

## CPA

### High Salt Rejecting Composite Polyamide Membranes

Hydranautics' CPA (composite polyamide) membranes have become the trusted industry standard in high purity applications. They provide highest salt rejection rates in the industry.

Hydranautics offers Integrated Membrane Solutions® (IMS) combining a range of RO, NF, UF and MF membrane technologies to achieve the most comprehensive, effective and low-cost solutions for the industry.

#### CPA Applications:

- Treatment of well waters for municipal drinking water
- Production of boiler feed water in power plants
- Production of ultrapure water for semiconductor, pharmaceutical and food and beverage

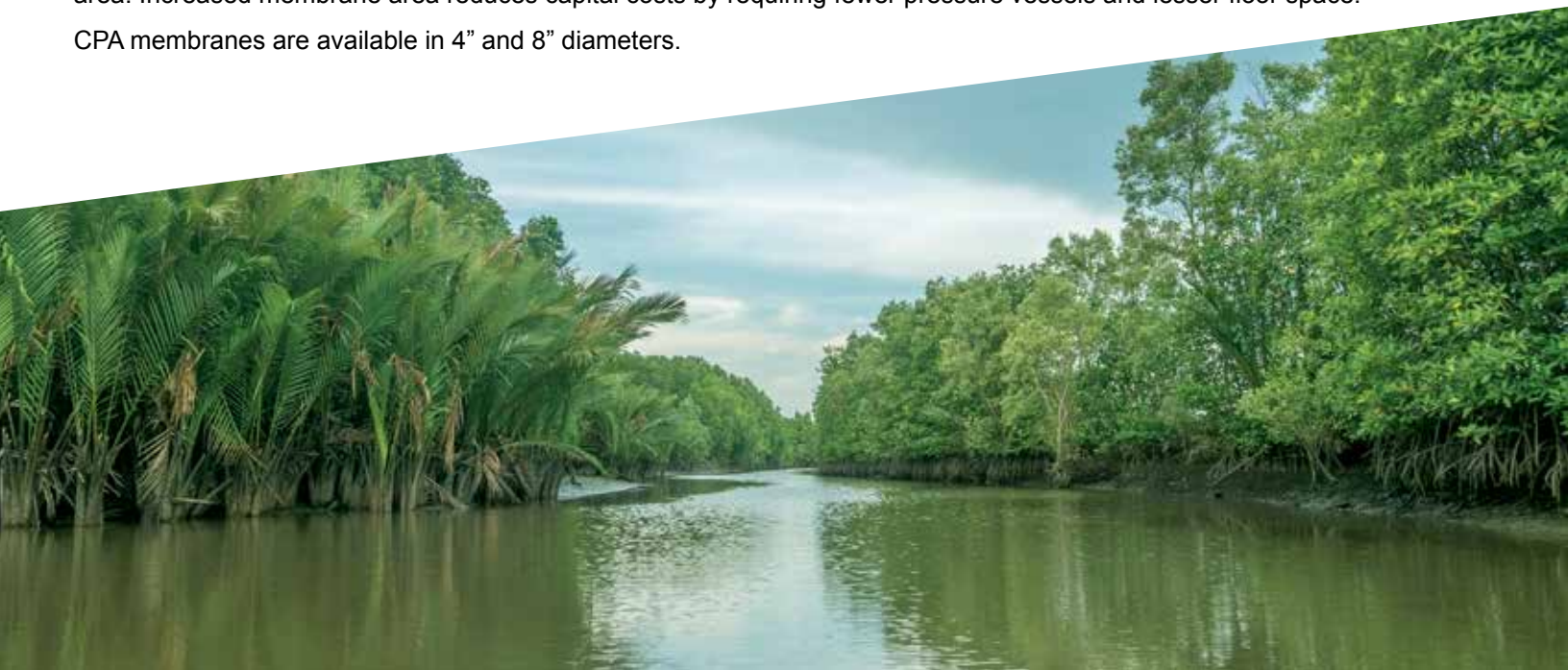
#### CPA Product Offerings:

- **CPA2:** CPA2 is the high rejection brackish water RO membrane that continues to remain popular as the robust workhorse product in the treatment of brackish waters to produce low TDS permeate.
- **CPA3:** CPA3 high rejection brackish water membrane exhibit high tolerance to feed water suspended solids.
- **CPA5:** CPA5 membranes provide optimum salt rejection and permeate flows. They are chosen when lower permeate TDS and lower feed pressures are needed. CPA5 membranes offer highest energy efficiency at lowest costs and provide high salt rejection including silica and nitrates.
- **CPA6:** CPA6 is the fifth generation membrane that is used for treating highly brackish waters demanding very low permeate TDS.
- **CPA7:** CPA7 is the sixth generation CPA high rejection brackish water RO membrane offering the highest salt rejection in the industry.

The CPA5, CPA6 and CPA7 membranes are available in the LD variant. Low differential LD Technology® models are offered to minimize colloidal fouling when used with conventional pre-treatment equipment. These membranes offer consistently low feed pressures and longer intervals between cleanings.

CPA5, CPA6 and CPA7 membranes are also available in the MAX variant with 440 ft<sup>2</sup> (40.9 m<sup>2</sup>) active membrane surface area. Increased membrane area reduces capital costs by requiring fewer pressure vessels and lesser floor space.

CPA membranes are available in 4" and 8" diameters.



## Specified Performance\* and General Product Description:

Membrane Product	Model	Permeate flow* gpd (m <sup>3</sup> /d)	Salt Rejection* (nominal)	Feed Spacer Thickness (mil)	Membrane Active Area ft <sup>2</sup> (m <sup>2</sup> )
CPA2	<b>CPA2-4040</b>	2,250 (8.5)	99.5%	26-28	85 (7.9)
	<b>CPA2</b>	10,000 (37.9)	99.7%	32	365 (33.9)
CPA3	<b>CPA3</b>	11,000 (41.6)	99.7%	31	400 (37.2)
CPA5	<b>CPA5-LD-4040</b>	2,100 (7.95)	99.7%	34	80 (7.4)
	<b>CPA5-LD</b>	11,000 (41.6)	99.7%	34	400 (37.2)
	<b>CPA5 MAX</b>	12,000 (45.4)	99.7%	26-28	440 (40.9)
CPA6	<b>CPA6-LD</b>	8,000 (30.3)	99.75%	34	400 (37.2)
	<b>CPA6 MAX</b>	8,800 (33.3)	99.75%	26-28	440 (40.9)
CPA7	<b>CPA7-LD-4040</b>	2,300 (8.7)	99.8%	34	80 (7.4)
	<b>CPA7-LD</b>	11,500 (43.5)	99.8%	34	400 (37.2)
	<b>CPA7 MAX</b>	12,600 (47.7)	99.8%	26-28	440 (40.9)

\*The Specified Performance is based on data taken after approximately 30 minutes of operation. Actual testing of elements may be done at conditions which vary from these exact values; in which case, the performance is normalized back to these standard conditions. Permeate flow for individual elements may vary  $\pm 15$  percent from the value specified.



Hydranautics – A Nitto Group Company is a global leader in research, including reverse osmosis, nanofiltration, ultrafiltration, and microfiltration. Our membrane products (CPA, ESPA, LFC, SWC, ESNA, HYDRAcapMAX and HYDRASub) are used extensively in municipal & industrial water and wastewater treatment.

Hydranautics has over 40 years experience in the membrane technology arena and are committed to creating innovative membrane technologies which provide clean water to a thirsty world.

Our Global Membrane Division is headquartered in Oceanside, CA, USA. With three state-of-the-art manufacturing sites located in Oceanside – CA – USA, Shiga – Japan and Shanghai – China, Hydranautics has a combined manufacturing area in excess of 1,400,000 ft<sup>2</sup> (130,064 m<sup>2</sup>). Our world-wide sales and customer service offices are located throughout Europe, Asia, the Middle East, North America and South America.

## Solutions You Need.

## Technologies You Trust!

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