



# SBZ122

PROFILE MACHINING CENTRES

FAMILY OF MODELS

- ▼ A MODULAR FAMILY OF MODELS FOR VARIOUS NEEDS.  
**FAST. VERSATILE. INTELLIGENT.**



## THE SBZ 122/7X FAMILY OF PROFILE MACHINING CENTRE MODELS

The family of entirely redesigned SBZ 122 models have set new benchmarks in terms of performance, ergonomics and utility in the entry-level segment of the aluminium, PVC and thin-walled steel profile machining industry. Intelligent control technology, powerful servo motors and a machine bed designed for high rates of travel deliver perfect finishing with high speed and efficiency. State-of-the-art components such as the control system, the RPM-regulated spindles and the energy-efficient drives save operating costs and ensure optimal machining results.

The new generation of SBZ 122 machines maximize the available machining area while minimizing the footprint, providing an additional boost to the total productivity per square meter. The model series' modular design is another advantage. It makes it easy to configure the machine to perfectly match the customer's various requirements.

The different models and equipment variants allow users to configure and select a machine that perfectly fits their requirements:

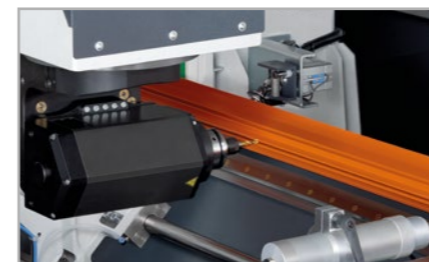
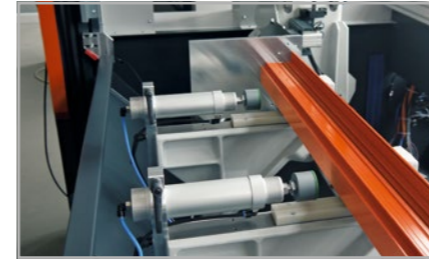
- **SBZ 122/70 plus: 3-axis basic model**  
automatic clamp positioning, tapping without compensation chuck, large machining area, machining from above, 5-sided machining optionally with rotating angle head
- **SBZ 122/71: 3-axis model for metal construction applications**  
includes automatic clamp positioning, tapping without a compensation chuck, 5-sided machining with rotating angle head
- **SBZ 122/73: 4-axis model for metal construction applications**  
includes automatic clamp positioning, tapping without a compensation chuck, A-axis for continuously variable angle adjustment, 3-sided machining
- **SBZ 122/74: 4-axis model for metal construction and industrial applications**  
includes autonomous clamp positioning, clamps with linear guides, tapping without a compensation chuck, A-axis for continuously variable angle adjustment, 3-sided machining
- **SBZ 122/75: 5-axis model for metal construction and industrial applications**  
includes autonomous clamp positioning, clamps with linear guides, tapping without a compensation chuck, C-axis for profile end machining from the left and right, 5-sided machining

### Your advantages at a glance

- Machining area up to 300 x 300 mm depending on the model
- Minimized footprint thanks to the machine's protective enclosure
- Precise machining results even at high rates of travel
- Low power consumption thanks to the intelligent control technology
- High process reliability, even under quickly changing loads, due to RPM-regulated spindles
- Short machining cycles thanks to the servo axes' high rate of travel
- Ergonomic operation thanks to the modern inclined bed, uncovered spindle and height-adjustable control unit
- Increased work safety thanks to remote-controlled clamp activation and protective enclosure
- Machine installation within a very short period of time

### Configuration options

- Protective enclosure can optionally completely enclose the machine on all sides, with additional sound insulation
- Easy and intuitive operation thanks to the modern elumatec Customer Interface (ECI)
- Stationary tool magazine
- Four clamps as standard. Can be equipped with up to eight clamps
- Material reference stop (right) for positioning workpieces with overlength machining
- Additional stop for overlength machining (left)
- Length measurement on both sides
- Double clamping and other accessories on request



### New machine bed

The new design is fully comprehensive. The travelling column moves on a machine bed that is executed as a modern inclined bed. Swarf automatically falls off of the 45° incline, making cleaning much easier. The operator can step close to the workpiece table when positioning profiles, ensuring an ergonomic economy of motion. The bed is dimensioned for high rates of travel with minimal oscillation. The machine has a large work area despite its small overall footprint. Noise reduction is a further benefit of the protective enclosure.

### Clamps

Included as standard equipment on the SBZ 122 are four completely redesigned clamps featuring a slim form and high degree of stiffness. The machine can optionally be equipped with up to eight clamps. In the SBZ 122/74 and SBZ 122/75, the clamps are equipped with linear guides instead of round guides.

### Tool magazine (SBZ 122/70 plus, SBZ 122/71)

SBZ 122 models with a machining length of four meters are equipped with a stationary tool magazine with four positions as standard. Additional tool magazines can be installed as needed anywhere along the X-axis. (16 standard tools and two angle heads)

### Tool magazine (SBZ 122/73/74/75)

The tool magazine with 12-fold tool changer allows quick, easy setup and minimal secondary time

### A-axis angle adjustment (SBZ 122/73/74/75)

Continuously adjustable angle setting from -120° to +120°

### C-axis (SBZ 122/75)

Continuously adjustable angle setting from -220° to +220°  
Enables profile end machining from the left and right

