

# ANAEROBIC DIGESTER TANKS

# Renewable Energy Solutions



At Tank Connection, we DESIGN, MANUFACTURE and INSTALL the top performance anaerobic digester tanks offered in the industry today worldwide!







Highest Performance ... Lowest Maintenance

Compare & Select the BEST!

# Our Precision RTP Construction is the #1 Bolted Tank Design Selected Worldwide

When it comes time to select an expert in digester tank design, manufacturing and field installation, the leaders in biogas systems turn to Tank Connection for their RTP (rolled, tapered panel) bolted tank design coated with LIQ Fusion 7000 FBE<sup>TM</sup>. Tank Connection's anaerobic digester tank designs and coating system remain unmatched in the industry WORLDWIDE.

The Tank Connection Affiliate Group is the only storage tank manufacturer worldwide that designs, manufactures and installs all types of steel storage tanks used in anaerobic digester applications, including bolted RTP (rolled, tapered panel), field-weld, shop-weld and hybrid tank construction.

You can rely on us to address the factors that should be addressed in digester applications including vapor zone considerations, operating temperature, pressure and vacuum design, alternative configurations, corrosion considerations, pH/acidic levels, operating environment, materials of construction, applicable codes, thermal expansion, chemical resistance and appropriate design standards.





In anaerobic digester applications, the critical area inside the storage tank is the vapor zone. This is the area where many competitors' digester tanks routinely fail. Tank Connection has developed the ultimate digester designs that provide superior performance in the field with low maintenance requirements.

#### Anaerobic Digester Tank Applications:

#### **Bolted RTP Construction**

- $\sqrt{\phantom{0}}$  #1 Bolted tank design offered in the industry today
- √ LIQ Fusion 7000 FBE™ is the top performance powder coating system available
- √ For select applications, TC can provide stainless steel construction in the vapor zone area
- $\sqrt{}$  Special vapor zone design with external rafter system
- √ Special membrane tank cover designs



#### How Digesters stack up:

| Anaerobic Digester Options:   |                         |             |             |                             |   |
|---|-------------------------|-------------|-------------|-----------------------------|---|
| Optional Design:  | Types                   | Liquid Zone | Vapor Zone  | Installed Cost              | Tank Connection Comments  |
| Option 1  | Black Steel             | BS          | LIQ Fusion* | Lowest cost digester option | Black steel is optional for liquid<br>zone that maintains no oxygen.<br>Without oxygen present, there is<br>no corrosive activity |
| Option 2  | LIQ Fusion 7000<br>FBE™ | LIQ Fusion* | LIQ Fusion* | Most cost efficient         | The best digester design and coating system available.  |
| Option 3  | 304 Stainless Hybrid    | LIQ Fusion* | SS          | Cost efficient              | TC recommended due to limited use of stainless steel in vapor zone area. The ultimate anaerobic digester design.                  |
| Option 4  | Glass Coated            | Glass       | Glass       | Most expensive approach     | Sidewall panels provide good<br>protection. Vapor zone deck<br>design is the weak link in<br>anaerobic digester applications.     |
| * Designation LIQ Fusion 7000 FBE™ (Tank Connection exclusive & proprietary fusion bond coating system) |                         |             |             |                             |   |

## LIQ Fusion 7000 FBE™ Outperforms Glass/Vitreous Enamel

#### Get the facts:



Download our brochure for a side by side comparison. Tank Connection's proprietary LIQ Fusion 7000 FBE™ coating system is a stronger system than vitreous enamel/glass.

The problems with glass/vitreous enamel coatings in Digester Applications:

- √ There are a variety of cheap glass coating processes offered in the industry today. Due to continuous recipe changes and one fire process, glass coatings are not being made better, but rather cheaper.
- √ The liquid to vapor zone area inside the tank has a history of failure in digester applications.
- √ Glass tanks cannot be recoated in the future. They have a finite service life.
- Many glass tank designs offered today utilize minimum sidewall plate thickness, supported with external web stiffeners (cheap reinforcement bands). This design should be considered a shortened product life cycle design.

#### There's a long list of reasons why Tank Connection is building the best digester designs in the industry!

- √ Sidewall to deck connection is welded ... not bolted. A bolted connection in the sidewall to deck connection area (vapor zone) is an inferior design compared to a smooth welded transition that is coated with a factory applied "holiday free" fusion bond coating system.
- √ No internal deck supports are allowed . . . special pressure deck design developed by Tank Connection utilizes external supports only.
- √ LIQ Fusion 7000 FBE™ is the best fusion bond powder lining system available worldwide. It is applied at 7-11 mils DFT in digester applications.
- √ For select applications, Tank Connection can provide stainless steel construction in the vapor zone area.
- √ LIQ Fusion 7000 FBE™ is the most cost efficient approach for anaerobic digester applications.
- ✓ Based on the current pricing of stainless steel
  material, a hybrid digester design that utilizes LIQ
   Fusion 7000 FBE™ in the liquid zone and stainless construction in the vapor zone, may be considered the ultimate digester design available.
- √ Our proprietary LIQ Fusion 7000 FBE™ is NSF 61-approved and is unmatched in performance compared to all bolted tank linings.
- √ Tank Connection is the only tank supplier worldwide that designs, manufactures and installs all four types of steel storage tanks including bolted RTP, field-weld, shop-weld and hybrid tank designs for anaerobic digester applications. We offer our clients whatever type of steel tank construction is preferred.
- $\sqrt{}$  BSR (base setting ring) design is standard.
- ✓ Our precision RTP (rolled, tapered panel) construction is the #1 bolted tank design selected worldwide. The best features of bolted and field-weld tank construction have been combined together in the RTP design. It remains unmatched in the industry in all category ratings.
- √ RTP construction is easily containerized and shipped worldwide.







- √ TC's field construction processes are rated "the best" in the industry. We utilize a synchronized jacking process that allows wastewater storage tanks to be built from grade level. This process also receives the highest ratings for point quality control and safety in the field.
- √ Tank Connection is a vertically integrated company, which promotes our global position as a competitive price leader.
- √ With over 2100 years of combined experience in storage applications, Tank Connection stands alone as a global leader in storage containment systems.

For more information on Tank Connection, visit our website at www.tankconnection.com.

### We offer Single Source Solutions to our Clients:

- Over the phone answers, downloaded bid specifications, prompt quotes and "golden rule" customer service.
- We offer the best tank coating processes offered in the industry today.
- We have direct factory crews offering both non-union and union field installation services.
- Shop fabricated bolted and welded tanks minimize field installation requirements.
- Quick field installation service provided by factory crews worldwide. Available for immediate mobilization with fully equipped self-contained shipping containers.
- We can install anaerobic digesters in less than half the time required for concrete construction.
- We are a competitive price leader worldwide.
- We are the "solution company" in storage containment applications.













Download our "quick specs" for all types of steel tank construction.

If your project involves a single tank or an integrated storage system, no one offers more services and creative solutions than Tank Connection. From the quote stage through order process, drawing approval, material fabrication and field installation, Tank Connection will provide streamlined processing and "Golden Rule" customer service.

#### GET CONNECTED with the Unmatched Performance of Tank Connection!





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