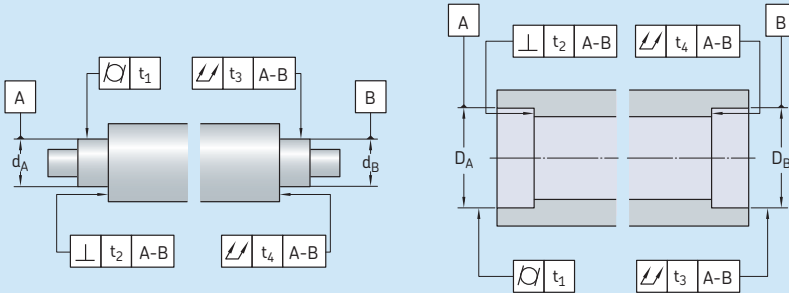


ISO tolerance grades

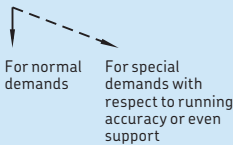
Nominal dimension		Tolerance grades			IT4	IT5	IT6	IT7	IT8	IT9	IT10	IT11	IT12
over	incl.	IT1	IT2	IT3									
		max											
mm		µm											
1	3	0,8	1,2	2	3	4	6	10	14	25	40	60	100
3	6	1	1,5	2,5	4	5	8	12	18	30	48	75	120
6	10	1	1,5	2,5	4	6	9	15	22	36	58	90	150
10	18	1,2	2	3	5	8	11	18	27	43	70	110	180
18	30	1,5	2,5	4	6	9	13	21	33	52	84	130	210
30	50	1,5	2,5	4	7	11	16	25	39	62	100	160	250
50	80	2	3	5	8	13	19	30	46	74	120	190	300
80	120	2,5	4	6	10	15	22	35	54	87	140	220	350
120	180	3,5	5	8	12	18	25	40	63	100	160	250	400
180	250	4,5	7	10	14	20	29	46	72	115	185	290	460
250	315	6	8	12	16	23	32	52	81	130	210	320	520
315	400	7	9	13	18	25	36	57	89	140	230	360	570
400	500	8	10	15	20	27	40	63	97	155	250	400	630
500	630	–	–	–	–	32	44	70	110	175	280	440	700
630	800	–	–	–	–	36	50	80	125	200	320	500	800
800	1000	–	–	–	–	40	56	90	140	230	360	560	900
1000	1250	–	–	–	–	47	66	105	165	260	420	660	1050
1250	1600	–	–	–	–	55	78	125	195	310	500	780	1250
1600	2000	–	–	–	–	65	92	150	230	370	600	920	1500
2000	2500	–	–	–	–	78	110	175	280	440	700	1100	1750

Accuracy of form and position of bearing seats



Surface Characteristic	Symbol for characteristic	tolerance zone	Permissible deviations			
			Bearings of tolerance class ¹⁾ Normal, CLN	P6	P5	
Cylindrical seat						
Cylindricity		t ₁	IT5/2	IT4/2	IT3/2	IT2/2
Total radial runout		t ₃	IT5/2	IT4/2	IT3/2	IT2/2
Flat abutment						
Perpendicularity		t ₂	IT5	IT4	IT3	IT2
Total axial runout		t ₄	IT5	IT4	IT3	IT2

Explanation



¹⁾ For bearings of higher accuracy (tolerance class P4 etc.) refer to the *SKF Interactive Engineering Catalogue* available online at www.skf.com.

Appendix D-2

Surface roughness of bearing seats

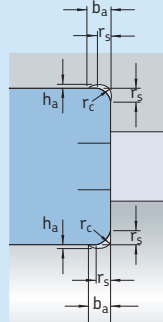
Diameter of seats d (D) ¹⁾		Recommended R_a value for ground seats		
		Diameter tolerance grade to		
over	incl.	IT7	IT6	IT5
mm		μm		
-	80	1,6	0,8	0,4
80	500	1,6	1,6	0,8
500	1 250	3,2 ²⁾	1,6	1,6

¹⁾ For diameters > 1 250 mm contact the SKF application engineering service.

²⁾ When using the oil injection method for mounting, R_a should not exceed 1,6 mm.

