

CARTESIAN DEPALLETIZER

Any palletizing robot we produce can be used for depalletizing. Depending on the course of the robot, it can depalletize a single piece (box lot) or an entire layer. Depending on the races of robots, the depalletizer can work on a single pallet or on multiple ones.

For depalletizing of bags from a large number of pallet places we have realized a machine at low cost and low productivity.

The automatic depalletizer that we produce can be used to produce bags, jars, bottles and boxes.

The clinch of the product is made by vacuum gripping elements: vacuum tables for bags and boxes, perforated rubber floor vases, sucker for boxes, bottles with pliers.

The clamping unit is equipped with a load cell to verify that the clinch is correct.



The two main characteristics of our range of automatic unloaders are:

availability of a series of low-cost models / low productivity
the possibility of adapting the machines to the customer's needs.

Our depalletizers can be used in small companies that have a need to automate the power lines with low productivity of small-scale investments.

Cartesian robots Series CC and CP models are more suitable to be used as depalletizers; they can be equipped with asynchronous motors or servomotors according to the needs of productivity / cost.

For technical specifications refer to the catalogs of palletizers series CC and CP.

CARTESIAN BRIDGE DEPALLETIZER

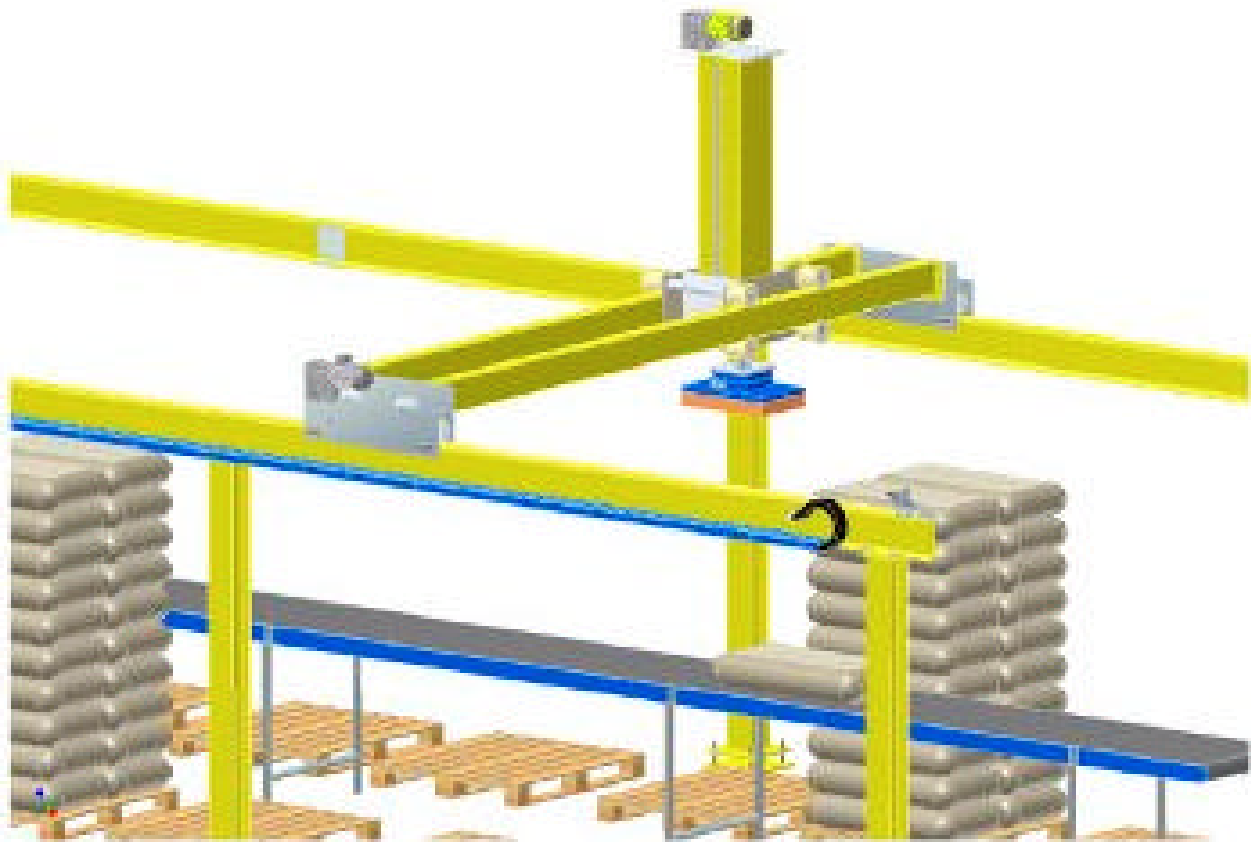


The automatic bridge depalletizer bridge is a machine that derives from our manipulators bridge crane. The machine is used in supply lines food where there is the need to withdraw from a large number of pallets the ingredients to be mixed. The example in the figure beside works with 20 pallets simultaneously. The machine is particularly economical and is used essentially for depalletizing of bags: the positioning accuracy is not particularly high is preferred in those applications, such as the handling of the bags, where this feature is not essential.

The main features are:

- **Low cost versions with induction motors and inverters and productivity up to 4 clinches for minute.**
- **Telescopic Vertical Axis for depalletisation heights of over 1500mm.**
