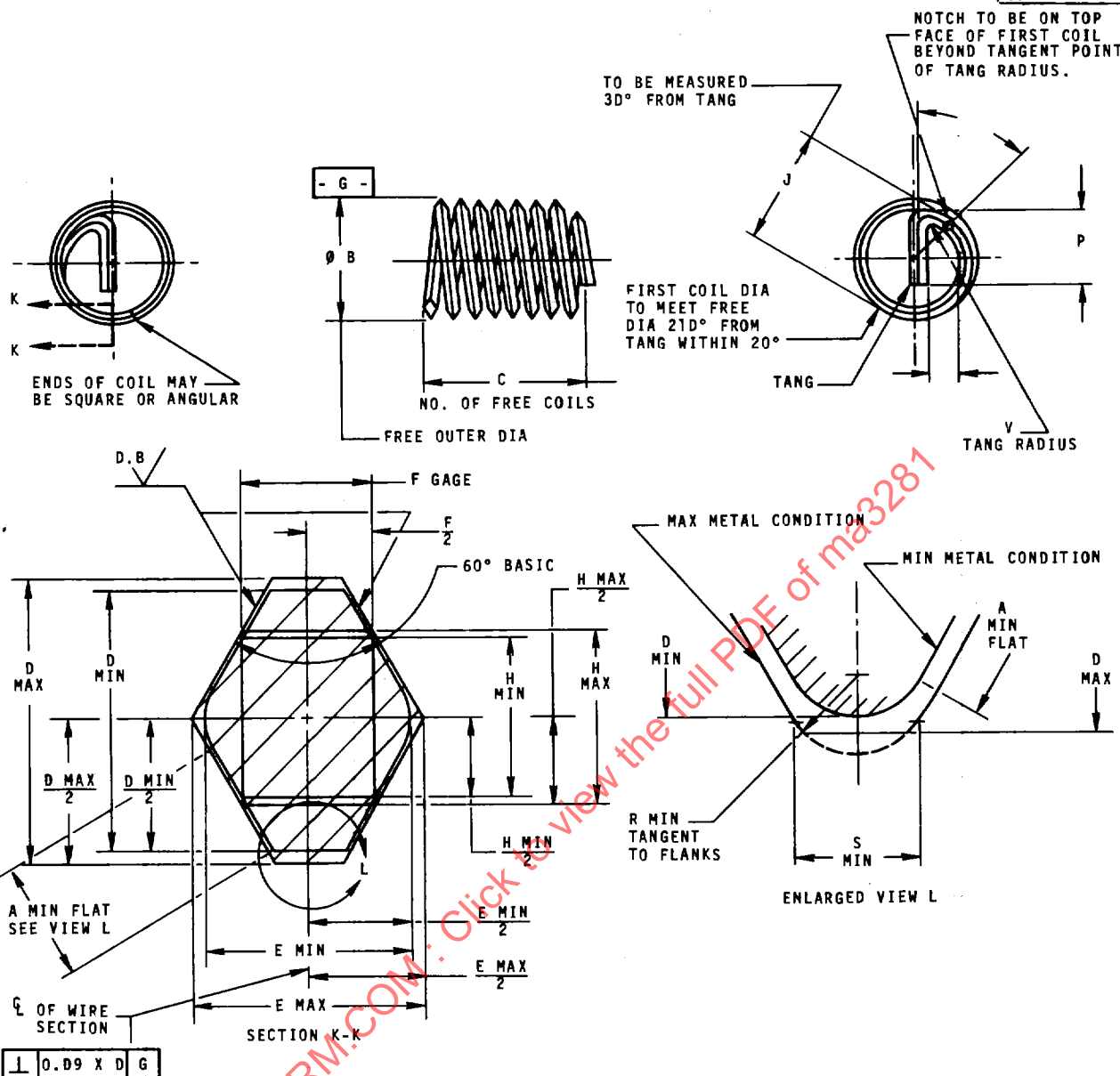


Technical Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user." SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

