



Direct Replacement Elements Osmonics Style Permeate Tube

TRISEP® membrane elements are available in many configurations to help make replacement of older-style elements from Osmonics, Inc. (Osmo) easy. The elements listed below feature the 19.8 mm (0.78 in) permeate tube in 4-inch diameter elements and the 28.9 mm (1.138 in) tube used in 8.0- and 8.3-inch diameter elements. In addition to these models, MANN+HUMMEL Water & Fluid Solutions offers many other membrane elements that may be used to directly replace competitors' membranes.

MEMBRANE CHARACTERISTICS

Membrane	Stabilized NaCl Rejection (%)	Minimum NaCl Rejection (%)
ACM2 High Rejection Polyamide RO	99.5	99.0
X-20™ Low Fouling Polyamide RO	99.5	99.0
SB20 High Rejection Cellulose Acetate RO	98.0	97.0
SB90 Cellulose Acetate NF	85.0	80.0

DESIGN INFORMATION

Model	Permeate Flow m ³ /day (GPD) ^a	Membrane Area m ² (ft ²) ^b	Test Conditions
TRISEP® 4040-ACM2-TSOA	9.3 (2,450)	8.2 (88)	2,000 ppm NaCl, 15.5 bar, pH 8.0
TRISEP® 8040-ACM2-TSOA	36.7 (9,700)	33.9 (365)	2,000 ppm NaCl, 15.5 bar, pH 8.0
TRISEP® 8340-ACM2-TSOA	41.6 (11,000)	38.1 (410)	2,000 ppm NaCl, 15.5 bar, pH 8.0
TRISEP® 8340-X201-TSOA	41.6 (11,000)	38.1 (410)	2,000 ppm NaCl, 15.5 bar, pH 8.0
TRISEP® 4040-SB20-TSOA	6.1 (1,600)	7.4 (80)	2,000 ppm NaCl, 29.0 bar, pH 5.5
TRISEP® 8040-SB20-TSOA	25.7 (6,800)	32.5 (350)	2,000 ppm NaCl, 29.0 bar, pH 5.5
TRISEP® 8340-SB20-TSOA	30.3 (8,000)	38.1 (410)	2,000 ppm NaCl, 29.0 bar, pH 5.5
TurboClean® Bev 8040-RO-CA-O	26.5 (7,000)	32.5 (350)	2,000 ppm NaCl, 29.0 bar, pH 5.5
TurboClean® Bev 8340-RO-CA-O	30.3 (8,000)	37.2 (400)	2,000 ppm NaCl, 29.0 bar, pH 5.5
TRISEP® 8040-SB90-TSOA	25.7 (6,800)	32.5 (350)	2,000 ppm NaCl, 15.5 bar, pH 5.5

a All models on this sheet are tested at: 25°C (77°F), 15% recovery, 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 TurboClean® Bev models have a TurboClean® sanitary outer wrap; all other models have a fiberglass outer wrap. All models on this sheet have 31 mil diamond shaped feed spacers. All models on this sheet include anti-telescoping devices (ATDs) attached to the ends of the element and one interconnector.

OPERATING PARAMETERS

Maximum Operating Pressure	41 bar (600 psi)
Maximum Operating Temperature	Polyamide: 45°C (113°F); CA: 32°C (90°F)
Cleaning pH Range ¹	Polyamide: 1.0 - 12.0; CA: 2.0 - 7.5
Chlorine Tolerance ²	Polyamide: < 0.1 ppm; CA: 0.5 ppm, 1 ppm max
Maximum Pressure Drop	1 bar (15 psi) per element; 4 bar (60 psi) per housing
Maximum SDI ₁₅	5.0
Maximum Turbidity	1 NTU

¹ Refer to temperature and pH limits in Membrane Cleaning Guide - Water Application Elements (TSG-C-001) for polyamide membrane elements or Membrane Cleaning Guide - Cellulose Acetate Elements (TSG-C-005) for cellulose acetate membrane elements.

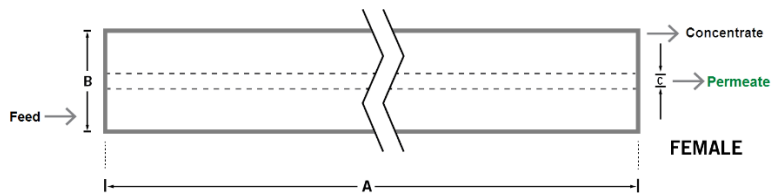
² Pretreatment is recommended for the removal of free chlorine and other oxidizing agents to prevent damage to membranes. Oxidizing agents, such as free chlorine, in contact with polyamide membranes may result in shortened operating life or membrane failure. Such oxidation damage is excluded from warranty. 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
TRISEP® 4040-ACM2-TSOA	4 (9)	1,016 (40.0)	99 (3.9)	19.8 (0.779)	Female
TRISEP® 8040-ACM2-TSOA	16 (36)	1,016 (40.0)	201 (7.9)	28.9 (1.138)	Female
TRISEP® 8340-ACM2-TSOA	18 (40)	1,016 (40.0)	211 (8.3)	28.9 (1.138)	Female
TRISEP® 8340-X201-TSOA	18 (40)	1,016 (40.0)	211 (8.3)	28.9 (1.138)	Female
TRISEP® 4040-SB20-TSOA	4 (9)	1,016 (40.0)	99 (3.9)	19.8 (0.779)	Female
TRISEP® 8040-SB20-TSOA	16 (36)	1,016 (40.0)	201 (7.9)	28.9 (1.138)	Female
TRISEP® 8340-SB20-TSOA	18 (40)	1,016 (40.0)	211 (8.3)	28.9 (1.138)	Female
TurboClean® Bev 8040-RO-CA-O	16 (36)	1,016 (40.0)	201 (7.9)	28.9 (1.138)	Female
TurboClean® Bev 8340-RO-CA-O	18 (40)	1,016 (40.0)	211 (8.3)	28.9 (1.138)	Female
TRISEP® 8040-SB90-TSOA	16 (36)	1,016 (40.0)	201 (7.9)	28.9 (1.138)	Female

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

^d Dimension "C" is the Inner Diameter.



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) for polyamide membrane elements or Membrane Cleaning Guide – Cellulose Acetate Elements (TSG-C-005) for cellulose acetate elements.

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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