

## General

Sureaire Diffuser Sections are recommended for use on the positive side of the fan where high velocity or turbulent air flow conditions may occur.

Sureaire units are furnished with a diffuser plate which promotes evenly-distributed mixing of the air prior to the air entering the filter system.

Diffuser sections are factory-assembled flanged units suitable for installation in a duct upstream of a Sureseal housing or attached to an air handling unit. Units have a maximum in-line depth of 12 in. and incorporate 1-1/2 in. standing flanges on both air entering and air leaving sides of the unit.

## Versatility

Sureaire Sections are available in a wide range of sizes up to 8 ft. high and 12 ft. wide. If large units are not practical to install, smaller units are available with modifications to facilitate stacking. Diffuser sections are designed to match up to the Sureseal housing that is to be installed downstream of the unit.

## Construction

Sureaire Diffuser Sections are constructed of 16 ga. galvanized steel with upstream and downstream outwardly-turned flanges for easy installation on the upstream side of the corresponding Sureseal housing. Units include "Z" channel vertical support members on all four corners. Units wider than 4 ft. include intermediate support channels. Metal-to-metal joints are sealed with silicone compound.

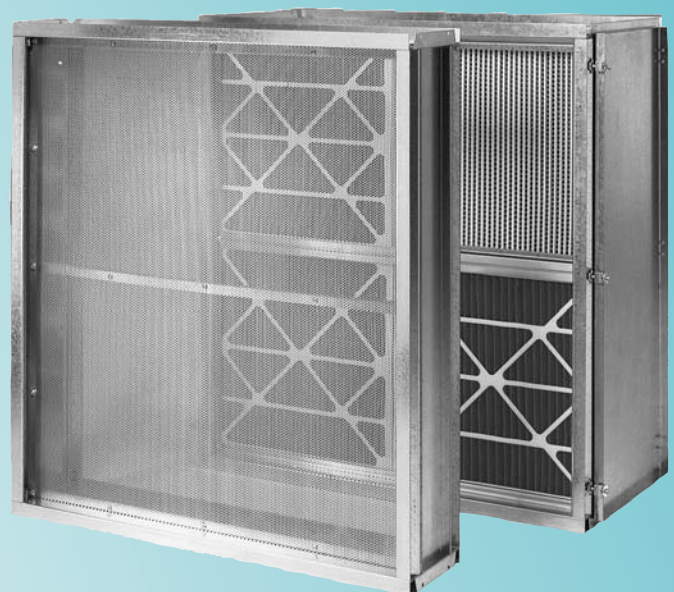
The diffuser plate is fabricated of 16 ga. galvanized steel with .118 in. diameter holes staggered on 1/4 in. centers. Total open area is 51% with a pressure drop of 0.1 inches w.g. at 500 fpm.

## Options

- Double-walled insulation and aluminum or 304 stainless steel housing construction
- Special size diffuser sections are available to match Surelock HEPA filter housings
- Diffuser sections may be factory assembled to downstream Sureseal filter housings

## Important Features

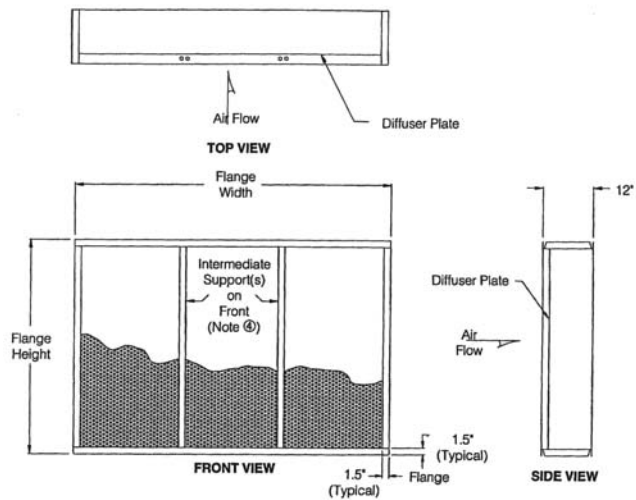
- Units are constructed of durable 16 ga. galvanized steel
- "Z" channel support members reinforce all four corners
- Diffuser plate helps distribute air more evenly across the final filter bank.
- Diffuser plate open area is 51%
- Minimal static pressure



# Construction Details

**Notes:**

1. Standard construction: 16 ga. galvanized steel frame, casing and diffuser plate.
2. Maximum system static pressure for standard sections is + 3.0 in. w.g.
3. Diffuser plate has .118 in. diameter holes staggered on 1/4 in.centers. Total open area is 51%.
4. Intermediate support(s) are furnished on housings over 4 ft. wide.
5. Section size should match the downstream Sureseal filter housing.



## Model Number Development



Type of housing, which in this case is Sureaire

Height and Width code: The first numeral of each section represents the number of 24"x24" filters high or wide. If a 24"x12" filter is used to complete the height or width, the second numeral of section will be "5".

For special features or sizes, end with the suffix "X" and describe them.

## Guide Specifications

**1.0 General**

1.1 Diffuser Sections shall be Sureaire as manufactured by Flanders.

**2.0 Construction**

2.1 Units shall be completely factory assembled and manufactured of 16 ga. galvanized steel, with "Z" channel vertical support members on all four corners.

2.2 Diffuser plate shall be fabricated of 16 ga. galvanized steel with .118 inch diameter holes which are staggered on 1/4 inch centers. Total open

area shall be 51% with a pressure drop of 0.1 inches w.g. at 500 fpm, 0.125 inch w.g. at 625 fpm, and 0.15 inch w.g. at 750 fpm.

**3.0 Features**

3.1 Model number shall be as specified and/or shown on the drawing.

3.2 Provide options as specified.



Flanders Filters, Inc.  
531 Flanders Filter Road  
Washington, NC 27889

Phone: (252) 946-8081  
Toll Free: (800) 637-2803  
Fax: (252) 946-3425

Website: www.flanderscorp.com

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