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Multistrand Carbon Rigging

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The world's leading supplier of composite rigging, **Future Fibres** introduced ECthree multistrand carbon rigging in 2015 on the heels of ECsix's widespread market adoption within the yacht industry. ECthree is the go-to **composite rigging product** for yachts in the **30 to 65 foot range**.

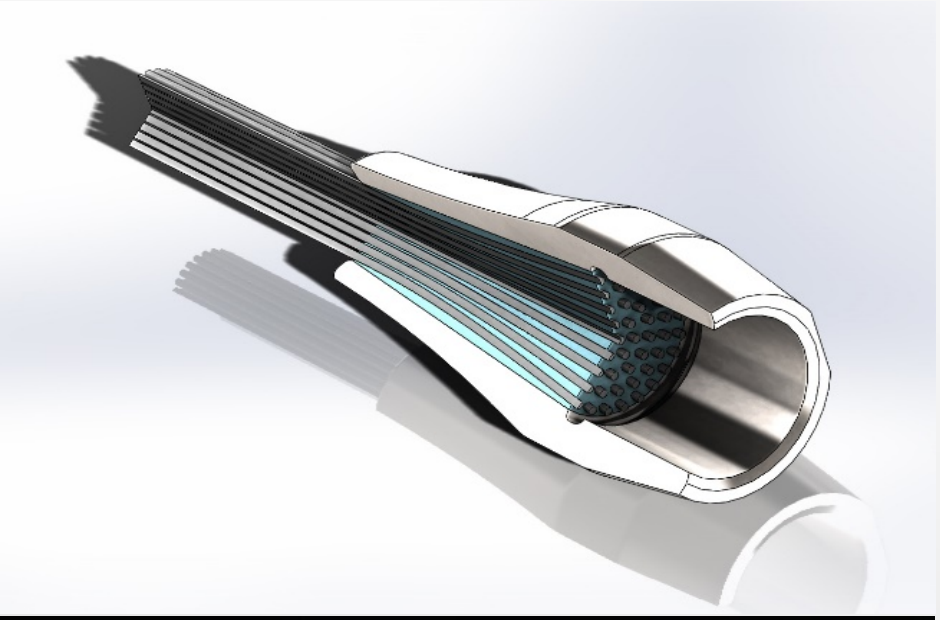
ECthree brings the **performance, safety and comfort** benefits of Multistrand Carbon Rigging to yachts that don't require the high-spec performance of ECsix.

