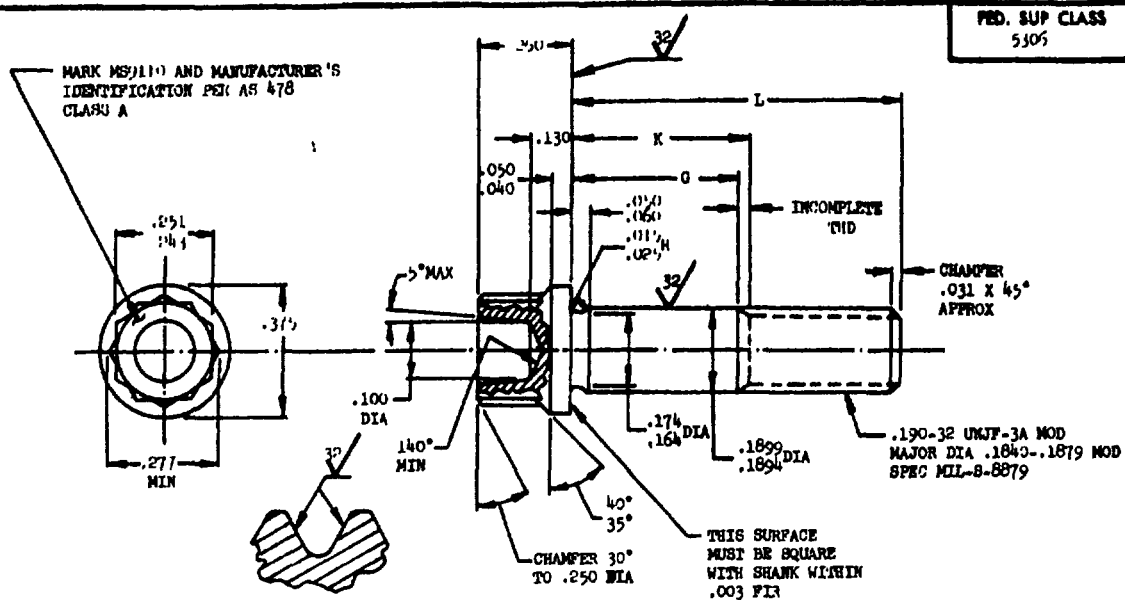


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This standard has been approved by the Department of the Air Force (11) and the Navy (11) and is mandatory for use by all military activities as required by the Department of Defense. All other military activities are required to conform to this standard where applicable.

# MS9110 (ASG)



SECTION THRU THREAD PROFILE

PART NO.	G GRIP	L LENGTH	K MAX	APPROX WEIGHT LB/100	PART NO.	G GRIP	L LENGTH	K MAX	APPROX WEIGHT LB/100
MS9110-02	.125	.531	.194	.80	MS9110-16	.875	1.406	.948	1.49
MS9110-03	.125	.594	.198	.84	MS9110-17	.937	1.469	1.010	1.54
MS9110-04	.125	.656	.198	.88	MS9110-18	1.000	1.531	1.072	1.59
MS9110-05	.125	.719	.260	.94	MS9110-19	1.125	1.656	1.193	1.70
MS9110-06	.125	.781	.322	.99	MS9110-20	1.250	1.781	1.322	1.80
MS9110-07	.315	.844	.384	1.04	MS9110-21	1.375	1.906	1.448	1.90
MS9110-08	.375	.906	.448	1.09	MS9110-22	1.500	2.031	1.573	2.00
MS9110-09	.437	.969	.510	1.14	MS9110-23	1.625	2.156	1.698	2.10
MS9110-10	.500	1.031	.572	1.19	MS9110-24	1.750	2.281	1.823	2.20
MS9110-11	.562	1.094	.635	1.24	MS9110-25	1.875	2.406	1.948	2.30
MS9110-12	.625	1.156	.698	1.29	MS9110-26	2.000	2.531	2.072	2.40
MS9110-13	.688	1.219	.760	1.34					
MS9110-14	.750	1.281	.823	1.39					
MS9110-15	.812	1.344	.885	1.44					

- SHANK SHALL BE STRAIGHT WITHIN .0015 FIR PER INCH OF BOLT LENGTH.
- SHANK SHALL BE CONCENTRIC WITH THREAD PD WITHIN .006 FIR, WITH THREAD MAJOR DIAMETER WITHIN .001 FIR, AND WITH WASHER FACE DIAMETER AND DOUBLE HEXAGON WITHIN .011 FIR.
- MATERIAL: CORROSION AND HEAT RESISTANT STEEL AMS 5731.
- MANUFACTURING SPECIFICATION: AMS 7477.
- SURFACE ROUGHNESS: AS 291, UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES.
- PART SUBJECT TO FLUORESCENT PENETRANT INSPECTION PER AMS 2645.
- REMOVE SHARP EDGES .015 - .010, UNLESS OTHERWISE SPECIFIED.
- DIMENSION IN INCHES, UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ± .010; ANGULAR DIMENSIONS ± 5°.
- DON'T USE UNASSIGNED PART NUMBERS.

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P.A. GRIP - 11	TITLE	MILITARY STANDARD
Other Cost	BOLT, MACHINE - DOUBLE HEXAGON EXTENDED WASHER HEAD, CLOSE TOLERANCE SHANK, AMS 5731 .190-32 UNJF-3A	MS9110 (ASG)
NAVY - 11		
PROCUREMENT SPECIFICATION	SUPersedes:	SHEET 1 OF 1