

Rod End Bearing Internal Clearance

Rod End Bearing Internal Clearance

Rod End Bearing internal clearance is defined as the total distance through which the inner ring can be moved radially (radial internal clearance) or axially (axial internal clearance) in relation to the rod end housing under a defined measuring load.

It is necessary to distinguish between the internal clearance of a bearing before it is mounted and the internal clearance of a mounted bearing when in operation (operational clearance). The initial clearance will always be greater than the operational clearance because the rings can be expanded or compressed by interferences fits and as a result of the differences in thermal expansion of the bearing rings and mating components.

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

Radial Internal Clearance of Rod End Bearings Supplied by AST Bearings

The following data is provided by AST Bearings and is specific to the series of Spherical Plain Bearing Series as indicated by each table.

Radial Internal Clearance of Rod End Bearing Series: SI-E, SI-ES, SA-E, and SA-ES

d (mm)		Group normal (μm)	
over	incl.	min	max
—	12	23	68
12	20	30	82
20	35	37	100
35	60	43	120
60	90	55	142
90	125	65	165
125	200	65	192



TECHNICAL INFORMATION



Radial Internal Clearance Of Rod End Bearing Series: SI-C, SA-C, SI-ET, SA-ET, SIBP-N, SABP-N, SIZP-N, and SAZP-N

d (mm)		Group normal (µm)	
over	incl.	min	max
—	12	0	32
12	20	0	40
20	35	0	50
35	60	0	60
60	80	0	72

Radial Internal Clearance Of Rod End Bearing Series: SIJ, SAJ, SIZJ, and SAZJ

d (mm)		Group normal (µm)	
over	incl.	min	max
—	8	10	30
8	14	15	60
14	22	40	80

Radial Internal Clearance Of Rod End Bearing Series: SIJK-C, SAJK-C, SIK-C, and SAK-C

d (mm)		Group normal (µm)	
over	incl.	min	max
—	21	0	32
12	20	0	40
20	30	0	50

Radial Internal Clearance Of Rod End Bearing Series: SIBP-S, SABP-S, SIZP-S, and SAZP-S

d (mm)		Group normal (µm)	
over	RI incl.	min	max
—	30	0	35