

# CPA5-LD

## High Flow, High Rejection, Low Fouling Brackish Water RO Membranes

**CPA5-LD from the LD Technology™ innovative low fouling membranes, achieves the highest flow and highest salt rejection for the most difficult of brackish feed water conditions**

Where ultrahigh purity water is required under difficult feedwater conditions, the CPA5-LD gives the most desirable combination of high rejection and high flow.

For industries such as power, semiconductor, food and beverage, where high purity water is critical to operations, CPA5-LD gives you the most desirable combination of performance and efficiency.

CPA5-LD helps reduce RO system power consumption and the membrane resistance to biological and colloidal fouling helps reduce the number of cleanings required, lowering the overall cost of your operation.

### Applications:

- Boiler makeup water for power generation
- Ultrapure water for semiconductor manufacturing
- Ultrapure water for pharmaceutical industries
- Industrial waste water recycling
- Zero liquid discharge/HERO process

### Performance:

|                |                         |
|----------------|-------------------------|
| Permeate Flow  | 11,000 gpd (41.6 m³/d)  |
| Salt Rejection | 99.7 % (99.6 % minimum) |

### Applications Data:

|                                 |                    |
|---------------------------------|--------------------|
| pH Range, Continuous (Cleaning) | 2-11 (1-13)*       |
| Maximum Feedwater SDI (15 min)  | 5.0                |
| Maximum Feed Flow               | 75 GPM (17.0 m³/h) |

\* 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.

### Test Conditions:

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

### Key Benefits

- High permeate flow - 11,000 gpd (41.6 m³/d)
- High salt rejection - 99.7 % (99.6 % minimum)
- High rejection of boron - 92%
- Lowest biological and colloidal fouling
- Greater tolerance to high pH cleanings
- Lower energy consumption



## Features:

- **Enhanced membrane chemistry** for increased chemical resistance
- **Innovative spacer design** to minimize trapping of small colloidal particles
- **HYDRAblock™ technology** providing biostatic properties to minimize proliferation of biological fouling
- **Proprietary vented seal carrier** to eliminate pressure-shock damage during system startup.

## CPA5-LD, Composite PolyAmide RO Membranes, For Your Water Treatment Needs!

Nitto Denko-Hydranautics is a global leader in research, including reverse osmosis, nanofiltration, ultrafiltration, and microfiltration. Our membrane products (SWC, CPA, ESPA, LFC, ESNA, HYDRAcap, and HYDRAsub) are used extensively in municipal & industrial water and wastewater treatment.

Nitto Denko and Hydranautics have 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 131,000 m<sup>2</sup> (1,400,000 ft<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!

| Hydranautics Corporate office:                                                                                                                                                                                                             |                                                                                                                                        |                                                                                                                                   |                                                                                                                                          |                                                                                                                                           |                                                                                                                          |
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