PREpleat® LPD HC

(Low Pressure Drop, High Capacity)

EXTENDED SURFACE PLEATED PANEL FILTERS

- Lowest initial resistance MERV 8 pleated filter in the industry
- High Dust Holding Capacity (DHC) for energy efficient performance
- · Ecologically friendly frame components made from recyclable materials
- Expanded metal grid maintains pleat shape during operation for full media utilization and high DHC
- Diagonal support members and wire-backed media contribute to overall strength of construction
- Filter media pack is bonded to the frame at all points of contact to eliminate air bypass
- MERV 8

Air filters are designed for dust holding. pressure drop and MERV rating. AAF Flanders' PREpleat LPD HC filter is the lowest initial resistance MERV 8 pleated filter in the industry. Combined with its high DHC, the PREpleat LPD HC filter provides an extended life cycle and energy efficient performance.



Superior Design and Construction

Media: 100% synthetic non-woven, proprietary media that can be recycled. Engineered with a gradient density composition that achieves a MERV 8 rating using the mechanical method of particle capture. Media does not rely on an electrostatic charge to capture particulate, since electrostatic charge dissipates over time.

Media Support: Expanded metal is continuously laminated on the air leaving side to provide pleat stability during operation. Pleat shape is maintained allowing full media utilization which maximizes DHC.

Pleat Design: V-Pleat design aids in pressure drop while reducing energy cost. Design allows for maximum airflow and DHC during the life of the filter.

Frame: Heavy-duty, two piece, moisture-resistant frame with diagonal support members. Frame is bonded to the media at all points of contact for unsurpassed frame strength. Interlocking corners and positive media-to-frame seal reduce the possibility of air bypass.

Operating Temperature Limits: Maximum operating temperature is 180°F (82°C).

Applications

The PREpleat LPD HC high capacity pleated panel filters are excellent prefilters and are best suited for heavy duty, commercial, industrial, pharmaceutical applications, as well as other industrial applications where high dust holding is required. PREpleat LPD HC filters can be installed in both front access holding frames and side access housings.



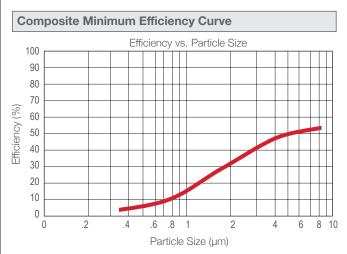


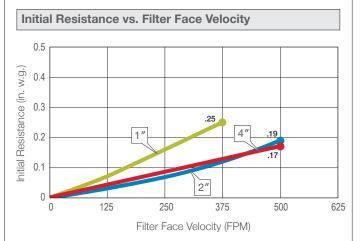
PREpleat® LPD HC Filters

Performance Data

	Pleats Per	Rated Initial Resistance (in. w.g.)		Recommended Final Resistance	ASHRAE 52.2	Continuous Operating	
Filter	Linear Foot	300 FPM	500 FPM	(in. w.g.)	MERV	Temperature Limits	
1" PREpleat LPD HC	15	.14	_	1.0	8	180°F (82°C)	
2" PREpleat LPD HC	15	.09	.19	1.0	8	180°F (82°C)	
4" PREpleat LPD HC	12	.09	.17	1.0	8	180°F (82°C)	

All performance data based on ASHRAE Standard 52.2. Performance tolerance conforms to Section 6.4 of ANSI/AHRI Standard 850-2013. **Underwriters Laboratories Classification** – PREpleat filters are UL Classified. Testing was performed according to UL Standard 900.



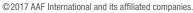


Product Information - Standard Sizes

Nominal Sizes (Inches) (W x H x D)	Actual Sizes (Inches) (W x H x D)		Rated Airflow (SCFM) 300 FPM 500 FPM 625 FPM			Gross Media Area
(WXHXD)	(WXHXD)	300 FPM	500 FPM	625 FPM	Filter	(sq. ft.)
12 x 24 x 1	11% x 23% x ¾	600	1000	-	14	3.7
14 x 20 x 1	13½ x 19½ x ¾	600	950	-	17	3.7
14 x 25 x 1	13½ x 24½ x ¾	750	1200	-	17	4.6
16 x 20 x 1	15½ x 19½ x ¾	650	1100	-	19	4.1
16 x 25 x 1	15½ x 24½ x ¾	850	1400	-	19	5.2
18 x 24 x 1	17½ x 23½ x ¾	900	1500	-	22	5.7
18 x 25 x 1	17½ x 24½ x ¾	950	1550	_	22	5.9
20 x 20 x 1	19½ x 19½ x ¾	850	1400	-	24	5.1
20 x 24 x 1	19½ x 23½ x ¾	1000	1650	-	24	6.2
20 x 25 x 1	19½ x 24½ x ¾	1050	1750	-	24	6.4
24 x 24 x 1	23% x 23% x ¾	1200	2000	-	29	7.4
25 x 25 x 1	24½ x 24½ x ¾	1300	2150	-	31	8.3
12 x 24 x 2	113/8 x 233/8 x 13/4	600	1000	1250	14	8.7
14 x 20 x 2	13½ x 19½ x 1¾	600	950	1150	17	8.6
14 x 25 x 2	13½ x 24½ x 1¾	750	1200	1500	17	10.8
16 x 20 x 2	15½ x 19½ x 1¾	650	1100	1400	19	9.6
16 x 25 x 2	15½ x 24½ x 1¾	850	1400	1750	19	12.0
18 x 24 x 2	17½ x 23½ x 1¾	900	1500	1900	22	13.3
18 x 25 x 2	17½ x 24½ x 1¾	950	1550	1950	22	13.8
20 x 20 x 2	19½ x 19½ x 1¾	850	1400	1750	24	12.0
20 x 24 x 2	19½ x 23½ x 1¾	1000	1650	2100	24	14.4
20 x 25 x 2	19½ x 24½ x 1¾	1050	1750	2150	24	15.0
24 x 24 x 2	23% x 23% x 1¾	1200	2000	2500	29	17.3
12 x 24 x 4	113/8 x 233/8 x 33/4	600	1000	1250	11	16.5
16 x 20 x 4	15½ x 19½ x 3¾	650	1000	1400	16	18.0
16 x 25 x 4	15½ x 24½ x 3¾	850	1400	1750	16	22.6
18 x 24 x 4	17½ x 23½ x 3¾	900	1500	1875	18	24.2
20 x 20 x 4	19½ x 19½ x 3¾	850	1400	1750	19	22.3
20 x 24 x 4	19½ x 23½ x 3¾	1000	1650	2100	19	24.0
20 x 25 x 4	19½ x 24½ x 3¾	1050	1750	2150	19	27.7
24 x 24 x 4	23% x 23% x 3¾	1200	2000	2500	23	28.8

Energy savings may be realized by operating the PREpleat LPD HC filters to a lower final resistance. Contact your local AAF Flanders representative for a Total Cost of Ownership analysis for your specific application.

PREpleat® is a registered trademark of Flanders Corporation in the U.S.









PREpleat® LPD SC (Low Pressure Drop, Standard Capacity)

EXTENDED SURFACE PLEATED PANEL FILTERS

- Low resistance MERV 8 media offering higher Dust Holding Capacity (DHC) than competitive capacity filters
- Ecologically friendly frame components made from recyclable materials
- Expanded metal grid maintains pleat shape during operation for full media utilization and high DHC
- Diagonal support members and wire-backed media contribute to overall strength of construction
- Filter media pack is bonded to the frame at all points of contact to eliminate air bypass
- MFRV 8

Air filters are designed for dust holding. pressure drop, and MERV rating. AAF Flanders' PREpleat LPD SC filter is the lowest initial resistance standard capacity MERV 8 pleated filter in the industry. Combined with its high DHC, the PREpleat LPD SC filter provides an extended life cycle and energy efficient performance.

Superior Design and Construction

Media: 100% synthetic non-woven, proprietary media that can be recycled. Engineered with a gradient density composition that achieves a MERV 8 rating using the mechanical method of particle capture. Media does not rely on an electrostatic charge to capture particulate, since electrostatic charge dissipates over time.

Media Support: Expanded metal is continuously laminated on the air leaving side to provide pleat stability during operation. Pleat shape is maintained allowing full media utilization which maximized DHC.

Pleat Design: V-Pleat design aids in pressure drop while reducing energy cost. Design allows for maximum airflow and DHC during the life of the filter.

Frame: Heavy-duty, two piece, moisture-resistant frame with diagonal support members. Frame is bonded to the media at all points of contact for unsurpassed frame strength. Interlocking corners and positive media-to-frame seal reduce the possibility of air bypass.

Operating Temperature Limits: Maximum operating temperature is 180°F (82°C).

Applications

The PREpleat LPD SC standard capacity pleated panel filters are suitable as prefilters but are best suited for heavy duty, commercial, industrial, pharmaceutical, as well as other industrial applications where high dust holding is required. The PREpleat LPD SC filters are suitable for installation in front access holding frames and side access housings.





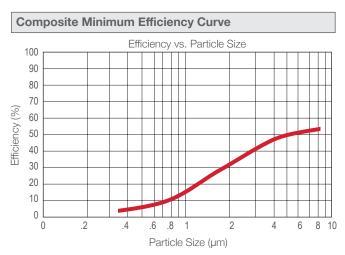
PREpleat® LPD SC Filters

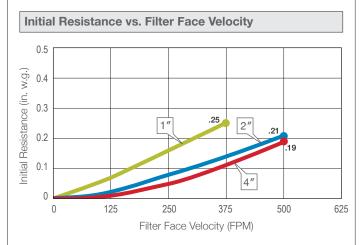
Performance Data

PREpleat SC	Pleats Per		Resistance w.g.)	Recommended Final Resistance	ASHRAE 52.2	Continuous Operating Temperature Limits	
Filter	Linear Foot	300 FPM	500 FPM	(in. w.g.)	MERV		
1" PREpleat LPD SC	13	.19	-	1.0	8	180°F (82°C)	
2" PREpleat LPD SC	10	.10	.21	1.0	8	180°F (82°C)	
4" PREpleat LPD SC	9	.07	.19	1.0	8	180°F (82°C)	

All performance data based on ASHRAE Standard 52.2. Performance tolerance conforms to Section 6.4 of ANSI/AHRI Standard 850-2013.

