
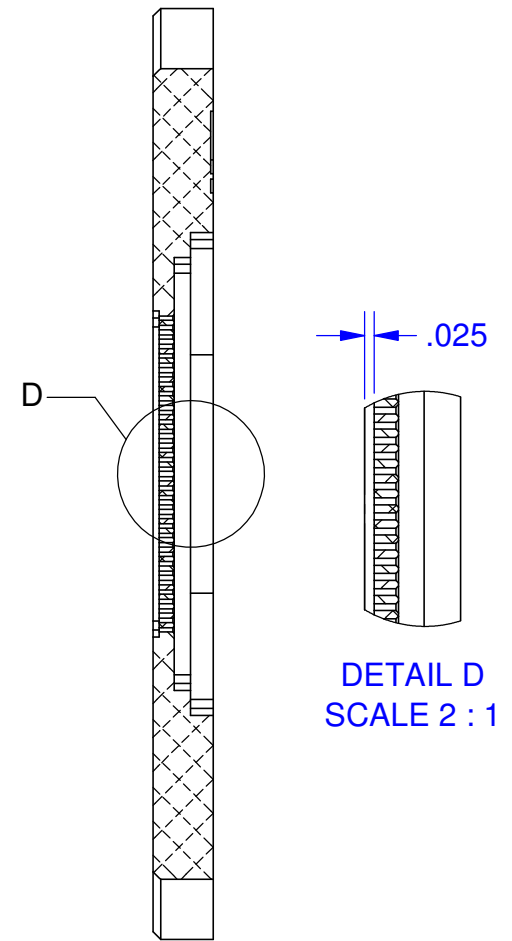
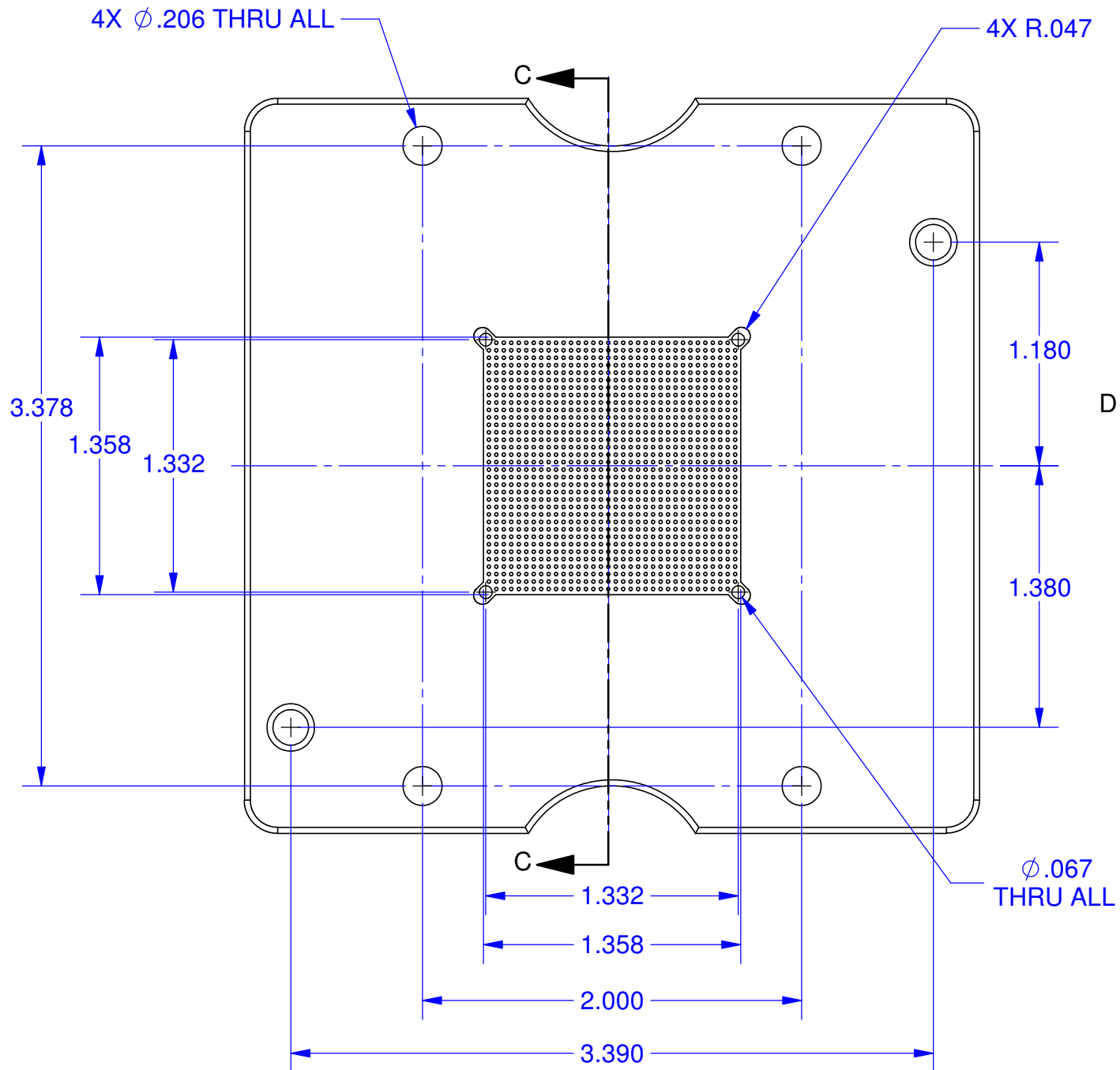


NOTES: (UNLESS OTHERWISE SPECIFIED).
 1) DIMENSIONS: INCH [MM].

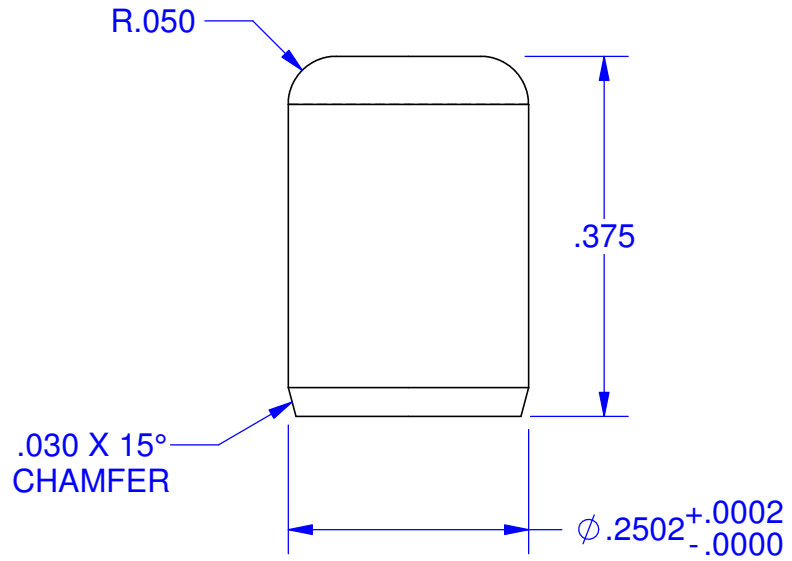
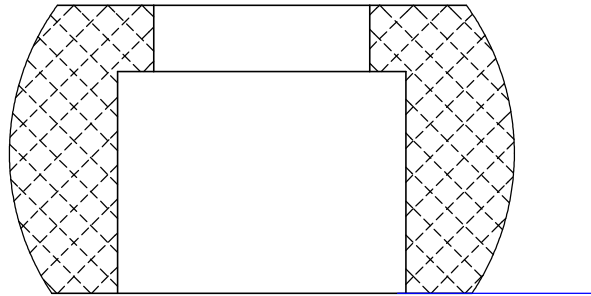
APPROVALS		DATE					
DRAWN	R. Le	9/12/2018					
ENG	M. Hart	9/12/2018		TITLE			
MFG				C7-GRAPHITE-1152-B			
QA				GRAPHITE TOOL			
CUST				SCALE	SIZE	DRAWING NO.	REV
REVISED				1:1	A	713451	A
DO NOT SCALE DRAWING						SHEET 1 OF 15	

