

FED. SUPPLY CLASS

5305

HEAD MARKING:
ALLOY STEEL - ONE "X" REQUIRED
CORROSION RESISTING STEEL - ONE "_" REQUIRED
ALUMINUM ALLOY - NONE REQUIRED

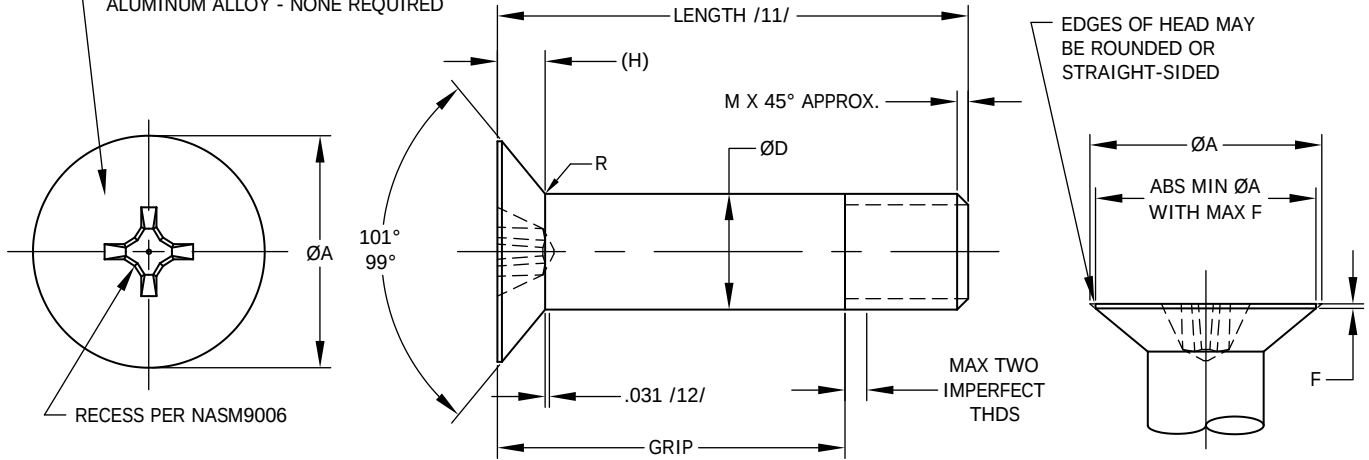


TABLE I - FASTENER DIMENSIONS

NOMINAL SIZE	THREADS PER INCH	ØD		ØA			F FLAT MAX	H REF	M MAX	R RAD	
		MAX	MIN	MAX SHARP	MIN SHARP	ABS MIN				MAX	MIN
.1640	32UNC-3A	.164	.161	.332	.319	.283	.015	.068	.031	.015	.005
.1900	32UNF-3A	.189	.186	.385	.371	.327	.016	.080	.031	.015	.005
.2500	28UNF-3A	.249	.246	.507	.491	.447	.018	.106	.031	.015	.005
.3125	24UNF-3A	.3115	.3085	.635	.617	.569	.020	.133	.047	.020	.010
.3750	24UNF-3A	.374	.371	.762	.742	.686	.023	.159	.047	.020	.010
.4375	20UNF-3A	.4365	.4325	.890	.868	.805	.026	.186	.047	.020	.010
.5000	20UNF-3A	.499	.495	1.017	.992	.919	.030	.213	.047	.020	.010
.5625	18UNF-3A	.5615	.5575	1.145	1.118	1.036	.034	.240	.047	.020	.010

TABLE II - MINIMUM TENSILE STRENGTH LOAD, LBF /3/

NOMINAL SIZE	ALLOY STEEL	ALUMINUM ALLOY	CORROSION RESISTANT STEEL
.1640-32 UNC-3A	1750	870	1190
.1900-32 UNF-3A	2500	1240	1700
.2500-28 UNF-3A	4550	2250	3090
.3125-24 UNF-3A	7250	3600	4930
.3750-24 UNF-3A	10980	5440	7460
.4375-20 UNF-3A	14840	7360	10090
.5000-20 UNF-3A	19990	9910	13590
.5625-18 UNF-3A	25380	12590	17260

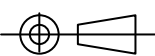
MATERIAL: ALLOY STEEL - 8740 (UNS G87400) PER AMS6322, AMS6325 OR AMS6327 OR 8630 (UNS G86300) PER AMS6280 OR 4130 (UNS G41300) PER AMS-S-6758 OR AMS6346.

ALUMINUM ALLOY (UNS A92024) - 2024 PER QQ-A-430 OR 2024-T4 PER AMS-QQ-A-225/6.

CRES - 302, 303, 304, 305 OR 316 PER AIR4127 OR EQUAL TO OR INTERCHANGEABLE WITH 16-18 OR 18-8 CHROMIUM NICKEL ALLOY STEEL (DEVELOPED FOR COLD HEADING).

