



REVISER: AT, AV, IS, NS, OS, YD
USER: MC, ME, MI, ML, OS, YD

NOMINAL SIZE		.250	.3125	.375	.4375	.500	.5625	.625	
THREADS PER INCH (UNC-2A)		20	18	16	14	13	12	11	
D BODY DIAMETER	MAX	.250	.3125	.375	.4375	.500	.5625	.625	
	MIN	.245	.3065	.369	.4305	.493	.5545	.617	
F WIDTH ACROSS FLATS	MAX	.4375	.500	.5625	.625	.750	.8125	.9375	
	MIN	.4280	.489	.5510	.612	.736	.7980	.9220	
G WIDTH ACROSS CORNERS	MAX	.505	.577	.650	.722	.866	.938	1.083	
	MIN	.488	.557	.628	.698	.840	.910	1.051	
H HEAD HEIGHT	MAX	.163	.211	.243	.291	.323	.371	.403	
	MIN	.150	.195	.226	.272	.302	.348	.378	
R RADIUS	MAX	.025	.025	.025	.025	.025	.045	.045	
	MIN	.015	.015	.015	.015	.015	.020	.020	
TENSILE STRENGTH (LBS-MIN)		2,540	4,190	6,200	8,500	11,350	14,560	18,080	
L LENGTH	TOLERANCE			DASH NO.	DASH NO. *	DASH NO.	DASH NO.	DASH NO. *	DASH NO.
	SIZE .375 AND UNDER	SIZES .4375 AND .500	SIZES .5625 AND .625						
.375				1	27	53			
.438				2*	28	54*	79*		
.500				3	29	55	80	104*	
.562	+ .000	+ .000	+ .000	4*	30	56*	81*	105*	130
.625	- .030	- .030	- .030	5	31	57	82	106	131
.750				6	32	58	83	107	132
.875				7	33	59	84	108	133
1.000				8	34	60	85	109	134
1.125				9*	35	61*	86*	110*	135
1.250				10	36	62	87	111	136
1.375				11*	37	63*	88*	112*	137
1.500	+ .000	+ .000	+ .000	12	38	64	89	113	138
1.750	- .040	- .060	- .080	13	39	65	90	114	139
2.000				14	40	66	91	115	140
2.250				15	41	67	92	116	141
2.500				16	42	68	93	117	142
2.750				17	43	69	94	118	143
3.000				18	44	70	95	119	144
3.250	+ .000	+ .000	+ .000	19	45	71	96	120	145
3.500	- .060	- .080	- .100	20	46	72	97	121	146
3.750				21*	47	73*	98*	122*	147
4.000				22	48	74	99	123	148
4.250				23*	49	75*	100*	124*	149
4.500	+ .000	+ .000	+ .000	24	50	76	101	125	150
4.750	- .100	- .100	- .100	25*	51	77*	102*	126*	151
5.000				26	52	78	103	127	152
5.500							128	153	177
6.000							129	154	178

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

* INACTIVE FOR NEW DESIGN - Dash numbers 27 thru 52, 130 thru 154 and those with an (*) are inactive for new design.

(A)

(A) For changes see sheets 1 and 2.

P.A. WC Other Cust SH 62	TITLE SCREW, CAP, HEXAGON HEAD - NICKEL-COPPER ALLOY, PLAIN FINISH, UNC-2A	MILITARY STANDARD
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES:	MS 35311
		SHEET 1 OF 2

NOMINAL SIZE	.750	.875	1.000	1.125	1.250		
THREADS PER INCH (UNC-2A)	10	9	8	7	7		
D BODY DIAMETER	MAX MIN	.750 .741	.875 .866	1.000 .990	1.125 1.114	1.250 1.239	
F WIDTH ACROSS FLATS	MAX MIN	1.125 1.100	1.3125 1.2850	1.500 1.469	1.6875 1.6310	1.875 1.812	
G WIDTH ACROSS CORNERS	MAX MIN	1.299 1.254	1.516 1.465	1.732 1.675	1.949 1.859	2.165 2.066	
H HEAD HEIGHT	MAX MIN	.483 .455	.563 .531	.627 .591	.718 .658	.813 .749	
R RADIUS	MAX MIN	.045 .020	.065 .040	.095 .060	.095 .060	.095 .060	
TENSILE STRENGTH (LBS-MIN)		26,720	36,960	48,480	61,040	72,500	
L LENGTH	TOLERANCE			DASH NO.	DASH NO.	DASH NO.	DASH NO.
	SIZE .750	SIZES .875 AND 1.000	SIZES 1.125 AND 1.250				
.750	+ .000	+ .000	----	179			
.875	- .030	- .040		180	202		
1.000				181	203	224	
1.125				182*	204*	225*	245
1.250				183	205	226	246
1.375				184*	206*	227*	247
1.500	+ .000	+ .000	+ .000	185	207	228	248
1.750	- .080	- .100	- .120	186	208	229	249
2.000				187	209	230	250
2.250				188	210	231	251
2.500				189	211	232	252
2.750				190	212	233	253
3.000				191	213	234	254
3.250	+ .000	+ .000	+ .000	192	214	235	255
3.500	- .100	- .140	- .160	193	215	236	256
3.750				194	216	237	257
4.000				195	217	238	258
4.250				196*	218*	239*	259
4.500	+ .000	+ .000	+ .000	197	219	240	260
4.750	- .100	- .160	- .180	198*	220*	241*	261
5.000				199	221	242	262
5.500				200	222	243	263
6.000				201	223	244	264

(A) * INACTIVE FOR NEW DESIGN - Dash numbers 245 thru 264 and those with an (*) are inactive for new design.

NOTES:

- (A) 1. **MATERIAL:** Nickel-Copper alloy in accordance with QQ-N-281, Class A, having a minimum ultimate tensile strength of 80,000 PSI.
2. **PROTECTIVE COATING:** None.
3. **THREADS:** The threads shall be in accordance with Screw-Thread Standards for Federal Services, Handbook H28.
4. **DIMENSIONS:** All dimensions are in inches, unless otherwise specified.
5. **THREAD LENGTH:** Minimum thread length shall be twice the diameter plus 0.250 inch. The tolerance shall be plus 0.188 inch or 2-1/2 threads, whichever is greater. On screws that are too short for minimum thread lengths, the distance from the head bearing surface to the first complete thread shall not exceed the length of 2-1/2 threads for sizes thru 1.000 and 3-1/2 threads for sizes over 1.000.
6. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number. Example: MS35311-1.
7. Referenced documents shall be of the issue in effect on date of invitations for bid.
8. For design feature purposes, this standard takes precedence over procurement documents referenced herein.

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REVIEWER: AT, AV, IS, NS
(SER: MC, ME, MI, OS, YD)

APPROVED 4 MAR 1954 REVISED (A) FOR CHANGES SEE SHEETS 1 AND 2.

P.A. WC Other Cust SH 82	TITLE SCREW, CAP, HEXAGON HEAD - NICKEL-COPPER ALLOY, PLAIN FINISH, UNC-2A	MILITARY STANDARD MS35311
PROCUREMENT SPECIFICATION FF-S-83	SUPERSEDES:	SHEET 2 OF 2

SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 22-R255

INSTRUCTIONS: This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.

To detach this form, cut along this line.

SPECIFICATION

ORGANIZATION

CITY AND STATE

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

DIRECT GOVERNMENT CONTRACT SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

YES NO (If "yes", in what way?)

4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)

SUBMITTED BY (Printed or typed name and activity - Optional)

DATE

DD FORM 1426
1 JAN 60

REPLACES EDITION OF 1 OCT 54 WHICH MAY BE USED.