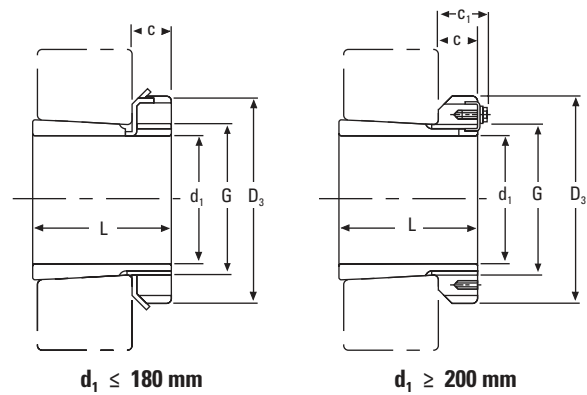


METRIC H ADAPTER SLEEVES

- Effective tapered bore bearing assembly.
- Includes mounting sleeve, locknut and lockwasher or lockplate.
- Other dimensions may be available, consult your Timken engineer.



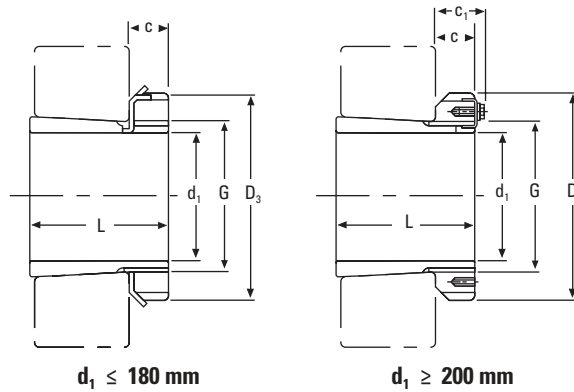
d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾ G	D_3	C_1	Weight	Locknuts	Lockwasher and Lockplates	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm	kg			
20	H305	29	8	M 25x1.5	38	–	0.17	KM5	MB5	–
25	H306	31	8	M 30x1.5	45	–	0.24	KM6	MB6	–
30	H307	35	9	M 35x1.5	52	–	0.31	KM7	MB7	–
35	H308	36	10	M 40x1.5	58	–	0.42	KM8	MB8	–
35	H2308	46	10	M 40x1.5	58	–	0.22	KM8	MB8	–
40	H309	39	11	M 45x1.5	65	–	0.55	KM9	MB9	–
40	H2309	50	11	M 45x1.5	65	–	0.28	KM9	MB9	–
45	H310	42	12	M 50x1.5	70	–	0.67	KM10	MB10	HMV10
45	H2310	55	12	M 50x1.5	70	–	0.36	KM10	MB10	HMV10
50	H311	45	12	M 55x2	75	–	0.76	KM11	MB11	HMV11
50	H2311	59	12	M 55x2	75	–	0.42	KM11	MB11	HMV11
55	H312	47	13	M 60x2	80	–	0.87	KM12	MB12	HMV12
55	H2312	62	13	M 60x2	80	–	0.48	KM12	MB12	HMV12
60	H313	50	14	M 65x2	85	–	1.01	KM13	MB13	HMV13
60	H314	52	14	M 70x2	92	–	1.59	KM14	MB14	HMV14
60	H2313	65	14	M 65x2	85	–	0.56	KM13	MB13	HMV13
60	H2314	68	14	M 70x2	92	–	0.90	KM14	MB14	HMV14
65	H315	55	15	M 75x2	98	–	1.83	KM15	MB15	HMV15
65	H2315	73	15	M 75x2	98	–	1.05	KM15	MB15	HMV15
70	H316	59	17	M 80x2	105	–	2.27	KM16	MB16	HMV16
70	H2316	78	17	M 80x2	105	–	1.28	KM16	MB16	HMV16
75	H317	63	18	M 85x2	110	–	2.60	KM17	MB17	HMV17
75	H2317	82	18	M 85x2	110	–	1.45	KM17	MB17	HMV17
80	H318	65	18	M 90x2	120	–	3.02	KM18	MB18	HMV18
80	H2318	86	18	M 90x2	120	–	1.69	KM18	MB18	HMV18
85	H319	68	19	M 95x2	125	–	3.44	KM19	MB19	HMV19
85	H2319	90	19	M 95x2	125	–	1.92	KM19	MB19	HMV19
90	H320	71	20	M 100x2	130	–	3.73	KM20	MB20	HMV20
90	H3120	76	20	M 100x2	130	–	1.80	KM20	MB20	HMV20
90	H2320	97	20	M 100x2	130	–	2.15	KM20	MB20	HMV20

⁽¹⁾Adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

NOTE: Sleeves are not sold separately.

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d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾ G	D_3	C_1	Weight	Locknuts	Lockwasher and Lockplates	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm	kg			
95	H321	74	20	M 105x2	140	–	4.30	KM 21	MB21	HMV21
95	H2321	101	20	M 105x2	140	–	2.46	KM21	MB21	HMV21
100	H322	77	21	M 110x2	145	–	4.81	KM22	MB22	HMV22
100	H3122	81	21	M 110x2	145	–	2.25	KM22	MB22	HMV22
100	H2322	105	21	M 110x2	145	–	2.74	KM22	MB22	HMV22
110	H3024	72	22	M 120x2	145	–	1.93	KML24	MBL24	HMV24
110	H3124	88	22	M 120x2	155	–	2.64	KM24	MB24	HMV24
110	H2324	112	22	M 120x2	155	–	3.19	KM24	MB24	HMV24
115	H3926	65	23	M 130x2	155	–	2.40	KML26	MBL26	HMV26
115	H3026	80	23	M 130x2	155	–	2.85	KML26	MBL26	HMV26
115	H3126	92	23	M 130x2	165	–	3.66	KM26	MB26	HMV26
115	H2326	121	23	M 130x2	165	–	4.60	KM26	MB26	HMV26
125	H3928	66	24	M 140x2	165	–	2.70	KML28	MBL28	HMV28
125	H3028	82	24	M 140x2	165	–	3.16	KML28	MBL28	HMV28
125	H3128	97	24	M 140x2	180	–	4.34	KM28	MB28	HMV28
125	H2328	131	24	M 140x2	180	–	5.55	KM28	MB28	HMV28
135	H3930	76	26	M 150x2	180	–	3.60	KML30	MBL30	HMV30
135	H3030	87	26	M 150x2	180	–	3.89	KML30	MBL30	HMV30
135	H3130	111	26	M 150x2	195	–	5.52	KM30	MB30	HMV30
135	H2330	139	26	M 150x2	195	–	6.63	KM30	MB30	HMV30
140	H3932	78	27.5	M 160x3	190	–	4.60	KML32	MBL32	HMV32
140	H3032	93	27.5	M 160x3	190	–	5.21	KML32	MBL32	HMV32
140	H3132	119	28	M 160x3	210	–	7.67	KM32	MB32	HMV32
140	H2332	147	28	M 160x3	210	–	9.14	KM32	MB32	HMV32
150	H3934	79	27.5	M 170x3	200	–	5.00	KML34	MBL34	HMV34
150	H3034	101	28.5	M 170x3	200	–	5.99	KML34	MBL34	HMV34
150	H3134	122	29	M 170x3	220	–	8.38	KM34	MB34	HMV34
150	H2334	154	29	M 170x3	220	–	10.20	KM34	MB34	HMV34

⁽¹⁾Adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

NOTE: Sleeves are not sold separately.

