

# FR (PVDF 800,000Da)

## Industrial MF Membrane

### RECOMMENDED OPERATING PARAMETERS

Pressure	PSI	Bar
Max. Inlet Pressure	116	8.0
Min. Outlet Pressure	10	0.7
Max. Pressure Drop per Element	18	1.2
Max. Permeate Backpressure	5	0.3

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

pH Parameters	pH
pH Range during Operation at 25°C Max.	1-11
pH Range during CIP at 50°C Max.	2-11

Chlorine	Norm. ppm	Max. ppm
Free Chlorine in DF Water or Product	0	<0.1
Chlorine during CIP at pH 10.8-11.0 and 50°C	150	180

Peroxide	Max. ppm
Free Peroxide in Product during Operation	<3 ppm
Peroxide as a sanitizer at 25°C Max, pH 6-7, 10 minutes recirculation	0.1%

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

### CONTACT US

4941 Allison Parkway  
Vacaville, CA 95688  
Phone: +1-707-451-6060  
Fax: +1-707-451-6064  
Email: [sales@synderfiltration.com](mailto:sales@synderfiltration.com) | [support@synderfiltration.com](mailto:support@synderfiltration.com)  
[www.synderfiltration.com](http://www.synderfiltration.com)

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

### STANDARD SERIES BENEFITS

- Wide range of MWCO's available
- Good pH and temperature resistance
- High resistance to fouling
- Customizable dimensions for unique housings

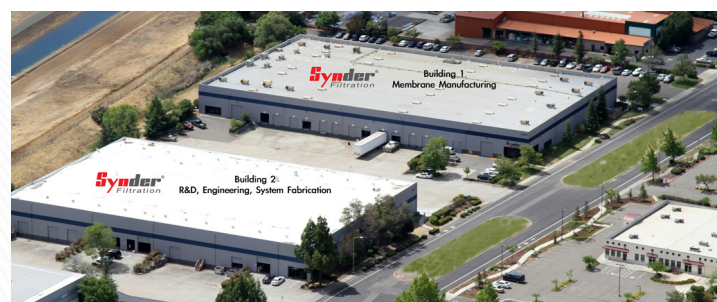
### RECOMMENDED ELEMENT CROSS FLOW RATE

		Feed Spacer (in mils)				
Element		24	31	46	65	80
1.8"	m <sup>3</sup> /hr	0.7	0.8	0.9	1.0	1.1
	gpm	3	3	4	4	5
2.5"	m <sup>3</sup> /hr	1.3	1.5	1.8	2.0	2.1
	gpm	6	7	8	9	9
4.0"	m <sup>3</sup> /hr	3	4	5	5	5
	gpm	15	17	20	23	24
8.0"	m <sup>3</sup> /hr	15	17	20	23	24
	gpm	66	75	89	99	105

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

### MEMBRANE AREA (SQ. FT.)

		Feed Spacer (in mils)				
Element		24	31	46	65	80
1812TM		3.1	2.7	2.1	1.6	1.3
2540HF		28	24	20	16	13
2540HM		30	26	22	17	14
4040HM		81	72	58	46	39
4040HF		86	75	61	49	41
7940HF		379	335	268	210	178
8040HF		379	335	268	210	178



## 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" (perm) 1.00" (plug)	1.0 (0.5)
2.5"	2540TM	2.4" (6.1)	40.0" (101.6)	0.75" (1.90)	1.00" (2.54)	4.0 (1.8)
	2540HF	2.4" (6.1)	40.0" (101.6)	0.625" (1.59)	-	4.0 (1.8)
	2540HM	2.4" (6.1)	40.0" (101.6)	0.75" (1.90)	1.0" (2.54)	4.0 (1.8)
4.0"	4040TM	3.9" (9.9)	40.0" (101.6)	0.75" (1.90)	1.0" (2.54)	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"	7940HF	7.9" (20.1)	40.0" (101.6)	1.138" (2.89)	-	35.0 (15.9)
	8040HF	7.9" (20.1)	40.0" (101.6)	1.125" (2.89)	-	35.0 (15.9)

**FR - 2 - 4040HM**

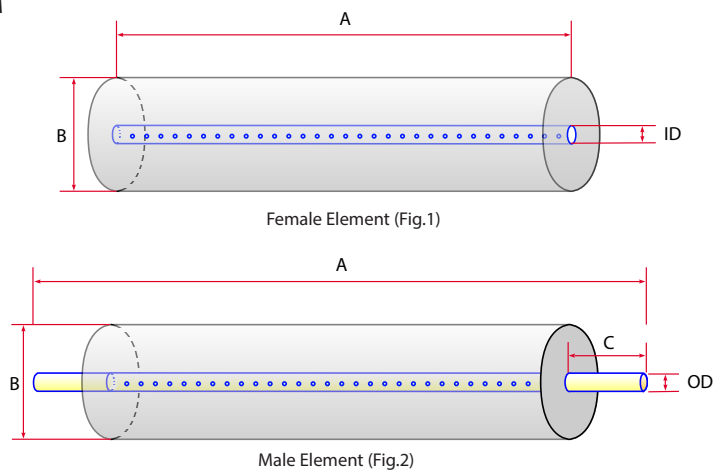
Membrane Model	
24 mil Diamond	1
31 mil Diamond	2
46 mil Diamond	3
46 mil Ribbed	3P
65 mil Diamond	4
80 mil Diamond	5
80 mil Ribbed	5P

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.