

The best partner for your BUSINESS in glass technologies

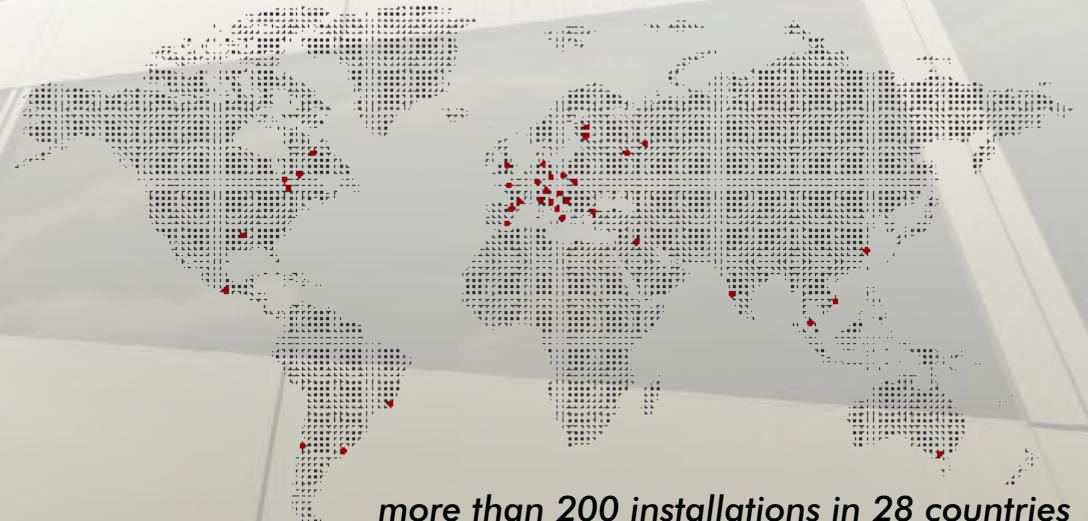
Production lines and machines for float furnaces, flat glass and automotive glass

IOCCO group

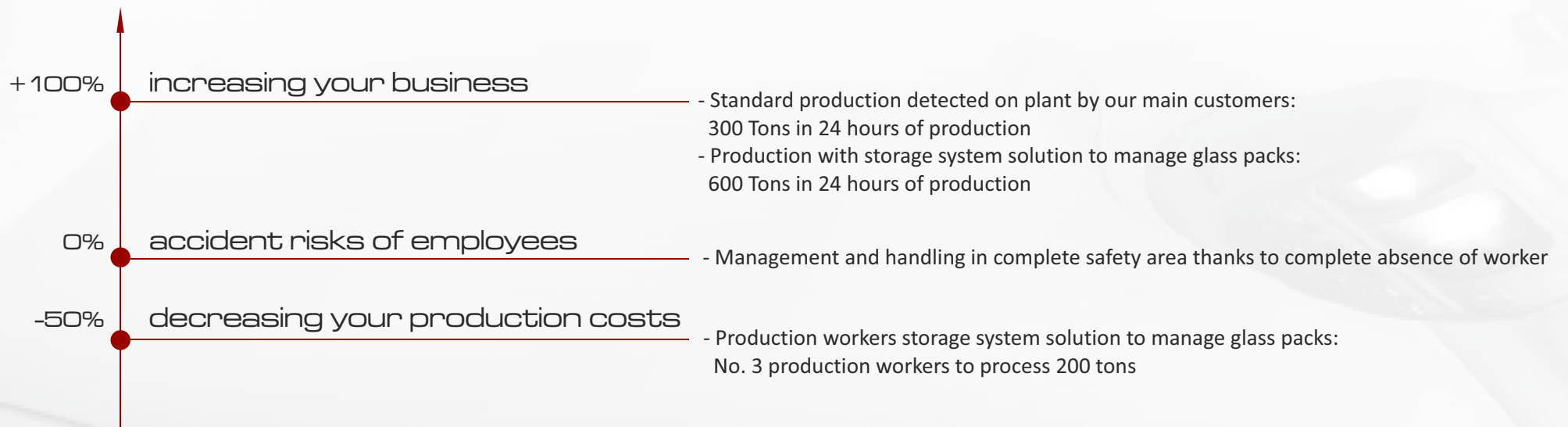
Packing and storage system

solution to manage glass packs

- *Solution 1. Automatic storage system and end caps packing area*
- *Solution 2. Packing area for end caps «Tilting Table»*



more than 200 installations in 28 countries



Packing and storage system

solution to manage glass packs

- Solution 1. Automatic storage system and end caps packing area



automatic storage system and end caps packing area

The purpose of this system is to manage automatically the naked parcels of sheets glass, deposited on rack, coming from Float cutting line to facilitate the operator making the wooden caps and to deposit the pack into the rack ready for shipping

