

FED. SUPPLY CLASS

5305

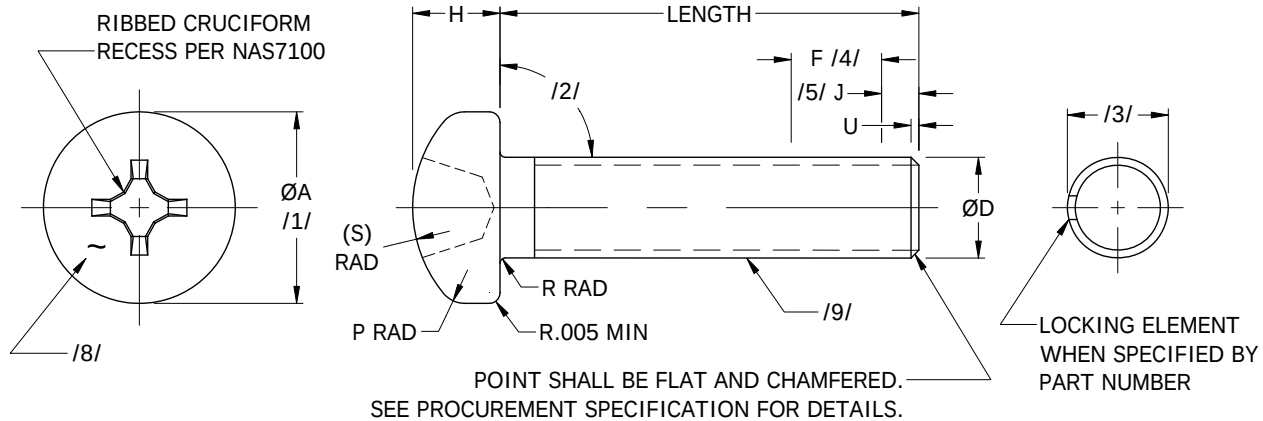


TABLE I – DIMENSIONS

BASIC NUMBER /13/	NOM THREAD /9/	ØA /1/		ØD MAX	F /4/	H		J /5/	R RAD		P RAD MIN	(S) RAD	RECESS PERFORMANCE MIN /6/	U MAX	RECESS SIZE
		MAX	MIN			MAX	MIN		MAX	MIN					
NAS8100	.1120-40	.219	.205	.112	.125	.080	.070	.075	.010	.005	.010	.173	–	.031	1
NAS8101	.1380-32	.270	.256	.138	.156	.097	.087	.094	.010	.005	.015	.207	–	.039	2
NAS8102	.1640-32	.322	.306	.164	.156	.115	.105	.094	.020	.010	.015	.244	35	.039	2
NAS8103	.1900-32	.373	.357	.190	.156	.133	.122	.094	.020	.010	.020	.284	50	.039	2
NAS8104	.2500-28	.492	.473	.250	.178	.175	.162	.107	.020	.010	.035	.373	125	.045	3
NAS8105	.3125-24	.615	.594	.312	.208	.218	.203	.125	.020	.010	.040	.527	–	.052	4
NAS8106	.3750-24	.740	.716	.375	.208	.261	.244	.125	.025	.015	.040	.652	–	.052	4

MATERIAL:

CRES – A286 (UNS S66286) CONFORMING TO THE CHEMISTRY OF AMS5731, AMS5732, AMS5737 OR AMS5853.

HEAT TREATMENT:

DEVELOP BASIC MATERIAL PROPERTIES AS FOLLOWS, WITH CONTROLS PER AMS2759
160-190 KSI Ft_u /20/

FINISH:

CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2. IDENTIFY WITH GREEN DYE OR PAINT ON THE THREAD END. MAXIMUM COVERAGE MAY INCLUDE CHAMFER PLUS ONE FULL THREAD.
UNPLATED – PASSIVATED PER AMS2700, METHOD 1, CLASS 4
ALUMINUM COATED – ALUMINUM COAT PER NAS4006
BLACK OXIDE COATED – BLACK OXIDE COAT IN ACCORDANCE WITH MIL-DTL-13924, CLASS 3

⑥ COMPLETELY REVISED

THIRD ANGLE PROJECTION		CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 6
PROCUREMENT SPECIFICATION		TITLE SCREW, PAN HEAD, ⑥ RIBBED CRUCIFORM RECESS, A286 CRES, FULL THREAD, SELF-LOCKING AND NONLOCKING	CLASSIFICATION PART STANDARD NAS8100 THRU NAS8106 SHEET 1 OF 3
NOTED			

CODE:

NO FINISH CODE AFTER BASIC NUMBER FOR CADMIUM PLATED SCREW.
ADD "A" AFTER BASIC NUMBER FOR ALUMINUM COATED SCREW. MAY BE USED WITH "L" OR "P" CODE
ADD "B" AFTER BASIC NUMBER FOR BLACK OXIDE COATED SCREW. MAY BE USED WITH "L" OR "P" CODE.
ADD "L" AFTER BASIC NUMBER FOR SELF-LOCKING SCREW WITH LOCKING ELEMENT TYPE OPTIONAL.
ADD "P" AFTER BASIC NUMBER FOR SELF-LOCKING SCREW WITH PATCH TYPE LOCKING ELEMENT ONLY.
ADD "U" AFTER BASIC NUMBER FOR UNPLATED SCREW. MAY BE USED WITH "L" OR "P" CODE.
WHEN MULTIPLE LETTER CODES ARE USED, SEQUENCE SHALL BE IN ALPHABETICAL ORDER.

