

Gunnebo Polyester Lifting & Lashing



By innovative thinking
the soft products has
been taken even further



GUNNEBO
LIFTING

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 continual development.

Gunnebo started its production in 1764 and is today an internationally fast growing security group with 106 companies located in 32 countries. The Group has sales to a further hundred markets via agents and distributors.

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

Safe Lifting – Every time

Lifting operations call for a very high level of safety. The lifting equipment and the way it is used are crucial to your safety on site. To guarantee a high level of quality Gunnebo has its own factory for soft products in Sweden. By making webbing out of 100 % polyester in our own weaving mill we have a systematic quality control at every manufacturing stage from raw material to the finished product. In that you can trust!



Warning

Failure to read, understand and comply with the following instruction, working load limits and specifications in this publication could result in serious injury or damage to property.

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Innovative Thinking

There are many things to take into consideration when choosing the right equipment for a lifting situation. These are the properties you should keep in mind for soft lifting equipment:

- Light and easy to handle.
- Simple and inexpensive.
- Suitable for fragile goods.
- Flexible and suitable for choke-hitching load.
- Easy identification of maximal load by colour.

Gunnebo has by innovative thinking taken the soft products even further by, for example, adding the following:

Protected label

The Polyester sleeve protects the label and keeps it legible, which is a unique feature from Gunnebo.



The Polyester sleeve protects the label.

The label displayed.

Improved package

Many of the roundslings and webbing slings are nowadays packed in plastic bags with the manufacturer's certificate, user instruction and with bar code.



Improved package

Quality

Quality will always be of the highest importance to Gunnebo, and everything we do is in line with the strong dedication on safety for persons and property in the Gunnebo group. The soft products are certainly not an exception to that. To be accredited with EN ISO 9001:2000 and manufacture according to the recognised standards is a matter of course for Gunnebo!



Certified production in our own factory in Junsele, Sweden.

Production

We make webbing out of 100 % polyester in our own weaving mill, which means that we can have a systematic quality control at every manufacturing stage from raw material to the finished product. That is a guarantee for a high level of safety and long life of the products!

Material

Gunnebo's soft lifting products are made entirely of polyester and the raw-material (e.g. polyester yarn) is supplied from carefully chosen producers that meet our exacting demands. Polyester should not be confused with polypropylene since there are several differences:

- Polyester resists friction and wear much better than polypropylene.
- Polyester is stronger if you have the same volume of each material.
- The melting point for polyester is 260°C whilst it is 165°C for polypropylene.
- Polyester lifting products must not be used with loads above 100°C. The corresponding heat for polypropylene is 80°C.
- Lifting equipment in polyester has a blue ID tag and lifting equipment in polypropylene has a brown ID tag.

**When it comes to quality we leave nothing to chance.
That is something you can rely on.**

GUNNEBO POLYESTER LIFTING

Gunnebo Roundsling Single (GRS)

Roundslings with seamless single cover and protected label.

According to European Standard EN1492-2

Safety factor 7:1.

Made of 100 % polyester

Type	WLL (tonnes)	L1 min (M)	Weight per meter L1 (kg) approx	Rec. min contact diameter bolt (mm)	Rec. min contact width (mm)
GRS	1 T	0,5	0,34	23	35
GRS	2 T	0,5	0,40	32	40
GRS	3 T	0,5	0,62	35	47
GRS	4 T	1,0	0,80	38	50
GRS	5 T	1,0	1,00	42	53
GRS	6 T	1,5	1,15	46	60
GRS	8 T	1,5	1,52	50	67
GRS	10 T	1,5	1,94	56	75
GRS	12 T	1,5	2,44	58	80

L1 = effective length.

Sizes 1-3 T 0,5-6 M, 5 T 1-5M and 8 T 2-6 M are packed in a plastic bag with manufacture certificate, bar code and user instructions.

