AEROBIC
DIGESTION

G-TAD™ Process

Gravity thickened aerobic digestion

What are your needs?

- Improved pathogen destruction with reduced solids retention time
- Continuous automated thickening of the aerobic digester
- Smaller sludge volumes for disposal
- Enhanced pH and temperature control

Key Benefits

- Produces a stabilized, homogenous Class B sludge
- Increased solids concentration in gravity thickener
- Enhanced pH and temperature control
- Reliable operation, using Ovivo non-clogging medium-bubble aeration systems
- Minimizes operator intervention

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G-TAD™ Process

Description

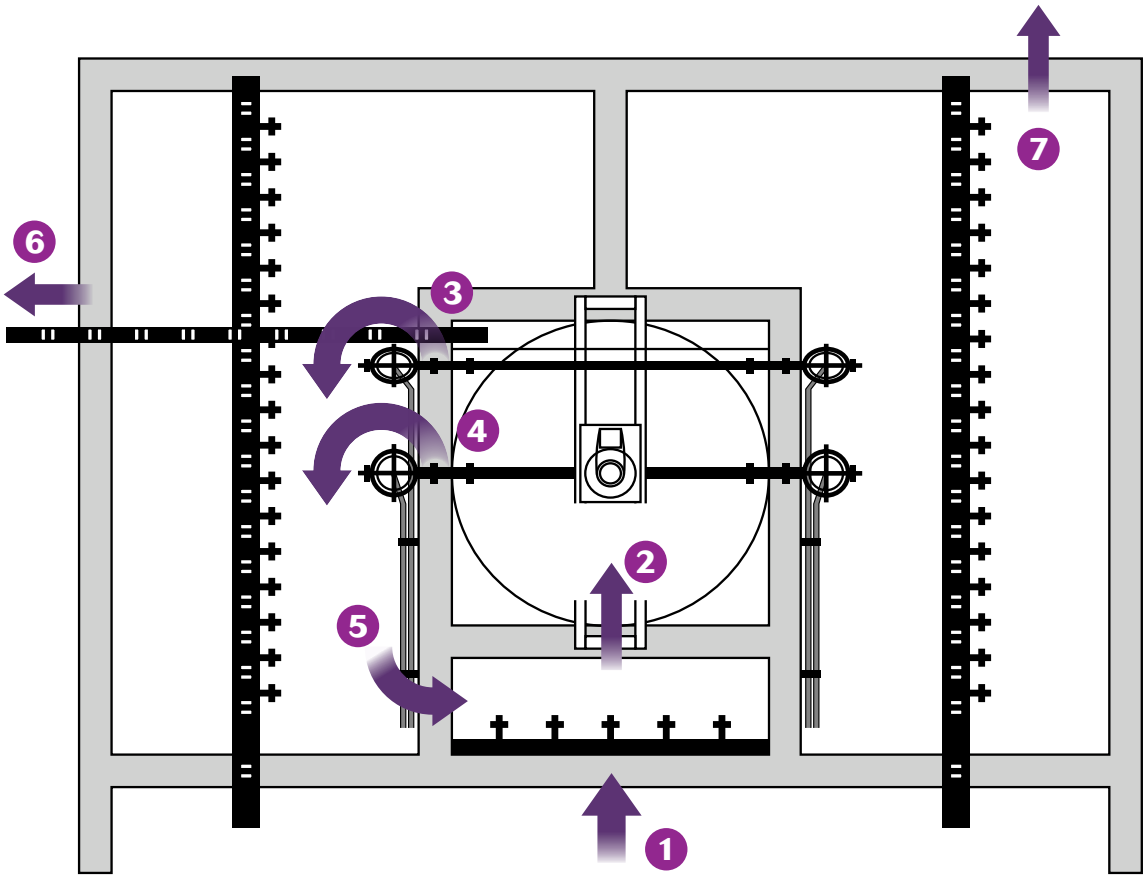
The patented G-TAD™ (Gravity Thickened Aerobic Digestion) system provides integrated operation of a gravity sludge thickener and two or more aerobic digesters. By operating these units as a combined system improved treatment is achieved.

Application Oppurtunities

For those owners looking for a simple, reliable means of achieving Class B biosolids, look no further than the Ovivo G-TAD system. The robust design makes use of common wall construction to create a system that requires little operator attention and minimal maintenance while producing biosolids suitable for land application.

Process

1. Influent flows into pre-mix
2. After aeration, pre-mix flows into gravity thickener
3. Scum is airlifted into in-loop digester
4. Thickened sludge is airlifted into in-loop digester
5. Digester overflows back into pre-mix
6. Supernatant is sent to head of the plant
7. Digested sludge leaves from isolated digest



How It Works

The G-TAD technology consists of two Aerobic Digester basins operating in conjunction with a Pre-Mix basin and a Gravity Thickener. One digester forms a loop with the Gravity Thickener and Pre-Mix Basin. Raw sludge is introduced into the Pre-Mix basin, where it is vigorously mixed and aerated to raise microbial activity and dissolved oxygen concentration.

The sludge overflows from the Pre-Mix to the Gravity Thickener where solids are allowed to settle to the bottom without aeration establishing an anoxic stage in the settled sludge. This causes the sludge to be denitrified by microbial action, raising and stabilizing the pH. Supernatant is removed from the top of the Gravity Thickener through an effluent weir trough and returned to the head of the plant.

Thickened sludge is airlifted from the bottom of the Gravity Thickener to the "in-loop" Digester where it is aerated and nitrification occurs, but using less aeration than normally required in a digester, due to the effect of alternating anoxic/aerobic phases.

Scum is collected in the gravity thickener using a scum collection system (e.g. scum beach or slotted pipe skimmer) and is also airlifted to the "in-loop" Digester. Digested sludge overflows from the Aerobic Digester to the Pre-Mix, where it is mixed with incoming raw sludge, completing the loop. In this manner the sludge is continually decanted and thickened.

G-TAD™ Process

Creating Value For Over 20 Years

For over 20 years the Ovivo G-TAD process has been providing value to owners. The unique batch operation capability of the digesters leads to a significant reduction of pathogens in the sludge helping to ensure Class B compliance. At the same time the automated airlift pumps and thickener drive design minimize the amount of time operators have to spend maintaining the equipment of the G-TAD system.

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Get Connected! Like all Ovivo equipment, your new G-TAD™ process will provide you with access to the Ovivo® Connect℠ portal, our innovative client resource application.

- Need access to your O&M Manual?
- Needs spare parts?
- Want the latest tips and news on your product?

Just scan the QR Code, or type-in the URL featured on the nameplate, to access dedicated web pages that will help you maintain and optimize your plant and your Ovivo equipment!

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