*Underwriters Laboratories Classification – PREpleat filters are UL Classified. Testing was performed according to UL Standard 900.





Product Information - Standard Sizes

Nominal Sizes (Inches)	Actual Sizes (Inches)	Ra	ated Airflo (SCFM)	W	Pleats Per	Gross Media Area
(W x H x D)	(W x H x D)	300 FPM	500 FPM	625 FPM	Filter	(sq. ft.)
12 x 24 x 1	113/8 x 233/8 x 3/4	600	1000	_	12	3.2
14 x 20 x 1	13½ x 19½ x ¾	600	950	-	15	3.3
14 x 25 x 1	13½ x 24½ x ¾	750	1200	-	15	4.1
16 x 20 x 1	15½ x 19½ x ¾	650	1100	-	17	3.7
16 x 25 x 1	15½ x 24½ x ¾	850	1400	-	17	4.6
18 x 24 x 1	17½ x 23½ x ¾	900	1500	_	19	4.9
18 x 25 x 1	17½ x 24½ x ¾	950	1550	-	19	5.2
20 x 20 x 1	19½ x 19½ x ¾	850	1400	-	21	4.5
20 x 24 x 1	19½ x 23½ x ¾	1000	1650	-	21	5.4
20 x 25 x 1	19½ x 24½ x ¾	1050	1750	-	21	5.7
24 x 24 x 1	23% x 23% x ¾	1200	2000	-	25	6.4
25 x 25 x 1	24½ x 24½ x ¾	1300	2150	-	26	7.2
12 x 24 x 2	11% x 23% x 1%	600	1000	1250	9	5.8
14 x 20 x 2	13½ x 19½ x 1¾	600	950	1150	11	5.8
14 x 25 x 2	13½ x 24½ x 1¾	750	1200	1500	11	7.2
16 x 20 x 2	15½ x 19½ x 1¾	650	1100	1400	13	6.7
16 x 25 x 2	15½ x 24½ x 1¾	850	1400	1750	13	8.4
18 x 24 x 2	17½ x 23½ x 1¾	900	1500	1900	14	8.7
18 x 25 x 2	17½ x 24½ x 1¾	950	1550	1950	15	9.0
20 x 20 x 2	19½ x 19½ x 1¾	850	1400	1750	16	8.2
20 x 24 x 2	19½ x 23½ x 1¾	1000	1650	2100	16	9.8
20 x 25 x 2	19½ x 24½ x 1¾	1050	1750	2150	16	10.2
24 x 24 x 2	23% x 23% x 1%	1200	2000	2500	20	11.5
12 x 24 x 4	11% x 23% x 3%	600	1000	1250	9	11.1
16 x 20 x 4	15½ x 19½ x 3¾	650	1000	1400	12	12.3
16 x 25 x 4	15½ x 24½ x 3¾	850	1400	1750	12	15.5
18 x 24 x 4	17½ x 23½ x 3¾	900	1500	1875	14	17.3
20 x 20 x 4	19½ x 19½ x 3¾	850	1400	1750	15	15.4
20 x 24 x 4	19½ x 23½ x 3¾	1000	1650	2100	15	18.6
20 x 25 x 4	19½ x 24½ x 3¾	1050	1750	2150	15	19.3
24 x 24 x 4	233/8 x 233/8 x 33/4	1200	2000	2500	18	22.3

Energy savings may be realized by operating the PREpleat LPD SC filters to a lower final resistance. Contact your local AAF Flanders representative for a Total Cost of Ownership analysis for your specific application.

PREpleat® is a registered trademark of Flanders Corporation in the U.S.













PREpleat® M11 HC (MERV 11 High Capacity)

EXTENDED SURFACE PLEATED PANEL FILTERS

- High efficiency with low initial resistance
- 100% synthetic recyclable high-loft media
- 2-piece heavy-duty die-cut frame
- · Expanded metal backing
- Double-wall frame
- Diagonal grid supports for maximum strength
- MERV 11

The PREpleat M11 HC pleated panel filter enables a significant upgrade in collection efficiency over existing MERV 8 products. A 25–30% average efficiency filter can be upgraded to 60–65% efficiency at roughly the same resistance levels, when this filter is utilized.



Superior Design and Construction

Media: Progressive density bi-component fibers.

Airflow Resistance on 24" x 24" x 2": 30" w.g. @ 2000 CFM (500 FPM)

Media Support: Diamond-shaped expanded metal.

Pleat Design: V-Pleat design aids in pressure drop while reducing energy cost. Design allows for maximum airflow and Dust Holding Capacity (DHC) during the life of the filter.

Frame: Moisture-resistant clay coated frame.

Bi-Component Media: Ultra-high performance bi-component synthetic media contains electrostatically engineered trilobal fibers within homogenous domains of positive and negative Electret charges. These Electret charges in the bi-component fibers contribute to an ultra-high performance product.

Enhanced Fibers: Electrostatically enhanced fibers are precisely structured into a progressive density gradient structure to enhance airflow throughput with less resistance while providing high DHC and ultra-high efficiency during operational life.

Gradient Media Structure: Proprietary gradient media structure enables larger incoming contaminants to be trapped in the prefilter layer, thus allowing the highly charged secondary layer to attract and hold smaller particulate. This increases the life of more expensive final filters downstream.

High Efficiency at Low Pressure Drop: This proprietary media, combined with AAF Flanders unique V-Pleat manufacturing design, equals the highest performance pleat available on the market today.







PREpleat® M11 HC Filters

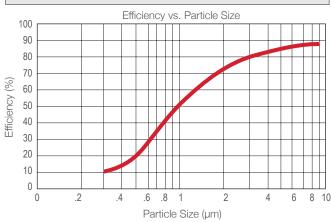
Performance Data

	Pleats Per		Rated Initial Resistance (in. w.g.)		ASHRAE 52.2	Continuous Operating	
Filter	Linear Foot	300 FPM	500 FPM	(in. w.g.)	MERV	Temperature Limits	
1" PREpleat M11 HC	15	.15	.38	1.0	11	180°F (82°C)	
2" PREpleat M11 HC	15	.13	.30	1.0	11	180°F (82°C)	
4" PREpleat M11 HC	13	.10	.23	1.0	11	180°F (82°C)	

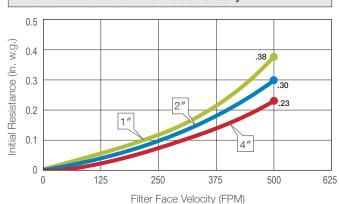
All performance data based on ASHRAE Standard 52.2. Performance tolerance conforms to Section 6.4 of ANSI/AHRI Standard 850-2013.

Underwriters Laboratories Classification – PREpleat M11 HC filters are UL Classified. Testing was performed according to UL Standard 900.

Composite Minimum Efficiency Curve



Initial Resistance vs. Filter Face Velocity



Energy savings may be realized by operating the PREpleat M11 HC filters to a lower final resistance. Contact your local AAF Flanders representative for a Total Cost of Ownership analysis for your specific application.

Product Information - Standard Sizes

Nominal Sizes (Inches)	Actual Sizes (Inches)	Ra	ated Airflo (SCFM)	W	Pleats Per	Gross Media Area
(W x H x D)	(W x H x D)	300 FPM	500 FPM	625 FPM	Filter	(sq. ft.)
10 x 10 x 1	9½ x 9½ x ¾	200	350	-	12	1.6
10 x 20 x 1	9½ x 19½ x ¾	400	700	-	12	3.0
12 x 20 x 1	11½ x 19½ x ¾	500	850	-	14	3.6
12 x 24 x 1	11% x 23% x ¾	600	1000	-	14	4.3
14 x 20 x 1	13½ x 19½ x ¾	600	950	-	17	4.2
14 x 25 x 1	13½ x 24½ x ¾	750	1200	-	17	5.3
15 x 20 x 1	14½ x 19½ x ¾	650	1050	-	18	4.4
16 x 20 x 1	15½ x 19½ x ¾	650	1100	-	19	4.9
16 x 25 x 1	15½ x 24½ x ¾	850	1400	-	19	6.1
18 x 24 x 1	17½ x 23½ x ¾	900	1500	-	22	6.8
18 x 25 x 1	17½ x 24½ x ¾	950	1550	_	22	6.5
20 x 20 x 1	19½ x 19½ x ¾	850	1400	-	24	6.7
20 x 24 x 1	19½ x 23½ 1¾	1000	1650	-	24	5.4
20 x 25 x 1	19½ x 24½ 1¾	1050	1750	-	24	7.3
24 x 24 x 1	23% x 23% x ¾	1200	2000	-	29	7.6
25 x 25 x 1	24½ x 24½ x ¾	1300	2150	_	30	8.9
10 x 20 x 2	9½ x 19½ x 1¾	400	700	850	12	6.2
12 x 20 x 2	11½ x 19½ x 1¾	500	850	1050	14	7.2
12 x 24 x 2	11% x 23% x 1%	600	1000	1250	14	8.6
14 x 20 x 2	13½ x 19½ x 1¾	600	950	1150	17	8.7
14 x 25 x 2	13½ x 24½ x 1¾	750	1200	1500	17	11.0
15 x 20 x 2	14½ x 19½ x 1¾	650	1050	1300	18	9.3
16 x 20 x 2	15½ x 19½ x 1¾	650	1100	1400	19	9.8
16 x 25 x 2	15½ x 24½ x 1¾	850	1400	1750	19	12.3
18 x 24 x 2	17½ x 23½ x 1¾	900	1500	1900	22	13.6
18 x 25 x 2	17½ x 24½ x 1¾	950	1550	1950	22	14.2
20 x 20 x 2	19½ x 19½ x 1¾	850	1400	1750	24	12.3
20 x 24 x 2	19½ x 23½ x 1¾	1000	1650	2100	24	14.8
20 x 25 x 2	19½ x 24½ x 1¾	1050	1750	2150	24	15.5
24 x 24 x 2	23% x 23% x 1%	1200	2000	2500	29	17.6
25 x 25 x 2	24½ x 24½ x 1¾	1300	2150	2700	30	19.0
12 x 24 x 4	113/8 x 233/8 x 33/4	600	1000	1250	11	16.5
16 x 20 x 4	15½ x 19½ x 3¾	650	1000	1400	16	18.0
16 x 25 x 4	15½ x 24½ x 3¾	850	1400	1750	16	22.6
18 x 24 x 4	17½ x 23½ x 3¾	900	1500	1875	18	24.2
20 x 20 x 4	19½ x 19½ x 3¾	850	1400	1750	19	22.3
20 x 24 x 4	19½ x 23½ x 3¾	1000	1650	2100	19	24.0
20 x 25 x 4	19½ x 24½ x 3¾	1050	1750	2150	19	27.7
24 x 24 x 4	233/8 x 233/8 x 33/4	1200	2000	2500	23	28.8
25 x 29 x 4	24½ x 28½ x 3¾	1500	2500	3150	24	38.4
28 x 30 x 4	27½ x 29½ x 3¾	1750	2900	-	27	42.6

PREpleat® is a registered trademark of Flanders Corporation in the U.S.













