



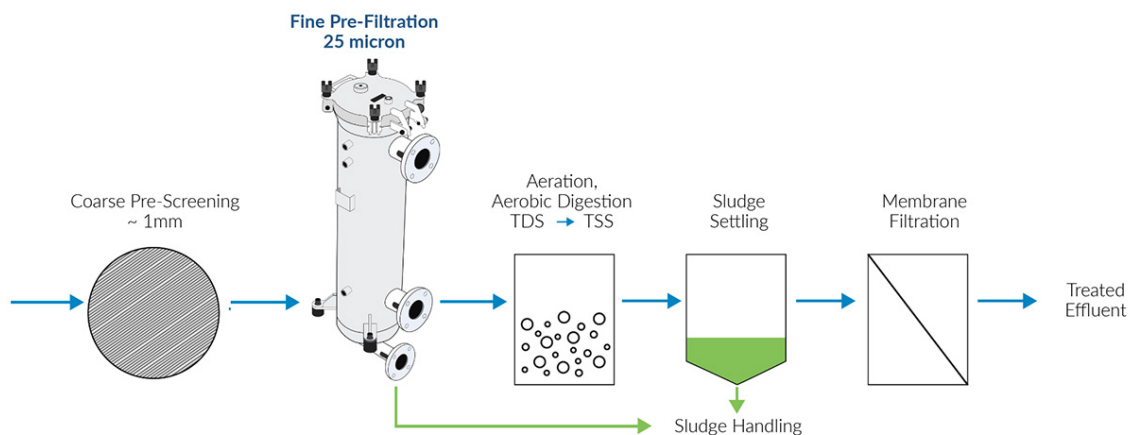
Applications Focus

SWT's T1000 Saves 10-30% of OpEx for DAFs, MBRs and UF Membranes

Did you know that Automated Pretreatment using Spiral Water Technologies' (SWT) powerful Model T1000 High and Variable TSS Filtration ahead of DAFs, MBRs/MBBRs, UF and other membranes improves the downstream biology, making it much steadier and cleaner? Read more as our series highlighting applications and advantages of Spiral Water technologies concludes with the following insights.

Advantages of Using SWT Model T1000

OpEx Savings		Improvement Using T1000 Prefilter
Chemical usage	↓	15–30% (varies by application)
Sludge volume/disposal	↓	10–25% cleaner, more concentrated sludge
Energy consumption	↓	Reduced membrane system size lowers energy use
Equipment lifespan	↑	Reduced TSS lowers membrane wear and fouling
Maintenance frequency	↓	Significantly less downtime, labor



Advantages of the Spiral Water Technologies T1000



Improves Downstream
Equipment



Spiral Water Fine Pre-Filtration T1000
(25 micron): Removes 50%-60% Total
Suspended Solids (TSS)



Increases Liquid Volume
for Biology



Higher MBR Maximum
& Peak Flow Rates



10% to 25% Increase
in BOD Remediation



Spiral Water: Offering Superior Filtration Technology for the Pharmaceutical and Biopharma Industries

Spiral Water Technologies' core strengths include advanced automatic self-cleaning filtration, high solids handling, water reuse, and low lifecycle cost. These capabilities align directly with some of today's fastest-growing industrial and infrastructure trends, and make Spiral Water an ideal resource for pharmaceutical and bioprocess manufacturing.

Water filtration plays a key role within these industries, including regulatory compliance, process efficiency, and environmental responsibility. The treatment of pharmaceutical wastewater involves several stages, including pre-treatment, clarification, biomatter removal, and sterilization. Although technologies such as nanofiltration and ultrafiltration are often used in later stages to remove microbes and other host cell remains, effective pre-filtration is critical to optimizing the entire process. That makes Spiral Water's technologies an ideal match, as we specialize in pre-treatment filtration solutions for biopharma water and wastewater as well as other

industries. We are also highly experienced in removing high TSS, BOD, and COD at the beginning of the filtration process.

Spiral Water offers a selection of advanced automatic, self-cleaning filters designed to meet the unique needs of the biopharma industry. Our filters effectively address high solids filtration and separation challenges while reducing operational costs. Our advanced filtration technology reduces solids early on, thereby minimizing wear and tear on microfiltration (MF) and nanofiltration (NF) systems. Additionally, our filters are automatically self-cleaning, eliminating the need to manually remove TSS from the bottom of the filter.

