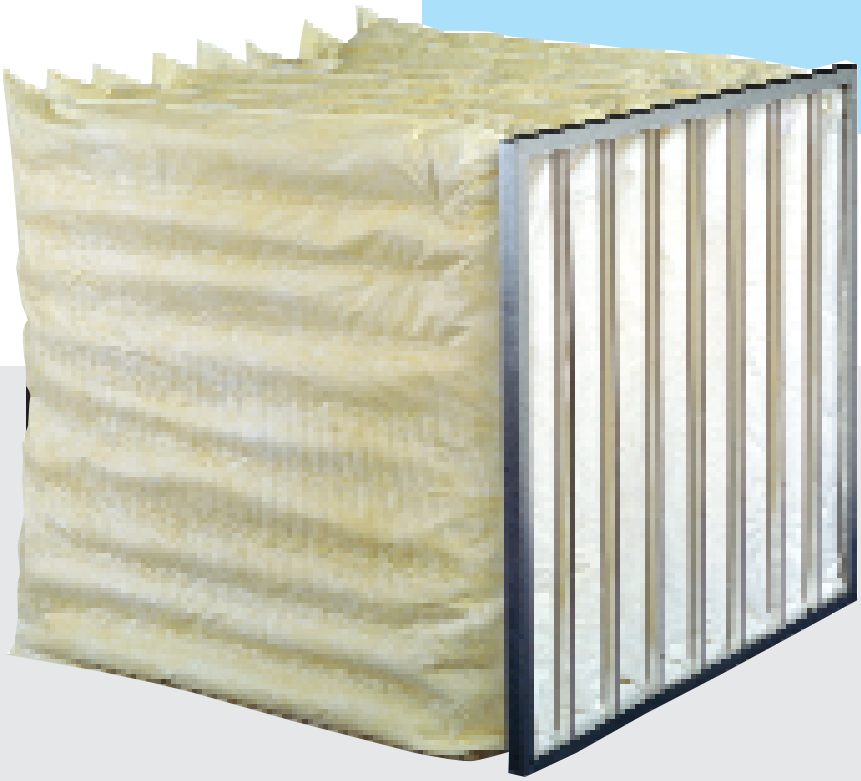
Koch Filter Corporation
Filtration Products Crafted with Pride

Multi-Sak™

Medium and High Efficiency Extended Surface Air Filters



- Synthetic or Microfiberglass Media
- Low Pressure Drop/Extended Service Life
- Five Efficiency Ranges

Bulletin No. K-228-B

Multi-Sak Extended Surface Air Filters

The **Koch Multi-Sak** is an extended surface air filter designed for most medium and high efficiency air filtration systems.

The Multi-Sak is capable of operating in systems with rated face velocities of 500 CFM to 3000 CFM. Available efficiencies range from 20% to 95%, and seven standard face sizes are offered.

This broad spectrum of styles and models makes the Multi-Sak extremely versatile and suitable for almost any commercial or industrial air handling system. Multi-Sak filters are presently in use in over 20,000 applications, including hospitals, automotive plants, office buildings, universities, pharmaceutical facilities, and sports arenas around the world.

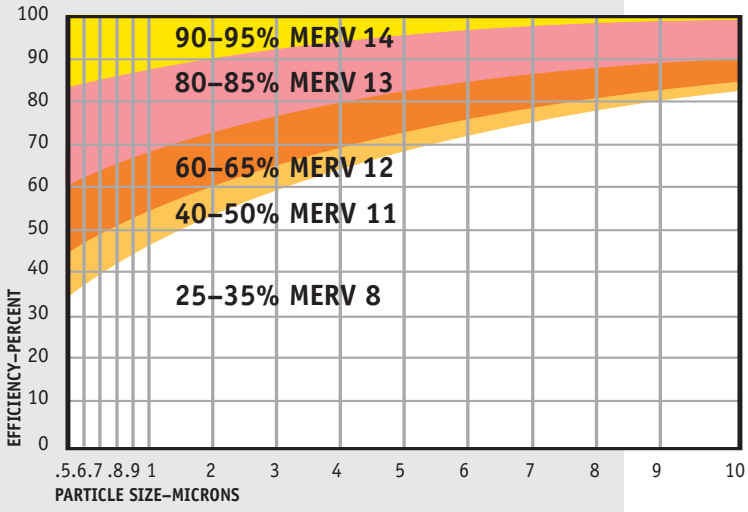
Two Media Options

In order to meet the strict Indoor Air Quality specifications found in today's complex air filtration systems, Koch offers the Multi-Sak with two distinct types of air filter media. With two media choices, the end-user is assured of finding the correct product for every type of air handling system.

