

THD SERIES BEARING HOUSINGS

The THD Series Housing is non-split single-piece bearing housing which is known as take-up housing. They are widely used for take-up pulleys for conveyor belt tensioning applications. They are designed to accommodate heavy loads acting in different directions. THD Series are quite sturdy and highly reliable bearing housings.

THD Housing is a special design for take-up application, supported by matching guides on the frame to maintain tension in a conveyor belt. The tension on a conveyor belt is maintained by sliding the THD Housing assembly in the guiding rail from time to time. THD Housings are also used in roller belt equipment, crushers, fans and blowers, Agricultural equipment, etc.

TECHNICAL DETAIL AND PRODUCT FEATURE

- THD Housing provides a high degree of stiffness and can accommodate heavy radial loads in all directions as well as some axial loads. The design allows radial forces from belt tension to be transmitted through the housing and mounting frame center line.
- They are designed as narrow widths so that they can be used where space is limited.
- THD Housings are provided two covers on their sides which are machined to provide suitable grooves for located bearing and non-located bearing. No separate locating ring is used. Hence, it is necessary to specify such requirements while ordering a THD Housing.



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TECHNICAL DETAIL AND PRODUCT FEATURE

- The take-up unit has machined guides on its top and bottom sides, which can be assembled in a fixed channel frame to provide smooth sliding in the guide rail for tensioning the conveyor belt.
- At one end suitable form arms are extended to facilitate the use of anchor pins for the fitment of a screw for tightening the conveyor belt.
- THD Housings are supplied with a specially designed labyrinth seal. The labyrinth rings are locked on the shaft with tapered adapter rings, which hold the labyrinth seal securely on the shaft.
- THD Housings are suitable for grease lubrication. The housings have ducts to supply grease directly to seal and additionally, a grease nipple can also be provided for relubrication. During initial assembly, normally the free space in the bearing and the free space in housing should be filled with grease a max 80% of its inside volume to ensure sufficient lubrication.
- For the THD Series Double/ Triple groove type Labyrinth seal is available:
 - a. Labyrinth Seal : TS

b. Taconite seal : (in special cases, with some modification, heavy-duty taconite seal can be provided)

- Four-dimensional Series are available in THD Housings:

THD 2200 - suitable for bearing SERIES 222...K with adapter sleeve.

THD 3000 - suitable for bearing SERIES 230...K with adapter sleeve.

THD 3100 - suitable for bearing SERIES 231 ...K with adapter sleeve.

THD 3200 - suitable for bearing SERIES 232...K with adapter sleeve.

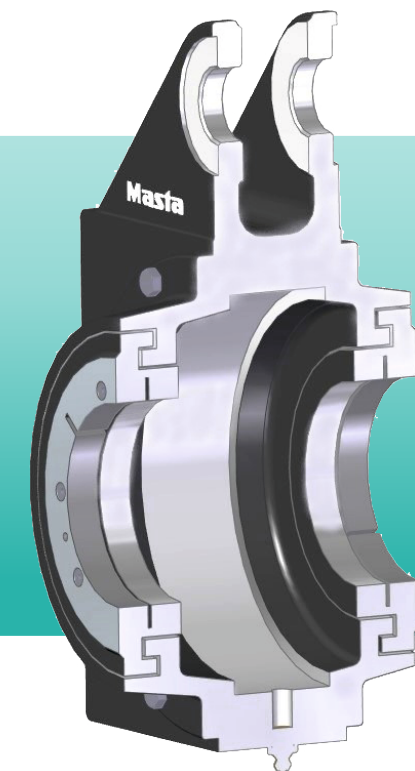
- Material for THD Series:

The following options are available, which allow a user to select his suitability depending upon the loading condition for bearing housing.

- a. Graded Cast Iron :
Gr FG 260 (IS 210) THDC
- b. Cast Steel :
Gr 230-450 (IS 1030) THDS
- c. SG (Ductile) Iron :
Gr 400/15 (IS 1865) THDD



