ASSOCIATE ENGINEERS

Excellence at your Hands

We offer SERVICES in:

MULTIDISCIPLINARY ENGINEERING AND ARCHITECTURE

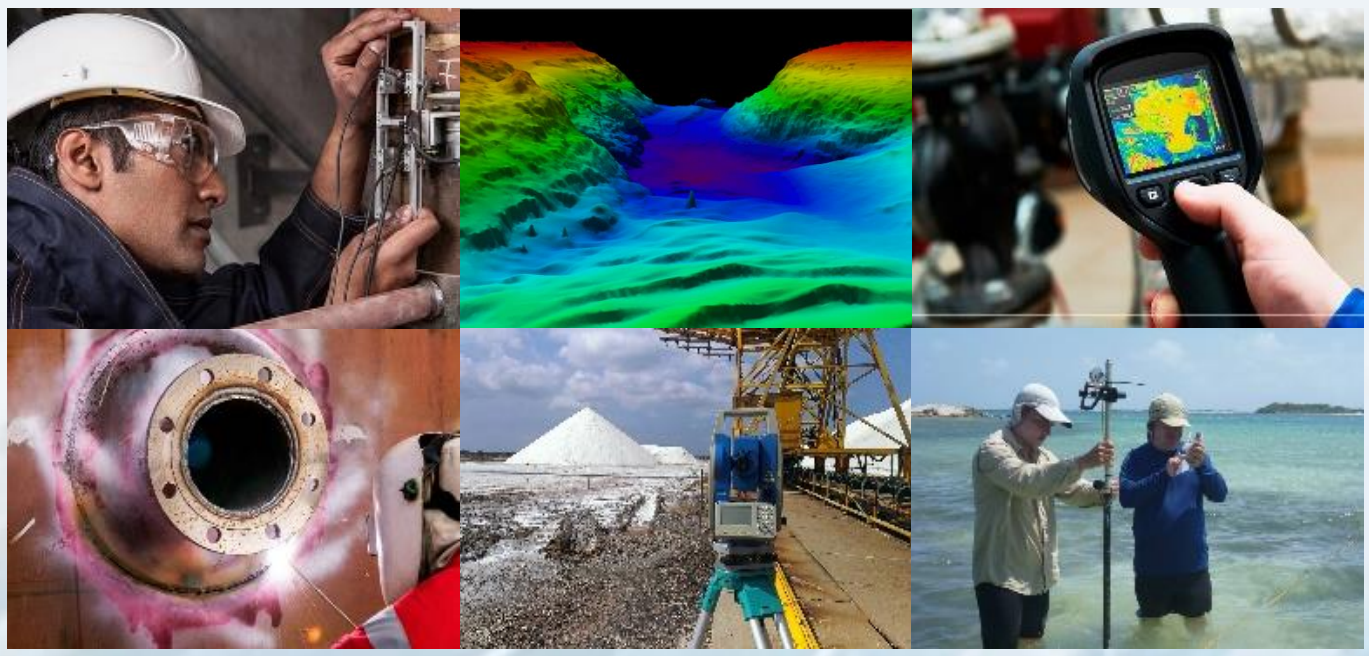
- Mechanical engineering
- Hydraulic and hydro-sanitary engineering
- Architecture and urbanism
- Electrical engineering
- Agro-industrial plants
- Mechatronic robotics and automatization of processes
- Structural engineering
- Road design and earthwork
- Food science engineering
- Industrial maintenance engineering

PROJECT MANAGEMENT, VARIOUS SERVICES

- Management and planification of projects
- Quality Management System (QMS)
- Inspection of Projects/ Equipment/ Systems
- Survey of Facilities (CAD-Revit)
- Topography, Geodesy, and Photogrammetry
- Industrial maintenance management software development.
- Supply and installation of drainage systems.
- industrial floors with high chemical/physical resistance.

SPECIALIZED STUDIES

- Electrical area
- Hydraulic area
- Food science engineering
- Destructive and non-destructive testing.
- Bathymetric and topographic studies



OPUS ASSOCIATE ENGINEERS

What motivates us as a team?

We are **passionately motivated** by a profound desire to generate a positive impact and **accompany our clients in executing their organizational growth plans**, tending to their needs and **giving them the support that guarantees the success of the projects entrusted to us.**

Who makes it possible?

50+

We count on a **staff of more than 50 professional experts** in multiple areas **who have an average of more than 20 years of prolific and successful careers;** compromised with adding value and positively impacting the processes of our clients via the providing of excellent services.

What do we offer?

8+

OPUS, Associate Engineers, offers **multidisciplinary engineering services**, be **it in a remote or/and on-site manner**, counting with professionals in more than eight (8) countries and supported by the connection that the Internet provides; we are always disposed to service you in a personalized way to **guarantee a close and excellent experience.**

OPUS, Associate Engineers, *¡Excellence at your hands!*

ASSOCIATE ENGINEERS

Successful Experiences in the Food Industry

ASSOCIATE ENGINEERS

EXPERIENCES
IN THE FOOD INDUSTRY

The professional core that forms OPUS Associate Engineers today presents a wide experience in multiple projects for distinguished companies in the food industry both in Venezuela and Peru.

In that frame, we have participated in the development for the following plants:

- Millers.
- Oilseeds, Fats & Margarines
- Shrimp.
- Dairy and cheese.
- Cattle and bird meat processors.
- UHT drinks' lines.
- Concentrated animal food.

We guarantee a service of a high technical level via an expert team of multidisciplinary professionals who are knowledgeable of the processes associated with that sector.

We will proceed to summarize some of the projects developed by the professionals at **OPUS Associate Engineers** in the framework of their respective career experiences in the food industry.

ASSOCIATE ENGINEERS

DETAIL ENGINEERING FOR THE ENLARGEMENT OF THE ADMINISTRATIVE BUILDING IN A MILLER PLANT

DESCRIPTION

The project contemplates the enlargement of the administrative building of originally one (1) floor; for which there was a second (2nd) floor designed and the use of the spaces was reformulated, incorporating áreas for the use of dining halls, storage, new offices, sanitary services, meeting room, Access stairs, among others; furthermore, adjustments and/or reinforcements were made to the existent systems.

Location: Venezuela.