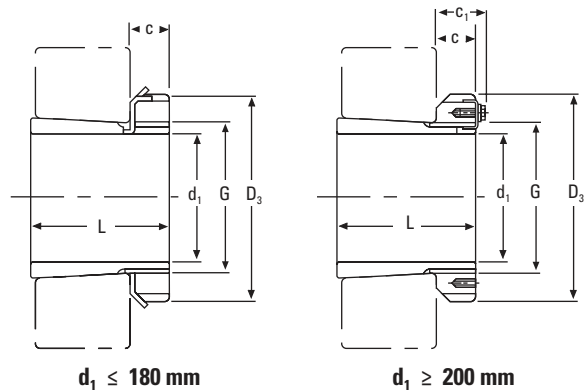
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SNT SPHERICAL ROLLER BEARING METRIC ACCESSORIES

METRIC H ADAPTER SLEEVES

METRIC H ADAPTER SLEEVES – continued

- Effective tapered bore bearing assembly.
- Includes mounting sleeve, locknut and lockwasher or lockplate.
- Other dimensions may be available, consult your Timken engineer.



Continued from previous page.

d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾⁽³⁾ G	D_3	C_1	Weight	Locknuts	Lockwasher and Lockplates	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm	kg			
160	H3936	87	29.5	M 180x3	210	–	5.70	KML36	MBL36	HMV36
160	H3036	109	29.5	M 180x3	210	–	6.83	KML36	MBL36	HMV36
160	H3136	131	30	M 180x3	230	–	9.50	KM36	MB36	HMV36
160	H2336	161	30	M 180x3	230	–	11.30	KM36	MB36	HMV36
170	H3938	89	30.5	M 190x3	220	–	6.19	KML38	MBL38	HMV38
170	H3038	112	30.5	M 190x3	220	–	7.45	KML38	MBL38	HMV38
170	H3138	141	31	M 190x3	240	–	10.80	KM38	MB38	HMV38
170	H2338	169	31	M 190x3	240	–	12.60	KM38	MB38	HMV38
180	H3940	98	31.5	M 200x3	240	–	7.89	KML40	MBL40	HMV40
180	H3040	120	31.5	M 200x3	240	–	9.19	KML40	MBL40	HMV40
180	H3140	150	32	M 200x3	250	–	12.10	KM40	MB40	HMV40
180	H2340	176	32	M 200x3	250	–	13.90	KM40	MB40	HMV40
200	H3944	96	30	Tr 220x4	260	41	8.16	HM3044	MS3044	HMV44
200	H3044	126	30	Tr 220x4	260	41	10.30	HM3044	MS3044	HMV44
200	H3144	161	35	Tr 220x4	280	–	15.10	HM44T	MB44	HMV44
200	H2344	186	35	Tr 220x4	280	–	17.00	HM44T	MB44	HMV44
220	H3948	101	34	Tr 240x4	290	46	11.00	HM3048	MS3048	HMV48
220	H3048	133	34	Tr 240x4	290	46	13.20	HM3048	MS3048	HMV48
220	H3148	172	37	Tr 240x4	300	–	17.60	HM48T	MS48	HMV48
220	H2348	199	37	Tr 240x4	300	–	20.00	HM48T	MS48	HMV48
240	H3952	116	34	Tr 260x4	310	46	12.80	HM3052	MS3052	HMV52
240	H3052	145	34	Tr 260x4	310	46	15.30	HM3052	MS3052	HMV52
240	H3152	190	39	Tr 260x4	330	–	22.30	HM52T	MB52	HMV52
240	H2352	211	39	Tr 260x4	330	–	24.50	HM52T	MB52	HMV52
260	H3956	121	38	Tr 280x4	330	50	15.30	HM3056	MS3056	HMV56
260	H3056	152	38	Tr 280x4	330	50	17.70	HM3056	MS3056	HMV56
260	H3156	195	41	Tr 280x4	350	–	25.10	HM56T	MB56	HMV56
260	H2356	224	41	Tr 280x4	350	–	28.40	HM56T	MB56	HMV56
280	H3960	140	42	Tr 300x4	360	54	20.00	HM3060	MS3060	HMV60
280	H3060	168	42	Tr 300x4	360	54	22.80	HM3060	MS3060	HMV60
280	H3160	208	40	Tr 300x4	380	53	30.20	HM3160	MS3160	HMV60
280	H3260	240	40	Tr 300x4	380	53	34.10	HM3160	MS3160	HMV60
300	H3964	140	42	Tr 320x5	380	55	21.50	HM3064	MS3064	HMV64
300	H3064	171	42	Tr 320x5	380	55	24.60	HM3064	MS3064	HMV64
300	H3164	226	42	Tr 320x5	400	56	34.90	HM3164	MS3164	HMV64
300	H3264	258	42	Tr 320x5	400	56	39.30	HM3164	MS3164	HMV64

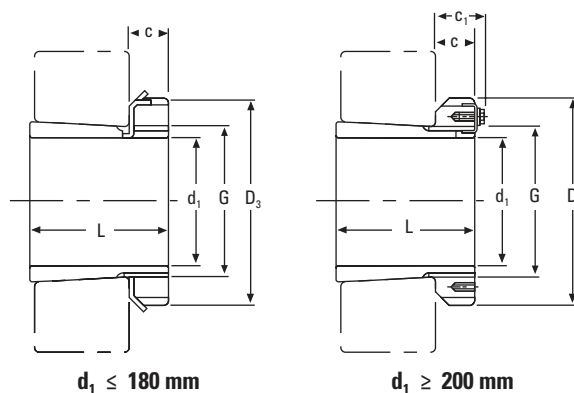
⁽¹⁾Adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

⁽³⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

NOTE: Sleeves are not sold separately.

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d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾ G	D_3	C_1	Weight	Locknuts	Lockwasher and Lockplates	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm	kg			
320	H3968	144	45	Tr 340x5	400	58	24.50	HM3068	MS3068	HMV68
320	H3068	187	45	Tr 340x5	400	58	28.70	HM3068	MS3068	HMV68
320	H3168	254	55	Tr 340x5	440	72	50.00	HM3168	MS3168	HMV68
320	H3268	288	55	Tr 340x5	440	72	54.60	HM3168	MS3168	HMV68
340	H3972	144	45	Tr 360x5	420	58	25.20	HM3072	MS3072	HMV72
340	H3072	188	45	Tr 360x5	420	58	30.50	HM3072	MS3072	HMV72
340	H3172	259	58	Tr 360x5	460	75	56.00	HM3172	MS3172	HMV72
340	H3272	299	58	Tr 360x5	460	75	60.60	HM3172	MS3172	HMV72
360	H3976	164	48	Tr 380x5	450	62	31.50	HM3076	MS3076	HMV76
360	H3076	193	48	Tr 380x5	450	62	35.80	HM3076	MS3076	HMV76
360	H3176	264	60	Tr 380x5	490	77	61.70	HM3176	MS3176	HMV76
360	H3276	310	60	Tr 380x5	490	77	69.60	HM3176	MS3176	HMV76
380	H3980	168	52	Tr 400x5	470	66	35.00	HM3080	MS3080	HMV80
380	H3080	210	52	Tr 400x5	470	66	41.30	HM3080	MS3080	HMV80
380	H3180	272	62	Tr 400x5	520	82	73.00	HM3180	MS3180	HMV80
380	H3280	328	62	Tr 400x5	520	82	81.00	HM3180	MS3180	HMV80
400	H3984	168	52	Tr 420x5	490	66	36.60	HM3084	MS3084	HMV84
400	H3084	212	52	Tr 420x5	490	66	43.70	HM3084	MS3084	HMV84
400	H3184	304	70	Tr 420x5	540	90	84.20	HM3184	MS3184	HMV84
400	H3284	352	70	Tr 420x5	540	90	96.00	HM3184	MS3184	HMV84
410	H3988	189	60	Tr 440x5	520	77	58.00	HM3088	MS3088	HMV88
410	H3088	228	60	Tr 440x5	520	77	65.20	HM3088	MS3088	HMV88
410	H3188	307	70	Tr 440x5	560	90	104.00	HM3188	MS3188	HMV88
410	H3288	361	70	Tr 440x5	560	90	118.00	HM3188	MS3188	HMV88
430	H3992	189	60	Tr 460x5	540	77	60.00	HM3092	MS3092	HMV92
430	H3192	326	75	Tr 460x5	580	95	116.00	HM3192	MS3192	HMV92
430	H3292	382	75	Tr 460x5	580	95	134.00	HM3192	MS3192	HMC92
450	H3996	200	60	Tr 480x5	560	77	66.00	HM3096	MS3096	HMV96
450	H3296	397	75	Tr 480x5	620	95	153.00	HM3196	MS3196	HMV96

