







# Safety put to the test

Gunnebo Industrier started its production as early as 1764. Gunnebo is one of the world's leading manufacturers of complete lifting systems. The quality of our products is widely recognised as high and our goal is to be world leader in our field. Quality will always be fundamental to Gunnebo, and everything we do is in line with the strong dedication on safety for persons and property.

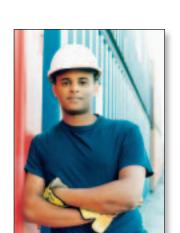
The Gunnebo Group is today an internationally fast-growing security group with 110 companies located in 32 countries. The Group has sales to a further hundred markets via agents and distributors. Gunnebo Industrier is a division within the Gunnebo Group. The division comprises the following business units: Gunnebo Lifting, Gunnebo Fastening, Gunnebo Blocks and Gunnebo Non Skid. Gunnebo Lifting produces and sells chain and lifting components (such as coupling links, hooks and master links) wire rope, soft slings, round slings, ratchets, lashing and goods anchorage systems.





# You can't beat the original

Gunnebo has since its start-up in 1764 developed and produced quality products that are considered to be the best in the market. Page 4



# The link to the past is the future in lifting

All our experience throughout our long history is used to develop new lifting products.

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# Feel confident in every situation

Our customers can unreservedly feel confident in every situation.

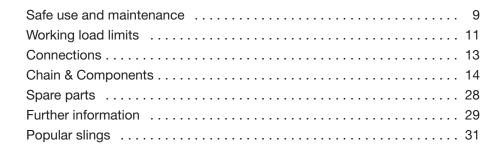
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# Safety is our highest priority

The best design and features are not enough; Gunnebo aims to provide greater safety through high quality products.

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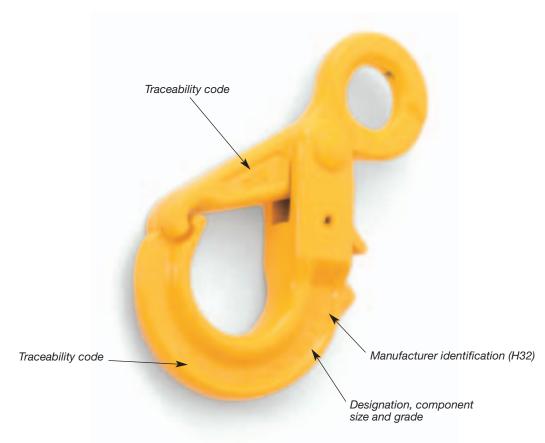
#### WARNING:





# You can't beat the original

Think Gunnebo when selecting lifting chain and components. – *Lifting is our business*. As a result of over 200 years experience Gunnebo has become known for quality, superior design and innovative product development, down to the smallest component. The pride and confidence Gunnebo has in its products are underlined by our rigorous quality system and the efforts put in to continually improve our processes as well as our products.



All components are also marked with manufacturer name – Gunnebo or G-R (Gunnebo Ramnäs).

#### Gunnebo – your partner in safe lifting

Chain and components are made from special quenched and tempered alloy steel, a guarantee for very high strength, low weight, high wear resistance and long life. All Gunnebo Classic components are uniformly marked with equivalent chain size, grade, manufacturer's designation and name for positive identification.

It's easy to see the difference between a Gunnebo original component and copies, see the picture above for the caracteristics of Gunnebo Components.

Remember that it's not only the yellow colour that symbolises a quality product. Be sure to get the original – be sure that you get Gunnebo!

Gunnebo Classic is more than just another chain sling system. It is a total lifting concept for heavy lifting. Our chain and components are designed to give more flexibility, more options to meet any lifting situation involving slings – whether chain, steel wire rope or soft slings.





# A link to the past is the future in lifting

The BK Safety Hook is one of many products invented by Gunnebo. When introduced around 30 years ago, the BK Safety Hook dramatically increased industrial safety on sites all over the world.

The new generation safety hooks – Griplatch (OBK/GBK) – provide a more compact version of the well known BK-hook. The Griplatch model gives better side stability and the hook has lighter weight. Once again, Gunnebo innovation leads the way.



Continuous development

Our Safety Hooks fulfil many important requirements. One example is that the load stays put in the hook. The latch closes automatically as soon as the hook is loaded. It cannot be opened under load accidentally.

An other is that the hook will not easily snag during lifting because of its smooth profile.

Our Safety Hooks are designed for work. It is easy to operate the release trigger even with working gloves on. It stays open so that both hands are free to load the hook. Our Safety Hooks are available for Working Load Limits up to 25 tonnes.



# Feel confident in every situation

We know how important it is to feel confident in every situation – we ensure that by having full control of the process from raw material to finished product. The close co-operation that we have with our steel suppliers ensures that the raw material meets our stringent specification. We have our own chain factory as well as forging plants and machine shop for components and master links.

We work closely with our customers world-wide and have official approval by the main national and international authorities including MOD, NATO, BG and many others.

Gunnebo Grade 8 lifting chain and components are manufactured and tested to the requirements of recognised EN- and ISO-standards.

Gunnebo Lifting is approved by Lloyd's (LRQA) for quality assurance to EN ISO 9001:2000. Our quality management system covers all aspects of production from raw material to delivered product. LRQA approval for our system includes design, development, manufacture, marketing and distribution of lifting chains and associated components.

Gunnebo Lifting has been awarded environmental certification in accordance with ISO 14001:1996 by Lloyd's Register.

Full test certifications of chain and components are supplied on request.



Certificate of approval





# Safety is our highest priority

We are known as the No 1 quality manufacturer in the world, and the systematic quality control in every manufacturing stage from raw material to the finished product guarantees a high level of safety and long service life.

# Type testing

In order to prove the design, material, heat treatment and method of manufacture, each size of component and chain in the finished condition has been type tested in order to demonstrate that the component and chain possesses the required mechanical properties.



Dimension control.

The following testing procedures are particularly relevant:

#### Test for deformation

The Manufacturing Proof Force (MPF) for the relevant size of the component is applied and removed. The dimensions after proof loading shall not alter from the original dimensions within the tolerances prescribed in our specifications and in the international standards.

#### · Static tensile test

The Breaking Force (BF) for each component and size is verified. The verified value shall be at least equal to the Minimum Breaking Force (MBF) value. The MBF value is equal to the Working Load Limit (WLL) multiplied by the safety factor.

#### Fatigue test

By fatigue testing in pulsator testing machines the toughest condition of service is simulated.

# Manufacturing testing

During manufacture continuous process tests are carried out according to the requirements in our specifications and in the latest international standards. The following testing procedures are particularly relevant.

#### Proof force

Each individual component and chain link is tested to the Manufacturing Proof Force (MPF) level before delivery. The MPF level is 2,5 times the WLL, equal to 62,5% of the Minimum Breaking Force.

#### • Non destructive test / inspection

3% of every production batch of forged components are subject to magnetic particle or dye penetrating examination. Visual inspection is carried out on each chain link and each forged component to detect defects.

#### Static tensile test and ultimate elongation test

During manufacture, samples are tested and the Minimum Breaking Force (MBF) value and the total ultimate elongation are verified.

#### · Bending deflection

During manufacturing, of chain and master links, samples are taken and the minimum bend deflection is verified.

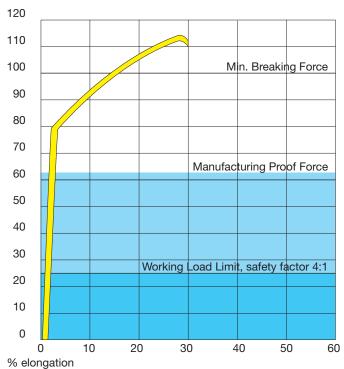


Every single component is proof loaded and inspected.



