

BAG FILTERS



DESCRIPTION

- ▶ **Filtration from the inside to the outside:**
High capacity to retain pollutants inside the bag, without any risk of downstream contamination
- ▶ **Sewn bags** with high mechanical strength
- ▶ Economic filter element that is easy to handle
- ▶ Range of food quality-certified bags (according to the European Directive 1935/2004 and the requirements of the FDA) or ACS-certified
- ▶ Identification by dismountable individual label
- ▶ Recommended maximum differential pressure: 1.2 bar

OPTIONS

- ▶ Individual packaging
- ▶ Can be used with a **non-return device**, a **magnetic system**, a **volume reducer** (sheet FTQ/1PO/04E/A, page 29) or **oil-adsorbent cartridges** that are inserted in the bags for increased retention of hydrocarbons (sheet FTQ/1TE/01E/A, page 30)

STANDARD BAG DIMENSIONS AND FILTER VESSEL COMPATIBILITY

Size	Ø (mm)	L (mm)	Surface (dm ²)	Vol (L)	Filter vessel model
02	105	230	8	1.2	Vessel on request
03	95	230	6	1	Vessel on request
04	107	230	9	1.2	PO4
05	110	230	9	1.3	PO9T1
06	105	370	13	2.3	Vessel on request
07	95	385	13	1.8	PO7
08	107	385	16	2.4	PO8HP
09	110	360	16	2.4	PO9T2
10	180	450	26	8.1	LBVS11, PO18
20	180	820	48	16.3	LBVS12, 2PO, Cofipore [®] T2, PO31, PO31KXS, PO31C
30	260	860	70	33.9	Rafale I, Rafale I MR
40	260	1070	85	46.2	Rafale II, Rafale II MR

Other dimensions available on request

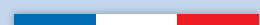
PHYSICAL AND CHEMICAL PROPERTIES

Material	Acid medium	Alkaline medium	Solvent medium	Oxidising medium	Operating temperature (°C)	
					Continuous	Peak
Nylon	M	Ex	B	C	90	felt 100 / monofilament 130
Polyester	Ex	M	B	Ex	135	170
Polypropylene	Ex	Ex	B	M	90	100
PTFE	Ex	Ex	Ex	Ex	250	270
Aramid	C	Ex	Ex	C	200	230
ETFE	Ex	Ex	Ex	Ex	250	270

Ex: Excellent - B: Good - C: OK - M: Poor

The chemical criteria of the filtered product may require a lower continuous temperature

OUR TEXTILES WORKSHOP produces a complete range of textile filter elements that can be adapted to all filter vessels.

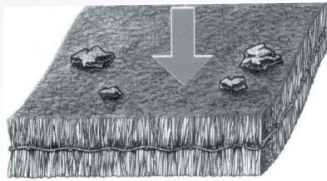




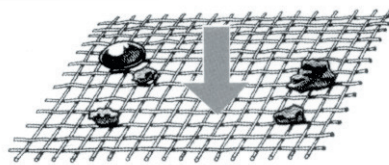
BAG FILTERS

TYPES OF FILTER MATERIALS

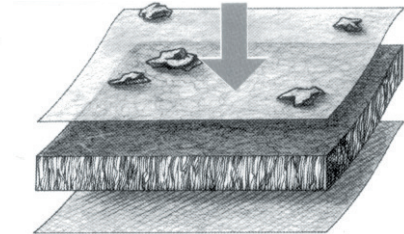
FELT



MONOFILAMENT



HIGH-PERFORMANCE FELT



TYPES OF RINGS



AMP* or DP* molded ring
Optimal sealing



O-ring
Easily adaptable to all filter vessels

RING MATERIALS

AMP* rings: HDPE

DP* rings: Polypropylene

O-rings:

- Stainless steel
- Zinc plated steel
- Polypropylene
- PTFE*

CODING SYSTEM

1PO Bag filter	G Ring	W Bag geometry	20 Bag size	FP Material	K Packaging	005 Filtration rating	G Ring material
	G: O-ring DP*: molded PP ring for Cofipore® AMP*: molded HDPE ring	— : U bag W: W bag	02, 03, 04, 05, 06, 07, 08, 09, 10, 20, 30, 40	MN: Monofilament Nylon MP: Monofilament Polypropylene ML: Monofilament Polyester MPT: Monofilament ETFE FP: Polypropylene felt FL: Polyester felt FN: Nylon felt FPT: PTFE felt FNO: Aramid felt HPB: HP melt blown HPA: HP melt blown HPC: HP melt blown	K: individual S: not individual	See available ratings p. 24-25	G: Zinc plated steel I: Stainless steel P: Polypropylene T*: PTFE

*available in sizes 10 and 20

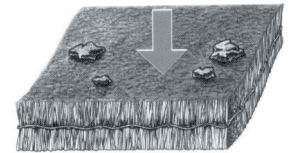
Textile materials

THE FELT RANGE



Surface retention of the largest particles and in-depth filtration of the finest particles.

- ▶ High retention capacity thanks to the optimal distribution of the particle across the entire depth of the medium
- ▶ Economical filter element
- ▶ Well suited to batch filtration
- ▶ High flow rates and low pressure drop
- ▶ Calendered external surface to prevent migration of fibres
- ▶ Two types of ring: O-ring or molded ring



Needled felt

FILTRATION RATINGS

Polyester	1 - 5 - 10 - 25 - 50 - 100 - 200 µm
Nylon	1 - 5 - 10 - 25 - 50 - 100 µm
Polypropylene	1 - 5 - 10 - 25 - 50 - 100 - 200 µm
PTFE	5 - 10 µm
Aramid	50 - 100 µm

TYPICAL WORKING RANGES

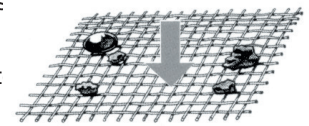
- Pre-filtration
- Gels, creams
- Paints, cataphoresis
- Surface treatment
- Decanting hydrocarbons
- etc.

THE MONOFILAMENT RANGE



Surface filtration offering selective retention of particles larger than the filtration rating.

- ▶ Mesh structure combining low pressure drop, high flow rates and a high retention capacity
- ▶ Can be considered as a filter medium that can be regenerated
- ▶ Wide range of filtration ratings: from 1 µm to 2000 µm
- ▶ No migration of fibres
- ▶ Two types of ring: O-ring or molded ring



Monofilament

FILTRATION RATINGS

Polyester	5 - 10 - 25 - 50 - 80 - 100 - 150 - 200 - 250 - 300 - 400 - 500 - 800 - 1000 µm
Nylon	1 - 5 - 10 - 15 - 18 - 25 - 30 - 40 - 60 - 80 - 100 - 125 - 150 - 200 - 250 - 300 - 400 - 500 - 600 - 800 - 1000 - 2000 µm
Polypropylene	100 - 150 - 200 - 250 - 400 - 500 - 1000 µm
ETFE	85 - 150 - 250 - 500 - 1000 µm

TYPICAL WORKING RANGES

- Foodstuffs
- Solvents
- Paint
- etc.

OUR TEXTILES WORKSHOP produces a complete range of textile filter elements that can be adapted to all filter vessels.

THE HIGH PERFORMANCE RANGE



High-efficiency in-depth filtration thanks to the melt blown technology.

- ▶ Bag made up of 3 layers of 100% polypropylene. The three filter media offer constant efficiency and excellent resistance to differential pressure
- ▶ Retention performance certified by an independent laboratory
- ▶ A product that meets the most demanding requirements (final filtration, etc.)
- ▶ Excellent chemical resistance and oil adsorption capacity equalling several times its own weight
- ▶ Each bag filter is individually packed
- ▶ Two types of ring: O-ring or molded ring (recommended for ratings <25µm)

