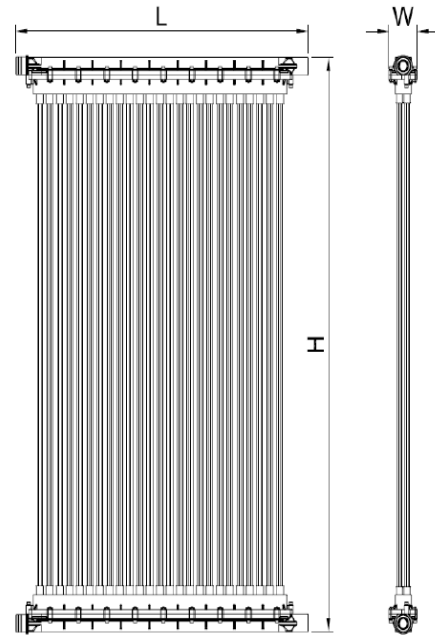


PCI - HF Zmbr Module Datasheet

Reinforced submerged hollow fibre membranes are employed in the filtration stage to separate purified effluent from waste compounds, providing disinfected effluent of a very high quality. The unique design of these membranes incorporates braiding to significantly improve the membrane's ability to withstand the harsh operating environment of a Membrane Bioreactor, and thus increase their lifespan. The membranes are mounted in proprietary modules that provide the optimal degree of restraint and system robustness.

Membrane Specifications :

- Membrane material : PVDF
- Membrane type : Reinforced Hollow Fibre
- Pore size (micron) : 0.02
- Filtration type : Outside-to-in
- Max operation pressure (bar) : -0.6
- Suggested operation pressure (bar) : -0.3
- Max operation temperature (°C): 45
- pH range : 1~12



Module Dimensions

Product	Length [L] mm (in)	Width [W] mm (in)	Height [H] mm (in)
PCI - HF Zmbr - S	768 (30)	26 (1)	1610 (63)
PCI - HF Zmbr - U	768 (30)	26 (1)	2110 (83)

Module Technical Data

Product	Membrane Surface Area m ² (ft ²)	Max. Shipping Weight kg (lb)	Material	Nominal Pore Size µm	Fiber Diameter	Flow Path
PCI - HF Zmbr - S	23 (248)	13 (29)	PVDF	0.02	ID 1.0 OD 2.0	Outside-in
PCI - HF Zmbr - U	31 (334)	16 (26)				

Operation Data

Product	TMP Range kPa (psig)	Operation pH Range	Max. Temperature °C (°F)	Max. Extraction Pressure kPa (psig)
PCI - HF Zmbr - S	-55 to 55 (-8 to 8)	1-12	40 (104)	-60 (-8.7)
PCI - HF Zmbr - U				

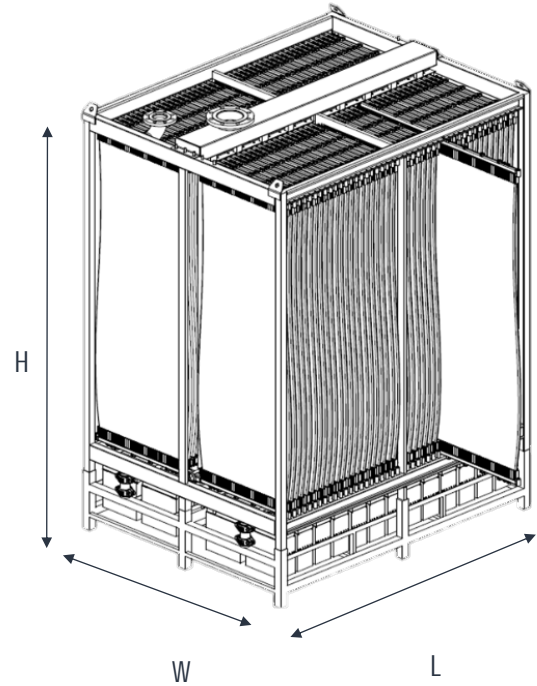
PCI - HF Zmbr Membrane Cassette Datasheet

Reinforced submerged hollow fiber membranes are employed in the filtration stage to separate purified effluent from waste compounds, providing disinfected effluent of a very high quality. The unique design of these membranes incorporates braiding to significantly improve the membrane's ability to withstand the harsh operating environment of a Membrane Bioreactor, and thus increase their lifespan. The membranes are mounted in proprietary modules that provide the optimal degree of restraint and system robustness.

