

General

Flanders Superflow 2K is a V-bed HEPA filter (99.99% at 0.30 micrometer) specifically designed for high airflow applications requiring HEPA efficiency at an ultra low pressure drop. The Superflow 2K can be incorporated into systems with air velocities of 500 fpm and a pressure drop of 1.0 inch w.g.

Product Design

The Superflow 2K filters are manufactured with wet laid microfibre fiberglass media. The media is formed into a minipleat utilizing a hot melt separator and arranged in a V-bed configuration. There are 10 individual minipleat packs that are sealed on all four sides to the frame with a two component polyurethane.

The frame is constructed of 16 ga. galvaneal steel and consists of vertical support struts of the same material. Vertical supports are attached to the frame body without the use of mechanical fasteners. The vertical supports act as the sealing surface of the mini pleat packs.

Features and Benefits

The product offers the following advantages over conventional HEPA filters.

- Longer Life – Gasket seal Superflow 2K filters have 290 sq. ft. of media compared to 140 sq. ft. for traditional HEPA filters. The greater media area provides a longer time period between filter replacements.
- Improved Efficiency – The significant quantity of media translates into an extremely low media velocity. Therefore a minimum overall efficiency of 99.99% at 0.30 μm is easily assured. Traditional HEPA filters have an overall efficiency of 99.97% at 0.30 μm .
- Lower Operating Cost – The typical HEPA filter pressure drop can range from 1.4 inch w.g. to 1.8 inch w.g. at the rated flow. The pressure drop of the Superflow 2K is 1.0 inch w.g. at the rated flow.

Product Options

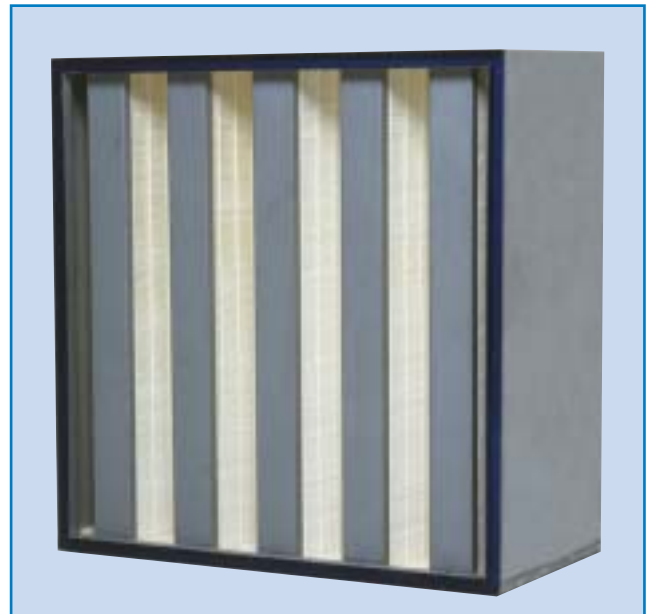
The Superflow 2K filters are available in aluminum, galvaneal or stainless steel frames and with gasket seal or gel seal design.

Gasket Seal

The filter gasket is 1/4" x 3/4" black neoprene attached to the frame with an adhesive and the gasket joints are dovetailed to ensure no penetration of particulate due to the gasket. The filter is designed for installation into Flanders front load B-1 holding frame, Surelock C Gasket Seal Housing and Surelock-B Side Access Housing.

Gel Seal

The filter gasket is Flanders Blu Jel filled into a channel around the perimeter of the frame. The gel seal design provides the highest degree of sealing integrity between the filter and holding device. The filter is designed for installation into Flanders front load A-4 holding frame or Surelock-C Jel Seal Housings.



