

TENMAT

FEROGLIDE

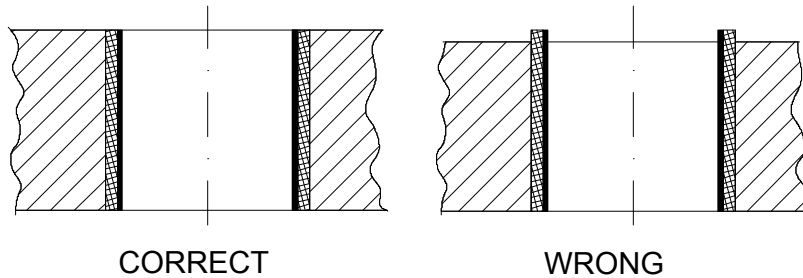
Self lubricating bearings

ASSEMBLY INSTRUCTIONS

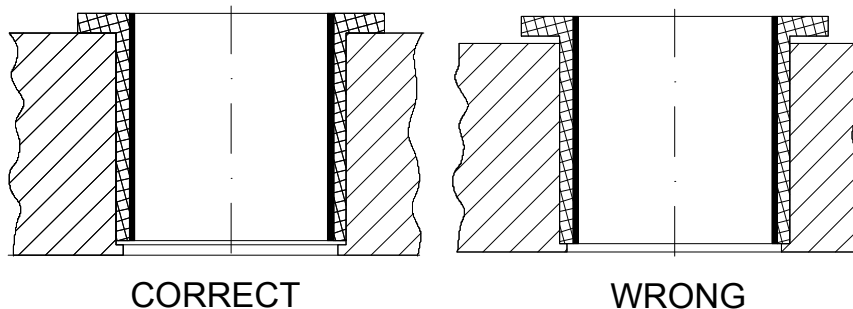


ASSEMBLY INSTRUCTIONS

- FERROGLIDE bearings Type PA7 and PA8 with a carbon steel body are supplied with a corrosion preventative applied to the exposed surfaces. This must be removed before installation by using Acetone or MEK. This is not necessary for FERROGLIDE bearings supplied in stainless steel, bronze, brass, or Inconel.
- FERROGLIDE bearings are designed to be retained by a press fit into their housings. In order to avoid fretting or corrosion of the contact surfaces, in all cases the outer surfaces of the bearings should be lightly greased prior to installation.
- For all types of bearings the length of the bearing and the mating housing bore should be toleranced to ensure that the bearing is seated below the surface.



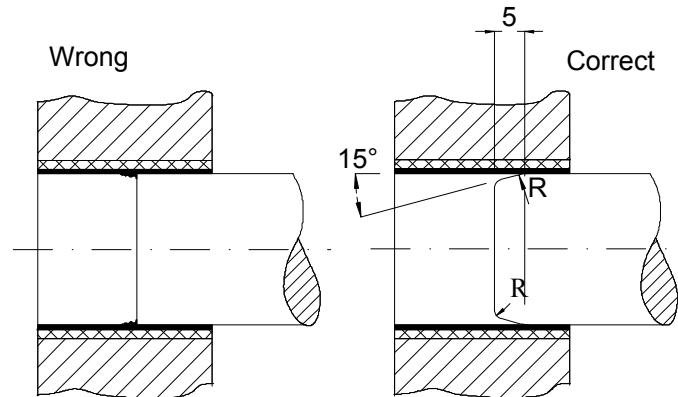
- For all types of flanged PA8 bearings ensure the body of the bush is pushed fully into the housing to ensure the flange is fully supported.



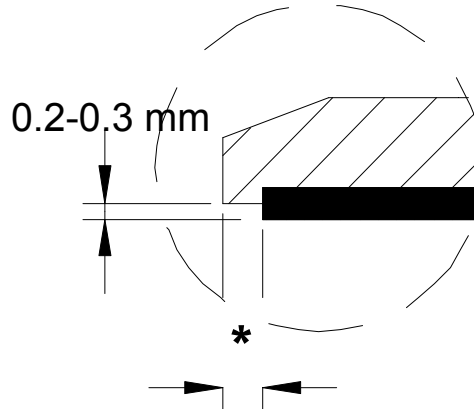
- As a general rule, shafts to be used inside FERROGLIDE bearings should be mounted dry. However, in order to facilitate assembly the shafts can be coated with a small amount of PTFE spray.

