墨蓝环保
INK-BLUE

Xi'an Ink-blue Environmental Protection Technology Co., Ltd.

VNF Series NF Membrane

Data Sheet

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NF membrane elements are primarily used for the purification of drinking water and industrial process water, as well as wastewater treatment.

Model	Water Flow Rate (GPD)	Water Flow Rate (m^3/d)	Rejection (%)	Membrane Area (ft^2)	Membrane Area (m^2)
VNF1-8040	10000	37.9	≥98	400	37.2
VNF2-8040	10500	39.7	≥97	400	37.2
VNF1-4040	2000	7.5	≥98	90	8.4
VNF2-4040	2400	9.1	≥97	90	8.4
VNF1-2540	650	2.46	≥98	28	2.6
VNF2-2540	750	2.84	≥97	28	2.6

VNF1 vs. VNF2:

- **VNF1:** 97% SO_4 rejection rate and a 30-60% NaCl rejection rate, suitable for ion separation, softening, etc.
- **VNF2:** 97% SO_4 rejection rate and a 85-90% NaCl rejection rate, suitable for seawater desalination, pure water production, etc.

Test Conditions:

Operating Pressure 100 psi (0.69 MPa), 2000 mg/L $MgSO_4$ solution, Temperature 25 °C, pH 7.0 ± 0.5, Recovery Rate 15%

Operating Limits:

- Maximum Operating Pressure: 600 psi (4.14 MPa)
- Maximum Feed Flow: 8040-75 gpm (17 m^3/h) | 4040-16 gpm (3.6 m^3/h) | 2540-6 gpm (1.4 m^3/h)
- Maximum Feed Temperature: 45 °C
- Maximum Feed SDI_{15}: 5
- Feed Free Chlorine Concentration: <0.1 mg/L
- Max. Pressure Drop per Element: 15 psi (0.1 MPa)
- Chemical Cleaning pH Range: 2 - 12
- Operating Feed pH Range: 3 - 10

Precautions:

- Before leaving the factory, dry membrane elements are not treated with protective fluid. Wet membrane elements are stored with a protective fluid of 1.0% sodium bisulfite (10% glycerol antifreeze solution is added in winter) and are vacuum-packed.
- Dry membrane elements should always be kept moist after wetting; wet membrane elements should be soaked in protective fluid when not in use for an extended period.
- When using a membrane element for the first time, it is recommended to first flush it at low pressure for 15-25 minutes (soaking or soaking overnight is not recommended), followed by a high-pressure flush for 60-90 minutes (with a water yield of no less than 50% of the system's designed yield).
- All product water and reject water produced within the first hour of operation should be discharged.
- The operating limits and operating instructions provided in this technical data sheet are part of the three-year warranty terms and conditions of the membrane element.
- During storage and operation, it is prohibited to add any chemicals that may affect the membrane elements. If such chemicals are used, the company will not be responsible for any consequences arising therefrom.