

Filter Bags

PROGAF™
ACCUGAF™
LOFCLEAR™
CLEARGAF™

DURAGAF™
SENTINEL®
SNAP-RING®
BANDSEAL™

UNIBAG®
HAYFLOW™
MAX-LOAD™

High performance
Cost-effective
Unparalleled selection

Starting with unique element design and ending with sealing technology, Eaton products deliver performance in simple or complex applications. Multi-layer constructions, pleated extended surfaces, fully-welded seams, and pressure-activated seals are only some of the features that make Eaton filter bags the most advanced in the world. This range of design and fabrication offers filtration solutions over the full spectrum of fine filtration applications.

Whether sewn or welded, simple or complex, Eaton filter bags are fabricated using the most advanced techniques and equipment in the world. Highly automated welding systems produce consistent, dependable bag construction. Eaton's proprietary UNIWELD system produces bag seals which are strong, yet flexible to conform to restrainer baskets. Food-grade products are manufactured in



facilities where both the environment and materials are controlled to assure cleanliness. Repeatable, durable, cost-effective — technology that is working for our customers.



Powering Business Worldwide



PROGAF™

filter bags constitute a new, high-performance alternative for applications requiring absolute filtration. The multistage filtration, with filter material that gets finer from layer to layer, provides optimum efficiency (greater than 99.9%) and a long operating life.



ACCUGAF™

filter bags with efficiencies greater than 99%, each ACCUGAF filter bag model provides cost-effective filtration solutions for demanding applications. Five available models ensure that users can efficiently remove particles ranging from 1 – 25 µm while delivering a long service life.



LOFCLEAR™ 100

filter bags are *absolute* rated with efficiencies of 99% or more over a wide range of particle sizes. They feature high-strength sewn, three-layer construction welded to the SENTINEL® seal ring. Models are available for paint and varnish applications in the automotive industry.



LOFCLEAR™ 500

high-performance and cost-effective filter bags for *absolute* applications. These filter bags feature fully-welded, multi-pleated construction for high efficiency and long service life. With a pleated pre-filter and a complex arrangement of final filter layers, they handle difficult-to-filter gels and deformable particles. The webbed cover layer virtually eliminates any downstream fiber migration.



CLEARGAF™

filter bags are fully compliant and approved for pharmaceuticals, food and beverages. They are manufactured under special conditions to ensure that they contain no contamination and are individually sealed in protective plastic packaging.



DURAGAF™

extended-life filter bags feature polypropylene or polyester needle felt with extra thick construction which significantly increases dirt-holding capacity. These filter bags last two to five times longer than standard needle felt filter bags and significantly reduce operating costs. The smaller diameter fibers provide a more porous filter material while maintaining the same low initial differential pressure.



SENTINEL®

filter bags comply with the industry standard of a bypass-free filter bag construction. They are fully-welded for high efficiency and superior sealing and are available in polypropylene and polyester. A monofilament model is available for applications with demanding chemical and thermal properties.



SNAP-RING®

filter bags feature sewn construction and reliability at an affordable price. The SNAP-RING seal ring adapts to any bag filter housing. SNAP-RING filter bags are also available in a wide variety of materials as well as multifilament configurations for difficult applications such as paints, inks and resins.



BANDSEAL™

monofilament filter bags are suitable for low pressure and non-critical open filtration applications featuring a wide range of retention ratings. They are designed for open surface filtration without a bag filter housing to retain particles that are larger than the respective pore size.



UNIBAG®

filter bags provide the value and reliability of a high performance filter bag with fully-welded construction. Using environmentally-friendly materials, they are made from needle felt material, without optical white additives or bleaching agents.



HAYFLOW™

filter elements combine the benefits of a filter bag with those of a filter cartridge into a rugged filter element with optimum filtration performance. The filter area is up to 65% larger compared to a standard filter bag. Extended service life and long intervals between filter change-outs lead to reduced operating costs.



