

Quality Made in Germany since 1924



Polishing of hard metal with
elastic bonded diamond tools

Polishing of hard metal

You have the surfaces - we take care of the finish. Our products are always called for when surfaces cannot be further refined with conventional vitrified or resin-bonded grinding wheels. Contrary to abrasive belts, they can also be used to finish hard to reach surfaces.

ARTIFEX makes it possible. We have developed a new rubber bonding system that is able to hold diamonds perfectly inside the rubber. These new tools allow an automation of manual processes for example with a robot or inside a CNC machining center.

WORKPIECES

Moulds | Stamps

MATERIAL

Hard metal

MACHINES

Hand machines | CNC Machining centers
Tool grinding machines | Robots

PROCESS DESCRIPTION

Polishing at right angle towards the pre-grinding direction in a Kern Mikro Tooling machine, axial deflectable spindle made by son-x for elastic bonded mounted points

PROCESS SETUP

| | |
|----------------------|------------------------------|
| Tool speed v_c : | 20 m/s |
| Normal force F_N : | 10 N |
| Form feed v_{fa} : | 1,500 mm / min |
| Cooling lubricant : | Dry Water Emulsion Oil |

RESULT

After three runs the surfaces shows perfect mirror finish
Material removal rate is constant throughout the whole process
No detectable wearing of the tool

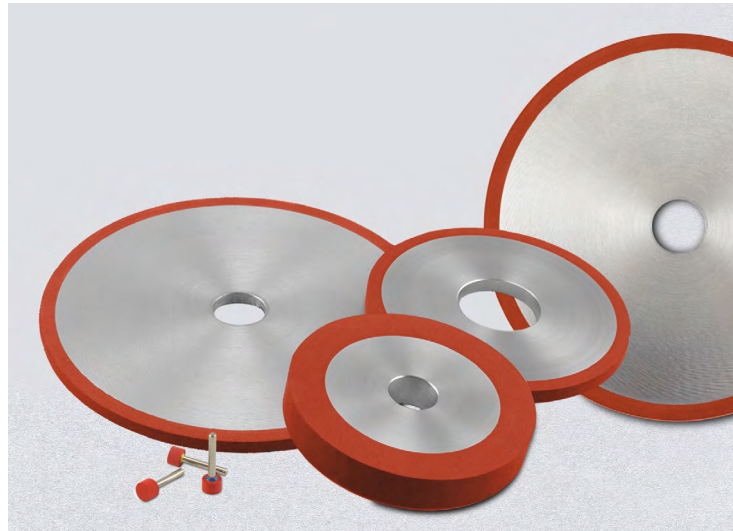
TOOL

| | |
|-----------------|--|
| Product : | ARTIFEX DA - R |
| Bonding : | Special rubber bond |
| Hardness : | W (soft) M (medium) H (hard) |
| Grit size : | Diamond 6 - 80 μm |
| Delivery form : | Mounted points Peripheral wheels Cup wheels Blocks |
| Dimension : | OD \varnothing 3 - 400 mm |

ADVANTAGES

Material removal rate is constant throughout the whole process. The Process does not need any cooling lubricant, it can be carried out dry. For all different tool types, the best results are obtained after running three times across the surface.

The cost for these new tools are about half the price of diamond tools in metal or resin bond.



The ARTIFEX promise

We stand for tools that guarantee the highest quality standards. All ARTIFEX products are „**Made in Germany**“ and their above-average service life speaks for itself.

Our service: You have individual requirements, we offer customised solutions regardless of the material, shape or dimensions. We will gladly advise you on your premises.