Multi-Pleat™ XL11

Standard Capacity MERV 11 Extended Surface Pleated Panel Filter

FEATURES

- Upgrade from standard pleated filter
- MERV 11 efficiency
- Dual-Layered filter media
- Low pressure drop
- High dust holding capacity
- Superior Efficiency

Multi-Pleat XL11

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 Test 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 environments.

Multi-Pleat XL11 Construction

The Multi-Pleat XL11 is produced with a highly specialized, dual-layered 100% synthetic media, developed by Koch Filter 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). 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.As the effectiveness of the electrostatically enhanced E-layers decreases, the downstream mechanical M-layer takes over.

Two Media Area Capacity Levels

Standard Capacity XL11 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.

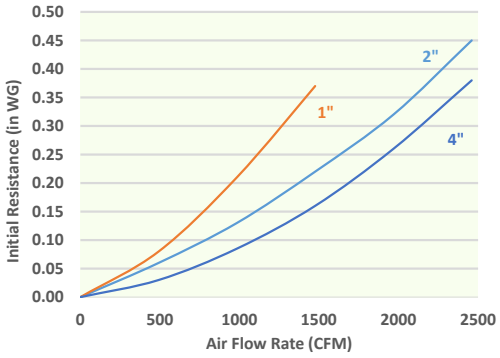
High Capacity X11-HC filters are similar in construction to the Standard Capacity but have the added advantage of approximately 30% more media. The additional media results in extended filter life, making the XL11-HC the ideal filter for use in filtration systems where filter change schedules are predicated on recommended final pressure drop readings.

KOCH FILTER
PURE PERFORMANCE

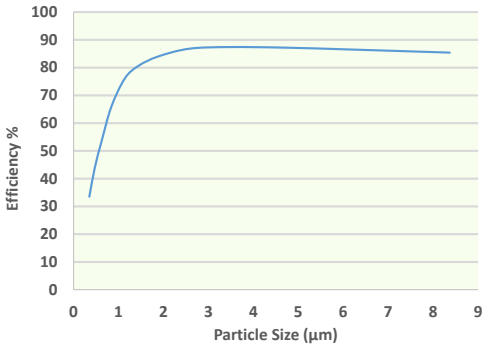
Multi-Pleat™ XL11 Technical Data

Filter Depth	Air Velocity	Intial Reistance (inches w.g.)	Final Resistance (inches w.g.)	Pleats Per Linear Foot
1"	300 FPM	0.27	1.0	12
2"	500 FPM	0.32	1.0	10
4"	500 FPM	0.26	1.0	9

Initial Resistance vs. Air Flow Rate



Efficiency by Particle Size



Multi-Pleat™ XL11 Specifications

Efficiency	MERV 11
Media	100% Synthetic Mechanical
Media Support	Expanded Metal on Downstream Side
Frame Type	Beverage Board
Max Operating Temperature	200°F (93°C)
Recommended Final Resistance	1"w.g.
Filter Certification	UL 900 and ULC-S111-07
Manufacturing Certification	ISO 9001:2015

Engineering Specifications

1.0 General Specifications

1.1 Filters shall be Multi-Pleat XL11 extended surface pleated air filters as manufactured by Koch Filter.
1.2 Filters shall be available in nominal depths of 1", 2", 4" and 6", in standard and high capacity configurations.
1.3 Filters are classified by Underwriters Laboratories to UL 900 and ULC-S111-07.
1.4 Filters are manufactured by an ISO 9001 registered company.

2.0 Filter Material and Construction

2.1 Media shall be 100% synthetic mechanical media.
2.2 Filters shall have an expanded galvanized steel support grid bonded to the air-exiting side of the filter to maintain pleat uniformity and prevent fluttering.
2.3 Filter frame shall be comprised of a high wet strength beverage board with a cross member designed to increase filter strength and rigidity. Frame shall be recyclable.

3.0 Filter Performance

3.1 Filters shall be MERV 11 in standard capacity and high capacity configurations and when tested in accordance with the ASHRAE 52.2 Test Standard.
3.2 For initial resistance of filters, see Performance Data chart above.
3.3 Filters shall be rated to withstand a continuous operating temperature up to 200°F.
3.4 Filters shall have a recommended final resistance of 1.0" w.g.