MAX-LOAD™

extended-life pleated filter bags are manufactured from nominal rated polypropylene or polyester extended-life needle felt. The exceptional construction increases the filter bags' dirt-holding capacity and lifetime by up to ten times more than standard needle felt filter bags.

FILTER BAG RANGES

Ranges	Materials	Available grades																Bag sizes	Ring style	Weld or sewn ring/side/bottom	Media material	Media type	Surface finish	Max. oper. temp. °F (°C)
PROGAF	PGF	50, 51, or 55																02	E	W / W / W	PP	Melt		194 (90)
ACCUGAF	AGF	51, 53, 55, 57, or 59																01, 02	E	W / W / W	PP	Melt		194 (90)
	AGFE	51, 55, or 57																01, 02	H	W / W / W	PET	Melt		302 (150)
LOFCLEAR	LCR	123, 124, 125, 126, 128, 129, 130, or 135																01, 02	E	W / S / S	PP	Melt		194 (90)
	LCR	522, 525, 527, or 529																02	Z	W / W / W	PP	Melt		194 (90)
		Available grades																Bag sizes	Ring style	Weld or sewn ring/side/bottom	Media material	Media type	Surface finish	Max. oper. temp. °F (°C)
		1	5	10	25	50	80	100	125	150	200	250	300	400	600	800	1000	1250						
CLEARGAF	POF	■	■	■	■	■		■										01, 02	E	W / W / W	PP	Felt	Singed	194 (90)
	PEF	■	■	■	■			■										01, 02	Z	W / W / W	PET	Felt	Singed	284 (140)
	POXLF		■	■	■	■		■										01, 02	E	W / W / W	PP	Felt	Glazed	194 (90)
	PEXLF	■	■	■														01, 02	Z	W / W / W	PET	Felt	Glazed	284 (140)
	NMOF		■	■	■	■	■	■	■	■	■	■	■	■	■	■		01, 02	Z	S / S / S	Nylon	Mesh		284 (140)
DURAGAF	POXL	■	■	■	■	■		■										01, 02	E	W / W / W	PP	Felt	Glazed	194 (90)
	PEXL	■	■	■	■	■		■										01, 02	H	W / W / W	PET	Felt	Glazed	302 (150)
SENTINEL	PO	■	■	■	■	■		■			■							01, 02, 03, 04	E	W / W / W	PP	Felt	Singed	194 (90)
	PE	■	■	■	■	■		■			■							01, 02, 03, 04	H	W / W / W	PET	Felt	Singed	302 (150)
	NMO		■	■	■	■	■	■	■	■	■	■	■	■	■	■		01, 02, 03, 04	Z	S / S / S	Nylon	Mesh		257 (125)
SNAP-RING	PO	■	■	■	■	■		■			■							01, 02, 03, 04	S	S / S / S	PP	Felt	Singed	230 (110)
	PE	■	■	■	■	■		■			■							01, 02, 03, 04	S	S / W / S	PET	Felt	Singed	374 (190)
	NY		■	■	■	■		■										01, 02, 03, 04	S	S / S / S	Nylon	Felt		374 (190)
	HT		■			■		■										01, 02	A	S / S / S	MA	Felt	Singed	410 (205)
	PT	■	■	■														01, 02	A	S / S / S	PTFE	Felt		500 (260)
	W	■																01, 02	S	S / S / S	Wool	Felt		275 (135)
	NMO				■	■	■	■	■	■	■	■	■	■	■	■	■	01, 02, 03, 04	S	S / S / S	Nylon	Mesh		374 (190)
	PMO							■		■	■		■	■	■	■		01, 02	A	S / S / S	PP	Mesh		230 (110)
	PEMO					■			■	■			■					01, 02	S	S / S / S	PET	Mesh		374 (190)
	PEEKMO							■			■	■		■	■			01, 02	A	S / S / S	PEEK	Mesh		464 (240)
	PEMU							■		■		■		■	■	■		01, 02	S	S / S / S	PET	Mesh		293 (145)
BANDSEAL	NMO				■	■	■	■	■	■	■	■	■	■	■	■		01		S / S / S	Nylon	Mesh		374 (190)
	NMO				■	■	■	■	■	■	■	■	■	■	■	■		43, 45	R	S / S / S	Nylon	Mesh		374 (190)
UNIBAG	POU	■	■	■	■	■		■		■								01, 02	EU	W / W / W	PP	Felt		190 (88)
	PEU	■	■	■	■	■		■		■								01, 02	UK	W / W / W	PET	Felt		280 (138)
HAYFLOW	POXL	■	■	■	■	■		■										02	E	W / W / W	PP	Felt	Glazed	194 (90)
	PEXL	■	■	■	■	■		■										02	H	W / W / W	PET	Felt	Glazed	302 (150)
	LCR	128																02	E	W / S / W	PP	Melt		194 (90)
MAX-LOAD	POXL	■	■	■	■	■												01, 02	E	W / W / W	PP	Felt	Glazed	194 (90)
	PEXL	■	■	■	■	■												01, 02	H	W / W / W	PET	Felt	Glazed	275 (135)

