



EL-CAR

www.elcar.ro

Experience is our strength
Complete solutions for lifting

Introduction

Quality products, technical support and very good services- there are customer expectations from their providers partners.

When the company was founded, in 1991, the management team already had a heavy experience in this field. Since 2004, the biggest part of investments is focused on implementation of Quality Management System, in obtaining certifications in field and upgrading our own laboratories.

Certifications:



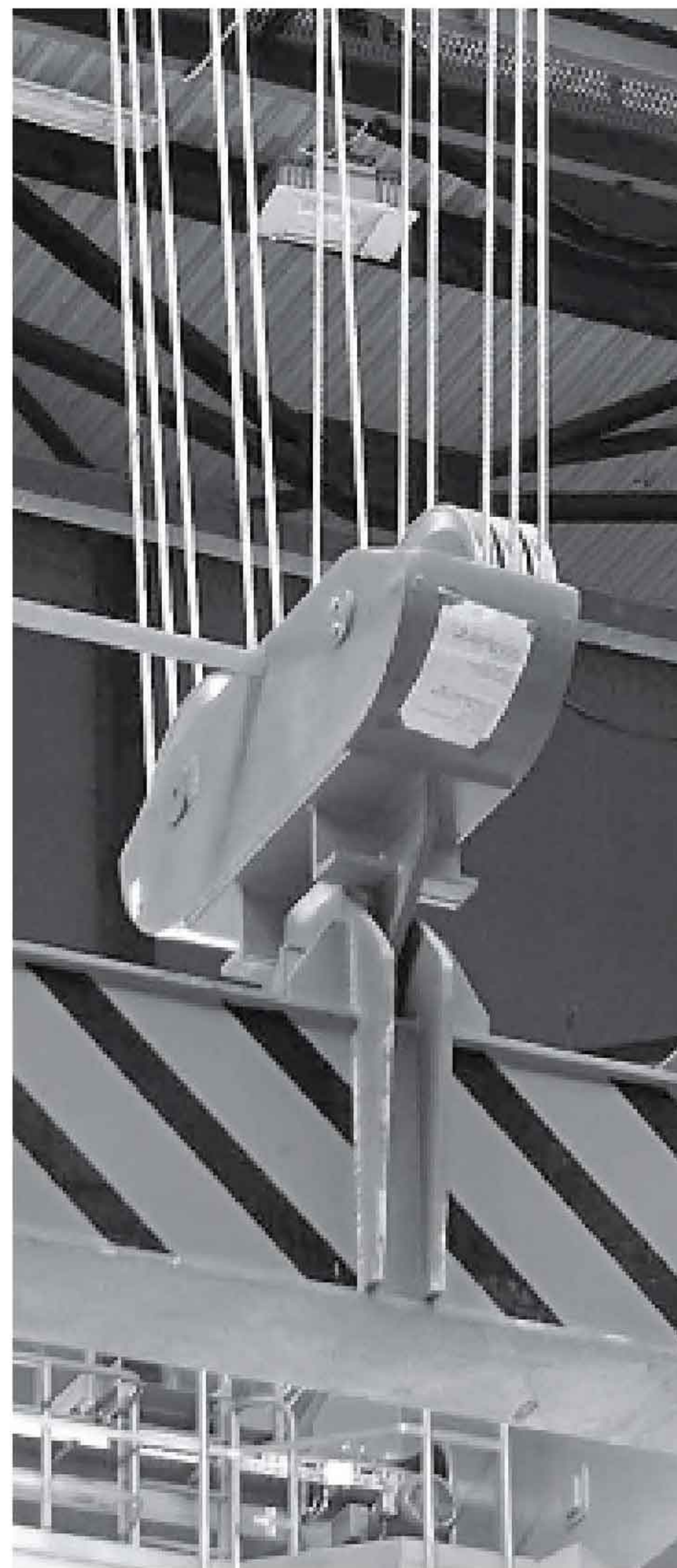
On internal market we are exclusive representative of the world's leader in special steel wire ropes.



WireCo WorldGroup is in global market, manufacturing and technical leader in wire ropes. WireCo WorldGroup markets products under several brands: Casar, Oliveira, Union, Camesa.



Our experience ,technologies and exceptional solutions who generates performances over the years,are elements through which we succeed to offer best solutions relating to customer requirements.



Steel wire ropes

Personalised solutions for all industrials field: cranes, forestry, drilling (coal, oil, gas), hanging, lifting.

STANDARD STEEL WIRE ROPE

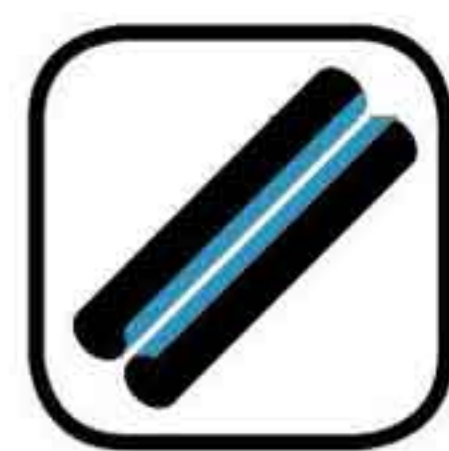
- Executed according to the main national and international standards (E.N. ; I.S.O. ; A.P.I.)
- Simple construction: STAS 1513; DIN 3052; EN DIN 12385
- Double construction: STAS 1353; DIN 3055; EN DIN 12385
- Double combined construction: STAS 1689; DIN 3058; EN DIN 12385
- Non rotating construction: STAS 2690; DIN 3069; EN DIN 12385
- Bright, galvanized, stainless steel, PVC, coated steel wire ropes

SPECIAL WIRE ROPES

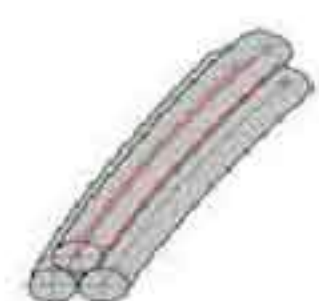
- The design is in accordance with the intended use
- Exceptional performance achieved by combining innovative technologies with a special design of the internal structure

Tehnologies

PARALLEL LAY ROPES

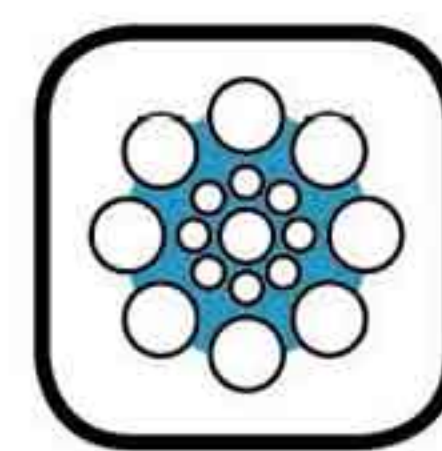


Parallel construction

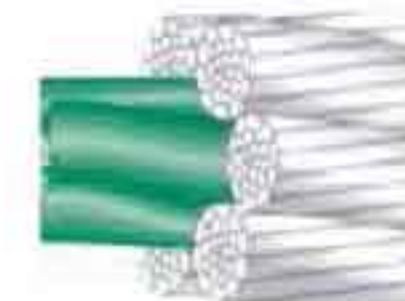


- In a parallel lay rope all wires and strands have lay length
- The linear contact leads to an optimal stress distribution
- Furthermore the compacted parallel design leads to a higher fill factor and breaking strength

PLAST CORE



Plast core

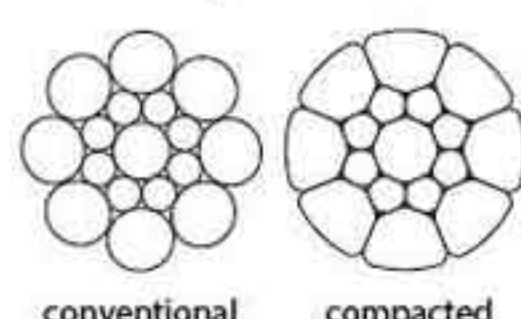


- Stabilizes the rope structure during installation and operation
- Prevents internal wire breaks
- Prevents metal-to-metal contact
- Seals in lubricant. Reduces the maintenance effort

ROPES WITH COMPACTED STRANDS



Compacted



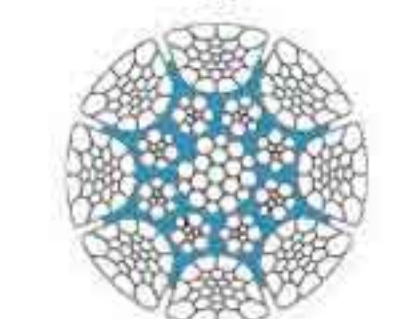
conventional compacted

- Higher breaking load
- Because the thicker outer wires and smaller exposed area they are more resistant to abrasion and corrosion
- Great flexibility
- Better rope-to-rope contact conditions.
- The rope life time on multiple layer drums is optimized.

SWAGED ROPE



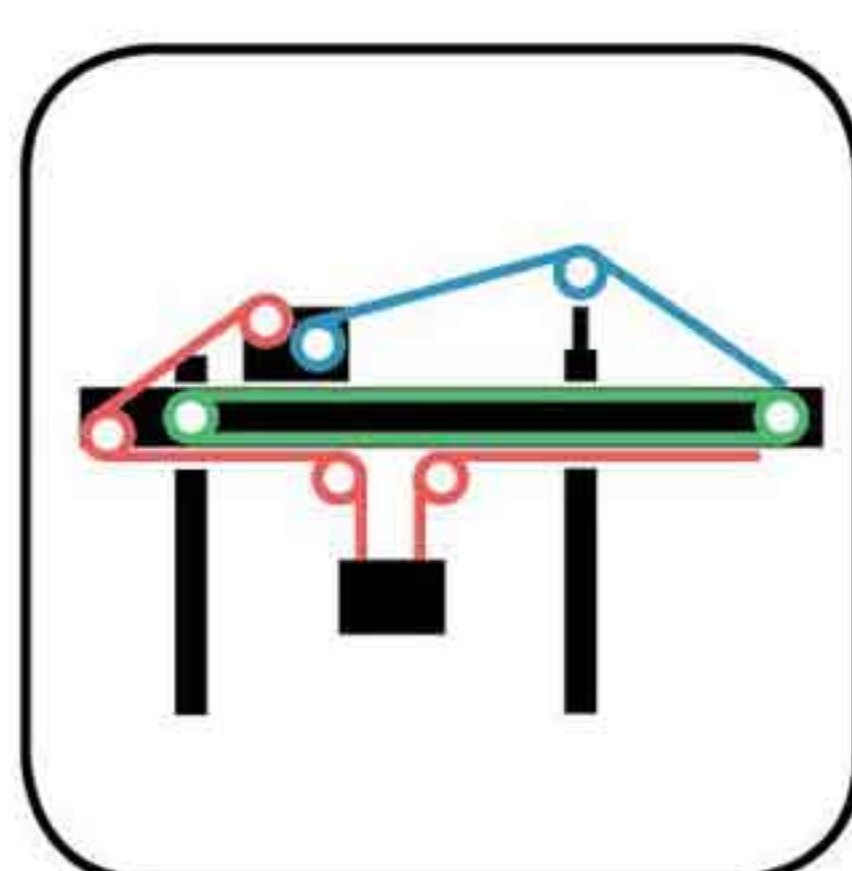
Swaged



- Designed for heavy duty applications
- Extremely high pressure resistance
- Reduced diameter reduction under tension
- High breaking load
- Strongly improved crushing resistance in crossovers
- Extremely smooth surface for less indentations or pressure

Main applications

Container crane



HOIST ROPE

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- CASAR PARAPLAST
- CASAR SUPERPLAST 8
- HD 8 K + PPI

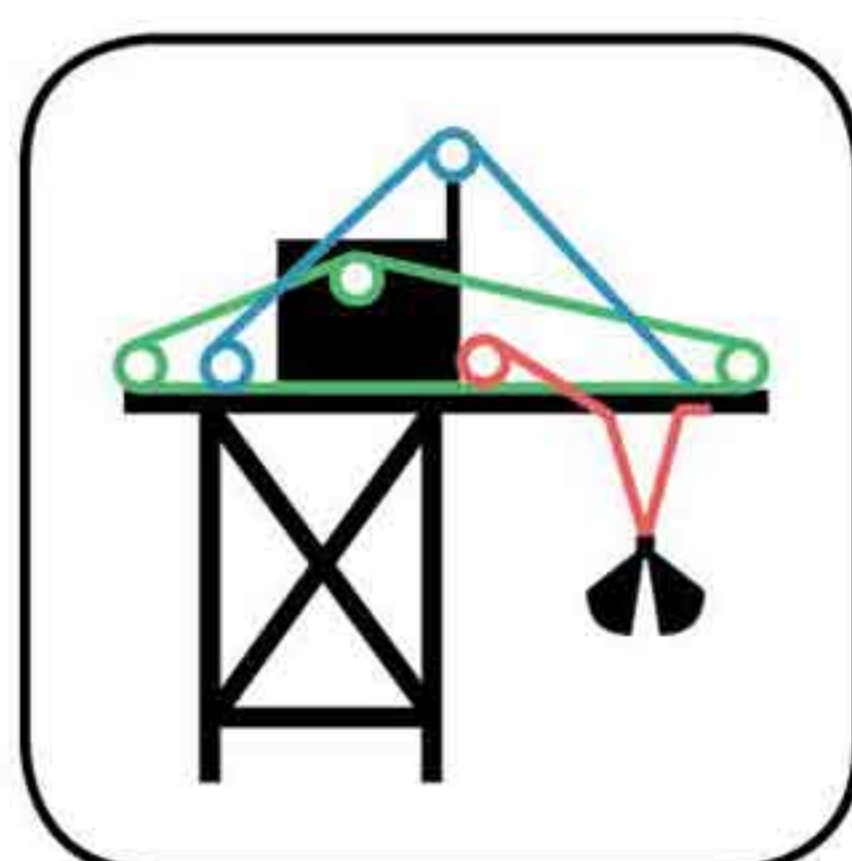
BOOM HOIST

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- CASAR PARAPLAST
- HD 8 K + PPI

TROLLEY/CATENARY

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- HD 8 K + PPI
- SC 8 C + PPI

Ship unloader



HOIST ROPE

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- HD 8 K + PPI

BOOM HOIST

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- HD 8 K + PPI

TROLLEY

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- HD 8 K + PPI
- SC 8 C + PPI

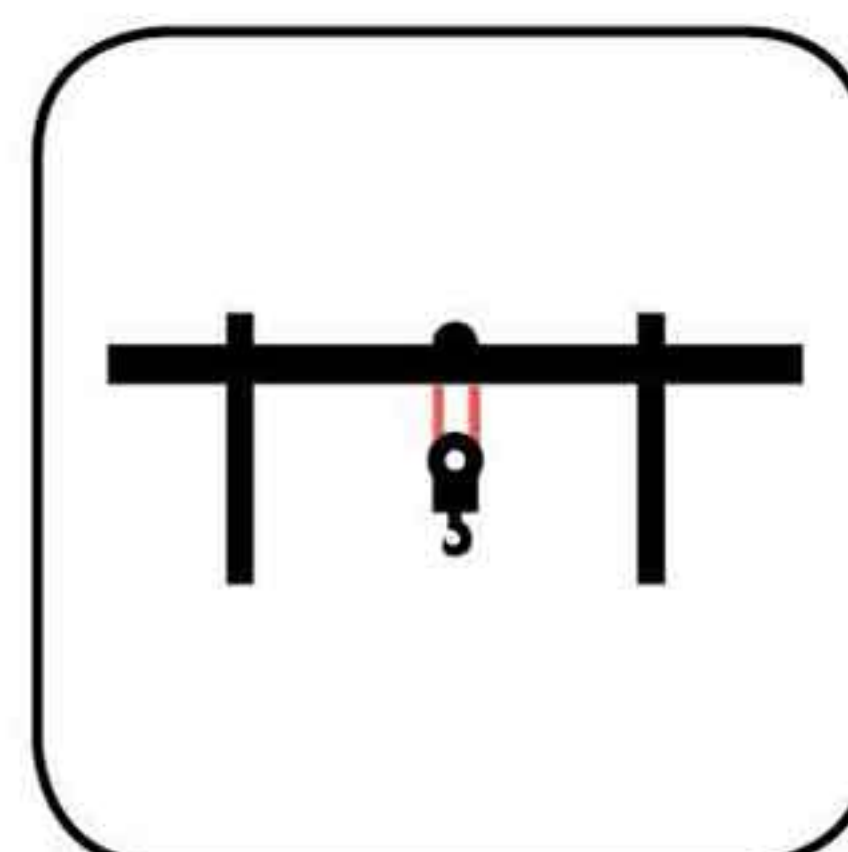
Skidder



HOIST ROPE

- Swaged rope
- Compacted rope

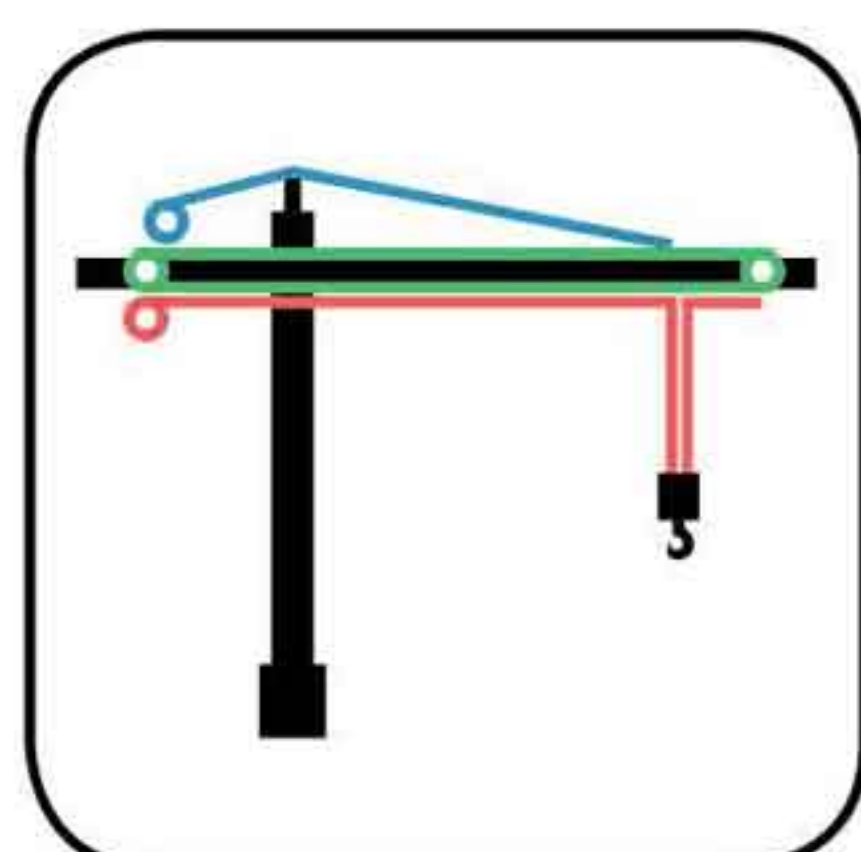
Rubber tired gantry / Rail mounted gantry



HOIST ROPE

- CASAR TURBOPLAST
- CASAR PARAPLAST
- HD 8 K + PPI
- DP 8 K + PPI

Tower crane



HOIST ROPE

- CASAR EUROLIFT
- CASAR STARLIFT
- CASAR STARLIFT PRO
- CASAR STARLIFT XTRA
- CASAR STARLIFT PLUS
- TOWERLIFT 15
- LT 24 C
- LT 24 K

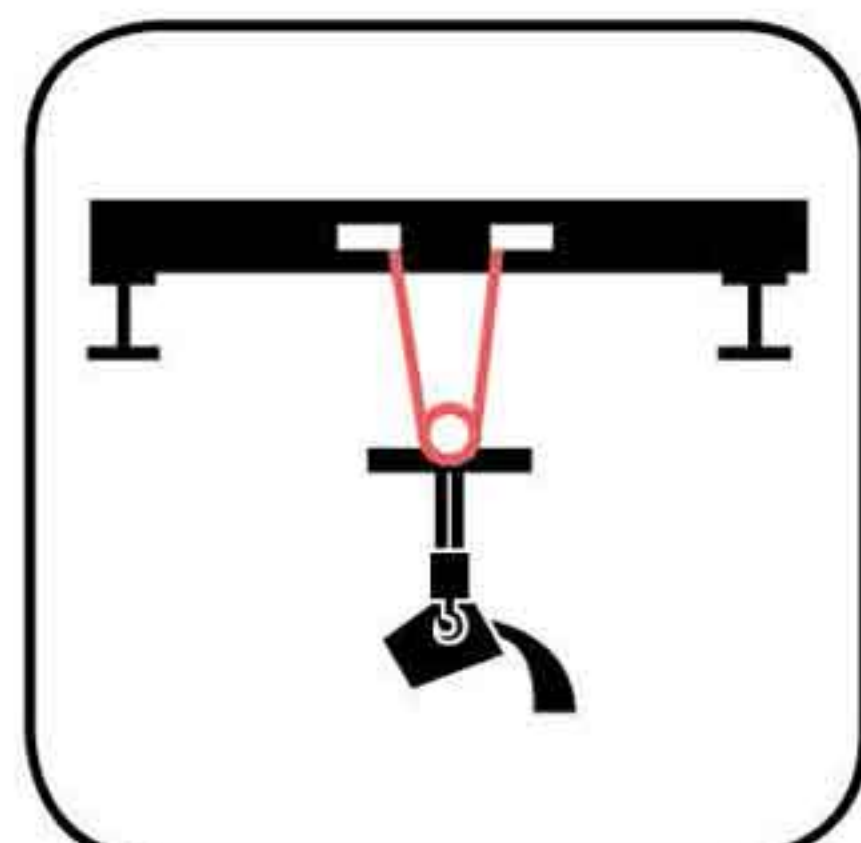
BOOM PENDANT

- CASAR TURBOLIFT
- CASAR STRATOLIFT
- CASAR SUPERLIFT
- HD 8 K + PPI

TROLLEY

- CASAR STRATOPLAST
- CASAR ALPHALIFT
- CASAR UNILIFT
- SC 8 C + PPI
- SC 6 K + PPI

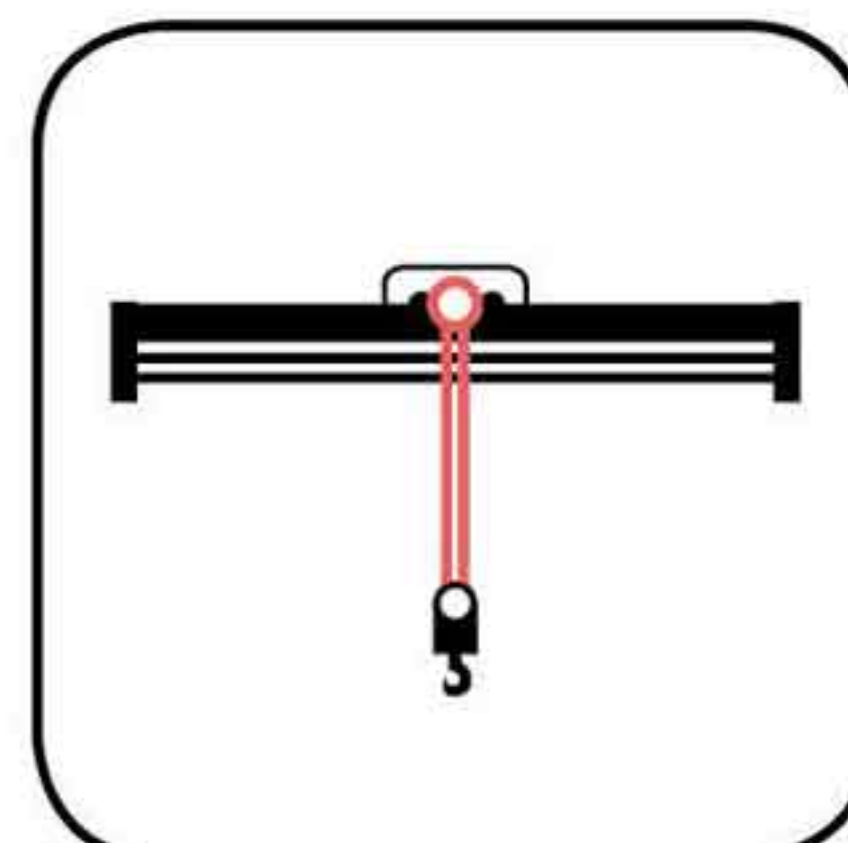
Steel works ladle



HOIST ROPE

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- CASAR TECHNOLIFT
- CASAR TECHNOLIFT PLUS
- HD 8 K + PPI
- SC 8 C + PPI
- SC 6 K

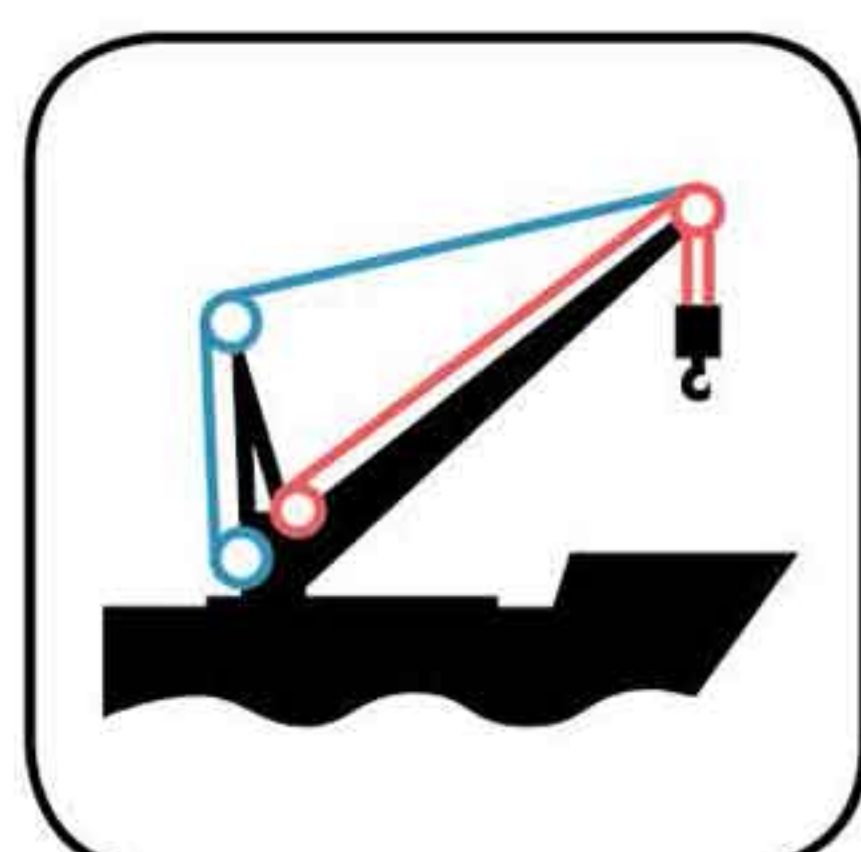
Overhead crane



HOIST ROPE

- CASAR TURBOPLAST
- CASAR STRATOPLAST
- CASAR PARAPLAST
- CASAR SUPERPLAST 8
- CASAR SUPERPLAST 10 MIX
- CASAR SUPERPLAST 10
- CASAR EUROLIFT
- CASAR STARLIFT
- CASAR QUADROLIFT

Deck crane



HOIST ROPE

- CASAR POWERPLAST
- CASAR STARFIT
- CASAR QUADROLIFT
- NR MAXIPACT + PPI
- NR 15 MAXILIFT + PPI

BOOM HOIST

- CASAR TURBOPLAST
- CASAR PARAFIT
- HD 8 K + PPI A

Offshore pedestal crane



HOIST ROPE

- CASAR POWERPLAST
- CASAR EUROLIFT
- NR MAXIPACT + PP

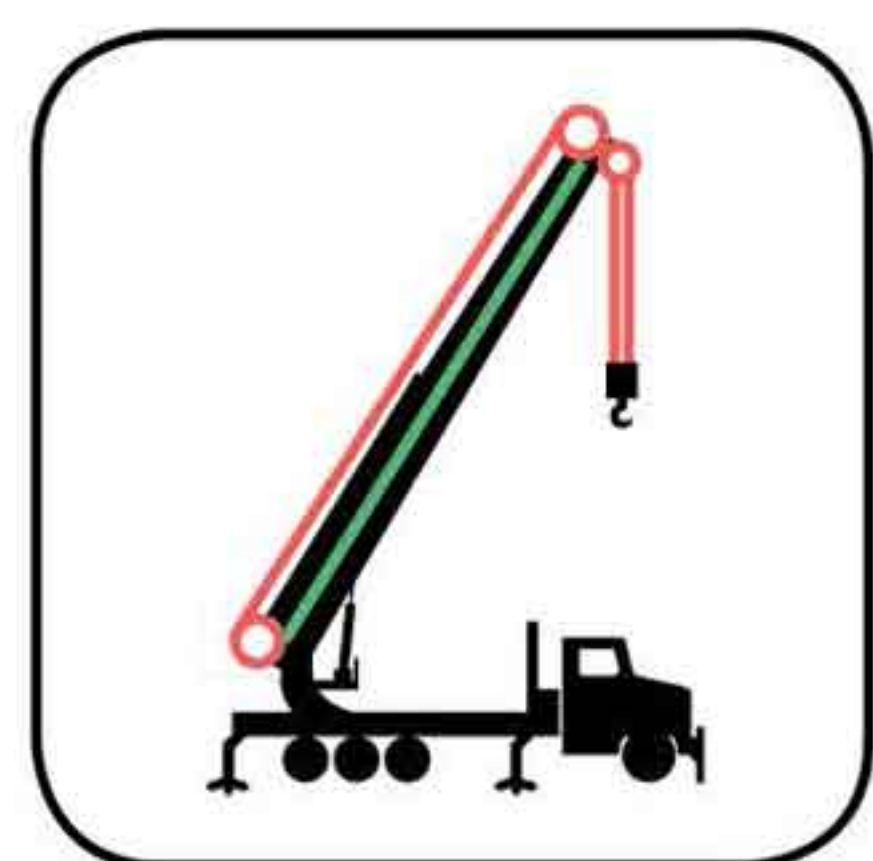
BOOM HOIST

- CASAR TURBOPLAST
- CASAR PARAPLAST
- CASAR SUPERPLAST8
- CASAR PARAFIT
- HD 8 K + PPI

AUXILIARY HOIST

- CASAR STRATOPLAST
- CASAR ALPHALIFT
- CASAR UNILIFT
- SC 8 C + PPI
- SC 6 K + PPI

Telescopic mobile crane



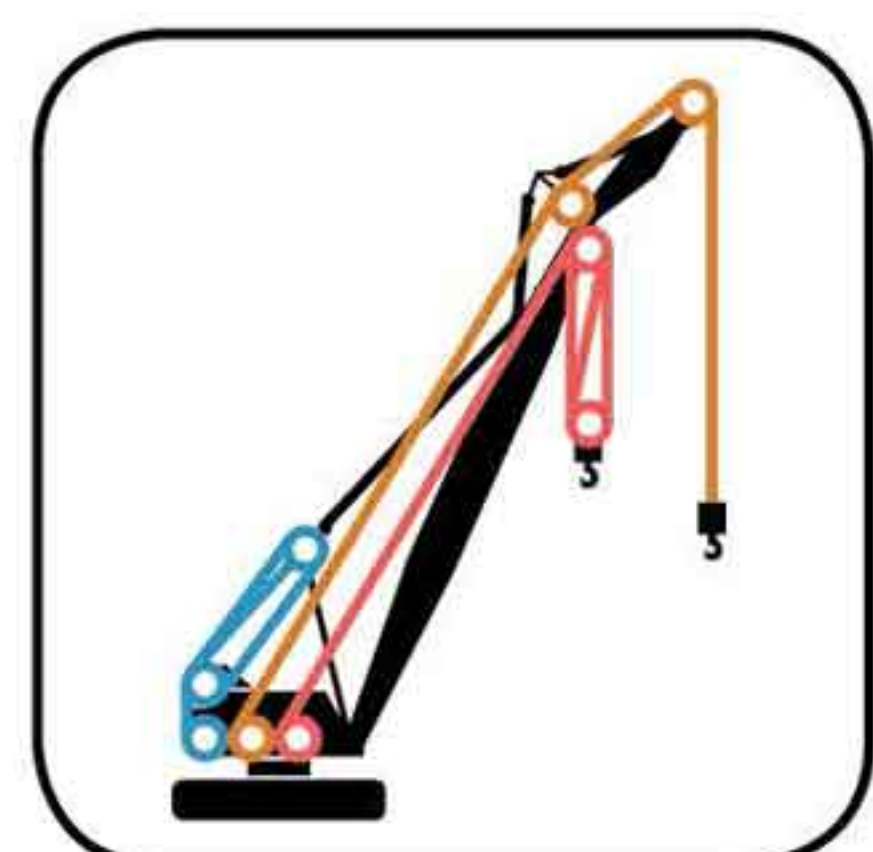
HOIST ROPE

- CASAR EUROLIFT
- CASAR STARLIFT
- CASAR STARLIFT PLUS
- NR MAXIPACT + PPI
- NR 15 MAXILIFT + PPI

RETRACTION ROPE

- CASAR BETALIFT
- CASAR TURBOLIFT

Lattice boom crawler crane



HOIST ROPE

- CASAR EUROLIFT
- CASAR STARLIFT
- CASAR STARLIFT PRO
- CASAR STARLIFT XTRA
- CASAR STARLIFT PLUS
- NR MAXIPACT + PP
- NR 15 MAXILIFT + PPI
- LT 24 K + PPI

