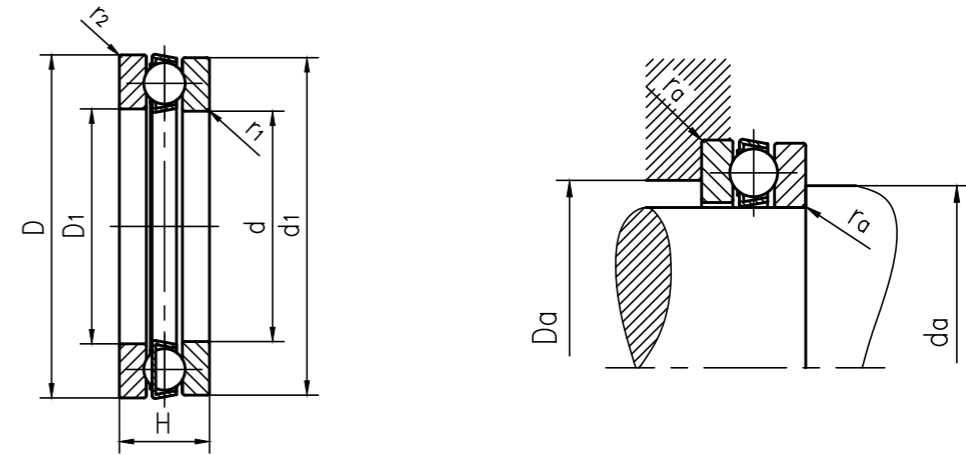


Thrust ball bearing

One-way thrust ball bearing

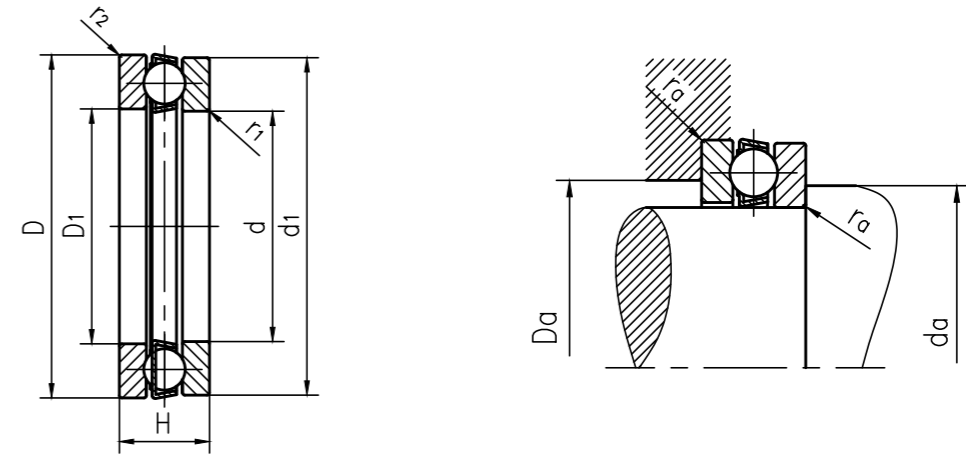


Type	Main dimensions			Dimensions			Shoulder and chamfer dimensions		
	d	D	H	d ₁ ≈	D ₁ ≈	r _{1,2} Min.	d _a Min.	D _a Max.	r _a Max.
-	mm			mm					
BA3	3	8	3.5	7.8	3.2	0.15	5.8	5	0.15
BA4	4	10	4	9.8	4.2	0.15	7.5	6.5	0.15
BA5	5	12	4	11.8	5.2	0.15	8	9	0.15
BA6	6	14	5	13.8	6.2	0.2	11	9.5	0.2
BA7	7	17	6	16.8	7.2	0.2	12.5	11	0.2
BA8	8	19	7	18.8	8.2	0.3	14.5	12.5	0.3
BA9	9	20	7	19.8	9.2	0.3	15.5	13.5	0.3
51100	10	24	9	24	11	0.3	19	15	0.3
51200	10	26	11	26	12	0.6	20	16	0.6
51101	12	26	9	26	13	0.3	21	17	0.3
51201	12	28	11	28	14	0.6	22	18	0.6
51102	15	28	9	28	16	0.3	23	20	0.3
51202	15	32	12	32	17	0.6	25	22	0.6
51103	17	30	9	30	18	0.3	25	22	0.3
51203	17	35	12	35	19	0.6	28	24	0.6
51104	20	35	10	35	21	0.3	29	26	0.3
51204	20	40	14	40	22	0.6	32	28	0.6
51105	25	42	11	42	26	0.6	35	32	0.6
51205	25	47	15	47	27	0.6	38	34	0.6
51305	25	52	18	52	27	1	41	36	1
51405	25	60	24	60	27	1	46	39	1
51106	30	47	11	47	32	0.6	40	37	0.6
51206	30	52	16	52	32	0.6	43	39	0.6
51306	30	60	21	60	32	1	48	42	1
51406	30	70	28	70	32	1	54	46	1
51107	35	52	12	52	37	0.6	45	42	0.6
51207	35	62	18	62	37	1	51	46	1
51307	35	68	24	68	37	1	55	48	1
51407	35	80	32	80	37	1.1	62	53	1
51108	40	60	13	60	42	0.6	52	48	0.6
51208	40	68	19	68	42	1	57	51	1
51308	40	78	26	78	42	1	63	55	1
51408	40	90	36	90	42	1.1	70	60	1
51109	45	65	14	65	47	0.6	57	53	0.6
51209	45	73	20	73	47	1	62	56	1
51309	45	85	28	85	47	1	69	61	1
51409	45	100	39	100	47	1.1	78	67	1
51110	50	70	14	70	52	0.6	62	58	0.6
51210	50	78	22	78	52	1	67	61	1
51310	50	95	31	95	52	1.1	77	68	1
51410	50	110	43	110	52	1.5	86	74	1.5

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic	Static	P _u			A
		C	C ₀				
-	kg	kN			r/min	-	
BA3	0.0009	0.81	0.72	0.03	26130	36180	0.000003
BA4	0.0015	0.76	0.72	0.03	22110	30150	0.000003
BA5	0.0021	0.86	0.97	0.04	20100	28140	0.000005
BA6	0.0035	1.79	1.93	0.07	17085	24120	0.000019
BA7	0.0065	2.52	2.91	0.11	14070	19095	0.000044
BA8	0.0091	3.21	3.82	0.14	12060	17085	0.000075
BA9	0.01	3.14	3.82	0.14	12060	16080	0.000075
51100	0.02	10	15.38	0.56	9547.5	13065	0.0012
51200	0.03	12.76	18.69	0.7	8040	11055	0.0018
51101	0.022	10.45	16.68	0.62	9045	13065	0.0014
51201	0.034	13.37	20.9	0.77	8040	11055	0.0022
51102	0.023	10.65	18.39	0.67	8542.5	12060	0.0017
51202	0.046	15.98	25.13	0.92	7035	10050	0.0038
51103	0.025	11.46	21.31	0.78	8542.5	12060	0.0023
51203	0.053	16.38	27.14	1.01	6733.5	9547.5	0.0047
51104	0.037	15.18	29.15	1.09	7537.5	10050	0.0044
51204	0.083	21.31	37.69	1.41	6030	8040	0.0085
51105	0.056	18.29	39.2	1.44	6331.5	9045	0.0079
51205	0.11	26.63	50.25	1.87	5326.5	7537.5	0.015
51305	0.17	34.67	60.3	2.25	4522.5	6331.5	0.018
51405	0.34	42.51	67.34	2.46	3618	5025	0.048
51106	0.063	19.1	43.22	1.61	6030	8542.5	0.0096
51206	0.13	25.23	51.26	1.87	4824	6733.5	0.013
51306	0.26	35.98	65.83	2.41	3819	5326.5	0.026
51406	0.52	70.55	122.61	4.52	3015	4321.5	0.097
51107	0.08	20	51.26	1.87	5628	7537.5	0.013
51207	0.22	35.28	73.87	2.71	4020	5628	0.028
51307	0.39	49.65	96.98	3.57	3417	4824	0.048
51407	0.79	76.48	137.69	5.13	2613	3618	0.15
51108	0.12	25.63	63.32	2.33	5025	7035	0.02
51208	0.28	44.42	96.98	3.62	3819	5326.5	0.058
51308	0.53	62.11	122.61	4.52	3015	4321.5	0.077
51408	1.1	96.08	183.92	6.83	2412	3417	0.26
51109	0.14	26.63	69.85	2.56	4522.5	6331.5	0.025
51209	0.3	39.2	86.93	3.22	3618	5025	0.038
51309	0.66	76.48	153.77	5.63	2814	4020	0.12
51409	1.4	124.62	241.2	9.05	2211	3015	0.37
51110	0.16	27.14	75.38	2.81	4321.5	6331.5	0.029
51210	0.37	49.65	116.58	4.32	3417	4522.5	0.069
51310	0.94	82.31	170.85	6.33	2613	3618	0.19
51410	2	159.8	341.7	12.56	2010	2814	0.6

Thrust ball bearing

One-way thrust ball bearing

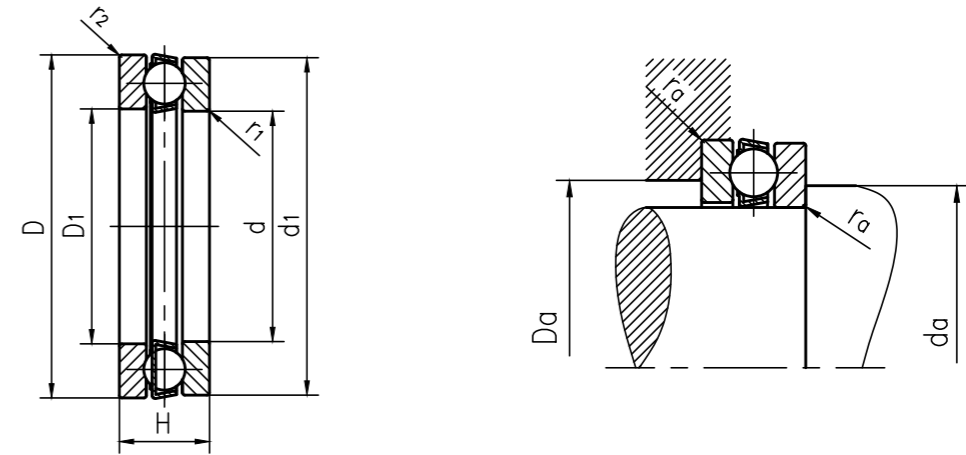


Type	Main dimensions			Dimensions			Shoulder and chamfer dimensions		
	d	D	H	d ₁ ≈	D ₁ ≈	r _{1,2} Min.	d _a Min.	D _a Max.	r _a Max.
-	mm			mm					
51111	55	78	16	78	57	0.6	69	64	0.6
51211	55	90	25	90	57	1	76	69	1
51311	55	105	35	105	57	1.1	85	75	1
51411	55	120	48	120	57	1.5	94	81	1.5
51112	60	85	17	85	62	1	75	70	1
51212	60	95	26	95	62	1	81	74	1
51312	60	110	35	110	62	1.1	90	80	1
51412M	60	130	51	130	62	1.5	102	88	1.5
51113	65	90	18	90	67	1	80	75	1
51213	65	100	27	100	67	1	86	79	1
51313	65	115	36	115	67	1.1	95	85	1
51413M	65	140	56	140	68	2	110	95	2
51114	70	95	18	95	72	1	85	80	1
51214	70	105	27	105	72	1	91	84	1
51314	70	125	40	125	72	1.1	103	92	1
51414M	70	150	60	150	73	2	118	102	2
51115	75	100	19	100	77	1	90	85	1
51215	75	110	27	110	77	1	96	89	1
51315	75	135	44	135	77	1.5	111	99	1.5
51415M	75	160	65	160	78	2	126	109	2
51116	80	105	19	105	82	1	95	90	1
51216	80	115	28	115	82	1	101	94	1
51316	80	140	44	140	82	1.5	116	104	1.5
51416M	80	170	68	170	83	2.1	133	117	2
51117	85	110	19	110	87	1	100	95	1
51217	85	125	31	125	88	1	109	101	1
51317	85	150	49	150	88	1.5	124	111	1.5
51417M	85	180	72	177	88	2.1	141	124	2
51118	90	120	22	120	92	1	108	102	1
51218	90	135	35	135	93	1.1	117	108	1
51318	90	155	50	155	93	1.5	129	116	1.5
51418M	90	190	77	187	93	2.1	149	131	2
51120	100	135	25	135	102	1	121	114	1
51220	100	150	38	150	103	1.1	130	120	1
51320	100	170	55	170	103	1.5	142	128	1.5
51420M	100	210	85	205	103	3	165	145	2.5
51122	110	145	25	145	112	1	131	124	1
51222	110	160	38	160	113	1.1	140	130	1
51322M	110	190	63	187	113	2	158	142	2
51422M	110	230	95	225	113	3	181	159	2.5
51124	120	155	25	155	122	1	141	134	1

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic	Static	P _u			A
-	kg	kN			r/min		-
51111	0.23	30.35	81.91	3.02	3819	5326.5	0.039
51211	0.59	58.79	134.67	4.92	2814	4020	0.11
51311	1.3	101.51	225.12	8.34	2211	3216	0.26
51411	2.55	195.98	402	14.67	1809	2412	0.79
51112	0.27	41.81	122.61	4.57	3618	5025	0.077
51212	0.65	59.5	140.7	5.13	2814	3819	0.12
51312	1.35	101.51	225.12	8.34	2211	3015	0.26
51412M	3.1	200	432.15	16.08	1608	2211	0.96
51113	0.33	37.89	108.54	4.02	3417	4824	0.06
51213	0.72	60.8	150.75	5.53	2613	3618	0.14
51313	1.5	106.53	241.2	8.84	2010	3015	0.3
51413M	4	217.08	492.45	18.09	1507.5	2211	1.2
51114	0.35	40.5	120.6	4.42	3417	4522.5	0.074
51214	0.79	62.71	160.8	5.88	2613	3618	0.16
51314	2	135.68	321.6	11.86	1909.5	2613	0.53
51414M	5	235.17	552.75	19.4	1407	2010	1.6
51115	0.4	44.42	134.67	4.92	3216	4321.5	0.11
51215	0.83	64.02	170.85	6.23	2412	3417	0.17
51315	2.6	163.82	391.95	14.07	1708.5	2412	0.79
51415M	6.75	252.26	613.05	20.9	1306.5	1809	1.9
51116	0.42	45.12	140.7	5.13	3015	4321.5	0.12
51216	0.91	76.48	209.04	7.69	2412	3417	0.22
51316	2.7	159.8	391.95	13.77	1708.5	2412	0.79
51416M	7.95	303.51	753.75	25.13	1206	1708.5	2.3
51117	0.44	45.12	146.73	5.43	3015	4321.5	0.14
51217	1.2	97.99	276.38	9.85	2211	3015	0.39
51317	3.55	174.87	407.03	14.07	1608	2211	1.1
51417M	9.45	287.43	753.75	24.12	1206	1608	2.9
51118	0.67	59.5	209.04	7.54	2613	3819	0.22
51218	1.7	112.56	291.45	10.45	2010	2814	0.55
51318	3.8	182.91	442.2	14.67	1507.5	2211	1.3
51418M	11	308.54	819.08	25.63	1105.5	1507.5	3.5
51120	0.97	81	266.33	9.2	2412	3216	0.44
51220	2.2	119.6	326.63	10.85	1809	2412	0.62
51320	4.95	226.13	572.85	18.39	1407	1909.5	1.9
51420M	15	372.86	1065.3	31.66	954.75	1407	5.8
51122	1.05	83.62	286.43	9.55	2211	3216	0.52
51222	2.4	125.63	366.83	11.66	1708.5	2412	0.79
51322M	7.85	282.41	819.08	24.62	1206	1708.5	3.2
51422M	20	412.05	1226.1	34.67	904.5	1306.5	7.7
51124	1.15	85.63	306.53	9.7	2211	3015	0.58

Thrust ball bearing

One-way thrust ball bearing

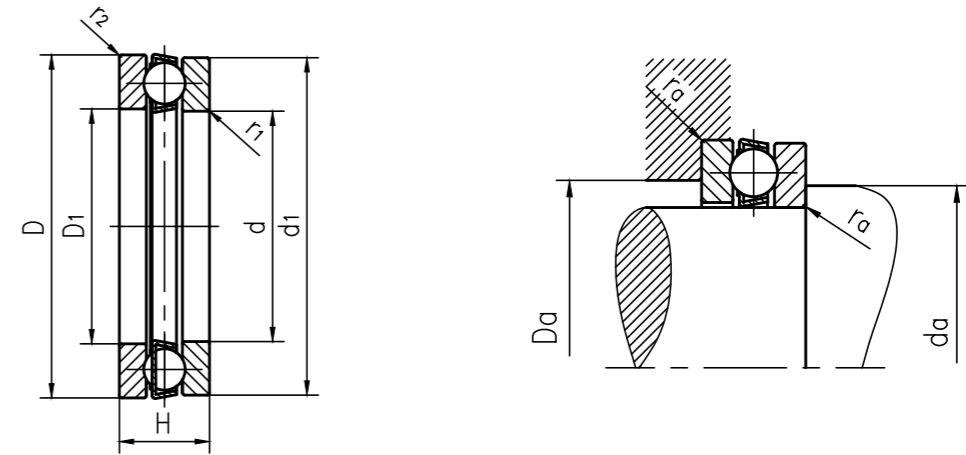


Type	Main dimensions			Dimensions			Shoulder and chamfer dimensions		
	d	D	H	d ₁ ≈	D ₁ ≈	r _{1,2} Min.	d _a Min.	D _a Max.	r _a Max.
-	mm			mm					
51224	120	170	39	170	123	1.1	150	140	1
51324M	120	210	70	205	123	2.1	173	157	2
51424M	120	250	102	245	123	4	197	173	3
51126	130	170	30	170	132	1	154	146	1
51226	130	190	45	187	133	1.5	166	154	1.5
51326M	130	225	75	220	134	2.1	186	169	2
51426M	130	270	110	265	134	4	213	187	3
51128	140	180	31	178	142	1	164	156	1
51228	140	200	46	197	143	1.5	176	164	1.5
51328M	140	240	80	235	144	2.1	199	181	2
51428M	140	280	112	275	144	4	223	197	3
51130M	150	190	31	188	152	1	174	166	1
51230M	150	215	50	212	153	1.5	189	176	1.5
51330M	150	250	80	245	154	2.1	209	191	2
51430M	150	300	120	295	154	4	239	211	3
51132M	160	200	31	198	162	1	184	176	1
51232M	160	225	51	222	163	1.5	199	186	1.5
51332M	160	270	87	265	164	3	225	205	2.5
51134M	170	215	34	213	172	1.1	197	188	1
51234M	170	240	55	237	173	1.5	212	198	1.5
51334M	170	280	87	275	174	3	235	215	2.5
51136M	180	225	34	222	183	1.1	207	198	1
51236M	180	250	56	245	183	1.5	222	208	1.5
51336M	180	300	95	295	184	3	251	229	2.5
51138M	190	240	37	237	193	1.1	220	210	1
51238M	190	270	62	265	194	2	238	222	2
51338M	190	320	105	315	195	4	267	243	3
51140M	200	250	37	247	203	1.1	230	220	1
51240M	200	280	62	275	204	2	248	232	2
51340M	200	340	110	335	205	4	283	257	3
51144M	220	270	37	267	223	1.1	250	240	1
51244M	220	300	63	295	224	2	268	252	2
51148M	240	300	45	297	243	1.5	276	264	1.5
51248M	240	340	78	335	244	2.1	299	281	2
51152M	260	320	45	317	263	1.5	296	284	1.5
51252M	260	360	79	355	264	2.1	319	301	2
51156M	280	350	53	347	283	1.5	322	308	1.5
51256M	280	380	80	375	284	2.1	339	321	2
51160M	300	380	62	376	304	2	348	332	2
51260M	300	420	95	415	304	3	371	349	2.5

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic	Static	P _u			A
		C	C ₀				
-	kg	kN			r/min	-	
51224	2.65	127.64	391.95	11.86	1608	2211	1
51324M	11	326.63	984.9	28.64	1105.5	1507.5	5
51424M	25.5	434.16	1326.6	36.18	804	1105.5	16
51126	1.85	119.6	442.2	13.47	1909.5	2613	0.94
51226	4	186.93	587.93	17.09	1407	2010	1.8
51326M	13	359.79	1145.7	32.16	1005	1407	6.8
51426M	32	522.6	1738.65	45.23	753.75	1005	16
51128	2.05	111.56	442.2	12.96	1809	2613	1
51228	4.35	190.95	623.1	17.69	1407	1909.5	2
51328M	15.5	378.89	1226.1	32.66	954.75	1306.5	9.1
51428M	34.5	522.6	1738.65	44.22	703.5	1005	16
51130M	2.2	111.56	442.2	12.56	1708.5	2412	1
51230M	6.1	239.19	804	22.11	1306.5	1809	3.3
51330M	16.5	391.95	1296.45	34.17	904.5	1306.5	10
51430M	42.5	561.8	1969.8	48.24	673.35	954.75	20
51132M	2.35	112.56	467.33	12.96	1708.5	2412	1.1
51232M	6.55	239.19	834.15	22.51	1206	1708.5	3.8
51332M	21	451.25	1668.3	41.71	854.25	1206	14
51134M	3.3	133.67	542.7	14.37	1608	2211	1.5
51234M	8.15	271.35	934.65	24.12	1206	1708.5	5.4
51334M	22	470.34	1768.8	43.22	804	1105.5	16
51136M	3.5	135.68	572.85	15.08	1507.5	2211	1.7
51236M	8.6	303.51	1125.6	28.64	1206	1608	6.1
51336M	28.5	522.6	2010	47.74	753.75	1105.5	21
51138M	4.05	172.86	713.55	18.09	1407	2010	2.6
51238M	12	333.66	1276.35	31.16	1105.5	1608	8.4
51338M	36.5	561.8	2211	51.26	703.5	954.75	30
51140M	4.25	168.84	713.55	17.69	1407	1909.5	2.6
51240M	12	339.69	1326.6	31.66	1105.5	1507.5	9.1
51340M	44.5	627.12	2613	58.79	633.15	904.5	35
51144M	4.6	178.89	804	19.1	1306.5	1909.5	3.3
51244M	13	359.79	1467.3	33.67	954.75	1306.5	11
51148M	7.55	235.17	1045.2	23.72	1105.5	1608	5.6
51248M	23	451.25	1969.8	42.71	804	1105.5	21
51152M	8.1	239.19	1105.5	24.12	1105.5	1507.5	6.3
51252M	25	490.44	2251.2	46.73	753.75	1105.5	24
51156M	12	320.6	1467.3	30.65	954.75	1306.5	11
51256M	26.5	490.44	2331.6	47.74	753.75	1005	28
51160M	17.5	365.82	1768.8	35.68	854.25	1206	16
51260M	42	587.93	3015	57.29	633.15	854.25	47

Thrust ball bearing

One-way thrust ball bearing

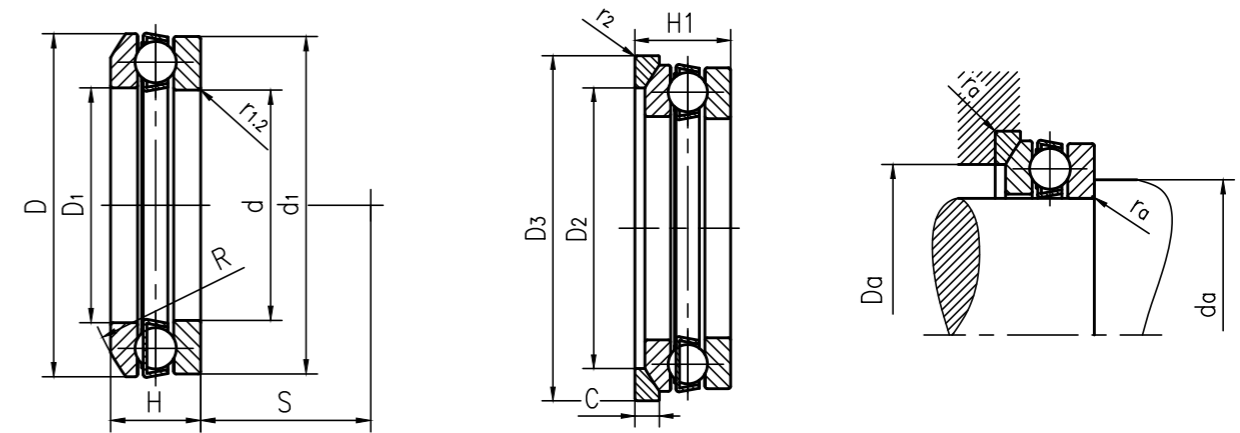


Type	Main dimensions			Dimensions			Shoulder and chamfer dimensions		
	d	D	H	d ₁ ≈	D ₁ ≈	r _{1,2} Min.	d _a Min.	D _a Max.	r _a Max.
-	mm			mm					
51164M	320	400	63	396	324	2	368	352	2
51264F	320	440	95	435	325	3	391	369	2.5
51264M	320	440	95	435	325	3	391	369	2.5
51168M	340	420	64	416	344	2	388	372	2
51268F	340	460	96	455	345	3	411	389	2.5
51172F	360	440	65	436	364	2	408	392	2
51272F	360	500	110	495	365	4	443	417	3
51176F	380	460	65	456	384	2	428	412	2
51276F	380	520	112	515	385	4	463	437	3
51180F	400	480	65	476	404	2	448	432	2
51184F	420	500	65	496	424	2	468	452	2
51188F	440	540	80	536	444	2.1	499	481	2
51192F	460	560	80	556	464	2.1	519	501	2
51196F	480	580	80	576	484	2.1	539	521	2
511/500F	500	600	80	596	504	2.1	559	541	2
511/530F	530	640	85	636	534	3	595	575	2.5
511/560F	560	670	85	666	564	3	625	606	2.5
511/600F	600	710	85	706	604	3	665	645	2.5
511/630F	630	750	95	746	634	3	701	679	2.5
511/670F	670	800	105	795	675	4	747	723	3
511/670M	670	800	105	795	675	4	747	723	3

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic	Static	P _u			A
		C	C ₀				
-	kg	kN			r/min		-
51164M	19	3729.56	864.3	36.68	804	1105.5	18
51264F	45.5	574.86	3015	56.28	603	804	47
51264M	45	574.86	3015	56.28	603	804	47
51168M	20.5	378.89	1969.8	37.69	804	1105.5	20
51268F	48.5	608.03	3216	25.63	603	804	53
51172F	22	391.95	2090.4	38.19	753.75	1105.5	22
51272F	70	744.71	4170.75	73.87	502.5	703.5	90
51176F	23	398.99	2211	40.2	753.75	1005	25
51276F	73	731.64	4170.75	72.36	502.5	703.5	90
51180F	24	405.02	2291.4	40.7	703.5	1005	27
51184F	25.5	412.05	2412	41.71	703.5	1005	30
51188F	42	529.64	3266.25	55.28	603	854.25	55
51192F	43.5	529.64	3266.25	54.27	603	804	55
51196F	45.5	542.7	3567.75	56.28	562.8	804	66
511/500F	47	555.77	3618	57.29	562.8	804	67
511/530F	58.5	653.25	4422	68.34	532.65	753.75	100
511/560F	61	653.25	4673.25	68.34	502.5	703.5	110
511/600F	65	666.32	4824	69.85	502.5	703.5	120
511/630F	84	731.64	5427	76.88	452.25	633.15	150
511/670F	105	856.26	6733.5	91.96	402	562.8	230
511/670M	105	856.26	6733.5	91.96	402	562.8	230

Thrust ball bearing

One-way thrust ball bearing with self-aligning seat ring

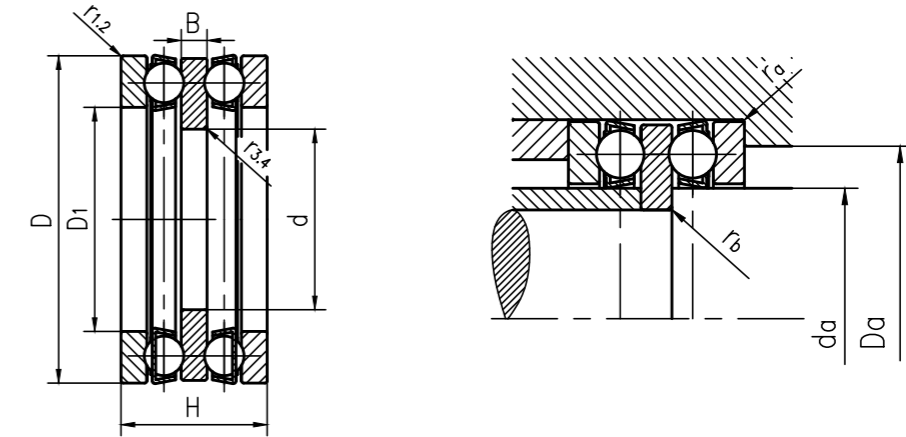


Type		Main dimensions			Dimensions								
Bearing	Seat Washer	d	D	H	d ₁	D ₁	D ₂	D ₃	H	C	R	s	r _{1,2} Min.
		mm			mm								
53201	U201	12	28	13	28	14	20	30	11.4	3.5	25	11.5	0.6
53202	U202	15	32	15	32	17	24	35	13.3	4	28	12	0.6
53203	U203	17	35	15	35	19	26	38	13.2	4	32	16	0.6
53204	U204	20	40	17	40	22	30	42	14.7	5	36	18	0.6
53205	U205	25	47	19	47	27	36	50	16.7	5.5	40	19	0.6
53206	U206	30	52	20	52	32	42	55	17.8	5.5	45	22	0.6
53306	U306	30	60	25	60	32	45	62	22.6	7	50	22	1
53207	U207	35	62	22	62	37	48	65	19.9	7	50	24	1
53307	U307	35	68	28	68	37	52	72	25.6	7.5	56	24	1
53208	U208	40	68	23	68	42	55	72	20.3	7	56	28.5	1
53308	U308	40	78	31	78	42	60	82	28.5	8.5	64	28	1
53408	U408	40	90	42	90	42	65	95	38.2	12	72	26	1.1
53209	U209	45	73	24	73	47	60	78	21.3	7.5	56	26	1
53309	U309	45	85	33	85	47	65	90	30.1	10	64	25	1
53210	U210	50	78	26	78	52	62	82	23.5	7.5	64	32.5	1
53310	U310	50	95	37	95	52	72	100	34.3	11	72	28	1.1
53410	U410	50	110	50	110	52	80	115	45.6	14	90	35	1.5
53211	U211	55	90	30	90	57	72	95	27.3	9	72	35	1
53311	U311	55	105	42	105	57	80	110	39.3	11.5	80	30	1.1
53411	U411	55	120	55	120	57	88	125	50.5	15.5	90	28	1.5
53212	U212	60	95	31	95	62	78	100	28	9	72	32.5	1
53312	U312	60	110	42	110	62	85	115	38.3	11.5	90	41	1.1
53412M	U412	60	130	58	130	62	95	135	54	16	100	34	1.5
53213	U213	65	100	32	100	67	82	105	28.7	9	80	40	1
53313	U313	65	115	43	115	67	90	120	39.4	12.5	90	38.5	1.1
53214	U214	70	105	32	105	72	88	110	27	9	80	38	1
53314	U314	70	125	48	125	72	98	130	44.2	13	100	43	1.1
53414M	U414	70	150	69	150	73	110	155	63.6	19.5	112	34	2
53215	U215	75	110	32	110	77	92	115	28.3	9.5	90	49	1
53315	U315	75	135	52	135	77	105	140	48.1	15	100	37	1.5
53415M	U415	75	160	75	160	78	115	165	69	21	125	42	2
53216	U216	80	115	33	115	82	98	120	29.5	10	90	46	1
53316	U316	80	140	52	140	82	110	145	47.6	15	112	50	1.5
53217	U217	85	125	37	125	88	105	130	33.1	11	100	52	1
53317	U317	85	150	58	150	88	115	155	53.1	17.5	112	43	1.5
53218	U218	90	135	42	135	93	110	140	38.5	13.5	100	45	1.1
53318	U318	90	155	59	155	93	120	160	54.6	18	112	40	1.5
53418M	U418	90	190	88	187	93	140	195	81.2	25.5	140	40	2.1
53220	U220	100	150	45	150	103	125	155	40.9	14	112	52	1.1
53320	U320	100	170	64	170	103	135	175	59.2	18	125	46	1.5
53420M	U420	100	210	98	205	103	155	220	90	27	160	50	3
53222	U222	110	160	45	160	113	135	165	40.2	14	125	65	1.1
53322M	U322	110	190	72	187	113	150	195	67.2	20	140	51	2
53224	U224	120	170	46	170	123	145	175	40.8	15	125	61	1.1
53324M	U324	120	210	80	205	123	165	220	74.1	22	160	63	2.1
53226	U226	130	190	53	187	133	160	195	47.9	17	140	67	1.5
53228	U228	140	200	55	197	143	170	210	48.6	17	160	87	1.5

Type		Shoulder and chamfer dimensions			Weight Bearing washer	Basic load rating		Fatigue load limit P _u	Rated speed reference speed	Maximum speed	Calculate the coefficient A
Bearing	Seat Washer	d _a Min.	D _a Max.	r _a Max.		Dynamic C	Static C ₀				
		mm			kg	kN		r/min		-	
53201	U201	22	20	0.6	0.045	13.4	20.9	0.8	8040	11055	0.0022
53202	U202	25	24	0.6	0.063	16	25.1	0.9	7035	10050	0.0038
53203	U203	28	26	0.6	0.071	16.4	27.1	1	6733.5	9547.5	0.0047
53204	U204	32	30	0.6	0.1	21.3	37.7	1.4	5628	8040	0.0085
53205	U205	38	36	0.6	0.15	26.6	50.3	1.9	5025	7035	0.015
53206	U206	43	42	0.6	0.18	25.2	51.3	1.9	4522.5	6331.5	0.013
53306	U306	48	45	1	0.33	36	65.8	2.4	3819	5326.5	0.026
53207	U207	51	48	1	0.28	35.3	73.9	2.7	4020	5628	0.028
53307	U307	55	52	1	0.46	49.6	97	3.6	3216	4522.5	0.048
53208	U208	57	55	1	0.35	44.4	97	3.6	3618	5326.5	0.058
53308	U308	63	60	1	0.67	62.1	122.6	4.5	2814	4020	0.077
53408	U408	70	65	1	1.35	96.1	183.9	6.8	2412	3216	0.26
53209	U209	62	60	1	0.39	39.2	86.9	3.2	3417	4824	0.038
53309	U309	69	65	1	0.83	76.5	153.8	5.6	2613	3819	0.12
53210	U210	67	62	1	0.47	49.6	116.6	4.3	3216	4522.5	0.069
53310	U310	77	72	1	1.2	82.3	170.9	6.3	2412	3417	0.19
53410	U410	86	80	1.5	2.3	159.8	341.7	12.6	1909.5	2613	0.6
53211	U211	76	72	1	0.75	58.8	134.7	4.9	2814	3819	0.11
53311	U311	85	80	1	1.7	101.5	225.1	8.3	2211	3015	0.26
53411	U411	94	88	1.5	3.1	196	402	14.7	1708.5	2412	0.79
53212	U212	81	78	1	0.82	59.5	140.7	5.1	2613	3618	0.12
53312	U312	90	85	1	1.7	101.5	225.1	8.3	2010	3015	0.26
53412M	U412	102	95	1	3.8	200	432.2	16.1	1608	2211	0.96
53213	U213	86	82	1	0.91	60.8	150.8	5.5	2613	3618	0.14
53313	U313	95	90	1	1.9	106.5	241.2	8.8	2010	2814	0.3
53214	U214	91	88	1	0.97	62.7	160.8	5.9	2613	3618	0.16
53314	U314	103	98	1	2.5	135.7	321.6	11.9	1809	2613	0.53
53414M	U414	118	110	2	6.5	235.2	552.8	19.4	1407	2010	1.6
53215	U215	96	92	1	1	64	170.9	6.2	2412	3417	0.17
53315	U315	111	105	1	3.2	163.8	392	14.1	1708.5	2412	0.79
53415M	U415	126	115	2	8.1	252.3	613.1	20.9	1306.5	1809	1.9
53216	U216	101	98	1	1.1	76.5	209	7.7	2412	3216	0.22
53316	U316	116	110	1	3.2	159.8	392	13.8	1608	2211	0.79
53217	U217	109	105	1	1.5	98	276.4	9	2010	3015	0.39
53317	U317	124	115	1	4.35	174.9	407	14.1	1507.5	2010	1.1
53218	U218	117	110	1	2.1	112.6	291.5	10.5	1909.5	2613	0.55
53318	U318	129	120	1	4.7	182.9	442.2	14.7	1407	2010	1.3
53418M	U418	133	140	2	13	308.5	819.1	25.6	1105.5	1507.5	3.5
53220	U220	130	125	1	2.7	119.6	326.6	10.9	1708.5	2412	0.62
53320	U320	142	135	1	5.95	226.1	572.9	18.4	1306.5	1809	1.9
53420M	U420	165	155	2	18	372.9	1065.3	31.7	954.8	1306.5	5.8
53222	U222	140	135	1	2.9	125.6	366.8	11.7	1708.5	2412	0.79
53322M	U322	140	150	1	9.1	282.4	819.1	24.6	1105.5	1608	3.2
53224	U224	150	145	1	3.2	127.6	392	11.9	1507.5	2211	1
53324M	U324	173	165	1	12.5	326.6	984.9	28.6	1005	1407	5
53226	U226	166	160	1	4.85	186.9	587.9	17.1	1306.5	1809	1.8
53228	U228	176	170	1	5.45	191	623.1	17.7	1306.5	1809	2

Thrust ball bearing

Two-way thrust ball bearing

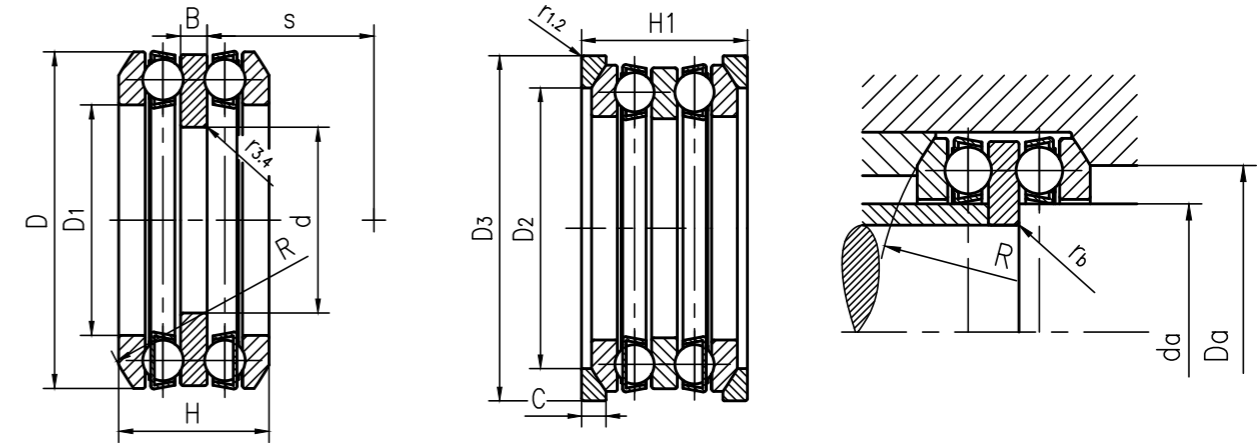


Type	Main dimensions			Dimensions				Shoulder and chamfer dimensions			
	d	D	H	D ₁ ≈	B	r _{1,2} Min.	r _{3,4} Min.	d _a	D _a Max.	r _a Max.	r _b Max.
-	mm			mm				mm			
52202	10	32	22	17	5	0.6	0.3	15	22	0.6	0.3
52204	15	40	26	22	6	0.6	0.3	20	28	0.6	0.3
52205	20	47	28	27	7	0.6	0.3	25	34	0.6	0.3
52305	20	52	34	27	8	1	0.3	25	36	1	0.3
52406	20	70	52	32	12	1	0.6	30	46	1	0.6
52206	25	52	29	30	7	0.6	0.3	30	39	0.6	0.3
52306	25	60	38	32	9	1	0.3	30	42	1	0.3
52407	25	80	59	42	14	1.1	0.6	35	53	1	0.6
52207	30	62	34	37	8	1	0.3	35	46	1	0.3
52208	30	68	36	42	9	1	0.6	40	51	1	0.6
52307	30	68	44	35	10	1	0.3	35	48	1	0.3
52308	30	78	49	40	12	1	0.6	40	55	1	0.6
52408	30	90	65	42	15	1.1	0.6	40	60	1	0.6
52209	35	73	37	47	9	1	0.6	45	56	1	0.6
52309	35	85	52	47	12	1	0.6	46	61	1	0.6
52409	35	100	72	47	17	1.1	0.6	45	67	1	0.6
52210	40	78	39	52	9	1	0.6	50	61	1	0.6
52310	40	95	58	52	14	1.1	0.6	50	68	1	0.6
52211	45	90	45	57	10	1	0.6	55	69	1	0.6
52311	45	105	64	57	15	1.1	0.6	55	75	1	0.6
52411	45	120	87	57	20	1.5	0.6	55	81	1.5	0.6
52212	50	95	46	62	10	1	0.6	60	74	1	0.6
52312	50	110	64	62	15	1.1	0.6	60	80	1	0.6
52412M	50	130	93	62	21	1.5	0.6	60	88	1.5	0.6
52213	55	100	47	67	10	1	0.6	65	79	1	0.6
52214	55	105	47	72	10	1	1	70	84	1	1
52313	55	115	64	67	15	1.1	0.6	65	85	1	0.6
52314	55	125	72	72	16	1.1	1	70	92	1	1
52414M	55	250	107	123	24	2	1	70	120	1.5	1
52215	60	110	47	77	10	1	1	75	89	1	1
52315	60	135	79	77	18	1.5	1	75	99	1.5	1
52216	65	115	48	82	10	1	0.6	80	94	1	1
52316	65	140	79	82	18	1.5	1	80	104	1	1
52217	70	125	55	88	12	1	1	85	101	1	1
52218	75	135	62	93	14	1.1	1	90	108	1	1
52220	85	150	67	103	15	1.1	1	100	120	1	1
52320	85	170	97	103	21	1.5	1	100	128	1	1
52222	95	160	67	113	15	1.1	1	110	130	1	1
52224	100	170	68	123	15	1.1	1.1	120	140	1	1
52226	110	190	80	133	18	1.5	1.1	130	154	1.5	1
52228	120	200	81	143	18	1.5	1.1	140	164	1.5	1
52230M	130	215	89	153	20	1.5	1.1	150	176	1.5	1
52232M	140	225	90	163	20	1.5	1.1	160	186	1.5	1
52234M	150	240	97	173	21	1.5	1.1	170	198	1.5	1
52236M	150	250	98	183	21	1.5	2	180	208	1.5	2

