

User Guide

Dispensing Pressure Vessels

ASME-UM Code-Complying

XX6700P05, 5 liter
XX6700P10, 10 liter
XX6700P20, 20 liter
XX6700P01, 1 gallon



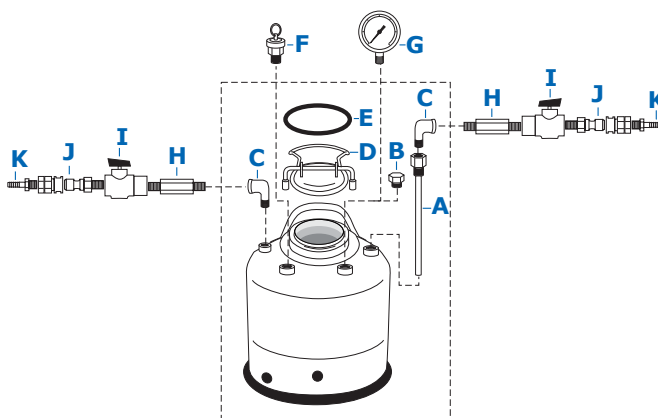
Introduction

Dispensing pressure vessels are designed for dispensing fluids under pressure for filtration through any pressure-type filter holder. The portable vessels are available in 5, 10, and 20-liter and 1-gallon capacities. These ASME-UM code-complying vessels are compatible with ASME code-complying vent/relief valves.

NOTE: We recommend installing the vent/relief valve accessory (item **F**, Cat. No. XX6700L24) prior to use in order to comply with Pressure Directive safety requirements.

- All wetted surfaces are Type 316L or 316 stainless steel (SS) for maximum corrosion resistance.
- Inside and outside surfaces are electropolished for ease of cleaning.
- The vessels can withstand positive pressure up to 7 bar (100 psi).
- The safety cover assembly is secured by a cam-lock handle.
- A skid-free, sound-reducing EPDM rubber base is an integral part of the vessel.
- An optional vacuum lid (Cat. No. P34188) is available for vacuum use.

Dispensing Pressure Vessel Components



Items A–E (inside dashed outline) are supplied with the vessel.

- A** outlet dip-tube
- B** pipe plug
- C** elbow
- D** vessel cover
- E** O-ring

Items F–K are available as accessories.

- F** vent/relief valve
- G** pressure gauge
- H** hex nipple
- I** ball valve
- J** quick-disconnect nipple
- K** hose connector

Symbols Used in this User Guide

The following symbols are used throughout this user guide and/or on product labels, and the user shall abide by indicated requirements:

Symbol	Definition
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	Warning alerts you to actions that may cause personal injury or pose a physical threat.
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	Read the documentation
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	Catalogue number
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	Serial number
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	Manufacturer
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	CE conformity marking. Reference Declaration of Conformity for specific directives.
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Cleaning

1. Before initial use and after each use, disassemble all threaded fittings and rinse the vessel and fittings with laboratory-grade water. For a more thorough cleansing, wash the vessel with a mild, nonabrasive detergent and a soft brush or sponge before rinsing.
2. Air dry all parts before reassembly.

CAUTION: If salt solutions were used in the vessel, rinse thoroughly to prevent corrosion of the vessel and fittings.

Depyrogenation

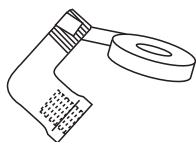
If depyrogenation is required, wash the vessel thoroughly with a bactericide and rinse well with sterile, pyrogen-free water.

CAUTION: Subjecting the vessel to the standard depyrogenation procedure at 250 °C (482 °F) for 4 to 5 hours will damage the EPDM base.

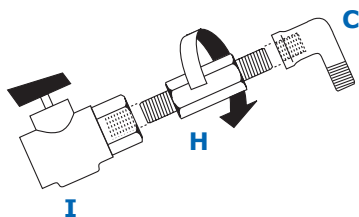
Using the Dispensing Pressure Vessel

The vent/relief valve (**F**) and the pressure gauge (**G**) must be used when operating the dispensing pressure vessel. They are included in the Pressure Vessel Fitting Kit, catalogue number XX67000PK, which also includes optional hex nipples, vent/relief valves, ball valves, quick-disconnect nipples and couplings, and hose connectors (items **H** through **K** in the "Dispensing Pressure Vessel Components" diagram).