PREpleat® M13 (MERV 13)

EXTENDED SURFACE PLEATED PANEL FILTERS

- High efficiency with low initial resistance
- 100% synthetic recyclable high-loft media
- 2-piece heavy-duty die-cut frame
- · Expanded metal backing
- Double-wall frame
- Diagonal grid supports for maximum strength
- MERV 13

The PREpleat M13 pleated filter has a low initial resistance and supports achievement of LEED® credits by significantly improving Indoor Air Quality (IAQ) and reducing energy consumption.

The PREpleat M13 filter provides an initial efficiency of MERV 13 per ASHRAE Standard 52.2 at a resistance of only .20" w.g. (2" depth) when operating at airflow velocity of 375 FPM—and only 0.30" at 500 FPM.



Media: 100% non-woven synthetic media manufactured from recyclable material.

Media Support: Diamond-shaped expanded metal maintains maximum support while avoiding air bypass.

Pleat Design: V-Pleat design minimizes resistance, keeping consistent pleat count, height, and shape.

Frame: Heavy-duty two-piece moisture-resistant frame includes diagonal and horizontal support members bonded to the media on the air entering and leaving sides. This is a durable frame for any commercial and industrial application.

Operating Temperature Limits: Maximum operating temperature is 180°F (82°C).

Applications

PREpleat M13 filters are designed for general air filtration in all types of cooling, heating, and ventilating systems. They can be used as prefilters to extend the life of higher efficiency filters or on their own. They are suitable for installation in front access holding frames and side access housings. These filters are excellent for upgrading from disposable panel filters, permanent filters, or media pads in metal frames where a higher level of cleaning is desired.







PREpleat® M13 Filters

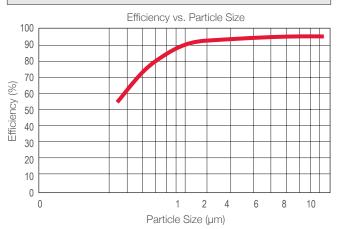
Performance Data

	Pleats Per	Rated Initial Resistance (in. w.g.)		Recommended Final Resistance	ASHRAE 52.2	Continuous Operating	
Filter	Linear Foot	300 FPM	500 FPM	(in. w.g.)	MERV	Temperature Limits	
1" PREpleat M13	15	.25	-	1.0	13	180°F (82°C)	
2" PREpleat M13	15	.16	.30	1.0	13	180°F (82°C)	
4" PREpleat M13	9	.10	.20	1.0	13	180°F (82°C)	

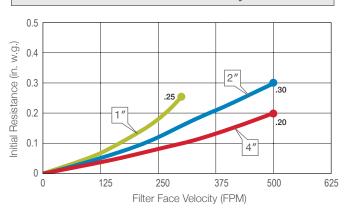
All performance data based on ASHRAE Standard 52.2. Performance tolerance conforms to Section 6.4 of ANSI/AHRI Standard 850-2013.

Underwriters Laboratories Classification – PREpleat M13 filters are UL Classified. Testing was performed according to UL Standard 900.

Composite Minimum Efficiency Curve



Initial Resistance vs. Filter Face Velocity



Energy savings may be realized by operating the PREpleat M13 filters to a lower final resistance. Contact your local AAF Flanders representative for a Total Cost of Ownership analysis for your specific application.

Product Information - Standard Sizes

Nominal Sizes (Inches)	Actual Sizes (Inches)	Ra	ated Airflo (SCFM)	W	Pleats Per	Gross Media Area
(W x H x D)	(W x H x D)	300 FPM	500 FPM	625 FPM	Filter	(sq. ft.)
10 x 20 x 1	9½ x 19½ x ¾	400	700	-	12	2.7
12 x 20 x 1	11½ x 19½ x ¾	500	850	-	14	3.1
12 x 24 x 1	11% x 23% x ¾	600	1000	-	14	3.7
14 x 20 x 1	13½ x 19½ x ¾	600	950	-	17	3.7
14 x 25 x 1	13½ x 24½ x ¾	750	1200	-	17	4.6
15 x 20 x 1	14½ x 19½ x ¾	650	1050	-	18	3.9
16 x 20 x 1	15½ x 19½ x ¾	650	1100	-	19	4.1
16 x 24 x 1	15½ x 23½ x ¾	800	1350	-	19	4.9
16 x 25 x 1	15½ x 24½ x ¾	850	1400	-	19	5.2
18 x 20 x 1	17½ x 19½ x ¾	750	1250	-	22	4.7
18 x 24 x 1 18 x 25 x 1	17½ x 23½ x ¾ 17½ x 24½ ¾	900 950	1500 1550	-	22 22	5.7
20 x 20 x 1	19½ x 24½ ¾ 19½ x 19½ ¾	850	1400	_	24	5.9 5.1
20 x 20 x 1	19½ x 19½ ¾	1000	1650	_	24	6.2
20 x 25 x 1	19½ x 24½ x ¾	1050	1750	_	24	6.4
24 x 24 x 1	23% x 23% x ¾	1200	2000	_	29	7.4
25 x 25 x 1	24½ x 24½ x ¾	1300	2150	_	31	8.3
10 x 20 x 2	9½ x 19½ x 1¾	400	700	850	12	6.1
12 x 20 x 2	11½ x 19½ x 1¾	500	850	1050	14	7.3
12 x 24 x 2	1138 x 2338 x 134	600	1000	1250	14	8.8
14 x 20 x 2	13½ x 19½ x 1¾	600	950	1150	17	8.5
14 x 25 x 2	13½ x 24½ x 1¾	750	1200	1500	17	10.6
15 x 20 x 2	14½ x 19½ x 1¾	650	1050	1300	18	9.1
16 x 20 x 2	15½ x 19½ x 1¾	650	1100	1400	19	9.7
16 x 24 x 2	15½ x 23½ x 1¾	800	1350	1650	19	11.2
16 x 25 x 2	15½ x 24½ x 1¾	850	1400	1750	19	12.2
18 x 20 x 2	17½ x 19½ x 1¾	750	1250	1500	22	10.9
18 x 24 x 2	17½ x 23½ x 1¾	900	1500	1875	22	13.1
18 x 25 x 2	17½ x 24½ x 1¾	950	1550	1950	22	13.7
20 x 20 x 2	19½ x 19½ x 1¾	850	1400	1750	24	12.2
20 x 24 x 2	19½ x 23½ x 1¾	1000	1650	2100	24	14.6
20 x 25 x 2	19½ x 24½ x 1¾	1050	1750	2150	24	15.2
24 x 24 x 2	23% x 23% x 1%	1200	2000	2500	29	17.5
25 x 25 x 2	24½ x 24½ x 1¾	1300	2150	2700	31	19.0
12 x 24 x 4	11% x 23% x 3%	600	1000	1250	9	11.3
16 x 20 x 4	15½ x 19½ x 3¾	650	1100	1400	12	12.5
16 x 25 x 4	15½ x 24½ x 3¾	850	1400	1750	12	15.6
18 x 24 x 4	17½ x 23½ x 3¾	900	1500	1875	14	17.5
20 x 20 x 4	19½ x 19½ x 3¾	850	1400	1750	15	15.6
20 x 24 x 4	19½ x 23½ x 3¾	1000	1650	2100	15	18.8
20 x 25 x 4	19½ x 24½ x 3¾	1050	1750	2150	15	19.6
24 x 24 x 4	23% x 23% x 3%	1200	2000	2500	18	22.6
28 x 30 x 4	27½ x 29½ x 3¾	1750	2900	_	21	32.6

PREpleat® is a registered trademark of Flanders Corporation in the U.S.









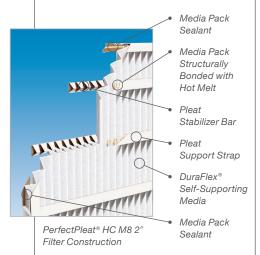


PerfectPleat® HC M8

(High Capacity MERV 8)

EXTENDED SURFACE PLEATED PANEL FILTERS

- Highest performing self-supported pleated filter
- Mechanical efficiency does not rely on electret charge technology
- Self-supporting DuraFlex® media made from virgin fiber; no wire support needed
- Consistent media with controlled fiber size and blend
- Available in 1", 2" and 4" models
- Environmentally friendly no dies, no metal, fully incinerable
- Patented media, filter design, and manufacturing process. Patents covered under one or more of the following US 6398839 B2; US 6254653 B1; US 6159318; US 6165242; US 6387140 B1 (1" model only)



The PerfectPleat HC M8 filter is designed to consistently increase efficiency throughout the service life of the filter. The PerfectPleat HC M8 filter has approximately 25% more media than our standard capacity filter, and is ideal for applications where pleated filters are currently in use and higher performance is desired. They have an initial MERV 8 rating respectively, but the efficiency increases significantly when dust holding begins. PerfectPleat HC M8 filters have distinctive self-supporting characteristics that allow a pleating pattern, which promotes airflow and maximizes dust holding capacity (DHC). Lower pressure drop and higher DHC means reductions in energy consumption and operating costs.

