

FED. SUPPLY CLASS

5305

OFFSET CRUCIFORM RECESS PER
NASM33781 OR NASM14191 (SEE
CODE)

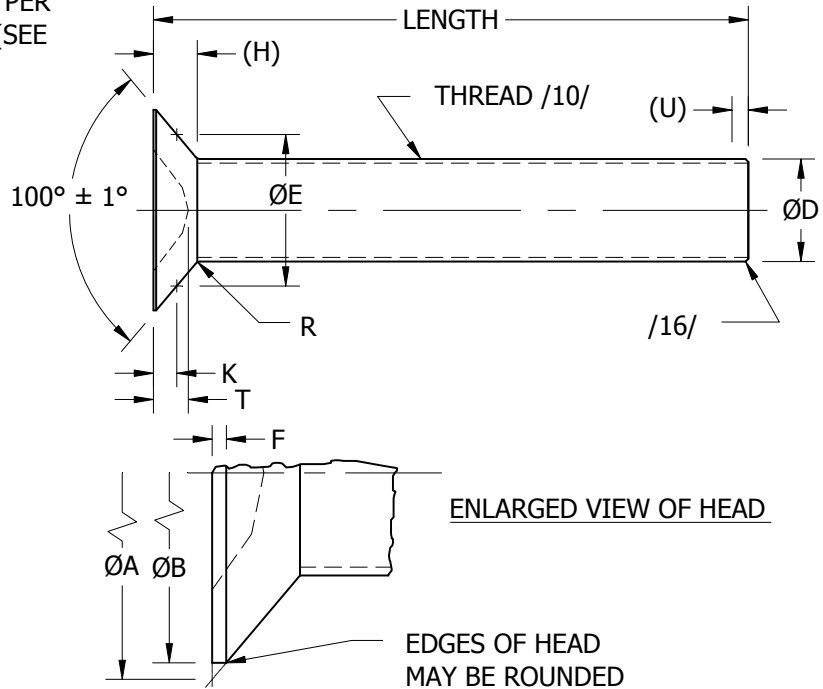
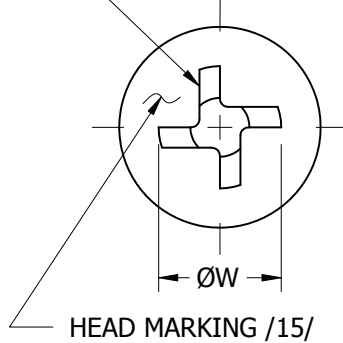


TABLE I – DIMENSIONS

PART NUMBER	THREAD /10/	ØA	ØB ABS MIN	ØD MAX	ØE GAGE	F	(H)	K PROT	R	T MAX	(U)	ØW MAX	RECESS GAGE PENETRATION /3/		TENSILE STRENGTH MIN LBF /21/
													MAX	MIN	
NAS1102-02	.0860-56 UNJC-3A	.172 .162	.126	.086	—	.015 .005	.036	—	.015 .005	.043	.010	.115	.0315	.0225	591
NAS1102-04	.1120-40 UNJC-3A	.225 .213	.177	.112	—	.015 .005	.045	—	.015 .005	.055	.013	.148	.0405	.0305	966
NAS1102-06	.1380-32 UNJC-3A	.279 .267	.231	.138	—	.015 .005	.057	—	.020 .010	.066	.016	.182	.0500	.0395	1,450
NAS1102-08	.1640-32 UNJC-3A	.332 .319	.270	.164	.2671 .2667	.020 .010	.068	.0268 .0240	.020 .010	.078	.016	.215	.0595	.0480	2,240
NAS1102-3	.1900-32 UNJF-3A	.385 .371	.322	.190	.3147 .3143	.020 .010	.080	.0290 .0263	.020 .010	.090	.016	.248	.0685	.0560	3,180
NAS1102-4	.2500-28 UNJF-3A	.507 .491	.442	.250	.4245 .4241	.020 .010	.106	.0342 .0316	.020 .010	.118	.018	.325	.0890	.0750	5,820
NAS1102-5	.3125-24 UNJF-3A	.635 .617	.568	.312	.5389 .5385	.020 .010	.133	.0395 .0370	.020 .010	.122	.021	.357	.0860	.0700	9,200
NAS1102-6	.3750-24 UNJF-3A	.762 .742	.694	.375	.6532 .6528	.020 .010	.160	.0450 .0426	.020 .010	.145	.021	.427	.1030	.0850	14,000

