

# SIRION™ Sea Water

## Reverse Osmosis Systems

SIRION™ Sea Water reverse osmosis systems are specifically designed to treat seawater. They reject over 99% of the salt contained within the feed water.

Flow rates for standard systems range from 1 to 41 m<sup>3</sup>/hr for feed waters of up to 36 000 ppm (TDS).

### Features & Benefits

- Standardised and skid-mounted; short lead times and quick start-up
- Small footprint; easily integrated into existing plant
- Chemical pre-treatment; protects the RO membranes
- High pressure pump with variable frequency drive; efficient and quiet operation
- Energy recovery device for high flow rate models; energy savings of 35-55%
- State-of-the-art RO membranes
- Flushing and chemical cleaning system; removes salt deposits, prevents scaling and maintains system performance
- Touch screen interface for easy operation
- PLC control

### Applications

- Production of potable water
- Agricultural irrigation
- Industrial process water

### Related Services

Local after-sales service and support teams offer preventative and corrective maintenance programs to ensure the long-term, efficient operation of installed plant.

### Hydrex® Chemicals

Hydrex® 4000 water treatment chemicals from Veolia Water Technologies should be used for optimised operation.



## Equipment Performance & Dimensions

| Model    | Flow @ 20°C        |                    | Recovery | Dimensions  |       | Membranes | Pump     |
|----------|--------------------|--------------------|----------|-------------|-------|-----------|----------|
|          | Feed               | Permeate           |          | Quantity    | Power |           |          |
|          | m <sup>3</sup> /hr | m <sup>3</sup> /hr |          |             |       | %         | WxDxH    |
| m        | kg                 |                    |          |             |       |           |          |
| D-25     | 5.30               | 1.06               | 20       | 3x1.7x2.2   | 1600  | 2         | 18.5     |
| D-50     | 6.42               | 2.12               | 33       | 3x1.7x2.2   | 1700  | 4         | 22       |
| D-75     | 7.95               | 3.18               | 40       | 4x1.7x2.2   | 1800  | 6         | 22       |
| D-100    | 10.60              | 4.24               | 40       | 5x1.7x2.2   | 1900  | 8         | 2x15     |
| D-125    | 13.25              | 5.30               | 40       | 6x1.7x2.2   | 2000  | 10        | 2x22     |
| D-150    | 15.88              | 6.35               | 40       | 4x1.7x2.2   | 2100  | 12        | 2x22     |
| D-190-PX | 19.88              | 7.95               | 40       | 6.5x1.7x2.2 | 2200  | 15        | 22+2.2   |
| D-230-PX | 23.88              | 9.55               | 40       | 8x2x2.2     | 3100  | 18        | 30+2.2   |
| D-270-PX | 26.55              | 11.15              | 42       | 8.5x2x2.2   | 3400  | 21        | 2x18.5+3 |
| D-360-PX | 35.36              | 14.85              | 42       | 8.5x2x2.2   | 3700  | 28        | 2x22+3   |
| D-450-PX | 44.17              | 18.55              | 42       | 9x2x2.2     | 4025  | 35        | 2x30+4   |
| D-530-PX | 52.98              | 22.25              | 42       | 10x2x2.2    | 4325  | 42        | 55+5.5   |
| D-620-PX | 61.90              | 26.00              | 42       | 10x2.15x2.2 | 4525  | 49        | 55+5.5   |
| D-710-PX | 70.48              | 29.60              | 42       | 10x2.15x2.2 | 4530  | 56        | 75+7.5   |
| D-800-PX | 79.45              | 33.37              | 42       | 10x2.15x2.2 | 4535  | 63        | 75+7.5   |
| D-890-PX | 88.33              | 37.10              | 42       | 10x2.15x2.2 | 4600  | 70        | 90+7.5   |

## Pipe Connections

|                                     |   |
|-------------------------------------|---|
| <b>Low Pressure</b>                 |   |
| Pre-filter Housing                  | Polyamide (PA)  |
| Filter Element                      | Polypropylene   |
| Dosing Pumps                        | PVC head, teflon-coated EPDM diaphragm  |
| Chemical Product Tanks              | PE  |
| Flushing and Chemical Cleaning Tank | FRP   |
| Flushing and Chemical Cleaning Pump | Stainless steel   |
| Piping and Accessories              | PVC-U / PN-16   |
| <b>High Pressure</b>                |   |
| High-Pressure Pump                  | Stainless Steel AISI 904-L / Super Duplex<br>(depending on the model)                       |
| Pressure Vessels                    | FRP   |
| RO Membranes                        | Link crossed aromatic polyamide (8")  |
| Piping and Accessories              | Stainless steel for seawater applications<br>AISI 904-L (Standard) ZERON/ 254 SMO (Options) |
| Skid                                | Epoxy-painted carbon steel  |

## Feed Water Supply Quality

|                              |     |    |
|------------------------------|-----|----|
| Raw Water Design Temperature | °C  | 20 |
| Raw Water Maximum Turbidity  | NTU | 1  |
| Raw Water Minimum Pressure   | bar | 3  |
| SDI                          |     | <3 |

For higher flow rates, or other filtration openings consult your local Veolia Water Technologies company, details below.

Visit our website: [www.veoliawatertechnologies.com/sirion/en/](http://www.veoliawatertechnologies.com/sirion/en/)