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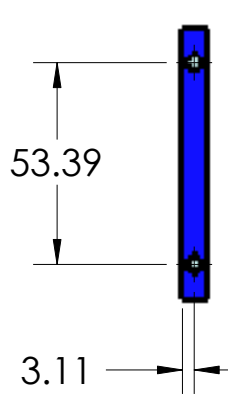
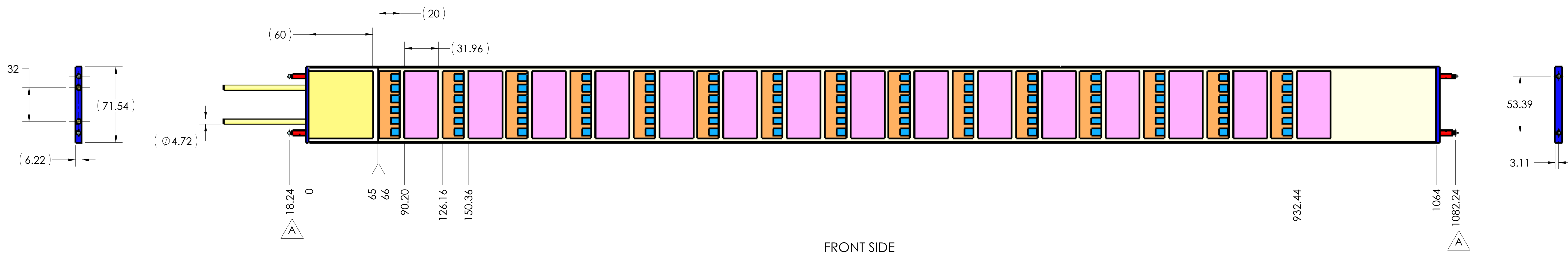
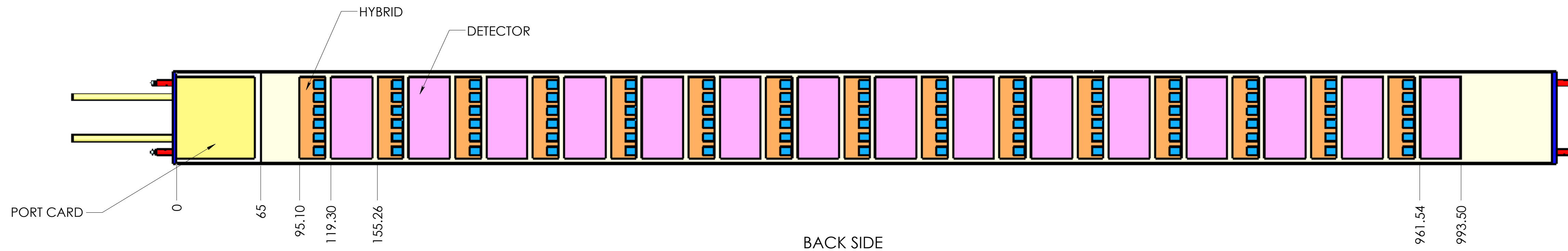
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DWG. NO. nnXnnn4	SIZE A	REV. 1	SH. 1
DESCRIPTION		MATERIAL	MAT. LOCATION



NOTES:
1. UNITS ARE IN METRIC.

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO. DATE ISSD		ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY	
TOLERANCES	X.X ± 2.5 X.XX ± .25 X.XXX ± 0.13	FRAC. ± 1/64 ANGLES ± 30° FINISH -	ACCT. NO. NO. REQD.	DEL. TO	DATE REQD.	4.72 mm CIRCULAR TUBE STAVE ASSEMBLY	
DO NOT SCALE PRINT				PROJECT NUMBER ATL-IP-ED-XXXX		MICROFILMED: DWG. TYPE ASSY	
THREADS ARE CLASS 2 CHAMFER ENDS OF ALL SCREW THREADS 30° CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS BREAK EDGES .016 MAX. ON MACHINED WORK REMOVE BURRS, WELD SPLATTER & LOOSE SCALE IN ACCORDANCE WITH ASME Y14.5m & B46.1				PROJECT NAME US ATLAS SILICON SUBSYSTEM		SHOWN ON -	
REV. DWG. CHK. ZONE. DATE		CHANGES		DWG. NO. DATE W. K. MILLER 12/17/06		SCALE: 1:2 SHEET 1 OF 1	
A 1-8-07		CHANGES REFLECT NEW TOOLING BALL		DATE 12/17/06		DESIGN ACCT. NO. CATEGORY CIDE P1AP-11 AP6250	
				DATE -		DWG. NO. SIZE REV. 27E313 A	

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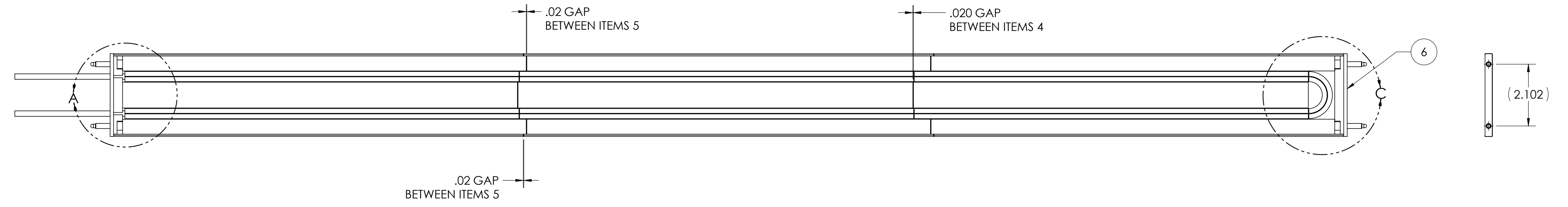
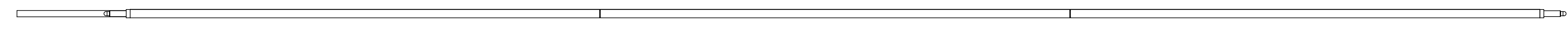
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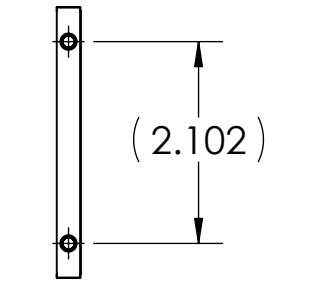
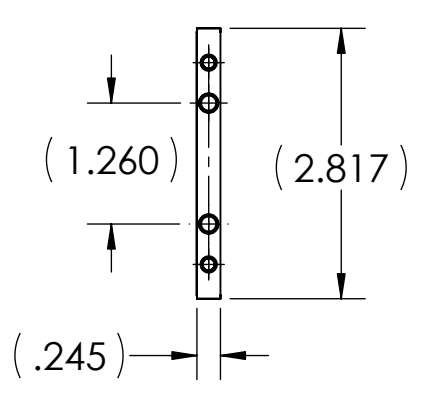
DWG. NO.	SIZE	REV.	SH.	
nnXnnn4	C	1		
DESCRIPTION		MATERIAL	MAT. LOCATION	



BACK SIDE



FRONT SIDE (FACESHEET HIDDEN FOR CLARITY)

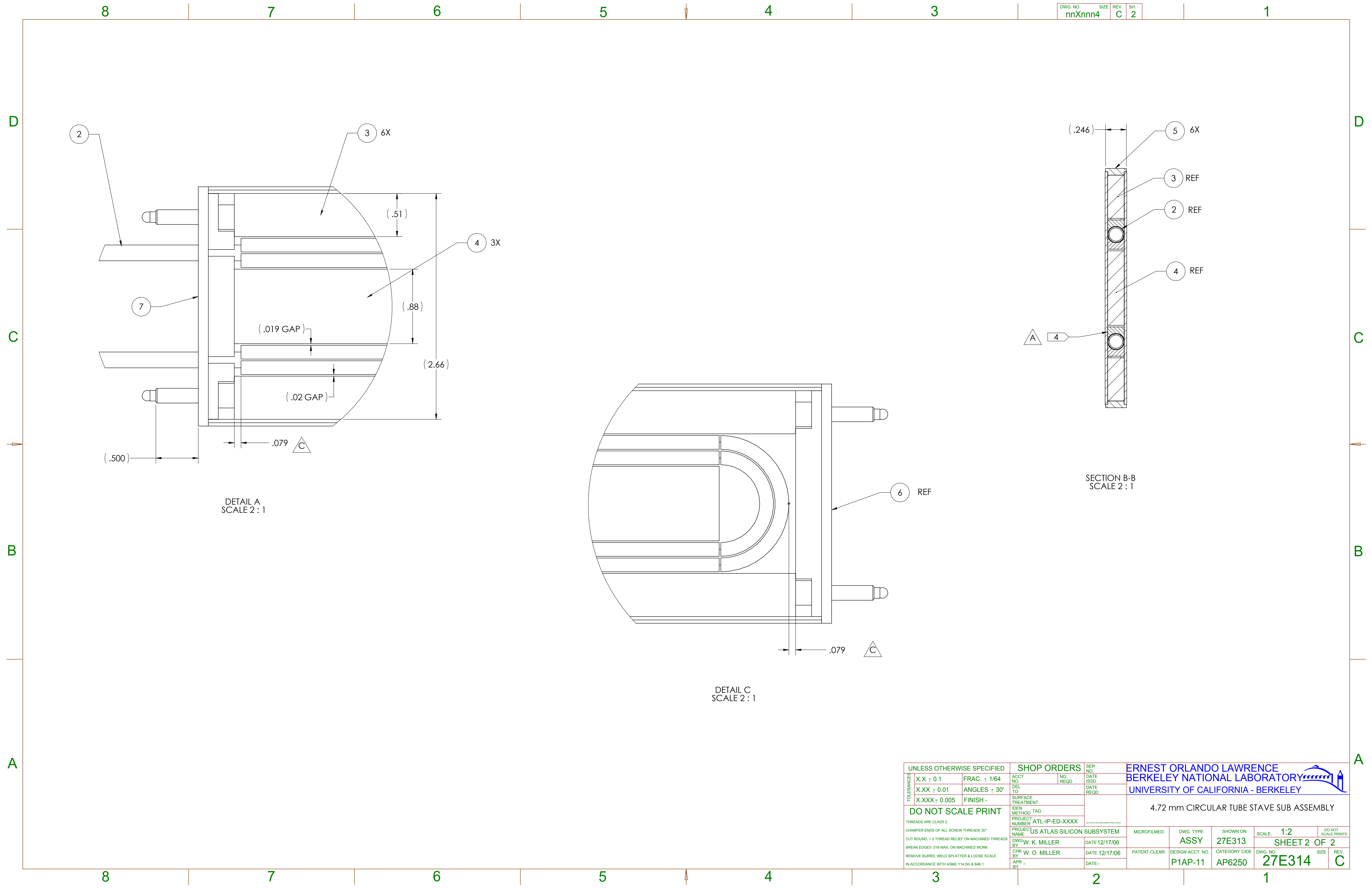


ITEM NO	SHEET LOCATION	ZONE	QTY	PART DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL NOTES
7	2	D6	1	27E318-1	END CLOSEOUT SUB-ASSEMBLY 1	
6	1	B1	1	27E318-3	END CLOSEOUT SUB-ASSEMBLY 2	
5	2	D4	6	27E321	COMPOSITE SIDE CLOSEOUT	
4	2	D6	3	27E323-1	HONEYCOMB CORE PART #1	
3	2	D6	6	27E323-3	HONEYCOMB CORE PART #2	
2	2	D6	1	27E315	CIRCULAR TUBE SUB-ASSEMBLY	
1	1	D6	2	27E322	COMPOSITE FACESHEET	

NOTES:

- UNITS ARE IN INCHES.
- CLEAN AND DEGREASE ALL PARTS WITH ALCOHOL BEFORE BONDING.
- ABRADE BONDING SURFACE ON COMPOSITE FACING WITH SCOTCH BRITE.
- BOND CIRCULAR TUBE SUBASSEMBLY TO COMPOSITE FACINGS WITH CGL7018.
- BOND HONEYCOMB TO COMPOSITE FACINGS WITH HYSOL 9396. USE GLASS BEADS TO CONTROL BONDLINE THICKNESS.

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.		ERNEST ORLANDO LAWRENCE	
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY	
	X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REGD.	UNIVERSITY OF CALIFORNIA - BERKELEY		
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT	4.72 mm CIRCULAR TUBE STAVE SUB ASSEMBLY			
DO NOT SCALE PRINT							
THREADS ARE CLASS 2				PROJECT NAME: US ATLAS SILICON SUBSYSTEM			
CHAMFER ENDS OF ALL SCREW THREADS 30°				MICROFILMED: DWG. TYPE: ASSY			
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				SHOWN ON: 27E313			
BREAK EDGES .016 MAX. ON MACHINED WORK				SCALE: 1:2			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				SHEET 1 OF 2			
IN ACCORDANCE WITH ASME Y14.5m & B46.1				P1AP-11 AP6250			
REV	DWG	CHK	ZONE	DATE	CHANGES	DWG. NO.	REV.
C				2-19-07	CHANGES REFLECT MODIFIED END CAP ASSEMBLY	27E314	C
B				1-17-07	CHANGES REFLECT COOLING TUBE SUB-ASSEMBLY		
A				1-9-07	CHANGES REFLECT NEW TOOLING BALL		



DETAIL A
SCALE 2 : 1

DETAIL C
SCALE 2 : 1

SECTION B-B
SCALE 2 : 1

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.		ERNEST ORLANDO LAWRENCE	
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	DATE REQD.	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO		DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT				4.72 mm CIRCULAR TUBE STAVE SUB ASSEMBLY	
DO NOT SCALE PRINT		IDEN. METHOD TAG					
THREADS ARE CLASS 2		PROJECT NUMBER	ATL-IP-ED-XXXX			MICROFILMED:	DWG. TYPE
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM	DATE 12/17/06		ASSY	27E313
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE 12/17/06		SHOWN ON	SCALE: 1:2
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY	W. O. MILLER	DATE 12/17/06		AP6250	SHEET 2 OF 2
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR. BY		DATE -		P1AP-11	DWG. NO. 27E314
IN ACCORDANCE WITH ASME Y14.5m & B46.1						AP6250	REV. C

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DWG. NO. nnXnnn4	SIZE A	REV. 1	SH. 1
DESCRIPTION		MATERIAL	MAT. LOCATION

D

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C

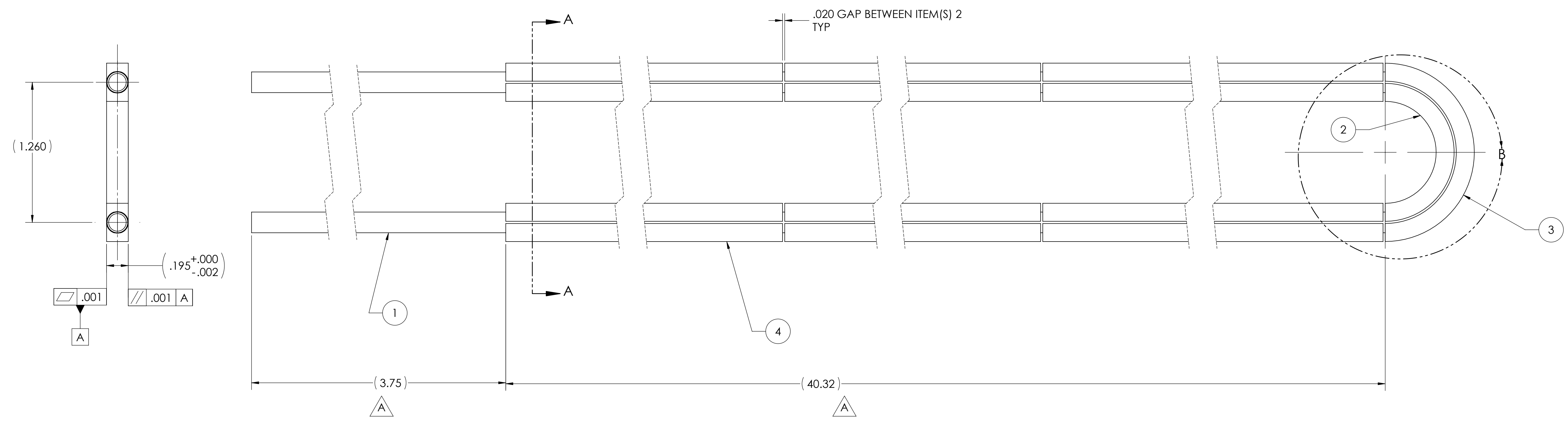
C

B

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A



FRONT SIDE (FACESHEET HIDDEN FOR CLARITY)

- NOTES:
- UNITS ARE IN INCHES.
 - CLEAN AND DEGREASE ALL PARTS WITH ALCOHOL BEFORE BONDING.
 - BOND POCO FOAM PARTS TO ALUMINUM TUBE WITH AI TECHNOLOGY EG7658. APPLY ADHESIVE TO POCO FOAM RADIUSED SURFACE, THEN CLAMP TWO HALVES ACROSS TUBE.

