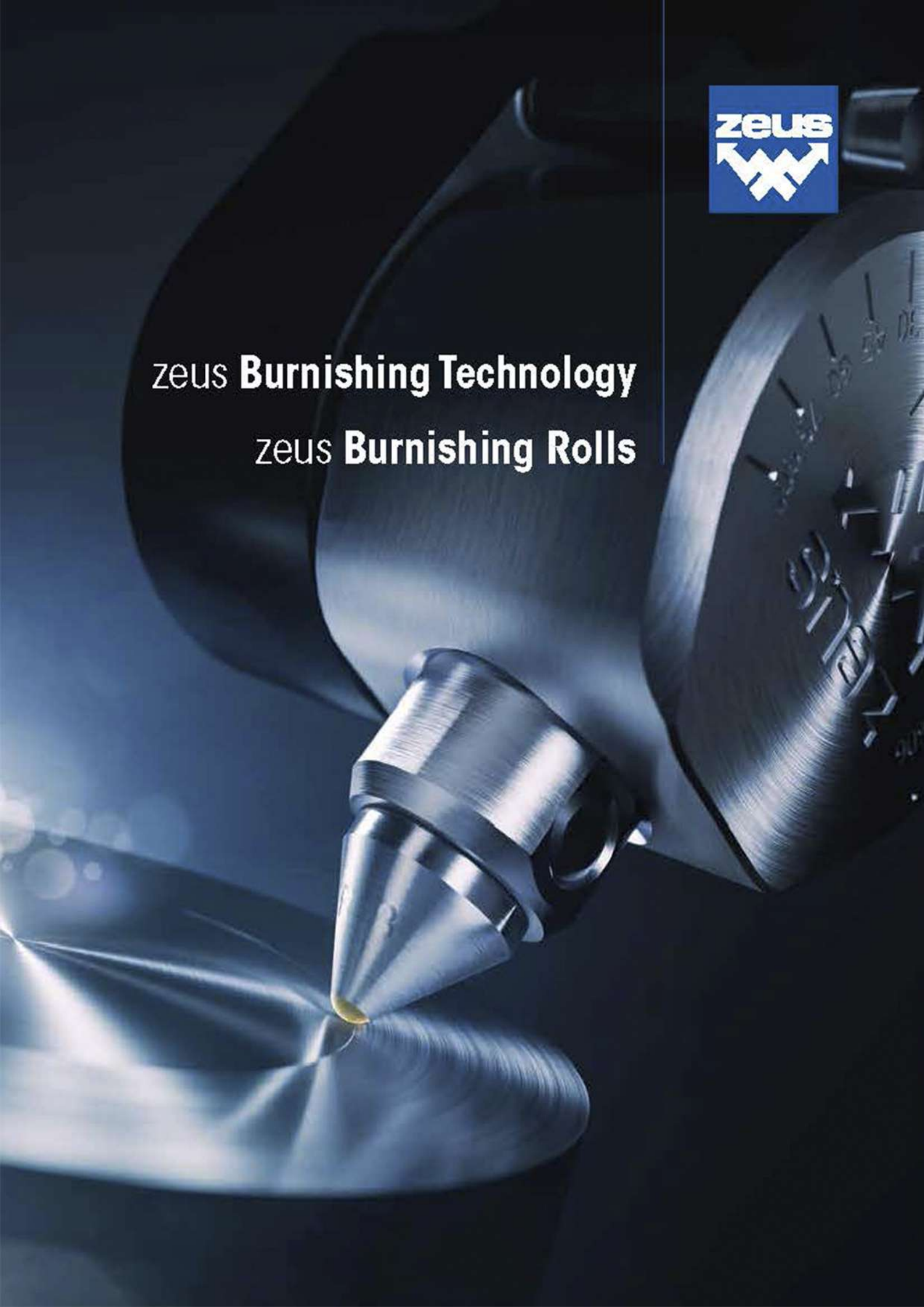




zeus **Burnishing Technology**

zeus **Burnishing Rolls**





BURNISHING TOOLS

easy handling | reliable | surface quality up to $< R_z 1 \mu\text{m}$



Entry-level model
for Swiss type lathes



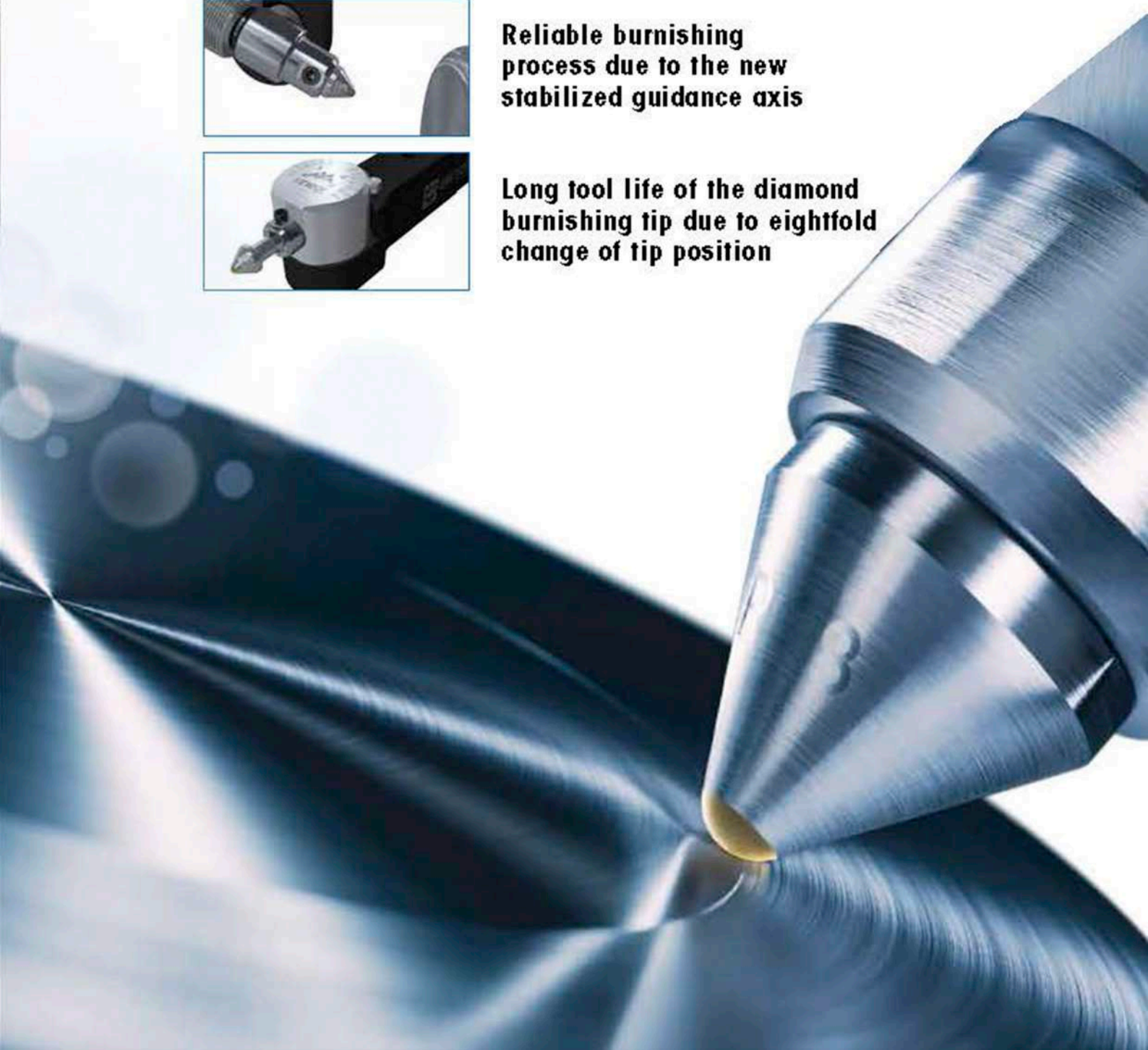
Easy handling
due to the new
spring spoke system



Reliable burnishing
process due to the new
stabilized guidance axis



Long tool life of the diamond
burnishing tip due to eightfold
change of tip position





BURNISHING TOOL SET 510

The entry-level model for Swiss type lathes impresses with its easy handling.



BURNISHING TOOL SET 520

The flexible burnishing tool for almost all workpiece geometries.



Product features

- Fixed tool head
- New entry-level model for simple burnishing applications, e.g. for burnishing shafts with cylindrical surfaces
- Tool universally applicable
- Compact design - developed for Swiss type lathes
- Center height at middle of the shank
- Long tool life of the diamond burnishing tip due to eightfold change of tip position

Recommendations

- Burnishing speed up to 200 m/min
- Feed rate up to 0.2 mm/U
- Material allowance of 0.01 mm (~Rz 10) and 0.02 mm (~Rz 20)
- For an optimum result it is recommended to use a cooling lubricant

