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# FRP FILTER HOUSING



FRP pressure vessel Co., Ltd is an enterprise specializing in the production and R&D of FRP. The reverse osmosis membrane vessel and various filter housing produced by us have high cost performance and they are the first choice for water treatment projects. Products are widely used in electronics, medicine, food, chemical, biological and other fields.



### FRP Filter Housing

FRP filter housing contains FRP PP melt-blown filter housing, FRP bag filter housing, FRP max-flow cartridge housing and combined housing. Applicable to all kinds of PP melt-blown filters, #01 and #02 bag filters, PALL/PAKE/3M and other pleated filters. The product has series of advantages such as corrosion resistance, convenient disassembly and assembly and long life.

#### SPECIFICATIONS ILLUSTRATION





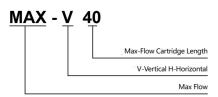
PRESSURE VESSEL

Bag 100% Of products we

- 100% Of products were tested with 1.5 times water pressure
- 100000 times fatique test

WHY YOU CAN TRUST

■ 6 times designed pressure demolition test



Improper use will cause system damage and human injury. Customers has the responsibility to use FRP pressure vessel under the designed pressure. We suggest that FRP pressure vessel be installed, tested and maintained by experienced technicians.



02

FRP PP melt-blown filter housing, FRP bag filter housing, FRP max-flow cartridge housing

#### **PRODUCT FEATURES**

The housing body adopts FRP winding technology, Corrosion avoidance, high-pressure resistant and no leakage.

The intermal structure is novel and reasonable, it has a sealed support on the lower end with an installation guide a positioning and sealing box with a damp nut to adjust the tightness in the top end.

The spare parts are molded from fiber-glass, high-pressure resistant, corrosion avoidance and no leakage.

Easy installation. We use lifting-eye bolt opening, which makes no tool operation in installing and maintaining.

There is a structure guide inside to align the filter automatically in installation, easy and convenient.

The surface is coated with paint beautiful and elegant, environmental material, several colors for choice.

#### **WORKING PRINCIPLE**

Security Filter,also known as precision filter housing one of the pressure filter housing device which uses the molded filter material. Under the presaure, it makes the concentrate pass through the filter material, the residuum left on the tube wall and the filtrate permeate from the filter material to achieve the purpose of filtration between sand filter materials, the filter pores are different too. Precision filtration between sand filtration (Coarse fitration) and ultrafiltration. The filter pore size is in the range of 0.5-100µm generally. The fitter material from melt-blown technology can work under the max temperature 60 °C. Precision filtration can remove suspended solid, some colloidal substances and small particles in water.

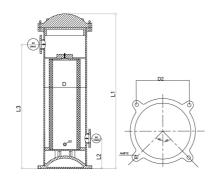


# FRP Bag Filter Housing

# flux FRP bag filter housing for φ180mm×820mm bag filter.

#### **INSTALLATION MEASUREMENT**





#### SPECIFICATIONS AND TECHNICAL INFORMATION

Model	Cap Dia (mm)	Height L1 (mm)	Height L2 (mm)	Height L3 (mm)	F/C Port	Flow (T/H)	D1 Outer Dia (mm)	D2 Install Dim (mm)
L20-1B	280	760	150	517	2''	10-20	212	184
L40-1B	280	1100	150	882	2''-2.5''	25-30	212	184
Max Working Pressure: 0.8Mpa Working Temp.: 5-66°C								

<sup>\*</sup> If other detailed data is required, please request the corresponding drawings from us.

#### **CAUTIONS**

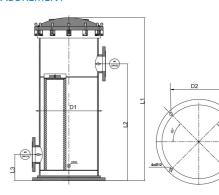
- 1.Install the filter cartridge into position, rotate the locking block by 60 degree.
- 2. Working pressure can't exceed the rated range (≤6kg).
- 3.Open the exhaust valve before starting the machine, then close the exhaust valve after the air is exhausted.
- 4.Please replace the filter material in time when the pressure difference between inlet and outlet exceeds 1.5kg.



# FRP Muti-bag filter housing

#### INSTALLATION MEASUREMENT





#### SPECIFICATIONS AND TECHNICAL INFORMATION

		- 3 -		F			- 100		e .
Model	Bag Qty	Cap Dia (mm)	Height L1(mm)	Height L2(mm)	Height L3(mm)	F/C Port	Flow( T/H)	D1 Outer Dia (mm)	D2 Install Dim (mm)
L40-2B	2	500	1310	1000	278	DN100	90 : 60	437	346
L40-3B	3	500	1310	1000	278	DN125	135 :90	437	346
L40-4B	4	620	1380	1000	278	DN125	180 : 120	520	393
L40-5B	5	725	1405	1040	280	DN150	225 : 150	647	495
L40-6B	6	725	1405	1040	280	DN150	270 : 180	647	495
L40-7B	7	725	1405	1040	280	DN200	315 : 210	647	495
L40-12B	8-12	920	1540	1030	290	DN250	540 : 360	860	495
Max Working Pressure: 0.8Mpa					.8Mpa	\	Working T	emp.: 5-66	℃

<sup>\*</sup> If other detailed data is required, please request the corresponding drawings from us.