4	1	B5	12	27E316-5	POCO FOAM PART 3
3	1	C1	1	27E316-3	POCO FOAM PART 2
2	1	C2	1	27E316-1	POCO FOAM PART 1
1	1	B6	1	27E317	CIRCULAR COOLING TUBE

REV	DWG	CHK	ZONE	DATE	CHANGES
A				2-21-07	POCO FOAM CHANGED DUE TO ENDCAP CHANGE

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	DATE ISSD	BERKELEY NATIONAL LABORATORY
	X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT		
DO NOT SCALE PRINT					
THREADS ARE CLASS 2					
CHAMFER ENDS OF ALL SCREW THREADS 30°					
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS					
BREAK EDGES .016 MAX. ON MACHINED WORK					
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE					
IN ACCORDANCE WITH ASME Y14.5m & B46.1					
PROJECT NAME	US ATLAS SILICON SUBSYSTEM		MICROFILMED:	DWG. TYPE	SHOWN ON
PROJECT NO.	ATL-IP-ED-XXXX		DATE	ASSY	27E314
DWG. BY	W. K. MILLER		DATE	SCALE:	2:1
CHK. BY	W. O. MILLER		DATE	PATENT CLEAR:	SHEET 1 OF 2
APP. BY			DATE	P1AP-11	AP6250
					DWG. NO. 27E315
					SIZE A

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DWG. NO. nnXnnn4 SIZE REV. SH. A 2

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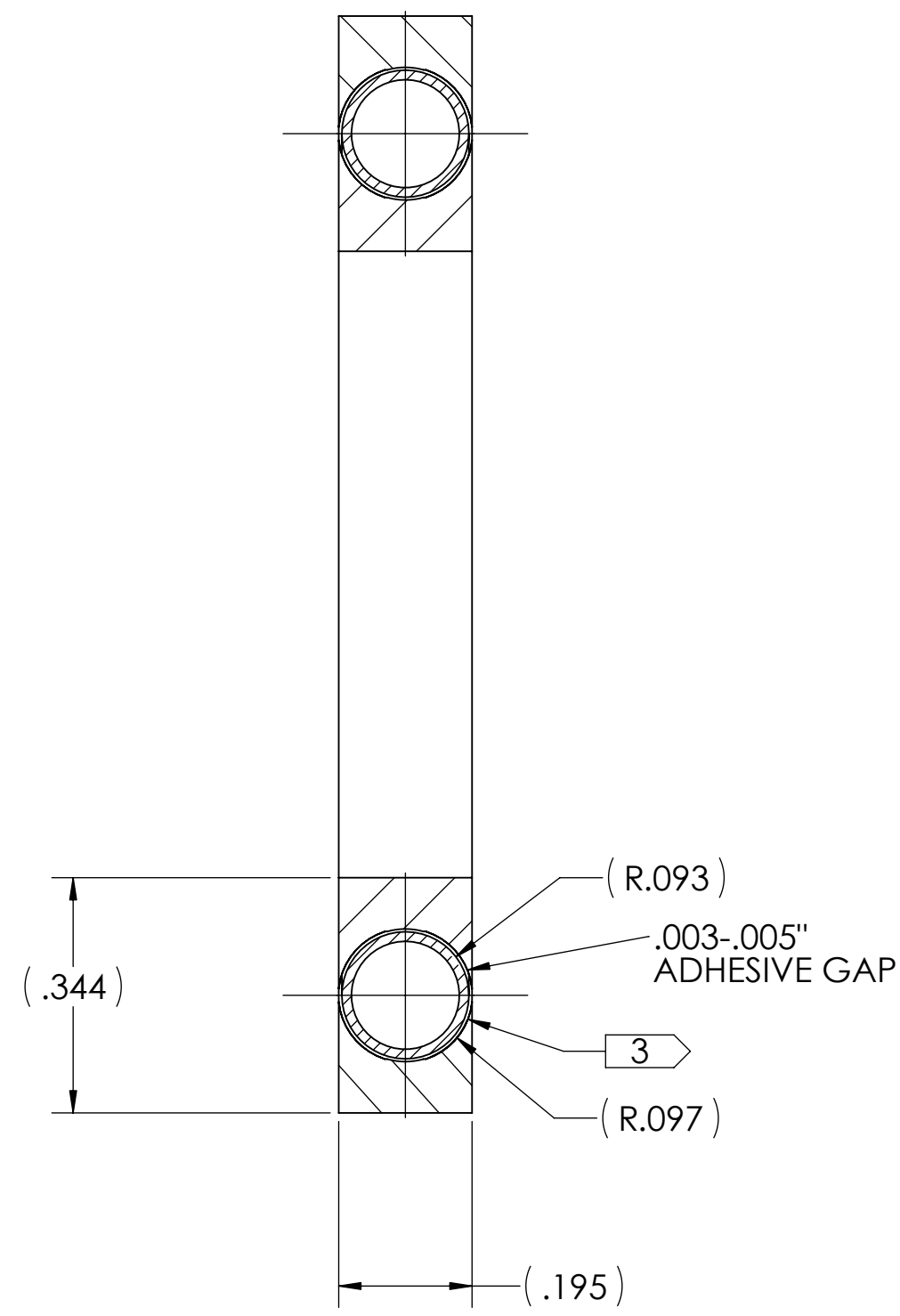
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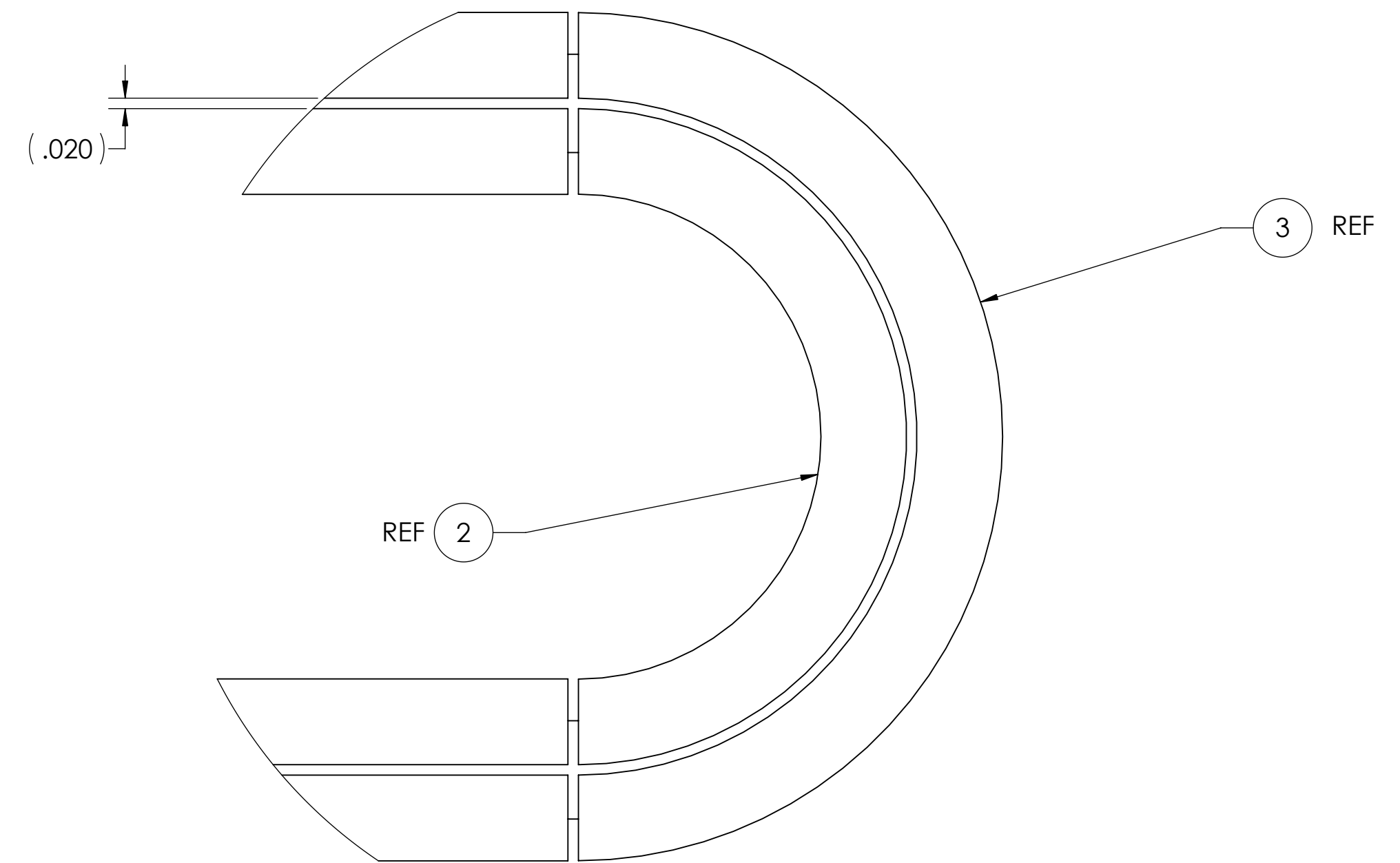
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SECTION A-A
SCALE 4 : 1



DETAIL B
SCALE 4 : 1

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY
	X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			
DO NOT SCALE PRINT			IDEN. METHOD TAG	4.72 mm CIRCULAR TUBE SUB-ASSEMBLY		
THREADS ARE CLASS 2			PROJECT NUMBER	MICROFILMED:		
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME	DWG. TYPE	SHOWN ON	SCALE: 1:2
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	ASSY	27E314	DO NOT SCALE PRINTS
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK. BY	DATE 1-17-07		SHEET 2 OF 2
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APPR. BY	DATE 1-17-07	PATENT CLEAR:	
IN ACCORDANCE WITH ASME Y14.5m & B46.1					DESIGN ACCT. NO. P1AP-11	
					CATEGORY CODE AP6250	DWG. NO. 27E315
						REV. A

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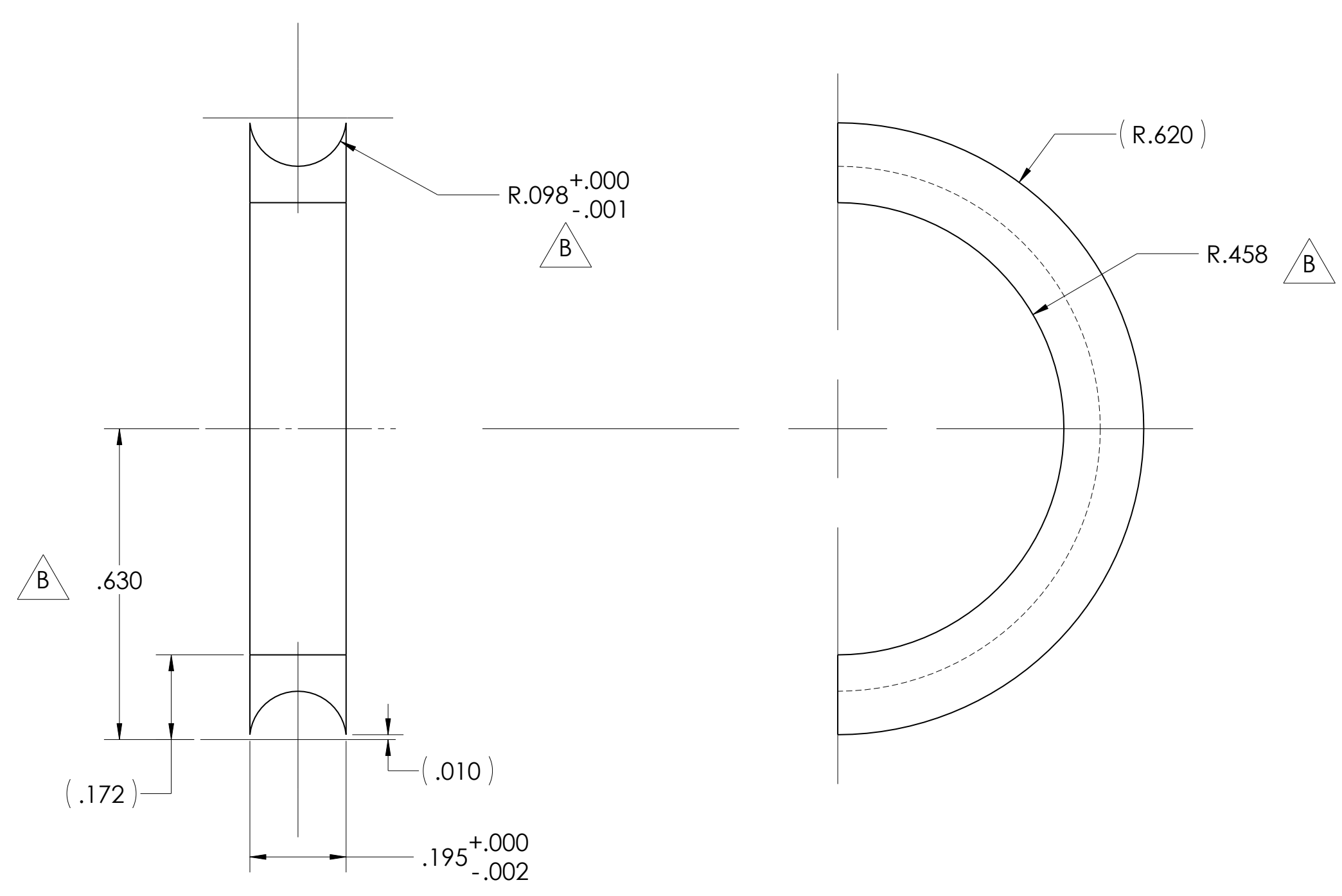
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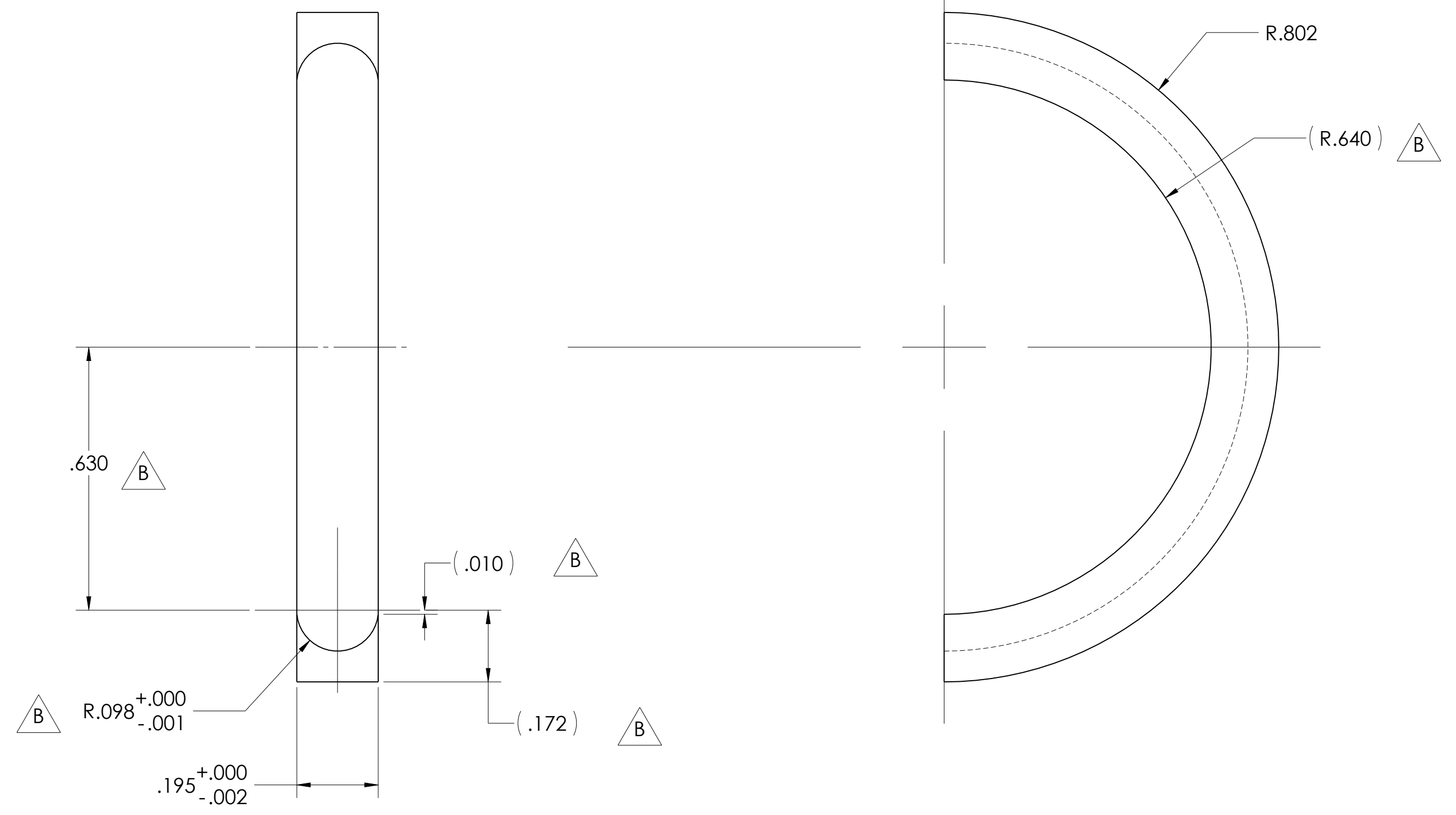
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DWG. NO. nnXnnn4	SIZE B	REV. 1	SHEET 1
DESCRIPTION		MATERIAL	MAT. LOCATION



