Steel wire ropes

Severstal Metiz

metiz.severstal.com

Severstal Metiz

Severstal is a vertically integrated steel and steel-related mining company.

Severstal-metiz is a Russian corporate group which consolidates metalware assets of Severstal company.

Severstal-metiz is in the TOP-5 of the biggest European companies in its business segment. It has the development strategy aimed at the achievement of shared corporate objectives of Severstal.

Construction industry, oil and gas industry, automotive industry, metallurgy and machinery are principal customers of Severstal-metiz.

Being in a regular dialogue with its customers, developing partnership with suppliers and studying market demands, Severstal-metiz improves the quality of its products and services as well as develops new types of products, allowing customers to reduce operational costs.

Severstal-metiz is an environmentally safe factory, which is confirmed by an ISO 14001:2015 certificate.

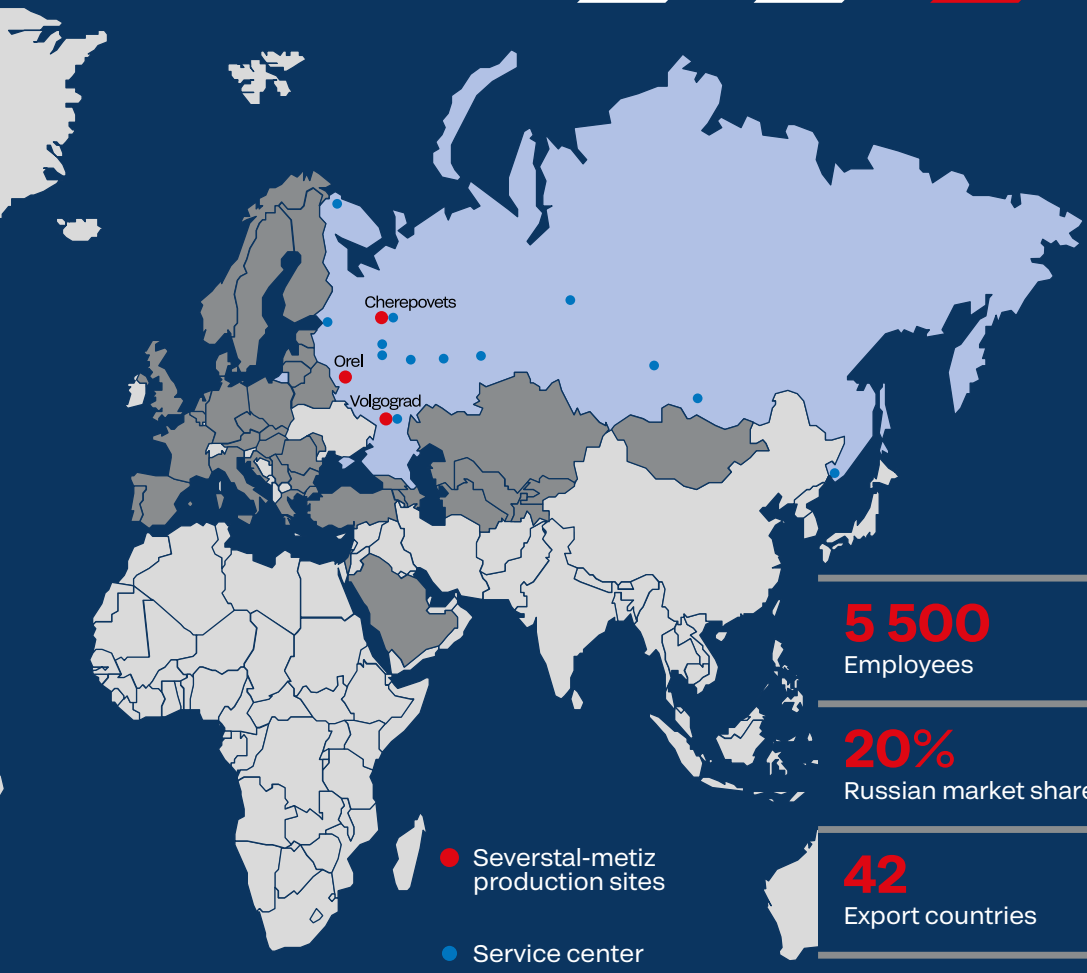
Quality management system (QMS) of the Company meets the requirements of the international standard ISO 9001:2015. The Company has also obtained the International Certification Network IQNet Certificate of Conformity.

CERTIFIED ISO 14001:2015 COMPANY

IQNet THE INTERNATIONAL CERTIFICATION NETWORK

A wide range of Severstal-metiz products has 5 product lines:

Wire and wire products	Wire ropes	Cold-drawn products	Fasteners	Others
■ Wire, nails	■ Special wire ropes	■ Cold-drawn steel	■ General purpose fasteners	■ Consumer goods
■ Cut wire	■ Standard wire ropes	■ Wire for cold heading	■ Fasteners for automotive industry	■ Spring blocks
■ Plaited, woven, welded meshes	■ Cable-stayed systems	■ Steel shaped profiles	■ Special fasteners	
■ Gabions	■ Slings		■ Railway fasteners	
■ Fences				
■ Strands				
■ Fiber				



5 500
Employees

20%
Russian market share

42
Export countries

Export countries 2021

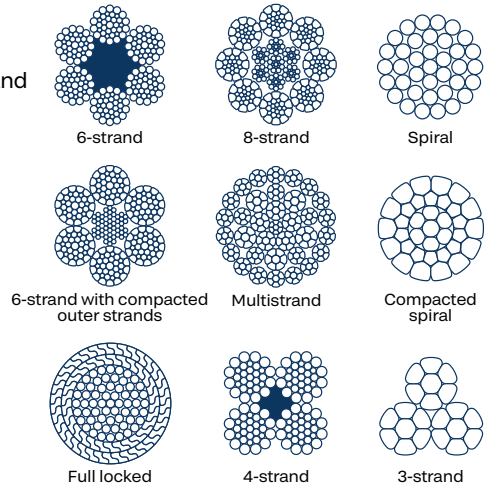
- Armenia
- Austria
- Azerbaijan
- Belarus
- Belgium
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- Ecuador
- Estonia
- Finland
- France
- Georgia
- Germany
- Greece
- Hungary
- Israel
- Italy
- Kazakhstan
- Kyrgyzstan
- Latvia
- Lithuania
- Moldova
- Mongolia
- Netherlands
- Norway
- Panama
- Poland
- Portugal
- Romania
- Saudi Arabia
- Serbia
- Slovakia
- Spain
- Sweden
- Tajikistan
- Türkiye
- Turkmenistan
- UK
- USA
- Uzbekistan

Steel wire rope

One of the main directions of Severstal-metiz is production and development of steel wire ropes.

The product line of the company includes more than 100 types of ropes, which are produced in accordance with Russian and international standards.

Our clients are more than 500 Russian and foreign companies operating in various business areas: from mining to the production and maintenance of elevators.



Wire ropes production sites

Cherepovets

- Wire ropes diameter: 0.65-65.0 mm
- Grade: 1180-2160 N/mm²
- Production capacity: ≈ 2400-2800 tons per month

Volgograd

- Wire ropes diameter: 0.65-100.0 mm
- Grade: 1180-2160 N/mm²
- Production capacity: ≈ 3000-5500 tons per month

1955 year
Steel wire ropes launch

2008-2017 year
Redaelli Tecna S.p.A. is a part of Severstal-metiz

$23.5 million
Investments in steel wire ropes equipment in 2017–2020

Quality control at all stages of manufacturing

Severstal-metiz is a part of the metallurgical company Severstal.
It allows us to control the rope production process from the moment the ore is mined to the moment the final product is made.
We pay special attention to the quality at every stage of production.
Raw materials, wire and wire ropes go through standard compliance tests under laboratory conditions to ensure product quality control.

Wire manufacturing
Severstal-metiz

Steel wire ropes manufacturing
Severstal Wire Ropes

Lifting equipment and additional services
Severstal Lifting Technologies

Beside wire ropes production we can cut them to required length and terminate with sleeves. We also help our clients with wire rope selection, based on type of equipment, breaking load and exploitation terms. Our own research and development center allows us to design any lifting products for the necessary tasks with the provision of all necessary accompanying documentation.

Certification

The company's quality management system is certified according to international standards ISO 9001:2015, 45001:2018 and 14001:2015.

Industry-based solution

We developed a solution for each area of use. This solution includes:

- Special ropes with improved performance and extended service life;
- Additional services;
- Technical support.

Industry-based solutions help our customers to reduce equipment downtime, to increase the safety of its work, as well as to reduce the cost of maintenance of equipment.

Customers choose our industry-based solutions for:

- Oil and gas;
- Mining;
- Production and maintenance of elevators;
- All types of cranes used in any manufacturing industry;
- Cableways

For each of the areas of application we produce product line of special ropes with unique technical characteristics and construction.

Talpa® - mining

Octopus® - oil and gas

Alerion® - elevators

Anaconda® - cranes

Triniks® - cableways

Talpa

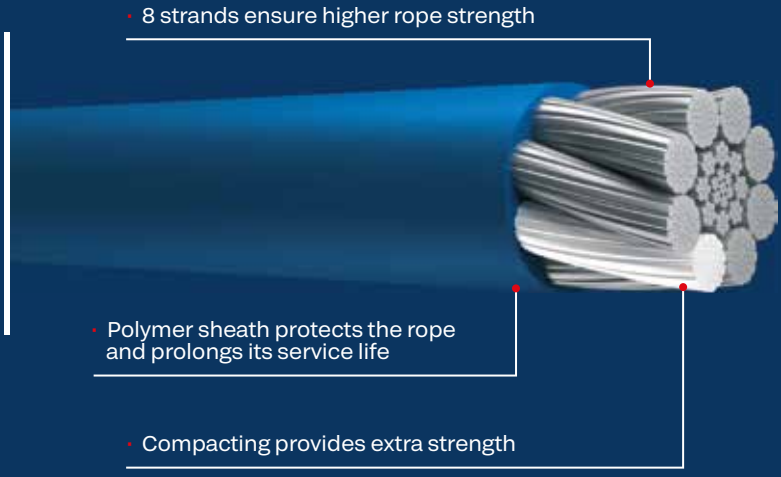
Industry-based solution for mining industry

Severstal Metiz

Talpa® is our solution for mining industry.
It includes 6-strand, 8-strand and multi-strand special wire ropes with compacted outer strands and polymer filling of the inner and outer strands.
Thanks to their design, Talpa wire ropes are much stronger and have extended operational life compared to standard and out-dated ropes. This allows our customers to significantly reduce the number of wire rope replacement operations and cut the cost of servicing excavators and mining systems.

We select ropes for different application conditions of the equipment for the most efficient operation, in a short time we carry out delivery and provide additional services.

Special design



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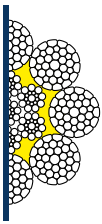
Talpa

Industry-based solution for mining industry

- High-rated quality
- Cost minimization
- Better performance
- Reduced downtime
- More safety

Plastic impregnation



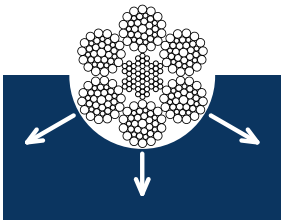
01 Fill all available space between strands and core

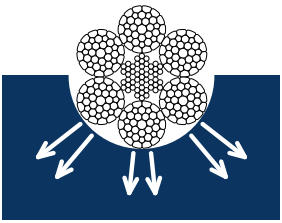
02 Prevent ropes from dimensional changes

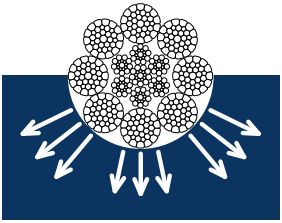
03 Increase resistance to transverse load, rotation, impact loads

Comparison of wire ropes

EN 12385-4 (6x36WS-IWRC)	**Talpa 636K** (6xK36WS-IWRC)	**Talpa 836K** (8xK36WS-IWRC)
Diameter - 39.0 mm	Diameter - 39.0 mm	Diameter - 39.0 mm
Weight - 6.53 kg/m	Weight - 6.72 kg/m	Weight - 6.99 kg/m
Grade - **1770** N/mm²	Grade - **1770** N/mm²	Grade - **1770** N/mm²
MBL - 972 kN	**MBL - 1082 kN**	**MBL - 1160 kN**

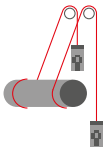




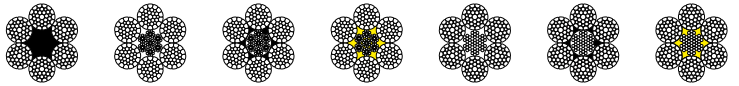


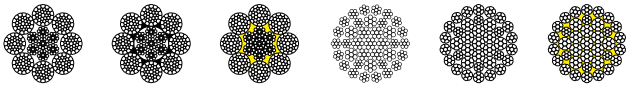
Rope selection guide for **underground mining**

Drum winders

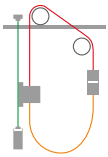


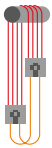
Hoisting ropes



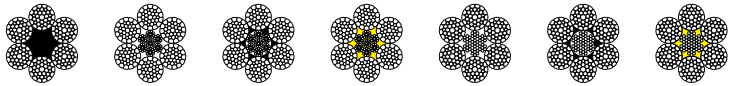


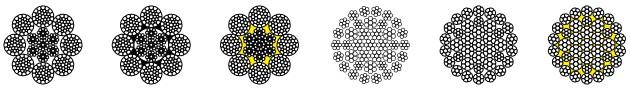
Friction winders



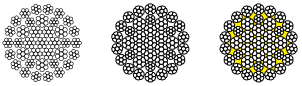


Hoisting ropes

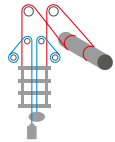




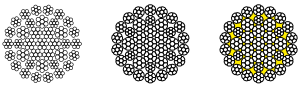
Balance ropes



Shaft sinking

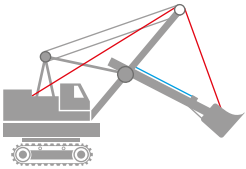


Kibble ropes

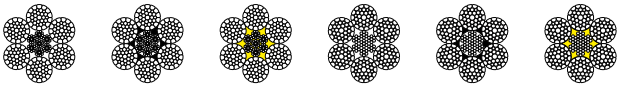


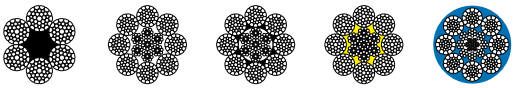
Rope selection guide for **surface mining**

Shovels

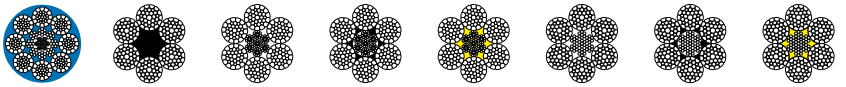


Hoisting ropes

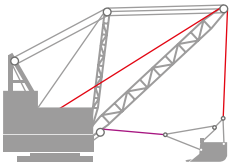




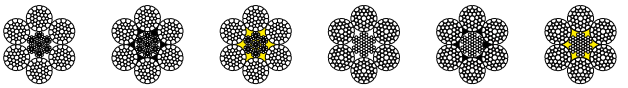
Crowd & retract ropes

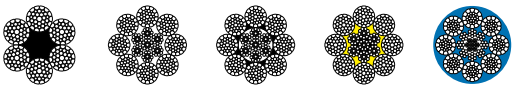


Draglines

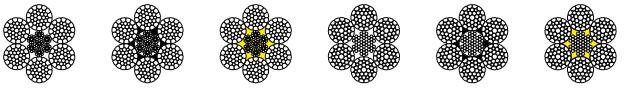


Hoisting ropes





Drag ropes



Industry-based solution **Talpa**

Talpa 6K

6-strand wire ropes with compacted outer strands and fiber core

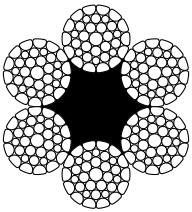
Construction

6x36 (1+7+7/7+14)+ 1 fiber core

Advantages in comparison with standard solutions

- high flexibility
- increased wear resistance of wires
- less pulley groove wear

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²			
		1670	1770	1860	1960
		Minimum breaking load, kN			
36.5	5303	765	811	852	898
38.0	5597	809	857	901	949
39.5	6159	890	944	992	1050
42.0	6956	1010	1070	1120	1180
43.0	7290	1050	1120	1170	1240
44.5	7967	1150	1220	1280	1350
46.5	8499	1230	1300	1370	1440
48.5	9177	1330	1410	1480	1560
50.5	9798	1420	1500	1580	1670
53.5	11195	1630	1720	1810	1910
56.0	12393	1790	1900	2000	-
58.5	13088	1900	2010	2120	-
60.5	14959	2170	2290	-	-
63.0	15344	2230	2360	-	-
64.0	16086	2330	2470	-	-
65.0	16592	2410	2550	-	-
68.0	18686	2710	-	-	-



- Underground mining
- Surface mining

Industry-based solution **Talpa**

Talpa 636K

6-strand wire ropes with compacted outer strands

Construction

6x36 (1+7+7/7+14) + 7x7 (1+6)

636K - rope construction with compacted outer strands.

