

苏阳钢绳

SUYANG WIRE ROPE

- 

Protective equipment
防护装备
- 

Medical device
医疗器械
- 

Construction project
建设工程
- 

Facility pull
设备牵引
- 

Auto parts
汽车配件

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SUYANG WIRE ROPE



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泰州市苏阳不锈钢丝绳有限公司
Taizhou Suyang Stainless Steel Wire Rope Co., LTD



Company profile ▶▶

Taizhou Suyang Stainless Steel Wire Rope Co.,Ltd was established in 2008. The company has more than 20 years of experience in manufacturing stainless steel wire ropes. It has been enterprise of Jiangsu high-tech, Jiangsu private technology and Taizhou high-strength,wear-resistant and corrosion-resistant stainless steel wire rope engineering research center. The annual production capacity reaches 30,000 tons, which is a large manufacturing enterprise of stainless steel wire rope in China.

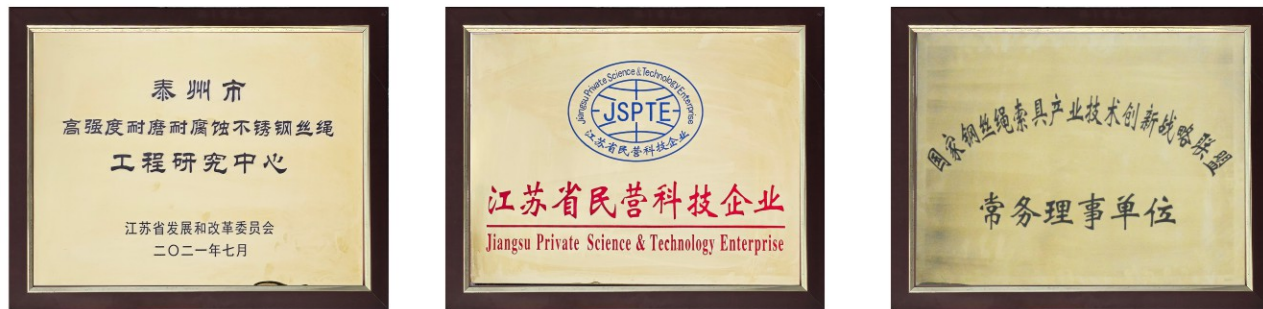
The company has a full-process, multi-brand, full-category and high-quality production system that integrates wire, rope and finished stay product. The products are widely used in automotive, medical, engineering, machinery, marine, new energy, safety protection and other fields.

公司简介 ▶▶

泰州市苏阳不锈钢钢丝绳有限公司成立于2008年。公司拥有20余年的钢丝绳制造经验，为江苏省高新技术企业、江苏省民营科技企业、泰州市高强度耐磨耐腐蚀不锈钢钢丝绳工程研究中心，年生产能力达3万吨，是国内较大型不锈钢钢丝绳生产制造企业。

公司拥有集丝、绳、拉索成品为一体的全流程、多牌号、全品类且高品质的生产体系，产品广泛应用于汽车、医疗、工程、机械、海洋、新能源、安全防护等领域。

资质证书
Qualification certificate



生产设备
Production equipment



检测设备

Testing equipment



盐雾测试机
Salt spray testing machine



荧光光谱仪
Fluorescence spectrometer



光电直读光谱仪
Photoelectric direct reading spectrometer



拉力试验机
Tensile testing machine

场景应用

Scene application



安全防护栏
Safety fence



安全防护网
Safety net



设备牵引
Facility pull



建筑工程
Construction project



汽车配件
Auto parts

质量保障

Quality assurance



1、优质原料

青山钢铁、德龙钢铁、帝斯曼、立昌新材料等。

2、执行标准

不锈钢钢丝绳GB/T 9944-2015

不锈钢钢绞线GB/T 25821-2010

重要用途钢丝绳GB/T 8918-2006

不锈钢丝GB/T 4240-2019

3、品控管理

公司拥有完善的产品质量检测体系及全套先进仪器设备，对原材料入库、加工过程和成品出库实行全流程管控，严格检测。

1.High-quality raw material:

The raw materials from: Tsingshan Steel, Delong Steel, DSM, Lichang New materials and etc.

2.Executive standard:

Stainless steel wire rope of GB/T 9944-2015, Stainless steel strand of GB/T 25821-2010, Steel wire ropes for important purpose of GB/T 8918-2006, Stainless steel wire of GB/T4240-2019.

3.Quality management:

The company has a complete product quality inspection system and a full set of advanced instruments. It implements full-process control and strict testing of raw materials storage, processing and finished products.

