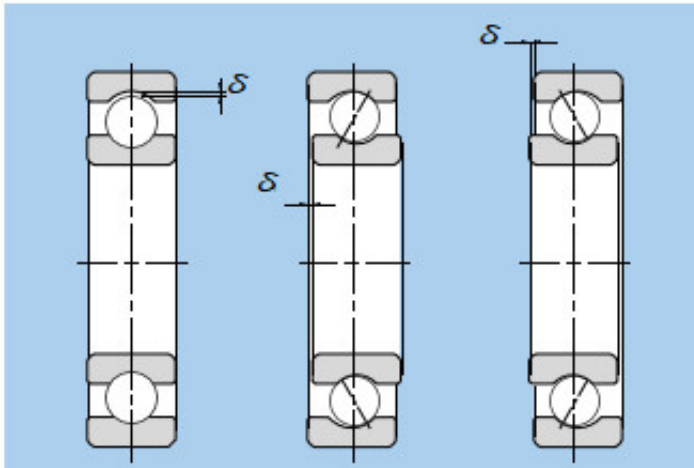


How does the inner clearance of the bearing operate?

Bearing internal clearance is the amount of internal free movement before mounting.

As displayed in Fig., when either the inner ring or the outer ring is fixed and the other ring is free to move, displacement can happen in either an axial or radial direction. This amount of displacement (radially or axially) is termed the internal clearance and, calculating the direction, is called the radial internal clearance or the axial internal clearance.



When the internal clearance of a bearing is measured, a slight measurement load is applied to the raceway so the internal clearance may be measured accurately.

However, a slight amount of elastic deformation of the bearing occurs under the measurement load, and the clearance measurement value (measured clearance) is slightly above truth clearance. This difference between verity bearing clearance and the increased amount due to the elastic deformation must be countervailed. These compensation values are broken off Table. For roller bearings the amount of elastic deformation is small enough to get ignored.