

## HYDRACoRe70

### Chlorine Tolerant Nanofiltration Membranes

Hydranautics' HYDRACoRe products are chemical and oxidant-resistant, sulfonated polyethersulfone nanofiltration elements. Potential applications include removal of color and large molecular weight organics from industrial, food and beverage, and municipal feedwaters.

#### Products & Guidelines:

Model	Feed Spacer inches (cm)	Area, ft <sup>2</sup> (m <sup>2</sup> )	Permeate Flow	NaCl Rejection			Test Pressure
				Average	Min	Max	
HYDRACoRe70 4040-46	0.046 (0.117)	60 (5.6)	900 (3.4)	90%	70%	95%	75 (5.2)
HYDRACoRe70 8040-46	0.046 (0.117)	280 (26.0)	4,700 (17.8)	90%	70%	95%	75 (5.2)

#### Type

Outerwrap: FRP hard shell  
 Membrane Polymer: Sulfonated Polyethersulfone  
 Molecular Weight Cut-off: 720 daltons

#### Application Data

Maximum Applied Pressure: 600 psig (41 Bar)  
 Maximum Continuous Chlorine Concentration<sup>1</sup>: 10 PPM  
 Maximum Chlorine Concentration for Cleaning<sup>1</sup>: 100 PPM  
 Maximum Operating Temperature: 113 °F (45°C)  
 Operating pH Range: 2-11\*  
 Cleaning pH Range: 1-12  
 (For cleaning temperatures <35C)  
 Maximum Feedwater Turbidity: 1.0 NTU  
 Maximum Feedwater SDI (15 mins): 5.0  
 Maximum Pressure Drop per element: 10 psi

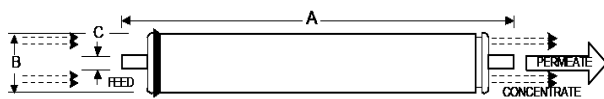
<sup>1</sup> Transition metals (Fe, Mn) should not be present in the water or on the membrane as these can accelerate detrimental reactions between the membrane and the oxidant.

\* The limitations shown here are for general use. For specific projects, operating at more conservative values may ensure the best performance and longest life of the membrane. See Hydranautics Technical Bulletins for more detail on operation limits, cleaning pH, and cleaning temperatures.

**Performance Conditions.** The stated performance is initial data (taken after 30 minutes of operation), based on the following conditions:

500 ppm NaCl solution  
 77° F (25° C) Operating Temperature  
 15% Permeate Recovery  
 6.5 - 7.0 pH Range

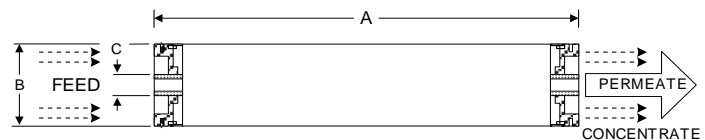
#### 4040



	A, inches (mm)	B, inches (mm)	C, inches (mm)
4040	40.0 (1016)	3.95 (100.3)	0.75 (19.05)

Core Tube Extension = 1.05" (26.7 mm)

#### 8040



	A, inches (mm)	B, inches (mm)	C, inches (mm)
8040	40.0 (1016)	7.89 (200.0)	1.50 (38.1)

Core tube ID = 1.125" (28.6 mm)

**Notice:** Elements are enclosed in a sealed polyethylene bag containing less than 1.0% sodium meta-bisulfite solution, and then packaged in a cardboard box. All membrane elements are supplied with a brine seal, interconnector, and O-rings. Element may be tested at conditions other than stated test condition. 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.