



SP FTS Vapor Trap

Maximum Efficiency For Vacuum Trapping Vapor
To -90°C , Without LN_2 Or Dry Ice



Applications

- Vacuum pump protection
- Parylene coating
- Chemical vapor deposition
- Vacuum oven and dryer integration

Features & Benefits

- Mechanical refrigeration eliminates the cost and potential hazards associated with dry ice and LN_2
- Small footprint saves space
- -50°C or -90°C trapping temperatures
- Efficient removal of heat
- 2, 4, or 8 liter capacity
- Digital temperature readout with simple, one-touch operation

SP FTS Vapor Trap is a mechanically refrigerated cold trap that protects expensive vacuum pumps from harmful vapors which can shorten their life.

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 Trap eliminates the expense and potential hazards associated with the refilling and monitoring of LN_2 or dry ice traps.

Vapor Trap consists of a well-insulated stainless steel chamber that is cooled by direct expansion of refrigerant in refrigeration lines directly bonded to the outside of the chamber walls. This method of refrigeration is a highly efficient and energy-saving means of heat removal. Vapor Trap is 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 with 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 (9 cfm).

SP FTS Vapor Trap

Model Specifications

| Description | VT255 | VT455 | VT490 | VT890 |
|--------------------------------------|------------------|--------------------|----------------|----------------|
| Maximum Low Temperature °C | -50 | -50 | -90 | -90 |
| Chamber Volume (liters) ¹ | 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 | 10.5 x 20.5 x 11 | 19 x 24 x 13 | 19 x 24 x 13 | 19 x 24 x 13 |
| | in cm | 26.7 x 52.1 x 27.9 | 48.3 x 61 x 33 | 48.3 x 61 x 33 |
| Weight | lbs | 55 | 55 | 85 |
| | kg | 25 | 25 | 39 |
| Electrical ² | 120V/60Hz/4A | 120V/60Hz/4A | 120V/60Hz/7A | 120V/60Hz/7A |

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

Vapor Trap Top Plates and Liners

| Description | OD Inlet | OD Outlet | Capacity | Plate/Liner |
|---|----------|-----------|----------|-------------|
| Stainless steel vacuum top plate | 3/4" | 5/8" | 2L | SSVTS |
| | | | 4L | SSVT4 |
| | | | 8L | SSVT8 |
| Stainless steel vacuum top plate, NW25 | 1" | 1" | 4L | SSVT4-NW25 |
| | | | 8L | SSVT8-NW25 |
| Glass vacuum top plate (safety coated) | 1/2" | 1/2" | 2L | TTGT2 |
| | | | 4L | TTGT4 |
| | | | 8L | TTGT8 |
| Glass liner with copper mesh heat transfer jacket, titanium down tube | 1/2" | 1/2" | 2L | CRC2 |
| | | | 4L | CRC4 |



935 Mearns Road, Warminster, PA 18974, US
 US 800.431.8232 | International +1 (845) 255.5000 | hello@spindustries.com | sp-scientificproducts.com

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