



SBZ155

Machining Centres



5-axis profile machining to meet the highest requirements, for the first time in a gantry design: the SBZ 155 profile machining centre is a new top-of-the-range elumatec model that combines previously unattained performance with a pioneering design. The faster, more compact and more flexible SBZ 155 raises the bar in automated CNC machining of aluminium and thin-walled steel profiles thanks to optional 6-sided machining, a space-saving gantry drive system and other features.

Industrial and metal construction users benefit from the SBZ 155's short tool changing times that guarantee optimum machining cycles and enormous flexibility. The large on-board magazines can be equipped with 16 standard tools, and depending on the individual configuration, up to ten special tools (Seat for one 200mm and one 550 mm diameter saw blade, max. 4 angle heads). A gantry design and a machining area divided into two zones allow profiles with cross-sections of up to 1,000 x 380 mm to be picked up and passed through, as well as flexible working in shuttle mode. The SBZ 155 can be configured to suit the individual requirements of elumatec customers with a wide range of optional equipment: from automatic length measurement on both sides to a barcode scanner, every need can be met. And the all-rounder is eluCloud ready in order to meet the requirements of Industry 4.0.

5-axis profile machining centre in a gantry design

- Designed for flexible and efficient machining of aluminium and thin-walled steel profiles
- All operations, such as routing, drilling, tapping, thread milling, notching and sawing, are performed while the profile bar is stationary to protect the profile surfaces
- Fast positioning of the machining unit with up to 100 m/min thanks to dynamic servo drives
- 6-sided machining. From below with an angle head (optional)
- The on-board tool magazines ensure that tool changing times are kept short, thereby optimising machining cycles
- One magazine can be equipped with 16 standard tools and 4 + 6 special tools (angle routing head and special cutters). Also suitable for accommodating 1x 200 mm and 1 x 550 mm diameter saw blades.
- Autonomous clamp positioning with absolute measurement system
- Two separate working zones enable machining in shuttle operation.
- Secure access thanks to protective side fences, light barriers and a central area protection system using lasers
- 5-axis CNC control with independent CNC for 3D machining, notching and cutting
- The absolute rotary encoder system means no axis homing is required
- Network connection and USB port
- Operating panel with Windows operating system and 21,6" flat screen display
- Remote online maintenance
- eluCloud ready



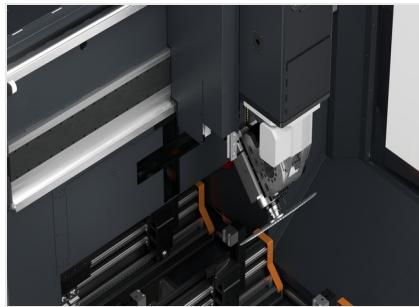
OPTIONS

- Automatic length measurement on both sides
- Automatic length measurement on both sides with Z travel
- Tool length measurement and fracture detection
- Tapping without compensation chuck
- 2 separate working zones
- 3D wireless measurement sensor
- Tools
- Tool holders
- Collet chucks
- Collets
- Angle routing heads for machining from below
- Saw blades
- Chip conveyor belt
- Vapour extractor
- Label printer
- Barcode scanner



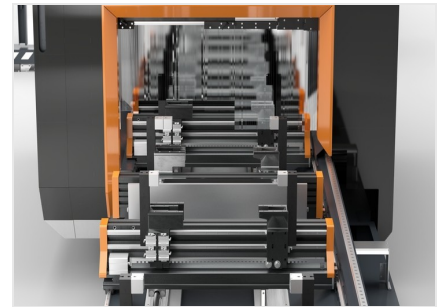
Process monitoring

The large, well laid-out machining area is clearly visible through a generously sized window.



Machining area with tool changer / dish changer

The tool magazine accommodates saw blades, routing and drilling tools, and additional machining units. The rotary tool changer at the top of the gantry reduces on-board changeover times, makes them safe to carry out in the on-board gantry, and also enables tool changes while the X-axis is moving.



Clamp insertion position with quick adjustment

The adaptive clamping technology offers locking positions for quick adjustment to different profile widths. The stop is positioned in a convenient place on the front.



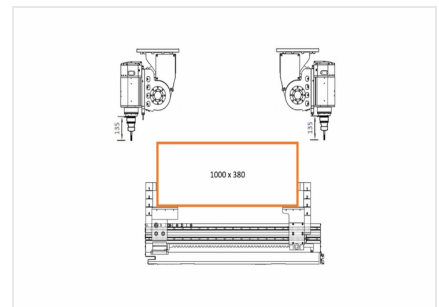
Gantry design for machining large profiles

The arm is guided over the gantry at the front and back, allowing large-volume profiles of up to 1,000 x 380 mm to be machined. The SBZ 155 can handle a high machining volume and has the necessary stability to meet industrial requirements.

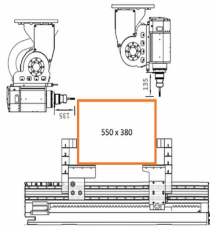


Lasers to protect the machining area

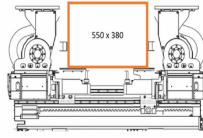
In shuttle operation, individual parts can be machined in two separate clamping zones, and a state-of-the-art safety system makes the machining areas easily accessible. The areas are divided into three zones, and the intelligent laser system – which is always active – reacts to protect the active zone. This ensures maximum safety and means fewer manual acknowledgements are required.



Profile machining from above



**Profile machining from
above and from the front**



6-sided profile machining

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