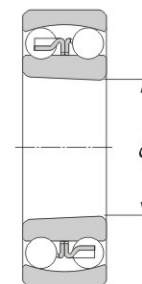


Cylindrical bore

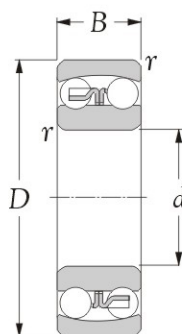

 Tapered bore
taper 1:12

Inner bore <i>d</i> mm	Bearing numbers				Principal dimensions			Basic load ratings		Limiting speeds		Mass	
					<i>D</i>	<i>B</i>	<i>r</i> s min ¹⁾	<i>C_r</i>	<i>C_{0r}</i>	grease	oil	cylindrical bore	tapered bore
					mm	mm		N		rpm		kg(s).	
10	1200 JP	1200 K JP	1200 TVH	1200 K TVH	30	9	0.6	5500	1190	21000	24000	0.033	-
12	1201 JP	1201 K JP	1201 TVH	1201 K TVH	32	10	0.6	5600	1270	18000	22000	0.040	-
15	1202 JP	1202 K JP	1202 TVH	1202 K TVH	35	11	0.6	7450	1750	16000	19000	0.049	-
17	1203 JP	1203 K JP	1203 TVH	1203 K TVH	40	12	0.6	7900	2010	14000	17000	0.072	-
20	1204 JP	1204 K JP	1204 TVH	1204 K TVH	47	14	1.0	9900	2610	13000	15000	0.116	0.114
25	1205 JP	1205 K JP	1205 TVH	1205 K TVH	52	15	1.0	12100	3300	11000	13000	0.138	0.135
30	1206 JP	1206 K JP	1206 TVH	1206 K TVH	62	16	1.0	15600	4650	9200	11000	0.217	0.213
35	1207 JP	1207 K JP	1207 TVH	1207 K TVH	72	17	1.1	15800	5100	8000	9400	0.317	0.312
40	1208 JP	1208 K JP	1208 TVH	1208 K TVH	80	18	1.1	19300	6550	7100	8400	0.414	0.407
45	1209 JP	1209 K JP	1209 TVH	1209 K TVH	85	19	1.1	21900	7350	6400	7500	0.457	0.448
50	1210 JP	1210 K JP	1210 TVH	1210 K TVH	90	20	1.1	22700	8100	5800	6800	0.515	0.504
55	1211 JP	1211 K JP	1211 TVH	1211 K TVH	100	21	1.5	26800	10000	5300	6200	0.692	0.679
60	1212 JP	1212 K JP	1212 TVH	1212 K TVH	110	22	1.5	30000	11500	4900	5800	0.879	0.864
65	1213 JP	1213 K JP	1213 TVH	1213 K TVH	120	23	1.5	31000	12500	4500	5300	1.130	1.110
70	1214 JP	1214 K JP	1214 TVH	1214 K TVH	125	24	1.5	34500	13800	4200	4900	1.240	-
75	1215 JP	1215 K JP	1215 TVH	1215 K TVH	130	25	1.5	39000	15700	3900	4600	1.330	1.310
80	1216 JP	1216 K JP	1216 TVH	1216 K TVH	140	26	2.0	40000	17000	3700	4300	1.650	1.620

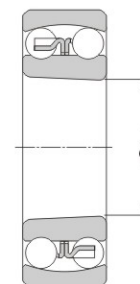
 Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) Normal production to be "JP" cages.

Technical supplement			
	Cages	Precision	Grease
	Steel - JP		
	Polymid - TVH		
	Brass - X	Normal (ISO)	Nil



Cylindrical bore

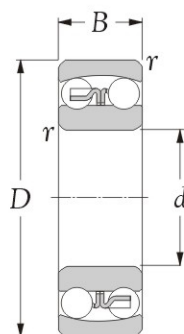

 Tapered bore
taper 1:12

Inner bore <i>d</i> mm	Bearing numbers				Principal dimensions			Basic load ratings		Limiting speeds		Mass	
					<i>D</i>	<i>B</i>	<i>r</i> s min ¹⁾	<i>C_r</i>	<i>C_{0r}</i>	grease	oil	cylindrical bore	tapered bore
					mm	mm		N		rpm		kg(s).	
10	1300 JP	1300 K JP	1300 TVH	1300 K TVH	35	11	0.6	7250	1620	18000	21000	0.058	-
12	1301 JP	1301 K JP	1301 TVH	1301 K TVH	37	12	1.0	9450	2160	16000	18000	0.066	-
15	1302 JP	1302 K JP	1302 TVH	1302 K TVH	42	13	1.0	9550	2300	13000	16000	0.092	-
17	1303 JP	1303 K JP	1303 TVH	1303 K TVH	47	14	1.0	12500	3200	12000	14000	0.128	-
20	1304 JP	1304 K JP	1304 TVH	1304 K TVH	52	15	1.1	12400	3350	11000	13000	0.160	0.158
25	1305 JP	1305 K JP	1305 TVH	1305 K TVH	62	17	1.1	18000	5000	9100	11000	0.255	0.251
30	1306 JP	1306 K JP	1306 TVH	1306 K TVH	72	19	1.1	21300	6300	7700	9100	0.383	0.377
35	1307 JP	1307 K JP	1307 TVH	1307 K TVH	80	21	1.5	25100	7850	6800	8000	0.500	0.492
40	1308 JP	1308 K JP	1308 TVH	1308 K TVH	90	23	1.5	29600	9700	6000	7000	0.709	0.698
45	1309 JP	1309 K JP	1309 TVH	1309 K TVH	100	25	1.5	38000	12700	5400	6300	0.953	0.938
50	1310 JP	1310 K JP	1310 TVH	1310 K TVH	110	27	2.0	43500	14100	4900	5800	1.200	1.180
55	1311 JP	1311 K JP	1311 TVH	1311 K TVH	120	29	2.0	51500	17900	4500	5200	1.580	1.560
60	1312 JP	1312 K JP	1312 TVH	1312 K TVH	130	31	2.1	57000	20800	4100	4800	1.960	1.930

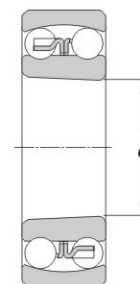
 Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) Normal production to be "JP" cages.

Technical supplement			
	Cages	Precision	Grease
	Steel - JP		
	Polymid - TVH	Normal (ISO)	Nil
	Brass - X		



Cylindrical bore

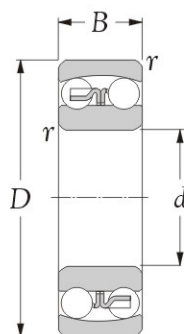
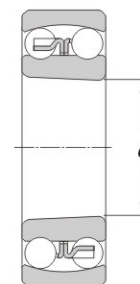

 Tapered bore
taper 1:12

Inner bore <i>d</i> mm	Bearing numbers				Principal dimensions			Basic load ratings		Limiting speeds		Mass	
					<i>D</i>	<i>B</i>	<i>r</i> s min ¹⁾	<i>C_r</i>	<i>C_{0r}</i>	grease	oil	cylindrical bore	tapered bore
					mm	mm		N		rpm		kg(s).	
10	2200 JP	2200 K JP	2200 TVH	2200 K TVH	30	14	0.6	7300	1590	19000	23000	0.047	-
12	2201 JP	2201 K JP	2201 TVH	2201 K TVH	32	14	0.6	7600	1730	17000	20000	0.051	-
15	2202 JP	2202 K JP	2202 TVH	2202 K TVH	35	14	0.6	7700	1850	15000	18000	0.060	-
17	2203 JP	2203 K JP	2203 TVH	2203 K TVH	40	16	0.6	9800	2410	13000	16000	0.088	-
20	2204 JP	2204 K JP	2204 TVH	2204 K TVH	47	18	1.0	12600	3300	12000	14000	0.140	0.137
25	2205 JP	2205 K JP	2205 TVH	2205 K TVH	52	18	1.0	12300	3450	10000	12000	0.157	0.153
30	2206 JP	2206 K JP	2206 TVH	2206 K TVH	62	20	1.0	15200	4500	8600	10000	0.256	0.250
35	2207 JP	2207 K JP	2207 TVH	2207 K TVH	72	23	1.1	21500	6600	7500	8800	0.392	0.382
40	2208 JP	2208 K JP	2208 TVH	2208 K TVH	80	23	1.1	22300	7350	6700	7900	0.493	0.482
45	2209 JP	2209 K JP	2209 TVH	2209 K TVH	85	23	1.1	23200	8150	6000	7100	0.540	0.528
50	2210 JP	2210 K JP	2210 TVH	2210 K TVH	90	23	1.1	23200	8450	5500	6400	0.583	0.569
55	2211 JP	2211 K JP	2211 TVH	2211 K TVH	100	25	1.5	26500	9900	5000	5800	0.787	0.769
60	2212 JP	2212 K JP	2212 TVH	2212 K TVH	110	28	1.5	34000	12600	4600	5400	1.080	1.060

 Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) Normal production to be "JP" cages.

Technical supplement			
	Cages	Precision	Grease
	Steel - JP		
	Polymid - TVH		
	Brass - X	Normal (ISO)	Nil

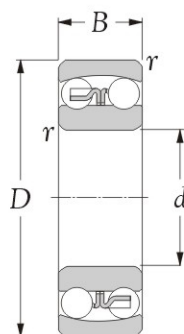

 Cylindrical bore
sealed type

 Tapered bore
taper 1:12

Inner bore <i>d</i> mm	Bearing numbers		Principal dimensions			Basic load ratings		Limiting speeds	Mass
			<i>D</i>	<i>B</i>	<i>r</i> s min ¹⁾	<i>C_r</i>	<i>C_{0r}</i>		
			mm			N		grease rpm	kg(s).
10	2200 2RS JP	2200 2RS TVH	30	14	0.6	5530	1180	17000	0.048
12	2201 2RS JP	2201 2RS TVH	32	14	0.6	6240	1430	16000	0.053
15	2202 2RS JP	2202 2RS TVH	35	14	0.6	7410	1760	14000	0.058
17	2203 2RS JP	2203 2RS TVH	40	16	0.6	8840	2200	12000	0.089
20	2204 2RS JP	2204 2RS TVH	47	18	1.0	12700	3400	10000	0.140
25	2205 2RS JP	2205 2RS TVH	52	18	1.0	14300	4000	9000	0.160
30	2206 2RS JP	2206 2RS TVH	62	20	1.0	15600	4650	7500	0.260
35	2207 2RS JP	2207 2RS TVH	72	23	1.1	19000	6000	6300	0.410
40	2208 2RS JP	2208 2RS TVH	80	23	1.1	19900	6950	5600	0.500
45	2209 2RS JP	2209 2RS TVH	85	23	1.1	22900	7800	5300	0.530
50	2210 2RS JP	2210 2RS TVH	90	23	1.1	22900	8150	4800	0.570
55	2211 2RS JP	2211 2RS TVH	100	25	1.5	27600	10600	4300	0.790
60	2212 2RS JP	2212 2RS TVH	110	28	1.5	31200	12200	3800	1.050

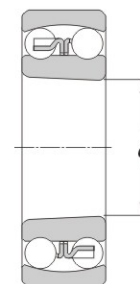
 Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) Normal production to be "JP" cages.

Technical supplement			
	Cages	Precision	Grease
	Steel - JP		
	Polymid - TVH		
	Brass - X	Normal (ISO)	Shell Alvania S2



Cylindrical bore

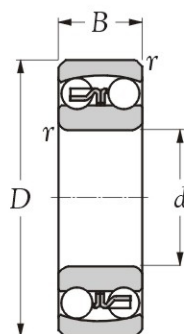
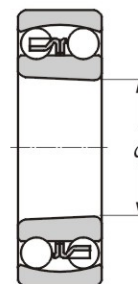

 Tapered bore
taper 1:12

Inner bore <i>d</i> mm	Bearing numbers				Principal dimensions			Basic load ratings		Limiting speeds		Mass	
					<i>D</i>	<i>B</i>	<i>r</i> s min ¹⁾	<i>C_r</i>	<i>C_{0r}</i>	grease	oil	cylindrical bore	tapered bore
					mm			N		rpm		kg(s).	
10	2300 JP	2300 K JP	2300 TVH	2300 K TVH	35	17	0.6	10100	2150	17000	20000	0.083	-
12	2301 JP	2301 K JP	2301 TVH	2301 K TVH	37	17	1.0	11800	2710	15000	17000	0.091	-
15	2302 JP	2302 K JP	2302 TVH	2302 K TVH	42	17	1.0	12000	2900	13000	15000	0.114	-
17	2303 JP	2303 K JP	2303 TVH	2303 K TVH	47	19	1.0	14400	3550	11000	14000	0.156	-
20	2304 JP	2304 K JP	2304 TVH	2304 K TVH	52	21	1.1	18100	4700	10000	12000	0.206	0.201
25	2305 JP	2305 K JP	2305 TVH	2305 K TVH	62	24	1.1	24400	6600	8500	10000	0.334	0.326
30	2306 JP	2306 K JP	2306 TVH	2306 K TVH	72	27	1.1	31500	8750	7200	8500	0.496	0.485
35	2307 JP	2307 K JP	2307 TVH	2307 K TVH	80	31	1.5	39500	11300	6300	7400	0.671	0.653
40	2308 JP	2308 K JP	2308 TVH	2308 K TVH	90	33	1.5	45000	13500	5600	6600	0.918	0.895
45	2309 JP	2309 K JP	2309 TVH	2309 K TVH	100	36	1.5	54000	16700	5000	5900	1.230	1.200
50	2310 JP	2310 K JP	2310 TVH	2310 K TVH	110	40	2.0	64500	20200	4600	5400	1.630	1.590
55	2311 JP	2311 K JP	2311 TVH	2311 K TVH	120	43	2.0	75500	24000	4200	4900	2.100	2.050
60	2312 JP	2312 K JP	2312 TVH	2312 K TVH	130	46	2.1	87000	28200	3800	4500	2.590	2.520

 Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) Normal production to be "JP" cages.

Technical supplement			
	Cages	Precision	Grease
	Steel - JP		
	Polymid - TVH		
	Brass - X	Normal (ISO)	Nil


 Cylindrical bore
sealed type

 Tapered bore
taper 1:12

Inner bore <i>d</i> mm	Bearing numbers		Principal dimensions			Basic load ratings		Limiting speeds grease rpm	Mass kg(s).
			<i>D</i>	<i>B</i> mm	<i>r</i> s min ¹⁾	<i>C_r</i>	<i>C_{0r}</i> N		
15	2302 2RS JP	2302 2RS TVH	42	17	1.0	10800	2600	12000	0.11
17	2303 2RS JP	2303 2RS TVH	47	19	1.0	12700	3400	11000	0.16
20	2304 2RS JP	2304 2RS TVH	52	21	1.1	14300	4000	9500	0.21
25	2305 2RS JP	2305 2RS TVH	62	24	1.1	19000	5400	7500	0.34
30	2306 2RS JP	2306 2RS TVH	72	27	1.1	22500	6800	6700	0.51
35	2307 2RS JP	2307 2RS TVH	80	31	1.5	26500	8500	5600	0.70
40	2308 2RS JP	2308 2RS TVH	90	33	1.5	33800	11200	5000	0.96
45	2309 2RS JP	2309 2RS TVH	100	36	1.5	39000	13400	4500	1.30
50	2310 2RS JP	2310 2RS TVH	110	40	2.0	43600	14000	4000	1.65

 Note: 1) These values are the allowable minimum dimensions of the chamfer dimension *r*.

2) Normal production to be "JP" cages.

Technical supplement			
	Cages	Precision	Grease
	Steel - JP		
	Polymid - TVH	Normal (ISO)	Shell Alvania S2
	Brass - X		