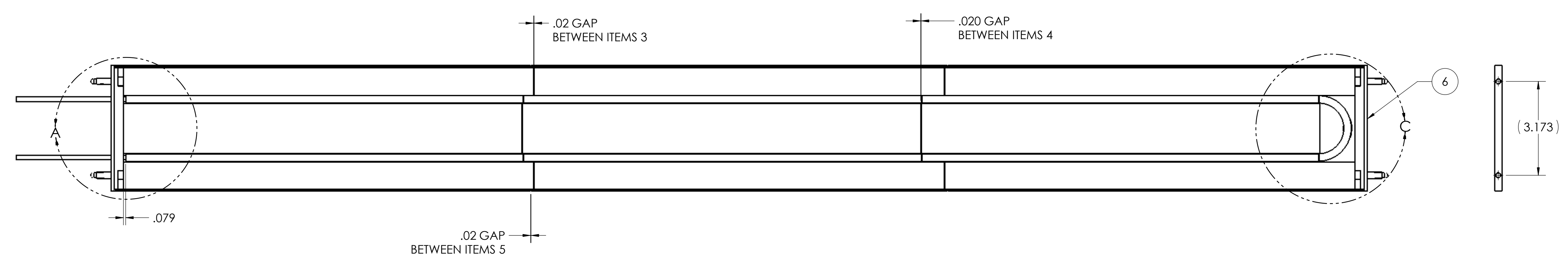
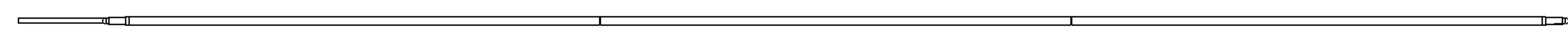




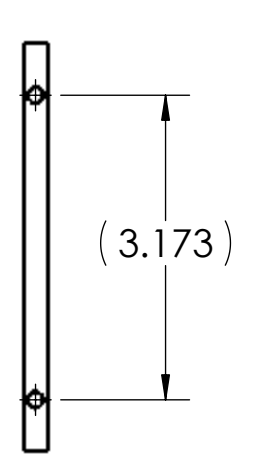
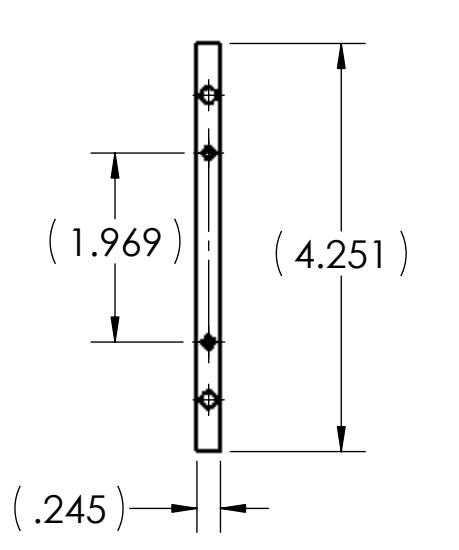
DWG. NO. 27E545	SIZE	REV.	SH.	1
DESCRIPTION		MATERIAL	MAT. LOCATION	



BACK SIDE



FRONT SIDE (FACESHEET HIDDEN FOR CLARITY)



- 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.

ITEM NO	SHEET LOCATION	ZONE	QTY	PART DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL NOTES
7	2	D6	1	27E549-1	END CLOSEOUT SUB-ASSEMBLY 1	
6	1	B1	1	27E549-3	END CLOSEOUT SUB-ASSEMBLY 2	
5	2	D4	6	27E552	COMPOSITE SIDE CLOSEOUT	
4	2	D6	3	27E554-1	HONEYCOMB CORE PART #1	
3	2	D6	6	27E554-3	HONEYCOMB CORE PART #2	
2	2	D6	1	27E546	CIRCULAR TUBE SUB-ASSEMBLY	
1	1	D6	2	27E553	COMPOSITE FACESHEET	

REV	DWG	CHK	ZONE	DATE	CHANGES

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 RECD	UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT		
DO NOT SCALE PRINT			IDENT. METHOD TAG	10cm WIDE CIRCULAR TUBE STAVE SUB ASSEMBLY	
THREADS ARE CLASS 2			PROJECT NUMBER	MICROFILMED: DWG. TYPE SHOWN ON SCALE: 1:2 DO NOT SCALE PRINTS	
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME	ASSY 27E544 SHEET 1 OF 2	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	DATE	DESIGN ACCT. NO. CATEGORY CODE
BREAK EDGES .016 MAX. ON MACHINED WORK			W. K. MILLER	DATE 3-27-07	P1AP-11 AP6250
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			CHK BY	DATE	DWG. NO. SIZE REV.
IN ACCORDANCE WITH ASME Y14.5m & B46.1			W. O. MILLER	DATE 3-27-07	27E545 -
			APP BY	DATE	