**BOTTOM VIEW
TOP GRAPHITE**



TopLine [®]			
TITLE C7-GRAPHITE-1152-B GRAPHITE TOOL			
SCALE 1.25:1	SIZE A	DRAWING NO. 713451	REV A
DO NOT SCALE DRAWING		SHEET 2 OF 15	

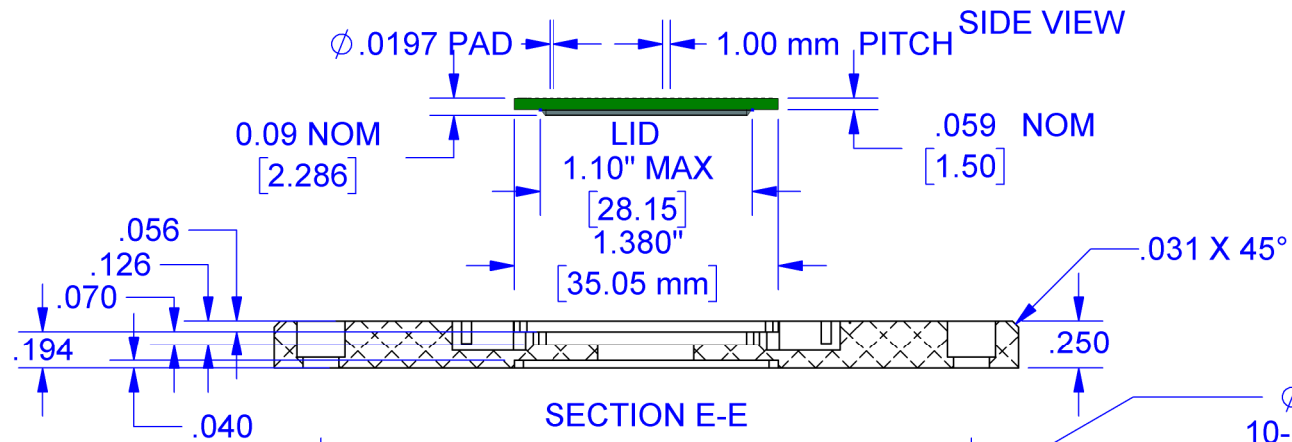
ALIGNMENT PIN
DWG 70256X



DETAIL P
SEE SHEET 1

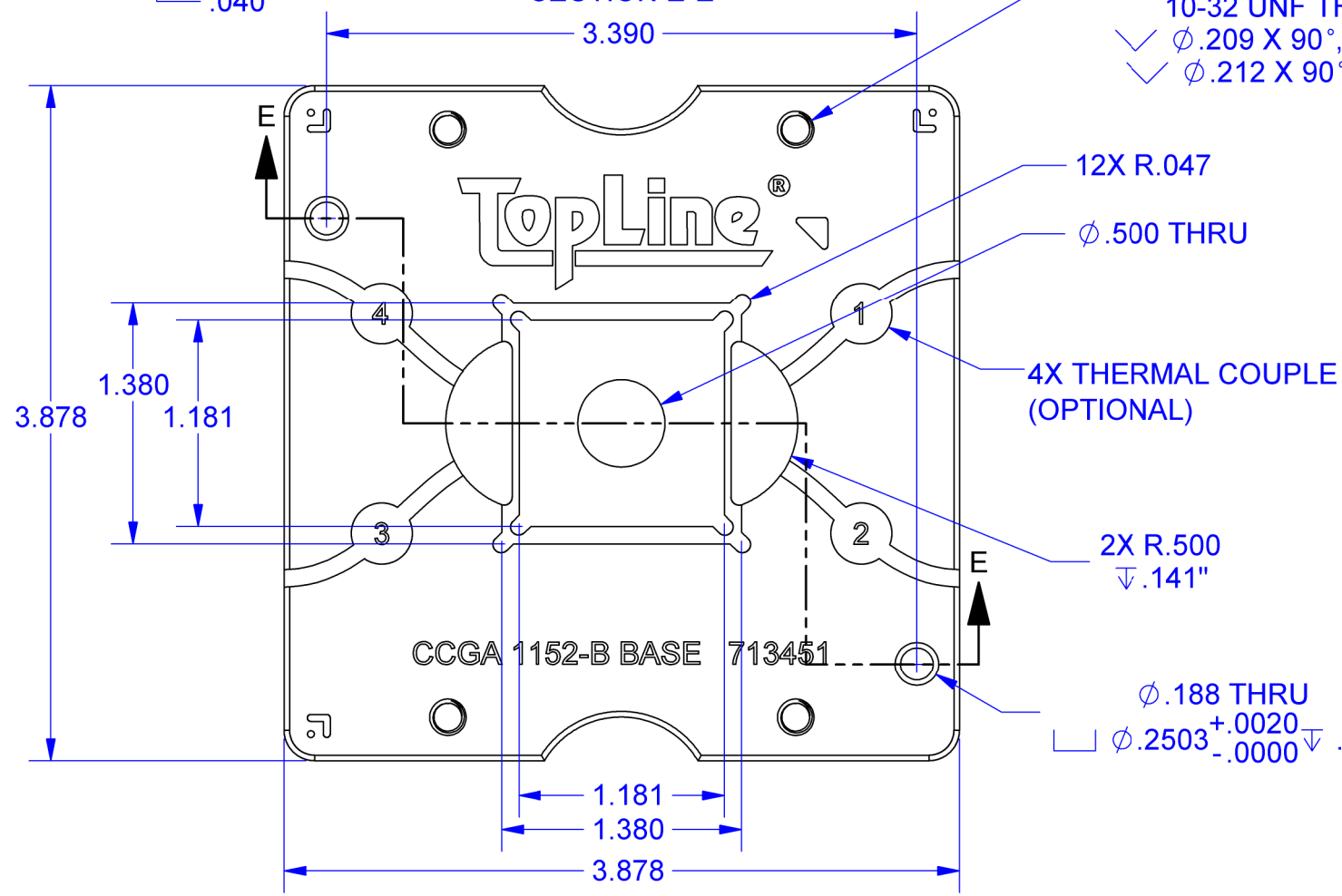
NOTES: (UNLESS OTHERWISE SPECIFIED).
1) DIMENSIONS: INCH [MM].

