elumatec

a voilàp company

SBZ 125/85

CABINET MACHINING CENTERS



Save time, save space, save money: the SBZ 125/85 profile machining centre is supplied with an enclosed cabin machine with an eight-metre working length and five axes that can replace two smaller machines thanks to dynamic shuttle operation. When enhancing the successful SBZ 122 range, elumatec has used customer feedback to optimise ergonomics, access and set-up times. The new model makes machining aluminium, PVC and thin-walled steel profiles even more economical and efficient.

Cab machines are popular because they keep swarf contained and reduce noise, and elumatec has given the SBZ 125/85 integrated safety area monitoring with a fully programmable laser. The SBZ 125/85 is a major step forward for the elumatec range thanks to a new rotating control unit, extended functionality and new technology for faster tool changes, and more versions of the redesigned cabin machine are already in the pipeline. The SBZ 125/85 is also eluCloud ready in order to meet the requirements of Industry 4.0.

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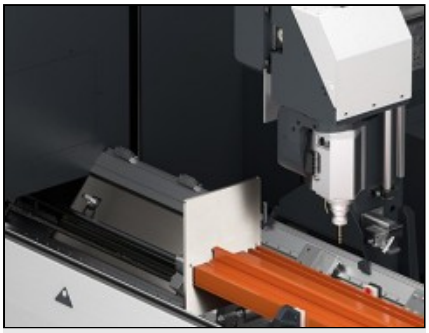
The right to make technical alterations is reserved.



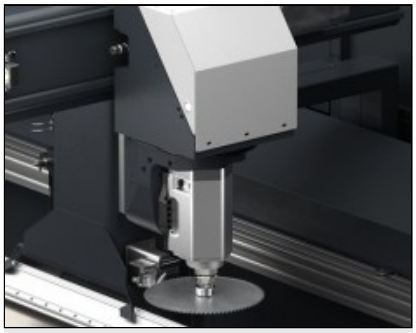
Autonomus clamp positioning

The clamp automatically switches between the loading and machining positions. The ergonomics during insertion have been improved, and the machining paths are used as effectively as possible by moving the material into the centre of the machine beforehand to ensure optimum machining by the tool. Conversion to other profile widths and cross-sections is quick and does not require any tools, and the SBZ 125/85 makes pre-configuring the clamps for different profile contours and cross-sections much easier.



Dynamic shuttle operation

Dynamic shuttle operation enables parallel routing and insertion of the material, which significantly increases the machining speed and allows long parts that extend beyond the centre of the SBZ 125/85 to be machined. And a new rotating control unit makes it easier to monitor operation: designed as a column with a rotating screen, the unit can be used as needed and provides an unobstructed field of vision to make operation even safer.



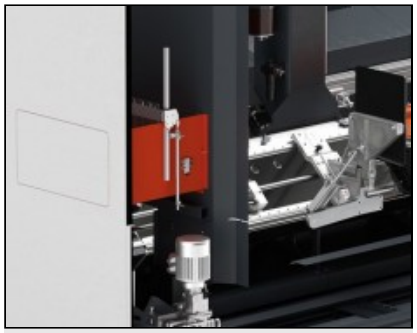
New technology for tool changes

Faster set-up times, more flexibility: new technology for tool changes shortens the change over times for the SBZ 125/85, which saves time and money. A larger changer is used, which also increases the working area.



Ergonomic optimized machining paths

The SBZ 125/85 offers simplified and enhanced clamp adjustment, which allows the different profiles to be machined. Adjustable clamps on the Y-axis improve ergonomics during insertion. The material then moves to the centre of the machine, making it as easy as possible for the tool to reach and machine it.



Optional chip conveyor

An optional waste (chip) conveyor can be integrated into the machine, which directs coarse chips and profile sections straight into a container to make it easier to keep the inside of the SBZ 125/85 clean.

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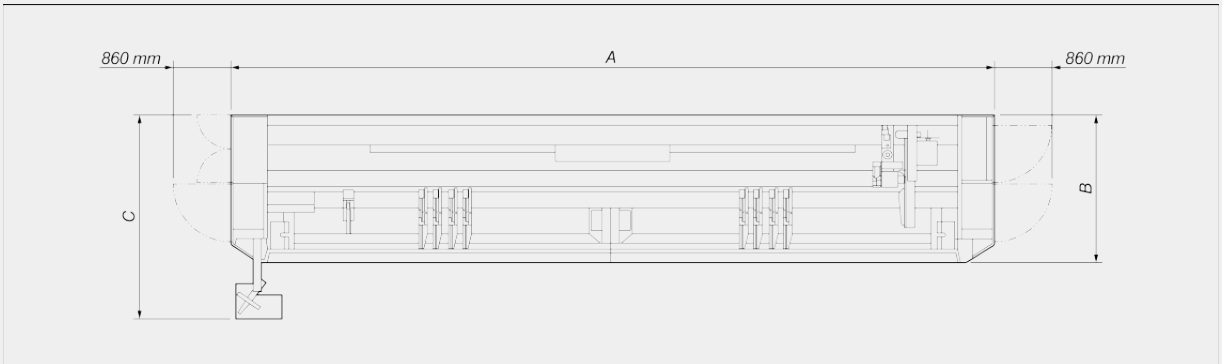
SBZ 125/85 / CABINET MACHINING CENTERS

LAYOUT



SBZ 125/85	
Total length (A) (mm)	~ 11.350
Depth without control panel (B) (mm)	~ 2.330
Total depth with control panel (C) (mm)	~ 3.170
Height (mm)	~ 2.350
Weight (kg)	~ 3.800
Working height above ground (mm)	980