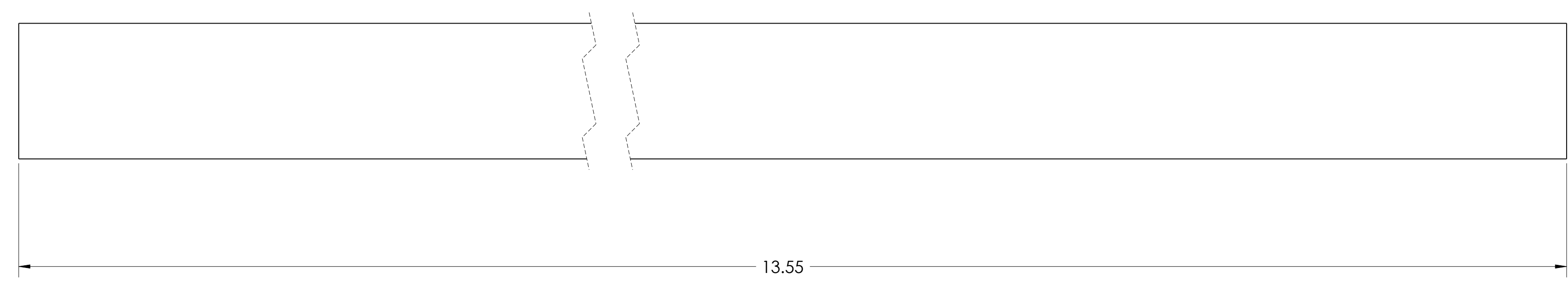
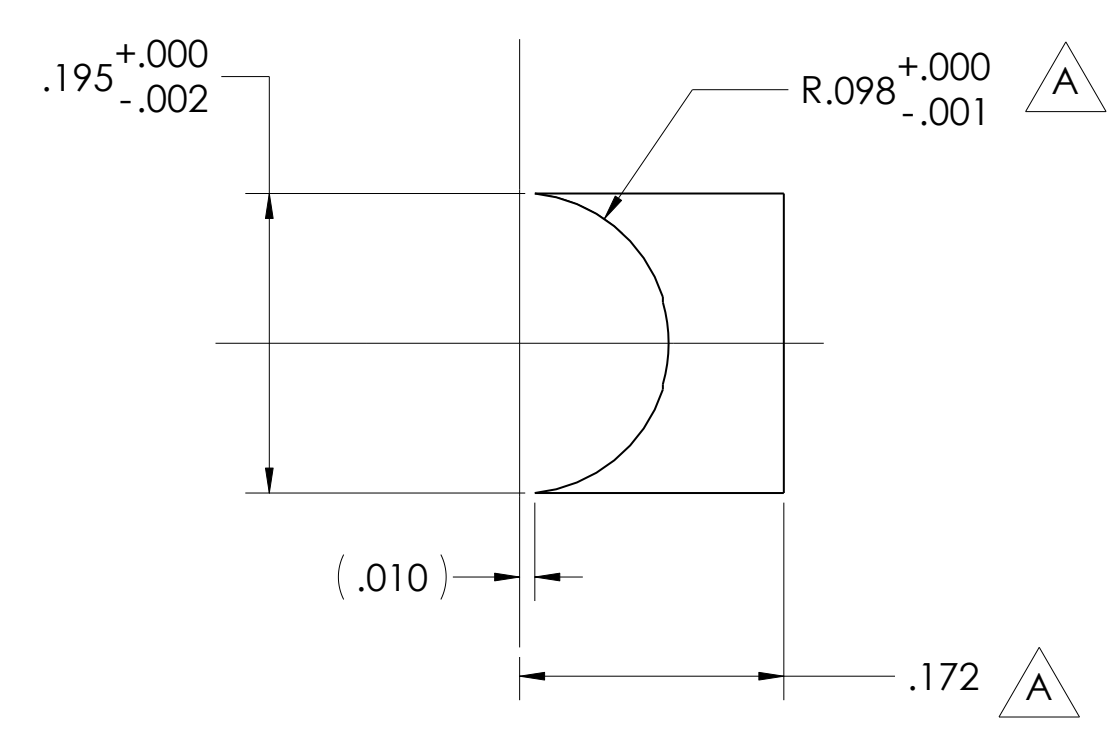
-1 POCO FOAM PART #1
QTY: 1



-3 POCO FOAM PART #2
QTY: 1

NOTES:
1. UNITS ARE IN INCHES.

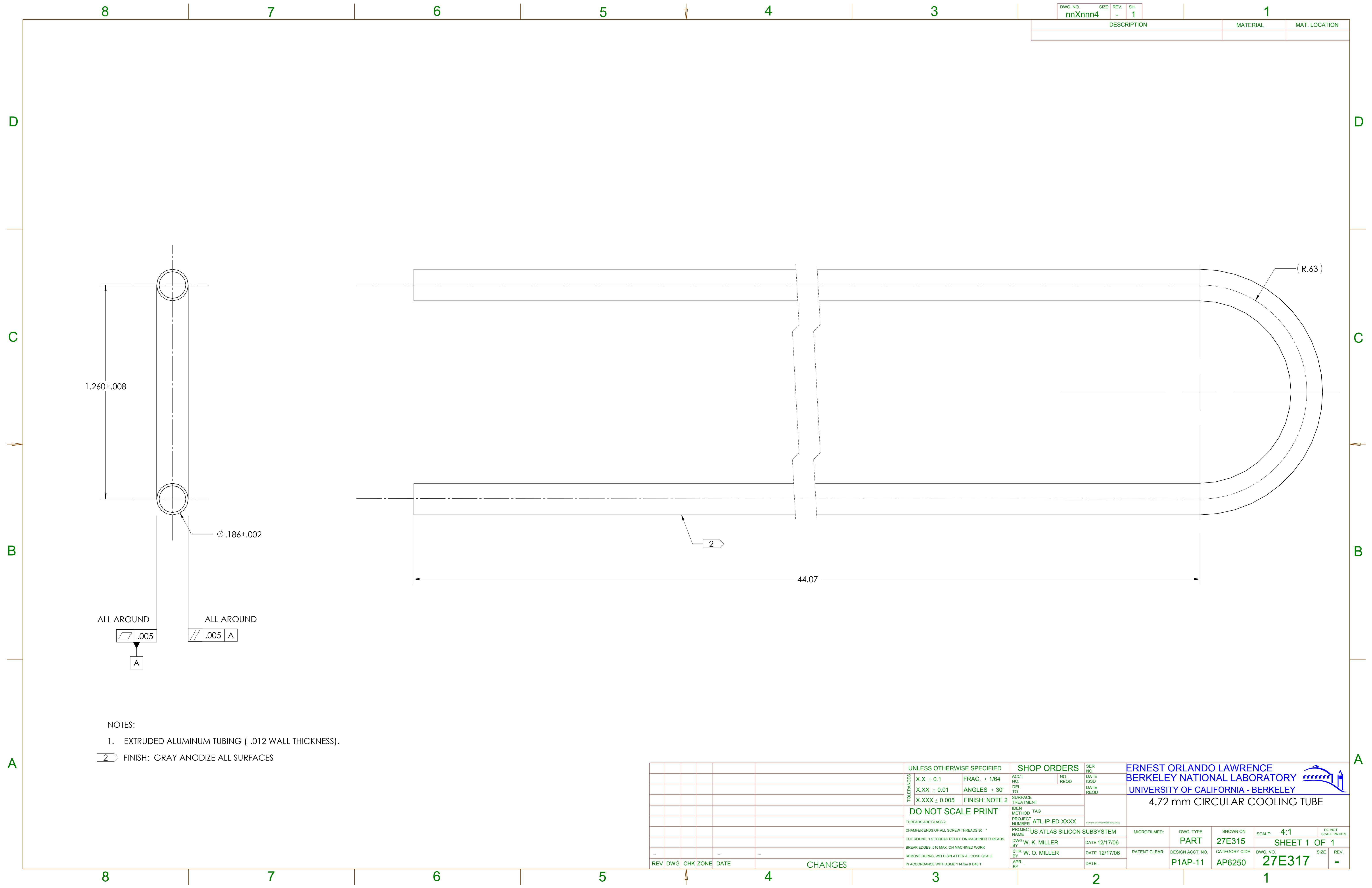
				UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO. DATE ISSD		ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY	
				X.X ± 0.1 FRAC. ± 1/64		ACCT. NO. NO. REQD.		DATE ISSD		UNIVERSITY OF CALIFORNIA - BERKELEY	
				X.XX ± 0.01 ANGLES ± 30°		DEL. TO		DATE REQD.		POCO FOAM MATERIAL 4.72 mm CIRCULAR COOLING TUBE STAVE ASSEMBLY	
				X.XXX ± 0.005 FINISH -		SURFACE TREATMENT				SCALE: 4:1 DO NOT SCALE PRINTS	
				DO NOT SCALE PRINT		IDEN. METHOD TAG				MICROFILMED: DWG. TYPE SHOWN ON SCALE: 4:1 DO NOT SCALE PRINTS	
				THREADS ARE CLASS 2		PROJECT NUMBER				PART 27E3145 SHEET 1 OF 2	
				CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME				P1AP-11 AP6250 27E316 B	
				CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. W. K. MILLER		DATE 12/17/06		DESIGN ACCT. NO. CATEGORY CIDE DWG. NO. SIZE REV.	
				BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. W. O. MILLER		DATE 12/17/06		P1AP-11 AP6250 27E316 B	
				REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR. -		DATE -			
				IN ACCORDANCE WITH ASME Y14.5m & B46.1							
B				1-17-07	REVISED PARTS						
A				1-8-07	REVISED PARTS						
REV	DWG	CHK	ZONE	DATE	CHANGES						



③ POCO FOAM PART #3
QTY: 12

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.	DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			POCO FOAM MATERIAL	
DO NOT SCALE PRINT		IDEN. METHOD	TAG		4.72 mm CIRCULAR COOLING TUBE STAVE ASSEMBLY	
THREADS ARE CLASS 2		PROJECT NUMBER	ATL-IP-ED-XXXX		MICROFILMED:	SCALE: 8:1
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM		DWG. TYPE	DO NOT SCALE PRINTS
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE 12/17/06	PART	27E315
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK BY	W. O. MILLER	DATE 12/17/06	SHOWN ON	SHEET 2 OF 2
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR BY		DATE -	PATENT CLEAR:	P1AP-11
IN ACCORDANCE WITH ASME Y14.5m & B46.1					DESIGN ACCT. NO.	AP6250
					CATEGORY CODE	27E316
					DWG. NO.	SIZE
					REV.	B

DWG. NO.	SIZE	REV.	S#	1	
nnXnnn4	-	-	1		
DESCRIPTION		MATERIAL	MAT. LOCATION		



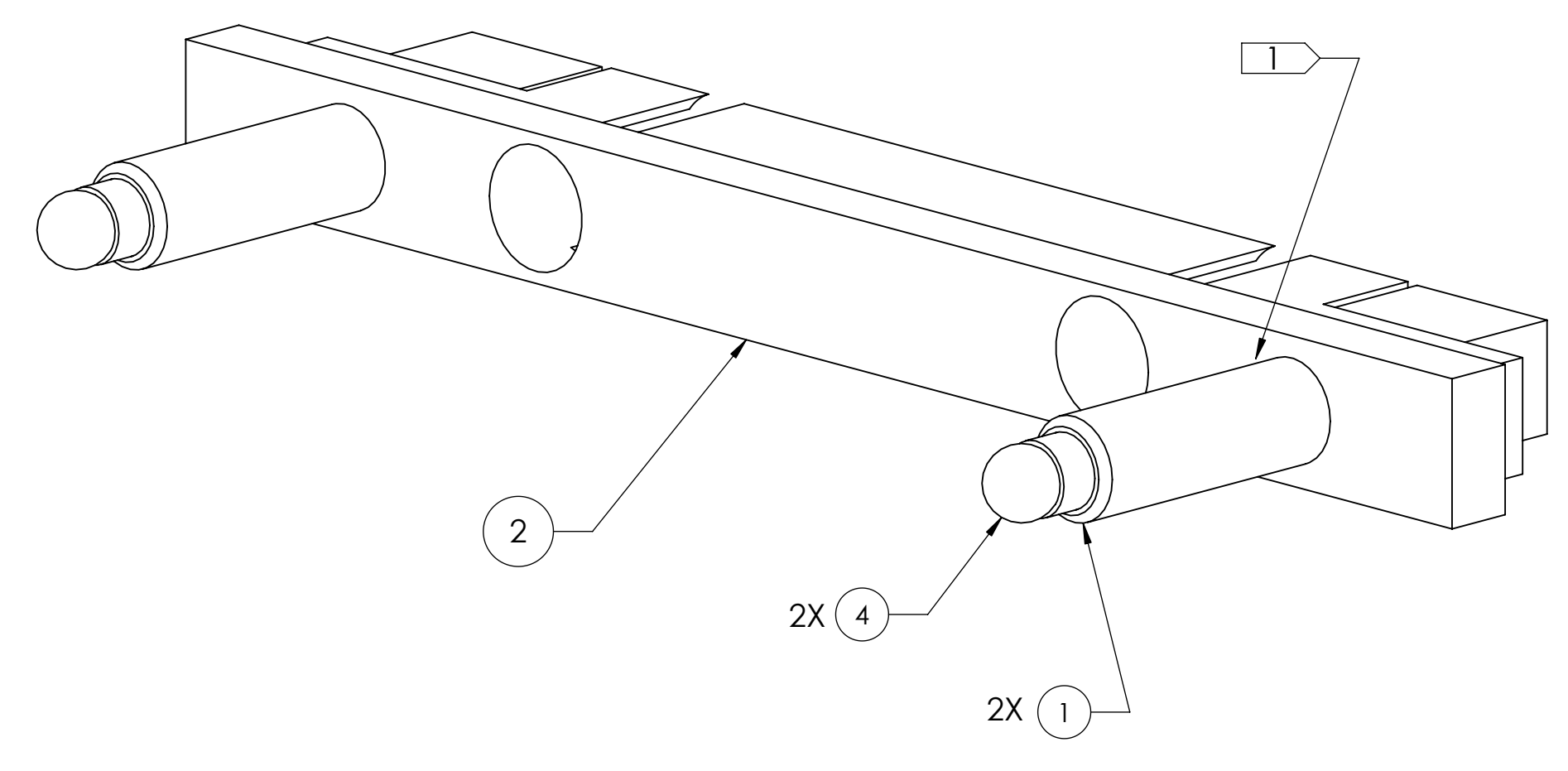
ALL AROUND
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ALL AROUND
 .005 **A**