Type	Weight	Basic load rating		Fatigue load limit	Rated speed reference speed	Maximum speed	Calculate the coefficient
		Dynamic	Static	P _u			A
		C	C ₀		r/min	-	
-	kg	kN			r/min		-
52202	0.081	15.98	25.13	0.92	5326.5	7537.5	0.0038
52204	0.15	21.31	37.69	1.41	4321.5	6030	0.0085
52205	0.22	26.63	50.25	1.87	3819	5326.5	0.015
52305	0.33	34.67	60.3	2.25	3216	4522.5	0.018
52406	1	70.55	122.61	4.52	2211	3216	0.097
52206	0.25	25.23	51.26	1.87	3618	5025	0.013
52306	0.47	35.98	65.83	2.41	2814	4020	0.026
52407	1.45	76.48	137.69	5.13	2010	2814	0.15
52207	0.41	35.28	73.87	2.71	3015	4321.5	0.028
52208	0.55	44.42	96.98	3.62	2814	3819	0.058
52307	0.68	49.65	96.98	3.57	2412	3417	0.048
52308	1.05	62.11	122.61	4.52	2211	3015	0.077
52408	2.05	96.08	183.92	6.83	1809	2412	0.26
52209	0.6	39.2	86.93	3.22	2613	3618	0.038
52309	1.25	76.48	153.77	5.63	2010	2814	0.12
52409	2.7	124.62	241.2	9.05	1608	2211	0.37
52210	0.71	49.65	116.58	4.32	2412	3417	0.069
52310	1.75	82.31	170.85	6.33	1809	2613	0.19
52211	1.1	58.79	134.67	4.92	2211	3015	0.11
52311	2.4	101.51	225.12	8.34	1608	2211	0.26
52411	4.7	195.98	402	14.67	1306.5	1809	0.79
52212	1.2	59.5	140.7	5.13	2010	2814	0.12
52312	2.55	101.51	225.12	8.34	1608	2211	0.26
52412M	6.35	200	432.15	16.08	1206	1708.5	0.96
52213	1.35	60.8	150.75	5.53	2010	2814	0.14
52214	1.5	62.71	160.8	5.88	1909.5	2613	0.16
52313	2.75	106.53	241.2	8.84	1608	2211	0.3
52314	3.65	135.68	321.6	11.86	1407	2010	0.53
52414M	9.7	235.17	552.75	19.4	804	1105.5	1.6
52215	1.55	64.02	170.85	6.23	1909.5	2613	0.17
52315	4.8	163.82	391.95	14.07	1306.5	1809	0.79
52216	1.7	76.48	209.04	7.69	2412	3417	0.22
52316	4.95	159.8	391.95	13.77	1306.5	1809	0.79
52217	2.4	97.99	276.38	9.85	1608	2211	0.39
52218	3.2	112.56	291.45	11.68	1507.5	2010	0.55
52220	4.2	119.6	326.63	10.85	1306.5	1809	0.62
52320	8.95	226.13	572.85	18.39	1005	1407	1.9
52222	4.65	125.63	366.83	11.66	1306.5	1809	0.79
52224	5.25	127.64	391.95	11.86	1206	1708.5	1
52226	8	182.91	587.93	16.68	1105.5	1507.5	1.8
52228	8.65	190.95	623.1	17.69	1005	1407	2
52230M	11.5	239.19	804	22.11	954.75	1306.5	3.3
52232M	12	239.19	834.15	22.51	904.5	1306.5	3.8
52234M	15	271.35	934.65	24.12	854.25	1206	5.4
52236M	16	303.51	1125.6	28.64	804	1105.5	6.1

Thrust ball bearing

Two-way thrust ball bearing with self-aligning seat ring



Type		Main dimensions			Dimensions									
Bearing	Seat Washer	d	D	H	D1	D2	D3	H	B	C	R	s	r _{1,2} Min.	r _{3,4} Min.
-		mm			mm									
54306	U306	25	60	46	32	45	62	41.3	9	7	50	19.5	1	0.3
54207	U207	30	62	42	37	48	65	37.8	8	7	50	21	1	0.3
54208	U208	30	68	44	42	55	72	38.6	9	7	56	25	1	0.6
54307	U307	30	68	52	37	52	72	47.2	10	7.5	56	21	1	0.3
54308	U308	30	78	59	42	60	82	54.1	12	8.5	64	23.5	1	0.6
54209	U209	35	73	45	47	60	78	39.6	9	7.5	56	23	1	0.6
54309	U309	35	85	62	47	65	90	56.2	12	10	64	21	1	0.6
54409	U409	35	100	86	47	72	105	78.9	17	12.5	80	23.5	1.1	0.6
54310	U310	40	95	70	52	72	100	64.7	14	11	72	23	1.1	0.6
54410	U410	40	110	92	52	80	115	83.2	18	14	90	30	1.5	0.6
54211	U211	45	90	55	57	72	95	49.6	10	9	72	32.5	1	0.6
54312	U312	50	110	78	62	85	115	70.7	15	11.5	90	36.5	1.1	0.6
54316	U316	65	140	95	82	110	145	86.1	18	15	112	45.5	1.5	1
54416M	U416	65	170	140	83	125	175	128.5	27	22	125	30.5	2.1	1
54317	U317	70	150	105	88	115	155	95.2	19	17.5	112	39	1.5	1
54420M	U420	80	210	176	103	155	220	159.9	33	27	160	43.5	3	1.1

Type		Shoulder and chamfer dimensions				Weight Bearing washer	Basic load rating		Fatigue load limit P _u	Rated speed reference speed r/min	Maximum speed	Calculate the coefficient A
Bearing	Seat Washer	d _a	D _a Max.	r _a Max.	r _b Max.		Dynamic C	Static C ₀				
-		mm				kg	kN					-
54306	U306	30	45	1	0.3	0.58	35.98	65.83	2.41	2814	3819	0.026
54207	U207	35	48	1	0.3	0.53	35.28	73.87	2.71	2814	4020	0.028
54208	U208	40	55	1	0.6	0.63	44.42	96.98	3.62	2814	3819	0.058
54307	U307	35	52	1	0.3	0.85	49.65	96.98	3.57	2412	3417	0.048
54308	U308	40	60	1	0.6	1.15	62.11	122.61	4.52	2211	3015	0.077
54209	U209	45	60	1	0.6	0.78	39.2	86.93	3.22	2613	3618	0.038
54309	U309	45	65	1	0.6	1.6	76.48	153.77	5.63	1909.5	2814	0.12
54409	U409	45	72	1	0.6	3	124.62	241.2	9.05	1507.5	2010	0.37
54310	U310	50	72	1	0.6	2.3	82.31	170.85	6.33	1708.5	2412	0.19
54410	U410	50	80	1.5	0.6	4.45	148.74	306.53	11.46	1407	1909.5	0.6
54211	U211	55	72	1	0.6	1.3	58.79	134.67	4.92	2211	3015	0.11
54312	U312	60	85	1	0.6	2.9	101.51	225.12	8.34	1507.5	2211	0.26
54316	U316	80	110	1.5	1	5.55	159.8	391.95	13.77	1306.5	1809	0.79
54416M	U416	80	125	2	1	17.5	308.54	753.75	25.13	854.25	1206	2.3
54317	U317	85	115	1.5	1	7.95	174.87	407.03	14.07	1105.5	1507.5	1.1
54420M	U420	100	155	2.5	1	29	372.86	1065.3	31.66	703.5	954.75	5.8