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

AXIS STROKES

X AXIS (mm)	9.007
Y AXIS (mm)	1.038
Z AXIS (mm)	555
A AXIS	-120° / +120°
C AXIS	-220° / +220°

POSITIONING ACCURACY

X AXIS (mm)	+/- 0,1
Y AXIS (mm)	+/- 0,1
Z AXIS (mm)	+/- 0,1
A AXIS	+/- 0,01°
C AXIS	+/- 0,01°

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POSITIONING SPEED

X AXIS (m/min)	120
Y AXIS (m/min)	60
Z AXIS (m/min)	30
A AXIS (°/s)	13
C AXIS (°/s)	13

AXIS ACCELERATION

X AXIS (m/s²)	3,5
Y AXIS (m/s²)	3,5
Z AXIS (m/s²)	3,5
A AXIS (rad/s²)	2,5
C AXIS (rad/s²)	2,5

ELECTROSPINDLE

Maximum power in S1 (kW)	7
Maximum speed (rpm)	20.000
Maximum torque (Nm)	5,6
Toolholder cone	HSK 63F
Water cooling	●

OPERATING MODE

One-piece full-length machining	●
Pendulum operation with stops on the right and left	●
Length measurement on both sides	○

SAFETY DEVICES AND PROTECTION

Machine integral protection booth	●
Removable central protection for pendulum operation	●
Work area access protection laser scanner (programmable with three-zone division)	●

LUBRICATION

Minimal oil diffusion lubrication system	●

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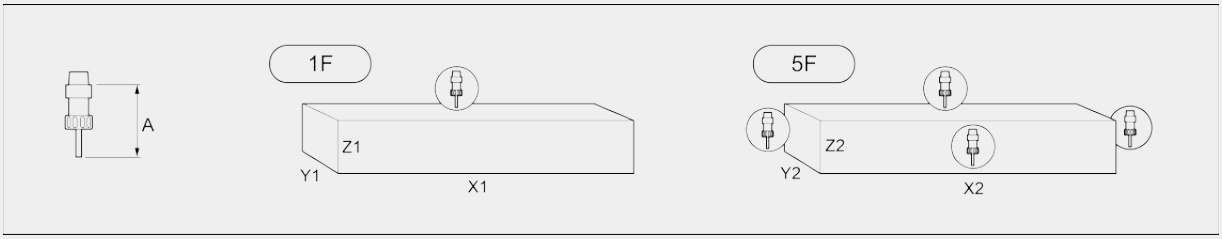
MACHINING FACES

With direct tool (front/top/back, ends)	5

WORK AREA

1F = 1 face machining **5F = 5 faces machining**



		A	X1	Y1	Z1	X2	Y2	Z2
SBZ 125/85	single mode	135	8.245	300	203	8.245	207	203
	double mode	135	3.100	300	203	3.100	207	203
Machinable profile length with blade Ø 300 mm	single mode		8.245			8.245		
	double mode		2.295			2.295		

Dimensions in mm

AUTOMATIC TOOL MAGAZINE

Magazin Type: linear tool changer	●
Tool magazine can be moved automatically	●
U AXIS (Tool changer)	●
Maximum number of magazine tools	12
Tool holder set HSK63 + collets and end mill Ø10 mm	●
End mill diameter (mm)	16
Drill diameter (mm)	10
Disc milling cutter diameter (mm)	120
Blade diameter (mm)	300
Maximum tool length (from taper) (mm)	150

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WORKPIECE LOCKING

Autonomous clamp positioning	●
Clamps shift to ergonomic loading position	●
V AXIS (Autonomous clamp positioning)	●
Quick adjustment	●
Standard number of clamps	8
Maximum number of clamps	12
Pneumatic clamps stroke (mm)	50

PROFILE POSITIONING

Number of material stop (clamping position left)	1
Number of material stop (clamping position right)	1

SWARF AND WASTE CONVEYOR

Chip deflector with chip tray on the right and left	●
Chip conveyor belt on the right and left	○

WORKING CAPACITY (aluminium)

Maximum drilling up to 2xD depth (mm)	10
Maximum drilling up to 10 mm depth (mm)	10
Maximum drilling up to 20 mm depth (mm)	10
Milling up to 3 mm thickness per operation	●
Maximum diameter milling up to 5 mm thickness with total length 140mm cutter and holder (mm)	6
Maximum thread cutting 2xD depth	M8
Maximum thread shapes 2xD depth	M8
Thread milling	●
Maximum flow hole shapes with main spindle with Aludrill (from top only)	M8
Maximum disc milling cutter diameter (mm)	120
Maximum blade diameter (mm)	300

WORKING CAPACITY (steel Up To 3 Mm)

Maximum drilling up to 2xD depth (mm)	7
Maximum diameter milling up to 3mm thickness with fine roughing cutter (mm)	8
Maximum thread shapes 1xD depth	M6

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ELECTRICAL CONNECTION

Connected load (KW)	17,5

PNEUMATIC CONNECTION

Pressure (bar)	7
Average air consumption per minute [l/min]	~ 185

CONTROL UNIT

Microsoft® Windows® 10 Embedded	●
Panel PC 18,5" Processor i5	●
Panel PC 21,5" Processor i7	○
USB ports and network connection	●
UPS - Uninterruptible power supply	●
Online Assistance	●
Hand control	●
Depth caliper	●
Barcode reader	○

SOFTWARE

eluCam 2d/3d Cad module	●

Included ● Available ○

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