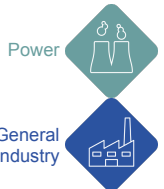
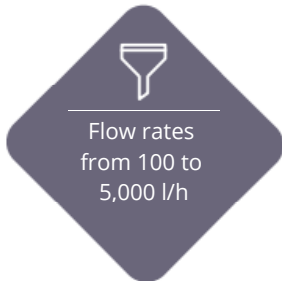


SIRION™ Advanced & Pro

Reverse Osmosis for Process Water

SIRION™ Advanced & Pro reverse osmosis system produce high purity water, removing up to 98% of dissolved inorganics and over 99% of large dissolved organics, colloids and particles. Advanced version against Pro equipped with plastic covers granting protection and robust design. Plug & play unit suitable for transportation into a container. All versions available according to European standards.



FEATURES & BENEFITS

- Low energy Membranes result in lower operating pressure; cost savings.
- Feed salinity up to 1000 mg/l TDS (NaCl).
- 1 µm pre-filtration included within the unit for membrane protection.
- Dry run monitor; pump protection.
- Concentrate throttling valve for flow adjustment and concentrate recirculation.
- Instrument allocated in frontal control block part for comfortable accessibility and workability.
- Skid-mounted, standardized systems; short lead times, quick installation and start-up.
- CIP connections forwards installed.
- HMI Touchscreen 7" modern interface user friendly. Fully configurable and simple operation, monitoring of pressure, flow rate, conductivity and temperature values.
- AQUAVISTA™ compatible
- Data logging
- Comms via Modbus TCP or Aquavista
- OPC Compliant



APPLICATIONS

- Boiler feed
- Industrial process water
- Reuse / recycling
- Healthcare
- Biotechnologies
- Pharmaceuticals
- Hospitals
- Laboratory



OPTIONS

- 1) VFD for HP pump
- 2) Conductivity/temperature sensor feed water
- 3) pH measurement concentrate
- 4) Acid/caustic dosing station
- 5) Antiscalant dosing station
- 6) Raw water automatic / manual blending
- 7) Additional universal inputs / outputs

(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.
(2) All options available for Advanced model. Pro model compatible with options 1) 3) 6) 8).

HYDREX™ CHEMICALS

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

ASSOCIATED 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

1000 mg/l configuration ⁽¹⁾	Unit	100	200	300	500	750	1000	1500	2000	3000	4000	5000
Inlet Salinity TDS (NaCl)	mg/l	Up to 1000 mg/l										
Typical Design Flux	l/h/m ²	23-31										
Permeate Nominal Flowrate	l/h	100	200	300	500	750	1000	1500	2000	3000	4000	5000
Nominal Feed Flowrate	l/h	150	290	430	715	1070	1430	2145	2860	4285	5715	7145
Recovery	%	70-80										
Installed Power	kW	1.5 (Adv.) 0.5 (Pro)	1.5 (Adv.) 0.5 (Pro)	1.5 (Adv.) 0.5 (Pro)	1.5	1.5	2.2	3	3	3	5.5	5.5

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

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

Dimensions (unit in operation)

Model	Unit	100	200	300	500	750	1000	1500	2000	3000	4000	5000
Installed Length	m	0.80	0.80	0.80	0.80	0.80	0.96	0.96	0.96	1.11	1.60	1.60
Installed Width	m	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Installed Height	m	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
Empty Weight	kg	190	195	200	220	230	280	300	320	375	590	600
Operating Weight	kg	199	208	220	242	260	322	359	396	483	765	776

