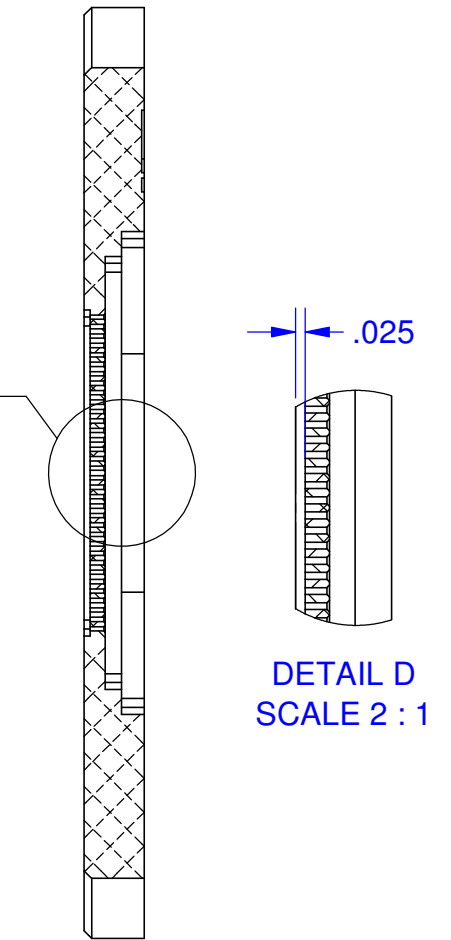
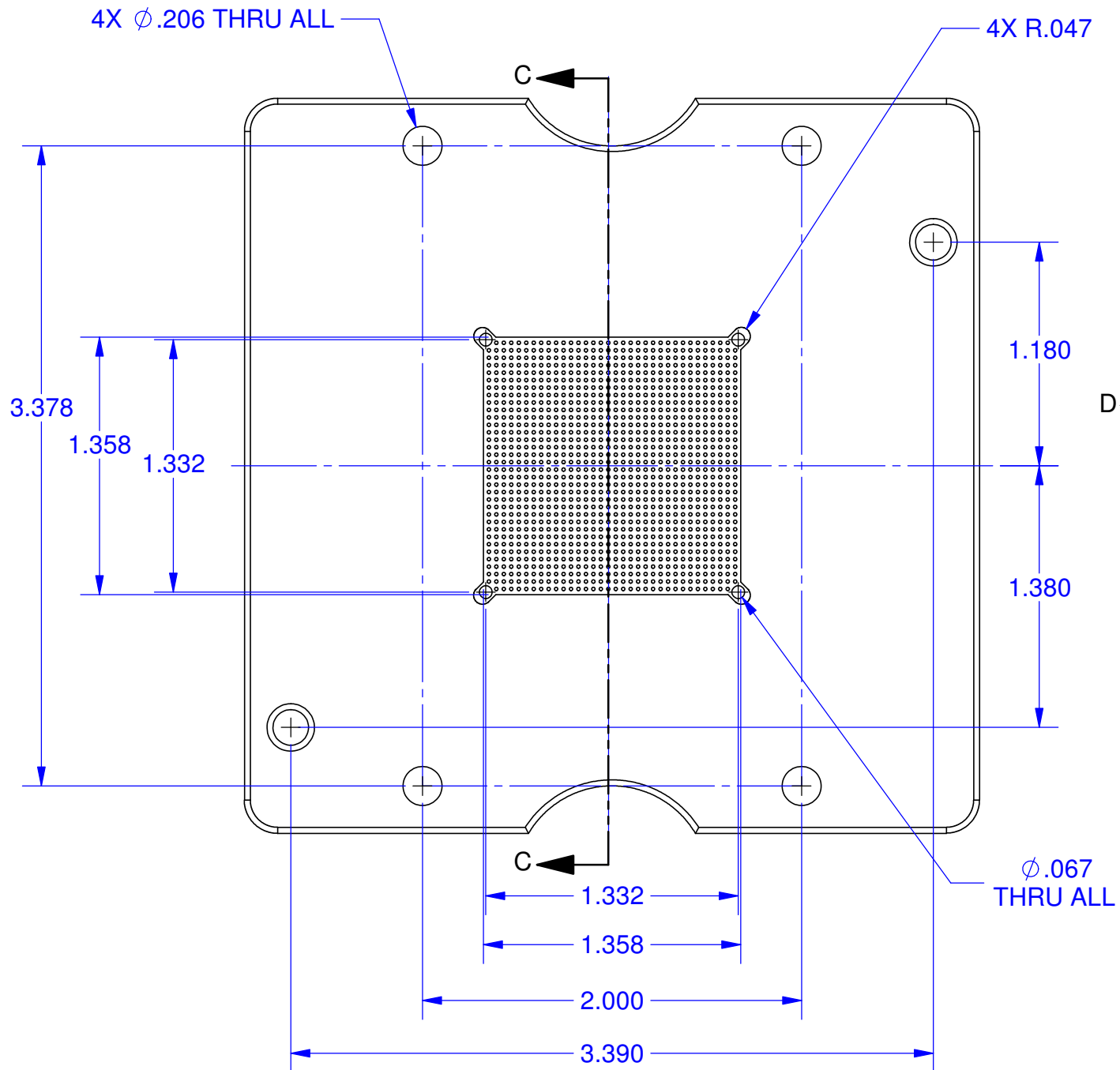


NOTES: (UNLESS OTHERWISE SPECIFIED).  
 1) DIMENSIONS: INCH [MM].

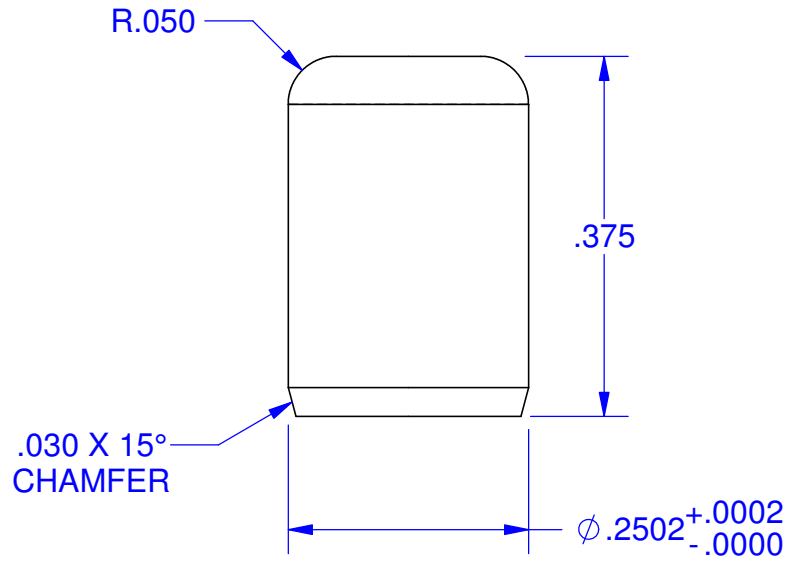
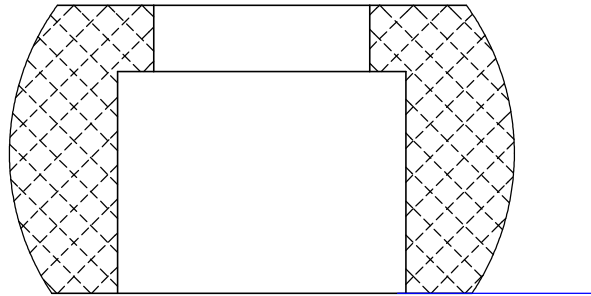
APPROVALS		DATE	<b>TopLine®</b>			
DRAWN	R. Le	10/14/2018	TITLE <b>C7-GRAPHITE-1152-C GRAPHITE TOOL</b>			
ENG	M. Hart	10/14/2018				
MFG			SCALE	SIZE	DRAWING NO.	REV
QA			1:1	A	713452	A
CUST			DO NOT SCALE DRAWING			SHEET 1 OF 15
REVISED						