Spiral Water offers innovative biopharma filtration solutions for a variety of high-solids, non-shear-sensitive applications. Our systems can be installed at both the feedstock side and wastewater discharge points to efficiently reduce TSS, BOD, and COD levels.

[Learn More](#)

Biogas Americas: Showcasing Spiral Water's Technology



This year, Spiral Water once again showcased its powerful filtration technology at Biogas Americas, the largest biogas event in North America, with an active and well-attended booth in the Exhibition.

Gerard (Jerry) Lynch, our President and CEO, offered his thoughts, noting that, "It was good to see current customers and welcome new people to our booth. There was a great deal of interest in what we do and how our technologies can really help their businesses. It was also exciting to be part of this show's continued growth. We look forward to next year's show and continuing to build our business in the biogas/RNG industry," he added.

According to show management, this was their best show yet with nearly 300 sponsors and exhibitors, 2,000 attendees, and 34,800 square feet of exhibit space "buzzing with the kind of conversations that move our industry forward."



Benefits of Water Filtration in Renewable Natural Gas & Biogas Applications: An Overview

Filtration is a critical component of RNG production and processing. Raw biogas includes several impurities that can be removed through water filtration systems, and those impurities must be removed to produce a useful energy source. Consider these specific benefits of adding on-site water filtration capabilities to an RNG production facility.

Improved Quality of Renewable Natural Gas & Biogas

The quality of RNG relies on multiple different factors, including its purity. At the beginning of the production stages, biogas has moisture, contaminants, and carbon dioxide — all elements that must be eliminated before the final stages of production. The right water filtration system can improve the quality of the RNG by:

- Separating solid waste and impurities before the fluid enters a digester unit; these impurities include the plastics, sand, and stone that would otherwise remain in the product
- Increasing the portion of methane in the RNG produced by digester units by 10-30%

Prevention of Equipment Damage

Contaminants do more than lessen RNG quality. They can also pose a hazard to equipment. Unfiltered products can lead to hydrate formation on internal surfaces and increase the risk of corrosion. Filtering the product earlier in the processing stage can protect equipment so components last longer, require less maintenance, and will not need to be replaced as frequently.

Saving Time and Money

Employing a water filtration system streamlines the process and helps save money because:

- There are fewer maintenance and labor costs compared to using a centrifuge.
- You can access rebates, green energy incentives, and carbon credits.
- Water filtration replaces the need for many costly chemicals.

- You use less energy than DAF with electro-flotation.

Your operation can also save time by lowering reliance on labor and reducing dwell time.

Environmental Benefits

RNG offers several environmental benefits, especially because it reduces reliance on other, less eco-friendly energy sources such as fossil fuels. Anaerobic Digestion (AD) systems can collect and recover biogenic methane, reducing overall emissions and preserving the air and water quality. It can even help local economies. By using water filtration systems before introducing matter to the digester, you can filter out and separate impurities to comply with environmental standards. The water itself can be purified to reduce pressure on wastewater systems.

Water Conservation

After anaerobic digestion is complete, processors are left with both biogas and digestate, a nutrient-rich byproduct. By filtering out water from the digestate, you can produce a compact, nutrient-rich fertilizer, with a consistent concentration based on how much water is removed. The water can be reused, and the fertilizer can be sold to organic markets.

NOTE: We are often asked if Biogas and Renewable Natural Gas (RNG) are the same. While they are both sustainable, waste-derived energy sources, there are significant differences in purity and how they are used. **Biogas** is raw gas directly produced from decomposing organic waste, primarily used locally for electricity or heat. **RNG** is biogas that has been highly refined to remove impurities, allowing it to be injected straight into standard pipeline networks.

Spiral Water Technologies | [732-629-7553](tel:732-629-7553) | info@spiralwater.com | spiralwater.com



Spiral Water Technologies, Inc | 200 Pond Avenue | Middlesex, NJ 08846 US

[Unsubscribe](#) | [Constant Contact Data Notice](#)



Try email marketing for free today!