

500 DriveSure ADC/En/Pn



500 series panel mount pumps

Features

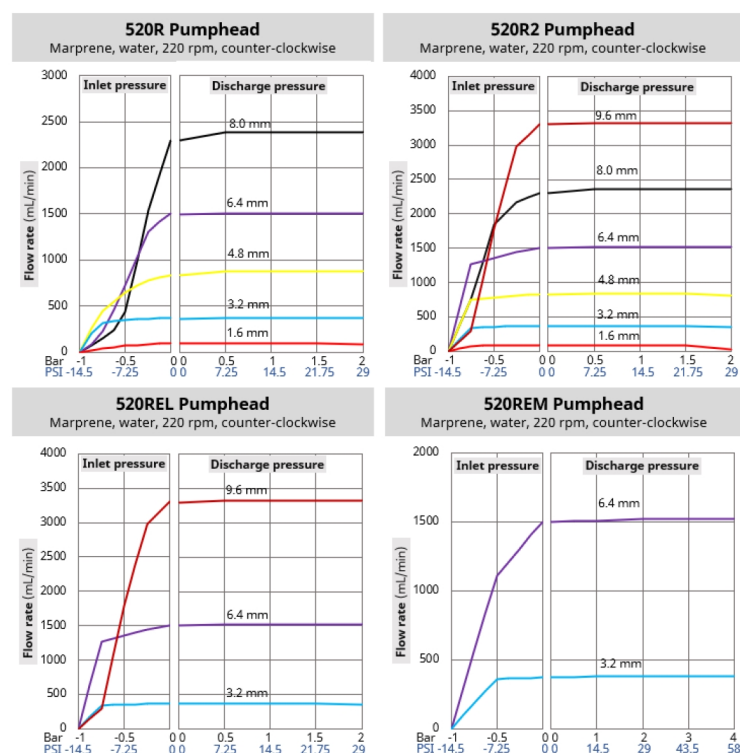
- DriveSure panel mount pump for 520R / R2 / REL / REM pumpheads
- 0.1-220RPM speed range at 0.1 RPM increments
- Watson-Marlow closed-loop control technology delivers consistent, cool and quiet performance
- EtherNet/IP™ and PROFINET® versions for digital network integration, control and monitoring
- ADC version with 4–20 mA, 0–10 V, 2–2000 Hz and fixed speed control options
- Sealed mounting plate for easy installation and ingress protection
- Integrated cover-open sensor and prime-switch input
- Downloadable PC software to evaluate, optimise and diagnose, via USB connection



500 DriveSure ADC/En/Pn performance

520R Pumphead for continuous tubing (1.6 mm wall thickness) up to 2 bar (29 PSI)																				
Tube material	Pressure		Speed		Flow Rate (mL/min) by tube bore															
	Bar	PSI	RPM		0.5 mm		1.6 mm		3.2 mm		4.8 mm		6.4 mm		8.0 mm					
	Max	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max				
Pumpsil®	2	29	0.1	220	0.004	9.5	0.04	97	0.18	390	0.4	870	0.70	1500	1.10	2400				
STA-PURE® PCS																				
STA-PURE® PFL																				
Marprene®	2	29	0.1	220	0.004	9.0	0.04	92	0.17	370	0.38	830	0.67	1500	1.10	2300				
Bioprene®																				
PureWeld XL®																				
520R2 Pumphead for continuous tubing (2.4 mm wall thickness) up to 2 Bar (29 PSI)																				
Tube material	Pressure		Speed		Flow Rate (mL/min) by tube bore															
	Bar	PSI	RPM		1.6 mm		3.2 mm		4.8 mm		6.4 mm		8.0 mm		9.6 mm					
	Max	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max				
Pumpsil®	2	29	0.1	220	0.04	97	0.18	390	0.40	870	0.7	1500	1.10	2400	1.60	3500				
STA-PURE® PCS																				
STA-PURE® PFL																				
Marprene®	2	29	0.1	220	0.04	92	0.17	370	0.38	830	0.67	1500	1.10	2300	1.50	3300				
Bioprene®																				
PureWeld XL®																				
520REL Pumphead for LoadSure TL elements up to 2 Bar (29 PSI)																				
LoadSure element			Pressure		Speed		Flow Rate (mL/min) by tube bore													
			Bar	PSI	RPM		3.2 mm		6.4 mm		9.6 mm									
			Max	Max	Min	Max	Min	Max	Min	Max	Min	Max								
Pumpsil®	2		29		0.1		220		0.18		390		0.70		1500		1.60		3500	
STA-PURE® PCS																				
STA-PURE® PFL																				
Marprene®	2		29		0.1		220		0.17		370		0.67		1500		1.50		3300	
Bioprene®																				
520REM Pumphead for LoadSure TM elements up to 4 Bar (58 PSI)																				
LoadSure element			Pressure		Speed		Flow Rate (mL/min) by tube bore													
			Bar	PSI	RPM		3.2 mm		6.4 mm											
			Max	Max	Min	Max	Min	Max	Min	Max										
STA-PURE® PCS	4		58		0.1		220		0.18		390		0.70		1500					
STA-PURE® PFL																				
Marprene®	4		58		0.1		220		0.17		370		0.67		1500					
Bioprene®																				

Performance data is based on a DriveSure pump powered by a 48 VDC power supply, pumping water in a 0 bar.g inlet and discharge pressure application. For performance in other scenarios, refer to the Watson-Marlow DriveSure Configurator, and/or contact your local Watson-Marlow representative.