BOTTOM VIEW  
TOP GRAPHITE



<b>TopLine</b> <sup>®</sup>			
TITLE C7-GRAPHITE-1152-C GRAPHITE TOOL			
SCALE 1.25:1	SIZE A	DRAWING NO. 713452	REV A
DO NOT SCALE DRAWING		SHEET 2 OF 15	

ALIGNMENT PIN  
DWG 70256X

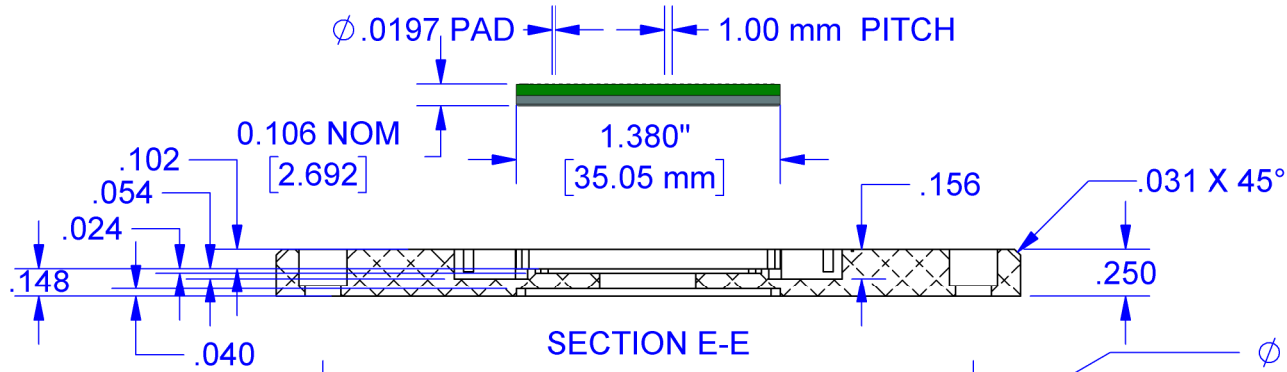


DETAIL P  
SEE SHEET 1

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

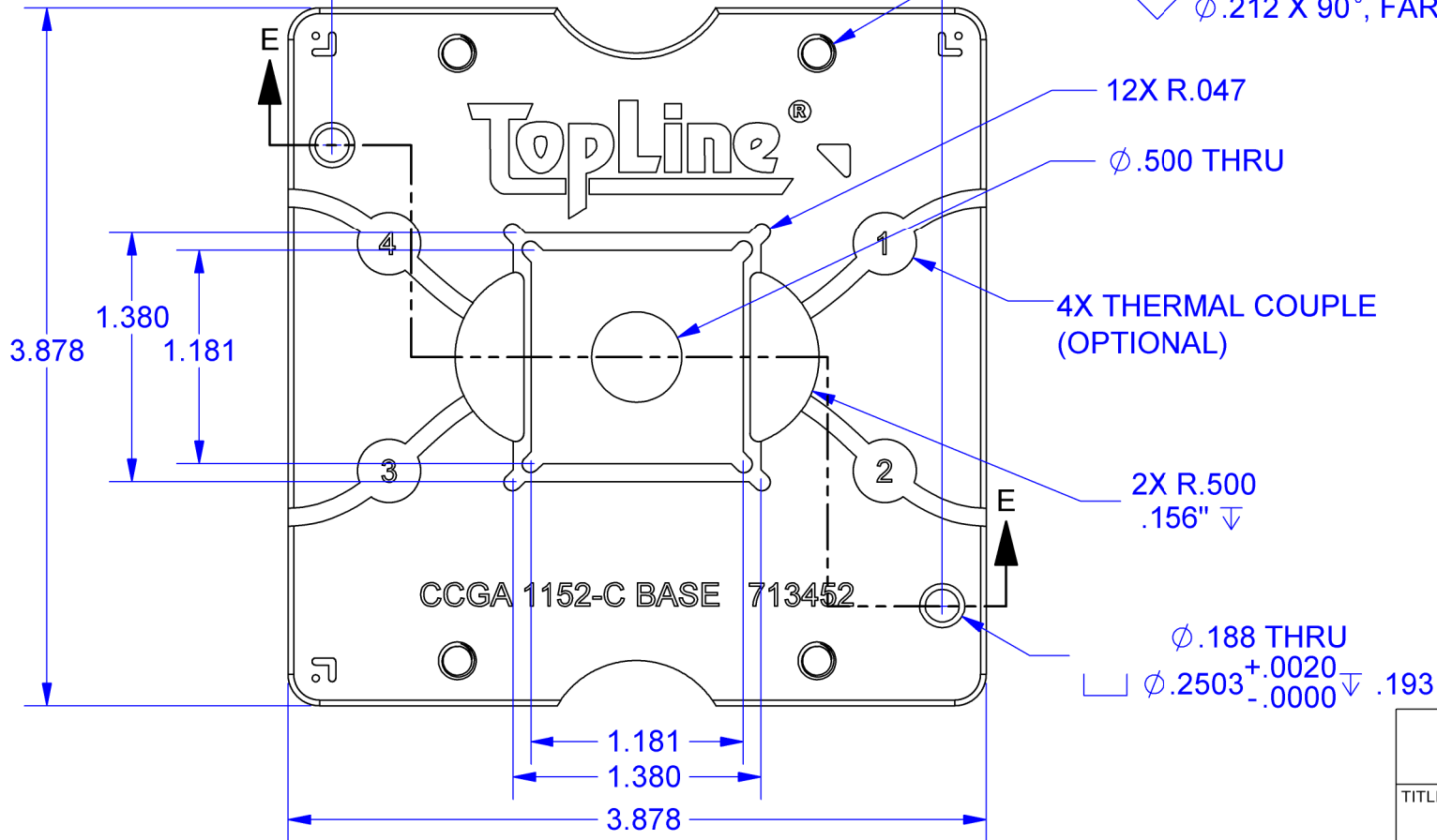
<b>TopLine</b> <sup>®</sup>			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
6:1	A	713452	A
DO NOT SCALE DRAWING			SHEET 3 OF 15

