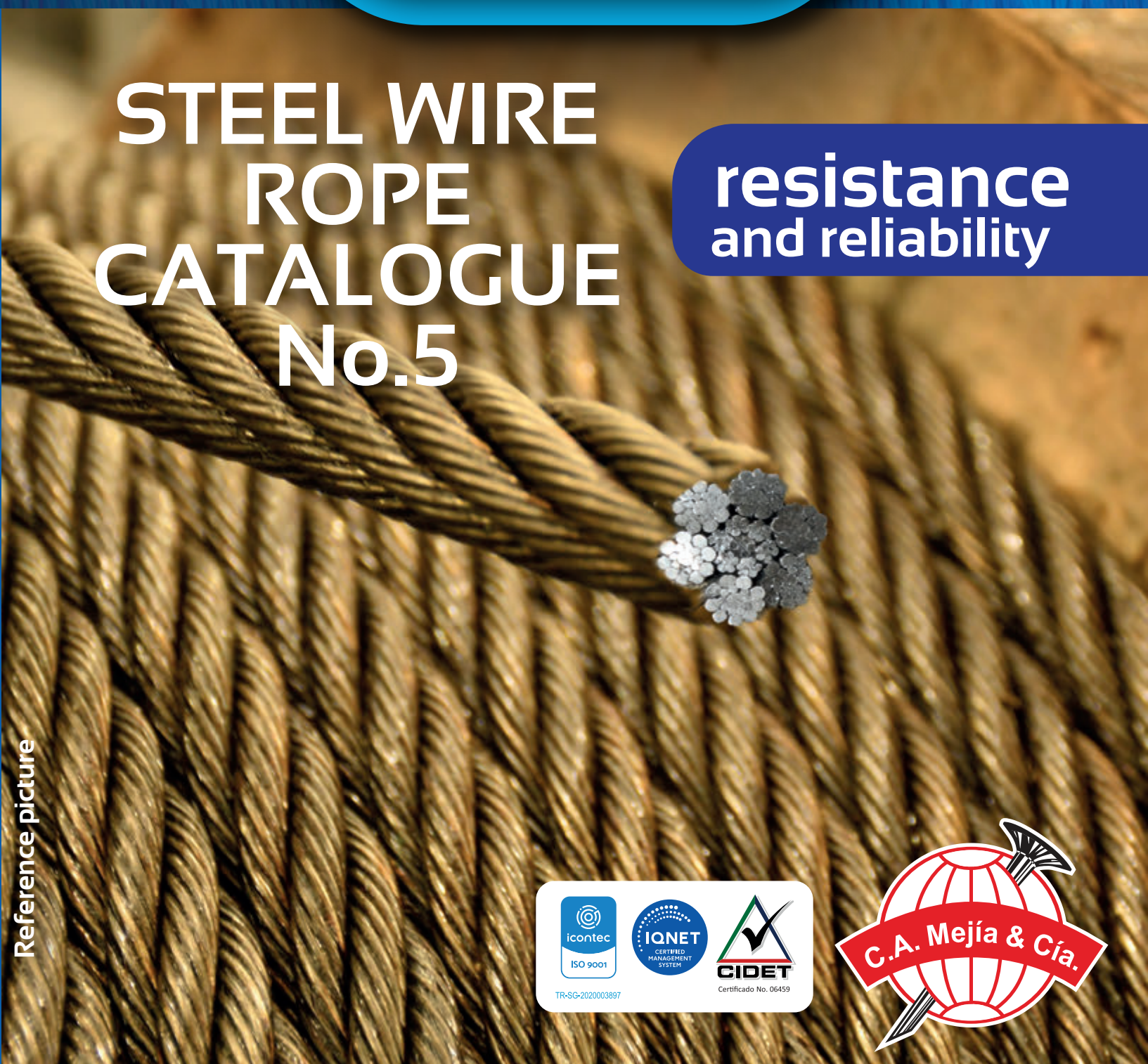
triton

STEEL WIRE ROPE CATALOGUE No.5

resistance and reliability



Reference picture

icontec ISO 9001 TR-SC-2020003897

IQNET CERTIFIED MANAGEMENT SYSTEM

CIDET Certificado No. 06459

C.A. Mejía & Cía.


triton
Reference picture

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triton

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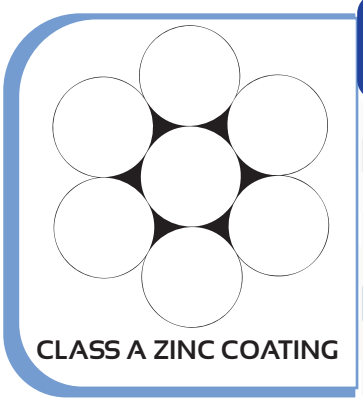
1x7 GALVANIZED STEEL STRAND HIGH AND EXTRA-HIGH STRENGTH (HS, EHS)

GALVANIZED STEEL STRANDS

C.A. MEJÍA manufactures TRITÓN hot-dip galvanized steel strand with a zinc coating that provides corrosion resistance. Available in 1x7 configurations, with Extra-High Strength (EHS) and High Strength (HS), it complies with the requirements of ASTM A475, NTC 2145, and ASTM A363 for breaking strength, elongation, ductility, zinc coating weight, coating adhesion, and diameter.

Applications: Generally used for static applications in the electrical and telecommunications sectors, including guy wires, messenger wires, guard wires, and bracing systems, as well as in the floriculture industry, among other applications.

