



# TRISEP® Maple HB-8040

## Membrane Element for High Brix Maple Sap Concentration

TRISEP® Maple HB-8040 is a new high area membrane element designed specifically for concentrating tree saps. What differentiates this product is its ability to allow higher sugar concentration when processing maple sap or birch sap compared to other membrane elements. Processors will experience superior economics by concentrating to higher brix levels with this element's high productivity membrane featuring high sugar and mineral rejection.

### MEMBRANE CHARACTERISTICS

<b>Membrane</b>	Membrane for Sugar Concentration
<b>Membrane Type</b>	Polyamide Thin-Film Composite

### DESIGN INFORMATION

Model	Permeate Flow m <sup>3</sup> /day (GPD) <sup>a</sup>	Membrane Area m <sup>2</sup> (ft <sup>2</sup> ) <sup>b</sup>	Feed Spacer Thickness (mil) <sup>b</sup>
TRISEP® Maple HB-8040	50.0 (13,200)	40.9 (440)	28
TRISEP® Maple HB-8040-46	34.1 (9,000)	27.9 (300)	46

a Test conditions: 500 ppm NaCl, 6.9 bar (100 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 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, one brine seal, and one interconnector.

### OPERATING PARAMETERS

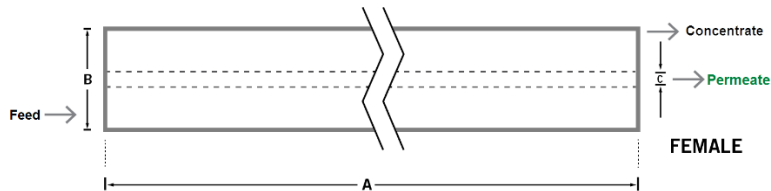
<b>Maximum Operating Pressure</b>	69 bar (1,000 psi)
<b>Maximum Operating Temperature</b>	45°C (113°F)
<b>Cleaning pH Range</b>	1.0 - 13.0 (short term cleaning - 30 min.)
<b>Operating pH Range</b>	3.0 - 9.0
<b>Chlorine Tolerance<sup>1</sup></b>	< 0.1 ppm
<b>Maximum Pressure Drop</b>	1 bar (15 psi) per element; 4 bar (60 psi) per housing
<b>Maximum Feed Flow</b>	16 m <sup>3</sup> /hr (70 gpm)

<sup>1</sup> 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) <sup>c</sup>	Dim. A mm (inches)	Dim. B mm (inches)	Dim. C <sup>d</sup> mm (inches)	Permeate Tube
TRISEP® Maple HB-8040	16 (36)	1,016 (40.0)	201 (7.9)	28.6 (1.125)	Female
TRISEP® Maple HB-8040-46	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> 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 our Membrane Cleaning Guides.
- 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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