GRAIN HANDLING AND STORAGE

GOLFETTO SANGATI
GRAIN MILLING AND HANDLING

A COMPANY OF

GEA engineering for a better world

DESIGNED, ENGINEREED AND BUILT WITH 90 YEARS OF EXPERIENCE AND EVOLUTIONS

GOLFETTO SANGATI
GRAIN MILLING AND HANDLING

Golfetto Sangati is an Italian company designing, building and installing turnkey equipment for grain handling and milling born from the merger of three historic Italian brands: Golfetto, Sangati and Berga.
The company fulfills the market demand in a competitive way and with state-of-the art Technologies based on research, experience and in-depth technical knowledge
Over 200 employees working in several divisions, starting from the initial design to the final construction; the team working in the company offices and in the production sites (35,000 square meters) is highly qualified; the company has already installed over 5,000 systems in 130 countries.

Golfetto Sangati is a reference point for the design and construction of complete port systems for loading and unloading ships.
The company designed and built dozens of port systems all over the world (Italy, France, Poland, Romania, Ukraine, UK, Kenya, Egypt, Turkey, Lebanon, Iran, UAE, Saudi Arabia, Dubai, Vietnam, Indonesia, China, ...) and plays a primary role in technological advancement.
The company supplies a large range of handling, processing and storage, loading and unloading systems.

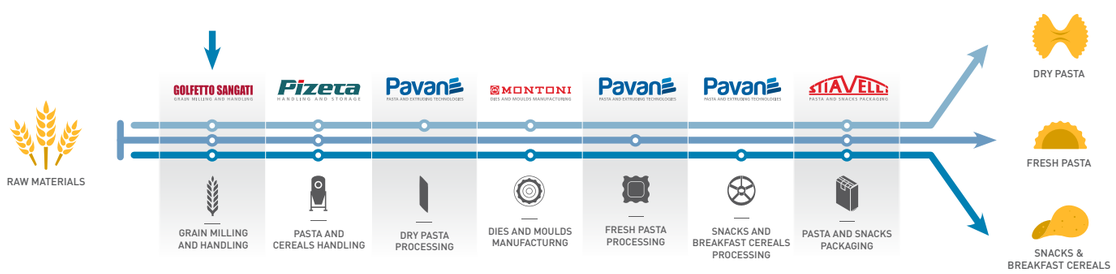
Pavan
PASTA AND EXTRUDING TECHNOLOGIES

Since 2010 Golfetto Sangati belongs to the Pavan Group, one of the global leader in the design and engineering of technologies and integrated product lines for grain based food.
Through this acquisition, Pavan Group integrates his range of services, in order to supply integrated technologies and equipment for the production of raw material starting from the unloading of the material from the ship, to the manufacturing, to the final packaging.

GEA
engineering for a better world

GEA's acquisition marks a new growth stage for Pavan and Golfetto Sangati, those can rely on the support of a big brand with solid industrial and financial capacity and with the ability to enhance and promote the development of innovative technologies and commercial synergy, aiming at offering clients high quality products and services.

GEA is one of the largest suppliers for the food processing industry and a wide range of other industries. The international technology group focuses on process technology and components for sophisticated production processes in various enduser markets.



HANDLING SYSTEMS

Golfetto Sangati offers solutions for the handling of free-flowing or not free-flowing materials such as wheat, corn, barley, soybean, sunflower seeds, rapeseed, coffee, sugar, rice, soy meal.

All the integrated equipment and systems have been designed in-house by Golfetto Sangati, according to the local environmental features and with the goal of minimizing energy consumption, dust and material leaks.

TRANSLOAD MECHANICHAL SHIPLOADER

Main features

- For vessel up to 120.000 DWT (Dead Weight Tonnage)
- Fixed or mobile on rails or wheels
- Handling capacity : 50 TPH to 2.000 TPH (Tonnes Per Hour)
- Golfetto Sangati in-house designed **Self Regulating Dust Suppressor** system also for directing and distributing the product flow
- Full remote control system

Performance

- Very low energy consumption in operation
- Peak capacity 10% to 15% higher than rated capacity
- Extremely versatile during operations thanks to the wide range of movements allowed and to the equipment installed onboard

Some References:

Yuzhni Port - Ukraine
Transload Shiploader on rails.
Capacity: 2.000 tph

Costanta Port - Romania
Transload Shiploader on rails.
Construction of the full Grain terminal.
Capacity: 800 tph

