

# Quality Made in Germany since 1924



Flexible metal working with ARTIFEX

We create perfect surfaces.

## ARTIFEX – your metal working partner

You have the surfaces – we take care of the finish. Our elastic bonded abrasives can be applied in virtually all areas of metal working, whether manual or mechanical, in dry grinding or with cooling lubricants. With over 90 years of experience in tool development and production, we guarantee the highest quality.

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.

#### ELASTIC - FLEXIBLE - POWERFUL

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.





#### YOUR REQUIREMENTS

You need tools to grind and polish hard to reach surfaces? Your surfaces are so fine that they need to be treated with special sensitivity? We produce the most varied sizes, shapes and materials. And if there is no matching tool for your individual requirements, our research department will develop it at the highest technological level.

ARTIFEX tools speed up your manufacturing processes and increase the cost effectiveness in your production. Whether primary work like deburring, descaling or deoxidising, or superfine applications like satin finishing, high-gloss polishing and superfinishing – our products are as flexible in application as your requirements are individual.



### YOUR APPLICATIONS AT A GLANCE

#### PRELIMINARY WORK

- Deburring and dressing
- Rust removal and descaling
- Removal of lacquers
- Deoxidising
- Cleaning

### PRECISION WORK

- Fine and ultra-fine grinding
- Matt finishing, satin finishing
- High-gloss polishing
- Superfinishing

#### **PROCESSES**

- Cylindrical grinding
- Internal cylindrical grinding
- Surface grinding
- Profile grinding
- CNC machining centres
- Robot machining





#### YOUR SURFACES

From sophisticated processes like the manufacture of surgical instruments, jewellery or watches and precision mechanics, electronics and optics up to the machining of heavy-duty turbine blades: elastic bonded abrasives by ARTIFEX are used in steel mills, mould design and construction, the automotive industry, the medial engineering industry and the food and pharmaceutical industry worldwide.

The following materials can be finished with our products:

- Steel, high alloy steel
- Hardened steel, hard metal
- Aluminium, non-ferrous metal, precious metal
- Sintered metal, cast iron
- Plastic, wood
- Technical ceramics



#### **DIVERSITY IN USE**

With their diversity of materials and shapes, ARTIFEX tools can be used in the most varied areas. Amongst others, they are applied in the following areas:

- Polishing of endoprostheses
- Deburring and polishing of surgical instruments
- Superfinishing of bearing rings
- Edge rounding of drills and cutters
- Machining of turbine blades
- Polishing of circular saw blades and circular knives
- Polishing of machine shafts by cylindrical grinding
- Superfinishing of gears by profile grinding
- Continuous deburring and polishing of stamped parts
- Seam dressing of welding seams on pipes and containers
- Finishing of ceramic parts
- Cleaning and polishing of moulds and injection moulds
- Polishing and satin-finishing of jewellery, watches and watch straps
- Descaling and polishing of forged machine parts
- Polishing of flutes on drilling and cutting tools

# COULD NOT FIND YOUR APPLICATION HERE? CONTACT US.

We provide technologically mature and custom-fit solutions that meet your requirements. We will gladly advise you on your premises. Afterwards, our team of experts will develop tools in our research department that are perfectly adapted to your individual requirements.

#### **ELASTIC GRINDING AND POLISHING**

Thanks to their flexibility, the ARTIFEX tools adapt perfectly to the geometry of the workpiece and merely remove the roughness peaks from the surface. This increases the material contact area and significantly reduces the roughness depth – to less than 1  $\mu$ m (Rz). The open-pored structure ensures cool grinding and prevents clogging of the tool.

Abrasives in elastic bonding require a higher infeed than common vitrified products. Due to their elasticity, ARTIFEX polishing and grinding tools adapt to the material, so that the entered infeed is never realised as a true material removal. This gives the finish a consistent and brilliant quality.

#### SPECIAL ADVANTAGES

Our products can be effortlessly dressed and profiled with conventional tools. They can be used dry or with all conventional cooling lubricants like water, emulsion or oil. Because of their self-dressing effect – a new grain is used constantly –, the grinding pattern remains constant throughout the tool's service life.

#### **OVERVIEW OF THE ARTIFEX RANGE**

Peripheral wheels, cup wheels, abrasive rings and rolls, mounted points, finger ring cones and rods, plates and blocks, as well as special customised shapes.



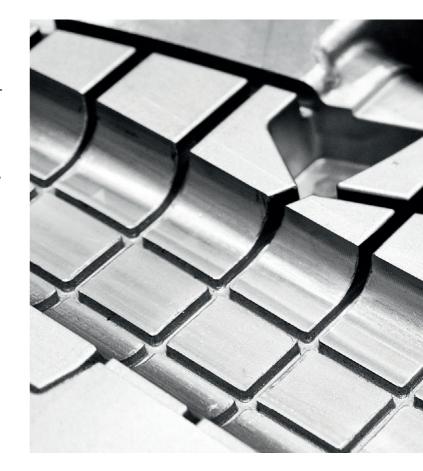
#### PROGRAMME OVERVIEW

SHAPE	DIMENSIONS	GRAIN SIZE
Points	4 x 10 x 2.35 mm – 60 x 40 x 6 mm	F46 – F800
Blocks	10 x 10 x 10 mm – 500 x 250 x 40 mm	F46 – F800
Wheels	20 x 3 x 1.8 mm – 650 x 110 x 127 mm	F46 – F800
Special shapes	All above dimensions in combination	F24 – F2400

## 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.



ARTIFEX Dr. Lohmann GmbH & Co. KG Feldstrasse 8 | DE-24568 Kaltenkirchen

Telefon: +49 (0) 4191 935 - 0

info@artifex-abrasives.de | www.artifex-abrasives.de