# TurboClean® Beverage 10K Ultrafiltration Elements

TRISEP

TurboClean® Beverage UF elements deliver high quality water for soft drinks, energy drinks and bottled water. The patented TurboClean hard shell offers a safe and sanitary operating system with none of the stagnant areas created by the brine seals of fiberglassed membrane elements where bacterial growth is often found. With 60% less bypass flow than net-wrapped elements, TurboClean elements deliver energy savings, the most effective cleaning and sanitizing and the best performance.

## MEMBRANE CHARACTERISTICS

| | |
|---|---|
| **Membrane** | UF10 |
| **Membrane Type** | Polyethersulfone (PES) |
| **Nominal M.W.C.O. (Da)** | 10,000 |

## DESIGN INFORMATION

| Model | Permeate Flow $m^3$/day (GPD)[a] | Membrane Area $m^2$ ($ft^2$) | Feed Spacer Thickness (mil)[b] |
|---|---|---|---|
| **TurboClean® Bev 8040-UF** | 35.6 (14,000) | 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 This model has a TurboClean sanitary outer wrap and diamond shaped feed spacers. This model includes anti-telescoping devices (ATDs) attached to the ends of the element and one interconnector. A brine seal is not included and is not required.

## OPERATING PARAMETERS

| | |
|---|---|
| **Maximum Operating Pressure** | 21 bar (300 psi) |
| **Maximum Operating Temperature** | 50°C (122°F) |
| **Cleaning pH Range[1]** | 1.0 – 12.0 |
| **Cleaning Chlorine Tolerance** | 200 ppm (sanitization) at pH ≥ 10.5 |
| **Maximum Pressure Drop** | 1.4 bar (20 psi) per element; 6 bar (80 psi) per housing |
| **Maximum $SDI_{15}$** | 5.0 |
| **Maximum Turbidity** | 1 NTU |

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

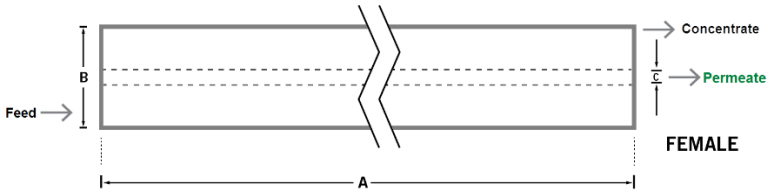


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## PHYSICAL DIMENSIONS

| Model | Element Weight kg (lb)[b] | Dim. A mm (inches) | Dim. B mm (inches) | Dim. C[c] mm (inches) | Permeate Tube |
|---|---|---|---|---|---|
| **TurboClean® Bev 8040-UF** | 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 Dimension "C" is the Inner Diameter.




## 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:** TurboClean® 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:** TurboClean 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).

**Regulatory:** All models on this sheet use FDA (CFR Title 21) compliant materials.

## 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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