



**Silos Córdoba Presentation** 

### **Mission**

Our mission is to provide grain storage, handling and conditioning solutions by analysing the customers' needs, offering a solution and implementing a project that meets their requirements.

We must always keep in mind that we are contributing to the grain supply process in order to guarantee the sustainability of the food chain.



## The Company

**Silos Córdoba** starts its activities in 1975 with the aim of fulfilling the needs of the stockbreeding market through grazing and storage solutions..

#### **International Expansion**

Over the past 20 years, the company has experienced a steady international expansion and we now have local distributors around the world, and we export our products to over 45 countries in 4 continents.



#### Wider range of products and services

Today, we also offer a wider range of products and services worldwide:

- ✓ Conception, planning, design and assembly of agribusiness facilities
- √ Manufacturing of silos
- ✓ Manufacturing of grain conveying and handling systems
- ✓ Livestock material





### The Company

#### SCG Silos Grupo Revitalizes Silos Córdoba's Legacy with Over 40 Years of Expertise in Grain Storage Solutions

**Silos Córdoba**, with over 40 years of experience in manufacturing metal silos for grain storage and transportation machinery, has long been recognized as a global leader in its field. Embarking on a new chapter in collaboration with SCG Silos Grupo, our company is committed to positioning itself among the top players in the metallic silo sector.

Following the cessation of operations of Silos Córdoba S.L. in February 2023, **SCG** has acquired the complete intellectual property of the company including engineering designs and the brand name, and other pertinent assets to revitalize the brand and re-enter the silo market.

SCG Silos Grupo is part of a prestigious Dubai-based company, a dynamic group with a diverse range of skills and experience. SCG has a specialized team capable of meeting your needs, no matter how challenging they may be.

Our team comprises former employees of Silos Córdoba, allowing us to retain the wealth of experience and knowledge accumulated over four decades in the manufacturing of silos and handling equipment.

At SCG Silos Grupo, we are dedicated to upholding the high standards of quality and service that have defined Silos Córdoba for so many years.

We offer an extensive selection of grain storage solutions, including flat bottom silos, hopper silos, bulk loading silos, and agricultural silos, as well as complete storage plants and turnkey solutions. With storage facilities in over 45 countries, Silos Córdoba has been assisting clients in planning and addressing their storage needs for over 40 years.



## The Company

√ We look at the specific needs of each client to develop a

#### PERSONALIZED SOLUTION

✓ We have a multidisciplinary team of qualified engineers that are

#### **EXPERTS ON PROJECT DEVELOPMENT**

√ We have a team of technicians and operators that are

#### **EXPERTS ON FACILITY ASSEMBLY**





✓ We control the materials and monitor all the stages of the development and assembly processes to assure

**QUALITY UP TO DELIVERY** 

### **Our goal is Customer Satisfaction**

Through the use of the most up-to-date technologies, the support of an experienced team and the quality of our materials and processes to:

- ✓ provide our clients with personalized, high quality and cost-efficient solutions
- ✓ meet our clients demands on time
- √innovate in product development



#### Silos Córdoba



**Silos Córdoba** deals with the engineering, development and assembly of facilities and plants for industrial and agricultural purposes and offers full services, from defining the needs and setting the possible solutions to the conception and implementation of the project.

**Silos Córdoba** develops custom made solutions anywhere in the world. Today, the galvanized sheet metal silos are the best alternative for grain storage thanks to its versatility, easy assembly, hygienic handling and low cost storage.

Depending on your needs, we design your silos using the most up-to-date technology, employing the best quality products and in compliance with the current European laws.





### **Products and services**

FLAT AND HOPPER SILOS

TRUCK LOAD SILOS FARM SILOS

# AGRIBUSINESS PLANTS









### **Silos**

- ✓ Flat silos
- √ Hopper silos
- ✓ Truck load silos
- ✓ Farm silos









### Silos – Diameters and capacities

#### Flat silos

From 4,58 m. to 41,25 m. of diameter From 100 m<sup>3</sup> to 35.000 m<sup>3</sup> of capacity



#### **Hopper silos**

Cone 45° or 60° From 4,58 m. to 10,70 m. of diameter From 95 m³ to 2.500 m³ of capacity



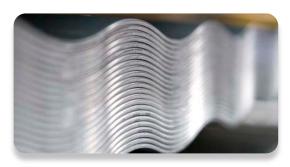
From 2,25 m. to 4,65 m. of diameter From 15 m<sup>3</sup> to 150 m<sup>3</sup> of capacity





### Silos - Specifications

- ✓ Silos manufactured with galvanized steel S450GD of high elastic tolerance and with Z600 minimum coating equivalent to 600 g/m2 of zinc.
- 8,8 quality dichromate high tensile bolts in all of our product range.
- ✓ Washers with neoprene to ensure a waterproof seal.
- Galvanized reinforced exteriors, regardless of thickness, that provide excellent anti-corrosion qualities.
- Galvanized cross section roof structure on models with a diameter superior to 12,22 meters.
- Our method for calculating thickness is more demanding than that established by standard EUROCODIGO 1.
- ✓ Stairs and platforms comply with regulation UNE-EN ISO 14122.





