



Type HD - Steel Type HS - Aluminum

Permanent Metal Washable Filters

- 1", 2" and 4" Thicknesses
- Rugged All Metal Construction
- Low Resistance
- Washable

Designed for Tough Applications

Airguard permanent metal filters are suitable for use in very difficult operating conditions including high velocity (up to 900 FPM), high temperature, high moisture, corrosive environments, oil or grease laden air.

Type HD - Steel

Media - The media consists of multiple layers of pleated and flat steel screen wire to provide an intricate maze of dirt catching surfaces. Multiple layers of media offer maximum filter surface area. Heavy gauge expanded metal grids on both sides protect the media and add rigidity to the filter construction.

Frame - The frame is made from a single piece of heavy gauge aluminum channel with mitered corners for extra strength. The frame is predrilled with holes to allow water to drain.

Type HS - Aluminum

Media - The media consists of multiple layers of pleated and flat aluminum screen wire to provide an intricate maze of dirt catching surfaces. Multiple layers of media offer maximum filter surface area. Heavy gauge expanded metal grids on both sides protect the media and add rigidity to the filter construction.

Frame - The frame is made from a single piece of 24 gauge galvanized steel channel with mitered corners for extra strength. The frame is predrilled with holes to allow water to drain.



Washable For Repeated Use

Permanent metal filters can be cleaned by flushing with a hose, washing in warm soapy water or steam cleaned. Allow filters to dry, then re-install. With proper care and handling, metal filters can provide years of dependable service.

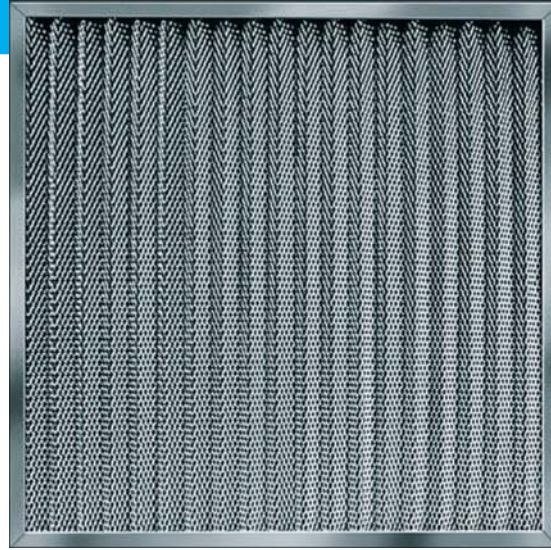
Both styles of filters are available with bail type lift handles.

Type HD - Steel • Type HS - Aluminum

Permanent Metal Washable Filters

Use Permanent Metal Filters Where Other Filters Won't Hold Up

- Very difficult operating conditions
- High velocity (up to 900 FPM)
- High temperature (up to 500° F)
- High moisture
- Rain / snow / sleet
- Corrosive environments
- Sparks
- Oil or grease
- Large, bulky contaminants



Standard Sizes

Nominal Size (Inches)	Actual Size (Inches)	Rated Air Flow Capacity (CFM) 1" @ 300 FPM 2", 4" @ 500 FPM	Rated Initial Resistance (In. W.G.) 1" @ 300 FPM 2", 4" @ 500 FPM
12 x 24 x 1	11 ³ / ₈ x 23 ³ / ₈ x ³ / ₄	600	.05"
16 x 20 x 1	15 ¹ / ₂ x 19 ¹ / ₂ x ³ / ₄	670	.05"
16 x 25 x 1	15 ¹ / ₂ x 24 ¹ / ₂ x ³ / ₄	840	.05"
20 x 20 x 1	19 ¹ / ₂ x 19 ¹ / ₂ x ³ / ₄	840	.05"
20 x 25 x 1	19 ¹ / ₂ x 24 ¹ / ₂ x ³ / ₄	1050	.05"
24 x 24 x 1	23 ³ / ₈ x 23 ³ / ₈ x ³ / ₄	1200	.05"
12 x 24 x 2	11 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	1000	.18"
16 x 20 x 2	15 ¹ / ₂ x 19 ¹ / ₂ x 1 ³ / ₄	1120	.18"
16 x 25 x 2	15 ¹ / ₂ x 24 ¹ / ₂ x 1 ³ / ₄	1400	.18"
20 x 20 x 2	19 ¹ / ₂ x 19 ¹ / ₂ x 1 ³ / ₄	1400	.18"
20 x 25 x 2	19 ¹ / ₂ x 24 ¹ / ₂ x 1 ³ / ₄	1750	.18"
24 x 24 x 2	23 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	2000	.18"
12 x 24 x 4	11 ³ / ₈ x 23 ³ / ₈ x 3 ³ / ₄	1000	.24"
16 x 20 x 4	15 ¹ / ₂ x 19 ¹ / ₂ x 3 ³ / ₄	1120	.24"
16 x 25 x 4	15 ¹ / ₂ x 24 ¹ / ₂ x 3 ³ / ₄	1400	.24"
20 x 20 x 4	19 ¹ / ₂ x 19 ¹ / ₂ x 3 ³ / ₄	1400	.24"
20 x 25 x 4	19 ¹ / ₂ x 24 ¹ / ₂ x 3 ³ / ₄	1750	.24"
24 x 24 x 4	23 ³ / ₈ x 23 ³ / ₈ x 3 ³ / ₄	2000	.24"

Arrestance:

1"	2"	4"
60 - 65%	65 - 70%	70 - 75%

Performance: Based on ASHRAE Standard 52.1 -1992. Tolerances conform to ARI Standard 850-93
Underwriters Laboratories Classification: Type HD and HS filters are U.L. Standard 900
Continuous Operating Temperature Limit: 500° F (260° C)

A-PERMMETAL-609



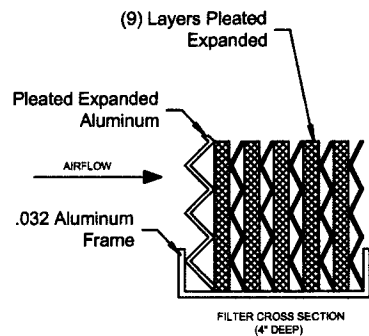
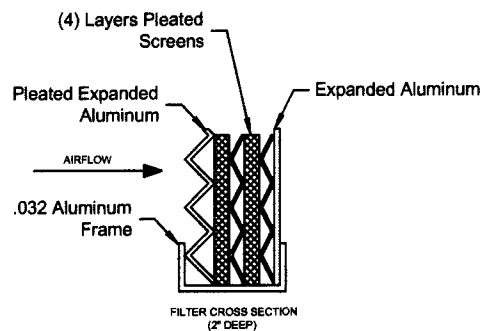
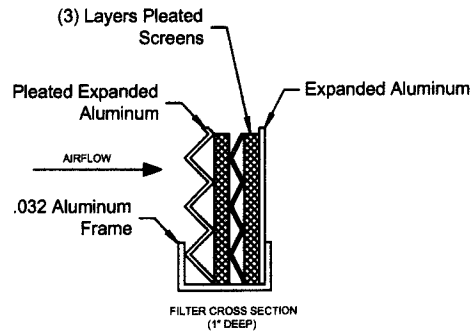
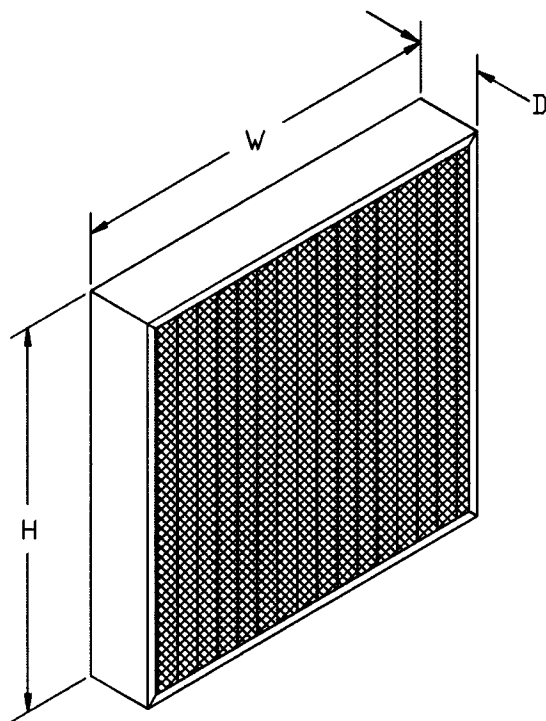
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Model Number	Nominal Size (Inches) W x H x D	Actual Size (Inches) W x H x D	Rated Air Flow (CFM)	Initial Resistance (IN W.G.)
HS110	12 x 24 x 1	11-3/8 x 23-3/8 x 13/16	600	.05
HS101	16 x 20 x 1	15-1/2 x 19-1/2 x 13/16	670	.05
HS102	16 x 25 x 1	15-1/2 x 24-1/2 x 13/16	840	.05
HS103	20 x 20 x 1	19-1/2 x 19-1/2 x 13/16	840	.05
HS104	20 x 25 x 1	19-1/2 x 24-1/2 x 13/16	1050	.05
HS105	24 x 24 x 1	23-3/8 x 23-3/8 x 13/16	1200	.05
HS210	12 x 24 x 2	11-3/8 x 23-3/8 x 1-7/8	1000	.18
HS201	16 x 20 x 2	15-1/2 x 19-1/2 x 1-7/8	1120	.18
HS202	16 x 25 x 2	15-1/2 x 24-1/2 x 1-7/8	1400	.18
HS203	20 x 20 x 2	19-1/2 x 19-1/2 x 1-7/8	1400	.18
HS204	20 x 25 x 2	19-1/2 x 24-1/2 x 1-7/8	1750	.18
HS205	24 x 24 x 2	23-3/8 x 23-3/8 x 1-7/8	2000	.18
HS410	12 x 24 x 4	11-3/8 x 23-3/8 x 3-7/8	1000	.24
HS401	16 x 20 x 4	15-1/2 x 19-1/2 x 3-7/8	1120	.24
HS402	16 x 25 x 4	15-1/2 x 24-1/2 x 3-7/8	1400	.24
HS403	20 x 20 x 4	19-1/2 x 19-1/2 x 3-7/8	1400	.24
HS404	20 x 25 x 4	19-1/2 x 24-1/2 x 3-7/8	1750	.24
HS405	24 x 24 x 4	23-3/8 x 23-3/8 x 3-7/8	2000	.24

