#### Filter Out your Problem



# TECHNO-FILT INTERNATIONAL

# MFG by : Techno - Filt International



We are Industrial Filter, Cartridges Filter, **Filter Cartridges**, Polypropylene Spun Filter, Resin Cartridge Filter, S.S. Cartridges, Sintered Powder Cartridge, Pleated Cartridges, Pleated Polypropylene Cartridge and PTFE Cartridge Manufacturers from India, Ahmedabad [Gujarat].

Industrial Filter - Industrial Filter Manufacturer, India.





# **Cartridges Filter**

Wound Filter

#### Polypropylene Spun Filter

#### **Resin Cartridge**









#### **Cartridges Filter - Wound Filter**





Length in inches - 10, 20, 30, 40 & 9 ¾, 19 ½, 29 ¼, 39. Micron rating - 0.5, 1, 3, 5, 10, 25, 50, 100 & 150



# **Cartridges Filter - Polypropylene Spun Filter**





Length in inches - 10, 20, 30, 40 & 9 ¾, 19 ½, 29 ¼, 39. Micron rating - 0.5, 1, 3, 5, 10, 20, 50 & 100



#### **Cartridges Filter - Resin Bonded Cellulose Filter**



Length in inches - 10, 20, 30, 40 & 9 ¾, 19 ½, 29 ¼, 39. Micron rating - 1, 3, 5, 10, 25, 50, 100, & 150



# **Hydraulic Filter**



A hydraulic filter consists of the element, the housing and additional accessories like by pass valve, contamination indicator, reverse flow valve etc. The housing is made up of the head and the bowl. The element consists of the internal body, the pleated star and the end plates. With only few exceptions, the fluid flows in filter -out- to- in.

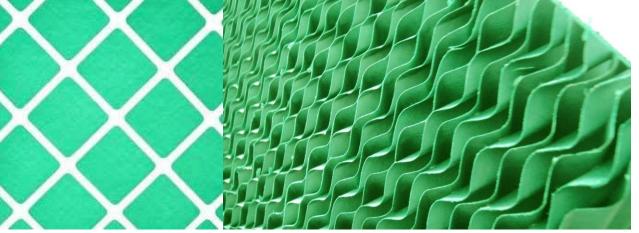


# **Filter Cartridge**

The type of filter medium used is very important for the success of hydraulic fluid and lubricant filtration, particularly in the case of pressure line filters for the most part, the type of filter medium used are:

- Impregnated Cellulose Paper
  - Micro fiberglass or
    - S.S. Wire Mesh.

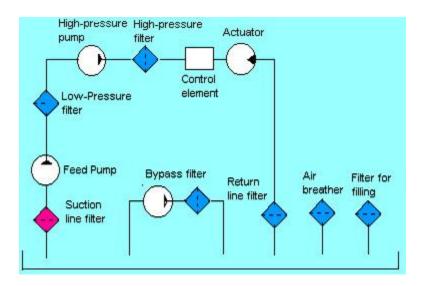






# **Suction Line Filter**

Suction line filter are installed immediately upstream of the pump to protect the pump against all coarse contaminations. Since pumps are very sensitive to low pressure, large filter would have to be installed to prevent the increasing differential pressure at the filter from causing damage to the pump.

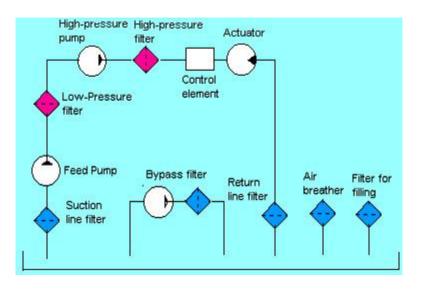






#### **Pressure Line Filter**

Pressure line filters must be installed downstream of the pump and pressure relief valve to protect upstream of the components. If systems dose not aloud interruption, we need to put duplex filter.

