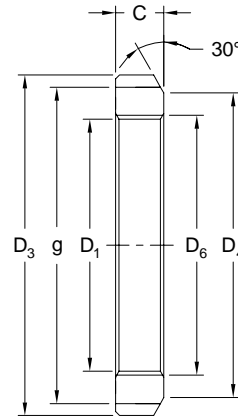
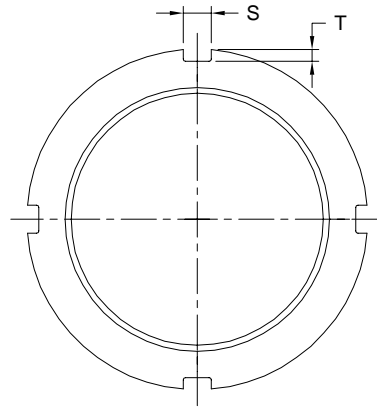


Metric Lock Nuts



KM Series KML Series



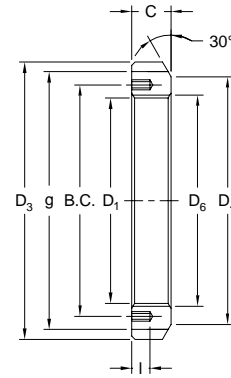
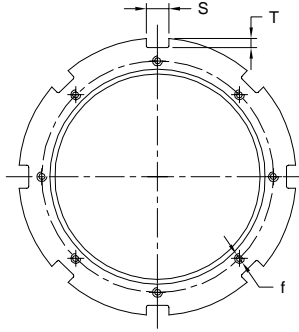
Dimensions in mm

KM Series				KML Series				Dimensions					
Lock Nut Part No.	D ₃	D ₄	g	Lock Nut Part No.	D ₃	D ₄	g	D ₁	C	S	T	D ₆	Wt. kg
KM00	18	13	14	—	—	—	—	M10 x 0.75	4	3	2	10.5	0.005
KM01	22	17	18	—	—	—	—	M12 x 1.00	4	3	2	12.5	0.007
KM02	25	21	21	—	—	—	—	M15 x 1.00	5	4	2	15.5	0.01
KM03	28	24	24	—	—	—	—	M17 x 1.00	5	4	2	17.5	0.01
KM04	32	26	26	—	—	—	—	M20 x 1.00	6	4	2	20.5	0.02
KM05	38	32	34	—	—	—	—	M25 x 1.50	7	5	2	25.8	0.03
KM06	45	38	41	—	—	—	—	M30 x 1.50	7	5	2	30.8	0.04
KM07	52	44	48	—	—	—	—	M35 x 1.50	8	5	2	35.8	0.05
KM08	58	50	53	—	—	—	—	M40 x 1.50	9	6	2.5	40.8	0.09
KM09	65	56	60	—	—	—	—	M45 x 1.50	10	6	2.5	45.8	0.12
KM10	70	61	65	—	—	—	—	M50 x 1.50	11	6	2.5	50.8	0.15
KM11	75	67	69	—	—	—	—	M55 x 2.00	11	7	3	56.0	0.16
KM12	80	73	74	—	—	—	—	M60 x 2.00	11	7	3	61.0	0.17
KM13	85	79	79	—	—	—	—	M65 x 2.00	12	7	3	66.0	0.20
KM14	95	85	85	—	—	—	—	M70 x 2.00	12	8	3.5	71.0	0.24
KM15	98	90	91	—	—	—	—	M75 x 2.00	13	8	3.5	76.0	0.29
KM16	105	95	98	—	—	—	—	M80 x 2.00	15	8	3.5	81.0	0.40
KM17	110	102	103	—	—	—	—	M85 x 2.00	16	8	3.5	86.0	0.45
KM18	120	108	112	—	—	—	—	M90 x 2.00	16	10	4	91.0	0.56
KM19	125	113	117	—	—	—	—	M95 x 2.00	17	10	4	96.0	0.66
KM20	130	120	122	—	—	—	—	M100 x 2.00	18	10	4	101.0	0.70
KM21	140	126	130	—	—	—	—	M105 x 2.00	18	12	5	106.0	0.85
KM22	145	133	135	—	—	—	—	M110 x 2.00	19	12	5	111.0	0.97
KM23	150	137	140	—	—	—	—	M115 x 2.00	19	12	5	116.0	1.01
KM24	155	138	145	KML24	145	135	135	M120 x 2.00	20	12	5	121.0	1.08
KM25	160	148	150	—	—	—	—	M125 x 2.00	21	12	5	126.0	1.19
KM26	165	149	155	KML26	155	145	145	M130 x 2.00	21	12	5	131.0	1.25
KM27	175	160	163	—	—	—	—	M135 x 2.00	22	14	6	136.0	1.55
KM28	180	160	168	KML28	165	155	153	M140 x 2.00	22	14	6	141.0	1.56
KM29	190	171	178	—	—	—	—	M145 x 2.00	24	14	6	146.0	2.00
KM30	195	172	183	KML30	180	170	168	M150 x 2.00	24	14	6	151.0	2.03
KM31	200	182	186	—	—	—	—	M155 x 3.00	25	16	7	156.5	2.21
KM32	210	182	196	KML32	190	180	176	M160 x 3.00	25	16	7	161.5	2.59
KM33	210	193	196	—	—	—	—	M165 x 3.00	26	16	7	166.5	2.43
KM34	220	193	206	KML34	200	190	186	M170 x 3.00	26	16	7	171.5	2.80
KM36	230	203	214	KML36	210	200	194	M180 x 3.00	27	18	8	181.5	3.07
KM38	240	214	224	KML38	220	210	204	M190 x 3.00	28	18	8	191.5	3.39
KM40	250	226	234	KML40	240	222	224	M200 x 3.00	29	18	8	201.5	3.69

