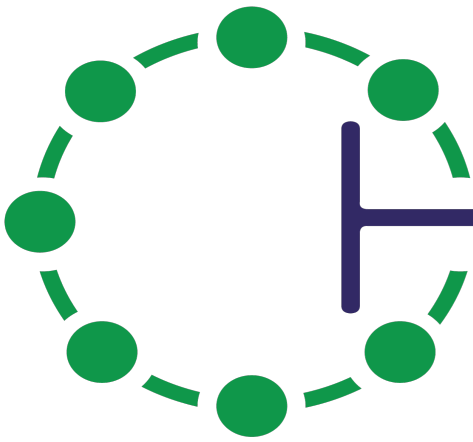




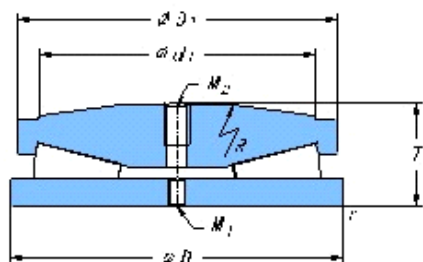
Screw-Down Bearings



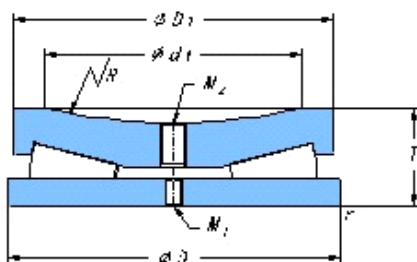
HTB
BEARINGS

Screw-down bearings (taper roller thrust bearing) are used at the ends of the adjusting screws of rolling mills. Such thrust roller bearings are designed with full roller complement for maximum load capacity. The face profile of the shaft washer of the TTSX type is convex, while that of the TTSV type is concave. Holes or threads in the inner or outer ring are used for lifting as shown in the figures.

Screw-Down Bearings



TTSX



TTSV

Screw-Down Bearings

Dimensions (mm)								Basic Load Ratings(kN)	Bearing No.	Mass(kg)
D	D1	d1	T	R	M2	M1	r	C0a		≈
							min			
150	148	127	48	228.6	M12		1.5	1630	TTSV 150	5
150	148	127	55	457.2	M12		1.5	1630	TTSX 150	7
175	173	152	53	228.6	M12		1.5	2180	TTSV 175	8
175	173	152	62	457	M12		1.5	2180	TTSX 175	11
203	201	178	65	254	M12		1.5	2540	TTSV 203	11
205	203	178	76	508	M20		1.5	2540	TTSX 205	18
235	233	208	73	280	M20		1.5	3370	TTSV 235	18
235	233	208	85	560	M20		1.5	3370	TTSX 235	26
265	263	229	81	304.8	M20		1.5	4130	TTSV 265	24
265	263	229	95	609.6	M20		1.5	4130	TTSX 265	37
320	318	280	95	380	M24		1.5	7370	TTSV 320	42

320	318	280	112	762	M20		2.5	7370	TTSX 320	62
377	375	330	112	457.2	M24		2.5	8230	TTSV 377	86
380	378	330	112	457.2	M24	M30	2.5	8220	TTSV 380	67
380	378	330	129	914.4	M24	M30	1.5	8550	TTSX 380	101
410	408	355	122	508	M24	M30	3	11300	TTSV 410	115
410	408	355	142	1016	M24	M30	3	11300	TTSX 410	130
440	438	380	130	508	M24	M36	3	18500	TTSV 440	140
440	438	380	152	1016	M24	M36	3	18500	TTSX 440	160
495	492	432	146	558.8	M24	M36	3	19100	TTSV 495	198
495	492	432	172	1066.8	M24	M36	3	19100	TTSX 495	210
525	522	460	155	635	M24	M36	3	20380	TTSV 525	210
525	522	460	180	1270	M24	M36	3	20380	TTSX 525	250
555	552	482	165	635	M24	M36	3	21380	TTSV 555	275
555	552	482	192	1270	M24	M36	3	21380	TTSX 555	280
580	577	510	165	710	M24	M42	3	23540	TTSV 580	250

