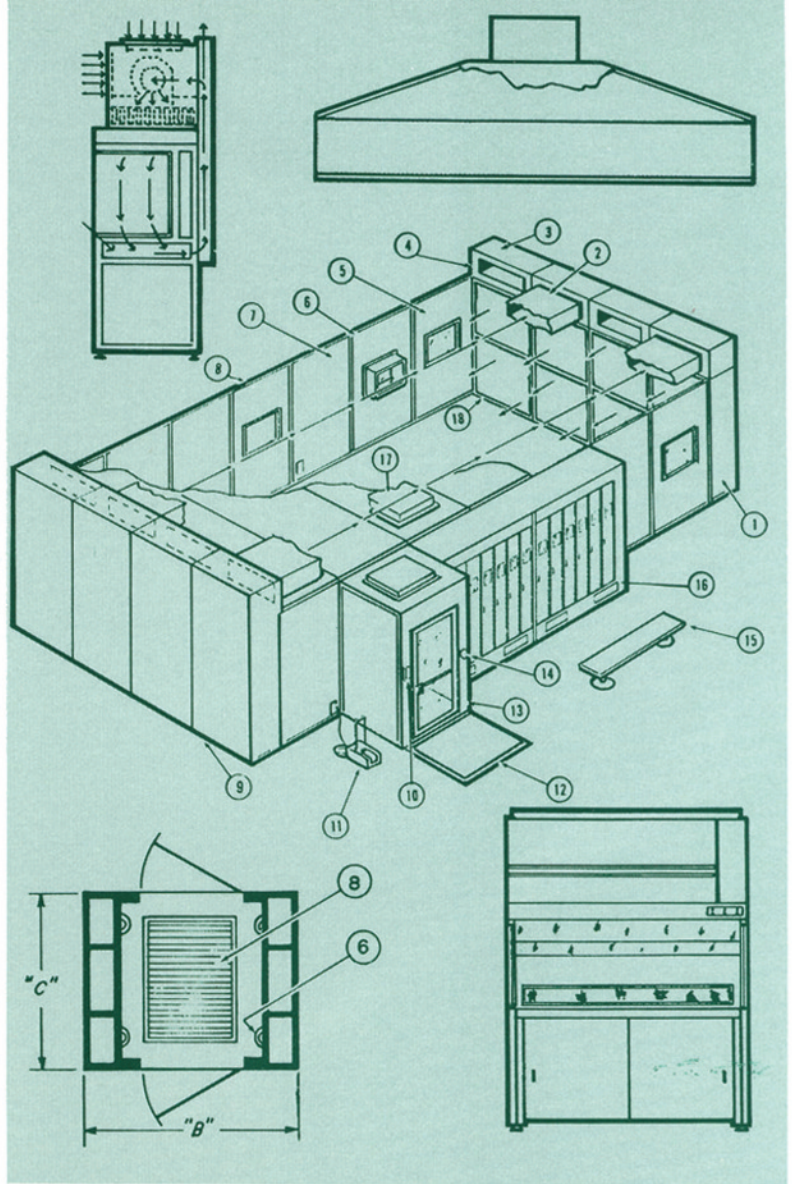
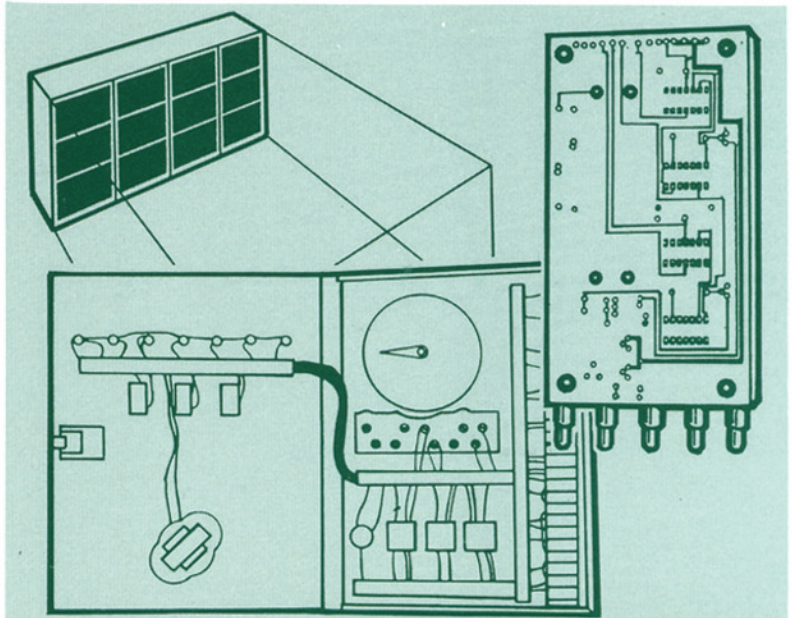


