Technical Data

	N4 Impression
Fields of application	wet machining
Machinable materials	glass ceramics, composites, titanium
Indications	crowns, bridges, fully anatomical crowns and bridges, inlays, onlays, abutments, telescope crowns, veneers, table-top
Basic system	
Construction	machine bed of massive aluminium cast
No. of axes	4
x/y/z pos. range	80 x 60 x 40 mm
Drives	• 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	• measurement of axes with calibration specimen • automatic axis compensation for exact results
Housing	• complete encapsulation of working chamber with closable front cover • automatic safety interlock at the front cover during the machining process
Working chamber illumination	yes, with status indication
Dimensions (W/D/H)	approx. 360 x 451 x 471 mm
Weight	approx. 50 kg
Rotary axes	
Features	• **A axis:** highest true running accuracy • rotation range: +190° to –10°
Fixing device	for 3 blocks with round shanks (total positioning range for workpieces: 60 x 40 x 20 mm)
Exchange of workpieces	manual exchange
Controller	
Features	**type G12M** • great smoothness of running, powerful and accurate due to microstep operation • high processing speed due to exponential acceleration ramps • look-ahead feature for continuous velocity along the path • 4 digital in- and outputs each • 5 motor end phases • four quadrant controller • no fan necessary for cooling • extension slot for special features
Spindle	
Features	**synchronous spindle SFN 300P** • nominal power under constant load (S1): 300 Watt • maximum power output (Pmax): 600 W • rotational speed range up to 60,000 RPM • 4-fold bearing • hybrid ceramic ball bearings • radial deviation at internal cone of the precision shaft < 1 µm • sealing air prevents entering of foreign substances in the bearing area • cone cleaning
Collet chuck	pneumatic stainless steel collet chuck for tools with 3 mm shank diameter and max. 35 mm total length

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Tool change	
Features	• automatic tool changer for 8 tools with 2 removable changer stations for easy equipment • haptic tool length detection and tool breakage monitoring • diamond-coated tools can be used • compressed air monitoring
Wet grinding	
Features	• tool is cooled by 8 liquid nozzles in full length (from tip to shank) • removable drawer for cooling liquid and filter • protection of mechanics, electronics and spindle by flexible rubber gaiter
Air extraction	
Features	no extraction necessary
Other	
Peripheral equipment	–
Special feature	certification according to ANSI/UL 61010-1 for exports to the USA and Canada
Connection requirements	
Compressed air supply	4 bar · 35 l/min – 8 bar · 50 l/min
Power supply	100 – 240 V · 50/60 Hz