

SEE NOTE 9
FOR MARKING CALLOUT.
LOCATION OPTIONAL
AS SHOWN
MULTIPLE STAMPING
PERMISSIBLE

COUNTERSINK,
COUNTERBORE
OR RADIUS RELIEVE
THREADS WITHIN THE
LIMITS OF ØP

TYPE	DASH NUMBER	THREADS SEE NOTE A	ØB MIN	C MIN	H MAX	ØP MAX	S MIN	W		PROOF LOAD - kN			WEIGHT APPROX g/100 SEE NOTE B
								MAX	MIN	STEEL CLASS 8	STEEL CLASS 10	STAINLESS STEEL	
MFA	M3050	M3.0 X 0.50	5.32	6.08	4.5	3.8	1.44	5.5	5.38	4.0	5.0	4.0	51.7
MFC	M3035	M3.0 X 0.35											
MFA	M407	M4 X 0.70	6.80	7.74	6.0	4.8	2.52	7.0	6.85	7.0	8.8	7.0	104
MFC	M405	M4 X 0.50											
MFA	M508	M5 X 0.80	7.80	8.87	7.5	6.0	3.15	8.0	7.85	11.4	14.2	11.4	166
MFC	M505	M5 X 0.50											
MFA	M610	M6 X 1.00	9.79	11.05	7.8	7.0	3.27	10.0	9.78	16.0	20.0	16.0	261
MFC	M6075	M6 X 0.75											
MFA	M8125	M8 X 1.25	12.77	14.38	10.4	9.0	4.37	13.0	12.73	29.0	36.5	29.0	602
MFC	M810	M8 X 1.00								31.0	39.0	31.0	
MFA	M1015	M10 X 1.50	16.76	18.90	13.0	11.0	5.46	17.0	16.73	46.0	58.0	46.0	981
MFC	M1012	M10 X 1.25								49.0	61.0	49.0	
MFA	M1217	M12 X 1.75	18.75	21.10	15.6	13.0	6.55	19.0	18.67	67.0	84.0	67.0	1680
MFC	M1212	M12 X 1.25								74.0	92.0	74.0	
MFA	M1420	M14 X 2.0	21.74	24.49	18.2	15.0	9.82	22.0	21.67	92.0	115	92.0	2700
MFC	M1415	M14 X 1.5								100	125	100	
MFA	M1620	M16 X 2.0	23.73	26.75	20.8	17.0	11.23	24.0	23.67	126	157	126	4130
MFC	M1615	M16 X 1.5								134	167	134	
MFA	M1825	M18 X 2.5	26.76	30.14	23.4	19.0	12.64	27.0	26.67	154	192	154	5690
MFC	M1815	M18 X 1.5								172	216	172	
MFA	M2025	M20 X 2.5	29.72	33.53	26.0	21.0	14.04	30.0	29.67	196	245	196	7970
MFC	M2015	M20 X 1.5								218	272	218	
MFA	M2225	M22 X 2.5	31.71	35.72	28.6	23.0	15.44	32.0	31.61	242	303	242	9830
MFC	M2215	M22 X 1.5								266	333	266	
MFA	M2430	M24 X 3.0	35.71	39.98	31.2	25.0	16.84	36.0	35.38	282	353	282	13800
MFC	M2420	M24 X 2.0								307	384	307	
MFA	M2730	M27 X 3.0	40.70	45.63	32.4	28.0	17.50	41.0	40.38	367	459	367	18600
MFC	M2720	M27 X 2.0								397	496	397	
MFA	M3035	M30 X 3.5	45.69	51.28	36.0	31.0	19.44	46.0	45.38	448	561	448	25600
MFC	M3020	M30 X 2.0								497	621	497	
MFA	M3335	M33 X 3.5	49.68	55.80	39.6	34.0	21.38	50.0	49.38	555	694	555	33400
MFC	M3320	M33 X 2.0								608	761	608	
MFA	M3640	M36 X 4.0	54.67	61.31	43.2	37.0	23.33	55.0	54.26	653	817	653	43300
MFC	M3630	M36 X 3.0								692	865	692	
MFA	M3940	M39 X 4.0	59.67	66.96	46.8	40.0	25.27	60.0	59.26	780	976	780	57100
MFC	M3930	M39 X 3.0								825	1030	825	

A) THREADS BEFORE LUBRICATION PER ISO R 965/II, CLASS 6H.

B) WEIGHTS APPLY TO STEEL NUTS ONLY.

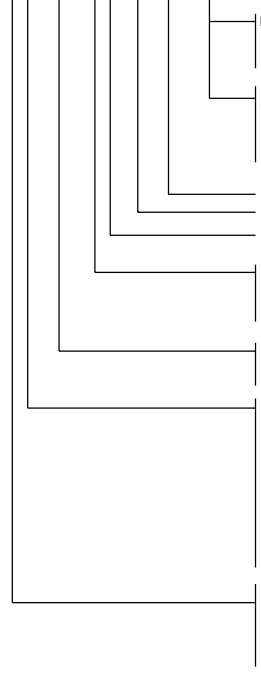
TOLERANCES ±.010 AND ±2°	FSCM NO. 56878
SURFACE ROUGHNESS 125	CUSTODIAN: JENKINTOWN, PA.
UNLESS OTHERWISE NOTED	
DRAFTED IN ACCORDANCE WITH ASME Y14.5M	
DRAWN BY: STEVE FOSTER	DATE: 1/31/94
APPROVED:	DATE:
APPROVED:	

