

YOUR PROPULSION EXPERTS



PROPULSION AND AUTOMATION
FOR MODERN NAVAL VESSELS



RELIABLE REQUIREMENT-OPTIMIZED PROPULSION

Whether OPV, support or combat vessel – naval units require powerful and durable propulsion solutions. SCHOTTEL propulsion units are operated by navies and coastguards all around the world. Customers particularly benefit from our many years of experience in the field of commercial ship propulsion systems. The key factors for the propulsion systems of these vessels are high quality, flexible

options to adapt to special requirements and high availability during operation. Our experts are well aware of these particular challenges. Therefore, our customers are provided with solutions that are optimally adapted to the needs of governmental and naval shipbuilding. In addition, SCHOTTEL offers customized services, such as ILS data, training, maintenance and upgrades.

+ GERMAN ENGINEERING

+ SHOCK RESISTANT PROPULSION UNITS

+ WORLDWIDE SERVICE AND SUPPORT

+ CUSTOMIZED TECHNICAL SOLUTIONS

+ EFFICIENT IN TERMS OF INVESTMENT AND LIFE CYCLE COSTS

+ SCHOTTEL PROPULSION SYSTEMS WITH NAVIES AND COAST GUARDS ALL OVER THE WORLD

+ INTEGRATED LOGISTIC SUPPORT

+ SUPPORT FOR THE ENTIRE SERVICE LIFE OF THE SHIP STARTING WITH THE DESIGN STUDY

SCHOTTEL IN THE NAVAL VESSEL MARKET

1969

First SRP for German armed forces

70+ YEARS

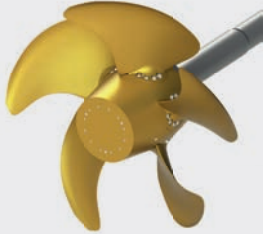
Expertise in the development and production of propulsion systems



Service stations worldwide

HIGH QUALITY AND RELIABLE PROPULSION

YOUR MAIN PROPULSION OPTIONS



SCHOTTEL Controllable Propeller SCP

- 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 proven, robust design
 - Hydrodynamic optimized hub form available for fast vessels with high propeller load
 - Easy access to hub for less servicing effort
- complete propulsion package available with comprehensive equipment



SCHOTTEL Rudder Propeller SRP

- Optimum efficiency for maximum manoeuvrability
- High propulsion efficiency: lower operating costs and lower emissions
- Precision positioning in DP operation
- Exclusive features such as ProAnode, HTG, highly efficient nozzles, LeaCon or DuroVario
- A whole range of configuration options
- Minimal maintenance effort, long-term availability of spare parts as OEM
- Compatible with SCHOTTEL hybrid solutions (SYDRIVE-E and SYDRIVE-M)



