# Nanofiltration (NF) Sanitary Spiral Elements

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



Nanofiltration (NF) sanitary 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**

Parker-Hannifin Corporation Bioscience Filtration 2340 Eastman Avenue Oxnard, California, USA 93030

toll free +1 877 784 2234 phone +1 805 604 3400 fax +1 805 604 3401 bioscience.na@parker.com

www.parker.com/sanitarymembranes

## **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 3-A, FDA/CFR Title 21 & USDA standards
- Certified EU1935/2004EC & Plastics Regulation 10/2011
- Halal & Kosher certified
- Available in standard & custom diameter configurations for maximum performance and optimal cleaning
- Parker proprietary Crease Protector Technology (CPT)

# **Applications**

- Salt whey concentration and demineralization
- Sweet/acid whey concentration and demineralization
- High solids concentration
- UF whey permeate concentration and demineralization
- Soy sauce concentration







## Nanofiltration (NF) Sanitary Spiral Elements

#### **Materials of Construction**

Membrane: Thin-film composite

Support Material: Polyester Permeate tube: Polysulfone

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

#### **Operating Parameters**

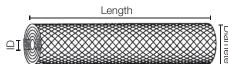
Maximum Operating Temperature\* 145°F (63°C)

Typical Inlet Pressure\*\* 100-450 psi (6.9-30.6 bar)

pH Range, continuous

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  $\Delta P$  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	Dian	neter*	Len (± 1/1	•	Central Tube ID			
	(in)	(mm)	(in)	(mm)	(in)	(mm)		
3838	3.78	96.0	38.00	965.2	0.83	21.1		
38387	3.78	96.0	38.75	984.3	0.83	21.1		
8038	7.92	201.2	38.00	965.2	1.125**	28.6		

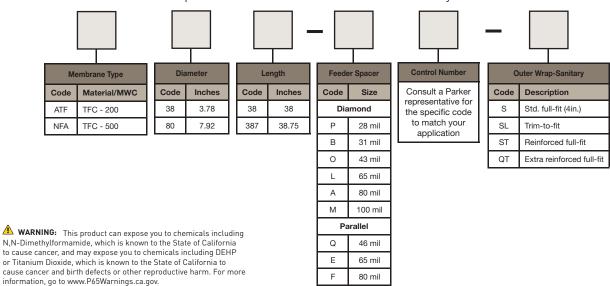
\* Elements will fit housings that are not less than 0.010" larger or not greater than 0.040" larger than published diameter \*\*1.138" PWT ID available upon request, consult your Parker representative for details

#### **Element Area**

Spacer																			
	Diamond												Parallel						
Model	Р		В		0		L		-	Α		М		Q		Е		F	
Wiodei	(28 mil)	(.7 mm)	(31 mil)	(0.8 mm)	(43 mil)	(1.1 mm)	(65 mil)	(1.7 mm)	(80 mil)	(2.0 mm)	(100 mil)	(2.5 mm)	(46 mil)	(1.2 mm)	(65 mil)	(1.7 mm)	(80 mil)	(2.0 mm)	
	ft²	m <sup>2</sup>	ft²	m²	ft²	m²	ft²	m <sup>2</sup>	ft²	m <sup>2</sup>	ft²	m²	ft²	m <sup>2</sup>	ft²	m²	ft²	m <sup>2</sup>	
3838	73.7	6.8	70.8	6.6	56.7	5.3	40.1	3.7	31.9	3.0	26	2.4	55	5.1	40.1	3.7	31.9	3.0	
38387	75.4	7.0	72.4	6.7	57.9	5.4	40.9	3.8	32.6	3.0	26.6	2.5	55.5	5.2	40.9	3.8	32.6	3.0	
8038	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.



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