



**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!**

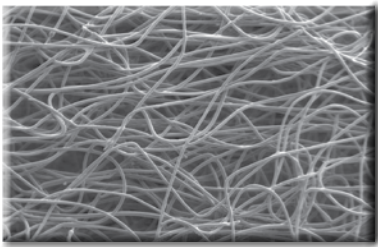
Flanders has led the world in filter media development and the application of high efficiency filtration for over 50-years. Originally introduced in 2004, the industry's first MERV 8 filter operating solely on mechanical means has now been improved! Since 2004, other manufacturers have altered media 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

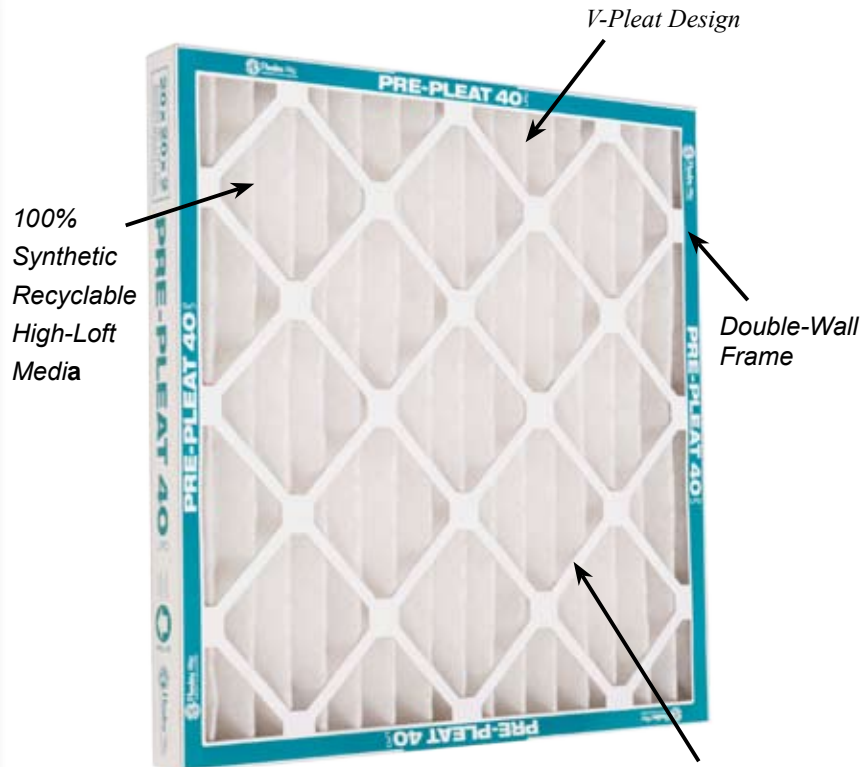
Newly designed expanded metal is continuously laminated on the air leaving side to provide pleat stability while eliminating flutter during operation.

