



(E) FOR CHANGES SEE SHEETS 4 AND 5

This military standard is approved for use by all Departments of the Army, Navy, and Air Force, and for repetitive use in new engineering and design applications and for repetitive use shall be made from this document, when applicable.

Army - MI, AR, EL  
 Navy - AS, OS  
 Air Force - 99  
 DLA - 15

User Activities  
 Region Activities

P A USAF - 11 Other Cost Army - AV	TITLE INSERT SCREW THREAD COARSE AND FINE SCREW LOCKING METAL COIL CRES	MILITARY STANDARD <b>MS21209</b>
PROCUREMENT SPECIFICATION MIL 1 8846	SUPERSEDES	SHEET 1 OF 5

# COARSE THREAD SERIES

**FED SUP CLASS**  
5340

1 DIAMETER NOMINAL LENGTH						1 5 DIAMETER NOMINAL LENGTH					
NOMINAL THREAD SIZE	DASH NO	LENGTH (REF)	WEIGHT LBS/100	M +1 COIL	N +1/4 COIL	DASH NO	LENGTH (REF)	WEIGHT LBS/100	M +1 COIL	N +1/4 COIL	
086-56	C0210	086	0051	1 500	3 00	C0215	129	0084	2 625	5 250	
099-48	C0310	099	0077	1 4375	2 875	C0315	148	0125	2 500	5 000	
112-40	C0410	112	0121	1 375	2 750	C0415	168	0196	2 375	4 750	
125-40	C0510	125	0154	1 625	3 250	C0515	188	0250	2 750	5 500	
138-32	C0610	138	0243	1 375	2 750	C0615	207	0384	2 375	4 750	
164-32	C0810	164	0355	1 750	3 500	C0815	246	0556	3 000	6 000	
190-24	C1-10	190	0573	1 4375	2 875	C1-15	285	0899	2 500	5 000	
216-24	C2-10	216	077	1 750	3 500	C2-15	324	119	3 000	6 000	
250-20	C4-10	250	145	1 6875	3 375	C4-15	375	196	2 875	5 750	
3125-18	C5-10	3125	232	2 000	4 000	C5-15	469	369	3 3125	6 625	
375-16	C6-10	375	391	2 1875	4 375	C6-15	562	625	3 625	7 250	
4375-14	C7-10	4375	667	2 250	4 500	C7-15	656	943	3 6875	7 375	
500-13	C8-10	500	794	2 4375	4 875	C8-15	750	1 316	3 9375	7 875	
5625-12	C9-10	5625	1 235	2 5625	5 125	C9-15	844	1 961	4 125	8 250	
625-11	C1010	625	1 515	2 6250	5 250	C1015	938	2 439	4 250	8 500	
750-10	C1210	750	2 778	2 9375	5 875	C1215	1 125	4 000	4 6875	9 375	
875-9	C1410	875	4 545	3 125	6 250	C1415	1 312	6 250	5 000	10 000	
1 000-8	C1610	1 000	5 882	3 1875	6 375	C1615	1 500	9 091	5 0625	10 125	
1 125-7	C1810	1 125	8 392	3 0625	6 125	C1815	1 688	12 928	4 9375	9 875	
1 250-7	C2010	1 250	10 487	3 500	7 000	C2015	1 875	16 070	5 625	11 250	
1 375-6	C2210	1 375	14 505	3 250	6 500	C2215	2 062	22 264	5 250	10 500	
1 500-6	C2410	1 500	17 563	3 625	7 250	C2415	2 250	26 915	5 750	11 500	