#### **CAUTIONS**

- 1. Install the filter cartridge into position, tighten the fixed seal nut.
- 2. Working pressure can't exceed the rated range (≤6kg).
- 3. Open the exhaust valve before starting the machine, then close the exhaust valve after the air is exhausted.
- 4. Please replace the filter material in time when the pressure difference between inlet and outlet exceeds 1.5kg.

<sup>\*</sup> The inlet and outlet port can select flange, coupling, Union connection method. and port size can select DN40、DN50、DN65、DN80

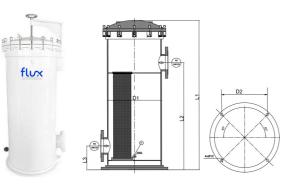
<sup>\*</sup> The inlet and outlet port size can select DN100、DN125、DN150、DN200、DN250.



FRP Max-flow Muti-Cartridge Housing

#### PALL

### INSTALLATION MEASUREMENT



### SPECIFICATIONS AND TECHNICAL INFORMATION

Model	Filter Qty	Cap Dia (mm)	Height L1 (mm)	Height L2 (mm)	Height L3 (mm)	F/C Port	Flow (T/H)	D1 Outer Dia (mm)	D2 Install Dim (mm)
LMAX-V40-2PALL	2	500	1500	1200	180	DN100	90 : 60	437	346
LMAX-V40-3PALL	3	500	1500	1200	180	DN100	135 :90	437	346
LMAX-V40-4PALL	4	625	1500	1200	180	DN125	180 : 120	520	393
LMAX-V40-5PALL	5	725	1660	1280	280	DN125	225 : 150	647	495
LMAX-V40-6PALL	6	725	1660	1280	280	DN150	270 : 180	647	495
LMAX-V40-7PALL	7	725	1660	1280	280	DN200	315 : 210	647	495
LMAX-V40- 12PALL	8-12	920	1790	631	290	DN250	540 : 360	860	495
Max Working Pressure: 0.8Mpa Working Temp.: 5-66℃									

<sup>\*</sup> If other detailed data is required, please request the corresponding drawings from us.

#### **CAUTIONS**

- 1.Install the filter cartridge into position,tighten the fixed seal nut. 2.Working pressure can't exceed the rated range (≤6kg).
- 3.Open the exhaust valve before starting the machine, then close the exhaust valve after the air is exhausted.
- 4.Please replace the filter material in time when the pressure difference between inlet and outlet exceeds 1.5kg.

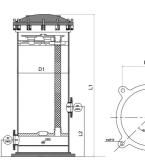


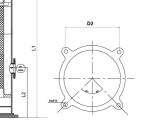
# FRP PP Melt-Blown Filter Housing

flux security filter housing for PP Melt-Blown Filter.

### **INSTALLATION MEASUREMENT**







#### SPECIFICATIONS AND TECHNICAL INFORMATION

Model	Filter Qty	Cap Dia (mm)	Height L1 (mm)	Height L2 (mm)	Height L3 (mm)	F/C Port	Flow (T/H)	D1 Outer Dia (mm)
L20-5	5	280	785	260	125	2"	10:7.5	212
L30-5	5	280	1040	260	125	2"	15 : 11	212
L40-5	5	280	1320	260	125	2"	20 : 15	212
L40-12	12	400	1290	342	140	3"	48:36	332
L40-22	22	500	1320	535	155	4"	88 : 66	437
L40-31	31	625	1420	435	195	5"	124 : 93	860
	Ma	ax Working Pr	essure: 0.8M	1ра	Working 1	emp.: 5-6	6℃	

<sup>\*</sup> If other detailed data is required, please request the corresponding drawings from us.

#### **CAUTIONS**

- 1.Install the filter cartridge into position,tighten the fixed seal nut. 2.Working pressure can't exceed the rated range (≤6kg).

- 3.Open the exhaust valve before starting the machine, then close the exhaust valve after the air is exhausted.4.Please replace the filter material in time when the pressure difference between inlet and outlet exceeds 1.5kg.

<sup>\*</sup> The inlet and outlet port size can select DN100、DN125、 DN150, DN200, DN250.