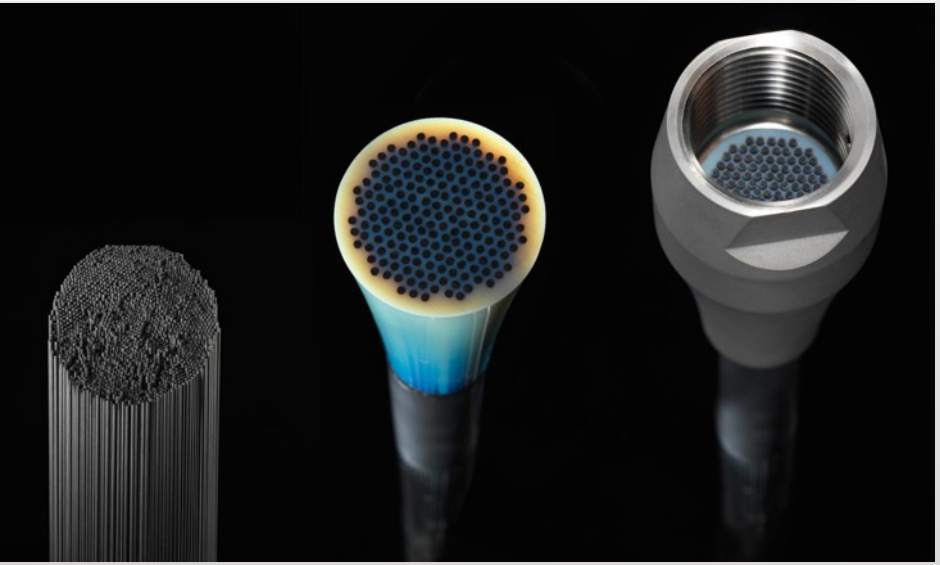
Contruction

ECthree utilises a **standard modulus carbon fibre** coupled **to stainless steel end fittings.** With an **increased safety factor** it is ideal for cruising, club racing or racing yachts. ECthree's multistrand construction allows any yacht to convert from wire or nitronic rigging into a durable and lightweight composite rigging solution that yields significant **weight savings aloft at a lower price** than the more refined, lighter weight, and higher performing ECsix product.

Product spec.

Carbon Fibre:	T300
Fittings:	Stainless Steel
Safety Factor:	4
Braid fibre:	Polyester
Range:	30' - 65'





Lighter

ECthree will reduce the weight of your yacht's rigging by **up to 70%** compared with traditional rod or wire. Reducing weight aloft **increases righting moment** and **decreases pitching** – so ECthree is **faster and more comfortable** under sail and reduces the roll motion at anchor. Weight removal aloft can also deliver fuel savings, making longer passages more economical as well as more comfortable.

Reliable

The bundles of pultruded carbon rods make ECthree **extremely resistant to fractures from bending, compression and impact**. Because the rods inside the cables are independent and free to move, they will easily absorb energy in case of impact.

Any damage is limited to individual rods. There is no crack propagation.

Our unique construction method removes the risk of compressive failures. Tests have proven that multistrand cables can sustain over **40% damage and still remain operational**.

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Performance

A combination of reduced weight, reduction in pitching and increased stability will increase your sailing performance.

Improved boat handling

A smoother sailing motion with less pitching and rolling at sea.

The yacht will be more responsive to the helm with increased acceleration out of a tack. This is not only an advantage for racing, but also for cruising since the helm will feel lighter and more responsive, and even more forgiving.

It simply makes driving the boat easier and it will improve the motion of the boat in a seaway.

Increased **comfort**

Lower heel angles and less rolling /pitching not only improves sailing performance but also comfort at sea and at anchor.

Reduced **vibration**

ECthree is built using ECsix principles, which is proven to have very low vibration thanks to the friction between rods. Vibration while sailing is proven to increase aerodynamic drag on the rigging whist creating a very uncomfortable noise.

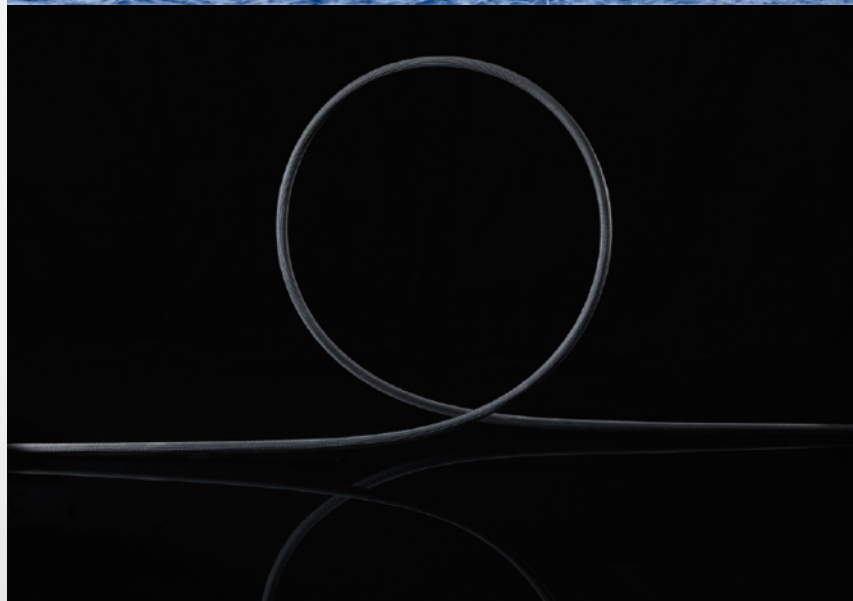
A solid monolithic cable (metal or carbon) has 1.5 times more tendency to vibrate than multistrand carbon cables.

