

Bridon®

Improve your fleet efficiency & productivity



**Market leading
rope solutions
for the fishing
industry**

05 Introduction

06 Technologies

- 06 Polymer technologies
- 07 Rope Compaction
- 08 Ropes 360 services

10 Product selection

- 12 Dyform Starfish 6x26 (10/5&5/5/1) Poly Core
- 12 Dyform Starfish 6x26 (10/5&5/5/1) IWRC
- 13 Dyform 6x26 (10/5&5/5/1) Poly Core
- 13 Dyform 6x26 (10/5&5/5/1) IWRC
- 14 Marblue 6x19 (9/9/1) Poly Core
- 14 Marblue 6x19 (9/9/1) IWRC
- 15 Seabeam 6x26 (10/5&5/5/1) Poly Core
- 15 Seabeam 6x26 (10/5&5/5/1) IWRC
- 16 Dyform Seapurse 6x19 (9/9/1) Poly Core
- 16 Dyform Seapurse 6x19 (9/9/1) IWRC
- 17 Dyform 6x26 (10/5&5/5/1) Poly Core
- 17 Dyform 6x26 (10/5&5/5/1) IWRC
- 18 Dyform RL
- 18 6x7

19 Product Safety

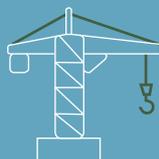
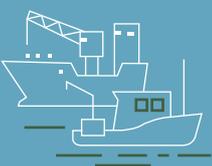


A brief introduction

Bekaert's ambition is to be the leading partner for shaping the way we live and move, and to always do this in a way that is safe, smart, and sustainable. As a global market and technology leader in material science of steel wire transformation and coating technologies, Bekaert also applies its expertise beyond steel to create new solutions with innovative materials and services for markets including new mobility, low-carbon construction, and green energy. Founded in 1880, with its headquarters in Belgium, Bekaert (Euronext Brussels, BEKB) is a global company whose 27 000 employees worldwide together generated almost € 7 billion in combined revenue in 2022.

Today's advanced fishing technologies demand high rope performance, that is why Bridon-Bekaert's specifically engineered trawl ropes offer ultimate rope performance with reduced pulley wear and increased abrasion resistance to maximize fleet efficiency and productivity.

we are active in many markets.



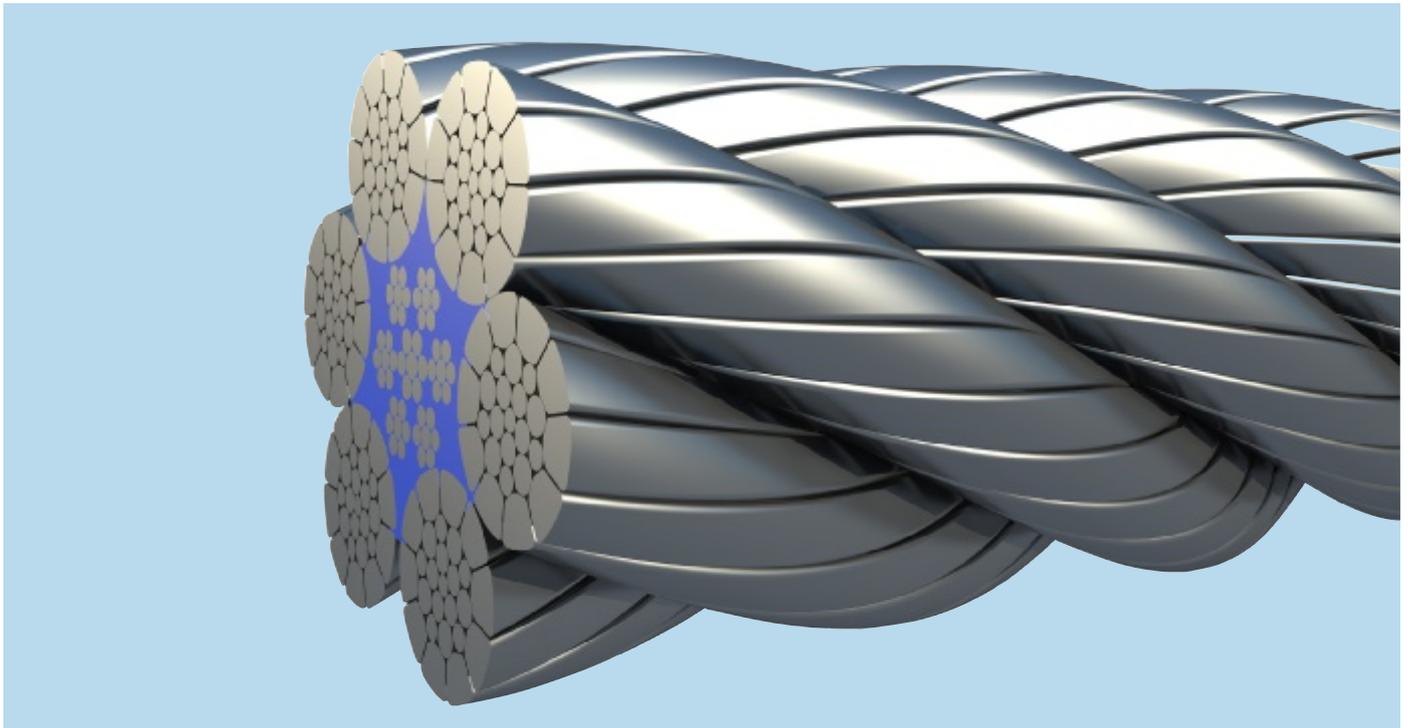
Polymer technologies

PLASTIC IMPREGNATION

High performance plastic impregnation is designed to offer an internal cushioning layer to the inter-strand contact points especially between core to cover on multi-strand low rotation ropes improving bend fatigue and core service life.