不锈钢材质对照表

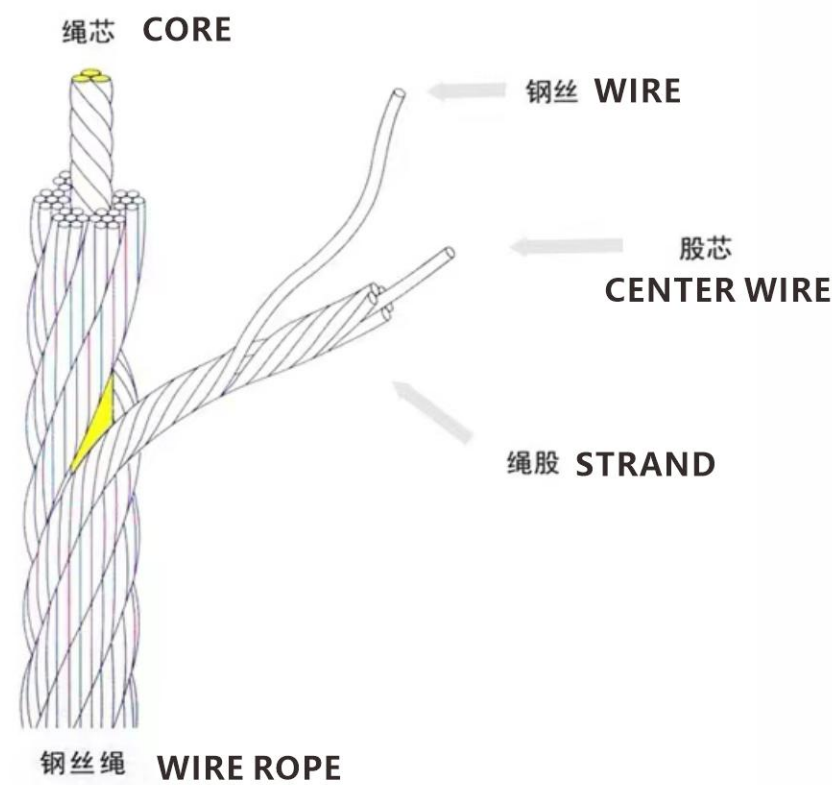
COMPARISON SHEET FOR MATERIAL

序号	中国GB		美国		化学成分%										
	统一 数字代号	牌号	ASTM	UNS	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	N	其他
1	S35350	12Cr17Mn6Ni5N	201	S20100	≤0.15	≤1.00	5.5-7.5	≤0.05	≤0.03	16-18	3.5-5.5	-	-	0.05-0.25	-
2	S35450	12Cr18Mn9Ni5N	202	S20200	≤0.15	≤1.00	7.5-10	≤0.05	≤0.03	17-19	4-6	-	-	0.05-0.25	-
3	S30110	12Cr17Ni7	301	S30100	≤0.15	≤1.00	≤2.00	≤0.045	≤0.03	16-18	6-8	-	-	-	-
4	S30210	12Cr18Ni9	302	S30200	≤0.15	≤1.00	≤2.00	≤0.045	≤0.03	17-19	8-10	-	-	-	-
5	S30408	06Cr19Ni10	304	S30400	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	18-20	8-11	-	-	-	-
6	S30403	022Cr19Ni10	304L	S30403	≤0.03	≤1.00	≤2.00	≤0.045	≤0.03	18-20	8-12	-	-	-	-
7	S30458	06Cr19Ni10N	304N	S30451	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	18-20	8-11	-	-	0.1-0.16	-
8	S30510	10Cr18Ni12	305	S30500	≤0.12	≤1.00	≤2.00	≤0.045	≤0.03	17-19	10.5-13	-	-	-	-
9	S30908	06Cr23Ni13	309S	S30908	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	22-24	12-15	-	-	-	-
10	S31008	06Cr25Ni20	310S	S31008	≤0.08	≤1.50	≤2.00	≤0.045	≤0.03	24-26	19-22	-	-	-	-
11	S31608	06Cr17Ni12Mo2	316	S31600	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	16-18	10-14	2-3	-	-	-
12	S31603	022Cr17Ni12Mo2	316L	S31603	≤0.03	≤1.00	≤2.00	≤0.045	≤0.03	16-18	10-14	2-3	-	-	-
13	S31668	06Cr17Ni12Mo2Ti	316Ti	S31635	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	16-18	10-14	2-3	-	-	Ti:≥5×C
14	S31708	06Cr19Ni13Mo3	317	S31700	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	18-20	11-15	3-4	-	-	-
15	S32168	06Cr18Ni11Ti	321	S32100	≤0.08	≤1.00	≤2.00	≤0.045	≤0.03	17-19	9-12	-	-	-	Ti:5×C-0.7

