

Press Release

Voith Group

Mailing address:
Voith GmbH & Co. KGaA
St. Pöltener Straße 43
89522 Heidenheim, Germany
Tel. +49 7321 37 0
www.voith.com

100 Years of the Voith Schneider Propeller: Driving Progress Into the Future

- For 100 years, the Voith Schneider Propeller (VSP) has proven its performance in demanding maritime applications worldwide.
- The VSP integrates propulsion and steering in a single system – effectively reducing vessel roll motions.
- Rapid, stepless thrust control enables safe and precise maneuvering, even under challenging conditions.
- The electric Voith Schneider Propeller (eVSP) combines the proven advantages of the VSP with higher efficiency and new onboard energy concepts.

Heidenheim, Germany, July 6, 2026. In 2026, Voith celebrates a special milestone: 100 years of the Voith Schneider Propeller (VSP). This unique propulsion system revolutionized ship maneuverability and remains one of the most groundbreaking innovations in marine engineering.

The VSP concept originated from Austrian engineer Ernst Schneider, who was born on June 18, 1894. In 1926, his entirely new propeller design was successfully tested for the first time in model trials at the Vienna Ship Model Basin. Voith recognized the invention's potential early on and quickly developed it into a compelling, market-ready product.

Today, the VSP is considered one of the most significant maritime inventions of the 20th century and has become indispensable in tug and ferry operations, offshore applications, and a wide range of specialized vessels.

The operating principle of the Voith Schneider Propeller remains unique to this day. Several vertical blades arranged in a circular rotor move along a circular path while continuously adjusting their pitch. This allows thrust to be varied steplessly in any direction – providing instantaneous 360-degree maneuverability. As a result, the system offers extremely fast response times to steering commands, enabling highly responsive, safe and precise maneuvering – even in wind, waves, currents and confined spaces. With its comparatively low rotational speed, the VSP is also highly robust and generates low underwater noise levels.

The successful development of Ernst Schneider's invention into a market-leading product is closely linked to the entrepreneurial vision of the Voith brothers. They quickly recognized the potential of this entirely new propulsion concept. Together with dedicated Voith engineers and mechanics, they transformed a visionary idea into a propeller that continues to shape maritime operations to this day.

In 1928, the vessel Torqueo became the first ship equipped with a Voith Schneider Propeller. Driven by inventive spirit, entrepreneurship, technical excellence and persistence, an innovative propulsion system emerged that remains state of the art in its fundamental principle.

The VSP's wide range of applications highlights its versatility. Offshore supply vessels use its precise controllability in combination with dynamic positioning systems for complex operations at wind farms and offshore platforms. Its fast thrust adjustment also helps significantly reduce roll motions. Voith Water Tractors benefit from the precise and sensitive thrust control and rapid response times

when assisting large vessels – whether in harbors, at offshore terminals or in narrow waterways. Double-ended ferries can dock and depart quickly and precisely without turning, even under highly demanding weather and current conditions.

Over decades, Voith has continuously advanced the VSP. The focus is not solely on the propeller itself but on the interaction of hull, propulsion system, control system and operating profile. Advanced flow simulations, a dedicated marine research and test facility, and close collaboration with customers enable Voith to analyze new solutions virtually, validate them through model testing, and optimize them for real-world operation.

“We do not consider the hull and propulsion system separately, but as an integrated overall solution. This approach has consistently proven its value in practice and has significantly contributed to the continuous advancement of the design, efficiency and performance of the Voith Schneider Propeller,” says Dr. Dirk Jürgens, Vice President Research & Development Marine at Voith Turbo.

An important step in the ongoing development is the electric Voith Schneider Propeller (eVSP). It combines the proven hydrodynamic advantages of the VSP with modern electric drive technology and intelligent control systems. This combination is becoming increasingly important, particularly in the offshore sector.

Vessels used in the construction and operation of offshore wind farms must perform heavy-duty tasks safely, maintain precise positioning and, at the same time, reduce emissions and operating costs. The eVSP provides a compelling solution, delivering high maneuverability, precise positioning and electric propulsion in one integrated system.

