

Rod End Bearing Tolerances

Rod end bearings have bore, width and center height tolerances that are considered critical. These tolerances are used in order to select a rod end bearing to fit a specific application. Below are the various tolerances for rod end bearings supplied by AST Bearings and are organized by product series:

Tolerances for AST Rod End Bearing Series: SI-E, SI-ES, SA-E, SA-ES, SI-C, SA-C, SI-ET, and SA-ET

| d (mm) | | Δ dmp (μ m) | | Δ Bs (μ m) | |
|-----------|-------|----------------------------|-----|---------------------------|------|
| over | incl. | max | min | max | min |
| — | 18 | 0 | -8 | 0 | -120 |
| 18 | 30 | 0 | -10 | 0 | -120 |
| 30 | 50 | 0 | -12 | 0 | -120 |
| 50 | 80 | 0 | -15 | 0 | -150 |

Tolerances for AST Rod End Bearing Series: SIBP-S, SABP-S, SIZP-S, SAZP-S, SIZJ, and SAZJ

| d (mm) | | Δ dmp (μ m) | | Δ Bs (μ m) | |
|-----------|-------|----------------------------|-----|---------------------------|------|
| over | incl. | max | min | max | min |
| — | 6 | +12 | 0 | 0 | -100 |
| 6 | 10 | +15 | 0 | 0 | -100 |
| 10 | 18 | +18 | 0 | 0 | -100 |
| 18 | 30 | +21 | 0 | 0 | -100 |

Tolerances for AST Rod End Bearing Series: SIJK-C, SAJK-C, SIK-C, SAK-C

| d (mm) | | Δ dmp (μ m) | | Δ Bs (μ m) | |
|-----------|-------|----------------------------|-----|---------------------------|------|
| over | incl. | max | min | max | min |
| — | 6 | +12 | 0 | 0 | -150 |
| 6 | 10 | +15 | 0 | 0 | -150 |
| 10 | 12 | +18 | 0 | 0 | -150 |
| 12 | 18 | +18 | 0 | 0 | -200 |
| 18 | 30 | +21 | 0 | 0 | -200 |

Center height tolerances for all Rod End Bearing Series:

| d (mm) | | Δ hs (mm) | | Δ h1s (mm) | |
|-----------|-------|---------------------|-------|----------------------|-------|
| over | incl. | max | min | max | min |
| — | 6 | +0.80 | -1.20 | +0.65 | -1.05 |
| 6 | 20 | +0.80 | -1.20 | +0.80 | -1.20 |
| 20 | 30 | +1.00 | -1.70 | +1.00 | -1.70 |
| 30 | 45 | +1.40 | -2.10 | +1.40 | -2.10 |
| 45 | 60 | +1.80 | -2.70 | +1.80 | -2.70 |
| 60 | 80 | +2.25 | -3.40 | +2.25 | -3.40 |

Key for Tolerance Tables

| | |
|-------------------------------|---|
| d | Bearing bore diameter, nominal |
| Δdmp | Single plane mean bore diameter deviation |
| ΔBs | Deviation of a single width of the inner ring |
| B | Width of the inner ring, nominal |
| Δhs | Center height deviation (male) |
| Δh1s | Center height deviation (Female) |