

620Di and 620DiN dispensing pumps with 620R, 620RE and 620RE4 Mk II pumpheads

600 series

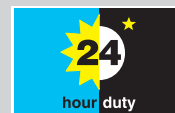
Watson-Marlow Bredel

COMMON FEATURES AND BENEFITS

- Keypad entry of flow from 0.001 litre/min to 18 litre/min
- Dispenses 500ml to within +/- 0.5% in 3 seconds
- Stores up to 50 dispensing programs
- 4 bar pressure with LoadSure™ elements (STA-PURE, Bioprene™ or Marprene™)
- 2650:1 control ratio (0.1 to 265rpm speed range)
- Digital speed adjustment with choice of 0.1rpm, 0.5rpm, 1rpm, 2rpm, 5rpm and 10rpm step changes
- Maintenance-free brushless DC motor
- Smooth easy-to-clean enclosure free from bug traps
- Wireless pumphead track switching



- Compatible with Mk II 620R, 620RE and 620RE4 pumpheads only (not 620L and 620LG - see separate datasheet)
- Two pumphead positions as standard (inlet/outlet ports on the right or facing downwards)
- Retractable pumphead rollers for CIP, SIP and easy tube loading



Watson-Marlow Bredel ... Value for life

TECHNICAL DATA

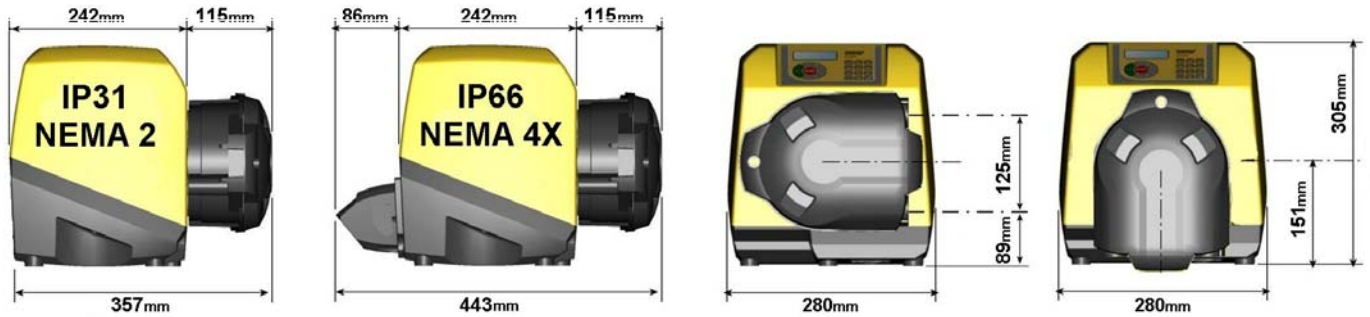
Functionality	620Di	620DiN
Enclosure - ingress protection rating	IP31	IP66
Manual control		
Digital speed control with simple calibration to display flow	•	•
Choice of flow rate display; metric or imperial units	•	•
Numeric keypad for entry of speed, flow or PIN code	•	•
Remote control		
Run/stop, direction change, auto/manual mode, leak detector input (via contact closure or 5V TTL to 24V industrial logic)	•	•
Remote operation of dosing (foot/handswitch or logic input)	•	•
Four programmable digital status outputs through 5V TTL to 24V industrial logic		•
Analogue speed feedback		
Tachometer output; 0-1478Hz	•	•
Digital communication		
Digital network serial control	RS232	RS485
Specialist dispensing functionality		
Drip control feature(momentary direction reverse at end of dose)	•	•
Ramp control to improve accuracy and avoid splashing or frothing	•	•
Export of batch records to PC or printer for cGMP requirements	RS232	
Dual operator/supervisor PIN code protection of pump settings	•	•

620R dose sizes				
Tube bore	6.4mm	9.6mm	12.7mm	15.9mm
	1/4"	3/8"	1/2"	5/8"
Minimum possible dose	6ml	14ml	21ml	28ml
Minimum recommended	60ml	136ml	208ml	283ml
620RE dose sizes				
Tube bore	12mm		17mm	
Minimum possible dose	19ml		30ml	
Minimum recommended	189ml		302ml	
620RE4 dose sizes				
Tube bore	12mm		17mm	
Minimum possible dose	16ml		21ml	
Minimum recommended	164ml		208ml	

