

Self-aligning Ball Bearings

Design

Self-aligning Ball Bearings are particularly suitable for applications where misalignment occurs from errors in mounting or from shaft deflection.

For applications where the bearing load (particularly axial load) carrying capacity is insufficient, spherical roller bearings, which have the same self-aligning property, should be used instead.

Cage

Bearings are fitted with pressed steel cage or polyamide cage.

The suffix G of bearing number on the packing surface indicate polyamide cage.

Attention

- (1) Maximum permissible misalignment angle is about 2.5° in the 12 and 22 series, and about 3° in the 13 and 23 series under general service conditions. Care must be taken to provide sufficient clearance between the bearing and surrounding structure when bearing is operating in the full misaligned condition.
- (2) Misaligned bearings will have a tendency to become noisy as speed increases. Due to noise-level constraints, the practical maximum misalignment may be considerably less than the maximum misalignment.
- (3) The dimension tables show the width of the ball assembly as dimension B1 for larger bore sizes of Self-aligning Ball Bearings where width of the ball assembly extends beyond the ring width envelope.
- (4) It is difficult to correctly measure the running clearance of bearings with tapered bore after mounting. Mounting of this type of bearing with tapered bores requires some experience and technique.
- (5) The bearings with polyamide cage should be used at less than 120°C operating temperature.