Screw Down Bearings

580	577	510	195	1422.4	M24	M36	3	21540	TTSX 580	310
610	607	533	178	762	M30	M42	3	24170	TTSV 610	350
610	607	533	205	1520	M30	M42	3	24170	TTSX 610	410
640	637	550	185	762	M30	M42	3	28670	TTSV 640	410
640	637	550	214.8	1740	M30	M42	3	28670	TTSX 640	450
710	705	610	250	1600	M30	M42	4	31540	TTSX 710	850
750	745	650	260	1600	M30	M48	4	38430	TTSX 750	750
800	795	700	270	1700	M30	M48	5	40150	TTSX 800	930



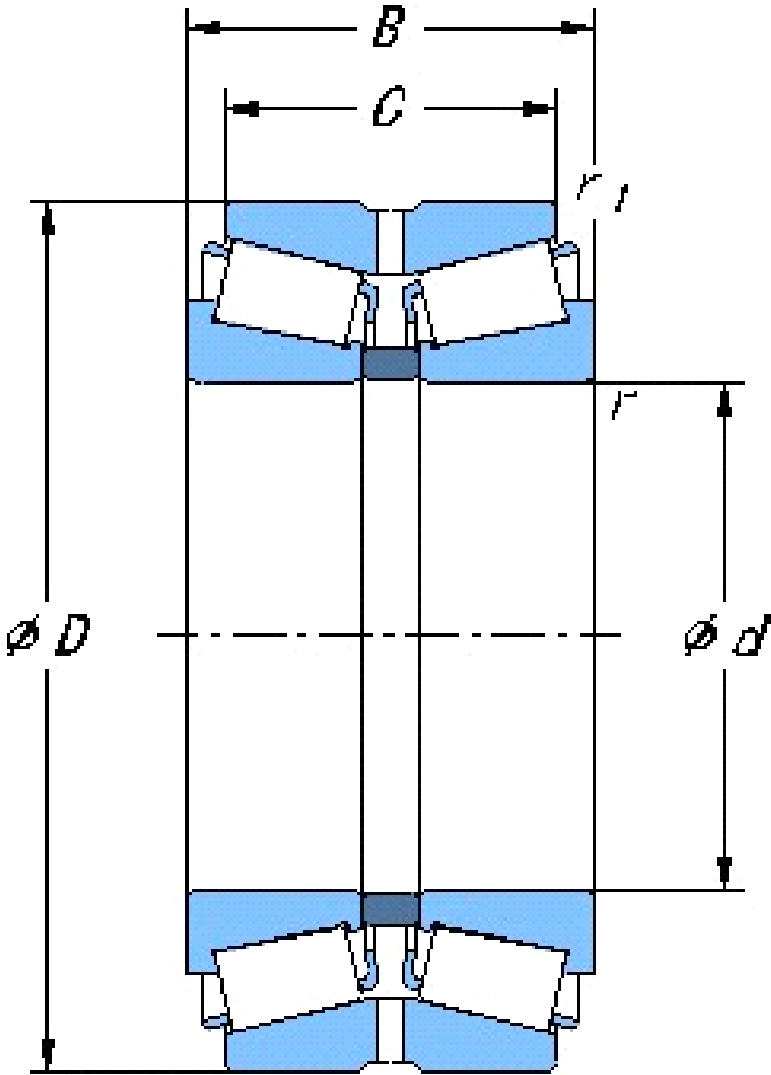
**Double-Row
Tapered
Roller(TDO
Type)
Bearings**



TDO type of this bearing is composed of a double cup, two cones and a cone spacer. The bearing internal clearance has already been set by using the cone spacer, so parts must be combined according to the serial number and matching symbol. The double cup has an oil slot and oil holes.

