

SECKLER

Finest Finishing – SECKLER *deburow magnetfinish*.
Deburring technology for high quality precision parts.

Finest finished surfaces and edges. With *debu*ro magnetfinish. By SECKLER.

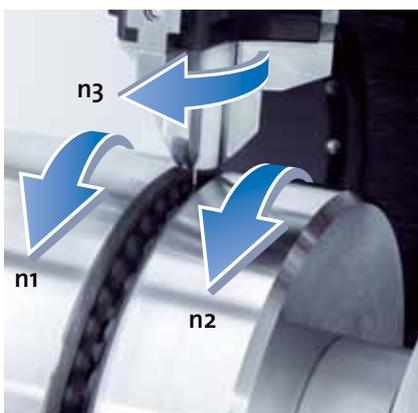
- + Accurately definable edge roundness
- + Removal of droplets, cutting and grinding burrs
- + Improving the surface finishing and polishing of workpiece

Procedure

The magnet finishing procedure is a new form of mechanical treatment of the edges and surfaces.

The workpiece is positioned in the magnetic field of one or two tooling heads. The space between the workpiece and magnetic head is filled with a magnetic, abrasive grinding powder. The magnetism performs the function of holding the powder in place, while the abrasive feature performs the workpiece grinding function.

Through the use of permanent magnets a particularly intensive powder adhesion is obtained, which makes a high operating powder pressure possible on the surface being worked on. Accordingly, this feature results in a particularly high cutting productivity.



Technology principle

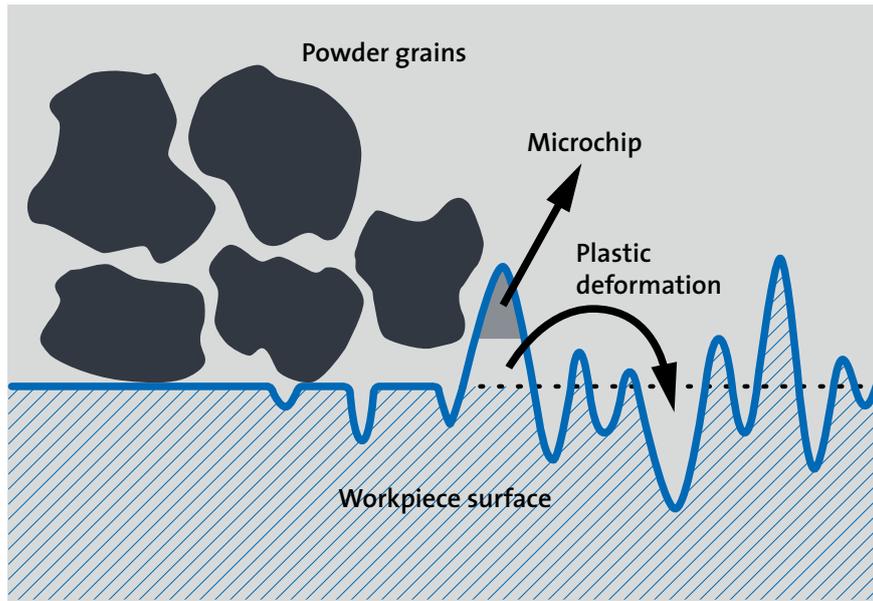


Demagnetizing

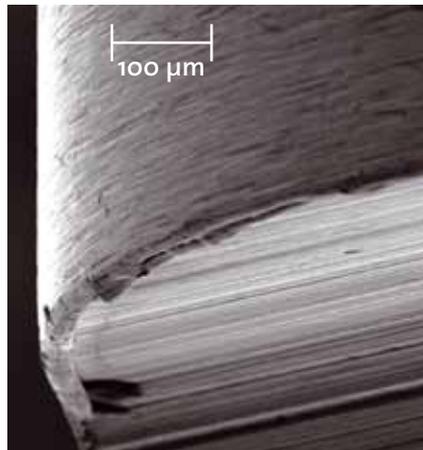


Wash station

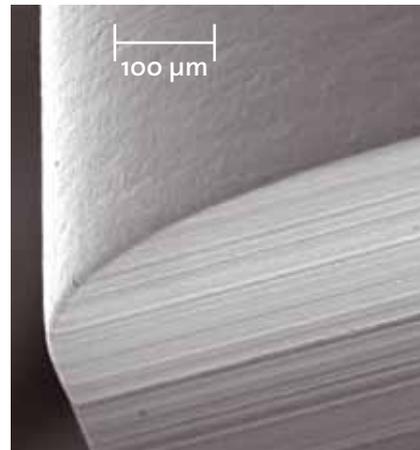
- + 100% reproducibility
- + Applicable to complex surface structures
- + Can be integrated into subsequent manufacturing operations, processes and equipments



Operation principle for a cut and plastically deformed surface



Before



After

Magnetic head diameter:	220 mm
Part form:	rotative-symmetric
Part diameter:	1 – 30 mm
Part length:	10 – 150 mm

Application

With the magnet finishing procedure, materials of different hardness and toughness can be worked on. Both magnetic and non-magnetic materials can be processed.

- + Wear-free tooling head
- + No contamination of the workpiece surface
- + No thermal impact to the workpiece material

Powder Tool

Different powder types work like a flexible tool, whereby the grain size, powder impact and the operating time are relevant for the result. Defined material points can be reduced down to a roughness of $R_a = 0.2 \mu\text{m}$ and $R_z = 0.8 \mu\text{m}$. Outside radii receive during processing with the magnet finishing procedure a radius between 3 and 50 μm with a remarkably smoothed surface.

The SECKLER *deburomagnetfinish* system consists of a magnet finishing unit, built into a SECKLER *modulo* cell with powder supply, flushing system, demagnetizing section and an ultrasonic wash station. The SECKLER *deburomagnetfinish* can be combined with the outstanding, proven SECKLER *deburomagnetbrushing* technology, customized machines and the SECKLER handling technology.

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