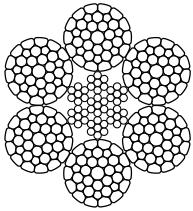
636KF - construction with compaction of rope outer strands and 6 fiber fillers between outer and inner rope layers.

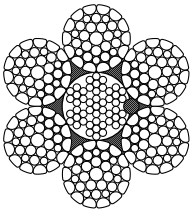
636KP - construction with compaction of rope outer strands and plastic coated core.

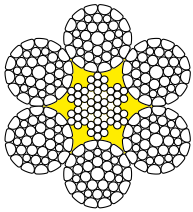
Advantages in comparison with standard solutions

- increased wear resistance of wires
- high strength
- less pulley groove wear
- increased resistance against transverse crushing

Diameter, mm	Weight of 1000 m, kg			Rope grade, N/mm²		
				1670	1770	1860
	636K	636KF	636KP	Minimum breaking load, kN		
36.0	5910	-	5970	909	964	1013
36.5	6090	-	6160	924	979	1029
39.0	6720	6800	6790	1021	1082	1137
41.0	7600	7690	7680	1153	1222	1284
42.0	7970	8070	8060	1210	1283	1348
45.5	9270	9380	9370	1405	1489	1565
49.0	10790	10920	10900	1637	1735	1823
52.0	12290	12440	12420	1866	1977	2078
57.0	14390	14560	14550	2187	2318	2436
60.5	16410	16610	16590	2492	2642	-
61.5	16910	17110	17090	2569	2723	-
64.0	18220	18430	-	2769	2935	-
66.0	19320	19540	-	2953	-	-
68.0	20520	20760	-	3120	-	-







- Underground mining
- Surface mining

Industry-based solution **Talpa**

Talpa Optima 636K

6-strand wire ropes with compacted outer strands

Construction

6x36(1+7+7/7+14) + 6x19(1+9+9) + 1x19(1+9+9)

636K - rope construction with compacted outer strands.

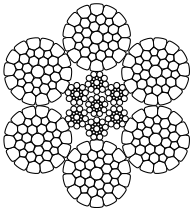
636KF - construction with compaction of rope outer strands and 6 fiber fillers between outer and inner rope layers.

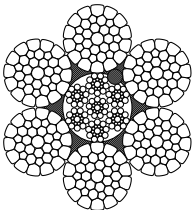
636KP - construction with compaction of rope outer strands and plastic coated core.

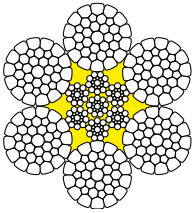
Advantages in comparison with standard solutions

- high flexibility
- increased wear resistance of wires
- high strength
- less pulley groove wear
- increased resistance against transverse crushing

Diameter, mm	Weight of 1000 m, kg			Rope grade, N/mm²			
				1670	1770	1860	1960
	636K	636KF	636KP	Minimum breaking load, kN			
36.5	6153	-	6223	962	1011	1063	1120
39.0	6858	6940	6928	1072	1126	1183	1247
41.0	7716	7809	7796	1202	1263	1327	1399
42.0	8057	8154	8147	1256	1320	1387	1461
45.5	9421	9534	9521	1461	1536	1614	1701
49.0	10999	11131	11109	1703	1789	1881	1982
52.0	12516	12666	12646	1936	2033	2140	2255
57.0	14729	14905	-	2272	2389	2511	2646
60.5	16859	17061	-	2593	2725	2864	3017
61.5	17316	17523	-	2662	2798	2940	-
64.0	18672	18896	-	2870	3018	-	-
68.0	21162	21416	-	3242	3406	-	-
66.0	19320	19540	-	2953		-	-
68.0	20520	20760	-	3120		-	-







- Underground mining
- Surface mining

Industry-based solution **Talpa**

Talpa 836K

8-strand wire ropes with compacted outer strands

Construction

8x36(1+7+7/7+14) + 6x19(1+9+9) + 1x19(1+9+9)

836K - rope construction with compacted outer strands.

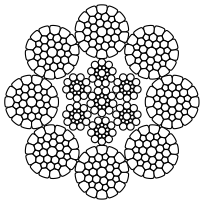
836KF - rope construction with compaction of rope outer strands and 8 fiber fillers between outer and inner rope layers.

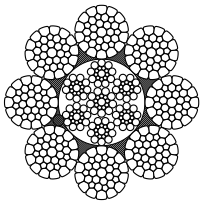
836KP - rope construction with compaction of rope outer strands and plastic coated core.

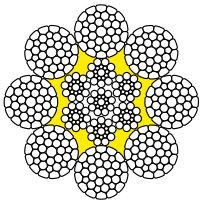
Advantages in comparison with standard solutions

- high flexibility
- increased wear resistance of wires
- high strength
- less pulley groove wear
- increased resistance against transverse crushing

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²			
		1670	1770	1860	1960
		Minimum breaking load, kN			
39.0	6986	1036	1098	1154	1216
42.0	8185	1224	1298	1364	1437
45.5	9601	1423	1508	1585	1670
46.5	10176	1508	1599	1680	1770
50.0	11790	1748	1853	1947	2052
52.0	12507	1854	1965	2065	2176
56.0	14630	2157	2287	2403	2532
57.0	15081	2236	2370	2490	2624
60.0	16620	2465	2613	2746	-
62.0	17730	2627	2784	2926	-
64.0	18728	2766	2932	3081	-
67.0	20509	3038	3220	3384	-
70.0	22050	3281	3478	-	-
76.0	26620	3957	4194	-	-
77.0	26648	4085	4329	-	-
80.0	29170	4324	4583	-	-





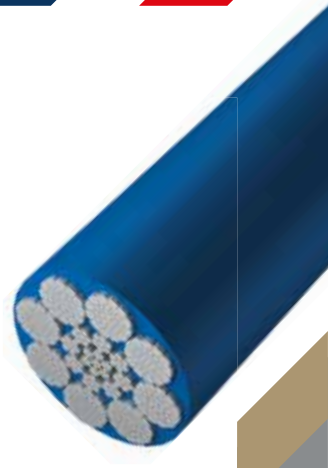


- Underground mining
- Surface mining

Industry-based solution **Talpa**

Talpa PM

plastic-sheathed 8-strand wire ropes with compaction of outer strands

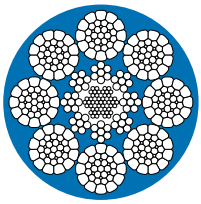


Construction

8x37(1+6.6+12+12)+8x7(1+6)+6x7(1+6)+1x7(1+6)

Advantages in comparison with standard solutions

- reduced contact stress between strands as well as between rope and pulley grooves
- increased wear resistance
- increased corrosion resistance, including extended rope lubrication
- increased resistance against transverse crushing
- extended rope service life



Diameter		Rope weight, kg/m	Minimum breaking load, kN
inch	mm		
2-1/4	57.2	14.9	2344
2-3/8	60.3	16.7	2627
2-1/2	63.5	18.6	2925
2-5/8	66.7	20.3	3193
2-3/4	69.9	22.5	3536

- Surface mining

Industry-based solution **Talpa**

Talpa 36

multistrand non-rotating wire ropes

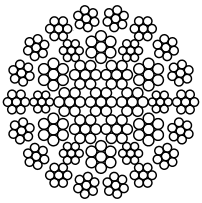
Construction

18x7+6x7/6x7+6x7+1x7

Advantages in comparison with standard solutions

- high flexibility
- high strength
- reduced friction between outer wires in strands and pulley groove surface
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
38	6070	832	938	1040
40	6720	923	1040	1150
42	7390	1020	1150	1270
44	8220	1130	1270	1410
46	8980	1230	1390	1540
48	9670	1330	1500	1656
50	10480	1440	1630	1799
52	11360	1560	1760	1948
54	12360	1700	1920	2122



- Underground mining

Industry-based solution **Talpa**

Talpa 36K

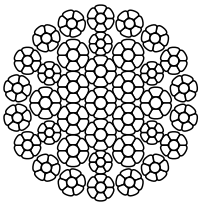
multistrand non-rotating wire ropes with compacted outer strands

Construction

18x7+6x7/6x7+6x7+1x7

Advantages in comparison with standard solutions

- high strength
- high abrasion resistance
- high fatigue failure resistance
- expanded contact with bearing surface area
- less wear of sheaves and capstans
- rotation resistance



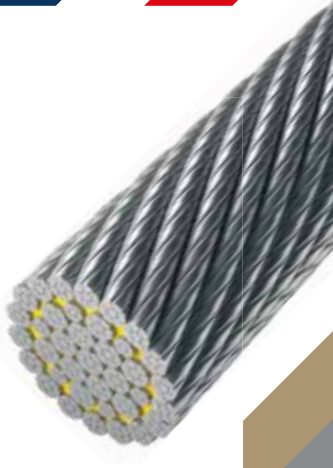
Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
38	6970	987	1110	1230
40	7780	1110	1250	1380
42	8530	1210	1370	1510
44	9350	1330	1500	-
46	10270	1460	1640	-
48	11210	1590	1790	-
50	12070	1720	1930	-
52	13070	1850	2090	-
54	14180	2020	2270	-

- Underground mining

Industry-based solution **Talpa**

Talpa 36KP

multistrand non-rotating wire ropes with compacted outer strands and plastic coated core

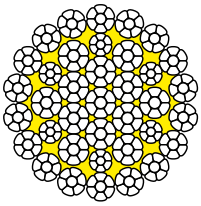


Construction

18x7+6x7/6x7+6x7+1x7

Advantages in comparison with standard solutions

- high strength
- high abrasion resistance
- high fatigue failure resistance
- expanded contact with bearing surface area
- less wear of sheaves and capstans
- rotation resistance



Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
38	6970	987	1110	1230
40	7780	1110	1250	1380
42	8530	1210	1370	1510
44	9350	1330	1500	-
46	10270	1460	1640	-
48	11210	1590	1790	-
50	12070	1720	1930	-
52	13070	1850	2090	-
54	14180	2020	2270	-

■ Underground mining

Industry-based solution **Talpa**

Talpa S3

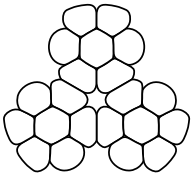
3-strand wireline ropes

Construction

3x7(1+6)

The ropes are used as wirelines for blast-hole drilling rigs. Ropes are manufactured from galvanized wire class B and are lubricated.

Diameter		Rope weight, kg/m	Minimum breaking load, kN
inch	mm		
3/16	4.76	0.110	24.5
1/4	6.35	0.195	40.0



Industry-based solution **Talpa**

Polymer-sheathed wire ropes

For maximum surface protection of steel ropes, we have designed wire ropes with a polymer sheath covering outer strands.

For coating, we use an ultra-strong polymer that reliably adheres to the rope surface and retains its structure for a long time during operation.

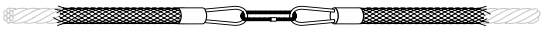
Thanks to their design, Talpa wire ropes have longer operational life compared to standard ropes, which significantly reduces the number of rope replacements and leads to less maintenance activities and lower cost of equipment ownership.

Manufacture of guy ropes

In addition to steel ropes, Severstal Wire Ropes produces guy ropes structures and products that are used on mining excavators. We produce guy ropes for almost all models of domestic and foreign excavators, including walking excavators - draglines. In contrast with comparable products, the products manufactured by Severstal Wire Ropes provide adjustable stretch, which reduces time necessary for installation of guy ropes on an excavator. Our own engineering department and wide experience in this area allow us to manufacture individual products for a specific client's request.

Mesh grips for steel wire ropes

For easier installation of a new rope, we offer our customers special steel wire mesh grips. They are tightened securely on the free ends of the old rope and the new one connecting them firmly. After that, the rope is installed on the winding hoist drum.



Octopus

Industry-based solution for oil & gas

Severstal Metiz

Octopus® is our solution for oil & gas industry.
It includes 6-strand, 8-strand special wire ropes with compacted outer strands and polymer filling of the inner and outer strands. Thanks to their design, Octopus wire ropes are much stronger and have extended operational life compared to standard and out-dated ropes. This allows our customers to significantly reduce the number of wire rope replacement operations and cut the cost of servicing drilling rigs.

We select ropes for different application conditions of the equipment for the most efficient operation, in a short time we carry out delivery and provide additional services.

Special design

+7 (8202) 53-91-91
octopus@severstal.com
metiz.severstal.com/octopus

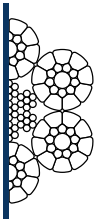
Severstal Metiz

Octopus

Industry-based solution for oil & gas

- High-rated quality
- Cost minimization
- Better performance
- Reduced downtime
- More safety

Compacting



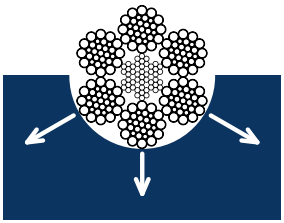
01 Strength + 10-15%

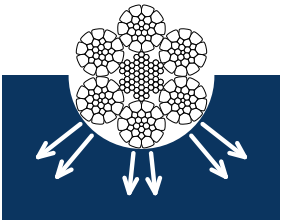
02 Contact with bearing surface + 8-10%

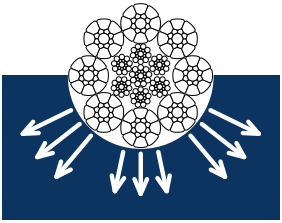
03 Strands interlocking is eliminated

Comparison of wire ropes

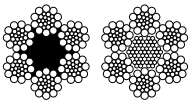
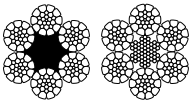
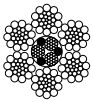
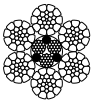
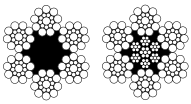
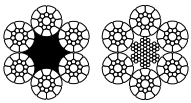
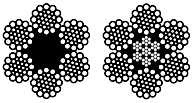
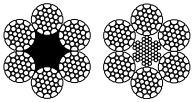
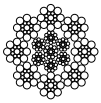
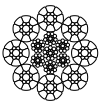
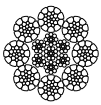
EN 12385-4 (6x31WS-IWRC)	**Octopus 6K** (6xK26WS-IWRC)	**Octopus 817K** (8xK17S-IWRC)
Diameter - 25.0 mm	Diameter - 25.0 mm	Diameter - 25.0 mm
Weight - 2.66 kg/m	Weight - 2.72 kg/m	Weight - 2.78 kg/m
Grade - **1770** N/mm²	Grade - **1770** N/mm²	Grade - **1770** N/mm²
MBL - 531 kN	**MBL - 542 kN**	**MBL - 548 kN**







Octopus® range of products

Sketch	Name	Type	Construction	Certification
	**Octopus 6**	6-strand wire ropes	6x26	EN 12385-4
	**Octopus 6K**	6-strand wire ropes with compacted outer strands	6xK26	EN 12385-4, API-9A
	**Octopus 626**	6-strand wire ropes with mixed core	6x26	EN 12385-4, API-9A
	**Octopus 626K**	6-strand wire ropes with mixed core and compacted outer strands	6xK26	EN 12385-4, API-9A
	**Octopus 619**	6-strand wire ropes	6x19	EN 12385-4, API-9A
	**Octopus 619K**	6-strand wire ropes with compacted outer strands	6xK19	EN 12385-4, API-9A
	**Octopus 631**	6-strand wire ropes	6x31	EN 12385-4, API-9A
	**Octopus 631K**	6-strand wire ropes with compacted outer strands	6xK31	EN 12385-4, API-9A
	**Octopus 817**	8-strand wire ropes	8x17	EN 12385-4, API-9A
	**Octopus 817K**	8-strand wire ropes with compacted outer strands	8xK17	EN 12385-4, API-9A
	**Octopus 826K**	8-strand wire ropes with compacted outer strands	8xK26	EN 12385-4, API-9A

Industry-based solution **Octopus**

Special wire ropes according to API-9A

Octopus 6K

6-strand wire ropes with compacted outer strands

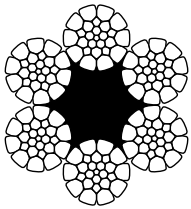
API-9A

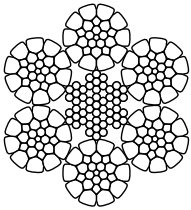
Construction

6x26 (1+5+5/5+10) + 1 fiber core
6x26 (1+5+5/5+10) + 7x7 (1+6)

Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope





Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
Rope with fiber core								
25.4	1	2520	-	-	-	397	440	485
28	-	3070	496	549	605	-	-	-
28.6	1 1/8	3270	-	-	-	517	573	631
31.8	1 1/4	3950	-	-	-	624	691	762
32	-	3950	624	691	762	-	-	-
34.9	1 3/8	4840	-	-	-	766	848	934
35	-	4840	766	848	934	-	-	-
38	-	5780	916	1014	1118	-	-	-
38.1	1 1/2	5780	-	-	-	916	1014	1118
Rope with metal core								
25.4	1	2800	445	-	-	445	493	544
28	-	3470	552	612	674	-	-	-
28.6	1 1/8	3610	-	-	-	575	637	702
31.8	1 1/4	4390	-	-	-	699	774	853
32	-	4390	699	774	853	-	-	-
34.9	1 3/8	5350	-	-	-	853	944	1040
35	-	5350	853	944	1040	-	-	-
38	-	6390	1020	1129	1244	-	-	-
38.1	1 1/2	6390	-	-	-	1020	1129	1244

Octopus 626

6-strand wire ropes with mixed core

API-9A

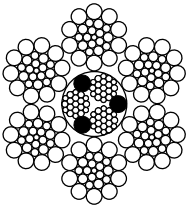
Construction

6x26 (1+5+5/5+10)+3x19(1+6+6/6)+3 fiber fillers

Mixed core consists of 3 fiber fillers and 3 metal strands.

Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope



Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
25.4	1	2630	-	-	-	385	435	478
28	-	3170	476	527	581	-	-	-
28.6	1 1/8	3270	-	-	-	486	547	601
31.8	1 1/4	4020	-	-	-	596	672	739
32	-	4020	622	689	759	-	-	-
34.9	1 3/8	5000	-	-	-	717	808	890
35	-	5000	744	824	908	-	-	-
38	-	5810	877	972	1070	-	-	-
38.1	1 1/2	5810	-	-	-	849	954	1049

Industry-based solution **Octopus**

Octopus 626K

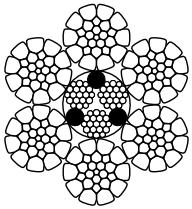
6-strand wire ropes with compacted outer strands and mixed core

API-9A

Construction

6x26 (1+5+5/5+10)+3x19(1+6+6/6)+3 fiber fillers

Mixed core consists of 3 fiber fillers and 3 metal strands.



Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope

Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
25.4	1	2770	-	-	-	418	463	510
28	-	3320	503	557	614	-	-	-
28.6	1 1/8	3440	-	-	-	520	576	635
31.8	1 1/4	4240	-	-	-	644	713	786
32	-	4240	644	713	786	-	-	-
34.9	1 3/8	5200	-	-	-	791	876	965
35	-	5200	791	876	965	-	-	-
38	-	6030	919	1018	1122	-	-	-
38.1	1 1/2	6030	-	-	-	919	1018	1122

Octopus 619

6-strand wire ropes

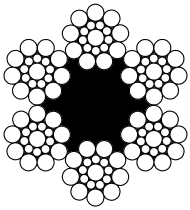
API-9A

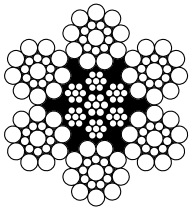
Construction

6x19 (1+9+9) + 1 fiber core
6x19 (1+9+9) + 7x7 (1+6)

Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
Rope with fiber core								
25.4	1	2320	-	-	-	372	409	450
28	-	2810	458	507	559	-	-	-
28.6	1 1/8	2940	-	-	-	468	515	566
31.8	1 1/4	3680	-	-	-	575	633	-
32	-	3680	598	662	-	-	-	-
34.9	1 3/8	4400	-	-	-	691	761	-
35	-	4400	716	792	-	-	-	-
38	-	5180	843	934	-	-	-	-
38.1	1 1/2	5180	-	-	-	818	898	-
Rope with metal core								
25.4	1	2580	-	-	-	399	460	506
28	-	3140	494	547	603	-	-	-
28.6	1 1/8	3270	-	-	-	503	578	636
31.8	1 1/4	4100	-	-	-	617	711	-
32	-	4100	645	715	-	-	-	-
34.9	1 3/8	4900	-	-	-	743	854	-
35	-	4900	772	855	-	-	-	-
38	-	5780	910	1010	-	-	-	-
38.1	1 1/2	5780	-	-	-	880	1010	-





Octopus 619K

6-strand wire ropes with compacted outer strands

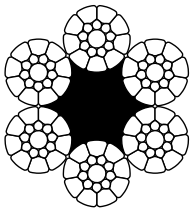
API-9A

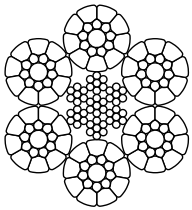
Construction

6x19 (1+9+9) + 1 fiber core
6x19 (1+9+9) + 7x7 (1+6)

Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
Rope with fiber core								
25.4	1	2540	-	-	-	402	446	491
28	-	3100	491	544	599	-	-	-
28.6	1 1/8	3230	-	-	-	512	567	625
31.8	1 1/4	4040	-	-	-	641	710	-
32	-	4040	641	710	-	-	-	-
34.9	1 3/8	4850	-	-	-	769	852	-
35	-	4850	769	852	-	-	-	-
38	-	5800	921	1020	-	-	-	-
38.1	1 1/2	5800	-	-	-	921	1020	-
Rope with metal core								
25.4	1	2820	-	-	-	452	500	551
28	-	3430	550	609	671	-	-	-
28.6	1 1/8	3570	-	-	-	572	633	698
31.8	1 1/4	4470	-	-	-	717	793	-
32	-	4470	717	793	-	-	-	-
34.9	1 3/8	5350	-	-	-	858	950	-
35	-	5350	858	950	-	-	-	-
38	-	6410	1027	1137	-	-	-	-
38.1	1 1/2	6410	-	-	-	1027	1137	-





Industry-based solution **Octopus**

Octopus 631

6-strand wire ropes

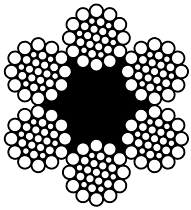
API-9A

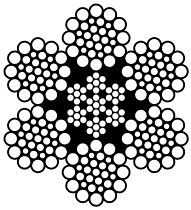
Construction

6x31 (1+6+6/6+12) + 1 fiber core
6x31 (1+6+6/6+12) + 7x7 (1+6)

Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
Rope with fiber core								
25.4	1	2500	-	-	-	372	409	450
28	-	2880	458	507	559	-	-	-
28.6	1 1/8	2940	-	-	-	468	515	566
31.8	1 1/4	3760	-	-	-	575	633	696
32	-	3760	598	662	730	-	-	-
34.9	1 3/8	4500	-	-	-	691	761	836
35	-	4500	716	792	873	-	-	-
38	-	5300	843	934	1030	-	-	-
38.1	1 1/2	5300	-	-	-	818	898	987
Rope with metal core								
25.4	1	2750	-	-	-	399	460	506
28	-	3210	494	547	603	-	-	-
28.6	1 1/8	3270	-	-	-	503	578	636
31.8	1 1/4	4190	-	-	-	617	711	782
32	-	4190	645	715	787	-	-	-
34.9	1 3/8	5010	-	-	-	743	854	943
35	-	5010	772	855	942	-	-	-
38	-	5910	910	1010	1110	-	-	-
38.1	1 1/2	5910	-	-	-	880	1010	1110





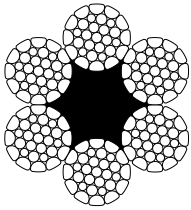
Octopus 631K

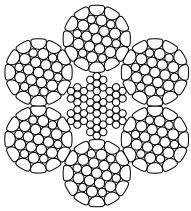
6-strand wire ropes with compacted outer strands

API-9A

Construction

6x31 (1+6+6/6+12) + 1 fiber core
6x31 (1+6+6/6+12) + 7x7 (1+6)





Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
Rope with fiber core								
25.4	1	2550	-	-	-	403	446	492
28	-	3150	500	554	610	-	-	-
28.6	1 1/8	3350	-	-	-	529	586	646
29	-	3370	533	591	651	-	-	-
31.8	1 1/4	4000	-	-	-	632	700	772
32	-	4000	632	700	772	-	-	-
34.9	1 3/8	4870	-	-	-	770	853	940
35	-	4870	770	853	940	-	-	-
38	-	5820	923	1022	1126	-	-	-
38.1	1 1/2	5820	-	-	-	923	1022	1126
Rope with metal core								
25.4	1	2830	-	-	-	452	501	552
28	-	3490	558	618	681	-	-	-
28.6	1 1/8	3680	-	-	-	588	651	718
29	-	3740	597	661	729	-	-	-
31.8	1 1/4	4440	-	-	-	708	784	864
32	-	4440	708	784	864	-	-	-
34.9	1 3/8	5360	-	-	-	859	951	1048
35	-	5360	859	951	1048	-	-	-
38	-	6420	1029	1139	1256	-	-	-
38.1	1 1/2	6420	-	-	-	1029	1139	1256

Octopus 817 и 817K

8-strand wire ropes

API-9A

Construction

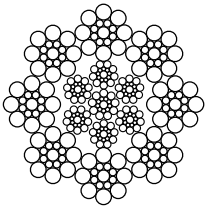
8x17(1+8+8) + 6x19(1+9+9) + 1x19(1+9+9)

Advantages in comparison with standard solutions

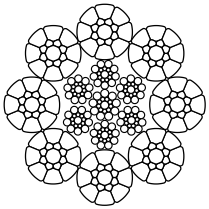
- higher flexibility in comparison with 6-strand wire ropes
- high strength
- reduced friction between outer wires of strands and pulley groove surface

Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
Octopus 817 - without compaction								
25.4	1	2668	-	-	-	399	460	506
28	-	3229	494	547	603	-	-	-
28.6	1 1/8	3399	-	-	-	503	578	636
31.8	1 1/4	4215	-	-	-	617	711	782
32	-	4215	645	715	787	-	-	-
34.9	1 3/8	4985	-	-	-	743	854	943
35	-	4985	772	855	942	-	-	-
38	-	6006	910	1010	1110	-	-	-
38.1	1 1/2	6006	-	-	-	880	1010	1110
Octopus 817K - with compacted outer strands								
25.4	1	2825	-	-	-	426	471	520
28	-	3492	526	583	642	-	-	-
28.6	1 1/8	3629	-	-	-	545	604	665
31.8	1 1/4	4486	-	-	-	676	749	825
32	-	4486	676	749	825	-	-	-
34.9	1 3/8	5261	-	-	-	793	878	967
35	-	5261	793	878	967	-	-	-
38	-	6333	954	1057	1165	-	-	-
38.1	1 1/2	6333	-	-	-	954	1057	1165



Octopus 817



Octopus 817K

Industry-based solution **Octopus**

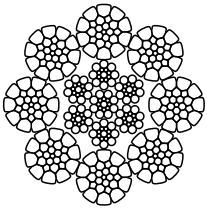
Octopus 826K

8-strand wire ropes with compacted outer strands

API-9A

Construction

8x26(1+5+5/5+10) + 6x17(1+8+8) + 1x17(1+8+8)



Advantages in comparison with standard solutions

- increased wire abrasion resistance
- less pulley groove wear
- improved strength characteristics
- increased resistance against transverse crushing

Specifications

Diameter		Weight of 1000 m, kg	Rope grade					
			1770	1960	2160	IPS	EIP	EEIP
mm	inch		Minimum breaking load, kN					
25.4	1	3013	-	-	-	482	534	588
28	-	3672	588	651	717	-	-	-
28.6	1 1/8	3831	-	-	-	613	679	748
31.8	1 1/4	4774	-	-	-	764	846	932
32	-	4774	764	846	932	-	-	-
34.9	1 3/8	5725	-	-	-	916	1015	1118
35	-	5725	916	1015	1118	-	-	-
38	-	6720	1076	1191	1313	-	-	-
38.1	1 1/2	6720	-	-	-	1076	1191	1313

Industry-based solution **Octopus**

Special wire ropes according to EN

Octopus 6

6-strand wire ropes

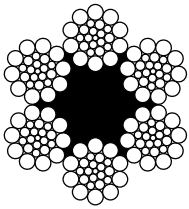
EN 12385-4

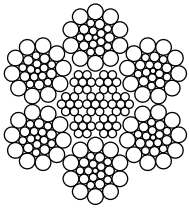
Construction

6x26 (1+5+5/5+10) + 1 fiber core
6x26 (1+5+5/5+10) + 7x7 (1+6)

Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope





Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
Rope with fiber core				
25	2277	329	371	411
26	2435	352	397	440
28	2839	412	464	514
29	3053	442	498	551
30	3307	480	542	600
32	3683	531	599	663
35	4494	650	733	811
38	5253	757	853	945
Rope with metal core				
25	2566	360	406	449
26	2760	386	435	482
28	3191	448	506	560
29	3400	476	536	594
30	3710	522	589	652
32	4126	577	651	721
35	5043	707	797	883
38	5886	823	928	1030

Octopus 6K

6-strand wire ropes with compacted outer strands

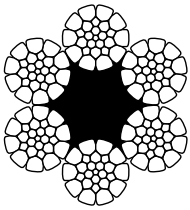
EN 12385-4

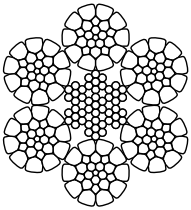
Construction

6x26 (1+5+5/5+10) + 1 fiber core
6x26 (1+5+5/5+10) + 7x7 (1+6)

Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope





Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
Rope with fiber core				
25	2439	339	382	423
26	2626	366	412	457
28	3056	426	480	531
28.6	3227	447	504	558
29	3266	453	510	565
30	3597	502	566	626
32	3951	547	617	683
35	4875	677	763	845
38	5657	783	882	977
Rope with metal core				
25	2724	383	432	478
26	2953	414	467	517
28	3402	479	540	598
28.6	3553	501	565	626
29	3602	505	570	631
30	3991	563	635	703
32	4387	615	694	768
35	5413	761	858	950
38	6280	880	992	1100

Octopus 626

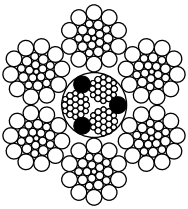
6-strand wire ropes with mixed core

EN 12385-4

Construction

6x26 (1+5+5/5+10)+3x19(1+6+6/6)+3 fiber fillers

Mixed core consists of 3 fiber fillers and 3 metal strands.



Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope

Specifications

Diameter, mm	Weight of 1000 m, kg	Rope grade - 1770 N/mm² Minimum breaking load, kN
25	2556	425
28	3192	533
30	3704	619
32	4229	687
35	5046	841
38	5861	978

Industry-based solution **Octopus**

Octopus 626K

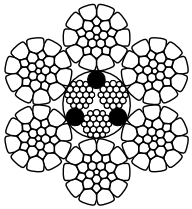
6-strand wire ropes
with compacted outer strands and mixed core

EN 12385-4

Construction

6x26 (1+5+5/5+10)+3x19(1+6+6/6)+3 fiber fillers

Mixed core consists of 3 fiber fillers and 3 metal strands.