TopLine [®]			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
6:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 3 OF 15



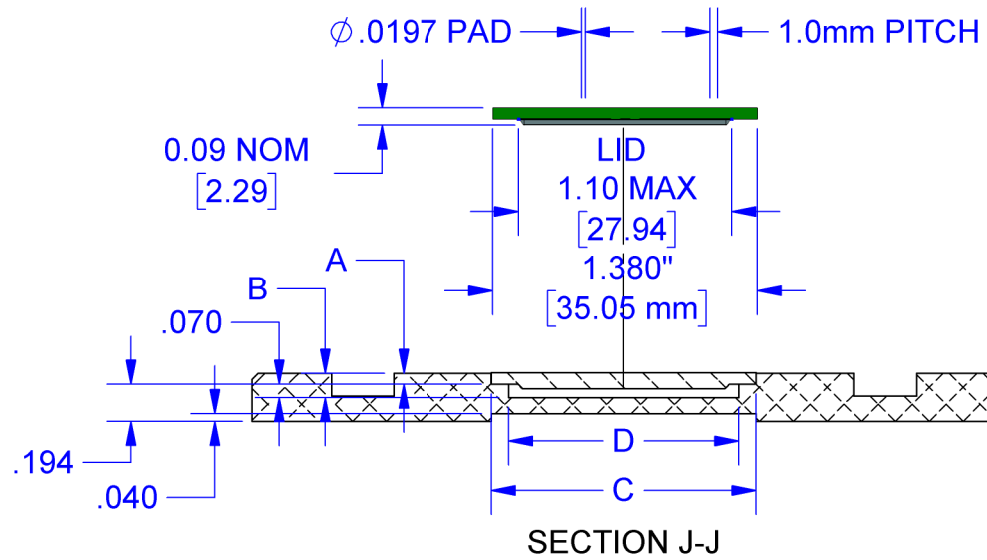
SECTION E-E

- $\phi .159$ THRU ALL
- 10-32 UNF THRU ALL
- $\phi .209$ X 90°, NEAR SIDE
- $\phi .212$ X 90°, FAR SIDE

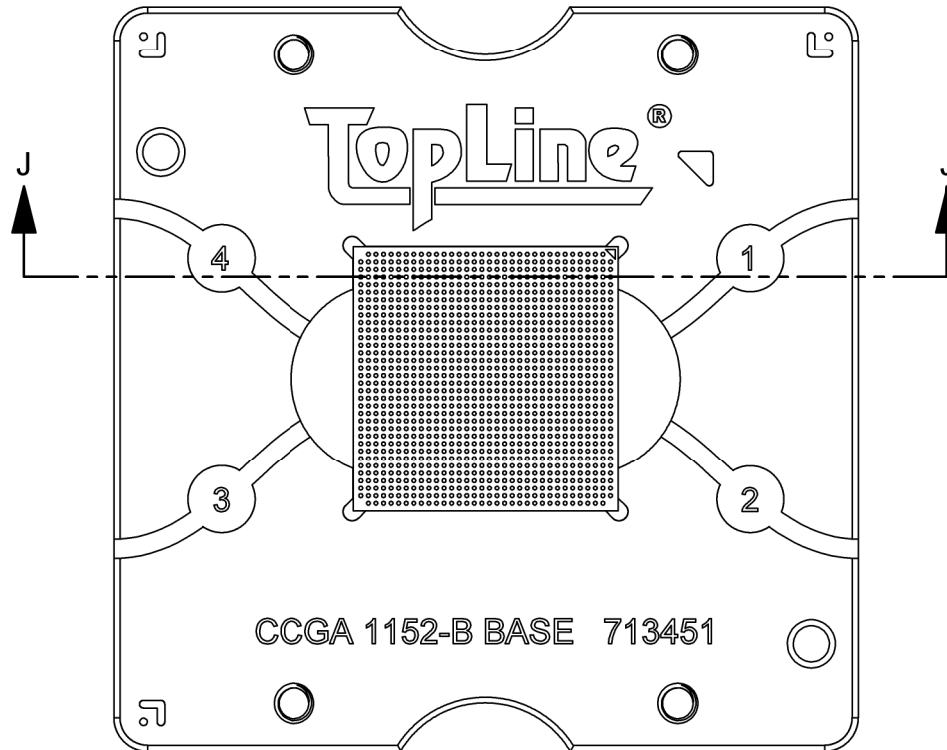


TopLine ®			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 4 OF 15

BASE ASSEMBLY



REF	DESCRIPTION	INCH
A	POCKET DEPTH PERIMETER	0.056
B	POCKET DEPTH FOR + LID	0.104
C	POCKET X/Y	1.382
D	LID DOWNSET X/Y	1.182



TopLine [®]			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 5 OF 15

BOTTOM VIEW
BASE GRAPHITE

Ø .500 THRU ALL

4X R.047
VACUUM CHASE
(OPTIONAL)