2 DIAMETER NOMINAL LENGTH						2 5 DIAMETER NOMINAL LENGTH					
NOMINAL THREAD SIZE	DASH NO	LENGTH (REF)	WEIGHT LBS/100	M +1 COIL	N +1/4 COIL	DASH NO	LENGTH (REF)	WEIGHT LBS/100	M +1 COIL	N +1/4 COIL	
086-56	C0220	172	0117	3 6875	7 375	C0225	215	015	5 9375	9 625	
099-48	C0320	198	0174	3 625	7 250	C0325	248	0224	5 750	9 375	
112-40	C0420	224	0272	3 375	6 750	C0425	280	0348	5 500	8 875	
125-40	C0520	250	0345	3 875	7 750	C0525	312	044	6 125	10 000	
138-32	C0620	276	0525	3 4375	6 875	C0625	345	0666	5 4375	8 875	
164-32	C0820	328	0776	4 1875	8 375	C0825	410	1008	6 5625	10 750	
190-24	C1-20	380	1330	3 5625	7 125	C1-25	475	172	5 6875	9 250	
216-24	C2-20	432	172	4 1875	8 375	C2-25	540	208	6 4375	10 625	
250-20	C4-20	500	308	4 000	8 000	C4-25	625	385	6 375	10 375	
3125-18	C5-20	625	510	4 625	9 250	C5-25	781	658	7 250	11 875	
375-16	C6-20	750	867	5 000	10 000	C6-25	938	1 064	7 875	12 875	
4375-14	C7-20	875	1 250	5 125	10 250	C7-25	1 094	1 667	8 000	13 125	
500-13	C8-20	1 000	1 852	5 500	11 000	C8-25	1 250	2 273	8 625	14 125	
5625-12	C9-20	1 125	2 632	5 750	11 500	C9-25	1 406	3 226	9 000	14 750	
625-11	C1020	1 250	3 448	5 875	11 750	C1025	1 562	4 348	9 125	15 000	
750-10	C1220	1 500	5 263	6 500	13 000	C1225	1 875	6 667	10 000	16 500	
875-9	C1420	1 750	8 333	6 875	13 750	C1425	2 188	10 000	10 625	17 500	
1 000-8	C1620	2 000	12 500	7 000	14 000	C1625	2 500	14 286	10 750	17 750	
1 125-7	C1820	2 250	17 464	6 8125	13 625	C1825	2 812	22 000	10 875	17 500	
1 250-7	C2020	2 500	21 653	7 6875	15 375	C2025	3 125	27 236	11 8125	19 500	
1 375-6	C2220	2 750	30 122	7 1875	14 375	C2225	3 438	37 981	11 1875	18 375	
1 500-6	C2420	3 000	36 268	7 9375	15 875	C2425	3 750	45 620	12 1875	20 125	

3 DIAMETER NOMINAL LENGTH					
NOMINAL THREAD SIZE	DASH NO	LENGTH (REF)	WEIGHT LBS/100	M +1 COIL	N +1/4 COIL
086-56	C0230	258	0183	8 1875	11 875
099-48	C0330	297	0271	7 875	11 500
112-40	C0430	336	0423	7 500	10 875
125-40	C0530	375	0536	8 375	12 250
138-32	C0630	414	0807	7 4375	10 750
164-32	C0830	492	125	9 0625	13 250
190-24	C1-30	570	219	7 8125	11 375
216-24	C2-30	648	279	8 9375	13 125
250-20	C4-30	750	490	8 750	12 750
3125-18	C5-30	938	806	10 000	14 625
375-16	C6-30	1 125	1 316	10 875	15 750
4375-14	C7-30	1 312	2 000	11 000	16 125
500-13	C8-30	1 500	2 857	11 625	17 125
5625-12	C9-30	1 688	4 000	12 125	17 875
625-11	C1030	1 875	5 263	12 500	13 375
750-10	C1230	2 250	8 333	13 625	20 125
875-9	C1430	2 625	12 500	14 375	21 250
1 000-8	C1630	3 000	16 670	14 625	21 625
1 125-7	C1830	3 375	26 536	14 4375	21 250
1 250-7	C2030	3 750	32 819	16 0625	23 750
1 375-6	C2230	4 125	45 839	15 0625	22 250
1 500-6	C2430	4 500	54 972	16 5625	24 500

User Activities: Army - AS, OS; Navy - AS, OS; Air Force - DLA  
 Review Activities: Army - MI, AR, EL; Navy - AS, OS; Air Force - 99; DLA - 13

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P.A. USAF - 11	TITLE	<b>MILITARY STANDARD</b>
Other Cost	1 INCH SQUARE THREAD LBS PER LINE SERIES METALIC COIL CRES	<b>MS21209</b>
Army - AV		
PROCUREMENT SPECIFICATION MIL-1-8846	SUPERSEDES	SHEET 2 OF 5

