

# MYSiLO<sup>®</sup>

## GRAIN STORAGE SYSTEMS



GRAINS HAPPY WITH MYSiLO



Mysilo was founded in 2000 with 40 years of sector experience under the name of SFA Group to manufacture grain storage silos and handling equipments. Mysilo, manufactures grain storage silos and handling equipments in its closed manufacturing area over 40.000 m<sup>2</sup> with the help of its expert staff over 800 people. From the time of its foundation to the present day, Mysilo has successfully completed more than 2000 silo sites projects for over 1.500 customers in more than 60 countries on 5 continents and has become a young, innovative, ever-growing, expert and leader company in the industry.

Yearly, 30 million tons grain is safely stored in Mysilo grain storage silos. Mysilo, showing a stable performance and exhibiting an example of sustainable growth in the industry, is Europe's biggest silo manufacturer.

There are many factors that have an impact on the design of steel silos. Some of these factors are written below:

**Regional Loads ;**

- Earthquake Load
- Wind Load
- Snow Load
- Weather Conditions

**Grain to be stored ;**

- Type of grain
- Humidity
- Uncleanliness
- Duration of storage

**Aeration Design ;**

- Dust Suction
- Cleaning
- Fumigation

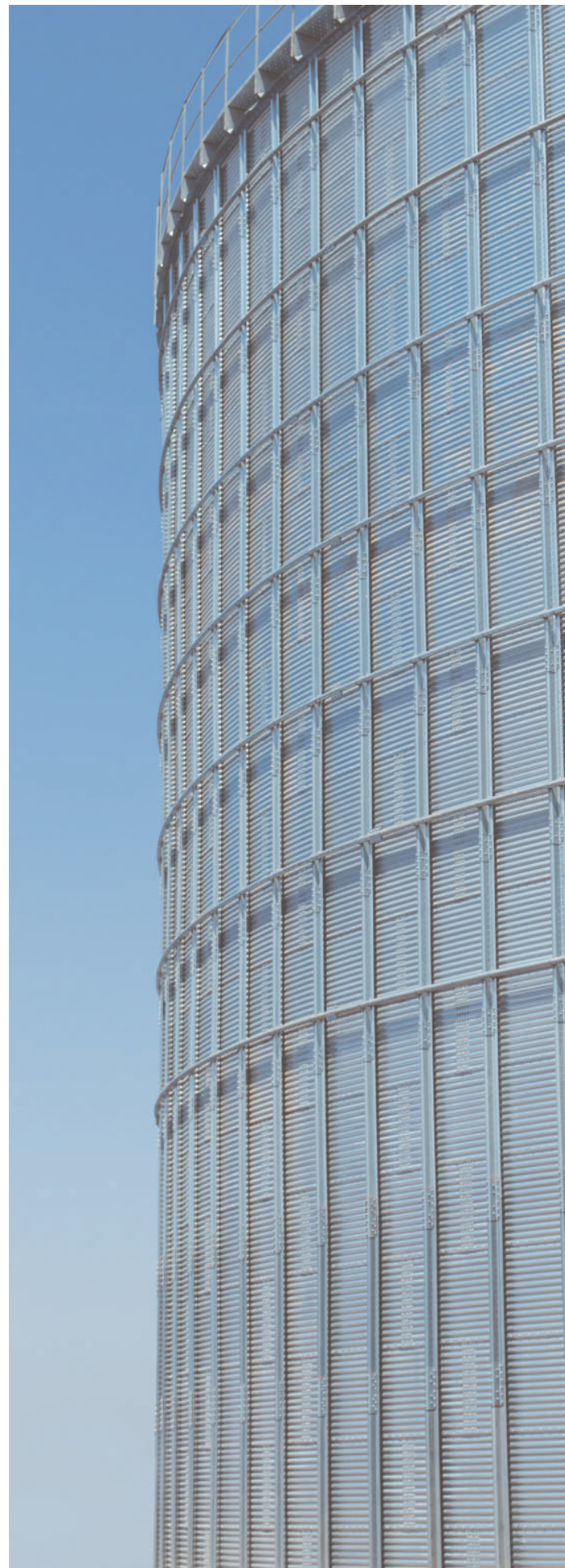
**Requirements of the customer;**

- Annual loading and unloading capacity
- Field Measurements
- Ground Conditions

And lots of other criterias are considered in the design of silos.