## 3-AXIS PROFILE MACHINING CENTRE

### Profile machining centre **SBZ 122/70 plus**

#### 3-axis model for metal construction applications

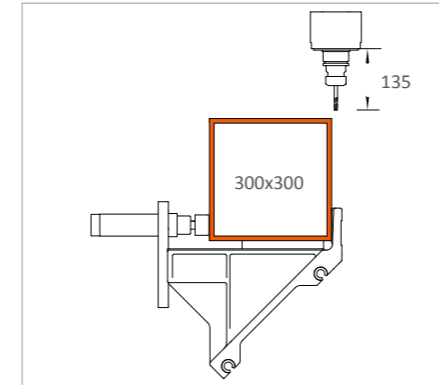
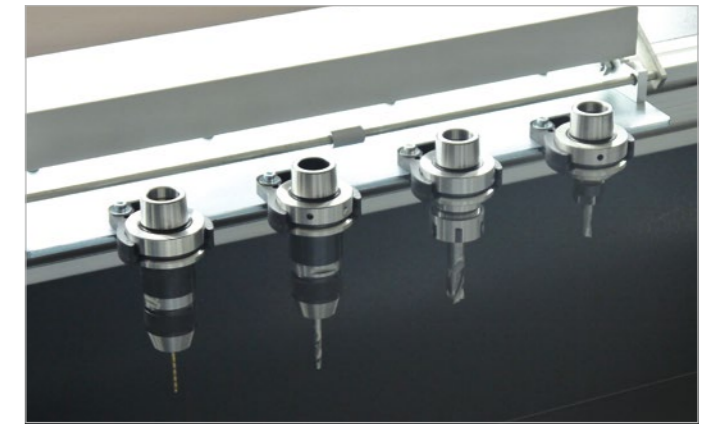
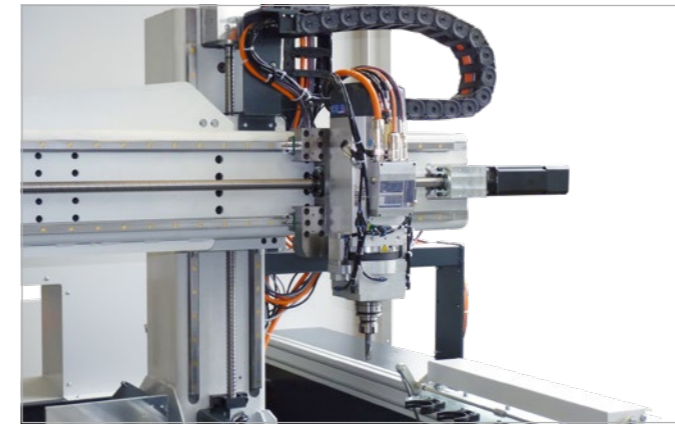
- Designed for economical and efficient machining of aluminium, PVC and thin-walled steel profiles
- All operations, such as routing, drilling and tapping, are performed while the profile bar is stationary to protect the profile surfaces
- Better machining results thanks to the intelligent control technology
- Fast positioning of the machining unit with up to 60 m/min thanks to dynamic servo drives
- Tapping without compensation chuck
- Automatic clamp recognition and clamp positioning
- Automatic tool changer with four tool tray positions (without tools)
- State-of-the-art 3-axis controller
- Ergonomic operation thanks to the modern inclined bed
- The absolute rotary encoder system means no axis homing is required
- Automatic clamp recognition and positioning prevents collisions
- Power torque routing motor with enclosed speed control for short spindle start-up and braking times.
- Certified, drive-integrated safety functions
- Low power consumption thanks to the intelligent control technology
- DC link coupling in the axis drives for greater energy efficiency
- Uninterruptible power supply (UPS)
- Windows operating system
- 15.6" panel PC, i3 processor, USB ports and network connection
- Simple, stress-free program entry with eluCam on the operating panel, even during operation
- Remote online maintenance

#### Machine configuration

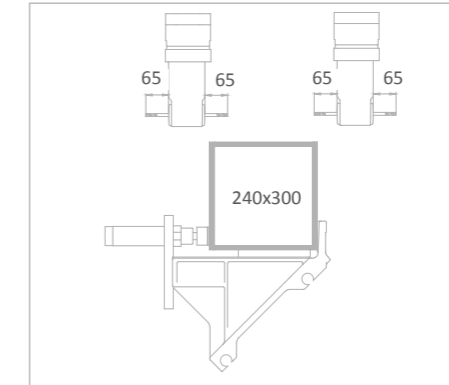
- Air-cooled 8 kW, S1 routing spindle
- Enclosure to protect the operator
- Four horizontal, pneumatic material clamping units
- A material stop on the left
- Tool holder HSK-F63
- Minimum-volume lubrication system
- High performance cutting fluid
- Hand-held operator terminal
- Depth gauge

#### Options

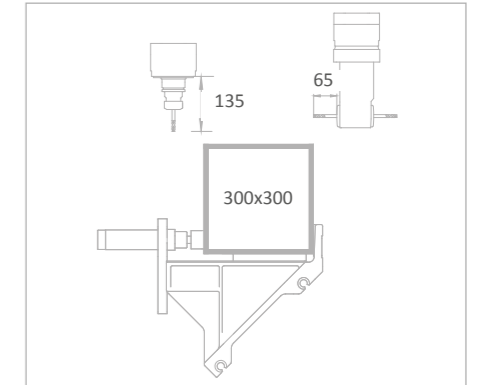
- Tools
- Tool holders
- Automatic tool changer for max. four standard tools
- Automatic tool changer for angle head
- HSK-F63 rotating angle head for two tools
- Green Line cooling unit for the control cabinet with reduced energy consumption
- Barcode scanner
- Protective enclosure can optionally completely enclose the machine on all sides
- Four clamps as standard. Can be equipped with up to eight clamps
- Material reference stop (right) for positioning workpieces with overlength machining
- Additional stop for overlength machining (left)
- Length measurement on both sides
- Double clamping and other accessories on request
- 18.5" panel PC, i5 processor
- 21.6" panel PC, i7 processor
- Note holder
- Sound insulation hood
- Swarf trays for swarf removal



