

Rolling Bearing Selection Reference (ISO 15)

cBallast · ISO 15:2017 · Selection reference

ISO 15 dimension-series code

Bearing designation compactly identifies the envelope. Example 6208-2RSH/C3: 6 = deep-groove single-row ball; 2 = light dimension series (02); 08 = bore code (bore 08 x 5 = 40 mm); -2RSH = two-side contact rubber seal; /C3 = internal clearance class C3.

Bore code decode

Bore code	Bore mm	Bore code	Bore mm
00	10	05	25
01	12	06	30
02	15	07	35
03	17	08+	code x 5
04	20	96	480

Bearing type by loading

Type	Series	Radial	Axial	Speed	Use
Deep-groove ball	60xx/62xx/63xx	Moderate	Both, light	High	Motors, pumps, gearboxes
Angular-contact	70xx/72xx/73xx	Moderate	One dir, high	Very high	Spindles, pumps
Self-aligning ball	12xx/22xx	Moderate	Very light	Moderate	Long shafts, misalignment
Cylindrical roller	NUP/NU/N/NJ	High	NUP/NJ light	Very high	Gearbox, mills
Tapered roller	30xxx/32xxx/33xxx	High	High one-dir	Moderate	Auto hubs, pinion
Spherical roller	22xxx/23xxx	Very high	Both moderate	Moderate	Vibrating screens, deck
Needle	NA/NK/RNA	Very high compact	None	Moderate	Planetary, gearshift
Thrust ball	512xx/513xx	None	Very high	Low	Vertical shafts, jacks

Precision class (ISO 492)

ISO	DIN 620	ABMA	Use
P0 normal	P0	ABEC 1	General industrial
P6	P6	ABEC 3	Improved precision
P5	P5	ABEC 5	Machine-tool aux
P4	P4	ABEC 7	Machine-tool spindle
P2	P2	ABEC 9	Aerospace, HP spindle

Clearance class

Class	vs Normal	Use
C2	Reduced	Light interference, low-heat
CN	Standard	General service
C3	Greater	Motors, hot service
C4	Greater than C3	Heavy interference, high heat
C5	Greater than C4	Extreme heat, thermal cycling

Cage material

Pressed steel (default, J suffix) — general to 120C. Machined brass (M, MA) — high-load, high-speed, 250C. Polyamide nylon 66 (TN9, TVP) — low friction quiet, 120C only. Solid brass with silver plating (M/HA) — high-speed spindles.

SKF / FAG / NSK / NTN cross-reference

Generic	SKF	FAG	NSK	NTN
6205-2RS1 C3	6205-2RS1/C3	6205-2RSR-C3	6205 DDU C3	6205 LLU/2AS
6208 open C3	6208/C3	6208-C3	6208 C3	6208 C3
7208 B	7208 BEP	7208-B-XL-TVP	7208 BW	7208 BG
32208	32208 J2/Q	32208-A	HR32208 J	4T-32208
22208 EK/C3	22208 EK/C3	22208-E1-XL-K-C3	22208 EAKE4	22208 EAKD1C3

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