

NANOFILTRATION MEMBRANES

– INDUSTRIAL-PURPOSE ELEMENT

Production Introduction



The industrial nanofiltration element is designed for removing from water various organics, microbes, viruses and most metallic ions with two or higher valence while retaining part of the sodium, potassium, calcium and magnesium ions, etc. Nanofiltration, free of chemical reaction, heating and transformation, can keep the biological activity undamaged and maintain the primary flavor or fragrance of substance unchanged, and is increasingly applied in production of drinking water and in separation and concentration/purification processes for foodstuff, medicine, biological engineering and pollution treatment, etc.

VNF1



Relatively low rejection rate of monovalent salt; Moderate rejection rate of divalent salt; High removal rate of TOC.

VNF2



Higher rejection rate; Satisfactory removal of insecticide, herbicide, TOC and transition metals

K series



With new design of wider feedwater channel, this element is designed for special-purpose separation, and has better pressure resistance and fouling resistance, and has higher selective separation performance to monovalent, divalent and multivalent ions.

Testing Conditions

Testing Pressure	100 psi (0.69Mpa)
Temperature of Testing Solution.....	25°C
Concentration of Solution (NaCl)	2000ppm
Concentration of Solution (MgSO ₄)	2000ppm
pH Value of Solution.....	7.5
Single Element Recovery.....	15%

VONTRON



Specifications and Major Properties

Model	Active Membrane Area ft ² (m ²)	Solution Type	Average Permeate GPD(m ³ /d)	Stable Rejection(%)
VNF1-8040	400 (37.2)	NaCl	12000 (45.5)	30 ~ 50
		MgSO ₄	10000 (37.9)	≥96
VNF2-8040	400 (37.2)	NaCl	10000 (37.9)	90 ~ 98
		MgSO ₄	10000 (37.9)	≥96
VNF-8040K	400 (37.2)	MgSO ₄	10000 (37.9)	≥98
VNF1-4040	80 (7.4)	NaCl	2400 (9.1)	30 ~ 50
		MgSO ₄	2000 (7.5)	≥96
VNF2-4040	80 (7.4)	NaCl	2000 (7.5)	90 ~ 98
		MgSO ₄	2000 (7.5)	≥96
VNF1-2540	28 (2.6)	NaCl	800 (3.03)	30 ~ 50
		MgSO ₄	650 (2.46)	≥96
VNF2-2540	28 (2.6)	NaCl	700 (2.65)	90 ~ 98
		MgSO ₄	700 (2.65)	≥96

Notes: 2) Minimum rejection to MgSO₄ of VNF1 is 94.0%