Metric Lock Nuts



HM3100 Series HM3000 Series



HM3100 Series

Dimensions in mm

Part No.	D1 Thread	D3	D4	g	S	T	D6	C	l	f	B.C.	Lock Clip Part No.	Wt. kg
HM3144	TR220 x 4	280	250	260	20	10	222.0	32	15	M8 x 1.25	238	MS3144 / MS3148	5.20
HM3148	TR240 x 4	300	270	280	20	10	242.0	34	15	M8 x 1.25	258	MS3144 / MS3148	5.95
HM3152	TR260 x 4	330	300	306	24	12	262.0	36	18	M10 x 1.50	281	MS3152 / MS3156	8.05
HM3156	TR280 x 4	350	320	326	24	12	282.0	38	18	M10 x 1.50	301	MS3152 / MS3156	9.05
HM3160	TR300 x 4	380	340	356	24	12	302.0	40	18	M10 x 1.50	326	MS3160	11.80
HM3164	TR320 x 5	400	360	376	24	12	322.5	42	18	M10 x 1.50	345	MS3164	13.10
HM3168	TR340 x 5	440	400	410	28	15	342.5	55	21	M12 x 1.75	372	MS3168 / MS3172	23.10
HM3172	TR360 x 5	460	420	430	28	15	362.5	58	21	M12 x 1.75	392	MS3168 / MS3172	25.10
HM3176	TR380 x 5	490	450	454	32	18	382.5	60	21	M12 x 1.75	414	MS3176	30.90
HM3180	TR400 x 5	520	470	484	32	18	402.5	62	27	M16 x 2.00	439	MS3180 / MS3184	36.90
HM3184	TR420 x 5	540	490	504	32	18	422.5	70	27	M16 x 2.00	459	MS3180 / MS3184	43.50
HM3188	TR440 x 5	560	510	520	36	20	442.5	70	27	M16 x 2.00	477	MS3188 / MS3192	45.30
HM3192	TR460 x 5	580	540	540	36	20	462.5	75	27	M16 x 2.00	497	MS3188 / MS3192	50.4
HM3196	TR480 x 5	620	560	580	36	20	482.5	75	27	M16 x 2.00	527	MS3196	62.2

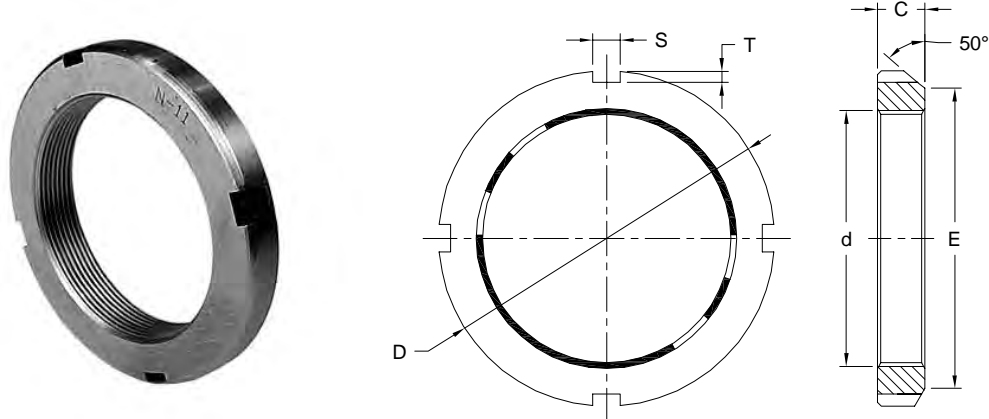
HM3000 Series

Part No.	D1 Thread	D3	D4	g	S	T	D6	C	l	f	B.C.	Lock Clip Part No.	Wt. kg
HM3044	TR220 x 4	260	242	242	20	9	222.0	30	12	M6 x 1.00	229	MS3044	3.09
HM3048	TR240 x 4	290	270	270	20	10	242.0	34	15	M8 x 1.25	253	MS3048 / MS3052	5.16
HM3052	TR260 x 4	310	290	290	20	10	262.0	34	15	M8 x 1.25	273	MS3048 / MS3052	5.67
HM3056	TR280 x 4	330	310	310	24	10	282.0	38	15	M8 x 1.25	293	MS3056	6.78
HM3060	TR300 x 4	360	336	336	24	12	302.0	42	15	M8 x 1.25	316	MS3060	9.62
HM3064	TR320 x 5	380	356	356	24	12	322.5	42	15	M8 x 1.25	335	MS3064 / MS3068	9.94
HM3068	TR340 x 5	400	376	376	24	12	342.5	45	15	M8 x 1.25	355	MS3064 / MS3068	11.70
HM3072	TR360 x 5	420	394	394	28	13	362.5	45	15	M8 x 1.25	374	MS3072	12.0
HM3076	TR380 x 5	450	422	422	28	14	382.5	48	18	M10 x 1.50	398	MS3076 / MS3080	14.9
HM3080	TR400 x 5	470	442	442	28	14	402.5	52	18	M10 x 1.50	418	MS3076 / MS3080	16.9
HM3084	TR420 x 5	490	462	462	32	14	422.5	52	18	M10 x 1.50	438	MS3084	17.4
HM3088	TR440 x 5	520	490	490	32	15	442.5	60	21	M12 x 1.75	462	MS3088 / MS3092	26.2
HM3092	TR460 x 5	540	510	510	32	15	462.5	60	21	M12 x 1.75	482	MS3088 / MS3092	29.6
HM3096	TR480 x 5	560	530	530	36	15	482.5	60	21	M12 x 1.75	502	MS3096	28.3