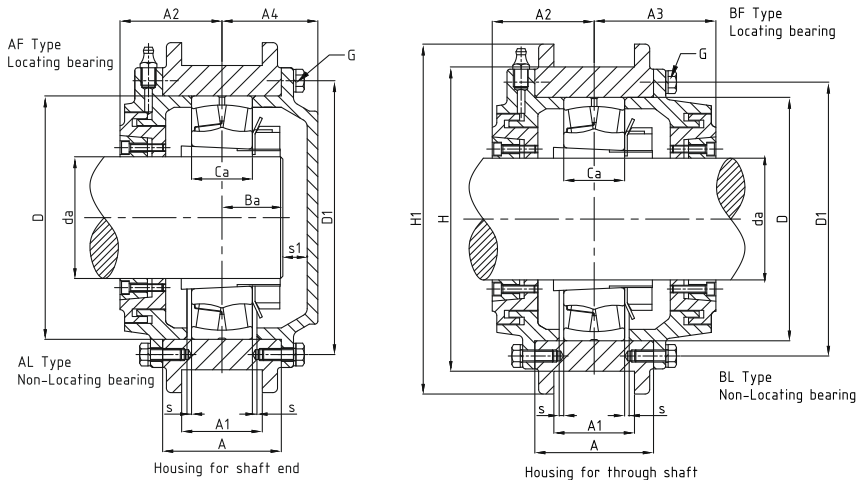
Isometric View



Section View

THD TAKE-UP HOUSINGS

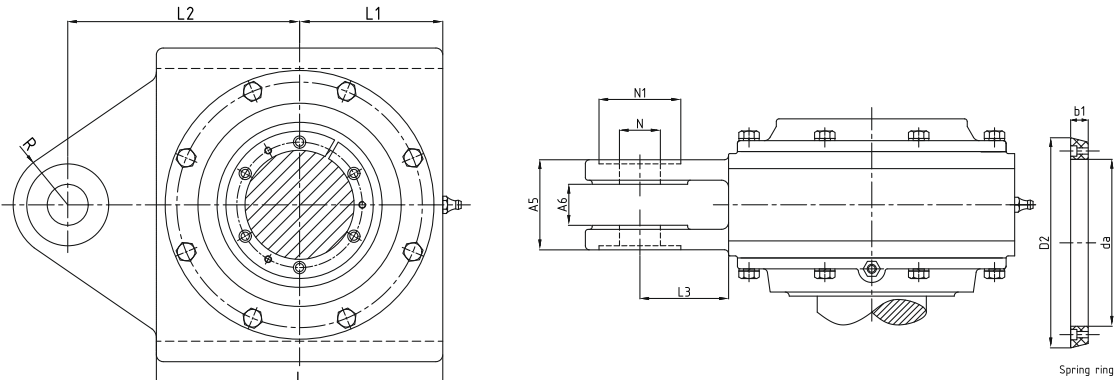
for spherical roller bearings with
adapter sleeve on plain cylindrical shafts



