

Camfil custom Absolute E-Series HEPA filters are manufactured from the highest quality components as prescribed in Section FC, Article 3000 of the ASME AG-1 code. These nipple connected filters are not qualified designs. Performance is based on designs qualified to Section FC.

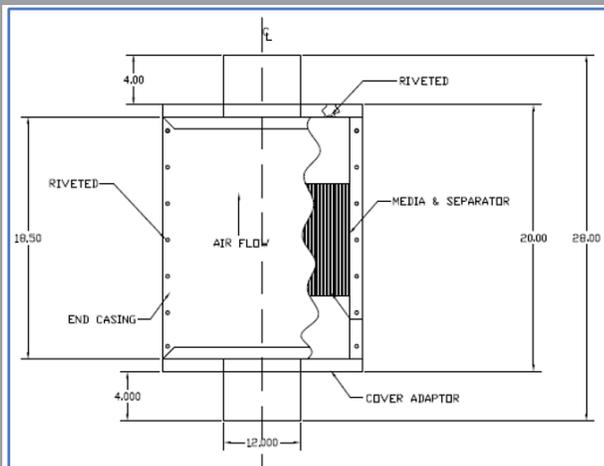
Each design has been qualified per the requirements of Section FC, Article 5000. Every filter is manufactured under an audited and approved ASME NQA-1 Quality Program. Camfil provides a Certificate of Conformance as described in Article FC-8200 of ASME AG-1. The HEPA filters shall be manufactured using the same materials of construction, factory testing methods, factory equipment and processes as our qualified ASME AG-1 designs. Note: The overall completed nipple connection filter is not qualified to ASME AG-1.

Each Absolute E-Series filter has a tested efficiency of not less than 99.97% on 0.3 micron size particles at 100% of rated airflow and at 20% of rated airflow. The label attached to each filter furnishes individual filter test results.

The Camfil Absolute E-Series Nipple Connection filter:

- Qualified filter media: Micro-glass fiber / acrylic resin binder, qualified in accordance with ASME AG-1 Section FC-1.
- Is highly resistant to moisture and capable of operation to 99% relative humidity.
- Uses a fire-retardant phosphorus-free polyurethane adhesive sealant bonding the frame to the media pack on all four sides.
- Separator material: corrugated, 0.0015 thick, 1145-H19 aluminum ASTM B209.
- Has a 14-gauge ASTM A-240 Type 304 stainless steel enclosing frame.
- Includes expanded face guards on the air-entering and air-exiting sides of each media pack fabricated from 22-gauge ASTM A-240 Type 304 stainless steel.
- May be operated at a continuous temperature of up to 250° F (121° C).
- Is labeled as specified in ASME AG-1, FC-9000 and in DOE STD-3020-(latest version).
- Includes special crating as described by the most recent version of DOE STD-3020.
 1. Shipping crates are fabricated from wood components.
 2. The removable top lid and front are secured with removable fasteners for ease of removal and repackaging.
- The Camfil Absolute Custom E-Series integrity ensures continued protection of hazardous environments, and when changed in accordance with recognized procedures, protects the health of filter service personnel.
- Inlet and outlet connections diameter and length to be specified by the customer.

Cross sectional drawing of typical filter.



ASME - American Society of Mechanical Engineers
 UL - Underwriters Laboratories
 ASTM - American Society for Testing and Materials
 DOE - Department of Energy

Performance Data

ASME AG-1 Size Designation	Nominal Media Pack Filter Size* Height x Width x Depth in inches (mm)	Airflow Capacity in cfm (m ³ /hr)	Maximum Initial Resistance @ Capacity in inches of w.g. (Pascals)	Effective Media Area in sq ft (m ²)
5	24 x 24 x 11 ½ (610mm x 610mm x 292mm)	1000 (1700)	1.0 (250)	212 (19.7)
7	24 x 24 x 11 ½ (610mm x 610mm x 292mm)	1500 (2550)	1.3 (324)	302 (28)
9	12 x 12 x 11½ (305mm x 305mm x 292mm)	250 (420)	1.3 (320)	62 (5.75)
Contact factory for performance values on sizes 2,3,4 and 6				
* Final case size based on customer request				

Notes:

1. Rated airflow in ACFM based on tests indoors at atmospheric pressure.
2. Minimum efficiency is 99.97% on particles 0.3 micron in size.
3. Maximum continuous operating temperature 250° F (121° C).
4. Recommended final pressure drop is 4.0" w.g.
5. The base ASME AG-1 Absolute E filter meets all applicable requirements as published under in the following documents; ASME AG-1, NQA-1, N509, and UL 586. The overall completed nipple connection filter is not qualified to ASME AG-1.
6. Camfil nuclear grade HEPA filters used in the Absolute E design have been qualified by the Edgewood Chemical Biological Center to meet the performance requirements of ASME AG-1 Sections FC-4000 and FC-5000, with the exceptions of FC-5150 (Resistance to Heated Air) and FC-5160 (Spot Flame Resistance) which have been qualified by the UL 586 listing of the product.
7. For complete construction components please contact a factory representative for sales submittal drawings.

Testing Notes:

1. Each filter shall be tested for resistance to airflow and aerosol penetration in accordance with ASME AG-1, Sections FC-5110 & FC-5120 prior to attachment of cover adaptors.

Filter Specifications:

Pleat depth (inch): 5-³/₁₆ nominal or 10-¹/₂ nominal, depending on the filter.

Rating/Qualifications:

1. Filter is UL 586 listed and labeled accordingly
2. Filter is manufactured to IAW AG-1 requirements, most recent version of DOE-STD-3020, less AG-1 5000 requirements.
4. ASME AG-1 Qualified Filter Sizes 2 through 7, and 9 will be the basis of design prior to the attachment of the customer specified cover adaptors.

Available Options:

- **Flanges:** 150#, 1/4-inch thick bolting flange, 150-pound class, or other connections are available.
- **Static Pressure Taps:** ¼-inch half-couplings with plug, 304 stainless steel square head plug.
- **Aerosol Sample Port:** 3/8-inch half-couplings with plug, 304 stainless steel square head plug.

Performance prior to attachment of cover adaptors.



For detailed specifications please consult your local Camfil Distributor, Representative or contact the factory. Camfil has a policy of uninterrupted research, development and product improvement. We reserve the right to change designs and specifications without notice.