

A large square silo under construction, featuring a corrugated metal exterior and a grid of vertical supports. A crane arm is visible on the left, and a red hook is suspended from the top right. The silo is set against a clear blue sky.

# SQUARE SILOS

## STORAGE

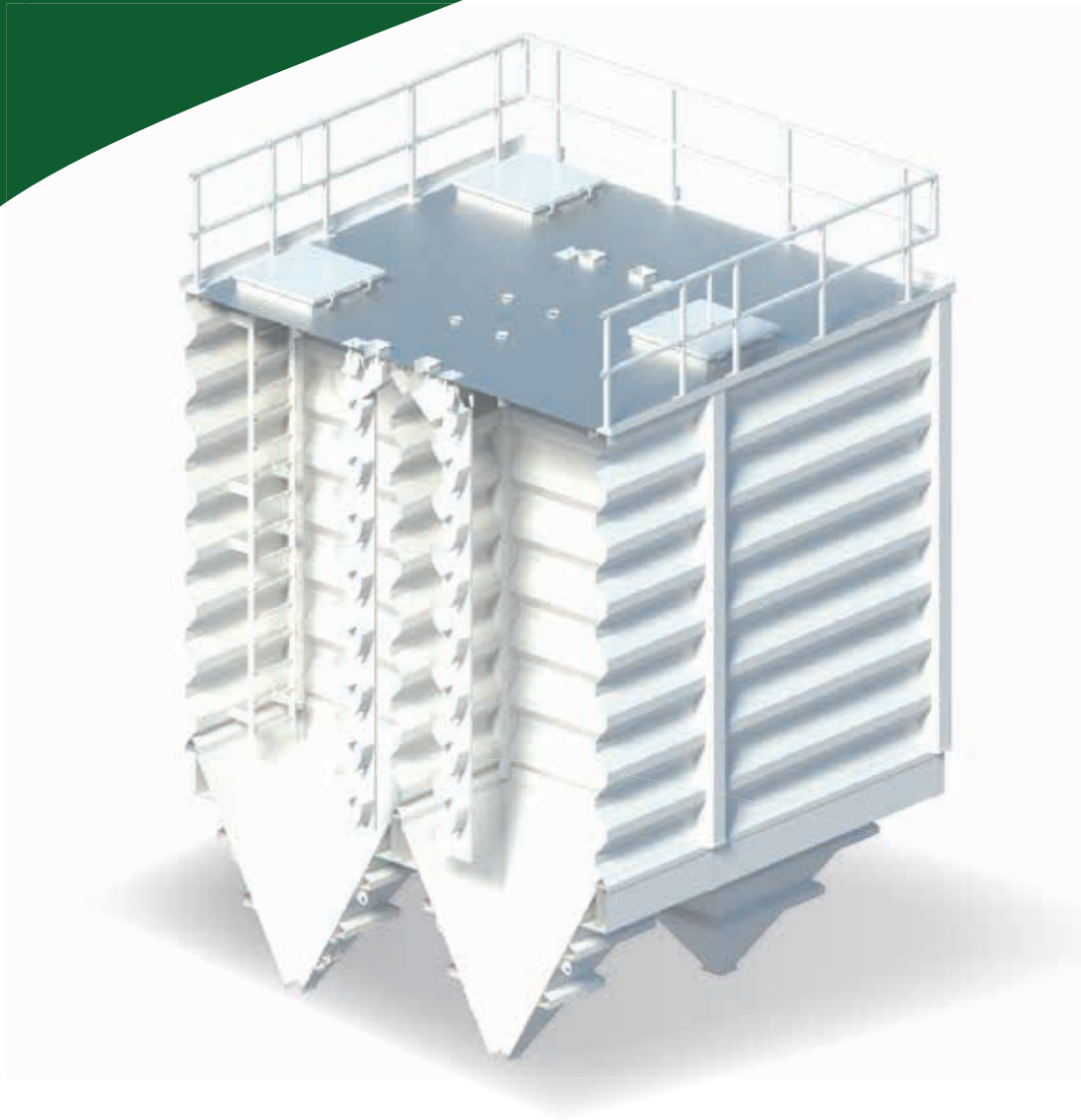


An expert  
at your side.



# An Expert at your Side.

Cimbria is a leading expert in seed- and food processing, grain handling and storage. Part of this is our depth of knowledge and expertise in aspiration systems. This allows us to optimize air volumes and thus help reduce energy costs for our customers. Both our environment and your staff deserve highly efficient dust collection systems, so we thrive for a clean atmosphere and workspace when designing your plant. Cimbria is the ideal partner for engineering and executing your aspiration system.



## **Storage Modularity.**

### **For All Types of Grain, Seed and Bulk Products.**

Worldwide, Cimbria silo plants are renowned for storing a wide range of materials, including grains, seeds, foodstuffs, flour products, minerals, and industrial goods. With our expertise and extensive research-driven experience, we offer consultation, design and execution of a diverse range of storage solutions tailored to your needs.

