

Technical Bulletin 102493 VAC OMNI Dri-Train - Inert Gas Purification System



General Description: Single column inert gas purifier system mounted in low profile cabinet. The cabinet will install below the glove box antechamber, below the glove box or remotely. The system includes the OMNI PLC Control System with touch screen LED display. The PLC touch screen panel is angled upward for readability. The system can achieve less than 1-PPM oxygen and moisture equilibrium with a typical VAC glove box. The system will also control glove box pressure.

Purification Capacity: 20 liters of O₂ and 1.2 Kg of H₂O absorption capacity (per mfg. specs.)

Control System: Mitsubishi touch screen PLC monitors and controls the OMNI system via an easy to use menu driven interface with a simple graphical display. Built in programmed control of purifier regeneration, glove box pressure and purging. Built in system diagnostics

Regeneration: System has an automatic timed cycle with user selectable special solvent regeneration cycle. Requires 3-5% hydrogen mixture gas (nitrogen or argon).

Pressure Control: Pressure control with in a range of +/- 5" W.C.. The user may program both the high and low pressure control points. The glove box pressure and pressure control points are displayed on the LCD panel. The system includes a footswitch for manual pressure control.

Over Pressure Limit: Will sound built-in alarm and shutdown electrical power to all valves if glove box exceeds user programmed over pressure limits.

Vacuum Pump: A vacuum pump is required for operation and can be purchased as an option with each system, see options for choices.

Leak Certification: No detectable leaks with a helium mass spectrometer (sensitivity of 3×10^{-8} std cc/sec).

Power: 110 VAC, 50/60 Hz, 15 amps; 220 VAC 50/60 Hz, 10 amps; 10 amps; specify choice. 10 foot power cord with NEMA 5-15 P plug (110VAC) or NEMA L6-15P plug (220 VAC).

Mechanical Interface:

Inlet and Outlet Circulation	NW40
Vacuum Line (for antechamber) and exhaust	NW25
Antechamber refill	1/4" NPT female, for 3/8" copper or s/s line
Glove Box Pressure Control	1/4" NPT female, for 3/8" copper or s/s line

Customer Service Interface:

Inert Gas, Regeneration Gas and Purge Vent	1/4" NPT female, for 3/8" copper or s/s line
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System Dimensions: 23" (width) X 22" (depth) X 33" (height) (584 X 558 X 838 mm)

System Weight: 310 lbs. (141 kg)

Compatible Vacuum Pump Options

Type	Part Number	Note
Vacuum Pump Assy, 4.1 CFM (7.0 m ³ /h)	VAC 100617	See quote for price
Vacuum Pump Assy, 6.9 CFM (11.7 m ³ /h)	VAC 100618	See quote for price
Vacuum Pump Assy, 10 CFM (17.0 m ³ /h)	VAC 100619	See quote for price
Vacuum Pump Assy, Dry Scroll, 8.8 CFM (250l/m)	VAC 400006	See quote for price
No Vacuum Pump	N/A	
Edwards pumps include EMF10 outlet mist filter and gravity oil return kit		

ORDERING

- 1) VAC 102493 for Purifier System Assy, specify input voltage and frequency
- 2) Vacuum Pump choice by part number
- 3) Accessories by part number

SHIPPING

Domestic Shipping Weight: 370 lbs. (168 kg)
 Export Shipping Weight: 500 lbs. (227 kg)
 Crate Dimensions: 30" X 30" X 45" (762 X 762 X 1143 mm)



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