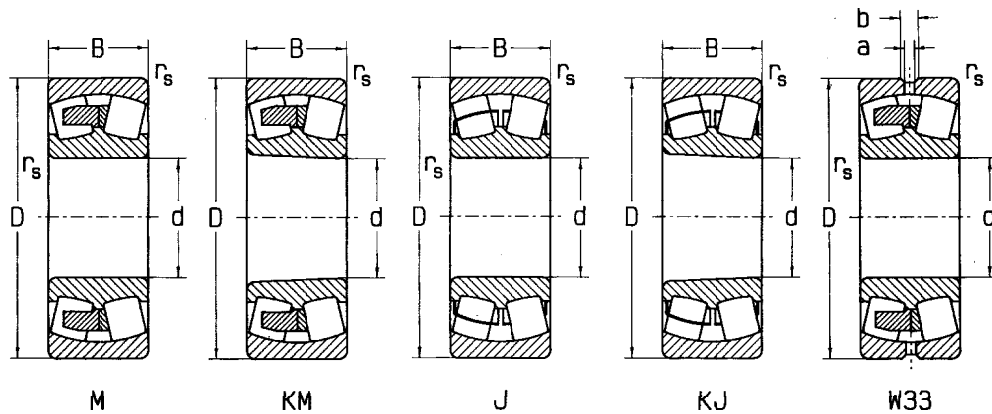


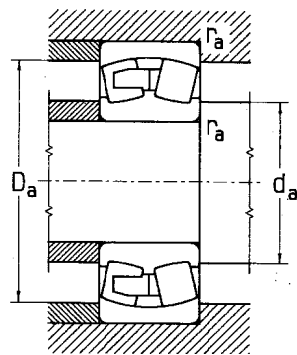
Double Row Spherical Roller Bearings

Sizes 25 mm – 75 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{0r}	Grease	Oil	
mm						kN <i>lbf</i>		min ⁻¹		
25	52	18	1	3	2.6	44 <i>9,890</i>	43 <i>9,670</i>	8,900	11,000	22205E
30	62	20	1	3	3.3	68 <i>15,300</i>	61 <i>13,700</i>	7,500	9,400	22206E
35	72	23	1.1	3	3.3	78 <i>17,500</i>	88 <i>19,800</i>	6,300	7,900	22207E
40	80	23	1.1	3	3.8	90 <i>20,200</i>	100 <i>22,500</i>	5,600	7,100	22208E
	90	33	1.5	3	5.5	100 <i>22,500</i>	108 <i>24,300</i>	4,000	4,700	22308
45	85	23	1.1	3	3.9	94 <i>21,100</i>	108 <i>24,300</i>	5,300	6,700	22209E
	100	36	1.5	3	5.5	116 <i>26,100</i>	132 <i>29,700</i>	3,800	4,500	22309
50	90	23	1.1	3	3.9	101 <i>22,700</i>	118 <i>26,500</i>	5,000	6,300	22210E
	110	40	2.0	3	5.5	156 <i>35,100</i>	180 <i>40,500</i>	3,300	4,000	22310
55	100	25	1.5	3	4.4	120 <i>27,000</i>	142 <i>32,000</i>	4,500	5,600	22211E
	120	43	2	3	5.5	173 <i>38,900</i>	200 <i>45,000</i>	2,800	3,300	22311
60	110	28	1.5	3	5	140 <i>31,500</i>	174 <i>39,100</i>	4,000	5,000	22212E
	130	46	2.1	3	5.5	214 <i>48,100</i>	237 <i>53,300</i>	2,800	3,300	22312
65	120	31	1.5	3	5.5	177 <i>39,800</i>	216 <i>48,600</i>	3,800	4,700	22213E
	140	48	2.1	3	5.5	229 <i>51,500</i>	263 <i>59,100</i>	2,700	3,200	22313
70	125	31	1.5	3	5.5	153 <i>34,400</i>	180 <i>40,500</i>	2,800	3,300	22214
	160	51	2.1	3	5.5	297 <i>66,800</i>	342 <i>76,900</i>	2,400	3,000	22314
75	130	31	1.5	3	5.5	157 <i>35,300</i>	191 <i>42,900</i>	2,700	3,200	22215
	130	31	1.5	3	5.5	157 <i>35,300</i>	191 <i>42,900</i>	2,700	3,200	22215C
	160	55	2.1	4.5	8.3	290 <i>65,600</i>	265 <i>59,600</i>	2,200	2,800	22315

