



## Palletizing and Pallet Handling System in the packaging department.

For a **multinational pharmaceutical company**, we have created a palletizing system, physically connected to both the production and the warehouse, through a system of about **40 meters of roller conveyors**.

An **ABB IRB460 Anthropomorphic Robot** manages the palletizing up to **4 different lots simultaneously**.

The system is completed by a **supervision software** (created by Taiprora) which, using a connection with the company **MES**, manages the **production and palletizing tracking**, the **mixup at the pallet level** and the **serialized production**, necessary for every modern production plant in the pharmaceutical sector.

The system also manages the **double control (physical and logical)** of each element available in the palletizing area.

The entry of the boxes into the palletizing area takes place via an automated system: the list of enabled boxes is validated through a **communication between the PLC and the company MES**.

Each box is first identified and then weighed to store **traceability data**, then moved to an accumulation and singularization area. Unexpected boxes are instead expelled from the palletizing area.

The palletizing robot picks up the boxes using a **Schmalz suction gripper** (with **gripping capacity up to 15 kg**) and places them on the relative pallet.

When the system identifies a full pallet, it evacuates it via a **shuttle** for shipment to the warehouse, where it will be wrapped using a **wrapping machine**. Then, an integrated system will apply a **tracking data label** on the pallet.

Taiprora has programmed the entire system, from the **PLC** to the development of the **supervision software**.

Taiprora has also **supplied and installed all the security systems**, inserting barriers and controlled access doors.

### ACHIEVED RESULTS

- 1** Palletizing Robot (ABB IRB460)
- 1** Connecting Shuttle for Palletizing area / Exit / Replenishment of empty pallets
- 4** Lots managed simultaneously
- 15** Maximum weight (in Kg) manageable for single box
- 40** Length in linear meters for roller conveyors
- 6.000** Number of boxes processed per day





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