# Stress/Strain diagram Chain Grade 8, type KL

% of min. Breaking Force

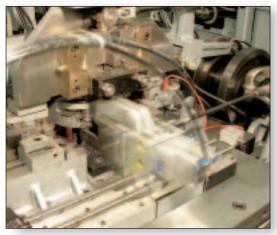


d nom (mm)	Working Load Limit (tonnes)	Manufacturer Proof Force (kN)	Min. Breaking Force (kN)
0	4.40	00.0	45.0
6	1,12	28,3	45,2
7	1,5	38,5	61,6
8	2,0	50,3	80,4
10	3,15	78,5	126
13	5,3	133	212
16	8,0	201	322
19	11,2	284	454
20	12,5	314	503
22	15,0	380	608
26	21,2	531	849
32	31,5	804	1290

Acc. to EN 818-2



Test of breaking force and total ultimate elongation of the chain

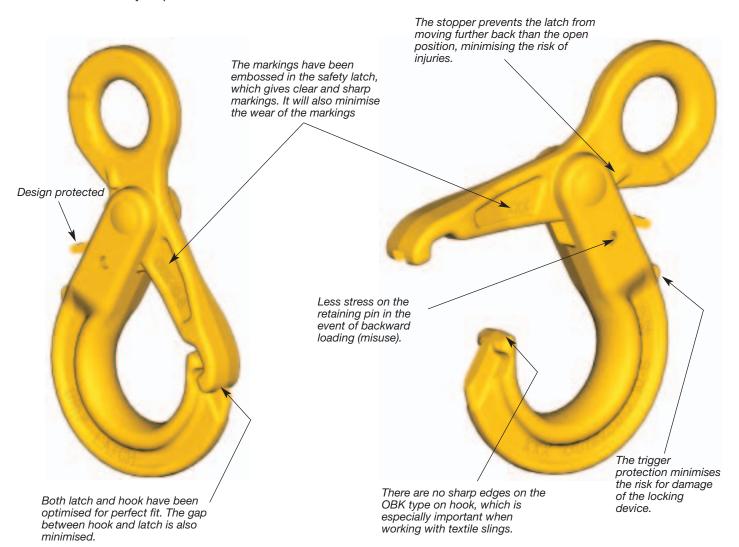


Chain link machine



# Improved design of the safety hooks

In order to give our customer added value Gunnebo has improved the design of the safety hooks. The hooks have new features and a smoother design to be as safe and easy as possible to handle and use.





Feel confident in every situation Photo: Courtesy of the National Science Foundation, USA



# - CODE FOR SAFE USE AND MAINTENANCE -

This section aims to give advice and explain the most common questions regarding lifting with slings. We advice you to read our Gunnebo Lifting Manual for more information. For further advice regarding specific lifting problems contact your Gunnebo distributor. Always remember: Never use a chain sling without professional training. Take care of your chain sling, use it properly and inspect it regularly. Gunnebo products will ensure long life and that your lifting is carried out safely and efficiently.

#### General advice

- Keep a register of all slings in use.
- Ensure that the chain sling is precisely as ordered and all components and chain are clearly marked with Gunnebo identification.
- Ensure that the manufacture certificate and EC declaration of conformity is in order.
- Ensure that the identification and working load limit on the sling id tag should correspond to the information on the certificate.
- Ensure that the full details of all chain slings are recorded.
- Ensure that personnel using Gunnebo chain slings have received the appropriate instruction and training.

#### Protect yourself and others

- Know the weight of the load and the center of gravity, and ensure it is ready to move and no obstacles will obstruct the lift.
- Prepare the landing site.
- Never use a sling without a legible valid load tag.
- Never overload a sling and avoid shock loading.
- Never use an improper sling configuration.
- Never use a worn-out or damaged sling.
- Never ride on the load.
- Never go under a suspended load.
- Take into consideration that the load may swing.
- Watch your feet and fingers while load-/unloading.
- Never use a sling in acidic conditions.

#### **Method of connection**

A chain sling is usually attached to the load and the crane by means of terminal fittings such as hooks and links. Chains should be without twists or knots. The lifting point should be seated well down in a hook, never on the point or wedged in the opening; the hook should be free to incline in any direction so as to avoid bending. For the same reason, the master link should be free to incline in any direction on the hook to which it is fitted.

The chain may be passed under or through the load to form a choke hitch or basket hitch. Where it is necessary, due to the danger of the load tilting, to use more than one chain sling leg in a basket hitch, this should preferably be done in conjunction with a lifting beam.

Ensure to protect the chain with suitable padding if there are sharp edges.

When a chain sling is used in a choke hitch, the chain should be allowed to assume its natural angle and should not be hammered down, sometimes known as battening down.



The chain should be allowed to assume its natural angle.

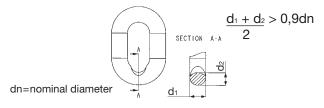
#### Before each use

- Check chain and components for wear, nicks, cracks, breaks, gauges, stretch, bend, weld spatter, discoloration from excessive temperature and the opening of hooks.
- Chain, components and links should articulate freely to the adjacent links.
- Latches on hooks, where present, should operate freely and seat properly without evidence of permanent distortion.

#### **Maintenance**

Periodic thorough examination must be carried out at least every 12 months or more frequently according to statutory regulations, type of use and past experience.

- Chains with bent links, elongated links, cracks or gauges in the link should be replaced, as should deformed components such as bent masterlinks, opened up hooks and any fitting showing sign of damage.
- 2. The wear of the chain and components shall in no place exceed 10% of the original dimensions. The chain link wear max 10% is defined as the reduction of the mean diameter measured in two directions.



- Overloaded chain slings must be taken out of service.
- 4. Always use Gunnebo original Classic chain, components, load pins and spare parts throughout the whole sling.



## - CODE FOR SAFE USE AND MAINTENANCE -



# Chain sling legs may be attached to the load in several ways

#### a) Straight leg

In this case lower terminals are connected directly to the attachment points. Selection of hooks and attachment points should be such that the load is carried in the seat of the hook and point loading of the hook is avoided. In the case of multi-leg chain slings hook tips should point outwards unless the hooks are specifically designed to be used otherwise.

#### b) Choke hitch

In this case chain sling legs are passed through or under the load and the lower terminal back hooked or reeved onto the chain. This method can, therefore, be used where no suitable attachment points are available and have the additional advantage that the chain sling legs tend to bind the load together.

Warning – Where choke hitch is employed the working load limit (WLL) of the chain sling should be no more than 80 % of that marked (if the LK choker hook is not used).



The chain is passed through or under the load the lower terminals are connected directly to the master link or to the hook of the crane. Generally this method requires two or more chain sling legs and should not be used for loads which are not held together. Where the load geometry permits a single leg chain sling can be used provided that the sling passes through the load directly above the centre of gravity of the load.



Choke hitch



2-legged wrap and choke hitch.





Examples of basket hitch.





# Working load limits (tonnes) Acc. to EN 818-4:1996

### Recommended master links for use with chain slings

		90°		3 & S. Iegged			3-legged & 4-legged			Choked endless sling
Chain dim. (mm)	WLL (tonnes)	Master link M/MF		WLL β 0-45° α 0-90°	(tonnes) β 45- 60° α 90-120°	Master link M/MF	β 0-45° α 0-90°	L (tonnes) β 45- 60° α 90-120°	Master link MT*/MTC	WLL(tonnes)
6	1.12	6-8*		1.6	1.12	86-8*	2.36	1.7	6-8*	1.8
7 8	1.5 2.0	86-8* 86-8*		2.12 2.8	1.5 2.0	108-8* 108-8*	3.15 4.25	2.24 3.0	8-8* 8-8*	2.5 3.15
							6.7			
10 13	3.15 5.3	108-8* 1310-8*	13-8	4.25 7.5	3.15 5.3	1310-8* 1613-8*	11.2	4.75 8.0	10-8* 13-8*	5.0 8.5
16	8.0	1613-8*	13-0	11.2	8.0	2016-8*	17.0	11.8	16-8*	12.5
19	11.2	2016-8*	19-8	16.0	11.2	2220-8*	23.6	17.0	20-8*	18.0
22	15.0	2220-8*		21.2	15.0	2622-8	31.5	22.4	22-8	23.6
26	21.2	2622-8		30.0	21.2	3226-8	45.0	31.5	26-8	33.5
32	31.5	3226-8	32-8	45.0	31.5	3632-8	67.0	47.5	32-8	50.0

<sup>\*)</sup> Available with flattened section for use with BL.

#### **Assymmetric loading condition**

For unequally loaded chain slings we recommend that the Working Load Limits be determined as follows:

- 2-leg slings calculated as the corresponding 1-leg slings
- 3-leg and 4-leg slings calculated as the corresponding 2-leg slings.

#### Severe environment

Grade 8 chain and components must not be used in alkaline or acidic conditions.

Comprehensive and regular examination must be carried out when using Grade 8 equipment in severe or corrosion inducing environments.

In uncertain situations consult your distributor.

