



Absorb



Apply



Diffuse



Filter



Vent



Wick

# POREX® TMF 10

## TUBULAR MEMBRANE FILTER (TMF) MODULES



### Optimal high solids separation at high flux rates

POREX TMF cross-flow tubular membrane modules contain Porex's 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

POREX 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 TMF module performance under real operating conditions.

### 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

## Porex's TMF Business Partner: **Danheng**

Nanjing Danheng Technology Co., Ltd. (Danheng) is Porex's TMF business partner. Located in Nanjing, China, Danheng is qualified and authorized to build POREX®TMF modules to specified POREX design and following the POREX manufacturing process using POREX manufacture tube membrane. Danheng has been working with POREX TMF water treatment modules for more than 10 years and has experience with serving global customers in TMF applications with design consultation, engineering support, and aftermarket product services. Danheng holds more than 30 patents in industrial water treatment and has in-house testing for R&D and customer process verification.

To purchase Porex TMF modules:  
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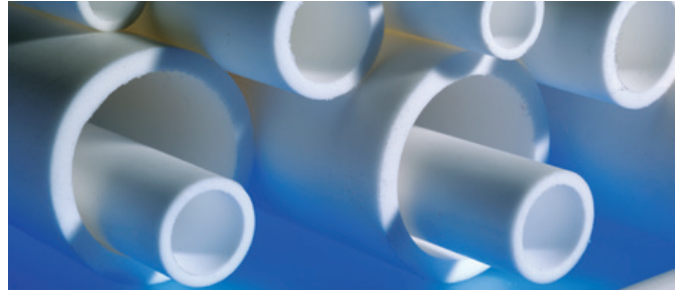


## Operating Specifications

<b>Pre-Use Wetting Agent</b>	IPA
<b>Water Flux</b>	>200 GFD (340 LMH)
<b>Cross Flow Liquid Velocity</b>	10 - 16 ft/sec (3.0 to 4.9 m/s)
<b>pH Range</b>	0-14
<b>Max Backpulse Pressure</b>	20 psi (138 kPa) at 25°C
<b>Max Differential Pressure</b>	60 psi (414 kPa) at 25°C
<b>Max Solids</b>	18%
<b>Min Solids</b>	0.25%
<b>Max Viscosity</b>	50 cp
<b>Min Viscosity</b>	<1 cp

## Physical Specifications

Modules	
<b>Housing Diameter</b>	6" Sc40
<b>Filtrate Port (Qty 2)</b>	ø2.875" x 1.89" L pipe stub
<b>Retentate Ports</b>	6" pipe Anvil Gruzlok groove
<b>Mounting Required</b>	Horizontal; 2 point
<b>Module Length</b>	72" (1829 mm)
Tubes	
<b>Number of Tubes</b>	10
<b>Nominal ID</b>	1" (25.4 mm)
<b>Nominal OD</b>	1.34" (34 mm)
<b>Total Active Surface Area</b>	15.2 ft <sup>2</sup> (1.41 m <sup>2</sup> )
Internal Liquid Volume	
<b>Filtrate Volume</b>	4.33 gallons (16.4 ltr)
<b>Concentrate Volume</b>	2.45 gallons (9.27 ltr)
<b>Total Volume</b>	6.78 gallons (25.66 ltr)
Materials of Construction	
<b>Potting</b>	Solvent Cement
<b>Internal Supports</b>	Polypropylene
<b>Gasket Material</b>	None
<b>Preservative</b>	Propylene Glycol
<b>Membrane</b>	PVDF



## Coupling and Tubing Specifications

Filtrate Port Vinyl Tubing Specifications	
<b>I.D.</b>	3 in. (76.2 mm)
<b>O.D.</b>	3 1/2 in. (88.9 mm)
<b>Wall Thickness</b>	1/4 in. (6.35 mm)
<b>Approx. Max. Pressure</b>	21 psi at 70°F
<b>Weight (lbs / 100 ft)</b>	144
Gruzlok Coupling Specifications	
<b>Gruzlok Model</b>	Anvil 7001 Standard Coupling
<b>Sized</b>	6 in.
<b>Standard Gasket</b>	C Style
<b>Standard Gasket Material</b>	Grade E (EPDM) suitable for most applications
<b>Approx. Weight Each</b>	11.8 lbs (5.4 kg)
Vitauclic Coupling Specifications	
<b>Vitauclic Model</b>	77 or 75 flexible coupling
<b>Sized</b>	6 in.
<b>Standard Gasket Material</b>	Grade E (EPDM) suitable for most applications
<b>Approx. Weight Each</b>	7 lbs (3.2 kg)

## Maximum Cleaning Solution Strength

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

## TMF Item Numbers

Item Number	Description	Normal Pore Size (µm)	Maxium Continuous Operating Temperature*	Housing	Substrate Tube	Shipping Dimensions	Shipping Weight
MME3005610VP	10 Tube PVC Module / PE 1" tube - 0.05 µm	0.05 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	13 x 12 x 75 in. 331 x 205 x 1905 mm	42.5 lbs 19.28 kg
MME3S01610VP	10 Tube PVC Module / PE 1" tube - 0.1 µm	0.1 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	13 x 12 x 75 in. 331 x 205 x 1905 mm	42.5 lbs 19.28 kg
MME3002610VP	10 Tube PVC Module / PE 1" tube - 0.02 µm	0.02 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	13 x 12 x 75 in. 331 x 205 x 1905 mm	42.5 lbs 19.28 kg

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

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

For information on all TMF modules, go to [porex.com/TMF](http://porex.com/TMF)  
To purchase TMF modules, contact Danheng directly

Website: [www.njdhkj.cn](http://www.njdhkj.cn)  
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