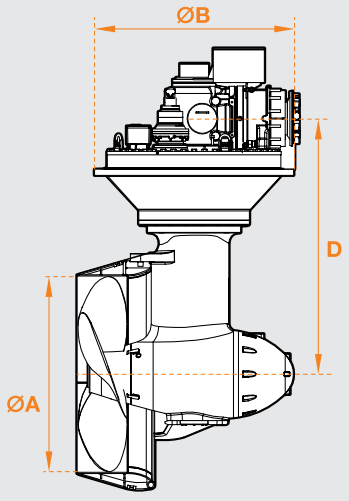
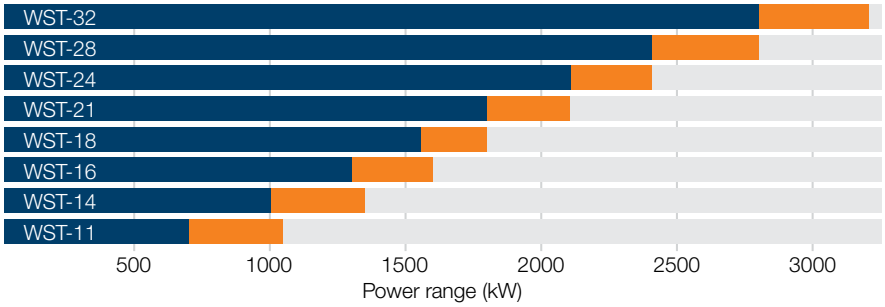
WST with slipping clutch and PTO for diesel-mechanical drive

WST with electrical steering for diesel-electric drive



Wärtsilä Steerable Thrusters range



Bollard Pull performance of Wärtsilä Steerable Thrusters

Thruster type	Engine power (2) (kW)	Input speed (rpm)	Propeller diameter (mm)	Bollard pull (1) (tonnes)
WST-11	900	750 1000 1200 1600 1800	1600	30
	1050		1800	36
WST-14	1150		1800	39
	1275		1900	43
	1350		2000	46
WST-16	1400		2000	47
	1600		2200	55
WST-18	1700		2200	57
	1800		2400	63
WST-21	2050		2400	69
	2100		2600	73
WST-24	2400		2600	80
	2400		2800	84
WST-28	2800	720 1000 1200	2800	94
	2800		3000	97
WST-32	3200		3000	107
	3200		3200	111

1) Based on two thrusters, 100% power, FP propeller with pitch and nozzle designed for bollard pull and including thrust deduction.
2) In case of ice class notation, maximum power level is reduced.

Wärtsilä Steerable Thrusters dimensions (mm)

Thruster Type	Dimensions					Weight[1] (kg)
		Weld-in	Bolt-in	PAL options D (mm)		
	A (mm)	ØB (mm) (well diameter (mm))				
WST-11	1600	1942 (2000)	1948 (2000)	2400	2700	10000/11800
	1800					
WST-14	1800	1942 (2000)	1948 (2000)	2500	2800	10900/12860
	1900					
	2000					
WST-16	2000	2342 (2400)	2326 (2400)	2800	3150	17050/20400
	2200					
WST-18	2200	2342 (2400)	2326 (2400)	2900	3250	18600/21950
	2400					
WST-21	2400	2542 (2600)	2512 (2600)	3200	3500	24800/27500
	2600					
WST-24	2600	2692 (2750)	2660 (2750)	3500	3800	28500/31500
	2800					
WST-28	2800	2862 (2920)	2825 (2920)	3900	4200	32800/36100
	3000					
WST-32	3000	3042 (3100)	3000 (3100)	4000	4500	37000/41000
	3200					

1) Estimated minimum (FPP and smallest prop / nozzle / propeller arm length (PAL)) and maximum (CPP and biggest prop / nozzle / PAL) weights

These tables only address the Wärtsilä Steerable Thrusters up to 3200 kW.
For other power ratings, please contact www.wartsila.com or your nearest Wärtsilä sales office.

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