



TABLE I. DIMENSIONS AND PART NUMBERS

NOMINAL SIZE		.375	.437	.500	.625	.750
B - THREADS PER INCH UNF - 2A		24	20	20	18	16
Ø D - BODY DIAMETER	MAX	.3750	.4375	.5000	.6250	.7500
	MIN	.3690	.4305	.4930	.6170	.7410
F - WIDTH ACROSS FLATS	MAX	.5625	.6250	.7500	.9375	1.1250
	MIN	.5510	.6120	.7360	.9220	1.1000
G - WIDTH ACROSS CORNERS	MAX	.6500	.7220	.8660	1.083	1.2990
	MIN	.6280	.6980	.8400	1.051	1.2540
H - HEAD HEIGHT	MAX	.2430	.2910	.3230	.4030	.4830
	MIN	.2260	.2720	.3020	.3780	.4500
1/2 H	MAX	.1300	.1550	.1720	.2140	.2560
	MIN	.1130	.1360	.1510	.1890	.2280
Ø J - HOLE DIAMETER	MAX	.0625	.0625	.0940	.0940	.0940
	MIN	-.002				
R - RADIUS	MAX	.0250	.0250	.0250	.0450	.0450
	MIN	.0150	.0150	.0150	.0200	.0200
MINIMUM TENSILE LOAD - LBS		13,200	17,800	24,000	38,400	56,000
L - LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO	DASH NO
1.500	+ .000 - .125	1	2	3	4	5

USER ACTIVITIES
ARMY - ME, MI
NAVY - MC, OS

REVIEWER ACTIVITIES
ARMY - AV, EA
AIR FORCE - 82
DLA - IS
NSA - NS

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

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APPROVED 1 AUG 84

P.A. AR	INTERNATIONAL INTEREST	TITLE SCREW, CAP, HEXAGON (FINISHED HEXAGON BOLT), HEAD DRILLED FOR LOCKING WIRE ALLOY STEEL, GRADE 8, UNF - 2A	MILITARY STANDARD MS51478
Other Cust SH 99			
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES	PAGE 1	OF 2

USER ACTIVITIES:
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REQUIREMENTS:

1. **MATERIAL.** ALLOY STEEL GRADE 8, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION HAVING A MINIMUM ULTIMATE TENSILE STRENGTH OF 150,000 PSI.
2. **FINISH.** ZINC COATING IN ACCORDANCE WITH ASTM B633-78, Fe/Z₅ (5 μm)
3. **THREADS.** THE THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/2 ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 21.
4. **THREAD LENGTH.** MINIMUM THREAD LENGTH SHALL BE TWICE THE DIAMETER PLUS .250 INCH THE TOLERANCE SHALL BE PLUS .188 INCH ON 2 1/2 THREADS, WHICHEVER IS GREATER ON SCREWS THAT ARE TOO SHORT FOR MINIMUM THREAD LENGTHS, THE DISTANCE FROM THE BEARING OF THE HEAD TO THE FIRST COMPLETE THREAD SHALL NOT EXCEED THE LENGTH OF 2 1/2 THREADS. THREADS SHALL NOT EXTEND TO THE FILLET RADIUS NOR SHALL THREADS EXTEND TO AND UNDERCUT THE HEAD OF THE SCREW.
5. **HEAD MARKING.** HEADS SHALL BE MARKED IN ACCORDANCE WITH MIL-HDIK-131. RAISED MARKINGS ARE PREFERRED, STAMPINGS ARE ACCEPTABLE
6. **PART NUMBER** THE BASIC PART NUMBER IS FOLLOWED BY A DASH NUMBER FROM TABLE I.
EXAMPLE: MS51478-1 - SCREW, CAP, HEXAGON HEAD DRILLED FOR LOCKING WIRE, ALLOY STEEL, GRADE 8, .375-24UNF-2A, LENGTH 1.500, ZINC COATED

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BIDS OR REQUEST FOR PROPOSAL, EXCEPT THAT REFERENCED ADOPTED INDUSTRY DOCUMENTS SHALL GIVE THE DATE OF THE ISSUE ADOPTED.
3. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN

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P A Other Cust	AR	INTERNATIONAL INTEREST	TITLE SCREW,CAP,HEXAGON(FINISHED HEXAGON BOLT),HEAD DRILLED FOR LOCKING WIRE ALLOY STEEL, GRADE 8,UNF - 2A	MILITARY STANDARD
	SH 99			MS51478
PROCUREMENT SPECIFICATION FF - S - 85		SUPERSEDES		PAGE 2 OF 2

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