BOOM HOIST

- CASAR PARAPLAST
- CASAR SUPERPLAST8
- CASAR PARAFIT
- DP 8 K + PPI
- HD 8 K + PPI

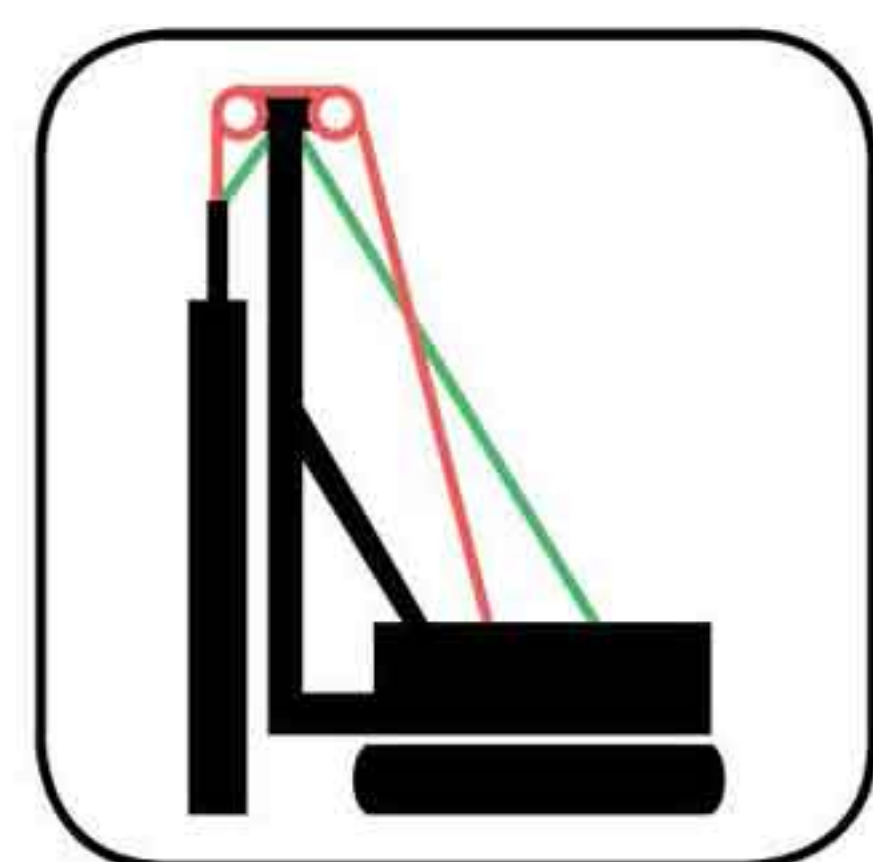
AUXILIARY HOIST

- CASAR EUROLIFT
- NR MAXIPACT + PP
- NR 15 MAXILIFT + PPI

BOOM PENDANT

- CASAR TURBOLIFT
- CASAR STARLIFT
- CASAR SUPERLIFT

Drilling / Piling



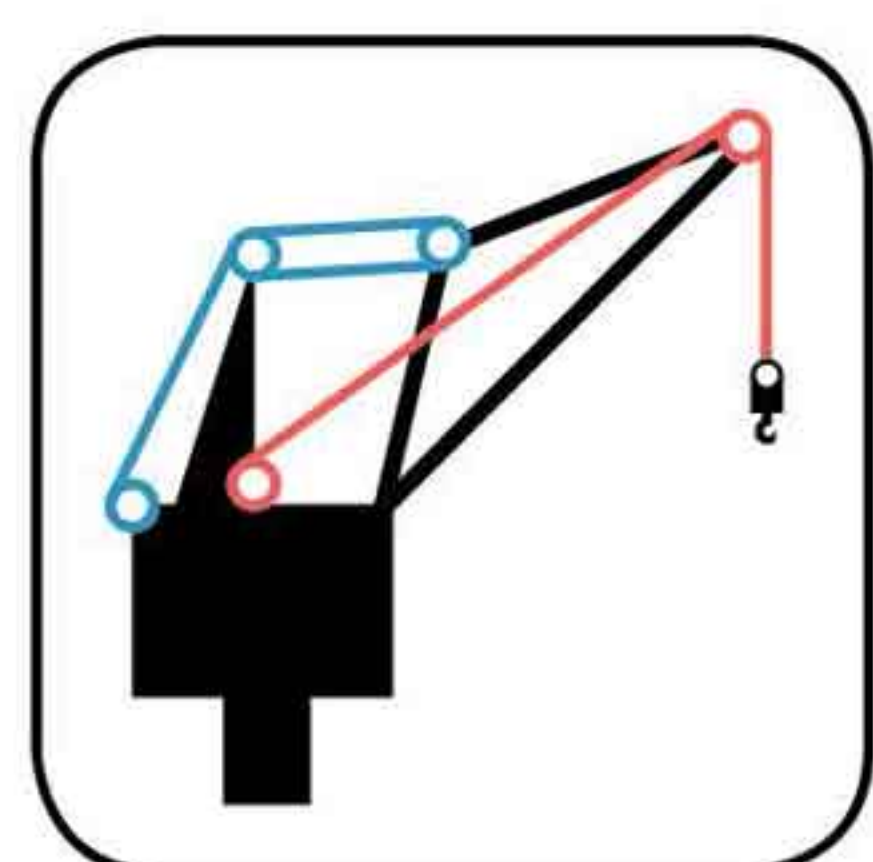
HOIST ROPE

- CASAR POWERPLAST
- CASAR EUROLIFT
- CASAR RAMMBOLIFT
- NR 15 MAXILIFT + PPI

FEED ROPE

- CASAR TURBOPLAST
- HD 8 K + PPI

Harbor mobile crane



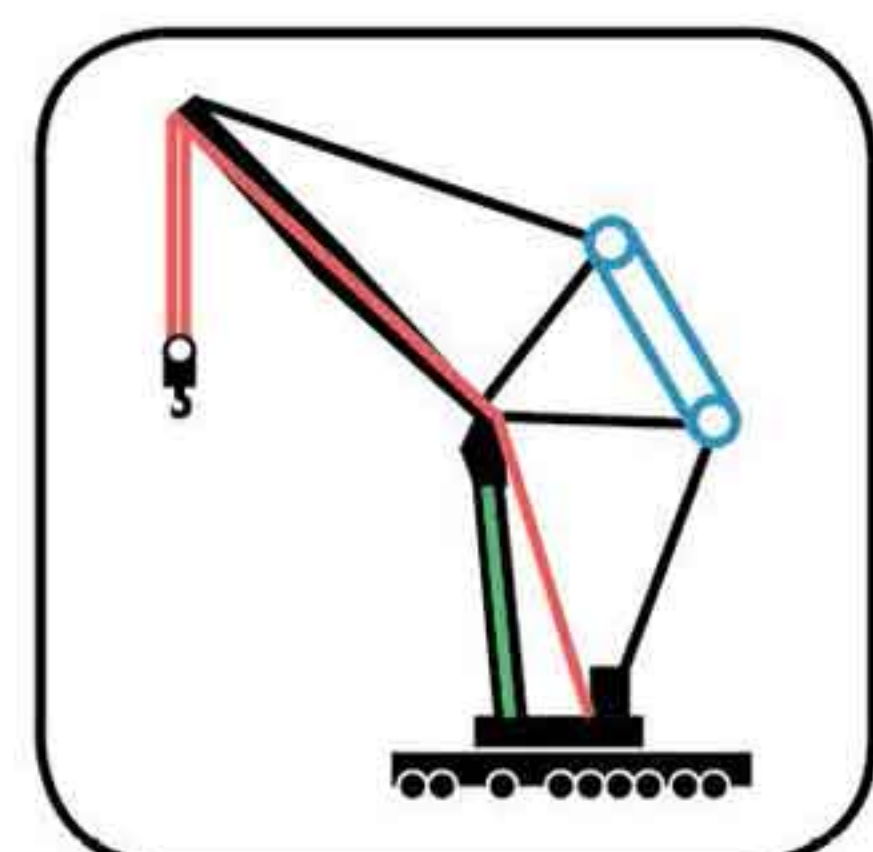
HOIST ROPE

- CASAR TURBOPLAST
- HD 8 K + PPI

BOOM HOIST

- CASAR TURBOPLAST
- CASAR PARAPLAST
- HD 8 K + PPI

Lattice boom mobile crane



HOIST ROPE

- CASAR EUROLIFT
- CASAR STARLIFT
- CASAR STARLIFT PRO
- CASAR STARLIFT XTRA
- CASAR STARLIFT PLUS
- NR MAXIPACT + PPI
- NR 15 MAXILIFT + PPI
- LT 24 K + PPI

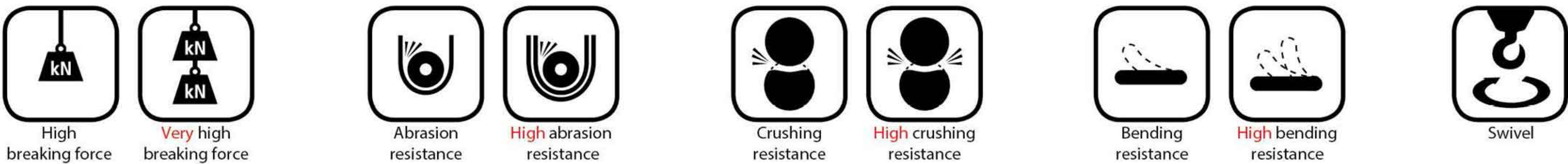
BOOM HOIST

- CASAR PARAPLAST
- CASAR SUPERPLAST8
- CASAR PARAFIT
- DP 8 K + PPI
- HD 8 K + PPI

RETRACTION ROPE

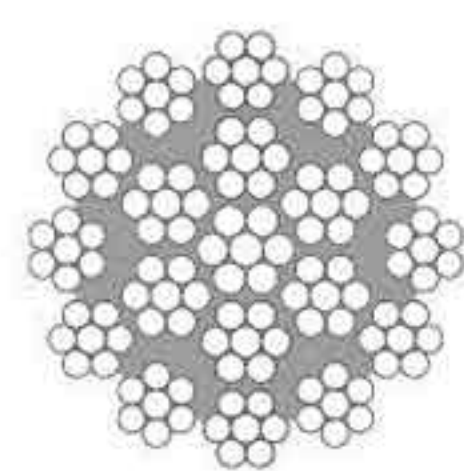
- CASAR TURBOLIFT
- CASAR BETALIFT
- CASAR SUPERLIFT

Qualificatives



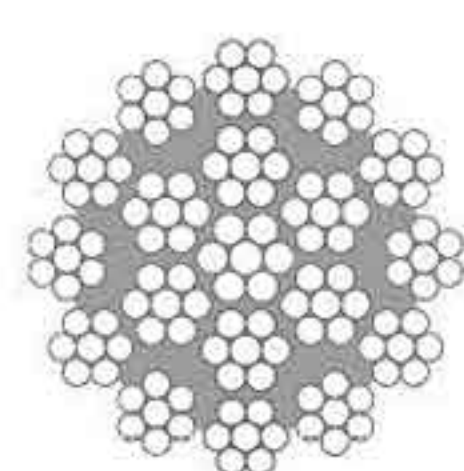
Rope selection guide

ROTATION RESISTANT		CASAR STARLIFT Hoist rope for mobile cranes, electrical hoists and other application, where rotation resistance are required.			CASAR STARLIFT PLUS Compacted hoist rope for mobile cranes, electrical hoists and other application, where rotation resistance are required.	
		CASAR STARLIFT PRO Hoist rope for tower cranes, mobile cranes or crawler cranes: unguided load on a single fall.			CASAR STARLIFT XTRA Very good resistance against drum crushing and abrasion on drums. Hoist rope for mobile cranes, electrical hoists and other application, where rotation resistance are required.	
		CASAR EUROLIFT Hoist rope for mobile cranes, electrical hoists and other application, where rotation resistance are required.			CASAR POWER PLAST Hoist rope for deck cranes and offshore cranes, pull-in riser and other application in the marine environment, when rotation resistance rope are required.	
		CASAR STARFIT Hoist rope for deck cranes and offshore cranes, pull-in riser and other application in the marine environment, when rotation resistance rope are required.			NR MAXIPACT + PPI Cablu de ridicat pentru macarale navale (detalii p.8)	
		NR 15 MAXILIFT + PPI For all the most severe hoist application, insive us, corrosive environment. Traditional applications like mobile cranes, tower cranes, crawler crane, offshore cranes, deck cranes, cargo cranes, harbor cranes.			TOWERLIFT 15 + PPI The towerlift 15 can be used for all cranes and hoisting systems where non-rotating properties are required. Tower cranes, mobile cranes, crawler cranes, offshore cranes, cargo cranes.	
		LT 24 K + PPI Recommended for intensive use and severe hoist application where rotation resistance property is required like tower cranes. For lifting applicatins whit not less than 2 falls.			LT 24 C All lifting applications when MBL is not critical, when rotation resistant properties only are required. For lifting applications whit not less 2 falls.	



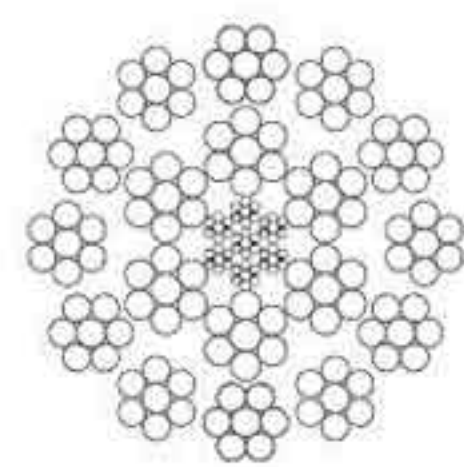
LT 18

Hoist rope. Can be used for all cranes



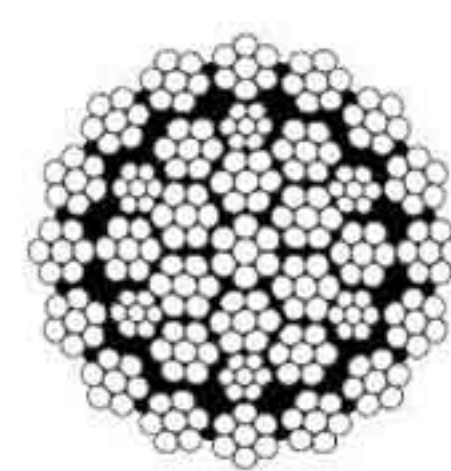
18x7 + IWRC (steel core)

Hoist rope for building and industrial cranes (cranes, travelling cranes, industrial overhead cranes) with medium lifting height



18x19S + IWRC (steel core)

Hoist rope for tower cranes and special travelling cranes with large lifting heights.

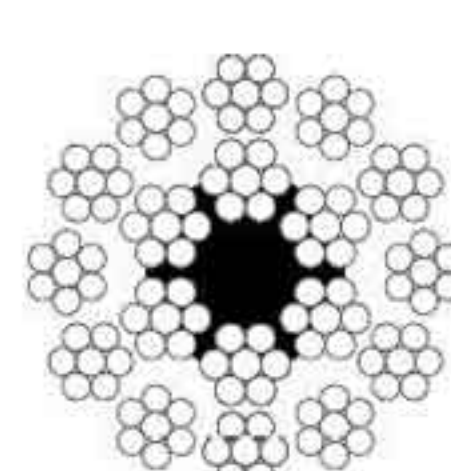


35Wx7

Rope used for industrial lifting equipment, harbour cranes, overhead cranes, container cranes and ship cranes.

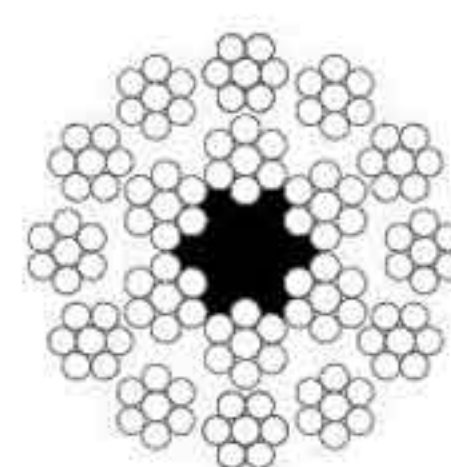


Bending resistance



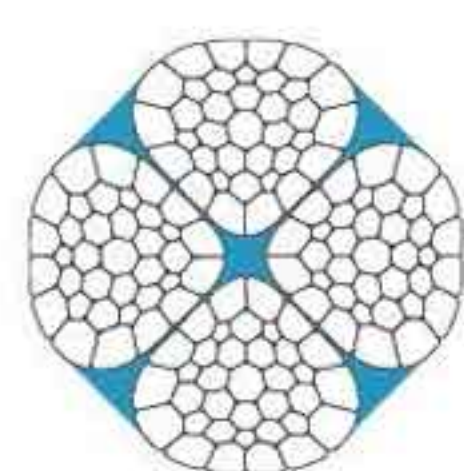
18x7 + FC (fiber core)

Hoist rope for buildings and industrial cranes (cranes, travelling cranes, industrial overhead cranes) with medium lifting height



18x19S + FC (fiber core)

Hoist rope for tower cranes and special travelling cranes with large lifting heights.

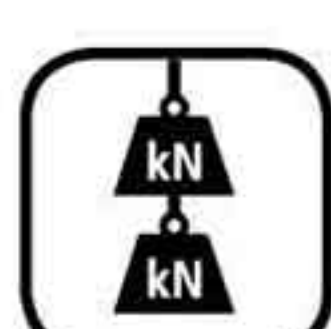


CASAR QUADROLIFT

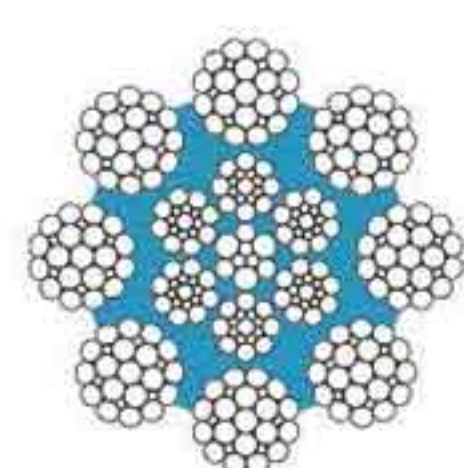
Has a high breaking load and is very stable under forcible twist. Semi-rotation resistant hoist rope for deck crane and electrical hoist.



Compacted



Very high breaking force



CASAR STRATOPLAST

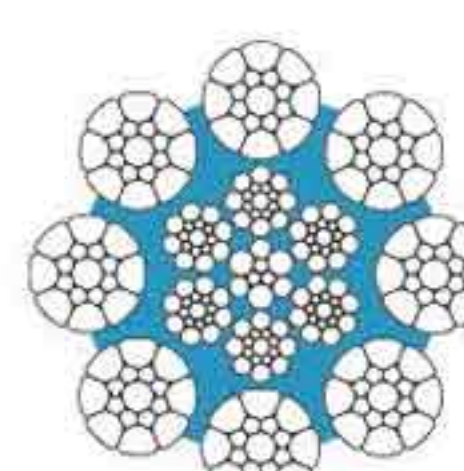
Very flexible filler construction. Rope for a huge number of different applications.



Plast core



Bending resistance

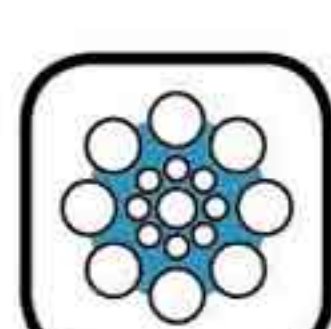


CASAR DUROPLAST

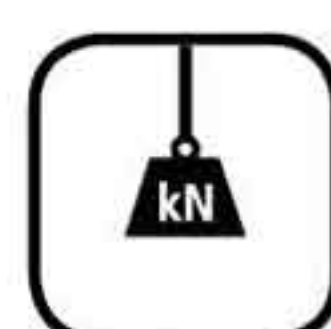
Various kinds of different applications whenever a high abrasion resistance is required where rotation resistant ropes are not required.



Compacted



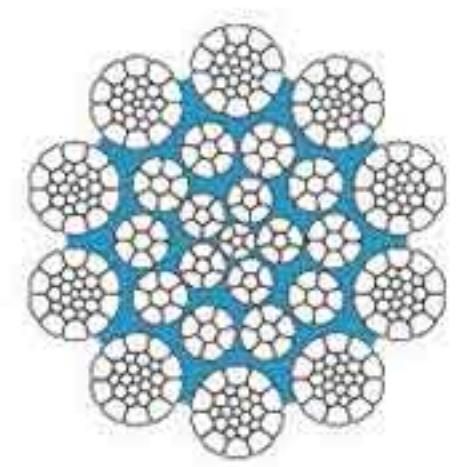
Plast core



High breaking force



Abrasion resistance

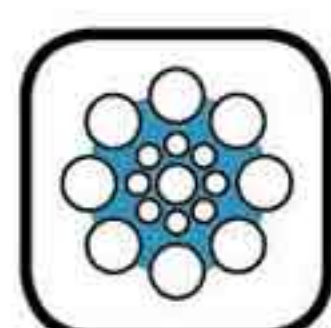


CASAR SUPERPLAST10 MIX

Very high bending fatigue performance a high minimum breaking load. Mainly overhead and industrial cranes where rotation resistant ropes are not required.



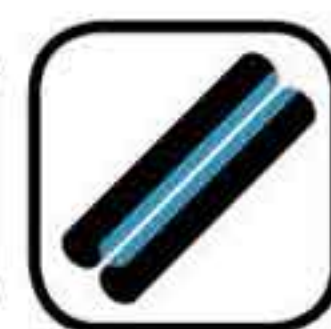
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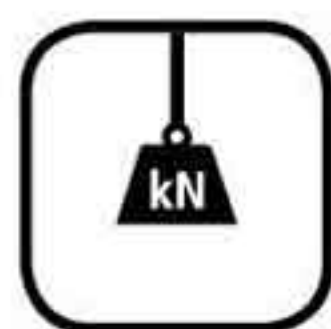
Plast core



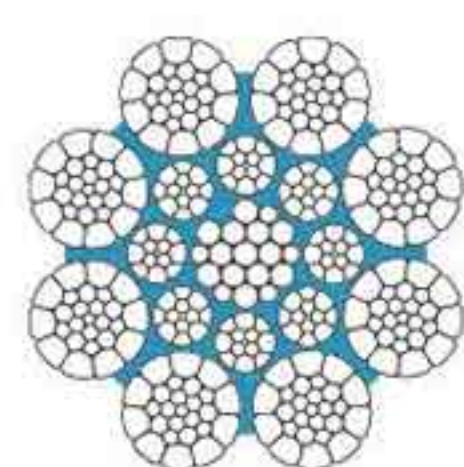
Bending resistance



Parallel construction



High breaking force

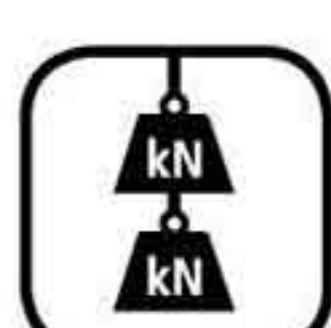


CASAR PARAPLAST

Very fatigue resistant and very high minimum breaking load. Hoist rope for electrical hoists and lifting devices with multiple part reeving.



Bending resistance



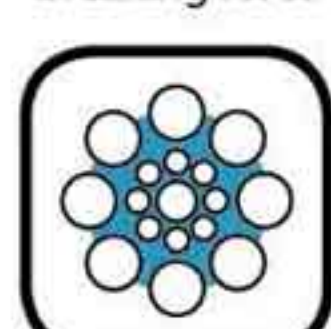
Very high breaking force



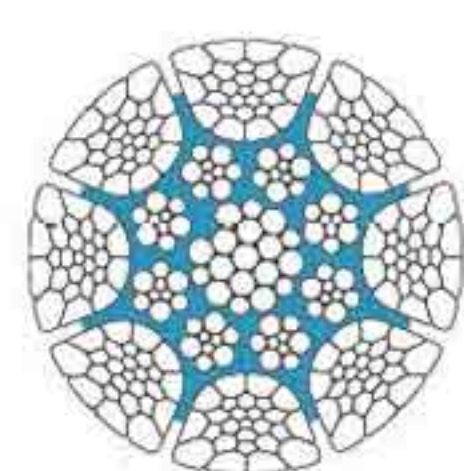
Parallel construction



Compacted



Plast core

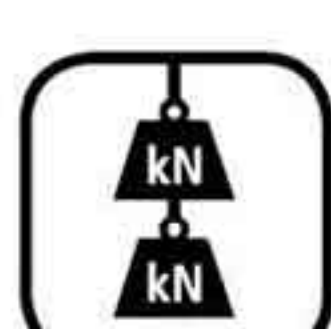


CASAR PARAFIT

Boom hoist rope for all kind of crawler and mobile cranes especially suited for multi-layer spooling.



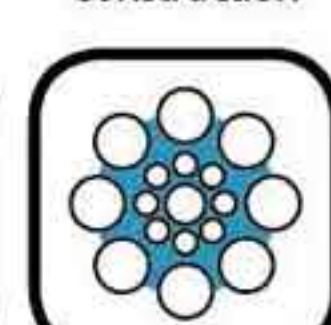
Parallel construction



Very high breaking force



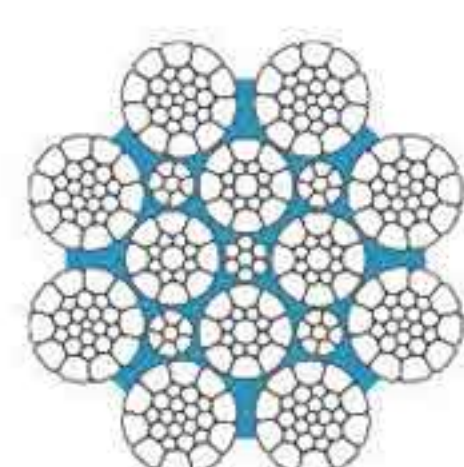
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Plast core

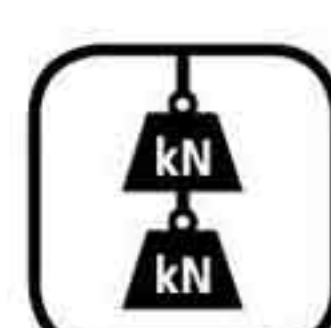


Swaged



CASAR TURBOLIFT

Flexible construction with a high breaking load. Pendant ropes for tower cranes, mobile cranes, grabs, suspended structures, when high breaking load are required.



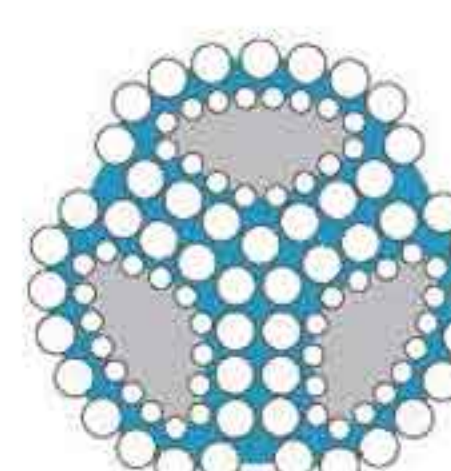
Very high breaking force



Compacted

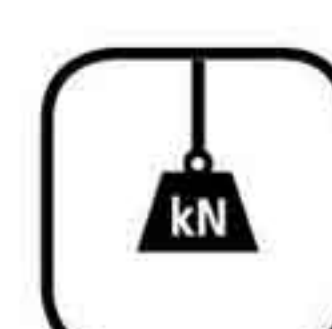


Parallel construction

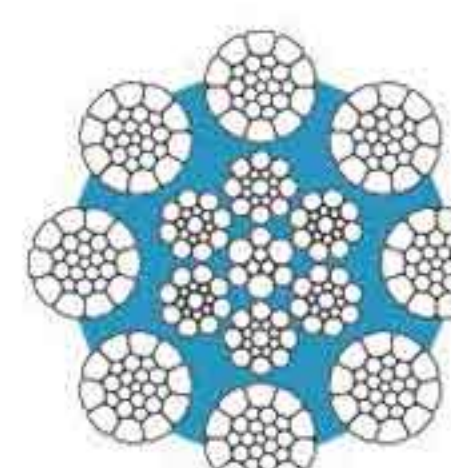


CASAR RAMMBOLIFT

A semi-rotation 3-strand rope with a fiber core in every strand and a very round surface.



High breaking force

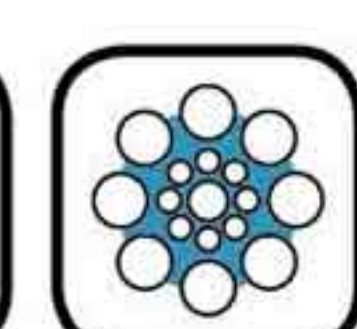


CASAR TURBOPLAST

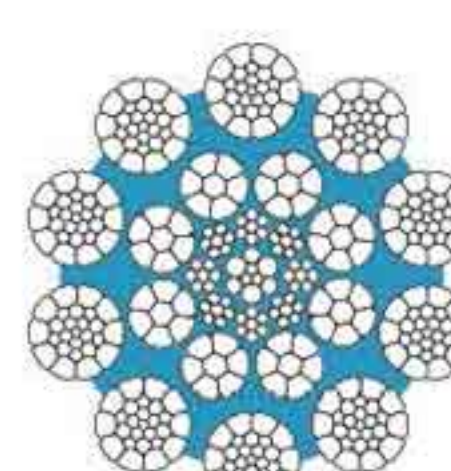
High breaking load and good resistance against crushing. Hoist rope in multiple part reeving for smaller liftings and for twin hoist systems for greater lifting heights.



Compacted



Plast core

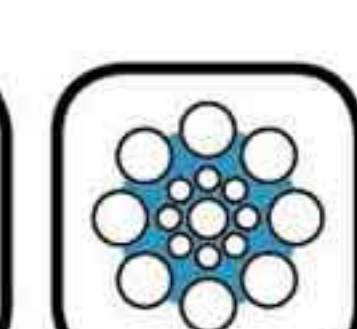


CASAR SUPERPLAST8

Very high breaking load and good resistance against drum crushing. Hoisting rope in multiple part reeving for smaller liftings and for twin hoist systems for greater lifting heights.



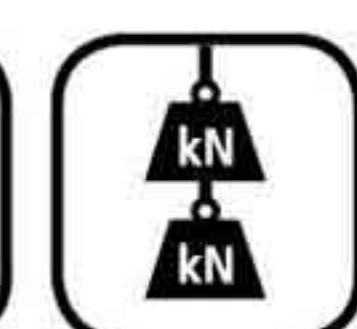
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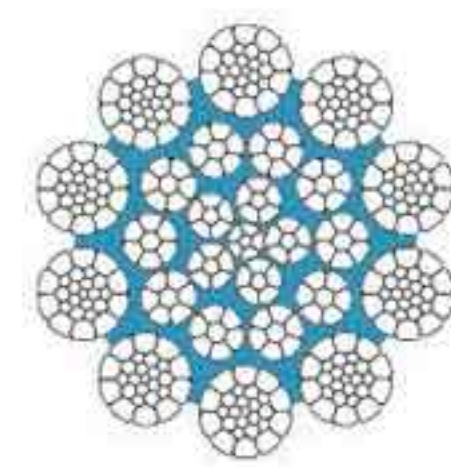
Plast core



Abrasion resistant



Very high breaking force

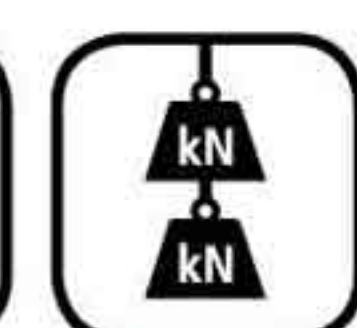


CASAR SUPERPLAST10

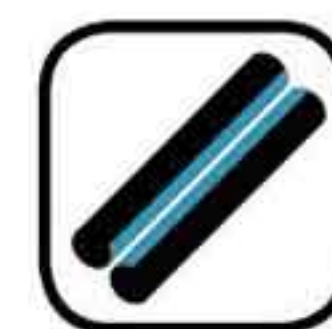
High bending fatigue performance and very high minimum breaking load. Mainly overhead and industrial crane when rotation resistance ropes are not required.



