

## PCI TMF 15 - PCI TUBULAR MEMBRANE FILTER (TMF™) MODULES



### Optimal high solids separation at high flux rates

PCI TMF cross-flow tubular membrane modules contain PCI Membranes' unique, structural membrane tubes. The superior strength of the membrane/substrate composite allows higher operating and backwash pressures for superior solids removal efficiency, higher flux and reduced system footprint. The structural composite membrane features PVDF membrane anchored to PE substrate.

### Chemical resistance

PCI TMF modules are resistant to a broad spectrum of corrosive chemicals and reagents as well as pH ranges of 0 to 14. Typically, pilot feasibility tests are needed to determine the actual PCI TMF module performance under real operating conditions.

### PCI TMF Series Features

- Consistent, reliable solid/liquid separations and long service life
- Unique support with PVDF membrane offers high performance tubular membrane with superior operating characteristics
- Three distinct membrane pore sizes available
- Uniform, thermally-bonded, omni-directional substrate pore structure provides an optimized support structure for tubular membranes and enhanced membrane durability
- Now available in multiple tube quantities and diameters for increased surface area and flux

TMF15-20230331

#### Corporate Office

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## PCI TMF 15 - PCI TUBULAR MEMBRANE FILTER (TMF™) MODULES



Coupling and Tubing Specifications	
Filtrate Port Vinyl Tubing Specifications	
I.D.	2 in (50.8 mm)
O.D.	2 1/2 in (63.5 mm)
Wall Thickness	1/4 in (6.35 mm)
Approx. Max. Pressure	21 psi at 70°F
Weight (lbs / 100 ft)	89
Gruvlok Coupling Specifications	
Gruvlok Model	Anvil 7001 Standard Coupling
Sized	4 in
Standard Gasket	C Style
Standard Gasket Material	Grade E (EPDM) suitable for most applications
Approx. Weight Each	10 lbs (4.5 kg)
Vitauclic Coupling Specifications	
Vitauclic Model	77 or 75 flexible coupling
Sized	4 in
Standard Gasket Material	Grade E (EPDM) suitable for most applications
Approx. Weight Each	6 lbs (2.7 kg)

Maximum Cleaning Solution Strength	
Bleach (NaOCl)	< 17% to 100°F (38°C)
Caustic (NaOH)	<15% to 104°F (40°C)
Acid (HCl)	<15% to 140°F (60°C)
Peroxide (H <sub>2</sub> O <sub>2</sub> )	<5% to 100°F (38°C)

Operating Specifications	
Pre-Use Wetting Agent	IPA
Water Flux	> 200 GFD (340 LMH)
Cross Flow Liquid Velocity	10-16 ft/sec (3.0 to 4.9 m/s)
pH Range	0-14
Max. Backpulse Pressure	20 psi (138 kPa) at 25°C
Max Differential Pressure	120 psi (827 kPa) at 25°C
Max. Solids	18%
Min. Solids	0.25%
Max. Viscosity	50 cp
Min. Viscosity	< 1 cp

Physical Specifications	
Modules	
Housing Diameter	1 off 4" Sc40
Filtrate Port (Qty 2)	2 off ø1.5" x 1.75" L pipe stub
Feed & Retentate Ports	2 off 4" pipe Anvil Gruvlok groove
Mounting Required	Horizontal; 2 point
Module Length	72" (1829 mm)
Tubes	
Number of Tubes	15
Nominal ID	0.5" (12.7 mm)
Nominal OD	0.79" (20.07 mm)
Total Active Surface Area	11.25 ft <sup>2</sup> (1.05 m <sup>2</sup> )
Internal Liquid Volume	
Filtrate Volume	1.53 gallons (5.79 ltr)
Concentrate Volume	0.92 gallons (3.48 ltr)
Total Volume	2.45 gallons (9.27 ltr)
Materials of Construction	
Potting	Solvent Cement
Internal Supports	Polypropylene
Gasket Material	None
Preservative	Propylene Glycol
Membrane	PVDF

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## PCI TMF 15 - PCI TUBULAR MEMBRANE FILTER (TMF™) MODULES

PCI TMF Item Numbers

Item Number	Description	Normal Pore Size (um)	Maxium Continuous Operating Temperature*	Housing	Substrate Tube	Shipping Dimensions	Shipping Weight
MME2005615VP	15 Tube PVC Module / PE 0.5" tube - 0.05 µm	0.05 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	6 x 6 x 75 in. 153 x 153 x 1905 mm	26.7 lbs 12.11 kg
MME2S01615VP	15 Tube PVC Module / PE 0.5" tube - 0.1 µm	0.1 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	6 x 6 x 75 in. 153 x 153 x 1905 mm	26.7 lbs 12.11 kg
MME2002615VP	15 Tube PVC Module / PE 0.5" tube - 0.02 µm	0.02 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	6 x 6 x 75 in. 153 x 153 x 1905 mm	26.7 lbs 12.11 kg

\* For operation at higher than listed temperatures, contact PCI Membranes.

Note: rapid temperature changes may potentially cause damage to the PCI TMF modules.

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