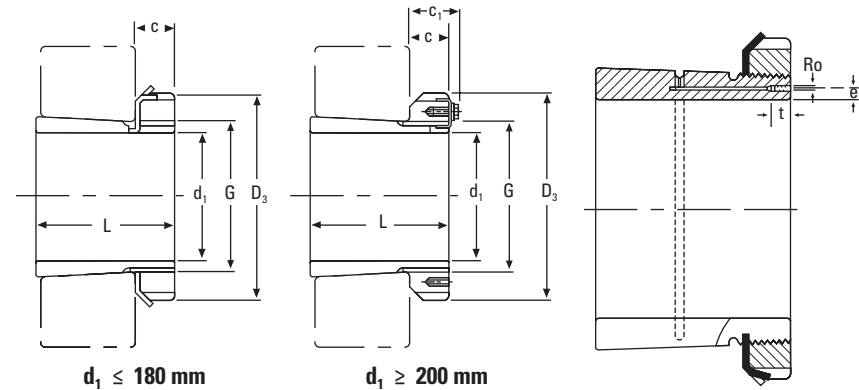
⁽¹⁾Adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

NOTE: Sleeves are not sold separately.

METRIC OH HYDRAULIC ADAPTER SLEEVES

- Includes sleeve, nut and lockwasher or lockplate.
- Hydraulic assistance facilitates mounting of large bearing. Oil pump required to inject pressurized oil.
- Other dimensions may be available, consult your Timken engineer.



d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾⁽³⁾ G	D_3	C_1 ⁽⁴⁾	R_o	e	t	Weight	Locknuts	Lockwasher and Lockplate	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm		mm	mm	kg			
140	OH3032H	93	27.5	M 160x3	190	—		4	7	5.21	KML32	MBL32	HMV32
140	OH3132H	119	28	M 160x3	210	—		4	7	7.67	KM32	MB32	HMV32
150	OH3034H	101	28.5	M 170x3	200	—		4	7	5.99	KML34	MBL34	HMV34
150	OH3134H	122	29	M 170x3	220	—		4	7	8.38	KM34	MB34	HMV34
160	OH3936H	87	29.5	M 180x3	210	—		4	7	5.70	KML36	MBL36	HMV36
160	OH3036H	109	29.5	M 180x3	210	—		4	7	6.83	KML36	MBL36	HMV36
160	OH3136H	131	30	M 180x3	230	—		4	7	9.50	KM36	MB36	HMV36
170	OH3938H	89	30.5	M 190x3	220	—		4	7	6.19	KML38	MBL38	HMV38
170	OH3038H	112	30.5	M 190x3	220	—		4	7	7.45	KML38	MBL38	HMV38
170	OH3138H	141	31	M 190x3	240	—		4	7	10.80	KM38	MB38	HMV38
170	OH2338H	169	31	M 190x3	240	—		4	7	12.60	KM38	MB38	HMV38
180	OH3940H	98	31.5	M 200x3	240	—		4	7	7.89	KML40	MBL40	HMV40
180	OH3040H	120	31.5	M 200x3	240	—		4	7	9.19	KML40	MBL40	HMV40
180	OH3140H	150	32	M 200x3	250	—		4	7	12.10	KM40	MB40	HMV40
180	OH2340H	176	32	M 200x3	250	—		4	7	13.90	KM40	MB40	HMV40
200	OH3944H	96	30	Tr 220x4	260	41	M6	4	7	8.16	HM3044	MS3044	HMV44
200	OH3044H	126	30	Tr 220x4	260	41	M6	4	7	10.30	HM3044	MS3044	HMV44
200	OH3144H	161	35	Tr 220x4	280	—	M6	4	7	15.10	HM44T	MB44	HMV44
200	OH2344H	186	35	Tr 220x4	280	—	M6	4	7	17.00	HM44T	MB44	HMV44
220	OH3948H	101	34	Tr 240x4	290	46	M6	4	7	11.00	HM3048	MS3048	HMV48
220	OH3048H	133	34	Tr 240x4	290	46	M6	4	7	13.20	HM3048	MS3048	HMV48
220	OH3148H	172	37	Tr 240x4	300	—	M6	4	7	17.60	HM48T	MB48	HMV48
220	OH2348H	199	37	Tr 240x4	300	—	M6	4	7	20.00	HM48T	MB48	HMV48
240	OH3952H	116	34	Tr 260x4	310	46	M6	4	7	12.80	HM3052	MS3052	HMV52
240	OH3052H	145	34	Tr 260x4	310	46	M6	4	7	15.30	HM3052	MS3052	HMV52
240	OH3152H	190	39	Tr 260x4	330	—	M6	4	7	22.30	HM52T	MB52	HMV52
240	OH2352H	211	39	Tr 260x4	330	—	M6	4	7	24.50	HM52T	MB52	HMV52

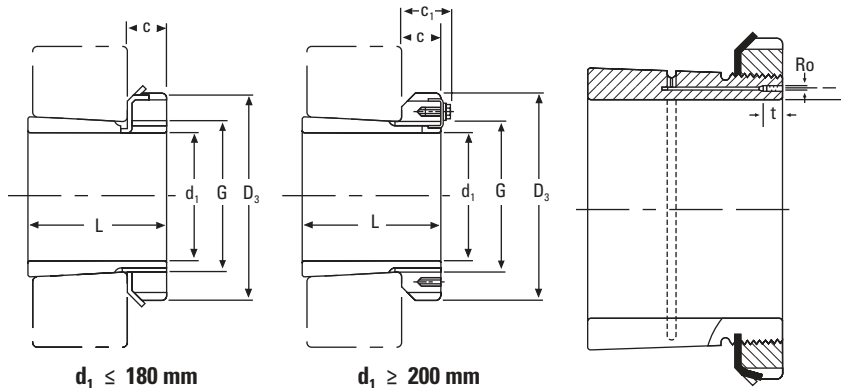
⁽¹⁾Hydraulic adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

⁽³⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

⁽⁴⁾Adapters with dimensions C_1 have a locking device as shown in the illustration.