Superior Design and Construction

The perimeter frame is constructed from the highest wet-strength 28 pt. beverage carrier board, securely bonded to the media pack. The 1" model employs three supporting straps on the air entering and air leaving sides of the filter to control pleat spacing and support the media pack in the perimeter frame.

Support straps on the air entering side are used in combination with uniquely designed pleat stabilizers on the air-leaving side of the 2" model to provide additional strength. The support straps and pleat stabilizers ensure integrity against turbulent airflow. The 2" filter resists crushing and abuse and provides excellent lateral stability for installation in side-access systems.

The 4" model utilizes a two piece die cut frame with integral pleat spacers on the air leaving side. Pleat spacing is controlled by straps bonded to the air entering side and the multiple rows of pleat spacers on the air leaving side. The pleat spacers also ensure the pleats remain open during use, maximizing filter life.

DuraFlex® Media—Patented Media Design

Uniform size virgin fibers are assembled in closely controlled blends to create a media that is both self-supporting and consistent in performance. When pleated, DuraFlex media will hold its shape without the wire support characteristic of conventional pleated filters. That means no potential for the formation of rust and safer handling. With the superior resiliency of DuraFlex media and no need for wire support, PerfectPleat HC M8 filters can sustain significant abuse and maintain their shape and pleat spacing. The absence of wire also makes the filter totally incinerable, which can simplify disposal.





PerfectPleat® HC M8 Filters

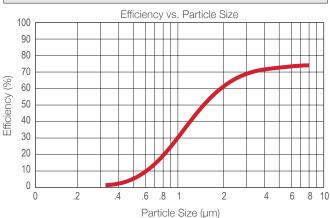
Performance Data

	Pleats Per			Recommended Final Resistance	ASHRAE 52.2	Continuous Operating	
Filter	Linear Foot	300 FPM	500 FPM	625 FPM	(in. w.g.)	MERV	Temperature Limits
1" PerfectPleat HC M8	15	.23	.42	-	1.0	8	150°F (66°C)
2" PerfectPleat HC M8	15	.12	.23	.34	1.0	8	150°F (66°C)
4" PerfectPleat HC M8	11	.12	.25	.38	1.0	8	200°F (93°C)

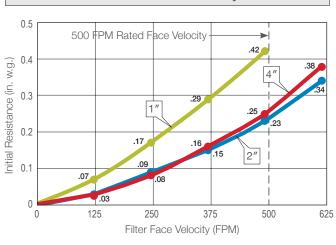
All performance data is based on ASHRAE Standard 52.2. Performance tolerance conforms to Section 6.4 of ANSI/AHRI Standard 850-2013.

Underwriters Laboratories Classification - PerfectPleat HC M8 filters are UL Classified. Testing was performed according to UL Standard 900.

Composite Minimum Efficiency Curve



Initial Resistance vs. Filter Face Velocity



Product Information - Standard Sizes

Nominal Sizes (Inches)	Actual Sizes (Inches)	F	Rated Airflov (SCFM)	N	Pleats Per
(W x H x D)	(W x H x D)	300 FPM	500 FPM	625 FPM	Filter
10 x 10 x 1	9½ x 9½ x ¾	200	350	_	11
10 x 20 x 1	9½ x 19½ x ¾	400	700	_	11
12 x 12 x 1	11½ x 11½ x ¾	300	500	-	14
12 x 20 x 1	11½ x 19½ x ¾	500	850	_	14
12 x 24 x 1	113/8 x 233/8 x 3/4	600	1000	_	14
14 x 20 x 1	13½ x 19½ x ¾	600	1000	-	16
14 x 25 x 1	13½ x 24½ x ¾	750	1200	_	16
15 x 20 x 1	14½ x 19½ x ¾	650	1050	_	17
16 x 16 x 1	15½ x 15½ x ¾	550	900	_	19
16 x 20 x 1	15½ x 19½ x ¾	650	1100	_	19
16 x 25 x 1	15½ x 24½ x ¾	850	1400	_	19
18 x 20 x 1	17½ x 19½ x ¾	750	1250	_	21
18 x 24 x 1	173/8 x 233/8 x 3/4	900	1500	_	21
18 x 25 x 1	17½ x 24½ x ¾	950	1550	-	21
20 x 20 x 1	19½ x 19½ x ¾	850	1400	_	24
20 x 25 x 1	19½ x 24½ x ¾	1050	1750	_	24
24 x 24 x 1	233/8 x 233/8 x 3/4	1200	2000	-	29
25 x 25 x 1	24½ x 24½ x ¾	1300	2200	-	30
10 x 20 x 2	9½ x 19½ x 1¾	400	700	850	11
12 x 20 x 2	11½ x 19½ x 1¾	500	850	1050	14
12 x 24 x 2	11 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	600	1000	1250	14
14 x 25 x 2	13½ x 24½ x 1¾	750	1200	1500	16
15 x 20 x 2	14½ x 19½ x 1¾	650	1050	1300	17
15 x 25 x 2	14½ x 24½ x 1¾	800	1300	1650	17
16 x 16 x 2	15½ x 15½ x 1¾	550	900	1100	19
16 x 20 x 2	15½ x 19½ x 1¾	650	1100	1400	19
16 x 24 x 2	15 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	800	1350	1650	19
16 x 25 x 2	15½ x 24½ x 1¾	850	1400	1750	19
18 x 24 x 2	17 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	900	1500	1900	21
18 x 25 x 2	17½ x 24½ x 1¾	950	1550	1950	21
20 x 20 x 2	19½ x 19½ x 1¾	850	1400	1750	24
20 x 24 x 2 20 x 25 x 2	19 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	1000	1650	2100	24
	19½ x 24½ x 1¾	1050	1750	2150	24 29
24 x 24 x 2	23 ³ / ₈ x 23 ³ / ₈ x 1 ³ / ₄	1200	2000	2500	
25 x 25 x 2	24½ x 24½ x 1¾	1300	2150	2700	30
12 x 24 x 4	11 ³ / ₈ x 23 ³ / ₈ x 3 ³ / ₄	600	1000	1250	10
16 x 20 x 4 16 x 25 x 4	153/8 x 193/8 x 33/4	650	1100	1400	13
16 X 25 X 4 18 X 24 X 4	15 ³ / ₈ x 24 ³ / ₈ x 3 ³ / ₄ 17 ³ / ₈ x 23 ³ / ₈ x 3 ³ / ₄	850 900	1400 1500	1750 1875	13 15
20 x 20 x 4	17 ³ / ₈ x 23 ³ / ₈ x 3 ³ / ₄ 19 ³ / ₈ x 19 ³ / ₈ x 3 ³ / ₄	850	1400	1750	17
20 x 20 x 4	19 ³ / ₈ x 19 ³ / ₈ x 3 ³ / ₄	1050	1750	2150	17
20 x 25 x 4 24 x 20 x 4	23 ³ / ₈ x 24 ³ / ₈ x 3 ³ / ₄	1000	1650	2100	17
24 x 20 x 4	233/8 x 193/8 x 33/4 233/8 x 233/8 x 33/4	1200	2000	2500	21
25 x 29 x 4	24 ³ / ₈ x 28 ³ / ₈ x 3 ³ / ₄	1500	2500	3150	26
23 1 23 1 4	∠4"/8 X ∠0"/8 X 3"/4	1000	2000	3130	20

Energy savings may be realized by operating the PerfectPleat HC M8 filters to a lower final resistance. Contact your local AAF Flanders representative for a Total Cost of Ownership analysis for your specific application.

PerfectPleat® and DuraFlex® are registered trademarks of AAF International in the U.S. and other countries











MEGApleat® M8

EXTENDED SURFACE PLEATED PANEL FILTERS

- Highest dust holding capacity (DHC) – longest life
- Highest breach strength strongest construction
- Lowest lifecycle pressure drop means reduction in energy consumption and total operating costs
- Guaranteed consistent performance – independent, third-party testing
- Patent pending filter design
- Heavy-duty, galvanized expanded metal support grid
- Moisture-resistant adhesive
- Available in 1", 2", and 4" models
- MERV 8 high capacity

The New Standard in Premium Pleated Filters

Introducing the longest-lasting MERV 8 pleated panel filter on the market—the MEGApleat M8. Manufactured with a heavy-duty, galvanized expanded metal support grid and moisture-resistant adhesive, the MEGApleat M8 filter is the strongest MERV 8 pleated filter available. The MEGApleat M8 filter's low initial resistance requires less energy consumption, resulting in lower operating costs and energy savings.



Certified Performance—Insist on Independent Testing

With the MEGApleat M8 filter, MERV 8 classification is documented with test results from an independent, third-party test laboratory. The MEGApleat M8 filter gives you the performance our competitors promise but don't deliver.

AAF Flanders Guarantee

Unlike other MERV 8 filters where there is significant performance variability from filter to filter, the MEGApleat M8 filter is designed for performance consistency. AAF Flanders is so confident about the performance, we guarantee the MEGApleat M8 filter to last longer, be stronger, be more cost efficient than any competitor's MERV 8 pleated filter, and perform to MERV 8 standards throughout the filter life. Contact your local sales representative for guarantee details.





MEGApleat® M8 Filter

Media

Uniform size virgin fibers are assembled in closely controlled blends to create a media that is consistent in performance. MEGApleat M8 filters promote maximum airflow and dust holding capacity (DHC).

MEGApleat M8 filters load at a slower rate increasing the life of the filter. Lowest lifecycle pressure drop and higher DHC means reductions in energy consumption and operating costs.



Looking closely at a leading competitor's media, notice the inconsistent fiber sizes and binder that can lead to inconsistent performance and variability.

