



KS PERMAGLIDE® plain bearings

Calibrating the bearing bore after mounting

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(Only applies to P1 plain bearings)

Calibration

KS PERMAGLIDE® plain bearings are ready to install on delivery, and should only be calibrated if a bearing clearance with a narrower tolerance cannot otherwise be reached.

Attention:

Calibration considerably shortens the service life of KS PERMAGLIDE® P1 bushes (see Tab. 1).

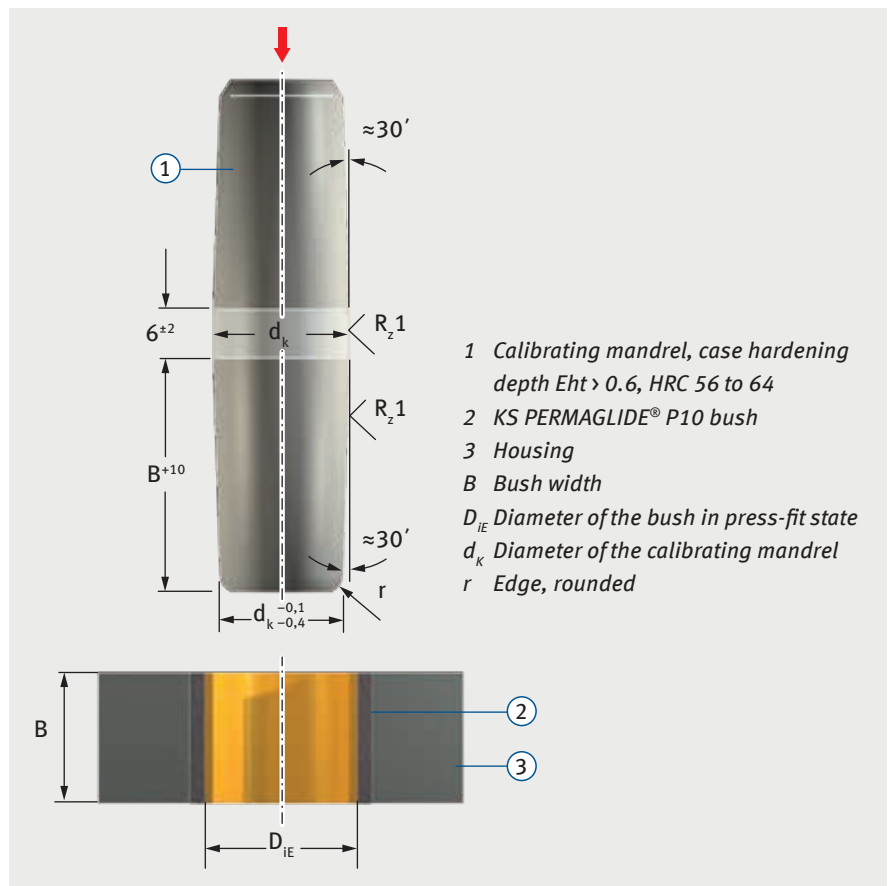
Figure 1 shows calibration using a mandrel.

Table 1 contains standard values for the diameter of the calibrating mandrel d_k . Precise values can only be ascertained through tests.

Better possibilities

The bearing clearance tolerance can be reduced through the following measures, which do not adversely affect service life:

- Narrower tolerances for housing bore
- Narrower shaft tolerances



- 1 Calibrating mandrel, case hardening depth $E_{ht} > 0.6$, HRC 56 to 64
 - 2 KS PERMAGLIDE® P10 bush
 - 3 Housing
- B Bush width
 D_{ie} Diameter of the bush in press-fit state
 d_k Diameter of the calibrating mandrel
 r Edge, rounded

Fig. 1: Calibration

Desired inside diameter of bush	Diameter of calibrating mandrel ¹⁾ d_k	Service life ²⁾
D_{ie}	–	100% L_N
$D_{ie} + 0.02$	$D_{ie} + 0.06$	80% L_N
$D_{ie} + 0.03$	$D_{ie} + 0.08$	60% L_N
$D_{ie} + 0.04$	$D_{ie} + 0.10$	30% L_N

Tab. 1: Standard values for the calibration mandrel diameter and the reduction in service life

D_{ie} Inside diameter of the bush in press-fit state.

¹⁾ Standard value, based on steel housing.

²⁾ Standard value for dry running.