

SBZ 628

PROFILE MACHINING CENTRE



PROFILE MACHINING CENTRE SBZ 628



Description

Thanks to production that is just as reliable as it is flexible, the SBZ 628 offers excellent cost efficiency. It is possible in a single pass to employ up to eight different tools thanks to a rotation module, as well as to accomplish length cutting both simply and quickly. With its pivoting grippers, the router spindle that can be rotated by 360° and the infinitely variable saw blade, the SBZ 628 can process profiles in diverse clamping situations - always at a constant, high level of precision throughout the entire work cycle.

The combination clamping system secures the exact position of the profiles and ensures fast processing. Quick-change systems for the gentle guide rollers and tools shorten machine set-up times when required. The centre is designed for one-man operation and in spite of its space-saving layout, it still has a large loading magazine as well as an unloading magazine to ensure an interruption-free production flow. The generously dimensioned noise abatement enclosure and the easy-access controls and maintenance elements simplify operation. The system is controlled using the intuitive eluCad software from elusoft.

Technical specifications

- Loading magazine for five or ten profiles (depending on the profile cross-section)
- 4-axis machining module with four router spindles
- Router spindles, 6.0 kW S1 with HSK-C 40 tool holder
- X-axis for profiles up to 7,500 mm

- 4-axis saw portal, 5.5 kW
- Saw pivoting range, 0 - 360°
- Saw blade, 550 mm
- Saw feed, axis controlled
- Profile pullout with external gripper

Machining module traverse paths

- X-axis: 400 mm
- Y-axis: 500 mm
- Z-axis: 500 mm
- Rotational axis A: 360°

Saw traverse paths

- X-axis: 400 mm
- Y-axis: 1,050 mm
- Z-axis: 750 mm
- Pivoting axis C: 360°

Options

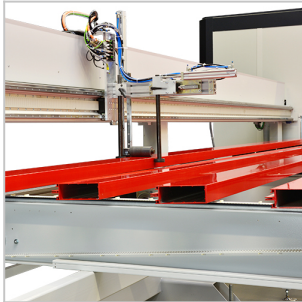
- Two or four additional router spindles
- Saw blade, 650 mm
- Additional support swing arms
- Replacement roller set
- Residual piece processing as of 1,500 mm
- Label printer
- Cycling mode for machining and cutting short parts



**Profile machining
centre SBZ 628**
Noise abatement
enclosure



**Profile machining
centre SBZ 628**
Loading magazine



Gripper system

The entirely redesigned and patented gripper system moves even complex profile cross-sections into position for machining with precision and speed using a linear servo drive. Profile parameters allow the gripper system to align itself using motorized rotation as well as height and lateral adjustment. Patent-pending roller tensioners secure the profile reliably and fully automatically. These clamps can be moved over the entire length of the profile and are also adjustable even during the machining cycle. This allows them to compensate for profile tolerances and to securely clamp many different types of profiles with perfection, including those with challenging geometries.



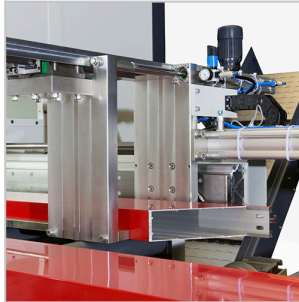
Machining module

The four (optionally six or eight) router spindles for flexible application on the profile cross-section allow machining of profiles at any desired combination of angles between 0 and 360°. Generous dimensioning of the opening and the servo axis travelling ranges also allow larger cross-sections to be machined. Machining is performed either “on the fly” using a pusher axis, or while stationary, for example with thicker profile walls. In this case, the profile is positioned via a second X-axis and is secured using a patent-pending combination clamping system. The roller tensioner reduces the clamp spacing to achieve perfect routing results. The machining area is easily accessible from the front and in combination with the HSK-C 40 tool holder, conversion of the machine can be performed quickly when required.



Saw unit

The 4-axis saw unit with a drive power of 5.5 kW has a travelling range of 1,050 x 720 x 400 mm and allows continuously adjustable pivoted cuts between 0 and 360°. It also allows the profile to be approached from three sides. In addition to pivoted cuts, pull-back, plunge and notch cuts are also possible. The plate clamps secure the workpiece with absolute reliability for these purposes. Their narrow design allows the clamping spacing to be decreased dramatically. They are infinitely adjustable by means of a servo axis. The lowerable table plates ensure trouble-free profile transportation.



Profile outfeed with unloading magazine

An external gripper places the machined profiles gently onto the outfeed conveyor. Because the clamping system already moves the external gripper into position during length cutting, controlled transfer and a defined withdrawal of the good parts is ensured, 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. Using a manual insertion mode, even more complex profiles can be machined and cut to length using individualized automation.