Series S *Synthetic Media*

- 100% dual-layered synthetic fibers.
- Low pressure drop
- Unaffected by moisture or humidity
- Available in 5 efficiency ranges
  - **90–95%** (MERV 14)
  - **80–85%** (MERV 13)
  - **60–65%** (MERV 12)
  - **40–50%** (MERV 11)
  - **25–35%** (MERV 8)
- Media color-coded by efficiency (see chart below)

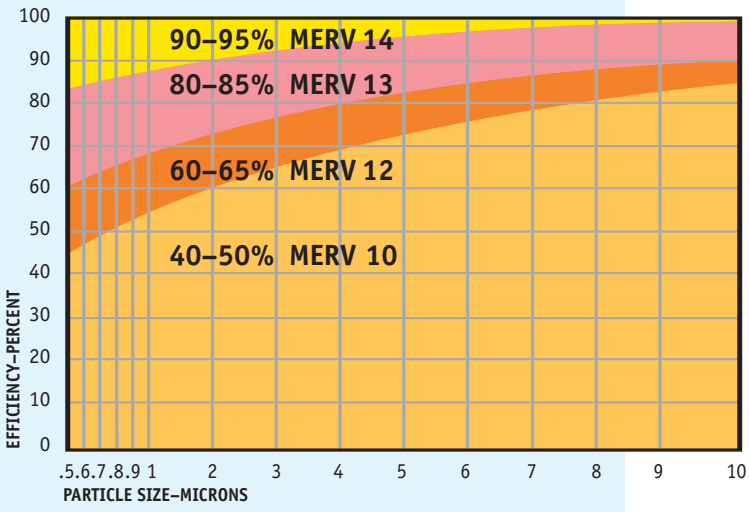
Efficiency vs. Particle Size



Series G *Microfiberglass Media*

- Progressively dense microfiberglass media
- Long record of proven reliability
- Unaffected by moisture and humidity
- Available in 4 efficiency ranges
  - **90–95%** (MERV 14)
  - **80–85%** (MERV 13)
  - **60–65%** (MERV 12)
  - **40–50%** (MERV 10)
- Media color-coded by efficiency (see chart below)

Efficiency vs. Particle Size



Multi-Sak Performance Data

Multi-Sak *High Efficiency 90–95%, 80–85%, 60–65%*

MODEL NUMBER	NOMINAL SIZE (WxHxD)	MEDIA AREA (SQ. FT.)	NUMBER POCKETS	AIR FLOW CAPACITIES (CFM)			SERIES "S" INITIAL PRESSURE DROP (IN. W.G.) @ 500 FPM		
							MERV 14 90-95%	MERV 13 80-85%	MERV 11 60-65%
10FZ36 *	24x24x36	135	10	2000	2500	3000	.42	.33	.27
8FZ36 *	24x24x36	108	8	2000	2500	3000	.44	.35	.29
6FZ36 *	24x24x36	81	6	1500	2000	2500	.49	.40	.33
10FZ30 *	24x24x30	113	10	1500	2000	2500	.47	.38	.32
8FZ30 *	24x24x30	90	8	1500	2000	2500	.45	.36	.30
6FZ30 *	24x24x30	68	6	1500	2000	2500	.49	.40	.34
8FZ22 *	24x24x22	67	8	1000	1500	2000	.50	.44	.35
6FZ22 *	24x24x22	51	6	1000	1500	2000	.52	.46	.37
8FZ18 *	24x24x18	56	8	1000	1500	2000	.59	.52	.42
6FZ18 *	24x24x18	42	6	1000	1500	2000	.61	.54	.44
5BZ36 *	12x24x36	68	5	1000	1250	1500	.45	.36	.29
4BZ36 *	12x24x36	54	4	1000	1250	1500	.47	.38	.31
3BZ36 *	12x24x36	42	3	1000	1250	1500	.49	.40	.33
5BZ30 *	12x24x30	57	5	1000	1250	1500	.43	.34	.28
4BZ30 *	12x24x30	46	4	750	1000	1250	.45	.36	.30
3BZ30 *	12x24x30	35	3	750	1000	1250	.49	.40	.34
4BZ22 *	12x24x22	34	4	500	750	1000	.50	.46	.35
3BZ22 *	12x24x22	25	3	500	750	1000	.52	.48	.37
4BZ18 *	12x24x18	28	4	500	750	1000	.52	.48	.37
3BZ18 *	12x24x18	21	3	500	750	1000	.54	.50	.39
5EZ36 *	20x24x36	68	5	1600	2000	2400	.51	.42	.36
5EZ30 *	20x24x30	58	5	1200	1600	1800	.49	.40	.34
5EZ22 *	20x24x22	40	5	1000	1200	1400	.54	.48	.39
5EZ33 *	20x24x33	59	5	800	1200	1600	.51	.42	.37
5EY22 *	20x20x22	38	5	600	800	1000	.54	.48	.39

