

DairyUF™ 5K Series

High Performance Dairy Process Membranes

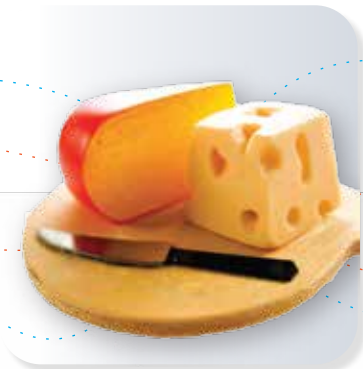
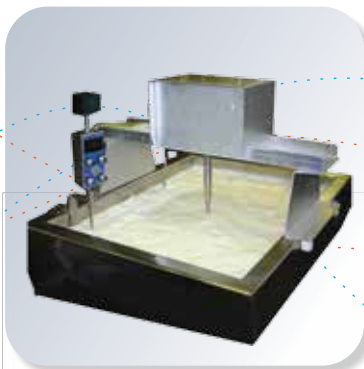
USDA-Accepted High-Flux, 5,000 Dalton, Polyethersulfone Ultrafiltration Crossflow Membrane Elements in “Full-Fit”, Net-Wrapped Configuration for Use in Dairy, BioPharm, Beverage and Other Applications

Hydranautics - A Nitto Group Company has extensive experience in membrane innovation, design, and manufacturing is at the core of every DairyUF™ 5K membrane element. DairyUF™ 5K elements deliver exceptional performance and value, being manufactured with highly controlled, ISO 9001-compliant processes which ensure the highest quality, as well as most consistent and reliable performance available. Hydranautics PES membranes are always constructed with polypropylene backing for maximum chemical-resistance and longevity in service.

Hydranautics has set a new industry-standard for the rolling of full-fit membrane modules: Hand-rolling of elements has been eliminated by the use of proprietary, robot-based automatic rolling machines, specifically designed by Hydranautics for fabricating membrane modules of the highest quality. The result is a higher level of filtration and separations performance for our customers.

Applications:

- 80-90% sweet/acid whey concentration before evaporation and spray-drying
- Last stage concentrations of whey protein isolates
- Protein Concentrations



Key Features:

- All elements are automatically rolled on a proprietary robotized machine
- Elements meet FDA regulations CFR Title 21 and 3A Sanitary Standards for Crossflow Membrane Modules, Number 45-01, Section C
- USDA-accepted – sizes 3838, 3840, 4336, 6338 8038 and 8040
- 100% testing of membrane rolls with 500 ppm Na₂SO₄ for flux and rejection compliance
- 100% vacuum-hold testing for element construction integrity

Benefits from Auto-Rolling:

- Superior glue-line adhesion and strength
- Tighter rolling and caging
- Greater flow rates due to maximum effective membrane area
- Greater structural reliability



Type:

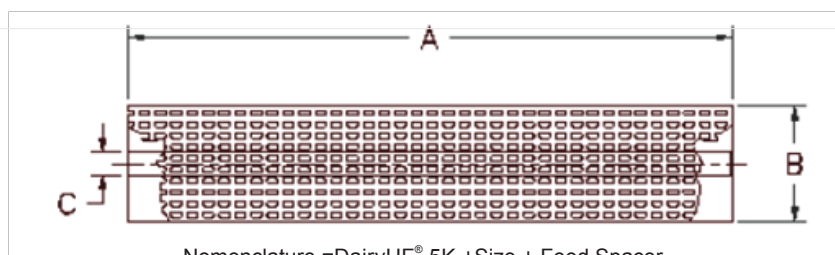
Configuration Sanitary (Full-Fit) Spiral Wound
Membrane Polymer Polyethersulfone on Polypropylene Backing

Application Data:

Maximum Applied Pressure, psig (bar) 150 (10)
Maximum Chlorine Concentration, PPM at pH>10 200
Maximum Operating Temperature, °F (°C) 131°F (55°C)
Operating pH Range 2.0 - 10.0
Cleaning pH Range 2.0 - 13.0
Maximum Pressure Drop for a Vessel, psi 60 (4 bar)