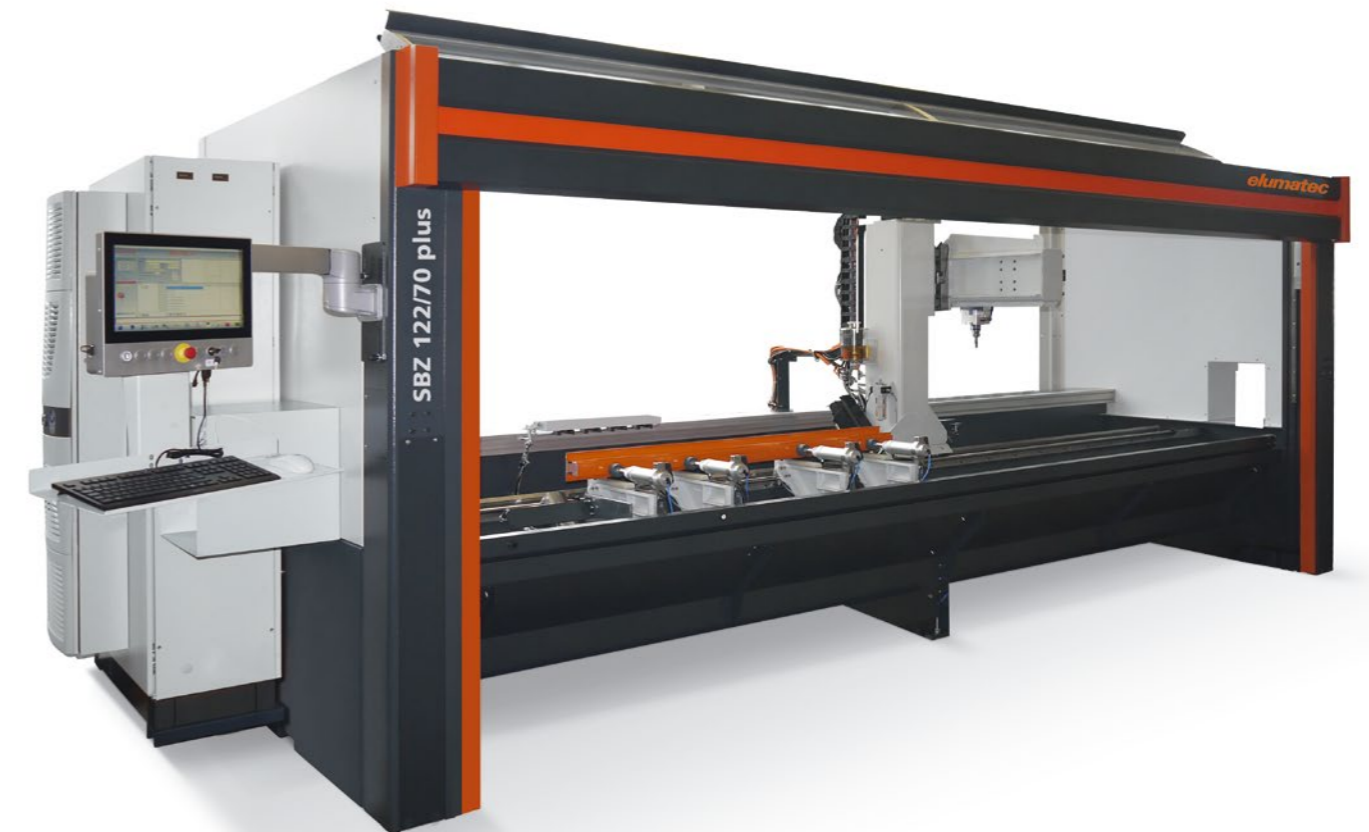
Machining area, Y and Z-axes  
Profile machining from above



Machining area, Y and Z-axes  
Profile machining from the front and  
from behind (optional)



Machining area, Y and Z-axes  
Profile machining from above and  
from behind (optional)