Gunnebo Roundsling Double (GRD)

Roundslings with sideseam, double cover

According to European Standard EN1492-2

Safety factor 7:1

Made of 100 % polyester

Type	WLL (tonnes)	L1 min (M)	Weight per meter L1 (kg) approx	Rec. Min contact diameter bolt (mm)	Rec. Min contact width (mm)
GRD	1 T	0,2	0,36	23	35
GRD	2 T	0,2	0,50	32	40
GRD	3 T	0,2	0,70	35	47
GRD	5 T	0,2	1,04	42	53
GRD	8 T	0,2	1,72	50	67
GRD	10 T	0,3	2,12	56	75
GRD	12 T	0,3	2,60	58	80
GRD	15 T	0,3	3,38	70	96
GRD	20 T	0,4	5,00	78	104
GRD	25 T	0,4	6,40	84	112
GRD	30 T	0,4	7,70	90	120
GRD	40 T	0,4	10,80	102	136
GRD	50 T	0,5	15,00	120	160

L1 = effective length.





Gunnebo Sling Strop (GSS)

Roundsling strops for connecting with Gunnebo SK-system

According to European Standard EN 1492-2

Safety factor 7:1.

Made of 100 % polyester

Type	WLL (tonnes)	Diameter (mm) approx	L1 min (M)	Weight per meter L1 (kg) approx
GSS	1 T	25	0,5	0,47
GSS	2 T	34	0,5	0,61
GSS	3 T	37	0,5	0,81

L1 = effective length

Other sizes can be produced upon request.



Gunnebo Webbing Sling (GWS)

Flat webbing slings with eyes

According to European Standard EN 1492-1

Safety factor 7:1.

Made of 100 % polyester

Type	WLL (tonnes)	Width (mm)	L1 min (M)	Width of eye (mm)	Weight per meter L1 (kg) approx
GWS	1 T	30	0,4	30	0,17
GWS	2 T	60	0,65	35	0,36
GWS	3 T	90	0,9	45	0,56
GWS	4 T	120	1,3	65	0,74
GWS	5 T	150	1,5	80	0,93
GWS	6 T	180	1,6	95	1,12
GWS	8 T	240	1,85	125	1,65
GWS	10T	180	1,6	180	2,20
GWS	12T	180	1,6	180	2,20
GWS	15T	240	1,85	240	3,26

L1 = effective length

Other sizes can be produced upon request.

Sizes 1-4 ton are packed in a plastic bag with manufacture certificate, bar code and user instruction.



The inside length of eye is according to the European standard:

- A minimum of three times the width of the sling for widths up to 150 mm
- A minimum of two and a half times the width of the sling for widths over 150 mm

GUNNEBO POLYESTER LIFTING



Gunnebo Webbing Sling - Endless (GWE)

Flat webbing endless sling

According to European Standard EN 1492-1

Safety factor 7:1.

Made of 100 % polyester

Type	WLL (tonnes)	Width (mm)	L1 min (M)	Weight per meter L1 (kg) approx
GWE	1 T	30	0,2	0,18
GWE	2 T	60	0,3	0,40
GWE	3 T	90	0,35	0,59
GWE	4 T	120	0,45	0,80

L1 = effective length

Other sizes can be produced upon request



Gunnebo Protective Sleeve (GPS)

Protective sleeve made of polyester for fitting on roundslings. Velcrotape for easier attachment, no sewing necessary. Other types and lengths of protective sleeving can be produced on request.

Type	For roundsling	Length (mm)	Weight/ea (kg) approx
GPS	1 – 3 ton	500	0,10
GPS	1 – 3 ton	1000	0,20
GPS	4 – 8 ton	500	0,20
GPS	4 – 8 ton	1000	0,40



Polyurethane protective sleeves

Protective sleeves made of polyurethane for roundslings and flat webbing slings can be supplied upon request.



Lifting Net (Helicopter). Can be supplied on request.

Gunnebo Lifting Net (Helicopter)

Square Net

WLL (kg)	Size (m)	Mesh (mm)	Weight (kg)
3500	3,0 x 3,0	175 x 175	12,0
3500	4,0 x 4,0	175 x 175	17,0
3500	5,0 x 5,0	175 x 175	23,0

Octagon net

WLL (kg)	Size (m)	Mesh (mm)	Weight (kg)
4000	3,0 x 3,0	150 x 150	11,0
4000	4,0 x 4,0	150 x 150	18,5
4000	5,0 x 5,0	150 x 150	29,0



Roundslings connected with RH-hooks.

