

K4 edition

Fields of application	dry machining
Machinable materials	plastics, wax, zirconium oxide, composites, CoCr
Indications	crowns, bridges, fully anatomical crowns and bridges, inlays, onlays, abutments, telescope crowns, veneers, table-top
Basic system	
Construction	basic structure of aluminium precision plate
No. of axes	4
x/y/z pos. range	100 x 98 x 40 mm
Drives	<ul style="list-style-type: none"> • precise ball screw spindles for the 3 linear axes • motor resolution < 1 µm • ground steel precision guide rails • 4 mm lead
Repetition accuracy linear axes	± 0,005 mm
Axis measurement	automatic axis measurement and compensation for exact results
Housing	<ul style="list-style-type: none"> • complete encapsulation of working chamber • automatic safety interlock at the front cover during the machining process
Working chamber illumination	yes
Dimensions (W/D/H)	approx. 400 x 385 x 410 mm
Weight	approx. 45 kg
Rotary axes	
Features	A axis: Harmonic Drive® free from backlash for highest true running accuracy, rotation range of 360°
Fixing device	round universal blanks with a thickness of 10 to 25 mm and a diameter of 98.5 mm with step
Exchange of workpieces	manual exchange of blanks
Controller	
Features	<p>type CNC 300</p> <ul style="list-style-type: none"> • synchronic interpolation of 4 axes • great smoothness of running and highly accurate • high processing speed due to exponential acceleration ramps • look-ahead feature for continuous velocity along the path • 6 digital inputs, 2 digital outputs • 4 motor end phases • Chopper controller • cooling via 3 fans
Spindle	
Features	<p>asynchronous high frequency spindle SF 170</p> <ul style="list-style-type: none"> • nominal power under constant load (S1): 170 W • maximum power output (Pmax): 240 W • rotational speed range up to 60,000 RPM • double steel ball bearings • radial deviation at internal cone of the precision shaft < 1 µm • sealing air prevents entering of foreign substances in the bearing area
Collet chuck	pneumatically for tools with 3 mm shank diameter and max. 35 mm total length
Tool change	
Features	<ul style="list-style-type: none"> • automatic tool change station for 7 tools with length detection and breakage monitoring via haptic measuring pin • monitoring of compressed air supply

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Wet grinding

Features –

Air extraction

Features

- openings in the rear panel of the working chamber for air extraction
- connector for hose at the side of the housing
- underpressure sensor for monitoring the air extraction
- 24 Volt output for connecting the switching unit

Other

Peripheral equipment

- switching unit PSW 01-RSV
- administrated tool board

Special feature certification according to ANSI/UL 61010-1 for exports to the USA and Canada

Connection requirements

Compressed air supply 6 bar · 80 l/min

Power supply 100 – 240 V · 50/60 Hz