Multi-Sak *Medium Efficiency 40–50%, 25–35%*

MODEL NUMBER	NOMINAL SIZE (WxHxD)	MEDIA AREA (SQ. FT.)	NUMBER POCKETS	AIR FLOW CAPACITIES (CFM)			SERIES "S" INITIAL PRESSURE DROP (IN. W.G.) @ 500 FPM	
							MERV 11 40-50%	MERV 8 25-35%
6FZ22 *	24x24x22	51	6	1000	1500	2000	.32	.30
6FZ15 *	24x24x15	35	6	1000	1500	2000	.34	.35
6FZ12 *	24x24x12	28	6	1000	1500	2000	.35	.40
3BZ22 *	12x24x22	25	3	500	750	1000	.32	.30
3BZ15 *	12x24x15	18	3	500	750	1000	.32	.35
3BZ12 *	12x24x12	14	3	500	750	1000	.35	.40
5EZ22 *	20x24x22	40	5	1000	1200	1400	.32	.35
5EZ15 *	20x24x15	26	5	1000	1200	1400	.32	.40
5EZ12 *	20x24x12	22	5	1000	1200	1400	.34	.40

Multi-Sak Performance Data

Multi-Sak *High Efficiency 90–95%, 80–85%, 60–65%*

MODEL NUMBER	NOMINAL SIZE (WxHxD)	SERIES "G" INITIAL PRESSURE DROP (IN. W.G.) @ 500 FPM			RECOMMENDED FINAL PRESSURE DROP (IN. W.G.)
		MERV 14 90–95%	MERV 13 80–85%	MERV12 60–65%	
10FZ36 *	24x24x36	.44	.35	.29	1.50
8FZ36 *	24x24x36	.46	.37	.31	1.50
6FZ36 *	24x24x36	.51	.42	.35	1.50
10FZ30 *	24x24x30	.49	.40	.34	1.50
8FZ30 *	24x24x30	.47	.38	.32	1.50
6FZ30 *	24x24x30	.51	.42	.36	1.50
8FZ22 *	24x24x22	.52	.46	.37	1.50
6FZ22 *	24x24x22	.54	.48	.39	1.50
8FZ18 *	24x24x18	.61	.54	.44	1.50
6FZ18 *	24x24x18	.63	.56	.46	1.50
5BZ36 *	12x24x36	.47	.38	.31	1.50
4BZ36 *	12x24x36	.49	.40	.33	1.50
3BZ36 *	12x24x36	.51	.42	.35	1.50
5BZ30 *	12x24x30	.45	.36	.30	1.50
4BZ30 *	12x24x30	.47	.38	.32	1.50
3BZ30 *	12x24x30	.51	.42	.36	1.50
4BZ22 *	12x24x22	.52	.48	.37	1.50
3BZ22 *	12x24x22	.54	.50	.39	1.50
4BZ18 *	12x24x18	.54	.50	.39	1.50
3BZ18 *	12x24x18	.56	.52	.41	1.50
5EZ36 *	20x24x36	.53	.44	.38	1.50
5EZ30 *	20x24x30	.51	.42	.36	1.50
5EZ22 *	20x24x22	.56	.50	.41	1.50
5EZ33 *	20x24x33	.53	.44	.39	1.50
5EY22 *	20x20x22	.56	.50	.41	1.50

Multi-Sak *Medium Efficiency 40–50%*

MODEL NUMBER	NOMINAL SIZE (WxHxD)	SERIES "G" INITIAL PRESSURE DROP (IN. W.G.) @ 500 FPM	RECOMMENDED FINAL PRESSURE DROP (IN. W.G.)
		MERV 10 40–50%	
6FZ22 *	24x24x22	.33	1.20
6FZ15 *	24x24x15	.35	1.20
6FZ12 *	24x24x12	.36	1.20
3BZ22 *	12x24x22	.33	1.20
3BZ15 *	12x24x15	.35	1.20
3BZ12 *	12x24x12	.36	1.20
5EZ22 *	20x24x22	.34	1.20
5EZ15 *	20x24x15	.35	1.20
5EZ12 *	20x24x12	.36	1.20

