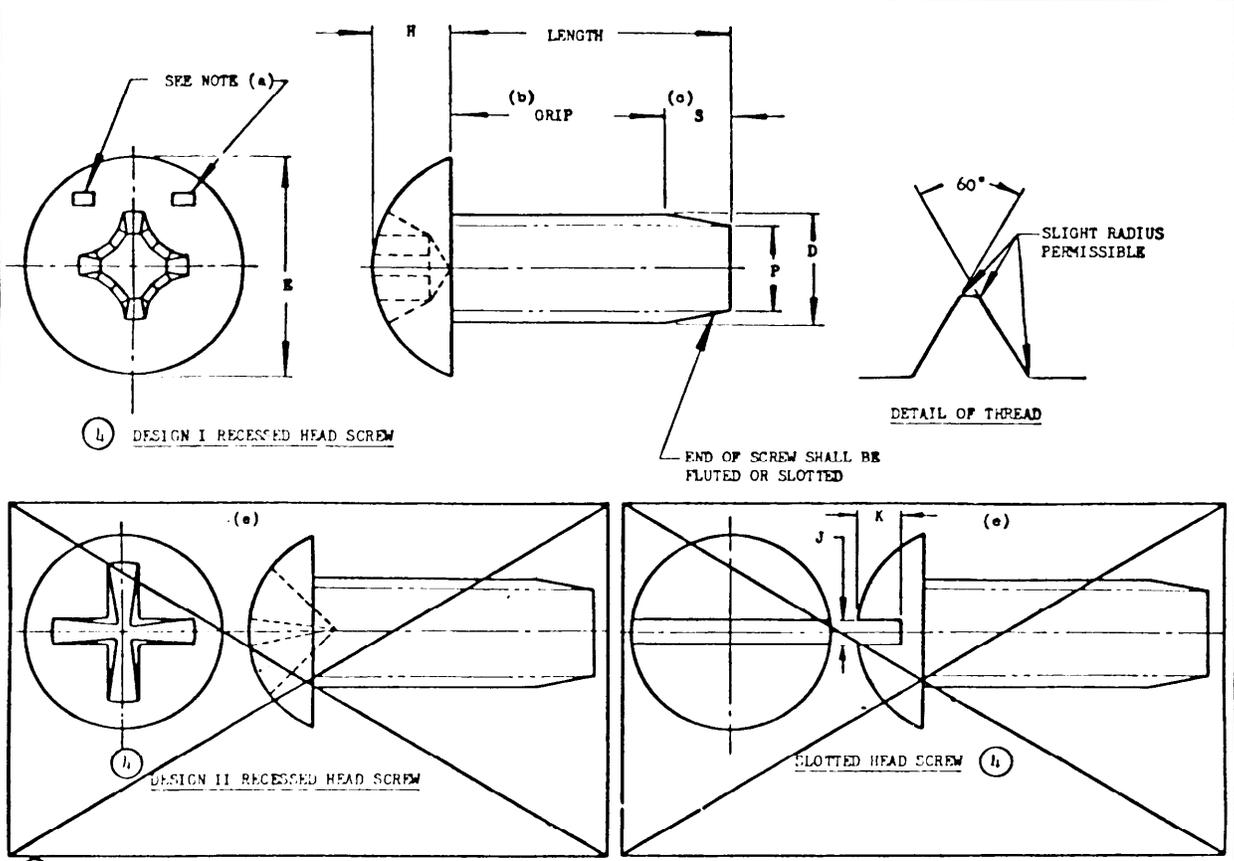


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NOTE: This drawing was prepared by joint action of the Air Force and Navy Departments in the Air Force. Navy standards for this product. This drawing supersedes all antecedent standard drawings for the same product and shall become effective for the production of aeronautical supplies, or for use in new designs, not later than 6 months after the latest date of approval thereof.