Easy to **retrofit**

ECthree is designed to interface with most carbon or aluminium masts on the market. Utilising our network of local riggers we ensure measurements and fitting is done efficiently and accurately and the conversion is a real plug & play.

Proven track record

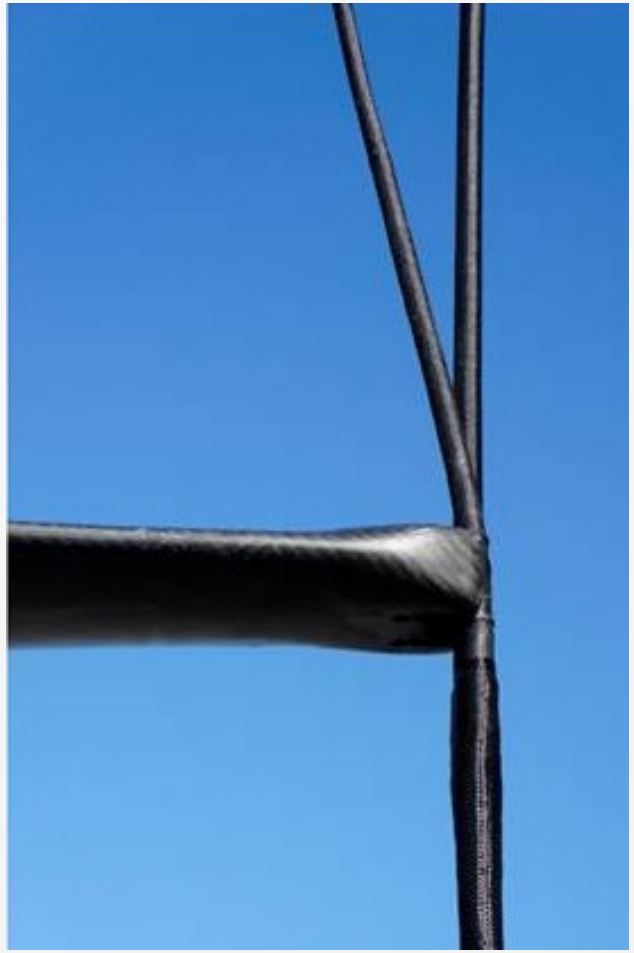
Multistrand carbon rigging has been supplied to over 600 boats and sailed in excess of 1,000,000 miles in all conditions. This, in addition to extensive ongoing laboratory testing, proves that no other rigging system has such reliability.



Coilable

The manufacturing method of multistrand rigging allows cables to be coiled. Cables can then be installed and serviced by the OEM quickly and easily if required.

Aesthetics



Neat and clean spreader tips

Continuous multistrand rigging allows for small spreader tips improving and modernising overall rig look whilst being kinder on overlapping sails.

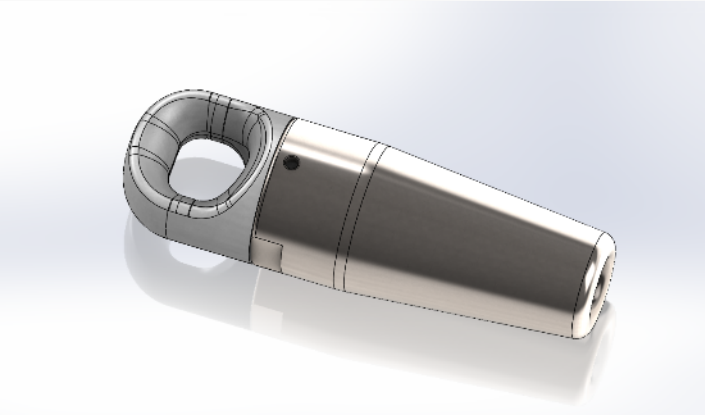
Braid and cover colour options

ECthree allows the unique ability to colour code braiding to the boat's colour scheme. Alongside the overall rigging braid package we can also tailor chafe protection for extra protection.

