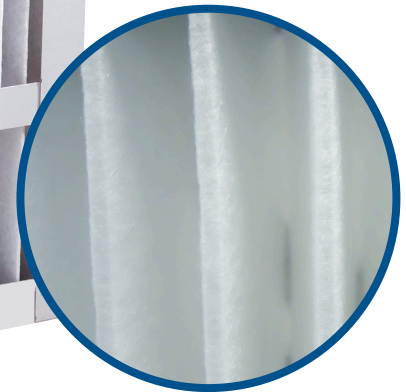




## **XTREME+Plus™**

MERV 8 *High-Capacity*

*Self-Supported Pleated Filters*



*Boxed Pleat Tips*

- *High-Capacity MERV 8, MERV-A 8-A*
- *New automated process delivers consistency and durability*
- *Durable, self-supporting synthetic media*
- *No metal, fully incinerable*
- *Die cut frame with interlocking corners for added strength*

# XTREME+Plus™

MERV 8 High-Capacity  
Self-Supported Pleated Filters

## Airguard Introduces XTREME+Plus MERV 8 . . .

Airguard is very pleased to announce the latest improvement in self-supported pleated filters – the XTREME+Plus™ MERV 8 high-capacity filters. The new XTREME+Plus is the result of the on-going commitment and investment Airguard is making to improve the science of air filtration and the quality and performance of its air filter products.

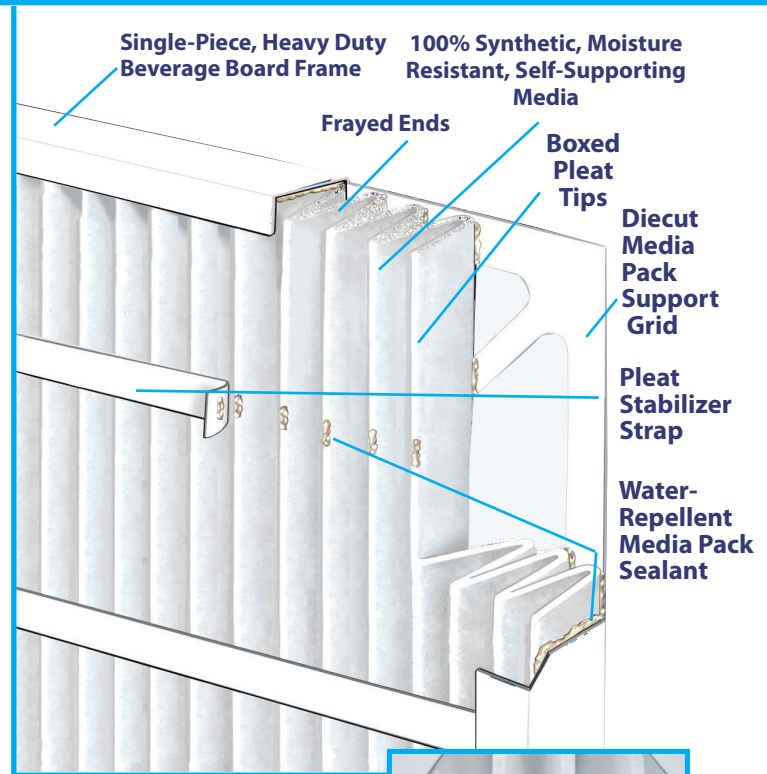


## Process Innovation, Design Excellence and Improved Media

Airguard's self-supporting media and innovative automated manufacturing process produces consistent pleat shape and spacing in each XTREME+Plus. This state-of-the-art media pack is surrounded by a single-piece, beverage board die cut frame, with structural integrity unlike any self-supported filter available today. The XTREME+Plus MERV 8 can endure impact and deformation and return to its original shape, ready for installation. That means you avoid the time and cost that are often wasted replacing damaged wire-backed filters.

## Seven-strap Die Cut

A seven-strap die cut is located on the air-leaving side of the XTREME+Plus MERV 8 providing



*Consistent pleat shape and spacing allow particulate to collect evenly over the entire surface of the media. Pleat stabilizer straps add rigidity and maintain proper pleat spacing.*



Boxed Pleat Tips

additional strength and durability to each filter. In combination, the boxed pleat tips provide more surface area and points of contact for the die cut to be securely glued to the media pack. As an example, the pleat tips are glued to the die cut at more than 250 points on a 24"x24"x2", XTREME+Plus MERV 8 high-capacity filter.

