systron
GLASS TECHNOLOGIES

SMART AUTOMATION SOLUTIONS

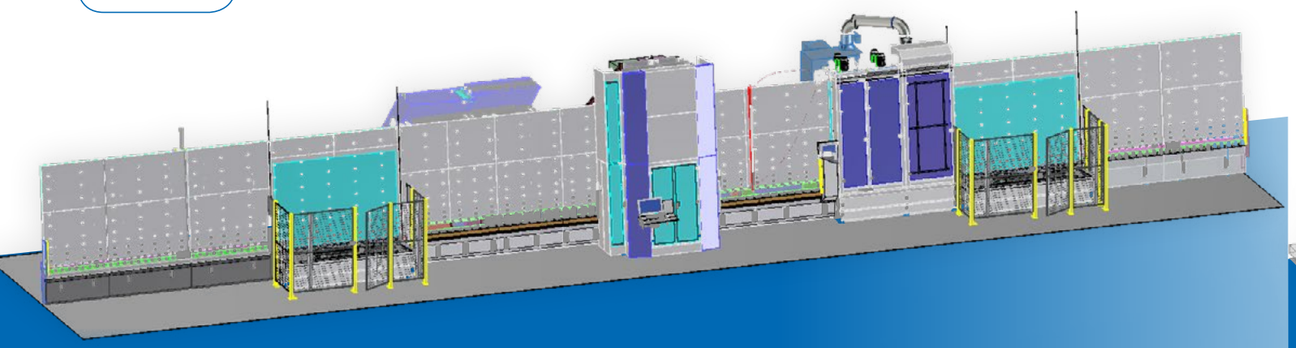
STORAGE

HARP RACK

L-RACK

ROBOT

AUTOMATED STORAGE SOLUTION



The automated glass storage solution is the ideal option for customers who use racks from any manufacturer as an internal means of transporting glasses.

This solution offers the machine operator an optimal time management. The load of the inline glass storage is processed fully automatically and then buffered in the storage on the outlet side. Due to a significant reduction in work steps, a second machine can be operated in face-to-face mode.

INCREASED EFFICIENCY BY AUTOMATION:

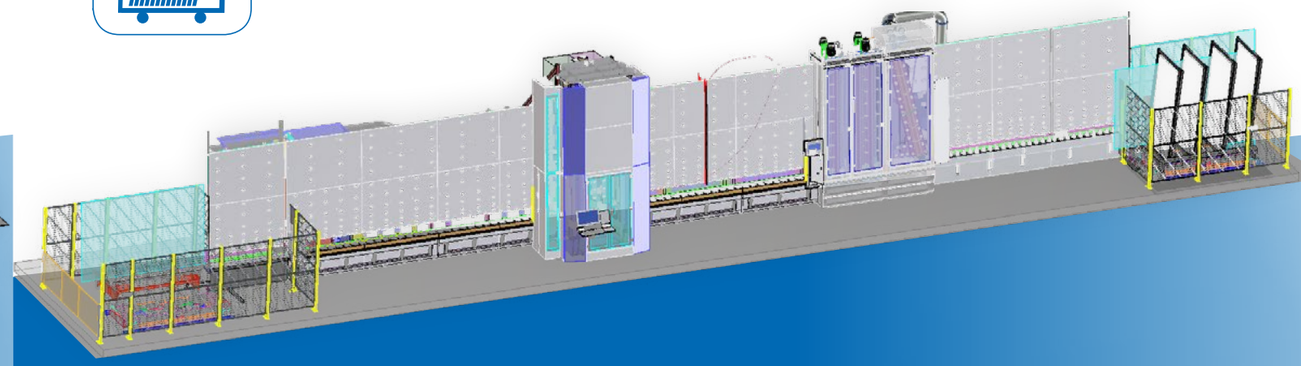
- Optimal operating process without downtime due to handling, breaks or shift changes
- Up to 4 hours of production without a machine operator
- Capacity increase by ~ 20%
- Increase in quality by minimizing handling

TECHNICAL DATA:

- Optionally 20 or 30 slots
- Special transport system, glasses are not lifted
- Direction of passage: right to left as well as left to right possible
- Max. sheet thickness for the storage spaces: 12 mm
- Max. sheet dimensions for the storage spaces: 3000 x 2000 mm
- Min. sheet dimensions: 600 x 160 mm
- Max. sheet thickness with front transport: 19 mm
- Max. sheet size for front transport depends on the size of the systron machine

Check out our video about the storage solution!