STANDARD CONSTRUCTION

1. Aluminum Construction
2. (4) Drain Holes On Corners
3. Bail Handles Available As Option

NOTES

1. Rated Velocity
1" - 300 FPM
2" - 500 FPM
4" - 500 FPM
Maximum Velocity - 900 FPM
2. Average Arrestance per ASHRAE 52.1-1992
1" - 60-65%
2" - 65-70%
4" - 70-75%
3. Continuous Operating Temperature: 500 deg. F



ONE SOURCE
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AIR FILTRATION
PRODUCTS
P.O. Box 32578
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F: 502-961-0930

CONTACT FACTORY TO
VERIFY REVISION LEVEL

TOLERANCES
UNLESS OTHERWISE SPECIFIED

FRACTIONAL
DECIMAL
ANGLES

ALL DIMENSIONS IN INCHES

DRAWING NAME

TYPE HS ALUMINUM PERMANENT METAL

APPROVED BY

SPECIFICATION NO.

MKT-B-00380

PAGE

1 OF 1

SCALE

NONE

DWG. SIZE

A

REVISION

A

REVISION DATE

10-07-03

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TECHNICAL DATA

Prepared by the Airguard Research and Technical Center



a CLARCOR company

FILTER EFFICIENCY / APPLICATION GUIDELINES

Filter Efficiency Ratings			Application Guidelines		
MERV Rating (ASHRAE Std. 52.2)	Dust Spot Efficiency (ASHRAE Std. 52.1)	Arrestance (ASHRAE Std. 52.1)	Typical Contaminant	Typical Applications	Typical Air Filter
1	<20%	<65%	>10.0 µm Particle Size Pollen Spanish moss Dust mites Sanding dust Spray paint dust Textile fibers Carpet fibers	Minimum filtration Residential Window air conditioners	Throwaway - Disposable fiberglass or synthetic panel filters Washable - Aluminum mesh, latex coated animal hair, or foam panel filters Electrostatic - Self charging (passive) woven polycarbonate panel filter
2	<20%	65-70%			
3	<20%	70-75%			
4	<20%	75-80%			
5	<20%	80-85%	3.0-10.0 µm Particle Size Mold Spores Hair spray Fabric protector Dusting aids Cement dust Pudding mix Snuff Powdered milk	Commercial buildings Better residential Industrial workplaces Paint booth inlet air	Pleated Filters - Disposable, extended surface, 25 to 125 mm (1 to 5 in.) thick with cotton-polyester blend media, cardboard frame. Cartridge Filters - Graded density viscous coated cube or pocket filters, synthetic media Throwaway - Disposable fiberglass or synthetic panel filters
6	<20%	85-90%			
7	25-30%	>90%			
8	30-35%	>90%			
9	40-45%	>90%	1.0-3.0 µm Particle Size Legionella Humidifier dust Lead dust Milled flour Coal dust Auto emissions Nebulizer drops Welding fumes	Superior residential Better commercial buildings Hospital laboratories	Bag Filters - Nonsupported (flexible) microfine fiberglass or synthetic media. 300 to 900 mm (12 to 36 in.) deep, 6 to 12 pockets. Box Filters - Rigid style cartridge filters 150 to 300 mm (6 to 12 in.) deep may use lofted (air laid) or paper (wet laid) media.
10	50-55%	>95%			
11	60-65%	>95%			
12	70-75%	>95%			
13	80-90%	>98%	0.30-1.0 µm Particle Size All bacteria Droplet nuclei (sneeze) Cooking oil Most smoke Insecticide dust Copier toner Most face powder Most paint pigments	Hospital inpatient care General Surgery Smoking lounges Superior commercial buildings	Bag Filters - Nonsupported (flexible) microfine fiberglass or synthetic media. 300 to 900 mm (12 to 36 in.) deep, 6 to 12 pockets. Box Filters - Rigid style cartridge filters 150 to 300 mm (6 to 12 in.) deep may use lofted (air laid) or paper (wet laid) media.
14	90-95%	>98%			
15	>95%	n/a			
16	n/a	n/a			
n/a	n/a	n/a	≤0.30 µm Particle Size Virus (unattached) Carbon dust Sea salt All combustion smoke Radon progeny	Cleanrooms Radioactive materials Pharmaceutical manufacturing Carcinogenic materials Orthopedic surgery	HEPA/ULPA Filters ≥99.97% efficiency on 0.30 µm particles, IEST Type A ≥99.99% efficiency on 0.30 µm particles, IEST Type C ≥99.999% efficiency on 0.30 µm particles, IEST Type D ≥99.999% efficiency on 0.10-0.20 µm particles, IEST Type F
n/a	n/a	n/a			
n/a	n/a	n/a			
n/a	n/a	n/a			

Source: ASHRAE Standard 52.2 - 1999

TECHNICAL DATA

Prepared by the Airguard Research and Technical Center



CROSS REFERENCE OF FILTER EFFICIENCY CLASSES PER EUROPEAN STANDARDS EN 779 AND EN 1882

European Standard 779

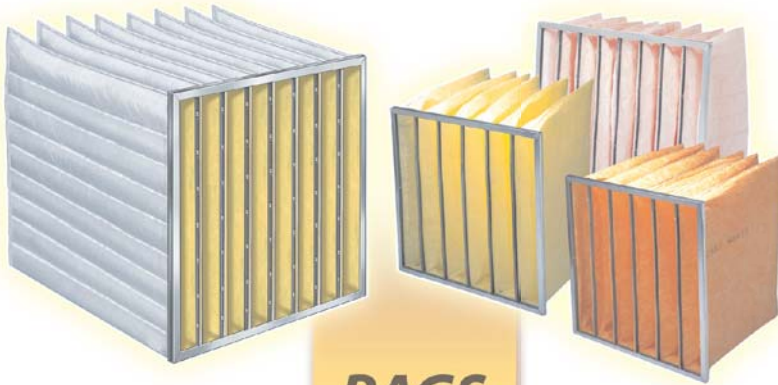
Filter Group	Filter Class	ASHRAE 52.1	
		Arrestance	Efficiency
G (Arrestance Filters)	G1	< 65%	-
	G2	65% < 80%	-
	G3	80% < 90%	-
	G4	≥ 90%	-
F (Dust Spot Efficiency Filters)	F5	-	40% < 60%
	F6	-	60% < 80%
	F7	-	80% < 90%
	F8	-	90% < 95%
	F9	-	≥ 95%