Metal finishing

Fully custom end terminations and interfaces to match the aesthetic of the boat.

Fittings

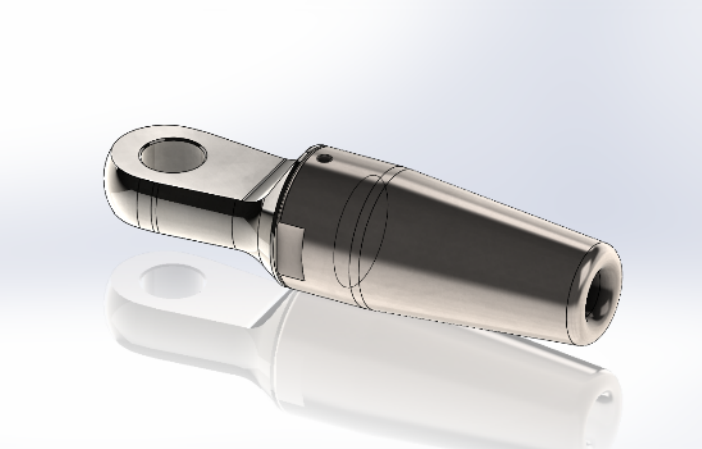


External conical fitting - lash

Pultruded rods are bundled and cut to length, then passed through the narrow end of a conical metallic fitting. Including external eye.

Carbon Eye

Aft rigging only.



External conical fitting - pin

Pultruded rods are bundled and cut to length, then passed through the narrow end of a conical metallic fitting.

Internal conical fitting

Only available when interfacing with internal tangs.

CASE STUDY

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43’ YACHT

WEIGHT SAVINGS:
26kg, which means a **67%** of the rigging total weight.

RIGHTING MOMENT:
RM increases **100kg.m** which represents **+1.7% RM**

RESULT:
56kg on the rail would be needed in order to generate the same RM increase of **+100kg.m**

CONCLUSION:
Upgrading **from rod rigging to ECthree** on a 43’ yacht, will have the same effect as having **one extra person of approx. 56kg** hiking on the rail.

Weight out the mast equals **10 times** weight out of the keel. So 26Kg is potential **260Kg out of the keel** for the **same RM.**

50’ YACHT

WEIGHT SAVINGS:
42kg, which means a **72%** of the rigging total weight.

RIGHTING MOMENT:
RM increases **177kg.m** which represents **+1.6% RM**

RESULT:
80kg on the rail would be needed in order to generate the same RM increase of **+177kg.m**

CONCLUSION:
Upgrading **from rod rigging to ECthree** on a 50’ yacht, will have the same effect as having **one extra person of approx. 80kg** hiking on the rail.

Weight out the mast equals **10 times** weight out of the keel. So 42Kg is potential **420Kg out of the keel** for the **same RM.**

60’ YACHT

WEIGHT SAVINGS:
68kg, which means a **76%** of the rigging total weight.

RIGHTING MOMENT:
RM increases **379kg.m** which represents **+2.1% RM**

RESULT:
176kg on the rail would be needed in order to generate the same RM increase of **+379kg.m**

CONCLUSION:
Upgrading **from rod rigging to ECthree** on a 60’ yacht, will have the same effect as having **two extra people of approx. 88kg** hiking on the rail.

Weight out the mast equals **10 times** weight out of the keel. So 68Kg is potential **680Kg out of the keel** for the **same RM.**

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