

Farr 30 IRC Optimised Bowsprit

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HP30



IMPROVED PERFORMANCE UNDER IRC

Farr Yacht Design has designed a removable, IRC optimized bowsprit for the Farr 30 One Design, enabling it to enter the HP30 Class.

The bowsprit measures 1.79m from the stem, a length which was chosen after evaluating similar boats and determining that the increased downwind boat speed eclipsed the induced rating penalty. The bowsprit's cross sectional shape was derived from FYD's proprietary formula that minimizes aerodynamic drag without compromising structural rigidity. 3D modeling tools were used to ensure that the bowsprit conforms perfectly to the bow geometry.

The tackline is routed through existing hardware on the bow, reducing the amount of additional hardware required. A single bolt per side attaches the bowsprit to the hull; the bowsprit is easily removed so that the boat can get back into its one design configuration.

ORDERING

The price for this package is £3,000 + VAT (unfitted), and includes the bowsprit and VPPs. Built by Composite Craft, Cowes, UK.

For more information and to order, contact Joe Hall at Farr Yacht Sales at joe@farryachtsales.com and at +44 1983 200901.

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Joe Hall
Farr Yacht Sales Europe
56 Mill Hill Road, Cowes, PO31 7EQ
joe@farryachtsales.com
+44 1983 200901



Farr 30 Bowsprit Sail Dimensions/Details

The sailplan (338_S5_0502_A_BOWSPRIT_SAILPLAN.DWG) shows the general arrangement for the bowsprit designed for the Farr 30. Sail dimensions for the maximum size running spinnaker for this sprit are listed on that drawing but are further detailed here.

Relevant Bowsprit Dimensions

ISP, m	13.62
STL/TPS, m	5.20
J, m	3.32
Sprit Length from stem, m	1.79
Maximum luff working load at tack	400 kg

The sprit was designed to be long enough to accommodate a wide variety of downwind sails without incurring any unnecessary IRC handicap penalty. The bowsprit is not designed to carry high luff-load code 0's that could be used for upwind sailing, but this sail type is not typically favored under IRC since it must be measured as a headsail (instead of a spinnaker), incurring a large handicap penalty.

As long as the sail midgirth is greater than 3% of the foot length, then all sails flown from the sprit will be rated as spinnakers and therefore, only the maximum sized sail will affect the rating. The following table summarizes two options for the maximum-sized spinnaker.

	Option 1: Large	Option 2: Smaller
SPA	106.9	99.4
Suggested Linear Dimensions:		
SLU	15.6	15.29
SLE	13.08	13.14
SFL	9.06	8.29
SHW	8.97	8.45

Two sails sizes are given since the optimum solution depends somewhat on the typical sailing profile of the boat. A larger sail will increase downwind running performance, particularly at wider apparent wind angles. Therefore the larger sail is favored on windward-leeward courses where equal parts of upwind and downwind sailing are included. A larger sail will also increase peak performance in marginal surfing conditions, as long as the sail is not overpowering the boat and causing excessive heel.

It is expected that this will coincide with downwind running in the windspeeds range from 12-18 knots.

A smaller sail will more likely be favored (taking into account its handicap) on courses with more upwind than downwind sailing, and courses with reaching. This is especially true if reaching without spinnaker, but is also true if flying a smallreaching sail that is less than the maximum rated size.

In both cases, the spinnaker area (SPA) is the most important suggested value. The detailed luff, leef, foot and mid girth dimensions should be selected by a sail designer to ensure that the sail flies properly.



