Linapac II
All-rounder for packing and unpacking
High output and flexibility are key qualifications

The packing and unpacking process in a beverage plant must run like clockwork. Fast and gentle container handling and high flexibility to suit a wide variety of containers are the basic prerequisites. On top of that, a packing and unpacking machine should be easily integrated into operational sequences and smoothly fit into the line layout. The Linapac II fully meets these requirements. Last but not least: sorting systems, as well, benefit from its high-performance technology.

At a glance

- Intermittent packer for
  - cylindrical and specially shaped containers made of glass or plastic
  - multi packs
- Processing of pack block lengths ranging from 1,600 to 3,300 millimetres
- For packing and unpacking of packs which are open at top side
- Integration in empties sorting systems
Method of operation

Packers operating in cycles for flexible mastering of packing and unpacking tasks

Packing
- The bottles on the container table are grouped onto lanes
- The pre-positioned containers are picked up using gripper units and set into the fed empty packs

Unpacking
- The filled packs are fed to the unloading position on the conveyor
- Gripper unit lowering and container pick up from the pack and container positioning on the container table

Packing curve
- Freely programmable packing curve with independent control of the drives of lifting column and horizontal axis
- Various positions can be approached within the operating range
- Precision control system to ensure accuracy of movement to the nearest millimetre as well as gentle start-up and braking
Technical features

Various sizes allow optimum integration of the Linapac II in many different line layouts. The models vary with regard to the container table width and pack conveyor length, which makes the Linapac II a perfect partner for individual packing processes.

Layout variants

− T design for cylindrical containers
− H design for cylindrical containers and multipacks
− HT design for cylindrical containers or multipacks as an option
Technical details

Design features

- Modular design
- Single-lane or double-lane pack conveyor
- Lifting unit and transverse travel station with maintenance-free toothed belt drive
- Easily exchangeable plastic roller guides at the lifting unit
- Integral safety stop feature
- Driven by servo-controlled motors
- Free-standing operator panel with touch-screen
- Machine guards with fence guarding and sliding door

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>Pack block length</th>
<th>Single-lane speed (cycles per hour)</th>
<th>Double-lane speed (cycles per hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Unpacker</td>
<td>Packer</td>
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<tr>
<td></td>
<td></td>
<td>Plastic crates</td>
<td>Cartons</td>
</tr>
<tr>
<td>1,600</td>
<td>1,600</td>
<td>560</td>
<td>520</td>
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<td>1,800</td>
<td>1,850</td>
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<td>500</td>
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<td>2,200</td>
<td>2,100</td>
<td>530</td>
<td>480</td>
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<tr>
<td>3,300</td>
<td>3,315</td>
<td>440</td>
<td>390</td>
</tr>
</tbody>
</table>
Assemblies – container and pack feed system

**Container infeed and discharge**
- Container transport optionally by flush-grid belt or steel/plastic flat-top chain
- Infeed driven by three-phase motor with separate frequency inverter for infinitely adjustable feed speed
- For T configuration:
  - Container table with stop bar, vibrator beam and completeness monitoring unit
  - Transfer at container conveyor with transfer plate or as free flow transfer

**Pack guide**
- Robust steel flat-top chain
- Easy adjustment with crank
- Infeed and pack stopper for gentle pack stopping and pack spacing stopper for safe pack guidance
- Frequency-controlled drive for infinitely adjustable speed
- Manual adjustment of the rails
- Pack spacer from top for plastic crates or from bottom for processing cartons
Assemblies – gripper units and gripping devices

Gripper units
- Rigid gripper unit for unpacking
- Gripper unit with one-dimensional or two-dimensional movement for packing
- Spindle-adjustable gripper unit for handling different container diameters
- Special gripper unit with container orientation function

Gripping devices
- Standard gripper cup for processing containers of different size and contour
- Long-life gripper for processing containers with crowns
- Gripper cups for PET containers with centring function using the moveable outer sleeve and with mechanical hook gripper
- Special grippers with suction cups or mechanical gripping devices for multipacks or specially shaped containers
- Individually driven gripper cups for label orientation
Options

- Free flow transfer at the feed table of T machines
- Motorised adjustment of the guide plates in the container feed possible
- Shelf magazine for handling parts set
- Fully automatic handling parts change-over system
- Complete handling parts for promotionally effective orientation of labels
Linapac II in daily operation

**Operation**
- Touch-screen
- Clear display of operating data, operating functions, graphical status display, help texts and diagnostic tools
- The texts are displayed in the selected language
- Password-protected access
- Fully automatic handling parts change-over with electric motor to disengage the connections without operator intervention
- Handling parts storage in the shelf magazine

**Principle of operation of the automatic change-over**
- Automatic release of the handling parts locking device
- Automatic positioning of the gripper unit carrier in front of an empty handling parts storage position
- Motorised transfer of the handling parts into the storage area
- Automatic transfer of gripper unit carrier to the position of the new handling part
- Motorised moving of the new handling part to the carrier
Benefits to you

**Flexible application**
The multifunctional Linapac II can pack and unpack the containers. It can also handle combined packing and unpacking as well as sorting tasks with ease.

**High operational reliability**
The robust design of all assemblies and elements ensures a smooth and reliable packer operation.

**Low space requirements**
Thanks to its small dimensions, the Linapac II can also be easily installed on small surfaces.

**Great processing range**
The wide range of gripper unit variants allows the safe and gentle handling of a large number of different container types.

**Quick change-over**
The high degree of automation results in the type change-over requiring only a few simple steps. As an option, the packer can be equipped for fully automatic handling parts change-over.
Everything from a single source

Training sessions at the KRONES Academy – trained personnel increases your line efficiency
The versatile training offer ranges from operation, servicing and maintenance to management training. We will gladly also establish your individual training programme.

KIC KRONES cleaning agents make your machine shine
Only if the production environment is immaculate, can your product be brilliant. KIC KRONES provides you with the optimum cleaning agents and disinfectants for each individual production step.

Lubricants from KIC KRONES for every production step
Whether for gears, chains or central lubrication systems – our greases and oils are true all-round talents. They can reach every lubrication point, protect your line and ensure gentle treatment for your products thanks to their food-grade quality.

KRONES Lifecycle Service – partner for performance
Also after having purchased a new machine, KRONES will take care of your line; the LCS experts are always ready to consult you and translate your goals and wishes into optimal LCS solutions.
We do more.