Advantages in comparison with standard solutions

- increased abrasion resistance
- high flexibility
- lower impact of dynamic loads on the rope

Specifications

Diameter, mm	Weight of 1000 m, kg	Rope grade - 1770 N/mm² Minimum breaking load, kN
25	2669	444
28	3366	560
30	3885	649
32	4318	717
35	5291	881
38	6149	1 025

Octopus 619

6-strand wire ropes

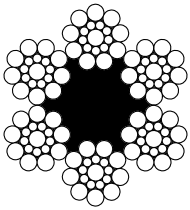
EN 12385-4

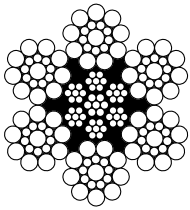
Construction

6x19 (1+9+9) + 1 fiber core
6x19 (1+9+9) + 7x7 (1+6)

Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
Rope with fiber core				
25.4	2320	377	417	460
28	2810	458	507	-
28.6	2940	478	529	-
31.8	3630	591	654	-
32	3680	598	662	-
34.9	4370	711	788	-
38	5180	843	934	-
38.1	5210	848	939	-
Rope with metal core				
25.4	2580	407	450	496
28	3140	494	547	-
28.6	3270	515	571	-
31.8	4040	637	706	-
32	4100	645	715	-
34.9	4870	768	850	-
38	5780	910	1008	-
38.1	5810	915	1013	-





Octopus 619K

6-strand wire ropes with compacted outer strands

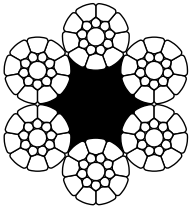
EN 12385-4

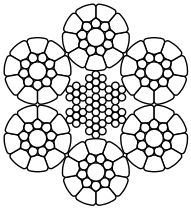
Construction

6x19 (1+9+9) + 1 fiber core
6x19 (1+9+9) + 7x7 (1+6)

Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
Rope with fiber core				
25.4	2620	421	466	491
28.6	3290	528	585	625
31.8	4030	648	718	-
34.9	4860	781	864	-
38.1	5760	925	1024	-
Rope with metal core				
25.4	2890	455	504	551
28.6	3640	574	636	698
31.8	4450	702	777	-
34.9	5380	848	939	-
38.1	6360	1002	1109	-





Industry-based solution **Octopus**

Octopus 631

6-strand wire ropes

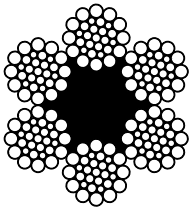
EN 12385-4

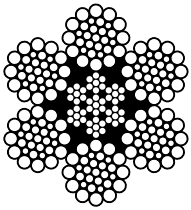
Construction

6x31 (1+6+6/6+12) + 1 fiber core
6x31 (1+6+6/6+12) + 7x7 (1+6)

Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
Rope with fiber core				
25	2290	365	404	-
25.4	2500	372	409	450
28	2880	458	507	559
28.6	3170	468	515	566
29	3250	491	544	-
31.8	3910	575	633	696
34.9	4730	691	761	836
38.1	5630	818	898	987
Rope with metal core				
25	2560	394	436	-
25.4	2750	399	460	506
28	3210	494	547	603
28.6	3480	503	578	636
29	3580	530	587	-
31.8	4300	617	711	782
34.9	5190	743	854	943
38.1	6190	880	1010	1110





Octopus 631K

6-strand wire ropes with compacted outer strands

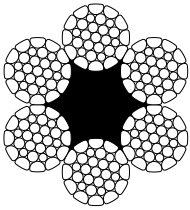
EN 12385-4

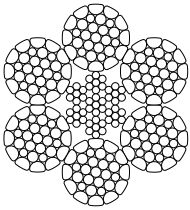
Construction

6x31 (1+6+6/6+12) + 1 fiber core
6x31 (1+6+6/6+12) + 7x7 (1+6)

Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
Rope with fiber core				
25.4	2550	403	447	492
28.6	3350	529	586	646
31.8	4000	632	700	772
32	4000	632	700	772
34.9	4870	770	852	940
38.1	5820	923	1022	1126
Rope with metal core				
25.4	2830	453	501	552
28.6	3680	588	652	718
31.8	4440	709	785	865
32	4440	709	785	865
34.9	5360	859	951	1048
38.1	6420	1029	1140	1256





Octopus 817

8-strand wire ropes

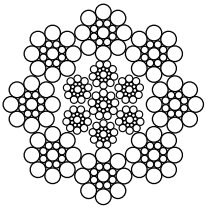
EN 12385-4

Construction

8x17(1+8+8) + 6x19(1+9+9) + 1x19(1+9+9)

Advantages in comparison with standard solutions

- higher flexibility in comparison with 6-strand wire ropes
- high strength
- reduced friction between outer wires of strands and pulley groove surface



Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
25	2630	360	405	449
26	2800	383	432	478
28	3355	459	518	573
29	3480	477	538	596
30	3750	514	579	642
32	4285	587	662	733
35	5040	694	783	867
38	6095	836	943	1044

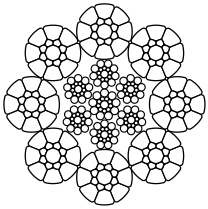
Octopus 817K

8-strand wire ropes with compacted outer strands

EN 12385-4

Construction

8x17(1+8+8) + 6x19(1+9+9) + 1x19(1+9+9)



Advantages in comparison with standard solutions

- higher flexibility in comparison with 6-strand wire ropes
- high strength
- reduced friction between outer wires of strands and pulley groove surface

Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
25	2780	433	455	479
26	2980	464	488	514
28	3560	554	582	614
29	3720	579	608	641
30	3980	620	652	687
32	4580	712	748	789
35	5370	835	878	925
38	6470	1010	1060	1110

Industry-based solution **Octopus**

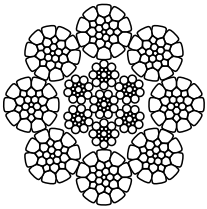
Octopus 826K

8-strand wire ropes with compacted outer strands

EN 12385-4

Construction

8x26(1+5+5/5+10) + 6x17(1+8+8) + 1x17(1+8+8)



Advantages in comparison with standard solutions

- increased wire abrasion resistance
- less pulley groove wear
- improved strength characteristics
- increased resistance against transverse crushing

Specifications

Dia-meter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
25	2 940	454	503	554
28	3 730	582	644	710
32	4 835	753	834	919
35	5 840	874	968	-
38	6 825	1 060	1 180	-

Industry-based solution **Octopus**

Raising lines

We produce raising lines for many types
of drilling rigs such as:
ZJ30-90DBS; IRI 270; WDI 823-825; 1500HP;
DM 750-2000; CS 320; CS HR 4000-6000; WEI DS250LT.

Spare parts:

- **6-strand wire ropes** with compacted outer strands

- **8-strand wire ropes** with compacted outer strands

Diameter	28-90 mm
Minimum breaking load	70-700 tonnes

- **Sockets combinations:**
  - closed socket / open socket
  - open socket / open socket

Additional services

- Prestretching of wire rope
- Socket pouring
- Test for compliance with the declared technical characteristics.
- The test stand for elongation and breakdown allows to perform product testing with certificate confirming the quality.

  We have 3 test benches: 160 tons, 250 tons, 500 tons.

Industry-based solution **Octopus**

API certificate

Severstal-metiz is the only manufacturer of steel wire ropes in the Russian Federation that has been certified according to API-9A standard from the American Petroleum Institute.

Most of the largest oil and gas companies in the world require API certification for supplying products.

Such certificate is possible to receive only if the company implements and constantly improves its quality management.

Getting an API certificate proves that Severstal-metiz produces high quality steel wire ropes within the oil and gas industry solution - Octopus.

End fittings

Wire ropes are complete with end fittings. We use special factory-made eye end fittings for splicing the rope when it is inserted into the hoist system to maintain the structural integrity of the rope after cut and slip procedure.

Mesh grips for steel wire ropes

For easier installation of a new rope, we offer our customers special steel wire mesh grips.

They are tightened securely on the free ends of the old rope and the new one connecting them firmly. After that, the rope is installed on the winding hoist drum.

Severstal Metiz

Alerion

Industry-based solution for elevators

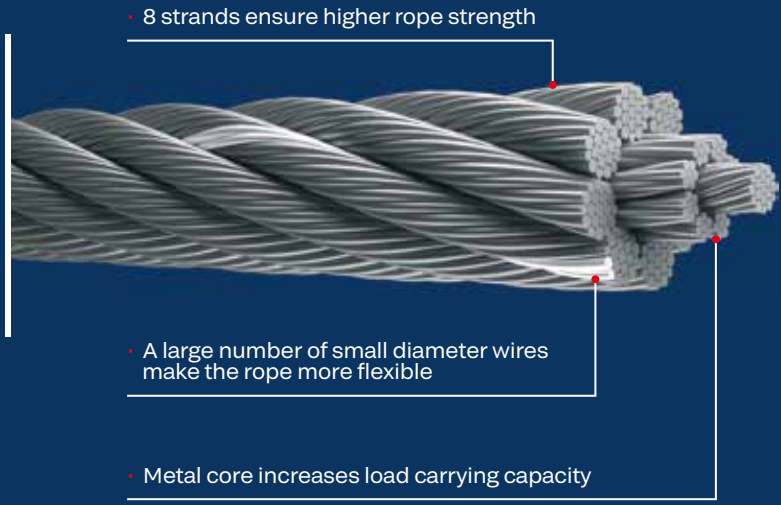
Severstal Metiz

Alerion® is our solution for elevator industry.
It includes 6-strand and 8-strand special ropes that we produce specially for the installation and maintenance of elevators.
For high buildings we manufacture 8x19 wire ropes with metal core.

Alerion® ropes are flexible, strong and durable compared to standard solution.

We select ropes for different application conditions of the equipment for the most efficient operation, in a short time we carry out delivery and provide additional services.

Special design



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Severstal Metiz

Alerion

Industry-based solution for elevators

High-rated quality

Cost minimization

Better performance

More safety

Advantages of Alerion MC8

01 Higher endurance limit resulting from increased number of wires in the rope.

02 High damping capacity (better vibration absorption).

03 Higher elasticity caused by smaller diameter of wires.

04 Reduced surface stress between the rope and pulleys.

Lifting wire ropes

- **Alerion 819** (8x19S-FC)
- **Alerion MC8** (8x19W-IWRC)

Governor ropes

- **Alerion 619** (6x19W-FC)
- **Alerion 619** (6x19S-FC)
- **Alerion 619** (6x19M-FC)

Performance comparison

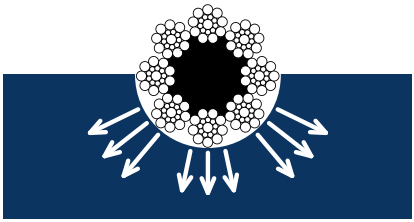
Alerion 819
(8x19S-FC)

Weight - 0.223 kg/m

MBL - 29.4 kN

Elastic elongation ≤0.20%

Structural elongation ≤0.14%



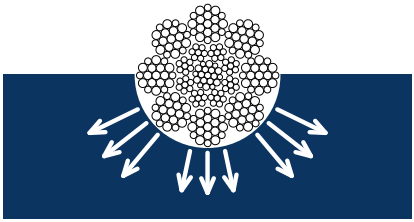
Alerion MC8
(8x19W-IWRC)

Weight - 0.260 kg/m

MBL - 35.8 kN

Elastic elongation ≤0.08%

Structural elongation ≤0.02%



Industry-based solution **Alerion**

Alerion 619

6-strand wire ropes with fiber core

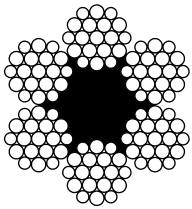
EN 12385-4 class 6x19 and 6x19M

Wire ropes for overspeed governors.

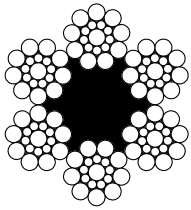
Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²			
		1570	1770	1960	2160
		Minimum breaking load, kN			
6x19W-FC, 6x19S-FC					
6	0.13	-	21.1	23.4	25.7
7	0.18	-	28.7	31.8	35.0
8	0.23	33.2	37.5	41.5	45.8
9	0.29	42.1	47.4	52.5	57.8
10	0.36	52.0	58.6	64.9	71.5
11	0.43	62.9	70.9	78.5	86.5
12	0.52	74.8	84.3	93.3	102.9
13	0.61	87.8	99.0	110	121
14	0.70	102.0	115	127	140
15	0.81	117	132	146	161
16	0.92	133	150	166	183
17	1.08	150	169	187	206
18	1.16	168	190	210	232
19	1.30	187	211	234	257
20	1.44	207	234	259	286
22	1.74	251	283	313	345
6x19M-FC					
6	0.13	-	19.6	21.7	23.9
7	0.17	23.6	26.6	29.5	32.5
8	0.22	30.8	34.8	38.5	42.4
9	0.28	39.0	44.0	48.7	53.7
10	0.35	48.2	54.3	60.2	66.3
11	0.42	58.3	65.8	72.8	80.2
12	0.50	69.4	78.2	86.6	95.5
13	0.59	81.5	91.8	102	112
14	0.68	94.5	107	118	130
15	0.78	108	122	135	149
16	0.89	123	139	154	170
18	1.12	156	176	195	215
20	1.38	193	217	241	265
22	1.67	233	263	291	321

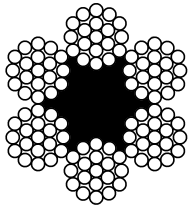
6x19W-FC



6x19S-FC



6x19M-FC



Industry-based solution **Alerion**

Alerion 819

8-strand wire ropes with fiber core

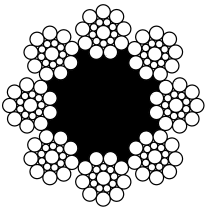
EN 12385-5 class 8x19

Lifting wire ropes for heights ≤ 30 m.

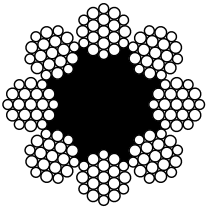
Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²		
		1570	1370/1770	1770
		Minimum breaking load, kN		
8.0	0.22	29.4	28.1	33.2
9.0	0.28	37.3	35.6	42.0
10.0	0.34	46.0	44.0	51.9
11.0	0.41	55.7	53.2	62.8
12.0	0.49	66.2	63.3	74.7
13.0	0.57	77.7	74.3	87.6
14.0	0.67	90.2	86.1	102.0
15.0	0.77	103.0	98.8	117.0
16.0	0.87	118.0	113.0	133.0

8x19S-FC



8x19W-FC



Alerion MC8

8-strand wire ropes with metal core

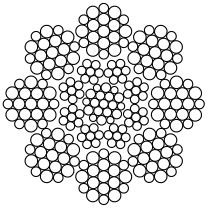
EN 12385-5 class 8x19

Lifting ropes for heights > 30 m
and for elevators with gearless winches.

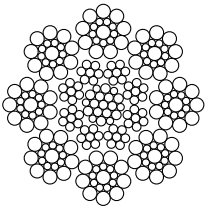
Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²		
		1570	1570/1960	1770
		Minimum breaking load, kN		
8.0	0.26	35.8	42.9	40.3
9.0	0.33	45.3	54.6	51.0
10.0	0.41	55.9	69.5	63.0
11.0	0.49	67.6	83.1	76.2
12.0	0.59	80.5	98.9	90.7
13.0	0.69	94.5	114.0	106.0
14.0	0.80	110.0	133.0	124.0
15.0	0.92	126.0	151.0	142.0
16.0	1.04	143.0	173.0	161.0

8x19W-IWRC



8x19S-IWRC



Industry-based solution **Alerion**

Severstal Metiz

Triniks

Industry-based solution for cableways

Severstal Metiz

Triniks® is our solution for cableways.

It includes wire ropes with the Innovative High Performance Core, which increases work life of hauling and carrying elements of cableways.

Our wire ropes Triniks ZL for cable-trolley and zipline provide safety and comfort during exploitation due to construction of the ropes.

Industry-based solution Triniks® is applied for all types of passenger and aerial material ropeways.

Wire ropes Triniks® are reliable and durable solution, which allows our clients to be sure about safety and decrease number of changes of the rope.

Special design

- Equal load distribution with the improved support of outer strands

- Polymer coating protects core from contacts with strands
- Polypropylene provides rope flexibility

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Severstal Metiz

Triniks

Industry-based solution for cableways

High-rated quality

Cost minimization

Better performance

Advantages Triniks

01 Innovative core

02 Minimum elongation

03 Minimum reduction of cross-section area

04 Fixed position of strands

05 Increased lay length

HPC (high performance core)

Innovative type of core, specially developed for carrying-hauling wire ropes of cableways.
Innovative HPC (High Performance Core) consisting of 3 or 4-strand polypropylene core covered with extruded polymeric coating.

Advantages of HPC

in comparison with fiber cores:

- diameter consistency
- equal load distribution with the improved support of outer strands
- protection from external factors such as high/low temperature, aggressive environment

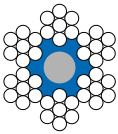
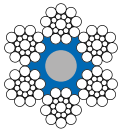
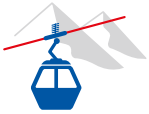
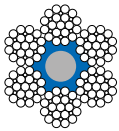
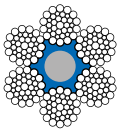
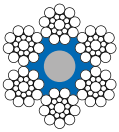
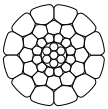
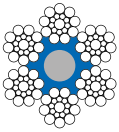
Triniks ZL

Triniks ZL – wire ropes are used as track cables on cable trolley and zip-lines. They are manufactured with compacted outer layer. Characteristics of wire ropes provide comfort and safe ride.