AUTOMATED HARP RACK SOLUTION

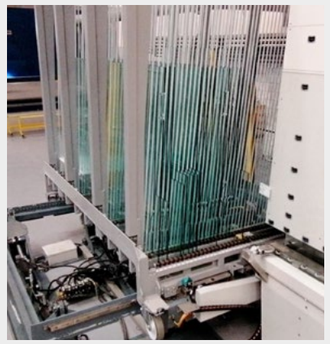


The automated harp rack solution is the ideal option for customers who use harp racks from any manufacturer as an internal means of transporting glasses.

A harp rack is docked to the systron machine on the inlet and outlet side while the glass is processed fully automatically. The tasks of the machine operator are thus reduced to harp rack handling, tool management and quality control. So it's possible to operate a second machine in face-to-face mode.

INCREASED EFFICIENCY BY AUTOMATION:

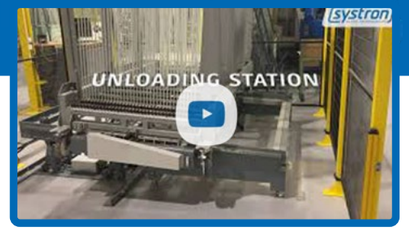
- Optimal operating process without downtime due to handling, breaks or shift changes
- Up to 5 hours of production without a machine operator
- Capacity increase by ~ 25%
- Increase in quality by minimizing handling



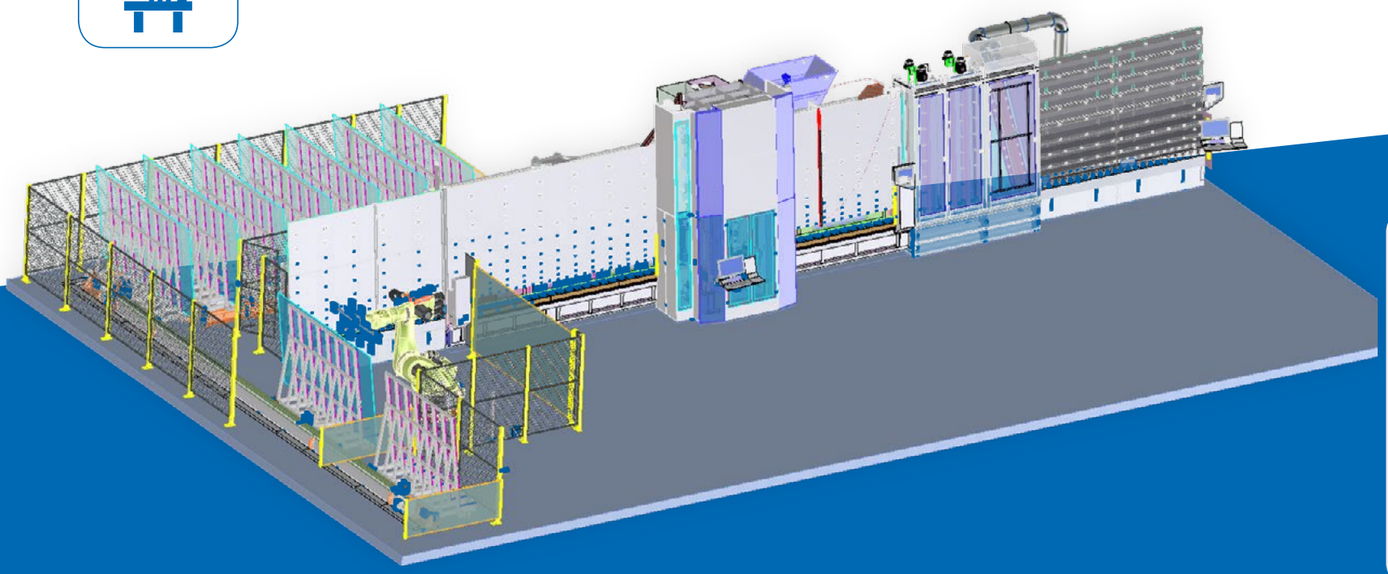
TECHNICAL DATA (can vary depending on the harp racks):

- Maximum weight harp rack: 2700 kg (harp rack loaded)
- Number of slots: 34
- Maximum sheet size: 3200 x 2000 mm
- Minimum sheet size: 600 x 200 mm
- Maximum sheet thickness: 17 mm
- Maximum sheet weight for a single slot : 260 kg

Check out our video about the harp rack solution!



AUTOMATED L-RACK SOLUTION



The automated L-rack solution is the ideal option for customers who use L-racks from any manufacturer as an internal means of transporting glasses.

