



# Silo Systems & Ingredient Handling



# Ingredient Control



Ingredient Protection

Ingredient handling is now an essential component of the production process in contemporary bakeries and goes beyond simple storage. Product quality, consistency, and yield are directly impacted by each transfer point, dosing action, and environmental factor.

From the time raw materials arrive on site until they are precisely delivered into the mixer or dosing system, Superior Bakery Systems silo solutions are designed to protect them. Our systems help bakeries run more effectively while preserving product integrity by regulating flow, reducing waste, and upholding hygienic conditions.

A carefully designed silo system eliminates variability, minimizes manual handling, and establishes a solid basis for automation and recipe-driven production.



Waste Reduction



Increased Efficiency

## What a Proper Silo System Delivers

### Ingredient Protection

Preserves the unique properties of each raw material through controlled storage and gentle handling.

### Production Consistency

Accurate, repeatable dosing ensures every batch meets the same quality standards.

### Improved Hygiene & Safety

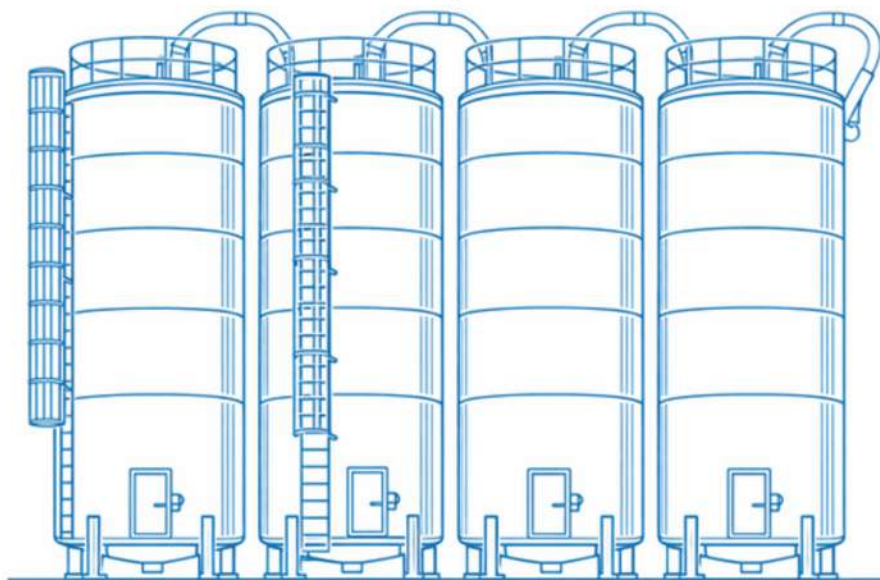
Reduced dust, minimal manual handling, and food-safe construction support modern hygiene requirements.

### Reduced Waste & Higher Yield

Optimized discharge and conveying systems maximize usable material and minimize loss.

### Automation-Ready Integration

Designed to connect seamlessly with mixers, recipe management systems, and plant controls.



**Consistency starts with ingredient handling.**

Superior Bakery Systems offers a complete range of silo solutions designed to protect raw materials while ensuring reliable, hygienic delivery to production. Available in aluminum welded or bolted construction, our silos are engineered to meet the demands of modern bakeries — from small installations to high-capacity industrial plants.

Every system is designed with flow optimization, cleanliness, and automation in mind, ensuring materials move efficiently from storage to dosing or mixing without unnecessary handling or waste.



**Stainless Steel Construction**



**High Yield Flow**



**Flexible Configuration**

## Construction Options

- Aluminum or stainless steel
- Cylindrical or square designs
- Indoor or outdoor installations
- Capacities starting at 4 tons and up

## Optimized Material Flow

- Vibrating bottom discharge plate design.
- Improved yield and consistent flow
- Reduced bridging and residue

## Hygienic Design

- Food-safe materials
- Reduced dust generation
- Easy cleaning and inspection
- Designed for the latest hygiene standards

## Flexible System Integration

- Vacuum or positive pressure conveying
- Direct feed to mixers or dosing systems
- Compatible with automated controls
- Scalable for future expansion



**Controlled flow. Protected ingredients.**

## Controlled Storage for Sensitive Ingredients

Indoor silo systems provide controlled storage for ingredients that require stable environmental conditions, such as salt, sugar, flour, and other sensitive raw materials. By managing humidity, these systems help maintain material quality while ensuring consistent flow into production.

Superior Bakery Systems indoor silos are designed to deliver ingredients directly to mixers or dosing stations on demand. Advanced control systems allow operators to monitor material levels, regulate discharge, and adjust flow rates — improving yield while minimizing waste and manual handling.

