



PerfectPleat®

PerfectPleat® HC

1" and 2" Extended Surface,
Pleated Filter with
Process-Controlled Quality

With DuraFlex® Media



B E T T E R A I R I S O U R B U S I N E S S ®



PerfectPleat®

PerfectPleat® HC

Extended Surface, Pleated Filter with Process-Controlled Quality

- **Patented media, filter design, and manufacturing process. Patent numbers US 6398839 B2; US 6254653 B1; US 6159318; US 6387140 B1 (1" model only)**
- **Form and fit unlike any other pleat available today**
- **Self-supporting DuraFlex® media made from virgin fiber; no wire support needed**
- **Consistent media with controlled fiber size and blend**
- **HC (High Capacity) model available for applications where airflow and longer life are issues**
- **1" models available**

The Air Filtration Leader

AAF International, one of the world's largest manufacturers of air filtration products, is extremely proud to announce a true innovation in the extended surface, pleated panel filter – the PerfectPleat. It is a filter with form and fit unlike any pleated filter in the marketplace today – and with the filtering efficiency you need and expect.

Superior Design and Construction

Drawing on its years of experience in manufacturing quality air filters, AAF has created a state-of-the-art process for producing pleated filters. The extremely high quality of these filters is a result of three unique innovations: a new automated manufacturing process; a unique, self-supporting media; and a filter construction that provides incredible strength without wire support.

Since their introduction, pleated filters have become a larger and more important segment of the filtration marketplace. However, current design and process are not conducive to the manufacture of consistently pleated media packs or finished filters. Inconsistency in pleat arrangement, variations in media, improper bonding of media to frame, along with antiquated manufacturing techniques, have a negative impact on efficiency, resistance, durability, and strength.

The new automated and controlled process AAF has developed for the PerfectPleat eliminates these inconsistencies and irregularities. Our new automated manufacturing process offers consistency our competitors cannot match in the everyday manufacture of pleated filters.



Pleat Stabilizer Adhesive Detail



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 remarkably consistent in performance. The self-supporting characteristics allow a pleating pattern that promotes excellent dust holding and resistance characteristics. The PerfectPleat meets or exceeds all current expectations for service life and required airflow. PerfectPleat HC 1" and 2" are classified MERV 7. PerfectPleat 1" and 2" are classified MERV 6.

DuraFlex® Media is Self-Supporting

DuraFlex media's unique construction makes it self-supporting. When pleated, DuraFlex 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 - no nicks or cuts for the installer. With the superior resiliency of DuraFlex media and no need for wire support, the PerfectPleat can sustain significant abuse and maintain its shape and pleat spacing. The absence of the wire also makes the filter totally incinerable, which simplifies disposal.

DuraFlex® – Media With A Memory



PerfectPleat with DuraFlex media produces a filter with excellent form and fit.



As a result of its unique design, PerfectPleat can withstand significant damage.



DuraFlex media has “memory” which allows PerfectPleat to remain functional, even when the frame has been compromised.

2" PerfectPleat - Heavy Duty Frame

The perimeter frame of the PerfectPleat HC and PerfectPleat is constructed from the highest wet-strength 28 pt. beverage carrier board available, securely bonded to the media pack. The 28 pt. thickness improves filter strength and helps resist damage.

Newly designed pleat stabilizers, bonded to the media to ensure uniform pleat spacing, provide additional strength. Three sets of pleat stabilizers are positioned on the air-leaving side of the filter. On the air-entering side, three support straps add to the PerfectPleat's strength. The support straps and pleat stabilizers ensure integrity against turbulent airflow and provide excellent lateral stability for installation in side-access systems.

Applications

The PerfectPleat HC is ideal for applications where pleated filters are currently in use and higher efficiencies are required or desired.

The PerfectPleat is identical to the PerfectPleat HC but with approximately 25% less media. It is best suited for standard capacity pleated filter applications.

Every PerfectPleat offers superior durability and performance when properly installed and maintained.

1" PerfectPleat - Strength and Durability

The 1" PerfectPleat HC and PerfectPleat are the same durability and performance as the 2" models. Both made using DuraFlex media encased in a unique beverage carrier board. PerfectPleat HC 1" features 3 support straps on the air entering side and a patented die cut pattern (patent no. US 6387140 B1) on the air leaving side. PerfectPleat 1" has a single support strap on the air entering side and the same die cut on the air leaving side. Both models resist crushing and abuse and can be used in any application where 1" filters are currently in place. PerfectPleat HC, with 14 pleats per foot, is classified MERV 7. PerfectPleat, with 12 pleats per foot, is classified MERV 6.



PerfectPleat HC 1" air entering side.

PerfectPleat HC 1" air leaving side.

