

Types and dimensions Voith Schneider Propeller



Successful worldwide

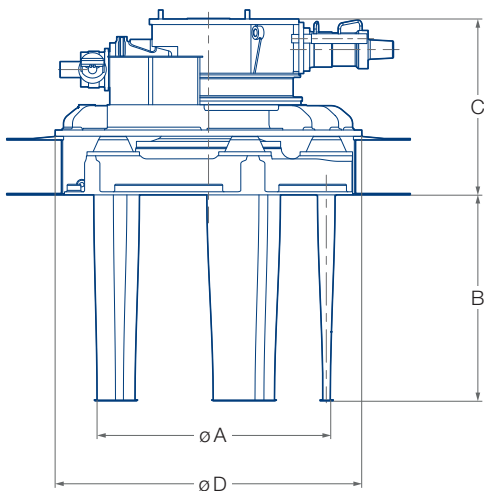
Propulsion and steering – ahead, astern and sideways: The Voith Schneider Propeller (VSP) developed almost 100 years ago generates thrust in all directions. Propulsion and steering are combined in one unit, thus allowing prompt, safe and precise maneuvering, even under adverse conditions. An additional feature: Voith Roll Stabilization (VRS)

The VSP is suitable for a wide range of applications – from (harbor) tugs and ferries to various types of offshore vessels. And it has been operating successfully in all these applications for decades. The VSP is distinguished by its high reliability and low maintenance requirements. Its low fuel consumption translates into minimum power requirements while at the same time maximizing safety for the vessel and the environment.

The VSP principle is strikingly simple and fascinating at the same time: A rotor casing fitted with four, five or six propeller blades rotates about a vertical axis. As is the case with the tail fin of a dolphin, a superimposed oscillating motion of the blades around their own axis generates thrust. The magnitude of thrust is determined either by the rotational speed of the rotor casing or the amplitude of the blade angle oscillation. The blade angle determines the direction of thrust.

Product range Voith Schneider Propeller (VSP)

Propeller type/size	Option for mechanical control system	Number of blades	Blade orbit diameter A [abt. mm]	Blade length B [abt. mm]	Housing height C [abt. mm]
VSP 12		4	1 200	900	1 200
VSP 16		5	1 600	1 200	1 400
VSP 18		5	1 800	1 500	1 500
VSP 21	x	5	2 100	1 750	1 800
VSP 26	x	5	2 650	2 300	2 100
VSP 28	x	5	2 800	2 340	2 200
VSP 32	x	5/ 6	3 200	2 650	2 400
VSP 36		6	3 600	2 850	3 000

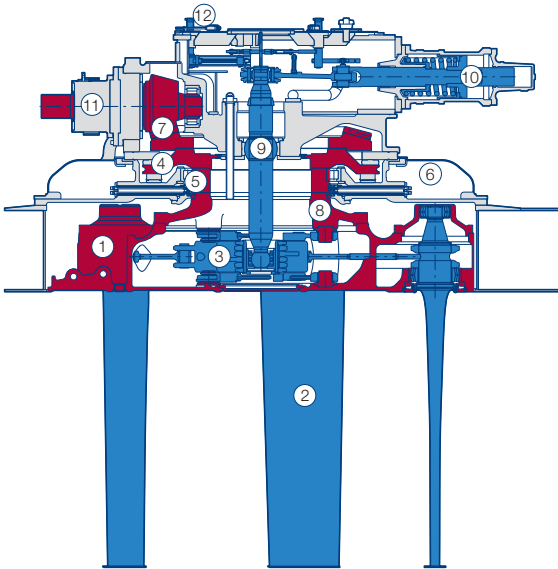


Housing diameter D [mm]	Number of gear steps	Weight without oil [abt. kg]	Oil filling [abt. l]	Max. propeller input power [kW]
1 700	1	3 900	430	260
2 200	1	6 700	680	540
2 500	1	9 500	1 000	780
2 900	1 or 2	17 000	1 600	1 100
3 500	1	29 000	3 000	1 900
3 800	2	38 500	4 300	2 000
4 300	1 or 2	48 000– 52 000	4 600	2 650/ 3 000
4 800	2	75 000	7 700	3 900

Note:

1. Input speeds can be adapted to all common diesel and electric motor rpms either by internal gearbox (2-gear-step VSP) and/or by intermediate gearbox (single-gear-step VSP).
 2. Indicated blade length is maximum value, can be shortened on request.
 3. Propellers are by standard controlled by electronic control, mechanical control optionally (see indication).
 4. All electronically controlled propellers offer option for active Voith Roll Stabilization.
 5. Oil fillings apply for total amount consisting of lube and control oil.
-

Longitudinal section of a VSP



- | | | | |
|----------------|---------------------|------------------|------------------|
| 1 Rotor casing | 5 Roller bearing | 9 Control rod | ■ Rotating parts |
| 2 Blade | 6 Propeller housing | 10 Servomotor | ■ Steering parts |
| 3 Kinematics | 7 Bevel gear | 11 Gear pump | |
| 4 Thrust plate | 8 Driving sleeve | 12 Control shaft | |
-

Voith Group
St. Poeltener Str. 43
89522 Heidenheim, Germany

Contact:
Phone +49 7321 37-2055
marine@voith.com
www.voith.com



VOITH