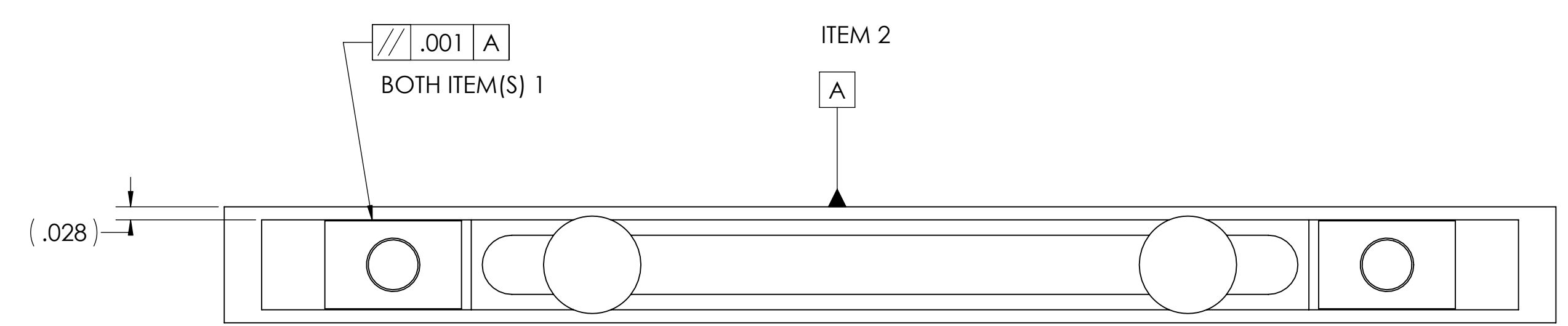
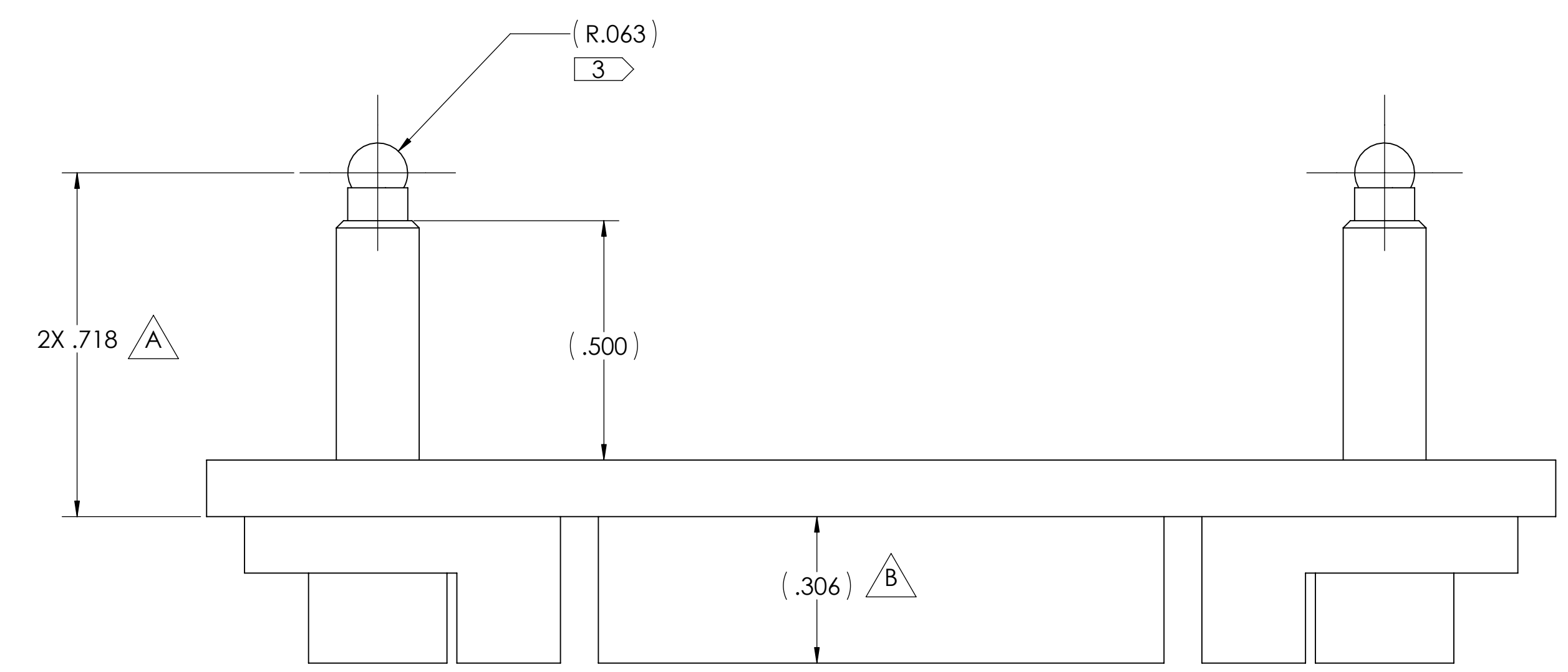
- NOTES:
1. EXTRUDED ALUMINUM TUBING (.012 WALL THICKNESS).
 - FINISH: GRAY ANODIZE ALL SURFACES

REV		DWG	CHK	ZONE	DATE	CHANGES				UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY						
						TOLERANCES		X.X ± 0.1		FRAC. ± 1/64		ACCT. NO.		NO. REQD.		DATE ISSD	4.72 mm CIRCULAR COOLING TUBE				
						X.XX ± 0.01		ANGLES ± 30°		SURFACE TREATMENT		PROJECT NAME		DATE REQD.		DATE	SCALE: 4:1				
						X.XXX ± 0.005		FINISH: NOTE 2		DO NOT SCALE PRINT		PROJECT NUMBER		DATE		SCALE	SHEET 1 OF 1				
						THREADS ARE CLASS 2		CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		DWG. NO.		DATE		PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CIDE	DWG. NO.	SIZE	REV.
						CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		BREAK EDGES .016 MAX. ON MACHINED WORK		PROJECT NAME		W. K. MILLER		12/17/06			P1AP-11	AP6250	27E317		-
						REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		IN ACCORDANCE WITH ASME Y14.5m & B46.1		PROJECT NAME		W. O. MILLER		12/17/06							
										PROJECT NAME											
										PROJECT NAME											
										PROJECT NAME											
										PROJECT NAME											
										PROJECT NAME											
										PROJECT NAME											

DWG. NO. nnXnnn4	SIZE B	REV. 1	SH. 1
DESCRIPTION		MATERIAL	MAT. LOCATION



(-1) STAVE END CLOSEOUT #1
QTY: 1



REAR VIEW

- NOTES:
- 1 PRESS FIT ITEM(S) 1 INTO ITEM 2. INTERFERENCE SHOULD BE 0.0000/0.0004".
 - 2. DIMENSIONS ARE IN INCHES.
 - 3 TOOLING BALL PART NO. 448-2, INDUSTRIAL TECTONICS INC.

4	MULT	C7		2	2	448-2	TOOLING BALL (SEE NOTE 3)	
3	2	B5		1		27E319-3	END CLOSEOUT #2	
2	1	C5			1	27E319-1	END CLOSEOUT #1	
1	MULT	MULT		2	2	27E320	CLOSEOUT PIN	
ITEM NO	SHEET LOCATION	ZONE	A3	A2	A1	PART DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL NOTES

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE				
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY				
X.XX ± 0.01	ANGLES ± 30°	DEL. TO		DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY				
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			END CLOSEOUT SUB ASSEMBLY				
DO NOT SCALE PRINT		IDEN METHOD TAG			4.72 mm CIRCULAR TUBE STAVE ASSEMBLY				
THREADS ARE CLASS 2		PROJECT NUMBER			MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 4:1	DO NOT SCALE PRINTS
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM	DATE 12/17/2006	ASSY	27E314	SHEET 1 OF 2		
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE 12/17/2006	PATENT CLEAR:	P1AP-11	AP6250	DWG. NO. 27E318	REV. B
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK BY	W. O. MILLER	DATE 12/17/2006					
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APP BY		DATE -					
IN ACCORDANCE WITH ASME Y14.5m & B46.1									

REV	DWG	CHK	ZONE	DATE	CHANGES
B				2-19-07	CHANGES REFLECT END CAP REVISION
A				1-8-07	CHANGES REFLECT NEW TOOLING BALL

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DWG. NO. nnXnnn4 SIZE B REV. 2 SH. 2

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D

C

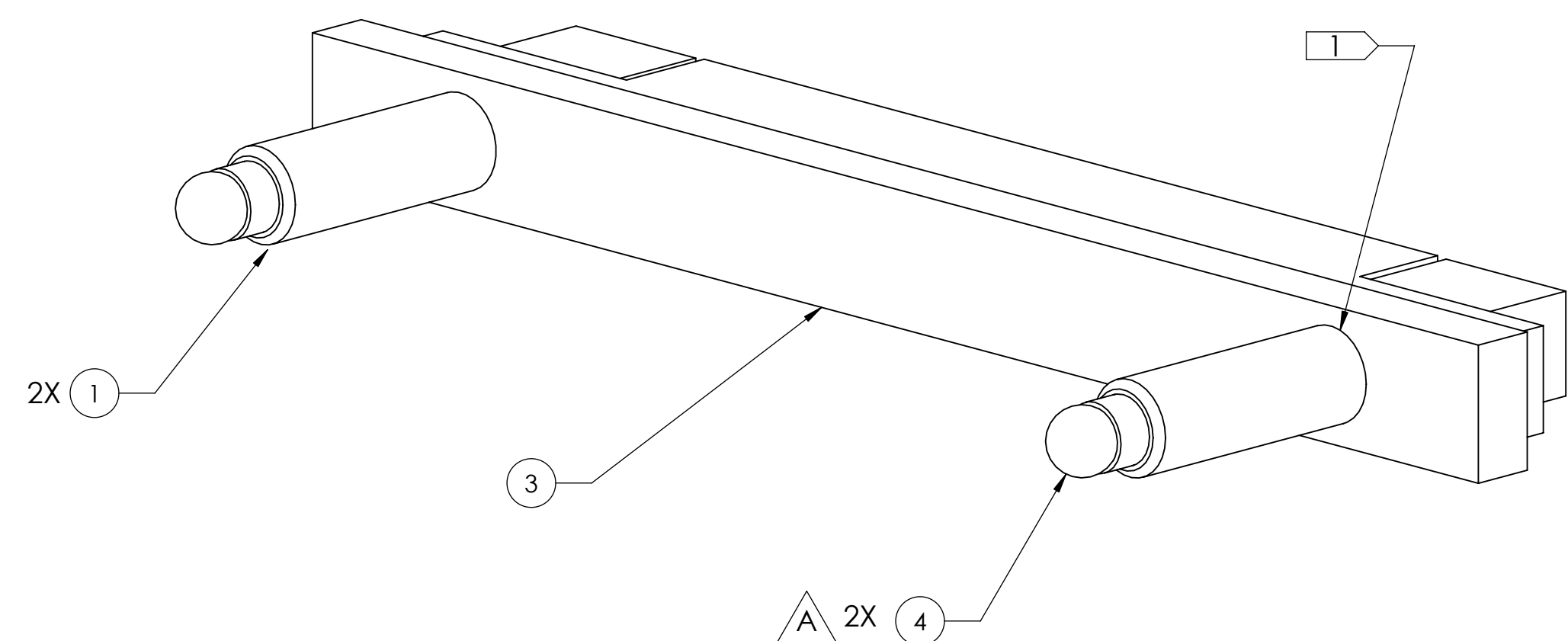
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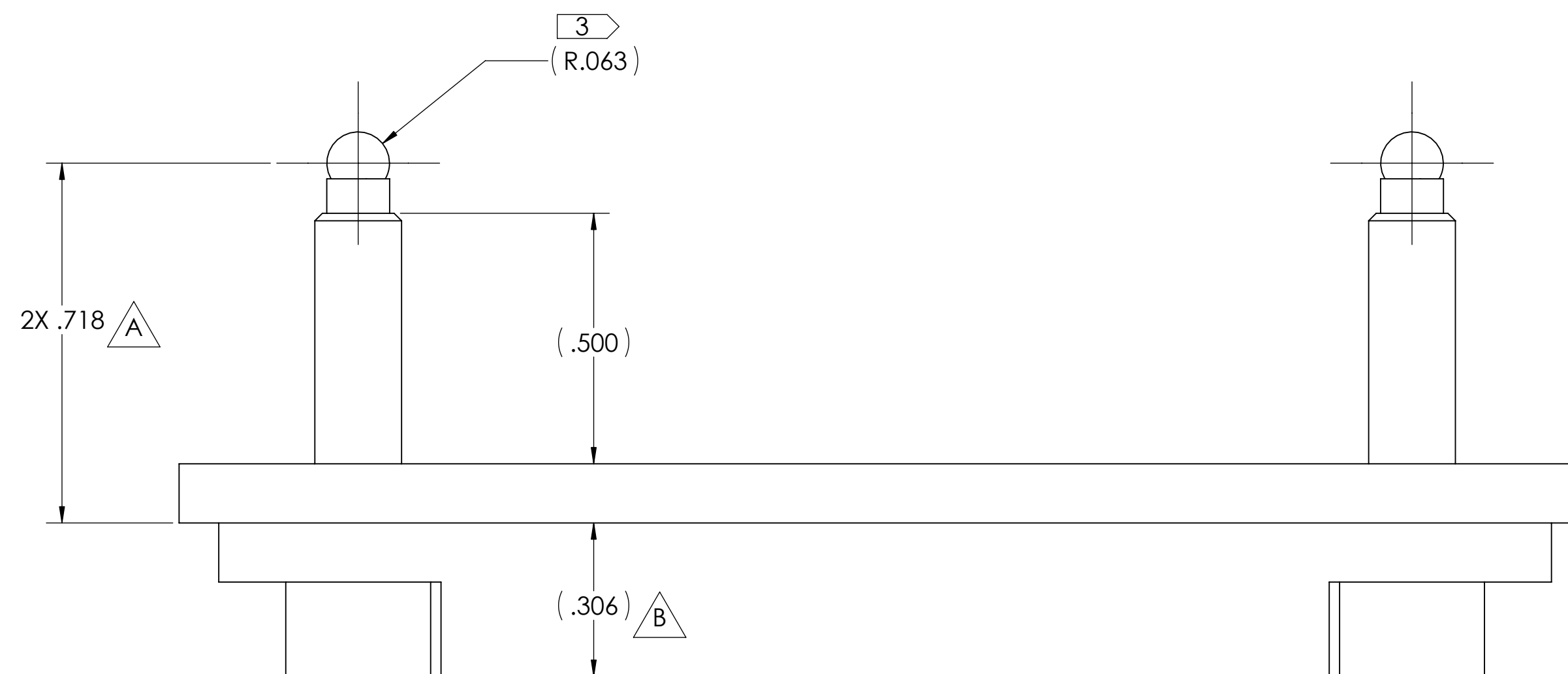
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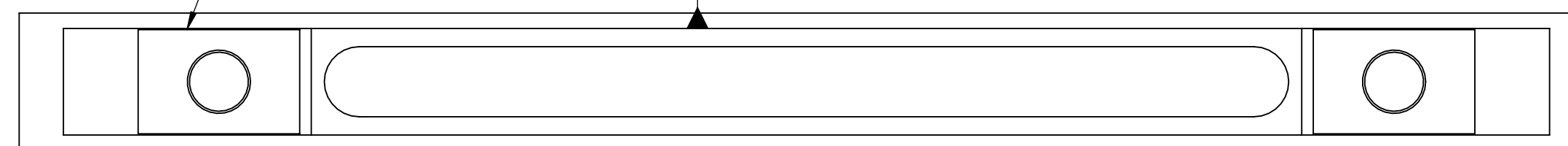
(-3) STAVE END CLOSEOUT #2
QTY: 1