SCOPE

- Architectural design and distribution of the plant.
- Integral structural design.
- Mechanical design of the Ventilation and Acclimatization systems.
- Electrical system design.
- Auxiliary services design.
- Electrical and Mechanical Equipment Wiring.
- Road design of Access and Parking

INVOLVED SPECIALITIES

- Architecture
- Structure Discipline
- Mechanical Discipline
- Electrical discipline
- Hydro-Sanitary Discipline (AB/AS/ALL/PTAR)
- Road / Soil Movement / Paving disciplines

Project coordinator:
Mr. Lewins Monteverde.

opus ASSOCIATE ENGINEERS

ACCESSES AND STAIRS STANDARDIZATION IN A CONCENTRATED FOOD PLANT

DESCRIPTION

The client asked for a study on the safety, need, and functionality of all the stairs and accesses to the plant, with the purpose of normalizing them according to the current norms. To accomplish this, our team studied the productive processes, evaluating the circulation logic, process safety, and optimization of redundant accesses; so that we could pose the adjustments necessary to accomplish a safer installation, more functional, and in compliance with the norms.

Location: Venezuela.

SCOPE

- Geometric mapping of the installation.
- Stairs and access systems analysis in the plant.
- Conceptual propositions' development.
- Validation via compliance with the norms, operational logic, and specific requirements of the client.
- Structural analysis
- Creation of blueprints and construction specifications.

INVOLVED SPECIALITIES

- Industrial Architecture
- Structural Engineering
- Industrial Safety

Project coordinator:

Mr. Leonardo Blanco

ASSOCIATE ENGINEERS

VOLUMETRIC MEASUREMENT OF PILES IN A SALT-PRODUCING PLANT

DESCRIPTION

This service contemplates the measuring of the volumes of piles of salt, required by our client for their checks. Our team of professionals uses state-of-the-art topographic systems and performs the computation phase via cross-verification that allows to validate the results' reliability.

Location: Venezuela.

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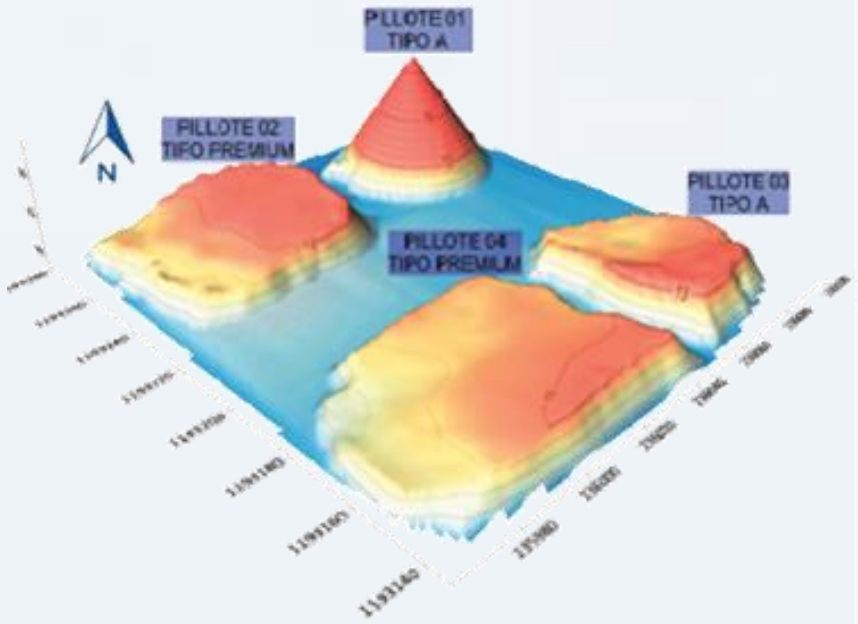
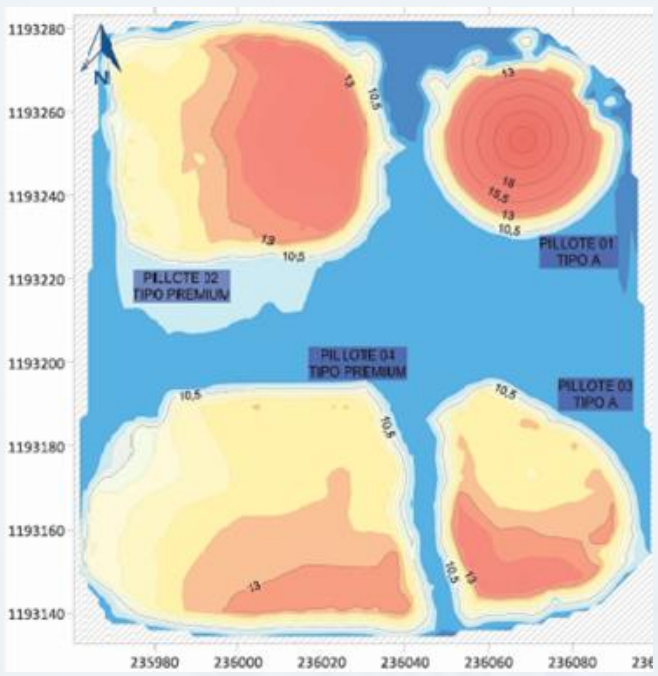
SCOPE

- Topographic – Volumetric Measuring.
- Volume Computations via three (3) methods of calculations to verify.
- Making of a result report.
- Generation of support blueprints.



INVOLVED SPECIALITIES

- Topography



Project coordinator:
Mr. Lewins Monteverde.

ASSOCIATE ENGINEERS

AGROINDUSTRIAL LIQUID SOUP PLANT IN CONCENTRATED LONG-DURATION CANS

DESCRIPTION

Integral design Project for a concentrated vegetable and cream soup plant, constituted by 1750 m2 principal shed; Administrative module, Dining hall, Maintenance workshop, General services, Access roads, water purification plant, Diesel tank, Generator set, residual water treatment plant, among others.

Location: Venezuela.

SCOPE

- Architectural design and distribution of the plant
- Food processing design (Including recipe and sensory testing design)
- Equipment specifications (mechanical and processing)
- Integral structure design
- Auxiliary services design
- Mechanical and electrical connection of equipment
- Processes Management Manual design

INVOLVED SPECIALITIES

- Industrial Architecture
- Processes Discipline
- Food Engineering Discipline
- Structures Discipline
- Mechanical Discipline
- Electrical Discipline
- Hydro sanitary Discipline (AB/AS/ALL/PTAR)
- Road Disciplines / Earth Moving / Pavement

Project coordinator:
Mr. Lewins Monteverde.

