

UNISOL NFDL Nano-filtration Elements

Spiral Wound Element FG NFDL Series

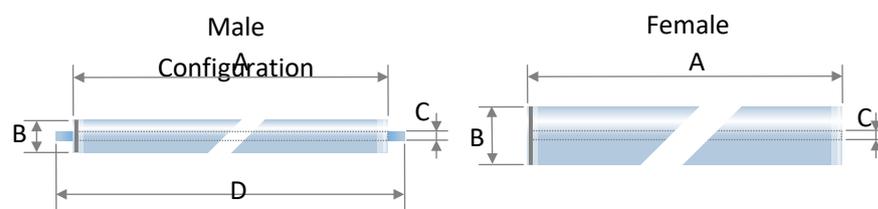
Description NFDL series membrane elements has high rejection of divalent while allowing the majority of monovalent ions to pass through the membrane. With MWCO in the range of 400 Daltons, it is a piperazine-based membrane used to demineralize, Seawater Pretreatment, Heavy Metals Removal and concentrate organic solutes.

Specification	Membrane	NFDL		
	Material	Polypiperazine		
	Out Wrap	FRP		
	Permeate Flow ^{(1) (2) (3)}	Spacer	34mil (M)	46mil (C)
	GPD (m ³ /d)	FG NFDL 2540	650 (2.5)	430 (1.6)
		FG NFDL 4040	2,400 (9.1)	1,800 (6.8)
		FG NFDL 8040	10,200 (38.6)	8,200 (31.0)
	MgSO ₄ Rejection ^{(1) (3) (4)}	≥ 96%		

Limits	Max Operating Pressure	40 bar (580psi)
	Max Pressure Drop	1 bar (14.5 psi) for individual element
	Max Operating Temperature	50 °C (122 °F)
	Cleaning pH Range	2 – 11
	Chlorine Concentration	< 0,1 ppm

Area ft ² (m ²)	Spacer thickness	FG NFDL 2540	FG NFDL 4040	FG NFDL 8040
	34 mil (M)	24 (2.2)	85 (7.9)	351 (32.6)
	46 mil (C)	19 (1.8)	68 (6.3)	269 (25)

Dimensions



Size mm(inch)	A ^[1]	∅B ^[2]	∅C ^[3]	D
2540-Male	965 (38)	62 (2.4)	19 (0.748)	1016 (40)
4040-Male	965 (38)	99.4 (3.9)	19 (0.748)	1016 (40)
4040-Female	1016 (40)	99.4 (3.9)	16 (0.629)	/
8040-Female	1016 (40)	200.5 (7.9)	28.8 (1.138)	/

^[1] Tolerance: ±0.5mm.

^[2] Tolerance: -2/0mm.

^[3] 2540/4040-M tolerance: 0~+0.1 mm. 4040-F tolerance: ±0.1mm. 8040 tolerance: -0.2~0 mm.

⁽¹⁾ Test condition: 2000ppm MgSO₄ solution, 110psi (7.6bar), 77 °F (25 °C), pH 6.5-7.0;

⁽²⁾ Permeate flow for individual elements may vary ± 20%

⁽³⁾ For the purpose of improvement, specifications may be updated periodically

⁽⁴⁾ Stabilized salt rejection is generally achieved within 24 – 48 hours of continuous use, depending upon feed water characteristics and operating conditions.