## 3-AXIS PROFILE MACHINING CENTRE

### Profile machining centre **SBZ 122/71**

#### 3-axis model for metal construction applications

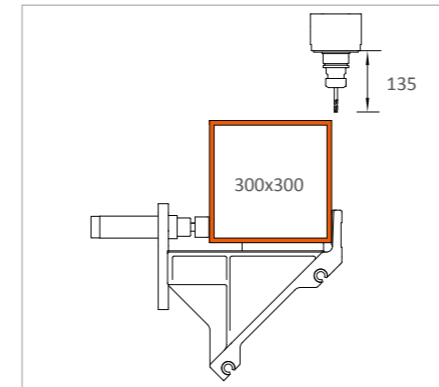
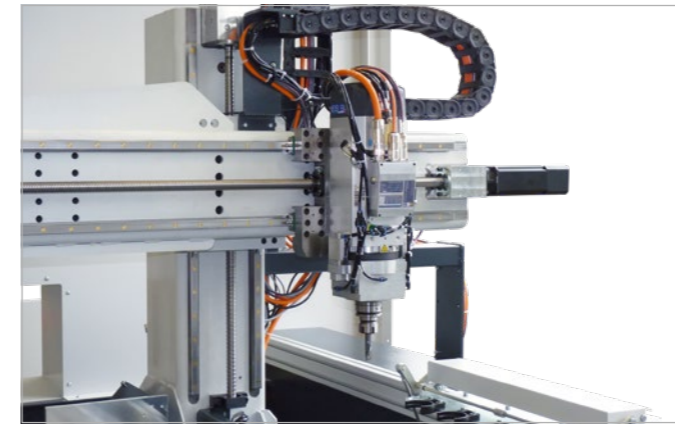
- Designed for economical and efficient machining of aluminium, PVC and thin-walled steel profiles
- All operations, such as routing, drilling and tapping, are performed while the profile bar is stationary to protect the profile surfaces
- A rotation unit (rotating mechanism) integrated into the spindle makes it possible to adjust the rotating angle head to 0°, -90°, -180° and -270°
- Better machining results thanks to the intelligent control technology
- Fast positioning of the machining unit with up to 120 m/min thanks to dynamic servo drives
- Tapping without compensation chuck
- Automatic clamp recognition and clamp positioning
- Ergonomic operation thanks to the modern inclined bed
- Automatic tool changer with four tool tray positions (without tools)
- Automatic tool changer for an angle head
- State-of-the-art 3-axis controller
- The absolute rotary encoder system means no axis homing is required
- Automatic clamp recognition and positioning prevents collisions
- Power torque routing motor with enclosed speed control for short spindle start-up and braking times.
- Certified, drive-integrated safety functions
- Low power consumption thanks to the intelligent control technology
- DC link coupling in the axis drives for greater energy efficiency
- Uninterruptible power supply (UPS)
- Windows operating system
- 18.5" panel PC, i5 processor, USB ports and network connection
- Simple, stress-free program entry with eluCam on the operating panel, even during operation
- Remote online maintenance

#### Machine configuration

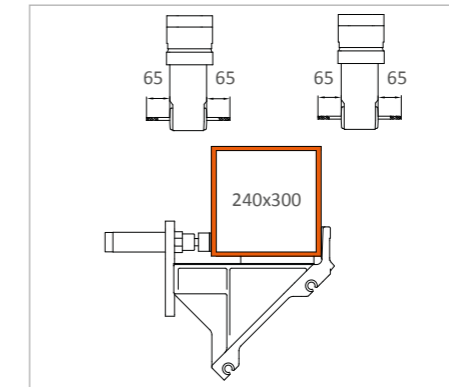
- Air-cooled 8 kW, S1 routing spindle
- Enclosure to protect the operator
- Four horizontal, pneumatic material clamping units
- A material stop on the left
- Tool holder HSK-F63
- Routing spindle with integrated rotation unit (0°, -90°, -180° and -270°) for angle head
- HSK-F63 rotating angle head for two tools
- Swarf trays for swarf removal
- Minimum-volume lubrication system
- High performance cutting fluid
- Hand-held operator terminal
- Depth gauge

#### Options

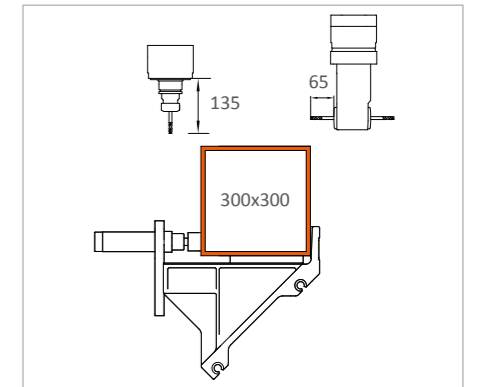
- Tools
- Tool holders
- Automatic tool changer for max. four standard tools
- Automatic tool changer for angle head
- Green Line cooling unit for the control cabinet with reduced energy consumption
- Barcode scanner
- Protective enclosure can optionally completely enclose the machine on all sides
- Four clamps as standard. Can be equipped with up to eight clamps
- Material reference stop (right) for positioning workpieces with overlength machining
- Additional stop for overlength machining (left)
- Length measurement on both sides
- Double clamping and other accessories on request
- 21.6" panel PC, i7 processor
- Note holder
- Sound insulation hood