1x7 EHS GALVANIZED STEEL STRAND – EXTRA-HIGH STRENGTH



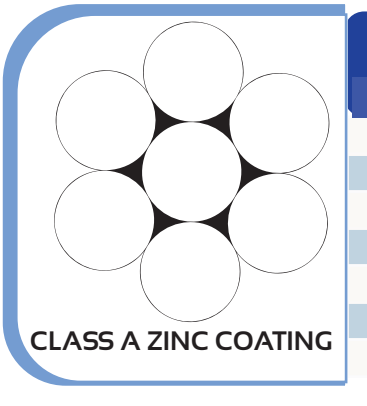
CLASS A ZINC COATING

Nominal Diameter		Minimum Load (lbf) Extra-High Strength (EHS)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m	Zinc Coating Weight g/m²
Inches	Millimeters				
1/16 (*)	1/59	511	0.23	0.012	12
1/8	3.18	1830	0.83	0.048	122
3/16	4.76	3990	1.81	0.109	153
1/4	6.35	6650	3.02	0.18	183
5/16	7.94	11200	5.08	0.335	244
3/8	9.53	15400	6.99	0.407	259
7/16	11.11	20800	9.43	0.595	275
1/2	12.7	26900	12.20	0.770	275
5/8 (*)	15.87	42400	19.23	1.211	305

(*) This reference is not included in the NTC 2145, ASTM A475

Product Conformity Certificate No. 06459 under the applicable standard and Product Certificate No. CP25_AA00147 under RETIE 2024, issued by CIDET.

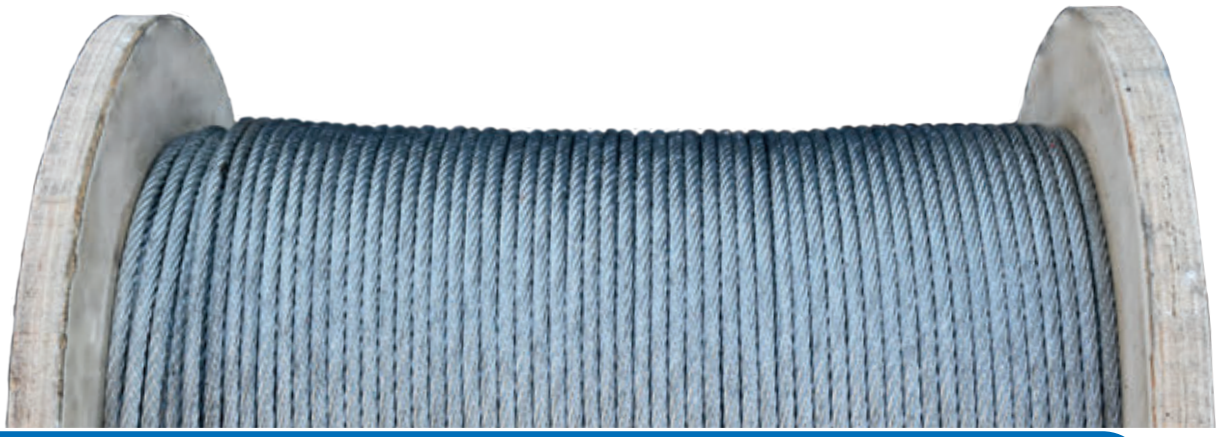
TORÓN DE ACERO GALVANIZADO 1X7 HS - ALTA RESISTENCIA



CLASS A ZINC COATING

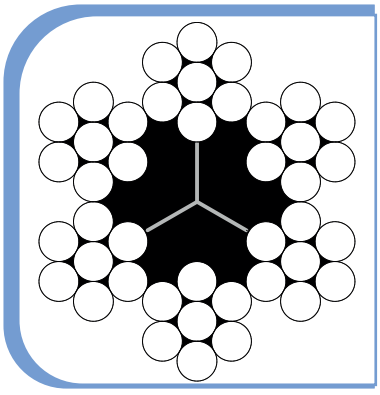
Nominal Diameter		Minimum Breaking Load (lbf) – High Strength (HS)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m	Zinc Coating Weight g/m²
Inches	Millimeters				
1/8	3.18	1330	0.60	0.048	122
3/16	4.76	2850	1.29	0.109	153
1/4	6.35	4750	2.15	0.180	183
5/16	7.94	8000	3.63	0.305	244
3/8	9.53	10800	4.90	0.407	259
7/16	11.11	14500	6.58	0.595	275
1/2	12.7	18800	8.53	0.770	275

Product Conformity Certificate No. 06459 under the applicable standard and Product Certificate No. CP25_AA00147 under RETIE 2024, issued by CIDET.

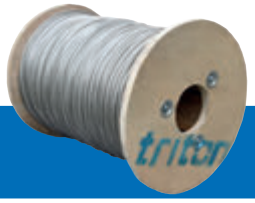


6x7 GALVANIZED STEEL WIRE ROPE (FIBER CORE – FC)

6x7 FC (Fiber Core) steel wire ropes are semi-rigid and abrasion-resistant. They are used in various industrial sectors, including construction, agriculture, lifting operations, lashing, tensioning applications, mining, and the maritime industry, among others.

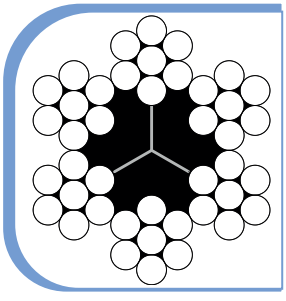


Nominal Diameter		Minimum Breaking Load (kN)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
1/4	6.35	23.70	2.42	0.14
5/16	7.94	37.05	3.78	0.22
3/8	9.53	53.37	5.44	0.31
7/16	11.11	72.53	7.40	0.43
1/2	12.70	94.78	9.67	0.56
9/16	14.29	120.0	12.24	0.71
5/8	15.88	148.2	15.12	0.87
3/4	19.05	213.3	21.75	1.26
7/8	22.22	290.1	29.59	1.71
1	25.4	379.1	38.67	2.23



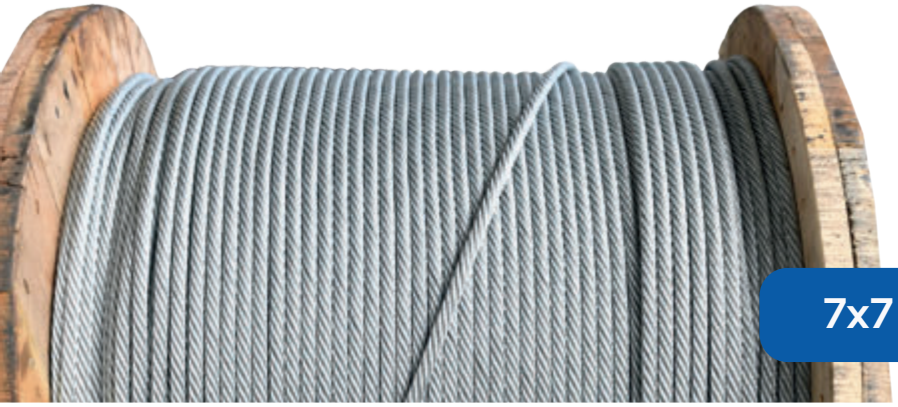
6x7 PVC-COATED STEEL WIRE ROPE

PVC-coated steel wire ropes are used in a wide range of applications, providing good protection against corrosion, weathering, and abrasion. They are ideal for outdoor use.



