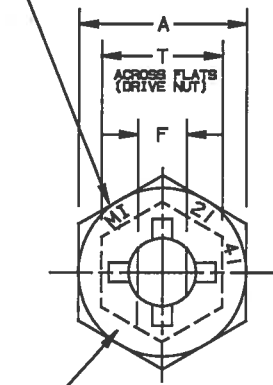


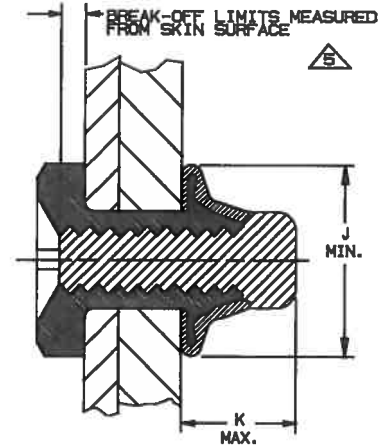
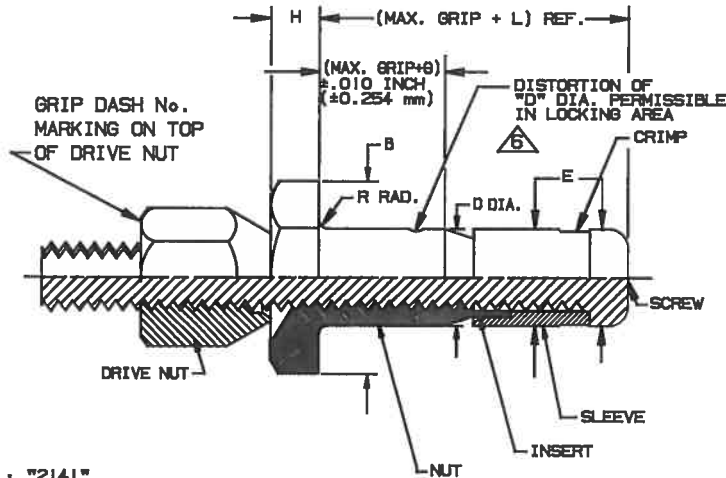
MONOGRAM AEROSPACE FASTENERS
3423 SOUTH GARFIELD AVENUE
LOS ANGELES, CALIFORNIA 90040



MANUFACTURERS IDENTIFICATION
MONOGRAM = "MI"



HEAD MARKINGS
FASTENER IDENTIFICATION: "2141"
POSITION OPTIONAL



TYPICAL INSTALLATION

TABLE I

PART NUMBER	A		B MIN.		D DIA.		E DIA. MAX.		F WRENCH FLATS		G REF.		H		L REF.		R RAD. MAX.		T ACROSS HEX. REF.	
	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm	INCH	mm
MBF2141-05-()	.250 .244	6,35 6,20	.272	6,91	.1645 .1625	4,178 4,128	.1640	4,166	.085 .080	2,16 2,03	.017	0,43	.076 .069	1,930 1,753	.512	13,00				
MBF2141-06-()	.312 .305	7,92 7,75	.340	8,64	.1985 .1965	5,042 4,991	.1985	5,042	.113 .108	2,87 2,74	.027	0,68	.080	2,032	.575	14,61				
MBF2141-07-()	.343 .336	8,71 8,53	.375	9,52	.2275 .2255	5,778 5,728	.2275	5,778	.121 .116	3,07 2,95	.035	0,89	.073	1,845	.635	16,13	.030	0,76	.375	9,52
MBF2141-08-()	.375 .367	9,52 9,32	.409	10,39	.2595 .2575	6,591 6,541	.2595	6,591	.135 .130	3,43 3,30	.055	1,40	.090	2,286	.700	17,78				
MBF2141-09-()	.406 .398	10,31 10,11	.444	11,28	.2895 .2875	7,353 7,303	.2895	7,353	.152 .147	3,86 3,73	.065	1,65	.083	2,108	.815	20,70				
MBF2141-10-()	.437 .429	11,10 10,90	.479	12,17	.3115 .3095	7,912 7,861	.3110	7,899	.152 .147	3,86 3,73	.070	1,78	.112	2,845	.892	22,66				
MBF2141-11-()	.468 .460	11,89 11,68	.513	13,03	.3435 .3415	8,725 8,674	.3433	8,720	.185 .180	4,70 4,57	.075	1,90	.105	2,667	.941	23,90	.040	1,02	.500	12,70
MBF2141-12-()	.500 .491	12,70 12,47	.548	13,92	.3745 .3725	9,512 9,462	.3740	9,500	.185 .180	4,70 4,57	.080	2,03	.133 .126	3,378 3,200	1,090	27,69				

