

K5 Impression

Fields of application	dry machining
Machinable materials	plastics, wax, zirconium oxide, composites, CoCr, model plaster
Indications	crowns, bridges, fully anatomical crowns and bridges, inlays, onlays, abutments, telescope crowns, models, model casts, bite splints, implant bars, veneers, surgical guides, dentures, etc.
Basic system	
Construction	machine bed of massive aluminium cast
No. of axes	5
x/y/z pos. range	165.5 x 108 x 93 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	± 0,003 mm
Axis measurement	<ul style="list-style-type: none"> • measurement of axes with calibration specimen • automatic axis 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, with status indication
Dimensions (W/D/H)	approx. 450 x 530 x 630 mm
Weight	approx. 91 kg
Rotary axes	
Features	<ul style="list-style-type: none"> • A axis: Harmonic Drive® free from backlash for highest true running accuracy, rotation range of 360° • B axis: pivoting via ball screw spindle, rotation range of up to ± 35°
Fixing device	round universal blanks with a thickness of 10 to 40 mm and a diameter of 98.5 mm with step; optionally: three-fold block holder
Exchange of workpieces	manual exchange
Controller	
Features	<p>type CNC G12T</p> <ul style="list-style-type: none"> • synchronic interpolation of 5 axes • great smoothness of running and highly accurate • high processing speed due to exponential acceleration ramps • lookahead feature for continuous velocity along the path • 4 digital inputs, 4 digital outputs • 5 motor end phases • four quadrant controller • no fan necessary for cooling
Spindle	
Features	<p>synchronous spindle SFK 300P</p> <ul style="list-style-type: none"> • nominal power under constant load (S1): 300 Watt • maximum power output (Pmax): 500 W • rotational speed range up to 60,000 RPM • 4-fold hybrid ceramic ball bearings • hybrid ceramic ball bearings • radial deviation at internal cone of the precision shaft < 3 µm • sealing air prevents entering of foreign substances in the bearing area • cone cleaning
Collet chuck	pneumatically for tools with 3 mm shank diameter and max. 40 mm total length

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Tool change

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| Features | <ul style="list-style-type: none">• automatic tool change station for 16 tools• haptic tool length detection and tool breakage monitoring• diamond-coated tools can be used• monitoring of compressed air supply |
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Air extraction

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| Features | <ul style="list-style-type: none">• opening at the housing side for air extraction• underpressure sensor for monitoring the air extraction• 24 Volt switching output |
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Other

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| Peripheral equipment | <ul style="list-style-type: none">• dental suction unit with fine filter• switching unit PSW 02-T• tool set starter edition• three-fold block holder |
| Special feature | <ul style="list-style-type: none">• drawer for workpieces and milling tools with integrated administrated tool board as well as for operating and maintenance tools• certification according to ANSI/UL 61010-1 for exports to the USA and Canada |

Connection requirements

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| Compressed air supply | 6 bar · 40 l/min – 8 bar · 50 l/min |
| Power supply | 100 – 240 V · 50/60 Hz |