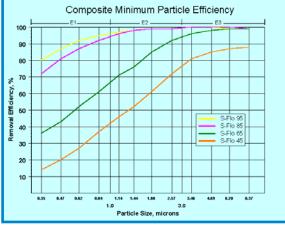
# s-flo

# **Extended Surface Multi-Pocket Synthetic Air Filters**



Synthetic media extended surface air filter for high efficiency particulate removal



Values are MERVs when evaluated per ASHRAE 52.2.



The Camfil Farr S-Flo offers high efficiency particulate air filtration to address today's indoor air quality concerns. The S-Flo can remove contaminants such as fumes, smoke, bacteria, fungi, and virus-bearing droplet nuclei. S-Flo filters are available in the following efficiencies:

ASHRAE 52.1	ASHRAE 52.2	Eurovent/CEN					
40-45%	MERV 9	EU5					
60-65%	MERV 11	EU6					
80-85%	MERV 13	EU7					
90-95%	MERV 14	EU8					

## **High Lofted Melt-Blown Synthetic Media**

The Camfil Farr S-Flo includes a unique melt-blown synthetic media that provides critical capture of particles as small as 0.3 micron. The media incorporates a uniform high loft to provide a lower resistance to airflow than comparable high efficiency air filters. A lightweight scrim media backing ensures protection of the media and prevents media erosion.

Stronger than conventional media, the S-Flo can withstand the rigors of turbulent airflow common in certain industrial applications. Performance and configuration are unaffected by dust loading or humidity. The S-Flo may also be used in industrial applications involving chemicals that may be hostile to other types of filters.

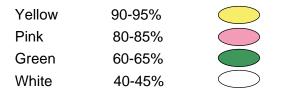
The S-Flo is also the filter of choice for the removal of nuisance contaminants such as pollens, paper dust, and other atmospheric impurities.

Applications include commercial buildings, medical facilities, and industrial manufacturing facilities.

Camfil Farr	Product sheet							
S-Flo	1205 - 0704							
Camfil Farr—clean air solutions								

# Melt-blown Synthetic Media (continued)

The Camfil S-Flo incorporates an exclusive blend of synthetic microfibers that are electrostatically enhanced during the fiber manufacturing process to enhance particle capture efficiency. Biologically inert, these fibers will not support microbial growth. The media is color-coded to allow quick identification of filter efficiency.



Individual pockets include internal stitching to maintain uniform airflow channels for even dust loading and long filter life. The S-Flo may be operated to a final resistance of 1.5" w.g. without affecting product performance. Camfil Farr manufactures the S-Flo to be capable of withstanding up to 5.0" w.g., ensuring product durability in the most demanding applications.

# Performance

Synthetic fibers also offer a higher initial efficiency than media manufactured of many other types of fibers, making synthetics the obvious choice for applications where higher initial efficiencies may be critical. Camfil Farr S-Flo filters are available in fractional efficiencies from 40% to 95% on particles as small as 0.3 micron in size. MERV values range from 9 to 14 when evaluated under ASHRAE Standard 52.2 and dust spot efficiencies range from 40% to 95% when evaluated under ASHRAE Standard 52.1.

## Stitch Sealant & Adhesive Bonding

Camfil Farr completely seals pocket stitching to eliminate the possibility of particle bypass

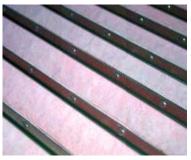
through stitching penetrations. This unique sealant maintains a flexibility that is unaffected by varying airflows. The media is bonded around the pocket retainers to ensure a strong



pocket-to-retainer seal and minimize the potential for pocket failure.

# Sure-Clench<sup>®</sup> Crimp

Each galvanized steel pocket retainer is fastened with Camfil Farr's exclusive Sure-Clench crimp, creating a positive lock between pockets and eliminating the



possibility of air bypass. Each pocket retainer includes rolled edges to prevent damage to the media and minimize sharp edges that may create a hazard to filter installers.

## **Galvanized Steel Header**

A "J" return channel header, of one-piece corrosion resistant galvanized steel, has rolled edges to prevent damage to the filter media. When combined with the Sure-Clench Crimp and galvanized pocket retainers, a rigid and durable assembly is created for installation into side-access or built-up bank applications.

# Leak-Free Filter Performance

Every Camfil Farr S-Flo includes a gasket on the vertical edge of the filter header. In a sideaccess housing, filters are mated header-toheader. A ¼" gap around a 24" by 24" filter can equate to 18% air bypass at 500 fpm. The S-Flo filter's gasket prevents air bypass and ensures that the air filter will clean all of the air moving through the system.

