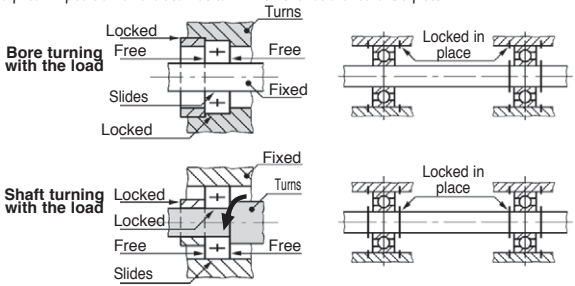
# Bearing assembly

## Technical information

*Because of the action of the radial load, the rings of a rotating bearing will turn on the shaft seating or in their housing, this can cause premature wearing. It is therefore necessary to lock the rings to the assembly (shaft, housing...) so that they become an integral part of it.*

**GENERAL RULE:** *The ring that turns in the direction of the load should be locked in place. A ring that is fixed in position and does not turn with the load should be free.*




### BEARING ADJUSTMENT

**The adjustment is a function of** $\frac{C}{P}$

*C* dynamic load at base of bearings

*P* equivalent radial load

**RECOMMENDED ADJUSTMENTS (for ball, roller, and spherical roller bearings)**

| Ring assembly | Load C/P | Tolerances Shaft - bearing type: Shaft Ø | ball | roller | spherical roller | Bore | Observations | Examples of use |
|---|---|---|---|---|---|---|---|---|
| Internal rings locked | weak >10 | <40<br>40-140<br>140-200 | h6<br>j6<br>k6 | j6<br>k6<br>m6 | j6<br>k6<br>m6 | H7 | External ring easily moved | •small electric motors;<br>•machine tools; •fans, pumps;<br>•general mechanical assemblies; |
| | normal >5 <10 | <40<br>40-140<br>140-200 | j6<br><br>m6 | k6<br><br>n6 | k6<br><br>p6 | H7 | | •general mechanical assemblies;<br>•electric motors;<br>•gearboxes. |
| | high <5 | <40<br>40-140<br>140-200 | -<br>-<br>- | n6<br>n6<br>p6 | n6<br>p6<br>p6 | J7 | External ring can be moved | •rolling mills;<br>•large compressors. |
| External rings locked | weak >10 | hole Ø | g6 | | | K7 - M7 | External ring cannot be moved. Internal ring can be moved axially. | •idlers;<br>•transport rollers. |
| | normal >5 <10 | hole Ø | g6 | | | N7 | | •pulleys;<br>•pitman caps;<br>•support rollers. |
| | high <5 | hole Ø | g6 | | | P7 | | •pulleys;<br>•pitman caps;<br>•support rollers. |