

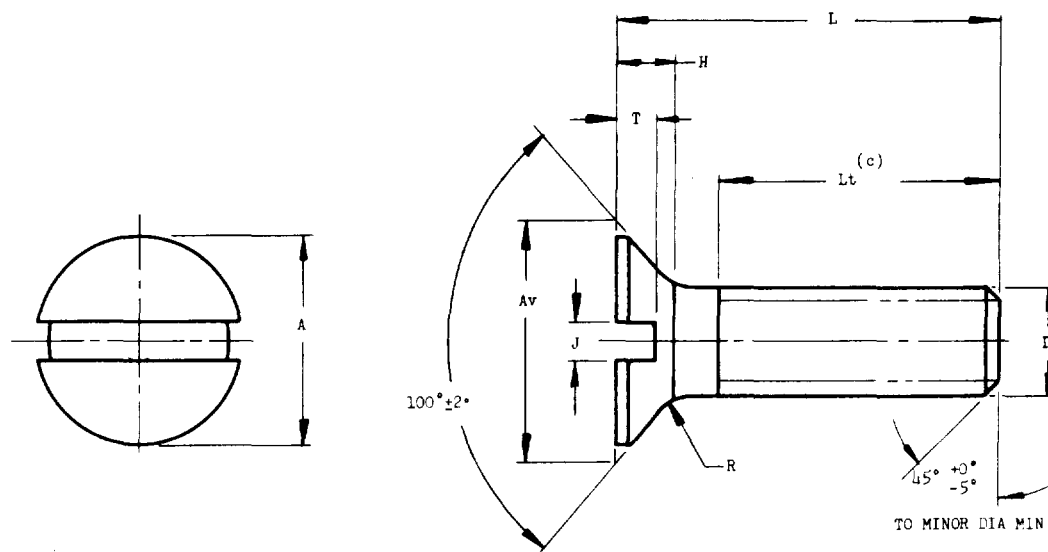
FED. SUP CLASS

5305

User Activities:
Army - MI, MU
Navy - Weps
USAF - ASD, MCA

Reviewer Activities:
Army - MO, EL, WC
Navy - Ships
USAF - ASD, MCA

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.



| SIZE DESIGNATION | THDS PER INCH | D MAX MAJOR DIA | HEAD DIMENSIONS | | | | | | | | | |
|------------------|---------------|-----------------|-----------------|------|----------------------------------|------------|------|--------------|------|--------------|------|--------------|
| | | | A HEAD DIA | | Av (a) DIA OF FULL CONE AT MAX H | H HEAD HGT | | J SLOT WIDTH | | T SLOT DEPTH | | R(b) MAX RAD |
| | | | MAX | MIN | | MAX | MIN | MAX | MIN | MAX | MIN | |
| .30 UNM | 318 | .0118 | .023 | .021 | .0285 | .007 | .005 | .004 | .003 | .004 | .002 | .005 |
| .40 UNM | 254 | .0157 | .029 | .027 | .0348 | .008 | .006 | .005 | .003 | .005 | .003 | .006 |
| .50 UNM | 203 | .0197 | .037 | .035 | .0459 | .011 | .008 | .006 | .004 | .006 | .004 | .008 |
| .60 UNM | 169 | .0236 | .045 | .043 | .0546 | .013 | .010 | .008 | .005 | .008 | .005 | .010 |
| .80 UNM | 127 | .0315 | .056 | .054 | .0696 | .016 | .012 | .010 | .007 | .010 | .006 | .012 |
| 1.00 UNM | 102 | .0394 | .072 | .068 | .0847 | .019 | .015 | .012 | .008 | .012 | .008 | .016 |
| 1.20 UNM | 102 | .0472 | .092 | .088 | .1068 | .025 | .020 | .016 | .012 | .016 | .010 | .020 |

(a) "Av" DERIVED FROM MAX D, MAX H AND MEAN ANGLE.

(b) RELATIVE TO MAX MAJOR DIA.

(c) FOR SCREW LENGTHS FOUR TIMES THE MAXIMUM MAJOR DIAMETER OR LESS, THREAD LENGTH (Lt) SHALL EXTEND TO WITHIN TWO THREADS OF THE HEAD BEARING SURFACE. SCREWS OF GREATER LENGTH SHALL HAVE COMPLETE THREADS FOR A MINIMUM OF FOUR MAXIMUM MAJOR DIAMETERS.

MATERIAL: CORROSION-RESISTANT STEELS: QQ-S-763.

CLASS 303, COND A.

