



PROPULSION AND AUTOMATION FOR EFFICIENT FERRIES



FOR SAFE PASSAGE

n many regions, travel routes can be long with many destinations only accessible by water. Ferries play a key role in the transport infrastructure in these areas. Ferry operators offer daily connections to provide people with safe passage or to transport goods. Having reliable equipment is the basis for fulfilling these tasks on schedule.

This is where SCHOTTEL comes in, offering efficient, safe and environmentally friendly propulsion systems. SCHOTTEL Automation Systems and Marine Services can be used to exploit the further potential of individual vessels or even an entire fleet.







SCHOTTEL IN THE FERRY MARKET

1955

First ferry with azimuth thruster

2.500 +

Ferries worldwide with SCHOTTEL propulsion and manoeuvring systems

CO₂

SRE meets high efficiency requirement

HIGH QUALITY AND RELIABLE PROPULSION

YOUR MAIN PROPULSION OPTIONS



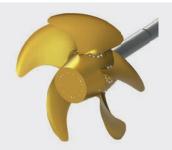
SCHOTTEL EcoPeller

- Best values in drive efficiency and course stability
- · Optimized for open seas and coastal operating conditions
- CP with full-feathering mode: alignment of propeller blades parallel to the flow to minimize drag resistance
- Versatile applications, especially suitable for medium to high speeds
- Exclusive features such as HTG, LeaCon
- Compatible with SCHOTTEL hybrid solutions (SYDRIVE-E and SYDRIVE-M)
- Outstanding comfort as LE-drive: extremely low vibration and noise level
- Various installation options



SCHOTTEL TwinPropeller

- Especially suitable for applications with limited propeller diameter
- Increased level of efficiency
- Reduced noise and vibration levels
- Numerous installation variants
- · Minimal maintenance effort, long-term availability of spare parts as OEM
- Exclusive features: SCHOTTEL LeaCon sealing system or DuroVario (optional)



SCHOTTEL ControllablePropeller

- Maximum thrust at changing speeds and loads
- Reduced noise and vibration levels (particularly with 5-blade version)
- Full-feathering mode (optional)
- Minimal maintenance thanks to its robust design
- Hydrodynamically optimized hub available for fast vessels with high propeller load
- Easy access to hub for less servicing effort
- Complete propulsion package available with comprehensive equipment



SCHOTTEL PumpJet SPJ

- Azimuth jet thruster
- Installation flush with the vessel's hull, fully protected without projecting parts
- Ideal propulsion system for extreme shallow draught operation
- Maximum thrust with extremely compact design
- Reduced noise level
- · Can be used as take-home system
- Features such as LeaCon or HTG (optional)
- SCHOTTEL CoaGrid for even more efficiency (optional)
- Elastic installation version ensuring reduction in noise and vibration levels while enhancing comfort (optional)

SOLUTIONS



AUXILIARY PROPULSION



SCHOTTEL TransverseThruster

- Maximum thrust
- Compact design
- Less maintenance required due to its robust, high-quality design
- Features such as LeaCon or HTG (optional)
- Well installation for easy access to the propulsion unit (optional)
- Elastic installation version ensuring reduction in noise and vibration levels while enhancing comfort (optional)

DOUBLE-ENDED FERRIES



Battery-Powered RoPax Ferry Husavik 2 x SRE 340 CP (900 kW each)



Shallow Water Ferry Bac 24 4 x SPJ 82 (196 kW each)



 $\textbf{LNG-Powered RoPax Ferry Færøy} \ \ 2 \times \text{SRE} \ 560 \ \text{CP} \ (2700 \ \text{kW each})$

www.SCHOTTEL.com

AFTER SALES SERVICE – DURING THE VESSELS LIFETIME

elivering state-of-the-art propulsion and automation solutions is not enough for us. Thanks to decades of experience in the field

of propulsion technology, we are able to offer highquality services tailored to your individual needs throughout the vessel's service life.



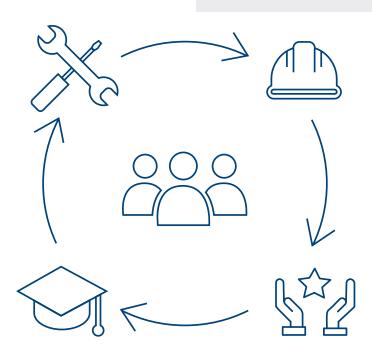
SPARE PARTS

- ► Fast delivery time thanks to global warehouse logistics
- ▶ Decades of documentation for clear identification of spare parts
- ▶ Production of almost all spare parts
- ► OEM warranty
- ▶ Original spare parts with all technical revisions known up to the time of manufacture



MAINTENANCE

- ► Globally standardized and proven high-quality service levels
- ▶ Preventive and predictive maintenance concepts
- ▶ Remote service support with augmented reality tools
- ▶ Vibration measurement with SCHOTTEL VibCheck
- ▶ More than 140 highly qualified service technicians worldwide





TRAINING

- ► Customer training courses in local language
- ▶ Courses on site or in one of 4 SCHOTTEL training centers (GER, USA, AUS, SGP)
- ▶ Permanent international knowledge transfer for service technicians



UPGRADES

▶ Increase of the shipowner's profit

UPGRADE LEVELS:

- ► Control systems
- ► Thrusters
- ▶ Systems for intelligent operative monitoring





BEHIND THE SCENES

since the invention of the rudder propeller in the early 1950s, SCHOTTEL has acquired a wealth of expertise in the development, design and production of state-of-the-art marine propulsion and control systems.

Today, a team of more than 100 engineers develops propulsion systems and digital solutions, which are manufactured to the highest quality standards in our modern production facilities in Germany.



70+ years

Expertise in the development and production of propulsion systems



>10

Product series in our portfolio



50 to 30,000kW

Power range



Propeller designs per year



39,000m²

Production area

PROPULSION TECHNOLOGY -**COMPETENCE IN CUSTOMIZED ENGINEERING**

MECHANICAL DESIGN

- Mechanical power transmission
- · Structural mechanics
- · Hydraulics & pneumatics
- Sealing technology

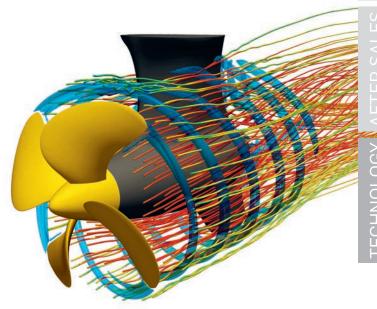
ELECTRICAL ENGINEERING

- Automation
- Power electronics
- Assistance systems



HYDRODYNAMICS

- Propeller design
- Model testing
- · Computational fluid dynamics







- YOUR QUALITY BENEFITS -

- · Ongoing certification process
- · Quality controls during production
- Standardized FAT procedure
- · Close dialogue with our suppliers

WE KNOW WHAT MOVES SHIPS



... and many more vessel types

Please contact sales@schottel.de for information about your next new build or conversion project.

SCHOTTEL Worldwide



 Your local partner