European Standard EN 1882

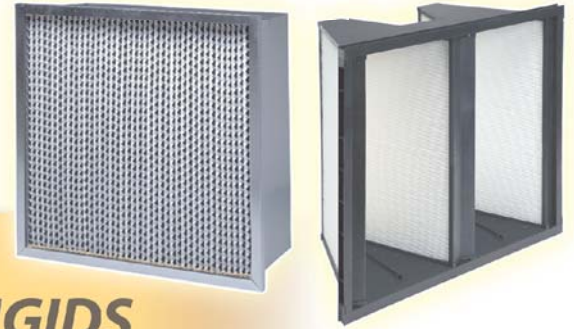
Filter Group	Filter Class	Efficiency on 0.3 microns
H (HEPA Filters)	H10	85.0%
	H11	95.0%
	H12	99.5%
	H13	99.95%
	H14	99.995%
Efficiency on 0.12 microns		
U (ULPA Filters)	U15	99.9995%
	U16	99.99995%
	U17	99.999995%



AIR FILTER SELECTION GUIDE



BAGS



RIGIDS



PLEATS



HEPA



CUSTOMS



FILTER SELECTION OPTIONS

HVAC Applications

Typical Applications	Type of Air Handling Equipment	Typical Air	
		Prefilters	Airguard Product Selection
Residential Apartments, Condominiums Single Family Homes	Room Air Conditioners Residential Furnace & Air Conditioning Units	Not Applicable	Not Applicable
Light Commercial, Industrial Hotels, Motels (Sleeping Rooms) Light Industrial Nursing Homes Schools (Classrooms) Small Office Buildings	Light Commercial Heating & Air Conditioning Units Packaged Terminal Air Conditioners Unit Ventilators Fan Coil Units	Not Applicable	Not Applicable
Commercial, Industrial, Institutional Airports Auditoriums Banks Bars, Cocktail Lounges Bowling Alleys Casinos Commercial Buildings Correctional Facilities Electric Utilities Food Processing Government Buildings Health Care Facilities Inpatient Care, Administrative, Sterile Processing, Food Processing, Storage, Soiled Holding Areas Hotels (Public Spaces) Industrial Plants - Offices, Plant Air Institutional Facilities Museums Residential (High Rise) Restaurants, Cafeterias Retail Stores, Super Markets Schools, Universities Sports Arenas, Gymnasiums Theaters Train Stations, Bus Depots Warehouses, Storage Areas	Rooftop Air Handling Units Central Station Air Handlers Built Up Frame Banks Side Access Housings	Disposable Panel Filters Pleated Panel Filters Filter Media & Frames Ring Panels, Links Poly Cube Filters Self-Supported Pocket Filters Extended Surface Pocket Filters (40%) Automatic Roll Filters	Triplex 85 Type DP, DP Max, PowerGuard, DP-g13reen Bio-Pure, StreamLine (Synthetic), Fiber Glass Series N, Bio-Pure, ULTRA II Syn-Pak Clean-Pak CP4, Venti-Pak VP-4 Fiber Glass, Synthetic,
Sensitive Processes Health Care Protective Environment Rooms, Airborne Infection Isolation Rooms, Surgical Suites Labs Microelectronics, Semiconductor Pharmaceutical Production Photo Film Research Facilities Universities	Rooftop Air Handling Units Central Station Air Handlers Built Up Frame Banks Side Access Housings	Disposable Panel Filters Pleated Panel Filters Filter Media & Frames Ring Panels, Links Poly Cube Filters Self-Supported Pocket Filters Extended Surface Pocket Filters (40%) Automatic Roll Filters	Triplex 85 Type DP, DP Max, Power Guard, DP-g13reen Bio-Pure, StreamLine (Synthetic), Fiber Glass Series N, Bio-Pure Syn-Pak Clean-Pak CP4, Venti-Pak VP-4 Fiber Glass, Synthetic,



Ducted Ceiling Modules

- Low profile design - only 5" deep
- Roomside adjustable diffuser
- Anodized extruded aluminum construction

Legacy High Efficiency Rigid Cell Extended Surface Filters

- Performance up to MERV 15
- Sustainable Component for a LEED/Green Building Initiative



MicroPleat™ HEPA, ULPA Filters

- 99.99%, 99.999%, 99.9995% efficiencies
- Mini-pleat media pack
- Anodized extruded aluminum cell sides
- All cell side configurations gasket seal, gel seal, knife edge



Microguard® HEPA, ULPA Filters

- 99.97%, 99.99%, 99.999% efficiencies
- Separator style media pack
- Wood or metal construction
- Individually tested



Filter Products		
	Final Filters	Airguard Product Selection
	Disposable Panel Filters Pleated Panel Filters (1") Polyurethane Foam Latex Coated Natural Fiber (Hog's Hair)	Triplex 85 Type DP, DP Max, PowerGuard, Poly Foam Permalast
	Disposable Panel Filters Pleated Panel Filters Ring Panel Filters Slip-Ons Filter Media & Frames	Triplex 85 Type DP, DP Max, PowerGuard, Bio-Pure, DP-green Series N, Bio-Pure Slip-Ons StreamLine (Synthetic), Fiber Glass
	Extended Surface Pocket Filters (50 - 90%) Extended Surface Rigid Cell Filters (60 - 95%)	Clean-Pak, Multi-Guard, Venti-Pak Variflow, Variflow SC, Variflow II, Variflow II-M, Variflow II-MC, Vari+Plus, Vari-Pak, Vari-Pak S, LEGACY 4" and 12", Bio-Pure
	Extended Surface Pocket Filters (50 - 90%) Extended Surface Rigid Cell Filters (60 - 95%) HEPA, ULPA Filters Disposable Ducted Ceiling Modules Replaceable Filter Ceiling Modules Fan / Filter Units	Clean-Pak, Multi-Guard, Venti-Pak Variflow, Variflow SC, Variflow II, Variflow II-M, Variflow II-MC, Vari+Plus, Vari-Pak, Vari-Pak S, Bio-Pure Microguard (Separator Style), MicroPleat (Mini Pleat) MicroPleat Micro+Plus MicroPleat



Purolator® Disposable Panel Filters

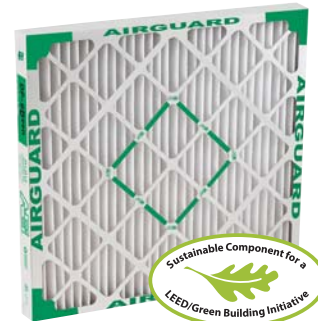
- Fiber glass and synthetic media
- High strength pinch frame construction
- Space saving nested packaging



Ring Panel Filters

- Select from four styles
- Tackified media for high dust holding capacity, long service life
- MERV 6 to 7

Mechanical
MERV
8



Type DP® and DP Max Pleated Panel Filters

- High wet strength beverage board frame
- Durable double wall construction
- MERV 8



DP-green Pleated Panel Filters

- LEED/Green Compliant
- 100% Synthetic Media
- MERV 13

PowerGuard® Pleated Panel Filters

- Highest initial and average efficiency with electrostatically enhanced, needled media
- MERV 11



Vari+Plus® VP High Capacity Rigid Cell Filters

- Mini-pleat media pack design for low resistance
- Rigid all plastic construction
- Dura-Tuff™ 100% synthetic media



ULTRA II

- Self-Supported Pocket Filters
- Cube style and multi-pocket models
- Durable, moisture resistant polyester media
- Outstanding service life



Variflow® High Efficiency Rigid Cell Filters

- Rigid cell design for difficult operating conditions
- Moisture resistant construction
- Three efficiencies



Clean-Pak™ Extended Surface Pocket Filters

- Sonic sealed or sewn pocket construction
- Best value in high efficiency filtration
- U.L. Class 1 and 2
- Five efficiencies



ALL PRODUCTS BROCHURE



No other air filter manufacturer has a broader line of products to meet the demanding needs of an increasingly complex market.