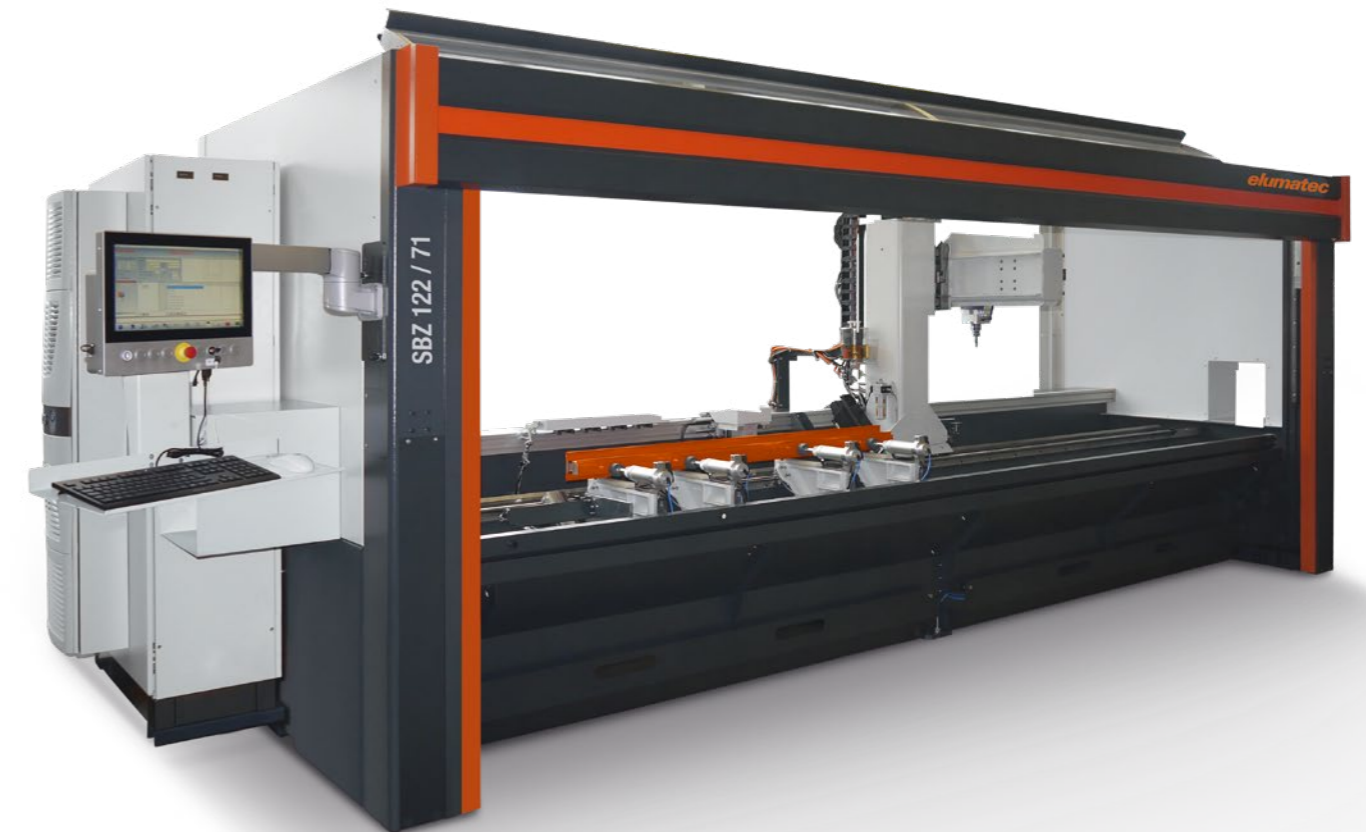
Machining area, Y and Z-axes  
Profile machining from above



Machining area, Y and Z-axes  
Profile machining from the front  
and from behind



Machining area, Y and Z-axes  
Profile machining from above  
and from behind



## 4-AXIS PROFILE MACHINING CENTRE

### Profile machining centre **SBZ 122/73**

#### 4-axis model for metal construction applications

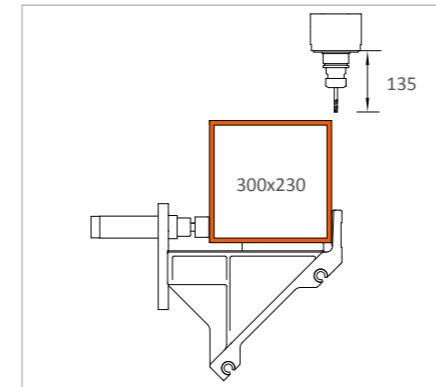
- Designed for economical and efficient machining of aluminium, PVC and thin-walled steel profiles
- All operations, such as routing, drilling and tapping, are performed while the profile bar is stationary to protect the profile surfaces
- A-axis continuously adjustable from -120° to +120°
- Round guides for clamp positioning
- Better machining results thanks to the intelligent control technology
- Fast positioning of the machining unit with up to 120 m/min thanks to dynamic servo drives
- Tapping without compensation chuck
- Automatic tool changer with twelve tool tray positions (without tools)
- State-of-the-art 4-axis controller
- Ergonomic operation thanks to the modern inclined bed
- The absolute rotary encoder system means no main axis homing is required
- Automatic clamp recognition and positioning prevents collisions
- Power torque routing motor with enclosed speed control for short spindle start-up and braking times.
- Certified, drive-integrated safety functions
- Low power consumption thanks to the intelligent control technology
- DC link coupling in the axis drives for greater energy efficiency
- Uninterruptible power supply (UPS)
- Windows operating system
- 18.5" panel PC, i5 processor, USB ports and network connection
- Simple, stress-free program entry with eluCam on the operating panel, even during operation
- Remote online maintenance

#### Machine configuration

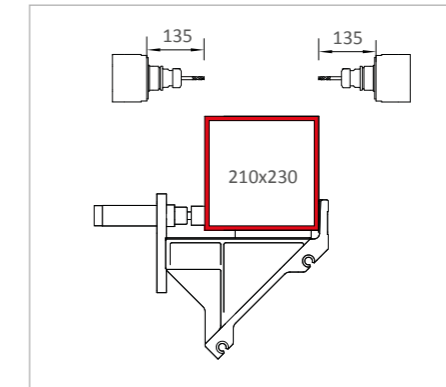
- Water-cooled 7 kW, S1 routing spindle
- Enclosure to protect the operator
- Four horizontal, pneumatic material clamping units
- A material stop on the left
- Tool holder HSK-F63
- Swarf trays for swarf removal
- Minimum-volume lubrication system
- High performance cutting fluid
- Hand-held operator terminal
- Depth gauge

#### Options

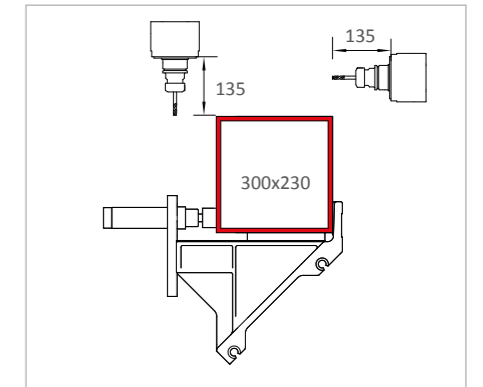
- Tools
- Tool holders
- Additional stop for overlength machining (left)
- Material reference stop (right) for positioning workpieces with overlength machining and second clamping disc
- Green Line cooling unit for the control cabinet with reduced energy consumption
- Barcode scanner
- Protective enclosure can optionally completely enclose the machine on all sides, with additional sound insulation
- Four clamps as standard. Can be equipped with up to eight clamps
- Double clamping and other accessories on request
- 21.6" panel PC, i7 processor
- Note holder
- Sound insulation hood
- Clamping unit optimised to prevent collisions
- Wireless measurement sensor