Jebel Ali - United Arab Emirates
Transload Shiploader on rails.
Capacity: 800 tph

Ankara Port of Derince - Turkey
Transload Shiploader on rails.
Capacity: 1.400 tph

Gdynia Port - Poland
One Combined Loader/Unloader on tires.
Capacity: 400 tph

Lampung Port - Indonesia
One Combined Loader/Unloader on rails.
Capacity: 400 tph

Ankara Port of Iskendrun - Turkey
Transload Shiploader on rails.
Capacity: 300 tph

Kick-in kick out system with special dust suppressor

With a slewing ring driven by electric geared motor on the upper part for rotating the dust suppressor of maximum 180° according to the loading angle.
The loader works as a braking box, for slowing down the flow, when in kick-in or in kick-out the spout is rotated downwards for pushing the product towards the hold sides.

The lower part of the suppressor is provided with an adjustable flap which automatically sets its opening according to the flow of product to form a plug of product at the extremity which stops the dust.
Ceramic tiles lining in more exposed point to wear.

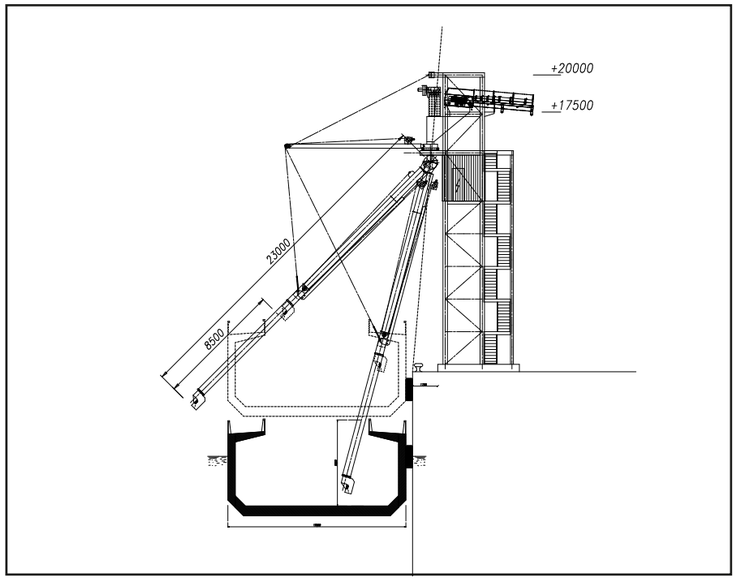
- Reducing Dust
- Enviromental Friendly
- Efficient and fast ship loading performance
- Reduction of total time to load the ship (15/20%)