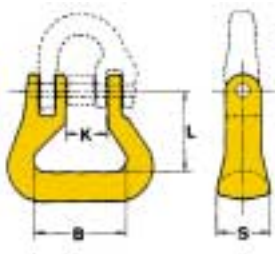
Roundslings for heavy lifting

Roundslings for load up to 100 Tonnes can be supplied on request. Produced of aramide fibre (Kevlar) and high performance polyethylene (HPPE) in the core and with a cover of polyester.

Advantages compared to Roundslings of polyester or polypropylene;

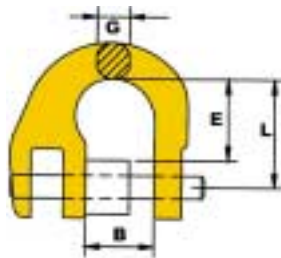
- 50% lower weight with corresponding working load limit.
- Requires less space on lifting shanks and on other lifting points.
- Since the product requires less material for the same WLL, it take up less place in stock and during transports.

GUNNEBO LIFTING COMPONENTS



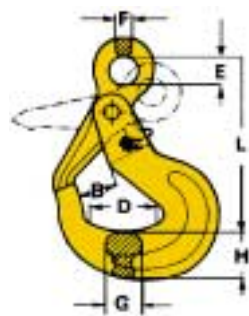
Roundsling coupling, SKR
Shaped for maximum roundsling strength.

Code	WLL (tonnes*)	Measurements (mm)				Weight (approx.) (kgs)
		L	B	K	S	
SKR-7/8-8	2,0	35	40	18	24	0,2
SKR-10-8	3,15	42	47	24	29	0,4
SKR-13-8	5,3	50	53	29	35	0,7
SKR-16-8	8,0	62	67	35	43	1,2
SKR-18/20-8	12,5	71	80	43	52	1,9
SKR-22-8	15,0	110	125	50	70	5,3
SKR-26-8	21,2	130	150	58	86	9,0



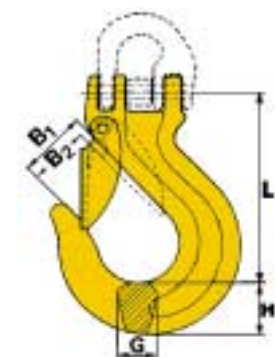
Half link, SKT (incl. locking set)

Code	WLL (tonnes*)	Chain dim. (mm)	Measurements (mm)				Weight (approx.) (kgs)
			L	B	G	E	
SKT-7/8-8	2,0	7,8	28	18	9	22	0,1
SKT-10-8	3,15	10	34	25	12	26	0,2
SKT-13-8	5,3	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	15,0	22	75	49	24	59	1,7
SKT-26-8	21,2	26	80	58	29	61	2,6



Safety hook for web sling, BKB

Code	WLL (tonnes*)	Chain dim. (mm)	Measurements (mm)						Weight (approx.) (kgs)	
			L	B	D	E	F	G		H
BKB-10-8	3,15	10	170	38	72	32	13	32	42	2,4



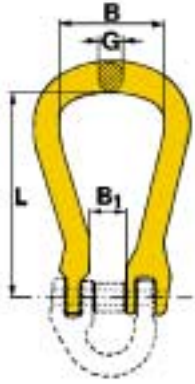
Sling hook, SKN with latch

Code	WLL (tonnes*)	Chain dim. (mm)	Measurements (mm)					Weight (approx.) (kgs)
			L	B1	B2	G	H	
SKN-7/8-8	2,0	7,8	90	32	27	18	21	0,4
SKN-10-8	3,15	10	115	40	34	23	29	0,9
SKN-13-8	5,3	13	141	48	42	28	36	1,8
SKN-16-8	8,0	16	165	56	49	33	43	3,2
SKN-18/20-8	12,5	19	189	66	59	42	50	5,1