Appendix D-3

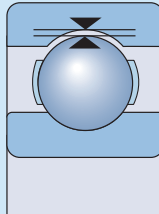
Dimensions for relieved fillets



Bearing chamfer dimension

r_s	Fillet dimensions		
	b_a	h_a	r_c
mm	mm		
1	2	0,2	1,3
1,1	2,4	0,3	1,5
1,5	3,2	0,4	2
2	4	0,5	2,5
2,1	4	0,5	2,5
3	4,7	0,5	3
4	5,9	0,5	4
5	7,4	0,6	5
6	8,6	0,6	6
7,5	10	0,6	7
9,5	12	0,6	9

Radial internal clearance of deep groove ball bearings

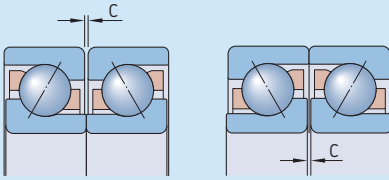


Bore diameter d		Radial internal clearance									
over	incl.	C2		Normal		C3		C4		C5	
		min	max	min	max	min	max	min	max	min	max
mm		μm									
2,5	6 ¹⁾	0	7	2	13	8	23	–	–	–	–
6	10 ¹⁾	0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160
140	160	2	23	18	53	46	91	81	130	120	180
160	180	2	25	20	61	53	102	91	147	135	200
180	200	2	30	25	71	63	117	107	163	150	230
200	225	2	35	25	85	75	140	125	195	175	265
225	250	2	40	30	95	85	160	145	225	205	300
250	280	2	45	35	105	90	170	155	245	225	340
280	315	2	55	40	115	100	190	175	270	245	370
315	355	3	60	45	125	110	210	195	300	275	410
355	400	3	70	55	145	130	240	225	340	315	460
400	450	3	80	60	170	150	270	250	380	350	520
450	500	3	90	70	190	170	300	280	420	390	570
500	560	10	100	80	210	190	330	310	470	440	630
560	630	10	110	90	230	210	360	340	520	490	700
630	710	20	130	110	260	240	400	380	570	540	780
710	800	20	140	120	290	270	450	430	630	600	860
800	900	20	160	140	320	300	500	480	700	670	960
900	1 000	20	170	150	350	330	550	530	770	740	1 040
1 000	1 120	20	180	160	380	360	600	580	850	820	1 150
1 120	1 250	20	190	170	410	390	650	630	920	890	1 260
1 250	1 400	30	200	190	440	420	700	680	1 000	–	–
1 400	1 600	30	210	210	470	450	750	730	1 060	–	–

¹⁾ The clearance values are not valid for stainless steel deep groove ball bearings with a bore diameter d < 10 mm.

Appendix E-2

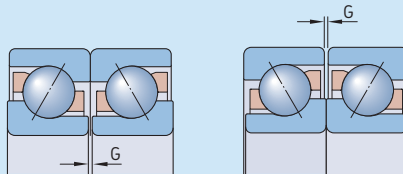
Axial internal clearance of universally matchable single row angular contact ball bearings arranged back-to-back or face-to-face



Bore diameter d		Axial internal clearance Class					
over	incl.	CA		CB		CC	
		min	max	min	max	min	max
mm		μm					
10	18	5	13	15	23	24	32
18	30	7	15	18	26	32	40
30	50	9	17	22	30	40	48
50	80	11	23	26	38	48	60
80	120	14	26	32	44	55	67
120	180	17	29	35	47	62	74
180	250	21	37	45	61	74	90

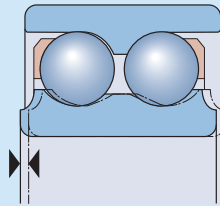
Appendix E-3

Axial preload of universally matchable single row angular contact ball bearings arranged back-to-back or face-to-face



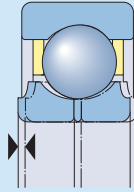
Bore diameter d		Preload Class GA				GB				GC			
over	incl.	min	max	max	min	max	min	max	min	max	min	max	
mm		μm			N		μm		μm		N		
10	18	+4	-4	80	-2	-10	30	330	-8	-16	230	660	
18	30	+4	-4	120	-2	-10	40	480	-8	-16	340	970	
30	50	+4	-4	160	-2	-10	60	630	-8	-16	450	1280	
50	80	+6	-6	380	-3	-15	140	1500	-12	-24	1080	3050	
80	120	+6	-6	410	-3	-15	150	1600	-12	-24	1150	3250	
120	180	+6	-6	540	-3	-15	200	2150	-12	-24	1500	4300	
180	250	+8	-8	940	-4	-20	330	3700	-16	-32	2650	7500	

Axial internal clearance of double row angular contact ball bearings



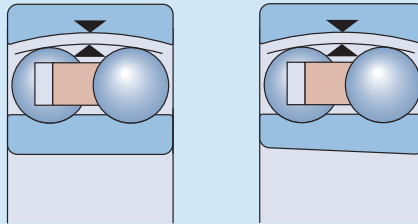
Bore diameter		Axial internal clearance of bearings in the series 32 A and 33 A						33 D		33 DNRCBM	
d	incl.	C2		Normal		C3		min	max	min	max
mm		min	max	min	max	min	max	μm		μm	
-	10	1	11	5	21	12	28	-	-	-	-
10	18	1	12	6	23	13	31	-	-	-	-
18	24	2	14	7	25	16	34	-	-	-	-
24	30	2	15	8	27	18	37	-	-	-	-
30	40	2	16	9	29	21	40	33	54	10	30
40	50	2	18	11	33	23	44	36	58	10	30
50	65	3	22	13	36	26	48	40	63	18	38
65	80	3	24	15	40	30	54	46	71	18	38
80	100	3	26	18	46	35	63	55	83	-	-
100	110	4	30	22	53	42	73	65	96	-	-

Axial internal clearance of four-point contact ball bearings



Bore diameter d		Axial internal clearance C2							
over	incl.	Normal		C3		C4			
		min	max	min	max	min	max	min	max
mm		μm							
10	17	15	55	45	85	75	125	115	165
17	40	26	66	56	106	96	146	136	186
40	60	36	86	76	126	116	166	156	206
60	80	46	96	86	136	126	176	166	226
80	100	56	106	96	156	136	196	186	246
100	140	66	126	116	176	156	216	206	266
140	180	76	156	136	196	176	246	226	296
180	220	96	176	156	226	206	276	256	326

Radial internal clearance of self-aligning ball bearings



Bore diameter d		Radial internal clearance C2				Normal		C3		C4	
over	incl.	min	max	min	max	min	max	min	max		
mm		μm									

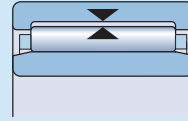
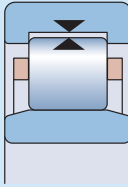
Bearings with a cylindrical bore

2,5	6	1	8	5	15	10	20	15	25
6	10	2	9	6	17	12	25	19	33
10	14	2	10	6	19	13	26	21	35
14	18	3	12	8	21	15	28	23	37
18	24	4	14	10	23	17	30	25	39
24	30	5	16	11	24	19	35	29	46
30	40	6	18	13	29	23	40	34	53
40	50	6	19	14	31	25	44	37	57
50	65	7	21	16	36	30	50	45	69
65	80	8	24	18	40	35	60	54	83
80	100	9	27	22	48	42	70	64	96
100	120	10	31	25	56	50	83	75	114
120	140	10	38	30	68	60	100	90	135
140	160	15	44	35	80	70	120	110	161
160	180	15	50	40	92	82	138	126	185
180	200	17	57	47	105	93	157	144	212
200	225	18	62	50	115	100	170	155	230
225	250	20	70	57	130	115	195	175	255

Bearings with a tapered bore

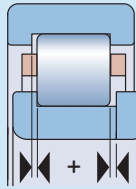
18	24	7	17	13	26	20	33	28	42
24	30	9	20	15	28	23	39	33	50
30	40	12	24	19	35	29	46	40	59
40	50	14	27	22	39	33	52	45	65
50	65	18	32	27	47	41	61	56	80
65	80	23	39	35	57	50	75	69	98
80	100	29	47	42	68	62	90	84	116
100	120	35	56	50	81	75	108	100	139

Radial internal clearance of cylindrical and needle roller bearings



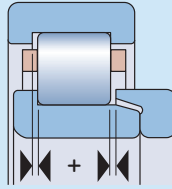
Bore diameter d		Radial internal clearance									
		C2		Normal		C3		C4		C5	
over	incl.	min	max	min	max	min	max	min	max	min	max
mm		μm									
–	10	0	25	20	45	35	60	50	75	–	–
10	24	0	25	20	45	35	60	50	75	65	90
24	30	0	25	20	45	35	60	50	75	70	95
30	40	5	30	25	50	45	70	60	85	80	105
40	50	5	35	30	60	50	80	70	100	95	125
50	65	10	40	40	70	60	90	80	110	110	140
65	80	10	45	40	75	65	100	90	125	130	165
80	100	15	50	50	85	75	110	105	140	155	190
100	120	15	55	50	90	85	125	125	165	180	220
120	140	15	60	60	105	100	145	145	190	200	245
140	160	20	70	70	120	115	165	165	215	225	275
160	180	25	75	75	125	120	170	170	220	250	300
180	200	35	90	90	145	140	195	195	250	275	330
200	225	45	105	105	165	160	220	220	280	305	365
225	250	45	110	110	175	170	235	235	300	330	395
250	280	55	125	125	195	190	260	260	330	370	440
280	315	55	130	130	205	200	275	275	350	410	485
315	355	65	145	145	225	225	305	305	385	455	535
355	400	100	190	190	280	280	370	370	460	510	600
400	450	110	210	210	310	310	410	410	510	565	665
450	500	110	220	220	330	330	440	440	550	625	735
500	560	120	240	240	360	360	480	480	600	690	810
560	630	140	260	260	380	380	500	500	620	780	900
630	710	145	285	285	425	425	565	565	705	865	1005
710	800	150	310	310	470	470	630	630	790	975	1135
800	900	180	350	350	520	520	690	690	860	1095	1265
900	1000	200	390	390	580	580	770	770	960	–	–
1000	1120	220	430	430	640	640	850	850	1060	–	–
1120	1250	230	470	470	710	710	950	950	1190	–	–
1250	1400	270	530	530	790	790	1050	1050	1310	–	–
1400	1600	330	610	610	890	890	1170	1170	1450	–	–
1600	1800	380	700	700	1020	1020	1340	1340	1660	–	–
1800	2000	400	760	760	1120	1120	1480	1480	1840	–	–

Axial internal clearance of NUP cylindrical roller bearings



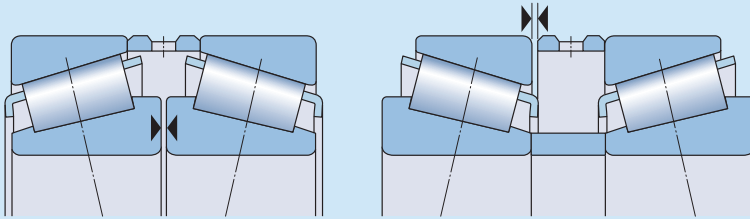
Bearing Bore diameter	Size code	Axial internal clearance of bearings in the series							
		NUP 2		NUP 3		NUP 22		NUP 23	
mm	–	min	max	min	max	min	max	min	max
		μm							
15	02	–	–	–	–	–	–	–	–
17	03	37	140	37	140	37	140	47	155
20	04	37	140	37	140	47	155	47	155
25	05	37	140	47	155	47	155	47	155
30	06	37	140	47	155	47	155	47	155
35	07	47	155	47	155	47	155	62	180
40	08	47	155	47	155	47	155	62	180
45	09	47	155	47	155	47	155	62	180
50	10	47	155	47	155	47	155	62	180
55	11	47	155	62	180	47	155	62	180
60	12	47	155	62	180	62	180	87	230
65	13	47	155	62	180	62	180	87	230
70	14	47	155	62	180	62	180	87	230
75	15	47	155	62	180	62	180	87	230
80	16	47	155	62	180	62	180	87	230
85	17	62	180	62	180	62	180	87	230
90	18	62	180	62	180	62	180	87	230
95	19	62	180	62	180	62	180	87	230
100	20	62	180	87	230	87	230	120	315
105	21	62	180	–	–	–	–	–	–
110	22	62	180	87	230	87	230	120	315
120	24	62	180	87	230	87	230	120	315
130	26	62	180	87	230	87	230	120	315
140	28	62	180	87	230	87	230	120	315
150	30	62	180	–	–	87	230	120	315
160	32	87	230	–	–	–	–	–	–
170	34	87	230	–	–	–	–	–	–
180	36	87	230	–	–	–	–	–	–
190	38	87	230	–	–	–	–	–	–
200	40	87	230	–	–	–	–	–	–
220	44	95	230	–	–	–	–	–	–
240	48	95	250	–	–	–	–	–	–
260	52	95	250	–	–	–	–	–	–

Axial internal clearance of NJ + HJ cylindrical roller bearings



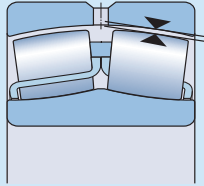
Bearing Bore diameter	Size code	Axial internal clearance of bearings in the series									
		NJ 2+HJ 2		NJ 3+HJ 3		NJ 4+HJ 4		NJ 22+HJ 22		NJ 23+HJ 23	
mm	-	μm									
		min	max	min	max	min	max	min	max	min	max
15	02	42	165	42	165	-	-	-	-	-	-
17	03	42	165	42	165	-	-	42	165	52	183
20	04	42	165	42	165	-	-	52	185	52	183
25	05	42	165	52	185	-	-	52	185	52	183
30	06	42	165	52	185	60	200	52	185	52	183
35	07	52	185	52	185	60	200	52	185	72	215
40	08	52	185	52	185	60	200	52	185	72	215
45	09	52	185	52	185	60	200	52	185	72	215
50	10	52	185	52	185	80	235	52	185	72	215
55	11	52	185	72	215	80	235	52	185	72	215
60	12	52	185	72	215	80	235	72	215	102	275
65	13	52	185	72	215	80	235	72	215	102	275
70	14	52	185	72	215	80	235	72	215	102	275
75	15	52	185	72	215	80	235	72	215	102	275
80	16	52	185	72	215	80	235	72	215	102	275
85	17	72	215	72	215	110	290	72	215	102	275
90	18	72	215	72	215	110	290	72	215	102	275
95	19	72	215	72	215	110	290	72	215	102	275
100	20	72	215	102	275	110	290	102	275	140	375
105	21	72	215	102	275	110	290	102	275	140	375
110	22	72	215	102	275	110	290	102	275	140	375
120	24	72	215	102	275	110	310	102	275	140	375
130	26	72	215	102	275	110	310	102	275	140	375
140	28	72	215	102	275	140	385	102	275	140	375
150	30	72	215	102	275	140	385	102	275	140	375
160	32	102	275	102	275	-	-	140	375	140	375
170	34	102	275	-	-	-	-	140	375	-	-
180	36	102	275	-	-	-	-	140	375	-	-
190	38	102	275	-	-	-	-	-	-	-	-
200	40	102	275	-	-	-	-	-	-	-	-
220	44	110	290	-	-	-	-	-	-	-	-
240	48	110	310	-	-	-	-	-	-	-	-
260	52	110	310	-	-	-	-	-	-	-	-
280	56	110	310	-	-	-	-	-	-	-	-

Axial internal clearance of matched single row metric tapered roller bearings



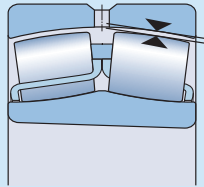
Bore diameter d		Axial internal clearance of bearings in the series											
		329		320		330		331, 302, 322, 332		303, 323		313	
over	incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm		µm											
-	30	-	-	80	120	-	-	100	140	130	170	60	100
30	40	-	-	100	140	-	-	120	160	140	180	70	110
40	50	-	-	120	160	180	220	140	180	160	200	80	120
50	65	-	-	140	180	200	240	160	200	180	220	100	140
65	80	-	-	160	200	250	290	180	220	200	260	110	170
80	100	270	310	190	230	350	390	210	270	240	300	110	170
100	120	270	330	220	280	340	400	220	280	280	340	130	190
120	140	310	370	240	300	340	400	240	300	330	390	160	220
140	160	370	430	270	330	340	400	270	330	370	430	180	240
160	180	370	430	310	370	-	-	310	370	390	450	-	-
180	190	370	430	340	400	-	-	340	400	440	500	-	-
190	200	390	450	340	400	-	-	340	400	440	500	-	-
200	225	440	500	390	450	-	-	390	450	490	550	-	-
225	250	440	500	440	500	-	-	440	500	540	600	-	-
250	280	540	600	490	550	-	-	490	550	-	-	-	-
280	300	640	700	540	600	-	-	540	600	-	-	-	-
300	340	640	700	590	650	-	-	590	650	-	-	-	-

Radial internal clearance of spherical roller bearings with a cylindrical bore



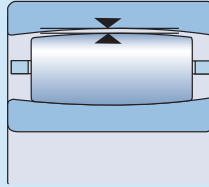
Bore diameter d		Radial internal clearance C2				Normal		C3		C4		C5	
over	incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm		μm											
14	18	10	20	20	35	35	45	45	60	60	75	75	95
18	24	10	20	20	35	35	45	45	60	60	75	75	95
24	30	15	25	25	40	40	55	55	75	75	95	95	125
30	40	15	30	30	45	45	60	60	80	80	100	100	125
40	50	20	35	35	55	55	75	75	100	100	125	125	150
50	65	20	40	40	65	65	90	90	120	120	150	150	185
65	80	30	50	50	80	80	110	110	145	145	185	185	225
80	100	35	60	60	100	100	135	135	180	180	225	225	260
100	120	40	75	75	120	120	160	160	210	210	260	260	300
120	140	50	95	95	145	145	190	190	240	240	300	300	350
140	160	60	110	110	170	170	220	220	280	280	350	350	390
160	180	65	120	120	180	180	240	240	310	310	390	390	430
180	200	70	130	130	200	200	260	260	340	340	430	430	470
200	225	80	140	140	220	220	290	290	380	380	470	470	520
225	250	90	150	150	240	240	320	320	420	420	520	520	570
250	280	100	170	170	260	260	350	350	460	460	570	570	630
280	315	110	190	190	280	280	370	370	500	500	630	630	690
315	355	120	200	200	310	310	410	410	550	550	690	690	750
355	400	130	220	220	340	340	450	450	600	600	750	750	820
400	450	140	240	240	370	370	500	500	660	660	820	820	900
450	500	140	260	260	410	410	550	550	720	720	900	900	1000
500	560	150	280	280	440	440	600	600	780	780	1000	1000	1100
560	630	170	310	310	480	480	650	650	850	850	1100	1100	1190
630	710	190	350	350	530	530	700	700	920	920	1190	1190	1300
710	800	210	390	390	580	580	770	770	1010	1010	1300	1300	1440
800	900	230	430	430	650	650	860	860	1120	1120	1440	1440	1570
900	1000	260	480	480	710	710	930	930	1220	1220	1570	1570	1720
1000	1120	290	530	530	780	780	1020	1020	1330	1330	1720	1720	1870
1120	1250	320	580	580	860	860	1120	1120	1460	1460	1870	1870	2060
1250	1400	350	640	640	950	950	1240	1240	1620	1620	2060	2060	2300
1400	1600	400	720	720	1060	1060	1380	1380	1800	1800	2300	2300	2550
1600	1800	450	810	810	1180	1180	1550	1550	2000	2000	2550	2550	