SIDE VIEW



SECTION E-E  
3.390

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

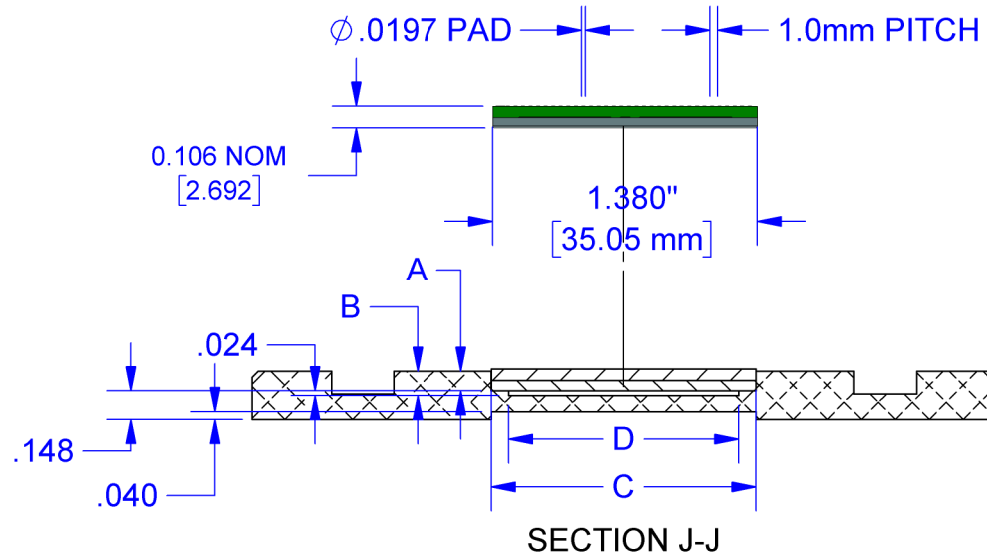


TOP VIEW  
BASE GRAPHITE

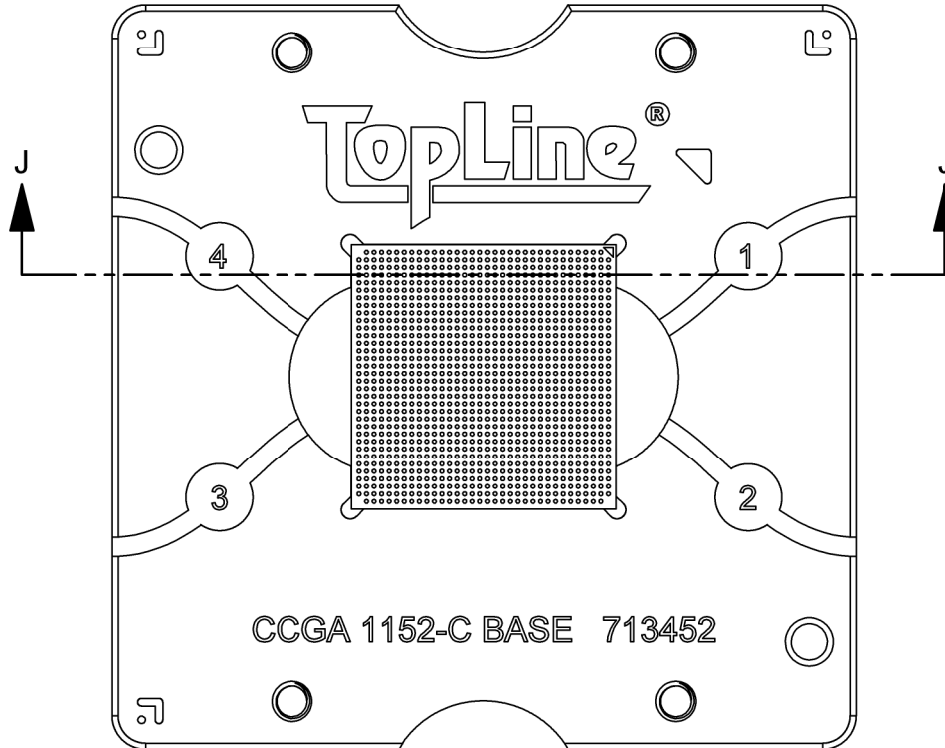
**TopLine®**

TITLE			
C7-GRAPHITE-1152-C GRAPHITE TOOL			
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713452	A
DO NOT SCALE DRAWING			SHEET 4 OF 15

### BASE ASSEMBLY



REF	DESCRIPTION	INCH
A	POCKET DEPTH PERIMETER	0.102
B	POCKET DEPTH FOR + LID	0.126
C	POCKET X/Y	1.382
D	LID DOWNSET X/Y	1.182



<b>TopLine®</b>			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713452	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-C  
GRAPHITE TOOL

SCALE	SIZE	DRAWING NO.	REV
1.5:1	A	713452	A

DO NOT SCALE DRAWING

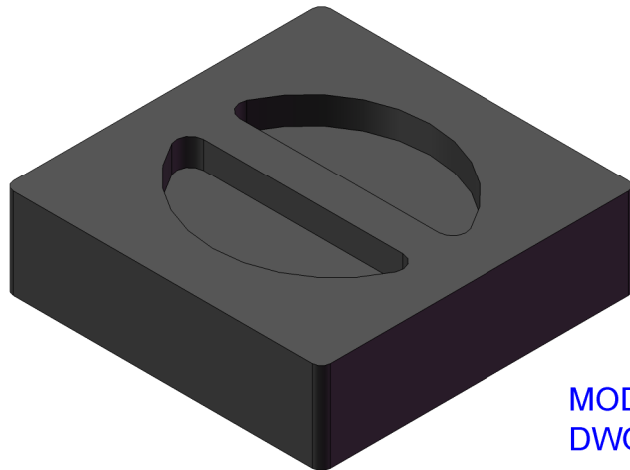
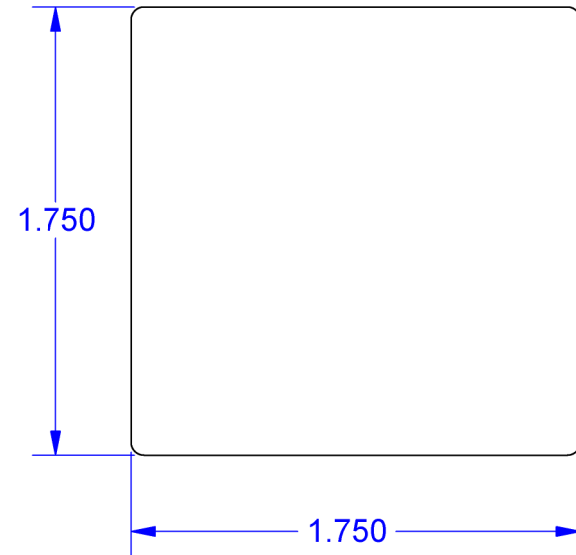
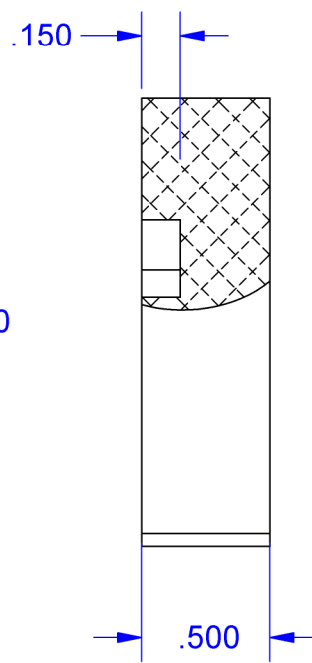
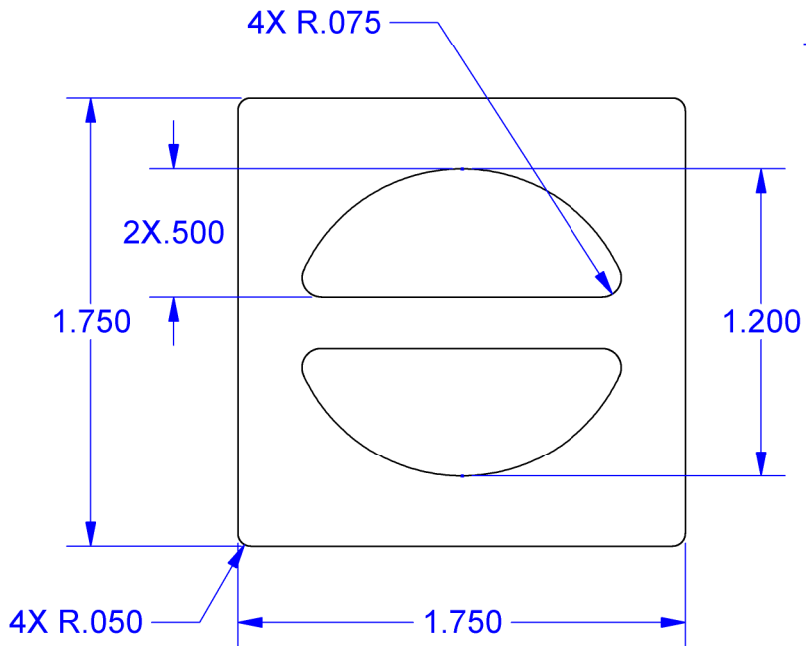
SHEET 6 OF 15

**C7-WEIGHT-A  
700150**

TOP VIEW

SIDE VIEW

BOTTOM VIEW



**MODEL  
DWG 700150**

**NOTES: (UNLESS OTHERWISE SPECIFIED).**

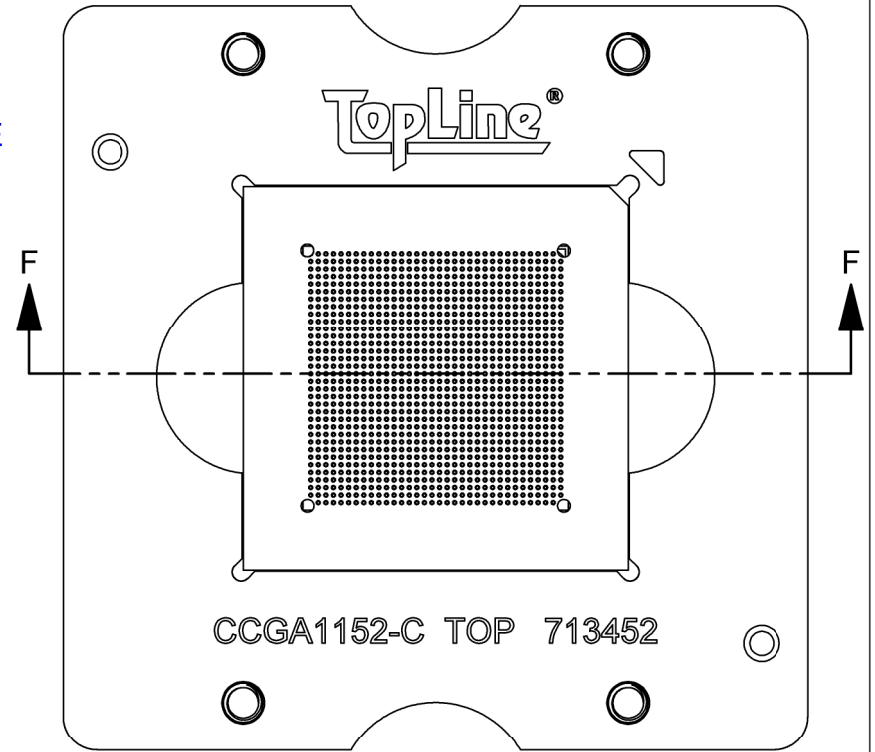
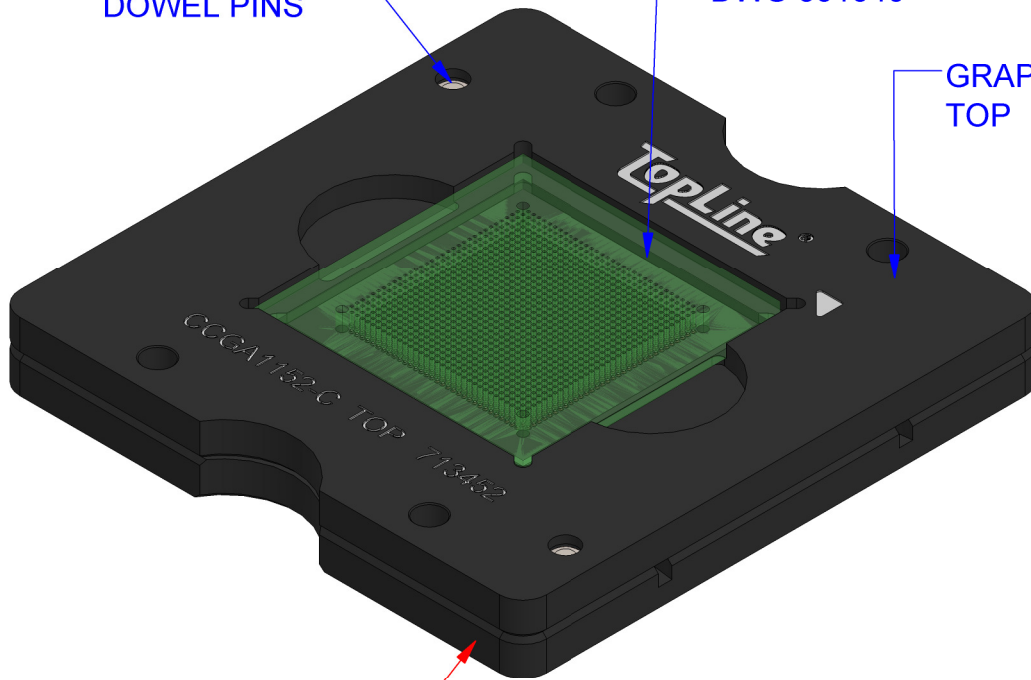
- 1) DIMENSIONS: INCHES.
- 2) MATERIAL: GRAPHITE.
- 3) OMNI-DIRECTIONAL.
- 4) APPLICATION: APPLIES PRESSURE TO COLUMNS.