ASSOCIATE ENGINEERS

DESIGN OF A PALLIATIVE MANAGEMENT SYSTEM FOR A MILLING PLANT (INDUSTRIAL MAINT.)

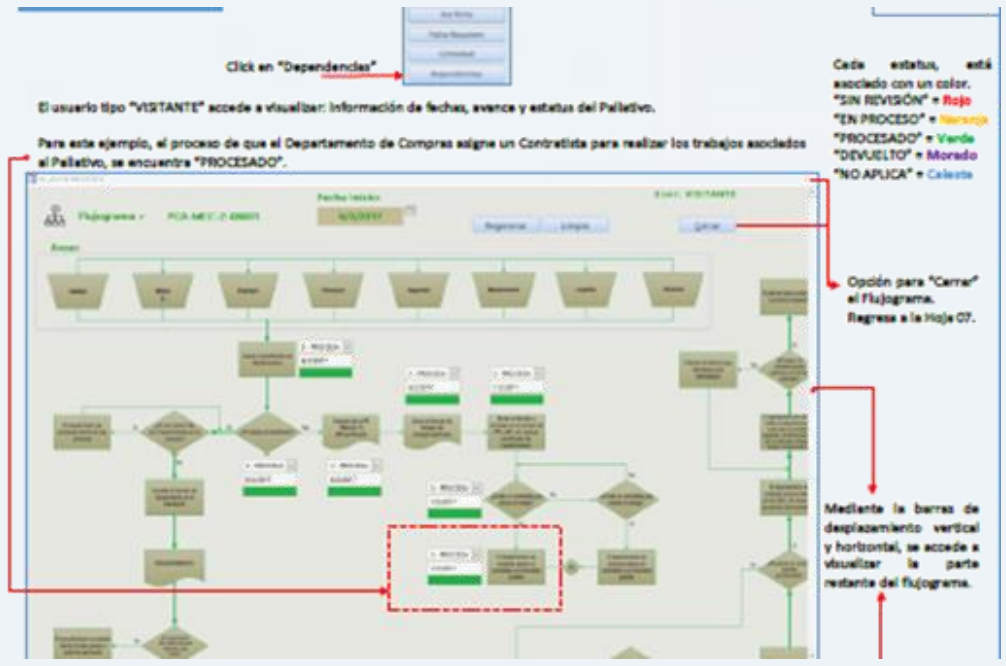
DESCRIPTION

The service contemplates the design of a Palliative Management System (software) for the maintenance of the plant that allows to opportunely program the execution of corrective actions in a planned and orderly manner, and diminish their Emergency Downtime (EDT).

Location: Venezuela.

SCOPE

- Flow diagram survey of the plant processes.
- Development of spreadsheets to catch data.
- Development of software adapted to the plant processes (Palliative Management System)
- The software can generate exits to monitor the actions following
- In combination with corporative maintenance, this software would minimize the EDT.
- este software minimizaría los EDT.



INVOLVED SPECIALITIES

- Industrial Survey
- Process Engineering
- Industrial Maintenance Engineering
- Computing
- Industrial Safety
- Food Safety

Project coordinator:
Mr. Lewins Monteverde.

ASSOCIATE ENGINEERS

PASTEURIZING AND PACKAGING PLANT FOR DAIRY PRODUCTS AND PASTEURIZED JUICES

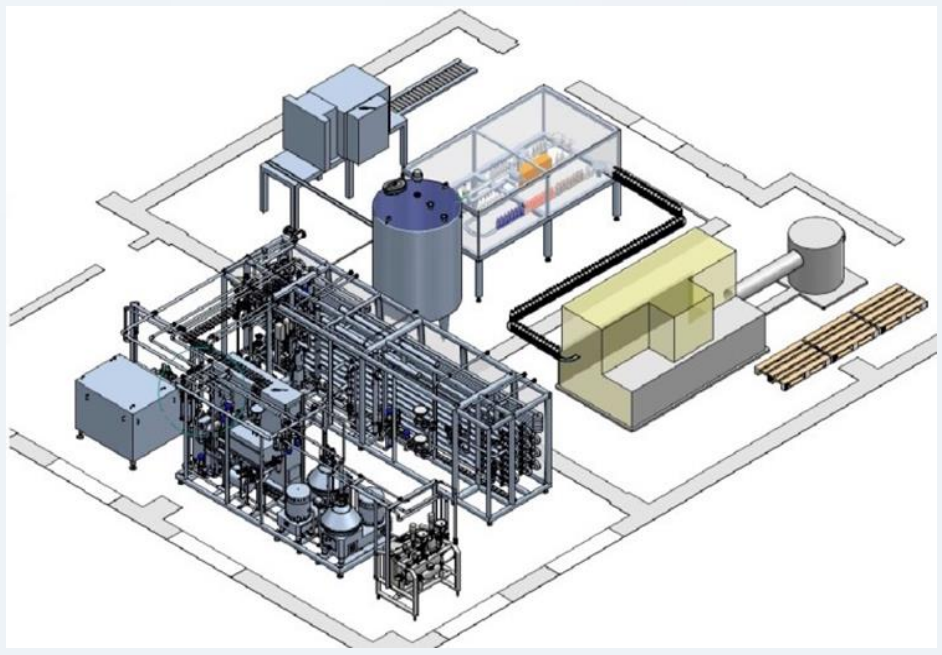
DESCRIPTION

Design project for a dairy products, pasteurized juices and UHT plant on a conceptual and basic engineering level.

Location: Venezuela.

SCOPE

- Plant's design and distribution
- Selection of equipment
- Placement of equipment
- Connection of equipment on a mechanical and electrical level



INVOLVED SPECIALITIES

- Mechanic Discipline
- Electrical Discipline
- Architectural Discipline

Project Technical Leader:
Mr. César Rivera.