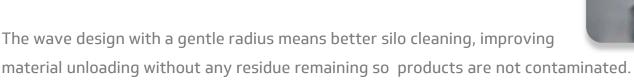




#### Silos – Technical details for metal silos

#### Wall rings

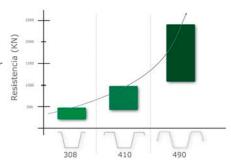
Silos Córdoba works with a wide range of wall ring thicknesses. We also have pre-lacquered sheet metal with different finishes. As an option, a layer of baked paint can be applied for large thicknesses.





#### **Stiffeners**

Our high yield strength stiffeners made in galvanised steel improve the weight of the silo which makes easier assembly and optimises the silo behaviour against the action of external agents.





The minimum galvanization of our stiffeners is Z-600.

This option goes for stiffeners up to 3,5 mm, thicker stiffeners are hot-dip galvanized.



#### Silos – Technical details for metal silos

#### Inspection door

Our silos feature an inspection door for maintenance in the second wall ring as well as another one on the roof.



#### **Access stairs**

The access stairs to the silo, roof and gateways are designed to be safe and ergonomic. Designed according to UNE-EN ISO 14122-2 standard and manufactured in Highlyresistant galvanised steel, they offer the best solution for silo inspection and maintenance silos.





#### Silos – Technical details for metal silos

#### Roofs

Silos Córdoba has evolved with the designs of its roofs by developing Z-profile structures with higher bearing capacities so they can now withstand mechanized transport with a performance of up to 1,500 T/h.

For storage plants in extreme weather zones, we have roof protection systems that prevent the entrance of snow into the silo through the chimneys as well as any accumulation in susceptible areas.

All of our silos feature protective elements to prevent birds from entering.









#### Silos – Technical details for metal silos

#### Roofs

Silos Córdoba **roof vents** guarantee proper silo ventilation and the meticulous design prevents the entrance of water even in the most adverse of conditions. They may also be supplied with an anti-snow kit.

For easier visual control of the silo and the material stored inside, **inspection holes** are included on the roof which, due to the quick-close system and easy access from the stairs, are an important handling tool.







### **Agribusiness facilities**

Silos Córdoba offers engineering services aimed at maintaining and controlling the quality of the product during the storage and conveying, as well as providing convenience, reliability, efficiency and profitability in the management of your plants.



- ✓ Storage silos
- ✓ Conveying systems
- ✓ Drying and grain conditioning
- ✓ Temperature and ventilations control systems



### Innovation products showcase

#### Enhanced durability silos

Silos Córdoba has established Z-600 galvanized steel as standard. With 600 gr/m2 on both sides or 42 microns coating per side it means the highest zinc coating in the market. As an example the speed corrosion of Zinc in different atmospheres (according to ISO 9223) is shown.

When required Silos Cordoba manufactures its silos with extra long durability silos manufactured with

- ✓ Magnesium, Aluminum, and Zinc carbon steel alloy (suitable for high salinity and chemical contamination).
- ✓ Thermosetting paint galvanized steel (suitable for chemical contamination).



### **Innovation products showcase**

Speed corrosion of Zinc in different atmospheres (according to ISO 9223)							
Corrosion category	Atmosphere description	Average loss of Zinc per year (µm)					
C1 Very low	Interior: dry	0,1					
C2 Low	Interior: occasional condensation	0,1 a 0,7					
C3 Medium	Interior: High moisture and certain air pollution.	0.7 a 2.1					
	Exterior: Urban non marine and marine with low salinity	0,7 0 2,2					
C4 High	Interior: Swimming pools, Chemical facilities, etc.						
	Exterior: No marine industrial areas, and marine urban areas	2,1 a 4,2					
C5 Very high	Exterior: Industrial very high moisture or with high salinity content	4,2 a 8,4					

Corrosion category	Average loss of Zinc per year (µm)	Spotless life (years)				
		Z275	Z350	Z450	Z600	ProMag
C1 Very low	0,1	206,00	263,00	320,00	480,00	-
C2 Low	0,4	51,50	65,75	80,00	120,00	-
C3 Medium	1,4	14,71	18,79	22,86	34,29	-
C4 High	3,15	6,54	8,35	10,16	15,24	65,00
C5 Very high	6,3	3,27	4,17	5,08	7,62	33,50



### Innovation products showcase

### Special silo design

- ✓ Silo design in compliance with Eurocode (Europe Standards) or Ansi-Asae (American standards).
- $\checkmark$  Seismic silo calculation according to the particular seismic hazard zones of the country.
- ✓ Heat insulation silo. Double roofing and double sheet body, with heat insulating filling.

