

RA series RO System

ROTEK RL 800-6000LPH Reverse Osmosis Systems

ROTEK RA series systems are part of a family of reverse osmosis units specifically designed for operation with fresh and brackish feed waters having TDS values below 1,500 ppm. Customers can access these Models with permeate outputs of between 150 and 1,000 liters/hr as shown in the specifications.



Standard Features

- RO micro-computer controller with permeate TDS readout
- 300PSI stainless steel membrane housing + PE end caps
- NUERT rotary vane pump for 800GPD
- ROTEK LPE multistage pump for 1500-6000GPD
- 5 micron sediment pre-filter x 2 in series
- Rotek rotameters for permeate and a concentrated stream
- Rotek pressure gauges for prefilter feed and RO feed
- Low-pressure switch
- SS316 concentrate needle valve
- Concentrate recycling valve (without flow meter)
- Electro-plated SS304 skid frame

Available Options

- RO membranes are available with brands of Filmtec, Hydranautics, Vontron, and Toray
- FRP membrane vessel
- Grundfos multistage pump
- CNP multistage pump
- Concentrate recycling flow meter
- Provision for CIP

Feed Water TDS

| Turbidity(SDI) | <5 |
|----------------|----------|
| T.D.S. | <2000ppm |
| Temperature | 5~40°C |
| FreeChlorine | 0ppm |
| рН | 3-11 |
| Iron | <0.01ppm |



Specifications

| Models | RA800 | RA1500 | RA3000 | RA4500 | RA6000 |
|--------------------------------|-------------------|-----------------|----------------|----------------|----------------|
| Feed WaterTDS | <1500ppm | <1500ppm | <1500ppm | <1500ppm | <1500ppm |
| Recovery Rate* | 18-75% | 18-75% | 34-75% | 45-75% | 50-75% |
| Vessel Array | 1 | 1 | 1:1 | 1:1:1 | 1:1:1:1 |
| Vessel Size | 2540 x 1 | 4040 x 1 | 4040 x 2 | 4040 x 3 | 4040 x 4 |
| Permeate Flow Rate (gpm/lpm)** | 0.6/2.2 | 1.0/3.9 | 2.1/7.9 | 3.1/1.8 | 4.2/15.8 |
| Feed Connection | 3/8" FNPT | 1/2" FNPT | 3/4" FNPT | 3/4" FNPT | 3/4" FNPT |
| Permeate Connection | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" |
| Concentrate Connection | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" |
| Flush Connection | 3/8" | 3/8" | 1/2" | 1/2" | 1/2" |
| Pump type & Motor HP | Rotary Vane 0.5HP | Rotary Vane 1HP | Multistage 2HP | Multistage 2HP | Multistage 2HP |
| Gross Dimension (cm) | 66X45X130 | 66X45X130 | 69X63X147 | 69X63X147 | 69X63X147 |
| Gross Weight (kg) | 35 | 45 | 88 | 94 | 100 |

* Minimum recovery rate is calculated base on no concentrate recirculation, it is possible to increase the overall recovery rate by increasing the concentrate circulation flow.

** Permeate flow rate can be vary depends on type of membrane, raw water quality and recovery rate.

Application Diagram

