

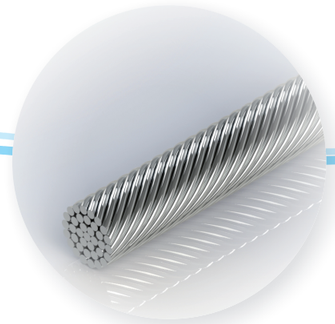

南通市江海钢绳有限公司

NANTONG JIANGHAI STEEL WIRE ROPE CO.,LTD.

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品质决定市场
Quality Decides Market
思想决定发展
Thought Decides Development

南通市江海钢绳有限公司

NANTONG JIANGHAI STEEL WIRE ROPE CO.,LTD.

ELEVATOR STEEL WIRE ROPE

INTRODUCTION

Situated at Nantong economic & technological development zone, Nantong, China, Nantong Jianghai steel wire rope factory is one of the important metallic enterprise in China. With the advanced industrial technologies and completed testing methods, the annual output of wire ropes is about 5000 tons. The comprehensive quality of the products is at first level in this industry.

The quality first. The customer first is the guide-lines of the factory. It can produce new -designed special steel wire ropes with brand of qili. There are all kinds of specifications and dimensions from diameter 60mm to diameter 0.8mm. The products has got good reputations From the customers for these characteristics. The steel wire ropes with specifications of stainless steel wire rope, 6x19s, 8x19s and 8x25 especially for elevator, 6x7, 6x19, 6x25fi, 6x26, 6x29, 6x36ws and 6x37 for general hoisting, 6x12, and 6x15 for binding, 6x19, 6x22 and 6x24 for Japan market, 19x7, 35x7, 8k25 and 8k26 of non-rotating rope for important purposes. All rope are produced according to the ISO standard and western advanced standards.

The factory has made a way into international market on the base of its powerful technologies. The products have a good market in Europe, America, Middle east and south-east asia countries etc. Every customer in or out China are warmly welcomed to the factory. Our advantage professional production technology and service team, each product from design, production to delivery on schedule, special person responsible for Tracking.

Provide customized service, guarantee 24 hours reply. Warehouse, regular Products guarantee 20 days delivery.

Have 30 years of factory experience, inspirational to do a century old factory.



Selecting suitable construction for different type of elevator.

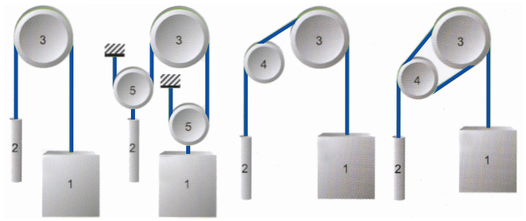
A. Bending performance;

B. Wear resistance;

C. Elongation control;

The wire rope usage

1. Car lift
2. Counter weight
3. Traction wheel
4. Rope wheel
5. Idler wheel



1:1 Traction Pulley

2:1 Traction Pulley

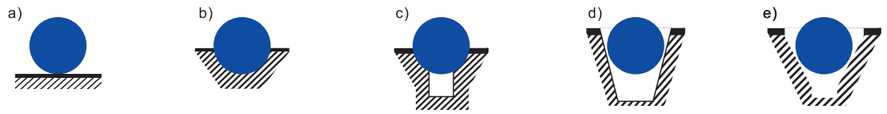
1:1 Traction pulley With angle Deviation

1:1 Traction pulley with Angle deviation (rewind)

Traction pulley groove

Traction pulley is made of cast iron. It can be used in both non-hardening and hardening lubrication.

According to the friction in need, we use different shape of groove in the lubrication action pulley.

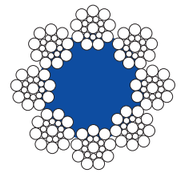


Construction	Strength of Outer wires	Hardness standard HB	HV	Traction wheel Hardness(HB)	Actual	Remark
8×19S–NFC	1370	400	430	200~230	420-460	Traction
8×19S–CSC	1570	460	480	220~250	460-500	Traction
8×19S–CSC	1570	460	480	220~250	460-470	Traction
8×19S–IWRC	1570	460	480	220~250	478-480	Traction
8×19S–FC	1770	510	530	260~290	520-530	Traction
8×19S–SFC	1370/1960	400/560	420/590	\		Speed Governor
8×19S–SFC	1370	400	420	\		Speed Governor

Traction Machine Steel Wire Rope (NFC)

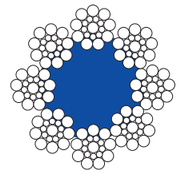
8×19S-NFC: Seale, ordinary lay, wire quantity: 152, be used on general elevator.

