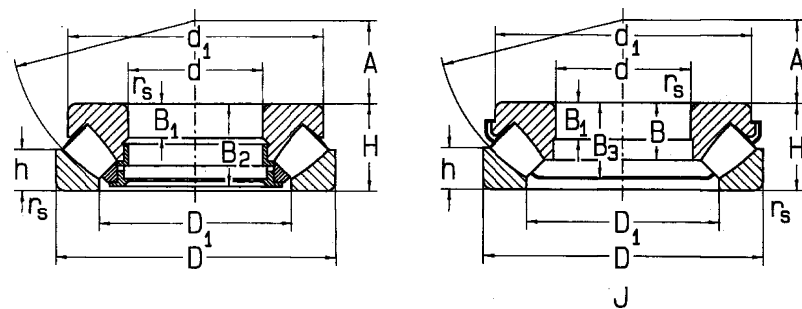


Spherical Roller Thrust Bearings

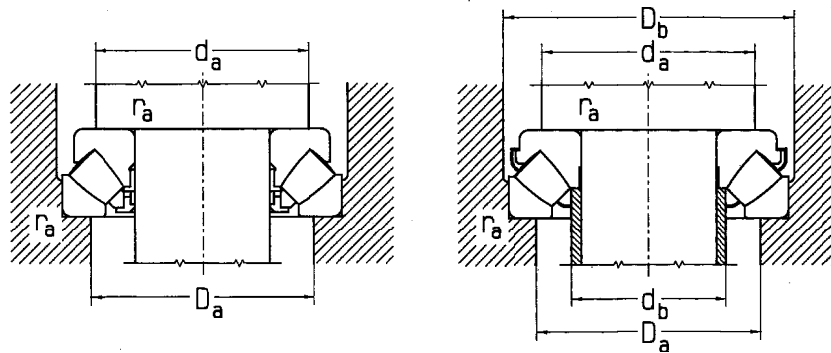
Sizes 60 mm – 160 mm



Dimensions												Basic Load Capacity		Bearing Designation
d	D	H	d ₁	D ₁	B	B ₁	B ₂	B ₃	h	r _s min	A	Dynamic C _a	Static C _{0a}	
mm												kN		
												<i>lbf</i>		
60	130	42	118	88	28	15	39.5	35.5	20	1.5	38	287	809	29412
												<i>64,500</i>	<i>181,800</i>	
65	140	45	128	96.5	30	16	42.5	38	21	2	42	340	973	29413
												<i>76,300</i>	<i>218,800</i>	
70	150	48	137	102	32	17	45.5	42	23	2	44	371	1,071	29414
												<i>83,500</i>	<i>240,700</i>	
75	160	51	146	109	34.5	18	48	44.5	24	2	47	429	1,254	29415
												<i>96,500</i>	<i>282,000</i>	
80	170	54	155	116	36	19	51	46.5	24	2.1	50	464	1,367	29416
												<i>104,400</i>	<i>307,300</i>	
	170	54	155	116	36	19	51	46.5	24	2.1	50	570	1,430	29416E
												<i>128,100</i>	<i>321,500</i>	
85	180	58	164	125	38	21	55	49	28	2.1	54	527	1,570	29417
												<i>118,500</i>	<i>352,900</i>	
90	190	60	174	130	40	22	57	52.5	29	2.1	56	578	1,784	29418
												<i>129,900</i>	<i>401,000</i>	
100	210	67	193	144.5	44.3	24	64	57.5	32	3	62	705	2,172	29420
												<i>158,500</i>	<i>488,400</i>	
110	190	48	176	143	31	16	45.5	42	23	2	64	442	1,415	29322
												<i>99,300</i>	<i>318,100</i>	
	190	48	176	143	31	16	45.5	42	23	2	64	570	1,760	29322E
												<i>128,100</i>	<i>395,700</i>	
	230	73	212	160	47.6	26	69	62	35	3	69	817	2,601	29422
												<i>183,600</i>	<i>584,800</i>	
120	210	54	194	157.5	35	18	51	57.5	26	2.1	70	560	1,831	29324
												<i>125,900</i>	<i>411,600</i>	
	250	78	229	172	51.5	29	74	67	37	4	74	934	2,996	29424
												<i>210,000</i>	<i>673,500</i>	
130	225	58	205	170	37	19	55	50.5	28	2.1	76	628	2,071	29326
												<i>141,100</i>	<i>645,700</i>	
	270	85	247	188	55.5	31	81	72	41	4	81	1,086	3,538	29426
												<i>244,100</i>	<i>795,300</i>	
140	240	60	219	183	38.5	20	57	52	29	2.1	82	675	2,311	29328
												<i>151,700</i>	<i>519,600</i>	
	280	85	257	197.5	55.5	31	81	73	41	4	86	1,130	3,751	29428
												<i>254,000</i>	<i>283,200</i>	
150	250	60	229	193	38.5	20	57	53.5	29	2.1	87	697	2,425	29330
												<i>156,600</i>	<i>545,100</i>	
	300	90	276	211.5	59	33	86	77	44	4	92	1,276	4,270	29430
												<i>286,800</i>	<i>960,000</i>	
160	270	67	248	207	43	23	64	57	32	3	92	807	2,812	29332
												<i>181,400</i>	<i>632,200</i>	
	320	95	306	226	-	34	91	-	45	5	99	1,461	4,806	29432
												<i>328,600</i>	<i>1,080,400</i>	

