



# TRISEP® DS Food & Dairy

## UP020 Series

TRISEP sanitary membrane elements for food & dairy applications have a long history of outstanding, stable field performance. NADIR® UP020 polyethersulfone (PES) membrane with a nominal 20,000 Da molecular weight cut-off offers high protein rejection in combination with high flux rates. TRISEP elements are available with a number of different feed spacers and in all sizes common in the industry. TRISEP DS elements are built with FDA compliant materials, are compliant with European food regulations (EU 10/2011 and EC 1935/2004) and comply with USDA standards.

### Membrane Characteristics

Membrane	Nominal M.W.C.O. (Da)
NADIR® UP020	20,000

Maximum Operating Pressure.....	10 bar (145 psi)
Maximum Operating Temperature.....	50°C (122°F)
Cleaning pH Range <sup>1</sup> .....	1.0 – 12.0
Cleaning Chlorine Tolerance .....	200 ppm for sanitization at pH ≥ 10.5
Maximum Pressure Drop .....	1 bar (15 psi) per element 4 bar (60 psi) per housing

<sup>1</sup> Refer to temperature and pH limits in *Membrane Cleaning Guide – Food & Dairy: UF & MF Elements (TSG-C-004)*.

### Design Information

MICRODYN-NADIR has the versatility to customize elements to meet customers' specific needs. Please contact MICRODYN-NADIR for information on customized solutions.

Model	Membrane Area m <sup>2</sup> (ft <sup>2</sup> )	Feed Spacer Thickness (mil) <sup>a</sup>
TRISEP® DS UP020 3838B	7.0 (75)	31
TRISEP® DS UP020 3838C	5.7 (61)	46
TRISEP® DS UP020 3838E	4.5 (48)	65
TRISEP® DS UP020 3838F	4.0 (43)	80
TRISEP® DS UP020 6338B	20.5 (221)	31
TRISEP® DS UP020 6338C	17.1 (184)	46
TRISEP® DS UP020 6338E	12.9 (139)	65
TRISEP® DS UP020 6338F	11.5 (124)	80
TRISEP® DS UP020 8038B	32.0 (344)	31
TRISEP® DS UP020 8038C	25.0 (269)	46
TRISEP® DS UP020 8038E	21.0 (226)	65
TRISEP® DS UP020 8038F	18.0 (194)	80
TRISEP® DS UP020 8338B	34.0 (366)	31
TRISEP® DS UP020 8338C	27.5 (296)	46
TRISEP® DS UP020 8338F	21.2 (228)	80

<sup>a</sup> All models on this sheet are net wrapped and have diamond shaped feed spacers.

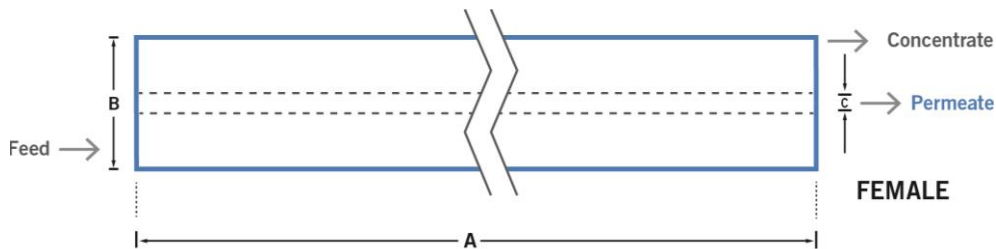


## Product Specification (continued)

### Physical Dimensions

Model	Element Weight kg (lbs) <sup>b</sup>	Dimensions, mm (inches)			Permeate Tube
		A	B	C <sup>c</sup>	
TRISEP® DS UP020 3838B	4 (9)	965 (38.0)	96 (3.8)	21.1 (0.83)	Female
TRISEP® DS UP020 3838C	4 (9)	965 (38.0)	96 (3.8)	21.1 (0.83)	Female
TRISEP® DS UP020 3838E	4 (9)	965 (38.0)	96 (3.8)	21.1 (0.83)	Female
TRISEP® DS UP020 3838F	4 (9)	965 (38.0)	96 (3.8)	21.1 (0.83)	Female
TRISEP® DS UP020 6338B	11 (24)	965 (38.0)	162 (6.3)	28.9 (1.138)	Female
TRISEP® DS UP020 6338C	11 (24)	965 (38.0)	162 (6.3)	28.9 (1.138)	Female
TRISEP® DS UP020 6338E	11 (24)	965 (38.0)	162 (6.3)	28.9 (1.138)	Female
TRISEP® DS UP020 6338F	11 (24)	965 (38.0)	162 (6.3)	28.9 (1.138)	Female
TRISEP® DS UP020 8038B	16 (36)	965 (38.0)	201 (7.9)	28.9 (1.138)	Female
TRISEP® DS UP020 8038C	16 (36)	965 (38.0)	201 (7.9)	28.9 (1.138)	Female
TRISEP® DS UP020 8038E	16 (36)	965 (38.0)	201 (7.9)	28.9 (1.138)	Female
TRISEP® DS UP020 8038F	16 (36)	965 (38.0)	201 (7.9)	28.9 (1.138)	Female
TRISEP® DS UP020 8338B	18 (40)	965 (38.0)	211 (8.3)	28.9 (1.138)	Female
TRISEP® DS UP020 8338C	18 (40)	965 (38.0)	211 (8.3)	28.9 (1.138)	Female
TRISEP® DS UP020 8338F	18 (40)	965 (38.0)	211 (8.3)	28.9 (1.138)	Female

<sup>b</sup> Shipping weight is dependent on packaging material and quantity shipped.  
<sup>c</sup> Dimension "C" is the Inner Diameter.



### Important Information

- Start-up:** MICRODYN-NADIR recommends flushing elements for 30 minutes at low pressure and discarding permeate during the flush prior to operation. For a more detailed start-up procedure, please see *Element Start-Up Guide – System Start-Up (TSG-O-005)*.
- Cleaning:** TRISEP® membrane elements must be cleaned periodically to ensure proper operation and to prevent membrane damage. Please see *Membrane Cleaning Guide – Food & Dairy: UF & MF Elements (TSG-C-004)*.
- Storage:** TRISEP membrane elements must be stored appropriately to ensure proper operation and to prevent membrane damage. Please see *Element Storage Guides (TSG-O-009 & TSG-O-010)*.

### Customizable Specialty Elements

MICRODYN-NADIR offers a full range of membranes and element designs for challenging water and process applications. Technologies include low-fouling RO, submerged UF, continuous high temperature, ultra-high pressure, unique sanitary designs and more. Contact MICRODYN-NADIR to customize a product that satisfies your specific requirements.

## Solving Unmet Needs with Customized Products



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