Inch Lock Nuts



N00 Series
AN00 Series



Dimensions in inches

Part No.	Threads		D	E	C	S min.	T max.	Wt. lb
	Major Dia. d	No. per Inch						
N00	0.391	32	0.755	0.625	0.229	0.120	0.073	0.01
N01	0.469	32	0.880	0.719	0.323	0.120	0.073	0.02
N02	0.586	32	1.005	0.813	0.323	0.120	0.104	0.02
N03	0.664	32	1.130	0.938	0.354	0.120	0.104	0.03
N04	0.781	32	1.380	1.125	0.385	0.178	0.104	0.04
N05	0.969	32	1.568	1.281	0.416	0.178	0.104	0.05
N06	1.173	18	1.755	1.500	0.416	0.178	0.104	0.10
N07	1.376	18	2.068	1.813	0.448	0.178	0.104	0.11
N08	1.563	18	2.255	2.000	0.448	0.240	0.104	0.19
N09	1.767	18	2.536	2.281	0.448	0.240	0.104	0.36
N10	1.967	18	2.693	2.438	0.510	0.240	0.104	0.33
N11	2.157	18	2.974	2.656	0.510	0.240	0.135	0.35
N12	2.360	18	3.161	2.844	0.541	0.240	0.135	0.38
N13	2.548	18	3.380	3.063	0.573	0.240	0.135	0.45
N14	2.751	18	3.630	3.313	0.573	0.240	0.135	0.53
AN15	2.933	12	3.880	3.563	0.604	0.360	0.135	0.63
AN16	3.137	12	4.161	3.844	0.604	0.360	0.135	0.88
AN17	3.340	12	4.411	4.031	0.635	0.360	0.166	0.99
AN18	3.527	12	4.661	4.281	0.698	0.360	0.166	1.23
AN19	3.730	12	4.943	4.563	0.729	0.360	0.166	1.45
AN20	3.918	12	5.193	4.813	0.760	0.360	0.166	1.54
AN21	4.122	12	5.443	5.000	0.760	0.485	0.198	1.86
AN22	4.325	12	5.724	5.281	0.791	0.485	0.198	2.13
AN24	4.716	12	6.130	5.688	0.823	0.485	0.198	2.38
AN26	5.106	12	6.755	6.188	0.885	0.610	0.260	2.76
AN28	5.497	12	7.099	6.531	0.948	0.610	0.360	3.44
AN30	5.888	12	7.693	7.063	0.979	0.610	0.391	4.48
AN32	6.284	8	8.068	7.438	1.041	0.610	0.291	5.71
AN34	6.659	8	8.661	8.031	1.073	0.610	0.291	6.17
AN36	7.066	8	9.068	8.375	1.104	0.735	0.323	6.77
AN38	7.472	8	9.474	8.781	1.135	0.735	0.323	7.47
AN40	7.847	8	9.849	9.156	1.198	0.735	0.323	8.14
AN44	8.628	8	11.005	9.843	1.260	0.980	0.510	11.5

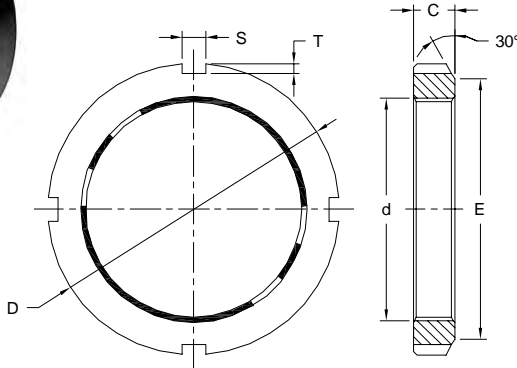
Inch Lock Nuts



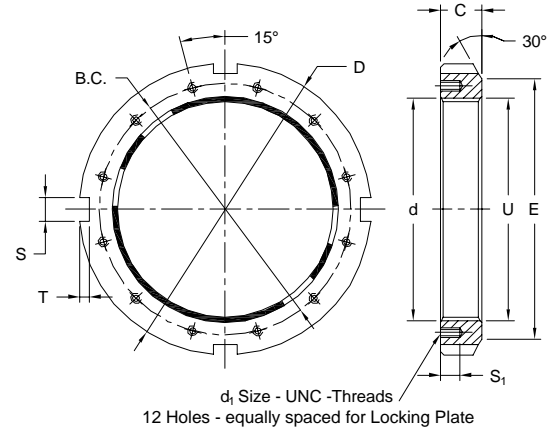
N000 Series



Size 022 to 044



Size 048 and up



Dimensions in inches

Part No.	Threads		D	E	C	S	T	B.C.	d ₁	S ₁	Wt. lb
	Major Dia. d	No. per Inch									
N022	4.325	12	5.318	4.901	0.791	0.485	0.198	—	—	—	1.6
N024	4.716	12	5.693	5.313	0.823	0.485	0.198	—	—	—	1.7
N026	5.106	12	6.130	5.703	0.885	0.485	0.198	—	—	—	2.0
N028	5.497	12	6.505	6.109	0.948	0.485	0.198	—	—	—	2.2
N030	5.888	12	7.130	2.288	0.979	0.610	0.229	—	—	—	3.0
N032	6.284	8	7.505	7.094	1.041	0.610	0.229	—	—	—	3.4
N034	6.659	8	7.880	7.484	1.073	0.610	0.229	—	—	—	3.8
N036	7.066	8	8.255	7.875	1.104	0.610	0.229	—	—	—	4.3
N038	7.472	8	8.693	8.266	1.135	0.610	0.229	—	—	—	4.6
N040	7.847	8	9.443	8.750	1.198	0.735	0.323	—	—	—	6.6
N044	8.628	8	10.255	9.531	1.260	0.860	0.385	—	—	—	6.8
N048	9.442	6	11.443	10.625	1.354	0.860	0.385	10.423	5/16-18	0.625	11.4
N052	10.192	6	12.193	11.406	1.416	0.860	0.385	11.298	5/16-18	0.625	12.5
N056	11.004	6	13.005	12.219	1.510	0.980	0.385	12.110	5/16-18	0.625	14.9
N060	11.785	6	14.193	13.219	1.573	0.980	0.510	13.110	3/8-16	0.750	21.2
N064	12.562	6	15.005	14.031	1.666	0.980	0.510	13.860	3/8-16	0.750	21.9
N068	13.339	5	15.755	14.813	1.791	0.980	0.510	14.735	3/8-16	0.750	25.8
N072	14.170	5	16.505	15.500	1.791	1.230	0.510	15.485	3/8-16	0.750	26.5
N076	14.957	5	17.755	16.625	1.916	1.230	0.604	16.485	1/2-13	0.875	32.8
N080	15.745	5	18.505	17.438	2.073	1.230	0.604	17.235	1/2-13	0.875	37.3
N084	16.532	5	19.318	18.188	2.073	1.355	0.604	18.110	1/2-13	0.875	38.4
N088	17.319	5	20.505	19.250	2.385	1.355	0.604	19.110	5/8-11	1.250	57.5
N092	18.107	5	21.255	20.688	2.385	1.355	0.604	19.985	5/8-11	1.250	65.3
N096	18.894	5	22.068	20.750	2.385	1.480	0.604	20.673	5/8-11	1.250	62.4

