



SBZ628 S

Machining centres



The SBZ 628 series offers ultimate flexibility in both machining and length cutting of aluminium profiles for metal construction and industrial applications. Its production reliability, speed, cost-effectiveness and impressive versatility make the flexible profile machining centre the perfect all-rounder. It allows fully automatic machining of various profile types, such as for windows, doors and curtain walls, using up to eight routing units that can operate freely on the profile cross-section in coordination with innovations such as travelling clamps and pivoting grippers.

SBZ 628 S: pass-through system for windows, doors and curtain walls

- Four spindles for routing or drilling
- Separating cuts from -45° to 90° (lead cut), from 90° to 45° (end cut) continuously adjustable

Machine configuration

- Left loading magazine for automatic production processes
- The routing spindles can be positioned continuously over 360° on the profile bar for machining profiles in various clamping situations
- A generously dimensioned noise abatement enclosure and the easy-access controls and maintenance elements simplify operation
- Machined profiles are placed gently onto the unloading magazine
- Versions customized to meet specific customer requirements can be designed upon request

Options

- Bar lengths up to 10,500 mm
- Expansion options for outfeed of up to 6,000 mm/8,000 mm
- Additional arms in the infeed
- Rotary gripper
- Label printer
- Vapour extractor
- Air conditioner, control cabinet for ambient temperature $<35^\circ\text{C}$
- Tools
- Saw blades



Infeed loading magazine

The loading magazine of the SBZ 628 S can be loaded with five to ten profiles with a length of 3,000-7,600 mm, depending on the profile cross-section. The SBZ 628 S is equipped as standard with five support swing arms and five rollers. Up to nine support swing arms and lifting rollers are available. Residual pieces are processed by feeding them manually into the lifting station.



Gripper system

The gripper system moves even complex profile cross-sections into position for machining with precision and speed using a linear servo drive. The motorized gripper system can be automatically adjusted both vertically and horizontally using the profile-specific parameters.



Profile clamping

The roller tensioners secure the profile reliably and fully automatically. They can be moved over the entire length of the profile and can even be adjusted during the machining cycle. This allows them to compensate for profile tolerances and to ensure that a wide range of profiles are clamped exactly as required, including those with challenging geometries.



Machining module

The four spindles for flexible application on the profile cross-section allow machining of profiles at any desired combination of angles between 0° and 360°. The versatile clamping positions allow perfect routing results to be obtained no matter what the profile requirements. The machining area is easily accessible and, in combination with the HSK-C 40 tool holder, allows the machine to be converted quickly when required.



Cutting unit

The 2-axis saw unit with a drive power of 5.5 kW has a travelling range which enables profile cross-sections of 200 x 160 or 160 x 200 mm to be cut and allows separating cuts between 45 and 135°. The plate clamps secure the workpiece with absolute reliability for these purposes. The table plates can be lowered to ensure trouble-free profile transportation.



Profile outfeed with unloading magazine

For all models, an external gripper places the machined profiles gently onto the outfeed conveyor. The clamping system, which moves the external gripper into position during length cutting, ensures controlled transfer and a defined withdrawal of the good parts, even with very short lengths. If needed, profile guide rollers and clamping plates can be adapted quickly by means of a quick-change system to accommodate special profile shapes. In manual insertion mode, even profiles which are more complex can be machined and cut to length using customized automation.





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Max. profile cross-section (WxH)	200 x 160 / 160 x 200 mm
Min. profile cross-section (depending on gripper position)	30 x 10 mm
Blank bar length	7,600 mm
Finished part length	350-4,600 mm
Short parts (50-150 / 150-350)	-

Feed magazine

Shortest blank bar length	3,000 mm
Number of swing arms	5 (option for 9)
Mounting positions	10 (above 120 mm 5)

Infeed

Servo drive	linear
Motorized gripper adjustment	Y/Z
Gripper rotation	Optional
Residual piece measurement	-
Residual piece processing	manual feeding < 3,000

Machining station

Axes	4
Router spindles	4 (servo-assisted)

Saw

Axes	2
Saw blades (diameter)	1 (650 mm)
Sawing angles	45° - 135° (pivoting)
Notching	-

Outfeed clamping carriages

Axes	0
Cycle operation (short parts)	-

Outfeed conveyor

Lifting station	Yes
Number of swing arms	8
Outfeed conveyor width (options)	4,000 mm