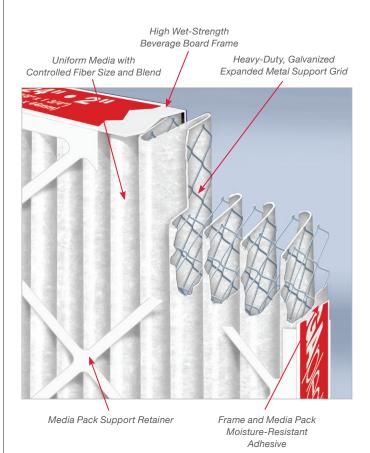


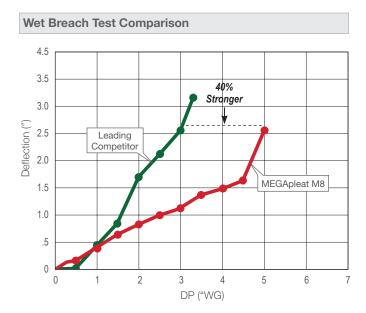
MEGApleat® M8 filter media is free of the variations seen in competitor filters, ensuring consistency over the life of the filter.

Premium Construction and Performance

Designed to meet the demands of the toughest applications, the MEGApleat M8 filter offers a totally unitized, die-cut box, beverage board frame with double thickness in the perimeter wall. The MEGApleat M8 filter is extremely strong and durable under difficult operating conditions, including high-moisture applications. A heavy-duty, galvanized expanded metal pleat support grid laminated to the media pack increases rigidity and helps maintain proper spacing between pleats. Proper pleat spacing ensures maximum efficiency, low resistance, and maximizes DHC.

The media pack is bonded to the frame at all points of contact, using moisture-resistant adhesive. This bonding prevents dirty air bypass and promotes even airflow through the media pack. The MEGApleat M8 filter construction process results in a filter which is very stable, with no racking or vibration of the pleats under normal airflow. Pleat stability minimizes the chances of captured particulate shaking loose and re-entering the airstream.





Results from a wet breach test performed at an independent test lab shows the MEGApleat® M8 filter is over 40% stronger than the leading competitor.

Applications

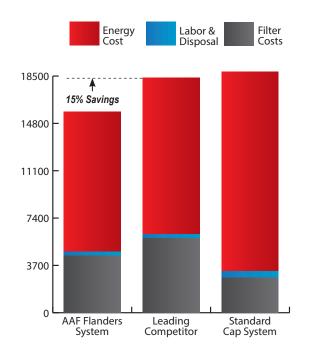
The MEGApleat M8 filter is designed for use in commercial, industrial, and institutional applications. MEGApleat M8 filters are ideal for turbulent airflow, heavy loading, and high moisture systems. MEGApleat M8 filters are directly interchangeable with disposable panel filters, media pads in metal frames, permanent filters, or lower performing competitive filters used in built-up filter banks and side access systems.

No modifications are necessary to frames or latches. MEGApleat M8 is also an excellent primary filter to prevent dust build-up on heating and cooling coils, fans, and ductwork, or as a prefilter for higher efficiency filters.

Total System Savings

Looking at each stage of filtration is critical to optimizing the efficiency of a HVAC system. When employing a 3-stage system, a MEGApleat M8 filter, combined with a VariCel® VXL filter and a MEGAcel® I HEPA filter, will minimize energy usage and cost. When combined with these filters, the MEGApleat M8 filter offers an environmentally sustainable solution that can help you qualify for LEED® Energy and Atmosphere credits, by reducing the fan energy usage associated with HVAC systems.

When a MEGApleat M8 filter is used in combination with other AAF Flanders filters, your total cost of ownership is less than competitive systems, as seen in the graph below.



Analysis based on a 3-stage filter system, running 20,000 CFM, over a 2 year time period. Energy costs based on the national average of 0.08 \$/kW-hr. Filter selection was based on the most energy efficient filters available.



MEGApleat® M8 Filters

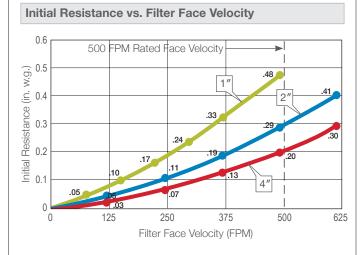
Performance Data

Filter	Pleats Per Linear Foot	Rated 300 FPM	(in. w.g.) FPM 500 FPM 625 FPM		Recommended Final Resistance (in. w.g.)	ASHRAE 52.2 MERV	Continuous Operating Temperature Limits
1"	14	.24	.48	_	1.0	8	200°F (93°C)
2"	14	.13	.29	.41	1.0	8	200°F (93°C)
4"	11	.08	.20	.30	1.0	8	200°F (93°C)

All performance data is based on ASHRAE Standard 52.2. Performance tolerance conforms to Section 6.4 of ANSI/AHRI Standard 850-2013.

Underwriters Laboratories Classification

MEGApleat M8 filters are UL Classified. Testing was performed according to UL Standard 900 and ULC-S111.



Product Information - (1)Standard Sizes

⁽²⁾ Nominal Sizes (Inches)	(Inches)		d Airflow ((SCFM)		Pleats Per	Gross Media Area
(W x H x D)	(W x H x D)	300 FPM	500 FPM	625 FPM	Filter	(sq. ft.)
10 x 20 x 1	9½ x 19½ x ¾	400	700	-	12	2.7
12 x 24 x 1	11% x 23% x ¾	600	1000	-	15	4.0
16 x 20 x 1	15½ x 19½ x ¾	650	1100	-	21	4.6
16 x 25 x 1	15½ x 24½ x ¾	850	1400	-	21	5.8
20 x 20 x 1	19½ x 19½ x ¾	850	1400	-	26	5.7
20 x 25 x 1	19½ x 24½ x ¾	1050	1750	-	26	7.2
24 x 24 x 1	23% x 23% x ¾	1200	2000	-	31	8.2
12 x 24 x 2	11% x 23% x 1¾	600	1000	1250	15	9.0
16 x 20 x 2	15½ x 19½ x 1¾	650	1100	1400	19	9.5
16 x 25 x 2	15½ x 24½ x 1¾	850	1400	1750	19	11.9
18 x 24 x 2	173/8 x 233/8 x 13/4	900	1500	1875	21	12.6
20 x 20 x 2	19½ x 19½ x 1¾	850	1400	1750	24	12.0
20 x 24 x 2	193/8 x 233/8 x 13/4	1000	1650	2100	24	14.4
20 x 25 x 2	19½ x 24½ x 1¾	1050	1750	2175	24	15.1
24 x 24 x 2	233/8 x 233/8 x 13/4	1200	2000	2500	29	17.4
12 x 24 x 4	113/8 x 233/8 x 33/4	600	1000	1250	11	13.8
16 x 20 x 4	15% x 19% x 3%	650	1100	1400	14	14.5
16 x 25 x 4	15% x 24% x 3%	850	1400	1750	14	18.3
18 x 24 x 4	17% x 23% x 3%	900	1500	1875	16	20.0
20 x 20 x 4	19% x 19% x 3%	850	1400	1750	18	18.7
20 x 25 x 4	19% x 24% x 3%	1050	1750	2150	18	23.5
24 x 20 x 4	19% x 23% x 3%	1000	1650	2100	21	21.8
24 x 24 x 4	23% x 23% x 3%	1200	2000	2500	21	26.3
25 x 29 x 4	243/8 x 283/8 x 33/4	1500	2500	3150	26	33.9

(1) Additional sizes available (MEGApleat M8):

12x12x1 14x25x1 16x16x1 18x25x1 12x20x2 15x20x2 16x24x2 25x25x2 14x20x1 15x20x1 18x24x1 25x25x1 14x25x2 16x16x2 18x25x2

(2) Width and height dimensions are interchangeable. All MEGApleat M8 filters may be installed with the pleats either vertical or horizontal.

Energy savings may be realized by operating the MEGApleat M8 filters to a lower final resistance. Contact your local AAF Flanders representative for a Total Cost of Ownership analysis for your specific application.

MEGApleat®, MEGAcel®, and VariCel® are registered trademarks of AAF International in the U.S. and other countries.













AmAir®/CE

DISPOSABLE CARBON PLEATED FILTERS

- Economical, long-lasting solution to many odor problems from light to moderate
- Effective for a wide variety of odors found in:
- Commercial Buildings
- Shopping Centers
- Hospitals
- Restaurants
- Health Clubs
- Airports
- Schools
- Hotels/Motels
- Manufacturing Operations
- Easy to install, disposable
- Directly interchangeable with standard air filters
- 1", 2", and 4" models available
- MERV 6
- UL Classified

Odor Control With Particulate Filtration

AmAir/CE carbon pleated filters are designed to provide odor and particulate control where light to moderate odor conditions exist. They are used for general air filtration in all types of cooling, heating, and ventilating systems, and are also excellent prefilters for higher efficiency filters.

Economical, Easy Odor Control

No expensive housings or ductwork modifications are necessary. There are no messy trays to refill or exchange. Simply install the filter as you would standard air filters, and dispose of them when they are no longer effective.

Pleated Filters

AmAir/CE carbon pleated filters are directly interchangeable with standard 1", 2", or 4" air filters. Simply replace your current prefilters with AmAir/CE filters and enjoy odor removal plus particulate filtration in a single product. No modifications to your current frames or latches are necessary.

Media Collects Particulate and Removes Odors

The media in AmAir/CE filters combines non-woven polyester fibers with 60% activity granular activated carbon. The polyester substrate filters particulate matter, while the activated carbon filters gaseous and odorous contaminants.

Totally Unitized Construction Offers Superior Strength

The pleated carbon media is contained in a frame constructed of high wet strength, moisture resistant beverage board. Two mating die cut boxes are bonded together, forming a double wall around the entire filter. Media is bonded to the inside of the frame on all four edges to prevent leakage and increase rigidity.

Each AmAir/CE filter is individually sealed in a poly bag to prevent adsorption of random odors prior to installation.



