On-Board® IS 8F Cryopump Quick Installation Guide

Part Number 8040644, Revision A, 01/11/2013
ECO Number 63723

Startup the Cryopump

See Section 12, for the Input Power Connector location on the cryopump.

1. Insert flat blade screwdriver into Power Cable Clamp Slot (Slot) and move it away from Power Cable Connector Cap (Cap).
   Slot mechanism holds screwdriver in place.
   The Power Cable Clamp (Clamp not visible) releases Cap and Locking tab appears.

2. Remove Cap.

3. Plug Input Power Cable into Input Power Cable Connector on module, and then rotate Connector Collar (not visible) until tight.

4. Remove screwdriver to lower Clamp. This secures Input Power Cable.

5. Connect appropriate ground and leads of Input Power Cable to local 208 VAC, 50/60 Hz Single-Phase, 5 Amp source.

On-Board IS 8F Cryopump Facility Requirements

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<th>Electrical Power</th>
<th>Roughing Valve</th>
<th>Air Supply</th>
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<td>208 VAC (Range: 180-253 VAC) 5 Amps 50/60 Hz Single phase</td>
<td>NW-25 ISO KF flange 1/4 inch tube connection for exhaust port</td>
<td>60 - 80 psig 1/4 inch tube connection for exhaust port</td>
<td>60 - 80 psig 3/8 inch tube connection</td>
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Customer Supplied

- 1/2 inch Vent Line
- 1/2 inch X 14 NPTF Tube Adapter
- Exhaust Gas Adapter

On-Board IS 8F Cryopump Facility Requirements

- Electrical Power
- Roughing Valve
- Air Supply
- Nitrogen Purge Gas

Visit the Brooks Automation website at www.brooks.com or email to tscallcenter@brooks.com.
Before You Start

1. Ensure On-Board IS 1000 Compressors are installed according to 8040645, On-Board IS 1000 Compressor Quick Installation Guide.
2. Read and follow all safety notices in this guide and in the appropriate compressor guides.

Cryopump Safety

Ensure the cryopump operates safely and dependably by adhering to all safety notices when you use or service the cryopump.

**WARNING**

Toxic, Corrosive, Flammable or Explosive Materials
1. To prevent personal injury, over pressurization, and equipment damage, always vent toxic, corrosive, or flammable materials to a safe location using an inert gas.
2. Clearly identify toxic, corrosive, or flammable materials on shipping containers when you ship equipment that contacted these materials.
3. To prevent flammable gas ignition, do not install a hot filament type vacuum gauge on the high-vacuum side of the isolation valve.
4. To prevent explosions, be aware of ozone as a by-product of an oxygen process and take the appropriate precautions.

**WARNING**

High Voltage Electric Shock Hazard
1. To avoid electric shock, disconnect the cryopump from all power sources before making electrical connections between system components and before performing troubleshooting or maintenance procedures.
2. When you connect the cryopump to a power source, ensure it is a 208 VAC, Single-Phase 5 Amp source.

**CAUTION**

Heavy Object
To avoid injury when moving the cryopump, use a lifting aid and proper lifting techniques.

**CAUTION**

High Pressure Gas Hazard
To avoid injury from unexpectedly propelled objects, always bleed the helium charge to atmospheric pressure before servicing or disassembling the self-sealing couplings.

NOTE: To avoid loss of helium, do not modify or remove the pressure relief valves. (See Figure 3) Always connect and disconnect helium flex lines with the method illustrated in Figure 1 Inset.

Cryopump Connections

See the following numbered steps in Figure 1, Figure 2, and Figure 3 for cryopump installation connections.

NOTE: Before mounting the cryopump to the vacuum system, ensure that a high-vacuum isolation (hi-vac) valve is installed between the cryopump and the vacuum chamber. This isolates the cryopump from the chamber during rough pumping, cooldown, and regeneration.

NOTE: Install the cryopump in any orientation. This does not affect its performance.

The number of cryopumps connected to each compressor (your installation) varies based on the cryopump models you use. Consult Technical Support for information about specific cryopump and compressor applications.