

# 620Du and 620DuN process pumps with 620L and 620LG pumpheads

# 600 series

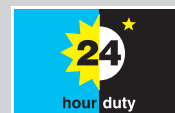
Watson-Marlow Bredel

## COMMON FEATURES AND BENEFITS

- Keypad entry of flow from 0.002 litre/min to 12.4 litre/min
- 4 bar pressure with 620LG pumphead
- 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 guard switching



- Compatible with 620L and 620LG heads only
- Tool lockable track for safety (supplied with 10mm spanner)
- New track switching (both sides must be closed for pump to run)
- Use Y elements for low pulsation, single channel pumping
- Option to use two channels of continuous tubing



Watson-Marlow Bredel ... Value for life

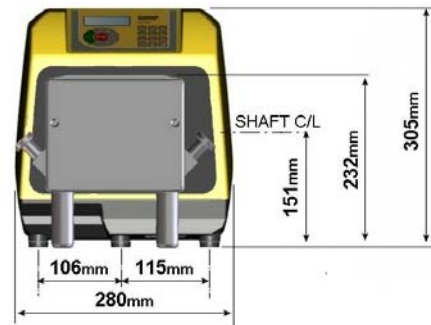
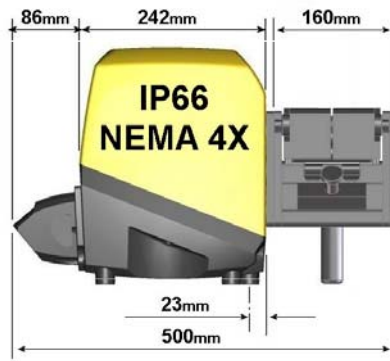
## TECHNICAL DATA

Functionality	620Di	620DiN
<b>Enclosure - ingress protection rating</b>	IP31	IP66
<b>Manual control</b>		
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	•	•
<b>Remote control</b>		
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 24V, 30W relays		•
<b>Analogue speed feedback</b>		
Software programmable inputs; 0-10V, 1-5V or 4-20mA	•	•
Analogue outputs; 0-10V, 4-20mA (high resolution)	•	•
Keypad/analogue input scaling (replacement of diaphragm pumps)	•	•
Tachometer output; 0-1478Hz	•	•
<b>Digital communication</b>		
Digital network serial control	RS232	RS485
<b>Security</b>		
Dual operator/supervisor PIN code protection of pump settings	•	•

## PERFORMANCE

Flow ranges (l/min) (over 0.1 to 265rpm speed range)	Y element tubing			Continuous tubing (flow per channel - max of 2 channels)		
	8.0mm	12.0mm	16.0mm	8.0mm	12.0mm	16.0mm
Tubing material						
Pumpsil silicone	0.002-4.6	0.003-8.5	0.005-11.5	0.001-2.3	0.002-4.3	0.003-5.8
Marprene, Bioprene	0.002-4.6	0.003-8.5	0.005-11.5	0.001-2.3	0.002-4.3	0.003-5.8
Neoprene	0.002-4.6	0.003-8.5	0.005-12.6	0.001-2.3	0.002-4.3	0.003-6.3
STA-PURE, Chem-Sure (620LG pumphead only)	0.002-5.2	0.003-9.0	0.005-12.4	0.001-2.6	0.002-4.5	0.003-6.2

## TECHNICAL DRAWINGS



## TECHNICAL SPECIFICATION

	620Du	620DuN
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	24.3kg (53lb 9oz)	25.2kg (55lb 9oz)
Control ratio	2650:1	2650:1
Torque rating	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/cradle	Aluminium alloy NS4 anodised
Front/back plates	Aluminium alloy HS30
Pumphead coating	Polyester epoxy powder
Track spindles	Stainless steel 303S31
Rotor body/tube clamps	Aluminium alloy HE30
Rollers/bearings	Stainless steel 316/carbon steel
Y element locators	Stainless steel 303S31

## ORDER INFORMATION

Product codes						
	620L pumphead	620LG pumphead	Accessories			
Pumphead only	063.4603.000	063.4623.000	Footswitch	Handswitch	RS232 cable	Tube monitor
<b>IP31/NEMA 2 wipe-down pumps</b>			<b>IP31</b>	<b>IP31</b>	<b>IP31</b>	<b>IP31</b>
620Du	060.4151.5L0*	060.4151.5G0*	059.3002.000	059.3022.000	059.3121.000	059.4501.520
* Replace 0 (plug-less) with A, E or U for 2.8m American, European or UK mains plug						
<b>IP66/NEMA 4X wash-down pumps</b>			<b>IP55</b>			<b>IP65</b>
620DuN	060.415N.5L0**	060.415N.5G0**	069.5231.000	n/a	n/a	059.450N.520
** Replace 0 (plug-less) with A for 2.8m American mains lead						

Bore size (4.0mm wall thickness)	Y element tubing			Continuous tubing		
	8.0mm	12.0mm	16.0mm	8.0mm	12.0mm	16.0mm
<b>Tubing material</b>						
Pumpsil silicone	913.AE80.K40	913.A12E.K40	913.A16E.040	913.A080.040	913.A120.040	913.A160.040
Marprene	902.E080.K40	902.E120.K40	902.E160.040	902.0080.040	902.A120.040	902.0160.040
Bioprene	903.E080.K40	903.E120.K40	903.E160.040	903.0080.040	903.A120.040	903.0160.040
Neoprene	920.E080.K40	920.E120.K40	920.E160.040	920.0080.040	920.A120.040	920.0160.040
STA-PURE (for 620LG pumphead)	960.E080.K40	960.E120.K40	960.E160.040			
CHEM-SURE (for 620LG pumphead)	965.E080.K40	965.E120.K40	965.E160.040			
				Clamp set for continuous tube		069.4001.000
NB: 4 bar pressure capability with STA-PURE elements (620LG pumphead only)						

All flow rates shown were obtained pumping water at 20C (68F) with zero suction and delivery heads. Watson-Marlow, Loadsure, 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. © 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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