At Cimbria, we consistently invest in cutting-edge technology to provide cost-effective products. Our fully automated processes ensure standardized, high-quality equipment and faster delivery times.

Our silos are built on a modular system, allowing easy expansion to accommodate growing storage demands. With our flexible approach, we adapt to your evolving needs, providing efficient and scalable solutions.



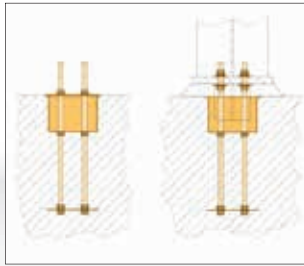


# The Construction.



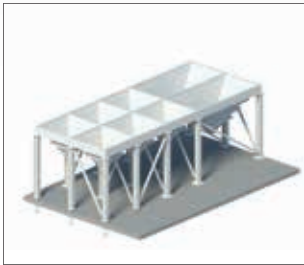
## 01. INSTALLATION

Silos are commonly mounted on steel constructions that offer the flexibility of extending with decks and access. The proximity of process equipment to the storage facility enables the attentive handling of products. Alternatively, silo cells can be integrated into the building structure itself.



## 02. ANCHOR BOLTS

They play a crucial role in the stability and safety of square silos, securely fastening the silo to the foundation, ensuring it remains firmly in place even during turbulent conditions.



## 03. HOPPERS

Made of 3 mm steel plate, hoppers have various delivery options, including square or round outlets, symmetrical or with vertical slides and angles of 45-70 degrees. Designing the hoppers considers product properties such as outlet size, angle of repose, and outloading capacity.



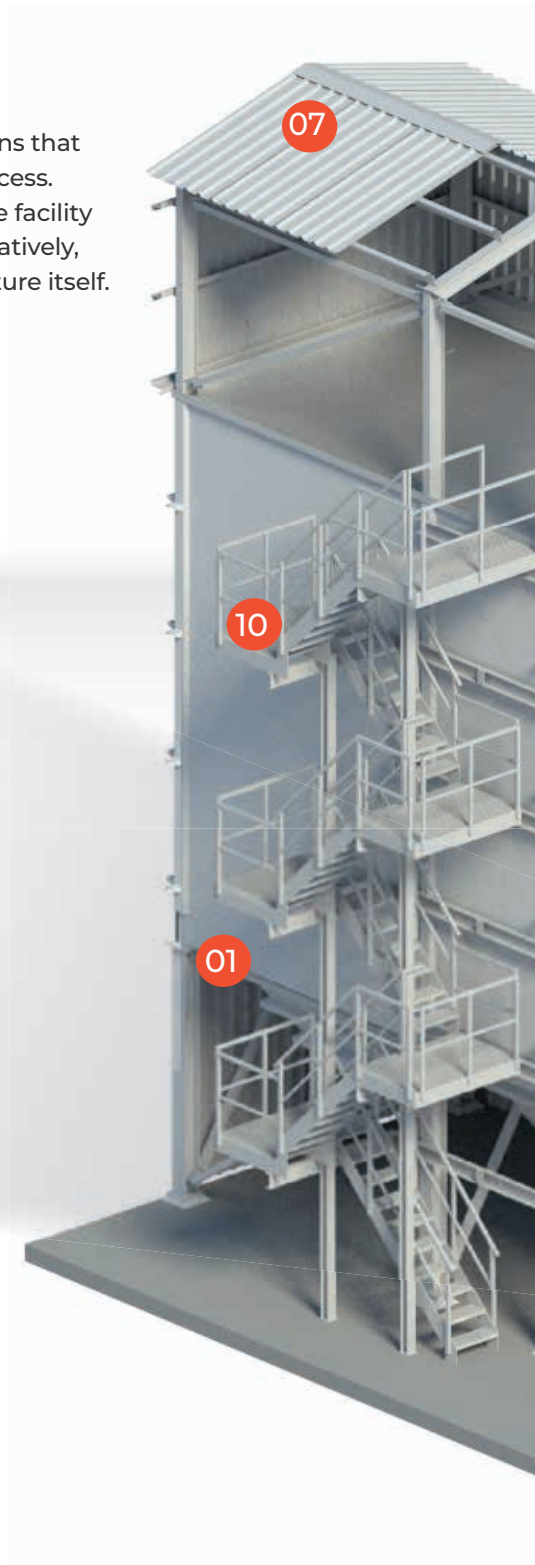
## 04. AERATION BEAM

An aeration channel is integrated into the hopper to ensure uniform aeration in the complete silo columns. This is connected to fan/pipe system outside.



## 05. SILO WALLS

They can be either single wall trapezoid or plain, depending on the product, silo height, and the need for complete emptying. The panels can be bolted together and available in both smooth and profiles walls. Vertical connections are made with self-drilling and tapping Taptite bolts.





#### 06. DECK AND ROOF

- 5 mm tear plate.
- Plain or raised manhole with removable safety grid.
- Flanges, connections for level controls, feeding pipes, filters, aspiration and temperature control.