GUK Type Lock Nuts



Self-Locking nut

Polyamide insert

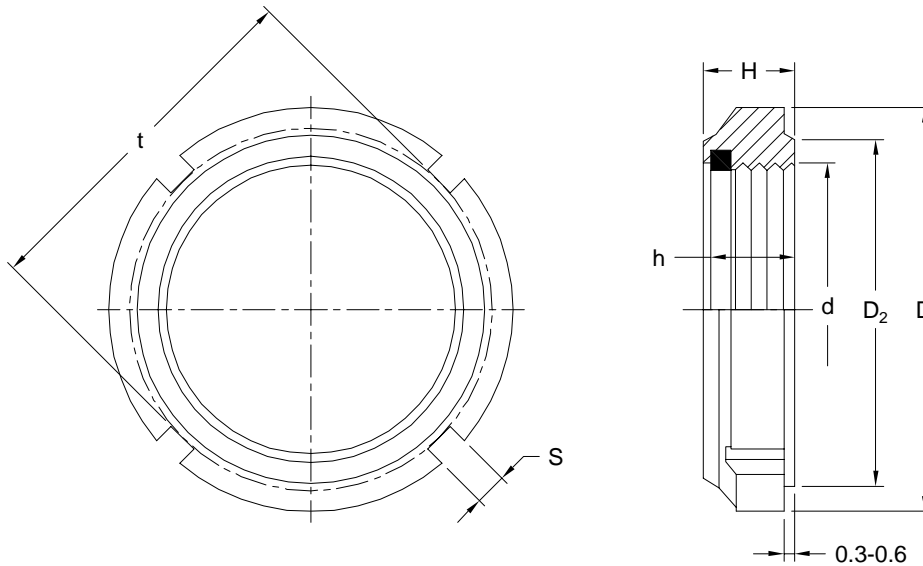
Metric ISO fine thread

Self-locking by the polyamide insert - temperature max: 100°C / 212°F

The bore of the threadless polyamide insert is slightly smaller than the inner diameter of the nut.

Therefore increased friction between nut and shaft for locking.

Zinc plated and passivated finish.



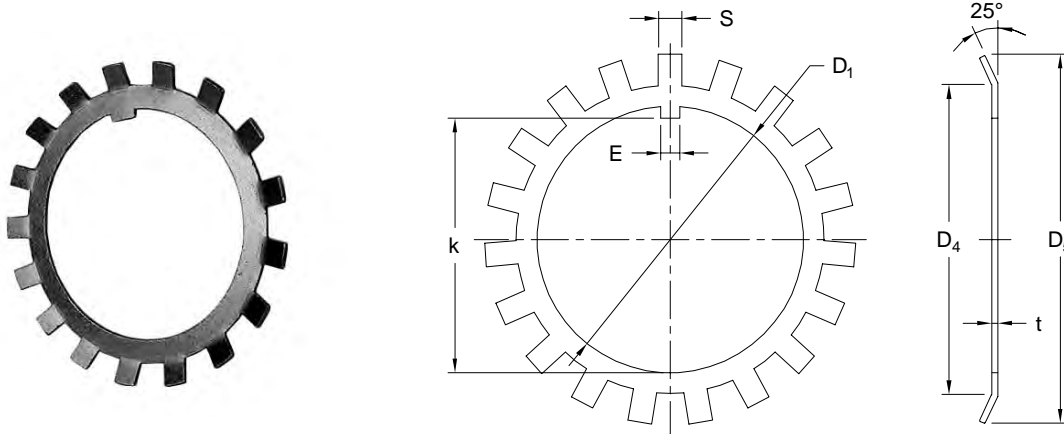
Dimensions in mm

Type	Thread d_1	d_2	d_3	h	m	b	t	Nut Grooves	Wt. kg/100
GUK0	M10x0.75	18	15	7.6	4.5	3	1.5	4	0.6
GUK1	M12x1	21	18	7.6	4.5	3	1.5	4	0.9
GUK2	M15x1	24	21	8.6	5.5	4	1.5	4	1.4
GUK3	M17x1	28	24	8.7	5.5	4	2.0	4	1.7
GUK4	M20x1	32	27	9.6	6.0	4	2.5	4	2.3
GUK5	M25x1.5	38	33	10.5	6.5	5	2.5	4	3.1
GUK6	M30x1.5	44	38	10.7	6.6	5	3.0	4	4.6
GUK7	M35x1.5	50	44	11.3	7.0	5	3.0	4	6.0
GUK8	M40x1.5	56	50	12.3	7.7	6	3.0	4	7.5
GUK9	M45x1.5	62	55	12.3	7.8	6	3.5	4	9.3
GUK10	M50x1.5	68	61	12.9	8.1	6	3.5	4	11.3
GUK11	M55x2	75	68	13.4	8.2	7	3.5	6	14.6
GUK12	M60x2	80	73	13.4	8.2	7	3.5	6	15.9
GUK13	M65x2	85	77	14.5	9.0	7	4.0	6	19.0
GUK14	M70x2	92	84	14.5	9.2	8	4.0	6	22.1
GUK15	M75x2	98	89	15.5	10.0	8	4.5	6	26.1
GUK16	M80x2	105	96	16.5	11.2	10	4.0	8	32.1
GUK17	M85x2	110	100	17.5	12.1	10	5.0	8	37.1
GUK18	M90x2	120	110	17.7	12.5	10	5.0	8	46.6
GUK19	M95x2	125	115	18.7	13.5	10	5.0	8	51.6
GUK20	M100x2	130	120	19.7	14.5	10	5.0	8	59.6

