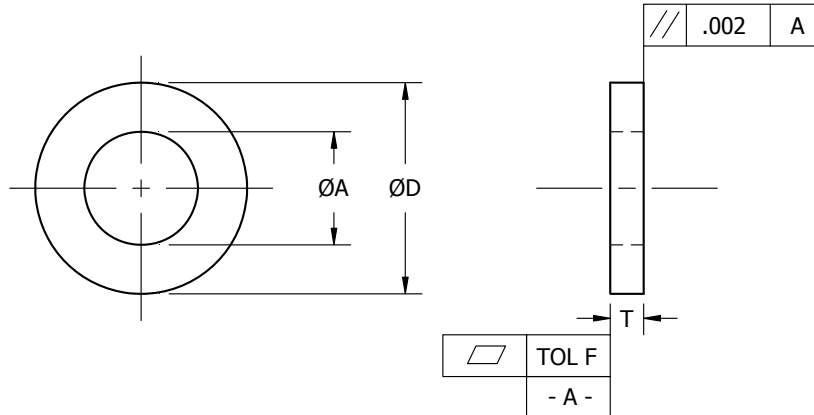


FED. SUPPLY CLASS

5310



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TABLE I – DIMENSIONS /13/

SIZE OR NOMINAL DIAMETER	Ø A ± .010	Ø D +.020 -.005	SIZE AND THICKNESS CODE							TOL F MAX
			T THICKNESS (SEE TABLE III FOR TOLERANCE)							
			.016	.032	.042	.049	.063	.065	.090	
NO. 0	.068 /14/	.188 /14/	N016	N032	---	---	---	---	---	.007
NO. 2	.099	.250	N216	N232	---	---	---	---	---	
NO. 3	.105	.250	N316	N332	---	---	---	---	---	
NO. 4	.125	.312	N416	N432	---	---	---	---	---	
NO. 5	.140	.438	N516	N532	N542	---	---	---	---	
NO. 6	.149	.375	N616	N632	---	---	---	---	---	
NO. 8	.174	.375	N816	N832	---	---	N863	---	---	
NO. 9	.188	.500	---	---	---	N949	---	---	---	
NO. 10	.203	.438	0316	0332	---	---	0363	---	---	
NO. 11	.234	.625	---	---	---	---	---	1165	---	
NO. 12	.260	.470	---	2N32	---	---	---	---	---	
.250	.265	.500	0416	0432	---	---	0463	---	---	.010
.312	.328	.562	0516	0532	---	---	0563	---	---	
.375	.390	.625	0616	0632	---	---	0663	---	---	
.437	.453	.750	0716	0732	---	---	0763	---	---	
.500	.515	.875	0816	0832	---	---	0863	---	---	
.562	.578	1.062	0916	0932	---	---	0963	---	---	
.625	.640	1.188	1016	1032	---	---	1063	---	---	
.750	.765	1.312	1216	1232	---	---	---	---	1290	
.875	.890	1.500	1416	1432	---	---	---	---	1490	
1.000	1.015	1.750	1616	1632	---	---	---	---	1690	
1.062	1.078	1.812	1716	1732	---	---	---	---	1790	
1.125	1.140	1.875	1816	1832	---	---	---	---	1890	.015
1.250	1.265	2.000	2016	2032	---	---	---	---	2090	
1.312	1.328	2.062	2116	2132	---	---	---	---	2190	
1.375	1.390	2.125	2216	2232	---	---	---	---	2290	
1.500	1.515	2.250	2416	2432	---	---	---	---	2490	
1.625	1.640	2.375	2616	2632	---	---	---	---	2690	
1.875	1.890	2.625	3016	3032	---	---	---	---	3090	
2.250	2.265	3.000	3616	3632	---	---	---	---	3690	
2.500	2.515	3.250	4016	4032	---	---	---	---	4090	

THIRD ANGLE PROJECTION	
PROCUREMENT SPECIFICATION	NONE

CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE
TITLE WASHER, FLAT

REVISION 6
CLASSIFICATION PART STANDARD
NAS1149 SHEET 1 OF 4

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ARLINGTON, VA 22209

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FORM 12-01

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REVISION DATE: DECEMBER 19, 2014

