

TurboClean® High Temp

XPNF Series



MANN+HUMMEL Water & Fluid Solutions offers TurboClean® High Temperature elements for all of our membranes capable of continuous operation at temperatures up to 80°C. These elements feature a patented sanitary hard-shell design that delivers better system performance due to about 60% less bypass flow than other sanitary elements. TurboClean elements are stronger than net-wrapped sanitary elements and can withstand higher pressure drops. And with the tightest OD tolerance and optimal circularity, TurboClean elements are the easiest elements to load and unload.

- Strongest Sanitary Element
- Longer Operating Life
- Better Performance
- Most Effective Cleaning
- Easiest Installation

MEMBRANE CHARACTERISTICS

Membrane	XPNF
Stabilized Salt Rejection (%)	99.0
Minimum Salt Rejection (%)	98.0

DESIGN INFORMATION

Model	Membrane Area m ² (ft ²)	Feed Spacer Thickness (mil)
TurboClean® HT 8040-XPNF-31	6.0 (65)	31

OPERATING PARAMETERS

Maximum Operating Temperature	80°C (176°F)
Maximum Operating Pressure	40.0 bar (580 psi) at 60°C (140°F) 34.5 bar (500 psi) at 70°C (158°F) 30.0 bar (435 psi) at 80°C (176°F)
Cleaning pH Range ¹	1.0 – 12.0
Chlorine Tolerance	200 ppm for sanitization at pH ≥ 10.5
Maximum Pressure Drop at 30°C	1.4 bar (20 psi) per element; 6 bar (80 psi) per housing
Maximum Pressure Drop at 70°C	0.3 bar (5 psi) per element; 1.4 bar (20 psi) per housing

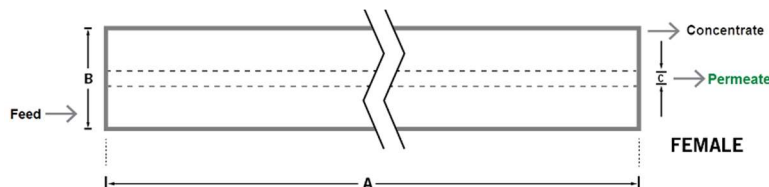
¹ Refer to temperature and pH limits in our Membrane Cleaning Guides.

PHYSICAL DIMENSIONS

Model	Element Weight kg (lb) ^b	Dim. A mm (inches)	Dim. B mm (inches)	Dim. C ^c mm (inches)	Permeate Tube
TurboClean® HT 8040-XPNF-31	16 (36)	1016 (40.0)	201 (7.9)	28.6 (1.125)	Female

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

^c 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 our Membrane Cleaning Guides.
- 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).

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.

Contact



info@lennotech.com Tel. +31-152-610-900
www.lennotech.com Fax. +31-152-616-289