systron
GLASS TECHNOLOGIES

Vertical edge processing

- *Seaming, grinding and polishing of outer contours*
- *Optional with HELIX-DRILLING*



systron pro

3525 / 5027 / 6033

EN

systron pro is a vertical CNC processing and grinding centre for contours specially on the outside. Seaming, grinding and polishing of contours can be done with the **highest precision** and **short lead time** due to the solid construction and use of our patented systems.
A barrier-free design allows the operator an ergonomically optimal working position and easy access to all machine components.



Vertical Glass Processing
in Perfection!



HIGHEST PRECISION

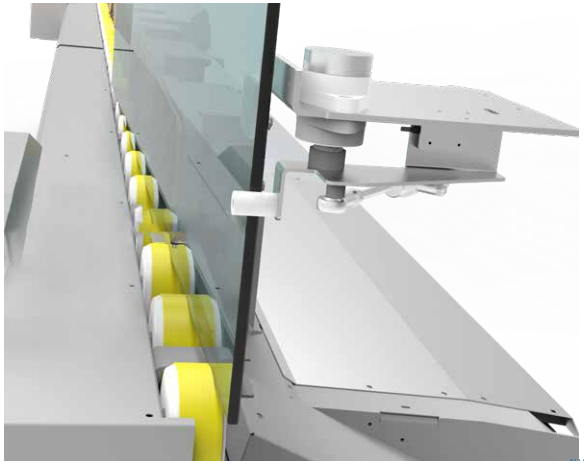
- Seaming of outer contours
- Grinding of outer contours
- Polishing of outer contours
- EXACT DIMENSIONS GUARANTEED

systron sets new standards

- Minimal machining tolerances, max. +/- 0.2 mm on the entire **product size**
- Hardly any machining restrictions on contours and **special shapes**
- No set-up times between different glass thicknesses and types (only tool change)
- Very rigid, vibration-free construction allows highest processing quality also at oblique edges or radii
- Seaming: Corner dubbing at maximum speed
- No mechanical touch during processing coated glass, therefore perfect for low-E glass
- All components come exclusively from premium manufacturers.

Highlights

- **Constant polishing quality** by precisely controlled spindle torque monitoring
- Vibration-free machining **prevents chipping**
- Arris parallelism guaranteed by **patented water-cushion** guidance
- **High pressure tool cooling** over the entire tool circumference
- **Automatic positioning of the glass sheets,** also for special shapes
- **Continuously protected suction cups**
- **No mechanical contact** at machining coated glass surfaces
- Intuitive graphical machine interface enables **easy operation of the system**



Automatic glass measurement



High quality spindle from HSD



Processing Spindle

Optimal grinding and polishing image

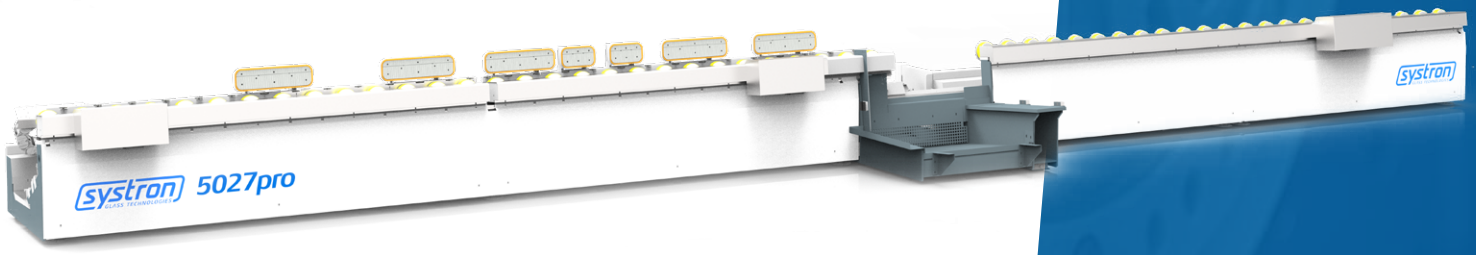
- 3 tools per tool holder (depending on glass thickness)
- With ample power reserves for all kinds of processing
- 100 diameter tools