ISSUE DATE: MARCH 1990

TABLE II – MATERIAL AND FINISH

MATERIAL			FINISH		
MATERIAL	SPECIFICATION	CODE	FINISH	SPECIFICATION	CODE
ALLOY STEEL	4130 (UNS G41300) PER AMS6345 OR ~~PER MIL-S-18729, COND-N~~	G	CADMIUM PLATE	AMS-QQ-P-416, TYPE II, CLASS 2	P
ALUMINUM ALLOY	2024-T3 (UNS A82024) PER AMS-QQ-A-250/5	D	NONE	N/A	H
			ANODIZE	MIL-A-8625, TYPE I, TYPE IB, TYPE IC, TYPE II, TYPE IIB, CLASS 1	K
			CHEMICAL TREAT	MIL-DTL-5541, TYPE I, CLASS 3	J
	2024-T81 (UNS A82024) PER AMS-QQ-A-250/5	A	NONE	N/A	H
			ANODIZE	MIL-A-8625, TYPE I, TYPE IB, TYPE IC, TYPE II, TYPE IIB, CLASS 1	K
			CHEMICAL TREAT	MIL-DTL-5541, TYPE I, CLASS 3	J
BRASS	COPPER ALLOY NO. 260 (UNS C26000) PER ASTM B36/B36M OR 268 (UNS C26800) PER ASTM B36/B36M	B	NONE	N/A	H
CARBON STEEL	1020 (UNS G10200) PER AMS5046 OR ~~MIL-S-7952~~ , 1025 (UNS G10250) PER AMS 5046 OR ~~MIL-S-7952~~ , OR 1025 (UNS K02500) PER ASTM A109/A109M, TEMPER 2	F	BLACK OXIDE	MIL-DTL-13924, CLASS 1	B
			CADMIUM PLATE	AMS-QQ-P-416, TYPE II, CLASS 2	P
CORROSION RESISTANT STEEL (CRES) /8/	.016 THICKNESS ONLY: 301 (UNS S30100) PER AMS5517 OR ~~MIL-S-5059, 1/4 HARD~~ ALL OTHER THICKNESSES: 301 (UNS S30100) PER AMS5901 302 (UNS S30200) PER AMS5516 304 (UNS S30400) PER AMS5513 316 (UNS S31600) PER AMS5524 ~~300 SERIES (UNS S30100, S30200, S30400, OR S31600) PER MIL-S-5059, ANNEALED~~ 321 (UNS S32100) PER AMS5510 347 (UNS S34700) PER AMS5512	C	BLACK OXIDE	MIL-DTL-13924, CLASS 4	B
			PASSIVATE	AMS2700, METHOD 1, TYPE 6 OR TYPE 7, CLASS 1	R
	A286 (UNS S66286) CONFORMING TO THE CHEMISTRY OF AMS5525. HEAT TREAT TO DEVELOP BASIC MATERIAL PROPERTIES OF 160-190 KSI Ft _u WITH CONTROLS PER AMS2759	E	CADMIUM PLATE	AMS-QQ-P-416, TYPE II, CLASS 2	P
			PASSIVATE	AMS2700, METHOD 1, ~~TYPE 6 OR TYPE 7,~~ TYPE 2 OR TYPE 8, CLASS 1	R
				AMS2700, METHOD 2	R2
				AMS2700, METHOD 1, TYPE 8, CLASS 1	R3
			ALUMINUM COATING	NAS4006, CLASS NC	W
			HIGH PURITY ALUMINUM COATING	MIL-DTL-83488, CLASS 2, TYPE II, WITH CONVERSION COATING PER MIL-DTL-5541, TYPE II, CLASS 3	U
TITANIUM	COMMERCIALLY PURE (UNS R50700) PER AMS4901 OR ~~CLASS CP-1 PER AMS-T-9046 OR MIL-T-9046~~	T	NONE	N/A	H
			ANODIZE	AMS2488, TYPE 2, COLOR DEEP BLUE /6/	L
	6AL-4V (UNS R56400) ALLOY, ~~CLASS AB-1 PER AMS-T-9046 OR PER MIL-T-9046~~ , PER AMS4911, OR PER AMS4928, SOLUTION TREATED AND AGED TO 160 KSI Ft _u MIN PER AMS-H-81200 OR AMS2801	V	NONE	N/A	H
			ANODIZE	AMS2488, TYPE 2, COLOR VIOLET /6/	M
			~~OR-DYED~~	PERMANENT, NON-DETRIMENTAL, COLOR LIGHT BLUE	~~N~~ /20/
			ALUMINUM COATING	NAS4006, CLASS NC	W

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