



# TRISEP® DS Food & Dairy

## 4.3” Diameter UP005 Series

TRISEP sanitary membrane elements for food & dairy applications have a long history of outstanding, stable field performance. NADIR® UP005 polyethersulfone (PES) membrane with a nominal 5,000 Da molecular weight cut-off offers the highest protein rejection in the industry for membranes with this cut-off. In field studies UP005 membrane had as much as 75% less protein passage than competitive membranes. 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® UP005	5,000

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

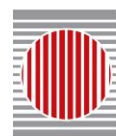
<sup>1</sup> Refer to temperature and pH limits in *Membrane Cleaning Guide – Food & Dairy: UF & MF Elements (TSG-C-004)*.

### 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 UP005 4333B	7.6 (82)	31
TRISEP® DS UP005 4333C	6.3 (68)	46
TRISEP® DS UP005 4333F	4.3 (46)	80
TRISEP® DS UP005 4336B	8.2 (88)	31
TRISEP® DS UP005 4336C	6.8 (73)	46
TRISEP® DS UP005 4336F	4.6 (50)	80

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



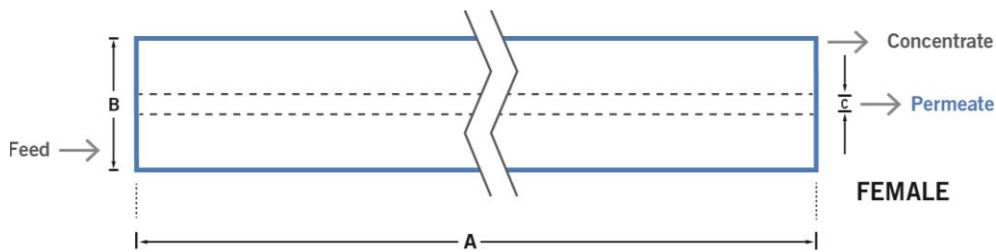
## Product Specification (continued)

### Physical Dimensions

Model	Element Weight kg (lbs) <sup>b</sup>	Dimensions, mm (inches)			Permeate Tube
		A	B	C <sup>c</sup>	
TRISEP® DS UP005 4333B	4 (9)	838 (33.0)	109.5 (4.3)	21.1 (0.83)	Female
TRISEP® DS UP005 4333C	4 (9)	838 (33.0)	109.5 (4.3)	21.1 (0.83)	Female
TRISEP® DS UP005 4333F	4 (9)	838 (33.0)	109.5 (4.3)	21.1 (0.83)	Female
TRISEP® DS UP005 4336B	4 (9)	902 (35.5)	109.5 (4.3)	21.1 (0.83)	Female
TRISEP® DS UP005 4336C	4 (9)	902 (35.5)	109.5 (4.3)	21.1 (0.83)	Female
TRISEP® DS UP005 4336F	4 (9)	902 (35.5)	109.5 (4.3)	21.1 (0.83)	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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