

Winery FAST[®]

Fixed Activated Sludge Treatment



Wastewater Systems
for Wineries & Bottlers

Factsheet

3-3007



See No Evil, Hear No Evil, Smell No Evil

Winery FAST wastewater treatment system is the 21st century solution for today's winery

Winery FAST from Smith & Loveless takes the evil out of treating a winery's process and sanitary wastewaters. You won't see, hear or smell this advanced wastewater treatment system because it operates underground and requires minimal operator attention. Winery FAST utilizes the proven FAST process — applied successfully in other industries — to provide increased BOD reduction for discharge to an aeration pond, constructed wetlands, leachfield, or city sewer line. This makes it ideal for wineries who are concerned about fostering a 21st century environmental image, preserving the winery's aesthetic appeal, and reducing the evils of winery wastewater.

Benefits of Winery FAST

- **Proven Process:** effectively pretreats winery wastewater for up to 99% BOD removal depending on requirements.
- **Flexible Application:** handles any kind of waste stream generated at a winery for safe and beneficial discharge to aeration pond, leach field, constructed wetland or city sewer system.
- **Minimal Operation & Maintenance:** requires no daily operation supervision or maintenance.
- **Low Profile:** situates below grade if desired — out of sight, out of mind — for a winery's aesthetic qualities.
- **Single-source:** completely designed and manufactured by Smith & Loveless Inc., a company with more than 50 years of wastewater treatment experience and tens of thousands of installations in more than 65 nations around the world.

Pilot Testing Available

Smith & Loveless conducts pilot tests on-site with the Winery FAST system. For more information about the pilot unit and test data, contact our Industrial Division (U.S. domestic projects only) or International Division (projects outside the domestic U.S.).

Installation



Testing at Start-up



System Operating Underground



Smith & Loveless' Winery FAST can be installed below grade, protecting the aesthetics of any winery. This advanced wastewater treatment system combines low profile with minimal operator attention to become a winery's premier treatment choice.



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FACTSHEET

Winery **FAST** — How It Works



Hospitality



Vineyard Runoff



Crush Season



Sanitation



Barreling

FAST is an acronym for *Fixed Activated Sludge Treatment*. With three treatment steps in one tank, Winery **FAST** is ideal for onsite applications. Sanitary and process wastewater originate from different sources within a winery (pictured above), creating variable BOD load conditions and flows. Winery **FAST** can be customized to fit the specific pretreatment requirements of individual facilities, including for crush season, when substantially increased BOD loadings require a *fast* adaptation for a higher level of treatment.

- 1 Influent from a septic tank encounters submerged media and a biomass population in the aeration tank. Bacteria are “fixed” to the media, preventing shock loads from washing them out and providing a much higher surface area to volume ratio. Several Winery **FAST** designs are utilized depending on requirements.
- 2 Sludge settles into a separate zone (clarification).
- 3 Further digestion occurs in anaerobic environment. Meanwhile, clean, odorless effluent is discharged.

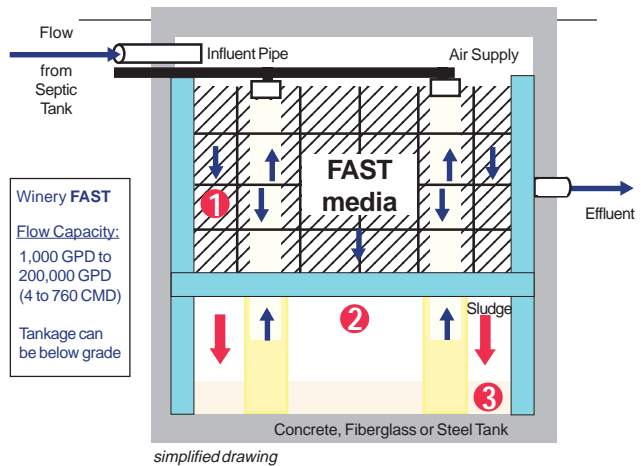
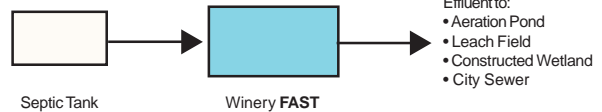
Flexible Discharge Options and Benefits

Winery **FAST** is flexible to the needs of each individual winery and bottling facility. The system offers significant benefits for pretreatment to the variety of discharge applications, including pretreatment to aeration ponds, leach fields, constructed wetlands, and city sewer lines.

1. FAST Benefits for Aeration Ponds

By significantly lowering BOD levels prior to storage and further biodegradation in an aeration pond, Winery **FAST** can reduce the area required to operate such a pond, lowering capital expense and/or increasing land for wine production. It will also reduce the offensive odors that result from overloaded ponds and changes in temperature.

Flow Scheme



Finally, for those wineries that reuse their pond water for irrigation, Winery **FAST** can reduce BOD levels so that impurities will not develop under the vineyard’s top soil, causing standing water and other negative outcomes.

2. FAST Benefits for Leach Field/Wetlands

Cleaner effluent from the **FAST** process prevents plugging in a leach field and allows environmentally-friendly wetlands to suitably handle treated effluent.

3. FAST Benefits for Pretreating to City Sewer

Reduce or even eliminate costly surcharges with a system designed to reduce BOD levels that meet the local permit requirements.

smithandloveless.com

For more information on Winery **FAST**[®], e-mail us at answers@smithandloveless.com or call (800) 898-9122.

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