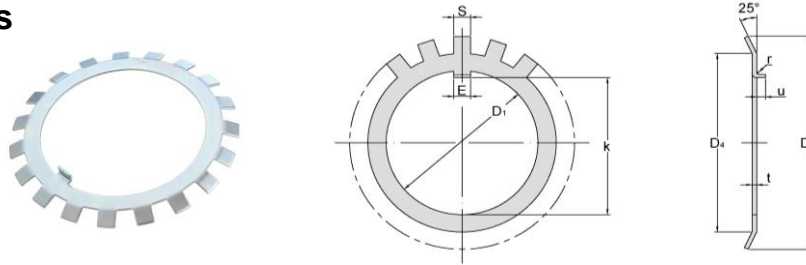


# BEARING LOCK WASHERS



# Lock Washers



**AW**

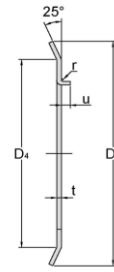
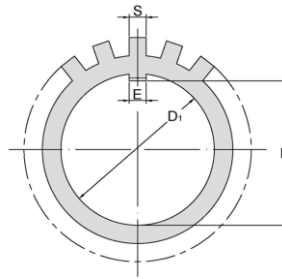
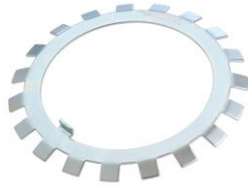
FLAT/BENT TAB AVAILABLE

Lock Washers No.	D1	k	E	t	S	D4	D5	r	u	Number of Tongues	Weight per 100 pcs	Lock Nut No.
	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	
AW00	10	8.5	3	1	3	13.5	21	0.5	2	9	0.131	AN00
AW01	12	10.5	3	1	3	17	25	0.5	2	9	0.192	AN01
AW02	15	13.5	4	1	4	21	28	1	2.5	13	0.253	AN02
AW03	17	15.5	4	1	4	24	32	1	2.5	13	0.313	AN03
AW04	20	18.5	4	1	4	26	36	1	2.5	13	0.350	AN04
AW05	25	23.0	5	1.2	5	32	42	1	2.5	13	0.640	AN05
AW06	30	27.5	5	1.2	5	38	49	1	2.5	13	0.780	AN06
AW07	35	32.5	6	1.2	5	44	57	1	2.5	15	1.040	AN07
AW08	40	37.5	6	1.2	6	50	62	1	2.5	15	1.230	AN08
AW09	45	42.5	6	1.2	6	56	69	1	2.5	17	1.520	AN09
AW10	50	47.5	6	1.2	6	61	74	1	2.5	17	1.600	AN10
AW11	55	52.5	8	1.5	7	67	81	1	4	17	1.960	AN11
AW12	60	57.5	8	1.5	7	73	86	1.2	4	17	2.530	AN12
AW13	65	62.5	8	1.5	7	79	92	1.2	4	19	2.900	AN13
AW14	70	66.5	8	1.5	8	85	98	1.2	4	19	3.340	AN14
AW15	75	71.5	8	1.5	8	90	104	1.2	4	19	3.560	AN15
AW16	80	76.5	10	1.8	8	95	112	1.2	4	19	4.640	AN16
AW17	85	81.5	10	1.8	8	102	119	1.2	4	19	5.240	AN17
AW18	90	86.5	10	1.8	10	108	126	1.2	4	19	6.230	AN18
AW19	95	91.5	10	1.8	10	113	133	1.2	4	19	6.700	AN19
AW20	100	96.5	12	1.8	10	120	142	1.2	6	19	7.650	AN20
AW21	105	100.5	12	1.8	12	126	145	1.2	6	19	8.260	AN21
AW22	110	105.5	12	1.8	12	133	154	1.2	6	19	9.400	AN22
AW23	115	110.5	12	2	12	137	159	1.5	6	19	10.800	AN23
AW24	120	115.0	14	2	12	138	164	1.5	6	19	10.500	AN24
AW25	125	120.0	14	2	12	148	170	1.5	6	19	11.800	AN25
AW26	130	125.0	14	2	12	149	175	1.5	6	19	11.300	AN26
AW27	135	130.0	14	2	14	160	185	1.5	6	19	14.400	AN27
AW28	140	135.0	16	2	14	160	192	1.5	8	19	14.200	AN28
AW29	145	140.0	16	2	14	171	202	1.5	8	19	16.800	AN29
AW30	150	145.0	16	2	14	171	205	1.5	8	19	15.500	AN30
AW31	155	147.5	16	2.5	16	182	212	1.5	8	19	20.900	AN31
AW32	160	154.0	18	2.5	16	182	217	1.5	8	19	22.200	AN32
AW33	165	157.5	18	2.5	16	193	222	1.5	8	19	24.100	AN33
AW34	170	164.0	18	2.5	16	193	232	1.5	8	19	24.700	AN34
AW36	180	174.0	20	2.5	18	203	242	1.5	8	19	26.800	AN36
AW38	190	184.0	20	2.5	18	214	252	1.5	8	19	27.800	AN38
AW40	200	194.0	20	2.5	18	226	262	1.5	8	19	29.300	AN40
AW44	220	213.0	24	3	20	250	292	-	10	19	48.300	AN44
AW48	240	233.0	24	3	20	270	312	-	-	19	50.200	AN48
AW52	260	253.0	28	3	24	300	342	-	-	23	72.900	AN52
AW56	280	273.0	28	3	24	320	362	-	-	23	75.900	AN56

