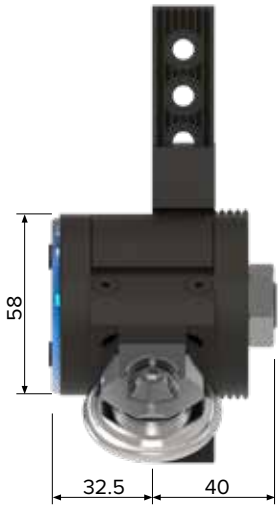
BAUBLIES GROUP

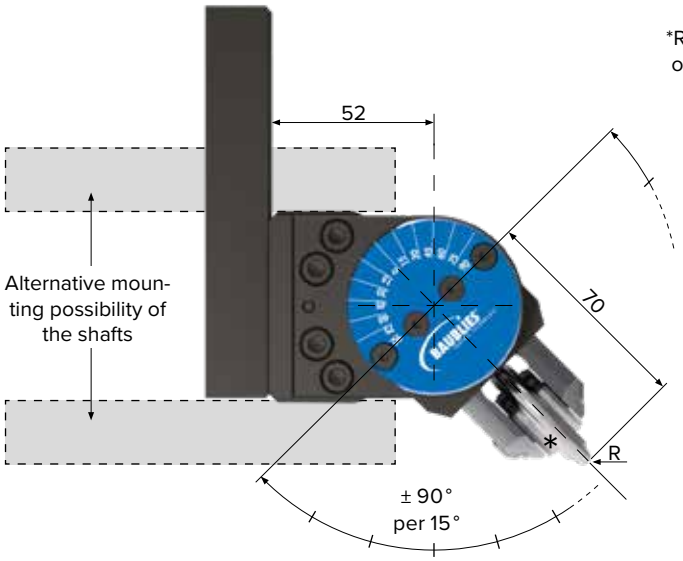
THE PRESSURE IS ON

Powerful compression
and smooth surface

BAUBLIES®
SURFACE TECHNOLOGY

Variable single-roller burnishing tool





*Roll must be ordered separatly

Technical details	
Application	shafts, contours, recess grooves, plane surfaces
Standard fixture	square shank 20/25/32/40 mm
Swiveling range	±90° in 15°-steps adjustable
Radius (R)	2 mm

Options

- Fixtures VDI, HSK etc.
- Tailor made rollers for eg. carbide

Variable single-roller burnishing tool for smoothing and hardening internal and external contours.

ADVANTAGES

- Adjustable angle for various contours
- Optimal design of the rollers for profile machining
- Universally applicable due to compact design

Examples of Fixtures and others

Application parameters	
Please note that this information represents standard values which must be adapted to the individual cases.	
Speed	up to 200 m/min
Feed rate	0.05 – 0.3 mm/rev
Workpiece allowance	up to 0.02 mm
Tool preload	up to 1 mm
Lubrication	emulsion or oil; filtration of the lubricant (< 40 µm) can improve the surface quality and the tool life
Pre-machining of workpiece	surface roughness (R_z) up to 15 µm
Workpiece hardness	up to 45 HRC

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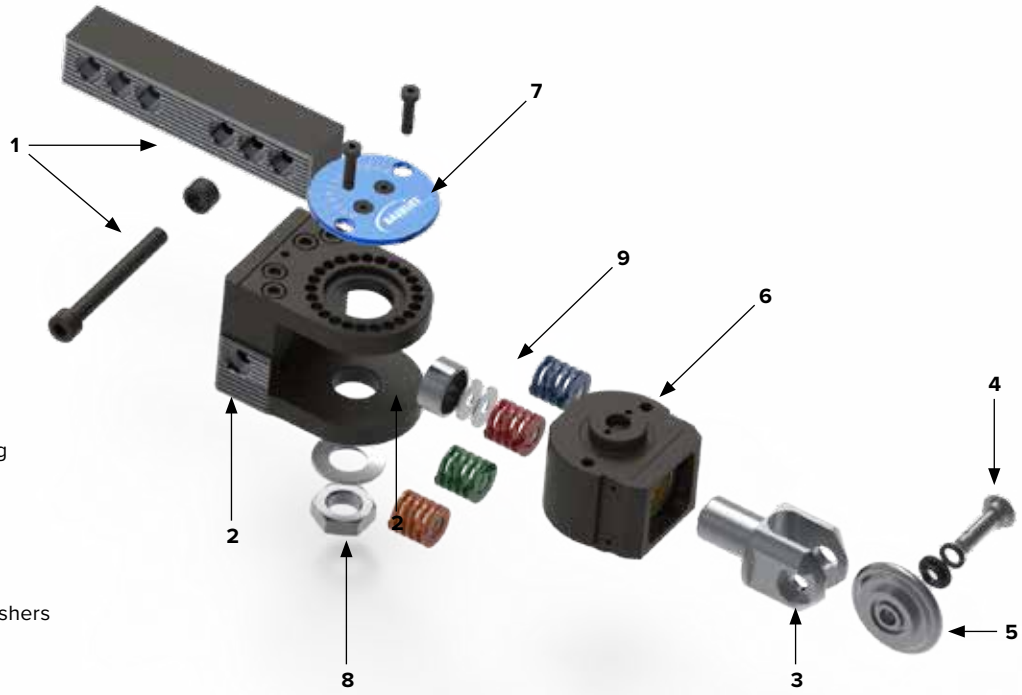
Tool assembly/handling and replacing components