Pipes Connections

Model	Unit	100	200	300	500	750	1000	1500	2000	3000	4000	5000
Feed	-	d22/18	d22/18	d22/18	d22/18	d22/18	DN 32	DN 32	DN 32	DN 32	DN 32	DN 32
Permeate	-	d15/12	d15/12	d15/12	d15/12	d15/12	DN 25	DN 25	DN 25	DN 25	DN 32	DN 32
Concentrate	-	d15/12	d15/12	d15/12	d15/12	d15/12	DN 25	DN 25	DN 25	DN 25	DN 25	DN 25
CIP Feed ⁽²⁾	-	d15/12	d15/12	d15/12	d15/12	d15/12	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"
CIP Permeate Outlet ⁽²⁾	-	d15/12	d15/12	d15/12	d15/12	d15/12	1"	1"	1"	1"	1"	1"
CIP Concentrate Outlet	-	d15/12	d15/12	d15/12	DN 15	DN 15	DN 15	DN 15	DN 15	DN15	DN 20	DN 20

(2) BSPT (R/Rp) – British Standard Tapered Pipe, for pipes and tapered thread

Feed water requirements⁽³⁾

Well water or surface water

Parameter	Unit	Value
Minimum water temperature	°C	5
Maximum water temperature	°C	25
Minimum supply pressure	bar	2
Maximum supply pressure	bar	6
Max Silt Density Index (SDI)	-	< 3
Maximum Inlet Turbidity	NTU	< 1
Max inlet Iron Fe ³⁺	mg/l	< 0.05
Max inlet Manganese Mn ²⁺	mg/l	< 0.05
Max inlet Aluminium Al ³⁺	mg/l	< 0.05
Max Oil and Grease	mg/l	0
Max inlet Free Chlorine	mg/l	< 0.1

(3) Non corrosive water. *** To consult Solys.
Temperature range depending on TDS

Environmental conditions⁽⁴⁾

Parameter	Unit	Value
Minimum ambient temperature	°C	5
Maximum ambient temperature	°C	35
Maximum humidity	%	90

(4) Indoor Design. Non-corrosive atmosphere

Materials

Skid	Epoxy-polyester coated carbon steel
Low pressure Pipework	PP Advanced model PVC-U Pro model POM piping (small ranges)
High pressure Pipework	SS DIN 1.4404 ISO R1127

Power requirements⁽⁵⁾

Voltage	230 V (100-300 model) 380 / 420 V
Frequency	50Hz
Phases	1 (100-300 model) 3

(5) Other voltage or frequency available on request.

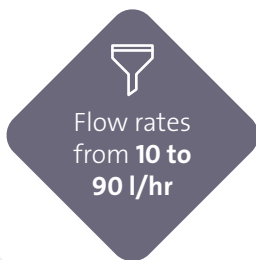
solys@veolia.com

www.veoliawatertechnologies.com

SIRION™ Mini

Reverse Osmosis for Process Water

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



FEATURES & BENEFITS

- Low energy membranes result in lower operating pressures; cost savings
- Optimised flow:size ratio; space saving and efficient
- 5µm pre-filtration included within the unit; membrane protection
- Digital user interface; simple operation, monitoring of conductivity and temperature
- Dry run monitor; pump protection
- Treated water diverted at startup; ensures water quality
- Timed recirculation rinse; reduces membrane fouling



OPTIONS

- Output to PLC via analogue signal for conductivity monitoring



APPLICATIONS

- Industrial process water
- Boiler feed
- Micro Electronics
- Laboratory
- Hospitals
- Food and beverage industry
- Automotive industry

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 Performance

Model		10-15 EP	10-40 EP	10-80 EP
Permeate*	l/hr	10-20	30-45	60-90
Feed*	l/hr	40	90	170
Typical Salt Rejection	%	96-98	96-98	96-98
Pump Motor Size	kW	0.25	0.25	0.25

*Flow rates are dependent on feed water quality, those quoted are typical values based on water at 12°C, 1000 ppm TDS & SDI <3.