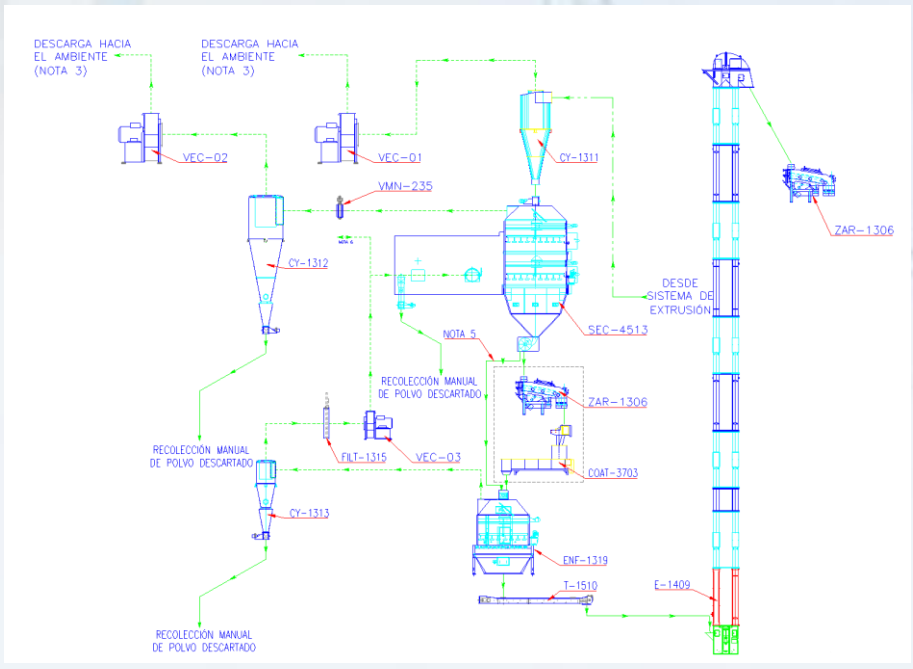
ASSOCIATE ENGINEERS

INSTALLATION OF A DRYING SYSTEM FOR ANIMAL FOOD

DESCRIPTION

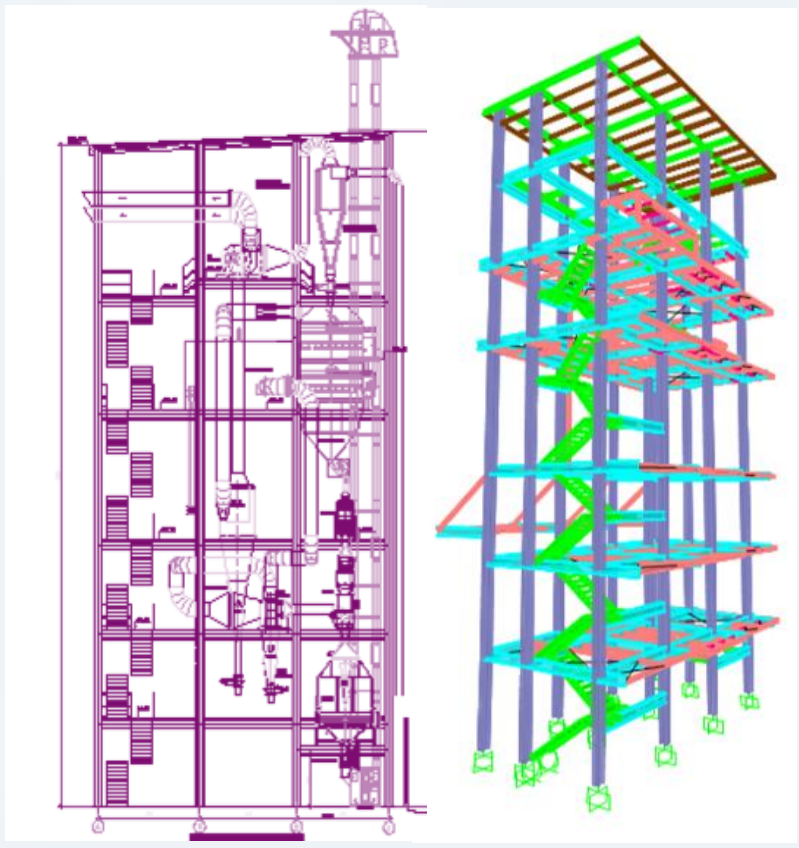
It consists of the detail engineering's integral development for the installation of a vapor drying system composed by various equipment, such as: Dryer, cooler, shaker, cyclones and ventilators; including the corresponding pneumatic and mechanic transport of the product., as well as the connections of the required facilities.

Location: Peru.



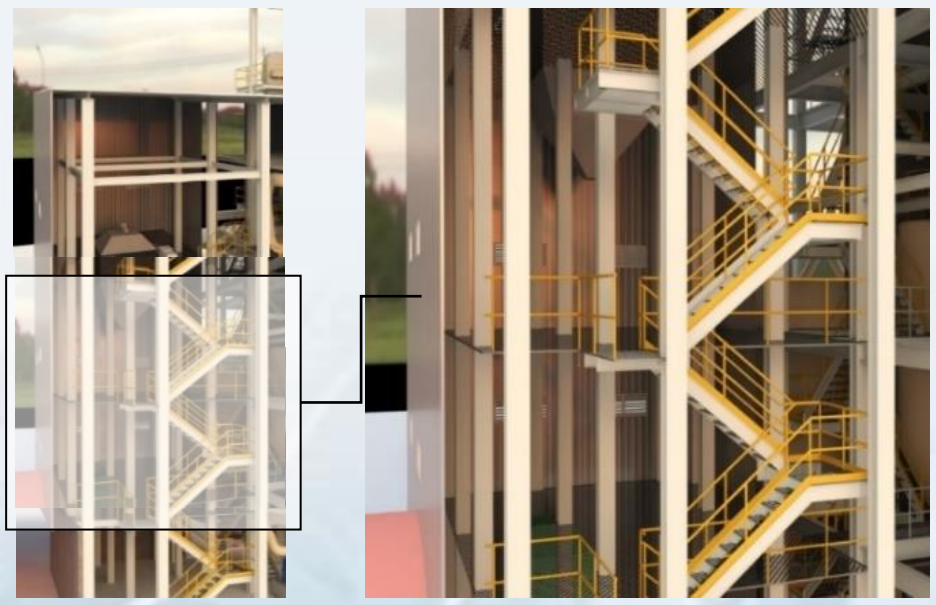
SCOPE

- Distribution and location of main equipment
- Selection of additional equipment for pneumatic and mechanical transport
- Design of vapor and compressed air lines for the drying system
- Connection of equipment on a mechanical and electrical level
- Structural and architectural design of the tower for the drying system
- Design of the pluvial draining system, lighting and other facilities



INVOLVED SPECIALITIES

- Structural Discipline
- Industrial architecture discipline
- Processes discipline
- Mechanical discipline



Project Technical Leader:
Mr. César Rivera.

