

KRONES Robobox

Fully-automatic grouping station

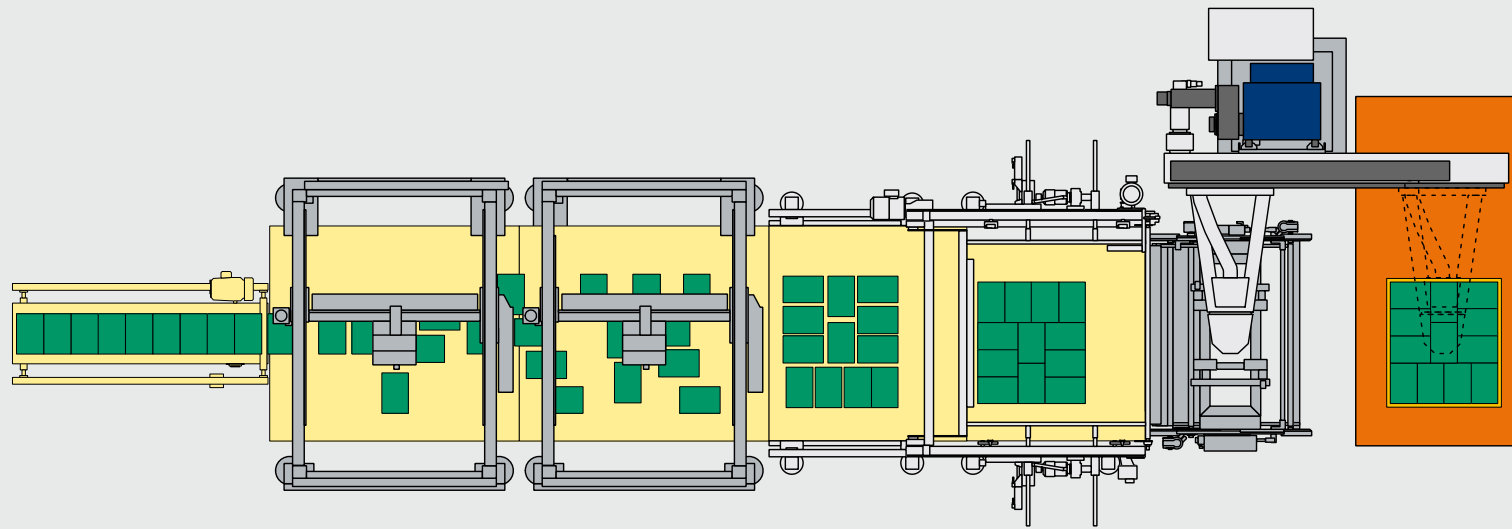


A question of position

KRONES Robobox

Highly precise and nonetheless versatile – Robobox opens completely new possibilities for palletising: it can be adapted in a flash and fully-automatically to extremely different layer arrangements. Its precision gripper turns and distributes all types of non-returnable packs accurately – without damaging the products in the process. Hence, there are no obstacles to reliable and exact palletising. An additional advantage is the compact modular structure according to the modular component system: thus Robobox requires only little space and simultaneously it is able to adapt to any line output.





Machine design: two Robobox modules with connected palletising system Modulpal

Method of operation

The packs are fed on one or several lanes into the portal device. The gripper head is lowered to the packs and grips them individually or in groups – depending upon the layer pattern that is set. The guide device of the gripper head enables the exact rotation and distribution of the packs in the x and y directions.

Layout configurations

The practical modular system makes it possible to combine several Robobox modules with one another and thus to increase the output. Robobox is also the ideal supplementation for the palletising robots of the Modulpal series. Together, they form a flexible and fast-acting team that is capable of achieving top performance in palletising.

Output range

	1 Module	2 modules
Dimensions L x W x H (mm)	2,200 x 2,650 x 2,100*	4,400 x 2,650 x 2,100*
System cycle (cycles/h)	2,000	4,000

*The height depends on the pack height.

Design features

- Axis system with a standard gripping range of 500 x 400 mm (L x W) – other versions are also available depending upon requirements
- Processing of packs weighing up to 30 kg
- Convenient and practical separation of operator side and service side
- Simple increase in output by combining several modules
- Reduced spare parts inventory thanks to standardised components

Additional equipment

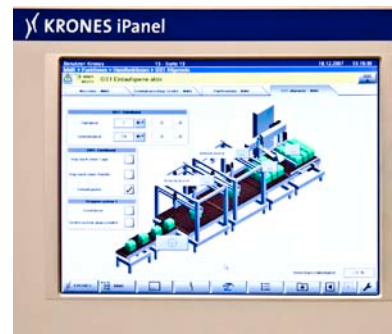
- As an option, Robobox is available with mounted guard doors.

Application

- Grouping non-returnable packs
- Output range: between 2,000 and 6,000 cycles/h for grouping of individual packs with three modules connected in series. For the processing of up to three packs simultaneously, Robobox reaches an output of up to 12,000 packs/h.
- The pack throughput rate can exceed the system clock pulse rate. This depends on the palletising pattern and the packs passing without change of position, as well as on the rotation and distribution of pairs of packs per module.



The gripper heads with plastic fins guarantee gentle pack handling.



Simple „fingertip“ operation by means of the KRONES iPanel touch-screen



Compact and easily accessible: the turning unit above the gripper head

Your benefits

■ Automatic and fast change of layers

The fully-automatic layer change renders time-consuming fine adjustments and mechanical conversions superfluous. The programs for the layer patterns are installed and tested beforehand. Upgrades for additional layer patterns can be retrofitted subsequently.

■ Flexibility and efficiency

Depending upon the requirements, the packs enter Robobox in one or more lanes. Depending upon layer pattern and pack size, several packs can be positioned simultaneously.

■ Exact layer patterns

The highly precise gripper positions the packs in an absolutely form-fit and accurate manner.

■ Versatility

Robobox can also be used as a sorting and distributing station between several different lines.

■ Gentle conveyance

Flush grid belts convey all the packs to their destinations, both safely and smoothly. They also provide secure positioning for PET bottles with petaloid bases.

■ More space

Thanks to its compact design, Robobox requires only very little space. Therefore, several modules can be employed in an extremely space-saving manner.

■ User-friendliness

Robobox is optimally accessible because the operator side and the service side are distinctly separated from one another. Moreover, a touch-screen enables comfortable control of the grouping station.

■ Savings potential

Robobox does not require any specific components for the palletising layouts, e. g. spacing devices. External rotating and distributing systems are also unnecessary.

The gripper brings the packs being fed in to the desired position in a form-fit manner