System Dimension

Model		10-15 EP	10-40 EP	10-80 EP
Height	mm	697	697	697
Depth	mm	380	380	380
Width	mm	450	450	450
Weight	kg	53	60	63

Pipe Connections

Model	10-15 EP	10-40 EP	10-80 EP
Feed Water (BSPP Male)	1/2"	1/2"	1/2"
Permeate (push in)	8 mm	8 mm	8 mm
Concentrate (push in)	8 mm	8 mm	8 mm

Feed Water Supply Quality

Potable water free from organic contamination, chlorine and suspended matter. Softening may be required for hard water areas.

Supply Pressure	min. 2 bar	max. 6 bar
temperature	min. 2°C	max. 25°C


Electrical Supply

All models 230V 50Hz standard.

SIRION™ Midi

Reverse Osmosis for Process Water

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



Flow rates
from **90 to**
800 l/hr



FEATURES & BENEFITS

- Low energy membranes result in lower operating pressures; cost savings
- Optimised flow:size ratio; space saving and efficient
- 1µm pre-filtration included within the unit; membrane protection
- Programmable user interface; simple operation, monitoring and storage (14 days) of flow rate, conductivity and temperature values. (For PLC only).
- Modem & RS232 connections
- Dry run monitor; pump protection
- Treated water diverted at startup; ensures water quality
- Timed recirculation rinse; reduces membrane fouling



OPTIONS

- Output to PLC via analogue signal for conductivity monitoring



APPLICATIONS

- Boiler feed
- Industrial process water
- Cleaning and rinse waters
- Reuse / recycling
- Healthcare
- Pharmaceuticals
- Laboratory

HYDREX® CHEMICALS

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

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 Performance

Model		10-100 EP	10-200 EP	10-300 EP	10-500 EP	10-750 EP
Permeate*	l/hr	90-110	180-220	280-330	450-550	650-800
Feed*	l/hr	150	300	450	750	1000
Typical Salt Rejection	%	96-98	96-98	96-98	96-98	96-98
Pump Motor Size	kW	0.56	0.56	0.56	1.5	1.5

*Flow rates are dependent on feed water quality, those quoted are typical values based on water at 12°C, 1000 ppm TDS & SDI <3.

System Dimension

Model		10-100 EP	10-200 EP	10-300 EP	10-500 EP	10-750 EP
Height	mm	1010	1260	1260	1260	1260
Depth	mm	620	620	620	620	620
Width	mm	600	600	600	600	600
Weight	kg	59	61	68	73	95

Pipe Connections

Model	10-100 EP	10-200 EP	10-300 EP	10-500 EP	10-750 EP
Feed Water (push in)	12 mm	12 mm	12 mm	15 mm	15 mm
Permeate (push in)	12 mm	12 mm	12 mm	15 mm	15 mm
First Permeate (push in)	12 mm	12 mm	12 mm	15 mm	15 mm
Concentrate (push in)	12 mm	12 mm	12 mm	12 mm	12 mm

Feed Water Supply Quality

Potable water free from organic contamination, chlorine and suspended matter. A softened water supply is normally required.

Supply Pressure	min. 2 bar	max. 6 bar
temperature	min. 2°C	max. 25°C

Electrical Supply

10-100EP to 10-300EP models 230V, 1ph, 50 Hz standard

10-500EP & 10-750EP models 400V, 3ph-N-PE, 50 Hz standard

SIRION™ Maxi

Reverse Osmosis for Process Water

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



Flow rates
from 450 to
5000 l/hr



FEATURES & BENEFITS

- Low energy membranes result in lower operating pressures; cost savings
- Optimised flow:size ratio; space saving and efficient
- 1µm pre-filtration included within the unit; membrane protection
- Programmable user interface; simple operation, monitoring and storage (14 days) of flow rate, conductivity and temperature values. (For PLC only).
- Modem & RS232 connections
- Dry run monitor; pump protection
- Treated water diverted at startup; ensures water quality
- Timed recirculation rinse; reduces membrane fouling



OPTIONS

- Output to PLC via analogue signal for conductivity monitoring

HYDREX® CHEMICALS

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



APPLICATIONS

- Boiler feed
- Industrial process water
- Cleaning and rinse waters
- Reuse / recycling
- Healthcare
- Pharmaceuticals