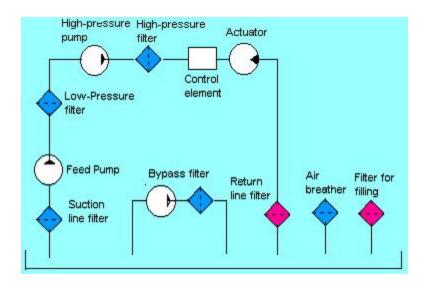






#### **Return Line Filter**

Return line filters are those filters, which are installed in the lines leading back to the tank. The filter head is permanently mounted to the tank and the outlet port of the filter projects into the tank itself.

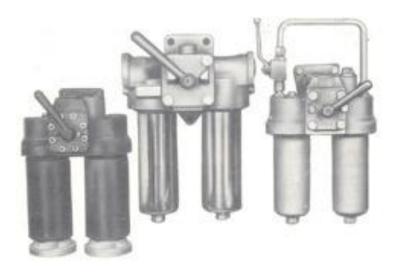






# **Duplex Filter**

For un-interrupted operations, duplex filters are required in hydraulic system. This is a sat of filter connected with inter connecting valves to keep one as a stand-by and one filter in operation.



Air Breather Filter

Spin-On Cartridge







### **Backwashable Filter**

The advantage of the design is - in built backwash by changing the valves and periodic manual cleaning is always possible.

This is multi cylinders design filter. The cartridge assembly is made up of 10 cylinders inserted in each other from bigger to smaller diameter. The cylinders are connected with nearest cylinder with top and bottom color. ← Top and bottom colors are connected with 3 rods.

Connection Drain rach nositio

Drain Operating Positio

Connectio



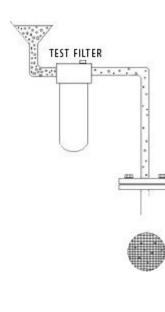
# **Efficiency of Filtration**



#### BUBBLE POINT TEST

#### MULTIPASS TEST (ISO 4572)

TEST FILTER



Where **¶**P = differential pressur s = Surface tension

s = surface tension

r = pore size

 $\P P = Ks$ 

 $\P P = 2s$ 



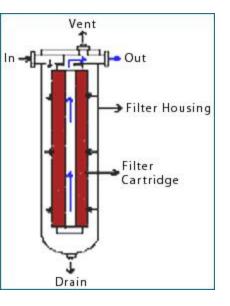
#### **Basic difference between Micro filtration**, Ultra filtration & R.O:

0.0001mm 0.001mm		n	0.2mm		10mm*
1A0 <	> 10A0	<>	200A0	<>	100,000A0
Reverse		Ultra		Microfiltration	
Osmosis		Filtrat	ion		

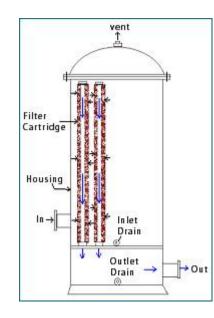
- mm Micron
- Smallest pencil dot, which we can see by necked eye, is about 40mm.
- Relative comparison



#### Micro Filtration (Cartridge Filter)



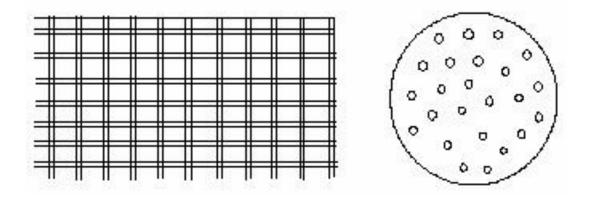
Filtration for the removal of suspended particles from the range of 0.2 mm to 100 or 150 mm is generally known as micro filtration or cartridge filter. This is pressure filter in line as shown in the picture.





