Synder® Filtration

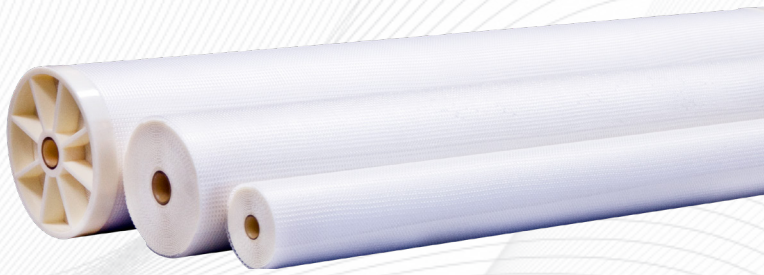
Membranes that Perform.
People who Deliver.

MADE IN THE USA

Synder® Filtration ISO 9001 CERTIFIED 111736.00

NFW (TFC 300-500Da)

Sanitary NF Membrane



Model	Polymer	Approx. Molecular Weight Cutoff	Typical Operating Flux	Average Lactose Rejection[1]	Average $MgSO_4$ Rejection[2]	Average NaCl Rejection[3]
NFW	Proprietary PA TFC	300-500Da	45-50 GFD	98.5%	97.0%	20.0%

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

SANITARY ELEMENT OPERATING SPECIFICATIONS

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. - 4-9
	At Ambient Temp. - 4-10
Cleaning Parameters	At Max Temp. - 3-10
	At Ambient Temp. - 3-10.5

Chlorine
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	0.7	0.7	0.7	0.9	0.9
	gpm	3	3	3	4	4
2.5″	m^3/hr	1.4	1.4	1.6	1.6	1.8
	gpm	6	6	7	7	8
3.8″	m^3/hr	6	7	8	8	9
	gpm	26	29	33	36	38
8″	m^3/hr	16	18	21	23	24
	gpm	68	76	89	98	103

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

NF MEMBRANE AREA (SQ FT)

Element	Feed Spacer (in mils) 24	31	46	65	80
1812F	4.7	4.0	3.0	2.0	1.9
2540F	38	30	22	19	15
2540M	36	28	20	18	14
3838	100	87	68	52	43
3838.75	104	89	69	53	44
8038	450	400	300	240	200
8040	450	400	300	240	200

DAIRY PRODUCTS TOTAL SOLIDS LIMITS

Dairy Product Total Solids Limits	Spacer			
Products	31	46	65	80
Sweet Whey Max. T.S.	15	25	28	30
Acid Whey Max. T.S.	15	24	26	28
Skim Milk Max. T.S.	14	24	26	28
Whole Milk Max. T.S.	15	30	33	35

USP CLASS VI

HALAL®

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"	1812F	1.8 (4.6)	12 (30.5)	0.625 (1.59)	-	1.0 (0.5)
2.5"	2540F	2.4 (6.1)	40.0 (101.6)	0.625 (1.59)	-	4.0 (1.8)
	2540M	2.4 (6.1)	40.0 (101.6)	-	1 (2.54) (Both Ends)	4.0 (1.8)
3.8"	3838	3.8 (9.65)	38.0 (96.52)	0.831 (2.11)	-	9.0 (4.1)
	3838.75	3.8 (9.65)	38.75 (98.43)	0.831 (2.11)	-	9.0 (4.1)
8"	8038	7.9 (20.06)	38.0 (96.52)	1.125 (2.86)	-	29 (13.2)
	8040	7.9 (20.06)	40.0 (101.6	1.125 (2.86)	-	29 (13.2)

Membrane Model

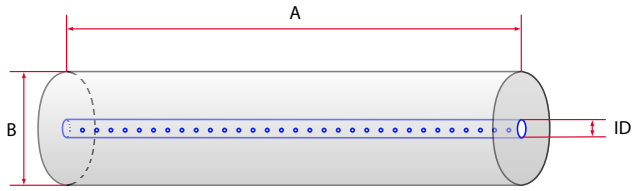
NFW - 2B - 3838

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

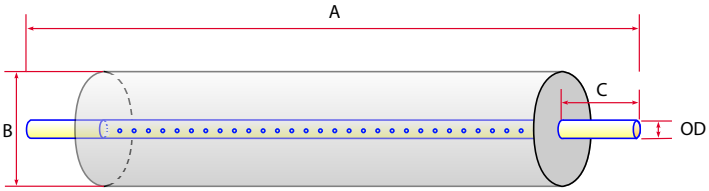
Outerwrap

A = Control Bypass with Tail

B = Control Bypass without Tail



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.

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