NXG

Advanced next generation low friction polymer technology incorporating unique additives to further enhance fatigue life of plasticated ropes



Our premiere product offering with polymer technology

Starfish[®]

STARFISH ropes construction reduces sheave wear and point to point loading, which combined with the superior dynamic structural stability provided by the Bristar core, ensures exceptional performance.

high performance construction

Improved strand positioning significantly increases fatigue life and wear resistance

greater internal rope protection

Enhanced core life

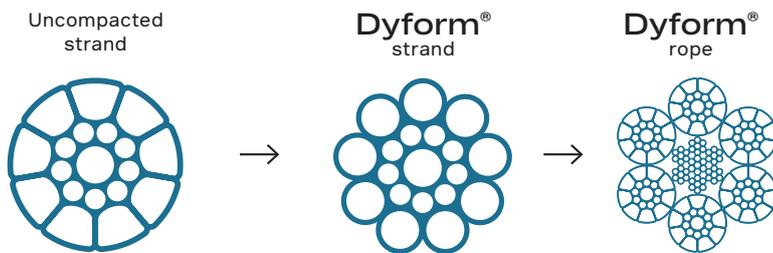
INCREASED rope stability

Enhanced diameter stability under load improves drum spooling performance and reduces crushing

Rope Compaction

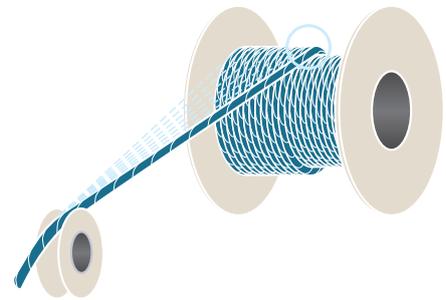
Dyform[®]

Bridon-Bekaert manufactures ropes using a unique dyforming process that compacts the strands as shown below. The smooth surface of the “Dyform” product provides improved rope to sheave contact leading to reduced wear on both rope and sheave. Increased cross-sectional steel area and improved inter - wire contact ensures that the rope will operate with lower internal stress levels resulting in longer bending fatigue life and lower costs.

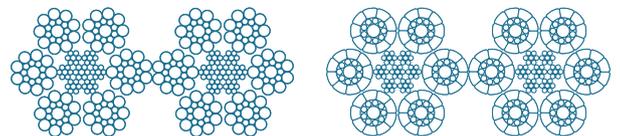


resistance to abrasive wear

Abrasive wear can take place between rope and sheave and between rope and drum but the greatest cause of abrasion is often through “interference” at the drum.

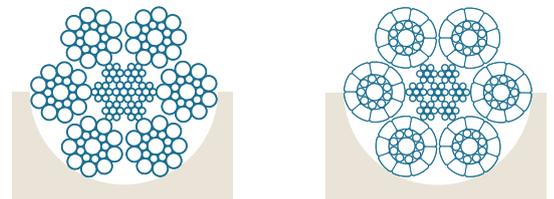


If abrasion is determined to be a major factor in rope deterioration then a wire rope with relatively large outer wires.



Non Dyform wire rope on adjacent drum laps can cause point contact and accelerated wear. Selection of a Dyform product will reduce abrasion through improved contact of the smooth surfaces, creating better contact and longer rope life.

Dyform ropes also reduce rope to sheave abrasion through increased contact of the periphery of the rope with the sheave as shown below.



crush resistance

In multi-layer coiling applications where there is more than one layer of rope on the drum it is essential to install the rope with some back tension. Bridon recommends a minimum installation tension of between 2.5% and 10% of the minimum breaking force of the rope.

If this is not achieved, or in certain applications where high pressure on underlying rope layers is inevitable e.g. a boom hoist rope raising a boom from the horizontal position, severe crushing damage can be caused to underlying layers.



Ropes 360 services



Installation

- Expertise
- Equipment hire
- Warranty assurance
- Support new technology



Inspection

- Rope inspection
- MRT/NDE



Maintenance

- Re-lubrication
- Aftermarket equipment and lubricant sales
- Cut-back and termination



Rope Life Management

- Safety
- Manage downtime with planned maintenance
- Rope lifecycle cost reductions
- Value service offering

BBtec

The Bridon-Bekaert Technology Centre (BBtec) is our centre of excellence for rope technology development, testing, analysis and verification.

BBtec is equipped with unique equipment capable of testing steel/synthetic ropes and wires. It has extensive forensic analysis laboratory facilities and specialists capable of conducting detailed forensic evaluation of new or retired ropes.

BBtec accelerates Bridon-Bekaert's new product development, involving the latest rope technologies to increase safety, performance and operational life of ropes working in demanding and hostile environments typical to our core markets in the Oil and Gas, Mining, and Construction sectors.