Shaft Diameter da mm	Housing Dimension																							Designation
	A mm	A1	A2	A3	A4	A5	A6	Ba	D1	H	H1	L	L1	L2	L3	N	N1	R	s1	G	Ca	D	s	
50	60	34	49	55	38	42	22	27	115	150	135	150	75	105	30	20	40	30	5	M 8	25	100	1.5	THDS 2211
55	66	43	50	60	41	50	26	30	125	165	150	165	82.5	120	37.5	25	50	35	5	M 8	28	110	1.5	THDS 2212
60	78	53	50	63	53	66	30	35	135	180	155	160	80	145	65	30	60	40	11	M 8	31	120	1.5	THDS 2213
70	78	53	62	70	49	66	30	36	155	200	175	180	90	155	65	30	60	40	6	M 8	33	140	2	THDS 2216
80	78	53	67	83	63	66	30	40	180	230	200	210	105	170	65	30	60	40	16	M 8	40	160	3	THDS 2218
90	69	40	76	92	70	70	36	45	195	250	220	235	117.5	185	67.5	35	70	40	18	M 8	46	180	2	THDS 2220
100	78	53	85	97	75	76	40	50	215	270	240	255	125	200	70	40	75	45	18	M 8	53	200	3	THDS 2222
	90	53	91	103	76	100	44	60	230	300	270	270	135	195	60	50	95	60	9	M 12	69.8	200	2	THDS 3222
110	78	53	84	99	72	76	40	55	230	290	260	275	135	210	70	40	75	45	10	M 8	58	215	3	THDS 2224
	95	53	93	108	78	100	44	64	245	310	280	290	145	205	60	50	95	60	7	M 12	76	215	2	HDS 3224
115	100	63	103	108	79	112	52	66	260	335	305	300	155	220	75	60	110	70	5	M 12	80	230	2	THDS 3226
125	83	53	80	102	90	74	40	62	275	330	300	315	155	230	70	40	70	45	20	M 12	68	250	3	THDS 2228
	110	63	108	118	88	112	52	72	290	360	330	330	170	235	75	60	90	70	8	M 16	88	250	3	THDS 3228
135	85	45	77.5	98.5	74.5	150	60	56	245	320	290	280	140	235	90	50	95	70	10	M 10	56	225	3	THDS 3030
	120	73	113	123	93	126	62	78	305	385	355	360	180	260	80	70	120	80	7	M 16	96	270	3	THDS 3230
140	116	74	101	126	101	132	62	75	310	370	340	370	185	350	160	61	110	90	18	M 12	68	270	3	THDS 3132
	130	83	118	133	98	126	62	84	330	400	370	380	190	270	80	70	120	80	6	M 16	104	290	3	THDS 3232
150	102	63	88	113	93	112	52	66	295	360	330	325	165	255	90	45	100	70	20	M 10	67	260	2	THDS 3034
	120	63	113	136	100	122	62	78	330	380	350	375	190	395	160	60	160	80	17	M 12	88	280	3	THDS 3134
160	120	60	115.5	135.5	113.5	130	64	82	350	440	410	400	200	360	85	80	140	100	23.5	M 16	96	300	3	THDS 3136
	140	93	133	148	108	140	72	90	360	450	410	420	210	300	90	80	140	90	10	M 16	112	320	3	THDS 3236
170	112	73	101	126	96	165	90	72	315	390	360	380	195	350	130	45	120	70	16	M 12	75	290	3	THDS 3038
	140	93	128	148	108	140	72	88	365	450	410	420	210	300	90	80	140	90	12	M 16	104	320	3	THDS 3138
180	125	83	107	133	108	125	62	78	340	430	400	390	200	275	85	70	120	80	22	M 12	82	310	3	THDS 3040
	138	90	115	148.5	120	128	62	95	380	440	420	440	220	300	80	60	110	80	15	M 16	112	340	3	THDS 3140
	165	103	138	158	118	140	72	100	405	500	460	470	235	325	90	80	140	90	10	M 16	128	360	4	THDS 3240

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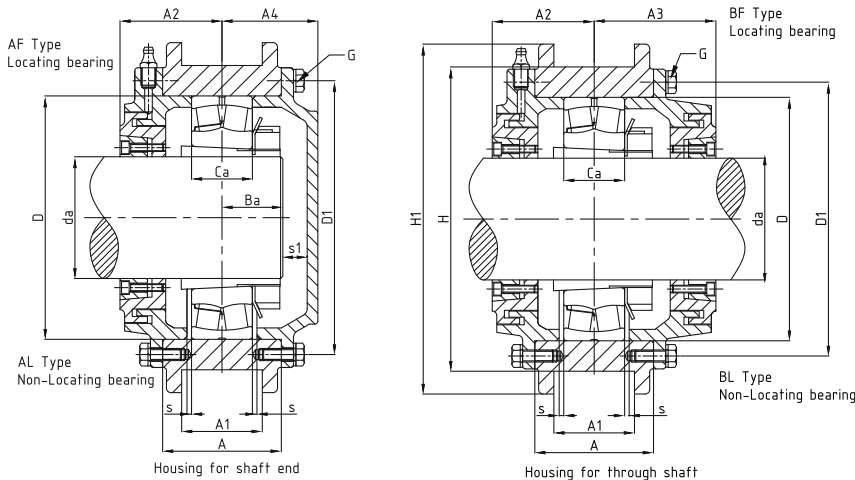
for spherical roller bearings with
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Shaft Diameter da mm	Appropriate Bearing	Adapter Sleeve	Masses		Adapter Ring Designation	Dimensions		Grease Quantity Initial Fill	
			Housing Type A Kg	Housing Type B Kg		d2 mm	B1	Type A Kg	Type B Kg
50	22211 EK	H 311	10	10	PSBD 50	68	15	0.07	-
55	22212 EK	H 312	12	12	PSBD 55	73	15	0.08	-
60	22213 CCK	H 313	16	16	PSBD 60	82	15	0.1	-
70	22216 EK	H 316	22	23	PSBD 70	98	18	0.2	0.18
80	22218 EK	H 318	29	30	PSBD 80	108	18	0.25	-
90	22220 EK	H 320	35	37	PSBD 90	118	18	0.4	0.35
100	22222 EK	H 322	40	45	PSBD 100	128	18	0.55	0.5
	23222 CCK/W33	H 2322	70	74	PSBD 100	128	18	0.55	0.5
110	22224 EK	H 3124	45	48	PSBD 110	138	18	0.6	0.55
	23224 CCK/W33	H 2324	75	80	PSBD 110	138	18	0.75	0.7
115	23226 CCK/W33	H 2326	80	85	PSBD 115	143	18	0.85	0.8
125	22228 CCK/W33	H 3128	56	61	PSBD 125	153	18	0.85	0.75
	23228 CCK/W33	H 2328	95	101	PSBD 125	153	18	1.05	1
135	23030 CCK/W33	H 3030	45	52	PSBD 135	170	20	0.6	0.55
	23230 CCK/W33	H 2330	118	126	PSBD 135	170	20	1.3	1.25
140	23132 CCK/W33	H 3132	136	146	PSBD 140	175	20	1.2	1.1
	23232 CCK/W33	H 2332	140	150	PSBD 140	175	20	1.55	1.5
150	23034 CCK/W33	H 3034	76	83	PSBD 150	185	20	0.9	0.75
	23134 CCK/W33	H 3134	150	184	PSBD 150	185	20	1.35	1.25
160	23136 CCK/W33	H 3136	160	172	PSBD 160	195	20	2.4	1.6
	23236 CCK/W33	H 2336	165	178	PSBD 160	195	20	2.1	2
170	23038 CCK/W33	H 3038	135	141	PSBD 170	205	20	1.15	1
	23138 CCK/W33	H 3138	166	176	PSBD 170	205	20	2.85	2.6
180	23040 CCK/W33	H 3040	160	167	PSBD 180	215	20	1.45	1.2
	23140 CCK/W33	H 3140	175	190	PSBD 180	215	20	2.3	2
	23240 CCK/W33	H 2340	270	290	PSBD 180	215	20	2.6	2.5