Bending resistance



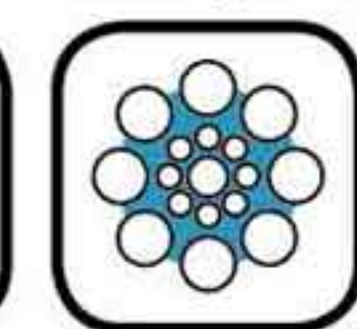
Very high breaking force



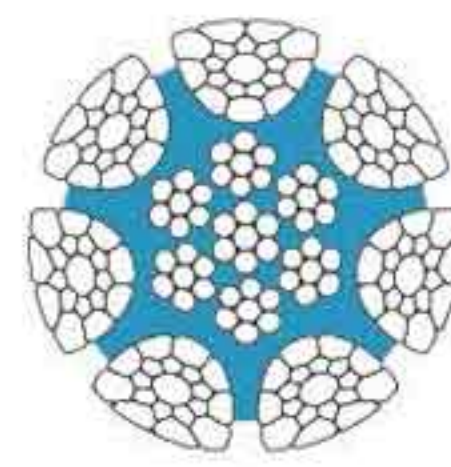
Parallel construction



Compacted



Plast core

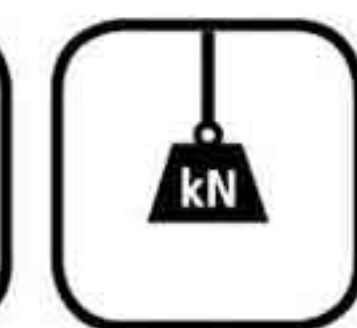


CASAR ULTRAFIT

High abrasion resistance. Especially suitable for multi-layer spooling. Boom hoist rope for mobile cranes and grabs, hoist ropes for application where rotation resistance ropes are not required.



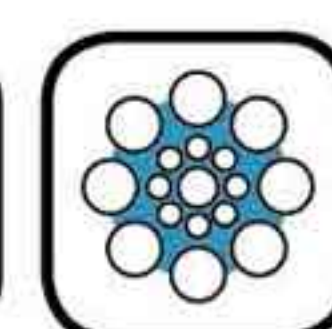
Abrasion resistant



High breaking force



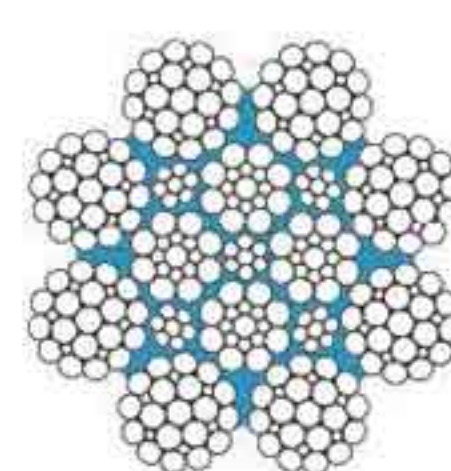
Compacted



Plast core



Swaged



CASAR STRATOLIFT

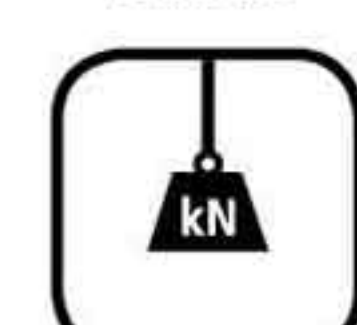
Very flexible Filler construction. Pendant rope for tower cranes, mobile cranes, grabs.



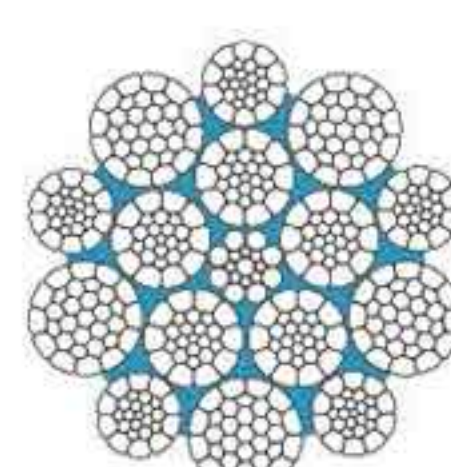
Parallel construction



Bending resistance

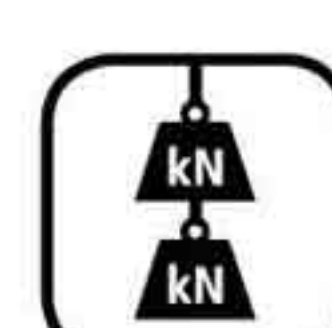


High breaking force



CASAR SUPERLIFT

Very flexible construction with an extremely high breaking load. Pendant ropes for tower cranes, mobile cranes, grabs, suspended structures, when highest breaking loads are required.



Very high breaking force



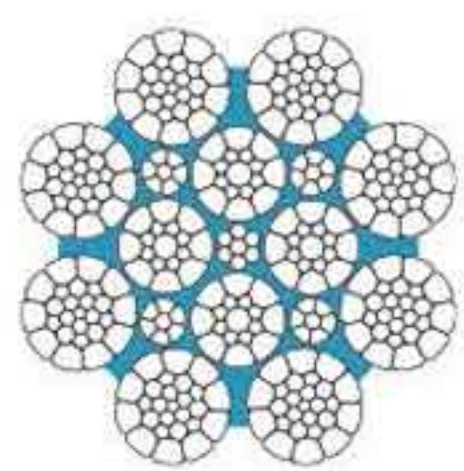
Parallel construction



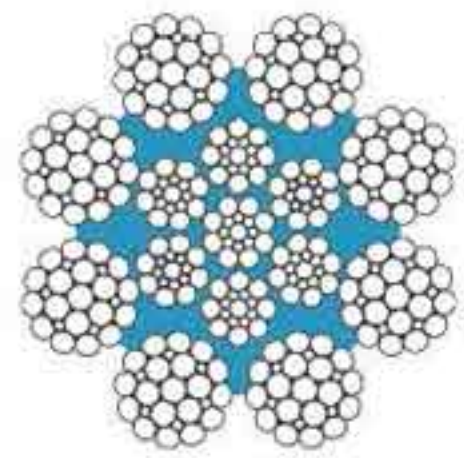
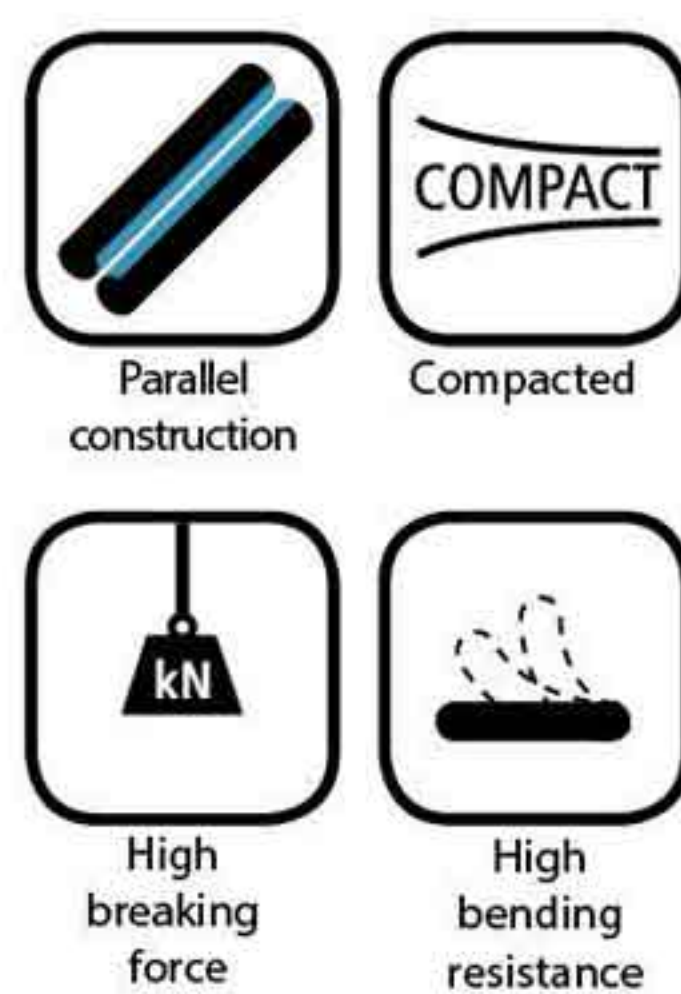
Bending resistance



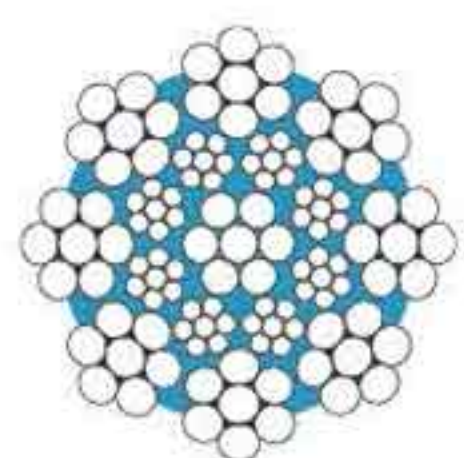
Compacted



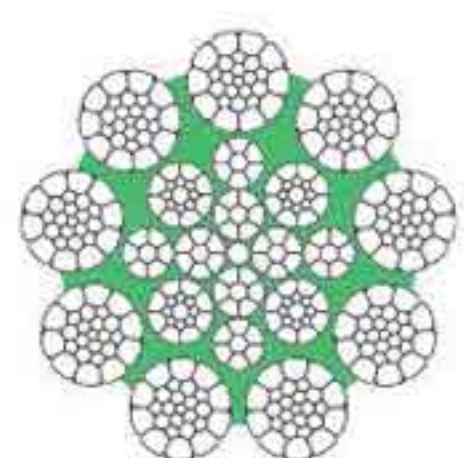
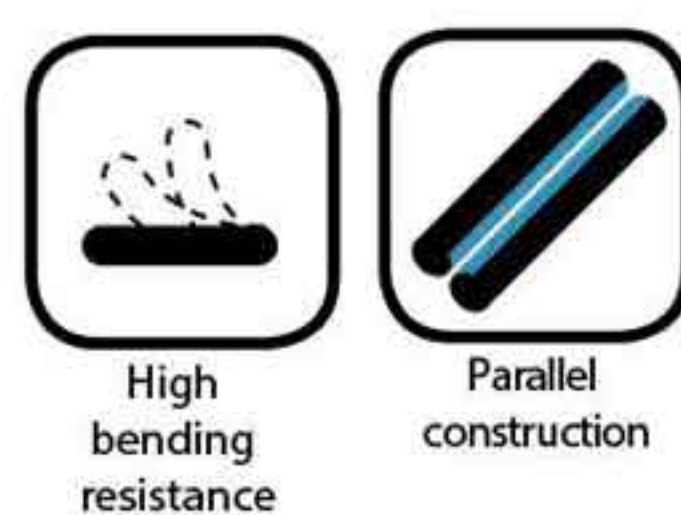
CASAR ALPHALIFT
Hoist rope for electrical hoist and other lifting device



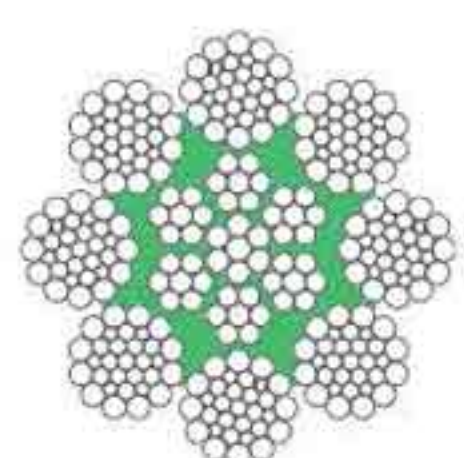
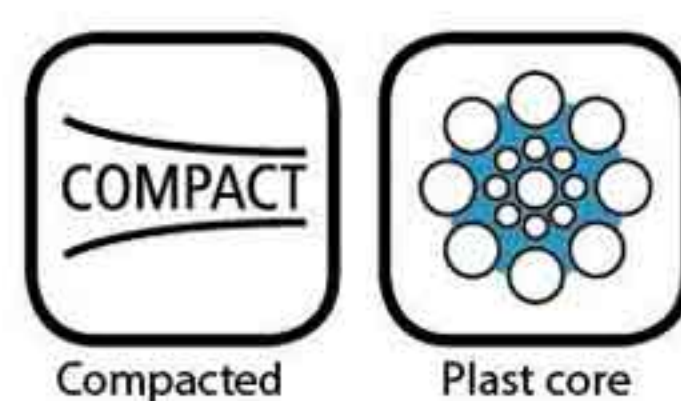
CASAR TECHNOLIFT
Hoist rope for overhead cranes, preferably ladle cranes with great rope lengths working in high temperature areas



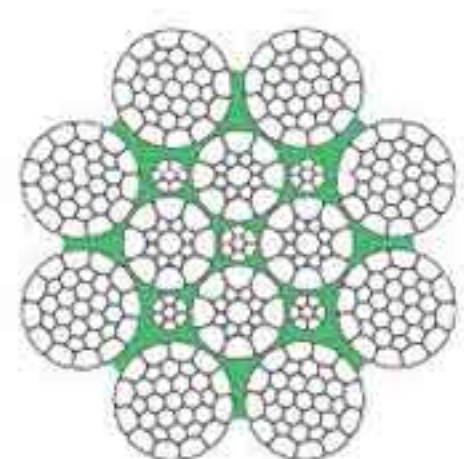
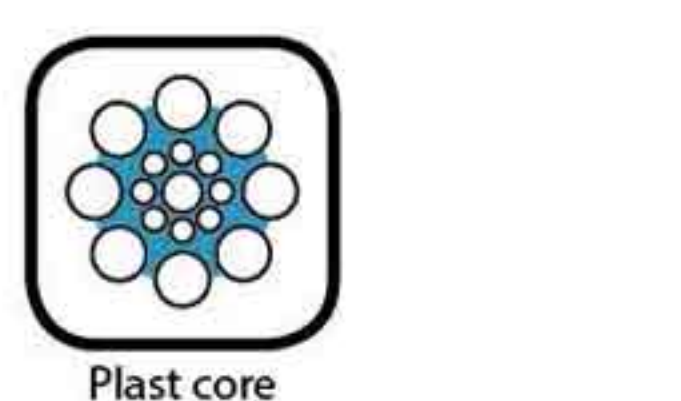
CASAR UNILIFT
Traction and haulback rope for scrapers and construction hoist, tag line and guide line for clam shells trolley rope for horizontal booms.



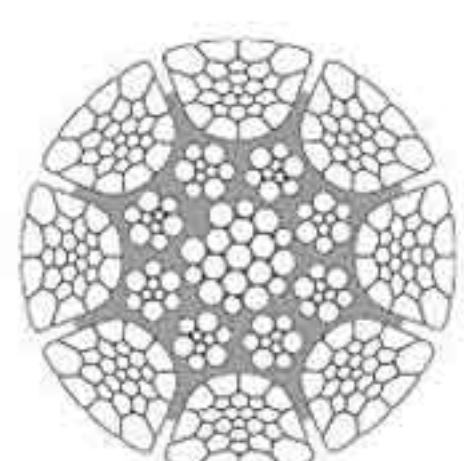
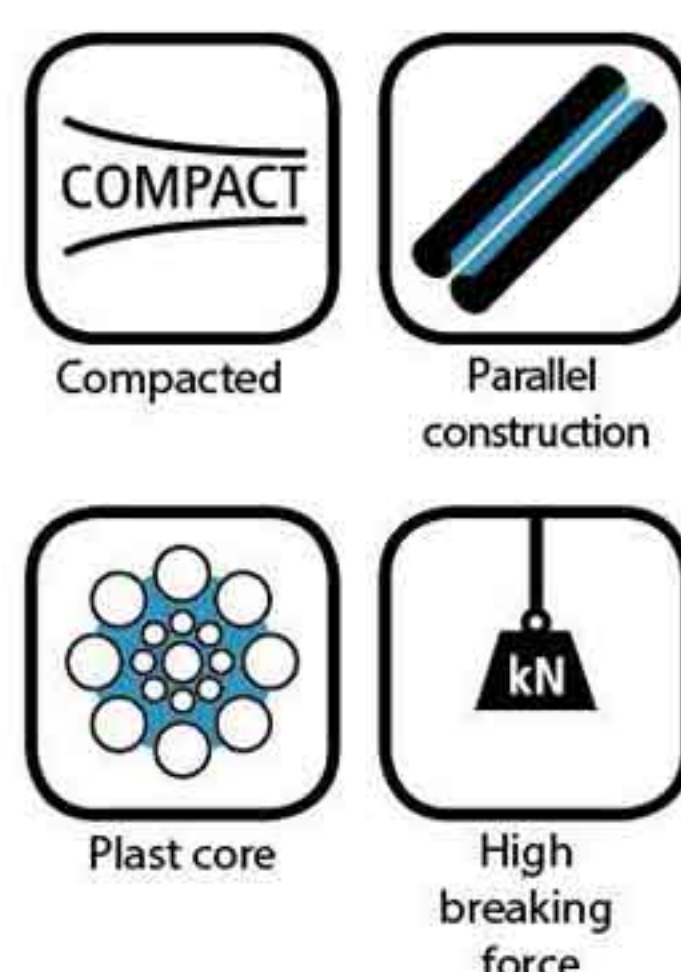
HD 9 K + PPI
Boom hoist for deck cranes, luffing for mobile and crawler, electric hoists, trolley for container cranes



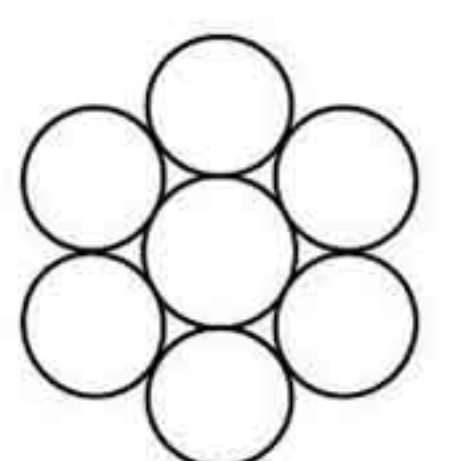
SC 8 C + PPI
Lifting rope. Can be used for all application as the HD 8 K when a very high MBL is not required.



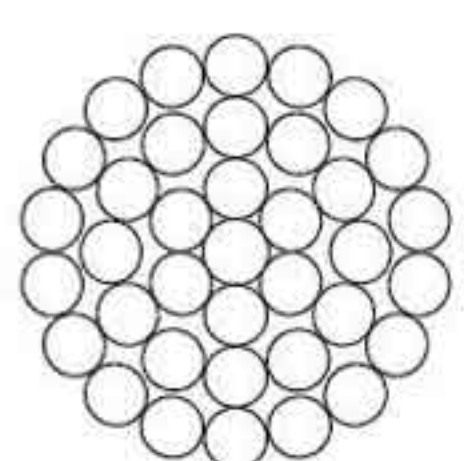
DP 8 K + PPI
For electric hoist, twin hoist systems, boom hoist and pendant rope for mobile cranes, tower cranes and all marine equipments.



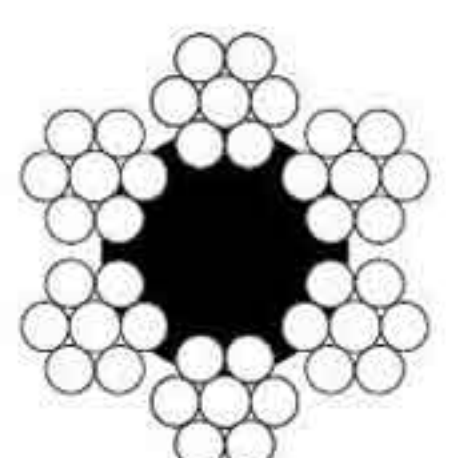
CS Forestier ciocănit
Traction swaged rope double construction used for forest industry.



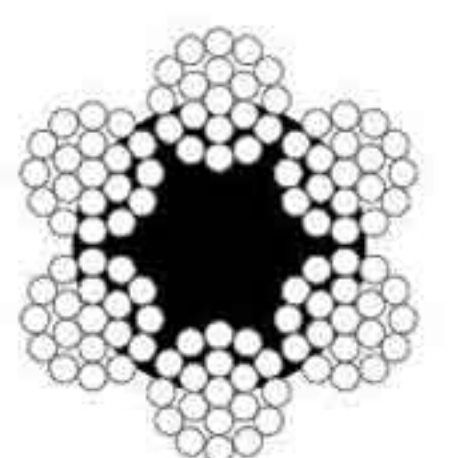
1x7
Traction rope simple construction used for anchorage.



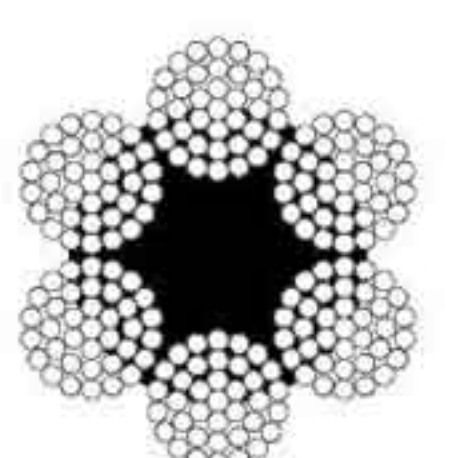
1x37
Traction rope simple construction used for anchorage and maintenance.



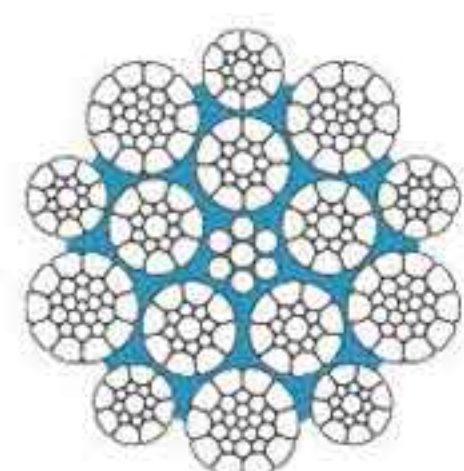
6x7 + FC (fiber core)
Traction rope double construction used for funicular, anchorage, lifting and lighting conductors.



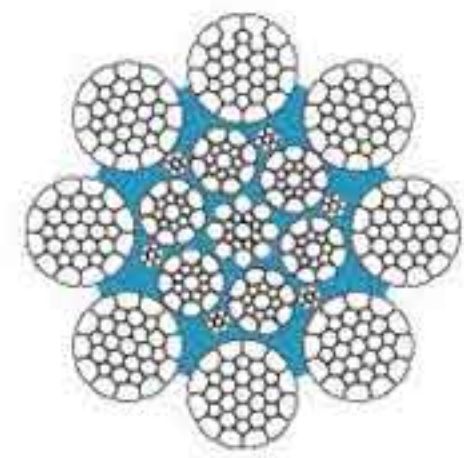
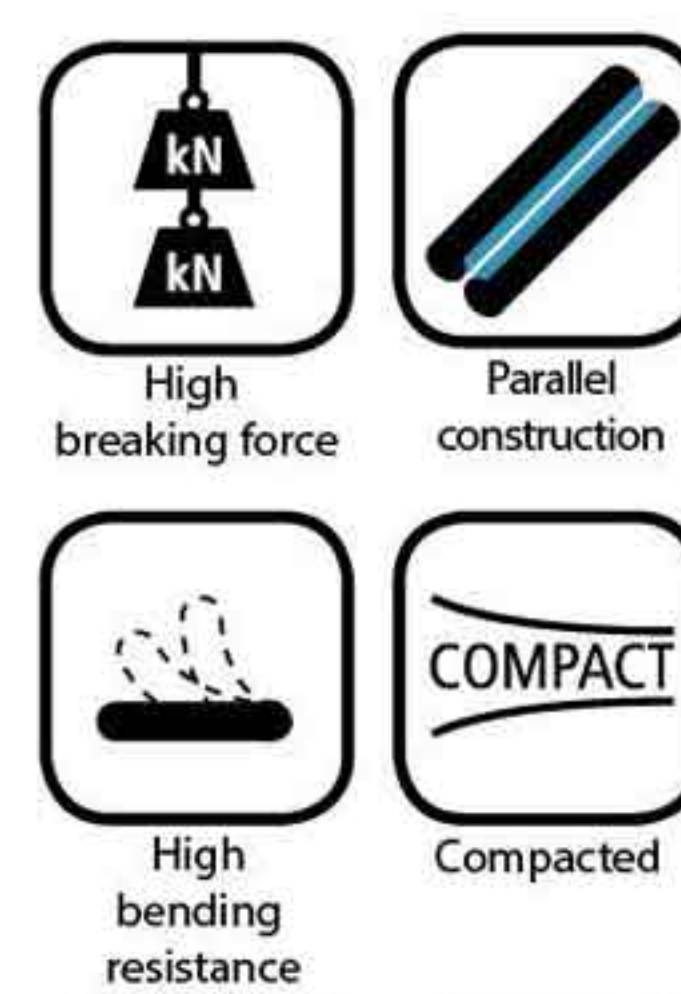
6x19 + FC (fiber core)
Traction rope double construction used for lifting, forest industry, elevator and off-shore industry



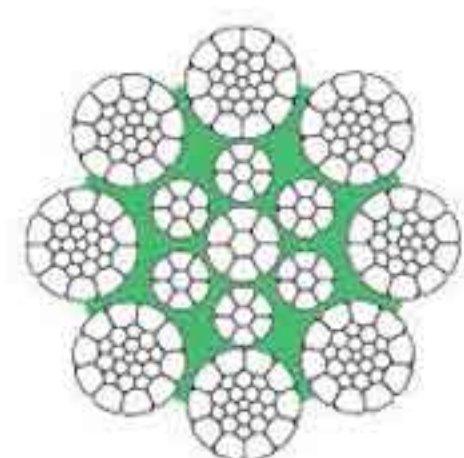
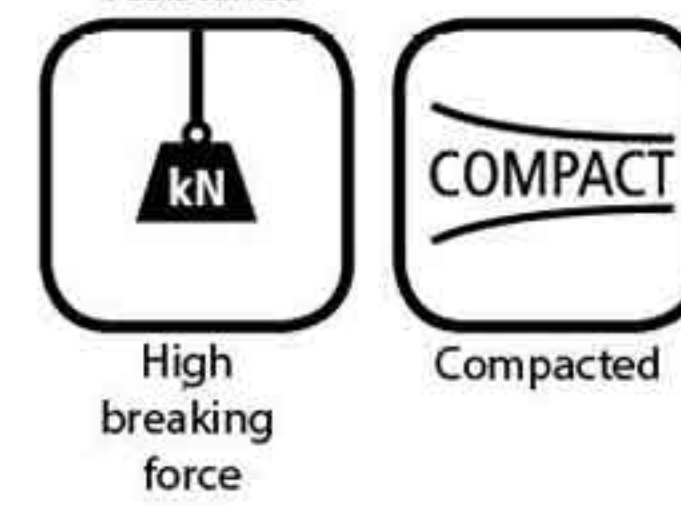
6x37 + FC (fiber core)
Traction rope double construction used for lifting, forest industry, elevator and off-shore industry



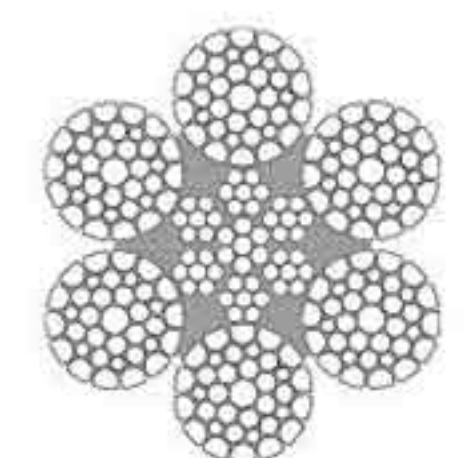
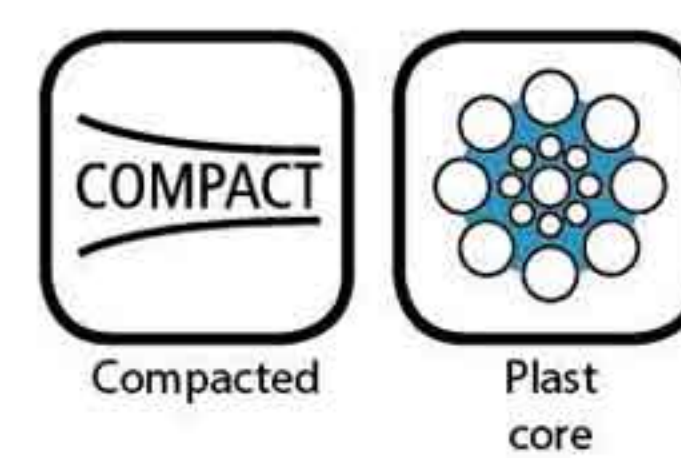
CASAR BETALIFT
Hoist rope for electrical hoist and other lifting device, where rotation resistant ropes are not required.



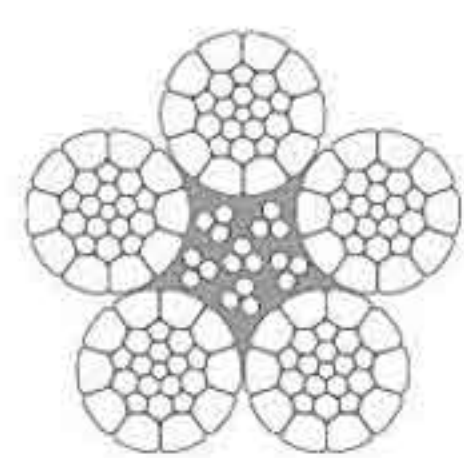
CASAR TECHNOLIFT PLUS
Hoist rope for overhead cranes
Excellent service life.



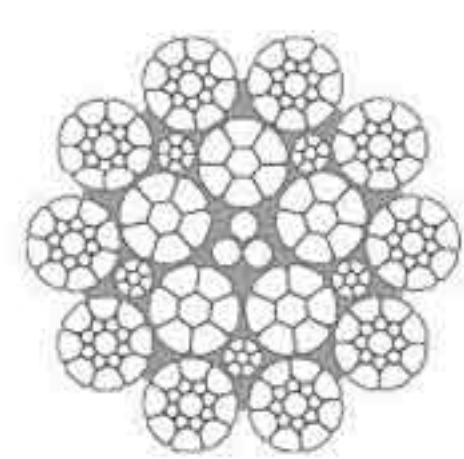
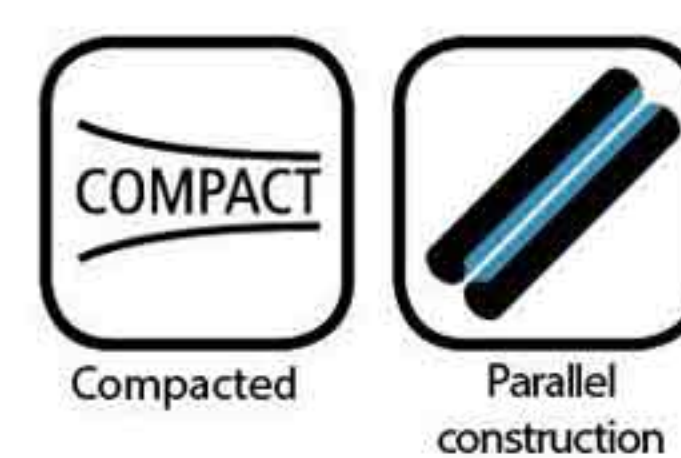
HD 8 K + PPI
Used for electric hoist, twin hoist systems, boom hoist and pendant rope for mobile cranes, tower cranes and all marine equipments.