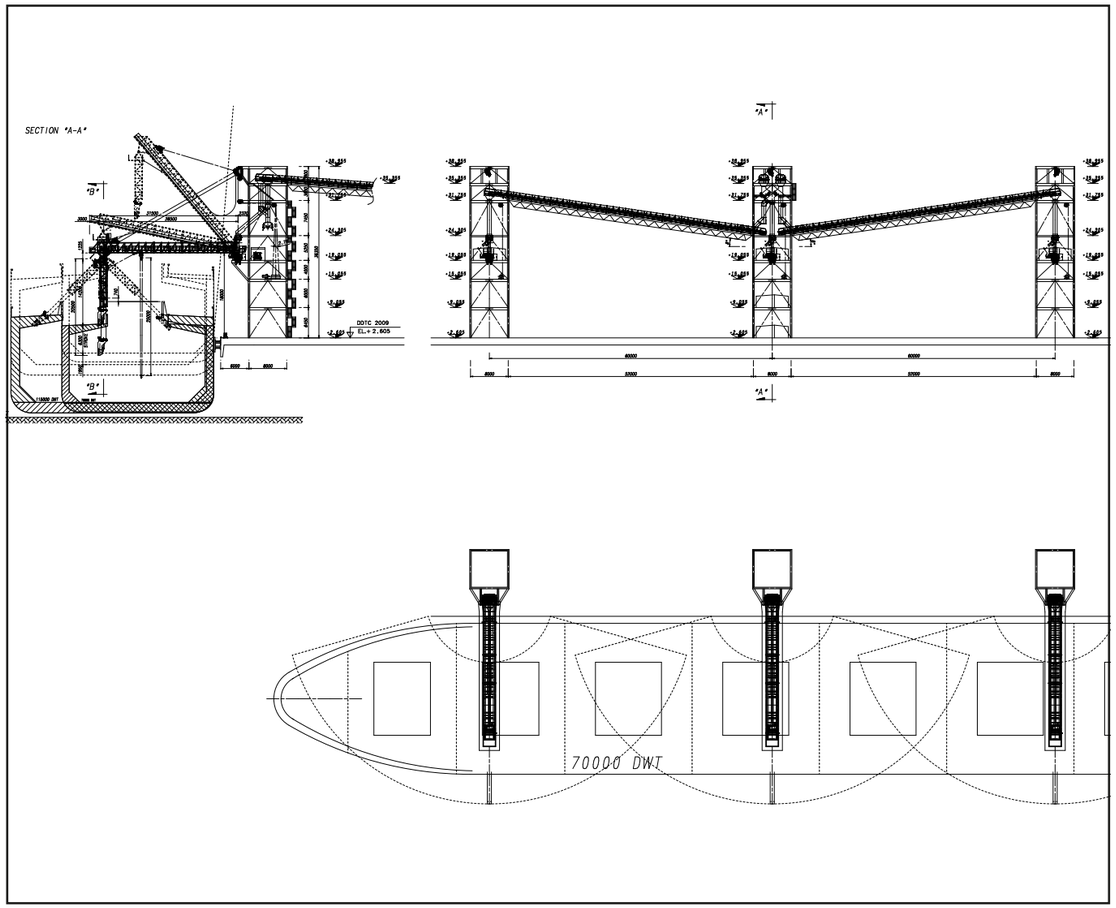
Single or multiple booms shiploder

- Excellent for fluvial installation and small capacity installation or for high loading capacity.
- A cost-effective application built on a basic steel structure with one or more booms

Right
Solution for small intallations with 1 or 3 or more boomes (150 tph – 500 tph)

Bottom
Solution for high capacities (1.500 – 9.000 Tph)





TRANSMEC MECHANICHAL SHIPUNLOADER

Main features

- For vessel up to 120.000 DWT (Dead Weight Tonnage)
- Fixed or mobile on rails or wheels
- Handling capacity : 300 TPH to 2.000 TPH (Tonnes Per Hour)
- Golfetto Sangati in-house designed DIGGER system for unloading non free flowing products
- Auxiliary pneumatic system (75 tonnes/h)
- Full remote control system

Performance

- Very low energy consumption in operation (0,37 kWh/tonne as per measurements done)
- Efficiency across vessel unloading higher than 70% of the rated capacity (TPH)
- Extremely versatile during operations thanks to the wide range of movements allowed and to the equipment installed onboard

Some References:

Port of Barcelona - Spain
One Mechanical combined Unloader /Loader mobile on rails.
Capacity: Unloading 600tph soy beans; Loading 200tph for soy meal

Port of Yambu - Saudi Arabia
One Mechanical Unloader chain type, on rails. Capacity: 600 tph.

Port of Shanghai - China
Two mechanical unloader on rails.
Capacity of 1000 tph each.

Port of Phuoc Hoa (Vung Tao) - Vietnam
Two Mechanical Unloaders chain type on rails.
Capacity: 300 tph each.

Port of Bandar Imam Khomeini - Iran
Two Mechanical Unloaders on rails with digger for meal unloading.
Capacity: 400 tph each.

Port of Livorno - Italy
One Mechanical Unloader on rails.
Capacity: 600 tph.

TRANSLIFT PNEUMATIC SHIPUNLOADER

Main features

- For vessel up to 20.000 DWT (Dead Weight Tonnage)
- Fixed or mobile on rails or wheels
- Handling capacity: 100 TPH to 300 TPH (Tonnes Per Hour)
- Golfetto Sangati in-house design
- Full remote control system in option
- Possible full customization

Performance

- Extremely versatile during operations,
- Simple and light structures designed for optimizing the transportation and installation

Some References:

Douala - Camerun
One Mobile Pneumatic shipunloader on tires.
Capacity: 200 tph.