Superflow 2K Performance

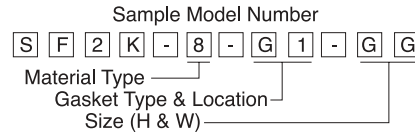
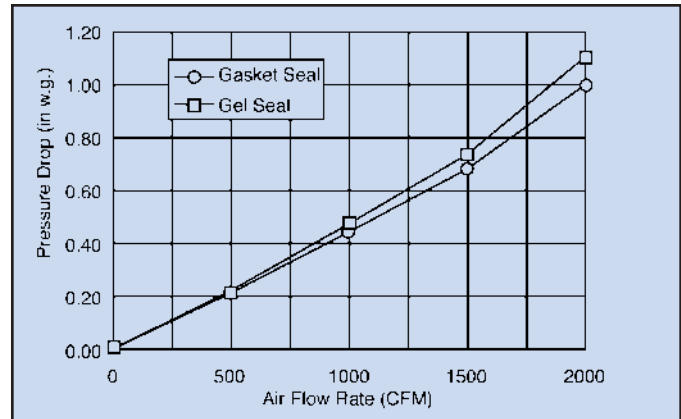
The Superflow 2K filters offer HEPA efficiency at an ultra low pressure drop for HVAC systems supplying air to critical areas.

Figure 1 illustrates the Superflow 2K pressure drop as a function of air flow rate for gasket seal and gel seal designs.

Superflow 2K Selection

All products have a rated overall efficiency of 99.99% at 0.30 μm and a maximum pressure drop of 1.0 inch w.g. at the rated flow. Specify the following:

- Material Types: 8 = Galvaneal
 5 = Aluminum
 3 = Stainless Steel
- Gasket Types: G = Neoprene F = Blu Jel
- Gasket Locations: 1 = Upstream 2 = Downstream



Model Number	Nominal Size	Actual Size	Media Area	Rated Flow
SF2K-(*)-G(location)-GG	24" x 24" x 12"	24" x 24" x 11-1/2"	290 sq. ft.	2000 cfm
SF2K-(*)-G(location)-CG	12" x 24" x 12"	12" x 24" x 11-1/2"	140 sq. ft.	900 cfm
SF2K-(*)-G(location)-YY	24" x 24" x 12"	23-3/8" x 23-3/8" x 11-1/2"	280 sq. ft.	1900 cfm
SF2K-(*)-G(location)-UY	12" x 24" x 12"	11-3/8" x 23-3/8" x 11-1/2"	135 sq. ft.	855 cfm
SF2K-(*)-F(location)-GG	24" x 24" x 12"	24" x 24" x 11-1/2"	270 sq. ft.	1760 cfm
SF2K-(*)-F(location)-CG	12" x 24" x 12"	12" x 24" x 11-1/2"	130 sq. ft.	790 cfm
SF2K-(*)-F(location)-YY	24" x 24" x 12"	23-3/8" x 23-3/8" x 11-1/2"	260 sq. ft.	1670 cfm
SF2K-(*)-F(location)-UY	12" x 24" x 12"	11-3/8" x 23-3/8" x 11-1/2"	125 sq. ft.	750 cfm

* Insert Material Type

Guide Specifications

1.0 General

- HEPA filters shall be Flanders Superflow 2K as manufactured by Flanders.
- Filter sizes, efficiencies and capacities shall be as specified on the drawings.

2.0 Construction

- Filters shall be constructed with ten 1" pleated media packs arranged in a V-bank configuration. The media packs shall be formed by pleating wet laid micro-fiberglass media with continuous beads of a cured, nonvolatile adhesive.

- The filter frame shall be 20 ga. galvaneal steel and shall consist of eight C-channel supports attached without the use of mechanical fasteners. The media packs shall be sealed around the entire periphery to the frame with a two component polyurethane.

3.0 Performance

- The minimum filter efficiency shall be 99.99% at 0.30 μm when tested with polydisperse DOP aerosol at the rated air flow.
- The maximum pressure drop shall be 1.0" w.g. at the rated air flow.

Flanders Precisionaire
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Engineered Products: 1-800-637-2803
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