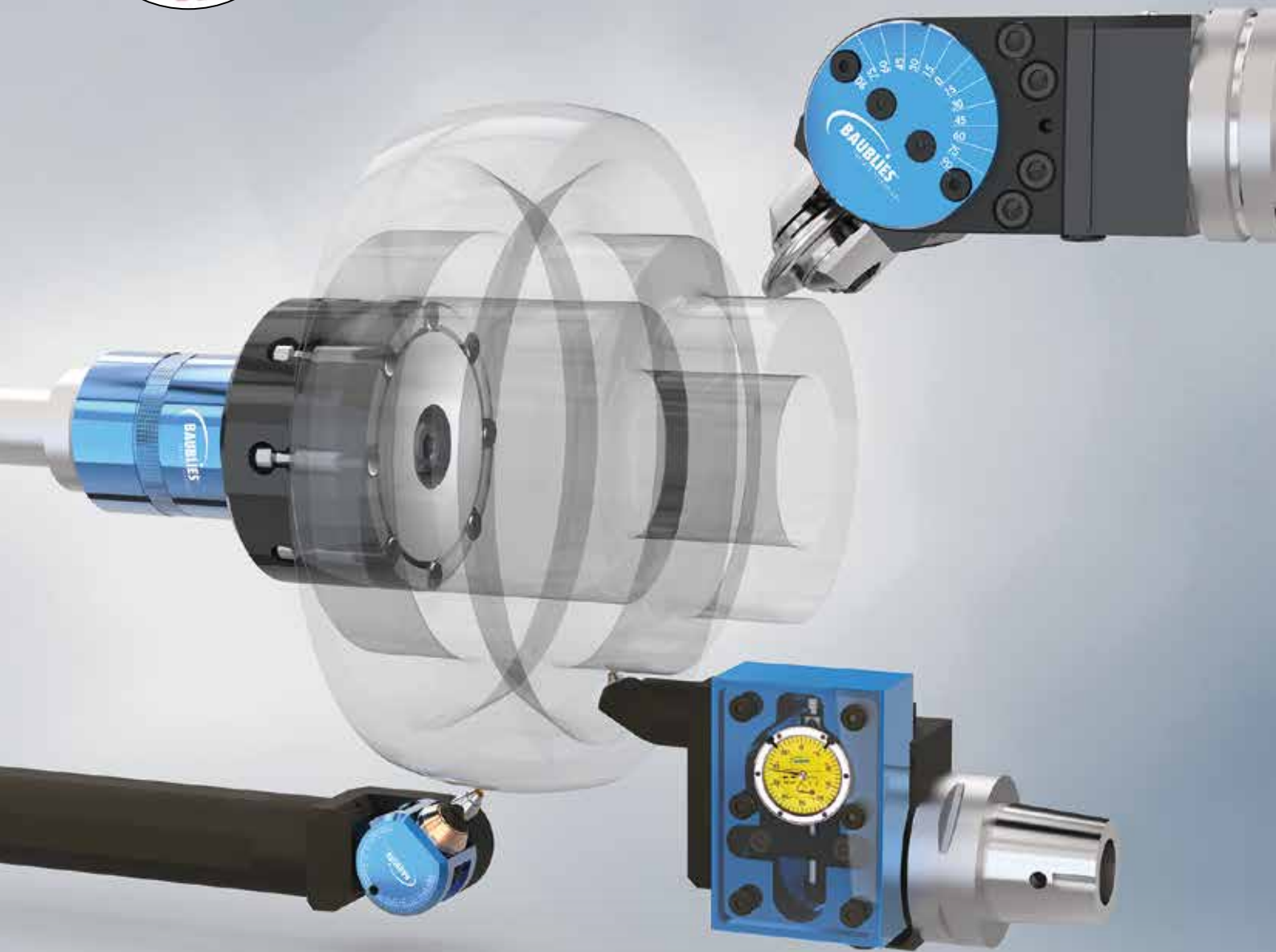




RSVP TOOLING is proud to offer BAUBLIES precision roller & diamond burnishing tools for internal & external applications.



OPTIMIZED SURFACES BY ROLLER-BURNISHING AND DIAMOND-BURNISHING

Maximum surface quality while increasing
the strength and hardness
of the workpiece



SINGLE-ROLLER BURNISHING TOOLS

VERSATILE USE

Interchangeable single-roller tools and the Baublies modular tool system achieve a significant increase in the material surface hardness in combination with a very smooth surface. With single-roller burnishing, a hardened roller flattens the surface of the workpiece by contacting it at one single point: In this area of contact the steplessly adjustable roller pressure reaches the yield point of the material. During the process, work hardening of the surface layer and an increase in surface-hardness takes place. The generation of residual compressive stresses significantly increases vibration resistance in the workpiece.

