

*New Design and Improved Performance*

# *Multi-Pleat XL11™*

*MERV 11 Extended Surface Pleated  
Panel Filters*



- Upgrade from standard pleated filters
- MERV 11 efficiency rating
- Dual-layered filter media
- Low pressure drop
- Superior efficiency
- High dust holding capacity



**Koch Filter Corporation...Durable. Reliable. Versatile.**

Bulletin No. K-602

# Multi-Pleat XL11 MERV 11 Extended Surface Pleated Panel Filters



The Koch **Multi-Pleat XL11** is a medium efficiency extended surface pleated panel filter, engineered to provide higher initial efficiencies and better overall performance than standard pleated filters.

The **Multi-Pleat XL11** carries a MERV 11 fractional efficiency rating in accordance with ASHRAE Test Standard 52.2. The filter will also provide an Initial Dust Spot Efficiency of 45%, and an Average Dust Spot Efficiency of 55-60% in accordance with ASRAE Rest Standard 52.1.

The MERV 11 efficiency ratings provided by the **Multi-Pleat XL11** make the filter an excellent upgrade from disposable filters and ordinary pleated filters in applications such as hospitals, laboratories and pharmaceutical plants, commercial office buildings, and in any system in which a higher degree of clean air is required.

## Multi-Pleat XL11 Construction

The **Multi-Pleat XL11** is produced with a highly specialized, dual-layered 100% synthetic media, developed by Koch Filter Corporation specifically for use in extended surface air filters. The new media is composed of an upstream electrostatically enhanced layer (the E-layer), and a downstream mechanical layer (the M-layer).

### Combination Electrostatic and Mechanical Media

The dual-layered construction of Multi-Pleat Series XL11 overcomes a common problem found in single-layered electrostatically charged filters. In filters produced with single-layered media, the effectiveness of the electrostatically charged media decreases over time as the filter becomes dirty and the charge dissipates.

The unique dual-layered media design of the Multi-Pleat XL11 greatly reduces this problem. As the effectiveness of the electrostatically enhanced E-layers decreases, the downstream mechanical M-layer takes over. The M-layer steps up to provide better continuing overall performance and excellent dust holding capacity.

Moisture resistant beverage board frame maintains rigidity even in high humidity environments.

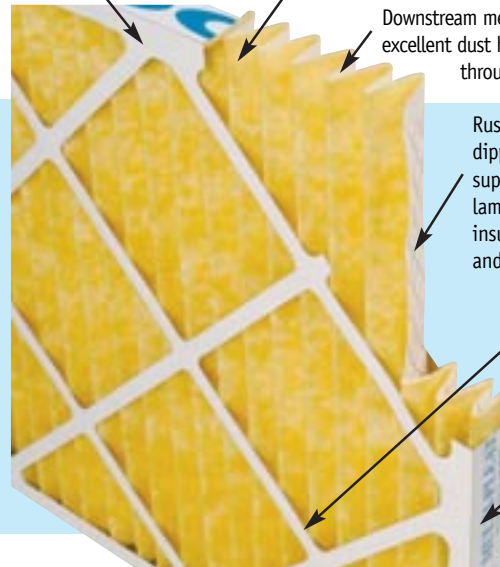
Upstream electrostatically charged **E-Layer** provides high initial efficiencies.

Downstream mechanical **M-Layer** provides excellent dust holding capacities and efficiencies throughout the filter's lifecycle.

Rust resistant galvanized-dipped expanded metal support grid is totally laminated to media to insure even pleat spacing and structural support.

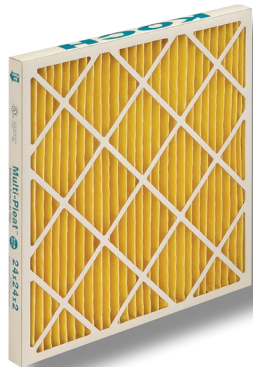
Pleats are bonded to frame to guarantee consistent pleat configuration and total media utilization.

Frame is double-walled with reinforced corners to insure rigidity in the toughest applications.