Radial internal clearance of spherical roller bearings with a tapered bore



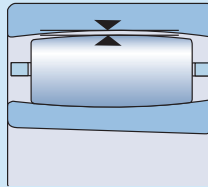
Bore diameter d		Radial internal clearance											
over	incl.	C2				Normal		C3		C4		C5	
		min	max	min	max	min	max	min	max	min	max		
mm		μm											
18	24	15	25	25	35	35	45	45	60	60	75	75	
24	30	20	30	30	40	40	55	55	75	75	95	95	
30	40	25	35	35	50	50	65	65	85	85	105	105	
40	50	30	45	45	60	60	80	80	100	100	130	130	
50	65	40	55	55	75	75	95	95	120	120	160	160	
65	80	50	70	70	95	95	120	120	150	150	200	200	
80	100	55	80	80	110	110	140	140	180	180	230	230	
100	120	65	100	100	135	135	170	170	220	220	280	280	
120	140	80	120	120	160	160	200	200	260	260	330	330	
140	160	90	130	130	180	180	230	230	300	300	380	380	
160	180	100	140	140	200	200	260	260	340	340	430	430	
180	200	110	160	160	220	220	290	290	370	370	470	470	
200	225	120	180	180	250	250	320	320	410	410	520	520	
225	250	140	200	200	270	270	350	350	450	450	570	570	
250	280	150	220	220	300	300	390	390	490	490	620	620	
280	315	170	240	240	330	330	430	430	540	540	680	680	
315	355	190	270	270	360	360	470	470	590	590	740	740	
355	400	210	300	300	400	400	520	520	650	650	820	820	
400	450	230	330	330	440	440	570	570	720	720	910	910	
450	500	260	370	370	490	490	630	630	790	790	1 000	1 000	
500	560	290	410	410	540	540	680	680	870	870	1 100	1 100	
560	630	320	460	460	600	600	760	760	980	980	1 230	1 230	
630	710	350	510	510	670	670	850	850	1 090	1 090	1 360	1 360	
710	800	390	570	570	750	750	960	960	1 220	1 220	1 500	1 500	
800	900	440	640	640	840	840	1 070	1 070	1 370	1 370	1 690	1 690	
900	1 000	490	710	710	930	930	1 190	1 190	1 520	1 520	1 860	1 860	
1 000	1 120	530	770	770	1 030	1 030	1 300	1 300	1 670	1 670	2 050	2 050	
1 120	1 250	570	830	830	1 120	1 120	1 420	1 420	1 830	1 830	2 250	2 250	
1 250	1 400	620	910	910	1 230	1 230	1 560	1 560	2 000	2 000	2 450	2 450	
1 400	1 600	680	1 000	1 000	1 350	1 350	1 720	1 720	2 200	2 200	2 700	2 700	
1 600	1 800	750	1 110	1 110	1 500	1 500	1 920	1 920	2 400	2 400	2 950	2 950	

Radial internal clearance of CARB toroidal roller bearings with a cylindrical bore



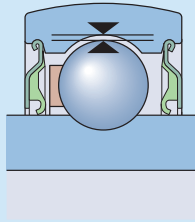
Bore diameter d		Radial internal clearance									
		C2		Normal		C3		C4		C5	
over	incl.	min	max	min	max	min	max	min	max	min	max
mm		μm									
18	24	15	30	25	40	35	55	50	65	65	85
24	30	15	35	30	50	45	60	60	80	75	95
30	40	20	40	35	55	55	75	70	95	90	120
40	50	25	45	45	65	65	85	85	110	105	140
50	65	30	55	50	80	75	105	100	140	135	175
65	80	40	70	65	100	95	125	120	165	160	210
80	100	50	85	80	120	120	160	155	210	205	260
100	120	60	100	100	145	140	190	185	245	240	310
120	140	75	120	115	170	165	215	215	280	280	350
140	160	85	140	135	195	195	250	250	325	320	400
160	180	95	155	150	220	215	280	280	365	360	450
180	200	105	175	170	240	235	310	305	395	390	495
200	225	115	190	185	265	260	340	335	435	430	545
225	250	125	205	200	285	280	370	365	480	475	605
250	280	135	225	220	310	305	410	405	520	515	655
280	315	150	240	235	330	330	435	430	570	570	715
315	355	160	260	255	360	360	485	480	620	620	790
355	400	175	280	280	395	395	530	525	675	675	850
400	450	190	310	305	435	435	580	575	745	745	930
450	500	205	335	335	475	475	635	630	815	810	1 015
500	560	220	360	360	520	510	690	680	890	890	1 110
560	630	240	400	390	570	560	760	750	980	970	1 220
630	710	260	440	430	620	610	840	830	1 080	1 070	1 340
710	800	300	500	490	680	680	920	920	1 200	1 200	1 480
800	900	320	540	530	760	750	1 020	1 010	1 330	1 320	1 660
900	1 000	370	600	590	830	830	1 120	1 120	1 460	1 460	1 830
1 000	1 120	410	660	660	930	930	1 260	1 260	1 640	1 640	2 040
1 120	1 250	450	720	720	1 020	1 020	1 380	1 380	1 800	1 800	2 240
1 250	1 400	490	800	800	1 130	1 130	1 510	1 510	1 970	1 970	2 460
1 400	1 600	570	890	890	1 250	1 250	1 680	1 680	2 200	2 200	2 740
1 600	1 800	650	1 010	1 010	1 390	1 390	1 870	1 870	2 430	2 430	3 000

