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.