#### **Extreme temperature conditions**

For G8 chain slings the "in-service" temperature of the whole or part of the chain sling affects the Working Load Limit as follows:

Temperature of sling	Reduction in Working Load Limit
-40°C to +200°C	None
+200°C to +300°C	10%
+300°C to +400°C	25%

Upon return to normal temperature the sling reverts to its full capacity. G8 chain slings should not be used above or below these temperature limits.

#### Note:

Hot dip galvanizing or plating is not allowed outside the control of the manufacturer.

## Acc. to EN 1492

#### Recommended masterlink for use with textile slings

				3 1					(n) (n)		
	_	8						U			
		1-legged		2-legge			3 & 4-legged		Straig	ht basket hitch	
Size	WLL (tonnes)	Masterlink M/MF	WLL β 0-45° α 0-90°	(tonnes) β 45- 60° α 90-120°		WLL β 0-45° α 0-90°	. (tonnes) β 45- 60° α 90-120°	Masterlink MT	WLL (tonnes)	Masterlink x2 M/MF	
1T	1,0	6-8	1,4	1,0	86-8	2,1	1,5	6-8	2,0	6-8	
2T	2,0	86-8	2,8	2,0	108-8	4,2	3,0	8-8	4,0	86-8	
3T	3,0	108-8	4,2	3,0	13-8/1310-8	6,3	4,5	10-8	6,0	108-8	
4T	4,0	108-8	5,6	4,0	1310-8	8,4	6,0	10-8	8,0	108-8	
5T	5,0	13-8/1310-8	7,0	5,0	1310-8	10,5	7,5	10-8	10,0	13-8/1310-8	
6T	6,0	1310-8	8,4	6,0	1613-8	12,6	9,0	13-8	12,0	1310-8	
8T	8,0	1613-8	11,2	8,0	19-8/2016-8	16,8	12,0	13-8	16,0	1613-8	
10T	10,0	1613-8	14,0	10,0	2016-8	21,0	15,0	16-8	20,0	1613-8	

For connection with SKR coupling link



# **Working load limits (tonnes)**

Acc. to EN 13414-1:2003

### Recommended master links for use with fibre cored steel wire rope

		90° -legged		2-legged			3&4-legged	3	A
Wire dim. (mm)	WLL (tonnes)	Master link M/MF	WLI β 0-45° α 0-90°	_ (tonnes) β 45- 60° α 90-120°	Master link M/MF	WLL(1 β 0-45° α 0-90°	connes) β 45- 60° α 90-120°	Master link MT	WLL (tonnes) Choke hitch
8	0,70	86-8	0,95	0,70	86-8	1,50	1,05	6-8	1,10
10	1,05	86-8	1,50	1,05	108-8	2,25	1,60	6-8	1,70
12	1,55	86-8	2,12	1,55	108-8	3,30	2,30	8-8	2,50
14	2,12	108-8	3,00	2,12	1310-8	4,35	3,15	8-8	3,30
16	2,70	108-8	3,85	2,70	1310-8	5,65	4,20	10-8	4,35
18	3,40	1310-8	4,80	3,40	1310-8	7,20	5,20	10-8	5,65
20	4,35	1310-8	6,00	4,35	1613-8	9,00	6,50	13-8	6,90
22	5,20	1310-8	7,20	5,20	2016-8	11,00	7,80	13-8	8,40
24	6,30	1310-8	8,80	6,30	2016-8	13,50	9,40	13-8	10,00
26	7,20	1613-8	10,00	7,20	2220-8	15,00	11,00	13-8	11,80
28	8,40	1613-8	11,80	8,40	2220-8	18,00	12,50	16-8	13,50
32	11,00	2016-8	15,00	11,00	2220-8	23,50	16,50	16-8	18,00
36	14,00	2016-8	19,00	14,00	32-8	29,00	21,00	22-8	22,50
40	17,00	2220-8	23,50	17,00	3226-8	36,00	26,00	26-8	28,00
44	21,00	2220-8	29,00	21,00	3226-8	44,00	31,50	26-8	33,50
48	25,00	2220-8	35,00	25,00	3226-8	52,00	37,00	32-8	40,00

The table is calculated for fibre cored rope of classes 6x19, 6x36 and 8x36 with ultimate strenght of wire 1770 N/mm² having ferrule secured eye terminations.

# Recommended master links for use with steel cored steel wire rope

		90°		2-legged			3&4-legged	€ ( )	
Wire dim. (mm)	WLL (tonnes)	Master link M	WLI β 0-45° α 0-90°	_ (tonnes) β 45- 60° α 90-120°	Master link M	WLL(t β 0-45° α 0-90°	onnes) β 45- 60° α 90-120°	Master link MT	WLL (tonnes) Choke hitch
8	0,75	86-8	1,05	0,75	86-8	1,55	1,10	6-8	1,20
10	1,15	86-8	1,60	1,15	108-8	2,40	1,70	6-8	1,85
12	1,70	86-8	2,30	1,70	108-8	3,55	2,50	8-8	2,70
14	2,25	108-8	3,15	2,25	1310-8	4,80	3,40	8-8	3,70
16	3,00	108-8	4,20	3,00	1310-8	6,30	4,50	10-8	4,80
18	3,70	1310-8	5,20	3,70	1310-8	7,80	5,65	10-8	6,00
20	4,60	1310-8	6,50	4,60	1613-8	9,80	6,90	13-8	7,35
22	5,65	1310-8	7,80	5,65	2016-8	11,80	8,40	13-8	9,00
24	6,70	1310-8	9,40	6,70	2016-8	14,00	10,00	13-8	10,60
26	7,80	1613-8	11,00	7,80	2220-8	16,50	11,50	13-8	12,50
28	9,00	1613-8	12,50	9,00	2220-8	19,00	13,50	16-8	14,50
32	11,80	2016-8	16,50	11,80	2220-8	25,00	17,50	16-8	19,00
36	15,00	2016-8	21,00	15,00	32-8	31,50	22,50	22-8	23,50
40	18,50	2220-8	26,00	18,50	3226-8	39,00	28,00	26-8	30,00
44	22,50	2220-8	31,50	22,50	3226-8	47,00	33,50	26-8	36,00
48	26,00	2622-8	37,00	26,00	3226-8	55,00	40,00	32-8	42,00

The table is calculated for steel cored wire rope of classes 6x19, 6x36 and 8x36 with ultimate strenght of wire 1770 N/mm² having ferrule secured eye terminations.



### **G-coupling links**

Gunnebo's G-links are universal. They can be used together with chain, master links, hooks and other lifting components as well as with steel wire ropes.

Gunnebo's G-links have a smooth surface to avoid snagging. The heavy duty retaining bush with its well protected stainless, square-sectioned, spring ensures high reliability and safety.

Gunnebo G-links are available up to a WLL of 32 tonnes.



#### **Berglok**

Berglok chain couplings are foolproof, since they are designed to only match with the correct chain and components. The design prevents the coupling from snagging.

Berglok couplings are available up to a WLL of 11,5 tonnes.



#### Direct coupling to clevis-type fittings

Gunnebo's clevis fittings are designed to facilitate direct connection to chains without any intermediate coupling-links.

There are clevis fittings up to a WLL of 12,5 tonnes.



# The SK system

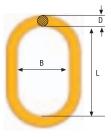
A range of specialised Grade 8 alloy steel components for safe and easy assembly of lifting slings based on chain, steel wire rope, webbing and roundslings.

The SK-system is available up to a WLL of 12,5 tonnes.





