

NOTE: This drawing was prepared by joint action of the Air Force and Navy Departments as the Air Force-Navy standard for this product. This drawing represents all dimensions established throughout for the entire product and shall become authority for the procurement of commercial supplies, or for use in new design, and later than 6 months after the latest date of approval above.

NOTE: When Government drawings, 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 furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded as an authorization or endorsement in any manner by the holder of any other patent, or as an authority for the reproduction or the use of information that may in any way be related thereto.

DASH NUMBER FOR CARBON STEEL SCREWS

| L LENGTH | (d) NO. 0-80 | (d) NO. 1-72 | (d) NO. 2-64 | (d) NO. 3-56 | (d) NO. 4-48 | (d) NO. 5-44 | (d) NO. 6-40 | (d) NO. 8-36 | NO. 10-32 | 1/4-28 |
|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|--------|
| 1/8 | 0-2 | 1-2 | | | | | | | | |
| 3/16 | 0-3 | 1-3 | 2-3 | 3-3 | 4-3 | | | | | |
| 1/4 | 0-4 | 1-4 | 2-4 | 3-4 | 4-4 | 5-4 | 6-4 | 8-4 | 10-4 | |
| 5/16 | 0-5 | 1-5 | 2-5 | 3-5 | 4-5 | 5-5 | 6-5 | 8-5 | 10-5 | |
| 3/8 | 0-6 | 1-6 | 2-6 | 3-6 | 4-6 | 5-6 | 6-6 | 8-6 | 10-6 | 416-6 |
| 7/16 | 0-7 | 1-7 | 2-7 | 3-7 | 4-7 | 5-7 | 6-7 | 8-7 | 10-7 | 416-7 |
| 1/2 | 0-8 | 1-8 | 2-8 | 3-8 | 4-8 | 5-8 | 6-8 | 8-8 | 10-8 | 416-8 |
| 5/8 | | | 2-10 | 3-10 | 4-10 | 5-10 | 6-10 | 8-10 | 10-10 | 416-10 |
| 3/4 | | | 2-12 | 3-12 | 4-12 | 5-12 | 6-12 | 8-12 | 10-12 | 416-12 |
| 7/8 | | | | | 4-14 | 5-14 | 6-14 | 8-14 | 10-14 | 416-14 |
| 1 | | | | | 4-16 | 5-16 | 6-16 | 8-16 | 10-16 | 416-16 |
| 1-1/8 | | | | | 4-18 | 5-18 | 6-18 | 8-18 | 10-18 | 416-18 |
| 1-1/4 | | | | | 4-20 | 5-20 | 6-20 | 8-20 | 10-20 | 416-20 |
| 1-3/8 | | | | | 4-22 | 5-22 | 6-22 | 8-22 | 10-22 | 416-22 |
| 1-1/2 | | | | | 4-24 | 5-24 | 6-24 | 8-24 | 10-24 | 416-24 |
| 1-5/8 | | | | | 4-26 | 5-26 | 6-26 | 8-26 | 10-26 | 416-26 |
| 1-3/4 | | | | | 4-28 | 5-28 | 6-28 | 8-28 | 10-28 | 416-28 |
| 1-7/8 | | | | | | | 6-30 | 8-30 | 10-30 | 416-30 |
| 2 | | | | | | | 6-32 | 8-32 | 10-32 | 416-32 |
| 2-1/4 | | | | | | | 6-36 | 8-36 | 10-36 | 416-36 |
| 2-1/2 | | | | | | | 6-40 | 8-40 | 10-40 | 416-40 |
| 2-3/4 | | | | | | | | 8-44 | 10-44 | 416-44 |
| 3 | | | | | | | | 8-48 | 10-48 | 416-48 |

(d) NOT PREFERRED FOR AIRFRAME USE.

RATED STRENGTH IN POUNDS (FOR REFERENCE PURPOSES ONLY)

| SIZE | MINIMUM ULTIMATE TENSILE BREAKING STRENGTH AT ROOT DIA | MINIMUM SINGLE SHEAR STRENGTH AT ROOT DIA |
|-----------|--|---|
| NO. 0-80 | 82 | 49 |
| NO. 1-72 | 132 | 79 |
| NO. 2-64 | 187 | 112 |
| NO. 3-56 | 247 | 148 |
| NO. 4-48 | 313 | 188 |
| NO. 5-44 | 396 | 238 |
| NO. 6-40 | 478 | 267 |
| NO. 8-36 | 705 | 423 |
| NO. 10-32 | 960 | 575 |
| 1/4-28 | 1790 | 1075 |

ULTIMATE TENSILES BASED ON 55,000 PSI. SHEAR STRENGTHS 60% OF ULTIMATE TENSILES.

