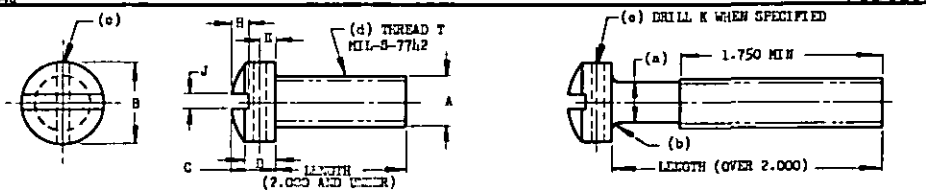
NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.



THREAD T UNC-2	A MAX DIA	B DIA MAX	B DIA MIN	C MAX	C MIN	D MAX	D MIN	(f) E REF	H MAX	H MIN	J MAX	J MIN	K DRILL +.004 -.001
NO. 2-56	.0860	.140	.121	.083	.070	.062	.055	.026	.030	.022	.031	.023	.031
(2) NO. 3-48	.0990	.161	.145	.095	.082	.070	.064	.030	.034	.026	.035	.027	.037
NO. 4-40	.1120	.183	.166	.107	.094	.079	.072	.035	.038	.030	.039	.031	.037
(2) NO. 5-40	.1250	.205	.187	.120	.106	.088	.081	.038	.042	.033	.043	.035	.046
NO. 6-32	.1380	.226	.208	.132	.118	.096	.089	.043	.045	.035	.048	.039	.046
NO. 8-32	.1640	.270	.250	.156	.141	.113	.106	.043	.065	.054	.054	.045	.046
NO. 10-24	.1900	.313	.292	.180	.165	.130	.123	.043	.075	.064	.060	.050	.046
1/4-20	.2500	.414	.389	.237	.219	.170	.161	.062	.102	.087	.075	.064	.062
5/16-18	.3125	.518	.490	.295	.276	.211	.201	.078	.130	.110	.084	.072	.070
3/8-16	.3750	.622	.590	.355	.333	.253	.242	.094	.156	.134	.094	.081	.070

DASH NUMBERS FOR UNDRILLED CARBON STEEL SCREWS

LENGTH		NO. 2-56	NO. 3-48	NO. 4-40	NO. 5-40	NO. 6-32	NO. 8-32	(g) NO. 10-24	1/4-20	5/16-18	3/8-16
3/16	+0 -1/32	2-3	3-3	4-3	5-3	6-3					
1/4		2-4	3-4	4-4	5-4	6-4	8-4	10-4			
5/16		2-5	3-5	4-5	5-5	6-5	8-5	10-5			(2)
3/8		2-6	3-6	4-6	5-6	6-6	8-6	10-6	416-6	516-6	616-6
7/16		2-7	3-7	4-7	5-7	6-7	8-7	10-7	416-7	516-7	(2) 616-7
1/2		2-8	3-8	4-8	5-8	6-8	8-8	10-8	416-8	516-8	616-8
5/8		2-10	3-10	4-10	5-10	6-10	8-10	10-10	416-10	516-10	616-10
3/4		2-12	3-12	4-12	5-12	6-12	8-12	10-12	416-12	516-12	616-12
7/8						6-14	8-14	10-14	416-14	516-14	616-14
1						6-16	8-16	10-16	416-16	516-16	616-16
1-1/8	+0 -1/16					(2) 6-18	(2) 8-18	(2) 10-18	(2) 416-18	(2) 516-18	(2) 616-18
1-1/4						6-20	8-20	10-20	416-20	516-20	616-20
1-3/8						(2) 6-22	(2) 8-22	(2) 10-22	(2) 416-22	(2) 516-22	(2) 616-22
1-1/2						6-24	8-24	10-24	416-24	516-24	616-24
1-3/4						6-28	8-28	10-28	416-28	516-28	616-28
2						6-32	8-32	10-32	416-32	516-32	616-32
2-1/2	+0 -3/32							10-40	416-40	516-40	616-40
3								10-48	416-48	516-48	616-48

(a) THE DIAMETER OF THE UNTHREADED PORTION SHALL NOT BE LESS THAN THE MINIMUM PITCH DIAMETER NOR MORE THAN THE MAXIMUM MAJOR DIAMETER OF THE THREAD.
(b) THE RADIUS OF THE FILLET AT THE BASE OF THE HEAD SHALL NOT EXCEED ONE-HALF THE PITCH OF THE SCREW THREAD.
(c) DRILLED HOLE TO BE ON CENTER APPROXIMATELY AT RIGHT ANGLES TO THE SLOT BUT MUST NOT BREAK THROUGH THE BASE OR TOP (SPHERICAL PORTION) OF THE HEAD.
(d) FOR MACHINE SCREWS 2 INCHES LONG AND SHORTER, COMPLETE THREADS SHALL EXTEND TO WITHIN 2 THREADS OF THE BEARING SURFACE OF THE HEAD OR CLOSER IF PRACTICABLE. SCREWS OF LONGER LENGTH SHALL HAVE A MINIMUM COMPLETE THREAD LENGTH OF 1-3/4 INCHES.
(e) ALL FILLISTER HEAD SCREWS WITH UNDRILLED HEADS INACTIVE FOR DESIGN AFTER 12 MAY 1950.
FOR DEFINITION AND APPLICATION OF DRAWING STATUS NOTES, SEE ANA BULLETIN NO. 337.
(f) REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION REQUIREMENT.
(g) NOT PREFERRED FOR AIRFRAME USE.