ADVANTAGES

- high flexibility, broad range of applications
- maximum process reliability
- high-quality and rugged
- surface roughnesses of under $R_z 1.0 \mu m$
- larger contact area ratios due to plateau formation
- greater surface resistance to wearing and corrosion
- constant dimensions and high fitting accuracy
- shifting of the material fatigue limits
- low investment
- fast return of invest
- environmental friendliness due to a lack of waste products
- the possibility of complete processing in one setting



Modular tool-system

MULTI-ROLLER BURNISHING TOOLS



IT'S A „SPRINT“ TO THE FINISH: EXTREMELY SMOOTH SURFACES IN JUST SECONDS

Roughness depths of less than $R_z 1.0 \mu m$, short machining times as well as low investments with fast amortization make multi-roller burnishing tools a high-quality and more cost-effective alternative to conventional machining processes.

ADAVANTAGES

- workpiece is not subjected to lateral forces
- short machining times
- hardened boundary layers
- increased fatigue strength
- larger contact area ratios due to plateau formation
- greater surface resistance to wearing and corrosion
- shifting of the material fatigue limits
- reduction of coefficients of sliding friction
- environmental friendliness due to a lack of waste products
- suitable for all standard machine tools



Principle of a planetary gear:
The taper (1) is permanently connected to the tool holding fixture (4). The cage (3) with mounted rollers (2) can be freely rotated.

DIAMOND-BURNISHING TOOLS

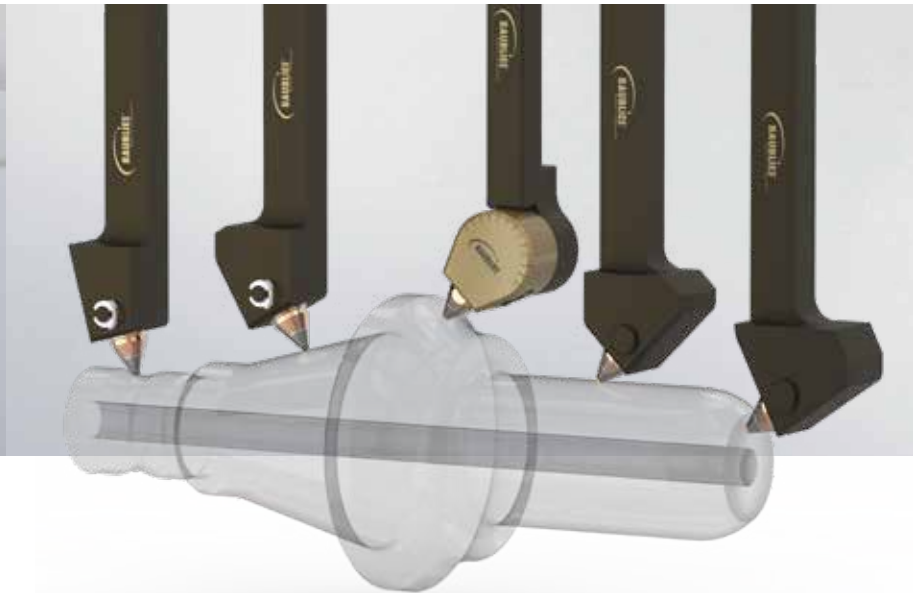
HARD AND VERSATILE: SMOOTHING AND WORK-HARDENING IN NEW DIMENSIONS

Diamond-burnishing tools expand the range of applications of roller burnishing technology, as even hardened materials up to approximately 60 HRC can be roller burnished.

In the process, a high-precision, micropolished diamond glides over the surface. As soon as the yield point of the material is exceeded, the profile peaks of the workpiece surface flow into the adjacent recesses in the μm range.

COLIBRI: PERFECT FINISH FOR SOPHISTICATED WORKPIECES

Small, fine and in excellent BAUBLIES quality: these are the new burnishing tools which we have developed especially for filigree applications. We have optimized our many years of know-how in diamond burnishing for the machining of small precision parts and thin-walled workpieces in a compact form.



ADVANTAGES

- maximum process reliability
- top surface qualities
- harder outer layers
- smoothing of hardened components > 60 HRC
- no need for additional equipment such as hydraulic units
- increase in fatigue strength
- larger contact area ratios due to plateau formation
- higher surface resistance to wear and corrosion
- expanding of material fatigue limits
- reduced sliding friction coefficients

RANGE OF APPLICATIONS OF THE COLIBRI-SERIES

Diamond burnishing tools from the Colibri series are always optimally suitable when the peak-to-valley height of filigree workpieces is to be minimized and at the same time the strength is to be increased.

Typical application areas are:

- components for medical devices and the optical industry
- connecting elements for aerospace and automotive technology
- as well as other compact precision parts in which surface quality plays a crucial role



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