

### General

Flanders Precisionaire Pureflo Terminal HEPA/ULPA Filter Modules are lightweight low profile ducted units. The mini-pleat filter packs are designed to provide uni-directional airflow from tee-bar ceilings. Pureflo modules are available in two sizes: nominal 24" x 24" and 24" x 48" with either 10" or 12" diameter inlet collars. They are available in two particle size efficiencies: 99.99% on .0.30  $\mu\text{m}$  and 99.9995% on 0.12  $\mu\text{m}$  and in three filter pack depths: 53, 70 and 100 mm

### Installation and Application

Pureflo Terminal HEPA/ULPA Filter Modules are recommended for use in ultraclean applications. They are ideal for fabrication of microelectronics, semiconductors, and medical devices, and in aerospace, biotech and pharmaceutical production.

Selection of the PF70 or PF100 models will help reduce operating costs because of their lower resistance and longer service life.

Clips on the module's top four corners are to be used to secure seismic restraint wires. Polyfoam gasket should be applied to the tee-bar surface on which the module will rest.

The standard face velocity range of 70 to 110 fpm is easily adjusted from the room side by a screwdriver operated damper. Static pressure and challenge aerosol measurements can be taken from a separate room side port. Standard construction allows the modules to be operated at a pressure drop of 2.0 inches w.g.

### Construction

The heart of the Pureflo module is a state-of-the-art minipleat filter pack sealed in an anodized extruded aluminum casing forming the sides of the module. The extruded aluminum center divider holds ports for in-room damper adjustment and measurement of the challenge aerosol. The one piece hood/inlet collar is made of aluminum and the inlet collar is dimpled to secure the flex duct retaining strap. A 20 ga. expanded steel white powder-coated face grille protects the media pack. Each module is scan-tested after assembly to meet or exceed IEST RP-1 requirements for a Type C or F filter.

Pureflo Modules are available with either nominal 10" or 12" diameter inlet collars. One inch thick foil-backed fiberglass insulation on the top and sides of the module is also available.

### Physical Data

**Media:** Water-resistant micro-fine fiberglass

**Filter Construction:** Separatorless minipleat

**Sealant:** Polyurethane

**Filter Frame:** Clearcoat-anodized extruded aluminum

**Top:** One-piece aluminum with dimpled inlet collar

**Damper:** Perforated aluminum, 14 ga.

**Protective Grille:** White powdercoat 20 ga. steel

**Center Divider:** Extruded aluminum rectangular tube

### Important Features

- Scan-tested after assembly to meet or exceed IEST RP-1 requirements for Type C and F filters
- Mini-pleat separatorless filter pack for a lightweight and low profile design
- Choice of three filter pack depths: 53, 70 and 100 mm (2.10, 2.76, and 3.96 inches)
- In-room air flow damper adjustment and challenge aerosol ports
- One-piece aluminum hood/inlet collar



Particle Size Efficiency %	Model Number	Actual Length L (inches)	Cfm Capacity at Gross Face Velocity, Fpm								
			PF53			PF70			PF100		
			70	90	110	70	90	110	70	90	110
99.99 on 0.30 $\mu\text{m}$	PF†-493-2424-*	23-5/8	280	360	440	280	360	440	280	360	440
	PF†-493-2448-*	47-5/8	560	720	880	560	720	880	560	720	880
	Clean Filter Filter Resist. (inch w.g)		.40	.50	.60	.33	.42	.50	.23	.30	.37
99.9995 on 0.12 $\mu\text{m}$	PF†-591-2424-*	23-5/8	280	360	440	280	360	440	280	360	440
	PF†-591-2448-*	47-5/8	560	720	880	560	720	880	560	720	880
	Clean Filter Resistance("w.g)		.55	.70	.85	.45	.58	.70	.33	.42	.50

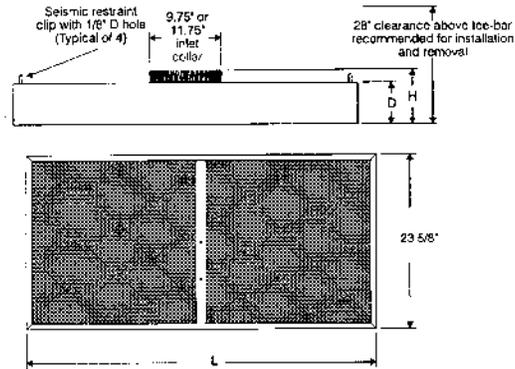
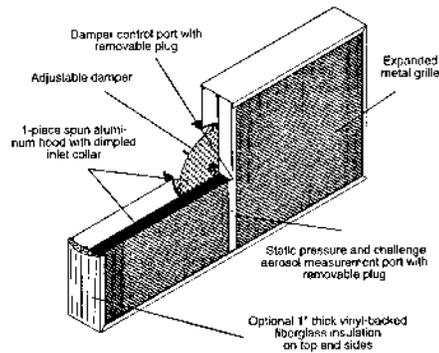
† Insert filter pack depth in mm: 53, 70, or 100

- \*Insert suffix 10 (nominal 10" collar) or 12 (nominal 12" collar). Add "G" to suffix to designate the insulation option.
- Tolerances: L and W: +0, -1/8" D: + - 1/8"
- Maximum operating conditions: 170° F, 100%RH

4. Modules are designed to UL 900 Class 2 requirements.

- Installed weight:

PF53	PF70	PF100	
2424:	20lbs.	25lbs.	27lbs.
2448:	35lbs.	40lbs.	43lbs.
- D = 5 3/4" (PF 53)      D = 7 3/4" (PF 70, PF 100)  
H = D + 2"



## Guide Specifications

### 1.0 General

- Terminal filter HEPA/ULPA Modules shall be Pureflo Model PF as manufactured by Flanders Precisionaire and shall be scan tested for leaks after assembly.
- Module sizes, pack depth, efficiencies and capacities shall be as scheduled on the drawings.

### 2.0 Module Construction

- The module filter pack shall be constructed of water-laid microfine fiberglass media containing a water-repellent binder. The media shall be formed into closely - spaced pleats held in position by adhesive bead separators.
- The filter pack shall be polyurethane-sealed into a clear coat - anodized extruded aluminum frame and rectangular tube section center divider.
- Module top/inlet collar shall be one-piece aluminum.

- The protective face grille shall be 20 ga. expanded steel finished in white powder coat paint.
- Provide an airflow damper adjustable from the room side and accessible through a port with a removable plug located in the center divider.
- Provide a separate port in the center divider that is open to the inlet side of the filter for measurement of static pressure and challenge aerosol concentration. The port shall be fitted with a removable plug.

### 3.0 Performance

- Initial and final resistances shall not exceed the scheduled values.
- The airflow damper shall be capable of regulating the module face velocity from 70 fpm to 110 fpm.
- Performance shall meet the requirements of IEST RP - 1 for Type C or F filters.

**Flanders Precisionaire**

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**Engineered Products: 1-800-637-2803**

**Replacement Products: 1-800-347-2220**

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