Customer focused development

- spindles + slides
- plan-tables + instruments
- machines
- micro cutting technology

MIKROMECHANIK GmbH

Precisions lathe PDM

Performance features

Air bearing spindle

Air bearing axis
optional hydrostatic axis

Digital Motion Control System

Linear motor technology

Sub-nanometer resolution

Vibration damping by granite-basis

Vibration-isolated

CNC-Control

Direct operating linear measuring systems

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Specifications

X and Z-axis:

The main axes work with coggingfree motors and are complete backlash free. The position is detected by a directly operating measuring system.

travel range	120 mm
speed min.	0,001 mm/min.
speed max.	2 m/min.

Main spindle:

Air bearing based with contactless working torque motor and integrated direct measuring system.

rotational speed	5.000 rpm
optional	50.000 rpm
air-cooled / water-cooled	
possibility to spray through the spindle	
vakuumchuck	

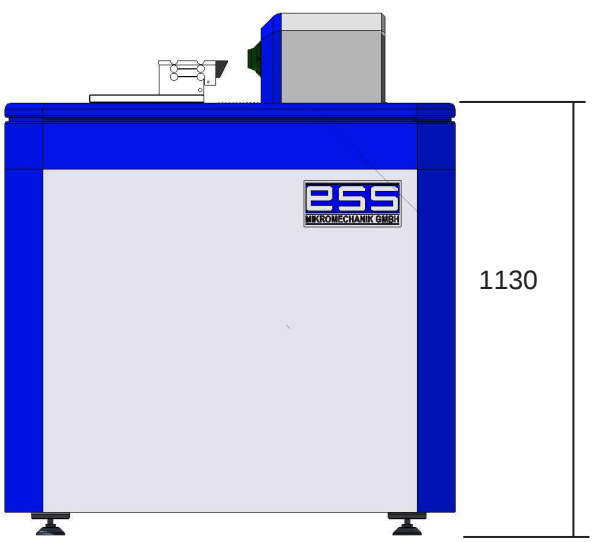
Optional:

fasttool-axis	stroke	30 mm
	stroke speed max	100 Hz
	running accuracy	0,1 µm
	acceleration max.	36 g
	positioning accuracy *	0,01 µm
	load capacity max.	
	in the x-direction	100 N
	in the y-direction	100 N
turntable c-Axis	concentricity accurary	0,05 µm
	concentricity accurary	0,03 µm
	rest tumbling error	1,7 µrad

* depending on the measurement system used and stroke speed

Installation data

power:	240	VAC
	50/60 Hz, 20 Amps	
spindle / axis	5,0	bar
air consumption	250	l/min.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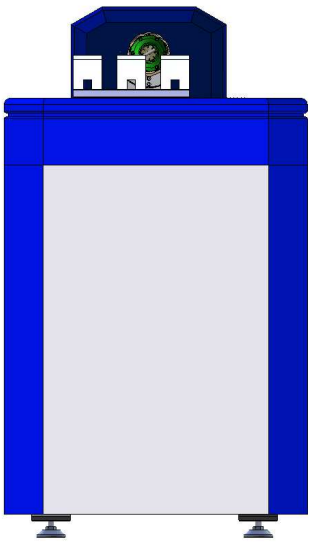

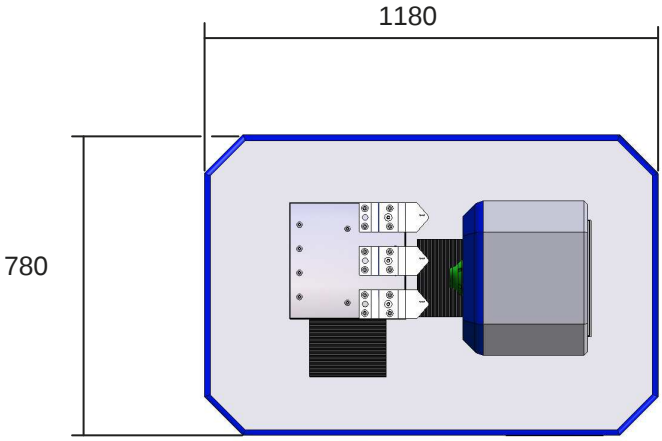
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Photo

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