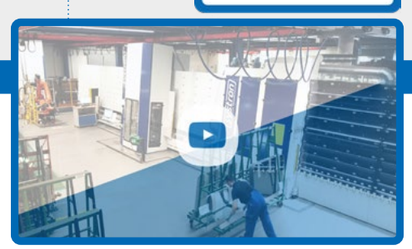
Up to 8 L-racks can be buffered in the modular L-rack loading system. These are taken over cyclically by the positioning system and fed to the robot, which loads the systron machine fully automatically. Depending on the product mix, the robot can also operate a second system face-to-face.

In this solution, the machine operator can either manually remove the products after the visual inspection **OR** a robot can automatically unload the processed panes **OR** a rack unloading station can be installed to implement a **fully automatic loading and unloading** process.

All systron machines can be supplied and retrofitted with the automatic L-rack solution.

INCREASED EFFICIENCY BY AUTOMATION:

- Optimal operating process without downtime due to handling, breaks or shift changes
- Up to 8 hours of production without a machine operator
- Capacity increase by ~ 30%
- Increase in quality by minimizing handling



Check out our video about the L-rack solution!

L-RACK LOADING SYSTEM

The L-rack loading system consists of several chain hoist modules. These are responsible for the buffering and the continuous supply of the positioning system.

The L-racks are manually latched into the feed system and automatically transported to the robot assembly. A maximum of 8 full L-racks can be transported.

TECHNICAL DATA:
Maximum weight: 1500 kg / L-rack
Maximum transport speed: 5 m/min

L-RACK POSITIONING SYSTEM

The L-rack positioning system is a horizontal chain hoist.

The available and suitable L-racks are latched into the transport system and automatically transported to the robot assembly.

A maximum of two full L-racks and one empty L-rack can be transported.

TECHNICAL DATA:
Maximum weight: 1500 kg / L-rack
Maximum transport speed: 10 m/min

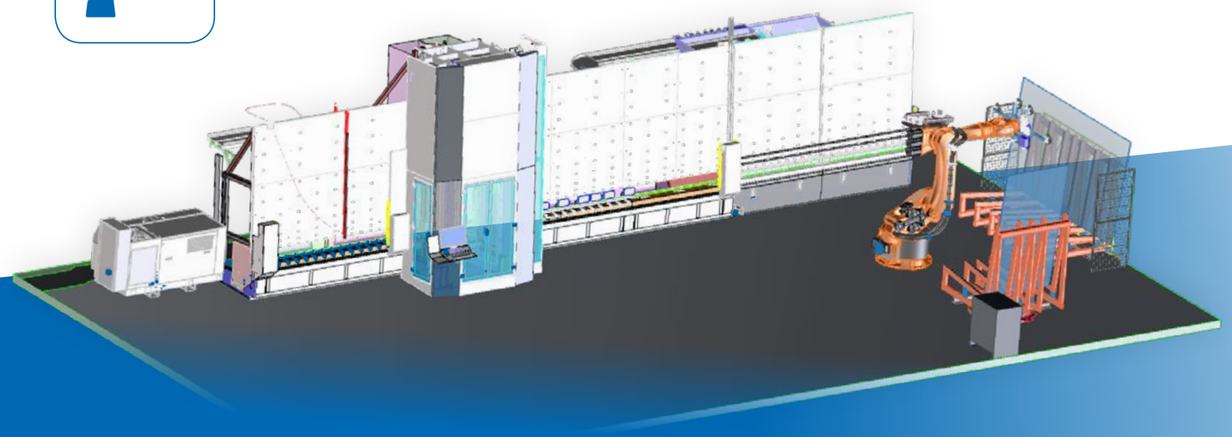
ROBOT LOADING

The systron machine is loaded by a robot.

The robot removes the glass sheets from the L-rack with its vacuum suction cups. They must be placed in the middle of the L-rack.

TECHNICAL DATA:
Maximum sheet weight: 190 kg
Maximum sheet dimensions: 3500 x 2000 mm
Minimum sheet dimensions: 600 x 200 mm
Maximum sheet thickness: 12 mm

AUTOMATED ROBOT LOADING



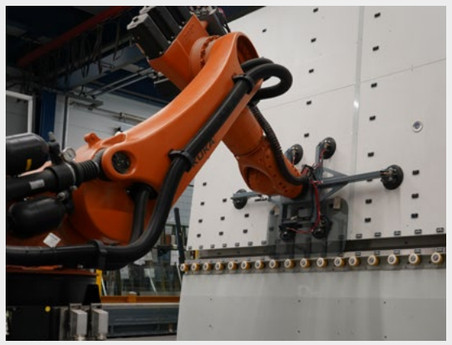
Increase the degree of automation of your systron glass processing centre with automatic robot loading. The glass to be processed is loaded using L- or A-racks either on immovable stacking stations or on swiveling stations and placed on the machine by the robot.

