31.8	34.0	473776	1096609
12	BB	194578	195185	16	12	40.8	43.1	462270	1096609
12	RB	168044	195229	16	12	40.8	43.1	474141	1096609
12	BB	104345	105344	19	12	40.8	43.1	462289	1096609
12	RB	104363	105362	19	12	40.8	43.1	474150	1096609
14	BB	194621	195247	16	12	45.4	47.6	463625	1096609
14	RB	194649	195265	16	12	45.4	47.6	474766	1096609
14	BB	104425	105424	19	12	45.4	47.6	463634	1096609
14	RB	104443	105442	19	12	45.4	47.6	474775	1096609

\* Ultimate Load is 4 times the Working Load Limit.

† Available in Bronze Bushed only.

‡ May be furnished in other Wire Rope sizes.

NOTE: When ordering, please specify: size, block number, hook or shackle, bronze bushed or roller bearing, and wire rope size.

## McKissick® snatch blocks

### 416 WITH HOOK



### All Alloy Snatch Blocks

- Entire block made from heat treated alloy steel. Use of heat treated alloy gives block only 60% of the weight of blocks of comparable capacities.
- Available with a bronze bushed or roller bearing sheaves.
- Easy opening feature of "Champion" blocks retained.
- Hook and shackle assemblies can be interchanged.
- Pressure lube fittings.
- Can be furnished with hook latch.
- Blocks furnished with dual rated wireline sheaves.
- Fatigue Rated.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical
- performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- All sizes are **RFID EQUIPPED**.



### 417 WITH SHACKLE



### 416 / 417 / 402 Alloy Snatch Blocks

Sheave Diameter (mm)	Bearing Code	Stock No.			Wire Rope Size (mm)	Working Load Limit (t)*	Weight Each (kg.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		416 with Hook	417 with Shackle	402 Tail Board			416 with Hook	417 with Shackle	402 Tail Board		
152	BB	193427	168972	179238	19-22	12	11.8	12.20	6.80	460824	1096609
152	RB	193472	193757	179283	19-22	12	11.8	12.20	6.80	472679	1096609
203	BB	193490	168990	179318	19-22	12	15.0	15.40	9.50	461173	1096609
203	RB	193542	193819	179363	19-22	12	15.0	15.40	9.50	473286	1096609
254	BB	193613	193882	179434	19-22	12	18.6	19.10	13.20	461814	1096609
254	RB	193677	193935	179498	19-22	12	18.6	19.10	13.20	473785	1096609

\* Ultimate Load is 4 times the Working Load Limit.

† May be furnished in other wire rope sizes.

NOTE: When ordering, please specify: size, block number, hook or shackle, bronze bushed or roller bearing, and wire rope size.

NOTE: Tail board does not contain the spool that is required with the hook (416) and shackle (417) snatch blocks.

### 402 TAIL BOARD



## McKissick® oilfield servicing blocks

M-491



M-491G



**New design provides the dependability of standard McKissick® Snatch Blocks, along with features that make it perfect for the challenging needs of Tugger Hoist and Tower Erection applications.**

- A wide variety of configurations:
  - 4, 8, 12, 15, 25 or 30 metric ton capacity
  - 10, 13, 16, 19, 22, 25 and 32mm wire line sizes
  - Painted or Galvanized finish
- 203mm and 254mm blocks furnished with dual rated wireline sheaves.
- Forged steel swivels, tees, yokes and shackles are Quenched & Tempered.
- Sheave lubrication through center pin for easy maintenance.
- Design factor of 4 to 1.
- All blocks 356mm and larger are furnished with McKissick® Roll Forged™ sheaves with flame hardened grooves.
- Recessed sideplate design reduces the gap between the sheave rim and the sideplate, allowing the sheave assembly to be captured in the block if loss of center pin occurs.
- Sealed tapered roller bearings extend the life of the center pin and bearings, and allows for faster line speeds than recommended with standard snatch blocks.
- Shackle fitting swivels for easy positioning.
- Suitable for hoisting personnel, contingent upon all employees, including the winch operator, being trained to follow any applicable Federal, local and industry standards.
  - Tugger/Derrick applications: API RP54
  - Tower applications: OSHA directive CPL 2-1.36
- Holes through side plates are available for secondary block securement device.
- Manufactured by an API Q1 Certified facility.
- Type Approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7, and ABS Guide for Certification of Cranes.
- All sizes are **RFID EQUIPPED**.

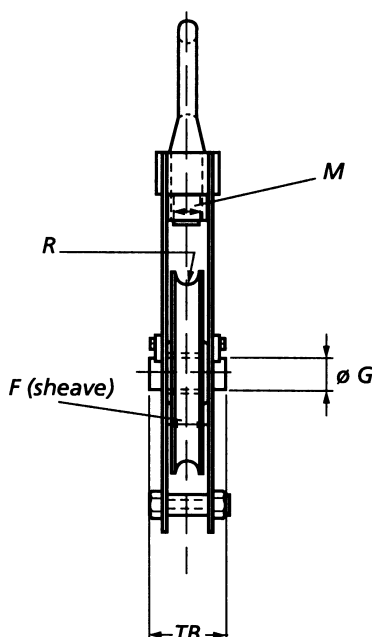
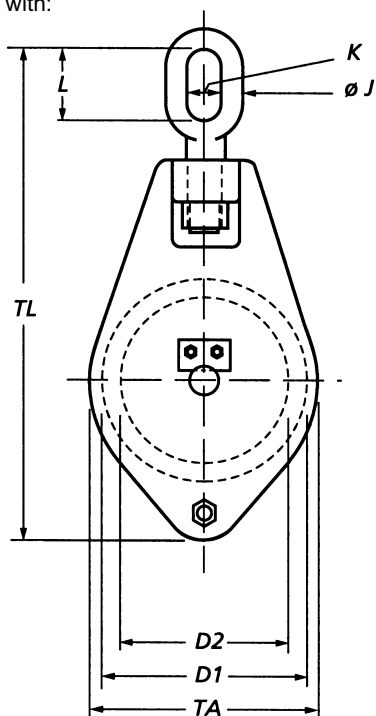


### M-491 / G-491 Tower/Derrick Hoist Blocks

Working Load Limit (t)*	Sheave Diameter (in.)	Wire Rope Size (mm)	M-491S Stock No. Painted	M-491G Stock No. Galvanized	Weight Each (kg.)
4	8	10 - 13	2020161	2020170	16
8	10	10 - 13	2020806	2020815	25
8	10	13 - 14	2020824	2020833	25
12	10	13 - 14	2021118	2021127	25
12	14	16	2021136	2021145	43
12	14	19	2021154	2021163	43
15	16	22	2021172	2021181	68
15	16	25	2021190	2021199	48
25	18	28.6	2032312	2032315	118
30	20	32	2032321	2032324	306

\* Ultimate Load is 4 times the Working Load Limit.

Can also be delivered with:



Stock No.	WLL (t)	Wire up to (mm)	No of Sheav.	Dimensions (mm)												Weight (kg)
				D1	D2	F	G	J	K	L	M	R	TA	TB	TL	
11.100.00.10	0.75	8	1	100	80	20	15	12	21	48	16	4.5	110	45	275	2
11.125.01.10	1	10	1	125	105	27	22	16	26	58	18	5.5	135	52	336	3
11.150.02.10	2	12	1	150	120	40	30	16	26	58	24	6.5	170	74	407	6
11.200.03.10	3	14	1	200	165	40	30	21	32	72	30	7.5	220	74	500	10
11.250.04.10	4	18	1	250	210	45	35	26	40	94	33	9.5	270	81	608	18
11.300.06.10	6	20	1	300	255	50	40	29	45	108	42	11	320	88	706	27
11.350.08.10	8	22	1	350	305	50	45	32	49	114	45	12	380	92	778	44
11.350.10.10	10	22	1	350	305	60	50	36	54	125	52	12	380	110	795	50
11.400.10.10	10	24	1	400	345	60	50	36	54	125	52	13	430	110	848	60
11.350.12.10	12	22	1	350	305	60	50	41	60	144	56	12	380	114	821	59
11.400.12.10	12	24	1	400	345	60	60	41	60	144	56	13	430	118	926	75
11.350.16.10	16	22	1	350	305	60	50	46	66	163	64	12	380	114	879	69
11.400.16.10	16	24	1	400	345	60	60	46	66	163	64	13	430	118	959	81
11.400.20.10	20	24	1	400	345	60	60	51	72	173	72	13	430	118	990	97
11.450.20.10	20	28	1	450	390	70	70	51	72	173	72	15	480	128	1046	109
11.450.25.10	25	28	1	450	390	70	70	60	80	195	76	15	480	128	1105	130
11.450.30.10	30	36	1	450	390	70	70	60	90	220	80	19.5	480	134	1145	150

Minimum Ultimate Strength = 4 x WLL.

WLL= Working Load Limit on head fitting.

All blocks up to 30 tons are standard supplied with swivel oval eye, for over 30 tons with swivel stud eye.

All blocks can be supplied with swivel hook, swivel stud eye or swivel jaw.

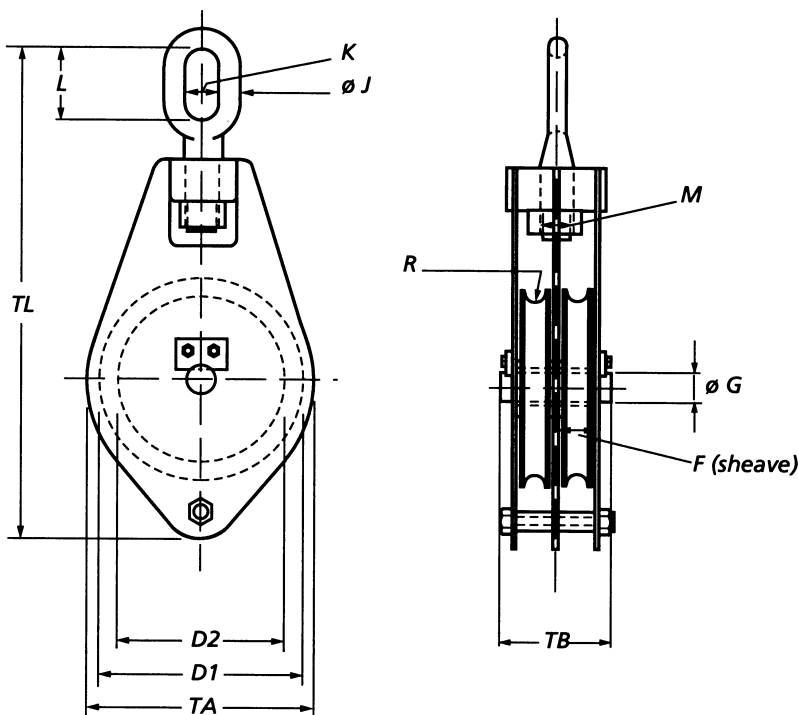
For ordering wire rope blocks with becket, the last digit of the stock number should be 1 (instead of 0).

Standard supplied with bronze bearings. Other bearings available on request.

Groove in sheave may be adjusted to other wire rope diameters.



Can also be delivered with:



Stock No.	WLL (t)	Wire up to (mm)	No of Sheav.	Dimensions (mm)											Weight (kg)	
				D1	D2	F	G	J	K	L	M	R	TA	TB		TL
11.100.01.20	1	8	2	100	80	20	15	16	26	58	18	4.5	110	70	295	4
11.125.02.20	1.5	10	2	125	105	27	22	16	26	58	24	5.5	135	85	336	6
11.150.03.20	3	12	2	150	120	40	30	21	32	72	30	6.5	170	120	430	11
11.200.04.20	4	14	2	200	165	40	30	26	40	94	33	7.5	220	120	538	18
11.250.06.20	6	18	2	250	210	45	35	29	45	108	42	9.5	270	133	624	32
11.300.08.20	8	20	2	300	255	50	40	32	49	114	45	11	320	146	713	43
11.350.10.20	10	22	2	350	305	50	45	36	54	125	52	12	380	152	569	74
11.350.12.20	12	22	2	350	305	60	50	41	60	144	56	12	380	186	821	81
11.400.12.20	12	24	2	400	345	60	50	41	60	144	56	13	430	180	893	102
11.350.16.20	16	22	2	350	305	60	50	46	66	163	64	12	380	186	879	98
11.400.16.20	16	24	2	400	345	60	60	46	66	163	64	13	430	192	959	126
11.350.20.20	20	22	2	350	305	60	50	51	72	173	72	12	380	186	896	116
11.400.20.20	20	24	2	400	345	60	60	51	72	173	72	13	430	192	976	146
11.400.25.20	25	24	2	400	345	60	60	60	80	195	76	13	430	192	1065	169
11.450.25.20	25	28	2	450	390	70	70	60	80	195	76	15	480	221	1120	190
11.400.30.20	30	24	2	400	345	60	60	60	90	220	80	13	430	192	1095	184
11.450.30.20	30	28	2	450	390	70	70	60	90	220	80	15	480	236	1150	204
11.450.40.20	40	28	2	450	390	70	70	-	96	96	90	15	480	236	1030	225

Minimum Ultimate Strength = 4 x WLL.

WLL= Working Load Limit on head fitting.

All blocks up to 30 tons are standard supplied with swivel oval eye, for over 30 tons with swivel stud eye.

All blocks can be supplied with swivel hook, swivel stud eye or swivel jaw.

For ordering wire rope blocks with becket, the last digit of the stock number should be 1 (instead of 0).

Standard supplied with bronze bearings. Other bearings available on request.

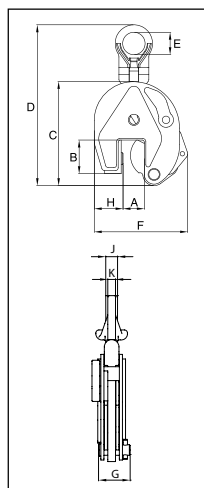
Groove in sheave may be adjusted to other wire rope diameters.

## Vertical clamps

### IPU10



The IPU10 vertical lifting clamp is used for the lifting, turning, moving or vertical transfer of sheet, plates, or fabrications from horizontal to vertical and down to horizontal (180°) as needed. The hinged hoisting eye allows for the clamp to place and lift the load from any direction, or with a multiple leg sling without side-loading the clamp.



### Universal - For Lifting in any Direction

- Available in capacities of .5 thru 30 metric tons (Higher Working Load Limits are available upon request).
- Wide variety of jaw openings available: 0 to 155mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Available in a variety of styles:
  - IPU10 - Standard clamp for materials with a surface hardness to 37Rc (345HB).
  - IPU10J - Larger jaw opening.
  - IPU10S - For use with Stainless Steel material.
  - IPU10H - For use with materials with a surface hardness to 47Rc (450HB).
- Full 180° turning range for material transfer, turning or moving.
- Lock open, lock closed ability with latch for pretension on material and then release of material.
- Optional IP-5000 Stinger assembly available (see page 8.244). Allows for easy connection between the clamp and hoist hook.
- Minimum WLL of 10% of Maximum WLL.
- Maintenance replacement kits are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

### IPU10S



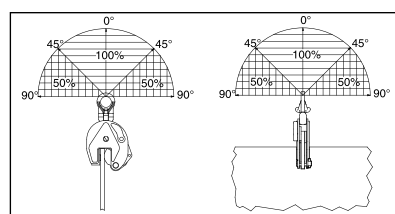
**IPU10S:** For use on Stainless Steel material.  
**IPU10H:** For use on materials with a surface hardness to 47Rc (450 HB).



### Model IPU10

Model	Working Load Limit (t)*	IPU10 Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IPU10	0.5	2701675	1.9	0 - 16	44	128	228	40	115	41	28	-	11
IPU10	1	2701663	2.4	0 - 20	45	139	222	40	126	41	38	-	11
IPU10	2	2701677	8.5	0 - 35	78	201	372	70	190	61	55	-	16
IPU10	3	2701665	14.8	0 - 40	100	253	445	75	225	78	60	-	20
IPU10	4.5	2701667	16.0	0 - 40	100	253	445	75	232	82	65	-	20
IPU10	6	2701669	24.0	0 - 50	126	302	525	80	292	84	95	44	20
IPU10/J	6	2702469	30.5	50 - 100	126	302	525	80	342	84	95	44	20
IPU10	9	2701671	29.5	0 - 50	126	325	557	80	310	92	105	44	20
IPU10/J	9	2701673	30.5	50 - 100	126	325	562	80	360	92	105	44	20
IPU10	12	2701679	57.0	0 - 54	160	391	623	80	331	117	137	41	25
IPU10/J	12	2701681	59.0	54 - 108	178	439	673	80	415	117	137	41	25
IPU10	16	2701683	72.0	5 - 64	178	465	734	88	397	119	153	45	25
IPU10/J	16	2701685	85.0	64 - 128	208	521	790	88	472	119	161	45	25
IPU10	22.5	2701687	127	5 - 80	222	554	855	110	470	136	186	49	25
IPU10/J	22.5	2701689	130	80 - 155	253	628	930	110	575	136	196	49	25
IPU10	30	2701691	153	5 - 80	222	545	860	110	470	152	186	54	30
IPU10/J	30	2701693	165	80 - 155	250	620	935	110	565	152	196	54	30
<b>For stainless steel - with universal hoisting eye</b>													
IPU10/S	0.5	2702275	1.9	0 - 16	44	128	228	40	115	41	28	-	11
IPU10/S	1	2702263	2.1	0 - 20	45	139	222	40	126	41	38	-	11
IPU10/S	2	2702277	7.6	0 - 35	78	201	372	70	190	61	55	-	16
IPU10/S	3	2702265	14.8	0 - 40	100	253	445	75	225	78	60	-	20
IPU10/S	4.5	2702267	16.0	0 - 40	100	253	445	75	232	82	65	-	20
IPU10/S	6	2702269	24.0	0 - 50	126	302	525	80	292	84	95	44	20
IPU10/S	9	2702271	29.5	0 - 50	126	325	557	80	310	92	105	44	20
IPU10/S	12	2702279	30.5	0 - 54	160	391	623	80	331	117	137	41	25
<b>For very hard materials - with universal hoisting eye</b>													
IPU10/H	0.5	2702175	1.9	0 - 16	44	128	228	40	115	41	28	-	11
IPU10/H	1	2702177	7.6	0 - 35	78	201	372	70	190	61	55	-	16
IPU10/H	2	2702165	14.8	0 - 40	100	253	445	75	225	78	60	-	20
IPU10/H	3	2702167	16.0	0 - 40	100	253	445	75	232	82	65	-	20
IPU10/H	4.5	2702169	24.0	0 - 50	126	302	525	80	292	84	95	44	20
IPU10/H	6	2702171	29.5	0 - 50	126	325	557	80	310	92	105	44	20

\* Design Factor based on EN 13155 and ASME B30.20.

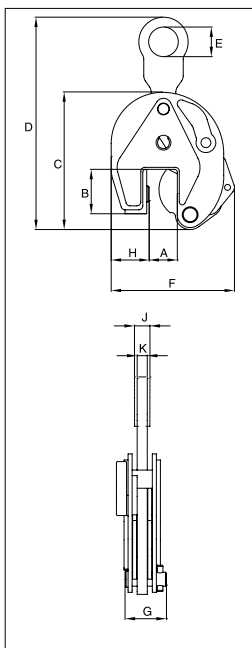


# Vertical clamps

## IP10



The IP10 vertical lifting clamp is used for the lifting, turning, moving or vertical transfer of sheet, plates, or fabrications from horizontal to vertical and down to horizontal (180°) as needed. Usually used as a single point pick or when used with a spreader beam with multiple vertical drop lines.



## For Vertical Lifting, Turning and Transfer

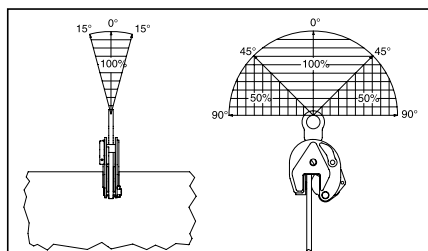
- Available in capacities of .5 thru 30 metric tons (Higher Working Load Limits are available upon request).
- Wide variety of jaw openings available: 0 to 155mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Available in a variety of styles:
  - IP10 - Standard clamp for materials with a surface hardness to 37Rc (345 HB).
  - IP10J - Larger jaw opening.
  - IP10S - For use with Stainless Steel material.
  - IP10H - For use with materials with a surface hardness to 47Rc (450 HB).
- Full 180° turning range for material transfer, turning or moving.
- Lock open, lock closed ability with latch for pretension on material and then release of material.
- Optional IP-5000 Stinger assembly available (see page 8.244). Allows for easy connection between the clamp and hoist hook.
- Minimum WLL of 10% of Maximum WLL.
- Maintenance replacement kits are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



### Model IP10

Model	Working Load Limit (t)*	IP10 Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IP10	0.5	2701674	1.8	0 - 16	44	128	207	30	115	41	28	-	10
IP10	1	2701662	2.2	0 - 20	45	139	215	30	126	41	38	-	10
IP10	2	2701676	7.6	0 - 35	78	201	336	70	190	61	55	-	16
IP10	3	2701664	13.8	0 - 40	100	253	436	75	225	78	60	-	20
IP10	4.5	2701666	15.0	0 - 40	100	253	436	75	232	82	65	-	20
IP10	6	2701668	23.5	0 - 50	126	302	515	80	292	84	95	40	20
IP10/J	6	2701705	28.5	50 - 100	126	302	515	80	342	84	95	40	20
IP10	9	2701670	27.5	0 - 50	126	325	550	80	310	92	105	44	25
IP10/J	9	2701672	28.5	50 - 100	126	325	555	80	360	92	105	44	25
IP10	12	2701678	49.0	0 - 54	160	391	580	80	331	117	137	41	25
IP10/J	12	2701680	58.0	54 - 108	178	439	630	80	415	117	137	41	25
IP10	16	2701682	68.0	5 - 64	178	465	690	88	397	119	153	49	25
IP10/J	16	2701684	90.0	64 - 128	208	521	746	88	472	119	161	49	25
IP10	22.5	2701686	108	5 - 80	222	554	800	110	470	136	186	49	25
IP10/J	22.5	2701688	110	80 - 155	253	628	880	110	575	136	196	49	25
IP10	30	2701690	148	5 - 80	222	545	800	110	470	152	186	54	30
IP10/J	30	2701692	152	80 - 155	250	620	880	110	565	152	196	54	30
<b>For stainless steel - with fixed hoisting eye</b>													
IP10/S	0.5	2702274	1.8	0 - 16	44	128	207	30	115	41	28	-	10
IP10/S	1	2702262	2.0	0 - 20	45	139	215	30	126	41	38	-	10
IP10/S	2	2702276	6.8	0 - 35	78	201	336	70	190	61	55	-	16
IP10/S	3	2702264	13.8	0 - 40	100	253	436	75	225	78	60	-	20
IP10/S	4.5	2702266	15.0	0 - 40	100	253	436	75	232	82	65	-	20
IP10/S	6	2702268	23.5	0 - 50	126	302	525	80	292	84	95	40	20
IP10/S	9	2702270	27.5	0 - 50	126	325	557	80	310	92	105	44	25
IP10/S	12	2702278	49.0	0 - 54	160	391	623	80	331	117	137	41	25
<b>For very hard materials - with fixed hoisting eye</b>													
IP10/H	0.5	2702174	1.8	0 - 16	44	128	207	30	115	41	28	-	10
IP10/H	1	2702176	6.8	0 - 35	78	201	336	70	190	61	55	-	10
IP10/H	2	2702164	13.8	0 - 40	100	253	436	75	225	78	60	-	16
IP10/H	3	2702166	15.0	0 - 40	100	253	436	75	232	82	65	-	20
IP10/H	4.5	2702168	23.5	0 - 50	126	302	515	80	292	84	95	40	20
IP10/H	6	2702170	27.5	0 - 50	126	325	550	80	310	92	105	44	25

\* Design Factor based on EN 13155 and ASME B30.20.



