

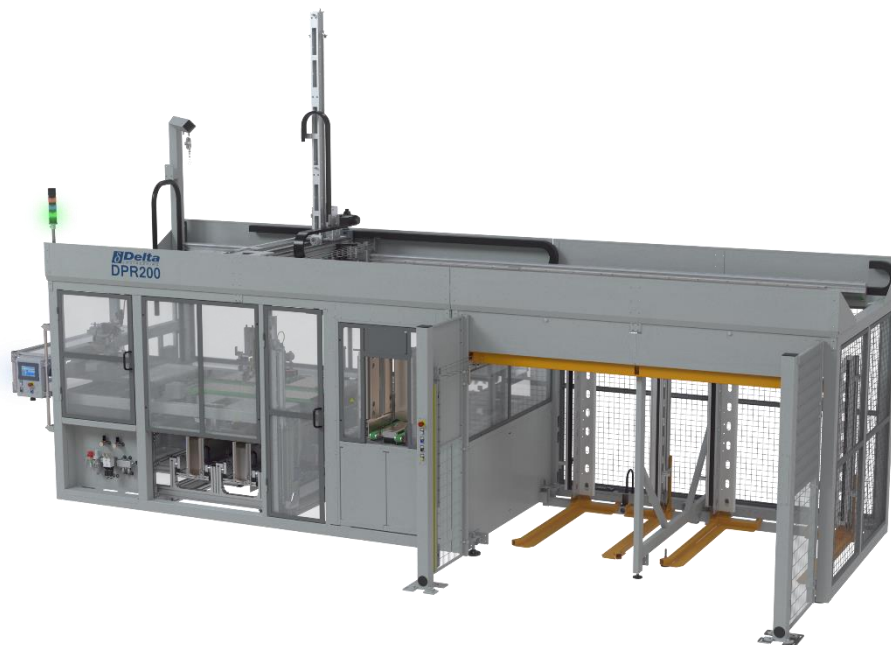
## DPR200

### PALLET ASSEMBLY ROBOT

#### DESCRIPTION

The DPR200 is a pallet assembly robot which allows you to **produce your own cardboard pallets in-house**. It can make **pallets of all sizes up to 56" (1422 mm) square**, such as Euro-pallets (1200mm x 800mm), industry pallets (1200mm x 1000mm), GMA pallets (40" x 48") and American pallets (44" x 56"). **Up to 3 storage positions** for top boards, each adjustable in size. So the machine can switch between different board sizes without stopping.

With the DPR200, you can annually produce **up to 100.000** pallets in-house!



#### CONCEPT

The top boards of the pallet are picked up by the machine and positioned in the pallet assembly station. In the pallet framework unit, the bottom blocks of the cardboard pallet are assembled inside the machine or fed in externally. The robot picks up the blocks and positions them on the top board in the desired orientation.

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## STANDARD FEATURES AND OPTIONS

Standard features include

- Top board warehouse
  - **Warehouse with 1, 2 or 3** (according to your needs) **storage positions** for the supply of the cardboard top boards
  - Each of the storage positions is adjustable in size (everything up to 56" x 56" (1422 mm x 1422 mm):
    - If you have 1 storage position, you can switch over to a different pallet size when stopping the machine and adjusting the dimensions of the storage position.
    - If you have 2 or 3 storage positions, you can set different dimensions for each of them, allowing the machine to switch between 2 or 3 different pallet sizes without stopping: flexible manufacturing!

- Infeed station bottom blocks or beams

Different possibilities:

- Assembling cardboard bottom blocks (= pallet feet) inside the machine. The base material (cardboard sheets) must be added manually. 70 kg max/feet.
- Assembling cardboard support beams inside the machine. The base material (cardboard sheets) must be added manually. One side accessible only.
- Infeed of already assembled cardboard support beams. The premade beams must be added manually in this warehouse.

- Glue station

Different options available, depending on the chosen technology to glue the feet:

- Hotmelt gluing station. Fast drying.
- MS Polymer gluing system
- Wood glue system

- Pallet assembly station

- Pick and place top board
- Positioning and aligning top board
- Automatic glue application contour pallet blocks
- Adjustable orientation and positioning pallet blocks on the top board

Optional:

- Bottom skids to be glued on the pallet bottom blocks for an optimal weight load distribution – more info see 'Skid warehouse' below

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- Operator touch screen, with graphical support for easy adjustment
- Latest software algorithms
- The machine is built compactly, ensuring an optimal use of space. Furthermore, different versions are available depending on the required specifications.
- Safety doors & guarding for in-/outfeed for easy access and maintenance

#### Options

- Pallet rotation station to position the produced pallets according to your needs
- Pallet stacker unit to store your cardboard pallets in an automated systematic way
- Skid warehouse
  - Warehouse for cardboard skids to be glued on 3 pallet bottom blocks (1 row)
  - Max 2 positions in the warehouse: 2 stacks of skids are available. Can be used to hold 2 stacks of the same type of skids, but can hold also 2 different types of skids (for different size of pallet).
  - The machine can place either **long skids** (for the long side of the pallet) **or short skids** (for the short side of the pallet) on a pallet, it cannot combine short and long skids on the same pallet.