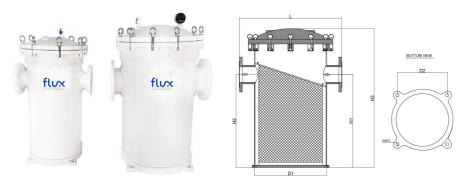
<sup>\*</sup> The inlet and outlet port can select flange,coupling,Union connection method. and port size can select DN40、DN50、DN65、DN80、DN100、DN150





# FRP BASKET FILTER HOUSING

### INSTALLATION MEASUREMENT



### SPECIFICATIONS AND TECHNICAL INFORMATION

Model	Port Size (mm)	F-C Length (mm)	Housing Dia (mm)	Port Height (mm)	Height (mm)	Install Dim (mm)
L-200BS-65	DN65	310	210	290	390	184
L-200BS-80	DN80	320	210	290	390	184
L-200BS-100	DN100	370	210	290	390	184
L-300BS-125	DN125	470	330	505	870	275
L-300BS-150	DN150	550	330	505	870	275
L-300BS-200	DN200	550	330	505	870	275
L-400BS-250	DN250	750	430	510	870	345

<sup>\*</sup> If other detailed data is required, please request the corresponding drawings from us.

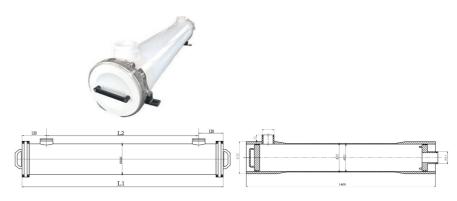
### **CAUTIONS**

- 1.Install the basket into position, fasten it with bolts.
- 2.Working pressure can't exceed the rated range (≤6kg).
  3.Open the exhaust valve before starting the machine,then close the exhaust valve after the air is exhausted.
- 4.Please replace the filter material in time when the pressure difference between inlet and outlet exceeds 1.5kg.



# Horizontal FRP Max-flow Cartridge Housing

#### **INSTALLATION MEASUREMENT**



#### SPECIFICATIONS AND TECHNICAL INFORMATION

	488 8					
Model	Connectio	Port-to-port spacing L2 (mm)	Length L1 (mm)	F/C Port	Pleated Filter	Flow (T/H)
LMAX-H-40	Side	1130	1370	DN80/DN65	40"	30 : 45
LMAX-H-60	Side	1649	1909	DN80/DN65	60"	45 : 60
		Max Working Pressuer: 0.8	Мра	Working Te	eam.: 5-66℃	

<sup>\*</sup> If other detailed data is required, please request the corresponding drawings from us.

#### CAUTIONS

- 1.Install the filter cartridge into position, tighten the fixed seal nut.
- 2. Working pressure can't exceed the rated range (≤6kg).
- 3.Open the exhaust valve before starting the machine, then close the exhaust valve after the air is exhausted.
- 4.Please replace the filter material in time when the pressure difference between inlet and outlet exceeds 1.5kg.

<sup>\*</sup> The inlet and outlet port size also have DN40、DN50 for selection





# Combined FRP Max-flow Cartridge Housing Set

### PRODUCT PHOTO

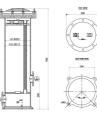


### SPECIFICATIONS AND TECHNICAL INFORMATION

Model	Combined Number	Working Pressure	F/C Port	Pleated Filter	Flow (T/H)
LMAX-2SET	2 sets	0.8Mpa	3''(DN80)	40''	90 : 60
LMAX-3SET	3 sets	0.8Mpa	3''(DN80)	40''	135 : 90
LMAX-4SET	4 sets	0.8Mpa	3''(DN80)	40''	180 : 120
LMAX-5SET	5 sets	0.8Mpa	3''(DN80)	40''	225 : 150
LMAX-6SET	6sets	0.8Mpa	3''(DN80)	40''	270 : 180

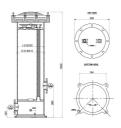
# FRP FILTER HOUSING DRAWING





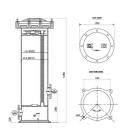






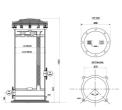
30"-5 elements FRP PP filter housing





40"-5 elements FRP PP filter housing





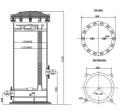
40"-12 elements FRP PP filter housing





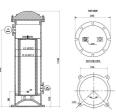
# FRP FILTER HOUSING DRAWING





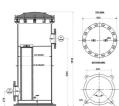
40"-22 elements FRP PP filter housing





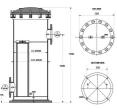
FRP bag filter housing (1 bag)





FRP bag filter housing (2 bags/3 bags)

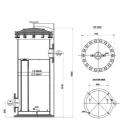




FRP bag filter housing (4 bags)

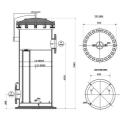
# FRP FILTER HOUSING DRAWING





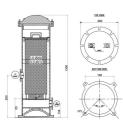
FRP bag filter housing (5 bags/6 bags/7 bags)





