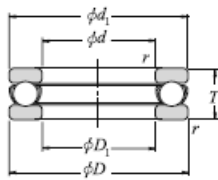
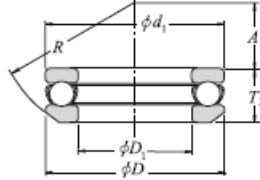


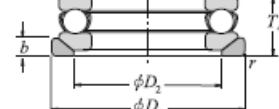
Delik Çapı 10 – 50 mm



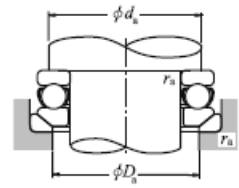
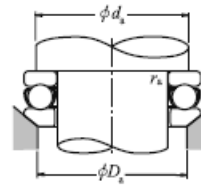
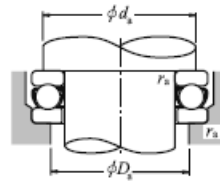
Düz Yataklı



Oynak Yataklı



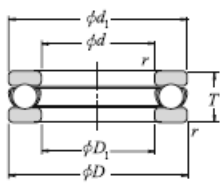
Oynak Yatak Pullu



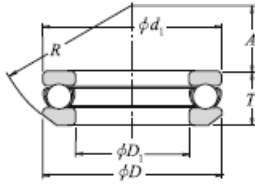
d	Temel Ölçüler (mm)					Temel Yük Değerleri (N) (kgf)				Limit Hızları (dak ⁻¹)		Düz Yataklı
	D	T	T ₃	T ₄	f _{min.}	C _a	C _{0a}	C _a	C _{0a}	Gres	Yağ	
10	24	9	—	—	0.3	10 100	14 000	1 030	1 420	6 700	10 000	51100
	26	11	11.6	13	0.6	12 800	17 100	1 300	1 740	6 000	9 000	51200
12	26	9	—	—	0.3	10 400	15 400	1 060	1 570	6 700	10 000	51101
	28	11	11.4	13	0.6	13 300	19 000	1 350	1 940	5 600	8 500	51201
15	28	9	—	—	0.3	10 600	16 800	1 080	1 710	6 300	9 500	51102
	32	12	13.3	15	0.6	16 700	24 800	1 710	2 530	5 000	7 500	51202
17	30	9	—	—	0.3	11 400	19 500	1 170	1 990	6 000	9 000	51103
	35	12	13.2	15	0.6	17 300	27 300	1 760	2 780	4 800	7 500	51203
20	35	10	—	—	0.3	15 100	26 600	1 540	2 710	5 300	8 000	51104
	40	14	14.7	17	0.6	22 500	37 500	2 290	3 850	4 300	6 300	51204
25	42	11	—	—	0.6	19 700	37 000	2 010	3 800	4 800	7 100	51105
	47	15	16.7	19	0.6	28 000	50 500	2 860	5 150	3 800	5 600	51205
	52	18	19.8	22	1	36 000	61 500	3 650	6 250	3 200	5 000	51305
	60	24	26.4	29	1	56 000	89 500	5 700	9 100	2 600	4 000	51405
30	47	11	—	—	0.6	20 600	42 000	2 100	4 300	4 300	6 700	51106
	52	16	17.8	20	0.6	29 500	58 000	3 000	5 950	3 400	5 300	51206
	60	21	22.6	25	1	43 000	78 500	4 400	8 000	2 800	4 300	51306
	70	28	30.1	33	1	73 000	126 000	7 450	12 600	2 200	3 400	51406
35	52	12	—	—	0.6	22 100	49 500	2 250	5 050	4 000	6 000	51107
	62	18	19.9	22	1	39 500	78 000	4 050	7 950	3 000	4 500	51207
	68	24	25.6	28	1	56 000	105 000	5 700	10 700	2 400	3 800	51307
	80	32	34	37	1.1	87 500	155 000	8 950	15 800	2 000	3 000	51407
40	60	13	—	—	0.6	27 100	63 000	2 770	6 400	3 600	5 300	51108
	68	19	20.3	23	1	47 500	98 500	4 850	10 000	2 800	4 300	51208
	78	26	28.5	31	1	70 000	135 000	7 100	13 700	2 200	3 400	51308
	90	36	38.2	42	1.1	103 000	188 000	10 500	19 100	1 700	2 600	51408
45	65	14	—	—	0.6	28 100	69 000	2 860	7 050	3 400	5 000	51109
	73	20	21.3	24	1	48 000	105 000	4 900	10 700	2 600	4 000	51209
	85	28	30.1	33	1	80 500	163 000	8 200	16 700	2 000	3 000	51309
	100	39	42.4	46	1.1	128 000	246 000	13 000	25 100	1 600	2 400	51409
50	70	14	—	—	0.6	29 000	75 000	2 960	7 700	3 200	4 800	51110
	78	22	23.5	26	1	49 000	111 000	5 000	11 400	2 400	3 600	51210
	95	31	34.3	37	1.1	97 500	202 000	9 950	20 600	1 800	2 800	51310
	110	43	45.6	50	1.5	147 000	288 000	15 000	29 400	1 400	2 200	51410

