

STA-LOK®

Stainless Steel Wire Rope

For Marine & Architectural Projects Worldwide



“
DISTRIBUTING GLOBALLY
FROM OUR DEDICATED
UK WAREHOUSE.
”

Quality Promise	05
Wire Rope Properties	06
Our Standard Wire	08
Need further help?	12
Bespoke Cable Assemblies	13
Coating Options	13
Contact us	14

FOR YOUR STAINLESS STEEL WIRE REQUIREMENTS CHOOSE STA-LOK.

Sta-Lok are a leading supplier of stainless steel Wire Rope (Grade 316, 1.4401), distributing a wide variety of sizes and constructions from our dedicated UK warehouse. For over 48 years our solutions have been used around the world in many applications, including marine, height access, architectural and industrial sectors.

Sta-Lok's core stock holding of 1x19, 7 strand and compacted strand constructions allows for short lead times and quick delivery of 1,000, 300, 200 and 100 metre reels.

We believe that customer service is an extension of the quality products we produce and supply. Our sales team take time to understand the needs of our clients and we believe this is the starting point for the delivery of excellence.

For projects that require unique design elements our technical specialists are available to assist with project details and product selection to meet your design and budgetary expectations.

TO MAKE
VISIONS REALITY
CHOOSE STA-LOK.



It is our heritage which is the source of our continued inspiration. Established by my father, Ivor Barfield in 1973, Sta-Lok remains a family run business, where exceptional customer service and quality are engrained into our company culture.

We have formed international relationships with leading wire manufacturers and distributors which allows us to source and supply a wide variety of stainless steel wire rope.

We are proud to have retained our roots as a UK manufacturing company, with all of our products manufactured to the highest quality standards at our facility in Essex, England.

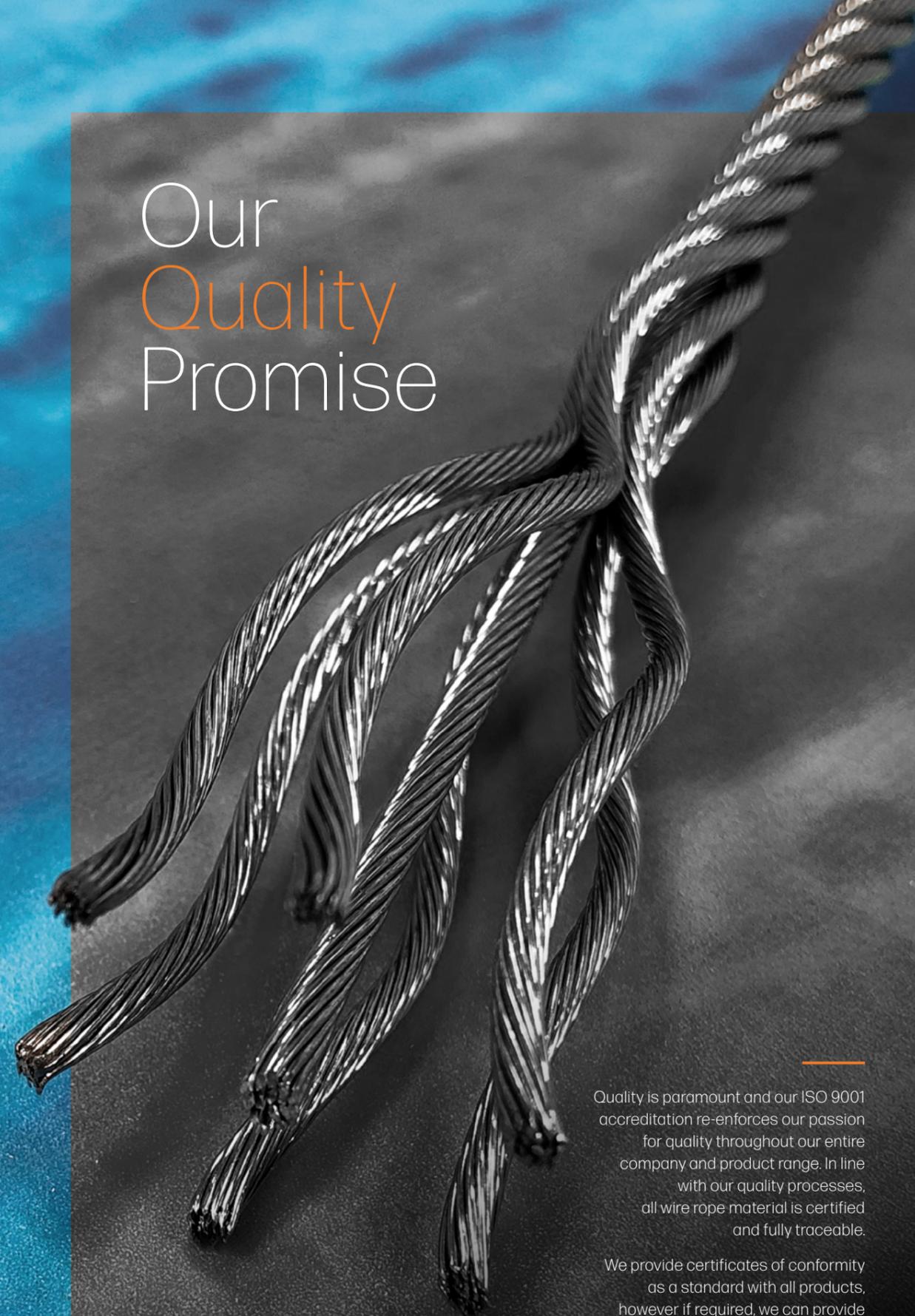
We believe that customer service is an extension of the quality products we produce. Our technical specialists take time to understand the needs of our clients and we believe this is the starting point for the delivery of excellence.