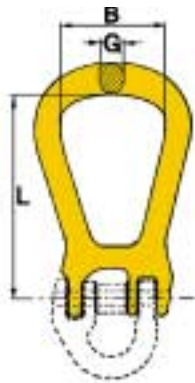
* Safety factor 4:1

GUNNEBO LIFTING COMPONENTS



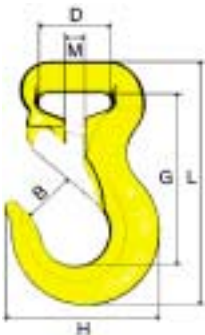
Master link, open, SKO

Code	WLL (tonnes*)	Chain dim. (mm)	Measurements (mm)				Weight (approx.) (kgs)
			L	B	G	B1	
SKO-7/8-8	2,0	7,8	99	50	14	15	0,3
SKO-10-8	3,15	10	127	66	18	20	0,6
SKO-13-8	5,3	13	145	72	22	25	1,0
SKO-16-8	8,0	16	175	82	25	30	1,6
SKO-18/20-8	12,5	19	204	105	30	36	2,6



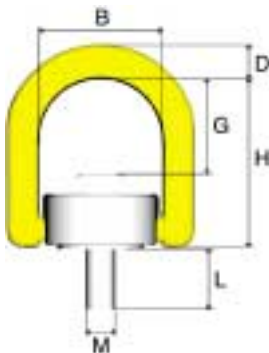
Master link, closed, SKG

Code	WLL (tonnes*)	Chain dim. (mm)	Measurements (mm)			Weight (approx.) (kgs)
			L	B	G	
SKG-7/8-8	2,0	7,8	99	50	14	0,3
SKG-10-8	3,15	10	127	66	18	0,6
SKG-13-8	5,3	13	145	72	22	1,0
SKG-16-8	8,0	16	175	82	25	1,7
SKG-18/20-8	12,5	19	204	105	30	2,8



Roundslings hook, RH

Code	WLL (tonnes*)	Measurements (mm)						Weight (approx.) (kgs)
		B	D	G	H	L	M	
RH-1-8+	1,0	24,0	35	84	73	116	8	0,4
RH-2-8+	2,0	28,3	40	96	86	137	10	0,7
RH-3-8+	3,0	33,6	47	117	108	168	12	1,4
RH-5-8+	5,0	43,3	73	155	131	222	16,5	3,2



Rotating Lifting Point, RLP

Code	WLL (tonnes*)	Measurements (mm)						Weight (approx.) (kgs)
		B	D	G	H	L1/L2	M	
RLP-M8-8+	0,3**	42	12	35	60	15/26	M8	0,3
RLP-M10-8+	0,5**	42	12	34	60	20/31	M10	0,3
RLP-M12-8+	0,75**	57	19	46,5	85	19/40	M12	0,9
RLP-M16-8+	1,5**	57	19	44	85	24/50	M16	0,9
RLP-M20-8+	2,5**	83	28	56	111	32/67	M20	2,8
RLP-M24-8+	3,5**	83	28	53	111	37/77	M24	2,8



L1 standard
L2 can be supplied on special request

* Safety factor 4:1

** 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.

GUNNEBO POLYESTER WEBBING

Webbing

Gunnebo is one of Sweden's largest producers of polyester webbing. The manufacturing in our weaving mill is subject to constant inspection both manually and automatically, e.g. strength testing in our laboratory.

Properties of polyester fibre:

Physical properties

Moisture absorption: approx. 0.4%
at 20°C and 65% humidity.

Specific weight: 1.38.

Melting point: approx. 260°C
(working temperature max 100°C)

Sensitivity to

low temperatures: No effect down to -40°C.

Ageing: Not significant under normal
circumstances.

Shrinking can occur at high temperatures.

Chemical properties

Polyester offers good resistance to most acids provided the concentration does not exceed 50%.