APPROVED 17 JUL 61 REVISE (E) 21 Feb 78

FINE THREAD SERIES

1 DIAMETER NOMINAL LENGTH						1 5 DIAMETER NOMINAL LENGTH					
NOMINAL THREAD SIZE	DASH NO	LENGTH (REF)	WEIGHT LBS/100	N +1 COIL	N +1/4 COIL	DASH NO	LENGTH (REF)	WEIGHT LBS/100	N +1 COIL	N +1/4 COIL	
099-56	F0310	099	0051	1 6875	3 375	F0315	148	0084	2 8125	5 625	
112-48	F0410	112	0099	1 6875	3 375	F0415	168	0160	2 8125	5 625	
138-40	F0610	138	020	1 750	3 500	F0615	207	0304	3 000	6 000	
164-36	F0810	164	0325	1 9375	3 875	F0815	246	0502	1 250	6 500	
190-32	F1-10	190	0474	2 0625	4 125	F1-15	285	0784	3 4375	6 875	
250-28	F4-10	250	109	2 500	5 000	F4-15	375	155	4 125	8 250	
3125-24	F5-10	312	180	2 750	5 500	F5-15	469	284	4 4375	8 875	
375-24	F6-10	375	259	3 4375	6 875	F6-15	562	420	5 500	11 000	
4375-20	F7-10	438	459	3 3125	6 625	F7-15	656	699	5 3125	10 625	
500-20	F8-10	500	595	3 9375	7 875	F8-15	750	909	6 1875	12 375	
5625-18	F9-10	562	826	4 000	8 000	F9-15	844	1 266	6 250	12 500	
625-18	F1010	625	1 010	4 500	9 000	F1015	938	1 562	7 0625	14 125	
750-16	F1210	750	1 695	4 875	9 750	F1215	1 125	2 564	7 5625	15 125	
875-14	F1410	875	2 564	4 9375	9 875	F1415	1 312	4 000	7 750	15 500	
1 000-12	F1610	1 000	3 875	4 8125	9 625	F1615	1 500	6 063	7 500	15 000	
1 125-12	F1810	1 125	4 917	5 5625	11 125	F1815	1 688	7 572	8 625	17 250	
1 250-12	F2010	1 250	6 254	6 250	12 500	F2015	1 875	9 502	9 6875	19 375	
1 375-12	F2210	1 375	7 359	6 875	13 750	F2215	2 062	11 276	10 6875	21 375	
1 500-12	F2410	1 500	8 799	7 625	15 250	F2415	2 250	13 850	11 750	23 500	

2 DIAMETER NOMINAL LENGTH						2 5 DIAMETER NOMINAL LENGTH					
NOMINAL THREAD SIZE	DASH NO	LENGTH (REF)	WEIGHT LBS/100	N +1 COIL	N +1/4 COIL	DASH NO	LENGTH (REF)	WEIGHT LBS/100	N +1 COIL	N +1/4 COIL	
099-56	F0320	198	0117	4 000	8 000	F0325	248	0192	6 375	10 375	
112-48	F0420	224	0222	3 9375	7 875	F0425	280	0285	6 3125	10 250	
138-40	F0620	276	0408	4 1875	8 375	F0625	345	0512	6 5625	10 750	
164-36	F0820	328	0680	4 5625	9 125	F0825	410	0857	7 0625	11 625	
190-32	F1-20	360	112	4 750	9 500	F1-25	475	140	7 500	12 000	
250-28	F4-20	500	212	5 6875	11 375	F4-25	625	276	8 8125	14 500	
3125-24	F5-20	625	397	6 125	12 250	F5-25	781	490	9 500	15 625	
375-24	F6-20	750	553	7 500	15 000	F6-25	938	709	11 625	19 125	
4375-20	F7-20	875	917	7 3125	14 625	F7-25	1 094	1 250	11 1875	18 500	
500-20	F8-20	1 000	1 234	8 4375	16 875	F8-25	1 250	1 563	12 9375	21 375	
5625-18	F9-20	1 125	1 695	8 5625	17 125	F9-25	1 406	2 128	13 1875	21 750	
625-18	F1020	1 250	2 083	9 625	19 250	F1025	1 562	2 632	14 625	24 250	
750-16	F1220	1 500	3 448	10 3125	20 625	F1225	1 875	4 348	15 6875	26 000	
875-14	F1420	1 750	5 263	10 5625	21 125	F1425	2 188	6 667	16 0625	26 625	
1 000-12	F1620	2 000	8 188	10 250	20 500	F1625	2 500	10 406	15 750	26 000	
1 125-12	F1820	2 250	10 227	11 6875	23 375	F1825	2 812	12 882	17 8125	29 500	
1 250-12	F2020	2 500	12 750	13 125	26 250	F2025	3 125	15 998	19 875	33 000	
1 375-12	F2220	2 750	15 194	14 4375	28 875	F2225	3 438	19 111	22 0625	36 500	
1 500-12	F2420	3 000	18 571	15 8125	31 625	F2425	3 750	23 352	24 0625	39 875	