3.378

1.378

Ø .159 THRU ALL

10-32 UNF THRU ALL

✓ Ø .209 X 90°, BOTTOM SIDE

✓ Ø .212 X 90°, TOP SIDE

1.378

2.000

TopLine®

TITLE C7-GRAPHITE-1152-B
GRAPHITE TOOL

SCALE	SIZE	DRAWING NO.	REV
1.5:1	A	713451	A

DO NOT SCALE DRAWING

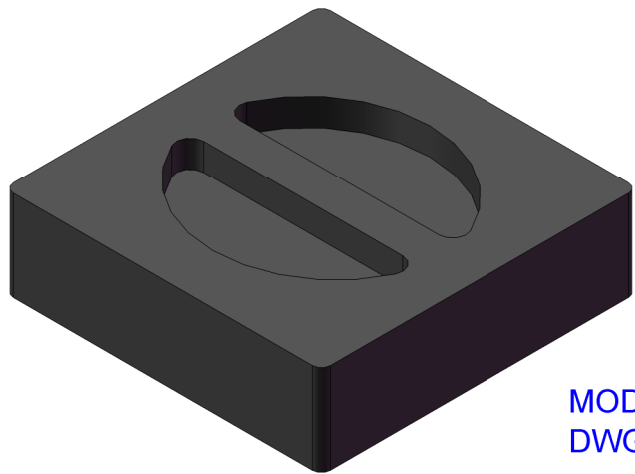
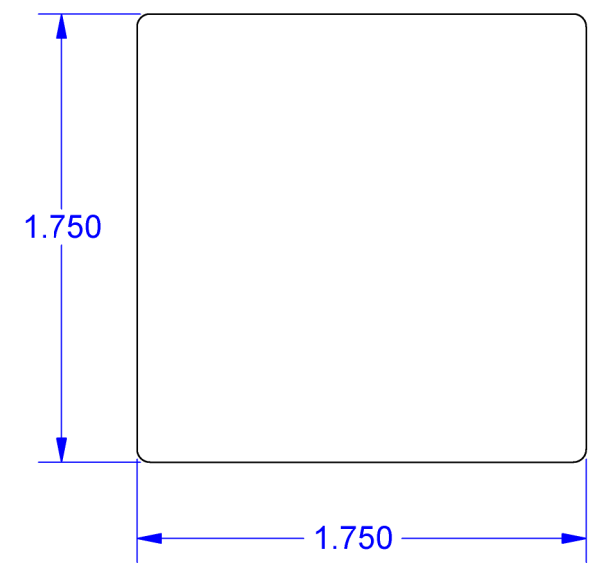
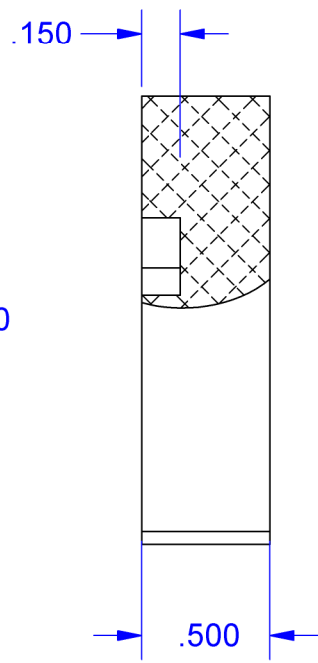
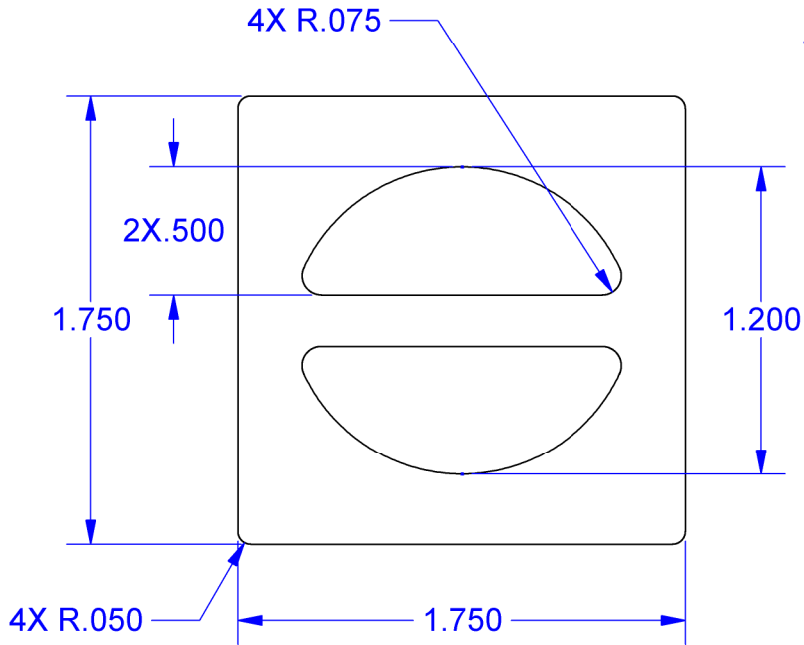
SHEET 6 OF 15

**C7-WEIGHT-A
700150**

TOP VIEW

SIDE VIEW

BOTTOM VIEW



MODEL
DWG 700150

NOTES: (UNLESS OTHERWISE SPECIFIED).

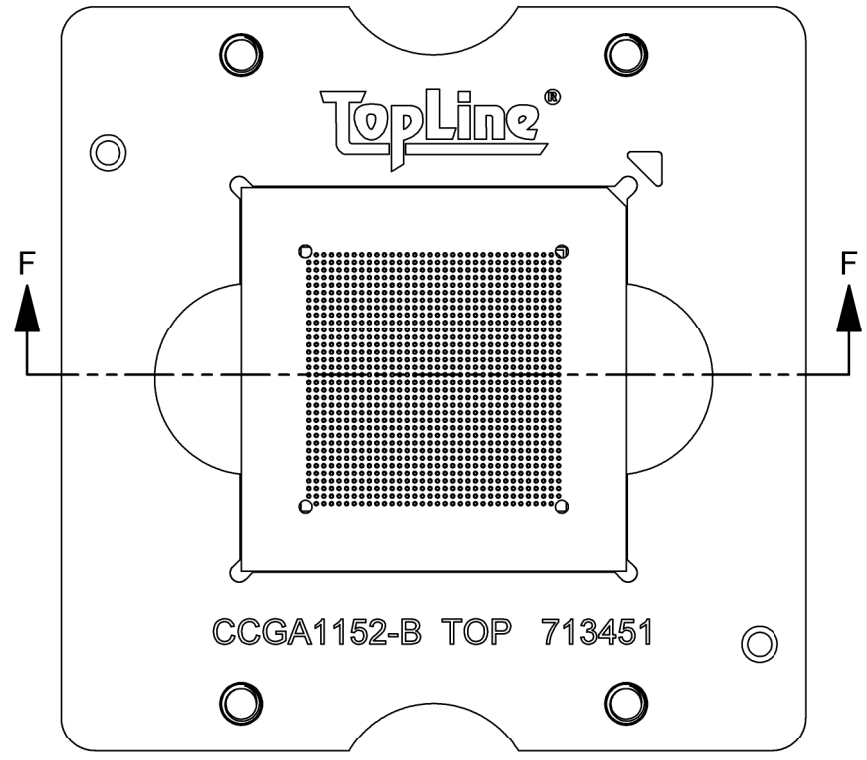
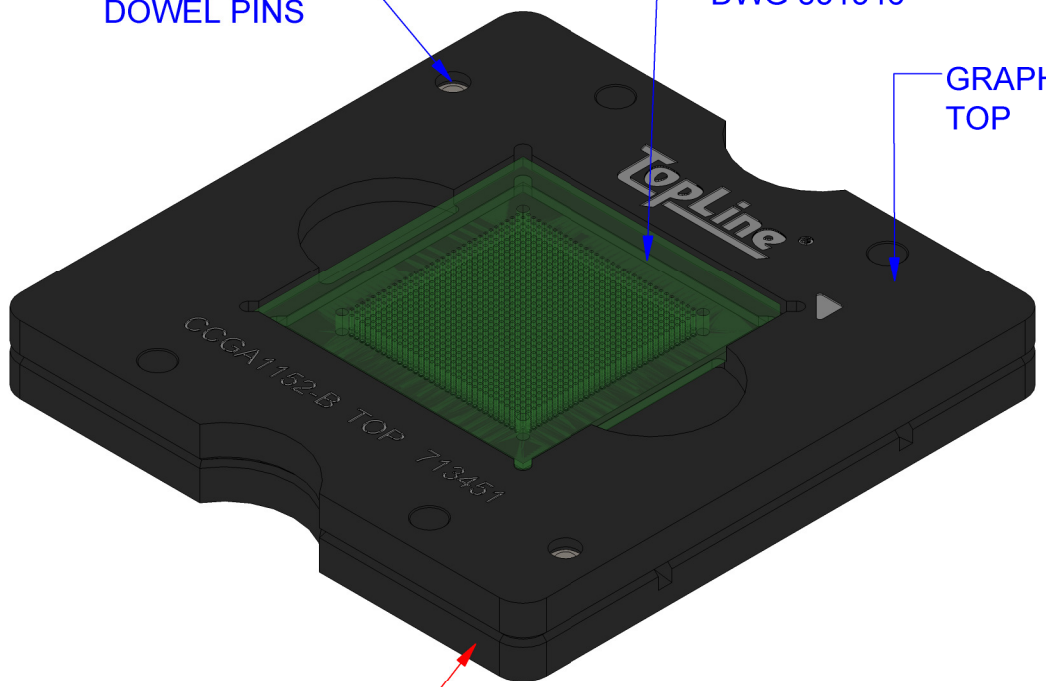
- 1) DIMENSIONS: INCHES.
- 2) MATERIAL: GRAPHITE.
- 3) OMNI-DIRECTIONAL.
- 4) APPLICATION: APPLIES PRESSURE TO COLUMNS.