## Vertical clamps

### IPNM10



The IPNM10 vertical lifting clamp is used for the lifting, turning, moving or vertical transfer of sheet, plates, or fabrications from horizontal to vertical and down to horizontal (180°) as needed without marring the surface of the material. Materials such as aluminum, stainless steel, painted materials, aircraft skins, composite material, glass, plastic, etc., can be lifted without marring.

Will NOT mar, or scratch the material surface.

### For use in almost all sectors of industry where during the lift or transfer, no damage to the material is permitted.

- Available in capacities of .5, 1 and 2 metric tons.
- Wide variety of jaw openings available: 0 to 38mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Full 180° turning range for material transfer, turning or moving.
- Lock open, lock closed ability with latch for pretension on material and then release of material.
- Optional IP-5000 Stinger assembly available (see page 8.244). Allows for easy connection between the clamp and hoist hook.
- Material must be clean and dry.
- Maintenance replacement kits are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

### IPNM10P



The IPNM10P vertical lifting clamp is used for the lifting, turning, moving or vertical transfer of sheet, plates, or fabrications from horizontal to vertical and down to horizontal (180°) as needed without marring the surface of the material. Materials such as aluminum, stainless steel, painted materials, aircraft skins, composite material, glass, plastic, etc., can be lifted without marring. The protective cover reduces the risk of damage to surrounding plates.

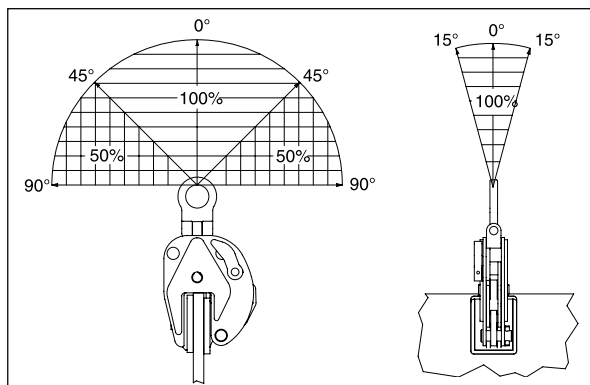
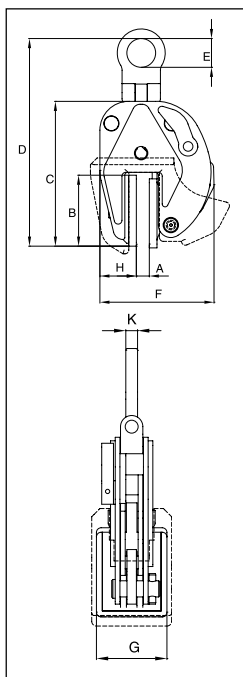
Will NOT mar, or scratch the material surface.



### Model IPNM10

Model	Working Load Limit (t)*	IPNM10 Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	H	K
IPNM10	.5	2703276	2.5	0 - 10	74	149	205	40	128	60	38	11
IPNM10/N	1	2703738	4.4	0 - 20	110	209	270	30	134	80	56	10
IPNM10	2	2703442	14.5	0 - 38	153	258	396	70	196	100	16	16
<b>With protection cap</b>												
IPNM10/P	.5	2703278	2.8	0 - 10	82	157	213	40	145	68	48	11
IPNM10/P	1	2703279	4.5	0 - 20	97	195	268	30	205	82	60	10
<b>With larger jaw opening &amp; curved jaw opening</b>												
IPNM10/J	1	2703312	5.5	20 - 37	86	196	265	30	177	80	51	10
IPNM10/JC	1	2703328	5.5	0 - 25	86	225	314	30	194	80	59	10

\* Design Factor based on EN 13155 and ASME B30.20.



# Horizontal clamps

## IPHNM10



The IPHNM10 horizontal lifting clamps have a pretension feature that allows the user to attach the clamps to the material for horizontal lifting and transfer of non-sagging material. To be used where material surface must not be damaged. These clamps must be used in pairs or more.

## For Horizontal Lift and Transfer - with Pretension System

- Available in capacities of .5 thru 12 metric tons.
- Jaw openings available: 0 to 120mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



## IPH10



The IPH10 horizontal lifting clamps with spring loaded tension have a pretension feature that allows the user to attach the clamps to the material for horizontal lifting and transfer of non-sagging material. These clamps must be used in pairs or more.

### Model IPHNM10

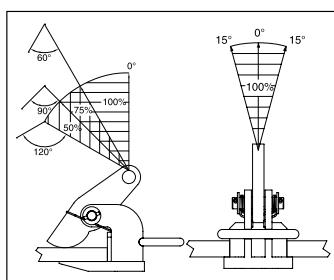
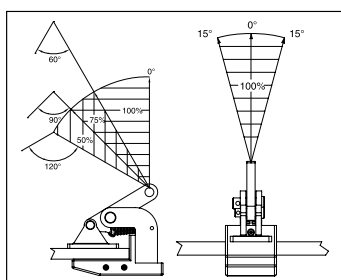
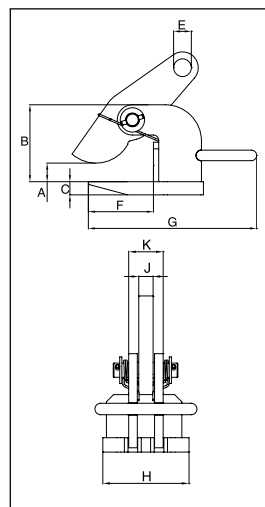
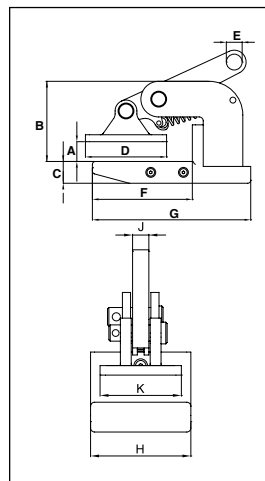
Model	Working Load Limit (Per Pair) (t)*	IPHNM10 Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IPHNM10	.5	2703287	2.0	0 - 20	81	22	82	16	101	160	74	12	60
IPHNM10	1	2703288	3.5	0 - 35	93	30	92	16	103	164	74	12	60
IPHNM10	2	2703290	7.5	0 - 40	139	30	131	22	166	245	100	20	74
IPHNM10/J	2	2703291	8.0	30 - 60	169	30	131	22	166	245	100	20	74

\* Design Factor based on EN 13155 and ASME B30.20.

### Model IPH10 and IPH10/J: With Spring Loaded Tension, Magnets and Handle

Model	Working Load Limit (Per Pair) (t)*	IPH10 Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	E	F	G	H	J	K	
IPH10	.5+	2703297	1.8	0 - 20	86	12	16	16	103	150	60	12	27
IPH10	1+	2703298	2.5	0 - 35	100	16	16	16	103	150	60	12	31
IPH10	2	2703522	5.5	0 - 60	117	16	22	109	256	110	20	40	
IPH10	3	2703523	7.5	0 - 60	117	20	26	109	266	120	20	48	
IPH10	4.5	2703524	10.5	0 - 60	132	25	30	104	280	130	20	48	
IPH10	6	2703525	13.0	0 - 60	143	25	36	123	320	130	20	48	
IPH10	9	2703526	18.5	0 - 60	157	30	43	133	330	140	25	62	
IPH10	12	2703527	21.5	0 - 60	172	30	47	141	353	150	25	62	
<b>With larger jaw opening</b>													
IPH10/J	3	2703533	9.0	60 - 120	177	20	26	109	266	120	20	48	
IPH10/J	4.5	2703534	12.0	60 - 120	192	25	30	104	280	130	20	48	
IPH10/J	6	2703535	15.0	60 - 120	203	25	36	123	320	130	20	48	
IPH10/J	9	2703536	20.5	60 - 120	217	30	43	133	330	140	25	62	
IPH10/J	12	2703537	24.0	60 - 120	232	30	47	141	353	150	25	62	

\* Design Factor based on EN 13155 and ASME B30.20. + No handle or magnets.

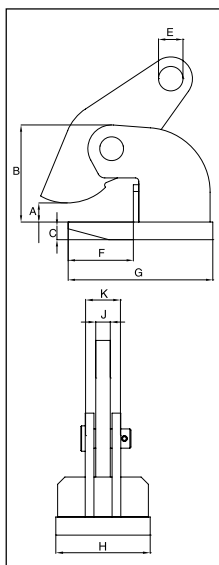


## Horizontal clamps

### IPHTONZ



The IPHTONZ / IPHSZ horizontal lifting clamps are for use in the lifting and transfer in horizontal position of non-sagging materials or of bundles of non-sagging material. These clamps must be used in pairs or more.



### For Horizontal Lifting and Transfer

- Available in capacities of .75 thru 25 metric tons.
- Wide variety of jaw openings available: 0 to 100mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



### IPHOZ



The IPHOZ horizontal lifting clamp is to be used for lifting and transferring, in the horizontal position, of thin sheet and other materials that will sag or bend when lifted. These clamps must be used in pairs or more.

#### Model IPHTONZ: Jaw opening range 0 to 60mm

Model	Working Load Limit (Per Pair) (t)*	IPHTONZ Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	E	F	G	H	J	K
IPHTONZ	0.75	2705343	2.0	0 - 30	75	16	16	64	118	81	12	46
IPHTONZ	1.5	2705344	4.5	0 - 60	114	16	22	87	153	110	16	52
IPHTONZ	3	2705477	7.0	0 - 60	117	20	26	87	163	120	20	69
IPHTONZ	4.5	2705483	10.0	0 - 60	132	25	30	87	183	130	20	69
IPHTONZ	6	2705484	12.5	0 - 60	143	25	36	96	213	130	20	69
IPHTONZ	9	2705485	15.5	0 - 60	157	30	43	110	223	140	25	86
IPHTONZ	12	2705486	20.5	0 - 60	172	30	47	120	254	150	25	88
IPHTONZ	15	2705487	27.0	0 - 60	183	30	47	130	284	200	25	88
IPHTONZ	25	2705119	39.0	0 - 60	169	40	47	170	300	220	32	113

\* Design Factor based on EN 13155 and ASME B30.20.

#### Model IPHSZ: Jaw opening range 0 to 100mm

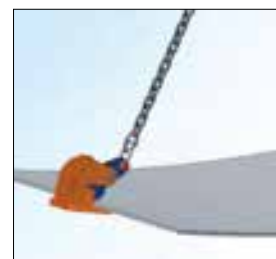
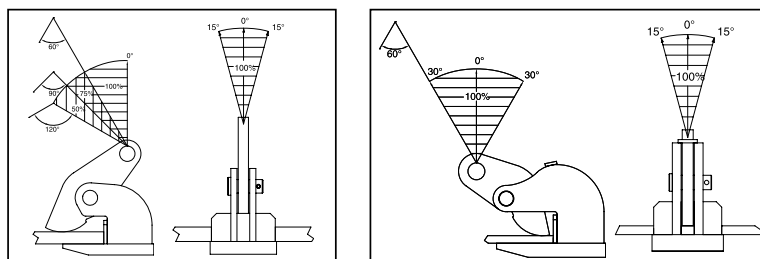
Model	Working Load Limit (Per Pair) (t)*	IPHSZ Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	E	F	G	H	J	K
IPHSZ	3	2705308	11.0	0 - 100	192	20	26	160	222	140	20	65
IPHSZ	6	2705311	18.2	0 - 100	200	25	32	160	249	180	20	69
IPHSZ	9	2705313	24.6	0 - 100	220	30	35	170	270	190	25	85
IPHSZ	12	2705318	31.4	0 - 100	220	35	47	170	270	200	25	95

\* Design Factor based on EN 13155 and ASME B30.20.

#### Model IPHOZ: Jaw opening range 0 to 60mm

Model	Working Load Limit (Per Pair) (t)*	IPHOZ Stock No.	Weight Per Pair (kg.)	Dimensions (mm)								
				Jaw A	B	C	E	F	G	H	J	K
IPHOZ	0.75	2705401	3.0	0 - 30	94	16	16	70	118	81	12	12
IPHOZ	1.5	2705402	5.5	0 - 45	133	16	22	125	192	100	16	12
IPHOZ	3	2705403	8.0	0 - 45	137	20	26	125	200	120	20	10
IPHOZ	4.5	2705404	8.5	0 - 45	138	25	30	126	220	120	20	10
<b>With larger jaw opening</b>												
IPHOZ	6	2705405	15.5	0 - 60	171	30	36	135	235	130	20	20
IPHOZ	9	2705406	20.5	0 - 60	211	30	43	166	276	160	25	20
IPHOZ	12	2705407	38.0	0 - 60	217	40	47	168	294	190	25	19
IPHOZ	15	2705408	38.0	0 - 60	220	40	47	183	317	250	25	22

\* Design Factor based on EN 13155 and ASME B30.20.



# Horizontal clamps

## IPBC



The IPBC horizontal lifting clamps have a pretension feature that allows the user to attach the clamps to the material for horizontal lifting and transfer of sagging and non-sagging material. These clamps may also be used to handle material that will be used in shears, bending and rolling machines or other fabrication equipment. May also be used for turning beams from the "H" into the "I" position.

## For Horizontal Transfer - with Pretension System

- Available in capacities of 1 thru 4.5 metric tons.
- Jaw openings available: 0 to 40mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

## IPHGZ



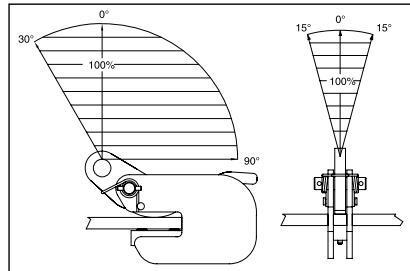
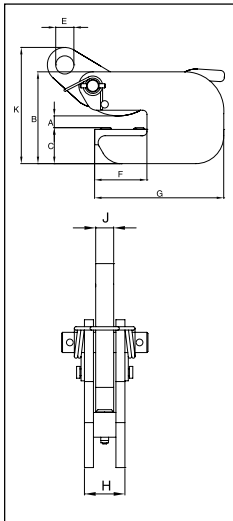
The IPHGZ, IPHGUZ horizontal lifting clamps have a pretension locking feature that allows the user to attach the clamps to the material for horizontal lifting and transfer of sagging and non-sagging material. These clamps may also be used to handle material that will be used in shears, bending and rolling machines or other fabrication equipment. May also be used to move and lift structural shapes such as I-Beams, H-beams etc.



### Model IPBC

Model	Working Load Limit (Per Pair) (t)*	IPBC Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	E	F	G	H	J	K
IPBC	1	2700410	3.5	0 - 20	132	52	26	75	185	36	16	182
IPBC	2	2700411	6.5	0 - 25	152	62	30	82	210	49	20	218
IPBC	3	2700412	8.5	0 - 25	157	66	30	82	210	57	20	225

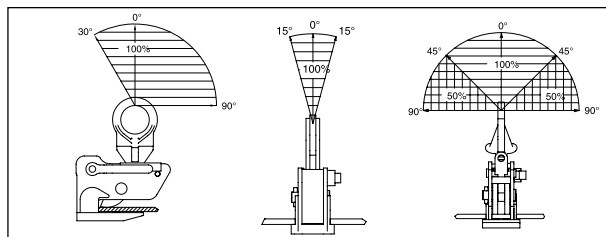
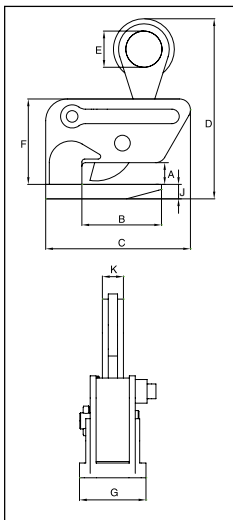
\* Design Factor based on EN 13155 and ASME B30.20.



### Model IPHGUZ: Universal Lifting Eye Model IPHGZ: Fixed Hoisting Eye

Model	Working Load Limit (t)*	Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	J	K
IPHGUZ	1.5	2705455	9.0	0 - 25	110	232	287	70	139	90	20	16
IPHGZ	3.0	2705456	19.9	0 - 40	119	253	348	75	175	120	25	20
IPHGZ	4.5	2705457	30.0	0 - 40	119	301	370	80	175	155	30	44
Fixed Hoisting Eye												
IPHGZ	.75	2705451	4.0	0 - 25	82	148	206	50	99	98	12	22
IPHGZ	1.5	2705452	7.3	0 - 25	110	200	250	50	118	90	20	28
IPHGZ	3.0	2705453	12.3	0 - 40	120	227	305	70	148	120	25	32
IPHGZ	4.5	2705454	25.0	0 - 40	120	284	381	70	181	155	30	40

\* Design Factor based on EN 13155 and ASME B30.20.



## Horizontal clamps

### IPPE



### For the Lifting and Transfer of Bundles of Plates

- Available in capacities of 3 thru 12 metric tons.
- Wide variety of jaw openings available: 0 to 420mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

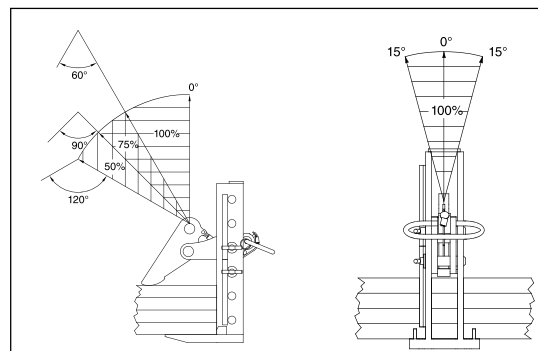
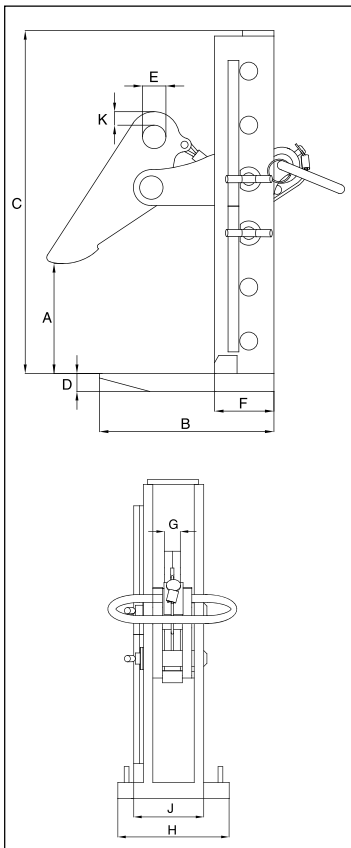
The IPPE is suitable for the lifting and transfer of bundles of non-sagging steel plates in horizontal position. The jaw opening can be easily adjusted. Raising the handle opens the clamp. This facilitates the easy and quick placing or removing of the clamp.



### Model IPPE

Model	IPPE Stock No.	Working Load Limit (Per Pair) (t)*	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
3 IPPEB	2700501	3.0	10.5	0-180	194	256	20	26	66	20	140	76	15
3 IPPEB	2700502	3.0	13.0	0-300	194	376	20	26	66	20	140	76	15
3 IPPEH	2700503	3.0	14.0	0-420	194	496	20	26	66	20	140	76	15
6 IPPEH	2700506	6.0	23.0	0-420	227	516	25	30	102	20	160	76	13
9 IPPEH	2700509	9.0	31.0	0-420	270	566	25	34	122	20	190	76	21
12 IPPEH	2700512	12.0	52.0	0-420	292	588	30	40	133	25	200	97	18

\* Design Factor based on EN 13155 and ASME B30.20.





# Beam clamps

## IPBKZ



The IPBKZ beam clamp is used for lifting, transfer and stacking of I-Beams. An over-center hoist eye allows for the beam flange to remain vertical. This series of clamps can be used in the vertical and horizontal moving, transfer and stacking of different types of structural designs, such as I-Beams, angles, etc, depending on the application desired.

## For the Transfer and Stacking of Steel Beams

- Available in capacities of .75 thru 3.75 metric tons.
- Wide variety of jaw openings available: 0 to 28mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Optional IP-5000 Stinger assembly available (see page 402). Allows for easy connection between the clamp and hoist hook.
- Minimum WLL of 10% of Maximum WLL.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

## IPVUZ



The IPVZ / IPVUZ beam clamp is used for vertical lift and transfer of angle iron and other loads that have only a small gripping area for the clamp ("U" has universal hoisting eye).

