# AUTOMATED PALLETIZING





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Automatic palletizing with a robot from Eltronic is a versatile solution, that gives the opportunity to automate and optimize the time-consuming process of palletizing. The automated process ensures a stable production. Production time is optimized, but more important time consumption is stable and output quality is uniformly throughout the entire production time.

### How it works

APPLICATION KEY COMPONENTS

#### Robot

Motoman UP25 6-axis industrial robot mounted on a rigid powder painted steel frame.

#### Programming

The robot is delivered with a base program handling all basic functions of the application, such as moving to a service- or home-position just with the push of a button. In general, the robot will be programmed so no special robot expertise is needed in the daily use of the application. The application is delivered as standard with the necessary programming for a variety of item sizes. Different patterns can easily be added later in the process.

#### Control system and operator interface

The modern robot controller handles the robot programs and all other functions in the application. A color touch panel is used for an intuitive HMI (Human Machine Interface) to control the application fast and simple.

#### **Gripping tool**

The robot is fitted with state-of-the-art gripping tool from Eltronic. Powerful vacuum cups mounted on an interchangeable baseplate and a physical bottom support ensures that items are moved firm, fast and safe. To handle item variations the baseplate is changed in a matter of seconds. As an option automatic tool change can be ordered. This is a great solution if the robot is going to be used for mix-palletizing.

#### Safety

To ensure absolute safety for any persons near the application, the robot and all equipment are surrounded by machine guarding made from powder coated steel mesh panels. The footprint of the application in its most compact layout is only approx. 2.6 x 2.8m which makes it easy to implement in compact environments. If the item flow is low (<200 items/min) a collaborative robot might also be a solution.

## Versatility Flexibility Consistency Endurance

## Your direct advantages

#### Uniformity

The quality of palletizing with an automated process is more stable and uniform compared to manual palletizing and thereby ensures a better basis for wrapping, transporting etc.

#### Increasing productivity

Because the number of man-hours is lowered significantly compared to manual palletizing, productivity is increased. The operator will have more time for other tasks in the production.

#### Flexibility

Once the palletizing layout is defined, switching between the different items for palletizing is easy. New operators require minimal training as the operating system has been programmed intuitively to achieve ease of use.

#### Small footprint

This palletizer is unique in its ability to palletize high on a large pallet in a very small area less than  $7m^2$  (2.6m x 2.8m)



#### Item handling

By picking up the box on the sides, the robot can reach and place the boxes higher on the pallet.





### **Technical specifications**

| General               | Robot GP25                                   |
|-----------------------|--|
| Total weight          | 1,000kg                                      |
| Footprint (Approx.)   | 7m² (2.6 x 2.8m)                             |
| Machine guard         | Powder coated steel mesh panels              |
| Pallet size           | 800x1200x144mm / 1220x1016x165mm             |
| (48x40x6½")           |  |
| Palletizing height    | 1720mm (Optional >2000mm)                    |
| Robot                 |  |
| Туре                  | Motoman GP25                                 |
| Payload               | 20kg   |
| Controller            | YRC1000                                      |
| Gripping tool         |  |
| Туре                  | Vacuum / bottom support                      |
| Gripping positions    | Standard on top (Optional top + 4 sides)     |
| Infeed                |  |
| Туре                  | Driven Roller Conveyor                       |
| Gripping positions    | Top + 4 sides                                |
| Capacity max.         | 350 picks/hr (dep. on stability and payload) |
| Fixture               |  |
| Pallet fixture        | Solid powder coated angle steel profiles     |
| Consumption           |  |
| Electric power supply | 3 Phase 400V AC 5kVA                         |
| Compressed air        | 120NL/min                                    |

#### Included features

- Robot + Controller + base programming
- Gripper
- Steel base frame for robot
- Non-driven roller conveyor
- Machine guarding from powder coated steel mesh panels
- Palletizing program for standard items

#### **Optional features**

- Multiple pickup positions
- Extra high stacking
- Automatic tool change
- Accumulation table
- Automatic pallet changer

### Interested?

For more information contact:

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#### About Eltronic A/S

Eltronic A/S is an ambitious engineering company with more than 20 years of experience developing production systems and automation. Our goal is to be our customer's preferred partner and to increase their global competitiveness and sustainability.

#### Eltronic A/S

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