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## SERVICE INSTRUCTIONS:

### BURNISHING DIES HABEGGER

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## **1 GENERAL REMARKS**

These burnishing dies permit to smooth the diameters. They work without radial efforts and no pressure is exerted on the workpiece, even for small diameters. The three rollers will give a better surface quality, without improving the turning geometry, however. The rollers will just follow that geometry. It is therefore important to have a good turning job done, as far as concentricity and cylindrical shape are concerned.

### **Main advantages:**

- Good surface finish
- No radial effort exerted on the collet or guide bush
- Possibility to burnish diameters smaller than 1 mm.

## **2 BURNISHING CONDITIONS**

### **2.1 Diameter before burnishing**

Burnishing is obtained by smoothing the material. The turning diameter must be adapted, therefore, according to the hardness of the material and to the quality of the turning operation.

### **2.2 Peripheral speed**

The peripheral speed of the workpiece must be about 20 meters/minute. The speed is smaller when the material to be smoothed is very hard.

### **2.3 Feed**

The indicative value for the feed is 0.2 to 0.5 mm/revolution.

### **2.4 Lubrication**

We also recommend to lubricate very much. Stops during and at the end of the burnishing operation must be avoided.

### **2.5 Finished diameter**

It is absolutely necessary to have the finished diameter size indicated, when requesting an offer or placing an order.

### **2.6 Return of the die**

The return of the burnishing die will be the same as the working feed (0.2 to 0.5 mm/rev). The return spring must be strong enough (cam machines).

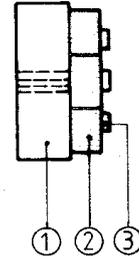
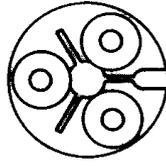
### 3 DESCRIPTION

#### 3.1 Name

These burnishing dies are always named by the wanted diameter.

Part designation:

- 1 body (1)
- 3 rollers (2)
- 3 studs (3)



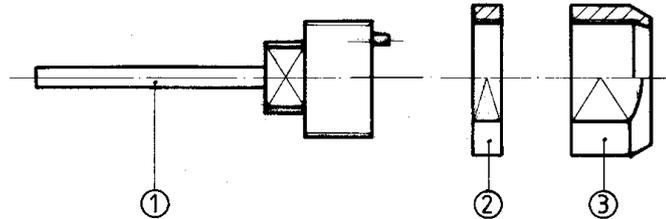
#### 3.2 Mounting

These adjustable burnishing dies are mounted on the machines with the help of the die holders type R (see general catalogue).

### 4 HABEGGER DIE HOLDER TYPE R

Part designation:

- 1 shaft-body (1)
- 1 counter-nut (2)
- 1 nut (3)



#### Setting instructions:

- a) After having put the burnishing die on the die holder, tighten the nut (3) until it leans against the burnishing die. Then, loosen it slightly. Lock the counter-nut (2) so that the die remains free. Make sure that it is not too tight from the beginning.
- b) Combine the turned diameter and the setting of the burnishing die, until the wanted diameter has been obtained.

### 5 SPARE PARTS

We don't supply spare parts for this type of dies.

For spare parts orders and according to the goods, indicate the following points:

Example:

Die holder:	- type of holder - designation	Die holder R 16-8 1 nut
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