



DP420

MODULAR PALLETIZING/DEPALLETIZING UNIT – LINEAR

DESCRIPTION

The DP420 is a universal, flexible palletizer/depalletizer. Together with different toolings of grippers it can handle any kind of products. Palletizing/depalletizing flat sheets, top frames, trays, hoods, etc

A complete range of surrounding tools like pallet stacker/destacker, tray warehouses, tray former, accumulation tables, depalletizing tables, etc ... allows you to build any application you need. A future proof machine.

CONCEPT

A modular heavy payload linear palletizing column, completely equipped with servo driven movements and high quality gearboxes is the heart of the system.

It can be surrounded with a complete range of equipment to cover your needs:

- Safety fencing.
- Automatic pallet transport.
- Pallet dispensers.
- Tray former.
- Tray warehouses.
- A range of palletizing/depalletizing grippers.
- ...

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STANDARD FEATURES AND OPTIONS

Standard features include

- Smooth movements thanks to programmable servo motors.
- Precision: repeatability within +/- 1 mm.
- Precision and long life linear bearing guidings on the vertical and horizontal movement (no bushings).
- Fast set up thanks to controller that allows movement teaching.
- Graphical user interface with touch screen and recipes for easy setup.
- Scalable, flexible design.
- Palletizing & depalletizing mode.
- No homing needed at startup due to the use of absolute encoders.

Options

Machine

- Up to 3 positions.

Grippers

- Clamping gripper: grabs the layer by applying force on the sides (different formats available).
- Vacuum gripper: grabs the layer by applying vacuum on the whole layer. Advised especially for heavy products with large necks or conical products.

Collation tables / unscramblers

- Collation table (**VZT252**): accumulates bottles and prepares the layers so the DP420 can grab them.
- Debuffering unit (**DEP200**): to depalletize round and odd shaped products. Products are separated using multiple conveyors at increased speed level.

Pallet handling

- Pallet dispenser (**DPD25X**): to stack pallets & feed them to the line.
- Automatic pallet conveyor in/outfeed.

Tray Handling

- Automatic tray warehouse (**DTM200**).
- Automatic tray former (**DKP200**): to assemble trays automatically using hot melt.
- Flat manual infeed conveyor.

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POSSIBLE APPLICATIONS

CASE 1: PALLETIZING OF BAGS

Flexible palletizing of bags behind a full automatic bagger with flatsheet between bags.

CASE 2: SINGLE LINE PALLETIZING

Flexible palletizing of bottles consisting of

- VZT252 (layer forming);
- DTM200 (tray dispenser);
- 2 x palletizing positions.

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GENERAL SPECIFICATIONS

- | | |
|----------------------------|-------------------------------------|
| ▪ Frame | Powder coated welded steel frame |
| ▪ Safety guards | Powder coated steel mesh |
| ▪ Air supply | ¼" connection, 2-10bar (29-145 PSI) |
| ▪ Weight | Depending on type and options |
| ▪ Control board | |
| ✓ Supply voltage | 3x400VAC+N+PE – 16A – 50/60Hz |
| ✓ Main controls | Siemens |
| ✓ Graphical user interface | Siemens |

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