*** Insert Efficiency / Media Style Code** to complete Model Number:

Series "S" Synthetic

9S= 90–95% MERV 14
8S= 80–85% MERV 13
6S= 60–65% MERV 12
4S= 40–50% MERV 11
3S= 25–35% MERV 8

*Example: 8FZ36**9S** is a Multi-Sak Series S, 24x24x36, 8 Pocket, 90-95%.*

Series "G" Microfiberglass

9G= 90–95% MERV 14
8G= 80–85% MERV 13
6G= 60–65% MERV 12
4G= 40–50% MERV 10

*Example: 8FZ36**9G** is a Multi-Sak Series G, 24x24x36, 8 Pocket, 90-95%.*

Note:
*Series "G" filters are **not** available in the 25–35% efficiency range.*

Additional Information

1. Performance Data listed is based on tests conducted in accordance with current ASHRAE Test Standards. Test reports on most popular sizes are available.
2. Model numbers listed apply to U.L. Class 2 filters. For U.L. Class 1, indicate with CL1 following model number. Many models of Multi-Sak are U.L. 1 rated, please contact factory for current U.L. information.
3. Standard Multi-Sak header thickness is 13/16". For 1 1/8" header, indicate with C following model number (Ex. 8FZ369S-C).
4. Support loops are available on all models. Indicate by stating with loops following model number (Ex. 8FZ369S with loops).
5. Multi-Sak filters are available with gasketing for side-access systems. Indicate with SA following model number (Ex. 8FZ369S-SA).
6. Multi-Sak filters are available with components for oil mist applications. Indicate with OM following model number (Ex. 8FZ369G-OM).
7. Size information listed is nominal. Actual face dimensions are -5/8" on length and width. Depth tolerance is ±1".

Multi-Sak Construction

Aerodynamic Pocket Design
Allows for total media utilization

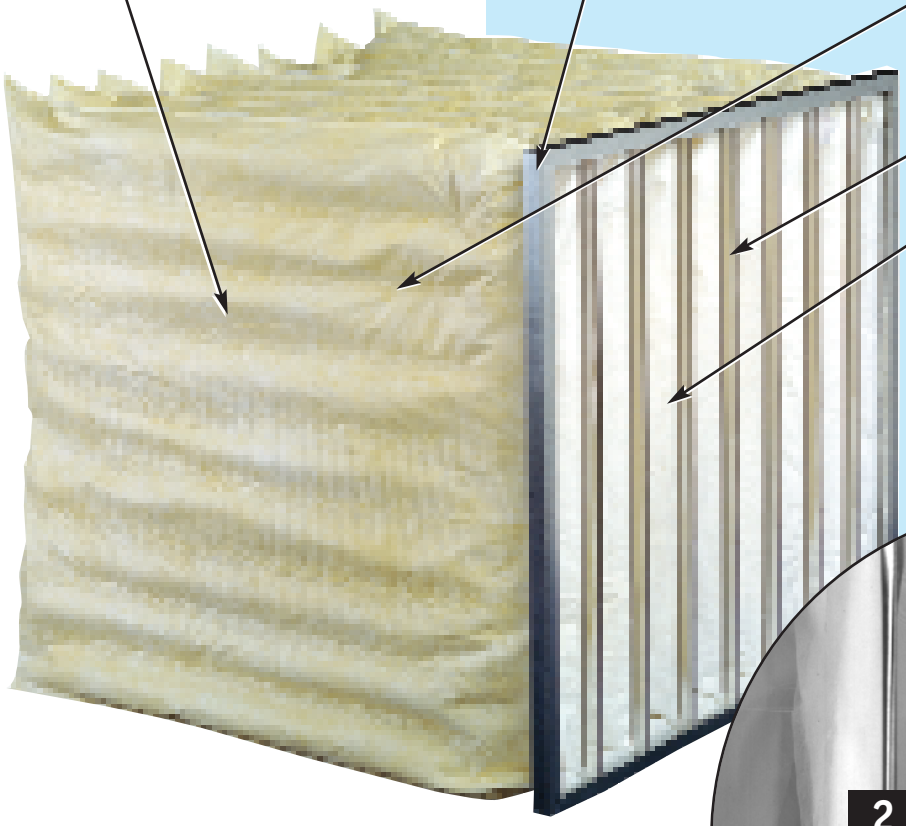
Roll-Formed, Safe-Edged Galvanized Steel Header
Available in standard 13/16" or 1 1/8" "C" header.