“Today, our customers expect not only maximum maneuverability but also solutions that reduce emissions and operating costs,”

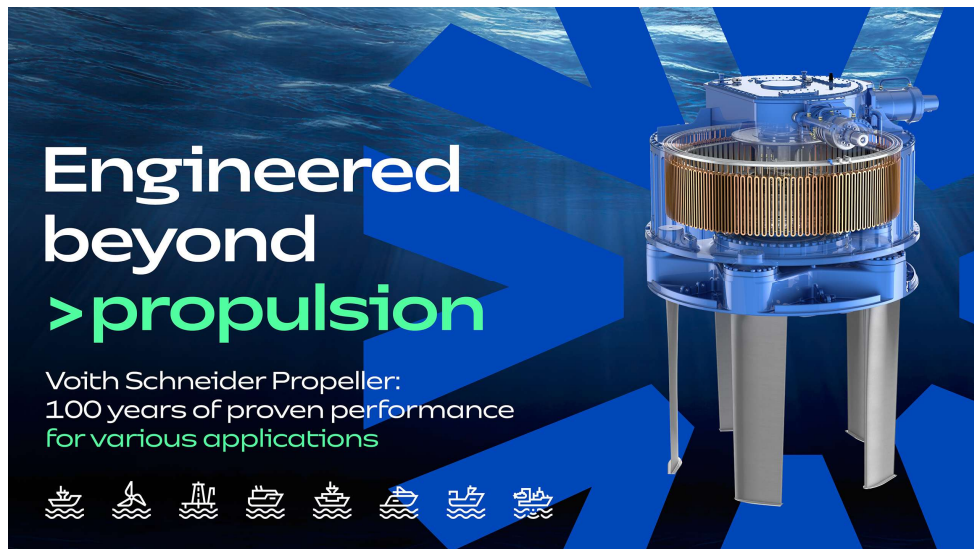
explains Michael Rommel, Head of Sales & Application Management at Voith Turbo. "With the eVSP, we are laying the groundwork for efficiently combining these requirements."

In addition to offshore vessels, research ships, river cruise vessels, yachts and specialized ships also benefit from the characteristics of the VSP. Modern systems are quiet, low in vibration and provide a high level of onboard comfort. Combined with integrated Voith roll stabilization, the propeller becomes a versatile system for demanding maritime applications.

"The history of the Voith Schneider Propeller shows how a bold engineering idea can evolve into a globally proven product," says Dr. Jürgen. "Its versatility, precision and continuous development give us confidence that this exceptional technology will continue to play a key role in maritime operations for decades to come."

Those interested can experience the capabilities of the Voith Schneider Propeller digitally; the iVSP ship simulator allows users to explore the unique maneuvering behavior of the VSP on Windows desktops as well as mobile devices.

To mark the VSP's 100th anniversary, Koehler at Maximilian Verlag has published the technical book, ["Voith Schneider Propeller – A Brilliant Invention."](#) The publication provides a comprehensive overview of the technology's rich history, core mechanics, modern innovations and practical applications.



For 100 years, the Voith Schneider Propeller (VSP) has proven its performance in demanding maritime applications worldwide.

About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, paper, raw materials and transport. Founded in 1867, Voith today has around 21,000 employees, sales of € 4.8 billion and locations in over 60 countries worldwide and thus is one of the larger family-owned companies in Europe.

The Group Division Voith Turbo is part of the Voith Group and a specialist for intelligent drive technology, systems as well as tailor-made services. With its innovative and smart products, Voith offers highest efficiency and reliability. Customers from highly diverse industries such as oil and gas, energy, mining and mechanical engineering, ship technology and rail rely on the advanced technologies and digital applications of Voith.

Contact

Naomi Voith

Head of Solutions Portfolio Communication Voith Group

Tel. +49 7321 37 2209

naomi.voith@voith.com

LinkedIn

www.linkedin.com/company/voithgroup

www.linkedin.com/company/voith-hydro
www.linkedin.com/company/voith-paper
www.linkedin.com/company/voith-turbo

YouTube

www.youtube.com/voithgroup

Instagram

www.instagram.com/voithgroup
www.instagram.com/voith.paper