

FED. SUPPLY CLASS

5305

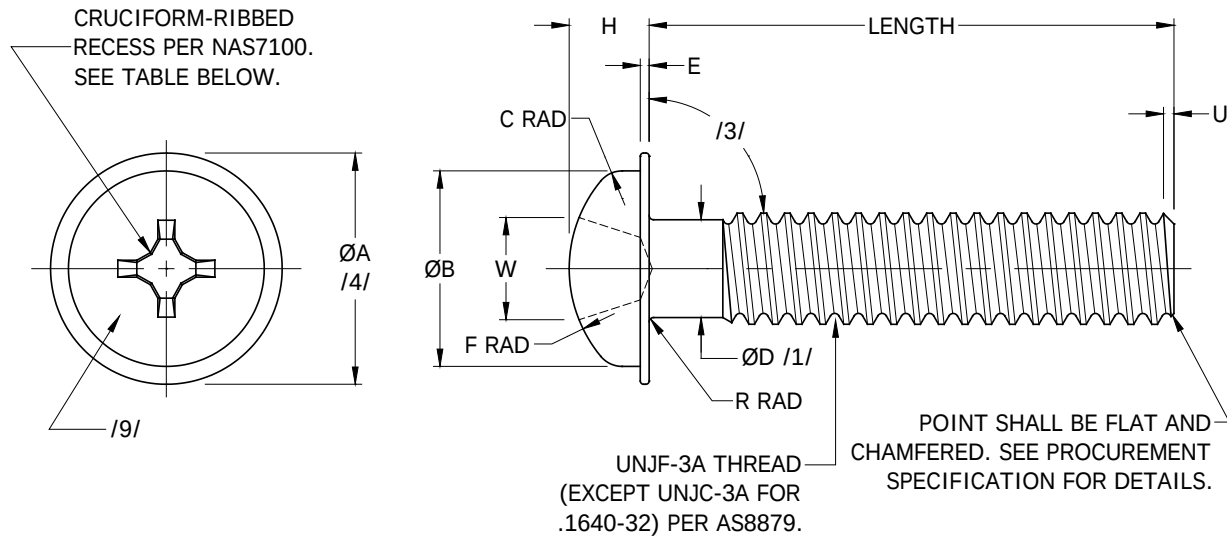


TABLE I – DIMENSIONS AND STRENGTH VALUES

BASIC NUMBER	THREAD SIZE	ØA ±.015 /4/	ØB ±.010	C RAD	ØD /1/	E	F RAD	H	R RAD	U MAX	RECESS		RECESS SIZE	/5/
											W	PENE- TRATION		
NAS8402	.1640-32	.369	.294	.110 .050	.164 .141	.031 .026	.340 .270	.092 .072	.020 .010	.039	.169 .156	.085 .061	2	35
NAS8403	.1900-32	.428	.353	.110 .050	.190 .167	.037 .030	.430 .370	.105 .085	.020 .010	.039	.184 .171	.101 .077	2	50
NAS8404	.2500-28	.563	.488	.130 .070	.250 .224	.048 .040	.500 .440	.135 .115	.020 .010	.045	.253 .240	.118 .094	3	125

MATERIAL:

CRES – A286 (UNS S66286) PER AMS5731, AMS5732, AMS5737 OR AMS5853.

HEAT TREAT:

DEVELOP BASIC MATERIAL PROPERTIES AS FOLLOWS, WITH CONTROLS PER AMS2759.

CRES: 160-190 KSI Ft_u /15/

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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.

REVISION DATE: FEBRUARY 28, 2020

ISSUE DATE: SEPTEMBER 1977

THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 5
PROCUREMENT SPECIFICATION NOTED	TITLE SCREW, MACHINE, WASHER HEAD, FULL THREAD, RIBBED CRUCIFORM RECESS, A286 CRES	CLASSIFICATION PART STANDARD
		NAS8402 THRU NAS8404 SHEET 1 OF 3

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FINISH:

- UNPLATED SCREWS – PASSIVATE PER AMS2700, METHOD 1, CLASS 4.
- PLATED SCREWS – CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2.
CADMIUM PLATED A286 CRES SCREWS SHALL BE IDENTIFIED WITH GREEN DYE OR PAINT ON THE THREAD END.
MAXIMUM COVERAGE MAY INCLUDE THE CHAMFER PLUS ONE FULL THREAD.
- COATED SCREWS – ALUMINUM COATING PER NAS4006.

CODE:

DASH NUMBER INDICATES LENGTH IN .0625 INCREMENTS, ROUNDED TO TWO DECIMAL PLACES.
SEE TABLE II FOR TABULATIONS OF LENGTH DIMENSIONS.
INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBERS ONLY.
USE OF .25 INCREMENTS IS RECOMMENDED FOR SCREWS OVER 3 INCHES LONG.
ADD "A" AFTER BASIC PART NUMBER FOR ALUMINUM COATED SCREWS.
ADD "U" AFTER BASIC PART NUMBER FOR PASSIVATED SCREWS.

EXAMPLE OF PART NUMBER:

NAS8403-10 = SCREW, .1900-32 THREAD, .62 LONG, CADMIUM PLATED.
NAS8403A10 = SCREW, .1900-32 THREAD, .62 LONG, ALUMINUM COATED.
NAS8403U10 = SCREW, .1900-32 THREAD, .62 LONG, PASSIVATED.

NOTES:

- /1/ DIAMETER OF UNTHREADED PORTION OF SCREW SHALL NOT BE LESS THAN MINIMUM PITCH DIAMETER NOR MORE THAN MAXIMUM MAJOR DIAMETER OF THREAD.
- (2) SCREWS LESS THAN 2 DIAMETERS IN LENGTH – COMPLETE THREADS SHALL EXTEND TO WITHIN 2 PITCHES OF BEARING SURFACE OF HEAD AND INCOMPLETE THREADS MAY EXTEND UP TO BEARING SURFACE.
SCREWS 2 DIAMETERS THRU 2 INCHES IN LENGTH – COMPLETE THREADS SHALL EXTEND TO WITHIN 2 PITCHES OF TANGENCY OF "R" AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
SCREWS LONGER THAN 2 INCHES – COMPLETE THREADS SHALL EXTEND A MINIMUM OF 1.75 INCHES FROM END OF SCREW AND INCOMPLETE THREADS MAY EXTEND UP TO "R" FILLET AREA.
INCOMPLETE THREADS – SEE NAS4003.
- /3/ BEARING SURFACE SQUARENESS – WITHIN .003 FIM WITH THREAD PITCH DIAMETER.
- /4/ CONCENTRICITY: OUTSIDE "ØA" TO THREAD PITCH DIAMETER WITHIN .008 FIM.
- /5/ MINIMUM TORQUE VALUE (IN-LBF) WHICH RECESS MUST DEVELOP DURING REMOVAL MODE WITH APPROPRIATE NAS8500 THRU 8506 DRIVER USING 5 LBF MAXIMUM END LOAD. CAM OUT OF THE DRIVER OR EXCESSIVE DEFORMATION OF THE RECESS SHALL BE CAUSE FOR REJECTION OF THE LOT.
- (6) "A", ALUMINUM COATED AND "U", UNPLATED CODES NEED NOT APPEAR ON THE HEAD OF THE SCREW.
- (7) 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 A342/A342M, TEST METHOD 3.
- (8) SURFACE ROUGHNESS: SEE PROCUREMENT SPECIFICATION.

REVISION

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NAS8402-19-01
SHEET 2