



fluence

Industrial Wastewater & Biogas

The Fluence Industrial Wastewater team has more than 30 years of experience in the design, construction, and operation of wastewater treatment and anaerobic treatment plants for clients across a wide range of industries including: dairy, meat processing, wine, brewery, refreshments, confectionary, and more.

By integrating Fluence's on-site renewable energy solutions, customers can generate energy from wastewater, while slashing sludge production by up to 70%. Fluence technology also produces nutrient-rich digestate that is ideal for land application, all while dramatically reducing the operation's carbon footprint.

Common Industries Served



Dairy



Meat Processing



Fish Processing



Confectionary



Brewery



Refreshments



Pharmaceutical



Pulp & Paper



Distillery



Wastewater Treatment

- Primary treatments
- Dissolved air flotation
- Total nitrogen removal
- Digestate aerobic treatment
- MABR
- Industrial reuse tertiary treatment
- Shortcut nitrogen removal
- Wastewater biological and physical-chemical treatment

Services

- Preliminary Engineering Report (PER)
- Lab Analysis
- Pilot Testing



Anaerobic Digestion

- T-ARC solids digester
- AnDAF recuperative thickening
- EFC high rate digester
- Chemical - biological desulphurization of biogas

Financing

- Leasing options
- Packages to deliver water and wastewater treatment plants as a service, with Fluence assuming project risk and client paying a monthly fee
- Turnkey packages include financing, constructing and operating water assets under build-own-operate (BOO), build-operate-transfer (BOT), system leases, and reuse-as-a-service (RaaS)

Industrial Wastewater Case Studies



Amadori

Chicken Slaughterhouse

- **Location:** Teramo, Italy
- **Solution:** Wastewater and Waste-to-Energy

Amadori already had a wastewater treatment plant (WWTP), but needed to increase production while reducing disposal costs. The challenge was to build and activate the plant without disturbing the operation of the existing plant and slaughterhouse. Fluence restructured Amadori S.p.A's existing WWTP by adding anaerobic digestion and a Nitro-Denitro system to increase production and reduce disposal costs, while maintaining normal plant operations. The upgraded system processes poultry slaughterhouse wastewater and produces biogas for energy conversion.



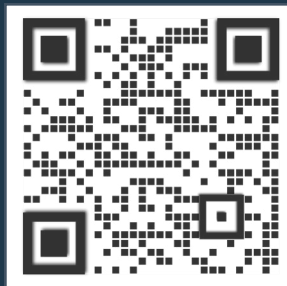
Mater-Biotech

Biochemical Plant

- **Location:** Adria, Italy
- **Solution:** Well-Water Potabilization, Wastewater Treatment, Waste-to-Energy
- **Technologies:** Air Stripping, Sand Filtration, Double-Stage Nitrification-Denitrification, Membrane Bioreactor, CSTR Anaerobic Digester, Biogas Desulphurization

To reduce environmental impact and disposal costs, Fluence added a waste-to-energy solution to Mater-Biotech's plant, incorporating innovative technologies to handle complex waste streams. Despite the complexity of characterizing these waste streams and a tight timeline, Fluence successfully developed three treatment trains, including a membrane bioreactor (MBR) and a continuous stirred tank reactor (CSTR) anaerobic digester.

LEARN MORE



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