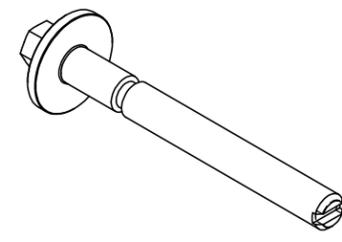


CLASSIFICATION OF CHARACTERISTICS (DOD-STD-2101)	
CRITICAL -	0
MAJOR -	0
MINOR -	ALL OTHER CHARACTERISTICS

DWG NO.		SH	REV	1	
F19155		1	C		
REVISION HISTORY					
ZONE	REV	DESCRIPTION	DATE	APPROVED	
	-	INC CR 28435	JR	12-10-2018	BMG
--	A	INC CR 28919	JR	02-28-2019	RA
	B	INC CR 30166	JRH	07-16-2019	JR
--	C	INC CR 30811	JR	09-18-2019	JAS



REFERENCE VIEW

- NOTES: UNLESS OTHERWISE SPECIFIED
- APPLICABLE STANDARDS/SPECIFICATIONS:
A. ASME Y14.100-2004
B. ASME Y14.5M-1994
 - MATERIAL: Ti 6Al-4V IAW AMS-4965.
 - REMOVE ALL BURRS AND SHARP EDGES; BREAK EDGES .015 MAX. ALL FILLETS R.005 - .015.
 - SURFACE ROUGHNESS 63 MICRONS MAX.
 - MARK PART NO. AND REV LTR AT A MINIMUM ON PACKAGING, METHOD OPTIONAL. DO NOT MARK PHYSICAL PART. BAGGING / TAGGING OF INDIVIDUAL PARTS NOT REQUIRED.
 - WORKMANSHIP REQUIREMENTS:
A. FINISHED PART SHALL BE CLEAN AND FREE FROM RESIDUES, OILS, GREASE AND OTHER CONTAMINANTS / FOREIGN ELEMENTS.
 - ALL FRANGIBOLT FASTENER NOTCHES ARE 100% INSPECTED. 10% OF FASTENERS (MIN.) ARE SUBJECT TO TENSILE TESTING IAW GTP8000/1061. DATA PROVIDED AS PART OF EIDP (END ITEM DATA PACKAGE).
 - FINISH: TITANIUM ANODIZE OR TIODIZE IAW AMS-2488, TYPE II.
 - TABLE I DIMENSIONS TO BE USED FOR REFERENCE AND BY CUSTOMERS THAT DO NOT PROVIDE UNIQUE SPECIFICATIONS OR DRAWINGS. CUSTOM FASTENERS AVAILABLE UPON REQUEST.
 - MINIMUM LENGTH OF 0.050" FULL SHANK DIAMETER REQUIRED BETWEEN THREADS AND END OF NOTCH.
 - NOTCH GEOMETRY IAW EBAD SPECIFICATION F81088 TO YIELD TENSILE STRENGTH IAW GTP8000/1061.
 - ALL THREADS SHALL BE ROLLED IAW AS8879 WITH THE EXCEPTION OF 1/2" THREADS (FC8 FASTENERS) WHICH MAY BE CUT.
 - DIMENSIONS COINCIDES WITH MAXIMUM GRIP LENGTH. VALUE MUST BE LIMITED PER TABLE I.

- ORDERING INFORMATION AS FOLLOWS:
F19155-XX-XXXX-XXXJ-XXXXT
 - INCLUDE IF TITANIUM ANODIZE FINISH IS REQUIRED. OTHERWISE OMIT.
 - N (NOTCH LOCATION) (REF X.XXX)
 - INCLUDE IF SCREW DRIVER SLOT IS REQUIRED. OTHERWISE OMIT.
 - M (SHAFT LENGTH) (REF X.XX)
 - L (THREADED LENGTH) (REF X.XXX)
 - SIZE CODE. SEE TABLE I.
 - BASIC PART NUMBER
- FEATURE SHOWN IS SCREWDRIVER SLOT, AND IS ONLY REQUIRED AS DEFINED IN PART NUMBER (REF NOTE 14).
- PART NAMING CONVENTION:
FRBLT FSTNR, **.XXX-XX X X.XX**
 - M (SHAFT LENGTH)
 - G (THREAD TYPE), FORMATTED AS SHOWN

EXAMPLE OF PART NUMBER AND NAMING CONVENTION:
 F19155-04-0650-130J PART NAME: FRBLT FSTNR, .112-40 X 1.30
 DESCRIPTION: FRBLT FSTNR, SIZE .112-40 X 1.30 LONG, WITH A SCREWDRIVER SLOT
 F19155-04-0650-130J-XXXXT PART NAME: FRBLT FSTNR, .112-40 X 1.30
 DESCRIPTION: FRBLT FSTNR, SIZE .112-40 X 1.30 LONG, WITH A SCREWDRIVER SLOT, NOTCHED, TITANIUM ANODIZED.
 TABLE II TO BE COMPLETED BY CUSTOMER FOR MANUFACTURING PURPOSES ONLY.