产品解析

Product analysis

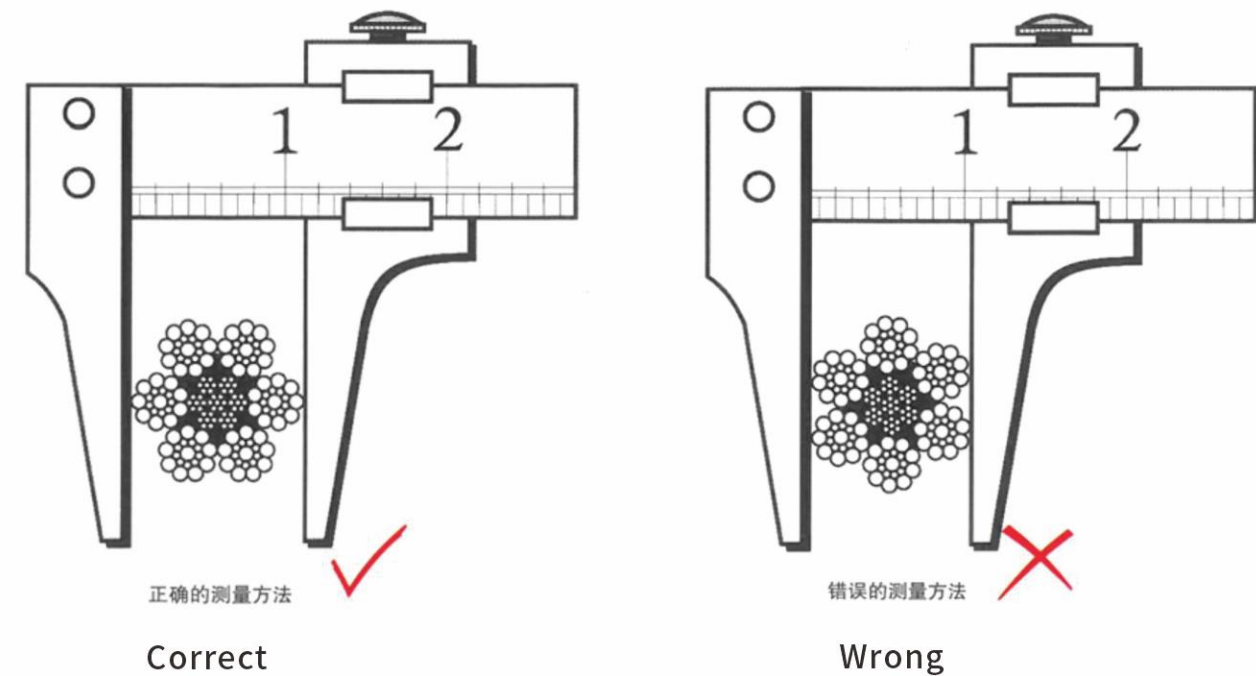
钢丝：将原材料（盘条）冷拉（或轧制）而成的具有一定尺寸的圆钢丝。
 股线：由钢丝按一定规则制成的螺旋状结构，是构成钢丝绳的基本单元。
 绳芯：钢丝绳的中心部分由金属芯（股芯IWSC、绳芯IWRC）、纤维芯（天然纤维芯NFC、合成纤维芯SFC），其主要作用是支撑和降低股线之间的压力。



Steel Wires: A round steel wire with a certain size is formed by cold drawing (or rolling) of the raw material (wire rods).
 Strand: The spiral structure made of steel wire in accordance with certain rules is the basic unit of wire rope.
 Rope Core: The central part of the wire rope is composed of metal core (Strand core IWSC, rope core IWRC), fiber core (natural fiber core NFC, synthetic fibres core SFC), which mainly supports and reduces the pressure between the strands.

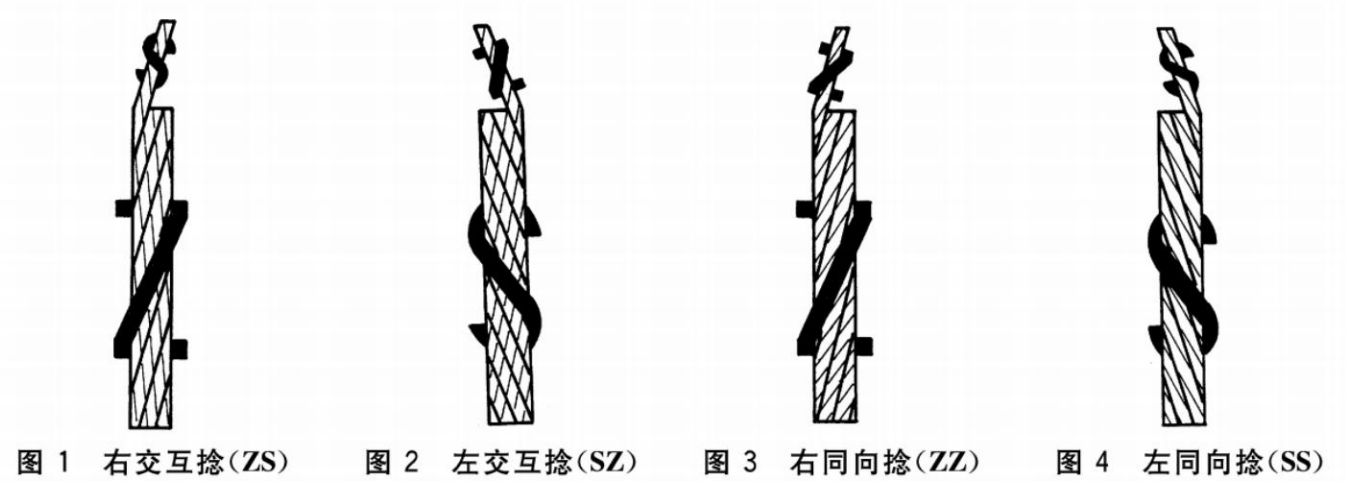
测量方法

Measurement of the Diameter of wire rope:
 The diameter of the stainless steel wire rope encircles of the outer wires and strands including the cross section. The measuring device must touch extreme outer wires of two strands.



