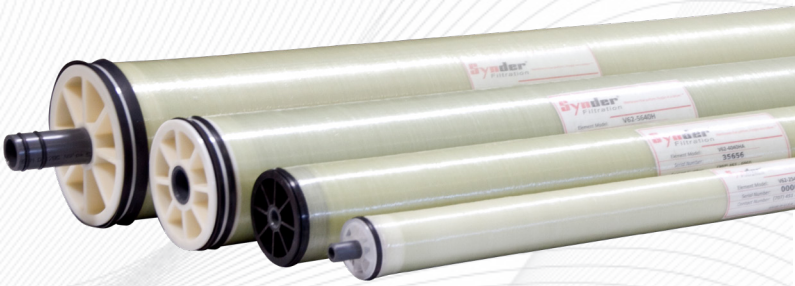
Synder® Filtration **Membranes that Perform.** People who Deliver.

MADE IN THE USA

Synder® Filtration ISO 9001 CERTIFIED

NFX (TFC 150-300Da)

Industrial NF Membrane



Model	Polymer	Approx. Molecular Weight Cutoff	Typical Operating Flux	Average $MgSO_4$ Rejection[2]	Average NaCl Rejection[2]	Average Lactose Rejection[3]
NFX	Proprietary PA TFC	150-300Da	20-25 GFD	99.0%	40.0%	99.0%

[1]Test Conditions 2,000ppm $MgSO_4$ Solution at 110PSI (7.6 Bar) operating pressure, 77° F (25° C)
[2]Test Conditions 2,000ppm NaCl Solution at 110PSI (7.6 Bar) operating pressure, 77° F (25° C)
[3]Test Conditions 2% Lactose Solution at 110PSI (7.6 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	104°	40°

pH Parameters	pH
Operating Parameters	At Max Temp. - 3-9.5
	At Ambient Temp. - 3-10.5
Cleaning Parameters	At Max Temp. - 2-11
	At Ambient Temp. - 2-11

Maximum Pressure Drop

Per Element: 15 PSI (1.0 Bar)

Chlorine

500ppm hours, dechlorination recommended

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

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.

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

DIMENSIONS & WEIGHT

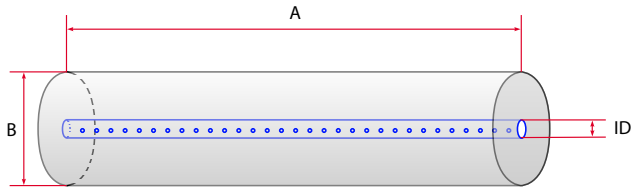
Element	Model Number	Diameter (B) in (cm)	Length (A) in (cm)	PWT ID/OD in (cm)	Tube Extension (C) in (cm)	Dry Weight lb (kg)
1.8"	1812TM	1.8" (4.6)	11.75" (29.8)	0.675" (1.71)	0.75" (1.90)	1.0 (0.5)
2.5"	2519HF	2.4" (6.1)	19.0" (48.3)	0.625" (1.59)	-	3.0 (1.4)
	2540TM	2.4" (6.1)	40.0" (101.6)	0.75" (1.90)	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)

NFX - 2 - 4040HM

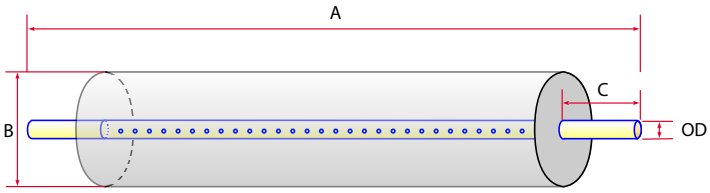
Membrane Model

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



Female Element (Fig.1)



Male Element (Fig.2)

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.

CONTACT US

4941 Allison Parkway
Vacaville, CA 95688
Phone: +1-707-451-6060
Fax: +1-707-451-6064
Email: sales@synderfiltration.com | support@synderfiltration.com
www.synderfiltration.com

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