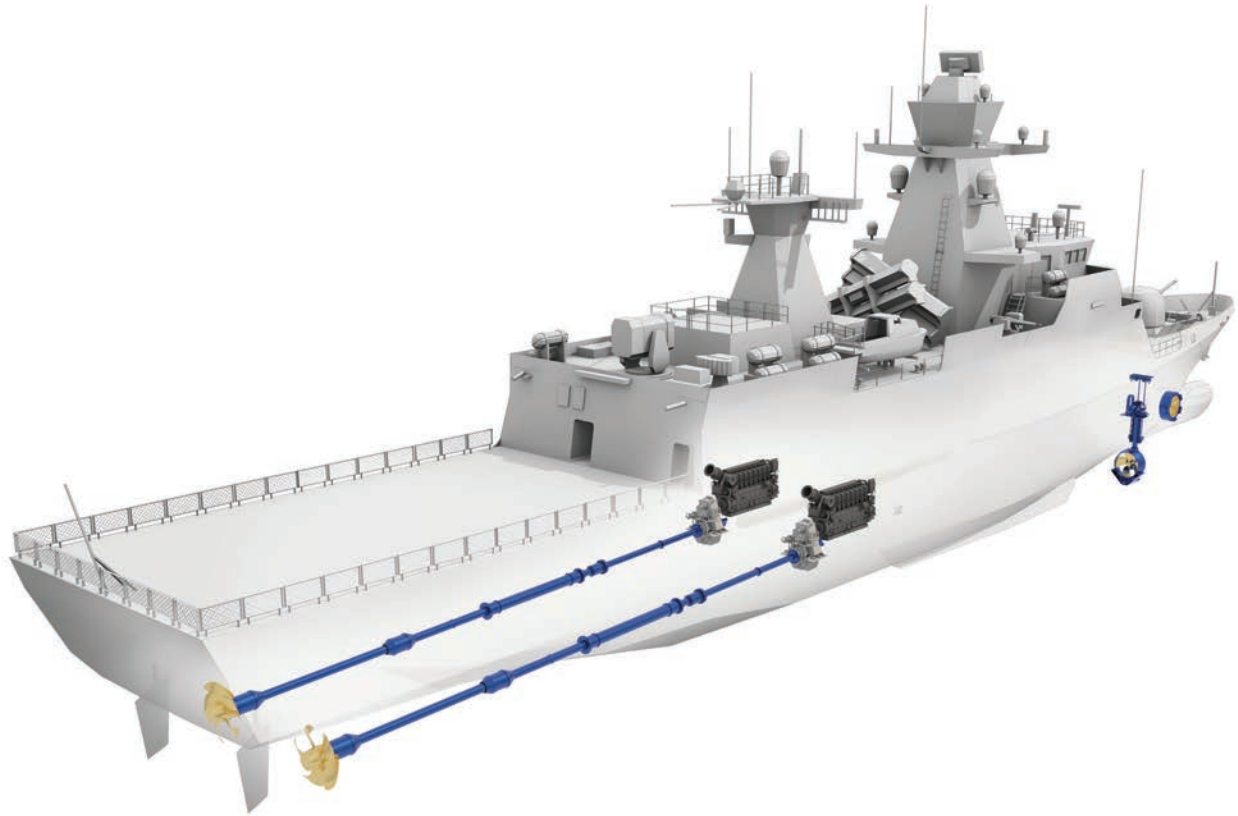
SCHOTTEL EcoPeller SRE

- 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 PumpJet SPJ

- Azimuth jet thruster
- Installation flush with the vessel's hull, fully protected without projecting parts
- Ideal propulsion system for very 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)

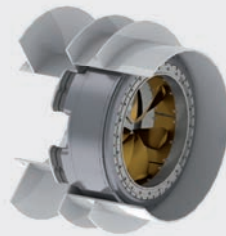


AUXILIARY PROPULSION



SCHOTTEL Transverse Thruster STT

- Compact design
- Maximum thrust
- Well installation for easy access to the propulsion unit (optional)
- Elastic installation version ensuring reduction in noise and vibration levels while enhancing comfort (optional)



SCHOTTEL Rim Thruster SRT

- Minimum noise and vibration levels
- Compact and lightweight
- Environmentally friendly with water-lubricated, oil-free bearing system
- Replaceable blades and plain bearings
- Easy installation for integration into a wide range of ship designs
- Elastic installation version (optional)



SCHOTTEL Retractable Rudder Propeller SRP-R

- New features such as HTG, high-performance nozzles, ProAnode or LeaCon
- Enhanced drive efficiency with 98-degree gearbox variant
- Flexible: Adaptation to different operation profiles
- SRP-RT available as combined retractable tunnel unit
- Can be used as take-home system
- Based on successful SCHOTTEL Rudder Propeller technology

NAVAL VESSELS UNDER CHALLENGING



Combat Supply Vessel Bonn 2 x SCP 1294 (7200 kW each)

OPERATING CONDITIONS



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Fast Fleet Tanker Tidespring 2 x SCP 1544 (7200 kW each)

PRODUCTS

REFERENCES

AFTER SALES

TECHNOLOGY



Mine Counter Measure Vessel ORP Kormoran 1 x STT 170 (100 kW)



Corvette INS Magen 1 x STT 170 (220 kW)



www.SCHOTTEL.com

AFTER SALES SERVICE – DURING THE VESSELS LIFETIME

Delivering 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 high-quality services tailored to your individual needs throughout the vessel's service life.



