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# UPFFRONT.COM SMARTSAILING GUIDE

## FACNOR BOWSPRIT - SPECIFICATION

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Facnor/Sparcraft Bowsprits can be bought as a standard length, but every sprit can be ordered to a specific cut length and finished in the factory. The key to calculating the correct finished length for your bowsprit is dependent on two key parameters: the unsupported length projecting forward of the bow and then the location of the two “working” deck fittings. Follow the 4 key steps below to correctly specify your new Facnor bowsprit.

### Step 1: Correct tube diameter check

The first step to selecting the correct bowsprit for your boat is to get the right tube diameter. The diameter of the aluminium tube provides strength/stiffness as boat and sail sizes increase.

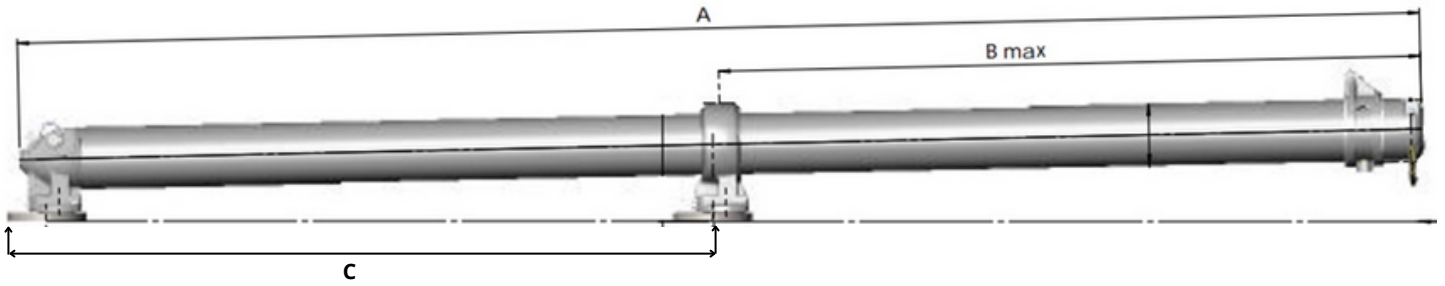
| Tube Diameter (mm) | Approx Boat Size | | Max Sail Area (m2) | |
|---|---|---|---|---|
| | (ft) | (m) | Asym Spi | Code / Genn |
| Ø 70 | 25 - 36 | 7,5 - 11 | 60 | 37* |
| Ø 80 | 36 - 40 | 11 - 12 | 82 | 52* |
| Ø 90 | 40 - 47 | 12 - 14 | 102 | 65* |
| Ø 100 | 48 - 57 | 14 - 17 | 130 / 150* | 105* |

*Maximum size with Bridle stay kit (bobstay)

As with all generic size recommendations, you should assume that these are for a medium displacement monohull. If you have a catamaran or heavy displacement boat, you should consider increasing the tube diameter (contact us at support@upffront.com if you are unsure)

### Step 2: Maximum unsupported length (B Max)

Each diameter of tube has a maximum unsupported length (the distance from the bow collar to the outboard end of the bowsprit), together with a minimum inside length (between the two deck fittings) which have been specified to ensure the bowsprit does not get overloaded. The majority of customers will want their sail projecting as far forward as possible, however, you can set your bowsprit with an unsupported length less than, and an inside length greater than, the recommended lengths in the table below.



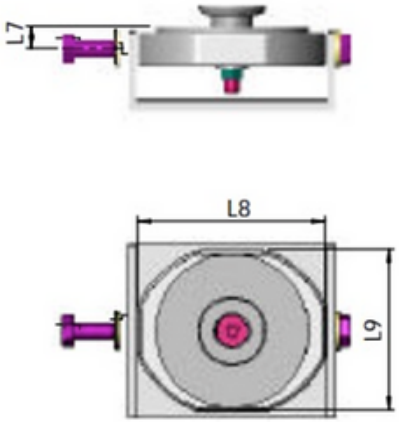

| Tube Diameter (mm) | MAX Unsupported Length (mm) | MIN Inside Length (mm) |
|---|---|---|
| Ø 70 | 800 | 800 |
| ø 80 | 900 | 900 |
| ø 90 | 950 | 950 |
| ø 100 | 1000 | 1000 |

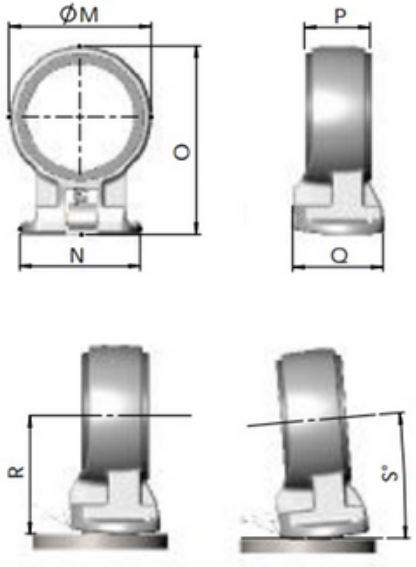
## Step 3: Location of Deck fittings

There is a minimum inside length which you must respect, however, it is the relative placement of the stem fitting and aft working fitting (C) which determine total required bowsprit length.

