IDP-3 Quick Reference Card

Start Up/Shutdown

Warning **Read all Warnings, Cautions and Notes in the IDP-3 Dry Scroll Pump Instruction manual (699904350) before pump operation. Obey all pump labeling.**

Warning **The pump is designed for operation with neutral or noncorrosive gases. It is absolutely forbidden to use it with potentially explosive or inflammable substances.**

Start Up

Pre-Installation Minimums

Do not install or use the pump in an environment exposed to atmospheric agents (rain, snow, ice), dust, aggressive gases, or in explosive environments or those with a high fire risk.

If placing the IDP-3 pump inside an enclosure, provide ample room to supply ambient air to the pump front and rear air intakes.

During operation, the following environmental conditions must be respected:

- Temperature: +5 °C to +40 °C (41 °F to 104 °F)
- Relative humidity: 0 to 95% (non-condensing)
- Connect the pump to the power supply using an IEC-320 style power cord of at least 10 A capacity.
- In order to reach maximum vacuum, the pump must be left running for about an hour with the inlet sealed.

Unpacking and Inspection

1. Orient the shipping container with *This End Up* on top.
2. Open the box and carefully lift the IDP-3 and foam blocks out of the box. Remove the foam blocks.
3. Save the carton and all packing materials.
4. Inspect the pump for damage. If there is shipping damage, contact the freight carrier and your local Varian sales office immediately.

Startup

1. Check that the inlet screen is installed before beginning operation.

Warning **Do not insert a finger or any foreign object in the path of the fan; serious personal injury may result or the pump may be damaged.**

2. Operate the pump within ambient temperature constraints, otherwise damage to the pump or shortened operating life may result.

Caution **Do not block the fan ducts. Blocking these ducts can cause pump overheating. A pump surface temperature in excess of 65 °C (150 °F) is potentially damaging. If such conditions are observed, turn the pump off and allow it to cool. Disassemble, inspect for damage, and repair, if necessary.**

Grounding Instructions

Ground this product. This pump is equipped with a power cord that has a grounding wire with an appropriate grounding plug. The plug must be inserted into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

For United States and Canadian installations:

- When this product is configured for use on a nominal 120 V circuit, it must be used with a grounding plug.
  If repair or replacement of the cord or plug is necessary, connect the grounding wire to the grounding terminal only.
  The grounding wire is insulated and its outer surface is green. It may or may not have yellow stripes.
- When this product is configured for use on a nominal 220 V circuit, it must be used with a factory supplied cord and plug that permits connection to the proper electric circuit.

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- When this product is configured for use on a nominal 220 V circuit, it must be used with a factory supplied cord and plug that permits connection to the proper electric circuit.

- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- Connect the product only to an outlet that has the same configuration as the plug.
- Do not use an adapter with this product.

Warning **If the product must be reconnected for use on a different type of electric circuit, the connector should be replaced by qualified service personnel.**

Extension Cords

If you must use an extension cord with this product:

- Varian recommends using only extension cords with a minimum of 16-gage wire and a maximum length of 7.6 m (25').
- Use only a 3-wire extension cord that will accept the plug.
- Ensure the extension cord is in good condition.
- Ensure the extension cord is rated high enough to carry the current your product draws. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

NOTE **For all configurations, refer to the Run Currents section of the IDP-3 Dry Scroll Pump Instruction manual (699904350).**

Shutdown

To stop the pump:

- Toggle the On/Off switch.

Mechanical Connections

Pump Inlet

- Use NW16, or larger, clean vacuum hardware with as short a length as practical between the pump and vacuum chamber.
- Insert a bellows between the pump and vacuum chamber to provide both vibration isolation and strain relief.

Pump Exhaust

- A female 1/4" National Pipe Thread exhaust fitting is located on the front of the pump. Additionally, a 10 mm (3/8") hose barb fitting is provided. To avoid overheating the pump, do not restrict the exhaust flow with long lengths of small diameter tubing. Use as short as practical lengths of 10 mm ID, or larger, diameter hardware.

Gas Ballast

- The pump incorporates an automatic gas ballast to prevent water and other condensates from accumulating within the pump. The standard configuration has a seal screw installed in the 1/4-20 thread in the top of the exhaust manifold. This configuration can be used for relatively dry applications. When appreciable amounts of water, solvents, etc., are being pumped, remove the seal screw and replace it with the provided adapter and 1/8" NPT sintered filter plug. Do not exceed 25 in-lb of torque when installing the adapter into the manifold.
- For applications where the ingress of atmospheric air is undesirable, dry nitrogen at a flow rate of approximately 5 l/min can be provided to the gas ballast. Remove the 1/8" NPT sintered filter plug from the adapter and replace it with an appropriate fitting (supplied by end user).
- The gas ballast must be sealed whenever pumping any gas not intended to be vented to atmosphere.

Tip Seal Replacement

Refer back to the IDP-3 Dry Scroll Pump Instruction manual (699904350).

Troubleshooting

Refer back to the IDP-3 Dry Scroll Pump Instruction manual (699904350). This manual is available at *http://www.varianinc.com/cgi-bin/nav?products/vacuum/manuals/*

Manual No. 699904365 Rev. A
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- Connect the product only to an outlet that has the same configuration as the plug.
- Do not use an adapter with this product.

Warning **If the product must be reconnected for use on a different type of electric circuit, the connector should be replaced by qualified service personnel.**

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