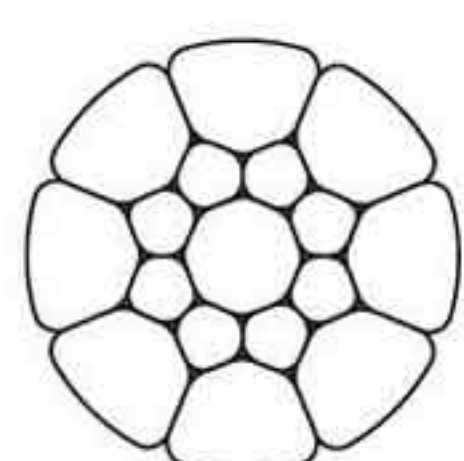
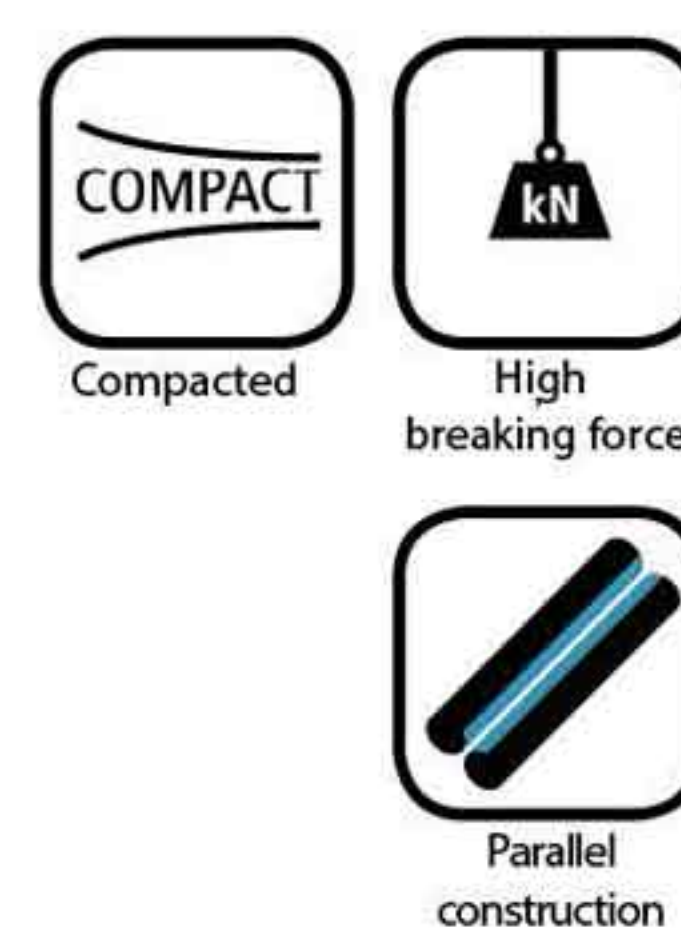
SC 6 K
Hoist rope for all hoist and pulling applications



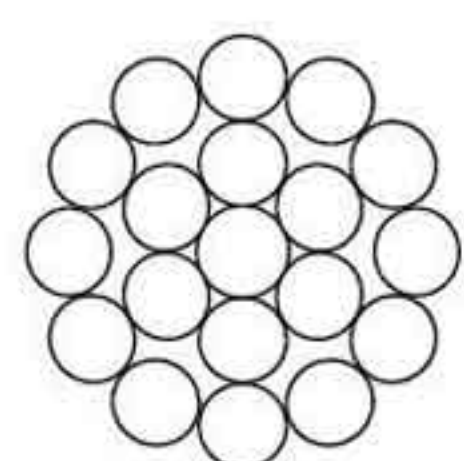
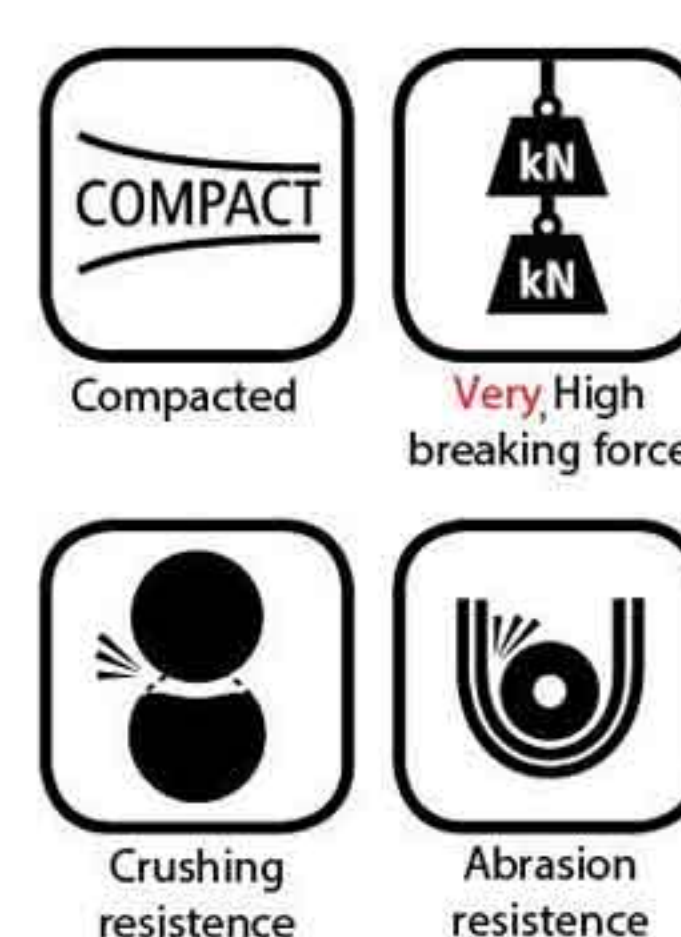
LP 5
Hoist rope used for different application



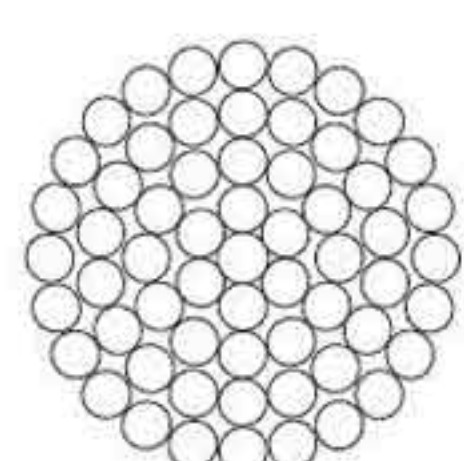
DP 10 K
Pendant rope for mobile cranes, tower cranes and all marine equipment



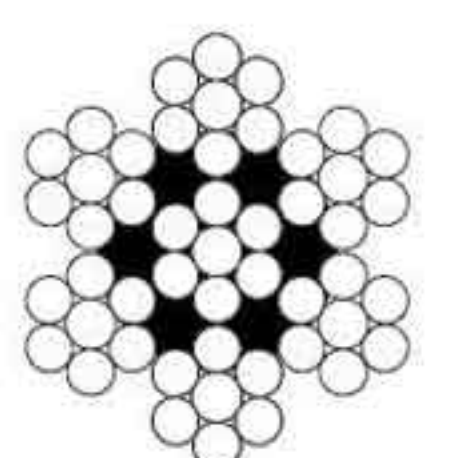
CS Forestier compactizat
Compacted rope used for forest industry



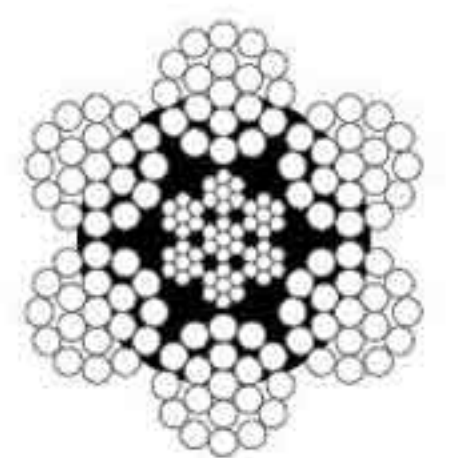
1x19
Traction rope simple construction user for ropeway, aviation, anchorage and mechanical transmission.



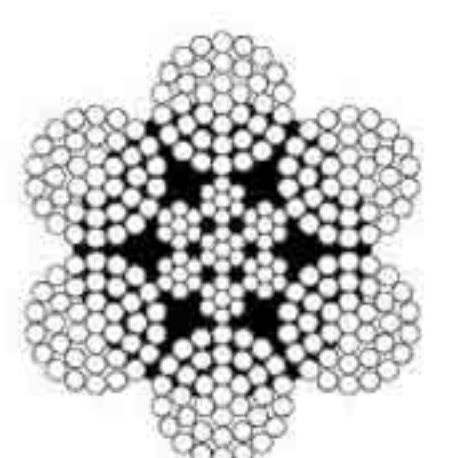
1x61
Traction rope simple construction for various kind of applications



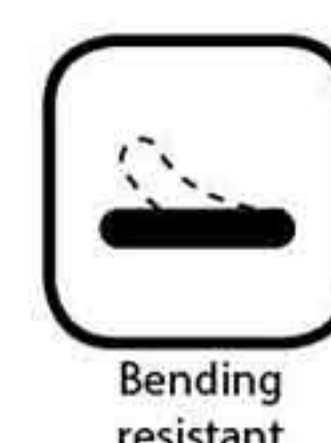
6x7 + IWRC (steel core)
Traction rope double construction used for funicular, anchorage, lifting and lighting conductor

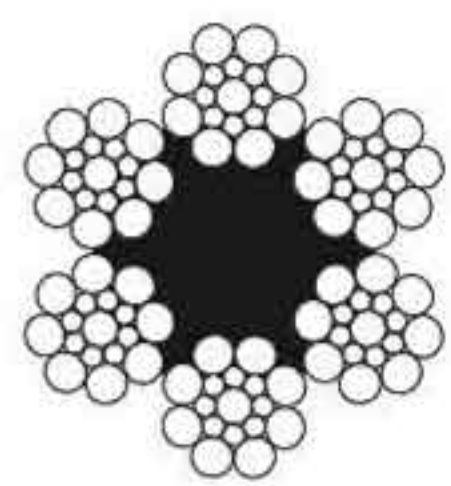


6x19 + IWRC (steel core)
Traction rope double construction used for lifting, forest industry, elevator and off-shore industry



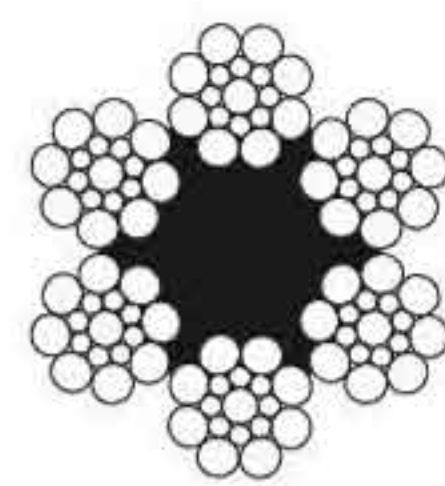
6x37 + IWRC (inimă metalică)
Traction rope double construction used for lifting, forest industry, elevator and off-shore industry





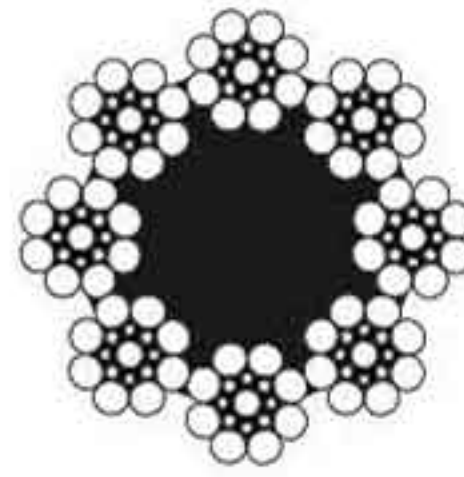
6x19SEALE + FC (fiber core)

Double combined construction for drillings, funiculars, draglines and winches



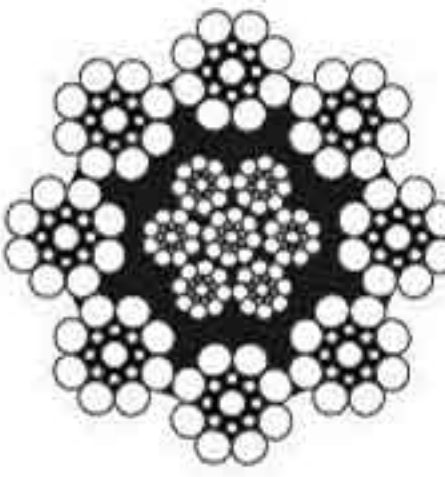
6x19SEALE + IWRC (steel core)

Double combined construction for drillings, funiculars, draglines and winches



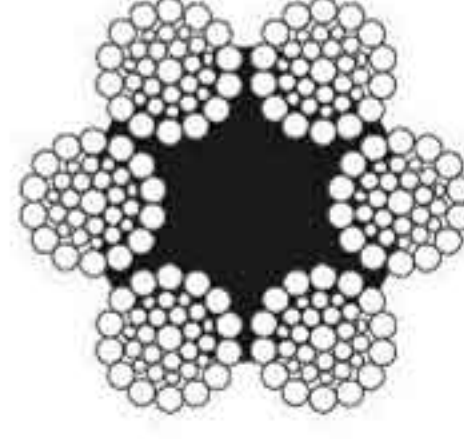
8x19S + FC (fiber core)

Traction wire rope double combined used for various applications



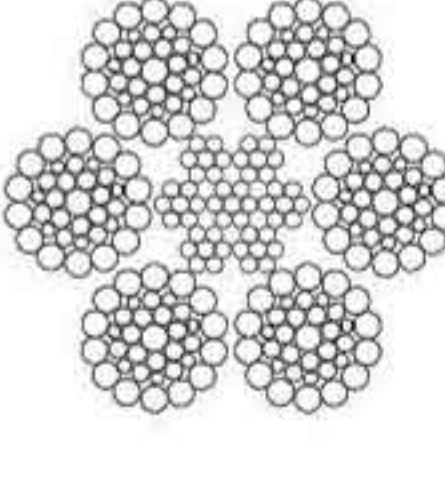
8x19S + IWRC (steel core)

Traction wire rope double combined used for various applications



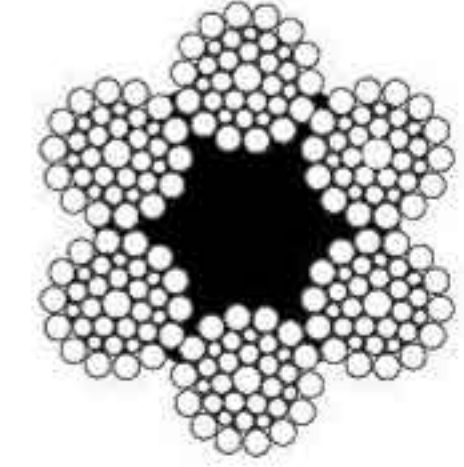
6x31WS + FC (fiber core)

Traction wire rope double combined used for various applications



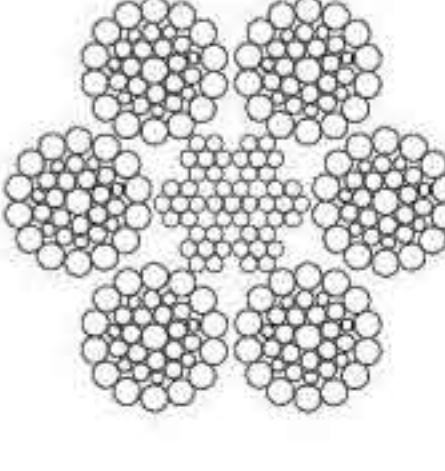
6x31WS + IWRC (steel core)

Traction wire rope double combined used for various applications



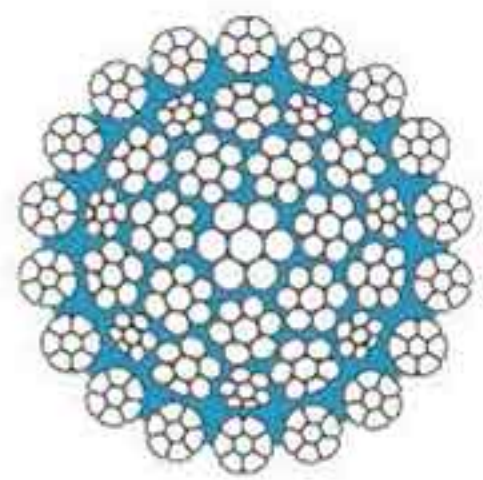
6x36WS + FC (fiber core)

Traction wire rope double combined used for drilling mobile cranes, cranes and special installations

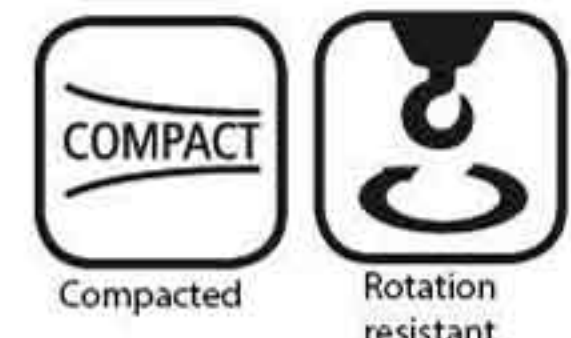


6x36WS + IWRC (steel core)

Traction wire rope double combined used for drilling mobile cranes, cranes and special installations



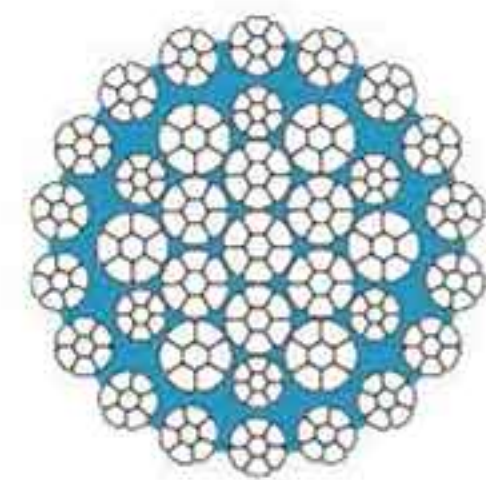
CASAR EUROLIFT



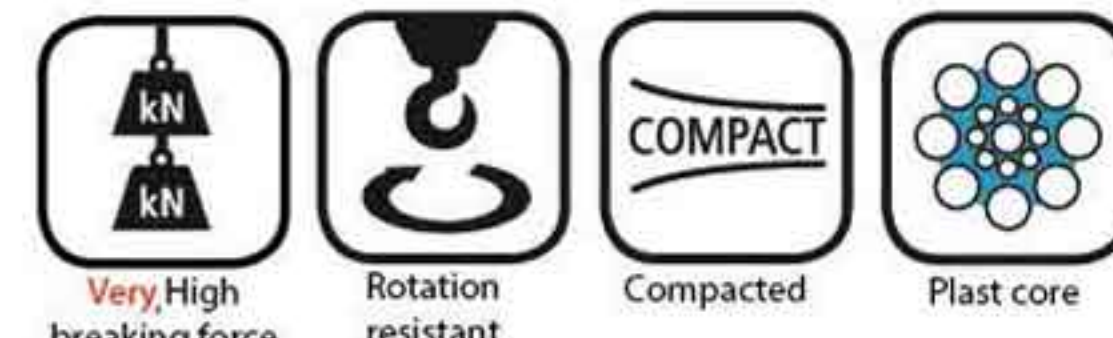
Minimum breaking force [kN]

Diameter [mm]	Weight [kg/m]	1960 N/mm ²		2160 N/mm ²	
		kN	t [metric]	kN	t [metric]
10	0,49	89,6	9,14	97,4	9,86
11	0,60	108,8	11,11	118,4	11,98
12	0,71	130,8	13,30	139,9	14,16
12,7	0,79	146,4	14,93	161,4	16,45
13	0,83	152,7	15,60	165,4	16,73
14	0,96	179,1	18,30	190,9	19,31
15	1,10	204,0	20,80	219,5	22,21
16	1,27	230,6	23,50	249,1	25,20
17	1,42	257,9	26,32	280,6	28,39
18	1,60	293,9	30,00	317,5	32,13
19	1,78	329,0	33,50	352,8	35,70
20	1,98	362,2	36,90	391,7	39,64
21	2,17	396,1	40,20	430,9	43,60

*up to 60 mm



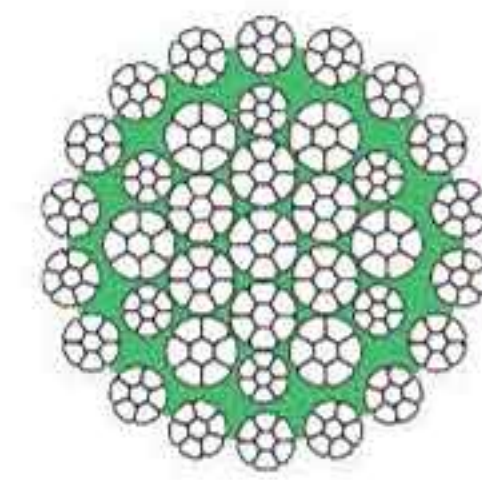
CASAR POWER PLAST



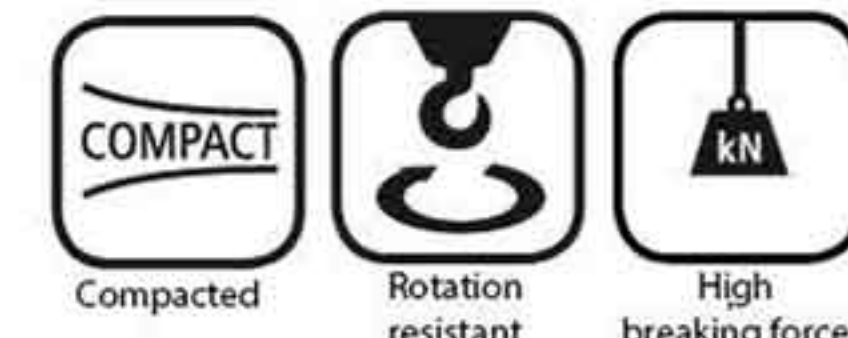
Minimum breaking force [kN]

Diametru [mm]	Greutate [kg/m]	1960 N/mm ²		2160 N/mm ²	
		kN	t [metric]	kN	t [metric]
12	0,72	130,8	13,30	142,6	14,54
13	0,86	152,7	15,60	169,4	17,28
14	0,98	179,1	18,30	194,7	19,85
15	1,12	204,0	20,80	222,4	22,68
16	1,29	230,6	23,50	256,2	26,13
17	1,45	260,7	26,59	286,2	29,18
18	1,64	293,9	30,00	325,4	33,18
19	1,82	329,0	33,50	361,1	36,83
20	2,00	362,2	36,90	396,9	40,47
21	2,22	400,0	40,79	439,0	44,77
22	2,43	441,4	45,00	481,4	49,09
23	2,65	477,6	48,71	524,4	53,48
24	2,87	524,3	53,50	568,7	57,99

*up to 72 mm



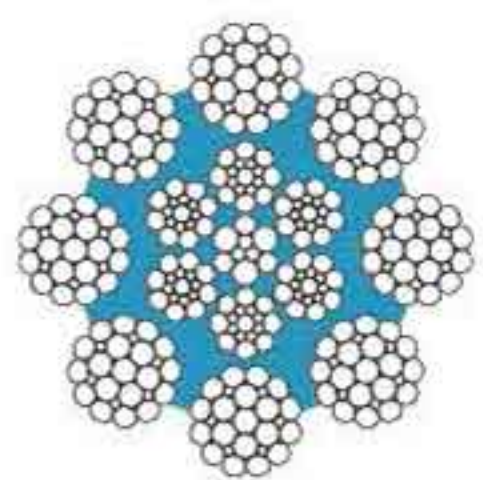
NR MAXIPACT + PPI



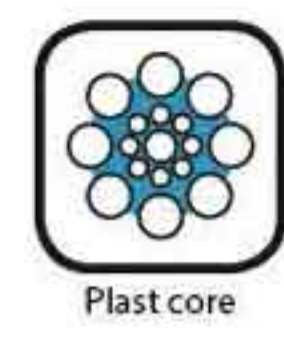
Minimum breaking force [kN]

Diameter [mm]	Weight [kg/m]	1960 N/mm ²		2160 N/mm ²	
		kN	t [metric]	kN	t [metric]
13	0,816	157,8	16,1	165,7	16,9
14	0,949	183,3	18,7	192,5	19,6
15	1,088	209,6	21,4	220,6	22,5
16	1,245	239,4	24,4	251,4	25,6
17	1,398	269,7	27,5	283,4	28,9
18	1,562	302,5	30,9	317,7	32,4
19	1,757	338,9	34,6	355,9	36,3
20	1,930	374,2	38,2	393,0	40,1
21	2,139	412,2	42,0	432,9	44,1
22	2,342	452,0	46,1	474,7	48,4
23	2,560	494,8	50,5	519,6	53,0
24	2,790	540,3	55,1	567,4	57,9
25	3,043	587,1	59,9	616,6	62,9

*up to 54 mm



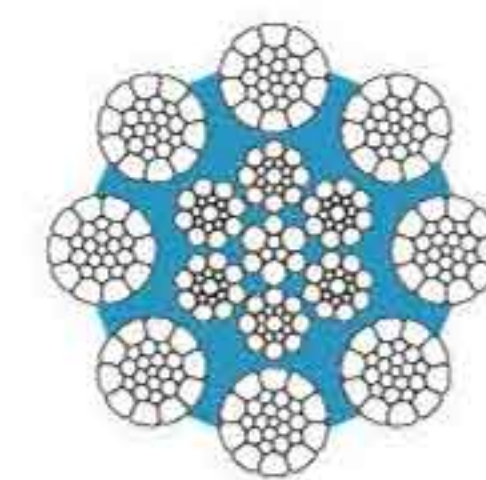
CASAR STRATOPLAST



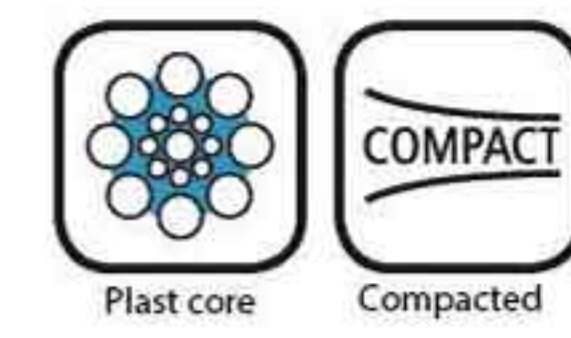
Minimum breaking force [kN]

Diameter [mm]	Weight [kg/m]	1770 N/mm ²		1960 N/mm ²	
		kN	t [metric]	kN	t [metric]
8	0,27	47,2	4,80	52,3	5,34
9	0,35	60,0	6,10	66,4	6,78
10	0,43	74,0	7,53	82,0	8,37
11	0,53	88,5	9,00	98,0	10,00
12	0,61	106,6	10,84	118,0	12,05
12,7	0,69	119,4	12,17	132,2	13,48
13	0,73	125,5	12,76	138,9	14,18
14	0,85	144,6	14,71	160,1	16,34
15	0,99	166,3	16,91	184,1	18,79
16	1,12	189,0	19,22	209,3	21,36
17	1,25	211,5	21,51	234,2	23,90
18	1,40	239,8	24,38	265,5	27,09
19	1,59	264,5	26,90	292,9	29,89
20	1,76	295,3	30,03	327,0	33,36
21	1,93	324,2	32,97	359,0	36,63
22	2,18	356,2	36,23	394,5	40,25
23	2,30	386,8	39,34	428,3	43,71

*up to 72 mm



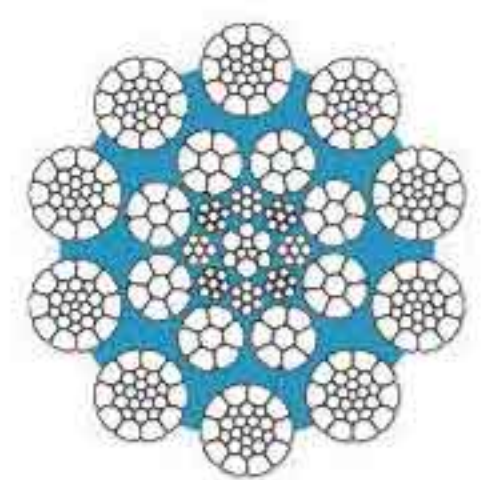
CASAR TURBOPLAST



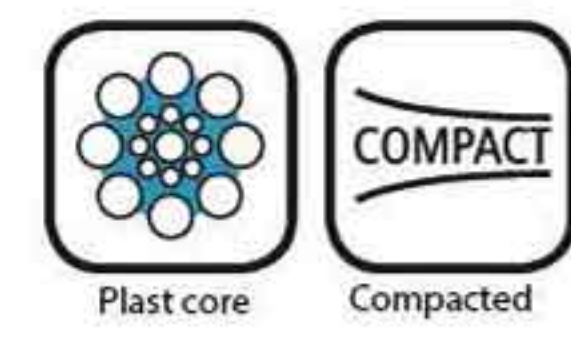
Minimum breaking force [kN]

Diameter [mm]	Weight [kg/m]	1960 N/mm ²		2160 N/mm ²	
		kN	t [metric]	kN	t [metric]
8	0,29	56,6	5,77	63,5	6,47
9	0,37	73,0	7,46	81,4	8,29
10	0,46	88,7	9,06	101,0	10,30
11	0,56	107,5	10,98	121,0	12,40
12	0,66	127,4	13,01	144,0	14,70
12,7	0,74	143,5	14,63	161,0	16,50
13	0,78	151,3	15,43	170,0	17,30
14	0,90	174,8	17,84	196,0	20,00
15	1,04	202,7	20,69	226,0	23,10
16	1,18	229,4	23,41	252,0	25,70
17	1,33	255,4	26,06	283,0	28,90
18	1,47	288,2	29,41	314,0	32,00
19	1,64	323,5	33,02	351,0	35,80
20	1,83	355,5	36,27	391,0	39,90
21	1,97	388,5	39,64	421,0	43,00
22	2,19	433,7	44,26	468,0	47,70
23	2,39	471,4	48,10	511,0	52,10

*up to 72 mm



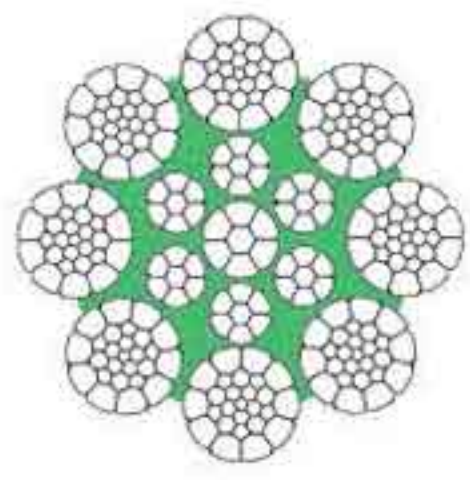
CASAR SUPERPLAST8



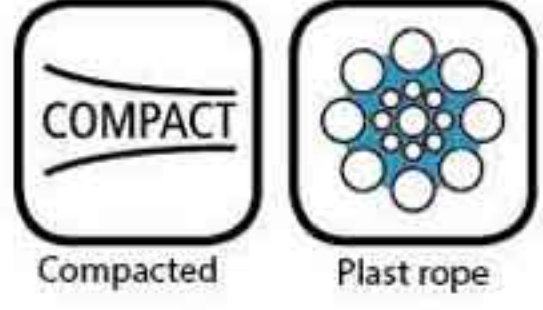
Minimum breaking force [kN]

Diameter [mm]	Weight [kg/m]	1960 N/mm ²		2160 N/mm ²	
		kN	t [metric]	kN	t [metric]
10	0,47	90,9	9,27	99,6	10,15
11	0,57	108,9	11,10	119,3	12,16
12	0,66	127,2	12,97	139,4	14,21
12,7	0,75	144,2	14,71	158,0	16,11
13	0,78	151,8	15,47	166,2	16,95
14	0,89	173,8	17,72	190,4	19,42
15	1,03	199,8	20,37	218,9	22,32
16	1,18	226,5	23,09	248,1	25,30
17	1,35	260,0	26,51	284,8	29,04
18	1,51	292,8	29,86	320,8	32,71
19	1,67	320,4	32,67	351,0	35,79
20	1,85	358,2	36,65	394,8	40,15
21	2,04	396,8	40,46	434,7	44,32
22	2,24	432,2	44,07	473,5	48,28
23	2,46	473,0	48,23	518,2	52,84
24	2,69	517,4	52,76	566,9	57,80
25	2,89	559,6	57,06	613,4	62,55

*up to 76 mm

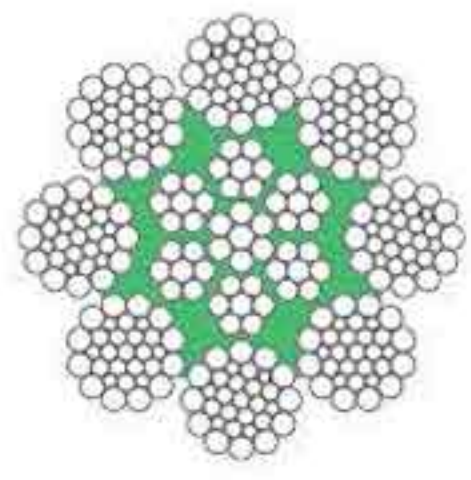


HD 8 K + PPI

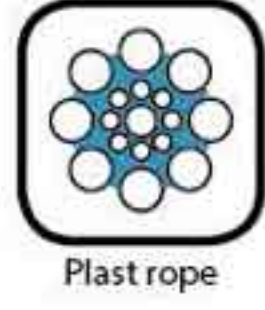


Diameter [mm]	Weight [kg/m]	Minimum breaking force[kN]			
		1960 N/mm ²		2160 N/mm ²	
		kN	t [metric]	kN	t [metric]
8	0,284			58,0	5,91
9	0,362			73,6	7,50
10	0,458			92,4	9,4
11	0,553			112	11,4
12	0,649	126	12,9	133	13,5
13	0,769	149	15,2	156	15,9
14	0,896	173	17,7	182	18,5
15	1,034	201	20,5	211	21,5
16	1,148	221	22,6	232	23,7
18	1,479	285	29,1	299	30,5
19	1,632	314	32,1	330	33,6
20	1,838	354	36,1	372	37,9
22	2,173	419	42,7	439	44,8
24	2,548	510	52,0	535	54,4