Examples of the properties of polyester fibre

Resistance to various acids

Acid	Concentration	Temp.	Exposure	Strength derating (approx.) (%)
Acetic acid	Crystalline	80°C	72 h	5
Formic acid	90%	80°C	72 h	10
Oxalic acid	Saturated solution	80°C	72 h	15
Hydrofluoric acid	40%	25°C	1 week	0
Hydrobromic acid	40%	30°C	4 weeks	5
Bromic acid	15%	30°C	4 weeks	20
Phosphoric acid	98%	70°C	5 weeks	45
Phosphoric acid	50%	70°C	5 weeks	15
Uric acid	Saturated solution	70°C	4 months	0
Hydrocyanic acid	Moist gas	22°C	4 months	0

The tensile strength of polyester can be affected by alkalis, depending on temperature and time. At low concentrations and normal temperatures, resistance is good. However, polyester webbing should not be used in the presence of alkalis.

Note: Above table only valid as a guideline.



Standard colour	Width mm	Breaking strength	Description kp
	25	650	25/05
	26	1900	26/16
	30	4300	30/35
	35	1850	35/16
	35	3000	35/25
	50	2300	50/21
	50	4800	50/41
	50	6000	50/50
	60	7800	60/70
	75	11500	75/105
	90	11500	90/105
	120	15000	120/140
	150	20000	150/175
	180	25500	180/210
	240	30000	240/280

All webbings can be supplied in white colour.

GUNNEBO POLYESTER LASHING



WLG 10 T

Gunnebo lashing system, 75 mm

Type	Lashing capacity (tonnes)	Lashing strength (tonnes)	Short part L=	Long part L=
WLG 10T	10	20	0,5 M	3,5 M
WLG 10T	10	20	0,5 M	9,5 M

Standard fitting: wirehook 75 mm.
Lashings with other fittings can be produced upon request, see page 15.



WLE (Ergo) 5 T

Gunnebo lashing system, 50 mm

Type	Lashing capacity (tonnes)	Lashing strength (tonnes)	Short part L=	Long part L=
WLE 5T	5	10	0,5 M	9,5 M
WLG 5T	5	10	0,5 M	9,5 M
WLS 3T	3	6	0,5 M	9,5 M
WLG 4T	4	8	0,5 M	7,5 M
WLG 4T	4	8	0,5 M	9,5 M

Standard fitting: wirehook 50mm.
Standard fitting WLS: stainless wirehook with latch.
Lashings with other fittings can be produced upon request, see page 15.



WLG 5 T



WLS (stainless) 3 T



WLG 4 T

GUNNEBO POLYESTER LASHING



WLG 2T

Gunnebo lashing system, 50 mm

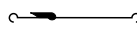

Acc. to European standard EN 12195-2

LC=lashing capacity: Maximum direct tensile force that a lashing device can withstand when in use.

Safety factor: 2:1 complete system and metal parts
3:1 non-sewn polyester webbing

Elongation: Maximum 7 % when polyester webbing subjected to the LC.

Marking: Traceability code similar to lifting products. A protected label ensures traceability at all circumstances.

Type	Lashing capacity (tonnes)* 	Lashing strength (tonnes)* 	Short part L=	Long part L=
WLG 2T	2	4	0,5 M	9,5M
WLG 2T	2	4	0,5 M	7,5M

Standard fitting wirehook.

Lashings with other fittings can be produced upon request, see page 14.

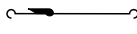

Actual STF = 350 da N at SHF = 50 da N.

* 1 ton equivalent to 1000daN.



WLG 2,5T

Gunnebo lashing system, 25-35 mm

Type	Lashing capacity (tonnes) 	Lashing strength (tonnes) 	Width (mm)	Short part L=	Long part L=
WLG 2,5T	2,5	5,0	35	0,5 M	4,5 M
WLG 2,5T	2,5	5,0	35	0,5 M	5,5 M
WLG 1,5T	1,5	3,0	25	0,4 M	3,6 M
WLG 1,5T	1,5	3,0	25	0,5 M	4,5 M
WLG 0,5T	0,5	1,0	25	0,4 M	3,6 M
WLG 0,5T	0,5	1,0	25	0,5 M	4,5 M

Standard fitting wirehook.

25-35 mm lashings are packed in plastic bag with bar code marking.