We look forward to collaborating with you on your future projects.

Terry Barfield

TERRY BARFIELD
Managing Director

Our Quality Promise



Quality is paramount and our ISO 9001 accreditation re-enforces our passion for quality throughout our entire company and product range. In line with our quality processes, all wire rope material is certified and fully traceable.

We provide certificates of conformity as a standard with all products, however if required, we can provide detailed testing certificates and certificates of origin.

Wire Rope Properties

Sta-Lok specialise in the supply of grade 1.4401 (AISI 316) wire rope conforming to international standards. Marine grade wire rope has excellent corrosion resistance and aesthetic properties, making it perfectly suited for marine and architectural applications.

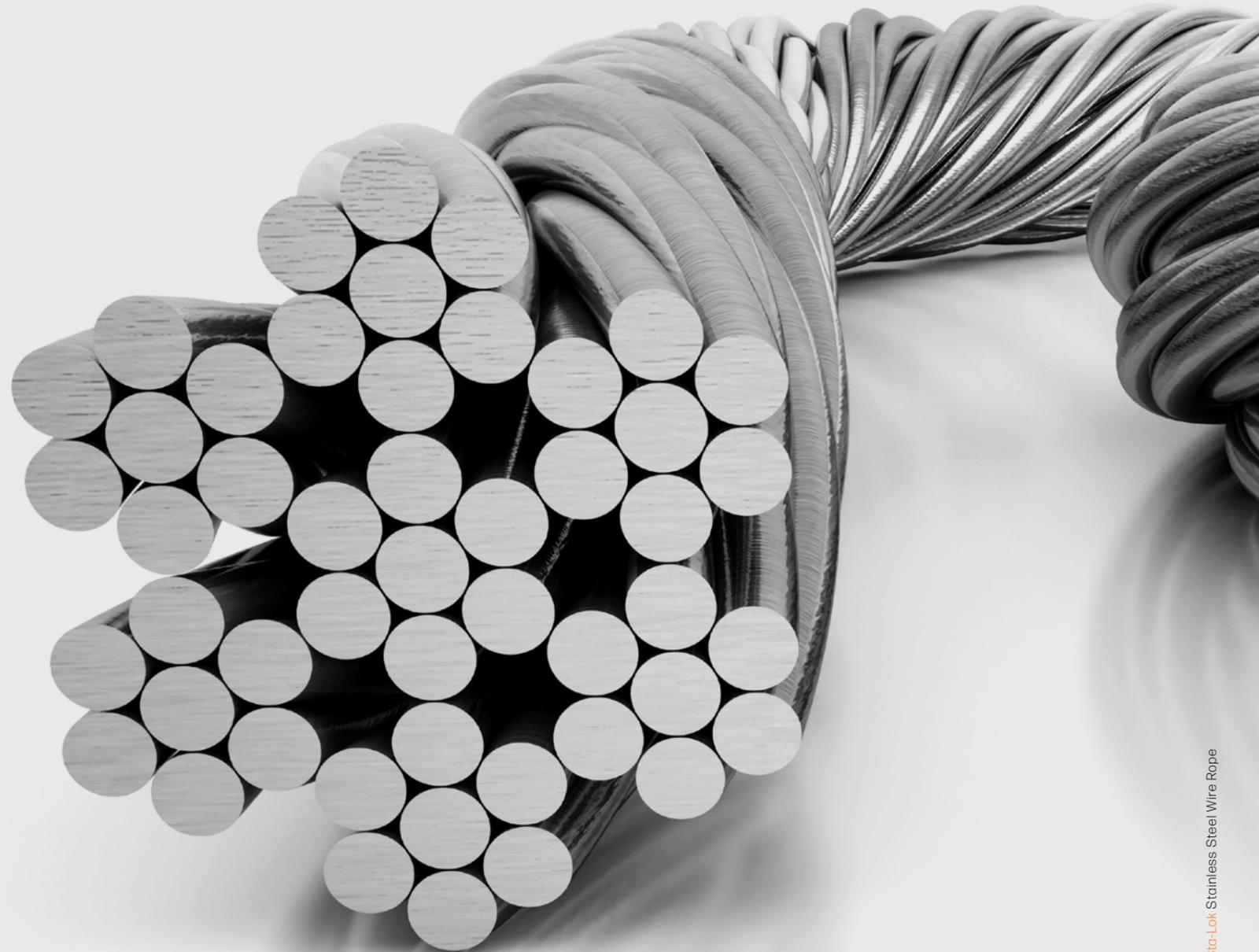
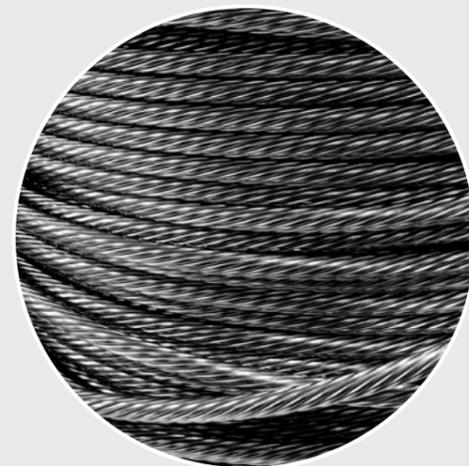
Constructional Stretch

Wire rope is made up of individual wire strands formed around a central core. When load is first applied to a wire rope, the individual strands bed in. This settlement leads to elongation, referred to as permanent construction extension (Constructional Stretch).

Elastic Stretch

The elastic extension of wire rope (Elastic Stretch) occurs when a load is applied to the end of a rope. "Hookes Law" defines that this stretch is proportional to the load applied, i.e stress is proportional to strain.

This applies as long as the yield point is not exceeded, after which permanent deformation takes place.



The modulus of elasticity or resistance to stretch, for wire rope will vary upon the wire rope construction.

The following stretch calculation can be used as a guide.

There are different international standards and specifications for calculating the Modulus of Elasticity (E), this should be verified by your structural engineer.

$$\text{Elastic Stretch} = \frac{W \times L}{E \times A}$$

Where:

W	=	Applied Load (kN)
L	=	Cable Length (mm)
E	=	Strand modulus of elasticity (kN/mm ²)
A	=	Cross section area of wire rope = πr^2
Where r	=	Diameter of rope 2

Our Standard Wire

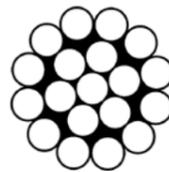
Sta-Lok stock a comprehensive range of stainless steel wire rope, offering 1x19, 7 strand and Compacted strand constructions on 100,200 and 300 metre reels.