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The Industry Looks to Airguard for Leadership in Air Filtration Technology



Expert technical assistance.

Ask for an audit of your air filtration systems by a factory trained Airguard representative.



Worldwide distribution network.



State-of-the-art production facilities, including ISO-9001 Certification of the Jeffersonville, Indiana and Campellsville, Kentucky manufacturing complexes.



State-of-the-art research and testing facilities.



Airguard products...

can be found improving the quality of air around the world in hospitals, office buildings, industrial plants, laboratories, pharmaceutical facilities, schools, museums, sports arenas, residential complexes...and many more.

Other specialized products...

are used for gas turbine air intake systems, paint overspray collection, gas phase adsorption, lint, ink mist and grease collection.

No other manufacturer...

offers a broader line of products to meet your requirements for clean air and better indoor air quality backed by an experienced staff of technically qualified experts who know the air filtration business.

Our worldwide distribution network...

ensures Airguard products are available anywhere you need them.

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on products, pricing, performance, applications or technical assistance, contact your authorized Airguard representative.

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EFFICIENCY SELECTION GUIDE

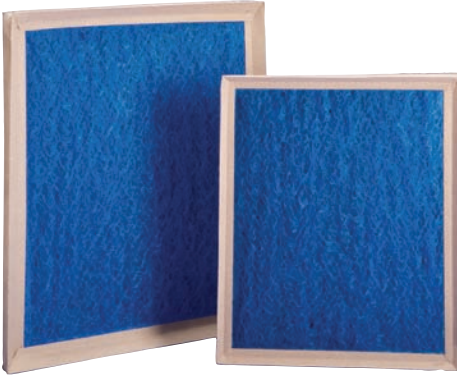
(1) Arrestance	(1)Efficiency	(2)MERV rating	Filter Type	Airguard Product Selection
60 - 80%	Less Than 20%	MERV 1 - 4	Disposable Panel Filters Permanent Metal Filters Fiberglass Media Latex Coated Natural Fiber Media Foam Media Automatic Roll Media	Disposables Types HS, HD Standard Grade Permalast® Foam Media Types CF, DSF
80 - 90%	Less Than 20%	MERV 5	Disposable Panel Filters Synthetic Media Automatic Roll Filter Media	Tri-Plex 85® StreamLine™ Polyester Media Types YTS, SHP, DMC, DL-1, DL-2
90 - 95%	20 - 30%	MERV 6 - 7	Self-Supported Pocket Filters Ring Panel Filters Pleated Panel Filters	Activator Series (2 Ply, 3 Ply), Series N, Bio•Pure® DP4-SA Bio-Pure®, XTREME+Plus™
95%	30 - 40%	MERV 7 - 8	Self-Supported Pocket Filters Ring Panel Filters Pleated Panel Filters	SynPak, Ultra II Bags, DPGT, DP40, DP40-Max XTREME+Plus, PowerGuard™ (MERV-11), DP Class 1, DPHT, Fresh Air™, Fresh Air™ Supreme
95 - 98%	40 - 50%	MERV 8 - 9	Extended Surface Pocket Filters	Venti-Pak® VP-4, Clean-Pak™ CP-4
95 - 98%	50 - 60%	MERV 9 - 10	Pleated Panel Filters Extended Surface Pocket Filters Extended Surface Rigid Cell Filters	DP-65 (MERV 11) Venti-Pak® VP-5, Clean-Pak™ CP-5 Vari-Pak®, Vari-Pak® Model S
99%	60 - 70%	MERV 10 - 11	Extended Surface Pocket Filters Extended Surface Rigid Cell Filters	Clean-Pak™ CP-6, Venti-Pak® VP-6 Bio-Pure® Variflow®, Variflow® SC, Variflow® Compact Series, Variflow® II-M, Variflow® II-MC, Vari+Plus®, Vari-Pak®, Vari-Pak® Model S, Bio-Pure®, V-Force®, Legacy®
99%	70 - 80%	MERV 12 - 13	Extended Surface Pocket Filters Pleated Panel Filters	Multi-Guard® MG-7 DP-g13een®
99%	80 - 90%	MERV 13 - 14	Extended Surface Pocket Filters Extended Surface Rigid Cell Filters	Clean-Pak™ CP-8, Venti-Pak® VP-8, Multi-Guard® MG-8, Bio-Pure® Variflow®, Variflow® SC, Variflow® Compact Series, Variflow® II-M, Variflow® II-MC Vari+Plus®, Vari-Pak®, Vari-Pak® Model S, Bio-Pure®, Legacy® 4", V-Force®
99%	90 - 95%	MERV 14 - 15	Extended Surface Pocket Filters Extended Surface Rigid Cell Filters	Clean-Pak™ CP-9, Venti-Pak® VP-9 Multi-Guard® MG-9, Bio-Pure® Variflow®, Variflow® SC, Variflow® Compact Series, Variflow® II-M, Variflow® II-MC, Vari+Plus®, Vari-Pak®, Vari-Pak® Model S, Legacy®, Bio-Pure®, XTREME+Plus™, V-Force®
Does not apply	95% DOP	MERV 16	Extended Surface Rigid Cell Filters	Microguard® 95, Vari+Plus®, Microguard® LR
Does not apply	99.97% 99.99% 99.999% 99.9995%	Not Applicable	HEPA/ULPA Filters	Microguard® 99, MicroPleat™

(1) Arrestance and Dust Spot Efficiency ratings are based on the ASHRAE 52.1 - 1992 test method.
(2) Minimum Efficiency Reporting Value (MERV) ratings are based on the ASHRAE 52.2 test method.

PANEL FILTERS

DISPOSABLE PANEL FILTERS

1/2", 1", 2" thicknesses



Disposable

Disposables

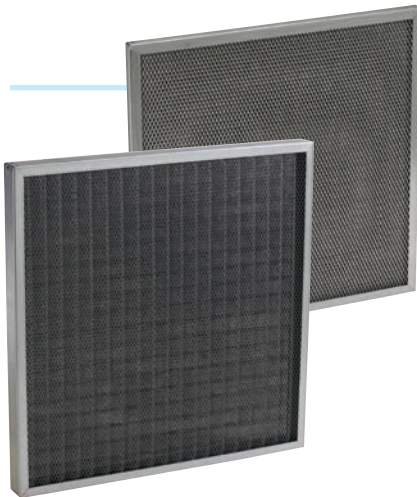
- Fiberglass and Synthetic media
- Pinch frame construction with scrim retainer
- 65 - 85% arrestance

Tri-Plex® 85

- Industrial Grade fiberglass media
- Die cut beverage board frame
- 75 - 80% arrestance

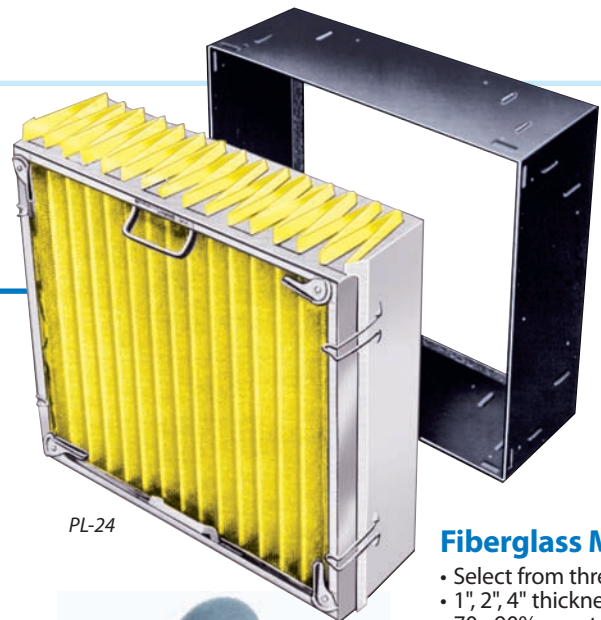


Tri-Plex 85



PERMANENT METAL FILTERS

- Type HD - Steel Construction
- Type HS - Aluminum Construction
- Washable for repeated use
- Ideal for high moisture or high velocity conditions
- 60 - 75% arrestance



PL-24

Fiberglass Medias

- Select from three grades
- 1", 2", 4" thicknesses
- 70 - 90% arrestance

SPECIALTY MEDIAS AND FILTERS

Select from a variety of medias and filters for specialized equipment or applications.

