

COMPOSITE RIGGING



- **KEVLAR CABLES**
- **PBO CABLES**
- **STAINLESS SOCKETS**
- **TITANIUM SOCKETS**
- **KEVLAR, VECTRAN & PBO LOOPS**

- **MARINE, INDUSTRIAL, AEROSPACE
& ARCHITECTURAL APPLICATIONS**
- **IN HOUSE DESIGN FOR CUSTOM
PROJECTS**

THE RIG SHOP

www.rigshop.com

COMPOSITE RIGGING

KEVLAR 49 CABLE

Composite Rigging is a division of the Rig Shop Ltd, based at Ocean Village in Southampton, that specialises in the design and manufacture of composite cables for all sorts of tensile applications.

Composite Rigging offers a range of Kevlar 49 plastic covered parafil cables. The fibre within the cable is of truly parallel orientation which minimises stretch and maximises fatigue life. The polyethylene cover is applied to the Kevlar under pressure and tension. This ensures that the cover stretches and contracts with the cable and does not ride up at the ends. The cover provides a barrier to the elements protecting against UV and salt water. Kevlar cables are currently being used throughout the world for backstays, runners, checkstays, diagonals, inner forestays and babystays. Many multihulls are also using our Kevlar cable for their main shrouds.



Part No.	Strength Tonnes	Weight Kilos/m	Ext. Diam. mm
RSK/015T	1.5	0.027	7.0
RSK/030T	3.0	0.045	7.5
RSK/045T	4.5	0.065	8.8
RSK/060T	6.0	0.079	10.0
RSK/080T	8.0	0.098	11.0
RSK/105T	10.5	0.119	12.5
RSK/120T	12.0	0.145	13.5
RSK/150T	15.0	0.189	15.5
RSK/225T	22.5	0.259	18.0
RSK/250T	25.0	0.289	19.0
RSK/300T	30.0	0.321	20.0
RSK/450T	45.0	0.522	25.5
RSK/540T	54.0	0.574	28.0
RSK/600T	60.0	0.626	29.0
RSK/750T	75.0	0.813	31.5
RSK/900T	90.0	1.000	34.0
RSK/1250T	120.0	1.310	40.0
RSK/1500T	150.0	1.659	45.0

Note: All cables are supplied as standard in white. Black is available on request but the diameter may vary slightly.

KEVLAR STANDARD LIGHTWEIGHT SOCKETS



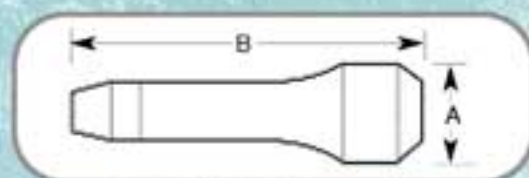
Kevlar cables from Composite Rigging can be found all over the world today. From racing yachts to Superyachts, the distinctive streamlined fittings and white jacket are unmistakable. For certain customers we have supplied cables with a black jacket and these are available upon request but may take longer to produce.

Our standard lightweight fittings have been extensively engineered to provide the full breaking strength of the cable. In fact in tests it is common for the cable to fail midway and not at the termination itself. This has been done by keeping all the fibres parallel which also helps to increase fatigue life. The fittings are made from high strength 17/4/PH stainless steel and the high strength allows thin walls and a light weight. The sockets have a plastic cap that supports the cable and assists as a fatigue indicator. The cap houses a rubber 'O' ring that prevents water from getting in.

At the top end of the fitting there is a thread adaptor that allows the cables to be interfaced with most standard end fittings. All cables are proof tested after assembly. Cables can be sent back to us for proof testing and inspection at intervals throughout their life.

Part No.	Strength Tonnes	Weight Kilos	Thread UNF"	A	B
RSK/015S	1.5	0.062	5/16	16.0	68.00
RSK/030S	3.0	0.085	3/8	17.0	76.00
RSK/045S	4.5	0.100	7/16	18.5	88.00
RSK/060S	6.0	0.150	1/2, 5/8	26.0	108.00
RSK/080S	8.0	0.155	5/8	27.0	123.00
RSK/105S	10.5	0.200	5/8, 3/4	31.5	136.00
RSK/120S	12.0	0.200	5/8, 3/4	31.5	136.00
RSK/150S	15.0	0.350	7/8	36.5	156.50
RSK/225S	22.5	0.500	1	41.0	185.00
RSK/250S	25.0	0.650	1 1/8	46.0	195.00
RSK/300S	30.0	1.050	1 1/4	54.0	250.00
RSK/450S	45.0	2.063	1 3/8	61.0	318.00
RSK/540S	54.0	2.475	1 3/8	65.0	343.00
RSK/600S	60.0	3.050	1 1/2	72.0	355.00
RSK/750S	75.0	4.250	1 1/2	80.0	366.00
RSK/900S	90.0	5.100	1 3/4	108.0	439.00
RSK/1250S	125.0	7.083	1 7/8	150.0	610.00
RSK/1500S	150.0	8.500	2	180.5	732.00

Note: Socket weights include spikes and adaptor.



