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**AI SERIES INDUSTRIAL REVERSE OSMOSIS SYSTEMS**



**SUAR – AI SERIES INDUSTRIAL REVERSE OSMOSIS MODELS AND TECHNICAL SPECIFICATIONS**

<b>AI SERIES INDUSTRIAL REVERSE OSMOSIS SYSTEMS</b>						
<b>Model</b>	<b>Capacity @ 20 °C</b>	<b>Operating Pressure [bar]</b>	<b>Membrane Size [inch]</b>	<b>Membrane Quantity [Pieces]</b>	<b>Recovery [%]</b>	<b>Pressure Vessels [Pieces]</b>
	<b>m<sup>3</sup>/day</b>					
SUAR RO AI680	150	6-8	8" x 40"	6	65	2
SUAR RO AI880	200	6-8	8" x 40"	8	75	2
SUAR RO AI1080	250	6-8	8" x 40"	10	75	2
SUAR RO AI1280	300	6-8	8" x 40"	12	75	3
SUAR RO AI1580	375	6-8	8" x 40"	15	75	3
SUAR RO AI1880	500	6-8	8" x 40"	18	75	3
SUAR RO AI2480	600	6-8	8" x 40"	24	75	4
SUAR RO AI3080	750	6-8	8" x 40"	30	75	5
SUAR RO AI3680	900	6-8	8" x 40"	36	75	6
SUAR RO AI4280	1050	6-8	8" x 40"	42	75	7
SUAR RO AI4880	1200	6-8	8" x 40"	48	75	8
SUAR RO AI5480	1350	6-8	8" x 40"	54	75	9
SUAR RO AI6080	1500	6-8	8" x 40"	60	75	10
SUAR RO AI6680	1650	6-8	8" x 40"	66	75	11

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## STANDARD FEATURES

**1000 ppm TDS value for feed water is considered for the above design data of AI Series system**

### Standart Features of AI Series Systems

- Wave Cyber (England) brand FRP pressure vessels – max. 21 bar – with end port
- Toray (Japan) brand TFC Spiral wound Membranes - 8" diameter – ultra low pressure type
- Ebara (Japan) brand AISI 316 stainless steel high pressure pump
- FUJI (Japan) brand frequency converter
- Corrosion resistance and durable FRP composite frame
- Multi cartridge filtration with 5 micron filtration rate
- Gear boxed manuel ball valve at reject line for the pressure adjustment
- LTH (UK) brand multi-parameter measuring and control monitor (measuring conductivity, pH and temperature of feed water and conductivity at permeate)
- Electrically actuated butterfly valve at inlet
- Autoflush valve
- Low pressure line U-PVC, PN10
- High pressure line U-PVC, PN16
- Low and high pressure switches
- Burkert (Germany) brand pedal wheel type permeate and reject flowmeters
- Glycerine pressure gauges
- On-off switch
- Alarm and status lights
- 380 VAC - 50 Hz - 3 phase
- IP65 control panel

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## **INCREASE IN CAPACITY**

With the help of features applied in the design of SUAR AI Series Industrial Reverse Osmosis Systems, AI680...1580, AI 1880...2480, AI 3080...3680 and AI 4280...6680 models in specified model ranges can be adapted easily and at a low cost for further increases in capacity within each model range

- Same size of frame is used within all model groups .
- All grouped models are designed with the same sized plumbing and valves.
- Same high pressure pump is used at all grouped models. Pump capacity can be easily adjusted with the help of frequency converter on the control panel.
- Same flowmeter is used at all grouped models.

## **RECOMMENDED FEED WATER LIMITS**

- Feed Water TDS : 0 - 2,000 ppm
- Operating Pressure : 6 to 8 bar
- Inlet Water Pressure : 2 to 5 bar
- Hardness : If the hardness is above 3 Fr, Antiscalant (ASC) dosage is required
- pH range : 6 - 8
- Silica (SiO<sub>2</sub>) Toleration : 25 ppm max. @ 60% efficiency
- Max. Inlet Water Temperature: 30° C Max.
- Max. Iron (Fe) Toleration : 0,05 ppm , with ASC dosing 0,2 ppm
- Hydrogen sulfide should not exist
- Turbidity should not exist ( NTU <1 ).

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