EXAMPLE OF PART NUMBER:

NAS8103-10 = SCREW, .1900-32 THREAD, .62 LONG, NONLOCKING, CADMIUM PLATED.
NAS8103A10 = SCREW, .1900-32 THREAD, .62 LONG, NONLOCKING, ALUMINUM COATED.
NAS8103L10 = SCREW, .1900-32 THREAD, .62 LONG, SELF-LOCKING, (LOCKING TYPE OPTIONAL),
CADMIUM PLATED.
NAS8103LU10 = SCREW, .1900-32 THREAD, .62 LONG, SELF-LOCKING, (LOCKING TYPE OPTIONAL),
UNPLATED.
NAS8103P10 = SCREW, .1900-32 THREAD, .62 LONG, SELF-LOCKING, (PATCH TYPE ONLY), CADMIUM
PLATED.
NAS8103B10 = SCREW, .1900-32 THREAD, .62 LONG, NONLOCKING, BLACK OXIDE COATED.

NOTES:

- /1/ CONCENTRICITY: "ØA" TO THREAD PITCH DIAMETER WITHIN .008 FIM.
- /2/ BEARING SURFACE SQUARENESS: WITHIN .003 FIM OF ØD.
- /3/ PROTRUSION OF LOCKING ELEMENT SHALL BE CONTROLLED SO THAT IT WILL PASS FREELY, OR WITH FINGER PRESSURE, THROUGH A RING GAGE WITH Ø.010 (+.001, -.000) GREATER THAN MAXIMUM MAJOR DIAMETER OF SCREW THREAD.
- /4/ "F" MINIMUM (5 THREAD PITCHES) = REGION OF MINIMUM ENGAGEMENT WITH FEMALE THREAD REQUIRED TO MEET MIL-DTL-18240 REQUIREMENTS. LOCKING ELEMENT WITHIN "F" REGION MUST DEVELOP REQUIRED TORQUE WHEN TESTED PER MIL-DTL-18240.
- /5/ FOR EASE OF STARTING, LOCKING ELEMENT SHALL NOT BE EFFECTIVE IN "J" AREA (3 THREAD PITCHES).
- /6/ MINIMUM TORQUE VALUE (IN-LBF) WHICH RECESS MUST DEVELOP DURING REMOVAL MODE WITH APPROPRIATE NAS8500 THRU 8506 DRIVER USING 5 LBF MAXIMUM END LOAD. CAMOUT OF THE DRIVER OR EXCESSIVE DEFORMATION OF THE RECESS SHALL BE CAUSE FOR REJECTION OF THE LOT.
- (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/ HEAD MARKING SHALL BE RAISED OR DEPRESSED (.010 MAX) AND ARRANGED AS FOLLOWS:
MARK WITH BASIC NUMBER ("NAS" OPTIONAL) EXCEPT MARK .1120-40 SIZE WITH "4", .1380-32 SIZE WITH "6", .1640-32 SIZE WITH "8". THESE THREE SMALLER SIZES ALSO TO BE MARKED WITH "C" FOR A286.
MARK WITH MANUFACTURER'S SYMBOL, LENGTH DASH NUMBER, "L" OR "P" WHEN APPLICABLE AND RECESS NUMBER ENCIRCLED. RECESS NUMBER TO BE APPROXIMATELY 25% LARGER THAN OTHER NUMBERS.
"L" IDENTIFIES SCREW WITH OPTIONAL LOCKING ELEMENT.
"P" IDENTIFIES SCREW WITH PATCH TYPE LOCKING ELEMENT ONLY.
- /9/ UNJF-3A (EXCEPT UNJC-3A FOR .1640-32 AND SMALLER) PER AS8879.

⑥ COMPLETELY REVISED

REVISION

6

NAS8100 THRU
NAS8106

SHEET 2



Documents

Document Sharing Hub

USE OF OR RELIANCE UPON THIS DOCUMENT OR ANY NATIONAL AEROSPACE STANDARD IS ENTIRELY VOLUNTARY. AIA DOES NOT QUALIFY SUPPLIERS OR CERTIFY

Copyright Aerospace Industries Association of America Inc. MS PRODUCED UNDER NATIONAL AEROSPACE STANDARD: AIA MAKES NO REPRESENTATION OR CLAIM RESPECTING (1) THE SUITABILITY OF
Provided by IHS under license with AIA/NAS. ANY PARTICULAR APPLICATION OR (2) THE EXISTENCE OF OR APPLIC Licensee= www.sepana.ir/5991803002, User=sam, albert
No reproduction or networking permitted without license from IHS. Not for Resale, 01/04/2016 05:47:42 MST TRADEMARKS RIGHTS.

Full document details: AIA NAS8100-8106 2013