

# SPIRAL WATER SERIES 1000 AUTOMATIC SELF-CLEANING FILTERS



### We offer high performance filters for highly demanding industrial applications.

Spiral Water's Series 1000 automatic self-cleaning filter is engineered for medium to high flow, high pressure, high temperature applications and liquid/solids separation. It is designed for industrial use to remove ultra-high and variable Total Suspended Solids (TSS) from a fluid stream.

Each filter unit contains a motor-driven, spiral-shaped brush that continuously cleans collected debris from inside the filter element. Solids collect at the bottom of the filter housing to be expelled through an automatic purge valve or a continuous concentrate stream. The system does not require high pressures to operate and performs at very low differential pressure. No backwash, cross flow or booster pumps are required.

Applications include recycled secondary wastewater, protection of monitoring equipment, nozzle protection, bearing and seal protection, wastewater treatment, recycled water, and TSS and BOD reduction.

Systems can be configured with single or multiple filters to meet higher customer application flow rates.

Series 1000 filters are available in two models. The T1000 is designed for Industrial Applications and the H1000 for sanitary applications.

#### **PROJECT SNAPSHOT:**

## Reduced Solids Loading in Food & Beverage Processing

Water recovery and reuse in applications with high solids loading is a major industry challenge for the food & beverage industry. In fruit and vegetable



processes, the higher the Total Suspended Solids (TSS), the more frequent is the water changeover (dumping), and the more chemicals are required for oxidizing the suspended solids.

High TSS solids reduction systems like SWT's H1000-SMS Automated Filter System, allow operators to reduce chemical use while having dual benefits:

- Personnel safety. Highly chlorinated process flumes are a major irritant to operators.
- Lower chemical expenses.

Solids reduction also provides operators with an easier job maintaining process water temperatures, thus reducing the load on their chillers.

And importantly, water with lower TSS levels is more easily reused. When solids become too high, the entire process line must be drained, cleaned and refilled. Not only does this waste water, it reduces the daily processing yields of the processing plant.

#### SPIRAL WATER'S ADVANCED FILTRATION AND SEPARATION TECHNOLOGY

Spiral Water provides unique, compact packaged filtration and concentration solutions not previously available to industry and other applications. Our advanced high solids separation and concentration technology is engineered to solve the specific challenges of filtering ultra-high and variable total suspended solids (15,000 mg/l) from water and wastewater streams. No other automatic self-cleaning filter can perform at this level.

Our patented automatic self-cleaning filters consist of a rugged stainless steel filter screen and mechanical cleaning device that continuously clean the screen without requiring backwash, cross flow, high differential pressure or downtime. The unique one-pass system automatically senses, concentrates and purges solids, providing seamless waste management and de-watering solutions as part of the process.

We offer several configurations of its advanced automatic, self-cleaning filters to accommodate a wide range of high solids filtration and separation needs:



Our Series 1000 Automatic Selfcleaning Filters, available in stainless steel, handle medium to high flow, high pressure, high temperature applications and liquid/solids separation. The Model T1000 is intended for industrial applications while Model H1000 accommodates sanitary applications.



Water Recovery (HSWR) System is a packaged, turnkey system that combines our Series 1000 automatic, self-cleaning filters with other industry equipment in various configurations depending on the intended application.

Our break-out High Solids



Our Model 850 Automatic Filters, available in stainless steel or PVC, is the latest evolution of our widely used Series 800 filters – our most compact product line, designed for lower flow, low pressure, low temperature applications.

Sophisticated in engineering yet elegantly simple to use, these products utilize our patented technology to deliver superior results while reducing CapEx and OpEx to deliver low Total Lifecycle Cost. Our technology is designed for high TSS/BOD removal with the ability to handle high TSS loading of over 500 ppm, and process bulk solids removal up to 15,000 mg/l TSS (15% by volume), while providing continuous 15-to-1500-micron filtration. Our products can filter up to 50 times dirtier water, in just one pass, while requiring only a fraction of the energy and footprint required by large capital equipment.