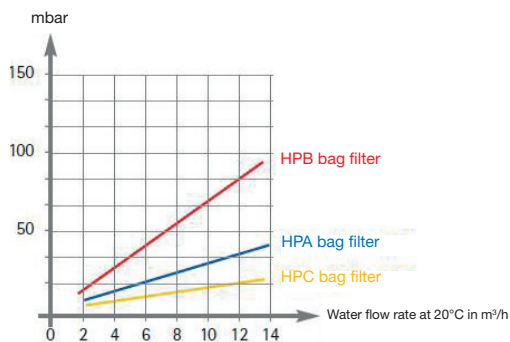
1 – External anti-migration web to increase the mechanical strength of the bag filter

2 – Active central part made of microfibres (melt blown technology) guaranteeing absolute filtration characteristics

3 – Internal protective web that works as a pre-filter

FLOW RATE

The table below shows flow rates versus pressure drop (for size 20 bag filters, multiply the flow rates by two).



Flow rate / ΔP curves on HP "High Performance" bag filters Size 10

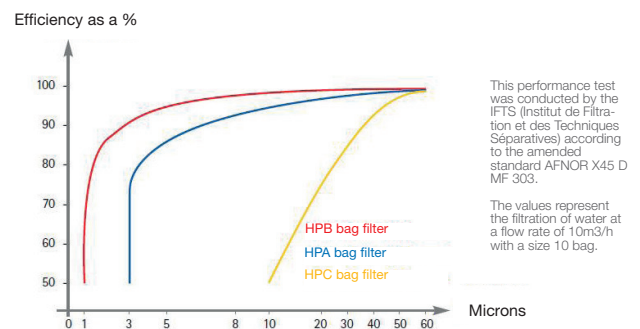
RATINGS AND FILTRATION EFFICIENCY

Bag	Particle size (µ)	Filtration efficiency (%)	Beta ratio
HPB	1	75	4
	3	90	10
	5	95	20
	10	99	100
HPA	5	85	12
	10	95	20
	15	98	50
HPC	20	99.9	1000
	10	70	3.35
	15	75	4
	20	85	12
	30	95	20
	50	99.9	1000

WORKING RANGES

- Purification: retention of catalysts or active carbon, clarification of emulsions
- Treatment of polluted cataphoresis paints by silicone oils
- Retention of deformable particles (gelatins, etc.)
- Retention of silicones
- High added-value products
- Water for consumption (ACS-certified bags)
- Foodstuffs (FDA/ EU 1935/2004-certified bags)

FILTRATION EFFICIENCY



Efficiency of HP "High Performance" bag filters

OUR TEXTILES WORKSHOP produces a complete range of textile filter elements that can be adapted to all filter vessels.

Bag geometry

U BAG (STANDARD)



Standard geometry, economical, high retention capacity

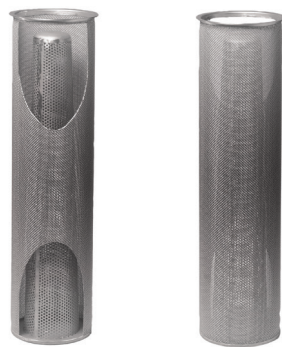
- ▶ Available in sizes 2 to 40
- ▶ Wide selection of filtration ratings and materials
- ▶ The U geometry can retain high quantities of solids
- ▶ Economical element
- ▶ Easy to install
- ▶ Compatible with various brands of filter housings
- ▶ Can be used with a non-return device or a magnetic system or a volume reducer (sheet FTQ/1PO/04E/A, page 29)

W BAG

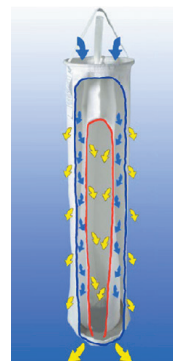


45% more filtering surface than conventional U bags

- ▶ The retention capacity and lifespan of the bag can be increased two-fold depending on the applications
- ▶ Improved lifespan or flow rate, without changing the filter vessel. Only the bag support needs to be changed
- ▶ Lower operating costs and less frequent interventions
- ▶ Available in sizes 10, 20, 30 and 40 (other dimensions available on request)



View of a W bag support basket



Cross-section of a W bag

OUR TEXTILES WORKSHOP produces a complete range of textile filter elements that can be adapted to all filter vessels.