#### ADVANTAGES

- Fast payback: Can assemble 10 to 30 cardboard pallets per hour, equalling up to 100.000 pallets per year.
- Space saving solution: Compact machine (see specifications below) + no warehouse space for externally supplied wooden pallets needed.
- Complete CNC configurable pallet composition. Adjustable positioning of bottom blocks possible according to your preferences
- Outfeed produced pallets at ergonomic height
- Flexible manufacturing: The machine can switch between 2 or 3 different board sizes without stopping.
- User friendly: comfortable operation on screen
- Fast product changeover thanks to recipes

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- Environmentally sustainable solution: reduced need for transportation (no need to transport pallets to your factory anymore, as is the case with wooden pallets, so you save on transport costs) + cardboard pallets are recyclable in the current paper or cardboard recycling stream.
- Finished products can be stacked in an orderly way



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## GENERAL SPECIFICATIONS

- Frame Powder coated welded steel frame (RAL7035)
- Frame dimensions (excluding shields & conveying)
  - Width 2200 mm
  - Length
    - 6300 mm (including 1 storage position for boards)
    - 7850 mm (including 2 storage positions for boards)
    - 9400 mm (including 3 storage positions for boards)
  - Height 3350 mm
  - Outfeed height Fixed height approx. 1050-1100 mm
- Weight Depending on type and options
  - Air supply ¼" connection, Max 10bar (145PSI), 6bar (87PSI) recommended
  - Supply voltage 3x400-480 VAC – 20A – 50/60Hz
- Control board
  - ✓ Main controls Omron
  - ✓ Graphical user interface Omron

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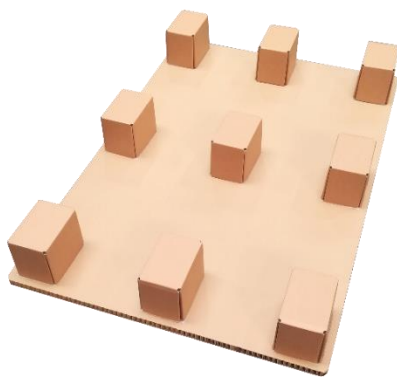
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**PALLET EXAMPLES**

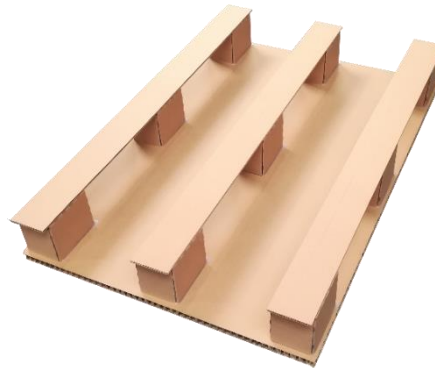
The DPR200 is built for flexibility. To give you a good insight into the machine’s capabilities, some sample data below:

- **Delta Engineering light feet**

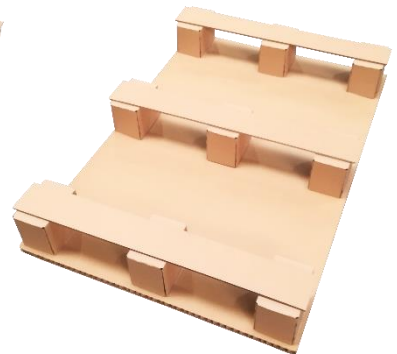
Cardboard pallet feet are manufactured automatically starting from a cardboard sheet. This is a low-cost solution designed especially for lightweight, well-distributed loads. It is ideal for single product - multi customer applications.



HC Board, 9 feet



HC Board, 9 feet, long skids



HC Board, 9 feet, short skids

Different board types can be used, multi-layer cardboard, honey comb...

- **Delta Engineering integrated beam**

Cardboard beams are manufactured automatically starting from flat cardboard sheets. 2 or 3 beams can be glued onto a selected board, in any direction  
! Only accessible from one side!

- **External feet**

External feet can be fed into the DPR200 and glued onto any type of base board. We have a partnership with IPCube, to manufacture feet on-site and make any type of pallet with the DPR200. These pallets are more suitable for higher loads and are more resistant to humidity.