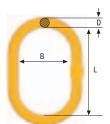
# Master link, M Acc to EN1677-4. Designed for use with chain or wire rope



Code	WLL (tonnes) * B 0-45°	L	В	D	Weight appr. kgs
M-6-8	1.25	100	60	11	0.2
M-86-8	2.5	120	70	14	0.4
M-108-8	4	140	80	17	0.8
M-13-8	5.4	150	90	19	1
M-1310-8	7.5	160	95	22	1.5
M-1613-8	10	190	110	25	2.3
M-19-8	12	200	120	30	3.5
M-2016-8	17	240	140	34	5.3
M-2220-8	25	250	150	38	7
M-2622-8	28	250	150	40	8
M-32-8	33	300	180	45	12
M-3226-8	43	300	200	50	15
M-3632-8	56	350	200	55	21
M-4536-8	70	375	210	60	26
M-90T-8	90	450	250	70	43
M-100T-8	100	450	260	80	57
M-125T-8 **	125	450	260	80	57



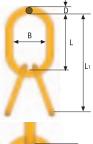
# Master link, MF Acc to EN1677-4. Designed for use with chain or wire rope

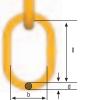


Code	WLL (tonnes) * ß 0–45°	L	В	D	Weight appr. kgs
MF-6-8 ***	1.25	100	60	11	0.2
MF-86-8 ***	2.5	120	70	14	0.4
MF-108-8 ***	4	140	80	17	0.8
MF-1310-8 ***	7.5	160	95	22	1,5
MF-1613-8 ***	10	190	110	25	2.3
MF-2016-8 ***	17	240	140	34	5.3
MF-2220-8 ***	25	250	150	38	7



### Master link, MT Acc to EN1677-4. Designed for use with chain or wire rope





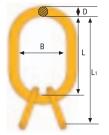
Code	WLL (tonnes) ß 0–45°	* L1	L	В	D	I	b	d	Weight appr. kgs
MT-6-8 ***	3.5	270	150	90	19	120	70	14	1.8
MT-8-8 ***	5	300	160	95	22	140	80	17	3,0
MT-10-8 ***	11.5	360	200	120	30	160	95	22	6.5
MT-13-8 ***	17	450	250	150	40	200	120	30	15
MT-16-8 ***	28	500	300	200	50	200	120	32	23
MT-20-8 ***	35	550	300	200	55	250	150	38	33
MT-22-8	53	610	350	200	60	260	140	45	46
MT-26-8	70	730	450	250	70	280	160	50	71
MT-32-8	90	750	450	260	80	280	160	55	91

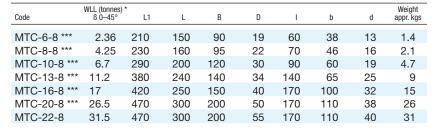


 <sup>\*</sup> If used for chain, check for corresponding WLL values in the WLL table acc EN818-4. Safety factor 4:1
 \*\* Dimensions L and B not acc. to EN1677-4
 \*\*\* With flattened section for use with BL



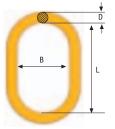
### Master link, MTC Acc to EN1677-4. Designed for use with chain







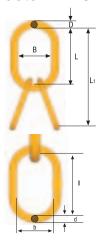
# Master link O Connection to chain with G-link



	WLL (tonnes) *	For ch size n	nm	Dim. in mm			Weight appr.
Code		1-leg	2-leg	L	В	D	kgs
O-6-8	1.25	6	-	100	60	11	0.2
O-86-8	2.5	7,8	6	120	70	14	0.4
O-108-8	4.0	10	7,8	140	80	17	0.7
O-13-8	6.3	_	_	150	90	19	1.0
O-1310-8	8.0	13	10	160	95	22	1.5
O-16-8	11.5	-	-	190	110	25	2.2
O-1613-8	15.0	16	13	180	105	28	2.7
O-19-8	17.0	_	-	200	120	30	3.5
O-2216-8	20.0	19,22	16	240	140	34	5.1
O-26-8	25.0	_	_	250	150	38	7
O-2619-8	30.0	26	19	250	150	40	8
O-3222-8	37.0	32	22	300	180	45	12
O-3626-8	50.0	36	26	300	200	50	15
O-4028-8	63.0	40	28	300	200	55	18
O-4532-8	80.0	45	32	350	200	60	25



#### Master link OT Connection to chain with G-link



	WLL (tonnes) *	For chain size mm			Dim. in	mm				Weight
Code	WLL (tollies)	3- o 4-leg	L1	L	В	D	I	b	d	appr. kgs
OT-6-8	5.0	6	260	150	90	19	110	60	14	1.8
OT-8-8	8.0	7,8	300	160	95	22	140	80	17	3.0
OT-10-8	16.0	10	360	200	120	30	160	95	22	6
OT-13-8	30.0	13	430	250	150	40	180	105	28	13
OT-16-8	40.0	16	500	300	200	50	200	110	32	23
OT-19-8	50.0	19	560	300	200	55	260	140	38	32
OT-22-8	75.0	22	610	350	200	60	260	140	45	46
OT-26-8	100.0	26	680	400	250	70	280	160	50	68
OT-32-8	125.0	32	680	400	250	80	280	160	55	87

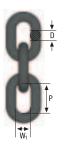


If used for chain, check for correspondling WLL values in the WLL table acc EN818-4. Safety factor 4:1
 Dimensions L and B not acc. to EN1677-4
 With flattened section for use with BL

<sup>\*</sup> Safety factor 4:1



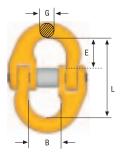
# **Chain KLB**



	WLL		Dim. in mm		Weight
Code	tonnes*	D	Р	<b>W</b> <sub>1</sub>	appr. kgs/m
KLB-6-8E	1.12	6	18	8.5	0.8
KLB-7-8E	1.5	7	21	10	1.1
KLB-8-8E	2.0	8	24	11	1.4
KLB-10-8E	3.15	10	30	14	2.2
KLB-13-8E	5.3	13	39	18	3.7
KLB-16-8E	8.0	16	48	22	5.6
KLB-19-8E	11.2	19	57	26	7.8
KLB-22-8E	15.0	22	66	30	11.0
KLB-26-8E	21.2	26	78	35	14.3
KLB-32-8E	31.5	32	96	43	23.0



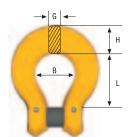
# **Coupling link G**



	WLL	For chain size		Dim. in	mm		Weight
Code	tonnes*	mm	L	В	G	Е	appr. kgs
G-6-8	1.12	6	44	15	8	16	0.1
G-7/8-8	2.0	7, 8	56	18	9	22	0.2
G-10-8	3.2	10	68	25	12	26	0.3
G-13-8	5.4	13	89	29	15	33	0.7
G-16-8	8.0	16	105	36	19	40	1.2
G-18/20-8	12.5	19	125	43	22	47	1.9
G-22-8	15.5	22	152	50	24	59	3.0
G-26-8	21.6	26	160	58	29	61	4.6
G-32-8	32.0	32	200	70	38	78	8.6



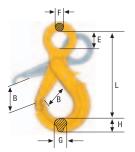
# Berglok chain coupler BL



	WLL	For chain size		Dim. in	mm		Weight	
Code	tonnes*	mm	L	В	G	Н	appr. kgs	
BL-6-8	1.12	6	27	20	9	14	0.1	
BL-7/8-8	2.0	7, 8	35	25	11	18	0.2	
BL-10-8	3.2	10	45	32	14	22	0.4	
BL-13-8	5.4	13	56	40	17	28	1.0	
BL-16-8	8.0	16	68	50	22	35	1.4	
BL-19-8	11.5	19	80	58	25	41	2.3	



# Safety hook OBK with grip latch



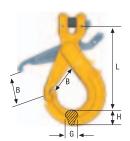
	WLL	For chain size			Dim. in mm				Weight
Code	tonnes*	mm	L	В	E	F	G	Н	appr. kgs
OBK-6-8	1.12	6	103	26	22	9	14	17	0.4
OBK-7/8-8	2.0	7, 8	135	37	25	10	20	22	0.8
OBK-10-8	3.2	10	168	47	32	13	22	29	1.3
OBK-13-8	5.4	13	201	54	40	15	27	35	2.3
OBK-16-8	8.0	16	237	61	50	19	29	38	4.1
OBK-18/20-8	12.5	19	293	73	60	22	37	48	7.5
OBK-22-8	15.5	22	335	87	70	24	40	57	10.0



<sup>\*</sup> Safety factor 4:1



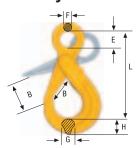
# Safety hook GBK with grip latch



	WLL	For			Weight		
Code	tonnes*	chain size mm	L	В	G	Н	appr. kgs
GBK-7/8-8	2.0	7, 8	119	37	20	22	0.8
GBK-10-8	3.2	10	151	47	22	29	1.3
GBK-13-8	5.4	13	172	54	27	35	2.3
GBK-16-8	8.0	16	198	60	29	38	3.2