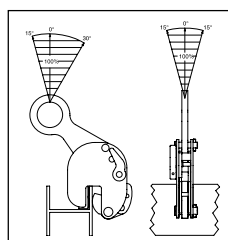
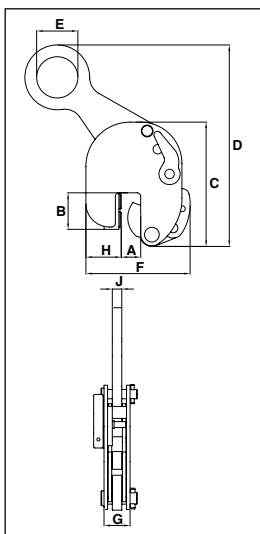
This series of clamps can be used in the vertical and horizontal moving, transfer and stacking of different types of structural designs, such as I-Beams, H-beams, angles, etc, depending on the application desired.



### Model IPBKZ

Model	Working Load Limit (t)*	IPBKZ Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	H	J
IPBKZ	.75	2705780	3.5	5 - 15	43	132	192	45	113	47	38	10
IPBKZ	1.5	2705781	7.0	5 - 25	62	210	300	70	163	61	50	16
IPBKZ	3.75	2705782	15.5	5 - 28	75	260	415	100	202	78	52	20

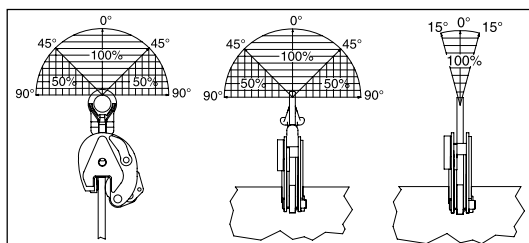
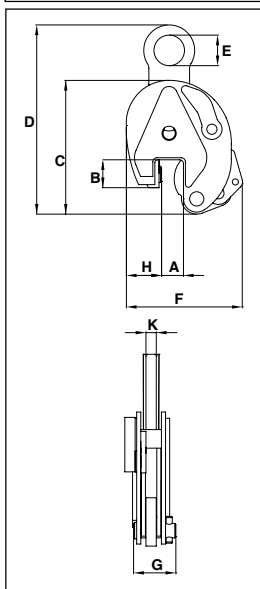
\* Design Factor based on EN 13155 and ASME B30.20.



### Model IPVUZ: Universal Hoisting Eye Model IPVZ: Fixed Hoisting Eye

Model	Working Load Limit (t)*	Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	H	K
IPVUZ	0.75	2705146	2.3	0 - 15	45	138	238	30	128	41	37	10
IPVUZ	1.5	2705147	8.9	0 - 20	78	201	378	70	200	61	72	16
Fixed Hoisting Eye												
IPVZ	0.75	2705096	2.1	0 - 15	26	128	207	30	115	41	30	10
IPVZ	1.5	2705097	6.2	0 - 20	60	200	339	70	180	52	50	16

\* Design Factor based on EN 13155 and ASME B30.20.



## Beam clamps

### IPBHZ



The IPBHZ beam clamp is used for horizontal lifting and transfer of steel beams. The base is slotted to allow the clamps to be used from end of beams as well as from the flange. This series of clamps can be used in the vertical and horizontal moving, transfer and stacking of different types of structural designs, such as I-Beams, H-beams, angles, etc, depending on the application desired.

### For the Lifting and Transfer of Steel Beams

- Available in capacities of .75 thru 12 metric tons.
- Wide variety of jaw openings available: 0 to 50mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

### IPBSNZ



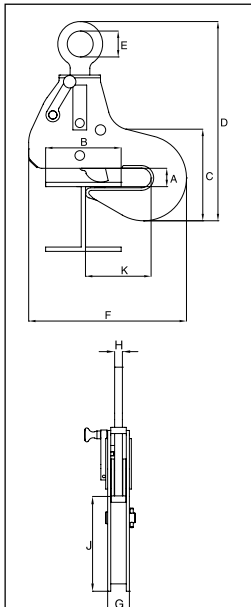
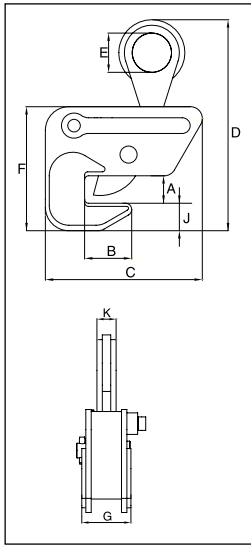
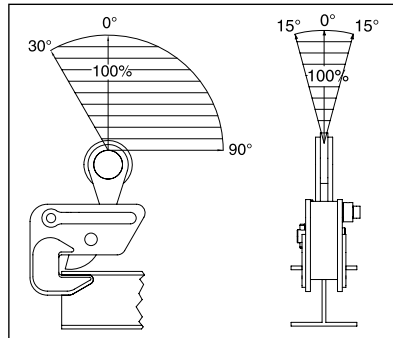
The IPBSNZ beam clamp is used for lifting, transfer and stacking. Offset hoisting eye allows for level lifts of I-Beams, also for lifting fabrications and ship sections. This series of clamps can be used in the vertical and horizontal moving, transfer and stacking of different types of structural designs, such as I-Beams, depending on the application desired.



### Model IPBHZ

Model	Working Load Limit (t)*	IPBHZ Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	J	K
IPBHZ	.75	2705461	3.0	0 - 25	40	148	220	50	130	69	33	22
IPBHZ	1.5	2705462	6.0	0 - 25	60	200	255	50	153	73	35	28
IPBHZ	3	2705463	10.5	0 - 40	80	227	325	70	188	112	38	32
IPBHZ	4.5	2705464	25.0	0 - 40	112	284	413	70	251	116	80	40
IPBHZ	12	2705467	42.0	0 - 40	125	466	490	90	317	90	90	47

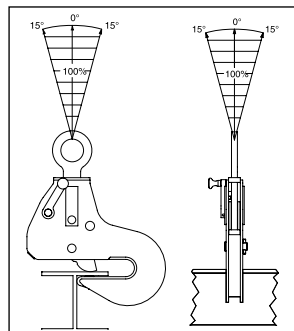
\* Design Factor based on EN 13155 and ASME B30.20.



### Model IPBSNZ

Model	Working Load Limit (t)*	IPBSNZ Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IBPSNZ	1.5	2705925	14.0	0 - 32	100 - 270	304	480	70	319	47	16	165	148
IPBSNZ	3	2705926	22.0	0 - 40	100 - 330	352	494	75	408	56	20	207	182
IPBSNZ	4.5	2705927	30.5	0 - 50	100 - 360	420	630	75	457	56	20	250	188

\* Design Factor based on EN 13155 and ASME B30.20.



# Beam clamps

## IPTK



This IPTK series beam clamp is suitable for use as a temporary tackle eye for a beam.

### For the Transfer of Steel Beams and Attachment of Tackle Eye

- Available in capacities of 2 thru 25 metric tons.
- Wide variety of jaw openings available: 75 to 1020mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.

### Model IPTK: With Hoisting Eye Model IPTKW: Without Hoisting Eye Model IPTKU: With Hinged Hoisting Eye



## IPTKW



This IPTKW series beam clamp is suitable for use as a temporary tackle eye for a beam.

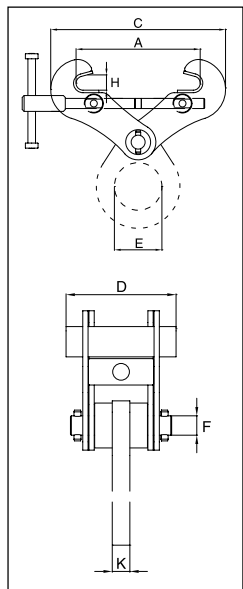
Model	Working Load Limit (t)*	Stock No.	Weight Each (kg.)	Dimensions (mm)							
				Jaw A	C	D	E	F	H	J	K
IPTK	2	2700996	6.0	75 - 190	A + 80	125	75	-	25	-	20
IPTK	3	2700997	6.5	75 - 190	A + 80	125	75	-	25	-	20
IPTK	4	2700998	8.5	150 - 280	A + 100	125	75	-	35	-	20
IPTK	5	2700994	11.0	120 - 350	A + 195	125	75	-	40	-	20
IPTK	10	2700970	31.0	300 - 500	A + 300	171	74	-	40	-	30
IPTK	25	2702999	225	450 - 1020	A + 220	500	125	-	76	-	45
<b>Without Hoisting Eye</b>											
IPTKW	2	2700966	4.0	75 - 190	A + 80	125	-	28	25	-	-
IPTKW	3	2700967	4.5	75 - 190	A + 80	125	-	28	25	-	-
IPTKW	4	2700968	6.3	150 - 280	A + 100	125	-	33	35	-	-
IPTKW	5	2700969	8.8	120 - 350	A + 195	125	-	33	40	-	-
<b>With Improved Hinged Hoisting Eye</b>											
IPTKU	2	2707996	5.8	75 - 190	A + 100	121	76	-	22	99	19
IPTKU	3	2707997	6.5	75 - 190	A + 100	121	89	-	22	122	22
IPTKU	4	2707998	9.9	120 - 280	A + 150	140	89	-	40	122	22
IPTKU	5	2707994	12.0	120 - 350	A + 175	140	89	-	40	122	22
IPTKU	10	2707970	38.0	200 - 460	A + 300	200	105	-	60	152	26
<b>With Optional Double Locking Device</b>											
IPTKU/D	2	2709996	5.8	75 - 190	A + 100	165	89	-	22	99	19
IPTKU/D	3	2709993	6.5	75 - 190	A + 100	165	89	-	22	122	22
IPTKU/D	4	2709995	9.9	120 - 280	A + 150	185	89	-	40	122	22
IPTKU/D	5	2709994	12.0	120 - 350	A + 175	185	89	-	40	122	22
IPTKU/D	10	2709970	38.0	200 - 460	A + 300	250	105	-	60	152	26

\* Design Factor based on EN 13155 and ASME B30.20.

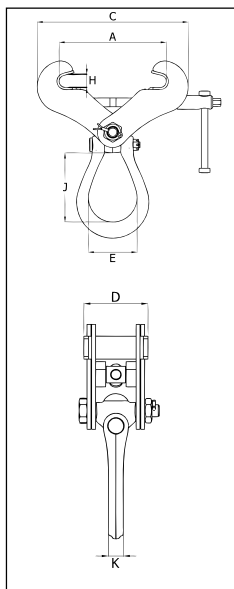
## IPTKU



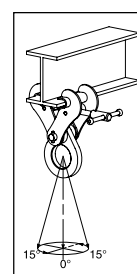
This IPTKU series beam clamp has an improved hinged hoisting eye that increases the loading angles and an optional new "Double Locking Device".



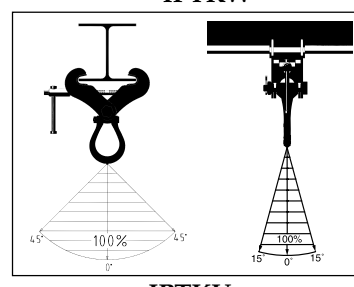
IPTK



IPTKU



IPTKW



IPTKU

## Beam clamps

### IPSTARTEC11

### For the Lifting and Transfer of Steel Beams



- Available in capacities of 1.5 and 2.5 metric tons.
- Jaw openings available: 6 to 20mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are RFID EQUIPPED.

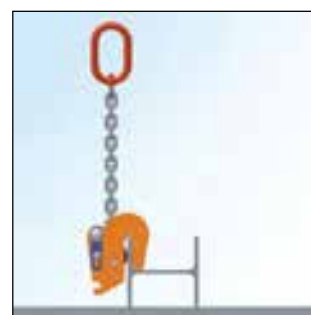
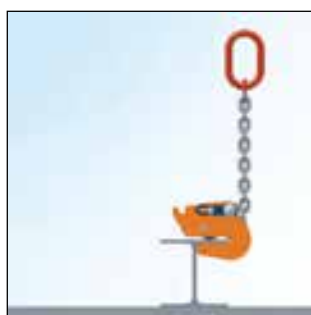
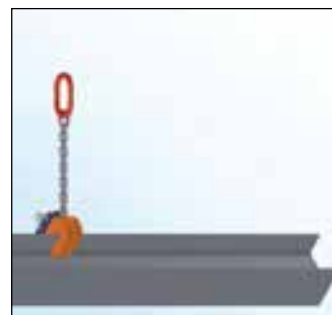
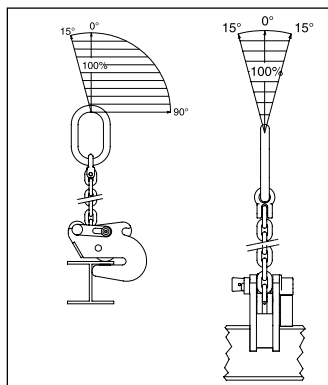
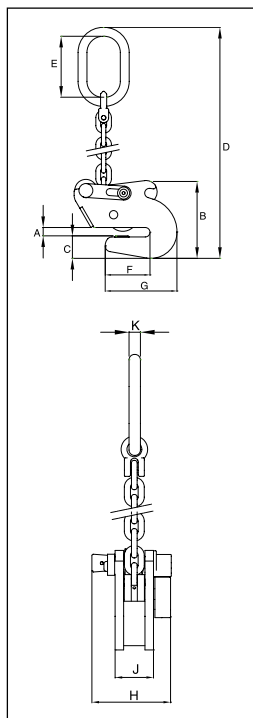


#### Model IPSTARTEC11

Model	Working Load Limit (t)*	IPSTARTEC11 Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IPSTARTEC11	1.5	2701812	6.6	6 - 12	140	39	575	110	81	129	54	126	16
IPSTARTEC11	2.5	2701822	14.5	6 - 20	210	55	725	135	115	182	74	140	18

\* Design Factor based on EN 13155 and ASME B30.20.

The IPSTARTEC11 beam clamp has been specially developed for lifting with the body in vertical position, controlled tilting, transportation and stacking of steel "H" and "I" profiles. By placing the chain guide in the appropriate position, it is easy to switch from lifting to tilting and back again, which shifts the center of gravity.



# Drum clamps

## IPDV



The IPDV drum clamp is for vertical lift and transfer. Allows drum to remain in an upright position during the lift and transfer using one clamp.

## Designed to lift, move and transfer 50-55 gallon drums with steel tops

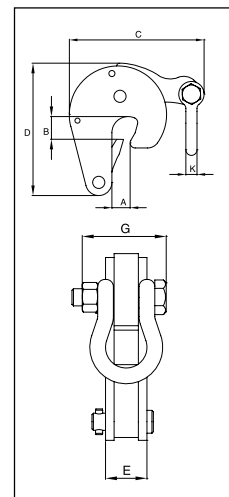
- Available in capacity of .5 metric tons.
- Jaw openings available: IPDV - 300mm IPVK - 17mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- IPDV is **RFID EQUIPPED**.



## IPVK



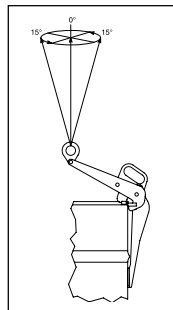
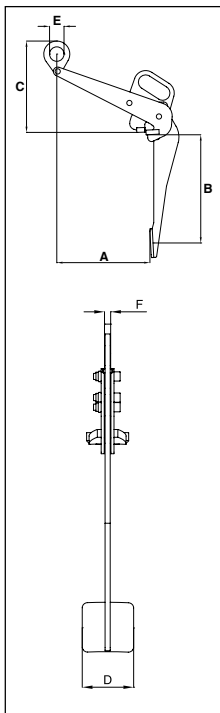
The IPVK drum clamp is for vertical lift and transfer. Automatically locks on drum, and can be used alone or in pairs.



### Model IPDV

Model	Working Load Limit (t)*	IPDV Stock No.	Weight Each (kg.)	Dimensions (mm)					
				Jaw A	B	C	D	E	F
IPDV	.5	2700118	7.1	300	375	290	150	50	12

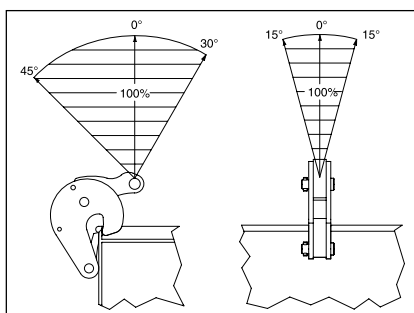
\* Design Factor based on EN 13155 and ASME B30.20.



### Model IPVK

Model	Working Load Limit (t)*	IPVK Stock No.	Weight Each (kg.)	Dimensions (mm)						
				Jaw A	B	C	D	E	G	K
IPVK	.5	2700116	1.6	17	26	26	132	29	51	11

\* Design Factor based on EN 13155 and ASME B30.20.



## Vertical clamps

### IPCC



The IPCC is suitable for the vertical lifting and transfer of concrete pipe sections and wells. Very easy application and removal of the clamp thanks to the built-in carrying-grips. Normally used in combination with 7mm chain (not supplied). These clamps must be used in pairs or more.

### For the Lifting and Transfer of Concrete Pipe Sections and Wells

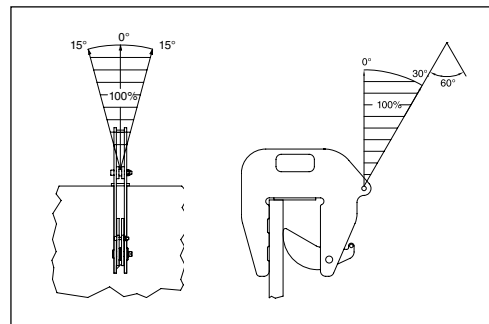
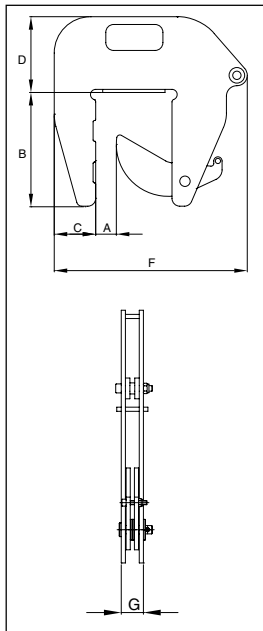
- Available in capacity of 1 metric tons.
- Jaw opening available: 40 to 140mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance and replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



### Model IPCC

Model	IPCC Stock No.	Working Load Limit Per Pair (t.)*	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IPCC	2700037	1,0	9,2	40-140	225	80	146	-	372	37	-	-	-

\* Design Factor based on EN 13155 and ASME B30.20.

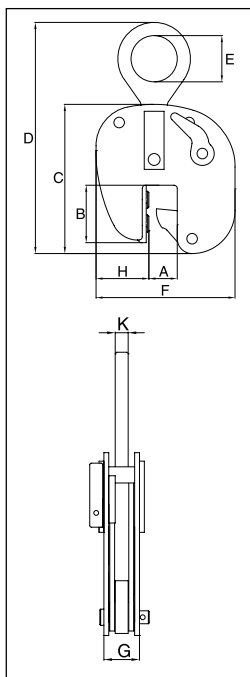


## Shipbuilding clamps: Bulbprofiles

### IPBUZ



The IPBUZ shipbuilding clamps are used for the lifting, transfer and placing of bulb profiles onto ship's hulls perpendicularly. These clamps are fitted with a locking device for both open and closed positions, which ensures complete reliability. They are to be used exclusively for bulb profiles (not for plates).



### For the lifting, transfer and placing of Bulb Profiles onto Ship's Hulls Perpendicularly

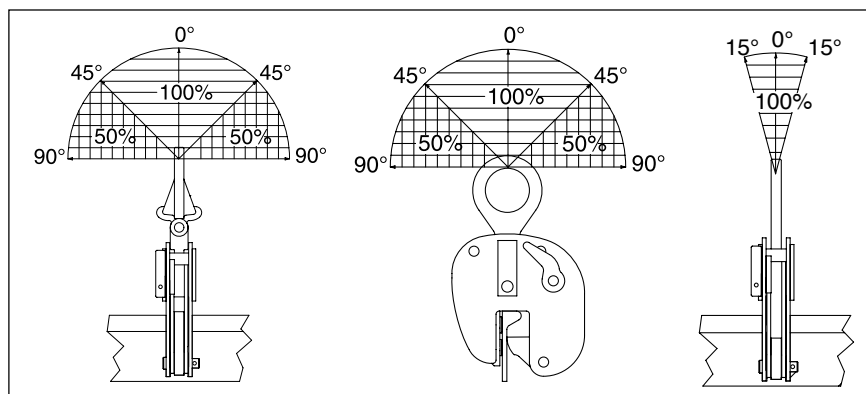
- Available in capacities of .75 thru 3.75 metric tons.
- Jaw openings available: HP 120mm to HP 430mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Optional IP-5000 Stinger assembly available (see page 8.244). Allows for easy connection between the clamp and hoist hook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



#### Model IPBUUZ: with Universal Hoisting Eye Model IPBUZ: with Fixed Hoisting Eye

Model	Working Load Limit (t)*	Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	H	K
IPBUUZ	.75	2705601	8.5	HP 120-200	85	226	390	70	210	61	70	16
<b>With fixed hoisting eye</b>												
IPBUZ	.75	2705600	7.0	HP 120-200	85	226	390	70	210	61	70	16
IPBUZ	1.5	2705701	15.0	HP 220-430	196	397	568	70	256	69	48	16
IPBUZ	3.75	2705702	28.5	HP 220-430	238	438	565	80	355	64	100	20

\* Design Factor based on EN 13155 and ASME B30.20.

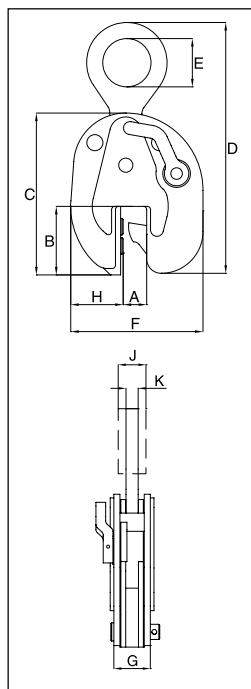


## Shipbuilding clamps: Shipsections

### IPSBUUZ



The IPSBU(U)Z shipbuilding clamps are used for the lifting, transfer and placing of complete shipsections. These clamps are fitted with a locking device for both open and closed positions, which ensures complete reliability. They are to be used exclusively for bulb profiles (not for plates).



