## Scepter<sup>®</sup> Ultrafiltration System





Graver's Scepter<sup>®</sup> Ultrafiltration Systems represent the ultimate filtration solution for demanding applications with difficult process conditions or streams with high solids or viscosity. The Scepter<sup>®</sup> UF module is a cross-flow stainless steel membrane, constructed of porous stainless steel tubes that are coated with a unique titanium dioxide membrane. The result is an ultrafiltration system that performs regardless of extreme pressures, pH and temperature. *Scepter Thrives Where Other Membrane Systems Fail.* 

## Scepter<sup>®</sup> Advantages

- Robust ultrafiltration: Constructed of stainless steel and titanium, our 0.1 or 0.02 micron filter prevents particle penetration and plugging and operates in the most challenging applications.
- Leak Free Gasket-free, all welded construction gives outstanding mechanical stability.
- High Solids Content Large diameter tubes handle up to 50% suspended solids by volume.
- Full pH Range Operates the entire pH range of 0-14.
- High temperature compatible—able to operate continuously up to 600°F / 315 °C.
- Steam Sanitizable Can easily be steam sanitized with no negative effects.
- High pressure capability—up to 1,000 psig / 70 bar.
- Chemical Compatibility Easily withstand chemical sanitization, aggressive caustic and acid cleaning agents.
- Flexible Configuration Can operate in either horizontal or vertical orientation.





## How it works

**Continuous Operation** – The Scepter<sup>®</sup> system is fed from a customer supplied buffer tank. The Scepter feed pump pressurizes feed to greater than 100 psig and injects it into a circulation loop that provides circulation cross-flow in the Scepter microfiltration tubes. Filtrate is produced on exit of the module shells while the concentrate is released through a flow-regulating valve to be recovered or for disposal.

**Batch Operation** - In batch mode, the concentrate returns to the feed tank, where it mixes with the incoming feed to increase the feed tank concentration. When critical feed tank concentration is achieved, the tank contents are directed to recovery or disposal.



## Contact Us

**Graver Water Systems, LLC** 30 Technology Drive Suite 2F Warren, NJ 07059 T: 908 516 1400 F: 908 516 1401 E: sales@graver.com