HALCO PRODUCTS COMPANY

100 NORTH GORDON STREET • ELK GROVE VILLAGE, ILLINOIS 60007-1193

TEL: 847-956-1600 FAX: 847-956-0595 WEBSITE: WWW.HALCO-PRODUCTS.COM

PRODUCTS MANUAL





Halco Products, Co.
100 N Gordon St
Elk Grove Village IL 60007
Ph: 847-956-1600
Fax: 847-956-0595

**HEPA Filtered Recirculating Material Pass-Thru
User Manual**

Model# As Shown on Module

Serial#As Shown On Module



Halco Products Company,
100 North Gordon St. • Elk Grove, IL 60007-1193
PH: (847) 956-1600 • Fax: (847) 956-0595
E-mail: [Info@Halco-Products .com](mailto:Info@Halco-Products.com) • Website: www.Halco-Products.com

HEPA Filtered Pass-Through with Electronic Interlock Specifications

ELECTRICAL:

The electrical wiring to meet the latest NEC standards. Customer to supply electrical power source of 115 volts, 1 phase, 60 hertz, 2.4 fla (amps at full load). Refer to the electrical tag to verify proper voltage, hertz and amperage.

SEQUENCE OF OPERATION:

- TECHNICIAN WILL OPEN ONE DOOR, WHICH WILL LOCK OPPOSITE DOOR AND TURN THE OPPOSITE INDICATOR RED
- MATERIAL WILL BE LOADED INTO PASS-THRU AND DOOR WILL BE CLOSED.
- ONCE THE ENTRY DOOR IS CLOSED, BOTH DOORS WILL UNLOCK AND BOTH INDICATORS WILL BE GREEN
- TECHNICIAN WILL OPEN THE UNLOAD SIDE DOOR WHICH WILL LOCK THE OPPOSITE DOOR AND TURN THE OPPOSITE INDICATOR RED
- MATERIAL WILL BE REMOVED FROM PASS-THRU AND DOOR WILL BE CLOSED
- ONCE THE DOOR IS CLOSED BOTH DOORS WILL UNLOCK AND BOTH INDICATORS WILL BE GREEN
- THE RECIRCULATING FAN WILL TURN ON WHEN EITHER DOOR IS OPENED AND WILL TIME OUT AFTER BOTH DOORS ARE CLOSED
(TIME CYCLE IS ADJUSTABLE, FACTORY SET AT 1 MINUTE)
- UNIT PROVIDED WITH A BYPASS SWITCH TO ALLOW PURGE TO RUN CONTINUOUSLY
(FOR FILTER INTEGRITY TESTING ONLY)

Note: Any tampering with interlocks may cause damage and will void all warranties.

BASIC CARE & CLEANING:

Wash stainless steel and glass with a mild soap or detergent and lukewarm water. Use a clean soft cloth, apply only light pressure. Rinse with clear water and dry by blotting with a soft non-abrasive cloth or chamois.

GENERAL MAINTENANCE:

This model requires virtually no maintenance. The few elements, which do require attention, are readily accessible and take a minimum amount of time. After years of dependable service customer need only check that all hardware is tightened as needed.



WARNING: Always disconnect primary power source before inspection or servicing unit.

RECIRCULATING HEPA FILTERED PASS-THRU WITH ELECTRONIC INTERLOCK SPECIFICATIONS

GENERAL:

The Pass-Thru is typically used as an airlock between a cleanroom and an ambient space or a cleanroom of a different classification. It is meant to transfer product into and/or out of the cleanroom limiting the risk of contamination. The Pass-thru also helps to reduce personnel entry into the cleanroom further reducing that risk.

CONSTRUCTION:

The Pass Thru general construction shall appear architecturally pleasing, and the engineering, workmanship, and materials shall be of the highest quality.