3 DIAMETER NOMINAL LENGTH					
NOMINAL THREAD SIZE	DASH NO	LENGTH (REF)	WEIGHT LBS/100	N +1 COIL	N +1/4 COIL
099-56	F0330	297	0234	8 625	12 625
112-48	F0430	336	0346	8 5625	12 500
138-40	F0630	414	0616	9 0625	13 250
164-36	F0830	492	1034	9 6875	14 250
190-32	F1-30	570	170	10 125	14 875
250-28	F4-30	750	338	11 9375	17 625
3125-24	F5-30	938	602	12 875	19 000
375-24	F6-30	1 125	862	15 625	23 125
4375-20	F7-30	1 312	1 493	15 1875	22 500
500-20	F8-30	1 500	1 857	17 4375	25 875
5625-18	F9-30	1 688	2 564	17 6875	26 250
625-18	F1030	1 875	3 030	19 750	29 375
750-16	F1230	2 250	5 263	21 1875	31 500
875-14	F1430	2 625	7 692	21 6875	32 250
1 000-12	F1630	3 000	12 815	21 250	31 500
1 125-12	F1830	3 375	15 536	24 0625	35 750
1 250-12	F2030	3 750	19 246	26 750	39 625
1 375-12	F2230	4 125	23 028	29 5625	44 000
1 500-12	F2430	4 500	26 203	32 3125	48 125

User Activities Army - MI, AR, EL Navy - AS, OS Air Force - DLA  
 Review Activities Army - MI, AR, EL Navy - AS, OS Air Force - DLA  
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P A US-F - 11	TITLE	MILITARY STANDARD
Other Code Army - AV	INS-PT SCREW THREAD, COARSE AND FINE SCREW DENING HELICAL COIL LINES	MS 21209
PROCUREMENT SPECIFICATION MIL-I-8346	SUPERSEDES	SHEET OF
		3

APPROVED 17 JUL 61 REVISED (E) 21 FEB 78

INSERT DIMENSIONS COARSE THREAD

NOMINAL THREAD SIZE	A		B		C		D		E		F	
	MIN	MAX	MIN	MAX	GAGE	MIN	MAX	MIN	MAX	MIN	MAX	
086-56	.0027	0161	0193	00893	0112	0116	0126	0156	110	115		
099-48	.0043	0196	0226	01042	01313	01353	0152	0182	128	137		
112-40	.0068	0241	0271	0125	01584	01624	0189	0219	144	159		
125-40	.0068	.0241	0271	0125	01584	01624	0189	0219	158	173		
138-32	.0076	.0295	0338	01563	01985	02030	0233	0273	178	193		
164-32	.0076	.0295	0338	01563	01985	02030	0233	0273	205	220		
190-24	.0120	.0410	0449	02083	.02656	.02706	0305	0365	244	259		
216-24	.0120	.0410	0449	02083	.02656	.02706	0305	0365	270	285		
250-20	.0164	.050	0540	02500	03198	03248	0378	0438	310	330		
3125-18	.0176	.056	060	02778	03528	03608	0416	0486	380	400		
375-16	.0215	.0636	0677	03125	04009	04059	0477	0547	452	472		
4375-14	.0267	.0730	0770	03571	04589	04639	0545	0625	526	551		
500-13	.0273	.0758	0829	03866	04966	04996	0593	0673	597	622		
5625-12	.0354	.0861	0900	04187	05363	05413	0649	0729	669	694		
625-11	.0351	.0909	0980	04545	05855	05905	0715	0795	742	767		
750-10	.0482	.1007	1079	05000	06445	06495	0795	0875	881	906		
875-9	.0466	.1124	1199	05556	07167	07217	0892	0972	1022	1052		
1000-8	.0544	.1264	1350	06250	08069	08119	1004	1094	1166	1196		
1125-7	.0645	.1451	1546	07143	09229	09279	1160	1250	1315	1355		
1250-7	.0645	.1451	1546	07143	09229	09279	1160	1250	1443	1483		
1375-6	.0775	.1695	1799	08333	10775	10825	1368	1458	1598	1643		
1500-6	.0775	.1695	1799	08333	10775	10825	1368	1458	1727	1772		