With this solution, the machine operator can either manually remove the products after the visual inspection **OR** a robot can automatically unload the processed panes **OR** a rack unloading station can be installed to implement a **fully automatic loading and unloading** process.

All systron machines can be supplied and retrofitted with the automatic robot loading.

INCREASED EFFICIENCY BY AUTOMATION:

- Optimal operating process without downtime due to handling, breaks or shift changes
- Up to 3 hours of production without a machine operator
- Capacity increase by ~ 20%
- Increase in quality by minimizing handling



TECHNICAL DATA:

The automatic robot loading is sized according to customer requirements. The maximum dimensions and the maximum glass weight depend on the selected systron processing centre as well as the robot size.

Check out our video about the robot loading!

OPTIONS

Plausibility Check

In the continuous process, the dimensions of panes are checked for validity at certain points with a linear measurement axis.

The pane dimensions are determined selectively and compared with a stored DXF file – for rectangles as well as for special shapes.

If there is a discrepancy, the further transport of the pane is stopped and a message is displayed.

Inspection Zone

Control section for optical inspection of the processed glass pane.

- Variable conveyor speed up to 30m / min
- Software implementation of the transport tables and the subsequent systems enables the panes to be transported automatically
- Indirect LED lighting behind the glass pane enables work-friendly and fatigue-free visual quality control
- Light intensity and color can be adjusted individually

Additional Operator Terminal

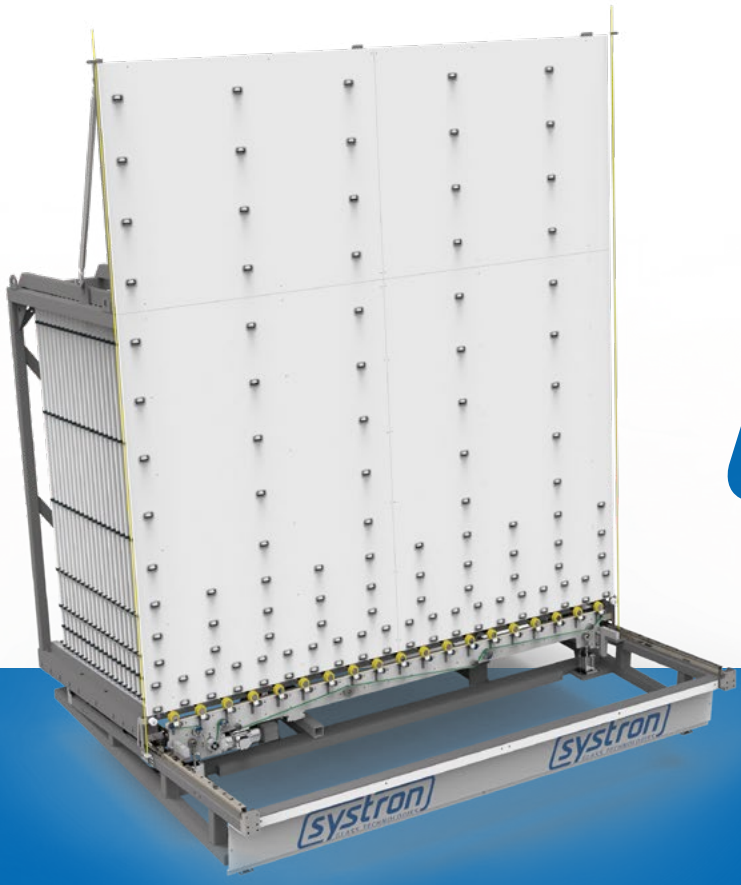
The additional operator terminal is placed at the inlet- or outlet-side. It is an exact mirroring of the respective main system operator terminal and increases the profitability of the machine, since working distances are shortened and operation is simplified.

Order management, tool parameters, system parameters, etc. can be viewed and adjusted if necessary. Safety-relevant functions such as acknowledging a safety area, manual mode and start of an automatic mode are only possible from the main terminal.

Automatic Removal of the Cutouts

Cutouts with snap tabs are removed with the help of vacuum suction cups on a Kuka robot and stored in a definable position.

- Min. size of cutouts: 100mm x 150mm
- Max. size of cutouts: 1000mm x 1500mm
- Max. manipulation weight: 40 kg / cutout



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