MAX-LOAD™ HAYFLOW™ DURAGAF™ CLEARGAF™ SENTINEL® SNAP-RING® UNIBAG™ BANDSEAL™

# High performance unparalleled selection





# Wide range of filter bag materials and fabrication technologies to meet every need

From unique element designs that range from multilayer construction, pleated extended surfaces and fully-welded seams to advanced sealing technology, Eaton delivers performance products for both simple and complex applications.

Whether sewn or welded, 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 provides bag seals that are strong, yet flexible to conform to restrainer baskets. Foodgrade products are manufactured in facilities where both the environment and materials are controlled to assure cleanliness.

This range of design and fabrication options offers solutions for the full spectrum of fine and coarse filtration applications. Repeatable, durable, cost-effective technology is working for Eaton's customers.

Eaton's complete line of single and multi-bag filter housings and filter bags are used in a variety of industries and are designed to meet the needs of the most demanding applications. Eaton's bag filtration systems help customers around the world meet their need for efficiency, safety, convenience and value.



## Eaton Filter Bags

## **Selection Guide**

### **HIGH EFFICIENCY**



PROGAF filter bags

Combines high-efficiency media with a high-capacity pre-filter for effective retention rating down to the submicron level.



**ACCUGAF** filter bags

Highly efficient with an extremely high particle retention rating.



ABP filter bags

Cost-effective filtration solutions for demanding applications with efficiencies greater than 99%.



LOFCLEAR filter bags

Highly effective filter bags with a special, multi-layer construction that results in *absolute* efficiency for demanding applications.

#### HIGH CAPACITY



MAX-LOAD filter bags

Extended-life pleated material increases dirt-holding capacity and lasts up to ten times longer than standard needle-felt filter bags.



**HAYFLOW** filter elements

Combines the best of filter bags and filter cartridges in one element.



HAYFLOW Q filter elements

High capacity extended-life needle felt with ultrafine nylon mesh cover layer with *absolute* efficiency.



**DURAGAF** filter bags

Extended-life material results in fewer filter bag change-outs, improves operating efficiencies and reduces operating costs.

#### **FOOD**



**CLEARGAF** filter bags

Meets EC and FDA requirements for pharmaceutical, food and beverage industries.

## STANDARD



SENTINEL filter bags

Fully-welded construction for high efficiency and bypass-free filtration.



**SNAP-RING** filter bags

Sewn construction in needle felt, monofilament and multifilament material.



ABSORPTION INSERT filter elements

The ultimate solution for increased dirt and oil removal capacity.

#### **STANDARD**



**UNIBAG** filter bags

High performance, fully-welded construction using environmentally-friendly materials without optical white additives or bleaching agents.



Monofilament filter bags

Different materials of SENTINEL and SNAP-RING monofilament filter bags cover many applications with chemical and thermal properties.



Multifilament filter bags

Affordable and reliable sewn SNAP-RING multifilament filter bags.



**BANDSEAL** filter bags

Tie-on filter bags for filtration without a bag filter housing.