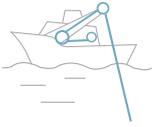


A close-up portrait of a man with a beard and mustache, wearing a grey knit beanie and a dark jacket. He is wearing a bright orange fishing jacket with a black strap across his chest. The background is dark with some blurred lights, suggesting an indoor or nighttime setting. The text 'Product selection' is overlaid in large white font at the bottom of the image.

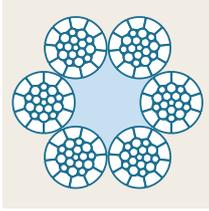
Product selection

Product Selection

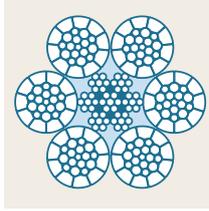
indicates bridon-bekaert's recommended rope per application



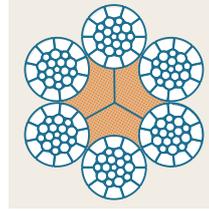
Trawl Warps



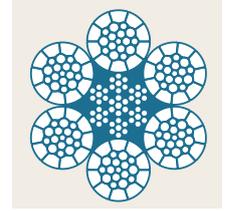
Dyform Starfish
6x26 Poly Core



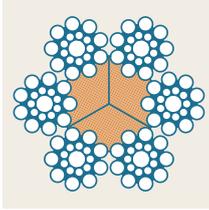
Dyform Starfish
6x26 IWRC



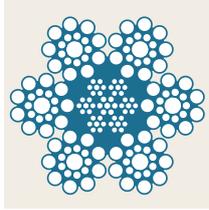
Dyform 6x26
Poly Core



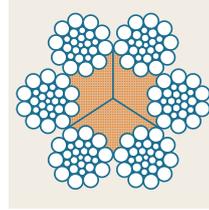
Dyform 6x26
IWRC



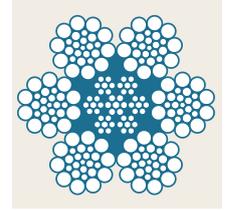
Marblue 6x19
Poly Core



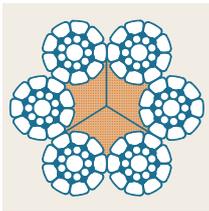
Marblue 6x19
IWRC



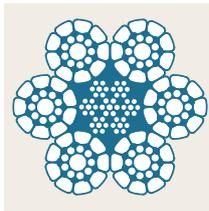
SeaBeam 6x26
Poly Core



SeaBeam 6x26
IWRC



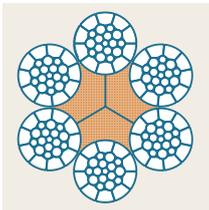
Dyform 6x19
Poly Core



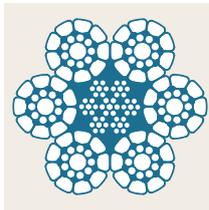
Dyform 6x19
IWRC



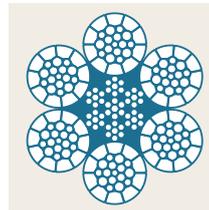
Purse Seining



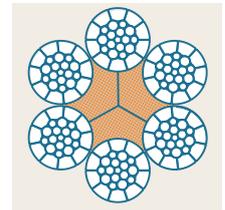
Dyform SeaPurse
6x19 Poly Core



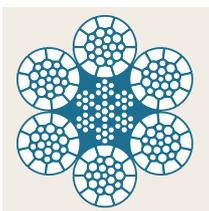
Dyform SeaPurse
6x19 IWRC



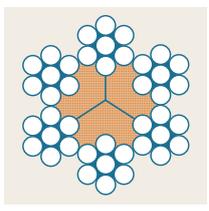
Dyform RL



Dyform 6x26
Poly Core



Dyform 6x26
IWRC

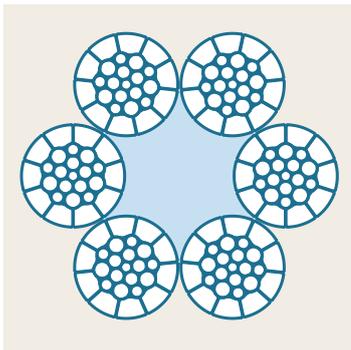
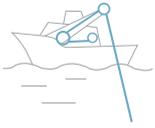


6x7

Dyform Starfish

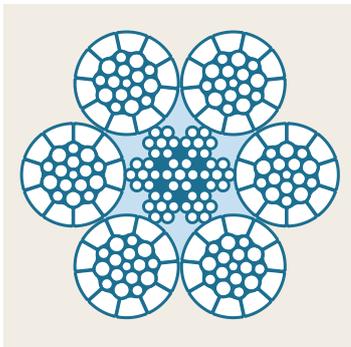
High strength and proven extended rope life - preventing core corrosion and maintaining design diameter.

