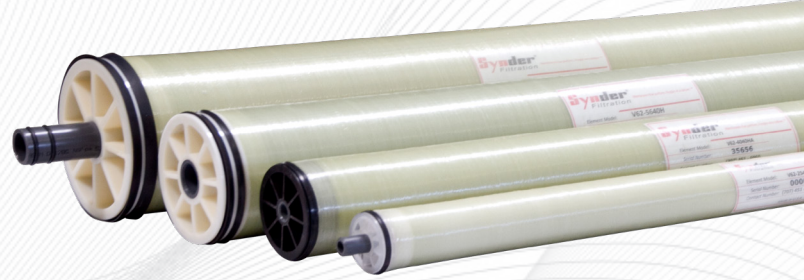


ROX

Industrial RO Membrane



Model	Polymer	Typical Operating Flux	Average NaCl Rejection ¹
ROX	Proprietary PA TFC	28-33 GFD	99.5%

¹ Test Conditions 1,500ppm NaCl Solution at 225PSI (15.5 Bar) operating pressure, 77° F (25° C)

RECOMMENDED OPERATING PARAMETERS

Pressure	PSI	Bar
Max. Operating Pressure if T<95°F (35°C)	600	41.4
Max. Operating Pressure if T>95°F (35°C)	435	30.0
Max. Pressure Drop per Element	15	1.0
Max. Pressure Drop per Housing	60	4.1

Temperature	Fahrenheit	Celsius
Max. Continuous Operation	122°	50°
Max. CIP Temperature	122°	50°

NOTE: Trials should be made to determine temperature and viscosity effects. Ribbed spacers are also available for high solids applications.

pH Parameters	pH
Operating Parameters	At Max Temp. - 2.0-10.0 At Ambient Temp. - 2.0-10.0
Cleaning Parameters	At Max Temp. - 1.8-11.0 At Ambient Temp. - 1.8-11.0

Chlorine	Norm. ppm	Max. ppm
Dechlorination recommended	0	< 0.1

WATER QUALITY GUIDELINES FOR CIP

Foulant	Requirement
Iron (Fe)	<0.05ppm
Manganese (Mn)	<0.02ppm
Silicate (SiO ₂)	<5ppm
Aluminum (Al)	<0.05ppm
Hardness	<85ppm as CaCO ₃
Particle Size	<10 micron
Turbidity	<1 NTU

RECOMMENDED ELEMENT CROSS FLOW RATE

Element		Feed Spacer (in mils)				
		24	31	46	65	80
1.8"	m ³ /hr	0.4	0.5	0.6	0.6	0.6
	gpm	1.8	2.0	2.4	2.5	2.6
2.5"	m ³ /hr	1.2	1.4	1.6	1.8	2.1
	gpm	5	6	7	8	9
4.0"	m ³ /hr	2	4	5	5	6
	gpm	10	18	21	23	24
8.0"	m ³ /hr	10	11	13	14	15
	gpm	43	48	55	61	64

The recommended cross flow rate will be subject to differential pressure limitations and specific applications.

RO MEMBRANE AREA (SQ. FT.)

Element		Feed Spacer (in mils)				
		24	31	46	65	80
1812TM	4.0	3.4	2.6	2.0	1.6	
2540HF	35	30	23	17	15	
2540HM	33	28	21	16	14	
4040HM	99	87	68	51	43	
4040HF	96	82	64	50	42	
8040HF	440	380	293	227	193	

The quality of water used for flushing and cleaning Synder Filtration membranes is of utmost importance in order to avoid unwanted deposits on the membrane.

Special attention should be paid to possible foulants such as iron, manganese, silicates, and chlorine.

Clean water must meet the following specifications at all times.

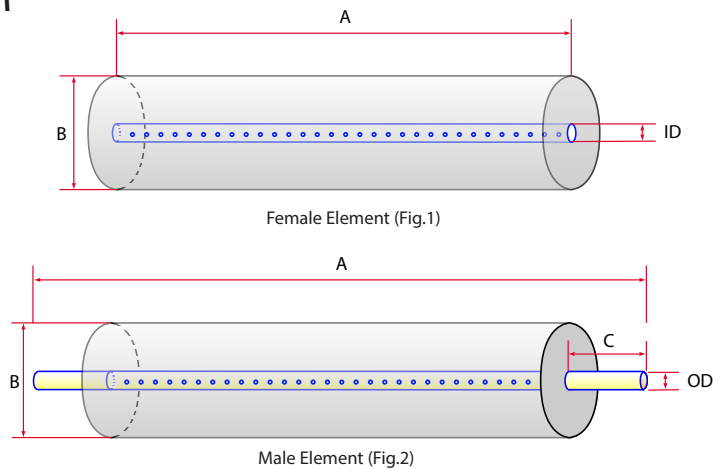
DIMENSIONS & WEIGHT

Element	Model Number	Diameter (B) in (cm)	Length (A) in (cm)	PWT ID/OD in (cm)	Tube Extension (C) in (cm)	Dry Weight lb (kg)
1.8"	1812TM	1.8" (4.6)	11.75" (29.8)	0.675" (1.71)	0.75" (1.90)	1.0 (0.5)
2.5"	2519HF	2.4" (6.1)	19.0" (48.3)	0.625" (1.59)	-	3.0 (1.4)
	2540TM	2.4" (6.1)	40.0" (101.6)	0.75" (1.90)	1.0" (2.54)	6.0 (2.7)
	2540HF	2.4" (6.1)	40.0" (101.6)	0.625" (1.59)	-	6.0 (2.7)
	2540HM	2.4" (6.1)	40.0" (101.6)	0.75" (1.90)	1.0" (2.54)	6.0 (2.7)
4.0"	4040TM	3.9" (9.9)	40.0" (101.6)	0.75" (1.90)	-	12.0 (5.5)
	4040HM	3.9" (9.9)	40.0" (101.6)	0.75" (1.90)	1.0" (2.54)	12.0 (5.5)
	4040HF	3.9" (9.9)	40.0" (101.6)	0.625" (1.59)	-	12.0 (5.5)
8.0"	8040HF	7.9" (20.1)	40.0" (101.6)	1.125" (2.86)	-	35.0 (15.9)

ROX - 2 - 4040HM

Membrane Model	
Spacer Size	Model No.
24 mil Diamond	1
31 mil Diamond	2
46 mil Diamond	3
46 mil Ribbed	3P
65 mil Diamond	4
80 mil Diamond	5
80 mil Ribbed	5P

Industrial Designations	
T = Tape Wrapped	M = Male
HM = Male FRP Outer Shell	F = Female
HF = Female FRP Outer Shell	FRP = Fiberglass Hardshell Wrap



TECHNICAL NOTES

For element sizes not listed, please call or email Synder Filtration for details. We can design an element to fit your exact needs - just specify the element outer diameter (OD) or vessel/housing inner diameter (ID), element inner diameter (ID), and length. Elements are available with or without a controlled bypass tail. Additional feed spacers are also available.

Trials should be conducted to determine optimal application conditions.

Refer to installation, cleaning, and storage procedures for more details.

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All inquiries will be responded to by a Synder employee personally within 24 hours.