/// .001 B
BOTH ITEM(S) 1

ITEM 2

B



REAR VIEW

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.	DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT	END CLOSEOUT SUB ASSEMBLY			
DO NOT SCALE PRINT		IDEN METHOD TAG	4.72 mm CIRCULAR TUBE STAVE ASSEMBLY			
THREADS ARE CLASS 2		PROJECT NAME	MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE: 4:1
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NUMBER		ASSY	27E314	DO NOT SCALE PRINTS
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		PROJECT NAME				SHEET 2 OF 2
BREAK EDGES .016 MAX. ON MACHINED WORK		DWG. BY	DATE	PATENT CLEAR:	DESIGN ACCT. NO.	DWG. NO.
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		BY W. O. MILLER	DATE 12/17/2006		P1AP-11	27E318
IN ACCORDANCE WITH ASME Y14.5m & B46.1		CHK BY	DATE		CATEGORY CODE	SIZE
		APR -			AP6250	REV. B

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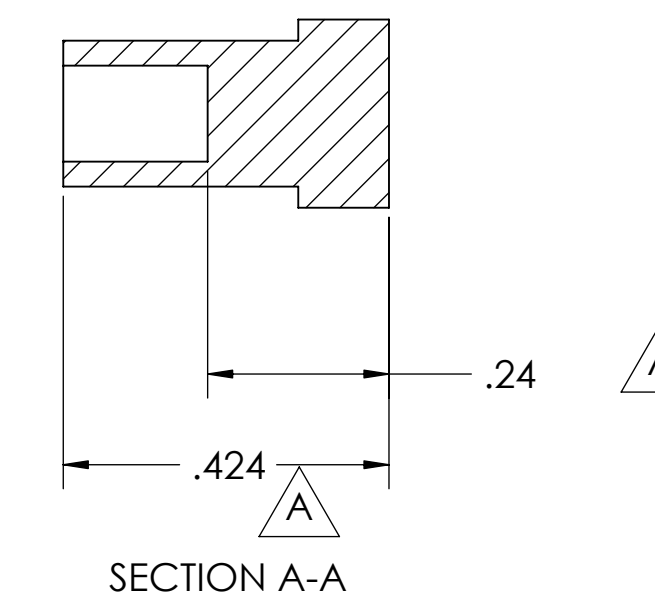
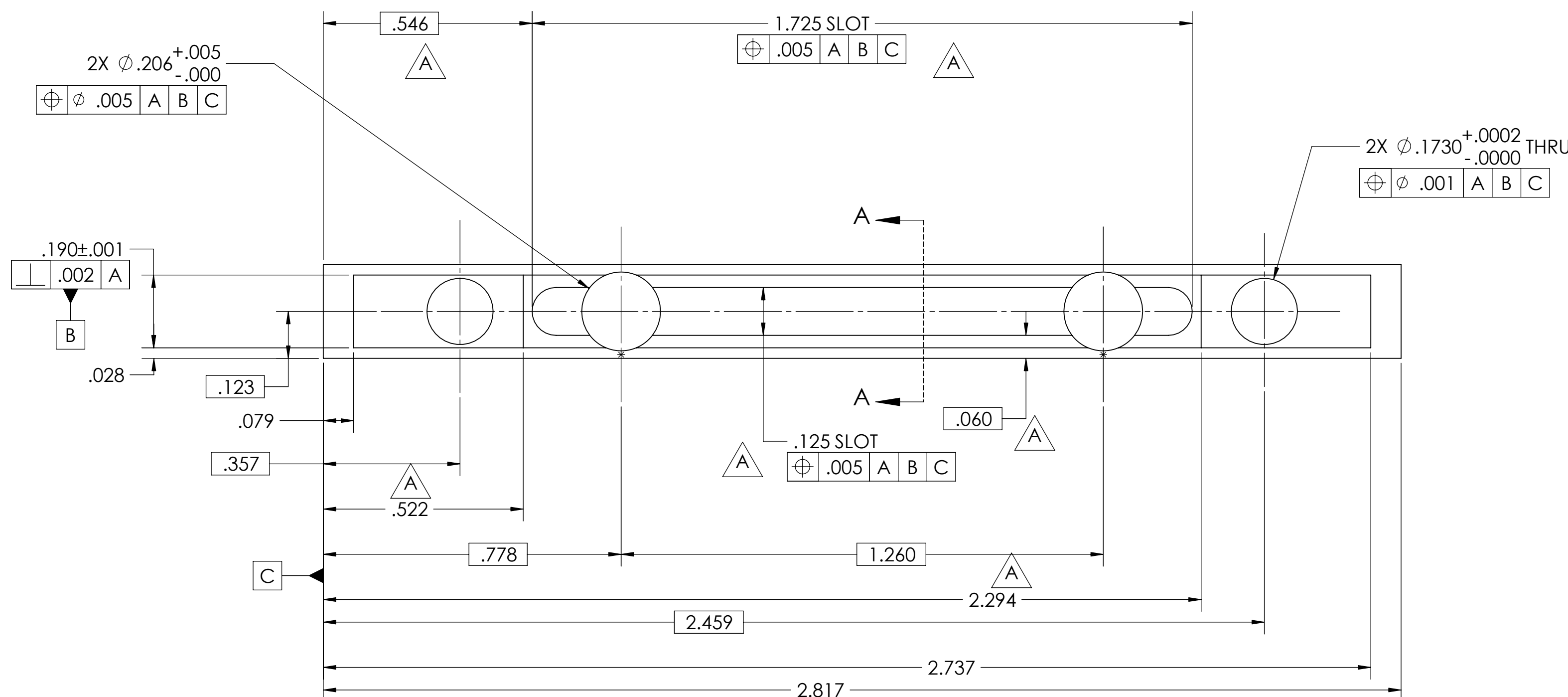
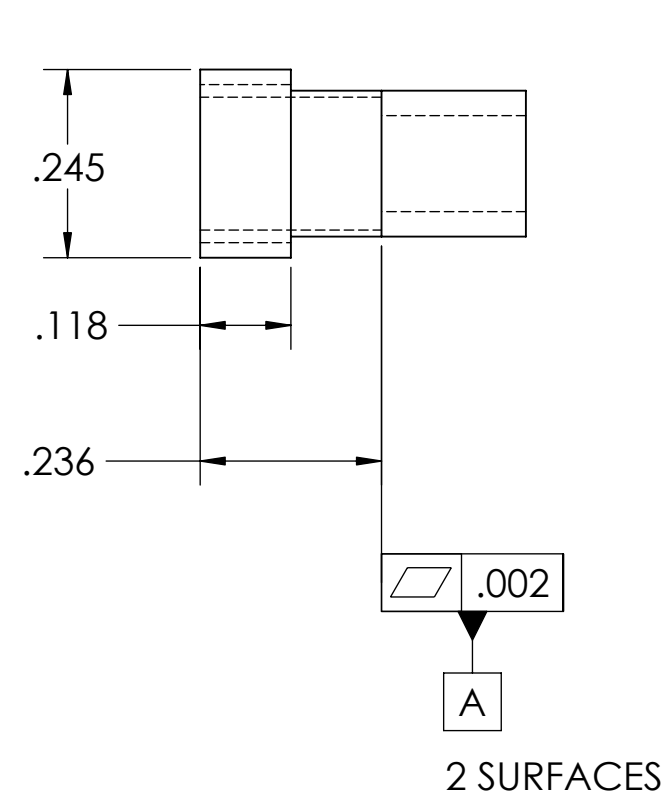
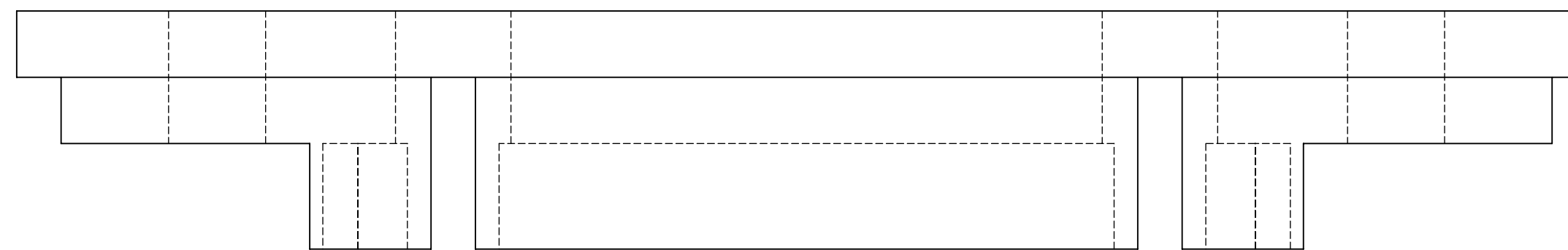
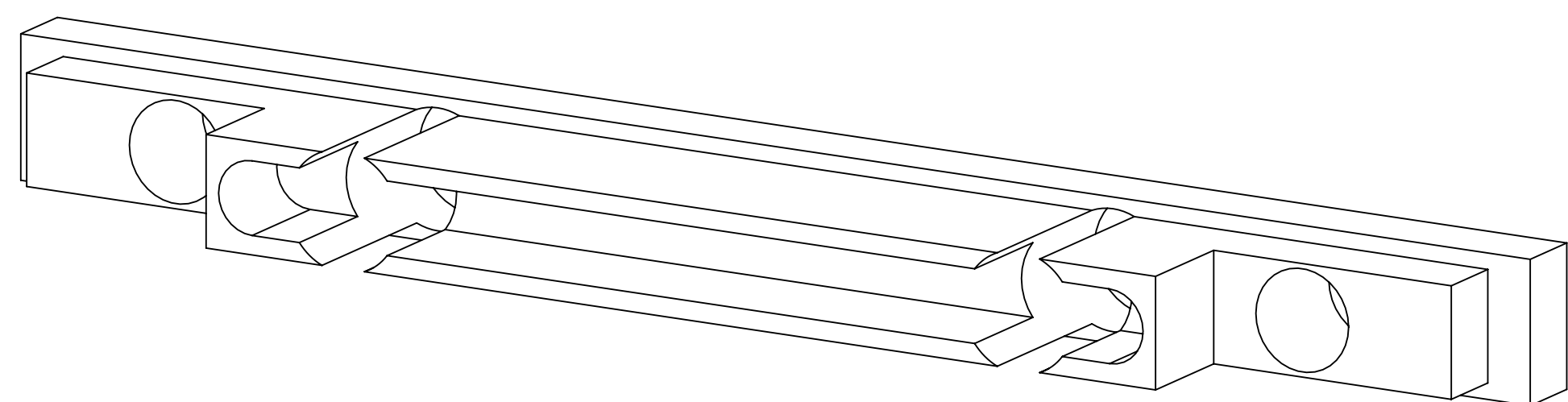
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DWG. NO. nnXnnn4	SIZE A	REV. 1	SH. 1	DESCRIPTION	MATERIAL	MAT. LOCATION
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-1 STAVE END CLOSEOUT PART #1
 QTY: 1
 MATERIAL: 6061-T6 ALUMINUM

NOTES:

1 FINISH: GRAY ANODIZE ALUMINUM

<table border="1"> <tr> <td>ACCT NO.</td> <td>NO. REQD.</td> <td>SER. NO.</td> <td>DATE ISSD.</td> </tr> <tr> <td>DEL TO</td> <td>DATE REQD.</td> <td></td> <td></td> </tr> </table>				ACCT NO.	NO. REQD.	SER. NO.	DATE ISSD.	DEL TO	DATE REQD.			SHOP ORDERS UNLESS OTHERWISE SPECIFIED X.X ± 0.1 FRAC. ± 1/64 X.XX ± 0.01 ANGLES ± 30° X.XXX ± 0.005 FINISH: NOTE 1 DO NOT SCALE PRINT TOLERANCES THREADS ARE CLASS 2 CHAMFER ENDS OF ALL SCREW THREADS 30° CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS BREAK EDGES .016 MAX. ON MACHINED WORK REMOVE BURRS, WELD SPLATTER & LOOSE SCALE IN ACCORDANCE WITH ASME Y14.5m & B46.1				ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY END CLOSEOUT 4.72mm CIRCULAR TUBE STAVE ASSEMBLY MICROFILMED: DWG. TYPE: PART SHOWN ON: 27E318 SCALE: 4:1 DO NOT SCALE PRINTS PATENT CLEAR: DESIGN ACCT. NO. P1AP-11 CATEGORY CODE: AP6250 DWG. NO. 27E319 SIZE: REV. A															
ACCT NO.	NO. REQD.	SER. NO.	DATE ISSD.																												
DEL TO	DATE REQD.																														
<table border="1"> <tr> <td>PROJECT NAME</td> <td>PROJECT NO.</td> <td>DATE</td> <td>BY</td> </tr> <tr> <td>US ATLAS SILICON SUBSYSTEM</td> <td>ATL-IP-ED-XXXX</td> <td>12/17/06</td> <td>W. K. MILLER</td> </tr> <tr> <td>CHK BY</td> <td>DATE</td> <td>APR -</td> <td></td> </tr> </table>				PROJECT NAME	PROJECT NO.	DATE	BY	US ATLAS SILICON SUBSYSTEM	ATL-IP-ED-XXXX	12/17/06	W. K. MILLER	CHK BY	DATE	APR -		<table border="1"> <tr> <td>REV</td> <td>DWG</td> <td>CHK</td> <td>ZONE</td> <td>DATE</td> <td>CHANGES</td> </tr> <tr> <td>A</td> <td></td> <td></td> <td></td> <td>2-19-07</td> <td>ADDED BOSS AND SLOT</td> </tr> </table>				REV	DWG	CHK	ZONE	DATE	CHANGES	A				2-19-07	ADDED BOSS AND SLOT
PROJECT NAME	PROJECT NO.	DATE	BY																												
US ATLAS SILICON SUBSYSTEM	ATL-IP-ED-XXXX	12/17/06	W. K. MILLER																												
CHK BY	DATE	APR -																													
REV	DWG	CHK	ZONE	DATE	CHANGES																										
A				2-19-07	ADDED BOSS AND SLOT																										