Conforming to international standards, all wire is certified and fully traceable, in line with our quality management systems and ISO 9001 accreditation.

▶ 1 x 19

The 1x19 construction is the most popular stainless-steel construction as it is suitable for all types of general applications due to its low elasticity and high braking load.

High specification 316 stainless steel.



Reference	Diameter		Minimum Breaking Load			
	Wire (MM)	KGf	KN	LBF	KIPS	
W119 - 2	2	336	3.29	741	0.73	
W119 - 2.5	2.5	525	5.14	1,157	1.15	
W119 - 3	3	756	7.41	1,666	1.66	
W119 - 4	4	1,340	13.14	2,954	2.95	
W119 - 5	5	2,100	20.59	4,629	4.62	
W119 - 6	6	3,030	29.70	6,680	6.67	
W119 - 7	7	4,120	40.40	9,083	9.08	
W119 - 8	8	5,251	51.50	11,576	11.57	
W119 - 10	10	8,400	82.37	18,518	18.51	
W119 - 12	12	12,102	118.68	26,680	26.68	
W119 - 14	14	16,473	161.54	36,316	36.31	
W119 - 16	16	20,500	201.03	45,194	45.19	
W119 - 19	19	30,300	297.14	66,800	66.79	
W119 - 22	22	40,686	399.00	89,697	89.69	

*Values shown are for guidance purposes and may vary by manufacturer.

▶ Compacted Strand

Compacted Strand wires feature high strength and very low stretch, providing this wire with excellent longevity and performance.

High specification 316 stainless steel.



1 x 7



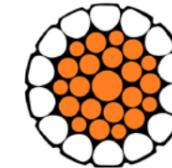
1 x 19



1 x 25



1 x 31



1 x 36

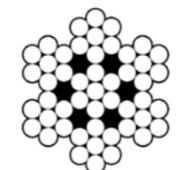
Reference	Wire (MM)	Construction	Minimum Breaking Load			
			KGf	KN	LBF	KIPS
WC - 3	3	1 x 7	999	9.80	2,202	2.20
WC - 4	4	1 x 7	1,784	17.50	3,933	3.93
WC - 5	5	1 x 19	2,440	23.93	5,379	5.37
WC - 6	6	1 x 19	3,549	34.81	7,824	7.82
WC - 7	7	1 x 19	4,909	48.15	10,822	10.82
WC - 8	8	1 x 19	6,149	60.31	13,556	13.55
WC - 10	10	1 x 19	9,769	95.81	21,536	21.53
WC - 12	12	1 x 19	14,400	141.22	31,746	31.74
WC - 14	14	1 x 36	19,286	189.14	42,518	42.52
WC25 - 14	14	1 x 25	19,346	189.72	42,650	42.65
WC - 16	16	1 x 36	25,582	250.88	56,398	56.40
WC25 - 16	16	1 x 25	25,661	251.65	56,572	56.73
WC25 - 19	19	1 x 25	32,076	314.56	70,715	70.71

*Values shown are for guidance purposes and may vary by manufacturer.

▶ 7 x 7

The 7x7 construction wire provides greater flexibility versus the 1x19 wire but it is the stronger of the flexible wire rope. It is often found within the marine industry and used widely in the height safety sector.

316 stainless steel.



Reference	Wire (MM)	Diameter	Minimum Breaking Load			
			KGf	KN	LBF	KIPS
W119 - 2	2		248	2.44	546	0.54
W119 - 2.5	2.5		388	3.81	855	0.85
W119 - 3	3		558	5.48	1,230	1.23
W119 - 4	4		920	9.03	2,028	2.03
W119 - 5	5		1,437	14.10	3,168	3.16
W119 - 6	6		2,243	22.00	4,944	4.94
W119 - 8	8		3,681	36.10	8,115	8.11
W119 - 10	10		6,212	60.92	13,695	13.69
W119 - 12	12		8,944	87.72	19,718	19.72

*Values shown are for guidance purposes and may vary by manufacturer.

▶ 7x19

The 7x19 construction is the most flexible of the multi-strand wire ropes and is used for a wide range of applications. Often found for guardrails and balustrade applications where the curves, corners or angles are required.

316 stainless steel.



