

PALLETIZING BY ANTROP 2010 ROBOT

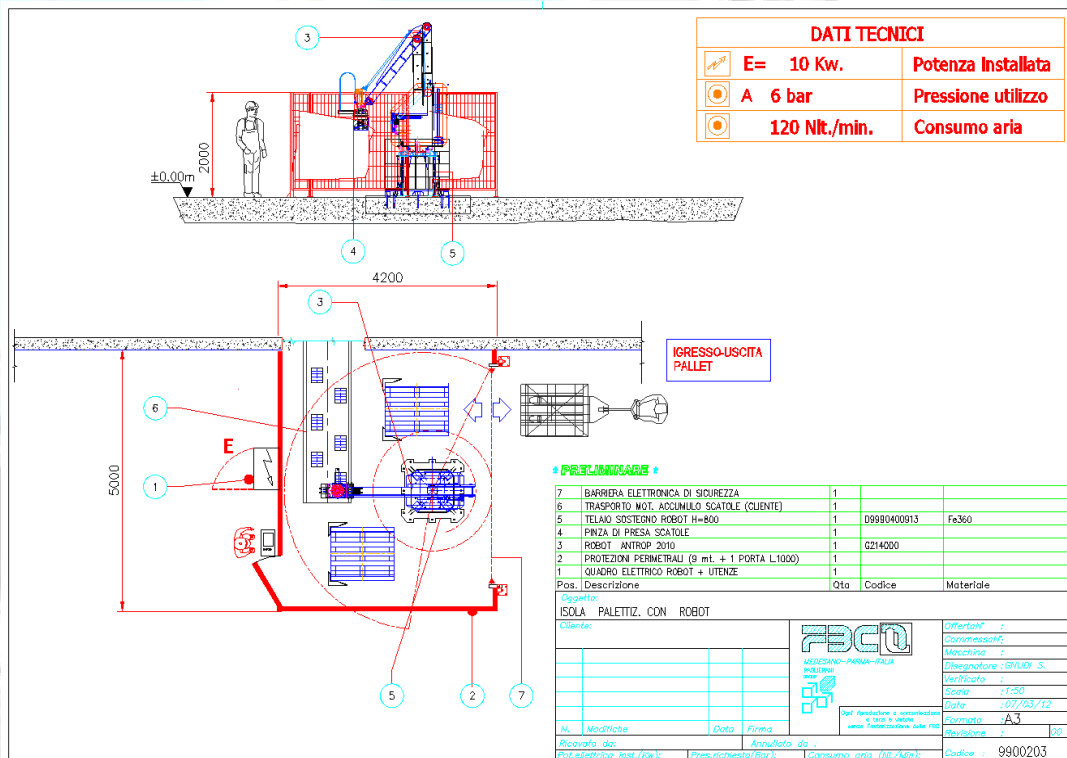


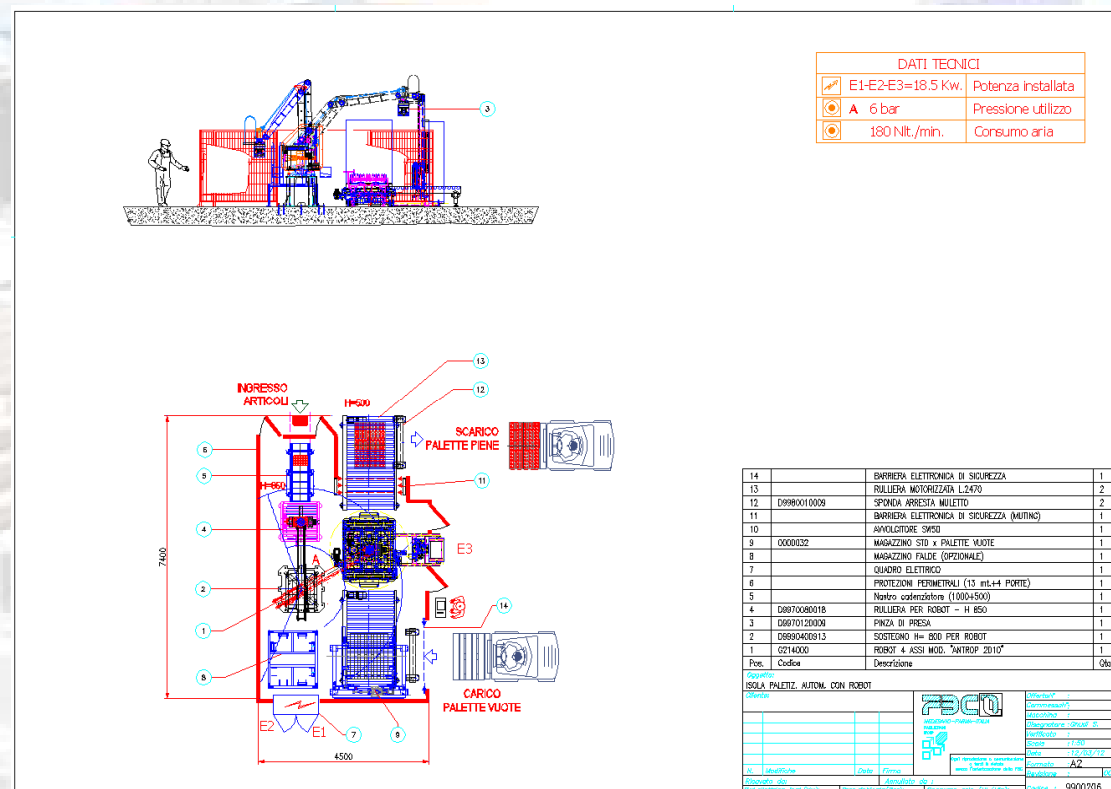
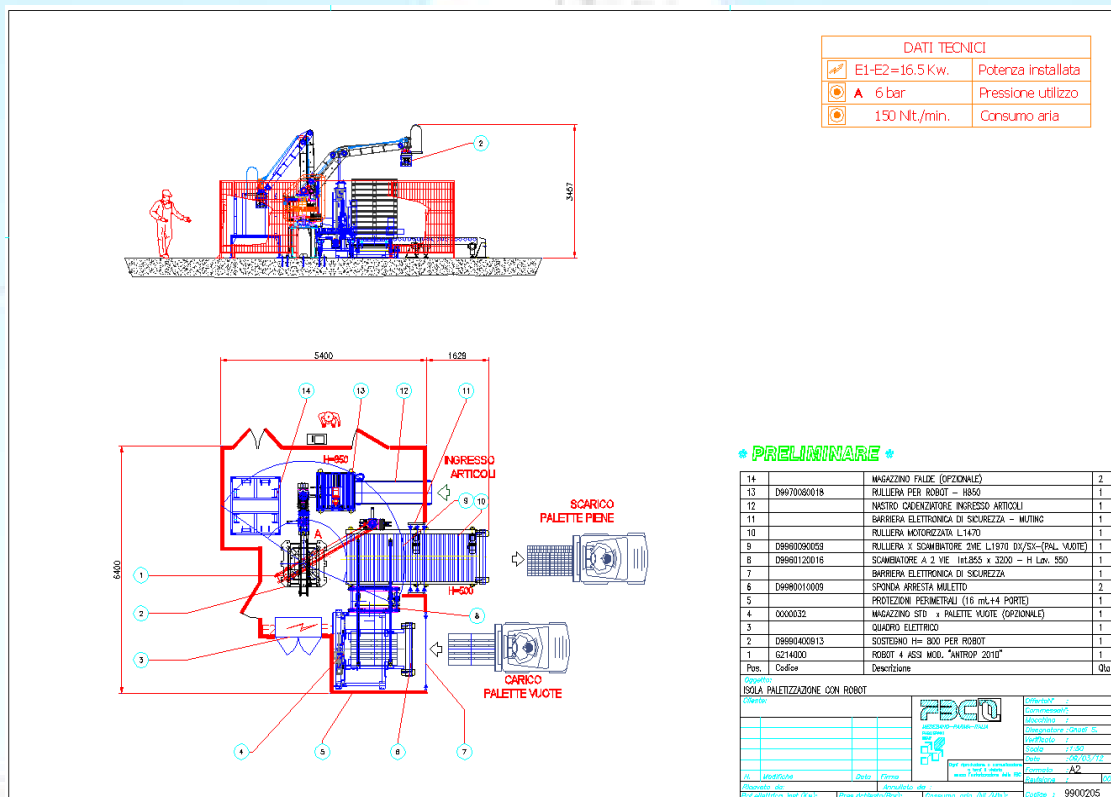
Paglierani S.r.l. specialises in proposing integrative and innovative solutions, in individual process phases and in complete production lines. The constant and growing need for customers to have customised lines based on the treated products, has inspired Paglierani to create a new design line for a series of 4 articulated axes machines, specifically designed for different types of applications. The machines are offered with different arrangements: from essential bays with empty pallet positioning and operator manual unload of full ones, to the more performing configurations complete with various interlocking accessories.

