



fluence

Industrial Water & Reuse

Fluence, a leader in industrial water treatment for over 30 years, offers innovative solutions for a variety of sectors including food and beverage, energy, manufacturing, and mining. Our rapid-deployment containerized systems and advanced membrane technologies ensure efficient water management, cost reduction, and environmental compliance.

By leveraging global expertise for North American challenges, Fluence empowers businesses to optimize their water resources, enhance product quality, and achieve operational excellence while promoting sustainability.

Solutions



Process Water Treatment to ensure that the water used in industrial processes is of high quality and meets the required specifications.

Reuse of Industrial Water through the treatment of wastewater for reuse, providing new sources of water for various uses, while reducing freshwater withdrawals. Offerings include the NIROBOX™ containerized system, dissolved air flotation (DAF), UF, UV, RO, and AOP.



Water Treatment of Boilers and Cooling Towers to remove impurities and solids to prevent scale formation and corrosion while reducing biofouling risks in industrial equipment.

Industrial Wastewater Treatment to remove pollutants in the effluent generated in the industrial process and comply with environmental discharge permits.



Demineralization by Ion Exchange Systems or Resins are used to remove specific ions, such as chloride and sulfate, from industrial water.

Disinfection by Chlorination, Ozonation or Ultraviolet (UV) Radiation to remove pathogenic microorganisms from industrial water.



Desalination of Seawater Using Reverse Osmosis Membranes to generate water suitable for industrial applications.

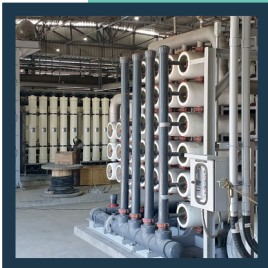
Removal of Hardness, such as Calcium and Magnesium to prevent scaling in industrial equipment.



After-Sales Technical Assistance Service and Spare Parts to ensure uninterrupted operation of the systems.

Remote Monitoring Service through TAMI for constant control and optimization of water quality parameters.

Industrial Water Case Studies



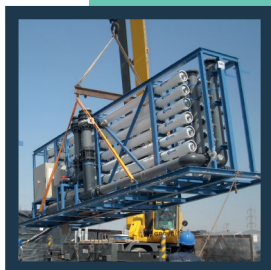
Arcelor Mittal Steel Mill Seawater Desalination Plant

This seawater desalination plant has a production capacity of 3.2 million gallons per day (mgd) of demineralized water for industrial use at steel mill. It utilizes a treatment configuration without intermediate break tanks, featuring self-cleaning disk filters followed by seven ultrafiltration (UF) trains. These UF trains feed into five two-pass reverse osmosis trains, producing demineralized water with a sodium content of less than 5 mg/L.



Monster Energy Beverage, Coca Cola Femsa Demineralized Water Production

Faced with the need to expand, Femsa Itabirito sought a water treatment system for demineralized water production. Fluence engineered a reverse osmosis system with a high permeate recovery, slashing raw water consumption by a staggering 66 GPM. From PTAP dechlorinator filters to ultrafiltration and a dual-stage reverse osmosis (RO) system with precision cartridge filters, every step was meticulously designed. The 100% operational RO system, seamlessly integrated with an ultraviolet (UV) system, delivered a flow of 484 GPM of demineralized water.



Gas Atacama Power Company Modular Plant Demineralizes Seawater for High Pressure Boilers

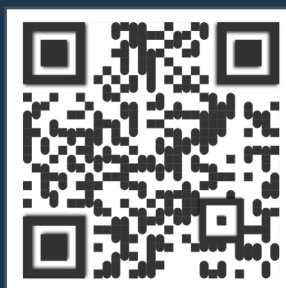
The modular plant produces 500 gpm of demineralized water from seawater for use in a high-pressure boiler. With a modular design composed of ultrafiltration pretreatment and two pass reverse osmosis, followed by electrodeionization, the demineralized water features a conductivity of less than 0.07 $\mu\text{S}/\text{cm}$ and a silica content of less than 10 ppb.



JBS Meat Processing Tertiary Treatment of Pretreated Meal Processing Wastewater for Reuse

Wastewater Reuse Plant treats the JBS wastewater allowing the plant to produce its own high quality service water. The system includes ultrafiltration and an ultraviolet system with a treatment capacity of 660 gpm.

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