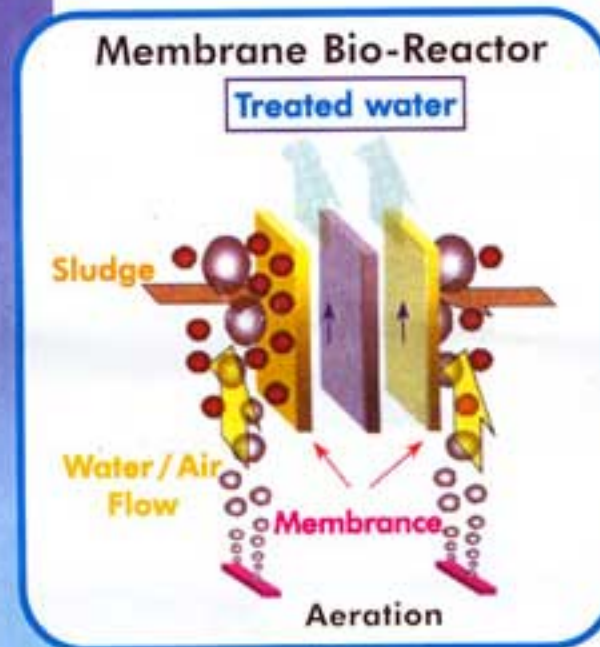




INDION[®] Membrane Bio-Reactor (MBR)



Process

INDION Membrane Bio-Reactor (MBR) is among the latest technologies in biological treatment, designed to produce high quality treated water from wastewater with highest possible contaminant reduction without using any chemicals.

The characteristic of the INDION MBR process is the use of revolutionary submerged micro and Ultrafiltration membranes in the biological process water tank, to produce high quality permeate from domestic sewage, primary and secondary waste water, cooling tower blow down etc. The submerged membranes used in the biological process water tank totally removes suspended sludge from the activated sludge liquid and long term stable MBR operation is achieved with high permeate flow rates.

Conventional System Vs. MBR

Conventional System 100%

INDION[®] MBR 25%

Biological Tank Volume

Features

- Single packaged unit with minimal civil construction
- Modular in construction and design
- Compact, requires 1/2 to 1/3 space over a conventional system
- Low energy consumption (0.30 kwh/m³) for filtration
- Upto 6 log (99.9999%) removal of total coliform
- No chemicals required during treatment

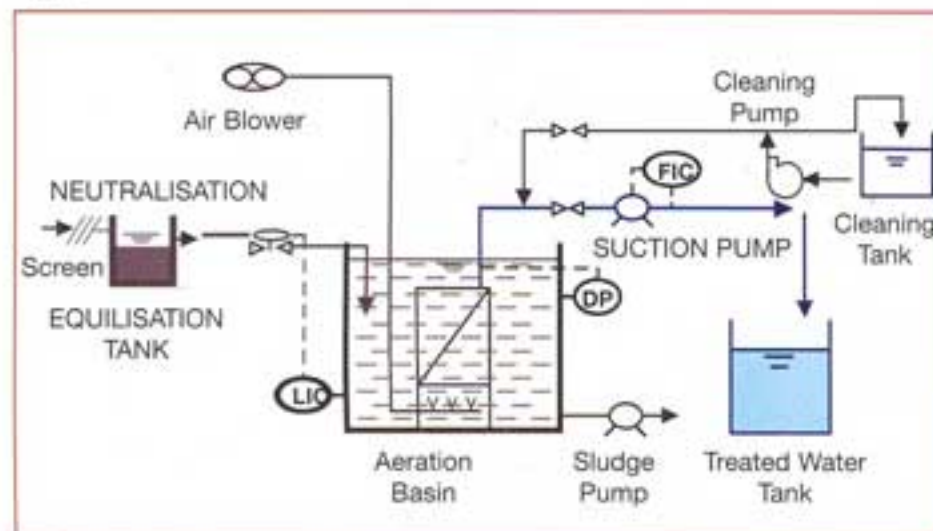
Advantages

- Minimum land usage
- Minimal power and chemical requirement
- Low operating cost

Applications

- Housing Complexes
- Townships
- Hotels
- Golf & Country Clubs
- Industrial Estates
- Existing Plant Upgradation

Typical treatment scheme



Treated Water Characteristics:

(Domestic Effluent)

- BOD : < 2 ppm
- COD : < 20 ppm
- Turbidity : < 1 NTU
- NH₄N : > 90% reduction
- Biological P : > 90% reduction
- SDI : < 5
- Total Coliform : 99.9999% removal

INDION MBR is also suitable for industrial effluents & the treated water characteristics may vary & can be established after the piloting

Standard Module Specifications**

Modules		INDION TMR-140-50S	INDION TMR-140-100S	INDION TMR-140-200W	INDION TMR-140-200D
Standard Flow (m ³ /day)		40-50	80-100	150-200	125-150
Membrane MOC		PVDF + PET non-woven fiber			
Housing Size	Width (mm)	740	740	740	740
	Length (mm)	900	1550	3100	1550
	Height (mm)	2100	2100	2100	4130
Weight (kg) contain membrane element		450	800	1600	1550
Material	Housing	SS 304			
	Permeate water Manifold	PVC or SS 304			
	Aeration Diffuser	SS 304			

** Primary Specifications for Domestic effluent, case specific for Industrial effluents

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 offices for current product specifications.

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



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