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

ZVLZKL

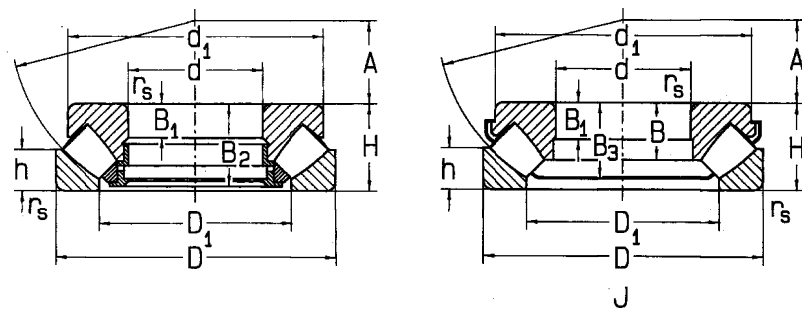


Limiting Speed for Lubricating by Oil min ⁻¹	Abutment and Fillet Dimensions						Weight ~ kg lbs	Minimum Axial Load Factor M
	d	d _a min	d _b max	D _a max	D _b min	r _a max		
	mm							
2,500	60	90	67	109	140	1.5	2.60 5.73	0.080
2,300	65	100	74	118	150	2	3.30 7.27	0.10
2,100	70	105	79	126	160	2	4.0 8.81	0.40
2,100	75	115	84	134	170	2	4.90 10.79	0.18
1,950	80	120	88	141	180	2	5.80 12.77	0.25
1,950	80	120	88	141	180	2	5.80 12.77	0.25
1,800	85	130	97	153	190	2	6.90 15.19	0.30
1,750	90	135	102	161	200	2	8.10 17.84	0.37
1,550	100	150	113	178	220	2.5	11.80 26.0	0.60
1,700	110	145	117	165	200	2	5.50 12.11	0.25
1,700		145	117	165	200	2	5.50 12.11	0.25
1,400		165	126	196	240	2.5	14.50 31.9	0.80
1,500	120	160	129	184	220	2	7.60 16.74	0.36
1,300		180	136	212	260	3	18.10 39.90	1.10
1,400	130	170	140	198	235	2	9.30 20.48	0.52
1,200		195	148	229	280	3	22.50 49.50	1.60
1,350	140	185	151	211	250	2	11.0 24.20	0.68
1,200		205	158	239	290	3	24.20 53.20	2.0
1,300	150	195	161	222	260	2	11.50 25.30	0.90
1,100		220	196	257	310	3	29.40 67.40	2.50
1,150	160	210	172	239	280	2.5	15.20 33.50	1.10
1,000		230	-	274	-	4	35.5 78.10	3.0

