



## OCP Transverse thrusters

An OCP transverse thruster is a tunnel thruster provided with a controllable pitch propeller. Unlike fixed pitch propellers, controllable pitch propellers are normally driven at a constant and non-reversible shaft speed. OCP transverse thrusters are driven either electrically, hydraulically or by means of a diesel engine. The thrust direction and thrust force are controlled hydraulically by adjusting the pitch of the propeller blades. Due to the fact that the propeller blades can be rotated clockwise or counter-clockwise, there is no need for a reverse gearbox when driven by a diesel engine. Thrusters with controllable pitch propellers are mostly used in combination with a dynamic positioning system (DP), a computerised system to automatically maintain the vessel's heading and position.

OCP transverse thrusters are used on all types of ships with sufficient draft to guarantee proper functioning. The distance measured from the waterline in the lightest seagoing conditions to the centre of the tunnel should be about one to one and a half times the diameter of the tunnel. For shallow draft vessels we recommend our renowned Channel Thruster.

### Applications

- Diving support vessels
- Mobile offshore drilling units

- Platform supply vessels
- Shuttle & bunker tankers
- Cable & pipe laying vessels
- Oceanographic research vessels
- Dredgers & rock dumping vessels
- Mine sweepers
- Cruise Liners & superyachts

### Standard components

- Robust and hydrodynamically streamlined gearbox with built-on propeller
- Rigid and solid tunnel section provided with stainless steel liner in the propeller's blade tip area, protecting the tunnel against electrolytic corrosion
- Gravity oil tank including hand pump
- Flexible shaft coupling between the output shaft of the drive motor and the input shaft of the thruster unit, eliminating possible shaft misalignments and reducing vibration and noise.

### Features

- Intelligent design (easy to install, maximum reliability and minimum downtime)
- Optimum input-output ratio (maximum thrust efficiency and performance)
- Rigid and solid construction (reducing vibration and noise)

- Optimum design of propeller keeps cavitation volume low (maximum thrust efficiency and minimizing noise)

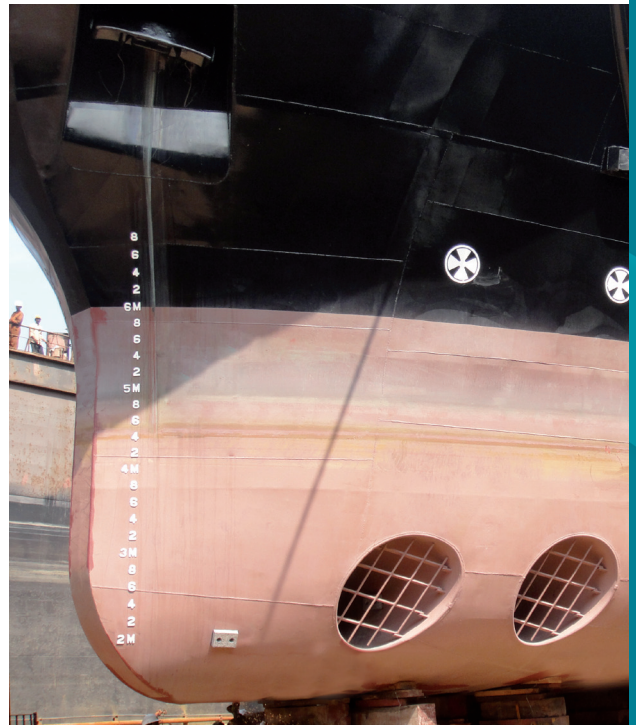
#### Drives & Controls

Dependent on your individual needs or preferences, Verhaar Omega offers a complete range of drives, controls and accessories.

- Electric or hydraulic motors
- Diesel engines and reverse gears
- Hydraulic powerpack units (pitch control units)
- Motor starters and control cabinets
- Autotransformers
- Bridge, wing and local control panels
- PLC interfacing to ship's monitoring and control system (PMS, VDR, DP).

#### Transverse thrusters

In principle, transverse thrusters or tunnel thrusters are used as auxiliary propulsion units. Depending on the design of the vessel, transverse thrusters are either installed in the bow or stern. Transverse thrusters considerably improve the vessel's manoeuvrability and reduce its overall operating costs.



Verhaar Omega offers a wide range of transverse thrusters, all designed for optimal performance and manufactured to the highest possible standards. Upon request our thruster units can be tailored to suit your individual needs and specific demands. Whether it concerns light duty or heavy duty applications, simple harbour manoeuvring or dynamic positioning, we always have the ideal thruster unit available. Verhaar Omega transverse thrusters are available with fixed pitch propellers (OFP series) and controllable pitch propellers (OCP series).

#### Verhaar Omega Thrusters

With well over four decades of experience in the field of bowthrusters, stern thrusters and drives, Verhaar Omega has earned its reputation for outstanding quality, performance and reliability. Today over 4000 thruster units have been installed on inland and seagoing vessels around the world.

#### After sales

Verhaar Omega thrusters require little maintenance other than changing oil at regular intervals. In the unlikely event of a breakdown you can always count on our 24/7 call out service and extensive stock of spares.

#### Rules and regulations

Verhaar Omega thrusters are built fully in accordance with the rules and regulations set by the major classification societies such as LRS, GL, BV, DNV, ABS, RINA and RMRS.