Item No.	Diameter ϕ mm	Weight Kg/100m	Min Breaking Load kN	Description
281908010	8	21.8	28.1	8×19S–NFC 1370/1770 U sZ
281909010	9	27.5	35.6	
281909510	9.5	30.7	39.7	
281910010	10	34.0	44.0	
281911010	11	41.1	53.2	
281912010	12	49.0	63.3	
281912710	12.7	54.8	70.9	
281913010	13	57.5	74.3	
281914010	14	66.6	86.1	
281916010	16	87.0	113.0	
281919010	19	123.0	159.0	



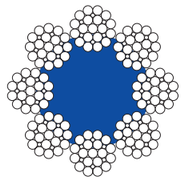
8×19S-NFC: With good performance of flexable and small elastic elongation, be used for medium and high speed elevator and machine room-less elevator

Item No.	Diameter ϕ mm	Weight Kg/100m	Min Breaking Load kN	Description
381908010	8	22.0	30.8	8×19S–NFC 1570/1770 U sZ
381910010	10	34.0	48.1	
381911010	11	41.0	58.1	



8×25Fi-NFC: With compact strand and good performance of flexable , be used for medium and high speed elevator with heavy laod.

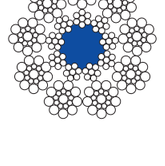
Item No.	Diameter ϕ mm	Weight Kg/100m	Min Breaking Load kN	Description
382511010	12	50.0	69.2	8×25Fi–NFC 1570/1770 U sZ
382513010	13	59.0	81.2	
382515010	15	78.0	108.0	
382516010	16	89.0	123.0	
382516010	19	125.0	173.0	



Traction Machine Steel Wire Rope (CSC)

8×19S-CSC: With good performance of fatigue resistance , moderate breaking load and small residual elongation. Be used for high speed elevator.

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
381908030	8	25.5	38.0	8 × 19S–CSC 1570/1770 U sZ
381909030	9	32.5	48.2	
381909530	9.5	36.0	53.7	
381910030	10	39.7	59.5	
381911030	11	48.5	79.1	
381912030	12	57.5	85.6	
381912730	12.7	64.0	95.9	
381913030	13	68.0	100	
381914030	14	78.5	117	
381916030	16	102.0	152	
381919030	19	144.0	215	



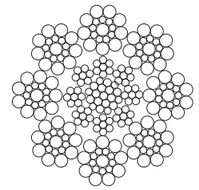
9×19S-CSC: With more point contacted with traction wheel grooves and stable operation. The fiber core can supply more lubrication for the rope and extend the service life. Be used for high speed elevator.

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
391908030	8	25.6	40.1	9 × 19S–CSC 1570/1770 U sZ
391909030	9	32.4	50.7	
391910030	10	40.0	62.6	
391911030	11	48.4	75.8	
391912030	12	57.6	90.2	

Traction Machine Steel Wire Rope (IWRC)

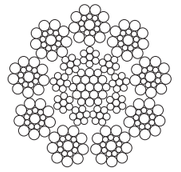
8×19S-IWRC: With good performance of fatigue resistance, high breaking load and small residual elongation. Be used for high speed elevator.

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
661906050	6.0	16.4	26.8	8 × 19S–IWRC 1570/1770 U sZ
381906550	6.5	17.9	31.5	
381908050	8	28.0	42.0	
381909050	9	35.6	53.3	
381910050	10	43.8	65.5	
381911050	11	52.5	79.2	
381912050	12	62.0	94.3	
381913050	13	73.0	111	
381914050	14	86.0	128	
381916050	16	110	168	
381918050	18	138.0	212	
381919050	19	155.0	236	
381920050	20	171.0	262	



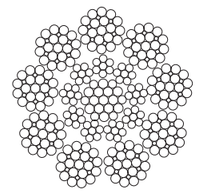
9×19S-IWRC: with best performance of fatigue resistance, high breaking load and small residual elongation. Be used for high speed elevator.