Advantages

- expanded contact with trolley rollers
- ride smoothness
- minimum vibrations
- low wear of trolley rollers

Rope selection guide

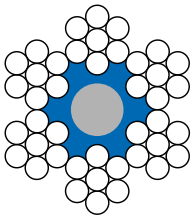
Skilift		Tow rope	 Triniks 67 HPC
Chairlift		Carrying-hauling	  Triniks 619 HPC
Gondola lift		Carrying-hauling	 Triniks 625 HPC  Triniks 636 HPC
3S		Hauling	 Triniks 619 HPC
Zipline		Track	 Triniks ZL
Aerial material		Hauling	 Triniks 619 HPC

Industry-based solution **Triniks**

Triniks 67 HPC

Construction

6 x 7 (1 + 6) + HPC



Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²			
		1570	1770	1960	2160
		Minimum breaking load, kN			
12	0.50	75.1	84.6	93.7	103
13	0.58	88.1	99.3	110	121
14	0.68	102	115	128	141
15	0.78	117	132	146	161
16	0.88	133	150	167	184
18	1.12	177	190	221	244
20	1.38	208	235	260	287
22	1.67	252	284	315	347
24	1.99	300	338	375	413
26	2.33	352	397	440	485
28	2.70	409	461	510	562
32	3.53	533	602	666	734
36	4.47	675	762	843	929
40	5.52	834	940	1041	1147

Triniks 619 HPC

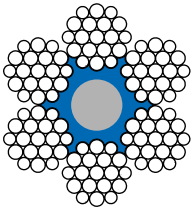
Construction

6 x 19 (1 + 6 + 6 / 6) (W) + HPC
6 x 19 (1 + 9 + 9) (S) + HPC

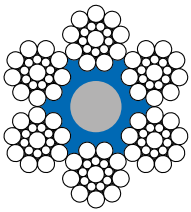
Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²			
		1570	1770	1960	2160
		Minimum breaking load, kN			
12	0.52	74.8	84.3	93.3	103
13	0.61	87.8	99.0	110	121
14	0.70	102	115	127	140
15	0.81	117	132	146	161
16	0.92	133	150	166	183
17	1.08	150	169	187	206
18	1.16	168	190	210	232
19	1.30	187	211	234	257
20	1.44	207	234	259	286
22	1.74	251	283	313	345
24	2.07	299	336	373	411
26	2.43	350	395	437	482
28	2.81	407	458	508	560
32	3.68	530	598	662	730
36	4.65	671	757	838	-
40	5.74	833	935	1040	-
44	6.95	1001	1130	1250	-
48	8.27	1194	1350	1490	-
52	9.71	1402	1580	1750	-
56	11.30	1626	1830	-	-
60	12.90	1866	2100	-	-

619W



619S



Industry-based solution **Triniks**

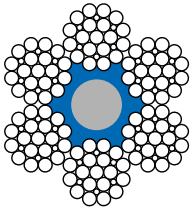
Triniks 625 HPC

Construction

6 x 25 (1 + 6; 6 + 12) (F) + HPC

Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
12	0.52	74.8	84.3	93.3
13	0.61	87.8	99.0	110
14	0.70	102	115	127
15	0.81	117	132	146
16	0.92	133	150	166
17	1.08	150	169	187
18	1.16	168	190	210
19	1.30	187	211	234
20	1.44	207	234	259
22	1.74	251	283	313
24	2.07	299	336	373
26	2.43	350	395	437
28	2.81	407	458	508
32	3.68	530	598	662
36	4.65	671	757	838
40	5.74	833	935	1040
44	6.95	1001	1130	1250
48	8.27	1194	1350	1490
52	9.71	1402	1580	1750
56	11.3	1626	1830	-
60	12.9	1866	2100	-

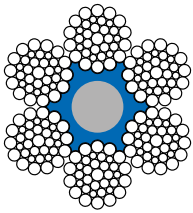


Industry-based solution **Triniks**

Triniks 636 HPC

Construction

6 x 36 (1 + 7 + 7 / 7 + 14) (WS) + HPC



Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
12	0.53	74.6	84.1	93.1
13	0.62	87.6	98.7	109
14	0.72	102	114	127
15	0.83	117	131	146
16	0.94	133	150	166
17	1.06	150	169	187
18	1.19	168	189	210
19	1.32	187	211	233
20	1.47	207	234	259
22	1.78	251	283	313
24	2.11	298	336	373
25	2.29	324	365	404
26	2.48	350	395	437
28	2.88	406	458	507
30	3.30	466	526	582
32	3.76	531	598	662
34	4.24	599	675	748
36	4.76	671	757	838
37	5.02	709	800	885
38	5.30	748	843	934
39	5.58	788	888	984
40	5.87	829	935	1040
42	6.47	914	1030	1141
44	7.11	1003	1130	1250
45	7.43	1049	1183	1310
46	7.77	1096	1236	1369
48	8.46	1194	1350	1490
52	9.92	1401	1580	1750
56	11.5	1625	1830	-
60	13.2	1865	2100	-

Triniks ZL

Construction

Triniks ZL I - 1 x K43 (1 + 6 + 12 + 12 + 12)
Triniks ZL II - 1 x K37 (1 + 6 + 15 + 15)
Triniks ZL III - 1 x K55 (1 + 9 + 9 + 18 + 18)

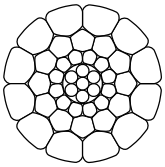
Triniks ZL wire ropes are used as track cables on cable trolley and zip line rides.

Three types of these wire ropes are manufactured with compacted outer layer.

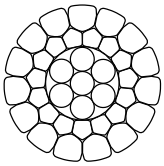
Specifications

Diameter, mm	Rope weight, kg/m	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
10	0.61	106	112	120
11	0.72	123	131	139
12	0.86	147	156	165
16	1.54	270	287	303

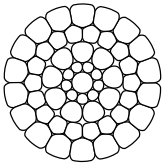
Triniks ZL I



Triniks ZL II



Triniks ZL III



Industry-based solution **Triniks**

Splicing

Splicing is the necessary type of service maintenance for track and hauling-track wire ropes for cableways.

In rope splicing, the two wire rope ends are connected to each other to create an endless circular rope without a knot or visible enlargement (unevenness) in connection point.

The splice ensures a secure and even connection of both ends of the rope and can be used for any type of stranded wire ropes with fiber or metal core.

Nominal rope diameter	Minimal length of the splice	Length of the tail	Distance between splicing points
d, mm	L, m	a, m	b, m
12	14.4	0.72	2.06
13	15.6	0.78	2.23
14	16.8	0.84	2.40
15	18.0	0.90	2.57
16	19.2	0.96	2.74
17	20.4	1.02	2.91
18	21.6	1.08	3.09
19	22.8	1.14	3.26
20	24.0	1.20	3.43
22	26.4	1.32	3.77
24	28.8	1.44	4.11
25	30.0	1.50	4.29
26	31.2	1.56	4.46
28	33.6	1.68	4.80
30	36.0	1.80	5.14
32	38.4	1.92	5.49
34	40.8	2.04	5.83
36	43.2	2.16	6.17
37	44.4	2.22	6.34
38	45.6	2.28	6.51
39	46.8	2.34	6.69
40	48.0	2.40	6.86
42	50.4	2.52	7.20
44	52.8	2.64	7.54
45	54.0	2.70	7.71
46	55.2	2.76	7.89
48	57.6	2.88	8.23
52	62.4	3.12	8.91
56	67.2	3.36	9.60
60	72.0	3.60	10.30

Severstal Metiz

Anaconda

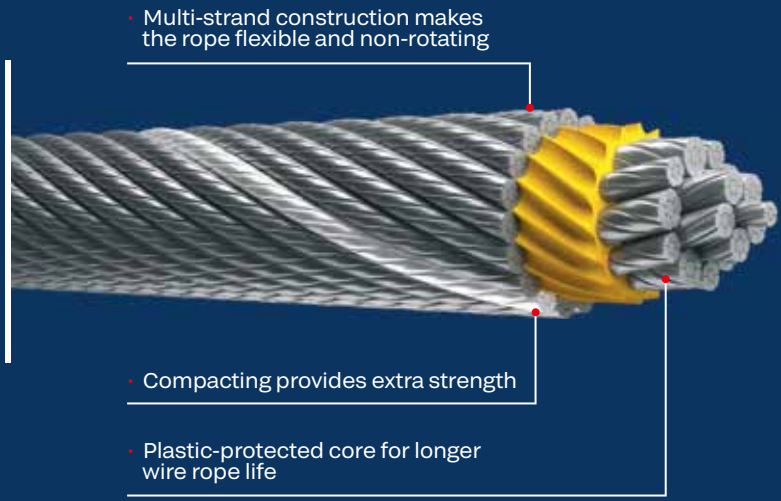
Industry-based solution for cranes and lifting mechanisms

Severstal Metiz

Anaconda® is our solution for cranes.
It includes 6-strand, 8-strand and multistrand special wire ropes with compacted outer strands and polymer filling of the core.
Our high tensile ropes have longer service life than standard ropes.
Due to the special design, Anaconda multi-strand wire ropes are more flexible and non-rotating. They are the optimal solution for lifting loads to great heights, because rotation resistance is really important.

We select ropes for different application conditions of the equipment for the most efficient operation, in a short time we carry out delivery and provide additional services.

Special design



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Anaconda

Industry-based solution for cranes and lifting mechanisms

High-rated quality
Cost minimization
Better performance
More safety

Advantages

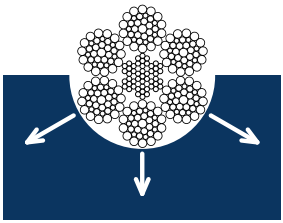
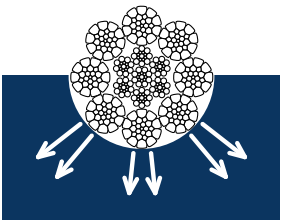
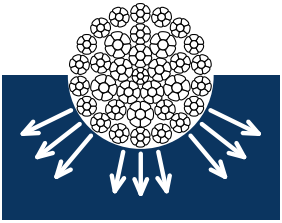
01 Increased flexibility
02 Less wear of sheaves and drums
03 High strength
04 Rotation resistance

Compacting

01 Strength +10-15%
02 Contact with bearing surface +8-10%
03 Strands interlocking is eliminated

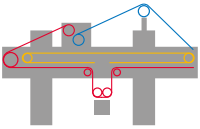
Comparison of wire ropes

EN 12385-4 (6x36WS-IWRC)	**Anaconda 826K** (8xK26WS-IWRC)	**Anaconda 36K** (34WxK7)
Diameter - 25.0 mm	Diameter - 25.0 mm	Diameter - 25.0 mm
Weight - 2.66 kg/m	Weight - 2.94 kg/m	Weight - 3.10 kg/m
Grade - **1770** N/mm²	Grade - **1770** N/mm²	Grade - **1770** N/mm²
MBL - 396 kN	**MBL - 454 kN**	**MBL - 474 kN**

Rope selection guide

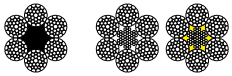
Ship to shore



Hoisting rope

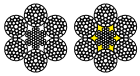
Anaconda 825 Anaconda 826K/KP

Trolley rope



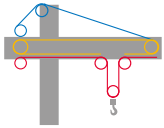
Anaconda 6K Anaconda 636K/KP

Boom hoist rope



Anaconda 636K/KP

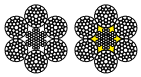
Tower



Hoisting rope

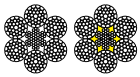
Anaconda 36 /K /KP

Trolley rope



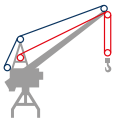
Anaconda 636K/KP

Boom hoist rope

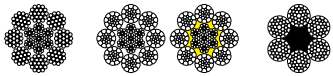


Anaconda 636K/KP

Portal

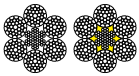


Hoisting rope



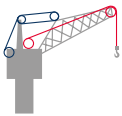
Anaconda 825 Anaconda 826K/KP Anaconda 6K

Boom hoist rope



Anaconda 636K/KP

Pedestal



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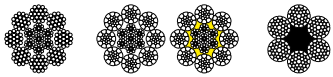
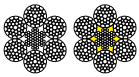


Anaconda 825 Anaconda 826K/KP Anaconda 6K

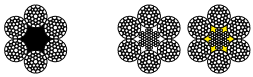
Boom hoist rope



Anaconda 636K/KP

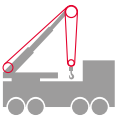
Gantry

Hoisting rope

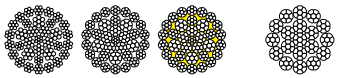


Anaconda 6K Anaconda 636K/KP

Mobile

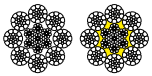


Hoisting rope



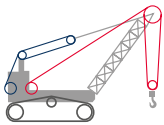
Anaconda 36 /K /KP Anaconda 19K

Boom telescoping rope

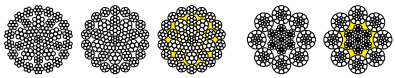


Anaconda 826K/KP

Crawler

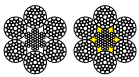


Hoisting rope



Anaconda 36 /K /KP Anaconda 826K/KP

Boom hoist rope

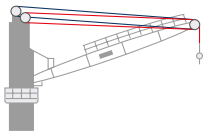


Anaconda 636K/KP

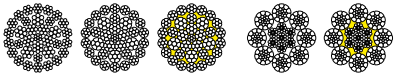
Industry-based solution **Anaconda**

Rope selection guide

Deck

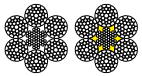


Hoisting rope



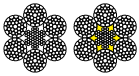
Anaconda 36 /K /KP

Anaconda 826K/KP



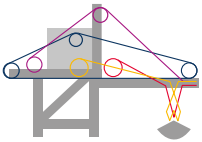
Anaconda 636K/KP

Boom hoist rope

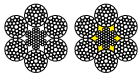


Anaconda 636K/KP

Grab-bucket



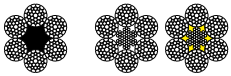
Hoisting rope



Anaconda 636K/KP

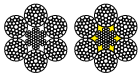
Anaconda 6K Anaconda 826KP

Closing rope



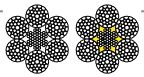
Anaconda 6K Anaconda 636K

Boom hoist rope



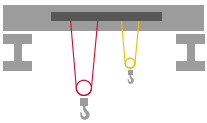
Anaconda 636K/KP

Trolley rope



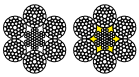
Anaconda 636K/KP

Bridge



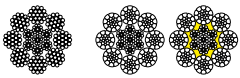
Hoisting rope

Anaconda 825 Anaconda 826K/KP

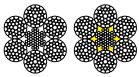


Anaconda 636K/KP

Auxiliary hoist rope

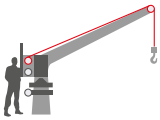


Anaconda 825 Anaconda 826K/KP

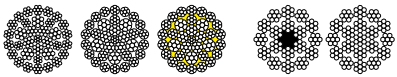


Anaconda 636K/KP

Davit



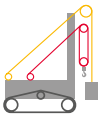
Hoisting rope



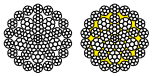
Anaconda 36 /K /KP

Anaconda 19

Pile-driver

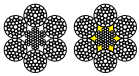


Hoisting rope



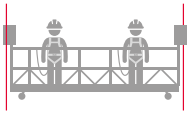
Anaconda 36K/KP

Auxiliary hoist rope



Anaconda 636K/KP

Suspended platform



Hoisting rope

Anaconda 431

Industry-based solution **Anaconda**

Anaconda 6K

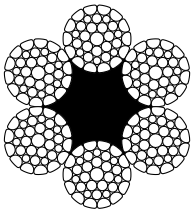
6-strand wire ropes with compacted outer strands and fiber core

EN 12385-4

Construction

6x36 (1+7+7/7+14)+ 1 fiber core

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1860	1960
		Minimum breaking load, kN		
20.0	1626	257	270	284
22.0	1958	307	323	340
23.0	2240	349	367	387
24.0	2356	368	387	408
26.0	2788	434	457	481
27.0	3039	471	495	522
28.0	3236	504	529	558
30.0	3801	583	612	645
32.0	4254	657	690	728
33.0	4525	695	731	770
34.0	4862	748	786	829
36.5	5303	811	852	898
38.0	5597	857	901	949
39.5	6159	944	992	1050
42.0	6956	1070	1120	1180
43.0	7290	1120	1170	1240
44.5	7967	1220	1280	1350
46.5	8499	1300	1370	1440
48.5	9177	1410	1480	1560
50.5	9798	1500	1580	1670
53.5	11195	1720	1810	1910
56.0	12393	1900	2000	-
58.5	13088	2010	2120	-
60.5	14959	2290	-	-
63.0	15344	2360	-	-
64.0	16086	2470	-	-
65.0	16592	2550	-	-



- Ship to shore cranes
- Grab-bucket cranes
- Tower cranes
- Crawler cranes

Industry-based solution **Anaconda**

Anaconda 636K

6-strand wire ropes with compacted outer strands

EN 12385-4

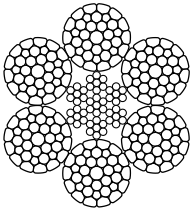
Construction

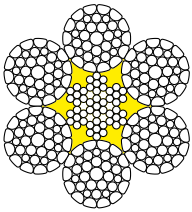
6x36 (1+7+7/7+14) + 7x7 (1+6)

Configuration I - rope construction with compacted outer strands.

Configuration III - construction with compacted outer strands and plastic coated core.