NO. AW00-AW40 also available for 304 stainless steel.

NOTE: The specifications of AW can be applied for MB.

## Lock Washers



**MB**

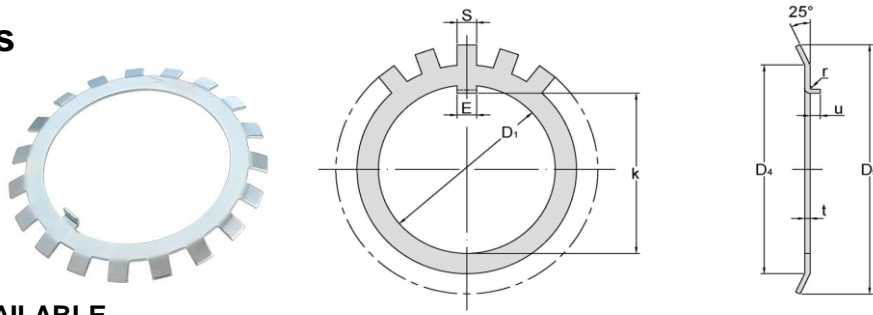
FLAT/BENT TAB AVAILABLE

Lock Washers No.	D1 mm	k mm	E mm	t mm	S mm	D4 mm	D5 mm	r mm	u mm	Number of Tongues	Weight per 100pc kg	Lock Nut No.
MB00	10	8.5	3	1	3	13.5	21	0.5	2	9	0.131	KM00
MB01	12	10.5	3	1	3	17	25	0.5	2	9	0.192	KM01
MB02	15	13.5	4	1	4	21	28	1	2.5	13	0.253	KM02
MB03	17	15.5	4	1	4	24	32	1	2.5	13	0.313	KM03
MB04	20	18.5	4	1	4	26	36	1	2.5	13	0.350	KM04
MB05	25	23.0	5	1.2	5	32	42	1	2.5	13	0.640	KM05
MB06	30	27.5	5	1.2	5	38	49	1	2.5	13	0.780	KM06
MB07	35	32.5	6	1.2	5	44	57	1	2.5	15	1.040	KM07
MB08	40	37.5	6	1.2	6	50	62	1	2.5	15	1.230	KM08
MB09	45	42.5	6	1.2	6	56	69	1	2.5	17	1.520	KM09
MB10	50	47.5	6	1.2	6	61	74	1	2.5	17	1.600	KM10
MB11	55	52.5	8	1.5	7	67	81	1	4	17	1.960	KM11
MB12	60	57.5	8	1.5	7	73	86	1.2	4	17	2.530	KM12
MB13	65	62.5	8	1.5	7	79	92	1.2	4	19	2.900	KM13
MB14	70	66.5	8	1.5	8	85	98	1.2	4	19	3.340	KM14
MB15	75	71.5	8	1.5	8	90	104	1.2	4	19	3.560	KM15
MB16	80	76.5	10	1.8	8	95	112	1.2	4	19	4.640	KM16
MB17	85	81.5	10	1.8	8	102	119	1.2	4	19	5.240	KM17
MB18	90	86.5	10	1.8	10	108	126	1.2	4	19	6.230	KM18
MB19	95	91.5	10	1.8	10	113	133	1.2	4	19	6.700	KM19
MB20	100	96.5	12	1.8	10	120	142	1.2	6	19	7.650	KM20
MB21	105	100.5	12	1.8	12	126	145	1.2	6	19	8.260	KM21
MB22	110	105.5	12	1.8	12	133	154	1.2	6	19	9.400	KM22
MB23	115	110.5	12	2	12	137	159	1.5	6	19	10.800	KM23
MB24	120	115.0	14	2	12	138	164	1.5	6	19	10.500	KM24
MB25	125	120.0	14	2	12	148	170	1.5	6	19	11.800	KM25
MB26	130	125.0	14	2	12	149	175	1.5	6	19	11.300	KM26
MB27	135	130.0	14	2	14	160	185	1.5	6	19	14.400	KM27
MB28	140	135.0	16	2	14	160	192	1.5	8	19	14.200	KM28
MB29	145	140.0	16	2	14	171	202	1.5	8	19	16.800	KM29
MB30	150	145.0	16	2	14	171	205	1.5	8	19	15.500	KM30
MB31	155	147.5	16	2.5	16	182	212	1.5	8	19	20.900	KM31
MB32	160	154.0	18	2.5	16	182	217	1.5	8	19	22.200	KM32
MB33	165	157.5	18	2.5	16	193	222	1.5	8	19	24.100	KM33
MB34	170	164.0	18	2.5	16	193	232	1.5	8	19	24.700	KM34
MB36	180	174.0	20	2.5	18	203	242	1.5	8	19	26.800	KM36
MB38	190	184.0	20	2.5	18	214	252	1.5	8	19	27.800	KM38
MB40	200	194.0	20	2.5	18	226	262	1.5	8	19	29.300	KM40
MB44	220	213.0	24	3	20	250	292	-	10	19	48.300	KM44
MB48	240	233.0	24	3	20	270	312	-	-	19	50.200	KM48
MB52	260	253.0	28	3	24	300	342	-	-	23	72.900	KM52
MB56	280	273.0	28	3	24	320	362	-	-	23	75.900	KM56

