

DairyUF®10K

High Performance Dairy Process Membranes

USDA-Accepted High-Flux 10K Dalton, Polyethersulfone Ultrafiltration Crossflow Membrane Elements in “Full-Fit”, Net-Wrapped Configuration for use in Dairy, BioPharm, Beverage and other applications.

Hydranautics’s extensive experience in membrane innovation, design, and manufacturing is at the core of every DairyUF®10K membrane element. DairyUF®10K elements deliver exceptional performance and value, being manufactured with highly controlled, ISO 9001-compliant processes which ensure the highest quality, as well as the 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.

Key Features:

- All elements are automatically rolled on a proprietary, robotized machine
- All components conform to FDA regulation CFR Title 21, “3A Sanitary Standards for Crossflow Membrane Modules, Number 45-02”, EC Reg. No. 1935/2004, and EU Reg. No. 10/2011
- USDA-accepted sizes – 3838, 4336, 6338 and 8038
- 100% testing of membrane rolls with 500 ppm Na₂SO₄ for flux and rejection compliance
- 100% vacuum-hold testing for element construction integrity

Key Benefits:

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

Applications:

- Sweet/acid whey concentration before evaporation and spray-drying
- Enzyme and protein concentrations
- Pre-concentrating milk prior to cheesemaking



Type:

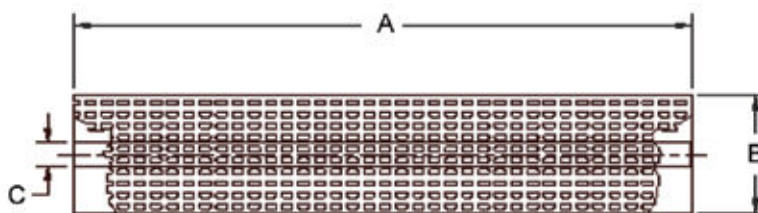
Configuration	Sanitary (full-fit) spiral wound
Membrane polymer	Polypropylene-backed polyethersulfone

Application Data:

Maximum applied pressure	150 psig (10 bar)
Maximum chlorine concentration	200 ppm @ pH > 10.5
Maximum operating temperature	131 °F (55 °C)
Operating pH range	2 – 10
Cleaning pH range (max. temp. 122 °F / 50 °C)	2 – 11.5
Maximum pressure drop for a vessel	60 psi (4 bar)

Products and Guidelines:

Model	Feed spacer, inches (cm)	Area, ft ² (m ²)	Dimensions, inches (cm)			Feed flow, gpm (m ³ /hr)	Max. pressure drop per element, psi (bar)
			A	B	C		
DairyUF®10K 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®10K 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®10K 3838-65	0.065 (0.165)	50 (4.6)	38.0 (96.5)	3.78 (9.6)	0.83 (2.11)	30 (6.8)	15 (1.0)
DairyUF®10K 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®10K 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®10K 6338-30	0.030 (0.076)	200 (19)	38.0 (96.5)	6.36 (16.2)	1.138 (2.89)	70 (15.8)	15 (1.0)
DairyUF®10K 6338-46	0.046 (0.117)	150 (14)	38.0 (96.5)	6.36 (16.2)	1.138 (2.89)	70 (15.8)	15 (1.0)
DairyUF®10K 6338-65	0.065 (0.165)	120 (11)	38.0 (96.5)	6.36 (16.2)	1.138 (2.89)	70 (15.8)	15 (1.0)
DairyUF®10K 6338-80	0.080 (0.203)	100 (9.3)	38.0 (96.5)	6.36 (16.2)	1.138 (2.89)	70 (15.8)	15 (1.0)
DairyUF®10K 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®10K 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®10K 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)



Nomenclature = DairyUF®10K + Size + Feed Spacer

Solutions You Need.

Technologies You Trust!

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