<b>TopLine</b> ®			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
2:1.5	A	713452	A
DO NOT SCALE DRAWING			SHEET 7 OF 15

ALIGNMENT  
DOWEL PINS

FLIP-PACK®  
DWG 831346

GRAPHITE  
TOP



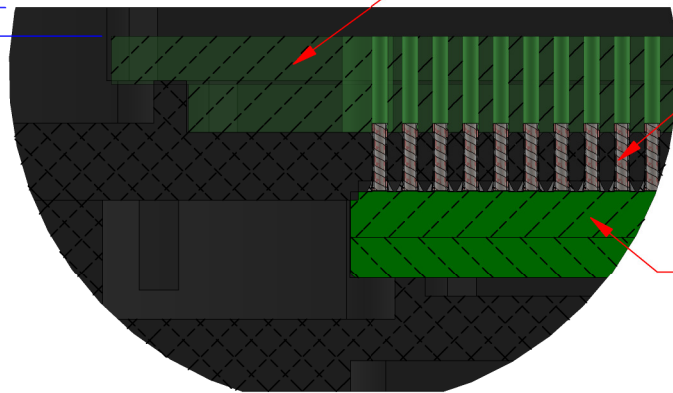
GRAPHITE  
BASE

FLIP PACK®

COLUMNS

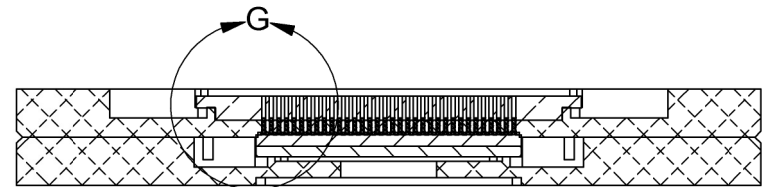
SUBSTRATE

.037



DETAIL G  
SCALE 4 : 1

TWO SECTIONS  
GRAPHITE  
SEATED TOGETHER

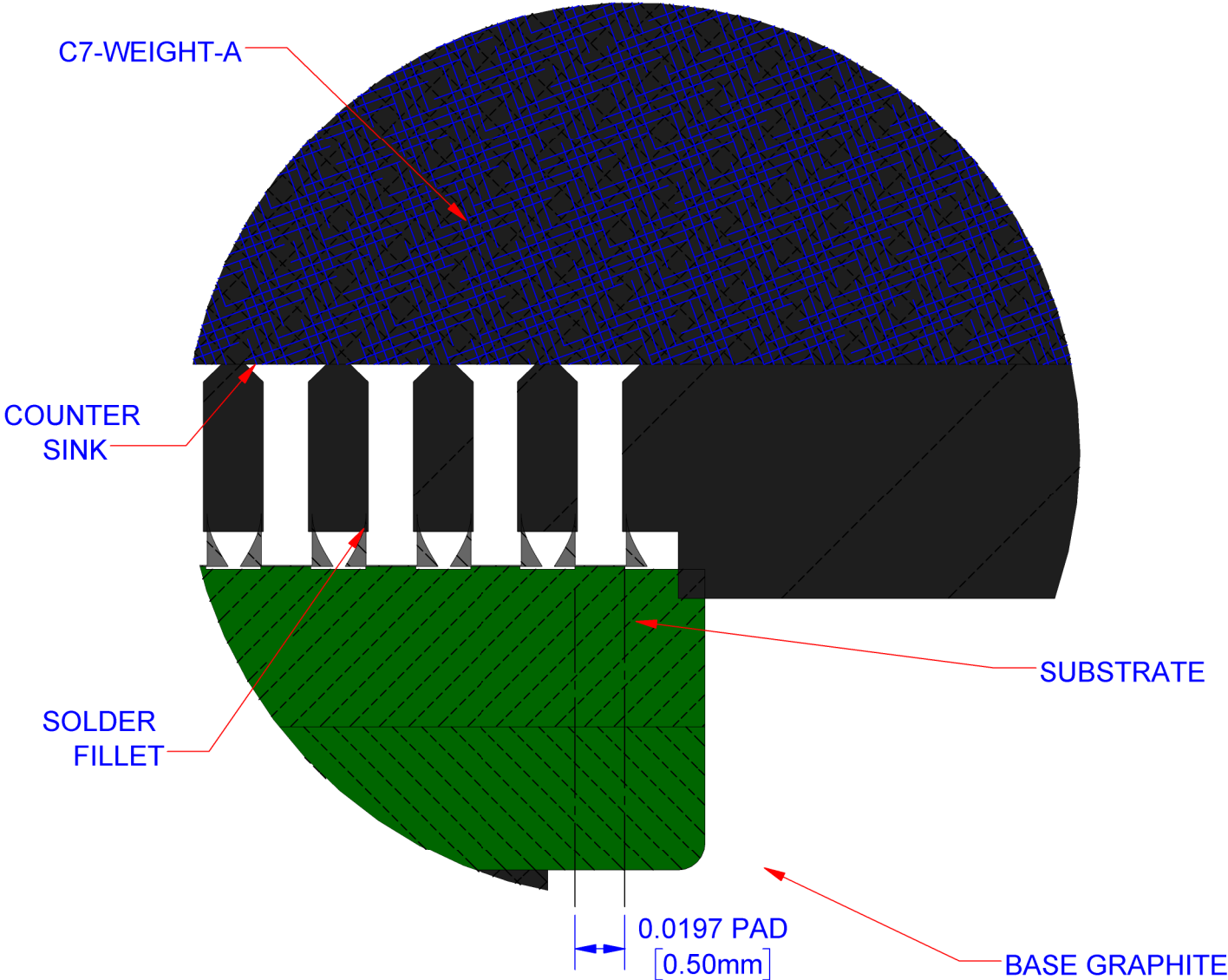


SECTION F-F

<b>TopLine®</b>			
TITLE C7-GRAPHITE-1152-C GRAPHITE TOOL			
SCALE 1:1	SIZE A	DRAWING NO. 713452	REV A
DO NOT SCALE DRAWING			SHEET 8 OF 15



STACK-UP DIAGRAM



DETAIL Q  
SEE SHEET 12

<b>TopLine</b> <sup>®</sup>			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
16:1	A	713452	A
DO NOT SCALE DRAWING			SHEET 9 OF 15

# EXPLODED SIDE VIEW

FLIP-PACK ®  
U.S. PATENT 9,629,259

COLUMNS  
X 1152

H

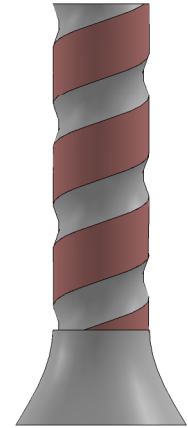
GRAPHITE  
TOP

CCGA

PADS

LID (COVER)

