

# SIRION™ Mega Reverse Osmosis Systems

Veolia's SIRION™ Reverse Osmosis Systems produce high purity water, removing up to 97% of dissolved inorganics and over 99% of large dissolved organics, colloids and particles.

Flow rates from 40 to 600 GPM.

## Applications

- Boiler feed
- Industrial process water
- Cooling water
- Reuse/recycling
- Utility water
- Purified water
- High purity water

## Features & Benefits

- Low energy membranes result in lower operational costs
- Frequency controlled variable speed pumps save electricity vs conventional systems
- 5µ pre-filtration included for membrane protection
- Programmable user interface
- Dry run monitor; pump protection
- Cleaned by stage design
- Ethernet IP communication
- Permeate sample valves on each membrane housing
- Antiscalant injection point
- Sodium bisulfite injection point
- Veolia Vision\* cloud based integration and reporting

## Options

- Concentrate flush
- Concentrate recirculation
- Permeate divert
- Feed ORP measurement
- Interstage permeate back pressure
- Auxiliary flush (must include concentrate flush)
- CIP

## Markets

- Food & Beverage
- Chemical
- Healthcare
- Cosmetics & Personal Care
- Institutional
- Primary Metals
- General Manufacturing

## Related Services

Veolia's service and support teams offer preventative and corrective maintenance programs to ensure efficient, long term operation.

## Hydrex™ Chemicals

For efficient operation, Veolia recommends the use of Hydrex™ water treatment chemicals.



\* Veolia Vision is a cloud-based program that allows you to monitor your system performance, day or night, with secure, real-time data available over any internet or cellular connection.

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## System Capacity

| Mega RO Model #            | 1104M | 2105M | 3204M | 3205M | 6307M |
|----------------------------|-------|-------|-------|-------|-------|
| Permeate* (GPM)            | 40    | 75    | 100   | 130   | 300   |
| Feed (GPM)                 | 54    | 100   | 134   | 174   | 400   |
| Typical Salt Rejection (%) | 99    | 99    | 99    | 99    | 99    |
| Pump Motor Size (HP)       | 15    | 20    | 30    | 40    | 100   |

\* Flow rates are dependent on feed water quality and temperature. The above values are based on 1000 ppm TDS, 50°F & SDI <3.

## System Dimensions

| Mega RO Model #          | 1104M | 2105M | 3204M | 3205M | 6307M |
|--------------------------|-------|-------|-------|-------|-------|
| Height (in)              | 102   | 103   | 103   | 103   | 102   |
| Depth (in)               | 48    | 48    | 48    | 48    | 60    |
| Width (in)               | 192   | 232   | 193   | 233   | 315   |
| Feed Connection (in)     | 2     | 3     | 3     | 4     | 6     |
| Permeate Connection (in) | 1½    | 2     | 3     | 3     | 4     |

## Feed Water Supply Quality

|                       |             |             |
|-----------------------|-------------|-------------|
| Supply Pressure       | min. 20 psi | max. 40 psi |
| Operating Temperature | min. 35°F   | max. 110° F |

## Materials of Construction

|                            |                                  |
|----------------------------|----------------------------------|
| Pressure Vessels           | FRP                              |
| High/Low Pressure Pipework | 304 Stainless Steel/PVC, Sch. 80 |
| Frame                      | Painted Carbon Steel             |
| Enclosure                  | NEMA 4 Painted Carbon Steel      |

## Utility Requirements

480V, 3 phase, 60Hz Motor Supply  
 120V, 1 phase, 60Hz, 10 Amp Control Supply  
 80 psig instrument air.

For additional flow rate applications, consult your local Veolia Water Technologies company, contact details below.