Nitto
Innovation for Customers

HYDRANAUTICS

CPA7 Series

High Flow, High Rejection RO membranes

The CPA7 series are the newest CPA brackish water RO membranes offering the highest salt rejection in the industry. These ultra-high rejection RO membranes are meant to fulfill your purest water quality requirements.

Where ultra-high purity water is required under difficult water conditions, the CPA7 membranes supply the best combination of high rejection and high flow capability in a brackish water RO element, compared to all commercial brackish water RO elements.

CPA7 membranes are useful in industries where high-purity water is critical like power generation, electronics, semiconductor, pharmaceutical and food & beverage.

The LD variant of these membranes using LD Technology® are available in 4" (CPA7-LD-4040) and 8" (CPA7-LD) diameters. The CPA7 MAX membrane has 440 ft^2 (40.9 m^2) active membrane surface area which, reduces capital costs by requiring fewer pressure vessels and less floor space.

Key Features of CPA7 membranes

- **Highest salt rejection – 99.8%**
- **High rejection of TOC, boron, silica and nitrate**
- **Greater tolerance to high pH cleanings**
- **Lower energy consumption**
- **Best combination of high rejection/ low energy in the membrane industry**

CPA7 Features and benefits:

- **Enhanced membrane chemistry** for best permeate quality at lower feed pressure
- **Improved chemical resistance** for increased membrane life
- **Innovative feed spacer design** to reduce cleaning frequency and costs
- **Proprietary vented seal carrier** to eliminate pressure-shock damage during system startup

CPA7 Applications:

- Boiler makeup water for power generation
- Industrial waste water recovery
- Zero Liquid Discharge (ZLD) / HERO process
- Ultrapure water for semiconductor manufacturing
- Ultrapure water for pharmaceutical industries

Specified Performance* and General Product Description:

	Model	Permeate flow* gpd (m^3/d)	Salt Rejection* (nominal)	Feed Spacer Thickness (mil)	Membrane Active Area ft^2 (m^2)
CPA7 series	**CPA7-LD-4040**	2,300 (8.7)	99.8%	34	80 (7.4)
	CPA7-LD	11,500 (43.5)	99.8%	34	400 (37.2)
	CPA7 MAX	12,600 (47.7)	99.8%	26-28	440 (40.9)

* Test conditions: 1500 ppm NaCl solution,1.55 MPa (225 psi) applied pressure, 15% recovery, operating temperature 25 °C.
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 ±15 percent from the value specified.

CPA7 series, Composite Polyamide RO membranes, for High Purity Water Production!

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^2 (130,064 m^2). 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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