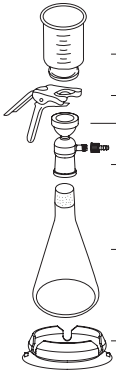
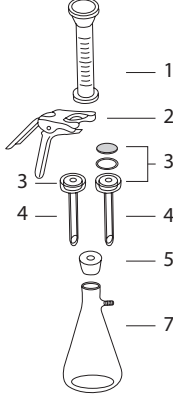
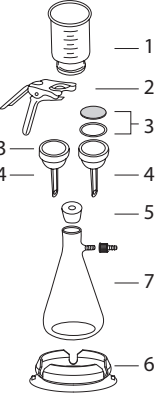
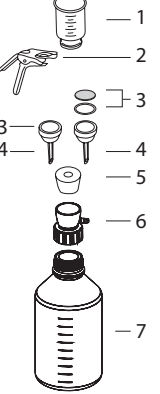
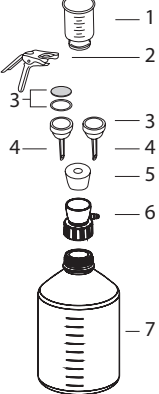
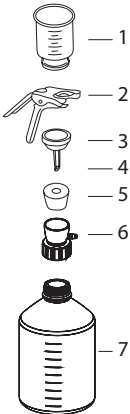


# INSTRUCTION MANUAL

Model : VF 3 / VF 5 / VF 6 / VF 7 / VF 8 / VF 12 / VF 14 / VF 15 / VF 16 / VF 17

Carefully check if the shipping carton is damaged before unpacking. Please check the items according to standard package list. If you have any question, please preserve serial no. & shipping carton and contact your dealer for quick solution.

Model	Borosilicate Glass Filtration Apparatus					
	VF 3	VF 5 / 8	VF 6 / 7	VF 12 / 14	VF 15 / 16	VF 17
Filter diameter	47 mm	25 mm	47 mm	47 mm	90 mm	90 mm
1. Funnel	300 ml	15 ml	300 ml	300 ml	1000 ml	1000 ml
2. Aluminum clamp	Yes	Yes	Yes	Yes	Yes	Yes
3. Membrane support	Sintered glass	VF 5: Sintered glass VF 8: SS screen	VF 6: Sintered glass VF 7: SS screen	VF 12: Sintered glass VF 14: SS screen	VF 15: SS screen VF 16: Sintered glass	Sintered glass
4. Support base	Yes	Yes	Yes	Yes	Yes	Yes
5. Silicone stopper	-	No. 5	No. 8	No. 8	No. 8	No. 8
6. Accessory	Silicone fixing sucker	-	Silicone fixing sucker	Filtration adaptor	Filtration adaptor	Filtration adaptor
7. Vacuum bottle	1000 ml ground joint flask	125 ml receiver flask	1000 ml receiver flask	1000 ml laboratory glass bottle	5000 ml laboratory glass bottle	3500 ml laboratory glass bottle
						
	VF 3	VF 5 / VF 8	VF 6 / VF 7	VF 12 / VF 14	VF 15 / VF 16	VF 17

**Note:** (1) An additional PTFE gasket, placed under membrane support, is included in VF 7, VF 8, VF 14 and VF 15.

## Maintenance

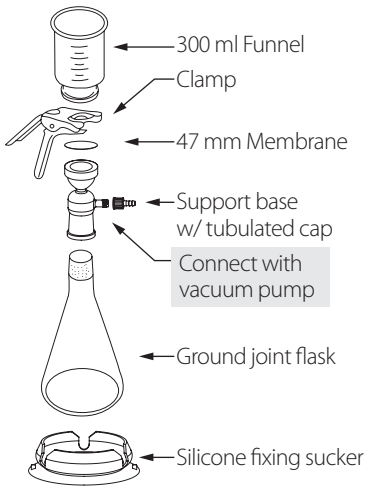
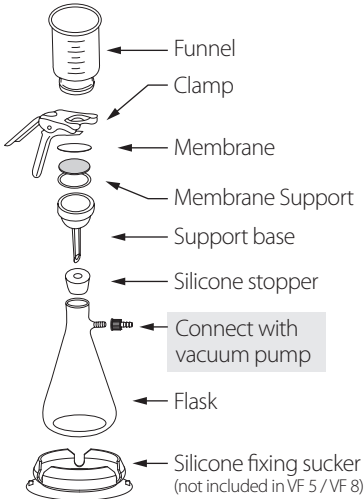
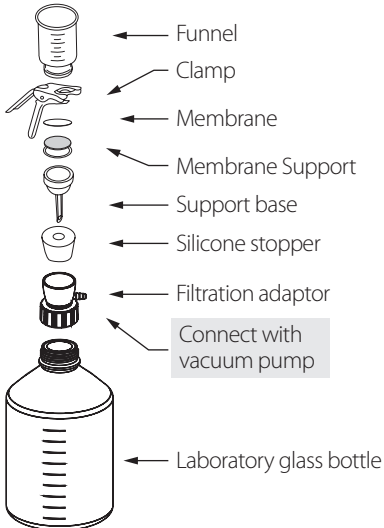
### 1. Cleaning

