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

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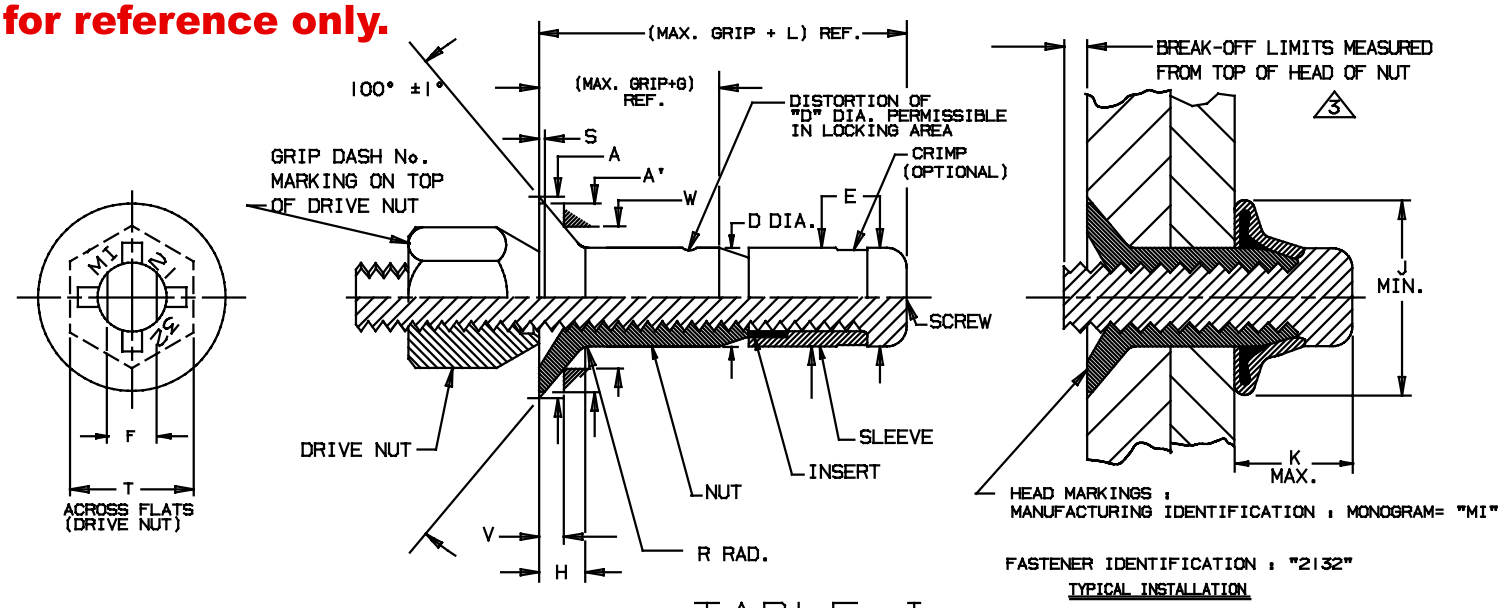

