

PureULTRA Ultrafiltration Hollow Fiber UF Modules

PureULTRA modules feature highly hydrophilic modified **Polyvinylidene Fluoride (PVDF)** hollow fiber UF membrane that offers high chemical tolerance along with physical robustness. The tight pore size helps in removal of solids, pathogens, and other suspended foulants. The unique PVDF polymer allows the membrane modules to be cleaned aggressively without decline in operating flux and loss of membrane hydrophilicity. The membrane module design and optimum operating sequences provide consistent filtration efficiency and durability. PureULTRA UF modules can be used for a wide range of applications while treating the entire spectrum of feed waters from sea, surface, well, and secondary & tertiary wastewaters - both industrial and municipal.

This product specification sheet provides an overview of relevant technical data regarding PureULTRA modules.

MEMBRANE CHARACTERISTICS

Membrane Polymer	Modified PVDF
Nominal Pore Size	0.05 µm
Membrane Type	Hollow Fiber
Hollow Fiber Diameter OD / ID	1.3 mm / 0.7 mm (0.051 in / 0.028 in)

MODULE SPECIFICATIONS

Housing Material	UPVC
Membrane Potting	Epoxy
Filtration Flow Path	Out → In
Operating Mode	Dead-end / Crossflow
Preservative	Glycerin (35%)

Model	Membrane Area
PHF-35-V	35 m ² (377 ft ²)
PHF-75-V	75 m ² (807 ft ²)
PHF-105-V	105 m ² (1130 ft ²)

OPERATING PARAMETERS

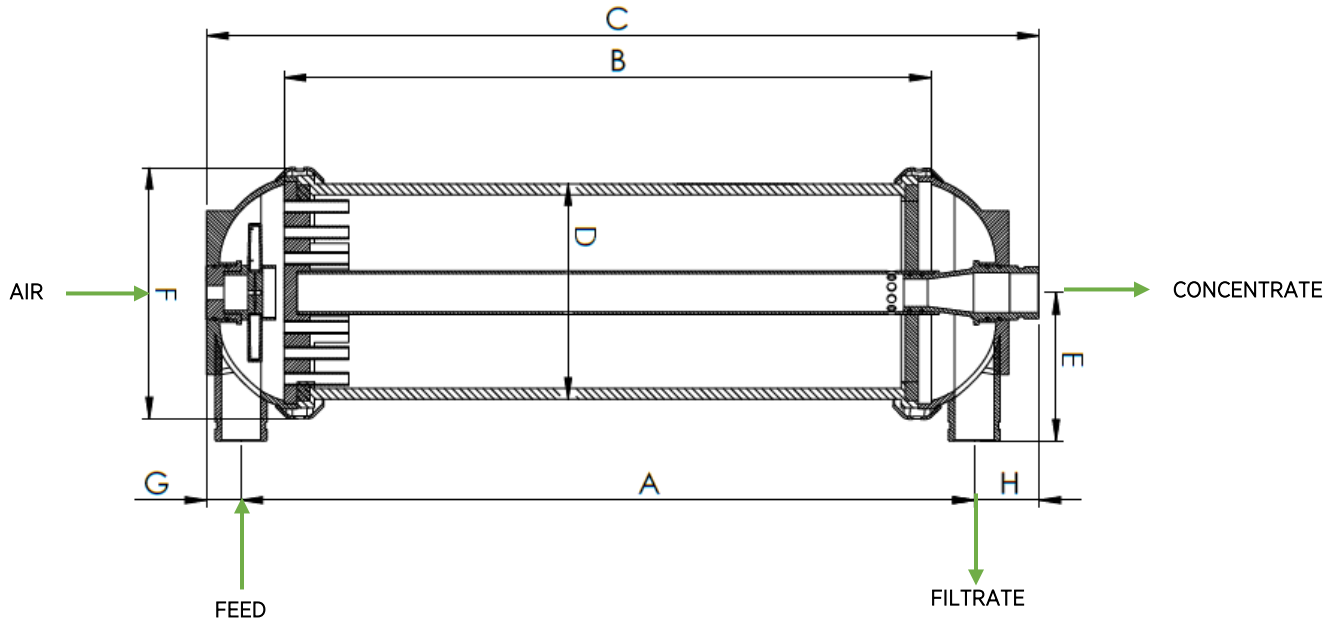
Filtrate Flow Range (at 25°C)	1.05 - 10.5 m ³ /h (4.6 - 46.2 gpm)
Maximum Feed Pressure (at 20°C)	5.0 bar (72.5 psi)
Maximum Transmembrane Pressure	2.0 bar (29.0 psi)
Maximum Backwash Pressure	2.0 bar (29.0 psi)
Typical Air Scour Rate	5 - 12 m ³ /h (3.0 - 7.0 SCFM)
Maximum Air Scour Pressure	1.0 bar (14.5 psi)
pH Range for Operation	1.0 - 12.0
Temperature Range	1 - 40 °C (33.8 - 104 °F)

CLEANING PARAMETERS

pH Range	1.0 - 13.0
Maximum Temperature	40°C (104 °F)
Maximum Active Chlorine Concentration	3,000 ppm
Active Chlorine Exposure	>500,000 ppm-hours
Cleaning Chemicals	Sodium Hypochlorite, caustic, hydrochloric acid / sulfuric acid / citric acid



PHYSICAL DIMENSIONS



Model	A	B	C	D	E	F	G	H
PHF-35-V	850 mm (33.5 in)	750 mm (29.6 in)	965 mm (38.0 in)	∅ 250 mm (∅ 9.8 in)	172 mm (6.8 in)	∅ 286 mm (11.3 in)	40 mm (1.6 in)	75 mm (3.0 in)
PHF-75-V	1600 mm (63.0 in)	1500 mm (59.1 in)	1715 mm (67.5 in)	∅ 250 mm (∅ 9.8 in)	172 mm (6.8 in)	∅ 286 mm (11.3 in)	40 mm (1.6 in)	75 mm (3.0 in)
PHF-105-V	2100 mm (82.7 in)	2000 mm (78.7 in)	2215 mm (87.2 in)	∅ 250 mm (∅ 9.8 in)	172 mm (6.8 in)	∅ 286 mm (11.3 in)	40 mm (1.6 in)	75 mm (3.0 in)

Feed Port	2.0" Victaulic
Filtrate Port	2.0" Victaulic
Concentrate Port	2.0" Victaulic
Air Inlet Port	3/8"

IMPORTANT INFORMATION

Storage & Handling:

PureULTRA modules must be handled and stored appropriately to ensure proper operation and to prevent membrane damage. Please see the PureULTRA Operation and Maintenance Manual.

Installation & Start-Up:

PureULTRA modules must be installed correctly before start-up. For a detailed installation and start-up procedure, please see the PureULTRA Operation and Maintenance Manual.

MANN+HUMMEL Water & Fluid Solutions reserves the right to change specifications without prior notification.

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