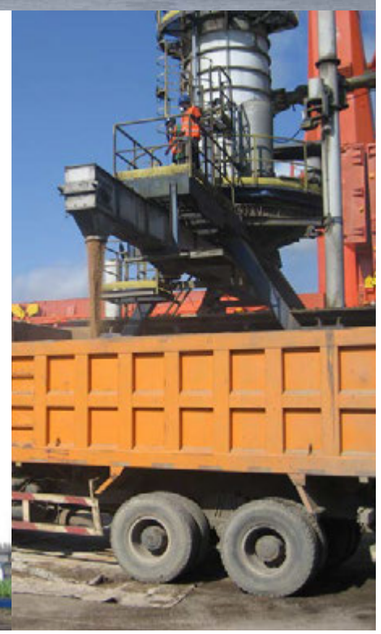
Port of Cagliari - Italy.
One pneumatic unloader
Capacity : 300tph

Port of Jedda - Saudi Arabia
Two pneumatic unloaders on tires.
Capacity: 300 tph each

Port of Trabzon - Turkey
One pneumatic unloader on rails
Capacity : 300tph

Port of Ravenna - Italy
One pneumatic unloader on rails with one boom complete with digger for unloading of no-free flowing products.
Capacity: 300 tph.

Port of Derince - Turkey
One pneumatic unloader on rails
Capacity : 300tph.



STORAGE AND CONVEYING SYSTEMS

Grain handling solutions consisting in:

- silos and other storage systems
- chain conveyors
- belt conveyors
- bucket elevators
- bulk load-out system for truck loading
- Golfetto Sangati in-house designed continuous feeding system on the quay

Machinery designed for:

- Dosing, processing, weighing
- Cleaning the cereals
- Separating impurities, according to their size
- Select and mix
- Air aspiration and filtering

01 Belt conveyors
02 Chain Conveyors
03 Bucket Elevators

Some References:

Toronto - Canada
Complete system for handling, cleaning and storage for cocoa beans serving chocolate manufacturers.
From Intake to Bulk Load Out section.

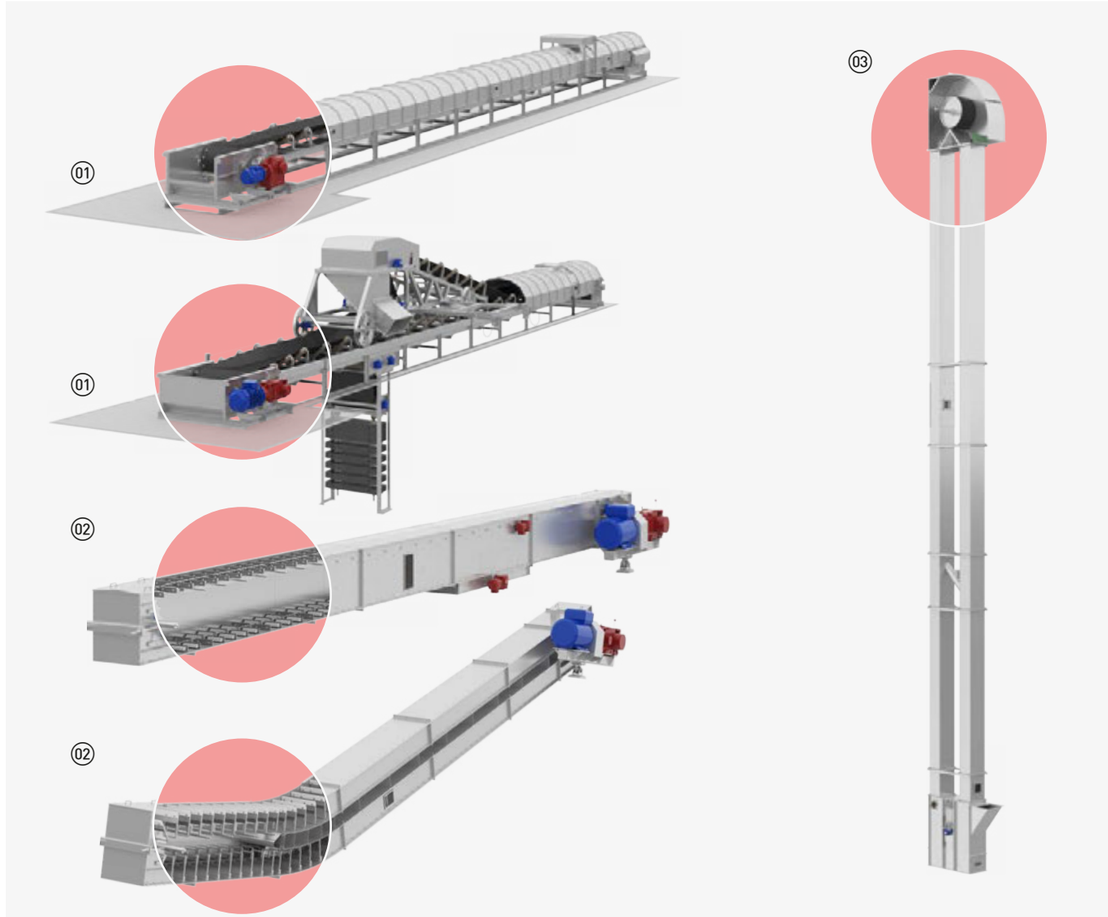
Port of Hodeidah - Yemen
Mechanical handling system for a Storage Silos and complete Grain Terminal.

