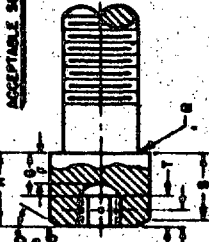
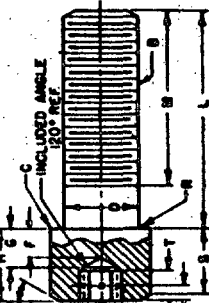
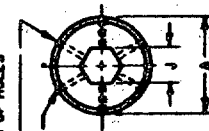


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FOR NUMBER OF HOLES
SEE NOTES



ACCEPTABLE SOCKET DESIGNS

P.A. Men
Other Cont
ORD
ARI

PROCUREMENT SPECIFICATION
FP-3-86

TITLE
SCREW, CAP—SOCKET HEAD, HEXAGON, DRILLED
ALLOY STEEL, UNCOATED
(UNP-3A)

SUPERSEDES

NOMINAL SIZE	#6 (.138)	#8 (.164)	#10 (.190)	1/A	5/16
B- THREADS PER INCH	40UNP-3A	36UNP-3A	32UNP-3A	28UNP-3A	24UNP-3A
D- BODY DIAMETER	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
A- HEAD DIAMETER	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
H- HEAD HEIGHT	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
F- HOLE DEPTH	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
S- HEAD SIDE HEIGHT	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
J- SOCKET WIDTH ACROSS FLATS	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
T- KEY ENGAGEMENT	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
G- WALL THICKNESS	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
C- RADIUS OR CHAMFER	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
R- RADIUS	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
E- HOLE LOCATION	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
I- HOLE DIAMETER	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
M- MINIMUM THREAD LENGTH	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
RECOMMENDED WIRE DIAMETER	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
• DRILL HOLE ALIGNMENT PLUG	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN
• MINIMUM BREAKING STRENGTH	MAX MIN	MAX MIN	MAX MIN	MAX MIN	MAX MIN

L- LENGTH	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.
1/A	MS 24675 -1	MS 24675 -6	MS 24675 -9	MS 24675 -19	MS 24675 -30
1/8	MS 24675 -2	MS 24675 -7	MS 24675 -10	MS 24675 -20	MS 24675 -31
1/4	MS 24675 -3	MS 24675 -8	MS 24675 -11	MS 24675 -21	MS 24675 -32
3/8	MS 24675 -4	MS 24675 -9	MS 24675 -12	MS 24675 -22	MS 24675 -33
1/2	MS 24675 -5	MS 24675 -10	MS 24675 -13	MS 24675 -23	MS 24675 -34
3/4	MS 24675 -6	MS 24675 -11	MS 24675 -14	MS 24675 -24	MS 24675 -35
1	MS 24675 -7	MS 24675 -12	MS 24675 -15	MS 24675 -25	MS 24675 -36
1 1/4	MS 24675 -8	MS 24675 -13	MS 24675 -16	MS 24675 -26	MS 24675 -37
1 3/4	MS 24675 -9	MS 24675 -14	MS 24675 -17	MS 24675 -27	MS 24675 -38
2	MS 24675 -10	MS 24675 -15	MS 24675 -18	MS 24675 -28	MS 24675 -39
2 1/4	MS 24675 -11	MS 24675 -16	MS 24675 -19	MS 24675 -29	MS 24675 -40
2 1/2	MS 24675 -12	MS 24675 -17	MS 24675 -20	MS 24675 -30	MS 24675 -41

(B) FOR CHANGES SEE SHEETS 1, 2, 3

MILITARY STANDARD

MS24675

SHEET 1 OF 3

DD FORM 672-1

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 7 APRIL 1960 REVISED (A) 27 JAN 1961 (B) 7 JULY 1975

