



D NOMINAL SIZE	#0 (.060)	#2 (.086)	#4 (.112)	#6 (.138)	#8 (.164)						
B THREADS PER INCH	80NF-3A	64NF-3A	48NF-3A	40NF-3A	36NF-3A						
J WIDTH OF SOCKET ACROSS FLAT	MAX. .0285 MIN. .028	.0355 .035	.051 .050	.0635 .0625	.0791 .0781						
C DIAMETER OF POINT	MAX. .033 MIN. .027	.047 .039	.061 .051	.074 .064	.087 .076						
T KEY ENGAGEMENT	MIN. .022	.028	.040	.050	.062						
L LENGTH	TOLERANCE	DASH No.	FIIN	DASH No.	FIIN	DASH No.	FIIN	DASH No.	FIIN	DASH No.	FIIN
1/16 1/8 3/16 1/4 5/16  3/8 1/2 5/8 3/4	± 1 1/2% OF L WITH A MINIMUM OF .010 IN.	1*		7* 8* 9*		16* 17* 18* 19*		25* 26* 27* 28*  29*		35* 36* 37* 38*  39* 40* 41* 42*	

D NOMINAL SIZE	#10 (.190)	1/4	5/16	3/8	1/2						
B THREADS PER INCH	32NF-3A	28UNF-3A	24UNF-3A	24UNF-3A	20UNF-3A						
J WIDTH OF SOCKET ACROSS FLAT	MAX. .0947 MIN. .0937	.127 .125	.1532 .152	.1895 .1875	.2520 .2500						
C DIAMETER OF POINT	MAX. .102 MIN. .088	.132 .118	.172 .156	.212 .194	.291 .270						
T KEY ENGAGEMENT	MIN. .075	.100	.125	.150	.200						
L LENGTH	TOLERANCE	DASH No.	FIIN	DASH No.	FIIN	DASH No.	FIIN	DASH No.	FIIN	DASH No.	FIIN
3/16 1/4 5/16 3/8 1/2  5/8 3/4 7/8 1	± 1 1/2% OF L WITH A MINIMUM OF .010 IN.	48 49 50* 51* 52*		60 61* 62 63*		73* 74 75 76*		86* 87 88		98* 99* 100	
5/8 3/4 7/8 1		53* 54*		64* 65* 66* 67*		77* 78* 79* 80*		89* 90* 91* 92*		101* 102* 103* 104*	

\* INDICATES MANUFACTURER'S NON-STOCK PRODUCTION ITEMS.  
**KEY ENGAGEMENT:** THESE DIMENSIONS APPLY TO SCREWS ONE DIAMETER IN LENGTH OR LONGER. FOR SCREWS SHORTER THAN ONE DIAMETER IN LENGTH, SOCKET TO BE AS DEEP AS PRACTICABLE.  
**MATERIAL:** STEEL, HIGH-GRADE ALLOY, IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.  
**HARDNESS:** SETSCREWS SHALL BE HARDENED BY HEAT TREATMENT TO A HARDNESS OF ROCKWELL C45 TO 53.  
**PROTECTIVE COATING:** CADMIUM PLATED, IN ACCORDANCE WITH SPECIFICATION QQ-P-416, TYPE II, CLASS 3. ZINC PLATED, IN ACCORDANCE WITH SPECIFICATION QQ-Z-325, TYPE II, CLASS 3.  
**THREADS:** THE THREADS SHALL BE IN ACCORDANCE WITH SCREW-THREAD STANDARDS FOR FEDERAL SERVICES HANDBOOK H-28.  
**DIMENSIONS:** ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.  
**PART NUMBER:** THE MS PART NUMBER CONSISTS OF THE MS NUMBER, PLUS THE DASH NUMBER. EXAMPLE: MS51026-1.  
**NOTES:** (1) REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.  
 (2) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.

THIS DOCUMENT HAS BEEN PROMULGATED BY THE DEPARTMENT OF DEFENSE AS THE MILITARY STANDARD TO LIMIT THE SELECTION OF THE ITEM, PRODUCT, OR DESIGN COVERED HEREIN IN ENGINEERING, DESIGN, AND PROCUREMENT. THIS STANDARD SHALL BECOME EFFECTIVE NOT LATER THAN 90 DAYS AFTER THE LATEST DATE OF APPROVAL SHOWN.

CUSTODIANS A - ORD N - SHIPS AF - USAF	OTHER INT. A- CESIGT N- ANCOR AF-	<b>MILITARY STANDARD</b>		<b>MS51026</b>
		<b>SETSCREW, HEXAGON SOCKET, FLAT POINT, ALLOY STEEL, CADMIUM OR ZINC, NF-3A AND UNF-3A</b>		
PROCUREMENT SPECIFICATION FF-S-103	SUPERSEDES:			SHEET 1 of 1

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility. It is the purchaser's obligation to ascertain the facts that other data are not the property of the Government and that their use in any manner licensing the holder or any person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

APPROVED 7 MAY 1950  
REVISED