MATERIAL: CARBON STEEL, SPECIFICATION QQ-S-671, TYPE F51010, 55,000 PSI MINIMUM ULTIMATE ALLOWABLE TENSILE STRESS OR OTHER STEEL MEETING THE SAME PHYSICAL REQUIREMENTS.
CORROSION RESISTANT STEEL, SPECIFICATION QQ-S-763, CLASS IV OR MIL-S-7720 COMPOSITION FM OR G FOR COLD UPSETTING PROCESS.
BRASS, COMMERCIAL, 55,000 PSI MINIMUM ULTIMATE ALLOWABLE TENSILE STRESS.
ALUMINUM ALLOY, SPECIFICATION QQ-A-354.

FINISH: CARBON STEEL, CADMIUM PLATE, SPECIFICATION QQ-P-416, TYPE I, CLASS 3.
BRASS, BARE, BLACK OXIDE, OR CADMIUM PLATE, SPECIFICATION QQ-P-416, TYPE II, CLASS 3, DEPENDING ON CODING.
CORROSION RESISTANT STEEL, PASSIVATE.
ALUMINUM ALLOY, ANODIZE, SPECIFICATION MIL-A-8625.

HEAT TREATMENT: ALUMINUM ALLOY, 62,000 PSI MINIMUM ULTIMATE ALLOWABLE TENSILE STRESS, SPECIFICATION MIL-H-6088.

- ADD R BETWEEN FIRST AND SECOND DASH NUMBERS FOR RECESSED HEAD SCREW.
- ADD B BEFORE FIRST DASH NUMBER FOR BRASS SCREWS WITH BLACK OXIDE FINISH.
- ADD P9 BEFORE FIRST DASH NUMBER FOR CADMIUM PLATED BRASS SCREWS.
- ADD U9 BEFORE FIRST DASH NUMBER FOR PLAIN BRASS SCREWS.
- ADD C BEFORE FIRST DASH NUMBER FOR CORROSION RESISTANT STEEL SCREWS.
- ADD DD BEFORE FIRST DASH NUMBER FOR ALUMINUM ALLOY SCREWS.

LENGTHS IN ADDITION TO THOSE TABULATED ARE AVAILABLE IN 1/4 INCH INCREMENTS BY THE USE OF THE SIGNIFICANT SECOND DASH NUMBER.

- EXAMPLES OF PART NUMBERS:
- AN520-10-8 = NO. 10-32 CARBON STEEL SCREW, 1/2(8/16) INCH LONG, SLOTTED HEAD.
 - AN520BL08 = NO. 10-32 BRASS SCREW WITH BLACK OXIDE FINISH, 1/2(8/16) INCH LONG, RECESSED HEAD.
 - AN520B10-8 = NO. 10-32 BRASS SCREW WITH BLACK OXIDE FINISH, 1/2(8/16) INCH LONG, SLOTTED HEAD.
 - AN520PBL0-8 = NO. 10-32 CADMIUM PLATED BRASS SCREW, 1/2(8/16) INCH LONG, SLOTTED HEAD.
 - AN520U10-8 = NO. 10-32 PLAIN BRASS SCREW, 1/2(8/16) INCH LONG, SLOTTED HEAD.
 - AN520C10-8 = NO. 10-32 CORROSION RESISTANT STEEL SCREW, 1/2(8/16) INCH LONG, SLOTTED HEAD.
 - AN520DDL0-8 = 1/4-28 ALUMINUM ALLOY SCREW, 1/2(8/16) INCH LONG, SLOTTED HEAD.

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

IN CASE OF CONFLICT, THE REQUIREMENTS SPECIFIED HEREON SHALL TAKE PRECEDENCE OVER THE REQUIREMENTS SPECIFIED IN SPECIFICATION FF-S-92.
DIMENSIONS IN INCHES.

| | | |
|--------------------------------------|---|-----------------------------|
| PROCUREMENT SPECIFICATION FF-S-92 | AIR FORCE-NAVY AERONAUTICAL STANDARD | <h1>AN520</h1> SHEET 2 OF 2 |
| | SCREW, MACHINE, ROUND HEAD, FINE THREAD | |