

**FOR IMMEDIATE RELEASE**

**Hydranautics Launches New and Improved ESNA1-LF/LF2-LD Membranes**

Hydranautics – A Nitto Group Company, the global leader in membrane innovations, has launched the new and improved nanofiltration (NF) range of ESNA1-LF-LD and ESNA1-LF2-LD membrane products.

ESNA1-LF/LF2-LD range of our unique low-fouling NF membranes are one of our prominent membranes for ground water treatment for potable applications and their hardness rejection can be tailored to achieve the desired partial softening of low salinity well waters. These membranes also provide excellent removal of Natural Organic Matter which virtually eliminates the possibility of disinfection by-product formation.

The new ESNA1-LF/LF2-LD membranes will now feature an increased flow (10-15%) and rejection while providing the same excellent permeate quality and low fouling characteristics as the traditional ESNA1-LF/LF2-LD membranes. The below table shows a specification comparison of the traditional and new versions of the ESNA1-LF/LF2-LD membranes.

Old Membranes	CaCl <sub>2</sub> Rejection			Permeate Flow (gpd)		
	Min.	Nominal	Max.	Min. (Nom.-20%)	Nominal	Max. (Nom.+25%)
ESNA1-LF-LD	87%	<b>92%</b>	96%	6,720	<b>8,400</b>	10,500
ESNA1-LF2-LD	85%	<b>90%</b>	95%	8,400	<b>10,500</b>	13,125
ESNA1-LF-LD-4040	87%	<b>92%</b>	96%	1,280	<b>1,600</b>	2,000
ESNA1-LF2-LD-4040	85%	<b>90%</b>	95%	1,600	<b>2,000</b>	2,500



New Membranes	CaCl <sub>2</sub> Rejection			Permeate Flow (gpd)		
	Min.	Nominal	Max.	Min. (Nom.-20%)	Nominal	Max. (Nom.+25%)
ESNA1-LF-LD	88%	<b>93%</b>	97%	7,600	<b>9,500</b>	11,875
ESNA1-LF2-LD	86%	<b>91%</b>	96%	9,600	<b>12,000</b>	15,000
ESNA1-LF-LD-4040	88%	<b>93%</b>	97%	1,520	<b>1,900</b>	2,375
ESNA1-LF2-LD-4040	86%	<b>91%</b>	96%	1,920	<b>2,400</b>	3,000

With up to 10-15% higher flow, the new ESNA1-LF/LF2-LD membranes will benefit end users by

- Improving energy and cost savings due to the lowered feed / differential pressures and,
- Reducing cleaning frequency, resulting in longer membrane life.

To learn more about the new ESNA1-LF/LF2-LD membranes and other Hydranautics solutions, please contact your regional Hydranautics sales representative or send an email to [hy-info@nitto.com](mailto:hy-info@nitto.com).

**Jayesh Shah**

Global Marketing & Communications Manager  
Hydranautics – A Nitto Group Company

**About Hydranautics**

Hydranautics is a part of the Nitto Group and one of the global leaders in the field of Integrated Membrane Solutions. Hydranautics offers complete membrane solutions like Reverse Osmosis, Nanofiltration, Ultrafiltration, and Microfiltration for Water, Wastewater and Process treatment and applications. Hydranautics' membrane based solutions are currently in use on seven continents throughout the world for diverse applications such as Seawater Desalination, Industrial High-Purity Water, Surface Water Treatment, Waste Water Treatment, Specialty Process Applications etc. Our Global Membrane Division is headquartered in Oceanside, CA, USA and we have 3 state-of-the-art manufacturing sites located in Oceanside – USA, Shiga – Japan and Shanghai – China. For further information on Hydranautics kindly visit our website [www.membranes.com](http://www.membranes.com)

**About Nitto**

Nitto is Japan's leading diversified materials manufacturer. Founded in 1918, Nitto's strength is the ability to add diverse functionality to sheets, films and other materials using core technologies such as polymer synthesis, adhesion and coating technologies. The group offers over 13,000 high value specialty products worldwide including optical films for liquid crystal displays, automotive materials, reverse osmosis membranes for desalination and transdermal drug delivery patches. For further information on Nitto kindly visit our website [www.nitto.com](http://www.nitto.com)