Nominal Diameter		Minimum Breaking Load (kN)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
3/32	2.38	3.33	0.34	0.02
1/8	3.18	5.98	0.61	0.04
3/16	4.76	13.34	1.36	0.04
1/4	6.35	23.73	2.42	0.14

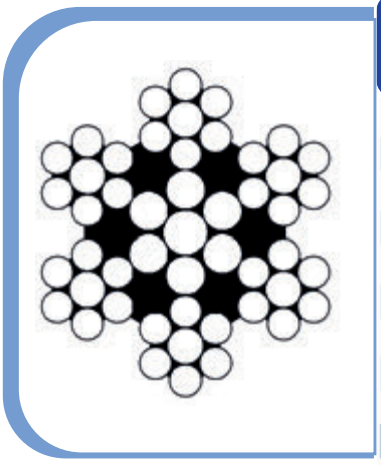
Steel Wire Ropes



7x7 GALVANIZED STEEL WIRE ROPE

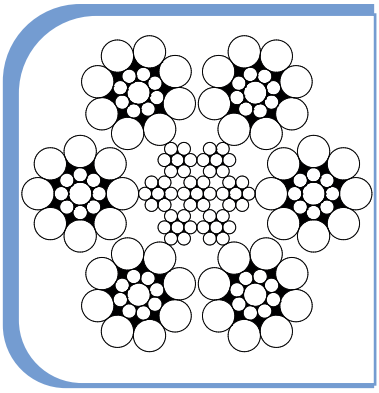
Our 7x7 steel wire rope, consisting of 7 strands with 7 wires each, offers high abrasion resistance, making it an excellent choice for static applications. It is ideal for uses such as lifelines, support cables for extracting products on farms, fencing, slope stabilization, and other applications requiring strength and durability.

It is available in commercially standard diameters as part of our product portfolio. It meets the load requirements specified in DIN EN 12385-4.



Nominal Diameter		Minimum Breaking Load (kN)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
3/16	4.76	16.50	1.68	0.09
1/4	6.35	27.1	2.76	0.16
5/16	7.94	40.9	4.17	0.25
3/8	9.53	58.3	5.94	0.35
7/16	11.11	83.55	8.52	0.49
1/2	12.70	108.85	11.1	0.65
9/16	14.29	137.29	14.0	0.82
5/8	15.88	167.69	17.1	1.01
3/4	19.05	239.28	24.4	1.45
7/8	22.23	323.62	33.0	1.98
1	25.4	418.74	42.7	2.58

6x17 SEALE GALVANIZED STEEL WIRE ROPE – STEEL CORE (IWRC)



Applications: Manual and motorized suspended scaffolding.

Nominal Diameter	Minimum Breaking Load (lbf)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Millimeters			
8,30 mm	9759	4.43	0.28

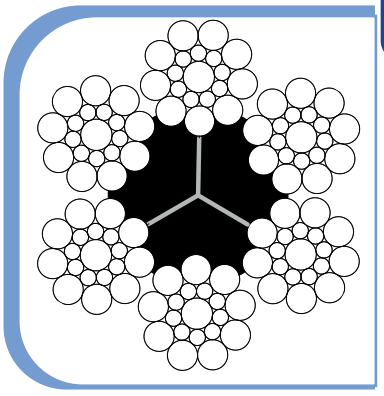


6x19 SEALE GALVANIZED STEEL WIRE ROPE

6X19 SEALE STEEL WIRE ROPE, F.C. (F.C.) GALVANIZED OR UNGALVANIZED

The 6x19 Seale construction with fiber core provides greater flexibility. It is also used in the manufacture of lifting slings for load handling in the construction and electrical industries, including the lifting of power transmission towers, civil engineering works, and other applications.

It should not be used in steel mill furnaces or exposed to high temperatures, as these conditions can damage the fiber core. To ensure proper performance and durability, periodic inspections and proper lubrication, when required, are essential. The Seale construction offers greater abrasion resistance than standard constructions.

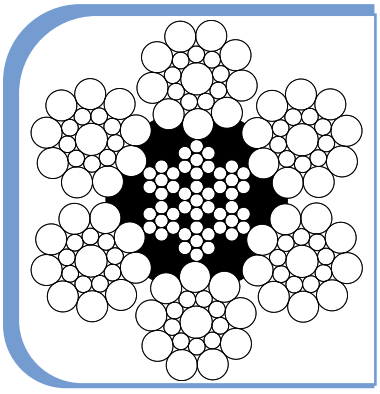


Nominal Diameter		Minimum Breaking Load (kN) Wire Rope Grade: 1770 MPa	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
1/4	6.35	23.55	2.40	0.15
5/16	7.94	36.82	3.75	0.23
3/8	9.52	53.05	5.41	0.33
7/16	11.11	72.13	7.35	0.44
1/2	12.70	94.21	9.61	0.60
9/16	14.28	119.23	12.15	0.73
5/8	15.88	147.30	15.02	0.93
3/4	19.05	211.97	21.62	1.26
7/8	22.22	288.39	29.40	1.62
1	25.40	376.84	38.42	2.09
1 1/8	28.57	476.94	48.63	2.93
1 1/4	31.75	588.81	60.06	3.61
1 3/8	34.92	712.46	72.64	4.37
1 1/2	38.10	847.89	86.48	5.22
1 5/8	41.28	995.09	101.47	6.13
1 3/4	44.45	1154.07	1154.07	7.10

6x19 SEALE IWRC STEEL WIRE ROPE (STEEL CORE), GALVANIZED OR UNGALVANIZED

The 6x19 Seale IWRC construction with steel core offers improved performance and greater resistance to heat and compression. It is used in larger winches compared to fiber-core wire ropes, as well as in the manufacture of lifting slings for load handling and in pulling and dragging operations in the mining, logging, and civil engineering industries, among other applications.