TABLE I

PART NUMBER	A THEO. DIA. INCH	A THEO. DIA. mm	A' DIA. MIN. INCH	A' DIA. MIN. mm	D DIA. INCH	D DIA. mm	E DIA. MAX. INCH	E DIA. MAX. mm	F WRENCH FLATS INCH	F WRENCH FLATS mm	G INCH	G mm	H REF. INCH	H REF. mm	L INCH	L mm	R RAD. MAX. INCH	R RAD. MAX. mm	S MAX. INCH	S MAX. mm	T ACROSS HEX. INCH	T ACROSS HEX. mm
MBF2132-5-()	.332 .325	8,43 8,25	.296	7,52	.167 .166	4,24 4,21	.1640	4,166	.085 .080	2,16 2,03	.017	0,43	.070	1,78	.512	13,00	.030	0,76	.015	0,38	.375	9,52
MBF2132-6-()	.385 .378	9,78 9,60	.342	8,69	.201 .200	5,11 5,08	.1985	5,042	.113 .108	2,87 2,74	.027	0,68	.077	1,96	.575	14,61	.030	0,76	.019	0,48	.375	9,52
MBF2132-7-()	.416 .409	10,57 10,39	.373	9,47	.230 .229	5,84 5,81	.2275	5,778	.121 .116	3,07 2,95	.035	0,89	.077	1,96	.635	16,13	.030	0,76	.020	0,51	.375	9,52
MBF2132-8-()	.507 .499	12,88 12,67	.463	11,76	.262 .261	6,66 6,63	.2595	6,591	.135 .130	3,43 3,30	.055	1,40	.104	2,64	.700	17,78	.030	0,76	.020	0,51	.375	9,52
MBF2132-9-()	.538 .530	13,66 13,46	.494	12,55	.292 .291	7,42 7,39	.2895	7,353	.152 .147	3,86 3,73	.065	1,65	.104	2,64	.815	20,70	.030	0,76	.020	0,51	.500	12,70
MBF2132-10-()	.635 .626	16,13 15,90	.577	14,66	.314 .313	7,98 7,95	.3110	7,899	.152 .147	3,86 3,73	.070	1,78	.136	3,45	.892	22,66	.040	1,02	.026	0,66	.500	12,70
MBF2132-11-()	.666 .657	16,92 16,69	.608	15,44	.346 .345	8,79 8,76	.3433	8,720	.185 .180	4,70 4,57	.075	1,90	.136	3,45	.941	23,90	.040	1,02	.026	0,66	.500	12,70
MBF2132-12-()	.762 .752	19,35 19,10	.696	17,68	.377 .376	9,58 9,55	.3740	9,500	.185 .180	4,70 4,57	.080	2,03	.162	4,11	1.090	27,69	.040	1,02	.029	0,74	.500	12,70

TABLE I (CONT)

PART NUMBER	MINIMUM AVAILABLE GRIP DASH NO.	INSTALLED DIMENSIONS: RECOMMENDED HOLE SIZE INCH	RECOMMENDED HOLE SIZE mm	J DIA. MIN. INCH	J DIA. MIN. mm	K MAX. INCH	K MAX. mm	BREAK-OFF LIMITS (3) INCH	BREAK-OFF LIMITS (3) mm	MECHANICAL PROPERTIES: TENSILE STRUCTURAL (5) FAILURE (MIN.) LBS.	TENSILE STRUCTURAL (5) FAILURE (MIN.) N	DOUBLE SHEAR MIN. LBS.	DOUBLE SHEAR MIN. N	LOCKING TORQUE MIN. IN-LBS	LOCKING TORQUE MIN. Nm	V GAGE PROT. INCH	V GAGE PROT. mm	W GAGE DIA. INCH	W GAGE DIA. mm
MBF2132-5-()	-150	.166 .165	4,22 4,19	.250	6,35	.300	7,62	+.103 -.000	+2,62 -0,00	1400	6230	4150	18460	1.0	0,113	.0207 .0174	0,526 0,442	.2832 .2830	7,193 7,188
MBF2132-6-()	-150	.200 .199	5,08 5,05	.300	7,62	.350	8,89	+.103 -.000	+2,62 -0,00	1600	7120	6000	26690	1.5	0,170	.0245 .0212	0,622 0,538	.3272 .3270	8,311 8,306
MBF2132-7-()	-150	.229 .228	5,82 5,79	.350	8,89	.400	10,16	+.103 -.000	+2,62 -0,00	1600	7120	7850	34920	2.0	0,226	.0358 .0324	0,909 0,823	.3315 .3313	8,420 8,415
MBF2132-8-()	-200	.261 .260	6,63 6,60	.400	10,16	.450	11,43	+.103 -.000	+2,62 -0,00	3000	13350	10200	45370	2.5	0,282	.0318 .0279	0,808 0,709	.4320 .4318	10,973 10,968
MBF2132-9-()	-200	.291 .290	7,39 7,37	.450	11,43	.500	12,70	+.103 -.000	+2,62 -0,00	3000	13350	12700	56490	3.0	0,339	.0446 .0407	1,133 1,034	.4320 .4318	10,973 10,968
MBF2132-10-()	-250	.313 .312	7,95 7,92	.475	12,06	.550	13,97	+.103 -.000	+2,62 -0,00	5000	22240	14650	65170	3.5	0,400	.0405 .0365	1,029 0,927	.5389 .5385	13,688 13,678
MBF2132-11-()	-250	.345 .344	8,76 8,74	.525	13,33	.575	14,60	+.103 -.000	+2,62 -0,00	5000	22240	17800	79180	4.0	0,452	.0539 .0500	1,369 1,270	.5389 .5385	13,688 13,678
MBF2132-12-()	-250	.376 .375	9,55 9,52	.575	14,60	.625	15,87	+.103 -.000	+2,62 -0,00	7000	31130	21150	94080	4.0	0,452	.0458 .0415	1,163 1,054	.6532 .6528	16,591 16,581