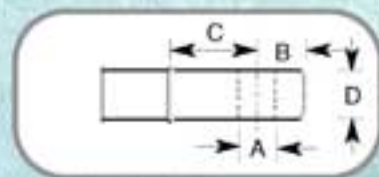
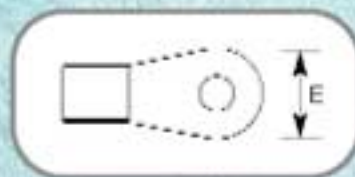
COMPOSITE RIGGING

SOCKETS WITH EYES



Part No.	Strength Tonnes	Weight Kilos	Pin Size UNF "	A	B	C	D	E
RSK/015E	1.5	0.095	5/16	8.2	10.0	12.0	7.0	17.5
RSK/030E	3.0	0.138	3/8	9.7	13.0	16.0	8.5	22.0
RSK/045E	4.5	0.180	7/16	11.3	13.0	18.0	10.0	25.0
RSK/060E	6.0	0.250	1/2	12.9	15.0	19.0	11.0	26.0
RSK/080E	8.0	0.288	5/8	16.0	19.0	20.0	14.0	31.0
RSK/105E	10.5	0.400	5/8	16.0	19.0	20.0	14.0	31.0
RSK/120E	12.0	0.433	3/4	19.2	22.0	28.0	16.0	37.0
RSK/150E	15.0	0.716	7/8	22.4	26.0	30.0	20.0	44.0
RSK/225E	22.5	1.033	1	25.7	28.0	36.0	23.0	47.0
RSK/250E	25.0	1.383	1 1/8	28.8	32.0	37.0	26.0	54.0
RSK/300E	30.0	2.050	1 1/4	32.0	33.0	45.0	30.0	60.0
RSK/450E	45.0	3.829	1 3/8	35.5	40.0	47.0	32.0	72.0
RSK/540E	54.0	4.242	1 3/8	35.5	40.0	47.0	32.0	72.0
RSK/600E	60.0	5.150	1 1/2	35.5	40.0	47.0	32.0	72.0
RSK/750E	75.0	6.980	1 1/2	38.5	46.0	50.0	36.0	83.0
RSK/900E	90.0	8.900	1 3/4	44.5	50.0	65.0	42.0	90.0
RSK/1250E	125.0	12.383	1 7/8	47.5	60.0	75.0	45.0	105.0
RSK/1500E	150.0	15.000	2	53.5	65.0	85.0	50.0	115.0

Note: Weights include socket.

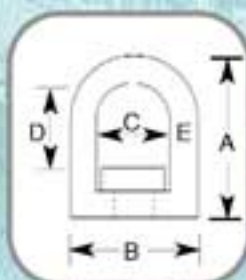


SOCKETS WITH SWIVEL EYES



Part No.	Strength Tonnes	Weight Kilos	A	B	C	D	E
RSK/015B	1.5	0.087	36.3	27.7	16.4	15.5	6.0
RSK/030B	3.0	0.130	36.3	27.7	16.4	15.5	6.0
RSK/045B	4.5	0.170	42.4	33.0	20.0	21.0	7.3
*RSK/060B	6.0	0.250	58.8	40.0	33.7	32.1	9.9
RSK/080B	8.0	0.305	56.6	43.5	25.1	27.8	10.0
RSK/105B	10.5	0.350	56.6	43.5	25.1	27.8	10.0
RSK/120B	12.0	0.350	56.6	43.5	25.1	27.8	10.0
RSK/150B	15.0	0.570	66.5	53.3	31.5	31.4	12.2
RSK/225B	22.5	1.000	73.6	55.3	29.3	31.6	12.9

Note: Weights include socket
* Supplied with large bail



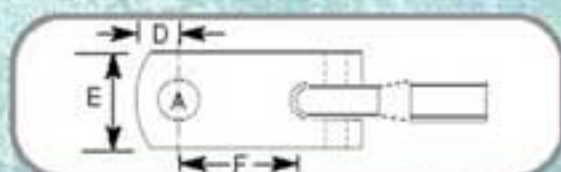
COMPOSITE RIGGING

SOCKETS WITH HIGH FATIGUE JAW



Note: Weights include socket and spike.

