

Nanofiltration (NF) Process Spiral Elements

Thin-film composite (TFC) membrane with high rejection rates and enhanced durability



Nanofiltration (NF) process spiral elements have been designed to separate monovalent ions from mixtures of monovalent and multivalent ions, while rejecting organics.

Membranes Available

Membrane Type	Material/MWC
ATF	TFC - 200
NFA	TFC - 500



Contact Information

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Benefits

- Proprietary thin film composite membrane with high salt rejection and superior performance
- Element construction developed for enhanced durability and extended life
- Elements designed to conform to FDA/CFR Title 21 standards
- Certified EU1935/2004EC & Plastics Regulation 10/2011
- Available in standard diameter or custom sized configurations for maximum performance and optimal cleaning
- Parker proprietary Crease Protector Technology (CPT)

Applications

- Blood plasma concentration
- Dye/color removal/concentration
- Water softening
- Mineral reduction
- Acid purification

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Materials of Construction

Membrane: Thin-film composite
 Support Material: Polyester
 Permeate tube: Polysulfone standard

- Special element construction available for high temperature/high pressure/non-standard pH ranges & validation requirements
- Stainless steel & other polymer permeate tube configurations available
- Polysulfone ATD & interconnectors provided

Operating Parameters

Maximum Operating Temperature* 145°F (63°C)
 Typical Inlet Pressure** 100-450 psi (6.9-30.6 bar)
 pH Range, continuous 3-10
 pH Range, short-term cleaning*** 2-11 @ 122°F (50°C)
 Maximum chlorine concentration Below detectable limits
 Hydrogen peroxide limits Not recommended

- * Temperature >40°C require reduced element differential
- ** Recommended cross flow rates and ΔP are dependent on various process parameters.
- *** Range for acids including Nitric at <60% - some acids to 1.8 pH consult your local Parker representative

Notes:

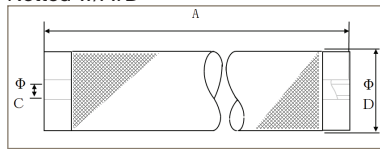
- Elements can be high temperature sanitized, consult a Parker technical representative for details
- Separate specifications are available including RO NF cleaning guidelines and water quality documents

Element Dimensions

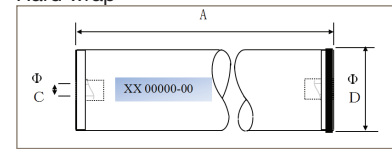
Model	Diameter (D)		Length (A)		Central Tube ID* (C)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)
4040	4.00	101.6	40.00	1016.0	**	**
8040	7.92	201.2	40.00	1016.0	1.125	28.6

*Other PWT IDs available upon request.
 **Consult your Parker representative for details.

Netted w/ATD



Hard wrap



Element Area

		Spacer																		
Model	Diamond									Parallel										
	K		P		B		O		L		A		M		Q		E		F	
	(20 mil) ft²	(.6 mm) m²	(28 mil) ft²	(.7 mm) m²	(31 mil) ft²	(0.8 mm) m²	(43 mil) ft²	(1.1 mm) m²	(65 mil) ft²	(1.7 mm) m²	(80 mil) ft²	(2.0 mm) m²	(100 mil) ft²	(2.5 mm) m²	(46 mil) ft²	(1.2 mm) m²	(65 mil) ft²	(1.7 mm) m²	(80 mil) ft²	(2.0 mm) m²
4040	91	8.5	84.7	7.9	79	7.3	63	5.9	44.5	4.1	35.9	3.3	31.2	2.9	61.1	5.7	44.5	4.1	35.9	3.3
8040	423	39.3	393	36.5	374	34.8	304	28.3	215	20.0	184	17.1	152	14.1	295	27.4	215	20.0	184	17.1

Ordering Information

Each element is identified with a product number and lot number for traceability.

□	□	□	□	□	□						
Membrane Type		Diameter		Length		Feeder Spacer		Control Number		Outer Wrap	
Code	Material?MWC	Code	Inches	Code	Inches	Code	Size	Consult a Parker representative for the specific code to regulate construction.		Code	Description
ATF	TFC - 200	40	4.0"	40	40"	Diamond				S	Std. full-fit (4in.)
NFA	TFC - 500	80	7.9"			K	20 mil	P	28 mil	ST	Reinforced full-fit
						B	31 mil	O	43 mil	QT	Extra reinforced full-fit
						L	65 mil	A	80 mil	H	Hard wrap
						A	80 mil	Parallel			
						M	100 mil	Q	46 mil		
								E	65 mil		
								F	80 mil		

WARNING: This product can expose you to chemicals including N,N-Dimethylformamide, which is known to the State of California to cause cancer, and may expose you to chemicals including DEHP or Titanium Dioxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

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