DRY BULK STORAGE SOLUTIONS

GET CONNECTED TO UNMATCHED PERFORMANCE WITH TANK CONNECTION.

AMERICAN MADE
INNOVATIVE DEVELOPER OF THE NUMBER ONE BOLTED SILO DESIGN SELECTED WORLDWIDE

ELEVATE YOUR EXPECTATIONS WITH THE GLOBAL LEADER IN STORAGE TANK SOLUTIONS!
AT TANK CONNECTION, WE ENGINEER EXCELLENCE
Tank Connection is the leading bolted tank manufacturer for factory coated bolted storage tanks and aluminum geodesic dome covers for dry bulk and liquid storage applications. Tank Connection is a vertically integrated company assuring the best products available while maintaining competitive pricing.

WE EXCEED EXPECTATIONS
Tank Connection is committed to helping clients find success with their projects. It is the utmost devotion to the customer that drives an unyielding pursuit of excellence that is the embodiment of Tank Connection.

WE OWN A REPUTATION OF SUCCESS
Tank Connection is an employee owned company, manufacturing American-made products in multiple ISO 9001 certified facilities in the U.S. Tank Connection has built a reputation of success with a passion for safety, innovation and continuous improvement.

WE FACILITATE COMPREHENSIVE SOLUTIONS
Tank Connection focuses on listening to clients and providing them with factual information on different types of storage containment options. This approach to service clients is based on the development of a broad product line of superior storage tank products, designs and field services.
QUALITY & SAFETY DEFINES OUR PERFORMANCE

At Tank Connection, quality and safety are second nature. Tank Connection’s field installation utilizes a synchronized jack process, which allows field crews to install tanks at grade level. This process receives the highest industry ratings for quality control and safety in the field.

BOLTED RTP HOPPER TANK CAPACITIES

Sizes up to 150,000 cubic feet
4247.5 cubic meters
WHEN IT COMES TO SAFETY, WE'VE GOT BOTH FEET ON THE GROUND.

THE SAFEST FIELD INSTALLATION PROCESS IN THE INDUSTRY.

Tank Connection jacking systems are stored at various locations around the world for expeditious results at the lowest factored cost.

WE JACK THE LARGEST BOLTED TANKS IN THE WORLD FROM GRADE LEVEL.
When it comes to precision design and expert knowledge, Tank Connection maintains one of the most extensive engineering departments in the tank industry. With an extensive in-house staff of PE’s, project managers, and drafting services, Tank Connection is able to offer bulk storage tank construction tailored for any global location.

Starting with steel procurement at the mill and finishing with construction services in the field, all design, manufacturing, project management, system integration and field installation services are available through Tank Connection’s experienced personnel.

Tank Connection offers heavy, robust tank designs that are designed for low maintenance and long term performance. Bolted RTP (rolled, tapered panel) tank construction outperforms all other types of bolted tank construction through its superior design, proprietary coating systems and safe field installation processes. Let Tank Connection’s expert industrial designers and shop technicians, with decades of experience in tank production, turn your specifications into a specialized tank built to last.

**Common Code Requirements**

- IBC (International Building Code)
- UBC (Uniform Building Code)
- Eurocode
- ASCE (American Society of Civil Engineers)

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**HEAVY MODULAR TANK DESIGN**

**FIELD WELDED**

- DESIGN A
  - BEST QUALITY
  - Panel size varies
  - Horizontal RTP
  - Heavy bulk ind., Power industry

**BOLTED RTP**

- DESIGN A
  - BEST QUALITY
  - 10’ wide panel
  - Horizontal RTP
  - Heavy bulk ind. Power industry

**BOLTED RTP**

- DESIGN B
  - GOOD QUALITY
  - 2 stiffeners per 10’ wide panel
  - Horizontal RTP

**LIGHT MODULAR TANK DESIGN**

**BOLTED API 12B FLANGED PANEL**

- DESIGN C
  - MARGINAL QUALITY
  - 2 stiffeners per 5’ wide panel
  - Vertical flanged
  - Grain, light bulk, plastics, other