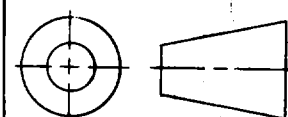
MA3279
MA3280
MA3281

FED SUP CLASS
5340



1. NOMINAL LENG.H IS REFERENCE AND EQUALS MINIMUM LENGTH OF FULL THREAD INTO WHICH MAXIMUM INSERT CAN BE ASSEMBLED. SEE TABLE.
2. ASSEMBLED LENGTH OF INSERT TO BE AS SPECIFIED ON AEROSPACE STANDARD MA 1567.
3. ASSEMBLED LENGTH OF INSERT TO BE MEASURED FROM NOTCH.
4. NUMBER OF FREE COILS TO BE COUNTED FROM NOTCH.
5. MATERIAL CRES, SEE PROCUREMENT SPECIFICATION.
6. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36-1978; REQUIREMENTS PER ANSI B46.1-1978.
7. WHEN DRY FILM LUBRICANT IS SPECIFIED IT SHALL BE IN ACCORDANCE WITH MIL-L-8937.
8. WHEN CADMIUM PLATING IS SPECIFIED IT SHALL BE IN ACCORDANCE WITH QQ-P-416, TYPE II, EXCEPT THICKNESS SHALL BE A MAXIMUM OF 0.003 mm.
9. DIMENSIONING AND TOLERANCING: ANSI Y14.5-1973. DIMENSIONS APPLY BEFORE COATING.
10. LINEAR DIMENSIONS IN MILLIMETRES (mm).
11. INSERT CAN BE USED WITH M OR MJ EXTERNAL THREADS.
12. PROCUREMENT SPECIFICATION: MA1565.
13. DO NOT USE UNASSIGNED AEROSPACE STANDARD PART NUMBERS.

THIRD ANGLE PROJECTION



PREPARED BY SAE COMMITTEE E-25, GENERAL STANDARDS FOR AEROSPACE PROPULSION SYSTEMS

SHEET 1 OF 5 METRIC

SAE The Engineering
Resource For
Advancing Mobility®
400 COMMONWEALTH DRIVE WARRENDALE, PA 15096

AEROSPACE STANDARD

INSERT, SCREW THREAD, HELICAL COIL, METRIC SERIES
FREE RUNNING, CRES

MA3279

MA3280

MA3281

Copyright 1985 Society of Automotive Engineers, Inc.
All rights reserved.

Printed in U.S.A.

