Minimate™ EVO tangential flow filtration system

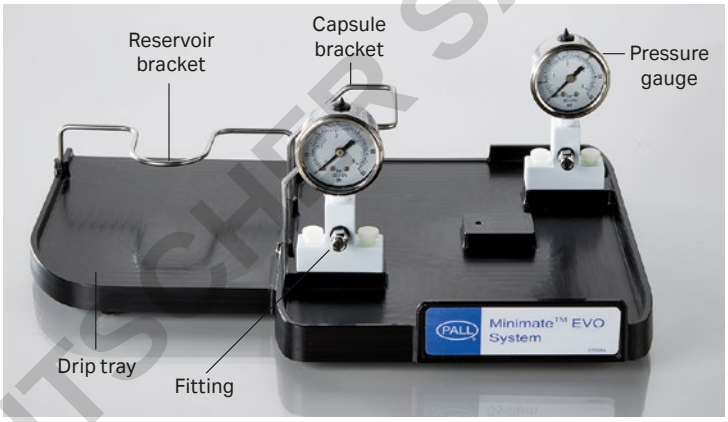
Quick start guide

Component information

Part No: OAPMPUNV
Description: Minimate EVO TFF system,
115V AC – 230V AC 50/60 Hz

System includes:

- Masterflex L/S variable speed pump with Easy-Load II pump head
- VWR stir plate
- 500 mL reservoir with lid, includes o-ring and fittings
- Drip tray
- Pressure gauges
- Adjustable drip tray feet
- Adapter plug international, 100V-250V AC for pump (plug does not change current)
- Power adapter plug, 100V-240V AC power supply, 12V DC input for stir plate



Tray assembly

Fittings and parts bag:

1. Male luer plugs (4)
2. 3-way valve for reservoir (2)
3. 1-way valve for reservoir Lid (2)
4. Male luer lock-1/8 in. hose barb elbow (4)
5. Male luer lock-1/8 in. hose barb (3)
6. Male luer coupler (1)
7. Female luer lock-1/8 in. hose barb (1)
8. PharMed tubing (2 ft.)
9. Stir Bar (1)
10. Minimate Capsule Stand (1)
11. Screw for Minimate Capsule (1)
12. Screw clamp for tubing (1)
13. Sinker (1)
14. Tubing clamps (8)



Fittings and parts bag

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Minimate EVO TFF kits and components information

Table 1. Technical specifications

Description	Product number
Minimate EVO TFF reservoir kit System includes: • Reservoir 500 mL with fittings • Lid with fittings and o-ring	97008
Minimate EVO TFF drip tray kit System includes: • Drip tray with reservoir and filter capsule brackets • Pressure gages (2) with mounts and fittings • Minimate capsule stand	97009
Minimate EVO TFF stir plate kit System includes: • VWR stir plate • Power adapter plug, 100V-240V AC power supply, 12V DC input for stir plate	97010
MasterFlex L/S variable speed pump System includes: • MasterFlex L/S variable speed pump • Adapter plug international, 100V-250V AC for pump (plug does not change current)	97011
MasterFlex Easy Load pump head System includes: • MasterFlex Easy-Load II pump head	97012
Minimate EVO TFF fittings kit includes: • 3-way valve for reservoir (2) • 1-way valve reservoir lid (2) • Male luer coupler (1) • Male luer lock - 1/8 in. hose barb (3) • Male luer lock - 1/8 in. hose barb elbow (4) • Female luer lock - 1/8 in. hose barb (1) • Tubing clamps (8) • PharMed tubing (2 ft.) • Screw clamp for tubing (1) • Male luer plug (4)	97014

Assemble system

Installation

1. Verify all components have been provided. (See Tray assembly and Fittings and parts bag figures on reverse side).
2. Cut PharMed tubing (yellow) to lengths as specified (Page 3).
3. Slide tube clamps onto tubing and insert fittings into tubing as shown on back page. Slide clamps over fitting ends and pinch together. Use pliers if necessary to assist.
4. Lay drip tray on work counter. If there is any rocking of tray, the bottom feet can be adjusted by rotating as necessary as shown in figure 1.
5. Slide stir plate into left compartment of drip tray underneath reservoir bracket. Attach capsule stand on raised boss in center of drip tray with screw in threaded hole. Turn screw until snug fit, but allows the stand to move (Fig 2).
6. Connect 3-way valves to fittings on reservoir outlet and inlet. Attach male luer plugs onto female luer connectors on 3-way valves (Fig 3).
7. Place reservoir onto stir plate with outlet toward rear of plate (Fig 4).
8. Connect "long tube" to 3-way valve at reservoir outlet and to fitting on rear gauge mount (Fig 4).

