

FCP Series – Activated Carbon Filled Nonwoven Media Adsorbers

The Flanders FCP Series adsorbers are designed for removal of malodorous compounds at low concentration levels. Utilizing the latest technology in fine mesh activated carbon, the product provides high removal efficiency of nuisance odors.

Product Design

FCP Series filters are pleated activated carbon filled nonwoven media sealed within a moisture resistant beverage board frame. The uniqueness of the product is the filter media. The polyester media is filled with fine mesh activated carbon through the depth of the media. The ultrapure carbon is thermally bonded to the polyester fibers providing superior product design and offering the following advantages.

- Maximum Carbon Surface Area
 - Optimizes Efficiency and Available Capacity
- Exceptional Adhesion of Granules
 - Precludes Carbon Dusting
- Consistent Carbon Distribution
 - Reduces Channeling
- Minimizes Pressure Loss

FCP Performance

The FCP products offer exceptional performance in efficiency and capacity compared with products manufactured from carbon slurry media or carbon/polyester pads. Figure 1 on the reverse side illustrates that the FCP efficiency is at least 30% better than a carbon slurry pleat. The minimum capacity is six times greater as shown in the table below.

Options

The FCP Series is available in standard capacity and high capacity models in 2” and 4” depths.

200 Series - Standard Capacity

The filter media has a carbon mass loading of 7 oz. per sq. yd. of material.

300 Series - High Capacity

The filter media has a carbon mass loading of 14 oz. per sq. yd. of material.

The FCP Series is available with three contaminant specific activated carbon products.

201 or 301 - Removal of VOC's

202 or 302 - Removal of Acid Gases

204 or 304 - Removal of Alkaline Gases

This table illustrates the differences in overall capacity of three carbon products.

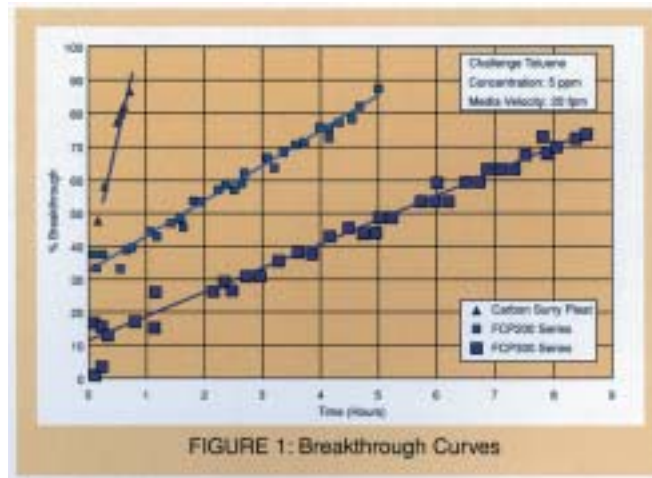
Product	Capacity to 75% Breakthrough
Carbon Slurry	1.6 grams
FCP 200 Series	25 grams
FCP 300 Series	63 grams



FCP Selection

Model Number	Nominal Size (inches)	Actual Size (inches)	Media Area (sq. ft.)	Rated Flow (cfm)	Initial Resistance (inch w.g.)
FCP201-24242	24 x 24 x 2	23-3/8 x 23-3/8 x 1-3/4	20	2000	.55
FCP201-12242	12 x 24 x 2	11-3/8 x 23-3/8 x 1-3/4	10	1000	.55
FCP301-24242	24 x 24 x 2	23-3/8 x 23-3/8 x 1-3/4	20	2000	.65
FCP301-12242	12 x 24 x 2	11-3/8 x 23-3/8 x 1-3/4	10	1000	.65
FCP201-24244	24 x 24 x 4	23-3/8 x 23-3/8 x 3-3/4	44	2000	.40
FCP201-12244	12 x 24 x 4	11-3/8 x 23-3/8 x 3-3/4	21	1000	.40
FCP301-24244	24 x 24 x 4	23-3/8 x 23-3/8 x 3-3/4	44	2000	.50
FCP301-12244	12 x 24 x 4	11-3/8 x 23-3/8 x 3-3/4	21	1000	.50

Values shown may be averages or estimates typical of product styles.
Contact factory for test data on specific models.



Guide Specifications

1.0 General

- 1.1 Activated carbon filters shall be FCP Carbon adsorbers as manufactured by Flanders.
- 1.2 Model numbers, sizes and capacities shall be as specified on the drawings.

2.0 Construction

- 2.1 Filters shall be constructed of a carbon filled polyester nonwoven media. Carbon granules shall be thermally bonded to polyester fibers to prevent release of carbon particulate into the air stream.

- 2.2 The carbon granules shall be 30 x 50 US Mesh with a carbon tetrachloride rating of 90%.

- 2.3 The carbon media shall be pleated without the use of a support structure and sealed within a 22 point moisture resistant beverage board frame.

3.0 Performance

- 3.1 The pressure drop and carbon content shall be as specified on the drawings.
- 3.2 The filter shall be capable of removing toluene at an efficiency of 90% at inlet concentration of 10 ppm and a filter face velocity of 500 fpm

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