

## General

Flanders Super-Flow<sup>®</sup>24 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 Super-Flow<sup>®</sup>24 can be incorporated into systems with air velocities of 600 fpm and a pressure drop of 1.0-inch w.g.

## Product Design

The Super-Flow<sup>®</sup>24 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 twelve individual minipleat packs sealed on all four sides to the frame with two-component polyurethane.

The frame is constructed of 20 ga. galvaneal, aluminum or stainless 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.

## Product Options

The Super-Flow<sup>®</sup>24 are available in aluminum, galvaneal or stainless steel frames and with gasket seal or gel seal design. The Super-Flow<sup>®</sup>24 filters are UL 900 Class 2 listed.

### • 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, C-3 Gasket Seal Housing and Surelock-B Side Access Housing.

### • Gel Seal

The filter gasket is Flanders Blu Jel<sup>®</sup> 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 C-4 Gel Seal Housings.

## Important Features

The product offers the following advantages over conventional HEPA filters.

### • Longer Life

Gasket seal Super-Flow<sup>®</sup>24 filters have 400 sq. ft. of media compared to 240 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  $\mu$ m is easily assured. Traditional HEPA filters have an overall efficiency of 99.97% at 0.30  $\mu$ m.

### • 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 Super-Flow<sup>®</sup>24 is 1.0-inch w.g. at the rated flow.



**Performance Data Notes:**

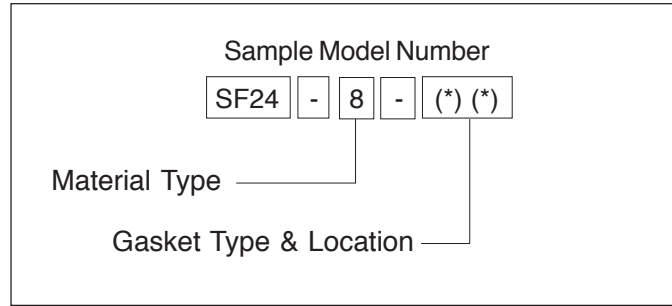
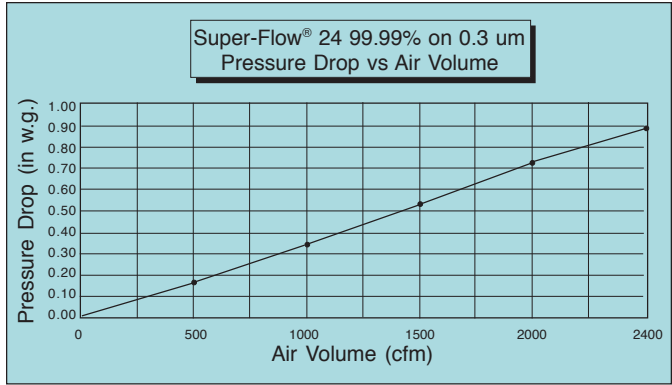
The Super-Flow®24 filters offer HEPA efficiency at an ultra low-pressure drop for HVAC systems supplying air to critical areas.

Figure 1 illustrates the Super-Flow®24 pressure drop as a function of airflow rate for gasket seal and gel seal designs.

**Installation Considerations**

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	RatedFlow
SF24(*)-(*)	24" x 24" x 12	24" x 24" x 11-1/2"	400 sq. ft.	2400
SF24(*)-(*)	12" x 24" x 12	12" x 24" x 11-1/2"	195 sq. ft.	1320

**Guide Specifications**

**1.0 General**

- 1.1 HEPA filters shall be Flanders Super-Flow® 24 as manufactured by Flanders.
- 1.2 Filter sizes, efficiencies and capacities shall be as specified on the drawings.

**2.0 Construction**

- 2.1 Filters shall be constructed with twelve 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.

- 2.2 The filter frame shall be 20 ga. galvaneal steel, stainless steel and aluminum 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 two-component polyurethane.

**3.0 Performance**

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

**Flanders/FFI®**

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