



### SBZ145

Machining centres



Designed for the requirements of metal construction and industrial use, the SBZ 145 with its 5 processing axes offers a processing area of 560 mm x 350 mm x 7,500mm. Equipped with an autonomous clamping axis and a generously designed tool magazine for milling cutters, drills, thread cutters and saw blades. The SBZ 145 has numerous processing options for cutting from the profile bar with processing or optionally in pendulum operation with processing of pre-cut individual parts (2x 3.250mm).



### Two separate workzones

Optionally for pendulum mode or for bar processing



### For metal construction and industrial use

5-axis profile machining center with option for 6-sided machining from below with angle head



### Viewing window

The generously dimensioned window at the front of the portal provides an optimum view of the processing area and allows easy access for maintenance and cleaning work



### Protection of profile surface

All operations such as milling, drilling, thread cutting, thread milling, notching and sawing take place with the profile in a fixed clamp position



### Bar processing

Production of the individual parts from the solid bar. The individual parts are automatically pulled apart for end-face processing or notching



### Tool magazine

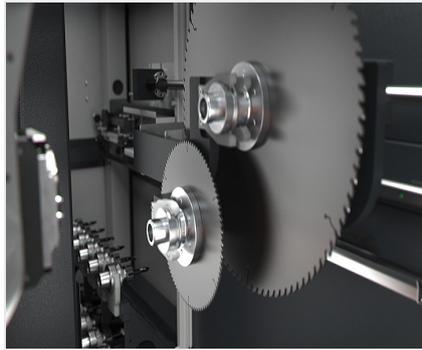
Ensures short tool change times: The horizontal, on-board mobile tool changer with 18 tool seats (3 rows of 6 tools each)





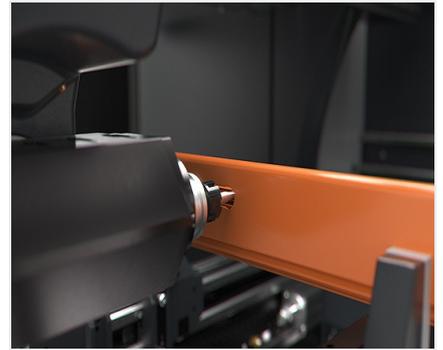
### Robust and stable portal design in modern appearance

High positioning accuracy with stable machine bed and portal supported on both sides



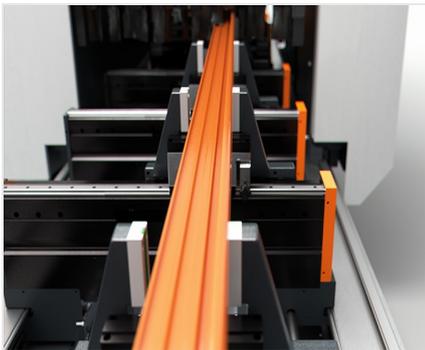
### Sawblades

The on-board tool magazine provides space for up to two sawblades with diameters from 254 to 500 mm



### Optimized processing cycles

Maximum flexibility due to automatic tool assignment, collision control and clamp management



### Fast and easy clamp positioning

Autonomously moving clamps with quick setting possibilities / Clamp movement with V-axis



### Low machine height

Low space requirement due to internal Z-axis and cable chain



### Clean and efficient solution for waste pieces

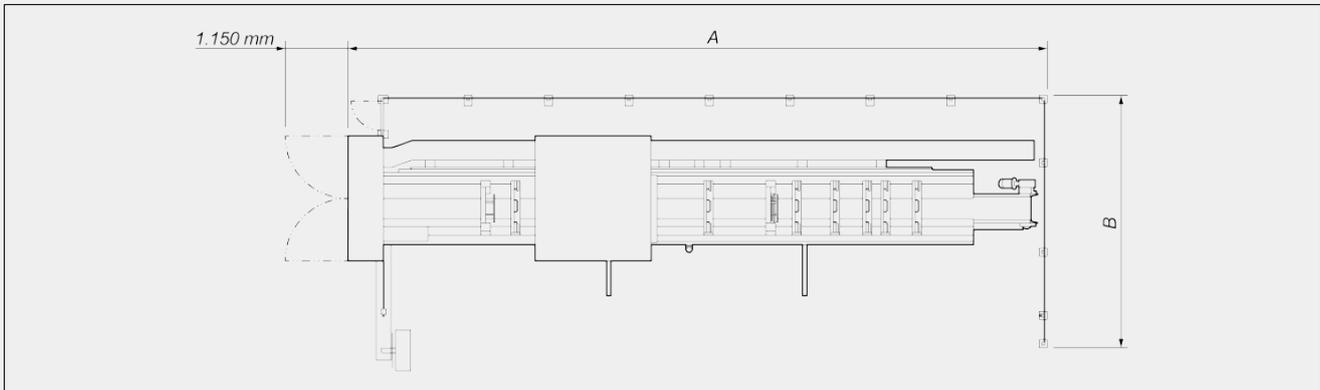
The chip conveyor is integrated in the machine bed