# **Technical Data**

Ranges	Codes	Available grades	Sizes	Seal rings	Welded or sewn ring/side/bottom	Materials	Media types	Surface finish	Max.oper. temp.°F (°C)
PROGAF	PGF	50, 51 or 55	02	Е	W/W/W	PP	Melt		194 (90)
40011045	AGF	51, 53, 55, 57 or 59	01, 02	E	W/W/W	PP	Melt		194 (90)
ACCUGAF	AGFE	51, 55 or 57	01, 02	Н	W/S/S	PET	Melt		302 (150)
ABP	ABP	1, 5, 10 or 25	03, 04	E	W/W/W	PP	Melt		194 (90)
LOCCLEAR	LCR	123, 124, 125, 126, 128, 129, 130 or 135	01, 02	Е	W/S/S	PP	Melt		194 (90)
LOFCLEAR	LCR	522, 525, 527 or 529	02	Z	W/W/W	PP	Melt		194 (90)
Ranges	Codes	Available grades  1 5 10 25 50 80 100 125 150 200 250 300 400 600 800 1000 1250	Sizes	Seal rings	Welded or sewn ring/side/bottom	Materials	Media types	Surface finish	Max. oper. temp.°F (°C)
	POXL		01, 02	Е	W/W/W	PP	Felt	Glazed	194 (90)
MAX-LOAD	PEXL		01, 02	Н	W/W/W	PET	Felt	Glazed	275 (135)
	POXL		02	Е	W/W/W	PP	Felt	Glazed	194 (90)
HAYFLOW	PEXL		02	Н	W/W/W	PET	Felt	Glazed	302 (150)
	LCR	128	02	Е	W/S/W	PP	Melt		194 (90)
HAYFLOW Q	POXL		02	Е	W/W/W	PP	Felt	Glazed	194 (90)
	PEXL		02	Н	W/W/W	PET	Felt	Glazed	302 (150)
DUD4045	POXL		01, 02	Е	W/W/W	PP	Felt	Glazed	194 (90)
DURAGAF	PEXL		01, 02	Н	W/W/W	PET	Felt	Glazed	302 (150)
	POF		01, 02	E	W/W/W	PP	Felt	Singed	194 (90)
	POXLF		01, 02	Е	W/W/W	PP	Felt	Glazed	194 (90)
CLEARGAF	PEF		01, 02	Н	W/W/W	PET	Felt	Singed	284 (140)
	PEXLF		01, 02	Н	W/W/W	PET	Felt	Glazed	284 (140)
	NMOF		01, 02	Н	W/S/S	Nylon	Mesh		284 (140)
CENTINEL	P0		01, 02, 03, 04	E	W/W/W	PP	Felt	Singed	194 (90)
SENTINEL	PE		01, 02, 03, 04	Н	W/W/W	PET	Felt	Singed	302 (150)
	P0		01, 02	S	S/W/S	PP	Felt	Singed	230 (110)
	P0		03, 04	S	S/S/S	PP	Felt	Singed	230 (110)
	PE		01, 02	S	S/W/S	PET	Felt	Singed	374 (190)
SNAP-RING	PE		03, 04	S	S/S/S	PET	Felt	Singed	374 (190)
	NY		01, 02, 03, 04	S	S/S/S	Nylon	Felt		374 (190)
	PT		01, 02	Α	S/S/S	PTFE	Felt		500 (260)
	HT		01, 02	Α	S/S/S	MA	Felt	Singed	401 (205)
UNIBAG	POU		01, 02	UE	W/W/W	PP	Felt		374 (190)
UNIDAG	PEU		01, 02	UK	W/W/W	PET	Felt		536 (280)
	NM0		01, 02, 03, 04	S	S/S/S	Nylon	Mesh		374 (190)
	NM0		01, 02, 03, 04	Z	S/S/S	Nylon	Mesh		257 (125)
_	PM0		01, 02	Α	S/S/S	PP	Mesh		230 (110)
	PEM0		01, 02	S	S/S/S	PET	Mesh		374 (190)
	PEEKM0		01, 02	Α	S/S/S	PEEK	Mesh		464 (240)
Multifilament	PEMU		01, 02	S	S/S/S	PET	Mesh		293 (145)
BANDSEAL	NM0		01		S/S/S	Nylon	Mesh		374 (190)
BANDSEAL	NM0		43, 45	R	S/S/S	Nylon	Mesh		374 (190)

Chart abbreviations: PET: polyethylene terephthalate, PP: polypropylene, MA: Meta-Aramid, 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: zinc-plated steel SNAP-RING, A: Stainless steel SNAP-RING, R: without seal ring, UE: welded polypropylene seal ring, UK: welded polyester seal 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: 15 m³/h and size 02: 30 m³/h, 2. AGF, AGFE and LCR 100 filter bags, size 01: 8 m³/h and size 02: 15 m³/h.

