

## Tritium Transport Vessel (TV)



### ❖ Features & Benefits

Variety of Sizes:	Standard sizes up to 10L vessels to transport and store tritium gas
Electropolished:	Minimizes tritium hang up in the vessel
Vacuum Fittings:	VCR fittings for maximum leak tightness
Leak Tight:	He leak tight to $1 \times 10^{-9}$ scc/sec for tritium service
Cost Effective:	Robust stainless steel construction for sub-atmospheric tritium gas shipment

### ❖ Typical Uses

- Tritium gas transport vessel
- Temporary Tritium storage in a process loop
- Temporary on-site Tritium gas storage

## ❖ Overview

The Tritium Transport Vessel (TV) is a sub-atmospheric stainless steel vessel for holding tritium gas for either temporary storage or transportation. The TV comes in a variety of calibrated volumes that can be charged with up to 750 torr of tritium gas.

The TV has full penetration welds and is electropolished on the interior to minimize tritium hang up. Each TV comes with a bellows sealed isolation valve and a VCR8 or VCR4 fitting for tritium service.

The TV comes standard in 0.5L and 1L calibrated volumes but can be ordered with custom volumes and dimensions.

## ❖ Design Benefits

The TV is a robust design to handle tritium gas shipment. The unit is helium leak tight to  $1 \times 10^{-9}$  scc/sec at the operating temperature which is suitable for tritium service. All units come standard with a bellows sealed isolation valve and either a ½" VCR8 female or ¼" VCR4 female fitting to provide leak tight connections.

## ❖ Specifications

<b>Mechanical</b>	
Calibrated Volumes	Standard: 500cc, 1L, 10L Custom: up to 10L upon request
Volume Error	+/- 5%, Or less upon request
Construction	316L Stainless steel
Interior	Electro-polished
Operating Pressure	0 – 750 torr absolute ( -0.5 psig)
Operating Temperature	25 °C
Max Pressure	750 torr absolute (14.5 psia)
Max Temperature	150 °C at atmospheric pressure
Humidity	0% - 60% RH
Bellows Sealed Valve	Swagelok ( 4BG < 5L, 8BG ≥ 5L ) Or Swagelok ( 4BH < 5L, 8BG ≥ 5L )
Connection Fittings	½” VC8 Female ( ≥ 5L ) ¼” VCR4 Female ( < 5L ) Custom upon request
Wetted Materials	316L Stainless Steel, copper stem tip

## Drawings

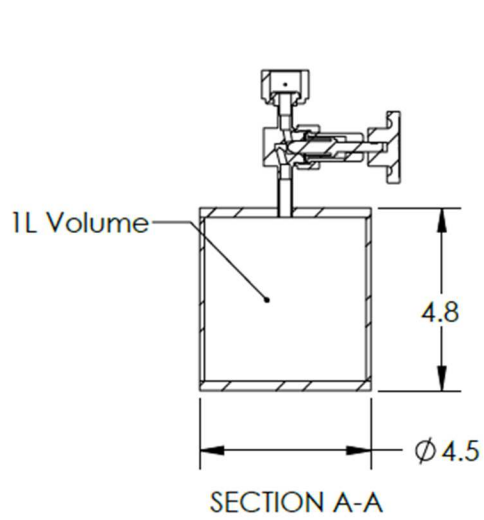


Figure 1: 1L Transport Vessel (Dim in Inches)

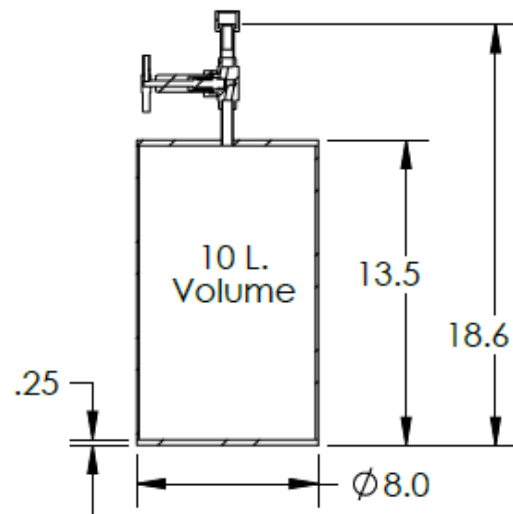


Figure 2: 10L Transport Vessel (Dim in Inches)