CLASS 416, COND A, HEAT TREAT TO 125,000-145,000 PSI.

CLASS 420, COND A, HEAT TREAT TO 220,000-240,000 PSI.

BRASS: QQ-B-626, COMP 22, TEMPER HALF HARD.

(A) NICKEL SILVER: QQ-C-586, COMP 1, TEMPER HARD.

FINISH: CORROSION-RESISTANT STEEL: PASSIVATE. SEE PROCUREMENT SPECIFICATION.

(A) BRASS: UNCOATED; BLACK OXIDE, MIL-P-495.

(A) NICKEL SILVER: UNCOATED.

SURFACE ROUGHNESS: SURFACE ROUGHNESS OF HEADS SHALL BE AA63 MAXIMUM IN ACCORDANCE WITH MIL-STD-10.

SCREWS SHALL BE FREE OF ALL PROJECTING BURRS, OBSERVED AT 3X MAGNIFICATION.

DIMENSIONS IN INCHES.

THE DIAMETER OF THE UNTHREADED BODY SHALL NOT BE MORE THAN THE MAXIMUM MAJOR DIAMETER NOR LESS THAN THE MINIMUM PITCH DIAMETER OF THE THREAD.

EXAMPLE OF PART NUMBERS: MS21270A1 = .30 UNM CLASS 303 PASSIVATED CORROSION-RESISTANT STEEL SCREW, .025 MAX LENGTH.
MS21270B1 = .30 UNM CLASS 416 PASSIVATED CORROSION-RESISTANT STEEL SCREW, .025 MAX LENGTH.

FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN.

REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID. (A) FOR CHANGES SEE SHEETS 1 & 2.

| | | | |
|---------------------------|---------------------------|--|-------------------|
| P.A. | USAF- ASD | TITLE | MILITARY STANDARD |
| Other Cust | Navy - Ships Army - WC | SCREW, INSTRUMENT - 100 DEGREE FLAT HEAD | MS21270 |
| PROCUREMENT SPECIFICATION | FF-S- 89 | SUPERSEDES: | SHEET 1 OF 2 |

