

Cement Storage Silo Selection - RTP Bolted & Hybrid Steel Silos Top the List

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When it comes to the storage of cement, Tank Connection is recognized as a premier manufacturer of bulk storage systems. TC is the ONLY company worldwide that designs, manufactures and installs all four types of steel storage silos for cement storage. **This includes Bolted RTP (rolled, tapered panel), Field-Weld, Shop-Weld and Hybrid Silo construction.** Under review, each type of construction has merits to consider based on the application and its specific requirements.

Over the last decade there has been little change in the cement storage industry relative to concrete, field-weld and shop-weld construction. The real change in the cement industry has been the development of a precision bolted storage silo design called RTP (rolled, tapered panel) construction. RTP silos feature a smoothwall interior and exact manufacturing tolerances. It is also the only bolted silo design that does not leak or develop future leaks.

RTP silo construction installs in the field in less than half the time required for field-weld construction. Bolted silo construction is modular and utilizes a factory baked-on powder coat system, which is superior to field applied coatings. Due to its modular assembly, RTP silo construction is easily containerized and shipped worldwide. It remains the only bolted storage silo design that is recognized as an alternate design to field-weld construction. The merits of the products performance in the field have made it the preferred steel silo design for cement storage worldwide.

“Today’s RTP technology allows modular steel silos for cement storage to be shipped worldwide and installed utilizing a specialized jacking system that keeps erection crews at grade level during field construction. This process receives the highest industry ratings for quality control and safety in the field”.

Another storage product that has risen to the top in field performance are the hybrid silo designs, which interface the best features of field-weld, bolted RTP, shop-weld and concrete construction into a hybrid storage product. The RTP and hybrid silo designs are the top rated steel storage products available in the cement industry today. Both products address engineering and customer requirements for high quality storage containment that is designed for long life and low maintenance. In silo construction, both products have raised the benchmark for quality storage with consistent and reliable performance in the field.



Bolted RTP Silos install from grade level

In specifying a cement storage silo, the following items warrant review and consideration on every project:

- Materials of construction
- Silo capacity requirements
- Volume & design product weights
- Fill & discharge system interface
- Dust collection system – fill & discharge
- Silo design parameters
- Inventory management
- Control system requirements
- Other special considerations (project specific)

Cement Storage Silo Selection

■ Shop-Weld Construction

Application: Cement, powders, minerals & aggregates

Type: Skirted, elevated on legs

- Hopper capacities under 10,000 cubic feet
- Shop-controlled quality
- One piece tank construction
- Factory applied coating systems
- Increased freight cost to the jobsite
- Less field installation requirements



Shop-weld – ship as one piece units

■ Bolted RTP (rolled, tapered panel) Construction

Applications: Cement, powders, clinker, cement kiln dust, fly ash, minerals & aggregates

Type: Skirted, drive-through skirt, elevated on structural steel

- Hopper capacities from 1000 – 100,000 cubic feet
- Shop-controlled precision quality
- Modular construction requires bolted field assembly
- Decreased field installation timeframe
- Factory applied powder coating systems



■ Field-Weld Construction

Applications: Cement, powders, clinker, cement kiln dust, fly ash, minerals & aggregates

Type: Skirted, drive-through skirt, elevated on structural steel

- Hopper capacities from 20,000 – 250,000 cubic feet
- Shop-controlled quality – minimize large piece count
- Modular construction requires field welded assembly
- Increased field installation timeframe
- Field applied coating systems



Field-weld construction

■ Slip & Jump-form Concrete Construction

Applications: Cement, powders, clinker, cement kiln dust, fly ash, minerals & aggregates

Type: Skirted, drive-through skirt

- Hopper capacities from 20,000 – 300,000 cubic feet
- Slip-form quality – high - continuous pour, monolith design
- Jump-form construction - cold joint construction
- Increased field installation timeframe
- Increased foundation requirements



Concrete construction

■ Hybrid Silo Construction (combines the best qualities of bolted RTP, field-weld & concrete construction)

Applications: Cement, powders, clinker, cement kiln dust, fly ash, minerals & aggregates

Type: Skirted, drive-through skirt, elevated on structural steel

- Hopper capacities from 20,000 – 200,000 cubic feet
- Shop-controlled quality
- Modular construction requires field assembly
- Decreased field installation timeframe
- Factory applied powder coat system



Hybrid construction