



Finest Finishing – *debuoro magnetic.*

Deburring technology for high quality precision parts.

ixmation

SECKLER
systems

Finest finished surfaces and edges. With *deburow magnetic*. By ixmation.

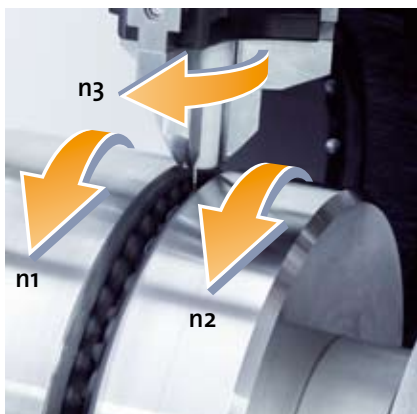
- └ Accurately definable edge roundness
- └ Removal of droplets, cutting and grinding burrs
- └ Improving the surface finishing and polishing of work piece

Procedure

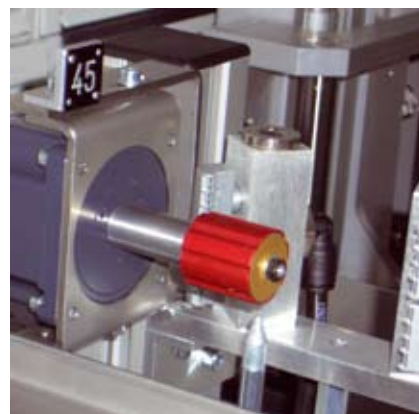
The magnet finishing procedure is a new form of mechanical treatment of the edges and surfaces.

The work piece is positioned in the magnetic field of one or two tooling heads. The space between the work piece 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 work piece 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

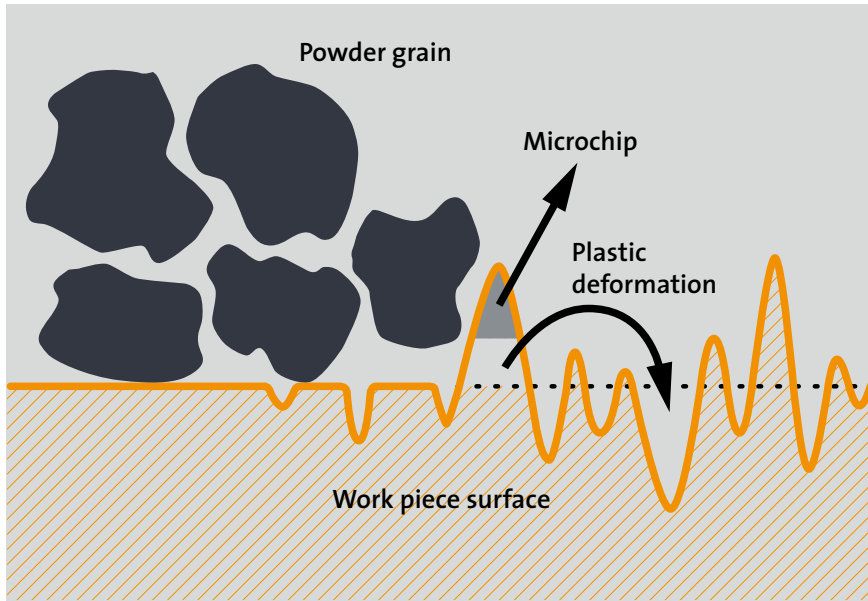


Demagnetising

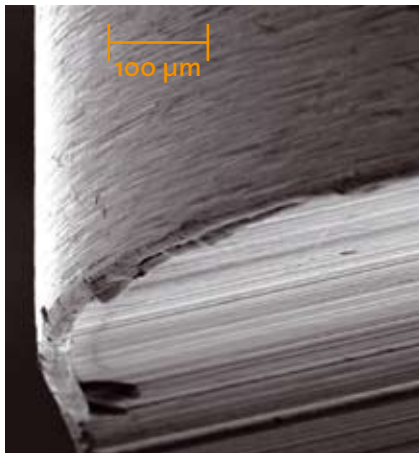


Wash station

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



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 - 150mm

Specifications

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 work piece surface
- No thermal impact to the work piece 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 finish procedure a radius between 3 and 50 μm with a remarkably smoothed surface.

deburow magnetic systems

The deburow magnetic 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 deburow magnetic can be combined with the outstanding, proven SECKLER deburow brushing technology, customized machines and the automation handling technology.

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