



# Lab1st Filtration System

/ Laboratory and Processing Equipment



Multistage Filter



Side Entry  
Bag Filter Filter



Lenticular Filter



Buchner Filter



/ Laboratory and Processing Equipment

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# Buchner Filter

0.5~200um Pore Size (customizable)

Lab1st BF series vacuum filter is a special laboratory filter, it matched with the microporous membrane of different aperture, adopts vacuum suction filter, can be used in the research of chemical analysis, instrumental analysis, sanitary inspection, pharmaceutical industry, and agricultural machinery, automotive, construction machinery and so on for liquid – liquid Extraction or liquid – solid filtration.



Customized: Closed Type



High quality borosilicate glass 3.3 with excellent physical and chemical properties for glass parts and SUS 304 stainless steel frame.



Perfect sealing property and no dead corner design for charging solution or power more easily.



Vacuum valves for connecting vacuum pump for processing vacuum filtration.



Cost-saving modular design and can be customized by clients' requirements.



Safe in operation, easy to move around with casters with lock.



5L/10L/20L/30L/50L collection flask for options.

## BF-10S



### Technical Data

Receiving Flask Volume [L]	10
Funnel Volume [L]	10
Funnel Size [mm]	Φ300*200
Filter Pore Diameter [mm]	4
Discharge Port	DN25
Vacuum Port	24/29
Drain Port Ground Clearance [mm]	350
Receiving Flask Material	High Borosilicate Glass
Funnel Material	SUS304

### Weight | Dimension

Unit Dimension [mm]	460*460*1370
Package Weight [Kg]	50

## BF-20S



### Technical Data

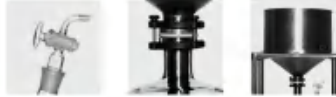
Receiving Flask Volume [L]	20
Funnel Volume [L]	20
Funnel Size [mm]	Φ350*200
Filter Pore Diameter [mm]	4
Discharge Port	DN25
Vacuum Port	24/29
Drain Port Ground Clearance [mm]	390
Receiving Flask Material	High Borosilicate Glass
Funnel Material	SUS304

### Weight | Dimension

Unit Dimension [mm]	460*460*1480
Package Weight [Kg]	50



## BF-30S



### Technical Data

Receiving Flask Volume [L]	30
Funnel Volume [L]	30
Funnel Size [mm]	Φ400*240
Filter Pore Diameter [mm]	4
Discharge Port	DN25
Vacuum Port	24/29
Drain Port Ground Clearance [mm]	350
Receiving Flask Material	High Borosilicate Glass
Funnel Material	SUS304

### Weight | Dimension

Unit Dimension [mm]	600*600*1600
Package Weight [Kg]	71

## BF-50S



### Technical Data

Receiving Flask Volume [L]	50
Funnel Volume [L]	50
Funnel Size [mm]	Φ500*280
Filter Pore Diameter [mm]	4
Discharge Port	DN25
Vacuum Port	24/29
Drain Port Ground Clearance [mm]	300
Receiving Flask Material	High Borosilicate Glass
Funnel Material	SUS304

### Weight | Dimension

Unit Dimension [mm]	600*600*1600
Package Weight [Kg]	74

## BF-100S

### Technical Data

Receiving Flask Volume [L]	100
Funnel Volume [L]	100
Funnel Size [mm]	Φ600*400
Filter Pore Diameter [mm]	4
Discharge Port	DN25
Vacuum Port	24/29
Drain Port Ground Clearance [mm]	300
Receiving Flask Material	High Borosilicate Glass
Funnel Material	SUS304

### Weight | Dimension

Unit Dimension [mm]	750*750*1700
Package Weight [Kg]	106



BF-50S

# Side Entry Bag Filter

10um Pore Size (customizable)



Side-entry bag filter is for some coarse filtration and pre-filtration process. The side entry structure is a economical and reasonable design which can effectively save space of the filter. Furthermore, the pressure ring and the spring ensure good seal between the filter and the filter bag. With adjustable legs, the installation size can be adjusted according to the requirements of the particular spot.



Standard with **10um** filter pore size (customizable)