钢丝绳捻向

Lay of direction of Wire Rope:



结构与应用

Structure and application

操纵用钢丝绳
Maneuvering wire rope

结构	公称直径/MM	最小破断力/KN		参考重量 (KG/1000M)
		AISI 304 06Cr19Ni10	AISI 316 06Cr17Ni12Mo2	
1×7	0.3	0.093	0.074	0.45
	0.35	0.127	0.102	0.61
	0.4	0.157	0.126	0.80
	0.45	0.200	0.16	1.01
	0.5	0.255	0.231	1.25
	0.6	0.382	0.333	1.80
	0.7	0.540	0.445	2.45
	0.8	0.667	0.588	3.20
	0.9	0.823	0.736	4.05
	1.0	1.00	0.91	5
	1.2	1.27	1.17	7.2
1×19	1.5	2.25	1.81	11.3
	2.0	3.82	3.24	20.0
	2.5	5.58	5.1	31.3
	3.0	8.03	7.31	45.0
	3.5	10.6	9.32	61.3
	4.0	13.9	12.2	80
	5.0	21	17.8	125
	6.0	30.4	25.5	180

结构与应用

Structure and application

防护用钢丝绳
Protective wire rope

结构	公称直径/MM	最小破断力/KN		参考重量 (KG/1000M)
		AISI 304 06Cr19Ni10	AISI 316 06Cr17Ni12Mo2	
7×7(6×7+IWS)	0.8	0.461	0.384	2.56
	1.0	0.637	0.599	4.00
	1.2	1.2	0.915	5.76
	1.5	1.67	1.47	9.00
	1.8	2.25	1.94	12.96
	2.0	2.94	2.55	16.0
	2.5	4.1	3.45	25.0
	3.0	6.37	5.39	35.1
	3.18	7.15	6.14	39.4
	3.5	7.64	6.81	47.8
	4.0	9.51	8.9	62.4
	4.76	12.1	11.3	88.4
	5.0	14.7	13.9	97.5
	6.0	18.6	18.6	140
	8.0	40.6	35.6	250
7×19(6×19+IWS)	1.5	1.63	1.37	9
	2.0	2.94	2.55	16
	2.5	4.1	3.52	25
	3.18	7.85	6.08	39
	4.0	10.7	9.51	62
	4.76	16.5	13.69	88
	5.0	17.4	14.9	98
	6.0	23.5	20.8	140
	6.35	28.5	23.7	157
	8.0	40.1	36.1	250
	9.53	53.4	47.9	354
	10	63	55	390
	12	85.6	75	562
	14	123	108	764
	16	161	142	998
	18	192	169	1264
	20	237	209	1560

结构与应用

Structure and application

牵引用钢丝绳
Traction rope

结构	公称直径/MM	最小破断力/KN	参考重量 (KG/1000M)
		AISI 304 06Cr19Ni10	
6×19S+IWR 6×19W+IWR 6×26WS+IWR 6×31WS+IWR	6	23.9	148
	8	42.6	262
	9	54	332
	10	63	410
	12	85.6	590
	13	106	693
	14	123	804
	16	161	1050
	18	192	1328
	20	237	1640
	22	304	1984
	24	342	2362
	26	401	2772
	28	466	3214
8×19S+IWR 8×19W+IWR 8×26WS+IWR 8×31WS+IWR	30	503	3690
	32	572	4198
	8	42.6	262
	9	54	332
	10	61.2	410
	12	83.3	590
	13	103	693
	14	120	804
	16	156	1050
	18	187	1328
	20	231	1640
	22	296	1984
	24	332	2362
	26	390	2772
	28	453	3214
	30	489	3690
	32	556	4198

结构与应用

Structure and application

建设用钢丝绳
Construction wire rope

结构	公称直径/MM	最小破断力/KN	参考重量 (KG/1000M)
		AISI 304 06Cr19Ni10	
1×19	8	40	320
	9.5	56.4	451
	10	62.5	500
	11	75.7	605
	12	90.1	720
	14	123	980
	16	160	1280
	18	203	1620
1×37	12	85	720
	14	116	980
	16	151	1280
	18	191	1620
	19.5	224	1901
	21	260	2205
	22.5	299	2531
	24	340	2880
19×7	12	74.2	562
	14	101	764
	16	132	998
	18	167	1264
	20	206	1560
	22	249	1888
	24	297	2246
35W×7	16	128	1075
	18	162	1361
	20	200	1680
	22	242	2033
	24	288	2419

