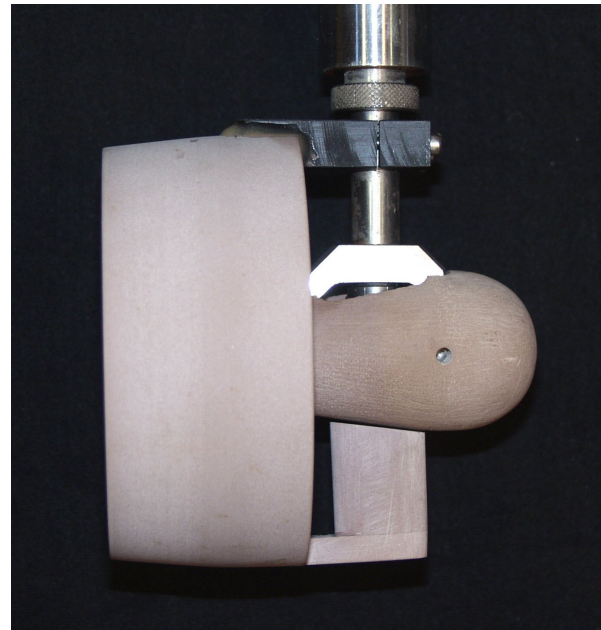


# Offshore Thruster Unit



*Close-up of offshore thruster unit fitted as azimuthing unit with example of propeller, duct and pod shell*

## General Description

The FORCE Technology Offshore Thruster Unit is designed for propulsion and/or positioning of an offshore model. It can be used as azimuth thrusters in a dynamic positioning system of an offshore model, but is also suited for use in tunnels such as bow or stern thrusters. The offshore thruster unit will provide a specified thrust in a given azimuth angle, while simultaneously measuring the total unit load.

Particular characteristics of this measuring system are:

- Compact design
- Small overall size
- Housing and drive shaft manufactured of stainless steel and aluminium.

The offshore thruster unit consists of a propulsion unit including XY-gauge and azimuth turning motor and a control box linked together by an electric cable supplying power for the thruster electronics and

transferring digital data between the propulsion unit, control box and PC.

## XY-Gauge

The offshore thruster unit is supplied with an XY-gauge for measurement of total thrust on the offshore/ship model. The XY-gauge is a full two-component strain gauge measurement bridge designed especially for this purpose.

## Azimuth Turning Motor

The offshore thruster unit is equipped with an azimuth turning motor so that the unit can be turned at any angle between 0 and 360°. The azimuth turning motor is controlled from a PC via the control box.

## Control Box

The control box links the offshore thruster unit and the PC, transferring the user-defined settings of rpm and azimuth angle to the unit.

## Technical Data

### Dimensions

House (width x width x height)	90 x 120 x 150 mm
Leg outer diameter	25 mm
Leg length (max)	465 mm
Propeller shaft diameter	6 mm

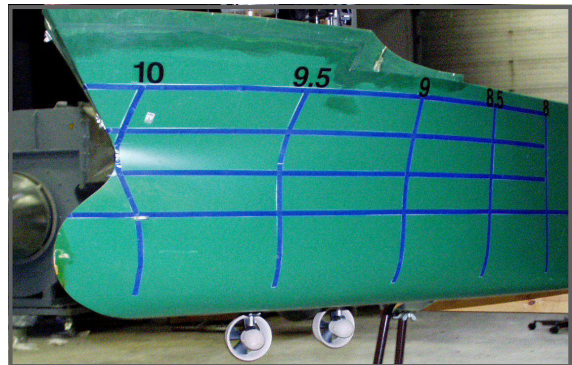
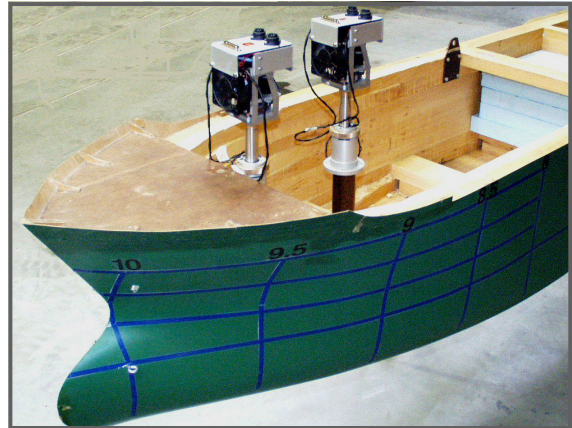
### Propulsion Motor

Motor power	up to 92 W
Motor revolutions	up to 3000 rpm
Propeller revolutions (gear 1:1)	up to 3000 rpm

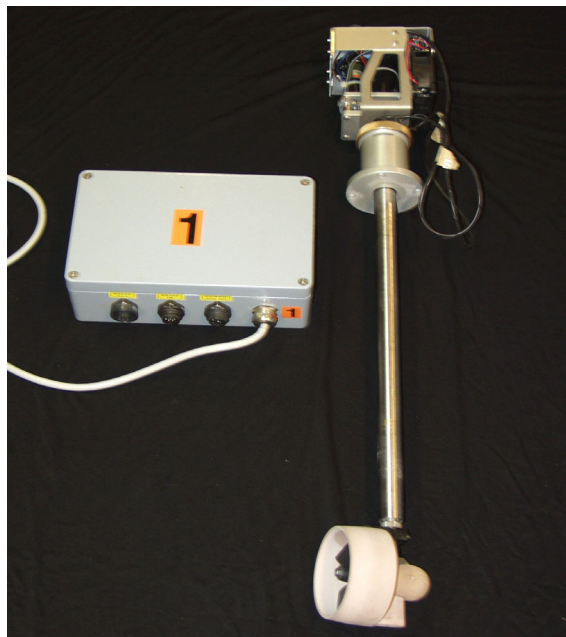
### Use in Offshore / Ship Models

The offshore thruster unit can be used as an azimuthing unit or built inside a tunnel for instance to model the bow or stern thruster of a ship.

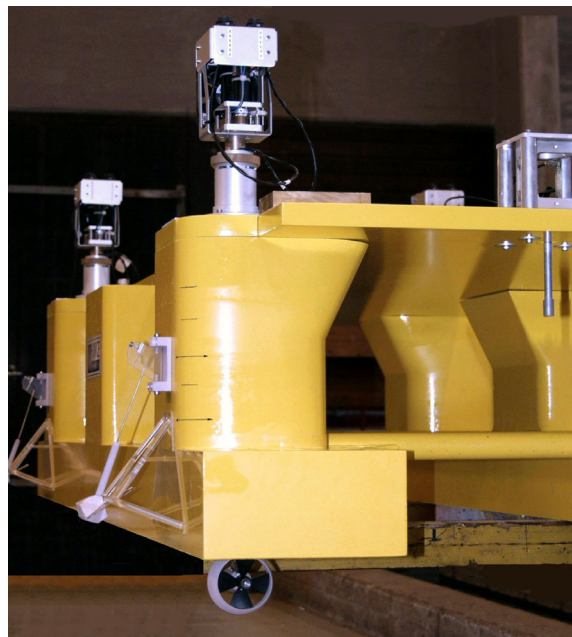
For model tests the offshore thruster unit is fitted with propeller, duct and fairing shells resembling the pod/strut, depending on the application. These pieces can be included in the delivery at an agreed additional cost, if required.



*Example of tanker model fitted with two azimuth offshore thruster units*



*Complete set of elements including offshore thruster unit with propeller, duct and pod shell, XY-gauge, azimuth turning motor and control box*



*Offshore thruster unit installed on a platform*



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