Part No.	Strength Tonnes	Weight Kilos	Pin Size UNF [®]	A	B	C	D	E	F
RSK/015J	1.5	0.168	5/16	8.5	10.0	16.0	10.0	20.0	20.0
RSK/030J	3.0	0.191	3/8	10.0	15.0	17.0	15.0	25.0	23.0
RSK/045J	4.5	0.300	7/16	13.5	13.0	21.0	17.5	30.0	27.0
RSK/060J	6.0	0.456	1/2	13.0	15.0	25.0	17.5	30.0	35.0
RSK/080J	8.0	0.665	5/8	16.0	18.0	30.0	23.0	40.0	43.0
RSK/105J	10.5	0.710	5/8	16.0	18.0	30.0	23.0	40.0	43.0
RSK/120J	12.0	1.057	3/4	20.0	22.0	34.0	28.0	50.0	54.0
RSK/150J	15.0	1.523	7/8	23.0	24.0	40.0	30.0	50.0	54.0
RSK/225J	22.5	2.257	1	26.0	26.0	42.0	35.0	60.0	73.0
RSK/250J	25.0	3.216	1 1/8	29.0	30.0	54.0	35.0	60.0	73.0
RSK/300J	30.0	4.550	1 1/4	32.5	34.0	58.0	40.0	70.0	90.0
RSK/450J	45.0	6.846	1 3/8	35.5	38.0	68.0	45.0	80.0	100.0
RSK/540J	54.0	7.258	1 3/8	35.5	38.0	68.0	45.0	80.0	100.0
RSK/600J	60.0	8.616	1 1/2	38.5	40.0	70.0	50.0	90.0	114.0
RSK/750J	75.0	9.816	1 1/2	38.5	40.0	70.0	50.0	90.0	114.0
RSK/900J	90.0	14.200	1 3/4	44.5	46.0	86.0	60.0	95.0	125.0
RSK/1250J	125.0	19.583	1 7/8	47.5	50.0	90.0	70.0	116.0	130.0
RSK/1500J	150.0	22.250	2	53.5	56.0	96.0	85.0	125.0	140.0

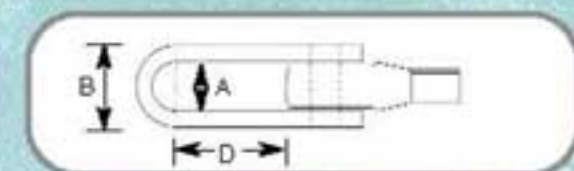
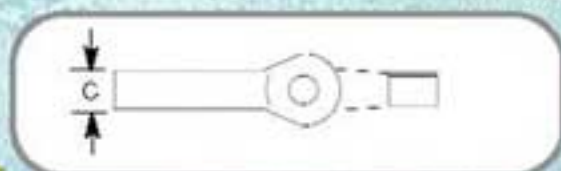


SOCKETS WITH HIGH FATIGUE EYES



Part No.	Strength Tonnes	Weight Kilos	Pin Size UNF [®]	A	B	C	D
RSK/015F	1.5	0.128	5/16	8.5	16.0	7.0	14.0
RSK/030F	3.0	0.151	3/8	10.0	19.0	9.0	21.0
RSK/045F	4.5	0.300	7/16	12.0	23.0	10.0	25.0
RSK/060F	6.0	0.416	1/2	14.0	27.0	13.0	29.0
RSK/080F	8.0	0.655	5/8	17.0	33.0	16.0	44.0
RSK/105F	10.5	0.700	5/8	17.0	33.0	16.0	44.0
RSK/120F	12.0	0.786	3/4	20.0	36.0	18.0	53.0
RSK/150F	15.0	1.293	7/8	23.0	43.0	22.0	60.0
RSK/225F	22.5	1.817	1	26.0	46.0	25.0	67.0
RSK/250F	25.0	2.416	1 1/8	30.0	54.0	28.0	73.0
RSK/300F	30.0	3.950	1 1/4	34.0	58.0	33.0	92.0
RSK/450F	45.0	5.896	1 3/8	36.0	68.0	32.0	105.0
RSK/540F	54.0	6.308	1 3/8	36.0	68.0	32.0	105.0
RSK/600F	60.0	8.366	1 1/2	38.0	70.0	38.0	103.0
RSK/750F	75.0	9.566	1 1/2	38.0	70.0	38.0	103.0
RSK/900F	90.0	12.700	1 3/4	40.0	80.0	39.0	114.0
RSK/1250F	125.0	17.543	1 7/8	46.0	86.0	45.0	125.0
RSK/1500F	150.0	21.940	2	50.0	100.0	48.0	130.0

Note: Weights include socket.



