

520 FAM, 520 FDM and 520 VBM Heavy duty AC and DC OEM-pumps

500 series

Watson-Marlow Pumps

FEATURES AND BENEFITS

- Rugged peristaltic pumps for industrial applications
- Wide range of drives available; AC, DC and Brushless DC
- Outstanding performance high flow pumphead
- Spring-loaded stainless steel rollers with ball bearings provided gentle pumping and long tube life
- Stainless steel face plate
- Flow rates up to 200 L/hr (52.8 USGPH)



Watson-Marlow...Innovation in Full Flow

PERFORMANCE

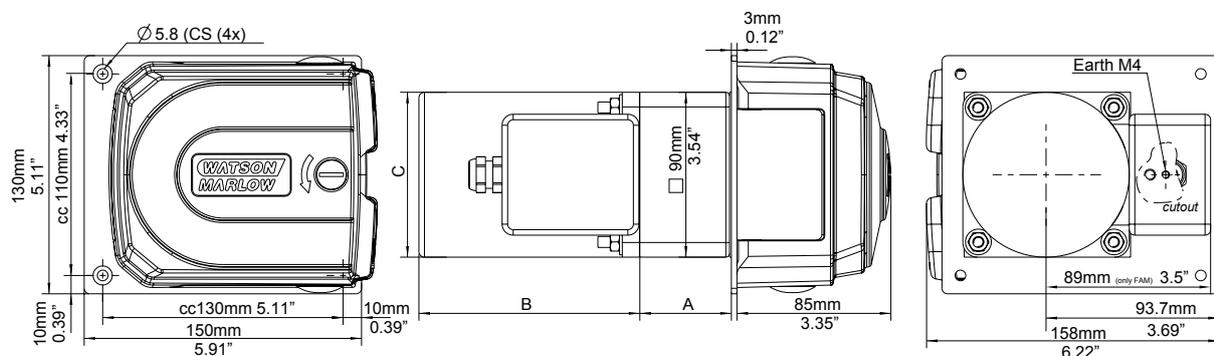
Flow rates

Marprene tubing 2.4 mm (3/32in) wall, zero pressure and no suction height									
ml/min tubing dimensions:		0.5mm	0.8mm	1.6mm	3.2mm	4.8mm	6.4mm	8.0mm	9.6mm
FAM 50Hz	37rpm	1.5	3.9	15	62	140	250	390	550
	75rpm	3.1	7.8	31	130	280	510	780	1120
	145rpm	5.9	15	61	240	550	990	1520	2170
FAM 60Hz	42rpm	1.7	4.4	18	70	160	290	440	630
	85rpm	3.5	8.8	35	140	320	580	890	1270
FDM 12/24VDC	45rpm	1.8	4.7	19	76	170	310	470	670
	90rpm	3.7	9.4	38	150	340	610	940	1350
	175rpm	7.2	18	73	290	660	1190	1830	2620
	230rpm	9.4	24	96	390	870	1570	2400	3450
VBM 24VDC	100rpm	4.1	10.5	42	170	380	680	1040	1500
	190rpm	7.8	20	79	320	720	1295	1980	2850

For Pumpsil, Tygon, Sta-Pure, Chem-Sure and Neoprene-flowrates, add 5% to the above figures.

For pressure performance see pumphead datasheet.

DIMENSIONS



	A	B	C
FAM 37 and 42 rpm	68mm (2.68in)	100mm (3.94in)	Ø90
FAM 75, 85, 145, rpm	50mm (1.96in)	100mm (3.94in)	Ø90
FDM 45 rpm	68mm (2.68in)	110mm (4.33in)	Ø80
FDM 90, 175, 230 rpm	50mm (1.97in)	110mm (4.33in)	Ø80
VBM 100 rpm	63mm (2.48in)	60mm (2.36in)	Ø70
VBM 190 rpm	45mm (1.77in)	60mm (2.36in)	Ø70

TECHNICAL SPECIFICATION

Motor Descriptions			
FAM AC-drive		FDM DC-drive	VBM Brushless DC-drive
1 phase induction motor		Carbon brush motor	Brushless variable speed motor
220-230VAC	110-115VAC	12 or 24VDC	24VDC
Power: 40W	Power: 20W	Power: 30W	Power: 35W
Nominal speed:	Nominal speed:	Motor speed (nominal): 1750rpm	Built in controller for speed regulation via external 0-4V signal (10-100%)
1450 rpm@50Hz,	1400rpm@50Hz,	Reversible	Motor max speed: 4000rpm
1750 rpm@60Hz	1700rpm@60Hz	Speed can be adjusted by altering the input voltage	Reversible
Reversible		Replaceable brushes (normal life 2500 to 4000 h)	No brushes yields and external long life with no maintenance required
With terminal box for easy and secure installation		Cable length 300mm	Frequency (36 ppr) tachometer output
Capacitor included (inside term. box)		Working temperature: -10 to +45C (14F to 104F)	Working temperature: -10 to +45C (14F to 104F)
Working temperature: -10C to +40C (14F to 104F)		Protection class: IP41	Protection class: IP41
Protection class: IP41			

Special note for the FAM drive:
The drives are delivered with a capacitor optimised for most applications.
By altering the capacitor value one can achieve:
1. Increase starting torque in high torque applications
2. Reduced heat in long life continuous running applications

520 Pumphead:

Outstanding performance, minimal downtime and low whole-life cost

Spring-loaded roller arms and large, low-friction 313 stainless steel rollers provide gentle, high flow pumping for shear-sensitive fluids

On top of that, low running speed from the high swept volume extends tube life - offering secure and predictable long-term operation. For 2.4mm wall tubing.

>Unrivalled chemical resistance with PPS

>Tough, clear, snap-shut safeguard

Easy setup and maintenance

The large rotor hub has a clutch to allow easy loading and avoid tube twist. There's one adjustment: setting the tube clamps to grip large or small tubing.

Changing the tube is the only routine maintenance

ORDER INFORMATION

520 FAM			520 FDM			520VBM		
Supply voltage	Speed	520FAM/R2	Supply voltage	Speed	520FDM/R2	Supply voltage	Speed	520VBM/R2
230VAC, 50Hz	37	040.AG22.210	12VDC	45	040.CH22.210	24VDC	100	040.NP22.210
115VAC, 60Hz	42	040.EH22.210	24VDC	45	040.DH22.210	24VDC	190	040.NS22.210
230VAC, 50Hz	75	040.AN22.210	12VDC	90	040.CP22.210			
115VAC, 60Hz	85	040.EP22.210	24VDC	90	040.DP22.210			
230VAC, 50Hz	145	040.AQ22.210	12VDC	175	040.CR22.210			
			24VDC	175	040.DR22.210			
			12VDC	230	040.CT22.210			
			24VDC	230	040.DT22.210			

Alternative pumpheads available for all pumps are:
520R for 1.6mm wall tubing
Loadsure® Element pumpheads
520REL for up to 2 bar (30psi) pressure
520REM for up to 4 bar (60psi) pressure
520REH for up to 7 bar (100psi) pressure

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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