*Up to 60 mm

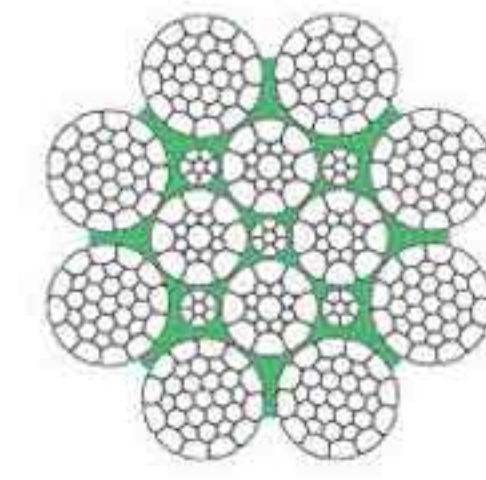


SC 8 C + PPI

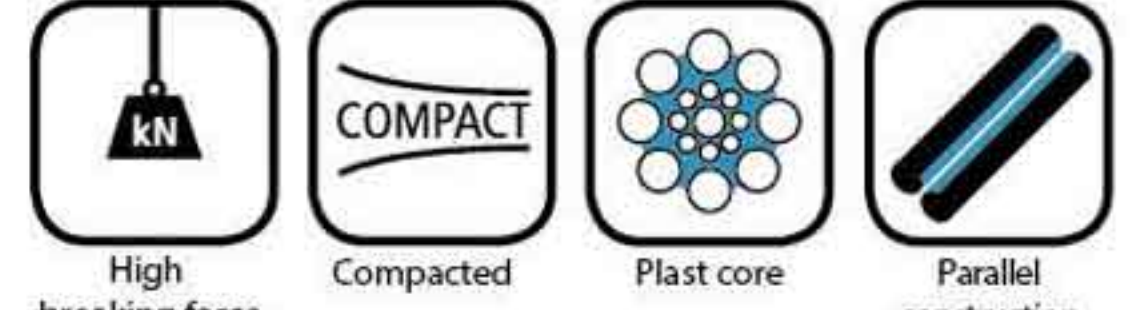


Diameter [mm]	Weight [kg/m]	Minimum breaking force [kN]	
		1960 N/mm ²	2160 N/mm ²
		kN	t [metric]
8	0,262	49,7	5,06
9	0,334	63,3	6,45
10	0,412	78,1	7,97
11	0,503	95,4	9,72
12	0,604	115	11,7
13	0,711	134	13,7
14	0,830	157	16,0
15	0,950	180	18,3
16	1,107	209	21,3
18	1,386	262	26,8
19	1,531	289	29,5
20	1,720	325	33,1
22	2,066	391	39,9
24	2,466	469	47,8

* Up to 62 mm

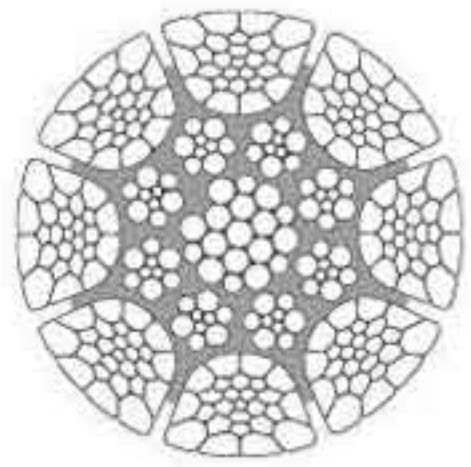


DP 8 K + PPI

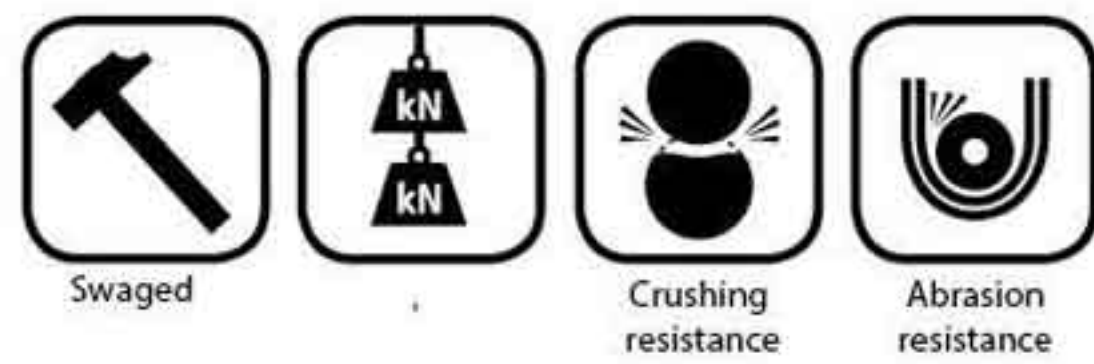


Diameter [mm]	Weight [kg/m]	Minimum breaking force [kN]	
		1960 N/mm ²	2160 N/mm ²
		kN	t [metric]
6,4	0,191	41,4	4,22
7	0,233	50,5	5,15
7,2	0,245	53,2	5,42
8	0,301	64,1	6,54
8,5	0,341	73,3	7,47
9	0,388	82,3	8,39
10	0,475	102	10,4
11	0,567	123	12,6
12	0,678	147	15
13	0,814	176	18
14	0,935	203	20,7
15	1,092	237	24,2
16	1,216	264	26,9
17	1,398	303	30,9

*Up to 38 mm



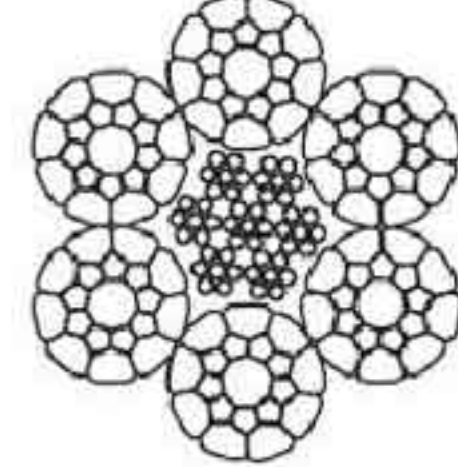
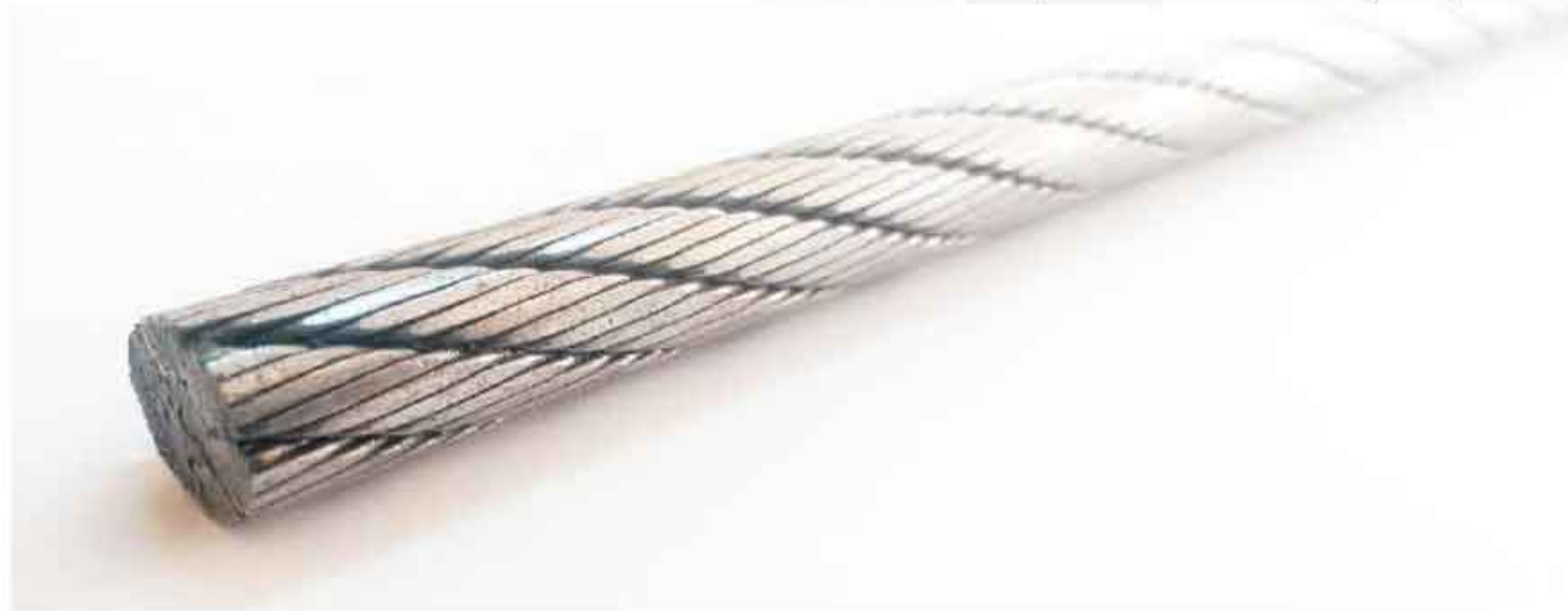
6x25 Premium Swaged rope



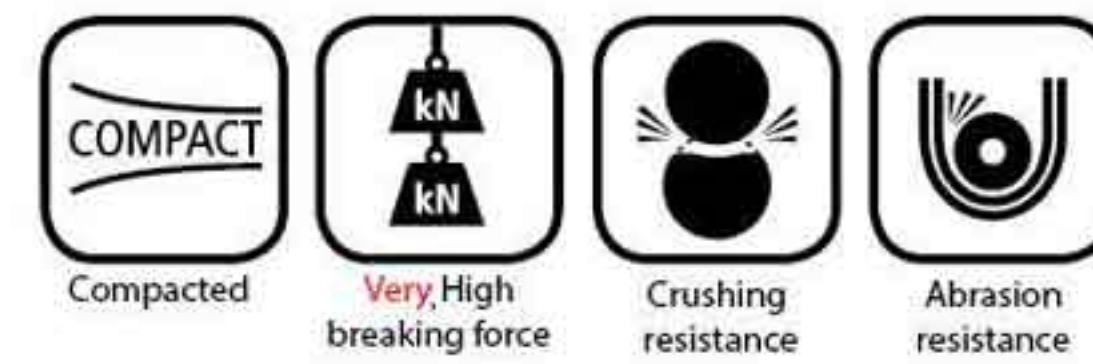
Advantage:

- highly resistance to crushing, corrosion
- 60% higher breaking load compared to normal wire rope
- reducing the diameter result greater drum capacity
- longer rope life

Diameter [mm]	Weight [kg/m]	Minimum breaking force	
		1960 N/mm ²	2160 N/mm ²
		kN	t [metric]
9	0,484	76,9 (8Tf)	
10	0,576	100 (10Tf)	
11	0,676	118 (12Tf)	
12	0,784	137 (14Tf)	
13	0,902	157 (16Tf)	
14	1,020	179 (18Tf)	
15	1,160	201 (21Tf)	
16	1,300	226 (23Tf)	
17	1,450	251 (26Tf)	



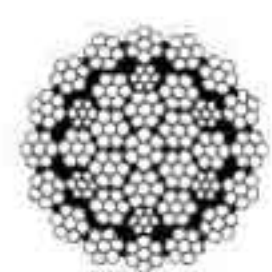
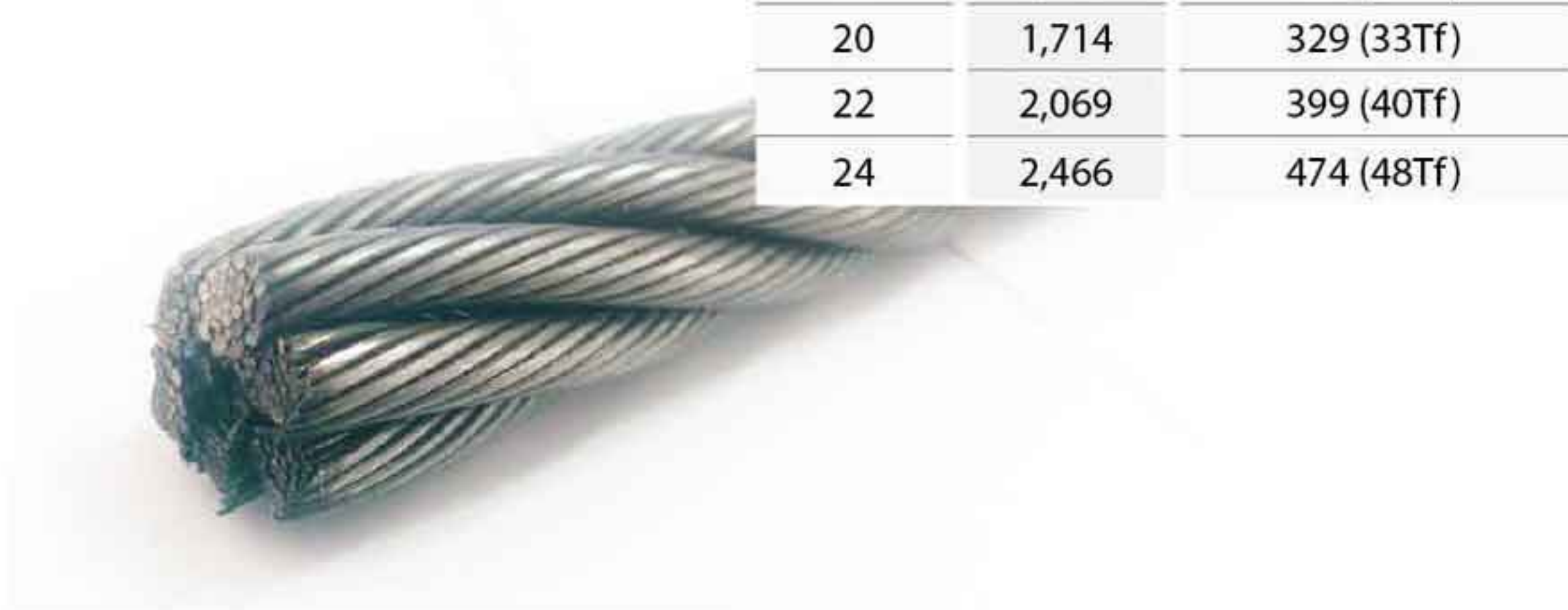
CS Compacted forestry wire rope 6xK31 + IWRC



Advantages:

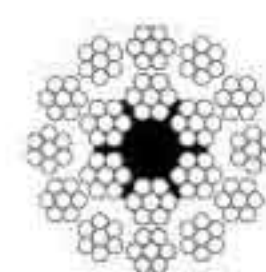
- designed for applications when a higher minimum breaking load is required
- highly resistance to crushing, corrosion
- high flexibility
- Greater drum capacity
- longer rope life

Diameter [mm]	Weight [kg/m]	Minimum breaking force	
		1960 N/mm ²	2160 N/mm ²
		kN	t [metric]
8	0,274	52,7 (6Tf)	
9	0,346	66,7 (7Tf)	
10	0,427	82,4 (9Tf)	
11	0,517	99,6 (10Tf)	
12	0,616	118 (12Tf)	
13	0,722	139 (14Tf)	
14	0,838	162 (17Tf)	
16	1,097	211 (22Tf)	
18	1,390	267 (27Tf)	
20	1,714	329 (33Tf)	
22	2,069	399 (40Tf)	
24	2,466	474 (48Tf)	



35(W) x 7

Diameter [mm]	Weight [kg/m]	Minimum breaking force [kN]	
		1770N/mm ²	1960 N/mm ²
10,0	0,44	63,7	70,6
12,0	0,62	91,8	101,6
13,0	0,73	107,7	119,2
14,0	0,85	124,9	138,3
15,0	0,95	143,4	158,8
16,0	1,10	163,1	180,6
17,0	1,20	184,2	203,9
18,0	1,40	206,5	228,6
19,0	1,60	230,0	254,7
20,0	1,77	254,9	282,2
22,0	2,13	308,4	341,5
24,0	2,52	367,0	406,4
25,0	2,72	398,3	441,0
26,0	2,94	430,7	477,0
28,0	3,39	499,6	553,2
30,0	3,98	573,5	635,0
32,0	4,50	652,5	722,5
34,0	5,10	736,6	815,7
36,0	5,80	825,8	914,5
38,0	6,30	920,1	1018,9
40,0	7,15	1079,5	1129,0
42,0	7,86	1110,0	
44,0	8,61	1220,0	
46,0	9,43	1360,0	



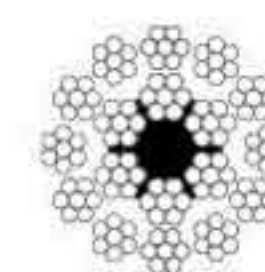
18x7+FC fiber core

Diameter [mm]	Weight [kg/m]	Minimum breaking force [kN]	
		1770N/mm ²	1960 N/mm ²
8,0	0,244	37,2	41,1
9,0	0,309	47,0	52,1
10,0	0,382	58,1	64,3
11,0	0,462	70,2	77,8
12,0	0,550	83,6	92,6
13,0	0,646	98,1	108,6
14,0	0,749	113,8	126,0
16,0	0,978	148,6	164,6
18,0	1,238	188,1	208,3
20,0	1,528	232,2	257,2
22,0	1,849	281,0	311,2
24,0	2,200	334,4	370,3
26,0	2,582	392,5	434,6
28,0	2,995	455,2	504,0
30,0	3,438	522,5	578,6
32,0	3,912	594,5	658,3
34,0	4,416	671,1	743,2
36,0	4,951	752,4	833,2

Minimum breaking force [kN]

18x7+IWRC steel core

Weight [kg/m]	Diameter [mm]	Minimum breaking force [kN]	
		1770N/mm ²	1960 N/mm ²
0,257	8,0	37,2	41,1
0,325	9,0	47,0	52,1
0,401	10,0	58,1	64,3
0,485	11,0	70,2	77,8
0,577	12,0	83,6	92,6
0,678	13,0	98,1	108,6
0,786	14,0	113,8	126,0
1,027	16,0	148,6	164,6
1,299	18,0	188,1	208,3
1,604	20,0	232,2	257,2
1,941	22,0	281,0	311,2
2,310	24,0	334,4	370,3
2,711	26,0	392,5	434,6
3,144	28,0	455,2	504,0
3,609	30,0	522,5	578,6
4,106	32,0	594,5	658,3
4,636	34,0	671,1	743,2
5,197	36,0	752,4	833,2



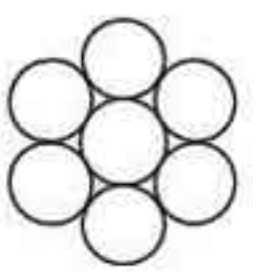
18x19S+FC fiber core

Diameter [mm]	Weight [kg/m]	Minimum breaking force [kN]	
		1770N/mm ²	1960 N/mm ²
15,0	0,880	131,0	145,0
16,0	0,980	149,0	165,0
18,0	1,275	188,0	208,0
19,0	1,380	210,0	232,0
20,0	1,545	232,0	257,0
22,0	1,875	281,0	311,0
24,0	2,230	334,0	370,0
25,0	2,430	363,0	402,0
26,0	2,615	392,0	435,0
28,0	3,060	455,0	504,0
30,0	3,550	523,0	579,0
32,0	4,015	594,0	658,0
34,0	4,645	671,0	743,0
36,0	5,195	752,0	833,0
38,0	5,775	838,0	928,0

Minimum breaking force [kN]

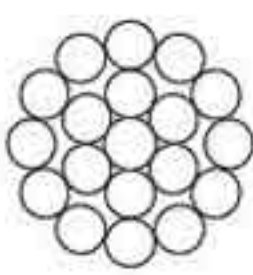
18x19S+IWRC steel core

Weight [kg/m]	Diameter [mm]	Minimum breaking force [kN]	
		1770N/mm ²	1960 N/mm ²
0,940	15,0	131,0	145,0
1,045	16,0	149,0	165,0
1,345	18,0	188,0	208,0
1,470	19,0	210,0	232,0
1,650	20,0	232,0	257,0
1,995	22,0	281,0	311,0
2,375	24,0	334,0	370,0
2,585	25,0	363,0	402,0
2,780	26,0	392,0	435,0
3,255	28,0	455,0	504,0
3,740	30,0	523,0	579,0
4,275	32,0	594,0	658,0
4,935	34,0	671,0	743,0
5,525	36,0	752,0	833,0
6,150	38,0	838,0	928,0



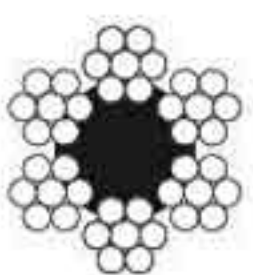
1 x 7

Diameter [mm]	Weight [kg/m]	Breaking load [kN] 1770N/mm ²
0,6	0,0018	0,347
0,8	0,0032	0,617
1,0	0,0050	0,963
1,5	0,0113	2,170
2,0	0,0201	3,850
2,5	0,0314	6,020
3,0	0,0452	8,670
3,5	0,0615	11,800
4,0	0,0803	15,400
4,5	0,1020	19,500
5,0	0,1260	24,100
6,0	0,1810	34,700
7,0	0,2460	47,200
8,0	0,3210	61,700
9,0	0,4070	78,000
10,0	0,5020	96,300



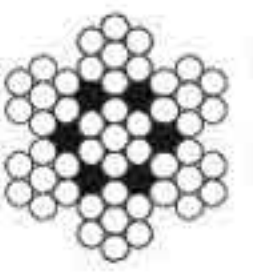
1 x 19

Diameter [mm]	Weight [kg/m]	Breaking load [kN] 1770N/mm ²
1,0	0,00495	0,93
1,5	0,01110	2,09
2,0	0,01980	3,72
2,5	0,03100	5,81
3,0	0,04460	8,37
3,5	0,06070	11,40
4,0	0,07930	14,90
5,0	0,12400	23,20
6,0	0,17800	33,50
7,0	0,24300	45,60
8,0	0,31700	59,50
9,0	0,40100	75,30
10,0	0,49500	93,00
11,0	0,59900	112,00
12,0	0,71300	134,00
13,0	0,83700	157,00
14,0	0,97100	182,00
15,0	1,11000	209,00
16,0	1,27000	238,00



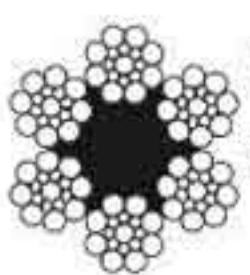
6x7+FC
fiber core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
2,0	0,0138	2,4
3,0	0,0311	5,3
4,0	0,0552	9,4
5,0	0,0863	14,7
6,0	0,1242	21,2
7,0	0,1691	28,8
8,0	0,2208	37,6
9,0	0,2795	47,6
10,0	0,3450	58,8
11,0	0,4175	71,1
12,0	0,4968	84,6
13,0	0,5831	99,3
14,0	0,6762	115,2
16,0	0,8832	150,4
18,0	1,1178	190,4
20,0	1,3800	235,1
22,0	1,6698	284,4
24,0	1,9872	338,5
26,0	2,3322	397,2
28,0	2,7048	460,7
32,0	3,5328	601,7



6x7+IWRC
steel core

Weight [kg/m]	Breaking force [kN] 1770N/mm ²
2,0	2,5
3,0	5,7
4,0	10,2
5,0	15,9
6,0	22,9
7,0	31,1
8,0	40,7
9,0	51,5
10,0	63,5
11,0	76,9
12,0	91,5
13,0	107,4
14,0	124,5
16,0	162,7
18,0	205,9
20,0	254,2
22,0	307,5
24,0	366,0
26,0	429,6
28,0	498,2
32,0	650,7



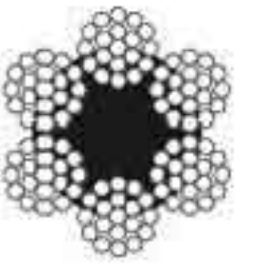
6x19S+FC
fiber core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
8,0	0,230	37,4
9,0	0,291	47,3
10,0	0,359	58,4
11,0	0,434	70,7
12,0	0,517	84,1
13,0	0,607	98,7
14,0	0,704	114,5
15,0	0,808	131,4
16,0	0,919	149,5
18,0	1,163	189,2
19,0	1,296	210,9
20,0	1,436	233,6
22,0	1,738	282,7
24,0	2,068	336,4
25,0	2,244	365,1
26,0	2,427	394,9
28,0	2,815	457,9
32,0	3,676	598,1
35,0	4,398	715,5
36,0	4,653	757,0
38,0	5,184	843,4
40,0	5,744	934,6



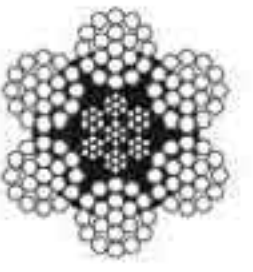
6x19S+IWRC
steel core

Weight [kg/m]	Breaking force [kN] 1770N/mm ²
0,256	40,3
0,324	51,0
0,400	63,0
0,484	76,2
0,576	90,7
0,676	106,5
0,784	123,5
0,900	141,8
1,024	161,3
1,296	204,2
1,444	227,5
1,600	252,0
1,936	305,0
2,304	362,9
2,500	393,8
2,704	426,0
3,136	494,0
4,096	645,2
4,900	771,9
5,184	816,6
5,776	909,9
6,400	1010,0



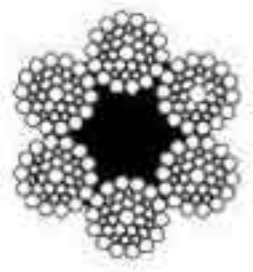
6x19+FC
fiber core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
3,0	0,0311	4,89
4,0	0,0554	8,69
5,0	0,0865	13,58
6,0	0,1246	19,56
7,0	0,1695	26,63
8,0	0,2214	34,78
9,0	0,2803	44,01
10,0	0,3460	54,34
11,0	0,4187	65,75
12,0	0,4982	78,25
13,0	0,5847	91,83
14,0	0,6782	106,50
16,0	0,8858	139,11
17,0	0,9999	157,04
18,0	1,1210	176,06
19,0	1,2491	196,16
20,0	1,3840	217,36
22,0	1,6746	263,00
23,0	1,8303	287,45
24,0	1,9930	312,99
25,0	2,1625	339,62
26,0	2,3390	367,33
27,0	2,5223	396,13
28,0	2,7126	426,02
30,0	3,1140	489,05
31,0	3,3251	522,20
32,0	3,5430	556,43
34,0	3,9998	628,16
36,0	4,4842	704,23
38,0	4,9962	784,66
40,0	5,5360	869,42
44,0	6,6986	1052,00
48,0	7,9718	1251,97
50,0	8,6500	1358,48



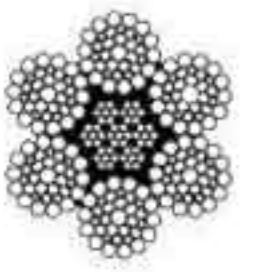
6x19+IWRC
steel core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
3,0	0,034	5,77
4,0	0,061	10,25
5,0	0,095	16,02
6,0	0,137	23,07
7,0	0,187	31,40
8,0	0,244	41,01
9,0	0,309	51,90
10,0	0,381	64,07
11,0	0,461	77,53
12,0	0,549	92,27
13,0	0,644	108,27
14,0	0,747	125,59
16,0	0,975	164,03
17,0	1,101	185,17
18,0	1,234	207,60
19,0	1,375	231,31
20,0	1,524	256,30
22,0	1,844	310,12
23,0	2,015	338,95
24,0	2,195	369,07
25,0	2,381	400,46
26,0	2,576	433,14
27,0	2,777	467,10
28,0	2,987	502,34
30,0	3,429	576,67
31,0	3,661	615,75
32,0	3,901	656,12
34,0	4,404	740,70
36,0	4,938	830,40
38,0	5,502	925,23
40,0	6,096	1025,18
44,0	7,376	1240,47
48,0	8,778	1476,26
50,0	9,525	1601,85



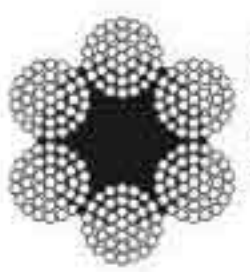
6x36 WS+FC
fiber core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
14,0	0,719	114,00
16,0	0,940	150,00
18,0	1,189	189,00
19,0	1,325	211,00
20,0	1,468	234,00
22,0	1,776	283,00
24,0	2,114	336,00
25,0	2,294	365,00
26,0	2,481	395,00
28,0	2,877	458,00
30,0	3,303	526,00
32,0	3,758	598,00
34,0	4,243	675,00
36,0	4,756	757,00
38,0	5,299	843,00
40,0	5,872	935,00
42,0	6,474	1030,00
44,0	7,105	1131,00
46,0	7,766	1236,00
48,0	8,456	1346,00
50,0	9,175	1460,00
52,0	9,924	1579,00
54,0	10,702	1703,00
56,0	11,509	1832,00
58,0	12,346	1965,00
60,0	13,212	2103,00



6x36 WS+IWRC
steel core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
14,0	0,802	124,00
16,0	1,047	161,00
18,0	1,325	204,00
19,0	1,476	227,00
20,0	1,636	252,00
22,0	1,980	305,00
24,0	2,356	363,00
25,0	2,556	394,00
26,0	2,765	426,00
28,0	3,207	494,00
30,0	3,681	567,00
32,0	4,188	645,00
34,0	4,728	728,00
36,0	5,301	817,00
38,0	5,906	910,00
40,0	6,544	1008,00
42,0	7,215	1112,00
44,0	7,918	1220,00
46,0	8,654	1333,00
48,0	9,423	1452,00
50,0	10,225	1575,00
52,0	11,059	1704,00
54,0	11,926	1837,00
56,0	12,826	1976,00
58,0	13,759	2120,00
60,0	14,724	2268,00



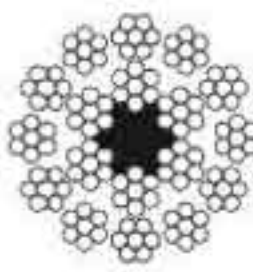
6x37+FC
fiber core

Diameter [mm]	Weight [kg/m]	Breaking force [kN] 1770N/mm ²
4,5	0,070	10,60
5,0	0,087	13,10
6,0	0,125	18,80
7,0	0,170	25,60
8,0	0,221	33,40
9,0	0,280	42,30
10,0	0,346	52,20
11,0	0,419	63,20
12,0	0,498	75,20
13,0	0,585	88,20
14,0	0,678	102,30
15,0	0,779	117,50
16,0	0,886	133,70
17,0	1,000	150,90
18,0	1,121	169,20
19,0	1,249	188,50
20,0	1,384	208,90
21,0	1,526	230,30
22,0	1,675	252,70
23,0	1,830	276,20
24,0	1,993	300,80
25,0	2,163	326,30
26,0	2,339	353,00
28,0	2,713	409,40
30,0	3,114	469,90
32,0	3,543	534,70
34,0	4,000	603,60
36,0	4,484	676,70
38,0	4,996	754,00
40,0	5,536	835,00
42,0	6,103	921,10
44,0	6,699	1010,90
47,0	7,643	1153,40
48,0	7,972	1203,00
50,0	8,650	1305,40
52,0	9,356	1411,90
56,0	10,851	1637,50
60,0	12,456	1879,70
64,0	14,172	2138,70



6x37+IWRC
steel core

Weight [kg/m]	Breaking force [kN] 1770N/mm ²
0,077	11,40
0,095	14,10
0,137	20,30
0,187	27,70
0,244	36,10
0,309	45,70
0,381	56,50
0,461	68,30
0,549	81,30
0,644	95,40
0,747	110,70
0,857	127,00
0,975	144,50
1,101	163,20
1,234	182,90
1,375	203,80
1,524	225,90
1,680	249,00
1,844	273,30
2,015	298,70
2,195	325,20
2,381	352,90
2,576	381,70
2,987	442,70
3,429	508,20
3,901	578,20
4,404	652,70
4,938	731,80
5,502	815,30
6,096	903,40
6,721	996,00
7,376	1093,10
8,416	1247,30
8,778	1300,90
9,525	1411,60
10,302	1526,80
11,948	1770,70
13,716	2032,70
15,606	2312,70

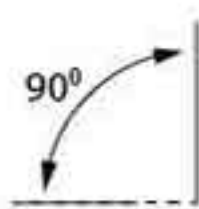
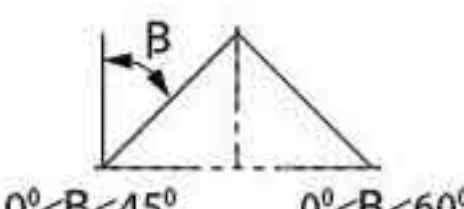
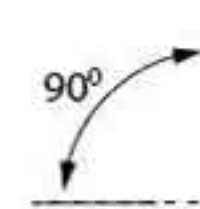
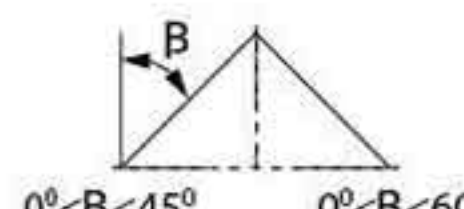


8x19S+FC
fiber core

 Diameter [mm]	Weight [kg/m]	Breaking force kN] 1770N/mm ²
9,0	0,275	42,0
10,0	0,340	51,9
11,0	0,411	62,8
12,0	0,490	74,7
13,0	0,575	87,6
14,0	0,666	101,6
16,0	0,870	132,8
18,0	1,102	168,0
20,0	1,360	207,4
22,0	1,646	251,0
24,0	1,958	298,7
26,0	2,298	350,6
28,0	2,666	406,6

Wire rope slings

Mechanical spliced eyes ropes

Mechanical spliced eyes ropes								
Nominal steel rope diameter	Fiber core 1770 N/mm²				Steel core 1770 N/mm²			
	One leg slings	Two legs slings		Choker slings	One leg slings	Two legs slings		Choker slings
								
[mm]	[To]	[To]	[To]	[To]	[To]	[To]	[To]	[To]
8	0,70	0,95	0,70	1,10	0,75	1,05	0,750	1,20
9	0,85	1,20	0,85	1,40	0,95	1,30	0,950	1,50
10	1,05	1,50	1,05	1,70	1,15	1,60	1,15	1,85
11	1,30	1,80	1,30	2,12	1,40	2,00	1,40	2,25
12	1,55	2,12	1,55	2,50	1,70	2,30	1,70	2,70
13	1,80	2,50	1,80	2,90	2,00	2,80	2,00	3,15
14	2,12	3,00	2,12	3,30	2,25	3,15	2,25	3,70
16	2,70	3,85	2,70	4,35	3,00	4,20	3,00	4,80
18	3,40	4,80	3,40	5,65	3,70	5,20	3,70	6,00
20	4,35	6,00	4,35	6,90	4,60	6,50	4,60	7,35
22	5,20	7,20	5,20	8,40	5,65	7,80	5,65	9,00
24	6,30	8,80	6,30	10,00	6,70	9,40	6,70	10,60
26	7,20	10,00	7,20	11,80	7,80	11,00	7,80	12,50
28	8,40	11,80	8,40	13,50	9,00	12,50	9,00	14,50
32	11,00	15,00	11,00	18,00	11,80	16,50	11,800	19,00
36	14,00	19,00	14,00	22,50	15,00	21,00	15,00	23,50
40	17,00	23,50	17,00	28,00	18,50	26,00	18,50	30,00
44	21,00	29,00	21,00	33,50	22,50	31,50	22,50	36,00
48	25,00	35,00	25,00	40,00	26,00	37,00	26,00	42,00
52	29,00	40,00	29,00	47,00	31,50	44,00	31,50	50,00
56	33,50	47,00	33,50	54,00	36,00	50,00	36,00	58,00
60	39,00	54,00	39,00	63,00	42,00	58,00	42,00	67,00

* Safety factor 5:1

- the slings are manufactured according to SR EN 13414-1 and SR ISO 7531-96
- loops are obtain by pressing an aluminium ferrule (AlMg 2,5)
- the end eyes can be equipped whit fittings: hooks thimbles, turnbuckles, plate clamps.