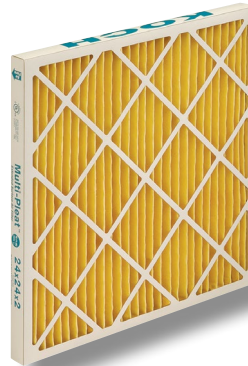
## Two Media Area Capacity Levels

The **Multi-Pleat XL11** is an extremely versatile line of pleated panel filters which can be used in a wide variety of filtration systems worldwide. In order to meet the different requirements found in these applications, Koch offers the XL11 Series in two media area capacity levels.



### Standard Capacity

Standard Capacity **XL11-SC** filters provide a combination of efficiency, economy, and excellent overall performance. Standard Capacity XL11 filters are an excellent choice in applications where filter change schedules are based on preventive maintenance schedules.



### High Capacity

High Capacity **XL11-HC** filters are similar in construction to the Standard Capacity but have the added advantage of approximately 30% more media. The additional media results in extended filter life, making the XL11-HC the ideal filter for use in filtration systems where filter change schedules are predicated on recommended final pressure drop readings.

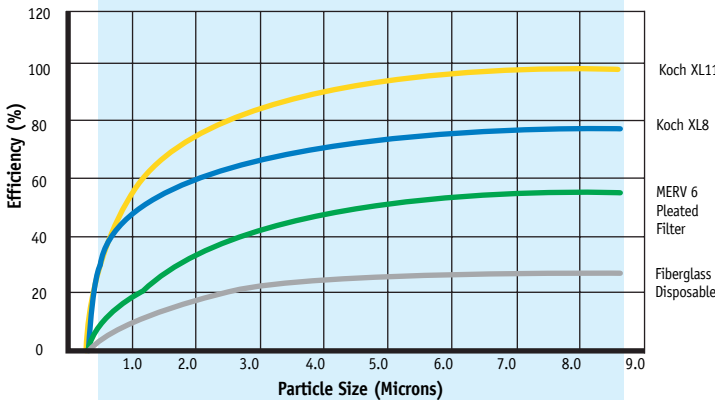
# Multi-Pleat XL11 Technical Data

		Standard Capacity XL11-SC				High Capacity XL11-HC						
Size (Nominal)	Size (Actual in inches)	Capacity (CFM)			Resistance (in W.G.)		Media Area (Sq. Ft.)					
		Low	Med	High	Low	Med	High					
		@300	500	625	@300	500	625					
		(FPM)			(FPM)							
10x20x1	9-7/8x19-7/8x7/8	425	700	NR	.16	.37	NR/1.0	2.2	.15	.34	NR/1.0	3.2
12x24x1	11-3/8x23-3/8x7/8	600	1000	NR	.16	.37	NR/1.0	3.2	.15	.34	NR/1.0	4.6
14x20x1	13-7/8x19-7/8x7/8	590	980	NR	.16	.37	NR/1.0	3.1	.15	.34	NR/1.0	4.5
14x25x1	13-7/8x24-7/8x7/8	730	1215	NR	.16	.37	NR/1.0	3.9	.15	.34	NR/1.0	5.6
15x20x1	14-7/8x19-7/8x7/8	625	1050	NR	.16	.37	NR/1.0	3.3	.15	.34	NR/1.0	4.8
16x20x1	15-1/2x19-1/2x7/8	670	1115	NR	.16	.37	NR/1.0	3.6	.15	.34	NR/1.0	5.1
16x25x1	15-1/2x24-1/2x7/8	840	1400	NR	.16	.37	NR/1.0	4.5	.15	.34	NR/1.0	6.4
20x20x1	19-1/2x19-1/2x7/8	840	1400	NR	.16	.37	NR/1.0	4.5	.15	.34	NR/1.0	6.4
20x25x1	19-1/2x24-1/2x7/8	1050	1740	NR	.16	.37	NR/1.0	5.6	.15	.34	NR/1.0	8.0
24x24x1	23-3/8x23-3/8x7/8	1200	2000	NR	.16	.37	NR/1.0	6.4	.15	.34	NR/1.0	9.2
12x24x2	11-3/8x23-3/8x1-3/4	600	1000	1200	.14	.31	.51/1.0	6.2	.13	.28	.49/1.0	9.2