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
391908050	8	27.5	39.4	9 × 19S–IWRC 1570/1770 U sZ
391909050	9	34.8	49.9	
391910050	10	43.0	61.5	
391911050	11	52.0	74.5	
391912050	12	61.9	88.6	



9×25F-IWRC: With compact strand and best performance of fatigue resistance, reaking load and residual elongation. Be used for heavy load and high speed elevator.

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
392513050	13	72.7	111	9 × 25F–IWRC 1570/1770 U sZ
392514050	14	84.3	128	
392516050	16	110	168	
392518050	18	139	212	
392519050	19	155	236	
392520050	20	172	262	
392522050	22	208	317	



Core Value

Quality Decides Market
Thought Decides Market

Quality Policy

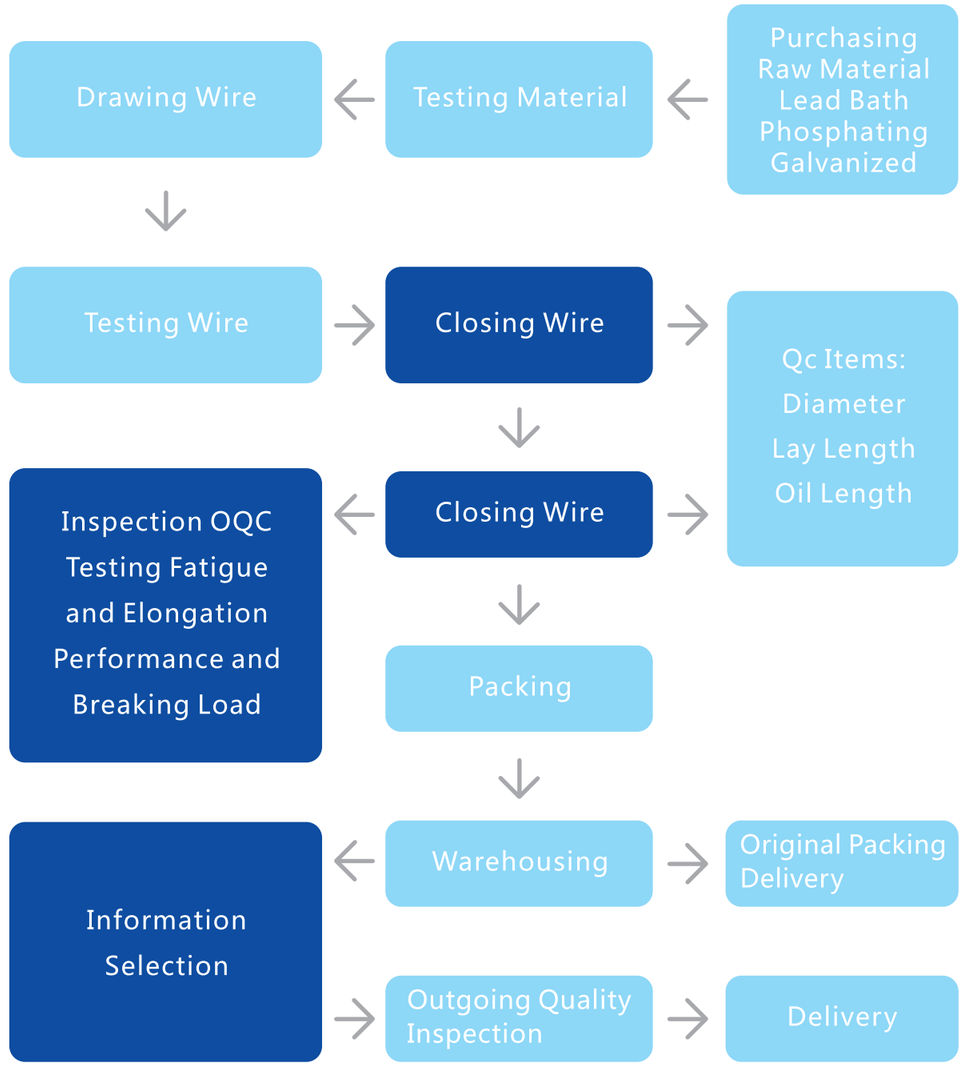
Rounded Quality System
High Product Quality
Excellent Customer Support
Continuous Working Improving

Business Vision

Establish Centennila
Enterprise In China



Quality Control Flow Chart

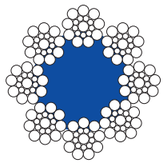


Speed Governor Steel Wire Rope

8×19S-SFC

With eight strands and ppc core, be used for speed governor
With requirement for elongation and corrosion resistance.