Water Cushion

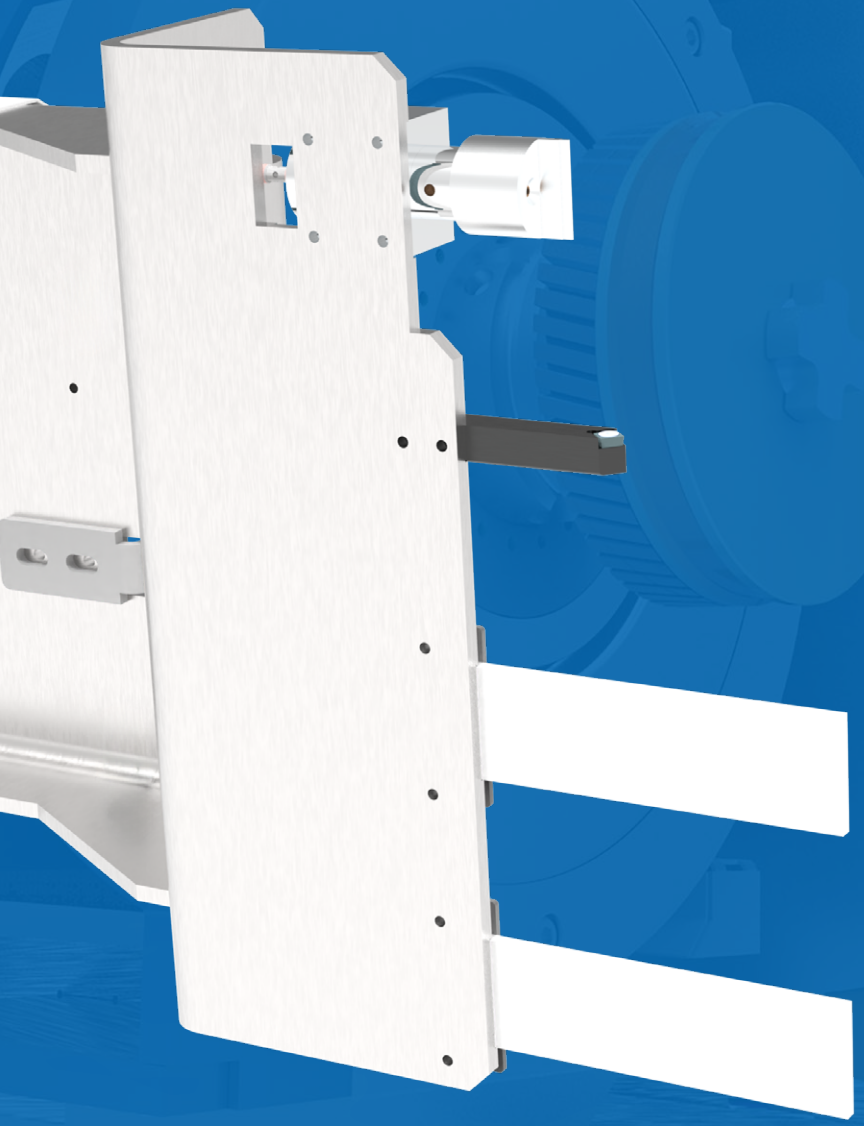
- Patented process
- Follows the glass surface

Massive Vibration-Free Machine Construction

A **massive machine base frame** and high-resolution servo axes are the basis for **a very high-quality machining and polishing quality**, which is guaranteed even after years of shift production. The **integrated design of the machine bed** enables adaptation of the system for all production needs



Standard Features



Tool Measurement and Sharpening System

- Every tool is measured automatically in certain intervals, set by the operator.
- The determined tool wear will be corrected automatically.
- To ensure a constant material removal the tools will be sharpened (rectified) regularly.

Profiling and Dressing Device for Polishing Tools

- Allows the use of flat polishing wheels, thus reducing storage costs.
- Profile is made according to glass thickness.
- Profile remainders will be removed automatically by the dressing device.