Metric Lock Washers



MB Series



Dimensions in mm

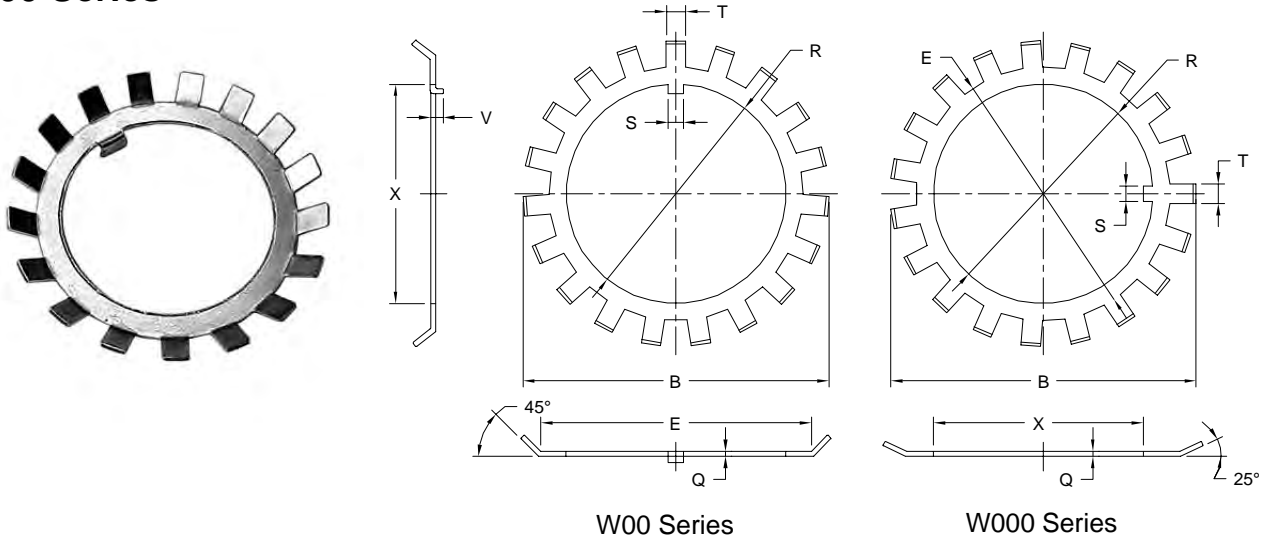
Part No.	D ₁	k	E	t	S	D ₄	D ₅	Tangs	Use with Lock Nut	Wt. kg/1000 Pcs
MB00	10	8.5	3	1	3	13	21	9	KM00	0.13
MB01	12	10.5	3	1	3	17	25	9	KM01	0.20
MB02	15	13.5	4	1	4	21	28	13	KM02	0.26
MB03	17	15.5	4	1	4	24	32	13	KM03	0.32
MB04	20	18.5	4	1	4	26	36	13	KM04	0.35
MB05	25	23	5	1.2	5	32	42	13	KM05	0.64
MB06	30	27.5	5	1.2	5	38	49	13	KM06	0.78
MB07	35	32.5	6	1.2	5	44	57	15	KM07	1.04
MB08	40	37.5	6	1.2	6	50	62	15	KM08	1.23
MB09	45	42.5	6	1.2	6	56	69	17	KM09	1.52
MB10	50	47.5	6	1.2	6	61	74	17	KM10	1.60
MB11	55	52.5	8	1.2	7	67	81	17	KM11	1.96
MB12	60	57.5	8	1.5	7	73	86	17	KM12	2.53
MB13	65	62.5	8	1.5	7	79	92	19	KM13	2.90
MB14	70	66.5	8	1.5	8	85	98	19	KM14	3.34
MB15	75	71.5	8	1.5	8	90	104	19	KM15	3.56
MB16	80	76.5	10	1.8	8	95	112	19	KM16	4.64
MB17	85	81.5	10	1.8	8	102	119	19	KM17	5.24
MB18	90	86.5	10	1.8	10	108	126	19	KM18	6.23
MB19	95	91.5	10	1.8	10	113	133	19	KM19	6.70
MB20	100	96.5	12	1.8	10	120	142	19	KM20	7.65
MB21	105	100.5	12	1.8	12	126	145	19	KM21	8.26
MB22	110	105.5	12	1.8	12	133	154	19	KM22	9.40
MB23	115	110.5	12	2	12	137	159	19	KM23	10.80
MB24	120	115	14	2	12	138	164	19	KM24	10.50
MB25	125	120	14	2	12	148	170	19	KM25	11.80
MB26	130	125	14	2	12	149	175	19	KM26	11.30
MB27	135	130	14	2	14	160	185	19	KM27	14.40
MB28	140	135	16	2	14	160	192	19	KM28	14.20
MB29	145	140	16	2	14	172	202	19	KM29	16.80
MB30	150	145	16	2	14	171	205	19	KM30	15.50
MB31	155	147.5	16	2.5	16	182	212	19	KM31	20.90
MB32	160	154	18	2.5	16	182	217	19	KM32	22.20
MB33	165	157.5	18	2.5	16	193	222	19	KM33	24.10
MB34	170	164	18	2.5	16	193	232	19	KM34	24.70
MB36	180	174	20	2.5	18	203	242	19	KM36	26.80
MB38	190	184	20	2.5	18	214	252	19	KM38	27.80
MB40	200	194	20	2.5	18	226	262	19	KM40	29.30

Inch Lock Washers



W00 Series

W000 Series



Dimensions in inches

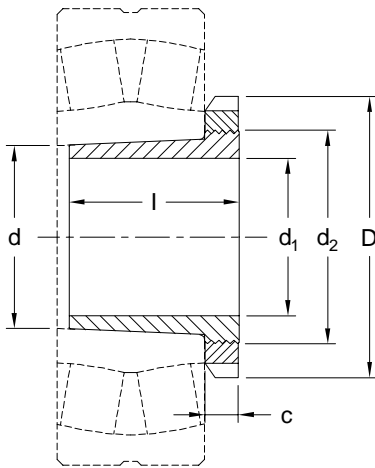
Part No.	Bore R	E		B		S		X min.		No. of Tangs	V		T		Q	
		W00	W000	W00	W000	W00	W000	W00	W000		W00	W000	W00	W000	W00	W000
W00	—	0.406	0.625	—	0.875	—	0.120	—	0.334	9	0.062	0.120	—	0.032	—	
W01	—	0.484	0.719	—	1.016	—	0.120	—	0.412	9	0.062	0.120	—	0.032	—	
W02	—	0.601	0.813	—	1.156	—	0.120	—	0.529	11	0.062	0.120	—	0.032	—	
W03	—	0.679	0.938	—	1.328	—	0.120	—	0.607	11	0.062	0.120	—	0.032	—	
W04	—	0.801	1.125	—	1.531	—	0.176	—	0.729	11	0.062	0.166	—	0.032	—	
W05	—	0.989	1.281	—	1.719	—	0.176	—	0.909	13	0.094	0.166	—	0.040	—	
W06	—	1.193	1.500	—	1.922	—	0.176	—	1.093	13	0.094	0.166	—	0.040	—	
W07	—	1.396	1.813	—	2.250	—	0.176	—	1.296	15	0.094	0.166	—	0.040	—	
W08	—	1.583	2.000	—	2.469	—	0.290	—	1.475	15	0.094	0.234	—	0.048	—	
W09	—	1.792	2.281	—	2.734	—	0.290	—	1.684	17	0.125	0.234	—	0.048	—	
W10	—	1.992	2.438	—	2.922	—	0.290	—	1.884	17	0.125	0.234	—	0.048	—	
W11	—	2.182	2.656	—	3.109	—	0.290	—	2.069	17	0.125	0.234	—	0.053	—	
W12	—	2.400	2.844	—	3.344	—	0.290	—	2.267	17	0.125	0.234	—	0.053	—	
W13	—	2.588	3.063	—	3.578	—	0.290	—	2.455	19	0.125	0.234	—	0.053	—	
W14	—	2.791	3.313	—	3.828	—	0.290	—	2.658	19	0.188	0.234	—	0.053	—	
W15	—	2.973	3.563	—	4.109	—	0.290	—	2.831	19	0.188	0.328	—	0.062	—	
W16	—	3.177	3.844	—	4.375	—	0.353	—	3.035	19	0.188	0.328	—	0.062	—	
W17	—	3.395	4.031	—	4.625	—	0.353	—	3.253	19	0.188	0.328	—	0.062	—	
W18	—	3.582	4.281	—	4.938	—	0.353	—	3.418	19	0.188	0.328	—	0.084	—	
W19	—	3.800	4.563	—	5.219	—	0.353	—	3.636	19	0.188	0.328	—	0.084	—	
W20	—	3.988	4.813	—	5.500	—	0.353	—	3.809	19	0.250	0.328	—	0.084	—	
W21	—	4.192	5.000	—	5.703	—	0.353	—	4.013	19	0.250	0.390	—	0.084	—	
W22	W022	4.395	5.281	4.921	6.063	5.688	0.353	0.350	4.185	19	0.250	0.390	0.390	0.115	0.115	
W24	W024	4.801	5.688	5.333	6.469	6.188	0.353	0.350	4.591	19	0.250	0.390	0.390	0.115	0.115	
W26	W026	5.191	6.188	5.723	7.031	6.625	0.435	0.469	4.961	19	0.250	0.520	0.390	0.115	0.115	
W28	W028	5.582	6.531	6.129	7.438	7.094	0.590	0.594	5.352	19	0.250	0.520	0.390	0.115	0.115	
W30	W030	5.983	7.063	6.708	8.063	7.719	0.590	0.594	5.722	19	0.313	0.520	0.520	0.146	0.115	
W32	W032	6.389	7.438	7.114	8.438	8.156	0.590	0.594	6.128	19	0.313	0.520	0.520	0.146	0.115	
W34	W034	6.764	8.031	7.508	9.063	8.594	0.715	0.719	6.503	19	0.313	0.520	0.520	0.146	0.115	
W36	W036	7.171	8.375	7.899	9.438	9.000	0.715	0.719	6.910	19	0.313	0.645	0.520	0.146	0.115	
W38	W038	7.577	8.781	8.290	9.875	9.438	0.715	0.719	7.316	19	0.313	0.645	0.520	0.146	0.115	
W40	W040	7.982	9.156	8.774	10.313	9.969	0.840	0.844	7.721	19	0.313	0.645	0.645	0.146	0.115	
W44	W044	8.701	9.875	9.570	11.438	10.406	0.940	0.945	8.327	19	—	0.878	0.770	0.146	0.115	

Withdrawal Sleeves



Metric Bores

AH 30, 31 and 32 Series



The removal nut must be ordered separately.

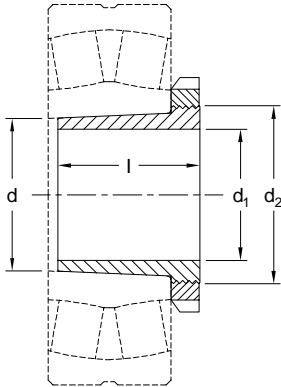
Withdrawal Sleeves, from size AH 2236 and AH 2340 are also available with oil ducts on the outer and inner diameter for hydraulic mounting.

