

SPIRAL WATER HIGH SOLIDS WATER RECOVERY SYSTEM



Reducing high solids from water using drum screens and screw presses is not new. Taking high solids water and filtering down to 20 µm is. Spiral Water's patented technology is the key to this new approach.

Spiral Water's High Solids Water Recovery (HSWR) System is a powerful and cost-efficient turnkey solution that maximizes the recovery and reuse of water from industrial and other challenging wastewater streams.

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.

Equipped with Spiral Water filters, the HSWR system can receive high solids loaded process water with Total Suspended Solids (TSS) greater than 15,000 ppm and treat it to recover and reuse water with significantly reduced TSS and BOD, resulting in effluent with water quality suitable for reuse or discharge.

HOW IT WORKS

The fluid to be treated is first filtered by an outside-to-in flow drum screen. This initial process removes a bulk of the large particles from the flow. The effluent of the drum screen is then fed into a 200-gallon equalizer tank before it is pumped to the Spiral Water 25 µm automatic T1000 filter. The automatic filter further reduces the TSS by up to 50% and the BOD by as much as 30%.

The purge from the automatic filter is then fed into a spiral compactor along with the screened waste from the drum screen. The system effluent from the automatic filter can be sent to local municipalities with reduced TSS and BOD, or it can be diverted to a temporary holding tank and used in other plant processes. In food systems, for example the collected biomass that is recovered can be used in secondary market purposes.

The system is controlled and monitored by a single control panel and utilizes equipment from Spiral Water Technologies as well as other leading separation equipment manufacturers.



CUSTOMIZED SYSTEMS

Spiral Water's engineering team can also design and build custom solutions taking a similar approach but using alternative technologies that are suitable to solve your specific challenges.

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:

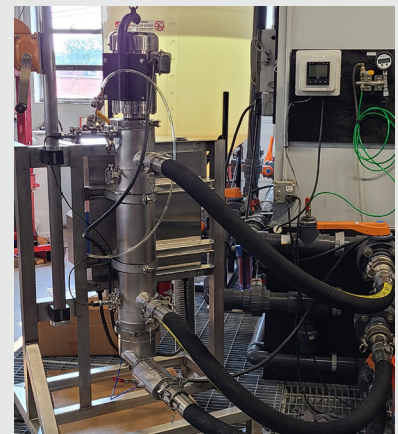


Our break-out High Solids Water Recovery (HSWR) System

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 Series 1000 Automatic Self-cleaning 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.



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.

To learn more, visit our website at www.spiralwater.com, call us at 1-732-629-7553 or email us at info@spiralwater.com.