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS24694, REVISION C, AMENDMENT 1. PART NUMBERS REMAIN MS24694.

THIRD
ANGLE
PROJECTION



CUSTODIAN
NATIONAL AEROSPACE STANDARDS COMMITTEE

REVISION
2

PROCUREMENT
SPECIFICATION

NASM7839

TITLE
**SCREW, MACHINE, FLAT COUNTERSUNK HEAD, 100°,
STRUCTURAL, CROSS RECESSED,
UNC-3A AND UNF-3A**

CLASSIFICATION
PART STANDARD

NASM24694
SHEET 1 OF 6

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME
PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST
REVISION DATE.

FORM 09-01

REVISION DATE: AUGUST 31, 2012

ISSUE DATE: OCTOBER 1998

HEAT TREATMENT:

FOR ALLOY STEEL – 125 TO 145 KSI TENSILE STRENGTH PER AMS2759.
ROCKWELL HARDNESS C26 TO C32.

FOR QQ-A-430 ALUMINUM ALLOY – 62 KSI TENSILE STRENGTH (MIN) PER AMS2770.

FINISH:

ALLOY STEEL: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 3.

ALUMINUM ALLOY: ANODIZE PER MIL-A-8625, TYPE I OR II.

CRES 302, 304, 305 AND 316: PASSIVATE PER AMS2700, METHOD 1, TYPE 6 OR TYPE 7, CLASS 1.

CRES 303: PASSIVATE PER AMS2700, METHOD 1, TYPE 2, CLASS 1.

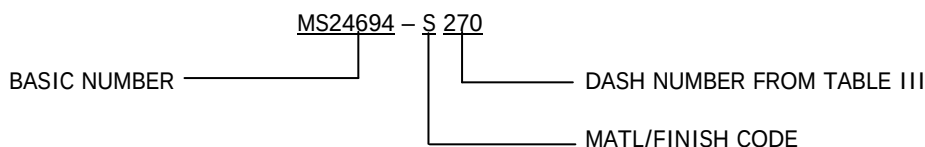
CODE:

ADD "S" BEFORE DASH NUMBER FOR CADMIUM PLATED, ALLOY STEEL SCREW.

ADD "A" BEFORE DASH NUMBER FOR ANODIZED, ALUMINUM ALLOY SCREW.

ADD "C" BEFORE DASH NUMBER FOR PASSIVATED, CORROSION RESISTANT STEEL SCREW.

EXAMPLE OF PART NUMBER:



EXAMPLES OF MS PART NUMBERS:

MS24694-S1 = .1640-32 UNC-3A, CADMIUM PLATED, ALLOY STEEL SCREW, .281 INCH LONG.

MS24694-A100 = .2500-28 UNF-3A ANODIZED, ALUMINUM ALLOY SCREW, .844 INCH LONG.

MS24694-C250 = .4375-20 UNF-3A PASSIVATED, CORROSION RESISTANT STEEL SCREW, 2.031 INCHES LONG.

NOTES:

- (1) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
- (2) UNLESS OTHERWISE SPECIFIED HEREIN, REFERENCED DOCUMENTS SHALL BE THE ISSUE IN EFFECT ON DATE OF MANUFACTURE. HOWEVER, EXISTING MATERIAL INVENTORY CERTIFIED TO A PREVIOUS REVISION OF THE APPLICABLE MATERIAL SPECIFICATION(S) IS ACCEPTABLE FOR USE UNTIL DEPLETION.
- (3) BASED ON 125 KSI MINIMUM TENSILE STRENGTH FOR ALLOY STEEL, 62 KSI FOR ALUMINUM ALLOY AND 85 KSI FOR CRES. TENSILE STRESS AREAS USED FOR CALCULATION OF ULTIMATE TENSILE STRENGTH VALUES ARE BASED ON FED-STD-H28.
- (4) THREADS SHALL BE IN ACCORDANCE WITH MIL-S-7742.
- (5) FOR CRES ONLY, MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 (Air = 1.0) FOR A FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER ASTM A 342/A 342M, TEST METHOD 3.
- (6) DIMENSIONS ARE IN INCHES AND APPLY AFTER FINISH UNLESS OTHERWISE SPECIFIED.
- (7) CONCENTRICITY: THE CONICAL SURFACE OF THE HEAD SHALL BE CONCENTRIC WITH THE SHANK WITHIN .005 FIM.
- (8) DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.
- (9) TOLERANCES UNLESS OTHERWISE SPECIFIED: DECIMALS $\pm .010$, ANGLES $\pm 1^\circ$.
- (10) REMOVE ALL BURRS AND SHARP EDGES.

REVISION

2

MS24694

SHEET 2