# **Configurations for any Application**

Camfil Farr S-Flo filters are available in a variety of configurations to suit your air quality requirements. Common configurations include from 3 to 12 pockets, depths of 15" to 30", and up to 101 square feet of effective media area.

When selecting an S-Flo for your system, you should select a filter with the greatest effective media area within the airflow parameters and space limitations for your system.

With effective removal of sub-micron particles, dependable construction, and high dust holding capacity, the S-Flo is the perfect fit for any application.

# Camfil Farr S-Flo Selection Chart

Model Number		Dimensions <sup>a</sup>	A . (1	•	•• b	Initial Resistance to Airflow (inches w.g.) °												
(precede with SF	Number of	(nominal size)	Airflow Capacity <sup>⊳</sup> (cfm)		MER	MERV 14 (90-95%) MERV 13 (80-85%) MERV 11 (60-65%) MERV 9 (40-4							)-45%)	Media Area				
and insert efficiency for *)	Pockets	(inches) H x W x D	Low	Low Med		Low	Med	High	Low	Med	High	Low	Med	High	Low	Med	,	(sq. ft.)
*/24/24/15/12	12	24 x 24 x 15	1000	1500	2000			0			Ŭ			0			J	58
*/24/20/15/9	9	24 x 20 x 15	750	1100	1500	0.21	0.35	0.50	0.17			0.13	0.21	0.30		0.18	0.25	44
*/24/12/15/6	6	24 x 12 x 15	500	750	1000					0.28	0.40				0.11			29
*/20/20/15/9	9	20 x 20 x 15	650	950	1275													37
*/24/24/30/10	10	24 x 24 x 30	2000	2400	2800	)	0.51	0.62	0.30	0.38	0.47	0.25	0.32	0.39		0.26	0.31	101
*/24/20/30/8	8	24 x 20 x 30	1600	1900	2250										0.20			81
*/24/12/30/5	5	24 x 12 x 30	1000	1200	1400	0.40					0.47							50
*/20/20/30/8	8	20 x 20 x 30	1350	1625	1875													68
*/24/24/22/10	10	24 x 24 x 22	1500	1750	2000		0.38	0.45	0.25	0.29	0.35	0.19	0.23		0.15	0.18	0.22	73
*/24/20/22/8	8	24 x 20 x 22	1200	1400	1600	0.00								0.27				58
*/24/12/22/5	5	24 x 12 x 22	750	875	1000	0.32												36
*/20/20/22/8	8	20 x 20 x 22	1000	1175	1350													49
*/24/24/30/8	8	24 x 24 x 30	1600	2000	2400					0.35	0.45	0.21	0.27	0.35	0.17	0.22	0.28	81
*/24/20/30/7	7	24 x 20 x 30	1400	1750	2100	0.04	0.45	0.50	0.07									70
*/24/12/30/4	4	24 x 12 x 30	800	1000	1200	0.34	0.45	0.58	0.27									40
*/20/20/30/7	7	20 x 20 x 30	1150	1450	1750													59
*/24/24/22/8	8	24 x 24 x 22	1500	1750	2000		0.42	0.50	0.28	0.34	0.40	0.21	0.25	0.30	0.18	0.21	0.25	58
*/24/20/22/7	7	24 x 20 x 22	1300	1500	1750	0.35												51
*/24/12/22/4	4	24 x 12 x 22	750	875	1000							0.21						29
*/20/20/22/7	7	20 x 20 x 22	1100	1300	1450													43
*/24/24/30/6	6	24 x 24 x 30	1500	1750	2000		0.46	0.55	0.32	0.38	0.45	0.25	0.29	0.35	0.20	0.24	0.28	63
*/24/20/30/5	5	24 x 20 x 30	1300	1500	1700	0.39												52
*/24/12/30/3	3	24 x 12 x 30	750	875	1000													31
*/20/20/30/5	5	20 x 20 x 30	1050	1225	1400													44
*/24/22/6	6	24 x 24 x 22	1500	1750	2000													45
*/24/20/22/5	5	24 x 20 x 22	1300	1500	1700	0.44	0.53	0.63	0.36	0.43	0.51	0.27	0.32	0.38	0.21	0.25	0.30	38
*/24/12/22/3	3	24 x 12 x 22	750	875	1000		0.00	0.00	0.00	0.10		0.27	0.02	0.00	0.21			23
*/20/20/22/5	5	20 x 20 x 22	1050	1225	1400													32
SF 95 HF = Hi-Flo SF = S-Flo 95 = 90-95 85 = 80-85 65 = 60-65 45 = 40-45			/o /o	24 ▲ Heig (nomi	Jht	/ [ (1	24	<i>`</i>	/ [	22 Dept (nomin			8 Numbr Of Pocke		W = <sup>2</sup> Cons		ons heade	

#### DATA NOTES:

<sup>a</sup> Standard S-Flo includes 0.88" (1" nominal) header. For 1.12" (1¼" nominal) header add a W to the end of the model number. Contact factory for lead times.

