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Economy Filter Bag
FB-E

Description

Economy series filter bags are single-layer bags, which can be used in a WBF filter housing, or in market standard bag filter housings from other manufacturers.
The surface is thermally treated, so that fibers cannot become detached from the bag and get into the clean side. At the same time, the bags also offer excellent chemical resistance and are free of substances that impair wetting. There are FDA-approved variants for use in food-related areas.
To increase the service life there are optionally available magnets incl. holders, which support the separation of magnetic particles in the WBF housing.

Applications

- Filtration of washing and machining fluids, particularly in the automotive industry
- Paint and lacquer filtration
- Use in applications with lower purity requirements

Special features

- Simple handling through tool-free installation
- An optimum material compound guarantees maximum safety during operation and ensures sufficient flexibility for optimum adaptation to the bag receptacle
- Plastic collar for optimum sealing
- Bar magnets and holders available as accessories for the WBF filter housing

Technical details

General data

Filter Size	100	200
Differential pressure, maximum	1.6 bar	
Filtration rating (nominal)	1 ... 200 µm	
Filter material	Polypropylene (PP)	
Collar material	Polypropylene (PP)	
Operating temperature, maximum	60 °C	
Flow rate maximal	300 l/min	

Order details:

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N 200 FB-EA 100 - PP 1

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Filter Size
100	=	for filter bag Size 1
200	=	for filter bag Size 2

Filter bag type
FB-EA =	Economy filter bag
FB-EB =	Economy filter bag (FDA compliant)

Filter bag fineness (nominal)
001	=	1 µm
005	=	5 µm
010	=	10 µm
025	=	25 µm
050	=	50 µm
075	=	75 µm
100	=	100 µm
150	=	150 µm
200	=	200 µm

Filter material
PP	=	Polypropylene

Collar type
P1	=	Polypropylene

Design:

The total pressure loss of the filters at a given flow rate is comprised of the filter housing Δp and the filter bag Δp. The housing pressure loss is determined by the characteristic curves for housing pressure loss. The pressure loss of the uncontaminated filter bags is calculated using the R factors.

Filter bag Δp: pressure loss calculation

The following calculation is based on a clean filter bag.

$$\Delta p[bar] = \frac{R * V[mm^2/s] * Q[l/\min]}{n}$$

R = R Factor
V = Viscosity [mm²/s]
Q = Flow rate (l/min)
n = Number of filter bags

R (Resistance) Factors
Filter bag FB-EA

R Factors		N 100	N 200
	1 µm	0.010	0.005
	5 µm	0.004	0.002
	10 µm	0.002	0.001
Filtration rating	**25 µm**	0.002	0.001
	50 µm	0.002	0.001
	100 µm	0.002	0.001
	150 µm	0.002	0.001
	200 µm	0.002	0.001

Filter bag FB-EB

R Factors		N 100	N 200
	1 µm	0.010	0.005
	5 µm	0.004	0.002
	10 µm	0.002	0.001
Filtration rating	**25 µm**	0.002	0.001
	50 µm	0.002	0.001
	100 µm	0.002	0.001
	150 µm	0.002	0.001
	200 µm	0.002	0.001

Note:
The information in this brochure relates to the operating conditions and applications described.
In the event of deviating applications and/or operating conditions, please contact the respective HYDAC department concerned.
Subject to technical modifications.