6X26 (10/5 & 5/5/1) POLY CORE



Diameter	Weight	Minimum breaking load	
		Tonnes	kN
20	159.7	26.7	262
22	191.7	32.3	317
24	224.8	38.5	377
26	271.5	45.1	443
28	317.4	52.4	514
30	357.3	60.1	590
32	408.8	68.4	671
34	468.2	77.2	757
36	514.5	86.6	849
38	578.6	96.4	946
40	635.2	106.9	1048
42	700.3	117.8	1155
44	768.5	129.3	1268

6X26 (10/5 & 5/5/1) IWRC



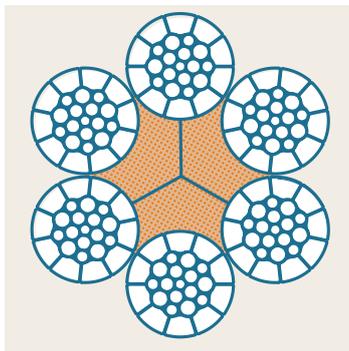
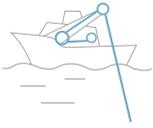
Diameter	Weight	Minimum breaking load	
		Tonnes	kN
20	183	29.8	292
22	216.6	36.0	353
24	254.7	42.9	420
26	307.2	50.3	493
28	351.7	58.4	572
30	403.8	67.0	657
32	461.1	76.2	748
34	527.2	86.0	844
36	599.4	96.5	946
38	661.1	107.5	1054
40	725.4	119.1	1168
42	799.3	131.3	1288
44	838	144.1	1413

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.

Dyform

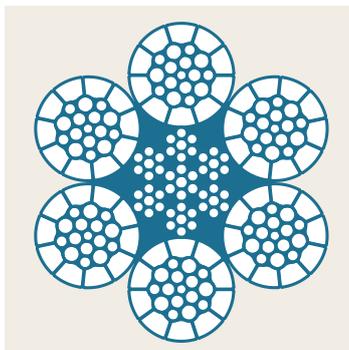
High strength and proven extended rope life - preventing core corrosion and maintaining design diameter.

6X26 (10/5 & 5/5/1) POLY CORE



Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
16	103.3	17.1	168
18	129.1	21.6	212
20	159.7	26.7	262
22	191.7	32.3	317
24	224.8	38.5	377
26	271.5	45.1	443
28	317.4	52.4	514
30	357.3	60.1	590
32	408.8	68.4	671
34	468.2	77.2	757
36	514.5	86.6	849
38	578.6	96.4	946
40	635.2	106.9	1048
42	700.3	117.8	1155
44	768.5	129.3	1268

6X26 (10/5 & 5/5/1) IWRC



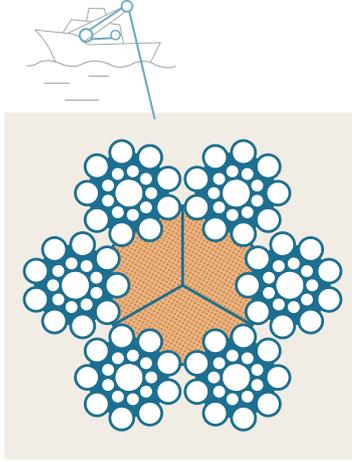
Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
16	115.5	19.1	187
18	145.3	24.1	237
20	183	29.8	292
22	216.6	36.0	353
24	254.7	42.9	420
26	307.2	50.3	493
28	351.7	58.4	572
30	403.8	67.0	657
32	461.1	76.2	748
34	527.2	86.0	844
36	599.4	96.5	946
38	661.1	107.5	1054
40	725.4	119.1	1168
42	799.3	131.3	1288
44	876.3	144.1	1413

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinol 3000.

Marblue

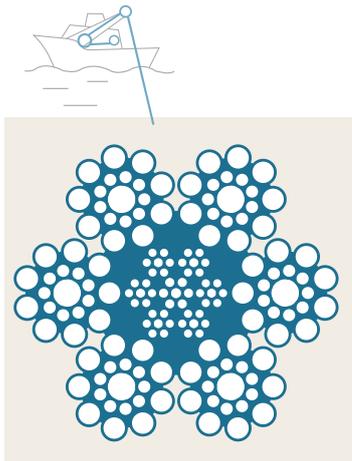
Large outer wires for increased wear and abrasion resistance.

6X19 (9/9/1) POLY CORE



Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
14	70.3	10.4	102
16	90.9	14.9	146
18	116.8	18.8	185
20	144.2	23.2	228
22	175.1	25.6	276
24	205.4	33.5	328
26	241.4	39.3	385
27	261.8	42.4	416
28	279.2	45.6	447
30	315.6	52.3	513
32	370	59.5	584

6X19 (9/9/1) IWRC



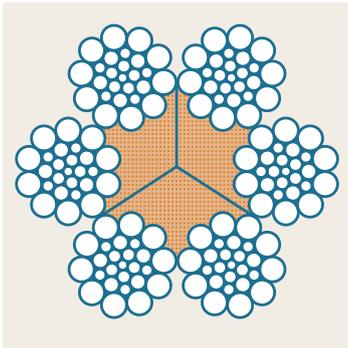
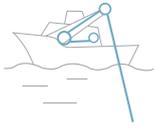
Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
14	82.7	12.6	123
16	102	16.1	157
18	128.9	20.3	199
20	164.6	25.1	246
22	199.7	30.4	298
24	235.4	36.1	354
26	276.9	42.4	416
27	294.9	45.7	448
28	318.9	49.2	482
30	383.2	56.4	554
32	411	64.2	630

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.