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d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾ G	D_3	C_1 ⁽³⁾	R_o	e	t	Weight	Locknuts	Lockwasher and Lockplate	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm	mm	mm	mm	kg			
260	OH3956H	121	38	Tr 280x4	330	50	M6	4	7	15.30	HM3056	MS3056	HMV56
260	OH3056H	152	38	Tr 280x4	330	50	M6	4	7	17.70	HM3056	MS3056	HMV56
260	OH3156H	195	41	Tr 280x4	350	—	M6	4	7	25.10	HM56T	MB56	HMV56
260	OH2356H	224	41	Tr 280x4	350	—	M6	4	7	28.40	HM56T	MB56	HMV56
280	OH3960H	140	42	Tr 300x4	360	54	M6	4	7	20.00	HM3060	MS3060	HMV60
280	OH3060H	168	42	Tr 300x4	360	54	M6	4	7	22.80	HM3060	MS3060	HMV60
280	OH3160H	208	40	Tr 300x4	380	53	M6	4	7	30.20	HM3160	MS3160	HMV60
280	OH3260H	240	40	Tr 300x4	380	53	M6	4	7	34.10	HM3160	MS3160	HMV60
300	OH3964H	140	42	Tr 320x5	380	55	M6	3.5	7	21.50	HM3064	MS3064	HMV64
300	OH3064H	171	42	Tr 320x5	380	55	M6	3.5	7	24.60	HM3064	MS3064	HMV64
300	OH3164H	226	42	Tr 320x5	400	56	M6	3.5	7	34.90	HM3164	MS3164	HMV64
300	OH3264H	258	42	Tr 320x54	400	56	M6	3.5	7	39.30	HM3164	MS3164	HMV64
320	OH3968H	144	45	Tr 340x5	400	58	M6	3.5	7	24.50	HM3068	MS3068	HMV68
320	OH3068H	187	45	Tr 340x5	400	58	M6	3.5	7	28.70	HM3068	MS3068	HMV68
320	OH3168H	254	55	Tr 340x5	440	72	M6	3.5	7	50.00	HM3168	MS3168	HMV68
320	OH3268H	288	55	Tr 340x5	440	72	M6	3.5	7	54.60	HM3168	MS3168	HMV68
340	OH3972H	144	45	Tr 360x5	420	58	M6	3.5	7	25.20	HM3072	MS3072	HMV72
340	OH3072H	188	45	Tr 360x5	420	58	M6	3.5	7	30.50	HM3072	MS3072	HMV72
340	OH3172H	259	58	Tr 360x5	460	75	M6	3.5	7	56.00	HM3172	MS3172	HMV72
340	OH3272H	299	58	Tr 360x5	460	75	M6	3.5	7	60.60	HM3172	MS3172	HMV72
360	OH3976H	164	48	Tr 380x5	450	62	M6	3.5	7	31.50	HM3076	MS3076	HMV76
360	OH3076H	193	48	Tr 380x5	450	62	M6	3.5	7	35.80	HM3076	MS3076	HMV76
360	OH3176H	264	60	Tr 380x5	490	77	M6	3.5	7	61.70	HM3176	MS3176	HMV76
360	OH3276H	310	60	Tr 380x5	490	77	M6	3.5	7	69.60	HM3176	MS3176	HMV76
380	OH3980H	168	52	Tr 400x5	470	66	M6	3.5	7	35.00	HM3080	MS3080	HMV80
380	OH3080H	210	52	Tr 400x5	470	66	M6	3.5	7	41.30	HM3080	MS3080	HMV80
380	OH3180H	272	62	Tr 400x5	520	82	M6	3.5	7	73.00	HM3180	MS3180	HMV80
380	OH3280H	328	62	Tr 400x5	520	82	M6	3.5	7	81.00	HM3180	MS3180	HMV80

⁽¹⁾Hydraulic adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

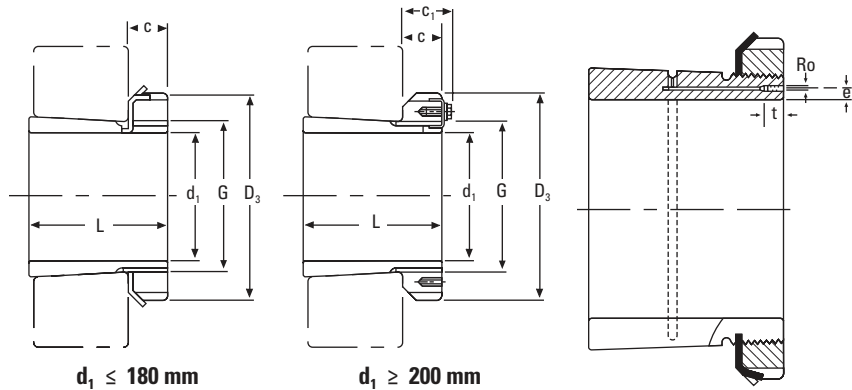
⁽²⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

⁽³⁾Adapters with dimensions C_1 have a locking device as shown in the illustration.

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METRIC OH HYDRAULIC ADAPTER SLEEVES – continued

- Includes sleeve, nut and lockwasher or lockplate.
- Hydraulic assistance facilitates mounting of large bearing. Oil pump required to inject pressurized oil.
- Other dimensions may be available, consult your Timken engineer.



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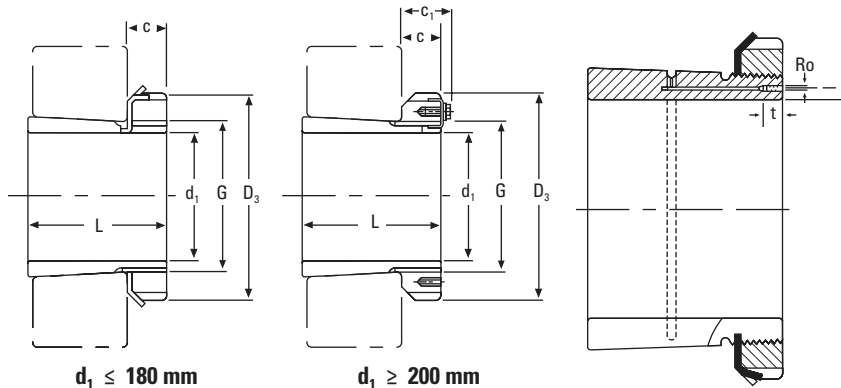
d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾ G	D_3	C_1 ⁽³⁾	R_o	e	t	Weight	Locknuts	Lockwasher and Lockplate	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm		mm	mm	kg			
400	OH3984H	168	52	Tr 420x5	490	66	M6	3.5	7	36.60	HM3084	MS3084	HMV84
400	OH3084H	212	52	Tr 420x5	490	66	M6	3.5	7	43.70	HM3084	MS3084	HMV84
400	OH3184H	304	70	Tr 420x5	540	90	M6	3.5	7	84.20	HM3184	MS3184	HMV84
400	OH3284H	352	70	Tr 420x5	540	90	M6	3.5	7	96.00	HM3184	MS3184	HMV84
410	OH3988H	189	60	Tr 440x5	520	77	M8	6.5	12	58.00	HM3088	MS3088	HMV88
410	OH3088H	228	60	Tr 440x5	520	77	M8	6.5	12	65.20	HM3088	MS3088	HMV88
410	OH3188H	307	70	Tr 440x5	560	90	M8	6.5	12	104.00	HM3188	MS3188	HMV88
410	OH3288H	361	70	Tr 440x5	560	90	M8	6.5	12	118.00	HM3188	MS3188	HMV88
430	OH3992H	189	60	Tr 460x5	540	77	M8	6.5	12	60.00	HM3092	MS3092	HMV92
430	OH3092H	234	60	Tr 460x5	540	77	M8	6.5	12	71.00	HM3092	MS3092	HMV92
430	OH3192H	326	75	Tr 460x5	580	95	M8	6.5	12	116.00	HM3192	MS3192	HMV92
430	OH3292H	382	75	Tr 460x5	580	95	M8	6.5	12	134.00	HM3192	MS3192	HMV92
450	OH3996H	200	60	Tr 480x5	560	77	M8	6.5	12	66.00	HM3096	MS30/96	HMV96
450	OH3096H	237	60	Tr 480x5	560	77	M8	6.5	12	75.00	HM3096	MS30/96	HMV96
450	OH3196H	335	75	Tr 480x5	620	95	M8	6.5	12	135.00	HM3196	MS3196	HMV96
450	OH3296H	397	75	Tr 480x5	620	95	M8	6.5	12	153.00	HM3196	MS3196	HMV96
470	OH39/500H	208	68	Tr 500x5	580	85	M8	6.5	12	74.30	HM30/500	MS30/500	HMV100
470	OH31/500H	356	80	Tr 500x5	630	100	M8	6.5	12	145.00	HM31/500	MS31/500	HMV100
470	OH32/500H	428	80	Tr 500x5	630	100	M8	6.5	12	166.00	HM31/500	MS31/500	HMV100
500	OH39/530H	216	68	Tr 530x6	630	90	M8	6	12	87.90	HM30/530	MS30/530	HMV106
500	OH31/530H	364	80	Tr 530x6	670	105	M8	6	12	161.00	HM31/530	MS31/530	HMV106
500	OH32/530H	447	80	Tr 530x6	670	105	M8	6	12	192.00	HM31/530	MS31/530	HMV106
530	OH39/560H	227	75	Tr 560x6	650	97	M8	6	12	95.00	HM30/560	MS30/560	HMV112
530	OH31/560H	377	85	Tr 560x6	710	110	M8	6	12	185.00	HM31/560	MS31/560	HMV112
530	OH32/560H	462	85	Tr 560x6	710	110	M8	6	12	219.00	HM31/560	MS31/560	HMV112
560	OH39/600H	239	75	Tr 600x6	700	97	G1/8	8	13	127.00	HM30/600	MS30/600	HMV120
560	OH30/600H	289	75	Tr 600x6	700	97	G1/8	8	13	147.00	HM30/600	MS30/600	HMV120
560	OH31/600H	399	85	Tr 600x6	750	110	G1/8	8	13	234.00	HM31/600	MS31/600	HMV120
560	OH32/600H	487	85	Tr 600x6	750	110	G1/8	8	13	278.00	HM31/600	MS31/600	HMV120
600	OH39/630H	254	75	Tr 630x6	730	97	M8	6	12	124.00	HM30/630	MS30/630	HMV126
600	OH30/630H	301	75	Tr 630x6	730	97	M8	6	12	138.00	HM30/630	MS30/630	HMV126
600	OH31/630H	424	95	Tr 630x6	800	120	M8	6	12	254.00	HM31/630	MS31/630	HMV126
600	OH32/630H	521	95	Tr 630x6	800	120	M8	6	12	300.00	HM 31/630	MS31/630	HMV126