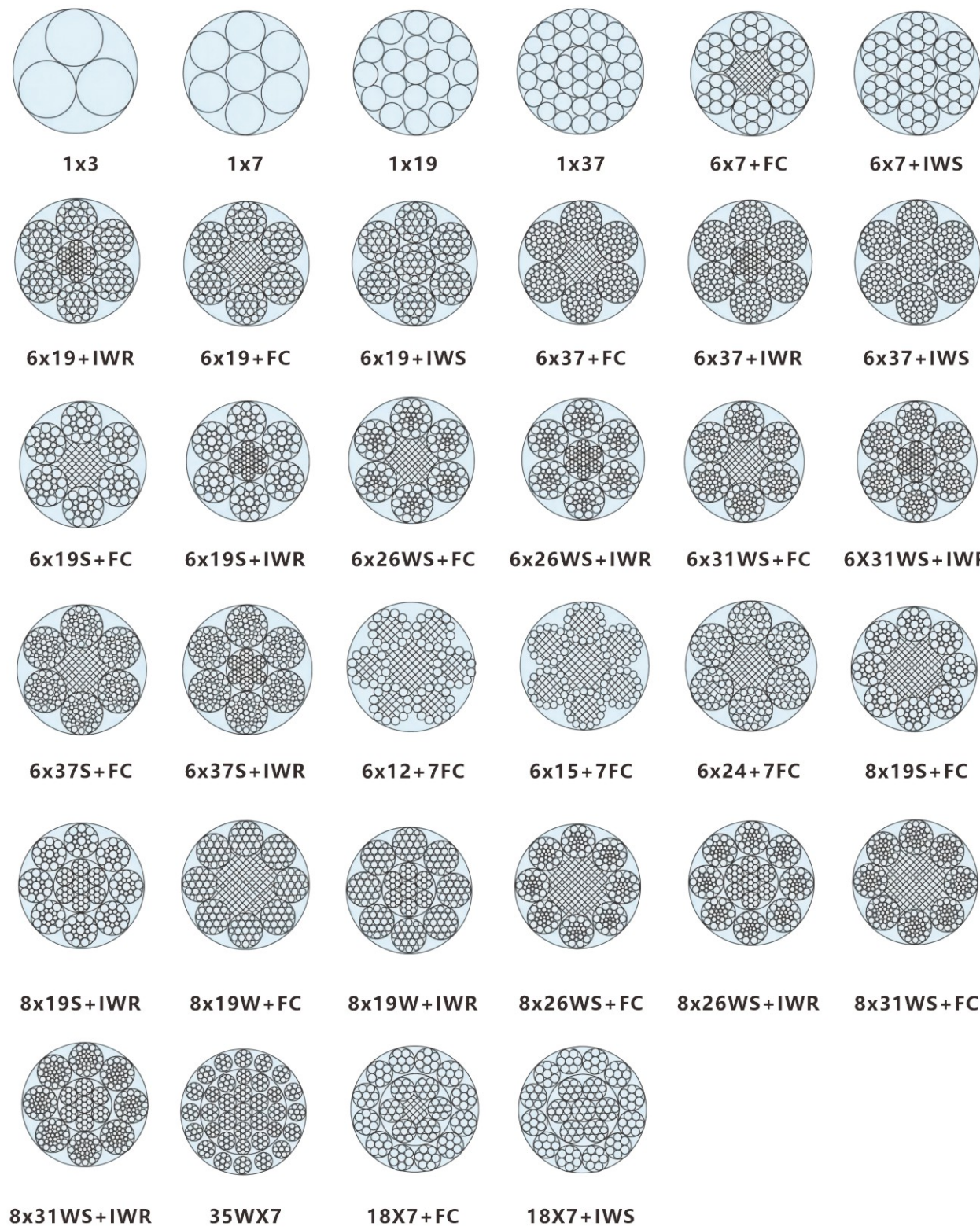
结构与应用
Structure and application

涂塑类钢丝绳
Plastic coated steel wire rope

结构	涂前直径 MM	涂后直径 MM	最小破断力/KN		参考重量 (KG/1000M)
			AISI 304 06Cr19Ni10	AISI 316 06Cr17Ni12Mo2	
1×7	0.60	0.80	0.382	0.333	2.2
	0.80	1.00	0.667	0.588	3.7
	1.00	1.20	1	0.91	5.6
	1.20	1.50	1.32	1.21	8.2
	1.50	2.00	2.26	2.05	13.4
	2.00	2.50	4.02	3.63	22.8
1×19	1.00	1.20	0.95	0.814	5.6
	1.20	1.50	1.27	1.17	8.2
	1.50	2.00	2.25	1.81	13.4
	2.00	2.50	3.82	3.24	22.8
	2.50	3.00	5.58	5.1	34.7
	3.00	4.00	8.03	7.31	53.8
7×7	4.00	5.00	13.9	12.2	91.3
	0.80	1.00	0.461	0.384	3.0
	1.00	1.20	0.637	0.599	4.6
	1.20	1.50	1.2	0.915	6.8
	1.50	2.00	1.67	1.47	11.2
	2.00	2.50	2.94	2.55	18.8
7×19	2.50	3.00	4.1	3.45	28.4
	3.00	4.00	6.37	5.39	44.8
	4.00	5.00	9.51	8.9	75.3
	2.00	3.00	2.94	2.55	22.3
	3.00	4.00	6.37	5.39	44.8
	4.00	5.00	10.7	9.51	75.3
	5.00	6.00	17.4	14.9	113.8
	6.00	8.00	23.5	20.8	179.0
	8.00	10.00	40.1	36.1	301.0
	10.00	12.00	63	55	455.0
	12.00	14.00	85.6	75	641.0
	14.00	16.00	123	108	859.0

涂塑钢丝绳默认透明白色 其他颜色与材料 (NYLON、PVC、PTFE、PE、PU) 均可定制
The regular color of the PVC is clear, but can be customized with other color and material(such as Nylon, PTFE, PE,PU).

