STEERPROP

DATA SHEET
W SERIES
PROPULSORS

Designed for the next level of efficiency

Steerprop W series azimuth propulsors utilize the latest technologies for increased overall performance. The W series employs carefully selected manufacturing methods to fulfill the latest requirements and improve design flexibility with modularization and scalability. Thanks to the modular design, it is possible to select various configurations to match specific conditions. Options include a Z-drive or integrated permanent magnet machine. Available also in a shallow draft version. The hydrodynamically efficient and robust construction defines the next generation of propulsors that come standard with Steerprop Care condition monitoring.

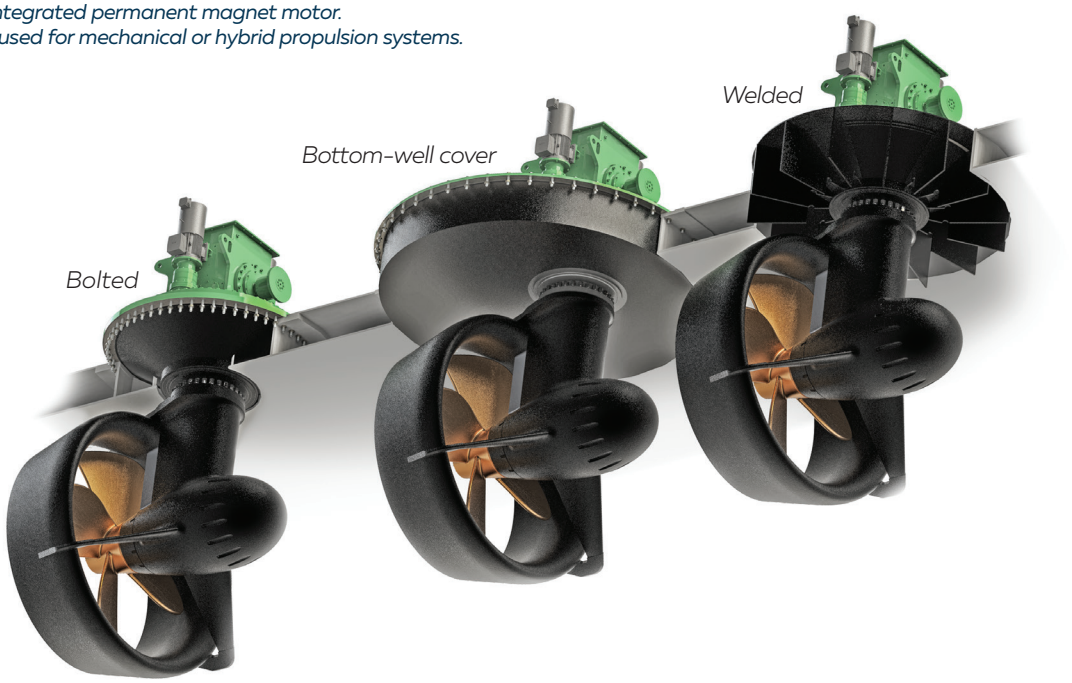
Features	Main benefits
Modularity and flexibility	Flexibility to adapt to different operations with mechanical, hybrid or electrical configurations New improved nozzle design enhances performance Available for tough ice classes Enables higher input speeds to use new high-speed engines that comply with Tier 4 environmental regulations
High hydrodynamic efficiency	Exceptional for its class due to the optimized housing shape No sacrificial anodes on nozzle, instead an added hydrodynamically shaped anode reduces flow separation from nozzle outer surface High-efficiency nozzles for increased bollard pull
Mechanically robust and simplified construction	Electrical turning gear as standard Lower body of cast steel for better hydrodynamic performance and high durability All auxiliaries are built as modular units and tested during FAT