Machining area, Y and Z-axes  
Profile machining from above



Machining area, Y and Z-axes  
Profile machining from the front  
and from behind



Machining area, Y and Z-axes  
Profile machining from above  
and from behind



## 4-AXIS PROFILE MACHINING CENTRE

### Profile machining centre **SBZ 122/74**

#### 4-axis model for metal construction and industrial applications

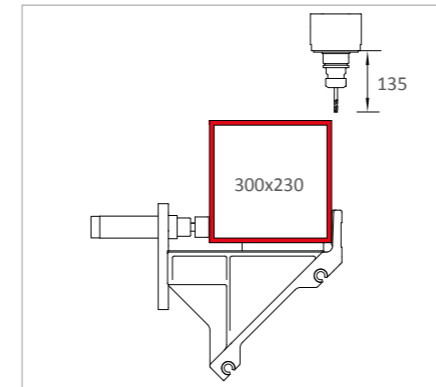
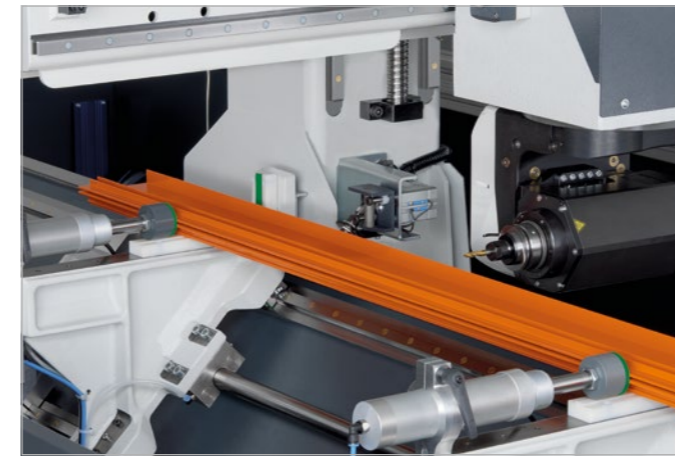
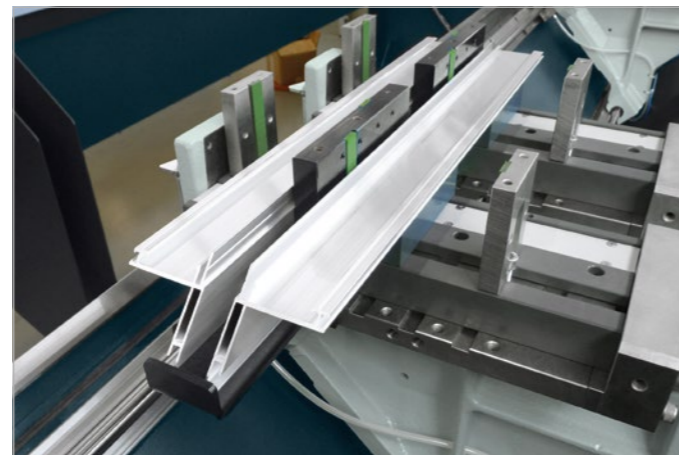
- Designed for economical and efficient machining of aluminium, PVC and thin-walled steel profiles
- All operations, such as routing, drilling and tapping, are performed while the profile bar is stationary to protect the profile surfaces
- A-axis continuously adjustable from -120° to +120°
- Linear guides for autonomous clamp positioning
- Better machining results thanks to the intelligent control technology
- Fast positioning of the machining unit with up to 120 m/min thanks to dynamic servo drives
- Tapping without compensation chuck
- Automatic clamp recognition and clamp positioning
- Automatic tool changer with twelve tool tray positions (without tools)
- State-of-the-art 4-axis controller
- Ergonomic operation thanks to the modern inclined bed
- The absolute rotary encoder system means no main axis homing is required
- Automatic clamp recognition and positioning prevents collisions
- Power torque routing motor with enclosed speed control for short spindle start-up and braking times.
- Certified, drive-integrated safety functions
- Low power consumption thanks to the intelligent control technology
- DC link coupling in the axis drives for greater energy efficiency
- Uninterruptible power supply (UPS)
- Windows operating system
- 18.5" panel PC, i5 processor, USB ports and network connection
- Simple, stress-free program entry with eluCam on the operating panel, even during operation
- Remote online maintenance

#### Machine configuration

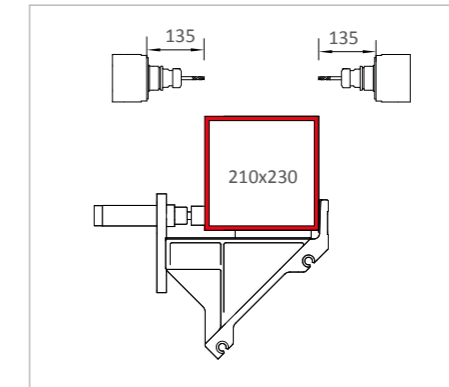
- Water-cooled 7 kW, S1 routing spindle
- Autonomous clamp positioning
- Automatic clamp recognition
- Enclosure to protect the operator
- Four horizontal, pneumatic material clamping units
- A material stop on the left
- Tool holder HSK-F63
- Swarf trays for swarf removal
- Minimum-volume lubrication system
- High performance cutting fluid
- Hand-held operator terminal
- Depth gauge

