



**TABLE I**

PART NUMBER	( $\phi$ A)		$\phi$ A' MIN		$\phi$ D		$\phi$ E MAX		F WRENCH FLATS		(G)		(H)		(L)		R. R		S MAX		(T) HEX ACROSS FLATS	
	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm
MBF3011-5-( )	.332 .325	8.43 8.25	.296	7.52	.1645 .1625	4.178 4.128	.1640	4.166	.085 .080	2.16 2.03	.058	1.47	.039	0.99	.625	15.88	.030 .015	0.76 0.38	.009	0.23	.375	9.52
MBF3011-6-( )	.385 .378	9.78 9.60	.342	8.69	.1985 .1965	5.042 4.991	.1985	5.042	.113 .108	2.87 2.74	.058	1.47	.043	1.09	.675	17.15	.030 .015	0.76 0.38	.011	0.28	.375	9.52
MBF3011-7-( )	.416 .409	10.57 10.39	.373	9.47	.2275 .2255	5.778 5.728	.2275	5.778	.121 .116	3.07 2.95	.058	1.47	.043	1.09	.862	21.89	.030 .015	0.76 0.38	.011	0.28	.375	9.52
MBF3011-8-( )	.507 .499	12.88 12.67	.463	11.76	.2595 .2575	6.591 6.541	.2595	6.591	.135 .130	3.43 3.30	.058	1.47	.057	1.45	.900	22.86	.030 .015	0.76 0.38	.011	0.28	.375	9.52
MBF3011-9-( )	.538 .530	13.66 13.46	.494	12.55	.2895 .2875	7.353 7.303	.2895	7.353	.152 .147	3.86 3.73	.068	1.73	.057	1.45	.930	23.62	.030 .015	0.76 0.38	.011	0.28	.500	12.70
MBF3011-10-( )	.635 .626	16.13 15.90	.577	14.66	.3115 .3095	7.912 7.861	.3110	7.899	.152 .147	3.86 3.73	.073	1.85	.075	1.90	.912	23.16	.040 .025	1.02 0.64	.014	0.36	.500	12.70
MBF3011-11-( )	.666 .657	16.92 16.69	.608	15.44	.3435 .3415	8.725 8.674	.3433	8.720	.185 .180	4.70 4.57	.078	1.98	.074	1.88	1.000	25.40	.040 .025	1.02 0.64	.015	0.38	.500	12.70
MBF3011-12-( )	.762 .752	19.35 19.10	.696	17.68	.3745 .3725	9.512 9.462	.3740	9.500	.185 .180	4.70 4.57	.083	2.11	.089	2.26	1.100	27.94	.040 .025	1.02 0.64	.016	0.41	.500	12.70

**TABLE I (CONTINUED)**

PART NUMBER	MINIMUM AVAILABLE GRIP DASH NO.	INSTALLED DIMENSIONS								MECHANICAL PROPERTIES						V (GAGE PROTRUSION)		$\phi$ W (GAGE)	
		RECOM. HOLE SIZE		$\phi$ 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	INCH	mm	INCH	mm
MBF3011-5-( )	-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	.0115 .0095	0.292 0.241	.2832 .2830	7.193 7.188
MBF3011-6-( )	-150	.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	.0140 .0114	0.356 0.289	.3272 .3270	8.311 8.306
MBF3011-7-( )	-150	.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	.0202 .0176	0.513 0.447	.3315 .3313	8.420 8.415
MBF3011-8-( )	-150	.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	.0180 .0151	0.457 0.384	.4320 .4318	10.973 10.968
MBF3011-9-( )	-150	.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	.0247 .0224	0.627 0.569	.4320 .4318	10.973 10.968
MBF3011-10-( )	-200	.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	.0227 .0201	0.577 0.511	.5389 .5385	13.688 13.678
MBF3011-11-( )	-200	.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	.0302 .0276	0.767 0.701	.5389 .5385	13.688 13.678
MBF3011-12-( )	-250	.378 .375	9.60 9.52	.575	14.60	.675	17.15	+1.03 -0.00	+2.62 -0.00	5000	22240	16450	73170	4.0	0.452	.0255 .0228	0.648 0.579	.6532 .6528	16.591 16.581

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

**MATERIAL AND HEAT TREAT:**

NUT: CRES A286 PER THE CHEMICAL REQUIREMENTS OF AMS5732. HEAT TREATED AS REQUIRED FOR PERFORMANCE.  
 SCREW: CRES A286 PER AMS5731, AMS5732 OR AMS5737. HEAT TREATED TO 175 KSI TENSILE STRENGTH MINIMUM PER AMS2759.  
 SLEEVE: CRES 304 PER AMS5639, FULLY ANNEALED.  
 INSERT: ACETAL PER ASTM D4181.  
 DRIVE NUT: MILD STEEL.

**FINISH:**

NUT: PASSIVATE PER AMS2700.  
 SCREW: PASSIVATE PER AMS2700.  
 SLEEVE: PASSIVATE PER AMS2700.  
 INSERT: NONE  
 DRIVE NUT: COLOR BROWN.

**LUBRICANT:**

THE FOLLOWING LUBRICANTS MAY BE APPLIED TO ANY OR ALL COMPONENTS IN ANY COMBINATION AS REQUIRED FOR PERFORMANCE: SOLID FILM LUBRICANT PER AS5272 TYPE I OR PARAFFIN WAX AND/OR CETYL ALCOHOL PER AS87132.

**GENERAL NOTES:**

1. EXAMPLE OF PART NUMBER:  
 MBF3011 ( ) - 6 - 100



2. LOCKING FEATURE CONSISTS OF THREE (3) INDENTATIONS LOCATED 120° APART ON THE PERIPHERY OF THE NUT COMPONENT AND APPROXIMATELY .040 ABOVE THE INTERSECTION OF THE NUT NOSE ANGLE AND O.D.
3. SEE MBF2009 FOR INSTALLATION AND REMOVAL INFORMATION.
4. COMPOSI-LOK FASTENERS WITH SELECTED COMBINATIONS OF THE ABOVE LUBRICANTS AND FINISHES ARE SPECIALLY CODED AND MAY BE SUBSTITUTED FOR EQUIVALENT NON-CODED PARTS AT MANUFACTURER'S OPTION. SEE INTERCHANGEABILITY SPECIFICATION MBF2007.
5. MBF3011 PARTS ARE SIMILAR TO MBF2123 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.
6. DISTORTION OF "Ø" PERMISSIBLE IN LOCKING AREA. 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.
7. DRIVE NUT NOT SHOWN FOR CLARITY OF HEAD MARKINGS.
8. GRIP DASH NUMBER MARKING LOCATED ON TOP OR SIDE OF DRIVE NUT.

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



**MONOGRAM  
AEROSPACE  
FASTENERS**  
a TriMas company

3423 SOUTH GARFIELD AVENUE  
 COMMERCE, CALIFORNIA 90040  
 (323) 722-4760 FAX (323) 727-1029

TITLE:  
 BLIND FASTENER, 130° FLUSH SHEAR  
 HEAD FOR ADVANCED COMPOSITE MATERIALS,  
 CRES

DRAWING NO:  
**MBF3011 ( ) - ( ) - ( ) ( )**

DRAWN BY: A PEREZ  
 DRAWN DATE: 05/14/14

APPROVED BY: \_\_\_\_\_  
 CHECKED DATE: \_\_\_\_\_

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SHEET 2 OF 2