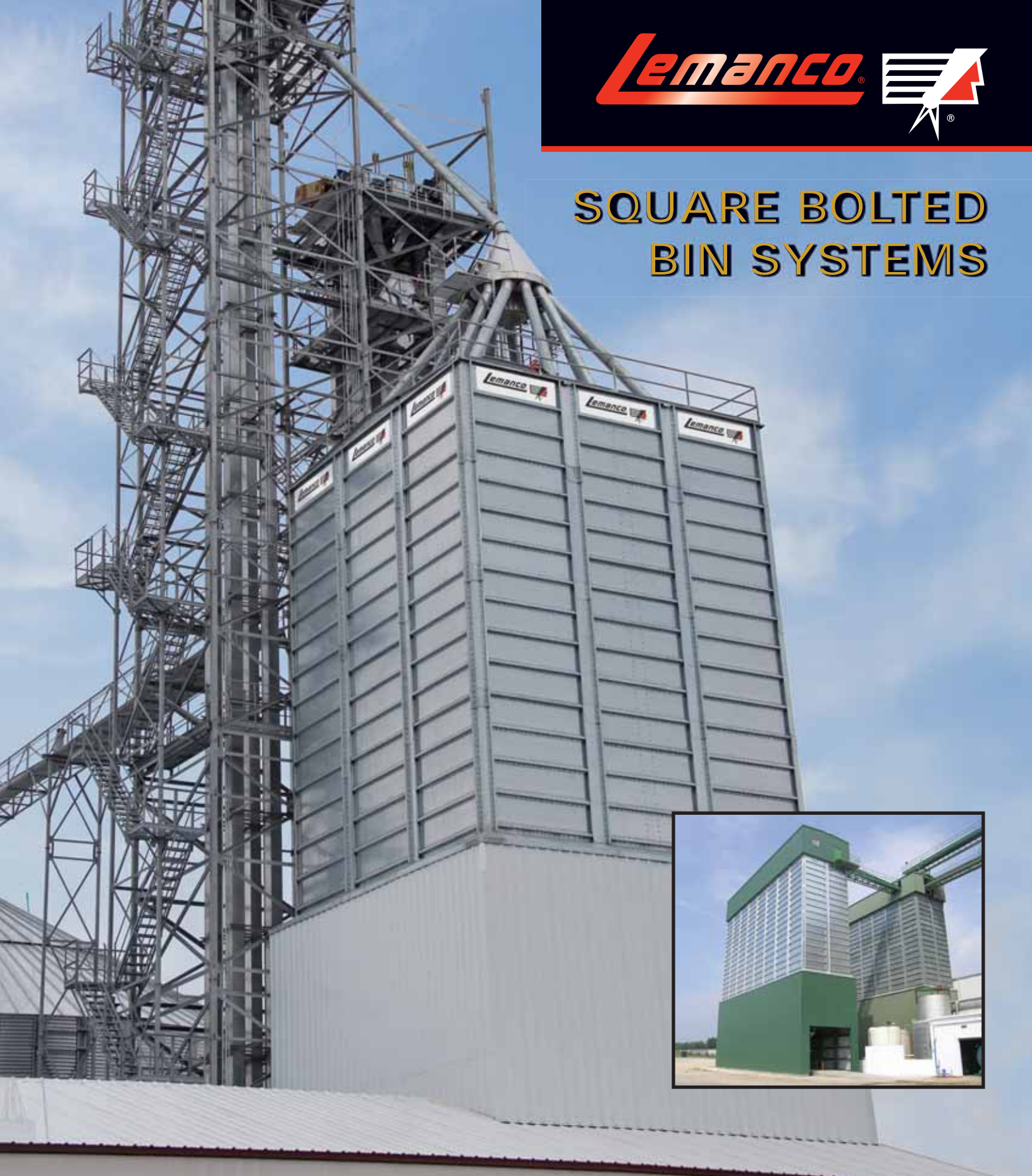




SQUARE BOLTED BIN SYSTEMS



LEMANCO SQUARE BOLTED BIN SYSTEMS

Bin Systems

Lemanco Storage Systems have been in use world-wide for nearly 50 years in industries requiring storage and gravity retrieval of dry bulk materials. These pre-engineered systems can be configured to provide efficient, economical and durable storage for customer-specific applications. Storage systems can also be designed to support accessories and equipment loading requirements, either above the bin roof or on mezzanine floors in the main support structure. The systems feature isolated bin compartments that are ideally suited for storing feed ingredients, grains, aggregates, fertilizers and most dry bulk materials.