W SERIES

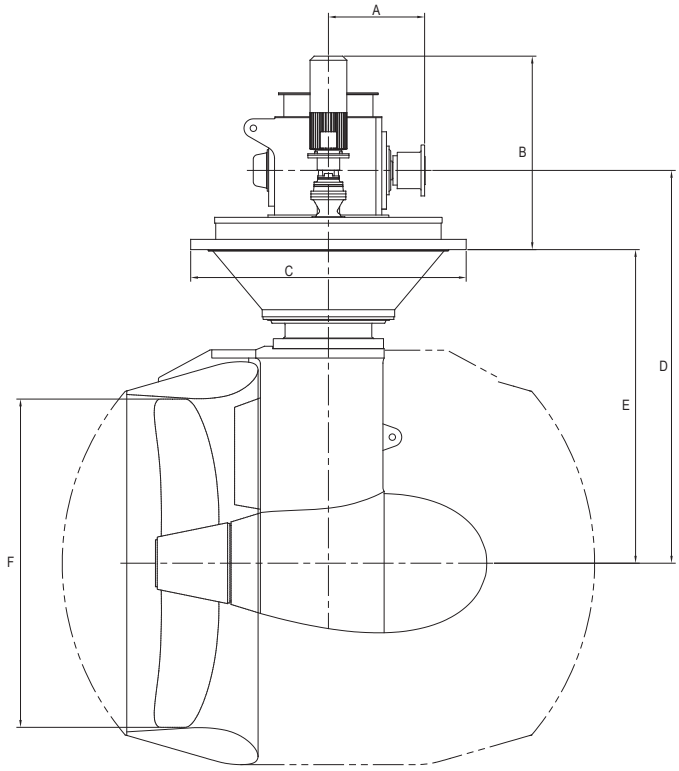
		SP10W	SP14W	SP20W	SP25W	SP35W	SP40W	SP45W
Maximum power [kW]*		900	1250	1650	2000	2525	3000	3500
Input speed [rpm]		1000–2000	750–2000	750–2000	750–2000	750–2000	750–1900	900–1200
Prime mover	**Z-DRIVE**	Diesel or electric						Electric
	LM	Electric, integrated						
Steering type	**Z-DRIVE**	Hydraulic or electric						Electric
	LM	Electric						
Dry weight [t]	**Z-DRIVE**	7	10	14	19	26	34	38
	LM	10	14	18	23	37	42	47
Oil volume [l]	**Z-DRIVE**	800	900	1300	1500	2500	3300	3800
	LM	750	750	1100	1350	2100	2500	2700
Cooling water demand 38°C [l/min]	**Z-DRIVE**	100	165	180	200	250	300	350
	LM**	120	150	210	235	280	320	350
Maximum bollard pull, two units [t]		29	41	54	65	85	100	115
Maximum ice class* (DNV-GL)	**Open**	None	ICE-1A	ICE-1A	ICE-1A	ICE-1A	ICE-1A	ICE-1A Super
	Ducted	None	ICE-1B	ICE-1B	ICE-1A	ICE-1A	ICE-1A	ICE-1A Super
Installation options		Bolted, bottom-well cover or welded						

We reserve the right to modify the information above at any time without notice.

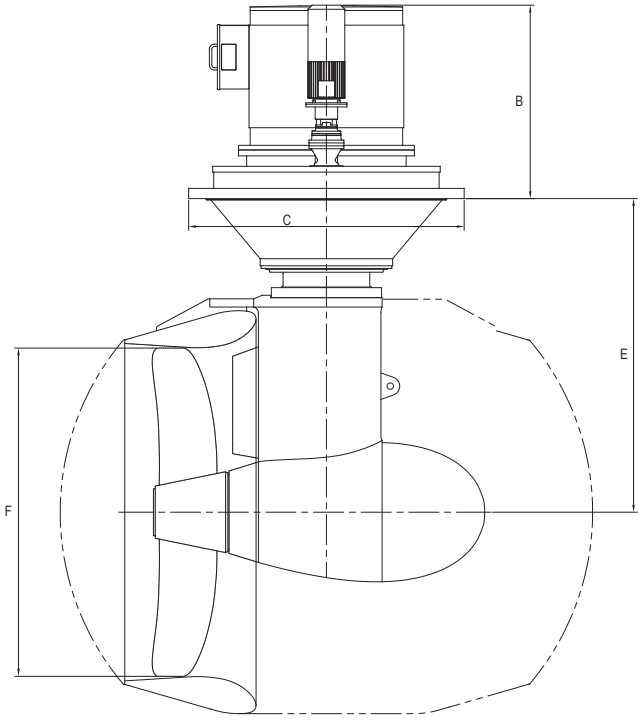
* *Ice-class power impact is checked case by case*
** *Value includes the motor*
The LM model is a vertically integrated permanent magnet motor.
The Z-drive propulsor can be used for mechanical or hybrid propulsion systems.



TECHNICAL DRAWINGS AND DIMENSIONS



Z-drive



LM with integrated permanent magnet motor

		SP 10 W	SP 14 W	SP 20 W	SP 25 W	SP 35 W	SP 40 W	SP 45 W
A	Z-DRIVE *	985	1140	1230	1260	1390	1500	NA
	Z-DRIVE**	485	620	670	730	820	840	840
	LM	NA						
B	Z-DRIVE	940	1120	1415	1450	1650	1800	1800
	LM	1500	1630	1920	1950	1920	1820	1820
C	Z-DRIVE	1670	1700	1930	2080	2350	2630	2670
	LM	1670	1700	1930	2080	2750	2980	3020
D	Z-DRIVE	2100–2600	2350–2850	2650–3150	2850–3350	3350–3850	3500–4000	3700–4200
	LM	NA						
E	Z-DRIVE	1685	1855	2080	2225	2675	2800	3000
	LM	1685	1855	2080	2225	2900	3100	3250
F	ALTERNATIVE 1	1600	1900	2200	2400	2800	3000	3200
	ALTERNATIVE 2	1500	1750	2000	2200	2600	2800	3000
	OPEN MAXIMUM	1750	2100	2400	2600	3000	3300	3500

