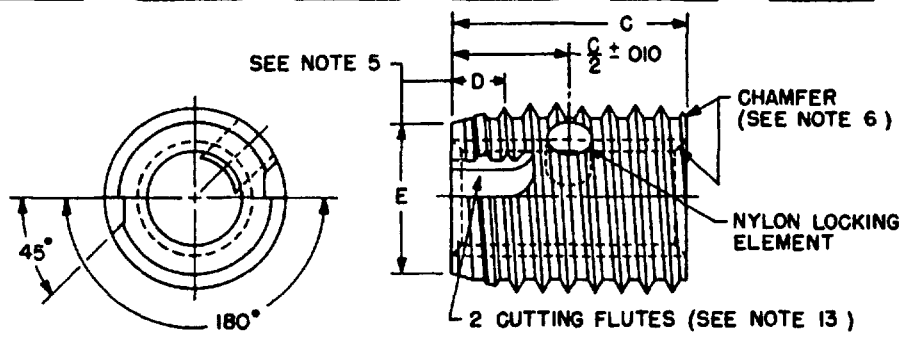
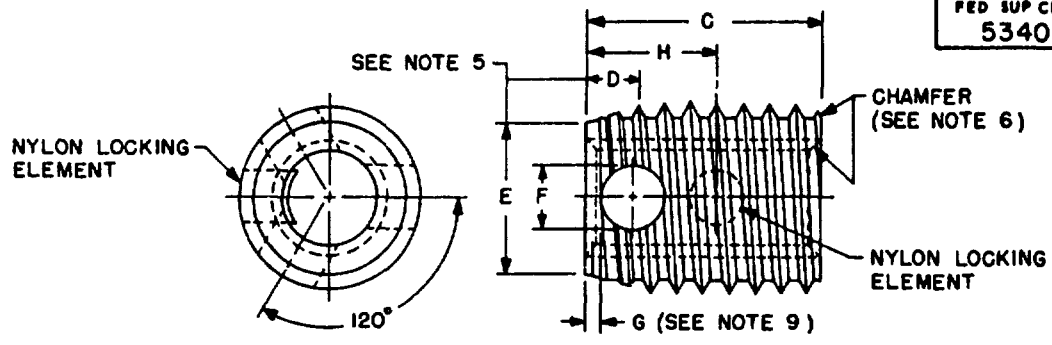


FED SUP CLASS
5340



OPTIONAL DESIGNS

NOTES:

1. **MATERIAL:** Carbon steel, AISI 1117, in accordance with Fed. Std. No. 66. Corrosion-resisting steel, type 303 and 303MA, annealed condition, hot or cold finish (as rolled) in accordance with Fed. Std. No. 66.
2. **HEAT TREATMENT:** Carbon steel inserts shall be case hardened to a depth of .003-.005 inch with a hardness of Rockwell 15N75 minimum.
3. **PROTECTIVE COATING:** Carbon steel inserts shall be cadmium plated in accordance with QQ-P-416, Type II, Class 3. Corrosion-resisting steel inserts shall be passivated in accordance with QQ-P-35.
4. **THREADS:** Internal threads shall be in accordance with Screw Thread Standards for Federal Services, Handbook H28. External threads shall be self-tapping and have a 60° thread approximating American National form.
5. **DIMENSIONS:** All dimensions are in inches. "D" dimension refers to the tapered portion of the external thread (pilot length). "E" dimension refers to the small end of the tapered portion of the external thread (pilot diameter).
6. **CHAMFER:** Chamfer internal and external threads to one thread length.
7. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number. Example: MS35914-125. For internal thread lock, add "L" after the dash number. Example: MS35914-125L.
8. **LOCKING ELEMENT:** Nylon locking element is available only for inserts having a specified "H" dimension.
9. "G" dimension equals approximately 60% of external thread pitch.
10. Thin wall inserts are supplied in corrosion-resisting steel only. No internal lock is available.
11. Referenced documents shall be of the issue in effect on date of invitations for bid.
12. For design feature purposes, this standard takes precedence over procurement documents referenced herein.
13. Cutting flutes shall extend beyond the 2nd full thread.

