NATIONAL AEROSPACE STANDARD

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NATIONAL AFROSPACE STANDAR

5310

A ØB ØC ØA

COUNTERSUNK WASHER

(FOR USE UNDER BOLT HEAD)

B ØB ØA

PLAIN WASHER
(FOR USE UNDER NUT)

VIEW B-B

(3) TABLE I – DIMENSIONS

VIEW A-A

TABLE I - DIMENSIONS									
THREAD	PART NUMBER		ØA	ØB		ØC.		D	FLATNESS TOLERANCE
	COUNTERSUNK	PLAIN		MAX	MIN	MAX	MIN		MAX
1/4 5/16 3/8	MS20002C4 MS20002C5 MS20002C6	MS20002-4 MS20002-5 MS20002-6	.531 .593 .687	.260 .324 .385	.252 .315 .378	.344 .406 .495	.334 .396 .483	.078	.007
7/16 1/2 9/16	MS20002C7 MS20002C8 MS20002C9	MS20002-7 MS20002-8 MS20002-9	.781 .875 .968	.451 .515 .579	.441 .504 .568	.557 .620 .687	.543 .604 .667	.078	.007 .007 .010
/ 5/8 3/4 7/8	MS20002C10 MS20002C12 MS20002C14	MS20002-10 MS20002-12 MS20002-14	1.062 1.250 1.437	.643 .770 .897	.631 .757 .884	.785 .910 1.035	.765 .890 1.015	.078	.010
1 1-1/8 1-1/4	MS20002C16 MS20002C18 MS20002C20	MS20002-16 MS20002-18 MS20002-20	1.625 1.875 2.125	1.025 1.150 1.275	1.010 1.135 1.260	1.160 1.285 1.447	1.140 1.265 1.427	.078 .078 .094	.010
1-3/8 1-1/2	MS20002C22 MS20002C24	MS20002-22 MS20002-24	2.313 2.500	1.400 1.525	1.385 1.510	1.572 1.697	1.552 1.677	.094	.015

MATERIAL:

ALLOY STEEL PER AMS-STD-66 AIR4127, STEEL NO. 1330 OR 4130.

HEAT TREAT:

125,000 TO 145,000 PSI PER AMS-H-6875 AMS2759.

FINISH:

CADMIUM PLATING PER AMS-QQ-P-416, TYPE II, CLASS 2. PARTS WITH CLASS 3 PLATING MAY BE

FURNISHED FROM SUPPLIER'S STOCK UNTIL 1 JANUARY 1975.

THE INITIAL RELEASE OF THIS DOCUMENT SUPERSEDES MS20002, REVISION E. PART NUMBERS REMAIN MS20002.

THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 3
PROCUREMENT SPECIFICATION	WASHED COUNTERSUME AND DIATAL LIZER OF THE	CLASSIFICATION PART STANDARD
NONE	WASHER, COUNTERSUNK AND PLAIN, HIGH STRENGTH	NASM20002 SHEET 1 OF 2

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.

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

FORM 09-01

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NOTES:

- REMOVE ALL BURRS AND SHARP EDGES. (1)
- WASHER FACES SHALL BE PARALLEL WITHIN .002 INCH. (2)
- (3)DIMENSIONS IN INCHES AND APPLY AFTER FINISH UNLESS OTHERWISE SPECIFIED.
- (4)TOLERANCES UNLESS OTHERWISE SPECIFIED: DECIMALS ±.010, ANGLES ± 1°.
- (5)THESE WASHERS ARE PRIMARILY FOR USE WITH THE 160,000 PSI INTERNAL WRENCHING BOLTS SHOWN ON NASM20004 THROUGH NASM20024.
- (6)THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
- UNLESS OTHERWISE SPECIFIED HEREIN, REFERENCED DOCUMENTS SHALL BE THE ISSUE IN EFFECT (7)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.
 - UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
- (9)DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.

INTERCHANGEABILITY:

3

SELECT WASHERS FROM THE FOLLOWING INTERCHANGEABILITY TABLE OF THIS STANDARD AS SUBSTITUTIVE PARTS FOR NAS143.

INACTIVATED SUBSTITUTIVE PART NOS. PART NOS.	
14/4-51/55	
WASHER COUNTERSUNK	
NAS143 MS20002	
-4C C4	
-5C C5	
-6C C6	
-7C C7	
-8C C8	
-9C C9	
-10C C10	
-12C C12	
-14C C14	
-16C C16	
-18C C18	
-20C C20	
-22C C22	
-24C C24	

INACTIVATED	SUBSTITUTIVE				
PART NOS.	PART NOS.				
WASH	IER – PLAIN				
NAS143	MS20002				
-4	-4				
-5	-5				
-6	-6				
-7	-7				
-8	-8				
-9	-9				
-10	-10				
-12	-12				
-14	-14				
-16	-16				
-18	-18				
-20	-20				
-22	-22				
-24	-24				

REVISION

3

NASM20002

SHEET 2