Sharpening/profiling of the tools with almost **NO loss of cycle time** (during pick-up & move-out of the glass pane)

Clamping Beam
equipped with suction cups

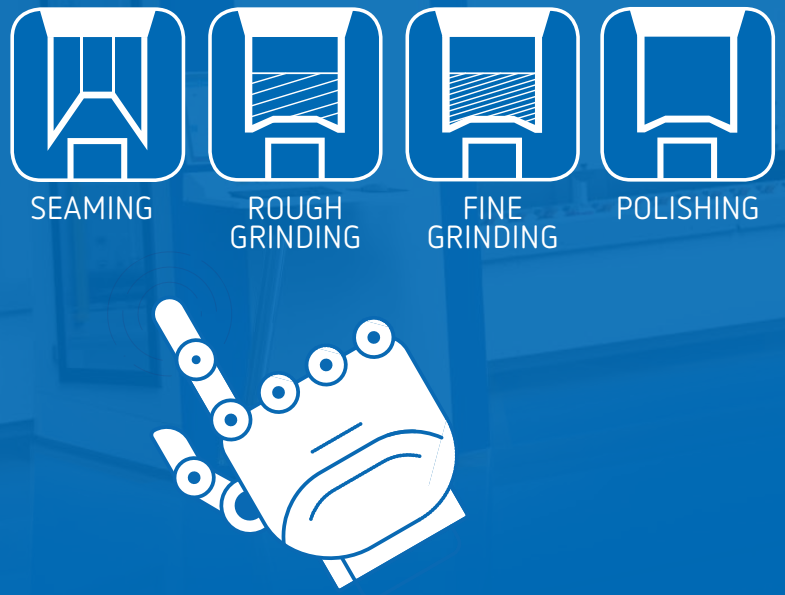
The X-axis is equipped with integrated tiltable suction cups. Only the required ones will be tilted out of the protected area.



EASY MODE (Option)

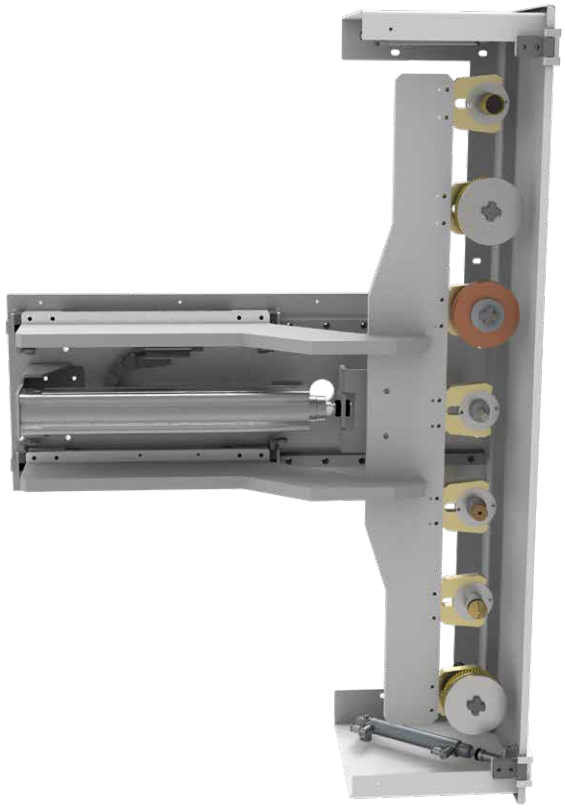
There is a separate operating mode where **rectangular** glass can be easily processed. With this EASY MODE, the length, height and thickness of the glass is **measured and processed fully automatically.**

The removals for Seaming, Grinding and Polishing must be defined once in the system. After measuring the glass, the data required for processing is generated automatically. The glass is then processed fully automatically and without operator intervention according to the defined settings.



Features

Chain Magazine for 7 Tool Holders - up to 21 Tools



- Storage of the tools **outside the wet area**
- Fast exchange times
- Tool package width up to 62 mm