REVIEWER AR, AT, AV, EA, IS
 USER MI
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APPROVED 16 OCT 1957 REVISED (A) 23 JUN 1960 (B) 23 APR 1965 (C) 25 APR 1969 (D) 21 JUL 1972 (E) 24 JUL 1975 (F) 20 SEPT 77

P. A. WC Other Cust 99 (F)	TITLE INSERT, SCREW THREAD- THREAD CUTTING	MILITARY STANDARD MS35914
PROCUREMENT SPECIFICATION MIL-I-45916	SUPERSEDES	SHEET 1 OF 3

TABLE I REGULAR WALL							FED SUP CLASS 5340		
DASH NO.*		INTERNAL THREAD (-3B)	EXTERNAL THREAD (SEE NOTE 4)	C LENGTH ±.010	D		E DIA +.002 -.008	F DIA ±.010	H ±.010
CARBON STEEL	COR RES STEEL				MAX	MIN			
125 201 202	141 251 252	.086-56UNC	9/64-48	.188 .156 .125	.050 .050 .040	.040 .040 .032	.123	.055 .055 .047	.109 .094 ----
126	142	.086-64UNF	9/64-48	.188	.050	.040	.123	.055	.109
101 203 204	143 253 254	.112-40UNC	11/64-40	.234 .187 .156	.054 .054 .049	.044 .044 .039	.148	.062 .062 .055	.125 .115 ----
102	144	.112-48UNF	11/64-40	.234	.054	.044	.148	.062	.125
103 205 206	145 255 256	.138-32UNC	7/32-32	.281 .218 .187	.068 .068 .056	.058 .058 .048	.191	.078 .078 .070	.156 .125 ----
104	146	.138-40UNF	7/32-32	.281	.068	.058	.191	.078	.156
105 207 208	147 257 258	.164-32UNC	1/4-32	.328 .250 .218	.068 .068 .056	.058 .058 .048	.222	.078 .078 .070	.188 .135 ----
106	148	.164-36UNF	1/4-32	.328	.068	.058	.222	.078	.188
107	149	.190-24UNC	19/64-24	.375	.092	.082	.259	.109	.219
108 211 212	150 261 262	.190-32UNF	19/64-24	.375 .296 .250	.092 .092 .069	.082 .082 .059	.259	.109 .109 .094	.219 .172 ----
109	151	.250-20UNC	3/8-20	.484	.109	.097	.332	.125	.281
110 215 216	152 265 266	.250-28UNF	3/8-20	.484 .375 .312	.109 .109 .099	.097 .097 .089	.332	.125 .125 .109	.281 .203 ----
111	153	.3125-18UNC	15/32-18	.562	.123	.110	.420	.141	.312
112 219 220	154 269 270	.3125-24UNF	15/32-18	.562 .469 .375	.123 .123 .113	.110 .110 .102	.420	.141 .141 .125	.312 .250 ----
113	155	.375-16UNC	9/16-16	.687	.137	.121	.510	.156	.375
114 223 224	156 273 274	.375-24UNF	9/16-16	.687 .562 .437	.137 .137 .126	.121 .121 .113	.510	.156 .156 .141	.375 .281 ----
115 116	157 158	.4375-14UNC .4375-20UNF	41/64-14	.781	.160	.140	.581	.188	----
117	159	.500-13UNC	47/64-13	.906	.185	.160	.668	.219	.500
118 227 228	160 277 278	.500-20UNF	47/64-13	.906 .750 .562	.185 .185 .165	.160 .160 .143	.668	.219 .219 .188	.500 .391 ----
119 120	161 162	.5625-18UNC .5625-18UNF	13/16-18	1.000	.198	.190	.742	.234	----
121	163	.625-11UNC	29/32-11	1.125	.213	.183	.827	.250	----
122 231 232	164 281 282	.625-18UNF	29/32-11	1.125 .937 .687	.213 .213 .192	.183 .183 .166	.827	.250 .250 .219	----
123	165	.750-10UNC	1-5/64-10	1.375	.240	.205	.993	.281	----
124 235 236	166 285 286	.750-16UNF	1-5/64-10	1.375 1.125 .812	.240 .240 .208	.205 .205 .178	.993	.281 .281 .234	----

* Lined out dash numbers are INACTIVE FOR NEW DESIGN AFTER 24 JUL 1975

INTERCHANGEABILITY

The slotted type inserts covered by dash numbers 1 thru 26 and 41 thru 66 given in previous revisions of this standard are cancelled after 23 April 1965 and superseded by dash numbers 101 thru 126 and 141 thru 166, respectively, given in the current revision of this standard.