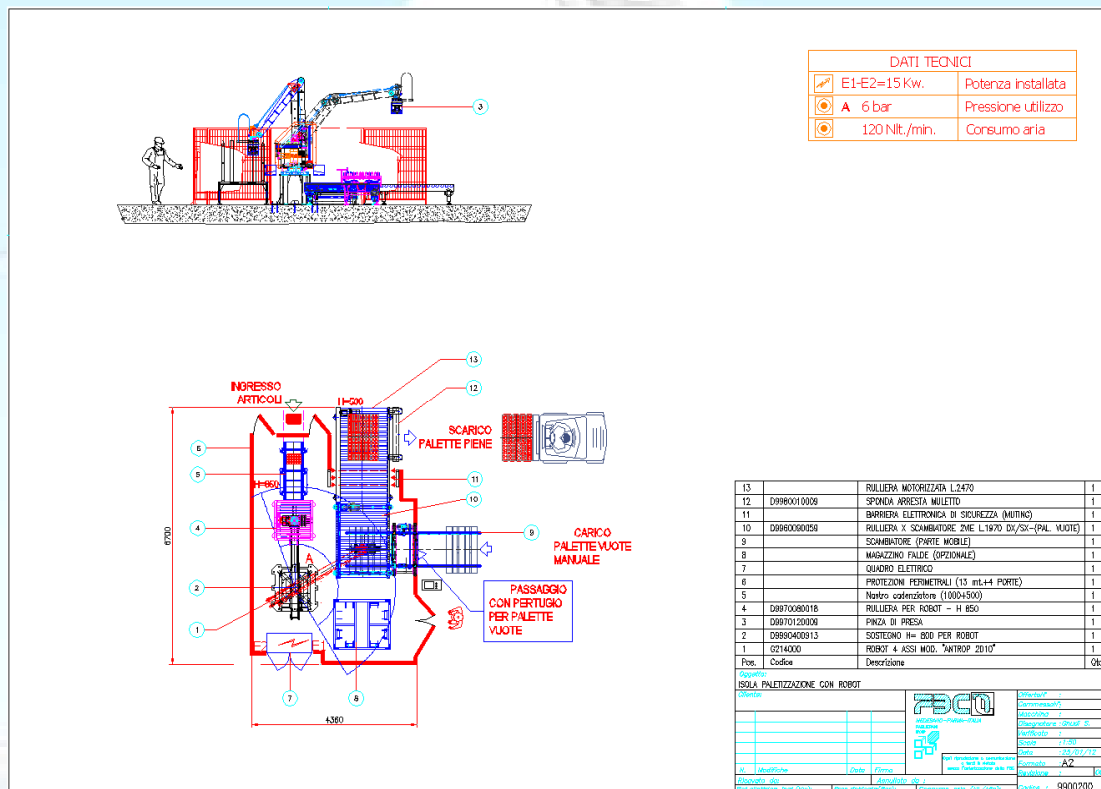
Based on requirements, configuration can be:

- up to four (4) simultaneous product (to be palletized) feeding lines
- up to four (4) simultaneous pallet forming stations
- with automatic empty pallet storage
- with integrated interlayer sheets storage
- with gripping heads provided with on board interlayer gripping accessories
- with gripping heads provided with on board empty pallet gripping accessories
- with integrated extensible film Winder

Example of configurable layouts:







The above layouts represent some engineering solutions, starting from a basic offer with single palletizing zone, up to an integrated automatic area equipped with empty pallet storage and stretch wrapper.

Great attention is given in all configurations to floor space and modularity, for easy loading in containers (for the shipment), fast erection at client's site, future implementing of new accessories.

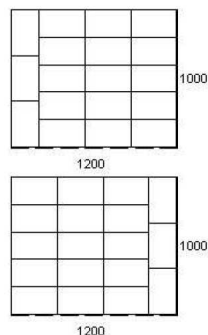
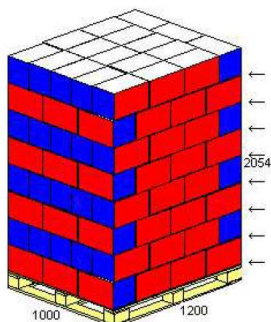
In all cases, set-ups are always pre-wired at our works.

Technical features

- Capacity: up to 24 items/min, with combined action multiple gripper. With reference to some of the following palletising layouts.

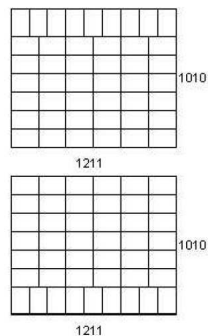
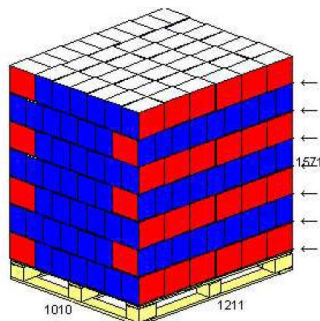
| | | | | | |
|---------------|---|-----|--------------|--|--|
| Product Name | Pallet Group | | | | |
| Product Code | Cases/Tray/Ovals | | | | |
| Datafile Name | 181-1-1200x1000 437ml powerade 5x3 (02/05/2006) | | | | |
| Solution Ref. | 2 I | | | | |
| Cube Used | 99,2 % | 18 | Case / Layer | | |
| Area Used | 99,2 % | 8 | Layer / Load | | |
| Pallet type | UKSTD | 144 | Case / Load | | |