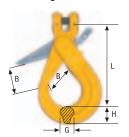
# Safety hook BK



	WLL	For chain size			Dim. in mm				Weight
Code	tonnes*	mm	L	В	E	F	G	Н	appr. kgs
BK-6-8	1.12	6	109	29	22	10	15	21	0.5
BK-7/8-8	2.0	7, 8	137	38	25	11	17	23	0.8
BK-10-8	3.2	10	168	44	32	13	24	29	1.5
BK-13-8	5.4	13	207	54	40	16	30	38	2.8
BK-16-8	8.0	16	253	62	50	20	37	49	5.6
BK-18/20-8	12.5	19	290	68	60	22	42	56	7.9
BK-22-8	15.5	22	320	80	70	24	47	62	11.2
BK-26-8	21.6	26	345	100	80	25	50	68	14.5
BK-28-8	25.0	28	400	120	90	27	62	81	22.0



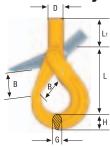
# Safety hook BKG



	WLL	For chain size		Dim. in mm					
Code	tonnes*	mm	L	В	G	Н	appr. kgs		
BKG-7/8-8	2.0	7, 8	120	37	17	23	0.8		
BKG-10-8	3.2	10	143	44	24	29	1.5		
BKG-13-8	5.4	13	179	54	30	38	2.8		
BKG-16-8	8.0	16	217	62	37	49	5.1		
BKG-19/20-8	3 12.5	19	242	68	42	56	7.8		



# Shank safety hook BKT



	WLL	Dim. in mm									
Code	tonnes*	L	В	L1	D	dmin	G	Н	appr. kgs		
BKT-6-8	1.12	90	29	36	20	11	15	21	0.5		
BKT-7/8-8	2.0	111	37	47	24	13	17	23	0.9		
BKT-10-8	3.2	133	44	51	29	16	24	29	1.5		
BKT-13-8	5.4	170	54	65	34	20	30	38	2.8		
BKT-16-8	8.0	202	62	76	37	25	37	49	5.4		

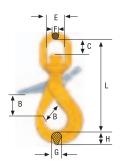


d<sub>min</sub>=the smallest shank dimension after machining. Note! After machining of the shank, proof loading must be carried out.

<sup>\*</sup> Safety factor 4:1



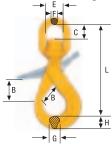
# Swivel safety hook BKL



	WLL	For chain size		1	Dim. in mn	1				Weight
Code	tonnes*	mm	L	В	С	Е	F	G	Н	appr. kgs
BKL-6-8	1.12	6	149	28	23	33	11	15	21	0.6
BKL-7/8-8	2.0	7, 8	183	37	27	36	12	17	23	1.1
BKL-10-8	3.2	10	218	44	36	42	15	24	29	2.0
BKL-13-8	5.4	13	276	54	43	48	19	30	38	3.8
BKL-16-8	8.0	16	334	62	58	62	22	37	49	7.1
BKL-18/20-8	12.5	19	367	69	80	74	26	42	56	10.8



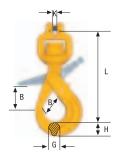
# Swivel safety hook with ball bearing BKLK



	WLL	For chain size			Dim. in mm	1				Weight
Code	tonnes*	mm	L	В	С	Е	F	G	Н	appr. kgs
BKLK-6-8	1.12	6	150	29	24	33	11	15	21	0.7
BKLK-7/8-8	2.0	7, 8	184	37	27	35	12	17	23	1.1
BKLK-10-8	3.2	10	218	44	35	42	15	24	29	1.9
BKLK-13-8	5.4	13	277	54	41	48	19	30	38	3.8
BKLK-16-8	8.0	16	330	62	53	61	22	37	49	7.2
BKLK-18/20-8	12.5	19	367	69	59	74	26	42	56	10.8



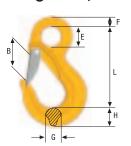
# Clevis swivel safety hook with ball bearing BKH



	WLL	For chain size		Dim. in r	mm			Weight
Code	tonnes*	mm	L	В	K	G	Н	appr. kgs
BKH-6-8	1.12	6	145	28	6.8	14	19	0.7
BKH-7/8-8	2.0	7, 8	181	36	8.8	17	23	1.2



# Sling hook, EKN with latch



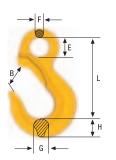
	WLL	For chain size			Dim. in mn	n			Weight
Code	tonnes*	mm	L	В	E	F	G	Н	appr. kgs
EKN-6-8	1.12	6	94	24	22	10	17	19	0.4
EKN-7/8-8	2.0	7, 8	105	28	25	11.5	17	22	0.5
EKN-10-8	3.2	10	131	37	32	13.5	20	29	0.9
EKN-13-8	5.4	13	161	42	40	17.5	27	36	1.8
EKN-16-8	8.0	16	197	52	50	22	34	44	3.4
EKN-18/20-8	12.5	18, 20	229	60	60	26	41	51	5.2
EKN-22-8	15.5	22	269	77	64	31	42	67	9.4
EKN-26-8	21.6	26	301	81	66	32	51	75	12.6
EKN-32-8	32.0	32	333	93	76	38	61	80	17.9



<sup>\*</sup> Safety factor 4:1



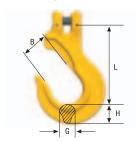
# Sling hook EK



	WLL	For chain size	Dim. in mm						
Code	tonnes*	mm	L	В	Е	F	G	Н	appr. kgs
EK-6-8	1.12	6	94	29	22	10	16	19	0.3
EK-7/8-8	2.0	7, 8	105	32	25	11.5	17	22	0.4
EK-10-8	3.2	10	131	42	32	13.5	19	28	8.0
EK-13-8	5.4	13	161	49	40	17.5	27	36	1.8
EK-16-8	8.0	16	197	60	50	22	34	44	3.2
EK-18/20-8	12.5	18/20	229	69	60	26	41	51	4.8
EK-22-8	15.5	22	267	83	64	31	42	67	8.5
EK-26-8	21.6	26	301	95	66	32	51	75	12.1
EK-32-8	32.0	32	333	105	76	38	61	80	17.3



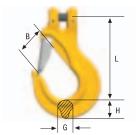
# Sling hook EGK/GK



	14/1.1	For chain size			Weight		
Code	WLL tonnes*	mm	L	В	G	Н	appr. kgs
EGK/GK-7/8-8	2.0	7, 8	95	33	17	22	0.5
EGK/GK-10-8	3.2	10	121	40	20	29	0.9
EGK/GK-13-8	5.4	13	147	48	27	36	1.9
EGK/GK-16-8	8.0	16	170	56	34	44	3.4
EGK/GK-19/20-8	12.5	19	212	73	43	51	5.8



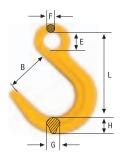
# Sling hook EGKN/GKN



	WLL	For chain size		Weight			
Code	tonnes*	mm	L	В	G	Н	appr. kgs
EGKN/GKN-7/8-8	2.0	7, 8	95	29	17	22	0.5
EGKN/GKN-10-8	3.2	10	121	34	20	29	1.0
EGKN/GKN-13-8	5.4	13	147	42	27	36	2.1
EGKN/GKN-16-8	8.0	16	170	49	34	44	3.6
EGKN/GKN-19/20-8	12.5	19	212	60	43	51	6.0



# Foundry hook OKE



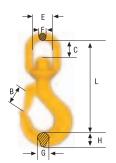
	WLL	For chain size			Dim. in mm				Weight appr.
Code	tonnes*	mm	L	В	E	F	G	Н	kgs
OKE-7/8-8	2.0	7, 8	122	63	25	11	18	26	0.6
OKE-10-8	3.2	10	150	76	32	14	25	30	1.2
OKE-13-8	5.4	13	182	90	40	18	32	38	2.3
OKE-16-8	8.0	16	215	102	50	22	40	45	3.9
OKE-18/20-8	12.5	19	247	114	60	26	46	57	6.1
OKE-26-8	21.6	26	300	113	66	38	64	73	16.4
OKE-32-8	32.0	32	384	145	80	48	77	94	35



<sup>\*</sup> Safety factor 4:1



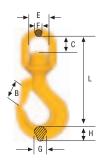
# Swivel latch hook LKN



	\A/I I	For chain size			Dim. in mm	1				Weight
Code	WLL tonnes*	mm	L	В	С	Е	F	G	Н	appr. kgs
LKN-7/8-8	2.0	7, 8	155	29	28	36	12	18	23.5	0.9
LKN-10-8	3.2	10	192	36	37	42	15	23	30	1.5
LKN-13-8	5.4	13	234	40	43	48	19	28	35	3.0
LKN-16-8	8.0	16	286	53	57	61	22	33	44	5.1



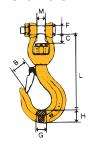
# Swivel latch hook with ball bearing LKNK



	WLL	For chain size		1	Dim. in mm	1				Weight
Code	tonnes*	mm	L	В	С	Е	F	G	Н	appr. kgs
LKNK-7/8-8	2.0	7, 8	156	29	28	35	12	18	21	0.9
LKNK-10-8	3.2	10	191	35	35	42	15	23	30	1.6
LKNK-13-8	5.4	13	234	40	43	48	19	28	35	3.1
LKNK-16-8	8.0	16	286	53	50	61	22	33	43	5.1



# **Clevis swivel hook LKNG**



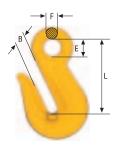
	WLL	For chain size			Dim. in mm	ı				Weight
Code	tonnes*	mm	L	В	С	F	G	Н	М	appr. kgs
LKNG-16-8	8.0	16	252	49	30	28	33	43	27	5.5



<sup>\*</sup> Safety factor 4:1



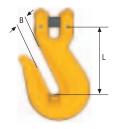
**Grab hook OG** Not for use with Berglok. No reduction of working load limit, thanks to supporting lugs on either side of hook to prevent chain link deformation.



