

NEREO

Solving The Water Problem



In partnership with:





Introducing

N-Revolver

An Industrial & Municipal
water treatment technology

Innovating from its Patented Membrane Technology,

Nereo applied its engineering concept to a revolutionary product:

an effective, easy to use and economical **NanoFiltration System**, that solves all shortcomings of traditional filtration and Reverse Osmosis systems.

Nereo N-Revolver

Benefits



Effective

Exceptional quality
produced water, one step
removal of all
contaminants



Easy

Little to no-pretreatment,
minimal process chemicals
and rare cleaning



Economical

Superior alternative to the
extensive pretreatment,
operational complexity and
frequent cleaning of
current filtration and RO
systems

Nereo N-Revolver Technology

N-Revolver eliminates the heavy pretreatment requirements by avoiding the effects of fouling that plagues traditional filtration and RO systems.

This is made possible by its Patented unique “Low-Fouling” features and design:



Open spiral membrane & Internal Recirculation

Allows consistent velocity past the membrane (= no dead spots where contaminants deposit and grow) and Industry-leading Recovery rates



Direct particulate injection

DPI coating creates surface area above the membrane which keeps fouling away from the membrane, and on particles that are easily removable



Rest cycle


By contrasts to the backwash cycle of a low-pressure filtration pretreatment. A new mean of flux restoration, resulting in significant maintenance reduction

Nereo N-Revolver

New value

N-Revolver ultimately results in significantly **higher water quality** than traditional filtration ; at a much lower pressure (and thus, cost) than Reverse Osmosis:

		Filtration Method	Particles Filtered
Membrane Filtration	}	Multi Media Filtration	Sediment, Algae
		Microfiltration	Protozoa, Bacteria
		Ultrafiltration	Small Colloids, Viruses
Osmotic Membranes	}	Nereo Nanofiltration	Natural Organic Matter, Poly-valent ions (Ca ²⁺ , Mg ²⁺)
		Reverse Osmosis	Ionic Species (Na ⁺ , Cl ⁻)


 Decreasing pore size
 Increasing Pressure

Nereo N-Revolver

Clearly different

The below photo represents actual **feed**, **permeate**, and **brine** from an Nereo N-Revolver standalone effluent treatment plant near Delhi, India.

To this client's knowledge, there is **no other osmotic membrane-based treatment system** that can directly and continuously handle this level of solids and turbidity.



“We spent nearly a year testing various systems that would allow us to directly feed our wastewater and treat for reuse. We were extremely pleased to have found N-Revolver. The system has performed flawlessly for 3 years. In that time, we have never replaced an element, cleaned the system twice, and have averaged recovery of 94%.

To say I am pleased is an understatement.”

- Vipin Kumar, Managing Director - Ecoware, Ltd.

On-site Video

Can we turn
Bến Tre Mékong waters
into potable water?

...

Click on the Picture or follow the Link :
<https://www.youtube.com/watch?v=Flqx0ikdl1A>

Nereo N-Revolver

Applications



Industrial Water Reuse

- Wastewater can be remediated for reuse in industrial applications, agriculture and aquifer recharge
- Nereo core technology helps industrial plants meet discharge and water reuse requirements with far less complexity than conventional methods
- Applications include: hydronic remediation, textile dye and pharmaceuticals removal, plastics applications, pulp/paper waste treatment,...



Food Processing

- The open channel configuration combined with internal circulation provides an ideal platform for many food processing water treatment systems
- Applications include: de-watering, concentration and selective separation,...



Oil & Gas

- The particulate injection in N-Revolver keeps the residual oils in produced water, or refinery of wastewater, off the membrane surface, thus resulting in high cost savings for oil & gas operations
- Applications include: frack flow-back, produced water and offshore water remediation, 'designer' water production,...



Drinking Water

- Most rivers, lakes and boreholes do not require desalting and NF membranes achieve the same microbial removal as Reverse Osmosis membranes, at far less pressure, energy and maintenance and without demineralizing the Water.
- Applications include: water bottling, village drinking water and municipal water treatment,...

“We believe that N-Revolver, as a Low Fouling, Low Energy, Low Waste water treatment system, can finally bring to the market the good technology it needs.”

Antoine Héber-Suffrin, Nereo's CEO

CONTACT US



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