

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

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.

		FED. SUP CLASS 5305							
		OPTIONAL DESIGN							
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 MIN	.250 .245	.3125 .3065	.375 .369	.4375 .4305	.500 .493	.5625 .5545	.625 .617
F	WIDTH ACROSS FLATS	MAX MIN	.4375 .4280	.500 .489	.5625 .5510	.625 .612	.750 .736	.8125 .7980	.9375 .9220
G	WIDTH ACROSS CORNERS	MAX MIN	.505 .488	.577 .557	.650 .628	.722 .698	.866 .840	.938 .910	1.083 1.051
H	HEAD HEIGHT	MAX MIN	.163 .150	.211 .195	.243 .226	.291 .272	.323 .302	.371 .348	.403 .378
R	RADIUS	MAX MIN	.025 .015	.025 .015	.025 .015	.025 .015	.025 .015	.045 .020	.045 .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
6.000								129	154
<p>* INACTIVE FOR NEW DESIGN - Dash numbers 27 thru 52, 130 thru 154 and those with an (*) are inactive for new design.</p>									
<p>(A) For changes see sheets 1 and 2.</p>									
P.A. WC Other Cust SH 82		TITLE SCREW, CAP, HEXAGON HEAD - NICKEL-COPPER ALLOY, PLAIN FINISH, UNC-2A				MILITARY STANDARD MS 35311			
PROCUREMENT SPECIFICATION FF-S-85		SUPERSEDES:				SHEET 1 OF 2			

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FED. SUP CLASS 5305							
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 .875 1.000	+.000 -.030	+.000 -.040	-----	179 180 181	202 203	224	
1.125 1.250 1.375 1.500 1.750 2.000 2.250 2.500	+.000 -.080	+.000 -.100	+.000 -.120	182* 183 184* 185 186 187 188 189	204* 205 206* 207 208 209 210 211	225* 226 227* 228 229 230 231 232	245 246 247 248 249 250 251 252
2.750 3.000 3.250 3.500 3.750 4.000	+.000 -.100	+.000 -.140	+.000 -.160	190 191 192 193 194 195	212 213 214 215 216 217	233 234 235 236 237 238	253 254 255 256 257 258
4.250 4.500 4.750 5.000 5.500 6.000	+.000 -.100	+.000 -.160	+.000 -.180	196* 197 198* 199 200 201	218* 219 220* 221 222 223	239* 240 241* 242 243 244	259 260 261 262 263 264

(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 0.168 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.

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-85	SUPERSEDES:	SHEET 2 OF 2

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

DD FORM 672-1 (Continued)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.



## 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.

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 1 JAN 60 1426

REPLACES EDITION OF 1 OCT 54 WHICH MAY BE USED.

To detach this form, cut along this line.