#### THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# SuperFlow® VC

# **DISPOSABLE CARBON ADSORBER FILTERS**

- Total detention multi-panel design combines high adsorption efficiency with low pressure drop
- Entire cell is disposable, so installation is clean, quick and easy
- Adsorbers are suitable for both initial and retrofit applications, and in front or side access arrangements
- Gaseous contamination control can be applied to most HVAC air systems
- Impregnated carbons are available for control of difficult contaminants, such as H<sub>2</sub>S, acid gases, formaldehyde, ammonia, aldehydes, and amines

AAF Flanders SuperFlow VC disposable activated carbon adsorber filters are designed for gaseous contamination control in both new and existing HVAC systems. These filters have total detention capability, with all air passing through the carbon beds, and can help mitigate Indoor Air Quality (IAQ) problems in buildings where the air needs to be cleansed of gaseous contaminants.



#### Construction

SuperFlow VC adsorber filters consist of eight activated carbon-filled panels arranged in a V configuration and sealed with non-volatile adhesive into top and bottom injection molded ABS plastic end plates. The sealant completely eliminates bypass within the cell. The end plates incorporate a single header to position the cell in holding frames or side access housings.

Extruded aluminum vertical struts close off the panel edges in front and are aerodynamically designed to minimize airflow restriction and turbulence. Vertical steel rods on the downstream side provide rigidity and minimize twisting and racking. The activated carbon panels are constructed of one (25 mm) thick moisture-resistant corrugated kraft honeycomb grid. The honeycomb is filled with granular activated carbon held in place by fine mesh nylon screens glued to the grid. These screens act as a secondary prefilter, as well as an afterfilter.

The activated carbon media is premium HVAC grade virgin coconut shell granules with a minimum Carbon Tetrachloride (CTC) activity of 60% per ASTM D-3467. Granules are  $4 \times 8$  U.S. mesh size with a minimum apparent density of 0.49 g/mL.

## **Physical Data**

Top and bottom end plates: High strength ABS plastic

Vertical struts: Aerodynamically designed extruded aluminum

Vertical supports: Steel rods on downstream side

**Carbon panels:** Eight 1" (25 mm) moisture-resistant corrugated Kraft honeycomb grids filled with granular activated carbon media contained by fine mesh nylon screens on both air entering and leaving sides

**Panel sealant:** Non-volatile type applied along the entire periphery of the panel to eliminate air bypass

Activated carbon media: Virgin coconut shell base, 4 x 8 U.S. mesh size,

minimum 60% CTC activity

Operating limits: 150°F (65°C) and 95% RH, noncondensing



# SuperFlow® VC Filters

# **Applications**

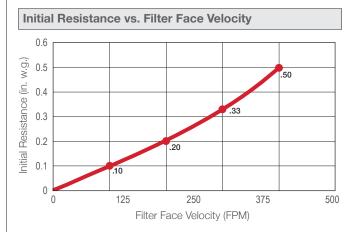
SuperFlow VC adsorber filters in HVAC airstreams can remove many gaseous contaminants thus mitigating the contaminants' effects on people and processes. These filters are especially useful in controlling common contaminants that cause poor IAQ in commercial and industrial buildings, such as office buildings and hospitals. Typical applications and controlled contaminants are: airports (SOx and NOx), blueprint facilities (ammonia), food processing (amines), loading docks (diesel fumes), museums (aldehydes and acid gases), office buildings (VOCs and aldehydes), and research facilities (animal odors).

Light duty IAQ applications can usually be handled by SuperFlow VC filters selected at 500 FPM (2.54 m/s) face velocity with a 0.030 second residence time. Medium and heavy duty applications include airports, engine exhaust, some industrial processes, and situations requiring impregnated carbon. For these applications, adsorbers should be selected at greatly reduced face velocities for a longer residence time.

#### **Product Information - Standard Sizes & Performance Data**

Adsorber Model Number1	Nominal Size (inches) (W x H x D) <sup>2</sup>	ADSORBER FACE VELOCITY, FPM												
		125 FPM			250 FPM			375 FPM			500 FPM			Cell Weight
		CFM	PD	Res	CFM	PD	Res	CFM	PD	Res	CFM	PD	Res	(lb.)
SFVC-242412	24 x 24 x 12	500	0.10	0.11	1000	0.20	0.050	1500	0.33	0.040	2000	0.50	0.030	34
SFVC-122412	12 x 24 x 12	250	0.10	0.11	500	0.20	0.050	750	0.33	0.040	1000	0.50	0.030	17

### **Performance Data**



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AAF Flanders has a policy of continuous product research and improvement and reserves the right to change design and specifications without notice.