#### **Surface Filter**

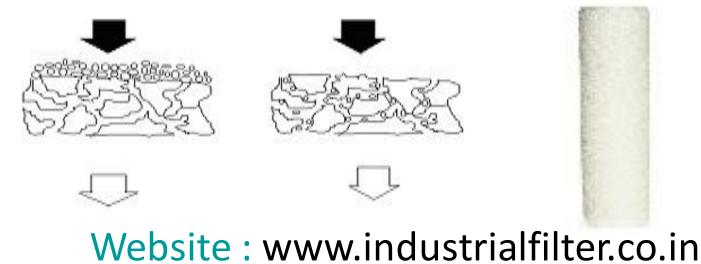
Filter media where the pores are within the same 'Plane' i.e. Screen or Surface filter as shown in the picture here.





#### **Depth Filter**

Filter media where the pores are distributed throughout the thickness of the medium. Particles are stopped both on the upstream surface and within the medium.





#### **Standard Cartridges**

Generally cartridges are avaliable as per international standard in 10", 20", 30" and 40" length cylinders. O.D. of the cartridge is approx 70mm and I.D. is 25 mm. They are available in different end connections like Double Open End - "RF Style, Double Open end with Gasket, Code -7 type, Code -9 type etc.... Generally cartridges can classified as pleated or depth type.



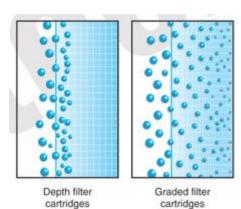
#### **Pleted Cartridge**

in pleated cartridges , actual filter media is in pleated from to cover more surface area. It is pleated on perforated core. It is supported with any other media, which is coarser to give minimum pressure drop and good strength to the cartridge. Outer cage is provided to give mechanical strength to the cartridge.

Most precise filter elements for guaranteed removal efficiency is pleated polymer cartridges.



#### **Depth Cartridges**



Single open end<br/>with double O-Ring<br/>& bayonet lockSingle open end<br/>with Single O-Ring<br/>& bayonet lockDouble open end<br/>with Crush sealDouble open end<br/>with Crush sealSingle open end<br/>with Single O-Ring<br/>& bayonet lockDouble open end<br/>with Crush sealDouble open end<br/>with Crush sealDouble open end<br/>with GasketsSingle open end<br/>with Crush sealSingle open end<br/>with Crush sealDouble open end<br/>with GasketsDouble open end<br/>with Gaskets



#### **Filter Selection & Sizing**

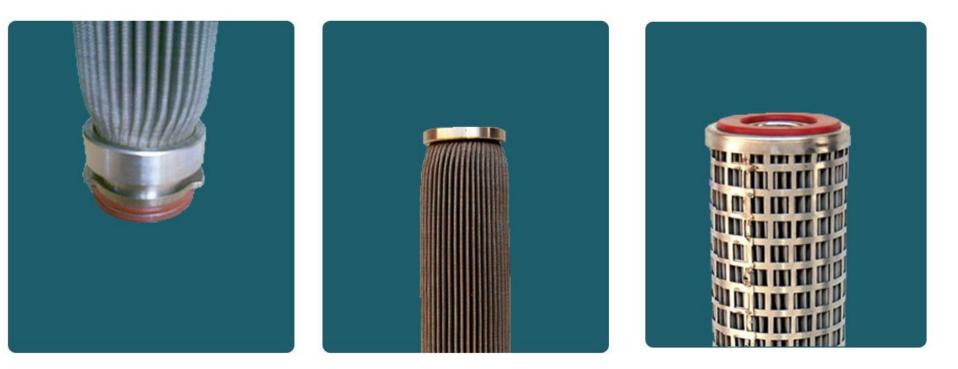
Following parameters are to be considered for selection of the filter :

- •Fluid to be filtered
- •Flow rate
- •Filtration rating (Micron Cut off)
- •Operating Pressure
- •Operating temperature

- •Viscosity of the fluid at operating temperature
- •Filter material (Chemical compatibility)
- •Load of suspended particles
- •Continuous or batch process Batch size etc..

