

# 501RL spring-loaded single channel pumphead

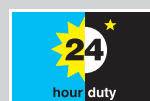
# 500<sup>series</sup>

Watson-Marlow Pumps

## FEATURES

- Flow rates from 0.01 ml/min (0.0002 USGPH) to 3000 ml/min (47.55 USGPH)
- Tool lockable guard
- Twin spring-loaded rollers for long tube life
- 501RL uses 1.6mm wall thickness tubing for transfer at low pressure
- 501RL2 has harder springs for use with 2.4mm wall thickness tubing and higher pressures up to 2 bar (29 psi)

0 – 2 bar  
0 – 30 psi



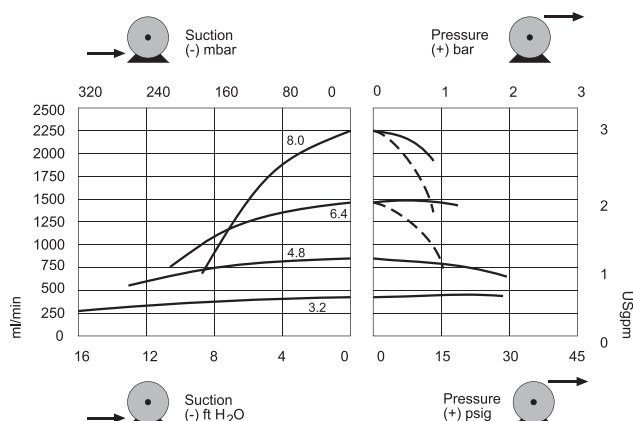
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## TECHNICAL DATA

Flow rates ranges (ml/min)							
	Tube bore and flow rates (ml/min)						
	0.5mm	0.8mm	1.6mm	3.2mm	4.8mm	6.4mm	8.0mm
Flow rate (ml/revolution)	0.04	0.12	0.43	1.86	4.05	6.35	10.0
Max continuous flow rate (ml/min)	12.0	36.0	129	558	1215	1905	3000

## PERFORMANCE

Tube life (hours) for 501RL pumphead: clockwise rotation	
No pressure. Clockwise rotation. 6.4mm bore tubing, except Marprene which was 4.8mm bore	
Bioprene TL/Marprene TL	10,000
STA-PURE	1,500
Neoprene	280
Fluorel	210
Pumpsil	200
PVC	120
Tube life (hours) for 501RL pumphead: anticlockwise rotation	
Anticlockwise rotation. 1 bar (15psi). 6.4mm bore tubing, except Marprene which was 4.8mm bore	
Bioprene TL/Marprene TL	6,000
STA-PURE	1,100
Neoprene	68
Fluorel	58
Pumpsil	50
PVC	50



## TECHNICAL SPECIFICATION

501RL and 501RL2	
Working Temperature	5C to 40C (41F to 104F)
Pump weight	1.1kg (2lb 7oz)
Dimensions	H112 x W117 x L65

## MATERIALS OF CONSTRUCTION

Component	Material
Rotor	Mazak, painted
Tube clamps, hinges	Acetal copolymer (kematal)
Guide rollers	Delrin
Rollers	Nylatron
Guard	Polycarbonate
Springs, spindles	Stainless steel

## ORDER INFORMATION

Product codes		
Description		Partcode
501RL	Single channel pumphead for 1.6mm wall tube	053.0001.L00
501RL2	Single channel pumphead for 2.4mm wall tube	053.0001.L20

Tubing 1.6mm wall thickness tubing for 501RL						
Tube bore	Tube	Bioprene	Marprene	Pumpsil	STA-PURE®	Chem-Sure®
0.5mm 1/50"	112	903.0005.016	902.0005.016	913.A005.016		
0.8mm 1/32"	13	903.0008.016	902.0008.016	913.A008.016		
1.6mm 1/16"	14	903.0016.016	902.0016.016	913.A016.016	960.0016.016	965.0016.016
3.2mm 1/8"	16	903.0032.016	902.0032.016	913.A032.016	960.0032.016	965.0032.016
4.8mm 3/16"	25	903.0048.016	902.0048.016	913.A048.016	960.0048.016	965.0048.016
6.4mm 1/4"	17	903.0064.016	902.0064.016	913.A064.016	960.0064.016	965.0064.016
8.0mm 5/16"	18	903.0080.016	902.0080.016	913.A080.016	960.0080.016	965.0080.016
Tube bore	Tube	Neoprene	PVC	Fluorel		
0.5mm 1/50"	112	920.0005.016				
0.8mm 1/32"	13	920.0008.016				
1.6mm 1/16"	14	920.0016.016	950.A016.016	970.0016.016		
3.2mm 1/8"	16	920.0032.016	950.A032.016	970.0032.016		
4.8mm 3/16"	25	920.0048.016	950.A048.016	970.0048.016		
6.4mm 1/4"	17	920.0064.016	950.A064.016	970.0064.016		
8.0mm 5/16"	18	920.0080.016	950.A080.016	970.0080.016		

Tubing 2.4mm wall thickness for 501RL2						
Tube bore	Tube	Bioprene	Marprene	Pumpsil	STA-PURE®	Chem-Sure®
1.6mm 1/16"	119	903.0016.024	902.0016.024	913.A016.024	960.0016.024	965.0016.024
3.2mm 1/8"	120	903.0032.024	902.0032.024	913.A032.024	960.0032.024	965.0032.024
4.8mm 3/16"	15	903.0048.024	902.0048.024	913.A048.024	960.0048.024	965.0048.024
6.4mm 1/4"	24	903.0064.024	902.0064.024	913.A064.024	960.0064.024	965.0064.024
8.0mm 5/16"	121	903.0080.024	902.0080.024	913.A080.024	960.0080.024	965.0080.024

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, 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. LoadSure is a trademark of Watson-Marlow Limited. © STA-PURE PFL and © STA-PURE PCS are registered trademarks of W.L Gore & Associates Inc. Please state the product code when ordering pumps and tubing.

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wmpg.co.uk  
info@wmpg.co.uk  
+44 (0) 1326 370370