⁽¹⁾Hydraulic adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

⁽³⁾Adapters with dimensions C_1 have a locking device as shown in the illustration.

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$d_1 \leq 180 \text{ mm}$

$d_1 \geq 200 \text{ mm}$

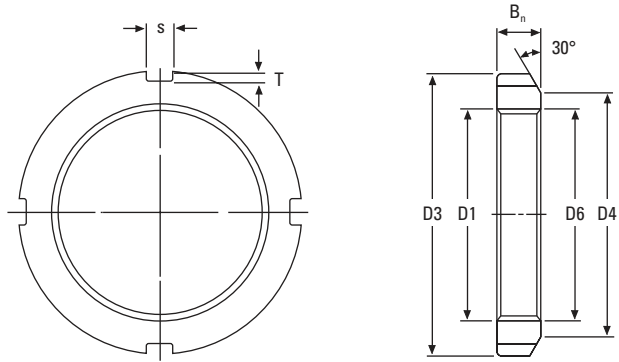
d_1	Sleeve Part No. ⁽¹⁾	L	C	Thread ⁽²⁾ G	D_3	C_1 ⁽³⁾	R_o	e	t	Weight	Locknuts	Lockwasher and Lockplate	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	mm		mm	mm	kg			
630	OH39/670H	264	80	Tr 670x6	780	102	G1/8	8	13	162.00	HM30/670	MS30/670	HMV134
630	OH30/670H	324	80	Tr 670x6	780	102	G1/8	8	13	190.00	HM30/670	MS30/670	HMV134
630	OH31/670H	456	106	Tr 670x6	850	131	G1/8	8	13	340.00	HM31/670	MS31/670	HMV134
630	OH32/670H	558	106	Tr 670x6	850	131	G1/8	8	13	401.00	HM31/670	MS31/670	HMV134
670	OH39/710H	286	90	Tr 710x7	830	112	G1/8	8	13	183.00	HM30/710	MS30/710	HMV142
670	OH30/710H	342	90	Tr 710x7	830	112	G1/8	8	13	228.00	HM30/710	MS30/710	HMV142
670	OH31/710H	467	106	Tr 710x7	900	135	G1/8	8	13	392.00	HM31/710	MS31/710	HMV142
670	OH32/710H	572	106	Tr 710x7	900	135	G1/8	8	13	459.00	HM31/710	MS31/710	HMV142
710	OH39/750H	291	90	Tr 750x7	870	112	G1/8	8	13	211.00	HM30/750	MS30/750	HMV150
710	OH30/750H	356	90	Tr 750x7	870	112	G1/8	8	13	246.00	HM30/750	MS30/750	HMV150
710	OH31/750H	493	112	Tr 750x7	950	141	G1/8	8	13	451.00	HM31/750	MS31/750	HMV150
710	OH32/750H	603	112	Tr 750x7	950	141	G1/8	8	13	526.00	HM31/750	MS31/750	HMV150
750	OH39/800H	303	90	Tr 800x7	920	112	G1/8	10	13	259.00	HM30/800	MS30/800	HMV160
750	OH31/800H	505	112	Tr 800x7	1000	141	G1/8	10	13	535.00	HM31/800	MS31/800	HMV160
750	OH32/800H	618	112	Tr 800x7	1000	141	G1/8	10	13	629.00	HM31/800	MS31/800	HMV160
800	OH39/850H	308	90	Tr 850x7	980	115	G1/8	10	13	288.00	HM30/850	MS30/850	HMV170
800	OH31/850H	536	118	Tr 850x7	1060	147	G1/8	10	13	616.00	HM31/850	MS31/850	HMV170
800	OH32/850H	651	118	Tr 850x7	1060	147	G1/8	10	13	722.00	HM31/850	MS31/850	HMV170
850	OH39/900H	326	100	Tr 900x7	1030	125	G1/8	10	13	330.00	HM30/900	MS30/900	HMV180
850	OH31/900H	557	125	Tr 900x7	1120	154	G1/8	10	13	677.00	HM31/900	MS31/900	HMV180
850	OH32/900H	660	125	Tr 900x7	1120	154	G1/8	10	13	776.00	HM31/900	MS31/900	HMV180
900	OH39/950H	344	100	Tr 950x8	1080	125	G1/8	10	13	362.00	HM30/950	MS30/950	HMV190
900	OH31/950H	583	125	Tr 950x8	1170	154	G1/8	10	13	738.00	HM31/950	MS31/950	HMV190
900	OH32/950H	675	125	Tr 950x8	1170	154	G1/8	10	13	834.00	HM31/950	MS31/950	HMV190
950	OH39/1000H	358	100	Tr 1000x8	1140	125	G1/8	10	13	407.00	HM30/1000	MS30/1000	HMV200
950	OH31/1000H	609	125	Tr 1000x8	1240	154	G1/8	10	13	842.00	HM31/1000	MS31/1000	HMV200
950	OH32/1000H	707	125	Tr 1000x8	1240	154	G1/8	10	13	952.00	HM31/1000	MS31/1000	HMV200
1000	OH39/1060H	372	100	Tr 1060x8	1200	125	G1/8	12	15	490.00	HM30/1060	MS30/1060	HMV212
1000	OH30/1060H	447	100	Tr 1060x8	1200	125	G1/8	12	15	571.00	HM30/1060	MS30/1060	HMV212
1000	OH31/1060H	622	125	Tr 1060x8	1300	154	G1/8	12	15	984.00	HM31/1060	MS31/1000	HMV212

⁽¹⁾Hydraulic adapter sleeves are supplied complete with locknuts and lockwasher or lockplates.