REAFFIRMED

11/9/95

Revised 3-1-85
Issued 9-1-81

Issued 9-1-81 Revised (A) 3-1-85

MA3279
MA3280
MA3281

FED SUP. CLASS
5340

THREAD SIZE		AEROSPACE STANDARD PART NUMBER FOR CADMIUM PLATED INSERT										NOMINAL LENGTH See Note 1					A		B	
		1 DIA		1.5 DIA		2.0 DIA		2.5 DIA		3 DIA		1 DIA	1.5 DIA	2 DIA	2.5 DIA	3 DIA	MIN	MAX	MIN	MAX
		DIA	PITCH	DIA	PITCH	DIA	PITCH	DIA	PITCH	DIA	PITCH	DIA	PITCH	DIA	PITCH	DIA				
2-2	0.45	MA3281-100		MA3281-150		MA3281-200		MA3281-250		MA3281-300		2.2	3.3	4.4	5.5	6.6	0.082	2.80	3.00	
2-5	0.45	MA3281-101		MA3281-151		MA3281-201		MA3281-251		MA3281-301		2.5	3.8	5.0	6.3	7.5	0.082	3.20	3.70	
3	0.5	MA3281-102		MA3281-152		MA3281-202		MA3281-252		MA3281-302		3.0	4.5	6.0	7.5	9.0	0.105	3.80	4.35	
3-5	0.6	MA3281-103		MA3281-153		MA3281-203		MA3281-253		MA3281-303		3.5	5.3	7.0	8.8	10.5	0.160	4.40	4.95	
4	0.7	MA3281-104		MA3281-154		MA3281-204		MA3281-254		MA3281-304		4.0	6.0	8.0	10.0	12.0	0.163	5.05	5.60	
5	0.8	MA3281-105		MA3281-155		MA3281-205		MA3281-255		MA3281-305		5.0	7.5	10.0	12.5	15.0	0.209	6.25	6.80	
6	1	MA3281-106		MA3281-156		MA3281-206		MA3281-256		MA3281-306		6.0	9.0	12.0	15.0	18.0	0.267	7.40	7.95	
7	1	MA3281-107		MA3281-157		MA3281-207		MA3281-257		MA3281-307		7.0	10.5	14.0	17.5	21.0	0.267	8.65	9.20	
8	1	MA3281-108		MA3281-158		MA3281-208		MA3281-258		MA3281-308		8.0	12.0	16.0	20.0	24.0	0.267	9.70	10.25	
8	1.25	MA3281-109		MA3281-159		MA3281-209		MA3281-259		MA3281-309		8.0	12.0	16.0	20.0	24.0	0.415	9.80	10.35	
10	1.25	MA3281-110		MA3281-160		MA3281-210		MA3281-260		MA3281-310		10.0	15.0	20.0	25.0	30.0	0.415	12.10	12.65	
10	1.5	MA3281-111		MA3281-161		MA3281-211		MA3281-261		MA3281-311		10.0	15.0	20.0	25.0	30.0	0.511	11.95	12.50	
12	1.25	MA3281-112		MA3281-162		MA3281-212		MA3281-262		MA3281-312		12.0	18.0	24.0	30.0	36.0	0.415	14.30	15.00	
12	1.5	MA3281-113		MA3281-163		MA3281-213		MA3281-263		MA3281-313		12.0	18.0	24.0	30.0	36.0	0.511	14.25	14.95	
12	1.75	MA3281-114		MA3281-164		MA3281-214		MA3281-264		MA3281-314		12.0	18.0	24.0	30.0	36.0	0.654	14.30	15.00	
14	1.5	MA3281-115		MA3281-165		MA3281-215		MA3281-265		MA3281-315		14.0	21.0	28.0	35.0	42.0	0.511	16.55	17.25	
14	2	MA3281-116		MA3281-166		MA3281-216		MA3281-266		MA3281-316		14.0	21.0	28.0	35.0	42.0	0.799	16.65	17.35	
16	1.5	MA3281-117		MA3281-167		MA3281-217		MA3281-267		MA3281-317		16.0	24.0	32.0	40.0	48.0	0.511	18.90	19.60	