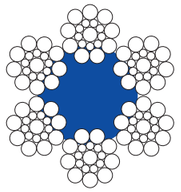
Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
281908020	8.0	21.8	28.1	8 × 19S–SFC U sZ
281909520	9.5	30.7	39.7	



6×19S-SFC

With six strands and ppc core, be used for speed governor
With requirement for elongation and corrosion resistance..

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
661906020	6.0	12.9	16.8	6 × 19S–SFC U sZ
661906020	6.0	12.9	18.7	
661906320	6.3	14.2	23.2	
661906320	6.3	14.2	25.7	
661906520	6.5	15.2	24.7	



6×19W-WSC

With six strands and steel core，be used for speed governor
With requirement for high load and corrosion resistance.

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
661906035	6.0	15.0	25.8	6 × 19W–WSC 1770 B sZ
661906535	6.5	18.0	31.0	

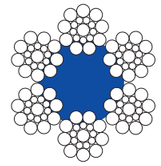


Standard Construction 1–6–12

Villa Elevator Steel Wire Rope

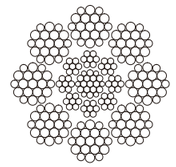
6×19S-FC

Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN		Description
661906010	6.0	12.9	22.0	Traction Machine	
661906010	6.0	12.9	16.8	Speed Governor	
681908010	8.0	21.8	28.1	Traction Machine	
681908010	8.0	21.8	28.1	Speed Governor	



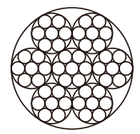
8×19W-IWRC

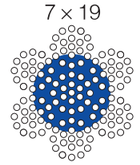
Item No.	Diameter ϕ mm	Weight kg/100m	Min Breaking Load kN	Description
381906050	6.0	16.4	26.8	8 × 19W–IWRC 1570/1770 B sZ
381906550	6.5	17.9	31.5	
381908050	8.0	28.0	42.0	



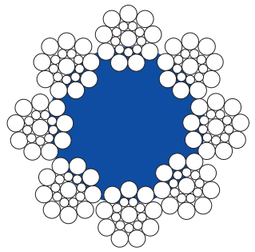
Steel Wire Rope For Lift Door Operator

Item No.	Diameter ϕ mm	Weight kg/100m	Description
970703035	3.0	3.1	7 × 7
970703235	3.8	3.5	
971903035	3.0	3.4	7 × 19
971903225	3.18	3.8	





Definition and Classifiction



12 8 × 19S-NFC 1370/1770 U sZ

A B C D E F

Seale(S) Filler(Fi)

Warrington(W) Warrington-Seale(WS)

Marking Definition

A Rope Diameter (mm)

B Rope Construction
Such as 8x19s
Strand Construction
S Seale
W Warrington
Fi Filler
WS Warrington-seale

C Core Type
Fiber Core (FC)
NFC Natural Fiber Core
SFC Synthetic Fiber Core
Steel Core (WC)
IWRC Independent Wire Rope Core
CSC Composite Steel Core
PWRC Equal Lay Rope

D Wire Grade

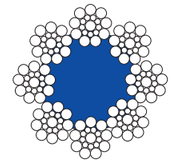
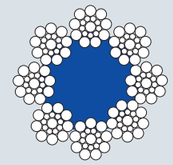
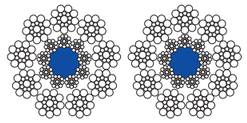
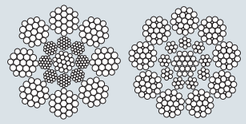
E Wire Finishing
U Ungalvanized
E/G Electro Galvanized
G Hot Dip Galvanized

F Direction and Type of Lay
Z Right Lay (strand)
S Left Lay (strand)
Z Right Lay (rope)
S Left Lay (rope)
sZ Right Ordinary Lay
zS Left Ordinary Lay
zZ Right Lang Lay
sS Left Lang Lay

DESCRIPTION OF THE WIRE ROPE CONSTRUCTION

THE STRAND CONSTRUCTION OF ELEVATOR INCLUDES SEALE TYPE AND WARRINGTON TYPE. THERE ARE 19 OUTER WIRES ON EACH STRAND. THE ELEVATOR USE CONSTRUCTION OF 8 STRANDS AND 9 STRANDS，INCLUDING FILLER WIRES. THERE ARE 25WIRES IN THIS STRAND.WE USE CAD SYSTEM TO DESIGN THE ROPE CONSTRUCTION TO ENSURE THE THE CORRECT LOAD DISTRIBUTION AND WIRE PITCH.