Product Information Standard Sizes PerfectPleat HC and PerfectPleat

Nominal Sizes (Inches) (W x H x D)	Actual Sizes (Inches) (W x H x D)	Rated Airflow Capacity (SCFM)			Pleats Per Filter			
		300 FPM	500 FPM	625 FPM	PerfectPleat HC	PerfectPleat	PerfectPleat HC	PerfectPleat
					1"	1"	2"	2"
10 X 10 X 1	9-1/2 X 9-1/2 X 3/4	200	350		11	10		
10 X 20 X 1	9-1/2 X 19-1/2 X 3/4	400	700		11	10		
12 X 12 X 1	11-1/2 X 11-1/2 X 3/4	300	500		14	12		
12 X 20 X 1	11-1/2 X 19-1/2 X 3/4	500	850		14	12		
12 X 24 X 1	11-3/8 X 23-3/8 X 3/4	600	1000		14	12		
14 X 20 X 1	13-1/2 X 19-1/2 X 3/4	600	1000		16	14		
14 X 25 X 1	13-1/2 X 24-1/2 X 3/4	750	1200		16	14		
15 X 20 X 1	14-1/2 X 19-1/2 X 3/4	650	1050		17	15		
16 X 16 X 1	15-1/2 X 15-1/2 X 3/4	550	900		19	16		
16 X 20 X 1	15-1/2 X 19-1/2 X 3/4	650	1100		19	16		
16 X 25 X 1	15-1/2 X 24-1/2 X 3/4	850	1400		19	16		
18 X 20 X 1	17-1/2 X 19-1/2 X 3/4	750	1250		21	18		
18 X 24 X 1	17-3/8 X 23-3/8 X 3/4	900	1500		21	18		
18 X 25 X 1	17-1/2 X 24-1/2 X 3/4	950	1550		21	18		
20 X 20 X 1	19-1/2 X 19-1/2 X 3/4	850	1400		24	20		
20 X 25 X 1	19-1/2 X 24-1/2 X 3/4	1050	1750		24	20		
24 X 24 X 1	23-3/8 X 23-3/8 X 3/4	1200	2000		29	24		
25 X 25 X 1	24-1/2 X 24-1/2 X 3/4	1300	2200		30	25		
10 X 20 X 2	9-1/2 X 19-1/2 X 1-3/4	400	700	850			11	8
12 X 20 X 2	11-1/2 X 19-1/2 X 1-3/4	500	850	1050			14	10
12 X 24 X 2	11-3/8 X 23-3/8 X 1-3/4	600	1000	1250			14	10
14 X 25 X 2	13-1/2 X 24-1/2 X 1-3/4	750	1200	1500			16	11
15 X 20 X 2	14-1/2 X 19-1/2 X 1-3/4	650	1050	1300			17	12
15 X 25 X 2	14-1/2 X 24-1/2 X 1-3/4	800	1300	1650			17	12
16 X 16 X 2	15-1/2 X 15-1/2 X 1-3/4	550	900	1100			19	13
16 X 20 X 2	15-1/2 X 19-1/2 X 1-3/4	650	1100	1400			19	13
16 X 24 X 2	15-3/8 X 23-3/8 X 1-3/4	800	1350	1650			19	13
16 X 25 X 2	15-1/2 X 24-1/2 X 1-3/4	850	1400	1750			19	13
18 X 25 X 2	17-1/2 X 24-1/2 X 1-3/4	950	1550	1950			21	15
18 X 24 X 2	17-3/8 X 23-3/8 X 1-3/4	900	1500	1900			21	15
20 X 20 X 2	19-1/2 X 19-1/2 X 1-3/4	850	1400	1750			24	17
20 X 24 X 2	19-3/8 X 23-3/8 X 1-3/4	1000	1650	2100			24	17
20 X 25 X 2	19-1/2 X 24-1/2 X 1-3/4	1050	1750	2150			24	17
24 X 24 X 2	23-3/8 X 23-3/8 X 1-3/4	1200	2000	2500			29	20
25 X 25 X 2	24-1/2 X 24-1/2 X 1-3/4	1300	2150	2700			30	21

PerfectPleat filters are classified U.L. Class 2. Testing was performed according to U.L. Standard 900 and CAN 4-S111.

Performance Data

Filter	Pleats Per Lineal Foot	Rated Initial Resistance (In. W.G.)			Recommended Final Resistance (In. W.G.)	ASHRAE 52.2 MERV	Continuous Operating Temperature Limits	
		300 FPM	500 FPM	625 FPM			°F	°C
PerfectPleat HC 2"	14.0	.12	.28	.43	1.0	7	165°	74°
PerfectPleat 2"	10.0	.14	.30	.45	1.0	6	165°	74°
PerfectPleat HC 1"	14.0	.23	.48	----	1.0	7	165°	74°
PerfectPleat 1"	12.0	.27	.56	----	1.0	6	165°	74°



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