



Pre Pleat 40™ LPD

- MERV 8
- 40% Lower Pressure Drop
- Industries Highest Dust Holding Capacity

Pre Pleat™ 40 LPD - MERV 8 Pleated Filter
Highest Dust Holding and Lowest Pressure Drop in the Industry!

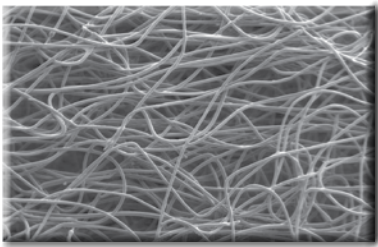
Flanders has led the world in filter media development and the application of high efficiency filtration for over 50-years. Originally introduced in 2004, the industry's first MERV 8 filter operating solely on mechanical means has now been improved! Since 2004, other manufacturers have altered media blends to meet the LEED® and market driven demand for non-electret MERV 8 filters. This has led to pressure drop increases in their filters of 25% or more!

Utilizing a unique new fiber technology, our Research & Development Team has now achieved the multiple goals of maintaining MERV 8 performance at a resistance that is 40% lower than competition. At the same time, the LPD's Dust Holding Capacity remains the highest in the industry. All this while operating on 100% mechanical principles - *Remarkable!*

Construction / Physical Data

Media

100% synthetic non-woven, proprietary media that can be recycled. Engineered with a gradient density composition achieving a MERV 8 using the mechanical method of particle capture. Media does not rely on an electrostatic charge to capture particulate which will dissipate over time and during use.



Media Support

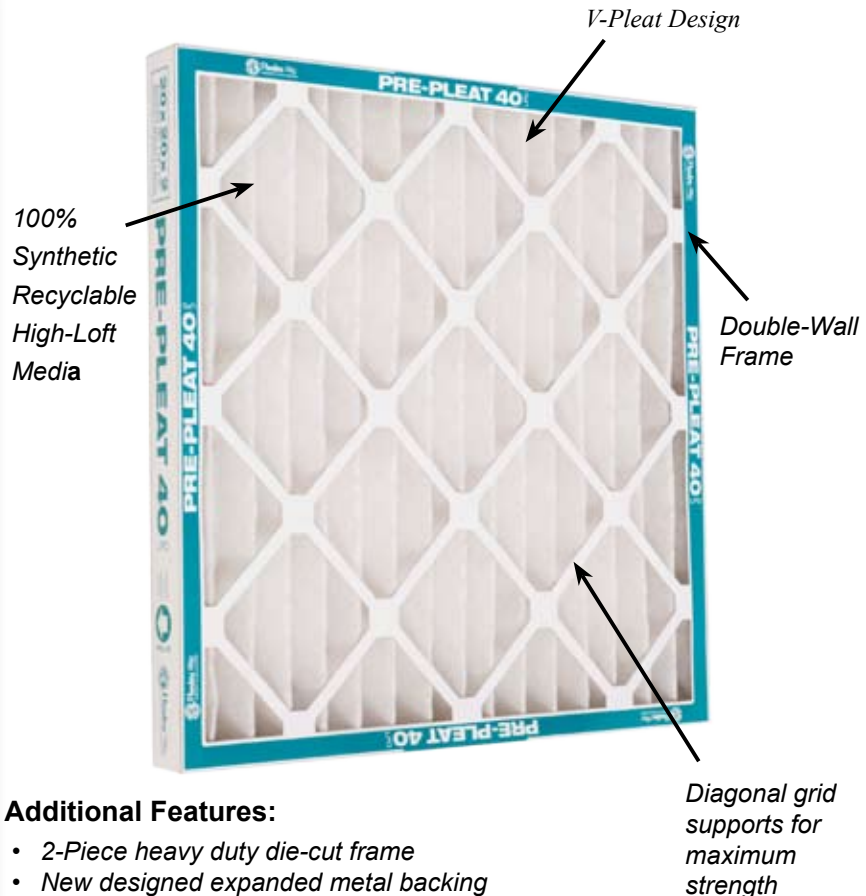
Newly designed expanded metal is continuously laminated on the air leaving side to provide pleat stability while eliminating flutter during operation.