3. LCR 500 filter bags, size 02: 12 m³/h.

4. PGF filter bags, size 02: 10 m³/h

#### Filter specifications

N Size	Max. flow rate GPM (m³/h)		Volume gal (I)	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)

#### Chemical resistance of filter bags

Materials	Codes	Aqueous media		Aromatic solvents	Alkaline media	Strongly alkaline	Acid media	Strongly acidic
Needle felt polypropylene	PO/POXL/POF/POXLF	•	•		•		•	•
Needle felt polyester	PE/PEXL/PEF/PEXFL	•					•	
Needle felt nylon	NY	•	•		-	•		
Needle felt meta-Aramid	HT	•					-	
Multifilament polyester	PEMU							
Monofilament polypropylene	PM0	•					•	
Monofilament nylon	NMO	•						
Needle felt PTFE	PT	•						
Monofilament PEEK	PEEKMO	•	•	•	•	•	•	



## **Applications**

**Automotive** Filtration of pretreatment bath, filtration of e-coat, top coat and clear coat, primer, paint ring line filters, parts cleaning fluids, drawing compounds, lubricants, metal working fluids and pump intake filters.

Chemical Catalyst recovery, removal of pipe scale, polishing of aqueous process fluids, alkalis, acids and solvents, filtration of emulsions and dispersions, gel removal from resins. Activated carbon or catalyst removal in the fine chemicals industry is a typical example of a demanding application in chemical processing. Eaton filter bags meet the requirements for high-efficiency, yet also offer long service life and reliability.

**Electronics** Wafer and chip processing, electronic etching

baths, photo-chemical polishing, and high- purity water filtration and pre-filtration of various membrane filtration processes to improve their cost-effectiveness. Eaton filter bags demonstrate the required purity, efficiency and consistent performance.

Food and beverage Filtration of wine, spirits and beer, removal of particles from edible oils, removal of carbon black from cellulose, slime removal in gelatin, liquid sugar, thick juice, corn syrup polishing, starch processing, milk processing and soft drinks. Many Eaton filter bags conform to FDA and EC food processing standards and can meet the unique and varied demands of these applications.

**Metal working** Filtration of hydraulic oil, pre-treatment

system filtration, precious metal recovery, metal working fluids and drawing compounds. Parts cleaning machines use our filter bags for minimizing residual dirt on parts.

Paint and lacquer Removal of agglomerates, removal of paint coagulates, solvent filtration, removal of storage contaminants, filling lines, paint mixing lines and monomer purification.

Petrochemicals Filtration of lube oils, fuel additives, enhanced oil recovery, filtration of amine solutions, filtration of glycol fluids, gas purification processes, distillation and cracking processes, amine washers, off-shore filter stations, oil drilling and injection fluids.

**Pharmaceutical** Recovery of expensive active ingredients, catalyst recovery, active carbon

purification and removal, filtration of gelatin, hormones, vitamin extracts, polishing of herbal mixtures, protein removal from plasma, filtration of saline solutions

Resins, plastics, inks and coatings Oil and polymer filtration, dispersions, polymerization batches, resins for can coatings, plastics compounding, printing ink, plastics processing, paper coatings, high-purity ink-jet fluid filtration.

Water treatment Well water filtration, water treatment plants, silt removal, pipe scale removal, sand and algae removal from sea water, ion exchange resin recovery, calcium deposit removal, filtration of chemicals used for water treatment, dust removal from cooling tower installations.

## Contaminant Spectrum Factors to consider when selecting a filter bag range

	Contaminant particle size								
	Fine filtration								
	1 μm	10 μm	<b>100</b> μm	1,000 μm					
Ranges		Monofilament filter bags							
		MAX-LOAD pleated filter bags     HAYFLOW filter elements     DURAGAF filter bags     CLEARGAF filter bags     SENTINEL filter bags							
	<ul> <li>PROGAF filter bags</li> <li>ACCUGAF filter bags</li> <li>ABP filter bags</li> <li>LOFCLEAR filter bags</li> <li>UNIBAG filter bags</li> </ul>								
Materials			mesh materials solute retention rating n						
		Precision needle felt materials  MAX-LOAD pleated filter bags HAYFLOW filter elements DURAGAF extended-life filter bags CLEARGAF filter bags UNIBAG needle felt filter bags Standard needle felt filter bags							
	Precision melt-blown mater PROGAF filter bags ACCUGAF filter bags LOFCLEAR filter bags	rials							
Seal rings			BANDSEAL seal ring • Simple, effective						
		SNAP-RING seal rings • Versatile, cost-effective • Wide range of material							
	SENTINEL seal rings  "The best in the business"  Pressure activated seal ring  Wide fluid and temperature	compatibility							



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