



TYPICAL INSTALLATION

TABLE I

PART NUMBER	(ϕA)		$\phi A'$ MIN		ϕD		ϕE MAX		F WRENCH FLATS		(G)		(H)		(L)		R. R MAX		S MAX		U	
	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm
MBF3013-6(-)	.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	0.76	.011	0.28	.023 .017	0.58 0.43
MBF3013-8(-)	.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	0.76	.011	0.28	.023 .017	0.58 0.43

TABLE I (CONTINUED)

PART NUMBER	MINIMUM AVAILABLE GRIP DASH NO.	INSTALLED DIMENSIONS								MECHANICAL PROPERTIES						V (GAGE PROTRUSION)		ϕW (GAGE)	
		RECOM. HOLE SIZE		ϕJ 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
MBF3013-6(-)	-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
MBF3013-8(-)	-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

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

MATERIAL AND HEAT TREAT:

NUT: TITANIUM ALLOY 6AL-4V PER AMS-T-9047 STA OR AMS4928 OR AMS4967. HEAT TREATED PER AMS-H-81200 TO 95 KSI ULTIMATE SHEAR STRENGTH MINIMUM. MAXIMUM HYDROGEN 125 PPM.
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-D6778.
DRIVE NUT: MILD STEEL.

FINISH:

NUT: CONVERSION COATING OR PHOSPHATE FLOURIDE PER MONOGRAM SPECIFICATION PS741 MAY BE USED AT MANUFACTURER'S OPTION.
SCREW: PASSIVATE PER AMS2700, CONVERSION COATING OPTIONAL.
SLEEVE: PASSIVATE PER AMS2700, CONVERSION COATING OPTIONAL.
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:
 MBF3013 () - 6 - 200



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. MBF3013 PARTS ARE SIMILAR TO MBF2113 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. HEAD MARKINGS ON NUT DEPRESSED .010 INCH [0,254 mm] MAXIMUM. POSITION OPTIONAL.
8. DRIVE NUT NOT SHOWN FOR CLARITY OF HEAD MARKINGS.
9. GRIP DASH NUMBER MARKING LOCATED ON TOP OR SIDE OF DRIVE NUT.

TABLE II				
2ND DASH NO. (GRIP)	GRIP RANGE			
	MIN GRIP		MAX GRIP	
	INCH	mm	INCH	mm
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

TITLE:

BLIND FASTENER, 130° FLUSH CROWN SHEAR HEAD
 FOR ADVANCED COMPOSITE MATERIALS,
 TITANIUM

DRAWING NO:

MBF3013()-()-()()

DRAWN BY:

A PEREZ

DRAWN DATE:

05/28/14

APPROVED BY:

CHECKED DATE:

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 NOTICE: THIS DRAWING IS PART OF THE PROPRIETARY ARTICLE HEREIN DISCLOSED, OWNED BY MONOGRAM AEROSPACE FASTENERS. ANY PARTY BY ACCEPTING THIS DOCUMENT ASSUME CUSTODY THEREOF AND AGREES:
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SHEET 2 OF 2