⁽²⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

⁽³⁾Adapters with dimensions C_1 have a locking device as shown in the illustration.

METRIC LOCKNUTS

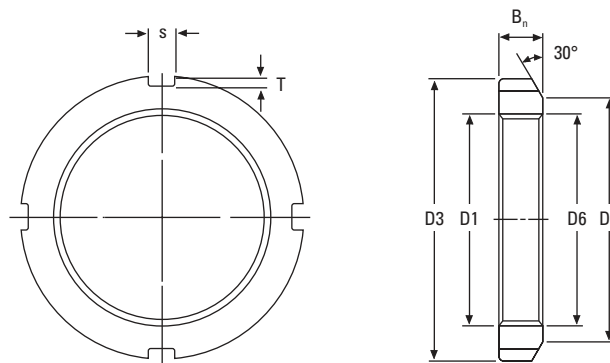


Locknut No. ⁽¹⁾	Thread ⁽²⁾ D ₁	D ₃	D ₄	B _n	s	T	D ₆	Weight	Lockwasher No.
	mm	mm	mm	mm	mm	mm	mm	kg	
KM0	M 10 X 0.75	18	13	4	3	2	10.5	0.01	MB00
KM1	M 12 X 1.0	22	17	4	3	2	12.5	0.01	MB01
KM2	M 15 X 1.0	25	21	5	4	2	15.5	0.01	MB02
KM3	M 17 X 1.0	28	24	5	4	2	17.5	0.01	MB03
KM4	M 20 X 1.0	32	26	6	4	2	20.5	0.02	MB04
KM5	M 25 X 1.5	38	32	7	5	2	25.8	0.03	MB05
KM6	M 30 X 1.5	45	38	7	5	2	30.8	0.04	MB06
KM7	M 35 X 1.5	52	44	8	5	2	35.8	0.05	MB07
KM8	M 40 X 1.5	58	50	9	6	2.5	40.8	0.09	MB08
KM9	M 45 X 1.5	65	56	10	6	2.5	45.8	0.12	MB09
KM10	M 50 X 1.5	70	61	11	6	2.5	50.8	0.15	MB10
KM11	M 55 X 2.0	75	67	11	7	3	56.0	0.16	MB11
KM12	M 60 X 2.0	80	73	11	7	3	61.0	0.17	MB12
KM13	M 65 X 2.0	85	79	12	7	3	66.0	0.20	MB13
KM14	M 70 X 2.0	92	85	12	8	3.5	71.0	0.24	MB14
KM15	M 75 X 2.0	98	90	13	8	3.5	76.0	0.29	MB15
KM16	M 80 X 2.0	105	95	15	8	3.5	81.0	0.40	MB16
KM17	M 85 X 2.0	110	102	16	8	3.5	86.0	0.45	MB17
KM18	M 90 X 2.0	120	108	16	10	4	91.0	0.56	MB18
KM19	M 95 X 2.0	125	113	17	10	4	96.0	0.66	MB19
KM20	M 100 X 2.0	130	120	18	10	4	101.0	0.70	MB20
KM21	M 105 X 2.0	140	126	18	12	5	106.0	0.85	MB21
KM22	M 110 X 2.0	145	133	19	12	5	111.0	0.97	MB22
KM23	M 115 X 2.0	150	137	19	12	5	116.0	1.01	MB23
KM24	M 120 X 2.0	160	148	21	12	5	126.0	1.80	MB24
KM25	M 125 X 2.0	160	148	21	12	5	126.0	1.19	MB25
KM26	M 130 X 2.0	165	149	21	12	5	131.0	1.25	MB26
KM27	M 135 X 2.0	175	160	22	14	6	136.0	1.55	MB27
KM28	M 140 X 2.0	180	160	22	14	6	141.0	1.56	MB28
KM29	M145 X 2.0	190	172	24	14	6	146.0	2.00	MB29

⁽¹⁾No. KM0-KM40 also available in 304 stainless steel.

⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

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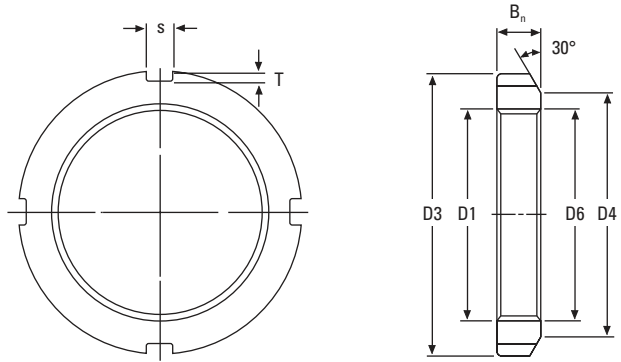
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Locknut No. ⁽¹⁾	Thread ⁽²⁾ D ₁	D ₃	D ₄	B _n	s	T	D ₆	Weight	Lockwasher No.
	mm	mm	mm	mm	mm	mm	mm	kg	
KM30	M150 X 2.0	195	171	24	14	6	151.0	2.03	MB30
KM31	M155 X 3.0	200	182	25	16	7	156.5	2.21	MB31
KM32	M160 X 3.0	210	182	25	16	7	161.5	2.59	MB32
KM33	M165 X 3.0	210	193	26	16	7	166.5	2.43	MB33
KM34	M170 X 3.0	220	193	26	16	7	171.5	2.80	MB34
KM36	M180 X 3.0	230	203	27	18	8	181.5	3.07	MB36
KM38	M190 X 3.0	240	214	28	18	8	191.5	3.39	MB38
KM40	M200 X 3.0	250	226	29	18	8	201.5	3.69	MB40

⁽¹⁾No. KM0 - KM40 also available in 304 stainless steel.

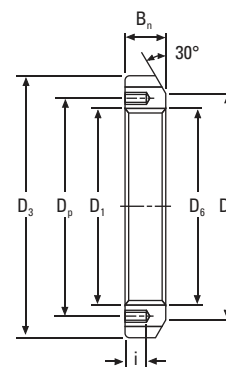
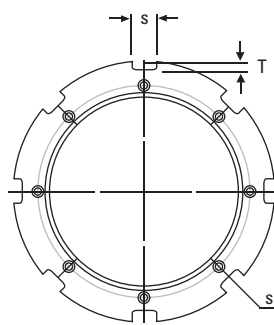
⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

METRIC LOCKNUTS – continued



Locknut No.	Thread ⁽¹⁾ D ₁	D ₃	D ₄	B _n	s	T	D ₆	Weight
	mm	mm	mm	mm	mm	mm	mm	kg
HM42	Tr 210 x 4	270	238	30	20	10	212	4.75
HM44	Tr 220 x 4	280	250	32	20	10	222	5.35
HM46	Tr 230 x 4	290	260	34	20	10	232	5.80
HM48	Tr 240 x 4	300	270	34	20	10	242	6.20
HM50	Tr 250 x 4	320	290	36	20	10	252	7.00
HM52	Tr 260 x 4	330	300	36	24	12	262	8.55
HM54	Tr 270 x 4	340	310	38	24	12	272	9.20
HM56	Tr 280 x 4	350	320	38	24	12	282	10.00
HM58	Tr 290 x 4	370	330	40	24	12	292	11.80
HM60	Tr 300 x 4	380	340	40	24	12	302	12.00
HM62	Tr 310 x 5	390	350	42	24	12	312.5	13.40
HM64	Tr 320 x 5	400	360	42	24	12	322.5	13.50
HM66	Tr 330 x 5	420	380	52	28	15	332.5	20.40
HM68	Tr 340 x 5	440	400	55	28	15	342.5	24.50
HM70	Tr 350 x 5	450	410	55	28	15	352.5	25.20
HM72	Tr 360 x 5	460	420	58	28	15	362.5	27.50
HM74	Tr 370 x 5	470	430	58	28	15	372.5	28.20
HM76	Tr 380 x 5	490	450	60	32	18	382.5	33.50
HM80	Tr 400 x 5	520	470	62	32	18	402.5	40.00

