

TABLE I

PART NUMBER	Ø A		Ø A' MIN		Ø D		Ø E MAX		F WRENCH FLATS		(G)		(H)		(L)		R RAD MAX		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
MBF2312-05-()	.332 .325	8.43 8.25	.296	7.52	.1645 .1625	4.178 4.128	.1640	4.166	.086 .081	2.18 2.06	.058	1.47	.070	1.78	.625	15.875	.030	0.76	.015	0.38	.375	9.52
MBF2312-06-()	.385 .378	9.78 9.60	.342	8.69	.1985 .1965	5.042 4.991	.1985	5.042	.104 .099	2.64 2.52	.058	1.47	.077	1.96	.675	17.145	.030	0.76	.019	0.48	.375	9.52
MBF2312-08-()	.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	.104	2.64	.900	22.860	.030	0.76	.020	0.51	.375	9.52

TABLE I (CONTINUED)

PART NUMBER	MIN AVAILABLE GRIP LENGTH	MAX AVAILABLE GRIP LENGTH	INSTALLED DIMENSIONS								MECHANICAL PROPERTIES						V (GAGE PROTRUSION)		Ø W (GAGE)	
			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	INCH	mm	LBS	N	LBS	N	IN-LBS	N-m	INCH	mm
MBF2312-05-()	-150	-1000	.168 .165	4.27 4.19	.250	6.35	.370	9.40	+0.00 -.030	+0.000 -0.762	900	4000	3150	14010	1.0	0.113	.0207 .0174	0.526 0.442	.2832 .2830	7.193 7.188
MBF2312-06-()	-150	-1150	.202 .199	5.13 5.05	.300	7.62	.420	10.67	+0.00 -.030	+0.000 -0.762	1400	6230	4600	20460	1.5	0.170	.0245 .0212	0.622 0.538	.3272 .3270	8.311 8.306
MBF2312-08-()	-200	-1150	.263 .260	6.68 6.60	.400	10.16	.510	12.95	+0.00 -.030	+0.000 -0.762	2100	9340	7900	35140	2.5	0.282	.0318 .0279	0.808 0.709	.4320 .4318	10.973 10.968

MONOGRAM AEROSPACE FASTENERS
a TriMas company
3423 SOUTH GARFIELD AVENUE
COMMERCE, CALIFORNIA 90040
(323) 722-4760 FAX (323) 727-1029

TITLE:
**COMPOSI-LOK® 3 BLIND FASTENER FLUSH BREAK
100° FLUSH TENSION HEAD
FOR ADVANCED COMPOSITE MATERIAL &
METALLIC STRUCTURES, TITANIUM**

DRAWING NO:
MBF2312(-)(-)(-)

DRAWN BY:
M. DOMINGUEZ DRAWN DATE:
08/13/13

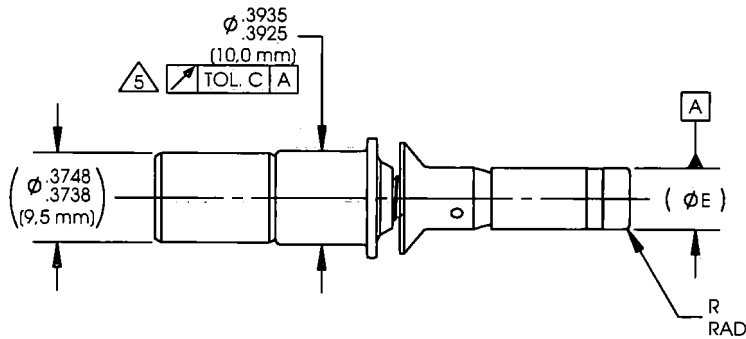
APPROVED BY:
J. Brown CHECKED DATE:
11/22/17

MONOGRAM CAGE CODE:
98524 ECN NO:
17-0227 REV:
L

ECN DATE:
09/08/17 SHEET 1 OF 2

PROPRIETARY AND CONFIDENTIAL. NOTICE: THIS DRAWING IS PART OF THE PROPRIETARY ARTICLE HEREIN DISCLOSED. OWNED BY MONOGRAM AEROSPACE FASTENERS. ANY PARTY BY ACCEPTING THIS DOCUMENT ASSUMES CUSTODY THEREOF AND AGREES:
A. THE INFORMATION SET FORTH HEREIN IS GIVEN IN CONFIDENCE AND THIS DOCUMENT WILL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO ANY PERSON EXCEPT TO MEET THE PURPOSE FOR WHICH IT WAS DELIVERED.
B. WITHOUT THE WRITTEN CONSENT OF MONOGRAM AEROSPACE FASTENERS, THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN UNDER NO CIRCUMSTANCES WILL BE USED IN THE MANUFACTURE OR REPRODUCTION OF THE ARTICLE DISCLOSED, AND THE DELIVERY OF THIS DOCUMENT SHALL NOT CONSTITUTE ANY RIGHT OR LICENSE TO DO SO.