	WLL	For chain size		Dim. in mm						
Code	tonnes*	mm	L	В	Е	F	appr. kgs			
OG-7/8-8	2.0	7, 8	65	10	16	10	0.3			
OG-10-8	3.2	10	85	12	20	12	0.6			
OG-13-8	5.4	13	104	15	25	16	1.2			
OG-16-8	8.0	16	130	19	28	19	2.4			
OG-19/20-8	12.5	19	156	22.5	36	23	4.6			
OG-22-8	15.5	22	180	25.5	42	26	6.2			



**Grab hook GG** Not for use with Berglok. No reduction of working load limit, thanks to supporting lugs which prevent chain link deformation.

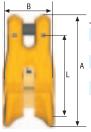


	WLL	For chain size	Dim.	in mm	Weight
Code	tonnes*	mm	L	В	appr. kgs
GG-7-8	1.5	7	56	10	0.3
GG-10-8	3.2	10	77	12	0.8
GG-13-8	5.4	13	97	15	1.5
GG-16-8	8.0	16	124	19	2.8
GG-19/20-8	12.5	19	145	22.5	4.8



# Shortening clutch GKL Can be supplied without safety latch.

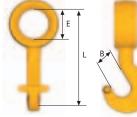


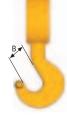


		WLL	For chain size			Dim. in mm			Weight
-	Code	tonnes*	mm	Α	В	С	D	L	appr. kgs
	GKL-6-8	1.12	6	75	34	38	15	53	0.3
	GKL-7-8	1.5	7	93	42	42	20	66	0.5
Α	GKL-8-8	2.0	8	93	42	42	20	65	0.5
	GKL-10-8	3.2	10	120	55	58	25	84	1.0
	GKL-13-8	5.4	13	151	66	74	32	103	2.4
	GKL-16-8	8.0	16	179	79	90	40	122	3.4



# Choker hook LK Use with Berglok as end component.





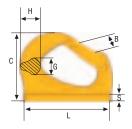
	WLL	For chain size		Dim. in mm				
Code	tonnes*	mm	L	В	E	appr. kgs		
LK-7/8-8	2.0	7, 8	96	19	32	0.3		
LK-10-8	3.2	10	120	21	42	0.8		
LK-13-8	5.4	13	150	26	52	1.8		

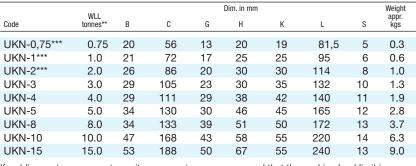


<sup>\*</sup> Safety factor 4:1



#### Universal weld-on hook UKN

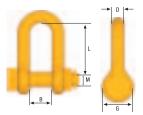






If welding on to an excavator or its accessories we recommend that the working load limit is reduced, where necessary, to meet any appropriate legislative requirements. Please contact your distributer for further information.

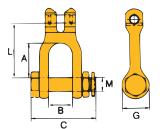
### **Shackle SA**



	<b>18/1</b> I	For WLL chain size		Dim. in mm			Weight		
Code	tonnes*	mm	L	В	D	G	М	appr. kgs	
SA-7/8-8	2.0	7, 8	30	15	8	20	10	0.1	
SA-10-8	3.2	10	52	24	13	35	16	0.4	
SA-13-8	5.4	13	65	28	16	42	20	0.7	
SA-16-8	8.0	16	72	30	18	46	22	1.0	
SA-19-8	11.5	19	86	36	22	55	27	1.8	
SA-22-8	15.5	22	94	40	25	62	30	2.5	
SA-26-8	21.6	26	116	48	32	75	39	5.2	



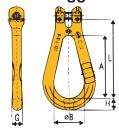
## Clevis shackle GSA



	****	For .			Dim. in mm				Weight
Code	WLL tonnes*	chain size mm	Α	В	С	G	L	М	appr. kgs
OCA 7/0 0	0.0	7 0	0.0	00	70	0.4	00	10	0.5
GSA-7/8-8	2.0	7, 8	36	32	79	34	60	16	0.5
GSA-10-8	3.2	10	48	34	93	40	80	20	0.9
GSA-13-8	5.4	13	65	50	118	44	98	22	1.7
GSA-16-8	8.0	16	70	60	141	54	114	27	3.0



# Clevis egglink CEL



	14/11	For		Dim. in n	nm			Weight
Code	WLL tonnes*	chain size mm	Α	В	G	Н	L	appr. kgs
CEL-7/8-8	2.0	7,8	80	40	14	15	100	0.4
CEL-10-8	3.2	10	100	50	18	19	126	0.7
CEL-13-8	5.4	13	130	65	23	25	162	1.5
CEL-16-8	8.0	16	157	78	28	30	197	2.6

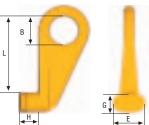


<sup>\*\*\*</sup> Welding plate slightly curved

<sup>\*</sup> Safety factor 4:1
\*\* Safety factor 5:1



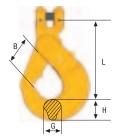
### **Container hook CH-3**



	\A/I I	Dim. in mm							
Code	WLL tonnes*	L	В	Н	F	G	Е	appr. kgs	
CH-3	12.5	192	70	46	25	47	75	4.0	
CH-3 Turned 45° left	12.5								
CH-3 Turned 45° right	12.5								



# Container hook, BKGC

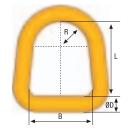


		For		Dim. in	mm		Weight
Code	WLL tonnes*	chain size mm	L	В	G	Н	appr. kgs
BKGC-13-8	5.4	13	164	49	27	43	3.2
BKGC-16-8	8.0	16	160	49	27	43	3.4

(Spare part: RDOBK-16 to both sizes)



### **Master link D**

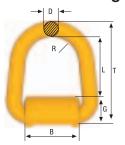


	Dim. in mm WLL						
Code	tonnes**	В	D	L	R	appr. kgs	
D-14-8	2.5	55	14	65	24	0.3	
D-17-8	4.0	64	17	62	29	0.5	
D-22-8	8.0	76	22	90	33	1.0	

\*\* The loadbearing width must be at least 0.5 X B



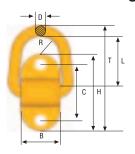
# Weldable lifting point WLP Can be supplied with or without spring for stay up function.