TITLE
NUT, FLEXLOC, HEXAGON, SELF-LOCKING, ISO METRIC

STANDARDS AND SPECIFICATIONS ISO 2320 EXCEPT AS NOTED
PART NUMBER: MFA, MFC
SHEET 1 OF 2

1. MATERIAL: CARBON OR ALLOY STEEL
STAINLESS STEEL, AUSTENITIC
316 STAINLESS STEEL, AUSTENITIC
2. HARDNESS: CARBON OR ALLOY STEEL - CLASS 8, 30 HRC MAX. CLASS 10, 26-36 HRC.
3. FINISH: CADMIUM PLATE PER AMS-00-P-416, TYPE I, CLASS 2 (CARBON OR ALLOY STEEL ONLY).
CADMIUM PLATE PER AMS-00-P-416, TYPE II, CLASS 2 (CARBON OR ALLOY STEEL ONLY).
SILVER PLATE PER AMS 2410 (STAINLESS STEEL ONLY).
ZINC PLATE PER ASTM B633, TYPE DEFINED BY FINISH CODE MODIFIER, Fe/Zn5 (CARBON OR ALLOY STEEL ONLY).
DULL NICKEL PER AMS 2403 (CARBON OR ALLOY STEEL ONLY).
PLAIN, CARBON OR ALLOY STEEL PARTS ARE SUPPLIED WITH A RUST PREVENTATIVE OIL, AND
STAINLESS STEEL PARTS WILL BE PASSIVATED.
4. LUBRICANT: UNLESS OTHERWISE SPECIFIED, PARTS SHALL BE SUPPLIED WITH A NON-DRY LUBRICANT (WAX TYPE)
MOLYBDENUM DISULFIDE DRY FILM LUBRICANT WHEN SPECIFIED.
5. LOCKING TORQUE PER ISO 2320 EXCEPT REUSABILITY NOT REQUIRED ON UNPLATED STAINLESS STEEL NUTS, AND
LIMITED TO FIVE REUSE CYCLES ON UNPLATED DRY FILM LUBRICATED STAINLESS STEEL NUTS. UNLESS OTHERWISE
SPECIFIED BY PURCHASER, ALL NUTS TO BE TESTED ON ZINC-PHOSPHATED BOLTS OR STUDS.
6. DIMENSIONS SHALL BE MET PRIOR TO LUBRICATION ON DRY FILM LUBRICATED NUTS.
7. DIMENSIONS ARE IN MILLIMETERS.
8. BREAK SHARP EDGES.
9. MARKING: CLASS 8: MARK WITH "S" OR "SPS".
CLASS 10: MARK WITH "S" OR "SPS" FOLLOWED BY "10".
STAINLESS: MARK WITH "S" OR "SPS" FOLLOWED BY "C".
LOCATION OPTIONAL AS SHOWN
MARKING ON M5 AND SMALLER MAY BE OMITTED
10. PART NUMBERING SYSTEM:

37MFA8M1825-3:



CADMIUM FINISH CODE MODIFIER (TO BE USED WITH FINISH CODE "7" ONLY)
NO FINISH CODE MODIFIER = TYPE II (IRIDESCENT DICHROMATE)
3 = TYPE II (OLIVE DRAB)

ZINC FINISH CODE MODIFIER: (TO BE USED WITH FINISH CODE "3" ONLY)
NO FINISH CODE MODIFIER = TYPE II (YELLOW)
5 = TYPE I (CLEAR, DULL)
6 = TYPE III (CLEAR, BRIGHT)

THREAD PITCH
THREAD DIAMETER
METRIC THREAD

CLASS: 8 = CLASS 8
10 = CLASS 10
- = STAINLESS

BASIC PART: MFA = COARSE THREAD
MFC = FINE THREAD

FINISH CODE: 0 = PLAIN
1 = CADMIUM TYPE I
3 = ZINC
4 = DULL NICKEL
7 = CADMIUM TYPE II
8 = CADMIUM PLATED TYPE I WITH DRY FILM LUBRICANT ON NON-
STAINLESS STEEL NUTS AND PASSIVATE PLUS DRY FILM
LUBRICANT ON STAINLESS STEEL NUTS
9 = SILVER

MATERIAL CODE: 2 = CARBON OR ALLOY STEEL SIZES 3 THRU 16
3 = CARBON OR ALLOY STEEL SIZES 18 AND LARGER
5 = STAINLESS STEEL, AUSTENITIC
8 = 316 STAINLESS STEEL, AUSTENITIC

EXAMPLE: 21MFA8M1620 = 16MM DIAMETER X 2.0MM PITCH, SELF-LOCKING METRIC NUT, STEEL, TYPE I CADMIUM PLATE CLASS 8.
59MFC-M1212 = 12MM DIAMETER X 1.25MM PITCH, SELF-LOCKING METRIC NUT, STAINLESS STEEL, SILVER PLATE
PART NUMBERS OTHER THAN LISTED ON THIS DRAWING SHALL NOT BE USED.

11. USAGE LIMITATIONS: THESE NUTS ARE DESIGNED TO BE USED ON EXTERNAL THREADS WITHIN THE LIMITATIONS OF MS33588.

TOLERANCES ±.010 AND ±2*
SURFACE ROUGHNESS 125
UNLESS OTHERWISE NOTED

DRAFTED
IN ACCORDANCE
WITH ASME Y14.5M