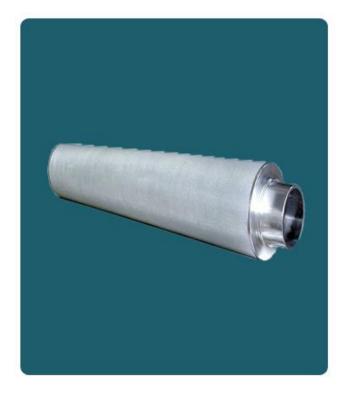


#### S.S. Cartridges - S.S. Wire-Mesh - S.S. Filament - S.S. Sintered Cartridges Cartridges Powder Cartridges





#### S.S. Wire-Mesh Cartridges







#### **S S Filament Cartridges**







#### **Sintered Powder Cartridges**







#### Pleated Polypropylene Cartridges

#### Polisi Phono Cartridges

#### PTFE Cartridge









#### **Pleated Polypropylene Cartridges**



- Meets FDA requirements and can be in-situ sterilized.
- No surfactants or binder resins.
  - High dirt capacity pleated depth filter cartridges.





#### **Polisi Phono Cartridges**



- Steam sterilizable and sanitizable.
  - 100% integrity tested cartridge before shipment.





#### **PTFE Cartridge**



- Maximizes fermentation yields and lower operating costs.
  - Total filtration area of 9.3 Ft2 (0.86 m2) gives high air flow rates.
- Extremely low extractables & excellent chemical compatibility.

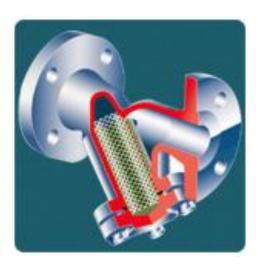




#### **Strainers**

Strainer element can be made from epoxy joint, where temperature in not constrain. However for specific requirement [chemical compatibility and higher temperature applications], we can make complete S.S. strainer element in welding construction.



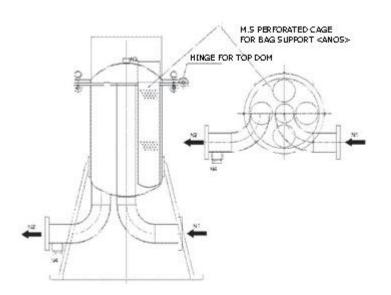






# **Bag Filter**

- Economics is very important in almost all the area.
- When contamination level is high, it is better to use pre-filter.
- Bag filter is proven economical pre-filter. Many times it can be used as a final filter too.







# **Filter Housing**

#### **Single Bore Housings**

#### Non Standard Multi Bore Housings





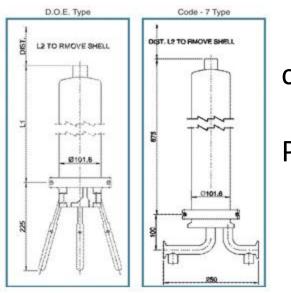






# **Filter Housing**

#### **Single Bore Housings**



We design the filter housing considering above parameters and give the same in Polypropylene, Polycarbonate, C.S., M.S., M.S.R.L., S.S. 304, S.S. 316 and S.S. 316L depending on the process parameters.



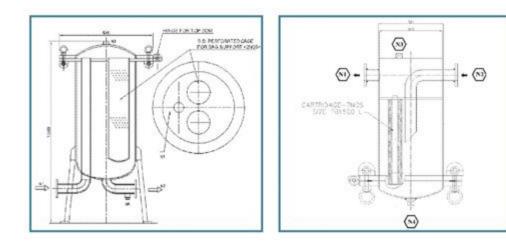


# **Filter Housing**

#### **Single Bore Housings**

We design the filter housing considering above parameters and give the same in Polypropylene, Polycarbonate, C.S., M.S., M.S.R.L., S.S. 304, S.S. 316 and S.S. 316L depending on the process parameters.







# **TECHNO - FILT**

#### INTERNATIONAL

# **Address**

- C/4-5, Anmol Complex,
- N.H. No. 8,
- Nr. C.T.M. /Nirala,
- Amraiwadi,
- Ahmedabad 380 026
- INDIA
- Phone no : +91-79-2287 3062 Email : info@techno-filt.com





# THANK YOU

# Prepared by : Web designing in Ahmedabad