### For the lifting, transfer and placing of complete shipsections

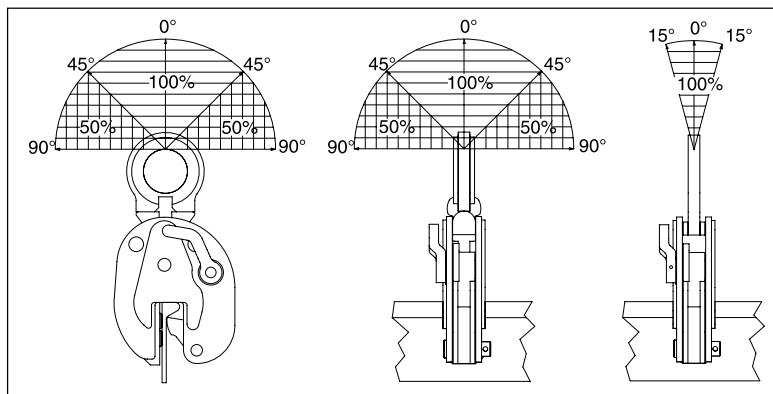
- Available in capacities of 4.5 thru 22.50 metric tons.
- Wide variety of jaw openings available: HP 100mm to HP 430mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Optional IP-5000 Stinger assembly available (see page 8.244). Allows for easy connection between the clamp and hoist hook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



### Model IPSBUUZ and ISPBUSUZ: with Universal Hoisting Eye Model IPSBUZ and ISPBUSZ: with Fixed Hoisting Eye

Model	Working Load Limit (t)*	Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IPSBUUZ	4.5	2705771	15.5	HP 100-160	107	252	450	75	206	96	82	36	20
ISPBUSUZ	4.5	2705772	38.0	HP 180-430	227	428	635	75	377	95	128	-	20
IPSBUUZ	9	2705773	43.0	HP 100-160	105	274	491	80	248	123	104	44	20
ISPBUSUZ	9	2705774	59.0	HP 180-430	227	478	718	80	425	118	155	44	25
<b>With fixed hoisting eye</b>													
IPSBUZ	4.5	2705721	13.5	HP 100-160	107	252	382	75	206	96	82	-	20
ISPBUSZ	4.5	2705722	35.8	HP 180-430	227	428	592	75	377	95	128	-	20
IPSBUZ	9	2705723	23.0	HP 100-160	105	274	461	80	248	123	104	-	30
ISPBUSZ	9	2705724	68.0	HP 180-430	227	478	672	80	425	118	155	45	25
IPSBUSZ	15	2705728	64.0	HP 180-430	226	485	690	88	401	100	135	49	25
IPSBUSZ	22.5	2705730	100	HP 180-430	224	543	740	90	470	116	185	-	30

\* Design Factor based on EN 13155 and ASME B30.20.





## Shipbuilding clamps: Bulbprofiles

### IPBTO10



The IPBTO/10 shipbuilding clamp is used as a temporary tackle eye in spaces which have been reinforced with HP (bulb) profiles such as engine rooms and shipsections. This clamp is fitted with a screwed spindle for easy attachment of the clamp. The moment a load is applied, the clamp is automatically fixed.

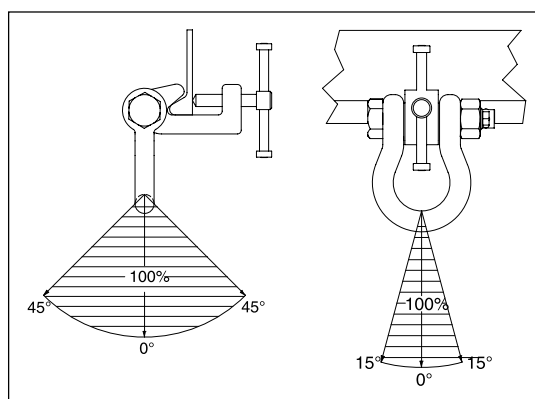
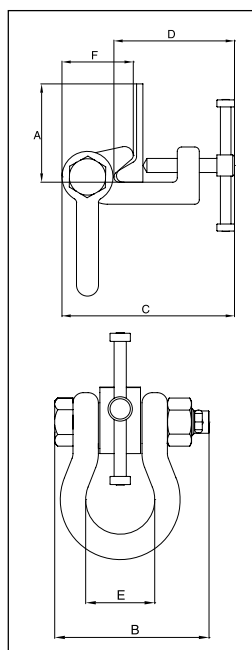
**For use as a temporary tackle eye in spaces which have been reinforced with HP (bulb) profiles such as engine rooms and shipsections.**

- Available in capacities of 1.5 thru 6 metric tons.
- Wide variety of jaw openings available: HP 160mm to HP 430mm.
- Welded alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.

### Model IPBTO10

Model	Working Load Limit (t)*	IPBTO10 Stock No.	Weight Each (kg.)	Dimensions (mm)					
				Jaw A	B	C	D	E	F
IPBTO10	1.5	2700980	4.3	HP 160-240	137	188-209	129-150	68	81
IPBTO10	3	2700986	6.0	HP 240-320	137	188-217	145-174	68	78
IPBTO10	6	2700991	13.0	HP 300-430	185	255-297	195-236	98	102

\* Design Factor based on EN 13155 and ASME B30.20.



## Crosby® IP clamps – misc.

### IPSC



The IPSC screw style clamp is for positioning, pulling and turning of plate and fabrications.

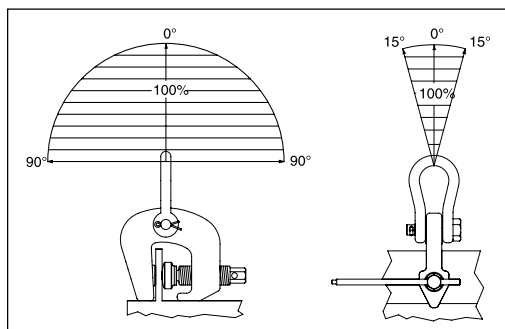
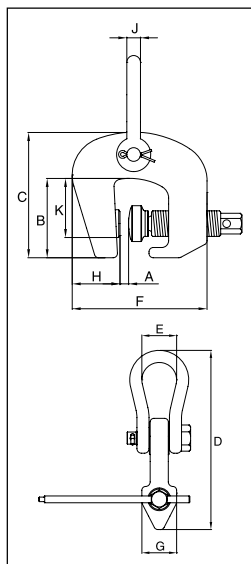
### Suitable for use in positioning & turning of steel plates and sections. Not to be used as a lifting clamp.

- Available in capacities of 1.5 and 3 metric tons.
- Jaw openings available: 0 to 50mm.
- Suitable for steel with a surface hardness up to 30 Rc.
- Forged alloy steel body for strength and smaller size. Forged alloy components, where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.

### Model IPSC

Model	Working Load Limit (t)*	IPSC Stock No.	Weight Each (kg.)	Dimensions (mm)									
				Jaw A	B	C	D	E	F	G	H	J	K
IPSC	1.5	2701640	4.0	0 - 32	91	143	229	45	154	46	52	16	52
IPSC	3	2701641	6.0	0 - 50	105	165	265	50	190	54	59	19	60

\* Design Factor based on EN 13155 and ASME B30.20.



### Provides easy attachment of selected Crosby® IP clamp to hoist hook.

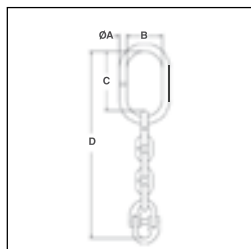
- Available in three sizes in the IP10 and IPU10 with capacities from .5 to 12 metric tons.
- Assembly consists of welded alloy master link, Grade 80 chain and A-1337 Lok-A-Loy for attachment to the clamp hoisting eye.
- Individually Proof Tested to 2.5 times the Working Load Limit of Grade 80 chain with certification.
- Company name or logo and frame number permanently stamped on link.
- Locking system provides for simple assembly - no special tools needed.
- Finish - Red Paint.
- Manufactured by a ISO 9001 facility.

**NOTE: Not intended to be used as a chain sling.**

### IP5000



The IP5000 Stinger Assembly is designed to be used as a connecting link between the clamp and the hoist hook.



### Model IP5000

Frame Size	Chain Size		Crosby® IP10 and IPU10 Clamp Sizes (t)*	IP5000 Stock No.	Weight Each (kg.)	Dimensions (mm)			
	(mm)	(in.)				A	B	C	D
1	8	5/16	0.5 - 1	2701695	.95	13.0	59.9	100	315
2	13	1/2	2 - 4.5	2701704	3.4	22.1	89.9	144	484
3	22	7/8	6 - 12	2701713	14.7	36.1	140	234	820

\* The working load of the assembly is based on working load limit of the selected clamp. Ultimate load is 5 times the Working Load Limit.

# Crosby® IP clamps – misc.

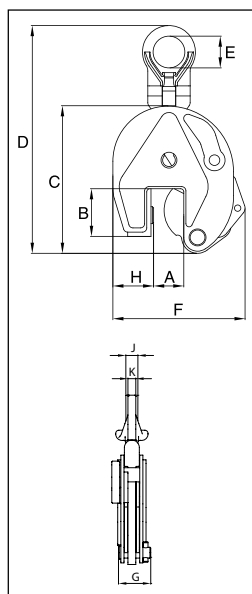
## IPU10/A



The IPU10/A automatically clicks on to the material as soon as the clamp is placed on the plate. The fact that the safety lock remains in position as the clamp closes precludes hazardous situations. Fastening the IPU10/A clamp in places that are difficult to reach is no problem.

### For vertical transport of plates

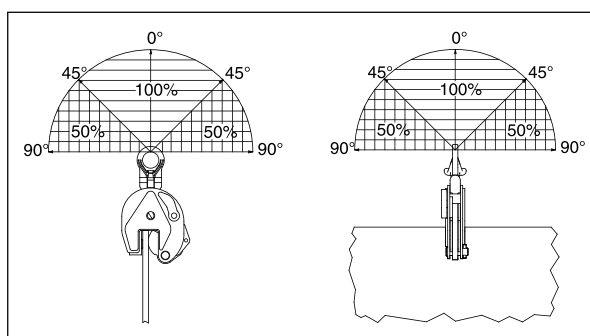
- Available in capacities of 1 and 2 metric tons.
- Jaw openings available: 0 to 35mm; 0" to 1.38".
- Welded alloy steel body for strength and smaller size. Forged alloy components where required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Company name (CrosbyIP), logo, Working Load Limit and jaw opening permanently stamped on body.
- Each product is individually serialized, with the serial number and Proof Load test date stamped on body. Serial number is included on the test certificate with maintenance and warranty logbook.
- Full 180° turning range for material transfer, turning or moving.
- Lock open, lock closed ability with latch for pretension on material and then release of material.
- Optional IP-5000 Stinger assembly available (see page 8.244). Allows for easy connection between the clamp and hoist hook.
- Minimum WLL of 10% of Maximum WLL.
- Maintenance replacement parts are available.
- Manufactured by a ISO 9001 facility.
- All sizes are **RFID EQUIPPED**.



### Model IPU10/A

Model	Working Load Limit (t)*	IPU10/A Stock No.	Weight Each (kg.)	Dimensions (mm)								
				Jaw A	B	C	D	E	F	G	H	K
IPU10/A	1	2701628	2.3	0 - 20	45	138	238	40	128	41	37	11
IPU10/A	2	2701629	8.9	0 - 35	78	201	378	70	200	61	72	16

\* Design Factor based on EN 13155 and ASME B30.20.



## Crosby® clamp-co padded pipe grab

### CCPA

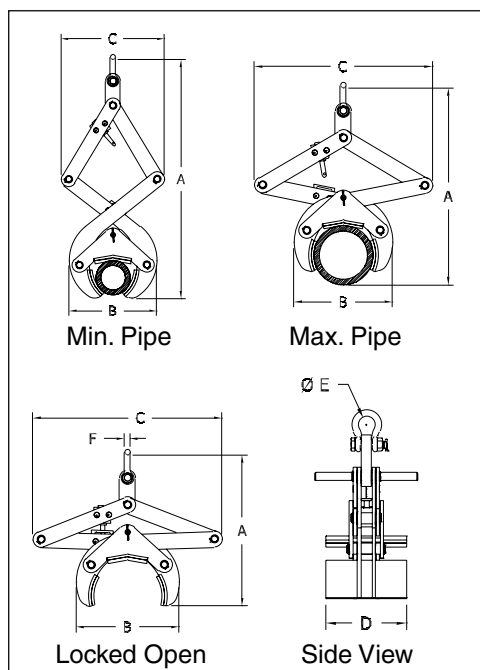


The new Crosby Clamp-Co Adjustable Pipe Grab provides an excellent means of handling cylindrical objects. Featuring padded grabs, the new Grab offers an excellent method of handling any pipe or solid bar, 88.9 mm to 914 mm, especially where damage to material surface is not permitted.

- Capacities: 544 kg. to 9072 kg.
- Each Grab size accommodates several diameters of pipe or solid bar.
- Auto indexing system provides quick connect and disconnect to load (one person - hands free).
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Designed to handle loads of various types of material, including:
  - Cast Iron / Steel
  - PVC
  - Painted
  - Epoxy Coated
- Finish - Red Paint
- Replacement pads are available.
- Features Crosby shackle as upper connection point.
- Custom sizes are available.
- All sizes are **RFID EQUIPPED**.



### Padded Pipe Grab



Model No.	CCPA Stock No.	Working Load Limit* (kg.)	Weight Each (kg.)	Grip Width	Dimensions (mm)					
					A	B	C	D	E	F
PA-5	2736000	544	10.4	Locked Open	343	254	457	165	33.3	12.7
				Min. Pipe 88.9mm	686	229	203			
				Max. Pipe 141mm	584	229	375			
PA-8	2736009	907	34.0	Locked Open	597	394	705	254	42.9	16.0
				Min. Pipe 141mm	1029	368	356			
				Max. Pipe 224mm	864	375	610			
PA-14	2736018	2041	104	Locked Open	730	610	724	394	38.1	25.4
				Min. Pipe 224mm	1168	572	343			
				Max. Pipe 356mm	864	584	660			
PA-22	2736027	4536	225	Locked Open	1066	914	1079	508	63.5	38.1
				Min. Pipe 356mm	1714	863	482			
				Max. Pipe 559mm	1320	914	1016			
PA-36	2736036	9072	567	Locked Open	1455	1449	1456	762	85.6	38.1
				Min. Pipe 610mm	2337	1330	685			
				Max. Pipe 914mm	1686	1398	1352			

\* Maximum Proof Load is 2 times the Working Load Limit.

## Crosby® clamp-co pipe grabs

### CCPG

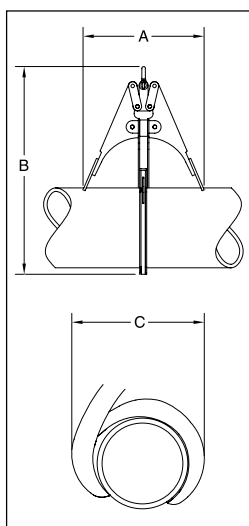


Crosby Clamp-Co Pipe Grabs provide an excellent means of handling cylindrical objects as long as they meet "Pipe O.D." and "Working Load Limits" referenced in the table below.

- Capacities: 204 kg. to 3175 kg.
- Moveable outriggers help stabilize the load.
- No blocking of load required.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Designed to handle loads of various types of material, including:
  - Cast Iron
  - Steel
  - PVC
  - C900
  - Yellowmine Ductile Iron
  - Cement Pipe
- Finish - Red Paint.
- Custom sizes are available.
- All sizes are **RFID EQUIPPED**.



**NOTE:** Pipe grab sizes listed will handle all classes in a category of ASA standard cast iron pipe, C900, Yellowmine, Schedule 40, 80 & 120 PVC or ASA standard steel welded and seamless pipe. Standard, extra strong and double extra all have the same outside diameter.



### For Cast Iron Pipe

- C-900, C-905, Bluestripe C-906, Certa-Lok PVC Pressure Pipe

Model No.	CCPG- 900 Stock No.	Working Load Limit (kg.)*	Pipe O.D. (mm)	Weight Each (kg.)	Dimensions (mm)		
					A	B	C
C-3	2730000	204	102	4.54	127	254	152
C-4	2730009	272	122	4.99	203	356	178
C-6	2730018	454	175	6.80	279	432	279
C-8	2730027	635	230	11.3	330	559	356
C-10	2730036	907	282	21.8	381	686	432
C-12	2730045	1134	335	32.7	457	813	508
C-14	2730054	1588	389	47.6	559	965	584
C-16	2730063	1814	442	59.0	610	1067	635
C-18	2730072	2268	495	77.1	660	1143	711
C-20	2730081	2948	549	95.3	711	1270	813
C-24	2730090	3175	655	102	787	1473	889

\* Maximum Proof Load is 2 times the Working Load Limit and design factor based on EN13155 and ASME B30.20.

### For Steel Pipe

- SDR Class 200, Yellowmine, PVC Schedule 40, 80 and 120

Model No.	CCPG- 200 Stock No.	Working Load Limit (kg.)*	Pipe O.D. (mm)	Weight Each (kg.)	Dimensions (mm)		
					A	B	C
S-3	2731000	204	88.9	4.54	127	254	152
S-4	2731009	272	114	4.99	203	356	178
S-6	2731018	454	168	6.80	279	432	279
S-8	2731027	635	219	11.3	330	559	356
S-10	2731036	907	273	21.8	381	686	432
S-12	2731045	1134	324	32.7	457	813	508
S-14	2731054	1588	356	47.6	559	965	584
S-16	2731063	1814	406	59.0	610	1067	635
S-18	2731072	2268	457	77.1	660	1143	711
S-20	2731081	2948	508	95.3	711	1270	813
S-24	2731090	3175	610	102	787	1473	889

\* Maximum Proof Load is 2 times the Working Load Limit and design factor based on EN13155 and ASME B30.20.



## Crosby® clamp-co beam clamps

### CCBC



**Crosby Clamp-Co Beam Clamps provide an efficient method for handling wide flange beam sections and plate girders. When lifting, these beam clamps grip the beam at three points, and when properly balanced and safely guided, the beam can be handled even if the clamp is slightly off center lengthwise.**

- Capacities: 4.54 to 31.8 metric tons.
- Eliminates the need for slings, chokers, and spreader bars.
- When applied to load, the tongs automatically open and slide under the flange of the beam.
- Center plate and gripping tongs work together - the heavier the beam, the greater the clamping pressure.
- Model "NS" clamps have a recessed base to accept studs welded to the beam surface.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Finish - Red Paint.
- All sizes are **RFID EQUIPPED**.

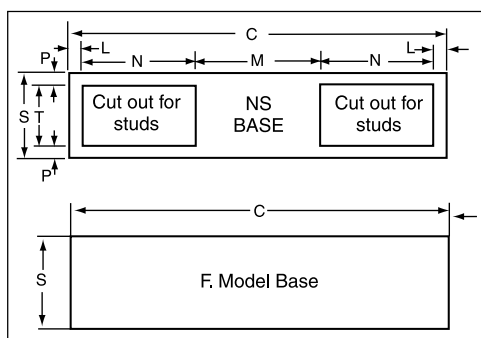
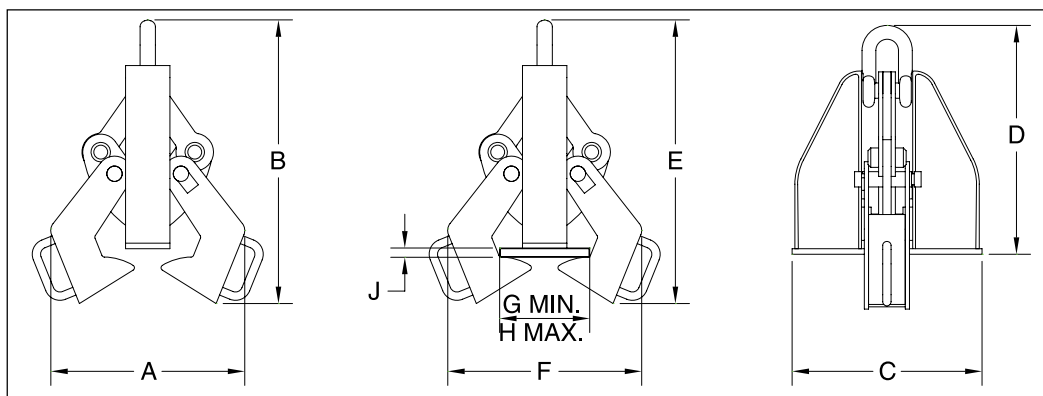


**NOTE:** Control the beam at all times. Beams should be gripped as near the center as possible. Snubbing lines at each end must be used to control excessive twisting or swinging, and to guide the beam to its proper place. Each lifting situation may have a specific demand which should be addressed before lifting.

### Beam Clamps

Model No.	CCBC-500 Stock No.	Working Load Limit (t)*	Flange Grip Range (mm)		Weight Each (kg.)	Dimensions (mm)									
			Width	Thickness		A	B	C	D	E	F	G	H	J	
F-5	2732000	4.54	102 - 254	13 - 25	31.8	241	660	305	508	648	406	102	254	25.4	
F-15	2732009	13.6	178 - 432	13 - 51	69.4	394	864	432	686	876	635	178	432	50.8	
NS-15	2732018	13.6	178 - 432	13 - 51	69.4	394	864	432	686	876	635	178	432	50.8	
F-25	2732027	22.7	406 - 610	25 - 76	132	584	1219	565	914	1346	946	406	610	76.2	
NS-25	2732036	22.7	406 - 610	25 - 76	132	584	1219	565	914	1346	946	406	610	76.2	
F-35	2732045	31.8	406 - 914	41 - 102	235	762	1626	699	1219	1473	1346	406	914	102	
NS-35	2732054	31.8	406 - 914	41 - 102	235	762	1626	699	1219	1473	1346	406	914	102	

\* Maximum Proof Load is 2 times the Working Load Limit and design factor based on EN13155 and ASME B30.20.  
NOTE: : For beam clamps larger than 35 Tons, please contact the Crosby Special Engineered Products Department.