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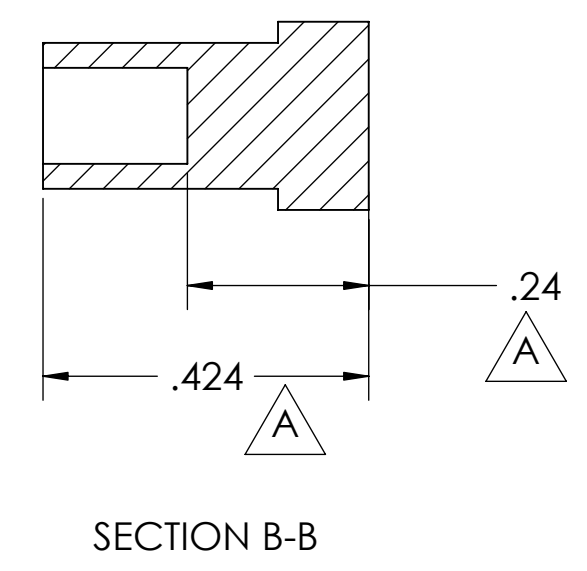
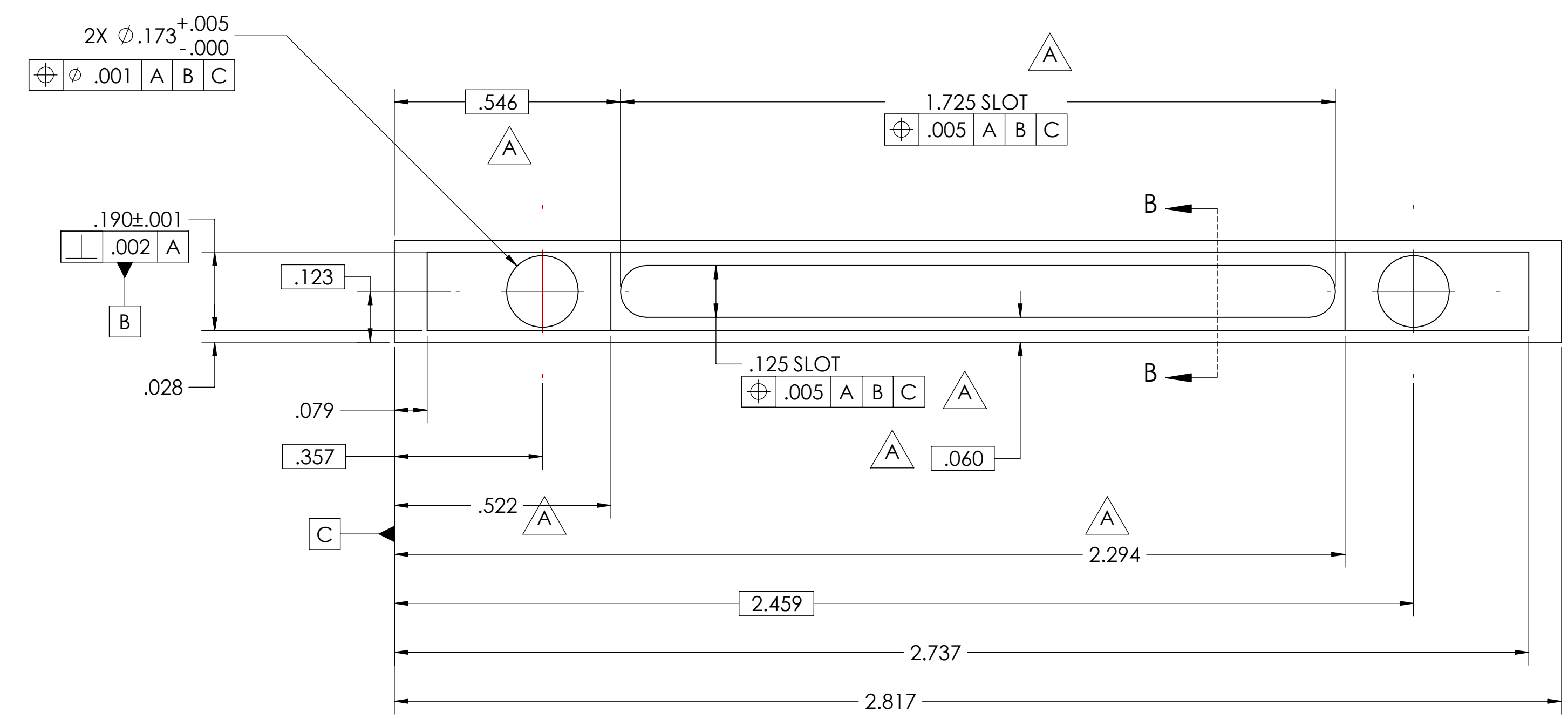
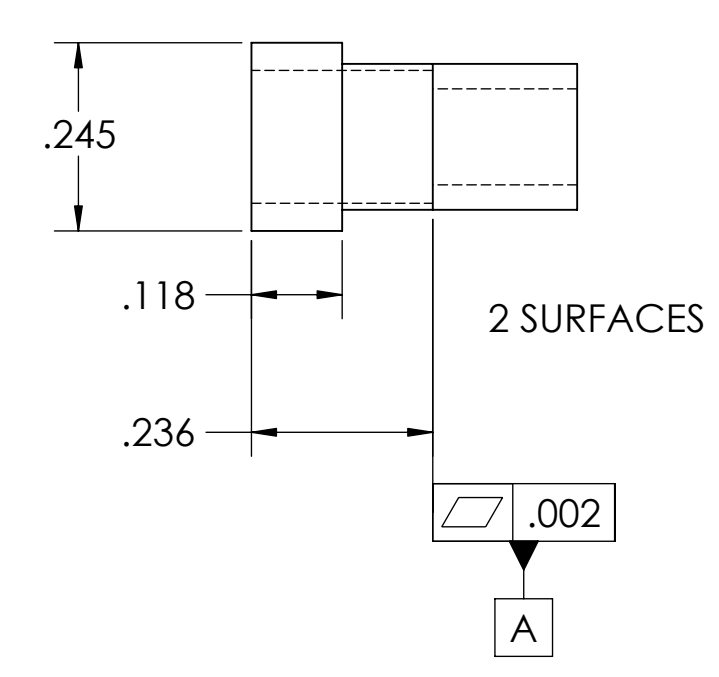
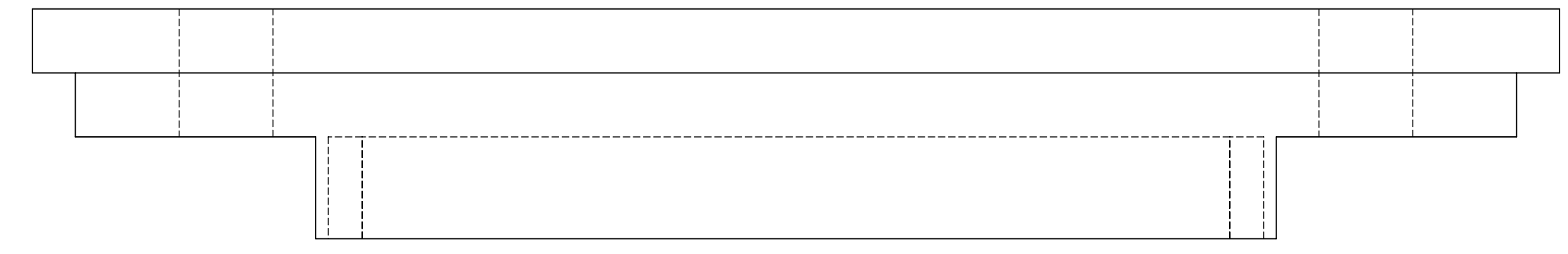
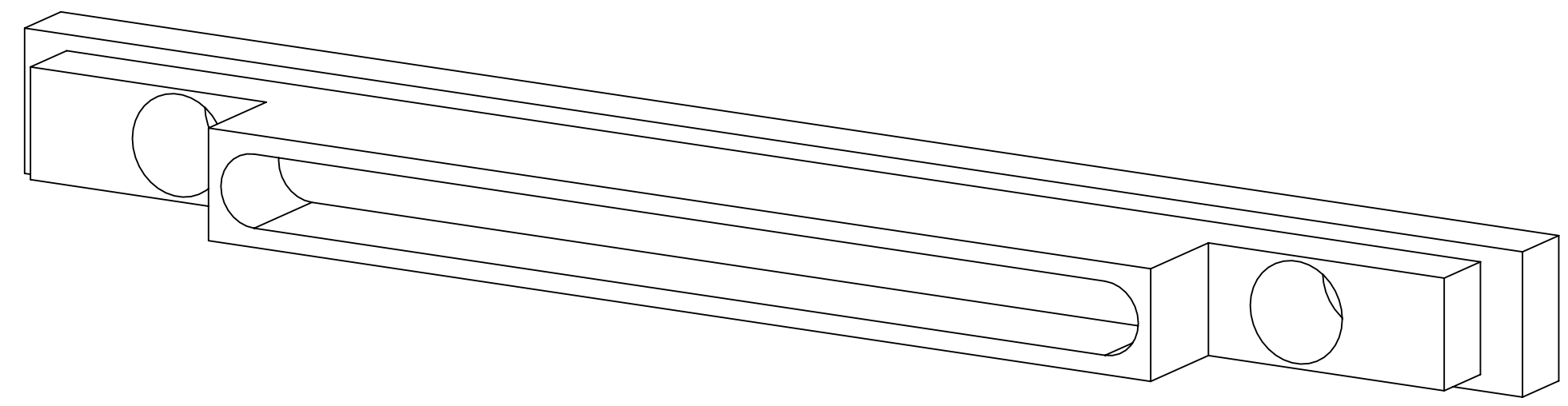
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-3 STAVE END CLOSEOUT PART #2
 QTY : 1
 MATERIAL: 6061-T6 ALUMINUM

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.		ERNEST ORLANDO LAWRENCE	
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	DATE REQD.	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO		DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH: NOTE 1	SURFACE TREATMENT		IDEN. METHOD TAG		END CLOSEOUT	
DO NOT SCALE PRINT		PROJECT NUMBER		PROJECT NAME		4.72mm CIRCULAR TUBE STAVE ASSEMBLY	
THREADS ARE CLASS 2		PROJECT NAME		PROJECT NAME		SCALE: 4:1	
CHAMFER ENDS OF ALL SCREW THREADS 30°		DWG. BY: W. K. MILLER		DATE: 12/17/06		DO NOT SCALE PRINTS	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		CHK. BY: W. O. MILLER		DATE: 12/17/06		PART 27E318	
BREAK EDGES .016 MAX. ON MACHINED WORK		APPR. BY:		DATE:		SHEET 2 OF 2	
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APPROVED:		DATE:		DWG. NO. 27E319	
IN ACCORDANCE WITH ASME Y14.5m & B46.1		APPROVED:		DATE:		CATEGORY CODE AP6250	
		APPROVED:		DATE:		REV. A	

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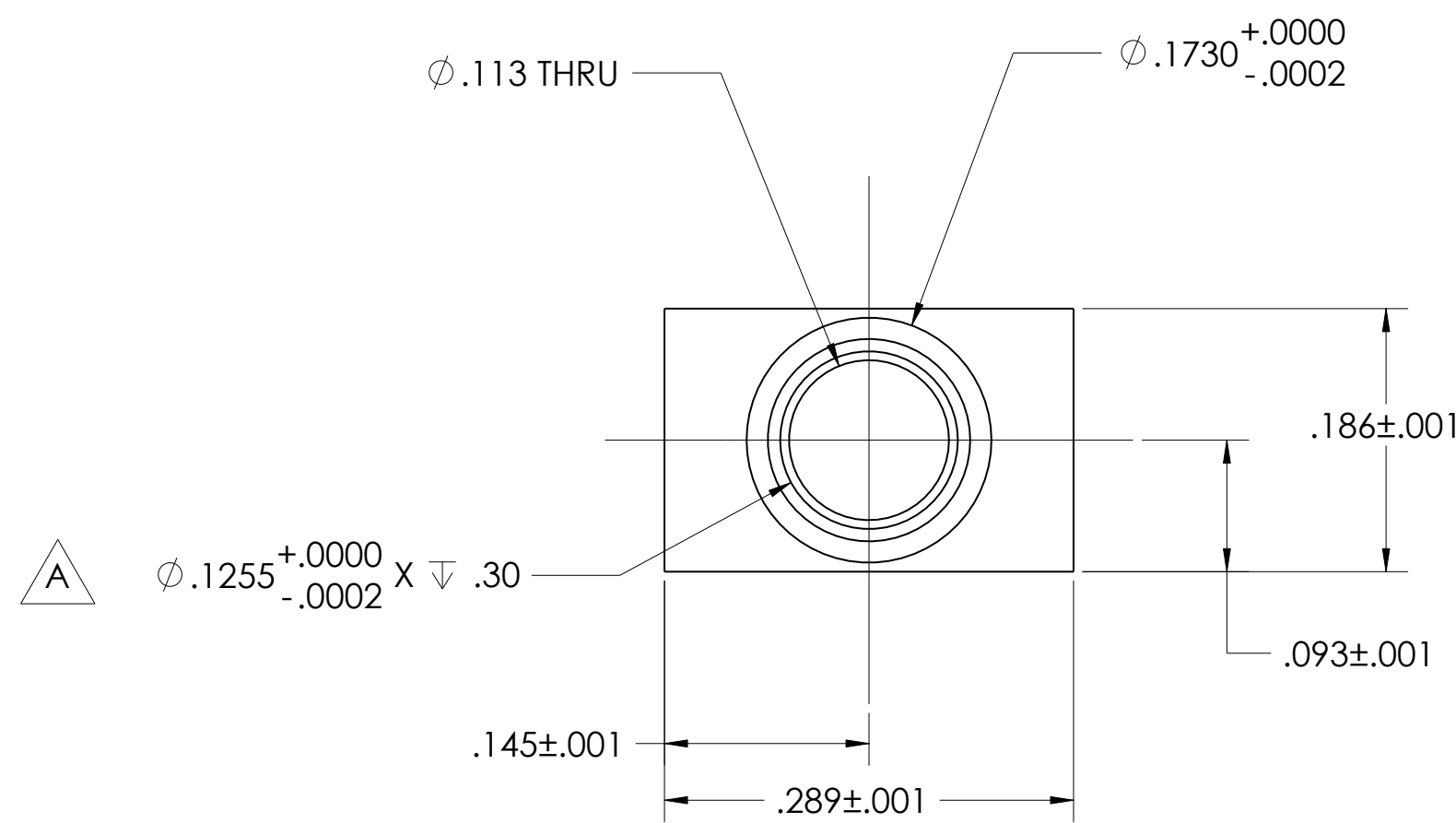
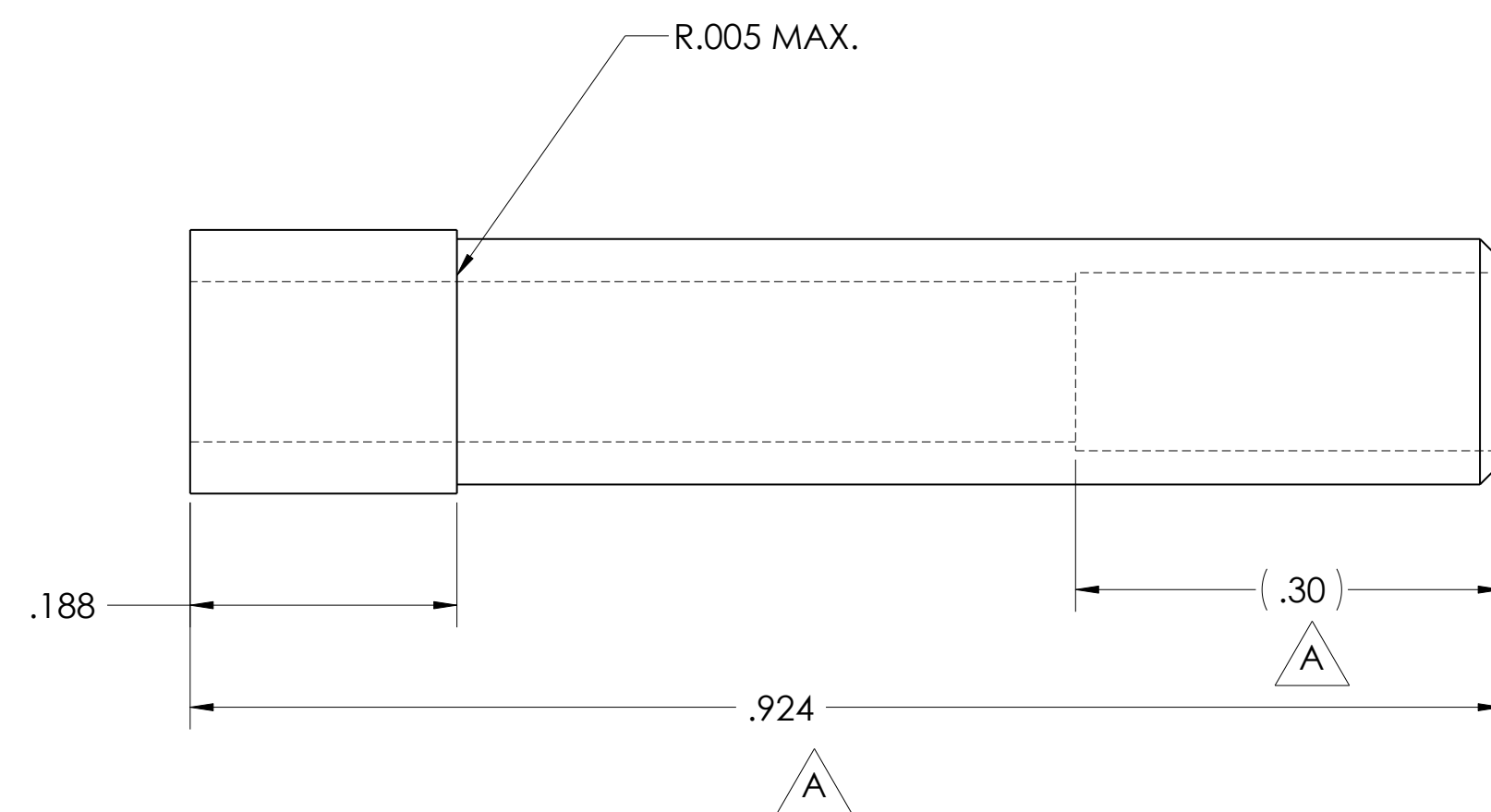
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DWG. NO. nnXnnn4 SIZE A REV. 1 SH. 1

DESCRIPTION	MATERIAL	MAT. LOCATION



NOTES:

- 1. MATERIAL: 303 STAINLESS STEEL

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY
	X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			
DO NOT SCALE PRINT			IDEN. METHOD	TAG	CLOSEOUT PIN	
THREADS ARE CLASS 2			PROJECT NUMBER	ATL-IP-ED-XXXX	4.72 mm CIRCULAR TUBE STAVE ASSEMBLY	
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME	US ATLAS SILICON SUBSYSTEM	MICROFILMED:	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	W. K. MILLER	DATE	12/17/2006
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK. BY	W. O. MILLER	DATE	12/17/2006
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APR. BY		DATE	
IN ACCORDANCE WITH ASME Y14.5m & B46.1					PATENT CLEAR:	
REV	DWG	CHK	ZONE	DATE	DESIGN ACCT. NO.	CATEGORY CIDE
A				1-9-07	27E318	AP6250
				CHANGES	DWG. NO.	27E320
					SCALE:	8:1
					DO NOT SCALE PRINTS	
					SHEET 1 OF 1	
					SIZE	A

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DWG. NO. nnXnnn4	SIZE -	REV. -	SH. 1
DESCRIPTION		MATERIAL	MAT. LOCATION

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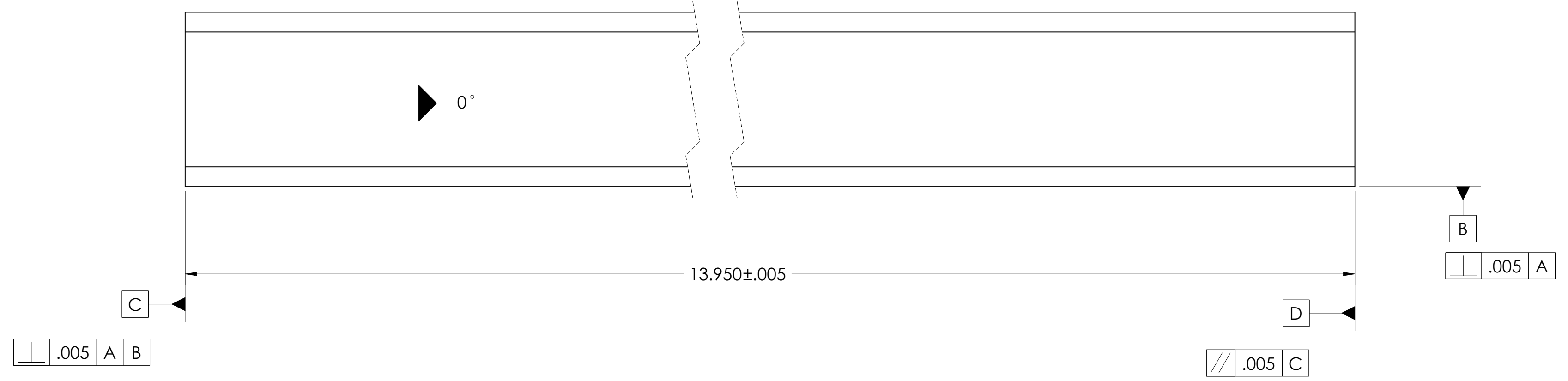
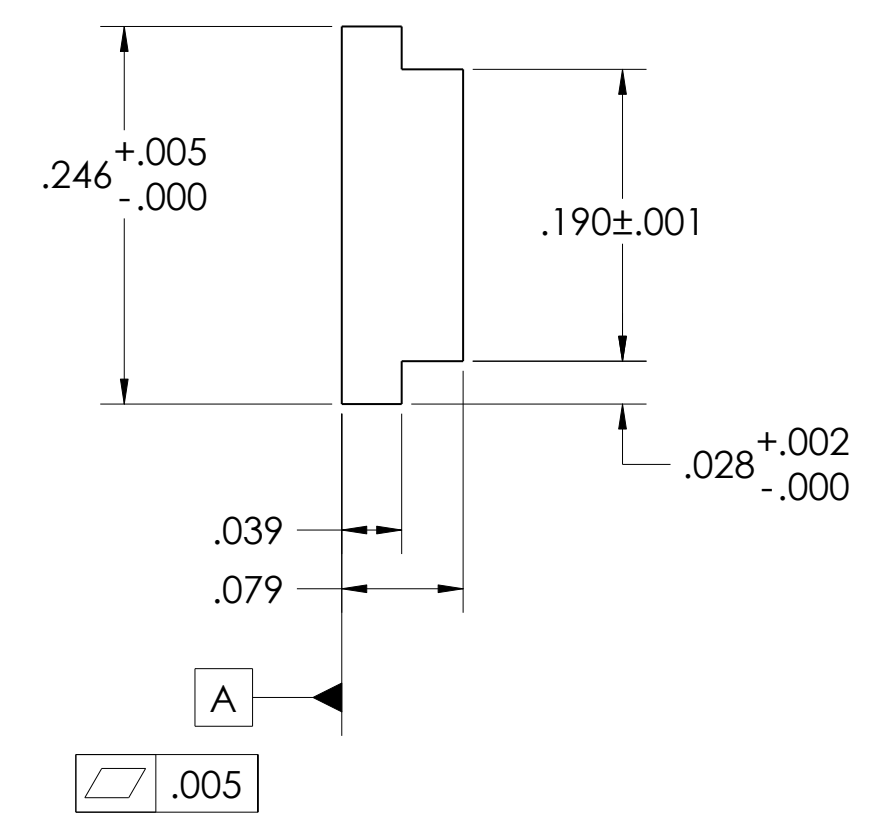
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NOTES:

1. K13D2U 90fsm FIBER AREAL WEIGH T/EX 1515 CYANATE ESER RESIN (250 °F CURE) 34% RESIN CONTENT. 6" UNITAPE WIDTH (BRYTE TECHNOLOGY).
2. FIBER ORIENTATION: (90,0,0,0,0/S).
3. FIBER VOLUME FRACTION 60%.
4. UNITS ARE IN INCHES.

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UNLESS OTHERWISE SPECIFIED				SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
TOLERANCES		ACCT. NO.		NO. REQD.		DATE ISSD	BERKELEY NATIONAL LABORATORY	
X.X ± 0.1		FRAC. ± 1/64		DEL. TO		DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XX ± 0.01		ANGLES ± 30°		SURFACE TREATMENT		SIDE COMPOSITE CLOSEOUT		
X.XXX ± 0.005		FINISH -		IDEN. METHOD TAG		4.72 mm CIRCULAR TUBE STAVE ASSEMBLY		
DO NOT SCALE PRINT				PROJECT NUMBER		MICROFILMED:		
THREADS ARE CLASS 2				PROJECT NAME		DWG. TYPE		SCALE: 8:1
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NAME		PART		DO NOT SCALE PRINTS
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				DWG. W. K. MILLER		DATE 12/17/2006		SHEET 1 OF 1
BREAK EDGES .016 MAX. ON MACHINED WORK				CHK W. O. MILLER		DATE 12/17/2006		DESIGN ACCT. NO. 27E314
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				APR -		DATE -		CATEGORY CODE AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1				REV.		DWG. NO. 27E321		SIZE
REV. DWG. CHK. ZONE. DATE				CHANGES		PATENT CLEAR:		REV. -

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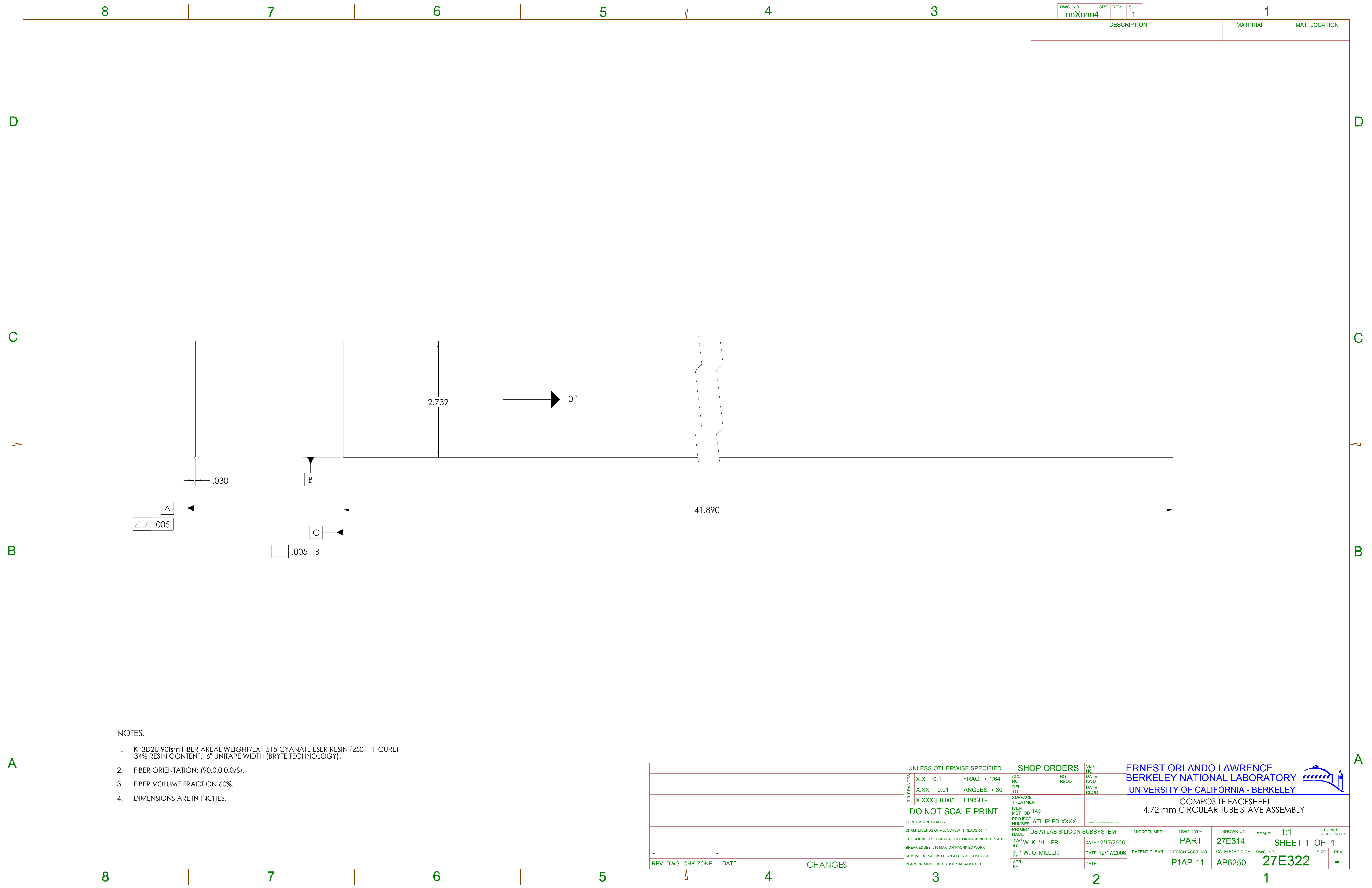
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DWG. NO. nnXnnn4	SIZE -	REV. -	SH. 1	1
DESCRIPTION		MATERIAL	MAT. LOCATION	



- NOTES:
1. K13D2U 90fsm FIBER AREAL WEIGHT/EX 1515 CYANATE ESER RESIN (250 °F CURE) 34% RESIN CONTENT. 6" UNITAPE WIDTH (BRYTE TECHNOLOGY).
 2. FIBER ORIENTATION: (90,0,0,0/S).
 3. FIBER VOLUME FRACTION 60%.
 4. DIMENSIONS ARE IN INCHES.

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY
	X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			
DO NOT SCALE PRINT			IDEN. METHOD	TAG	COMPOSITE FACESHEET	
THREADS ARE CLASS 2			PROJECT NUMBER	ATL-IP-ED-XXXX	4.72 mm CIRCULAR TUBE STAVE ASSEMBLY	
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME	US ATLAS SILICON SUBSYSTEM	MICROFILMED:	DWG. TYPE
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. W. K. MILLER	DATE 12/17/2006		PART
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK W. O. MILLER	DATE 12/17/2006	PATENT CLEAR:	27E314
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APR -	DATE -	DESIGN ACCT. NO.	AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1					CATEGORY CIDE	AP6250
REV	DWG	CHK	ZONE	DATE	CHANGES	

SCALE: 1:1	DO NOT SCALE PRINTS
SHEET 1 OF 1	
DWG. NO. 27E322	SIZE
REV. -	

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DWG. NO.	SIZE	REV.	SH.
nnXnnn4		-	1

DESCRIPTION	MATERIAL	MAT. LOCATION

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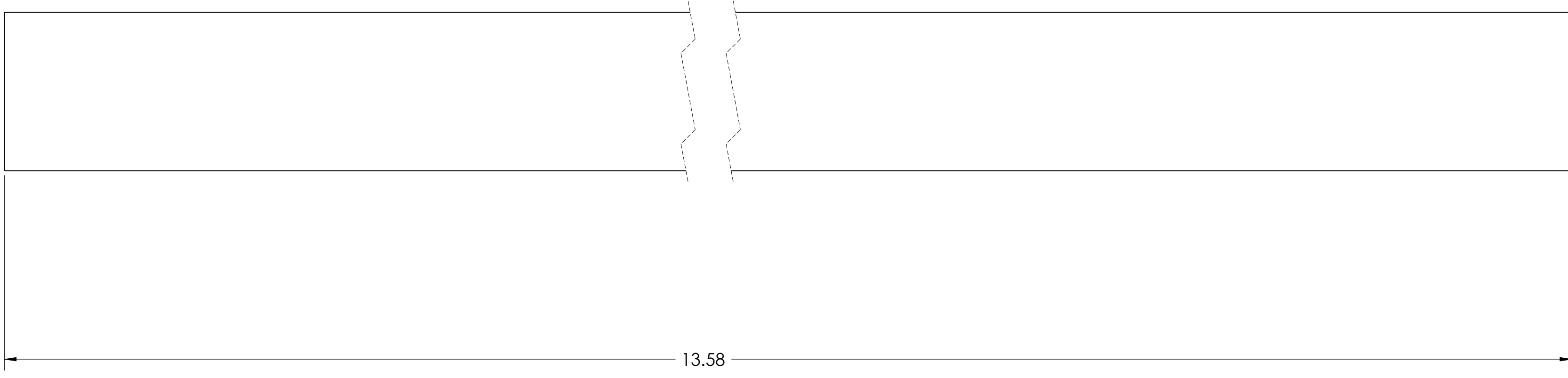
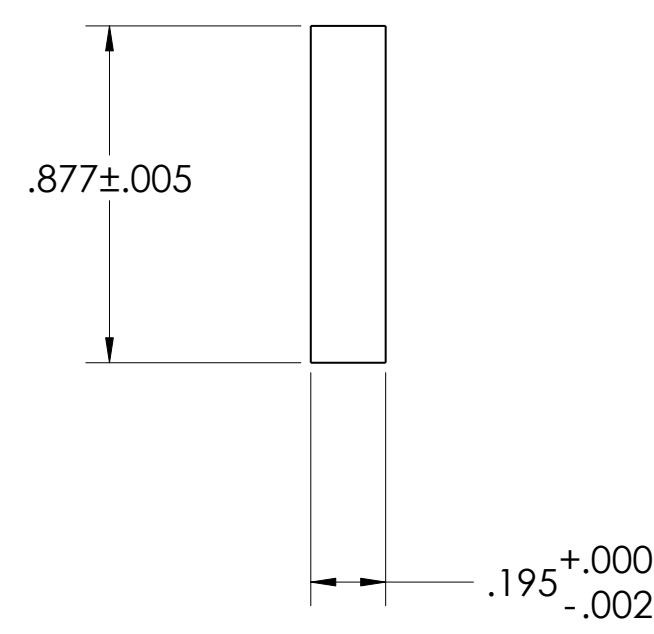
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-1 HONEYCOMB PART #1
 QTY# 3
 MATERIAL: ULTRACORE UCF-119-3/16 -3.5
 GRAPHITE FIBER HONEYCOMB WITH
 RS-3 CYANATE ESTER RESIN

NOTES:
 1. UNITS ARE IN INCHES.