The system is composed of the following ITEMS:

Item 1) End Caps assembly machines “tilting table”

Item 2) Storage system

Item 3) Loading Crane



automatic storage system and end caps packing area

automatic storage system and end caps packing area

Item 1) End Caps Assembly machines “Tilting table”

The purpose of this item is to get the naked parcels of sheets glass in vertical position, to tilt it in horizontal position and to facilitate the operator making the wooden caps pack.

After that glass packing has been done, it's taken from the crane and deposited on the rack ready for shipment.

The END CAPS area comprises three tilter unit .

The machines to be supplied shall be designed and manufactured to obtain the semi-automatic tipping of glass packs from sub-vertical to horizontal position. The structure is composed of electrically welded tubo-annulars, properly sized to support loads. Two linear actuators controlled by electric motors with one encoders allow arm tipping. Two further linear actuators, controlled by electric motors rotate the supporting heels to put them in operational conditions.

The base planes are all coated with adiprene to allow correct contact with the glass.

An hydraulic fall arrest system stops the machine in position to carry out its maintenance.

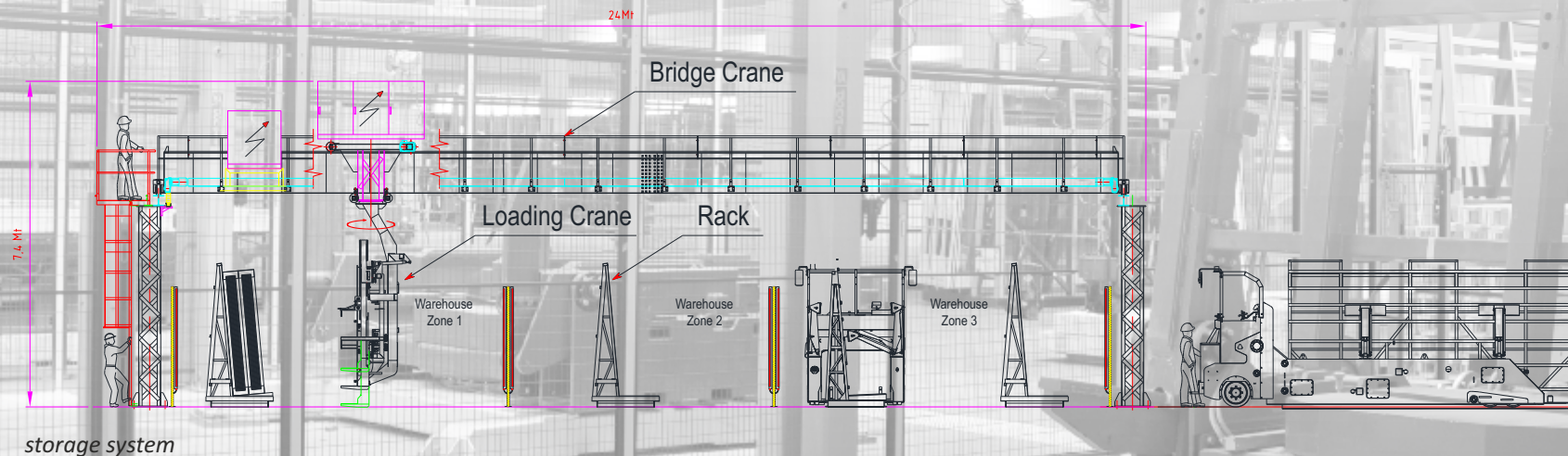


end caps assembly machines «tilting table»