To ensure proper performance and durability, periodic inspections and proper lubrication, when required, are essential. The Seale construction offers greater abrasion resistance than standard constructions.



Nominal Diameter		Minimum Breaking Load (kN) Wire Rope Grade: 1770 MPa	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
1/4	6.35	25.41	2.59	0.17
5/16	7.94	39.73	4.05	0.26
3/8	9.52	57.23	5.84	0.36
7/16	11.11	77.81	7.93	0.49
1/2	12.7	101.63	10.36	0.65
9/16	14.28	128.63	13.11	0.81
5/8	15.88	158.9	16.20	1.02
3/4	19.05	228.67	23.32	1.48
7/8	22.22	311.11	31.72	2.02
1	25.40	406.53	41.45	2.69
1 1/8	28.58	514.51	52.47	3.28
1 1/4	31.75	635.20	64.77	4.03
1 3/8	34.92	768.59	78.37	4.87
1 1/2	38.10	914.69	93.30	5.82
1 5/8	41.28	1073.49	109.47	6.83
1 3/4	44.45	1244.99	126.95	7.91



Mechanical Properties – DIN EN 12385-4, API 9A

6X19 SEALE TARRED STEEL WIRE ROPE

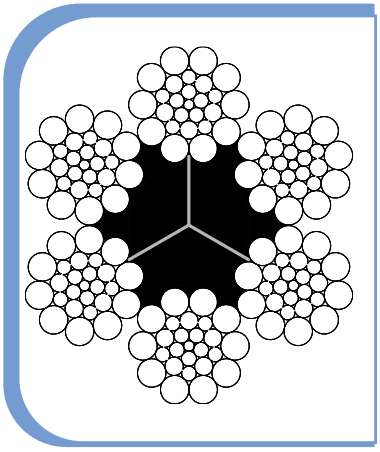


Reference picture

6x26 WS (WARRINGTON SEALE) STEEL WIRE ROPE

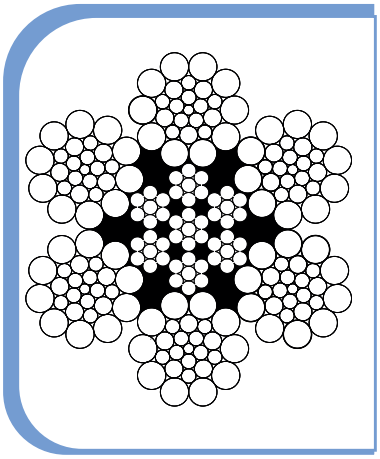
The 6x26 WS wire rope offers greater flexibility, allowing it to be used on drums and sheaves with smaller diameters than those required for 6x19 Seale wire rope. These drums and sheaves must have a minimum diameter equivalent to 24 times the wire rope diameter.
Due to its greater number of symmetrically arranged wires, it provides an optimal balance between abrasion resistance and bending fatigue resistance.
Main applications: Mining, cranes, and lifting slings.

6x26 WS (WARRINGTON SEALE) F.C. (FIBER CORE) STEEL WIRE ROPE, GALVANIZED OR UNGALVANIZED



Nominal Diameter		Minimum Breaking Load (kN)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
1/2	12.70	94.21	9.61	0.6
5/8	15.88	147.30	15.02	0.93
3/4	19.05	211.97	21.61	1.26
7/8	22.22	288.39	29.41	1.62
1	25.40	376.84	38.43	2.09
1 1/8	28.57	477.10	48.65	2.59
1 1/4	31.75	588.81	60.04	3.61
1 3/8	34.92	712.66	72.67	4.37
1 1/2	38.10	847.89	86.46	5.21
1 5/8	41.28	992.92	101.28	6.12

6x26 WS (WARRINGTON SEALE) IWRC (STEEL CORE) STEEL WIRE ROPE, GALVANIZED OR UNGALVANIZED



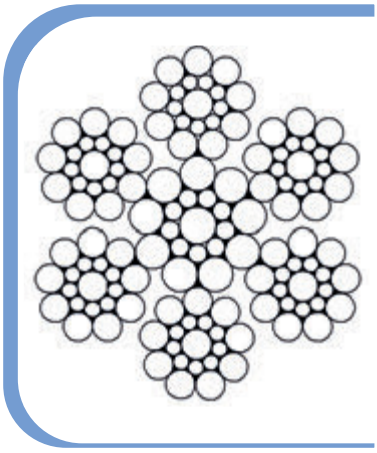
Nominal Diameter		Minimum Breaking Load (kN) Wire Rope Grade: 1770 MPa	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
1/2	12.70	101.63	10.36	0.65
5/8	15.88	158.90	16.20	1.02
3/4	19.05	228.67	23.32	1.48
7/8	22.22	311.11	31.72	2.02
1	25.40	406.53	41.45	2.69
1 1/8	28.57	514.33	52.44	3.39
1 1/4	31.75	635.20	64.79	4.03
1 3/8	34.92	768.81	78.42	4.87
1 1/2	38.10	914.69	93.26	5.80
1 5/8	41.28	1071.15	109.26	6.83