The bearing can carry both radial and axial loads, so it can be used as a fixed-end bearing. It is also used frequently on the free end to relieve the shaft elongation or contraction between the cup and housing

Double-Row Tapered Roller Bearings (TDO) Type



Double-Row Tapered Roller Bearings (TDO) Type

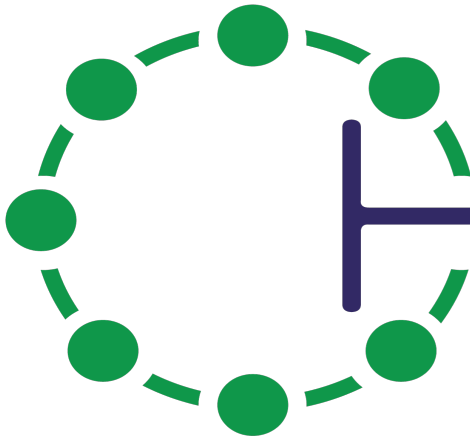
d	D	B	C	r	r1	Cr	C0r		≈
				min	min				
200	310	152	120	3	1	912	2140	352040 X2	39
200	340	184	150	3	1	1450	2970	352140	63.8
200	360	218	174	5	1.1	2140	3950	352240	90.7
220	300	110	88	3	1	660	1710	352944 X2	21.7
220	340	165	130	4	1	1240	2680	352044 X2	49
220	370	195	150	4	1.1	1540	3240	352144	76.3
240	320	110	90	3	1	660	1580	352948 X2	22.2
240	360	165	130	4	1	1240	2820	352048 X2	52.8
240	400	210	163	4	1.1	1870	4050	352148	98.1
260	360	134	108	3	1	942	2490	352952 X2-1	37
260	400	186	146	5	1.1	1570	3600	352052 X2	79.3
260	440	225	180	4	1.1	2210	4720	352152	124
280	380	134	108	3	1	1080	2810	352956 X2	41.3
280	420	186	146	5	1.1	1700	3880	352056 X2	81.5
300	420	160	128	4	1	1360	3610	352960 X2-1	60.8
300	460	210	165	5	1.1	1830	4390	352060 X3	117
300	500	205	165	5	1.5	2110	4460	351160	143
320	440	160	128	4	1	1410	3830	352964 X2	67
320	480	210	160	5	1.1	1830	4390	352064 X2	122
340	460	160	128	4	1	1450	4050	352968 X2	71
340	520	180	135	5	1.5	1870	4070	351068	128
340	580	242	170	5	1.5	2870	5970	351168	235
360	480	160	128	4	1	1490	4270	352972 X2	74.3
360	540	185	140	5	1.5	2120	4910	351072	132
360	600	242	170	5	1.5	2950	6270	351172	235
380	520	145	105	4	1.1	1210	3250	351976	80.3
380	560	190	140	5	1.5	2150	5090	351076	146
380	620	242	170	5	1.5	3310	7430	351176	264
400	540	150	105	4	1.1	1210	3110	351980	86.9
400	600	206	150	5	1.5	2620	6380	351080	180
420	560	145	105	4	1.1	1450	3740	351984	88.8
420	620	206	150	5	1.5	2650	6600	351084	196