结构图示
Structure diagram



钢丝绳使用注意事项

Points for attention in use of steel wire rope

1、储存 Storage

钢丝绳应按照用途分类存放，应放在清洁、无尘、通风、阴凉、干燥、有遮挡的场所，避免接触腐蚀性物质和长时间露天存放。钢丝绳应存放托架上，不应与地面直接接触，防止钢丝绳锈蚀；存放期超过 12 个月，使用前应检查钢丝绳表面质量，输送带、汽车安全带和风电用钢丝绳应保持表面无氧化、无污染，小型起重机用钢丝绳应对油脂出现缺失部分进行涂油防护；储存超过两年，使用前应对钢丝绳性能进行检验确认。

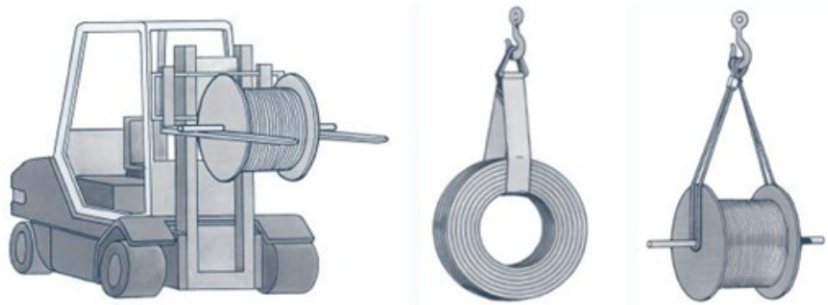
Steel wire rope should be stored in accordance with the use of classification, should be placed in clean, dust-free, ventilated, cool, dry, sheltered places, avoid contact with corrosive substances and long-term open storage. The steel wire rope should be stored on the bracket, should not be in direct contact with the ground, to prevent the steel wire rope rust, conveyor belts, car seat belts and wind power ropes shall be kept free of oxidation and pollution, and wire ropes for small cranes shall be oiled to protect the parts where grease is missing; stored for more than two years, the wire rope performance should be checked and confirmed before use.



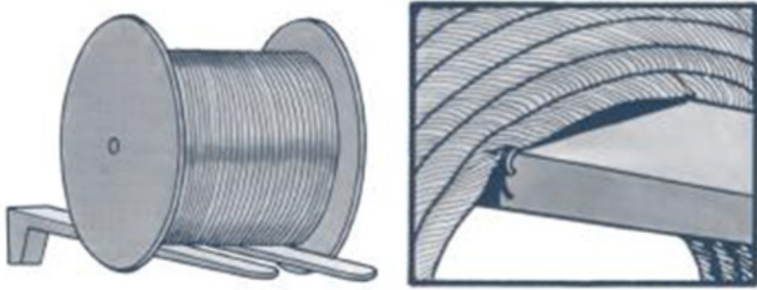
2、搬运 Carry

搬运时，应避免任何尖硬物体接触钢丝绳表面，防止钢丝绳被磕伤或划伤，严禁用叉车等类似的搬运工具不正确的搬运钢丝绳；汽车或火车运输时，钢丝绳应放在专用托架上，防止钢丝绳出现滚动和碰伤；从运输车辆卸钢丝绳时，不允许将钢丝绳从高处直接推下，应用专用工具和起吊设备平稳卸下。

When handling, should avoid any sharp hard object to touch the surface of the wire rope, to prevent the wire rope is hurt or scratched, forklift and other similar tools are strictly prohibited incorrect handling of wire rope; when the car or train transport, the steel wire rope should be put on the special bracket to prevent the steel wire rope from rolling and bumping. When unloading the steel wire rope from the transport vehicle, it is not allowed to push the steel wire rope directly from the height.



正确做法 Correct practice



错误做法 Wrong approach

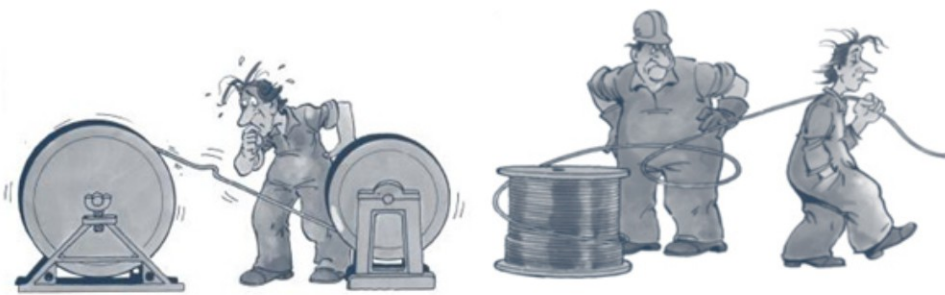
3、收、放绳 Take in and release the rope

在收、放绳过程中不应给钢丝绳增加附加应力，防止钢丝绳使用过程中出现扭曲。正确的放绳方法是在绳轮的轮缘部分施加阻力，使钢丝绳直线部分有一定的张力（大约为钢丝绳公称载荷的 3~5%），错误放绳会造成钢丝绳打扭。

In the process of retracting, retracting, the rope should not add additional stress to the wire rope to prevent the wire rope from twisting in use. The correct method is to put resistance on the flange part of the rope wheel, so that the straight part of the wire rope has a certain tension (about 3 ~ 5% of the nominal load of the wire rope) , the wrong rope will cause the wire rope torsion.