Mechanical Properties – DIN EN 12385-4, API 9A

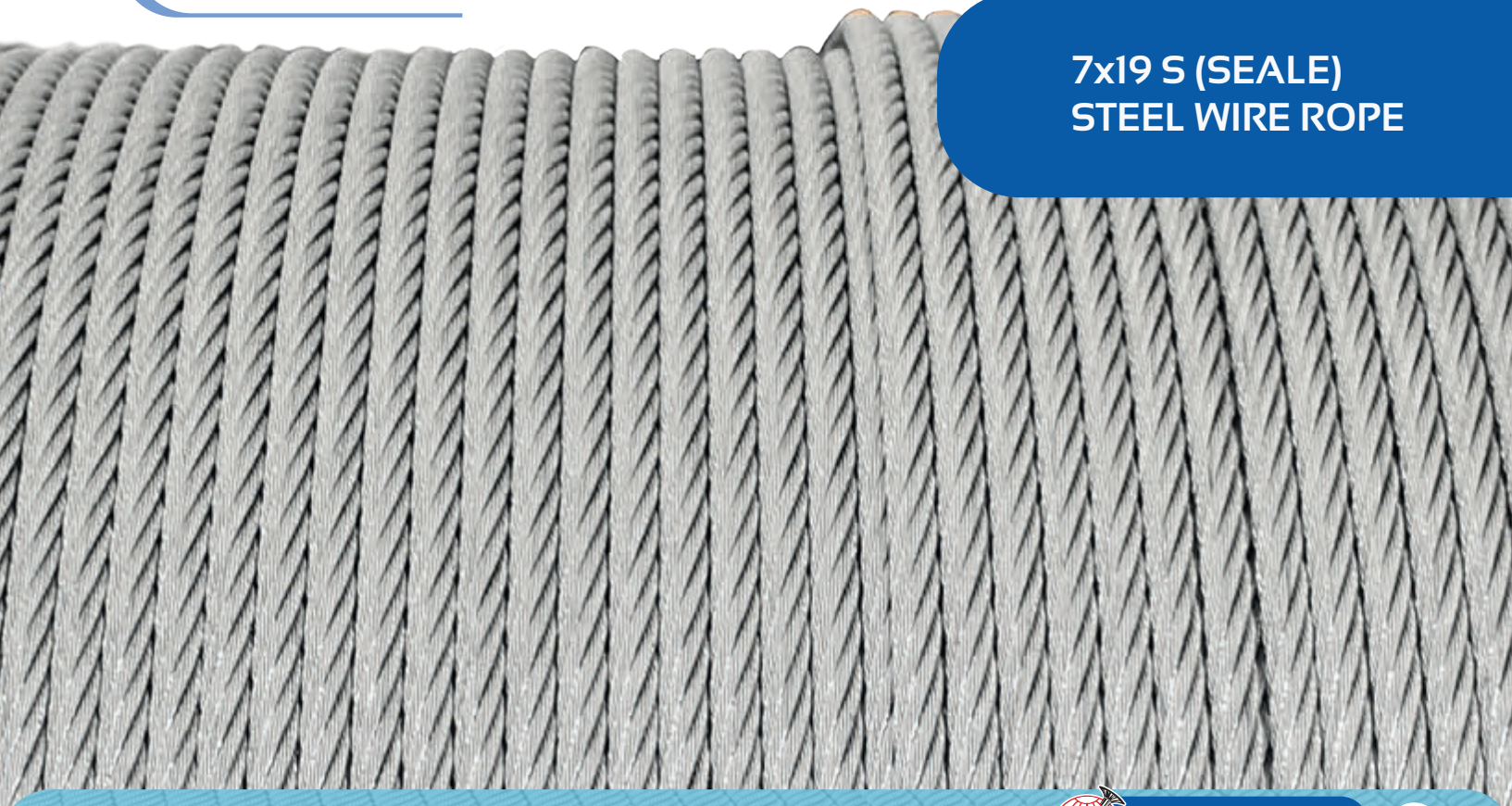
Galvanized 7x19 steel wire ropes are used in architectural applications, fencing, greenhouses, load securing, and other non-industrial applications. They offer good flexibility but have low abrasion resistance.

7x19 SEALE GALVANIZED STEEL WIRE ROPE

Galvanized 7x19 steel wire ropes are widely used in civil construction because they combine flexibility, good mechanical strength, and corrosion protection.



Nominal Diameter		Minimum Breaking Load (kN)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
5/16	7.94	44.92	4.58	0.275
3/8	9.53	64.33	6.56	0.396



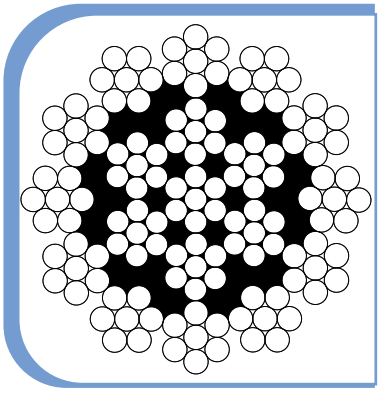
7x19 S (SEALE) STEEL WIRE ROPE

Reference picture



19x7 NON-ROTATING STEEL WIRE ROP

The 19x7 rotation-resistant wire rope is designed to minimize rotation around its own axis, allowing loads to be lifted while reducing the risk of dynamic imbalance caused by rope twisting.
For 19x7 rotation-resistant wire ropes, the drum-to-rope diameter ratio (D/d), where D is the drum diameter and d is the wire rope diameter, must be at least 40 to help prevent bending fatigue.
Main applications: Towers and cranes.



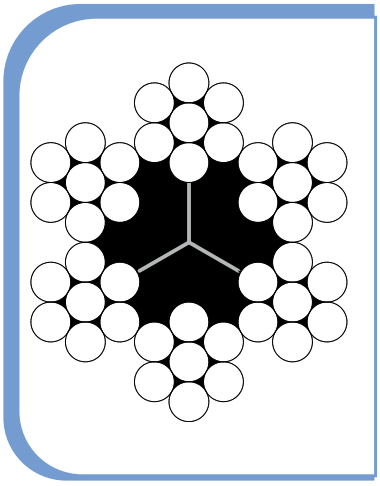
Nominal Diameter		Minimum Breaking Load (kN) Wire Rope Grade: 1770 MPa	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m
Inches	Millimeters			
3/8	9.53	52.73	5.38	0.35
-	10	58.06	5.92	0.38
-	11	70.25	7.16	0.48
-	12	83.60	8.52	0.57
1/2	12.70	93.64	9.55	0.64
5/8	15.87	146.40	14.93	1.01
3/4	19.05	210.69	21.48	1.45
1	25.40	374.55	38.19	2.58

Steel Wire Ropes



GALVANIZED FISHING WIRE ROPE WITH FIBER CORE

Tritón fishing wire rope with fiber core is designed to provide durability and protection against corrosion in marine environments, thanks to its effective grease coating and galvanized steel construction.