WLG 1,5T



WLG 0,5T

GUNNEBO POLYESTER LASHING



Gunnebo lashing systems ONEWAY 50 mm

1. Polyester webbing, breaking strength 2300 kp, white. Packed in sack 250 M each.
2. Oneway buckle 50 mm, breaking strength 1700 kp, yellow chromated. Packed in carton 125 pcs each.
3. Plastic corner pads, yellow.
4. Threadable wirehook 50 mm, breaking strength 4000 kp, yellow chromated.
5. Tensioning tool.
6. Ratchet tensioner with short part 0,5 M.
7. Ratchet tensioner with short part 1,0 M.



Gunnebo lashing strap 25 mm CAMBUCKLE





Type	Breaking strength	Endless L=
WLC 0,25T	250 kp	1 M
WLC 0,25T	250 kp	2 M
WLC 0,25T	250 kp	3 M
WLC 0,25T	250 kp	4 M
WLC 0,25T	250 kp	5 M

Straps are packed 2 pcs in each plastic bag with bar code marking.



Gunnebo lashing strap 25 mm ALLPACK

Lashing strap for home and private use, each carton contains 40 lashing belts:

-  10 pcs X length 0,5 M. Load capacity 280 kp.
-  10 pcs X length 1,0 M. Load capacity 280 kp.
-  10 pcs X length 2,0 M. Load capacity 280 kp.
-  10 pcs X length 3,0 M. Load capacity 340 kp.

All straps and also carton are marked with bar code.

GUNNEBO LASHING COMPONENTS

Index

A = min. breaking strength(kp)
 B = inside width (mm)
 D = thickness (mm)
 L = total length(mm)
 W = weight (kg)

**WLG 10T-ratchet, 75mm
M270000**



A = 10000
 B = 77
 L = 312
 W = 2,735

**WLG 5T-ratchet, 50 mm
M134000**



A = 5000
 B = 52
 L = 233
 W = 0,926

**WLE 5T-ratchet, ERGO, 50 mm
M234000**



A = 5000
 B = 53
 L = 290,5
 W = 1,500

**WLS 3T-ratchet, STAINLESS, 50 mm
M222000**



A = 3000
 B = 52
 L = 235
 W = 1,050

**WLG 2,5T-ratchet, 35 mm
M140000**



A = 2500
 B = 38
 L = 152
 W = 0,830

**WLG 1,5T-ratchet, 25 mm
M150015**



A = 1500
 B = 28
 L = 132
 W = 0,305

**WLG 0,5T-ratchet, 25 mm
M151000**



A = 500
 B = 27
 L = 110
 W = 0,250

**Webb.connector
W-20**



A = 20000
 B = 75
 L = 150
 W = 1,12

**Webb.connector
W-12**



A = 12000
 B = 75
 L = 119
 W = 0,75

**Webb.connector
W-10**



A = 10000
 B = 60
 L = 118
 W = 0,65

**Flexible end fitting
M165201**



A = 1100
 B = 51
 L = 75
 W = 0,100

**Ring
M017091**



A = 2500
 B = 50
 D = 10
 W = 0,120

GUNNEBO LASHING COMPONENTS

Index

A = min. breaking strength(kp)
 B = inside width (mm)
 D = thickness (mm)
 L = total length(mm)
 W = weight (kg)