TopLine [®]			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
2:1.5	A	713451	A
DO NOT SCALE DRAWING			SHEET 7 OF 15

ALIGNMENT
DOWEL PINS

FLIP-PACK®
DWG 831346

GRAPHITE
TOP



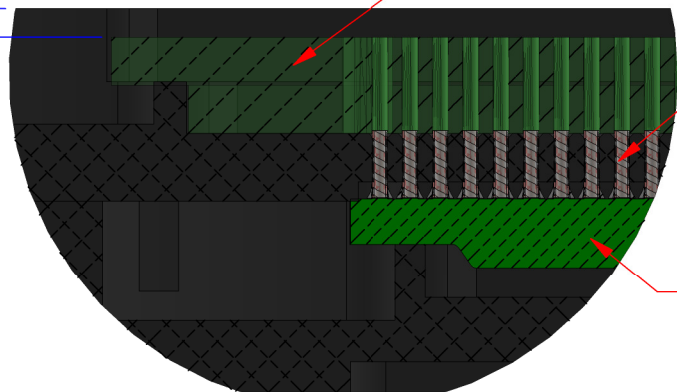
GRAPHITE
BASE

FLIP PACK®

COLUMNS

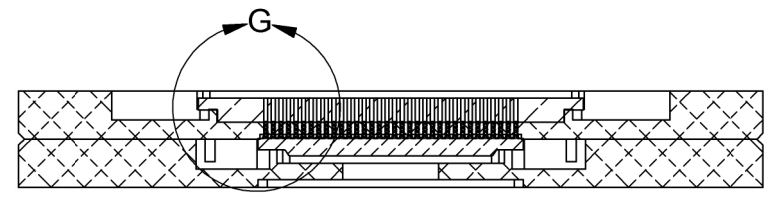
SUBSTRATE

.037



DETAIL G
SCALE 4 : 1

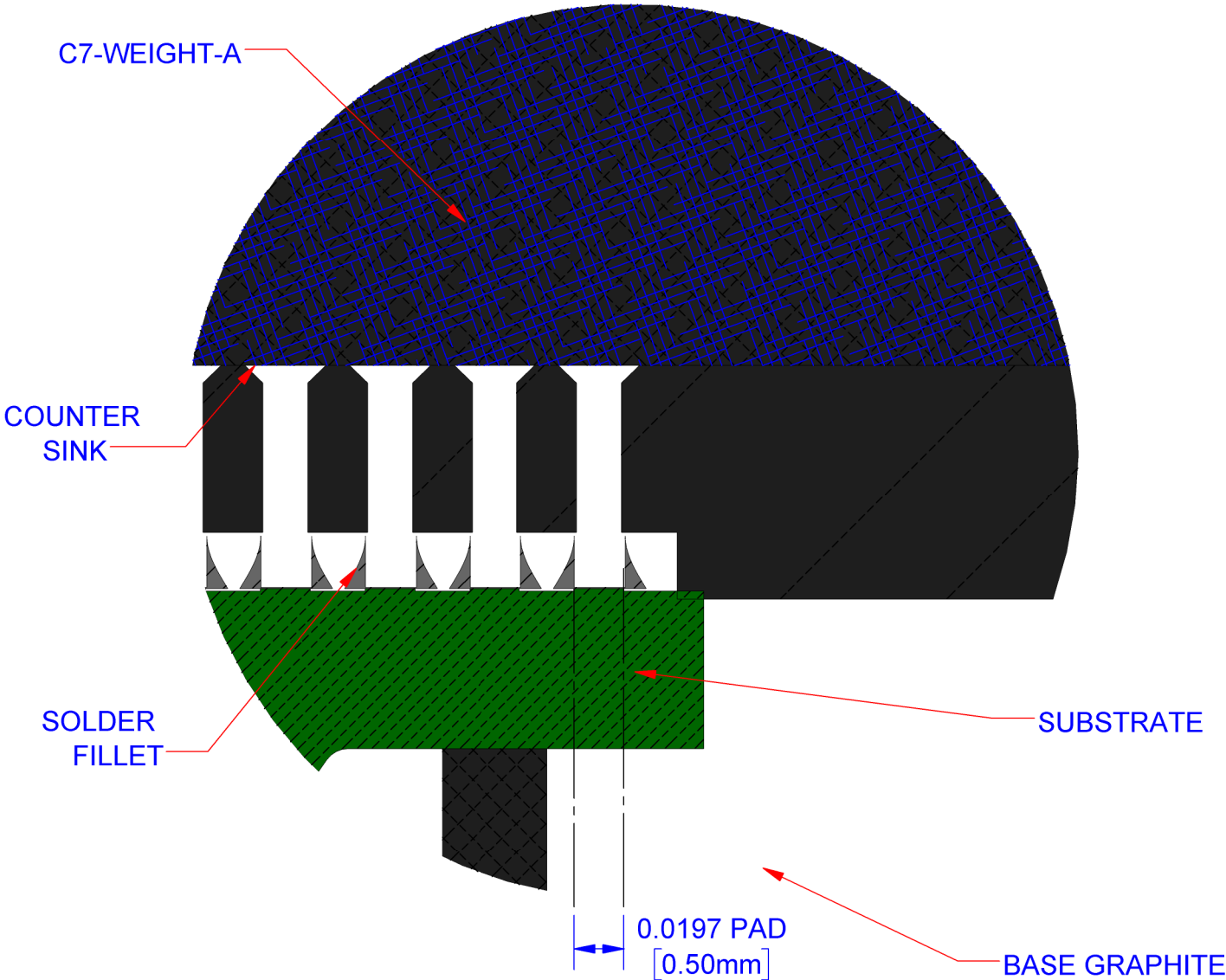
TWO SECTIONS
GRAPHITE
SEATED TOGETHER



SECTION F-F

TopLine®			
TITLE C7-GRAPHITE-1152-B GRAPHITE TOOL			
SCALE 1:1	SIZE A	DRAWING NO. 713451	REV A
DO NOT SCALE DRAWING			SHEET 8 OF 15

STACK-UP DIAGRAM



DETAIL Q
SEE SHEET 12

TopLine [®]			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
16:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 9 OF 15

EXPLODED SIDE VIEW

FLIP-PACK ®
U.S. PATENT 9,629,259

COLUMNS
X 1152

GRAPHITE
TOP

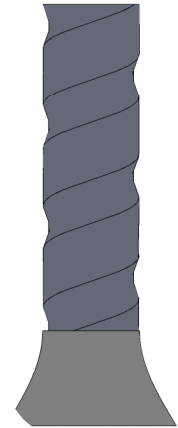
CCGA

GRAPHITE
BASE

PADS

LID (COVER)

