

# Sea Water Reverse Osmosis (SWRO) Membrane System



## System includes:

- RO membrane (8040) cartridge skid mounted
- Electrical control panel and D.O.L / Frequency-Controller
- Feed and High Pressure pumps
- 5 µm Guard filter
- 1x Set of valves
- Pressure gauges, flow meters
- Permeate TDS meter
- System on racking, PVC and Stainless Steel piping
- U740 Ultra-Filtration membranes skid mounted (optional)
- CIP system (optional)

## SWRO System and Operating Limit\*

Recovery	35 ~ 45%
Operating temperature	< 45° C
Operating pressure	< 70 bar
Power requirement	400 V / 3 phase / 50 Hz
Energy consumption	approx. 3.3 kWh/m <sup>3</sup>
Feed TDS range	15,000 ~ 36,000 ppm
Max. SDI (15 min.)	< 3.0
pH range	5 - 9 (operating); 2 - 12 (CIP)
Feed max. turbidity	< 1.0 NTU
Chlorine concentration	< 0.1 ppm

\*Subject to feed water condition

## Membrane Specifications

Type	TFC (Thin Film Composite); PA (Polyamide)
Configuration	Spiral-wound, FRP wrapping
Membrane size	Diameter 8" x length 40"
Effective area	400 sq ft / membrane
Flow rate	~0.5 m <sup>3</sup> / hr / membrane

Note: Selection of membrane will depend on the application flow rate and the type of feed water