1 Fixture with mounting
2 Holder with indexing
3 Roller fork
4 Axle with nut and shim ring
5 Roller with bearing
6 Body with spring
7 Indexing plate with bolts
8 Clamping
9 Spring assembly (with washers and screw plugs)

POSITIONING THE ROLLER:

Remove the bolts **(7)** from indexing plate.
Loosen clamping **(8 / SW24)** until the housing **(6)** can be adjusted.
Adjust angle (1 graduation mark = 15°)
Fix the adjustment with bolts.
Tighten clamping.

MODIFYING THE TOOL PRELOAD

(see classification force–spring deflection):

ATTENTION!

The roller fork is spring loaded!

a) Changing the spring
(Factory setting, red spring mounted. Including 2 x1 mm discs, discs are not assembled (see classification force spring deflection).
Remove the bolts **(7)** from indexing plate, loosen clamping **(8 / SW24),** swivel housing **(6)**. Remove screw plugs **(9)** and change spring assembly/washers **(9)**.

b) Depending on the requirements, mount the required compression spring incl. washer(s) using the classification force-spring deflection.

REPLACING COMPONENTS:

Replacing roller:
Remove axle **(4)** with nut and shim ring.
Remove roller with bearing **(5)**.
Replace roller with bearing. Install axle and nut.
Pay attention to the max. torque of 2-2.5 Nm.
A suitable torque wrench is available for mounting the roller.

NOTE

The occuring forces can be very high!
For safety reasons always ensure a sufficient clamping of the tool on your machine.

ATTENTION!

The roller fork is spring loaded!
The roller fork **(3)** is not to be disassembled until the spring assembly **(9)** has been removed and thus the tool is laid-back.

TIPP

- The preload (factory setting) of the tool during burnishing should be in a range between 0.1 and 0.5 mm
- Coolant must be used at any time
- Avoid interrupted cuts
- For a basic setting of the center height we recommend using the single roller tool max. 0.3 mm above the turning centre.

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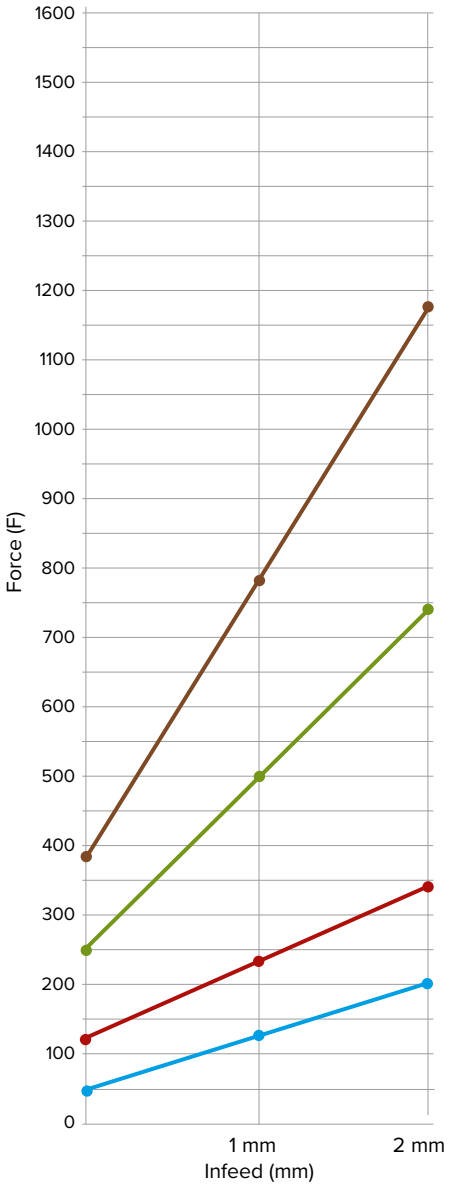
Classification Force - Spring Deflection