Rulman Numaraları		Ölçüler (mm)							Dayanak ve Dolgu Ölçüleri (mm)			Kütle (kg) yaklaşık		
Oynak Yataklı	Oynak Yatak Pullu	d ₁	D ₁	D ₂	D ₃	b	A	R	d _a min.	D _a maks.	r _a maks.	Düz Yataklı	Oynak Yataklı	Oynak Yatak Pullu
—	—	24	11	—	—	—	—	—	18	16	0.3	0.019	—	—
53200	53200 U	26	12	18	28	3.5	8.5	22	20	16	0.6	0.028	0.029	0.036
—	—	26	13	—	—	—	—	—	20	18	0.3	0.021	—	—
53201	53201 U	28	14	20	30	3.5	11.5	25	22	18	0.6	0.031	0.031	0.039
—	—	28	16	—	—	—	—	—	23	20	0.3	0.023	—	—
53202	53202 U	32	17	24	35	4	12	28	25	22	0.6	0.043	0.048	0.059
—	—	30	18	—	—	—	—	—	25	22	0.3	0.025	—	—
53203	53203 U	35	19	26	38	4	16	32	28	24	0.6	0.050	0.055	0.069
—	—	35	21	—	—	—	—	—	29	26	0.3	0.037	—	—
53204	53204 U	40	22	30	42	5	18	36	32	28	0.6	0.077	0.080	0.096
—	—	42	26	—	—	—	—	—	35	32	0.6	0.056	—	—
53205	53205 U	47	27	36	50	5.5	19	40	38	34	0.6	0.111	0.123	0.151
53305	53305 U	52	27	38	55	6	21	45	41	36	1	0.169	0.182	0.224
53405	53405 U	60	27	42	62	8	19	50	46	39	1	0.334	0.353	0.426
—	—	47	32	—	—	—	—	—	40	37	0.6	0.064	—	—
53206	53206 U	52	32	42	55	5.5	22	45	43	39	0.6	0.137	0.154	0.183
53306	53306 U	60	32	45	62	7	22	50	48	42	1	0.267	0.28	0.336
53406	53406 U	70	32	50	75	9	20	56	54	46	1	0.519	0.535	0.666
—	—	52	37	—	—	—	—	—	45	42	0.6	0.081	—	—
53207	53207 U	62	37	48	65	7	24	50	51	46	1	0.21	0.231	0.292
53307	53307 U	68	37	52	72	7.5	24	56	55	48	1	0.386	0.403	0.488
53407	53407 U	80	37	58	85	10	23	64	62	53	1	0.769	0.785	0.967
—	—	60	42	—	—	—	—	—	52	48	0.6	0.12	—	—
53208	53208 U	68	42	55	72	7	28.5	56	57	51	1	0.27	0.289	0.355
53308	53308 U	78	42	60	82	8.5	28	64	63	55	1	0.526	0.581	0.704
53408	53408 U	90	42	65	95	12	26	72	70	60	1	1.1	1.12	1.38
—	—	65	47	—	—	—	—	—	57	53	0.6	0.143	—	—
53209	53209 U	73	47	60	78	7.5	26	56	62	56	1	0.31	0.333	0.419
53309	53309 U	85	47	65	90	10	25	64	69	61	1	0.672	0.702	0.888
53409	53409 U	100	47	72	105	12.5	29	80	78	67	1	1.46	1.53	1.87
—	—	70	52	—	—	—	—	—	62	58	0.6	0.153	—	—
53210	53210 U	78	52	62	82	7.5	32.5	64	67	61	1	0.378	0.404	0.504
53310	53310 U	95	52	72	100	11	28	72	77	68	1	0.931	1.01	1.27
53410	53410 U	110	52	80	115	14	35	90	86	74	1.5	1.94	1.98	2.41

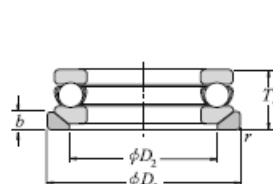
Delik Çapı 55 – 100 mm



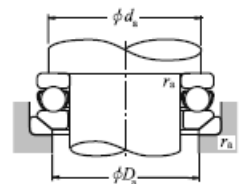
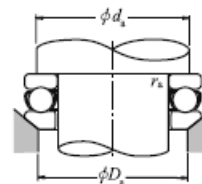
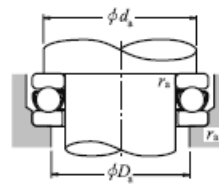
Düz Yataklı



Oynak Yataklı



Oynak Yataklı Pullu

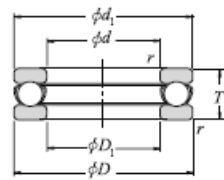


Temel Ölçüler (mm)								Temel Yük Değerleri (N)				Limit Hızları (dak ⁻¹)		Düz Yataklı
d	D	T	T ₃	T ₄	r _{min.}	C _{9a}	C _{09a}	C _{9a}	C _{09a}	Grec	Yağ			
55	78	16	—	—	0.6	35 000	93 000	3 600	9 500	2 800	4 300	51111		
	90	25	27.3	30	1	70 000	159 000	7 150	16 200	2 200	3 200	51211		
	105	35	39.3	42	1.1	115 000	244 000	11 800	24 900	1 600	2 400	51311		
	120	48	50.5	55	1.5	181 000	350 000	18 500	35 500	1 300	1 900	51411		
60	85	17	—	—	1	41 500	113 000	4 250	11 500	2 600	4 000	51112		
	95	26	28	31	1	71 500	169 000	7 300	17 200	2 000	3 000	51212		
	110	35	38.3	42	1.1	119 000	263 000	12 100	26 800	1 600	2 400	51312		
	130	51	54	58	1.5	202 000	405 000	20 600	40 500	1 200	1 800	51412		
65	90	18	—	—	1	42 000	117 000	4 300	12 000	2 400	3 800	51113		
	100	27	28.7	32	1	75 500	189 000	7 700	19 200	1 900	2 800	51213		
	115	36	39.4	43	1.1	123 000	282 000	12 500	28 700	1 500	2 400	51313		
	140	56	60.2	65	2	234 000	495 000	23 800	50 500	1 100	1 700	51413		
70	95	18	—	—	1	43 500	127 000	4 450	12 900	2 400	3 600	51114		
	105	27	28.8	32	1	74 000	189 000	7 550	19 200	1 900	2 800	51214		
	125	40	44.2	48	1.1	137 000	315 000	14 000	32 000	1 400	2 000	51314		
	150	60	63.6	69	2	252 000	555 000	25 700	56 500	1 000	1 500	51414		
75	100	19	—	—	1	43 500	131 000	4 450	13 400	2 200	3 400	51115		
	110	27	28.3	32	1	78 000	209 000	7 950	21 300	1 800	2 800	51215		
	135	44	48.1	52	1.5	159 000	365 000	16 200	37 500	1 300	1 900	51315		
	160	65	69	75	2	254 000	560 000	25 900	57 000	950	1 400	51415		
80	105	19	—	—	1	45 000	141 000	4 600	14 400	2 200	3 400	51116		
	115	28	29.5	33	1	79 000	218 000	8 050	22 300	1 800	2 600	51216		
	140	44	47.6	52	1.5	164 000	395 000	16 700	40 000	1 300	1 900	51316		
	170	68	72.2	78	2.1	272 000	620 000	27 800	63 500	900	1 300	51416		
85	110	19	—	—	1	46 500	150 000	4 700	15 300	2 200	3 200	51117		
	125	31	33.1	37	1	96 000	264 000	9 800	26 900	1 600	2 400	51217		
	150	49	53.1	58	1.5	207 000	490 000	21 100	50 000	1 100	1 700	51317		
	180	72	77	83	2.1	310 000	755 000	31 500	77 000	850	1 300	51417X		
90	120	22	—	—	1	60 000	190 000	6 150	19 400	1 900	3 000	51118		
	135	35	38.5	42	1.1	114 000	310 000	11 600	31 500	1 400	2 200	51218		
	155	50	54.6	59	1.5	214 000	525 000	21 900	53 500	1 100	1 700	51318		
	190	77	81.2	88	2.1	330 000	825 000	33 500	84 000	800	1 200	51418X		
100	135	25	—	—	1	86 000	268 000	8 750	27 300	1 700	2 600	51120		
	150	38	40.9	45	1.1	135 000	375 000	13 700	38 500	1 300	2 000	51220		
	170	55	59.2	64	1.5	239 000	595 000	24 300	61 000	1 000	1 500	51320		
	210	85	90	98	3	370 000	985 000	38 000	100 000	710	1 100	51420X		