Double-Row Tapered Roller Bearings (TDO) Type

420	700	275	200	6	2.5	4270	8810	351184	392
440	600	170	125	4	1.1	1890	4860	351988	114
440	650	212	152	6	2.5	2750	7020	351088	213
460	620	174	130	4	1.1	1910	4990	351992	128
460	680	230	175	6	2.5	3320	8160	351092	253
480	650	180	130	5	1.5	1950	5270	351996	133
480	700	240	180	6	2.5	3330	8190	351096	281
480	790	310	224	7.5	3	5000	11990	351196	561
500	670	180	130	5	1.5	2150	6120	3519/500	129
500	720	236	180	6	2.5	3390	8450	3510/500	289
530	710	190	136	5	1.5	2390	6800	3519/530	192
560	750	213	156	5	1.5	2550	7060	3519/560	235
560	820	260	185	6	2.5	4340	10800	3510/560	410
600	800	205	156	5	1.5	3210	9460	3519/600	265
600	870	270	198	6	2.5	4880	12730	3510/600	500
630	850	242	182	6	2.5	3730	10390	3519/630	368
670	1090	410	295	7.5	3	9680	23200	3511/670	1370
710	950	240	175	6	2.5	4070	12400	3519/710	444
710	1030	315	220	7.5	3	6560	17930	3510/710	810
750	1000	264	194	6	2.5	5020	14480	3519/750	499
800	1060	270	204	6	2.5	5020	15000	3519/800	604
850	1120	268	188	6	2.5	5460	16860	3519/850	636
900	1180	275	205	6	2.5	5000	16200	3519/900	730
950	1250	300	220	7.5	3	6790	21100	3519/950	910



Four-Row Cylindrical Roller Bearings

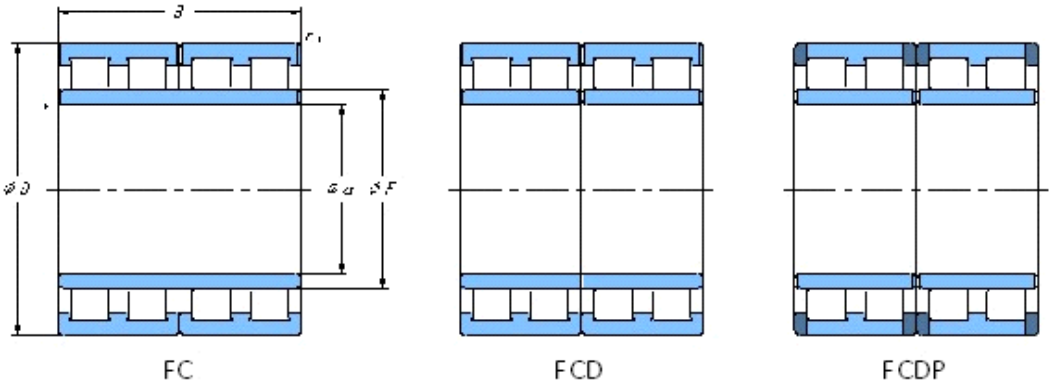


HTB
BEARINGS

HTB four-row cylindrical roller bearings are mainly used for heavy machineries, such as mounted on the backup roll of blooming mill, section mill, plate mill, etc. ZYS four-row cylindrical roller bearings are mainly used on the roll necks of hot or cold rolling mills used for forming blooms, plates, and other stock. There are many variations of the bearings: the inner and outer rings can have ribs or not, the inner ring can be in one or two pieces, the bore can be cylindrical or tapered, and other variations.

All four-row cylindrical roller bearings only support radial loads, therefore, they must be used in combination with thrust bearings such as angular contact ball bearings or tapered roller bearings.