### Pleat Design

V-Pleat design aids 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

*Diagonal grid supports for maximum strength*

### 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).

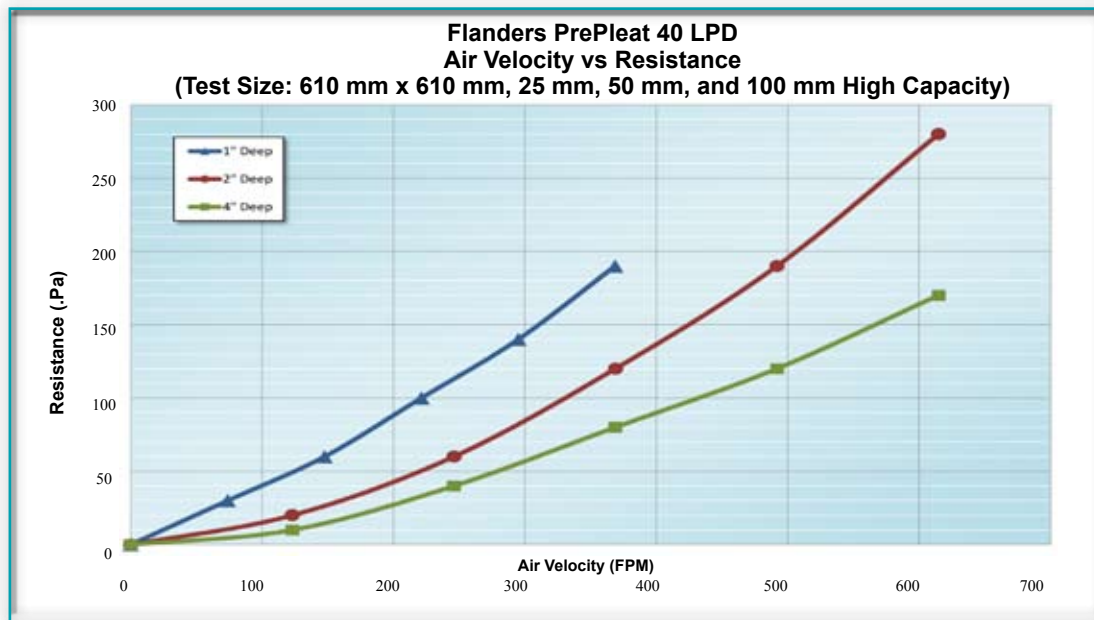
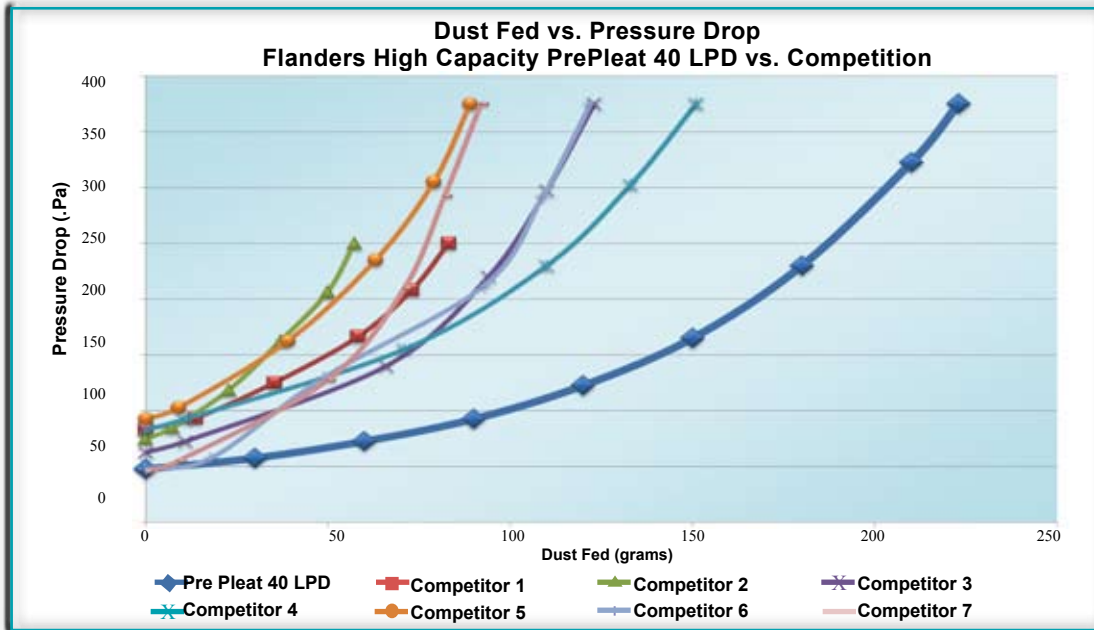
## Capacities and Dimensions