## 100% Adhesive Application Ensures Filter Strength

The inside of the die cut frame is completely coated with adhesive to ensure a solid bond at all points of contact with the media pack. The pack is sealed inside the frame and pleat tips are bonded to the stabilizers and diagonal support members.

## Water Repellent Adhesive

The sealant used to bond the frame to the media pack is highly water-repellent. That means that the filters

maintain structural integrity even when wet; no delaminating, excessive buckling, or collapsing.

### Uniformity of Pleats

The uniformity of pleat height and spacing ensures optimal performance throughout the useful life of every *XTREME+Plus* MERV 8 filter. The combination of the self-supporting media and the innovative, automated construction also means low resistance to airflow and cost-effective, environmentally responsible use of energy resources. Additionally, the consistent pleat spacing supports balanced loading, which maximizes the dust-holding capacity of the filter and promotes longer service life. Pleats will not bunch or collapse which can cause an increase in pressure drop and potential failure of the filter.

### 100% Synthetic Media Resists Moisture and Damage

*XTREME+Plus* MERV 8 media is a unique blend of synthetic fibers formed into a mat with high strength and stiffness characteristics. The inherent strength provides rugged durability in operation. The media stiffness, when matched to our automated process, allows totally consistent spacing of the pleats. Blended fiber construction

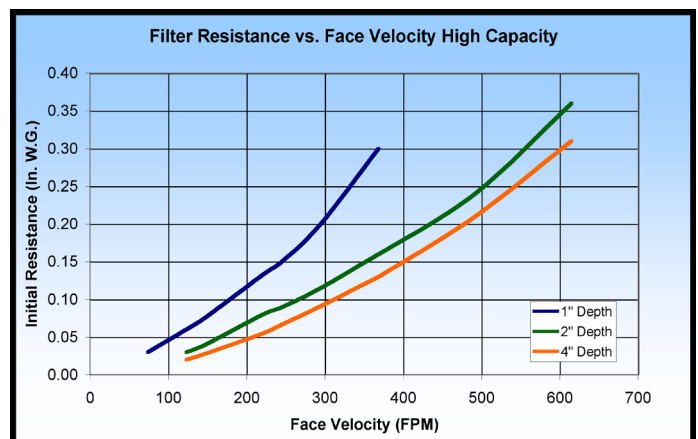
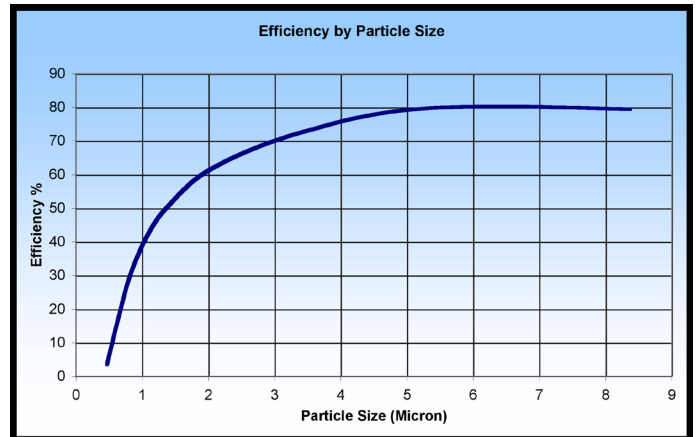


allows full depth loading which enhances dust-holding capacity. Media performance is not impacted by high humidity or moisture and the synthetic fibers do not support microbial growth.

*XTREME+Plus* MERV 8 media operates on mechanical filtration principles which cause particulate efficiency to increase as the media loads. No enhanced electrostatic charge is intentionally applied to the media.

### Applications

The *XTREME+Plus* MERV 8 is ideal for standard applications with normal airflows of 500 FPM or lower and medium dust-loading conditions. It is not recommended for applications with very high and/or turbulent airflows, higher operating temperatures or excessive dust-loading conditions. Contact your Airguard Sales Representative for assistance with application or technical issues.