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

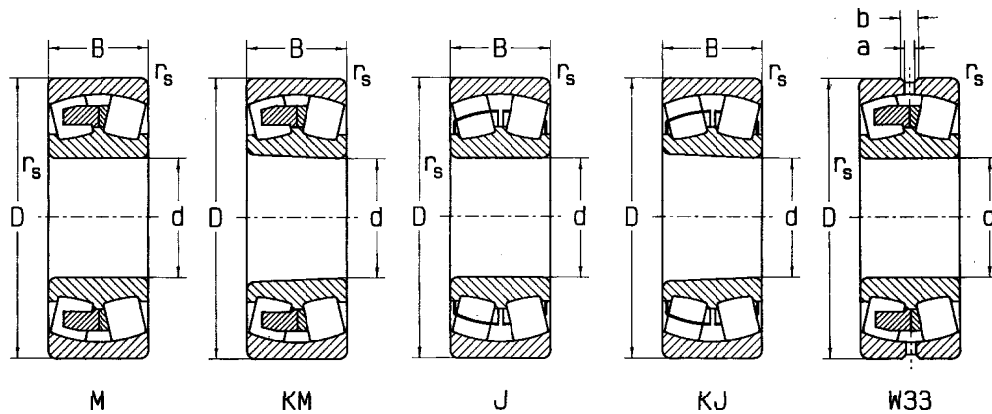


Abutment and Fillet Dimensions				Weight ~ —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
25	30	47	1	0.160 0.352	H305	—	—	0.34	2	3	2	
30	35	57	1	0.250 0.551	H306	—	—	0.31	2.1	3.2	2.1	
35	42	65	1	0.420 0.923	H307	—	—	0.31	2.2	3.3	2.1	
40	47	73	1	0.490 1.079	H308	AH308	KM9	0.27	2.5	3.7	2.4	
	47	81	1.5	1.00 2.202	H2308	AH2308	KM9	0.42	1.6	2.4	1.6	
45	52	78	1	0.540 1.189	H309	AH309	KM10	0.26	2.6	3.9	2.6	
	52	91	1.5	1.40 3.08	H2309	AH2309	KM10	0.42	1.6	2.4	1.6	
50	57	83	1	0.57 1.255	H310	AH310X	KM11	0.24	2.8	4.2	2.8	
	60	100	2	1.90 4.18	H2310	AH2310X	KM11	0.42	1.6	2.4	1.6	
55	62	91	1.5	0.780 1.718	H311	AH311X	KM12	0.23	2.9	4.4	2.9	
	65	110	2	2.40 5.29	H2311	AH2311X	KM12	0.42	1.6	2.4	1.6	
60	67	101	1.5	1.07 2.36	H312	AH312X	KM13	0.24	2.8	4.2	2.8	
	72	118	2	3.10 6.83	H2312	AH2312X	KM13	0.41	1.6	2.4	1.6	
65	72	111	1.5	1.44 3.17	H313	AH313	KM15	0.24	2.8	4.2	2.8	
	76	128	2	3.70 8.15	H2313	AH2313	KM15	0.38	1.8	2.6	1.7	
70	77	116	1.5	1.67 3.68	—	AH314	KM16	0.24	2.8	4.2	2.8	
	81	138	2	4.35 9.58	—	AH2314X	KM16	0.37	1.8	2.7	1.8	
75	82	121	1.5	1.76 3.88	H315	AH315	KM17	0.23	3	4.4	2.9	
	82	121	1.5	1.76 3.88	H315	AH315	KM17	0.23	3	4.4	2.9	
	86	148	2	5.40 3.88	H2315	AH2315X	KM17	0.38	1.8	2.6	1.7	



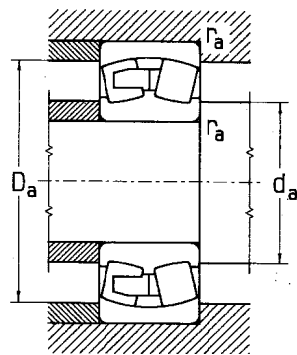
Double Row Spherical Roller Bearings

Sizes 80 mm – 110 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{or}	Grease	Oil	
mm						kN lbf		min ⁻¹		
80	140	33	2	3	5.5	161 36,200	197 44,300	2,400	3,000	22216
	140	33	2.0	–	–	186 41,800	240 54,000	3,200	4,000	22216C
	170	58	2.1	4.5	8.3	359 80,700	425 95,500	2,200	2,800	22316
85	150	36	2	3	5.5	186 41,800	223 50,100	2,200	2,800	22217
	150	36	2	3	5.5	206 46,300	261 58,700	2,200	2,800	22217C
	180	60	3	4.5	8.3	365 46,300	465 58,700	2,000	2,500	22317
90	160	40	2	4.5	8.3	222 49,900	272 61,100	2,000	2,500	22218
	160	40	2	4.5	8.3	257 57,800	335 75,300	2,000	2,500	22218C
	160	52.4	2	3	5.6	290 65,600	415 92,600	1,900	2,400	23218
	190	64	3	4.5	8.3	443 99,600	522 117,400	1,900	2,400	22318
95	170	43	2.1	4.5	8.3	259 58,200	329 74,000	2,000	2,500	22219
	200	67	3	4.5	8.3	481 108,100	578 130,000	1,800	2,200	22319
100	180	46	2.1	4.5	8.3	290 65,200	375 84,300	1,900	2,400	22220
	180	46	2.1	–	–	345 77,600	450 101,200	2,200	2,800	22220C
	180	60.3	2.1	4.5	8.3	390 87,700	532 120,000	1,700	2,000	23220
	215	73	3	4.5	8.3	563 126,600	686 154,200	1,700	2,000	22320
110	180	56	2	4.5	8.3	354 79,600	541 121,600	1,700	2,000	23122
	180	56	2.0	–	–	390 87,700	600 134,900	1,800	2,400	23122C
	200	53	2.1	4.5	8.3	376 84,500	491 110,400	1,700	2,000	22222
	200	69.8	2.1	4.5	8.3	502 112,900	706 158,700	1,500	1,800	23222
	240	80	3	6	11.1	662 148,800	801 180,100	1,500	1,800	22322

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

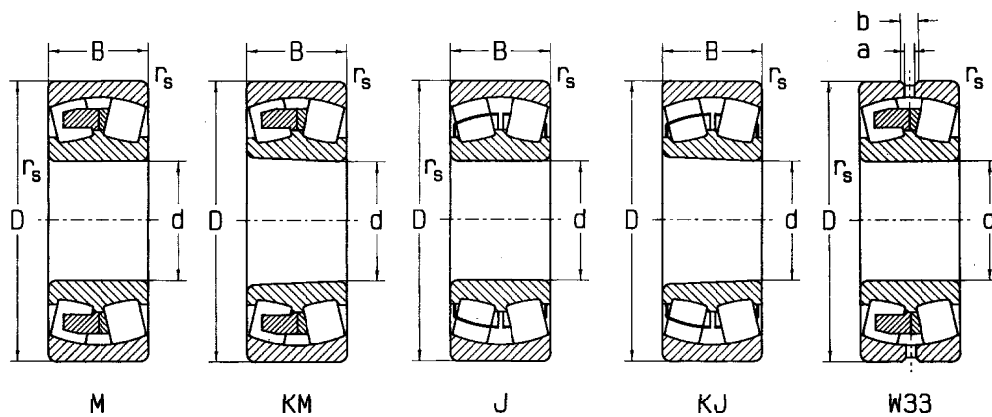


Abutment and Fillet Dimensions				Weight ~ —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
80	90	130	2	2.20 4.84	H316	AH316	KM18	0.26	2.6	3.9	2.6	
	90	130	2.0	2.2 5	—	—	—	0.22	3.0	4.5	3.0	
	91	158	2	6.60 14.53	H2316	AH2316X	KM18	0.37	1.8	2.7	1.8	
85	95	140	2	2.80 6.17	H317	AH317X	KM19	0.26	2.6	3.9	2.6	
	95	140	2	2.80 6.17	H317	AH317X	KM19	0.24	2.8	4.0	2.7	
	98	166	2.5	7.40 16.29	H2317	AH2317X	KM19	0.37	1.9	2.8	1.8	
90	100	150	2	3.55 7.82	H318	AH318X	KM20	0.26	2.6	3.8	2.5	
	100	150	2	3.55 7.82	H318	AH318X	KM20	0.26	2.6	3.7	2.4	
	100	150	2	4.70 10.35	H2318	AH2318X	KM20	0.34	2	3	2	
	103	176	2.5	9.30 20.48	H2318	AH2318X	KM20	0.37	1.8	2.7	1.8	
95	107	158	2	4.31 9.49	H319	AH319X	KM21	0.27	2.5	3.7	2.5	
	109	186	2.5	10.30 22.60	H2319	AH2319X	KM21	0.37	1.8	2.7	1.8	
100	112	168	2	5.20 11.45	H320	AH320X	KM22	0.27	2.5	3.7	2.4	
	112	168	2.0	5.2 12	—	—	—	0.24	2.8	4.2	2.8	
	112	168	2	6.90 15.19	H2320	AH3220X	KM22	0.35	1.9	2.9	1.9	
	113	201	2.5	13.0 28.60	H2320	AH2320X	KM22	0.37	1.8	2.7	1.8	
110	120	170	2	5.83 12.84	H3122	AH3122X	KM24	0.31	2.2	3.2	2.1	
	120	170	2.0	5.8 13	—	—	—	0.31	2.2	3.2	2.1	
	122	188	2	7.50 16.52	H322	AH3122X	KM24	0.28	2.4	3.6	2.4	
	122	188	2	9.90 21.80	H2322	AH3222X	KM25	0.36	1.9	2.8	1.8	
	124	226	2.5	18.2 40.10	H2322	AH2322X	KM25	0.37	1.8	2.7	1.8	



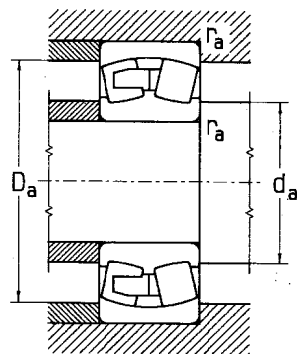
Double Row Spherical Roller Bearings

Sizes 120 mm – 150 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{or}	Grease	Oil	
mm						kN lbf		min ⁻¹		
120	180	46	2	3	5.5	299 67,200	494 111,100	1,600	1,900	23024
	200	62	2	4.5	8.3	430 96,700	648 145,700	1,500	1,800	23124
	215	58	2.1	6	11.1	447 100,500	593 133,300	1,600	1,900	22224
	215	76	2.1	6	11.1	564 126,800	803 180,500	1,400	1,700	23224
	260	86	3	6	11.1	782 175,800	962 216,300	1,400	1,700	22324
130	200	52	2	3	5.5	367 82,500	579 130,200	1,500	1,800	23026
	210	64	2	4.5	8.3	474 106,600	752 169,100	1,400	1,700	23126
	230	64	3	6	11.1	525 118,000	726 163,200	1,500	1,800	22226
	230	80	3	6	11.1	636 143,000	948 213,100	1,300	1,600	23226
	280	93	4	7.5	13.9	904 203,200	1,125 252,900	1,300	1,600	22326
140	210	53	2	4.5	8.3	380 85,400	633 142,300	1,400	1,700	23028
	225	68	2.1	6	11.1	540 121,400	865 194,500	1,300	1,600	23128
	250	68	3	6	11.1	605 136,000	822 184,800	1,400	1,700	22228
	250	88	3	7.5	13.9	755 169,800	1,105 248,400	1,200	1,500	23228
	300	102	4	9	16.7	993 223,200	1,268 285,100	1,200	1,500	22328
150	225	56	2.1	4.5	8.3	419 94,200	697 156,700	1,300	1,600	23030
	250	80	2.1	4.5	8.3	711 159,900	1,124 252,700	1,200	1,500	23130
	270	73	3	7.5	13.9	668 150,200	920 206,800	1,300	1,600	22230
	270	93	3	7.5	13.9	874 196,500	1,302 292,700	1,100	1,400	23230
	320	108	4	9	16.7	1,102 247,800	1,478 332,300	1,100	1,400	22330
	320	108	4.0	–	–	1,200 269,800	1,660 373,200	1,140	1,460	22330C

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

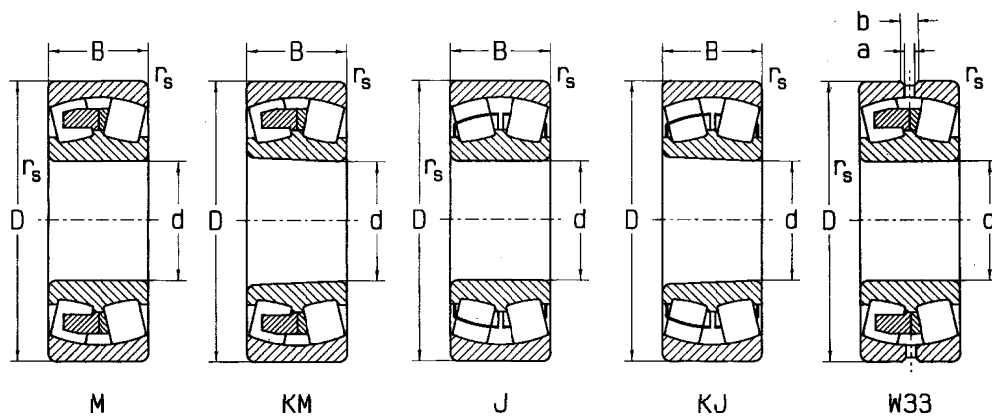


Abutment and Fillet Dimensions				Weight ~ —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors					
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀		
mm				kg lbs									
120	128	171	2	4.50 9.91	H3024	AH3024X	KM26	0.25	2.7	4	2.7		
	130	190	2	8.33 18.34	H3124	AH3124X	KM26	0.32	2.1	3.2	2.1		
	132	203	2	9.30 20.48	H3124	AH3124X	KM26	0.29	2.4	3.5	2.3		
	132	203	2	12.30 27.10	H2324	AH3224X	KM27	0.36	1.9	2.8	1.8		
	134	246	2.5	24.00 52.90	H2324	AH2324X	KM27	0.36	1.9	2.8	1.8		
130	138	191	2	6.37 14.03	H3026	AH3026X	KM28	0.26	2.6	3.9	2.6		
	140	200	2	9.10 20.03	H3126	AH3126X	KM28	0.31	2.2	3.3	2.2		
	144	216	2.5	11.70 25.80	H3126	AH3126X	KM28	0.28	2.3	3.4	2.3		
	144	216	2.5	14.60 32.20	H2326	AH3226X	KM29	0.36	1.9	2.8	1.8		
	148	262	3	28.6 63.0	H2326	AH2326X	KM29	0.37	1.8	2.7	1.8		
140	148	200	2	6.87 15.13	H3028	AH3028X	KM30	0.25	2.7	4.1	2.7		
	152	213	2	10.80 23.80	H3128	AH3128X	KM30	0.30	2.2	3.3	2.2		
	154	236	2.5	15.00 33.00	H3128	AH3128X	KM30	0.29	2.4	3.5	2.3		
	154	236	2.5	19.20 42.30	H2328	AH3228X	KM31	0.36	1.9	2.8	1.8		
	158	282	3	36.20 79.70	H2328	AH2328X	KM31	0.38	1.8	2.6	1.7		
150	159	213	2	8.25 18.17	H3030	AH3030X	KM32	0.25	2.7	4	2.7		
	162	238	2	16.40 36.10	H3130	AH3130X	KM33	0.32	2.1	3.1	2.1		
	164	256	2.5	18.50 40.70	H3130	AH3130X	KM33	0.29	2.3	3.5	2.3		
	164	256	2.5	24.60 54.20	H2330	AH3230X	KM33	0.37	1.8	2.7	1.8		
	168	302	3	43.60 96	H2330	AH2330	KM33	0.38	1.8	2.6	1.7		
	168	302	3.0	43.6 96	—	—	—	0.38	1.8	2.6	1.7		



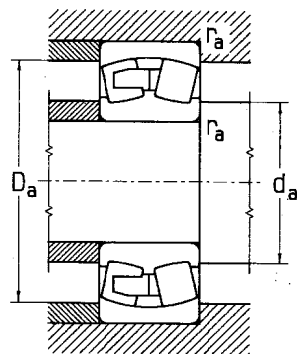
Double Row Spherical Roller Bearings

Sizes 160 mm – 180 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{0r}	Grease	Oil	
mm						kN lbf		min ⁻¹		
160	240	60	2.1	4.5	8.3	496 111,500	848 190,600	1,200	1,500	23032
	270	86	2.1	6	11.1	784 176,300	1,238 278,300	1,100	1,400	23132
	290	80	3	7.5	13.9	814 183,000	1,141 256,500	1,200	1,500	22232
	290	104	3	7.5	13.9	1,044 234,700	1,573 353,600	1,000	1,300	23232
	290	104	3.0	–	–	1,144 257,200	1,860 418,100	950	1,300	23232C
	340	114	4	9	16.7	1,246 280,100	1,682 378,100	1,000	1,300	22332
170	260	67	2.1	6	11.1	618 138,900	1,047 235,400	1,100	1,400	23034
	260	90	2.1	–	–	840 188,800	1,580 355,200	1,100	1,400	24034C
	280	88	2.1	6	11.1	826 185,700	1,352 303,900	1,000	1,300	23134
	310	86	4	7.5	13.9	921 207,000	1,310 294,500	1,100	1,400	22234
	310	110	4	7.5	13.9	1,100 247,300	1,760 395,700	940	1,200	23234
	310	110	4.0	–	–	1,280 287,800	1,880 422,600	1,100	1,400	23234C
	360	120	4	9	16.7	1,402 315,200	1,966 442,000	940	1,200	22334
180	280	74	2.1	6	11.1	725 163,000	1,229 276,300	1,000	1,300	23036
	280	100	2.1	–	–	981 220,500	1,960 440,600	1,060	1,300	24036C
	300	96	3	6	11.1	957 215,100	1,539 346,000	940	1,200	23136
	300	118	3.0	–	–	1,250 281,000	2,400 539,500	700	850	24136C
	320	86	4	9	16.7	943 212,000	1,383 310,900	1,000	1,300	22236
	320	112	4	7.5	13.9	1,160 260,800	1,930 433,900	890	1,100	23236
	320	112	4.0	–	–	1,360 305,700	2,110 474,300	1,000	1,300	23236C
	380	126	4	12	22.3	1,542 346,700	2,127 478,200	890	1,100	22336

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

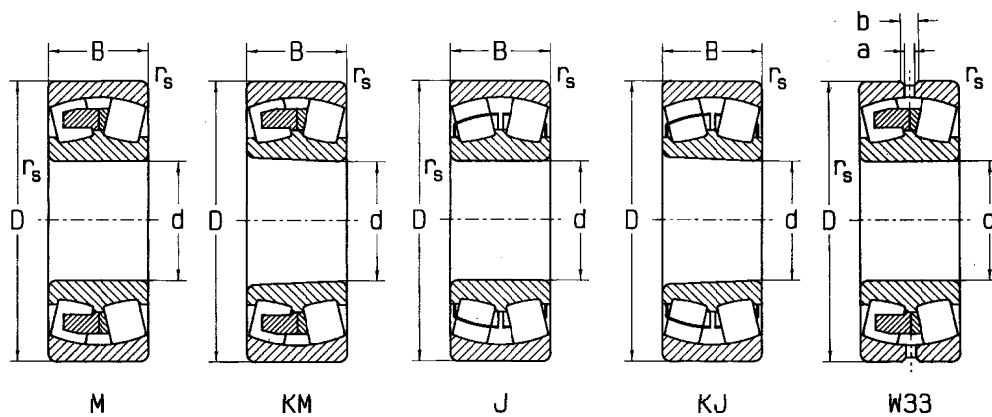


Abutment and Fillet Dimensions				Weight — —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
160	169	228	2	10.30 22.70	H3032	AH3032	KM34	0.24	2.8	4.1	2.7	
	172	258	2	20.80 45.80	H3132	AH3132	KM36	0.32	2.1	3.1	2	
	174	276	2.5	23.40 51.50	H3132	AH3132	KM36	0.30	2.3	3.4	2.2	
	174	276	2.5	31 68.30	H2332	AH3232	KM36	0.37	1.8	2.7	1.8	
	174	276	2.5	31.0 68	—	—	—	0.36	1.8	2.8	1.8	
	178	322	3	51.90 114.30	H2332	AH2332	KM36	0.38	1.8	2.7	1.8	
170	179	248	2	13.40 29.50	H3034	AH3034	KM36	0.25	2.7	4	2.6	
	191	241	2.0	17.1 38	—	—	—	0.32	2.0	3.1	2.0	
	182	268	2	22.40 49.30	H3134	AH3134	KM38	0.32	2.1	3.2	2.1	
	188	293	3	29 63.90	H3134	3134	KM38	0.30	2.3	3.4	2.2	
	188	293	3	37.70 83	H2334	AH3234	KM38	0.37	1.9	2.8	1.8	
	188	293	3.0	37.7 83	—	—	—	0.37	1.9	2.8	1.8	
	188	342	3	62 136.50	H2334	AH2334	KM38	0.37	1.8	2.7	1.8	
180	189	268	2	17.60 38.80	H3036	AH3036	KM38	0.26	2.6	3.9	2.6	
	200	256	2.0	27.7 61	—	—	—	0.34	1.9	2.9	1.9	
	194	286	2.5	28.40 62.50	H3136	AH3136	KM40	0.32	2.1	3.1	2	
	202	272	2.5	27.7 61	—	—	—	0.40	1.7	2.5	1.7	
	198	302	3	30.50 67.20	H3136	AH2236	KM40	0.29	2.4	3.5	2.3	
	198	302	3	39.80 87.60	H2336	AH3236	KM400.36	1.9	2.8	1.8		
	198	302	3.0	39.8 88	—	—	—	0.36	1.9	2.8	1.8	
	198	362	3	71.40 157.20	H2336	AH2336	KM40	0.37	1.8	2.7	1.8	



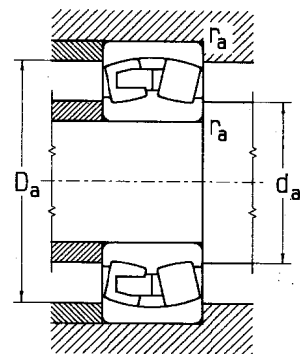
Double Row Spherical Roller Bearings

Sizes 190 mm – 220 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{0r}	Grease	Oil	
mm						kN lbf		min ⁻¹		
190	290	75	2.1	6	11.1	759	1,311	940	1,200	23038
	290	100	2.1	–	–	170,600	294,700	1,000	1,260	24038C
	320	104	3	7.5	13.9	1,020	2,060	890	1,100	23138
	340	92	4	9	16.7	229,300	463,100	940	1,200	22238
	340	120	4	9	16.7	1,126	1,838	840	1,000	23238
	340	120	4.0	–	–	253,100	413,200	1,000	1,260	23238C
	400	132	5	12	22.3	1,040	1,550	840	1,000	22338
	400	132	5.0	–	–	233,800	348,500	840	1,000	22338C
200	310	82	2.1	6	11.1	1,290	2,200	890	1,100	23040
	360	82	6.0	–	–	290,000	494,600	1,160	1,560	23040C
	310	109	2.1	–	–	830	1,530	940	1,200	24040C
	340	112	3	9	16.7	186,600	344,000	840	1,000	23140
	360	98	4	9	16.7	880	1,800	890	1,100	22240
	360	128	4	9	16.7	197,800	404,700	790	940	23240
	360	128	4.0	–	–	1,170	2,150	940	1,200	23240C
	420	138	5	12	22.3	263,000	483,300	790	940	22340
220	340	90	3	7.5	13.9	2,006	1,236	790	940	23044
	340	90	3.0	–	–	451,000	277,900	1,080	1,460	23044C
	340	118	3.0	–	–	1,164	1,756	840	1,060	24044C
	370	120	4	9	16.7	261,700	394,800	750	890	23144
	400	108	4	9	16.7	1,500	2,450	790	940	22244
	400	144	4	9	16.7	337,200	550,800	710	840	23244
	400	144	4	9	16.7	1,378	2,075	710	840	23244C
	400	144	4	9	16.7	309,800	466,500	710	840	23244C
	460	145	5	12	22.3	1,967	3,138	750	890	22344
						442,200	705,500			

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

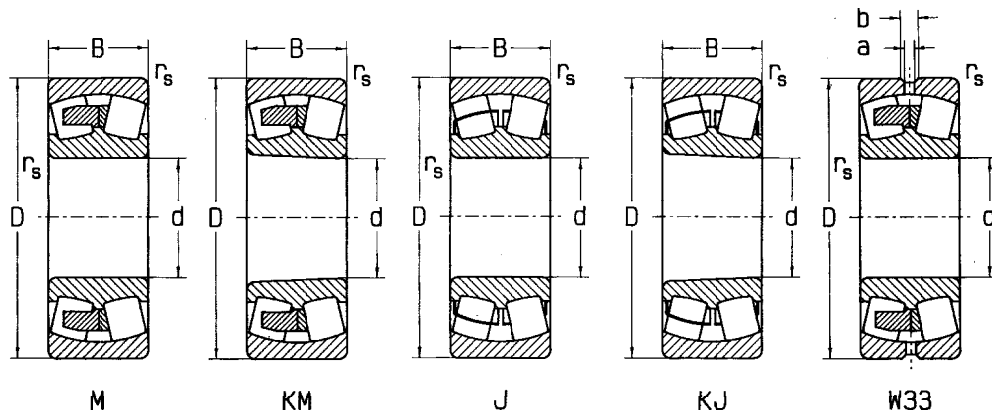


Abutment and Fillet Dimensions				Weight —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
190	202	278	2	18.80 41.40	H3038	AH3038	HML41T	0.25	2.7	4	2.6	
	212	269	2.0	28.1 62	—	—	—	0.32	2.1	3.1	2.0	
	204	306	2.5	35.50 78.20	H3138	AH3138	HM42T	0.33	2.1	3.1	2	
	208	322	3	37.40 82.40	H3138	AH2238	HM42T	0.29	2.3	3.5	2.3	
	208	322	3	48.50 106.80	H2338	AH3238	HM42T	0.36	1.9	2.8	1.8	
	208	322	3.0	48.5 107	—	—	—	0.36	1.9	2.8	1.8	
	212	378	4	84.10 185.20	H2338	AH2338	HM42T	0.37	1.9	2.8	1.8	
	212	378	4.0	84.1 185	—	—	—	0.37	1.9	2.8	1.8	
200	212	298	2	24.10 53.10	H3040	AH3040	HML43T	0.26	2.6	3.9	2.5	
	212	298	2.0	24.1 53	—	—	—	0.25	2.7	4.0	2.7	
	223	283	2.0	28.9 64	—	—	—	0.33	2.0	3.0	1.9	
	214	326	2.5	43.70 96.20	H3140	AH3140	HM44T	0.34	2	3	2	
	218	342	3	45 99.10	H3140	AH2240	HM44T	0.29	2.3	3.4	2.3	
	218	342	3	58.40 128.60	H2340	AH3240	HM44T	0.37	1.8	2.7	1.8	
	218	342	3.0	58.4 129	—	—	—	0.37	1.8	2.7	1.8	
	222	398	4	95.40 210.10	H2340	AH2340	HM44T	0.36	1.9	2.8	1.8	
220	234	326	2.5	31.50 69.40	H3044	AH3044	HML47T	0.26	2.6	3.9	2.6	
	234	326	2.5	31.0 68	—	—	—	0.25	2.7	4.0	2.7	
	248	313	2.5	37.1 82	—	—	—	0.32	2.0	3.0	2.0	
	238	352	3	54.80 120.70	H3144	AH3144	HM48T	0.33	2	3	2	
	238	382	3	63 138.70	H3144	AH2244	HM48T	0.29	2.4	3.5	2.3	
	238	382	3	82 180.60	H2344	AH2344	HM48T	0.37	1.8	2.7	1.8	
	238	382	3	82 180.6	H2344	AH2344	HM48T	0.37	1.9	2.6	1.7	
	242	438	4	128 281.90	H2344	AH2344	HM48T	0.35	1.9	2.9	1.9	



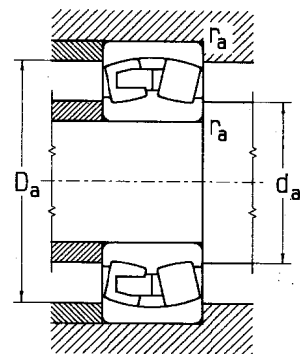
Double Row Spherical Roller Bearings

Sizes 240 mm – 280 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{or}	Grease	Oil	
mm						kN lbf		min ⁻¹		
240	360	92	3	7.5	13.9	1,073 214,200	1,959 440,400	750	890	23048
	360	92	3.0	–	–	1,080 242,800	2,320 521,600	1,000	1,400	23048C
	360	118	3.0	–	–	1,440 323,700	2,990 672,200	790	1,000	24048C
	400	128	4	9	16.7	1,685 378,800	2,864 643,900	710	840	23148
	440	120	4	12	22.3	1,663 373,900	2,559 575,300	750	890	22248
	440	160	4	12	22.3	2,302 517,500	3,710 834,000	630	750	23248
	500	155	5	12	22.3	2,438 548,100	3,689 829,300	670	790	22348
	260	400	104	4	9	16.7	1,350 303,500	2,410 541,800	670	790
400		104	4.0	–	–	1,460 328,200	2,700 607,000	900	1,180	23052C
400		140	4.0	–	–	1,850 415,900	3,730 838,500	710	890	24052C
440		144	4	9	16.7	2,095 471,000	3,630 816,100	630	750	23152
440		144	4.0	–	–	2,240 503,600	2,700 607,000	700	850	23152C
480		130	5	12	22.3	1,942 436,600	3,033 681,800	670	790	22252
480		174	5	12	22.3	2,707 608,600	4,428 995,500	600	710	23252
540		165	6	12	22.3	2,755 619,300	4,222 949,100	600	710	22352
280	380	75	2.1	6	11.1	930 209,100	1,760 395,700	670	790	23956
	420	106	4	9	16.7	1,439 323,500	2,694 605,600	630	750	23056
	460	146	5	9	16.7	2,179 489,900	3,904 877,700	600	710	23156
	500	130	5	12	22.3	2,012 452,300	3,204 720,300	630	750	22256
	500	176	5	12	22.3	2,844 639,400	4,767 1,071,700	560	670	23256
	580	175	6	12	22.3	3,138 705,500	4,886 1,098,400	560	670	22356
	580	175	6.0	–	–	3,300 741,900	5,600 1,258,900	560	670	22356C

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

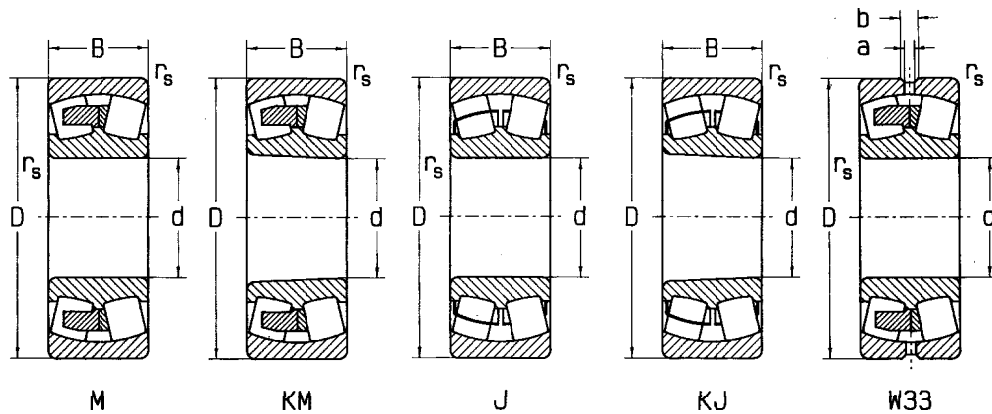


Abutment and Fillet Dimensions				Weight — —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
240	254	346	2.5	35.50 78.20	H3048	AH3048	HML52T	0.25	2.7	4.1	2.7	
	254	346	2.5	35.5 78	—	—	—	0.25	2.7	4.1	2.7	
	265	334	2.5	44.6 98	—	—	—	0.32	2.1	3.1	2.0	
	258	382	3	67.60 148.90	H3148	AH3148	HM52T	0.32	2.1	3.1	2	
	258	422	3	85 187.20	H3148	AH2248	HM52T	0.29	2.3	3.4	2.3	
	258	422	3	111 244	H2348	AH2348	HM52T	0.38	1.8	2.7	1.8	
	262	478	4	157 346	H2348	AH2348	HM52T	0.34	2	2.9	1.9	
260	278	382	3	50.70 111.60	H3052	AH3052	HML56T	0.25	2.7	3.9	2.6	
	278	382	3.0	50.7 112	—	—	—	0.25	2.7	3.9	2.6	
	290	368	3.0	66.7 147	—	—	—	0.34	1.9	2.9	1.9	
	278	422	3	93.60 206.10	H3152	AH3152	HM58T	0.33	2	3	2	
	278	422	3.0	93.6 206	—	—	—	0.33	2.0	3.0	2.0	
	282	458	4	110 242	H3152	AH2252	HM58T	0.29	2.3	3.5	2.3	
	282	458	4	144 317	H2352	AH2352	HM58T	0.38	1.8	2.7	1.8	
	288	512	5	196 432	H2352	AH2352	HM58T	0.34	2	2.9	1.9	
280	289	370	2	26.40 58.10	—	—	—	0.18	3.7	5.6	3.7	
	298	402	3	54.50 120	H3056	AH3056	HML60T	0.25	2.7	4.1	3.7	
	302	438	4	100 220	H3156	AH3156	HM62T	0.32	2.1	3.1	2.1	
	302	478	4	114 251	H3156	AH2256	HM62T	0.28	2.4	3.6	2.3	
	302	478	4	154 339	H2356	AH2356	HM62T	0.36	1.9	2.8	1.8	
	308	552	5	239 526	H2356	AH2356	HM62T	0.33	2	3	2	
	308	552	5.0	227.0 500	—	—	—	0.31	2.2	3.2	2.1	



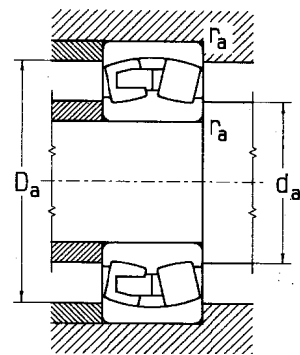
Double Row Spherical Roller Bearings

Sizes 300 mm – 400 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{or}	Grease	Oil	
mm						kN lbf		min ⁻¹		
300	460	118	4	9	16.7	1,784 401,100	3,239 728,200	560	670	23060
	500	160	5	9	16.7	2,561 575,700	4,488 1,008,900	530	630	23160
	540	140	5	12	22.3	2,352 528,800	3,809 856,300	560	670	22260
	540	192	5	12	22.3	3,348 752,700	5,569 1,252,000	500	600	23260
320	480	121	4	9	16.7	1,890 424,900	3,514 790,000	530	630	23064
	540	176	5	12	22.3	3,019 678,700	5,386 1,210,800	500	600	23164
	580	150	5	12	22.3	2,698 606,500	4,426 995,000	530	630	22264
	580	208	5	12	22.3	3,876 871,400	6,523 1,466,400	450	530	23264
340	520	133	5	12	22.3	2,269 510,100	4,207 945,800	500	600	23068
	520	180	5.0	–	–	2,870 645,200	5,960 1,339,900	500	630	24068C
	580	190	5	12	22.3	3,448 775,100	6,098 1,370,900	450	530	23168
	620	224	6	12	22.3	4,429 995,700	7,558 1,699,100	420	500	23268
360	540	134	5	12	22.3	2,362 531,000	4,457 1,002,000	450	530	23072
	600	192	5	12	22.3	3,625 814,900	6,554 1,473,400	420	500	23172
380	560	135	5	12	22.3	2,413 542,500	4,702 1,057,100	420	500	23076
	620	194	5	12	22.3	3,734 839,400	6,974 1,567,800	400	470	23176
400	600	148	5	12	22.3	2,863 643,600	5,494 1,235,100	400	470	23080
	650	200	6	12	22.3	4,041 908,500	7,579 1,703,800	380	450	23180
	720	256	6	12	22.3	5,801 1,304,100	10,120 2,275,100	350	420	23280
	820	243	6.0	–	–	6,300 1,416,300	11,600 2,607,800	320	400	22380C

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

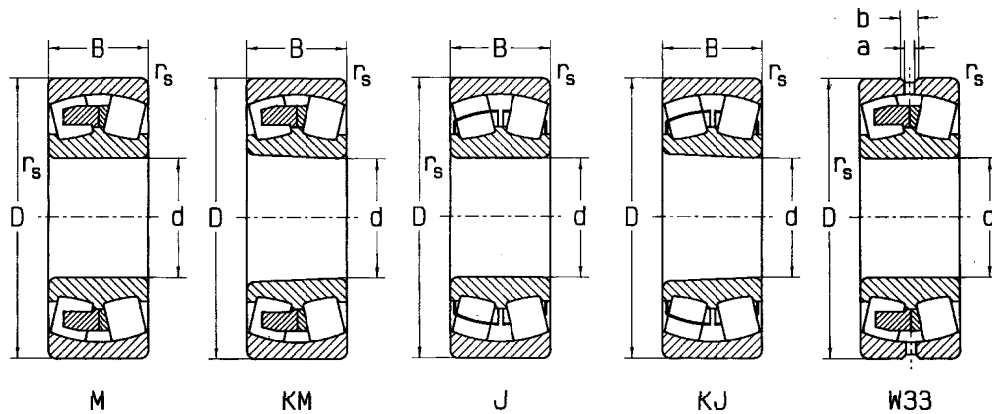


Abutment and Fillet Dimensions				Weight — —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors					
d	d_a min	D_a max	r_a max					e	Y_1	Y_2	Y_0		
mm				kg lbs									
300	318	442	3	75.80 166.90	H3060	AH3060	HML64T	0.25	2.7	4	2.6		
	322	478	4	132 291	H3160	AH3160	HM66T	0.32	2.1	3.1	2		
	322	518	4	145 319	H3160	AH2260	HM66T	0.27	2.5	3.7	2.4		
	322	518	4	198 436	H3260	AH3260	HM66T	0.37	1.8	2.7	1.8		
320	338	462	3	81.20 178.80	H3064	AH3064	HML69T	0.25	2.7	4.1	2.7		
	342	518	4	171 377	H3164	AH3164	HM70T	0.33	2	3	2		
	342	558	4	177 390	H3164	AH2264	HM70T	0.27	2.5	3.7	2.4		
	342	558	4	249 548	H3264	AH3264	HM70T	0.37	1.8	2.7	1.8		
340	362	498	4	109 240	H3068	AH3068	HML73T	0.25	2.7	4	2.6		
	380	480	4.0	137.0 302	—	—	—	0.33	2.0	3.0	1.9		
	362	558	4	216 476	H3168	AH3168	HM74T	0.33	2	3	2		
	368	592	5	310 683	—	—	—	0.37	1.8	2.7	1.8		
360	382	518	4	115 253	H3072	AH3072	HML77T	0.24	2.8	4.1	2.7		
	382	578	4	228 502	H3172	AH3172	HM80T	0.32	2.1	3.1	2		
380	402	538	4	122 269	H3076	AH3076	HML82T	0.24	2.9	4.3	2.8		
	402	598	2	240 528	H3176	AH3176	HM84T	0.31	2.2	3.2	2.1		
400	422	578	4	155 341	H3080	AH3080	HML86T	0.24	2.8	4.2	2.7		
	428	622	5	273 601	H3180	AH3180	HM88T	0.31	2.2	3.3	2.1		
	428	692	5	464 1,022	—	—	—	0.37	1.8	2.7	1.8		
	436	788	5.0	629.0 1,387	—	—	—	0.31	2.2	3.3	2.2		



