

AIRGUARD[®]

VARI+PLUS[®]

High Capacity Extended Surface Mini-Pleat Filters



ENGINEERING YOUR SUCCESS.

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The Vari+Plus extended surface air filter is another superior product in the Airguard family of rigid high efficiency products. The unique design of the Vari+Plus offers a wide range of dirt removal efficiencies coupled with extremely low resistance to air flow. The combination of these two values offers high performance filtration, long service life and low operating costs.

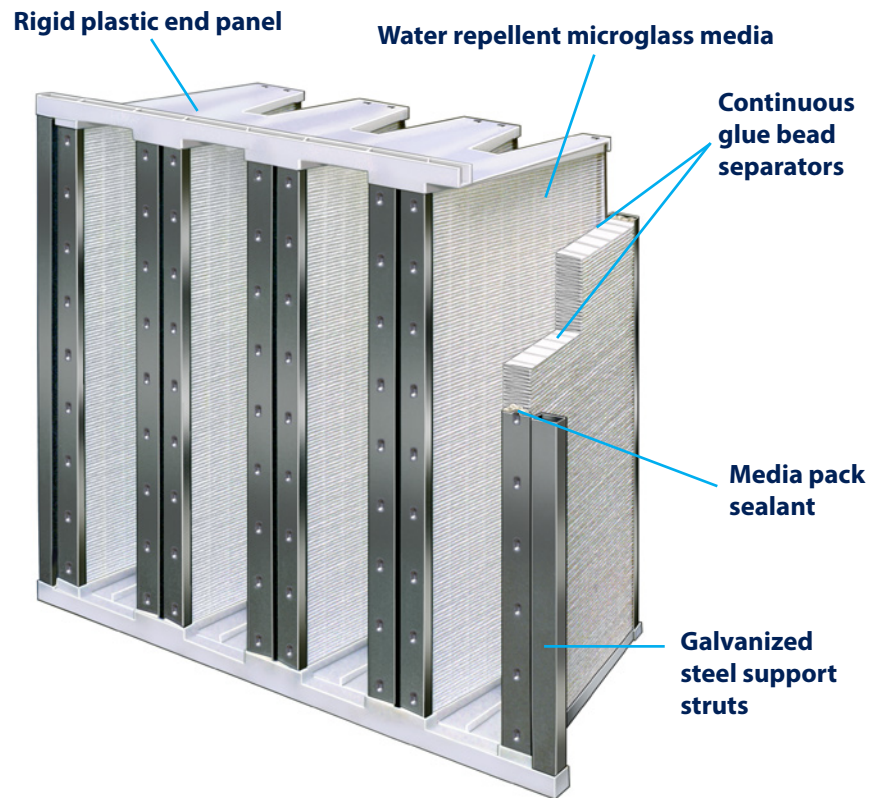
When compared to traditional rigid or cartridge style filters, the Vari+Plus provides between 40% and 300% more filter surface area, assuring long service life and economical operation.

The Vari+Plus is offered in four ASHRAE rated efficiencies -- 60-65%, 80-85%, 90-95% and 95%, plus 95% DOP. This broad range of performance provides the required level of clean air for virtually any application.

Design Construction and Energy Savings

The Vari+Plus is designed to handle large air flow volumes up to 3000 CFM per cell. In addition, the extremely low pressure drop, created by the high ratio of media to filter face area, results in **significant energy savings and low operating costs**. The leak free filter pack offers guaranteed removal efficiency with every unit produced. The filter is extremely strong and durable, yet light weight and easy to install. The pleat packs may be installed in the horizontal or vertical position. Burst pressure on the product exceeds 8.0" W.G.

The Vari+Plus filters are constructed with microglass fiber paper media. The depth loading media is formed into mini-pleats which are separated by continuous beads of thermo-setting adhesive. This design maintains uniform spacing between the pleats to assure even air flow and media pack rigidity throughout the life of the filter. Each mini-pleat pack is sealed within the heat resistant plastic end panels and galvanized steel support struts. The entire media pack is guaranteed leak free around the entire perimeter of the product.



The construction of the Vari+Plus assures a rigid, durable air filter product. Installation into existing framework is quite simple, as the perimeter header is secured by standard latches or clamping devices.

The Vari+Plus requires no rear support. It may also be inserted into side access housings with a 1" track.

Bio•Pure® Antimicrobial Treated Filters

Available with Antimicrobial Treatment

90-95% Bio-Pure Vari+plus filters are treated with an EPA registered antimicrobial agent to inhibit growth of bacteria, mold, mildew, and fungi on the media.