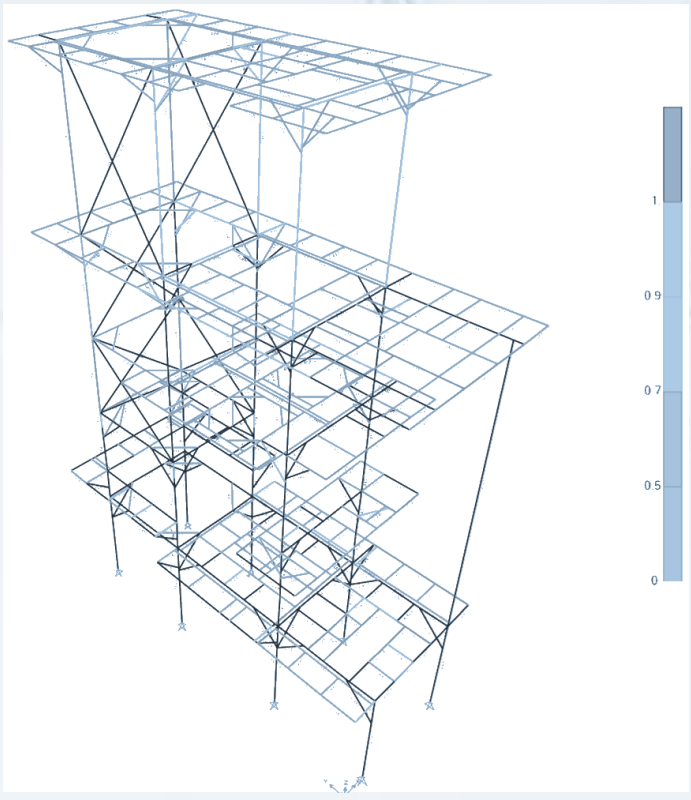
ASSOCIATE ENGINEERS

STRUCTURAL DIAGNOSTIC OF A DRYING AND VAPORIZATION TOWERS SYSTEM

DESCRIPTION

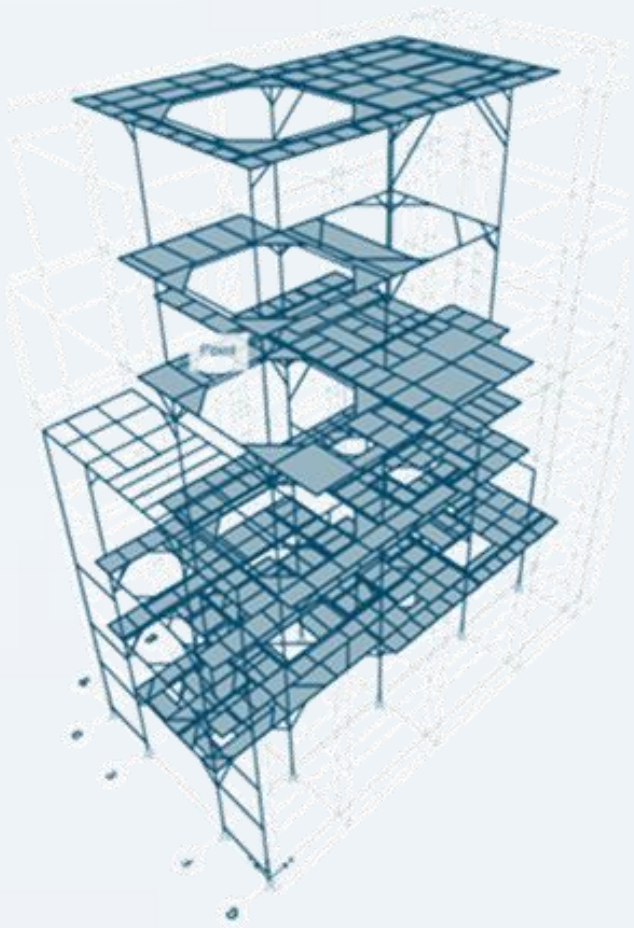
It consists of the analysis with purpose of structural diagnostic of the resistant capacity of drying and vaporization towers belonging to a dairy products' processing plant.

Location: Venezuela.



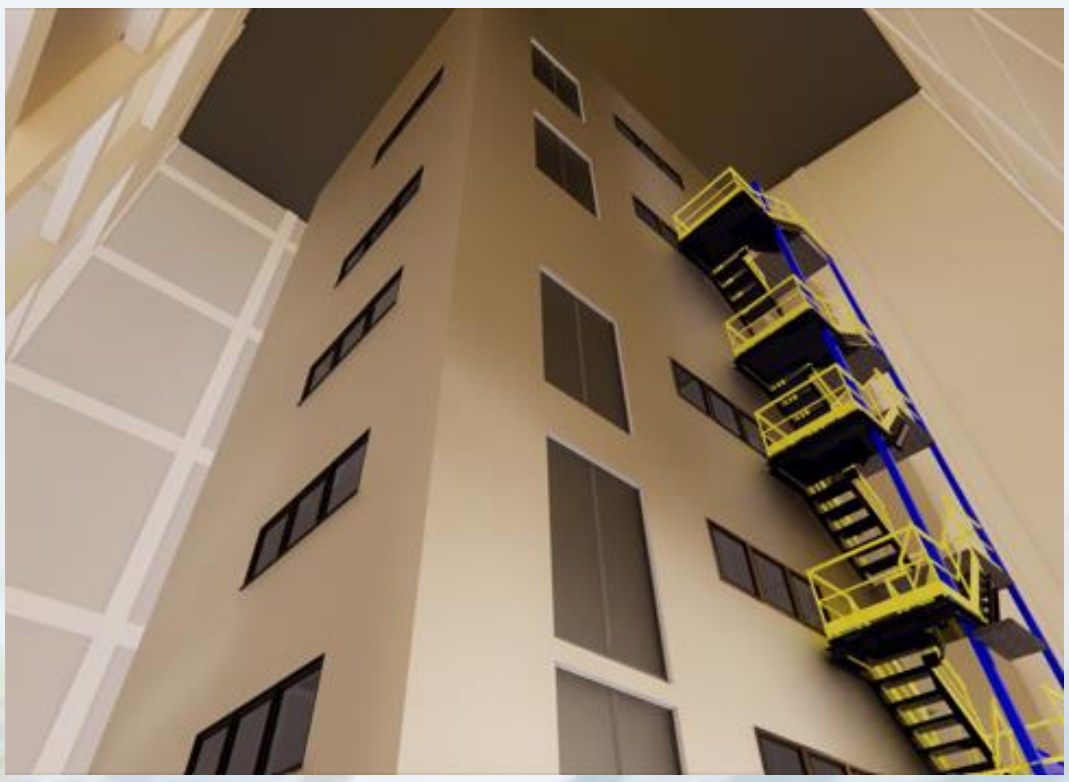
SCOPE

- Physical and geometrical lifting detailed in field.
- Generation of mathematical models.
- Structural simulation of the service conditions and normative actions.
- Analysis of results.
- Technical recommendations.