- DIMENSIONAL LIMITS AND SURFACE ROUGHNESS APPLY AFTER PLATING/COATING.
- FRANGIBOLT® IS A REGISTERED TRADEMARK OF EBAD. FRANGIBOLT® WILL BE REFERENCED AS "FRBLT" ON THIS DRAWING.

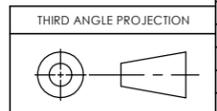
INFORMATION COPY
WILL NOT BE UPDATED

PART NO.	DESCRIPTION	NOTES
F19155-XX-XXXX-XXXJ-XXXXT	STD FRBLT FSTNR ICD, TI-ANOD	7 8 11
F19155-XX-XXXX-XXXJ-XXXX	STD FRBLT FSTNR, NOTCH & TST	7 11
F19155-XX-XXXX-XXXJ	STD FRBLT FSTNR, MACHINE	14

PART NO. SEE TABLE I

THIS DOCUMENT IS THE PROPERTY OF ENSIGN-BICKFORD AEROSPACE & DEFENSE COMPANY AND SHALL NOT BE DISCLOSED, REPRODUCED IN WHOLE OR IN PART, OR USED FOR ANYONE OTHER THAN ENSIGN - BICKFORD AEROSPACE & DEFENSE COMPANY, WITHOUT ITS PRIOR WRITTEN CONSENT. THIS RESTRICTION DOES NOT APPLY TO OR PURPORT TO LIMIT THE RIGHT TO USE INFORMATION OBTAINED LAWFULLY FROM SOURCES OTHER THAN ENSIGN - BICKFORD AEROSPACE & DEFENSE COMPANY.

INFORMATION SUBJECT TO EXPORT CONTROL LAWS
 THESE COMMODITIES AND TECHNOLOGY ARE CONTROLLED IN ACCORDANCE WITH THE UNITED STATES EXPORT ADMINISTRATION REGULATIONS (15CFR730-744). DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED.



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: ANGLES ± 1° 1 PLACE DECIMAL ± .1 2 PLACE DECIMAL ± .01 3 PLACE DECIMAL ± .005 DO NOT SCALE DRAWING		CONTRACT NO.	EBAD Ensign-Bickford Aerospace & Defense	
MATERIAL: 2		CONTRACTOR	STD FRBLT FSTNR ICD	
FINISH: 8		DRAWN BY: JR DATE: 11-27-2018	SIZE: D CAGE CODE: 96336 DWG NO.: F19155 REV: C	
NEXT ASSY: USED ON: APPLICATION:		CHECKER: BMG DATE: 12-10-2018	SCALE: 3:1 SHEET 1 OF 2	
		ENGINEER: BPC APPROVED: ATN		
		APPROVED: BPC APPROVED: KAK		
		DESIGN ACTIVITY APPROVAL		

DWG NO.	F19155	SH	2	REV	C
REVISION HISTORY					
ZONE	REV	DESCRIPTION	DATE	APPROVED	
	-	INC CR 28435	JR	12-10-2018	BMG
--	A	INC CR 28919	JR	02-28-2019	RA
	B	INC CR 30166	JRH	07-16-2019	JR
--	C	INC CR 30811	JR	09-18-2019	JAS

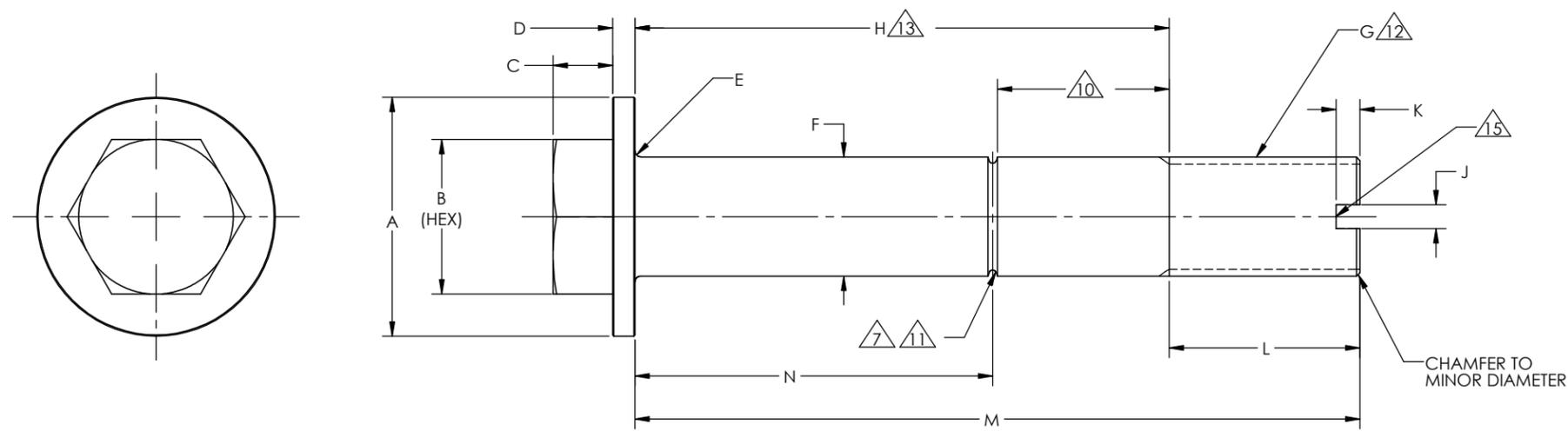
TABLE I - DIMENSIONS FOR #4 THROUGH 1/2" SIZE BOLTS

