



Channel thrusters

The basic principle of the Verhaar Omega channel thruster is actually quite simple but very effective. With the help of a horizontal propeller water is sucked up from underneath the ship.

Once inside the thruster unit, the volume of water is deflected and guided to the channels via a so-called steering drum, which sets the thrust direction. As the drum can be adjusted over 360 degrees in either direction (clockwise or counter-clockwise), thrust force and thrust direction can be quickly and accurately controlled.

The choice is yours

Depending on your needs, channel thrusters can be supplied with two, three or four channels. The advantage of having a third and fourth channel is that they can be used for emergency propulsion or for slowing down (emergency brake). Moreover, with a fourth channel the thrust direction can be set stepless in any position, turning your thruster unit into a 360-degree steerable azimuthing thruster. Verhaar Omega channel thrusters are available in power ratings from 100 to 1500kW and can be driven electrically, hydraulically or by means of a diesel engine.

Unique green design

A Verhaar Omega channel thruster has two separate drive units, driving the propeller shaft and steering

drum respectively. This unique design eliminates any possible risk of oil or grease spills. Even in the unlikely event of leakage there is no chance of oil reaching the water surface, nor water getting into the thruster gearbox.

Applications

- River, sea and short sea cargo ships
- River cruise vessels
- Double ended ferries
- Dredgers, barges and pontoons
- Landing craft

Features & strengths

- Maximum performance at minimum draft (no less than 11kg/kW)
- Keeps on generating thrust when sailing (even when sailing ahead at full speed)
- Eco-friendly (no risk of oil and grease spills)
- Maintenance friendly (no risk of water ingress, minimum downtime)
- No protruding parts underneath vessel (no risk of damage to vulnerable parts)
- Rigid and solid construction (reducing vibration and noise)
- Optimum design of propeller (low cavitation volume, maximum thrust, low noise)

- Propeller turns in one direction (no reverse gear required)
- Quick changeover of thrust direction at maximum propeller speed (± 6 sec. from SB to PS)
- Forced lubrication and filtering of gearbox oil (no oil header tank required)

Drives & controls

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

- Electric or hydraulic motors
- Diesel engines and clutches
- Frequency converters
- Motor starters and control cabinets
- Bridge, wing and local control panels
- PLC interfacing to ship's monitoring and control system (PMS, VDR, DP)

Channel thrusters

Channel thrusters have been developed especially for ships sailing in shallow waters and are used for both auxiliary and main propulsion. They are equipped with a horizontally mounted propeller and placed in the bot-



tom of the vessel. In most cases channel thrusters are installed in the bow or the stern, although when space restrictions apply they can also be installed outside the ship, either in a specially designed gondola or in a separate bow barge. Channel thrusters considerably improve the vessel's manoeuvrability and reduce its overall operating costs. Another major advantage is that channel thrusters always generate thrust, even when the vessel sails ahead at full speed.

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 different 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.