INVOLVED SPECIALITIES

- Structural engineering
- Field technical survey



Project Technical Leader:
Ms. Ynesmar Marcano.

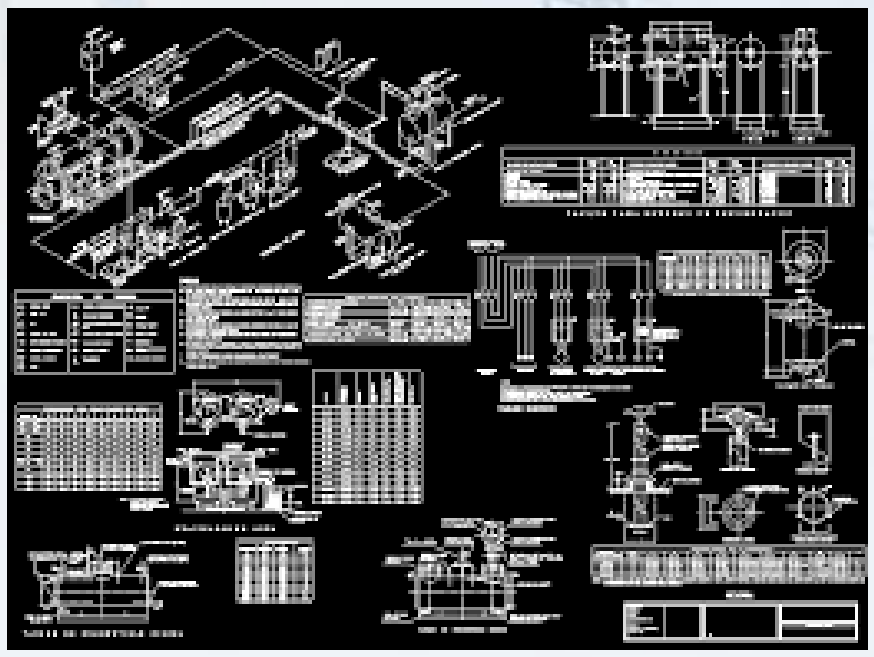
OPUS ASSOCIATE ENGINEERS

RAISING, DIGITALIZATION AND DESIGN OF PIPES SYSTEM FOR VARIOUS SERVICES

DESCRIPTION

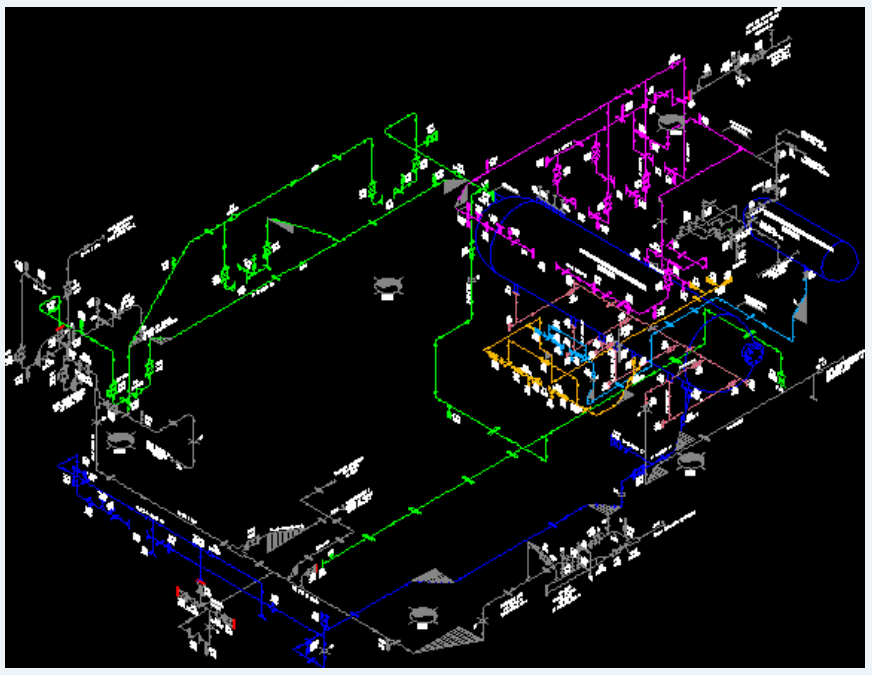
It consists of the raising in field and digitalization of the lines of existing pipes, and the layout and design for the laying of new pipes, in function of the location established by the client and the existent proposed equipment.

Location: Venezuela.



SCOPE

- Layouts of physical and geometrical raising of every pipes system
- Design of new plumbing lines
- Isometric layouts
- Calculation reports
- List of materials per type of systems



