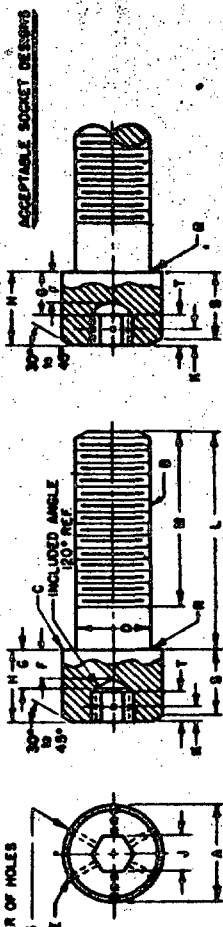


P&A. SEE CLASS 5305

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

FOR NUMBER OF HOLES
- SEE NOTES



ACCEPTABLE SOCKET DESIGNS

P.A. Men	TITLE	MILITARY STANDARD	
Other Cont ORD ARI	SCREW, CAP - SOCKET HEAD, HEXAGON, DRILLED ALLOY STEEL, UNCOATED (UNP-3A)	MS 24675	
PROCUREMENT SPECIFICATION FP-S-86	SUPERSEDES:	SHEET 1 OF 3	

NOMINAL SIZE	#6 (.138)	#8 (.164)	#10 (.190)	1/8	5/16
B- THREADS PER INCH	36UNP-3A	36UNP-3A	36UNP-3A	36UNP-3A	24UNP-3A
D- BODY DIAMETER	MAX .1380 MIN .1329	MAX .1640 MIN .1585	MAX .1900 MIN .1840	MAX .2500 MIN .2435	MAX .3125 MIN .3053
A- HEAD DIAMETER	MAX .256 MIN .218	MAX .270 MIN .262	MAX .312 MIN .303	MAX .375 MIN .365	MAX .468 MIN .457
H- HEAD HEIGHT	MAX .138 MIN .134	MAX .164 MIN .159	MAX .190 MIN .185	MAX .250 MIN .244	MAX .312 MIN .305
F- HOLE DEPTH	MIN .013	MIN .011	MIN .016	MIN .025	MIN .027
S- HEAD SIDE HEIGHT	MIN .154	MIN .168	MIN .171	MIN .225	MIN .281
J- SOCKET WIDTH ACROSS FLATS	MAX .111 MIN .1094	MAX .1426 MIN .1406	MAX .1587 MIN .1562	MAX .1900 MIN .1875	MAX .2530 MIN .2500
T- KEY ENGAGEMENT	MIN .054	MIN .062	MIN .061	MIN .080	MIN .110
G- WALL THICKNESS	MIN .005	MIN .005	MIN .005	MIN .008	MIN .008
C- RADIUS OR CHAMFER	MAX .005	MAX .012	MAX .014	MAX .014	MAX .017
R- RADIUS	MIN .050	MIN .040	MIN .045	MIN .065	MIN .104
K- HOLE LOCATION	MAX .035 MIN .033	MAX .040 MIN .044	MAX .045 MIN .044	MAX .065 MIN .064	MAX .104 MIN .104
L- HOLE DIAMETER	MAX .750 MIN .750	MAX .875 MIN .875	MAX .875 MIN .875	MAX 1.000 MIN 1.000	MAX 1.125 MIN 1.125
M- FINISH THREAD LENGTH	MAX .028 MIN .020	MAX .040 MIN .032	MAX .040 MIN .032	MAX .040 MIN .032	MAX .040 MIN .032
RECOMMENDED WIRE DIAMETER	MAX .025 MIN .025	MAX .030 MIN .030	MAX .030 MIN .030	MAX .030 MIN .030	MAX .030 MIN .030
* DRILL HOLE ALIGNMENT PLUG	1.570 LB	2.890 LB	3.110 LB	5.680 LB	9.100 LB
**MINIMUM BREAKING STRENGTH					
L- LENGTH	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.
1/4	MS 24675 -1	MS 24675 -6	MS 24675 -9	MS 24675 -19	MS 24675 -30
3/8	MS 24675 -2	MS 24675 -7	MS 24675 -10	MS 24675 -20	MS 24675 -31
1/2	MS 24675 -3	MS 24675 -8	MS 24675 -11	MS 24675 -21	MS 24675 -32
5/8	MS 24675 -4		MS 24675 -12	MS 24675 -22	
3/4	MS 24675 -5		MS 24675 -13	MS 24675 -23	
7/8			MS 24675 -14	MS 24675 -24	
1-1/4			MS 24675 -15	MS 24675 -25	
1-1/2			MS 24675 -16	MS 24675 -26	
1-3/4			MS 24675 -17	MS 24675 -27	
2			MS 24675 -18	MS 24675 -28	
2-1/4				MS 24675 -29	
2-1/2				MS 24675 -30	

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

(B) CANCELLED
AFTER 7 JULY 1975 USE MS 24678
SEE SHEET 3

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

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

NOTE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government hereby makes no responsibility, nor any obligation, whatsoever; and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded as an implication or admission as to any manner in which the holder or any other person or corporation, or assuming any right or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

<p>P.A. Rep ORD ARD</p>	<p>TITLE SCREW, CAP - SOCKET HEAD, HEXAGON, DRILLED ALLOY STEEL, INCOATED (UNF-3A)</p>	<p>MILITARY STANDARD MS 24675 SHEET 3</p>
<p>PROCUREMENT SPECIFICATION FF-5-96</p>		<p>SUPERSEDES:</p>

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
1/A thru 1.000
1-1/A thru 2.000
2-1/A thru 3.000

DIAMETER TOLERANCE
DIAMETER
#5 thru 5/8
#6 thru 5/8
#6 thru 5/8

DRILLED HOLE DATA:
(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-UNC-3A by 1/A 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