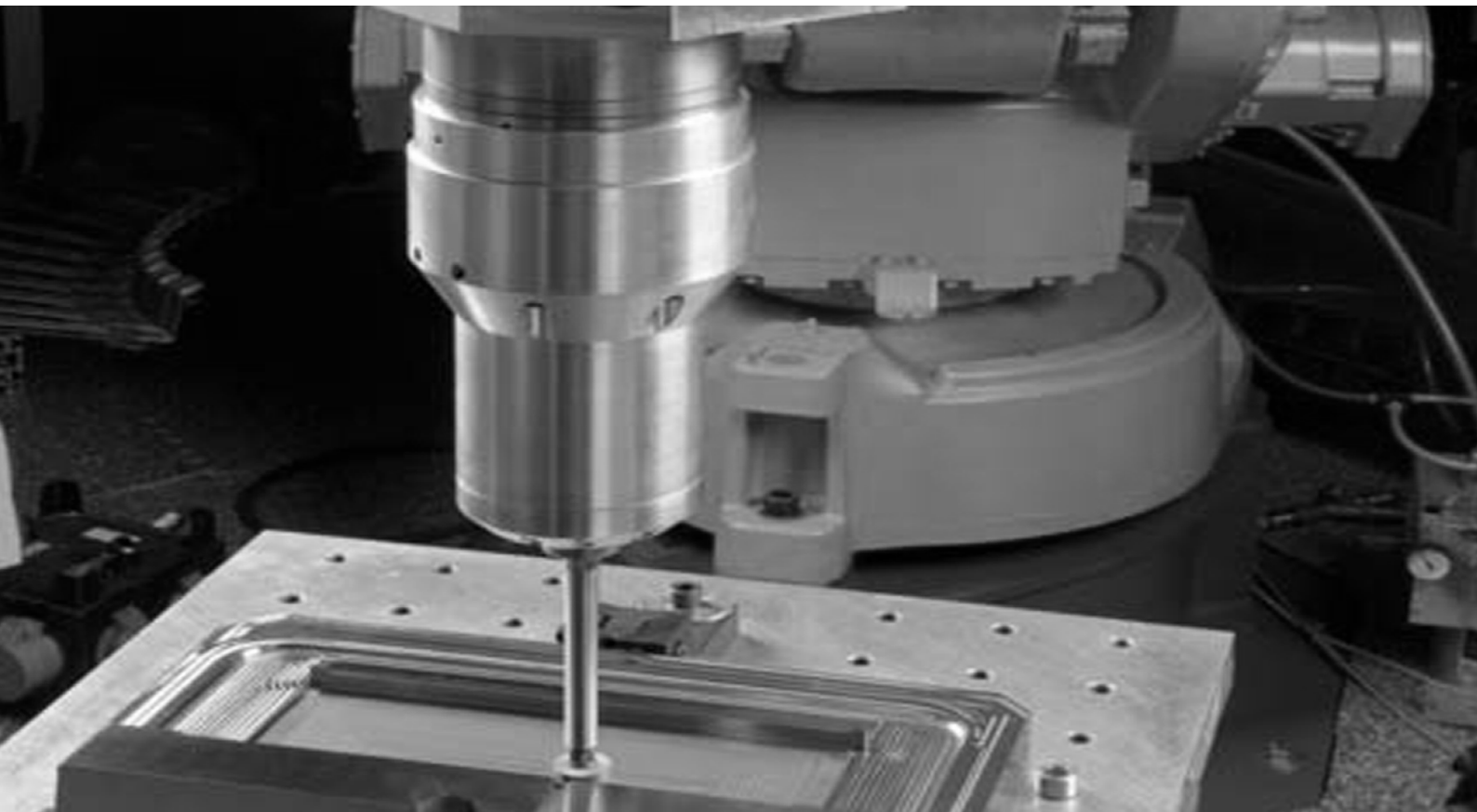


Quality Made in Germany since 1924



Automated polishing with robots in mold making

Automated polishing with robots in mold making

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.

In order to transform a manual polishing process for mold making into an automated process with a robot, one needs two things. The matching spindles and the perfect tools. Specially designed radial or axial deflectable spindles are made by companies like son-x, SN-Spindeltechnik or Biax. ARTIFEX offers the matching polishing tools.

WORKPIECES

Molds for injection molding | Forming dies

MATERIAL

Tool steel | Hot die steel

MACHINES

Robots with deflectable spindle

PROCESS DESCRIPTION

Polishing of vertical areas with radially deflective spindle and elastic bonded mounted point

Polishing of radius with axially deflective spindle and elastic bonded mounted points

PROCESS SETUP

Spindle speed n :	10,000 min ¹ 20,000 min ¹
Normal force F_N :	10 N 20 N
Track distance a_f :	0.25 - 0.5 mm
Form feed v_{fa} :	1,000 mm/min
Cooling lubricant :	Very small amounts of Emulsion or Oil

RESULT

Surface roughness $R_a < 0.1 \mu\text{m}$

TOOLS

For Polishing of vertical areas :

Product :	ARTIFEX EK - MFP
Bonding :	Foamed polyurethane hard
Hardness :	M (medium)
Grit size :	White fused Aluminium F240 - F800

For Polishing of radius :

Product :	ARTIFEX EK - MG
Bonding :	Foamed polyurethane hard
Hardness :	M (medium)
Grit size :	White fused Aluminium F120 F240

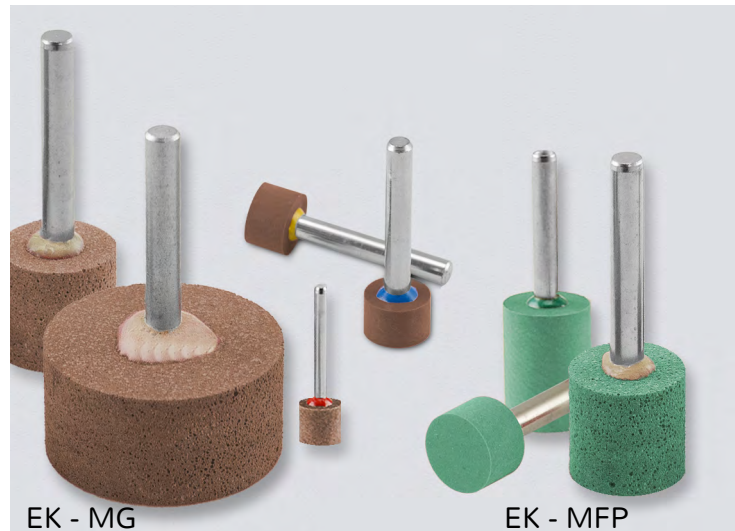
ADVANTAGES

Reducing the process time compared to the usual manual process up to 40%

Measurably reducing the process costs (> 25%)

ARTIFEX Dr. Lohmann GmbH & Co. KG

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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.