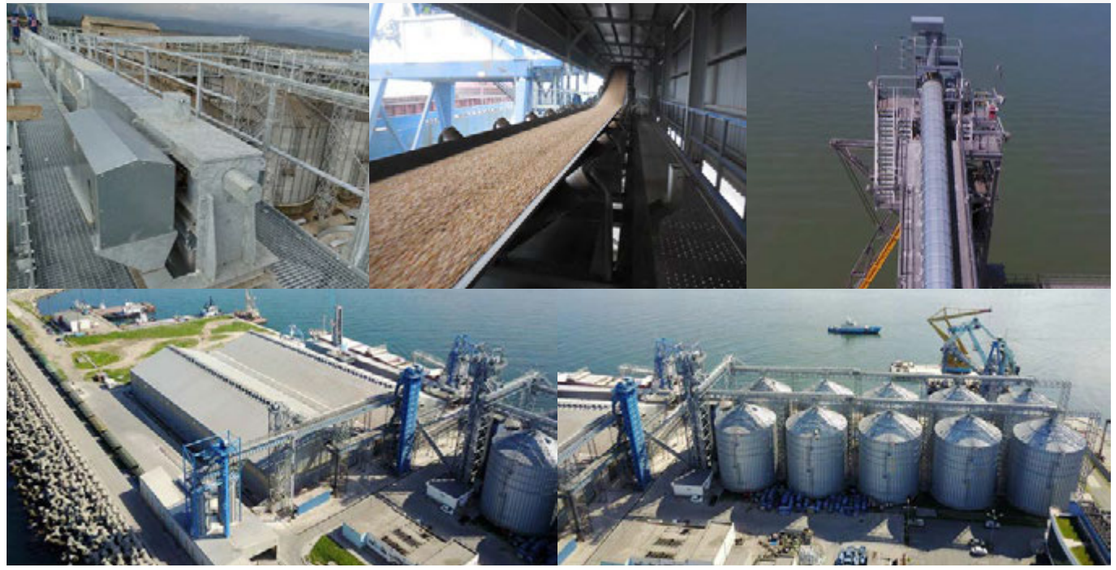
Port of Alexandria - Egypt
High capacity chain conveyors (1400tph loading/ 700tph unloading) and storage steel silos (54.000 tons).

Lesiolo - Kenya
Extension of storage silos (18.000 ton) and mechanical handling system rated at 100 tph and bulk load-out system for truck loading with the installation of special dust suppressor combined with gross flow measurement system

Amsterdam - Netherlands
Design for a flat storage with mechanical handling system for soy meal, capacity 50.000 ton.

Rostov - Russia
Refurbishment of an existing plant to increase the initial handling capacity up to 400 tph.
The scope of supply incorporates chain conveyors, belt conveyors and bucket elevators all design in compliance with the local environmental feature (- 25 °C).





GRAIN CLEANING AND SELECTING

Granosichter
Pre-Cleaning /Cleaning Separator

Machine utilized for the pre-cleaning and cleaning of grains. It is composed of a central oscillating body which contains aluminum frame groups pneumatically fixed with a sifting surface of 24 sq. m. The machines consists of a decantation group at the inlet and a suction channel at the outlet.

SPR
Pre-cleaning Separator

Machine is utilized for the pre-cleaning of cereals and the separation of coarse impurities. Reduces the wear on the subsequent machines in the production process. The cylinder rotation is obtained by means of a gear motor.