UP (soft eyes without thimble)

UPR (one eye whit thimble)

UR (eyes whit thimble)

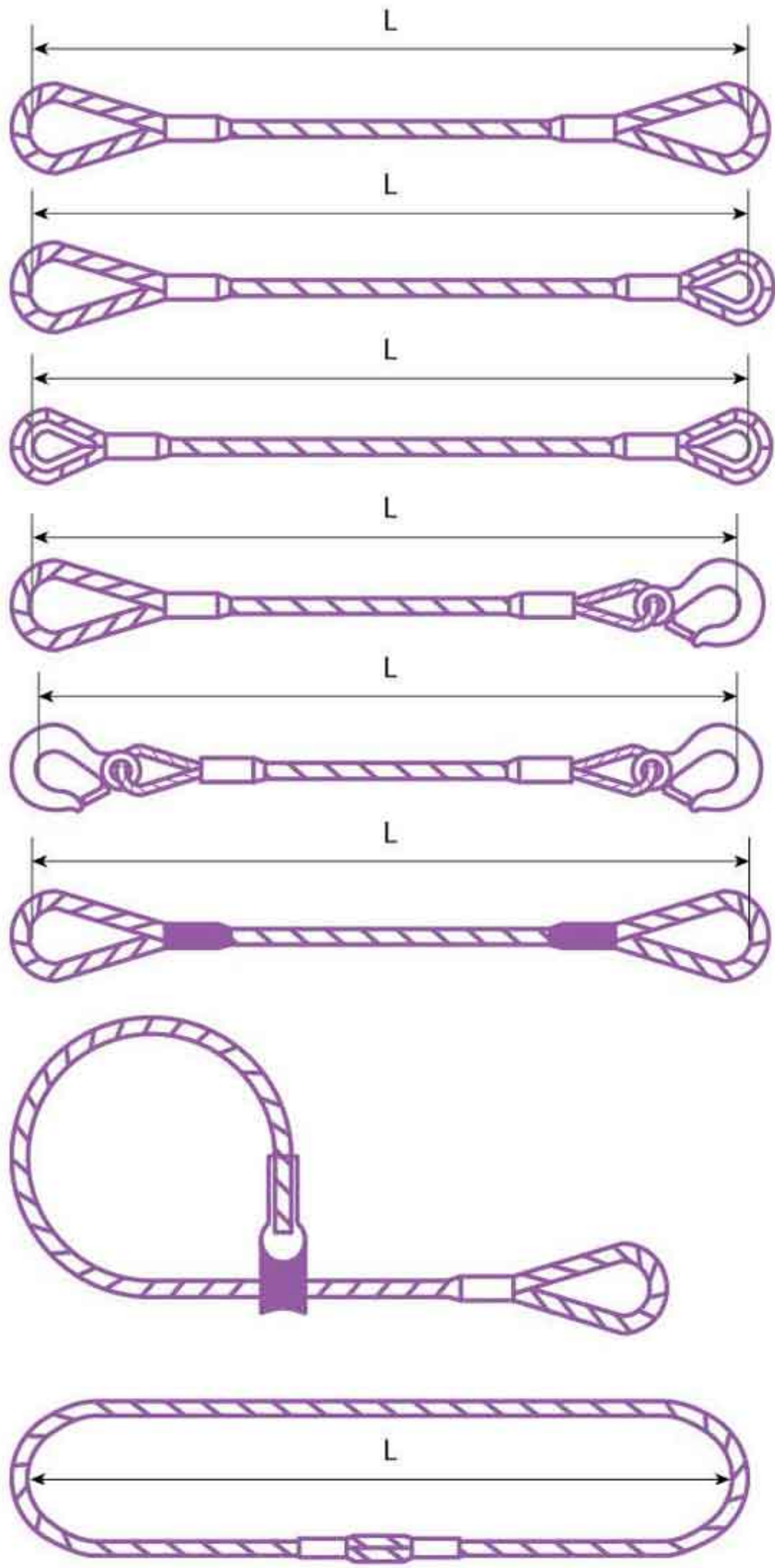
UPR-C (one eye whit thimble and hook)

UR-CC (both eyes whit thimble and hooks)

UP-FL (flamish eye)

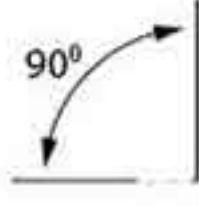
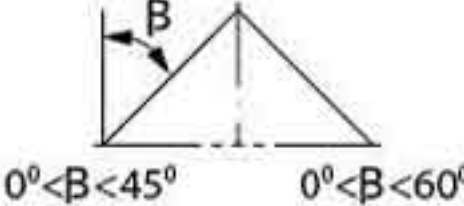
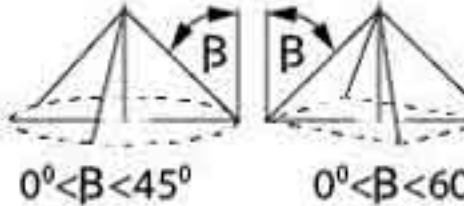
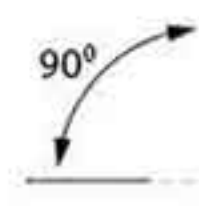
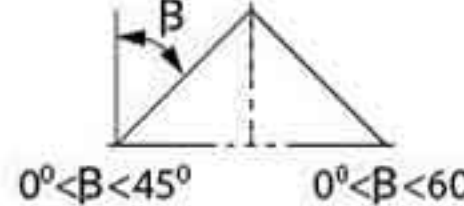
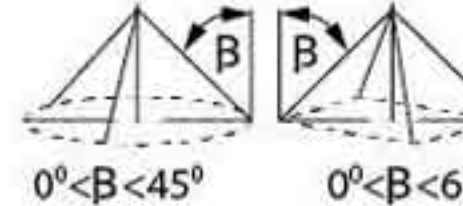
wire rope slings whit shortening eye hook

I (endles wire rope slings)



L=Lenght:
*Lenght counts from the application point of the force

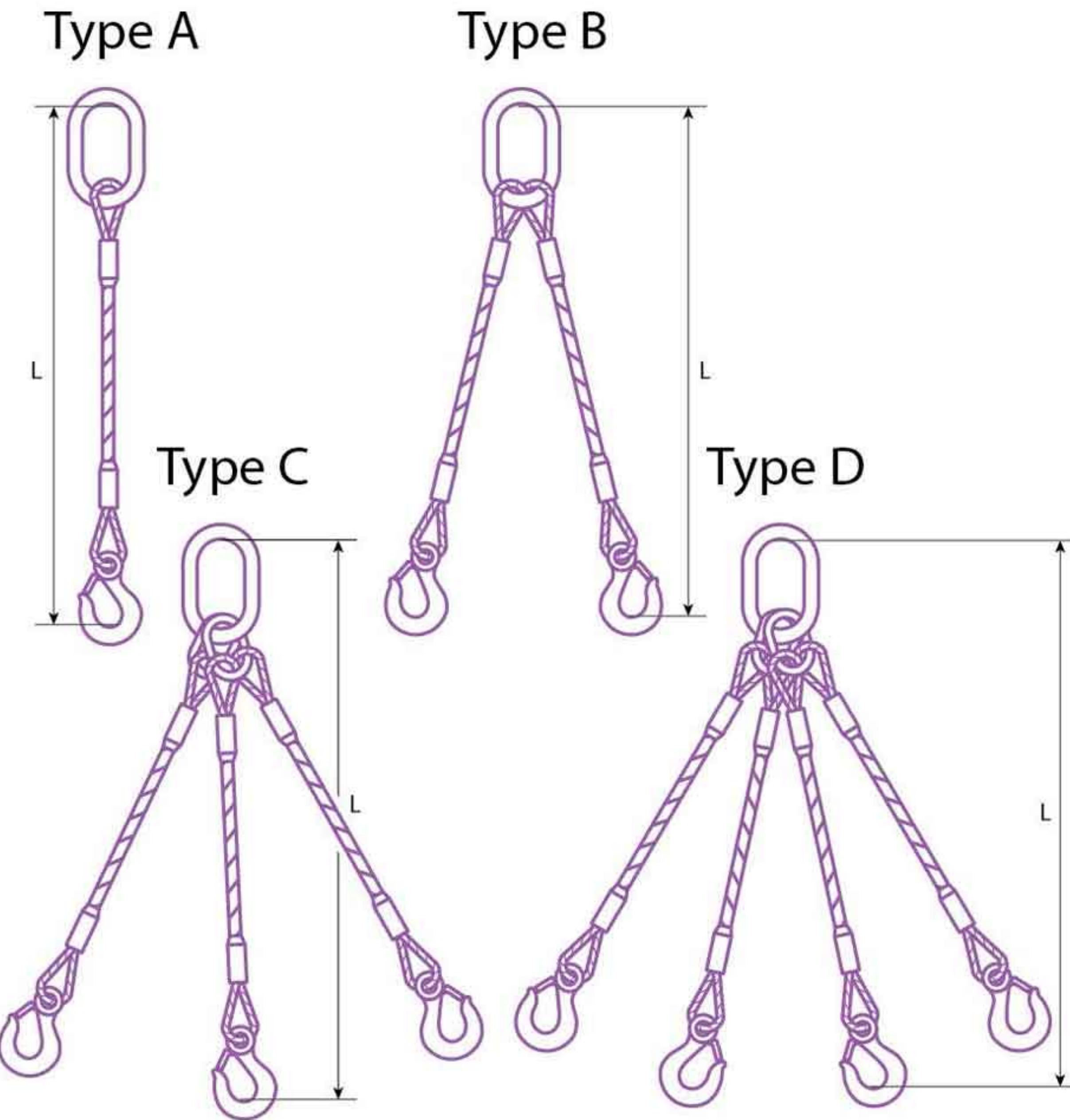
Multi leg rope slings

Multi leg rope slings, mechanical spliced eyes ropes									
Nominal steel rope diameter	Fiber core 1770 N/mm²					Fiber core 1770 N/mm²			
	Type A one leg sling	Type B 2 leg slings		Type C / Type D 3 or 4 leg slings		Type A one leg sling	Type B 2 leg slings		Type C / Type D 3 or 4 leg slings
									
[mm]	[To]	[To]	[To]	[To]	[To]	[To]	[To]	[To]	[To]
8	0,70	0,95	0,70	1,50	1,10	0,75	1,05	0,750	1,55
9	0,85	1,20	0,85	1,80	1,40	0,95	1,30	0,950	2,00
10	1,05	1,50	1,05	2,25	1,70	1,15	1,60	1,15	2,40
11	1,30	1,80	1,30	2,70	2,12	1,40	2,00	1,40	3,00
12	1,55	2,12	1,55	3,30	2,50	1,70	2,30	1,70	3,55
13	1,80	2,50	1,80	3,85	2,90	2,00	2,80	2,00	4,15
14	2,12	3,00	2,12	4,35	3,30	2,25	3,15	2,25	4,80
16	2,70	3,85	2,70	5,65	4,35	3,00	4,20	3,00	6,30
18	3,40	4,80	3,40	7,20	5,65	3,70	5,20	3,70	7,80
20	4,35	6,00	4,35	9,00	6,90	4,60	6,50	4,60	9,80
22	5,20	7,20	5,20	11,00	8,40	5,65	7,80	5,65	11,80
24	6,30	8,80	6,30	13,50	10,00	6,70	9,40	6,70	14,00
26	7,20	10,00	7,20	15,00	11,80	7,80	11,00	7,80	16,50
28	8,40	11,80	8,40	18,00	13,50	9,00	12,50	9,00	19,00
32	11,00	15,00	11,00	23,50	18,00	11,80	16,50	11,800	25,00
36	14,00	19,00	14,00	29,00	22,50	15,00	21,00	15,00	31,50
40	17,00	23,50	17,00	36,00	28,00	18,50	26,00	18,50	39,00
44	21,00	29,00	21,00	44,00	33,50	22,50	31,50	22,50	47,00
48	25,00	35,00	25,00	52,00	40,00	26,00	37,00	26,00	55,00
52	29,00	40,00	29,00	62,00	47,00	31,50	44,00	31,50	66,00
56	33,50	47,00	33,50	71,00	54,00	36,00	50,00	36,00	76,00
60	39,00	54,00	39,00	81,00	63,00	42,00	58,00	42,00	88,00

* Safety factor: 5:1

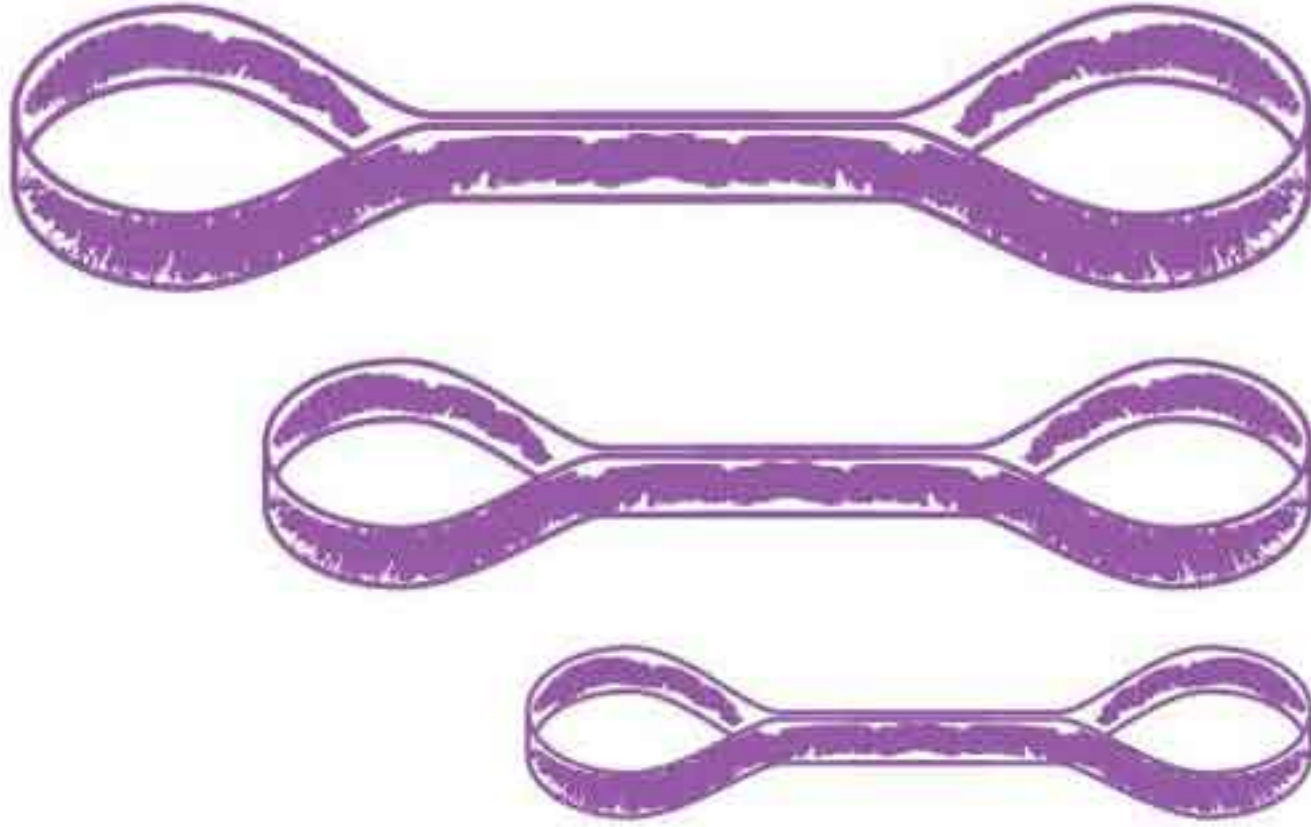
- the slings are manufactured according to: SR EN 13414-1 și SR ISO 7531-96
- the end eyes can be equipped whit fittings: thimbles, hooks, links, turnbuckles.

L=Lenght:
*Lenght counts from the application point of the force



Polyester slings

Polyester flat webbing slings

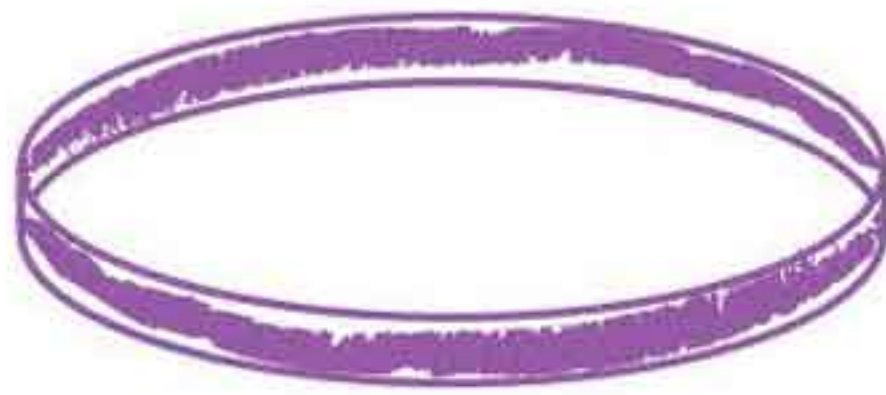


- low weight, easy to handle them
- protects the contact surface
- eliminates the risk of accidents
- can be used in acid or basic environment

Flat webbing slings						
WLL [kg]						
Width [mm]	Color code					
30		1.000	800	2.000	1.400	1.000
60		2.000	1.600	4.000	2.800	2.000
90		3.000	2.400	6.000	4.200	3.000
120		4.000	3.200	8.000	5.600	4.000
150		5.000	4.000	10.000	7.000	5.000
180		6.000	4.800	12.000	8.400	6.000
240		8.000	6.400	16.000	11.200	8.000
300		10.000	8.000	20.000	14.000	10.000
360		12.000	9.600	24.000	16.800	12.000
480		15.000	12.800	32.000	22.400	16.000
600		20.000	16.000	40.000	28.000	20.000

* Safety factor: 7:1

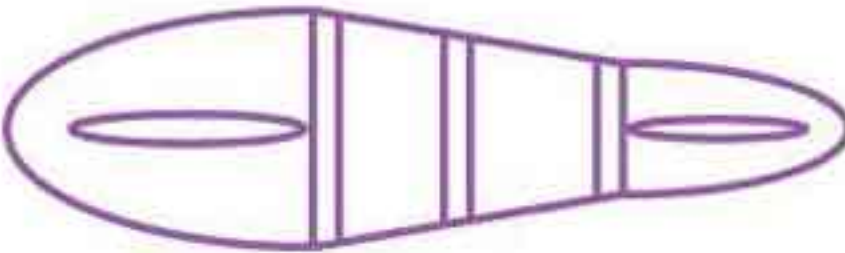
Polyester round slings



Round slings					
WLL [kg]					
Color code					
	1.000	800	2.000	1.400	1.000
	2.000	1.600	4.000	2.800	2.000
	3.000	2.400	6.000	4.200	3.000
	4.000	3.200	8.000	5.600	4.000
	5.000	4.000	10.000	7.000	5.000
	6.000	4.800	12.000	8.400	6.000
	8.000	6.400	16.000	11.200	8.000
	10.000	8.000	20.000	14.000	10.000
	12.000	9.600	24.000	16.800	12.000
	15.000	12.000	30.000	21.000	15.000
	20.000	16.000	40.000	28.000	20.000
	25.000	20.000	50.000	35.000	25.000
	30.000	24.000	60.000	42.000	30.000
	40.000	32.000	80.000	56.000	40.000
	50.000	40.000	100.000	70.000	50.000
	60.000	48.000	120.000	84.000	60.000

* Safety factor: 7:1

Flat double slings



Working load [Kg]	Working load in "U" [Kg]	Width [mm]	Eye width [mm]	Number of layers
7.000	14.000	360	100	2
11.000	22.000	600	160	2
16.000	32.000	480	130	4
22.500	45.000	600	160	4

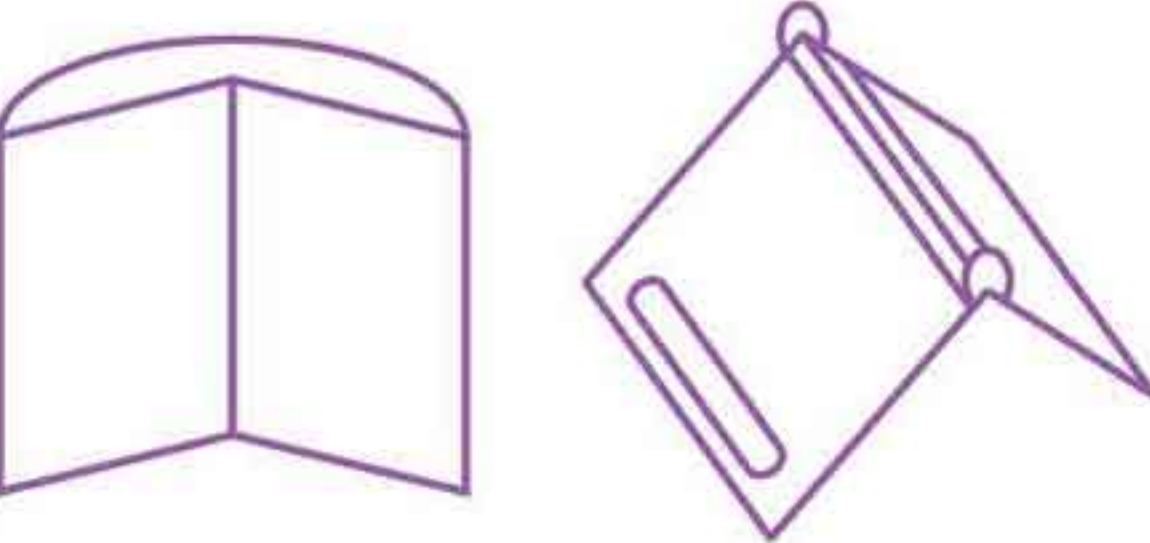
Polyester round slings



Round slings					
WLL [kg]					
Color code					
	1.000	800	2.000	1.400	1.000
	2.000	1.600	4.000	2.800	2.000
	3.000	2.400	6.000	4.200	3.000
	4.000	3.200	8.000	5.600	4.000
	5.000	4.000	10.000	7.000	5.000
	6.000	4.800	12.000	8.400	6.000
	8.000	6.400	16.000	11.200	8.000
	10.000	8.000	20.000	14.000	10.000
	12.000	9.600	24.000	16.800	12.000
	15.000	12.000	30.000	21.000	15.000
	20.000	16.000	40.000	28.000	20.000
	25.000	20.000	50.000	35.000	25.000
	30.000	24.000	60.000	42.000	30.000
	40.000	32.000	80.000	56.000	40.000
	50.000	40.000	100.000	70.000	50.000
	60.000	48.000	120.000	84.000	60.000
	80.000	64.000	160.000	112.000	80.000
	100.000	80.000	200.000	140.000	100.000
	120.000	96.000	240.000	168.000	120.000
	130.000	104.000	260.000	182.000	130.000
	150.000	120.000	300.000	210.000	150.000

*Safety factor: 7:1

Sling protection



- various types of corners
- protection for cutting edges and wear
- polyurethane for one/two faces

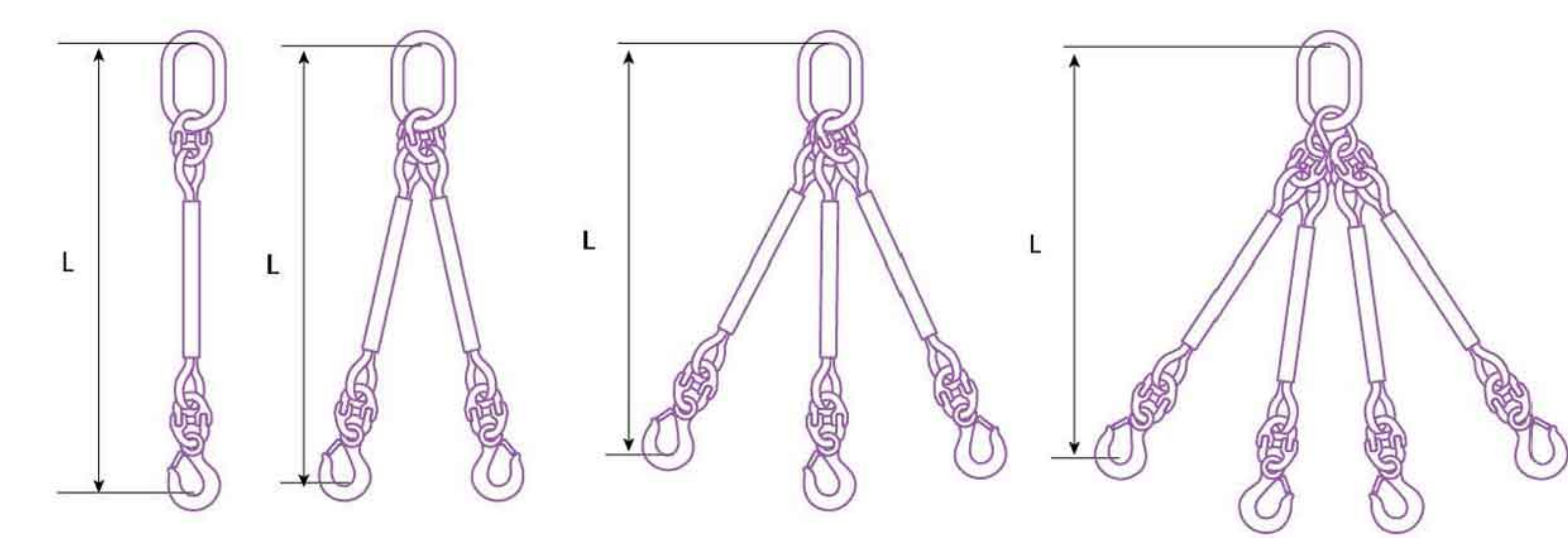
Polyester flat webbing slings fitted whit steel triangles



Color									
Work	1 to	2 to	2,5 to	3 to	4 to	5 to	6 to	8 to	10 to
Lățime bandă	30 mm	60 mm	75 mm	90 mm	120 mm	150 mm	180 mm	240 mm	300 mm

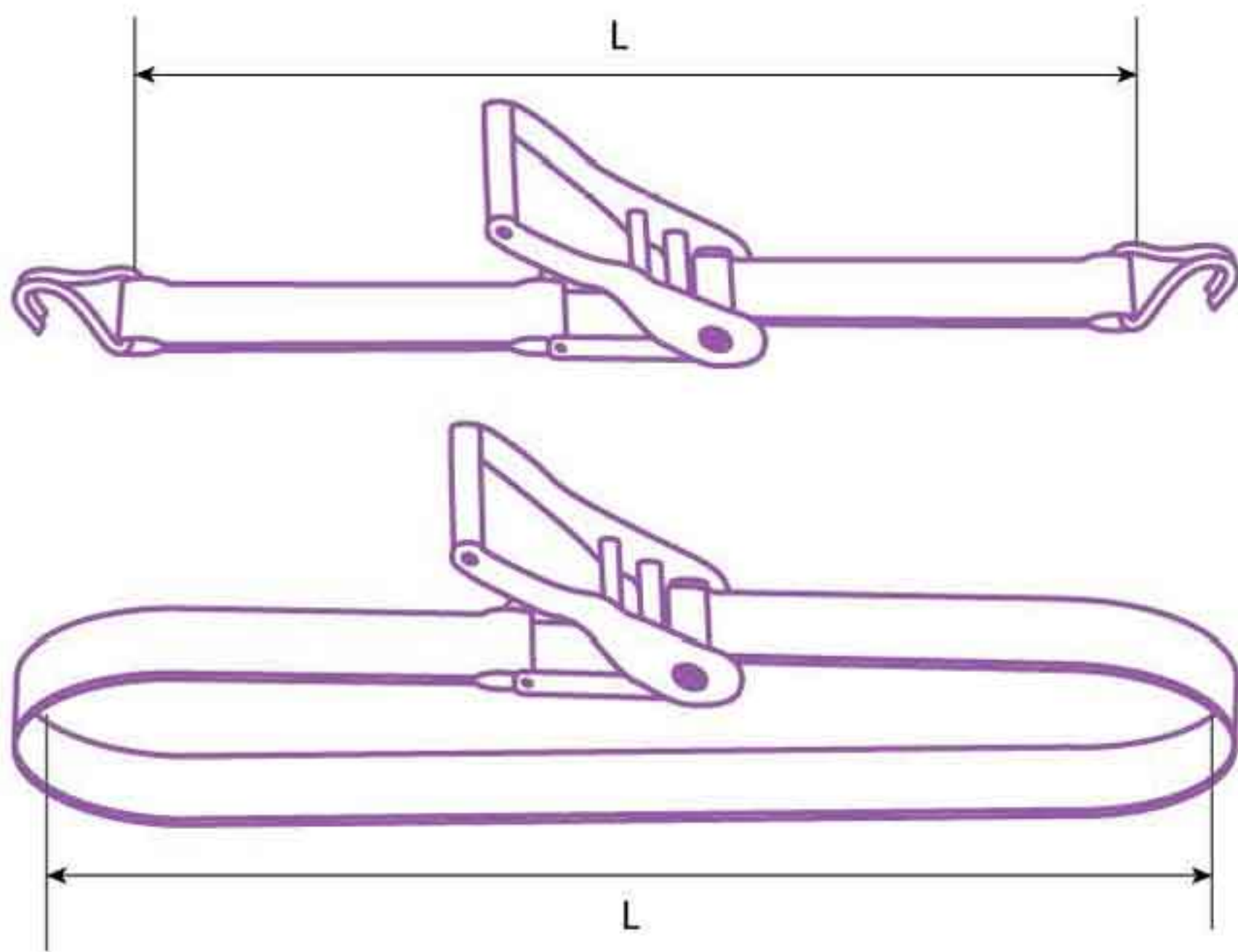
Polyester slings

Multi-leg polyester slings



Code	Working load [To]			
	1 leg	2 legs	3 legs	4 legs
FK 10	1,0	1,4	2,1	2,1
FK 20	2,0	2,8	4,2	4,2
FK 30	3,0	4,2	6,3	6,3
FK 40	4,0	5,6	8,4	8,4
FK 50	5,0	5,6	10,5	10,5
FK 60	6,0	8,4	12,6	12,6
FK 80	8,0	11,2	16,8	16,8
FK 100	10,0	14,00	21,0	21,0

Polyester cargo lashings



- robust tension system
- anti-corrosion protection
- can be equipped whit fittings

Cargo lashings are two type:

- A two part system consists of a short part and a long part with a tensioning device provided on the short part. Variety of hooks can be provided.
- Single Part System (Without hooks)

Color	working load [kg]	Width [mm]
Blue	2.500	35
Orange	4.000	50
Red	5.000	50
Yellow	10.000	75