Seabeam

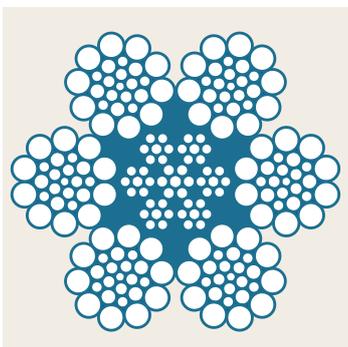
Proven design for all Beam Trawling applications.

6X26 (10/5&5/5/1) POLY CORE



Diameter	Weight	Minimum breaking load	
		Tonnes	kN
22	174.4	25.7	252
24	202.9	30.5	300
26	240.6	35.8	352
28	280.7	41.6	408
30	324.6	47.7	468
32	362.6	54.3	532

6X26 (10/5&5/5/1) IWRC



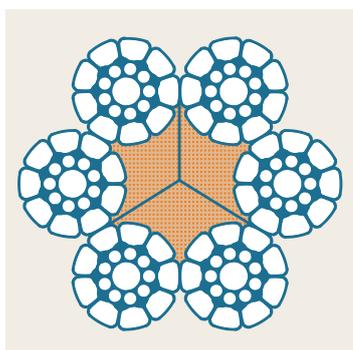
Diameter	Weight	Minimum breaking load	
		Tonnes	kN
22	199.4	27.6	271
24	236.5	32.9	323
26	276.2	38.6	379
28	320.5	44.8	439
30	369.7	51.4	504
32	415	58.5	573

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.

Dyform SeaPurse

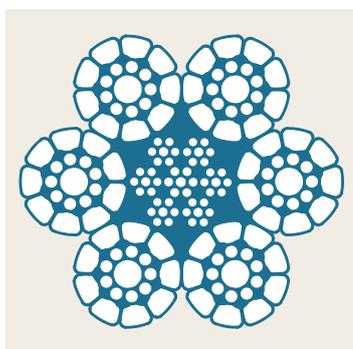
Specially designed purse wires with large outer wires for increased abrasion resistance and a smooth surface suitable for purse rings.

6X19 (9/9/1) POLY CORE



Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
14	79.30	11.80	115.7
16	105.50	17.40	170.6
18	131.50	18.60	182.4
20	159.20	22.90	224.6
22	192.7	32.1	315
24	231.1	38.2	374
26	269.1	44.8	439
28	310.5	52.0	510
30	358.5	59.7	585

6X19 (9/9/1) IWRC



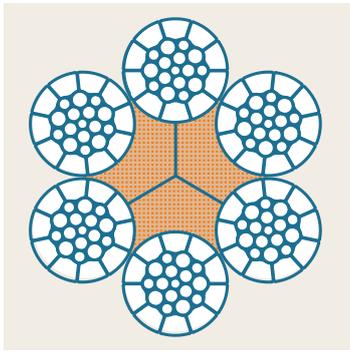
Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
18	144.70	21.30	208.9
20	182.70	26.50	259.9
22	219.1	31.0	317
24	256.7	39.4	377
26	305.4	46.6	443
28	350.4	58.4	514
30	415.9	62.2	590

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.

Dyform

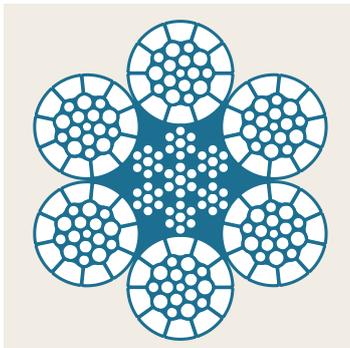
High strength - smooth periphery for reduced pulley wear.

6X26 (10/5&5/5/1) POLY CORE



Diameter		Weight		Minimum breaking load	
mm	kg/100 mtr	Tonnes	kN		
16	103.3	17.1	168		
18	129.1	21.6	212		
20	159.7	26.7	262		
22	191.7	32.3	317		
24	224.8	38.5	377		
26	271.5	45.1	443		
28	317.4	52.4	514		
30	357.3	60.1	590		
32	408.8	68.4	671		
34	468.2	77.2	757		
36	514.5	86.6	849		
38	578.6	96.4	946		
40	635.2	106.9	1048		
42	700.3	117.8	1155		
44	768.5	129.3	1268		

6X26 (10/5&5/5/1) IWRC



Diameter		Weight		Minimum breaking load	
mm	kg/100 mtr	Tonnes	kN		
16	115.5	19.1	187		
18	145.3	24.1	237		
20	183	29.8	292		
22	216.6	36.0	353		
24	254.7	42.9	420		
26	307.2	50.3	493		
28	351.7	58.4	572		
30	403.8	67.0	657		
32	461.1	76.2	748		
34	527.2	86.0	844		
36	599.4	96.5	946		
38	661.1	107.5	1054		
40	725.4	119.1	1168		
42	799.3	131.3	1288		
44	876.3	144.1	1413		

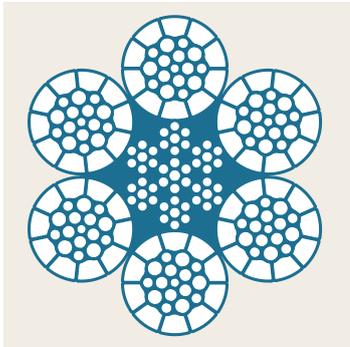
This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.

Dyform

High strength - smooth periphery for reduced pulley wear.
Torque resistant reverse laid core.