- Disassemble the filter holder and vacuum bottle completely.
- Soak all parts in clean water. Avoid abrasive cleansers. If necessary, use a soft bristle brush or sponge to remove residues.
- Rinse all parts thoroughly. Final rinse should be done with distilled or deionized water.
- Store in a clean, dry place.

### 2. Sterilization

- Make sure to separate stopper from the filter holder when autoclaved.
- Autoclave at 121 - 123 °C (250 -253 °F) at 1.0 bar (100 kPa, 15 psi) for 15 - 20 min.

## Usage Guide

VF 3	VF 5 / 6 / 7 / 8	VF 12 / 14 / 15 / 16 / 17
		
<p>* Ensure the screwthread connector (red) is screwed on the hose barb of flask before connecting to vacuum pump.</p> <p>* Use the bulges around the fixing sucker to help remove it easily.</p>		
<ol style="list-style-type: none"> <li>1. Place the fixing sucker on a flat table with a slightly press and place the flask on it.</li> <li>2. Connect the support base to flask by tubulated cap.</li> <li>3. Place membrane on the membrane support, put the funnel on and clamp them together.</li> <li>4. Connect with vacuum pump by screwthread connector and power on the pump to start the filtration.</li> </ol>	<ol style="list-style-type: none"> <li>1. Place the fixing sucker on a flat table with a slightly press and place the flask on it.</li> <li>2. Insert the support base into silicone stopper and insert the stopper into the opening of the flask.</li> <li>3. Seat the membrane support and PTFE gasket on the support base and place membrane on it. (VF 5 / 6: simply place membrane on membrane support )</li> <li>4. Put the funnel onto the support base and clamp them together.</li> <li>5. Connect with vacuum pump by screwthread connector of flask and power on the pump to start the filtration.</li> </ol>	<ol style="list-style-type: none"> <li>1. Screw the filtration adaptor onto glass bottle.</li> <li>2. Insert the support base into silicone stopper and insert the stopper into the opening of the filtration adaptor.</li> <li>3. Seat the membrane support and PTFE gasket on the support base and place membrane on it. (VF 12 / 16 / 17: simply place membrane on membrane support )</li> <li>4. Put the funnel onto the support base and clamp them together.</li> <li>5. Connect with vacuum pump by hose barb of filtration adaptor and power on the pump to start the filtration.</li> </ol>

## Ordering Information

167120-32/34 15 ml Glass Filter Holder for VF 5 / VF 8

167120-30 300 ml Glass Filter Holder for VF 3

167120-37 1000 ml Glass Filter Holder for VF 15

167120-38 1000 ml Glass Filter Holder for VF 16 / VF 17

167230-32 SS Support Screen, 25 mm

167230-31 SS Support Screen, 47 mm

167230-33-1 SS Support Screen, 90 mm

167210-36 Continuous Filtration Kit for VF 3 / 6 / 7 / 12 / 14

167210-35 Continuous Filtration Kit for VF 15 / 16 / 17

167120-33 300 ml Glass Filter Holder for VF 7 / VF 14

167120-31 300 ml Glass Filter Holder for VF 6 / VF 12

167230-42 PTFE Gasket, 25 mm

167230-41 PTFE Gasket, 47 mm

167230-43 PTFE Gasket, 90 mm

197000-65 Filtration Adaptor for GL45 Bottle

167240-01 Aluminum Clamp for VF 6 / VF 7 / VF 12 / VF 14

167230-05 Multilayer Filtration Adaptor for VF 3 / 6 / 7 / 12 / 14

167200-45 Silicone Fixing Sucker