Selection of Elevator Steel Wire Rope

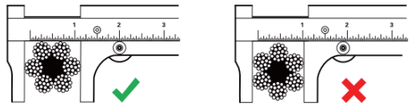
Construction	Stength	Appliction	Lifespan	Features	Cross Section
8 × 19S–NFC	1370/1770MPa	⩽150 m ⩽1.75 m/s	600,000	Pre–Tension Process Cost–Tffective	
8 × 19S–NFC 8 × 25Fi–NFC	1570 MPa 1570/1770MPa 1620/1770 MPa	⩽175 m ⩽2.5 m/s	900,000	Good Material Performance Uniformity of Roundness Long Service Life	
9 × 19S–CSC 9 × 19W–CSC	1570MPa 1570/1770MPa 1620/1770MPa	⩽235M ⩽3m/s	1,200,000	High Breaking Load Low Friction Uniformity Of Roundness Good Elastic Modulus Ratio Long Service Life	
8 × 19S–IWRC 8 × 19W–IWRC 8 × 29Fi–IWRC	1570MPa 1570/1770MPa	⩽5.0m/s	1,200,000	High Breaking Load Low Friction Uniformity of Roundness Good Elastic Modulus Ratio Long Service Life	

SELECTION OF WIRE ROPE DOAMETER

TO IMPROVE THE STRENGTH AND SERVICE LIFE OF ELEVATOR STEEL WIRE ROPE, USUSAALY CHOOSE D/d 40 AS ROPE DIAMETER. THE "dD" IS THE DIAMETER OF TRACTION WHEEL.

Measurement of Steel Wire Rope

Rope diameter is normally specified by the user or giveb in in struction manuals accompanying the customers' machine. So measuring the accurate diameter of steel wire ropes becomes extremely important for our customer to provide correct number.
Measuring tool: vernier caliper.
Measuring way: place the steel wire rope in a right way -the outer limits of the strands is touching the both jay of the caliper as shown in the picture. Then read the number shown on the screen. It is recommended to measure the wire rope two or three times then get the average value.



Right

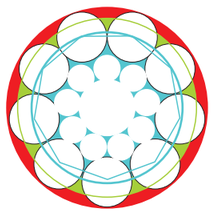
Wrong

Elongation of Steel Wire Rope

The steel wire rope will be elongated under the rated load. The elongation includes structural elongation and elastic elongation. The fiber core elongation rate will be higher than steel core. Structural elongation: the wire rope construction is helical. It will be elongated deformation under tensile stress. It belongs to structural elongation.
Elastic elongation: it is caused by outside force on the wire rope .
Such as loading and diachage, accelration and deceleration of the car lift

Construction	Structural Elongation	Elastic Elongation	Total Elongation	Elasticity Modulus
6×19S–SFC	0.26	0.14	0.40	/
8×19S–NFC	0.23	0.16	0.39	65,000–70,000
8×19W–NFC	0.23	0.14	0.37	65,000–70,000
8×19S–CSC	0.20	0.09	0.29	75,000–80,000
8×19S–IWRC	0.18	0.09	0.27	80,000–85,000
9×19S–PWRC	0.16	0.09	0.25	80,000–85,000

Rope Oil Length



8×19S-NFC~10mm:
Red Part Area: 0.95×9=8.55mm²
Green Part Area: 0.14×9=1.26mm²
Wire Cross Area: 63.10mm²
Cyan+Green+Red Oil Length: 2.96%
Cyan+Green Oil Length: 1.32%
Cyan Oil Length: 1.08%

- The world leading specialist in manufacturing steel wire and wire rope
- Providing best solution for hard situation
- Manufactuing safe and reliable product with rich experience in the development and production



ISO9001

Jianghai is in operation and management under ISO9001:2008 quality management system