





NFS (TFC 100-250Da)

Sanitary NF Membrane



Model	Polymer	Approx. Molecular Weight Cutoff	Typical Operating Flux	Average Lactose Rejection ¹	Average MgSO ₄ Rejection ²	Average NaCl Rejection³
NFS	Proprietary PA TFC	100-250Da	30-40 GFD	99.5%	99.5%	50.0%

¹Test Conditions 2% Lactose 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	рН
Operating	At Max Temp 3-9.5
Parameters	At Ambient Temp 3-10.5
Cleaning	At Max Temp 2-11
Parameters	At Ambient Temp 2-11

Chlorine

Dechlorination recommended

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

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

RECOMMENDED ELEMENT CROSS FLOW RATE

Feed S	pacer (in r	nils)
1 660 3			

			recu	Spacer (III	111113)	
Element		24	31	46	65	80
1.8"	m³/hr	0.7	0.7	0.7	0.9	0.9
1.0	gpm	3	3	3	4	4
2.5"	m³/hr	1.4	1.4	1.6	1.6	1.8
2.3	gpm	6	6	7	7	8
3.8"	m³/hr	6	7	8	8	9
3.0	gpm	26	29	33	36	38
8"	m³/hr	16	18	21	23	24
6	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)

Feed	Spacer	(in	mils	١
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	Element	24	31	46	65	80
ı	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





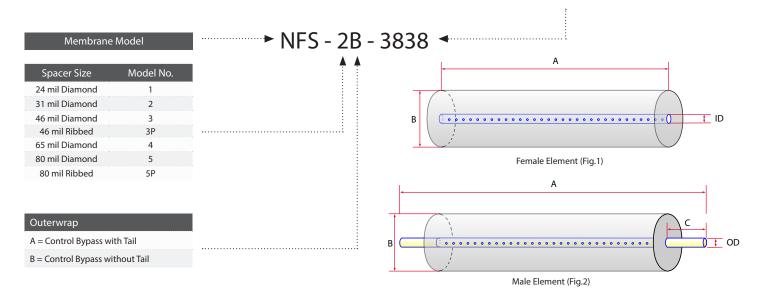


²Test Conditions 2,000ppm MgSO₄ Solution at 110PSI (7.6 Bar) operating pressure, 77° F (25° C)

³Test Conditions 2,000ppm NaCl Solution at 110PSI (7.6 Bar) operating pressure, 77° F (25° C)

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 Ib (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)



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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 ${\it All inquiries will be responded to by a Synder employee personally within 24 hours.}$