Cleaning Chemical Resistance:

- **Sodium Hypochlorite :**
 - Typical 500-1,500 ppm, at $\leq 40^{\circ}\text{C}$
 - Maximum 5,000 ppm
 - 2,880,000 ppm hours cumulative
- **Hydrochloric Acid**
 - Typical 2,000 ppm at $\leq 40^{\circ}\text{C}$
 - Maximum 3%
 - 1,440,000 ppm hours cumulative
- **Citric Acid**
 - Typical 0.5% at $\leq 40^{\circ}\text{C}$
 - Maximum 15,000 ppm
 - 1,440,000 ppm hours cumulative

NOTE :During chemical cleaning and/or disinfection, PCI Membranes suggests to keep the pH range of cleaning solution from 1 to 11, at $\leq 40^{\circ}\text{C}$.



Cassette Dimensions

Product	Length [L] mm (in)	Width [W] mm (in)	Height [H] mm (in)
PCI - HF Zmbr - S30	738 (29)	1650 (65)	2705 (107)
PCI - HF Zmbr - S88	2078 (82)	1650 (65)	2705 (107)
PCI - HF Zmbr - U30	738 (29)	1650 (65)	2910 (115)
PCI - HF Zmbr - U88	2078 (82)	1650 (65)	2910 (115)

Cassette Technical Data

Cassette model	Module Slots	Max Area m ²	Air Connection	Permeate Connection	Max. Shipping Weight kg (lb)	Max. Lifting Weight kg (lb)
PCI - HF Zmbr - S30	30 PCS	450	DN 75 Flange	DN 75 Flange	380 (837)	870 (1918)
PCI - HF Zmbr - S88	88 PCS	1320	DN 80 Flange	DN 150 Flange	1125 (2480)	2580 (5690)
PCI - HF Zmbr - U30	30 PCS	600	DN 75 Flange	DN 75 Flange	510 (1125)	1170 (2580)
PCI - HF Zmbr - U88	88 PCS	1760	DN 80 Flange	DN 150 Flange	1500 (3330)	3450 (7605)

PCI - HF Zmbr Submerged Membrane Cassette Datasheet

Transport :

During Transportation, the modules must be protected from moisture, exposure, heavy pressure, violent collisions and bumps, and prohibit inversion. Environmental temperature range shall be 0-40°C. Please read the related data carefully before selecting transport vehicle and lifter.

There is a special protection solution inside the modules; this can protect the membrane from drying out and microorganisms growing (79% Water, 20% Glycerin, 0.5% Sodium dodecyl sulfate, 0.5% Isothiazolinone). The sealed package shall be without breakage during transportation.

Storage :

The membrane modules must always be fully protected during storage. The new membrane modules shall be stored in a dry, clean, non-corrosive, non-polluted, far from sources of cold or heat. Environment temperature range shall be 0-40°C. During outdoor transportation, the modules must be placed in the specific area with supporting cover to avoid wind and direct sunlight.

The membrane modules have been coated with a protection solution (79% Water, 20% Glycerinum, 0.5% Sodium dodecyl sulfate, 0.5% Isothiazolinone) and sealed within a vacuum package. If they are stored within above conditions, the maximum storage time can be 1 year. After 1 year, the protection solution on the surface must be renewed, the formula is the same as above.

Once the membrane is installed in the membrane tank, during a short-term system stop, the membrane module must be completely cleaned first before re-starting. In some cases, shall be cleaned by chemical, and feed protection solution (5mg/L NaClO) into the membrane tank for soaking membrane. If the concentration of NaClO in the membrane tank is less than 0.5mg/L, the operators must renew the protection solution of the membrane tank immediately.