Four-Row Cylindrical Roller Bearings



Four-Row Cylindrical Roller Bearings

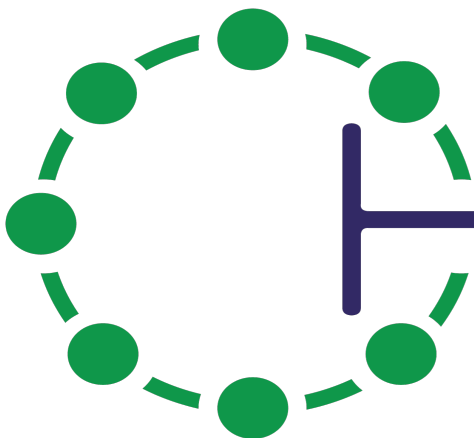
Dimensions (mm)						Basic Load Ratings (kN)		Bearing No.	Mass (kg)	Mass(kg)
d	D	B	F	r	r1	Cr	C0r			≈
				min	min					
200	290	192	226	2.5	2.5	1430	3450	FC 4058192		42.5
210	290	192	236	2.5	2.5	1365	3565	FC 4258192		39.5
220	310	192	246	2.5	2.5	1500	3760	FC 4462192		46.9
220	310	225	245	2.5	2.5	1695	4410	FCD 4462225		54.9
220	320	160	245	3	3	1385	3165	FC 4464160		46.5
220	320	210	248	2.5	2.5	1710	4155	FCD 4464210		60.5
230	330	206	260	2.5	2.5	1720	4245	FCD 4666206		58.3
240	330	220	270	3	3	1735	4665	FCD 4866220		56.8
240	340	220	268	3	3	1850	4710	FCD 4868220		63.6
240	360	220	272	2.5	2.5	2060	4800	FCD 4872220		79.6
250	350	220	278	3	3	1885	4885	FCD 5070220		66
260	360	260	287	2.5	2.1	2185	5985	FCD 5272260		81.5
260	370	220	292	3	3	2030	5110	FCD 5274220		77.1
260	380	280	294	3	3	2580	6560	FCD 5276280		109
260	400	290	296	4	2	2910	6915	FCD 5280290		135
280	350	208	298	2.5	2.5	1540	4995	FCD 5670208		46.4
280	390	220	312	3	3	2105	5465	FCD 5678220		81.3
280	390	275	312	2.5	2.5	2505	6830	FCD 5678275		105
280	420	280	323	4	4	2930	7130	FCD 5684280		139
300	400	300	328	3	3	2620	7875	FCD 6080300		104
300	420	240	332	3	3	2455	6400	FCD 6084240		105
300	420	300	332	3	3	2920	7995	FCD 6084300		130
300	430	240	338	3	3	2570	6445	FCD 6086240		115
300	460	270	344	3	3	3190	7420	FCD 6092270		162
320	450	240	358	3	3	2655	6835	FCD 6490240		125
320	460	340	360	3	3	3635	9750	FCD 6492340		178
330	440	200	360	3	3	2115	5775	FC 6688200		83.6

Four-Row Cylindrical Roller Bearings

330	460	340	365	4	4	3530	9955	FCD 6692340	181
340	480	350	378	4	4	3830	10605	FCD 6896350	211
360	480	290	388	3	3	3100	9135	FCD 7296290	148
360	510	370	400	4	4	4280	11880	FCD 72102370	244
360	510	400	397	5	5	4545	12845	FCD 72102400	262
370	480	230	400	5	5	2490	7380	FCD 7496230	106
370	480	250	401	3	3	2660	8025	FCD 7496250	118
370	520	380	409	5	5	4430	12510	FCD 74104380	256
370	520	400	409	5	5	4610	13170	FCD 74104400	273
380	520	280	417	4	4	3395	9385	FCD 76104280	174
380	520	290	418	4	4	3490	9720	FCD 76104290	185
380	520	300	416	4	4	3580	10055	FCD 76104300	210
380	540	400	422	4	4	4850	13570	FCD 76108400	325
400	560	400	446	5	5	4970	14215	FCD 80112400	303
400	560	410	445	4	4	5070	14575	FCD 80112410	349
400	590	420	450	4	4	5715	15185	FCD 80118420	399
420	560	280	457	4	4	3560	10290	FCDP 84112280	189
420	580	230	466	4	4	3310	8545	FCDP 84116230	181
420	600	440	470	6	2.5	5875	16530	FCDP 84120440	423
420	620	400	478	5	5	5810	15190	FCDP 84124400	410
440	620	450	487	5	5	6115	17630	FCDP 88124450	450
460	620	400	502	4	4	5315	16155	FCDP 92124400	383
460	620	460	502	4	4	5925	18575	FCDP 92124460	417
460	650	470	509	5	5	6675	19270	FCDP 92130470	540
470	660	470	517	5	5	6745	19650	FCDP 94132470	529
480	600	236	510	3	3	3035	9715	FCDP 96120236	155
480	650	420	523	5	5	5840	17725	FCDP 96130420	423
480	680	420	528	6	6	7200	19000	FCDP 96136420	500
480	680	500	532	6	6	7365	21410	FCDP 96136500	640
500	690	470	547	5	5	6945	20785	FCDP 100138470	590
500	690	510	552	5	5	7400	22555	FCDP 100138510	640
500	700	515	554	5	5	7690	22880	FCDP 100140515	680
500	710	480	558	6	6	7490	21425	FCDP 100142480	675
500	720	530	568	5	5	8320	23765	FCDP 100144530	780
510	670	320	554	5	5	4695	14210	FCDP 102134320	335



