

Hollow Fiber Inside-out UF Membrane Module **HFUF----INW--** Series SAPFIRIKA

Description

SAPFIRIKA HFUF----INW-- ultrafiltration membrane modules are equivalents of Inge-UF-dizzer-W UF modules used for production of process water, potable water and wastewater. Major applications are filtration of surface water, potable water, seawater, industrial wastewater and municipal sewage.

Ultrafiltration modules use MultiBore fiber technology with an inside-out flow direction. Fibers are naturally hydrophilic 7-bore PES hollow fibers by advanced ultrafiltration technology, which makes these ultrafiltration membrane modules the most robust PES (Polyethersulfone) UF membrane on the market.

The mode of operation is either dead-end or cross-flow (though cross flow mode is only used in certain circumstances), backwash (with filtrate only) at regular intervals and chemically enhanced backwash are required for the continuous operation.

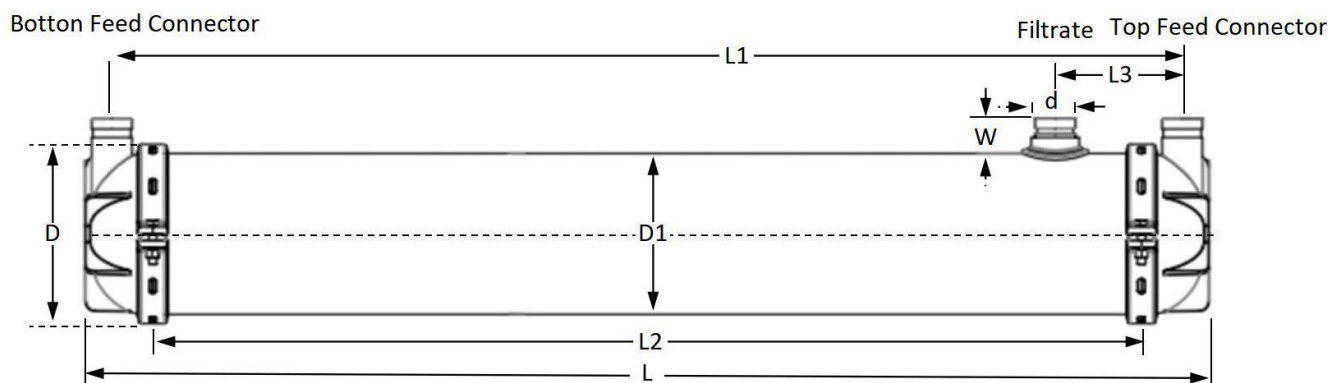
- A nominal pore size of 0.02 μm for optimal removal of particles, bacteria and viruses
- Inside-out flow direction without air scouring
- PES membrane fibers of 7 bores
- Typical filtrate quality SDI < 3, turbidity < 0.1 NTU

- Extremely high mechanical strength with no fiber breakage
- High chemical tolerance
- High-quality filtrate by reliable blocking of microorganisms and viruses
- Minimum operating costs and efficient backwash
- Direct and economical module replacement for plug-and-play

Applications

- Surface water
- Potable water
- Seawater desalination
- Pre-treatment of industrial water
- Industrial wastewater

Dimensions



Sapfirika Model	Inge Dizzer Equivalent	Total length L (mm/inch)	Length feed connectors L1 (mm/inch)	Length without end caps L2 (mm/inch)	Length top feed to filtrate connector L3 (mm/inch)	End cap clamp diameter D (mm/inch)	Diameter without end caps D1 (mm/inch)	Connector length W (mm/inch)	Feed, Filtrate connector OD (d) (mm/inch)
HFUF1025INW1.5	XL 1.5 MB 25 W	1,180 /46.46	1,100/43.31	985/38.78	190/7.48	295/11.61	250/10	40/1.57	60.3/2.4*
HFUF1038INW0.9	XL 0.9 MB 38 W								
HFUF1040INW1.5	XL 1.5 MB 40 W	1,680 /66.14	1,600/62.99	1,485/58.46					
HFUF1060INW0.9	XL 0.9 MB 60 W								
HFUF1080INW0.9	XL 0.9 MB 80 W	1,914 /75.35	1,834/72.20	1,720/67.72					

Specification

Model	HFUF1025INW1.5	HFUF1040INW1.5	HFUF1038INW0.9	HFUF1060INW0.9	HFUF1080INW0.9
Effective membrane area (m ² / ft ²)	25/270	40/430	38/410	60/645	80/861
Fiber ID/OD	1.5/6 mm (0.06/0.24 inch)		0.9/4 mm (0.04/0.16 inch)		
Membrane material	Modified PES (polyethersulfone), 7 bores				
Flow direction	Inside-out				
Pore size	0.02 μm				
Housing material	UPVC				
End cap material	UPVC				
Clamp material	Stainless Steel				
Sealing material	EPDM				
Potting material	Epoxy resin				
Feed/filtrate connector	DN50 (2 inch Victaulic)				
Weight (kg/lbs.)	40/90	55/120	40/90	55/120	58/128

Operating and Cleaning Limits

Temperature range	1-40 °C (34-104 °F)
Max. rate of temperature change(per minute)	5 °C (9 °F)
Max. feed pressure	5 bar (72.5 psi)
Max. rate of pressure change(per second)	0.5 bar (7.25 psi)
Max. trans-membrane pressure	1.5 bar (1.5/21.75 psi)
Max. backwash pressure	3 bar (43.5 psi)
Filtration flux	60-180 L/m ² ·h (35-105 gfd)
Max. backwash/forward flush	230-300 L/m ² ·h (135-175 gfd)
pH-continuous operation @ 25 °C	2 - 11
pH-CIP @ 25 °C	1 - 13
Hypochlorite (NaOCl) for cleaning	50 to 200 ppm
Hydrogen peroxide for cleaning	100 to 500 ppm