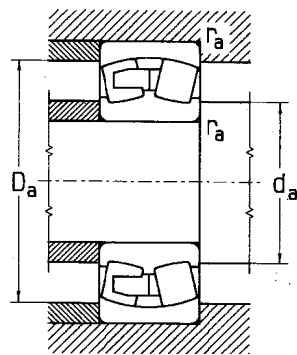
Double Row Spherical Roller Bearings

Sizes 420 mm – 630 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{or}	Grease	Oil	
mm						kN lbf		min ⁻¹		
420	620	150	5	12	22.3	2,949 663,000	5,853 1,315,800	380	450	23084
	700	224	6	12	22.3	4,940 1,110,600	9,180 2,063,700	350	420	23184
	700	224	6.0	–	–	5,025 1,129,700	10,800 2,427,900	350	420	23184C
440	650	157	6	12	22.3	3,210 721,600	6,411 1,441,300	350	420	23088
	720	226	6	12	22.3	4,480 1,007,100	9,348 2,101,500	330	400	23188
	790	280	7.5	12	22.3	6,815 1,532,100	12,030 2,704,500	320	380	23288
460	680	163	6	12	22.3	3,483 783,000	6,997 1,573,000	330	400	23092
	760	240	7.5	12	22.3	5,717 1,285,200	10,950 2,461,700	320	380	23192
480	650	128	5.0	–	–	2,900 651,900	6,430 1,445,500	500	630	23996C
	700	165	6	12	22.3	3,632 816,500	7,422 1,668,500	320	380	23096
	790	248	7.5	12	22.3	6,118 1,375,400	11,771 2,646,200	300	350	23196
500	670	128	5.0	–	–	2,930 658,700	6,680 1,501,700	470	600	239/500C
	720	167	6	12	22.3	3,754 843,900	7,779 1,748,800	300	350	230/500
	830	264	7.5	12	22.3	6,741 1,515,400	12,893 2,898,500	280	330	231/500
530	710	136	5	12	22.3	2,600 584,500	6,200 1,393,800	300	350	239/530
	780	185	6	12	22.3	4,436 997,300	9,236 2,076,300	280	330	230/530
560	820	195	6	12	22.3	5,000 1,124,000	10,473 2,354,400	280	330	230/560
	820	195	6.0	–	–	5,050 1,135,300	12,000 2,697,700	280	330	230/560C
600	870	200	6.0	–	–	5,500 1,236,500	12,900 2,900,000	260	300	230/600C
630	920	212	7.5	12	22.3	6,273 1,410,200	13,361 3,003,700	240	300	230/630
	1,030	315	7.5	12	22.3	9,300 2,090,700	19,600 4,406,300	220	280	231/630

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

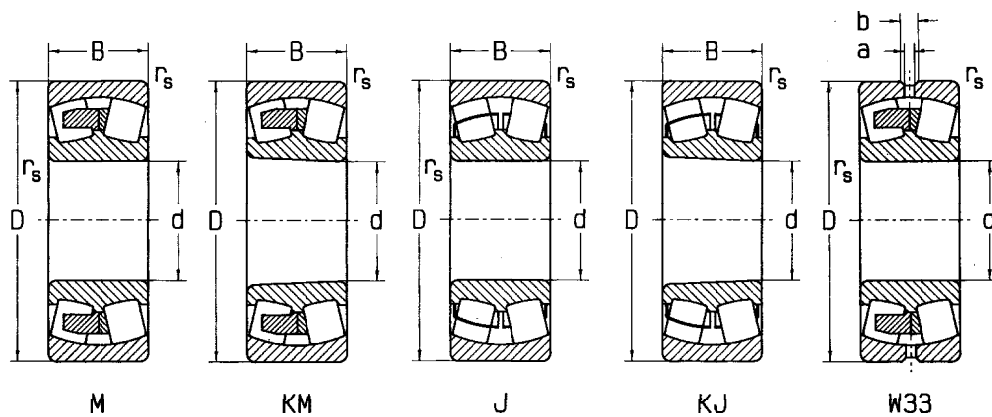


Abutment and Fillet Dimensions				Weight — —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
420	442	598	4	164	H3084	AH3084	HML90T	0.24	2.9	4.3	2.8	
	448	672	5	361	H3184	AH3184	HM92T	0.32	2.1	3.1	2	
	445	672	5.0	795 361.0 796	—	—	—	0.32	2.1	3.1	2.1	
440	468	622	5	188	H3088	AH3088X	HML94T	0.24	2.9	4.3	2.8	
	468	692	5	414 378	H3188	AH3188X	HM96T	0.31	2.1	3.1	2	
	476	754	6	832 610 1,343	—	—	—	0.37	1.8	2.7	1.8	
460	488	652	5	216	H3092	AH3092X	HML98T	0.23	2.9	4.3	2.8	
	496	724	6	476 447 984	H3192	AH3192X	HM102T	0.32	2.1	3.2	2.1	
480	521	627	4.0	130.0	—	—	—	0.17	3.9	5.8	3.8	
	508	672	5	287 230	H3096	AH3096X	HML104T	0.23	2.9	4.4	2.9	
	516	754	6	506 503 1,108	H3196	AH3196	HM106T	0.31	2.2	3.2	2.1	
500	578	676	4.0	133.0	—	—	—	0.16	4.0	6.0	3.9	
	528	692	5	293 235	H30/500	AH30/500X	HML108T	0.23	3	4.5	2.9	
	536	794	6	517 595 1,310	H31/500	AH31/500X	HM110T	0.32	2.1	3.2	2.1	
530	552	688	4	154	—	—	—	0.17	4	5.9	3.9	
	558	752	5	339 303 667	—	—	—	0.23	3	4.4	2.9	
560	588	792	5	383	—	—	—	0.23	3	4.4	2.8	
	588	792	5.0	843 383.0 844	—	—	—	0.22	3.1	4.6	3.0	
600	630	838	5.0	402.0 886	—	—	—	0.21	3.2	4.8	3.2	
630	666	884	6	495	—	—	—	0.22	3	4.5	2.9	
	666	994	6	1,090 1,050 2,312	—	—	—	0.30	2.2	3.3	2.2	



Double Row Spherical Roller Bearings

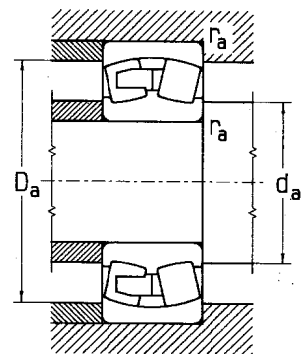
Sizes 670 mm – 850 mm



Dimensions						Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r _s min	a	b	Dynamic C _r	Static C _{or}	Grease	Oil	
mm						kN lbf		min ⁻¹		
670	980	230	7.5	12	22.3	6,910 <i>1,553,400</i>	14,952 <i>3,361,300</i>	220	280	230/670
750	1,000	185	6	12	22.3	5,000 <i>1,124,000</i>	12,500 <i>2,810,100</i>	200	260	239/750
800	1,150	258	7.5	12	22.3	8,617 <i>1,937,200</i>	19,648 <i>4,417,046</i>	180	220	230/800
	1,280	375	9.5	12	22.3	13,400 <i>3,012,400</i>	29,500 <i>6,631,900</i>	160	200	231/800
850	1,220	272	7.5	12	22.3	9,608 <i>2,160,000</i>	22,080 <i>4,963,800</i>	160	200	230/850

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

ZVL:ZKL



Abutment and Fillet Dimensions				Weight —	Corresponding Adapter Sleeve	Corresponding Withdrawal Sleeve	Corresponding Withdrawal Nut	Factors				
d	d _a min	D _a max	r _a max					e	Y ₁	Y ₂	Y ₀	
mm				kg lbs								
670	706	944	6	618 1,361	—	—	—	0.23	3	4.4	2.9	
750	778	972	5	424 934	—	—	—	0.16	4.1	6.1	4	
800	836	1,114	6	939 2,068	—	—	—	0.22	3.1	4.6	3	
	840	1,240	7.5	1,950 4,294	—	—	—	0.29	2.3	3.5	2.3	
850	886	1,184	6	1,110 2,444	—	—	—	0.22	3.1	4.6	3	

H