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Atmosphere Filter (HEPA), Recirculating Instruction Manual

Instructions for installation of COY Recirculating Atmosphere Filter FOR COY VINYL CHAMBERS

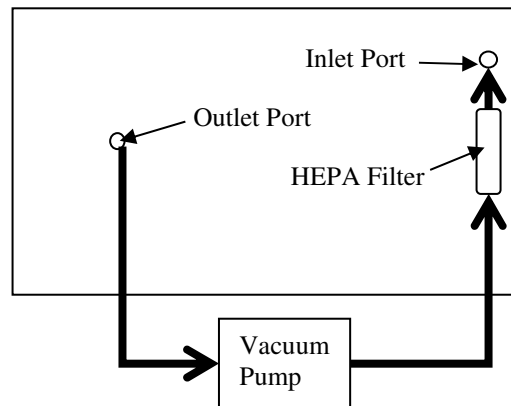
Equipment Included:

- 1 filter
- 2 lengths of tubing (sealed into the rubber stopper on Vinyl Chambers)
- 1 vacuum pump with ON/OFF switch

The Recirculating Atmosphere Filter is intended to remove airborne contamination with a size of .22 micron or larger.

INSTALLATION GUIDE:

Rear View of Glove Box



NOTE: The tubing and Filter will already be connected.

1. Connect the tubing to the vacuum pump if not already connected. Using one length of tubing for the inlet and one for the outlet.
2. Connect the filter to the tubing if not already connected from the outlet of the vacuum pump.

Your installation should be configured as Illustrated below:

Chamber→Pump→Filter→Chamber

3. Arrange the Pump ON/OFF switch convenient to the user.

4. Connect to Glove Box / Chamber:

- Rigid Glove Boxes will have Quick Disconnect fittings for the inlet and outlets and will be attached to the rear of the glove box.

- Vinyl Chambers will have tubing inserted to rubber plugs for the inlet and outlets. Insert plug into feed-thru ports on the back of chamber.

Standard Vinyl Chambers have 2 feed-thru ports on back of Chamber. Ports are typically opposite sides with one low and one high. This is to separate the inlet and outlet to create better filtration. It does not matter which port is used as inlet or outlet.

If Filtration System is purchased for an existing Vinyl Chamber, both the gas inlet and outlet tubes will be installed in one feed-thru stopper. One tube will end on the back side of the stopper and the other will be left long. The long tube should be routed to the opposite end of the Chamber. This is done to improve circulation.

OPERATION:

The pump flow rate is 1.24 Cubic Feet per Minute (CFM). Using the chart below you can figure the time it takes to circulate the entire chamber.

| Glove Box Style/Size | Glove Box Volume Cubic Feet (liters) | Time (MINUTES) To circulate entire chamber volume based on standard Pump Flow Rate (1.24 CFM) |
|-----------------------------|---|--|
| <i>Anaerobic Chambers</i> | | |
| Type A Vinyl | 43 (1217) | 34.7 |
| Type B Vinyl | 57 (1614) | 46.0 |
| Type C Vinyl | 26 (736) | 21.0 |
| 3 ft. Polymer | 10.5 (297) | 8.5 |
| 4 ft. Polymer | 14 (396) | 11.3 |
| 5 ft. Polymer | 17.5 (495) | 14.1 |
| 1 Person Aluminum | 18 (509) | 14.5 |
| 2 Person Aluminum | 32 (906) | 25.8 |

| <i>Glove Box Style/Size</i> | Glove Box Volume Cubic Feet (liters) | Time (MINUTES) To circulate entire chamber volume based on standard Pump Flow Rate (1.24 CFM) |
|---|---|--|
| <i>Hypoxic Glove Boxes</i> | | |
| Mini Vinyl | 12.6 (357) | 10.2 |
| 1 Person Vinyl | 18 (525) | 14.5 |
| 2 Person Vinyl | 32 (930) | 25.8 |
| Mini Polymer | 8 (226.5) | 6.5 |
| 1 Person Polymer | 9 (261.5) | 7.3 |
| 2 Person Polymer | 17.5 (495) | 14.1 |
| 1 Person Aluminum | 18 (509) | 14.5 |
| 2 Person Aluminum | 32 (906) | 25.8 |
| <i>Basic Dry and Humidity Control Glove Boxes</i> | | |
| Mini Vinyl | 12.6 (357) | 10.2 |
| 1 Person Vinyl | 18 (525) | 14.5 |
| 2 Person Vinyl | 32 (930) | 25.8 |
| 3 ft. Polymer | 10.5 (297) | 8.5 |
| 4 ft. Polymer | 14 (396) | 11.3 |
| 5 ft. Polymer | 17.5 (495) | 14.1 |
| 1 Person Aluminum | 18 (509) | 14.5 |
| 2 Person Aluminum | 32 (906) | 25.8 |

Keep in mind that this is only a guide the reality is there will be some parts of the chamber that take much longer to be filter because of the size of the glove box.

Your particular needs may dictate running the filter assembly for two or three days a month or continuously depending upon the spore contamination present. In any event, we recommend changing the filter at a minimum of once every 6 months. Extra Filters may be ordered from COY (part # 5800-024).