Optional: Big Tool Storage and Changer - up to 60 Tools



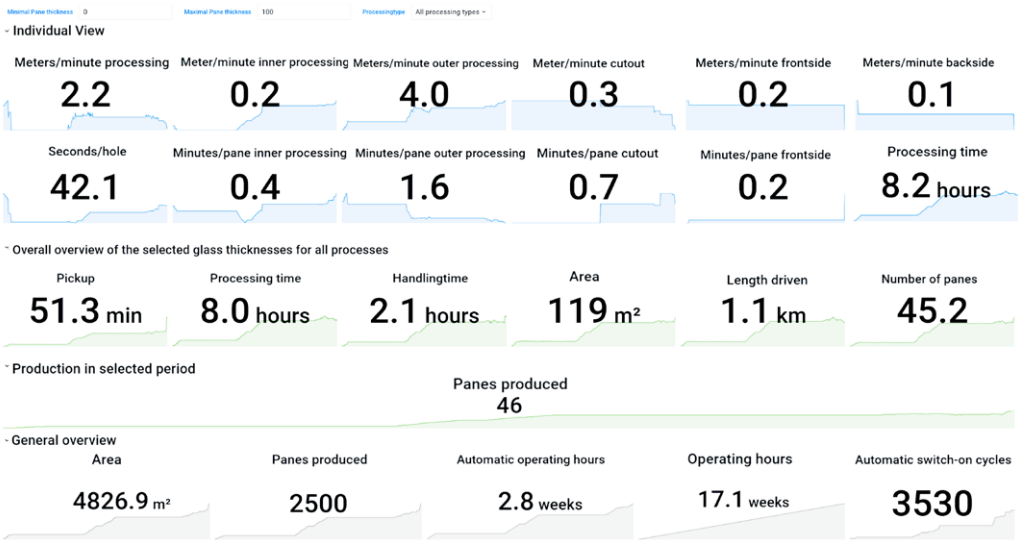
- 20 positions chain magazine for up to 60 tools
- A pneumatically operated slide separates the tool store from the wet area
- 2 tool changers can be mounted on the Y-axis = 40 positions (à 3 tools / position = 120 tools)

<120>

Up to 120 tools

Software Option: Statstics Presentation

Evaluation of production data



This software option includes the installation and configuration of the software for the statistics of the production data per time unit.

The dashboard contains a general overview as well as statistics per glass thickness with a variety of parameters, as for example:

- » Produced glass (m^2)
- » Number of units produced
- » Time allocation
- » Produced grinding metres divided to
  - Rough grinding
  - Fine grinding
  - Polishing

Option HELIX DRILLING

With the optional drilling function, drilling is directly integrated into the machining process. This saves time, reduces handling efforts, and ensures consistently high precision.

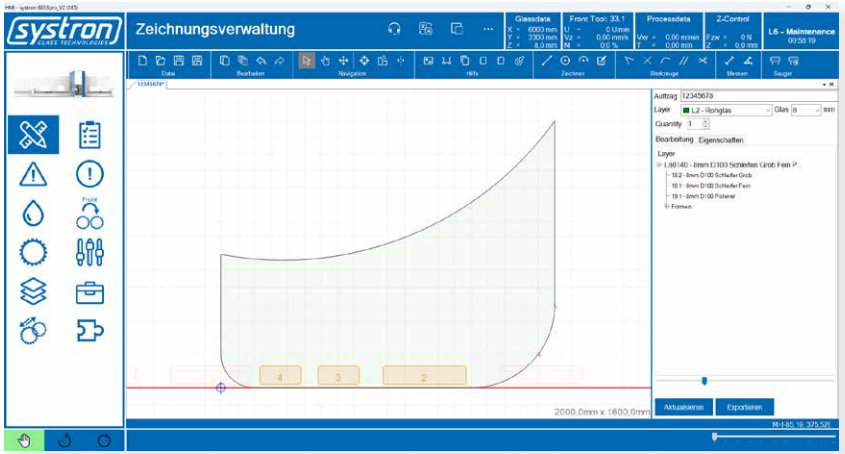
- ⊕ Drilling of holes in various diameters
- ⊕ No need to switch to a separate drilling station
- ⊕ Reduced handling and throughput times
- ⊕ Integrated countersinking for standard drill holes to minimize stress and prevent breakage during tempering
- ⊕ Increased process reliability by combining operations in a single machining step