**Stem head fitting / Collar**

This should be placed as far forward on the bow as possible. Check the dimensions of the fitting for the ideal above-deck location, together with accessibility below-deck to bolt it down. If you have bow rollers, it may be possible to fabricate a plate above the channel to mount the stem fitting. However, you should note the maximum angle tolerance of 5 degrees (for Ø70 and Ø80) and 3 degrees (for Ø90 and Ø100).

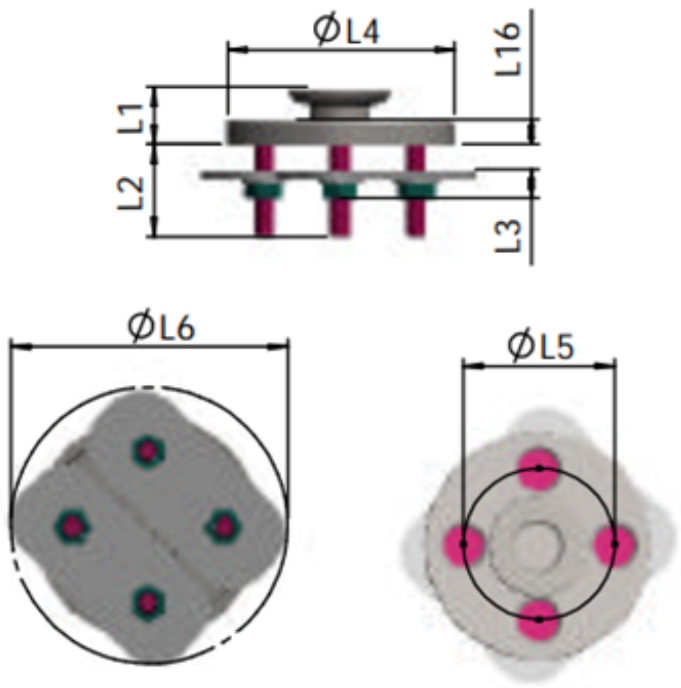



| Tube Diameter (mm) | L7 (mm) | L8 (mm) | L9 (mm) | ØM (mm) | N (mm) | O (mm) | P (mm) | Q (mm) | R (mm) | S (°) |
|---|---|---|---|---|---|---|---|---|---|---|
| Ø 70 | 13 | 110 | 94 | 93 | 80 | 125,6 | 44 | 60 | 78,6 | 5 |
| ø 80 | 13 | 110 | 94 | 93 | 80 | 125,6 | 44 | 60 | 78,6 | 5 |
| ø 90 | 13 | 110 | 94 | 115 | 80 | 146 | 44 | 60 | 88,5 | 3 |
| ø 100 | 13 | 110 | 94 | 115 | 80 | 146 | 44 | 60 | 88,5 | 3 |

**Aft Working deck fitting**

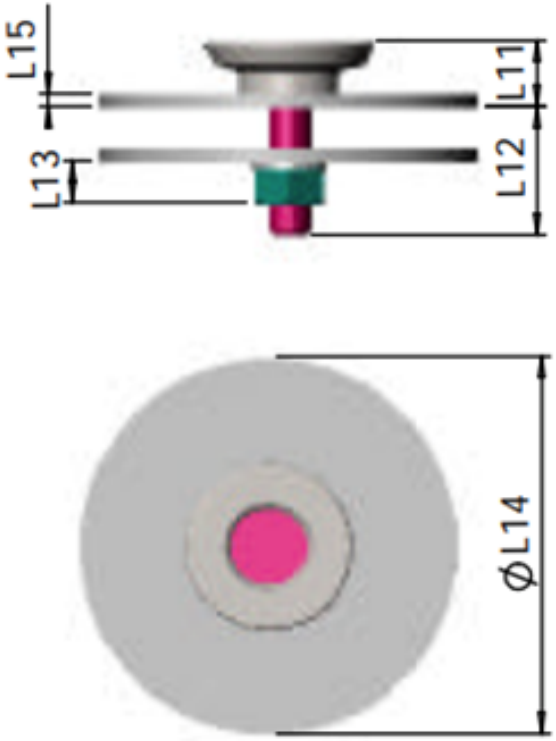
The key for the location of the aft working fitting is that it is on a solid, structural piece of deck as close to the centre line as possible. This is often just aft of the anchor / bow locker hatch. Check the alignment with the forward stem fitting to allow a clear path past the forestay and any additional bow hardware.




| Tube Diameter (mm) | L1 (mm) | L2 (mm) | L3 (mm) | ØL4 (mm) | ØL5 (mm) | ØL6 (mm) | L16 (mm) |
|---|---|---|---|---|---|---|---|
| Ø 70 / ø 80 / ø 90 / ø 100 | 22,75 | 39 | 12,3 | 90 | 60 | 109,7 | 10 |

**Parking deck fitting**

The parking deck fitting is nonstructural and used to locate the aft end of the pole when the bowsprit is not in use. As the main collar pivots, it is common to locate the parking deck fitting along the side deck at a point which allows the front of the sprit to remain just inside the collar.




| Tube Diameter (mm) | L11 (mm) | L12 (mm) | L13 (mm) | ØL14 (mm) | L15 (mm) |
|---|---|---|---|---|---|
| Ø 70 / ø 80 / ø 90 / ø 100 | 15,75 | 32,7 | 13,3 | 90 | 3 |

### Step 4 : Length Calculation

Total finished bowsprit Length (A) is then the distance between the stem fitting and aft working deck fitting (C) PLUS the Unsupported length (B).

$$A = C + B$$