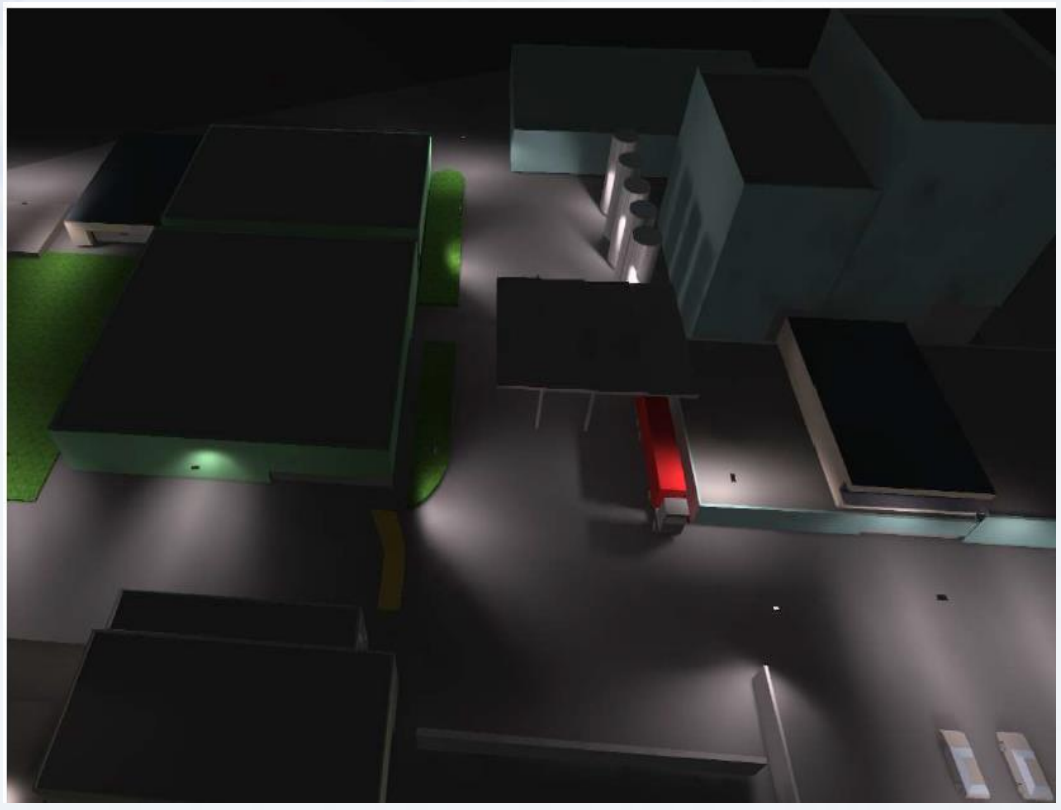
INVOLVED SPECIALITIES

- Mechanical engineering
- Hydro-sanitary engineering
- Technical field study

Project Technical Leader:
Mr. Luis Ten.

ASSOCIATE ENGINEERS

GENERAL LIGHTING SYSTEM DESIGN FOR A MILK PLANT



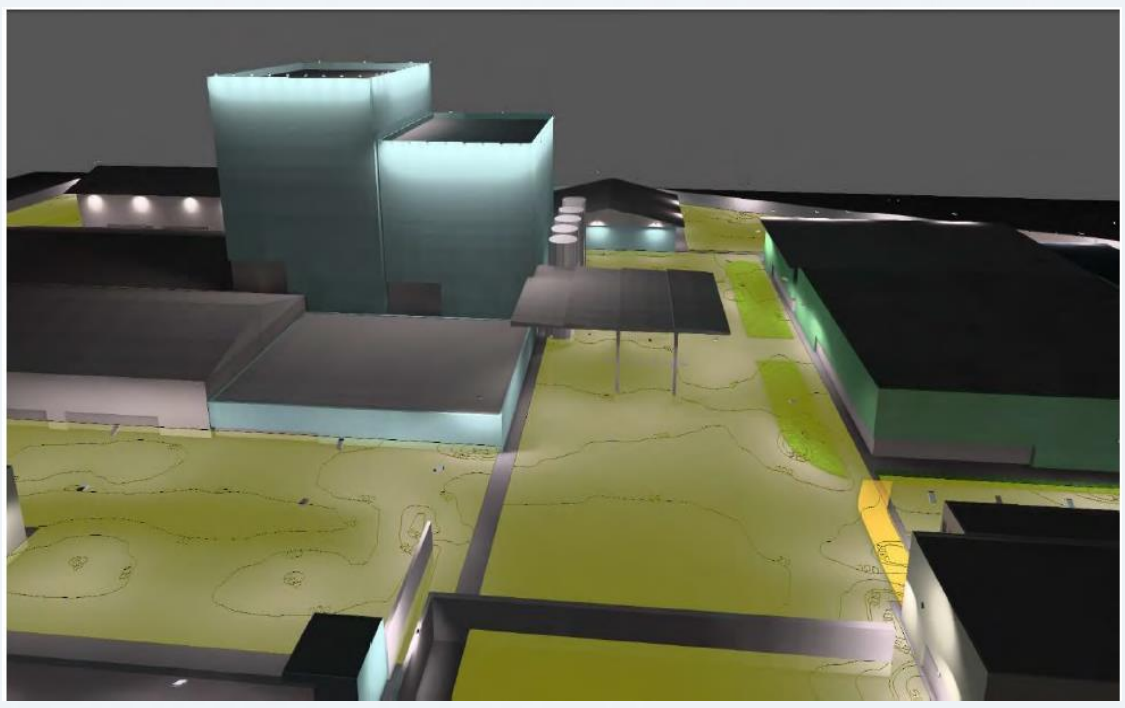
SCOPE

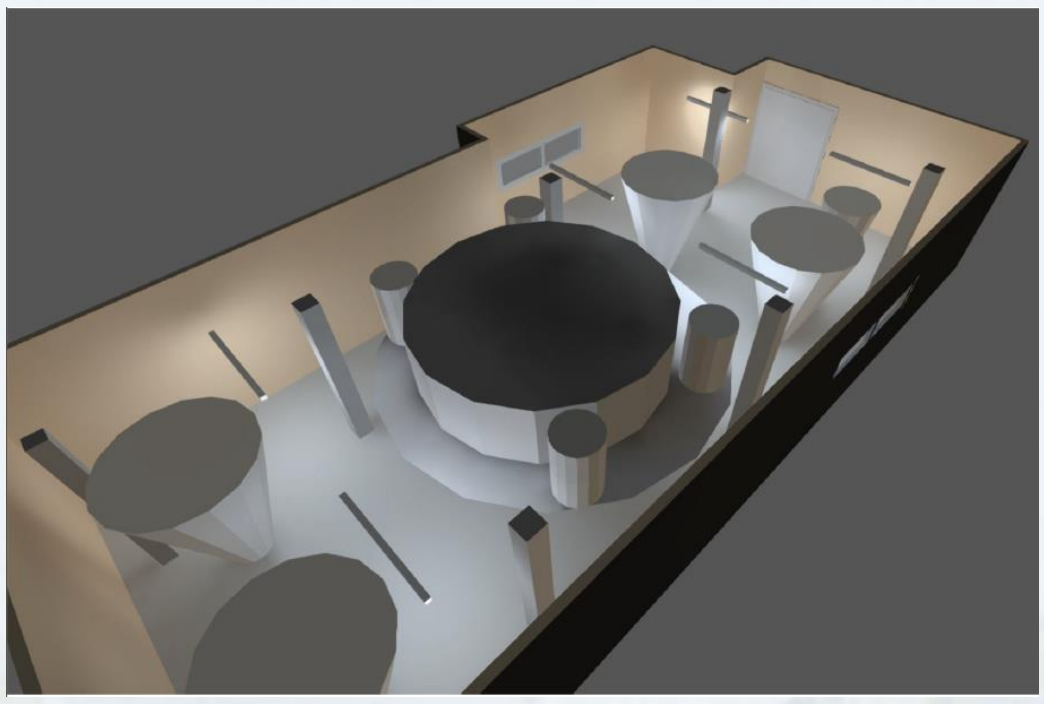
The plant counted on an obsolete and inefficient lighting system, the same one that had been installed for more than 40 years. The service consisted of defining the luminaire type, quantity, and distribution required to obtain an adequate lighting level in the areas requiring intervention and offering noticeable energy savings in parallel.