NOMINAL THREAD SIZE	G		H		J		K	L	P	S +1/4 COIL	R MIN	T MIN
	MIN	MAX	MIN	MAX	MIN	MAX						
086-56	.067	.085	75°	150°	103	111	4	1	3	1.50	.0032	.0056
099-48	.070	.090	75°	150°	128	137	4	1	3	1.50	.0038	.0065
112-40	.070	.105	25°	100°	144	159	4	1	3	1.75	.0045	.0075
125-40	.078	.108	25°	100°	158	173	4	1	3	1.62	.0045	.0078
138-32	.091	.135	25°	100°	178	193	4	1	3	1.75	.0056	.0098
164-32	.117	.152	20°	100°	220	240	4	1	3	1.75	.0056	.0098
190-24	.138	.183	20°	90°	244	259	4	1	3	1.75	.0075	.0130
216-24	.154	.189	20°	90°	270	285	4	1	3	1.75	.0075	.0130
250-20	.187	.238	20°	80°	310	330	5	1	4	2.50	.0090	.0156
3125-18	.227	.291	20°	80°	380	400	5	1	3	2.75	.0100	.0174
375-16	.271	.354	20°	80°	452	472	6	1	3	2.75	.0113	.0195
4375-14	.318	.416	20°	80°	526	551	6	1	4	1.75	.0129	.0223
500-13	.349	.463	20°	80°	597	622	6	1	4	1.75	.0139	.0240
5625-12	.401	.521	20°	80°	656	676	6	1	4	1.75	.0150	.0260
625-11	.428	.572	20°	80°	727	747	6	1	5	2.25	.0164	.0284
750-10	.453	.635	60°	120°	840	885	6	1	5	2.25	.0180	.0312
875-9	.500	.734	60°	120°	991	1026	6	1	6	3.33	.0200	.0347
1000-8	.526	.781	60°	120°	1115	1170	6	1	6	3.33	.0226	.0391
1125-7	.557	.843	60°	120°	1260	1315	6	1	6	3.33	.0258	.0446
1250-7	.679	.937	60°	120°	1366	1416	6	1	6	3.33	.0258	.0446
1375-6	.689	1.093	60°	120°	1545	1598	7	1	6	3.33	.0301	.0521
1500-6	.811	1.187	60°	120°	1626	1727	7	1	6	3.33	.0301	.0521

NOMINAL THREAD SIZE	COARSE THREAD		
	X + .001 - .000	Y + .001 - .000	Z + .000 - .001
086-56	-	-	-
099-48	-	-	-
112-40	-	-	-
125-40	-	-	-
138-32	.045	.020	.101
164-32	.045	.020	.127
190-24	.061	.020	.142
216-24	.064	.025	.168
250-20	.073	.028	.193
3125-18	.082	.034	.250
375-16	.093	.039	.302
4375-14	.112	.056	.355
500-13	.125	.076	.411
5625-12	.142	.086	.468
625-11	.156	.114	.521
750-10	.186	.117	.625
875-9	.186	.156	.750
1000-8	.250	.156	.844
1125-7	-	-	-
1250-7	-	-	-
1375-6	-	-	-
1500-6	-	-	-

