

Reliable Drive Components for the Shipbuilding Industry



Voith Components for Marine Applications

Modern ships must meet considerable demands. As well as being efficient, they also need to transport passengers comfortably and safely. Voith drive components are renowned for being cost-effective and reliable. They are used in almost every area of the shipbuilding industry, including workboats, merchant vessels, ferries, tugboats, yachts, racing boats, passenger liners, and frigates.

Fluid couplings

The Voith fluid coupling transmits torque via the operating fluid in an entirely wear-free manner. The main parts of the coupling, pump and turbine wheel never come into contact.

In drives with diesel or gas engines, the fluid coupling is a true all-rounder. The following functions are all performed by one single component:

- Damping
- Start-up
- Overload protection
- Clutching

www.voith.com/marine-coupling



Turbo coupling type 866 DT

Torque limiting and connection couplings

The torque limiting coupling SafeSet protects water jet propellers, thrusters, conventional propellers, and other drive components against overloading and, consequently, helps to prevent costly outages and repairs. The coupling protects all drive shafts from unexpected torque peaks caused by cavitations form on the water jet impeller or debris when operating in shallow water.

HyCon is a compact and lightweight mechanical connection coupling for shaft to shaft or for shaft to flange connections. Due to its unique design with HFC coating it can transmit more torque at a lower stress concentration at the shaft. The coupling is ideal for use in marine propulsion due to its extremely high torque, low weight, low mass and space-saving properties.

www.voith.com/torque-limiter
www.voith.com/connection



SafeSet coupling



Universal joint shafts

Voith high-performance universal joint shafts offer an ideal combination of torque capacity, torsional stiffness and bending rigidity. We supply standard universal joint shafts, customer-specific adaptations as well as special designs.

This includes universal joint shafts with tripod length compensation for axial force minimization and CarboCardan CFRP universal joint shafts (carbon fiber-reinforced polymer) for weight reduction.

www.voith.com/universal-joint

Highly flexible couplings

Highly flexible couplings shift resonance frequencies out of the speed range and dampen torsional vibrations in the drive chain.

In turn, this increases the availability of all drive components and reduces life cycle costs. Fewer vibrations and less noise also means journeys are more comfortable.

www.voith.com/highflex

Monitoring and machine diagnostics

ACIDA torque monitoring systems include tailor-made drive sensor technology, engineering services and complete solutions consisting of both hardware and software:

- Torque, speed and torsion angle sensors
- Online and offline monitoring of drive systems and components
- Operating parameters and troubleshooting
- Simulations and calculations

www.acida.net



Tripod-joint shaft



Highly flexible coupling

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