



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

NOMINAL SIZE	.250	.3125	.375	.4375	.500	.5625	.625			
THREADS PER INCH (UNF-2A)	28	24	24	20	20	18	18			
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	.321 .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)		2,180	3,480	5,260	7,120	9,590	12,180	15,360		
L LENGTH	TOLERANCE			DASH NO.	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				301	327	353				
.438				302*	328	354*				
.500				303	329	355	379	404	430	
.562	+ .000	+ .000	+ .000	304*	330	356*	381	405*	431	455
.625	- .030	- .030	- .030	305	331	357	382	406	432	456
.750				306	332	358	383	407	433	457
.875				307	333	359	384	408	434	458
1.000				308	334	360	385	409	435	459*
1.125				309*	335	361*	386	410*	436	460
1.250				310	336	362	387	411	437	461*
1.375				311*	337	363*	388	412*	438	462
1.500	+ .000	+ .000	+ .000	312	338	364	389	413	439	463
1.750	- .040	- .060	- .080	313	339	365	390	414	440	464
2.000				314	340	366	391	415	441	465
2.250				315	341	367	392	416	442	466
2.500				316	342	368	393	417	443	467*
2.750				317	343	369*	394	418*	444	468
3.000				318	344	370	395	419	445	469*
3.250	+ .000	+ .000	+ .000	319*	345	371*	396	420*	446	470
3.500	- .060	- .080	- .100	320	346	372	397	421	447	471*
3.750				321*	347	373*	398	422*	448	472.
4.000				322	348	374	399	423	449	473*
4.250				323*	349	375*	400	424*	450	474
4.500				324	350	376	401	425	451	475*
4.750	+ .000	+ .000	+ .000	325*	351	377*	402	426*	452	476
5.000	- .100	- .100	- .100	326	352	378	403	427	453	477
5.500								428	454	478
6.000								429		

\* INACTIVE FOR NEW DESIGN - Dash numbers 327 thru 352, 379 thru 403, 430 thru 454 and those with an (\*) are inactive for new design.

(B)

(B) For changes see sheets 1 and 2.

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.

P.A. WC Other Cust SH 82	TITLE <b>SCREW, CAP, HEXAGON HEAD - NAVAL BRASS, PLAIN FINISH, UNF-2A</b>	<b>MILITARY STANDARD</b> <b>MS 35310</b>
PROCUREMENT SPECIFICATION FF-S-85	SUPERSEDES:	SHEET 1 OF 2

APPROVED 4 MAR 1954 REVISED (A) 30 SEP 1966 (B) 15 FEB 1973

NOMINAL SIZE		.750	.875	1.000	1.125	1.250						
THREADS PER INCH (UNF-2A)		16	14	12	12	12						
D BODY DIAMETER	MAX	.750	.875	1.000	1.125	1.250						
	MIN	.741	.866	.990	1.114	1.239						
F WIDTH ACROSS FLATS	MAX	1.125	1.3125	1.500	1.6875	1.875						
	MIN	1.100	1.2850	1.469	1.6310	1.812						
G WIDTH ACROSS CORNERS	MAX	1.299	1.516	1.732	1.949	2.165						
	MIN	1.254	1.465	1.675	1.859	2.066						
H HEAD HEIGHT	MAX	.483	.563	.627	.718	.813						
	MIN	.455	.531	.591	.658	.749						
R RADIUS	MAX	.045	.065	.095	.095	.095						
	MIN	.020	.040	.060	.060	.060						
TENSILE STRENGTH (LBS-MIN)		22,380	30,540	39,780	49,640	62,200						
L LENGTH	TOLERANCE			DASH NO.	DASH NO. *	DASH NO.	DASH NO. *	DASH NO.				
	SIZE .750	SIZES .875 AND 1.000	SIZES 1.125 AND 1.250									
.750	+.000 -.030	+.000 -.040	----	479	502 503	524	545 546	565 566*				
.875				482*					504	526	547	567
1.000												
1.125	484*	506	528		549	569						
1.250				485			507	529	550	570*		
1.375											486	508
1.500	487	509	531*		552	572*						
1.750				488*			510	532	553	573		
2.000											489	511
2.250	490*	512	534		555	575						
2.500				491			513	535*	556	576*		
2.750											492*	514
3.000	493	515	537*		558	578*						
3.250				494*			516	538	559	579		
3.500											495	517
3.750	496*	518	540		561	581						
4.000				497			519	541*	562	582		
4.250											498*	520
4.500	499	521	543		564	583						
4.750				500			522	544	564	583		
5.000											501	523
5.500	501	523	544		564	583						
6.000				501			523	544	564	583		

(B) \* INACTIVE FOR NEW DESIGN - Dash numbers 502 thru 523, 545 thru 564 and those with an (\*) are inactive for new design.

NOTES:

- (B) 1. **MATERIAL:** Naval Brass in accordance with QQ-B-637, alloy no. 464, half-hard or alloy no. 462, hard having a minimum ultimate tensile strength of 60,000 PSI for sizes thru 1.000, and 58,000 PSI for sizes over 1.000.
- 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: MS35310-301
- 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.

INTERCHANGEABILITY

The former dash numbers of MS35310 (1 thru 283) are cancelled and superseded by the present dash numbers of MS35310 (301 thru 583 respectively). Use only the present dash numbers for new design.

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.

APPROVED 4 MAR 1954 REVISED (A) 30 SEP 1966 (B) FOR CHANGES SEE SHEETS 1 AND 2.

P.A. WC	TITLE	MILITARY STANDARD
Other Cust SH 82	SCREW, CAP, HEXAGON HEAD- NAVAL BRASS, PLAIN FINISH, UNF-2A	MS 35310
PROCUREMENT SPECIFICATION FF-5-85	SUPERSEDES:	SHEET 2 OF 2