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Spherical Roller Thrust Bearings

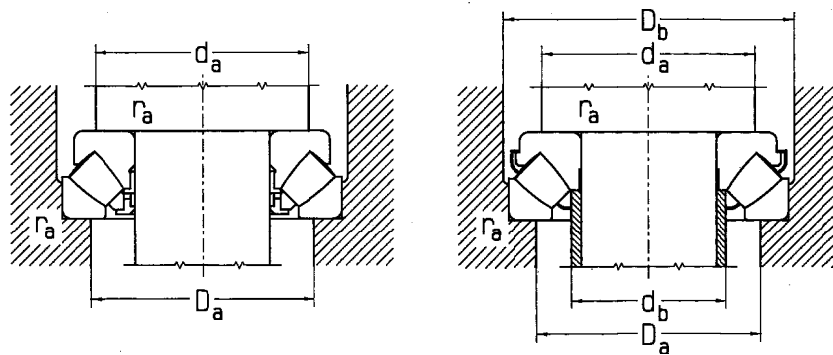
Sizes 170 mm – 300 mm



Dimensions											Basic Load Capacity		Bearing Designation	
d	D	H	d ₁	D ₁	B	B ₁	B ₂	B ₃	h	r _s min	A	Dynamic C _a		Static C _{0a}
mm											kN lbf			
170	280	67	258	215	43.5	23	64	57	32	3	96	833	2,948	29334
	340	103	324	240	-	37	99	-	50	5	104	187,300	662,700	29434
180	300	73	277	231	46.5	25	69	63.5	35	3	103	984	3,525	29336
	360	109	342	255	-	39	105	-	52	5	110	221,200	792,400	29436
190	320	78	308	246	-	27	74	-	38	4	110	1,115	4,013	29338
	380	115	360	270	-	41	111	-	55	5	117	250,700	902,100	29438
200	340	85	325	261	-	29	81	-	41	4	116	1,299	4,740	29340
	400	122	380	284	-	43	117	-	59	5	122	292,100	1,065,700	29440
220	360	85	345	280	-	29	81	-	41	4	125	1,340	4,969	29344
	420	122	400	305	-	43	117	-	58	6	132	301,200	1,117,200	29444
240	340	60	330	283	-	19	57	-	30	2.1	130	770	3,454	29248
	380	85	365	300	-	29	81	-	41	4	135	173,200	776,400	29348
260	340	60	330	283	-	19	57	-	30	2.1	130	1,341	5,185	29448
	440	122	420	321	-	43	117	-	59	6	142	301,500	1,165,700	29448
260	360	60	350	302	-	19	57	-	30	2.1	139	2,340	8,416	29252
	420	95	405	325	-	32	91	-	45	5	148	526,000	1,891,900	29352
280	360	60	350	302	-	19	57	-	30	2.1	139	2,730	9,871	29452
	480	132	460	346	-	48	127	-	64	6	154	613,600	2,219,200	29452
280	380	60	370	323	-	19	57	-	30	2.1	150	801	3,654	29256
	440	95	423	345	-	32	91	-	46	5	158	180,100	821,500	29356
300	380	60	370	323	-	19	57	-	30	2.1	150	1,778	7,103	29456
	520	145	495	380	-	52	140	-	68	6	166	399,700	1,596,900	29456
300	420	73	405	355	-	21	69	-	38	3	162	3,227	11,844	29260
	480	109	460	375	-	37	105	-	50	5	168	725,400	2,262,700	29360
300	420	73	405	355	-	21	69	-	38	3	162	1,025	4,665	29460
	540	145	515	398	-	52	140	-	70	6	175	230,500	1,048,800	29460

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

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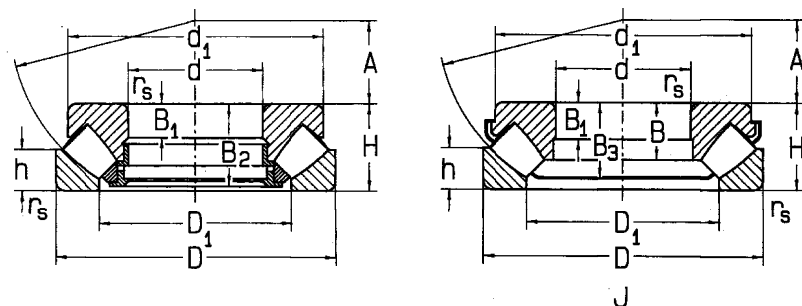


Limiting Speed for Lubricating by Oil min ⁻¹	Abutment and Fillet Dimensions						Weight ~ kg lbs	Minimum Axial Load Factor M
	d	d _a min	d _b max	D _a max	D _b min	r _a max		
	mm							
1,150	170	220	181	248	290	2.5	16.0	1.40
950		245	-	291	-	4	35.20 43.7 96.2	3.80
1,050	180	235	193	266	310	2.5	20.30	1.60
900		260	-	307	-	4	44.70 52.0 114.5	4.70
1,000	190	250	-	283	-	3	24.88	2.0
850		275	-	325	-	4	54.60 60.0 132.10	5.70
900	200	265	-	300	-	3	30.80	2.40
800		290	-	343	-	4	67.80 69.0 151.90	6.80
900	220	285	-	320	-	3	32.80	3.10
750		310	-	364	-	5	72.20 74.0 162.9	8.0
900	240	285	-	311	-	2	16.70	1.30
800		300	-	340	-	3	36.80 35.30	4.40
750		330	-	380	-	5	77.70 79.0 174.0	10.0
900	260	305	-	331	-	2	18.50	1.50
800		330	-	374	-	3	40.70 48.48	5.70
670		360	-	419	-	5	106.80 105.0 231.0	13.0
900	280	325	-	351	-	2	19.5	1.70
750		350	-	394	-	4	42.90 52.50	7.0
630		390	-	453	-	5	115.60 132.0 291.0	18.0
850	300	355	-	386	-	2.5	30.50	2.6
700		380	-	429	-	4	67.20 74.0	8.50
600		410	-	471	-	5	162.0 140.0 308.0	20.0

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Spherical Roller Thrust Bearings