APPLICABLE SPECIFICATIONS:
PROCUREMENT SPECIFICATION: MBF2300
INSTALLATION AND INSPECTION SPECIFICATION: MBF2301
SPECIAL LUBE AND FINISH: MBF2002



ROBOTIC PART NUMBER	R RAD MAX		"TOL C" Δ			
			GRIP < -500		GRIP > -500	
	INCH	mm	INCH	mm	INCH	mm
MBF2312()-05-()A	.030	0.762	.030	0.762	.030	0.762
MBF2312()-06-()A	.035	0.889	.027	0.686	.030	0.762
MBF2312()-08-()A	.040	1.016	.022	0.559	.030	0.762

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.
SLEEVE: 304 STAINLESS STEEL PER AMS5639, FULLY ANNEALED.
INSERT: ACETAL PER ASTM-D6778
DRIVE NUT: LOW TO MEDIUM CARBON STEEL

FINISH:

(-) NUT: CONVERSION COATING, OR PHOSPHATE FLOURIDE PER MONOGRAM SPECIFICATION PS741 MAY BE USED MAY BE USED AT MANUFACTURER'S OPTION
SLEEVE AND SCREW: PASSIVATE PER AMS2700, CONVERSION COATING OPTIONAL.
INSERT: NONE
DRIVE NUT: COLOR GRAY

LUBRICANT:

DRY FILM LUBE PER THE CHEMICAL REQUIREMENTS OF AS5272 TYPE I OR EVERLUBE #812 PER MIL-PRF-81329, PARAFFIN WAX, OR CETYL ALCOHOL PER AS87132 (AS REQUIRED FOR PERFORMANCE).

GENERAL NOTES:

1. EXAMPLE OF PART NUMBER:
MBF2312 () - 06 - 100 ()
"A" DESIGNATES DUAL DRIVE NUT SYSTEM FOR ROBOTIC INSTALLATION
DESIGNATES GRIP (TABLE II)
DESIGNATES BASIC DIMENSIONS (TABLE I)
DESIGNATES SPECIAL FINISH CODE
DESIGNATES BASIC PART NUMBER

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. HEAD MARKINGS: MANUFACTURER'S IDENTIFICATION: MONOGRAM = "MI"
FASTENER IDENTIFICATION = "2312"
POSITION OPTIONAL

4. 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.

5. MAXIMUM RUNOUT FROM DRIVE NUT TO SCREW HEAD WHEN DRIVE NUT IS FULLY SEATED (G=0) FOR GRIPS UNDER/EQUAL -1000. FOR GRIPS LONGER THAN -1000 "TOL C" TBD.

6. ALL OTHER DIMENSIONS ARE THE SAME AS IN TABLE I.

7. INSTALLATION AND REMOVAL INFORMATION T.B.A.

2ND DASH NO. (GRIP)	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:
**COMPOSI-LOK® 3 BLIND FASTENER FLUSH BREAK
100° FLUSH TENSION HEAD
FOR ADVANCED COMPOSITE MATERIAL &
METALLIC STRUCTURES, TITANIUM**

DRAWING NO: MBF2312()-()-()	
DRAWN BY: M. DOMINGUEZ	DRAWN DATE: 08/13/13
APPROVED BY: <i>J. Norman</i>	CHECKED DATE: 11/22/17
MONOGRAM CAGE CODE: 98524	ECN NO: 17-0227 ECN DATE: 09/08/17
	REV: L SHEET 2 OF 2

PROPRIETARY AND CONFIDENTIAL:
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:
A. THE INFORMATION SET FORTH HEREIN IS GIVEN IN CONFIDENCE AND THIS DOCUMENT WILL NOT BE COPIED OR REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO ANY PERSON EXCEPT TO MEET THE PURPOSE FOR WHICH IT WAS DELIVERED.
B. WITHOUT THE WRITTEN CONSENT OF MONOGRAM AEROSPACE FASTENERS, THIS DOCUMENT AND THE INFORMATION CONTAINED HEREIN UNDER NO CIRCUMSTANCES WILL BE USED IN THE MANUFACTURE OR REPRODUCTION OF THE ARTICLE DISCLOSED, AND THE DELIVERY OF THIS DOCUMENT SHALL NOT CONSTITUTE ANY RIGHT OR LICENSE TO DO SO.