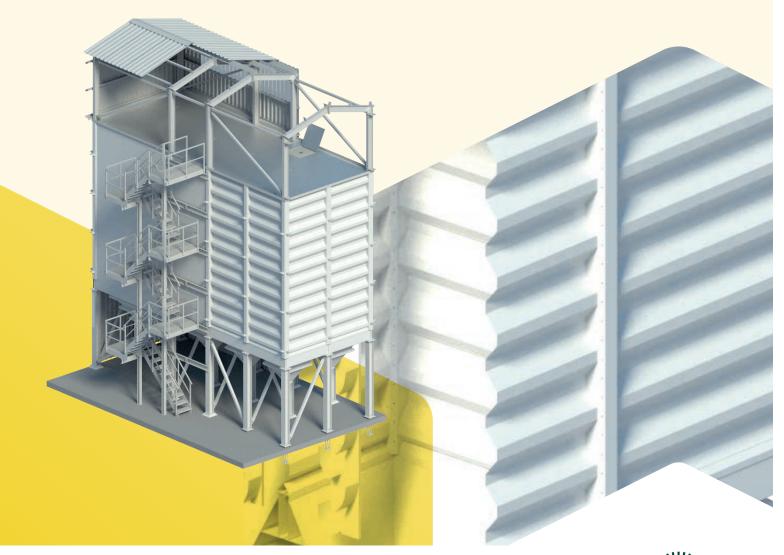
# SQUARE SILO









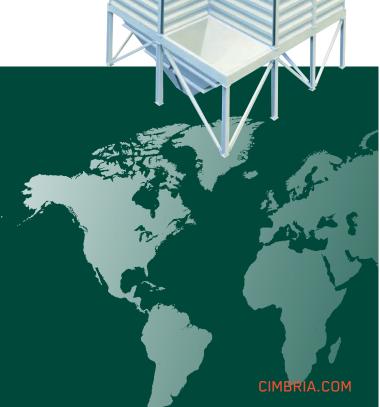


BULK PRODUCTS

#### **CONSULTANCY BASED ON EXPERIENCE**

All over the world, you will find Cimbria silo plants for storage of various types of grain, seed, foodstuffs, flour products and several other types of bulk from minerals to industrial products.

We offer consultation and design of silos for a wide range of storage purposes, as well as various products based on the results of our research and many years of experience.



## **WORLDWIDE EXPERIENCE**

Cimbria square silos are complete steel constructions which can be delivered in several combinations. Each silo is individually and precisely designed to meet the customer's specific demands.

The silo plants can be divided into raw material silos, outloading delivery bins and dosing bins, all built up by means of a standard silo programme.



## **SQUARE SILOS**

- Cimbria square silos are manufactured in heavy, trapezoidal or face-plated steel plate, welded or bolted to solid corner posts - according to purpose.
- No assignment is too complicated or too simple. The silos can be supplied as a singular square silo or as a part of a silo plant.
- Cimbria develops silo solutions with a capacities of up to 20,000 m³ or even higher.



## SQUARE SILO CONSTRUCTION

The silos are delivered complete with anchor bolts, support construction, silo hoppers, walls, decks, roof construction, machine decks, ladders, etc., for outdoor or indoor installation. Due to the modular construction, the silos allow easy extension in the event of subsequent demands for greater storage volume.

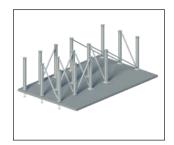
The high degree of flexibility is exemplified by the design of the Cimbria square silos, which are constructed with either smooth or profiled walls with cell sizes up to 4m x 4m. The rectangular silo solution is very flexible and the cells can be separated into various sizes.

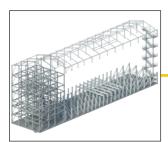
## SILO STRUCTURE

Normally, the silos are installed on a steel construction according to the plant design. The steel construction can be extended with machine towers featuring decks and access.

In many projects, it is an advantage to have the process equipment close to the storage facility in order to handle the products with a high degree of care. Another alternative is where the silo cells are part of a building, with the silo cells being an integrated part of the building structure.

#### CONSTRUCTION

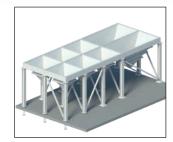




### **HOPPERS**

The hoppers constitute the bottom of the silo cells. The hoppers can be delivered in many different ways with square or round outlet, symmetrical or with one or two vertical sides. The properties of the products are of high importance when designing the hoppers with regards to outlet size, angle of repose as well as outloading capacity.

#### CONSTRUCTION



#### **DETAILS**



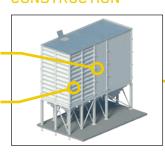
MODULAR SYSTEM ADAPTED TO YOUR REQUIREMENTS

#### SILO WALLS

The walls are either executed as single wall trapezoid or as plain walls. The type depends on the product, height of the silo and the importance of absolute emptying. The panels are bolted together and the edges make vertical octagonal columns in a very smooth way.

Possibility of connecting both smooth and profiled walls.

#### CONSTRUCTION

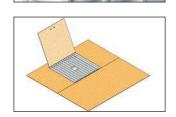


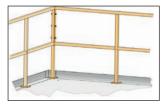
## SILO DECK

## **DECK AND ROOF**



- Plain or raised manhole and removable safety grid
- Necessary support for filling equipment, as well as connections for filling, level control, aspiration and temperature control





#### **ROOF STRUCTURE**



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



### **EXAMPLES**

## **CLADDINGS**

Various cladding options:

- 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.



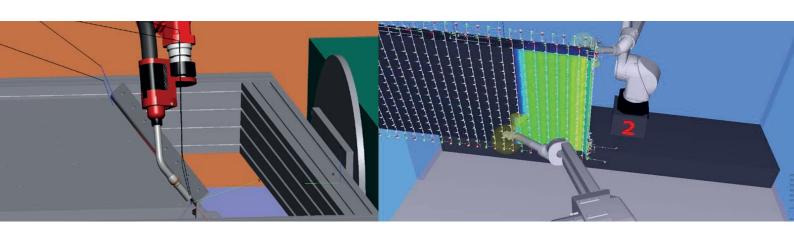




## QUALITY IN EVERY DETAIL



Cimbria constantly invests in the latest technology in order to deliver value for money products. Fully automated processes allow us to manufacture standardized quality equipment and offer faster delivery times.



Offline programming robot cells with Desktop Programming and Simulation

## STANDARDS AND REGULATIONS APPLICABLE TO CURRENT 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)

The steel structures are in compliance with Euro codes, or alternatively, on request, with other local regulations.

## WHY BUY A CIMBRIA SQUARE SILO?







- Easy to pack in containers for long distance deliveries
- Suitable for many different products
- Easy to integrate into a building
- High storage volume
- Maximum flexibility in cellular division
- Completely self-emptying
- Optimum safety and durability
- Short installation time
- Extendable modular system
- Complete utilisation of construction area



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## SOLUTIONS. TOGETHER.



