



USAR: ARMY - 3L, ML, MU, WC  
USAF - 69  
NAVY - WP

THREAD	D DIA MAX	F		H DIA		SELF-LOCKING DESIGN DATA	T HEX DEPTH
		MAX	MIN	MAX	MIN	P(d)	MIN
						50° MAX	
#4-40NC-3A	.112	.0510	.0500	.061	.051	.062	.040
#6-32NC-3A	.138	.0635	.0625	.074	.064	.076	.050
#8-32NC-3A	.164	.0791	.0781	.087	.076	.085	.062
#10-32NF-3A	.190	.0947	.0937	.102	.088	.093	.075
1/4-28UNF-3A	.250	.1270	.1250	.132	.118	.116	.100
5/16-24UNF-3A	.3125	.1582	.1562	.172	.156	.136	.125
3/8-24UNF-3A	.375	.1895	.1875	.212	.194	.151	.150
1/2-20UNF-3A	.500	.2520	.2500	.291	.270	.188	.200

L LENGTH	TOLERANCE	DASH NUMBERS (a)							
		#4-40	#6-32	#8-32	#10-32	1/4-28	5/16-24	3/8-24	1/2-20
1/8	± .010	1	2	3	4				
3/16		5	6	7	8	9			
1/4		10	11	12	13	14	15		
5/16		16	17	18	19	20	21		
3/8		22	23	24	25	26	27	28	29
7/16		30	31	32	33	34	35	36	37
1/2		38	39	40	41	42	43	44	45
9/16		46	47	48	49	50	51	52	53
5/8		54	55	56	57	58	59	60	61
3/4		62	63	64	65	66	67	68	69
7/8	70	71	72	73	74	75	76	77	
1	± .015			67	68	69	70	71	72
1-1/4						73	74	75	76
1-1/2						77	78	79	80
1-3/4	± .020	For lengths above heavy line see note (g)					81	82	83
2						84	85	86	87
2-1/2	± .031								87
3									88

This Standard takes precedence over documents referenced herein.  
Reference documents shall be of the issue in effect on the date of invitation for bid.

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all engineering and design applications and for repetitive use shall be made from this document.

P.A. Navy - WP	TITLE	MILITARY STANDARD
Other Cust	SETScrew, HEXAGON SOCKET, CUP POINT, 250°F SELF LOCKING ELEMENT, ALLOY STEEL, CADMIUM PLATED	MS18063
Army - WC USAF - 69		
PROCUREMENT SPECIFICATION FF-S-200 & MIL-F-18240	SUPERSEDES:	SHEET 7 OF 2

Revisions:  
 Army - EL, MI, MO, MU, WC  
 USAP - 69  
 Navy - WP

User:  
 Army - UL

- (a) Unassigned dash numbers shall not be used
- (b) Socket end of screw shall be flat and chamfered. The chamfer shall extend to the minor diameter of the thread and the edge between flat and chamfer shall be slightly rounded.
- (c) Location of effective locking area "X" shall be in accordance with MS 15981 except as noted herein.
- (d) <sup>P</sup>Max. = Maximum point plus minimum of 1 thread pitch. For ease in starting, locking element shall not be effective within this area.
- (e) Maximum major thread diameter plus .010 = Maximum ring gage diameter that locking region of part must pass through freely or with finger pressure.
- (f) See MS51963 and MS51964 For Set Screws without self-locking feature.
- (g) As MIL-F-18240 doesn't establish torque requirements for items above heavy line, only a positive indication of torque is required.

**MATERIAL:** Steel, alloy (See Procurement Specification). Hardened by quenching in oil from the hardening temperature and tempered to a Rockwell Hardness of C33-40 or equivalent.

**LOCKING ELEMENT:** In accordance with Specification MIL-F-18240.

**DESIGN AND USAGE LIMITATIONS:** See MS 15981.

**FINISH:** Steel: Cadmium plate Specification QQ-P-416, Type II, Class 3. Except that paragraph 4.4.5 is not applicable.

**EXAMPLE OF PART NUMBER:** MS-18063 -57 = 1/4-28UNF-3A x 3/4 long cadmium plated steel cup point self-locking set screw.

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APPROVED 4 Jun 63  
 REVISED 4 22 Dec 64

P.A. Navy - WP Other Cost Army - WC USAP - 69	TITLE	MILITARY STANDARD
	SETSCREW, HEXAGON SOCKET, CUP POINT, 250 P SELF LOCKING ELEMENT, ALLOY STEEL, CADMIUM PLATED	MS18063
PROCUREMENT SPECIFICATION FF-S-200 & MIL-F-18240	SUPERSEDES-	SHEET 2 OF 2