⑩ COMPLETELY REVISED

THIRD ANGLE PROJECTION		CUSTODIAN		REVISION	
		NATIONAL AEROSPACE STANDARDS COMMITTEE		10	
PROCUREMENT SPECIFICATION	NOTED	TITLE		CLASSIFICATION PART STANDARD	
		SCREW, MACHINE, FLAT 100° HEAD, FULL THREAD, OFFSET CRUCIFORM		NAS1102 SHEET 1 OF 4	

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: JANUARY 31, 2013

ISSUE DATE: JUNE 1958

MATERIAL:

ALLOY STEEL: 4140 (UNS G41400) PER MIL-S-5626 AMS6382, 4340 (UNS G43406) PER MIL-S-5000
AMS6415 OR AMS6484, OR 8740 (UNS G87400) PER MIL-S-6049 AMS6322.
CRES: A286 (UNS S66286) CONFORMING TO THE CHEMISTRY OF AMS5731, AMS5732, AMS5737 OR
AMS5853.
TITANIUM ALLOY: 6Al-4V (UNS R56400) PER AMS4967 AND AMS4928.

HEAT TREATMENT:

DEVELOP BASIC MATERIAL PROPERTIES AS FOLLOWS, WITH CONTROLS PER AMS-H-6875 AMS2759
FOR ALLOY STEEL AND CRES AND AMS-H-81200 OR AMS2801 FOR TITANIUM:

ALLOY STEEL: 160-180 KSI FTU.
CRES: 160-190 KSI FTU. /21/
TITANIUM (6Al-4V): 160 KSI FTU MIN.

FINISH:

ALLOY STEEL: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2 (NO CODE) OR CADMIUM PLATE
PER AMS-QQ-P-416, TYPE II, CLASS 2 WITH DULL BLACK CHROMATE TREATMENT (B CODE).
CRES: CLEAN AND PASSIVATE IN ACCORDANCE WITH AMS2700, METHOD 1, TYPE 2 OR TYPE 8,
CLASS 1 (NO CODE) OR CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2 (P CODE).
TITANIUM ALLOY: NONE (NO CODE) OR ALUMINUM COAT PER NAS4006 (A CODE) OR ALUMINUM
COAT PER MIL-DTL-83488, TYPE II, CLASS 3 (C CODE) OR CADMIUM PLATE PER
AMS-QQ-P-416, TYPE II, CLASS 2 (P CODE).

CODE:

FIRST DASH NUMBER DESIGNATES DIAMETER AND THREAD.
SECOND DASH NUMBER INDICATES LENGTH IN .0625 INCREMENTS (AS CONVERTED TO THREE
DECIMAL PLACES PER ASME Y14.5).
INTERMEDIATE OR LONGER LENGTHS MAY BE SPECIFIED BY USE OF WHOLE DASH NUMBERS ONLY.
USE OF .25 INCH INCREMENTS IS RECOMMENDED FOR SCREWS OVER 3 INCHES LONG.
"A" FOLLOWING LAST DASH NUMBER DESIGNATES ALUMINUM COAT PER NAS4006.
"B" FOLLOWING LAST DASH NUMBER DESIGNATES CADMIUM PLATE WITH DULL BLACK CHROMATE
TREATMENT.
"C" FOLLOWING LAST DASH NUMBER DESIGNATES ALUMINUM COAT PER MIL-DTL-83488, TYPE II,
CLASS 3.
"E" IN LIEU OF FIRST DASH DESIGNATES CRES.
"P" FOLLOWING LAST DASH NUMBER DESIGNATES CADMIUM PLATE PER AMS-QQ-P-416, TYPE II,
CLASS 2.
"R" IN LIEU OF SECOND DASH DESIGNATES RECESS PER NASM14191 FOR SIZES 06 THRU 5
INCLUSIVE.
"V" IN LIEU OF FIRST DASH DESIGNATES TITANIUM ALLOY.
"W" FOLLOWING LAST DASH NUMBER DESIGNATES TYPE I PLATING. /14/

EXAMPLE OF PART NUMBER:

NAS1102-3-8 = .1900-32 SCREW, .500 LENGTH, ALLOY STEEL, NASM33781 RECESS, TYPE II
PLATING.
NAS1102E5-10P = .3125-24 SCREW, .625 LENGTH, CRES, NASM33781 RECESS, TYPE II PLATING.
NAS1102V5R10 = .3125-24 SCREW, .625 LENGTH, TITANIUM ALLOY, NASM14191 RECESS.
NAS1102-5-10B = .3125-24 SCREW, .625 LENGTH, ALLOY STEEL, NASM33781 RECESS, CADMIUM
PLATE WITH DULL BLACK CHROMATE TREATMENT.

REVISION
10

⑩ COMPLETELY REVISED



NAS1102
SHEET 2

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