The NALGENE® Carboy Vent Filter is intended for venting large (8-50L) containers during autoclaving and subsequent filling/dispensing operations.

A ported closure is required to mount this filter to NALGENE® containers. NALGENE® Filling/Venting Closure (Cat. No. 2162) and NALGENE® TopWorks (Cat. No. 2135) fit NALGENE® containers with 53B and 83B closures.

Or modify existing closures using NALGENE® Barbed Bulkhead Fittings (Cat. No. 6149-0002). These fittings have 1/4-in. (6mm) hose barbs extending out from and inside the closure. Easy installation instructions and a drilling template are included.

For Venting Carboys
- When sterility is not a concern, remove filter from protective plastic bag and secure in place using hose clamps.
- For sterile applications, remove filter from protective plastic bag and rewrap in autoclavable covering or assemble in desired apparatus and autoclave in place.
- Can be used with polycarbonate and polypropylene NALGENE® 10- to 50-liter carboys on wet cycle.
1. Remove the filter from its package and assemble to ported closure using 1/4-in. I.D. tubing. The orientation of the filter is not critical since air will flow in either direction at different times.
2. Use hose clamps or cable ties to secure the tubing over the hose barbs of the closure and filter.
3. Other ports on the container/closure should be sealed. If tubing is mounted on other exterior ports, coil it and enclose it and any attached accessory (connector, filling bell, etc.) in autoclave paper or an autoclave bag with a breathing strip to allow steam access.
4. Assemble the closure to the container and tighten for a good seal.
5. Autoclave at 121°C (250°F) for a maximum of 20 minutes at 15 psig (1.1 bar) on a slow exhaust/liquid cycle.
6. May be used up to five times if thoroughly dried between uses.

For Liquid Filtration
1. For sterile filtration, the filter and all components of the filtration apparatus downstream from the capsule must be sterilized. For best results, filtration must be performed in a hood or other protected environment.
   
   **NOTE:** Be sure to remove from protective plastic bag before autoclaving.
2. Remove filter from bag or protective autoclave wrapping and attach tubing to the inlet. Use hose clamps to secure tubing in place.
3. Loosen vent plug and slowly begin to fill. Tighten vent as soon as all excess air escapes and liquid level reaches the level of the vent.
4. Gradually increase flow rate or pressure to desired value. **CAUTION:** Do not exceed maximum operating parameters listed.
5. When filtration is complete, fluid can be followed by an air purge to minimize hold-up of solution.
6. Designed for single-use only.

**Filter Membrane:** PTFE; 0.2µm pore size
**Housing, Support Media and Vent Plug:** polypropylene
**Sterilization:** Supplied non-sterile, autoclavable once prior to use at 121°C for 20 minutes at 15 psig (1.1 bar) using a slow exhaust cycle.
**NOTE:** Remove from plastic bag before autoclaving.
**Biosafety:** USP Class VI - 121°C Plastics Tests
**Effective Filtration Area:** 300 cm²
**Inlet/Outlet Connections:** 1/4- to 3/8-in. (6.4- to 9.5-mm) stepped hose barb inlet/outlet
**Typical Liquid Flow Rates:** 0.8 Lpm/0.1 bar (0.03 gpm/psig)
**Typical Air Flow Rates:** 32 Lpm/0.07 bar (32 Lpm/7kPa, 32 Lpm/psi)
**Liquid Hold-Up Volume (with air purge):** <5ml
**Maximum Operating Pressure:** 60 psig (4.1 bar, 410 kPa) at ambient temperature
**Maximum Operating Temperature:** 60°C (140°F) at 2.1 bar (210 kPa, 30 psi)