

# Hydraulix™



Hydraulix™ is a patented technology that utilizes a nozzle placed in immersion in the fluid to be handled. This system is able to mix fluids with suspended solids up to 12%, through the aid of a pump always accessible and external to the tank.

The nozzles, suitably oriented direct the flow in multiple directions simultaneously and evenly distribute the energy to create a model of uniform mixing of all levels of the tank.

Hydraulix™ ensures the prevention from sedimentation crusts and increases the efficiency of biogas plants as well as those of waste water treatment.

Hydraulix	Mixer
Uniform mixing of the fluid over the whole volume	Strong dispersion of energy at around of the blades, poor mixing in the boundary layers.
Increase in volatile solids generated (between 55% -60%)	Inefficient digestion of biomass (biomass waste)
For biogas plants: lower production costs, rapid return on investment.	Digestion process inefficient, higher production costs
For sewage treatment plants: lower production of sludge	Higher sludge production - higher disposal costs.
No maintenance, no moving parts inside the tanks and reduced energy consumption	Scheduled maintenance, needed downtime with its operating costs

Hydraulix™, a Global Biofuel Technologies trade mark, is distributed in Europe by FO.IN

Hydraulix™ is an innovative mixing process, it has proven to be a superior technology used to suspend bio-solids in a variety of processes in the Bio-Fuels market, Municipal wastewater treatment plants and a wide variety of Industrial applications.



With the use of the innovative dual nozzle arrangement, material within the process is recirculated through an external pump and returned back through the dual nozzle assemblies.

The nozzles then direct the flow in multiple directions simultaneously to evenly distribute the mixing energy to create a dual zone rotation that creates a very efficient mixing pattern that

maintains a high solids suspension rate and optimizes any process where the system is applied.

Hydraulix™ optimizes solids suspension and contact to promote efficiency in a wide range of wastewater and bio-fuels applications:

- **Anaerobic Digestion:** *Mesophylic, Thermophylic, & Hydrolysis (acid phase)*
- **Aerobic Digestion:** Offering 70% reduction in aeration design.
- **Bio Solids Storage:** Designed to operate on an intermittent basis to suspend settled material and produce consistent feed concentrations to dewatering systems.
- **Blend Tanks:** Consistent feed rates to dewatering, reducing power and optimizing chemical consumption.
- **Water Treatment Filter Backwash Tanks:** Allows for the suspension of settled lime or alum sludge.
- **Storm Water Excess Flow Tanks, Shafts or Tunnels:** Suspends settled organic and inorganic solids to reduce cleaning costs.
- **Assisting Secondary Treatment:** Incorporates additional mixing for secondary treatment systems to suspend organic material that has settled and leads to potential process problems.
- **Chemical Storage:** Perfect application for specialized chemical process waste tanks.
- **Anoxic Zones:** Requires only one pump to reduce maintenance and capital costs.
- **Fertilizer Storage:** Resuspends crystallized fertilizer.
- **Equalization Tanks:** Suspends settled material to assure valuable organic material returns to the process and significantly reduces clean-up cost.

For additional information please contact:

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