Pleat Design

V-Pleat design aides in pressure drop while reducing energy cost. Design allows for total media usage and provides maximum airflow and dust holding capacity during the life of the filter

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 for unsurpassed frame strength. Interlocking corners and positive media-to-frame seal reduces the possibility of air-bypass.



Additional Features:

- 2-Piece heavy duty die-cut frame
- New designed expanded metal backing

General

Air filters are designed for dust holding, pressure drop and MERV. Flanders Pre Pleat™ 40 LPD achieves the highest **dust holding capacity** and the **lowest pressure drop** in the industry, while maintaining a mechanical MERV 8 per ASHRAE Standard 52.2-2007. Classified UL 900 Class 2.

Installation Considerations

Distinctions can be made in air filter technology. Flanders is committed to continuously developing new and improved products to assist in an environmentally responsible, healthy, and prosperous environment.

The Pre Pleat™ 40 LPD high and standard capacity pleated panel filters are suitable as pre filters but are best suited for heavy duty commercial, industrial, pharmaceutical, as well as other industrial applications where high dust holding is required. The Pre Pleat 40 LPD can be installed in PF-1 Holding Frames, K-Trac Framing Modules, Surepleat Side Access Housings and Bag-In / Bag-Out Containment housings.

Operating Temperature Limits

Maximum operating temperature is 180°F (82.22°C).

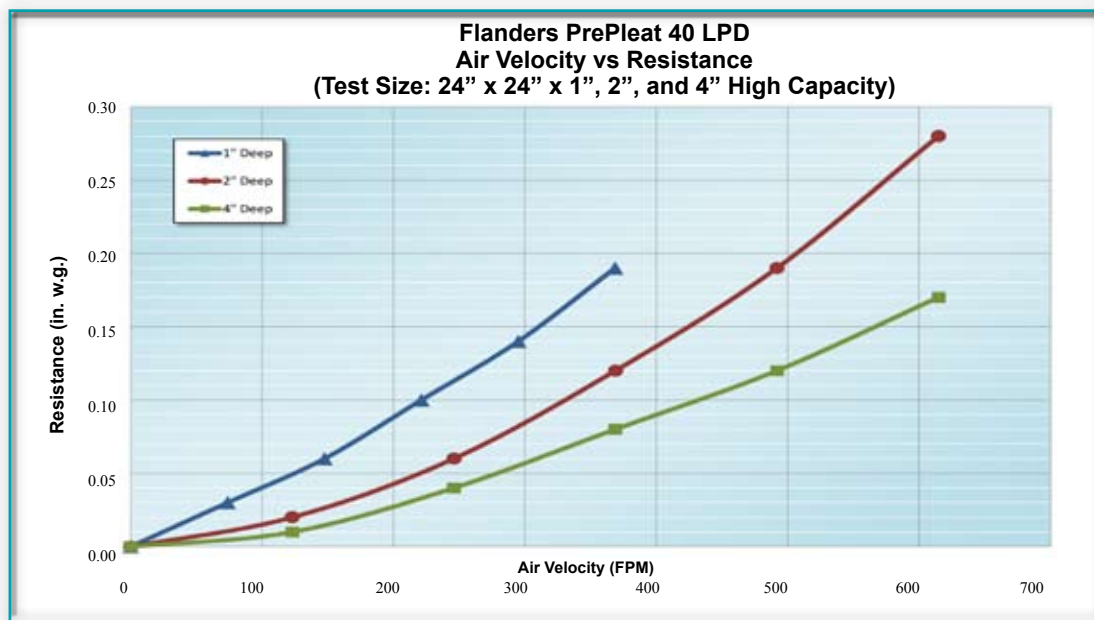
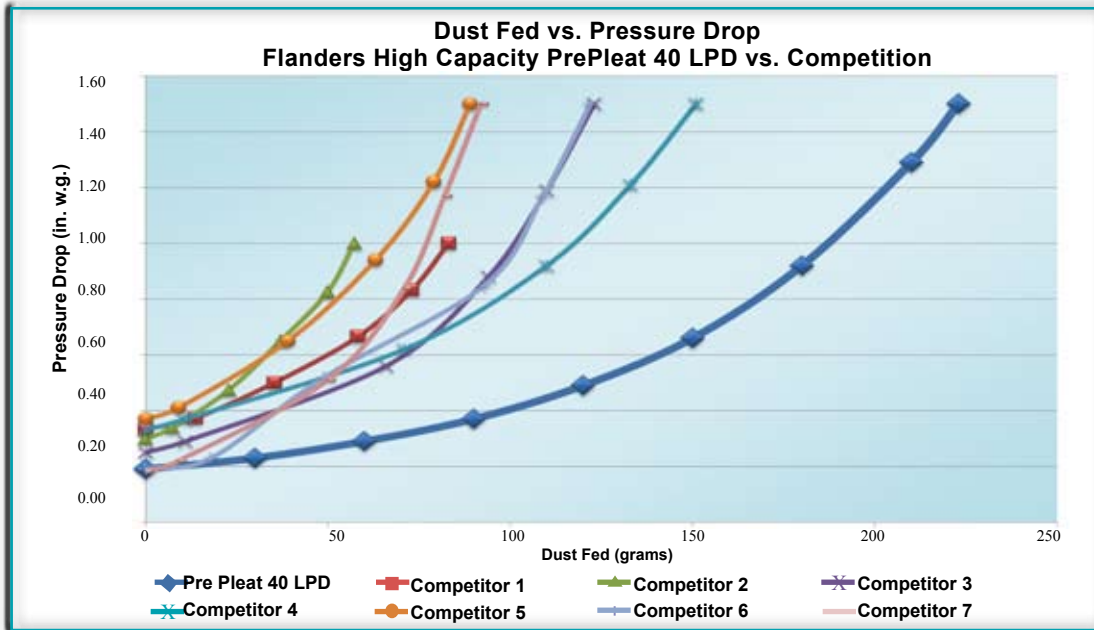
Capacities and Dimensions

