

# Bearings in the Cement & Mining Industry

## Suffixes in the bearing designation



### Deep Groove Ball Bearing



#### DGBB Interchange

PREFIX	Description	Interchange	
		FAG	SKF
INCH		Rxx	Rxx
EXTRA SMALL		6xx	6xx
EXTRA LIGHT		60xx	60xx
LIGHT		62xx	62xx
MEDIUM		63xx	63xx
EXTRA THIN SECTION	618xx	618xx	
VERY THIN SECTION	619xx	619xx	
THIN SECTION	16xxx	16xxx	
MAXIMUM CAPACITY, LIGHT	2xx	2xx	
MAXIMUM CAPACITY, MEDIUM	3xx	3xx	
SUFFIX	Description	Interchange	
		FAG	SKF
Deep groove ball bearing, Generation C	C	EC	
Solid cage made from glass fibre reinforced polyamide PA66	TVH	TN9	
Solid brass cage, ball guided	M	M	
Solid brass cage, guided on Outer ring / Inner ring	MA / MB	MA / MB	
Non contact seal on both sides (Labyrinth) / One side	2BRS / BRS	n/a	
Contact seal on both sides / one side (lip seal)	2HRS / HRS	2RSL / RSL	
Contact seal on both sides / one side (lip seal)	2RSR / RSR	2RSH / RSH	
Non contact seal on both sides / one side (sheet metal gap seal)	2Z / Z	2Z / Z	
Non contact seal on both sides / one side (rubberised gap seal)	2RZ / RZ	2RZ / RZ	
Clearance lower than CN normal	C2	C2	
Normal clearance	CN* - Blank	CN* - Blank	
Clearance higher than normal CN	C3	C3	
Clearance higher than C3	C4	C4	
Current insulated up to 1000VDC – outer ring coated	J20AA	VL0241	
Current insulated up to 1000VDC – outer ring coated	J20C	VL2071	
Snap ring groove on outer ring	N	N	
Snap ring groove on outer ring, with snap ring	NR	NR	
Rings dimensionally stabilized up to 200°C	S1	S1	
Rings dimensionally stabilized up to 250°C	S2	S2	

### Spherical Roller Bearing



#### SRB Interchange

PREFIX	Description	Interchange	
		FAG	SKF
VERY LIGHT	239xx	239xx	
LIGHT	230xx	230xx	
LIGHT, WIDE	240xx	240xx	
MEDIUM	231xx	231xx	
MEDIUM, WIDE	241xx	241xx	
HEAVY	222xx	222xx	
HEAVY, WIDE	232xx	232xx	
EXTRA HEAVY	213xx	213xx	
EXTRA HEAVY, WIDE	223xx	223xx	
SUFFIX	Description	Interchange	
		FAG	SKF
X-life bearing	XL	-	
Two sheet steel cages, surface hardened, guidance on inner ring	BE	CC	
One brass double comb cage, guidance on inner ring, inner ring with two lateral retaining ribs	BEA...- MB1	CA	
Two sheet steel cages, surface hardened or coated, guidance on outer ring	E1-XL	CC	
Contact seal (lip seal) on both sides with sheet steel reinforcement, made from nitrile rubber (NBR); grease fill level 25% to 40%, filled with high pressure grease	2RSR	CS	
Contact seal (lip seal) on both sides with sheet steel reinforcement, made from fluoro rubber (FKM); grease fill level 60% to 100%, filled with high temperature grease	2VSR	CS2	
Radial internal clearance C2 (smaller than normal)	C2	C2	
Radial internal clearance C3 (larger than normal)	C3	C3	
Radial internal clearance C4 (larger than C3)	C4	C4	
Tapered bore, taper 1:12	K	K	
Tapered bore, taper 1:30	K30	K30	
For oscillating load with restricted diameter tolerances, radial internal clearance C4, bore with thin chromium coating	T41D	VA406	
For oscillating load with restricted diameter tolerances, radial internal clearance C4	T41A	VA405	