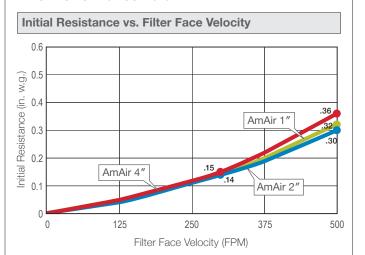


AmAir®/CE Filters

Product Information - Standard Sizes

Nominal Sizes (Inches) (W x H x D)	Actual Sizes (Inches) (W x H x D)	Standard Package Qty. Per Box
10 x 20 x 1	9½ x 19½ x %	12
12 x 20 x 1	11½ x 19½ x %	12
12 x 24 x 1	11½ x 23½ x ¾	12
14 x 20 x 1	13½ x 19½ x %	12
14 x 25 x 1	13½ x 24½ x %	12
16 x 20 x 1	15½ x 19½ x ¾	12
16 x 25 x 1	15½ x 24½ x %	12
18 x 24 x 1	17½ x 23½ x ¾	12
20 x 20 x 1	19½ x 19½ x %	12
20 x 24 x 1	19½ x 23½ x %	12
20 x 25 x 1	19½ x 24½ x %	12
24 x 24 x 1	23½ x 23½ x %	12
25 x 25 x 1	24½ x 24½ x %	12
12 x 24 x 2	11½ x 23½ x 1¾	12
14 x 20 x 2	13½ x 19½ x 1¾	12
14 x 25 x 2	13½ x 24½ x 1¾	12
15 x 20 x 2	14½ x 19½ x 1¾	12
16 x 20 x 2	15½ x 19½ x 1 ¾	12
16 x 25 x 2	15½ x 24½ x 1¾	12
18 x 24 x 2	17½ x 23½ x 1¾	12
20 x 20 x 2	19½ x 19½ x 1¾	12
20 x 24 x 2	19½ x 23½ x 1¾	12
20 x 25 x 2	19½ x 24½ x 1¾	12
24 x 24 x 2	23½ x 23½ x 1¾	12
25 x 25 x 2	24½ x 24½ x 1¾	12
12 x 24 x 4	11½ x 23½ x 3½	6
16 x 20 x 4	15½ x 19½ x 3½	6
16 x 25 x 4	15½ x 24½ x 3½	6
18 x 24 x 4	17½ x 23½ x 3½	6
20 x 20 x 4	19½ x 19½ x 3½	6
20 x 24 x 4	19½ x 23½ x 3½	6
20 x 25 x 4	19½ x 24½ x 3½	6
24 x 24 x 4	23½ x 23½ x 3½	6

Filter Performance Data



Filters are rated at 500 FPM filter face velocity. Recommended final resistance for all AmAir/CE filters is 1" w.g.

AmAir® is a registered trademark of AAF International in the U.S.









VariSorb® XL

HIGH-EFFICIENCY GAS-PHASE FILTERS

- Highest activity carbon
- Energy efficient mini-pleat design
- Corrosion-free, non-metal construction
- Easy to retrofit particulate installations
- Fully incinerable

VariSorb XL high-efficiency filters are designed to improve Indoor Air Quality (IAQ) through the effective removal of indoor and outdoor gaseous contaminants typically found in the urban environment. This includes Volatile Organic

Compounds (VOCs), SOx, NOx, and Ozone.

The VariSorb XL filter is suitable for retrofit into existing HVAC systems, for specification in new construction, or for direct replacement of 12"-deep, single header filters.



VariSorb XL filters consist of filter elements assembled in a V-bank configuration in High Impact Polystyrene (HIPS) cell sides. The header and cell sides provide a sturdy construction that resists damage during shipping, handling, and operation. Constructed of plastic, the VariSorb XL filter is fully incinerable. The pleated filter elements provide a high media area and low resistance.

Media

The VariSorb XL filter features a pleated media comprised of very high activity carbon particles bonded into a matrix of mini carbon granulate embedded between two non-woven synthetic layers. The very small carbon granules, unlike traditional granular bed chemical filters, provide a granular microstructure that ensures a much higher effective area per pound of media, resulting in a high spontaneity of adsorption. Combined with the dense packing of the microstructure, this creates a tortuous path for the contaminant, resulting in a high yield for the filter. The fiber matrix maximizes the exposure of the sorbent to the gas while securely bonding it within the media. Dusting is nearly eliminated, and pressure drop is minimized.

Microphotograph of filter media showing fiber-carbon matrix used to maximize available carbon surface area.









VariSorb® XL Filters

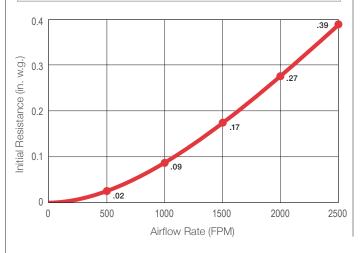
Product Information

Product Number	Nominal Size (in.)	Actual Size (in.)	Media Area	Per Filter Pounds GAC-Wt.	*Initial Re (in. v	esistance w.g.) 500 FPM	Final Resistance	
VariSorb XL Filter (N	,	Size (III.)	(ft. sq.)	GAC-WI.	300 FPIVI	500 FPIVI	(in. w.g.)	
Variotib XE i ilici (iv	o dasket)							
3039567-001	24 x 12 x 12	23% x 11% x 11½	28.0	4.6	.13	.27	1.5	
3039567-002	24 x 20 x 12	23% x 19% x 11½	51.0	8.4	.13	.27	1.5	
3039567-003	24 x 24 x 12	23% x 23% x 11½	63.0	10.3	.13	.27	1.5	
VariSorb XL Filter (G	VariSorb XL Filter (Gasket on air leaving side)							
3039567-004	24 x 12 x 12	23% x 11% x 11½	28.0	4.6	.13	.27	1.5	
3039567-005	24 x 20 x 12	23% x 19% x 11½	51.0	8.4	.13	.27	1.5	
3039567-006	24 x 24 x 12	23% x 23% x 11½	63.0	10.3	.13	.27	1.5	

^{*}All performance data is based on ASHRAE 52.2 test method.

Performance Data

Initial Resistance vs. Airflow (based on 24 x 24 x 12 filter)



Specifications

Maximum Operating Temperature: 130°F (54°C)

Maximum Relative Humidity: 95%

Cell Sides: The molded end panels are made of HIPS. The extruded vertical components are made of Acrylonitrile Butadiene Styrene (ABS).

Media: Mini carbon granulate embedded between two non-woven synthetic layers.

UL Classified in accordance with UL Standard 900 and ULC-S111.

VariSorb® is a registered trademark of AAF International in the U.S. and other countries.



SAAF™ cassettes, replacement panels, and housings remove gaseous contaminants from most applications. They are available across a complete range of pressure drop and removal efficiencies. Contact your local AAF Flanders Representative for more information.















FM2-LETM

FAN/FILTER MODULE

The FM2-LE is a self-contained fan/HEPA filter module for cleanroom applications. It can be used to upgrade existing cleanrooms or to convert existing space into a cleanroom without additional ductwork or air handling equipment. The modules can be used in most conventional ceiling grids or may be suspended independently. FM2-LE modules are available in 2' x 2', 2' x 3', and 2' x 4' sizes.



Latches seal and hold the AstroCel® filter securely to the module.

Energy Efficient

FM2-LE modules are energy efficient. Each module utilizes a rugged AC motorized impeller rated at 2.4 amps at start up and approximately 2 amps while in operation. The aluminum backward curved

operation. The aluminum backward curved impeller is lightweight and has a long service life. All motors are dynamically balanced and 100% quality inspected.

Standard Features

- Extruded aluminum filter cell sides
- AstroCel® II HEPA filter, 99.99% efficient on 0.3 micrometer particles, 2"-deep mini-pleat media pack. HEPA meets UL 586 and UL 900
- White expanded metal faceguard on the downstream side of the filter
- 16-gauge mill finish aluminum pressure housing with 4 support points for hanging
- 115V, 60Hz, single-phase, energy efficient, backward curved motorized impeller wired junction box
- Variable speed control
- All electrical components UL Classified
- PerfectPleat® M8 1"-deep prefilter with DuraFlex® media, MERV 8

Options

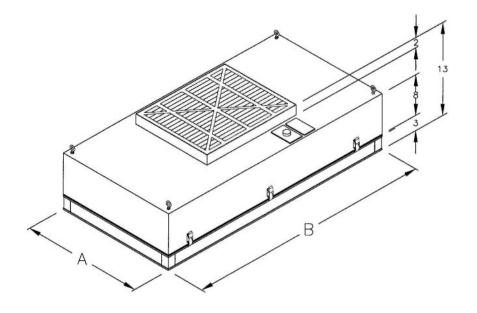
- Duct connection (10" or 12" diameter) in lieu of prefilter
- Power cord
- Center divider with test port in filter
- ULPA filter, 99.9995% efficient on 0.1 0.2 micrometer particles, scanned
- 3" or 4" deep HEPA or ULPA filter
- Knife-edge filters for gel grid systems
- 230-volt, 60-Hz motor
- Stainless steel faceguard



FM2-LE™ Fan/Filter Module

Product Information

Part	Dimensions (inches)		Unit Installed	Unit Shipping
Number	Α	В	Weight (lbs.)	Weight (lbs.)
3010352-002	23%	23%	26	30
3010345-002	23%	35%	40	50
3010337-002	23%	47%	53	60





Model 39 Airvelope®

FAN/FILTER MODULES

- Self-powered cleanroom ceiling modules
- Independent source of HEPA filtration
- Roomside replaceable HEPA filter
- Washable foam prefilter
- High-efficiency air filtration without ductwork or air handling equipment

AAF Flanders' Model 39
Airvelope Fan/Filter Module is
an energy efficient, self-powered
HEPA filter module, with replaceable
HEPA filter, that delivers ISO Class 5 or
better airflow into Very-Large-Scale-Integration (VLSI)
Cleanrooms or clean process areas. Since they require no
ductwork or external air handling equipment, these modules can be
placed in almost any location.

Model 39 Airvelope Modules are designed for placement in standard 1½" T-Bar ceiling grids. Whether used individually or in groups, Airvelope Fan/Filter Modules offer a ready and economical solution for new cleanroom facilities, cleanroom facility upgrades, and isolated or "spot" process areas.

