



REVIEWER: IS, EL, MC, MU, MO, WC, WEPS  
USER: None

NOMINAL SIZE	#4 (.112)	#6 (.135)	#8 (.164)	#10 (.190)	1/4
B THREADS PER INCH	40 UNC-3A	32 UNC-3A	32 UNC-3A	24 UNC-3A	20 UNC-3A
D BODY DIAMETER	MAX .1120 MIN .1096	.1380 .1353	.1640 .1613	.1900 .1867	.2500 .2464
A HEAD DIAMETER	MAX .183 MIN .178	.226 .221	.270 .265	5/16 .306	3/8 .367
H HEAD HEIGHT	MAX .112 MIN .109	.138 .134	.164 .160	.190 .185	1/4 .244
J SOCKET SIZE	NOM 5/64	3/32	1/8	5/32	3/16
R RADIUS	MAX .010 MIN .005	.010 .005	.015 .010	.015 .010	.015 .010
L LENGTH	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
1/4	1	6	13		
3/8	2	7	14	22	32
1/2	3	8	15	23	33
5/8	4	9	16	24	34
3/4	5	10	17	25	35
7/8		11	18	26	36
1		12	19	27	37
1-1/4			20	28	38
1-1/2			21	29	39
1-3/4				30	40
2				31	41
2-1/4					42
2-1/2					43
2-3/4					44
3					45

**MATERIAL:** Steel, alloy, minimum proof load based on 130,000 PSI, Rockwell C36-43 in accordance with Type I of Procurement Specification.

**PROTECTIVE COATING:** Uncoated.

**THREADS:** The threads shall be in accordance with Screw-thread Standards for Federal Services, Handbook H-28.

**MINIMUM THREAD LENGTH:** Shall be twice the diameter, plus 1/2 in. or 1/2 the length whichever is the greater. Screws too short for the formula shall be threaded as close to the head as practicable.

**LENGTH TOLERANCE:** The allowable tolerance on the length (L) under the head on lengths 2 inches and under shall be 3 per cent of the nominal length with a minimum of .030 in., two-thirds to be applied plus and one-third minus. On lengths over 2 in. to 6 in. plus or minus 1/32 in. and on lengths over 6 in. plus or minus 1/16 in.

- NOTES:**
- (1) Referenced documents of issue in effect on date of invitation for bids shall apply.
  - (2) This document has been promulgated by the Department of Defense as the Military Standard to limit the selection of the item, product or design covered herein in engineering, design and procurement. This standard shall become effective not later than 90 days after the latest date of approval shown and shall govern when in conflict with other documents referenced herein.
  - (3) Plain or knurled heads are optional.
  - (4) The MS part number consists of the MS number, plus the dash number. Example: MS35455-2.
  - (5) All dimensions in inches.

Ⓟ ENTIRE STANDARD REVISED-INACTIVE FOR DESIGN SEE SHEET 3

P.A. WC	TITLE	MILITARY STANDARD
Other Cust SHIPS ASD	SCREW, CAP, SOCKET HEAD-HEXAGON, ALLOY STEEL, UNCOATED, UNC-3A	MS35455
PROCUREMENT SPECIFICATION FF-S-86	SUPERSEDES:	SHEET 1 OF 3

APPROVED 29 AUG 1955 REVISED (A) 5 APRIL 62 (B) 21 SEP 1964

This military 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.

FED. SUP CLASS  
5305

REVIEWER: IS, EL, MC, MU, MO, WC, WEPS  
USER: None

NOMINAL SIZE		5/16	3/8	7/16	1/2	5/8
B THREADS PER INCH		18 UNC-3A	16 UNC-3A	14 UNC-3A	13 UNC-3A	11 UNC-3A
D BODY DIAMETER	MAX MIN	.3125 .3084	.3750 .3705	.4375 .4326	.5000 .4948	.6250 .6191
A HEAD DIAMETER	MAX MIN	7/16 .429	9/16 .553	5/8 .615	3/4 .739	7/8 .863
H HEAD HEIGHT	MAX MIN	5/16 .306	3/8 .368	7/16 .430	1/2 .492	5/8 .616
J SOCKET SIZE	NOM	7/32	5/16	5/16	3/8	1/2
R RADIUS	MAX MIN	.015 .010	.015 .010	.030 .020	.030 .020	.030 .020
L LENGTH	DASH NO.					
		46	62	80	98	
3/8		47	63	81	99	
1/2		48	64	82	100	
5/8		49				
3/4						
		50	65	83	101	
7/8		51	66	84	102	118
1		52	67	85	103	119
1-1/4		53	68	86	104	120
1-1/2						
		54	69	87	105	121
1-3/4		55	70	88	106	122
2		56	71	89	107	123
2-1/4		57	72	90	108	124
2-1/2						
		58	73	91	109	125
2-3/4		59	74	92	110	126
3		60	75	93	111	127
3-1/4		61	76	94	112	128
3-1/2						
			77	95	113	129
4			78		114	130
4-1/2			79		115	131
5					116	132
5-1/2						
6					117	133

NOTE: For material, protective coating and other pertinent data, see sheet 1.

INACTIVE FOR DESIGN SEE SHEET 3

This military 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.

APPROVED 29 AUG 1955 REVISED (A) 5 APRIL 62 (B) FOR CHANGES SEE SHEET 1

P.A. WC Other Cust SHIPS ASD	TITLE SCREW, CAP, SOCKET HEAD-HEXAGON, ALLOY STEEL, UNCOATED, UNC-3A	MILITARY STANDARD MS 35455
PROCUREMENT SPECIFICATION FF-S-86	SUPERSEDES:	SHEET 2 OF

REVIEWER: IS, EL, MC, MU, MO, WC, WEPS  
USER: None

NOMINAL SIZE		3/4	7/8	1					
B THREADS PER INCH		10 UNC-3A	9 UNC-3A	8 UNC-3A					
D BODY DIAMETER	MAX MIN	.7500 .7436	.8750 .8680	1.0000 .9924					
A HEAD DIAMETER	MAX MIN	1 .987	1-1/8 1.111	1-5/16 1.297					
H HEAD HEIGHT	MAX MIN	3/4 .741	7/8 .865	1 .989					
J SOCKET SIZE	NOM	9/16	9/16	5/8					
R RADIUS	MAX MIN	.040 .030	.040 .030	.040 .030					
L LENGTH		DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.	DASH NO.
1-1/4		134							
1-1/2		135							
1-3/4		136							
2		137	149		161				
2-1/4		138	150		162				
2-1/2		139	151		163				
2-3/4		140	152		164				
3		141	153		165				
3-1/4		142	154		166				
3-1/2		143	155		167				
4		144	156		168				
4-1/2		145	157		169				
5		146	158		170				
5-1/2		147	159		171				
6		148	160		172				

NOTE: For material, protective coating and other pertinent data, see sheet 1.

**INACTIVE FOR DESIGN** after **21 SEP 1964** Use MS16997 for design and engineering. For maintenance of existing equipment use MS35455 to replace the 5/16, 7/16, 5/8, 3/4, 7/8 and 1 inch sizes. These sizes cannot be replaced by those appearing on MS16997 in counterbored holes or other close applications.

This military 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.

P.A. WC	TITLE	MILITARY STANDARD
Other Cust SHIPS ASD	SCREW, CAP, SOCKET HEAD-HEXAGON, ALLOY STEEL, UNCOATED, UNC-3A	MS 35455
PROCUREMENT SPECIFICATION FF-S-86	SUPERSEDES:	SHEET 3 OF