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NOMINAL SIZE		3/8	7/16	1/2	5/8	PROG. SUP CLASS 5305	
B- THREADS PER INCH		24UNF-3A	20UNF-3A	20UNF-3A	18UNF-3A		
D- BODY DIAMETER		MAX .3750 MIN .3678	MAX .4375 MIN .4294	MAX .5000 MIN .4919	MAX .5950 MIN .6163		
A- HEAD DIAMETER		MAX .562 MIN .550	MAX .656 MIN .642	MAX .750 MIN .735	MAX .937 MIN .921		
H- HEAD HEIGHT		MAX .375 MIN .353	MAX .437 MIN .430	MAX .500 MIN .492	MAX .605 MIN .615		
F- HOLE DEPTH		MAX .029 MIN .027	MAX .031 MIN .024	MAX .051 MIN .043	MAX .065 MIN .052		
S- HEAD SIDE HEIGHT		MAX .3160 MIN .3125	MAX .3790 MIN .3750	MAX .4750 MIN .4710	MAX .5050 MIN .5000		
J- SOCKET WIDTH ACROSS FLATS		MAX .182 MIN .180	MAX .213 MIN .210	MAX .245 MIN .240	MAX .307 MIN .300		
G- WALL THICKNESS		MAX .008 MIN .005	MAX .010 MIN .008	MAX .010 MIN .008	MAX .010 MIN .008		
C- RADIUS OR CHAMFER		MAX .020 MIN .015	MAX .023 MIN .018	MAX .026 MIN .020	MAX .032 MIN .024		
R- RADIUS		MAX .123 MIN .103	MAX .141 MIN .121	MAX .150 MIN .140	MAX .198 MIN .178		
K- HOLE LOCATION		MAX .067 MIN .061	MAX .067 MIN .061	MAX .067 MIN .061	MAX .067 MIN .061		
E- HOLE DIAMETER		MAX .1250 MIN .1250	MAX .1375 MIN .1375	MAX .1500 MIN .1500	MAX .1750 MIN .1750		
H- MINIMUM THREAD LENGTH		MAX .057 MIN .045	MAX .057 MIN .045	MAX .057 MIN .045	MAX .057 MIN .045		
RECOMMENDED WIRE DIAMETER		MAX .057 MIN .045	MAX .057 MIN .045	MAX .057 MIN .045	MAX .057 MIN .045		
** MINIMUM BREAKING STRENGTH		13,800 LB	18,700 LB	23,200 LB	40,400 LB		
L- LENGTH		PART NO.	PART NO.	PART NO.	PART NO.		
1/2		MS 24675 -41					
5/8		MS 24675 -42					
3/4		MS 24675 -43					
7/8		MS 24675 -44					
1		MS 24675 -45					
1-1/4		MS 24675 -46					
1-1/2		MS 24675 -47					
1-3/4		MS 24675 -48					
2		MS 24675 -49					
2-1/4		MS 24675 -50					
2-1/2		MS 24675 -51					
3		MS 24675 -52					
		MS 24675 -53	MS 24675 -54	MS 24675 -55	MS 24675 -56	MS 24675 -57	MS 24675 -58
		MS 24675 -59	MS 24675 -60	MS 24675 -61	MS 24675 -62	MS 24675 -63	MS 24675 -64
		MS 24675 -65	MS 24675 -66	MS 24675 -67	MS 24675 -68	MS 24675 -69	MS 24675 -70
		MS 24675 -71	MS 24675 -72	MS 24675 -73	MS 24675 -74	MS 24675 -75	MS 24675 -76
		MS 24675 -77	MS 24675 -78	MS 24675 -79	MS 24675 -80	MS 24675 -81	MS 24675 -82
		MS 24675 -83	MS 24675 -84	MS 24675 -85	MS 24675 -86	MS 24675 -87	MS 24675 -88
		MS 24675 -89	MS 24675 -90	MS 24675 -91	MS 24675 -92	MS 24675 -93	MS 24675 -94
		MS 24675 -95	MS 24675 -96	MS 24675 -97	MS 24675 -98	MS 24675 -99	MS 24675 -100
		MS 24675 -101	MS 24675 -102	MS 24675 -103	MS 24675 -104	MS 24675 -105	MS 24675 -106
		MS 24675 -107	MS 24675 -108	MS 24675 -109	MS 24675 -110	MS 24675 -111	MS 24675 -112
		MS 24675 -113	MS 24675 -114	MS 24675 -115	MS 24675 -116	MS 24675 -117	MS 24675 -118
		MS 24675 -119	MS 24675 -120	MS 24675 -121	MS 24675 -122	MS 24675 -123	MS 24675 -124
		MS 24675 -125	MS 24675 -126	MS 24675 -127	MS 24675 -128	MS 24675 -129	MS 24675 -130
		MS 24675 -131	MS 24675 -132	MS 24675 -133	MS 24675 -134	MS 24675 -135	MS 24675 -136