Base Stock No.	Base Dimensions (mm)						
	C	L	M	N	P	S	T
F-5	343	-	-	-	-	76.2	-
F-15	432	-	-	-	-	102	-
NS-15	432	12.7	165	114	19.1	102	63.5
F-25	565	-	-	-	-	140	-
NS-25	565	19.1	197	165	19.1	140	102
F-35	699	-	-	-	-	152	-
NS-35	699	19.1	229	216	19.1	152	114

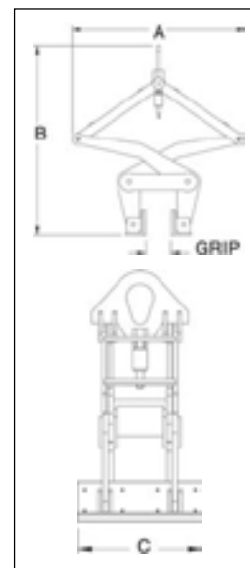
## Barrier grabs / curb grabs

### CCBG



**Crosby Clamp-Co Barrier Grabs provide a fast and efficient method for handling concrete road barriers.**

- Hands-free operation.
- Alloy Steel Construction.
- Available with polyurethane pads or hardened steel jaw.
- (Replacement kits available).
- Eliminates the need for slings, chokers and spreader bars.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Finish - Red Paint.
- All sizes are **RFID EQUIPPED**.



#### Barrier Grab

Model No.	CCBG-150 Stock No.	Working Load Limit (t)*	Weight Each (kg.)	Grip Width (mm)	Dimensions (mm)		
					A	B	C
BG-9000	2734009	4.08	132	152 (min.)	1038	1140	457
				305 (max.)	1117	933	457

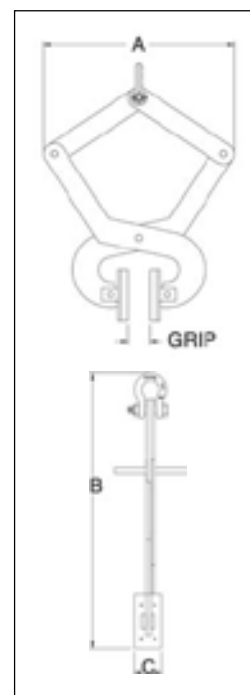
\*Design factor based on EN13155 and ASME B30.20

### CCGG



**Crosby Clamp-Co Curb Grabs provide a fast and efficient method for handling large granite curbs.**

- Virtually no manual assistance is required.
- Alloy Steel Construction.
- Available with polyurethane pads or hardened steel jaw.
- (Replacement kits available).
- Eliminates the need for slings, chokers and spreader bars.
- Individually Proof Tested to 2 times the Working Load Limit with certification.
- Finish - Red Paint.
- All sizes are **RFID EQUIPPED**.



#### Curb Grab

Model No.	CCGG-140 Stock No.	Working Load Limit (kg.)*	Weight Each (kg.)	Grip Width (mm)	Dimensions (mm)		
					A	B	C
CG-1400	2734000	635	16.8	102 (min.)	565	683	254
				178 (max.)	635	514	76.2

\*Design factor based on EN13155 and ASME B30.20

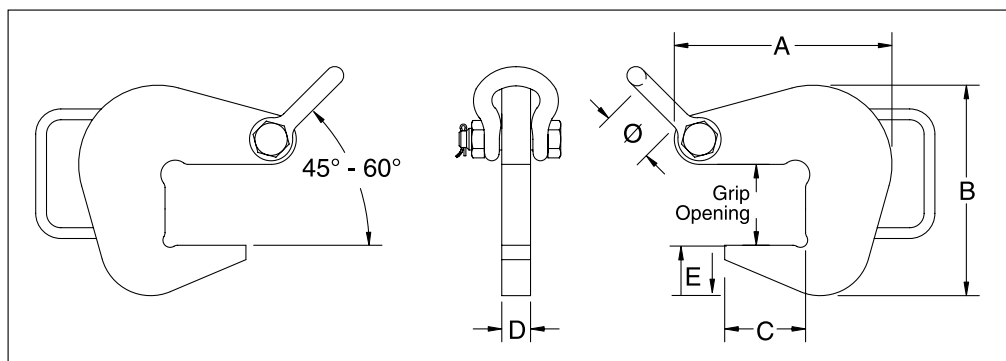
## Crosby® clamp-co pipe hooks

CCPH



**Crosby Clamp-Co Pipe Hooks provide a fast and efficient method for lifting pipe, tube or any similarly shaped fabrications.**

- Alloy steel plate construction.
- Equipped with a convenient handle.
- Equipped with a Bolt Type Shackle.
- Non marring inserts available.
- Used in pairs with 45° - 60° horizontal angle or 60° - 90° included angle.



### Pipe Hooks

Model	CCPH Stock No.	Working Load Limit (Per Pair) (t)**	Grip (mm)	Weight Each (kg.)	Dimensions (mm)						Shackle Size (in.)	Cast Aluminium Inserts*
					A	B	C	D	E	Ø		
PH-2	2734500	2	52.3	2.70	148	129	52.3	25.4	31.8	42.9	5/8	2734800 2734809
PH-4	2734509	4	71.4	4.56	192	186	71.4	25.4	44.4	42.9	5/8	2734818
PH-6	2734518	6	103	8.05	259	256	103	25.4	57.2	50.8	3/4	2734827
PH-10	2734527	10	154	17.5	376	383	154	25.4	88.9	68.3	1.0	2734836

\* See CCPHI chart for Pipe ID range.

\*\*Design factor based on EN13155 and ASME B30.20

### Pipe Hook Inserts

- Interchangeable cast aluminium inserts for use with the CCPH Pipe Hook that minimizes thread and pipe damage.

### CCPHI

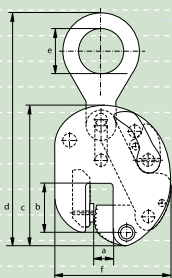
Catalog Number	Stock No.	ID of Pipe (mm)
CCPHI	2734800	76 - 305
	2734809	305 - 457
	2734818	457 - 762
	2734827	762 - 1067
	2734836	1067 - 1329







P-6615



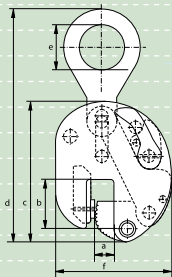
## Green Pin® plate lifting clamp, type E for lifting and vertical transportation

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

type	working load limit	width opening		length opening		length	length	diameter inside eye	width	thickness	weight each
		a mm	b mm	c mm	d mm						
0.75 E	0.75	0 - 14	45	115	210	30	104	36	1.5		
1 E	1	0 - 22	72	200	337	57	170	44	6		
1.5 E	1.5	0 - 22	72	200	337	57	170	52	7.1		
2 E	2	0 - 28	87	237	430	70	218	65	13.2		
3 E	3	0 - 28	87	237	430	70	218	77	14.2		
4 E	4	0 - 32	115	293	500	86	226	69	21		
6 E	6	0 - 32	115	293	500	86	226	85	24.2		
7.5 E	7.5	0 - 42	120	350	560	80	305	90	35		
9 E	9	0 - 52	125	380	620	88	274	90	48		
12 E	12	0 - 75	135	480	760	90	410	130	90		
15 E	15	0 - 75	135	480	760	90	410	130	90		
20 E	20	0 - 75	160	550	890	100	490	140	132		



P-6616



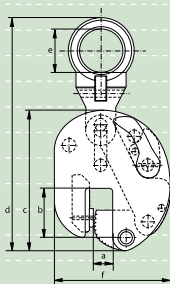
## Green Pin® plate lifting clamp, with enlarged opening, type ES for lifting and vertical transportation

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

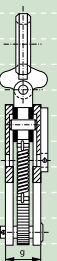
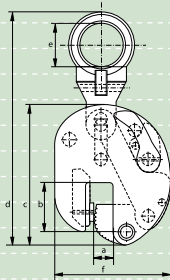
type	working load limit	width opening		length opening		length	length	diameter inside eye	width	thickness	weight each
		a mm	b mm	c mm	d mm						
0.75 ES	0.75	12 - 24	45	115	210	30	114	36	1.5		
1 ES	1	18 - 38	72	200	337	57	186	44	6		
1.5 ES	1.5	18 - 38	72	200	337	57	186	52	7.1		
2 ES	2	23 - 50	87	237	430	70	240	65	13.2		
3 ES	3	23 - 50	87	237	430	70	240	77	14.2		
4 ES	4	26 - 58	115	293	500	86	252	69	21		
6 ES	6	26 - 58	115	293	500	86	252	85	24.2		
7.5 ES	7.5	30 - 72	120	350	560	80	335	90	35		
9 ES	9	48 - 100	125	380	620	88	274	90	48		
12 ES	12	75 - 150	135	480	760	90	485	130	90		
15 ES	15	75 - 150	135	480	760	90	485	130	94		
20 ES	20	75 - 150	160	550	890	100	565	140	132		



P-6625



P-6626



## Green Pin® plate lifting clamp, type EU for lifting and transportation in all directions

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

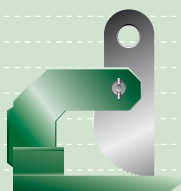
type	working load limit	width opening		length opening		diameter inside eye	width	thickness	weight each
		a mm	b mm	c mm	d mm				
0.75 EU	0.75	0 - 14	45	115	220	31	104	36	1.6
1.5 EU	1.5	0 - 22	72	200	327	68	170	52	7.9
3 EU	3	0 - 28	87	237	450	80	218	77	15.2
6 EU	6	0 - 32	115	293	480	80	226	85	26
7.5 EU	7.5	0 - 42	120	350	580	80	305	90	35
9 EU	9	0 - 52	125	380	700	90	274	90	52
12 EU	12	0 - 75	135	480	780	115	410	130	94

## Green Pin® plate lifting clamp, with enlarged opening, type EUS

for lifting and transportation in all directions

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

type	working load limit	width opening		length opening		diameter inside eye	width	thickness	weight each
		a mm	b mm	c mm	d mm				
0.75 EUS	0.75	12 - 24	45	115	220	31	114	36	1.6
1.5 EUS	1.50	18 - 38	72	200	327	68	186	52	7.9
3 EUS	3	23 - 50	87	237	430	80	240	78	15
6 EUS	6	26 - 58	115	293	480	80	252	95	26
7.5 EUS	7.5	30 - 72	120	350	580	80	335	100	35
9 EUS	9	48 - 100	125	380	700	90	384	100	52
12 EUS	12	75 - 150	135	480	780	115	485	140	94

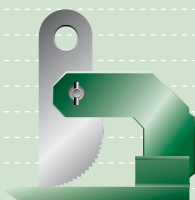
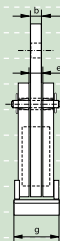
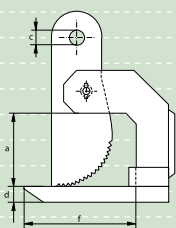


P-6635

## Green Pin® plate lifting clamp, type EH for lifting and horizontal transportation

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

type	working load limit per set	width opening	thickness	diameter eye	thickness	width	length	width	weight per set
	t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
1.5 EH	1.5	0 - 22	18	16.2	12	16	70	60	4
3 EH	3	0 - 60	16	23	25	18	155	80	11
4 EH	4	0 - 60	20	42	25	22	155	80	16.4
6 EH	6	0 - 60	20	42	25	22	155	100	17.8
8 EH	8	0 - 60	25	42	25	27	155	120	20
10 EH	10	0 - 60	25	42	30	27	155	120	28
14 EH	14	0 - 60	30	48	35	32	155	130	36
18 EH	18	0 - 60	30	48	40	32	155	150	48.2

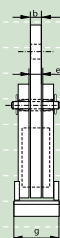
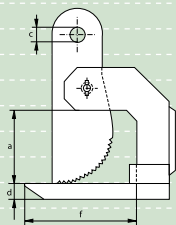


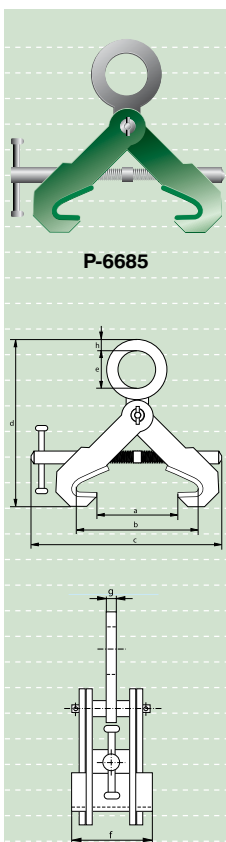
P-6636

## Green Pin® plate lifting clamp, with enlarged opening, type EHS for lifting and horizontal transportation

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

type	working load limit per set	width opening	thickness	diameter eye	thickness	width	length	width	weight per set
	t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
3 EHS	3	0 - 100	16	23	25	18	155	80	12.4
4 EHS	4	0 - 100	20	42	25	22	155	80	17.6
6 EHS	6	0 - 100	20	42	25	22	155	100	20
8 EHS	8	0 - 100	25	42	25	27	155	120	26
10 EHS	10	0 - 100	25	42	30	27	155	120	32
14 EHS	14	0 - 100	30	48	40	32	155	130	40
18 EHS	18	0 - 100	30	48	40	32	155	150	52





P-6685

## Green Pin® lifting clamp, type ESV for lifting and transportation of steel beams

- **Material** : carbon and alloy steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted
- **Certification** : manufacturer's certificate including serial number  
test certificates can be supplied upon request

type	working load limit	width jaw opening	width jaw opening	length	height	diameter eye inside	width	thickness	width	weight each
	t	a	b	c	d	e	f	g	h	kg
		mm	mm	mm	mm	mm	mm	mm	mm	
2 ESV	2	0 - 160	60 - 200	270	210 - 250	65	120	16	22	5.1
3 ESV	3	0 - 160	60 - 200	270	250 - 290	65	120	16	22	5.3
4 ESV	4	0 - 250	80 - 310	400	285 - 370	70	125	20	28	8.6
5 ESV	5	0 - 260	90 - 320	400	355 - 445	80	125	20	36	11.1
6 ESV	6	0 - 340	85 - 420	480	360 - 510	80	125	20	36	14

## Green Pin® plate lifting clamp spare parts



P-6651 lifting eye



P-6652 lock lever assembly



S-6653 lock spring



P-6654 cam assembly



S-6655 cam pin



S-6656 pivot



S-6657 eye pin



P-6658 universal eye component

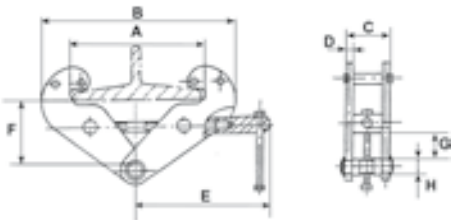
# ESTIL beam clamps

# Series: EBK/EBO

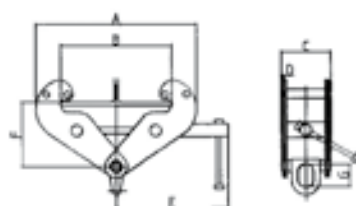
ESTIL beam clamps are made to provide a save temporary hoist point for hoist equipment anywhere there is a steel beam.  
They can also be used for lifting beams.  
Great span and W.L.L. from 1 till 10 Ton.  
Easy and quick to place by spindle.  
Type EBK is with axle and type EBO is with revolving eye.



MODEL	A Max	B Min/Max	C	D	E	F Min/Max
EBK 10	270	175-365	64	4	220	75-138
EBK 20	270	185-380	74	6	220	75-138
EBK 30	350	236-500	100	8	271	135-218
EBK 50	350	272-533	110	10	271	132-215
EBK 100	350	272-515	118	12	280	125-210

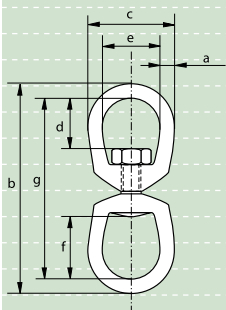


MODEL	A Max	B Min/Max	C	D	E	F Min/Max	G
EBO 10	284	180-375	92	4	220	102-160	45
EBO 20	284	180-375	100	6	220	102-160	45
EBO 30	365	220-498	131	8	271	168-240	58
EBO 50	365	220-498	139	10	271	168-240	58





G-7713

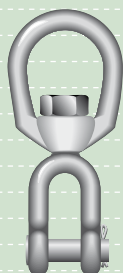


## Green Pin® swivels

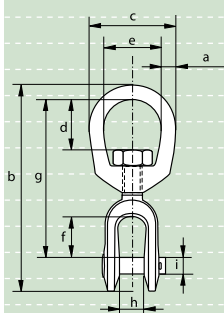
### Eye - Eye

- **Material** : high tensile steel, quenched and tempered
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to US Federal Spec. RR-C-271, Type VII, Class 2
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request

working load limit	diameter	length outside	width outside	length inside	width inside	length inside	length	weight each
t	a mm	b mm	c mm	d mm	e mm	f mm	g mm	kg
0.39	6	87	32	18	19	27	75	0.1
0.57	8	106	41	21	25	32	90	0.18
1.02	10	129	51	24	32	38	109	0.32
1.6	13	164	64	33	38	51	138	0.6
2.4	16	199	76	40	44	60	167	1.13
3.3	19	221	89	44	51	67	183	1.82
4.5	22	257	102	52	57	78	213	2.83
5.7	25	295	114	59	64	89	245	4.06
8.2	32	337	143	68	80	94	273	7.43
20.5	38	501	178	102	102	150	425	20.8



G-7723



## Green Pin® swivels

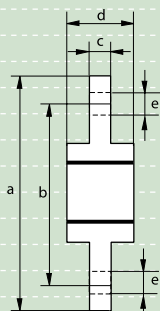
### Jaw - Eye

- **Material** : high tensile steel, quenched and tempered
- **Safety factor** : MBL equals 5 x WLL
- **Standard** : generally to US Federal Spec. RR-C-271, Type VII, Class 3
- **Finish** : hot dipped galvanized
- **Certification** : test certificates can be supplied upon request

working load limit	diameter	length	width outside	length inside	width inside	length inside	length	width inside	diameter pin	weight each
t	a	b	c	d	e	f	g	h	i	kg
0.39	6	84	32	18	19	22	67	12	6	0.11
0.57	8	98	41	21	25	22	75	13	8	0.17
1.02	10	121	51	24	32	27	92	16	10	0.32
1.6	13	154	64	33	38	33	114	19	13	0.65
2.4	16	186	76	40	44	38	135	24	16	1.12
3.3	19	211	89	44	51	44	154	29	19	1.76
4.5	22	242	102	52	57	52	178	30	22	2.66
5.7	25	290	114	59	64	71	217	44	29	4.46
8.2	32	329	143	68	80	71	230	52	35	7.14
20.5	38	501	178	106	102	113	364	73	50	24.8



P-7740



## Green Pin® Thrust bearing swivels

### Eye - Eye

- **Material** : carbon steel
- **Safety factor** : MBL equals 5 x WLL
- **Finish** : painted black
- **Certification** : test certificates can be supplied upon request

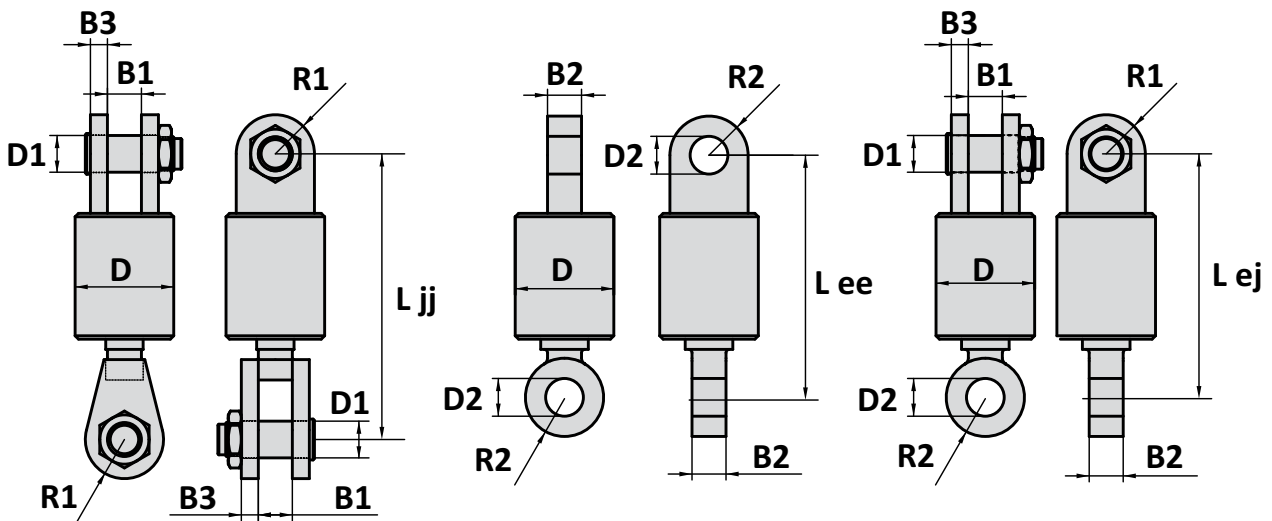
working load limit	length	length	thickness	diameter	diameter hole	weight each
t	a	b	c	d	e	kg
1	174	128	12.5	49	21	1.4
2	223	173	19	68	22	3.5
3	278	210	26	79	29	6.4
5	290	222	26	89	31	7.9
8	366	276	40	106	43	15.2
10	390	300	40	118	49	19.1
15	457	355	40	128	49	26.6
20	474	372	40	118	51	25
30	612	472	64	138	59	50
40	760	600	68	168	65	-



# CLOSED BODY SWIVEL

# TYPE SW1

- Material : High tensile steel
- Safety factor : 5 times
- Finish : Painted
- Certificates : Manufacturer certificate  
on request Proofload certificate  
Certificate of Conformity



