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Automatic Self-cleaning Filters: A Closer Look

The idea of self-cleaning filter technology has existed for several years, offering a viable and cost-effective alternative for treating difficult, particulate-heavy processes and wastewaters. But until recently, it had proven unable to handle high solids loading for an extended period without blinding off.



Solving that problem is just one of the ways where Spiral Water – a leader in high performance products for advanced filtration and concentration applications – offers a quantum leap forward in automatic self-cleaning filtration technology.

Spiral Water filters are specifically designed to remove ultra-high and variable TSS (15,000 mg/L and more) from a fluid stream while simultaneously concentrating solids for low-volume discharge. Our automatic self-cleaning, patented inline pressure filters operate very differently from standard backwash filters. They require no cross flow, backwash, or booster pumps and perform at very low differential pressure. And they deliver superior results while reducing CapEx and OpEx to deliver low Total Lifecycle Cost and yielding a number of other benefits.

To put this into perspective, we've created a **[dedicated webpage about Automatic Self-cleaning Filters](#)**. We invite you to explore how our products differ from other self-cleaning filters, take an inside look at how they work, and learn what important benefits they offer.

Contact us about how Spiral Water can help you meet your filtration and concentration needs.

Filtration Products for Every Need: Our Portfolio of Solutions

Spiral Water offers a portfolio of high performance automatic self-cleaning filters to address your specific needs.

[Series 1000 Liquid/Solid Separator and Automatic Self-cleaning Filters](#)

Spiral Water's Series 1000 automatic self-cleaning filters are specifically engineered to remove high total suspended solids/biochemical oxygen demand (TSS/BOD) from fluid streams. They can handle high TSS loading exceeding 500 ppm as well as remove bulk solids up to 15,000 mg/l all while providing continuous filtration for particle sizes between 15 and 1,500 microns. In a single pass, these filters are capable of filtering up to 50 times dirtier water with significantly less energy and a smaller footprint compared to large capital equipment.



The Series 1000 automatic self-cleaning filter is available in two primary models: the H1000 for sanitary use and the T1000 for industrial use. These models are made with stainless steel to ensure optimal durability and are [available in various configurations](#) providing flow rates from 25-800 gpm.

[Download our case study](#) to learn how our Series H1000 liquid/solid separator and automatic self-cleaning filter helped a food and vegetable processor reduce their chemical costs and increase system uptime.

[SWT Model 850 Solids Concentrating Filter](#)

The SWT850 is the latest model in our 800 Series automatic self-cleaning filters. Designed to remove suspended solids (TSS) from high and variable total solids fluid streams, each filter unit contains a motor-driven, rotating spiral-shaped mechanical cleaning device that continuously cleans collected debris from inside the filter element. Solids are collected at the bottom of the filter housing to be expelled through an automatic purge valve or a continuous concentrate stream.

Unlike backwash filters, the SWT system does not require high pressure; it operates at system pressure of less than 20 psi and performs at very low differential pressure. No backwash, cross flow or booster pumps are required. The purge chamber can be configured to dump solids directly to waste or for removal and concentration of solids.

Learn about how our filters made a difference in

reducing power plant downtime



High Solids Water Recovery (HSWR) System

Spiral Water's High Solids Water Recovery (HSWR) System is a powerful and cost-efficient turnkey high solids filtration system that is able to receive high solids loaded process water with TSS greater than 15,000 ppm to recover and reuse water with significantly reduced TSS and BOD, resulting in effluent with water quality suitable for reuse or discharge.



Developed specifically for recovery and reuse, the HSWR system couples Spiral Water's advanced filtration technology with best-of-class products from leading equipment providers. While configurations can vary depending on the intended application, Spiral Water's Series 1000 automatic, self-cleaning filters are the heart of each HSWR system.

Download the flyer about our customizable HSWR System or **contact us** for more information.

The Spiral Water Difference

Spiral Water products are delivering breakthrough performance in some of today's most demanding applications, from water reuse and recovery to pre-filtration for

DAF, MBR and RO/UF to industrial water filtration and concentration of valuable or resalable product from non-hazard Oous wastewater.

One reason is that our advanced automatic self-cleaning filters are engineered for high wastewater TSS/BOD removal. They process bulk solids removal up to 15,000 mg/l TSS (15% by volume) by providing continuous 15 to 1500 micron filtration. And another benefit is that our proprietary one-pass filtration technology eliminates backwash or cross-flow, saving time and money.

In addition, our one-pass filtration process automatically collects, concentrates and purges solids. It also optimizes solids management and product recovery, reclaiming concentrated solids, reducing process fluid waste, and enhancing resale potential.

Download our [White Paper](#), Advanced Filtration Approach for Treating High Solids Wastewater, to learn more!



We are here to help you

Get your free filtration audit. Simply download and fill out our Application Data Sheet and email it to info@spiralwater.com

[Download Application](#)

Call us at 732-629-7553 to speak with one of our technical representatives to discuss your project or learn more about Spiral Water's next generation filters.

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