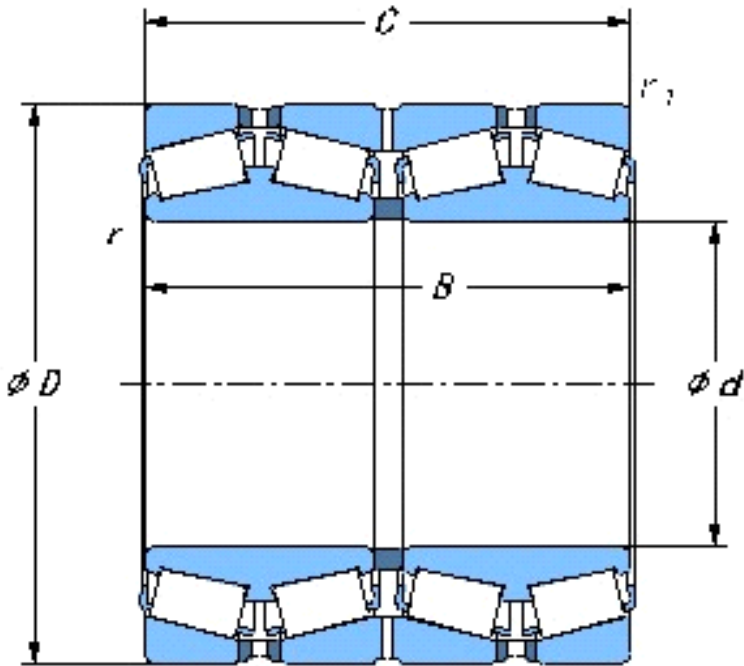
Four-Row Tapered Roller Bearings



HTB
BEARINGS

HTB four-row taper roller bearings is fitted on the roll neck loosely for easy mounting and removal. Meanwhile, the roll neck must be lubricated to prevent scoring between the roll neck and bore surface caused by creep. Oil slots on one side of each cone and both sides of the cone spacer are designed to prevent wear and seizure of the side surfaces of the cone and cone spacer . An oil groove and some holes are provided on the double cup and cup spacers.

Four-Row Tapered Roller Bearings



Four-Row Tapered Roller Bearings

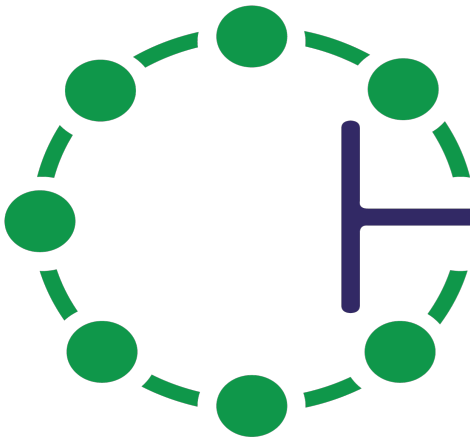
Dimensions(mm)					Basic Load Ratings(kN)		Bearing No.	Mass(kg) ≈
d	D	B	r	r1	Cr	C0r		
			min	min				
140	210	185	2.5	2	1095	2740	382028	24.1
150	210	165	2.5	2	945	2560	382930	21.2
170	260	230	3	2.5	1655	4160	382034	39.5
200	310	275	3	2.5	2320	5880	382040	75.1
220	340	305	4	3	2770	7165	382044	98
240	360	310	4	3	2925	7870	382048	91
260	360	265	3	2.5	2415	7100	382952	76.3
260	400	345	5	4	3620	9565	382052	153
280	460	324	5	4	4150	9900	381156	200
300	420	300	4	3	3175	9305	382960	130
300	460	390	5	4	4615	12465	382060	219
300	500	370	5	4	5065	12175	381160	285
320	480	390	5	4	4760	13195	382064	234
340	460	310	4	3	3455	10780	382968	145
340	520	325	5	4	4565	11760	381068	234
340	580	425	5	4	6670	15980	381168	441

