



# TRISEP® TM10

## PVDF Microfiltration Elements

TRISEP® TM10 is a 10,000 Dalton molecular weight cut off (M.W.C.O.) polyethersulfone ultrafiltration membrane that is used in many different applications ranging from food and dairy process applications to water purification for dialysis and industrial water purification. TM10 elements are available in a wide range of spiral designs to meet varied customer requirements.

### MEMBRANE CHARACTERISTICS

<b>Membrane</b>	TM10
<b>Nominal Pore Size (µm)</b>	0.2

### DESIGN INFORMATION

Model	Part Number	Permeate Flow m <sup>3</sup> /day (GPD) <sup>a</sup>	Membrane Area m <sup>2</sup> (ft <sup>2</sup> )	Feed Spacer Thickness (mil) <sup>b</sup>
TRISEP® 2540-TM10-QTF	165040250	2.3 (600)	1.6 (17)	46
TRISEP® 4040-TM10-QXF	166121442	9.5 (2,500)	5.8 (62)	47
TRISEP® 4040-TM10-QSA	166012443	13.3 (3,500)	7.7 (83)	31
TRISEP® 8040-TM10-QXA	161050841	40.9 (10,800)	25.1 (270)	47

<sup>a</sup> Test conditions: Clean water, 2.1 bar (30 psi), 25°C (77°F), 15% recovery, pH 8.0, 30 minutes operation. Flow rates will be no more than 15% below the values shown. Product specifications may change without notice as design revisions occur.

<sup>b</sup> All models on this sheet have fiberglass outer wrap. All 47 mil feed spacers are parallel; all other models have diamond shaped feed spacers.

### OPERATING PARAMETERS

<b>Maximum Operating Pressure</b>	21 bar (300 psi)
<b>Maximum Operating Temperature</b>	45°C (113°F)
<b>Cleaning pH Range<sup>1</sup></b>	1.0 – 12.0
<b>Cleaning Chlorine Tolerance</b>	200 ppm (sanitization) at pH ≥ 10.5
<b>Maximum Pressure Drop</b>	1 bar (15 psi) per element; 4 bar (60 psi) per housing
<b>Maximum SDI<sub>15</sub></b>	5.0
<b>Maximum Turbidity</b>	1 NTU

<sup>1</sup> Refer to temperature and pH limits in Membrane Cleaning Guide - Water Application Elements (TSG-C-001).

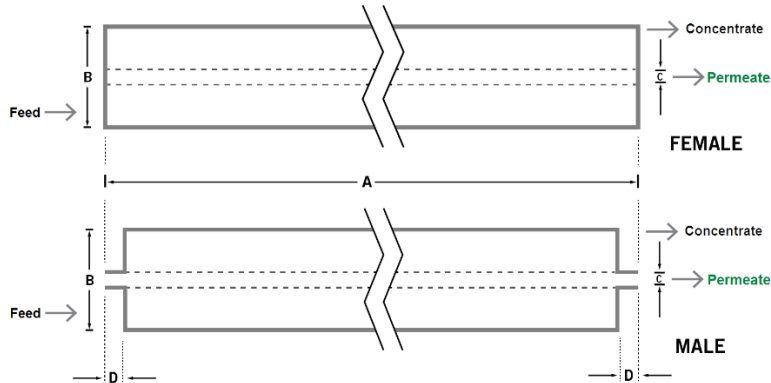
PHYSICAL DIMENSIONS

Model	Element Weight kg (lb) <sup>c</sup>	Dim. A mm (inches)	Dim. B mm (inches)	Dim. C <sup>d</sup> mm (inches)	Permeate Tube <sup>e</sup>
TRISEP® 2540-TM10-QTF	4 (9)	1,016 (40.0)	64 (2.5)	19.1 (0.75)	Male
TRISEP® 4040-TM10-QXF	4 (9)	1,016 (40.0)	99 (3.9)	19.1 (0.75)	Male
TRISEP® 4040-TM10-QSA	4 (9)	1,016 (40.0)	99 (3.9)	19.1 (0.75)	Female
TRISEP® 8040-TM10-QXA	16 (36)	1,016 (40.0)	201 (7.9)	38.1 (1.50)	Female

<sup>c</sup> Shipping weight is dependent on packaging material and quantity shipped.

<sup>d</sup> Diameters for Dimension "C" are as follows. For Female elements, "C" is the Inner Diameter. For Male elements, "C" is the Outer Diameter.

<sup>e</sup> Male elements have a protruding permeate tube, indicated as "D" in the diagram. Dimension "D" is 25.4 mm (1.0 in).



IMPORTANT INFORMATION

- Start-up:** MANN+HUMMEL Water & Fluid Solutions recommends flushing elements for 30 minutes at low pressure and discarding permeate during the flush prior to operation. For a more detailed start-up procedure, please see Element Start-Up Guide – System Start-Up (TSG-O-005).
- Cleaning:** TRISEP® membrane elements must be cleaned periodically to ensure proper operation and to prevent membrane damage. Please see Membrane Cleaning Guide – Water Application Elements (TSG-C-001).
- Storage:** TRISEP membrane elements must be stored appropriately to ensure proper operation and to prevent membrane damage. Please see Element Storage Guides (TSG-O-009 & TSG-O-010).

CUSTOMIZABLE SPECIALTY ELEMENTS

MANN+HUMMEL Water & Fluid Solutions offers a full range of membranes and element designs for challenging water and process applications. Technologies include low-fouling RO, submerged UF, continuous high temperature, ultra-high pressure, unique sanitary designs and more. Contact us to customize a product that satisfies your specific requirements.

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