### Tapered Roller Bearing



#### TRB Interchange

PREFIX	Description	Interchange	
		FAG	SKF
LIGHT	302xx	302xx	
MEDIUM	303xx	303xx	
MEDIUM, STEEP ANGLE	313xx	313xx	
EXTRA LIGHT, WIDE	329xx	329xx	
VERY LIGHT, WIDE	320xx	320xx	
LIGHT, WIDE	322xx	322xx	
MEDIUM, WIDE	323xx	323xx	
VERY LIGHT EXTRA WIDE	330xx	330xx	
LIGHT, EXTRA WIDE	331xx	331xx	
MEDIUM, EXTRA WIDE	332xx	332xx	
SUFFIX	Description	Interchange	
		FAG	SKF
X-life bearing	XL	-	
Modified internal construction (excluding bearings to ANSI/ABMA)	A	N/A	
Increased contact angle (for bearings to DIN)	B	B	
Two tapered roller bearings matched in an X arrangement, with an intermediate ring between the outer rings. Axial internal clearance between .. and .. in micro	DF-A...-	DF..	
External dimensions matched to international standards (for bearings to DIN)	X	X	
Two tapered roller bearings matched in an O arrangement, with an intermediate ring between the outer rings and the inner rings, axial internal clearance between .. and .. in microns	DB-A...-	DB..	
Two tapered roller bearings matched in a tandem arrangement, with an intermediate ring between the outer rings	DT	DT	
Bearing in tolerance class 5	P5	P5	

### Cylindrical Roller Bearing



#### CRB Interchange

PREFIX	Description	Interchange	
		FAG	SKF
SINGLE ROW, OUTER RING WITH 2 RIBS	NU	NU	
SINGLE ROW, INNER RING WITH 2 RIBS	N	N	
SINGLE ROW, 2 RIBS ON OUTER RING & 1 RIB ON INNER RING	NJ	NJ	
SINGLE ROW, 2 RIBS ON OUTER RING & 1 RIB ON INNER RING (WITH RIB WASHER)	NUP	NUP	
SINGLE ROW, 2 RIBS ON OUTER RING & 1 RIB ON INNER RING (WITH L-SECTION RING)	NJ + HJ	NJ + HJ	
DOUBLE ROW, 2 RIBS ON OUTER RING / 2 RIBS ON INNER RING	NN/NNU	NN/NNU	
SUFFIX	Description	Interchange	
		FAG	SKF
Increased capacity design	E	EC	
X-life bearing	XL	-	
Solid window cage made from glass fibre reinforced polyamide PA66	TVP2	P	
Sheet steel window cage, single-piece, roller-guided	JP3	J	
Solid brass cage, two-piece, roller-guided	M1	M	
Solid brass cage, two-piece, rib-guided on outer ring	M1A	MA	
Solid brass cage, two-piece, rib-guided on inner ring	M1B	MB	
Solid brass cage, single-piece, rib-guided on outer ring	MPAX	ML	
Machined brass cage, single-piece, rib-guided on inner ring	MPBX	MP	
Clearance lower than CN normal	C2	C2	
Normal clearance	CN* - Blank	CN* - Blank	
Clearance higher than normal CN	C3	C3	
Clearance higher than C3	C4	C4	
Current insulated up to 1000VDC – outer ring coated	J20AA	VL0241	
Current insulated up to 1000VDC – inner ring coated	J20C	VL2071	
Snap ring groove on outer ring	N	N	
Snap ring groove on outer ring, with snap ring	NR	NR	
Modified internal construction	A	A	
Increased capacity design, design modified in accordance with standard (cannot be interchanged with parts from the previous E design of the same size)	EX	EX	
Bearing with groove in the surface of the outer ring	N*	N*	
Lubrication groove and lubrication holes in the outer ring	S	L1	
Low tolerance level of a one third radial clearance range	C*/3L	C*L	
Medium tolerance level of a one third radial clearance range	C*/3M	C*M	
High tolerance level of a one third radial clearance range	C*/3H	C*H	
Black oxide coated (INA designation)	BR	L4B	
Technical specification	F*	V*	
Technical specification	H*	V*	
Rings and rolling elements with black oxide coating (FAG designation)	J30PC	L4B	
Changed raceway profile	QP*	VQ*	
Heat treatment and stabilization	S*	S*	
Full complement cylindrical roller bearings with self-retaining roller set	VH	VH	
Material / heat treatment and stabilization	W*	S*	