

Sigma Industrial Water Systems: Customized Engineered Solutions for Process Water & Wastewater

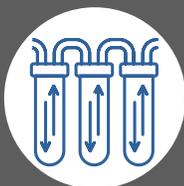


Sigma Design Company, a leader in pioneering patented and innovative water conditioning components, filters, and systems, also provides clients with fully customizable, engineered solutions for industrial water and non-hazardous wastewater challenges.

With Sigma Industrial Water Systems, you can select and integrate a range of advanced technology components into your project including:

- Automated Self-Cleaning Pre-Filter Systems for handling variable TSS non-traditional water sources
- Automated Pump & Treat Solutions for Water Reuse Systems targeting zero liquid discharge (ZLD)
- Automatic Prefilters & UV (Ultraviolet) Disinfection Systems for effective water disinfection
- Automated Self-Cleaning Low Micron Filter Systems for precision filtration
- High Solids Water Processing Solutions including conditioning, dewatering, and filtration
- Smart Automated Filter Process Controls Systems for optimized performance and efficiency

Learn More



Water Filtration



Water Treatment



Ultraviolet Cleaning



Purified Water

About Sigma Design Company

Sigma Design Company is a one-stop engineering and manufacturing partner for the development of engineered water systems. Our mission is to deliver innovative, cost-effective, easily manufactured designs, and assembly solutions that enable clients to achieve their product, business, and revenue goals.

A vertically integrated, single-source supplier, we offer ASME-certified welding, UL 508A-certified industrial controls, an in-house laboratory, and internal flow testing up to 200 GPM—all under one roof. Our experienced engineers and technicians are equipped to analyze, configure, design, and build custom systems tailored to your specific requirements.

Since 1999, we have been a trusted partner for clients including major global brands, successfully completing more than 1,000 design and design/build projects, on time on budget.

TURNING SMART IDEAS INTO PRODUCT SOLUTIONS

Our Products

Model 4583 High Solids Separations and Water Recovery System

Sigma Design Company's Model 4583 High Solids Separations and Water Recovery System helps maintain peak efficiency and reduce downtime in industrial water processing challenges presented by heavily loaded water systems and the difficulties in managing high solids content. This system filters and thickens high solids process water with Total Suspended Solids (TSS) between 300 ppm to 40,000 ppm/mg/l. The final discharge of the process and treated water contains significantly reduced TSS and BOD levels, making it suitable for permitted discharge to most wastewater facilities.



Model 4588 Ultra Filtration (UF) Brackish and Seawater Pilot System

Used as an optimization and test system, Sigma Design Company's Model 4588 Pilot Ultrafiltration (UF) System for brackish and seawater is a fully operational, engineered membrane system used to determine the effectiveness and sizing of full-scale UF equipment projects. Our PVDF hollow fiber Ultrafiltration membrane modules feature a 0.02 μm nominal pore diameter for optimal removal of particulates, bacteria, and viruses and provide high mechanical strength and chemical resistance. When compared to granular filter media, they produce superior water quality and are virtually unaffected by variable raw water quality—all at a cost similar to conventional filtration technology.



Model 4570 Differential Pressure (DP) Remote Alarm Monitoring Panel

This alarm panel for DP monitoring is a simple, easy to install and configured solution that monitors the pressure drop across filtration media or other pressure-sensitive processes and is suitable for liquid process systems.



Model 4613 Automatic Tubular Backwash Filter System filter particulates from 1-1500 microns, from the fluid streams

Our Model 4613 Automatic Tubular Backflush Filter System is designed specifically to filter particulates from the fluid stream. Each filter housing contains a filter element with multiple tubes. To achieve finer filtration levels, each tube can be fitted with a 1-micron (1 μ) up to 200-micron polymer filter sleeve. Multi-plex units consist of anywhere from 2-20 individual tubular filters piped and valved in parallel to common inlet, outlet, and drain headers. Our advanced controls system includes motor control and protection circuitry, and constantly monitors the flow rate and differential pressure across the entire system.



Model 4614 UV + Automatic Prefilter Process Water System

Our Model 4614 UV + Automatic Prefilter Process Water System couples Spiral Water's patented automatic water filtration technology with UV disinfection. This system provides a highly effective, environmentally friendly, and easy to use solution for treating and disinfecting water in a wide range of applications and industries. Examples of applications include wastewater treatment and industrial water reuse and makeup water, while industries range from aquaculture to pharmaceutical production, electronics manufacturing, food & beverage, and other industrial markets.



Model 4615 Automated Industrial Backwash Filter Controls System

This system ensures that your water filtration processes run smoothly, efficiently, and reliably. The Model 4615 control panel is designed in accordance with and inspected to UL 508a.



Sigma Design Company: Products, Expertise and Experience



Comprehensive Range of Products & Processes

Our solutions integrate diverse technologies, including:

- Automatic Self-Cleaning Filters
- Disinfection Technologies
- Automation & Monitoring
- Pumping Systems
- Water Reuse
- High Solids Separation
- Mixing and Dosing Systems
- Microfiltration



Expertise in Advanced Water Treatment Technologies

We specialize in industrial water reuse and recovery, filtration and separation, ultraviolet (UV) disinfection, desalination pretreatment, and wastewater TSS discharge reduction. Our capabilities enhance the efficiency of manufacturing process water systems.



Tailored Solutions for Diverse Markets & Emerging Applications

Sigma Design Company provides tailored solutions across multiple industries, including:

- Renewable Natural Gas & Biogas Processing
- Food Processing Water Treatment
- Non-Traditional Water Reuse & Source Protection
- Industrial Membrane Protection Systems
- Pharmaceutical Water Reuse
- Data Center Cooling & Water Reuse
- Semiconductor Water Reclamation for Chip Fabrication
- Small-Scale Desalination Solutions for Localized Needs

Our innovative approach ensures reliable, high-performance water solutions for a wide range of industrial and emerging market applications.

To learn more, contact us at info@sigmadesign.net or call us at 732-629-7555.



Your trusted one-stop resource for end-to-end product development and commercialization solutions, on time and on budget.

TURNING SMART IDEAS INTO PRODUCT SOLUTIONS

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