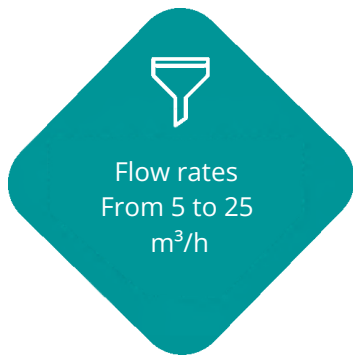


NURION™

Reverse Osmosis Systems for Ingredient Water

NURION™ reverse osmosis systems produce high purity ingredient water for the Food & Beverage Industry. Plug & play unit suitable for transportation into a container. FAT tested unit. Ready for CIP operation (CIP valves included).



✓ FEATURES & BENEFITS

- Low energy membranes result in lower operating pressures frequency controlled variable speed pump
- Permeate line design and equipment following EHEDG hygienic design principles 1 µm pre-filtration
- Programmable user interface; simple operation, monitoring and data storage
- Treated water diverted at start- up; ensures water quality
- All piping, fittings and valves on feed, reject and permeate line in stainless steel
- All non- metallic materials (pressure vessels, membranes, sealings/ gaskets) are in accordance to at least one drinking water or FDA/NSF/ACS regulations
- 12" touchscreen panel with TFT widescreen colour display
- PLC with Ethernet connection (Siemens)
- HUBGRADE™ ready

HYDREX™ CHEMICALS

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

💧 APPLICATIONS

Ingredient water for food production

+ OPTIONS

- PLC + HMI Allen Bradley
- Inlet pH and ORP measurements
- Control cabinet in SS
- Frame in SS
- Concentrate recirculation line
- Witnessed FAT (with wet tests)

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.

Subscription to HUBGRADE™ digital services (asset monitoring, benchmarking, improvement and management, digital training)





System Operating Parameters

| Model | Unit | 110x2 | 110x3 | 110x4 | 210x4 | 211x4 | 211x5 |
|---------------------------|--------------------|------------|-------|-------|-------|-------|-------|
| Inlet Salinity TDS (NaCl) | mg/l | Up to 1000 | | | | | |
| Typical Design Flux | l/h/m ² | 30.70 | 30.70 | 30.70 | 30.70 | 30.70 | 30.70 |
| Permeate Nominal Flowrate | m ³ /h | 5.00 | 7.50 | 10.00 | 15.00 | 20.00 | 25.00 |
| Nominal Feed Flowrate | m ³ /h | 6.30 | 9.40 | 12.50 | 18.80 | 25.00 | 31.30 |
| Recovery | % | 1 | 1 | 1 | 1 | 1 | 1 |
| Installed Power | kW | 8 | 11 | 15 | 15 | 22 | 37 |

System Dimensions

| Model | Unit | 110x2 | 110x3 | 110x4 | 210x4 | 211x4 | 211x5 |
|------------------------|------|-------|-------|-------|-------|-------|-------|
| Total Installed Length | m | 4.00 | 4.10 | 4.85 | 4.85 | 4.85 | 5.90 |
| Total Installed Width | m | 0.86 | 0.86 | 0.86 | 0.90 | 0.90 | 0.90 |
| Total Installed Height | m | 1.65 | 1.65 | 1.75 | 1.75 | 1.92 | 1.97 |
| Empty Weight | kg | 990 | 1120 | 1240 | 1375 | 1625 | 2195 |
| Operating Weight | kg | 1355 | 1555 | 1740 | 2070 | 2440 | 3205 |

Pipes Connections

| Model | Unit | 110x2 | 110x3 | 110x4 | 210x4 | 211x4 | 211x5 |
|------------------------|------|-------|-------|-------|-------|-------|-------|
| Feed | DN | 50 | 50 | 50 | 50 | 65 | 65 |
| Permeate | DN | 40 | 40 | 40 | 50 | 50 | 65 |
| Permeate diversion | DN | 40 | 40 | 40 | 50 | 50 | 50 |
| Concentrate | DN | 40 | 40 | 40 | 40 | 40 | 40 |
| CIP Inlet | DN | 50 | 50 | 50 | 50 | 50 | 50 |
| CIP concentrate outlet | DN | 40 | 40 | 40 | 50 | 50 | 50 |
| CIP permeate outlet | DN | 40 | 40 | 40 | 50 | 50 | 50 |

Materials of Construction

| | |
|------------------------|--|
| Skid | Epoxy coated carbon steel (SS as modified) |
| Control Cabinet | Epoxy coated carbon steel (SS as modified) |
| Low pressure Pipework | SS 316 |
| High pressure Pipework | SS 316 |

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 |
| Maximum Inlet Turbidity | NTU | 1 |
| Max inlet Manganese Mn ²⁺ | mg/l | < 0.05 |
| Max inlet Aluminium Al ³⁺ | mg/l | < 0.05 |

Environmental Conditions

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

Typical Treated Water Quality

| Parameter | Unit | Value |
|-------------------------|------|----------------|
| Typical Salt Rejection | % | 96 - 98 |
| Compressed Air Pressure | barg | 6 (max) |
| Permeate Pressure | barg | Inlet pressure |

Power Requirements

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