



**Minim™ II Tangential Flow Filtration System**

#### **Description**

### **Benchtop Tangential Flow Filtration at the Touch of a Button**

The Minim II System, a benchtop Tangential Flow Filtration (TFF system), provides biotechnology and biopharmaceutical drug developers and manufacturers with the tools to optimize processes and minimize development times. The Minim II Tangential Flow Filtration system is an ideal instrument for running filterability at ultra-low volumes, since it allows users to accurately scale-up process conditions and maximize yields.

Using the Minim II system as a development tool, time, risk and expensive product volumes can all be minimized.

### **Sanitary Disposable Flowpath with Low Working Volumes**

- Simplified System Setup - supplied with a color coded insert tray, sensors and connectors, to facilitate perfect alignment and installation of system components, every time
- Easy-fit Customized Single Use Tubing Kits - system hold-up and working volumes are minimized; risk of cross-contamination from tubing is eliminated

### **Graphical User Interface and Data Logging**

#### **User Friendly Interface**

- Controls pump and stirrer speed; displays pressure in addition to pump speed, stirrer speed and system temperature

#### **Ease of Data Collection**

- To eliminate data recording and transcription errors, process parameters can be exported to a PC

#### **Calibrated Instrumentation**

- Pressure, temperature and pump speed calibration provides accuracy of data for critical process development

#### **Specifications**

#### **Materials of Construction**

Tubing (except pump tubing)	Polyvinylchloride
Pressure Dome	Polycarbonate
Luer Fittings and Valves	Polycarbonate
Thermistor Housing	Polycarbonate with AISI 305 thermowell
Vessel	Polysulfone with EPDM seal
Pressure Pump Tubing	PharMed* BPT

\* PharMed is a trademark of Cole Palmer Instrument Co

## Operating Conditions

Operating Pressure	0 to 2.5 bar (0 to 36 psi)
Temperature Range	0 °C to +25 °C
Flow Rate	20 - 1100 mL/min

## Operating Volumes

Maximum Working Volume	1 <sup>1</sup> liter (nominal)
Minimum Working Volume	20 mL (separation device dependent)

<sup>1</sup> 1 liter is the maximum batch volume. Larger volumes can be processed using a fed-batch approach

## Physical Dimensions

Base Unit	W: 320 mm x L 415 mm x H 150 mm (12.6 in. x L 16.3 in. x H 5.9 in.)
Drip Tray	W: 420 mm x L 280 mm x H 60 mm (16.5 in. x L 11.0 in. x H 2.4 in.)

## Weight

Base Unit (including drip and insert tray)	15 kg (33 lb)
Centramate™ LV Cassette Holder	4 kg (9 lb)

## Electrical Data

Voltage	110 - 240 V AC
Frequency	50 / 60 Hz
Power	200 W
Communications Port	RS232 serial port

## Supplied Documentation

Quick Start Guide, Calibration Certificates, Final Inspection Certificate

## Supplied CD-ROM

Operating Instructions, CE Certificate, Pump Head User Guide, Data Logging Software, Data Logging Manual

## Additional Information

- Using three identical Minimate™ capsules, you can run the system with 150cm<sup>2</sup> effective filtration area
- Using three different Minimate™ capsules, you can determine the correct Molecular Weight Cut-Off (MWCO) for your application

## Ordering Information

Ordering Information	Contents	Quantity	Part Number
Minim II System*	Includes packing case, Minim II base unit (including pump motor & stirrer base), thermistor cable assembly, High Performance pump head, retentate control valve (mounted on insert tray), insert tray, drip tray, magnetic stirrer follower, feed pressure transducer with cable, retentate pressure transducer with cable, permeate pressure transducer with cable, EU power cable, UK power cable, US power cable, laminated Quick Guide, Calibration Certificate for PT1, PT2, PT3 and TT1, Final Inspection Certificate, CD-ROM	1	M2BAS
Feed/Retentate/Permeate*	Includes 6 sets of Feed, Retentate and Permeate kits	1	M2KIT
Vessel Kit*	Includes 6 sets of vessel, valves, tubing, syringe and vent filter	1	M2VK
Pump Tubing Kit*	Includes 6 x 2.5 bar (max) pump tubing sets	1	M2TULP
Minimate Capsule Kit	Includes 6 sets of tubing kits required to run 1, 2 or 3 Minimate™ capsules (capsules not included)	1	M2MK
Documentation	Completed IQ/OQ, blank IQ/OQ & Validation Guide	1	M2QUAL
Centramate™ Cassette Holder	Includes cassette holder and torque wrench	1	CM018LV

\*These items must be ordered to run the system. All other items are optional, to be ordered according to requirements

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## Contact Information

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This information is accurate as of the revision date indicated.