- **Versions with inverter and induction motors controlled with PLC Omron CJ2M.**
- **Frame beams, double "T" steel powder coated.**
- **Rotation of the gripping element (0-90) or with a 4th axis.**
- **Max lifting weight 100Kg including the gripper.**

- Rotation of the pneumatic gripping element(0-90) or with a 4th axis.
- Maximum depalletizable height 3000mm.
- Protection sides not used for accessing pallet network of powder-coated steel.
- Protection sides of the input / output pallet with light curtain.
- Operator panel color touch screen 5 "



TECHNICAL SPECIFICATIONS

Denomination	DEPAL-CC	DEPAL-CP	DEPAL-PONTE
Feature	Cartesiano aperto	Cartesiano portale	Cartesiano ponte
Category of the machine	Depalletizer	Depalletizer	Depalletizer
Number of pallet places	1,2,3	Max 6	Max 25
Type vertical axis	Not protruding	Protruding	Protruding
Useful capacity gripper included	100 Kg	150 Kg	100 Kg
Trunk orientation	Whatever	Whatever	Whatever
Motors	Brushless / asynchronous	Brushless / asynchronous	Brushless / asynchronous
Productivity on single bay	14 cycles / min.	8 cycles / min	8 cycles / min
Maximum height depalletizable	2500	2500	3000
Longitudinal effective stroke	Depending on the number of bays	Depending on the number of bays	Depending on the number of bays
Transversal useful stroke	Da 800 a 1200	Max 3500	Max 4500
Vertical useful stroke	Max 2550	Max 2550	Max 3100
Useful stroke head rotation	0-90° o 0-360°	0-90° o 0-360°	0-90°
Longitudinal speed	1.4 m/s		
Trasversal speed	1.3 m/s		
Lifting speed	1.4 m/s		
Speed of head rotation	350°/s	-	-
Floating caliper along the vertical axis	Yes	Yes	Yes
PLC	Siemens S7-300 / Omron CP1L	Siemens S7-300 / Omron CP1L	Omron CJ2
Axis	3/4	3	3
Perimeter protection integrated	No	No	No
Types of perimeter protection	Steel profile + polycarbonate / rete tek	Steel profile + polycarbonate / rete tek	Steel profile + polycarbonate / rete tek
Electrical panel	Separated	Separated	Separated
Gripping element	Depending on the application	Depending on the application	Depending on the application
Rotation of the gripper	0-90° pneumatic control or dedicated axis	0-90° pneumatic control or dedicated axis	0-90° pneumatic control