COMPOSITE RIGGING

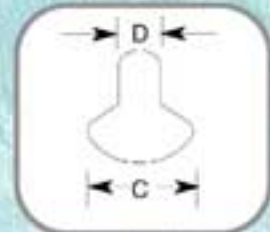
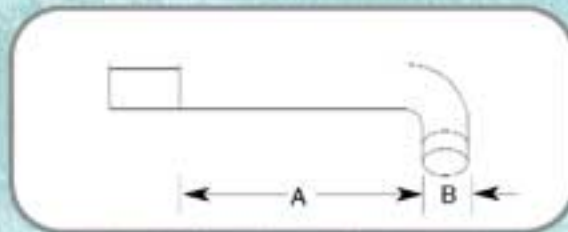
T TERMINALS

Gibb 'T' Terminals



Part No.	Strength Tonnes	Weight Kilos	B/plate Size mm	A	B	C	D
RSK/015G	1.5	0.112	5.0	68.0	11.0	20.0	12.0
RSK/030G	3.0	0.135	5.0	68.0	11.0	20.0	12.0
RSK/045G	4.5	0.250	7.0	90.0	14.0	28.3	15.0
RSK/060G	6.0	0.300	7.0	90.0	14.0	28.3	15.0
RSK/080G	8.0	0.455	10.0	117.0	17.5	33.3	19.5
RSK/105G	10.5	0.500	10.0	117.0	17.5	33.3	19.5

Note: Weights include socket and spike.



BSI 'T' Terminals

Part No.	Strength Tonnes	Weight Kilos	B/plate Size mm	A	B	C	D
RSK/015D	1.5	0.092	5.0	63.0	9.0	20.5	10.3
RSK/030D	3.0	0.115	5.0	63.0	9.0	20.5	10.3
RSK/045D	4.5	0.200	6.0	80.0	12.5	31.0	14.5
RSK/060D	6.0	0.250	6.0	80.0	12.5	31.0	14.5
RSK/080D	8.0	0.405	8.0	98.0	15.5	34.0	16.6
RSK/105D	10.5	0.450	8.0	98.0	15.5	34.0	16.6

Note: Weights include socket and spike.

PRE-STRETCHING & PROOF TESTING

All Kevlar Cables delivered from the factory are given a proof test load to ensure that the cable is correctly assembled and to improve fatigue life.

Cables can be periodically returned and re-tested to a specified load with a new test certificate supplied.

Other cables and rigging can be proof tested as part of our standard rigging services. Please contact us for further information.

Kevlar is a registered trade name of Du Pont.

COMPOSITE RIGGING

PBO CABLE

PBO cable is an exciting new fibre that offers high strength and low stretch but is less brittle than Carbon. Once made into a composite cable the same way as with Kevlar, we end up with a cable that has the same strength as Kevlar and less stretch for half the cross sectional area of material. This means a cable of much smaller diameter and half the weight of Kevlar for the same performance.



Part No.	Strength Tonnes	Weight Kilos	Ext. Diam mm
RSP/030T	3.0	0.027	7.0
RSP/060T	6.0	0.045	7.5
RSP/090T	9.0	0.065	8.8
RSP/120T	12.0	0.079	10.0
RSP/160T	16.0	0.098	11.0
RSP/240T	24.0	0.145	13.5
RSP/300T	30.0	0.189	15.5
RSP/450T	45.0	0.259	18.0
RSP/600T	60.0	0.321	20.0

Due to the small size of the cable it is possible to make very small end sockets. Due to their small size they do not easily interface with standard end fittings and most need to be customised. To keep weights to a minimum sockets are usually made from titanium alloy.

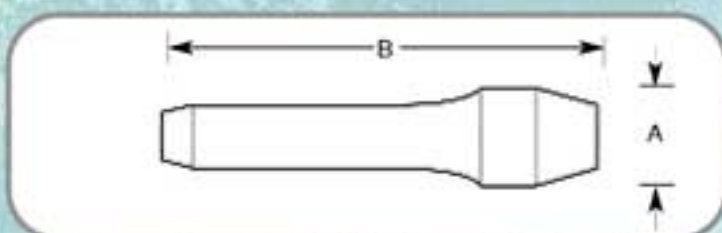
Please note that due to the fact that PBO is a very new fibre with only limited technical information we cannot offer any warranty on this fibre.

