

SwissAire

Self Supporting Synthetic Media Bag Filters Bulletin PB1104-1206

General

SwissAire is a very high strength, synthetic media bag filter. Pockets are nearly rigid, making them self supporting for full media use and no pocket sag. Pockets are also fully welded instead of stitched. That means less chance of pin-hole leaks and very high blow-out strength. Headers on SwissAire bag filters are all 16 gauge galvanized steel, not plastic that can crack or warp.

SwissAire synthetic, self supporting bag filters are designed for use in most commercial or industrial HVAC systems where medium to high efficiency filtration is required. SwissAire Filters are available in minimum efficiency levels of 50%, 60% and 90% per ASHRAE Standard 52.1 test methods. Offered as MERV 8-15 per ASHRAE Standard 52.2 SwissAire bag filters are UL 900 Class 1 listed.

Installation Considerations

SwissAire bag filters may be installed in Flanders ASTRI Holding Frames, K-Trac Filter Framing Modules, Sureseal Side Access Housings, or in similar existing hardware. ASTR Holding Frames are riveted together to form a bank and may be installed for upstream or downstream service. K-Trac Filter Framing Modules are especially suitable for medium to large built-up filter banks. Smaller systems and systems with minimum upstream access space are best served using Sureseal Side Access Housings.

Physical Data

Media: A nearly rigid, high strength synthetic medium.

- Progressive density fiber matrix designed for high dust holding capacity.

- 100% synthetic medium performance results from strictly mechanical particle collection mechanisms. Performance of the product is not afffected by preconditioning step proposed to ASHRAE 52.2

Pocket Retainer: Corrosion resistant steel or aluminum **Header:** 13/16" wide corrosion-resistant steel

Actual Header Face Size: Nominal size less 5/8" (e.g., a nominal 24" x 24" filter header is actually 23-3/8" x 23-3/8")

Important Features

- Nearly rigid pockets are self supporting and allow for full media use with no pocket sag
- 100% synthetic media
- · Low initial pressure drop provides longer life.
- Welded pockets, no stitching for better integrity and higher blowout strength.
- Wide range of cartridge depths, efficiencies and operating capacities are available.
- MERV 8-15
- UL 900 Class 1



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Swissaire media is 100% synthetic composed of fine fibers in a progressive density structure for optimum pressure drop performance and high dust holding capacity.



Fully welded pockets provide a leak-free design and exceptional burst strength greater than 12.5 inw.g.

100% synthetic medium performance results from strictly mechanical particle collection mechanisms. 50%, 60%, 90% per ASHRAE 52.1 Performance of the product is not afffected by preconditioning step proposed to ASHRAE 52.2

Corrosion free galvanized metal header will not crack or warp. Media is fully encased and sealed, ensuring no bypass and exceptional burst strength.



Corrosion-resistant pocket retainers

Performance	Unit	SA50	SA60	SA90
Rated Air Flow	cfm	2000	2000	2000
Initial Resistance	in. W.G.	0.20	0.27	0.51
Final Resistance	in. W.G.	1.5	1.5	1.5
Number of Pockets	n/a	8	8	8
Depth	inches	26	26	26
Initial Efficiency ¹	%	31	61	61
Average Efficiency ¹	%	51	76	91
DHC ¹	grams	1548	812	269
MERV ²	n/a	8	9	15
Burst	in. W.G.	>12.5	>12.5	>12.5
Media Area	sq. ft.	75	75	75

Notes:

(1) Tested in accordance with ASHRAE 52.1 at rated airflow by 3rd party test lab



SwissAire Rigid Bag Filters 24" x 24" x 26" (8) Pocket Tested at 2,000 CFM per ASHRAE Standard 52.2. Data reflects the Composite Minimum Efficiency





ASHRAE Standardized Test Dust fed at 2.0 grams per cubic foot of air.

Application Guidelines

SwissAire bag filters should be installed with pockets vertical wherever possible. It is acceptable to install 24" x 12" face size filters with pockets horizontal if necessary to meet the size requirements of the filter banks.

Gasketed Headers

SwissAire bag filters installed in Flanders K-Trac Filter Framing Modules or Sureseal Side Access Housings require polyfoam gaskets on opposite header sides to prevent air bypass. To specify SwissAire bag filters with gasketed headers, add suffix "SA" (side access), "GU" (upstream), "GD" (downstream) and "GS" (sides) to model number.

Prefilters

Properly selected bag filters without prefilters will generally require changeout annually in typical HVAC applications. Because of the frequent maintenance expense and increase in fan kW input using prefilters, they are often recommended with 90% efficient SwissAire final filters. However, the energy cost to operate a prefilter seldom warrants their use with 50% or 60% filters.

Performance values shown in this publication may be averages or estimates intended to generally represent a product style. Contact factory for latest actual test data on specific Flanders Precisionaire models.

Guide Specifications

1.0 General

- 1.1 Medium and high efficiency self-supporting filters shall be SwissAire extended surface type as manufactured by Flanders.
- 1.2 Filter sizes, efficiencies and capacities shall be as scheduled on the drawings.

2.0 Filter Construction

- 2.1 Filters shall be constructed of 100% synthetic media of sufficient rigidity to maintain self-supporting pockets.
- 2.2 Open area on the filter face for air passage shall not be less than 90%.
- 2.3 Pockets shall be 100% welded, with no stitching to provide protection against leaks and extra blow-out strength.

- 2.4 Pockets shall be bonded to corrosion-resistant steel casings and assembled into a corrosion-resistant steel header.
- 2.5 Filters shall be UL 900 Class 1 rated.

3.0 Performance

REPRESENTED BY:

- 3.1 Initial and final resistances shall not exceed the scheduled values.
- 3.2 Media area must equal or exceed that of the specified filter.
- 3.3 The average efficiency shall be as determined by the ASHRAE Standard 52.1 and 52.2 test methods.
- 3.4 The manufacturer shall guarantee performance as stated in its literature within tolerances as outlined is Section 7.4 of ARI Standard 850.

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