Value Added Services

In addition to membranes, we also offer other value added services such as:

Indion Antiscalants and Membrane Cleaners

Cleaning and servicing of RO membrane systems are required periodically. INDION speciality antiscalants are manufactured using proprietary formulation. They are designed to inhibit scale formation and precipitation of crystallized mineral salts and silica which optimizes the performance of RO membrane systems. Using proprietary formulations, we manufacture a wide range of cleaning chemicals to make the cleaning of membranes more effective and efficient.

Failure Analysis

We provide In house complete failure analysis of the membranes to determine the cause of failure & take corrective action to mitigate further failures. Also, we carry out Membrane autopsy if required.

Operation & Maintenance

We provide comprehensive Annual Maintenance Contract (AMC) for UF / RO systems & carry out plant Audits. We also monitor the real-time performance and troubleshoot the plants during the breakdown.

Design Support

We provide RO membrane projection software to design the RO system for all your needs.
"Ask for our SMART RO & UF software for Efficient Process Design".
Refer www.hydramem.com for more details.

Technical Specifications

HYDRAMEM – High Performance Reverse Osmosis & Nano Filtration Membranes

Element	Model	Active Surface Area Ft2 (m^2)	Salt rejection %	Permeate Flow gpd	Feed Spacer thickness mil
Low Pressure Element					
Industrial	HM 8040 LPE-400	400 (37.16)	99.3	11000	34
	HM 4040 LPE	85 (7.89)	99.3	2800	34
Institutional	HM 4021 LPE	--	98	850	--
Brackish Water Element					
Industrial	HM 8040 BWE-400	400 (37.16)	99.6	11000	34
	HM 8040 BWE-400-HR	400 (37.16)	99.75	11000	34
	HM 4040 BWE	85 (7.89)	99.6	2600	34
Fouling Resistant Element					
	HM 8040 FRE-400	400 (37.16)	99.6	11000	34
	HM 8040 FRE-400-HR	400 (37.16)	99.75	11000	34
	HM 4040 FRE	85 (7.89)	99.6	2600	34
Sea Water Element					
	HM 8040 SWE-400	400 (37.16)	99.7	10000	34
	HM 8040 SWE-400-HR	400 (37.16)	99.8	9000	34
	HM 4040 SWE	85 (7.89)	99.7	1700	34
Nano Filtration Membranes					
	HM 8040 NFE-9840	400 (37.16)	98*	8000	34

* Bi-valent Ions Rejection

Technical Specifications

HYDRAMEM – High Performance Ultra Filtration Membrane

Model	HM UF 60 PES	HM UF 80 PES	HM UF 70 PVDF	HM UF 80 PVDF
Mode of Operation	Inside Out		Outside In	
Fiber MOC	PES (Modified)		PVDF (Modified)	
Housing / End Caps	UPVC / GFPP		UPVC	
Filtration Surface Area	60 m^2	80 m^2	70 m^2	80 m^2
Fiber OD/ID (mm)	1.5/0.9		1.4/0.8	
MWCO (Daltons)	100000		100000	
Nominal Porosity nm (μ)	20 (0.02)		30 (0.03)	
Operation Flux (lmh)	30 – 120		45 – 180	
Filtrate Flow Range (m^3/hr)	1.8 - 7.2	2.4 - 9.6	3.1 - 13.5	3.6 - 14.4
Operating TMP (bar)	1.0 - 1.4		0.4 - 2.0	
Backwash Flux (Lmh)	170 – 240		100 – 150	
Air Scouring flow (Nm^3/hr)	N/A		7 - 15 (max. 20)	
Filtrate Turbidity (NTU)	≤ 0.5		≤ 0.1	
Filtrate SDI	≤ 3		≤ 2.5	
Bacteria Reduction	Log 4		Log 6	
Virus Reduction	Log 4		Log 4	

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HYDRAMEM®
HIGH PERFORMANCE MEMBRANES

ION EXCHANGE
Refreshing the Planet

Complete Range of Membranes

RO - NF - UF - MBR



Ask for our SMART RO & UF software

Ion Exchange is a pioneer of water treatment in India with a legacy spanning over six decades and is recognized globally as a premier company in water and environment management. We are among few companies worldwide with an entire range of technologies, processes, products and services catering to every sector - industrial, institutional, municipal and households - urban and rural.

Ion Exchange started manufacturing membranes in 1980 & was the first to introduce the concept of Reverse Osmosis in India.

HYDRAMEM - High-Performance Membranes manufactured by Ion Exchange belong to the latest generation of membrane technology. Superior quality and decades of experience in manufacturing membrane elements make HYDRAMEM the favored choice for all.

Hydramem membranes are manufactured in India's first state-of-the-art integrated reverse osmosis membrane manufacturing facility in Verna, Goa. Robust Quality Assurance, processes ensure the highest quality of membranes with consistent results. All our products are available globally through our distributors and channel partners.



Product Offerings



Low Energy Membranes

These membranes offer high productivity and salt rejection.

Features

- High flux
- High salt rejection
- Low energy

Applications

- Industrial and institutional applications
- Low TDS application for potable water



Brackish Water Membranes

These membranes provide best in class rejection with optimum permeate flow.

Features

- Delivers consistent & continuous high performance ensuring the best quality water

Applications

- Drinking water
- Industrial process water
- Waste water recycle, high purity water



Fouling Resistant Membranes

These membranes are designed with a high level of tolerance to organic impurities and bio-fouling.

Features

- Unique chemistry that enhances the performance of the membranes
- High bio-fouling tolerance
- Longer life

Applications

- Industrial effluent recycle
- Municipal sewage recycle
- Process fluid treatment



Seawater RO Membranes

Designed for high Total Dissolved Solids, high-pressure applications and consistent flux rates.

Features

- High NaCl/Boron rejection
- Low energy demand
- Consistent flux rates

Applications

- Desalination
- Zero liquid discharge



Nano Filtration Membranes

Ideal for removal of bivalent ions from water and various process solutions.

Features

- High sulphate rejection
- Stable pH
- Low fouling

Applications

- Water softening
- Dye desalting
- Waste brine recycling
- Process applications



Ultra Filtration Membranes

Hollow fiber membranes designed for a wide range of applications to remove colloids, suspended solids, bacteria and viruses.

Features

- PES/PVDF
- Inside-out/outside-in
- Robust design
- Modular/Integrated header

Applications

- Surface water treatment
- Pretreatment for RO processes
- Post treatment processes
- Waste water treatment

Membrane Bio-Reactor (MBR)

HYDRAMEM Membrane Bio-Reactor (MBR) membrane combines proven biological treatment with advanced membrane filtration, offering treated water suitable for reuse. It delivers consistent effluent quality, reduces system footprint and ensures pathogen-free discharge-ideal for industrial, residential and commercial applications.



Features

- Hollow fiber PVDF (reinforced)
- Flow outside-in
- High strength with robust design
- Low energy consumption

Applications

- Institutions, hospitals & health care facilities
- STP for IT parks, SEZs and commercial hubs
- Industrial waste recycle (ETP)
- Housing complexes & townships
- Municipal & desalination

Applications

Industry

Our membranes are designed for various industry segments like textile, pharmaceuticals, oil and gas, food & beverage, power, metal and steel industry and many others.

Homes & Institutions

We provide membranes for Home Water Solutions and Water & Waste Water treatment needs for Institutions.

Municipalities

We also provide membranes to municipalities & Public Health Engineering Departments (PHED's).

Certifications

(As on August 2026)

ISO 9001

ISO 14001

NSF *

* Brackish Water RO