



TRISEP® PLT 4040-XPNF-31

High Rejection Process NF Element

TRISEP® XPNF membrane elements deliver value by purifying and separating solutes to a high degree. XPNF has high rejection of divalent and polyvalent ions while allowing the majority of monovalent ions to pass through the membrane. XPNF is a piperazine-based membrane that is often used to demineralize and concentrate organic solutes. XPNF membrane is available in a wide variety of element designs for food, dairy and process applications.

MEMBRANE CHARACTERISTICS

Membrane	XPNF
Membrane Type	Polypiperazine
Stabilized Salt Rejection (%)	99.2
Minimum Salt Rejection (%)	98.8

DESIGN INFORMATION

Model	Permeate Flow m ³ /day (GPD) ^a	Membrane Area m ² (ft ²)	Feed Spacer Thickness (mil) ^b
TRISEP® PLT 4040-XPNF-31	10.5 (2,780)	7.9 (85)	31

a Test conditions: 2,000 ppm MgSO₄, 7.6 bar (110 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.

b This model has a fiberglass outer wrap and diamond-shaped feed spacers. This model includes anti-telescoping devices (ATDs) attached to the ends of the element and one brine seal.

OPERATING PARAMETERS

Maximum Operating Pressure	41 bar (600 psi)
Maximum Operating Temperature	45°C (113°F)
Cleaning pH Range¹	1.0 - 12.0
Chlorine Tolerance²	< 0.1 ppm
Maximum Pressure Drop	1 bar (15 psi) per element; 4 bar (60 psi) per housing
Maximum SDI₁₅	5.0
Maximum Turbidity	1 NTU

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

² Pretreatment is recommended for the removal of free chlorine and other oxidizing agents to prevent damage to membranes. Oxidizing agents, such as free chlorine, in contact with polyamide membranes may result in shortened operating life or membrane failure. Such oxidation damage is excluded from warranty. Refer to Membrane Operating Guide - Recommendations for Water Purification (TSG-O-012).

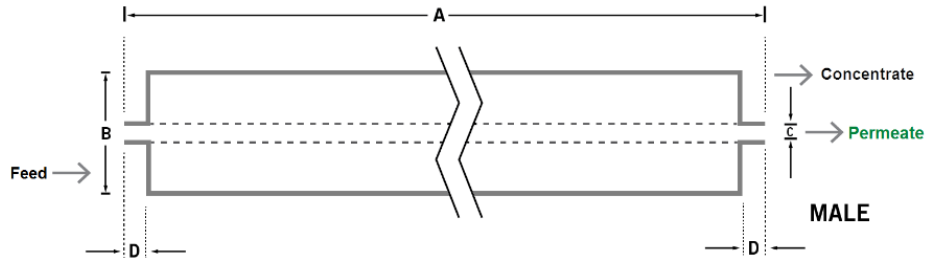
PHYSICAL DIMENSIONS

Model	Element Weight kg (lb) ^c	Dim. A mm (inches)	Dim. B mm (inches)	Dim. C ^d mm (inches)	Permeate Tube ^e
TRISEP® PLT 4040-XPNF-34	4 (9)	1,016 (40.0)	99 (3.9)	19.1 (0.75)	Male

c Shipping weight is dependent on packaging material and quantity shipped.

d Dimension "C" is the Outer Diameter.

e 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.

Contact

Europe
 Germany: +49 611 962 6001
 Italy: +39 0721 1796201
 info@microdyn-nadir.com

Americas
 USA: +1 805 964 8003
 sales.mnus@microdyn-nadir.com

Asia
 Singapore: +65 6457 7533
 China: +86 10 8413 9860
 waterchina@mann-hummel.com