EXTRA **XD** DIMENSION

XD Outhaul & Cunningham System

XD   **Laser**

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Vectran V12

These lines are used extensively throughout the XD system. Vectran 12 is a 12-strand braided rope utilizing fibers made from liquid crystal polymer which give it a very high strength-to-weight ratio. The strands are formed to produce a solid plaited rope with a squarer profile. They are balanced to distribute the loads equally, resist kinking and work well around turning blocks. Vectran 12 line is incredibly lightweight and doesn't absorb water so it remains so in wet conditions. It features extremely low stretch and low creep, achieved by a heat-set pre-stretching procedure during manufacturing. Before leaving the factory the line is given a clear PU coating for enhanced abrasion resistance and UV protection.

Vectran control lines

The XD control lines are grippy when wet; yet maintain extremely strong with low stretch properties. This is achieved by covering a Vectran core with a knobby and grippy polyester outer sheath. The polyester sheath maintains the Vectran core's low water absorption by allowing water to pass through the line. The sheath assists in turning around the system's micro blocks, reduces abrasion, and increases grip in both cleats and hands.

List of Parts

1. Cleat base with Harken metal micro cleats and X-Treme angled fairlead system
2. Block plate and two 16 mm Harken air blocks
3. Vectran cunningham control line (blue fleck)
4. Vectran outhaul control line (red fleck)
5. Dyneema mast retention line (yellow)
6. Cunningham part 1: 6 mm Vectran 1.2 m
7. Outhaul part 1: 3 mm Vectran 1.5 m
8. Outhaul Mega bungee: 1 m x 7 mm shockcord
9. Outhaul clew hook (included, but optional for use)
10. 2 x 3 mm Vectran block ties for outhaul and cunningham turning blocks
11. 2 x 3 mm Vectran block ties for clew of sail and turning block on boom
12. Clew strap
13. 4 x No 8 pan head screws
14. 4 x 16 mm Harken air blocks
15. 2 x 16 mm Harken air blocks with becket

Due to XD kit continuous improvement, specifications, dimensions and colors may vary to those shown.

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.**

Outhaul

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

5 Take the 4 mm Vectran x 1.5 m (purple fleck, part 7). Tie an overhand stop knot – single hitch with a figure 8 stop knot, to the outhaul fairlead on the boom.

6 Tie the **16 mm air block** to the clew of the sail using the short piece of **3 mm Vectran** (parts 11&14).
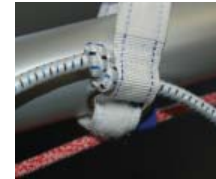
7 Take the **mega bungee** (part 8) and feed it through the loop in the clew strap and tie a simple stop knot. Alternatively, the mega bungee can be attached to the stainless steel ring with an overhand knot and half hitch.

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

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

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

11 Put the other end of the Vectran **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 **3 mm 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 (Vectran V12) 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 12.

**16** Feed the outhaul Vectran control line around the air block.

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

18 Tie off the Vectran control line to the becket.

19 Pull on the Vectran outhaul line 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.
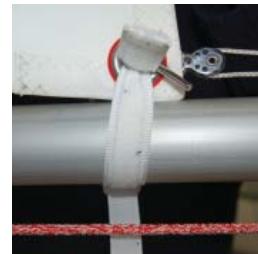
22 The strap is pulled so that the clew of the sail is tight to the boom, but can still slide when adjusted by the outhaul. The velcro is secured down.

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

24 Secure with the flap.

25 Tie off the bungee around the boom forward of 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 require pliers to open the eye slightly to fit the **micro block** (Part 9).

Cunningham

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

2. Tie a bowline around the boom vang tang with the vang in place.

3. Tie the air block to the mast below the boom vang tang with the piece of 3 mm Vectran (part 10).

4. Tie the **Vectran control line** (part 3) to the becket on the micro block.
5. Feed the Vectran control line down to the single block tied to the mast previously.
6. Feed the Vectran control 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 daggerboard bungee below the vang.

8. Finished system.

It is recommended to tape permanently tied Vectran knots with white electrical tape or rigging tape. This will aid in preventing tied Vectran line ends from prematurely coming untied.

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