Chief Agri/Industrial Division (Chief) has re-engineered the Lemanco Square Bolted Bin System based on experience with Lemanco's quality products and industry recommendations to better utilize Chief's purchasing and manufacturing strengths. The new bin design was accomplished with the total project process in mind to improve cost efficiency. It not only reduced manufacturing and installation costs, but also increased strength and extended durability.

Chief's re-engineered line of Square Bolted Bins now offers these features:

Strength and Durability

- **High strength steel** (50ksi yield strength) vs. commercial grade steel (36ksi yield strength) provides 28% stronger components.
- Interior and exterior bin components are manufactured with **galvanized steel using G115** (1.15 oz/ft² = 2mill coating thickness) vs. G90 (.90 oz/ft² = 1.5mill coating thickness) zinc coating, which increases durability by 21%. (Hoppers and roof sheets are painted steel.)
- **Galvanized roof sheets** are optional.
- Man Ways are now constructed of **galvanized steel**.
- The profile of the *Interior Vertical Stiffeners* has been re-engineered to increase strength and promote product flow.
- The profile of the *Exterior Vertical Stiffeners* has been re-engineered to increase strength.
- The profile of the *Interior Horizontal Stiffeners* has been re-engineered to increase strength. (See Figure #1)
- The profile of the *Exterior Horizontal Stiffeners* has been re-engineered with a 60-degree slope to increase strength and provide a **cleaner surface area**. (See Figure #1)

Fast and Efficient Installation

- Fewer components to assemble.
 - Tiers are 42" (106.7 cm) total height.
 - *Interior and Exterior Vertical Stiffeners* have been lengthened.
 - Bin compartments are isolated with chamfered corners.
- The overlap of the side sheets is now a single row of holes to allow more assembly to be performed on the ground and lifted into place. (See Figure #2)
- Fewer fasteners required.
- Hopper flashing now **bolted** directly into bin assembly.
- Scaffold clips no longer required during installation process.

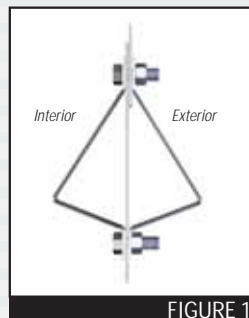


FIGURE 1



FIGURE 2

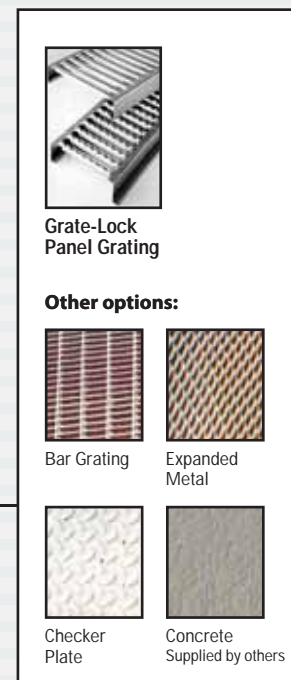




A 3-D virtual model is customized to your project, assuring accuracy, saving time and aiding assembly.

Chief has maintained Lemanco's reputation for custom, quality products by retaining these features:

- Configured and engineered to meet individual customer storage requirements.
- Bin options include 6', 7', 8' and 10' (1.83 m, 2.13 m, 2.44 m, and 3.05 m) with half and quarter bins available.
- Factory welded one-piece hoppers do not require field assembly.
- Optional two-piece hoppers allow for future discharge changes.
- Systems can be designed to allow for future facility additions.
- Stainless steel or epoxy coated bins are available for storing corrosive materials.
- Mezzanine floor options include Grate-lock planking, bar grating, checker plate, expanded metal or supports engineered to accommodate concrete floors.
- Can be designed to store dry bulk material with densities up to 150 lbs/ft³ (2403 kgs/m³).