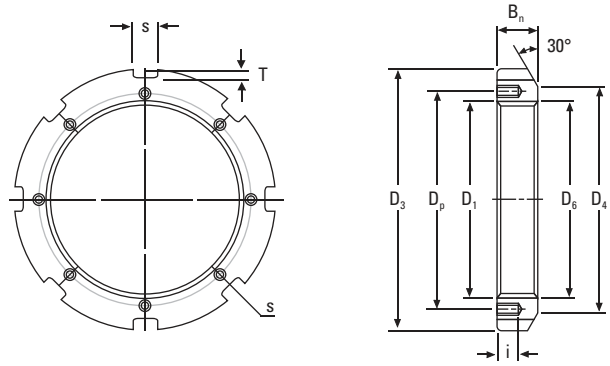
⁽¹⁾Tr means 30°; trapezoid thread and the digits are major diameter of thread and pitch.



Locknut No.	Thread ⁽¹⁾ D ₁	D ₃	D ₄	s	T	D ₆	B _n	i	Tapped Hole Threads	D _p	Appropriate Lockplate No.	Weight
	mm	mm	mm	mm	mm	mm	mm	mm		mm		kg
HM3044	Tr 220 x 4	260	242	20	9	222	30	12	M 6 x 1	229	MS3044	3.09
HM3048	Tr 240 x 4	290	270	20	10	242	34	15	M 8 x 1.25	253	MS3048	5.16
HM3052	Tr 260 x 4	310	290	20	10	262	34	15	M 8 x 1.25	273	MS3052	5.67
HM3056	Tr 280 x 4	330	310	24	10	282	38	15	M 8 x 1.25	293	MS3056	6.78
HM3060	Tr 300 x 4	360	336	24	12	302	42	15	M 8 x 1.25	316	MS3060	9.62
HM3064	Tr 320 x 5	380	356	24	12	322.5	42	15	M 8 x 1.25	335	MS3064	9.94
HM3068	Tr 340 x 5	400	376	24	12	342.5	45	15	M 8 x 1.25	355	MS3068	11.70
HM3072	Tr 360 x 5	420	394	28	13	362.5	45	15	M 8 x 1.25	374	MS3072	12.00
HM3076	Tr 380 x 5	450	422	28	14	382.5	48	18	M 10 x 1.5	398	MS3076	14.90
HM3080	Tr 400 x 5	470	442	28	14	402.5	52	18	M 10 x 1.5	418	MS3080	16.90
HM3084	Tr 420 x 5	490	462	32	14	422.5	52	18	M 10 x 1.5	438	MS3084	17.40
HM3088	Tr 440 x 5	520	490	32	15	442.5	60	21	M 12 x 1.75	462	MS3088	26.20
HM3092	Tr 460 x 5	540	510	32	15	462.5	60	21	M 12 x 1.75	482	MS3092	29.60
HM3096	Tr 480 x 5	560	530	36	15	482.5	60	21	M 12 x 1.75	502	MS3096	28.30
HM30/500	Tr 500 x 5	580	550	36	15	502.5	68	21	M 12 x 1.75	522	MS30/500	33.60

⁽¹⁾Tr means 30°; trapezoid thread and the digits are major diameter of thread and pitch.

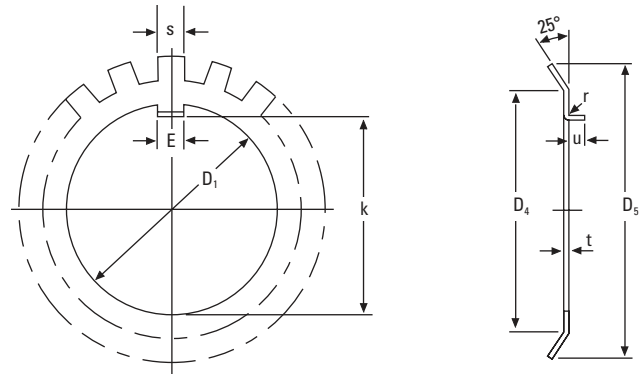
METRIC LOCKNUTS – continued



Locknut No.	Thread ⁽¹⁾ D ₁	D ₃	D ₄	s	T	D ₆	B _n	i	Tapped Hole Threads	D _p	Appropriate Lockplate No.	Weight
	mm	mm	mm	mm	mm	mm	mm	mm		mm		kg
HM3144	Tr 220 x 4	280	250	20	10	222	32	15	M 8 x 1.25	238	MS3144	5.20
HM3148	Tr 240 x 4	300	270	20	10	242	34	15	M 8 x 1.25	258	MS3148	5.95
HM3152	Tr 260 x 4	330	300	24	12	262	36	18	M 10 x 1.5	281	MS3152	8.05
HM3156	Tr 280 x 4	350	320	24	12	282	38	18	M 10 x 1.5	301	MS3156	9.05
HM3160	Tr 300 x 4	380	340	24	12	302	40	18	M 10 x 1.5	326	MS3160	11.80
HM3164	Tr 320 x 5	400	360	24	12	322.5	42	18	M 10 x 1.5	345	MS3164	13.10
HM3168	Tr 340 x 5	440	400	28	15	342.5	55	21	M 12 x 1.75	372	MS3168	23.10
HM3172	Tr 360 x 5	460	420	28	15	362.5	58	21	M 12 x 1.75	392	MS3172	25.10
HM3176	Tr 380 x 5	490	450	32	18	382.5	60	21	M 12 x 1.75	414	MS3176	30.90
HM3180	Tr 400 x 5	520	470	32	18	402.5	62	27	M 16 x 2	439	MS3180	36.90
HM3184	Tr 420 x 5	540	490	32	18	422.5	70	27	M 16 x 2	459	MS3184	43.50
HM3188	Tr 440 x 5	560	510	36	20	442.5	70	27	M 16 x 2	477	MS3188	45.30
HM3192	Tr 460 x 5	580	540	36	20	462.5	75	27	M 16 x 2	497	MS3192	50.40
HM3196	Tr 480 x 5	620	560	36	20	482.5	75	27	M 16 x 2	527	MS3196	62.20
HM31/500	Tr 500 x 5	630	580	40	23	502.5	80	27	M 16 x 2	539	MS31/500	63.30

⁽¹⁾Tr means 30°; trapezoid thread and the digits are major diameter of thread and pitch.