(6) MATERIAL: (2) CARBON STEEL, QQ-S-633 TYPE 1010, 60,000 PSI MINIMUM TENSILE STRENGTH OR OTHER STEEL MEETING THE SAME PHYSICAL REQUIREMENTS.
~~CORROSION RESISTANT STEEL, QQ-S-763, CLASS 17, MIL-S-7720, COMPOSITION FM OR 3 FOR COLD UPSETTING PROCESS, OR NON-MAGNETIC EQUIVALENT.~~
(6) (1) CORROSION RESISTANT STEEL, FEDERAL STANDARD NO. 66, TYPE 302, 304, 316, AND 303 SE
(6) (1) BRASS, COMMERCIAL, 55,000 PSI MINIMUM ULTIMATE TENSILE STRENGTH.
FINISH: CARBON STEEL, CADMIUM PLATE, QQ-P-416, TYPE I, CLASS 3.
CORROSION RESISTANT STEEL, PASSIVATE.
BRASS, NONE.
PLAIN DASH NUMBER INDICATES CARBON STEEL.
ADD A BEFORE FIRST DASH NUMBER FOR DRILLED HEAD.
ADD B BEFORE FIRST DASH NUMBER FOR BRASS.
~~ADD C BEFORE FIRST DASH NUMBER FOR CORROSION RESISTANT STEEL.~~ NOT TO BE USED FOR NEW DESIGN.
ADD D BEFORE FIRST DASH NUMBER FOR CORROSION RESISTANT STEEL.
EXAMPLES OF PART NUMBERS: (a) ~~AN500-6-8 = NO. 6-32 UNDRILLED CARBON STEEL SCREW, 1/2 INCH LONG.~~
AN500A6-8 = NO. 6-32 DRILLED CARBON STEEL SCREW, 1/2 INCH LONG.
AN500AB6-8 = NO. 6-32 DRILLED BRASS SCREW, 1/2 INCH LONG.
(a) ~~AN500B6-8 = NO. 6-32 UNDRILLED BRASS SCREW, 1/2 INCH LONG.~~
~~AN500AC6-8 = NO. 6-32 DRILLED CORROSION RESISTANT STEEL SCREW, 1/2 INCH LONG.~~
AN500AD6-8 = NO. 6-32 DRILLED CORROSION RESISTANT STEEL SCREW, 1/2 INCH LONG.
SCREWS SHALL BE FREE OF ALL LOOSE OR RAGGED BURRS OR SLIVERS WHICH MIGHT BECOME DISLODGED UNDER USAGE.

(6) (1) CANCELED AFTER 24 MAY 1967. USE MS35273 OR MS35275.
(6) ENTIRE STANDARD INACTIVE FOR NEW DESIGN AFTER 24 MAY 1967. USE MS35265, MS35273, OR MS35275.
(6) (1) (2) INTERCHANGEABILITY RELATIONSHIP: AN500D SCREWS CAN UNIVERSALLY REPLACE AN500C SCREWS OF LIKE THREAD SIZE AND LENGTH; BUT THE AN500C SCREWS CANNOT UNIVERSALLY REPLACE THE AN500D SCREWS. FOR MS35273 OR MS35275 PARTS THAT CAN BE SUBSTITUTED FOR AN500 PARTS, SEE INTERCHANGEABILITY TABLES OF MS35273 OR MS35275. PARTS MARKED WITH (2) HAVE NO SUBSTITUTIVE PART.

NOTE: This drawing was approved by joint action of the Air Force and Navy Departments as the Air Force-Navy standard for this product. The drawing supersedes all superseded standard drawings for the same product and shall become effective for the procurement of aeronautical supplies, or for use in new designs, not later than 6 months after the latest date of approval thereon.

APPROVED 12 Apr 44 REVISED (1) 12 May 50 (2) 5 Jun 51 (3) 11 May 53 (4) 12 Aug 59 (5) 15 May 61 (6) 24 May 67

PROCUREMENT SPECIFICATION	AIR FORCE-NAVY AERONAUTICAL STANDARD	AN500
FF-S-92	SCREW, MACHINE, FILLISTER HEAD, COARSE THREAD	

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SUPERSEDES USAF DRAWING 500 AND SUPERSEDES NAF DRAWING 1164 FOR BRASS ONLY