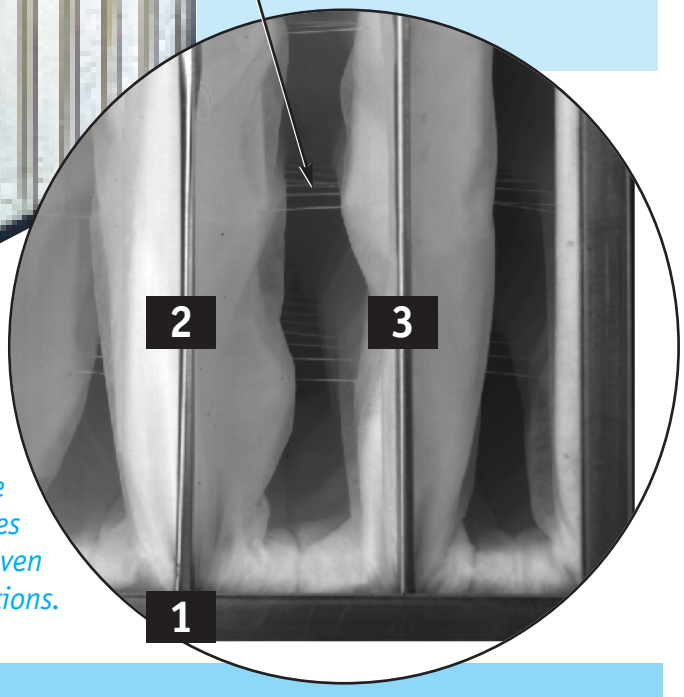
Thermoplastic Adhesive
Seals stitch lines against air bypass

Aluminum Cross Supports
Provide rigidity and durability

Dual-Layer High Performance Media
Series G–*Microfiberglass*
Series S–*Synthetic*

Sure Flow® Span Stitching
Insures even airflow and low pressure drop





Triple-Lock® Design
Exclusive Header-to-Pocket Construction

Koch Multi-Sak Filters are assembled with the exclusive Triple-Lock® Design, a three step process which insures superior product strength and maximum filter life even in difficult environmental conditions.

1. Triple Lock® Step One
Rigid header is filled with a waterproof adhesive which secures the filter media in place.

2. Triple Lock® Step Two
Aluminum cross supports are also filled with a waterproof adhesive to further seal the individual pockets within the frame.

3. Triple Lock® Step Three
Each aluminum cross support is pneumatically crimped in place, providing the final protection against air bypass and filter degradation.

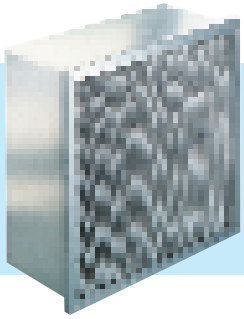
Koch Filter Corporation

Filtration Products Crafted with Pride

High Efficiency Options

In addition to the Multi-Sak, Koch offers a wide range of other high efficiency air filters to meet the requirements of any air filtration system.

Multi-Flo
Synthetic and Microfiberglass Extended Surface Rigid Filters



Multi-Cell
High Efficiency Extended Surface Rigid Filters

DuraMax 2v
High Efficiency Gas Turbine Inlet Filters

Quality Assurance Process

Koch Filter Corporation maintains an ongoing Quality Assurance Process to insure customer satisfaction with every filter we ship. This Process encompasses the entire manufacturing procedure, beginning with our selection of only the finest raw materials. Once a component passes a rigid initial review, a process of continuing documentation and examination occurs throughout every step of our manufacturing process. As the final step in Koch's Quality Assurance Process, in-house tests are regularly verified by independent test laboratories. These independent tests are conducted according to current ASHRAE standards.

The Quality Assurance Process is a primary reason for Koch Filter Corporation's ability to provide the industry's most complete line of competitive, high performance air filtration products.

Distributed by

Koch Filter Corporation *maintains a policy of continuous product research and improvement, and retains the right to change product specifications and design without notice.*

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** Denotes manufacturing site*