



TRISEP® UF5

PES Ultrafiltration Elements

With a nominal molecular weight cut-off (MWCO) of 5,000 Daltons, TRISEP® UF5 is a polyethersulfone (PES) membrane that is suited for process separations, particularly applications involving protein concentration to high solids levels. In these applications, a tighter ultrafiltration membrane is often used to maximize product yield. UF5 membrane is available in a wide variety of element designs for food, dairy and process separations as well as water purification.

MEMBRANE CHARACTERISTICS

Membrane	UF5
Membrane Type	Polyethersulfone (PES)
Nominal M.W.C.O. (Da)	5,000

DESIGN INFORMATION

Model	Permeate Flow m ³ /day (GPD) ^a	Membrane Area m ² (ft ²)	Feed Spacer Thickness (mil) ^b
TRISEP® PLT 2540-UF5-31	1.0 (250)	2.4 (26)	31
TRISEP® PLT 4040-UF5-31	7.6 (2,000)	7.4 (80)	31
TRISEP® 8040-UF5-QSA	37.9 (10,000)	33.0 (355)	31
TRISEP® 8040-UF5-QSFA	37.9 (10,000)	33.0 (355)	31

a Test conditions: Clean water, 2.1 bar (30 psi), 25°C (77°F), 15% recovery, pH 8.0, 30 minutes operation. Flow rates will be no more than 15% below the values shown. Product specifications may change without notice as design revisions occur.

b All models on this sheet have fiberglass outer wrap and diamond shaped feed spacers. All models on this sheet include anti-telescoping devices (ATDs) attached to the ends of the element and one brine seal. All 4040 and 8040 models on this sheet include one interconnector.

OPERATING PARAMETERS

Maximum Operating Pressure	21 bar (300 psi)
Maximum Operating Temperature	45°C (113°F)
Cleaning pH Range¹	1.0 - 12.0
Cleaning Chlorine Tolerance	200 ppm (sanitization) at pH ≥ 10.5
Maximum Pressure Drop	1 bar (15 psi) per element; 4 bar (60 psi) per housing
Maximum SDI₁₅	5.0
Maximum Turbidity	1 NTU

¹ Refer to temperature and pH limits in Membrane Cleaning Guide - Water Application Elements (TSG-C-001).

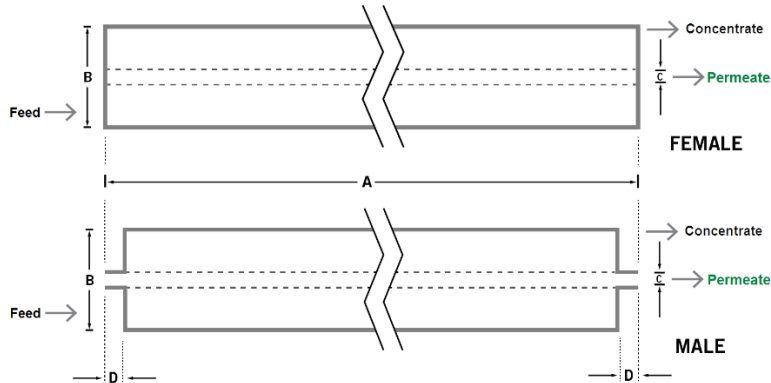
PHYSICAL DIMENSIONS

Model	Element Weight kg (lb) ^c	Dim. A mm (inches)	Dim. B mm (inches)	Dim. C ^d mm (inches)	Permeate Tube ^e
TRISEP® PLT 2540-UF5-31	3 (7)	1,016 (40.0)	64 (2.5)	19.1 (0.75)	Male
TRISEP® PLT 4040-UF5-31	4 (9)	1,016 (40.0)	99 (3.9)	19.1 (0.75)	Male
TRISEP® 8040-UF5-QSA	16 (36)	1,016 (40.0)	201 (7.9)	38.1 (1.50)	Female
TRISEP® 8040-UF5-QSFA	16 (36)	1,016 (40.0)	201 (7.9)	28.6 (1.125)	Female

^c Shipping weight is dependent on packaging material and quantity shipped.

^d Diameters for Dimension "C" are as follows. For Female elements, "C" is the Inner Diameter. For Male elements, "C" is the Outer Diameter.

^e Male elements have a protruding permeate tube, indicated as "D" in the diagram. Dimension "D" is 25.4 mm (1.0 in).



IMPORTANT INFORMATION

- Start-up:** MANN+HUMMEL Water & Fluid Solutions 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 – Water Application Elements (TSG-C-001).
- 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

MANN+HUMMEL Water & Fluid Solutions 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 us to customize a product that satisfies your specific requirements.

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