



# TRISEP® SBNF

## Cellulose Acetate (CA)

### NF Elements

TRISEP® SBNF is a cellulose acetate / triacetate nanofiltration membrane that delivers excellent color removal and TOC reduction in streams high in natural organic matter (NOM) while operating at very low pressure. SBNF offers excellent organic removal along with the stable operation, cleanability, and long life of proven cellulose acetate chemistry.

#### MEMBRANE CHARACTERISTICS

<b>Membrane</b>	SBNF
<b>Membrane Type</b>	Cellulose Acetate
<b>Nominal M.W.C.O. (Da)</b>	2,000

#### DESIGN INFORMATION

Model	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® PLT 2540-SBNF-31	4.7 (1,250)	2.4 (26)	31
TRISEP® PLT 4040-SBNF-31	17.0 (4,500)	7.4 (80)	31
TRISEP® 8040-SBNF-TSA	72.0 (19,000)	32.5 (350)	31
TRISEP® 8040-SBNF-UWFA	78.0 (20,600)	35.3 (380)	28

a Test conditions: 2,000 ppm NaCl, 9.7 bar (140 psi), 25°C (77°F), 15% recovery, pH 5.5, 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 All models on this sheet have fiberglass outer wrap and diamond shaped feed spacers. All models on this sheet include anti-telescoping devices (ATDs) attached to the ends of the element and one brine seal. All 4040 and 8040 models on this sheet include one interconnector.

#### OPERATING PARAMETERS

<b>Maximum Operating Pressure</b>	21 bar (300 psi)
<b>Maximum Operating Temperature</b>	32°C (90°F)
<b>Nominal Operating pH</b>	5.5
<b>Cleaning pH Range<sup>1</sup></b>	2.0 - 7.5
<b>Chlorine Tolerance</b>	0.5 ppm nominal, 1 ppm max
<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 pH limits in Membrane Cleaning Guide - Cellulose Acetate Elements (TSG-C-005).

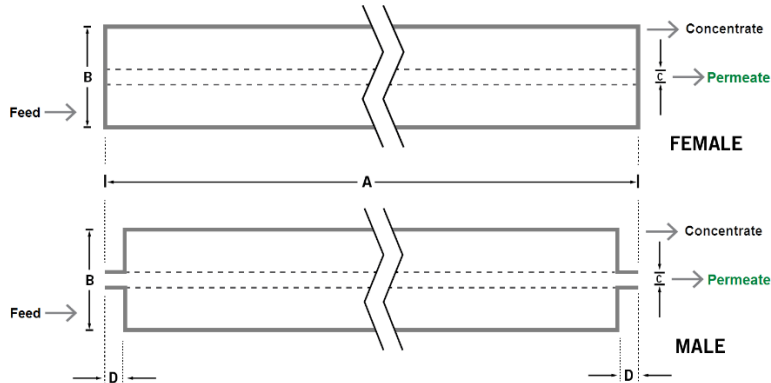
PHYSICAL DIMENSIONS

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® PLT 2540-SBNF-31	3 (7)	1,016 (40.0)	64 (2.5)	19.1 (0.75)	Male
TRISEP® PLT 4040-SBNF-31	4 (9)	1,016 (40.0)	99 (3.9)	19.1 (0.75)	Male
TRISEP® 8040-SBNF-TSA	16 (36)	1,016 (40.0)	201 (7.9)	38.1 (1.50)	Female
TRISEP® 8040-SBNF-UWFA	16 (36)	1,016 (40.0)	201 (7.9)	28.6 (1.125)	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 – Cellulose Acetate Elements (TSG-C-005).
- 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