

APPROVED 17 Jul 61 REVISED A 12 Jan 66 B 15 Oct 69

FED. SUP CLASS  
5340

Review activities:  
Army - AF, GH, MR, MI, MO, EL  
Navy - 45  
NSA - 11

User activities:  
Army - AV  
Navy - SH, MC

This military standard has been approved by the Department of Defense and is mandatory for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

1-1/2 DIA NOMINAL LENGTH				
COARSE THREAD				
DASH NO.	NOMINAL THREAD SIZE	LENGTH (REF)	APPROX WEIGHT LBS/100	N #1/4 COIL
C0415	.112(N0.4)-10	.168	.0196	4-3/4
C0615	.118(N0.6)-12	.207	.0384	4-3/4
C0815	.164(N0.8)-12	.246	.0556	6
C1-15	.190(N0.10)-24	.285	.0899	5
C1-15	.250-20	.375	.136	5-3/4
C5-15	.3125-18	.469	.369	6-5/8
C6-15	.375-16	.562	.625	7-1/4
C7-15	.4375-14	.656	.943	7-3/8
C8-15	.500-13	.750	1.316	7-7/8
C9-15	.5625-12	.844	1.961	8-1/4
C1015	.625-11	.938	2.439	8-1/2
C1215	.750-10	1.125	4.000	9-3/8
C1415	.875-9	1.312	6.250	10
C1615	1.000-8	1.500	9.091	10-1/8
C1815	1.125-7	1.688	12.928	9-7/8
C2015	1.250-7	1.875	16.070	11-1/8
C2215	1.375-6	2.062	22.264	10-1/2
C2415	1.500-6	2.250	26.915	11-1/2

1-1/2 DIA NOMINAL LENGTH				
FINE THREAD				
DASH NO.	NOMINAL THREAD SIZE	LENGTH (REF)	APPROX WEIGHT LBS/100	N #1/4 COIL
F1-15	.190(N0.10)-32	.285	.0784	6-7/8
F1-15	.250-28	.375	.155	8-1/4
F5-15	.3125-24	.469	.384	8-7/8
F6-15	.375-24	.562	.420	11
F7-15	.4375-20	.656	.699	10-5/8
F8-15	.500-20	.750	.909	12-3/8
F9-15	.5625-18	.844	1.266	12-1/2
F10-15	.625-18	.938	1.562	14-1/8
F1215	.750-16	1.125	2.554	15-1/8
F1415	.875-14	1.312	4.000	15-1/2
F1615	1.000-12	1.500	6.063	14-7/8
F1815	1.125-12	1.688	7.572	17-1/4
F2015	1.250-12	1.875	9.502	19-3/8
F2215	1.375-12	2.062	11.276	21-3/8
F2415	1.500-12	2.250	13.653	23-1/2

2 DIA NOMINAL LENGTH				
COARSE THREAD				
DASH NO.	NOMINAL THREAD SIZE	LENGTH (REF)	APPROX WEIGHT LBS/100	N #1/4 COIL
C0420	.112(N0.4)-10	.224	.0272	6-3/4
C0620	.118(N0.6)-12	.276	.0525	6-7/8
C0820	.164(N0.8)-12	.325	.0776	8-3/8
C1-20	.190(N0.10)-24	.380	.1330	7-1/8
C1-20	.250-20	.500	.308	8
C5-20	.3125-18	.625	.510	9-1/4
C6-20	.375-16	.750	.862	10
C7-20	.4375-14	.875	1.250	10-1/4
C8-20	.500-13	1.000	1.852	11
C9-20	.5625-12	1.125	2.632	11-1/2
C1020	.625-11	1.250	3.448	11-3/4
C1220	.750-10	1.500	5.261	13
C1420	.875-9	1.750	8.311	13-3/4
C1620	1.000-8	2.000	12.500	14
C1820	1.125-7	2.250	17.664	15-5/8
C2020	1.250-7	2.500	21.653	16-3/8
C2220	1.375-6	2.750	30.122	16-3/8
C2420	1.500-6	3.000	36.268	17-7/8