ERNEST ORLANDO LAWRENCE  
BERKELEY NATIONAL LABORATORY  
UNIVERSITY OF CALIFORNIA - BERKELEY

10cm WIDE CIRCULAR TUBE STAVE SUB ASSEMBLY

MICROFILMED: DWG. TYPE SHOWN ON SCALE: 1:2 DO NOT SCALE PRINTS

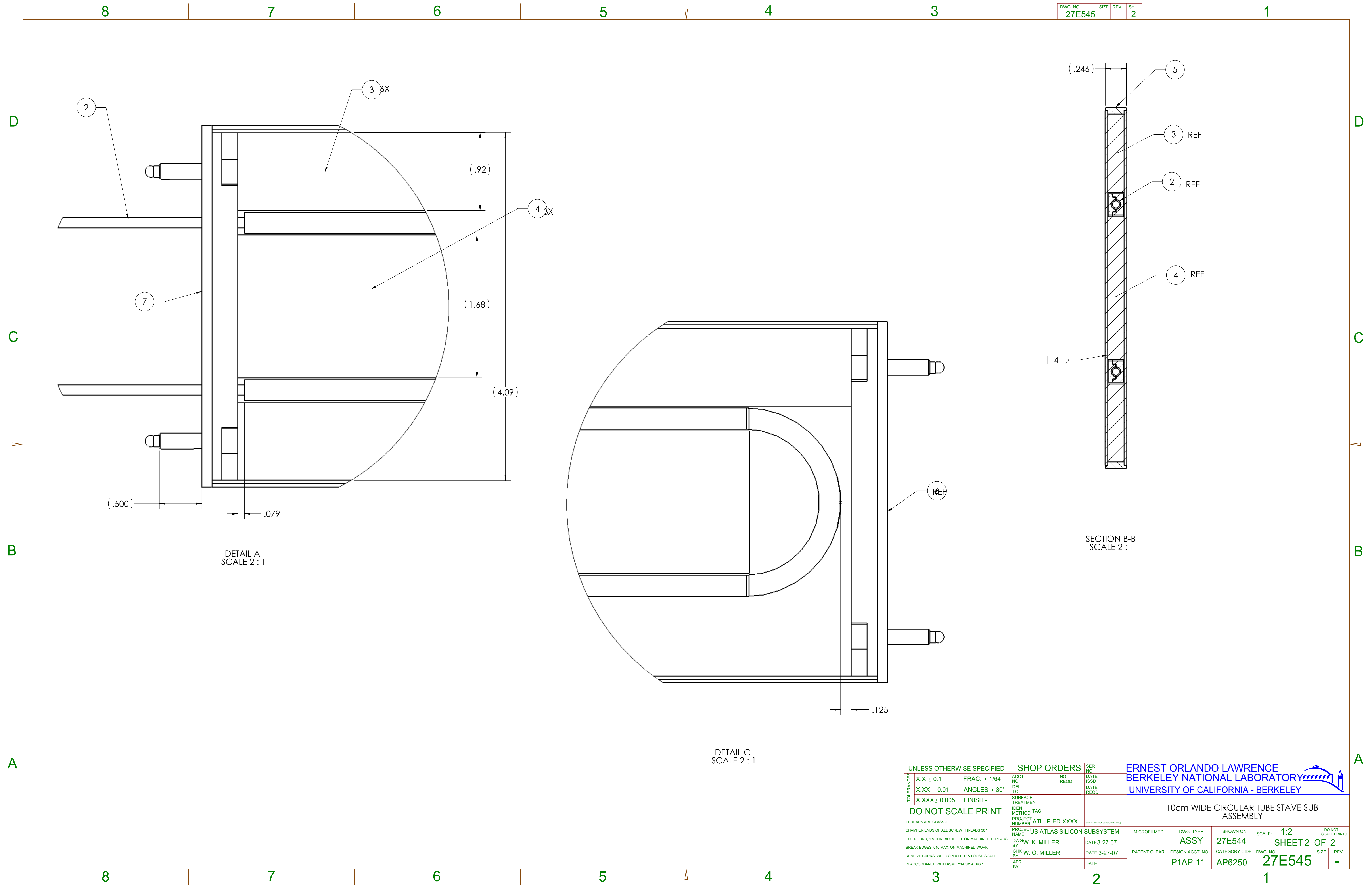
ASSY 27E544 SHEET 1 OF 2

DESIGN ACCT. NO. CATEGORY CODE

P1AP-11 AP6250

DWG. NO. SIZE REV.