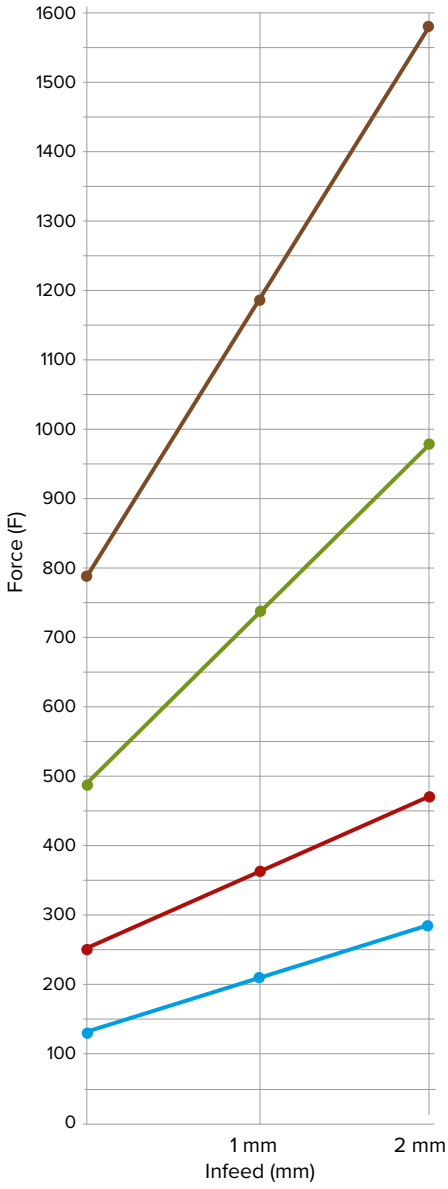
Classification Force – Spring Deflection (Factory setting spring red)



Without disc

Force	Spring
70 (N)	soft
120(N)	medium
250 (N)	hard
390 (N)	very hard

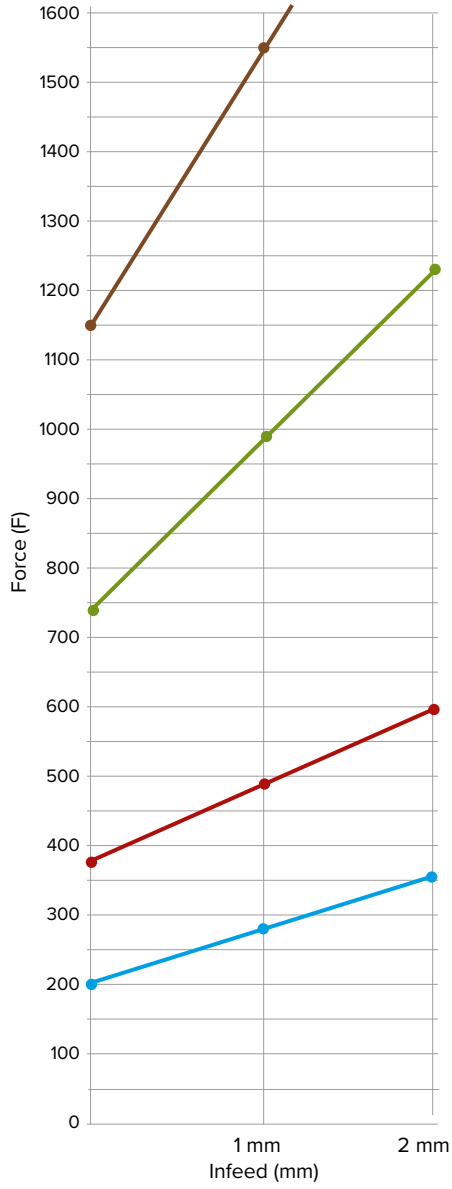
Classification Force – Spring Deflection one disc = 1 mm monted



One disc = 1 mm

Force	Spring
130 (N)	soft
250 (N)	medium
490 (N)	hard
790 (N)	very hard

Classification Force – Spring Deflection two discs = 2 mm monted



Two discs = 2 mm

Force	Spring
200 (N)	soft
370 (N)	medium
740 (N)	hard
1170 (N)	very hard

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