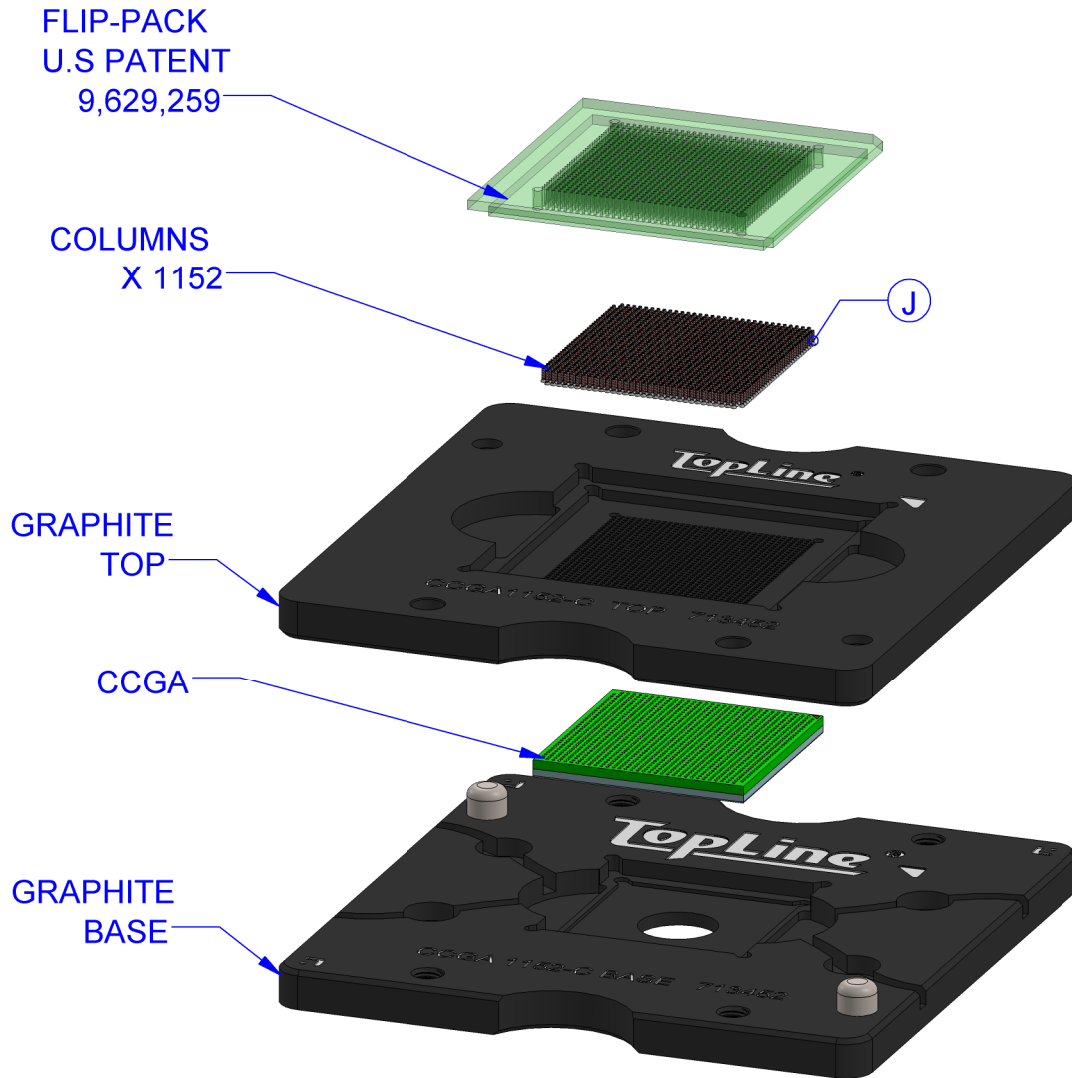
GRAPHITE  
BASE



DETAIL H  
SCALE 25 : 1

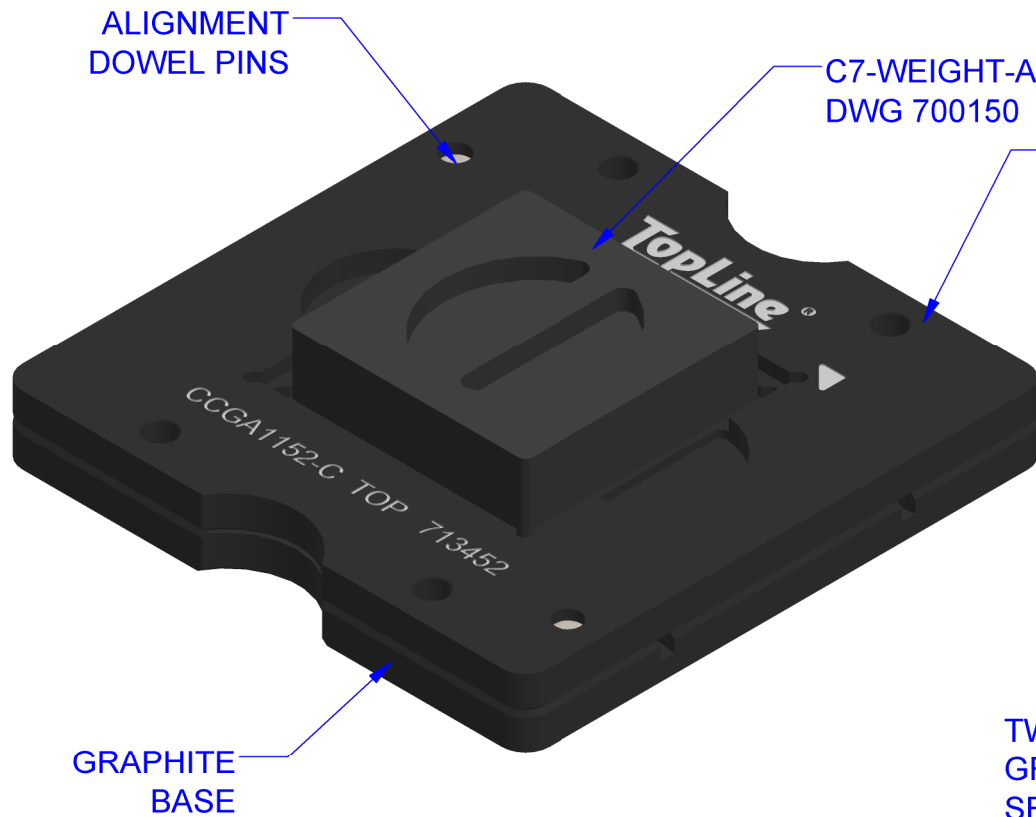
<b>TopLine</b> ®			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713452	A
DO NOT SCALE DRAWING			SHEET 10 OF 15

**EXPLODED ISOMETRIC VIEW**



**DETAIL J**  
**SCALE 25 : 1**

<b>TopLine<sup>®</sup></b>			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
0.85:1	A	713452	A
DO NOT SCALE DRAWING			SHEET 11 OF 15

