

# Reverse Osmosis (RO) Sanitary Spiral Elements

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



Reverse Osmosis (RO) sanitary spiral elements are designed to provide extended life in a wide range of food processing and dairy applications. The high-rejection membranes are well-suited for processes requiring dewatering or product concentration.

## Membranes Available

Membrane Type	Material
RO2	Thin-film composite
RO3	
ROH	High pressure thin-film composite



## Contact Information

Parker-Hannifin Corporation  
**Bioscience Division - North America**  
 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](http://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 diameter or custom sized configurations for maximum performance and optimal cleaning
- Parker proprietary Crease Protector Technology (CPT)

## Applications

- RO permeate polisher
- Sweet/acid whey concentration
- UF permeate concentration
- Skim milk concentration
- Juice concentration
- Egg white concentration
- Blood plasma concentration



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## 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

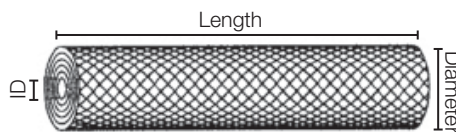
Maximum Operating Temperature\* 145°F (63°C)  
 Typical Inlet Pressure\*\* 150-550 psi (10.3-37.4 bar)  
 RO2/RO3 Maximum Inlet Pressure 850psi @ <30°C  
 ROH Maximum Inlet Pressure 1400psi @ <30°C  
 pH Range, continuous 3-10  
 pH Range, short-term cleaning\*\*\* 1.8-11 @ 122°F (50°C)  
 Maximum chlorine concentration Below detectable limits  
 Hydrogen peroxide limits\*\*\*\* 1000 ppm  
 Max. @ 77°F (25°C)

## Element Dimensions

Model	Diameter*		Length (± 1/16 in.)		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

- \* Temperature >40°C require reduced element differential & trans membrane pressure (TMP)
- \*\* Recommended cross flow rates or ΔP are dependent on various process parameters
- \*\*\* Use only membrane-specific tested & approved chemicals & water quality standards which meet published specification
- \*\*\*\* 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 RO NF cleaning guidelines and water quality documents

## Element Area

Model	Spacer																	
	Diamond								Parallel									
	P		B		O		L		A		M		Q		E		F	
	(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
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.