- Lint and ink mist collection
- Replacements for AAF PL-24
- Special application medias



Permalast® Media

- Synthetic fiber media
- 1/2", 1", 2" thicknesses
- Rigid, self-supporting
- Washable
- 50 - 65% arrestance



Foam Media

- 1/4", 1/2", 1" thicknesses
- Washable
- Operates at -50°F to 250° F
- 55 - 65% arrestance

PLEATED FILTERS

Widest variety of pleated filters available.
Choose from 18 different styles.



Type DP® 40/ DP Max Pleated Filters

- 1", 2", 4", 6" (only DP Max) thicknesses
- Die cut beverage board frame
- 100% Synthetic media
- 15.0 (DP40), 10.0 (DP Max) pleats per foot (2")
- Mechanical MERV 8



XTREME+Plus™ Pleated Panel Filters

- MERV 7 (Mechanical)
- 100% Synthetic Media
- Self Supported
- Damage Resistant
- No Metal
- Fully Incinerable



DP-green®

- 100% Synthetic Media
- 2" thickness
- 17.5 pleats per foot (2")
- LEED/Green Compliant
- MERV 13

PowerGuard™ Filter

- 1", 2", 4" thicknesses
- Die cut beverage board frame
- 100% synthetic media
- 14.3 pleats per foot (2")
- 35 - 40% efficiency, MERV 11



Type DPGT

Heavy Duty Pleated Filters

- Welded wire pleat support grid
- Pleat stabilizer fingers
- 2", 4" thicknesses
- 30 - 35% efficiency MERV 8

Type DP-65, DP-85, DP-95

High Efficiency Pleated Filters for low velocity applications

- 2", 4" thicknesses
- Die cut beverage board frame
- Ultrafine fiberglass media
- Three efficiencies
- 50 - 55%, 75 - 80%, 80 - 85%
- 4" DP-65 provides highest efficiency available in a pleated filter operating at 500 fpm (50 - 55%)



Type DPHT

High Temperature Pleated Filters

- Operates up to 500°F
- 1", 2", 4" thicknesses
- Aluminized steel frame and support grid
- Ultrafine fiberglass media
- 35 - 40% efficiency

Mist-Defier

High Moisture Pleats

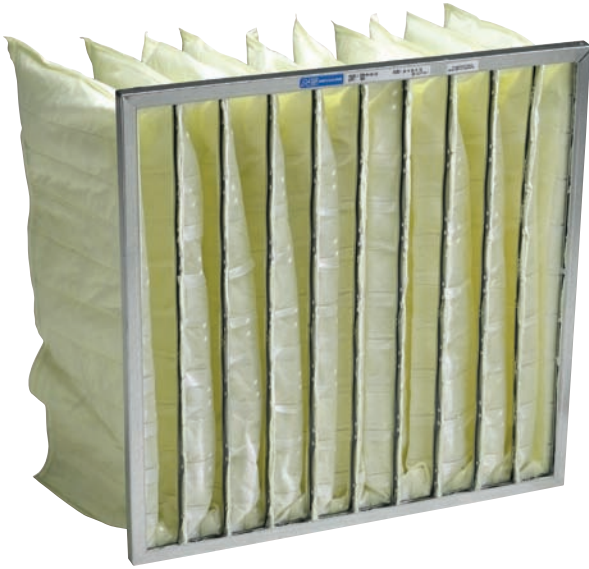
- Moisture resistant media and frame
- MERV 7

Type DP4SA

Side Access Filters

- Same construction as standard Type DP
- 4" thickness
- 1" header on top and bottom is designed for side access systems
- 25 - 30% and 35 - 40% (Power Guard) efficiencies

EXTENDED SURFACE POCKET FILTERS



Clean-Pak™ Pocket Filters

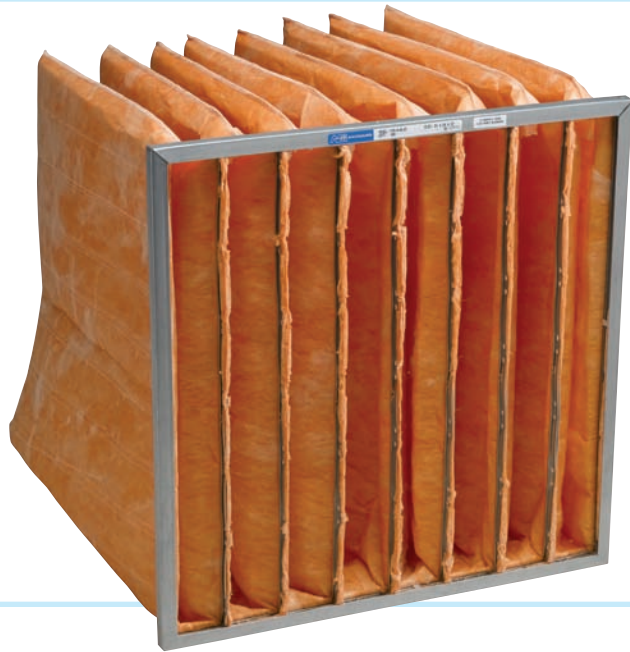
Dual layer microfine synthetic media

- Moisture resistant
- Wide variety of pocket lengths and counts
- Fail safe mechanically staked pocket attachment
- Sonic welded pocket construction
- Five efficiencies -
 - 90 - 95%, MERV 14
 - 80 - 85%, MERV 13
 - 60 - 65%, MERV 12
 - 50 - 55%, MERV 11
 - 40 - 45%, MERV 10
- Self-sealing models - (40 - 45%, 60 - 65%)
- U.L. Class 1 and Class 2

Venti-Pak® Pocket Filters

Ultrafine, high loft, microglass media

- Wide variety of pocket lengths and counts
- Fail safe mechanically staked pocket attachment
- Double lock stitched pocket formation
- Five efficiencies -
 - 90 - 95%, MERV 14
 - 80 - 85%, MERV 13
 - 60 - 65%, MERV 12
 - 50 - 55%, MERV 11
 - 40 - 45%, MERV 10

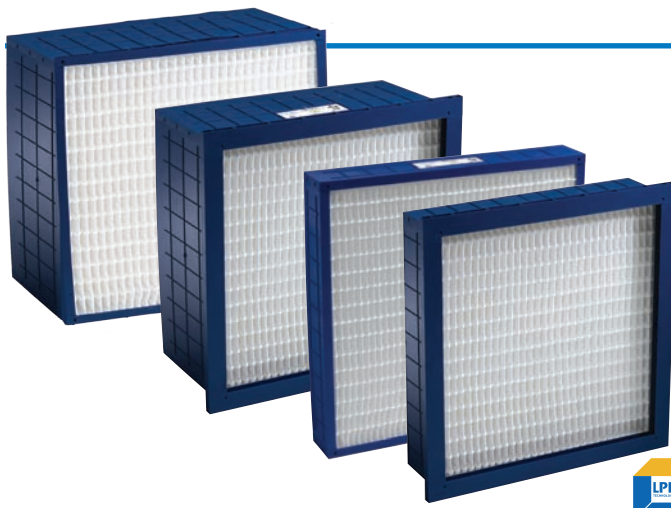


Multi-Guard® Pocket Filters

Next generation, microfine synthetic media

- Electrostatically enhanced - for higher initial efficiency
- Gradient density fiber structure - for higher dust holding capacity
- Three efficiencies -
 - 90 - 95%, MERV 15
 - 80 - 85%, MERV 13
 - 70 - 75%, MERV 12

EXTENDED SURFACE RIGID CELL FILTERS



- MERV 14 & 15 models meet the efficiency requirements required to contribute points toward a LEED/Green Building certification.
- Lower Energy Costs.