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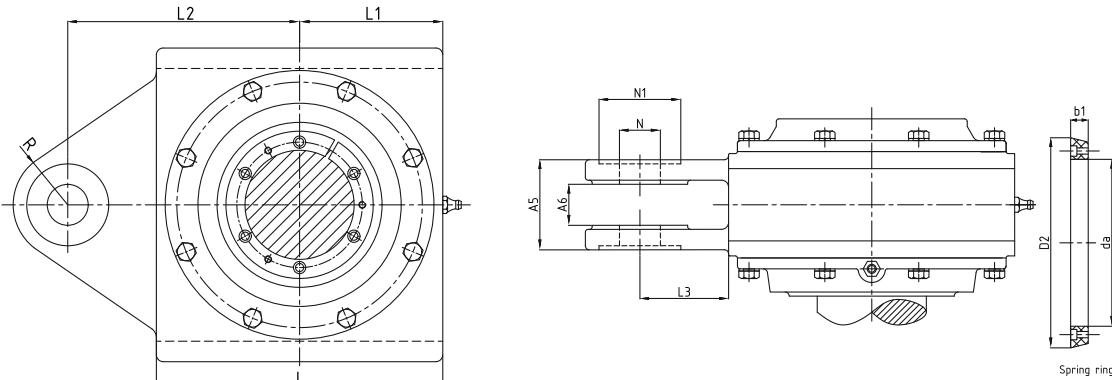
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Shaft Diameter da mm	Housing Dimension																							Designation
	A	A1	A2	A3	A4	A5	A6	Ba	D1	H	H1	L	L1	L2	L3	N	N1	R	s1	G	Ca	D	s	
200	120	65	107	142	107	145	70	80	370	480	440	430	210	325	100	60	100	80	17	M 16	90	340	3	THDS 3044
	150	103	135	160	135	144	74	100	420	510	480	470	235	530	260	100	175	120	25	M 16	120	370	4	THDS 3144
	175	103	148	183	133	240	173	112	445	540	500	520	260	575	245	100	175	150	11	M 20	144	400	4	THDS 3244
220	152	65	148	178	138	215	123	106	455	540	500	520	260	515	250	100	250	150	22	M 20	128	400	4	THDS 3148
	190	103	148	188	148	240	173	122	490	580	540	560	280	600	250	100	175	150	16	M 20	160	440	5	THDS 3248
240	135	65	110.5	150.5	120.5	215	123	92	435	540	500	500	245	515	260	100	250	150	16.5	M 16	104	400	1.5	THDS 3052
	175	80	152	187	152	225	135	118	490	570	540	550	275	565	270	100	250	150	24	M 20	114	440	4	THDS 3152
	205	103	167	208	158	240	173	132	540	610	570	590	305	615	220	100	200	150	16	M 20	174	480	5	THDS 3252
260	210	123	178	218	163	240	173	135	555	650	610	630	315	630	220	100	175	150	16	M 24	176	500	5	THDS 3256
280	195	103	165	210	170	240	173	125	550	650	610	625	312	630	250	100	240	150	35	M 24	160	500	4	THDS 3160
	230	123	182	222	187	240	173	124	600	670	630	670	335	650	220	100	175	150	33	M 24	192	540	6	THDS 3260
300	210	123	177	212	187	240	170	135	590	670	630	665	340	650	230	100	175	150	40	M 24	140	576	5	THDS 3164
	250	123	192	237	187	300	213	152	640	710	670	710	355	725	275	110	185	200	21	M 24	208	580	6	THDS 3264
320	220	150	197	242	237	300	180	155	630	740	700	740	370	720	310	120	240	200	70	M 24	190	580	6	THDS 3168
	265	123	202	272	237	300	213	175	680	750	700	750	375	750	285	110	185	200	47	M 24	224	620	6	THDS 3268
340	275	123	227	282	247	300	213	180	710	790	740	790	395	765	275	110	185	200	51	M 24	232	650	7	THDS 3272
360	230	120	202	257	254	300	200	185	680	790	740	750	375	750	320	110	230	200	73	M 30	194	620	6	THDS 3176
	295	123	232	297	257	300	213	186	745	820	780	810	420	780	310	110	230	200	55	M 30	240	680	7	THDS 3276
380	300	123	242	307	257	300	213	196	790	870	820	870	435	800	270	110	185	200	45	M 30	256	720	7	THDS 3280
400	315	123	252	317	267	300	213	212	835	925	860	925	463	825	262	110	185	200	39	M 30	272	760	8	THDS 3284
530	420	143	250	370	---	208	128	---	1000	1140	1080	1140	570	770	200	125	200	160	---	M 30	355	920	---	THDS 41/560