RL

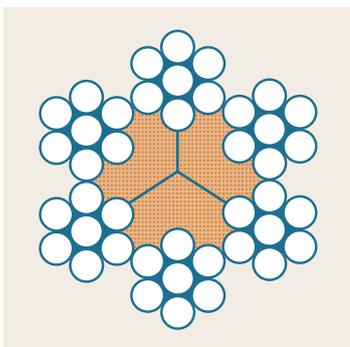


Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
28	351.7	58.4	572
30	403.8	67.0	657
32	461.1	76.2	748
34	527.2	86.0	844

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.

6 x 7

Proven design for all Beam Trawling applications.



Diameter	Weight	Minimum breaking load	
		Tonnes	kN
mm	kg/100 mtr		
10	33.30	5.32	52.2
12	48.10	7.65	75
14	65.40	10.42	102.2

This table is for guidance purposes only with no guarantee or warranty (express or implied) as to its accuracy. The products described may be subject to change without notice, and should not be relied on without further advice from Bridon-Bekaert. The cross section image is for reference only. Actual cross sections vary due to diameter. Visit www.bridon-bekaert.com for the most up-to-date data. All products are available with 'Zincal' or Bezinal 3000.



Product Safety

Instructions and Warnings
on the use of steel wire rope

The following Instructions and Warnings combine to form guidance on Product Safety and are intended for use by those with a working knowledge of wire as well as the new user. They should be read, followed and passed on to others.

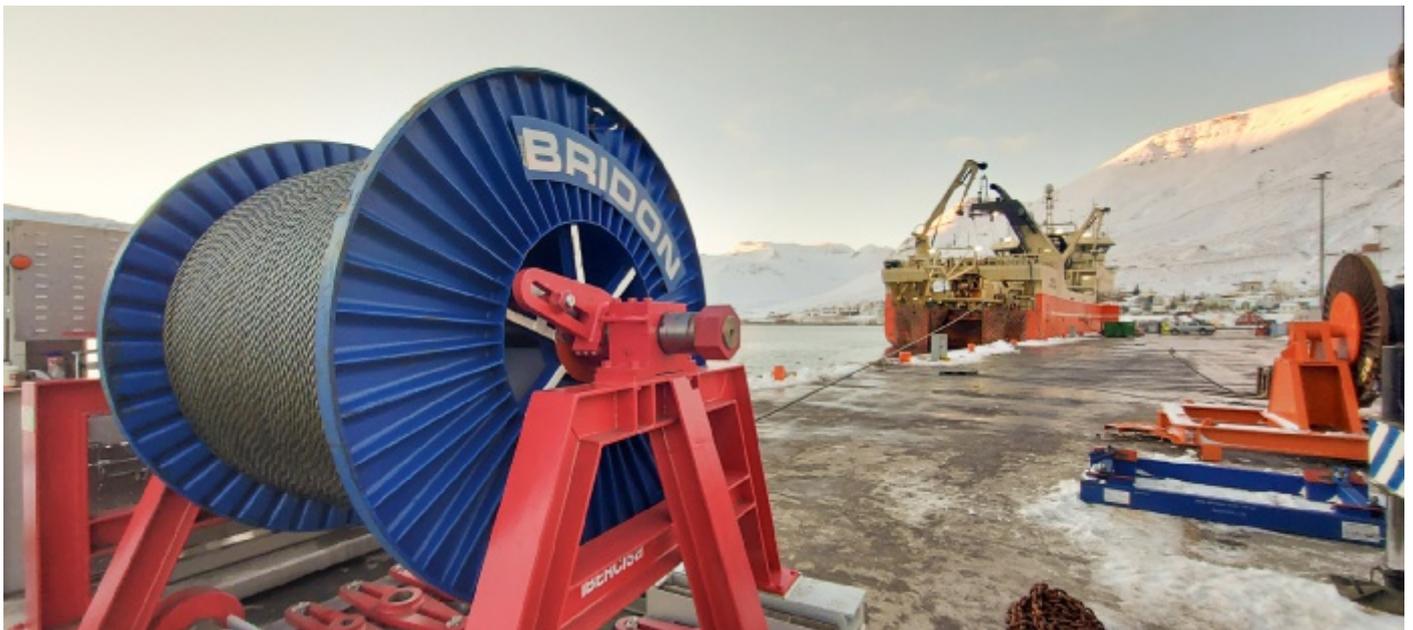
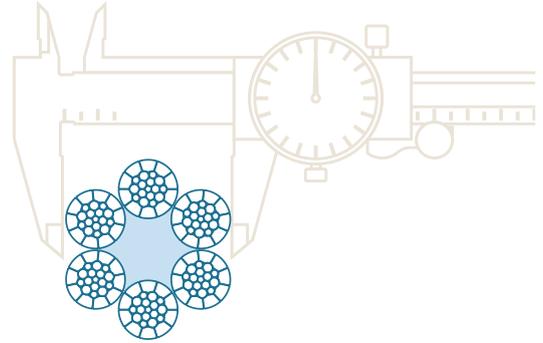
Failure to read, understand and follow these instructions could result in harmful and damaging consequences. A “Warning” statement indicates a potential hazardous situation which could result in a significant reduction in rope performance and/or put at risk, either directly or indirectly, the safety or health of those persons within the danger zone of the rope and its associated equipment.