Standard Features

- Each model is offered in nominal sizes of 24" x 24" or 24" x 48" for placement in standard 1½" T-bar ceiling grids
- Quiet operation: only 64 dBA at 90 FPM as measured 30" from the filter
- Variable speed control of airflow, from 50% to 100% of maximum
- Low height allows installation with minimum overhead space
- All-aluminum housing is lightweight and resistant to corrosion
- Motor/blower assembly is easily removable from roomside for service
- Protective grille protects the filter media while providing a finished appearance to the installed unit
- Choose from two performance levels:
 - HEPA (99.99% minimum efficiency on 0.3 μm particle size)
 - ULPA (99.9995% minimum efficiency on 0.12 µm particle size)
- Stainless steel grille
- 10-foot power cord
- 10", 12" and 14" duct collar for direct connection to HVAC system



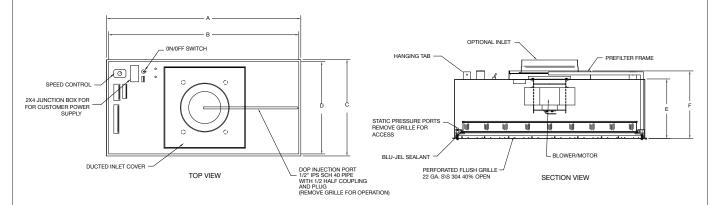




Model 39 Airvelope® Fan/Filter Modules

Product Information

Nominal Size	Exact Dimensions (inches)							Weight (lbs.)		
(inches)	Α	A B C D E F				AL	SS			
24 X 48	4711/16	4611/16	2311/16	2211/16	14½	16%	60	75		
24 X 24	2311/16	2211/16	2311/16"	2211/16	14½	16%	40	50		



	Nominal Size (inches)					
	24 x 48	24 x 24				
Capacity – CFM (Max/Min)	800/415	400/225				
Motor size	1/3 HP					
Run Amps @ 115 Volts (Low/High)	1.9 – 2.3					
Noise Level	64dBA As measured 30 from the filter @ 90 FPM					

Airvelope® is a registered trademark of Flanders Corporation in the U.S.



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

©2017 AAF International and its affiliated companies.

ISO Certified Firm





$\begin{array}{c} TM\text{-}2,^{\text{\tiny TM}} TM\text{-}2\text{-}CG^{\text{\tiny TM}} \\ TM\text{-}4,^{\text{\tiny TM}} TM\text{-}4\text{-}CG^{\text{\tiny TM}} \end{array}$

DUCTED, DISPOSABLE CEILING FILTER MODULES

- Lightweight easy to install
- White urethane sealant complies with Underwriters Laboratories, Inc. UL-586 and UL-900
- One piece top with integral inlet collar
- Module assembled without screws or other fasteners – no metal shavings or filings
- Factory scan tested
- Suitable for gasketed and gel grid systems

The TM-2 and TM-4 ducted modules are lightweight, disposable HEPA filter ceiling modules. Both are designed for optimum filter performance in cleanrooms with individually ducted modules.

The TM-2 is a commercial, cost efficient filtration module for Class 100,000 to Class 10 cleanrooms. It is ideally suited for electronics, healthcare, food processing industries, or other applications where clean air quality is a priority.

The TM-4 is a superior air filtration module designed for Class 100 to Class 1 cleanrooms that demand higher efficiency. TM-4 modules are also suitable for applications requiring lower pressure drop than conventional ducted modules.

All standard TM-2 and TM-4 modules come with either a 10" or 12" diameter inlet (with special size inlets available). Both have an adjustable distribution plate, which can be adjusted with a screwdriver from the room side through an access port located in the center divider of the module. An optional design with a fixed perforated distribution plate is also available (center divider with access port not included).

All standard modules come with an integral expanded metal painted face grille. A contractor grade of both models is available with the same options.

Sturdy, Lightweight Housing

Both the TM-2 and TM-4 modules come in a variety of sizes, offering flexibility for any installation. The TM-2 24" x 24" module weighs 14 pounds and the 24" x 48" size weighs 24 pounds. The TM-4 weighs 26 pounds and 42 pounds, respectively. The two larger sized modules weigh substantially less than competitive units.

With the AAF Flanders TM-2 and TM-4 modules, the possibility of bypass leakage is virtually eliminated. All metal to metal joints are bonded to prevent leakage. Plus, each unit is entirely factory-sealed, so there are no leak paths between the filter inlet and air leaving side.

One room side air sampling port allows for checking of static pressure or contamination levels of the air entering the module. The same port is also used to adjust the damper-diffuser. Housings are available with four suspension points for attachment of hangers.









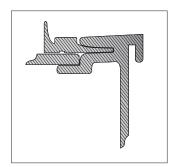
TM-2, TM-2-CG, and TM-4, TM-4-CG Filter Modules

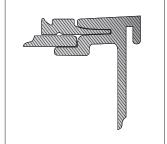
AstroCel® II LPD Series Mini-Pleat Filter Optimizes Capture, Minimizes Resistance, and Reduces Costs

The media in each AstroCel II LPD Series filter is made of glass microfibers formed into a .015" thick mat pleated to allow a large amount of media surface area to be incorporated within the housing. The pleats are spaced with narrow ribbons of filter media, allowing the air to flow through the filter pack with minimum resistance. These ribbons make it possible to have a high performance media pack from 2" to 4" deep. The pack is sealed inside the housing on all four sides with a white urethane sealant that eliminates voids and leakage.

The airflow, initial resistance, and service life of the 2" mini-pleat media pack will outperform conventional 6" HEPA filters made with corrugated aluminum, nearly two to one.

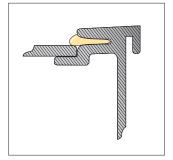
Construction Detail





TM-2 or TM-4 with Seismic Hanger

TM-2 or TM-4 without Hanger



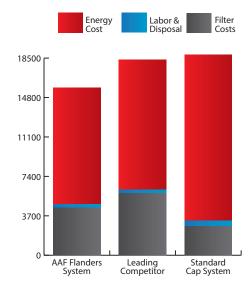
TM-2-CG or TM-4-CG (Gasket Seal Modules include Seismic Hangers)

Ease of Installation

The low profile housing and light weight of the TM-2 and TM-4 modules make installing them the easiest of any ceiling modules on the market.

The modules are typically installed in a 1¾" or 2" T-bar ceiling grid or 2" wide gel or gasket seal, heavy-duty ceiling grids, suspended from the building structure. Simply set the unit in place in the ceiling grid, then connect and seal the flexible supply air duct to the inlet collar. Dimples on the inlet collar prevent the flex duct from slipping off. No hold-down clamping is necessary between the filter and the ceiling grid. Modules can be accessed from the room side of the ceiling grid.

When the maximum design resistance has been reached, the entire module is simply discarded. This eliminates the time-consuming task of removing, replacing, and resealing filter cartridges. When a MEGApleat M8 filter is used in combination with other AAF Flanders filters, your total cost of ownership is less than competitive systems, as seen in the graph below.



Analysis based on a 3-stage filter system, running 20,000 CFM, over a 2 year time period. Energy costs based on the national average of 0.08 \$/kW-hr. Filter selection was based on the most energy efficient filters available.

Efficiency Selection

Choose from a variety of efficiencies:

HEPA Filter – 99.99% on .30 micrometer particles

ULPA Filter – 99.9995% on .10 to .20 micrometer particles

Application specific efficiencies available.





TM-2 Features

- Low Profile Housing (5" Gasket, 53/4" Gel)
- Two inch Filter Pack Depth
- Lightweight, Disposable Module
- AstroCel II Mini-pleat Filter Pack
- Gasket or Gel Seal Installation Options
- Contractor Grade Available (TM-2-CG)

The AAF Flanders TM-2 series, with its mini-pleat pack, is a commercial, cost efficient performer that delivers peak filtration in unidirectional and nondirectional flow cleanrooms from Class 100,000 to Class 10. Its lightweight, disposable design, ease of installation, and efficiency options make it ideal for applications where it is important to regulate the quality of air.



TM-4 Features

- · Low Resistance, High Airflow
- Low Profile Housing (7" Gasket, 73/4" Gel)
- Choice of Filter Pack Depth (21/2", 3", 31/2", 4")
- Gasket or Gel Seal Installation Options
- Contractor Grade Available (TM-4-CG)

The AAF Flanders TM-4 series, with its deep-pleat pack, was developed to meet industry requirements for large cleanrooms with individually ducted modules. This superior efficiency module reduces operating energy costs without compromising the demand for optimum filter performance. The TM-4 is available with custom efficiencies ranging up to 99.999995% on .10 to .20 micrometer size particles, making it ideal for Class 1 Waferfabs.





TM-2,[™] TM-2-CG,[™] and TM-4,[™] TM-4-CG, Filter Modules

Product Information

Size vs. Rated Airflow @100 FPM Face Velocity¹

				Gel Seal Type ² 2" H.D. Gasketed ² 1½" Gasketed with ¾" Skirt Grid Type Type				Grid ²
TM-2 TM-2-CG Series	TM-4 TM-4-CG Series	Nominal Size (in.)	Actual Size (In.)	CFM	Actual Size (in.)	CFM	Actual Size (in.)	CFM
TM-2-43	TM-4-4	24 x 24	23 x 23	315	23¼ x 23¼	325	23% x 23%	335
TM-2-63	TM-4-6	24 x 36	23 x 35	495	23¼ x 35¼	505	23% x 35%	520
TM-2-73	TM-4-7	24 x 42	23 x 41	590	23¼ x 41¼	600	23% x 41%	615
TM-2-83	TM-4-8	24 x 48	23 x 47	680	23¼ x 47¼	690	23% x 47%	710

¹Factory airflow/resistance test is volumetric and determined by multiplying net free area of filter pack by 100 CFM/sq. ft.

Performance Data

Filter Pack Resistance Data²

Performance		Resistance @ 100 FPM (in. w.g.) Nominal Filter Pack Depth			g.)	
Classification	Efficiency Rating	2″*	21/2"	3″	31/2"	4"
HEPA	99.99% @ .3 pm	.47	.38	.31	.28	.25
ULPA	99.9995% @ .1 to .2 pm	.68	.55	.46	.40	.32

²The resistance values shown may vary up to plus/minus 10%.