Nominal Depth (mm)	Nominal Size WxHxD (mm)	Standard Capacity						High Capacity					
		1.5 m/s		2.5 m/s		Media Area (sq.m)	Wt. Each (grams)	1.5 m/s		2.5 m/s		Media Area (sq.m)	Wt. Each (grams)
		L/s	PD (Pa)	L/s	PD (Pa)			L/s	PD (Pa)	L/s	PD (Pa)		
25 mm Standard Capacity 13 ppf  High Capacity 15 ppf	254x254x25	98	42.3	164	-	0.10	91	98	37.3	164	-	0.12	91
	254x508x25	197	42.3	328	-	0.21	136	197	37.3	328	-	0.25	136
	305x508x25	236	42.3	393	-	0.25	136	236	37.3	393	-	0.29	136
	305x610x25	283	42.3	472	-	0.30	136	283	37.3	472	-	0.34	181
	356x508x25	275	42.3	459	-	0.31	136	275	37.3	459	-	0.34	181
	356x635x25	344	42.3	573	-	0.38	181	344	37.3	573	-	0.43	227
	381x508x25	295	42.3	492	-	0.33	181	295	37.3	492	-	0.36	181
	406x508x25	315	42.3	524	-	0.34	181	315	37.3	524	-	0.38	181
	406x635x25	393	42.3	656	-	0.43	227	393	37.3	656	-	0.48	227
	457x610x25	425	42.3	708	-	0.46	227	425	37.3	708	-	0.53	272
	457x635x25	443	42.3	738	-	0.48	227	443	37.3	738	-	0.55	272
	508x508x25	393	42.3	656	-	0.42	227	393	37.3	656	-	0.47	227
	508x610x25	472	42.3	787	-	0.50	227	472	37.3	787	-	0.58	272
	508x635x25	492	42.3	819	-	0.53	272	492	37.3	819	-	0.59	272
	610x610x25	566	42.3	944	-	0.59	272	566	37.3	944	-	0.69	318
635x635x25	614	42.3	1024	-	0.67	318	614	37.3	1024	-	0.77	363	
50 mm Standard Capacity 10 ppf  High Capacity 15 ppf	254x508x52	197	24.9	328	49.8	0.40	181	197	22.4	328	47.3	0.58	227
	305x508x52	236	24.9	393	49.8	0.45	227	236	22.4	393	47.3	0.67	227
	305x610x52	283	24.9	472	49.8	0.54	272	283	22.4	472	47.3	0.81	272
	356x508x52	275	24.9	459	49.8	0.54	227	275	22.4	459	47.3	0.80	272
	356x635x52	344	24.9	573	49.8	0.67	318	344	22.4	573	47.3	1.00	363
	381x508x52	295	24.9	492	49.8	0.58	272	295	22.4	492	47.3	0.85	318
	406x508x52	315	24.9	524	49.8	0.62	272	315	22.4	524	47.3	0.89	318
	406x635x52	393	24.9	656	49.8	0.78	318	393	22.4	656	47.3	1.11	408
	457x610x52	425	24.9	708	49.8	0.81	363	425	22.4	708	47.3	1.24	408
	457x635x52	443	24.9	738	49.8	0.84	363	443	22.4	738	47.3	1.28	454
	508x508x52	393	24.9	656	49.8	0.76	318	393	22.4	656	47.3	1.11	408
	508x610x52	566	24.9	944	49.8	0.91	408	566	22.4	944	47.3	1.34	454
	508x635x52	492	24.9	819	49.8	0.95	408	492	22.4	819	47.3	1.39	499
610x610x52	566	24.9	944	49.8	1.07	454	566	22.4	944	47.3	1.61	544	
635x635x52	614	24.9	1024	49.8	1.17	499	614	22.4	1024	47.3	1.79	590	
100 mm Standard Capacity 9 ppf  High Capacity 13 ppf	305x610x100	283	17.4	472	34.8	1.03	454	283	14.9	472	29.9	1.53	454
	406x508x100	315	17.4	524	34.8	1.14	454	315	14.9	524	29.9	1.67	544
	406x635x100	393	17.4	656	34.8	1.44	590	393	14.9	656	29.9	2.10	635
	457x610x100	425	17.4	708	34.8	1.61	635	425	14.9	708	29.9	2.25	680
	508x508x100	393	17.4	656	34.8	1.43	590	393	14.9	656	29.9	2.07	635
	508x610x100	472	17.4	787	34.8	1.73	680	472	14.9	787	29.9	2.23	771
	508x635x100	492	17.4	819	34.8	1.79	726	492	14.9	819	29.9	2.57	816
	610x610x100	566	17.4	944	34.8	2.07	816	566	14.9	944	29.9	2.68	907
	635x737x100	713	17.4	1188	34.8	2.64	1089	713	14.9	1188	29.9	2.64	1225
711x762x100	826	17.4	1377	34.8	3.08	1270	826	14.9	1377	29.9	3.96	1406	

### Notes:

1. PD represents clean pressure drop in inches w.g. The recommended final pressure drop for all models is 250 Pa. w.g. System design may dictate a lower change-out point.
2. Actual filter face size for 305 mm x 610 mm and 610 mm x 610 mm filters is 16 mm under on height and width. Actual face size on all other sizes is 13 mm under on height and width.
3. Actual filter depth is 6 mm under for these nominal 25 mm, 50 mm and 100 mm 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 610 mm x 610 mm x 50 mm 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.



REPRESENTED BY:

