



H type



J type



B type

Non-Separable Type (H): Inner ring has full shoulders, outer has one shoulder cut away with a small retaining lip at the edge of the raceway.

Non-Separable Type (J): Outer ring has full shoulders, inner ring has one shoulder cut away with a small retaining lip at the edge of the raceway.

Separable Type (B): Outer ring has full shoulders, inner ring has one shoulder cut away. The inner ring is removable for mounting on the shaft separately from the outer ring assembly.

Deep Groove Bearings

Deep groove ball bearings have full shoulders on both sides of the raceways of the inner and outer rings. They can accept radial loads, thrust loads in either direction, or a combination of loads.

The full shoulders and the cages used in deep groove bearings make them suitable for the addition of closures. Besides single deep groove bearings with closures, Barden also offers duplex pairs with seals or shields on the outboard faces.

Deep groove bearings are available in many sizes, with a variety of cage types. Their versatility makes them the most widely used type.

Ceramic (silicon nitride) balls can be specified to increase bearing stiffness, reduce vibration levels and prolong life.

Deep groove bearings can also be supplied with a full complement of balls as a filler notch design. In filler notch bearings the inner and outer ring have notches which when aligned, allow balls to be loaded directly in to the raceway. Whilst this allows for full complement, these bearings are typically suited to radial loads.

Flanged bearings provide solid mounting for good axial control and eliminate the need for housing shoulders or shoulder rings. Housings can be through-bored to reduce manufacturing costs and simplify assembly. When flanged bearings are used, the housing mounting surfaces must be accurately machined to properly position and support the bearings.

Flanged bearings are recommended when housing designs cannot accommodate full bearing width, or where the quality of the housing bore is a concern.

Angular Contact Bearings

Angular contact bearings have one ring shoulder removed, either from the inner or outer ring. This allows a larger ball complement than found in comparable deep groove bearings, giving a greater load rating. The speed capability of angular contact bearings is also greater.

Barden angular contact bearings have a nominal contact angle ranging from 10° to 25°. They can be used in pre-loaded duplex sets, back to back (DB) or face to face (DF) for supporting thrust loads in both directions or in tandem (DT) for additional capacity.

Contact angles are obtained by assembling the bearings to the appropriate radial play values. The smaller contact angles give better radial capacity and rigidity while the higher contact angles give higher axial capacity and rigidity.

Angular contact bearings support thrust loads or combinations of radial and thrust loading. They can not accept radial loads alone – a thrust load of sufficient magnitude must be applied.

A single angular contact bearing can be loaded in one thrust direction only, this may be an operating load or pre-load.

Separable and non-separable types are available. Separable bearings are useful where bearings must be installed in blind holes or where press fits are required on the shaft and in the housing. The separable feature also permits dynamic balancing of the rotating components with the inner ring mounted in place without the outer ring and housing.

As with deep groove bearings, angular contact bearings can also be supplied with a full complement of balls and no retainer. Full complement angular contact bearings are designated by 'X205' in the nomenclature and are typically suited to axially loaded applications.