AstroCel® is a registered trademark of AAF International in the U.S. and other countries.







²Sizes shown are typical. Check size to that recommended by ceiling grid manufacturer.

^{*}Maximum pack depth available for TM-2 Modules.

FASeal™ Frame

DURABLE HOLDING FRAMES

The FASeal Frame has a unique design that makes filter installation simple and quick. Clips aren't necessary, and the attached compression catches will not rust as they hold the filter in place. This frame will hold a variety of filters, including DriPak® 2000, AmerSeal®, VariCel®, PerfectPleat® ULTRA, and MEGApleat® M8. The FASeal Frame is designed for built-up modular filter banks to support HVAC grade air filtration for commercial buildings, educational facilities, food and beverage facilities, and industrial processing.

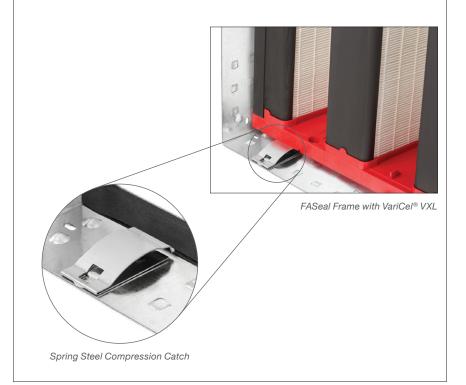
- Frames available in 18-gauge stainless steel and 16-gauge galvanized steel
- Stainless spring steel compression catches won't rust and are permanently attached
- Pre-drilled frame-to-frame installation holes allow fast and secure built-up filter bank assemblies
- Will hold many types of filters, including any single header product alone, or in combination with a 2" or 4" prefilter, as well as 2" and 4" stand-alone filters with no header

Durable Design

With four integral stainless spring steel compression catches permanently attached to the FASeal Frame, a variety of filters are easy to install and the need for clips is eliminated. The catches retain compression strength for years of service life and do not rust. These catches apply uniform pressure against the gasket, ensuring that the filter stays in place. No clips are necessary. Both 18-gauge stainless steel frames and 16-gauge galvanized steel frames are available.

Premium Gasketing

This frame has premium EPDM rubber gasketing. This gasketing, including a ¾" sealing flange, ensures a proper seal to minimize dirty air bypass, with an overlapping seal to eliminate air bypass at the frames' corners.







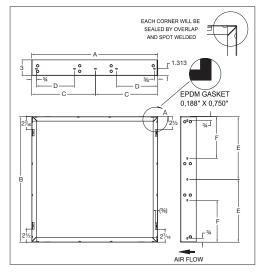


FASeal™ Frame

Product Information

Part Number	Α	В	Material
3109372-001	24	24	Stainless Steel
3109372-002	12	24	Stainless Steel
3109372-003	20	24	Stainless Steel
3109372-004	16	20	Stainless Steel
3109372-005	16	25	Stainless Steel
3109372-006	20	20	Stainless Steel
3109372-007	20	25	Stainless Steel
3109372-008	24	24	Galvanized Steel
3109372-009	12	24	Galvanized Steel
3109372-010	20	24	Galvanized Steel
3109372-011	16	20	Galvanized Steel
3109372-012	16	25	Galvanized Steel
3109372-013	20	20	Galvanized Steel
3109372-014	20	25	Galvanized Steel

AAR FLOW



Gasket Materials

3/16" thick x 3/4" wide "Exclusive EPDM" rubber

Actual frame dimensions are the same as the nominal size. Frame tolerances are as follows:

Face dimensions, +0'', -1/16''Frame depth, +/-1/8''

Application Guide

FASeal Frames are designed to be direct replacements for competitive frames. FASeal Frames are "Clip Free" and require no additional clips. Filter combinations are limited to the following:

- 1. A single header product by itself
- 2. A single header product with a 2" or 4" pleat
- 3. A 1", 2" or 4" pleat by itself

 $\textit{VariCel}^{\texttt{0}} \ \textit{is a registered trademark of AAF International in the U.S. and other countries.}$











AstroFrame™

ASTROCEL® HEPA FILTER HOLDING FRAMES

The AstroFrame filter holding frame is specifically designed for high efficiency built-up AstroCel High Efficiency Particulate Air (HEPA) filter banks. Each frame is seam welded to deliver maximum enclosure integrity. Each features four removable latches constructed to produce sealing pressure with the turn of a bolt.

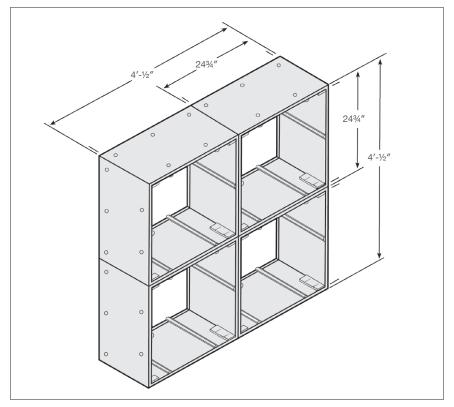
14-gauge all welded construction Galvanized steel or type 304 stainless steel

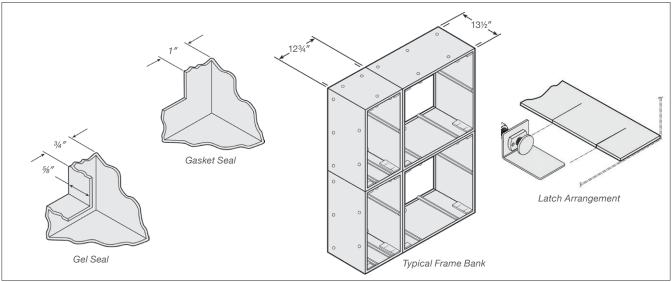
Predrilled for ease of field assembly

Pressure bolt latches for positive seal

Gasket seal or gel seal

99.97% efficiency on 0.3µm DOP







AstroFrame™

Frames are 13.5" deep

Filter Size		Iter Size Material		Frame Size		
Н	W		Н	W		
24"	24"	Galvanized Steel	24.75"	24.75"		
24"	12"	Galvanized Steel	24.75"	12.75"		
12"	24"	Galvanized Steel	12.75"	24.75"		
24"	24"	304 Stainless Steel	24.75"	24.75"		
24"	12"	304 Stainless Steel	24.75"	12.75"		
12"	24"	304 Stainless Steel	12.75"	24.75"		

Furnish and install HEPA filters and permanent galvanized (304 stainless steel) steel holding frames as shown on the plans and listed in the equipment schedule.

The AstroFrame holding frames are factory drilled for convenient assembly into banks. The contractor should apply caulking compound between the frames before riveting them into assembled banks. Each frame is fitted with four bolt type latches, one at each side, to seat each filter firmly against the internally flanged surfaces of its holding frame. A flat, wide surface sealing flange is provided for gasket seal filters, and a knife-edge flange for gel seal filters. Each frame is constructed from 14-gauge galvanized steel (304 stainless steel), 13½" in depth.



B-1 Frame

GASKETED HEPA FILTER HOLDING FRAMES

- All-welded 14-gauge galvanneal steel construction for corrosion resistance and rigidity
- Stainless steel locking arm and screw assemblies secure and seal the HEPA filter
- Factory-drilled alignment holes facilitate field assembly of built-up filter banks
- Optional prefilter assembly is available for direct attachment to the frame

AAF Flanders B-1 Frames are permanent holding frames for field or OEM assembly of built-up HEPA/ULPA filter banks. Standard sizes include the three widely used filter face sizes: 24" x 24", 24" x 12" and 12" x 24", as well as less common sizes, such as 24" x 30" and undersize

versions of the common face sizes. Separate locking arm and screw assemblies are used to retain the nominal 12" depth filter casings. The entire assembly will have the same efficiency as the filters themselves without leaks or bypass, when the filters and frames are installed as recommended.

Superior Design and Construction

B-1 Frames are constructed of an all-welded sealing surface, intermittently welded sides, and 14-gauge galvanized construction. Factory-drilled alignment holes on each side facilitate positioning of the frames for easy filter bank assembly. Welded to the inside of the frame on the bottom and both sides are alignment bars. These bars position the filter properly so that its gasket will mate with the sealing flange around the periphery of the filter frame. Four stainless steel removable locking arm and screw assemblies are furnished with each frame, and they are easily adjusted to hold the filter in place and press its gasket onto the flange of the frame. The swing arm design uses an Astr frame to hold the prefilter.

Installation Considerations

B-1 Frames may be installed for service from the air entering (upstream) side or the air leaving (downstream) side. Filter installation and removal are greatly facilitated if at least 36 inches of service clearance is provided. If the HEPA/ULPA filter bank is arranged for air entering side service, this clearance space may be shared with downstream-serviced ASHRAE-rated prefilters. Optional prefilter clips may be placed on the frame's sealing flange. Prefilters held by these clips must be serviced from the side opposite that used for HEPA/ULPA service.

Optional Construction

- Type 304 stainless steel
- Aluminum, 0.08" thick
- Custom sizes
- Frames for nominal 6" deep filters
- B1S Swing Bolt Design







B-1 Frame

Product Information - Standard Sizes

Model	Actual Frame	Actual Filter Dimensions	
Number	H x W x D Depth (inches) with Filter		H x W x D (inches)
B1*GGF	24% x 24% x 8	13¾	24 x 24 x 11½
B1*GCF	24% x 12% x 8	13¾	24 x 12 x 11½
B1*CGF	12% x 24% x 8	13¾	12 x 24 x 11½
B1*GNF	24% x 30% x 8	13¾	24 x 30 x 11½
B1*YYF	24 x 24 x 8	13¾	23% x 23% x 11½
B1*YUF	24 x 12 x 8	13¾	23% x 11% x 11½
B1*UYF	12 x 24 x 8	13¾	11% x 23% x 11½

*Insert material of construction: GLV for galvanneal steel, 304 for type 304 stainless steel, ALUM for aluminum.

Note: for 5%" deep filter, substitute "D" as a suffix in lieu of "F"

B-1 Gasket Seal