User Activities:
Army - MI, MU
Navy - Meps

Reviewer Activities:
Army - MO, EL, WC
Navy - Ships
USAF - ASD, MCA

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| (A) | | | | | | | FED. SUP CLASS 5305 | |
|---|---|--|----------|----------------------|------------------|-------------|------------------------|--|
| CORROSION RESISTANT STEEL CLASS 303 | CORROSION RESISTANT STEEL CLASS 304 | CORROSION RESISTANT STEEL CLASS 304L | BRASS | BRASS BLACK OXIDE | NICKEL SILVER | L LENGTH | | |
| DASH NO. | DASH NO. | DASH NO. | DASH NO. | DASH NO. | DASH NO. | MAX | MIN | |
| .30 UNM | | | | | | | | |
| A1 | B1 | C1 | D1 | E1 | F1 | .025 | .020 | |
| A2 | B2 | C2 | D2 | E2 | F2 | .032 | .027 | |
| A3 | B3 | C3 | D3 | E3 | F3 | .040 | .035 | |
| A4 | B4 | C4 | D4 | E4 | F4 | .050 | .044 | |
| A5 | B5 | C5 | D5 | E5 | F5 | .060 | .054 | |
| A6 | B6 | C6 | D6 | E6 | F6 | .080 | .072 | |
| A7 | B7 | C7 | D7 | E7 | F7 | .100 | .092 | |
| A8 | B8 | C8 | D8 | E8 | F8 | .120 | .110 | |
| A9 | B9 | C9 | D9 | E9 | F9 | .160 | .150 | |
| .40 UNM | | | | | | | | |
| A19 | B19 | C19 | D19 | E19 | F19 | .032 | .027 | |
| A20 | B20 | C20 | D20 | E20 | F20 | .040 | .035 | |
| A21 | B21 | C21 | D21 | E21 | F21 | .050 | .044 | |
| A22 | B22 | C22 | D22 | E22 | F22 | .060 | .054 | |
| A23 | B23 | C23 | D23 | E23 | F23 | .080 | .072 | |
| A24 | B24 | C24 | D24 | E24 | F24 | .100 | .092 | |
| A25 | B25 | C25 | D25 | E25 | F25 | .120 | .110 | |
| A26 | B26 | C26 | D26 | E26 | F26 | .160 | .150 | |
| A27 | B27 | C27 | D27 | E27 | F27 | .200 | .188 | |
| .50 UNM | | | | | | | | |
| A37 | B37 | C37 | D37 | E37 | F37 | .040 | .035 | |
| A38 | B38 | C38 | D38 | E38 | F38 | .050 | .044 | |
| A39 | B39 | C39 | D39 | E39 | F39 | .060 | .054 | |
| A40 | B40 | C40 | D40 | E40 | F40 | .080 | .072 | |
| A41 | B41 | C41 | D41 | E41 | F41 | .100 | .092 | |
| A42 | B42 | C42 | D42 | E42 | F42 | .120 | .110 | |
| A43 | B43 | C43 | D43 | E43 | F43 | .160 | .150 | |
| A44 | B44 | C44 | D44 | E44 | F44 | .200 | .188 | |
| A45 | B45 | C45 | D45 | E45 | F45 | .250 | .238 | |
| .60 UNM | | | | | | | | |
| A55 | B55 | C55 | D55 | E55 | F55 | .050 | .044 | |
| A56 | B56 | C56 | D56 | E56 | F56 | .060 | .054 | |
| A57 | B57 | C57 | D57 | E57 | F57 | .080 | .072 | |
| A58 | B58 | C58 | D58 | E58 | F58 | .100 | .092 | |
| A59 | B59 | C59 | D59 | E59 | F59 | .120 | .110 | |
| A60 | B60 | C60 | D60 | E60 | F60 | .160 | .150 | |
| A61 | B61 | C61 | D61 | E61 | F61 | .200 | .188 | |
| A62 | B62 | C62 | D62 | E62 | F62 | .250 | .238 | |
| A63 | B63 | C63 | D63 | E63 | F63 | .320 | .304 | |
| .80 UNM | | | | | | | | |
| A73 | B73 | C73 | D73 | E73 | F73 | .060 | .054 | |
| A74 | B74 | C74 | D74 | E74 | F74 | .080 | .072 | |
| A75 | B75 | C75 | D75 | E75 | F75 | .100 | .092 | |
| A76 | B76 | C76 | D76 | E76 | F76 | .120 | .110 | |
| A77 | B77 | C77 | D77 | E77 | F77 | .160 | .150 | |
| A78 | B78 | C78 | D78 | E78 | F78 | .200 | .188 | |
| A79 | B79 | C79 | D79 | E79 | F79 | .250 | .238 | |
| A80 | B80 | C80 | D80 | E80 | F80 | .320 | .304 | |
| A81 | B81 | C81 | D81 | E81 | F81 | .400 | .384 | |
| 1.00 UNM | | | | | | | | |
| A91 | B91 | C91 | D91 | E91 | F91 | .080 | .072 | |
| A92 | B92 | C92 | D92 | E92 | F92 | .100 | .092 | |
| A93 | B93 | C93 | D93 | E93 | F93 | .120 | .110 | |
| A94 | B94 | C94 | D94 | E94 | F94 | .160 | .150 | |
| A95 | B95 | C95 | D95 | E95 | F95 | .200 | .188 | |
| A96 | B96 | C96 | D96 | E96 | F96 | .250 | .238 | |
| A97 | B97 | C97 | D97 | E97 | F97 | .320 | .304 | |
| A98 | B98 | C98 | D98 | E98 | F98 | .400 | .384 | |
| A99 | B99 | C99 | D99 | E99 | F99 | .500 | .480 | |
| 1.20 UNM | | | | | | | | |
| A109 | B109 | C109 | D109 | E109 | F109 | .100 | .092 | |
| A110 | B110 | C110 | D110 | E110 | F110 | .120 | .110 | |
| A111 | B111 | C111 | D111 | E111 | F111 | .160 | .150 | |
| A112 | B112 | C112 | D112 | E112 | F112 | .200 | .188 | |
| A113 | B113 | C113 | D113 | E113 | F113 | .250 | .238 | |
| A114 | B114 | C114 | D114 | E114 | F114 | .320 | .304 | |
| A115 | B115 | C115 | D115 | E115 | F115 | .400 | .384 | |
| A116 | B116 | C116 | D116 | E116 | F116 | .500 | .480 | |
| A117 | B117 | C117 | D117 | E117 | F117 | .600 | .580 | |

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|--|---|---|
| P.A. USAF - ASD Other Cust Navy - Ships Army - WC | TITLE SCREW, INSTRUMENT - 100 DEGREE FLAT HEAD | MILITARY STANDARD MS21270 |
| PROCUREMENT SPECIFICATION FF-S-89 | SUPERSEDES: | SHEET 2 OF |

APPROVED 28 Sep 61 REVISED (A) FOR CHANGES SEE SHEETS 1 & 2.