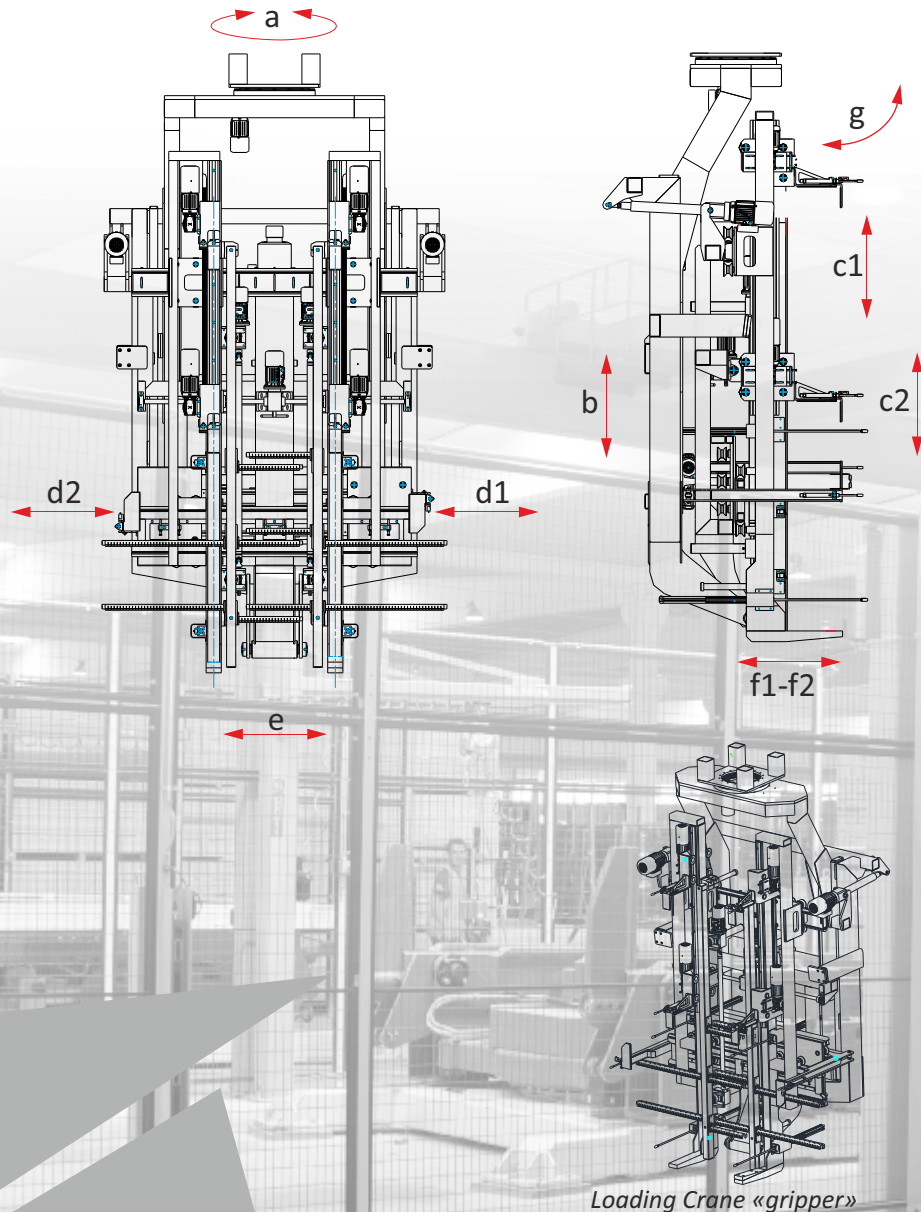
automatic storage system and end caps packing area

Item 2) Storage system

The purpose of following item is to accumulate the product before and after the step of packing, the storage is managed by a supervision software of the plant, it has a standard size of 40 meters by 20 meters (customizable), the working height is approximately 6 meters, 25 positions are managed.



automatic storage system and end caps packing area



Item 3) Loading crane 2500KG «gripper»

The gripper machine is rigidly anchored to the crane and has the function of grasping and manipulation of naked glass packs within the warehousing area.

The gripper machine is equipped with #10 CNC axes:

- a) #1 rotation around the vertical axis
- b) #1 lifting axis
- c) #2 axes for dimensional adaptation, set up and blockage from the top
- d) #2 axes for dimensional adaptation, set up and blockage from both sides
- e) #1 dimensional adaptation, set up and blockage from the bottom
- f) #2 axes for dimensional adaptation, set up and blockage from the back
- g) #1 axis for angle glass pack picking

The system is equipped with #3 transducer and #4 laser sensors that interact with the CNC system for checking, alignment and pick up of glass packs.

The system is equipped with anticollision devices to prevent damages to the glass and itself.

The standard version of the machine is designed to handle both naked and packet glass.



loading crane «gripper»

automatic storage system and end caps packing area

Electrical and automation system

The innovative control system consists of no. 3 control panel, each dedicated to managing individual item.