The Pass Thru shall be constructed of 16-Ga. type 316L stainless steel with a #4 finish. The doors to be constructed of type 316L stainless steel framed with 1/4" thick clear tempered glass glazing, stainless steel pin hinges, stainless steel latching handles, closed cell EDPM door gasket. The Pass-Thru is to include a fail-safe electronic interlocking system with magnetic locks that fail open with loss of power. Pass-Thru shall also be supplied with 1-1/2" x 1-1/2" x 16-Ga. one piece, fully welded type 316L stainless steel (supplied, not attached). Rough opening size should be 1/4" larger than unit size.

The Pass-Thru unit will also be provided with: 1ea backward curved impeller blower (115 volt, 100 watts) capable of producing 120 CFM of air, a 12" x 12" x 3-1/2" Gel seal HEPA filter 99.99% efficient on particles 0.3 microns in size, a Minihelic pressure gauge to measure the static pressure of the HEPA filter, red/green status indicator lights on both sides of the unit, electro-magnetic door locks, door status switches, removable perforated HEPA grill, perforated stainless steel deck with air return from below (deck removable for cleaning). The unit shall also include electronic controls and timer with flush mounted interior access panel, 3/4" NPT Aerosol injection port with flush plug, 1/2" electrical knockout for customer power connection, and welded one piece finishing trims polished on both sides.

ELECTRICAL:

The electrical wiring to meet the latest NEC standards. Customer to supply electrical power source of 120 volts, 1 phase, 60 hertz, 2.4 FLA (amps at full load). Manufacturer recommends a 15-amp service. Refer to the electrical tag to verify proper voltage, hertz and amperage.

ELECTRONIC INTERLOCK SYSTEM:

The interlock system consists of 24-volt electromagnetic locks, which are mounted in the Pass Thru face with a zinc plated armature plate mounted to the doors. The actuator for the lock is a normally closed magnetic reed switch, which is installed in the door-frame and is activated by a magnet mounted in the door. This circuit is a fail-safe system, which will de-energize and unlocks the doors in the event of a power failure. The unit is also provided with red & green indicator lights on each side to advise users if the door is locked or unlocked.

HEPA FILTERED PASS-THRU WITH ELECTRONIC INTERLOCK SPECIFICATIONS

HEPA FILTER:

The HEPA filter is capable of removing 99.99% of all particles 0.3 microns in size and larger. The average life of the HEPA filter is about two (2) to three (3) years, however, the life of the HEPA (or final) filter will depend on good pre-filter maintenance and ambient conditions.

If the HEPA filter has an internal test port for filter challenge. To gain access to the test port, use a (Phillips) screwdriver to remove well nut. When testing is completed, replace well nut.

Initially, the static pressure reading should be recorded. Should the pressure rise to twice the initial reading it is an indication that the HEPA filter is reaching its useful life. Periodically, check the static pressure reading. A more specific check is to periodically determine the airflow from the HEPA filter. Initially this will average 90 f.p.m. @ 6" from face of filter, +/-20 f.p.m, should the airflow drop to below 70 f.p.m, with the speed control on high; this would be an indication that the HEPA filter requires changing.

HEPA FILTER REPLACEMENT:

The HEPA filter is serviceable from room side. To change the HEPA filter:

- Turn off electrical power source to unit.
- Remove the perforated stainless steel diffuser panel.
- Remove HEPA filter holding devices while holding HEPA filter in place. Slide HEPA filter out carefully and discard.
- Install new HEPA filter.
- Replace the HEPA filter holding devices and tighten down securely so as not to have the seal of the HEPA filter leak, being careful not to damage the new HEPA filter.
- Replace the perforated stainless steel diffuser panel.

Note: The HEPA filter media is easily damaged please remember to handle the HEPA filters carefully! (To install HEPA filters refer to the supplemental Gel Seal Filter Installation Instructions.)

Handling & Maintenance Recommendations for Filters

HEPA and ULPA filters are sensitive instruments and should be handled and installed using prudent techniques. Special care must be taken in educating personnel on the fragility and handling of filters.

AES Clean Technology recommends the use of media/face protectors (screens) for your HEPA and ULPA filters. Face protectors are a low-cost way to greatly reduce the risk of damage during transport and installation.

Adhering to the following simple procedures can help avoid downtime and costly damage to filters.

Receiving and handling procedures:

- Always carefully check pallets of filters before accepting shipment from the carrier. Pallets of filters that have been damaged or broken should not be accepted without a thorough investigation and appropriate comments on the packing list.
- Pallets of filters should never be subjected to excessive shock, vibration or extreme temperatures. The shock caused by dropping a filter can cause serious damage to the filter media at the media/sealant interface.
- Pallets of filters should not be stacked
- Breaking down a pallet of filters and unpacking filters are both two-person jobs. Care and caution should be used in handling filter boxes.

