

POREX® TMF 37 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 enchanced membrane durability
- Now available in multiple tube quantitites 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

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 ср			
Min Viscosity	<1 cp			

Physical Specifications

Modules							
Housing Diameter	6" Sc40						
Filtrate Port (Qty 2)	ø2.875" x 1.89" L pipe stub						
Retentate Ports	6" pipe Anvil Gruvlok groove						
Mounting Required	Horizontal; 2 point						
Module Length	72" (1829 mm)						
Tubes							
Number of Tubes	37						
Nominal ID	0.5" (12.7 mm)						
Nominal OD	0.79" (20.07 mm)						
Total Active Surface Area	27.75 ft² (2.58 m²)						
Internal Liq	uid Volume						
Filtrate Volume	3.07 gallons (11.62 ltr)						
Concentrate Volume	2.26 gallons (8.52 ltr)						
Total Volume	5.33 gallons (20.18 ltr)						
Materials of Construction							
Potting	Solvent Cement						
Internal Supports	Polypropylene						
Gasket Material	None						
Preservative	Propylene Glycol						
Membrane	PVDF						



Coupling and Tubing Specifications

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

Maximum Cleaning Solution Strength					
Bleach (NaOCI)	< 17% to 100°F (38°C)				
Caustic (NaOH)	< 15% to 104°F (40°C)				
Acid (HCI)	< 15% to 140°F (60°C)				
Peroxide $(H_2 0_2)$	< 5% to 100°F (38°C)				

TMF Item Numbers

IMF Item N	lumbers						
Item Number	Description	Normal Pore Size (µm)	Maxium Continuous Operating Temperature*	Housing	Substrate Tube	Shipping Dimensions	Shipping Weight
MME2005637VP (TUF-37 in China)	37 Tube PVC Module / PE 0.5" tube - 0.05 μm	0.05 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	12 x 7.5 x 75.5 in. 305 x 191 x 1918 mm	53.1 lbs 24.09 kg
MME2S01637VP	37 Tube PVC Module / PE 0.5" tube - 0.1 μm	0.1 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	12 x 7.5 x 75.5 in. 305 x 191 x 1918 mm	53.1 lbs 24.09 kg
MME2002637VP	37 Tube PVC Module / PE 0.5" tube - 0.02 μm	0.02 µm	43°C / 110°F	Grade 1 PVC	UHMWPE	12 x 7.5 x 75.5 in. 305 x 191 x 1918 mm	53.1 lbs 24.09 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 To purchase TMF modules, contact Danheng directly

Website: www.njdhkj.cn Email: TMF@njdhkj.cn



