

# Maple Series



## Industrial – Maple Syrup Processing Elements

The D-Series family of proprietary thin-film nanofiltration membrane elements is characterized by an approximate molecular weight cut-off of 150-300 Dalton for uncharged organic molecules. Divalent and multivalent ions are preferentially rejected by the membrane while monovalent ions rejection is dependent upon feed concentration and composition. Since monovalent ions pass through the membrane, they do not contribute to the osmotic pressure, thus enabling D-Series nanofiltration membrane systems to operate at feed pressures below those of RO systems.

D-Series membrane has an average rejection of 96% on 2000 ppm MgSO<sub>4</sub> at 25 °C and at 110 psi operating pressure.

The Maple Series is specifically designed for maple syrup processing. It features a fiberglass outerwrap and standard feed spacers.

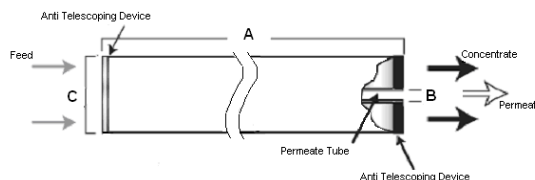


Figure 1: Element Dimensions Diagram - Female

Table 2: Dimensions and Weight

Model <sup>1</sup>	Dimensions, inches (cm)			Boxed Weight lbs (kg)
	A	B <sup>2</sup>	C <sup>3</sup>	
Maple 4040	40.0 (101.6)	0.625 (1.59)	3.9 (9.9)	9 (4.1)
Maple 8040	40.0 (101.6)	1.125 (2.86)	7.9 (20.1)	29 (13.2)

<sup>1</sup> These elements are dried then bagged before shipping.

<sup>2</sup> Internal diameter unless specified OD (outside diameter).

<sup>3</sup> The element diameter (dimension C) is designed for optimum performance in GE Water & Process Technologies pressure vessels. Other pressure vessel dimension and tolerance may result in excessive bypass and loss of capacity.

Table 1: Element Specification

Membrane	D-Series, Thin-Film Membrane (TFM*)
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Model	Spacer mil (mm)	Active area ft <sup>2</sup> (m <sup>2</sup> )	Outer wrap	Part number
Maple 4040	30 (0.76)	88 (8.2)	Fiberglass	1206965
Maple 8040	30 (0.76)	390 (36.2)	Fiberglass	1207006

Table 3: Operating and CIP parameters

Typical Operating Flux	5 – 20 GFD (8 – 34 LMH)
Maximum Operating Pressure	600psi (4,137kPa)
Maximum Temperature	Continuous Operation: 122°F (50°C) Clean-In-Place (CIP): 104°F (40°C)
pH Range	Continuous Operation: 3-9 Clean-In-Place (CIP): 2-10.5
Maximum Pressure Drop	Over an element: 15psi (103kPa) Per housing: 60psi (414kPa)
Chlorine Tolerance	500 ppm hours, dechlorination recommended

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**ecomagination**<sup>SM</sup>



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