2 DIA NOMINAL LENGTH				
FINE THREAD				
DASH NO.	NOMINAL THREAD SIZE	LENGTH (REF)	APPROX WEIGHT LBS/100	N #1/4 COIL
F1-20	.190(N0.10)-32	.380	.112	9-1/2
F1-20	.250-28	.500	.312	11-3/8
F5-20	.3125-24	.625	.397	12-1/4
F6-20	.375-24	.750	.553	15
F7-20	.4375-20	.875	.917	14-5/8
F8-20	.500-20	1.000	1.234	16-7/8
F9-20	.5625-18	1.125	1.695	17-1/8
F1020	.625-18	1.250	2.083	19-1/4
F1220	.750-16	1.500	3.448	20-5/8
F1420	.875-14	1.750	5.261	21-1/8
F1620	1.000-12	2.000	8.168	20-7/8
F1820	1.125-12	2.250	10.227	23-3/8
F2020	1.250-12	2.500	12.750	26-1/4
F2220	1.375-12	2.750	15.194	28-7/8
F2420	1.500-12	3.000	18.501	31-5/8

P.A. USAF - 11

Other Cont  
Army - AV  
Navy - 23PROCUREMENT SPECIFICATION  
MIL-STD-883C

TITLE

INSERT, SCREW THREAD, COARSE AND FINE, FREE RUNNING,  
HELICAL COIL, CRES

SUPERSEDES:

MILITARY STANDARD

MS21208

SHEET 2

DD FORM 672-1 (Coordinated)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 17 JUL 61 REVISED 1 FOR CHANGES SEE SHEET 1.

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5340

## INSERT DIMENSIONS

## COARSE THREAD

NOMINAL THREAD SIZE	A MIN	B		C	D		E		F		G		H	J	
		MIN	MAX		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX		MIN	MAX
.112(NO. 1)-10	.0068	.0211	.0271	.01250	.01501	.01621	.0189	.0219	.111	.159	.070	.105	25° - 300°	.111	.159
.138(NO. 6)-12	.0076	.0295	.0338	.01563	.01985	.02030	.0233	.0273	.178	.293	.091	.135	20° - 100°	.178	.293
.164(NO. 8)-12													20° - 90°		
.187(NO. 10)-24	.0120	.0410	.0453	.02083	.02656	.02706	.0305	.0365	.211	.259	.119	.181	20° - 80°	.211	.259
.250-20	.0161	.0495	.0531	.02500	.03188	.03218	.0378	.0438	.310	.330	.187	.238		.310	.330
.3125-18	.0176	.0555	.0601	.02778	.03558	.03608	.0416	.0486	.380	.400	.227	.291		.380	.400
.375-16	.0215	.0629	.0677	.03125	.04009	.04059	.0477	.0547	.452	.472	.271	.351		.452	.472
.4375-14	.0267	.0721	.0773	.03573	.04589	.04639	.0545	.0625	.526	.551	.318	.416		.526	.551
.500-11	.0273	.0717	.0733	.03816	.04916	.04966	.0591	.0671	.597	.622	.349	.461		.597	.622
.5625-12	.0311	.0852	.0902	.04167	.05163	.05213	.0619	.0729	.669	.691	.401	.521		.669	.691
.625-11	.0351	.0995	.1041	.04515	.05555	.05605	.0675	.0795	.712	.767	.428	.572		.712	.767
.750-10	.0402	.1092	.1138	.05000	.06115	.06165	.0725	.0875	.881	.906	.511	.615		.881	.906
.875-9	.0466	.1110	.1201	.05556	.07167	.07217	.0822	.0972	1.022	1.052	.578	.711	160° - 220°	.578	.711
1.000-8	.0511	.1259	.1351	.06250	.08069	.08119	.1001	.1091	1.166	1.206	.671	.781		1.091	1.116
1.125-7	.0541	.1259	.1351	.06250	.08069	.08119	.1001	.1091	1.166	1.206	.671	.781		1.091	1.116
1.250-7	.0645	.1451	.1546	.07113	.09229	.09279	.1160	.1250	1.315	1.355	.719	.811	165° - 210°	1.219	1.271
1.375-6									1.411	1.481	.781	.917		1.371	1.399
1.500-6	.0775	.1695	.1801	.08333	.10775	.10825	.1368	.1458	1.727	1.772	.869	1.187		1.616	1.701