Gsichter
Plansichter for cereals

Strong metallic construction containing aluminium sieve stacks with 12m² of sifting surface.

- Aspiration channel built-in in the structure of the plansifter;
- Simple system for sieve locking;
- Incorporated motor;
- Fitting sturdy support structure made of section iron resting on the floor.

SGS
Gravity Selector Drystoner

The single machine is both a gravity selector and a drystoner.
It is equipped with two stacked decks, easily removable and inserted in a vacuum chamber.

SCC
Closed Air Cycle Separator

The Closed Air Cycle Separator SCC is utilized in the cleaning of grains to remove light impurities from the product flow. Dust, glume, light grains, etc. are easily removed.
The selection grade, set up by the operator, is executed through an air division screen by means of kinematics levers.

SAP
Air Separator

The air separator SAP, is inserted in the cleaning section for separating light impurities from cereal. Dust, glume, light seeds, etc. are easily removed. The grain inputted into the air separator's hopper is distributed on the whole width of the machine and passed by acounter-current air flow that allows for the suction of the lighter particles.
Beyond being used as a stand-alone machine, it can be combined with other cleaning machines such as the vibroseparator VIBROBLOCK model and the intensive scourer PO model.

FBP
Filter low pressure

Closed cylindrical structure from steel sheet. The cleaning of the sleeves is ensured by low pressure air (0,5 bar) jets inside the sleeves. Sleeves are connected to a series of electro pilots controlled by an electronic panel for the managing of time, pauses and cleaning cycles. The filter managing and controlling system is done by control device with display directly accesible to user.

FAP
Multi-tubular Filter

Closed cylindrical structure from steel sheet. The cleaning of the sleeves is ensured by high air (6 bar) jets inside the sleeves by Venturi tube in steel. Sleeves are connected to a series of electro pilots controlled by an electronic panel for the managing of time, pauses and cleaning cycles. The filter managing and controlling system is done by control device with display directly accessible to user.

FPG
Point Filter

The "POINT FILTER" mod. FPG is a filter designed especially to install on the finished product silos and is loaded with pneumatic systems under pressure or mechanical transporters.

Pond 12
Automatic Scale

The production automatic scale, POND 12 type, allows for the weighing of granular and floury products with a range varying from 12 to 270 m³/h. An electro pneumatically regulated bucket slide valve, positioned at the entrance hopper, regulates the flow of product to the tubular weighing system which, suspended on load cells system, allows to determine the weight with an accurate and stable method.

RFP
Ponderal Flow Measurer

Weighing control, dosing, cereal blending. Set up of the capacity per hour for each single RFP can be executed directly on the machine or remotely via computer thanks to a serial connection RS 485 or, optionally, PROFIBUS.

SPECIAL SYSTEMS AND EQUIPMENT

Golfetto Sangati can supply a complete range of handling systems. In complex projects, it is necessary to consider several factors associated with the location of installation and the operational procedures. Golfetto Sangati conducts a preliminary investigation taking into account all those factors and subsequently develops the solution more appropriate for all the request elements, supplying the most efficient handling solutions.

Unloading Hoppers can receive unloaded products with Grubs and load trucks or wagons. Fixed or mobile on rails or wheels, for being pulled or self-propelled. The system can be equipped with filters to eliminate of dust and high accuracy belt weighing conveyor before the bulk load-out.

Some References:

Port of Chioggia - Italy
Refurbishment of an existing vessel and the installation onboard of a complete loading system with capacity of 1.500 tph

Port of Trieste - Italy
Mechanical handling system for a Cereal Storage Silo of 50.000 tons and a flour storage silo of 7.000 tons.
One combined Unloader/loader on rails, With one pneumatic unloading boom capacity 600 tph, one pneumatic unloading boom capacity 100 tph and one loading boom, by belt conveyor, telescopic pipe and trimmer capacity 700 tph.

Ankara Port of Derince - Turkey
Mechanical handling system for a 100.000 tons storage silo. Two pneumatic unloaders on rails, each with two booms having a capacity of 300 tph each boom.

Ankara Port of Mersin– Turkey
One combined Unloader/Loader on rails, with two booms for pneumatic unloading of 300 tph each and one boom for loading with belt conveyor, telescopic pipe and trimmer cap. 1200 tph.

