

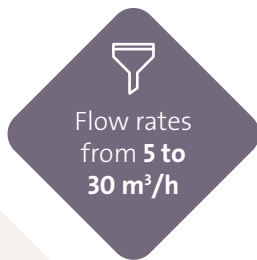
# SIRION™ Mega

## Reverse Osmosis for Process Water

SIRION Mega reverse osmosis system produce high purity water, removing up to 98% of dissolved inorganics and over 99% of large dissolved organics, colloids and particles.

Plug & play unit suitable for transportation into a container. 7 models available.

All versions available according to European standards.



### FEATURES & BENEFITS

- Low energy membranes result in lower operating pressure; cost savings.
- Feed salinity up to 1000 ppm TDS (NaCl).
- Chemical injections points only (no dosing set).
- 5 µm pre-filtration included within the unit for membrane protection.
- Dry run monitor; pump protection.
- Frequency controlled variable speed pump can save up to 50% of electrical power required by conventional systems.
- Concentrate throttling valve for flow adjustment.
- Concentrate Recirculation.
- Skid-mounted, standardized systems; short lead times, quick installation and start-up.
- CIP connections.
- Programmable user interface; simple operation, monitoring and storage of pressure, flow rate, conductivity and temperature values. (For PLC only.)
- Modem & RS232 connections.
- AQUAVISTA™(1) cloud based integration and reporting.

### HYDREX® CHEMICALS

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



### APPLICATIONS

SIRION Mega produces high purity water, purified water and utility water for:

- Boiler feed
- Industrial process water
- Cooling water
- Reuse / recycling
- Healthcare
- Biotechnologies
- Electronics
- Hospitals
- Chemical industry
- Primary metals



### OPTIONS

- Concentrate dump valve
- 1<sup>st</sup> stage backpressure valve
- 1<sup>st</sup> stage CIP flush valve
- Permeate divert
- HMI/PLC version

(1) AQUAVISTA™ 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.

### 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.





## System Operating Parameters

1 000 ppm configuration**	Unit	110x2	110x3	110x4	210x4	211x4	211x5	320x5
Feed water TDS (NaCl)	ppm	Up to 1000 ppm						
Typical design flux	l/m <sup>2</sup> h	30.5						
Permeate flowrate @ 12°C*	m <sup>3</sup> /h	5	7.5	10	15	20	25	30
Feed water flowrate @ 12°C*	m <sup>3</sup> /h	6.3	9.4	12.5	18.8	25	31.3	37.5
Recovery	%	80						
Installed power*	kW	7.5	11	11	15	18.5	22	30

Selection of models must be done following RO projections based on project specific inlet water characteristics.

\* Flow rates and installed power are dependent on feed water quality, those quoted are typical values based on 1000 ppm TDS & SDI <3.

## System Dimensions

Model	Unit	110x2	110x3	110x4	210x4	211x4	211x5	320x5
Length	mm	4100	4100	4900	4900	4900	5900	5900
Width	mm	900	900	900	900	900	900	900
Height	mm	1750	1850	1850	1850	2150	2255	2280
Empty weight	kg	980	1100	1150	1200	1350	1700	1700

## Pipes Connections

Model	110x2	110x3	110x4	210x4	211x4	211x5	320x5
Feed water	DN40	DN40	DN50	DN50	DN65	DN65	DN80
Permeate outlet (product)	DN40	DN40	DN40	DN50	DN50	DN65	DN65
Concentrate	DN40	DN40	DN40	DN40	DN40	DN40	DN50
CIP inlet / Permeate flush inlet	DN40	DN40	DN50	DN50	DN50	DN50	DN65
CIP outlet	DN40	DN40	DN40	DN50	DN50	DN50	DN65
Permeate outlet (to CIP)	DN40	DN40	DN40	DN50	DN50	DN50	DN50

## Feed Water Supply Quality

Well water or surface water.

Parameter	Unit	Value
Min water temperature	°C	2
Max water temperature	°C	30
Min inlet pressure	bar.g	3
Max inlet pressure	bar.g	6
SDI max	-	3
Turbidity max	NTU	1
Iron and heavy metals	-	0
Oil, TSS and colloids	-	0
Free chlorine	Non detectable	

Non corrosive water.

## Typical Treated Water Specifications and Performances

Parameter	Unit	Value
Typical salt rejection	%	96 - 98
Product pressure	Bar	Pump feed pressure

## Environmental Conditions

Parameter	Unit	Value
Min ambient temperature	°C	5
Max water temperature	°C	35
Max Humidity (non-condensing)	%	90

Indoor Design. Non-corrosive atmosphere.

## Materials

Frame	Epoxy coated carbon steel frame
Pipes Low pressure	PVC
Pipes High pressure	SS 316

## Power Requirements

Voltage	380 / 420 V
Frequency	50 Hz
Phases	3

Other voltage or frequency available on request.

## Other Specifications

Parameter	Unit	Value
Service air requirement	bar.g	6 (max)
Permeate pressure	bar.g	= Inlet pressure

Other specs on request.