Nitto
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HYDRANAUTICS

Product Data Sheet

DairyRO®

High Rejection RO composite sanitary membranes are designed specifically for dairy process. Applications include whey concentration, whey UF permeate concentration, skim milk concentration, and RO permeate polishing.

Components conform to FDA regulation CFR Title 21 Part 177, 3-A sanitary standard 45-03 (except as noted), EC Reg. No. 1935/2004, and EU Reg. No. 10/2011. Products are Kosher and Halal certified (except as noted).

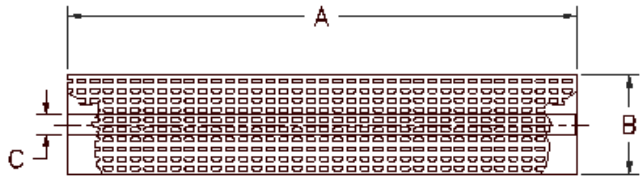
General Product Description

Configuration:	Sanitary (Full-Fit) Spiral Wound
Membrane Polymer:	Composite Polyamide

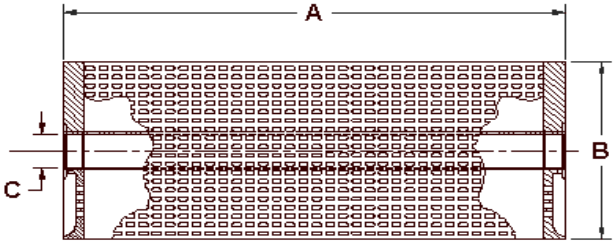
Packaging: Elements are enclosed in a sealed polyethylene bag containing less than 1.0% sodium meta-bisulfite solution, and then packaged in a cardboard box. 8040 styles include interconnector assembly, anti-telescoping devices (ATDs), and brine seals. For Halal applications do not use the brine seal.

Model	Feed Spacer, inch (cm)	Area, ft² (m²)	Dimensions, inch (cm)			Max. Feed Flow, GPM (m³/hr)	Max. Pressure Drop per Element, psi (MPa)
			A	B	C		
DairyRO 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 (0.10)
DairyRO 3838-46	0.046 (0.117)	63 (5.9)	38.0 (96.5)	3.78 (9.6)	0.83 (2.11)	30 (6.8)	15 (0.10)
DairyRO 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 (0.10)
DairyRO 3840-30	0.030 (0.076)	80 (7.4)	38.75 (98.4)	3.78 (9.6)	0.83 (2.11)	30 (6.8)	15 (0.10)
DairyRO 3840-46	0.046 (0.117)	63 (5.9)	38.75 (98.4)	3.78 (9.6)	0.83 (2.11)	30 (6.8)	15 (0.10)
DairyRO 8038-30	0.030 (0.076)	385 (36)	38.0 (96.5)	7.90 (20.1)	1.125 (2.86)	80 (18.2)	13 (0.09)
DairyRO 8038-46	0.046 (0.117)	300 (28)	38.0 (96.5)	7.90 (20.1)	1.125 (2.86)	80 (18.2)	13 (0.09)
DairyRO 8038-65*	0.065 (0.165)	230 (21)	38.0 (96.5)	7.90 (20.1)	1.125 (2.86)	80 (18.2)	13 (0.09)
DairyRO 8040-30ᵗ	0.030 (0.076)	385 (36)	40.0 (101.6)	7.90 (20.1)	1.125 (2.86)	80 (18.2)	13 (0.09)

ᵗModels with ATDs and internal interconnectors are not 3-A 45-03 compliant. * Not Halal listed



3838, 3840, 8038 Style



8040 Style with ATDs

Product Use and Restrictions^

Maximum Applied Pressure (DairyRO):	800 psig (5.5 MPa)
Maximum Chlorine Concentration:	< 0.1 PPM
Maximum Operating Temperature:	122°F (50°C)
Operating pH Range:	2.0 – 11.0^
Cleaning pH Range (ambient temperature):	1.5 – 11.5
Cleaning pH Range (max temp 122°F/50°C):	1.8 – 11.0
Maximum Pressure Drop for a vessel	60 psi (0.41 MPa)

^ The limitations shown here are for general use. For specified projects, operation at more conservative values may ensure the best performance and longest life of the membrane. See Hydranautics Technical Bulletins for more details.

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