Laser

EXTRA XD DIMENSION

POWER PACK SYSTEM 1515

GET THE EDGE WHEN YOU NEED IT

Vectran V12

- A liquid crystal polymer.
- Used extensively throughout.
- One of the newest top spec ropes available.
- 12 strands are formed to produce a solid plaited rope with a squarer profile and because they are balanced to distribute the loads equally they resist kinking and work well around turning blocks.
- Has a unique pre-stretch system which heat sets the rope to give additional strength and abrasion resistance.
- Ultra low stretch.
- Very high strength.
- Excellent load to load fatigue resistance.
- Low creep.
- Lighter than wire.
- Zero weight gain when wet.
- UV resistant.
- Has clear PU coating.

Vectran "knobbly" control lines

- Vectran core to give the same performance as above.
- Knobbly polyester outer gives increased grip in the cleats and is hardwearing.
- Knobbles assist in turning around the micro blocks.
- Knobbles give good grip on handling.
- Low water absorption.

Excel Race Dyneema

- Preferred by Paul Goodison on the kicker control line. Has a plastic handle, so grip on handling not an issue.
- Better around lots of tight radius such as final blocks in the Vang system.

7mm Mega Bungy

- Better strength.
- More even stretch characteristics.
- Can support the crew weight on the toestrap for downwind sailing, avoiding continuous adjustment of the adjustable toestrap.

Liros Majic Light

- Extremely light.
- Zero water absorption.
- Anti twist.
- Dyneema core for low stretch.
- Has a heat treatment system to stop creep in the core.
- Feels good.

List of Parts

(Due to the continuous improvements, specifications, dimensions & colours may vary to those shown)

1 Cleat base with Harken metal micro cleats and extreme fairlead system
2 Block plate and two 16mm Harken air blocks
3 Vectran/polyester Cunningham control line (blue/yellow fleck)
4 Vectran/polyester outhaul control line (red/yellow fleck)
5 Dyneema mast retention line (yellow)
6 Cunningham part 1: 6mm Vectran 1.2m purple fleck
7 Outhaul part 1: 4mm Vectran 1.5m purple fleck
8 Outhaul Mega bungy: 1m x 7mm shock cord
9 Outhaul clew hook (optional)
10 2 x 4mm Vectran block ties for outhaul and Cunningham turning blocks
11 2 x 3mm Vectran block ties for clew of sail and turning block on boom
12 Clew strap
13 4 x NO8 Pozi pan head screws
14 4 x 16mm Harken air blocks
15 2 x 16mm Harken air blocks with becket

Installation instructions

1 Apply silicone/marine sealant to the screw holes in the deck.

2 Fit the **block plate** and the **cleat base plate** (parts 1 and 2)

3 Attach the **Harken Air blocks**

4 Tie on the **16mm air block** to the boom cleat using the **3mm Vectran** (parts 11 & 14).

5 Take the **4mm Vectran x 1.5m** (purple fleck, part 7)
Tie an overhand stop knot – single hitch with a figure of eight stop knot, to the outhaul fairlead on the boom.

6 Tie the **16mm air block** to the clew of the sail using the short piece of **3mm Vectran** (parts 11&14)

7 Take the **mega bungy** (part 8) and feed it through the loop in the clew strap and tie a simple stop knot.

8 Put the sail on the mast and put the mast into the boat. Using the short piece of **4mm Vectran x 0.55m**, tie a bowline around the mast above the gooseneck and tie a block onto the tail (the distance from the centre of the gooseneck bolt to the block must not exceed 100mm (By-law 1 rules part 2, 3 (f) v)

9 Feed the red Vectran/polyester **knobbly control line** (part 4) through the port deck turning block.

10 Continue to feed the control line through the block tied to the mast at the gooseneck.

11 Put the **red control line** into the port deck cleat.
12 Put the boom onto the gooseneck; ensure that the boom does not fall off at this stage by holding it in position.

13 Take the piece of **4mm Vectran** that you previously tied to the boom end fairlead and put it through the block tied to the clew of the sail feeding it from the starboard side.

14 Bring the outhaul line back to the boom end feeding it through from the port side.

15 Tie the air block and becket to the end of the Vectran.

16 Feed the outhaul control line around the air block.

17 Continue to feed the line to the block on the boom.

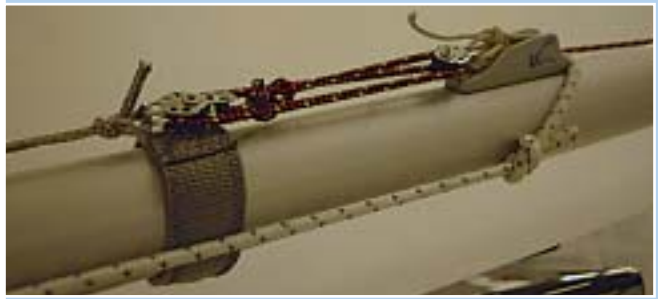
18 Tie off the control line to the becket.
19 PULL on the outhaul and cleat off on the deck cleat.

20 With the outhaul pulled on tight fit the clew strap to the sail and boom.
21 The clew strap webbing is fed through the sail and then through the ring.

22 The strap is pulled so that the clew of the sail is tight to the boom. The Velcro is secured down.

23 Put the excess through the clew eye of the sail.

24 Secure with the flap.



25 Tie off the bungy around the cleat with a bowline.

26 The clew hook can be used as an alternative method of securing the clew of the sail. This may need pliers to open the eye slightly to fit the **micro block** (Part 9).

Cunningham

1 Tie the **block and becket** to the **6mm Vectran x 1.2m** (part 6) length and feed it through the Cunningham eye of the sail from the starboard side.

2 Tie a bowline around the kicker tang with Vang in place.

3 Tie the **air block** to the mast below the kicker tang with the piece of **4mm Vectran** (part 10).

4 Tie the **blue Vectran/polyester control line** (part 3) to the becket on the micro block.
5 Feed the line down to the single block tied to the mast previously.
6 Feed the line back up to the block and becket and finally down to the turning block at the base of the mast and through the deck cleat.

7 Finally tie the **mast retention line** (part 5) to the tang and the block plate so that the mast can rotate 180 degrees and the bowline acts as a fairlead for the centreboard elastic below the Vang.

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