Type KI, KD, KA

For Male - Female Tapers and Flat Surfaces

Application

These tools are used to process the internal-exernal tapers and flat surfaces. They are suitable to roller burnish for all workpieces requiring sensitivity. The tool body is equipped with a special spring system. This spring system enables the pressure, which is applied on the workpiece, adjusted specifically. At the same time, this spring system provides the tool a safety stroke (safety distance). The safety stroke prevents overload on the workpiece and the machine. Furthermore it helps to get a standard and perfect surface quality. The spring system which is designed specially for each tool, gives the opportunity to apply the same pressure everytime to the workpiece which is processed, thus a precision and standard size is obtained.

Technical Datas

Revolution	: approx. 200 to 700 rpm
Pre-machining	: precision lathening
Pre-machining Roughness	: R_z = 5-15 µm
Coolant	: Oil emulsion or cutting oil

Type KI

For tapered internal surfaces

Any adjustment mechanism is not mentioned in tools. The roller burnishing process occurs when the roller head, which is prepared specially due to the sizes of workpiece, is contacted to the workpiece with a certain force. During the process either the tool or the workpiece may turn. These tools are capable to process all kinds of metallic metarials with 1400 N/mm² tensile strength and hardness up to max. 42-45 HRC. Tools work by Universal or CNC lathes, machining centers, drilling machines, milling machines or other machines which process by turning.

Type KD

For external tapered surfaces

Technical Datas

Revolution	: approx. 200 to 700 rpm
Pre-machining	: precision lathening
Pre-machining Roughness	: R_z = 5-15 µm
Coolant	: Oil emulsion or cutting oil

Tool Structure

KI, KD and KA type tools consist of a body and a roller head. The tool body consists of a shank and a very sensitive housing equipped with the pressurized spring system. The special spring system is designed due to the requirements of the work suitability. The tool is given with morse taper or cylindrical shank due to the preference. The roller head consists of cage, cone and rollers. These parts are designed and produced due to the dimensions of the workpiece. Later the roller head are assembled to the proper body. As the roller heads are designed upon the specifications of the desired work, it is not possible to keep these parts in stock.

Type KA

For flat surfaces

Technical Datas

Revolution	: approx. 200 to 700 rpm
Pre-machining	: precision lathening
Pre-machining Roughness	: R_z = 5-15 µm
Coolant	: Oil emulsion or cutting oil

Samples of application

• Taper seat surfaces of valve bodies • Ball stud • Gas cock • Clutch Parts • Valve seat surface • Top end of sensor connector • Joint flange surface • Plain surfaces of compressor parts • Mating surface of transmission parts • Top end of sensor connector • Semiconduktor valves • Joints etc.

KI
Male Tapers

KD
Female Tapers

KA
Flat Surfaces

Order Requirements

The tool bodies and roller heads are designed in according to the sizes of the workpieces and the material type. In order to produce the most proper tool, it is necessary to submit the technical drawing and the informations such as the material type and material hardness. If it is impossible to send the technical drawings, at least the surface sizes of the workpiece and the material type should be informed definitely.

Order Sample

KI-47,00-33,20-30°-MK3
KI : Type
47,00 : Ø D
33,20 : Ø d
30° : Angle(only KI and KD)
MK3 : Shank

Tool Body	Diameter Range ØD	Tool Shank		a	b	c	e
		Morse Taper	Cylindrical (Øi x h)				
K1	006,00 - 044,99	MK2	Ø20 h6 x 50	78,5	65	25	It can be changed according to the workpiece and surface dimensions which will be operated.
K2	045,00 - 099,99	MK3	Ø25 h6 x 56	98	92	48	
K3	100,00 - 149,99	MK4	Ø32 h6 x 60	123	107	63	

All Dimensions in mm.