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO		DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			HONEYCOMB CORE MATERIAL	
DO NOT SCALE PRINT				4.72 mm CIRCULAR COOLING TUBE STAVE ASSEMBLY		
THREADS ARE CLASS 2		PROJECT NUMBER	PROJECT NAME	MICROFILMED:		
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	PROJECT NAME	DWG. TYPE	SHOWN ON	SCALE: 2:1
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. NO.	DATE	PART	27E314	SHEET 1 OF 2
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK BY	DATE	PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CIDE
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR -	DATE -	P1AP-11	AP6250	DWG. NO. 27E323
IN ACCORDANCE WITH ASME Y14.5m & B46.1				DO NOT SCALE PRINTS		

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CHANGES

REV	DWG	CHK	ZONE	DATE

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DWG. NO.	SIZE	REV.	SH.
nnXnnn4	-	2	

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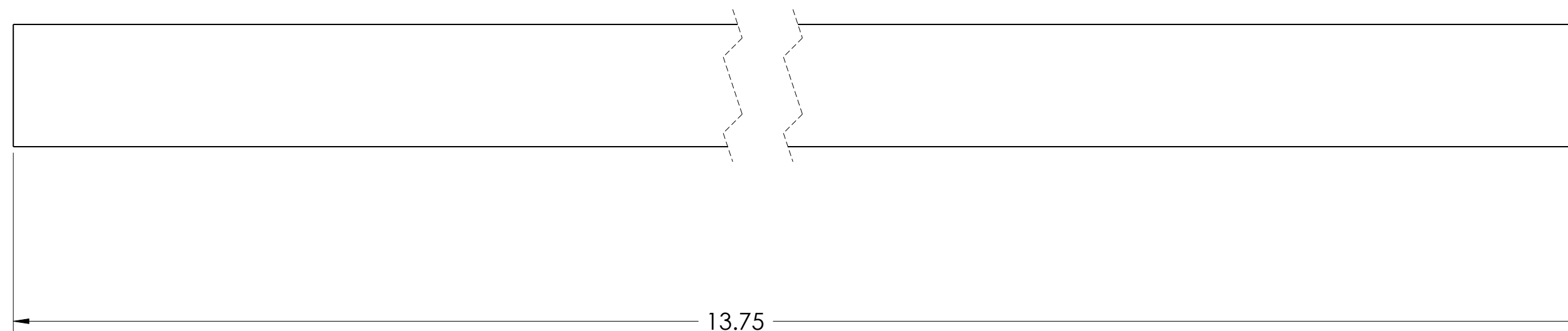
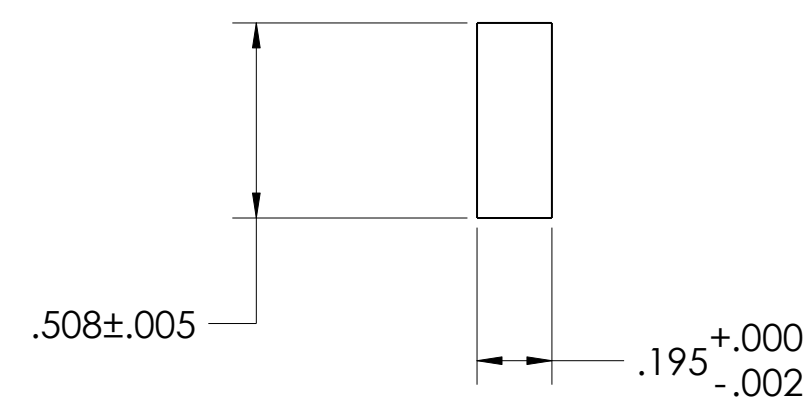
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(-3) HONEYCOMB PART #2
 QTY# 6
 MATERIAL: ULTRACORE UCF-119-3/16 -3.5
 GRAPHITE FIBER HONEYCOMB WITH
 RS-3 CYANATE ESTER RESIN

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.	DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT		HONEYCOMB CORE MATERIAL		
DO NOT SCALE PRINT		IDEN. METHOD	TAG	4.72 mm CIRCULAR COOLING TUBE STAVE ASSEMBLY		
THREADS ARE CLASS 2		PROJECT NUMBER	ATL-IP-ED-XXXX	MICROFILMED:	DWG. TYPE	SHOWN ON
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM	DATE 12/17/06	PART	27E314
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE 12/17/06	SCALE:	2:1
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY	W. O. MILLER	DATE 12/17/06	PATENT CLEAR:	DESIGN ACCT. NO.
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR. BY	-	DATE -	P1AP-11	AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1					DWG. NO.	27E323
					SIZE	-
					REV.	-

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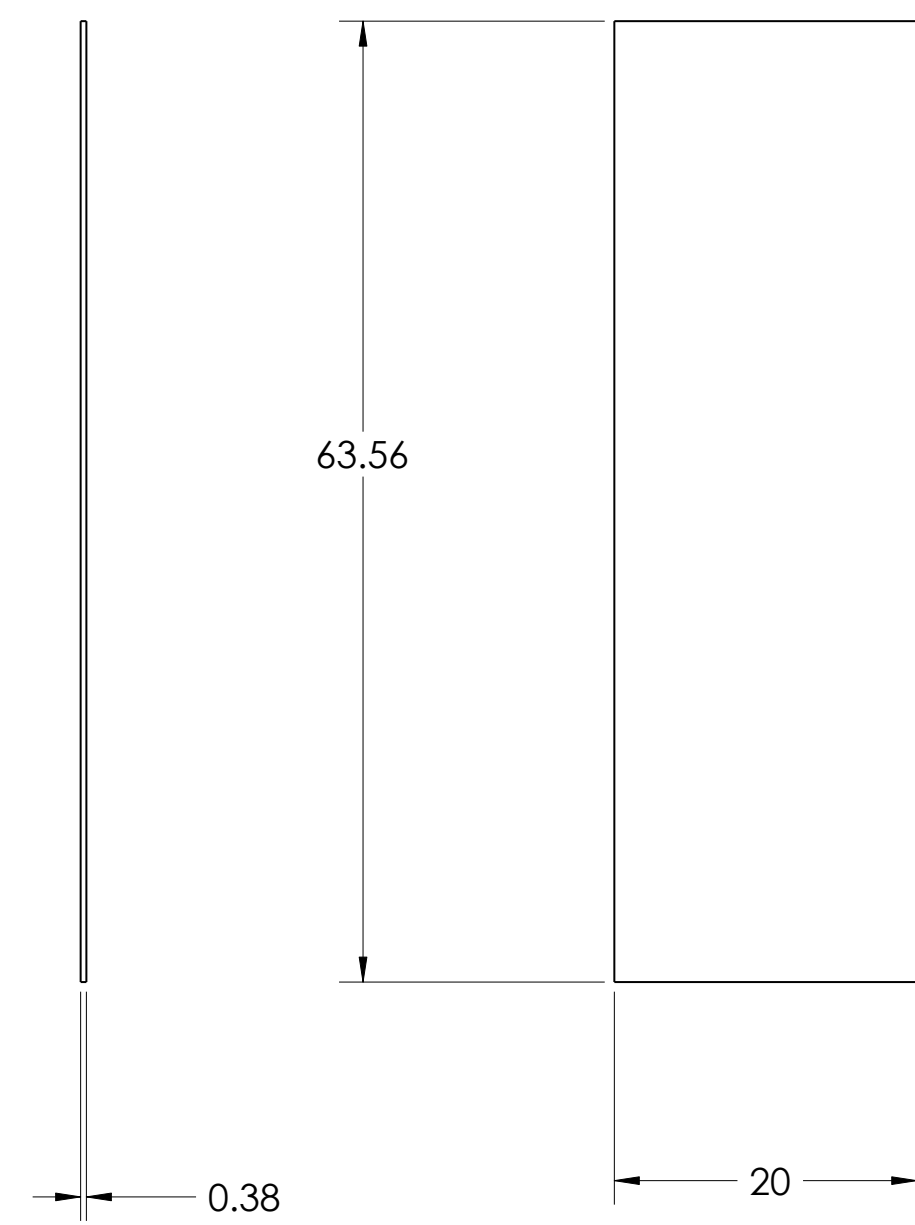
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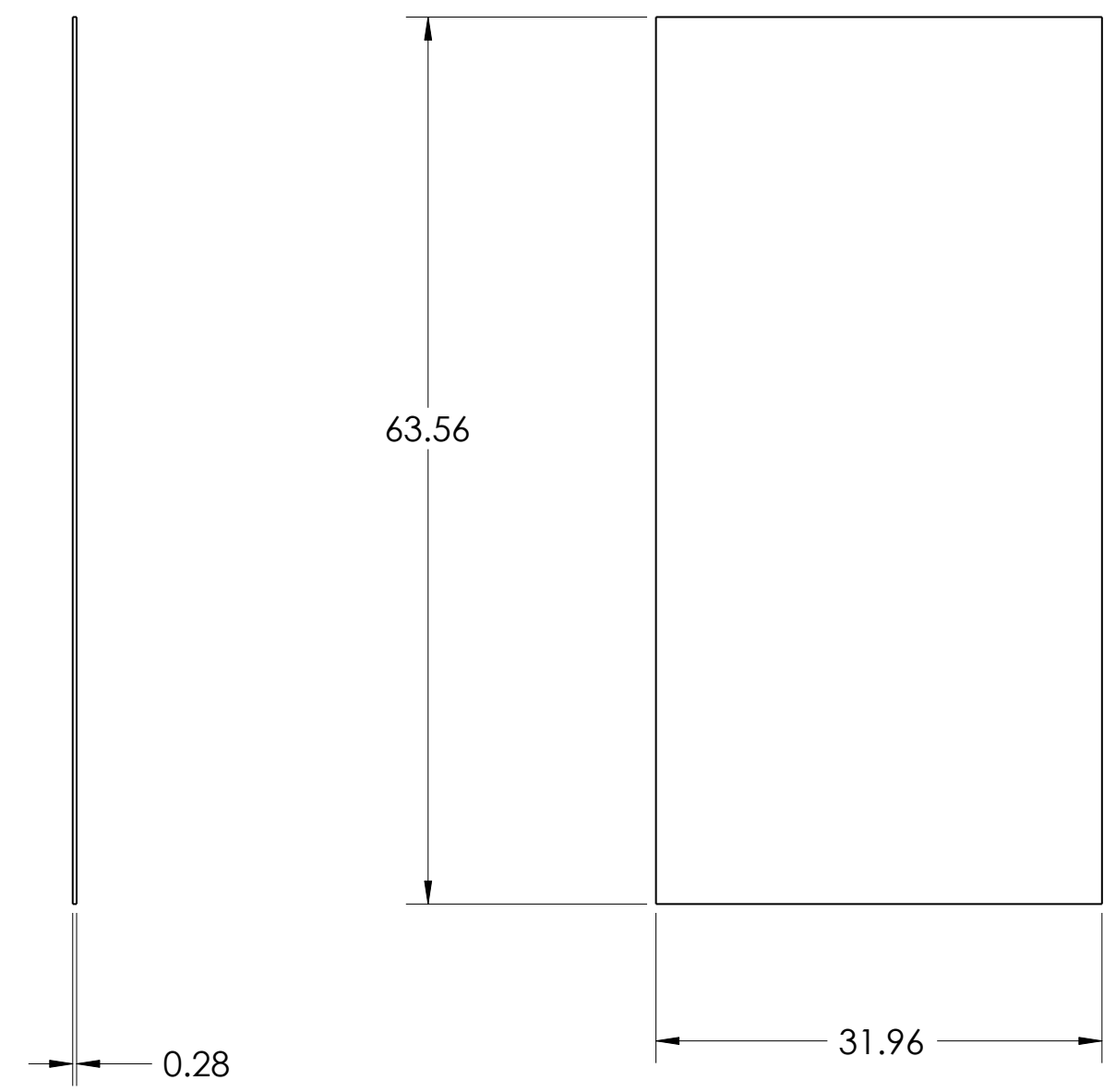
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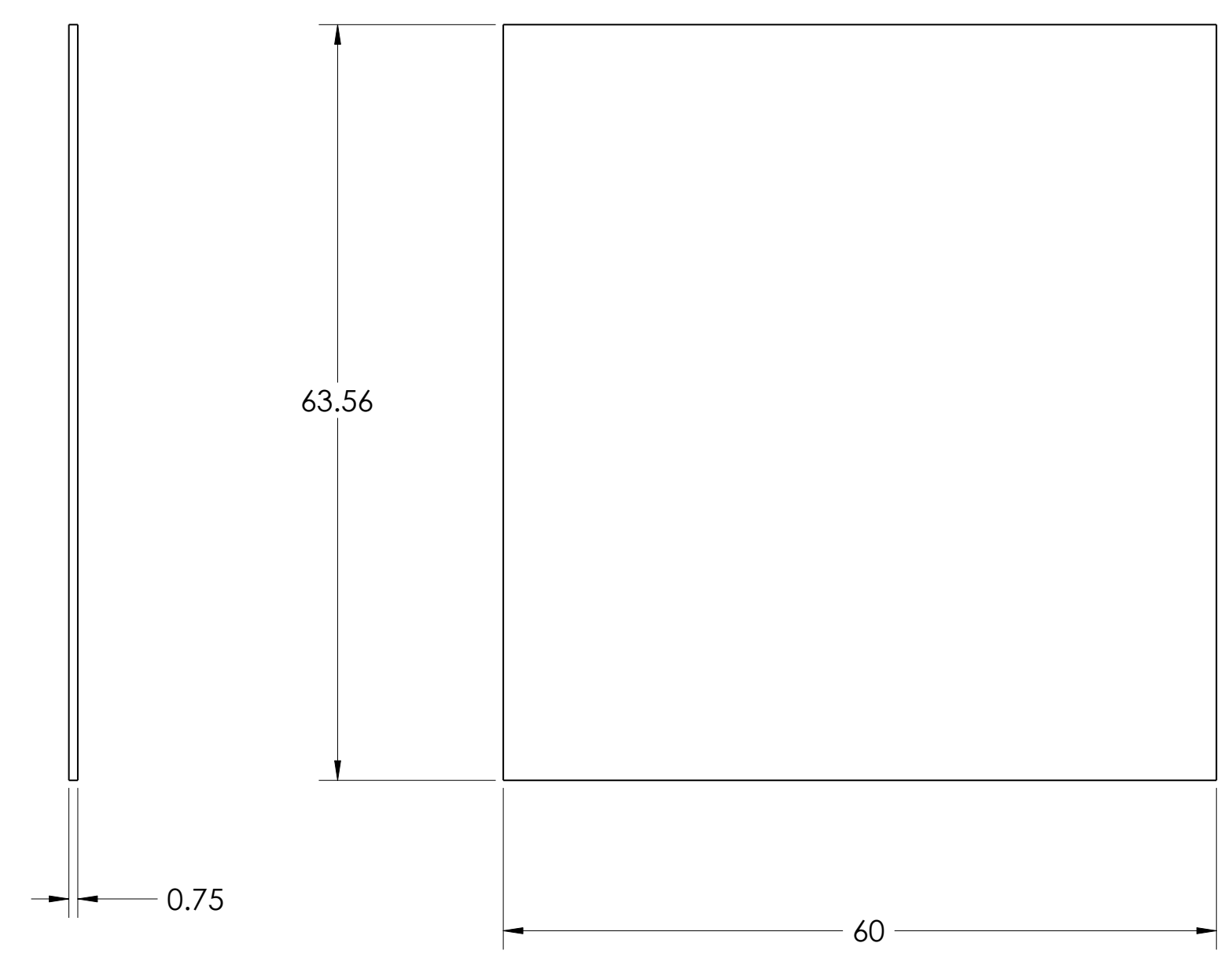
DESCRIPTION	MATERIAL	MAT. LOCATION



① HYBRID CHIP



② DETECTOR CHIP



③ PORT CARD

NOTES:
1. UNITS ARE IN METRIC.

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE			
TOLERANCES	X.X ± 0.5	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY		
	X.XX ± 0.25	ANGLES ± 30°	DEL. TO	DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY		
	X.XXX ± 0.13	FINISH -	SURFACE TREATMENT					
DO NOT SCALE PRINT			IDEN. METHOD	TAG	HYBRID AND DETECTOR CHIP			
THREADS ARE CLASS 2			PROJECT NUMBER	ATL-IP-ED-XXXX	4.72 mm CIRCULAR TUBE STAVE ASSEMBLY			
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME	US ATLAS SILICON SUBSYSTEM	MICROFILMED:	DWG. TYPE		
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	W. K. MILLER	DATE	12/17/2006		
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK BY	W. O. MILLER	DATE	12/17/2006		
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APR BY	-	DATE	-		
IN ACCORDANCE WITH ASME Y14.5m & B46.1					PATENT CLEAR:	DESIGN ACCT. NO.		
REV		DWG	CHK	ZONE	DATE	CHANGES	SCALE: 2:1	DO NOT SCALE PRINTS
							SHOWN ON: 27E313	SHEET 1 OF 1
							AP6250	27E324