STORAGE

Unwrap the rope and examine immediately after delivery to verify that it is in accordance with the details on delivery documents.

Measurement of rope diameter should be carried out as shown in Fig 1.

Select a clean, well ventilated, dry area for storage, cover with waterproof material if conditions preclude inside storage. Rotate the reel periodically during long periods of storage, particularly in warm environments, to prevent migration of lubricant from the rope.



Warning

Never store wire rope in areas subject to elevated temperatures as this may seriously affect its future performance. In extreme cases its original as-manufactured strength may be severely reduced rendering it unfit for safe use. Support the reel clear of the floor so that there is a clear passage of air under the reel. Ensure that the rope is stored where it is not likely to be affected by chemical fumes, steam or other corrosive agents.

Warning

Failure to do so may result in the rope becoming contaminated with foreign matter and start the onset of corrosion before the rope is put to work.

Ensure the rope is stored and protected in such a way that it will not be exposed to accidental damage either during storage or in placing the rope into or taking it out of storage.

HANDLING AND INSTALLATION

Handling and installation of the rope should be carried out in accordance with a detailed plan and should be supervised by a competent person. Suitable protective clothing and equipment should be worn.

Warning

Incorrectly supervised handling and installation procedures may result in serious injury to persons in the vicinity of the operation as well as those directly involved in the process.

Before installation

Examine the rope visually to ensure that no damage or deterioration has occurred during storage or transportation. Check the working area for potential hazards that may affect the safe installation of the rope. Check the condition of the rope related equipment on the vessel. Include the following:

DRUM

Check the general condition of the winch drum to ensure that it is in good condition with no damage or areas that will cause damage to the rope.

SHEAVES (PULLEYS)

Ensure that the groove is the correct shape and size for the new rope. Check that sheaves are free to rotate and in good condition. When a new rope is fitted a variation in size compared with the old worn rope will be apparent. The new rope may not fit correctly into the previously worn groove profile and unnecessary wear and rope damage may occur. This may be remedied by machining out the grooves before the new rope is fitted. Before this is done care should be taken to ensure that sufficient material is present to maintain strength in the sheave after machining.

STRUCTURE

Ensure that no part of the vessel's steelwork is positioned such that it will lie in the path of the rope between the installation drum and winch

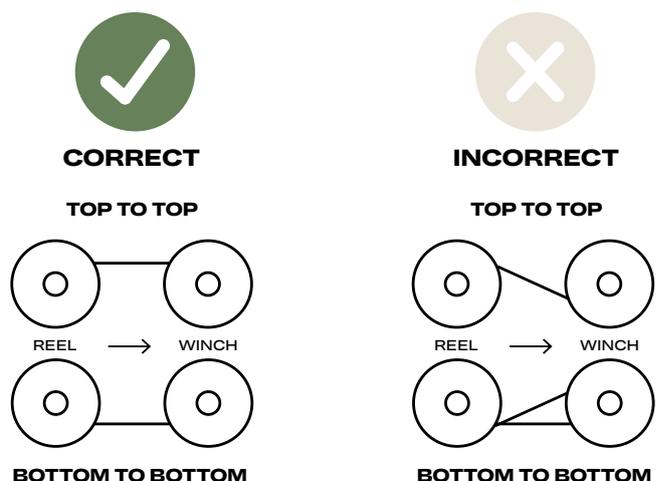
Warning

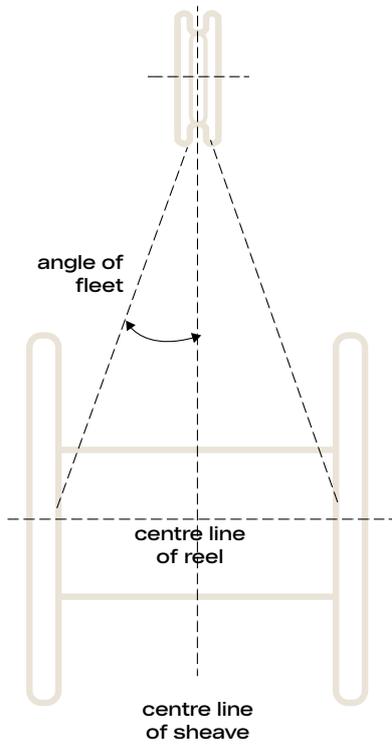
Failure to carry out any of the above could result in unsatisfactory and unsafe rope performance.

Installation

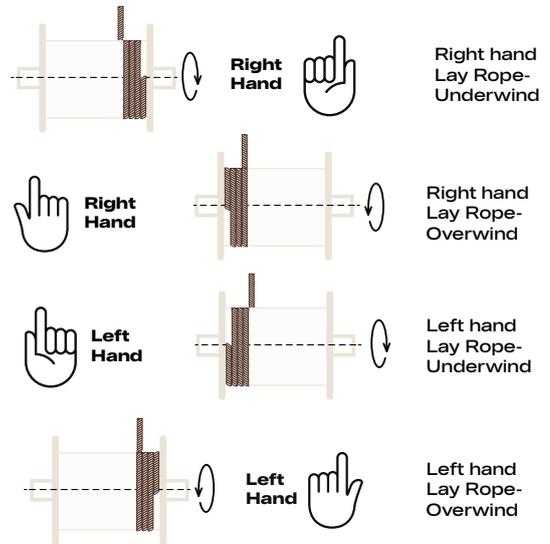
Installation of the rope should be carried out in the following manner:

Pass a shaft through the reel and place the reel in a suitable stand that allows it to rotate and be braked to avoid overrun during installation. The rope must be transferred from reel to winch drum in the correct manner, top to top or bottom to bottom. Fig 2





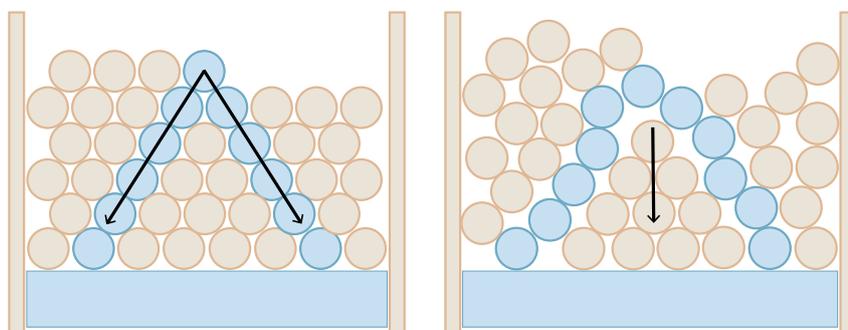
Proper method of locating rope anchorage point on a plain drum



The reel stand should be positioned to maintain a maximum fleet angle of 1.5 degrees. Correct block alignment and control of fleet angle is essential to avoid inducing "turn" in the rope Fig 3

The direction of coiling on the drum is important and should be related to the direction of lay of the rope to ensure close coiling. The correct method of locating the rope anchorage point on the winch drum is shown in Fig 4

When transferring a rope on to a plain or smooth drum, it is essential that the first (bottom) layer of rope is installed correctly as this layer provides the grooving for any subsequent layer of rope wound over the top of it. The rope wraps should be installed under tension (Bridon would recommend applying 5-10% of the M.B.L of the rope as back tension, when installing the rope onto the winch) uniformly avoiding any gaps between the wraps as Fig 5.



A soft hammer or piece of wood may be used to carefully knock the rope together during installation to ensure they are tight: however excessive force should be avoided.

Any gaps left at the ends should be spread out evenly over the width of the drum using soft packing to prevent subsequent movement. Once installed correctly this bottom layer should not be unwound.

Warning

Any looseness or uneven coiling will result in one or all of the following:- excessive wear, crushing and distortion of the rope, a reduction in rope performance, and a reduction in the strength of the rope. In addition, it will be more difficult for the operator to control the load as the rope is more likely to spool incorrectly and pull into underlying layers, resulting in shock loading and damage to the rope, Fig.5

Warning

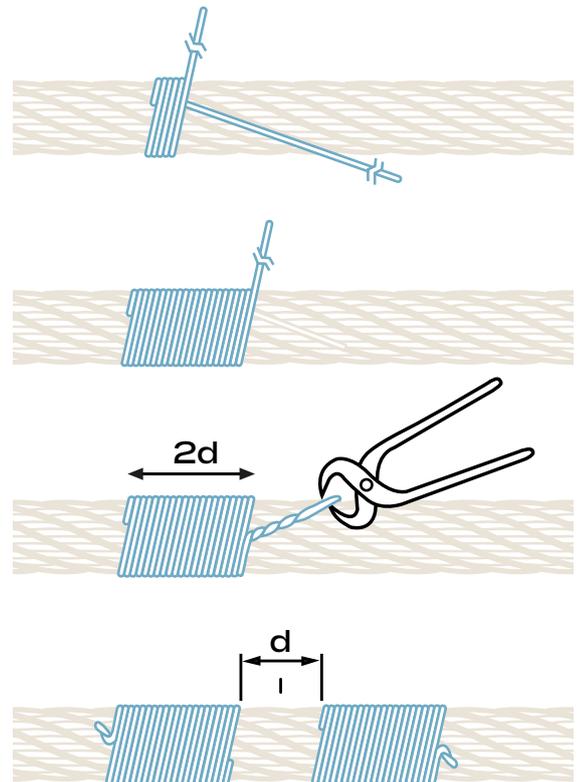
Failure to control could result in injury. Care must be taken to avoid free end rotation of the rope end, which may cause un-laying or elongation. Take particular care when the rope has to be cut. Apply secure servings on both sides of the cut mark using wire or strong twine. Each serving should be at least two rope diameters. Arrange and position the rope in such a manner that when cut the rope ends will remain in position, avoiding any backlash or other undesirable movement. Fig 6

Warning

Rope produced from carbon steel wires in the form shipped is not considered a health hazard. During subsequent processing (e.g. cutting, grinding and cleaning) dust and fumes may be produced which contain elements which may affect exposed workers. Ideally cut the rope with an abrasive disc cutter, other suitable mechanical and hydraulic shearing equipment may be used if necessary. Ensure adequate ventilation during cutting to avoid any build up of fumes from the rope or any of its constituents.

Warning

Some special ropes contain synthetic material which, when heated to temperatures above normal processing temperatures may decompose and give off toxic fumes.





fishing@bridon-bekaert.com

bridon-bekaert.com

 facebook.com/BridonBekaert

 linkedin.com/company/bridon-bekaert

 twitter.com/bridonbekaert