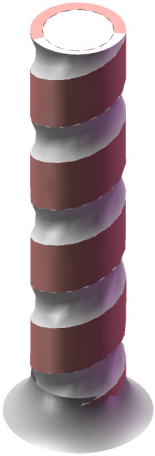
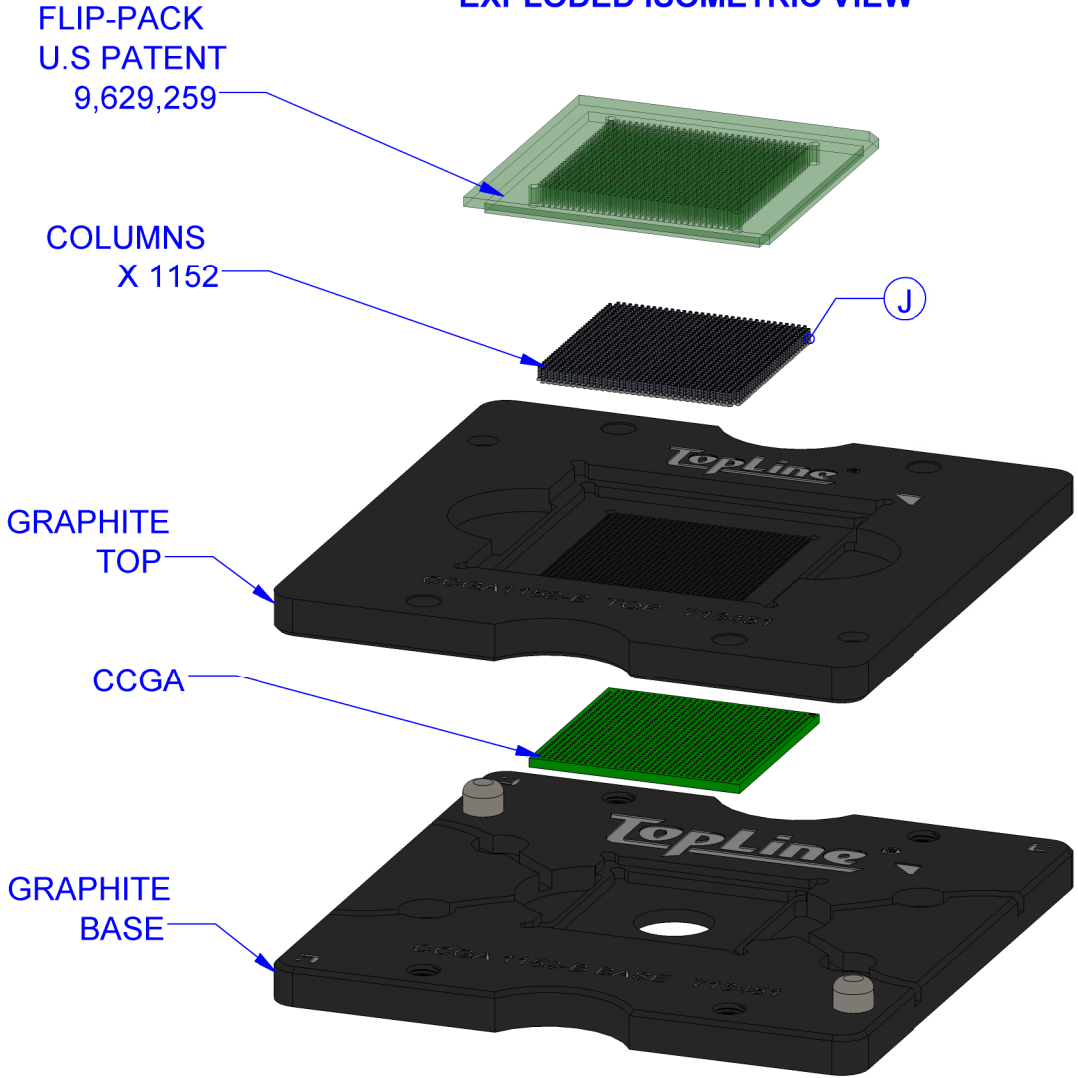
H



DETAIL H
SCALE 25 : 1

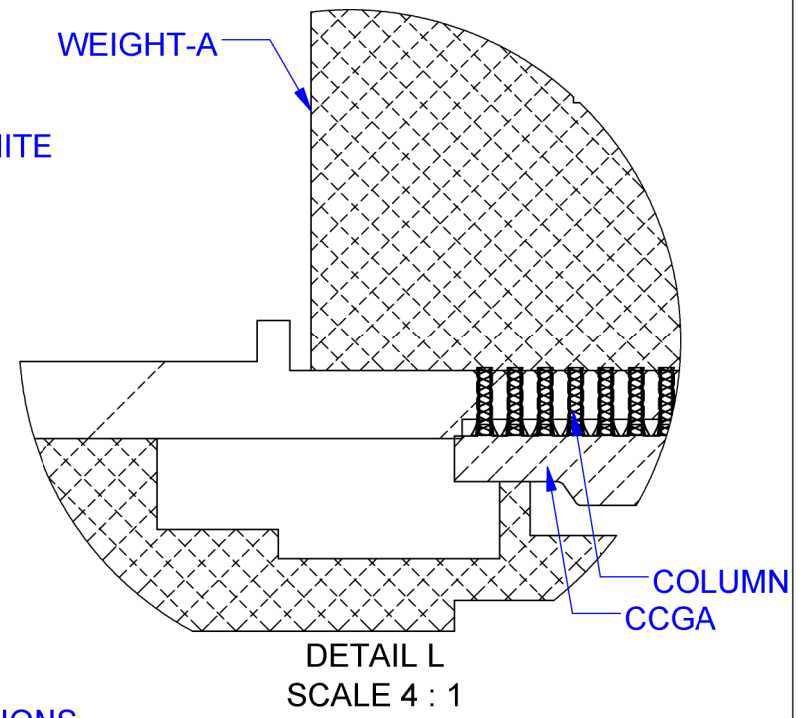
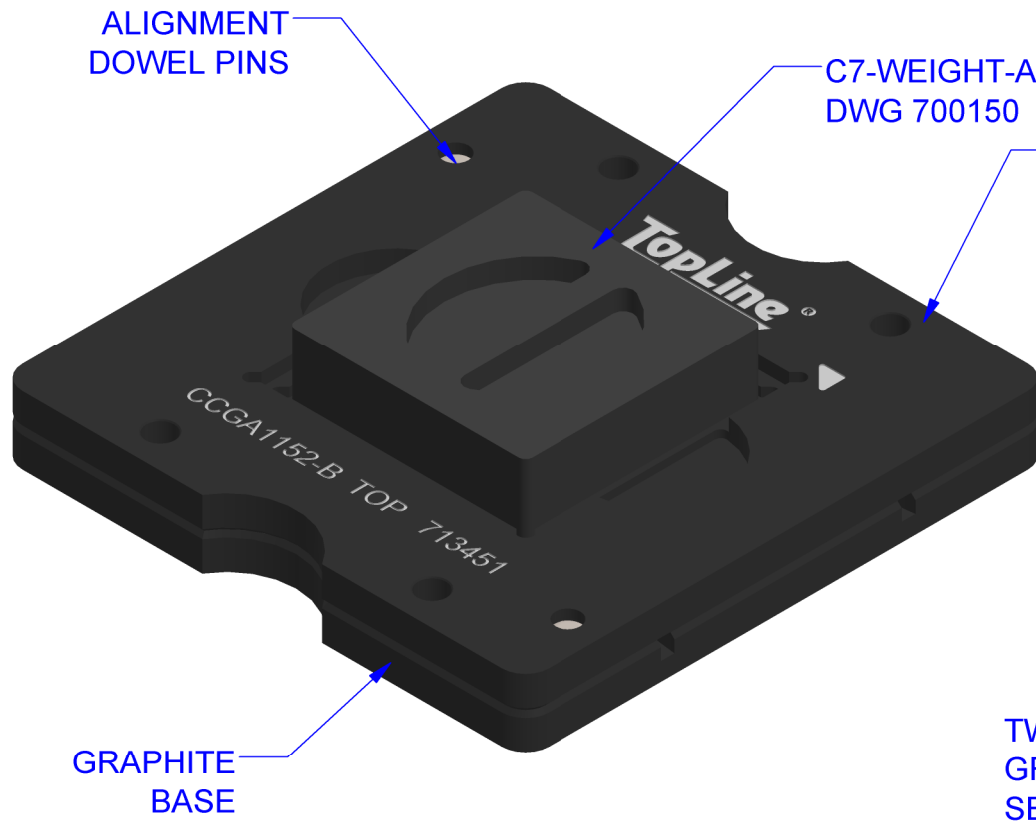
TopLine ®			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 10 OF 15

