



Better Air is Our Business®

AmericanAirFilter® PharmaGel™

PGA Series Ceiling Filter Modules

Installation, Operation and Maintenance Instructions

The standard PharmaGel™ module housing is fabricated from 0.063" thick aluminum with welded seams and equipped with 5/8" integral turned-out flanges for compatibility with either 1 1/2" tee bar grids or gypsum/plastered ceilings. Optional flanges of 304 stainless steel are available.

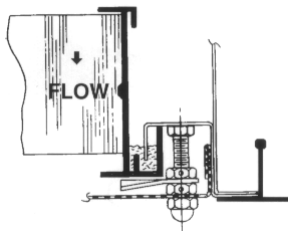
This ducted module is an excellent choice where Class 100 or better HEPA filtered air supplies are required. Housing and filters are shipped in separate cartons to ensure the HEPA filters are not installed until site conditions are "glove clean."

1.0 Housing Installation

1. Remove housing from shipping carton and inspect for concealed damage.
2. When site conditions are not clean or filter installation will be delayed for more than two weeks, remove faceguards and store in a secured clean area.
3. Install and support housing as instructed below. Flexible duct connections should be made using stainless steel, worm-gear type drawbands for maximum reliability. Housing installation must be accomplished in a professional manner with flanges sealed to prevent dust infiltration from the interstitial space.

1.1 Installation in 1 1/2" Ceiling Grid Standard Module (PGA)

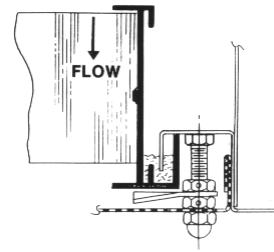
Suspend housing independently with optional hanging tabs and/or grid hangers to support module. Seal housing flanges airtight against tee bar.



1.2 Installation in Plaster or Gypsum Ceilings Standard Module (PGA) or Optional Module with Stainless Steel Perimeter Trim

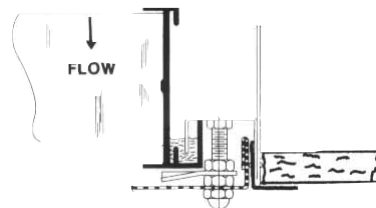
Suspend housing from four corners and level to align top flat of flange with finish ceiling elevation.

NOTE: Flange is not designed to support ceiling. Grout flange flush with ceiling.



Optional Module (PGP) with Removable Stainless Steel Angle Trim Frame

Remove angle trim assembly and suspend module from four corners. Level housing and align lip of housing with finish ceiling and grout module in place. Insert angle trim assembly and rivet to housing.



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CAUTION: When performing the following procedures, do not open the damper beyond 2½ turns of the Damper Adjustment Screw. Exceeding 2½ turns could result in damage to the unit. Dampers are shipped in the fully closed position. **Do not open with the supply air on.**

2.0 Filter Installation

Before installing HEPA filter cartridges, the system must be balanced, cleaned, blown down, and operational with prefilters in place. This will minimize the amount of particulate swept into the filter pack at startup.

1. Remove faceguard from module, check damper operation, and leave damper open.
Operating the Damper:
 - a. Turn supply air off.
 - b. Open damper completely, 2½ turns maximum.
 - c. Turn supply air on.
 - d. Adjust damper as required.
2. Inspect the knife-edge filter seal inside housing for damage.
3. Wipe housing and components clean using a lint-free cloth and solvent, such as diluted isopropyl alcohol.
4. Rotate the four retaining latches parallel to housing wall to allow filter insertion.
5. Just before installation, carefully remove the bagged AAF mini-pleat filter cartridge from shipping carton.
6. Inspect the filter face and each filter unit for shipping damage before inserting. Handle delicate filter medium carefully to avoid accidental damage. Do not install damaged filters.

NOTE: Setting filters properly requires two people. Do not install filters with supply air on. Install filters—then turn on supply air.

7. Position the filter with fluid-filled pocket turned upward.
8. Align and insert the cartridge upward into the module. The housing's knife-edge should penetrate the gel pocket around the lower outside edge of the filter.
9. Holding the filter in position, rotate the four latches 90° (perpendicular) to housing edges to support the filter cartridge. Tighten latch nuts if necessary.
10. Upon completion of test and balance work, the perforated faceguard may be installed using four acorn nuts. Be sure the faceguard is clean and dust-free before installing!

3.0 Operation

Once in position, the AAF PharmaGel Module may be balanced and tested.

1. Adjust the main air supply and duct branches to meet overall design air-flow before attempting to balance any of the filter modules. The butterfly damper in the housing should be open.

Follow the procedure defined in Section 2 for Step 1.

NOTE: This is a trim device and not intended to induce a large pressure drop.

2. To determine output of the module, measure the total air volume in CFM using a soft-balancing hood equipped with a velometer. Reading and averaging numerous points at the filter face is not recommended.
3. Adjust the module damper or system branch duct damper as required to provide the desired air volume.
4. Replace the plug in the damper adjustment port.
5. Reinstall faceguard onto module.

4.0 Testing

The module may be leak tested in place. Introducing aerosol through the service port in the housing is not recommended. The 7/16" diameter port is small and aerosol vapor may condense on the internal housing surfaces, eventually dripping down onto the filter pack, saturating the fiberglass medium.

In the event an aerosol test is desired, the smoke should be introduced into the upstream ductwork at least ten diameters away, or, preferably, into the fan intake. The access port may be used to check the contamination level of the supply air any time.

The AAF PharmaGel module is available with an optional ½" pipe size aerosol dispersion device for applications requiring room-side testing.

Call your AAF representative to discuss alternative suggestions and techniques for testing.

5.0 Maintenance

The AAF PharmaGel Module needs little maintenance. When installed downstream of a bank of AAF prefilters (90% ASHRAE efficiency), this module should provide years of service.

An annual check of airflow is recommended. When the filter throughput eventually declines to an unacceptable level due to particulate accumulation, the filter cartridge should be replaced with a new AAF mini-pleat type, pocket seal filter.