To further enhance the process of engineering, manufacturing and installing Lemanco Bin Systems, Chief now utilizes state-of-the-art, 3-Dimensional design software that constructs a virtual solid model of each proposed project. Viewing software can be downloaded at no cost to allow project models to be electronically shared, updated and approved by customers, saving time and assuring accuracy. Models can be viewed from any angle, as well as taken apart piece by piece, by section or by layer, and then reassembled. They can also be provided to personnel in the field to help them identify components and better understand the assembly process.

For more than 50 years, Chief Industries, Inc. has earned the reputation of putting customers first. We pledge to continue our commitment to the highest standards of excellence, and we thank our many customers around the globe for trusting their storage and material handling needs to us. Call today to discuss your upcoming project.

Bin System Options



Hoppers

Standard hoppers are one-piece with a 60-degree slope and internal corner chamfers. Exterior is coated with gray enamel and interior with linseed oil. Chief hoppers do not require field assembly. Optional types, materials and coatings are available.



Structural Steel

Support structures are designed by Chief, based on seismic categories and wind loadings per IBC 2006, using the most economical arrangement of structural supports to meet specific customer requirements. All structural members are fully coated. A325 fasteners are included.



Man Ways

Standard Man Ways are vented (including filter media with bird screen) and constructed with galvanized steel. Optional types, materials and coatings are available.



Safety Equipment

Standard safety equipment includes painted ladders, cages, platforms, safety gates and hand rails designed to meet OSHA requirements. Ladders for domestic projects are factory assembled. Optional types, materials and coatings are available.



Discharge Gates

Standard discharge gate frames are constructed with galvanized steel. Actuating mechanisms include pneumatic, electric and manual options. Fully enclosed gates are available.



Adapters

Standard adaptors are 2-to-1 and/or 4-to-1, welded and coated with gray enamel on exterior and linseed oil on interior. Optional types, materials and coatings are available.



Weigh Hoppers & Lorries

Standard suspended weigh hoppers are available in 6', 7', or 8' (1.83 m, 2.13 m, 2.44 m) sizes with flare tops or header boxes/covers, including canvas connectors and vents with filters. Support frame, shafts, wheels and drive package are all provided for Weigh Lorries. Exterior is coated with gray enamel and interior with linseed oil.



Mezzanine Floors, Stairways & Catwalks

Standard mezzanine floors are designed to support a live load of 150 lbs/ft² (732 kgs/m²). Floor support beams are included in the structural steel. The standard walk surface is Grate-lock planking. Bar grating, checker plate, expanded metal or supports are engineered and available to accommodate concrete floors.



Structural Enclosure & Head House

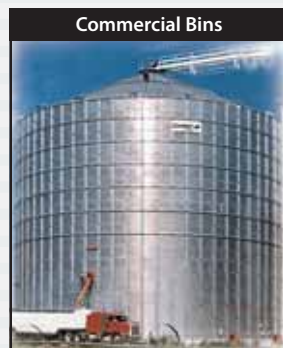
Options for enclosing support structures to protect equipment and personnel from the elements include Z-girts, Purlins, and Siding (available in standard colors). The Lemanco System can be designed to accept various head house options. Head house columns are anchored into vertical bin columns for maximum stability.



Micro Ingredient Batching System

The Lemanco Micro Ingredient Batching System is designed for simplicity and ease of operation while providing years of dependable service with improved accuracy in the batching of micro-ingredients.

Additional Chief Products



Chief Agri/Industrial is a division of Chief Industries, Inc. Established in 1954, Chief Industries, Inc. is a diversified organization providing a balanced range of products and services through its 16 divisions and subsidiaries.



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