

102R low flow pumphead

102^{series}

Watson-Marlow Pumps

FEATURES AND BENEFITS

- Low-flow compact pumphead
- Sprung roller design for longer tube life and precise flow rates
- Easy continuous tube loading
- Up to 106 ml/min continuous flow
- Up to 212 ml/min intermittent flow
- Pumphead accepts five bore sizes of tubing for flow ranging 0.02 ml/min to 212 ml/min
- Synchronous motor

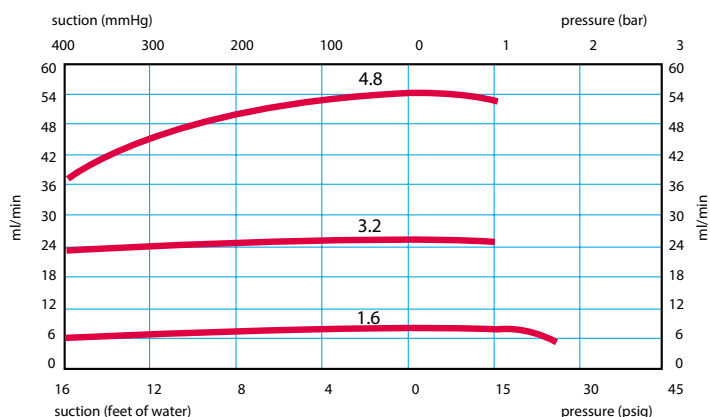


Watson-Marlow...Innovation in Full Flow

PERFORMANCE

Flow rates (ml/min) Tubing 1.6mm wall

Tube bore (mm)	Speed (rpm)		
	(ml/rev)	65	130
0.5	0.02	1.38	2.76
0.8	0.05	3.22	6.44
1.6	0.22	14.0	28.0
3.2	0.81	52.0	104
4.8	1.66	106	212



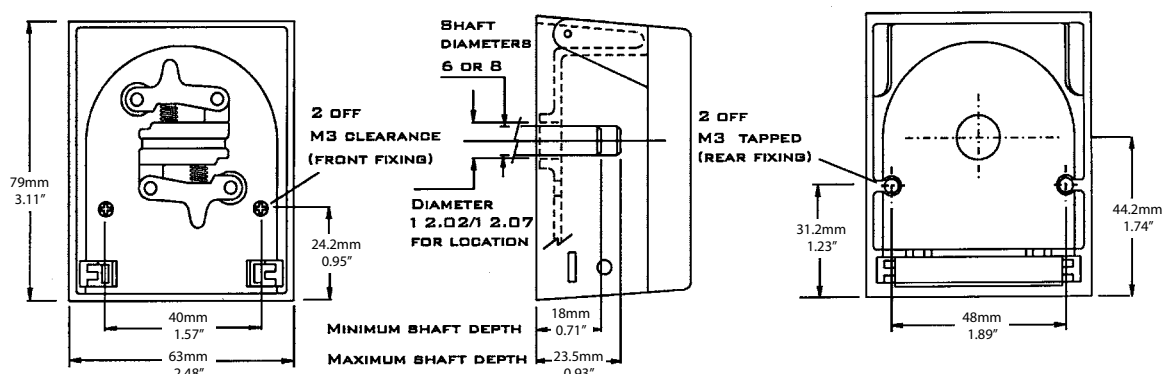
Conditions:

- Suction curves obtained with zero output pressure.
- Pressure curves obtained with zero lift.
- Pumphead speed 32 rpm

Conversion Factors:

Suction pressure in bar x 760 = mm Hg
 Suction pressure in bar x 33.5 = Ft H₂O
 Back pressure in bar x 14.5 = psi

DIMENSIONS



TECHNICAL SPECIFICATION

MATERIALS OF CONSTRUCTION

	1.6mm wall tubing				
Bore mm	0.5	0.8	1.6	3.2	4.8
Maximum continuous speed: rpm	65	65	65	65	65
Maximum intermittent speed: rpm	130	130	130	130	130
With silicone tubing (standard springs, clockwise rotation)					
Required torque up to 0.5bar: kg cm	1.1	1.1	1.2	1.5	1.8
Required torque up to 1bar: kg cm	1.2	1.2	1.25	1.8	2.1
Maximum pressure bar	3.0	3.0	3.0	1.0	1.0
With Marprene tubing (hard springs, clockwise rotation)					
Required torque up to 0.5bar: kg cm	3.5	3.5	3.6	4.2	4.6
Maximum pressure bar	1.6	1.6	1.6	1.6	1.6

Component	Material
Rotor	IXEF (polyarylamide)
Rollers	MOS2 filled nylon 6 (nylatron)
Track	Acetal copolymer (kematal) or PVDF
Tube clamps	Acetal copolymer (kematal)
Guard	Polycarbonate
Spindles, guard pins	Stainless steel

ORDER INFORMATION

For 6mm drive shaft	Suitable for	Part code
Kematal track with standard springs	Platinum cured Silicone/Neoprene	013.2001.000
Kematal track with hard springs	Marprene/PVC	013.2011.000
PVDF track with standard springs	Platinum cured Silicone/Neoprene	013.3001.000
PVDF track with hard springs	Marprene/PVC	013.3011.000
For 8mm drive shaft	Suitable for	Part code
Kematal track with standard springs	Platinum cured Silicone/Neoprene	013.2101.000
Kematal track with hard springs	Marprene/PVC	013.2111.000
PVDF track with standard springs	Platinum cured Silicone/Neoprene	013.3101.000
PVDF track with hard springs	Marprene/PVC	013.3111.000

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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