#### Options

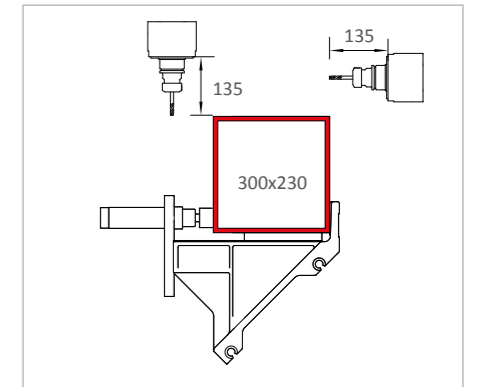
- Tools
- Tool holders
- Length measurement on both sides
- Additional stop for overlength machining (left)
- Material reference stop (right) for positioning workpieces with overlength machining
- Green Line cooling unit for the control cabinet with reduced energy consumption
- Barcode scanner
- Protective enclosure can optionally completely enclose the machine on all sides
- Four clamps as standard. Can be equipped with up to eight clamps
- Double clamping and other accessories on request
- 21.6" panel PC, i7 processor
- Note holder
- Sound insulation hood
- Clamping unit optimised to prevent collisions



Machining area, Y and Z-axes  
Profile machining from above



Machining area, Y and Z-axes  
Profile machining from the front  
and from behind



Machining area, Y and Z-axes  
Profile machining from above  
and from behind



## 5-AXIS PROFILE MACHINING CENTRE

### Profile machining centre **SBZ 122/75**

#### 5-axis model for metal construction and industrial applications

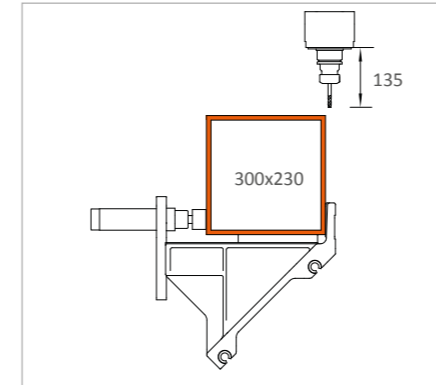
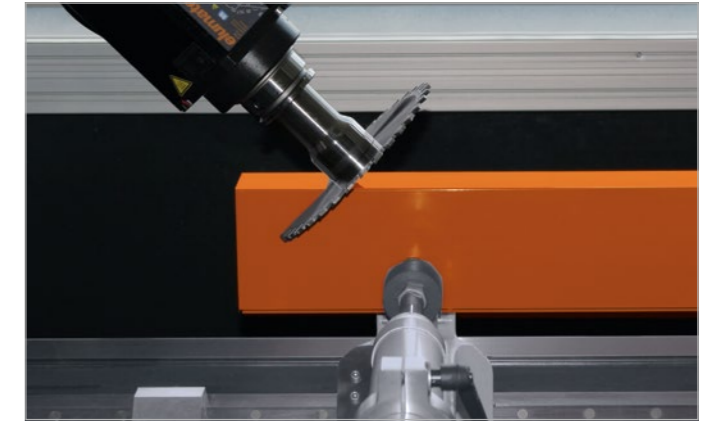
- Designed for economical and efficient machining of aluminium, PVC and thin-walled steel profiles
- All operations, such as routing, drilling and tapping, are performed while the profile bar is stationary to protect the profile surfaces
- A-axis continuously adjustable from -120° to +120°
- C-axis continuously adjustable from -220° to +220°
- All five axes can move simultaneously with RTCP (Rotation Tool Centrepoint)
- The additional C-axis makes it possible to machine the face of profiles from the left and right
- Linear guides for autonomous clamp positioning
- Better machining results thanks to the intelligent control technology
- Fast positioning of the machining unit with up to 120 m/min thanks to dynamic servo drives
- Tapping without compensation chuck
- The 2-axis add-on unit with the A-axis and C-axis can also accommodate a saw blade with a diameter of 180 mm
- Automatic clamp recognition and clamp positioning
- Ergonomic operation thanks to the modern inclined bed
- Automatic tool changer with twelve tool tray positions (without tools)
- State-of-the-art 5-axis controller
- The absolute rotary encoder system means no main axis homing is required
- Automatic clamp recognition and positioning prevents collisions
- Power torque routing motor with enclosed speed control for short spindle start-up and braking times.
- Certified, drive-integrated safety functions
- Low power consumption thanks to the intelligent control technology
- DC link coupling in the axis drives for greater energy efficiency
- Uninterruptible power supply (UPS)
- Windows operating system
- 18.5" panel PC, i5 processor, USB ports and network connection
- Simple, stress-free program entry with eluCam on the operating panel, even during operation
- Remote online maintenance

#### Machine configuration

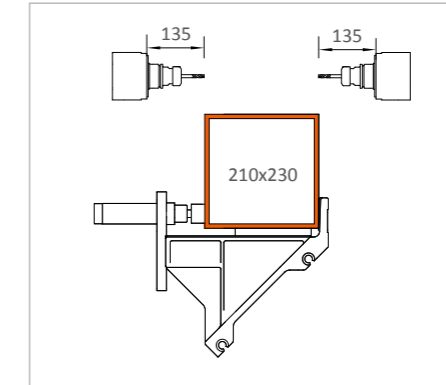
- Water-cooled 7 kW, S1 routing spindle
- Autonomous clamp positioning
- Automatic clamp recognition
- Enclosure to protect the operator
- Four horizontal, pneumatic material clamping units
- A material stop on the left
- Tool holder HSK-F63
- Swarf trays for swarf removal
- Minimum-volume lubrication system
- High performance cutting fluid
- Hand-held operator terminal
- Depth gauge

