

Interchange Accuracies

In addition to the standard accuracies defined by DIN and ISO, higher precision levels are specified in classes 6X, 6, 5, 4 and 2. For general applications, the tolerances of the normal accuracy class (P0) are sufficient in most cases.

Types of bearings			Suitable tolerance classes				
Deep groove ball bearing			Normal	Class 6	Class 5	Class 4	Class 2
Angular contact ball bearing			Normal	Class 6	Class 5	Class 4	Class 2
Spherical ball bearing			Normal	Class 6	Class 5	–	–
Cylindrical roller bearing			Normal	Class 6	Class 5	Class 4	Class 2
Needle roller bearing (solid design)			Normal	Class 6	Class 5	Class 4	–
Spherical roller bearings			Normal	Class 6	Class 5	–	–
Tapered roller bearing	Metric		Normal Class 6X	–	Class 5	Class 4	–
	Inch dimensions		ANSI/ABMA Class 4	ANSI/ABMA Class 2	ANSI/ABMA Class 3	ANSI/ABMA Class 0	ANSI/ABMA Class 00
Shoulder bearing			Normal	Class 6	Class 5	–	–
Axial ball bearing			Normal	Class 6	Class 5	Class 4	–
Axial spherical roller bearings			Normal	–	–	–	–
Relevant standards (reference)	JIS (1)		Class 0	Class 6	Class 5	Class 4	Class 2
	DIN (2)		"P0"	P6	P5	P4	P2
	ANSI/ ABMA (3)	Ball bearing	ABEC 1	ABEC 3	ABEC 5 (Class 5P)	ABEC 7 (Class 7P)	ABEC 9 (Class 9P)
		Roller bearing	RBEC 1	RBEC 3	RBEC 5	–	–
		Tapered roller bearing	Class 4	Class 2	Class 3	Class 0	Class 00

- Notes
- (1) JIS: Japanese Industrial Standards
 - (2) DIN: Deutsches Institut für Normung
 - (3) ANSI/ABMA: American Bearing Manufacturers Association

Hans Saurer Kugellager AG

Niederfeld 38
9320 Stachen
Switzerland

Internet www.ska.swiss
Mail info@ska.swiss
Telephone +41 71 446 85 85

Certified according to ISO 9001

All information in this document has been compiled and checked with the utmost care. Nevertheless, we cannot accept any liability for possible errors or omissions.

We expressly reserve the right to make technical changes and further developments.

© SKA – Hans Saurer Kugellager AG
Edition: 2025, October

Reproduction or distribution, even in part, is only permitted with our written consent.

SKT 124_en