Radial internal clearance of CARB toroidal roller bearings with a tapered bore



Bore diameter d		Radial internal clearance C2				Normal		C3		C4		C5	
over	incl.	min	max	min	max	min	max	min	max	min	max	min	max
mm		μm											
18	24	15	35	30	45	40	55	55	70	65	85	65	85
24	30	20	40	35	55	50	65	65	85	80	100	80	100
30	40	25	50	45	65	60	80	80	100	100	125	100	125
40	50	30	55	50	75	70	95	90	120	115	145	115	145
50	65	40	65	60	90	85	115	110	150	145	185	145	185
65	80	50	80	75	110	105	140	135	180	175	220	175	220
80	100	60	100	95	135	130	175	170	220	215	275	215	275
100	120	75	115	115	155	155	205	200	255	255	325	255	325
120	140	90	135	135	180	180	235	230	295	290	365	290	365
140	160	100	155	155	215	210	270	265	340	335	415	335	415
160	180	115	175	170	240	235	305	300	385	380	470	380	470
180	200	130	195	190	260	260	330	325	420	415	520	415	520
200	225	140	215	210	290	285	365	360	460	460	575	460	575
225	250	160	235	235	315	315	405	400	515	510	635	510	635
250	280	170	260	255	345	340	445	440	560	555	695	555	695
280	315	195	285	280	380	375	485	480	620	615	765	615	765
315	355	220	320	315	420	415	545	540	680	675	850	675	850
355	400	250	350	350	475	470	600	595	755	755	920	755	920
400	450	280	385	380	525	525	655	650	835	835	1005	835	1005
450	500	305	435	435	575	575	735	730	915	910	1115	910	1115
500	560	330	480	470	640	630	810	800	1010	1000	1230	1000	1230
560	630	380	530	530	710	700	890	880	1110	1110	1350	1110	1350
630	710	420	590	590	780	770	990	980	1230	1230	1490	1230	1490
710	800	480	680	670	860	860	1100	1100	1380	1380	1660	1380	1660
800	900	520	740	730	960	950	1220	1210	1530	1520	1860	1520	1860
900	1000	580	820	810	1040	1040	1340	1340	1670	1670	2050	1670	2050
1000	1120	640	900	890	1170	1160	1500	1490	1880	1870	2280	1870	2280
1120	1250	700	980	970	1280	1270	1640	1630	2060	2050	2500	2050	2500
1250	1400	770	1080	1080	1410	1410	1790	1780	2250	2250	2740	2250	2740
1400	1600	870	1200	1200	1550	1550	1990	1990	2500	2500	3050	2500	3050
1600	1800	950	1320	1320	1690	1690	2180	2180	2730	2730	3310	2730	3310

Radial internal clearance of Y-bearings



Bearing size ¹⁾		Radial internal clearance of Y-bearings in the series					
		YAT 2, YAR 2, YET 2, YEL 2, YHC 2		YSA 2 K		17262(00) 17263(00)	
from	to	min	max	min	max	min	max
–		μm					
03	03	10	25	–	–	3	18
04	04	12	28	–	–	5	20
05	06	12	28	23	41	5	20
07	08	13	33	28	46	6	20
09	10	14	36	30	51	6	23
11	13	18	43	38	61	8	28
14	16	20	51	–	–	–	–
17	20	24	58	–	–	–	–

¹⁾ For example: bearing size 06 includes all bearings based on a Y 206 bearing, such as YAR 206-101-2F, YAR 206-102-2F, YAR 206-2F, YAR 206-103-2F, YAR 206-104-2F.