Technical specifications

	500 DriveSure ADC/En/Pn
Motor types	Brushless DC motor
Min. operating speed	0.1 rpm
Max. operating speed	220 rpm
Supply voltage	12–48 VDC
Power consumption	75 W
Weight	2.8 kg
Weight	6.16 lbs
Max Input Current	3 A
Speed Resolution	0.1 rpm
External overcurrent protection required	Fuse: 3A T (time delay)
Control options	0–10 V, 2–2000 Hz, 4–20 mA, EtherNet/IP™, Fixed speed, Prime speed, PROFINET®
User Inputs	Prime switch
Outputs	Over temperature, Over-current, Over-voltage, Software, Stall, Tacho (ADC) Faults
Location	Indoor, Enclosure
Humidity	80 % up to 31 °C (88 °F), decreasing linearly to 50 % at 40 °C (104 °F)
Max. altitude	2000 m
Max. altitude	6561 ft
Standards	CAN/CSA-C22.2 NO. 61010-1-12 (R2022), CC 47CFR (Part 15), EN 61326-1:2021, EN60204-1:2018, UL 61010-1:2012 Ed.3
Compatible tubing bore size	0.5, 1.6, 3.2, 4.8, 6.4, 8, 9.6 mm
Compatible tubing wall thickness	1.6, 2.4 mm

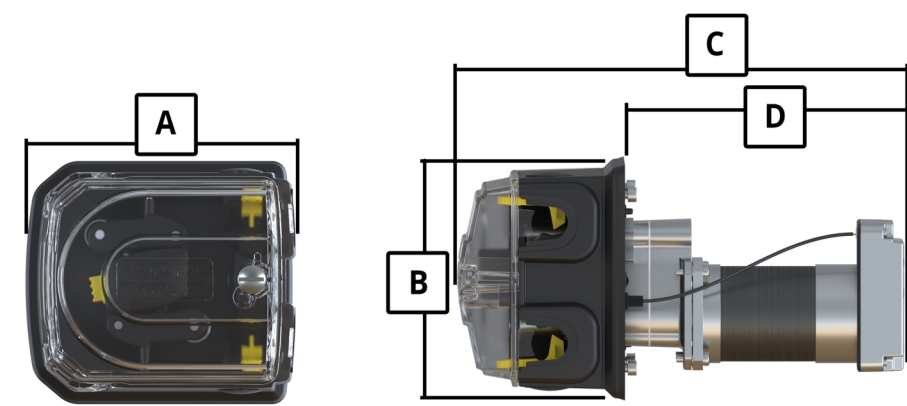
Materials of construction

	500 DriveSure ADC/En/Pn
Pumphead body assembly	Acetal, Aluminium, Aluminium alloy, Brass
Pumphead rotor assembly	PPS (polyphenylene sulphide), Stainless steel 316
Pumphead roller assembly	MoS2 filled Nylon 6 (Nylatron), PPS (polyphenylene sulphide), Stainless steel 316
Pumphead guard	Polycarbonate
Pumphead track	PPS (polyphenylene sulphide)

Information listed covers the complete range.

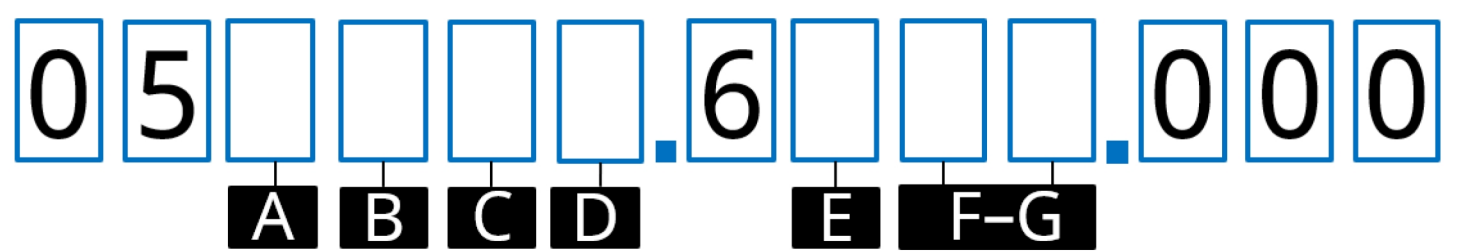
For detailed specifications of individual models/components refer to user manual or contact WMFTS representative.

500 DriveSure ADC/En/Pn dimensions



A		B		C		D	
mm	in	mm	in	mm	in	mm	in
156.2	6.150	132.0	5.197	260.4	10.252	161.8	6.370

Product codes



Product codes

A	B	C	D	E	F-G
Product	Control model	Power cable	Pumphead colour	Pumphead type	Pumphead
0 = Complete pump	4 = ADC	1 = 1 m (3.28 ft) cable	0 = No pumphead	0 = No pumphead	00 = No pumphead
6 = Drive only	8 = En (EtherNet/IP)	3 = 3 m (9.84 ft) cable	1 = Standard pumphead colour	R = 520 Series	10 = 520R
	9 = Pn (PROFINET)				2L = 520R2
					EL = 520REL
					EM = 520REM

Disclaimer: All flow rates shown were obtained pumping water at 20 °C (68 °F) with zero suction and delivery heads. Watson-Marlow, Pumpsil, PureWeld XL, Bioprene and Marprene are trademarks of Watson-Marlow Limited. Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. GORE and STA-PURE are trademarks of W. L. Gore & Associates. Please state the product code when ordering pumps and tubing.

wmfts.com/global



16 August 2023