1. Assemble the dispensing pressure vessel as shown in the "Dispensing Pressure Vessel Components" diagram, using PTFE tape on all threaded male fittings.

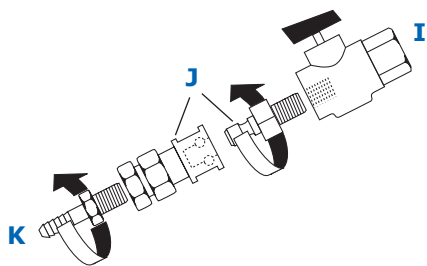


2. Attach one end of a hex nipple (**H**) to a ball valve (**I**) and the other end to the outlet elbow fitting (**C**) of the vessel.



NOTE: We recommend using ball valves on both outlet and inlet ports. A ball valve on the outlet port controls fluid delivery to the filter holder. A ball valve on the inlet port regulates the supply of gas from the pressure source.

3. Attach a barbed hose connector (**K**) to each ball valve (**I**).



NOTE: We recommend using quick-disconnect fittings (**J**) between the ball valve and the hose connectors to facilitate attachment to and detachment from the vessel.

4. Connect the appropriate size tubing to each hose connector and secure with hose clamps.

⚠ WARNING: When using the pressure vessel for dispensing or storage of liquid and gaseous dangerous fluids, the following safety precautions must be taken:

- The pressure vessel must be properly grounded and all grounding connections must be secured before and at all times while dispensing. Proper grounding must be confirmed by verifying electrical continuity between the vessel, dispensing container, and the ground.
 - The vessel must be pressurized with an inert gas such as nitrogen.
5. Fill the vessel with the liquid to be filtered.
 6. Position the O-ring on the lip of the top side of the vessel cover. Insert the cover into the vessel and rotate the cover to align it with the vessel opening.
 7. Pull up on the handle to seat the O-ring. Lock the cover in place by forcing the handle down.

Chemical Compatibility

The wetted surfaces of the vessel and its supplied components are constructed of Type 316L or 316 stainless steel. The cover O-ring and vent/relief valve seal are manufactured from a fluoroelastomer material. Use the pressure vessel only with fluids compatible with these materials.

Fluoroelastomer O-Ring/Seal Compatibility Guide

Acetone	N
Benzene	R
Carbon tetrachloride	R
Chloroform	R
Freon® TF or PCA solvent	R
Gasoline	R
Hexane	R
Isopropyl alcohol	R
Kerosene	R
Mineral spirits	R
Petroleum ether	R
Petroleum based oils	R
Silicone oils	R
Trichloroethane	R
Trichloroethylene	R
Xylene	R

R: recommended, N: not recommended

Specifications

Materials of Construction

Pressure vessel	Type 316L stainless steel with stainless steel fittings EPDM (ethylene propylene diene monomer) base
Cover O-ring and vent/relief valve seal	Fluoroelastomer
Pressure	7 bar (100 psi) maximum; not recommended for use under vacuum without accessory closure (Cat. No. P34188)
Temperature	121 °C (250 °F) maximum
Connections	1/4 in. NPTF

Pressure Vessel Dimensions	5-liter	22.9 cm (9.0 in.) dia. × 24.1 cm (9.5 in.)
	10-liter	22.9 cm (9.0 in.) dia. × 35.3 cm (13.9 in.)
	20-liter	22.9 cm (9.0 in.) dia. × 59.4 cm (23.4 in.)
	1-gallon	22.9 cm (9.0 in.) dia. × 21.6 cm (8.5 in.)
	Cover Opening	8.3 cm (3.3 in.) × 9.9 cm (3.9 in.)
Shipping Weight	5-liter	4.8 kg (10.5 lb)
	10-liter	6.2 kg (13.8 lb)
	20-liter	9.3 kg (20.5 lb)
	1-gallon	4.2 kg (9.2 lb)

Product Ordering

This section lists the catalogue numbers for the Dispensing Pressure Vessels and related products. Refer to the component diagram for the component key on page 1. See the Technical Assistance section for contact information. You can purchase these products on-line at SigmaAldrich.com.