14x20x2	13-3/4x19-3/4x1-3/4	590	980	1215	.14	.31	.51/1.0	6.1	.13	.28	.49/1.0	8.9
14x25x2	13-3/4x24-3/4x1-3/4	730	1215	1520	.14	.31	.51/1.0	7.5	.13	.28	.49/1.0	12.0
15x20x2	14-3/4x19-3/4x1-3/4	625	1050	1310	.14	.31	.51/1.0	6.5	.13	.28	.49/1.0	9.6
16x20x2	15-1/2x19-1/2x1-3/4	670	1115	1400	.14	.31	.51/1.0	6.8	.13	.28	.49/1.0	10.2
16x25x2	15-1/2x24-1/2x1-3/4	840	1400	1740	.14	.31	.51/1.0	8.7	.13	.28	.49/1.0	12.8
18x24x2	17-1/2x23-1/2x1-3/4	900	1500	1875	.14	.31	.51/1.0	9.3	.13	.28	.49/1.0	13.8
20x20x2	19-1/2x19-1/2x1-3/4	840	1400	1740	.14	.31	.51/1.0	8.7	.13	.28	.49/1.0	12.8
20x24x2	19-1/2x23-1/2x1-3/4	1000	1675	2100	.14	.31	.51/1.0	10.3	.13	.28	.49/1.0	15.3
20x25x2	19-1/2x24-1/2x1-3/4	1050	1740	2170	.14	.31	.51/1.0	10.8	.13	.28	.49/1.0	16.0
24x24x2	23-3/8x23-3/8x1-3/4	1200	2000	2500	.14	.31	.51/1.0	12.4	.13	.28	.49/1.0	18.4
25x25x2	24-3/8x24-3/8x1-3/4	1310	2170	2720	.14	.31	.51/1.0	13.5	.13	.28	.49/1.0	20.0
12x24x4	11-3/8x23-3/8x3-3/4	600	1000	1250	.13	.29	.45/1.0	11.6	.12	.27	.43/1.0	14.0
16x20x4	15-1/2x19-1/2x3-3/4	670	1115	1400	.13	.29	.45/1.0	12.9	.12	.27	.43/1.0	15.6
18x24x4	17-1/2x23-3/8x3-3/4	900	1500	1875	.13	.29	.45/1.0	17.4	.12	.27	.43/1.0	21.0
20x20x4	19-1/2x19-1/2x3-3/4	840	1400	1740	.13	.29	.45/1.0	16.1	.12	.27	.43/1.0	19.4
20x24x4	19-1/2x23-3/8x3-3/4	1000	1675	2100	.13	.29	.45/1.0	19.3	.12	.27	.43/1.0	24.0
20x25x4	19-1/2x24-1/2x3-3/4	1050	1740	2170	.13	.29	.45/1.0	20.1	.12	.27	.43/1.0	24.3
24x24x4	23-3/8x23-3/8x3-3/4	1200	2000	2500	.13	.29	.45/1.0	23.2	.12	.27	.43/1.0	28.0
24x24x6	23-3/8x23-3/8x5-3/4	1200	2000	2500	.14	.30	.43/1.0	35.6	.12	.28	.41/1.0	45.2

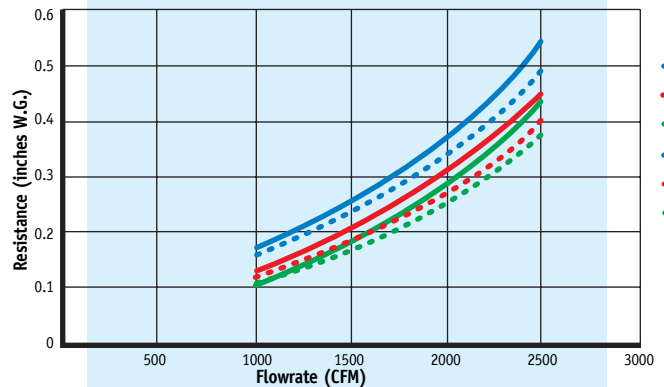
### Additional Multi-Pleat XL8 Product Information

MERV (Minimum Efficiency Reporting Value) • Recommended Final Pressure Drop is 1.0" w.g. • Performance data is based on ASHRAE Test Standards 52.1-1999 and 52.2-2007. Recommended maximum continuous operational temperature is 200°F. • Multi-Pleat XL8 filters are classified as Underwriter's Laboratories Class 2 according to U.L. Standard 900.

### Efficiency by Particle Size



### Initial Resistance vs. Filter Face Velocity



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