Diameter, mm	Weight of 1000 m, kg		Rope grade, N/mm²		
			1670	1770	1860
	Conf. I	Conf. III	Minimum breaking load, kN		
16.0	1190	1200	178	189	198
18.0	1510	1525	226	240	252
20.0	1840	1860	277	294	309
22.0	2220	2245	334	354	372
24.0	2640	2670	398	422	443
26.0	3100	3130	469	497	522
28.0	3580	3620	544	576	606
30.0	4110	4155	629	667	701
32.0	4690	4740	712	755	794
34.0	5330	5390	810	858	902
35.5	5770	5830	874	927	974
36.0	5910	5970	909	964	1013
36.5	6090	6160	924	979	1029
39.0	6720	6790	1021	1082	1137
41.0	7600	7680	1153	1222	1284
42.0	7970	8060	1210	1283	1348
45.5	9270	9370	1405	1489	1565
49.0	10790	10900	1637	1735	1823
52.0	12290	12420	1866	1977	2078
57.0	14390	14550	2187	2318	2436
60.5	16410	16590	2492	2642	-
61.5	16910	17090	2569	2723	-
64.0	18220	-	2769	2935	-
66.0	19320	-	2953	-	-
68.0	20520	-	3120	-	-





- Ship to shore cranes
- Grab-bucket cranes
- Tower cranes
- Crawler cranes
- Offshore cranes
- Bridge cranes
- Gantry cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 825

8-strand wire ropes

EN 12385-4

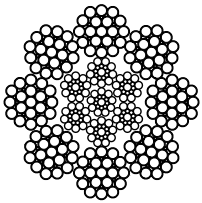
Construction

8x25(1+6; 6+12) + 6x17(1+8+8) + 1x17(1+8+8)

Advantages

- high flexibility in comparison with 6-strand wire ropes
- high strength
- reduced friction between outer wires in strands and pulley groove surface

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1860	1960
		Minimum breaking load, kN		
21	1937	292	307	323
24	2580	396	417	439
30	3970	609	639	674
31	4167	639	672	708
32	4550	702	737	777
34	5070	777	817	861
37	5976	917	964	1016
38	6250	972	1022	1076
42	7903	1211	1273	1341



- Ship to shore cranes
- Grab-bucket cranes
- Bridge cranes
- Crawler cranes
- Offshore cranes
- Gantry cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 826K

8-strand wire ropes with compacted outer strands

EN 12385-4

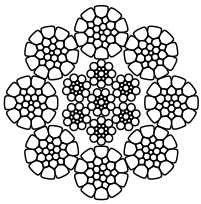
Construction

8x26(1+5+5/5+10) + 6x17(1+8+8) + 1x17(1+8+8)

Advantages

- increased wear resistance of wires
- high strength characteristics
- less pulley groove wear
- increased resistance against transverse crushing

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
8	306	44	49	54
9	387	58	64	70
10	478	68	75	83
11	578	81	90	99
12	688	105	116	128
13	808	124	137	151
14	930	142	157	173
15	1067	163	181	199
16	1215	186	206	228
17	1360	208	231	254
18	1550	238	263	290
19	1695	260	288	318
20	1905	294	325	358
21	2060	317	351	387
22	2280	352	390	430
23	2500	386	428	471
24	2760	428	474	522
25	2940	454	503	554
26	3200	497	550	606
27	3400	526	583	642
28	3730	582	644	710
29	3960	613	679	748
30	4240	660	731	805
31	4535	705	781	860
32	4835	753	834	919
33	5110	793	879	-
34	5490	854	946	-
35	5840	874	968	-
36	6155	955	1 058	-
37	6355	988	1 094	-
38	6825	1064	1178	-
39	7180	1117	1237	-
40	7480	1169	1295	-
41	7840	1221	1352	-
42	8335	1304	1444	-
44	8926	1403	1554	-
46	9727	1530	1694	-
48	10601	1668	1847	-
50	11561	1819	2015	-
52	12460	1961	2172	-



- Ship to shore cranes
- Grab-bucket cranes
- Bridge cranes
- Crawler cranes
- Offshore cranes
- Gantry cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 826KP

8-strand wire ropes with compacted outer strands and plastic coated core

EN 12385-4

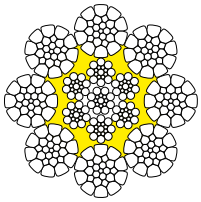
Construction

8x26(1+5+5/5+10) + 6x17(1+8+8) + 1x17(1+8+8)

Advantages in comparison with standard solutions

- steady operation of rope elements as a result of the core polymeric coating
- less corrosion damage
- increased service life

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
15	1067	163	181	199
16	1215	186	206	228
17	1360	208	231	254
18	1550	238	263	290
19	1695	260	288	318
20	1905	294	325	358
21	2060	317	351	387
22	2280	352	390	430
23	2500	386	428	471
24	2760	428	474	522
25	2940	454	503	554
26	3200	497	550	606
27	3400	526	583	642
28	3730	582	644	710
29	3960	613	679	748
30	4240	660	731	805
31	4535	705	781	860
32	4835	753	834	919
33	5110	793	879	-
34	5490	854	946	-
35	5840	874	968	-
36	6155	955	1 058	-
37	6355	988	1 094	-
38	6825	1064	1178	-
39	7180	1117	1237	-
40	7480	1169	1295	-
41	7840	1221	1352	-
42	8335	1304	1444	-
44	8926	1403	1554	-
46	9727	1530	1694	-
48	10601	1668	1847	-
50	11561	1819	2015	-
52	12460	1961	2172	-



- Ship to shore cranes
- Grab-bucket cranes
- Bridge cranes
- Crawler cranes
- Offshore cranes
- Gantry cranes
- Pile-driver

Anaconda 36

multistrand non-rotating wire ropes

EN 12385-4

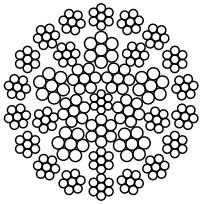
Construction

18x7+5x7/5x7+5x7+1x7

Advantages in comparison with standard solutions

- high flexibility
- high strength
- reduced friction between outer wires in strands and pulley groove surface
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²	
		1960	2160
		Minimum breaking load, kN	
14	890	138	148
15	1020	159	170
16	1160	181	194
17	1310	204	218
18	1470	229	245
19	1640	255	273
20	1820	282	302
21	2000	311	333
22	2200	342	366
23	2400	373	400
24	2620	406	435
25	2840	441	473
26	3070	477	511
27	3310	514	551
28	3560	553	593
30	4090	635	680
32	4650	723	774



- Ship to shore cranes
- Grab-bucket cranes
- Tower cranes
- Mobile cranes
- Crawler cranes
- Offshore cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 36K

multistrand non-rotating wire ropes with compacted outer strands

EN 12385-4

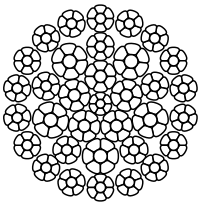
Construction

18x7+5x7/5x7+5x7+1x7

Advantages in comparison with standard solutions

- high strength
- high abrasion resistance
- high fatigue failure resistance
- expanded contact with bearing surface area
- less wear of sheaves and capstans
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²	
		1770	1960
		Minimum breaking load, kN	
18	1593	243	269
19	1801	270	299
20	1995	301	334
21	2180	332	368
22	2410	368	407
23	2627	401	444
24	2848	434	481
25	3100	474	525
26	3374	515	570
27	3615	556	616
28	3883	597	661
29	4200	639	707
30	4477	684	758
32	5199	782	866
34	5792	881	975
36	6484	995	1102



- Ship to shore cranes
- Grab-bucket cranes
- Tower cranes
- Mobile cranes
- Crawler cranes
- Offshore cranes
- Pile-driver

Industry-based solution **Anaconda**

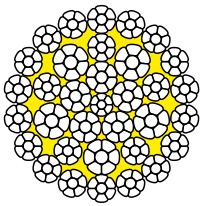
Anaconda 36KP

multistrand non-rotating wire ropes with compacted outer strands and plastic coated core

EN 12385-4

Construction

18x7+5x7/5x7+5x7+1x7



Advantages in comparison with standard solutions

- steady operation of rope elements as a result of the core polymeric coating
- less wear of wires in the strands contact points
- less wear of sheaves and capstans
- less corrosion damage
- increased service life
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²	
		1770	1960
		Minimum breaking load, kN	
18	1593	243	269
19	1801	270	299
20	1995	301	334
21	2180	332	368
22	2410	368	407
23	2627	401	444
24	2848	434	481
25	3100	474	525
26	3374	515	570
27	3615	556	616
28	3883	597	661
29	4200	639	707
30	4477	684	758
32	5199	782	866
34	5792	881	975
36	6484	995	1102

- Ship to shore cranes
- Grab-bucket cranes
- Tower cranes
- Mobile cranes
- Crawler cranes
- Offshore cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 19

multistrand non-rotating wire ropes

EN 12385-4 construction 18x7

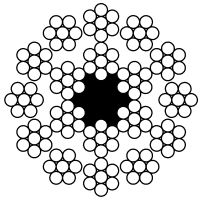
Construction

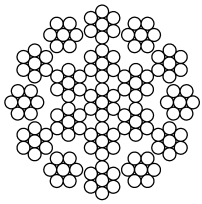
18x7 (1+6) + 1 fiber core
18x7 (1+6) + 1x7 (1+6)

Advantages

- high flexibility
- high strength
- reduced friction between outer wires in strands and pulley groove surface
- rotation resistance

Dia-meter, mm	Rope with fiber core				Rope with metal core			
	Weight of 1000 m, kg	Rope grade,N/mm²			Weight of 1000 m, kg	Rope grade,N/mm²		
		1770	1960	2160		1770	1960	2160
		Minimum breaking load, kN				Minimum breaking load, kN		
8	244	37.2	41.1	45.3	257	37.2	41.1	45.3
9	309	47	52	57.4	325	47	52	57.4
10	382	58.1	64.3	70.8	401	58.1	64.3	70.8
11	462	70.2	77.8	85.7	485	70.2	77.8	85.7
12	550	83.6	92.6	102	577	83.6	92.6	102
13	646	98.1	109	120	678	98.1	109	120
14	749	114	126	139	786	114	126	139
15	860	131	145	159	902	131	145	159
16	978	149	165	181	1030	149	165	181
17	1104	168	186	205	1159	168	186	205
18	1240	188	208	230	1300	188	208	230
19	1379	210	232	256	1448	210	232	256
20	1530	232	257	283	1600	232	257	283
21	1680	256	283	312	1770	256	283	312
22	1850	281	311	343	1940	281	311	343





- Tower cranes
- Crawler cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 19K

multistrand non-rotating wire ropes with compacted outer strands

EN 12385-4 construction 18xK7

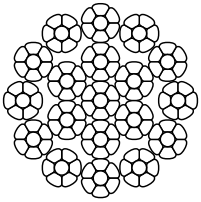
Construction

18x7 (1+6) + 1x7 (1+6)

Advantages

- high flexibility
- high strength
- reduced friction between outer wires in strands and pulley groove surface
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
10	480	76.9	85.1	94
11	580	91.4	101	112
12	690	109	121	133
13	800	127	141	155
14	950	151	167	184
15	1070	170	188	208
16	1230	195	216	238
17	1370	217	240	265
18	1560	248	274	302
19	1730	275	304	335
20	1950	310	343	378



- Tower cranes
- Crawler cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 34

multistrand non-rotating wire ropes

EN 12385-4 construction 37(W)x7

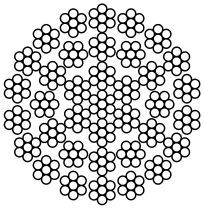
Construction

18x7 (1+6) + 12x7 (1+6) + 6x7 (1+6) + 1x7 (1+6)

Advantages

- high flexibility
- high strength
- reduced friction between outer wires in strands and pulley groove surface
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²	
		1770	1960
		Minimum breaking load, kN	
14	890	138	148
15	1020	159	170
16	1160	181	194
17	1310	204	218
18	1470	229	245
19	1640	255	273
20	1820	282	302
21	2000	311	333
22	2200	342	366
23	2400	373	400
24	2620	406	435
25	2840	441	473
26	3070	477	511
27	3310	514	551
28	3560	553	593
30	4090	635	680
32	4650	723	774



- Tower cranes
- Crawler cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 34K

multistrand non-rotating wire ropes with compacted outer strands

EN 12385-4 construction 37(W)xK7

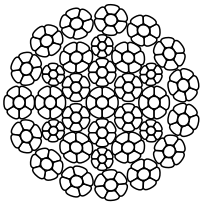
Construction

18x7 (1+6) + 12x7 (1+6) + 6x7 (1+6) + 1x7 (1+6)

Advantages

- high flexibility
- high strength
- reduced friction between outer wires in strands and pulley groove surface
- rotation resistance

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²	
		1960	2160
		Minimum breaking load, kN	
16	1310	206	227
17	1470	232	256
18	1650	260	287
19	1840	290	320
20	2040	321	354
21	2250	354	391
22	2470	389	429
23	2700	425	468
24	2940	463	510
25	3190	502	554
26	3450	543	599
27	3720	586	646
28	4000	630	694
29	4290	676	745
30	4590	723	797
31	4900	722	851
32	5220	823	907



- Tower cranes
- Crawler cranes
- Pile-driver

Industry-based solution **Anaconda**

Anaconda 431

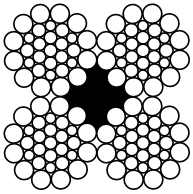
4-strand wire ropes for suspended platforms

Construction

4x31(1+6+6/6+12) + 1 fiber core (4x31WS-FC)

Wire rope designed for suspended platforms (cradles) used for lifting people and cargos during facade construction works.

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
8.3	260	39.4	43.6	48.1
10.2	393	64.8	71.6	79



■ Suspended platforms

Industry-based solution **Anaconda**

Rotation resistance

Anaconda multi-strand ropes are produced using a special technology in which the inner and outer strands are twisted in opposite directions.

This creates a balancing effect and the rope does not rotate even when the load is lifted to a great height.

A large number of strands makes the rope flexible and elastic, which makes it more convenient to use.

Cut-to-length

Severstal Wire Ropes offers its customers a service of cutting ropes to certain lengths. We work with any lengths and volumes.

Rope cutting options:

- Disk cutter
- Electrohydraulic cutter
- Annealing and shaping of a tapered wire rope end

Before cutting, a rope is tied in order to prevent unraveling and unwinding.

Wire rope termination

We produce and supply all types of rope fittings.

We supply ropes as finished products of the required length.

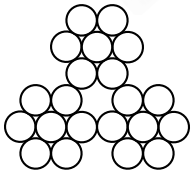
In addition to standard products, we offer our clients custom engineering of end fittings by our own or customer's design.

