

[Type SF]



Suitable for higher turbidity, applicable to higher temperature operation...

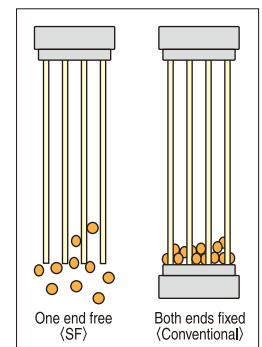
1 Direct filtration of high turbidity water

- As the lower end of hollow fibers is left free, suspended solids (SS) can be easily removed without accumulating between the fibers.
- Due to the unique physical cleaning method (backwashing using pressurized air and air scrubbing), SS attached to the membrane surface is effectively removed, resulting in filtration performance recovery.

Physical cleaning procedure

Photos of Polysulfone hollow fibers

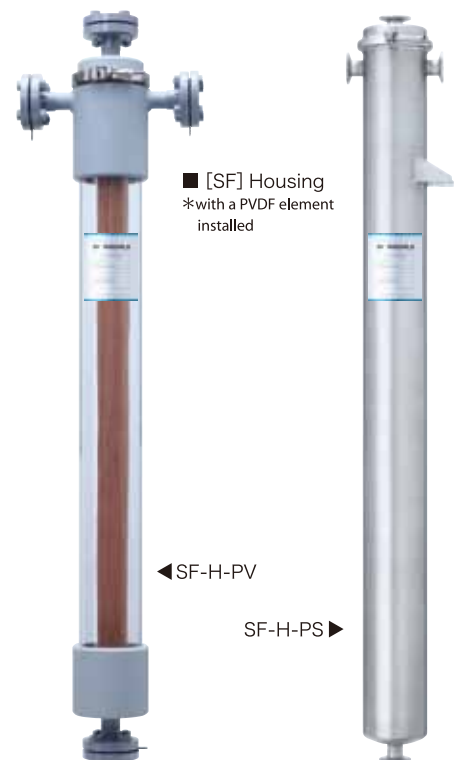
1		2		3		4	
	SS attaches to the membrane surface.		Attached SS is exfoliated with pressurized air.		SS is scrubbed off with air bubbles.		Membrane surface is cleaned, and the performance recovers.



■ Element (Polysulfone)



■ Element (PVDF)



2 Applicable to hot water treatment

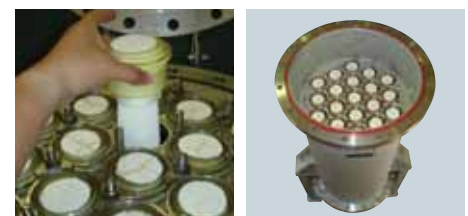
- With its high thermal resistance, [Type SF] can treat hot water (up to 90 deg.C) , such as boiler drain.

3 Selectability

- Capacity range from 7m² (1 element) to 385m² (55 elements) is available
- An optimal specification (hollow fiber membrane material and pore size) can be selected from a variety of product lines, according to the purpose.

4 Small footprint, low cost

- Due to the cartridge-type configuration, the housing/ tank can be used repeatedly with only the element (s) being replaced. This leads to running cost reduction.
- Since the element is compact and lightweight, it is easy to be handled.
- Outside installation is possible as the housing is made of stainless steel.
- Equipment cost can be reduced because no tanks or pumps for backwashing are needed.



■ [SF] Tank (T19-S4)
*with Polysulfone elements installed

Applications

- Concentration, recovery and recycle of various abrasives and other valuables
- Purification of process water for food manufacturing, precise cleaning, etc.
- Recovery and recycle of pure water washing wastewater and sand-filter backwash wastewater
- Recovery and recycling of hot waste water, such as boiler drain
- Drinking water production from surface and ground water



SF system example using T7-S4

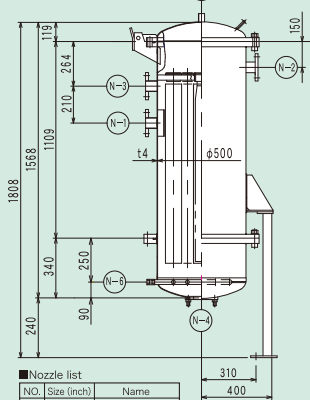
Types and specifications

[Element]

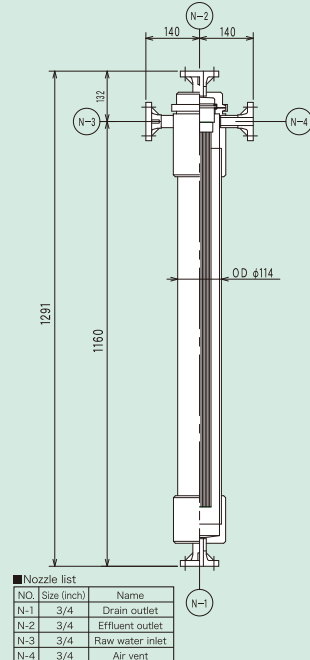
Product name		[SF] Element				
Model name	E-3100H (8028A)	E-3100H (8108A)	E-3100H (8258A)	E-3100H (6305)	E-3100H (M02-100)	
Nominal pore size (90% cutoff)	0.02μm	0.1μm	0.25μm	MW13,000	0.02μm	
Effective membrane surface area	7m ²					
Pure water permeate flow rate [L/hr/module/0.1MPa] *1	2,600≤	2,800≤	3,000≤	1,500≤	2,600≤	
Dimensions (Max. diameter x Height: mm)	φ89×1,050 (±20)					
Material	Hollow fiber membrane	PVA*2-coated polysulfone		Polysulfone	PVA*2-coated PVDF*3	
	Potting material	Epoxy resin				
	Protection tape	Vinylon				
	Gasket	NBR				
Filling liquid	NaClO 25mg/L					
Filtration type	External pressure type, dead-end filtration					
Allowable maximum transmembrane pressure difference	0.3MPa 0.2MPa (@60-80 deg.C) 0.1MPa (@80-90 deg.C)					
pH range*4	1-14			1-10		

*1 Measured using pure water at the temperature of 25 deg.C *2 Polyvinyl alcohol *3 Polyvinylidene fluoride
*4 pH can exceed the above range during chemical cleaning. Contact us for details.

■ [SF] Tank : T19-S4



■ [SF] Housing : SF-H-PV



[Housing/ Tank]

Product name	[SF] Housing		[SF] Tank			
	Model name	SF-H-PV	SF-H-PS	T7-S4	T19-S4	T37-S4
Dimension (Max. diameter x Height: mm)	φ114×1,292	φ102×1,172	φ319×1,673	φ508×1,808	φ708×2,320	φ808×2,249
Material*5	PVC	SUS316	SUS304	SUS304	SUS304	SUS304
Inner volume	7L		95L	230L	460L	650L
Filtration type	External pressure type, dead-end filtration					
Allowable maximum operating pressure	0.5MPa					
Allowable maximum temperature	40 deg.C	90 deg.C				

*5 We also have SUS316 housings and tanks. Contact us for details.

Notes :

- 1) Specifications of the element, housing and tank may be changed without prior notice.
- 2) Applications and basic data (in-house data) specified in this catalogue are standard examples. These depend on the influent to be treated, operating conditions and circumstances. Contact us before usage.
- 3) The nozzles shown in the above drawing are those conforming JIS.

Manufacturer

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