Side entry structure, effectively **save the filter space**



Pressure ring and the spring ensure good **sealing**

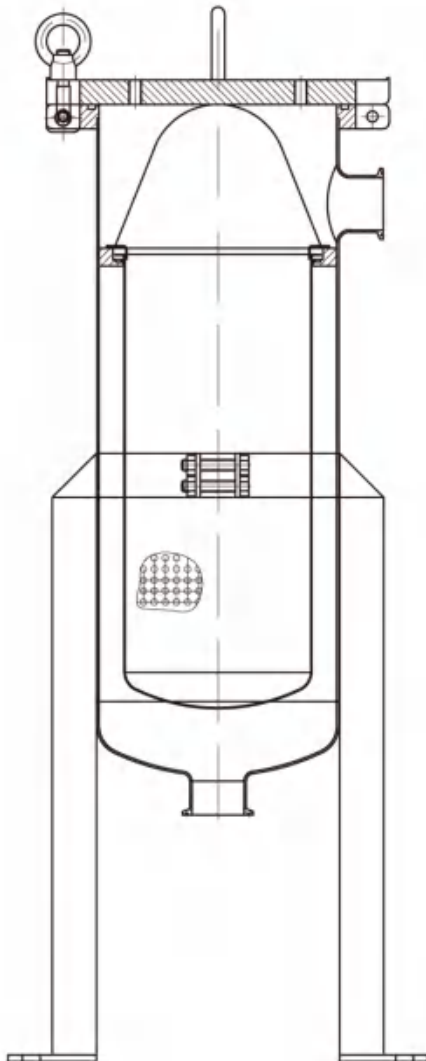
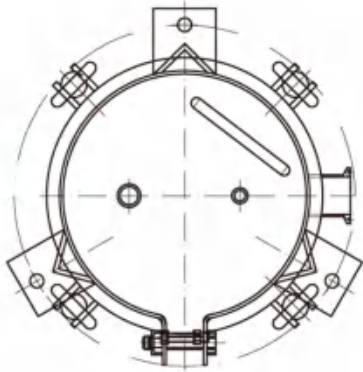


With adjustable legs, easy to installation



Used for some **coarse filtration and pre-filtration** process





Model	SBF-1	SBF-2
<b>Technical Data</b>		
Filter Bag	Ø180×430	Ø180×810
Design Pressure	1.0 MPa	
Max. Working Pressure	0.6 MPa	
Max. Working Temperature	150 °C	
Min. Working Temperature	Around -40°C	
Max. Flow	20	40
Filter Hole Diameter	10um/ 5um/ 1um (1~200µm customizable)	
Total Height [mm]	990	1365
Length [Inlet to Center, mm]	147	147
Shell Diameter [mm]	204	204
Hight [Inlet to Ground, mm]	835	1205
Hight [Outlet to Ground, mm]	250	250
Adjustable Support Height [mm]	500	800
Fluid Inlet/Outlet Interface	50.5 Tri-clamp	
Vacuum Gauge Interface	M14 X 1.5	
Deflation Valve	1/4 in	
Shell Material	304/316L	
Eyebolt Material	304	
Adjustable Support	304	
Filter Bag Material	PP, [PTFE customizable]	
Sealing/ Gasket Material	EPDM, PTFE, Viton, Silicone	

Model	SBF-3	SBF-4
<b>Technical Data</b>		
Filter Bag	Ø105×230	Ø105×380
Design Pressure	1.0 MPa	
Max. Working Pressure	0.6 MPa	
Max. Working Temperature	150 °C	
Min. Working Temperature	Around -40°C	
Max. Flow	6	12
Filter Hole Diameter	10um/ 5um/ 1um (1~200µm customizable)	
Total Height [mm]	525	635
Length [Inlet to Center, mm]	92	92
Shell Diameter [mm]	114	114
Hight [Inlet to Ground, mm]	445	555
Hight [Outlet to Ground, mm]	300	300
Adjustable Support Height [mm]	300	400
Fluid Inlet/Outlet Interface	50.5 Tri-clamp	
Vacuum Gauge Interface	M14 X 1.5	
Deflation Valve	1/4 in	
Shell Material	304/316L	
Eyebolt Material	304	
Adjustable Support	304	
Filter Bag Material	PP, [PTFE customizable]	
Sealing/ Gasket Material	EPDM, PTFE, Viton, Silicone	



## Lenticular Filter

1um Pore Size (customizable)



Different filter pore sizes:  
10um, 5um and 1um



No dead corner with inner  
mirror polishing

Standard with 2 filter stacks,  
max. 4 filter stacks available



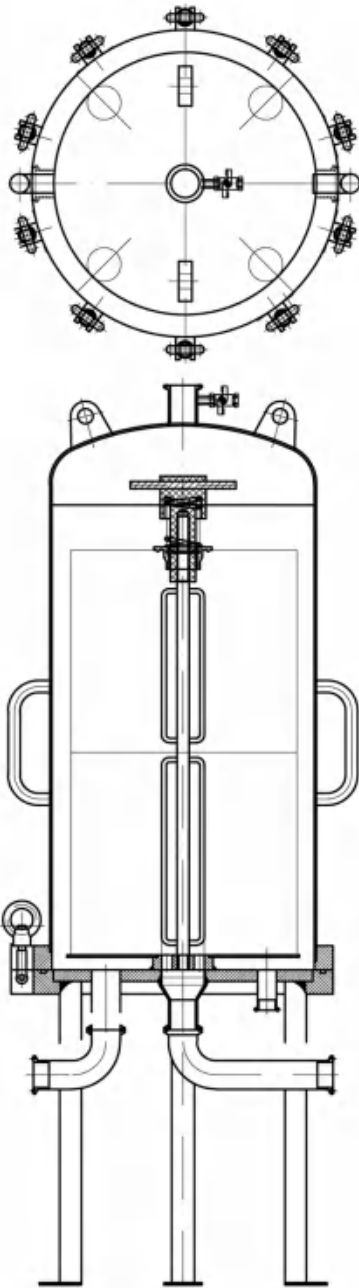
Lower-upper path structure

Special discharge valve in the  
inlet/outlet, easy to drain

Lab1st LF-series lenticular filter is a new type stacks filter for tiny impurities in varied kinds of liquid filtration, clarification, purification. The structure is designed and manufactured according to the health level. There is no dead corner and mirror polishing, which ensures no residual liquid and easy to clean. LF-series lenticular filter house can install max. 4pcs filter stacks.

