

# SIRION™ Mega (HF)

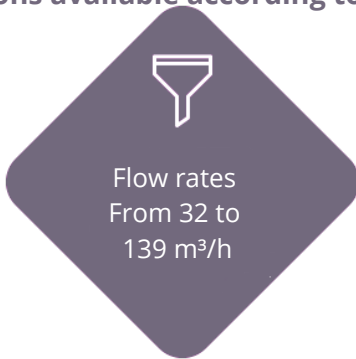
High Flow and Low Energy Reverse Osmosis for Process Water







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, 3000 ppm or 5000 ppm.

All versions available according to European standards.



- Pharma 
- Cosmetics 
- Food 
- Beverage 
- Power 
- General Industry 

## ✓ 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, 12" touch screen HMI and AQUAVISTA™<sup>(1)</sup> ready to facilitate local or remote monitoring and operation.
- Permeate pressure bleed valve.
- Chemical injections points only (no dosing set).

<sup>(1)</sup> 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

Production of high purity water, purified water and utility water for:

- Boiler feed
- Industrial process water
- Cooling water
- Reuse / recycling

Suitable for electronics, hospitals/healthcare, chemical industry, primary metals industry

## + OPTIONS

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

### 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

Model	Unit	420x6	420x7	840x6	840x7	1260x6	1260x7
Inlet Salinity TDS (NaCl)	mg/l	Up to 1000 mg/L					
Typical Design Flux	l/h/m <sup>2</sup>	27					
Permeate Nominal Flowrate	m <sup>3</sup> /h	39.7 (32-40)	44 (37-47)	79.5 (64-80)	88 (75-93)	119.3 (96-119)	132 (112-139)
Nominal Feed Flowrate	m <sup>3</sup> /h	52.9 (40-53)	53.7 (46-56)	106 (78-106)	107.3 (91-112)	159.1 (117-160)	161 (137-168)
Recovery	%	75 (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 values based on 1000 ppm TDS & SDI <3.

\*\* Up to 5000 ppm TDS upon request.

### Dimensions (unit in operation)

Model	Unit	420x6	420x7	840x6	840x7	1260x6	1260x7
Total Installed Length	m	6.875	7.920	6.875	7.920	6.875	7.920
Total Installed Width	m	1.300	1.300	1.705	1.705	2.200	2.200
Total Installed Height	m	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 Weight	kg	4 700	5 200	7 800	8 700	10 500	11 800

### Pipes Connections

Model	Unit	420x6	420x7	840x6	840x7	1260x6	1260x7
Feed	DN	100	100	150	150	150	150
Permeate	DN	80	80	150	150	150	150
Concentrate	DN	50	50	80	80	100	100
CIP Inlet	DN	65	65	100	100	100	100
CIP outlet	DN	65	65	100	100	100	100
Permeate outlet (to CIP)	DN	65	65	100	100	100	100

### Feed Water Requirements

Well water or surface water.

Parameter	Unit	Value
Minimum water temperature	°C	2
Maximum water temperature	°C	30
Minimum supply pressure	barg	3
Maximum supply pressure	barg	6
Max Silt Density Index (SDI)	-	3
Max Oil and Grease	mg/l	0
Maximum Inlet Turbidity	NTU	1
Max inlet Free Chlorine Cl <sup>2+</sup>	mg/l	ND

Non corrosive water.

### Treated Water & Utilities Specifications

Parameter	Unit	Value
Compressed Air Pressure	barg	6
Product Pressure	barg	Pump feed pressure
Permeate Pressure	barg	inlet pressure
Typical Salt Rejection	%	96-98

### Environmental Conditions

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

Indoor Design. Non-corrosive atmosphere.

### Materials

Skid	Epoxy coated carbon steel
Low pressure Pipework	PVC
High pressure Pipework	SS 316

### Power Requirements

Parameter	Unit	Value
Voltage	V	380 / 420
Frequency	Hz	50
Phases	-	3

Other voltage or frequency available on request.