Four-Row Tapered Roller Bearings

360	540	325	5	4	4690	12370	381072	248
380	560	325	5	4	4810	12985	381076	281
380	620	420	5	4	6980	17370	381176	487
400	600	356	5	4	5635	15060	381080	317
420	620	356	5	4	5770	15725	381084	358
420	700	480	6	5	8895	22110	381184	760
440	650	376	6	5	6335	17405	381088	401
460	620	310	4	3	4740	14570	381992	173
460	680	410	6	5	7115	19845	381092	476
480	650	338	5	4	5365	16600	381996	301
480	700	420	6	5	7400	21120	381096	547
500	720	420	6	5	7550	21910	3810/500	565
530	780	450	6	5	8835	25060	3810/530	744
530	870	590	7.5	6	13115	34105	3811/530	1422
560	750	368	5	4	6595	21015	3819/560	456
560	920	620	7.5	6	14475	37880	3811/560	1635
600	800	380	5	4	7205	23215	3819/600	536
600	870	480	5	5	10325	30115	3810/600	995
600	980	650	7.5	6	16035	42465	3811/600	1970
630	850	418	6	5	8405	26915	3819/630	720
630	920	515	7.5	6	11645	34005	3810/630	1158
630	1030	670	7.5	6	17325	45975	3811/630	2202
670	900	412	6	5	8790	28175	3819/670	959
670	1090	710	7.5	6	19215	51720	3811/670	2665
710	1030	555	7.5	6	13860	41215	3810/710	1568
710	1150	750	9.5	9.5	21195	57810	3811/710	3227
750	1090	605	7.5	6	15775	47485	3810/750	1874
750	1220	840	9.5	9.5	24715	68495	3811/750	3994
950	1360	880	7.5	6	26435	87060	3820/950	4087
1060	1500	1000	9.5	9.5	32090	109975	3820/1060	5896



**Double-Row
Tapered
Roller(TDI
Type)
Bearings**

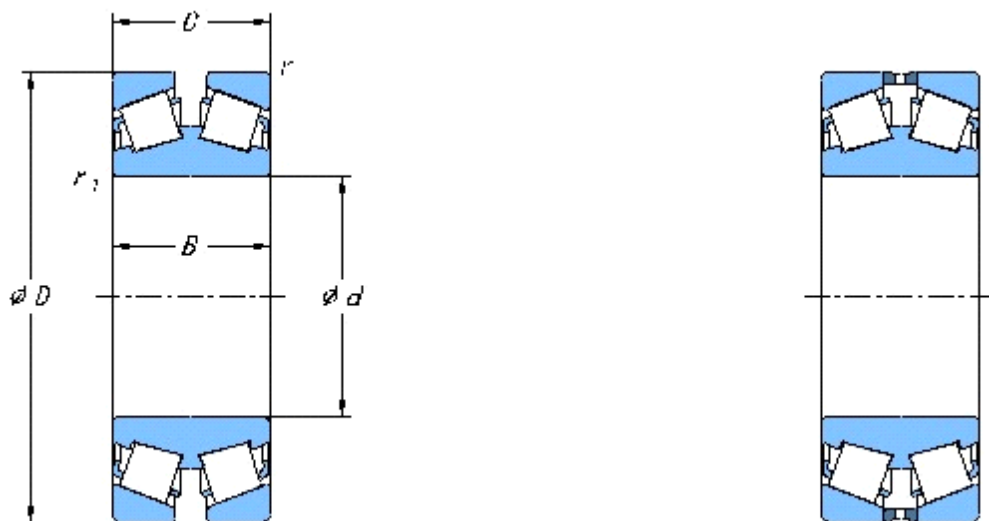


HTB
BEARINGS

HTB double row taper roller bearing is recommended to use when the axial load is larger than the radial load or only axial load exists.