- Wire ropes for road infrastructure
- Wire ropes for marine industry
- Full locked coil ropes
- Spiral wire ropes
- General purpose ropes

Wire ropes for road barriers

Construction

3x7(1+6)



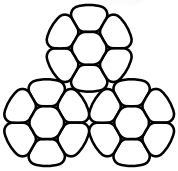
Specifications

Diameter, mm	Weight of 1000 m, kg	Elastic modulus, kN/mm², min	Rope grade, N/mm²	
			1270	1370
			Minimum breaking load, kN	
19.0	1200	155	160	173

Compacted wire ropes for road barriers

Construction

3xK7(1+6)



Specifications

Diameter, mm	Weight of 1000 m, kg	Elastic modulus, kN/mm², min	Rope grade, N/mm²	
			1270	1370
			Minimum breaking load, kN	
19.0	1280	167	165	179

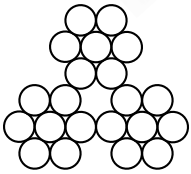
3-strand wire ropes

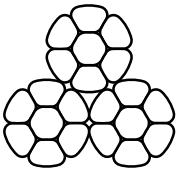
Construction

3x7(1+6)

Specifications

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1670	1770
		Minimum breaking load, kN		
Configuration 1 - without compaction				
8.2	227	37	40	42
12.0	490	80	85	89
Configuration 2 - with compacted strands				
8.2	266	44	47	49
12.0	566	94	100	104

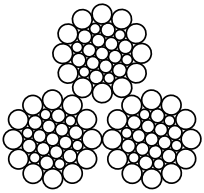




3-strand wire ropes for fishing

Construction

3x31(1+6+6/6+12)



Specifications

Diameter, mm	Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770/1570	1770
		Minimum breaking load, kN		
12	524	81.0	85.3	91.3
14	694	107	113	121
16	912	141	148	159
18	1150	178	188	201
20	1420	220	232	248
22	1720	266	280	300
24	2060	319	336	360
26	2400	371	391	418
28	2790	431	455	486
30	3210	496	521	559
32	3670	568	598	640
34	4100	633	668	714
36	4620	714	753	806
38	5120	791	833	-
40	5760	891	940	-
44	6960	1077	1134	-

6-strand wire ropes with compacted outer strands

Construction

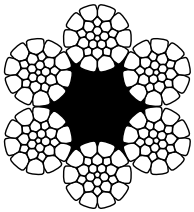
6x26(1+5+5/5+10)+6x7(1+6)+1x7(1+6)

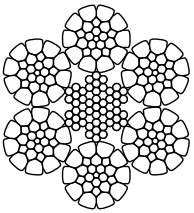
Advantages

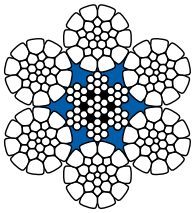
- corrosion prevention
- low wear
- lubricant removal prevention
- reliable
- high strength

Specifications

Diameter, mm	Rope with fiber core				Rope with metal core. Rope with metal core and plastic coated core.			
	Weight of 1000 m, kg	Rope grade, N/mm²			Weight of 1000 m, kg	Rope grade, N/mm²		
		1570	1770	1960		1570	1770	1960
		Minimum breaking load, kN				Minimum breaking load, kN		
16	1060	144	162	180	1160	160	181	200
18	1320	179	202	224	1460	201	227	251
20	1630	222	251	277	1790	248	279	309
21	1830	248	280	310	2010	277	312	345
22	1990	271	306	338	2200	303	342	378
23	2180	297	335	371	2380	329	371	411
24	2370	322	363	402	2590	358	404	447
25	2580	352	396	439	2830	392	441	489
26	2790	380	429	475	3050	422	476	527
27	3010	411	463	513	3300	458	516	571
28	3260	446	502	556	3580	497	560	620
29	3450	471	531	588	3800	527	594	658
30	3740	510	575	637	4090	567	639	707
31	3940	537	606	671	4320	599	675	748
32	4240	580	654	724	4660	646	729	807
33	4460	610	687	761	4870	677	763	845
34	4780	653	736	815	5220	725	818	906
35	4990	682	769	852	5480	760	857	949
36	5340	731	824	912	5850	813	916	1015
38	5960	816	920	1018	6550	909	1025	1135
40	6610	905	1021	1130	7240	1006	1134	1256
42	7280	999	1126	1247	7990	1112	1254	1388
44	7970	1092	1231	1363	8750	1217	1372	1520







Full locked coil ropes

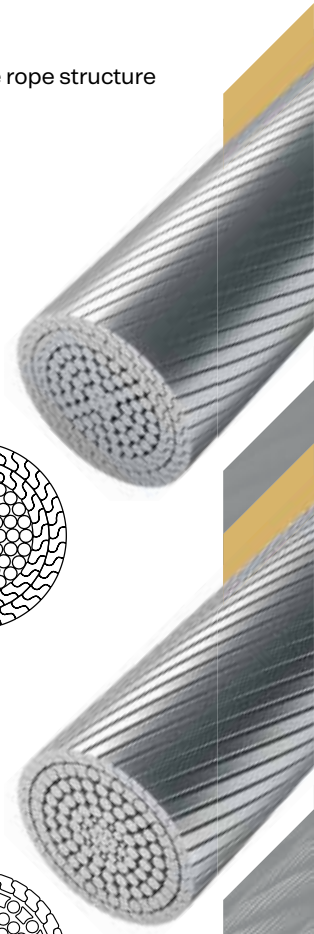
Full locked coil rope is a multiple helically twisted wires, as a classic wire rope core, and 1 or more layers of profiled Z-shaped wires on top, as outer strands.

The interlocking Z-shaped wires prevent the rope from moisture and dust getting inside.

The cable voids on the inside are filled with blocking compound, which reduces the impact of steel-steel contact, and adds a further barrier against corrosion.

Advantages

- The ability of outer Z-profiled wires to keep each other inside the rope structure
- Minimum elastic and residual elongations during operation
- Maximum bearing surface



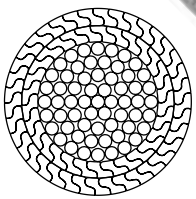
Locked coil ropes for cableways

Examples of construction

1+6;6+12+18+21z+27z;
1+6+12+18+23z+29z.

Examples of diameters

45.0; 60.0 mm.



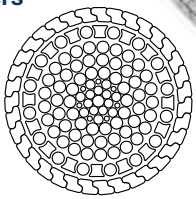
Locked coil ropes for mine shafts

Examples of construction

1+8+8+8/8+16+22+15x/15o+41z;
1+8+8+8/8+16+20+25+18x/18o+45z.

Examples of diameters

33.0; 37.0 mm.



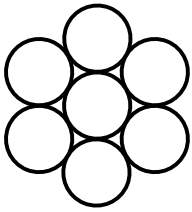
For more information about required diameters and constructions, please contact us.

Spiral wire ropes 1x7

EN 12385-10

Specifications

Diameter, mm	Weight of 100 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
3	4.4	7.49	8.45	9.35
4	7.82	13.3	15	16.6
5	12.2	20.8	23.5	26
6	17.6	30	33.8	37.4
7	24	40.8	46	50.9
8	31.3	53.3	60.1	66.5
9	39.6	67.4	76	84.2
10	48.9	83.2	-	-
11	59.2	101	-	-
12	70.4	120	-	-
13	82.6	141	-	-
14	95.8	163	-	-

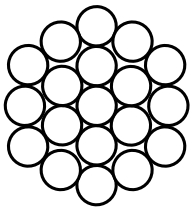


Spiral wire ropes 1x19

EN 12385-10

Specifications

Diameter, mm	Weight of 100 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
5	12.1	20.6	23.3	25.8
6	17.5	29.7	33.5	37.1
7	23.8	40.5	45.6	50.5
8	31	52.8	59.6	66
9	39.3	66.9	75.4	83.5
10	48.5	82.6	93.1	103
11	58.7	99.9	113	125
12	69.8	119	134	148
13	82	140	157	174
14	95.1	162	182	202
16	124	211	-	-
18	157	268	-	-
19	175	298	-	-
20	194	330	-	-
22	235	400	-	-

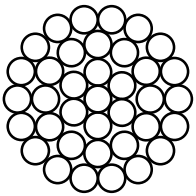


Spiral wire ropes 1x37

EN 12385-10

Specifications

Diameter, mm	Weight of 100 m, kg	Rope grade, N/mm²		
		1570	1770	1960
		Minimum breaking load, kN		
6	17.4	29	32.7	36.2
7	23.7	39.5	44.5	49.3
8	31	51.5	58.1	64.3
9	39.2	65.2	73.5	81.4
10	48.4	80.5	90.8	101
11	58.5	97.4	110	122
12	69.7	116	131	145
13	81.7	136	153	170
14	94.8	158	178	197
16	124	206	232	257
18	157	261	294	326
20	193	322	363	402
22	234	390	439	486
24	279	464	-	-
26	327	544	-	-
28	379	631	-	-
29	407	677	-	-
30	435	725	-	-
32	495	824	-	-



Wire ropes 6x7

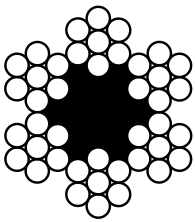
EN 12385-4

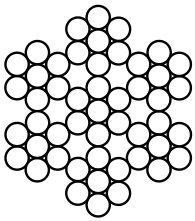
Construction

6x7 FC: 6x7(1+6)+FC
6x7 WSC: 6x7(1+6)+1x7(1+6)

Specifications

Dia-meter, mm	FC			WSC		
	Weight of 100 m, kg	Rope grade,N/mm²		Weight of 100 m, kg	Rope grade,N/mm²	
		1770	1960		1770	1960
		Minimum breaking load, kN			Minimum breaking load, kN	
6	12.4	21.2	23.4	13.8	22.9	25.3
7	16.9	28.8	31.9	18.8	31.1	34.5
8	22.1	37.6	41.6	24.6	40.7	45
9	27.9	47.6	52.7	31.1	51.5	57
10	34.5	58.8	65.1	38.4	63.5	70.4
11	41.7	71.1	78.7	46.5	76.9	85.4
12	49.7	84.6	93.7	55.3	98.9	110
13	58.3	99.3	110	64.9	116	129
14	67.6	115	128	75.3	135	149
15	77.6	132	146	86.4	155	171
16	88.3	150	167	98.3	176	194
18	112	190	211	124	222	246
19	125	212	235	139	248	275
20	138	235	260	154	275	304
22	167	284	315	186	332	368
24	199	338	375	221	366	405
26	233	397	440	260	430	476
28	270	461	510	301	498	552
32	353	602	666	393	651	721
36	447	762	843	498	824	912
40	552	940	1040	-	-	-





Wire ropes 6x19S

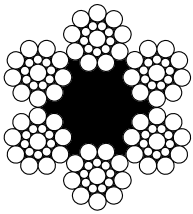
EN 12385-4

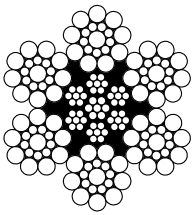
Construction

6x19S FC: 6x19(1+9+9)+FC
6x19S IWRC: 6x19(1+9+9)+6x7(1+6)+1x7(1+6)

Specifications

Dia-meter, mm	FC			IWRC			
	Weight of 100 m, kg	Rope grade,N/mm²		Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960		1770	1960	2160
		Minimum breaking load, kN			Minimum breaking load, kN		
6	12.9	21	23.3	14.4	22.7	25.1	27.7
7	17.6	28.6	31.7	19.6	30.9	34.2	37.7
8	23	37.4	41.4	25.6	40.3	44.6	49.2
9	29.1	47.3	52.4	32.4	51	56.5	62.3
10	35.9	58.4	64.7	40	63	69.8	76.9
11	43.3	70.7	78.3	48.4	76.2	84.4	93
12	51.7	84.1	93.1	57.6	90.7	100	111
13	60.7	98.7	109	67.6	106	118	130
14	70.4	114	127	78.4	124	137	151
15	80.8	131	146	90	142	157	173
16	91.9	150	166	102	161	179	197
17	104	169	187	116	182	202	222
18	116	189	210	130	204	226	249
19	130	211	233	144	227	252	278
20	144	234	259	160	252	279	308
22	174	283	313	194	305	338	372
23	190	309	342	212	333	369	407
24	207	336	373	230	363	402	443
26	243	395	437	270	426	472	520
28	281	458	507	314	494	547	-
30	323	526	582	360	567	628	-
32	368	598	662	410	645	715	-
35	437	716	792	487	772	855	-
36	465	757	838	518	817	904	-
37	491	800	885	548	863	955	-
38	521	843	934	581	910	1008	-
40	574	935	1040	640	1010	1120	-
44	695	1130	1250	774	1220	1350	-





Wire ropes 6x25F

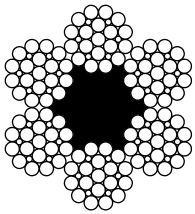
EN 12385-4

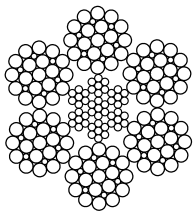
Construction

6x25F FC: 6x25(1+6;6+12)+FC
6x25F IWRC: 6x25(1+6;6+12)+7x7(1+6)

Specifications

Dia-meter, mm	FC				IWRC			
	Weight of 100 m, kg	Rope grade,N/mm²			Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960	2160		1770	1960	2160
		Minimum breaking load, kN				Minimum breaking load, kN		
14	70.4	114	127	140	78.4	124	137	151
16	91.9	150	166	182	102	161	179	197
18	116	189	210	231	130	204	226	249
19	130	211	233	257	144	228	252	278
20	144	234	259	285	160	252	279	308
22	174	283	313	345	194	305	338	372
24	207	336	373	411	230	363	402	443
26	243	395	437	482	270	426	472	520
27	262	426	472	520	292	459	509	561
28	281	458	507	559	314	494	547	603
30	323.1	526	582	-	360	567	628	-
31	345	561	622	-	384	606	671	-
32	368	598	662	-	410	645	715	-
36	465	757	838	-	518	817	904	-
40	574	935	1040	-	640	1010	1120	-
44	695	1130	1250	-	774	1220	1350	-
48	827	1350	1490	-	922	1450	1610	-
52	971	1580	1750	-	1080	1700	1890	-
54	1047	1703	-	-	1166	1837	-	-





Wire ropes 6x29F

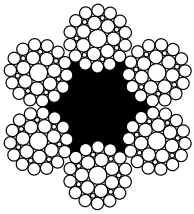
EN 12385-4

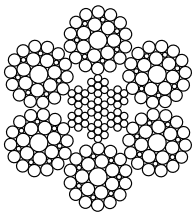
Construction

6x29F FC: 6x29(1+7;7+14)+ FC
6x29F IWRC: 6x29(1+7;7+14)+6x7(1+6)+1x7(1+6)

Specifications

Diameter, mm	FC				IWRC			
	Weight of 100 m, kg	Rope grade,N/mm²			Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960	2160		1770	1960	2160
		Minimum breaking load, kN				Minimum breaking load, kN		
18	119	189	210	231	133	204	226	249
22	178	283	313	345	198	305	338	372
22.4	184	293	325	358	205	316	350	386
23.1	196	312	345	380	218	336	372	410
25	229	365	404	446	256	394	436	481
28	288	458	507	559	321	494	547	603
29.4	317	505	559	616	354	545	603	665
31.5	364	580	642	707	406	625	692	763
35.5	463	736	815	-	515	794	879	-
37	502	780	885	-	560	863	955	-
37.1	505	804	890	-	563	867	960	-





Wire ropes 6x19W

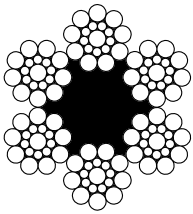
EN 12385-4

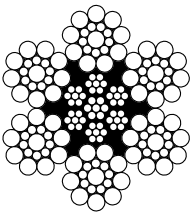
Construction

6x19W FC: 6x19(1+6+6/6)+FC
6x19W EPSFC: 6x19(1+6+6/6)+EPSFC (fiber core with polymer coating)
6x19W IWRC: 6x19(1+6+6/6)+6x7(1+6)+1x7(1+6)

Specifications

Diameter, mm	FC / EPSFC				IWRC			
	Weight of 100 m, kg	Rope grade,N/mm²			Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960	2160		1770	1960	2160
		Minimum breaking load, kN				Minimum breaking load, kN		
6	12.9	21	23.3	25.6	14.4	22.7	25.1	27.7
7	17.6	28.6	31.7	34.9	19.6	30.9	34.2	37.7
8	23	37.4	41.4	45.6	25.6	40.3	44.7	49.2
9	29.1	47.3	52.4	57.7	32.4	51	56.5	62.3
10	35.9	58.4	64.7	71.3	40	63	69.8	76.9
11	43.3	70.7	78.3	86.2	48.4	76.2	84.4	93
12	51.7	84.1	93.1	102	57.6	90.7	100	111
13	60.7	98.7	109	120	67.6	106	118	130
14	70.4	114	127	140	78.4	124	137	151
15	80.8	131	145	160	90	142	157	173
16	91.9	150	166	197	102	161	179	197
18	116	189	209	231	130	204	226	249
20	144	233	258	285	160	252	279	307
21	159	258	285	314	182	278	308	339
22	174	282	313	345	194	305	337	372
24	207	336	373	411	230	363	402	443
26	243	395	437	482	270	426	472	520
28	281	458	507	559	314	494	547	603
32	368	598	662	-	410	645	715	-
36	465	757	838	-	518	817	904	-
38	518	845	935	-	578	910	1007	-
40	574	935	1040	-	640	1010	1120	-
42	633	1030	1141	-	706	1111	1231	-
44	695	1130	1250	-	744	1220	1350	-
48	827	1350	1490	-	922	1450	1610	-
52	971	1580	1750	-	1080	1700	1890	-
54	1047	1703	-	-	1166	1837	-	-
56	1130	2100	-	-	1250	2510	-	-





Wire ropes 6x26WS

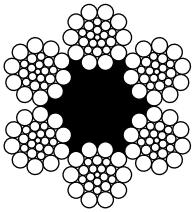
EN 12385-4

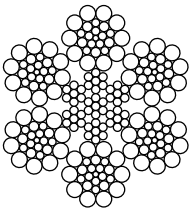
Construction

6x26WS FC: 6x26(1+5+5/5+10)+FC
6x26WS IWRC: 6x26(1+5+5/5+10)+6x7(1+6)+1x7(1+6)

Specifications

Dia-meter, mm	FC			IWRC			
	Weight of 100 m, kg	Rope grade,N/mm²		Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960		1770	1960	2160
		Minimum breaking load, kN			Minimum breaking load, kN		
10	35.9	58.4	64.7	40	63	69.8	76.9
11	43.3	70.7	78.3	48.4	76.2	84.4	93
12	51.7	84.1	93.1	57.6	90.7	100	111
13	60.7	98.7	109	67.6	106	118	130
14	70.4	114	127	78.4	124	137	151
15	80.8	131	146	90	142	157	173
16	91.9	150	166	102	161	179	197
17	104	169	187	116	182	202	222
18	116	189	210	130	204	226	249
19	130	211	233	144	227	252	278
20	144	234	259	160	252	279	308
22	174	283	313	194	305	338	372
23	190	309	342	212	333	369	407
24	207	336	373	230	363	402	443
26	243	395	437	270	426	472	520
28	281	458	507	314	494	547	-
32	368	598	662	410	645	715	-
36	465	757	838	518	817	904	-
40	574	935	1040	640	1010	1120	-
44	695	1130	1250	774	1220	1350	-