### Controlled Environment

- Optional integrated dehumidification
- Protects moisture-sensitive ingredients
- Stable storage conditions year-round

### Direct Production Feed

- On-demand flow to mixers or dosing stations
- Vacuum or positive pressure conveying options



### Flexible Capacities

- Available from 9 to 54 tons
- Suitable for small and large installations
- Designed for scalable production growth

### Smart System Control

- Centralized monitoring and adjustment
- Improved yield with minimal waste
- User-friendly operator interface



Direct Mixer Feeding



Climate Control



Consistent Flow

**Stable storage for steady production flow.**

## Precision Where It Matters Most

Minor and micro-dosing systems are designed for the accurate handling of small and medium-volume ingredients that have a significant impact on product quality. From salts and sugars to improvers and functional additives, precise dosing ensures consistent recipes and repeatable results.

Superior Bakery Systems dosing solutions integrate seamlessly with automated recipe management, enabling controlled, repeatable ingredient delivery with minimal operator intervention. Compact layouts and modular bin configurations allow these systems to fit efficiently into existing plants while remaining scalable for future growth.

### Precision Weighing

- Central stainless steel hoppers
- Centralized collection bin is on load cells
- Food-safe internal coatings
- Accurate, repeatable measurements

### Compact System Design

- Space-efficient, flexible footprint
- Up to 10 ingredient bins
- Fits within limited floor space
- Optional vacuum filling from bags



### Automated Ingredient Delivery

- Integrated augers and agitators
- Optional vibrators for difficult materials
- Controlled discharge into the weigh hopper
- Consistent emptying and flow
- Allen-Bradley operating system
- Integrated label printer

### Recipe & System Integration

- Compatible with recipe management systems
- Fully automated dosing sequences
- Reduced operator error
- Improved production consistency



**Accurate dosing for recipe driven production.**



Precise Weighing



Automated Dosing



Recipe Control

## Flexible Alternatives to Bulk Silos

Not all ingredients are suitable for bulk silo storage. For specialty materials, lower consumption volumes, or plants with limited space, tote and sack handling systems provide a hygienic and efficient alternative.

Superior Bakery Systems tote solutions eliminate the need for forklifts by using electric lifting systems that allow operators to safely position ingredients above discharge units. For bulk sacks, dust-tight emptying stations ensure clean material transfer while maintaining food-safe contact surfaces and controlled flow into production.



Flexible Lifting Options



Dust Control

### Simple Operation

- Electric winch, or forklift lifting system
- Reduced manual handling
- Improved operator safety
- Faster ingredient changeovers

### Dust-Controlled Emptying

- Tight-seal discharge units
- Reduced airborne flour and dust
- Cleaner working environment
- Improved hygiene standards



### Flexible Configurations

- Single or multi-station setups
- Lacquered or stainless steel frames
- Suitable for a wide range of ingredients

### Production Ready Integration

- Direct discharge into downstream systems
- Compatible with weighing and dosing equipment
- Designed for automated workflows

**Flexible ingredient input without bulk silos.**



Safer Operation

## Accurate Delivery to the Mixer

Weigh hoppers serve as the final weighing and delivery point before ingredients enter the mixer. Designed for accuracy and hygiene, these systems ensure that every batch receives the correct quantity of raw material while minimizing dust and operator exposure. Suitable for removable bowl, fixed bowl, horizontal, or ribbon mixers. For liquid ingredients, Superior Bakery Systems provides European Hygienic Engineering & Design Group (EHEDG) approved dosing solutions that deliver precise volumes directly from IBCs or storage tanks. By eliminating manual handling and open transfer, liquid dosing systems reduce cleanup time while improving accuracy and plant cleanliness.

### Accurate Final Weighing

- Stainless steel weigh hoppers
- Load-cell based measurement
- Precise batch delivery to mixers
- Suitable for removable or fixed mixers

### Dust Control & Clean Operation

- Self-cleaning, pressure-balancing filters
- Optional vacuum dust recovery
- Reduced airborne flour exposure
- Cleaner production environment



### Liquid Dosing Precision

- EHEDG-approved pumps
- Pulse, flow meter, or load-cell measurement
- Accurate dosing of oils, syrups, eggs, and fats
- Reduced spillage and handling

### System Compatibility

- Allen-Bradley controls standard
- Siemens available on request
- Seamless integration with upstream systems
- Designed for automated production lines



**Exact delivery into every mix.**



Accurate Weighing



Dust Recovery



Precise Liquid Dosing



System Integration



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**Contact us to start your project!**