In certain cases, a spring is provided between the housing shoulder and cup end face for preloading instead of using a cup spacer.

Double-Row Tapered Roller Bearings (TDI) Type



Double-Row Tapered Roller Bearings (TDI) Type

Dimensions(mm)						Basic Load Ratings(kN)		Bearing No.	Mass(kg)
d	D	B	C	r	r1	Cr	C0r		≈
				min	min				
200	360	170	170	1.5	4	1540	3195	KDH 2003601	73
200	380	180	180	1.5	4	1740	3475	KDH 2003801	90
210	355	130	127	5	3	1295	2670	KDH 2103551	54
210	440	175	244	5	6	2550	5010	KDH 2104401	151
210	480	230	230	6	6	3005	5460	KDH 2104801	215
220	360	120	120	3	3	1150	2435	KDH 2203601	46
240	460	140	140	5	5	1810	3340	KDH 2404601	98
260	389.5	105	105	1.5	3	1070	2430	KDH 2603891	43
260	458.5	155	155	5	5	1895	3855	KDH 2604581	110
260	500	180	180	5	5	2410	4660	KDH 2605001	162
290	450	180	180	2.5	4	2065	4990	KDH 2904501	103
300	440	105	105	4	4	1195	2780	KDH 3004401	52
300	500	200	200	5	5	2545	5750	KDH 3005001	161
300	520	180	180	4	4	2460	5200	KDH 3005201	151
320	560	280	280	5	5	3900	8960	KDH 3205601	308
320	620	264	296	5	5	4395	9300	KDH 3206201	400
330	458.5	120	120	4	3	1225	3200	KDH 3304581	60
330	650	248	248	6	7.5	3640	7320	KDH 3306501	372
340	590	192	192	5	5	3045	6460	KDH 3405901	225

Double-Row Tapered Roller Bearings (TDI) Type

350	590	192	192	5	5	3005	6565	KDH 3505901	217
350	618	200	200	6	6	3185	6700	KDH 3506181	255
360	550	148	148	5	5	2140	4980	KDH 3605501	132
370	630	240	240	6	5	3745	8485	KDH 3706301	315
380	559.5	160	160	5	5	2255	5610	KDH 3805591	136
380	650	240	240	3	6	3575	8070	KDH 3806501	340
381	695	250	280	3	6	4755	10365	KDH 3816951	455
400	650	240	192	5	4	2925	6640	KDH 4006501	245
400	650	200	200	6	6	3020	6915	KDH 4006502	245
400	780	280	300	7.5	7.5	5120	10680	KDH 4007801	625
440	650	155	155	6	6	2475	6035	KDH 4406501	180
450	820	300	300	7.5	7.5	5610	12315	KDH 4508201	685
450	830	288	320	7.5	7.5	6005	13210	KDH 4508301	745
460	618	150	150	4	4	1930	5495	KDH 4606181	125
470	720	216	216	5	4	3680	9120	KDH 4707201	320
480	689.5	180	180	6	6	2890	7555	KDH 4806891	220
500	720	185	218	6	6	3685	9965	KDH 5007201	262
500	820	256	256	7.5	7.5	5385	12605	KDH 5008201	545
510	800	285	285	7.5	7.5	5200	13190	KDH 5108001	515
540	860	256	256	7.5	7.5	5460	13175	KDH 5408601	574
560	820	242	242	4	6	4640	12415	KDH 5608201	430
600	1000	350	350	7.5	7.5	8035	19575	KDH 60010001	1120
900	1220	340	340	2.5	6	8405	26770	KDH 90012201	1120
1200	1500	230	230	7.5	7.5	6210	21355	KDH 120015001	995