IN-PIPE TECHNOLOGY

Performance Focus

Bulletin #100910

About Us:
Pre-treating Wastewater in the Collection System Improves Treatment Economics

In the early 20th century, cities began to adopt the biological methods that now form the basis by which wastewater treatment plants function. Microorganisms act to catalyze the oxidation of biodegradable organics and other contaminants generating innocuous by-products such as carbon dioxide, water and biomass (sludge). Simply put, bacteria grow and divide, producing biosolids and clean water effluent. Today, this metabolism occurs in wastewater treatment plants, which have the limits of size, retention time, processing capacity, and of course – municipal budgets.

WWTP Clarifiers

In-Pipe Technology enhances this fundamental process by starting treatment at strategic locations throughout the sewer collection system. In-Pipe's patented technology transforms miles of sewer pipe into an active part of the wastewater treatment process, optimizing the entire infrastructure. This improves operating economics without additional capital expenditure. Since it uses natural, biological methods that work with the treatment plant's own processes, In-Pipe is a sustainable solution – environmentally and economically.

Operating Savings & Efficiency

In-Pipe increases operating efficiency by reducing influent organic loading and the costs associated with sludge handling and disposal, expensive chemicals, and energy usage.

WWTP Control Room

The reduced loading at the plant, coupled with a more efficient microcosm reduces aeration requirements and provides significant energy savings.

Water Quality

In-Pipe Technology improves water quality for discharge or reuse by reducing influent organic loading and effluent pollutant levels. In-Pipe has helped compliant plants function more efficiently and has helped non-compliant plants achieve their targets.

Inside a WWTP

By initiating productive microbiological activity in the collection system, In-Pipe digests organic matter as it moves through the entire system improving the influent bioavailability. In-Pipe can structure treatment design to address industrial inputs into the collection system. It works with both conventional treatment processes and new designs using membrane bioreactors.

Collection System Issues

In-Pipe reduces odors, corrosion, and fats, oil, and grease (FOG), extending the life of the infrastructure. In-Pipe works in the sewer collection system combating sulfate reducing bacteria that cause odors while metabolizing FOG. This reduces maintenance and energy costs.

WWTP Aeration Tanks

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Service Offering

In-Pipe provides engineered wastewater treatment services to municipalities and industries worldwide. In-Pipe engineers a solution for each customer based on a full system review and includes turnkey installation, service and maintenance.

Unmatched Expertise

- Process Engineering
- Wastewater Treatment Plant Design Optimization
- Microbiology Laboratory
- Project Management
- Control Systems (SCADA) Programming and Remote Monitoring
- Microbial Production

Proven Improvements

- Reduce Influent Loading
  - TSS 30%
  - BOD 30%
  - Total Nitrogen 50%
- Reduce Sludge Disposal 50%
- Reduce Energy Consumption (KwH) 30% to 60%
- Control H_2S Odor & Corrosion
- Control Fats, Oils, & Grease (FOG)
- Increase Plant Capacity

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