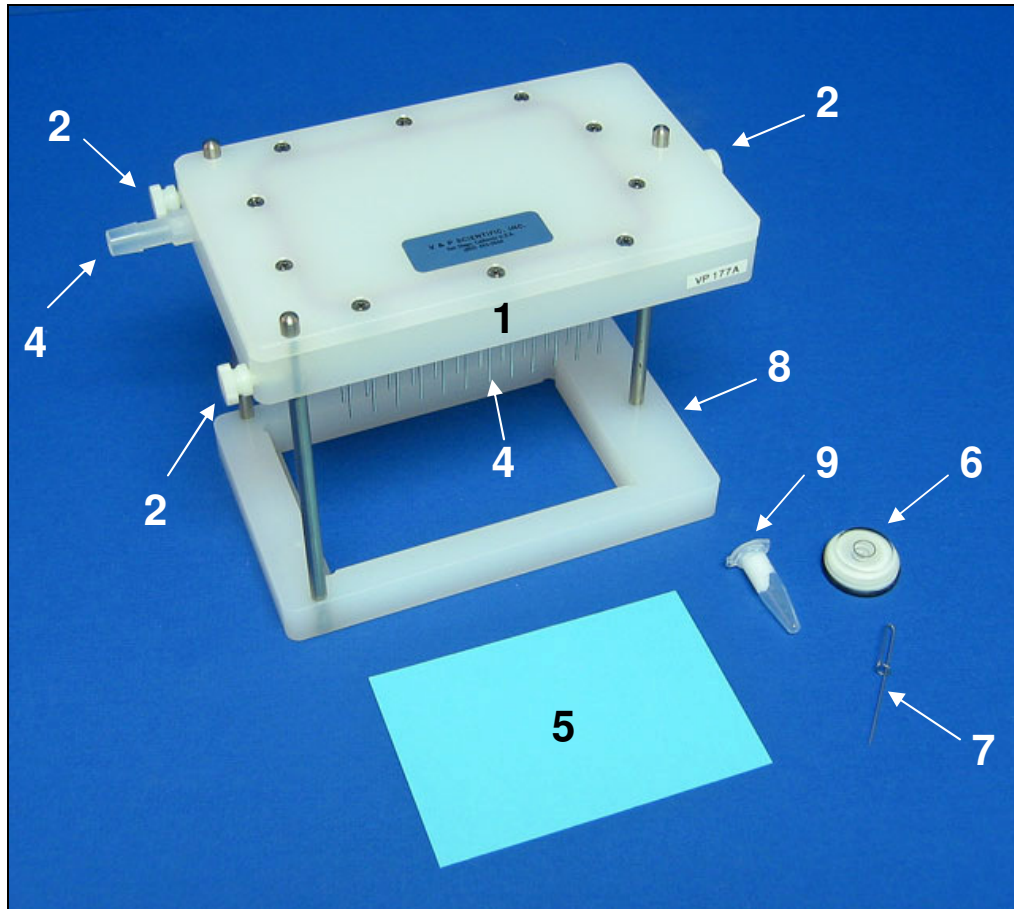


Care and Use of Aspiration Manifold VP 177A



PARTS GUIDE

1 – Manifold	5 – Spacer	9 – Krytox Grease
2 – Thumb Screws for Z Height Adjustment	6 – Bubble Level	
3 – Outlet Fitting for Tubing to Vacuum Trap	7 – Rapier for Cleaning Tubes	
4 – Aspiration Tubes	8 – Manifold Base	

Setup

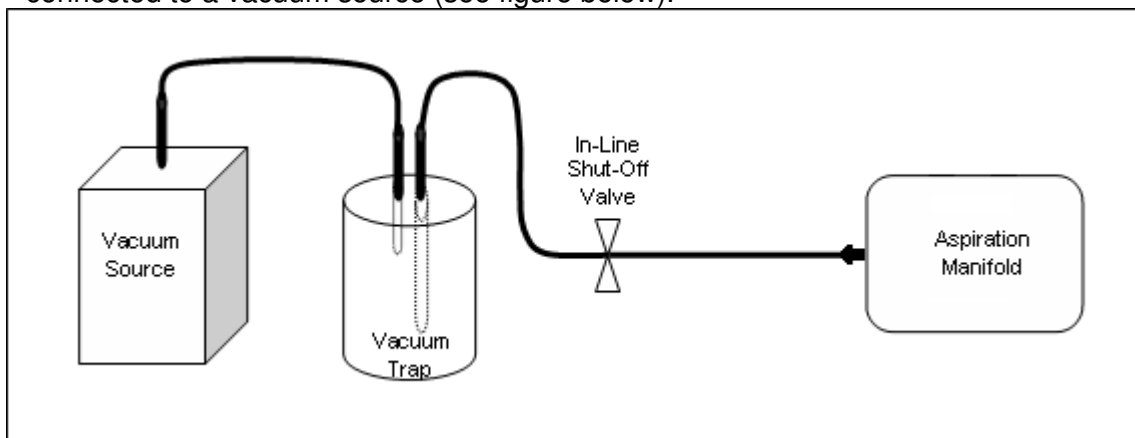
1. Make sure all tubes of the Manifold are clear by aspirating distilled water from a microplate. If tubes are clogged use the rapier (provided) to clean out the tubes.
2. Place the spacer (provided) under a microplate.
3. Place the VP 177A Manifold on top of the microplate.
4. Loosen the three thumb screws and slide the Manifold down until the tubes rest on the bottom of the wells of the microplate. Tighten the thumb screws to lock the Manifold into place.
5. Remove the microplate and spacer. Manifold is now configured so the tubes are 0.50 millimeters above the bottom of the wells. If a greater separation is needed use a thicker spacer.

IMPORTANT NOTE:

Aspiration/Dispense Manifolds are chemically resistant to some common laboratory solvents (such as ethyl alcohol, methyl alcohol, isopropanol, DMSO) but not all (acetone or chloroform, for example). Please contact V&P Scientific for more information if there is any question regarding the chemical resistance of the Manifold to the solution to be aspirated or dispensed.

Operation

1. Attach one end of a vacuum hose to the nozzle on the VP 177A and other end to a valve connected to a vacuum source (see figure below).



2. Place the VP 177A Manifold over the microplate which is to be aspirated.
3. When a great enough vacuum has been created, open the shut-off valve to allow the wells to be aspirated.
4. Remove the Manifold from the microplate after aspirating is completed. Tip the Manifold so the remaining liquid inside drains to vacuum line. Do not close the valve until you have drained the VP 177A. Closing the valve while the tubes are still inside the wells and the manifold is not drained may allow fluid to flow back into the wells.

5. Remove the microplate and place VP 177A Manifold over the next microplate to be aspirated.

Troubleshooting

PROBLEM: Not all wells being aspirated.

SOLUTIONS:

1. Use rapier to clear tubes.
2. Create a greater vacuum.
3. Wiggle the Manifold while aspirating. Sometimes the tubes may be touching the bottom of the wells which leads to incorrect aspiration.
4. If wells are still not being aspirated, contact V&P Scientific for more technical assistance.

PROBLEM: Manifold does not move easily up and down on Guide Pins.

SOLUTION:

Using Krytox (provided in 1.5ml tube) to lubricate Guide Pins.