## SBZ 145 / MACHINING CENTRES

### LAYOUT



#### SBZ 145

|                       |        |
|-----------------------|--------|
| Total length (A) (mm) | 12.060 |
| Depth (B) (mm)        | 4.587  |
| Height (mm)           | 2.450  |
| Weight (kg)           | 10.300 |

The overall dimensions and the weight may vary depending on the product configuration

### AXIS STROKES

|             |               |
|-------------|---------------|
| X AXIS (mm) | 7.500         |
| Y AXIS (mm) | 1.300         |
| Z AXIS (mm) | 730           |
| A AXIS      | -110° / +110° |
| C AXIS      | -182° / +182° |

### POSITIONING ACCURACY

|             |          |
|-------------|----------|
| X AXIS (mm) | +/- 0,1  |
| Y AXIS (mm) | +/- 0,1  |
| Z AXIS (mm) | +/- 0,1  |
| A AXIS      | +/- 0,1° |
| C AXIS      | +/- 0,1° |



## POSITIONING SPEED

|                |     |
|----------------|-----|
| X AXIS (m/min) | 80  |
| Y AXIS (m/min) | 60  |
| Z AXIS (m/min) | 60  |
| A AXIS (°/s)   | 120 |
| C AXIS (°/s)   | 120 |
| V AXIS (m/min) | 40  |

## AXIS ACCELERATION

|                            |     |
|----------------------------|-----|
| X AXIS (m/s <sup>2</sup> ) | 4,0 |
| Y AXIS (m/s <sup>2</sup> ) | 3,0 |
| Z AXIS (m/s <sup>2</sup> ) | 3,0 |
| V AXIS (m/s <sup>2</sup> ) | 3,0 |

## ELECTROSPINDLE

|                          |                                     |
|--------------------------|-------------------------------------|
| Maximum power in S1 (kW) | 11                                  |
| Maximum speed (rpm)      | 24.000                              |
| Maximum torque (Nm)      | 11                                  |
| Toolholder cone          | HSK 63F                             |
| Water cooling            | <input checked="" type="checkbox"/> |

## OPERATING MODE

|  |                          |
|--|--------------------------|
| Pendular mode with 2 lefthand materialstops              | <input type="checkbox"/> |
| Bar processing   | <input type="checkbox"/> |
| Automatic length measurement on both sides               | ?                        |
| Automatic length measurement on both sides with Z-stroke | ?                        |
| Tool length measurement and breakage control             | ?                        |

## SAFETY DEVICES AND PROTECTION

|   |                                     |
|---|-------------------------------------|
| Side access guard (fence / protective panel)        | <input checked="" type="checkbox"/> |
| Access protection frontside (Light curtain / laser) | <input type="checkbox"/>            |
| Protective device rear side (fence)                 | <input type="checkbox"/>            |