Jaw-Jaw

Eye-Eye

Eye-Jaw

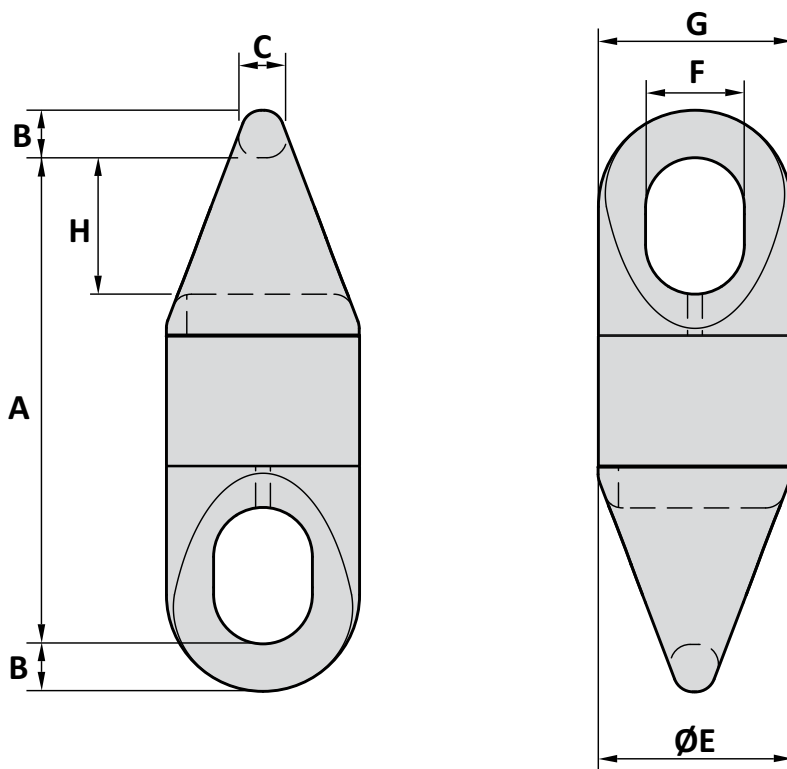
Art. No. Jaw-Jaw	Art. No. Eye-Eye	Art. No. Eye-Jaw	WLL ton	B1 mm	B2 mm	B3 mm	D1 mm	D2 mm	D mm	Ljj mm	Lee mm	Lej mm	R1 mm	R2 mm
40110017	40115017	40119017	17	65	60	30	63	65	170	480	410	410	70	70
40110025	40115025	40119025	25	76	70	30	70	72	190	565	450	480	75	75
40110035	40115035	40119035	35	90	80	35	80	82	250	690	540	585	85	85
40110055	40115055	40119055	55	110	100	50	100	103	270	800	690	705	105	105
40110070	40115070	40119070	70	120	100	50	108	111	290	796	752	752	115	115
40110085	40115085	40119085	85	130	125	75	127	130	350	840	830	815	135	135
40110120	40115120	40119120	120	155	140	90	152	155	430	893	920	885	170	170
40110150	40115150	40119150	150	170	160	100	178	181	470	1003	960	925	190	190
40110200	40115200	40119200	200	175	170	120	190	193	530	1230	1210	1220	220	200
40110250	40115250	40119250	250	200	190	125	250	253	600	1340	1380	1360	260	260
40110300	40115300	40119300	300	250	230	175	290	293	750	1480	1580	1530	300	300

Tolerance: ± 5%, machined parts ± 1 mm

## CR CHAIN SWIVEL

## TYPE SW2

Material : Alloy steel quenched and tempered  
 Finish : Painted  
 Certificates : Manufacturer certificate  
 on request Certificate of Conformity  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



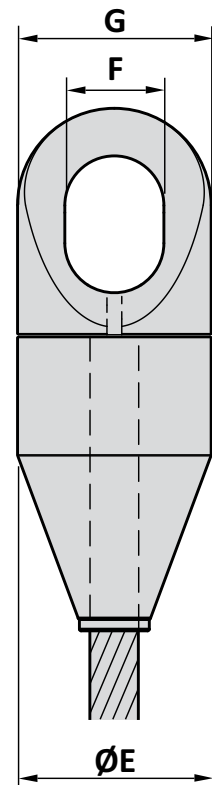
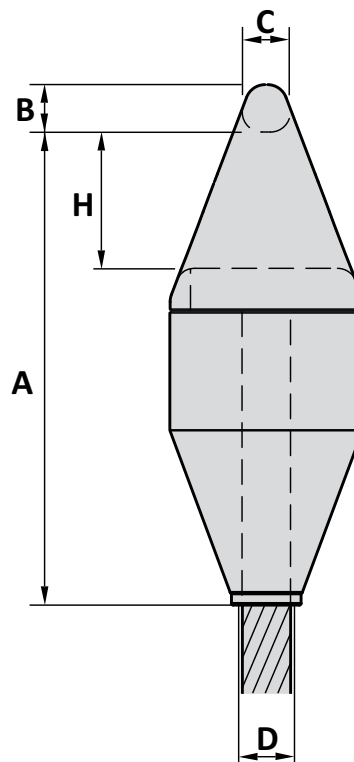
Art. No.	Size inch	MBL ton	PL ton	A mm	B mm	C mm	E mm	F mm	G mm	H mm	Weight kg
47020250	2"	250	100	610	55	50	200	115	200	165	130
47020300	2½"	300	120	700	65	57	225	135	230	195	152
47020400	2½"	400	160	710	75	65	250	150	270	205	180
47020600	3"	600	240	805	85	75	300	175	342	240	295
47020800	3½"	800	320	945	105	95	330	205	360	285	412
47020900	4"	900	360	1065	110	100	360	225	380	320	520

Tolerance: ± 5%

## CR ROPE SWIVEL

## TYPE SW3

Material : Alloy steel quenched and tempered  
 Finish : Painted  
 Certificates : Manufacturer certificate  
 on request Certificate of Conformity  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



Art. No.	Size inch	Rope dia mm	MBL ton	PL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Weight kg
47030250	2"	40-54	250	100	625	55	50	57	200	115	200	165	117
47030300	2¼"	55-60	300	120	690	65	57	63	225	135	230	195	138
47030400	2½"	61-72	400	160	720	75	65	73	250	150	270	205	161
47030600	3"	73-84	600	240	835	85	75	86	300	175	342	240	245
47030800	3½"	85-93	800	320	965	105	95	99	330	205	360	285	345
47030900	4"	94-105	900	360	1055	110	100	108	360	225	380	320	485

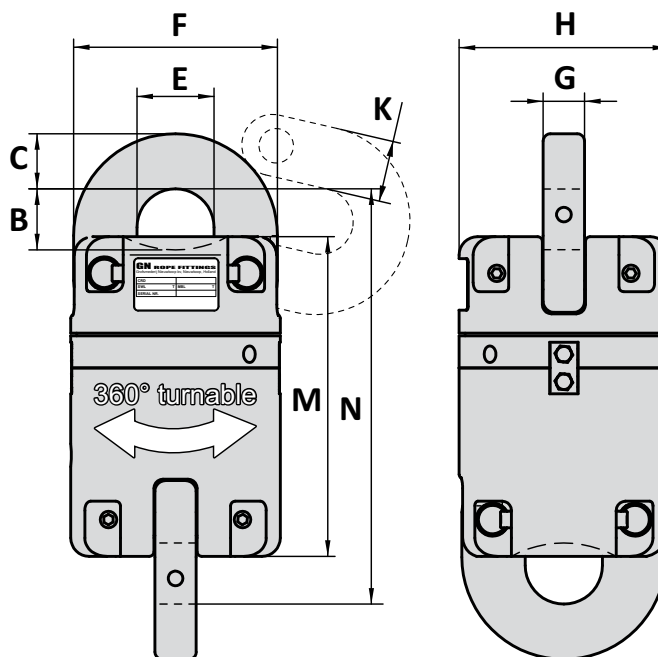
Tolerance: ± 5%

# CR-D CHAIN SWIVEL

# TYPE SW4

- Material : Alloy steel quenched and tempered
- Safety factor : 5 times
- Finish : Painted
- Certificates : Manufacturer certificate  
on request Proofload certificate  
Certificate of Conformity  
Classification inspection certificate  
(DNV, Lloyds, ABS, BV etc.)

## 800 SERIE



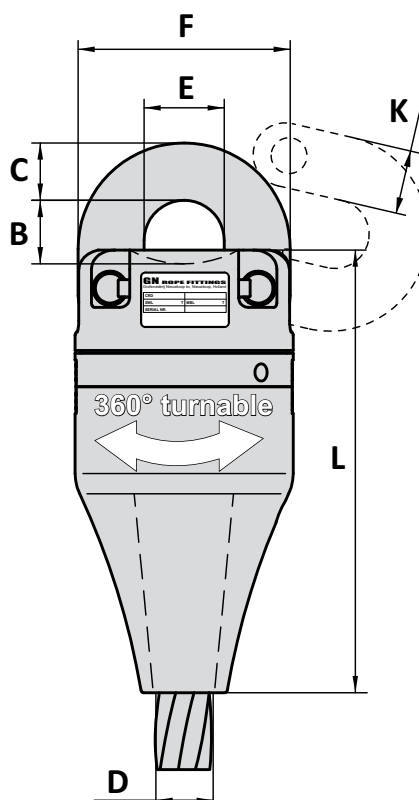
Art. No.	Type No.	Suitable chain	WLL ton	MBL ton	B mm	C mm	E mm	F mm	G mm	H mm	K mm	M mm	N mm
47040250	822	2"	50	250	70	60	84	222	45	238	69	348	452
47040400	826	2 ½"	80	400				(in development)					
47040600	828	3"	120	600	120	100	112	340	70	380	114	520	690
47040800	830	3 ½"	160	800	140	120	140	400	80	430	130	610	850
47040900	833	4"	200	1000				(in development)					

Tolerance: Forged parts ± 5%, machined parts ± 1 mm

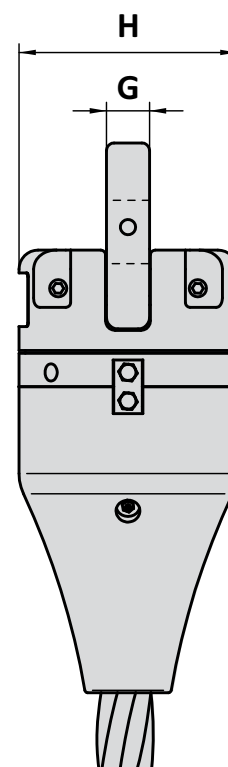
## CR-D ROPE SWIVEL

## TYPE SW5

Material	: Alloy steel quenched and tempered
Safety	: 5 times
Finish	: Painted
Certificates on request	: Manufacturer certificate Proofload certificate Certificate of Conformity Classification inspection certificate (DNV, Lloyds, ABS, BV etc.)



## 700 SERIE



Art. No.	Type No.	Wire dia inch	Suitable chain	WLL ton	MBL ton	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	L mm
47050250	722	2"-2¼"	2"	50	250	70	60	59	84	222	45	238	69	463
47050400	726	2½"-2¾"	2½"	80	400	80	80	78	94	274	70	300	90	643
47050600	728	3"-3¼"	3"	120	600	120	100	86	112	340	70	380	114	645
47050800	730	3½"-3¾"	3½"	160	800	140	120	99	140	400	80	430	130	780
47050900	733	4"-4½"	4"	200	1000				(in development)					

Tolerance: Forged parts ± 5%, machined parts ± 1 mm



## Crosby® swivels

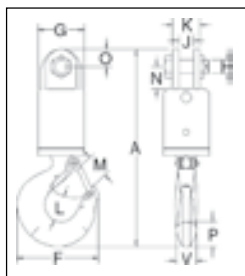


### EQUIPPED WITH TAPERED ROLLER THRUST BEARING

- Suitable for frequent rotation under load.
- All swivels individually proof tested with certification.
- All hooks furnished with latches assembled.
- All jaws complete with bolts, nuts and cotter pins.
- Pressure lube fitting provided.
- NOT TO BE USED ON DEMOLITION (WRECKING) BALLS.
- Other types and capacities up to 1250t, available to meet your requirements.
- **IMPORTANT** - Crosby Swivels should only be used with the recommended wire rope. Contact the wire rope manufacturer for the proper wire rope to be used with Crosby Swivels.



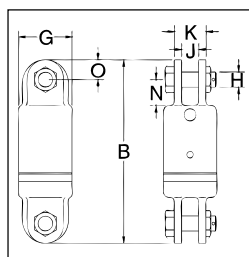
### S-1 Jaw & Hook



Swivel No.	S-1 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)												
					A	F	G	H	J	K	L	M	N	O	P	V	
3-S-1	297011	3	13	4.45	291	123	70.0	19.1	22.4	41.1	38.9	35.8	33.3	25.4	36.6	28.4	
5-S-1	297217	5	16	7.04	339	160	76.0	22.4	25.4	57.0	49.3	42.9	41.1	28.4	46.0	36.6	
8-S-1	297413	8-1/2	19	13.3	418	192	102	25.4	39.5	71.5	62.5	56.5	54.0	35.1	57.0	41.1	
10-S-1	297618	10	22	21.2	502	212	114	38.1	44.5	86.0	66.0	61.0	89.0	44.5	66.0	49.3	
15-S-1	297814	15	26	33.5	565	263	127	38.1	44.5	86.0	71.5	81.0	89.0	44.5	76.0	60.5	
25-S-1	298118	25	-	64	680	346	152	51.0	51.0	117	87.5	92.0	93.5	60.5	93.0	76.0	
35-S-1	298216	35	-	100	760	357	165	51.0	51.0	117	98.5	95.5	93.5	60.5	116	81.0	
45-S-1	298314	45	-	114	891	392	178	57.0	63.5	127	121	108	102	76.0	129	82.5	

\*Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

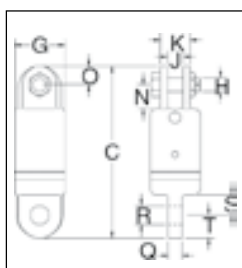
### S-2 Jaw & Jaw



Swivel No.	S-2 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)						
					B	G	H	J	K	N	O
3-S-2	297020	3	13	4.37	236	70.0	19.1	22.4	41.1	33.3	25.4
5-S-2	297226	5	16	6.21	262	76.0	22.4	25.4	57.0	41.1	28.4
8-S-2	297422	8-1/2	19	11.9	321	102	25.4	39.5	71.5	54.0	35.1
10-S-2	297627	10	22	20.8	426	114	38.1	44.5	86.0	89.0	44.5
15-S-2	297823	15	26	28.5	435	127	38.1	44.5	86.0	89.0	44.5
25-S-2	298127	25	-	64	527	152	51.0	51.0	117	93.5	60.5
35-S-2	298225	35	-	70	527	165	51.0	51.0	117	93.5	60.5
45-S-2	298323	45	-	107	641	178	57.0	63.5	127	102	76.0

\*Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.

### S-3 Jaw & Eye



Swivel No.	S-3 Stock No.	Working Load Limit (t)*	Wire Rope Size (mm)	Weight Each (kg)	Dimensions (mm)										
					C	G	H	J	K	N	O	Q	R	S	T
3-S-3	297039	3	13	4.14	237	70.0	19.1	22.4	41.1	33.3	25.4	19.1	26.2	28.4	31.8
5-S-3	297235	5	16	6.12	256	76.0	22.4	25.4	57.0	41.1	28.4	25.4	32.5	31.8	31.8
8-S-3	297431	8-1/2	19	11.3	311	102	25.4	39.5	71.5	54.0	35.1	31.8	35.8	41.1	38.1
10-S-3	297636	10	22	19.7	409	114	38.1	44.5	86.0	89.0	44.5	42.9	42.9	70.0	47.8
15-S-3	297832	15	26	27.7	425	127	38.1	44.5	86.0	89.0	44.5	49.3	51.5	70.0	54.0
25-S-3	298136	25	-	61	546	152	51.0	51.0	117	93.5	60.5	57.0	58.5	98.5	60.5
35-S-3	298234	35	-	68	546	165	51.0	51.0	117	93.5	60.5	57.0	58.5	98.5	60.5
45-S-3	298332	45	-	102	657	178	57.0	63.5	127	102	76.0	63.5	64.5	102	76.0

\*Individually Proof Tested to 2 times the Working Load Limit. Ultimate Load is 5 times the Working Load Limit.



# Mooring & towing

## 9. Mooring & towing

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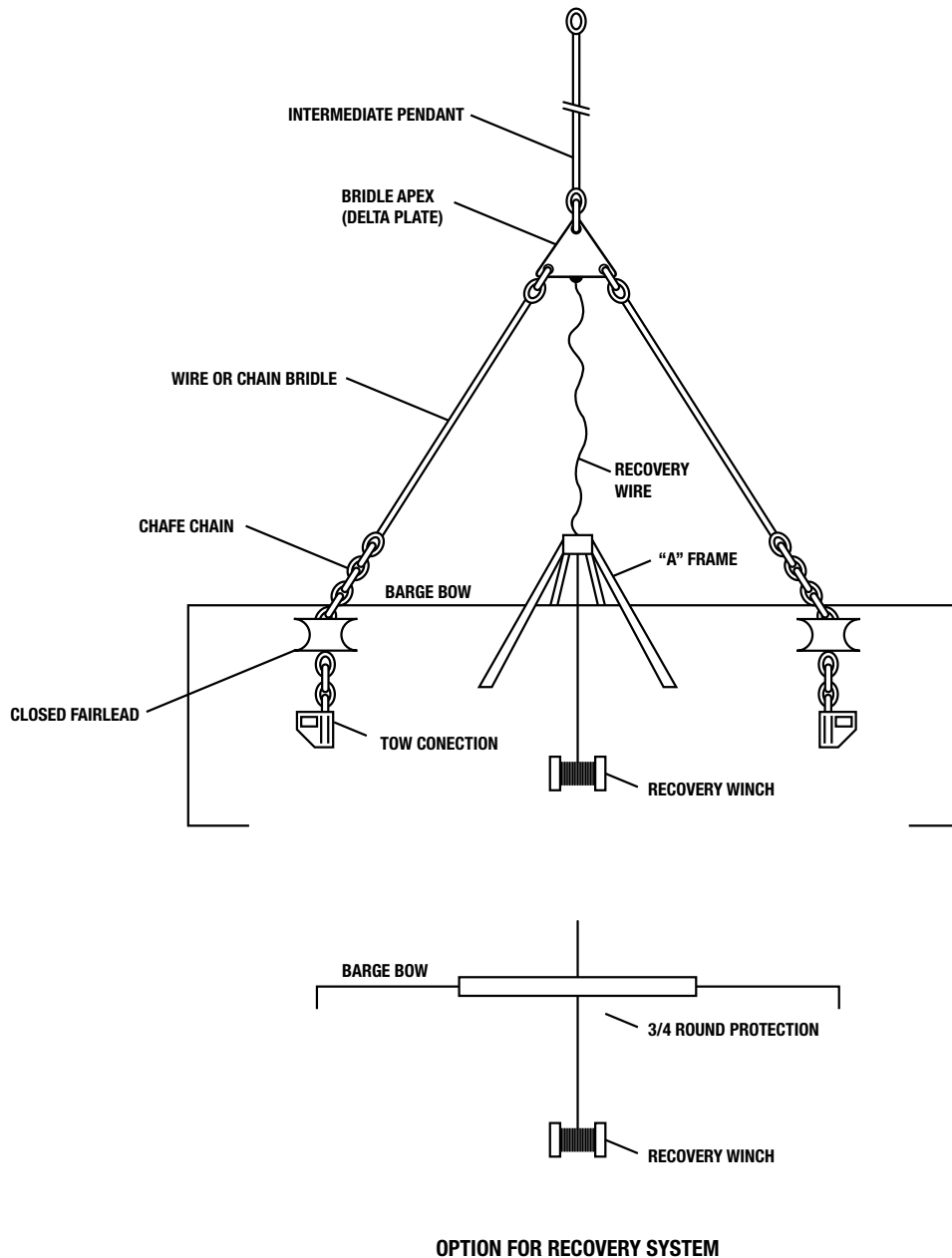
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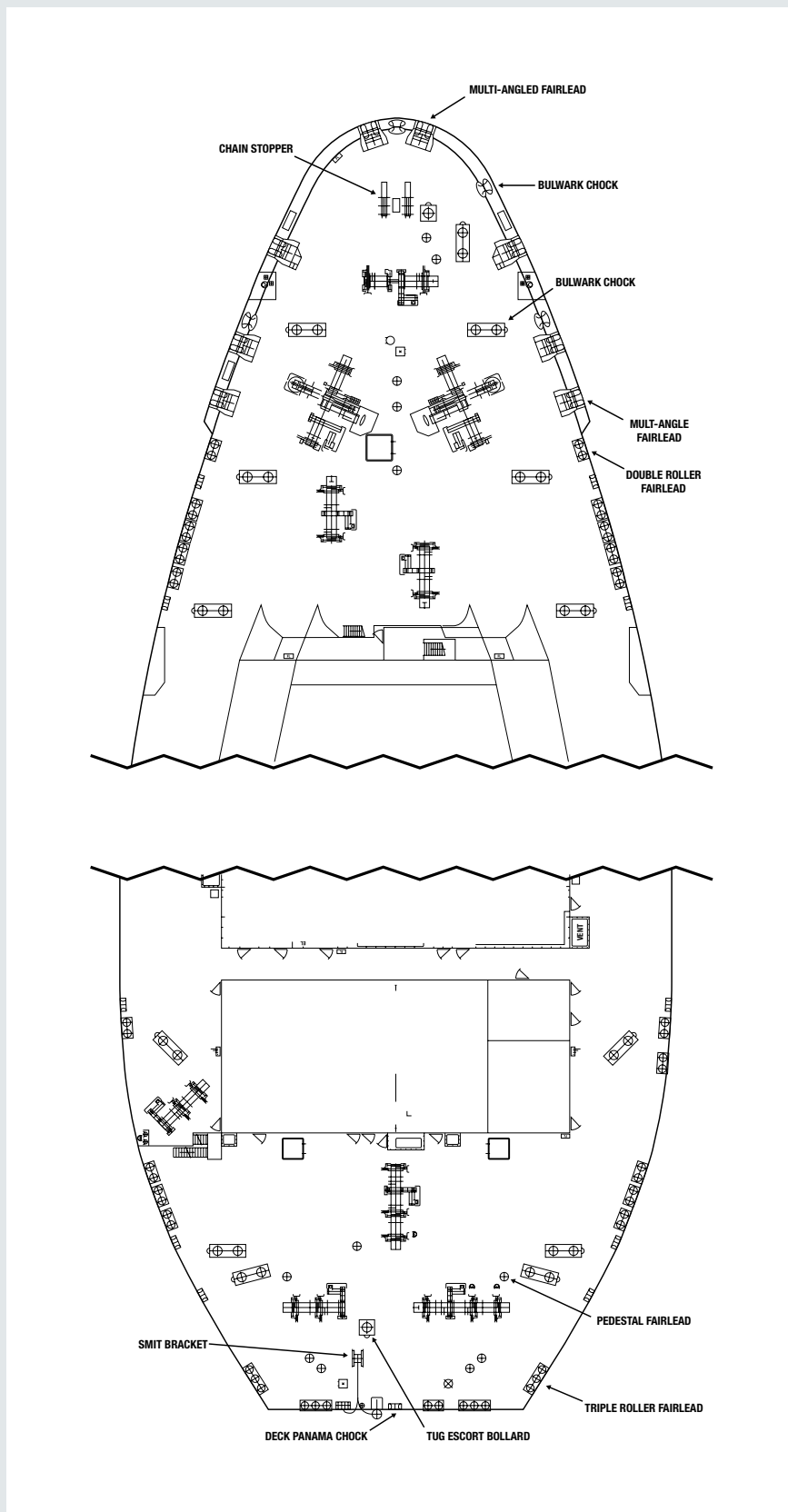
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## Main tow bridle



## Mooring points & deck equipment; anchor types



Stockless



A.C. 14



L.W.T.