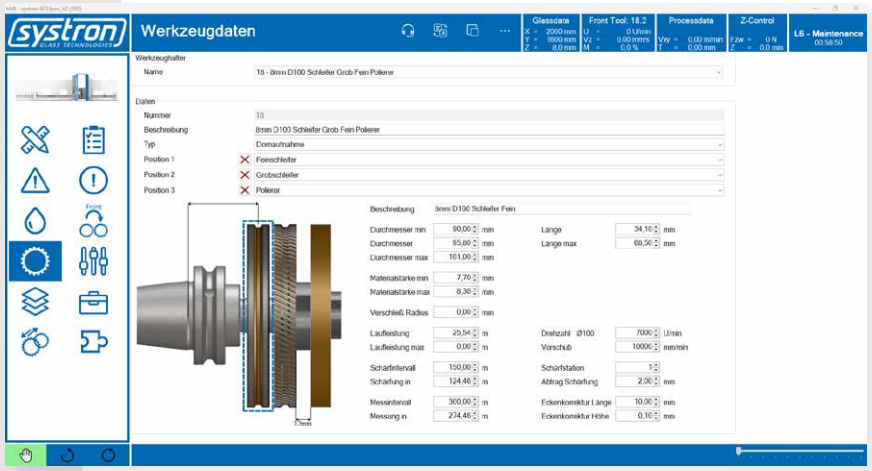


Control & Software

CAD-Software

The shape catalogue integrated in the CAD-Program allows you to **quickly create production drawings**, complex shapes can be transferred directly v**ia DXF import**. In order to better **control the position of the vacuum cups** and the orbits of the individual processing steps, those are displayed in advance.





Machine Control System

The **intuitive machine software** is clearly displayed on a **multi-touch panel**. A new **operating concept** allows **fast and accurate axis positioning** in manual mode. Example tool data: After entering the data of the tool holder, the build-up of the tool cone will be displayed graphically. The associated adjustment parameters are **displayed clearly in one screen**.

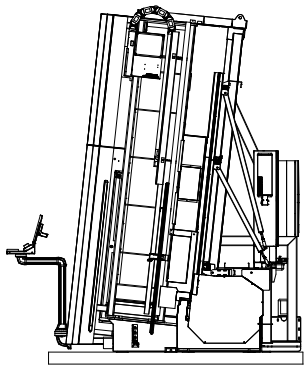
Technical Data

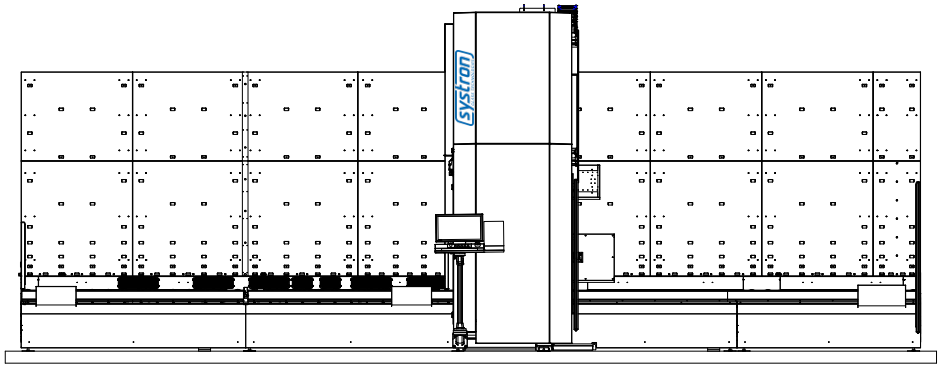
		3525 pro	5027 pro	6033 pro
General technical data				
Max. glass size	mm | inches	3500 x 2500 | 138 x 98	5000 x 2700 | 197 x 106	6000 x 3300 | 236 x 130
Min. glass size	mm | inches	600 x 200 | 23 x 8 *	600 x 200 | 23 x 8 *	600 x 200 | 23 x 8 *
Glass thickness	mm | inches	(3) 4 – 25 | (0.12) 0.15 - 1.0	(3) 4 – 25 | (0.12) 0.15 - 1.0	(3) 4 – 25 | (0.12) 0.15 - 1.0
Weight per suction cup	small / large	60 / 130 kg | 132 / 287 lbs	60 / 130 kg | 132 / 287 lbs	60 / 130 kg | 132 / 287 lbs
Glass transport height	mm | inches	780 | 30.7	780 | 30.7	780 | 30.7
Sheet inclination	degrees	6°	6°	6°
Max. grinding speed		25 m/min | 82'/min	25 m/min | 82'/min	25 m/min | 82'/min
Automatic central lubrication		☑	☑	☑
Automatic tool measurement		☑	☑	☑
Automatic tool dressing device		☑	☑	☑
Automatic profiling device for polishing wheels		☑	☑	☑
Dimensions				
Machine length	mm | inches	9180 | 361	11320 | 445	13320 | 524
Machine height	mm | inches	4200 | 165	4500 | 177	5100 | 201

☑ standard ○ option

Bigger sizes on request

*Suction cup heights 120 or 160 mm available on request







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