

**Tapered roller bearing****Thrust tapered roller bearing****Cylindrical roller bearing****Thrust cylindrical roller bearing****Spherical roller bearing****Thrust spherical roller bearing****Ball bearing****Thrust ball bearing**

Characteristic	Tapered roller bearing	Thrust tapered roller bearing	Cylindrical roller bearing	Thrust cylindrical roller bearing	Spherical roller bearing	Thrust spherical roller bearing	Ball bearing	Thrust ball bearing
Pure radial load	Excellent	Unsuitable	Excellent	Unsuitable	Excellent	Unsuitable	Good	Poor
Pure axial load	Good	Excellent	Unsuitable	Good	Fair	Excellent	Fair	Excellent
Combined load	Excellent	Fair	Fair	Unsuitable	Excellent	Fair	Good	Poor
Moment load	Fair	Poor	Unsuitable	Unsuitable	Unsuitable	Unsuitable	Good	Poor
High stiffness	Excellent	Excellent	Good	Excellent	Good	Good	Good	Good
Quiet running	Fair	Fair	Good	Poor	Fair	Poor	Excellent	Good
Low friction	Good	Fair	Fair	Poor	Fair	Fair	Excellent	Excellent
Misalignment	Poor	Poor	Poor	Unsuitable	Excellent	Excellent	Good	Poor
Locating position (fixed)	Excellent	Good	Fair	Fair	Good	Good	Good	Excellent
Non-locating position (floating)	Good	Unsuitable	Excellent	Unsuitable	Fair	Unsuitable	Good	Unsuitable
Speed	Good	Fair	Good	Poor	Fair	Poor	Excellent	Fair

**Table 1. Relative operating characteristics of various bearing types.**