Product and Guidelines:

| Model | Feed Spacer inches (cm) | Area ft ² (m ²) | Dimensions, inches (cm) | | | Max. Feed Flow, GPM (m ³ /hr) | Max. Pressure Drop per Element, psi (bar) |
|--------------------|-------------------------|--|-------------------------|-------------|--------------|--|---|
| | | | A | B | C | | |
| DairyUF 5K 3838-30 | 0.030 (0.076) | 80 (7.4) | 38.0 (96.5) | 3.78 (9.6) | 0.83 (2.11) | 30 (6.8) | 15 (1.0) |
| DairyUF 5K 3838-46 | 0.046 (0.117) | 60 (5.6) | 38.0 (96.5) | 3.78 (9.6) | 0.83 (2.11) | 30 (6.8) | 15 (1.0) |
| DairyUF 5K 4336-30 | 0.030 (0.076) | 90 (8.4) | 35.5 (90.2) | 4.28 (10.9) | 0.83 (2.11) | 35 (7.9) | 15 (1.0) |
| DairyUF 5K 4336-46 | 0.046 (0.117) | 70 (6.5) | 35.5 (90.2) | 4.28 (10.9) | 0.83 (2.11) | 35 (7.9) | 15 (1.0) |
| DairyUF 5K 4336-65 | 0.065 (0.165) | 55 (5.1) | 35.5 (90.2) | 4.28 (10.9) | 0.83 (2.11) | 35 (7.9) | 15 (1.0) |
| DairyUF 5K 4338-30 | 0.030 (0.076) | 95 (8.8) | 38.0 (96.5) | 4.28 (10.9) | 0.83 (2.11) | 35 (7.9) | 15 (1.0) |
| DairyUF 5K 4338-46 | 0.046 (0.117) | 75 (6.9) | 38.0 (96.5) | 4.28 (10.9) | 0.83 (2.11) | 35 (7.9) | 15 (1.0) |
| DairyUF 5K 6338-30 | 0.030 (0.076) | 200 (19) | 38.0 (96.5) | 6.28 (16.0) | 1.138 (2.89) | 70 (15.8) | 15 (1.0) |
| DairyUF 5K 6338-46 | 0.046 (0.117) | 150 (14) | 38.0 (96.5) | 6.28 (16.0) | 1.138 (2.89) | 70 (15.8) | 15 (1.0) |
| DairyUF 5K 6338-65 | 0.065 (0.165) | 120 (11) | 38.0 (96.5) | 6.28 (16.0) | 1.138 (2.89) | 70 (15.8) | 15 (1.0) |
| DairyUF 5K 8038-30 | 0.030 (0.076) | 360 (33) | 38.0 (96.5) | 7.90 (20.1) | 1.125 (2.86) | 80 (18.2) | 13 (0.9) |
| DairyUF 5K 8038-46 | 0.046 (0.117) | 280 (26) | 38.0 (96.5) | 7.90 (20.1) | 1.125 (2.86) | 80 (18.2) | 13 (0.9) |
| DairyUF 5K 8038-65 | 0.065 (0.165) | 215 (20) | 38.0 (96.5) | 7.90 (20.1) | 1.125 (2.86) | 80 (18.2) | 13 (0.9) |
| DairyUF 5K 8040-30 | 0.030 (0.076) | 360 (33) | 40.0 (102.0) | 7.90 (20.1) | 1.125 (2.86) | 80 (18.2) | 13 (0.9) |



Solutions You Need. Technologies You Trust!

Hydranautics Corporate Office:

401 Jones Road, Oceanside, CA 92058, USA . Toll Free: 1-800-CPA-PURE Phone: +760-901-2500 Fax: +760-901-2578

Email: info@hydranautics.com Website: www.membranes.com

Americas
Hydranautics

401 Jones Road
Oceanside, CA
92058, USA
Tel: +760 -901 -2500
Tel: 1-800-CPA-PURE
Fax: +760-901-2578

Europe/Africa
Hydranautics

Wilhelmina Singel
116, NL 6221 BL
Maastricht,
The Netherlands
Tel: +31 -(0) 43 -350 -3470
Fax: +31 -(0) 43 -350 -3489

Middle East
Hydranautics

Office no 31
Bldg no . S10122 (A2)
South Zone,
Jebel Ali Free Zone
P.O.Box: 112839 Dubai
United Arab Emirates
Tel: +971 4 889 5806

Indian Subcontinent
Hydranautics

407, Palm Springs
Center, Link Road,
Malad (West),
Mumbai 400 064,
India
Tel: +91 -22-40030500
Fax: +91 -22-40030496

S.E. Asia/Australia
Nitto

438 Alexandra Road
#19-01/04,
Alexandra Point
Singapore 119958
Tel: +65 -6879 -3820
Fax: +65 -6223 -7690

Japan
Hydranautics /
Nitto

East Tower, Gatecity
Osaki, 1 -11-2 Osaki
Shinagawa, Tokyo
Japan, 1410032
Tel: +81 -3-57402166
Fax: +81 -3-57402265