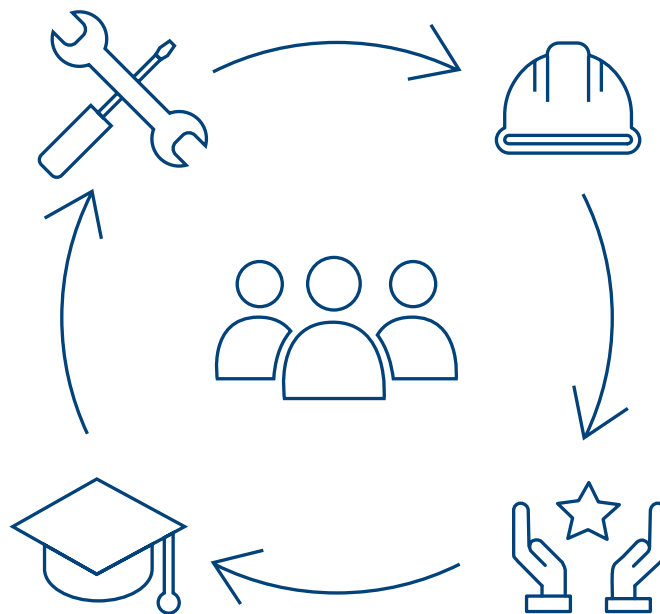
SPARE PARTS

- ▶ 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
- ▶ High spare parts availability by using the same spare parts in both marine and commercial applications



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)
- ▶ Trainings for maintenance level OLM, ILM and DLM
- ▶ Continuous international knowledge transfer for service technicians



UPGRADES

- ▶ Extend the vessel's service life

UPGRADE LEVELS:

- ▶ Control systems
- ▶ Propulsion systems
- ▶ 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



500+

Propeller designs per year



39,000m²

Production area

PROPULSION TECHNOLOGY – COMPETENCE IN CUSTOMIZED ENGINEERING

MECHANICAL DESIGN

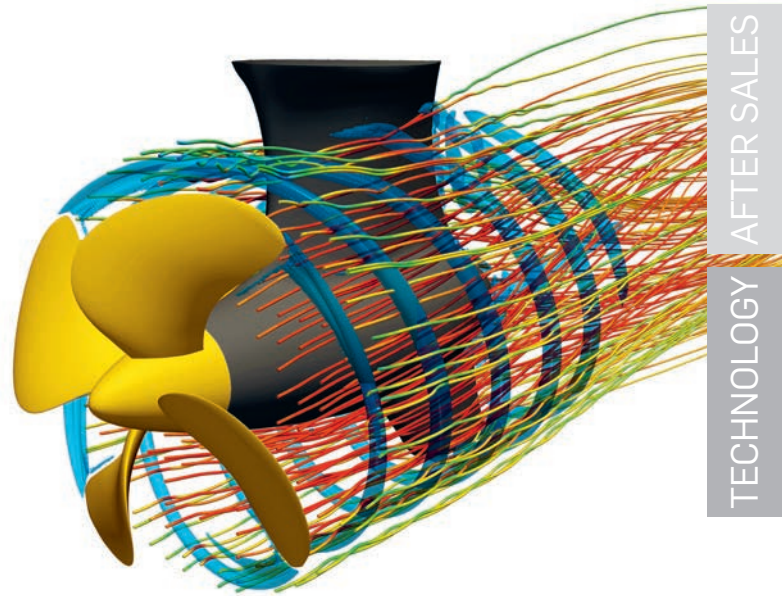
- Mechanical power transmission
- Structural mechanics
- Hydraulics & pneumatics
- Sealing technology