SIZE	SIZE CODE	A (WASHER Ø)	B (HEX HEAD)	C (HEX HT)	D (WASHER HT)	E (RADIUS)	F (SHANK Ø)	G (THREAD)	H (GRIP LENGTH)	INSTALLATION TORQUE	TARGET PRELOAD	TENSILE STRENGTH	J (SLOT WIDTH)	K (SLOT DEPTH)
#4	04	.300 ±.002	.188 ±.002	.110 ±.002	.032 ±.002	.004 MAX	.109 ±.001	.112-40 UNJC-3A	1.00 IN MAX	50 IN-OZ	150 LBF	630 ±70 LBF	.035 ±.004	.025 ±.005
#8	2	.450 ±.002	.250 ±.002	.125 ±.002	.032 ±.002	.005 MAX	.163 ±.001	.164-32 UNJC-3A	1.75 IN MAX	14 IN-LB	400 LBF	1,400 ±200 LBF	.050 ±.004	.040 ±.005
#10	3	.500 ±.002	.372 ±.002	.140 ±.002	.050 ±.002	.010 MAX	.189 ±.001	.190-32 UNJF-3A	2.25 IN MAX	20 IN-LB	700 LBF	2,250 ±250 LBF	.055 ±.004	.050 ±.005
1/4"	4	.650 ±.002	.434 ±.002	.150 ±.002	.063 ±.002	.015 MAX	.249 ±.001	.250-28 UNJF-3A	2.50 IN MAX	65 IN-LB	1,500 LBF	5,200 ±400 LBF	.070 ±.004	.060 ±.005
3/8"	6	.950 ±.002	.559 ±.002	.210 ±.002	.080 ±.002	.020 MAX	.374 ±.001	.375-24 UNJF-3A	3.25 IN MAX	250 IN-LB	4,000 LBF	9,200 ±800 LBF	.085 ±.004	.080 ±.005
1/2"	8	1.000 ±.002	.746 ±.002	.250 ±.002	.094 ±.002	.025 MAX	.499 ±.001	.500-20 UNJF-3A	3.45 IN MAX	50 FT-LB	7,000 LBF	15,000 ±1,500 LBF	.100 ±.004	.100 ±.005

TABLE II - DIMENSIONS PER CUSTOMER SPECIFICATION

SIZE CODE	L (THREADED LENGTH)	M (SHAFT LENGTH)	N (NOTCH LOCATION)
CUSTOMER NAME:		PURCHASE ORDER #:	
AUTHORIZED SIGNATURE:			DATE:
PART NUMBER (SEE NOTES 14 & 16):			

INFORMATION COPY
WILL NOT BE UPDATED



THIS DOCUMENT IS THE PROPERTY OF ENSIGN-BICKFORD AEROSPACE & DEFENSE COMPANY AND SHALL NOT BE DISCLOSED, REPRODUCED IN WHOLE OR IN PART, OR USED FOR ANYONE OTHER THAN ENSIGN-BICKFORD AEROSPACE & DEFENSE COMPANY, WITHOUT ITS PRIOR WRITTEN CONSENT. THIS RESTRICTION DOES NOT APPLY TO OR PURPORT TO LIMIT THE RIGHT TO USE INFORMATION OBTAINED LAWFULLY FROM SOURCES OTHER THAN ENSIGN-BICKFORD AEROSPACE & DEFENSE COMPANY.

INFORMATION SUBJECT TO EXPORT CONTROL LAWS
THESE COMMODITIES AND TECHNOLOGY ARE CONTROLLED IN ACCORDANCE WITH THE UNITED STATES EXPORT ADMINISTRATION REGULATIONS (15CFR730-744). DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED.

EBAD Ensign-Bickford Aerospace & Defense	SIZE	CAGE CODE	DWG NO.	REV
DRAWN BY JR	D	96336	F19155	C
CHECKER BMG	SCALE 3:1		SHEET 2 OF 2	