#### 07. ROOF STRUCTURE

- Prepared for cladding.
- Designed with one or two side inclinations.
- Height according to specifications.



#### 08. CLADDING

- Purlins
- Roof cladding (ridges, gutters, down pipes, snow-holding)
- Wall cladding (windows, doors)
- Standard types and profiles from well-known suppliers delivered as non-insulated or insulated panels.



#### 09. LADDER

- Galvanized
- Available in various lengths
- Resting platforms
- Baluster



#### 10. SAFETY RAILING

Bolted to kick plate or steel structure.

# WHY buy Cimbria Square Silos?



## FLEXIBILITY

- Suitable for many different products
- High storage volume
- Cell sizes: Up to 4x4 meters
- Maximum flexibility in cellular division
- Extendable modular system
- Short installation time



## INSTALLATION

- Easy to pack in containers for long distance deliveries
- Easy to integrate into a building
- Complete utilisation of construction area
- Pre-built for maximum safety



## CONSTRUCTION

- **Full-service Delivery.** Silos are supplied with anchor bolts, support structures, hoppers, walls, decks, roof constructions, machine decks, ladders, and more, suitable for both outdoor and indoor installations.
- **Versatile Design.** Cimbria square silos offer smooth or profiled walls and can accommodate cell sizes up to 4m x 4m. The rectangular silo solution provides exceptional flexibility, allowing for various cell sizes.
- **Optimum safety and durability**
- **Resistant to rain, snow, earthquakes**
- **Customizable solutions**
- **Completely self-emptying**
- **Both smooth and trapezoidal shaped walls**
- **Can be delivered gas/air tight**



## CERTIFICATIONS

The steel structures for buildings are designed according to the Euro codes. Wind pressure and load from snow are taken into account for the region:

- Euro code 1: Basis of Design and Actions on Structures
  - Euro code 1: Actions on Structures - Part 4: Silos and tanks
  - Euro code 3: Design of Steel structures
- Outside Europe silos can be built according to local rules, or adapted to Euro codes.

### Steel structures:

- Consequences class - CC2 (Acc. DS/EN 1990)
- Service category - SC1/SC2 (Acc. DS/EN 1090-2)
- Production category - PC1/PC2 (Acc. DS/EN 1090-2)
- Execution class - EXC2/EXC3 (Acc. DS/EN 1090-2)

### Silo bins, walls and silo decks:

- Consequences class – CC2 (acc. DS/EN 1990)
- Service category - SC1/SC2 (Acc. DS/EN 1090-2)
- Production category - PC1/PC2 (Acc. DS/EN 1090-2)
- Execution class – EXC2/EXC3 (Acc. DS/EN 1090-2)

### Service certifications

- CE conformity certificate
- 2006/42/CE on machinery safety
- 2014/30/CE on Electromagnetic Compatibility

# Service First.

## DELIVERING RELIABILITY AND DEPENDABILITY

At Cimbria, we take pride in delivering exceptional customer service. Our business strategy centres around providing comprehensive support for all technical issues, orders, product selection, pricing inquiries, project engineering, and turnkey plant installation, ensuring your plant runs optimally at every level.

**CONTACT US:** [www.cimbria.com/en/contact/contact-us.html](http://www.cimbria.com/en/contact/contact-us.html)

## SPARE PARTS

Cimbria provides the highest performance, with original parts available for day-to-day delivery. Our extensive range of components meets strict quality requirements and thorough documentation, keeping your machines running at peak performance.

## REGULAR MAINTENANCE

Our skilled staff regularly perform machinery maintenance, ensuring your equipment and products stay in perfect condition and minimise downtime or business interruptions. We offer training on-site during and after installation, allowing your team to learn in a familiar environment, saving them the time and expense of travelling from site to site.

# Cimbria Financing.

Access to flexible and tailored financing solutions becomes a critical factor in securing a successful outcome. Cimbria creates tailored, customer-focused financing solutions to help you achieve success, offering attractive benefits like lower costs, better conditions than local options and a fast, low-documentation decision process. Relevant solutions provide financial relief to your business challenges, combining our technical expertise and financial support where necessary. We collaborate with national Export Credit Agencies (ECAs) to secure and develop national jobs by funding promising projects and solutions and offer financing solutions through Cimbria Leasing. Let us help you find the perfect financing solution for your business needs.

## Cimbria Leasing

Leasing your equipment? We've got you covered with our flexible leasing solutions for optical sorting and small scale projects.

## CIMBRIA Finance

We tailor financing solutions to your needs, supporting the growth of your business on large scale turnkey projects.

## ECA Cover

First-class European Export credit Agencies support bigger projects with confidence.





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### **CIMBRIA A/S**

Faartoftvej 22  
7700 Thisted  
DENMARK

Phone: +45 96 17 90 00

### **Cimbria Heid GmbH**

Heid-Werkstraße 4,  
2000 Stockerau,  
AUSTRIA

Phone +43 22 66 699

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