❖ **Grease lubrication of FERROGLIDE bearings is not recommended.**

- It is imperative to avoid damage of the FERROGLIDE liner surface during installation.
- Prior to assembly of the shaft into the bearing ensure that all edges are smooth and free from all sharp burrs etc. The lead-in chamfer should be machined as follows:

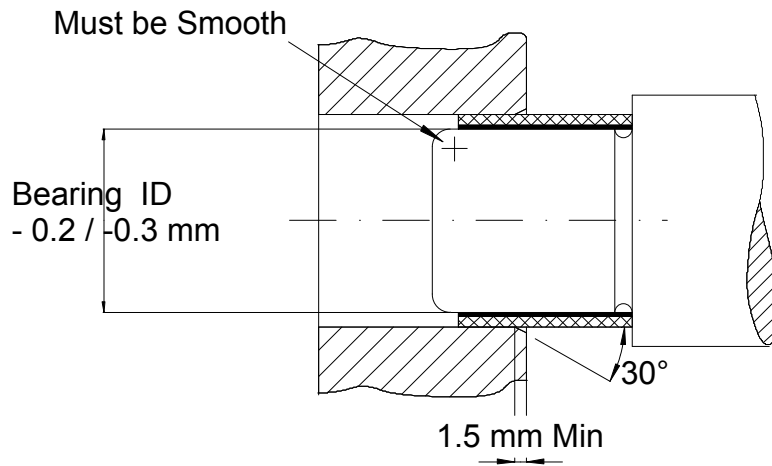


- Care should be taken when inserting the shaft into the bearing to ensure that the edges of the FERROGLIDE liner are not damaged.
- ❖ **For larger guide vane or valve bearings we recommend the use our special undercut design that avoids any installation Damages.**

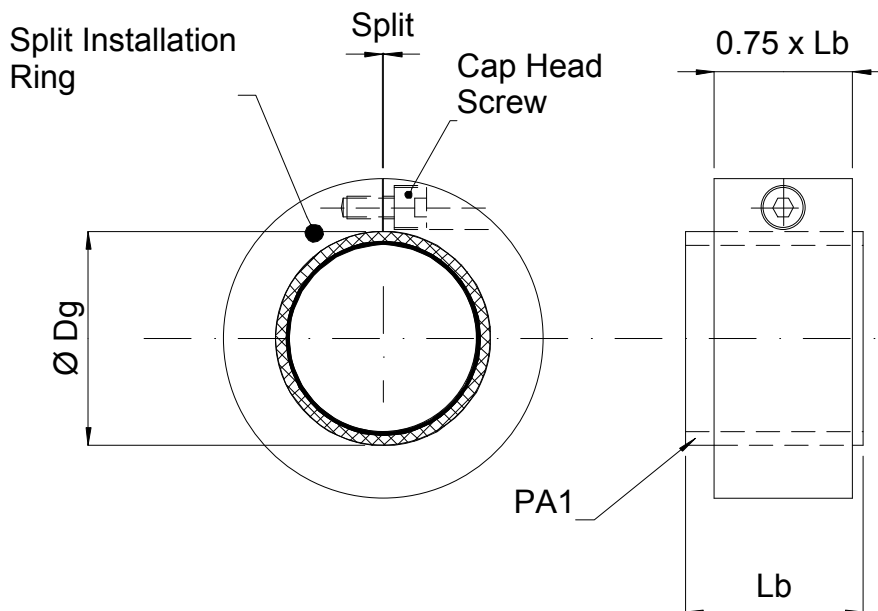


Land *= to be determined by diameter and length of bearing but approximatley 2 to 3 mm minimum.

- Installation of coiled bearings (PA1) or solid journal bearings (PA7 & PA8) should be done using a stepped mandrel tool as shown. The housing bore must be provided with a lead-in-chamfer.



- For coiled bearings type PA1 with a diameter of more than 50 mm an additional split installation ring is used (shown below), to help close the split line. In order to facilitate the insertion process, it is recommended to apply a thin oil film on the outside of the bushing and in the housing bore.

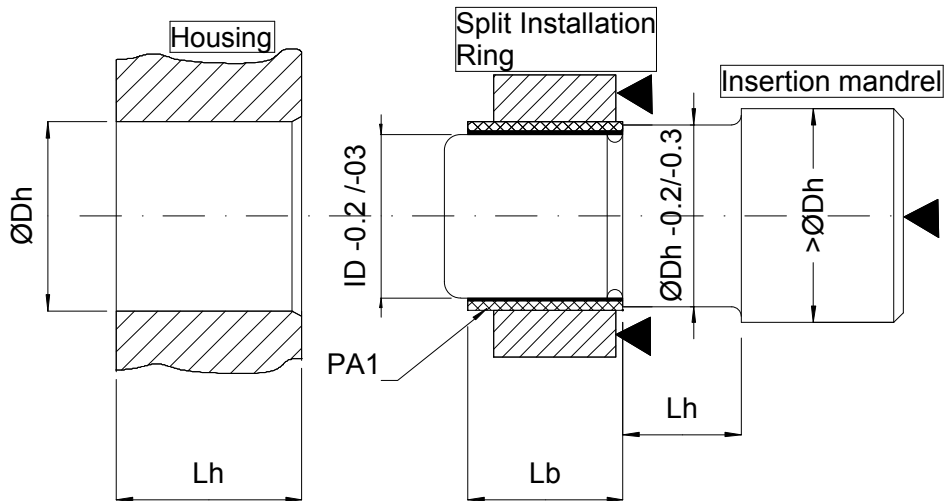


- To install a PA1 split bearing, [see diagram on the next page] first mount the bearing onto the insertion mandrel, position the split installation ring onto the bearing so that approximately $\frac{1}{4}$ of the PA1 length is left exposed and finger tighten the cap head screw, to just close the PA1 split line.

