



TABLE I

PART NUMBER	ØA		ØD		ØE MAX		F WRENCH FLATS		(G)		H		R RAD		(T HEX ACROSS FLATS)		Z MAX			
	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm		
MBF3003-5-()	.354 .334	8.99 8.48	.1645 .1625	4.178 4.128	.1640	4.166	.085 .080	2.16 2.03	.058	1.47	.060 .053	1.524 1.346	.625	15.875	.030 .015	0.76 0.38	.375	9.52	.030	0.762
MBF3003-6-()	.416 .396	10.57 10.06	.1985 .1965	5.042 4.991	.1985	5.042	.113 .108	2.87 2.74	.058	1.47	.070 .063	1.778 1.600	.675	17.145	.030 .015	0.76 0.38	.375	9.52	.030	0.762
MBF3003-7-()	.416 .396	10.57 10.06	.2275 .2255	5.778 5.728	.2275	5.778	.121 .116	3.07 2.95	.058	1.47	.070 .063	1.778 1.600	.862	21.894	.030 .015	0.76 0.38	.375	9.52	.030	0.762
MBF3003-8-()	.541 .521	13.74 13.23	.2595 .2575	6.591 6.541	.2595	6.591	.135 .130	3.43 3.30	.058	1.47	.085 .078	2.159 1.981	.900	22.860	.030 .015	0.76 0.38	.375	9.52	.040	1.016
MBF3003-9-()	.541 .521	13.74 13.23	.2895 .2875	7.353 7.303	.2895	7.353	.152 .147	3.86 3.73	.068	1.73	.085 .078	2.159 1.981	.930	23.622	.030 .015	0.76 0.38	.500	12.70	.040	1.016
MBF3003-10-()	.635 .615	16.13 15.62	.3115 .3095	7.912 7.861	.3110	7.899	.152 .147	3.86 3.73	.073	1.85	.105 .098	2.667 2.489	.912	23.164	.040 .025	1.02 0.64	.500	12.70	.045	1.143
MBF3003-11-()	.635 .615	16.13 15.62	.3435 .3415	8.725 8.674	.3433	8.720	.185 .180	4.70 4.57	.078	1.98	.105 .098	2.667 2.489	1.000	25.400	.040 .025	1.02 0.64	.500	12.70	.045	1.143
MBF3003-12-()	.760 .740	19.30 18.80	.3745 .3725	9.512 9.462	.3740	9.500	.185 .180	4.70 4.57	.083	2.11	.125 .118	3.175 2.997	1.100	27.940	.040 .025	1.02 0.64	.500	12.70	.045	1.143

TABLE I (CONTINUED)

PART NUMBER	MIN. AVAILABLE GRIP LENGTH	INSTALLED DIMENSIONS								MECHANICAL PROPERTIES						P MAX	
		RECOM. HOLE SIZE		Ø J MIN		K MAX		BREAK-OFF LIMITS		TENSILE STRUCTURAL FAILURE MIN		DOUBLE SHEAR MIN		LOCKING TORQUE MIN			
		INCH	mm	INCH	mm	INCH	mm	INCH	mm	LBS	N	LBS	N	IN-LBS	N-m		
MBF3003-5-()	-100	.168 .165	4.27 4.19	.250	6.35	.370	9.40	+1.03 -0.00	+2.62 -0.00	900	4000	3150	14010	1.0	0.113	.800	20.32
MBF3003-6-()	-100	.202 .199	5.13 5.05	.300	7.62	.420	10.67	+1.03 -0.00	+2.62 -0.00	1400	6230	4600	20460	1.5	0.170	.850	21.59
MBF3003-7-()	-100	.231 .228	5.88 5.79	.350	8.89	.490	12.45	+1.03 -0.00	+2.62 -0.00	1600	7120	6050	26910	2.0	0.226	1.000	25.40
MBF3003-8-()	-100	.263 .260	6.68 6.60	.400	10.16	.510	12.95	+1.03 -0.00	+2.62 -0.00	2100	9340	7900	35140	2.5	0.282	1.100	27.94
MBF3003-9-()	-100	.293 .290	7.44 7.37	.450	11.43	.535	13.59	+1.03 -0.00	+2.62 -0.00	2600	11565	9800	43590	3.0	0.339	1.250	31.75
MBF3003-10-()	-150	.315 .312	8.00 7.92	.475	12.06	.540	13.72	+1.03 -0.00	+2.62 -0.00	3600	16010	11350	50480	3.5	0.400	1.050	26.67
MBF3003-11-()	-150	.347 .344	8.81 8.74	.525	13.33	.670	17.02	+1.03 -0.00	+2.62 -0.00	4400	19570	13850	61600	4.0	0.452	1.150	29.21
MBF3003-12-()	-150	.378 .375	9.60 9.52	.565	14.35	.675	17.15	+1.03 -0.00	+2.62 -0.00	5000	22240	16450	73170	4.0	0.452	1.250	31.75