Polyester and polypropylene ropes



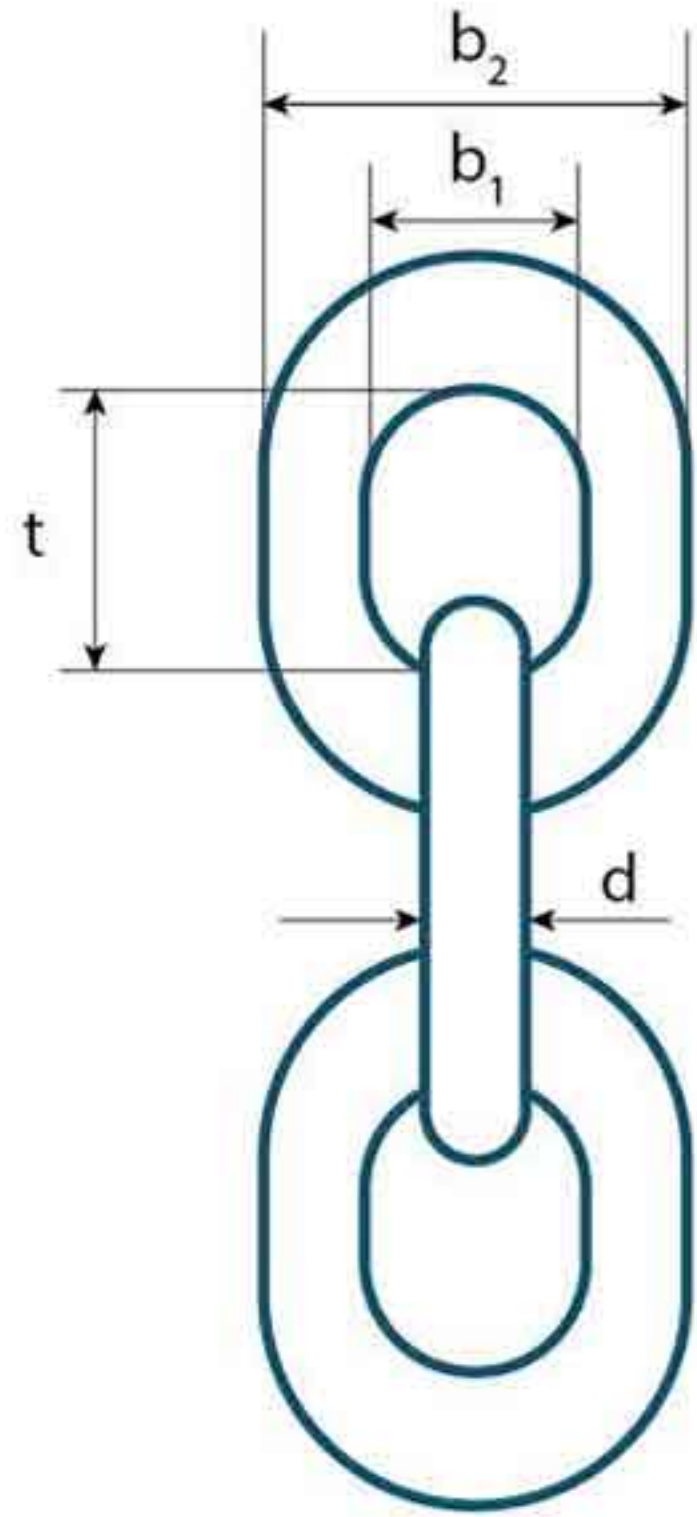
- synthetic fiber (polypropylene, polyamide)
- natural fyber (hemp, jute)
- used in large fields of activity (industrial, shipping)
- diameter up to 100 mm
- polyester or polypropylene slings whit/without eyes for marine

d [mm]	Polypropylene rope		Jute rope		Polyester rope	
	Weight [kg/m]	Breaking force [daN]	Weight [kg/m]	Breaking load [daN]	Weight [kg/m]	Breaking force [daN]
4					0,006	70
6					0,020	170
8	0,029	750	0,04	350	0,039	200
10	0,056	1150	0,06	510	0,060	370
12	0,059	1550	0,08	600	0,083	750
14	0,091	2170	0,11	720	0,105	1500
16	0,116	2700	0,15	870	0,160	2400
18	0,149	3400	0,18	1050		
20	0,179	4100	0,24	1260		

Round steel link chains

Round steel link chains DIN 766

Wire diameter d [mm]	Inside length t [mm]	Inside width b ₁ [mm]	Weight [kg/m]	WLL [kg]	Test load [kN]	Breaking load [kN]
4	16	4,8	0,32	200	5	8,0
5	18,5	6,0	0,50	320	8	12,5
6	18,5	7,2	0,80	400	10	16,0
7	22	8,4	1,10	630	16	25,0
8	24	9,6	1,40	800	20	32,0
9	27	10,8	1,80	1.000	25	40,0
10	28	12,0	2,30	1.250	32	50,0
11	31	13,2	2,70	1.600	40	63,0
13	36	15,6	3,90	2.000	50	80,0
16	45	19,2	5,80	3..200	80	125,0
18	50	21,6	7,40	4000	100	160,0
20	56	24,0	9,00	5..000	125	200,0
23	64	27,6	12,00	6300	160	250,0
26	73	31,2	15,00	8.000	200	320,0
28	78	33,6	18,00	10.000	250	400,0
30	84	36,0	20,00	11.200	280	450,0
32	90	38,4	23,00	12.500	320	500,0
36	101	43,2	29,00	16.000	400	630,0
40	112	48,0	35,00	20.000	500	800,0



- Finish:
- bright
 - galvanised
 - stainless steel

Round steel link chains for conveyors DIN 764

Wire diameter d [mm]	Inside length t [mm]	Inside width b ₁ [mm]	Weight [kg/m]	WLL [kg]	Test load [kN]	Breaking load [kN]
10	35	14	2,0	13	32	50
13	45	18	3,5	21	53	85
16	56	22	5,2	32	80	125
18	63	24	6,5	40	100	160
20	70	27	8,2	50	125	200
23	80	31	11,0	67	170	265
26	91	35	14,0	85	212	340
28	98	36	16,5	100	250	400
30	105	39	19,0	112	280	450
33	115	43	22,5	132	335	530
36	126	47	26,5	160	400	630
39	136	51	31,0	190	475	750
42	147	55	36,0	224	560	900

Round steel link chains for conveyors DIN 762

Wire diameter d [mm]	Inside length t [mm]	Inside width b ₁ [mm]	Weight [kg/m]	WLL [kg]	Test load [kN]	Breaking load [kN]
10	50	14,0	1,8	10	25	50
13	65	18,2	3,1	16	40	80
16	80	22,4	4,7	25	63	125
18	90	25,0	6	32	80	160
20	100	28,0	7,4	40	100	200

- Finish:
- bright
 - galvanised
 - stainless steel

High tensile-mining chains DIN 22252

Wire diameter d [mm]	Inside length t [mm]	Inside width b ₁ [mm]	Weight [kg/m]	WLL [kN]	Breaking load [kN]
14	50	17	4,0	200	250
18	64	21	6,6	330	410
19	64,5	22	7,6	360	450
22	86	26	9,5	490	610
24	87,5	28	11,5	580	720
26	92	30	13,7	640	850
30	108	34	18,0	850	1.130
34	126	38	22,7	1080	1.450

Commercial chain DIN 5685/A

Ød [mm]	Inside length t [mm]	Inside width b ₁ [mm]	Weight Kg/100m
2 ± 0,1	12 ± 0,6	3,5	7
2,5 ± 0,1	14 ± 0,7	4,5	11
3 ± 0,2	16 ± 0,8	5,5	17
3,5 ± 0,2	18 ± 0,9	6,0	23
4 ± 0,2	19 ± 1,0	7,0	30
5 ± 0,3	21 ± 1,1	9,0	50
6 ± 0,3	24 ± 1,2	11,0	73
7 ± 0,4	28 ± 1,4	12,0	99
8 ± 0,4	32 ± 1,6	14,0	130
10 ± 0,5	40 ± 2,0	18,0	200
13 ± 0,7	52 ± 2,6	23,0	340

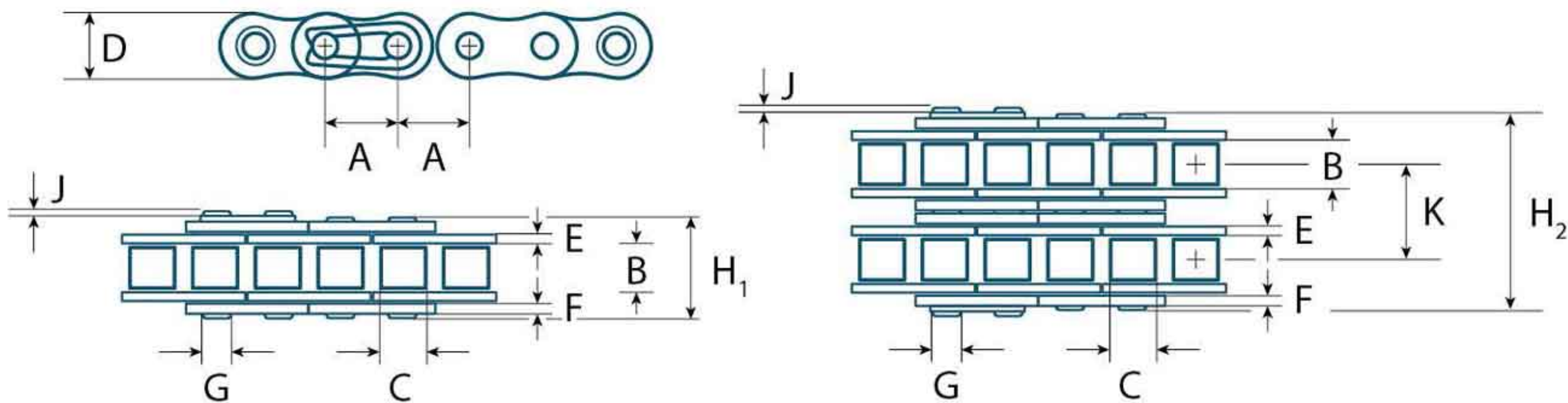
- Finish:
- bright
 - galvanised
 - stainless steel

Commercial chain DIN 5685/C

Ød [mm]	Inside length t [mm]	Inside width b ₁ [mm]	Weight Kg/100m
2 ± 0,1	22 ± 1,1	3,5	6
2,5 ± 0,1	24 ± 1,2	4,5	10
3 ± 0,2	26 ± 1,3	5,5	14
3,5 ± 0,2	28 ± 1,4	6,0	20
4 ± 0,2	32 ± 1,6	7,0	26
5 ± 0,3	35 ± 1,8	9,0	42
6 ± 0,3	42 ± 2,1	11,0	61
7 ± 0,4	49 ± 2,5	12,0	82
8 ± 0,4	52 ± 2,6	14,0	110
10 ± 0,5	65 ± 3,3	18,0	170
13 ± 0,3	82 ± 4,1	23,0	290

Roller chains

- for farming
- for cement industry
- for wood industry
- for oil industry
- roller chain type A și B (ISO, ANSI), cu 1-8 rows



European standard (BS) - Simple

Chain type	Pitch [mm]	Interior width [mm]	Roll diameter [mm]	Bolt diameter [mm]	Bolt lenght [mm]	Breaking strength [Min][ISO]	Weight [kg/m]
05B-1	8,00	3,00	5,00	2,31	8,00	4.400	0,20
06B-1	9,525	5,72	6,35	3,28	13,20	8.900	0,41
08B-1	12,70	7,75	8,51	4,45	16,70	17.800	0,69
10B-1	15,875	9,65	10,16	5,08	19,60	22.200	0,93
12B-1	19,05	11,68	12,07	5,72	22,50	28.900	1,15
16B-1	25,40	17,02	15,88	8,28	36,00	60.000	2,71
20B-1	31,75	19,56	19,05	10,19	41,10	95.000	3,70
24B-1	38,10	25,40	25,40	14,63	53,30	160.000	7,10
28B-1	44,45	30,99	27,94	15,90	64,80	200.000	8,50
32B-1	50,80	30,99	29,91	17,81	66,20	250.000	10,25

American standard (ANSI) - Simple

Chain type	Pitch [mm]	Interior width [mm]	Roll diameter [mm]	Bolt diameter [mm]	Bolt lenght [mm]	Breaking strength [Min][ISO]	Weight [kg/m]
A25-1	6,35	3,18	3,30	2,31	7,80	3.500	0,15
A35-1	9,525	4,77	5,08	3,58	12,15	7.900	0,33
A41-1	12,70	6,25	7,77	3,58	13,75	6.700	0,41
A40-1	12,70	7,85	7,95	3,96	16,60	13.900	0,62
A50-1	15,875	9,40	10,16	5,08	20,90	21.800	1,02
A60-1	19,05	12,57	11,91	5,94	25,90	31.300	1,50
A80-1	25,40	15,75	15,88	7,92	32,80	55.600	2,60
A100-1	31,75	18,90	19,05	9,53	40,00	87.000	3,91
A120-1	38,10	25,22	22,23	11,10	50,45	125.000	5,62
A140-1	44,45	25,22	25,40	12,70	54,90	170.000	7,50
A160-1	50,80	31,55	28,58	14,27	65,50	223.000	10,10

European standard (BS) - Double

Chain Type	Pitch [mm]	Interior width [mm]	Roll diameter [mm]	Bolt diameter [mm]	Bolt lenght [mm]	Breaking strength [Min][ISO]	Weight [kg/m]
B06b-2	9,525	5,72	6,35	3,28	23,5	16.000	0,77
B08b-2	12,70	7,75	8,51	4,45	31,0	31.100	1,34
B10b-2	15,875	9,65	10,16	5,08	36,2	44.500	1,84
B12b-2	19,05	11,68	12,07	5,72	42,1	57.800	2,31
B16b-2	25,40	17,02	15,88	8,28	67,5	106.000	5,42
B20b-2	31,75	19,65	19,05	10,19	77,2	170.000	7,20
B24b-2	38,10	25,40	25,40	14,63	101,6	280.000	13,40
B28b-2	44,45	30,99	27,94	15,90	124,1	360.000	16,60
B32b-2	50,80	30,99	29,21	17,81	124,6	450.000	21,00

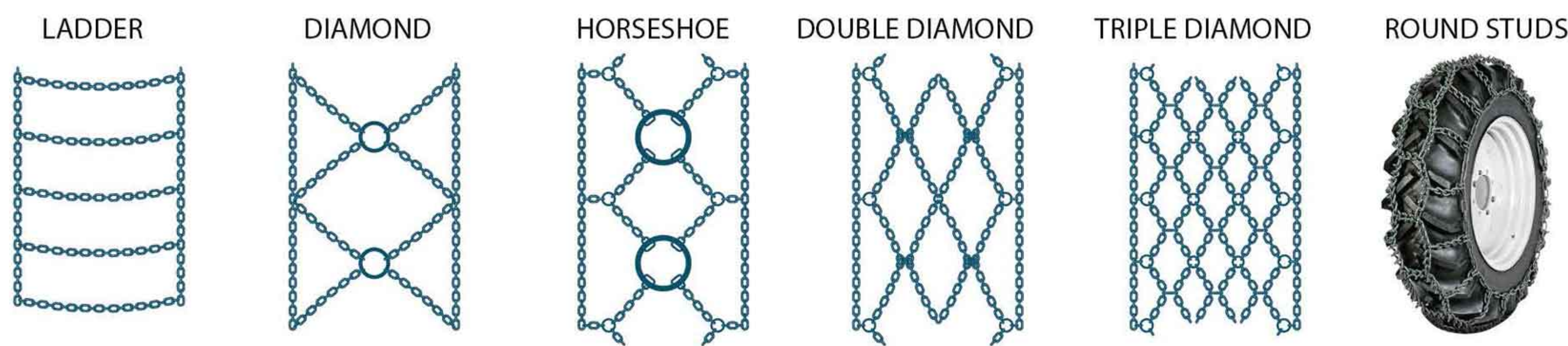
American standard (ANSI) - Double

Chain type	Pitch [mm]	Interior width [mm]	Roll diameter [mm]	Bolt diameter [mm]	Bolt lenght [mm]	Breaking strength [Min][ISO]	Weight [kg/m]
A40-2	12,70	7,85	7,95	3,96	31,10	27.800	1,12
A50-2	15,875	9,40	10,16	5,08	39,00	43.600	2,00
A60-2	19,05	12,57	11,91	5,94	48,80	62.600	2,92
A80-2	25,40	15,75	15,88	7,92	61,90	111.200	5,15
A100-2	31,75	18,90	19,05	9,53	76,20	174.000	7,80
A120-2	38,10	25,22	22,23	11,10	95,40	250.000	11,70
A140-2	44,45	25,22	25,40	12,70	103,10	340.000	15,14
A160-2	50,80	31,55	28,58	14,27	122,90	446.000	20,14

Snow chains

Snow chain for forestry vehicles

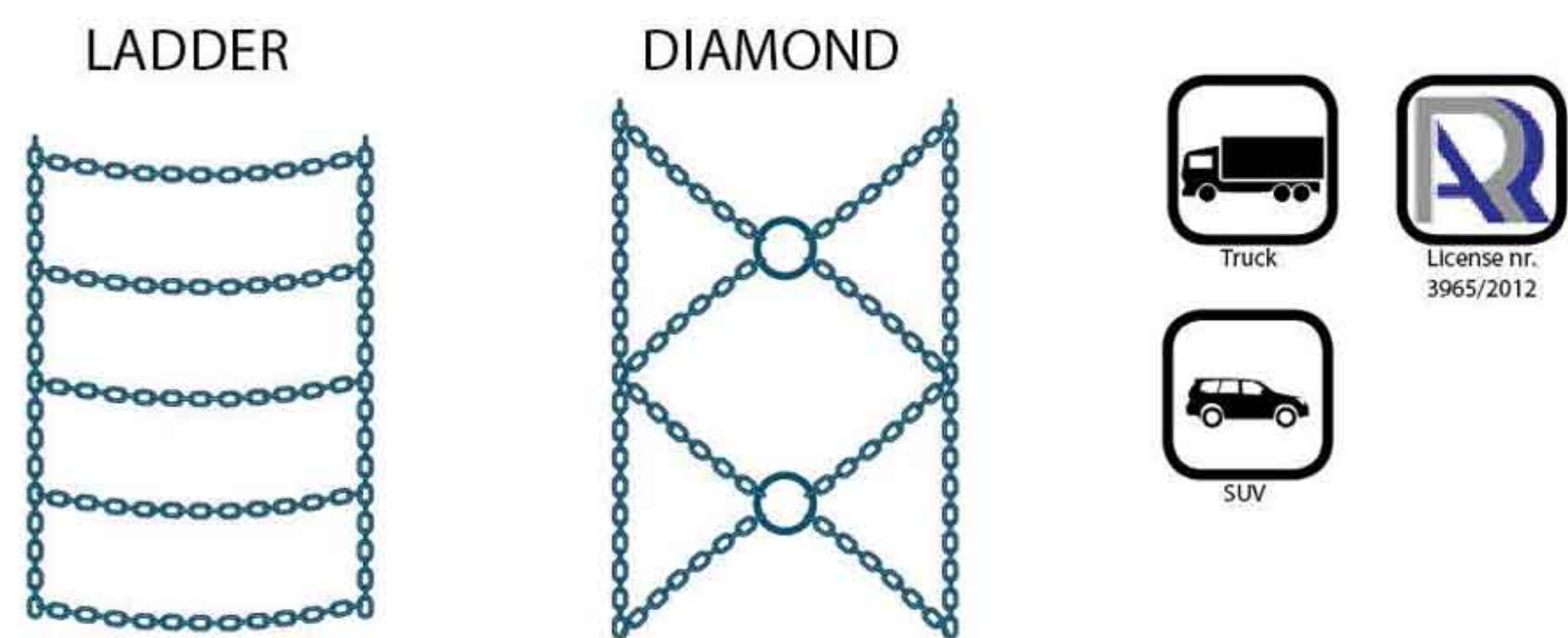
- manufactured from high resistance industrial chain according DIN 766 for extreme conditions in the areas of: forestry, agricultural, havy industry
- bigger chain diameter for increased adhesion on any surface (snow, ice, mud), high breaking forces (6 Tf - 8,5 Tf)
- various designs: ladder, diamond, horseshoe, double diamond, triplle diamond and diamond chain with 11 mm round studs.
- chei de strângere pentru o tensionare permanentă a lanțului pe profilul anvelopei



- Skidder
- Tractor
- Dozer
- Forklift
- Dumper

For trucks and various industry vehicles

- manufactured from hardening chain (chain whit high breaking force and hardening at surface)
- chain design for adhesion and density to ensure to move safety
- according ONORM v5119 and approved RAR

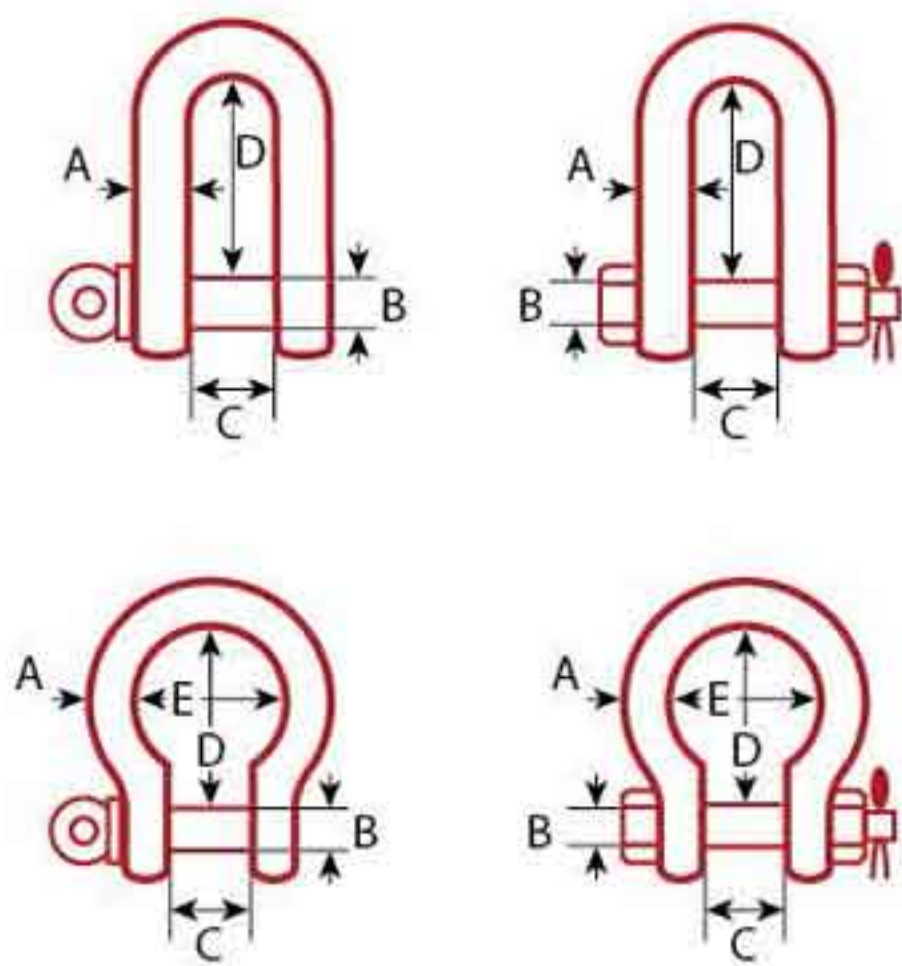


- Trucks
- SUV (4x4)
- OFF-ROAD vehicles
- Vans

Accessories for cables and chains

Shackles

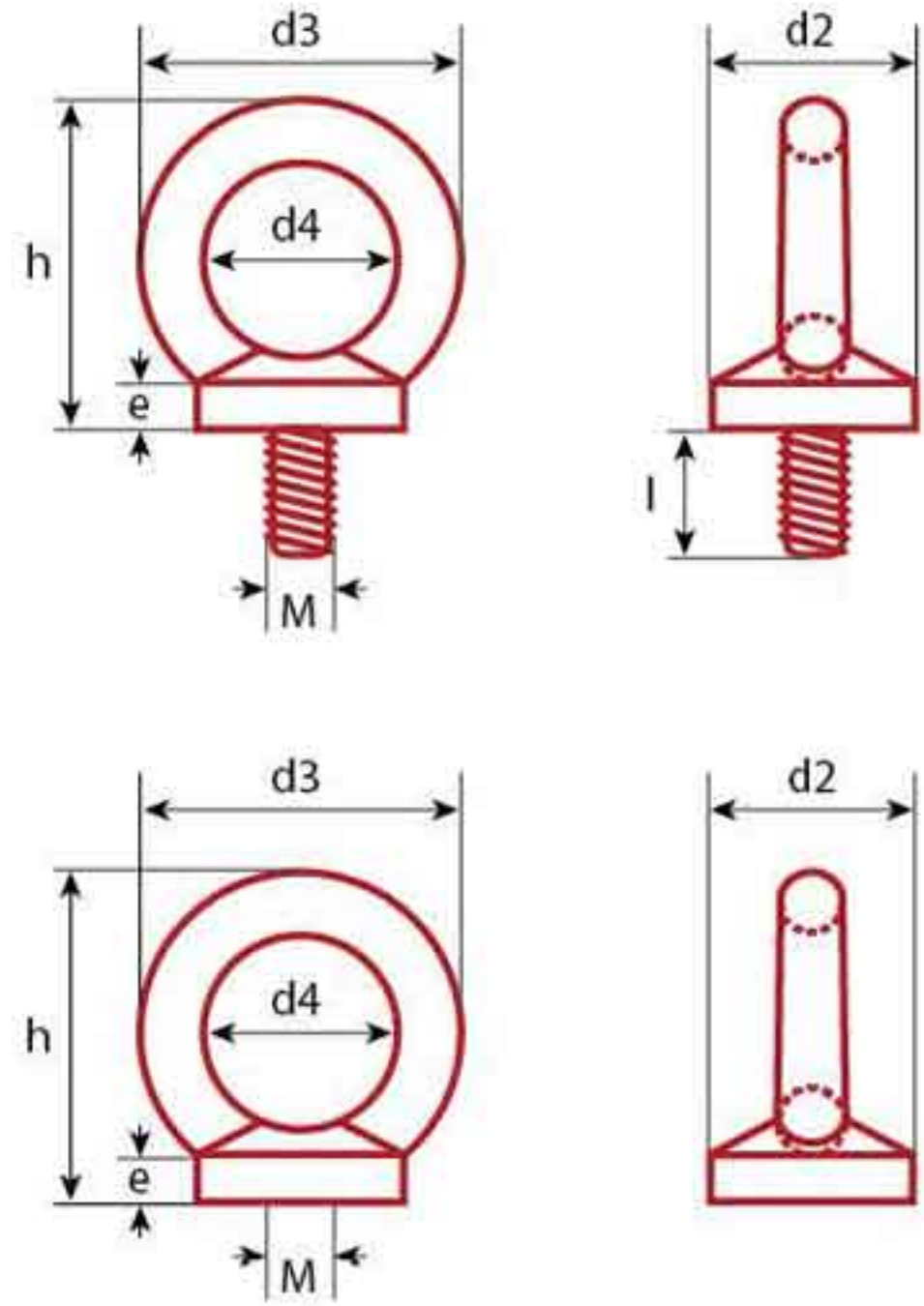
WLL [To]	Ø pin [mm]	c [mm]
0,33	6	9,5
0,50	8	12,0
0,75	10	13,5
1,00	11	17,0
1,50	12	18,5
2,00	16	22,0
3,25	19	27,0
4,75	22	31,0
6,50	25	36,0
8,50	28	43,0
9,50	32	47,0
12,00	35	51,0
13,50	38	57,0
17,00	42	60,0
25,00	50	74,0
35,00	57	83,0
42,50	65	95,0
55,00	70	105,0
85,00	80	127,0



- dee
- bow
- whit screw pin
- whit safety bolt

Eye bolts and nuts

Dimension	W [kg]	
	0°	0-60°
M 6	0,09	0,06
M 8	0,14	0,10
M 10	0,23	0,17
M 12	0,34	0,24
M 14	0,50	0,35
M 16	0,70	0,50
M 18	0,93	0,65
M 20	1,20	0,83
M 22	1,50	1,05
M 24	1,80	1,27
M 27	2,50	1,83
M 27	2,50	1,83
M 30	3,60	2,60
M 33	4,20	3,05
M 36	5,10	3,70
M 42	7,00	5,00
M 48	8,60	6,10
M 56	11,50	8,30
M 64	16,00	11,00



Galvanized turnbuckles

Dimensions	WLL [kg]			
M 6	75	225	75	225
M 8	165	410	165	410
M 10	235	650	235	650
M 12	320	930	320	930
M 14	420	1.320	420	1.320
M 16	530	1.770	530	1.770
M 20	730	2.700	730	2.700
M 22	1.120	3.300	1.120	3.300
M 24	1.550	3.920	1.550	3.920
M 27	1.870	4.950	1.870	4.950
M 30	2.240	6.250	2.240	6.250
M 33	2.850	7.560	2.850	7.560
M 36	---	---	---	9.100
M 39	---	---	---	10.600
M 42	---	---	---	12.500
M 45	---	---	---	14.400
M 48	---	---	---	16.500
M 50	---	---	---	18.100
M 52	---	---	---	19.800
M 56	---	---	---	23.000

Industrial wire rope clips

Wire rope diameter [mm]

N*	5	6	8	10	13	16	19	22	26	30	34	40
	3	3	5	5	5	5	5	7	7	8	8	8

*Minimum number of clips required

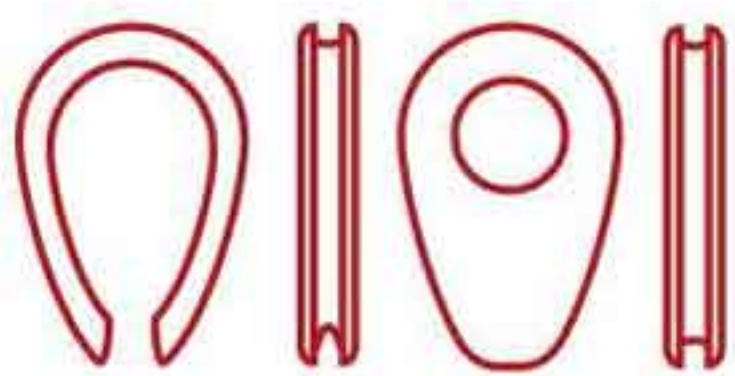


Wire rope clips acc. to DIN 714

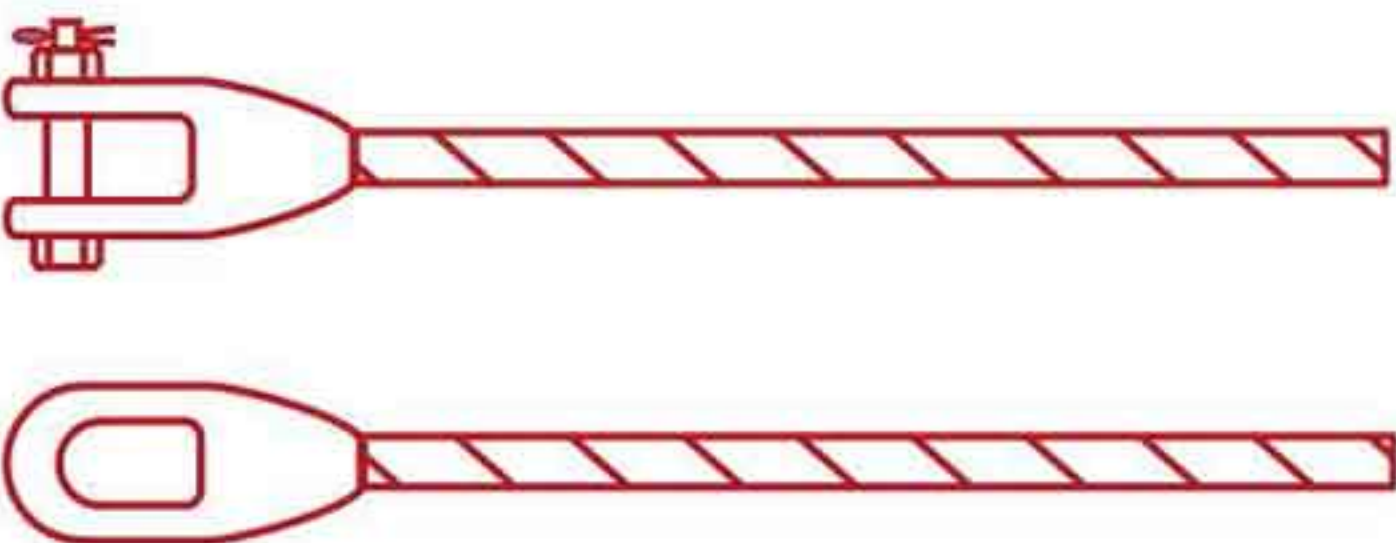
N*	Wire rope diameter [mm]													
	3	5	6	8	10	11	12	16	19	22	26	30	34	40
3	3	5	5	5	5	5	5	5	5	5	5	5	5	5



