



Better Air is Our Business®

# AmericanAirFilter® Nuclear AstroCel® I

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

## Design and Construction

The AAF AstroCel I Nuclear Grade HEPA filter is designed to meet all the requirements of ASME AG-1 and ASME N509 and is available in Standard and High Capacity flow models.

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 4x4 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.



## Options

Qualified options and combinations of materials available include:

- Case:** #14 Ga. Type 409 Stainless Steel  
#14 Ga. Type 304 Stainless Steel  
3/4" Fire-Retardant Plywood
- Separators:** 0.0015" Aluminum  
0.0001" Vinyl Coated Aluminum
- Gasket:** 1/4" x 3/4" Neoprene - Dovetailed Corners  
Silicone Gel
- Face Guards:** 4 x 4 Galvanized Mesh  
4 x 4 Type 304 Stainless Steel Mesh
- Media:** Qualified to ASME AG-1 and listed on US Army QPL. Each lot of media individually tested for wet and dry tensile strength, PSL/PAO penetration, resistance, and thickness.
- Ratings:** 25, 50, 125 and 1500 CFM @ 1.3 in. w.g.  
500 and 1000 CFM @ 1.0 in. w.g.  
Minimum 99.97% efficiency on 0.3 micron DOP
- Sizes:** Standard per ASME AG-1  
24" x 24" x 11 1/2" Actual  
12" x 12" x 5 7/8" Actual  
8" x 8" x 5 7/8" Actual  
8" x 8" x 3 1/16" Actual  
Other sizes available.
- Quality Assurance:** All AAF AstroCel I Nuclear Grade HEPA Filters are designed, manufactured, and tested under a Nuclear Quality Assurance Program meeting all requirements of ASME NQA-1.
- Codes:** Filters meet requirements of ASME N509-1989, ASME AG-1, and DOE 3020.

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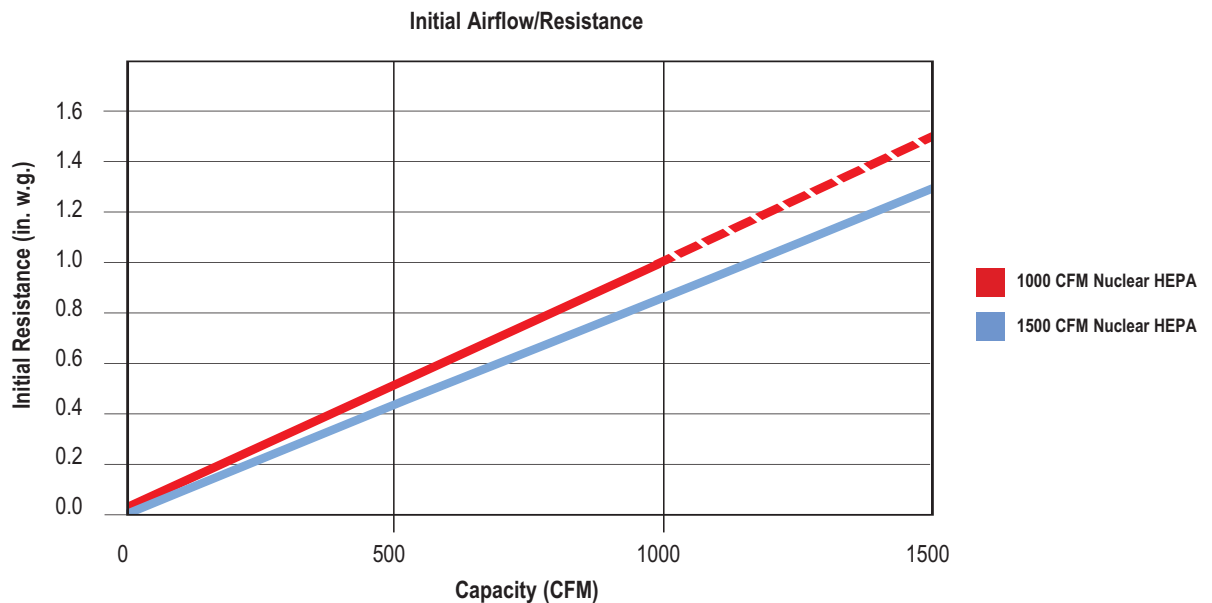
## Nuclear AstroCel® I

### Product Information

Qualified Nuclear Grade HEPA Filters  
24" x 24" x 11 1/2" (Other Sizes Available)

AAF Part Number	Rated Airflow	Cell Side Material	Gasket Type (AES)	Separator Type
105-883025-007	1000 CFM	409 SS	Neoprene	Aluminum
105-883025-030	1000 CFM	409 SS	Neoprene	Vinyl
105-883025-003	1000 CFM	304 SS	Neoprene	Aluminum
105-833025-025	1000 CFM	304 SS	Neoprene	Vinyl
105-1413244-005	1500 CFM	409 SS	Neoprene	Aluminum
105-1413244-009	1500 CFM	409 SS	Neoprene	Vinyl
105-1413244-002	1500 CFM	304 SS	Neoprene	Aluminum
105-1413244-007	1500 CFM	304 SS	Neoprene	Vinyl
105-1689868-016	1000 CFM	409 SS	Gel	Aluminum
105-1689868-015	1000 CFM	409 SS	Gel	Vinyl
105-1689868-013	1000 CFM	304 SS	Gel	Aluminum
105-1689868-012	1000 CFM	304 SS	Gel	Vinyl
105-1689868-010	1500 CFM	409 SS	Gel	Aluminum
105-1689868-009	1500 CFM	409 SS	Gel	Vinyl
105-1689868-007	1500 CFM	304 SS	Gel	Aluminum
105-1689868-006	1500 CFM	304 SS	Gel	Vinyl
105-1332345-015	1000 CFM	FR Plywood	Neoprene	Aluminum
105-1332345-027	1000 CFM	FR Plywood	Neoprene	Vinyl
105-1332345-016	1500 CFM	FR Plywood	Neoprene	Aluminum
105-1332345-002	1500 CFM	FR Plywood	Neoprene	Vinyl
105-1690833-019	1000 CFM	FR Plywood	Gel	Aluminum
105-1690833-007	1000 CFM	FR Plywood	Gel	Vinyl
105-1690833-020	1500 CFM	FR Plywood	Gel	Aluminum
105-1690833-008	1500 CFM	FR Plywood	Gel	Vinyl

### Performance Data



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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.

ISO Certified Firm  
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