ELECTRICAL ENGINEERING

- Automation
- Power electronics
- Assistance systems

HYDRODYNAMICS

- Propeller design
- Model testing
- Computational fluid dynamics



+ GERMAN
ENGINEERING

+ CUSTOMER-ORIENTED DEVELOPMENT
WITH EXPERIENCED IN-HOUSE R&D

+ SUSTAINABLE MANUFACTURING FACILITIES
FOR STATE-OF-THE-ART PROPULSION SOLUTIONS

YOUR QUALITY BENEFITS

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

WE KNOW WHAT MOVES SHIPS



Tugs



Offshore Vessels



Fishing Vessels



Ferries



Yachts



Dredgers

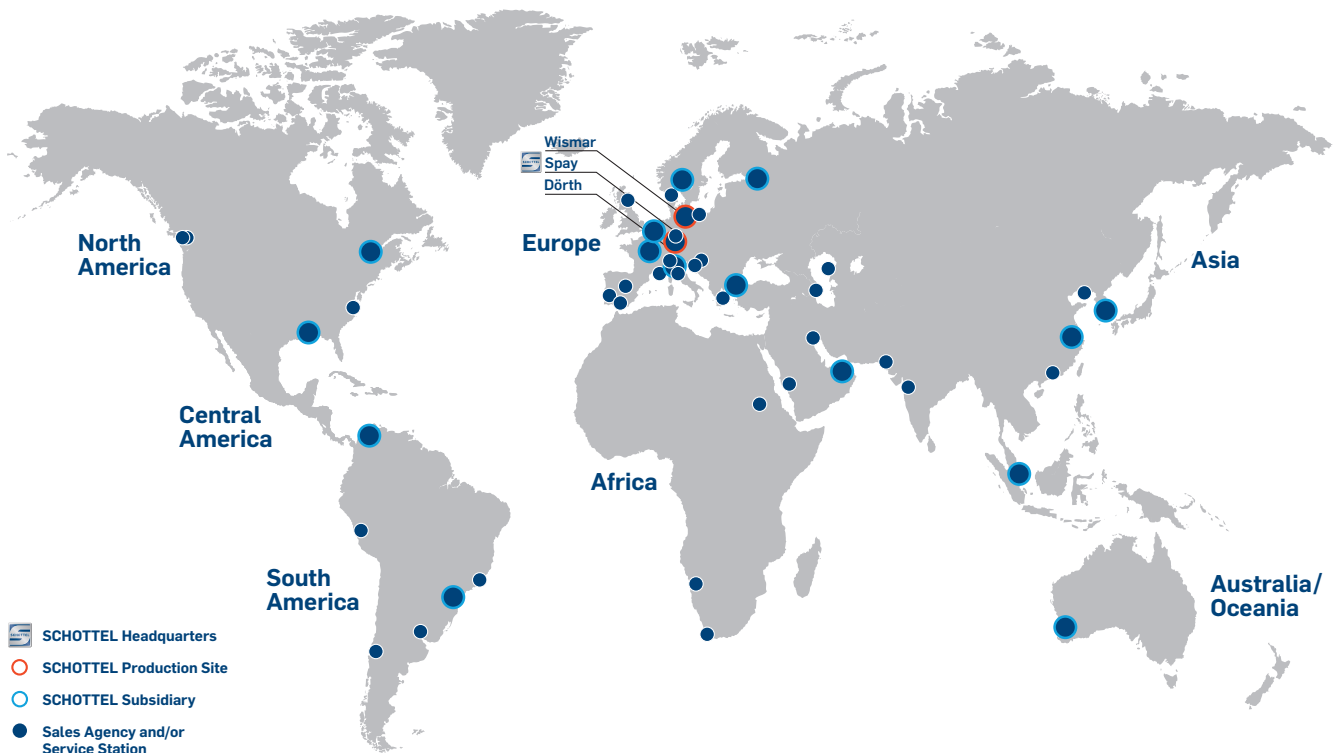


Push Boats

... 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