**Flat hook
M016604**



A = 5000
 B = 51
 D = 5
 L = 150
 W = 0,260

**Triangular eye
M164001**



A = 5000
 B = 50,5
 D = 4,5
 L = 96
 W = 0,256

**Wirehook 50 mm
M161001**



A = 5000
 B = 51
 D = 11
 L = 85
 W = 0,226

**Wirehook with latch
M162001**



A = 5000
 B = 50
 L = 110
 W = 0,298

**Wirehook with latch,
stainless M161080**



A = 5000
 B = 50
 L = 100
 W = 0,300

**Single hook
M161003**



A = 5000
 B = 50
 L = 130
 W = 0,330

**Tensioning hook
M16100D**



A = 4500
 B = 50
 L = 145
 W = 0,275

**Wirehook 35 mm
M161601**



A = 2500
 B = 35
 L = 62
 W = 0,133

**Wirehook, 75 mm
M161011**



A = 10000
 B = 75
 L = 129
 W = 0,610

**Chassis Claw hook
M161401**



W = 0,164
 B = 52

**Wirehook 25 mm
M161800**



A = 1600
 B = 25
 L = 57
 W = 0,066

**Wirehook 25 mm
M161801**



A = 500
 B = 25
 L = 57
 W = 0,064

GUNNEBO CHAIN LASHING



Short link chain, grade 8. KLB

Designation	Link dimension (mm)	Suits rigging screw	Breaking strength (tonnes)	Weight/M (kg)
KL-10-8	10x30x14	10 tonnes	12,6	2,2
KL-13-8	13x39x18	15 tonnes	21,2	3,7



Long link chain, grade 8. HL

Designation	Link dimension (mm)	Suits tension screw	Breaking strength (tonnes)	Weight/M (kg)
HLU-9-8	9x53x15	TL-9	10,2	1,4
HLCU-11-8	11x64x18	TL-11	15,4	2,1
HLCU-13-8	13x80x22	TL-13	21,4	2,9



Rigging screw with ratchet handle, for short link chain. RS

Designation	Suits Gunnebo chain	Breaking strength tonnes
RS 15	10-13 mm	15
RS 20	13-16 mm	20



Clevis hook, grade 8, for short link chain. GK

Designation	Suits Gunnebo chain	Breaking strength tonnes	Weight/ea (kg)
GK-10-8	10 mm	12,6	0,94
GK-13-8	13 mm	21,2	1,9



Tension lever, for long link chain. TL

Designation	Suits Gunnebo long link chain	Breaking strength tonnes	Weight/ea (kg)
TL-9	9 mm	10	3,3
TL-11	11 mm	15	3,6
TL-13	13 mm	20	6

GUNNEBO CHAIN LASHING



Chain lashing hook for long link chain, with eye. LE

Designation	Suits Gunnebo long link chain	Breaking strength tonnes	Weight/ea (kg)
LE-9	9 mm	10	0,5
LE-11	11 mm	15	0,85
LE-13	13 mm	20	1,1



Chain lashing hook for long link chain, with clevis. LC

Designation	Suits Gunnebo long link chain	Breaking strength tonnes	Weight/ea (kg)
LC-9	9 mm	10	0,5
LC-11	11 mm	15	0,85
LC-13	13 mm	20	1,1



Chain lashing fitting for long link chain, elephant foot. EF

Designation	Suits Gunnebo long link chain	Breaking strength tonnes	Weight/ea (kg)
EF-9/13	9 - 13 mm	20	0,7








Chain lashing fitting for short link chain, elephant foot. GEF

Designation	Suits Gunnebo short link chain	Breaking strength tonnes	Weight/ea (kg)
GEF-10/13-8	10-13 mm	19	1,0

GUNNEBO POLYESTER SLINGS

Instructions for use and maintenance

Working load limits (WLL) in tonnes, according to EN 1492-1 for flat woven webbing slings and EN 1492-2 for Roundslings.

WLL tonnes	Straight lifting 	Choke hitch 	Straight basket hitch 	Angled basket hitch β 0-45° α 0-90° 	Angled basket hitch β 45-60° α 90-120° 
1	1.0	0.8	2.0	1.4	1.0
2	2.0	1.6	4.0	2.8	2.0
3	3.0	2.4	6.0	4.2	3.0
4	4.0	3.2	8.0	5.6	4.0
5	5.0	4.0	10.0	7.0	5.0
6	6.0	4.8	12.0	8.4	6.0
8	8.0	6.4	16.0	11.2	8.0
10	10.0	8.0	20.0	14.0	10.0
12	12.0	9.6	24.0	16.8	12.0
15	15.0	12.0	30.0	21.0	15.0
20	20.0	16.0	40.0	28.0	20.0
25	25.0	20.0	50.0	35.0	25.0
30	30.0	24.0	60.0	42.0	30.0
40	40.0	32.0	80.0	56.0	40.0
50	50.0	40.0	100.0	70.0	50.0

