complete and simple solutions for industrial process water and wastewater treatment
water filtration, wastewater treatment and reuse technologies to enhance your plant’s efficiency while protecting your critical assets.

Water is a critical part of an industrial process; firmly linked to product quality, equipment longevity, and company profits. Effective processes for purifying, recycling, and discharging water are essential for a company to maximize its water resources and ensure regulatory compliance.

SUEZ is the industry's most experienced single-source supplier of fully integrated membrane systems for industrial water treatment, wastewater treatment, and water reuse including ZeeWeed® ultrafiltration (UF) pretreatment for reverse osmosis (RO), ZeeWeed Membrane Bioreactor (MBR), RO membranes, ion exchange polishing, electrodeionization, mobile systems, and ABMet Advanced Biological Metals Removal technology. Industrial plants throughout the world, from small industrial applications to some of the largest Fortune 500 companies, rely on SUEZ to design, build, and operate a robust and reliable water filtration or wastewater treatment system for non-stop production of the highest quality water.

consistent and reliable process water

Impurities in process water can jeopardize critical and expensive equipment as well as the operational efficiency of an entire plant. ZeeWeed UF pretreatment systems consistently produce treated water with a turbidity < 0.1 NTU, total suspended solids < 1 mg/L, and a silt density index typically < 3, often < 2 regardless of influent water quality, making it an ideal choice to reduce system fouling and minimize downtime in RO and ion exchange equipment.

Our team of membrane system experts offers over 25 years of experience and stands behind every system with a comprehensive range of services and warranties that guarantee client satisfaction and project success.

Our proven water treatment technologies produce high purity water for:
- Boiler feedwater;
- Cooling tower and process make-up water;
- High purity water for electronics, medical, pharmaceutical and other industries.

conventional boiler feedwater treatment process

SUEZ’s simplified treatment process

worry-free wastewater treatment and reuse systems

Industrial wastewater treatment can be challenging, with plants often facing high concentrations of organics, solids, and odors. Increasingly stringent discharge regulations, diminishing freshwater supplies, and rising costs are compelling many plant managers and corporate process experts to examine onsite membrane technologies that can reduce costs for wastewater treatment and water supply.

ZeeWeed membrane bioreactor (MBR) and tertiary filtration systems are proven to treat process wastewater to such a high standard that it can be reused within the plant or discharged safely back to the environment with no additional treatment. These advanced systems outperform conventional technology and provide a consistent supply of non-potable water that meets all discharge and reuse regulations. By eliminating the need for multiple conventional steps, ZeeWeed technologies reduce capital and operating costs while simplifying your operations so you can focus on your core business without worrying about compliance to current and future regulations.

**typical treatment results**

- COD Reduction .................................................. > 90%
- BOD Reduction .................................................. > 98%
- TSS Reduction .................................................. > 99%
- TKN/Ammonia Reduction ................................. > 90%
- Phosphorous Reduction ................................. > 90%‡

‡ with chemical addition

ZeeWeed MBR combines membrane filtration with biological treatment. The system replaces conventional treatment and combines clarification, aeration, and filtration into a simple and cost-effective process that reduces capital and operating costs. ZeeWeed membranes can be immersed directly in the bioreactor, or in larger systems located in a separate membrane process tank. The membrane bioreactor operates at high levels of MLSS (10,000 – 15,000 mg/L) resulting in plant footprints three to five times smaller than conventional systems. The membranes form a physical barrier that prevents the passage of biomass and other impurities, even in the event of an up stream process upset. The result is increased reliability and high quality effluent at all times.

ZeeWeed MBR features & benefits

- Physical UF barrier produces high quality effluent suitable for direct, non-potable reuse
- Unmatched fiber ruggedness ensures long membrane life
- "Self-healing" fibers eliminate catastrophic membrane failures
- Multiple effective cleaning techniques maintains long-term, peak system performance and provides a simple, rapid method of recovery in the event of an upset
- Hollow fibers provide a greater filtration surface area that reduces plant footprint
- Automated in-situ cleaning simplifies operation and maintenance
- Compact design minimizes land acquisition and construction costs
- Proven system performance in hundreds of industrial and municipal applications provides you with peace of mind
ABMet * advanced biological treatment for inorganics and metals removal

ABMet is a revolutionary biological process that removes metals and inorganics from wastewater to below non-detect levels. The ABMet process uses naturally occurring, non-pathogenic microbes to reduce and precipitate target compounds. The result is a highly efficient biological system that can remove 99%+† of selenium, nitrate, and other inorganics from wastewater. ABMet systems can reach the low effluent contaminant concentrations that are required by current or future regulations—levels that cannot be reliably achieved by physical/chemical processes.

ABMet is significantly less complex than conventional physical/chemical systems and offers a high degree of process control, producing a host of advantages that reduce capital and operating costs including:

- Minimal sludge generation;
- Virtually no chemical addition;
- Minimal power requirement since no mixing or aeration is needed;
- Inexpensive, biodegradable nutrient source;
- Compact plant footprint;
- Scalable to meet site demands;
- Short hydraulic retention time relative to other biological processes reduces footprint and capital costs;
- Excellent performance in cold water provides consistent high quality effluent through all seasons;
- Versatile process can be configured for many applications including flue gas desulphurization, mining, oil refining, chemical manufacturing, and agricultural drainage.

† Depending on site specific optimization