

▶ HSF RO Series

Heat Sanitizable Reverse Osmosis Membrane Elements Series

Product Performance and Features

Heat sanitizable reverse osmosis membrane element (HSF) is a product developed to meet the needs of sterilization and pasteurization in food and pharmaceutical industries. Its sanitary open-channel shell and accessories can eliminate the stagnant water area between the membrane element and the membrane shell. It is used in purified water systems that can be disinfected with hot water. The elements can withstand short-term hot water disinfection, so as to avoid the use of chemicals for sterilization and disinfection.

Product Parameters

Membrane element model	Stable salt rejection (%)	Minimum salt rejection (%)	Average permeate flow GPD (m ³ /d)	Effective membrane area ft ² (m ²)
4040 HSF	99.5	99.0	1900(7.2)	90(8.4)
8040 HSF	99.5	99.0	9000(34)	390(36.2)

Test conditions

Test pressure	150 psi(1.03 MPa)
Test solution temperature	25°C
Test solution concentration (NaCl)	2000mg/L
Test solution pH	7
Recovery rate of single membrane element	15%

Extreme conditions

Maximum operating pressure	600 psi (4.14 MPa)
Maximum operating temperature	45°C
Maximum feedwater temperature	85°C
Maximum feedwater SDI ₁₅	5
Feedwater free chlorine concentration	<0.1 mg/L
Allowed pH range for feedwater in operation.	2-11
Allowed pH range for feedwater during chemical cleaning	1-12
Maximum pressure drop of single membrane element	15 psi(0.1 MPa)

Tel: +86 21 34501290

Phone: +86 18221094035

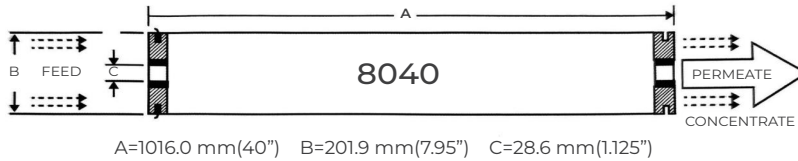
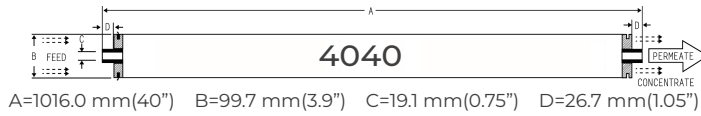
Web: www.shanghai-cm.com

Email: info@shchenmo.com

Add: No. 1188 Jianguye Road , Minhang District , Shanghai , China



Membrane element dimensions



Important information

1. The water production values listed in the table are average values, and the water production error of a single membrane element is within 20%.
2. The permeate produced in the first hour of initial use of the membrane element shall be drained and not used.
3. Dry membrane elements are shipped without preservation solution. Once wetted, the elements must be kept moist at all times.
4. Feed water pressure should be increased gradually over a period of 30–60 seconds; otherwise, irreversible damage to the membrane element may occur.
5. Back pressure on the permeate side must be avoided at all times.
6. Wet membrane elements are tested with water before shipment, preserved in a 1.5% sodium bisulfite solution (with 10% propylene glycol antifreeze added in winter), and then vacuum-packed.
7. For long-term system shutdowns, to prevent microbial growth, it is recommended that membrane elements be immersed in a 1.5% (by weight) food-grade sodium bisulfite preservation solution, which should be replaced regularly.

Tel: +86 21 34501290

Phone: +86 18221094035

Web: www.shanghai-cm.com

Email: info@shchenmo.com

Add: No. 1188 Jianguye Road , Minhang District , Shanghai , China