## FINE THREAD

.190(NO. 10)-12	.0076	.0295	.0338	.01563	.01985	.02030	.0233	.0273	.236	.258	.131	.182	10° - 90°	.236	.258
.250-23	.0085	.0317	.0357	.01786	.02270	.02320	.0251	.0311	.306	.326	.178	.211		.306	.326
.3125-24									.380	.400	.209	.291		.359	.377
.375-24	.0120	.0410	.0451	.02083	.02656	.02706	.0305	.0365	.411	.431	.219	.331		.411	.431
.4375-20									.521	.541	.267	.316		.521	.541
.500-20	.0151	.0495	.0531	.02500	.03188	.03218	.0378	.0438	.572	.617	.318	.416	15° - 75°	.556	.576
.5625-18	.0176	.0555	.0601	.02778	.03558	.03608	.0416	.0486	.666	.691	.351	.451		.625	.645
.625-18									.731	.758	.386	.508		.688	.708
.750-16	.0215	.0629	.0677	.03125	.04009	.04059	.0477	.0547	.876	.901	.414	.557		.820	.810
.875-14	.0267	.0721	.0773	.03573	.04589	.04639	.0545	.0625	1.021	1.051	.495	.601		.955	.990
1.000-12	.0311	.0852	.0902	.04167	.05163	.05213	.0619	.0729	1.169	1.199	.536	.728		1.091	1.111
1.125-12									1.311	1.341	.557	.819		1.211	1.241
1.250-12	.0331	.0952	.0992	.04167	.05363	.05413	.0649	.0729	1.439	1.469	.679	.911	10° - 70°	1.311	1.369
1.375-12									1.571	1.610	.780	1.001		1.469	1.510
1.500-12									1.710	1.745	.811	1.123		1.591	1.621

NOMINAL LENGTH: NOMINAL LENGTH EQUALS MINIMUM THROUGH HOLE LENGTH WITHOUT COUNTERSINK AND WITH INSERT LOCATED 1/8 TO 1/2  
THREAD FITCH BELOW TOP SURFACE.  
FREE COILS: THE NUMBER OF FREE COILS OF THE INSERT ARE COUNTED AS FOLLOWS:  
CSC THD-90° FROM TANG FOR SIZES UP TO AND INCLUDING .625-11.  
180° FROM TANG FOR SIZES .750-10 AND LARGER.  
UNF THD-90° FROM TANG FOR ALL SIZES.

MATERIAL: STEEL, CORROSION RESISTANT, SEE PROCUREMENT SPECIFICATION.  
THREAD: INSERT, WHEN ASSEMBLED IN BASIC TAPPED HOLE AS SPECIFIED ON STANDARD MS33646, SHALL PRODUCE A FINISHED INTERNAL  
THREAD, MEETING ALL REQUIREMENTS OF HANDBOOK H-26.  
TANG LOCATION: THE INSERT TANG LOCATION SHALL CONFORM TO SPECIFICATION AMS 7245C.  
SURFACE ROUGHNESS: MIL-STD-10.  
DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED.

THE MS PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER, PLUS THE DASH NUMBER.  
EXAMPLE OF PART NUMBER: MS2120800115 = A FREE RUNNING HELICAL COIL INSERT (MS21208). COARSE THREAD (C), NUMBER 1, THREAD DIA  
(.04), 1-1/2 DIA NOMINAL LENGTH (15)

FOR DESIGN FEATURES 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.

P.A. USAY - 11	TITLE	MILITARY STANDARD
Other Cust Army - AV Navy - AS	INSERT, SCREW THREAD, COARSE AND FINE, FREE RUNNING, HELICAL COIL, CRES	MS21208
PROCUREMENT SPECIFICATION MIL-STD-8836	SUPERSEDES:	SHEET 3

DD FORM 672-1 (Coordinate)

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U.S. GOVERNMENT PRINTING OFFICE: 1967-01-17-214

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APPROVED 17 Jul 61 REVISED 5 FEB CHANGES SEE SHEET 1