**CORRUGATED PANEL**

- DESIGN D
  - LOWEST QUALITY
  - 4 stiffeners per panel
  - Vertical flanged
  - Grain
Bolted RTP design is a combination of the best features of bolted and field welded storage tanks. The modular design allows for easy shipping and safe, grade level installation. Robust construction and precision engineering make Tank Connection’s bolted RTP well-adapted to all climates, geology and weather conditions. It is easy to see why it is the product of choice for dry bulk applications worldwide.
**BOLTED RTP DESIGN**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Seal</td>
<td>EPDM gasket</td>
</tr>
<tr>
<td>Heavy modular design</td>
<td>Up to 1/2” plate</td>
</tr>
<tr>
<td>Precision fabrication quality</td>
<td></td>
</tr>
<tr>
<td>Hopper attachment</td>
<td>Shop welded (upper and lower compression attachment)</td>
</tr>
<tr>
<td>Interior coating</td>
<td>Dry Fusion 5500 FBE™</td>
</tr>
<tr>
<td>Exterior coating</td>
<td>Dry Fusion 5500 FBE™ + EXT Fusion SDPTM</td>
</tr>
<tr>
<td>Lap joint panel connections</td>
<td>No leak design</td>
</tr>
<tr>
<td>Jack-built</td>
<td>Grade level crews</td>
</tr>
<tr>
<td>External ledge</td>
<td>None (smoothwall)</td>
</tr>
<tr>
<td>Internal ledge</td>
<td>None (smoothwall)</td>
</tr>
<tr>
<td>Long life + Low maintenance</td>
<td></td>
</tr>
<tr>
<td>Superior aesthetics</td>
<td></td>
</tr>
<tr>
<td>Rating</td>
<td>Excellent</td>
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</table>

**API 12B DESIGN**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal</td>
<td>EPDM gasket</td>
</tr>
<tr>
<td>Light modular design</td>
<td>Up to 1/4” plate</td>
</tr>
<tr>
<td>Inconsistent flange panel fabrication</td>
<td></td>
</tr>
<tr>
<td>Hopper attachment</td>
<td>Bent plate (same as corrugated grain tanks)</td>
</tr>
<tr>
<td>Interior coating</td>
<td>Powder coating primer</td>
</tr>
<tr>
<td>Exterior coating</td>
<td>Acrylic urethane</td>
</tr>
<tr>
<td>Chime connections</td>
<td>Leaks</td>
</tr>
<tr>
<td>Scaffold-built</td>
<td>Elevated crews</td>
</tr>
<tr>
<td>External ledge</td>
<td>Yes (2” horizontal ledge)</td>
</tr>
<tr>
<td>Internal ledge</td>
<td>Yes = Product contamination</td>
</tr>
<tr>
<td>Long life + High maintenance</td>
<td></td>
</tr>
<tr>
<td>Superior aesthetics</td>
<td></td>
</tr>
<tr>
<td>Rating</td>
<td>Poor</td>
</tr>
</tbody>
</table>

**COMMON TYPES OF BOLTED RTP TANKS PROVIDED BY TANK CONNECTION**

- Skirted drive through
- Column enclosure
- Full skirt
- Bolted lug
- Short skirt on structural steel
- Flat bottom
Superior engineering combined with advanced coating technology make Tank Connection bolted RTP designs ideal for any bulk storage application, in any environment. The modular design of a bolted RTP is a logistically sound approach as it is easily containerized for expeditious shipping and installation anywhere in the world. A long track record of versatility and durability has proven bolted RTP design to be the best storage solution for mainstream and customized applications alike.
Tank Connection has been at the forefront of innovation and technology in the storage industry since its inception. Tank Connection continues to evolve its products and their capabilities to provide the best products in the market. The hybrid tank design is a Tank Connection innovation that developed from our power utility applications. This versatile design combines the best qualities of Bolted RTP, field welded and concrete tank construction.

