



SEE OPTIONAL
TYPES OF CUP
POINTS

TABLE I. DIMENSIONS AND PART NUMBERS

NOMINAL SIZE		190	.250	.3125	.375
THREADS PER INCH UNF - 3A		32	28	24	24
J - SOCKET WIDTH ACROSS FLATS	NOM	.094	.125	.156	.188
Ø C - POINT DIAMETER	MAX	.102	.132	.172	.212
	MIN	.088	.118	.156	.194
Ø C ₁ - POINT DIAMETER	MAX	.095	.125	.156	.187
	MIN	.086	.114	.144	.174
Ø C ₂ - POINT DIAMETER	MAX	.101	.156	.190	.241
	MIN	.095	.150	.185	.236
T - KEY ENGAGEMENT	MIN	.100	.125	.156	.188
S - POINT LENGTH	MAX	.024	.027	.038	.041
	MIN	.019	.022	.033	.036
L - LENGTH	TOLERANCE	DASH NO	DASH NO	DASH NO	DASH NO
250		1	3	5	
375	±.010				
500		2	4		6

USER ACTIVITIES
ARMY-ME-MI
NAVY-MC,OS

REVIEWER ACTIVITIES
ARMY-EA
AIR FORCE-82
DLA-IS
NSA-NS

This military standard is approved 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 when applicable.

PA	AR	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
Other Cust	SH		SETScrew, HEXAGON SOCKET, CUP POINT, ALLOY STEEL, UNF - 3A	MS51477
	99			
PROCUREMENT SPECIFICATION	SUPERSEDES		PAGE	OF
FF-S-200			1	2

USER ACTIVITIES
ARMY - ME, MI
NAVY - MC, OS

REVIEWER ACTIVITIES:
ARMY - EA
AIR FORCE - 82
DLA - IS
NSA - NS

This military standard is approved 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 when applicable.

REQUIREMENTS:

1. MATERIAL. ALLOY STEEL IN ACCORDANCE WITH PROCUREMENT SPECIFICATION
2. HARDNESS. 45-53HRC
3. FINISH. ZINC COATING IN ACCORDANCE WITH ASTM B633-78, Fe/Zn, 5 (5 μm), TYPE II
4. THREADS. THE THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/2. ACCEPTABILITY OF SCREW THREADS SHALL BE IN ACCORDANCE WITH FED-STD-H28/20, SYSTEM 2)
5. PART NUMBER. THE BASIC PART NUMBER IS FOLLOWED BY A DASH NUMBER FROM TABLE I
 EXAMPLE. MS51477-1 - SETSCREW, HEXAGON SOCKET, CUP POINT, ALLOY STEEL, 190-32UNF-3A, LENGTH .250, ZINC COATED

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. TOLERANCE OF ANGLES +5° UNLESS OTHERWISE SPECIFIED.
3. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BIDS OR REQUEST FOR PROPOSAL, EXCEPT THAT REFERENCED ADOPTED INDUSTRY DOCUMENTS SHALL GIVE THE DATE OF THE ISSUE ADOPTED
4. FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN

APPROVED 1 AUG 84
REVISED

P A	AR	INTERNATIONAL INTEREST	TITLE	MILITARY STANDARD
Other Cust	SH 99		SETSCREW, HEXAGON SOCKET, CUP POINT, ALLOY STEEL, UNF-3A	MS51477
PROCUREMENT SPECIFICATION	FF-S-200	SUPERSEDES		PAGE 2 OF 2