

Specialty Ultrafiltration

Sanitary TUF 5K and TUF 5K HR Elements

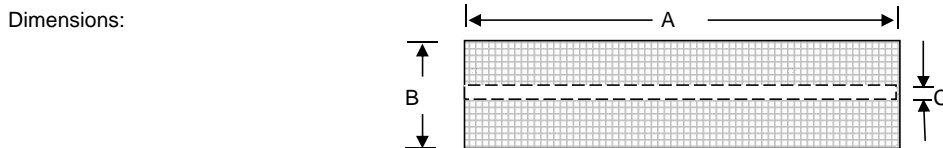
Model	Application	Feed Spacer Thickness in. (mm)	Nominal Membrane Area ft ² (m ²)	Dimensions, in. (mm)			Max Pressure Drop per Element psi (bar)
				Length A	Element OD B	Perm Tube ID C	
TUF5 3838 N1 & TUF5 3838 HRN1	Milk and Whey Protein Concentration USDA Accepted 3A / FDA Compliant	0.031 (0.79)	73 (6.8)	38 (965)	3.8 (97)	0.83 (21)	15 (1.0)
TUF5 3838 N2 & TUF5 3838 HRN2		0.046 (1.17)	57 (5.3)	38 (965)	3.8 (97)	0.83 (21)	15 (1.0)
TUF5 6338 N1 & TUF5 6338 HRN1		0.031 (0.79)	233 (21.6)	38 (965)	6.3 (160)	1.138 (28.9)	15 (1.0)
TUF5 6438 N1 & TUF5 6438 HRN1		0.031 (0.79)	233 (21.6)	38 (965)	6.3 (161)	1.138 (28.9)	15 (1.0)
TUF5 6338 N2 & TUF5 6338 HRN2		0.046 (1.17)	176 (16.3)	38 (965)	6.3 (160)	1.138 (28.9)	15 (1.0)
TUF5 6438 N2 & TUF5 6438 HRN2		0.046 (1.17)	176 (16.3)	38 (965)	6.3 (161)	1.138 (28.9)	15 (1.0)
TUF5 6338 N3 & TUF5 6338 HRN3		0.065 (1.65)	137 (12.7)	38 (965)	6.3 (160)	1.138 (28.9)	15 (1.0)
TUF5 6438 N3 & TUF5 6438 HRN3		0.065 (1.65)	137 (12.7)	38 (965)	6.3 (161)	1.138 (28.9)	15 (1.0)
TUF5 8038 N1 & TUF5 8038 HRN1		0.031 (0.79)	360 (33.5)	38 (965)	7.9 (201)	1.125 (28.6)	15 (1.0)
TUF5 8038 N2 & TUF5 8038 HRN2		0.046 (1.17)	280 (26)	38 (965)	7.9 (201)	1.125 (28.6)	15 (1.0)
TUF5 8038 N3 & TUF5 8038 HRN3		0.065 (1.65)	230 (21.4)	38 (965)	7.9 (201)	1.125 (28.6)	15 (1.0)

Nominal Molecular Weight Cut-off: 5,000 Daltons

Product Type: Net-Wrapped (no tail), Spiral Wound Element with hydrophilic Polyethersulfone Asymmetric Membrane
Developed specifically for maximum retention of milk and whey proteins and maximum productivity

Materials Specifications:	Feed Spacers and Element Outer-Wrap: Permeate Carrier: Adhesives:	Polypropylene Proprietary Proprietary
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Operating Limits:	Maximum Operating Pressure, psi (bar): Maximum Operating Temperature, °F (°C): Maximum Cleaning Temperature, °F (°C): Acceptable pH Range (operating) : Acceptable pH Range (short-term cleaning) : Maximum Chlorine Tolerance (short-term cleaning at pH 11), ppm Maximum Pressure Drop per Vessel, psi (bar): (Consult Toray for pressure limits when operating above ambient temperature)	140 (9.7) 131 (55) 122 (50) 2.5-10.0 1.7-11.5 180 60 (4.0)
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Notice:

1. Elements are preserved in sodium meta-bisulfite. Appropriate personal protective equipment should be worn when handling.
2. Toray accepts no responsibility for results obtained by the application of this information or the safety or suitability of Toray's products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product combination for their own purposes.
3. All data may change without prior notice, due to technical modifications or production changes.
4. Consult Toray for element sizes not shown.
5. Product description;
 - 5K: Standard 5K Membrane
 - 5KHR: Toray's high rejection 5K