

Sensa™



Double pass reverse osmosis unit for cosmetics

SENSA™ double pass reverse osmosis system produces demineralised water for the Cosmetics Industry. Designed for low conductivity (5 μ S/cm) and low bacteria (10 cfu/100 ml) product outlet.

- Plug & play unit suitable for transportation into a container.
- FAT tested unit. Ready for CIP operation (CIP connections included).
- High availability unit - Six models available according to European standards.



Flow rates
from 1.4 to 10
m³/h



Pharma



Cosmetics



Electronics



FEATURES & BENEFITS

- High recovery to minimize water losses (up to 90% Vs 75% on conventional systems)
- Frequency controlled variable speed pump to save up to 50% on electrical power
- Plug & play unit suitable for transportation into a container, allow for a short lead, installation and start-up times
- 12" color touchscreen panel to enhance user friendly operation
- High grade PLC (Siemens S7-1500) for enhanced reliability
- High Availability and Performance
- Easy access for operation and maintenance to enhance user friendly operation
- FAT tested in workshop including wet tests

HYDREX® CHEMICALS

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



APPLICATIONS

Demineralised water for cosmetics applications.



OPTIONS

- pH control with or without dosing set
- Hardness monitor
- Water saving: RO concentrate recovery
- CO₂ membrane degasser (sweep & combo mode)
- SS product outlet pipe
- PVC / SS Product valves (shipped-loose)
- Hubgrade enabled for premium servicing capability
- CFR21 part 11 HMI software for traceability
- Witnessed FAT
- Order Specific Template for DQ, IQ and OQ

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	1400	2100	3300	4400	6600	10000
Inlet Salinity TDS (NaCl)	mg/l	Up to 1 000 ppm as a base Up to 500 ppm for water saving option (RO concentrate recovery)					
Typical Design Flux	l/h/m ²	30 lmh on first pass and 40 lmh on second pass					
Permeate Nominal Flowrate	m ³ /h	1.40	2.10	3.30	4.40	6.60	10.00
Nominal Feed Flowrate	m ³ /h	1.87	2.80	4.40	5.86	8.79	13.32
Recovery	%	Global recovery: 75% - Up to 90% with water saving option					
Installed Power	kW	8	10	19	19	27	36

System Dimensions

Model	Unit	1400	2100	3300	4400	6600	10000
Total Installed Length	m	3.00	4.00	4.00	4.00	4.50	4.50
Total Installed Width	m	0.95	0.95	1.45	1.45	1.50	1.50
Total Installed Height	m	2.00	2.00	2.00	2.00	2.00	2.00
Empty Weight	kg	1050	1300	1700	1800	2300	2700
Operating Weight	kg	1400	1800	2400	2500	3500	4100

Pipes Connections

Model	Unit	1400	2100	3300	4400	6600	10000
Feed	DN	25	25	40	40	40	50
Treated water ⁽¹⁾	DN	20 1"	20 1"	25 1"	32 1"½	32 1"½	40 2"
Concentrate	DN	15	15	25	25	25	25

⁽¹⁾ PVC product outlet | Stainless Steel product outlet option

Environmental Conditions

Parameter	Unit	Value
Minimum ambient temperature	°C	5
Maximum ambient temperature	°C	30
Maximum humidity	%	90

Feed water Requirements

Surface water or well water

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 inlet Total Hardness	mg/l CaCO ₃	< 2
Max inlet Free Chlorine Cl ₂	mg/l	< 0.1

Typical Treated Water Quality

Parameter	Unit	Value
TDS	mg/l	2.5
Average Conductivity	µS/cm	5 @20°C
Bacteria	cfu/100 ml	10
TOC	ppb	500

Materials of Construction

Skid	Coated carbon steel
Low pressure Pipework	PVC as a base - Option for SS product outlet
High pressure Pipework	316 Stainless Steel

Power Requirements

Parameter	Unit	Value
Voltage	V	3 x 400 V
Frequency	Hz	50 / 60
Phases	-	3