PERFORMANCE

Flow ranges (l/min) (over 0.1 to 265rpm speed range)	Continuous tubing				LoadSure™ element tubing			
	620R (2 rollers)				620RE (2 rollers)		620RE4 (4 rollers)	
Tubing material	6.4mm	9.6mm	12.7mm	15.9mm	12mm	17mm	12mm	17mm
Marprene™ TM, Bioprene™ TM					0.004-9.8	0.01-16	0.003-8.3	0.004-11
Marprene™ TL, Bioprene™ TL	0.001-3.4	0.003-6.6	0.004-11	0.01-12	0.004-9.8	0.01-18	0.003-8.3	0.005-12
Pumpsil silicone	0.001-3.2	0.003-7.2	0.004-11	0.01-15	0.004-10	0.01-16	0.003-8.7	0.004-11
STA-PURE, Neoprene	0.001-3.2	0.003-6.6	0.004-11	0.01-16	0.004-11	0.01-18	0.003-9.0	0.010-13

TECHNICAL DRAWINGS



TECHNICAL SPECIFICATION

	620Di	620DiN
Ingress rating	IP31 / NEMA 2	IP66 / NEMA 4X
Enclosure	Wipedown, vented	Watertight, dustproof
Suitability	Dry industrial environments with non-corrosive atmospheres	Corrosion resistant for heavy industrial environments
Humidity	(Non-condensing) 80% to 31C, 88F, decreasing linearly to 50% at 40C, 104F	(Condensing) 10-100% RH
Temperature	5C to 40C (40F to 104F)	5C to 40C (40F to 104F)
Pump weight	19.6kg (43lb 3oz) with 620R, 620RE 20.1kg (44lb 5oz) with 620RE4	20.5kg (45lb 3oz) with 620R, 620RE 21.0kg (46lb 5oz) with 620RE4
Control ratio	2650:1	2650:1
Power/Torque	250VA consumption/ 6Nm, torque rating	250VA consumption/ 6Nm, torque rating
Noise	< 70dB(A) at 1m	< 70dB(A) at 1m
Standards	CE, cETLus	CE, cETLus
Power supply	100-120V/200-240V, 1ph, 50/60Hz	100-120V/200-240V, 1ph, 50/60Hz

MATERIALS OF CONSTRUCTION

Component	Material
Keypad	Polyester
Switch-plate	ABS PA-765
Rear blanking plate	Stainless steel 316
Drive casework	Pressure die-cast aluminium (top - LM6, base - LM24)
Case work coating	Alcrom pre-treatment, exterior grade polyester powder coat
Drive shaft	Stainless steel 440C
Pumphead track	Powder coated aluminium LM24
Guard - inner/outer	Grilamid TR55/Polyurethane PBA
Rotor hub, roller arms	Fortron 1140L4 (PPS)
Rotor cover	Dupont Hytel G5544
Rollers - main/guide	Stainless steel 303/Nylatron
Main roller bearings	Carbon steel
Tube clamp sets	Polypropylene

ORDER INFORMATION

Product codes							
	620R MkII head	620RE MkII head	620RE4 MkII head	Accessories			
Pumphead only	063.4211.000	063.4231.000	063.4431.000	Footswitch	Handswitch	RS232 cable	Batch records cable
IP31/NEMA 2 wipe-down pumps				IP31	IP31	IP31	IP31
620Di	060.4171.020*	060.4171.E20*	060.4171.E40*	059.3002.000	059.3022.000	059.3121.000	059.3125.000
* Replace 0 (plug-less) with A, E or U for 2.8m American, European or UK mains plug							
IP66/NEMA 4X wash-down pumps				IP55			
620DiN	060.417N.020**	060.417N.E20**	060.4171.E40**	069.5231.000	n/a	n/a	
** Replace 0 (plug-less) with A for 2.8m American mains lead							

	Continuous tubing for 620R				Sanitary LoadSure™ elements		Industrial LoadSure™ elements	
	6.4mm	9.6mm	12.7mm	15.9mm	(3/4" Tri-clamp PVDF connectors)		(3/4" Cam & Groove PP connectors)	
STA-PURE	960.0064.032	960.0096.032	960.0127.032	960.0159.032	960.0120.PFT	960.0170.PFT		
CHEM-SURE	965.0064.032	965.0096.032	965.0127.032	965.0159.032	965.0120.SST*	965.0170.SST*		
Bioprene TM					903.P120.PFT	903.P170.PFT		
Bioprene TL	903.0064.032	903.0096.032	903.0127.032	903.0159.032	903.0120.PFT	903.0170.PFT		
Marprenne TM							902.P120.PPC	902.P170.PPC
Marprenne TL	902.0064.032	902.0096.032	902.0127.032	902.0159.032			902.0120.PPC	902.0170.PPC
Pumpsil silicone	913.A064.032	913.A096.032	913.A127.032	913.A159.032	913.A120.PFT	913.A170.PFT	913.A120.PPC	913.A170.PPC
Neoprene	920.0064.032	920.0096.032	920.0127.032	920.0159.032			920.0120.PPC	920.0170.PPC
PVC	950.0064.032	950.0096.032	950.0127.032	950.0159.032				

NB: 4 bar pressure capability with Sta-Pure, Bioprene TM and Marprenne TM

*SST = sanitary stainless steel connectors

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



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