1


2


3


4


1. Combined Loading/Unloading Systems
2. Installed on ship with fully customized design
3. Translift Pneumatic Ship Unloaders: fixed or mobile, on rails or wheels
4. Unloading Hopper

WHY YOU SHOULD CHOOSE GOLFETTO SANGATI

Thanks to the know-how gained in 90 years of operation in the grain handling industry and thanks to the ongoing upgrading process by the design team and R&D, Golfetto Sangati can propose special, custom solutions, for any technical and operational requirement.

The design starts with the accurate assessment of the specific operational conditions of the equipment to be built, continues with the complete design implemented in partnership with the client, reaching a high level of accuracy, before starting the construction phase. This way, the equipment is optimally rational, reducing the need for subsequent changes and therefore reducing the installation time. Once the equipment is up and running, additional analyses are performed, in order to optimize the equipment with the correct settings and reach the maximum level of overall efficiency.

The experience gained with more than 50 successful installations completed in very different operational conditions, allows to reach concrete results, such as:

- Proposing a streamlined design for the fully equipped systems, from the power connection point to the loading unloading point
- Optimizing the power consumption and reducing the need for maintenance with the associated costs
- Ensuring a careful handling of the products, so they are not damaged during the operations, selecting materials capable of reducing the internal frictions.
- Ensuring high flexibility for the electrical interface
- An efficient and fast post-sale service
- The best investment value

Golfetto Sangati can rely on an additional strength: the integration in the Pavan Group. For the customer, this means the possibility of getting integrated equipment or turnkey solutions with a higher accuracy level in the installation and startup phase. The Group financial strength represents additional security for the customer, who can also rely on help for financing the purchase.

A 100% GREEN COMPANY

The study of the construction materials, the careful selection of the components and the innovative development translate in solutions capable to guarantee the best use of the energy resources.
From 2012, Golfetto Sangati has been producing the electricity it needs for its production facilities: the photovoltaic system installed in the Quinto di Treviso site generates an amount of clean energy exceeding the total energy demand, bringing the production phases at zero impact as far as the energy sources used.

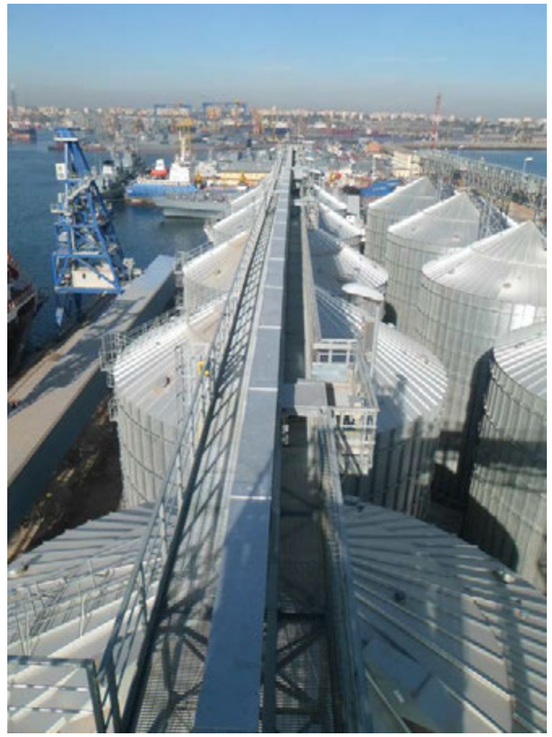
FULLY ITALIAN QUALITY AND DESIGN

Each design for a new handling or storage system originates in the Italian facilities, where the design team and R&D work on the design until the final version. In the same facility, the mechanical elements and the construction elements are built. Therefore, there is an ongoing conversation between design and manufacturing, and the product is constantly compared to the design.

In any phase of the production process, the customer can freely check the progress of the work, visiting the Golfetto Sangati facility. All of this guarantees the highest quality, the reduction of mistakes during the production phase and total transparency with the client, who can obtain information also by going personally to check on the progress.

SAFETY FROM DESIGN TO OPERATION

Golfetto Sangati is particularly careful with safety aspects: starting from the procedures within its production facilities, and continuing with the installation and test phase in the construction site, until the normal operation of the equipment.
An anti-collision system specifically designed by Golfetto Sangati, for instance, prevents any risk of collision during the loader and unloader movements. It is particularly helpful during low visibility due to weather conditions or blind spots, preventing accidents due to human error.



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