Danforth



Moorfast



Stato



Stevin MK 3



Stevfix



Stevin



Stevmud



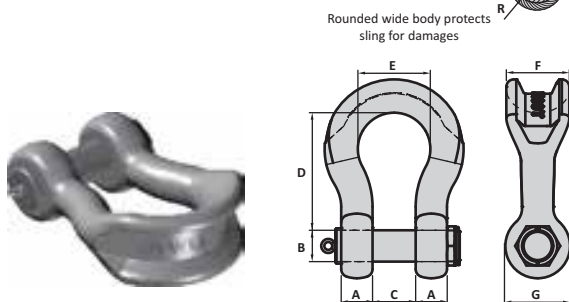
Hook

## Studlink chaincable test loads

Chain Diameter		Grade U2		Grade U3		Approx. Min weight per 27,5 mtr with shackle
		Proof load	Breaking load	Proof load	Breaking load	
inches	mm	kN	kN	kN	kN	kg
1/2	12,5	66	92	92	132	110
9/16	14	82	116	116	165	130
5/8	16	107	150	150	216	160
11/16	17,5	127	179	179	256	190
3/4	19	150	211	211	301	225
13/16	20,5	175	244	244	349	265
7/8	22	200	280	280	401	300
15/16	24	237	332	332	476	360
1	26	278	389	389	556	420
1 1/8	28	321	449	449	642	490
1 3/16	30	368	514	514	735	565
1 1/4	32	417	583	583	833	635
1 5/16	34	468	655	655	937	720
1 7/16	36	523	732	732	1,050	800
1 1/2	38	581	812	812	1,160	895
1 9/16	40	640	896	896	1,280	995
1 5/8	42	703	981	981	1,400	1,100
1 3/4	44	769	1,080	1,080	1,540	1,200
1 13/16	46	837	1,170	1,170	1,680	1,320
1 7/8	48	908	1,270	1,270	1,810	1,440
2	50	981	1,370	1,370	1,960	1,560
2 1/16	52	1,060	1,480	1,480	2,110	1,675
2 1/8	54	1,140	1,590	1,590	2,270	1,820
2 3/16	56	1,220	1,710	1,710	2,430	1,935
2 5/16	58	1,290	1,810	1,810	2,600	2,075
2 3/8	60	1,380	1,940	1,940	2,770	2,220
2 7/16	62	1,470	2,060	2,060	2,940	2,365
2 1/2	64	1,560	2,190	2,190	3,130	2,550
2 5/8	66	1,660	2,310	2,310	3,300	2,695
2 11/16	68	1,750	2,450	2,450	3,500	2,890
2 3/4	70	1,840	2,580	2,580	3,690	3,030
2 7/8	73	1,990	2,790	2,790	3,990	3,290
3	76	2,150	3,010	3,010	4,300	3,555
3 1/16	78	2,260	3,160	3,160	4,500	3,755
3 3/16	81	2,410	3,380	3,380	4,820	4,035
3 5/16	84	2,580	3,610	3,610	5,160	4,395
3 7/16	87	2,750	3,850	3,850	5,500	4,760
3 9/16	90	2,920	4,090	4,090	5,840	5,005
3 5/8	92	3,040	4,260	4,260	6,080	5,200
3 3/4	95	3,230	4,510	4,510	6,440	5,570
3 13/16	97	3,340	4,680	4,680	6,690	5,760
3 15/16	100	3,530	4,940	4,940	7,060	6,130
4	102	3,660	5,120	5,120	7,320	6,505
4 1/8	105	3,850	5,390	5,390	7,700	6,895
4 3/16	107	3,980	5,570	5,570	7,960	7,140
4 3/8	111	4,250	5,940	5,940	8,480	7,715
4 1/2	114	4,440	6,230	6,230	8,890	8,085
4 5/8	117	4,650	6,510	6,510	9,300	8,445
4 3/4	120	4,850	6,810	6,810	9,720	9,110
4 13/16	122	5,000	7,000	7,000	9,990	9,240
4 7/8	124	5,140	7,200	7,200	10,280	9,700
5	127	5,350	7,490	7,490	10,710	10,040
5 1/8	130	5,570	7,800	7,800	11,140	10,420
5 3/16	132	5,720	8,000	8,000	11,420	10,910
5 3/8	137	6,080	8,510	8,510	12,160	11,720

### GN FORGED ROPE SHACKLE TYPE H14 SLING PROTECTOR (WIDE BODY)

Material : Alloy steel quenched and tempered  
Safety factor : Up and including 1500 ton 5 times  
Above 1500 ton 4 times  
Finish : Painted

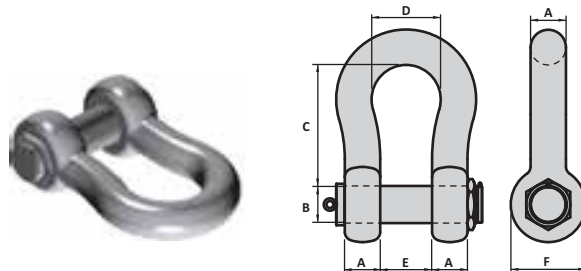


WLL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	R mm
30	35	45	60	176	128	80	89	45
40	45	50	73	210	140	95	105	50
55	60	56	90	240	160	115	116	60
75	70	70	105	290	185	120	150	70
125	80	80	130	365	220	150	165	80
150	90	95	140	390	250	170	200	90
200	105	105	150	480	275	205	225	110
250	120	120	170	550	300	240	240	130
300	140	134	185	600	350	265	280	140
400	160	160	220	600	370	320	330	170
500	170	180	250	650	450	340	350	180
600	180	200	275	720	490	370	405	190
700	210	215	300	750	540	400	465	210
800	220	230	325	780	555	420	465	210
900	238	250	350	850	585	440	480	220
1000	240	270	380	850	615	460	530	230
1250	260	300	430	930	645	530	570	270
1500	280	320	460	950	680	560	610	290
1750	310	360	480	1000	700	580	660	300
2000	320	385	500	1050	720	600	680	300



### GN BOW SAFETY PIN SHACKLE TYPE H10

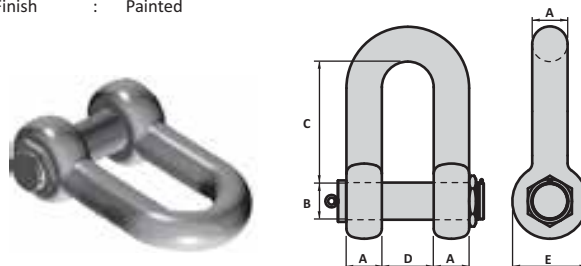
Material : Forged alloy steel quenched and tempered  
Safety factor : 5 times  
Standards : Generally to U.S. Federal Spec RR-C-271  
Finish : Painted



WLL ton	A mm	B mm	C mm	D mm	E mm	F mm
120	89	95	381	238	150	200
150	102	108	400	275	170	230
200	120	125	500	290	180	260
250	125	140	540	305	200	260
300	135	150	600	305	200	305
400	165	175	650	325	225	350
500	175	185	700	350	250	370
600	195	205	700	375	275	405
700	205	215	700	400	300	435
800	210	220	700	400	300	435
900	220	230	700	420	320	465
1000	230	240	700	420	340	480
1250	270	270	750	450	360	570
1500	280	290	800	450	360	610

### GN DEE SAFETY PIN SHACKLE TYPE D15

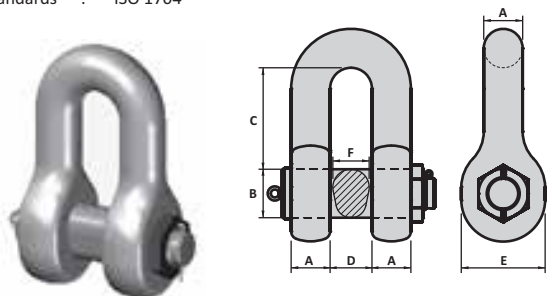
Material : Forged alloy steel quenched and tempered  
Safety factor : 5 times  
Finish : Painted



WLL ton	A mm	B mm	C mm	D mm	E mm
120	89	95	267	150	200
150	89	95	310	130	190
150	102	108	315	170	230
150	102	108	400	170	230
175	100	110	360	155	220
200	120	125	500	180	260
250	130	140	455	195	280
300	140	150	490	205	300
350	150	160	520	220	320
375	160	170	550	235	340
400	170	180	585	250	360
500	180	190	615	265	380

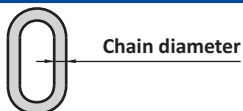
### JOINING SHACKLE WITH PEAR SHAPE PIN TYPE D16

Material : Forged steel R3/R3S/R4  
Finish : Painted  
Standards : ISO 1704



Dimensions related to nominal chain diameter

- A = 1.3 x chain diameter
- B = 1.6 x chain diameter
- C = 3.4 x chain diameter
- D = 1.4 x chain diameter
- E = 2.8 x chain diameter
- F = 1.2 x chain diameter

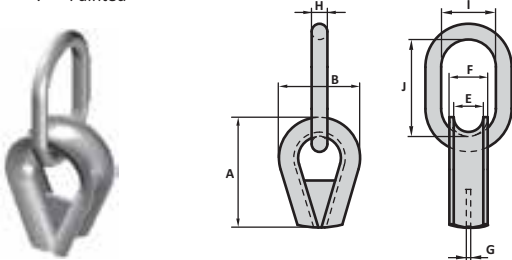


**THIMBLE WITH LINK**

**TYPE K10**

Suitable for fibre rope

Material : Thimble mild steel  
Link alloy steel quenched and tempered  
Finish : Painted



Rope size inch	A mm	B mm	E mm	F mm	G mm	H mm	I mm	J mm	MBL link ton
9"/10"	370	290	100	130	16	51	190	350	144
9"/10"	370	290	100	130	16	57	200	400	188
12 1/2"/13"	450	330	115	155	20	57	200	400	188
12 1/2"/13"	450	330	115	155	20	63	230	430	232
14"/15"	520	370	135	175	20	63	230	430	232
14"/15"	520	370	135	175	20	72	250	440	336
16"/18"	580	390	155	195	20	72	250	440	336
16"/18"	580	390	155	195	20	80	250	450	420
19"/20"	600	440	170	210	20	80	250	450	420
19"/20"	600	440	170	210	20	90	300	460	524
20"/21"	600	440	180	220	20	90	300	460	524
20"/21"	600	440	180	220	20	100	300	500	628
20"/21"	600	440	180	220	20	115	400	600	1000

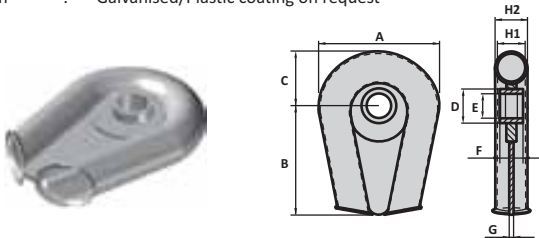


**TUBULAR THIMBLE**

**TYPE K11**

Suitable for fibre rope

Material : Mild steel  
Finish : Galvanised/Plastic coating on request



Rope size inch	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H1 mm	H2 mm
6"	254	200	126	-	60	-	30	64	70
8"	318	250	158	-	80	-	40	82	89
10"	419	360	210	190	132	105	15	107	114
12"	521	416	250	194	144	130	20	132	140
15"	625	539	282	194	144	150	25	159	168
18"	734	640	336	219	169	175	30	183	194
21"	829	780	374	219	169	200	30	207	219
24"	924	915	421	273	201	225	40	232	245
27"	1035	1060	477	273	201	250	50	260	273



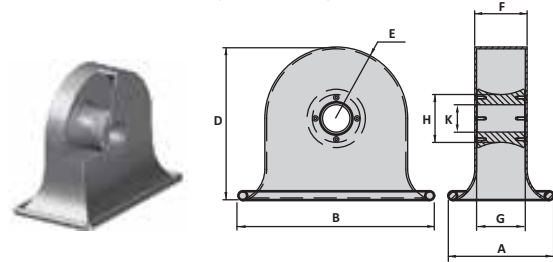
**BELLMOUTH THIMBLE**

**TYPE K13**

Suitable for fibre rope

Material : Mild steel  
Stainless steel  
(Spools can be supplied in galvanised or stainless steel)

Finish : Galvanised (mild steel)  
Self coloured (stainless steel)



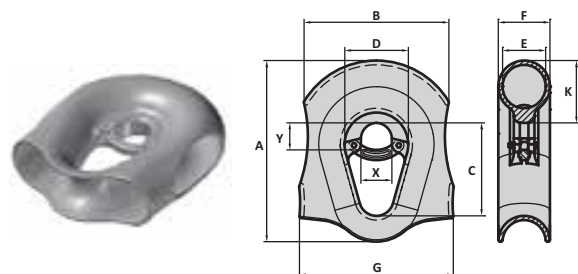
Rope size inch	A mm	B mm	D mm	E mm	F mm	K mm	H mm	G mm
10"-12"	400	640	480	195	166	86	175	147
15"-16"	440	746	608	248	193	105	196	172
18"-21"	454	844	660	300	228	118	204	205
22"-24"	450	1000	758	400	266	135	290	245

**CAST THIMBLE**

**TYPE K14**

Suitable for fibre rope

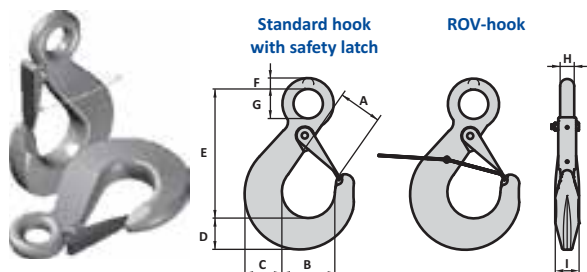
Material : Cast steel  
Stainless steel  
Finish : Galvanised (mild steel)  
Self coloured (stainless steel)  
Plastic coating on request



Rope size inch	A mm	B mm	C mm	D mm	E mm	F mm	G mm	K mm	X mm	Y mm
11"-13"	530	320	270	175	132	157	477	170	105	105
14"-15"	655	476	357	258	154	183	598	200	116	124
16"-18"	795	542	380	283	184	212	721	252	136	140
19"-21"	940	657	457	348	209	265	880	309	158	177
22"-24"	1043	814	575	410	244	298	867	360	180	200

### EYE HOOK (ROV)

Material : Grade 80  
Safety : 4 times  
Finish : Painted



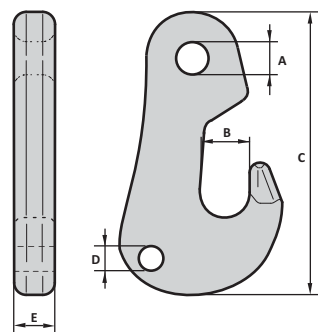
WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm
8	32	38	62	53	46	174	20	32	20	35
12.5	50	53	79	67	58	219	25	40	25	45
16	64	58	88	75	65	246	28	46	28	50
20	80	64	99	85	73	277	32	52	32	56
28	112	71	112	96	83	313	36	60	36	63
31	125	81	125	106	92	349	40	66	40	70
40	160	93	140	116	103	386	45	72	45	78
50	200	106	158	135	116	442	50	84	50	89
63	250	119	176	151	130	494	56	90	56	99
80	320	131	198	168	145	610	63	102	63	110
100	400	151	225	195	172	650	74	116	74	125
150	600	173	250	225	199	765	86	130	86	160
200	800	200	275	260	237	850	102	150	102	180
250	1000	233	310	290	269	928	120	170	120	200
300	1200	264	350	330	310	1052	140	190	140	220
400	1600	303	400	380	344	1195	170	210	170	240



### TYPE HK2

### ANCHOR LINE HOOK

Material : Alloy steel  
Safety factor : 4 times  
Finish : Painted



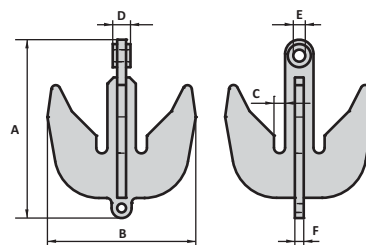
WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm
15	60	38	58	343	32	45
20	80	40	74	343	32	60
25	100	52	86	440	38	65
50	200	80	112	618	45	90
80	320	90	130	709	62	110
100	400	100	150	850	70	120

### TYPE HK6



### CHAIN GRAPNEL

Material : Forged steel  
Safety : 4 times  
Finish : Painted/self coloured

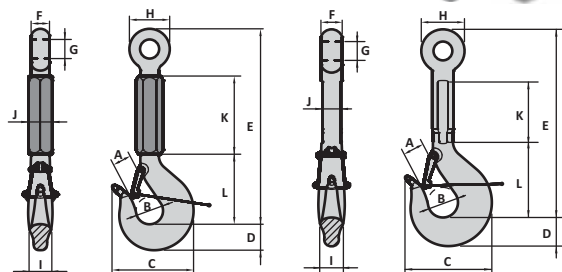


WLL ton	A mm	B mm	C mm	D mm	E mm	F mm
150	1778	1372	102	114	100	76
200	2008	1670	125	200	145	100
250	2008	1670	125	200	145	100

### TYPE HK7

### ROV SHANK HOOK

Material : Alloy steel quenched and tempered  
Safety : 4 times  
Finish : Painted



Type for Hook WLL 5.4 ton up to WLL 80 ton

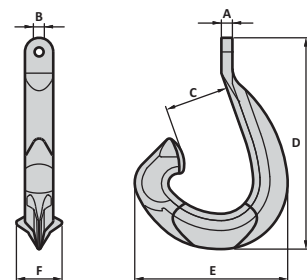
Type for Hook WLL 100 ton up to WLL 400 ton

WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm
5.4	21.6	35	50	161	40	515	34	31	68	32	45	250	150
12.5	50	40	63	200	58	565	45	40	90	45	60	260	180
16	64	45	70	224	67	610	48	44	102	53	60	280	190
25	100	50	80	248	75	650	56	52	105	60	70	270	230
32	128	60	90	288	85	800	65	60	140	67	80	360	265
40	160	70	100	316	95	820	70	70	150	75	85	330	285
50	200	75	112	343	106	850	75	72	160	85	100	350	285
63	252	85	125	376	118	900	85	85	180	95	110	360	322
80	320	100	140	418	132	950	100	85	210	106	120	290	390
100	400	110	160	462	150	1000	110	100	230	118	98	320	400
125	500	130	180	509	170	1050	125	100	260	132	106	280	450
160	640	140	200	584	190	1100	140	130	305	150	120	280	500
200	800	160	224	648	212	1200	160	130	350	170	136	280	560
250	1000	180	250	740	236	1200	180	145	370	190	150	300	630
300	1280	200	280	825	265	1250	200	160	405	212	165	300	700
400	1600	225	315	920	300	1300	220	185	465	236	180	300	800

### TYPE HK5

### J WIDE BODY CHASER

Material : Mild steel  
Proofload : 1.5 times WLL  
Finish : Painted



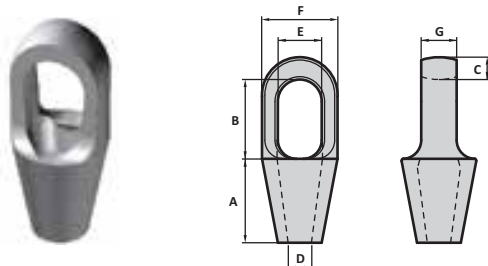
WLL ton	A mm	B mm	C mm	D mm	E mm	F mm
150	125	105	680	2220	1780	330
200	180	150	680	2220	1780	550
250	180	150	680	2220	1780	600

### TYPE HK10

### CLOSED SPELTER SOCKET

### TYPE S01

Material : Cast steel  
Safety : 5 times  
Finish : Painted/galvanised  
Up to Type No. 215 standard galvanised