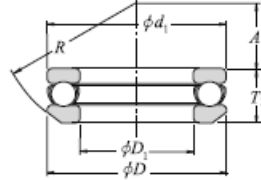
Rulman Numaraları ⁽¹⁾		Ölçüler (mm)							Dayanak ve Dolgu Ölçüleri (mm)			Kütle (kg)		
Oynak Yataklı	Oynak Yataklı Pullu	d ₁	D ₁	D ₂	D ₃	b	A	R	d _A min.	D _A maks.	r _A maks.	Düz Yataklı	Oynak Yataklı	Oynak Yataklı Pullu
—	—	78	57	—	—	—	—	—	69	64	0.6	0.227	—	—
53211	53211U	90	57	72	95	9	35	72	76	69	1	0.599	0.656	0.819
53311	53311U	105	57	80	110	11.5	30	80	85	75	1	1.31	1.45	1.78
53411	53411U	120	57	88	125	15.5	28	90	94	81	1.5	2.58	2.59	3.16
—	—	85	62	—	—	—	—	—	75	70	1	0.281	—	—
53212	53212U	95	62	78	100	9	32.5	72	81	74	1	0.673	0.731	0.897
53312	53312U	110	62	85	115	11.5	41	90	90	80	1	1.4	1.51	1.83
53412	53412U	130	62	95	135	16	34	100	102	88	1.5	3.16	3.2	3.91
—	—	90	67	—	—	—	—	—	80	75	1	0.324	—	—
53213	53213U	100	67	82	105	9	40	80	86	79	1	0.756	0.812	0.989
53313	53313U	115	67	90	120	12.5	38.5	90	95	85	1	1.54	1.67	2.04
53413	53413U	140	68	100	145	17.5	40	112	110	95	2	4.1	4.22	5.13
—	—	95	72	—	—	—	—	—	85	80	1	0.346	—	—
53214	53214U	105	72	88	110	9	38	80	91	84	1	0.793	0.866	1.05
53314	53314U	125	72	98	130	13	43	100	103	92	1	2.0	2.2	2.64
53414	53414U	150	73	110	155	19.5	34	112	118	102	2	5.05	5.12	6.21
—	—	100	77	—	—	—	—	—	90	85	1	0.389	—	—
53215	53215U	110	77	92	115	9.5	49	90	96	89	1	0.845	1.27	1.11
53315	53315U	135	77	105	140	15	37	100	111	99	1.5	2.6	2.8	3.42
53415	53415U	160	78	115	165	21	42	125	125	110	2	6.15	6.23	7.58
—	—	105	82	—	—	—	—	—	95	90	1	0.417	—	—
53216	53216U	115	82	98	120	10	46	90	101	94	1	0.931	1.01	1.23
53316	53316U	140	82	110	145	15	50	112	116	104	1.5	2.74	2.94	3.55
53416	53416U	170	83	125	175	22	36	125	133	117	2	7.21	7.33	8.9
—	—	110	87	—	—	—	—	—	100	95	1	0.44	—	—
53217	53217U	125	88	105	130	11	52	100	109	101	1	1.22	1.35	1.63
53317	53317U	150	88	115	155	17.5	43	112	124	111	1.5	3.57	3.78	4.67
53417X	53417XU	177	88	130	185	23	47	140	141	124	2	8.51	8.72	10.4
—	—	120	92	—	—	—	—	—	108	102	1	0.646	—	—
53218	53218U	135	93	110	140	13.5	45	100	117	108	1	1.69	1.89	2.38
53318	53318U	155	93	120	160	18	40	112	129	116	1.5	3.83	4.11	5.09
53418X	53418XU	187	93	140	195	25.5	40	140	149	131	2	10.2	10.3	12.4
—	—	135	102	—	—	—	—	—	121	114	1	0.96	—	—
53220	53220U	150	103	125	155	14	52	112	130	120	1	2.25	2.49	3.03
53320	53320U	170	103	135	175	18	46	125	142	128	1.5	4.98	5.31	6.37
53420X	53420XU	205	103	155	220	27	50	160	165	145	2.5	14.8	15	18.1

Not (1) X işaretli tüm rulman numaralarının mil pullarının dış çapı d₁, yataklı pullarının dış çapı D₁'den daha küçüktür.

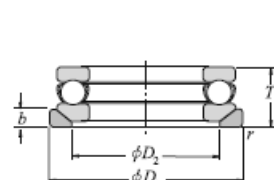
Delik Çapı 110 – 190 mm



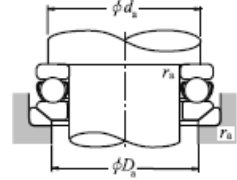
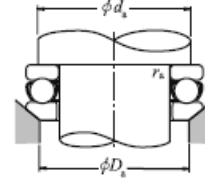
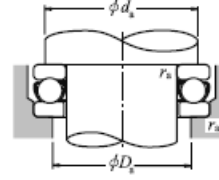
Düz Yataklı



Oynak Yataklı



Oynak Yatak Pullu

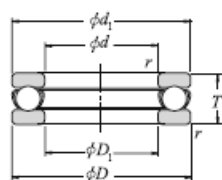


Temel Ölçüler (mm)							Temel Yük Değerleri (N)				Limit Hızları (dak ⁻¹)		Düz Yataklı
d	D	T	T ₃	T ₄	r min.	C _r	C _{0a}	C _r	C _{0a}	Grec	Yağ		
110	145	25	—	—	1	88 000	288 000	8 950	29 400	1 700	2 400	51122	
	160	38	40.2	45	1.1	136 000	395 000	13 900	40 000	1 300	1 900	51222	
	190	63	67.2	72	2	282 000	755 000	28 800	77 000	900	1 300	51322 X	
	230	95	99.7	109	3	415 000	1 150 000	42 000	118 000	630	950	51422 X	
120	155	25	—	—	1	90 000	310 000	9 150	31 500	1 600	2 400	51124	
	170	39	40.8	46	1.1	141 000	430 000	14 400	44 000	1 200	1 800	51224	
	210	70	74.1	80	2.1	330 000	930 000	33 500	95 000	800	1 200	51324 X	
	250	102	107.3	118	4	480 000	1 400 000	49 000	142 000	600	900	51424 X	
130	170	30	—	—	1	105 000	350 000	10 700	36 000	1 400	2 000	51126	
	190	45	47.9	53	1.5	183 000	550 000	18 700	56 000	1 100	1 600	51226 X	
	225	75	80.3	86	2.1	350 000	1 030 000	35 500	105 000	750	1 100	51326 X	
	270	110	115.2	128	4	525 000	1 590 000	53 500	162 000	530	800	51426 X	
140	180	31	—	—	1	107 000	375 000	11 000	38 500	1 300	2 000	51128 X	
	200	46	48.6	55	1.5	186 000	575 000	18 900	59 000	1 000	1 500	51228 X	
	240	80	84.9	92	2.1	370 000	1 130 000	37 500	115 000	670	1 000	51328 X	
	280	112	117	131	4	550 000	1 750 000	56 500	178 000	530	800	51428 X	
150	190	31	—	—	1	110 000	400 000	11 200	41 000	1 300	1 900	51130 X	
	215	50	53.3	60	1.5	238 000	735 000	24 300	75 000	950	1 400	51230 X	
	250	80	83.7	92	2.1	380 000	1 200 000	39 000	123 000	670	1 000	51330 X	
	300	120	125.9	140	4	620 000	2 010 000	63 000	205 000	480	710	51430 X	
160	200	31	—	—	1	113 000	425 000	11 500	43 500	1 200	1 900	51132 X	
	225	51	54.7	61	1.5	249 000	805 000	25 400	82 000	900	1 400	51232 X	
	270	87	91.7	100	3	475 000	1 570 000	48 500	160 000	600	900	51332 X	
	320	130	135.3	150	5	650 000	2 210 000	66 000	226 000	450	670	51432 X	
170	215	34	—	—	1.1	135 000	510 000	13 800	52 000	1 100	1 700	51134 X	
	240	55	58.7	65	1.5	260 000	915 000	28 500	93 000	850	1 300	51234 X	
	280	87	91.3	100	3	465 000	1 570 000	47 500	160 000	600	900	51334 X	
	340	135	141	156	5	715 000	2 480 000	73 000	253 000	430	630	51434 X	
180	225	34	—	—	1.1	136 000	530 000	13 800	54 000	1 100	1 700	51136 X	
	250	56	58.2	66	1.5	284 000	955 000	28 900	97 000	800	1 200	51236 X	
	300	95	99.3	109	3	480 000	1 680 000	49 000	171 000	560	850	51336 X	
	360	140	148.3	164	5	750 000	2 730 000	76 500	278 000	400	600	51436 X	
190	240	37	—	—	1.1	172 000	655 000	17 500	67 000	1 000	1 600	51138 X	
	270	62	65.7	73	2	320 000	1 110 000	32 500	113 000	750	1 100	51238 X	
	320	105	111	121	4	550 000	1 960 000	56 000	199 000	500	750	51338 X	

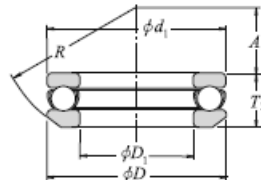
Rulman Numaraları ⁽¹⁾		Ölçüler (mm)							Dayanak ve Dolgu Ölçüleri (mm)			Kütle (kg)		
Oynak Yataklı	Oynak Yatak Pullu	d ₁	D ₁	D ₂	D ₃	b	A	R	d _a min.	D _a maks.	r _a maks.	Düz Yataklı	Oynak Yataklı	Oynak Yatak Pullu
—	—	145	112	—	—	—	—	—	131	124	1	1.04	—	—
53222	53222 U	160	113	135	165	14	65	125	140	130	1	2.42	2.65	3.2
53322 X	53322 XU	187	113	150	195	20.5	51	140	158	142	2	7.19	7.55	9.1
53422 X	53422 XU	225	113	170	240	29	59	180	181	159	2.5	20	20.5	24.3
—	—	155	122	—	—	—	—	—	141	134	1	1.12	—	—
53224	53224 U	170	123	145	175	15	61	125	150	140	1	2.7	2.94	3.58
53324 X	53324 XU	205	123	165	220	22	63	160	173	157	2	9.7	10.1	12.4
53424 X	53424 XU	245	123	185	260	32	70	200	196	174	3	26.2	26.5	31.3
—	—	170	132	—	—	—	—	—	154	146	1	1.68	—	—
53226 X	53226 XU	187	133	160	195	17	67	140	166	154	1.5	3.95	4.35	5.33
53326 X	53326 XU	220	134	177	235	26	53	160	186	169	2	12.1	12.7	15.8
53426 X	53426 XU	265	134	200	280	38	58	200	212	188	3	32.3	32.4	38.8
—	—	178	142	—	—	—	—	—	164	156	1	1.83	—	—
53228 X	53228 XU	197	143	170	210	17	87	160	176	164	1.5	4.3	4.74	5.89
53328 X	53328 XU	235	144	190	250	26	68	180	199	181	2	14.2	16.3	19.5
53428 X	53428 XU	275	144	206	290	38	83	225	222	198	3	34.7	34.8	41.4
—	—	188	152	—	—	—	—	—	174	166	1	1.95	—	—
53230 X	53230 XU	212	153	180	225	20.5	79	160	189	176	1.5	5.52	6.09	7.82
53330 X	53330 XU	245	154	200	260	26	89.5	200	209	191	2	15	17.3	20.5
53430 X	53430 XU	295	154	225	310	41	69	225	238	212	3	43.5	43.8	51.9
—	—	198	162	—	—	—	—	—	184	176	1	2.07	—	—
53232 X	53232 XU	222	163	190	235	21	74	160	199	186	1.5	6.04	6.78	8.7
53332 X	53332 XU	265	164	215	280	29	77	200	225	205	2.5	19.6	22.3	26.7
53432 X	53432 XU	315	164	240	330	41.5	84	250	254	226	4	52.7	52.9	62
—	—	213	172	—	—	—	—	—	197	188	1	2.72	—	—
53234 X	53234 XU	237	173	200	250	21.5	91	180	212	198	1.5	7.41	8.21	10.5
53334 X	53334 XU	275	174	220	290	29	105	225	235	215	2.5	20.3	23.2	28
53434 X	53434 XU	335	174	255	350	46	74	250	269	241	4	61.2	61.3	73
—	—	222	183	—	—	—	—	—	207	198	1	2.79	—	—
53236 X	53236 XU	247	183	210	260	21.5	112	200	222	208	1.5	7.94	8.57	10.8
53336 X	53336 XU	295	184	240	310	32	91	225	251	229	2.5	25.9	29.2	34.9
53436 X	53436 XU	355	184	270	370	46.5	97	280	285	255	4	70.5	72.1	84.9
—	—	237	193	—	—	—	—	—	220	210	1	3.6	—	—
53238 X	53238 XU	267	194	230	280	23	98	200	238	222	2	11.8	12.9	15.7
53338 X	53338 XU	315	195	255	330	33	104	250	266	244	3	36.5	38.1	44.7

Not (1) X işaretli tüm rulman numaralarının mil pullarının dış çapı d₁, yatak pullarının dış çapı D'den daha küçüktür.

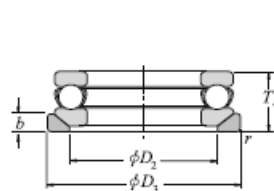
Delik Çapı 200 – 360 mm



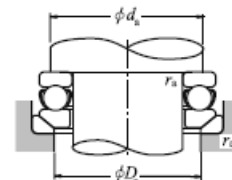
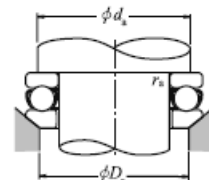
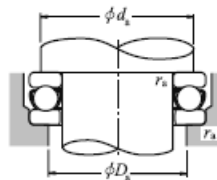
Düz Yataklı



Oynak Yataklı



Oynak Yatak Pullu



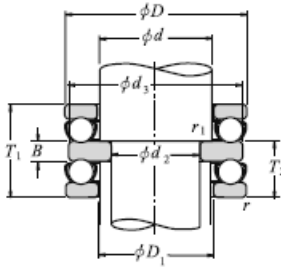
d	Temel Ölçüler (mm)					Temel Yük Değerleri (N)				Limit Hızları (dak ⁻¹)		Düz Yataklı
	D	T	T ₃	T ₄	F _{min.}	C _a	C _{0a}	C _a	C _{0a}	Gres	Yağ	
200	250	37	—	—	1.1	173 000	675 000	17 600	69 000	1 000	1 500	51140 X
	280	62	65.3	74	2	315 000	1 110 000	32 500	113 000	710	1 100	51240 X
	340	110	118.4	130	4	600 000	2 220 000	61 500	227 000	480	710	51340 X
220	270	37	—	—	1.1	179 000	740 000	18 200	75 500	950	1 500	51144 X
	300	63	65.6	75	2	325 000	1 210 000	33 500	123 000	670	1 000	51244 X
240	300	45	—	—	1.5	229 000	935 000	23 400	95 000	850	1 200	51148 X
	340	78	81.6	92	2.1	420 000	1 650 000	43 000	168 000	560	850	51248 X
260	320	45	—	—	1.5	233 000	990 000	23 800	101 000	800	1 200	51152 X
	360	79	82.8	93	2.1	435 000	1 800 000	44 500	184 000	560	850	51252 X
280	350	53	—	—	1.5	315 000	1 310 000	32 000	134 000	710	1 000	51156 X
	380	80	85	94	2.1	450 000	1 950 000	46 000	199 000	530	800	51256 X
300	380	62	—	—	2	360 000	1 560 000	36 500	159 000	600	900	51160 X
	420	95	100.5	112	3	540 000	2 410 000	55 000	246 000	450	670	51260 X
320	400	63	—	—	2	365 000	1 660 000	37 500	169 000	600	900	51164 X
	440	95	100.5	112	3	585 000	2 680 000	59 500	273 000	450	670	51264 X
340	420	64	—	—	2	375 000	1 760 000	38 500	179 000	560	850	51168 X
	460	96	100.3	113	3	595 000	2 800 000	60 500	285 000	430	630	51268 X
360	440	65	—	—	2	385 000	1 860 000	39 000	190 000	560	800	51172 X
	500	110	116.7	130	4	705 000	3 500 000	72 000	355 000	380	560	51272 X

Not (1) X işareti tüm rulman numaralarının mil pullarının dış çapı d₁, yatak pullarının dış çapı D'den daha küçüktür.

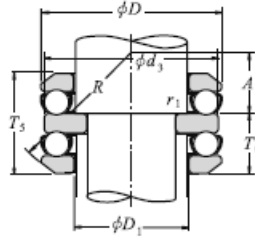
Rulman Numaraları ⁽¹⁾		Ölçüler (mm)							Dayanak ve Dolgu Ölçüleri (mm)			Kütle (kg) yaklaşık		
Oynak Yataklı	Oynak Yatak Pullu	d ₁	D ₁	D ₂	D ₃	b	A	R	d' _a min.	D _a maks.	r _a maks.	Düz Yataklı	Oynak Yataklı	Oynak Yatak Pullu
—	—	247	203	—	—	—	—	—	230	220	1	3.75	—	—
53240 X	53240 XU	277	204	240	290	23	125	225	248	232	2	12.3	13.4	16.1
53340 X	53340 XU	335	205	270	350	38	92	250	282	258	3	43.6	46.2	54.8
—	—	267	223	—	—	—	—	—	250	240	1	4.09	—	—
53244 X	53244 XU	297	224	260	310	25	118	225	268	252	2	13.6	14.9	18
—	—	297	243	—	—	—	—	—	276	264	1.5	6.55	—	—
53248 X	53248 XU	335	244	290	350	30	122	250	299	281	2	23.7	25.6	30.7
—	—	317	263	—	—	—	—	—	296	284	1.5	7.01	—	—
53252 X	53252 XU	355	264	305	370	30	152	280	319	301	2	25.1	27.3	33.2
—	—	347	283	—	—	—	—	—	322	308	1.5	12	—	—
53256 X	53256 XU	375	284	325	390	31	143	280	339	321	2	27.1	30.3	37
—	—	376	304	—	—	—	—	—	348	332	2	17.2	—	—
53260 X	53260 XU	415	304	360	430	34	164	320	371	349	2.5	43.5	47.7	56.1
—	—	396	324	—	—	—	—	—	368	352	2	18.6	—	—
53264 X	53264 XU	435	325	380	450	36	157	320	391	369	2.5	45	49.9	59.4
—	—	416	344	—	—	—	—	—	388	372	2	19.9	—	—
53268 X	53268 XU	455	345	400	470	36	199	360	411	389	2.5	47.9	52.7	62
—	—	436	364	—	—	—	—	—	408	392	2	21.5	—	—
53272 X	53272 XU	495	365	430	510	43	172	360	442	418	3	68.8	76.3	90.9

ÇİFT YÖNLÜ EKSENL BİLYALİ RULMANLAR

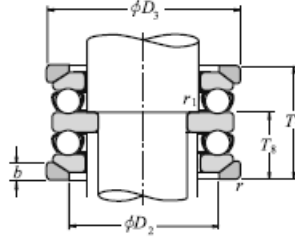
Delik Çapı 10 – 55 mm



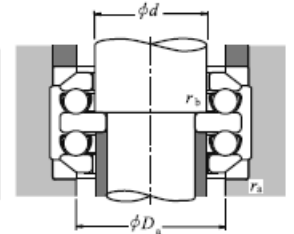
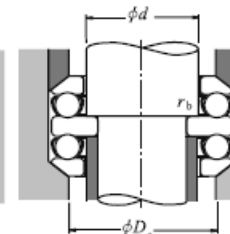
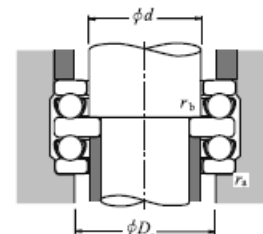
Düz Yataklı



Oynak Yataklı



Oynak Yatak Pullu



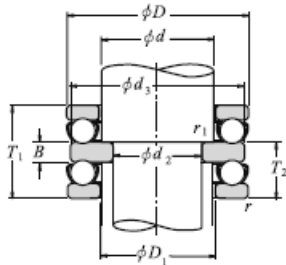
Temel Ölçüler (mm)								Temel Yük Değerleri (kgf)				Limit Hızları (dak ⁻¹)		Rulman Numaraları	
d_2	d	D	T_1	T_5	T_7	$r_{min.}$	r_1	C_a	C_{0a}	C_a	C_{0a}	Grec	Yağ	Düz Yataklı	Oynak Yataklı
10	15	32	22	24.6	28	0.6	0.3	16 700	24 800	1 710	2 530	4 800	7 100	52202	54202
15	20	40	26	27.4	32	0.6	0.3	22 500	37 500	2 290	3 850	4 000	6 000	52204	54204
	25	60	45	49.8	55	1	0.6	56 000	89 500	5 700	9 100	2 400	3 600	52405	54405
20	25	47	28	31.4	36	0.6	0.3	28 000	50 500	2 860	5 150	3 400	5 300	52205	54205
	25	52	34	37.6	42	1	0.3	36 000	61 500	3 650	6 250	3 000	4 500	52305	54305
	30	70	52	56.2	62	1	0.6	73 000	126 000	7 450	12 800	2 200	3 200	52406	54406
25	30	52	29	32.6	37	0.6	0.3	29 500	58 000	3 000	5 950	3 200	5 000	52206	54206
	30	60	38	41.2	46	1	0.3	43 000	78 500	4 400	8 000	2 600	4 000	52306	54306
	35	80	59	63	69	1.1	0.6	87 500	155 000	8 950	15 800	1 800	2 800	52407	54407
30	35	62	34	37.8	42	1	0.3	39 500	78 000	5 000	7 950	2 800	4 300	52207	54207
	35	68	44	47.2	52	1	0.3	56 000	105 000	5 700	10 700	2 400	3 600	52307	54307
	40	68	36	38.6	44	1	0.6	47 500	98 500	4 850	10 000	2 600	3 800	52208	54208
	40	78	49	54	59	1	0.6	70 000	135 000	7 100	13 700	2 000	3 000	52308	54308
	40	90	65	69.4	77	1.1	0.6	103 000	188 000	10 500	19 100	1 700	2 400	52408	54408
35	45	73	37	39.6	45	1	0.6	48 000	105 000	4 900	10 700	2 400	3 600	52209	54209
	45	85	52	56.2	62	1	0.6	80 500	163 000	8 200	16 700	1 900	2 800	52309	54309
	45	100	72	78.8	86	1.1	0.6	128 000	246 000	13 000	25 100	1 500	2 200	52409	54409
40	50	78	39	42	47	1	0.6	49 000	111 000	5 000	11 400	2 400	3 400	52210	54210
	50	95	58	64.6	70	1.1	0.6	97 500	202 000	9 950	20 600	1 700	2 600	52310	54310
	50	110	78	83.2	92	1.5	0.6	147 000	288 000	15 000	29 400	1 400	2 000	52410	54410
45	55	90	45	49.6	55	1	0.6	70 000	159 000	7 150	16 200	2 000	3 000	52211	54211
	55	105	64	72.6	78	1.1	0.6	115 000	244 000	11 800	24 900	1 500	2 400	52311	54311
	55	120	87	92	101	1.5	0.6	181 000	350 000	18 500	35 500	1 200	1 800	52411	54411
50	60	95	46	50	56	1	0.6	71 500	169 000	7 300	17 200	1 900	3 000	52212	54212
	60	110	64	70.6	78	1.1	0.6	119 000	263 000	12 100	26 800	1 500	2 200	52312	54312
	60	130	93	99	107	1.5	0.6	202 000	395 000	20 600	40 500	1 100	1 700	52412	54412
	65	140	101	109.4	119	2	1	234 000	495 000	23 800	50 500	1 000	1 600	52413	54413
55	65	100	47	50.4	57	1	0.6	75 500	189 000	7 700	19 200	1 900	2 800	52213	54213
	65	115	65	71.8	79	1.1	0.6	123 000	282 000	12 500	28 700	1 500	2 200	52313	54313
	70	105	47	50.6	57	1	1	74 000	189 000	7 550	19 200	1 800	2 800	52214	54214
	70	125	72	80.4	88	1.1	1	137 000	315 000	14 000	32 000	1 300	2 000	52314	54314
	70	150	107	114.2	125	2	1	252 000	555 000	25 700	56 500	1 000	1 500	52414	54414

Oynak Yatak Pullu	Ölçüler (mm)											Dayanak ve Dolgu Ölçüleri (mm)			Kütle (kg)		
	d_3	D_1	D_2	D_3	T_2	T_6	T_8	B	b	A_1	R	D_2 maks.	r_1 maks.	r_2 maks.	Düz Yataklı	Oynak Yataklı	Oynak Yatak Pullu
54202 U	32	17	24	35	13.5	14.8	16.5	5	4	10.5	28	24	0.6	0.3	0.081	0.090	0.113
54204 U	40	22	30	42	16	16.7	19	6	5	16	36	30	0.6	0.3	0.148	0.151	0.185
54405 U	60	27	42	62	28	30.4	33	11	8	15	50	42	1	0.6	0.641	0.68	0.825
54205 U	47	27	36	50	17.5	19.2	21.5	7	5.5	16.5	40	36	0.6	0.3	0.213	0.236	0.293
54305 U	52	27	38	55	21	22.8	25	8	6	18	45	38	1	0.3	0.324	0.35	0.434
54406 U	70	32	50	75	32	34.1	37	12	9	16	56	50	1	0.6	0.978	1.01	1.27
54206 U	52	32	42	55	18	19.8	22	7	5.5	20	45	42	0.6	0.3	0.254	0.288	0.345
54306 U	60	32	45	62	23.5	25.1	27.5	9	7	19.5	50	45	1	0.3	0.483	0.511	0.621
54407 U	80	37	58	85	36.5	38.5	41.5	14	10	18.5	64	58	1	0.6	1.43	1.47	1.83
54207 U	62	37	48	65	21	22.9	25	8	7	21	50	48	1	0.3	0.406	0.447	0.57
54307 U	68	37	52	72	27	28.6	31	10	7.5	21	56	52	1	0.3	0.71	0.744	0.915
54208 U	68	42	55	72	22.5	23.8	26.5	9	7	25	56	55	1	0.6	0.543	0.581	0.713
54308 U	78	42	60	82	30.5	33	35.5	12	8.5	23.5	64	60	1	0.6	1.04	1.13	1.38
54408 U	90	42	65	95	40	42.2	46	15	12	22	72	65	1	0.6	1.98	2.02	2.54
54209 U	73	47	60	78	23	24.3	27	9	7.5	23	56	60	1	0.6	0.606	0.652	0.823
54309 U	85	47	65	90	32	34.1	37	12	10	21	64	65	1	0.6	1.28	1.34	1.71
54409 U	100	47	72	105	44.5	47.9	51.5	17	12.5	23.5	80	72	1	0.6	2.71	2.85	3.53
54210 U	78	52	62	82	24	25.5	28	9	7.5	30.5	64	62	1	0.6	0.697	0.75	0.949
54310 U	95	52	72	100	36	39.3	42	14	11	23	72	72	1	0.6	1.78	1.94	2.46
54410 U	110	52	80	115	48	50.6	55	18	14	30	90	80	1.5	0.6	3.51	3.59	4.45
54211 U	90	57	72	95	27.5	29.8	32.5	10	9	32.5	72	72	1	0.6	1.11	1.22	1.55
54311 U	105	57	80	110	39.5	43.8	46.5	15	11.5	25.5	80	80	1	0.6	2.43	2.7	3.35
54411 U	120	57	88	125	53.5	56	60.5	20	15.5	22.5	90	88	1.5	0.6	4.66	4.68	5.82
54212 U	95	62	78	100	28	30	33	10	9	30.5	72	78	1	0.6	1.22	1.33	1.66
54312 U	110	62	85	115	39.5	42.8	46.5	15	11.5	36.5	90	85	1	0.6	2.59	2.82	3.45
54412 U	130	62	95	135	57	60	64	21	16	28	100	95	1.5	0.6	5.74	5.82	7.24
54413 U	140	68	100	145	62	66.2	71	23	17.5	34	112	100	2	1	7.41	7.66	9.47
54213 U	100	67	82	105	28.5	30.2	33.5	10	9	38.5	80	82	1	0.6	1.34	1.45	1.81
54313 U	115	67	90	120	40	43.4	47	15	12.5	34.5	90	90	1	0.6	2.8	3.06	3.8
54214 U	105	72	88	110	28.5	30.3	33.5	10	9	36.5	80	88	1	1	1.44	1.59	1.95
54314 U	125	72	98	130	44	48.2	52	16	13	39	100	98	1	1	3.67	4.07	4.95
54414 U	150	73	110	155	65.5	69.1	74.5	24	19.5	28.5	112	110	2	1	8.99	9.12	11.3

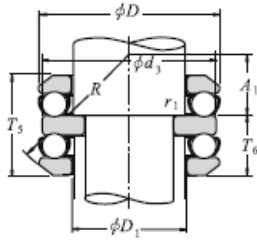
ÇİFT YÖNLÜ EKSENEL BİLYALİ RULMANLAR

Delik Çapı 60 – 130 mm

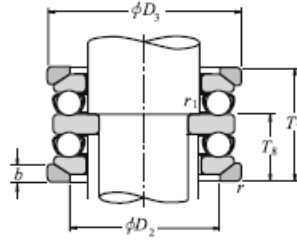
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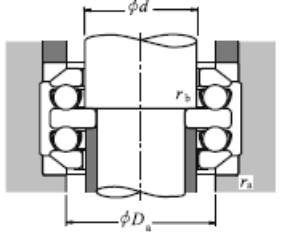
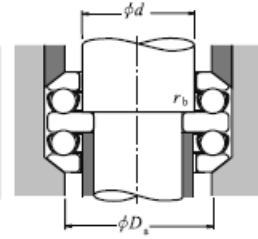
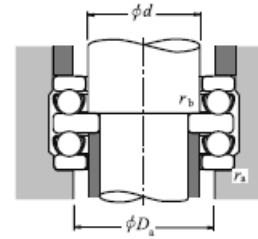
Düz Yataklı