Nominal Diameter		Minimum Breaking Load (kN)	Minimum Breaking Load (Metric Tons)	Approximate Weight kg/m	Ref.
Inches	Millimeters				
3/8	9.53	53.37	5.44	0.31	6x7
7/16	11.11	72.53	7.40	0.43	
1/2	12.7	94.78	9.66	0.56	
9/16	14.29	120	12.24	0.71	
9/16	14.29	119.23	12.16	0.73	6x19S
5/8	15.88	147.30	15.02	0.93	
5/8	15.88	147.30	15.02	0.93	6x26 WS
3/4	19.05	211.97	21.61	1.26	
7/8	22.22	288.39	29.41	1.62	
1	25.40	376.84	38.46	2.09	

WE HAVE THE CAPABILITY TO MANUFACTURE METRIC-SIZED WIRE ROPES AND LEFT-HAND LAY WIRE ROPES



HEAVY-DUTY FORGED WIRE ROPE CLIPS

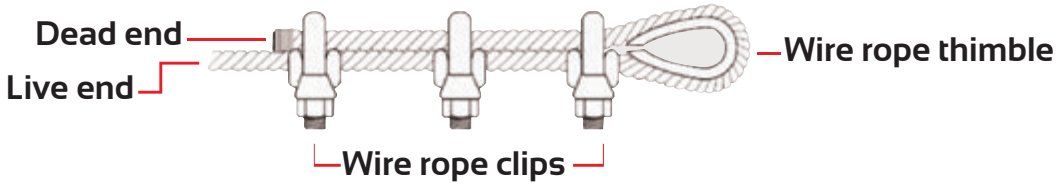


Wire rope clips are accessories used to secure steel wire ropes and are commonly employed for terminations and temporary rope connections. They consist of three components: a U-bolt, a saddle, and nuts. They feature a robust, forged construction designed to secure wire ropes in a wide range of industrial applications, including construction, mining, logging, oil and gas, and agriculture.

Applications and Use: Wire rope clips are used to secure the free end of a steel wire rope after it has been looped back to form an eye. Typically, at least two or three wire rope clips are required to properly secure the rope end, depending on the application and the manufacturer's specifications. Loosen the nuts, position the rope through the clip assembly with the free end on the dead end side, and adjust as needed. Then tighten the nuts using the appropriate wrench, following the manufacturer's installation instructions.

The wire rope clip must be the appropriate type and size for the steel wire rope diameter.

Description	Canvas Packaging	Packaging Tightening Torque (N·m)	Number of Wire Rope Clips
Heavy-Duty Forged Wire Rope Clips 1/4	400 unit.	16.3	2
Heavy-Duty Forged Wire Rope Clips 5/16	250 unit.	32.5	2
Heavy-Duty Forged Wire Rope Clips 3/8	150 unit.	48.8	2
Heavy-Duty Forged Wire Rope Clips 1/2	100 unit.	70.4	3
Heavy-Duty Forged Wire Rope Clips 5/8	50 unit.	99.7	3
Heavy-Duty Forged Wire Rope Clips 3/4	50 unit.	140.9	4



LIGHT-DUTY WIRE ROPE CLIPS

Light-duty wire rope clips are not designed for heavy-duty work or critical applications.



Medida Pulgadas	Equivalencia milímetros	Diámetro Grapa	Para Guaya	Cant. en Empaque Lona Unid	Cant. en Empaque Media lona Unid
1/8	3	M-4	1/8	3.000	1.500
3/16	5	M-5	3/16	2.000	1.000
1/4	6	M-5	1/4	2.000	1.000
5/16	8	M-6	5/16	1.000	500
3/8	10	M-8	3/8	500	250
1/2	13	M-10	1/2	200	150
9/16	14	M-10	1/2	250	125
5/8	16	M-12	5/8	200	100

LIGHT-DUTY TURNBUCKLES

A turnbuckle is a device used to adjust the tension or length of ropes, tie rods, and other tensioning systems.
It typically consists of two threaded end fittings or eye bolts screwed into opposite ends of a metal frame, one with a left-hand thread and the other with a right-hand thread.
It is used to apply tension by rotating the body clockwise and to release tension by rotating it in the opposite direction.

Applications: Used for light-duty applications. They are not designed for heavy-duty work or critical applications.

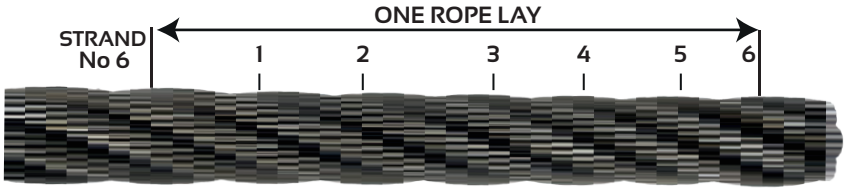


Diameter in inches	Marking in millimeters	Units per sealed canvas package	Units per canvas p ackage
3/16	M-5	500	250
1/4	M-6	300	150
5/16	M-8	200	100
3/8	M-10	100	50
1/2	M-12	50	25
9/16	M-14	50	25
5/8	M-16	25	12

Steel Wire Rope and Its Components

Lay of a Steel Wire Rope:
The lay can be right-hand, where the strands rotate to the right, or left-hand, where the strands rotate to the left. Most steel wire ropes are manufactured with right-hand lay.

Lay Length of a Steel Wire Rope:
Lay refers to the arrangement of the strands in the rope and the arrangement of the wires within each strand.
The lay length of a steel wire rope is the distance along the rope required for one strand to complete one full revolution (360°) around the core.