## Application

- ✓ Microbe and solid filtration of alcohol, syrup, beer
- ✓ End filtration of fruit juice and juice concentrates
- ✓ Pre filtering of juice membrane filtration
- ✓ Clarification of alcohol, enzyme dissolution, liquid gum, olive oil, pharmaceutical, chemical, electronic filtration.



Model	LF-16-1	LF-16-2
<b>Technical Data</b>		
Design Pressure	1.1 Mpa	
Max. Working Pressure	1.03 Mpa	
Max. Working Temperature	140 °C	
Min. Working Temperature	Around-40 °C	
Filter Hole Diameter	Depends on the filter stack	
Filter Stacks (inch)	16	16
Total Height [mm]	1x Stack 960	2x Stacks 1230
Length [Inlet to Center, mm]	250	
Height [Inlet/Outlet to Ground, mm]	280	
Shell Diameter [mm]	450	
Fluid Inlet/Outlet Interface	1.5" Tri-clamp	
Vacuum Gauge Interface	1.5" Tri-clamp	
Drain Outlet	1.0" Tri-clamp	
Deflation Valve	1/4"NPTF	

Model	LF-16-3	LF-16-4
<b>Technical Data</b>		
Design Pressure	1.1 Mpa	
Max. Working Pressure	1.03 Mpa	
Max. Working Temperature	140 °C	
Min. Working Temperature	Around-40 °C	
Filter Hole Diameter	Depends on the filter stack	
Filter Stacks (inch)	16	16
Total Height [mm]	3x Stacks 1500	4x Stacks 1770
Length [Inlet to Center, mm]	250	
Height [Inlet/Outlet to Ground, mm]	280	
Shell Diameter [mm]	450	
Fluid Inlet/Outlet Interface	1.5" Tri-clamp	
Vacuum Gauge Interface	1.5" Tri-clamp	
Drain Outlet	1.0" Tri-clamp	
Deflation Valve	1/4"NPTF	





# Multistage Filter System

1um Pore Size (customizable)

Lab1st filtration skid module is a multistage filtration system that aims to separate solid matter and fluid from a mixture using different filter medium. The skid is usually composed of one bag filter and several lenticular (cake/stacks) filters. Those filters have a complex structure which only the fluid can pass through. The precision of the filtration system can be customized, such as 20um, 10um, 5um and 1um.

Bag filter can make some coarse filtration and pre-filtration, while lenticular filter has higher filtration accuracy for filtering tiny impurities. Since all those filters with accessories are fixed in the skid module, it is quite easy to use for anyone without experience.

***Fixed Skid structure, easy to use***



## Dual-Stage Filtration System



Suggested filtration procedures: 5 $\mu$ m  $\rightarrow$  1 $\mu$ m

Designed pressure: 1.0MPa  
 Designed temperature: -40°C~150°C  
 Max flow: 4m<sup>3</sup>/h



### Technical Data

Side-entry bag filter number	1
Lenticular filter number	1
Unit Dimension [mm]	1000*600*1500
Unit Weight [Kg]	240
Package Dimension [mm]	1500*700*1600

## Triple-Stage Filtration System

Suggested filtration procedures: 10 $\mu$ m  $\rightarrow$  5 $\mu$ m  $\rightarrow$  1 $\mu$ m

Designed pressure: 1.0MPa  
 Designed temperature: -40°C~150°C  
 Max flow: 4m<sup>3</sup>/h



### Technical Data

Side-entry bag filter number	2
Lenticular filter number	1
Unit Dimension [mm]	1500*600*1500
Unit Weight [Kg]	270
Package Dimension [mm]	2000*700*1600



## Quadruple-Stage Filtration System

Suggested filtration procedures: 20 $\mu$ m  $\rightarrow$  10 $\mu$ m  $\rightarrow$  5 $\mu$ m  $\rightarrow$  1 $\mu$ m

Designed pressure: 1.0MPa  
 Designed temperature: -40°C~150°C  
 Max flow: 4m<sup>3</sup>/h



### Technical Data

Side-entry bag filter number	3
Lenticular filter number	1
Unit Dimension [mm]	2000*600*1500
Unit Weight [Kg]	300
Package Dimension [mm]	2500*700*1600