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 Performance

Model		14-500 EP	14-750 EP	14-1000 EP	14-1500 EP	14-2000 EP	14-2500 EP	14-3000 EP	14-4000 EP	14-5000 EP
Permeate*	l/hr	450-500	650-800	950-1100	1450-1600	1950-2100	2450-2600	2900-3100	3800-4000	4700-5000
Feed*	l/hr	700	1000	1400	2000	2700	3300	4000	5200	6250
Typical Salt Rejection	%	96-98	96-98	96-98	96-98	96-98	96-98	96-98	96-98	96-98
Pump Motor Size	kW	2.2	2.2	2.2	4.0	4.0	4.0	4.0	4.0	5.5

*Flow rates are dependent on feed water quality, those quoted are typical values based on water at 12°C, 1000 ppm TDS & SDI <3.

System Dimension

Model		14-500 EP	14-750 EP	14-1000 EP	14-1500 EP	14-2000 EP	14-2500 EP	14-3000 EP	14-4000 EP	14-5000 EP
Height	mm	1630	1630	1630	2358	2358	2358	2358	2950	2950
Depth	mm	1070	1070	1070	1070	1070	1145	1070	1200	1200
Width	mm	636	636	636	636	636	636	636	800	800
Weight	kg	200	220	240	290	330	370	410	300	325

Pipe Connections

Model	14-500 EP	14-750 EP	14-1000 EP	14-1500 EP	14-2000 EP	14-2500 EP	14-3000 EP	14-4000 EP	14-5000 EP
Feed	DN 20	DN 20	DN 20	DN 25	DN 25	DN 32	DN 32	DN 40	DN 40
Concentrate	DN 15	DN 15	DN 15	DN 15	DN 15	DN 25	DN 25	DN 25	DN 25
Permeate	DN 15	DN 15	DN 15	DN 25	DN 25	DN 25	DN 25	DN 32	DN 32
First Permeate	DN 15	DN 15	DN 15	DN 25	DN 25	DN 25	DN 25	DN 32	DN 32

Feed Water Supply Quality

Potable water free from organic contamination, chlorine and suspended matter. A softened water supply is normally required.

Supply Pressure	min. 2 bar	max. 6 bar
temperature	min. 2°C	max. 25°C

Electrical Supply

All models 380/415V, 3 phase, 50 Hz standard

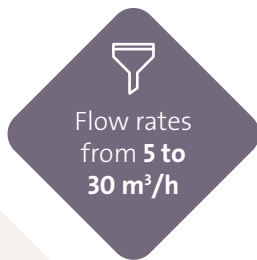
SIRION™ Mega

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
- 1st stage backpressure valve
- 1st 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 ² h	30.5						
Permeate flowrate @ 12°C*	m ³ /h	5	7.5	10	15	20	25	30
Feed water flowrate @ 12°C*	m ³ /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.

SIRION™ Sea Water

Reverse Osmosis for Process Water

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 m³/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

HYDREX® CHEMICALS

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

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.





Equipment Performance & Dimensions

Model	Flow @ 20°C		Recovery	Dimensions		Membranes	Pump
	Feed	Permeate		WxDxH	Weight	Quantity	Power
	m ³ /hr	m ³ /hr					
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

Low Pressure	
Prefilter 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
High Pressure	
High-Pressure Pump	Stainless Steel AISI 904-L / Super Duplex (depending on the model)
Pressure Vessels	FRP
RO Membranes	Link crossed aromatic polyamide (8")
Piping and Accessories	Stainless steel for seawater applications 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

SIRION™ Mega HF

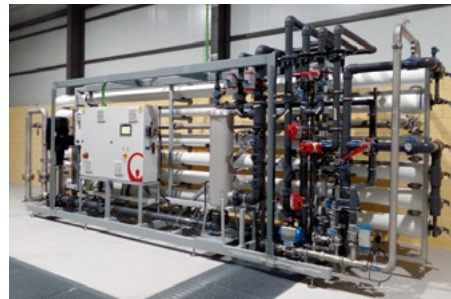
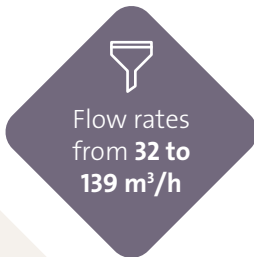
High Flow and Low Energy Reverse Osmosis for Process Water

SIRION Mega HF 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. Six models available.