## MACHINING FACES

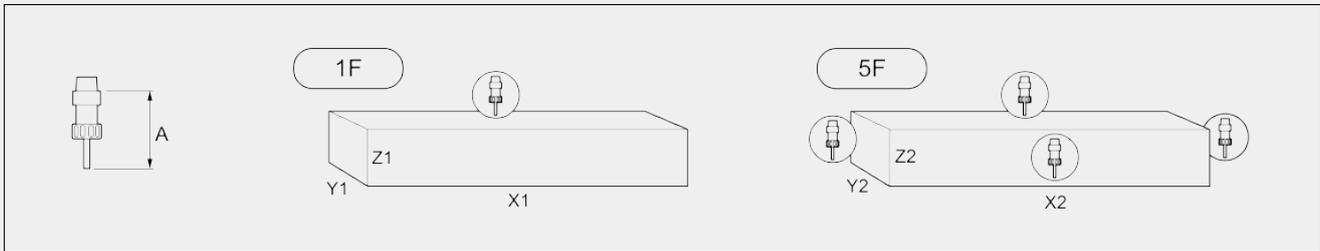
|   |   |
|---|---|
| With direct tool (front/top/back, ends) | 5 |
| With angular head (bottom)              | 1 |



### WORK AREA

1F = 1 face machining

5F = 5 faces machining



|                        |             | A   | X1    | Y1  | Z1  | X2    | Y2  | Z2  |
|------------------------|-------------|-----|-------|-----|-----|-------|-----|-----|
| <b>SBZ 145 - 7,5 m</b> | single mode | 145 | 7.500 | 560 | 350 | 7.500 | 560 | 350 |
|                        | double mode | 145 | 3.250 | 560 | 350 | 2.900 | 560 | 350 |

Dimensions in mm

### AUTOMATIC TOOL MAGAZINE

|   |     |
|---|-----|
| Tool magazine traveling along                     | ●   |
| U AXIS (Tool changer)                             | ●   |
| Magazin Type: linear tool changer                 | ●   |
| Number of tools in the standard magazine          | 18  |
| Number of special tools in the magazine: lame     | 2   |
| Tool position level 1 (up to D=100mm and L=210mm) | 6   |
| Tool position level 2 (up to D=63mm and L=210mm)  | 6   |
| Tool position level 3 (up to D=63mm and L=145mm)  | 6   |
| Special tool 1: blade up to D=500 mm              | 1   |
| Special tool 2: blade up to D=250 mm              | 1   |
| Number of places for special tools D=100 mm max.  | 5   |
| Maximum tool length (from taper) (mm)             | 210 |
| Maximum tool weight with tool holder (kg)         | 8   |
| Tool holder set HSK63 + collets                   | ○   |
| Maximum disk cutter (instead of blade 2) (mm)     | 250 |

### WORKPIECE LOCKING

|  |   |
|--|---|
| V AXIS (Autonomous clamp positioning)        | ● |
| Number of clamps                             | 8 |
| Number of additional clamps with max. travel | 2 |
| Further clamps with limited travel capacity  | ○ |



### PROFILE POSITIONING

|  |                                  |
|--|----------------------------------|
| Number of material stop (clamping position left)     | 2                                |
| Material stop in position 2 (connected to the clamp) | <input checked="" type="radio"/> |

### SWARF AND WASTE CONVEYOR

|   |                       |
|---|-----------------------|
| Chip conveyor integrated in machine bed | <input type="radio"/> |
| Shavings kink conveyor                  | <input type="radio"/> |

### SUCTION

|                 |                       |
|-----------------|-----------------------|
| Fume extraction | <input type="radio"/> |
|-----------------|-----------------------|

### PNEUMATIC CONNECTION

|  |       |
|--|-------|
| Pressure (bar)                             | 6 - 7 |
| Average air consumption per minute [l/min] | 500   |

### CONTROL UNIT

|                                    |                                  |
|------------------------------------|----------------------------------|
| Microsoft® Windows® 10 Embedded    | <input checked="" type="radio"/> |
| Panel-PC 21,6" Processor i7        | <input checked="" type="radio"/> |
| USB ports and network connection   | <input checked="" type="radio"/> |
| UPS - Uninterruptible power supply | <input checked="" type="radio"/> |
| Online Assistance                  | <input checked="" type="radio"/> |
| Barcode reader                     | <input type="radio"/>            |
| Hand control                       | <input checked="" type="radio"/> |
| 3D radio probe                     | <input type="radio"/>            |
| Label printer                      | <input type="radio"/>            |

### SOFTWARE

|              |                                  |
|--------------|----------------------------------|
| eluCam Modul | <input checked="" type="radio"/> |
|--------------|----------------------------------|

Included ● Available ○