AN504 (Rev. 2-57)



4 DIMENSIONING AND GAGING OF THE ABOVE RECESS DESIGNS SHALL BE IN ACCORDANCE WITH FF-S-92.

SIZE	D MAX DIA	E DIA		H MAX	J		K		P DIA	
		MAX	MIN		MAX	MIN	MAX	MIN	MAX	MIN
NO. 4-40	.112	.211	.193	.006	.019	.031	.054	.044	.086	.077
NO. 6-32	.138	.260	.240	.103	.041	.039	.068	.051	.106	.095
NO. 8-32	.164	.309	.287	.120	.051	.045	.077	.058	.132	.121
(d) NO. 10-32	.190	.359	.331	.137	.061	.050	.087	.065	.147	.133
NO. 10-32	.190	.359	.331	.137	.060	.050	.087	.065	.150	.117
(d) 1/4-20	.250	.472	.443	.175	.075	.061	.109	.083	.198	.181
1/4-28	.250	.472	.443	.175	.075	.060	.109	.082	.213	.201

4 (e) DESIGN II RECESSED AND SLOTTED HEAD SCREWS INACTIVE FOR DESIGN AFTER 17 FEBRUARY 1959.

- 5 ~~CANCELLED AFTER 15 SEPT 1981.~~  
~~NO SUPERSEDING STANDARD.~~
- 6 REINSTATED 4 MARCH 1982.
- 6 INACTIVE FOR NEW DESIGN AFTER 4 MARCH 1982.  
NO SUPERSEDING STANDARD.

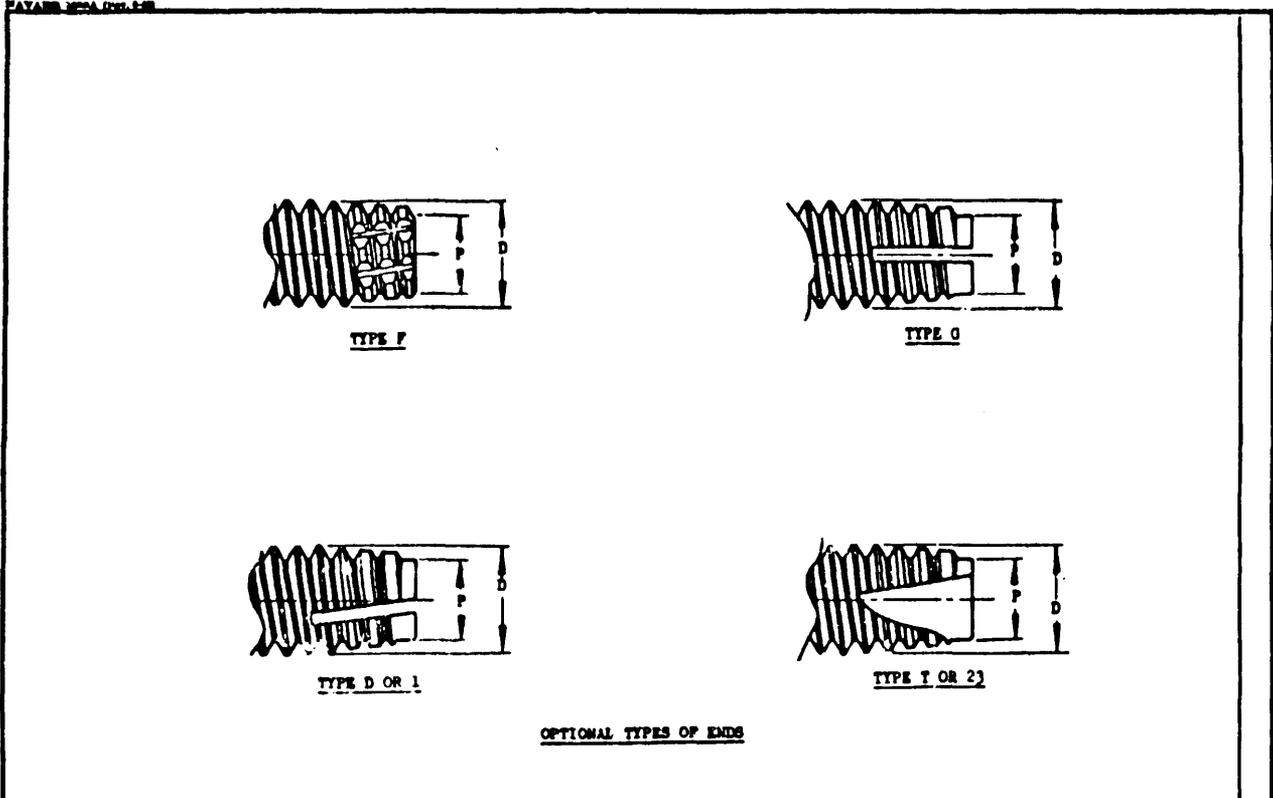
PROCUREMENT SPECIFICATION MTL-S-6033	AIR FORCE-NAVY AERONAUTICAL STANDARD SCREW, TAPPING, THREAD CUTTING, ROUND HEAD, MACHINE SCREW THREAD	<b>AN504</b>
		SHEET 1 OF 3