Configurable for feed water TDS of 1000 ppm, 3 000 ppm or 5 000 ppm (NaCl).

All versions available according to European standards.



FEATURES & BENEFITS

- Low energy membranes result in lower operating pressure; cost savings.
- Frequency controlled variable speed pump (VFD) can save up to 50% on electrical power compared to conventional systems.
- 5 µm pre-filtration included within the unit for membrane protection.
- Dry run monitor; pump protection.
- Raw water rinsing.
- Concentrate throttling valve for flow adjustment.
- Skid-mounted, standardized systems; short lead times, quick installation and start-up.
- CIP manual valves.
- Built-in Ethernet port, touch screen HMI and AQUAVISTA™⁽¹⁾ ready to facilitate local or remote monitoring and operation.
- Permeate pressure bleed valve.
- Chemical injections points only (no dosing set).

(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.

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

- Feed ORP measurement
- Feed pH measurement
- Feed Conductivity measure
- Concentrate Recirculation
- External CIP skid
- AQUAVISTA™⁽¹⁾ cloud based integration and reporting
- Set of Automatic valves for:
 - > RO flush with permeate (need CIP tank and pump)
 - > Semi-Automatic CIP

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	420 x 6	420 x 7	840 x 6	840 x 7	1260 x 6	1260 x 7
Feed water TDS (NaCl)	ppm	Up to 1000 ppm					
Typical design flux	l/m ² h	27					
Permeate flowrate @ 12°C* (Range)	m ³ /h	39.7 (32-40)	44 (37-47)	79.5 (64-80)	88 (75-93)	119.3 (96-119)	132 (112-139)
Feed water flowrate @ 12°C* (Range)	m ³ /h	52.9 (40-53)	53.7 (46-56)	106 (78-106)	107.3 (91-112)	159.1 (117-160)	161 (137-168)
Recovery (Range)	%	75 (70-82)	82 (70-82)	75 (70-82)	82 (70-82)	75 (70-82)	82 (70-82)
Installed power*	kW	37	37	75	75	90	90

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.

** Up to 5000 ppm TDS upon request.

System Dimensions

Model	Unit	420 x 6	420 x 7	840 x 6	840 x 7	1260 x 6	1260 x 7
Length	mm	6 875	7 920	6 875	7 920	6 875	7 920
Width	mm	1 300	1 300	1 705	1 705	2 200	2 200
Height	mm	2 800	2 800	2 830	2 830	2 830	2 830
Empty weight	kg	3 200	3 550	5 000	5 400	6 300	6 800
Operating max weight	kg	4 700	5 200	7 800	8 700	10 500	11 800

Pipes Connections

Model	420 x 6	420 x 7	840 x 6	840 x 7	1260 x 6	1260 x 7
Feed water	DN 100	DN 100	DN 150	DN 150	DN 150	DN 150
Permeate outlet (product)	DN 80	DN 80	DN 150	DN 150	DN 150	DN 150
Concentrate	DN 50	DN 50	DN 80	DN 80	DN 100	DN 100
CIP inlet / Permeate flush inlet	DN 65	DN 65	DN 100	DN 100	DN 100	DN 100
CIP outlet	DN 65	DN 65	DN 100	DN 100	DN 100	DN 100
Permeate outlet (to CIP)	DN 65	DN 65	DN 100	DN 100	DN 100	DN 100

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.