

# Robot palletizing system



Palletizing involves loading a pallet with filled crates and/or cartons according to a specific pattern. The purpose of this is to load the pallet with the largest possible number of units and the highest possible reliability.

## Why use robots for palletizing?

- Maximum freedom of movement
- Flexible due to quick-change grippers
- Multi-gripper is possible
- Great variety of grippers
- Robot can palletize multiple lines
- Robot can palletize from multiple pallet formats and pallet sizes
- Highly reliable technology

## Benefits of robot palletizing systems:

- Modular robot cell
- Highly efficient and economically attractive solutions
- Tailor-made solutions
- Very flexible with minimal changeover time
- High capacity and efficiency
- Reliable with minimal maintenance costs
- 4, 5 and 6-axis robots with very high payload capacities
- For trays, crates, cases, boxes, etc.

## Marel robotic palletizing systems

Marel robotic palletizing systems comprises flexible, 6-axis high-speed robots for a wide range of applications, such as handling, machine feeding, processing and distribution applications in the load-bearing range from 3 to 600 kg.

### Marel robot palletizer 225

The flexible Marel robot palletizer 225 covers applications weighing up to 225 kg. Despite its considerable load-bearing capacity and wide range of 2,702 mm, the model has a very modest footprint. Its compact, slim body is only 625 mm wide.



A newly developed vibration control system exploits the increased axial speed and inherent rigidity of the gears and enables extraordinary acceleration with short movements. The reduced cycle times also increase productivity.

Depending on the specific needs of the customer or our recommendation also 4 or 5-axis high speed robots can be used for fast and efficient loading of pallets.

Marel robotic palletizing systems are always designed to customer project specifications.

### Grippers

The robot is the central component of a cell in which pallets and products are transported. Our engineers develop the grippers, which move one or more transported units with the aid of mechanical clamping system.

These grippers can handle one or more products. Our grippers are built for flexible use and can therefore often handle different products at the same time.

Our innovative grippers can usually perform a combination of actions. A multi-functional gripper can (de-)stack empty pallets and (de-)palletize crates in the right configuration onto pallets.

### Technical Data sheet Marel robot palletizer 225

#### Software

By using the latest interface generation with profinet capability, Marel Food Logistic Systems has enabled its palletizing robot to be integrated directly in a Siemens automation environment.

The benefits of two high-performance systems are combined: the convenient programming of robots directly via the programmable logic controller (PLC) and the high level of precision offered by the robot controller. This makes it possible to integrate Marel robot palletizers in any system.

Our engineers develop software to enable the grippers to place the loads in highest possible accuracy, efficiency and product safety onto the pallets according to the given configuration. Our robotic palletizing systems are designed for fast and flexible response to product change in order to keep downtime to a minimum.

Marel robotic palletizing systems: flexible, innovative and reliable!

Technical Details	Marel Robot palletizer 225
Controlled axes	6
Payload	225 kg
Maximum reach P-point	2702 mm
Repeatability	±0.2 mm
Weight	1000 kg
Power requirements	5.0 kVA
Mounting positions	floor
Suitable for	cutting, dispensing, machine tending, machine handling, packaging, palletizing, processing

Marel is the leading global provider of advanced equipment and systems for the fish, meat and poultry industries.