Description	Key	Catalogue Number
Dispensing Pressure Vessels		
5-liter	–	XX6700P05
10-liter	–	XX6700P10
20-liter	–	XX6700P20
1-gallon	–	XX6700P01
Replacement Parts		
Outlet dip-tube, 5-liter pressure vessel	A	6977
Outlet dip-tube, 10-liter pressure vessel	A	6978
Outlet dip-tube, 20-liter pressure vessel	A	6979
Pipe plug, 1/4 in. NPT, 316 SS, 2/pk	B	YY1301009
Elbow, 1/4 in. NPTM/F, 316 SS	C	XX6700104
Vessel cover, cam-lock	D	6976
O-ring, fluoroelastomer	E	XX6700059
Accessories		
Pressure vessel cover for vacuum use	–	P34188
Pressure Vessel Fitting Kit (includes items f through k on diagram)		XX67000PK
Vent/relief valve, 7 bar (100 psi) ASME	F	XX6700L24
Pressure gauge, 0–11 bar (0–160 psi) ASME, 316 SS	G	XX6700L15
Hex nipple, 1/4 in. NPTM, 51 mm (2 in.) length	H	XX6700125
Ball valve, 1/4 in. NPTF	I	YY2029348
Quick-disconnect nipple and coupling, 1/4 in. NPT	J	XX6700030
Hose connector, 1/4 in. NPTM, 316 SS, 2/pk	K	XX6700L11
PTFE tape, 12.7 mm (1/2 in.) × 6.6 m (21.7 ft)	–	TP0001326
Other Products		
Filterjet™ Solvent Dispenser		XX6702500
Zero Head Space Extractor		YT30090HW
Pressure vessel accessories for use with the Zero Head Space Extractor (quantity 1 each)		
Adapter, 1/8 in. NPTF to male Luer fitting		XX3002567
Adapter, 1/4 in. NPTM to 1/4 in. tube		XX6702507
Ball valve, 1/4 in. NPTF		YY2029348
Hex nipple, 1/4 in. NPTM, 51 mm (2 in.) length		XX6700125
Pressure gauge, 0–7 bar (0–100 psi), 316 SS		YY1301015
Quick disconnect female Swagelok® fitting, 1/4 in. NPT		YT3009013
Quick disconnect nipple and coupling 1/4 in. NPT		XX6700030
Tubing, polypropylene, 6.4 mm (1/4 in.) OD, 3 m (10 ft)		XX6702508
Vent relief valve, 1/4 in. NPT, 9 bar (125 psi)		XX6700024
Tubing, PVC, 9.5 mm (3/8 in.) ID, 3 m (10 ft), with 2 SS clamps		XX6700034
Tubing, PVC, 12.7 mm (1/2 in.) ID, 3 m (10 ft), with 2 SS clamps		XX6700035

Regulatory Compliance

Product	Mark	Compliance
XX6700P01 XX6700P05	N/A	EMD Millipore Corporation certifies that this product complies with the European Pressure Equipment Directive, 2014/68/EU of 15 May 2014. This product is classified under Article 4 § 3 of the Pressure Equipment Directive. It has been designed and manufactured in accordance with sound engineering practices to ensure safe use. The product is accompanied by user instructions and bears markings to permit identification of EMD Millipore Corporation as the manufacturer or authorized representative of this product within the European Community. In compliance with Article 4 § 3 of the Pressure Equipment Directive, this product does not bear the CE mark.
XX6700P10 XX6700P20		These products, fully configured with all accessories, meet the requirements of the European Union Pressure Equipment Directive 2014/68/EU and bear the CE Mark. A Declaration of Conformity stating compliance to the Pressure Equipment Directive and signed by a duly authorized representative of the manufacturer is available upon request.

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