正确方法 The right way



错误方法 The wrong way

4、绳槽的检测和测量 Detection and measurement of rope grooves

钢丝绳安装前，用半径规对卷筒、滑轮、支撑轮的轮槽直径进行测量，并对滑轮转动灵活性、绳槽磨损情况进行检查，轮槽实测直径应为钢丝绳公称直径的 1.05 ~ 1.10 倍。超出该范围应对轮槽进行更换或修复，否则会造成钢丝绳结构变形、早期断丝或严重磨损。

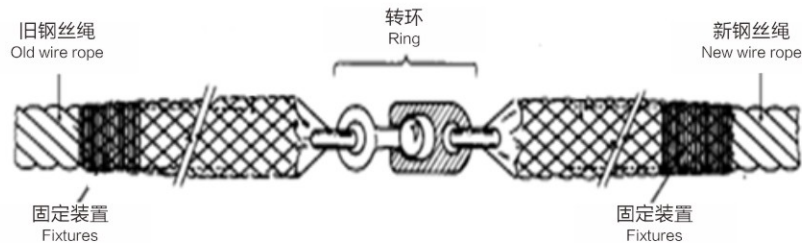
Before installation of wire rope, use radius gauge to measure the wheel groove diameter of drum, pulley and supporting wheel, and check the rotation flexibility of pulley and wear of rope groove, the measured diameter of wheel groove should be 1.05-1.10 times of the nominal diameter of wire rope. Beyond the scope of the groove should be replaced or repair, otherwise it will cause structural deformation of wire rope, early wire breakage or serious wear.



5、钢丝绳的更换 Steel wire rope replacement

更换钢丝绳如果需要对新、旧绳连接时，应用专用装置连接两绳末端。一是可减缓或防止钢丝绳安装过程发生扭曲；二是防止旧绳残余扭转应力传递到新绳，造成钢丝绳应力增加。

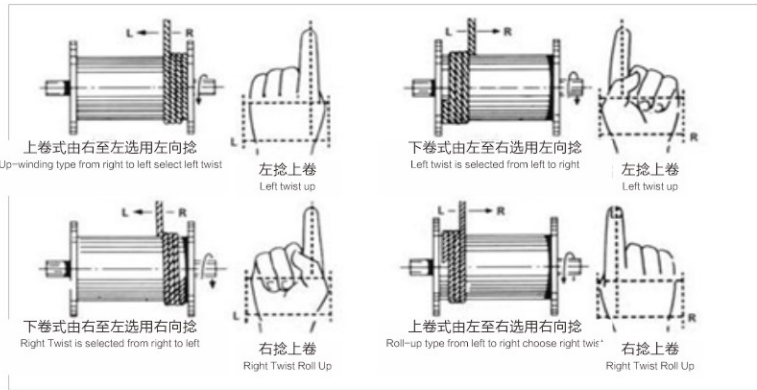
The replacement of wire rope replacement wire rope if the need for new and old rope connection, the application of special equipment to connect the end of the two ropes. One is to slow down or prevent the twisting of the wire rope during the installation process, the other is to prevent the residual torsion stress of the old rope from being transferred to the new rope, resulting in an increase in the stress of the wire rope.



6、钢丝绳的缠绕方向 Winding direction of steel wire rope

钢丝绳捻向与绞车卷筒绳槽旋向有关，应按照卷筒旋向正确选择钢丝绳捻向。正确的缠绕方法会使钢丝绳在第一层缠绕时略微上劲，钢丝绳缠绕紧密。

The twisting direction of the wire rope is related to the winding direction of the winch drum rope groove. The twisting direction of the wire rope should be correctly selected according to the winding direction of the drum. The correct winding method will make the wire rope in the first layer of winding slightly strong, tight wire rope winding.



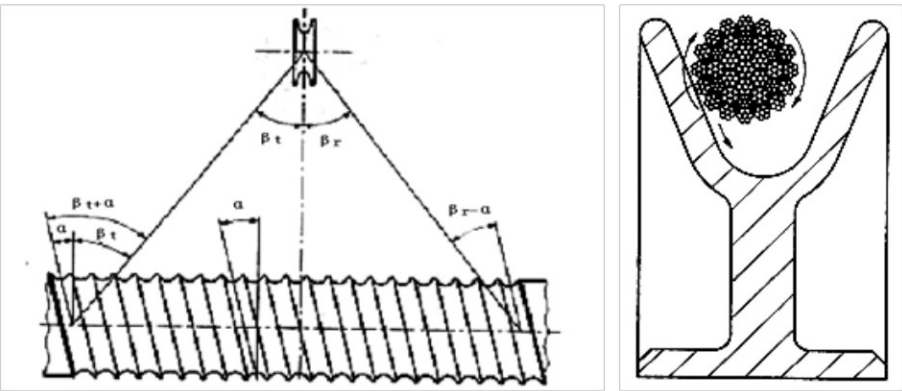
7、钢丝绳偏角及影响 Steel wire rope deflection angle and its influence

