

# How to choose the right thruster for your boat

The boat's wind area, the 'lateral wind draft area' and the thruster's tunnel position in the hull determine the thruster's performance on a boat. By knowing these factors we can calculate the wind pressure on the boat and the centre point of this wind pressure. From these calculations we can determine what

thrust is needed to counter the wind pressure with the given thruster position. To gain total control of your boat, install both a bow and stern thruster, leaving the main engines to propel the boat forward and backward.

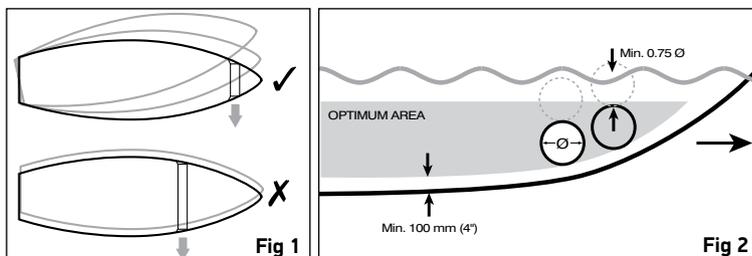
The main factors that decide correct thruster sizing are:

## 1 Position of the thruster

The actual position of the thruster will depend on the internal & external construction of the vessel.

For optimal performance the thruster should be mounted within the following:

- As far forward as possible to maximise the lever effect. (Fig 1)
- $1 \times \varnothing$  (0.75 x  $\varnothing$  minimum) below the waterline to prevent air being sucked into the tunnel. (Fig. 2).  $\varnothing$ =Tunnel Diameter.
- Minimum suggested tunnel length  $2 \times \varnothing$ .



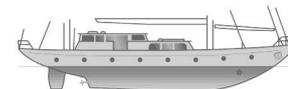
## 2 Boat size, type and shape



Light displacement / low windage



Medium displacement / Medium windage



Heavy displacement / High windage

High control / Heavy boat

Medium control / medium displacement

Light control / light displacement

### Boat length overall

	m ft	9 m 30 ft	11 m 35 ft	12 m 40 ft	14 m 45 ft	21 m 50 ft	17 m 55 ft	18 m 60 ft	20 m 65 ft	21 m 70 ft	23 m 75 ft	24 m 80 ft	26 m 85 ft	27 m 90 ft
110TT 1.5														
140TT 2.0														
140TT 2.2														
185TT 3.0														
185TT 4.0														
185TT 5.0														
185TT 6.0														
250TT 8.0														
250TT 9.6														
300TT 10.8														
250TT HYD														
300TT 15.0														
300TT HYD														

### Vertical Retracting and Swing Thrusters size guide

	10 m 35 ft	12 m 40 ft	15 m 50 ft	18 m 60 ft	21 m 70 ft	24 m 80 ft	27 m 90 ft	30 m 100 ft	33 m 110 ft	36 m 120 ft	39 m 130 ft	42 m 140 ft	45 m 150 ft	48 m 160 ft
250 20HP														
300 30HP														
400 60HP														
500 80HP														
600 100HP														