

## Single Bag Filter Housing

### Working Principle

The bag filter is supported by the stainless steel mesh inside. The liquid flows into the chamber via the inlet and goes through the filter bag. The impurities will be blocked in the filter bag. The filter bag can be used repeatedly after washing or cleaning. And also, the filter bag is easy to change. With no material consumption, this filter has a low operation cost.

### Technical Parameters

Model	Filtering Area (m <sup>2</sup> )	Max Flow (t/h)	Volume (L)	Inlet/Outlet Connection	Diameter (mm)	Housing Height (mm)
JXSBFH-1	0.20	16	8	DN40	180	440
JXSBFH-2	0.50	32	17	DN50	180	810
JXSBFH-3	0.09	6	1.3	DN32	102	210
JXSBFH-4	0.16	12	2.5	DN32	102	380



### Application

Chemical industry, pharmacy, automobile industry, light industry, food industry, electroplating industry, etc.

## Advantages

- ◆ High capacity with small size.
- ◆ Labor-saving: easy to replace filter bag, no need to clean the filter.
- ◆ Cost-saving: filter bag can be used repeatedly after cleaning.
- ◆ High precision: can be reached  $0.5\mu\text{m}$ .
- ◆ Low leakage risk which ensures high filtering quality.
- ◆ Energy-saving: high working pressure, low-pressure loss, and low operation cost.
- ◆ Wide application, flexible use, and various installation method for choice.

## Remarks

- ◆ Max capacity is the reference value based on the water test. The actual value can be different because of liquid viscosity, solid content, and pressure difference.
- ◆ The material can be carbon steel, SS304, or SS316L.
- ◆ Ring's material can be customized per customer requirement to meet the material needed to be filtered.
- ◆ The lock method can be clamp type, hasp type, and lifting lug type.



## Multi Bag Filter Housing

### Working Principle

The raw material, in the effects of stress, through the filter bag. Amounts of particles will be intercepted and retained in multi-filter bags. Filtrate along metal bearing a basket with netting on top wall outflow through the outlet and achieve the filter's purpose. The filter bags could be reusable after washing and cleaning. Filtering different size particles by changing other slot size filter bags.

### Application

Chemical industry, pharmacy, automobile industry, light industry, food industry, electroplating industry, etc.

### Inlet/outlet type

- ◆ Side-in & bottom-out
- ◆ Side-in & side-out
- ◆ Bottom-in & bottom-out

### Opening Type

Lifting lug, rocker arm, and quick open.



## Advantages

- ◆ Higher capacity with small size
- ◆ Labor-saving: easy to replace filter bag, no need to clean the filter
- ◆ Cost-saving: filter bag can be used repeatedly after cleaning
- ◆ High precision: can be reached 0.5 $\mu$ m
- ◆ Low leakage risk which ensures high filtering quality
- ◆ Energy-saving: high working pressure, low-pressure loss, and low operation cost
- ◆ Wide application, flexible use, and various installation method for choice
- ◆ Suitable for replacing a long time using filter bags

## Technical Parameter

Model	Bag Qty	Filtering Area (m <sup>2</sup> )	Max Flow (t/h)	Inlet/Outlet Connection	Working Pressure (Mpa)	Housing Dia. (mm)	Overall Height (mm)	Housing Height (mm)
JXMBFH-3	3	1.5	105	DN80	0.5	508	1592	1190
JXMBFH-4	4	2	140	DN100	0.5	558	1632	1244
JXMBFH-6	6	3	210	DN150	0.5	658	1854	1300
JXMBFH-8	8	4	280	DN150	0.5	760	1922	1404
JXMBFH-10	10	5	350	DN200	0.5	910	2004	1430
JXMBFH-12	12	6	420	DN200	0.5	962	2064	1460
JXMBFH-14	14	7	490	DN200	0.5	1012	2124	1490
JXMBFH-16	16	8	560	DN250	0.5	1112	2146	1512
JXMBFH-18	18	9	630	DN250	0.5	1162	2225	1595
JXMBFH-20	20	10	700	DN250	0.5	1212	2280	1640
JXMBFH-22	22	11	770	DN250	0.5	1366	2320	1694
JXMBFH-24	24	12	840	DN300	0.5	1416	2358	1748

### Remarks

- ◆ Max capacity is the reference value based on the water test. The actual value can be different because of liquid viscosity, solid content, and pressure difference.
- ◆ The material can be carbon steel, SS304, or SS316L.
- ◆ Ring's material can be customized per customer requirement to meet the material needed to be filtered.

## Jacketed Bag Filter Housing

### Working Principle

The Jacketed bag filter has two layers to treat high temperature and viscosity liquid. Different kinds of filter bags will filter the raw liquid's impurities after entering the chamber by gravity effect. The filter bags need to clean or replace after using many times. The filtered clean liquid will discharge through the outlet pipe.

### Production Introduction

Jacketed bag filter housing has double layers. There is an external layer outside the housing. And with a layer inlet and an outlet is equipped on the outer layer, steam, water, and conduction oil can be introduced. In this way, this filter can keep or increase the liquid temperature to protect it from crystallization or solidification and improve the filter speed of viscous liquid. And it also can meet the temperature requirement in the next process. The jacketed bag filter can be customized per the customer's working condition.