| | Length | Width | Height | Net | Gross |
|-----------|--------|--------|-----------|---------|------------|
| Case (OD) | 332,0 | 199,2 | 235,0 mm | 1,000 | 1,500 Kg |
| Product | 1195,2 | 996,0 | 1904,0 mm | 144,000 | 216,000 Kg |
| Load | 1200,0 | 1000,0 | 2054,0 mm | 216,000 | 241,240 Kg |



| | | | | | |
|---------------|--|-----|--------------|--|--|
| Product Name | Pallet Group | | | | |
| Product Code | Cases/Tray/Ovals | | | | |
| Datafile Name | 45d-1-1200x1000 3x2 600 ml powerade (09/05/2006) | | | | |
| Solution Ref. | 2 I | | | | |
| Cube Used | 101,9 % | 45 | Case / Layer | | |
| Area Used | 101,9 % | 7 | Layer / Load | | |
| Pallet type | UKSTD | 315 | Case / Load | | |

| | Length | Width | Height | Net | Gross |
|-----------|--------|--------|-----------|---------|------------|
| Case (OD) | 201,9 | 134,6 | 200,0 mm | 1,000 | 1,500 Kg |
| Product | 1211,4 | 1009,5 | 1421,0 mm | 315,000 | 472,500 Kg |
| Load | 1211,4 | 1009,5 | 1571,0 mm | 472,500 | 497,710 Kg |



- Product infeed on timing belt and picking up zone (roller conveyor).
- Gripping equipment made of a light alloy structure (AL6060), equipped with bundles compactors part of the device, electro-pneumatically operated in the standard versions. Possibility of self-adjustment by motorized settings (and PLC control).
- The equipment can be integrated with the gripping device to handle the interlayer sheets.
- It is available as well:
 - Dedicated gripping equipment for bundles, cardboard, cluster, multipack; dedicated equipment for crates, for gripping rows of glass vases and bottles, for cans, easy-open jars with magnetic grip.
 - Specific gripping head for bags

Functional Description

Thanks to the application of high-tech components, brushless motors, lubricated spheres recirculation guides, highly resistant transmission belts as well as a highly efficient and improved management program, the machine is extremely efficient.

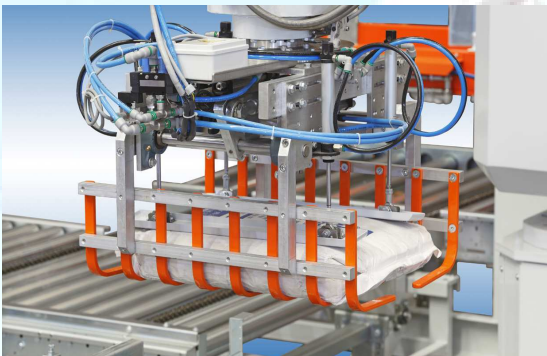
The Antrop 2010 Robot has 4 articulated axes, in addition to which consider the axes on the gripper, configured based on the requested application requirements.

The electrical implementation of the machine is designed with on board structure control board, to speed up the start-up at client's site. The software has an industrial P.L.C. for the multiple configurations of the palletising layouts requested by the customers.

An HMI programming terminal with colour touch-screen, control buttons, cable for remote position use are provided.

Ergonomics rules and operational efficiency of the technicians in charge of running, with exhaustive operational areas have been observed.

Below some examples of dedicated equipment:



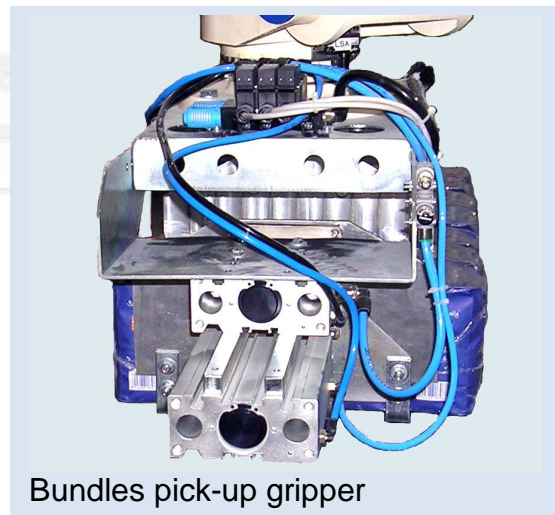
Bags pick-up gripper



Double bundles-cardboard pick-up gripper



Single cardboard pick-up gripper



Bundles pick-up gripper