

SIRION™ Mega HF

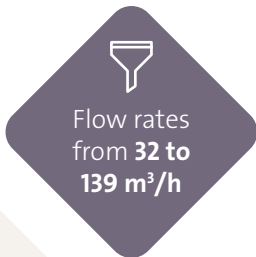
High Flow and Low Energy Reverse Osmosis for Process Water

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.