



**Flexible  
Solutions**



**Innovations**



**Global  
Responsibility**



**Real  
Relationships**



**Unwavering  
Integrity**





# We Make Life Better

**Hydranautics – A Nitto Group Company**, the global leader in membrane innovations, uses cutting-edge technology to improve and protect the quality of life around the world.

Since our founding in 1963, Hydranautics has been committed to the highest standards of technology research, product excellence and customer fulfillment. Hydranautics entered the reverse osmosis (RO) water treatment field in 1970 and is now one of the most respected and experienced firms in the membrane separations industry. We joined the Osaka, Japan-based Nitto Denko Corporation in 1987.

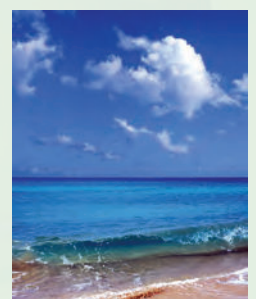
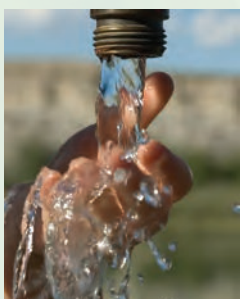
Our parent company, Nitto, was founded in 1918 and now has 117 companies in more than 20 countries, with over 30,000 employees worldwide. Our alliance with this global film industry giant boosts Hydranautics to a superior level of technological sophistication, product performance and customer response.

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 worldwide sales and customer service offices are located throughout Europe, Asia, the Middle East, North America and South America.

We are committed to quality and product consistency – Hydranautics is one of the few membrane manufacturers with an ISO 9001:2000 certified Quality Management System.

Nitto and Hydranautics harness their innovations, experience, commitment to technical and customer support and environmental responsibility with one goal in mind:

Nitto & Hydranautics – ***Together, We Make Life Better.***



# Hydranautics' Comprehensive Product Offerings

## Reverse Osmosis (RO) Membrane Elements

- ▶ **CPA (Composite Polyamide):** High performance membrane elements ideal for high purity waters
- ▶ **ESPA (Energy Saving Polyamide):** Ultra-low pressure, energy-saving brackish water membranes
- ▶ **LFC (Low Fouling Composite):** Low fouling neutrally-charged surface membranes with hydrophilicity
- ▶ **SWC (Sea Water Composite):** High rejection membranes to accommodate varying levels of seawater salinities

## Nanofiltration (NF) Membrane Elements

- ▶ **ESNA (Energy Saving NF):** Membrane elements for softening, and the removal of pesticides, bacteria or viruses
- ▶ **NANO-SW (Sea Water):** High sulfate rejection membrane elements for the oil and gas industry
- ▶ **HYDRACoRe (Color Removal):** Spiral-wound, crossflow elements used for industrial applications in which color reduction with minimal removal of dissolved salts is desired

## Ultrafiltration (UF) Membrane Modules

- ▶ **HYDRACapMAX:** Capillary membrane modules offering high recovery and low footprint due to its optimized membrane area and novel cleaning regimes
- ▶ **HYDRACube:** Our pre-engineered rack system equipped with HYDRACapMAX modules to meet your UF needs

## Microfiltration (MF) Membrane Technology

- ▶ **HYDRASub:** Hollow fiber membrane for Membrane Bioreactor (MBR) applications

## Process Separation Membrane Elements

Our membrane solutions for specialty applications used in the dairy, textiles, pharmaceuticals and food & beverage industry.

- ▶ **DairyRO series:** Reverse osmosis elements widely used in concentration of UF permeate, whey, skim milk and polishing applications
- ▶ **DairyNF series:** High flux, high protein rejection, 200 dalton nanofiltration membrane elements
- ▶ **SanRO:** USP-compliant membrane elements used in producing purified water with a hot-sanitizable option to operate at temperatures upto 85°C

## PRO Series Specialty Membranes

The PRO Series elements are specialty membrane products from Hydranautics for treating challenging industrial wastewaters.

- ▶ **PRO-XR:** Low Fouling, High Rejection RO membranes
- ▶ **PRO-LF:** Low Fouling, High Pressure RO membranes
- ▶ **PRO-XS:** Extra Selectivity NF membranes
- ▶ **PRO-XP:** Ultra-High Pressure RO membranes
- ▶ **PRO-XT:** Ultra-High Temperature RO membranes



## Hydranautics,

R&D and  
Production  
RO/NF/UF/MF



Oceanside, CA, USA  
Founded: 1963



Manufacturing Facility



Sales and/or Technical  
Service Operation Sites

## Shiga, Japan,

HQ of Global  
Div. R&D membrane  
and Production  
RO/NF/UF/MF



Shiga, Japan  
Founded: 1986