#### Options

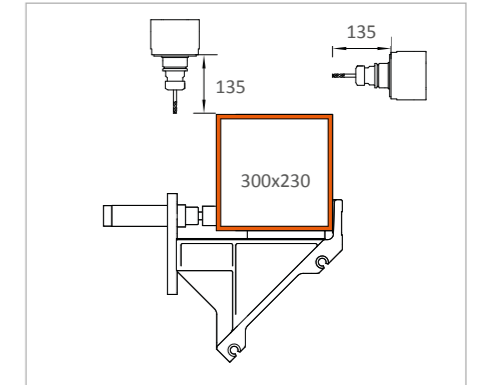
- Tools
- Tool holders
- Saw blade, 180 mm
- Length measurement on both sides
- Additional stop for overlength machining (left)
- Material reference stop (right) for positioning workpieces with overlength machining
- Green Line cooling unit for the control cabinet with reduced energy consumption
- Barcode scanner
- Protective enclosure can optionally completely enclose the machine on all sides
- Four clamps as standard. Can be equipped with up to eight clamps
- Double clamping and other accessories on request
- 21.6" panel PC, i7 processor
- Note holder
- Sound insulation hood
- Clamping unit optimised to prevent collisions



Machining area, Y and Z-axes  
Profile machining from above



Machining area, Y and Z-axes  
Profile machining from the front  
and from behind



Machining area, Y and Z-axes  
Profile machining from above  
and from behind



## TECHNICAL SPECIFICATIONS

Technical specifications	SBZ 122/70 plus	SBZ 122/71
Max. machining length without profile end machining	4,150 mm	4,150 mm
Max. machining length with profile end machining	4,000 mm (optional)	4,000 mm
Traverse path X-axis	4,295 mm, Vmax. 60 m/min.	4,295 mm, Vmax. 120 m/min.
Traverse path Y-axis	910 mm, Vmax. 45 m/min.	910 mm, Vmax. 60 m/min.
Traverse path Z-axis	475 mm, Vmax. 45 m/min.	475 mm, Vmax. 50 m/min.
Direction of machining	1 (from above), (5 optional)	5 (above, behind, front, left, right)
Positioning accuracy	+/- 0.1 mm	+/- 0.1 mm
Routing spindle speed	max. 24,000 rpm	max. 24,000 rpm
Routing spindle power	8 kW, S1 with feedback (air-cooled)	8 kW, S1 with feedback (air-cooled)
Tool holder	HSK-F63	HSK-F63
Tool changing	automatic	automatic
Tool tray positions in the automatic magazine	4 (max. 16)	4 (max. 16)
Angle head	Optional	Yes
Disc milling cutter diameter	100 mm	120 mm
Saw blade diameter	-	-
Tool length (from extent of taper)	max. 150 mm	max. 150 mm
Clamp positioning	automatic	automatic
Clamps	Basic (with round guides)	Basic (with round guides)
Software	eluCам	eluCам
Compressed air supply	> 7 bar	> 7 bar
Power supply	400 V, 3~, 50 Hz, 25 A	400 V, 3~, 50 Hz, 25 A
Air consumption per minute	approx. 185 l with spraying	approx. 185 l with spraying
Total length	6,739 mm	6,739 mm
Depth	2,180 mm	2,180 mm
Height	3,000 mm	3,000 mm
Weight	approx. 2,900 kg	approx. 2,900 kg
Order no.	122 00 23 70	122 00 22 71

SBZ 122/73	SBZ 122/74	SBZ 122/75
4,050 mm	4,050 mm	3,851 mm
-	-	3,525 mm
4,176 mm, Vmax. 120 m/min.	4,176 mm, Vmax. 120 m/min.	4,176 mm, Vmax. 120 m/min.
1,040 mm, Vmax. 60 m/min.	1,040 mm, Vmax. 60 m/min.	1,040 mm, Vmax. 60 m/min.
540 mm, Vmax. 30 m/min.	540 mm, Vmax. 30 m/min.	540 mm, Vmax. 30 m/min.
3 (above, behind, front)	3 (above, behind, front)	5 (above, behind, front, left, right)
+/- 0.1 mm	+/- 0.1 mm	+/- 0.1 mm
max. 20,000 rpm	max. 20,000 rpm	max. 20,000 rpm
7 kW, S1 (water-cooled)	7 kW, S1 (water-cooled)	7 kW, S1 (water-cooled)
HSK-F63	HSK-F63	HSK-F63
automatic	automatic	automatic
12	12	12
No	No	No
120 mm	120 mm	120 mm
-	-	180 mm
max. 150 mm	max. 150 mm	max. 150 mm
automatic	autonomous	autonomous
Basic (with round guides)	Premium (with linear guides)	Premium (with linear guides)
eluCам	eluCам	eluCам
> 7 bar	> 7 bar	> 7 bar
400 V, 3~, 50 Hz, 25 A	400 V, 3~, 50 Hz, 25 A	400 V, 3~, 50 Hz, 25 A
approx. 185 l with spraying	approx. 185 l with spraying	approx. 185 l with spraying
7,643 mm	7,643 mm	7,643 mm
2,180 mm	2,180 mm	2,180 mm
3,000 mm	3,000 mm	3,000 mm
approx. 3,800 kg	approx. 3,800 kg	approx. 3,800 kg
122 00 22 73	122 00 22 74	122 00 22 75





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