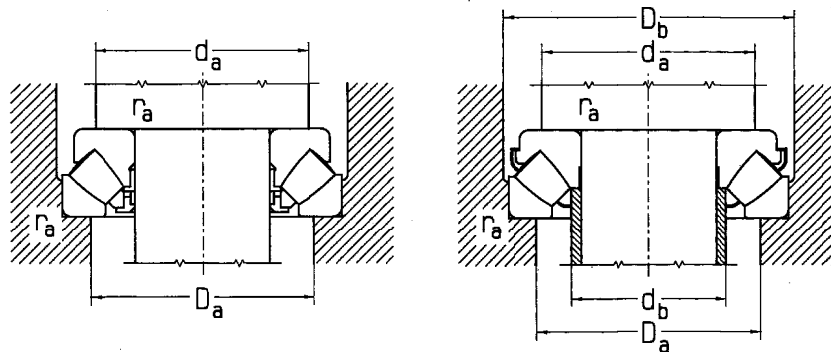
Sizes 320 mm – 800 mm



Dimensions												Basic Load Capacity		Bearing Designation
d	D	H	d ₁	D ₁	B	B ₁	B ₂	B ₃	h	r _s min	A	Dynamic C _a	Static C _{0a}	
mm												kN		
												lbf		
320	440	73	430	375	-	21	69	-	38	3	172	1,065	4,925	29264
	500	109	482	395	-	37	105	-	53	5	180	239,400	1,107,200	29364
	580	155	555	430	-	55	149	-	75	7.5	191	2,183	8,854	29464
												490,800	1,990,400	
												3,889	14,694	
												874,200	3,303,400	
340	540	122	520	424	-	41	117	-	59	5	192	2,644	10,554	29368
	620	170	590	452	-	61	164	-	82	7.5	201	594,400	2,372,600	29468
												4,346	16,413	
												976,900	3,689,700	
360	500	85	485	420	-	25	81	-	44	4	194	1,402	6,596	29272
	560	122	540	444	-	41	117	-	59	5	202	315,100	1,482,800	29372
												2,654	11,031	
												596,600	2,479,800	
380	520	85	505	440	-	27	81	-	42	4	202	1,545	7,511	29276
	670	175	640	510	-	63	168	-	85	7.5	222	347,400	1,688,400	29476
	670	175	640	510	-	63	168	-	85	7.5	222	4,600	18,300	29476E
												1,034,100	1,441,000	
												4,700	19,100	
												1,056,600	4,293,900	
400	540	85	526	460	-	27	81	-	42	4	212	1,602	7,899	29280
	620	132	596	494	-	44	127	-	64	6	225	360,100	1,775,800	29380
												2,573	11,055	
												578,400	2,485,300	
420	650	140	626	520	-	48	135	-	68	6	235	3,142	13,146	29384
	730	185	700	546	-	67	178	-	89	7.5	244	706,400	2,955,400	29484
												5,649	22,400	
												1,270,000	5,035,800	
440	680	145	655	546	-	49	140	-	70	6	245	3,072	13,368	29388
	780	206	745	576	-	74	199	-	100	9.5	260	690,600	3,005,100	29488
												6,278	24,649	
												1,411,400	5,541,300	
480	650	103	635	556	-	33	99	-	55.5	5	259	2,240	11,600	29296
												503,600	2,607,800	
500	670	103	654	574	-	33	99	-	55	5	268	2,404	12,124	292/500
	750	150	725	611	-	51	144	-	74	6	280	540,300	2,725,700	293/500
												4,216	18,655	
												947,700	4,193,700	
530	800	160	772	648	-	54	154	-	76	7.5	295	5,130	22,730	293/530
												1,153,300	5,109,900	
600	900	180	850	731	-	64.5	171	-	87	7.5	335	6,800	31,500	293/600E
												1,528,700	7,081,500	
630	850	132	820	724	-	42	127	-	67	6	338	4,250	22,500	292/630E
												955,400	5,058,200	
800	1,360	335	1,300	1,040	-	120	324	-	162	15	462	16,340	72,364	294/800
												3,673,300	16,268,000	

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

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Limiting Speed for Lubricating by Oil	Abutment and Fillet Dimensions						Weight	Minimum Axial Load Factor
	d	d _a min	d _b max	D _a max	D _b min	r _a max		
min ⁻¹	mm						kg lbs	
800	320	375	-	406	-	2.5	32.90 72.40	2.80
670		400	-	449	-	4	77.0 169.6	10.0
560		435	-	507	-	6	175.0 385.0	28.0
600	340	430	-	484	-	4	103.0 227.0	14.0
500		465	-	451	-	6	218.0 480.0	34.0
700	360	420	-	461	-	3	51.80 114.10	4.90
600		450	-	504	-	4	107.0 236.0	15.0
650	380	380	-	440	-	3	52.80 116.30	6.20
480		510	-	587	-	6	254.0 559.0	44.0
480		510	-	587	-	6	254.0 559.0	44.0
700	400	460	-	500	-	3	55.30 121.80	7.0
530		498	-	557	-	5	150.0 330.0	24.0
500	420	523	-	585	-	5	170.0 340.0	26.0
430		560	-	643	-	6	323.0 711.0	64.0
480	440	548	-	614	-	5	190.0 418.0	34.0
400		592	-	684	-	8	407.0 896.0	83.0
500	480	558	-	603	-	4	98.0 215.8	15.0
560	500	578	-	622	-	4	101.0 222.0	16.0
430		613	-	680	-	5	220.0 484.0	46.0
400	530	651	-	724	-	6	286.0 630.0	64.0
350	600	735	-	815	-	6	390.0 859.0	120.0
350	630	730	-	789	-	5	211.0 465.0	44.0
220	800	1,055	-	1,200	-	12	2,010.0 4,426.0	740.0

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