16	2	MA3281-118		MA3281-168		MA3281-218		MA3281-268		MA3281-318		16.0	24.0	32.0	40.0	48.0	0.799	18.90	19.60	
18	1.5	MA3281-119		MA3281-169		MA3281-219		MA3281-269		MA3281-319		18.0	27.0	36.0	45.0	54.0	0.511	21.05	21.75	
18	2	MA3281-120		MA3281-170		MA3281-220		MA3281-270		MA3281-320		18.0	27.0	36.0	45.0	54.0	0.799	21.15	21.85	
18	2.5	MA3281-121		MA3281-171		MA3281-221		MA3281-271		MA3281-321		18.0	27.0	36.0	45.0	54.0	1.017	21.30	22.00	
20	1.5	MA3281-122		MA3281-172		MA3281-222		MA3281-272		MA3281-322		20.0	30.0	40.0	50.0	60.0	0.511	23.15	24.00	
20	2	MA3281-123		MA3281-173		MA3281-223		MA3281-273		MA3281-323		20.0	30.0	40.0	50.0	60.0	0.799	23.20	24.05	
20	2.5	MA3281-124		MA3281-174		MA3281-224		MA3281-274		MA3281-324		20.0	30.0	40.0	50.0	60.0	1.017	23.55	24.40	
22	1.5	MA3281-125		MA3281-175		MA3281-225		MA3281-275		MA3281-325		22.0	33.0	44.0	55.0	66.0	0.511	25.55	26.45	
22	2	MA3281-126		MA3281-176		MA3281-226		MA3281-276		MA3281-326		22.0	33.0	44.0	55.0	66.0	0.799	25.60	26.50	
22	2.5	MA3281-127		MA3281-177		MA3281-227		MA3281-277		MA3281-327		22.0	33.0	44.0	55.0	66.0	1.017	25.90	26.90	
24	2	MA3281-128		MA3281-178		MA3281-228		MA3281-278		MA3281-328		24.0	36.0	48.0	60.0	72.0	0.799	28.10	29.10	
24	3	MA3281-129		MA3281-179		MA3281-229		MA3281-279		MA3281-329		24.0	36.0	48.0	60.0	72.0	1.234	28.00	29.00	
27	2	MA3281-130		MA3281-180		MA3281-230		MA3281-280		MA3281-330		27.0	40.5	54.0	67.5	81.0	0.799	31.30	32.30	
27	3	MA3281-131		MA3281-181		MA3281-231		MA3281-281		MA3281-331		27.0	40.5	54.0	67.5	81.0	1.234	31.40	32.40	
30	2	MA3281-132		MA3281-182		MA3281-232		MA3281-282		MA3281-332		30.0	45.0	60.0	75.0	90.0	0.799	34.50	35.70	
30	3	MA3281-133		MA3281-183		MA3281-233		MA3281-283		MA3281-333		30.0	45.0	60.0	75.0	90.0	1.234	34.90	36.10	
33	2	MA3281-134		MA3281-184		MA3281-234		MA3281-284		MA3281-334		33.0	49.5	66.0	82.5	99.0	0.799	37.80	39.20	
33	3	MA3281-135		MA3281-185		MA3281-235		MA3281-285		MA3281-335		33.0	49.5	66.0	82.5	99.0	1.234	38.10	39.50	
36	2	MA3281-136		MA3281-186		MA3281-236		MA3281-286		MA3281-336		36.0	54.0	72.0	90.0	108.0	0.799	41.00	42.40	
36	3	MA3281-137		MA3281-187		MA3281-237		MA3281-287		MA3281-337		36.0	54.0	72.0	90.0	108.0	1.234	41.30	42.70	
39	2	MA3281-138		MA3281-188		MA3281-238		MA3281-288		MA3281-338		39.0	58.5	78.0	97.5	117.0	0.799	44.30	45.70	
39	3	MA3281-139		MA3281-189		MA3281-239		MA3281-289		MA3281-339		39.0	58.5	78.0	97.5	117.0	1.234	44.40	45.80	

