

Medals for a Handling-System

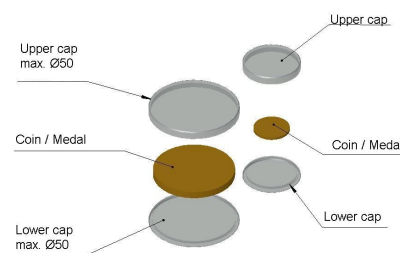
The Capsule-Packing Machine *Vaumi D* from pi4_robotics

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Sporting achievements, long-service honours, anniversaries and great political events are all eternalised by special medals and commemorative coins. To the recipient they are the reminder of a memorable event, and to a collector they are the promise of future rarity and value. While these shining treasures must be protected, they must also be viewable. Transparent capsule-packaging is per-

fectly suited for this purpose, whereby the valuable metal is snugly sandwiched between two plastic caps. This deluxe setting has a price - yet the efficient solution of the company pi4_robotics makes it an attractive choice for end-customers and for minting establishments.

It was not without reason that the *Staatliche Münze Berlin* selected the swift machines of pi4_robotics. With its compact size (LxWxH: 285x120x202cm), the installation fits comfortably in normal elevators and operates without expensive robotic technology. Upon the 2½ sqm base plate is housed a PLC-governed handling system with eleven axes, sixteen pneumatic cylinders and six positioning units, which achieves a cycle time of 4.5 seconds per coin.



U-Trays: Flexible and Efficient

Above all the machine owes its flexibility and efficiency to the ingenious *Universal-Carrier-System* (U-Tray), a development of pi4_robotics.

Firstly, U-Trays are able to carry not only coins but also upper caps and lower caps, all of sizes between 15 and 50 mm. Secondly, each carrier can be loaded with up to 200 coins or 500 caps, with which the machine can run independently for forty minutes. In normal operation, only these trays, which are transported through the machine on two conveyor belts, need to be regularly changed. Upper and lower caps are supplied to the machine via two static U-Trays.

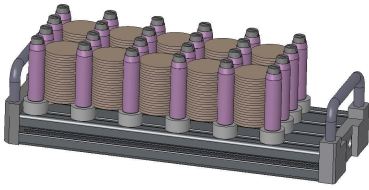


Image: coins in a U-Tray

Changeover Time: Not a Moment Wasted

A product changeover is merely a pit-stop. Only the vertical rails of the trays must be adjusted and locked to the new position, while the diameter and thickness of the new coins are entered into the user terminal. Everything else is calculated automatically.

User-Friendliness: Practical and Open

A clear and concise menu-guided user terminal receives all process inputs and simplifies the operation of the handling system.

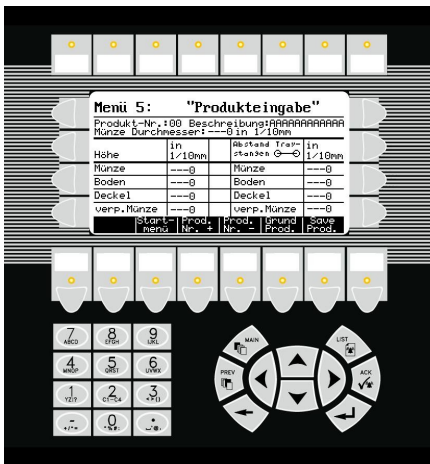


Image: product data input in the user terminal

Every menu is identified by a number and title -just like in a mobile telephone- and is linked to individual help topics. All keys located around the display are allocated menu functions that are largely self-explanatory. The swivelling interface is particularly useful in manual operation and the display with

illustrative graphics allows the inspection and control of all actuators, for example, during the extension and retraction of a pneumatic cylinder.

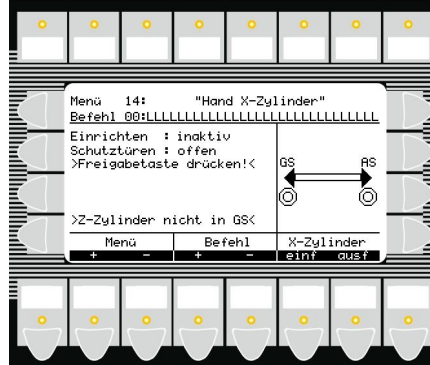


Image: manual control of a pneumatic cylinder in its home position and in operating position

Hardware-relevant parameters are of course preconfigured for operation and do not have to be changed. However adaptations can be made, saved and loaded as new data sets. Therefore the user only has to select the complete and ready data-set. This ability to alter parameters enables, for example, the machine to be finely adjusted to a required cycle time when in optional inline-operation, or the specification of the maximum number of coins per tray.

Overview of Machine Specifications

- Installed size (LxWxH): 2850x1200x2019mm
- Mass: ca. 1250 kg
- Power Supply: 400V, 8kW, 6 bar press. air
- 40 min. self-sustained operation
- 800 coins per hour / 4.5 seconds per coin
- Capsule size: 15 - 50 mm

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