如果卷筒有螺旋型的绳槽，通常推荐的偏角 β 限制在 $0.5^\circ \sim 2.5^\circ$ 之间。如果偏角过小会造成钢丝绳堆积在卷筒边缘，而不能在卷筒上朝着相反的方向返回。如果偏角过大，在卷筒边

缘和绳槽上会出现摩擦。

当钢丝绳进入滑轮时，由于存在钢丝绳斜角，钢丝绳最先与滑轮的边缘接触。当钢丝绳继续在滑轮上经过时，钢丝绳将沿着轮槽边缘运动直到滑轮轮槽的底部。在这个过程中钢丝绳将一边滚动一边滑动。

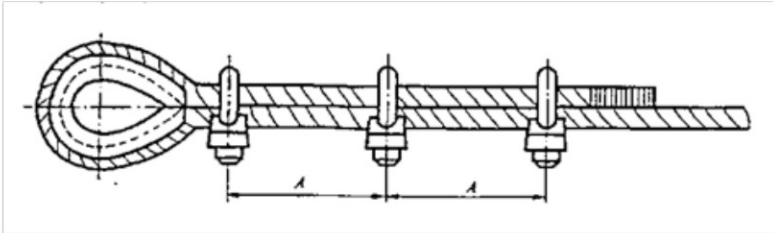
The deviation angle of wire rope and its influence if the drum has spiral groove, the recommended deviation angle β is limited to $0.5^\circ \sim 2.5^\circ$. If the deflection angle is too small, it will cause the wire rope to pile up on the edge of the reel, and can not return in the opposite direction on the reel. If the deflection angle is too large, there will be friction on the drum edge and rope groove. When the wire rope enters the pulley, the wire rope first contacts the edge of the pulley due to the existence of the wire rope bevel angle. As the wire continues to pass over the pulley, the wire rope will move along the edge of the wheel groove to the bottom of the pulley groove. During this process the wire rope will slide as it rolls.



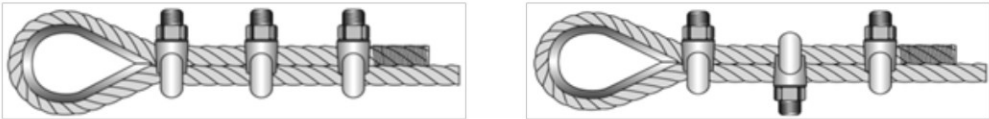
8、钢丝绳夹安装 Steel wire rope clamp installation

钢丝绳夹应按图中所示把夹座扣在钢丝绳的工作段上，U形螺栓扣在钢丝绳的尾股上。钢丝绳夹不得在钢丝绳上交替布置。钢丝绳夹间的距离约为绳的一个捻距长度。

Wire rope clamp installation wire rope clamp should be as shown in the clip seat buckle on the working section of wire rope, U-shaped bolt buckle on the tail of wire rope. The wire rope clamp shall not be arranged alternately on the wire rope. The distance between wire rope clamps is about the length of one twist distance of the rope.



正确方法 The right way



错误方法 The wrong way

钢丝绳成品

Finished wire rope



钢丝绳展开
LOOSE WIRE ROPE



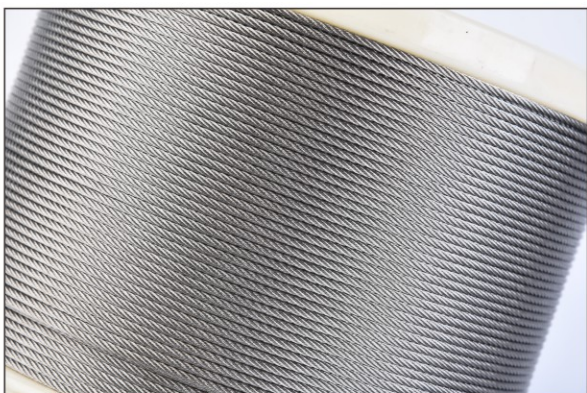
成品拉索
Finished stay



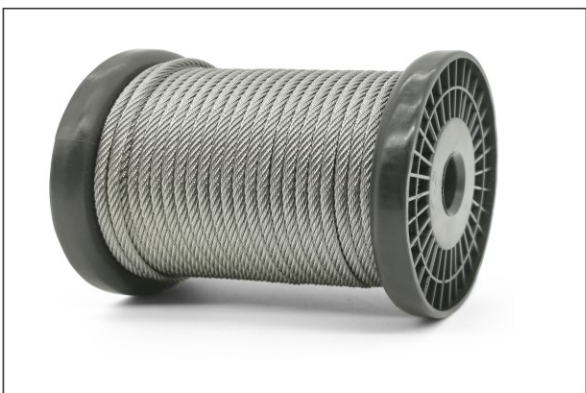
钢丝绳细节
Wire rope detail



涂塑钢丝绳 (PVC)
Plastic coated wire rope (PVC)



钢丝绳细节图
Package of wire rope detail



钢丝绳包装
Wire rope packing

部分配件

Partial fittings



钢丝绳与索具
Wire rope and rigging



弹簧扣
Snap fastener



套环
Toggle



开体花兰
Open body flower orchid



夹头
Chuck