FED. 5340

Issued 9-1-81 Revised 3-1-85

MA3279
MA3280
MA3281

C ± .25 COIL										FED SUP. CLASS 534D				
THREAD SIZE		D		E		F		H		J		P		
DIA	PITCH	1 DIA	1.5 DIA	2 DIA	2.5 DIA	3 DIA	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
2.2	0.45	3.125	5.375	7.625	9.875	12.125	0.437	0.487	0.318	0.394	0.2820	0.2920	2.60	2.80
2.5	0.45	3.375	5.750	8.125	10.500	12.750	0.437	0.487	0.318	0.394	0.2820	0.2920	3.05	3.25
3	0.5	3.750	6.375	8.875	11.375	13.875	0.482	0.541	0.362	0.438	0.3145	0.3250	3.60	3.80
3.5	0.6	3.750	6.375	8.875	11.375	13.875	0.586	0.650	0.449	0.525	0.3795	0.3900	4.25	4.45
4	0.7	3.625	6.125	8.625	11.125	13.625	0.583	0.758	0.510	0.612	0.4445	0.4550	4.90	5.10
5	0.8	4.125	6.875	9.625	12.375	15.125	0.775	0.866	0.598	0.700	0.5085	0.5200	6.10	6.30
6	1	4.000	6.750	9.500	12.250	14.875	0.975	1.083	0.748	0.875	0.6370	0.6500	7.25	7.45
7	1	4.875	8.000	11.125	14.125	17.250	0.975	1.083	0.748	0.875	0.6370	0.6500	8.40	8.60
8	1	5.875	9.375	13.000	16.500	20.125	0.975	1.083	0.748	0.875	0.6370	0.6500	9.20	9.40
8	1.25	4.500	7.375	10.250	13.250	16.125	1.251	1.353	0.967	1.094	0.7990	0.8120	9.50	9.70
10	1.25	5.875	8.500	13.125	16.750	20.375	1.251	1.353	0.967	1.094	0.7990	0.8120	11.50	11.70
10	1.5	4.875	8.000	11.125	14.250	17.375	1.522	1.624	1.160	1.312	0.9615	0.9740	11.80	12.00
12	1.25	7.250	11.625	15.875	20.250	24.500	1.251	1.353	0.967	1.094	0.7990	0.8120	13.50	13.70
12	1.5	6.000	9.625	13.375	17.000	20.750	1.522	1.624	1.160	1.312	0.9615	0.9740	13.80	14.00
12	1.75	5.000	8.250	11.500	14.625	17.875	1.792	1.894	1.379	1.531	1.1240	1.1370	14.10	14.30
14	1.5	7.125	11.375	15.625	20.000	24.250	1.522	1.624	1.160	1.312	0.9615	0.9740	15.80	16.00
14	2	5.125	8.500	11.750	15.000	18.375	2.063	2.165	1.598	1.750	1.2865	1.2990	16.40	16.60
16	1.5	8.250	13.125	18.000	22.750	27.625	1.522	1.624	1.160	1.312	0.9615	0.9740	17.80	18.00
16	2	6.125	9.750	13.500	17.250	21.000	2.063	2.165	1.598	1.750	1.2865	1.2990	18.40	18.60
18	1.5	9.500	15.000	20.375	25.875	31.375	1.522	1.624	1.160	1.312	0.9615	0.9740	19.80	20.00
18	2	7.000	11.125	15.375	19.500	23.625	2.063	2.165	1.598	1.750	1.2865	1.2990	20.40	20.60
18	2.5	5.375	8.875	12.250	15.625	19.000	2.604	2.706	1.998	2.188	1.6110	1.6240	20.90	21.10
20	1.5	10.750	16.875	22.875	28.875	35.000	1.522	1.624	1.160	1.312	0.9615	0.9740	21.80	22.00
20	2	7.875	12.500	17.250	21.875	26.500	2.063	2.165	1.598	1.750	1.2865	1.2990	22.40	22.60
20	2.5	6.125	9.875	13.625	17.375	21.125	2.604	2.706	1.998	2.188	1.6110	1.6240	22.90	23.10
22	1.5	11.875	18.500	25.125	31.625	38.250	1.522	1.624	1.160	1.312	0.9615	0.9740	24.10	24.30
22	2	8.750	13.750	18.875	23.875	29.000	2.063	2.165	1.598	1.750	1.2865	1.2990	24.40	24.60
22	2.5	6.750	10.875	14.875	19.000	23.125	2.604	2.706	1.998	2.188	1.6110	1.6240	24.90	25.10
24	3	9.500	15.000	20.375	25.875	31.250	2.063	2.165	1.598	1.750	1.2865	1.2990	26.40	26.60
24	3	6.125	10.000	13.750	17.500	21.375	3.146	3.248	2.396	2.625	1.9360	1.9485	27.50	27.70
27	2	10.875	17.000	23.250	29.375	35.500	2.063	2.165	1.598	1.750	1.2865	1.2990	29.40	29.60
27	3	7.000	11.250	15.500	19.750	24.000	3.146	3.248	2.396	2.625	1.9360	1.9485	30.50	30.70
30	3	12.250	19.125	25.875	32.750	39.500	2.063	2.165	1.598	1.750	1.2865	1.2990	32.50	32.70
30	3	7.875	12.500	17.125	21.875	26.500	3.146	3.248	2.396	2.625	1.9360	1.9485	33.50	33.70
33	2	13.625	21.125	28.625	36.000	43.500	2.063	2.165	1.598	1.750	1.2865	1.2990	35.80	36.00
33	3	8.750	13.875	19.000	24.125	29.250	3.146	3.248	2.396	2.625	1.9360	1.9485	36.50	36.70
36	2	15.000	23.250	31.375	39.500	47.750	2.063	2.165	1.598	1.750	1.2865	1.2990	39.00	39.20
36	3	9.750	15.250	20.875	26.500	32.000	3.146	3.248	2.396	2.625	1.9360	1.9485	39.50	39.70
39	2	16.375	25.250	34.125	43.000	51.875	2.063	2.165	1.598	1.750	1.2865	1.2990	42.30	42.50
39	3	10.750	16.750	22.750	28.875	34.875	3.146	3.248	2.396	2.625	1.9360	1.9485	43.00	43.20

AEROSPACE STANDARD

INSERT, SCREW THREAD, HELICAL COIL, METRIC SERIES
FREE RUNNING, CRES

SHEET 4 OF 5 METRIC

MA3279

MA3280

MA3281

Issued 9-1-81 Revised 6-3-1-85