		MS 24675 -137	MS 24675 -138	MS 24675 -139	MS 24675 -140	MS 24675 -141	MS 24675 -142
		MS 24675 -143	MS 24675 -144	MS 24675 -145	MS 24675 -146	MS 24675 -147	MS 24675 -148
		MS 24675 -149	MS 24675 -150	MS 24675 -151	MS 24675 -152	MS 24675 -153	MS 24675 -154
		MS 24675 -155	MS 24675 -156	MS 24675 -157	MS 24675 -158	MS 24675 -159	MS 24675 -160
		MS 24675 -161	MS 24675 -162	MS 24675 -163	MS 24675 -164	MS 24675 -165	MS 24675 -166
		MS 24675 -167	MS 24675 -168	MS 24675 -169	MS 24675 -170	MS 24675 -171	MS 24675 -172
		MS 24675 -173	MS 24675 -174	MS 24675 -175	MS 24675 -176	MS 24675 -177	MS 24675 -178
		MS 24675 -179	MS 24675 -180	MS 24675 -181	MS 24675 -182	MS 24675 -183	MS 24675 -184
		MS 24675 -185	MS 24675 -186	MS 24675 -187	MS 24675 -188	MS 24675 -189	MS 24675 -190
		MS 24675 -191	MS 24675 -192	MS 24675 -193	MS 24675 -194	MS 24675 -195	MS 24675 -196
		MS 24675 -197	MS 24675 -198	MS 24675 -199	MS 24675 -200	MS 24675 -201	MS 24675 -202
		MS 24675 -203	MS 24675 -204	MS 24675 -205	MS 24675 -206	MS 24675 -207	MS 24675 -208
		MS 24675 -209	MS 24675 -210	MS 24675 -211	MS 24675 -212	MS 24675 -213	MS 24675 -214
		MS 24675 -215	MS 24675 -216	MS 24675 -217	MS 24675 -218	MS 24675 -219	MS 24675 -220
		MS 24675 -221	MS 24675 -222	MS 24675 -223	MS 24675 -224	MS 24675 -225	MS 24675 -226
		MS 24675 -227	MS 24675 -228	MS 24675 -229	MS 24675 -230	MS 24675 -231	MS 24675 -232
		MS 24675 -233	MS 24675 -234	MS 24675 -235	MS 24675 -236	MS 24675 -237	MS 24675 -238
		MS 24675 -239	MS 24675 -240	MS 24675 -241	MS 24675 -242	MS 24675 -243	MS 24675 -244
		MS 24675 -245	MS 24675 -246	MS 24675 -247	MS 24675 -248	MS 24675 -249	MS 24675 -250
		MS 24675 -251	MS 24675 -252	MS 24675 -253	MS 24675 -254	MS 24675 -255	MS 24675 -256
		MS 24675 -257	MS 24675 -258	MS 24675 -259	MS 24675 -260	MS 24675 -261	MS 24675 -262
		MS 24675 -263	MS 24675 -264	MS 24675 -265	MS 24675 -266	MS 24675 -267	MS 24675 -268
		MS 24675 -269	MS 24675 -270	MS 24675 -271	MS 24675 -272	MS 24675 -273	MS 24675 -274
		MS 24675 -275	MS 24675 -276	MS 24675 -277	MS 24675 -278	MS 24675 -279	MS 24675 -280
		MS 24675 -281	MS 24675 -282	MS 24675 -283	MS 24675 -284	MS 24675 -285	MS 24675 -286
		MS 24675 -287	MS 24675 -288	MS 24675 -289	MS 24675 -290	MS 24675 -291	MS 24675 -292
		MS 24675 -293	MS 24675 -294	MS 24675 -295	MS 24675 -296	MS 24675 -297	MS 24675 -298
		MS 24675 -299	MS 24675 -300	MS 24675 -301	MS 24675 -302	MS 24675 -303	MS 24675 -304
		MS 24675 -305	MS 24675 -306	MS 24675 -307	MS 24675 -308	MS 24675 -309	MS 24675 -310
		MS 24675 -311	MS 24675 -312	MS 24675 -313	MS 24675 -314	MS 24675 -315	MS 24675 -316
		MS 24675 -317	MS 24675 -318	MS 24675 -319	MS 24675 -320	MS 24675 -321	MS 24675 -322
		MS 24675 -323	MS 24675 -324	MS 24675 -325	MS 24675 -326	MS 24675 -327	MS 24675 -328
		MS 24675 -329	MS 24675 -330	MS 24675 -331	MS 24675 -332	MS 24675 -333	MS 24675 -334
		MS 24675 -335	MS 24675 -336	MS 24675 -337	MS 24675 -338	MS 24675 -339	MS 24675 -340
