Thermo Scientific Nalgene Sanitary Carboys Use and Care, Accessories

Nalgene® Sanitary Carboys (Cat. Nos. 2261, 2630) are a secure and efficient way to store and transport liquids in volumes of 10 L to 50 L.

Nalgene Sanitary Carboys feature a 76 mm (3 in.) flanged neck for a variety of sanitary connections. They can be connected in-line to dispense or receive liquids through process lines adapted with similar flanged-ends. End caps can be applied to make a leakproof seal for storage and transport.

Autoclaving

Autoclave Nalgene carboys at 121°C, 15 psig (1 BAR), using a slow exhaust cycle. Optimum sterilization time must be determined by the user.

- 1. Clean using non-alkaline, low abrasive detergent such as Nalgene L900 Liquid Detergent.
- Rinse thoroughly with de-ionized water. Certain chemical residues which have no appreciable effect at ambient temperature may attack plastics at autoclave temperature. Autoclaving a PC carboy with an alkaline residue will cause crazing and stress cracking of the plastic.
- 3. Sanitary carboys must be autoclaved open or with a vented end cap to prevent implosion during pressure changes in the autoclave cycles.

Note: Autoclave temperature is close to the heat deflection temperature of polypropylene. Heavy weights attached to the carboy flange may cause irreversible distortion during autoclaving. Polycarbonate carboys are more resistant to these effects.

After Autoclaving

Allow the carboy to cool completely after autoclaving. This is essential before applying clamps or sealing openings. If the carboy is sealed while warm, negative pressure will develop which may cause the carboy to deform.

Clamping Accessories to Sanitary Carboys

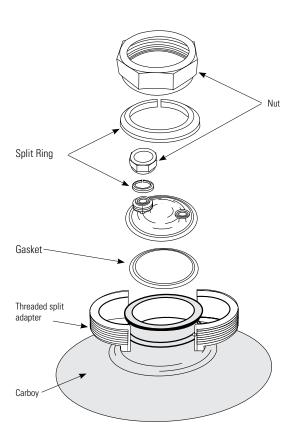
Thermo Fisher Scientific recommends True Union Clamps (Cat. No. 2670-0300) for clamping plastic flanges, particularly for polypropylene carboys. True Union Clamps apply pressure to the assembled flanges vertically, so the plastic parts are not stressed. TC Clamps and band clamps apply pressure by pinching the edges of the mating flanges. Polypropylene flanges will distort when joined by edge-clamping. This distortion can be heat-set if the assembly is autoclaved while edge-clamped. Polycarbonate flanges will also distort if autoclaved repeatedly under similar conditions





Assembly of True Union Clamp (Cat. No. 2670-series)

- Unpack the assembled clamp and unscrew threaded split collar from the nut. Remove the split ring.
- 2. Separate threaded split collar by pulling the halves apart.
- 3. Rejoin the halves of the threaded split collar beneath the flange on the carboy neck, with the tabs of the adapter away from the flange.
- 4. Place a 76 mm (3 in.) gasket on the positioning groove of the sanitary flange.
- 5. Place nut and split ring over flange of end cap that is being mounted to the carboy. See the orientation of the split ring and nut in the diagram. Note: It will be necessary to spread the split ring to get it over the flange when connecting tubing or pipe to the carboy neck.
- Mate sanitary flanges with the gasket between them and thread the nut onto the split collar. Hand tighten. DO NOT OVER TIGHTEN. Hand tight is sufficient to compress the gasket and make a seal. Care should be taken to avoid cross-threading.



Accessories

Cat. No.	Description	Product Features
2670-0075	True Union Clamp, PVDF, for 19 mm (0.75") flange, autoclavable. Use with 2688-2075, 2689-2075 end caps.	Use with either Sanitary Carboy to secure flange connections for leakproof service. Plastic clamps are a must if you plan to steam sterilize/autoclave (121°C) polypropylene (PP) Sanitary Carboys because metal clamps combined with high heat can cause PP flanges to deform.
2670-0150	True Union Clamp, PVDF, for 38 mm (1.5") flange, autoclavable. Use with 2640-series carboys.	
2670-0300	True Union Clamp, PVDF, for 76 mm (3") flange, autoclavable. Use with 2630- and 2261-series carboys.	
2685-0300	Heavy Duty Clamp, SS, use with 2261 series polycarbonate (PC) carboys and 2688-2075 PC end cap.	Clamp is low-profile, less bulky than True Union Clamp.
2665-0300	End Cap, PP, solid, for 76 mm (3") flange, autoclavable. Use with 2630- and 2261-series carboys.	Solid end-caps can be used to seal off sanitary flanged openings. They can also be modified with barbed tubing adapters and quick disconnect fittings.
2688-2075	End Cap, PC, with two 19 mm sanitary ports for 76 mm (3") flange, autoclavable. Use with 2630- and 2261-series carboys.	Ported end caps allow easy fill/dispense venting operations.
2689-2075	As above, except molded in polypropylene. Use with 2630- and 2261-series carboys.	Same material used in PP 83B closure. A good choice if you are switching from 2250- or 2251-series carboys and do not wish to validate a new material.
7210-0375	19 mm Sanitary to 3/8" Hose-barb Adapter, polypropylene, autoclavable.	Adapts sanitary ports on 2688-2075 and 2689-2075 end caps to tubing, either 3/8- or 1/2-in. tubing.
7210-0500	19 mm Sanitary to 3/8" Hose-barb Adapter, polypropylene, autoclavable.	
2672-0075	Sanitary Gasket, Platinum-Cured Silicone Rubber, for 19 mm (0.75") flange, autoclavable. Use with 2688-2075 and 2689-2075 end caps.	Material offers high purity, low levels of extractables, autoclavable and meets or exceeds USP Class VI regulatory requirements.
2672-0150	As above, but for 38 mm (1.5") flange. Use with 2640-series carboys.	
2672-0300	As above, but for 76 mm (3") flange. Use with 2630- and 2261-series carboys.	

Accessories continues on back...

Cat. No.	Description	Product Features
223-0030	0.2 µm PTFE Carboy Vent Filter w/hose-barb connector.	Use to provide air equilibration during autoclaving and fill/dispense procedures. For all carboy sizes.
900-4000	Nalgene L900 Liquid Detergent. 4 Liter size	Especially recommended for polycarbonate items because it will not cause clouding, crazing or stress-cracking. Suitable for all plastics and glass in manual or automatic washing. Non-alkaline, non-toxic, non-corrosive, phosphate-free and biodegradable, pH 6-7.

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