EXPLODED ISOMETRIC VIEW

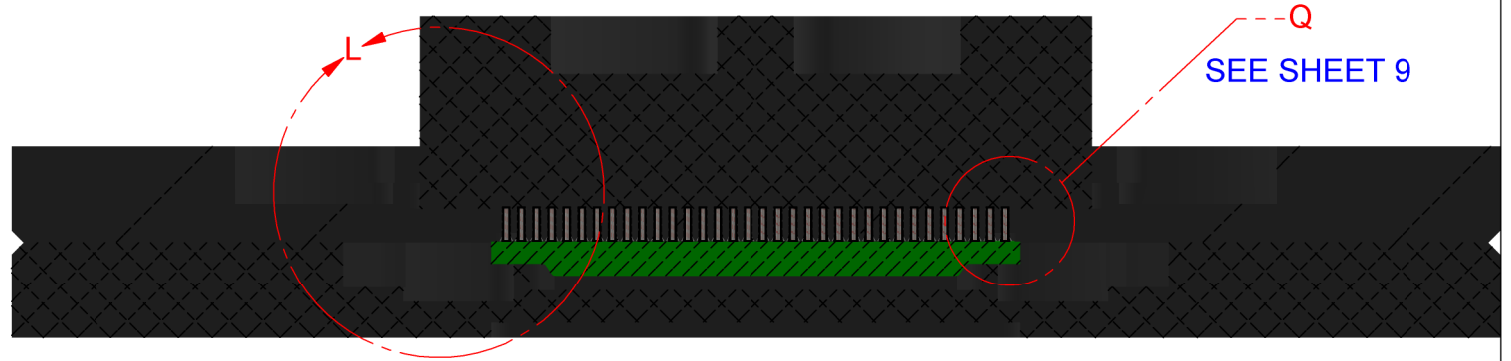
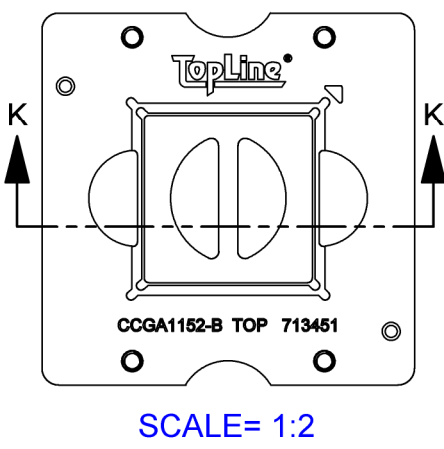


**DETAIL J
SCALE 25 : 1**

TopLine[®]			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
0.85:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 11 OF 15



TWO SECTIONS
GRAPHITE
SEATED TOGETHER



SECTION K-K
SCALE 2 : 1

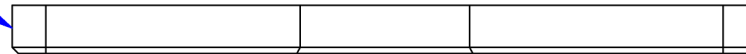
TopLine ®			
TITLE C7-GRAPHITE-1152-B GRAPHITE TOOL			
SCALE 1:1	SIZE A	DRAWING NO. 713451	REV A
DO NOT SCALE DRAWING			SHEET 12 OF 15

EXPLODED SIDE VIEW

C7-WEIGHT-A
DWG 700150



GRAPHITE
TOP



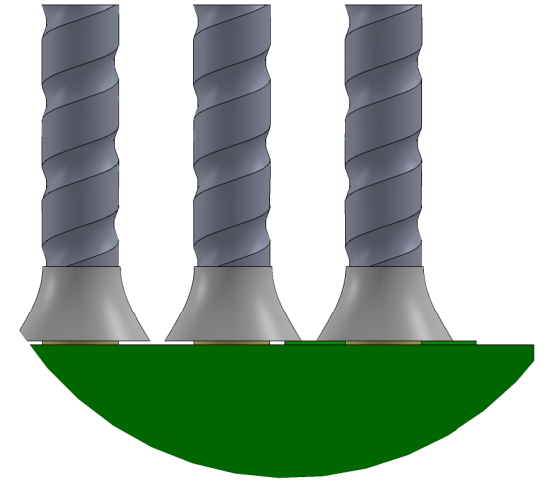
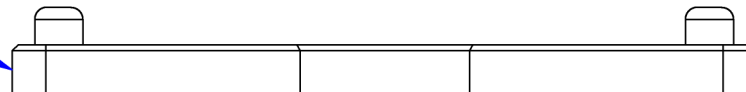
COLUMNS
X 1152