Legacy®

- Low Resistance
- High Efficiency
- High Dust Holding Capacity
- 4" MERV 11 & 14, 12" MERV 11 & 15
- 100% Synthetic Media
- Moisture Resistant
- Chemical Resistant
- All Plastic Construction
- Fully Incinerable
- Light Weight
- UL 900 Class 1

Patent #6,685,833 



V-Force®

- All Plastic Construction
- 100% Synthetic Media
- Moisture and Chemical Resistant
- Fully incinerateable
- Low Resistance
- Three efficiencies - 90 - 95%, (MERV 15)
- 80 - 85%, (MERV 13)
- 60 - 65%, (MERV 11)
- UL 900 Class 1



Vari-Plus® VP

- All plastic construction
- No metal components
- Dura-Tuff 100% synthetic media
- Fully incinerateable
- Suitable for selected corrosive or chemical environments
- Three efficiencies - 90 - 95%, (MERV 15)
- 80 - 85%, (MERV 13)
- 60 - 65%, (MERV 11)



Variflow®

Extended Surface Rigid Cell Filters

- Ultrafine microglass paper media
- Moisture resistant construction
- Single header, double header, no header models
- Metal and wood cell sides
- Corrugated aluminum separators
- High temperature models up to 900°F
- Three efficiencies - 90 - 95%, (MERV 14)
- 80 - 85%, (MERV 13)
- 60 - 65%, (MERV 11)

Variflow® SC

Same construction as Variflow, except less media



Vari-Pak®

Extended Surface Rigid Box Filters

- Ultrafine high loft microglass media
- Pleated construction with pleat stabilizers (fingers) on both sides
- Galvanized steel cell sides
- Box construction (no header) and header models
- Four efficiencies - 90 - 95%, (MERV 14)
- 80 - 85%, (MERV 13)
- 60 - 65%, (MERV 11)
- 50 - 55%, (MERV 10)

Vari-Pak® Model S

Same construction as standard Vari-Pak filters except made with dual layer, microfne synthetic media.

Vari-Plus®

High-capacity Extended Surface Mini-Pleat Filters

- Ultrafine microglass paper media
- Moisture resistant construction
- Continuous bead, mini-pleat adhesive separators
- V-bank assembly of mini-pleat media packs
- Large media area, low resistance
- Five efficiencies - 95% DOP, (MERV 16)
- 95%, (MERV 16)
- 90 - 95%, (MERV 14)
- 80 - 85%, (MERV 13)
- 60 - 65%, (MERV 11)

Vari-Plus® MC

Vari-Plus style mini-pleat media paks contained in galvanized steel cell sides.

HEPA FILTERS

SEPARATOR STYLE FILTERS



Microguard® LR

- 99%+ efficiency on 0.3 micrometer particles
- Available in High-Impact Plastic (HIPS) cell side model and in header box-style with metal sides
- U.L. Class 2
- E-pleat™ proprietary media
- Available in 4 sizes
- Standard dove-tail interlocking gasketing



Microguard®

- Wood and metal construction
- Gasket seal and gel seal models
- Wide variety of cell side configurations
- Corrugated aluminum separators
- Three efficiencies - 99.7%, 99.9%, 99.999% on .3 micrometers

Microguard® SC Series

Same media and construction as standard Microguard, except fewer pleat. 99.97% efficiency

Patent #6,685,833



MINI-PLEAT SEPARATOR STYLE FILTERS

MicroPleat™

- Ultrafine microglass paper media
- Anodized extruded aluminum cell sides
- Gasket seal, gel seal and knife edge models
- Continuous bead mini-pleat adhesive separators
- Five efficiencies - 99%, 97%, 99.99%, 99.999% on 0.3 micrometers; 99.999%, 99.9995% on .12 micrometers
- U.L. Class 1



HIGH CAPACITY HEPA FILTERS



Microguard Separator Style

- 500 fpm @ 1.35" W.G.
- 99.97%, 99.99% efficiencies

Micro-V 2000 Mini-Pleat Style

- 500 fpm @ 1.2" W.G.
- 99.97%, 99.99% efficiencies @ 500 fpm
- 99.999% efficiency @ 400 fpm

Micro-V 2400

- 600 fpm @ 1.35" W.G.
- 99.97% efficiency



CLEANROOM PRODUCTS



Disposable Ducted Ceiling Modules

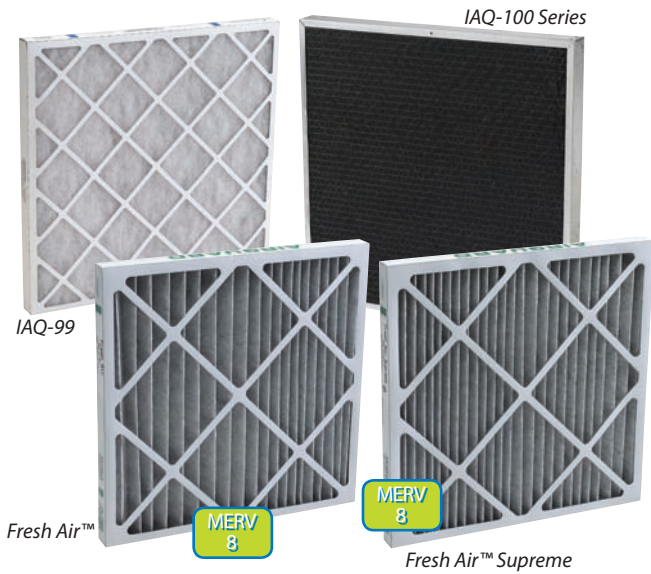
- Anodized extruded aluminum construction
- 2' x 2' and 2' x 4' sizes
- Low profile design - 5" deep. Fits into T-bar ceiling grid
- Adjustable diffuser/damper
- Five efficiencies - 99.7%, 99.99%, 99.999% on .3 micrometers; 99.9995% on .12 micrometers
- U.L. Class 1



Micro+Plus Room Side Replaceable Ceiling Modules

- Permanent housing with room side replaceable HEPA filter
- Ducted inlet design
- Low Profile - 7" deep

GAS PHASE ADSORBERS



Fresh Air™

- Combination 30 - 35%, MERV 8 pleated prefilter with activated carbon
- Die cut beverage board frame
- 1", 2", 4" thicknesses
- Self-supported media, no metal

Fresh Air™ Supreme

- Chemically enhanced carbon media
- Removes wider range of odors than standard activated carbon
- 30-35% efficiency, MERV 8
- Self-supported media, no metal

IAQ-99

- Combination polyester prefilter with bonded carbon fibers
- Available with die cut beverage board frame or pad design
- 1", 2" thicknesses

IAQ-100 Series

- Select from activated carbon, potassium permanganate or blended media
- Honeycomb carbon loading
- 25%, 50%, 75% and 100% fill
- Steel frame
- 3/8", 1", 2" thicknesses

IAQ-108

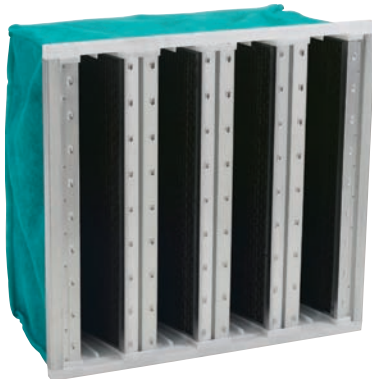
- Self-sealing panel construction
- Combination polyester prefilter with bonded carbon fibers

EXTENDED SURFACE FILTERS

Vari-Pure®

High Capacity Activated Carbon Filters

- Select from activated carbon, impregnated carbon, potassium permanganate or blended media
- Effective on wide variety of gases and odors
- Vari-Sock afterfilter prevents carbon dusting downstream
- 12" deep



Vari-Klean®

Ultra High Efficiency Carbon Adsorber

- Pleated media design increases carbon content
- Offers high first pass removal efficiency

REPLACEMENT TRAYS AND ELEMENTS

Available with activated carbon, potassium permanganate or blended media

Refillable Carbon Trays

- Wide variety of sizes to fit various manufacturers' housings
- Cold rolled steel frame

