

Series PVD1 Maple Sap Membrane Elements

The PVD1 is a favorite element for maple sap concentration, balancing high sucrose rejection with high flux. This polyvinyl alcohol-derived membrane has a nominal rating of 250 Daltons, 90% NaCl rejection and 99% sucrose rejection, making it ideal for removing water from maple sap before further concentration in the evaporation step. It is provided in 8040 and 4040 sizes with 26 mil feed spacers. Each element is provided with a U-Cup brine seal, anti-telescoping device and interconnector.

Performance:	4040-LSA-PVD1 permeate water flow:	2100 gpd (7.95m ³ /d)
	8040-LHY-PVD1 permeate water flow:	11,000 gpd (41.6 m ³ /d)
	NaCl Rejection:	90.0 % (80.0% minimum)

Type	Configuration:	Spiral Wound with FRP wrapping
	Membrane Polymer:	Polyvinyl Alcohol Derivative
	Nominal Membrane Area:	400 ft ² (8040) / 85 ft ² (4040)

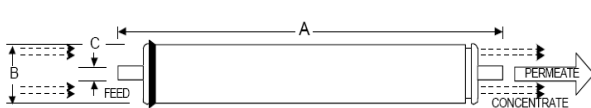
Application Data*	Maximum Applied Pressure:	400 psig (2.77 MPa)
	Maximum Chlorine Concentration:	1.0 PPM
	Maximum Operating Temperature:	104 °F (40 °C)
	pH Range Continuous (Cleaning):	2.0 - 8.0 (2.0 - 9.0)
	Maximum Feed Flow:	75 gpm (17.0 m ³ /hr) / 16 gpm (3.6m ³ /hr)
	Minimum Ratio of Concentrate to Permeate Flow for any Element:	5:1
	Maximum Pressure Drop for Each Element:	10 psi

* The limitations shown here are for general use. Please consult Technical Service Bulletin # 102. The values may be more conservative for specific projects to ensure the best performance and longest life of the membrane.

Test Conditions

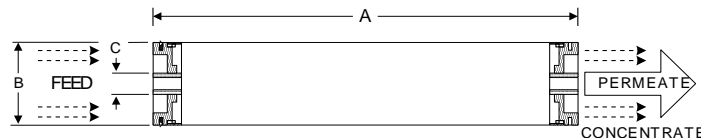
The stated performance is that which is initially taken after 30 minutes of operation and is based on the following conditions:

San Diego Tap Water
 150 psi (1.05 MPa) Applied Pressure
 77 °F (25 °C) Operating Temperature
 15% Permeate Recovery
 7.5 - 8.5 pH Range



A, inches (mm)	B, inches (mm)	C, inches (mm)
40.0 (1016)	3.95 (100.3)	0.75 (19.05)

Core Tube Extension = 1.05" (26.7 mm)



A, inches (mm)	B, inches (mm)	C, inches (mm)
40.0 (1016)	7.89 (200.0)	1.50 (38.1)

Core tube ID = 1.125" (28.6 mm)

Notice: Permeate flow for individual elements may vary -25%, +50% percent. All membrane elements are supplied with a brine seal, interconnector, and anti-telescoping devices. Elements are vacuum-sealed in a polyethylene bag containing less than 1.0% sodium meta-bisulfite solution and then packaged in a cardboard box. Hydranautics believes the information and data contained herein to be accurate and useful. The information and data are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. Hydranautics assumes no liability for results obtained or damages incurred through the application of the presented information and data. It is the user's responsibility to determine the appropriateness of Hydranautics' products for the user's specific end uses. 10/11/10