<sup>b</sup> Select 100% for constant volume systems and 80% of maximum design airflow for VAV systems. S-Flo filters perform satisfactorily over listed CFM range. Rated capacity is medium on chart.

<sup>c</sup> Recommended final resistance is 1.0" w.g. The Hi-Flo may be operated to 1.5" w.g. without affecting performance.

Special sizes are available, please contact factory. Pocket loops are recommended for 32" & 36" deep filters.

S-Flo filters with a 20" by 24" header size are available, consult factory for pricing and availability. System resistance is the same as 24" by 20" listed in above chart.

The S-Flo is classified by Underwriters Laboratories as UL Class 2.

Maximum operating temperature 158° F  $\,$  (70° C).

Performance tolerances conform to Section 7.4 of ARI Standard 850-78.

For lowest life cycle cost, select the filter with the greatest depth and media area that may be accommodated within the listed operating range of the filter.

# **Extended Surface Pocket Filter Options**

Camfil Farr Hi-Flo<sup>®</sup>

Camfil Farr also offers a glass microfiber media extended surface pocket filter that offers consistent efficiencies in the sub-micron particle ranges throughout the life of the filter. The Camfil Farr Hi-Flo is available in efficiencies of MERV 9, MERV 11, MERV 13 and MERV14 based upon evaluation using ASHRAE Standard 52.2-1999. Consult Camfil Farr Bulletin 1203-0602.

#### Cambridge-Style Header

S-Flo filters include a 0.88" header for installation into a nominal 1" deep filter track. The Cambridge Air Filter Company manufactured side-access housings that required a 1.12" header to fit in a nominal 1¼" filter track. To order S-Flo filters for these housings, add a 'W' to your model number or seek factory guidance.

#### **SPECIFICATIONS**

#### 1.0 General

**1.1** - Air filters shall be high efficiency ASHRAE extended surface pocket style filters consisting of a melt-blown lofted synthetic media, a galvanized steel header and pocket retainers, and bonding agents to prevent air bypass and ensure leak free performance. The filter shall be capable of withstanding 5.0" w.g. without pocket failure.

**1.2** - Sizes shall be as noted on drawings or other supporting materials.

### 2.0 Construction

**2.1** - Filter media shall consist of melt-blown lofted synthetic media that is bonded to a permeable media support backing forming a uniform lofted filter blanket.

**2.2** - Individual pockets shall contain a minimum of 40 stitching support points per square foot of media area. All stitching centers shall be sealed through the use of a foam based sealant that shall remain pliable throughout the life of the filter. The sides and ends of each pocket shall be sewn with a chain-link over lock stitch.

#### UL Class 1 Hi-Flo<sup>®</sup>

The S-Flo is only available in UL Class 2. If UL Class 1 is required, the Camfil Farr Hi-Flo is available in a Underwriters Laboratories UL Class 1 configuration. It is important to note that both classes of filters will burn when attacked by flames, and both will self-extinguish when clean.

UL Class 1 - Air filters which, when clean, do not contribute fuel when attacked by flame and emit only negligible amounts of smoke.

UL Class 2 - Air filters which, when clean, burn moderately when attacked by flame, or emit moderate amounts of smoke, or both.

Consult Camfil Farr Bulletin 1203-0602. Consult factory for pricing and availability.

**2.3** - Pockets shall be internally sewn with a variable pocket support stitch to promote uniform airflow across the surface of the media.

**2.4** - Support members shall include a galvanized steel header and galvanized steel pocket retainers. The header shall be bonded to the media to prevent air bypass. Individual pocket retainers shall be fastened with a mechanical crimp to lock individual pockets together. The media pockets shall be bonded to the pocket retainers to prevent air bypass. The frame shall form a rigid and durable support assembly.

**2.5** - A filter-to-filter sealing gasket shall be installed on one of the vertical members of the filter header.

### 3.0 Performance

3.1 - The filter shall have a Minimum Efficiency Reporting Value of (MERV 9, MERV 11, MERV 13, MERV 14) per ASHRAE Standard 52.2-1999.
3.2 - Supporting data; provide laboratory test reports for each listed efficiency including all details as prescribed in ASHRAE Standards 52.1 and 52.2.
3.3 - The filter shall be classified by Underwriters Laboratories as UL Class 2.

**3.4** - Manufacturer shall provide evidence of facility certification to ISO 9001:2000.

Items in parentheses () require selection.

Camfil Farr has a policy of uninterrupted research, development and product improvement. We reserve the right to change designs and specifications without notice.

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