P A WC Other Cust 99	TITLE INSERT, SCREW THREAD- THREAD CUTTING	MILITARY STANDARD MS35914
PROCUREMENT SPECIFICATION MIL-I-45916	SUPERSEDES	SHEET 2 OF 3

REVIEWER AR, AT, AV, EA, IS
USER. MI

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APPROVED 16 OCT 1957 REVISED (E) For changes see Sheet 1.

REVIEWER: AR, AT, AV, EA, IS
USER: MI

FED SUP CLASS
5340

TABLE II
THIN WALL

DASH NO. COR RES STEEL	INTERNAL THREAD (-3B)	EXTERNAL THREAD (SEE NOTE 4)	C LENGTH ±.010	D		E DIA +.002 -.005	F DIA ±.010
				MAX	MIN		
301 302 303	.112-40UNC	5/32-40	.234 .187 .156	.054 .054 .046	.044 .044 .038	.136	.062 .062 .055
304 305 306	1/38-32UNC	3/16-32	.281 .218 .187	.068 .068 .064	.058 .058 .054	.160	.078 .078 .070
307 308 309	.164-32UNC	7/32-32	.328 .250 .218	.068 .068 .064	.058 .058 .054	.191	.078 .078 .070
310 311 312	.190-32UNF	17/64-32	.375 .296 .250	.092 .092 .084	.082 .082 .074	.237	.109 .109 .094
313 314 315	.250-28UNF	11/32-28	.484 .375 .312	.109 .109 .099	.097 .097 .089	.310	.125 .125 .109
316 317 318	.3125-24UNF	13/32-24	.562 .469 .375	.123 .123 .113	.110 .110 .102	.368	.141 .141 .125
319 320 321	.375-24UNF	1/2-20	.687 .562 .437	.137 .137 .126	.121 .121 .113	.457	.156 .156 .141
322 323 324	.500-20UNF	5/8-18	.906 .750 .562	.185 .185 .165	.160 .160 .143	.576	.219 .219 .188

TABLE III
RECOMMENDED HOLE SIZES

INTERNAL THREAD	REGULAR WALL						THIN WALL	
	FOR HIGH STRENGTH LIGHT ALLOYS OF LESS THAN AVERAGE MACHINABILITY, CAST IRON, MALLEABLE IRON AND MILD STEEL		FOR MEDIUM STRENGTH LIGHT ALLOYS OF AVERAGE MACHINABILITY, CAST IRON AND HIGH STRENGTH THERMOSETTING PLASTICS		FOR LOW STRENGTH LIGHT ALLOYS OF EXCELLENT MACHINABILITY, THERMOPLASTICS AND THERMOSETTING PLASTICS		FOR ALL STRENGTH ALLOYS, CAST IRON, MALLEABLE IRON AND ALL PLASTICS	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
.086	.134	.131	.131	.129	.129	.127	----	----
.112	.162	.159	.159	.156	.156	.152	.146	.140
.138	.207	.203	.203	.198	.198	.194	.175	.169
.164	.238	.234	.234	.230	.230	.226	.206	.200
.190	.281	.275	.275	.270	.270	.264	.252	.246
.250	.356	.349	.349	.343	.343	.336	.330	.322
.3125	.447	.440	.440	.433	.433	.425	.390	.381
.375	.538	.530	.530	.521	.521	.514	.479	.469
.4375	.613	.605	.605	.594	.594	.585	----	----
.500	.704	.694	.694	.684	.684	.674	.605	.591
.5625	.780	.769	.769	.759	.759	.748	----	----
.625	.871	.859	.859	.847	.847	.835	----	----
.750	1.039	1.026	1.026	1.013	1.013	1.000	----	----

NOTE Hole preparation for locking inserts - Countersink to outside diameter of insert with 60° included angle.

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APPROVED 16 OCT 1957 REVISED (E) For changes see Sheet 1.

P A. WC Other Case 99	TITLE INSERT, SCREW THREAD- THREAD CUTTING	MILITARY STANDARD MS35914
PROCUREMENT SPECIFICATION MIL-I-45916	SUPERSEDES.	SHEET 3 OF 3