

Reverse Osmosis

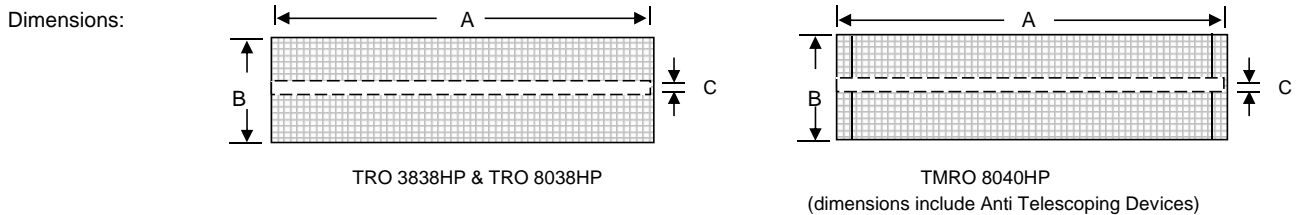
Sanitary High Rejection TRO & TMRO Elements

Model	Application	Description	Feed Spacer Thickness in. (mm)	Nominal Membrane Area ft ² (m ²)	Dimensions, in. (mm)			Max Pressure Drop per Element psi (bar)
					Length A	Element OD B	Perm Tube ID C	
TRO 3838HP	High Pressure and/or High Rejection RO	FDA Compliant	0.031 (0.79)	77 (7.1)	38 (965)	3.8 (97)	0.83 (21)	15 (1.0)
TRO 8038HP			0.031 (0.79)	390 (36)	38 (965)	7.9 (201)	1.125 (28.6)	15 (1.0)
TRO 8038HPN2			0.046 (1.17)	312 (29)	38 (965)	7.9 (201)	1.125 (28.6)	15 (1.0)
TMRO 8040HP			0.031 (0.79)	390 (36)	40 (1016)	7.9 (201)	1.125 (28.6)	15 (1.0)
TMRO 8040HPN2			0.046 (1.17)	312 (29)	40 (1016)	7.9 (201)	1.125 (28.6)	15 (1.0)

Product Type: Net-wrapped (no tail), Spiral Wound Element with Cross-Linked Fully Aromatic Polyamide Composite Membrane

Materials Specifications:	Feed Spacers and Element Outer-Wrap:	Polypropylene
	Permeate Tubes (plus ATDs & ICs for TMRO8040 models):	Polysulfone
	Permeate Carrier:	Proprietary
	Adhesives:	Proprietary

Operating Limits:	Maximum Operating Pressure, psi (bar):	800 (55.2)
	Maximum Operating Temperature, °F (°C):	150 (65)
	Maximum Cleaning Temperature, °F (°C):	122 (50)
	Acceptable pH Range (operating) :	2.5-10.5
	Acceptable pH Range (short-term cleaning) :	1.7-11.5
	Maximum Pressure Drop per Vessel, psi (bar):	60 (4.0)
	(Consult Toray for pressure limits when operating above ambient temperature)	
Maximum Oxidant Tolerance:		
	Free Chlorine	Not Detectable
	H ₂ O ₂ continuous (ppm)	20
	H ₂ O ₂ short-term cleaning (ppm) < 77 °F (25°C)	1000



Performance/ Test Conditions:	Membrane:	23 gfd at 99.8% rejection
	Feed Water Pressure, psi (bar):	800 (55.2)
	Feed Water Temperature, °F (°C):	77 (25)
	Feed Water Concentration, mg/l as NaCl:	32,000
	Recovery Rate, %:	8
	Feed Water pH:	8

Notice:

1. Elements are preserved in sodium meta-bisulfite. Appropriate personal protective equipment should be worn when handling.
2. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
3. All data may change without prior notice, due to technical modifications or production changes.