APPLICABLE SPECIFICATIONS:
 PROCUREMENT SPECIFICATION: MBF2008
 INSTALLATION AND INSPECTION SPECIFICATION: MBF2009
 SPECIAL LUBE AND FINISH: MBF2002

MATERIAL AND HEAT TREAT:

NUT: 6Al-4V TITANIUM ALLOY PER AMS-T-9047 STA OR AMS4928 OR AMS4967 HEAT TREATED PER AMS-H-81200 TO 95 KSI SHEAR STRENGTH MINIMUM. MAXIMUM HYDROGEN CONTENT 125 PPM.
 SCREW: A286 CRES PER AMS5731, AMS5732 OR AMS5737 HEAT TREATED TO 175 KSI TENSILE MINIMUM PER AMS-H-6875.
 SLEEVE: 304 STAINLESS STEEL PER AMS5639, FULLY ANNEALED.
 INSERT: ACETAL PER ASTM-D6778
 DRIVE NUT: MILD STEEL

FINISH:

(-) NUT: PHOSPHATE FLOURIDE PER MONOGRAM SPECIFICATION PS741.
 SLEEVE AND SCREW: PASSIVATE PER AMS2700, CONVERSION COATING OPTIONAL.
 INSERT: NONE
 DRIVE NUT: COLOR BROWN

LUBRICANT:

DRY FILM LUBE PER THE CHEMICAL REQUIREMENTS OF AS5272 TYPE I, PARAFFIN WAX, OR CETYL ALCOHOL PER AS87132 (AS REQUIRED FOR PERFORMANCE).

GENERAL NOTES:

1. EXAMPLE OF PART NUMBER:

MBF3003 () - 06 - 100



2. LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120 ° APART ON THE PERIPHERY OF THE NUT COMPONENT AND APPROXIMATELY .040" ABOVE INTERSECTION OF THE NUT NOSE ANGLE AND O.D.

3. SEE MBF2009 FOR INSTALLATION AND REMOVAL INFORMATION.

4. THESE PARTS ARE SIMILAR TO MBF2110 EXCEPT AS FOLLOWS:
 A. IMPROVED OUT-OF-GRIP FLAGGING CAPABILITY (SCREW B/O)
 B. INCREASED BLIND SIDE PROTRUSION BEFORE AND AFTER UPSET
 C. INCREASED INSTALLED WEIGHT

5. DISTORTION SHALL NOT PREVENT INSERTION OF THE FASTENER INTO A RING GAUGE OF LENGTH EQUAL TO ONE DIAMETER AND HOLE DIAMETER EQUAL TO A MINIMUM RECOMMENDED HOLE. FORCE FOR INSERTION SHALL NOT EXCEED 5.0 POUNDS.

6. HEAD MARKINGS: MANUFACTURER'S IDENTIFICATION: MONOGRAM = "M"
 FASTENER IDENTIFICATION = "3003"
 POSITION OPTIONAL

2ND DASH NO. (GRIP)	TABLE II GRIP RANGE			
	MIN GRIP		MAX GRIP	
	INCH	mm	INCH	mm
100	.050	1.27	.100	2.54
150	.100	2.54	.150	3.81
200	.150	3.81	.200	5.08
250	.200	5.08	.250	6.35
300	.250	6.35	.300	7.62
350	.300	7.62	.350	8.89
400	.350	8.89	.400	10.16
450	.400	10.16	.450	11.43
500	.450	11.43	.500	12.70
550	.500	12.70	.550	13.97
600	.550	13.97	.600	15.24
650	.600	15.24	.650	16.51
700	.650	16.51	.700	17.78
750	.700	17.78	.750	19.05
800	.750	19.05	.800	20.32
850	.800	20.32	.850	21.59
900	.850	21.59	.900	22.86
950	.900	22.86	.950	24.13
1000	.950	24.13	1.000	25.40
1050	1.000	25.40	1.050	26.67
1100	1.050	26.67	1.100	27.94
1150	1.100	27.94	1.150	29.21