Nominal Depth (in.)	Nominal Size WxHxD (in.)	Standard Capacity						High Capacity					
		300 FPM		500 FPM		Media Area (sq. ft.)	Wt. Each (lbs.)	300 fpm		500 FPM		Media Area (sq. ft.)	Wt. Each (lbs.)
		CFM	PD	CFM	PD			cfm	PD	CFM	PD		
1” Standard Capacity 13 ppf High Capacity 15 ppf	10x10x1	208	0.17	347	-	1.1	0.2	208	0.15	347	-	1.3	0.2
	10x20x1	417	0.17	694	-	2.3	0.3	417	0.15	694	-	2.7	0.3
	12x20x1	500	0.17	833	-	2.7	0.3	500	0.15	833	-	3.1	0.3
	12x24x1	600	0.17	1000	-	3.2	0.3	600	0.15	1000	-	3.7	0.4
	14x20x1	583	0.17	972	-	3.3	0.3	583	0.15	972	-	3.7	0.4
	14x25x1	729	0.17	1215	-	4.1	0.4	729	0.15	1215	-	4.6	0.5
	15x20x1	625	0.17	1042	-	3.5	0.4	625	0.15	1042	-	3.9	0.4
	16x20x1	667	0.17	1111	-	3.7	0.4	667	0.15	1111	-	4.1	0.4
	16x25x1	833	0.17	1389	-	4.6	0.5	833	0.15	1389	-	5.2	0.5
	18x24x1	900	0.17	1500	-	4.9	0.5	900	0.15	1500	-	5.7	0.6
	18x25x1	938	0.17	1563	-	5.2	0.5	938	0.15	1563	-	5.9	0.6
	20x20x1	833	0.17	1389	-	4.5	0.5	833	0.15	1389	-	5.1	0.5
	20x24x1	1000	0.17	1667	-	5.4	0.5	1000	0.15	1667	-	6.2	0.6
	20x25x1	1042	0.17	1736	-	5.7	0.6	1042	0.15	1736	-	6.4	0.6
	24x24x1	1200	0.17	2000	-	6.4	0.6	1200	0.15	2000	-	7.4	0.7
25x25x1	1302	0.17	2170	-	7.2	0.7	1302	0.15	2170	-	8.3	0.8	
2” Standard Capacity 10 ppf High Capacity 15 ppf	10x20x2	417	0.10	694	0.20	4.3	0.4	417	0.09	694	0.19	6.2	0.5
	12x20x2	500	0.10	833	0.20	4.8	0.5	500	0.09	833	0.19	7.2	0.5
	12x24x2	600	0.10	1000	0.20	5.8	0.6	600	0.09	1000	0.19	8.7	0.6
	14x20x2	583	0.10	972	0.20	5.8	0.5	583	0.09	972	0.19	8.6	0.6
	14x25x2	729	0.10	1215	0.20	7.2	0.7	729	0.09	1215	0.19	10.8	0.8
	15x20x2	625	0.10	1042	0.20	6.2	0.6	625	0.09	1042	0.19	9.1	0.7
	16x20x2	667	0.10	1111	0.20	6.7	0.6	667	0.09	1111	0.19	9.6	0.7
	16x25x2	833	0.10	1389	0.20	8.4	0.7	833	0.09	1389	0.19	12.0	0.9
	18x24x2	900	0.10	1500	0.20	8.7	0.8	900	0.09	1500	0.19	13.3	0.9
	18x25x2	938	0.10	1563	0.20	9.0	0.8	938	0.09	1563	0.19	13.8	1.0
	20x20x2	833	0.10	1389	0.20	8.2	0.7	833	0.09	1389	0.19	12.0	0.9
