

Type RP, RDP, RK, RKA Tool Applications: Non-cylindrical surfaces

Features

The RP, RDP, RK and RKA roller burnishing tools achieve outstanding results on non-cylindrical surfaces such as plane faces and internal and external tapered surfaces.

These tools work under axial load and can be used with almost any type of machine. Either the tool or the workpiece can rotate.

A flexible disc spring assembly transfers the axially directed rolling force from the machine to the roller head. The tools can be used to machine all metals with tensile strength up to 1400 N/mm² and maximum hardness of 45 HRC.



Machining a steering lever with a Type RK tool.

Advantages

- Reliable, high precision performance
- Wide variety of applications
- Extremely short processing time
- Disc spring assembly facilitates consistent, high quality results
- Suitable for use with many different machines
- Standard tool shanks available: Morse taper, cylindrical, and VDI tool shanks
- Easy to change wear parts

Basic tool design

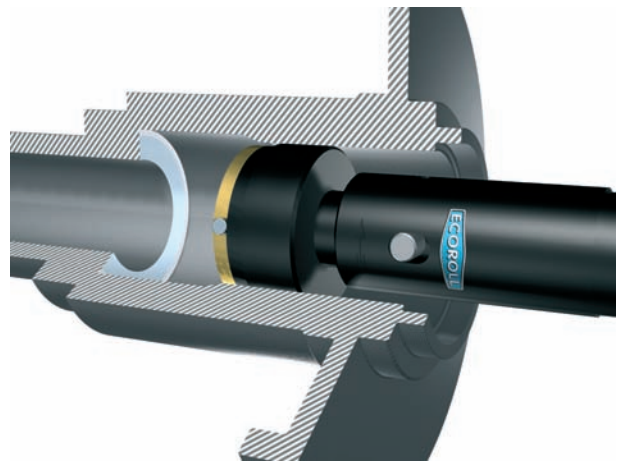
Type RP, RDP, RK, and RKA roller burnishing tools consist of a tool body and roller head.

Tool bodies for the RP, RDP, RK and RKA tools come in four sizes: S1 to S4.

The tools are equipped with Morse taper shanks, but cylindrical shanks, shank DIN 69880 (VDI-shank) and shanks for other clamping systems are also available. In addition, the tool body includes a disc spring assembly specifically designed and arranged for each individual machining task.

Roller heads are produced according to the specific workpiece dimensions. The roller head unit is mounted onto the tool body and determines the tool's type.

The illustrations on the following page demonstrate both the modular system and the wide variety of combinations available.



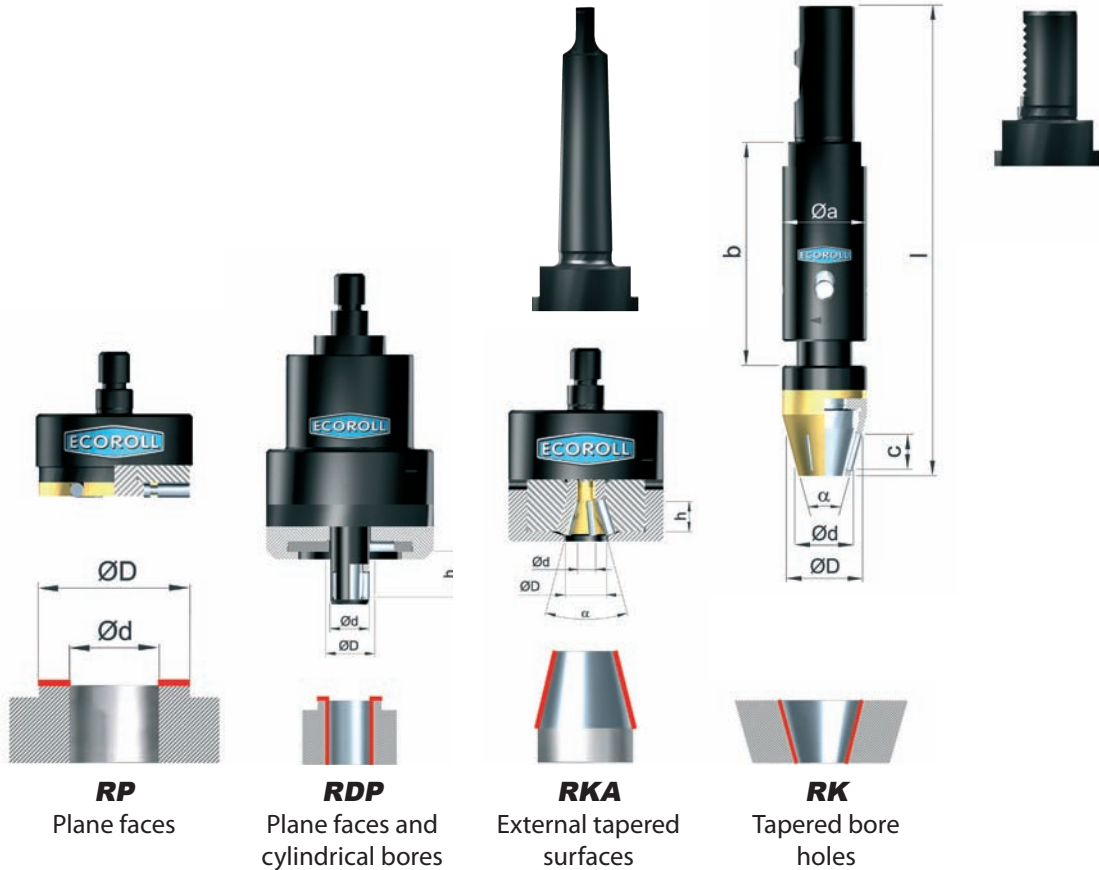
Machining a gear housing with a Type RP tool.

Tool Design and Specifications

Available shanks:

Morse taper DIN 228 MK Cylindrical shank DIN 1835 B, Form B ZS Cylindrical shank DIN 69880 VDI

Available roller heads:

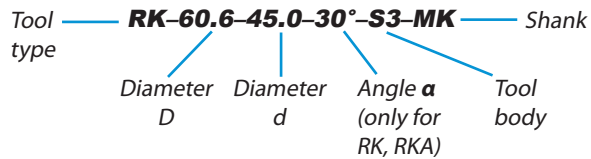


Tool application:

How to order:

The following table lists the standard dimensions for the tool bodies. Roller head dimensions and suitable tool body size depend on the workpiece dimensions and the material yield strength.

To ensure optimal tool design, please provide a drawing of the workpiece, including material specifications. If drawings are not available, provide the dimensions of the desired roller head and the material yield strength of the part to be burnished.



Tool body	a	b	Maximum force	Standard shank
	mm		kN	
S1	26	66	3.9	MK1
S2	35	92	13.5	MK2
S3	45	107	21.6	MK3
S4	65	135	40.5	MK4