Part Number	Nominal Size*	Actual Size	Capacity (CFM)	
	WxHxD	WxHxD	300 FPM	500 FPM
102-091-020	10x10x1	9-1/2x9-1/2x3/4	200	350
102-499-001	10x20x1	9-1/2x19-1/2x3/4	425	700
102-499-051	12x12x1	11-1/2x11-1/2x3/4	300	500
102-091-001	12x18x1	11-1/2x17-1/2x3/4	450	750
102-091-002	12x20x1	11-1/2x19-1/2x3/4	500	850
102-499-002	12x24x1	11-3/8x23-3/8x3/4	600	1000
102-091-003	12x25x1	11-1/2x24-1/2x3/4	625	1050
102-499-003	14x20x1	13-1/2x19-1/2x3/4	575	986
102-091-005	14x24x1	13-1/2x23-1/2x3/4	700	1175
102-499-004	14x25x1	13-1/2x24-1/2x3/4	725	1225
102-091-039	14x30x1	13-1/2x29-1/2x3/4	875	1450
102-499-005	15x20x1	14-1/2x19-1/2x3/4	625	1050
102-091-006	15x25x1	14-1/2x24-1/2x3/4	775	1300
102-091-007	16x16x1	15-1/2x15-1/2x3/4	550	900
102-499-006	16x20x1	15-1/2x19-1/2x3/4	675	1125
102-091-008	16x24x1	15-1/2x23-1/2x3/4	800	1350
102-499-007	16x25x1	15-1/2x24-1/2x3/4	850	1400
102-091-018	16x30x1	15-1/2x29-1/2x3/4	1000	1675
102-091-009	18x18x1	17-1/2x17-1/2x3/4	675	1125
102-091-015	18x20x1	17-1/2x19-1/2x3/4	750	1250
102-091-016	18x24x1	17-3/8x23-3/8x3/4	900	1500
102-091-011	18x25x1	17-1/2x24-1/2x3/4	950	1575
102-091-044	18x30x1	17-1/2x29-1/2x3/4	1125	1875
102-499-008	20x20x1	19-1/2x19-1/2x3/4	850	1400
102-091-049	20x22x1	19-3/4x21-1/2x3/4	900	1525
102-091-017	20x24x1	19-3/8x23-3/8x3/4	1000	1675
102-499-009	20x25x1	19-1/2x24-1/2x3/4	1000	1750
102-091-012	20x30x1	19-1/2x29-1/2x3/4	1250	2100
102-499-010	24x24x1	23-3/8x23-3/8x3/4	1200	2000
102-091-013	24x30x1	23-1/2x29-1/2x3/4	1500	2500
102-091-014	25x25x1	24-1/2x24-1/2x3/4	1300	2175
Part Number	**Nominal Size**	**Actual Size**	**500 FPM**	**625 FPM**
102-499-011	10x20x2	9-1/2x19-1/2x1-3/4	700	875
102-092-035	12x12x2	11-1/2x11-1/2x1-3/4	500	625
102-092-002	12x20x2	11-1/2x19-1/2x1-3/4	850	1050
102-499-012	12x24x2	11-3/8x23-3/8x1-3/4	1000	1250
102-092-003	12x25x2	11-1/2x24-1/2x1-3/4	1050	1300
102-499-013	14x20x2	13-1/2x19-1/2x1-3/4	975	1225
102-499-014	14x25x2	13-1/2x24-1/2x1-3/4	1225	1525
102-092-039	14x30x2	13-1/2x29-1/2x1-3/4	1450	1825
102-499-015	15x20x2	14-1/2x19-1/2x1-3/4	1050	1300
102-092-005	16x16x2	15-1/2x15-1/2x1-3/4	900	1125
102-499-016	16x20x2	15-1/2x19-1/2x1-3/4	1125	1400
102-499-053	16x24x2	15-1/2x23-1/2x1-3/4	1350	1675
102-499-017	16x25x2	15-1/2x24-1/2x1-3/4	1400	1750
102-092-018	16x30x2	15-1/2x29-1/2x1-3/4	1675	2100
102-092-007	18x18x2	17-1/2x17-1/2x1-3/4	1125	1400
102-092-015	18x20x2	17-1/2x19-1/2x1-3/4	1250	1575
102-499-018	18x24x2	17-1/2x23-1/2x1-3/4	1500	1875
102-092-009	18x25x2	17-1/2x24-1/2x1-3/4	1575	1950
102-499-019	20x20x2	19-1/2x19-1/2x1-3/4	1400	1750
102-499-020	20x24x2	19-1/2x23-1/2x1-3/4	1675	2100
102-499-021	20x25x2	19-1/2x24-1/2x1-3/4	1750	2175
102-092-010	20x30x2	19-1/2x29-1/2x1-3/4	2100	2600
102-092-030	20x35x2	19-1/2x34-1/2x1-3/4	2450	3050
102-499-022	24x24x2	23-3/8x23-3/8x1-3/4	2000	2500
102-092-011	24x30x2	23-1/2x29-1/2x1-3/4	2500	3125
102-499-050	25x25x2	24-1/2x24-1/2x1-3/4	2175	2725
Part Number	**Nominal Size**	**Actual Size**	**500 FPM**	**625 FPM**
102-499-023	12x24x4	11-3/8x23-3/8x3-3/4	1000	1250
102-499-024	15x20x4	14-1/2x19-1/2x3-3/4	1050	1300
102-499-025	16x20x4	15-1/2x19-1/2x3-3/4	1125	1400
102-094-005	16x24x4	15-3/8x23-3/8x3-3/4	1350	1675
102-499-026	16x25x4	15-1/2x24-1/2x3-3/4	1400	1750
102-499-027	18x24x4	17-1/2x23-3/8x3-3/4	1500	1875
102-499-028	20x20x4	19-1/2x19-1/2x3-3/4	1400	1750
102-499-029	20x24x4	19-3/8x23-3/8x3-3/4	1675	2100
102-499-030	20x25x4	19-1/2x24-1/2x3-3/4	1750	2175
102-499-031	24x24x4	23-3/8x23-3/8x3-3/4	2000	2500
102-094-010	25x29x4	28-1/2x24-1/2x3-3/4	2525	3150
102-499-041	24x24x6	23-3/8x23-3/8x5-3/4	2000	2500

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