

Pumps for TFF and Chromatography

Precise Flow Control



Product Information

Sartorius recommends and sells Watson-Marlow peristaltic pumps for processing samples with Vivaflow® tangential flow filtration (TFF) cassettes and Sartobind® chromatography consumables. Designed for ultrafiltration, diafiltration and purification, these pumps also offer the flexibility and performance required for other filtration and fluid transfer applications.

Peristaltic pumps ensure that only the tubing is in contact with the process fluid. This eliminates the risk of cross-contamination between the pump and the sample, maintaining sample integrity while minimizing pump cleaning and maintenance requirements.

Two pump heads are available, accepting tubing with a wall thickness of either 1.6 mm or 2.4 mm and compatible with a wide range of internal diameters. Tube loading is also quick and easy with an intuitive and reliable retention system.

Together with the digital flow control and optional remote input, these pumps deliver precise and consistent flow rates for any Vivaflow® cassette configuration or lab-scale Sartobind® units and kits.

Features

Easy to Use

Tool-free pump head mounting, intuitive tube retention adjustment, and easy loading.

Precise Control

Digital control with optional remote input provides consistent flow that is instantly reversible.

Avoid Contamination

Process fluid is confined to the tubing to ensure both the sample and the pump remain clean.

Low Maintenance

Easy wipe-down cleaning and washable pump heads, requiring only occasional lubrication.

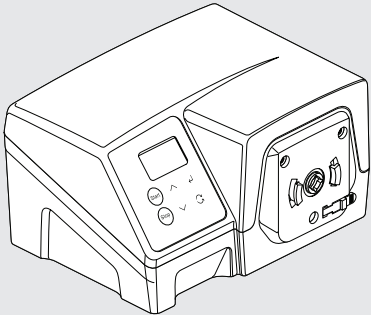




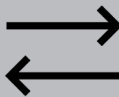
Applications

- Crossflow ultrafiltration and diafiltration
- Ion exchange and affinity chromatography
- In-line depth filtration and microfiltration
- Dispensing and filling

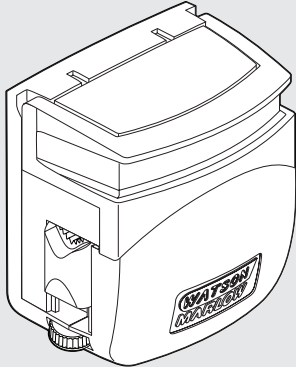





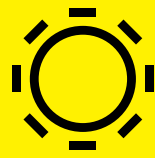


Technical Specifications

Pump Drive

	 <p>230 x 170 x 132 mm Overall dimensions (L x W x H)</p>	 <p>4.2 kg Weight</p>	 <p>3 - 400 rpm Brushless motor ²</p>
	 <p>115 or 230V Supply voltage ¹</p>	 <p>Digital, bidirectional Flow control ²</p>	

Pump Heads

	 <p>85 x 60 x 82 mm Overall dimensions (L x W x H)</p>	 <p>0.3 kg Weight</p>	 <p>1.6 or 2.4 mm Tube wall thickness ³</p>
	 <p>Adjustable Tube retention</p>	 <p>3X Rollers</p>	 <p>0.5 - 8 mm Tube internal diameter ⁴</p>

¹ Voltage selector can be set for 100-120V 50/60Hz or 200-240V 50/60Hz power supplies.

² With appropriate switches connected to the D socket, start/stop, flow direction and speed can be controlled remotely.

³ The correct tube wall thickness to use depends on the specific pump head model.

⁴ See Typical Performance for a full list of internal diameters, with volume displacement and flow rate data.

Materials

Bearings	Carbon steel Sintered bronze
Housing (pump)	Acrylonitrile butadiene styrene (ABS) Aluminium (ALU)
Housing (pump head)	Glass filled polypropylene (GFPP) Polyarylamide (PARA) Stainless steel (SS)
Mounting plates, pump head track, lever	Polyarylamide (PARA)
Rollers	Aluminium (ALU)
Rotor, tube clamps, mounting plate locking tab	Glass filled polyamide (GFPA)
Spindles	Electroless nickel plated hardened steel

Typical Performance

Volume displacement and flow rates for tubing with 0.5 - 8 mm internal diameters. Values for tubing used with Vivaflow® TFF cassettes and Sartobind® chromatography units or kits are indicated in yellow rows.

Internal diameter	Volume displacement	Flow rate
0.5 mm	0.03 mL/rev	0.09 - 12 mL/min
0.8 mm	0.06 mL/rev	0.18 - 24 mL/min
1.6 mm	0.26 mL/rev	0.78 - 104 mL/min
3.2 mm	1 mL/rev	3 - 400 mL/min
4.8 mm	2.2 mL/rev	6.6 - 880 mL/min
6.4 mm	3.6 mL/rev	10.8 - 1,400 mL/min
8 mm	5 mL/rev	15 - 2,000 mL/min

Ordering Information

Description	Package Contents	Order No.
Peristaltic Pump, 100-120/200-240V	1 unit ⁵ 1 user guide	VF-APD0001-1
Peristaltic Pump Head for 1.6 mm W.T. tubing	1 unit 1 user guide	VF-APH0001-1
Peristaltic Pump Head for 2.4 mm W.T. tubing	1 unit 1 user guide	VF-APH0002-1

⁵ Includes power cable with region-specific plug.

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