# XTREME+Plus™

MERV 8 High-Capacity

Self-Supported Pleated Filters



## Technical Data:

Model Number	Nominal Size <sup>2</sup> Inches (WxHxD)	Actual Size Inches (WxHxD)	Rated Air Flow Capacity (CFM)	Initial Resistance (In. W.G)	Gross Media Area (Sq. Ft.) Standard
			1" 300 FPM 2" & 4" 500 FPM		
XPH-STD1-117	10X20X1	9-1/2 x 19-1/2 x 3/4	415	0.20	3.1
XPH-STD1-124	10X24X1	9-3/8 x 23-3/8 x 3/4	500	0.20	3.5
XPH-STD1-122	12X12X1	11-3/4 x 11-3/4 x 3/4	300	0.20	2.3
XPH-STD1-120	12X20X1	11-1/2 x 19-1/2 x 3/4	500	0.20	3.7
XPH-STD1-110	12X24X1	11-3/8 x 23-3/8 x 3/4	600	0.20	4.4
XPH-STD1-133	14X14X1	13-3/4 x 13-3/4 x 3/4	410	0.20	3.1
XPH-STD1-139	14X20X1	13-1/2 x 19-1/2 x 3/4	585	0.20	4.3
XPH-STD1-159	14X24X1	13-3/8 x 23-3/8 x 3/4	700	0.20	5.1
XPH-STD1-141	14X25X1	13-1/2 x 24-1/2 x 3/4	730	0.20	5.4
XPH-STD1-137	14X30X1	13-3/4 x 29-3/4 x 3/4	875	0.20	6.7
XPH-STD1-145	15X20X1	14-1/2 x 19-1/2 x 3/4	625	0.20	4.7
XPH-STD1-143	16X16X1	15-1/2 x 15-1/2 x 3/4	530	0.20	4.0
XPH-STD1-101	16X20X1	15-1/2 x 19-1/2 x 3/4	665	0.20	5.0
XPH-STD1-116	16X24X1	15-3/8 x 23-3/8 x 3/4	800	0.20	5.9
XPH-STD1-102	16X25X1	15-1/2 x 24-1/2 x 3/4	835	0.20	6.3
XPH-STD1-146	16X30X1	15-3/4 x 29-3/4 x 3/4	1000	0.20	7.7
XPH-STD1-163	18X18X1	17-3/4 x 17-3/4 x 3/4	675	0.20	5.2
XPH-STD1-180	18X20X1	17-3/8 x 19-1/2 x 3/4	750	0.20	5.6
XPH-STD1-112	18X24X1	17-3/8 x 23-3/8 x 3/4	900	0.20	6.8
XPH-STD1-185	18X25X1	17-1/2 x 24-1/2 x 3/4	936	0.20	7.1
XPH-STD1-103	20X20X1	19-1/2 x 19-1/2 x 3/4	830	0.20	6.2
XPH-STD1-166	20X22X1	19-3/4 x 21-3/4 x 3/4	915	0.20	7.1
XPH-STD1-111	20X24X1	19-3/8 x 23-3/8 x 3/4	1000	0.20	7.5
XPH-STD1-104	20X25X1	19-1/2 x 24-1/2 x 3/4	1040	0.20	7.8
XPH-STD1-132	20X30X1	19-1/2 x 29-1/2 x 3/4	1250	0.20	9.4
XPH-STD1-105	24X24X1	23-3/8 x 23-3/8 x 3/4	1200	0.20	9.1
XPH-STD1-153	24X30X1	23-3/4 x 29-3/4 x 3/4	1500	0.20	11.8
XPH-STD1-125	25X25X1	24-1/2 x 24-1/2 x 3/4	1250	0.20	10.0
XPH-STD2-217	10X20X2	9-1/2 x 19-1/2 x 1-3/4	700	0.24	6.1
XPH-STD2-220	12X20X2	11-1/2 x 19-1/2 x 1-3/4	840	0.24	7.5
XPH-STD2-210	12X24X2	11-3/8 x 23-3/8 x 1-3/4	1000	0.24	9.0
XPH-STD2-239	14X20X2	13-1/2 x 19-1/2 x 1-3/4	980	0.24	8.8
XPH-STD2-241	14X25X2	13-1/2 x 24-1/2 x 1-3/4	1220	0.24	11.0
XPH-STD2-245	15X20X2	14-1/2 x 19-1/2 x 1-3/4	1050	0.24	9.5
XPH-STD2-243	16X16X2	15-3/4 x 15-3/4 x 1-3/4	890	0.24	8.5
XPH-STD2-201	16X20X2	15-1/2 x 19-1/2 x 1-3/4	1120	0.24	10.2
XPH-STD2-216	16X24X2	15-3/8 x 23-3/8 x 1-3/4	1340	0.24	12.2
XPH-STD2-202	16X25X2	15-1/2 x 24-1/2 x 1-3/4	1400	0.24	12.6
XPH-STD2-263	18X18X2	17-3/4 x 17-3/4 x 1-3/4	1125	0.24	10.6
XPH-STD2-280	18X20X2	17-1/2 x 19-1/2 x 1-3/4	1250	0.24	11.4
XPH-STD2-212	18X24X2	17-3/8 x 23-3/8 x 1-3/4	1500	0.24	13.7
XPH-STD2-285	18X25X2	17-1/2 x 24-1/2 x 1-3/4	1570	0.24	14.3
XPH-STD2-203	20X20X2	19-1/2 x 19-1/2 x 1-3/4	1400	0.24	12.9
XPH-STD2-211	20X24X2	19-3/8 x 23-3/8 x 1-3/4	1670	0.24	15.1
XPH-STD2-204	20X25X2	19-1/2 x 24-1/2 x 1-3/4	1750	0.24	16.2
XPH-STD2-232	20X30X2	19-1/2 x 29-1/2 x 1-3/4	2085	0.24	19.5
XPH-STD2-205	24X24X2	23-3/8 x 23-3/8 x 1-3/4	2000	0.24	18.3
XPH-STD2-225	25X25X2	24-1/2 x 24-1/2 x 1-3/4	2170	0.24	20.5
XPH-STD4-410	12X24X4	11-3/8 x 23-3/8 x 3-3/4	1000	0.21	13.0
XPH-STD4-401	16X20X4	15-1/2 x 19-1/2 x 3-3/4	1120	0.21	14.9
XPH-STD4-402	16X25X4	15-1/2 x 24-1/2 x 3-3/4	1400	0.21	18.8
XPH-STD4-412	18X24X4	17-3/8 x 23-3/8 x 3-3/4	1500	0.21	19.7
XPH-STD4-403	20X20X4	19-1/2 x 19-1/2 x 3-3/4	1400	0.21	18.5
XPH-STD4-411	20X24X4	19-3/8 x 23-3/8 x 3-3/4	1670	0.21	22.2
XPH-STD4-404	20X25X4	19-1/2 x 24-1/2 x 3-3/4	1750	0.21	22.3
XPH-STD4-405	24X24X4	23-3/8 x 23-3/8 x 3-3/4	2000	0.21	26.5

### NOTES:

- MERV 8, MERV-A 8-A
- All performance data is based on the ASHRAE 52.2-2007 Test Standard. Tested at 492 FPM for a 24x24x2 or 24x24x4 size filter.
- Maximum final resistance 1.0" W.G.
- Filters may be installed with the pleats either vertical (preferred) or horizontal.

**Underwriters Laboratories, Inc.**  
**Classification:** XTREME+Plus filters are classified per U.L. 900 for flammability only.

**Operating Temperature Limits:** Maximum operating temperature is 150°F (65°C).

## SPECIFICATIONS

### 1.0 Scope

This specification covers self supported-pleated panel filters that are a component of heating, ventilating and air conditioning systems.

### 2.0 Construction

The filters shall consist of a self-supporting pleated media pack contained in a die cut beverage board frame.

### 2.1 Media

The media shall consist of 100% synthetic fibers.

### 2.2 Media Pack

The media shall be formed into uniformly shaped pleats with equal height measured from pleat apex to apex. The media pack shall be self-supporting, without the use of metal backing. The media pack shall maximize surface area to ensure adhesion with the stabilizer support straps and die cut diagonal support straps.

The media pack and die cut frame dimensions shall be equal to completely seal the pack inside the filter. The edges of the pack shall be roughed to allow complete adhesion to the frame.

### 2.3 Filter Frame

The pleated media pack shall be contained in a frame made from a single-piece of die cut beverage board

with high wet-strength characteristics. The die cut frame shall fully overlap around the entire perimeter of the filter. Diagonal support members shall provide support for the media pack on the air-leaving side.

The die cut frame shall interlock in the corners, providing additional strength and rigidity.

### 2.4 Media Pack Adhesive

The entire inside surface of the die cut frame shall be coated with a water-repellent adhesive to bond the pack inside the frame on all four edges. The pleat tips shall be bonded to the diagonal support members at all points of contact on the air-leaving side.

The adhesive shall be water-repellent and maintain its bonding characteristics when wet. The adhesive shall not soften or dissolve when the filter is wet.

### 3.0 Performance

#### 3.1 Filter Performance

The filters shall meet the following minimum performance requirements based on the ASHRAE 52.2-2007 test standard. Testing shall be performed at 295 FPM on 1" filters and 492 FPM on 2" and 4" filters.

#### 3.2 Maximum Operating Temperature

The maximum operating temperature for the filter shall be 150°F (65°C).

#### 3.3 Underwriters Laboratories Classification

The filters shall be classified per U.L. Standard 900 for flammability only.

**A-XTREME+PLUSHC-811**



[www.airguard.com](http://www.airguard.com)



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