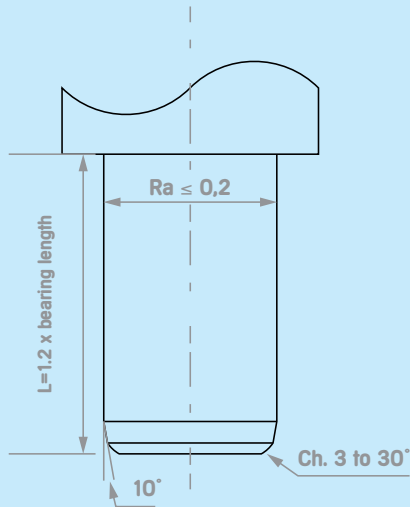


Standard self-lubricating bearings

Assembly instructions



Using a fitting mandrel

(Ground carbon steel, polished finish - surface hardness ≥ 60 HRC)

› Tolerances: **m6**

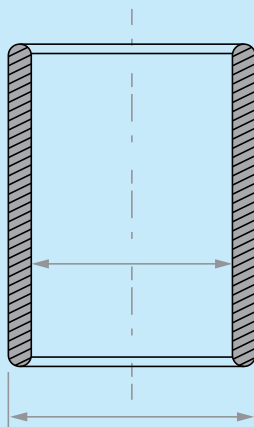
Fit the bearings with a press (shrink-fitting), using the correct diameter mandrel in order to ensure that:

- › the bearing is inserted correctly and positioned perfectly,
- › the final bearing bore tolerances are still correct after fitting.

Insertion force

Indicative values with **m6** mandrel and **H7** housing with $Ra \leq 3.2$ and considered to be rigid*: **100 daN/cm²** (contact area of outer diameter of bearing).

* Housing made of steel (or cast iron) with a minimum wall thickness equal to at least three times the thickness of the bearing.



Bearing before fitting

(See standard self-lubricating bearings catalogue)

Ø inner - Ø 1 cylindrical bearing: **F7**

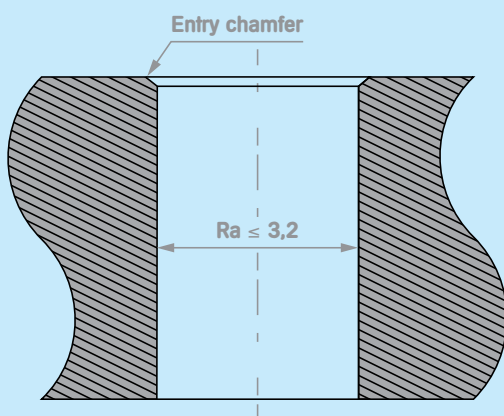
Ø inner - Ø 1 flanged bearing: **F8**

(F8 for Ø 1 > 50 mm)

Ø outer - Ø 2 cylindrical bearing: **s7**

Ø outer - Ø 2 flanged bearing: **s8**

(s8 for Ø 2 > 50 mm)



Steel housing (non-deformable)

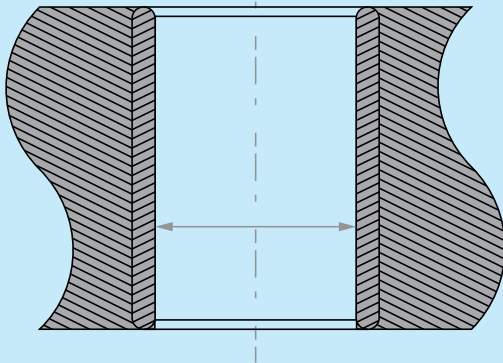
› Tolerances: **H7**

The tightness between bearing and housing and the final bearing bore tolerances were determined for a rigid housing made of steel or, if need be, of cast iron.

For any other type of housing (not rigid or made of any other material), the tightening stresses will be different and practical tests should be carried out to confirm the bore tolerances (contact us).

Standard self-lubricating bearings

Assembly instructions (cont.)

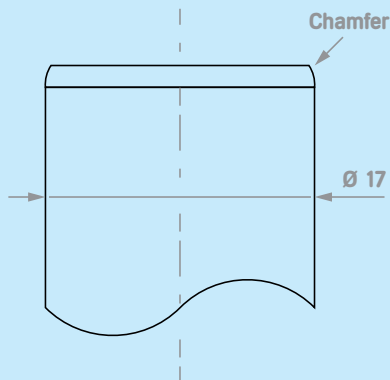


Bearing after press-fitting

Ø inner - Ø 1 cylindrical bearing: **H7**

Ø inner - Ø 1 flanged bearing: **H8**

(H8 for Ø 1 > 50 mm)



Shaft to be used

The mechanical properties of the steel depend on the bearing grade.

For a BP25 bearing

Steel with min. hardness 240 HB10
Ra ≤ **0.6**

For an FP20 bearing

Steel with min. hardness 355 HB10
Ra ≤ **0.2**

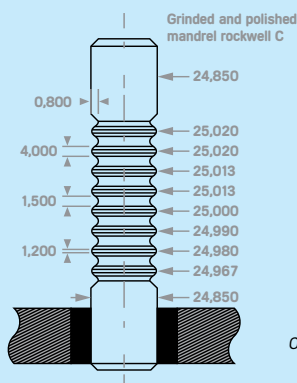
› Tolerances: **f7**

If the bearing is fitted without additional support (bonding or overmoulding), use a shaft with h7 rather than f7 tolerances.

Operating clearance

- › It is important to follow the assembly instructions to ensure that the self-lubricating bearing functions correctly.
- › Rotating assembly: **H7/f7** or **H8/f7**

Mechanical expansion



› If the bearing is to be fitted in a non-rigid housing, we recommend mechanical expansion with a stepped tube-expander.

› Example for a bearing with Ø less than: 25 mm

Obtains mechanical expansion of: $25 \begin{matrix} +0,020 \\ 0 \end{matrix}$