Part No.	Dimensions (mm)				Thread	Removal Nut	C	D	Weight kg
	d	d ₁	d ₂	l					
AH3024	120	110	130	60	M130x2	KM26	21	165	1.2
AH3124	120	110	140	75	M140x2	KM28	22	180	1.7
AH3026	130	120	140	67	M140x2	KM28	22	180	1.4
AH3126	130	120	150	78	M150x2	KM30	24	195	1.9
AH3028	140	130	150	68	M150x2	KM30	24	195	1.6
AH3128	140	130	160	83	M160x3	KM32	25	210	2.2
AH3030	150	140	160	72	M160x3	KM32	25	210	1.8
AH3130	150	140	170	96	M170x3	KM34	26	220	2.7
AH3032	160	150	170	77	M170x3	KM34	26	220	2.1
AH3132	160	150	180	103	M180x3	KM36	27	230	3.2
AH3232	160	150	180	124	M180x3	KM36	27	230	4.1
AH3034	170	160	180	85	M180x3	KM36	27	230	2.4
AH3134	170	160	190	104	M190x3	KM38	28	240	3.4
AH3234	170	160	190	134	M190x3	KM38	28	240	4.8
AH3036	180	170	190	92	M190x3	KM38	28	240	2.8
AH3136	180	170	200	116	M200x3	KM40	29	250	4.2
AH3236	180	170	200	140	M200x3	KM40	29	250	5.3
AH3038	190	180	205	96	Tr205x4	HML41T	30	250	3.4
AH3138	190	180	210	125	Tr210x4	HM42T	30	270	4.9
AH3238	190	180	210	145	Tr210x4	HM42T	30	270	5.9
AH3040	200	190	215	102	Tr215x4	HML43T	30	260	3.8
AH3140	200	190	220	134	Tr220x4	HM44T	32	280	5.5
AH3240	200	190	220	153	Tr220x4	HM44T	32	280	6.7
AH3044	220	200	235	111	Tr235x4	HML47T	30	280	7.4
AH3144	220	200	240	145	Tr240x4	HM48T	34	300	10.4
AH3048	240	220	260	116	Tr260x4	HML52T	36	310	8.8
AH3148	240	220	260	154	Tr260x4	HM52T	36	330	12.0
AH3052	260	240	280	128	Tr280x4	HML56T	30	330	10.7
AH3152	260	240	290	172	Tr290x4	HM58T	36	365	16.2
AH3056	280	260	300	131	Tr300x4	HML60T	31	360	12.0
AH3156	280	260	310	175	Tr310x5	HM62T	36	380	17.5
AH3060	300	280	320	145	Tr320x5	HML64T	32	380	14.4
AH3160	300	280	330	192	Tr330x5	HM66T	40	410	20.8
AH3260	300	280	330	228	Tr330x5	HM66T	40	410	26.0
AH3064	320	300	345	149	Tr345x5	HML69T	33	410	16.0
AH3164	320	300	350	209	Tr350x5	HM70T	42	430	24.5
AH3264	320	300	350	246	Tr350x5	HM70T	42	430	30.6
AH3068	340	320	365	162	Tr365x5	HML73T	35	430	19.5
AH3168	340	320	370	225	Tr370x5	HM74T	45	450	29.0
AH3268	340	320	370	264	Tr370x5	HM74T	45	450	35.4
AH3072	360	340	385	167	Tr385x5	HML77T	37	450	21.0
AH3172	360	340	400	229	Tr400x5	HM80T	46	500	33.0
AH3272	360	340	400	274	Tr400x5	HM80T	46	500	41.5
AH3076	380	360	410	170	Tr410x5	HML82T	39	480	23.2
AH3176	380	360	420	232	Tr420x5	HM84T	49	520	35.7
AH3276	380	360	420	284	Tr420x5	HM84T	49	520	45.6
AH3080	400	380	430	183	Tr430x5	HML86T	41	500	27.3
AH3180	400	380	440	240	Tr440x5	HM88T	51	540	39.5
AH3280	400	380	440	302	Tr440x5	HM88T	51	540	51.7
AH3084	420	400	450	186	Tr450x5	HML90T	41	520	29.0
AH3184	420	400	460	266	Tr460x5	HM92T	53	550	46.5
AH3284	420	400	460	321	Tr460x5	HM92T	53	550	58.9

Withdrawal Sleeves



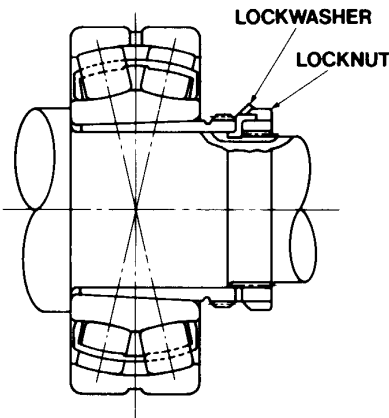
Metric Bores



The removal nut has to be ordered separately.

Withdrawal Sleeves offer a convenient mounting alternative for straight bore or adapter mounted applications.

The locknut on the shaft mounts the bearing while a locknut on the sleeve will dismount the bearing without shaft damage.



Withdrawal Sleeves, from size AH 2236 and AH 2340 are also available with oil ducts on the outer and inner diameter for hydraulic mounting.

AH22 and 23 Series

Part No.	Dimensions (mm)				Thread	Nut	Weight kg
	d	d ₁	d ₂	l			
AH2308	40	35	45	40	M45x1.5	KM9	0.1
AH2309	45	40	50	44	M50x1.5	KM10	0.2
AH2310	50	45	60	50	M60x2	KM12	0.2
AH2311	55	50	65	54	M65x2	KM13	0.3
AH2312	60	55	70	57	M70x2	KM14	0.3
AH2313	65	60	75	61	M75x2	KM15	0.4
AH2314	70	65	85	65	M85x2	KM17	0.5
AH2315	75	70	90	69	M90x2	KM18	0.6
AH2316	80	75	95	72	M95x2	KM19	0.7
AH2317	85	80	100	75	M100x2	KM20	0.7
AH2318	90	85	105	80	M105x2	KM21	0.9
AH2319	95	90	110	85	M110x2	KM22	1.0
AH2320	100	95	120	90	M120x2	KM24	1.2
AH2322	110	100	130	98	M130x2	KM26	2.1
AH2324	120	110	140	105	M140x2	KM28	2.5
AH2326	130	120	150	115	M150x2	KM30	3.0
AH2328	140	130	160	125	M160x3	KM32	3.6
AH2330	150	140	170	135	M170x3	KM34	4.2
AH2332	160	150	180	140	M180x3	KM36	4.8
AH2334	170	160	190	146	M190x3	KM38	5.3
AH2236	180	170	200	105	M200x3	KM40	3.8
AH2336	180	170	200	154	M200x3	KM40	5.8
AH2238	190	180	210	112	Tr 210x4	HM42T	4.3
AH2338	190	180	210	160	Tr 210x4	HM42T	6.6
AH2240	200	190	220	118	Tr 220x4	HM44T	4.7
AH2340	200	190	220	170	Tr 220x4	HM44T	7.6
AH2244	220	200	240	130	Tr 240x4	HM48T	9.1
AH2344	220	200	240	181	Tr 240x4	HM48T	13.5
AH2248	240	220	260	144	Tr 260x4	HM52T	11.1
AH2348	240	220	260	189	Tr 260x4	HM52T	15.5
AH2252	260	240	290	155	Tr 290x4	HM58T	14.0
AH2352	260	240	290	205	Tr 290x4	HM58T	19.6
AH2256	280	260	310	155	Tr 310x5	HM62T	15.2
AH2356	280	260	310	212	Tr 310x5	HM62T	21.6
AH2260	300	280	330	170	Tr 330x5	HM66T	18.1
AH2264	320	300	350	180	Tr 350x5	HM70T	20.2