Chart abbreviations: PET: polyethylene terephthalate, PP: polypropylene, MA: Meta-Aramide, Melt: melt-blown, W: welded seams, S: sewn seams.

Ring abbreviations: E: polypropylene/SENTINEL seal ring, H: polyester/SENTINEL seal ring, Z: Santoprene™/SENTINEL seal ring, S: carbon steel SNAP-RING, A = Stainless steel SNAP-RING, R: without ring

Maximum flow rates for most filter bag ranges are as shown below with the following exceptions:

1. POXL, PEXL, POXLF and PEXLF filter bags, size 01: 66 GPM (15 m³/h) and size 02: 132 GPM (30 m³/h), 2. AGF, AGFE and LCR 100 filter bags, size 01: 35 GPM (8 m³/h) and size 02: 66 GPM (15 m³/h). 3. LCR 500 filter bags, size 02: 53 GPM (12 m³/h). 4. PGF filter bags, size 02: 44 GPM (10 m³/h)

Filter specifications

Size	Max. flow rate GPM (m³/h)	Filter area ft² (m²)	Volume gal (l)	Diameter in (mm)	Length in (mm)
01	90 (20)	2.6 (0.24)	2.0 (7.6)	7 (180)	17 (430)
02	180 (40)	5.2 (0.48)	4.5 (17)	7 (180)	32 (810)
03	26 (6)	0.9 (0.08)	0.5 (1.9)	4 (100)	9 (230)
04	53 (12)	1.7 (0.16)	0.7 (2.7)	4 (100)	15 (380)
43	26 (6)	1.0 (0.09)	0.8 (3.0)	3.5 (89)	12 (300)
45	53 (12)	1.6 (0.15)	1.2 (4.5)	3.5 (89)	20 (500)

Metric measures represent comparable products produced for EMEA and may not be an exact conversions.

TECHNICAL DATA

Volume conversion factors

To convert from one unit to another, locate the starting unit in the left column.
Multiply by factor horizontally to the right under desired unit.

To obtain: multiply by:	U.S. gallon	Imperial gallon	U.S. Pint	U.S. pound water	U.S. cubic foot	U.S. cubic inch	Liter	Cubic meter
U.S. gallon	1	0.833	8.0	8.337	0.13368	231.0	3.78533	0.003785
Imperial gallon	1.2009	1	9.60752	10.0	0.16054	277.42	4.54596	0.004546
U.S. pint	0.125	0.1041	1	1.042	0.01671	28.875	0.473168	0.000473
U.S. pound water	0.11995	0.1	0.9596	1	0.016035	27.708	0.45405	0.00454
U.S. cubic foot	7.48052	6.22888	59.8442	62.365	1	1728.0	28.31702	0.028317
U.S. cubic inch	0.004329	0.00361	0.034632	0.03609	0.0005787	1	0.016387	0.0000164
Liter	0.2641779	0.2199756	2.113423	2.202	0.0353154	61.02509	1	0.001000
Cubic meter	264.170	219.969	2113.34	2202	35.31446	61023.38	999.972	1

To convert from one unit to another, locate the starting unit in the left column.
Multiply by factor horizontally to the right under desired unit.