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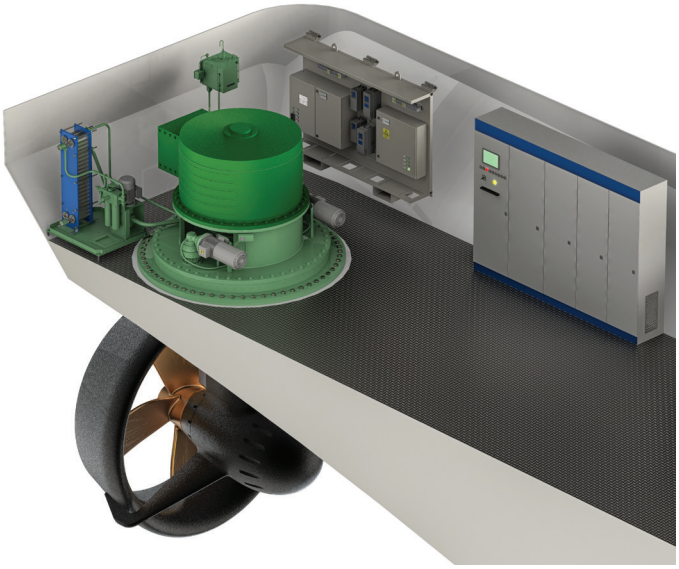
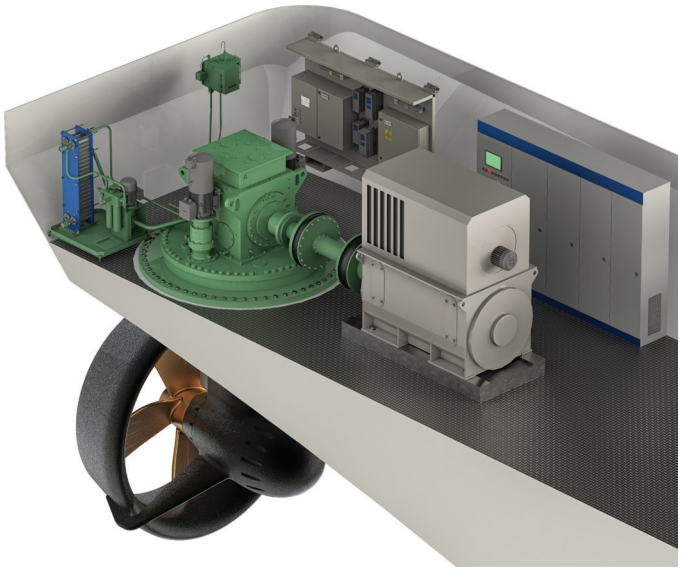
** Clutch*
*** No clutch*

SMALL SPACE REQUIREMENT

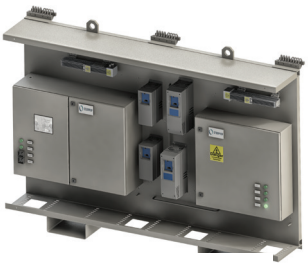


LM unit with integrated permanent magnet motor



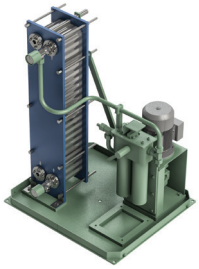
Z-drive with horizontal motor

All auxiliary modules are preassembled and tested at our factory. Therefore, installation is quick and easy, minimizing risk and labor.



Steerprop assembly board (SAB): includes control cabinets, frequency converters for steering motors, brake resistors for electric steering, frequency converters for lubrication pumps. The entire unit is installed on vibration dampeners

- Easy connection to the propulsor by means of a plug-in cable
- Easy handling at the shipyard / during transport



Lubrication unit: one or two pumps depending on requirements, duplex filter, oil cooler, cooling water from the vessel's system

- Electric motor-driven pressurized lubrication system
- Frequency converter-controlled pump circulates the lubrication oil through a cooling and filtering circuit

Shaft seal system:

- The propeller shaft has multiple radial-type lip seals with a secure blocking chamber
- The oil in the blocking chamber can be changed via the flushing line on the upper assembly
- Compatible with US EPA VG2013 upon request

Customized scope of packages:
Through Steerprop's Ecosystem, we can deliver a larger scope of systems with specialized partners.