NOMINAL THREAD SIZE	FINE THREAD		
	X + .001 - .000	Y + .001 - .000	Z + .000 - .001
099-56	-	-	-
112-48	-	-	-
138-40	-	-	-
164-36	-	-	-
190-32	.052	.020	.151
250-28	.060	.020	.208
3125-24	.070	.024	.265
375-24	.070	.024	.328
4375-20	.088	.046	.380
500-20	.090	.046	.422
5625-18	.100	.066	.500
625-18	.100	.089	.563
750-16	.109	.087	.679
875-14	.125	.135	.794
1000-12	-	-	-
1125-12	-	-	-
1250-12	-	-	-
1375-12	-	-	-
1500-12	-	-	-

Review: Army - MI, AR, EL  
 Navy - AF, AS, OS  
 Air Force - 99  
 DLA - 13  
 User: Army Activities  
 Date:

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P.A. USAF - 11 Other Cust Army - AV	TITLE INSERT SCREW THREAD COARSE AND FINE SCREW LOCKING METALIC COIL CRES	MILITARY STANDARD <b>MS21209</b>
PROUREMENT SPECIFICATION MIL-I-8846	SUPERSEDES	SHEET 4 OF

INSERT DIMENSIONS FINE THREAD

NOMINAL THREAD SIZE	A		B		GAGE	D		E		F	
	MIN	MAX	MIN	MAX		MIN	MAX	MIN	MAX	MIN	MAX
099-56	0027	0163	0103	00893	0112	0116	0126	0166	131	146	
112-48	0043	0196	0226	01042	01313	01353	0152	0182	147	162	
138-40	0068	0241	0271	01250	01584	01624	0189	0219	173	193	
164-36	0099	0261	0301	01389	01764	01804	0203	0243	204	224	
190-32	0076	0295	0338	01563	01985	02030	0233	0273	236	256	
250-28	0085	0347	0387	01786	02270	02320	0253	0313	306	326	
3125-24	0120	0410	0449	02083	02656	02706	0305	0365	380	400	
375-24	0120	0410	0449	02083	02656	02706	0305	0365	448	468	
4375-20	0164	500	0540	02500	03198	03248	0378	0438	524	549	
500-20	0164	500	0540	02500	03198	03248	0378	0438	592	617	
5625-18	0176	0560	0600	02778	03558	03608	0416	0486	666	691	
625-18	0176	0560	0600	02778	03558	03608	0416	0486	733	758	
750-16	0215	0636	0677	03125	04009	04059	0477	0547	876	901	
875-14	0267	0730	0770	03571	04589	04639	0545	0625	1021	1051	
1000-12	0334	0861	0900	04167	05363	05413	0649	0729	1169	1199	
1125-12	0334	0861	0900	04167	05363	05413	0649	0729	1304	1334	
1250-12	0334	0861	0900	04167	05363	05413	0649	0729	1439	1469	
1375-12	0334	0861	0900	04167	05363	05413	0649	0729	1575	1610	
1500-12	0334	0861	0900	04167	05363	05413	0649	0729	1710	1745	

NOMINAL THREAD SIZE	G		H		J		K	L	P	S +1/4 COIL	R MIN	T MIN
	MIN	MAX	MIN	MAX	MIN	MAX						
099-56	072	090	75°	150°	131	146	4	1	—	—	0032	0056
112-48	060	095	75°	150°	147	162	4	1	4	2.33	0038	0062
138-40	100	130	25°	100°	173	193	4	1	4	2.33	0045	0078
164-36	117	147	20°	100°	204	224	4	1	4	2.33	0050	0087
190-32	131	182	15°	90°	236	256	5	1	4	1.75	0056	0098
250-28	178	244	15°	75°	306	326	5	1	6	4.0	0064	0112
3125-24	209	291	15°	75°	380	400	6	2	9	5.25	0075	0130
375-24	240	353	15°	75°	448	468	6	2	10	5.25	0075	0130
4375-20	287	416	15°	75°	524	549	6	2	8	4.0	0090	0156
500-20	318	479	15°	75°	592	617	6	2	10	5.25	0090	0156
5625-18	354	541	15°	75°	666	691	6	2	10	5.25	0100	0174
625-18	386	588	15°	75°	733	758	6	2	10	5.25	0100	0174
750-16	464	557	15°	75°	876	901	7	2	12	6.25	0113	0195
875-14	495	604	15°	75°	1021	1051	8	2	12	6.25	0129	0223
1000-12	526	728	15°	75°	1169	1199	8	2	14	7.5	0150	0260
1125-12	557	819	10°	70°	1304	1334	8	2	14	7.5	0150	0260
1250-12	679	941	10°	70°	1344	1374	8	2	14	7.5	0150	0260
1375-12	689	1001	10°	70°	1469	1504	10	2	14	7.5	0150	0260
1500-12	811	1123	10°	70°	1594	1629	11	2	14	7.5	0150	0260