### Application

Pre-filtration or ultra-filtration in the chemical industry, food & beverage industry, and the pharmaceutical industry. It can realize steam heating or condensing cooling for viscous material or the material that need thermal insulation.



## Advantages

- ◆ Higher capacity with small size
- ◆ Labor-saving: easy to replace filter bag, no need to clean the filter
- ◆ Cost-saving: filter bag can be used repeatedly after cleaning
- ◆ High precision: can be reached 0.5 $\mu$ m
- ◆ Low leakage risk which ensures high filtering quality
- ◆ Energy-saving: high working pressure, low-pressure loss, and low operation cost
- ◆ Wide application, flexible use, and various installation method for choice
- ◆ Adapt to multiple working conditions: high temperature and high viscosity

## Technical Parameters

Model	Bag Qty	Filtering Area (m <sup>2</sup> )	Max Flow (t/h)	Inlet/ Outlet	Heating Inlet/ Outlet	Housing Dia. (mm)	Overall Height (mm)	Housing Height (mm)
JBF4	4	2	140	DN100	DN25	558	1632	1244
JBF6	6	3	210	DN150	DN25	658	1854	1300
JBF8	8	4	280	DN150	DN25	760	1922	1404
JBF12	12	6	420	DN200	DN32	962	2064	1460
JBF16	16	8	560	DN250	DN32	1112	2146	1512
JBF20	20	10	700	DN250	DN32	1212	2280	1640
JBF22	22	11	770	DN250	DN32	1366	2320	1694
JBF24	24	12	840	DN300	DN32	1416	2358	1748



## Filter Bag

Table 1-Sizes and Specifications

Size	Max flowrate(m3/h)		Filter area (m2)	Volume (L)	Dia. (mm)	Length (mm)	Processing mode	Material
	1-3μm	5-200μm						
#01	8	16	0.25	8.0	180	440	Steel wire seam /Plastic hot melting	PE/PP/MO
#02	20	32	0.50	17.0	180	810	Steel wire seam /Plastic hot melting	PE/PP/MO
#03	3	6	0.09	1.3	102	210	Steel wire seam	PE/PP/MO
#04	6	12	0.16	2.5	102	380	Steel wire seam	PE/PP/MO



Table 2-Performances

Material	Temperature*(°C)	Water	Aliphatic series	Aromatic series	Weak base	Weak acid	Alkali	strong acid
PP	90	•		•	•	•	•	•
PE	160	•	•	•	•	•		•
Nylon	160	•	•	•	•		•	
* approximate value •applicable								

Remarks: the above information is reliable but does not mean that it is a guarantee. The user needs to make a test to determine the appropriate filter material.

### Correct Selection of Filter Bag:

- ◆According to the actual requirements of the filtration process, to determine the filtration mode (deep filtration, surface filtration) first, and then choose the filter bag material by Table 2
- ◆According to the filter flow rate, medium viscosity, filter precision, to determine the size of the filter bag by Table 1

**Table 3-Filtration Accuracy**

Filtration products of different materials have different filtration modes, filtration efficiency, and filtration precision. Besides, the filtration efficiency would vary with temperature, viscosity, flow velocity, and filtrate quality. Please select the most suitable filter material according to the actual working conditions.

MOC	Filtration precision available (μm)											
	1	5	10	15	25	50	75	100	125	150	200	300
PP	√	√	√	√	√	√	√	√				
PE	√	√	√	√	√	√	√	√				
MO						√	√	√	√	√	√	√

Table 4-Accuracy Conversion

Mesh	12000	5000	2500	1250	625	550	300	200	140	120	100	70	60	50
μm	1	3	5	10	20	25	50	70	100	125	149	200	250	300

## Chemical Compatibility of Filter Material

There are many kinds of filter products with different materials. Different filtrates also have other physical and chemical characteristics. In the process of filtration, Filter material must be compatible with it, without chemical reaction. Furthermore, filter material must also face the same pressure and temperature change as filtrate to maintain its fixed structure. Stable and uniform filtration efficiency can be guaranteed only without aperture change, softening, crack, or effusion.

Table 5- Chemical Compatibility

MOC	Solvent	Strong acid	Weak acid	Strong base	Weak base	Surface affinity	Temp. tolerance (°C)
NC	3	5	5	1	1	Oleophilic, hydrophilic	150
PP	4	1	1	1	1	Slightly oleophilic, lyophobic	93
PE	3	3	2	5	3	Oleophobic, hydrophile	150
NY	3	5	4	1	1	Slightly oleophilic, lyophobic	150
PT	2	1	1	1	1	Oleophobic, lyophobic	260

In general, for filtrates with a higher polarity such as acid-alkali and salt, polypropylene (PP) will do. For filtrates with lower filtrate such as solvent, polyester (PE) or Nylon (NY) will be the right choice.

**Table 6-Technical Parameters**

Specification	Gram Weight (g/m <sup>2</sup> )	Thickness(mm)	Density (g/cm <sup>3</sup> )	Particle dia. (μm)	Pore Volume (%)
1μm	500	1.8	0.31	1	78
3μm	450	1.7	0.21	3	80
5μm	400	1.9	0.21	5	85
10μm	400	2.1	0.19	10	86
25μm	400	2.5	0.16	25	88
50μm	400	2.9	0.14	50	90
Breaking elongation: longitudinal: 89-63			crosswise: 81-56		
Operating temperature: continuous (°C)130			Instant (°C)150		