

HYDRapro[®] 500 Series

The HYDRapro 500 series is a unique set of spiral wound membranes customized specifically for industrial process applications. These membranes are based on existing Hydranautics high performance membrane products which have been specially designed to treat a variety of challenging industrial feed streams including high fouling, high temperature, or chemically aggressive feeds.

Products & Guidelines:

Model	Area, ft ²	Feed Spacer (mil)	Product Output	Rej. % (avg)
HYDRapro [®]	501-2540	23	380 GPD (1.4 m ³ /d)	99.7
	501-4040	70	1160 GPD (4.4 m ³ /d)	
	501-8040	320	5300 GPD (20 m ³ /d)	
HYDRapro [®]	502-2540	23	500 GPD (1.9 m ³ /d)	99.5
	502-4040	70	1530 GPD (5.8 m ³ /d)	
	502-8040	320	7000 GPD (26.5 m ³ /d)	

Type	Configuration: Low Fouling Spiral Wound Membrane Polymer: Composite Polyamide
Application Data*	Maximum Applied Pressure: 600 psig (4.1 MPa) at 65°C (see Chart 1 for detail) 200 psig (1.4 MPa) at 90°C Maximum Chlorine Concentration: < 0.1 PPM Maximum Operating Temperature: Pressure dependent (see Chart 1 for detail) pH Range, Continuous (Cleaning): 2-11 (1-13)* Maximum Feedwater Turbidity: 1.0 NTU Maximum Feedwater SDI (15 mins): 5.0 Maximum Feed Flow for 2540 : 6 GPM (23 l/m) Maximum Feed Flow for 4040 : 16 GPM (3.6 m ³ /h) Maximum Feed Flow for 8040 : 75 GPM (17.0 m ³ /h) 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. For specific projects, operating at more conservative values may ensure the best performance and longest life of the membrane. See Hydranautics Technical Bulletins and design guidelines for more detail on operation limits, cleaning pH, and cleaning temperatures.

Performance Conditions.

Performance is from after 30 minutes of operation, in the following conditions:

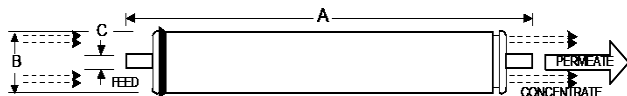
HYDRapro[®] 501

32000 PPM NaCl solution
 800 psi (5.5 MPa) Applied Pressure
 77°F (25 °C) Operating Temperature
 15% Permeate Recovery
 6.5 - 7.0 pH

HYDRapro[®] 502

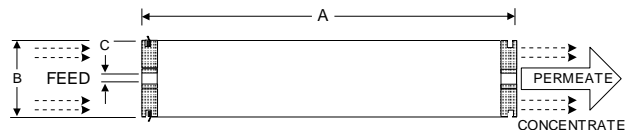
1500 PPM NaCl solution
 225 psi (1.55 MPa)
 77°F (25C) Operating Temperature
 15% Permeate Recovery
 6.5 – 7.0 pH

2540, 4040



	A, inches (mm)	B, inches (mm)	C, inches (mm)
2540	40.0 (1016)	2.4 (61)	0.75 (19.05)
4040	40.0 (1016)	3.95 (100.3)	0.75 (19.05)

8040



	A, inches (mm)	B, inches (mm)	C, inches (mm)
8040	40.0 (1016)	7.89 (200.0)	1.125 (38.1)

Core Tube Extension = 1.05" (26.7 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. 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.

Chart 1: Pressure VS Temperature Limits

