The main or auxiliary propulsion unit even for extreme operating conditions.
THE PROVEN PROPULSION AND MANOEUVRING SYSTEM EVEN FOR EXTREME OPERATING CONDITIONS

The SCHOTTEL Pump-Jet is a special-purpose azimuth thruster that provides full thrust in all directions. It is distinguished by its compact and robust design and covers a power range from 50 to 3500 kW. A particular characteristic of the SPJ is its ability to operate in shallow water. Supplying full thrust at a minimum immersion of 150 to 750 mm, depending on the model involved, it can also be used on vessels with a very shallow draught. The SCHOTTEL SPJ has proved its worth as a reliable manoeuvring system, take-home device and main propulsion unit on a wide range of watercraft.

OPERATING PRINCIPLE

An impeller draws water into the Pump-Jet; the slow intake speed and the protective grid prevent foreign objects from entering.

The water is then pushed into the diffuser by the impeller...

...and charged with energy by increasing static pressure.

The water is ejected at very high velocity through the outlet nozzles at an output angle of approx. 15°.
ADVANTAGES

• Fully-capable azimuth thruster
• Compact design, space-saving installation with minimum displacement loss
• Installation flush with the hull, therefore no increase in resistance and no risk of collision with floating debris
• Ideal for operation in extremely shallow waters
• Protective grid at the intake prevents damage by floating debris
• Grounding possible. Hardly any risk of damage when the vessel contacts the ground

• Low volume flow on the intake side and also a low intake velocity. Therefore no risk of vessel becoming stuck due to suction, and low tendency of drawing in objects from the ground
• Low-noise and low-vibration operation due to encapsulated design allows supreme comfort on pleasure craft (yachts)
• Wide variety of installation options for different vessel designs
• Drive options: diesel engine, electric or hydraulic motor
• Can be used as manoeuvring aid, additional booster or take-home device
WHETHER AS MAIN OR AUXILIARY PROPULSION UNIT – THE SPJ KEEPS YOU ON COURSE CONSTANTLY

THE SPJ AS A MAIN PROPULSION UNIT FOR EXTREME CONDITIONS

As a main propulsion unit for coasters and inland vessels, the SCHOTTEL Pump-Jet gives reliable service wherever conventional propeller drives cannot be used due to restricted draught. With its compact design, low buoyancy loss and low suction, the SPJ generates high thrust in any direction desired – even in extremely shallow waters. Like all SCHOTTEL products, it offers very smooth operation and excellent manoeuvring characteristics.

THE SPJ AS AUXILIARY DRIVE, MANOEUVRING SYSTEM AND TAKE-HOME DEVICE

Compact design, low-noise operation and various installation possibilities make the SPJ an ideal auxiliary propulsion unit for a wide range of vessels. Its ability to deliver thrust efficiently for vessel speeds up to 11 knots enables it also to act as a manoeuvring aid when the vessel is under way. As a redundant drive, it additionally serves as a take-home device, thereby providing increased safety for hazardous goods carriers and passenger vessels.

DOUBLE-ENDED FERRY SIER
4 x SCHOTTEL Pump-Jet Type SPJ 220 (640 kW each)

ICE-BREAKING MULTI PURPOSE VESSEL NEUWERK
1 x SCHOTTEL Pump-Jet Type SPJ 520 (2600 kW)

BLADERUNNER ONE
2 x SCHOTTEL Pump-Jet Type SPJ 57 RD (2x 180 kW)

SURVEYING VESSEL KOMET
1 x SCHOTTEL Pump-Jet Type SPJ 220 (1000 kW)
THE SPJ IN MILITARY APPLICATIONS

Numerous armed forces around the world rely on the SCHOTTEL Pump-Jet, as excellent manoeuvrability and robust, beachable propulsion systems are essential for many military applications. With its 360° steerability and integration into the hull, the SPJ satisfies the most demanding requirements.

STEERING SYSTEMS FOR THE SCHOTTEL PUMP-JET

A large number of steering and monitoring systems are available for SCHOTTEL Pump-Jets, in order to meet all necessary technical requirements. We are able to offer both time-dependent and way-dependent steering systems in a wide spectrum of different configurations. This is rounded off by an extensive range of interface modules to other systems, such as VDR, DP or Autopilot.

AMPHIBIOUS BRIDGING AND FERRYING SYSTEM M3
2 x SCHOTTEL Pump-Jet Type SPJ 55 M (110 kW each)

BRIDGE ERECTION AND PROPULSION BOAT AUSTRALIAN ARMY
2 x SCHOTTEL Pump-Jet Type SPJ 55 M (133 kW each)

SCHOTTEL STEERING SYSTEMS
ergonomic, intuitive and precise
TOP PRIORITY: DURABILITY AND BEST QUALITY

Customer satisfaction is of central importance to us. Over 50 engineers based at our company headquarters develop tailored solutions in close cooperation with our customers. Right from the design stage, we lay the foundation for the quality that is expected of us. Through strong investment in research and development we ensure that all our products are distinguished by efficiency, reliable operation and exceptional quality.

The state-of-the-art machines and systems used in our production facilities operate with the greatest precision and make a major contribution to the constant high quality of our products.

We attach great importance to keeping a large part of our manufacturing in-house.

This safeguards our know-how and ensures our flexibility and consistently outstanding quality. From product development through to installation and commissioning – we ensure that our systems exhibit first-class workmanship and are expertly put into service. Advanced software, modern manufacturing technologies, high-quality materials and careful assembly by highly qualified personnel are essential elements in the value creation chain.
FERRY KÖNIGSWINTER
Main Propulsion: 4 x SCHOTTEL Pump-Jet Type SPJ 57 (178 kW each)

ANTENNA HANDLING SHIP PHAETON
Main Propulsion: 2 x SCHOTTEL Pump-Jet Type SPJ 57 (215 kW each)

INSHORE PATROL VESSEL NODRIZA
2 x SCHOTTEL Pump-Jet Type SPJ 82 RD (290 kW each)

MOTORYACHT NORTHERN STAR
1 x SCHOTTEL Pump-Jet Type SPJ 57 RD (200 kW)

DOUBLE-ENDED FERRY CALEDONIAN MacBRAYNE
Main Propulsion: 2 x SCHOTTEL Pump-Jet Type SPJ 132 (505 kW each)

DOUBLE-ENDED FERRY (NAV WITH PUMP-JET) MV MAGOONI
Main Propulsion: 4 x SCHOTTEL Pump-Jet Type SPJ 82 RD (300 kW each)

HOTEL VESSEL VIKING LEGEND
4 x STP 200 (300 kW each)
Auxiliary Propulsion: 2 x SCHOTTEL Pump-Jet Type SPJ 82 RD (300 kW each)

DUMP BARGE ACANTO
2 x NAV 330 (537 kW each)
Auxiliary Propulsion: 1 x SCHOTTEL Pump-Jet Type SPJ 57 RD (172 kW)
PROFESSIONAL PARTNERSHIP – THROUGHOUT THE VESSEL’S LIFE

As a SCHOTTEL customer, you benefit from individual, in-depth advice and support at all stages of a project, from planning and commissioning through to preventive maintenance.

A dense worldwide service network is ready to offer assistance and ensures the swift supply of spare parts – along with experienced SCHOTTEL technicians if required.

The name of SCHOTTEL traditionally stands for quality in engineering, with over 90 years of experience in design and the precision workmanship of a family-owned enterprise. Our innovative propulsion systems are a byword for reliability and high performance and set standards in global shipping.