	WLL		Dim. in mm							
Code	tonnes*	В	D	G	L	R	T	appr. kgs		
WLP-1T	1.0	50	14	27	53	24	95	0.5		
WLP-3T	3.0	58	17	34	48	29	97	0.9		
WLP-5T	5.0	64	22	41	73	33	135	1.7		



# **Screw-on Lifting Point SLP**



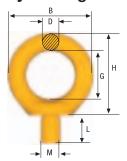
	WLL				Dim. in mm	1				Weight
Code	tonnes*	В	С	D	Н	L	М	T	R	appr. kgs
SLP-1T	1.0	50	72	14	98	55	M14	139	24	0.9
SLP-3T	3.0	58	84	17	114	50	M16	144	29	1.4
SLP-5T	5.0	64	116	22	160	74	M20	203	33	2.9



\* Safety factor 4:1 23



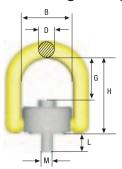
### **Eye Lifting Point ELP**



	WLL				Dim. in mm			weight
Code	tonnes*	В	D	G	Н	L	M	appr. kgs
ELP-M16-8	1.0**	72	16	42	56	24	M16	0.4
ELP-M20-8	1.5**	72	16	42	58	30	M20	0.5
ELP-M24-8	2.0**	88	19	48	69	36	M24	0.9
ELP-M30-8	3.0**	106	22	60	84	45	M30	1.4
ELP-M36-8	4.0**	127	26	72	100	54	M36	2.3



### **Rotating Lifting Point RLP, Grade 10**





	WLL			Dim in mm				Weight appr.
Code	tonnes*	В	D	G	Н	L <sup>1</sup> /L <sup>2</sup>	M	kgs
RLP-M8-10	0.3***	42	12	35	60	15/26	M8	0.3
RLP-M10-10	0.5***	42	12	34	60	20/31	M10	0.3
RLP-M12-10	0.75***	57	19	46.5	85	19/40	M12	0.9
RLP-M16-10	1.5***	57	19	44	85	24/50	M16	0.9
RLP-M20-10	2.5***	83	28	56	111	32/67	M20	2.8
RLP-M24-10	3.5***	83	28	53	111	37/77	M24	2.8
RLP-M30-10	6.0	114	34	69.5	144	49.5	M30	7.0
RLP-M36-10	8.0	114	34	65.5	144	61	M36	7.3
RLP-M42-10	14.0	149	40.4	90	185	65,5	M42	14.0
RLP-M48-10	16.0	149	40.4	86	185	75.5	M48	14.9



<sup>\*\*\*</sup> 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.

Note: Threaded depths need to be at least 1xM for steel, 1,25xM for cast iron and 2xM for aluminium alloy.

The patented new design of the RLP makes it suitable also in applications where a conventional Lifting point would not be fully adequate. Intended to be used as a Lifting point, Lashing point or Towing attachment.

- Dismountable open D-ring. Enables assembly of roundsling, master link, link or hook directly onto the RLP.
- Hexagon-headed screw for easy assembly/disassembly by means of an ordinary wrench.
- RLP can rotate 360° and articulate 180°.
- Forged in Grade 10 material permits highter WLL than Grade 8 and DIN 580 eyebolts.

#### **Working Load Limits (tonnes)**

	ė	_	Ļ		1	1	A	
No. of legs	1	1	2	2	2 symr	netric	3 and 4 s	ymmetric
	0°	90°	0°	90°	0-45°	45-60°	0-45°	45-60°
Load factor		1		2	1,4	1	2,1	1,5
Product code: RLP-M 8-10	0,60	0,30	1,20	0,60	0,42	0,30	0,63	0,45
RLP-M10-10	1,00	0,50	2,00	1,00	0,70	0,50	1,05	0,75
RLP-M12-10	1,50	0,75	3,00	1,50	1,00	0,75	1,60	1,13
RLP-M16-10	3,00	1,50	6,00	3,00	2,10	1,50	3,15	2,35
RLP-M20-10	5,00	2,50	10,00	5,00	3,50	2,50	5,25	3,75
RLP-M24-10	7,00	3,50	14,00	7,00	4,90	3,50	7,35	5,25
RLP-M30-10	12,00	6,00	24,00	12,00	8,40	6,00	12,60	9,00
RLP-M36-10	14,00	8,00	28,00	16,00	11,20	8,00	16,80	12,00
RLP-M42-10	16,00	14,00	32,00	28,00	19,60	14,00	29,40	21,00
RLP-M48-10	20,00	16,00	40,00	32,00	22,40	16,00	33,60	24,00

<sup>\*</sup> Safety factor 4:1

<sup>\*\*</sup> In case of 1-leg application where loading is limited to straightloading in the direction of thread (no bending force) it is possible to use ELP with four times higher WLL than given in the table.
Note: Threaded depths need to be at least 1xM for steel, 1,25xM for cast iron and 2xM for aluminium alloy.

# - CHAIN & COMPONENTS -



Photo: Courtery of the National Science Foundation, USA



Photo: The harbour of Västerås, Sweden





Photo: The SK-system in action



# The SK System

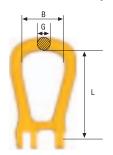
A range of specialised Grade 8 alloy steel components for safe and easy assembly to chain, steel wire rope, webbing and roundslings, designed to solve your below-the-hook problems.

The SK System provides:

- Universal coupling of components to chain, wire and synthetic slings.
- Quick and simple assembly only a hammer needed.
- Foolproof assembly standardised dimensions within each size range effectively eliminates the

- wrong assembly of components with different safe working loads.
- Heavy hoisting with strong yet lightweight equipment – all components are manufactured from alloy steel for use with Grade 8 chain.
- Individual components are proof-load tested to 62,5% of min. breaking load.
- Official approval by the main national and international authorities, including MOD, NATO, BG and many others.

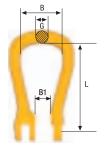
#### Master link (closed) SKG



	\A/I I	For chain size		Dim. in n	nm	Weight
Code	WLL tonnes*	mm	L	В	G	appr. kgs
SKG-7/8-8	2.0	7, 8	99	50	14	0.3
SKG-10-8	3.2	10	127	66	18	0.6
SKG-13-8	5.4	13	145	72	22	1.1
SKG-16-8	8.0	16	175	82	25	1.7
SKG-18/20-8	12.5	19	204	105	30	2.8



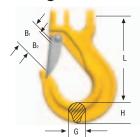
### Master link (open) SKO



14/1	For		Dim. in	mm		Weight
tonnes*	mm	L	В	G	B1	appr. kgs
2.0	7, 8	99	50	14	15	0.3
3.2	10	127	66	18	20	0.6
5.4	13	145	72	22	25	1.0
8.0	16	175	82	25	30	1.6
3 12.5	19	204	105	30	36	2.6
	2.0 3.2 5.4 8.0	WLL tonnes*         chain size mm           2.0         7, 8           3.2         10           5.4         13           8.0         16	WLL tonnes*         chain size mim         L           2.0         7, 8         99           3.2         10         127           5.4         13         145           8.0         16         175	WLL tonnes*         chain size mm         L         B           2.0         7, 8         99         50           3.2         10         127         66           5.4         13         145         72           8.0         16         175         82	WLL tonnes*         chain size mim         L         B         G           2.0         7, 8         99         50         14           3.2         10         127         66         18           5.4         13         145         72         22           8.0         16         175         82         25	WLL tonnes*         chain size mm         L         B         G         B1           2.0         7, 8         99         50         14         15           3.2         10         127         66         18         20           5.4         13         145         72         22         25           8.0         16         175         82         25         30



### Sling hook with latch, ESKN/SKN, without latch, ESKH/SKH



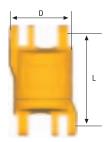
	WLL	For chain size		Dim	. in mm			Weight
Code	tonnes*	mm	L	B1	B2	G	Н	appr. kgs
SKN-7/8-8	2.0	7, 8	90	32	27	18	21	0.4
SKN-10-8	3.2	10	115	40	34	23	29	0.9
SKN-13-8	5.4	13	141	48	42	28	36	1.8
ESKN/SKN-16-8	8.0	16	181	54	62	34	43	3.4
ESKN/SKN-18/20-8	12.5	19	197	59	67	41	51	5.0



<sup>\*</sup> Safety factor 4:1



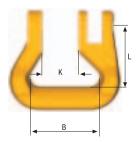
**Roller-bearing swivel SKLI** Electrically insulated, lubricated, sealed rollerbearing swivel. Fully rotational even at maximum load. Tested to resist 1000 V. Suitable for protection of overhead cranes during welding operations on suspended loads.



	<b>M</b> (1.1	For Dim. in mm		mm	Weight	
Code	WLL tonnes*	chain size mm	L	D	appr. kgs	
SKLI-7/8-8	2.0	7, 8	75	48	0.7	
SKLI-10-8	3.2	10	96	59	1.4	
SKLI-13-8	5.4	13	120	75	2.9	
SKLI-16-8	8.0	16	137	90	4.9	
SKLI-18/20-8	12.5	19	159	104	7.2	



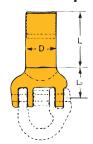
### Roundsling coupling SKR Special shape for full W.L.L. of the roundsling.



	WLL		Dim. in mm				
Code	tonnes*	L	В	К	appr. kgs		
SKR-7/8-8	2.0	35	40	18	0.2		
SKR-10-8	3.2	42	47	24	0.4		
SKR-13-8	5.4	50	53	29	0.7		
SKR-16-8	8.0	62	67	35	1.2		
SKR-18/20-8	12.5	71	80	43	1.9		
SKR-22-8	15.5	111	125	50	5.3		
SKR-26-8	21.6	129	150	58	9.0		



# **Shank coupling SKS** Supplied unmachined as standard. Can be machined to customer requirements.

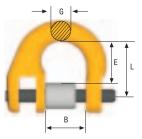


Code	WILL	For WLL chain size onnes* mm	Dim. in mm				Weight
	tonnes*		L	L2	D	d min	appr. kgs
SKS-7/8-8	2.0	7, 8	70	27	30	13	0.5
SKS-10-8	3.2	10	85	34	36	16	0.9
SKS-13-8	5.4	13	100	43	42	20	1.4
SKS-16-8	8.0	16	112	52	50	25	2.5
SKS-18/20-8	12.5	19	88	55	72	30	4.7



d min = The smallest shank dimension after machining. **Note!** After machining of the shank, proof loading must be carried out.

### Half link SKT (incl. locking set).



Code	14/1	For	Dim. in mm				Weight
	WLL tonnes*	chain size mm	L	В	G	E	appr. kgs
SKT-7/8-8	2.0	7,8	28	18	9	22	0.1
SKT-10-8	3.2	10	34	25	12	26	0.2
SKT-13-8	5.4	13	44	29	15	33	0.4
SKT-16-8	8.0	16	52	36	19	40	0.7
SKT-18/20-8	12.5	19	63	43	22	48	1.1
SKT-22-8	15.5	22	76	50	24	60	1.7
SKT-26-8	21.6	26	80	58	29	61	2.6
SKT-32-8	32.0	32	100	70	36	78	4.9



<sup>\*</sup> Safety factor 4:1



# **Spare Parts**

**SKA** locking set for Coupling links G, consists of load pin and bush.



Size: SKA 6-8 – SKA 32-8

**BLA**, set for Berglok and Clevis type connections.

Consists of one load pin and two retaining pins.



Size: BLA 6-8 – BLA 19-8

Note: Special spare part set for GKL 7-8

**RDBK**, set for BK Safety hooks consists of latch, stainless steel spring, retaining pin and assembly kit.



Size: RDBK 6-8 – RDBK 28-8

**RDOBK,** set for OBK Safety hooks consists of latch, stainless steel spring, retaining pin and assembly kit.



Size: RDOBK 6-8 – RDOBK 22-8

Tool kit for replacement BK-trigger set. Tool kit in a plastic box, suit BK and OBK hooks, sizes 6 mm–16 mm.



**RDEKN,** set consists of latch, stainless steel spring and rivet.



Fits: EKN 6-8 – EKN 32-8 LKN 7/8-8 – LKN 16-8 EGKN 6-8 – EGKN 19/20-8 RH 1 – RH 5 ESKN 16 – ESKN 18/20

**RDSKN/LKN/OKN,** set consists of latch, stainless steel spring and rivet.



Fits: SKN 7/8-8 – SKN 18/20-8 LKN 7/8-8 – LKN 16-8 (old) OKN 16 – OKN 22

**RDGKN/OKN,** set consists of latch, stainless steel spring and rivet.



Fits: GKN 7/8-8 – GKN 16-8 OKN 6-8 – OKN 13-8

**RDUKN** msp, consists of forged latch, pin, stainless steel spring and retaining pin.

**RDUKN** usp, consists of pin, stainless steel spring and retaining pin.

Fits UKN 0,75 - UKN 15

RDRLP, set consists of bolt and metal clip.

Fits: RLP M8-10 - RLP M48-10

**RDGKL,** set consists of latch, stainless steel spring and retaining pin.

Fits: GKL 6-8 - GKL 16-8

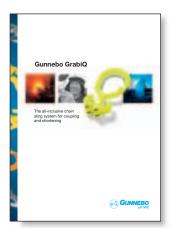
**RDSKLI,** set for roller bearing swivel SKLI, consists of spring pin, sealing, lower insulating bush, screws, labels and user instructions.

Fits: SKLI-7/8-8 - SKLI-18/20-8

ID-tags, in stainless steel.



# Gunnebo GrabiQ

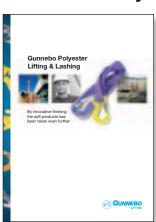


With the GrabiQ programme, Gunnebo has taken considerable innovative steps to bring products with added value to the market. Gunnebo provide future technology today and GrabiQ means for example:

- 25 % additional strength in grade 10, making chain slings lighter.
- All top assemblies consist of three components at the most.
- Shortening function of chain legs is built-in with no extra components.

The GrabiQ programme demonstrates the Gunnebo commitment to the safety of life and property.

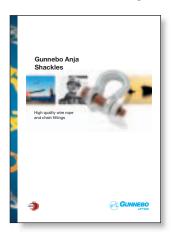
# **Gunnebo Polyester Lifting & Lashing**



Gunnebo Industrier, the world's leading manufacturer of complete lifting systems, introduces its new and complete range of integrated soft lifting and lashing systems. Our quality is highly regarded throughout the world and is fundamental to Gunnebo's continuous development.

Our state of the art factory at Junsele, dedicated to the production of our soft products, is accredited with EN ISO 9001:2000. This is consistent with the Gunnebo Group's policy of producing high quality goods and its dedication to the safety of persons and property.

# Gunnebo Anja



At our plant near Bergen, on the West Coast of Norway, Gunnebo ANJA, a company established in 1918, has become the leading Scandinavian producer of forged shackles and rigging screws. Our shackles are manufactured to U.S. Fed. specifications and we also have a range of commercial shackles.

The products are made from a range of steel qualities including stainless acid proof steel and high-grade alloy steel, to comply with the most stringent specifications.

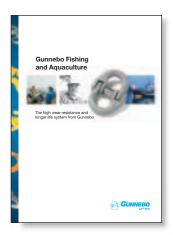
The plant contains all facilities and systems for the manufacture and control of top quality products. This includes tool design, an advanced tool shop, forging, heat treatments, machining, hot dip galvanising and quality control.

As a proof of our consistent work to maintain the high standard of quality demanded by the market the company is certified in accordance with ISO 9001:2000.

Our other main products are general forging, eyebolts and wooden blocks and in order to satisfy our customers' complete requirements we endeavour to maintain an adequate stock level at our modern automated warehouse, to provide fast and efficient service.



# **Gunnebo Fishing**



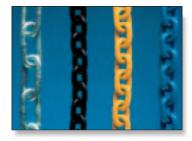
Gunnebo has many years of experience in supplying products to the fishing and aquaculture markets, and our reputation for quality and expertise in this area is unsurpassed.

Gunnebo fishing chain and components are made from quenched and tempered high tensile steel, a guarantee for very high strength, low weight, high wear resistance and longer life.

Normally the chain and components are delivered yellow painted but if extra corrosion resitance is required in marine environments, hot dipped galvanised chain and components can be supplied. Hot dip galvanising reduces strength of the products by approximately 20 % but the lifetime of the product is greatly increased. This reduces servicing, change-out times and increases productivity.

If further resistance against corrosion is required we would recommend the use of Gunnebo Stainproof products. This material is a unique stainless steel with virtually no corrosion properties and the strength of Grade 8 material. Experience shows that Stainproof products have up to 10 times the life in seawater than standard high tensile steel. This means that using Stainproof components increases productivity even more.

# **Gunnebo Chain**



Gunnebo started manufacture chain in 1856 and in the 1920s with the first electric welding machines in Scandinavia. Since that time Gunnebo has remained at the forefront of chain manufacturing technology which is produced for a wide range of applications. Grade 8+ (grade 100 US standard) is the new addition to our range.

Grade 8 is major part of our production and is used in the lifting, fishing, aquaculture and forestry markets. Lower grades of chain are manufactured for general purpose and lifting in hot environments.

We also supply stainless steel chain and hot dipped galvanised chain. Another speciality is security chain which is case hardened and supplied in a variety of profiles such as round and square sections.

Whatever the application, Gunnebo has the chain solution, manufactured to our normal high standards and all tested before dispatch. Our commitment to safety is absolute.



# **Examples of** chain sling connections







#### Code With G-link With Berglok

3-G-OBK 3-BL-OBK

4-BL-OBK

#### Code

Code With G-link

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