		MS 24675 -341	MS 24675 -342	MS 24675 -343	MS 24675 -344	MS 24675 -345	MS 24675 -346
		MS 24675 -347	MS 24675 -348	MS 24675 -349	MS 24675 -350	MS 24675 -351	MS 24675 -352
		MS 24675 -353	MS 24675 -354	MS 24675 -355	MS 24675 -356	MS 24675 -357	MS 24675 -358
		MS 24675 -359	MS 24675 -360	MS 24675 -361	MS 24675 -362	MS 24675 -363	MS 24675 -364
		MS 24675 -365	MS 24675 -366	MS 24675 -367	MS 24675 -368	MS 24675 -369	MS 24675 -370
		MS 24675 -371	MS 24675 -372	MS 24675 -373	MS 24675 -374	MS 24675 -375	MS 24675 -376
		MS 24675 -377	MS 24675 -378	MS 24675 -379	MS 24675 -380	MS 24675 -381	MS 24675 -382
		MS 24675 -383	MS 24675 -384	MS 24675 -385	MS 24675 -386	MS 24675 -387	MS 24675 -388
		MS 24675 -389	MS 24675 -390	MS 24675 -391	MS 24675 -392	MS 24675 -393	MS 24675 -394
		MS 24675 -395	MS 24675 -396	MS 24675 -397	MS 24675 -398	MS 24675 -399	MS 24675 -400
		MS 24675 -401	MS 24675 -402	MS 24675 -403	MS 24675 -404	MS 24675 -405	MS 24675 -406
		MS 24675 -407	MS 24675 -408	MS 24675 -409	MS 24675 -410	MS 24675 -411	MS 24675 -412
		MS 24675 -413	MS 24675 -414	MS 24675 -415	MS 24675 -416	MS 24675 -417	MS 24675 -418
		MS 24675 -419	MS 24675 -420	MS 24675 -421	MS 24675 -422	MS 24675 -423	MS 24675 -424
		MS 24675 -425	MS 24675 -426	MS 24675 -427	MS 24675 -428	MS 24675 -429	MS 24675 -430
		MS 24675 -431	MS 24675 -432	MS 24675 -433	MS 24675 -434	MS 24675 -435	MS 24675 -436
		MS 24675 -437	MS 24675 -438	MS 24675 -439	MS 24675 -440	MS 24675 -441	MS 24675 -442
		MS 24675 -443	MS 24675 -444	MS 24675 -445	MS 24675 -446	MS 24675 -447	MS 24675 -448
		MS 24675 -449	MS 24675 -450	MS 24675 -451	MS 24675 -452	MS 24675 -453	MS 24675 -454
		MS 24675 -455	MS 24675 -456	MS 24675 -457	MS 24675 -458	MS 24675 -459	MS 24675 -460
		MS 24675 -461	MS 24675 -462	MS 24675 -463	MS 24675 -464	MS 24675 -465	MS 24675 -466
		MS 24675 -467	MS 24675 -468	MS 24675 -469	MS 24675 -470	MS 24675 -471	MS 24675 -472
		MS 24675 -473	MS 24675 -474	MS 24675 -475	MS 24675 -476	MS 24675 -477	MS 24675 -478
		MS 24675 -479	MS 24675 -480	MS 24675 -481	MS 24675 -482	MS 24675 -483	MS 24675 -484
		MS 24675 -485	MS 24675 -486	MS 24675 -487	MS 24675 -488	MS 24675 -489	MS 24675 -490
		MS 24675 -491	MS 24675 -492	MS 24675 -493	MS 24675 -494	MS 24675 -495	MS 24675 -496
		MS 24675 -497	MS 24675 -498	MS 24675 -499	MS 24675 -500	MS 24675 -501	MS 24675 -502
		MS 24675 -503	MS 24675 -504	MS 24675 -505	MS 24675 -506	MS 24675 -507	MS 24675 -508
		MS 24675 -509	MS 24675 -510	MS 24675 -511	MS 24675 -512	MS 24675 -513	MS 24675 -514
		MS 24675 -515	MS 24675 -516	MS 24675 -517	MS 24675 -518	MS 24675 -519	MS 24675 -520
		MS 24675 -521	MS 24675 -522	MS 24675 -523	MS 24675 -524	MS 24675 -525	MS 24675 -526
		MS 24675 -527	MS 24675 -528	MS 24675 -529	MS 24675 -530	MS 24675 -531	MS 24675 -532
		MS 24675 -533	MS 24675 -534	MS 24675 -535	MS 24675 -536	MS 24675 -537	MS 24675 -538
		MS 24675 -539	MS 24675 -540	MS 24675 -541	MS 24675 -542	MS 24675 -543	MS 24675 -544
</							

