



***INERT GLOVE BOX SYSTEMS &
Controlled Atmospheres***



From INNOVATIVE TECHNOLOGY, INC

Research

Teaching

Production

WWW.GLOVEBOXES.COM

978-462-4415

SYSTEM ONE INERT GLOVE BOX



Specifications:

Glove Box

Glove Box with bolted or welded end panels.

Material -
Inside Surface -
Outside surface -

US type 304 stainless steel, Thickness 2.5 mm / 3 mm.
Brushed finish
Powder coated.

Feed Through Fittings

Gas, Vacuum and Electrical.

KF / NW 40 -
Swagelok Bulkhead -

1 additional for electrical feed through.
1 additional for gas or vacuum feed through.

Dust Filters

SYS-1-HF

0.3 Micron HEPA -

1 gas inlet filter , 1 gas outlet filter.

Shelves

Three adjustable stainless steel shelves, length of glove box and 10 inches deep.

Box Windows

Lexan 10mm thickness. Option: Safety Glass

Box Light

Ceiling or front mounted fluorescent light.

Leak Rate Increase of Pressure

< 0.05 vol%/h at negative pressure of -10 mbar at constant temperature.

Leak Rate increase of Oxygen

<0.05 vol%/h typical.

Antechamber

Cylindrical type antechamber 15 inches diameter, 24 inches in length. Custom sizes available.

Material -
Sliding Tray -

US type 304 stainless steel
US type stainless steel. Slides into glove box and externally for ease of use.

Doors -

Anodized aluminum thickness 10 mm. Easy to operate spindle mechanism with spring loaded safety feature to prevent from breaking.

Pressure Gauge -

Water gauge or Pirani gauge with analog display per request.

Vacuum / Refill

Manual operation standard. Automatic antechamber control available.

Valves
Leak rate

Hand valves <NW / KF 40 vacuum line / DN 10 refill line.
<10 – 5 mbar L / second.

Dimensions

Please ask sales person for detailed drawings.

Controller

See control options below

Gas Purifier

Gas Purification System – Removal of H₂O and O₂

Process - Working Gas - Attainable Purity - Purifier -	Closed loop gas recirculation Inert gas: Nitrogen, Argon or Helium. H ₂ O < 1 ppm, O ₂ <1 ppm. Single Column H ₂ O / O ₂ Double Column available per request Copper Catalyst: 30 Liters (standard conditions) Of O ₂ . BASF R3 Series. Molecular Sieve: 1300 grams of moisture. 13X Series.
Capacity -	
Material -	US type 304 stainless steel.
Heater -	Integrated, 300 W
Regeneration	
Procedure - Regeneration Gas -	The purifying column is regenerable. Automatic regeneration program. Factory set and password protected. N ₂ / H ₂ mixture (H ₂ 3-5%) or Ar / H ₂ mixture (H ₂ 3-5%)
Circulation	
Type - Flow Rate - Features -	Turbulent flow of inert atmosphere. Integrated blower SYS-1-BL vacuum tight NEMA rated enclosure and oil-free. 0 – 60 CFM variable speed. Operated with standard power supplies: Optimum system tuning by frequency pre-selection for the blower. Vibration control pads, easy to service.
Vacuum Pump	
Type - Operation -	BOC Edwards RV – 12 Oil- rotary pump with oil re-circulation and automatic gas ballast control. Oil mist filter sold not included. 10 CFM, dual stage, ultimate vacuum < 3 - 10 ² mbar.

Control Options

System One Microprocessor – LCD Display Panel with push button scroll design allowing user to easily navigate sub screens. Dual microprocessor design controls all System One Glove Box functions.

Allen Bradley Panel View 300 – LCD Display Panel with push button scroll design allowing user to easily navigate sub screens. Allen Bradley PLC controls all System One Glove Box functions.

Allen Bradley Panel View 600 – Color Touch Screen Control with on screen touch panels allowing user to easily navigate sub screens without having to scroll. Allen Bradley PLC controls all System One Glove Box functions.





Quotations & Technical Service

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