#### Additional equipment

- ✓Continuous grain level (mechanical, or radar system).
- $\sqrt{CO_2}$  detection system.
- ✓ Modular design full galvanized walkway and supports.
- ✓ Full cover catwalks (suitable for belt conveyor with tripper or bad weather conditions).
- ✓ Antiexplosion equipment in compliance with ATEX regulations.
- ✓ Bin activator for hopper silos (difficult flowing products).
- ✓ Full galvanized steel structures (Elevator towers, bulk loading silo structures...).
- ✓ High capacity handling equipment (up to 1200 T/h).
- ✓ Ship unloaders for port facilities.
- ✓Truck dumpers for intake pits.



### Handling machinery

# INDUSTRIAL HANDLING MACHINERY LINE

- ✓ Industrial Bucket elevators
- ✓ Industrial Chain conveyors
- ✓ Industrial Belt conveyors
- ✓ Industrial Screw conveyors
- ✓ Industrial Tubular Screw conveyors
- ✓ Sweep augers

# HEAVY HANDLING MACHINERY LINE

- ✓ Heavy Duty Bucket elevators
- ✓ Heavy Duty Chain conveyors
- ✓ Heavy Duty enclosed belt conveyors











### Handling machinery – Industrial handling machinery line

- ✓ Industrial bucket elevators
  From 40 T/h to 250 T/h
- ✓ Industrial chain conveyors
  From 40 T/h to 250 T/h
- ✓ Industrial belt conveyors
  From 40 T/h to 1000T/h











### Handling machinery – Industrial handling machinery line

- ✓ Industrial screw conveyors
  From 5 T/h to 250 T/h
- ✓ Industrial tubular screw conveyors
  From 5 T/h to 90 T/h
- ✓ Sweep augers











### Handling machinery – Heavy-Duty handling machinery line

- ✓ Heavy-Duty bucket elevators
  From 300 T/h to 500 T/h
- ✓ Heavy-Duty chain conveyors
  From 300 T/h to 500 T/h
- ✓ Heavy-Duty enclosed belt conveyors
  From 500 T/h to 900 T/h