**NORMS AND STANDARDS WE USE IN SILO DESIGN,**

ASABE 2008 EP433,  
 2007 AISI Cold Formed Steel Design,  
 2005 AISC Steel Construction Manual,  
 2005 ACI 318-05 Building Code,  
 Requirements for Structural Concrete,  
 DIN 1055-6 Design Loads for Building and Silos,  
 EN 1991-4 (2006) : Eurocode 1,  
 EN 1993-4-1 Design of Steel Structures,  
 UBC-97,  
 ACE 7-05,  
 IBC 2003,



**CAULKING**



Hot and cold resistant Caulking is used in the joints of sidewall sheets to provide excellent sealing in all climates.

**BOLT**

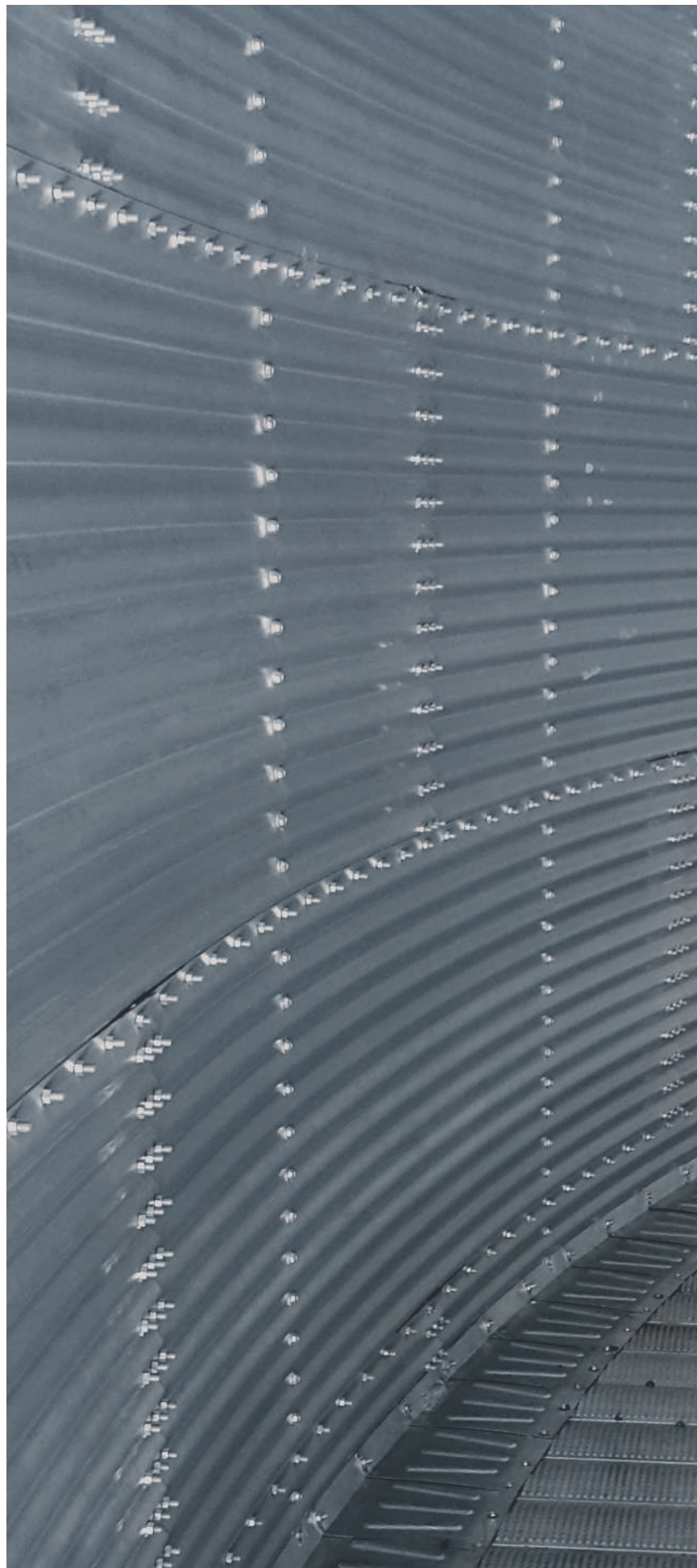


At all junction points of sidewall sheets and stiffeners, DACROMET 500 coated 10.9 quality bolts are used in order to ensure the maximum durability. Thanks to the high density polyethylene conical gaskets found in bolts, sealing is kept at the highest level.

Bolt Type	Durability Load (psi)	Tensile Value (psi)	Yield Strength (psi)
Grade 8 (10.9)	120.000	130.000	150.000
Grade 5	85.000	92.000	120.000

**Salt Corrosion Test Endurance Table**

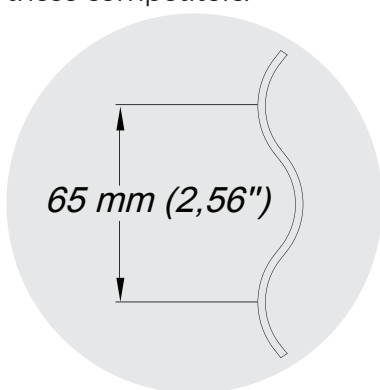
Coating	Salt Spray Test (Hour)
DACROMET 500	500
Polysil	240
Galvaniz Dacromet	108
Electro galvanize	72





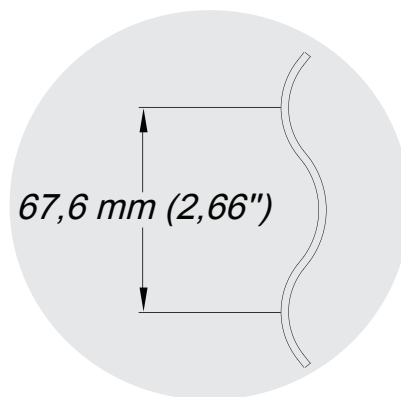
Mysilo, manufacturing more durable silos thanks to the narrowest corrugated sidewall sheet of 65 mm, has a huge advantage against competitors with this feature.

Mysilo uses 600 gr / m<sup>2</sup> galvanized sidewall sheets at total on both surfaces which makes Mysilo silos long-lasting. When compared with competitors using less galvanized sidewall sheets, Mysilo be over all of those competitors.

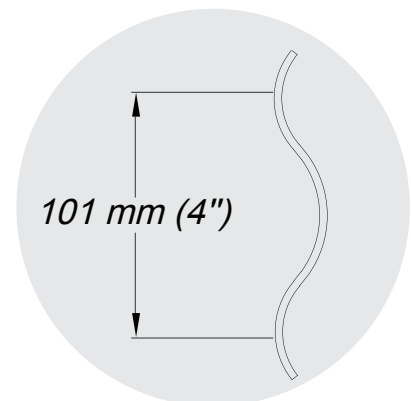


Mysilo

The most arrow corrugated side wall Sheets in the world



Very few firm,  
Narrow corrugated  
Sidewall sheets



A lots of firm,  
Wide corrugated  
Sidewall sheets

**GALVANIZED**

While competitors of Mysilo offer 600 gr. / m<sup>2</sup> galvanized coating as an option, Mysilo offers it as its standard. Beside this, the silo's life time is %120 longer in comparison with the competitors' standard quality galvanized coating rate 275-350 gr. / m<sup>2</sup>

**NOTE:**

\*\* The amount of GALVANISATION on side wall sheet depends on the silo loading-unloading frequency and climate conditions such as snowing, sandstorm, wind speed and relative humidity. More friction on the wall sheets causes less lifetime for galvanisation.



Silo roof designs are designed as beamed or beamless forms according to the need and load-carrying capacity. In order to maintain optimum storage capacity level, all roofs are resigned with  $30^{\circ}$  natural angle.

Optionally, roofs are also designed according to different load-bearing capacities.

### ROOF BEAM STRUCTURE

When compared with Mysilo competitors using Z profile roof beams or different designs, Mysilo roof beams designed as C profile having more load capacity.

### ROOF PANEL CURVE

Roof beams designed as C Profile having the depth of 75 mm and more bended offers more durability than the competitor's designs such as Z profile type beams or 7 type overlapping of the roof panels.

Mysilo gives a great advantage of easy installation by using 3 roof panels per sidewall sheet.

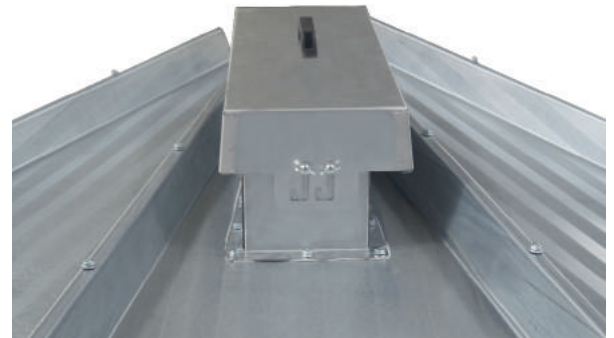


## ROOF VENTS



It is used to exhaust the air inside of the silo to the outside in a natural way. Through to its special design, rain water and birds are prevented from entering into the silo.

### AIR VENTS D MODEL (optional)



D Model Air Vents are used to exhaust the accumulated air at the top of the silo. D Model Air Vents are located in the nearest place to top of the roof.

### EXHAUST FAN (optional)



Exhaust Fan (Suction Fan) is used to exhaust the humid and hot air to the outside of the roof.



ROOF ACCESS DOOR



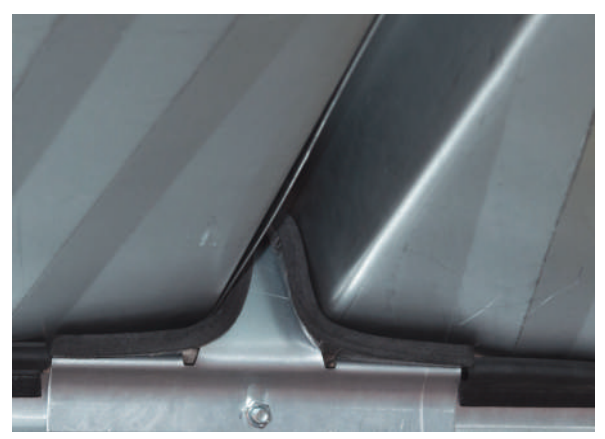
Our new design big roof access doors make entrance or exit very comfortable and through to its new form, provides better protection against rain water.

ROOF EAVE PLATFORM (optional)



It is used to provide safe access to air vents during the fumigation application.

ROOF SEALING KIT (optional)



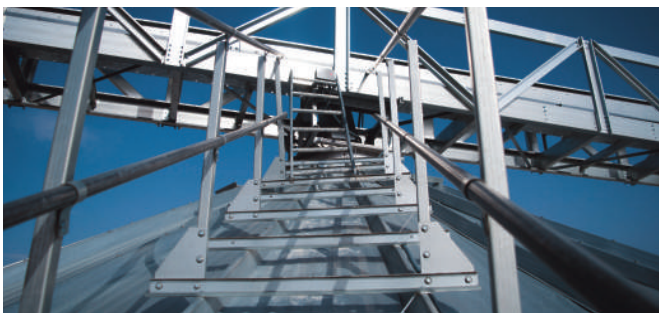
It prevents the gas leakage during fumigation application.





ROOF LADDER LB MODEL (optional)

ROOF LADDER BB MODEL (optional)



LB Model roof ladder having the footsteps as L type has pipe type treads and made out of special profiles.



BB Model Roof Ladder offers higher safety as well as wider treads.



When compared with other stiffeners, Mysilo stiffeners have more load-carrying capacity thanks to 6 times bended special design. The quantity per sidewall sheet may vary on Silo diameter, height or seismic hazard of the site.

#### STIFFENER GROUND JUNCTION DETAIL



This part provides easy assembly and used in connection of stiffeners to the ground.

#### WIND RINGS



The wind rings are used in varied quantities depending on the silo diameter, silo height and wind speed in the area.

#### SIDE UNLOADING (optional)



This equipment is designed to unload silos to a certain level as quickly and regularly without using any electrical source.



#### K MODEL SIDEWALL ACCESS DOOR



K Model Sidewall Access doors are provided as standards from 05 model to 14 model silos which is mounted on the second ring of the silo.

Through the two doors opening both outward and inward, security measures are taken and safe access is assured.

#### S MODEL SILO ACCESS DOOR



S Model Sidewall Access Doors are provided as standard from 16 model silos and mounted on the second ring of the silo.

#### I MODEL SIDEWALL ACCESS DOOR (optional)



I Model Sidewall Access Doors are pretty bigger than our standard sidewall access doors which is 1690mm. It makes entrance into the silo easier and comfortable.



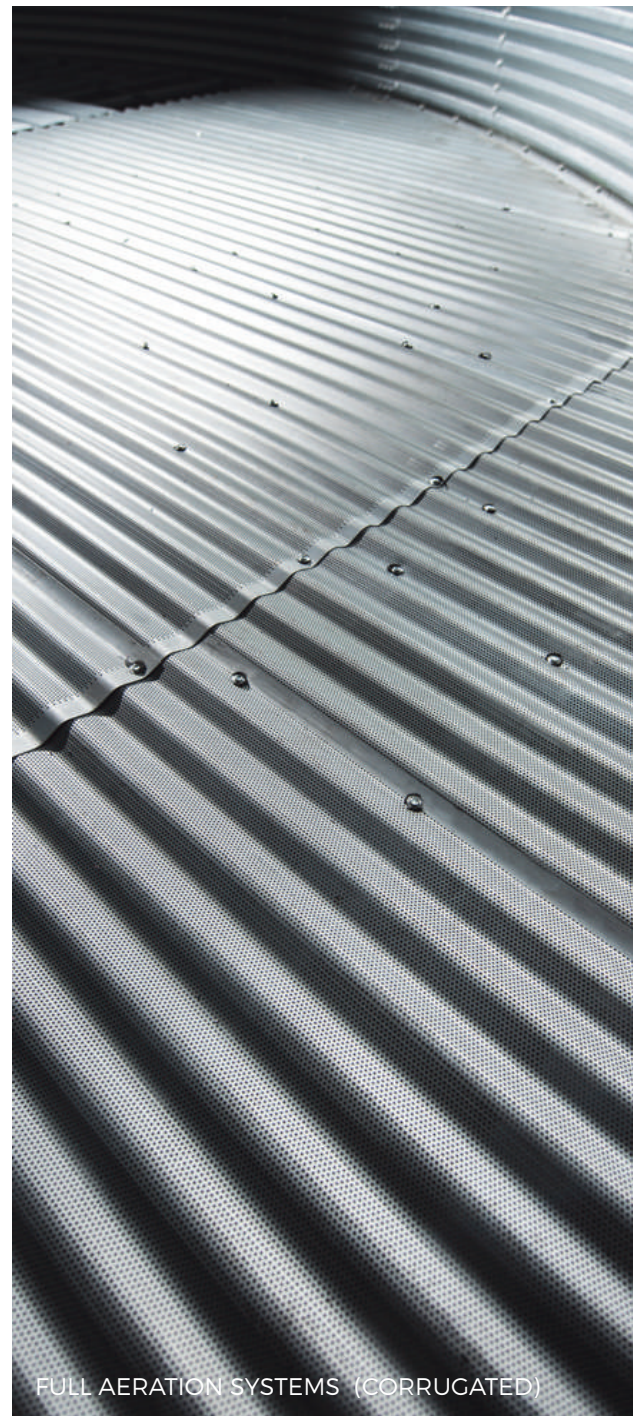
Mysilo offers you special aeration systems depending on the grain type and size.

Aeration grilles are made of perforated sheet in galvanized durable construction. Thanks to its unique locking system and durable leg; resistance is assured against excessive loads.

## LOCKED TYPE AERATION



## MONORAIL TYPE AERATION SUPPORT LEG



## FAN

Fan models are selected according to silo capacity and grain type to be stored. Centrifugal Fan and Axial Fan options, different capacities and quantities are given according to silo models and grain type.

### AXIAL FAN

Designed for efficient operation for a long time, Axial Fans, manufactured in different strengths according to your need. Powerful motor assembled to the galvanized fan trunk prevents vibration and noise during operation. The trunk of the axial fans are completely manufactured from galvanized sheet steel and its life time against corrosion is extended.

### CENTRIFUGAL FAN

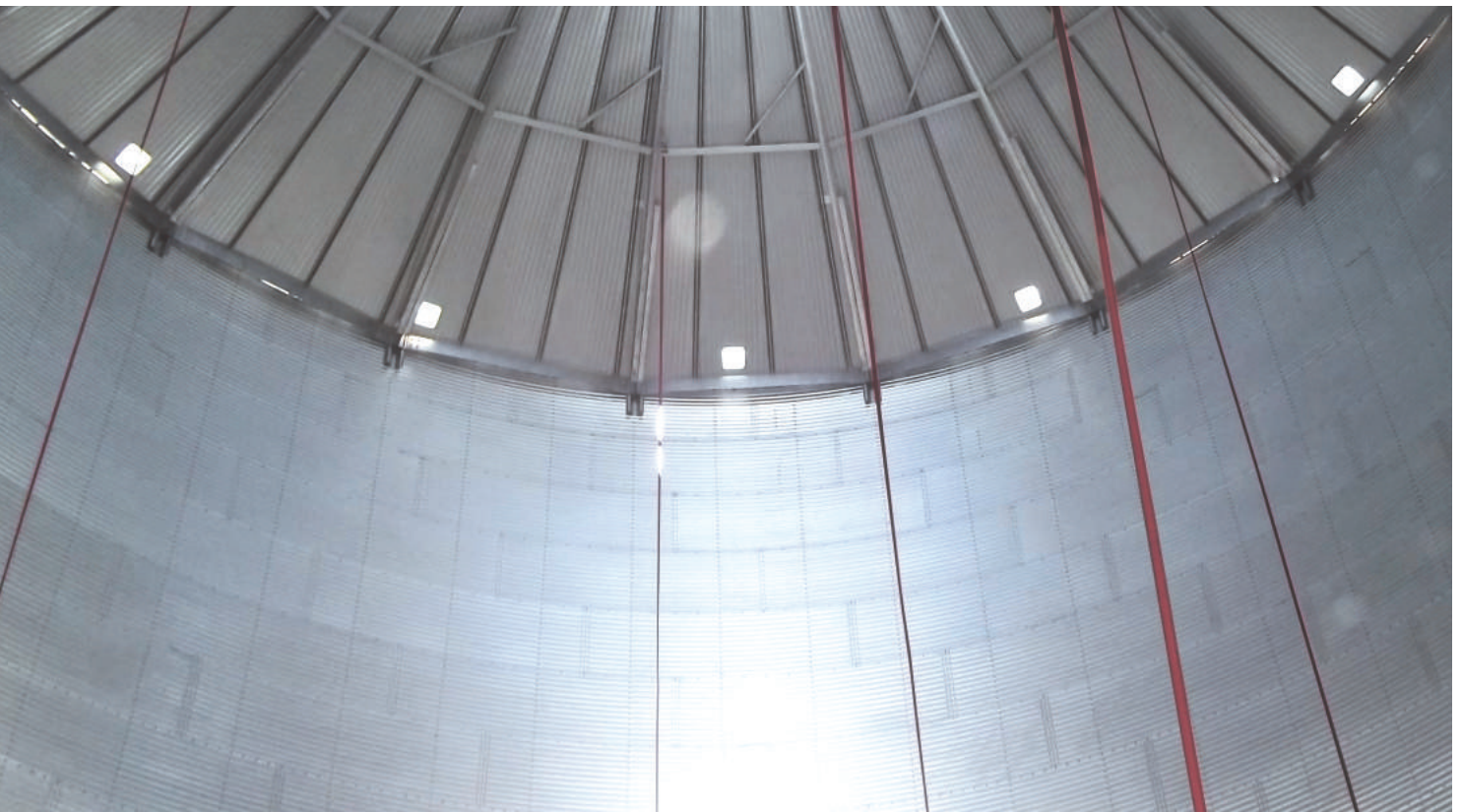
Centrifugal fans are manufactured as high (2950 rpm) and low (1450 rpm) speed. The fan housing is designed as galvanized and it is long lasting against corrosion. Turbine design is designed as airfoil and dynamic balance is taken with computer balance device. Through it provides high performance by decreasing vibration and noise.



AXIAL FAN



CENTRIFUGAL FAN



#### TEMPERATURE MONITORING SYSTEM

Stored grain is always at risk of molding and insect infestation. For a good grain storage, temperature in the silo must be kept under control. Temperature Monitoring Systems, having CE (European Conformity) Certificate and IP 66 Protection Class, are designed by Mysilo. Temperature monitoring cables are connected with special support sheets at a specific distances. These cables are lie down to the ground and thanks to the temperature sensors at certain heights, temperature change in the silo is easily reported.

By connecting to the control box mounted on the outside of the silo; the temperature inside the silo is displayed with the help of a computer equipped portable temperature reading apparatus or a special software.





### STAIR (optional)

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Thanks to the optionally produced stair; relaxed, comfortable and safe access is provided at silo roof.

### OUTSIDE LADDER AND SAFETY CAGE

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The operator security is assured thanks to the special formed treads against slipping and safety cage.

### INSIDE LADDER

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It is used to reach the grain inside of the silo safely.



### FLAT BOTTOM SILOS

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Mysilo flat bottom silos are used for long term and high capacity storage needs with diameters varying from 4.58 m to 32 m and capacities up to 24.687 m<sup>3</sup> .







### COMMERCIAL HOPPER SILOS

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Mysilo Commercial Hopper Silos are suitable for high storage, continuous loading and unloading, segmentation, tempering, and drying process requirements. Besides, hopper bottom silos prevent time, energy, and monetary losses thanks to self-unloading hopper design. Hopper angles are offered as 37°, 40°, 45° and 60° according to silo diameter and grain type to be stored.

Commercial Hopper Silos are presented with diameters from 4.58 m to 11.00 m and capacities up to 1829 m<sup>3</sup>.

Due to the higher storage capacities, specially designed hopper structure and stiffeners easily bear the silo loads. The structure is durable with the support chassis used for an equal load transfer to the ground.

COLUMN



CHASSIS



EXCRETION





FARM SILOS

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Farm Silos are manufactured with diameters varying between 4.58 m and 16.50, with the maximum height of 14.50 m and with capacities up to 2500 m<sup>3</sup>.



### ECONOMICAL HOPPER SILOS

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Economical Hopper Silos are ideal for small capacity grain and feed storage needs. Economical Hopper Silos are designed with diameters between 2.75 m - 6.41 m and have maximum capacity of 270 m<sup>3</sup>. Economical Hopper Silos are ideal for unloading of stored grain or feed. The hopper of the silos is manufactured as 45° or 60° according to the grain to be stored.





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**SILOPORT®**  
TAHİL DEPOLAMA SİSTEMLERİ  
GRAIN STORAGE SYSTEMS

**MYSiLO®**  
TAHİL DEPOLAMA SİSTEMLERİ  
GRAIN STORAGE SYSTEMS

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**MYSiLO®**

**ISO 9001 - 14001**

**OHSAS 18001**

**CERTIFIED**

**CE**  
**CERTIFIED**

**GRAINS IN CONFIDENCE WITH MYSiLO**