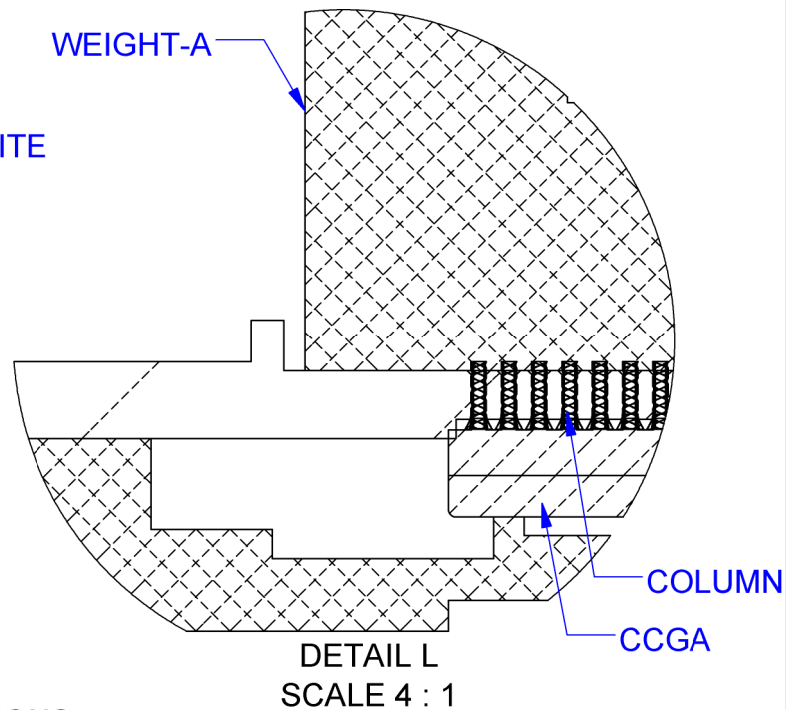


ALIGNMENT  
DOWEL PINS

C7-WEIGHT-A  
DWG 700150

GRAPHITE  
TOP

GRAPHITE  
BASE

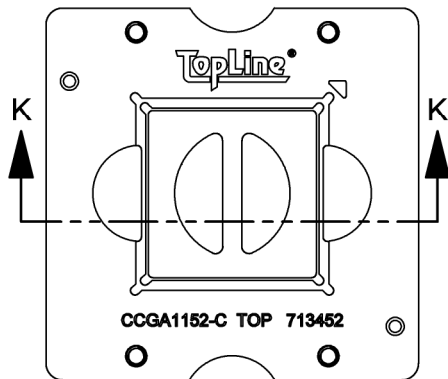


WEIGHT-A

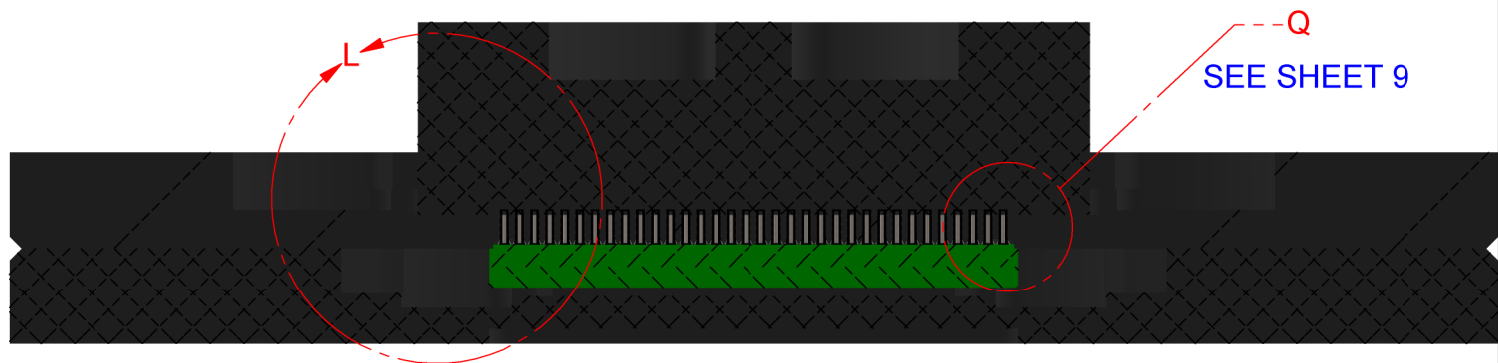
COLUMN  
CCGA

DETAIL L  
SCALE 4 : 1

TWO SECTIONS  
GRAPHITE  
SEATED TOGETHER



SCALE= 1:2



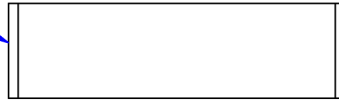
SEE SHEET 9

SECTION K-K  
SCALE 2 : 1

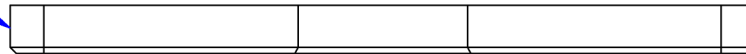
<b>TopLine</b> ®			
TITLE C7-GRAPHITE-1152-C GRAPHITE TOOL			
SCALE 1:1	SIZE A	DRAWING NO. 713452	REV A
DO NOT SCALE DRAWING			SHEET 12 OF 15

EXPLODED SIDE VIEW

C7-WEIGHT-A  
DWG 700150



GRAPHITE  
TOP



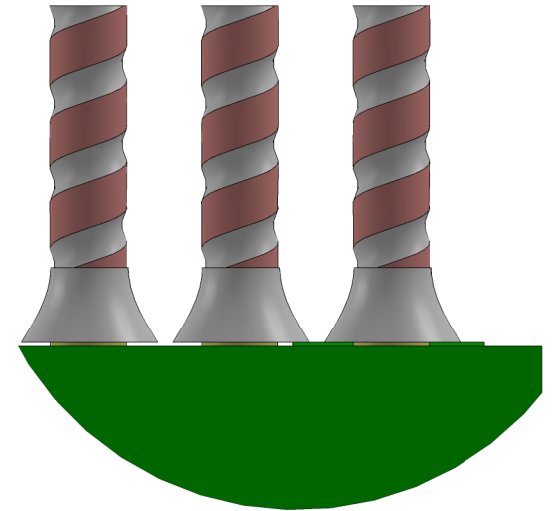
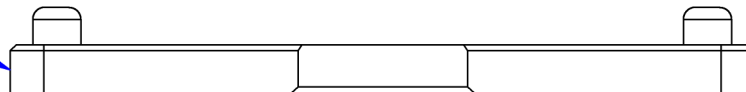
COLUMNS  
X 1152