Offer the whole assembly up to the housing, and carefully insert the exposed bearing length into the housing, so that it is true and square.

Apply even pressure to the insertion mandrel and force the PA1 through the split ring and into the housing, so that the bearing length is fully home.

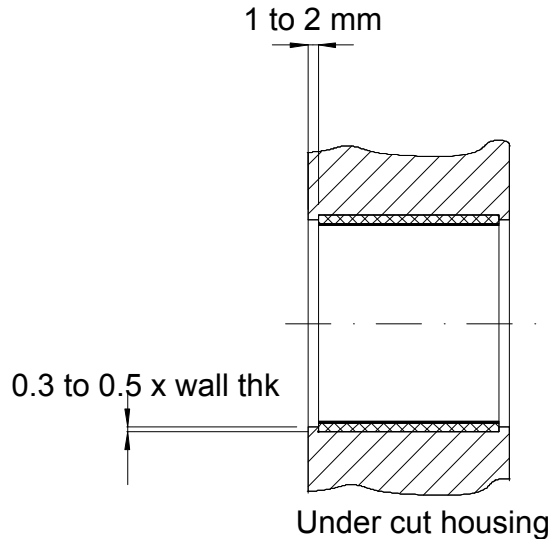
A stop machined into the mandrel can be used to ensure correct length location.



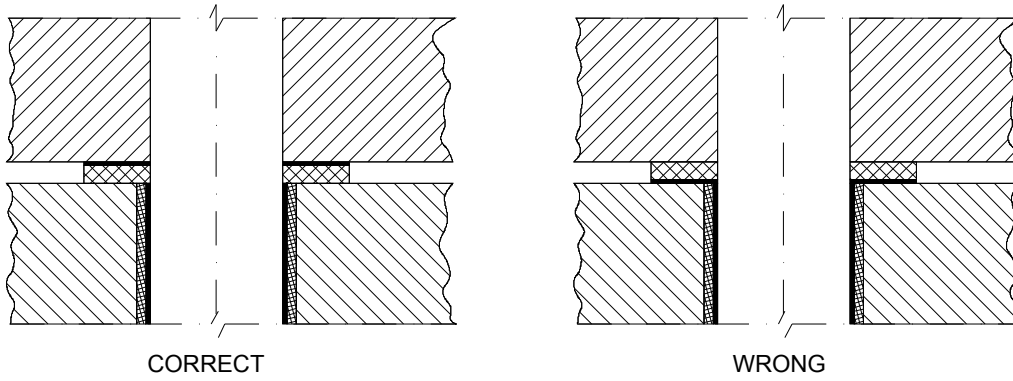
$\varnothing Dh$ = Housing diameter, Lh = Housing length/depth, Lb = Bearing Length,
 $\varnothing Dg$ = Split Installation Ring (see table below).

$\varnothing Dh$	$\varnothing Dg$
50+ to 100	$Dh +0.25/+0.28$
100+ to 200	$Dh +0.36/+0.40$
200+ to 300	$Dh +0.46/ +0.50$

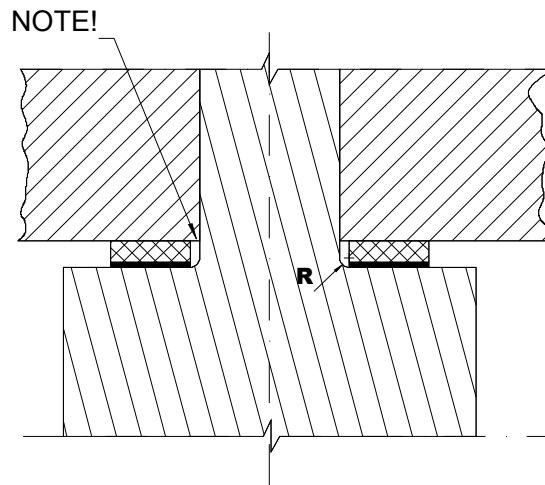
- When fitting Glide foil bearings with a thickness of 0.75 mm, the FEROGlide bearing should be positioned into the housing bore with undercut retaining steps as shown.



- Thrust washers should be installed with the wear surface against the rotational face and away from the bearing end face. This is to prevent damage to the FEROGlide liner. Where repeated impact or heavy loads are involved a thrust washer having a bigger bore diameter than the mating counter face is preferred.



- PA3/PC3 thrust washers should run against a hard, smooth mating surface. Note that the bore dimensions should be oversized in order to allow for corner radius, stepped shafts, chamfers, etc.



If you require any additional assistance please contact TENMAT LTD for advice