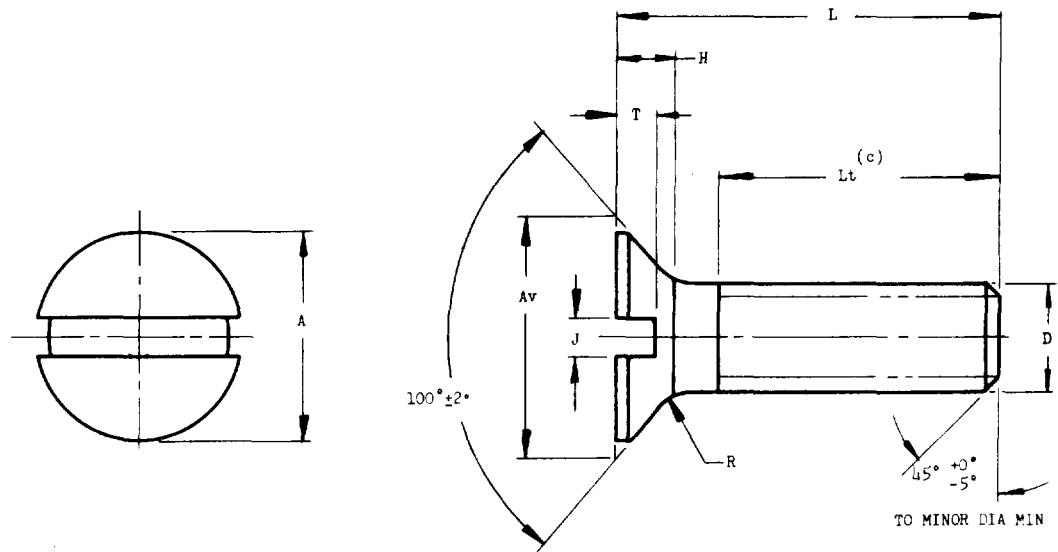


User Activities:  
Army - MI, MU  
Navy - Weps  
USAF - ASD, MCA

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

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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-F-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	<b>MILITARY STANDARD</b>
Other Cust	Navy - Ships Army - WG	SCREW, INSTRUMENT - 100 DEGREE FLAT HEAD	
PROCUREMENT SPECIFICATION	FF-S- 89	SUPERSEDES:	<b>MS21270</b>
			SHEET 1 OF 2

User Activities:  
Army - MI, MU  
Navy - Meps

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

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(A)							FED. SUP CLASS	
CORROSION RESISTANT STEEL CLASS 303	CORROSION RESISTANT STEEL CLASS 316	CORROSION RESISTANT STEEL CLASS 320	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	

FED. SUP CLASS  
5305

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

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