	20x24x2	1200	0.10	2000	0.20	9.8	0.9	1200	0.09	2000	0.19	14.4	1.0
	20x25x2	1042	0.10	1736	0.20	10.2	0.9	1042	0.09	1736	0.19	15.0	1.1
24x24x2	1200	0.10	2000	0.20	11.5	1.0	1200	0.09	2000	0.19	17.3	1.2	
25x25x2	1302	0.10	2170	0.20	12.6	1.1	1302	0.09	2170	0.19	19.3	1.3	
4” Standard Capacity 9 ppf High Capacity 13 ppf	12x24x4	600	0.07	1000	0.14	11.1	1.0	600	0.06	1000	0.12	16.5	1.0
	16x20x4	667	0.07	1111	0.14	12.3	1.0	667	0.06	1111	0.12	18.0	1.2
	16x25x4	833	0.07	1389	0.14	15.5	1.3	833	0.06	1389	0.12	22.6	1.4
	18x24x4	900	0.07	1500	0.14	17.3	1.4	900	0.06	1500	0.12	24.2	1.5
	20x20x4	833	0.07	1389	0.14	15.4	1.3	833	0.06	1389	0.12	22.3	1.4
	20x24x4	1000	0.07	1667	0.14	18.6	1.5	1000	0.06	1667	0.12	24.0	1.7
	20x25x4	1042	0.07	1736	0.14	19.3	1.6	1042	0.06	1736	0.12	27.7	1.8
	24x24x4	1200	0.07	2000	0.14	22.3	1.8	1200	0.06	2000	0.12	28.8	2.0
25x29x4	1510	0.07	2517	0.14	28.4	2.4	1510	0.06	2517	0.12	28.4	2.7	
28x30x4	1750	0.07	2917	0.14	33.2	2.8	1750	0.06	2917	0.12	42.6	3.1	

Notes:

1. PD represents clean pressure drop in inches w.g. The recommended final pressure drop for all models is 1.0 in. w.g. System design may dictate a lower change-out point.
2. Actual filter face size for 12x24 and 24x24 filters is 5/8 in. under on height and width. Actual face size on all other sizes is 1/2 in. under on height and width.
3. Actual filter depth is 1/4 inch under for these nominal 1-inch, 2-inch and 4-inch deep filters. For capacities other than those shown, ratio the face velocities.
4. Efficiency is not affected by the conditioning steps outlined in ASHRAE 52.2-2007 per Appendix J.

Dust Loading / Resistance Curve



Notes:

1. The Pre Pleat 40 LPD maintains efficiency values during conditioning tests.
2. A nominal 24" x 24" x 2" High Capacity pleat has a dust holding capacity of 195 grams.
3. All data per ASHRAE 52.2, latest revision. Independent test reports are available upon request.



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