Pressure conversion factor

To obtain: multiply by:	Pound sq. in.	Pound sq. ft.	Atmosphere	Kilogram sq. cm	Inch water	Foot water	Inch mercury	mm mercury	Bar
Pounds/sq. in.	1	144.0	0.068046	0.070307	2.7276	2.3106	2.0360	51.7150	0.06895
Pounds/sq. ft.	0.0069545	1	0.000473	0.000488	0.1926	0.01605	0.014139	0.35913	0.000479
Atmosphere	14.696	2116.22	1	1.0332	407.484	33.9570	29.921	760.0	1.01325
Kilogram/sq. cm	14.2233	2048.16	0.96784	1	394.27	32.864	28.959	735.558	0.9807
Inch water	0.03607	5.194	0.002454	0.00254	1	0.08333	0.0734	1.865	0.00249
Foot water	0.43278	62.3205	0.029449	0.03043	12.0	1	0.8811	22.381	0.02984
Inch mercury	0.49115	70.726	0.033421	0.03453	13.617	1.1349	1	25.40	0.03386
mm mercury	0.019337	2.7845	0.0013158	0.0013595	0.5361	0.04468	0.03937	1	0.001333
bar	14.5038	2088.55	0.98692	1.0197	33.51	402.1	29.53	750.0	1

Comparative particle size

U.S. mesh	Inches	µm
3	0.265	6730
3-1/2	0.223	5660
4	0.187	4760
5	0.157	4000
6	0.132	3360
7	0.111	2830
8	0.0937	2380
9	0.0787	2000
10	0.0661	1880
12	0.0555	1410
14	0.0469	1190

U.S. mesh	Inches	µm
18	0.0394	1000
20	0.0331	841
25	0.0280	707
30	0.0232	595
35	0.0197	500
40	0.0105	420
45	0.0138	354
50	0.0017	297
60	0.0098	250
70	0.0083	210
80	0.0070	177

U.S. mesh	Inches	µm
100	0.0059	149
120	0.0049	125
140	0.0041	105
170	0.0035	88
200	0.0029	74
230	0.0024	63
270	0.0021	53
325	0.0017	44
400	0.0015	37
550	0.0009	25
800	0.0006	15
1250	0.0004	10

Flow velocity conversion factors

$$\text{Velocity in ft/sec} = \frac{\text{GPM} \times 0.4085}{\text{ID}^2 \text{ in inches}}$$

Flow conversion factors

m³/hr	=	3.671 l.g.m.
l.gpm	=	41.14 barrels/day
T.P.H.	=	3.74 l.g.m.
l.gpm	=	1.2 U.S. gpm
l.gpm	=	4.54 liters/min
Liter/Min.	=	0.22 l.gpm
U.S. gpm	=	0.833 l.gpm
Barrel	=	35 Imp. gallons
Barrel	=	42 U.S. gallons

Viscosity equivalents

SSU (Saybolt Seconds Universal)	Centipoise	Engler degrees 20 °C	Redwood Standard
30	1	—	—
50	5	2	44
100	20	3.5	88
200	40	16	175
300	65	30	263
400	85	43	350
500	105	57	440
600	130	72	525
700	150	90	615
800	175	115	700
900	195	132	790
1000	210	150	880
2000	425	350	1750
3000	625	540	2600
4000	860	740	3500
5000	1050	930	4550
6000	1300	1120	5250
7000	1500	1320	6150
8000	1700	1510	7300
9000	1920	—	—
10000	2150	—	—



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