



NFG (TFC 600-800Da)

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 | | |
|--|--------------------|------------------------------------|---------------------------|---|---|--|--|--|
| NFG | Proprietary PA TFC | 600-800Da | 55-60 GFD | 60.0% | 50.0% | 10.0% | | |
| ¹ Test Conditions 2% Lactose Solution at 110PSI (7.6 Bar) operating pressure, 77° F (25° C) | | | | | | | | |

¹Test Conditions 2% Lactose Solution at 110PSI (7.6 Bar) operating pressure, 77° F (25° C) 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)

SANITARY ELEMENT OPERATING SPECIFICATIONS

| Pressure | PSI | Bar | | |
|---|----------------------|---------|--|--|
| Max. Operating Pressure if T<95°F (35°C | C) 600 | 41.4 | | |
| Max. Operating Pressure if T>95°F (35°C | 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 4-9 | | | |
| Parameters | At Ambient Temp 4-1 | 0 | | |
| Cleaning | At Max Temp 3-10 | | | |
| Parameters | At Ambient Temp 3-10 |).5 | | |
| Chlorine | | | | |

RECOMMENDED ELEMENT CROSS FLOW RATE

| | | | Feed | Spacer (in | mils) | |
|---------|-------|-----|------|------------|-------|-----|
| Element | | 24 | 31 | 46 | 65 | 80 |
| 1.8″ | m³/hr | 0.7 | 0.7 | 0.7 | 0.9 | 0.9 |
| | gpm | 3 | 3 | 3 | 4 | 4 |
| 2.5″ | m³/hr | 1.4 | 1.4 | 1.6 | 1.6 | 1.8 |
| | gpm | 6 | 6 | 7 | 7 | 8 |
| 3.8″ | m³/hr | 6 | 7 | 8 | 8 | 9 |
| | gpm | 26 | 29 | 33 | 36 | 38 |
| 8″ | m³/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)

| | Feed Spacer (in mils) | | | | | |
|---------|-----------------------|-----|-----|-----|-----|--|
| Element | 24 | 31 | 46 | 65 | 80 | |
| 1812F | 4.8 | 5.0 | 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

Dechlorination recommended

are also available for high solids applications.

| Spacer | | | |
|--------|-------------|---------------------------|---|
| 1 | 46 | 65 | 80 |
| 5 | 25 | 28 | 30 |
| 5 | 24 | 26 | 28 |
| 4 | 24 | 26 | 28 |
| 5 | 30 | 33 | 35 |
| | 5 5 4 | 1 46 5 25 5 24 4 24 | 1 46 65 5 25 28 5 24 26 4 24 26 |

NOTE: Trials should be made to determine temperature and viscosity effects. Ribbed spacers



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) |
| | | | | | | |
| Membrane M | Nodel | ► NFG - | - 2B - 3838 | 4 | | |
| Spacer Size | Model No. | | | | Α | |

| Spac | er Size | model No. | |
|----------|---------|-----------|--|
| 24 mil l | Diamond | 1 | |
| 31 mil l | Diamond | 2 | |
| 46 mil l | Diamond | 3 | |
| 46 mil | Ribbed | 3P | |
| 65 mil l | Diamond | 4 | |
| 80 mil l | Diamond | 5 | |
| 80 mil | Ribbed | 5P | |
| | | | |



Outerwrap

A = Control Bypass with Tail

B = Control Bypass without Tail

Male Element (Fig.2)

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OD

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.

В

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Trials should be conducted to determine optimal application conditions.

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



CONTACT US

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