

INSTRUCTION MANUAL

Model : PP Heavy-Duty Vacuum Bottle

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.

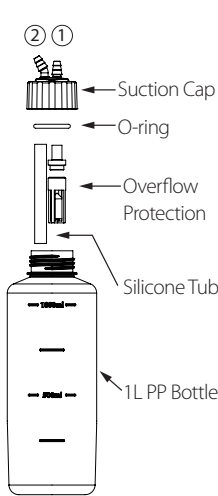
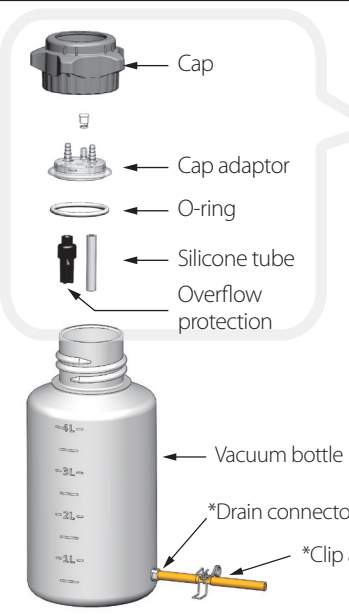
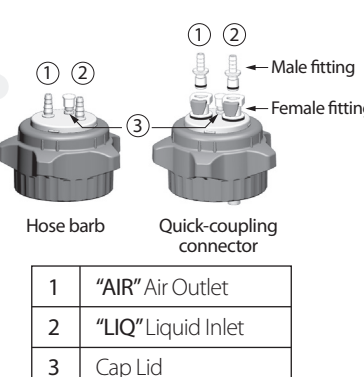
Model	PP Vacuum Bottle, 1000 mL	PP Vacuum Bottle, 2000 mL		PP Vacuum Bottle, 4000 mL		
	197100-10SC	197202-47	197202-53	197200-47	197200-48	197200-53
1. Cap	GL45	B83	B83	B83	B83	B83
2. Connector	Hose barb (ID4~ID8)	Hose barb (ID4~ID8)	Quick-coupling connector (ID6)	Hose barb (ID4~ID8)	Hose barb (ID4~ID8)	Quick-coupling connector (ID6)
3. Overflow protection	Yes	Yes	Yes	Yes	Yes	Yes
4. Bottle	1000 mL	2000 mL	2000 mL	4000 mL	4000 mL	4000 mL
5. Drain device	-	-	-	-	Yes	-

* Overflow protection blocks the AIR outlet when liquid is full, preventing liquid from being aspirated into the pump.

Maintenance

1. Non-abrasive, neutral, no film former detergent is recommended for bottle cleaning.
2. The bottle are autoclavable, at 121 - 123 °C (250 -253 °F) at 1.0 bar (100 kPa, 15 psi) for 15 - 20 min. Please remove the cap from bottle before autoclaving to prevent bottle deformation.
* The rubber tube of drain device is not autoclavable.
3. Thick and durable wall of this bottle can hold near full vacuum for 24 hours.
4. The PP bottle is applicable to most of low concentrated chemicals, please refer to chemical compatibility chart before use.
5. Do not keep strong organic compounds in this bottle for long-term storage.

Usage Guide

Vacuum Bottle	PP Bottle, 1000 mL	PP Bottle, 2000 mL	PP Bottle, 4000 mL						
	197100-10SC	197202-47 / 53	197200-47 / 48 / 53						
	 ② ① Suction Cap O-ring Overflow Protection Silicone Tube 1L PP Bottle	 Cap Cap adaptor O-ring Silicone tube Overflow protection Vacuum bottle *Drain connector *Clip and rubber tube *Same procedure applies to a 2L bottle as well.	 ① ② ① ② Male fitting Female fitting Hose barb Quick-coupling connector <table><tr><td>1</td><td>"AIR" Air Outlet</td></tr><tr><td>2</td><td>"LIQ" Liquid Inlet</td></tr><tr><td>3</td><td>Cap Lid</td></tr></table>	1	"AIR" Air Outlet	2	"LIQ" Liquid Inlet	3	Cap Lid
1	"AIR" Air Outlet								
2	"LIQ" Liquid Inlet								
3	Cap Lid								

Installation and Operation

1. Install the silicone tube and overflow protection device on cap inside labeled "LIQ" and "AIR" respectively. Then push the installed cap adaptor upward to stick to the cap.
 2. Connect the "AIR" air outlet (1) to the vacuum source using a silicone tube.
 3. Connect the "LIQ" liquid inlet (2) to the liquid source, such as manifold or suction kit using another silicone tube.
 4. Plug the 3rd opening on cap adaptor with cap lid (3) to keep airtight, then remove it for pressure release.
- For sterile pressure equalization, a 0.2 μ m syringe filter can be inserted into port of suction cap.

Quick-Coupling Connectors (for 197200-53, 197202-53)

Press and hold the button on female fitting to release male fitting, and female fitting will close immediately to keep airtight.

Drain Device (for 197200-48)

1. Connect the rubber tube to drain connector and clip the rubber tube to seal liquid.
2. Remove the cap lid for pressure release before drain the waste liquid.
3. Remove the clip, or clip on the drain connector, to drain out waste liquid.

Ordering Information

197100-10SC	PP Vacuum Bottle, 1000 mL
197100-10SCN	PP Vacuum Bottle without Overflow protection, 1000 mL
197000-61-P2N	SC45 Suction Cap
197000-61-P2	SC45 Suction Cap Kit
167200-38	Silicon Tube ($\phi 6 \times 12$ mm), 100 cm
199100-68	Silicon Tube ($\phi 4.2 \times 8$ mm), 200 cm
194225-01	PTFE Syringe Filter, 25 mm, 0.22 μ m

197202-47	PP Vacuum Bottle, 2000 mL
197202-53	PP Vacuum Bottle with Quick-Coupling Connector, 2000 mL
197200-47	PP Vacuum Bottle, 4000 mL
197200-48	PP Vacuum Bottle with Drain, 4000 mL
197200-53	PP Vacuum Bottle with Quick-Coupling Connector, 4000 mL