CCGA



M

GRAPHITE
BASE

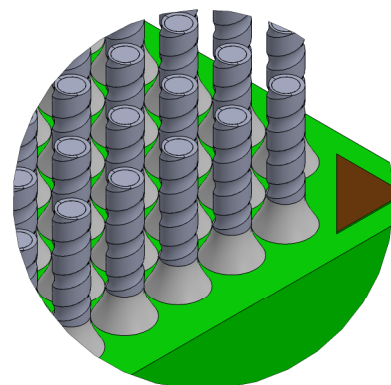
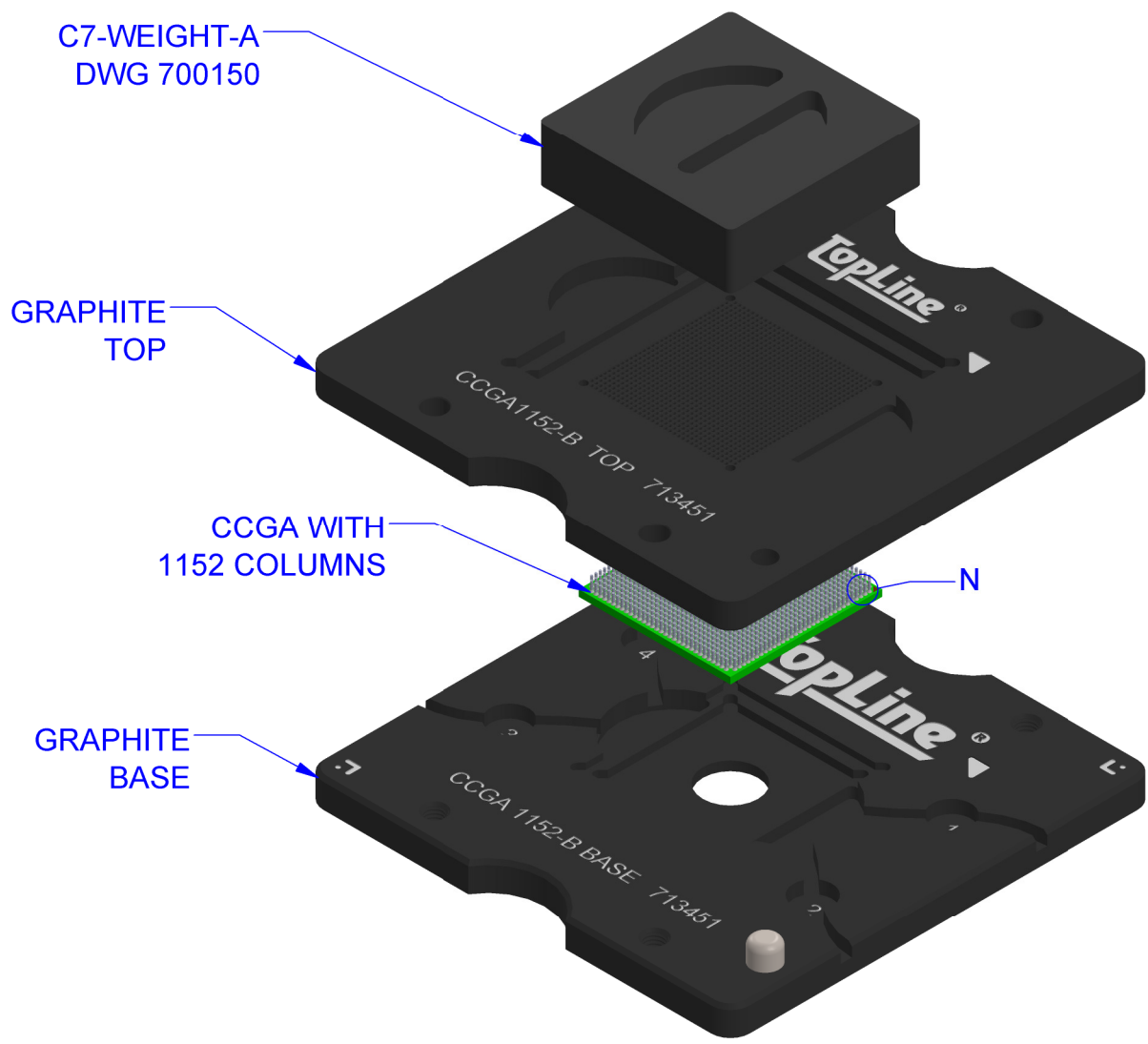


DETAIL M
SCALE 20 : 1

Sn63Pb37 FILLET
AFTER REFLOW

TopLine ®			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 13 OF 15

EXPLODED ISOMETRIC VIEW

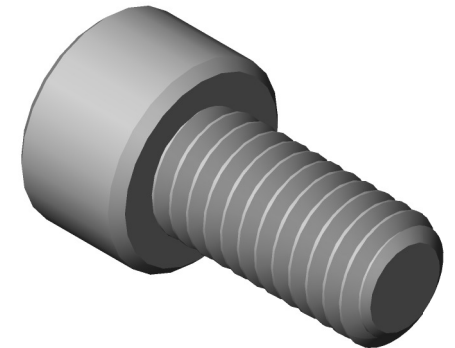
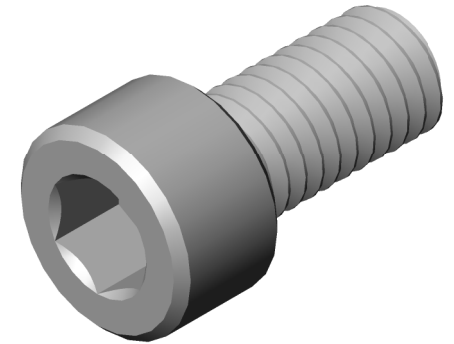
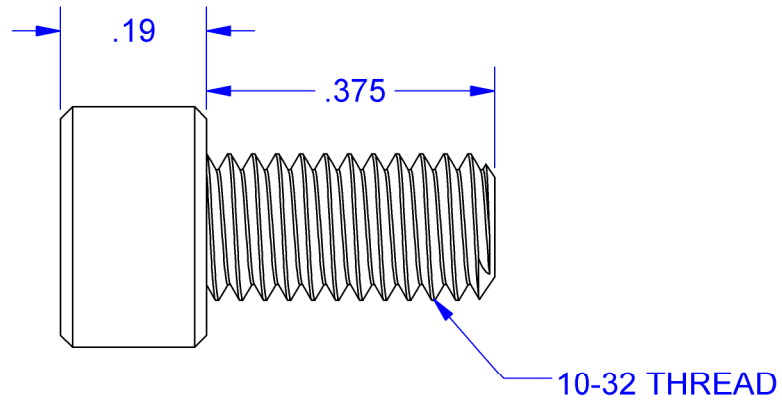
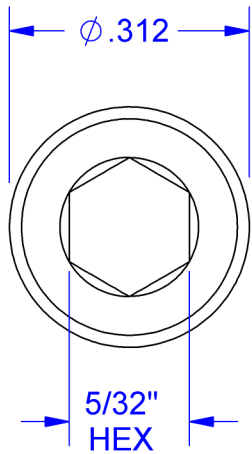


DETAIL N
SCALE 10 : 1
Sn63Pb37 FILLET
AFTER REFLOW

TopLine [®]			
TITLE		C7-GRAPHITE-1152-B GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
0.85:1	A	713451	A
DO NOT SCALE DRAWING			SHEET 14 OF 15

CAP SCREW DWG 704051

MODELS



NOTES:

- 1) DIMENSIONS: INCH (UNLESS OTHERWISE SPECIFIED).
- 2) MATERIAL: SEE TABLE.
- 3) THREAD: SEE TABLE.
- 4) COLOR: STAINLESS.

DRILL TABLE

MATERIAL	THREAD	MAX OD	TAP DRILL START HOLE	CL HOLE CLOSE FIT	DWG
STAINLESS	10-32	0.190"	0.156"	0.206"	704051

TopLine[®]

TITLE				C7-GRAPHITE-1152-B GRAPHITE TOOL			
SCALE	SIZE	DRAWING NO.		REV			
4:1	A	713451		A			
DO NOT SCALE DRAWING						SHEET 15 OF 15	