U.S. PATENT NO. 3643544, 4747202 & 4967463
EUROPEAN PATENT NO. 0152531 & 0216980

MONOGRAM
CODE IDENT. NO.
98524

APPROVED DATE
06-05-91 ECN # 6751

REV. LETTER AND DATE
ECN # 1167
"E" 11-14-01

TITLE
BLIND FASTENER 100° FLUSH TENSION HEAD
FOR: INTERFERENCE FIT APPLICATIONS
IN METALLIC STRUCTURE
A-286 STAINLESS (95 KSI Fsu CRES)

STANDARD

MBF 2132

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APPLICABLE SPECIFICATIONS:

PROCUREMENT SPECIFICATION:	MBF 2000.
SPECIAL LUBE AND FINISH CODES:	MBF 2002.
INSTALLATION & INSPECTION SPECIFICATION:	MBF 2003.
PART NUMBER ASSIGNMENT:	MBF 2005.

MATERIAL AND HEAT TREAT:

NUT:	A-286 STAINLESS STEEL PER CHEMICAL REQUIREMENTS OF AMS 5732. HEAT TREATED AS REQUIRED FOR PERFORMANCE.
SCREW:	INCONEL 718 PER AMS 5662, HEAT TREATED TO 125 KSI Fsu.
SLEEVE:	304 STAINLESS STEEL PER AMS 5639, HEAT TREATED AS REQUIRED FOR PERFORMANCE.
INSERT:	ACETAL PER ASTM D4181.
DRIVE NUT:	MILD STEEL.

FINISH:

NUT, SLEEVE & SCREW :	PASSIVATE PER QQ-P-35. KAL-GARD ANN-RO #1013 CONVERSION COATING OPTIONAL.
INSERT:	NONE.
DRIVE NUT:	CORROSION RESISTANT COATING COLOR BLACK.

LUBRICANTS: THE FOLLOWING LUBRICANTS MAY BE APPLIED TO ANY OR ALL COMPONENTS IN ANY COMBINATION AS REQUIRED FOR PERFORMANCE: DRY FILM LUBE PER MIL-L-46010 TYPE I OR EVERLUBE #812 PER MIL-L-81329, PARAFFIN WAX, OR CETYL ALCOHOL PER MIL-L-87132.

GENERAL NOTES:

1.) EXAMPLE OF PART NUMBER:

MBF 2132 - 6 - 200

- 200 — DESIGNATES GRIP (TABLE II)
- 6 — DESIGNATES BASIC DIMENSIONS (TABLE I)
- MBF 2132 — DESIGNATES BASIC PART NUMBER

TABLE II

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

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. AN "L" IN PLACE OF THE DASH (-) BETWEEN THE DIAMETER DASH NUMBER AND THE GRIP DASH NUMBER DESIGNATES MODIFIED BREAK-OFF LIMITS OF +.053/-.050. "e.g. MBF 2132()-6L200". AN "LL" DESIGNATES MODIFIED BREAK-OFF LIMITS OF +.003/-.100 "e.g. MBF2132( )-6LL200."

4. THESE PARTS ARE INTENDED FOR APPLICATIONS REQUIRING UP TO A .002" DIAMETRAL INTERFERENCE FIT BETWEEN FASTENER SHANK AND STRUCTURE HOLE.

5. PROPOSED MINIMUM TENSILE STRUCTURAL FAILURE VALUES.

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CODE IDENT. NO. 98524

U.S. PATENT NO. 3643544, 4747202 & 4967463
EUROPEAN PATENT NO. 0152531 & 0216980

APPROVED DATE
06-05-91 ECN # 6751

REV. LETTER AND DATE
ECN # 1167
"E" 11-14-01

TITLE
BLIND FASTENER 100° FLUSH TENSION HEAD
FOR: INTERFERENCE FIT APPLICATIONS
IN METALLIC STRUCTURE
A-286 STAINLESS (95 KSI Fsu CRES)

STANDARD

MBF 2132

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