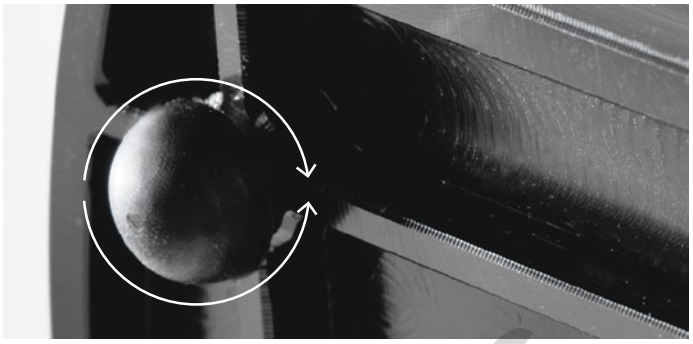


Fig 1.

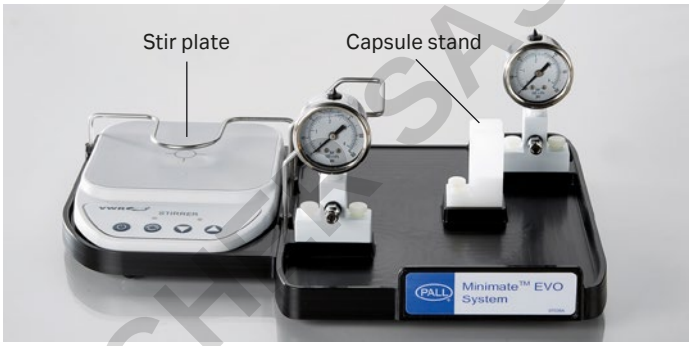


Fig 2.

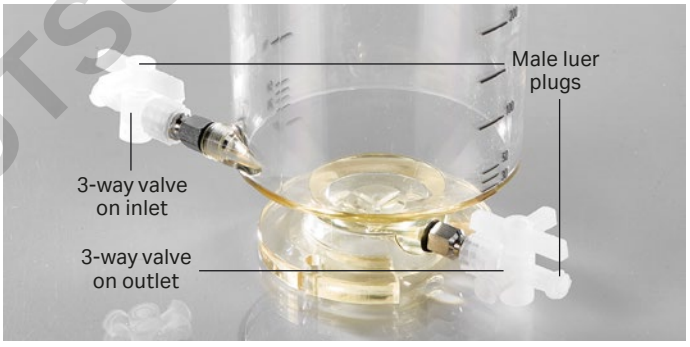


Fig 3.

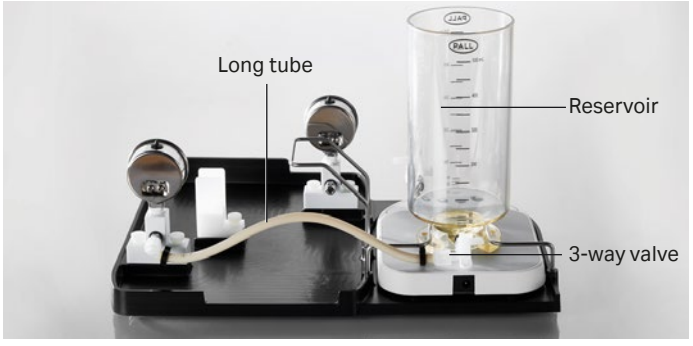


Fig 4.



Fig 5.

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9. Attach pump head onto pump with supplied screws (Fig 5).
10. Place tray in front of pump and insert tubing into open pump head, close pump head onto tubing (Fig 6).
11. Attach male luer coupler to fitting on front of gauge mount. Attach Minimate capsule feed port to coupler, rotate capsule to left into capsule stand and onto capsule bracket for support (Fig 7).
12. Connect “mid-length” tube to fitting on rear of forward gauge mount and to retentate port on capsule filter (Fig 7).
13. Connect “short tube” to fitting on front of gauge mount and to 3-way valve on reservoir inlet. Attach adjustable screw clamp to tube. Remove clamp when not in use, tubing can deform over time without fluid passing through tubing (Fig 7).
14. Cut a length of tubing from Minimate capsule packaging long enough to reach filtrate collection vessel from filtrate port on filter capsule. Attach tubing clamp and female luer-1/8 in. hose barb to tube.

    Connect fitting to filtrate port and place open tube end into filtrate receiver vessel (Fig 8).
15. If performing diafiltration, place lid onto reservoir. Connect 1-way valves onto fittings on top of reservoir. From the Minimate capsule filter packaging, cut a length of tubing to reach from 1-way valve on reservoir lid top to diafiltration vessel.