Location: Venezuela.

EXTERIOR LIGHTING

For the exterior lighting system design, a combination of solar lighting luminaires integrated into the existing poles and solar reflectors were used for the complementation and punctual lighting in strategic areas.





INTERIOR LIGHTING

Comprehensively analyzing each one of the plant's areas, the luminaire type was defined according to the norm applicable in each zone. Measurements were made on-site, as well as computerized simulations to contemplate every interference for each area and level, managing to offer an optimal result that satisfied the client.

Project Technical Leader:

Ms. Mailin Briceño.

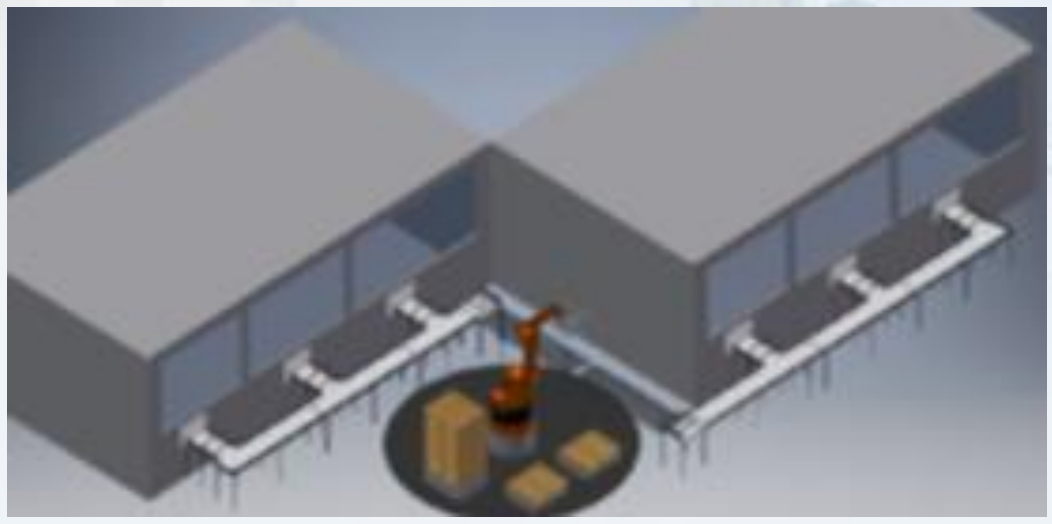
ASSOCIATE ENGINEERS

OPTIMIZATION OF A PALLETIZATION CELL FOR RICE BAGS

DESCRIPTION

Design of the equipment distribution, installation and start-up of the palletization system for rice bags, with more efficiency, less maintenance and user-friendly operation. The system possesses statistical monitoring and control, as well as versatility to increase its capacity when required.

Location: Venezuela.

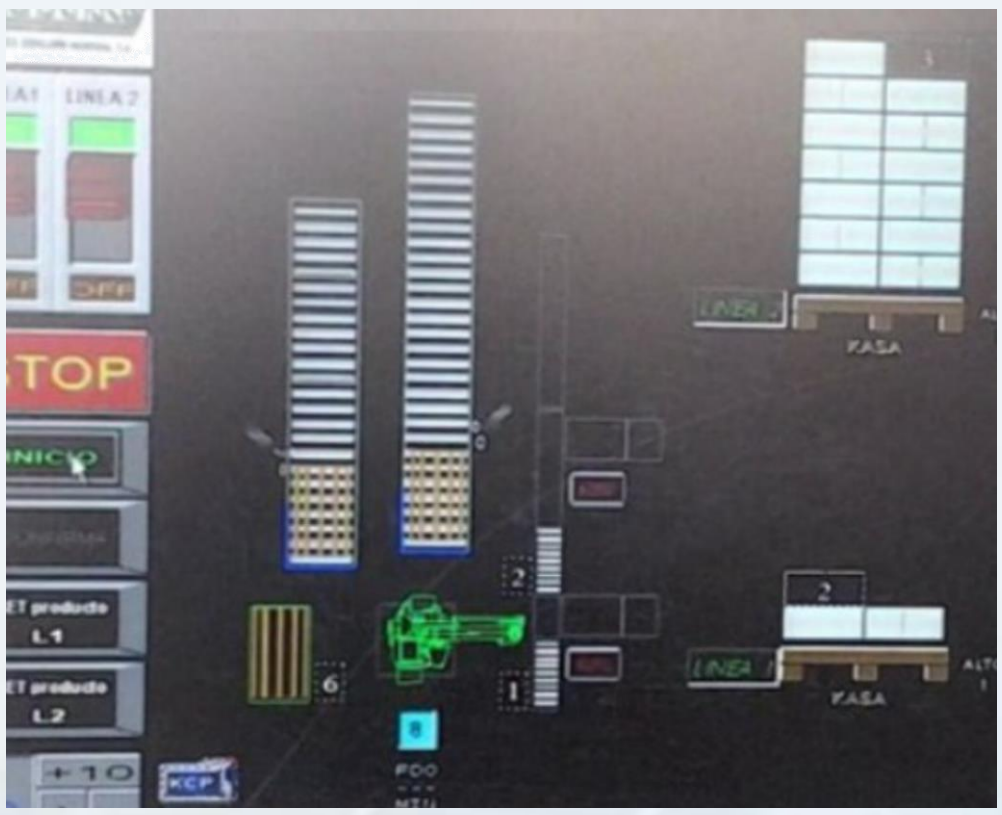


SCOPE

- Selection of equipment
- Design of engineering details
- Planification for the installation and start-up
- Programming based on the commercial management
- Induction of the technical staff

INVOLVED SPECIALITIES

- Mechatronic discipline



Project Technical Leader:
Mr. José Castro.

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