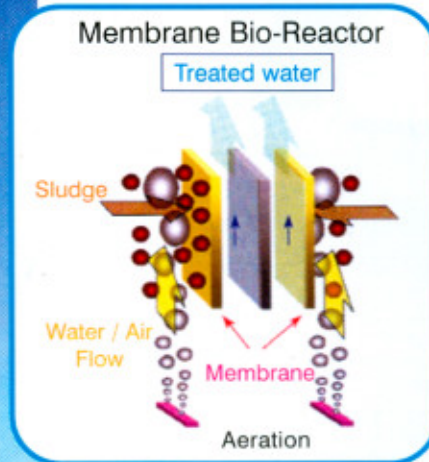


## INDION® Membrane Bio-Reactor (MBR)



### Process

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

What makes the INDION MBR so successful is the effectiveness of the submerged membranes filtration in the biological process. It is this membrane treatment that produces high quality permeate from domestic sewage and industrial waste water. The submerged membranes used in the biological process remove suspended matter from activated sludge and provide stable and reliable unit with consistent performance.

### 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 25% of a conventional system
- Low energy consumption (1.14 kwh/1000 gal) for filtration
- Upto 6 log (99.9999%) removal of total coliform
- No chemicals required during treatment

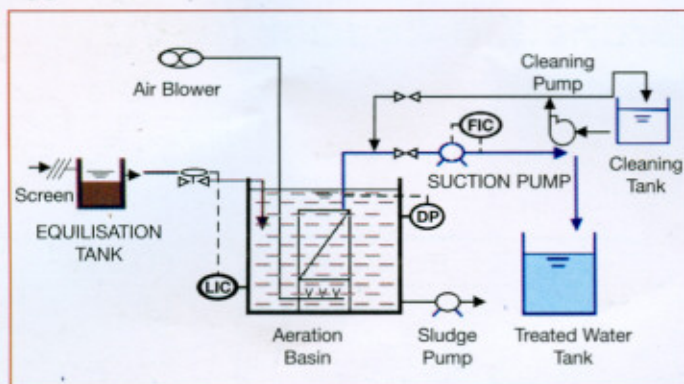
### Advantages

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

### Applications

- Housing Complexes
- Townships
- Hotels
- Golf & Country Clubs
- Industrial Estates
- Industrial waste treatment
- Waste recycle
- Existing plant upgrade and/or capacity expansion

## Typical Treatment Scheme



## Treated Water Characteristics: (Domestic Effluent)

- BOD : < 2 ppm
- COD : < 20 ppm
- Turbidity : < 1 NTU
- NH<sub>3</sub>N\* : > 90% reduction
- P\* : > 90% reduction
- Total Coliform : 99.9999% removal

\* With appropriate biological design and/or chemical addition.

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

## Standard Module Specifications\*\*

Modules Model Name		INDION TMR-140-50S	INDION TMR-140-100S	INDION TMR-140-200W	INDION TMR-140-200D
Standard Flow (m <sup>3</sup> /day)		40-50	80-100	150-200	150-200
Membrane material		PVDF + PET non-woven fiber			
Housing Size	Width (mm)	810	810	810	810
	Length (mm)	950	1620	3260	1620
	Height (mm)	2100	2100	2100	4160
Weight (kg) dry membrane element		400	700	1430	1360
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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