CCGA



M

GRAPHITE  
BASE

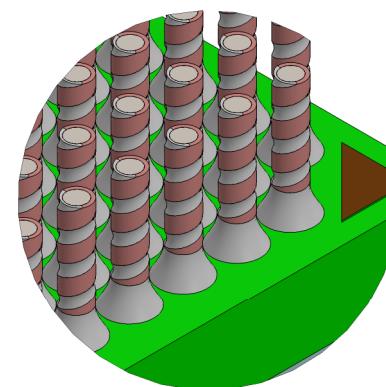
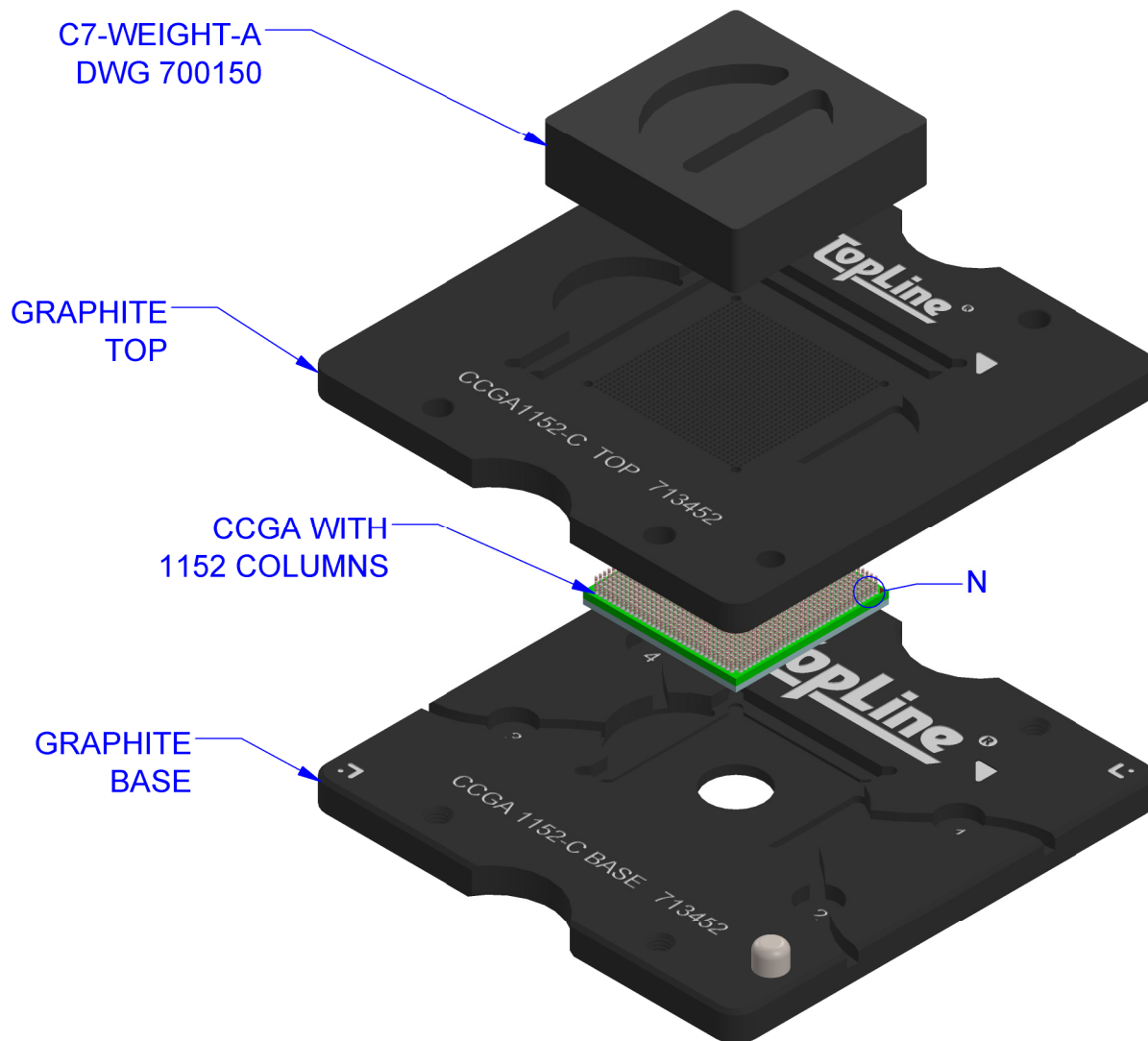


DETAIL M  
SCALE 20 : 1

Sn63Pb37 FILLET  
AFTER REFLOW

<b>TopLine</b> <sup>®</sup>			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
1:1	A	713452	A
DO NOT SCALE DRAWING			SHEET 13 OF 15

EXPLODED ISOMETRIC VIEW

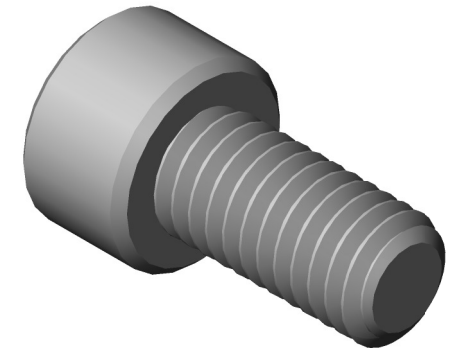
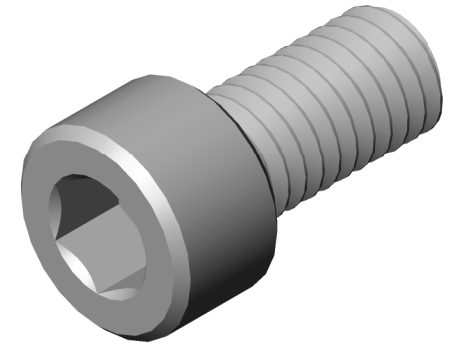
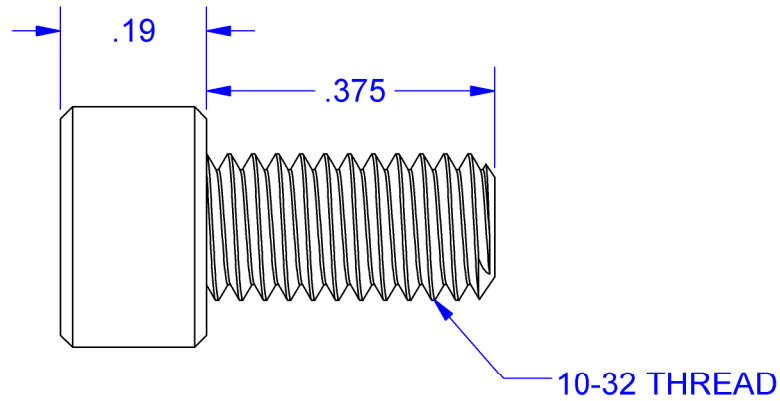
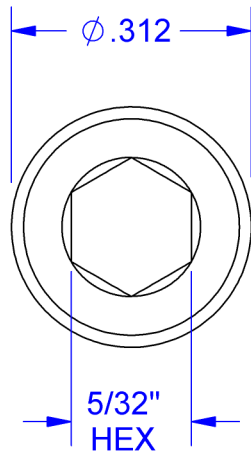


DETAIL N  
SCALE 10 : 1  
Sn63Pb37 FILLET  
AFTER REFLOW

<b>TopLine</b> <sup>®</sup>			
TITLE		C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV
0.85:1	A	713452	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**<sup>®</sup>

TITLE				C7-GRAPHITE-1152-C GRAPHITE TOOL	
SCALE	SIZE	DRAWING NO.	REV		
4:1	A	713452	A		
DO NOT SCALE DRAWING			SHEET 15 OF 15		