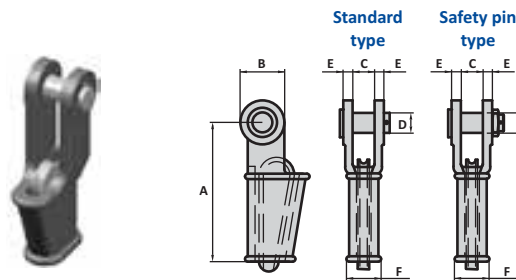


Type No.	Wire dia mm	Wire dia inch	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm
290	6-7	3/8"	3	51	46	11	8	20	37	13
292	8-10	3/8"	6	51	52	14	11	24	43	16
294	11-13	1/2"	12	64	59	18	14	29	51	22
296	14-16	5/8"	24	77	65	20	18	35	67	25
298	18-19	3/4"	32	90	75	26	21	42	75	31
201	20-22	3/4"	45	101	90	33	24	47	92	38
204	23-26	1"	70	114	103	36	28	57	104	44
207	27-30	1 1/8"	100	127	116	39	32	63	114	51
212	31-36	1 1/4"-1 1/8"	125	139	130	43	38	70	127	57
215	37-39	1 1/2"	150	152	155	51	41	79	136	63
217	40-42	1 3/4"	200	165	171	54	44	82	146	70
219	43-48	1 3/4"-1 1/2"	260	190	198	55	51	89	171	76
222	49-54	2"-2 1/4"	280	216	224	62	57	96	193	82
224	55-60	2 1/4"-2 3/8"	360	228	247	73	63	108	216	92
226	61-68	2 3/4"-2 3/4"	450	248	270	79	73	140	241	102
227	69-75	2 3/4"-2 3/4"	480	279	286	76	79	159	273	124
228	76-80	3"-3 3/4"	520	305	298	83	86	171	292	133
229	81-86	3 1/4"-3 3/4"	600	330	311	102	92	184	311	146
230	87-93	3 3/4"-3 3/4"	700	356	330	102	99	197	330	159
231	94-102	3 3/4"-4"	875	381	356	108	108	216	362	178
233	108-115	4 1/2"	1100	450	425	120	125	235	405	190
240	122-130	5"	1250	500	475	120	138	260	515	205
250	140-155	5 1/2"-6"	1400	580	550	150	160	300	550	225
260	158-167	6 1/2"	1600	675	600	175	175	325	600	300

### OPEN WEDGE SOCKET

### TYPE S03

Material : Cast steel  
Safety : 5 times  
Finish : Painted/galvanised  
Up to Type No. 5 standard galvanised



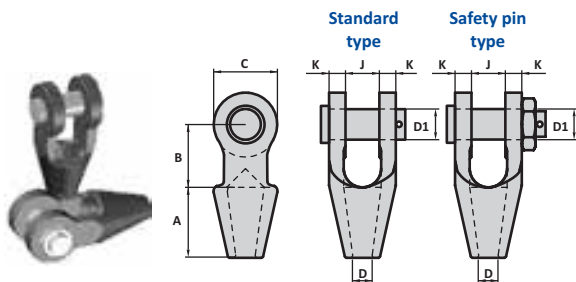
Type No.	Wire dia mm	Wire dia inch	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm
0.5	9-10	3/8"	10	145	47	20	21	11	26
1	11-13	1/2"	16	146	57	25	25	12	32
2	14-16	3/4"	25	176	70	31	30	15	44
3	18-19	1/2"	32	212	80	38	35	16	44
4	20-22	3/4"	45	240	96	44	41	19	52
5	24-26	1"	70	274	114	51	50	22	58
6	27-29	1 1/4"	100	310	130	57	57	25	66
7	30-33	1 1/2"	125	350	146	63	64	28	79
8	34-36	1 3/4"	125	400	148	69	64	28	79
9	37-40	1 3/4"	150	450	160	76	70	30	93
10	41-43	1 3/4"	200	500	174	76	76	33	95
11	44-48	1 3/4"-1 1/2"	260	550	200	89	89	39	111
12	49-53	2"	280	650	200	101	95	46	140
13	56	2 1/4"	360	660	250	114	108	54	136
14	63	2 1/2"	450	840	270	127	121	60	161
15	75	3"	520	1000	300	146	133	76	186



### OPEN SPELTER SOCKET

### TYPE S02

Material : Cast steel  
Safety : 5 times  
Finish : Painted/galvanised  
Up to Type No. 115 standard galvanised

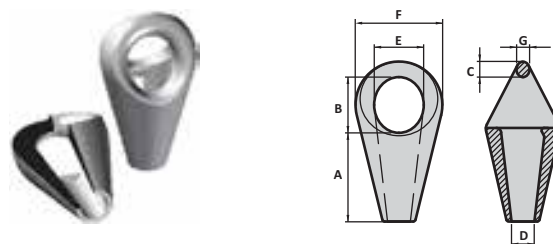


Type No.	Wire dia mm	Wire dia inch	MBL ton	A mm	B mm	C mm	D mm	D1 mm	J mm	K mm
192	6-7	3/8"	3	52	40	34	8	18	17	8
194	8-10	3/8"	6	58	45	40	11	21	20	11
196	11-13	1/2"	12	64	51	49	14	26	25	12
198	14-16	3/4"	24	76	64	62	18	30	32	14
100	18-19	3/4"	32	89	76	80	21	35	38	16
104	20-22	3/4"	45	101	89	90	24	41	44	19
108	23-26	1"	70	114	101	120	28	51	51	22
111	27-30	1 1/8"	100	127	114	130	32	57	57	25
115	31-36	1 1/4"-1 3/8"	125	139	127	144	38	63	63	28
118	37-39	1 1/2"	150	152	162	160	41	70	76	30
120	40-42	1 3/4"	200	165	165	176	44	76	76	33
125	43-48	1 3/4"-1 1/2"	260	190	178	200	51	89	89	39
128	49-54	2"-2 1/4"	280	216	228	216	57	95	101	46
130	55-60	2 1/4"-2 3/8"	360	228	250	236	63	108	113	53
132	61-68	2 3/4"-2 3/4"	450	248	273	264	73	121	127	60
135	69-75	2 3/4"-2 3/4"	480	279	279	276	79	127	133	73
138	76-80	3"-3 3/4"	520	305	286	284	86	133	146	76
140	81-86	3 1/4"-3 3/4"	600	330	298	296	92	140	159	79
142	87-93	3 3/4"-3 3/4"	700	356	318	340	99	152	171	83
144	94-102	3 3/4"-4"	875	381	343	362	108	178	191	89
146	108-115	4 1/2"	1100	460	440	440	125	190	208	101
150	122-130	5"	1250	500	500	560	138	250	210	120
160	140-155	5 1/2"-6"	1400	580	500	600	160	275	230	140
170	158-167	6 1/2"	1600	675	600	650	175	290	310	175

### CR SOCKET

### TYPE S04

Material : Cast steel  
Safety : 5 times  
Finish : Painted/galvanised  
Up to Type No. 519 standard galvanised

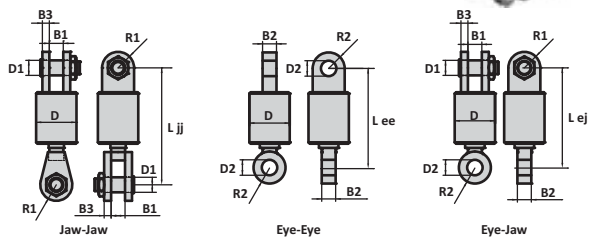


Type No.	Wire dia mm	Wire dia inch	WLL ton	MBL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm
512	31-36	1 1/4"-1 3/8"	28	140	140	85	38	39	75	124	35
517	38-42	1 1/2"-1 3/4"	32	160	160	110	42	44	92	130	38
519	43-48	1 3/4"-1 1/2"	40	200	188	128	50	51	110	180	45
522	49-54	2"-2 1/4"	50	250	215	125	55	57	115	200	50
524	55-60	2 1/4"-2 3/8"	60	300	230	145	65	63	135	230	57
526	61-68	2 3/4"-2 3/4"	80	400	250	160	75	73	160	265	65
527	69-75	2 3/4"-2 3/4"	100	500	280	175	80	79	170	278	70
528	76-80	3"-3 3/4"	120	600	315	210	85	86	184	300	75
529	81-86	3 1/4"-3 3/4"	140	700	340	205	100	92	204	320	90
530	87-93	3 3/4"-3 3/4"	160	800	360	220	105	99	215	340	95
531	94-102	3 3/4"-4"	180	900	380	240	110	108	234	376	100
533	108-115	4 1/2"-4 1/2"	200	1000	450	260	125	120	252	400	110
540	122-130	4 3/4"-5"	250	1250	517	293	140	140	275	460	125

### CLOSED BODY SWIVEL

Material : High tensile steel  
Safety factor : 5 times  
Finish : Painted

### TYPE SW1



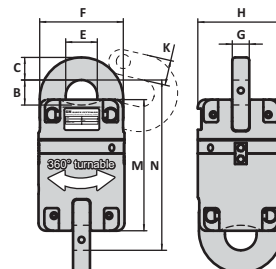
WLL ton	B1 mm	B2 mm	B3 mm	D1 mm	D2 mm	D mm	Ljj mm	Lee mm	Ljj mm	R1 mm	R2 mm
17	65	60	30	63	65	170	480	410	410	70	70
25	76	70	30	70	72	190	565	450	480	75	75
35	90	80	35	80	82	250	690	540	585	85	85
55	110	100	50	100	103	270	800	690	705	105	105
70	120	100	50	108	111	290	796	752	752	115	115
85	130	125	75	127	130	350	840	830	815	135	135
120	155	140	90	152	155	430	893	920	885	170	170
150	170	160	100	178	181	470	1003	960	925	190	190
200	175	170	120	190	193	530	1230	1210	1220	220	200
250	200	190	125	250	253	600	1340	1380	1360	260	260
300	250	230	175	290	293	750	1480	1580	1530	300	300

### CR-D CHAIN SWIVEL

Material : Alloy steel quenched and tempered  
Safety factor : 5 times  
Finish : Painted

### TYPE SW4

#### 800 SERIE



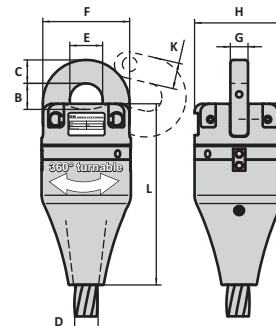
Type No.	Suitable chain	WLL ton	MBL ton	B mm	C mm	E mm	F mm	G mm	H mm	K mm	M mm	N mm
822	2"	50	250	70	60	84	222	45	238	69	348	452
826	2 1/2"	80	400	120	100	112	340	70	380	114	520	690
828	3"	120	600	140	120	140	400	80	430	130	610	850
830	3 1/2"	160	800	140	120	140	400	80	430	130	610	850
833	4"	200	1000						(in development)			

### CR-D ROPE SWIVEL

### TYPE SW5

Material : Alloy steel quenched and tempered  
Safety : 5 times  
Finish : Painted

#### 700 SERIE

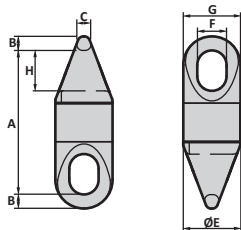


Type No.	Wire dia inch	Suitable chain	WLL ton	MBL ton	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	L mm
722	2"-2 1/4"	2"	50	250	70	60	59	84	222	45	238	69	463
726	2 1/2"-2 3/4"	2 1/2"	80	400	120	100	78	94	274	70	300	90	643
728	3"-3 1/4"	3"	120	600	140	120	86	112	340	70	380	114	645
730	3 1/2"-3 3/4"	3 1/2"	160	800	140	120	99	140	400	80	430	130	780
733	4"-4 1/2"	4"	200	1000					(in development)				

### CR CHAIN SWIVEL

### TYPE SW2

Material : Alloy steel quenched and tempered  
Finish : Painted

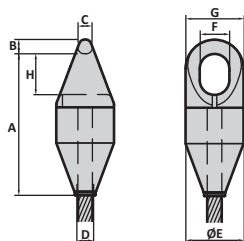


Size inch	MBL ton	PL ton	A mm	B mm	C mm	E mm	F mm	G mm	H mm
2"	250	100	610	55	50	200	115	200	165
2 1/4"	300	120	700	65	57	225	135	230	195
2 1/2"	400	160	710	75	65	250	150	270	205
3"	600	240	805	85	75	300	175	342	240
3 1/2"	800	320	945	105	95	330	205	360	285
4"	900	360	1065	110	100	360	225	380	320

### CR ROPE SWIVEL

### TYPE SW3

Material : Alloy steel quenched and tempered  
Finish : Painted



Size inch	Rope dia mm	MBL ton	PL ton	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm
2"	40-54	250	100	625	55	50	57	200	115	200	165
2 1/4"	55-60	300	120	690	65	57	63	225	135	230	195
2 1/2"	61-72	400	160	720	75	65	73	250	150	270	205
3"	73-84	600	240	835	85	75	86	300	175	342	240
3 1/2"	85-93	800	320	965	105	95	99	330	205	360	285
4"	94-105	900	360	1055	110	100	108	360	225	380	320

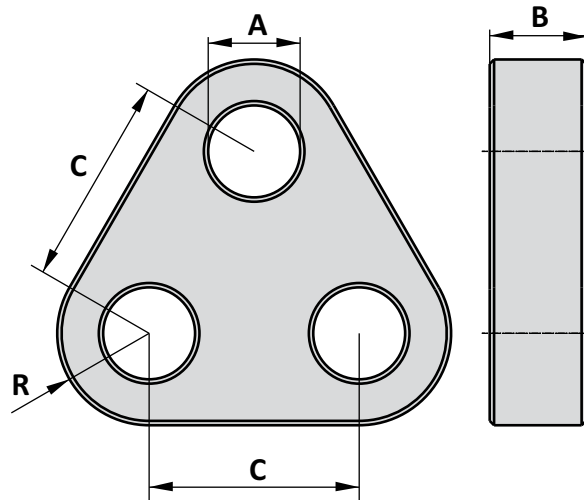




# TRIANGLE PLATE

# TYPE TR1

Material : High tensile steel  
 Safety factor : 5 times  
 Finish : Painted  
 Certificates : Material certificate 3.1  
 on request Material certificate 3.2  
 Proofload certificate  
 Classification inspection certificate  
 (DNV, Lloyds, ABS, BV etc.)



Art. No.	WLL ton	MBL ton	A mm	B mm	C mm	R mm	Weight kg
75001700	17	85	47	35	120	65	10
75002500	25	125	55	40	150	80	18
75003500	35	175	60	50	160	90	28
75005500	55	275	75	70	210	105	58
75008500	85	425	90	80	230	135	96
75012000	120	600	105	100	280	170	188
75015000	150	750	115	110	320	185	256
75017500	175	875	115	110	320	195	274
75020000	200	1000	140	120	390	215	390
75025000	250	1250	150	140	390	240	518
75030000	300	1500	160	150	420	250	617
75040000	400	2000	185	200	490	300	1170
75050000	500	2500	200	200	550	360	1619
75060000	600	3000	220	200	600	400	1972

Tolerance: Forged parts  $\pm 5\%$ , machined parts  $\pm 1$  mm

## Towing & mooring, anchor and pennant lines

Nominal diameter	Approximate weight	Minimum Breaking Load	
		metric ton	kN
mm	kg/m		
42	7.32	125	1,226
44	8.05	138	1,354
48	9.60	164	1,609
51	10.30	184	1,805
52	10.80	192	1,889
54	13.50	207	2,031
57	13.55	231	2,266
58	14.00	240	2,354
61	15.40	264	2,590
68	17.00	291	2,855
64	19.25	329	3,227
71	21.00	359	3,522
76	24.74	411	4,032
77	25.00	425	4,169
83	25.64	500	4,905
92	38.20	600	5,886
96	41.00	655	6,426
103	45.00	800	7,848
114	57.40	939	9,212
127	70.80	1,138	11,164
139	82.80	1,305	12,802
152	99.00	1,370	13,440

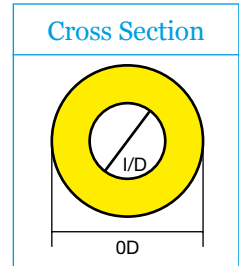
## Mooring ropes (8 strand)

Specifications		Polypropylene / Monofilament		Polyamide Multifilament (Nylon)		Garfil Mariflex	
Circumference inch	Diameter mm	Wt./Coil of 220 mtr in kgs	Breaking Strength Kgf	Wt./Coil of 220 mtr in kgs	Breaking Strength Kgf	Wt./Coil of 220 mtr in kgs	Breaking Strength Kgf
3.0	24	57	8129	78	12,036	70	12,000
3.5	28	78	10,710	107	15,810	96	15,800
4.0	32	101	13,464	139	19,992	124	20,000
4.5	36	129	16,932	176	24,888	157	24,900
5.0	40	158	20,502	218	29,988	195	30,000
5.5	44	194	24,582	264	35,802	238	35,800
6.0	48	229	28,560	312	42,024	282	46,290
6.5	52	268	33,048	365	48,858	330	54,300
7.0	56	312	37,842	425	55,998	378	62,800
7.5	60	359	43,248	486	63,852	438	72,000
8.0	64	407	48,960	554	72,012	495	82,600
9.0	72	515	61,506	702	89,964	627	102,000
10.0	80	638	75,582	867	109,956	775	125,500
11.0	88	772	90,678	1,049	130,968	1,100	156,000
12.0	96	917	107,100	1,250	154,020	1,315	185,000
13.0	104	1,078	122,400	1,465	182,070	1,540	216,000
14.0	112	1,254	141,780	1,698	210,120	1,790	250,000
15.0	120	1,430	163,200	1,951	240,108	2,050	286,000

## Wire tow rope protectors

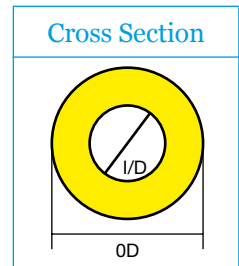
### Towing Sleeves - Standard Duty

Rope diameter		Part number	Nominal sleeve sizes				Lengths
			Inside diameter		Outside diameter		
Ins	mm		Ins	mm	Ins	mm	
1,42	36	RS.1036	1,88	47	5	122	1M 2M 3M
1,65	42	RS.1042	2,20	56	5	122	1M 2M 3M
1,73	44	RS.2044	2,36	60	5	122	1M 2M 3M
1,97	50	RS.2050	2,36	60	5	122	1M 2M 3M
2,13	54	RS.2054	2,40	62	5	122	1M 2M 3M
2,20	56	RS.3056	2,68	68	5	122	1M 2M 3M
2,36	60	RS.4060	2,93	72	5	122	1M 2M 3M
2,52	64	RS.4064	3,08	78	5	122	1M 2M 3M



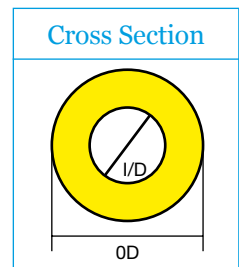
### Towing Sleeves - Heavy Duty

Rope diameter		Part number	Nominal sleeve sizes				Lengths
			Inside diameter		Outside diameter		
Ins	mm		Ins	mm	Ins	mm	
1,88	48	SHD.548	2,36	60	6,5	165	1M 2M 3M
2,20	56	SHD.556	2,68	68	6,5	165	1M 2M 3M
2,36	60	SHD.1260	2,83	72	6,5	165	1M 2M 3M
2,52	64	SHD.1264	3,08	78	6,5	165	1M 2M 3M
2,68	68	SHD.1268	3,08	78	6,5	165	1M 2M 3M
2,83	72	SHD.1272	3,30	84	6,5	165	1M 2M 3M
3,00	76	SHD.1276	3,30	84	6,5	165	1M 2M 3M



### Towing Sleeves - Extra Heavy Duty

Rope diameter		Part number	Nominal sleeve sizes				Lengths
			Inside diameter		Outside diameter		
Ins	mm		Ins	mm	Ins	mm	
1,88	48	EHD.548	2,36	60	7,4	188	1M 2M
2,20	56	EHD.556	2,68	68	7,4	188	1M 2M
2,36	60	EHD.1260	2,83	72	7,4	188	1M 2M
2,52	64	EHD.1264	3,08	78	7,4	188	1M 2M
2,68	68	EHD.1268	3,08	78	7,4	188	1M 2M
2,83	72	EHD.1272	3,30	84	7,4	188	1M 2M
3,00	76	EHD.1276	3,30	84	7,4	188	1M 2M



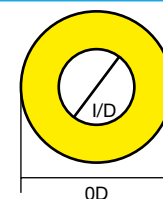


## Wire tow rope protectors

### Towing Sleeves - Extra Heavy Duty Plus

Rope diameter		Part number	Nominal sleeve sizes				Lengths
Ins	mm		Inside diameter		Outside diameter		
			Ins	mm	Ins	mm	
2,36	60	EHD+1260	3,08	78	8,27	210	3M
2,68	68	EHD+1268	3,08	78	8,27	210	3M
2,83	72	EHD+1272	3,30	84	8,27	210	3M
3,00	76	EHD+1276	3,30	84	8,27	210	3M
3,15	80	EHD+1280	3,94	100	8,27	210	3M
3,30	84	EHD+1284	3,94	100	8,27	210	3M
3,54	90	EHD+1290	3,94	100	8,27	210	3M

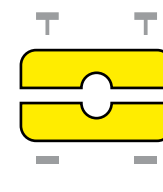
Cross Section



### Towing Shoes

Rope diameter		Part number	Nominal sleeve sizes		Lengths
Ins	mm		Ins	mm	
1,73	44	HP.4744	9.05 x 6.10	230 x 155	2M 3M
2,05	52	HP.4752	9.05 x 6.10	230 x 155	2M 3M
2,20	56	HP.4756	9.05 x 6.10	230 x 155	2M 3M
2,52	64	HP.4764	9.05 x 6.10	230 x 155	2M 3M
2,68	68	HP.4768	9.05 x 6.10	230 x 155	2M 3M
2,75	70	HP.4770	9.05 x 6.10	230 x 155	2M 3M
3,00	76	HP.4776	9.05 x 6.10	230 x 155	2M

Cross Section



Sleeves can be supplied square-ended or tapered.

Shoes supplied with tapered ends only.

In addition to the above range, custom-made sizes can be supplied.

V-THANE® is the registered trade name of Hallam Polymer Engineering Limited.

# Hendrik Veder Group

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