    Attach male luer-1/8 in. hose barb elbow and tubing clamp. Attach elbow to 1-way valve on lid and other tube end into diafiltration vessel, sinker at end of tube optional (Fig 8).

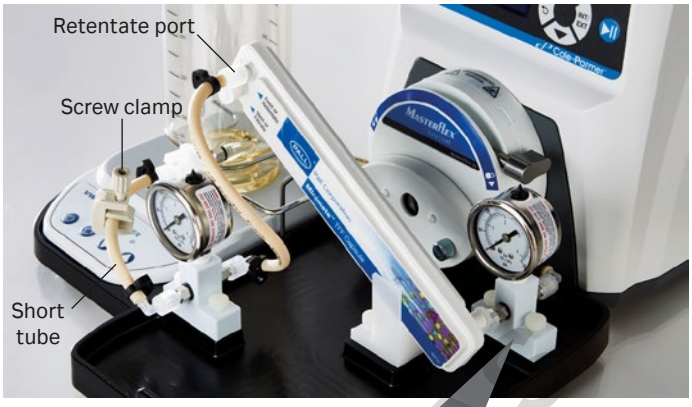
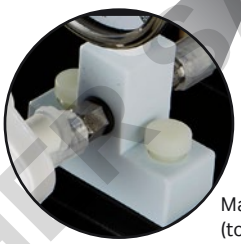


Fig 7.



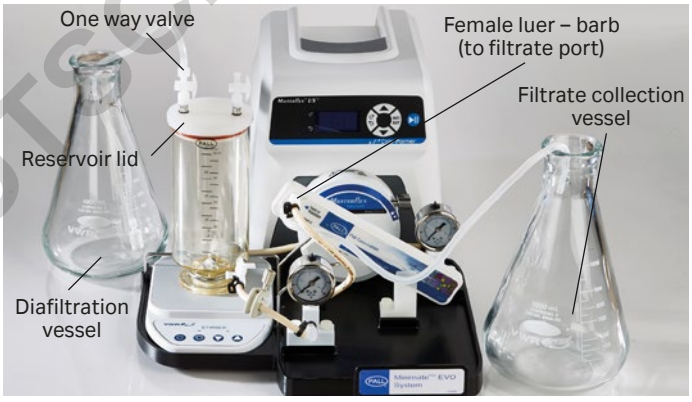


Fig 8.

Operation

- Confirm all fittings are secure prior to running liquid through system.
- Refer to VWR stir plate operating manual for operation of stir plate. Use of reverse mode is not recommended on stir plate with Minimate EVO TFF system. It is possible to increase stir speed setting beyond the strength of the stir plate magnetic field resulting in stir bar stoppage. In the event that stir bar has stopped at a high speed setting, troubleshoot by reducing stir speed to re-engage stir bar and proceed.
- Refer to MasterFlex Pump and Pump Head manuals for use.
- Refer to Minimate Instructions for use for operation of the TFF capsule.

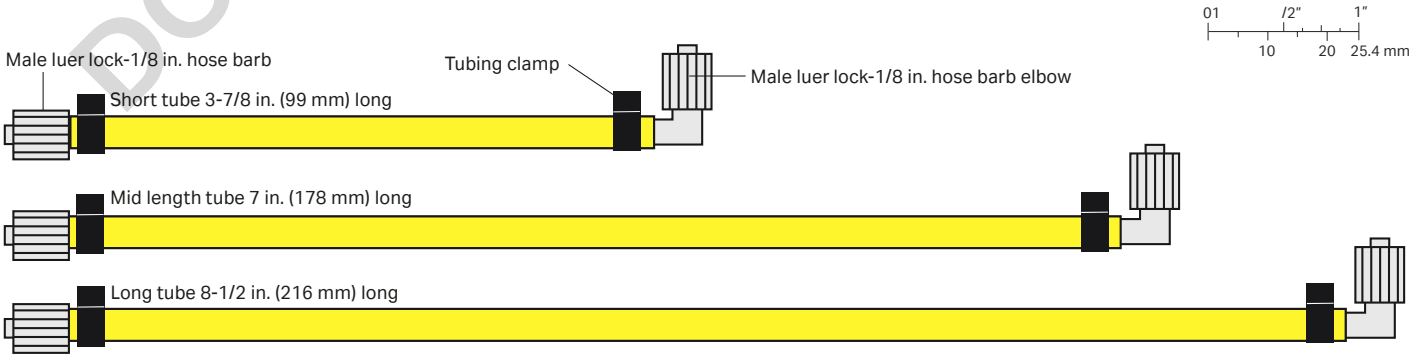


Fig 6. Tubing length diagram. Cut PharMed tubing (yellow) from Minimate EVO TFF system to match lengths of tubing below tubing in illustration are to length.

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