

# TANK Connection - RTP (rolled, tapered panel) Tank Erection Process keeps Field Crews on the Ground!

A safe work environment is a top priority in all industries. Whether you work in an office, a manufacturing plant, or in field construction, safety is a factor that must be monitored continuously. Innovations to enhance safety are sought after in each industry. **That's why Tank Connection, the leader in storage tanks/silos and integrated storage systems, has developed the top rated field construction process in the tank industry today. Our synchronized jacking process is recognized as the #1 field construction process for bolted tank installation worldwide.** 

Field-erected bolted tanks began decades ago in the "oil patch" territories. Tanks were developed utilizing steel panels that were formed in the shop and shipped to the field for bolted assembly. This methodology transformed through the years to include designing these tanks to store other liquid and dry bulk materials. However, with this transformation, the field construction techniques used have never been considered safe construction practices.

In the past, tank constructors used scaffold brackets and wooden planks to scale the exterior of the tank during construction. Depending on the tank height, workers would be several stories off the ground with minimal safety restraints including tie-off lines and harnesses. In today's industrial market, plant managers must ensure the safety of all workers on site. This is why Tank Connection has taken the safety of bolted tank construction to a new . . . unmatched level of field performance.

By utilizing a series of synchronized, hydraulic screw jacks at grade level, workers do not have to leave the ground to install a field-erected bolted RTP tank. The system is carefully designed for each application, taking into consideration the tank diameter, height, dead weight, wind conditions and other parameters. Tank Connection is also the manufacturer of this proprietary jacking system.

Engineers, plant managers, and safety trainers all tout the safety aspects of our field construction services. One safety coordinator at a major chemical plant stated, *"We have taken the old method of tank installation and made it into a training session of what not to do."* Tank Connection has developed the only tank construction process available in the marketplace today that can be considered "safe field construction".

Regardless of the tank size, Tank Connection's jacking system has become the preferred choice for field-erected bolted tanks worldwide.

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# A pictorial review follows . . .

A. Tank installation begins with the "starter" ring that is anchored to the foundation. Next, the tank jacks are located in position.



Dry Bulk Tank – Base Anchor Ring



Potable Water Tank - Base Setting Anchor Ring

B. Field installation begins with the top ring of the tank attached to the synchronized hydraulic screw jack system. The specialized jacking system is anchored to both the concrete foundation and the tank "starter" ring.



Dry Bulk Panel Installation



Potable Water with Aluminum Dome

completed. The installed tank structure is then raised with the jacks and the next lower ring assembly is installed.

C. Sidewall sheets are added from the ground level until each ring assembly is

Dry Bulk Hopper Tank

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D. At any time, the tank can be lowered and attached to the "starter" ring to allow anchorage for leaving the tank overnight, over the weekend or in the event of sudden increase of wind or storm.

#### Wastewater Tank Application

Potable Water with Steel Bottom





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E. Bulk storage tanks can be built at grade level and lifted as single units for attachment to elevated structures.



Mass Flow Hopper Tanks

F. The specialized jacking process is versatile and allows the attachment of baffles, aluminum domes and other tank appurtenances prior to lifting process.



Clarifier

G. This hydraulic screw jack system is manufactured exclusively by Tank Connection. TC has stationed hundreds of jacking units globally to meet immediate customer service needs.

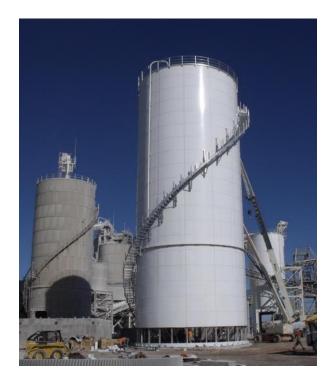




The steel screw shafts are mounted in extruded aluminum frames. The gear box is located at the base of each jack. Drive shafts attach at base, between jacks, to maintain a synchronized lifting process.

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H. Bolted RTP tanks of any size can be jacked from grade level. The number of jacks required is directly correlated to tank design parameters, tank size and lifting weights.





Bolted RTP construction installs in 1/3 the time required for field-weld tank construction.

I. Tank Connection's field construction services are recognized as #1 in the bolted tank industry. TC is also recognized for setting a new benchmark of performance in bolted RTP tank fabrication and integrated storage solutions.





Anaerobic Digester Tanks

Truck & Rail Drive Through Designs

# Storage Tanks – Field Installation Services

Tank Connection Affiliate Group (TCAG) offers all types of storage tank construction in the field. With over 20 construction crews in the field, specialized in different types of tank construction and related field services, TCAG provides the best, most experienced field installation services available for integrated storage systems.

TCAG also has direct factory supervisors available to supervise "local labor" crews at both domestic and international locations. Our bolted RTP (rolled, tapered panel) tank construction can be installed at any remote location worldwide by utilizing our special synchronized jacking process. As shown in this document, this process allows large dry bulk and liquid storage tanks to be jacked from grade level, while field installation crews remain on the ground. Tank Connection receives the highest marks in the industry for safety and quality control in the field.





Tank Connection is the global leader in bolted RTP storage tank applications and field construction processes. Our storage products and services are shipped and installed worldwide!

"GET CONNECTED" with the industry leader in storage, Tank Connection. You can't specify or procure "BETTER THAN THE BEST" in the industry!

For more information about Tank Connection, visit us at <u>www.tankconnection.com</u>.