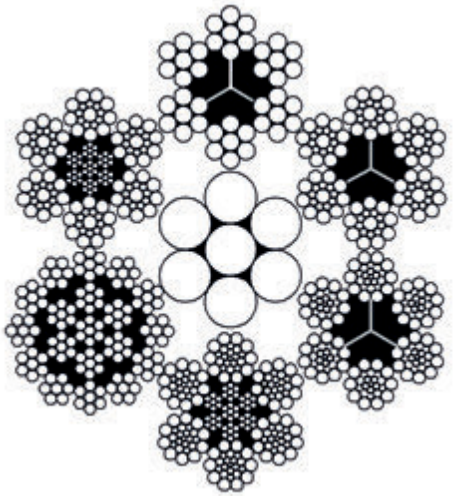


The lay can be regular right-hand lay or regular left-hand lay, where the strands are laid in a right-hand or left-hand direction, respectively, and the wires within each strand are laid in the opposite direction.



Lang Right-Hand Lay or Lang Left-Hand Lay: The strands are laid in a right-hand or left-hand direction, respectively, and the wires within each strand are laid in the same direction as the strands.

TRITÓN STEEL WIRE ROPE PRODUCT FAMILIE



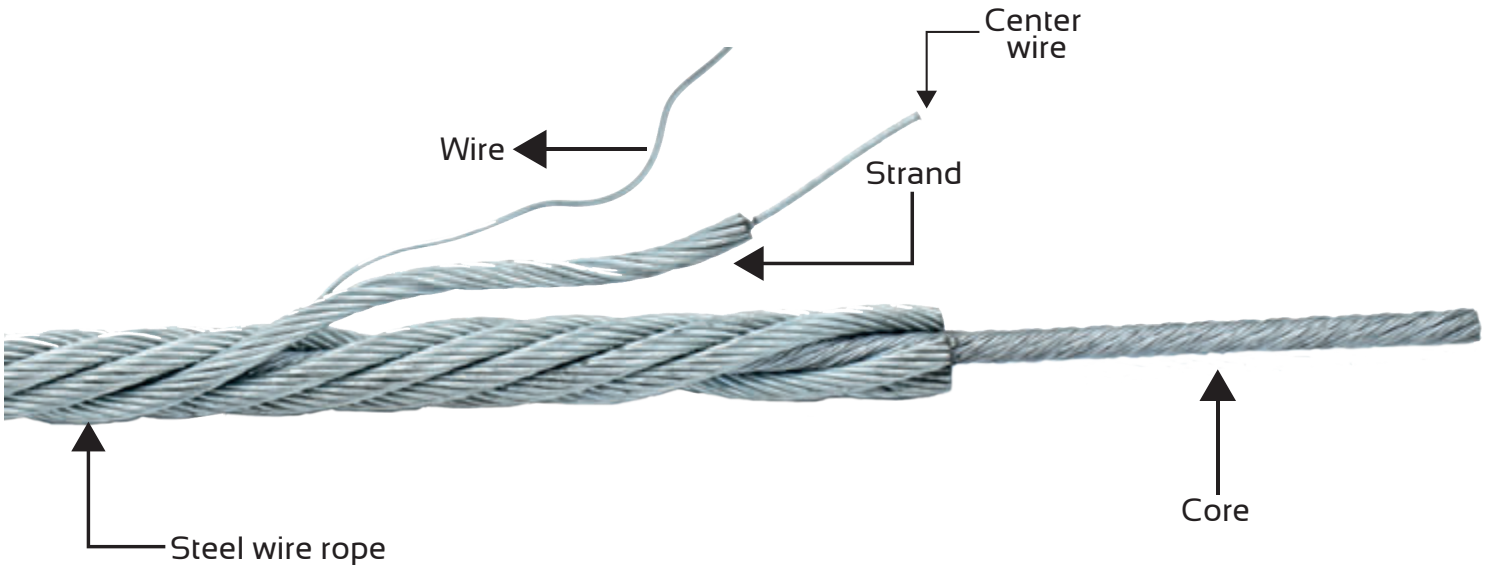
Steel Wire Rope and Its Components

Wire
The basic component used in the manufacture of steel wire rope. Wires are available in different grades and have a high carbon content, depending on the intended application.

Strand
Strands are made up of wires that may have the same or different diameters, helically laid around a central wire that serves as the steel core.

Core
The central component of a wire rope, around which the strands are laid. Cores can be made of steel, natural fiber, or synthetic fiber.

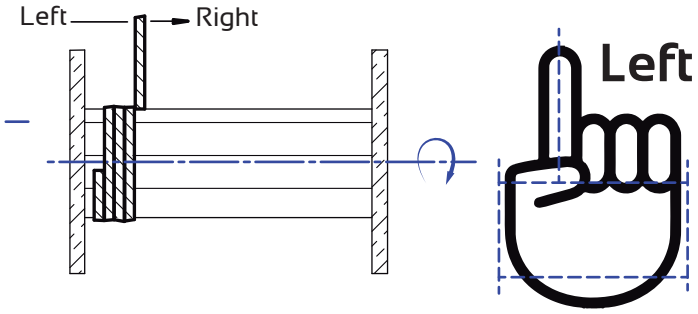
Wire Rope
An assembly of strands helically laid around a core.



CONSTRUCTIONS			
WIRE ROPE 1X7	**STEEL WIRE ROPE 6X19 SEAL**	**STEEL WIRE ROPE 6X26 WS**	**STEEL WIRE ROPE 19X7**
Rope: •1 inner wire • 6 twisted wires around the inner wire	**Rope:** • 1 core wire • 9 first layer wires • 9 second layer wires • 6 strands around an steel or fiber core	**Rope:** • 1 core wire • 5 wires in the first layer • (5+5) Wires in second layer • 10 wires in third layer • 6 strands around a steel or fiber core	**Rope:** • 1 core wire • 6 wires twisted around the central wire • 1 central strand • 6 first layer strands • 12 second layer strands

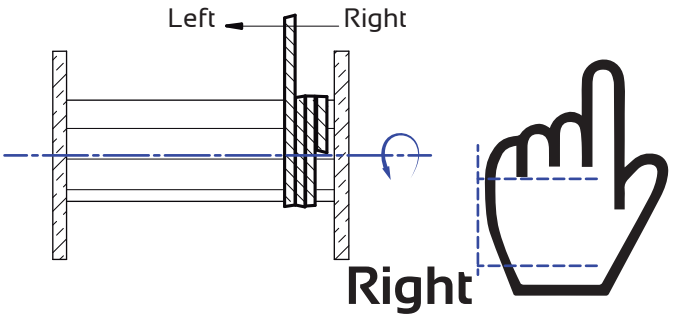
The figures direct the correct way to wind the cable depending on its pitch (right or left pitch), the wrong way causes problems and deformations in the Steel wire rope.

