pdtools
SUPERABRASIVES

DIAMOND DRESSING ROLLERS

DIAMOND PROFILE DRESSING ROLLERS

Diamond profile dressing rollers are an integral part of modern grinding technology and are mainly used in serial and mass production. Diamond rollers are used for dressing of abrasive wheels.

With the help of diamond rollers, a copy of the profile of the required part is created on the surface of the working abrasive wheel. Then the abrasive wheel transfers this profile to the workpiece.

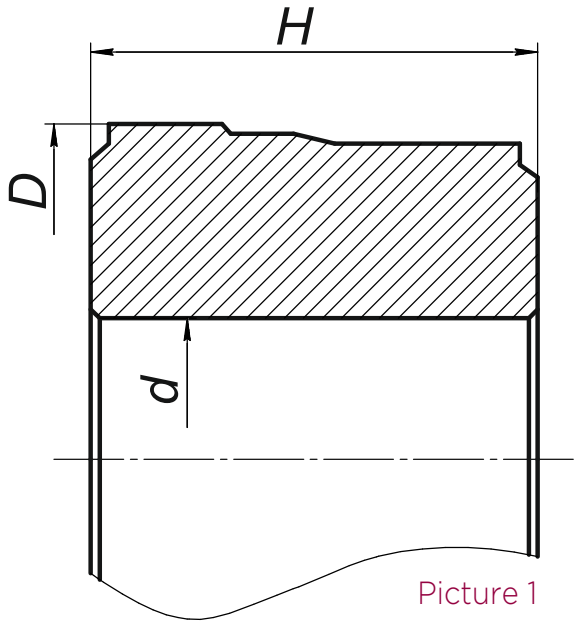
At the same time, diamond rollers allow to combine several processing transitions at once, including turning, milling and preliminary grinding.

The production program of **PDTools Superabrasives** includes the production of diamond rollers which are used for:

- crankshaft processing;
- processing of ball pins;
- grinding of piston rings;
- valve handling: -manufacturing of turbine blades;
- manufacturing of cogwheels; - manufacturing of threaded connections;
- manufacturing of details of the bearing industry.

Advantages in application of diamond profile dressing rollers:

- creation of the abrasive wheel's surface within minimum possible time;
- profiling the surface of the abrasive wheel in one operation;
- high accuracy even during the creation of very complex profiles.



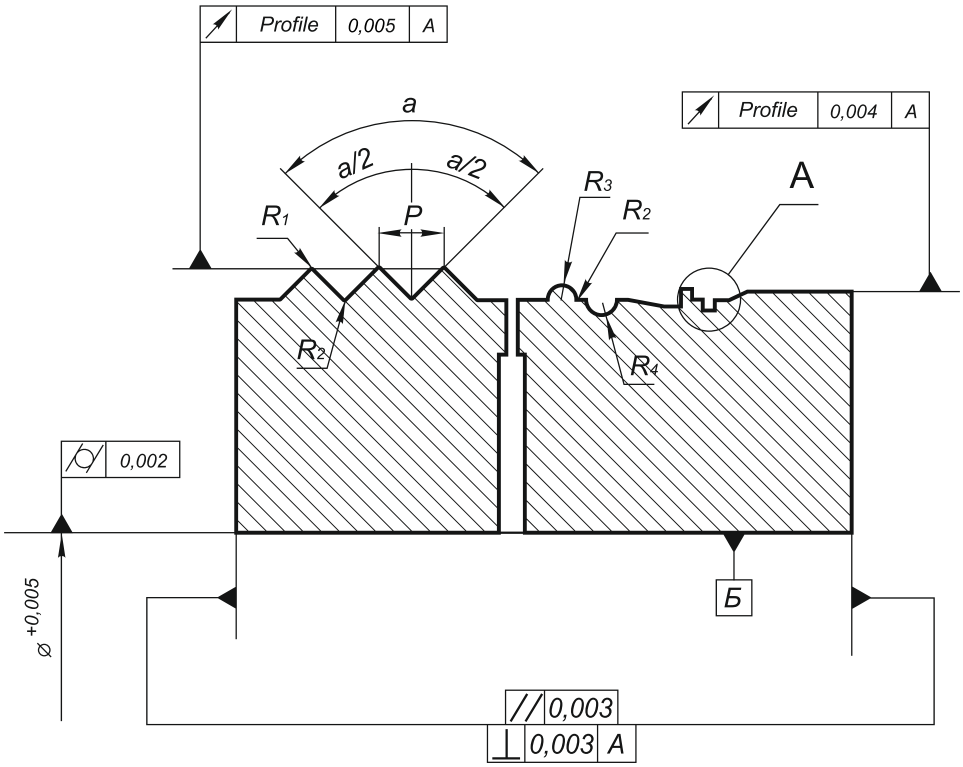
Picture 1

Table 1

Dimensions	Diamond roller Dimensions, mm 02H*
D max	160
D min	65
H max	140
H min	10
d min	20

***02H** - the method of electroforming with a non-orientable arrangement of diamonds bonded with a metal bond. The ratio of the diameter of the diamond roller to its height should be no more than 0.9.

Minimum tolerances for the shape and arrangement of diamond roller surfaces



Picture 2

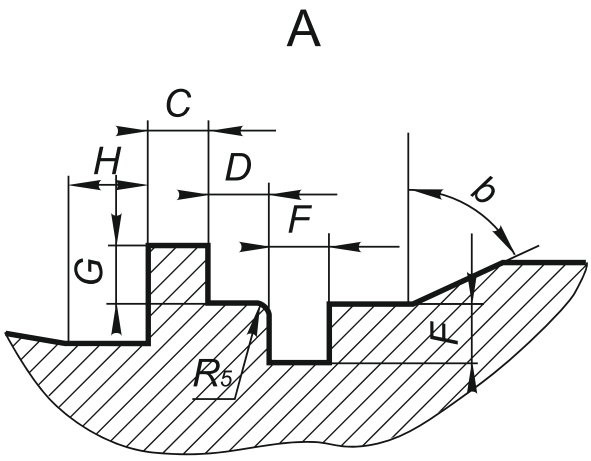


Table 2

C = ± 0,002	H = ± 0,002	R4 = 0,01
D = ± 0,002	P = ± 0,002	R5 = 0,012
E = ± 0,002	R1 = 0,15	a = ± 3′
F = ± 0,002	R2 = ± 0,12	a/2 = ± 3′
G = ± 0,002	R3 = ± 0,01	b = ± 3′

Each roller is accompanied by a measurement protocol that meets the customer's requirements, as well as a control sample of the roll profile.

Allowable diamond grain sizes **Min 250/200 Max 1000/800.**

Attention:
PDTools Superabrasives also produces other shapes and types of diamond rollers.