Zinc coated thimbles, solid thimbles

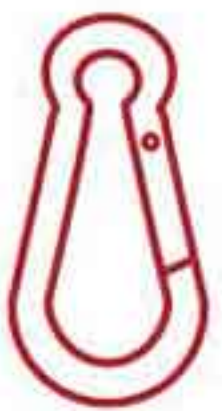


Spelter socket

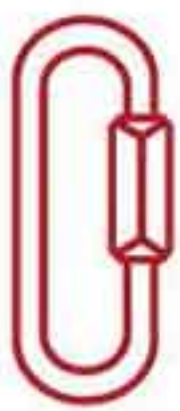


- for cranes and other equipment

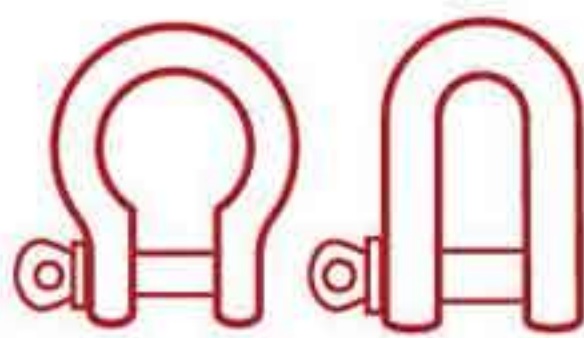
Commercial products



Snap hook



Snap whit safety screw



Commercial shackles



Wire-ties for agriculture



Commercial type turnbuckle



Eye bolt



Carlig rotativ inox

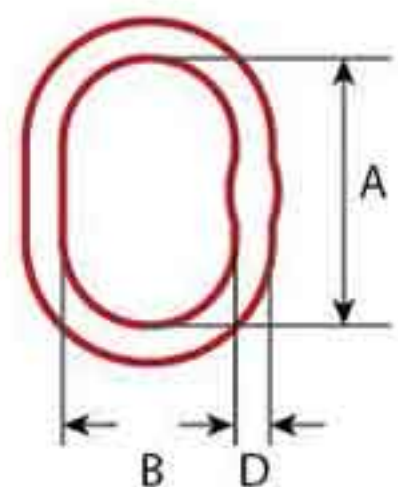


Open swage sockets



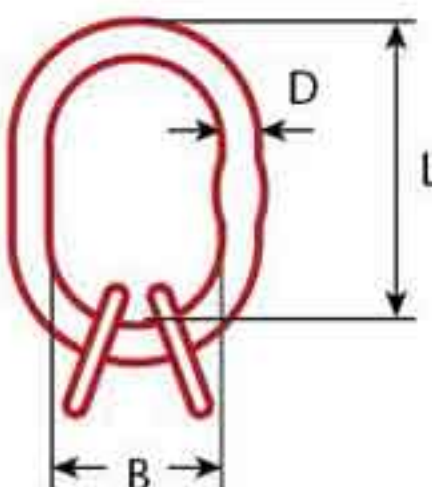
Simplex and duplex wire rope clips

Master link



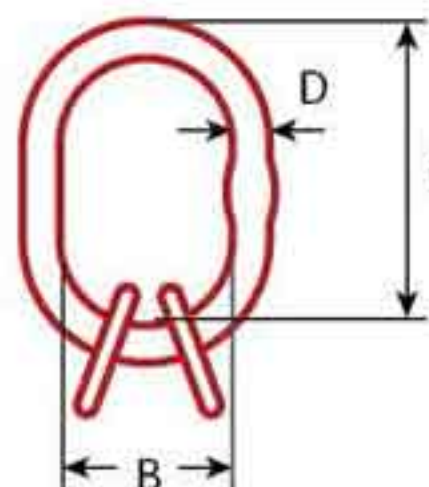
Type	[WLL/To]	A [mm]	B [mm]	D [mm]
8-6	1,60	110	60	13
8-7/8	2,12	110	60	16
8-8	3,15	135	75	18
8-10	5,30	160	90	22
8-13	8,00	180	100	26
8-16	11,20	200	110	32
8-18	14,00	260	140	36
8-20	17,00	300	160	40
8-22	21,20	340	180	45
8-26	31,50	350	190	50
8-32	45,00	400	200	56
8-72	63,00	460	250	72

Master link assembly (for chain)



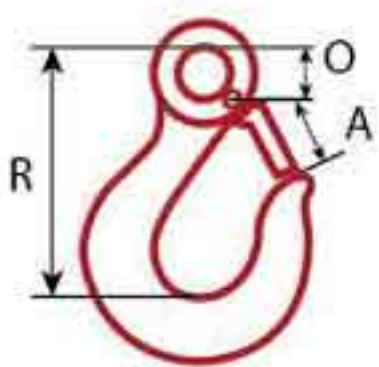
Type	[WLL/To]	B [mm]	D [mm]	L [mm]
8-6	2,36	75	18	135
8-7/8	4,25	90	22	160
8-10	6,70	100	26	180
8-13	11,20	110	32	200
8-16	17,00	140	36	260
8-20	26,50	190	50	350
8-22	31,50	190	50	350

Master link assembly (for wire rope)



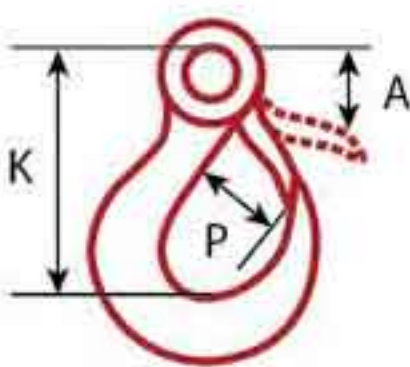
Type	[WLL/To]	B [mm]	D [mm]	L [mm]
8-7	5,50	95	20	160
8-10	9,40	110	26	190
8-13	14,20	130	32	230
8-16	22,30	150	38	275
8-20	33,50	180	45	340
8-22	40,80	190	50	350

Eye sling hook



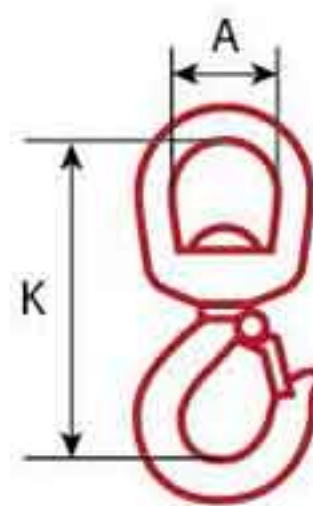
Type	[WLL/To]	A [mm]	B [mm]	O [mm]
8-6	1,12	24	80	20
8-7/8	2,00	30	98	25
8-10	3,15	34	120	38
8-13	5,30	39	153	43
8-16	8,00	46	185	50
8-20	12,50	61	217	62
8-22	15,00	71	224	62
8-26	21,20	81	237	64
8-32	32,50	102	259	88

Eye self locking hook



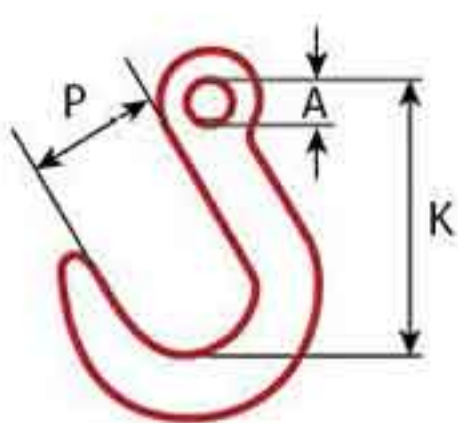
Type	[WLL/To]	A [mm]	P [mm]	K [mm]
8-6	1,12	21	7,5	110,5
8-7/8	2,00	24	35	136
8-10	3,15	30	43	171
8-13	5,30	40	51	208,5
8-16	8,00	60	82	257,5
8-20	12,50	63	88	275
8-22	15,00	70	88	320
8-26	21,20	80	110	363

Swivel hook



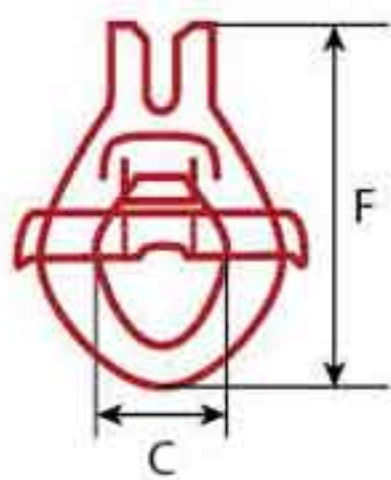
Type	[WLL/To]	A [mm]	K [mm]
8-6	1,12	32,5	149
8-7/8	2,00	36	187
8-10	3,15	42	223
8-13	5,30	49	268
8-16	8,00	61	330
8-20	10,00	79	332
8-22	15,00	105	431
8-26	20,00	105	472

Foundry hook



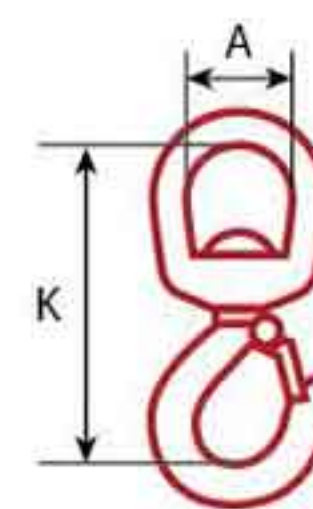
Type	[WLL/To]	A [mm]	P [mm]	K [mm]
8-7/8	2,00	18	63,5	120
8-10	3,15	22	76	146
8-13	5,30	27	89	175
8-16	8,00	32	102	205
8-20	12,50	38	114,5	235
8-22	15,00	45	127,5	264

Container Hook



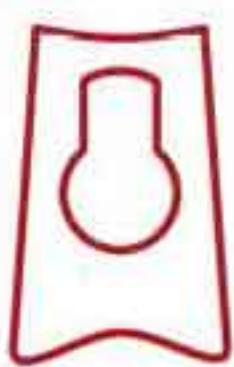
[WLL/To]	C [mm]	F [mm]
5,30	72	194

Self-locking swivel hook



Type	[WLL/To]	A [mm]	K [mm]
8-6	1,12	32,5	149
8-7/8	2,00	36	187
8-10	3,15	42	223
8-13	5,30	49	268
8-16	8,00	61	330
8-20	10,00	79	332
8-22	15,00	105	431
8-26	20,00	105	472

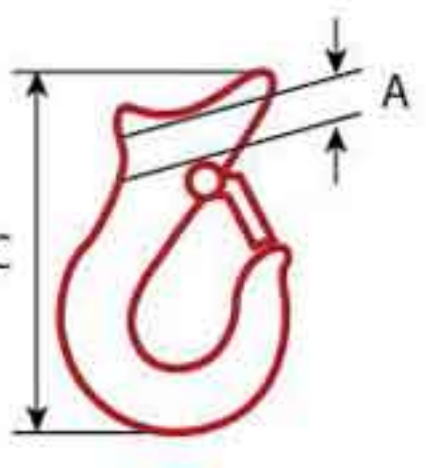
Choker Hook For Logging



Chain Connector for Logging

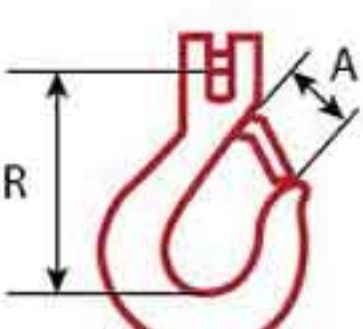


Sliding choke hook



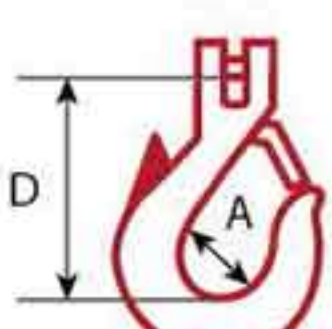
WLL	A [mm]	C [mm]
1,60	17	132
2,00	22	151,5
3,00	28	170
5,00	32,5	213

Clevis sling hook



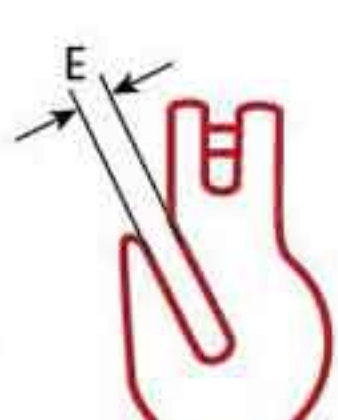
Type	[WLL/To]	A [mm]	R [mm]
8-6	1,12	32,5	149
8-7/8	2,00	36	187
8-10	3,15	42	223
8-13	5,30	49	268
8-16	8,00	61	330
8-20	10,00	79	332
8-22	15,00	105	431
8-26	20,00	105	472

Seft locking clevis hook



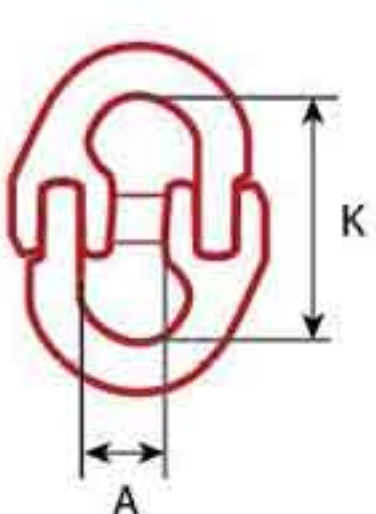
Type	[WLL/To]	A [mm]	D [mm]
8-6	1,12	32,5	149
8-7/8	2,00	36	187
8-10	3,15	42	223
8-13	5,30	49	268
8-16	8,00	61	330
8-20	10,00	79	332
8-22	15,00	105	431
8-26	20,00	105	472

Clevis shortening hook



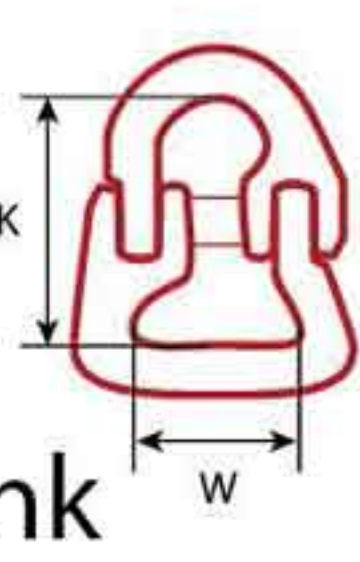
Type	[WLL/To]	E [mm]
8-6	1,12	8
8-7/8	2,00	11
8-10	3,15	14
8-13	5,30	18
8-16	8,00	21
8-20	12,50	24
8-22	15,00	27
8-26	21,20	30

Connectiong link



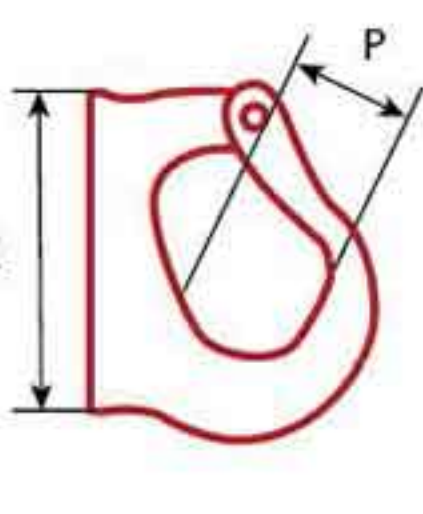
Type	[WLL/To]	A [mm]	K [mm]
8-6	1,12	15	42
8-7/8	2,00	18	60,5
8-10	3,15	25	68
8-13	5,30	29	87
8-16	8,00	34,5	108,4
8-20	12,50	41	121,5
8-22	15,00	48	141,5
8-26	21,20	57,5	158
8-32	31,50	67	205

Webbing sling co-
nnection link



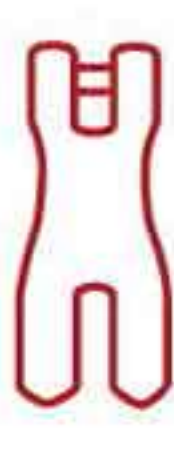
[WLL/To]	K [mm]	W [mm]
1,12	56	40
2,00	31,7	40
3,15	83	39
5,30	93,7	55
8,00	120	65,5
12,50	138	80

Welding hook



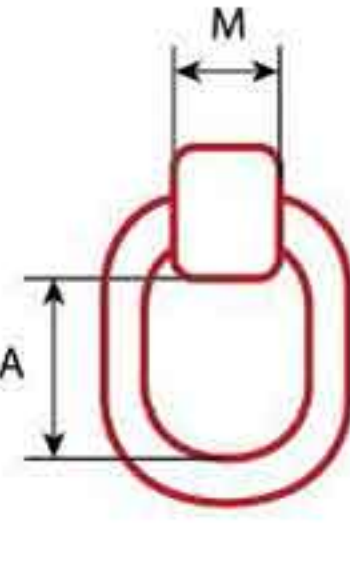
WLL	K [mm]	P [mm]
2,00	114	26,5
3,20	129	30,5
5,30	171	34
8,00	177	34
10,00	223	51

Shortening cluth



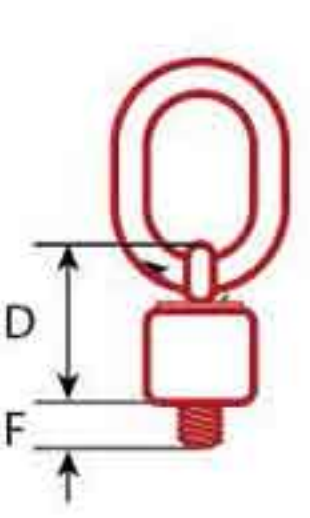
Type	[WLL/To]
8-6	1,12
8-7/8	2,00
8-10	3,15
8-13	5,30
8-16	8,00
8-20	12,50
8-22	15,00

Welding ring



[WLL/To]	A [mm]	M [mm]
1,12	78	37
2,00	88	40
3,15	94	42,5
5,30	118	50
8,00	141	66,6
15,00	188	90

Swivel eye bolt whit ring



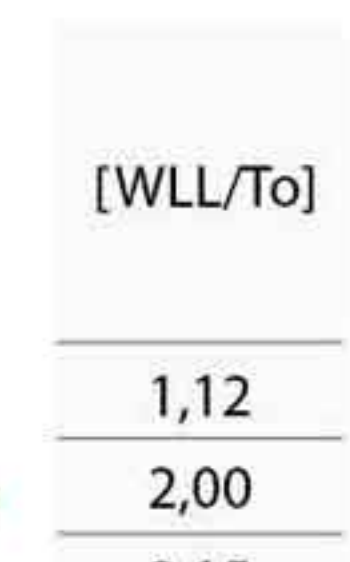
Type	WLL		D [mm]	F [mm]
	90°	0°		
M 8x13	0,30	0,60	51	13
M 10x18	0,45	0,90	51	18
M 12x18	0,50	1,00	51	18
M 16x20	1,12	2,00	52	20
M 20x30	2,00	4,00	68	30
M 24x30	3,15	6,30	78	30
M 30x35	5,30	10,60	96,5	35
M 36x50	8,00	11,80	109	50
M 39x90	8,00	11,80	109	90
M 42x50	10,00	15,00	109	50

Spare parts for clevis sling hook



[WLL/To]
1,12
2,00
3,15
5,30
8,00
12,50

Spare parts for eye sling hook



[WLL/To]
1,12
2,00
3,15
5,30
8,00
12,50

Spare part for self locking hook



[WLL/To]
1,12
2,00
3,15
5,30
8,20
12,50

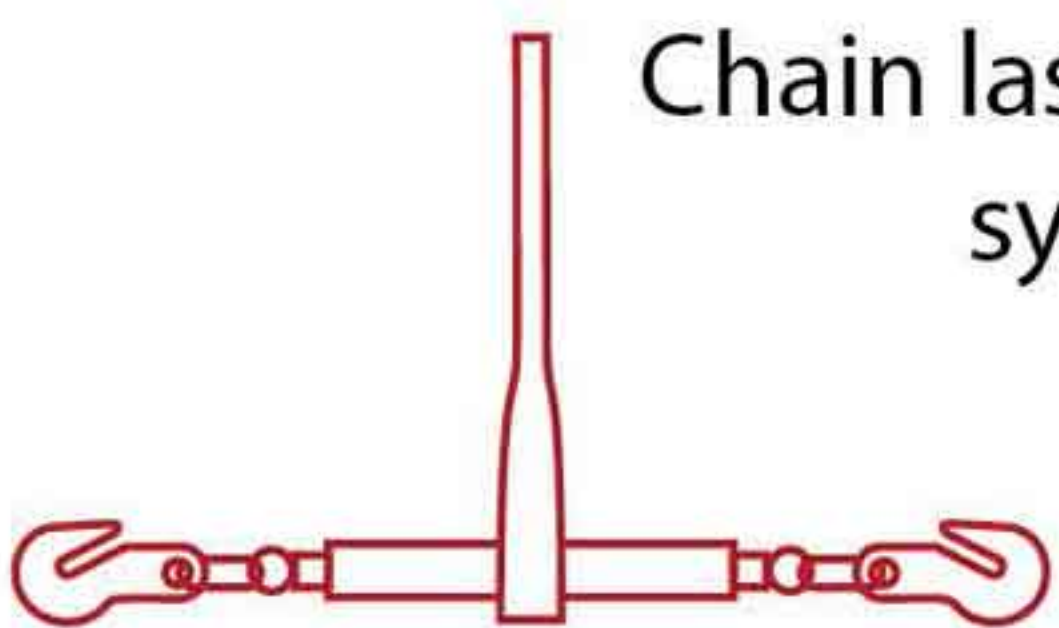
Chain shackles



Threaded Shank Hooklig



Chain lashing system



Sheet clamps

Horizontal



WLL [To]	Opening [mm]
0,5	0-30
1,0	0-60
1,5	0-60
2,0	0-60
3,0	0-60
4,0	0-60
5,0	0-60

Universal



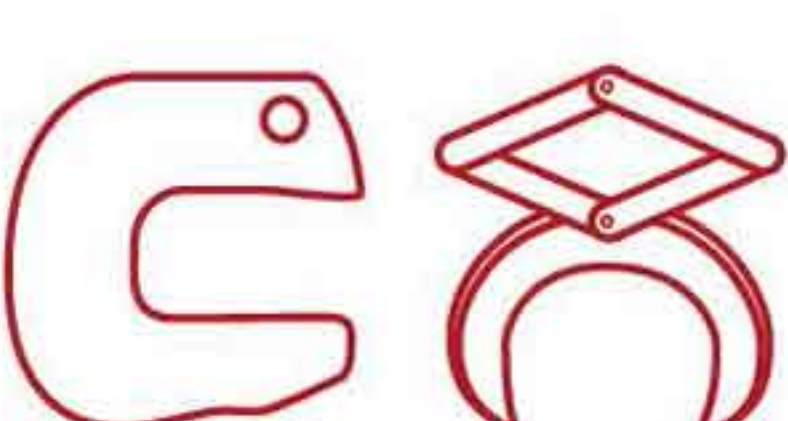
WLL [To]	Opening [mm]
0,5	0-15
1,0	0-20
2,0	0-25
3,0	0-30
5,0	0-50

Manipulation Clamps

Concrete pipe clamp



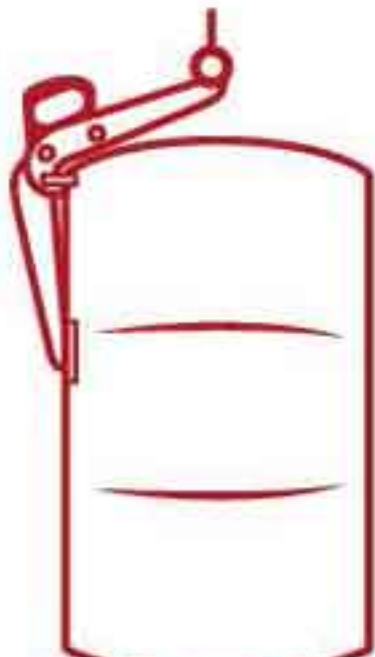
Pipe grab



Profile clamp



Barrel clamp



Lifting devices

Hand chain hoist

- Portable lifting device, used for periodic lifting or maintenance.

WLL [To]	Lifting height [m]	Test load [kN]	Manual effort [N]	Number of legs	Chain diameter [mm]
0,5	3	7,5	231	1	6x18
1	3	15	309	1	6x18
1,5	3	22,5	320	1	8x24
2	3	30	360	1	8x24
3	3	45	340	2	8x24
5	3	62,5	414	2	10x30
10	3	125	414	4	10x30
20	3	250	414x2	8	10x30



Lever chain hoist

- 360° rotation hook
- used for various kind off applications
- made for lifting, pulling

WLL [To]	Lifting height [m]	Test load [kN]	Minimum height [mm]	Number of legs	Chain diameter [mm]
0,5	1,5	0,75	300	1	5x15
0,75	1,5	1,12	320	1	6x18
1,5	1,5	2,5	380	1	8x24
3	1,5	3,8	480	1	10x30
6	1,5	7,65	600	2	10x30
9	1,5	11,5	700	3	10x30



Electric chain hoist



WLL [To]
0,5
1
1,5
2
3
5

- 3 phase
- load limiter
- remote controller

Beam push trolley



WLL [To]
1,00
2,00
3,00

- manual/electrical operation
- chain drive
- for IPN, IPE and H profile

Wire rope gripper (Tirfor)



- Multifunctional equipment for pulling and lifting
- For horizontal, vertical and diagonal use
- Adaptable to any type of activity

Rope diameter [mm]	WLL [To]	Rope lenght [m]
8	0,8	20
11	1,6	20
16	1,5	20
20	5,4	20

Electric winch

- Used for pulling and lifting
- Easy installation
- Automatic brake
- included: wire rope, hook and wire remote controller



Off-Road winch for 12V/24V

Car winches - hobby series

- Ideal for off-road applications
- For small and medium cars and industrial vehicles



Car winches - professional series

- Used for off-road extreme conditions
- Fo large cars and industrial vehicles



TOW TRUCK ELECTRIC WINCHES

- high resistance to extreme conditions of use
- Large amount of workload



Beam clamp

- robust construction
- easy to use and install



Crane fork

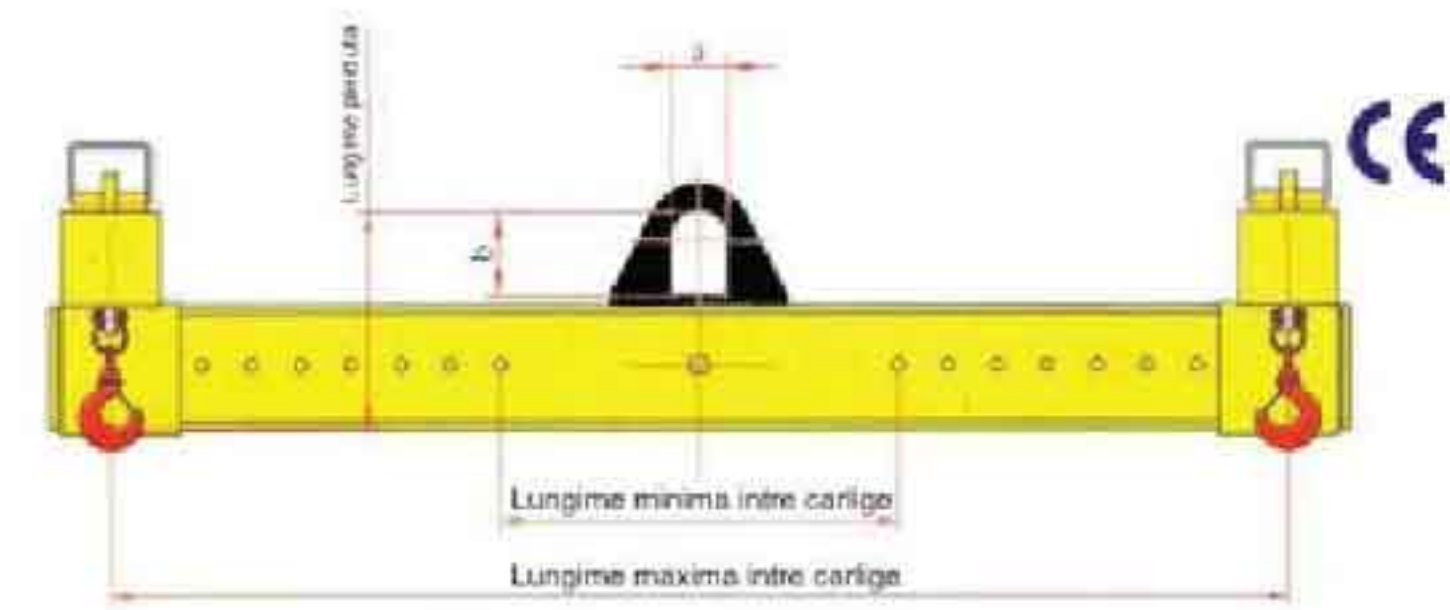


Manual winch



WLL [To]
545
816
1.749

Hoist traverse beam



- lenght: 4-12 ml
- working load: 2-150 to
- possible execution according to the project

PORTABLE ELECTRIC WINCH

- ATV, UTV, boats



Winch for general purposes

- whit hook
- whit shackle



Hidraulic trolley floor jack



WLL [To]
2
3
5
10

Hydraulic jack



WLL [To]
2
3
5
8
10
15
20
30
50

Dynamometer



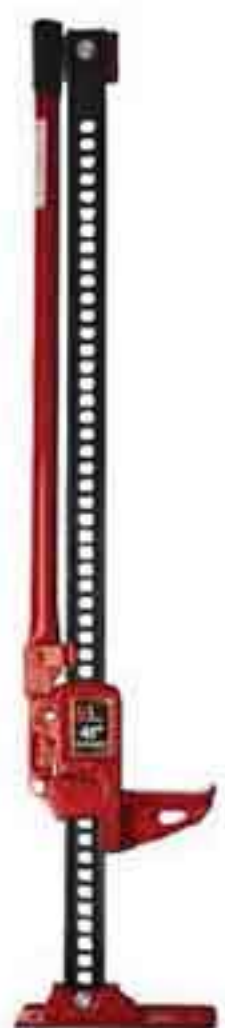
Sarcina de lucru [To]
1,0
3,2
6,3
10,0

Rack and pinion jack



WLL [To]
3
5
10
16
20

Farm jack



Permanent lifting magnet



WLL [To]
0,1
0,3
0,6
1,0
2,0
3,0
6,0

Car body stand



Manual palet truck

- Load capacity: 100kg
- Lift height: 1600 cm



Platform truck



Pallet truck

- Load capacity: 2.500 kg



Mobile workshop crane



Troller skates



Truck for barrels



Strapping devices and tapes

Steel strapping band



- Steel strapping band is used for heavy packing applications, who required maximum safety during transport

Steel strapping tensioner



PP strapping band



- Polypropylene strapping band is widely used tightening and packing.
- For machine binding automatic and semi-automatic strapping machines

PP strapping device.



PET strapping band



- It's ideal for goods securing
- Large amount of workload

PES strapping machine



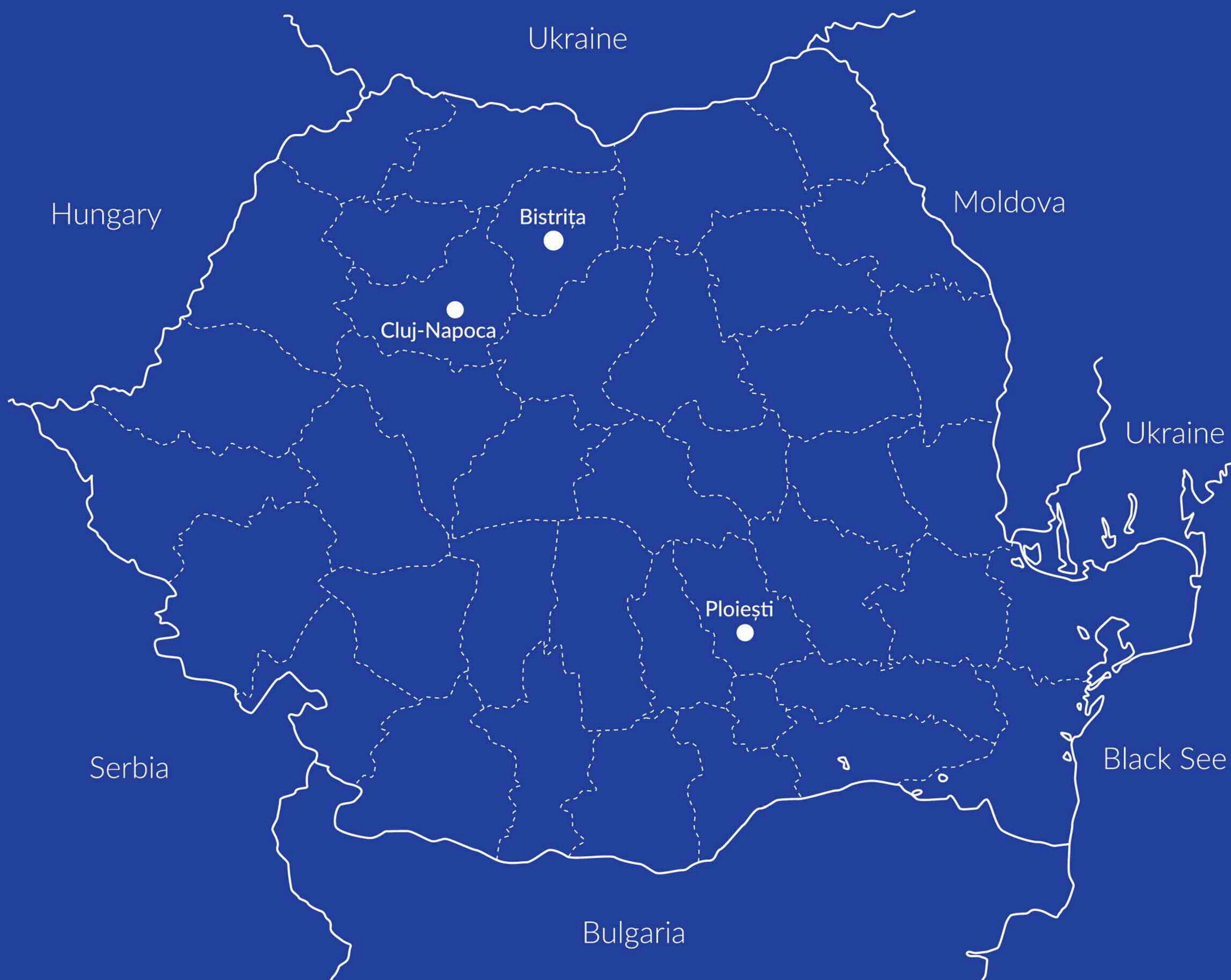
PES strapping band



- Pes strapping band can replace the binding metal belt
- The strips are made of polyester fiber fabric cross

PES strapping device





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