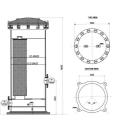
FRP bag filter housing (8-12 bags)





FRP max-flow filter housing (1cartridge)





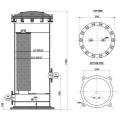
FRP max-flow filter housing (1 cartridge)





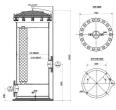
# FRP FILTER HOUSING DRAWING





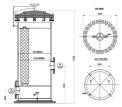
FRP max-flow filter housing (2/3/4cartridges)





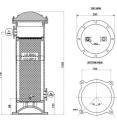
FRP max-flow filter housing(5/6/7 catridges)





FRP max-flow filter housing(8 -12 catridges)

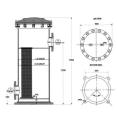




PALL FRP max-flow filter housing (1 cartridge)

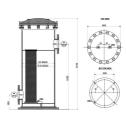
# FRP FILTER HOUSING DRAWING





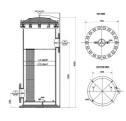
FRP max-flow filter housing(2/3 catridges)





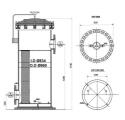
FRP max-flow filter housing(4 catridges)





FRP max-flow filter housing(5/6/7 catridges)





FRP max-flow filter housing(8-12 catridges)



#### PLEATED FILTER CARTRIDGE --- PAKE TYPE



### PLEATED FILTER CARTRIDGE --- PALL TYPE



#### PLEATED FILTER CARTRIDGE --- 3M TYPE



#### TECHNICAL SPECIFICATION

#### Components Material

- •Filter media: Polypropylene (PP), Fiberglass
- Support/Drainage: Polypropylene (PP)
- •End cap material: Fiberglass reinforced polypropylene
- •Seal material: Silicon rubber, EPDM, NBR, FKM PERFORMANCE
- •Removal rating: 1μm、5μm、10μm、20μm、50μm、100μm
- Maximum operating temperature: 80°C
- Maximum pressure drop: 3.4Bar 80°C
- Maximum differential pressure: Room temperature 2.0Bar
- Suggested maximum flow rate: 1300LPM

#### TECHNICAL SPECIFICATION

- Filter cartridge dimensions

  Outside diameter: 6" (152mm)

  Length: 20" (528mm), 40" (1022mm), 60"
- Components Material
   Filter media: Pleated polypropylene (PP), Pleated fiberglass, PP melt blown.
- Support/Drainage: Polypropylene (PP)
   End cap material: Fiberglass reinforced polypropylene
   Seal material: EPDM, NBR

#### PERFORMANCE

- Removal rating: 1μm, 5μm, 10μm, 20μm, 50μm, 100µm
- Maximum operating temperature: Pleated polypropylene (PP) 80°C; PP melt blown 65°C Pleated fiberglass 120°C
- Maximum pressure drop: Pleated polypropylene (PP)
  3.4Bar 80°C: PP melt blown 1.03Bar 65°C Pleated fiberglass 3.4Bar 120°C
- Recommended change out differential pressure: 2.4Bar
- Suggested maximum flow rate: 20" length:660LPM; 40" length:1300LPM; 60" length:1900LPM

#### TECHNICAL SPECIFICATION

#### Components Material

- Filter media: Polypropylene (PP), Fiberglass
- Support/Drainage: Polypropylene (PP)
- End cap material: Polypropylene
- Seal material: EPDM, FKM

#### PERFORMANCE

- Removal rating: 1μm、5μm、10μm、20μm、50μm、
- Maximum operating temperature: 80°C
- Maximum pressure drop: 3.4Bar 80°C
- Maximum differential pressure: 2.0Bar 20°C
- Suggested maximum flow rate: 1300LPM

### **INSTALLATION PRECAUTIONS**

#### Precautions for FRP Filter Housing

- 1.The recommended maximum working pressure for the filter is 6kg. Do not use it under excessive pressure for extended periods.
- 2. When installing the filter, carefully distinguish between the inlet and outlet to ensure correct installation.
- 3. When installing the filter, use an appropriate neutral lubricant to moisten the O-ring on the cartridge for smooth installation.
- 4. Before starting, open the exhaust valve at the top of the filter housing, then slightly open the inlet valve to allow liquid to gradually enter the housing until it overflows from the exhaust valve at the top, then immediately close the exhaust valve afterward.
- 5. If the filtration effect significantly decreases or the pressure difference between the inlet and outlet exceeds 1.5kg, replace the filter cartridge promptly. Note that some cartridges, such as bag filters and polypropylene filters, are not suitable for repeated use.
- 6.The FRP housing has poor corrosion resistance to fluoride ions (F), especially in high- concentration environments. Avoid using it in conditions where fluoride ion concentration exceeds 1000ppm to prevent irreversible damage to the housing.

#### Appendix:



