



Engineering, construction,  
atimation and maintenance for  
**production plants with  
bulk material handling**



We are SYCSA

# Our organization

Silos y Camiones S.A. de C.V. its a mexican enterprise founded in 1968 and is part of Grupo Industrial Tellería.

We have strong experience offering turn-key solutions in Mexico, USA, Central and South America.

Through engineering, research, administration, manufacturing, installation, service, spare parts and training, we are leaders in the Latin American market of projects, equipment and services for the storage and bulk materials handling systems.

+50

YEARS OF EXPERIENCE

+300

EMPLOYEE

50,000<sup>m<sup>2</sup></sup>

ON OUR MANUFACTURING PLANTS

SERVICE CENTERS



Since  
1968

 **Food Division**

Chicken - derived products  
 Manufacture of cooking oils, starches and vegetable fats  
 Animal feed manufacture  
 Sugar mill  
 Snack's production  
 Cereal's production  
 Chocolate production and chocolate products  
 Syrups, powders and flavor essences production  
 Manufacture of candies, chewing gum, confectionery  
 Biscuits and pasta production  
 Manufacture of corn flours, wheat, among others  
 Ice cream, popsicles and ice pop production  
 Milk and dairy products manufactory  
 Bread making and other bakery products  
 Production of corn tortillas and nixtamal grinding  
 Coffee and tea industry  
 Other processes of the food industry

 **Tobacco and drinks**

Brewing  
 Natural juices manufacture  
 Tobacco products  
 Soft drinks production  
 Other beverage and tobacco process

 **Pharmaceutical**

Manufacture of equipment and material for medical/laboratory use  
 Manufacture of raw materials for pharmaceutical industry  
 Manufacture of pharmaceutical products  
 Another process of the pharmaceutical industry

 **Farming**

Grain cultivation  
 Another cultivations

 **Plastic and rubber**

Manufacture of flexible plastic bags and packaging  
 Manufacture of plastic bottles and lids  
 Manufacture of plastic compounds  
 Manufacture of plastic sacks (Raffia)  
 Manufacture of foams and polystyrene products  
 Manufacture of foams and urethane products  
 Toys production  
 Manufacture of plastic laminates and rigid packaging  
 Manufacture of hoses, bands, tires and rubber chambers  
 Manufacture of plastic profiles, pipes and connections  
 Manufacture of plastic resins  
 Manufacturer of water tanks  
 Manufacture of equipment and plastic material for medical/laboratory use  
 Others, manufacture of plastic items for the home  
 Plastic recycling plants

 **Automotive**

Manufacture of cars and trucks  
 Manufacture of plastic auto parts  
 Manufacture of chassis, tows and trailers  
 Other processes of the automotive industry

 **Electronic, pneumatic and automation**

Manufacture of household appliances  
 Manufacture of energy and communication lines  
 Manufacture of electrical generation and distribution equipment  
 Another process of electrical industry  
 Power or energy generating plants  
 Industrial automation solutions

 **Textile and footwear**

Footwear manufacturing  
 Fabrics manufacturing  
 Preparation and spinning of textile fibers and yarn manufacturing

 **Chemistry**

Manufacture of cosmetics and fragances  
 Manufacture of fertilizers, pesticides and agrochemicals  
 Manufacture of chemical fibers  
 Manufacture of synthetic rubber  
 Manufacture of soaps, cleaners and toothpastes  
 Manufacture of master batch, synthetic dyes and pigments  
 Manufacture of paints and coatings  
 Manufacture of synthetic resins (non-plastic)

 **Water**

Drinking wáter  
 Fire protection systems  
 Water treatmen

 **Petroleum**

Oil and gas extraction  
 Manufacture of oils and lubricating greases  
 Manufacture of coke and other products derived from petroleum and coal  
 Asphalt products manufacturing  
 Oil refining  
 Another process of the oil industry

 **Paper**

Manufacture of pulp, cellulose, paper and cardboard  
 Manufacture of disposable diapers and sanitary products  
 Manufacture of paper and cardboard products  
 Another process of the Paper Industry

 **Wood**

Sawmilling, conservation and transformation of wood

 **Construction**

Storage and handling of cement-based mixtures  
 Construction of civil engineering works and heavy Works  
 Residential and non-residential construction (Construction companies)  
 Manufacture of adhesives and sealants  
 Manufacture of articles of pottery, porcelain, earthenware, floors, tiles, and toiletries  
 Lime manufacture  
 Cement manufacturing  
 Concrete manufacturing  
 Manufacture of pre-fabricated, pre-stressed and pre-stretched concrete  
 Manufacture of clay-based products for construction  
 Manufacture of pipes, blocks, laminates and cement products  
 Manufacture of plaster and gypsum products  
 Production, storage and handling of crushed gravel and sands  
 Another process of construction Industry

 **Mining and Steel**

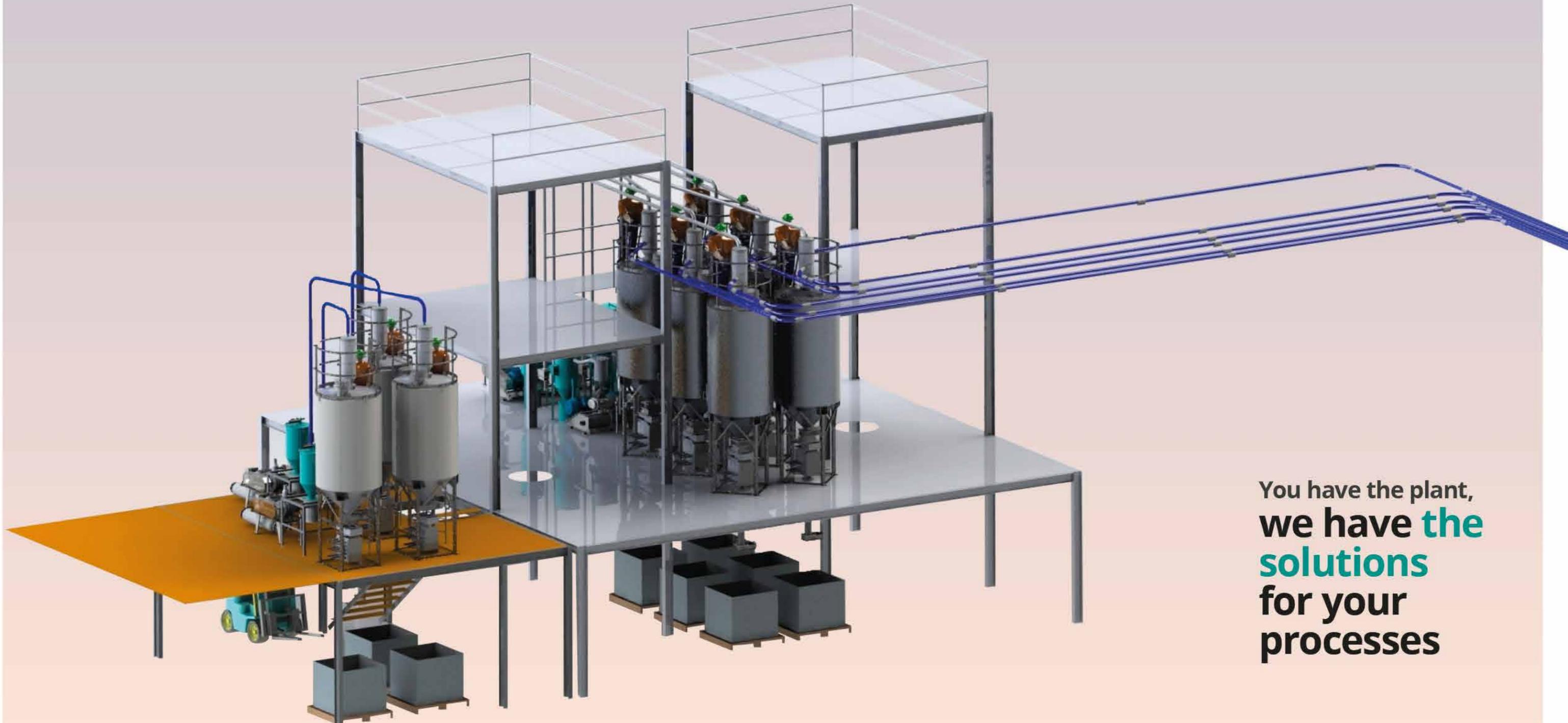
Manufacture of lime (except lime for construction)  
 Manufacture of products based on non-metallic minerals  
 Casting of metal and manufacture of metal parts  
 Coal mining  
 Mining of metallic minerals  
 Mining of non-metallic minerals  
 Services related to mining

 **Glass**

Manufacture of glass containers and ampoules  
 Mirror manufacturing  
 Glass fiber  
 Manufacturing  
 Manufacture of other glass articles  
 Glass manufacturing



## Our Offer



You have the plant,  
we have **the solutions**  
for your  
processes



Big bags unloader.

# Bulk material reception systems loading and unloading

Loading and unloading of sacks, big bags, gaylords, bulk hoppers, containers with liners, dump trucks and railroad hoppers.



Liners unloading system



Trucks loading system



Railroad hoppers unloading system



Unloading bulk hoppers system



Telescopic chutes and spout loading



Fluidizer pads



Download vibrator



Liner unloading



Manifold



Bin activator



Telescopic loading spout

# Storage in silos, tanks and hoppers

Bolted or welded. Manufactured in our 50,000 m<sup>2</sup> production facilities, ready to use or in sections for field installation.



## Materials

Carbon steel, aluminum or stainless steel, coated according to applications

## Coating options

Variety of epoxy or polyester powder coat or epoxy or polyurethane liquid coating. FDA food processing approved coatings

## Structures

Skirt support, structure frames and columns, skirt open to bulk loading truck. Installed over load cells weighing system on the structure to control live-actual weighing

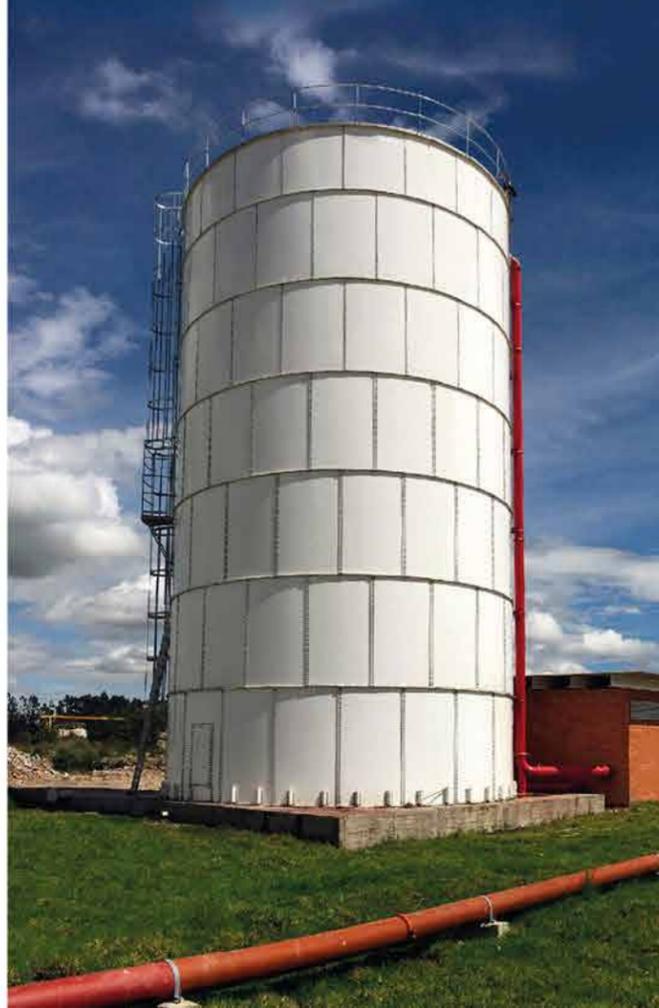
## Bottom

Flat bottom, or meticulously designed cones with custom slopes

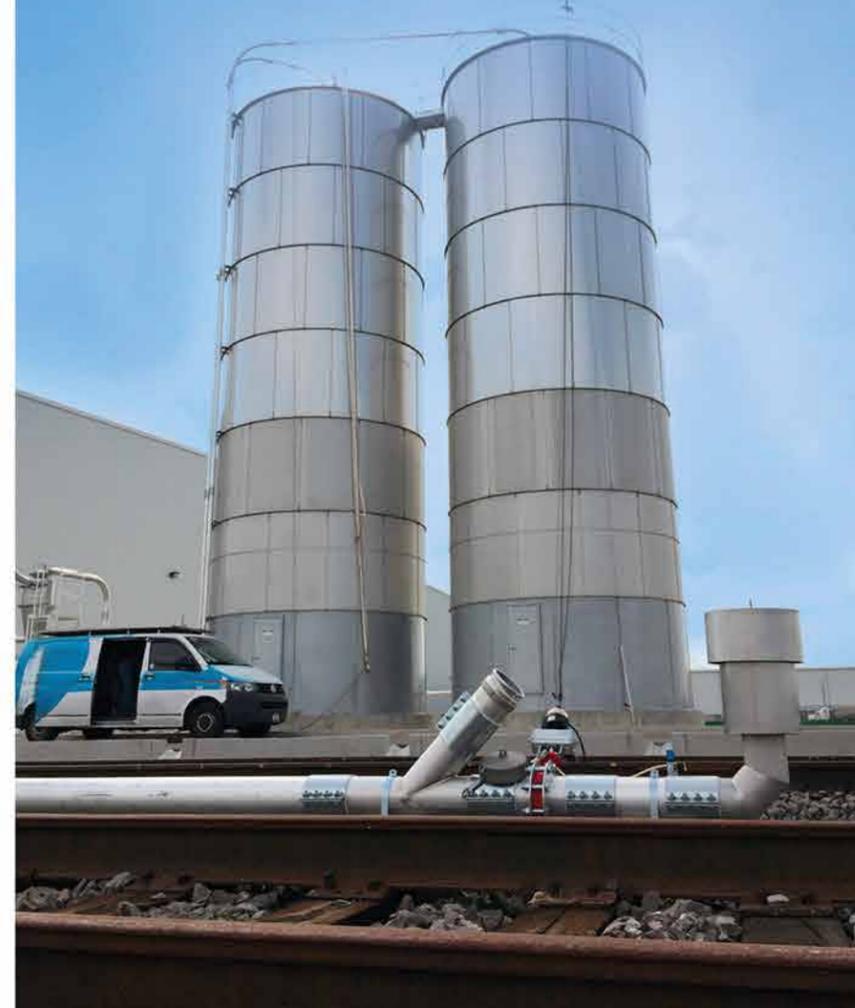
## Welded silos



## Water Tank



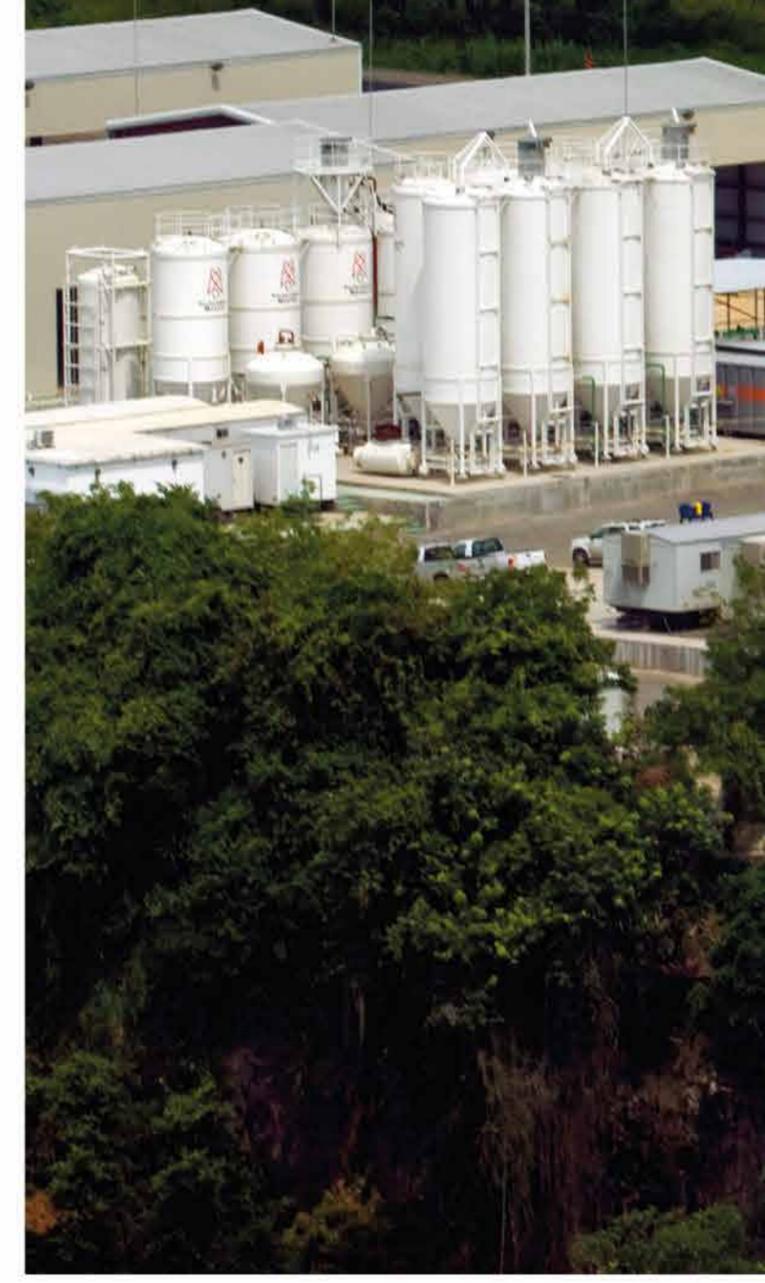
## Bolted silos



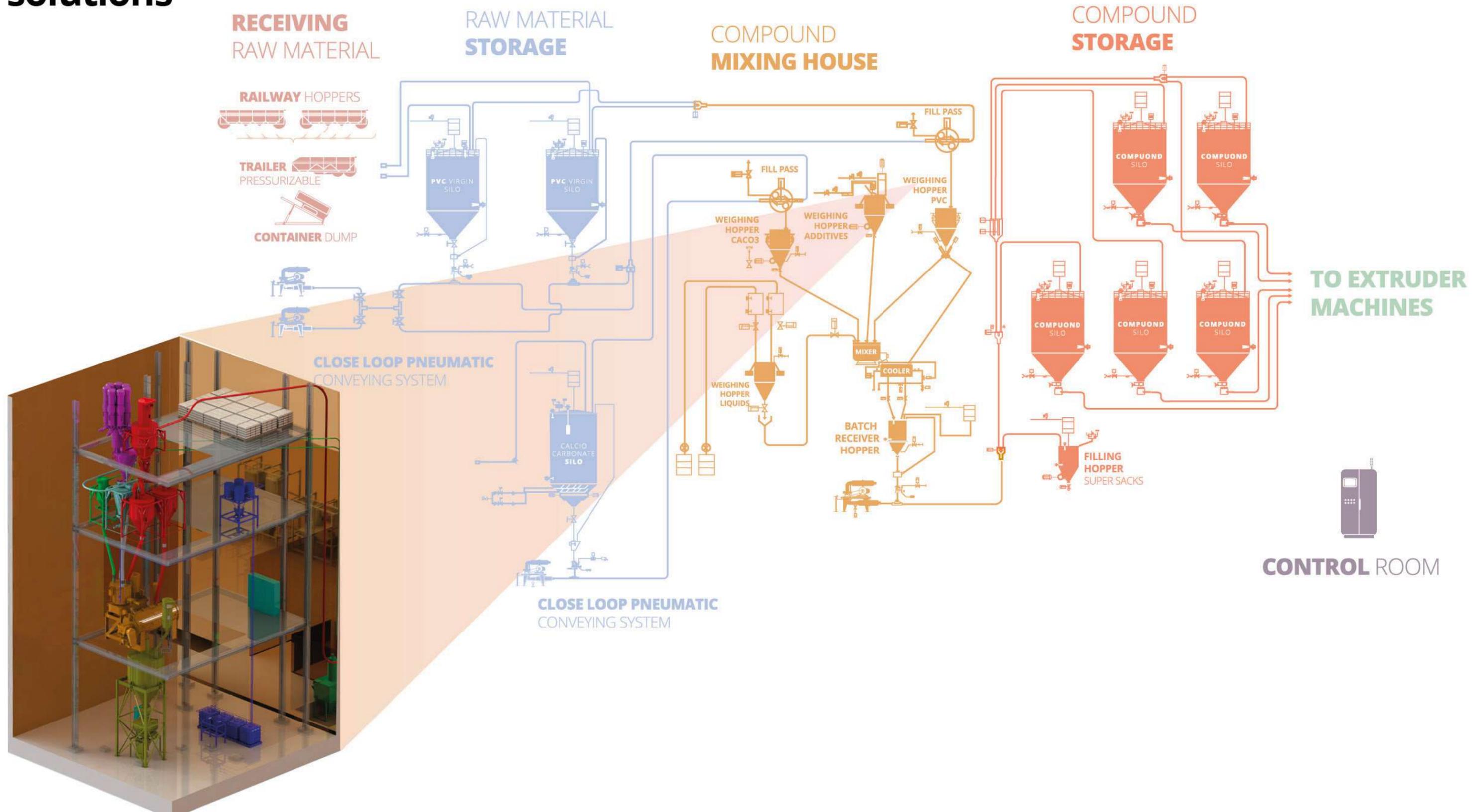
**SYCSA**<sup>®</sup>

## Pressure silos and tanks

Aligned to ASME Standard



# Weighing, mixing and dosing solutions



# Weighing, mixing and dosing solutions

## Mechanical transport systems

Bulk material transportation through vibration, gravity, bands, valves



Bucket elevator

volumetric dosers



Screw Conveyors



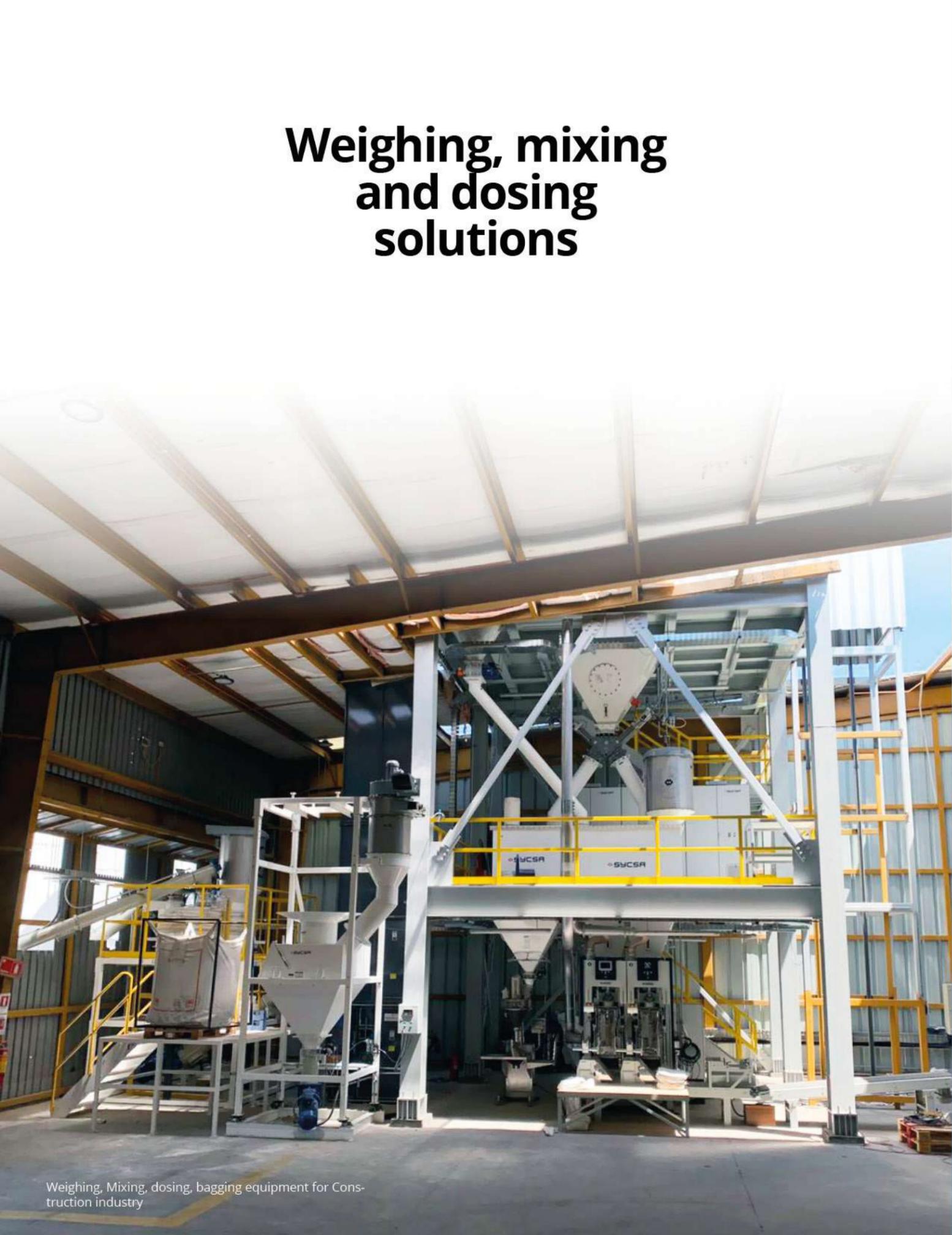
Tubular disc conveyor



Conveyor belts



Drag chain conveyor



Weighing, Mixing, dosing, bagging equipment for Construction industry



Storage silo, with extraction system with screw conveyor



Belt conveyor

# Pneumatic conveying systems

## Batch or continuous flow processing

From one or more sources, to single or many destinations

Raw materials reception, to convey from storage silos to final or intermediate process machines



Pneumatic conveying system for dry materials Blower for pressure and vacuum

## We can design them and simulate

in our R&D department

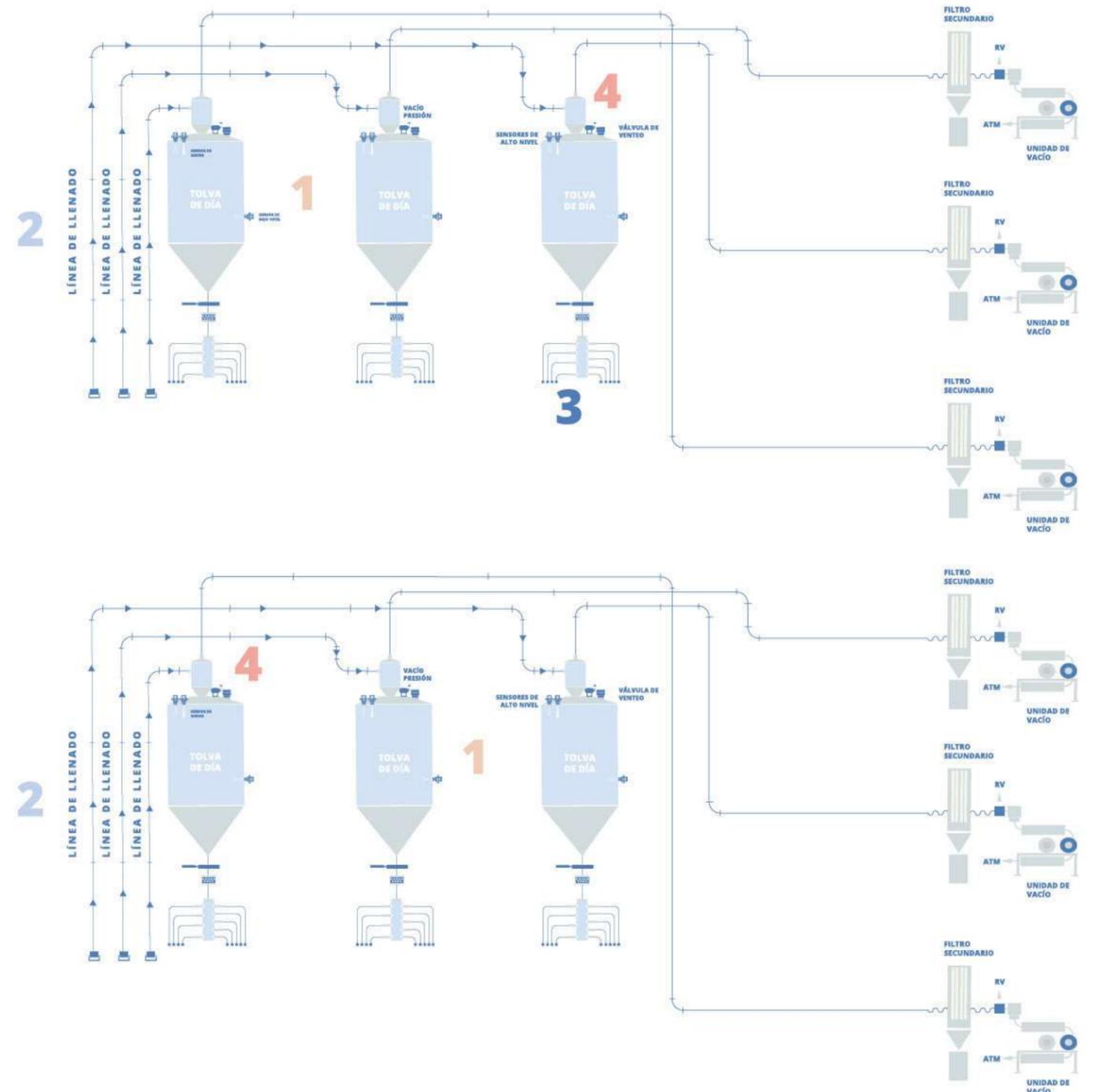
Reliable solutions for challenging materials that requires special treatment



Heliflow blower

Duroflow blower

## Dilute, semi-dense or dense phase by positive or negative pressure or a combination of both



- 1 5 m<sup>3</sup> Day hopper.
- 2 Filling lines.
- 3 Vacuum box with 9 outlets.
- 4 Vacuum Pressure.
- 5 Vacuum unit

**Vacuum, pressure or combined systems**



# Peripheral equipments for minor materials

Sumamos tecnología y equipos auxiliares para ofrecerle soluciones de calidad en:



Mixers



Separators and loadings



Mills



Chillers



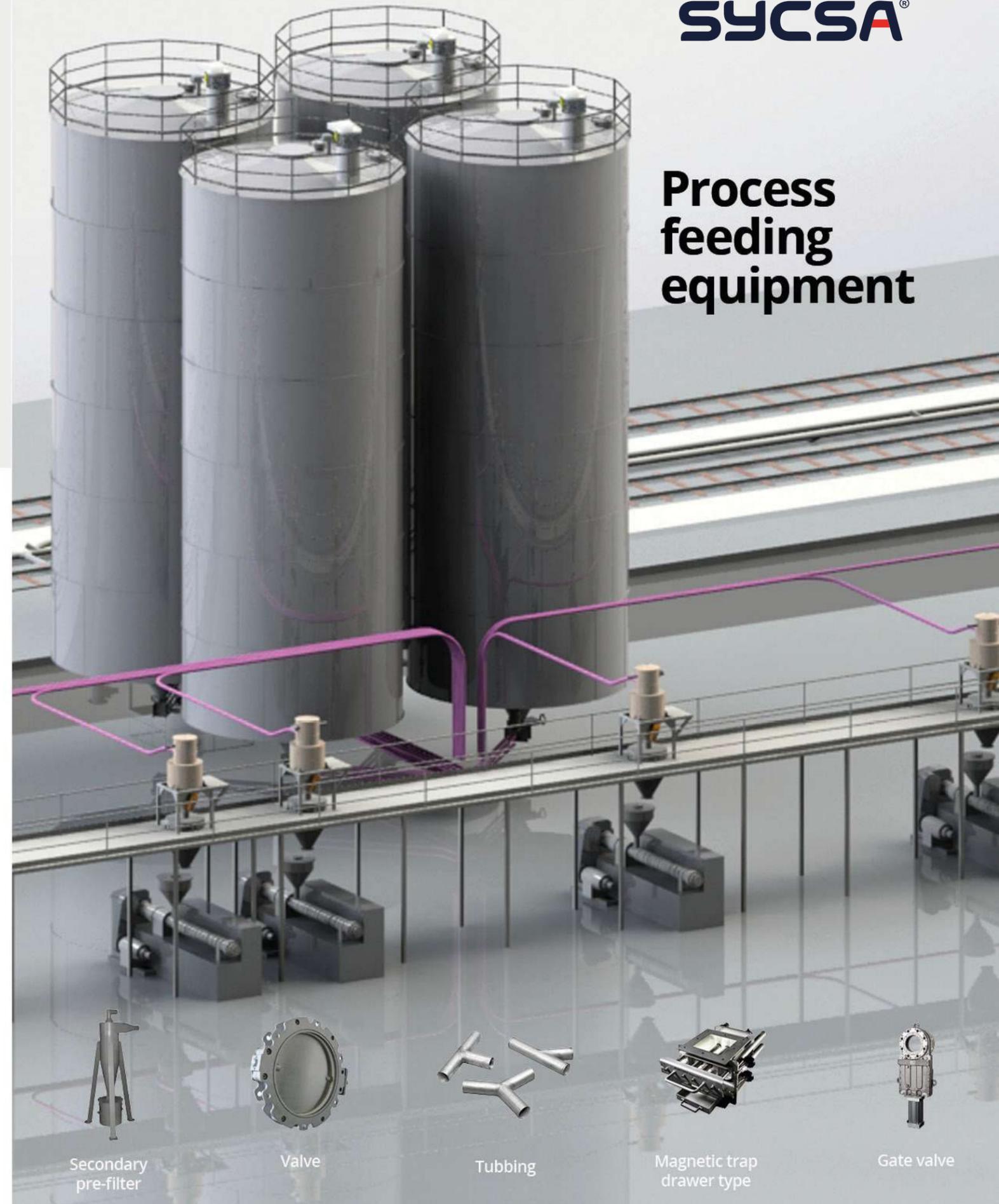
Cristalizers



Dryers

- Feeding of minor components
- Dryers
- Dehumidifiers
- Coolers
- Mixers
- Material cleaning
- Crystallizers
- Granulating Mills
- Peripheral Equipment

## Process feeding equipment



Secondary pre-filter



Valve



Tubing



Magnetic trap drawer type



Gate valve

# Our Products

## Equipment for reception, loading and unloading

Bag dump stations  
 Container liners unloaders  
 Railcar unloading  
 Loading spout  
 Arch breaking  
 Aeration systems  
 Bin activators  
 Bulk bag dischargers

## Pneumatic conveying system

Dilute phase pneumatic conveying  
 Dense phase pneumatic conveying  
 Blowers  
 Pressure and blower packages  
 Pressure vessel for low pressure

## Monitoring and traceability systems

Weighing hoppers and silos  
 In-line weighing systems  
 Traceability system  
 Control Panels  
 Load-cells  
 Truck and railroad scales  
 Point level sensors  
 Continuous level indicators

## Storage

Bolted Silo  
 Welded Silo  
 Water tank  
 Hoppers  
 Pressure silos and tanks

## Mechanical conveyors

Screw conveyors  
 Bucket elevators  
 Belt conveyors  
 Drag conveyors  
 Tubular Disc conveyor

## Valves

Slide valve  
 Diverter valve  
 Butterfly valve  
 Iris valve  
 Rotary valve

## Filtering and cleaning of material

Silo and hopper venting filters  
 Filters receivers  
 Dust collectors equipment  
 Magnetic separation  
 Screeners

## Mixers

Ribbon blenders  
 Single & Twin shaft paddle mixers  
 Sludge mixer  
 Gravimetric Batch blenders for plastics

## Line transport components

Vacuum wands and in-line sight glasses  
 Gaskets  
 Tubing and pipe bends and straights  
 Compression couplings  
 Plastic and metal flexible hoses  
 Tubing and pipe manifolds  
 Vacuum pick-up boxes

## Safety systems

Lightning protection system  
 Vacuum / Pressure relief valves  
 Explosion venting  
 Explosion suppression systems  
 Explosion isolation systems  
 Flameless explosion venting

## Dosing and feeding machines

Volumetric feeders  
 Gravimetric feeders  
 Volumetric & gravimetric feeders for colorant and/or additive

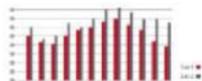
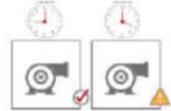
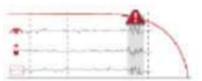
## Peripheral equipment

Self contained vacuum loaders  
 Central vacuum receivers  
 Air heat exchanger for pneumatic conveying  
 Hot air dryers  
 PET Crystallizer  
 Dehumidifying dryers  
 Size reduction granulators

Automation & control

# Driving Digital transformation through Industry 4.0

**Matrix analysis**  
A key to differentiation

	Equipment	System	Corporate
Descriptive	 Is the engine running correctly?	 Is Line 1 running properly?	 Which plant has the best performance?
Diagnostic	 Why did a failure occur?	 Why quality of line 1 is bad?	 Why the performance Site A is below plan?
Predictive	 I predict that soon a failure will happen	 I predict that Line 1 will be out of tolerance	 I predict site A will be behind the plan soon.
Prescriptive	 Which actions should I take to avoid failure?	 Which actions should the operator take to avoid poor quality?	 What steps should I take to prevent Site A from falling behind the plan?



**Smart storage.**  
Solutions for process and inventory control

Smart Warehouse Automated Replenishment System (SARAI)

Incorporate Artificial Intelligence into your logistics process

- Logistics 4.0
- Supply chain digitization



Weighing silos

## Automated Request Submission and Monitoring

Automatically sends a request for material restoration, whenever the quantity of material is below the restoration Set point.

This ensures that the plant does not run out of product and improves the planning / logistics of raw material delivery.



Digital load cells



Sycsa control boards. UL certificate



Volumetric inventory measurement



Silos filling automatic identification system

**Looking for a turnkey solution?**  
EPC Projects management



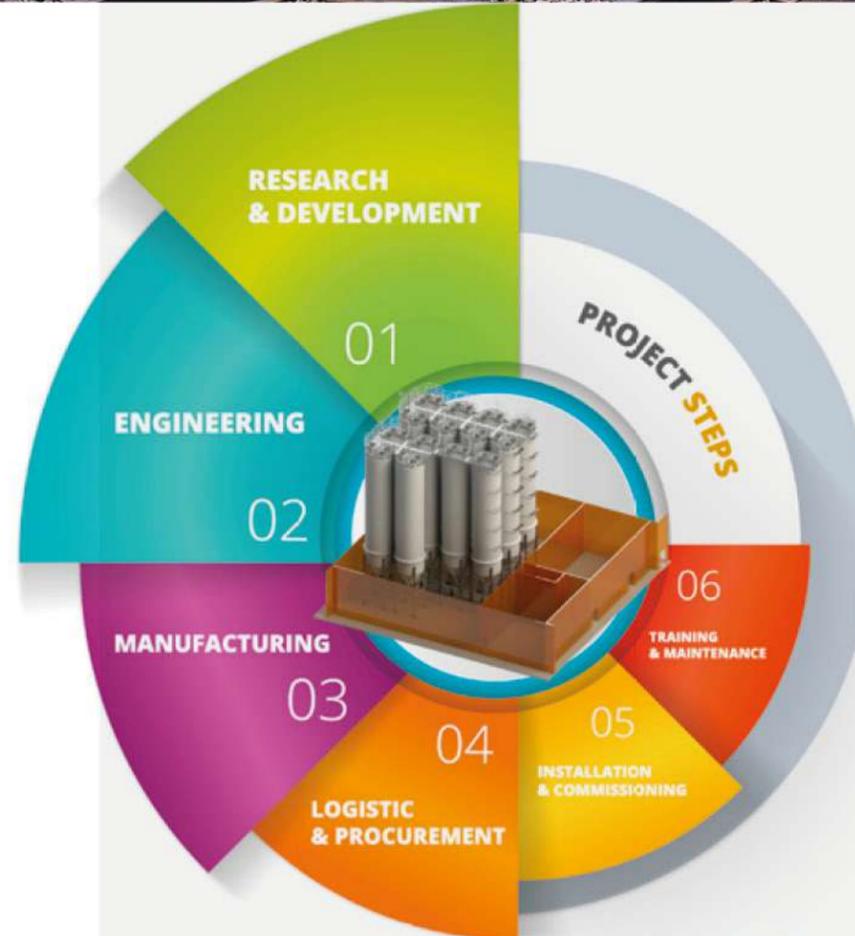


Bulk material handling and storage project in the United States.

**Responsible for coordinating  
the full scope of  
your project**

We offer comprehensive solutions, turnkey projects in Mexico, USA, Central and South America. We are responsible for coordinating the full scope of your project, from research and solution design, to commissioning, training and maintenance.

