

# Vapor Trap

## Overview

FTS Vapor traps are mechanically-refrigerated cold traps that protect expensive vacuum pumps from harmful vapors which can shorten their life. The harmful vapors constitute any condensable gases such as water vapor, which, when allowed into the vacuum pump oil, cause it to break down. This results in decreased lubrication and can eventually cause failure of the pump.

In addition, Vapor Traps eliminate the expense and potential hazards associated with the refilling and monitoring of LN<sub>2</sub> or dry ice traps.

FTS Vapor Traps consist of a well-insulated stainless steel chamber that is cooled by direct expansion of refrigerant in refrigeration lines that are bonded directly to the outside of the chamber walls. This method of refrigeration is a highly efficient and energy-saving means of heat removal. Vapor Traps are available with operating temperatures of -50°C or -90°C.

Vapors enter the chamber through a port in the vacuum top plate. While the vapors circulate in the chamber, they strike the sides and are frozen-out on the low temperature of the chamber wall. The system will trap all condensable vapors that have freezing points higher than the operating temperature of the Vapor Trap. Non-condensable vapors and gases are evacuated through a second port in the lid by the vacuum pump. Traps are rated to accommodate vacuum pump flow rates of up to 250 liters per minute. (9scfm)



Call **800.824.0400**  
or visit [www.ftssystem.com](http://www.ftssystem.com)

## Maximum efficiency for vacuum trapping vapor to -90°C, without LN<sub>2</sub> or dry ice

- ▶ Available with low temperatures to -50°C or -90°C
- ▶ Reduces the need for liquid nitrogen



***Protect your pump***

## Applications

- Gel drying
- Evaporators
- Dryers
- Protection of oil-sealed vacuum pumps
- Dehydration of gas streams

## Features at a glance

- Mechanically refrigerated
- One touch operation
- Small footprint
- Digital Temperature Readout
- Efficient Removal of Heat
- -50°C or -90°C Trapping Temperatures
- 2, 4, or 8 liter Capacity

## Model Specifications

	VT255	VT455	VT490	VT890
Maximum Low Temperature °C	-50	-50	-90	-90
Chamber Volume (liters)	2	4	4	8
Trapping Rate (liters/24 hours)	1	3	3	5
Compressor	1/4 hp	1/3 hp	Two @ 1/4 hp	Two @ 1/4 hp
Indication C	-	1	1	1
Dimensions w x d x h	in	10.5 x 20.5 x 11	15.5 x 24 x 13	19 x 24 x 13
	cm	26.7 x 52.1 x 27.9	39.4 x 61 x 33	48.3 x 61 x 33
Weight	lbs/kg	55/25	55/25	85/39
Electrical <sup>2</sup>		120V/60Hz/4A amps	120V/60Hz/4A	120V/60Hz/7A

1. Vapor traps do not include tops.
2. 220V/50 Hz also available. Decreases heat removal by 17%.

## Vapor Trap Top Plates and Liners

### Plates

<b>SSVT2</b>	Stainless steel vacuum top plate, 2L, 3/4" OD inlet, 5/8" OD outlet
<b>SSVT4</b>	Stainless steel vacuum top plate, 4L, 3/4" OD inlet, 5/8" OD outlet
<b>SSVT8</b>	Stainless steel vacuum top plate, 8L, 3/4" OD inlet, 5/8" OD outlet
<b>TTGT2</b>	Glass vacuum top plate (safety-coated), 2L, 1/2" OD inlet/outlet
<b>TTGT4</b>	Glass vacuum top plate (safety-coated), 4L, 1/2" OD inlet/outlet
<b>TTGT8</b>	Glass vacuum top plate (safety-coated), 8L, 1/2" OD inlet/outlet

### Liners

<b>CRC2</b>	Glass liner with copper mesh heat transfer jacket, titanium down tube, 2L, 1/2" OD inlet/outlet
<b>CRC4</b>	Glass liner with copper mesh heat transfer jacket, titanium down tube, 4L, 1/2" OD inlet/outlet

## Benefits

- Eliminates the cost and potential hazards associated with dry ice and LN<sub>2</sub>
- Easy to use
- Saves space



*Committed to Product Excellence...and Continuous Support*

### SP Industries

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