NO. MB00-MB40 also available for 304 stainless steel.

NOTE: The specifications of MB can be applied for AW.

## Lock Washers



## AWL

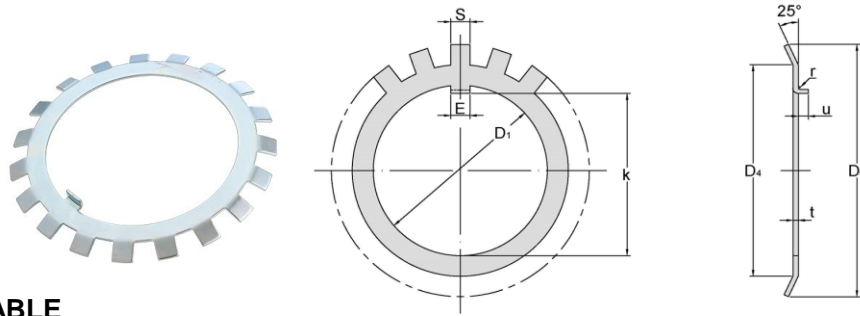
FLAT/BENT TAB AVAILABLE

Lock Washers NO.	D1	k	E	t	S	D4	D5	r	u	Number of Tongues	Weight per 100pcs	Lock Nut No.
	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg	
AWL24	120	115	14	2	12	135	151	1.5	6	19	7.70	ANL24
AWL26	130	125	14	2	12	145	161	1.5	6	19	8.70	ANL26
AWL28	140	135	16	2	14	155	171	1.5	8	19	10.90	ANL28
AWL30	150	145	16	2	14	170	188	1.5	8	19	11.30	ANL30
AWL32	160	154	18	2.5	16	180	199	1.5	8	19	16.20	ANL32
AWL34	170	164	18	2.5	16	190	211	1.5	8	19	19.00	ANL34
AWL36	180	174	20	2.5	18	200	221	1.5	8	19	18.00	ANL36
AWL38	190	184	20	2.5	18	210	231	1.5	8	19	20.50	ANL38
AWL40	200	194	20	2.5	18	222	245	1.5	8	19	21.40	ANL40

NO. AWL24-AWL40 also available for 304 stainless steel.

NOTE: The specifications of AWL can be applied for MBL.