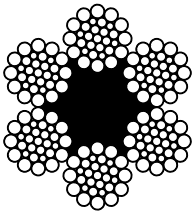
Wire ropes 6x31WS

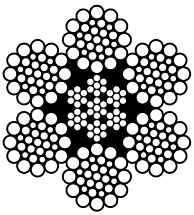
EN 12385-4

Construction

6x31WS FC: 6x31(1+6+6/6+12)+FC
6x31WS IWRC: 6x31(1+6+6/6+12)+7x7

Dia-meter, mm	FC			IWRC			
	Weight of 100 m, kg	Rope grade,N/mm²		Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960		1770	1960	2160
		Minimum breaking load, kN			Minimum breaking load, kN		
10	36.7	58.4	64.7	40.9	63	69.8	76.9
11	44.4	70.7	78.3	49.5	78.3	84.4	93
12	52.8	84.1	93.1	58.9	90.7	100	111
13	62	98.7	109	69.1	106	118	130
14	71.9	114	127	80.2	124	137	151
15	82.6	131	145	92	142	157	173
16	94	150	166	105	161	179	197
17	106	169	187	118	182	201	222
18	119	189	210	133	204	226	249
19	133	211	233	148	227	252	278
20	147	234	259	164	252	279	308
21	162	257	285	180	278	308	339
22	178	283	313	198	305	338	372
23	194	309	342	216	333	369	407
24	211	336	373	236	363	402	443
25	229	365	404	256	394	436	480
26	248	395	437	276	426	472	520
27	268	426	471	298	459	508	560
28	288	458	507	321	494	547	603
29	309	491	544	344	530	587	647
30	330	526	582	368	567	628	692
31	353	561	621	393	605	670	739
32	376	598	662	419	645	714	787
33	400	636	704	445	686	760	837
34	424	675	748	473	728	807	889
35	450	715	792	501	772	855	-
36	476	757	838	530	817	904	-
37	502	800	885	560	863	955	-
38	530	843	934	591	910	1010	-
39	558	888	984	622	958	1060	-
40	587	935	1040	654	1010	1120	-
42	647	1030	1140	722	1110	1230	-
44	711	1130	1250	792	1220	1350	-
45	743	1180	1310	828	1270	1410	-
46	777	1230	1370	865	1330	1470	-
48	846	1350	1490	942	1450	1610	-
50	918	1460	1620	1020	1570	1740	-
52	992	1580	1750	1110	1700	1890	-
54	1070	1700	1890	1190	1840	2030	-
56	1150	1830	-	1280	1980	-	-
58	1230	1960	-	1380	2120	-	-
60	1320	2100	-	1470	2270	-	-
62	1410	2240	-	1570	2420	-	-
63	1460	2320	-	1620	2500	-	-
64	1500	2390	-	1680	2580	-	-





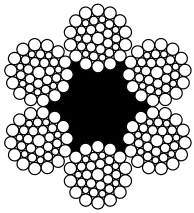
Wire ropes 6x36WS

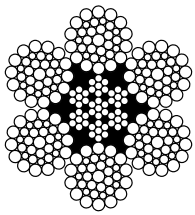
EN 12385-4

Construction

6x36WS FC: 6x36(1+7+7/7+14)+FC
6x36WS IWRC: 6x36(1+7+7/7+14)+7x7(1+6)
6x36WS EPIWRC: 6x36(1+7+7/7+14)+EP[7x7(1+6)]
(independent wire rope core with polymer coating)

Diameter, mm	FC				IWRC, EPIWRC				
	Weight of 100 m, kg	Rope grade,N/mm²			Weight of 100 m, kg	Rope grade,N/mm²			
		1770	1860	1960		1770	1860	1960	2160
		Minimum breaking load, kN				Minimum breaking load, kN			
10	36.7	58.4	61.4	64.7	40.9	63	66.2	69.8	76.9
11	44.4	70.7	74.3	78.3	49.5	78.3	80.1	84.4	93
12	52.8	84.1	88.4	93.1	58.9	90.7	95.4	100	111
13	62	98.7	104	109	69.1	106	112	118	130
14	71.9	114	120	127	80.2	124	130	137	151
15	82.6	131	138	145	92	142	149	157	173
16	94	150	157	166	105	161	170	179	197
17	106	169	177	187	118	182	191	201	222
18	119	189	199	210	133	204	215	226	249
19	133	211	222	233	148	227	239	252	278
20	147	234	246	259	164	252	265	279	308
21	162	257	271	285	180	278	292	308	339
22	178	283	297	313	198	305	320	338	372
23	194	309	324	342	216	333	350	369	407
24	211	336	354	373	236	363	381	402	443
25	229	365	383	404	256	394	414	436	480
26	248	395	415	437	276	426	448	472	520
27	268	426	447	471	298	459	483	508	560
28	288	458	481	507	321	494	519	547	603
29	309	491	516	544	344	530	557	587	647
30	330	526	552	582	368	567	596	628	692
31	353	561	590	621	393	605	636	670	739
32	376	598	629	662	419	645	678	714	787
33	400	636	668	704	445	686	721	760	837
34	424	675	710	748	473	728	765	807	889
35	450	715	752	792	501	772	811	855	-
36	476	757	795	838	530	817	858	904	-
37	502	800	840	885	560	863	906	955	-
38	530	843	886	934	591	910	956	1010	-
39	558	888	934	984	622	958	1010	1060	-
40	587	935	982	1040	654	1010	1060	1120	-
42	647	1030	1080	1140	722	1110	1170	1230	-
44	711	1130	1190	1250	792	1220	1280	1350	-
45	743	1180	1240	1310	828	1270	1340	1410	-
46	777	1230	1300	1370	865	1330	1400	1470	-
48	846	1350	1410	1490	942	1450	1520	1610	-
50	918	1460	1530	1620	1020	1570	1650	1740	-
52	992	1580	1660	1750	1110	1700	1790	1890	-
54	1070	1700	1790	1890	1190	1840	1930	2030	-
56	1150	1830	1920	-	1280	1980	2080	-	-
58	1230	1960	2060	-	1380	2120	2230	-	-
60	1320	2100	2210	-	1470	2270	2380	-	-
62	1410	2240	2360	-	1570	2420	2540	-	-
63	1460	2320	-	-	1620	2500	-	-	-
64	1500	2390	-	-	1680	2580	-	-	-





Wire ropes 6x19M

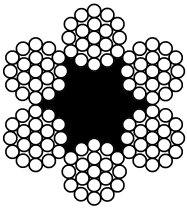
EN 12385-4

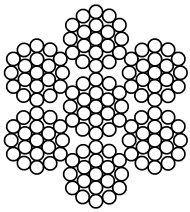
Construction

6x19M FC: 6×19(1+6+12)+FC
6x19M WSC: 6×19(1+6+12)+1×19(1+6+12)

Specifications

Dia-meter, mm	FC				WSC			
	Weight of 100 m, kg	Rope grade,N/mm²			Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960	2160		1770	1960	2160
		Minimum breaking load, kN				Minimum breaking load, kN		
6	12.5	19.6	21.7	23.9	13.7	23.1	25.5	28.1
7	17	26.6	29.5	32.5	18.7	31.4	34.8	38.3
8	22.1	34.8	38.5	42.4	24.4	41	45.4	50
9	28	44	48.7	53.7	30.9	51.9	57.5	63.3
10	34.6	54.3	60.2	66.3	38.1	64.1	71	78.2
11	41.9	65.8	72.8	80.2	46.1	77.5	85.9	94.6
12	49.8	78.2	86.6	95.5	54.9	92.3	102	113
13	58.5	91.8	102	112	64.4	108	120	132
14	67.8	107	118	130	74.7	126	139	153
15	77.9	122	135	149	85.7	144	160	176
16	88.6	139	154	170	97.5	164	182	200
18	112	176	195	215	123	208	230	253
20	138	217	241	265	152	256	284	313
22	167	263	291	321	184	310	343	378
24	199	313	347	382	219	369	409	450
26	234	367	407	-	258	433	480	-
28	271	426	472	-	299	502	556	-





Wire ropes 6x37M

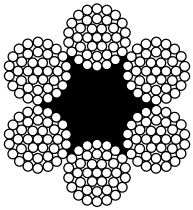
EN 12385-4

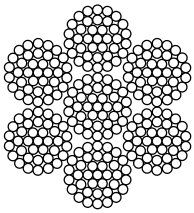
Construction

6x37M FC: 6×37(1+6+12+18)+FC
6x37M WSC: 6×37(1+6+12+18)+7x7(1+6)

Specifications

Dia-meter, mm	FC			WSC			
	Weight of 100 m, kg	Rope grade,N/mm²		Weight of 100 m, kg	Rope grade,N/mm²		
		1770	1960		1770	1960	2160
		Minimum breaking load, kN			Minimum breaking load, kN		
24	199	301	333	219	369	409	450
26	234	353	391	258	433	480	-
28	271	409	453	299	502	556	-
30	311	470	520	342	551	610	-
32	354	535	592	390	627	694	-
36	448	677	749	493	794	879	-
38	500	754	835	550	884	979	-
40	554	835	925	609	980	1085	-
44	670	1011	1119	737	1186	1313	-
48	797	1203	1332	877	1411	1562	-



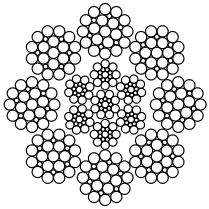


Wire ropes 8x25F

EN 12385-4

Construction

8x25F IWRC: 8x25(1+6;6+12)+6x17(1+8+8)+1x17(1+8+8)
8x25F EPIWRC: 8x25(1+6;6+12)+EP [6x17(1+8+8)+1x17(1+8+8)]
(independent wire rope core with polymer coating)



Specifications

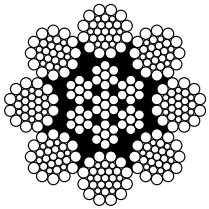
Diameter, mm	Weight of 100 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
18	132	204	226	249
19	147	227	252	278
21	179	278	308	339
22	197	305	338	372
24	234	363	402	443
30	366	567	628	692
31	391	606	671	739
32	417	645	715	787
34	470	728	807	889
37	557	863	955	-
38	588	910	1010	-
40	651	1010	1120	-
42	718	1110	1230	-

Wire ropes 8x31WS

EN 12385-4

Construction

8x31WS IWRC: 8x31(1+6+6/6+12)+7x19(1+9+9)



Specifications

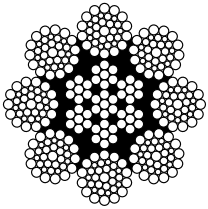
Diameter, mm	Weight of 100 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
20	167	252	279	308
22	202	305	338	372
24	240	363	402	443
26	282	426	472	520
28	327	494	547	603
32	427	645	715	787
36	540	817	904	997
40	667	1010	1120	1230
44	807	1220	1350	1490
48	961	1450	1610	1770
52	1130	1700	1890	2080
56	1310	1980	2190	2410
60	1500	2270	2510	2770
48	961	1450	1610	1770
52	1130	1700	1890	2080
56	1310	1980	2190	2410
60	1500	2270	2510	2770

Wire ropes 8x36WS

EN 12385-4

Construction

8x36WS IWRC: 8x36(1+7+7/7+14)+6x19(1+9+9)+1x19(1+9+9)



Specifications

Diameter, mm	Weight of 100 m, kg	Rope grade, N/mm²		
		1770	1960	2160
		Minimum breaking load, kN		
20	167	252	279	308
22	202	305	338	372
24	240	363	402	443
25	260	394	436	480
26	282	426	472	520
28	327	494	547	603
32	427	645	715	787
36	540	817	904	997
38	602	910	1008	1110
39	634	958	1061	1169
40	667	1010	1120	1230
42	736	1112	1231	1356
44	807	1220	1350	1490
48	961	1450	1610	1770
52	1130	1700	1890	2080
56	1310	1980	2190	2410
60	1500	2270	2510	2770

Service center

Our experience shows that the more accurately the rope is selected, the longer its service life is. The specialists of the service center have already helped dozens of customers in the selection and maintenance of ropes on various equipment: from cranes to drilling platforms.

When working with a new object, they take into account many aspects: scope of use, equipment features, operating conditions, etc.

To ensure the durability of ropes, the specialists of the service center provide the following services:

- Rope selection for specific operating conditions.
- Consultations on the features of the application, mounting and operation of ropes.
- Development of special rope construction (together with the Technological department).
- Supply of experimental batches of products.
- Selection of the end fittings and fasteners.
- Technical support of the rope installation.
- Rope running time monitoring and warranty period calculation.
- Organization of seminars.

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Severstal Metiz

Services

Tests

Rotation resistance

Testing samples are loaded with up to 5% MBL creating conditions similar to those that occur when the rope is pulled during rope installation in order to define the number of turns. Standardized value shall not exceed 0.75 turns. This rotation rate will not have negative effect on performance properties.

Elongation

Testing sample is loaded with 3 – 8.5% MBL.
Linear deformation of wire rope section under the load (structural elongation) as well as linear deformation under no load (elastic elongation) are evaluated after 10 cycles of load.

Fatigue life

Fatigue testing includes calculating the number of broken wires appearing after 600 000 cycles of reverse bending as well as determining the number of cycles necessary for failure (wire rope break).

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Magnetic non-destructive testing

During production

During operation

- Only instrumental non-destructive testing can give a full assessment of the degree of damage and residual life of the rope.
- Non-destructive testing allows to detect the loss of the section of the rope, external and internal local damages and their location.
- Magnetic non-destructive testing is used in industries such as metallurgy, mining, cableways, elevators, cable-stayed bridges.

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Prestretching

Prestretching is a service that allows to minimize the residual elongation of the rope arising during its lifespan.

We use a special equipment which provides a load applied on a rope that simulates the working process on the client's equipment. All the granulations and deformations occurred in product during its manufacturing disappears after such operation. Prestretching also provides even load distribution.

Prestretching reduces the cost of putting the rope into operation, because in this case, there is no need to carry out a long preliminary running-in of the rope coming from its fitting, shortening and pulling.

Dynamic stretching for mid-diameters **Ø 15-35 mm**

Static stretching for big diameters **Ø 19-90 mm**

- Lower residual elongation
- Higher modulus of elasticity
- Low torque
- Efficient performance

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Relubrication

During operation, rope lubrication loses its properties. In order to prevent premature failure of a rope, it should be lubricated periodically, uniformly distributing the lubricant over the entire surface of the product.

We offer our customers wire rope relubrication service.

Our specialists select the necessary lubricant, visit the production site and re-lubricate the wire rope on the client's equipment.

Cut-to-length

Severstal Wire Ropes offers its customers a service of cutting ropes to certain lengths. We work with any lengths and volumes.

Rope cutting options:

- Disk cutter
- Electrohydraulic cutter
- Annealing and shaping of a tapered wire rope end

Before cutting, a rope is tied in order to prevent unraveling and unwinding.

Rewinding of ropes onto drums and into coils

Rewinding a rope of a required measured length is the final operation after cutting. Specialists of our company can rewind a required length of a rope for the client on special equipment in a short time.

The dimensions of the drums fully comply with the requirements of the standards applied to them. Coil packing is carried out by special equipment using steel strap.

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Wire rope termination

We produce and supply all types of rope fittings. We supply ropes as finished products of the required length. In addition to standard products, we offer our clients custom engineering of end fittings by our own or customer's design.

Slings

We suply all types of slings: wire rope slings, chain slings, textile slings.

Rope slings
Steel rope slings are a reliable lifting device that is resistant to sudden dynamic loads. Rope slings are manufactured in two versions: by braiding and crimping with an aluminum ferrule.

Chain sling
The reliability and unpretentiousness of chain slings allows them to be used everywhere. Every industry needs them: construction, metallurgy, mining and machine tool production.

Textile sling
Textile slings are made of woven textile materials and are intended for flexible connection with the load when performing loading and unloading operations, lifting and transporting goods by cranes.

Product tests

Our production sites are operating state-of-the-art equipment to check the quality of products: wire ropes, wire rope products and any types of slings. The test stand is designed for tensile tension and rupture tests under the load of up to 500 tons.
It allows products to be tested and quality certificate to be issued.
We hold all the necessary licenses authorizing use of wire ropes and slings.

Developing new products

We develop non-standard load lifting equipment and components to suit the customer's specific project. The products that we have designed are authorized by all the appropriate quality certificates.

Additional services

- Wire rope termination
- Finished product testing
- Developing new products
- Product packing

Content

Steel wire ropes

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