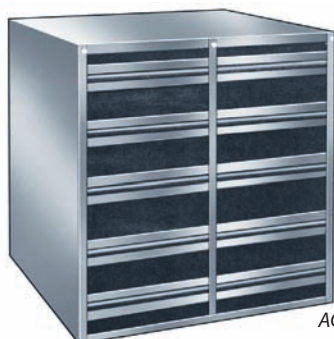
AG-12 Element

- Fits Purafil and Flanders housings
- Refillable design
- Contains 30 pounds of carbon

AG-18 Element

- Fits AG-22 and Purafil PC-22 housings
- Refillable and disposable models
- Contains 30 pounds of carbon

CARBON FILTER HOUSINGS



AG-2000

AG-2000 Front Access Housing

- 14 gauge cold rolled steel construction
- Easily removable access grid
- Contains 90 pounds of carbon (10 trays)



Side Access Housing

Side Access Housings

- 16 gauge steel construction
- Adaptor flanges to match up with air handling units
- 2" prefilter or after filter track

AG-14 Carbon Housing

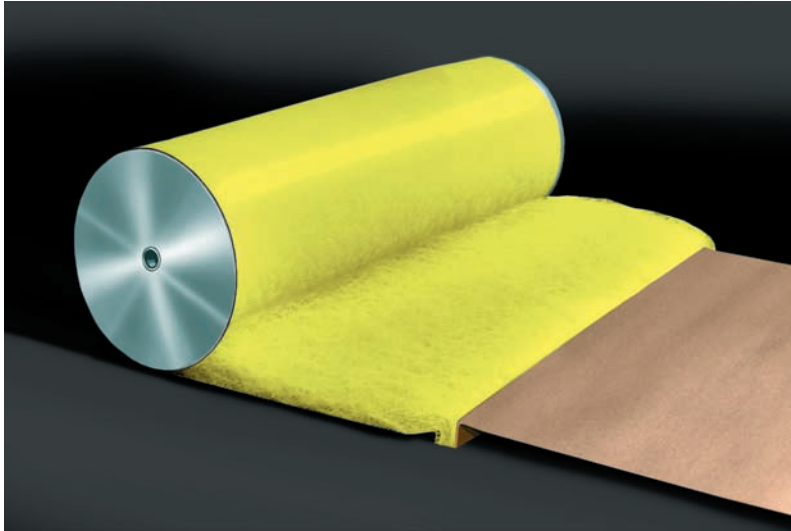
- 16 gauge cold rolled steel construction
- Holds four IAQ-100 carbon panels
- Built-in prefilter and final filter tracks
- Contains 48 pounds of carbon

AG-22 Carbon Housing

- 16 gauge cold rolled steel construction
- Holds four AG-18 carbon elements
- Contains 72 pounds of carbon

AUTOMATIC ROLL FILTER MEDIAS

Choose from seven styles of media to fit major brands of auto roll equipment, including:



Airguard, AAF, Air Maze, BLC, Cambridge, Carrier, Commercial, Continental, Farr, MSA, Trane.

FIBERGLASS MEDIAS

- Progressive density media construction
- 2-1/2" thick
- Scrim mesh netting backing for high tensile strength
- Adhesive coated for high dust holding capacity
- 70 - 90% arrestance

SYNTHETIC MEDIAS

- 1/2", 1" thicknesses
- Scrim mesh netting backing for high tensile strength
- Dry and tackified medias
- 70 - 90% arrestance

INTERNALLY SUPPORTED FILTERS

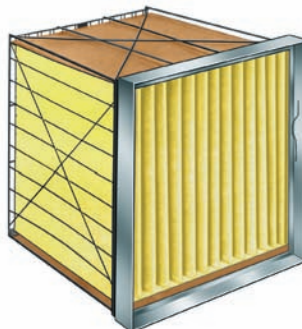
Designed for use with compatible wire basket retainers.



Series AG Filter Elements

For use in Farr HP Series systems

- Deep pleated media design
- Collapsible for compact shipping and storage
- Three depths - 8", 12", 24"
- Four efficiencies - 25 - 30%, 60 - 65%, 80 - 85%, 90 - 95%



ANTIMICROBIAL TREATED FILTERS

For improved IAQ applications to inhibit growth of microorganisms on the filters.

Bio-Pure® ...no other manufacturer has a broader line of antimicrobial treated filters than Airguard. Life cycle tests verify continued effectiveness over the life of the filter.

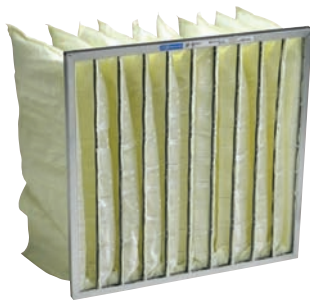


Bio-Pure® Pleated Panel Filters

- 1", 2", 4" thicknesses
- Available with 14.3 and 10 pleats per foot (2")
- 25 - 30% efficiency, MERV 6

Bio-Pure® High Efficiency Rigid Cell Supported Pleat Filters

- Ultrafine microglass paper media
- 90 - 95% efficiency
- Select from two styles of construction: Corrugated aluminum separators (above left) Continuous bead mini-pleat adhesive separators (V-bank media packs) (above right)



Bio-Pure® High Efficiency Extended Surface Pocket Filters

- Dual layer microfne synthetic media
- Wide variety of pocket lengths and counts
- Double lock stitched pocket formation
- Fail safe mechanically staked pocket attachment
- 90 -95%, 80 - 85%, 60 - 65% efficiencies



Bio-Pure® High Efficiency Rigid Cell Box Filters

- Dual layer microfne synthetic media
- Pleated media design with pleat stabilizers on both sides
- 90 -95%, 80 - 85% efficiencies

PAINT SPRAY BOOTH FILTERS

Complete line of air filters for paint spray booth applications.



INTAKE PANEL FILTERS

- Self-sealing - No latches required
- Internal wire support frame
- Tackified for high particle retention
- 90 - 95% arrestance

Activator Series - 2-Ply or 3-Ply media construction

Activator Series



ATI-600



ATI-300

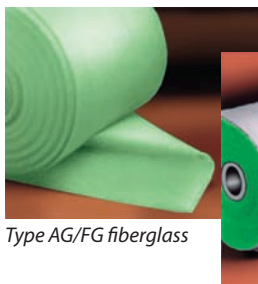
DIFFUSION MAX

ATI-600

- Dual layer media construction with scrim backing
- Internal wire support frame

ATI-300

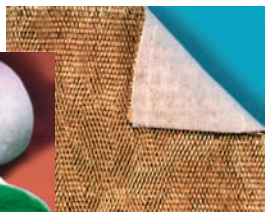
- Dual layer media construction with scrim backing
- Internal wire support frame



Type AG/FG fiberglass



Stackguard



Poly backed paper

PAINT ARRESTOR MEDIAS

Select from a wide variety of paint overspray collection medias

- Fiberglass
- Stackguard® polyester backed fiberglass
- Type AG/PS polyester
- Expanded paper
- Polyester backed expanded paper



**RING PANELS, SELF-SUPPORTED
POCKET FILTERS & POLYESTER MEDIA**



RING PANELS, LINKS, SLIP-ONS

The Activator™ Series
Select from 2-ply and 3-ply models

- 2-Ply - MERV 6
- 3-Ply - MERV 7
- Self sealing, no latches required
- Tackified media
- Made from tough, polyester fibers

