

HYVAC PRODUCTS, INC.

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THE DRY-ICE FORELINE TRAP

To protect and enhance your valuable mechanical vacuum pump and product. Vacuum pumps perform better and last longer when used with the appropriate inlet trap or filter.



HyVac DIT is a convenient, low-cost way to trap excess condensable vapors that can enter the mechanical vacuum pump. This tabletop trap can also be used for some sample freeze-drying. Dry-ice and isopropyl alcohol is combined in a 50/50 mix to produce a super cooled slurry in the 3-quart trap well. ** Use of Acetone in place of Isopropyl Alcohol will damage the plastic cover and viewing ring. The metal surface of the inner trap well can reach -75 degree C and at that temperature will condense most volatile materials.

The trapping surface of the center well is visible during operation through the top view ring. The total area available for condensate or trapped materials is 3.7 Liters (.13 cu ft.) Defrost and clean up is made easy by lifting

out the trapping well after venting the system to atmosphere.

Generally, a single charge of the dry ice and alcohol mix is enough to last most of the day. The charge is installed inside the inner well/sump so that the air stream will pass around the well circumference as it passes from the inlet port to the exhaust port. As the air flow pass around this metal surface, condensable vapors such as water or solvents will crystallize out of the air stream.

Construction of the DIT is of 304 stainless steel that has been electro-polished to minimize surface roughness. The outer body wall is .065 inch thick and is stainless steel with welded-in ports. You may use vacuum rated silicone grease on the rubber gaskets if you desire, a thin coating would be all that is required if you have found the trap leaking pressure.

Depending on how you ordered the trap it came configured with hose nipples or standard ISO flange fittings. In order to hook the trap up on the inlet side of the pump you need to connect a section of high vacuum hosing or tubing between trap and pump. It is advantageous to determine the sizes prior to purchase but they can be adapted after the fact.

The user then connects his traps inlet to the system being evacuated. Pretty simple and straight forward, but there are obvious benefits to having the port sizes of the pump, the system being evacuated and the trap all match in (Outside Diameter) size. The cold well has an acrylic plastic cover and a rubber gasket that should maintain vacuum integrity. With long term use you may find a need to

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replace the rubber gasket found between lid and trap top, in order to minimize potential leaks. Also be careful as not to scratch the lids surface where it seals to the rubber gasket and the top of the trap.

It is possible to also use the trap as a vacuum chamber by substituting the well and lid with our optional solid lid. This enables the trap to serve second duty as a stand by vacuum chamber.

DRY ICE INLET TRAP ORDERING INFORMATION

MODEL #	DESCRIPTION	Diameter
33000-000	3/4" Hose Ports both ends	10 3/4"
33000-001	NW16 Flanges both ends	11 1/16"
33000-002	NW25 Flanges both ends	11 1/16"
33000-003	NW40 Flanges both ends	11 1/16"



Pictured - 3/4" Hose connections on DIT DIT apart

Part Number	DESCRIPTION
P33000-001	Gasket Main Body
P33000-002	Gasket Well Lip
P33000-003	Well
P33000-004	Viewing Ring
P33000-005	Well Lid
P33000-006	Solid Vacuum Chamber Lid