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Shaft Diameter da mm	Appropriate Bearing	Adapter Sleeve	Masses		Adapter Ring Designation	Dimensions		Grease Quantity Initial Fill	
			Housing Type A Kg	Type B Kg		d2 mm	B1	Type A Kg	Type B Kg
200	23044 CCK/W33	OH 3044 H	200	220	PSBD 200	246	25	1.75	1.5
	23144 CCK/W33	OH 3144 H	240	255	PSBD 200	246	25	2.9	2.5
	23244 CCK/W33	OH 2344 H	380	400	PSBD 200	246	25	3.4	3.25
220	23148 CCK/W33	OH 3148 H	310	360	PSBD 220	266	25	3.4	3
	23248 CCK/W33	OH 2348 H	460	485	PSBD 220	266	25	4.25	4
240	23052 CCK/W33	OH 3052 H	269	280	PSBD 240	286	25	4.1	3.55
	23152 CCK/W33	OH 3152 H	400	460	PSBD 240	286	25	4.4	3.75
	23252 CCK/W33	OH 2352 H	545	580	PSBD 240	286	25	5.05	4.75
260	23256 CACK/W33	OH 2356 H	590	630	PSBD 260	306	25	5.5	5
280	23160 CCK/W33	OH 3160 H	540	580	PSBD 280	326	25	6	5.15
	23260 CACK/W33	OH 3260 H	678	730	PSBD 280	326	25	7	6.25
300	23164 CCK/W33	OH 3164 H	650	690	PSBD 300	350	30	7.5	6.4
	23264 CACK/W33	OH 3264 H	800	860	PSBD 300	350	30	8.15	7.25
320	23168 CCK/W33	OH 3168 H	760	880	PSBD 320	370	30	10	8.2
	23268 CAK/W33	OH 3268 H	920	1000	PSBD 320	370	30	9.85	8.75
340	23272 CAK/W33	OH 3272 H	1050	1120	PSBD 340	390	30	12	10.5
360	23176 CAK/W33	OH 3176 H	890	1000	PSBD 360	410	30	13.8	10.8
	23276 CAK/W33	OH 3276 H	1200	1280	PSBD 360	410	30	14.5	12.5
380	23280 CAK/W33	OH 3280 H	1480	1580	PSBD 380	430	30	18	16
400	23284 CAK/W33	OH 3284 H	1880	1980	PSBD 400	450	30	23	20.5
530	241/560 ECK30/W33	OH 241/560	---	2400	PSBD 530	610	40	---	15