Tank Connection provides premier tank designs including API 650, API 620, ASME and AWWA D100 construction. Tank Connection minimizes the large piece count shipped to the field to minimize field construction time frames.

GAME-CHANGING INNOVATION

GO BIG! FIELD WELDED DESIGN

CEMENT TERMINAL
Whangarei, New Zealand

SAND STORAGE
Monahans, TX

SOYBEAN MEAL
Hanford, CA

LIMESTONE
Quinton, AL

FLY ASH
Muscatine, IA

CARBON
Armistead, LA
THE HOPPER DESIGN EXPERTS

Tank Connection designs, manufactures and installs more large hopper bottom silos than any other tank manufacturer.

TANK CONNECTION SPECIALIZES IN MATERIAL FLOW DISCHARGE SYSTEMS

Tank Connection is recognized as the design and fabrication experts for functional mass flow storage systems. Flow testing depicts that functional mass flow discharge can be achieved with reduced hopper slopes by utilizing Tank Connection’s proprietary fusion bond coating system. Reduced hopper slopes equate to cost savings for the client. Tank Connection remedies the storage problems of the past by prescribing the correct variables of hopper slope, outlet size, outlet configurations, materials of construction and surface finish, active flow-aid devices, passive flow-aid devices, internal and external coatings systems, applicable codes and the correct flow type required for reliable material flow. Some standard hopper product offerings include:

- Functional mass flow
- Funnel flow
- Expanded flow
- Active/vibratory discharge
- Numerous configurations of fluidized hopper designs

**FUNCTIONAL MASS FLOW DESIGN**
- Smooth, steep hopper
- First-in, first-out
- Fine powders deaerate
- Segregation problems are minimized
- Material is fed uniformly at constant density

**FUNNEL FLOW DESIGN**
- Typical hopper slopes: 45° to 70°
- Custom slopes
- Custom design chisel hopper designs
- Hopper capacities from 1,000 – 125,000 ft³

- Lower headroom
- First-in, last-out
- Lower storage cost
- Excellent for coarse, free-flowing materials
Fuseion Coating Technology: Unmatched Processes. Unrivaled Results.

Tank Connection maintains two state-of-the-art fusion powder coating lines, each over 200 yards (182.88 m) in length. The system and controlled station processes are unmatched by any other tank manufacturer. The proprietary fusion powder coating systems offered by Tank Connection are designed for high chemical resistance, corrosion resistance, flexibility, chip resistance, weatherability and UV protection.

**STANDARD COLORS**
- TC TAN: RAL1001
- TC WHITE: RAL9016
- TC LIGHT BLUE: RAL5024
- TC LIGHT GREEN: RAL6019
- TC GRAY: RAL7035

**PREMIUM COLORS**
- TC COBALT BLUE: RAL5011
- TC FOREST GREEN: RAL6005

The colors shown are printed approximations. The exact color can be viewed using RAL standard color samples.
**Wall Friction Properties**

Lower wall friction values equate to less hopper slope required for functional mass flow discharge.

**Typical Field Applied Coating**

- Lower wall friction values equate to less hopper slope required for functional mass flow discharge.

**Notice:** Dry bulk materials maintain varying wall friction values. In product flow testing, Fusion 5500 FBE™ provides a functional mass flow discharge of dry bulk materials at reduced hopper slopes that is equivalent to or better than 304 stainless steel with a 2B finish.

