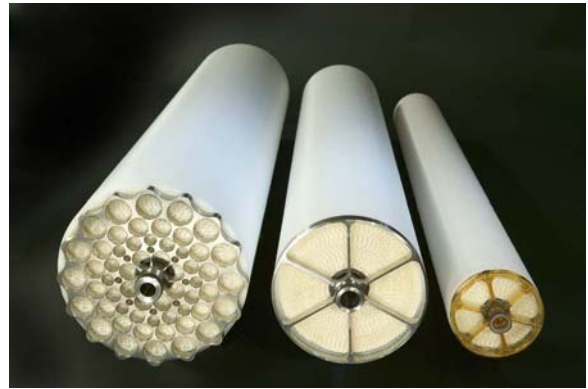




## TurboClean™ Hot Water Sanitizable Membrane Elements

TriSep TurboClean™ hot water sanitizable (HWS) membrane elements are designed for use in dialysis, pharmaceutical, and beverage applications where sanitization is desired without the use of chemical biocides.



Typical spiral membrane elements are normally sanitized using chemicals such as chlorine or hydrogen peroxide. These biocides can contaminate feed streams if not properly rinsed from the system. TriSep TurboClean™ HWS elements can be sanitized at up to 85°C to eliminate the need for these chemical biocides.



Standard brine seal fiberglass wrapped elements (FRP) form a stagnant area between the outside of the element and the inside of the pressure tube. This stagnant area is difficult to sanitize and to insure adequate rinse out of cleaning or sanitizing chemicals.

The TurboClean™ element uses a polypropylene shell to allow a small by-pass flow around the outside of the element. The TurboClean™ element has advantages over standard net wrapped elements by reducing by-pass flow and having a more robust construction.

TurboClean™ elements are available for all TriSep membranes including reverse osmosis, nanofiltration, ultrafiltration, and microfiltration.

TurboClean™ HWS elements should not be subjected to changes in water temperature that exceed 3.5°F (2°C) per minute. Feed pressures should be kept below 60 psi (4 bar) during the sanitization process. During high temperature sanitization, feed - brine differential pressure drops should be kept below 5 psi (0.3 bar) per element or 30 psi (2 bar) per pressure tube.