We want to hear you



With you in  
**all phases of  
the life cycle of  
your project**

# Engineering

## Ingeniería

Our engineering area consists of more than 40 engineers specialized in the development of your solution.

Nuestra área de ingeniería consta de más de 40 ingenieros especializados en el desarrollo de tu solución de inicio a fin.

### More than 10 thousand projects engineering for various applications

Our experience in bulk material handling solutions is a key element in the design of the production plants of leading companies worldwide in the United States, Mexico and Latin America.

## With you from the beginning Investigation & development

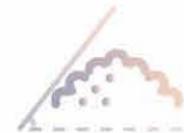
SYCSA has a research laboratory, looking for permanent innovation, in our Technological Development Center Centro de Desarrollo Tecnológico



### Research and conceptual design



Problem research and analysis



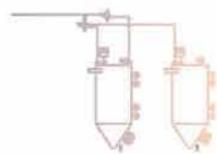
Characterization and tests for handling bulk materials



Predictive tests



Feasibility studies



Process simulation  
Research and conceptual design



As-Built Engineering

### The stages of the process include

- Conceptualization
- Budget engineering
- Contract engineering
- Execution engineering



Our manufacturing plant  
**The plant** where your  
project **comes to life**

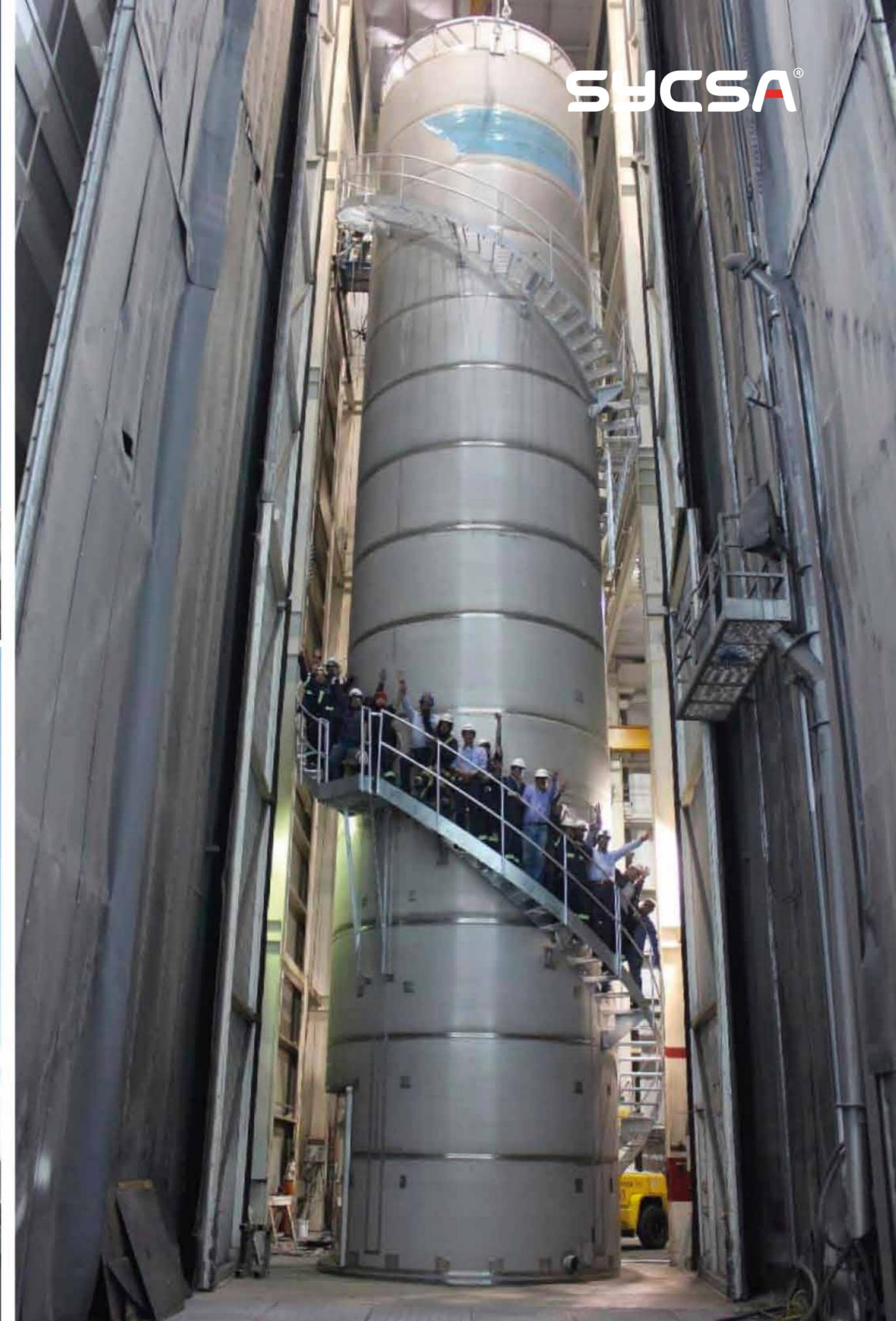
More than 50,000 m<sup>2</sup>  
production space

We have processed around  
**1800 Ton of steel**  
per month

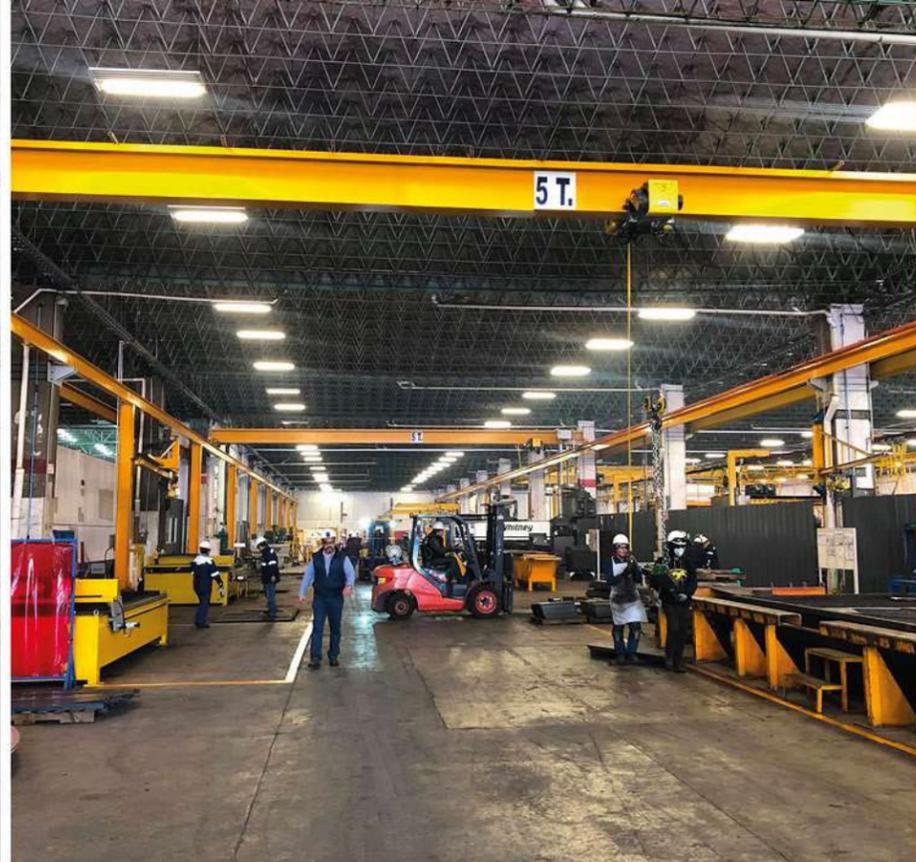
# Silos assembly tower 35 m high.

