

INDION® PF/DT Reverse Osmosis System

The scarcity of clean water and stringent regulatory norms for discharge of effluent have increased dependence on alternative water sources like seawater, industrial effluent, municipal sewage, etc. However, water from these sources is unfit for drinking or industrial use unless properly treated.

Ion Exchange (India) Ltd., pioneers of water treatment in India, offers a unique Indion PF/DT Reverse Osmosis System to treat water from complex alternate water sources and make it suitable for drinking and industrial purposes.

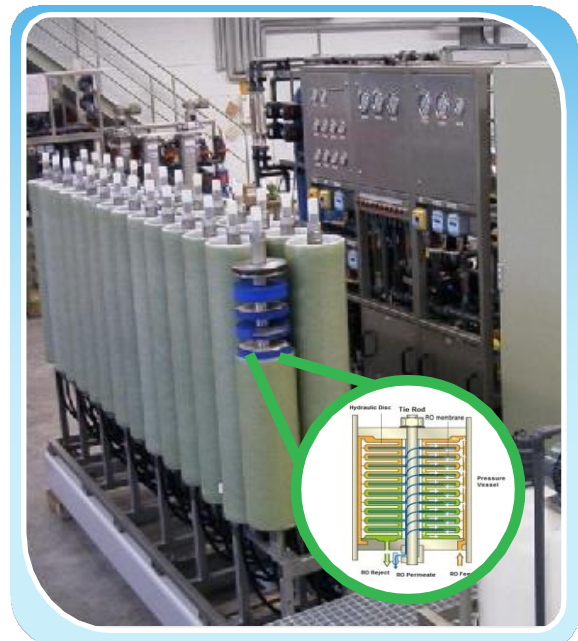
Indion PF/DT Reverse Osmosis System, with its flat-sheet membrane technology, treats complex water with minimal pretreatment and footprint. It produces water which has very low dissolved solids, and is free from particulate, colloids and organic matter.

Features

- Provision for inline dosing
- Inbuilt clean-in-place (CIP) for periodic membrane cleaning
- Auto and manual control of entire reverse osmosis (RO) plant
- Built-in safety features such as dry run protection, overload protection, etc. to prevent high pressure pump and membrane system from damage
- Onscreen simulation of complete operation and fault indication
- High pressure systems to maximise recovery
- Precursor to zero liquid discharge (ZLD) to reduce the life cycle cost of the system

Advantages

- Minimal pretreatment [Indion Multigrad Filter [(MGF)+Indion Cartridge Filter(CF)]
- Low membrane replacement cost
- Up to 95% total dissolved solids (TDS) removal and efficient handling of TDS fluctuation



- Reusable quality of treated water
- Smaller footprint and modular units
- Upgradable system
- Easy availability of spares & services with short delivery periods

Applications

- Fresh water generation for army, navy, cruise liners & submarines
- Treatment of landfill leachate
- Treatment of complex waste water generated from industries like:
 - Distillery
 - Pharmaceutical - Chemical
 - Textile
 - Tannery & many more

Ion Exchange also offers packaged solution which includes Indion Effluent Treatment Plant (ETP), Indion RO & Indion Multi-effect Evaporator (MEE) to achieve zero liquid discharge.

Typical Inlet Feed Parameters for **INDION®** PF/DT Reverse Osmosis System

Industry	Unit	Distillery		Pharmaceutical		Chemical	Textile
		Raw Spent Wash	Bio-methanated Spent Wash	API	Formulation		
Total Suspended Solids (TSS)	mg/l	2000 ppm max	2000 ppm max	200 ppm max	200 ppm max	200 ppm max	200 ppm max
Feed Conductivity	µs/cm	40000 - 50000 max	30000 - 45000 max	4000 - 10000 max	7000 - 20000 max	3000 - 20000 max	3000 - 10000 max
Feed TDS	mg/l	30000 - 38000 max	20000 - 35000 max	3000 - 7000 max	5000 - 15000 max	2000 - 15000 max	2000 - 8000 max
Chemical Oxygen Demand (COD)	mg/l	80000 - 100000 max	30000 - 40000 max	1000 - 5000 max	2000 - 5000 max	500 - 3000 max	300 - 800 max
Biological Oxygen Demand (BOD)	mg/l	20000 - 40000 max	10000 - 15000 max	600 - 3000 max	500 - 2000 max	200 - 1000 max	100 - 200 max
Recovery	%	40 - 60	50 - 70	70 - 85	60 - 75	60 - 80	70 - 85
Brix	°Bx	9 - 10	6 - 7	NA	NA	NA	NA
Temperature	°C	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35	30 - 35

Note:

- The above parameters are typical & may change based on site conditions
- Higher recovery of water is possible. Contact us with detailed effluent analysis for confirmation

Our manufacturing units are ISO 9001 & ISO 14001 certified. Our Patancheru unit is also ISO 45001 certified.

To the best of our knowledge the information contained in this publication is accurate. Ion Exchange (India) Ltd. maintains a policy of continuous development and reserves the right to amend the information given herein without notice. Please contact our regional/branch offices for current product specifications.

INDION® is the registered trademark of Ion Exchange (India) Ltd.



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Manufacturing Units

India - Ankleshwar | Hosur | Patancheru | Rabale | Verna | Wada

Overseas - Bangladesh | Indonesia | Saudi Arabia | UAE

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