Oynak Yataklı



Oynak Yatak Pullu



d ₂	Temel Ölçüler (mm)						Temel Yük Değerleri (kgf)				Limit Hızları (dak ⁻¹)		Rulman Numaraları		
	d	D	T ₁	T ₅	T ₇	r _{min.}	r ₁	C _a	C _{0a}	C _a	C _{0a}	Greş	Yağ	Düz Yataklı	Oynak Yataklı
60	75	110	47	49.6	57	1	1	78 000	209 000	7 950	21 300	1 800	2 600	52215	54215
	75	135	79	87.2	95	1.5	1	159 000	365 000	16 200	37 500	1 200	1 800	52315	54315
	75	160	115	123	135	2	1	254 000	560 000	25 900	57 000	900	1 400	52415	54415
65	80	115	48	51	58	1	1	79 000	218 000	8 050	22 300	1 700	2 600	52216	54216
	80	140	79	86.2	95	1.5	1	164 000	395 000	16 700	40 000	1 200	1 800	52316	54316
	80	170	120	128.4	140	2	1	272 000	620 000	27 800	63 500	850	1 300	52416	54416
	85	180	128	138	150	2.1	1.1	310 000	755 000	31 500	77 000	800	1 200	52417 X	54417 X
70	85	125	55	59.2	67	1	1	96 000	264 000	9 800	26 900	1 500	2 200	52217	54217
	85	150	87	95.2	105	1.5	1	207 000	490 000	21 100	50 000	1 100	1 600	52317	54317
	90	190	135	143.4	157	2.1	1.1	330 000	825 000	33 500	84 000	750	1 100	52418 X	54418 X
75	90	135	62	69	76	1.1	1	114 000	310 000	11 600	31 500	1 400	2 000	52218	54218
	90	155	88	97.2	106	1.5	1	214 000	525 000	21 900	53 500	1 100	1 600	52318	54318
80	100	210	150	160	176	3	1.1	370 000	985 000	38 000	100 000	670	1 000	52420 X	54420 X
	100	150	67	72.8	81	1.1	1	135 000	375 000	13 700	38 500	1 300	1 900	52220	54220
85	100	170	97	105.4	115	1.5	1	239 000	595 000	24 300	61 000	950	1 500	52320	54320
	110	230	166	—	—	3	1.1	415 000	1 150 000	42 000	118 000	600	900	52422 X	—
95	110	160	67	71.4	81	1.1	1	136 000	395 000	13 900	40 000	1 200	1 800	52222	54222
	110	190	110	118.4	128	2	1	282 000	755 000	28 800	77 000	850	1 300	52322 X	54322 X
	120	250	177	—	—	4	1.5	515 000	1 540 000	52 500	157 000	560	850	52424 X	—
100	120	170	68	71.6	82	1.1	1.1	141 000	430 000	14 400	44 000	1 200	1 800	52224	54224
	120	210	123	131.2	143	2.1	1.1	330 000	930 000	33 500	95 000	750	1 100	52324 X	54324 X
	130	270	192	—	—	4	1.5	525 000	1 590 000	53 500	162 000	530	800	52426 X	—
110	130	190	80	85.8	96	1.5	1.1	183 000	550 000	18 700	56 000	1 000	1 500	52226 X	54226 X
	130	225	130	—	—	2.1	1.1	350 000	1 030 000	35 500	105 000	710	1 100	52326 X	—
	140	280	196	—	—	4	1.5	550 000	1 750 000	56 500	178 000	500	750	52428 X	—
120	140	200	81	86.2	99	1.5	1.1	186 000	575 000	18 900	59 000	1 000	1 500	52228 X	54228 X
	140	240	140	—	—	2.1	1.1	370 000	1 130 000	37 500	115 000	670	1 000	52328 X	—
	150	300	209	—	—	4	2	620 000	2 010 000	63 000	205 000	480	710	52430 X	—
130	150	215	89	95.6	109	1.5	1.1	238 000	735 000	24 300	75 000	900	1 300	52230 X	54230 X
	150	250	140	—	—	2.1	1.1	380 000	1 200 000	39 000	123 000	630	950	52330 X	—
	160	320	226	—	—	5	2	650 000	2 210 000	66 000	226 000	430	630	52432 X	—

Oynak Yatak Pullu	Ölçüler (mm)										Dayanak ve Dolgu Ölçüleri (mm)			Kütle (kg) yaklaşık			
	d ₃	D ₁	D ₂	D ₃	T ₂	T ₆	T ₈	B	b	A ₁	R	D _{mak.}	r _{mak.}	r _b	Düz Yataklı	Oynak Yataklı	Oynak Yatak Pullu
54215 U	110	77	92	115	28.5	29.8	33.5	10	9.5	47.5	90	92	1	1	1.54	1.66	2.06
54315 U	135	77	105	140	48.5	52.6	56.5	18	15	32.5	100	105	1.5	1	4.74	5.14	6.38
54415 U	160	78	115	165	70.5	74.5	80.5	26	21	36.5	125	115	2	1	10.8	11	13.7
54216 U	115	82	98	120	29	30.5	34	10	10	45	90	98	1	1	1.66	1.78	2.21
54316 U	140	82	110	145	48.5	52.1	56.5	18	15	45.5	112	110	1.5	1	4.99	5.39	6.61
54416 U	170	83	125	175	73.5	77.7	83.5	27	22	30.5	125	125	2	1	12.6	12.8	16
54417 XU	179.5	88	130	185	78.5	83.5	89.5	29	23	40.5	140	130	2	1	15.4	15.8	19.5
54217 U	125	88	105	130	33.5	35.6	39.5	12	11	49.5	100	105	1	1	2.26	2.45	3.02
54317 U	150	88	115	155	53	57.1	62	19	17.5	39	112	115	1.5	1	6.38	6.8	10.5
54418 XU	189.5	93	140	195	82.5	86.7	93.5	30	25.5	34.5	140	140	2	1	17.5	18.1	22.5
54218 U	135	93	110	140	38	41.5	45	14	13.5	42	100	110	1	1	3.09	3.42	4.39
54318 U	155	93	120	160	53.5	58.1	62.5	19	18	36.5	112	120	1.5	1	6.79	7.33	9.29
54420 XU	209.5	103	155	220	91.5	96.5	104.5	33	27	43.5	160	155	2.5	1	26.8	27.2	33.4
54220 U	150	103	125	155	41	43.9	48	15	14	49	112	125	1	1	4.08	4.54	5.64
54320 U	170	103	135	175	59	63.2	68	21	18	42	125	135	1.5	1	8.82	9.47	11.6
—	229	113	—	—	101.5	—	—	37	—	—	—	159	2.5	1	35.6	—	—
54222 U	160	113	135	165	41	43.2	48	15	14	62	125	135	1	1	4.39	4.83	5.94
54322 XU	189.5	113	150	195	67	71.2	76	24	20.5	47	140	150	2	1	12.7	13.5	16.6
—	249	123	—	—	108.5	—	—	40	—	—	—	174	3	1.5	47.6	—	—
54224 U	170	123	145	175	41.5	43.3	48.5	15	15	58.5	125	145	1	1	4.92	5.4	6.68
54324 XU	209.5	123	165	220	75	79.1	85	27	22	58	160	165	2	1	17.6	16.4	22.9
—	269	134	—	—	117	—	—	42	—	—	—	188	3	1.5	57.8	—	—
54226 U	189.5	133	160	195	49	51.9	57	18	17	63	140	160	1.5	1	7.43	8.24	10.2
—	224	134	—	—	80	—	—	30	—	—	—	169	2	1	21.5	—	—
—	279	144	—	—	120	—	—	44	—	—	—	198	3	1.5	62.4	—	—
54228 U	199.5	143	170	210	49.5	52.1	58.5	18	17	83.5	160	170	1.5	1	8.01	8.87	11.2
—	239	144	—	—	85.5	—	—	31	—	—	—	181	2	1	24.8	—	—
—	299	153	—	—	127.5	—	—	46	—	—	—	212	3	2	77.8	—	—
54230 XU	214.5	153	180	225	54.5	57.8	64.5	20	20.5	74.5	160	180	1.5	1	10.4	11.5	15
—	249	154	—	—	85.5	—	—	31	—	—	—	191	2	1	30.3	—	—
—	319	164	—	—	138	—	—	50	—	—	—	226	4	2	93.6	—	—

Not (1) X işaretli tüm rulman numaralarının merkez pullarının dış çapı d₃, yatak pullarının dış çapı D₂'den daha büyüktür.