

BN100

High-Salinity Wastewater RO Membrane Element -BN Series

Product Presentation

The BN100 membrane element is specifically designed for high-salinity water sources with TDS levels ranging from 10 to 30 g/L. It utilizes innovative, highly cross-linked membrane technology to ensure the quality of water produced by RO systems in complex source water conditions. The 34-mil wide flow channel design reduces the pressure difference, enhances fouling resistance, and ensures long-term stable operation of the system. This product fills the gap between low-pressure and high-pressure membranes in terms of product and technology, providing a new solution for industrial high-salinity wastewater treatment and non-conventional water source utilization. It redefines RO membrane products specifically

Application

- © Designed for high-salinity water sources (TDS 10–30 g/L) and complex high-salinity wastewater systems.
- © RO concentrate recovery, high-salinity wastewater treatment, brine reduction, and more.

Product Performance

Model	Stable Rejection Rate(%)	Permeate Flow GPD(m ³ /d)	Active Membrane Area ft ² (m ²)	Feed Spacer Thickness mil
BN100	99.5	10000(37.9)	400(37.2)	34

- 1、Each membrane element may have ±20% variation of permeate flow.
- 2、Minimum salt rejection 99.3%

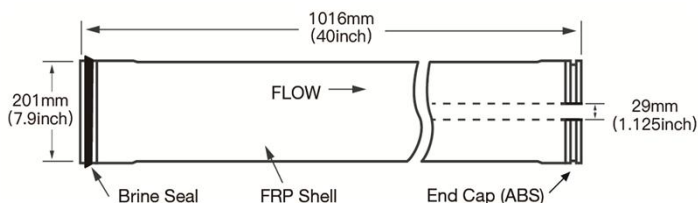
Operating Conditions & Limits

Maximum operating pressure psi(MPa)	600(4.14)
Maximum feedwater temperature °C	45
Maximum inlet flow rate m3/h	17
Maximum concentration of free chlorine mg/L	0.1
Maximum pressure drop per element psi(MPa)	15(0.1)
Allowed pH range for feedwater in operation	2-11
Allowed pH range for chemical cleaning	1-13
Maximum feedwater flow SDI15	5

Important information

- Before the membrane element leaves the factory, The dry membrane element has no preservation solution, The wet membrane element has 1.0% sodium bisulfite (in winter, add 10% of propylene glycol antifreeze) as the preservation solution for storage treatment and use vacuum packaging.
- Dry membrane elements should always be maintained wet after Soaking; when wet membrane elements are not used for a long time, preservation solution is needed to soak the elements.
- When the membrane element is used for the first time, it is recommended to flush it first for 15–25 minutes at low pressure (not suitable for soaking or soaking overnight), and then flush it for 60–90 minutes at high pressure (the water flow should not be less than 50% of the system design water flow).
- The permeate water and concentrated water within the first hour of the initial operation of the membrane element should all be discharged.
- The operating limits and operational guidelines given in this technical information are part of the limitations of the three-year warranty on the membrane element.
- The addition of any chemicals that may affect the membrane element during storage and operation is prohibited, and Vontron Technology will not be liable for any consequences arising from the use of such chemicals.
- Please refer to the Product Manual for details on installation, commissioning, storage, and transportation of membrane elements.

Dimensions and Packaging



Packing carton:(L·W·H)
1080×216×232mm

Connector material number:
3.02.09.0002



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