

Nuclear AstroCel® I

Quality Protection for Nuclear Applications

| Qualified Nuclear HEPA Filtration

Description

The AAF AstroCel® I Nuclear Grade HEPA filter is designed to meet all the requirements of ASME AG-1 Sections FC and FK and ASME N509.

AstroCel® I Standard and High Capacity Nuclear Grade HEPA Filters operate on the interception-diffusion principle to remove ultra-fine particles from ventilation and process air using a high media-to-face area ratio by limiting air velocity through the media to 5-feet per minute at rated airflow. The high density filtering media of sub-micron glass fibers is folded into a closely pleated pack with pleats evenly spaced by corrugated separators which support the media and allow minimum resistance to airflow. The media pack is sealed into the filter case sides with urethane adhesive. The case sides have rigid double box flanges (#14 Gauge Stainless Steel) or rabbited and double-nailed corners (3/4" Fire-Retardant Plywood) for maximum resistance to rough handling and distortion.

Neoprene gaskets with interlocking dovetailed corners, or a channel containing silicone gel, are provided on one or both (gasket only) faces for leak-free sealing into housings or banks. Faceguards of 4" x 4" hardware cloth galvanized (standard) or Type 304 stainless steel (optional) on both faces for media protection and added protection from racking are provided. These filters are qualified under UL Standard 586 and are so labeled. Each filter is factory tested at 100% of rated airflow and at 20% of rated airflow (125 CFM and larger) and individually labeled and identified with a unique serial number and test results for penetration and resistance. The characteristics of the media and construction of the media pack allow the filter to be installed with airflow in either direction, regardless of the direction tested.

Benefits

The AAF AstroCel® I HEPA filter has been seismically and environmentally qualified to meet the most stringent specifications in the nuclear industry. Unlike other filter manufacturers that rely solely on filter media qualifications, AAF has performed environmental and seismic qualifications on complete HEPA filter assemblies. These qualifications ensure that the filter will maintain functionality during accident conditions.



Product Features

- All AAF AstroCel® I Nuclear Grade HEPA filters are designed, manufactured and tested under a NQA-1 quality assurance program, meeting all requirements of 10CFR50B and 10CFR21

Codes

- ASME AG-1 Section FC
- Listed on U.S. Army Qualified Products List (QPL)
- UL 586 Qualified
- NQA-1 Quality Assurance Program
- DOE 3020

Applications

- Chemical, Biological & Radiological
- Nuclear Power

Contact Us Today!
1.800.477.1214



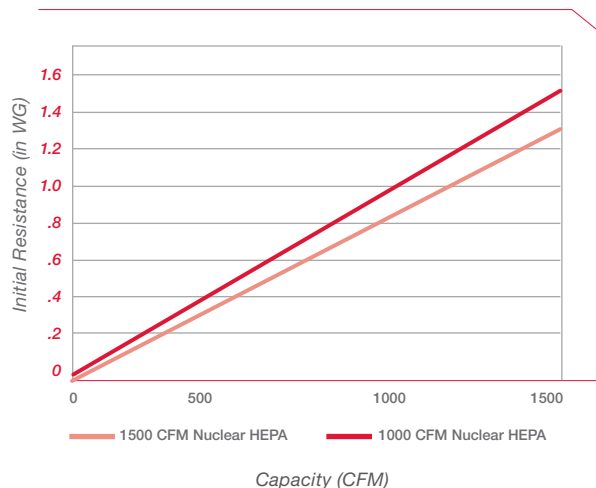
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NUCLEAR
ENVIRONMENTAL
SYSTEMS

Nuclear AstroCel® I

Initial Airflow Resistance



AstroCel® I HEPA filters are non-directional and may be installed with the airflow in either direction. The arrow on the label indicates the direction of airflow during factory testing.



Performance Specification Data					
Ratings	Case	Separators	Gasket	Face Guards	Media
25, 50, 125 and 1500 CFM @ 1.3" WG 500 and 1000 CFM @ 1.0" WG minimum 99.97% efficiency of 0.3 micron particles	#14 Ga. Type 409 Stainless Steel #14 Ga. Type 304 Stainless Steel 3/4" Fire Retardant Plywood	0.0015" aluminum 0.0001" vinyl coated aluminum	1/4" x 3/4" neoprene – dovetailed gaskets - Silicone gel fluid seal	4" x 4" galvanized mesh 4" x 4" Type 304 stainless steel mesh	Qualified to ASME AG-1 and listed on US Army QPL. Each lot of media individually tested for wet and dry tensile strength, penetration, resistance and thickness

Sizes
Ratings
- Standard per ASME AG-1 24" L x 24" W x 11 1/2" H Actual 12" L x 12" W x 5 7/8" H Actual 8" L x 8" W x 5 7/8" H Actual 8" L x 8" W x 3 1/16" H Actual - Other sizes available qualified to ASME AG-1 Section FK that are size variations of filters addressed in Section FCs

North & South America

AAF International Building
9920 Corporate Campus Drive,
Suite 2200
Louisville, KY 40223-5000, USA
Tel: +1 502 637 0408
Toll Free: 888 AAF 3596
Fax: +1 502 637 0147

AAF, S de RL de CV
Av. Primero de Mayo 85
San Andres Atenco
54040 Tlalnepantla
Estado de Mexico
Tel: +52 55 5565 5200
Fax: +52 55 5390 5814



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AAF has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.

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NES-1-701C
08/16

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