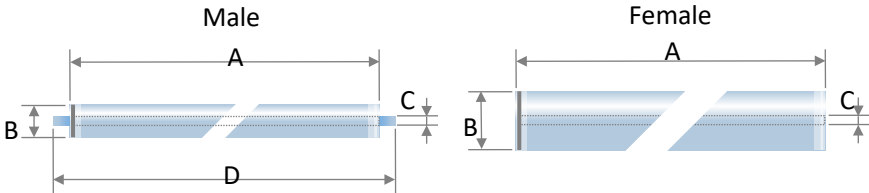


# UNISOL NFDK Nanofiltration Membrane Modules

## Spiral Wound Element FG NFDK Series

<b>Description</b>	NFDK series membrane elements allow most monovalent ions to pass through while having a high retention rate for divalent and higher ions, with a molecular weight cutoff of 200-300 Daltons, and are a type of polypiperazine amide membranes used for desalination, seawater pre-treatment, heavy metal removal, and concentration of organic solutes.					
<b>Specification</b>	Membrane	NFDK				
	Material	Polypiperazine amide				
	Outer wrap	TFC				
	Permeate Flow <sup>(1) (2) (3)</sup> (m <sup>3</sup> /d)	Size	34mil(A)	31mil(B)	46mil(C)	34mil(M)
		1812	0.23	0.24	0.19	0.23
		2540	/	2.1	1.3	/
		4040	7.2	7.2	5.3	/
		8040	28.5	30.7	24.6	32.5
	MgSO <sub>4</sub> retention rate <sup>(1) (3) (4)</sup>	≥98%				
<b>Limits</b>	Max Operating Pressure:	40bar				
	Max Pressure Drop:	1bar				
	Max Operating Temperature:	50°C				
	Cleaning pH Range:	2–11				
	Chlorine Concentration:	<0.1ppm				
<b>Area (m<sup>2</sup>)</b>	Original water grid	1812	2540	4040	8040	
	34mil parallel(A)	0.24	/	7.9	30	
	31mil rhombic(B)	0.25	2.2	7.9	32.6	
	46mil rhombic(C)	0.20	1.8	6.3	25	
	34mil rhombic(M)	0.24	/	/	33	
<b>Dimensions</b>						
	Size	A <sup>[1]</sup>	∅B <sup>[2]</sup>	∅C <sup>[3]</sup>	D	
	1812	305 (12)	46 (1.8)	16 (0.629)	/	
	2540-Male	965 (38)	62 (2.4)	19 (0.748)	1016 (40)	
	4040-Male	962 (37.9)	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)	28.9 (1.138)	/	
	<sup>[1]</sup> Tolerance: -2~0mm.					
	<sup>[2]</sup> Tolerance: -2~0mm.					
	<sup>[3]</sup> 2540/4040-M tolerance: 0~+0.1 mm. 1812/4040-F tolerance: ±0.1mm. 8040 tolerance: -0.2~0 mm.					

*(1) Test condition: 2000ppm MgSO<sub>4</sub>, 7.6bar, 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) Depending on the characteristics of the influent water and operating conditions, the retention rate can be stabilized after 24-48 hours of operation.*