

## Bushing Clearances

### ***Bushing Clearance***

Typically bearing internal clearance is defined as the total distance through which one ring can be moved radially (radial internal clearance) or axially (axial internal clearance) in relation to the other ring under a defined measuring load. In the case of bushings, this is **not** so. Since bushings are of single piece construction, any clearance found would be from the radial movement of the shaft that rides within the bushing.

It is necessary to distinguish between the internal clearance of a bushing before it is mounted and the internal clearance of a mounted bushing when in operation (operational clearance). The initial clearance will always be greater than the operational clearance because the bushings are expanded or compressed by interference fits and as a result of the differences in thermal expansion of the bearing rings and mating components. In the event that a wrapped bushing is utilized, clearance before mounting is not measurable due to the construction of the bushing.

The bushing internal clearance shall be selected so that when bushings are mounted with recommended fits, and operate under normal conditions a suitable operational clearance will be obtained. For other conditions, e.g. where both rings are mounted with an interference fit or where unusual temperatures prevail, bearings with greater or smaller internal clearance than normal may be required.

Please see the associated Bushing Tolerances and Bushing Fitting and Mounting, Technical Information Sheets for further information on bushing clearance.