Sandblast tower with dust extraction and collection system with rotary table and elevators.

Independent paint tower and oven with temperature control.



**SBCSA**<sup>®</sup>



**SYCSA®**

Automatic sandblast cabin for pieces up to 1.5 m high, 4 m long and 0.3 m wide.

Automatic washing cabin for parts up to 1.5 m in height, 4 m in length and 0.3 m in width.

Profile rolling machines and horizontal rolling machines.

Shears 12 ft in length up to 3/8 in thickness.

Cutting on band saws.

Vertical and radial drills.

Metalhead.

Rotating table and elevators.

**Our equipment allows us to offer you services such as**

**CNC plasma cutting** with double torch in high definition with water bed for 13 ft wide and 50 ft long.

**CNC punching** with equipment with a capacity of 65 tons.

**CNC benders** with 320 ton capacity and 4 meters of curtain length.

**Overhead cranes** with capacities from 2 to 30 Ton

**CNC vertical rolling** with automatic coil unwinding, with encoder for diameter verification, plasma cutting and mechanized vertical welding, of rings up to 6 meters in diameter and 1.8 meters in height.

**Mechanized horizontal perimeter welding** for rings, with hydraulic rotary system

**Automatic internal and external polishing of welds**, with supervision by means of an LED screen through cameras with a 35 meter high tower assembly.

**Paint booth** 8 meters wide, 10 meters long and 35 meters high with temperature control, air

recirculation and collection of particles.

**Electrostatic paint application system**  
It consists of a 126m long system and a 7 ton loading capacity of automated conveyor, two application booths and a 25m long curing oven.

**Liquid paint application systems**  
Booth for blasting 15m long, 5.5m wide and 5m high with simultaneous work capacity of 4pots, two paint application booths 17m long, 7m wide and 5m high, each one that can be interconnected to make a single 34m long cabin, both with a hot air extraction and injection system to operate as ovens.

**MIG, TIG and Submerged Arc welding processes**

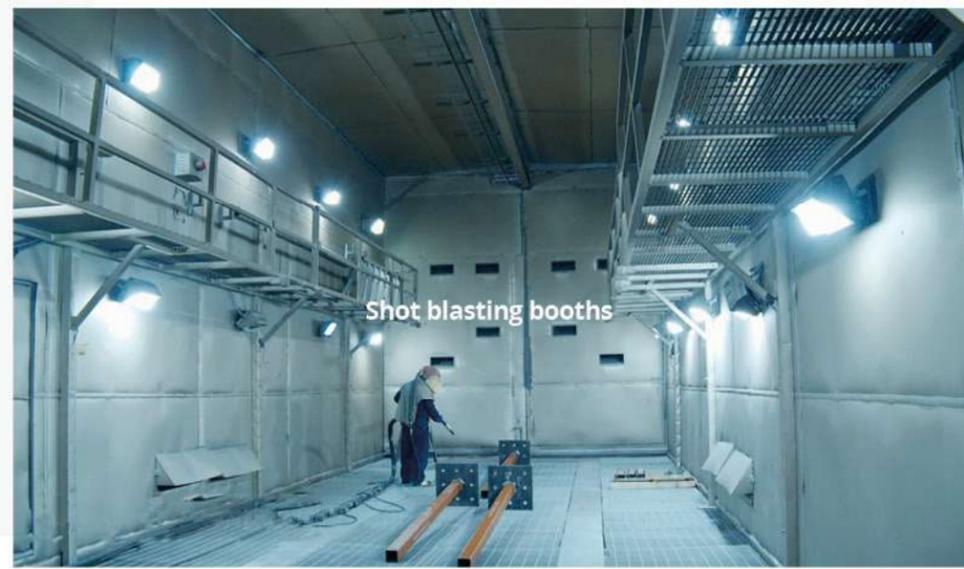
**Processes for stainless steel and aluminum**  
Independent areas for the assembly and welding processes of accessories for aluminum and stainless pneumatic conveying equipment. Also having an isolated washing and pickling cabin for these products.



Electrostatic powder painting system



Liquid paint system



Shot blasting booths



Interconnectable booths for liquid paint application and drying (depending on the length of the equipment)

# Quality, safety and normativity

We design projects and systems that make our clients' production plants more efficient, ensuring the quality of their processes. SYCSA has a certified management system according to ISO 9001-2015 by Applus. We are certified by UL Listed, Ecovadis, CIAL DUN&Bradstreet, AWS among others.



## Fullfilins standars

At the request of our clients and according to the needs of their project, we offer services and products aligned to national and international certificates and standards such as: NOM, AWWA, ASME, API, AISC, AWWA, Factory Mutual, FDA, IBC, ASCE, ANSI, NACE, ASTM, etc.

The logos used indicate that our management system meets and aligns with predetermined requirements. At the request of our clients, we work adhering to the certifications mentioned in the second paragraph but, we have not started any procedure to obtain the certification.



## We take care of the Supply & Logistics

We have a logistics company in Miami, USA, which allows us to facilitate the logistics of our products throughout Latin America.

Likewise, with our company Lohimex we provide door-to-door logistics services for machinery from Europe or Asia. Our services include maritime, land logistics and customs services.

We are exclusive representatives of leading brands worldwide, we have distribution contracts and / or strategic alliances for the commercialization and integration of a leading international team.



Supply chain



Procurement



Logistics

# We have the power to move the world Transportation & logistics



**Transportes Telleria®**, our transportation subsidiary, is the leading company in Mexico in the heavy cargo transportation industry and internationally is among the top 15 in the sector:

Capacity to transport up to 4,100 tons in one piece, adjusting to the characteristics of the route, road conditions and regulations of each project.

Specialists in complex maneuvers, assembly and

heavy lifting with space and time restrictions.

Engineering and transport logistics.

Route and feasibility studies.

Design of solutions and equipment arrangements to face possible obstacles in the road infrastructure.



## Installations Assembly & Commissioning

Mechanical installations  
Metalic structures  
Electrical installations  
Control rooms  
Foundations

## Training & maintenance

### Expert training

- For start-up
- For process operation
- For maintenance
- For traceability management

### Service and refurbishment to never stop your production

- Systems upgrade
- Diagnostic visits
- Service policy
- Preventive and corrective maintenance
- Refurbishment
- Call center for customer service



Your project is our passion!

Contact us, Our mission is to be  
**your strategic partner**

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