## Lock Washers



## MBL

FLAT/BENT TAB AVAILABLE

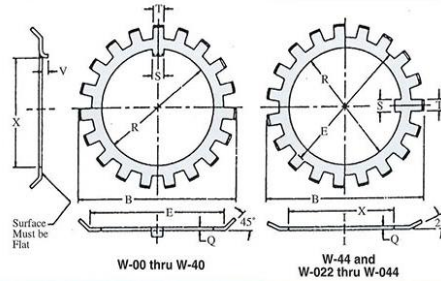
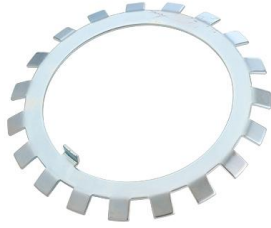
Lock Washers No.	D1 mm	k mm	E mm	t mm	S mm	D4 mm	D5 mm	r mm	u mm	Number of Tongues	Weight per 100pcs kg	Lock Nut No.
MBL24	120	115	14	2	12	135	151	1.5	6	19	7.7	KML24
MBL26	130	125	14	2	12	145	161	1.5	6	19	8.7	KML26
MBL28	140	135	16	2	14	155	171	1.5	8	19	10.9	KML28
MBL30	150	145	16	2	14	170	188	1.5	8	19	11.3	KML30
MBL32	160	154	18	2.5	16	180	199	1.5	8	19	16.2	KML32
MBL34	170	164	18	2.5	16	190	211	1.5	8	19	19	KML34
MBL36	180	174	20	2.5	18	200	221	1.5	8	19	18	KML36
MBL38	190	184	20	2.5	18	210	231	1.5	8	19	20.5	KML38
MBL40	200	194	20	2.5	18	222	245	1.5	8	19	21.4	KML40

NO. MBL24-MBL40 also available for 304 stainless steel.

NOTE: The specifications of MBL can be applied for AWL.

# Lock Washer Dimensions(Inches)

**W-00  
W000**



Lock Washer NO.	Bore R nom	Face Diameter E min		Diameter Over Tangs B max		Key Width S max		Inside Dimension X min	No of Tangs	Project V min	Tang Width T max		Tang Thickness Q min	
		W-00	W-000	W-00	W-000	W-00	W-000				W-00	W-00	W-00	W-000
								W-00						
W-00	0.406	0.625		0.875		0.120		0.334	9	0.062	0.120			0.032
W-01	0.484	0.719		1.016		0.120		0.412	9	0.062	0.120			0.032
W-02	0.601	0.813		1.156		0.120		0.529	11	0.062	0.120			0.032
W-03	0.679	0.938		1.328		0.120		0.607	11	0.062	0.120			0.032
W-04	0.801	1.125		1.531		0.176		0.729	11	0.062	0.166			0.032
W-05	0.989	1.281		1.719		0.176		0.909	13	0.094	0.166			0.040
W-06	1.193	1.500		1.922		0.176		1.093	13	0.094	0.166			0.040
W-07	1.396	1.813		2.250		0.176		1.296	15	0.094	0.166			0.040
W-08	1.583	2.000		2.469		0.290		1.475	15	0.094	0.234			0.048
W-09	1.792	2.281		2.734		0.290		1.684	17	0.125	0.234			0.048
W-10	1.992	2.438		2.922		0.290		1.884	17	0.125	0.234			0.048
W-11	2.182	2.656		3.109		0.290		2.069	17	0.125	0.234			0.053
W-12	2.400	2.844		3.344		0.290		2.267	17	0.125	0.234			0.053
W-13	2.588	3.063		3.578		0.290		2.455	19	0.125	0.234			0.053
W-14	2.791	3.313		3.828		0.290		2.658	19	0.188	0.234			0.053
W-15	2.973	3.563		4.109		0.290		2.831	19	0.188	0.328			0.062
W-16	3.177	3.844		4.375		0.353		3.035	19	0.188	0.328			0.062
W-17	3.395	4.031		4.625		0.353		3.253	19	0.188	0.328			0.062
W-18	3.582	4.281		4.938		0.353		3.418	19	0.188	0.328			0.084
W-19	3.800	4.563		5.219		0.353		3.636	19	0.188	0.328			0.084
W-20	3.988	4.813		5.500		0.353		3.809	19	0.250	0.328			0.084
W-21	4.192	5.000		5.703		0.353		4.013	19	0.250	0.390			0.084
W-22	W-022	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
W-24	W-024	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
W-26	W-026	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
W-28	W-028	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
W-30	W-030	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
W-32	W-032	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
W-34	W-034	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
W-36	W-036	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
W-38	W-038	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
W-40	W-040	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
W-44	W-044	8.701	9.875	9.570	11.438	10.406	0.940	0.945	8.327	19		0.878	0.770	0.146