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Applications

The Vari+Plus is ideal for use in a wide range of installations. The product works extremely well in:

- Variable Air Volume (VAV) Systems
- Hostile Environments
- High Humidity Situations
- Turbulence
- High Volume Air Flow Systems
- Corrosive Atmospheric Conditions

Some of the prime considerations for selecting Vari+Plus extended surface air filters include:

- Automotive Manufacturing Facilities - Both as primary high efficiency filters for supply air in paint booths and as particulate removal units on VOC abatement systems.
- Hospitals and Health Care Institutions - The high efficiency and low operating costs make this a prime selection for these facilities where delivery of clean air is critical.
- Commercial Buildings - Where the need for improved indoor air quality is required.

Other typical installations for the Vari+Plus® include:

- Pharmaceutical Producers
- Electronics Industry
- Computer Rooms
- Laboratories
- Airports
- Sports Complexes, Arenas
- Power plants
- Compressor Intakes
- Film Producers
- Food Processing Plants
- Appliance Painting
- Shopping Complexes

The recommended temperature range for operation of Vari+Plus filters is 0° to 180°F. The product works well in applications with up to 100% relative humidity, and can withstand intermittent direct exposure to water. It is well suited for conditions from desert installations to sea side or coastal locations.

The recommended temperature range for operation of The Vari+Plus is a product of Airguard's extensive Research and Development efforts. As a world wide leader in air filtration, Airguard dedicates tremendous resources to research, design, and product development. Complete laboratory evaluation - both in house and independently certified - assure you of state-of-the-art design and reliable performance every time an Airguard product is installed.

Airguard's world class Quality Control Program assures every product is right - every time.

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Product Information and Specifications

Vari+Plus extended surface air filters are offered with four distinct ASHRAE efficiencies plus 95% DOP to meet virtually any air cleaning requirement.

All Vari+Plus filters are furnished in a compact twelve inch (12") nominal depth. Width and height dimensions are interchangeable.

Vari+Plus filters may be installed with pleat packs either vertical or horizontal.

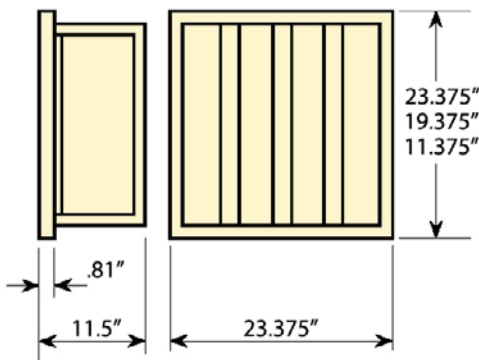


Double Header Model

Vari+Plus filters are available with double header construction. A header is attached to the top and bottom panels on the air leaving side of the filter.

Fully Enclosed Model

A fully enclosed model with metal cell sides (Vari+Plus MC) is also available.

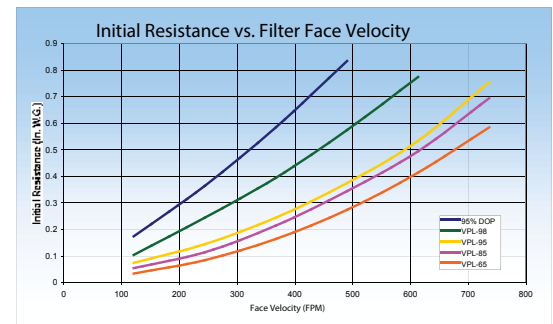


**Performance Table
Air Flow Data**

Nominal Size H x W x D	Capacity (CFM)			Recommended Final Resistance (In. W.G.)	Gross Media Area (Sq. Ft.)
	Standard @500 FPM	High @625 FPM	Maximum @750FPM		
24 x 24 x 12	2,000	2,500	3,000	1.5"	194
20 x 24 x 12	1,500	1,875	2,500	1.5"	162
12 x 24 x 12	1,000	1,250	1,500	1.5"	97

Resistance to Air Flow (Inches W.G.)

Model Designation	Average ASHRAE Efficiency	MERV Performance	Standard @500 FPM	High @625 FPM	Maximum @750 FPM
VPL-65	60-65%	11	.27	.41	.58
VPL-85	80-85%	13	.34	.48	.69
VPL-95	90-95%	14	.37	.51	.75
VPL-98	95%	16	.57	.77	N/R
VPL-95 DOP	95% (DOP)	16	.85	N/R	N/R



Performance data is per ASHRAE 52.2-2007 Test Method, based on a 24x24x12 filter size run at a test velocity of 492 FPM.

Operating Conditions: Temperature Range = 0°F to 180°F (82°C)
Rated Burst pressure – 8.0" W.G.

Underwriters Laboratories, Inc. Classification:
Vari+Plus filters are classified U.L. Class 2.

⚠ WARNING: This product can expose you to chemicals, including acrylonitrile, ethylbenzene, and nickel, which are known to the State of California to cause cancer, and chromium, which is known to the State of California to cause birth defects and other reproductive harm. For more information go to www.P65Warnings.ca.gov.



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