TABLE I (CONT)

PART NUMBER	MINIMUM AVAILABLE GRIP LENGTH	INSTALLED DIMENSIONS						MECHANICAL PROPERTIES							
		RECOMMENDED HOLE SIZE		J DIA. 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	Nm
MBF2141-05-()	-100	.168 .165	4,27 4,19	.250	6,35	.300	7,62	+.103 -.000	+2,62 -0,00	900	4000	3150	14010	1.0	0,113
MBF2141-06-()		.202 .199	5,13 5,05	.300	7,62	.350	8,89			1400	6230	4600	20460	1.5	0,170
MBF2141-07-()		.231 .228	5,88 5,79	.350	8,89	.400	10,16			1600	7120	6050	26910	2.0	0,226
MBF2141-08-()		.263 .260	6,68 6,60	.400	10,16	.450	11,43			2100	9340	7900	35140	2.5	0,282
MBF2141-09-()		.293 .290	7,44 7,37	.450	11,43	.500	12,70			2600	11565	9800	43590	3.0	0,339
MBF2141-10-()		.315 .312	8,00 7,92	.475	12,06	.550	13,97			3600	16010	11350	50480	3.5	0,400
MBF2141-11-()		.347 .344	8,81 8,74	.525	13,33	.575	14,60			4400	19570	13850	61600	4.0	0,452
MBF2141-12-()	.378 .375	9,60 9,52	.575	14,60	.625	15,87	5000	22240	16450	73170	4.0	0,452			

MONOGRAM

CODE IDENT. NO.
98524

APPROVED DATE
11-23-11

REV. LETTER & DATE
N/R ECN#5894
11-23-11

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TITLE
COMPOSI-LITE™ BLIND FASTENER
PROTRUDING HEX HEAD
(TITANIUM NUT AND SCREW)

STANDARD

MBF 2141
SHEET 1 OF 2

MONOGRAM AEROSPACE FASTENERS
3423 SOUTH GARFIELD AVENUE
LOS ANGELES, CALIFORNIA 90040



APPLICABLE SPECIFICATIONS:

PROCUREMENT SPECIFICATION:
INSTALLATION & INSPECTION SPECIFICATION
SPECIAL LUBE AND FINISH:
PART NUMBER ASSIGNMENT:

MBF 2000.
MBF 2003.
MBF 2002.
MBF 2004.

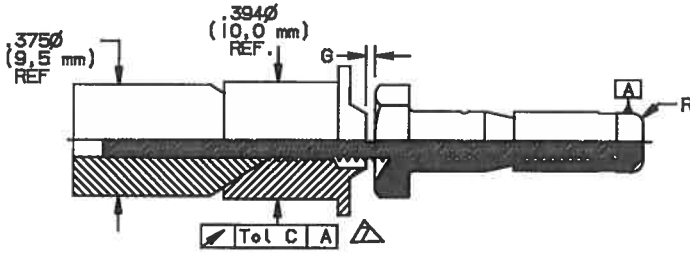


TABLE II

ROBOTIC PART NUMBER	RADIUS R		MAX GAP G		MAX. CONC.		"Tol C" Δ	
	INCH	mm	INCH	mm	BRIP <-500	BRIP >-500	BRIP <-1000	BRIP >-1000
MBF2141()-05-()A	.025 .010	0.835 0.254	.042	1.067	.030	0.762		
MBF2141()-06-()A	.030 .015	0.762 0.381	.050	1.270	.027	0.686	.030	0.762
MBF2141()-08-()A	.035 .020	0.889 0.508	.062	1.575	.022	0.559		

MATERIAL AND HEAT TREAT:

NUT AND SCREW: 6Al-4V TITANIUM PER MIL-T-9047 STA OR AMS4928 OR AMS4967 HEAT TREATED PER MIL-H-81200 TO 95 KSI SHEAR STRENGTH MINIMUM. MAXIMUM HYDROGEN CONTENT 125 PPM.
SLEEVE: 304 STAINLESS STEEL PER AMS 5639, FULLY ANNEALED.
INSERT: ACETAL PER ASTM D4181.
DRIVE NUT: MILD STEEL.
FINISH: (-) NUT: KAL-GARD ANN-RO #1012 CONVERSION COATING OR PHOSPHATE FLUORIDE PER MONOGRAM SPECIFICATION PS741, MAY BE USED AT MANUFACTURER'S OPTION.
SLEEVE: PASSIVATE PER AMS-QQ-P-35, KAL GARD ANN-RO #1013 CONVERSION COATING OPTIONAL.
INSERT: NONE.
DRIVE NUT: COLOR GRAY

TABLE III

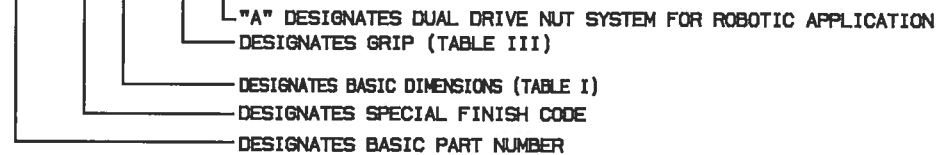
2ND DASH NO. (GRIP)	GRIP RANGE			
	MIN. GRIP		MAX. GRIP	
	INCH	mm	INCH	mm
100	.050	1.27	.100	2.54
150	.100	2.54	.150	3.81
200	.150	3.81	.200	5.08
250	.200	5.08	.250	6.35
300	.250	6.35	.300	7.62
350	.300	7.62	.350	8.89
400	.350	8.89	.400	10.16
450	.400	10.16	.450	11.43
500	.450	11.43	.500	12.70
550	.500	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
1200	1.150	29.21	1.200	30.48
1250	1.200	30.48	1.250	31.75
1300	1.250	31.75	1.300	33.02
1350	1.300	33.02	1.350	34.29
1400	1.350	34.29	1.400	35.56
1450	1.400	35.56	1.450	36.83
1500	1.450	36.83	1.500	38.10
1550	1.500	38.10	1.550	39.37
1600	1.550	39.37	1.600	40.64
1650	1.600	40.64	1.650	41.91
1700	1.650	41.91	1.700	43.18

LUBRICANTS: GRAPHITE FREE SOLID FILM LUBRICANT PER A55272 OR MIL-PRF-81329 PARAFFIN WAX, OR CETYL ALCOHOL PER ASB7132. (AS REQUIRED FOR PERFORMANCE.) (SEE FINISH CODE FOR ADDITIONAL RESTRICTIONS)

GENERAL NOTES:

1.) EXAMPLE OF PART NUMBER:

MBF 2141 ()-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. 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.

4. MAXIMUM CONCENTRICITY (T.I.R) 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.

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

6. STANDARD GRIP LENGTHS ARE SHOWN IN TABLE III. INTERMEDIATE GRIP LENGTH MAY BE AVAILABLE UPON REQUEST. EXAMPLE, 2ND DASH No. 225 SHALL HAVE MIN GRIP .125 (3.175mm) AND MAX GRIP .225 (5.715 mm)

MONOGRAM

CODE IDENT. NO.
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TITLE

COMPOSI-LITE™ BLIND FASTENER
PROTRUDING HEX HEAD
(TITANIUM NUT AND SCREW)

STANDARD

MBF 2141
SHEET 2 OF 2