To remove a filter(s) from a carton, follow these steps:

- Carefully open top of box. Avoid scoring deeply with a sharp instrument to prevent damage to contents inside. For multiple filters packed in a box, carefully lift one filter at a time to remove.
- A filter module will require using two people to unpack. Hold the top of the filter with one hand and slowly flip the carton over so that the open end is on the floor. Make sure that all box flaps are facing outward and carefully lift the box off the filter module. Handle filter by edge of frame only; **do not touch the filter media**. Filter media is extremely delicate and easily torn, punctured or separated from the frame by improper handling. Gently remove any other internal packing from unit.

Maintenance of HEPA filter:

The objective of your maintenance program is to extend the life of the HEPA filter and to maintain the aesthetic appearance of the facility.

The key to extending the life of any HEPA filter is by scheduled pre-filter examination. Periodically examine the pre-filter for any signs of particulate build-up. When visual inspection reveals excessive particulate build-up, replace the pre-filter immediately.

In cases where fan filter modules are ducted directly to the plant air conditioning system, all pre-filtration is performed at the source of air conditioning. Presumably this is already maintained on a periodic basis. However, with the addition of HEPA filtration to the plant system, a more critical evaluation of the pre-filtration maintenance should be made.

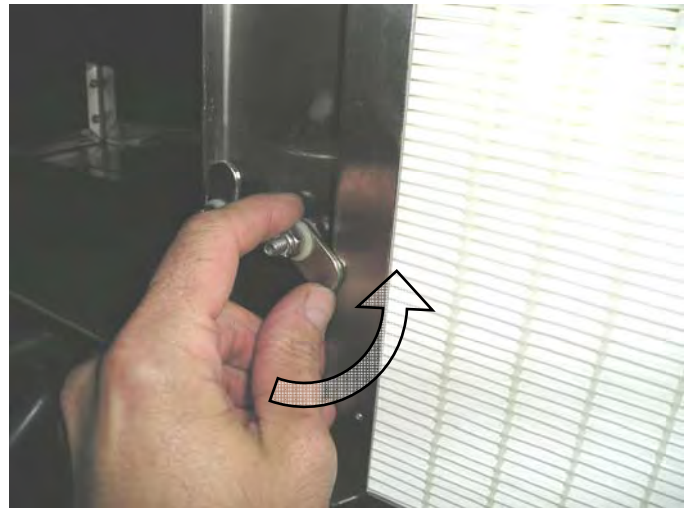
GEL SEAL FILTER INSTALLATION INSTRUCTIONS (1/4 TURN LOCKING TABS) ND 2008



STEP #1 - TURN ALL FILTER JACK TABS PARALLEL TO FILTER KNIFE EDGE ON UNIT TO ACCOMMODATE FILTER



STEP #2 - POSITION FILTER INTO OPENING OF UNIT
* BE SURE FILTER IS CENTERED IN OPENING*





HALCO PRODUCTS COMPANY

100 N. Gordon St. Elk Grove Village, IL 60007-1193

Phone (847) 956-1600 Fax (847) 956-0595

E-mail: info@halco-products.com

Website: www.halco-products.com

WARRANTY

HALCO PRODUCTS COMPANY warrants that the workmanship, materials, and construction of this item is free of manufacturing defects. This item and its associated systems are such that if operated and maintained in accordance with the manual supplied by **HALCO PRODUCTS COMPANY**, it will meet all contract specifications for a period of one (1) year from date of delivery. This warranty shall not apply to replaceable items such as filters or light bulbs, or if the equipment is subject to misuse, accident, negligence, or lack of proper maintenance. Electrical motors and blowers and pre-manufactured items are subject to manufacturers' guarantees.

CUSTOMER: _____

ADDRESS: _____

P.O. # : _____ INVOICE # : _____ SERIAL # : _____

MODEL #: _____ SIZE: _____

START-UP DATE: _____ INSPECTED BY: _____ DATE: _____

WARRANTY REGISTRATION CARD

Please return this card within 30 days of delivery

Customer: _____

Address: _____

P.O.#: _____ Invoice #: _____ Serial #: _____

Model #: _____ Start-Up Date: _____

Sizes: _____ Customer Inspector: _____ Date: _____