Product features

- Tool head is variably adjustable
- Tool universally applicable
- Swivel range $\pm 90^\circ$
- Thanks to the adjustability of the tool head, it is possible to burnish end face, conical, convex and concave geometries
- Application up to a shoulder
- Long tool life of the diamond burnishing tip due to eightfold change of tip position

Recommendations

- Burnishing speed up to 200 m/min
- Feed rate up to 0.2 mm/U
- Material allowance 0.01 mm (~Rz 10) and 0.02 mm (~Rz 20)
- For an optimum result it is recommended to use a cooling lubricant



TOOL VERSIONS:

Available from stock

Item no.	Tool holder model	Head angle	Basic shank [mm]	Dimensions [mm]								Including shank adapter [mm]
				a	b	c	d	e	f	x		
31003955	510-10	35°	10 x 10	10	10	113	22	28	15	9.5	12 x 12 16 x 16	
31003956	510-10	45°	10 x 10	10	10	104.6	24	24.6	15	9.5	12 x 12 16 x 16	

Sets delivered without diamond burnishing tip.

TOOL VERSIONS:

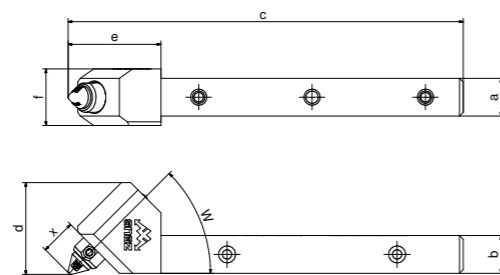
Available from stock

Item no. (right-hand version)	Item no. (left-hand version)	Tool holder model	Basic shank [mm]	Dimensions [mm]								Angle [°]		Including shank adapter [mm]
				a	b	c	d	e	f	g	x	+w	-w	
31003922	31013577	520-10	10 x 10	10	10	118.5	20	37.5	25	17.5	9.5	90	90	12 x 12 16 x 16
31003923		520-16	16 x 16	16	16	114.5	20	34.6	25	17.5	9.5	90	90	20 x 20 25 x 25

Sets delivered without diamond burnishing tip.

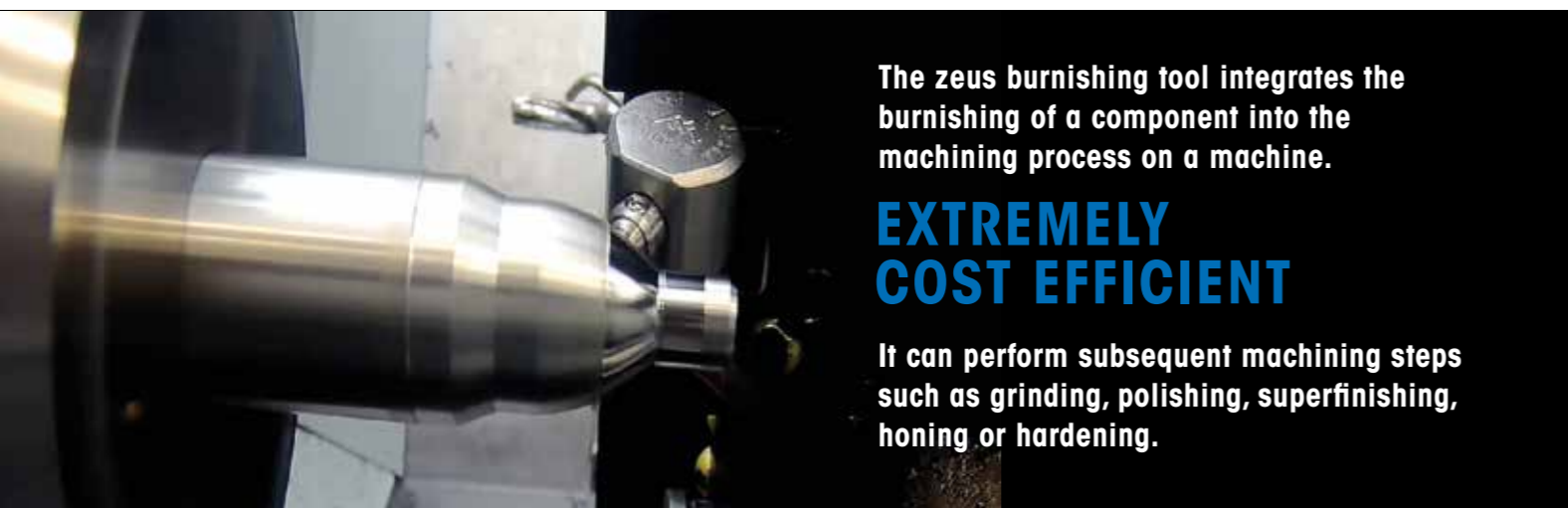
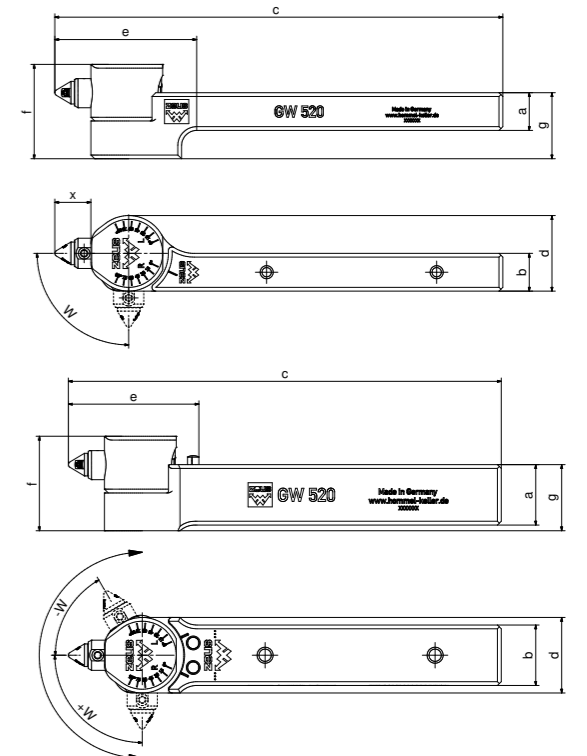
DIAMOND BURNISHING TIP VERSIONS:

Item no.	Tip radii [mm]
06TGW0024	0.2
06TGW0008	0.4
06TGW0009	0.6
06TGW0010	0.8
06TGW0011	1.0
06TGW0007	2.0



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The zeus burnishing tool integrates the burnishing of a component into the machining process on a machine.

EXTREMELY COST EFFICIENT

It can perform subsequent machining steps such as grinding, polishing, superfinishing, honing or hardening.



RRA



RRE

zeus burnishing rolls can be used in standard zeus form knurling tools. On request, we can develop and produce a custom holding system.

Use in this tool system is suitable for machining cylindrical work-pieces, bores, end faces, conical workpieces and for convex and concave outer contours.

Applications:

zeus burnishing rolls are used primarily for roller-burnishing and supporting round material during machining on lathes.

Result:

Improved surface quality
Increased dimensional stability
Increased hardness of surfaces

Advantages:

- Burnished workpieces exhibit low friction and increased resistance to corrosion after machining
- Reworking, such as grinding, honing and lapping can be replaced by simple roller-burnishing machining
- When used as support rolls, they reduce wear on the bearings and clamping devices and minimise the pressure on the workpiece

Burnishing roll type RRA – cylindrical

Item no.	Rz-Class	Profile	Ø (mm)	Width (mm)	Bore (mm)	Bore fit
41020520	4	RRA	10	4	4	G7
41000000	5	RRA	10	4	4	G7
41020521	6	RRA	10	4	4	G7
41020522	4	RRA	15	4	4	G7
41000012	5	RRA	15	4	4	G7
41020523	6	RRA	15	4	4	G7
41020524	4	RRA	20	8	6	G7
41000045	5	RRA	20	8	6	G7
41020525	6	RRA	20	8	6	G7
41000055	4	RRA	25	8	6	G7
41020588	5	RRA	25	8	6	G7
41020526	6	RRA	25	8	6	G7

Rz-Class on the roll:

No. 04: Rz 4 µm
No. 05: Rz 2-3 µm
No. 06: Rz 1 µm

Burnishing roll type RRE – convex

Item no.	Rz-Class	Profile	Ø (mm)	Width (mm)	Bore (mm)	Bore fit
41000006	4	RRE	10	4	4	G7
41020589	5	RRE	10	4	4	G7
41020527	6	RRE	10	4	4	G7
41000020	4	RRE	15	4	4	G7
41020590	5	RRE	15	4	4	G7
41019677	6	RRE	15	4	4	G7
41020528	4	RRE	20	8	6	G7
41000047	5	RRE	20	8	6	G7
41020529	6	RRE	20	8	6	G7
41000057	4	RRE	25	8	6	G7
41020591	5	RRE	25	8	6	G7
41020530	6	RRE	25	8	6	G7

Rz-Class on the roll:

No. 04: Rz 4 µm
No. 05: Rz 2-3 µm
No. 06: Rz 1 µm



a brand of
Hommel+Keller
Präzisionswerkzeuge GmbH



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