

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.



Flow rates
From 32 to
139 m³/h



Pharma



Cosmetics



Food



Beverage



Power



Laboratory



Electronics



Hydrogen



General
Industry



Drinking
Water



Municipal
WW



✓ 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 HUBGRADE™⁽¹⁾ ready to facilitate local or remote monitoring and operation.
- Permeate pressure bleed valve.
- Chemical injections points only (no dosing set).

⁽¹⁾ HUBGRADE™ 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

- Purified water
- Utility water
- Boiler feed
- Industrial process water
- Cooling water
- Reuse / recycling
- Electronics
- Hospitals/healthcare
- Chemical industry
- Primary metals industry

+ OPTIONS

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

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 5000 mg/L					
Typical Design Flux	l/h/m ²	27.00					
Permeate Nominal Flowrate	m ³ /h	39.70	44.00	79.50	88.00	119.30	132.00
Nominal Feed Flowrate	m ³ /h	52.90	53.70	106.00	107.30	159.10	161.00
Recovery	%	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 values based on 1000 ppm TDS & SDI <3.

Up to 5000 ppm TDS upon request.

System Dimensions

Model	Unit	420x6	420x7	840x6	840x7	1260x6	1260x7
Total Installed Length	m	6.875	7.92	6.875	7.92	6.875	7.92
Total Installed Width	m	1	1	2	2	2	2
Total Installed Height	m	2.8	2.8	2.83	2.83	2.83	2.83
Empty Weight	kg	3200	3550	5000	5400	6300	6800
Operating Weight	kg	4700	5200	7800	8700	10500	11800

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
Permeate diversion	DN	50	50	150	150	150	150
Concentrate	DN	50	50	80	80	100	100
CIP Inlet	DN	65	65	100	100	100	100
CIP concentrate outlet	DN	65	65	100	100	100	100
CIP permeate outlet	DN	65	65	100	100	100	100

Environmental Conditions

Parameter	Unit	Value
Minimum ambient temperature	°C	5
Maximum ambient temperature	°C	40
Maximum humidity	%	90

Indoor Design. Non-corrosive atmosphere.

Feed water Requirements

Parameter	Unit	Value
Minimum water temperature	°C	5
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 ₂	mg/l	< 0.1
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

Non corrosive water

Materials of Construction

Skid	Epoxy coated carbon steel
Control Cabinet	Mild Steel, RAL 7035, IP54
Low pressure Pipework	PVC-U
High pressure Pipework	316L

Power Requirements

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

Other voltage or frequency available on request.

Typical Treated Water Quality

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