

Quality Made in Germany since 1924



Superfinishing of gears

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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 ARTIFEX tools, abrasive grains such as silicon carbide or aluminium oxide are flexibly embedded in elastic materials, such as foamed polyurethane (P) or rubber (Rplus). As a result, our grinding and polishing wheels are sponge-soft, finely porous or hard, but always elastic. Depending on the application, the specifically matched composition of grain and bonding results in the desired finish.

## WORKPIECES

Gears

## MATERIAL

For Example 20MnCr5

## MACHINES

CNC gear grinding machines

## PROCESS DESCRIPTION

Profile grinding with path adjustment

## PROCESS SETUP

Cutting speed $v_c$ :	35 m/s
Infeed in $a_e$ :	50 $\mu\text{m}$
Feed rate $v_{fa}$ :	0.5 - 1.0 m/min
Double stroke	
Cooling lubricant :	Water   Emulsion   Oil

## RESULT

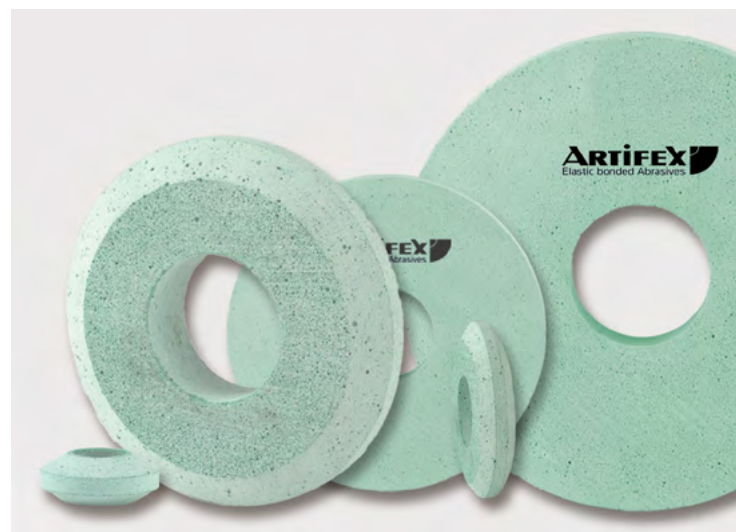
Surface roughness :	$Rz < 1 \mu\text{m}$
Material contact area :	$> 95 \%$
Material removal :	3 - 8 $\mu\text{m}$

## TOOL

Product :	ARTIFEX EK 800 MFP
Bonding :	Foamed Polyurethane   hard
Hardness :	M (medium)
Grit size :	Aluminium oxide F800
Delivery form :	Peripheral wheels   pre-profiled
Dimension :	OD $\varnothing$ 150 - 400 mm

## ADVANTAGES

- Complete process in one clamping of the workpiece
- Low risk of grinding burns
- No geometric changes
- Cutting off the peaks of the roughness profile
- No further process or machinery necessary



## 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.