APPROVED 15 May 43 REVISED 1 28 Mar 45 2 29 Apr 49 3 1 Jan 55 4 17 Feb 59 5 15 SEP 1981 6 4 Mar 1982

574

NO. 10  
 by John Wilkins of the Air Force and Navy Departments in the Air Force-Navy  
 agreement. This is a standard of mechanical drawings for the same product and shall  
 become effective for the procurement of mechanical supplies, or for use in new designs, on the date of approval.  
 after the latest date of approval shown.

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OPTIONAL TYPES OF ENDS

① CARBON STEEL, SLOTTED HEAD SCREWS, DASH NUMBERS FOR:

LENGTH	NO. 4-60		NO. 6-32		NO. 8-32		NO. 10-24		NO. 10-32		1/4-20		1/4-28	
	DASH NO.	GRIP MIN	DASH NO.	GRIP MIN	DASH NO.	GRIP MIN	DASH NO.	GRIP MIN	DASH NO.	GRIP MIN	DASH NO.	GRIP MIN	DASH NO.	GRIP MIN
4/4		4-4	3/32	6-4	3/32	8-4	3/32							
5/16	+0	4-5	5/32	6-5	9/64	8-5	9/64	10-5	1/8	1032-5	1/8			
3/8		4-6	7/32	6-6	13/64	8-6	13/64	10-6	5/32	1032-6	5/32			
7/16	-1/32	4-7	9/32	6-7	17/64									
1/2		4-8	11/32	6-8	21/64	8-8	21/64	10-8	9/32	1032-8	9/32	416-8	15/64	428-8
5/8		4-10	15/32	6-10	29/64	8-10	29/64	10-10	13/32	1032-10	13/32	416-10	23/64	428-10
3/4	+0	4-12	19/32	6-12	37/64	8-12	37/64	10-12	17/32	1032-12	17/32	416-12	31/64	428-12
7/8				6-14	45/64	8-14	45/64	10-14	21/32	1032-14	21/32	416-14	39/64	428-14
1				6-16	53/64	8-16	53/64	10-16	25/32	1032-16	25/32	416-16	47/64	428-16
1 1/4	-3/64					8-20	3/64	10-20	1	1032-20	1	416-20	61/64	428-20
1 1/2								10-24	1 1/4	1032-24	1 1/4	415-24	1 13/64	428-24

(d)

(d)

PROCUREMENT SPECIFICATION  
 MIL-S-6033

AIR FORCE-NAVY AERONAUTICAL STANDARD  
 SCREW, TAPPING, THREAD CUTTING, ROUND HEAD,  
 MACHINE SCREW THREAD

**AN 504**  
 SHEET 2

APPROVED 10 Jan 55 REVISED ① 12 Jul 55

NAVJAG 16980

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NOTE - This drawing was approved by joint action of the Air Force and Navy Department as the Air Force-Navy standard for this product. This drawing supersedes all other drawings for the same product and shall become effective for the procurement of aeronautical supplies, or for use in new design, not later than six months after the latest date of approval shown.