**Measurements:**

**Friction Value**

- Reduced hopper slope = reduced tank height & lower installed cost

**Abrasion Resistance**

- Fusion Bonded to FBE primer
- Gloss retention @ 60°: 80±5 GU
- Enhanced resistance to chalking or fading
- Superior exterior durability
- Best warranty in the industry
- Can not be scratched off independent of the base coating

**Measurements:**

**Liters of sand/mil**

Falling Sand: Per ASTM D968 - Liters of sand/mil of erosion

**Southern Florida Exposure Testing**

Reference: AMMA 2604 - 05

- Fusion SDP™
- 304 Stainless Steel 2B Finish
- Fusion 5500 FBE™

**Specification & Performance**

**Film Thickness**

- 6-10 mils DFT

**Certification**

- FDA - 21 CFR 175.300: Resinous and Polymeric Coatings

**Characteristics**

- Superior product flow promotion qualities
- Fusion bonded to substrate surface
- Abrasion, chip and scrape resistant
- Can be repaired in the field if damaged
- Superior test performance compared to all other coatings
- Does not crack or spall
- Excellent chemical and corrosion resistance
- Best warranty in the industry

**Physical Properties**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Test Method</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion</td>
<td>ASTM D3359</td>
<td>100%</td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D4060-07</td>
<td>&lt; 70mg loss</td>
</tr>
<tr>
<td>Chip Resistance</td>
<td>ASTM D3170-03</td>
<td>78</td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D968 - 690</td>
<td>No wear through</td>
</tr>
<tr>
<td>Heat Resistance</td>
<td>Temperature (°F)</td>
<td>300°F (149°C)</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>ASTM D2794</td>
<td>160/160 direct/reverse</td>
</tr>
<tr>
<td>Hardness</td>
<td>ASTM D3363</td>
<td>6H</td>
</tr>
<tr>
<td>Flexibility</td>
<td>ASTM D522</td>
<td>1/8° (270° bend)</td>
</tr>
<tr>
<td>Pull Test</td>
<td>ASTM D4541</td>
<td>3000+ psi</td>
</tr>
<tr>
<td>Scrape Adhesion</td>
<td>ASTM D2197</td>
<td>&gt;10 kg</td>
</tr>
<tr>
<td>Humidity Resistance</td>
<td>ASTM D2247</td>
<td>No change</td>
</tr>
<tr>
<td>Humidity Resistance</td>
<td>1,000 hours</td>
<td>No change</td>
</tr>
</tbody>
</table>

**Specification & Performance**

**Film Thickness**

- 5-9 mils DFT

**Surface Profile**

- SSPC SP10 near white metal blast

**DURABILITY**

Impact Resistance: Per ASTM D2794

- **Measurements:** Inch-Pound Units

**Abrasion Resistance**

Falling Sand: Per ASTM D968 - Liters of sand/mil of erosion

**Southern Florida Exposure Testing**

Reference: AMMA 2604 - 05

- Fusion 5500 FBE™
- EXT Fusion SDP™
- 304 Stainless Steel 2B Finish

**Measurement:**

- Coating exposure rating in years per AMMA 2604 -05 testing

**Application Technology**

**DURABILITY**

Impact Resistance: Per ASTM D2794

- **Measurements:** Inch-Pound Units

**Abrasion Resistance**

Falling Sand: Per ASTM D968 - Liters of sand/mil of erosion

**Southern Florida Exposure Testing**

Reference: AMMA 2604 - 05

- Fusion 5500 FBE™
- EXT Fusion SDP™
- 304 Stainless Steel 2B Finish

**Measurement:**

- Coating exposure rating in years per AMMA 2604 -05 testing
ELEVATE YOUR EXPECTATIONS!

- Tank Connection designs and builds the highest quality products that will stand the test of time
- Honesty, integrity and a targeted focus on client success and satisfaction are paramount
- Tank Connection is home to the leading experts with the most experience in the industry
- Quality, technological innovation and accountability are driven by a progressive vision

WE WILL MEET AND EXCEED YOUR EXPECTATIONS!

REQUEST A QUOTE AND GET CONNECTED WITH REAL PERFORMANCE FROM THE INDUSTRY LEADER, TANK CONNECTION!

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WEB: TANKCONNECTION.COM WEB: APEXDOMES.COM

STAY CURRENT
STAY CONNECTED