Uncoiled left passage cable



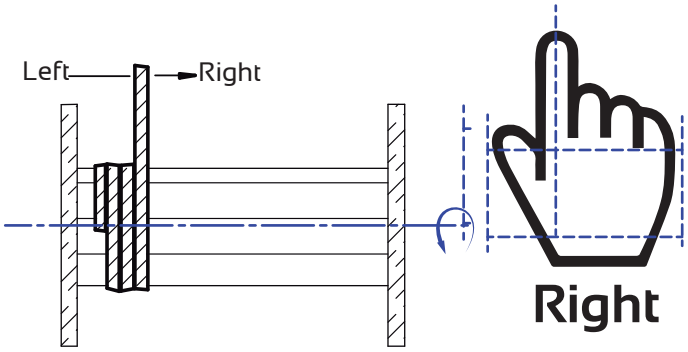
Unwinding from left to right,
using cable with left passage

Coiled left passage cable



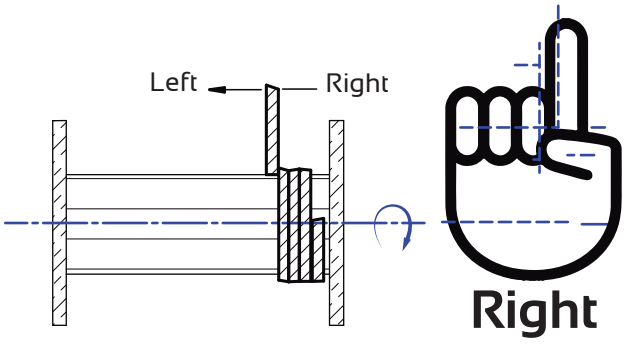
Winding from left to right,
using right pitch cable

Coiled right passage cable



Winding from right to left,
using left pitch cable

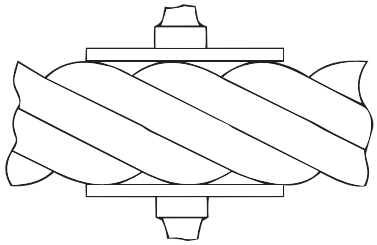
Right passage cable unwound



unwinding from right to left,
using right pitch cable

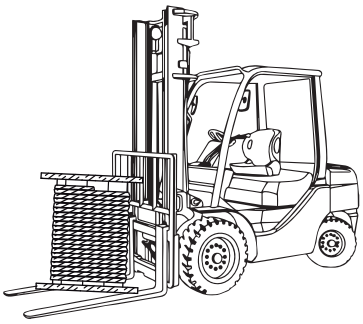
MEDICIÓN DE DIÁMETRO

Forma Correcta



Important Considerations When Handling Steel Wire Rope

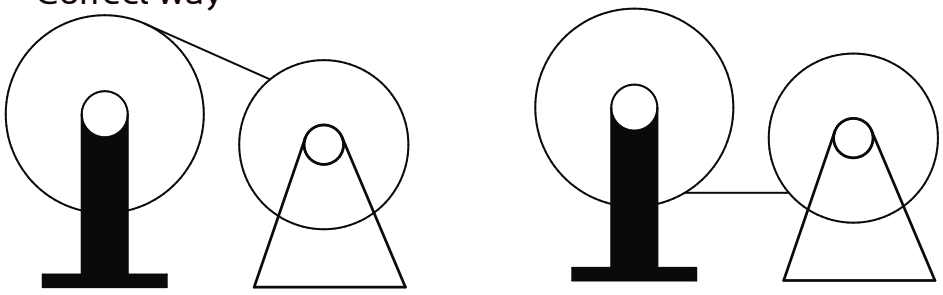
Rolling up
When unwinding or winding a steel cable it is important to avoid the formation of "cokes", because when they have generated that makes the incorrect work of the wire rope on they pass through the pulleys and drums.



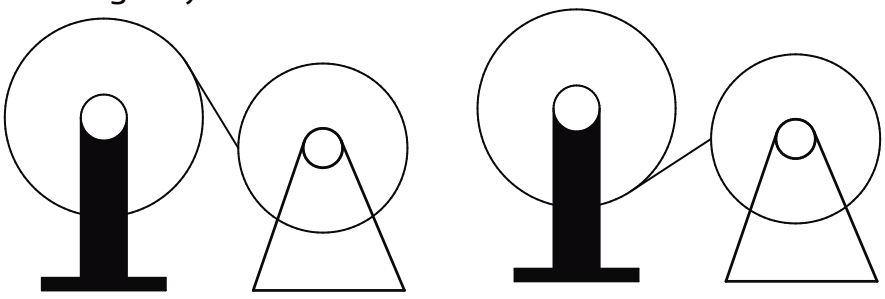
Load and download Steel wire rope reels
When you are loading and downloading steel wire rope reels, the carrier must not drop the cable reel from the truck onto the ground. The best way to download is using forklifts.

Pasar el cable
To carry from one reel to another or to a drum correctly, it is going out above or below, and arriving in the same way, never crossed.

Correct way



Wrong way



Check the good condition of the pulleys, drums and recommended diameters for the Steel wire rope to be worked on.
Periodically check the steel wire rope that it is free of dirt, sand and solid particles, it is important that the steel wire rope has good lubrication. (There are special applications that do not require lubrication).
For the good performance of the steel wire rope it is very important to know the resistance to breakage, safety factors and its real work load.




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C.A. Mejía & Cía.

C.A. Mejía y Cía S.A.S. Dirección: Vereda Belén Km. 38+200 m
Autopista Medellín-Bogotá - www.camejia.com - www.triton.com.co