- ② (a) MARK CORROSION-RESISTANT STEEL SCREWS, SIZES NUMBER 5 AND LARGER WITH A DEPRESSED DASH.
- (b) THE GRIP LENGTH IS MEASURED FROM THE UNDERSIDE OF THE HEAD TO THE END OF THE FULL-THREADED PORTION OF THE SHANK. THE MINIMUM GRIP DIMENSIONS SHOWN IN THE DASH NUMBER TABLE ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION REQUIREMENT.
- (c) SCREWS HAVING A LENGTH OF 8 PITCHES OR LESS WILL HAVE A TAPER LENGTH, S, OF 2-1/2 TO 3-1/2 TIMES THE PITCH DISTANCE. LONGER LENGTHS WILL HAVE A TAPER LENGTH, S, OF 3-1/2 TO 4-1/2 TIMES THE PITCH DISTANCE.
- (d) NO. 10-24 AND 1/4-20 SIZES INACTIVE FOR DESIGN AFTER 15 JULY 1955. WHEN A NO. 10 OR 1/4 SIZE OF SCREW IS REQUIRED, A NO. 10-32 OR 1/4-28 SIZE IS TO BE USED IN LIEU OF THE NO. 10-24 OR 1/4-20 SIZE, RESPECTIVELY.

FOR DEFINITION AND APPLICATION OF DRAWING STATUS NOTES, SEE ANA BULLETIN NO. 337.

MATERIAL: CARBON STEEL, CASE HARDENED, OR CORROSION-RESISTANT STEEL, TYPE 410, HARDENED.

FINISH: CARBON STEEL, CADMIUM PLATE, SPECIFICATION QQ-P-416, TYPE I, CLASS 3.  
 CORROSION-RESISTANT STEEL, NONE.

ADD C BEFORE FIRST DASH NUMBER FOR CORROSION-RESISTANT STEEL SCREWS.

ADD R BETWEEN FIRST AND SECOND DASH NUMBERS FOR RECESSED HEAD SCREWS.

EXAMPLES OF PART NUMBERS:

AN504-4-8 - NO. 4-40, CARBON STEEL, SLOTTED HEAD SCREW, 8/16 IN LENGTH.

AN504-4R8 - NO. 4-40, CARBON STEEL, RECESSED HEAD SCREW, 8/16 IN LENGTH.

AN504C4-8 - NO. 4-40, CORROSION-RESISTANT STEEL, SLOTTED HEAD SCREW, 8/16 IN LENGTH.

AN504CR8 - NO. 4-40, CORROSION-RESISTANT STEEL, RECESSED HEAD SCREW, 8/16 IN LENGTH.

TAPERED THREADS HAVE UNFINISHED CRESTS.

MAJOR DIAMETERS OF COMPLETE THREADS CONFORM TO NC-2 AND NF-2 TOLERANCES.

THREADS MUST EXTEND TO WITHIN ONE FULL THREAD OF THE HEAD ON SCREW LENGTHS UP TO 3 DIAMETERS. UP TO 8 DIAMETERS, THREADS MUST EXTEND UP TO WITHIN TWO THREADS OF THE HEAD. ON LONGER LENGTHS, UNLESS OTHERWISE SPECIFIED, THE LENGTH OF THE THREAD IS OPTIONAL WITH THE PRODUCER BUT MUST NOT BE LESS THAN 6 DIAMETERS.

SCREW MANUFACTURER'S DESIGNATIONS MAY BE INCLUDED ON THE SCREWS.

SCREWS SHALL BE FREE OF ALL LOOSE OR HANGING BURRS OR SLIVERS WHICH MIGHT BECOME DISLODGED UNDER USAGE.

DIMENSIONS IN INCHES.

FOR INSTALLATION AND LIMITATIONS FOR USAGE, SEE DRAWINGS AND10087 AND AND10326.

APPROVED 10 Jan 55 REVISED 1 12 Jul 55 2 17 Feb 59

PROCUREMENT SPECIFICATION MIL-S-6033	<b>AIR FORCE-NAVY AERONAUTICAL STANDARD</b>	<b>AN504</b> SHEET 3
	SCREW, TAPPING, THREAD CUTTING, ROUND HEAD, MACHINE SCREW THREAD	