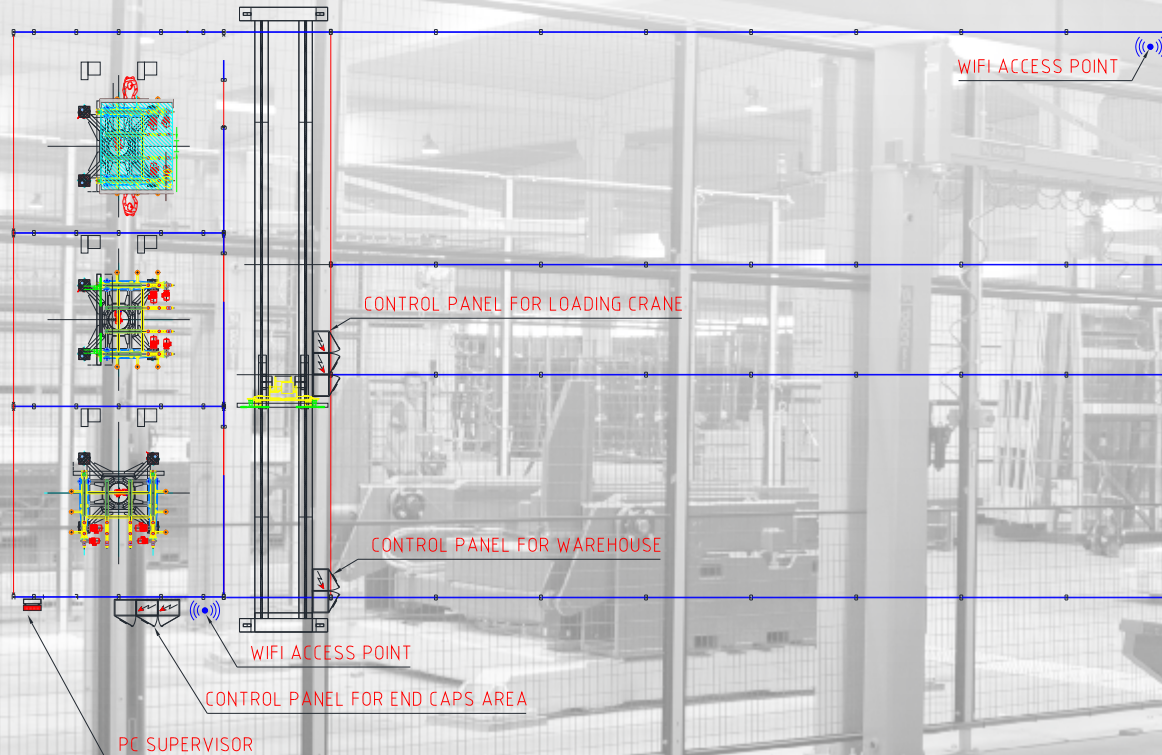
The system is connected to an Ethernet network allowing the highest standards of efficiency and interfacing.

The whole system management has been developed with SIEMENS WINCC flexible system and it's installed inside the supervising PC panel.

A wifi touch panel also allows the management of individual Item in manual mode.

The wifi solution enables operators to move within the plant and perform all controls on board, both maintenance operations and eventual resets in "home position".

Two Access Point ensures the entire coverage within production area.