NOMINAL LENGTH NOMINAL LENGTH EQUALS MINIMUM THROUGH HOLE LENGTH WITHOUT COUNTERSINK AND WITH INSERT LOCATED 1/4 TO 1/2  
THREAD PITCH BELOW TOP SURFACE

FREE COILS THE NUMBER OF FREE COILS OF THE INSERT ARE COUNTED 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 MS33537, SHALL PRODUCE A FINISHED  
THREAD MEETING THE REQUIREMENTS OF HANDBOOK H-28 AND SHALL ACCEPT EXTERNAL THREADED PARTS WHICH ARE THREADED  
TO MIL-S-7742 OR MIL-S-8879

SURFACE ROUGHNESS: ANSI B46 1-1962

DIMENSIONS IN INCHES, APPLY BEFORE PLATING UNLESS OTHERWISE SPECIFIED. TOLERANCES LINEAR DIMENSIONS ± 0.10 ANGULAR  
DIMENSIONS ± 5°

COLOR IDENTIFICATION (a) BARE INSERTS - DYED RED  
(b) DRY FILM LUBRICATED - DARK GREY  
(c) CADMIUM PLATED - OLIVE DRAB

LUBRICANT DRY FILM LUBRICANT SHALL BE IN ACCORDANCE WITH MIL-L-8937

PLATING CADMIUM PLATING SHALL BE IN ACCORDANCE WITH QQ-P-416, TYPE II, EXCEPT THE THICKNESS SHALL BE A MAXIMUM OF 0.00

ADD THE LETTER "L" AFTER THE PART NUMBER TO DESIGNATE A DRY FILM LUBRICANT COATED INSERT

ADD THE LETTER "P" AFTER THE PART NUMBER TO DESIGNATE A CADMIUM PLATED INSERT

THE MS PART NUMBER CONSISTS OF THE BASIC MS NUMBER PLUS THE DASH NUMBER

EXAMPLE OF PART NUMBER MS21209C0415 = A SCREW LOCKING HELICAL COIL INSERT (MS21209), COARSE THREAD (C), NUMBER 4 THREAD  
DIAMETER (04), 1.5 DIA NOMINAL LENGTH (15)

MS21209F4-20L = A SCREW LOCKING HELICAL COIL INSERT (MS21209), FINE THREAD (F), 0.0250-28 THREAD  
DIAMETER (4), WITH A DRY FILM LUBRICANT (L)

MS21209F1225P = A SCREW LOCKING HELICAL COIL INSERT (MS21209), FINE THREAD (F), 0.0750-16 THREAD  
DIAMETER (12), 2.5 DIAMETER NOMINAL LENGTH (25), WITH CADMIUM PLATING (P)

THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN  
REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID

This military standard is approved for use by all Departments  
and Agencies in the Department of Defense for all  
new equipment of the design, development and production  
shall be made from this document, when applicable

Review  
Activities  
Army - MI, AR, EL  
Navy - AS, OS  
Air Force -  
DLA -  
User  
Activities  
Army - AS, OS  
Navy - AS, OS  
Air Force -  
DLA -

P A USAF - 11 Other Cost Army - AV	INTERNATIONAL INTEREST	TITLE /	MILITARY STANDARD
		INSERT, SCREW THREAD, COARSE AND FINE, SCREW LOCKING HELICAL COIL CRES	MS21209
PROCUREMENT SPECIFICATION MIL- I - 8646	SUPERSEDES		SHEET 5 OF 5

APPROVED 17 JUL 61 REVISED E 21 Feb 70