METRIC LOCKWASHERS



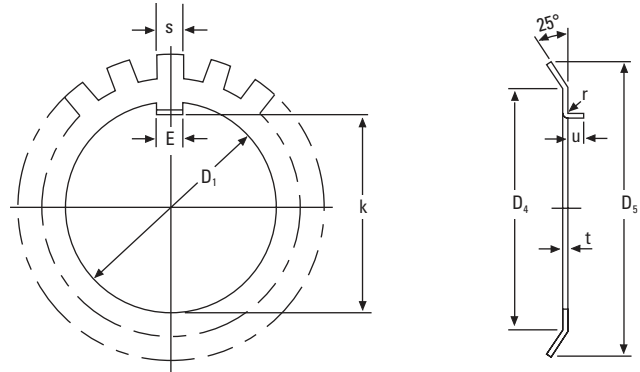
Lockwasher ⁽¹⁾ No.	Thread D ₁	k	E	t	S	D ₄	D ₅	r ⁽²⁾	u ⁽²⁾	No. of Tangs	Weight per 100 pieces	Locknut No.
	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	
MB0	10	8.5	3	1	3	13	21	0.5	2	9	0.13	KM00
MB1	12	10.5	3	1	3	17	25	0.5	2	9	0.19	KM01
MB2	15	13.5	4	1	4	21	28	1	2.5	13	0.25	KM02
MB3	17	15.5	4	1	4	24	32	1	2.5	13	0.31	KM03
MB4	20	18.5	4	1	4	26	36	1	2.5	13	0.35	KM04
MB5	25	23	5	1.2	5	32	42	1	2.5	13	0.64	KM05
MB6	30	27.5	5	1.2	5	38	49	1	2.5	13	0.78	KM06
MB7	35	32.5	6	1.2	5	44	57	1	2.5	15	1.04	KM07
MB8	40	37.5	6	1.2	6	50	62	1	2.5	15	1.23	KM08
MB9	45	42.5	6	1.2	6	56	69	1	2.5	17	1.52	KM09
MB10	50	47.5	6	1.2	6	61	74	1	2.5	17	1.60	KM10
MB11	55	52.5	8	1.2	7	67	81	1	4	17	1.96	KM11
MB12	60	57.5	8	1.5	7	73	86	1.2	4	17	2.53	KM12
MB13	65	62.5	8	1.5	7	79	92	1.2	4	19	2.90	KM13
MB14	70	66.5	8	1.5	8	85	98	1.2	4	19	3.34	KM14
MB15	75	71.5	8	1.5	8	90	104	1.2	4	19	3.56	KM15
MB16	80	76.5	10	1.8	8	95	112	1.2	4	19	4.64	KM16
MB17	85	81.5	10	1.8	8	102	119	1.2	4	19	5.24	KM17
MB18	90	86.5	10	1.8	10	108	126	1.2	4	19	6.23	KM18
MB19	95	91.5	10	1.8	10	113	133	1.2	4	19	6.70	KM19
MB20	100	96.5	12	1.8	10	120	142	1.2	6	19	7.65	KM20
MB21	105	100.5	12	1.8	12	126	145	1.2	6	19	8.26	KM21
MB22	110	105.5	12	1.8	12	133	154	1.2	6	19	9.40	KM22
MB23	115	110.5	12	2	12	137	159	1.5	6	19	10.80	KM23
MB24	120	115	14	2	12	138	164	1.5	6	19	10.50	KM24
MB25	125	120	14	2	12	148	170	1.5	6	19	11.80	KM25
MB26	130	125	14	2	12	149	175	1.5	6	19	11.30	KM26
MB27	135	130	14	2	14	160	185	1.5	6	19	14.40	KM27
MB28	140	135	16	2	14	160	192	1.5	8	19	14.20	KM28
MB29	145	140	16	2	14	171	202	1.5	8	19	16.80	KM29

⁽¹⁾No. MB0-MB40 also available in 304 stainless steel.

⁽²⁾Straight tangs when t ≥ 3 mm.

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METRIC LOCKWASHERS – continued



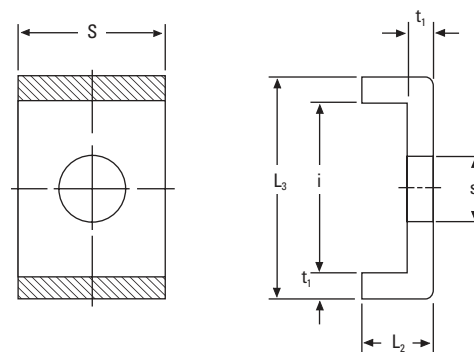
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Lockwasher ⁽¹⁾ No.	Thread D ₁	k	E	t	S	D ₄	D ₅	r ⁽²⁾	u ⁽²⁾	No. of Tangs	Weight per 100 pieces	Locknut No.
	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	
MB30	150	145	16	2	14	171	205	1.5	8	19	15.50	KM30
MB31	155	147.5	16	2.5	16	182	212	1.5	8	19	20.90	KM31
MB32	160	154	18	2.5	18	182	217	1.5	8	19	22.20	KM32
MB33	165	157.5	18	2.5	16	193	222	1.5	8	19	24.10	KM33
MB34	170	164	18	2.5	16	193	232	1.5	8	19	24.70	KM34
MB36	180	174	20	2.5	18	203	242	1.5	8	19	26.80	KM36
MB38	190	184	20	2.5	18	214	252	1.5	8	19	27.80	KM38
MB40	200	194	20	2.5	18	226	262	1.5	8	19	29.30	KM40
MB44	220	213	24	3.0	20	250	292	–	–	19	48.30	HM3144
MB48	240	233	24	3.0	20	270	312	–	–	19	50.20	HM3148
MB52	260	253	28	3.0	24	300	342	–	–	23	72.90	HM3152
MB56	280	273	28	3.0	24	320	362	–	–	23	75.90	HM3156

⁽¹⁾No. MB0-MB40 also available in 304 stainless steel.

⁽²⁾Straight tangs when t ≥ 3 mm.

METRIC LOCKPLATES



Lockplate No.	t ₁	S	L ₂	S ₁	i	L ₃	Appropriate Locknut No.	Weight per 100 pieces
	mm	mm	mm	mm	mm	mm		kg
MS3144	4	20	12	9	22.5	30.5	HM3144	2.60
MS3148	4	20	12	9	22.5	30.5	HM3148	2.60
MS3152	4	24	12	12	25.5	33.5	HM3152	3.39
MS3156	4	24	12	12	25.5	33.5	HM3156	3.39
MS3160	4	24	12	12	30.5	38.5	HM3160	3.79
MS3164	5	24	15	12	31	41	HM3164	5.35
MS3168	5	28	15	14	38	48	HM3168	6.65
MS3172	5	28	15	14	38	48	HM3172	6.65
MS3176	5	32	15	14	40	50	HM3176	7.96
MS3180	5	32	15	18	45	55	HM3180	8.20
MS3184	5	32	15	18	45	55	HM3184	8.20
MS3188	5	36	15	18	43	53	HM3188	9.00
MS3192	5	36	15	18	43	53	HM3192	9.00
MS3196	5	36	15	18	53	63	HM3196	10.40
MS31/500	5	40	15	18	45	55	HM31/500	10.50
MS3044	4	20	12	7	13.5	21.5	HM3044	2.12
MS3048	4	20	12	9	17.5	25.5	HM3048	2.29
MS3052	4	20	12	9	17.5	25.5	HM3052	2.29
MS3056	4	24	12	9	17.5	25.5	HM3056	2.92
MS3060	4	24	12	9	20.5	28.5	HM3060	3.16
MS3064	5	24	15	9	21	31	HM3064	4.56
MS3068	5	24	15	9	21	31	HM3068	4.56
MS3072	5	28	15	9	20	30	HM3072	5.03
MS3076	5	28	15	12	24	34	HM3076	5.28
MS3080	5	28	15	12	24	34	HM3080	5.28
MS3084	5	32	15	12	24	34	HM3084	6.11
MS3088	5	32	15	14	28	38	HM3088	6.45
MS3092	5	32	15	14	28	38	HM3092	6.45
MS3096	5	36	15	14	28	38	HM3096	7.29
MS30/500	5	36	15	14	28	38	HM30/500	7.29