AH30, 31 and 32 Series

AH308	40	35	45	29	M45x1.5	KM9	0.1
AH309	45	40	50	31	M50x1.5	KM10	0.1
AH310	50	45	60	35	M60x2	KM12	0.2
AH311	55	50	65	37	M65x2	KM13	0.2
AH312	60	55	70	40	M70x2	KM14	0.2
AH313	65	60	75	42	M75x2	KM15	0.3
AH314	70	65	80	43	M80x2	KM16	0.3
AH315	75	70	85	45	M85x2	KM17	0.3
AH316	80	75	90	48	M90x2	KM18	0.4
AH317	85	80	100	52	M100x2	KM20	0.5
AH318	90	85	105	53	M105x2	KM21	0.5
AH319	95	90	110	57	M110x2	KM22	0.6
AH320	100	95	115	59	M115x2	KM23	0.7
AH322	110	100	130	63	M130x2	KM26	1.3
AH3122	110	100	125	68	M125x2	KM25	1.3



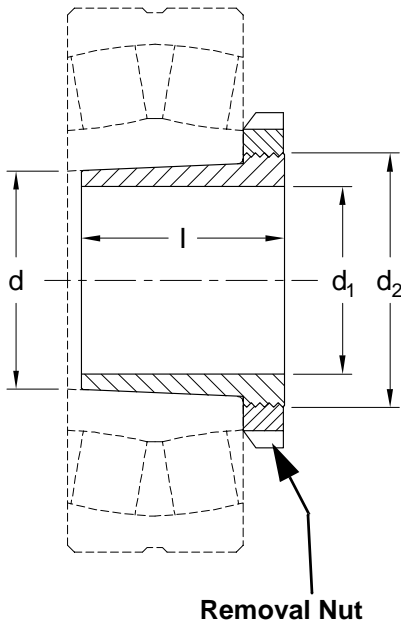
Withdrawal Sleeves

AHX30, 31 and 32 Series

Metric Bores

For 230 and 231 & 232 Series

Spherical Bearings



AHX30, 31 and 32 Series

Part No.	Dimensions (mm)				Thread	Nut	Weight kg
	d	d ₁	d ₂	l			
AHX310	50	45	55	35	M55x2	KM11	0.1
AHX311	55	50	60	37	M60x2	KM12	0.2
AHX312	60	55	65	40	M65x2	KM13	0.2
AHX317	85	80	95	52	M95x2	KM19	0.4
AHX318	90	85	100	53	M100x2	KM20	0.5
AHX3218	90	85	100	63	M100x2	KM20	0.6
AHX319	95	90	105	57	M105x2	KM21	0.5
AHX320	100	95	110	59	M110x2	KM22	0.6
AHX3120	100	95	110	64	M110x2	KM22	0.6
AHX3220	100	95	110	73	M110 x2	KM22	0.8
AHX322	110	105	120	63	M120x2	KM24	0.7
AHX3122	110	105	120	68	M120x2	KM24	0.8
AHX3222	110	105	125	82	M125x2	KM25	1.0
AHX3024	120	115	130	60	M130x2	KM26	0.8
AHX3124	120	115	130	75	M130x2	KM26	0.9
AHX3224	120	115	135	90	M135x2	KM27	1.3
AHX3026	130	125	140	67	M140x2	KM28	0.9
AHX3126	130	125	140	78	M140x2	KM28	1.1
AHX3226	130	125	145	98	M145x2	KM29	1.6
AHX3028	140	135	150	68	M150x2	KM30	1.0
AHX3128	140	135	150	83	M150x2	KM30	1.3
AHX3228	140	135	155	104	M155x3	KM31	1.8
AHX3030	150	145	160	72	M160x3	KM32	1.1
AHX3130	150	145	165	96	M165x3	KM33	1.8
AHX3230	150	145	165	114	M165x3	KM33	2.2

AHX23 Series

Part No.	Dimensions (mm)				Thread	Nut	Weight kg
	d	d ₁	d ₂	l			
AHX2310	50	45	55	50	M55x2	KM11	0.21
AHX2311	55	50	60	54	M60x2	KM12	0.25
AHX2312	60	55	65	58	M65x2	KM13	0.30
AHX2314	70	65	80	64	M80x2	KM16	0.47
AHX2315	75	70	85	68	M85x2	KM17	0.53
AHX2316	80	75	90	71	M90x2	KM18	0.60
AHX2317	85	80	95	74	M95x2	KM19	0.67
AHX2318	90	85	100	79	M100x2	KM20	0.78
AHX2319	95	90	105	85	M105x2	KM21	0.88
AHX2320	100	95	110	90	M110x2	KM22	1.0
AHX2322	110	105	125	98	M125x2	KM25	1.4
AHX2324	120	115	135	105	M135x2	KM27	1.6
AHX2326	130	125	145	115	M145x2	KM29	2.0
AHX2328	140	135	155	125	M155x3	KM31	2.3
AHX2330	150	145	165	135	M165x3	KM33	2.8

For 223 Series Spherical Bearings

The removal nut must be ordered separately.

Inch Bores available on request