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<p>P.A. Rep Other Cust ORD ARD</p>		<p>TITLE SCREW, CAP - SOCKET HEAD, HEXAGON, DRILLED ALLOY STEEL, UNCOATED (UNF-3A)</p>		<p>MILITARY STANDARD MS 24675</p>	
<p>PROCUREMENT SPECIFICATION FF-S-86</p>		<p>SUPERSEDED:</p>		<p>SHEET 3</p>	

DD FORM 672-1

PROVIDES EDITIONS OF THIS FORM ARE OBSOLETE.

Alignment Plug shall pass completely through the head without deflection.

Based on 160,000 PSI minimum tensile strength. Breaking strengths are determined by the stress areas indicated in Screw-Thread Standards for Federal Services Handbook H-28.

MATERIAL: Steel Alloy; Federal Standard 66

HARDNESS: Rockwell, C 36-43

PROTECTIVE COATING: Uncoated

THREADS: The threads shall be in accordance with Specification MIL-S-7742

THREAD LENGTH-N: Screws which have a body length less than the minimum thread length shall be threaded within two thread pitches of the head.

LENGTH TOLERANCE:

LENGTH	TOLERANCE
1/4 thru 1.000	±1/64
1-1/4 thru 2.000	±1/32 -1/64
2-1/4 thru 3.000	±1/32

DRILLED HOLE DATA:

DIAMETER	TOLERANCE
#6 thru 5/8	±1/64
#6 thru 5/8	±1/32 -1/64
#6 thru 5/8	±1/32

(a) Screw size No. 6 shall have two (2) drilled holes spaced 180° and size No. 8 and above shall have six (6) drilled holes spaced 60°

(b) Edges of the holes on the outside of the head shall be chamfered 45° by .010 to .020 deep.

(c) On screw sizes below No. 8 the drilled holes shall be centered as close as practicable on the flat of the hexagon socket.

(d) On screw sizes No. 8 and above the drilled holes shall be within the flats of the hexagon socket and shall not break through the corners of the hexagon socket.

HEAD: Plain or knurled heads are optional.

DIMENSIONS: In inches unless otherwise specified.

NOTES:

(a) This standard takes precedence over documents referenced herein.

(b) Reference documents shall be of the issue in effect on date of invitations for bids.

PART NUMBER - (MS Number) - (Screw dash number)

EXAMPLE - MS24675-1 is the part number for a screw #6-4UNF-3A by 1/4 long uncoated steel.

(B) CANCELLED

AFTER 7 JULY 1975 USE MS 24678

INTERCHANGEABILITY RELATIONSHIP - MS 24678 SCREWS CAN REPLACE THE CANCELLED SCREWS OF THE SAME DASH NUMBERS FOR MOST APPLICATIONS, EXCEPT THOSE IN WHICH CADMIUM PLATED STEEL SCREWS ARE UNACCEPTABLE DUE TO TEMPERATURE, CORROSION, OR TOXICITY CONSIDERATIONS. THE CANCELLED MS 24675 SCREWS CANNOT ALWAYS REPLACE MS 24678 SCREWS AND SHOULD BE USED UNTIL EXISTING STOCK IS DEPLETED. USE ONLY SUPERSEDING MS SCREWS OF THE SAME DASH NUMBERS FOR DESIGN AND REPLACEMENT

APPROVED 7 APRIL 1960 REVISED (B) FOR CHANGES SEE SHEETS 1, 2, 3

FED. SUP CLASS
5305