Note! Safety factor 7:1

Use

- 1 Always plan the lift carefully before proceeding.
- 2 Always check that the length and WLL stated on the sling label are suitable.
- 3 Examine the sling for damage and defects before use. Never use a damaged or defective sling.
- 4 Never overload!
- 5 Make sure that the load is lifted vertically, centered above the point of gravity.
- 6 Use identical slings in case of multi-legged lifting and take the lifting angles into account when choosing equipment.
- 7 Do not tie knots in slings to shorten or extend them.
- 8 Never lift with twisted or entwined slings.
- 9 Place load-bearing seams and joints between the hook and the load.
- 10 Protect the sling from sharp edges using edge protection or protective sleeves.
- 11 Avoid shock loading and snatch lifting.
- 12 Do not drag a load in the sling and do not drag slings over the ground.
- 13 Keep polyester slings away from alkalis (for example ammonia and caustic soda). If in doubt about exposure to chemicals, check with your supplier.
- 14 Do not use polyester slings in temperatures over +100°C.
- 15 Examine slings after use and remove from service if visible damage has been suffered.

Maintenance

- 1 Store the equipment in a dry place.
- 2 Ensure that seams and labelling are undamaged.
- 3 The equipment can be cleaned by washing in a petroleum-based detergent and rinsing in water.
- 4 Roundslings with damaged sleeving, allowing dirt to enter, should be discarded.
- 5 Roundslings with broken yarns as a result of damaged sleeving must be discarded.
- 6 Roundslings must be inspected regularly for knots and irregularities, indicating yarn breakage. Discard if found.
- 7 Webbing slings: Discard in case of serious damage due to friction.
- 8 Webbing straps: Discard if/when edge wear/damage exceeds 5% of its width.
- 9 Webbing straps: Repair or discard when eye sleeving is worn out.

Inspection of Polyester Slings in service

During the period of use, frequent checks should be made for defects or damage, including damage concealed by soiling, which might affect the continued safe use of the sling. These checks should extend to any fittings and lifting accessories used in association with the sling. If any doubt exists as to the fitness for use, or if any of the required markings have been lost or become illegible, the sling should be removed from service. See also instruction for use and maintenance.

Examples of defects or damage likely to affect the quality of slings for continued safe use:

1. Any damage evident in the cover indicates potential damage to the loadbearing core. Cross or longitudinal cuts in the cover, or any damage to the stitching, raises serious doubts as to the integrity of the core. **REMOVE FROM SERVICE.**
2. Local abrasion, as distinct from general wear, can be caused by sharp edges while the sling is under tension and causes serious loss of strength. **REMOVE FROM SERVICE.**
3. In normal use some chafing will occur to the surface fibres of the cover. Local abrasion where loadbearing core has been damaged should be **REMOVED FROM SERVICE.**
4. A knot in the roundsling reduces the load capacity by 25 to 100 %. Roundslings should never be knotted or twisted. **REMOVE FROM SERVICE.**
5. Cross or longitudinal cuts in the cover and also damage to the loadbearing core. **REMOVE FROM SERVICE.**
- 6, 9 Cross or longitudinal cuts, cuts or chafe damage to edges. **REMOVE FROM SERVICE.**
7. Chemical attack results in local weakening and softening of the material. This is indicated by flaking of the cover surface which may be plucked or rubbed off. Any signs of chemical attack to the cover raise serious doubts as to the integrity of the core. **REMOVE FROM SERVICE.**
8. Cross or longitudinal cuts in the cover and also damage to the loadbearing core. **REMOVE FROM SERVICE.**
10. A sling that is unidentified should never be used. Label and identification must be Legible. **REMOVE FROM SERVICE.**
11. Hooks and fittings which are too big for the edge of the sling can destroy the sling. **REMOVE FROM SERVICE** and/or contact the supplier for advice.
12. Heat and friction damage is indicated by the fibres of the cover material taking on a glazed appearance and in extreme cases, fusion of the fibres can occur, indicating a weakening or break of the core. **REMOVE FROM SERVICE.**



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