

B/T® Biopharma Pump

FEATURES/BENEFITS

- Flow rates: 0.65 to 42 LPM (0.17 to 11.1 GPM) with B/T tubing
- 5" (12.7 cm) capacitive TFT/RGB touch screen for crisp resolution and a wide viewing angle
- High-flow pump for process applications – with an intuitive touch-screen interface and advanced connectivity
- Powerful pump engineered for continuous-duty biopharma process applications
- 316 stainless steel housing is IP66 rated for use in washdown environments
- Adjust parameters with a simple touch, even while wearing gloves
- Over-the-air firmware updates let you take full advantage of future improvements in pump features and functionality
- Three-level user access gives you the option of controlling who can operate the pump and at what level
- Pump lets you save and retrieve commonly used operating programs for rapid setup and changeover
- Continuous run, volume dispense, and time dispense modes - batch control and interval/off time in Volume and Time modes

DRIVE CONTROLS

- ◆ Tubing size
- ◆ Flow rate
- ◆ Flow direction
- ◆ Flow units (metric or English)
- ◆ Motor speed (rpm)
- ◆ Total volume
- ◆ Dispense (volume/copy/time)
- ◆ Control mode (remote/internal)
- ◆ Prime
- ◆ Start/stop
- ◆ Calibration

SETUP

1. Open door.
2. Load PerfectPosition tubing by aligning retention marks with pump head tubing retainers.
3. Close door ensuring that latch is fully engaged.
4. Select motor direction.
5. Prime and calibrate pump if required.
6. Set flow rate through keypad.
7. Press START key to begin pumping.

PUMP HEAD SPECIFICATIONS

- Corrosion-resistant Nylatron® rollers
- Stainless steel/powder-coated carbon steel frame
- Powder-coated cast aluminum and polycarbonate door
- Accepts PerfectPosition tubing sizes B/T 87 and B/T 91

SPEED CONTROL/CIRCUITRY

- Options for connectivity and control include MasterflexLive®, EtherNet/IP™, Profibus, or analog signal
- Speed not affected by variations in power line voltage (VAC) and frequency (Hz)
- Line filters reduce outside interference
- 230 V for CE mark: EN61010-1 (EU low voltage), EN61326 (EU EMC), and EN809 (EU machinery directive)

REMOTE CONTROL

- EtherNet/IP™
- Profibus automation protocol
- Analog I/O Interface
- START/STOP, CW/CCW, PRIME via contact closure
- Internet connection via Wi-Fi or standard Ethernet (RJ45) jack on rear of drive
- 38-pin watertight circular connection

B/T Biopharma pump 77112-10



CALIBRATION

1. Select correct tubing size and flow rate.
2. Press CAL; calibration volume appears.
3. Press Start/Stop key. Stored memory dispenses specified volume, stops automatically.
4. Weigh/measure the sample.
5. Use UP/DOWN keys to adjust display to actual measured volume.
6. Press SIZE to save setting and exit.

Note: Digital signal processor retains one calibration value for each tubing size, even when power is turned off.

Includes

- Rapid-Load pump head, 3 ft (1 m) of Tygon® LFL B/T 91 tubing 06430-91; and a 6-ft (1.8-m) line cord with IEC 320/CEE22 socket. Unit is shipped with country specific plug/cord set; please specify ultimate destination when ordering.

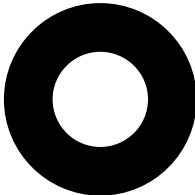
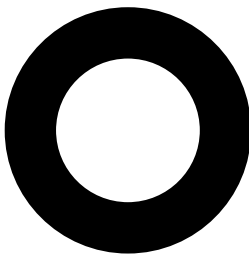


ORDERING INFORMATION

Catalog number	rpm	Power (50/60 Hz)
EW-77112-10	11 to 321	90 to 260 VAC

B/T PUMP TUBING FLOW RATE INFORMATION

Order Masterflex B/T pump tubing separately on page 153.

Tubing cross sections	B/T PerfectPosition™ tubing		Pump tubing size	PerfectPosition™ pump tubing	
				B/T 87	B/T 91
			Flow range† @ 11 to 321 rpm	0.65 to 18.9 LPM (0.17 to 5 GPM)	1.3 to 42 LPM (0.3 to 11.1 GPM)
†Determined under the following conditions: 0 psi at inlet, 0.5 psi at outlet; water temperature at 22°C (72°F).					
Dispensing Precision					
			Tubing size	Minimum dose (for ±0.5% precision)	Precision (±)
			B/T 87	5 L	25 mL
			B/T 91	10 L	50 mL

SPECIFICATIONS for B/T® Biopharma Pumps

Catalog number		HL-77112-10
Performance specifications		
Flow capacity		0.65 to 42 LPM (0.17 to 11.1 GPM)
rpm		11 to 321
Number of heads accepted		1 (supplied with drive)
Maximum running torque		104 kg-cm (1440 oz-in)
Reversible		Yes
External control	Input	0 to 20 mA, 4 to 20 mA, 0 to 10 V; Start/stop, CW/CCW, Prime via contact closure
	Output	0 to 20 mA, 4 to 20 mA, 0 to 10 V, TTL
Electrical specifications		
Voltage VAC (50/60 Hz)		90 to 260V
Current		3.3 A
Fuse rating		4 A
Motor type		Continuous duty, TENV, permanent-magnet DC
Motor size		370 W (½ hp)
Display		5" capacitive TFT/RGB touch screen
Motor/speed control type		Adjust parameters with a simple touch
Speed regulation		±0.1%
Soft start/electronic brake		Yes / Yes
Physical specifications		
Housing materials		316 stainless steel
Pump head materials		Powder-coated carbon steel and cast aluminum, stainless steel, polycarbonate, with Nylatron® rollers
IP rating†		IP66
Agency listings		ETL, cETL, CE
Operating temperature		0 to 40°C (32 to 104°F)
Storage temperature		-45 to 65°C (-49 to 149°F)
Noise level		<75 dBA @ 1 m (39")
Dimensions (L x W x H)		(L)62.2 x (W)40.1 x (H)47.8 cm
Shipping weight		

†See page 194 for explanation of IP ratings.

ACCESSORIES

EW-07575-80

Remote cable; required for remote control operation, 31Pin 7.6 m (25 ft)



Rubbermaid® FLAT-SHELF SERVICE CART

Perfect for transporting your B/T® pump around the process area. Flat-shelf design lets you easily move the pump on and off the cart and allows clearance for tubing. Transport up to 181 kg (400 lb). Comes with 12.7 cm (5") rubber casters (two swivel), seamless shelves and supports, radius corners, and molded handle.

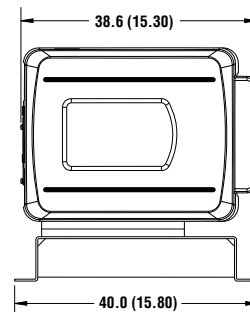
HL-09348-40 Plastic service cart, 112 cm L x 64.8 cm W x 85 cm H (44"L x 25½"W x 33½"H)

5 year warranty



Dimensional Drawings cm (in.) 77112-10

FRONT



SIDE

B/T® TUBING 153

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TECHNICAL DATA 172–206