

# F-Series Ultrafiltration (UF) Process Spiral Elements

PVDF membrane with extended life and superior chemical resistance available from 30,000 to 100,000 MWCO



Designed for extended life in a wide range of industrial applications, F-Series ultrafiltration process spiral elements provide greater tolerance to oxidizing agents. The Polyvinylidene fluoride (PVDF) membrane provides excellent chemical and temperature resistance under a variety of process conditions.

F-Series membranes offer greater resistance to fouling by color substances.

## Membranes Available

Membrane Type	MWCO
FD	30,000
FE	40,000
FF	100,000



## Contact Information

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## Benefits

- Increased resistance to oxidizing agents
- 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 configurations for maximum performance and optimal cleaning

## Applications

- DE alternative
- Waste water recycle
- Oil water separation
- Gelatin concentration
- PVA recovery



ENGINEERING YOUR SUCCESS.

# F-Series Ultrafiltration (UF) Process Spiral Elements

## Materials of Construction:

Membrane	Polyvinylidene fluoride
Backing Material	Polyester
Permeate Tube	Polysulfone

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

## Operating Parameters:

Maximum operating temperature*	145°F (63°C)
Typical inlet pressure**	100-140 psi (7-10 bar)
pH range, continuous	3-10
pH range, short-term cleaning***	1.8 - 11.5 @ 122°F (50°C)
Maximum chlorine concentration	180 ppm @ 9-11 pH
Other oxidizing agents****	Consult factory

- \* Temperature >40°C require reduced element differential.
- \*\* Recommended cross flow rates and  $\Delta P$  are dependent on various process parameters.
- \*\*\* Consult factory for cleaning chemical guidelines, and cleaning water quality documents.
- \*\*\*\* Consult with a Parker technical representative for specific limitations.

## Notes:

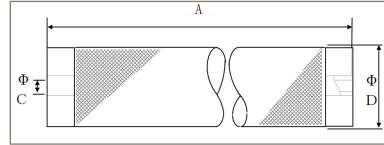
- Elements can be high temperature sanitized, consult a Parker technical representative for details
- Separate specifications are available including UF cleaning guidelines and water quality documents

## Element Dimensions

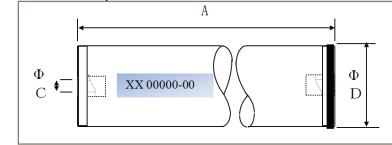
Model	Diameter (D)		Length (A)		Central Tube ID* (C)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)
4040	4.00	101.6	40.00	1016.0	0.625	15.9
8040	7.92	201.2	40.00	1016.0	1.125	28.6

\*Other PWT ID available upon request, consult your Parker representative for details

Netted w/ATD



Hard wrap



## Element Area

Model	Spacer																			
	Diamond									Parallel										
	K		P		B		O		L		A		M		Q		E		F	
	(24 mil) ft <sup>2</sup>	(.6 mm) m <sup>2</sup>	(28 mil) ft <sup>2</sup>	(.7 mm) m <sup>2</sup>	(31 mil) ft <sup>2</sup>	(0.8 mm) m <sup>2</sup>	(43 mil) ft <sup>2</sup>	(1.1 mm) m <sup>2</sup>	(65 mil) ft <sup>2</sup>	(1.7 mm) m <sup>2</sup>	(80 mil) ft <sup>2</sup>	(2.0 mm) m <sup>2</sup>	(100 mil) ft <sup>2</sup>	(2.5 mm) m <sup>2</sup>	(46 mil) ft <sup>2</sup>	(1.2 mm) m <sup>2</sup>	(65 mil) ft <sup>2</sup>	(1.7 mm) m <sup>2</sup>	(80 mil) ft <sup>2</sup>	(2.0 mm) m <sup>2</sup>
4040	73.6	6.8	68.5	6.4	71.7	6.7	57.4	5.3	41.6	3.9	35.9	3.3	30.1	2.8	57.4	5.3	41.6	3.9	35.9	3.3
8040	385	35.8	357.7	33.2	340.5	31.6	279.3	26.0	205.6	19.1	175.8	16.3	144.9	13.5	279.3	26.0	205.6	19.1	175.8	16.3

## Ordering Information

Each element is identified with a product number and lot number for traceability. **Example Order Configuration: FD 4040 - B - S**

□	□	□	-	□	-	□					
<b>Membrane Type</b>		<b>Nominal Diameter</b>		<b>Length</b>		<b>Feeder Spacer</b>		<b>Control Number</b>		<b>Outer Wrap</b>	
<b>Code</b>	<b>MWCO</b>	<b>Code</b>	<b>Inches</b>	<b>Code</b>	<b>Inches</b>	<b>Code</b>	<b>Size</b>	Consult a Parker representative for the specific code to match your application		<b>Code</b>	<b>Description</b>
FD	30,000	40	4.0	40	40	<b>Diamond</b>				S	Std. full-fit (4in.)
FE	40,000	80	7.9			K	24 mil	ST	Reinforced full-fit		
FF	100,000					P	28 mil	QT	Extra reinforced full-fit		
						B	31 mil	H	Hard wrap		
						O	43 mil				
						L	65 mil				
						A	80 mil				
						M	100 mil				
						<b>Parallel</b>					
						Q	46 mil				
						E	65 mil				
						F	80 mil				

**WARNING:** This product can expose you to chemicals including N-Methylpyrrolidone, which is known to the State of California to cause birth defects or other reproductive harm, 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](http://www.P65Warnings.ca.gov).