Slip-On Panel



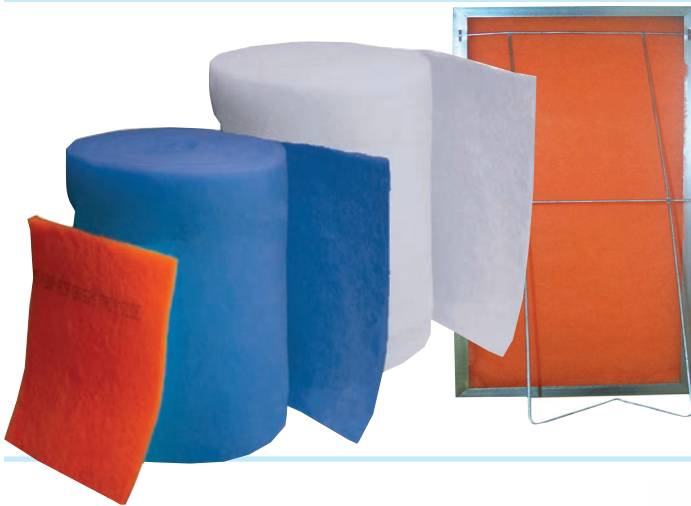
2-ply, MERV 6

3-ply, MERV 7



StreamLine™ Polyester Medias

- Select from three choices of medias - 1/2", 1", 2" thicknesses
- Made from multi-denier, recycled polyester fibers
- Tackifier increases particle retention
- 85 - 95% arrestance



SynPak

- Three ply media construction
- 15" deep, 2, 3 or 4 pockets.
- 35 - 40% efficiency, MERV 8



Ultra II

- Air Flow 150 FPM
- Initial Static .05" W.G.
- Average Paint Spray Removal Efficiency 99.70%
- Pads and Blankets cut to size
- Bags available in two and three pocket models



Bio-Pure® Polyester Media

- 1/2", 1", 2" thicknesses
- Made from recycled polyester fibers
- Available in pads and bulk rolls
- Tackified media
- 85 - 90% arrestance



Bio-Pure® Ring Panels and Links

- 2-ply media construction
- Self-sealing, no latches required
- Tackified media
- 85 - 90% arrestance, MERV 6



REPLACEMENT FILTERS FOR TURBOMACHINERY AIR INTAKE SYSTEMS

FINAL FILTERS FOR BARRIER FILTER SYSTEMS

PREFILTERS FOR BARRIR FILTER SYSTEMS



Type DPGT Pleated Panel Filters

- 100% synthetic fiber media
- Die cut beverage board frame
- 30 - 35% efficiency, MERV 8



Vari+Plus® VP

- All plastic construction
- No metal components
- No rivets, screws, faceguards or cross bars
- Dura-Tuff 100% synthetic media resists tearing, abrasion
- Chemical and corrosion resistant
- Fully incinerateable
- V-bank assembly of mini-pleat media packs
- Available with Vari-Pad direct mount pocket style prefilter
- 90 - 95% (MERV 15) and 60 - 65% (MERV 11) efficiencies



Duraflow®

- Ultrafine microglass paper media
- Corrugated aluminum separators
- Galvanized steel construction
- Faceguards on both sides
- 90 - 95%, 60 - 65% efficiencies

Filter Media Pads

- Fiberglass (2", 4")
- Synthetic (2")



Vari-Pak® GT

- High loft fiberglass or synthetic media
- Expanded metal pleat support
- Pleat support stabilizers on both sides
- 90 - 95%, 80 - 85%, 60 - 65% on both sides
- 90 - 95%, 80 - 85%, 60 - 65% efficiencies

HOLDING FRAMES & LATCHES



Uni-Lok® Filter Holding Frame

Uni-Lok® Filter Holding Frames

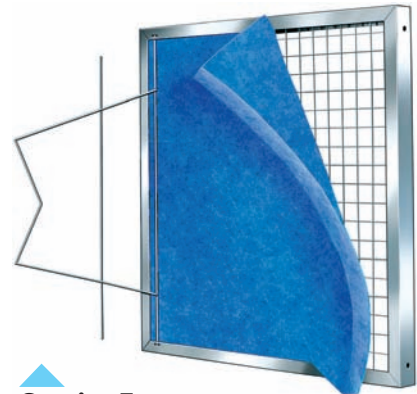
- 16 gauge galvanized steel
- Pre-punched mounting holes
- Factory applied gaskets
- Wide variety of latches to hold all types and sizes of filters

TYPE AG-8 Filter Holding Frames

- Replacement for Farr Type 8 frames and latches

TYPE HDS HEPA Holding Frame

- Creates high integrity seal for HEPA Installations
- 16 gauge aluminized steel construction
- Two depths - holds 5-7/8" or 11 - 1/2" deep filters
- Spring loaded clamping bolt



Service Frame

- Holds filter media pads
- Sized to fit inside Uni-Lok, Type AG-8 or other manufacturers' brands of filter holding frames
- 22 gauge galvanized steel frame
- 1/2", 1", 2" thicknesses
- Wire support grid - both sides

RESIDENTIAL AIR FILTRATION PRODUCTS

REPLACEMENT FILTERS FOR RESIDENTIAL AIR CLEANERS

- Trion Air Bear (MERV 8)
- Honeywell (MERV 8)
- Sizes to fit all major models



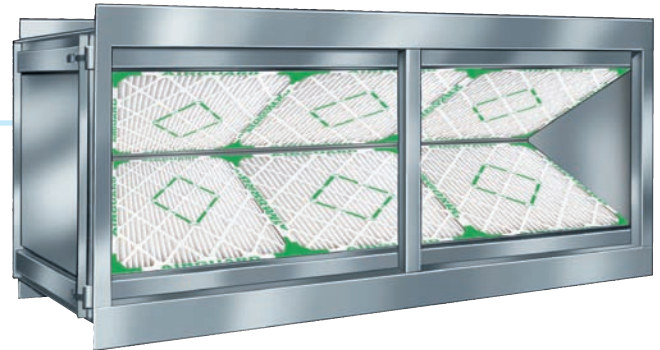
SIDE ACCESS HOUSINGS



Flat Bank Housing

Flat Bank Housings

- Single stage units
- Holds 2" or 4" thick filters
- 16 gauge aluminized steel construction



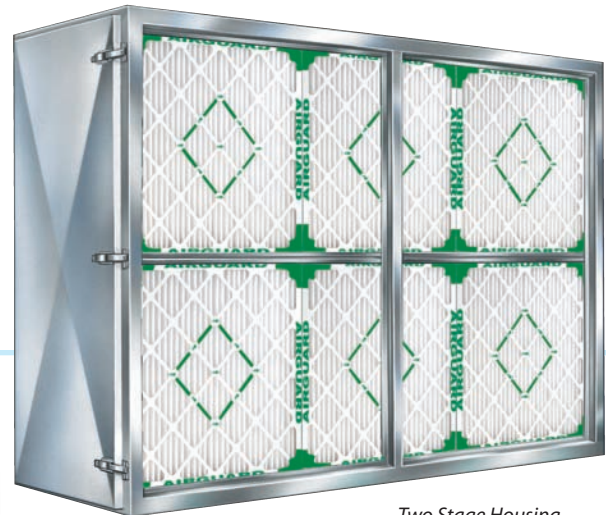
V-Bank Housing

V-Bank Housings

- V-bank filter arrangement
- Holds 2" thick filters
- 16 gauge aluminized steel construction
- Adaptor flanges for air handling units or ductwork arrangements

HEPA Lock Side Access Housing

- 16 Gauge aluminized steel construction
- 24" deep - holds 5-7/8" or 11-1/2" deep filters
- Lever action filter clamping mechanism



Two Stage Housing

Two Stage Housings

- Five depths - 12", 21", 26", 38", 42"
- 2" or 4" prefilter track with 1" track for header style final filter
- 16 Gauge aluminized steel construction
- Adaptor flanges for air handling units or ductwork arrangements



HEPA Lock Side Access Housing

INNOVATIVE CLEAN AIR SOLUTIONS



Airguard Products Providing Clean Air for People and Processes Worldwide...



Founded in 1964, Airguard has grown to be one of the world's foremost manufacturers of air filtration products for the commercial, industrial and institutional markets.

The basic premise on which the company was founded is to provide replacement filters for all types of HVAC systems. Whatever type of air filtration equipment is installed in your facilities, Airguard can provide a direct replacement or recommend alternatives for improved indoor air quality, lower cost and longer service life.

Airguard offers products in every category of air filters from disposable panel filters and pleated filters to high efficiency extended surface filters and HEPA filters. A wide variety of filters for specialized applications is also available, including paint overspray collection, lint and ink mist collection and gas phase adsorption.

No other air filter manufacturer has a broader line of products to meet the demanding needs of an increasingly complex market.

AG-ALL-1110



www.airguard.com



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