### Countries where we are presents

Germany Estonia Poland

Saudi Arabia Philippines Portugal

Argelia France Puerto rico

Argentina Holand Azerbaijan

Armenia Hungary Czech Republic

Austria India Romania

Belarus Indonesia Russia

Bolivia United Kingdom Serbia

Brasil Iran Syria

Bulgaria Italy Sri Lanka

Chile Kazakhstan Sweden

Colombia Latvia South Africa

South Korea Lithuania Tunisia

Ivory Coast Morocco Turkey

Costa Rica Mexico Ukraine

Denmark Mozambique Uruguay

Ecuador Myanmar Venezuela

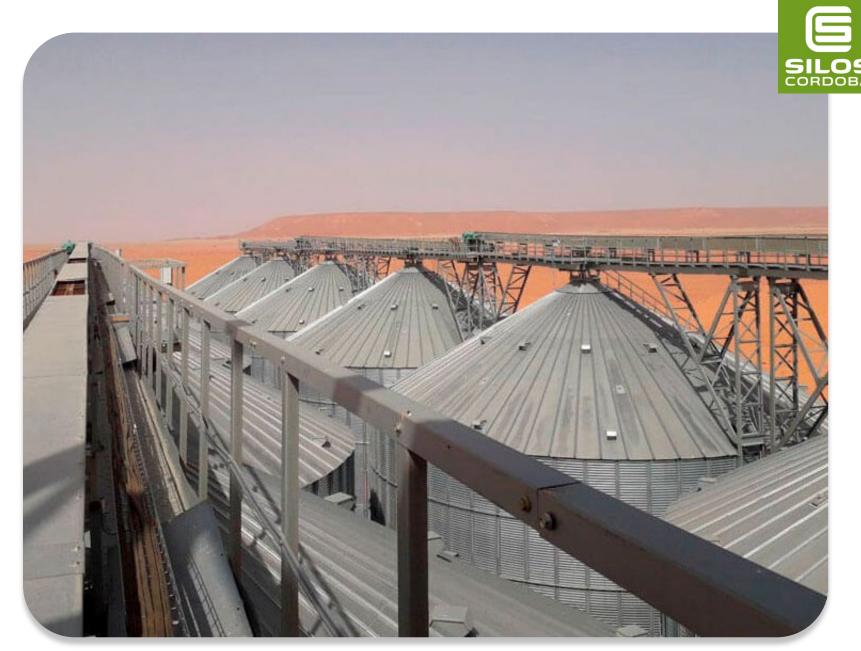
Egypt Nigeria Vietnam

United Arab Emirates New Zealand

Slovakia Paraguay

# **Our References**





**2021 ORUS – ALGERIA** : 12 silos mod. 22,92/12 – Total Capacity: 59,400 T



MALANGE – ANGOLA: 6 silos mod. 22,92/12 – Total Capacity: 29,500 T



**2020 VITAM - HUNGRÍA**: 6 Hopper silos mod. 5,35/14 – Total Capacity: 1,900 T



**2020 ESAGROCE - SPAIN**: 4 silos mod. 17,57/15 – Total Capacity: 14,250 T



**2019 TONKERIS – KAZAKHSTAN**: 4 silos 17,57/13; 4 silos 22,92/13; 6 hopper silos 45° 5,35/9; 4 hopper silos 60° 7,64/10 – Total Capacity: 33,000 T



SLK14 – SRI LANKA: 5 hopper silos mod. 10,70/8 45° – Total capacity: 4,000 T



**2018 GRAIN TERMINAL ANTWERP – BELGIUM :** 37 Hopper silos mod. 7,64/16 45° – Total capacity: 20,000 T



**2018 SETTAT – MOROCCO :** 3 silos mod. 18,33/15 – Total capacity: 20,000 T



**2017 IRCHENKO ELEVATOR - KAZAKHSTAN:** 8 silos mod. 22,92/12 – 4 Hopper silos mod. 6,88/6  $60^{\circ}$  – 2 hopper silos mod. 6,11/9  $60^{\circ}$  – Total capacity: 40,750 T



**2017 CAPA COLONIA – ITALY:** 6 silos mod. 20,63/20 – 1 Hopper silo mod. 9,17/19 45° – 3 Hopper silos mod. 4,58/3 60° – Total capacity: 38,800 T



**2017 NIGER04 - NIGERIA**: 5 silos mod. 24,45/22 – Total capacity: 50.000 T



NIGER05 - NIGERIA: 4 silos mod. 24,45/22 – Total capacity: 40.000 T



**2016 INDEIKA - RUSSIA**: 6 silos mod. 32,08/16 – 4 silos mod. 9,17/12 45° – 10 silos mod. 6,88/08 – Total capacity: 80.000 T



**2016 OMEGA - BOLIVIA**: 4 silos mod. 27,50/20 – 4 silos mod. 7,64/13 - Total capacity: 36.000 T



**2016 SNA - TUNISIA**: 10 silos mod. 22,92/14 - Total capacity: 56.400 T



**Under construction NKF - IRAN**: 48 silos mod. 24,45/17 - Total capacity : 367.000 T



**2015 OBRINEL - URUGUAY**: 12 silos mod. 27,50/17 - Total capacity: 121.000 T



**AKT - KAZAKHSTAN**: 6 silos mod. 27,50/18 - Total capacity: 62.000 T



**2015 VITEBSK - BELARUS**: 8 silos mod. 19,10/13 – 14 hopper silos mod. 6,11/9 – 36 bulk load silos 3,50/5 - Total capacity: 33.800 T



ACEITES BORGES - SPAIN: 6 silos mod. 14,51/16- Total capacity: 14.600 T



**TIRYAKI - TURKEY:** 19 silos mod. 18,33/22 – 11 silos mod. 14,51/22 – 27 truck load silos mod. 4,65/6 – 6 silos mod. 21,39/22 – Total capacity: 200.000 T



2011 AGROEKS PRIMA - SLOVAKIA: 2 silos mod. 41,25/20 - Total capacity: 54.000 T



**2011 CEFUSA – SPAIN**: 5 silos mod. 27,50/22 – Total capacity: 62.000 T



**2009 CONSTANZA - ROMANIA**: 17 silos mod. 24,45/22 – Total capacity: 165.000 T



TIEN HUNG - VIETNAM: 6 hopper silos mod. 9,17/16 – Total capacity: 6.900 T



BAKU – AZERBAIJAN: 5 silos mod. 16,81/14 – Total capacity: 15.000 T



ACOR- SPAIN: 16 silos mod. 27,50/22 – Total capacity: 200.000 T



LAS VIRTUDES – SPAIN: 10 silos mod. 9,17/13 – Total capacity: 7.000 T



**2005 HEVES - HUNGARY**: 6 silos mod. 18,33/9 – Total capacity: 14.300 T



ARROCERES DELTA DEL EBRO – SPAIN: 84 hopper silos mod. 7,64/16 – Total capacity: 69.000 T



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