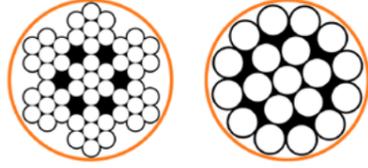
Reference	Diameter	Minimum Breaking Load			
	Wire (MM)	KGF	KN	LBF	KIPS
W719 - 2	2	231	2.27	509	0.51
W719 - 2.5	2.5	361	3.55	795	0.79
W719 - 3	3	522	5.12	1,150	1.15
W719 - 4	4	926	9.09	2,041	2.04
W719 - 5	5	1,447	14.20	2,528	3.19
W719 - 6	6	2,090	20.50	4,607	4.60
W719 - 7	7	2,610	25.60	5,754	5.75
W719 - 8	8	3,708	36.37	8,174	8.17
W719 - 10	10	5,791	56.80	12,766	12.70
W719 - 12	12	8,345	81.84	18,397	18.39
W719 - 14	14	11,358	111.39	25,040	25.04
W719 - 16	16	14,836	145.50	32,707	32.70

*Values shown are for guidance purposes and may vary by manufacturer.

▶ PVC Covered

Sta-Lok offer white PVC covered 1x19 or 7x7 stainless steel wire rope as a standard. Perfect where a covering is needed for functional or aesthetic purposes. Common application includes guardrails, theatrical cables and gymnasium cables.

316 stainless steel.



7 x 7 1 x 19

Reference	Construction	Diameter	Minimum Breaking Load			
	Wire (MM)	KGF	KN	LBF	KIPS	
WPC7 - 4 / 6	7 x 7	4	920	9.03	2,028	2.03
WPC1 - 4 / 6	1 x 19	4	1,340	13.14	2,954	2.95
WPC1 - 5 / 7	1 x 19	5	2,100	20.59	4,629	4.62
WPC1 - 5 / 9	1 x 19	5	2,100	20.59	4,629	4.62

*Values shown are for guidance purposes and may vary by manufacturer.

*For larger sizes or any cable information not shown. Please contact us for more detail.



Need something more?

Need more than an off the shelf solution?

Sta-Lok can offer a range of additional services to help meet your requirements.

Global Sourcing

Our well-established supply chain and global sourcing arrangements allows us to secure a huge range of stainless steel wire to meet your design and budgetary expectations.

If you require a different construction or size stainless steel wire than listed in this brochure, please make contact with us, our technical specialists will welcome the opportunity to discuss and further understand your needs.

Our supply relationships also allow us to accommodate non-standard requests. So, if you have a unique requirement, a particular break load, or even require an embedded identification tape, Sta-Lok are able to negotiate and source wire to meet your needs and specifications.

Supply Management

Require a regular delivery programme, staggered delivery or call-off arrangement?

Sta-Lok have the experience, capacity and capability of running such agreements from our own UK office and warehouse facilities.

Our specialist team will welcome the opportunity to speak with you to understand your supply requirements.

Our wire rope with turnbuckle fitting.

Bespoke Cable Assemblies

As an extension of our service, Sta-Lok can also supply cut lengths or bespoke assemblies for you.

With a wide variety of fittings, tensioners and wire rope, Sta-Lok can assemble cables perfect for your projects requirements and needs.

All wire and fittings are manufactured from high quality 316 stainless steel. Our assemblies are suitable for wire sizes 3mm - 26mm.

Our technical specialists will collaborate with you to ensure the end fittings and turnbuckles (where required) are perfectly suited to your application and budgetary requirements.

Once our team have helped to define the perfect components for your wire rope assembly, our expert manufacturing team and in-house rigging team will get to work assembling your bespoke assembly.

Supplied ready to install, our systems can be fitted straight from the box.

Coating Options

Sta-Lok can supply your stainless steel wire with PVC, Polypropylene or Nylon Coatings in a range of colours to act as a protective shield or aesthetic enhancement for the wire.

Coating can be provided per reel or indeed, as part of your bespoke assembly.

Minimum Order quantities may apply.

Don't forget!

We also specialise in other areas to suit your marine and architectural needs. For more information on our marine equipment, tie rods and wire rope assemblies, visit stalok.com

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