Titan Ultra-Filtration Ozone System

The Titan UF is engineered to deliver advanced water treatment with dependable performance, protecting your equipment investment while improving overall water quality. Designed for both residential and commercial use, it provides a reliable way to achieve cleaner, safer water with long-lasting filtration. Utilizing an Ultrafiltration Membrane with Sub Micron technology, the system achieves 0.01-micron filtration at flow rates up to 20 gallons per minute (gpm), making it a powerful solution for modern water treatment needs.

When paired with an ozone generator, the Titan UF becomes an even more effective multi-barrier system. Ozone acts as a strong oxidant and disinfectant, breaking down organic matter, neutralizing bacteria, viruses, and other pathogens, and removing contaminants such as hydrogen sulfide, iron, and manganese. The UF membrane then physically filters out suspended solids, microorganisms, and high-molecular-weight compounds that ozone may not fully degrade. Together, these technologies enhance purification beyond what either can achieve alone—improving drinking water, and helping extend membrane lifespan by minimizing organic fouling.

UF Systems Will Effectively Treat:

- **Sediments**: Sand, silt, rust, and other particulate matter.
- **Microorganisms**: Bacteria, viruses, protozoa, and cysts.
- **Colloidal and Organic Matter**: Larger organic compounds and particles suspended in the water.
- **Turbidity & Tannins**: Cloudiness in water.
- **Other Particles** down to 0.1 Micron.

Extended Filter Life:

The Titan UF reduces the majority of contaminants that typically clog or damage reverse osmosis (RO) filters and other downstream filtration systems, allowing them to last longer.

Ultra-Filtration Made Simple

How the System Works

1. **Oxidation & Disinfection:** Ozone effectively oxidizes dissolved organic compounds, metals like iron and manganese, and neutralizes pathogens such as bacteria and viruses. It also mitigates bad tastes and odors from sources like cyanobacteria.

2. **Ultrafiltration (UF):** The ozonated water then flows through UF membranes. The UF membrane physically separates and removes remaining suspended solids, bacteria, viruses, and other high-molecular-weight contaminants that might not have been completely broken down by ozone.

Benefits of System

- **Enhanced Purification:** Provides a higher level of water purity by combining chemical oxidation with physical filtration.

- **Microbial Control:** Ozone eliminates bacteria and viruses, while UF acts as a barrier to remove any remaining pathogens.

- **Improved Membrane Performance:** Ozone's oxidizing action can break down organic matter that would otherwise foul UF membranes, potentially reducing clogging and extending their lifespan.

- **Effective for a Range of Contaminants:** Tackles a broad spectrum of pollutants, including organic micropollutants, nutrients, and particulate matter.

- **Reduced Chemical Use:** Ozone treatment doesn't require adding chemicals to the water, unlike some other methods, making it a more environmentally friendly approach.