PBO TITANIUM SOCKETS



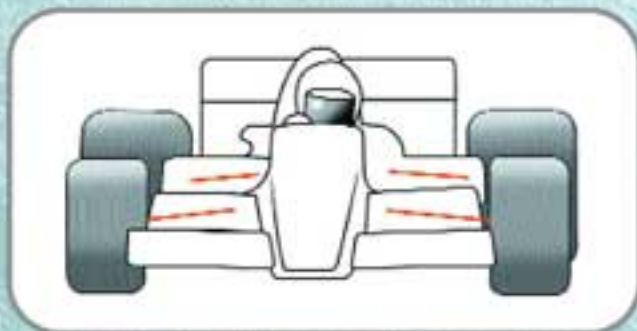
Part No.	Strength Tonnes	Weight Kilos	Thread UNF"	A	B
RSP/030S	3.0	0.031	5/16	21.0	80.0
RSP/060S	6.0	0.058	1/2	23.0	94.0
RSP/090S	9.0	0.098	7/16	26.0	113.0
RSP/120S	12.0	0.124	5/8	31.0	131.0
RSP/160S	16.0	0.206	3/4	34.0	149.0
RSP/240S	24.0	0.310	7/8	41.0	189.0
RSP/300S	30.0	0.467	1	50.0	217.0
RSP/450S	45.0	0.959	1 1/8	59.0	260.0
RSP/600S	60.0	1.386	1 1/4	70.0	317.0

Note: Adaptor threads assume high strength custom end fittings, NOT Stainless Steel.



COMPOSITE RIGGING

COMPOSITE LOOPS



Another application for PBO, Vectran and Kevlar is to make cables from a continuous loop of fibre. This creates a super strong, super light cable that can have a customised thimble at either end. Once wound the cable can be protected with heat shrink covers and chafe covers.



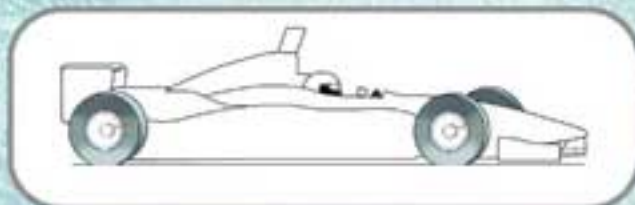
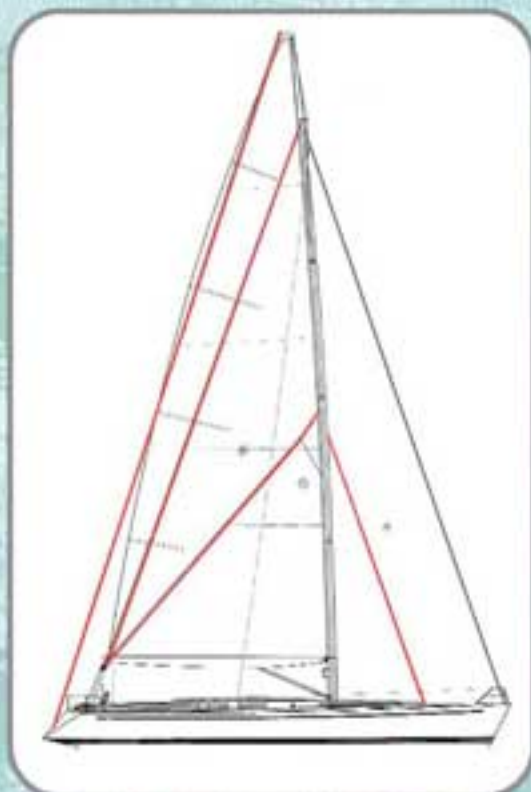
When used for yacht rigging it is not possible to interface these cables with standard end terminations and the most usual method is to use lashings.

Composite Rigging have made a large number of PBO cables for the Racing Car Industry where they are used to absorb energy from the wheels in the event of an accident.



COMPOSITE RIGGING

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**HIGH PERFORMANCE YACHTING
HIGH PERFORMANCE MOTOR RACING
AEROSPACE INDUSTRY**

Based in Saxon Wharf, Southampton, we design and produce all our advanced rigging systems here, although installation can be anywhere in the world. Advanced Kevlar, PBO cables and termination fittings are always available. We develop new and individual rigging systems for marine, sport, aerospace and industrial applications.

Our production team represent some of the most experienced rigging experts in the world, having been involved with the development of all types of systems from America's cup to Formula 1. Please call for more information.

Don't forget to register at our website to receive the latest up to date information on mast and rigging developments.

www.rigshop.com

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