

Flexibility, Dynamism and Digitalisation

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**efficient and reliable in defined
edge honing, polishing, deburring**

The **BP Motion** smoothens sharp edges and takes care of burrs, brushes precisely defined radii and contours onto edges and simultaneously polishes the surface to the very finest finishes. The new axis dynamics and innovative control logic allows to treat edges of parts with different definitions while delivering reproducible and constant accuracy. This means that, e.g., one side of a 3-sided part can be explicitly brushed more, i.e., machined differently than the two other sides.

MAXIMUM PRODUCTIVITY

- Reproducibly defined edge geometry
- Differentiated processing of edges possible.
- Accurate brush measurement & automatic brush wear compensation
- Highest process stability for small, medium, and large series
- Wet and dry machining possible
- New design with large ergonomically placed touch screen for easy operation
- Plug & Play function on compact footprint with facilitated accessibility

APPLICATION

- Flat and patterned components are simultaneously brushed on a planetary polishing table. The rotary motions of table, workpiece and brush can deburr- or produce a specific radius along workpiece edges. As an additional added value, the entire top surface is polished at the same time which does not affect the dimensions of the parts.
- Various rotary tables available for round tools
- Extended field of application through Industry 4.0 connectivity
- From small series with manual assembly to large series with full automation

CHARACTERISTICS OF THE MACHINE

- Three process steps in one program (memory for 300 machining programmes)
- Easy cleaning (optional stainless-steel housing)
- Possibility for a fully integrated automatization
- Prepared for wet process (oil or emulsion)
- New brush measurement system to get an accuracy within 0.03 mm
- Blow-off station for the workpiece carriers is optionally available
- Machine communication OPC-UA, full connectivity
- Tables from 2 up to 12 positions for workpiece carriers (with defined angle from 0° to 20° and 45°)
- All axes are servocontrolled for maximum precision and minimum noise level

APPLICATION AREAS:



Inserts



Drill clamping drum



Mint punch



Inserts in a cage



Coated insert



Boneplate

Technical Data

Machine

Total weight	kg	800
Dimension Width/Depth/Height	mm	1300 / 1020 / 2000
Stroke Z-axis	mm	300
Electrical connection	VAC; Hz	3 x 230 / PE ; 60 / 3 x 400 / N / PE ; 50 / 3 x 480 / PE ; 60
Main drive power	kW	2.2 – 4.0
Coolant		Air or liquid
Programs		Storage / export (300 machining programmes)
Housing		Painted or stainless steel

Brush-/Polishing process

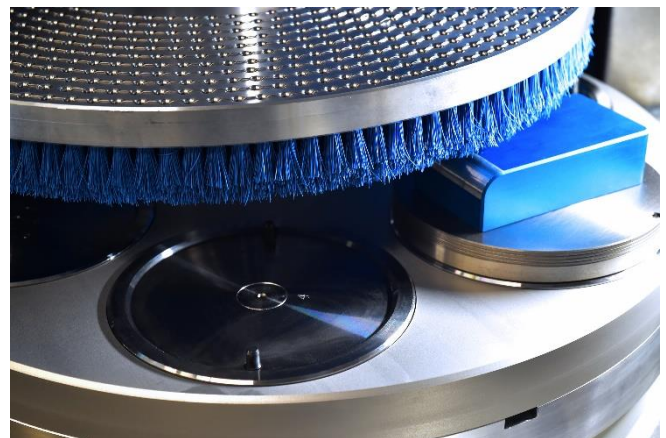
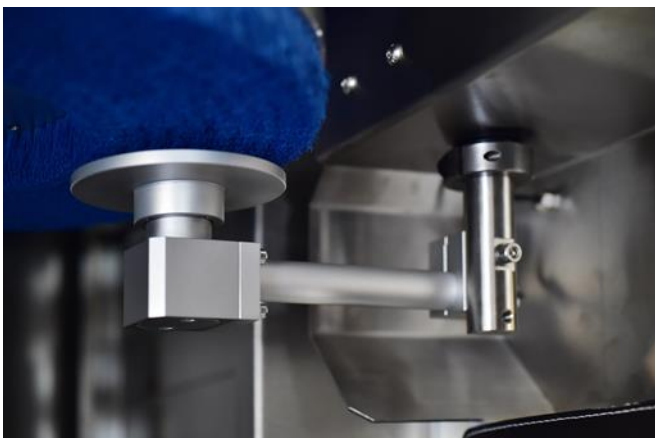
Brush diameter	mm	380 / 500
Speed of planetary brush head	1/min	0 - 1000
Brush drive power	kW	2.2 – 4.0
Table speed	1 / min	0 - 10
Planetary table with workpiece carrier	mm	from 2 x Ø 250 to 12 x Ø 75
Brush types	/	SiC, ceramic or diamond-loaded synthetic bristles - straight or diagonally equipped
Control of the brush head infeed (incl. compensation for the wear of the brush)	/	automatic

Options

Workpiece carrier handling	/	Manual loading/automated
Coolant device	/	Emulsion/Oil/Air
Extraction	/	Emulsion/Oil/Dust
Industry 4.0	/	OPC-UA / remote maintenance
Further options	/	Measurement system to get an accuracy withing 0.03 mm, blow-off station for the workpiece carriers, automated workpiece carrier handling, network capability

Workpieces and their dimensions

Typical parts	/	Indexable inserts, profile inserts, drilling and milling tools, pump parts, sapphire glass, ceramic
Size of parts (Ø), nominal to	mm	0.5 - 250
Part thickness	mm	0.1 ... 250



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