wifi touch panel

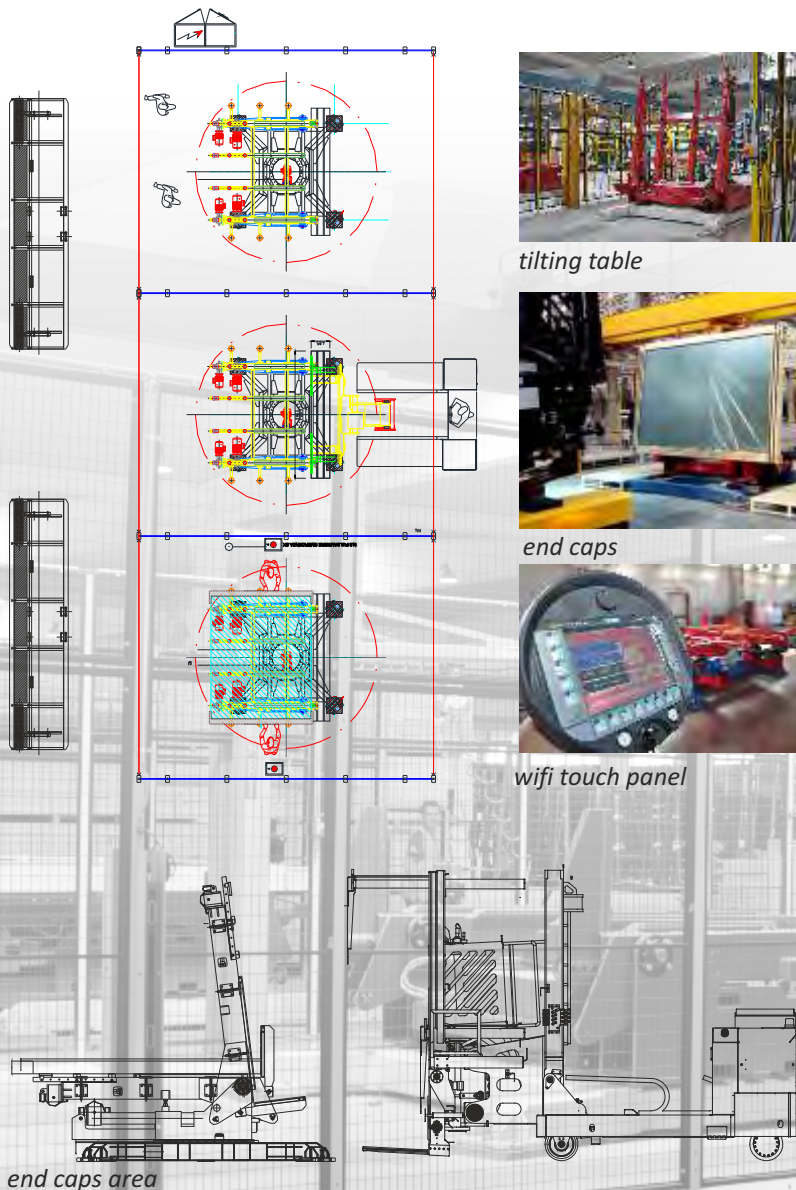


PC Supervisor

- Solution 2. Packing area for end caps «Tilting Table»



packing area for end caps «Tilting Table»



End Caps Assembly machines «Tilting table»

The purpose of this item is to get the naked parcels of sheets glass in vertical position, to tilt it in horizontal position and to facilitate the operator making the wooden caps pack.

After that glass packing has been done, it's taken from the crane or multidirectional sideloaders vehicle and deposited on the rack in storage area.

The END CAPS area is composed of tilter unit.

The machines to be supplied shall be designed and manufactured to obtain the semi-automatic tipping of glass packs from sub-vertical to horizontal position, the structure is composed of electrically welded tubo-annulars, properly sized to support loads. Two linear actuators controlled by electric CA motors, allow arm tipping.

Two further linear actuators, controlled by electric CA motors rotate the supporting heels to put them in operational conditions.

The base planes are all coated with adiprene to allow correct contact with the glass.

An hydraulic fall arrest system stops the machine in position to carry out its maintenance.



EXPERIENCE

Our company has been operating in the industrial automation and precision mechanics fields and can offer state-of-the-art technological and construction products thanks to its advanced engineering, construction, assembly and automation departments. Hence IOCCO dynamism, competitiveness and leading role in the market.

Our site covers a 10.000 square metre surface and the following departments are available: design, workshop, machine tool shop, painting, assembly, plants and testing.

Our staff, supervised by skilled and experienced managers, can manage very complex projects and find the most suitable solutions for any project phase.

From design to installation at the destination site, IOCCO GROUP's skilled and qualified technicians carefully implement all the safety procedures in force without compromising the machine efficiency and ergonomics.



SERVICE

- After-sale support

After-sale support is guaranteed by our technical and commercial staff from 8:00 am to 5.30 pm (Italian time) from Monday to Friday

- Spare parts according to the spare parts list

We provide coded spare parts supply Technical and practical training

- Technical-practical training

Of the maintenance staff and training of the staff responsible for running the plant

- Remote assistance

Connection to the machinery or plant through VPN network to perform diagnostic tests and troubleshooting

- Preventive maintenance, both ordinary and extraordinary

Technical intervention for maintenance of our specialized personnel

- Refitting

Upgrading mechanical and automatic systems provided according to the latest market trends and the second customer's request

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