27E545 -



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	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE RECD.	DATE RECD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT	10cm WIDE CIRCULAR TUBE STAVE SUB ASSEMBLY			
DO NOT SCALE PRINT		IDEN. METHOD TAG				
THREADS ARE CLASS 2		PROJECT NUMBER	PROJECT NAME	MICROFILMED:	DWG. TYPE	SHOWN ON
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM	SCALE: 1:2	ASSY	27E544
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE 3-27-07	DESIGN ACCT. NO.	P1AP-11
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY	W. O. MILLER	DATE 3-27-07	CATEGORY CODE	AP6250
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APPR. BY		DATE -	DWG. NO.	27E545
IN ACCORDANCE WITH ASME Y14.5m & B46.1					SCALE	1:2
					DO NOT SCALE PRINTS	SHEET 2 OF 2
					PATENT CLEAR:	REV. -

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DWG. NO.	SIZE	REV.	SH.
27E546	-	1	1

DESCRIPTION

MATERIAL

MAT. LOCATION

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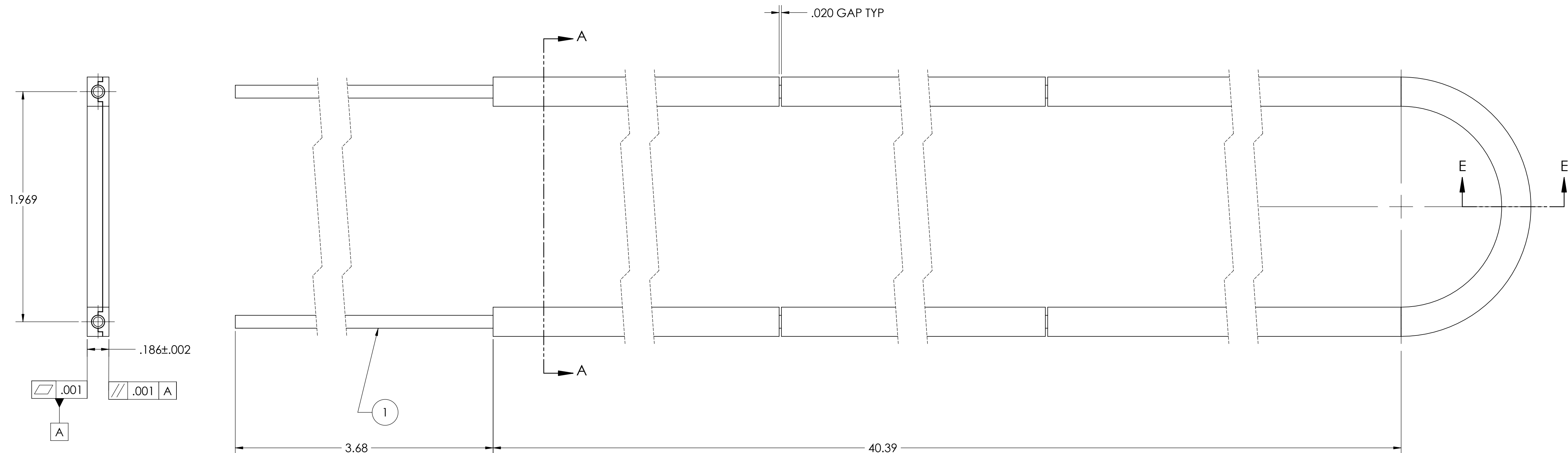
C

B

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NOTES:

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

ITEM NO	SHEET LOCATION	ZONE	QTY	PART DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL NOTES
5	1	C1	1	27E547-5	POCO FOAM PART 3	
4	1	B5	1	27E547-7	POCO FOAM PART 4	
3	1	C1	6	27E547-1	POCO FOAM PART 1	
2	1	C2	6	27E547-3	POCO FOAM PART 2	
1	1	B6	1	27E548	CIRCULAR COOLING TUBE	

REV	DWG	CHK	ZONE	DATE	CHANGES
-	-	-	-	-	-

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 RECD	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		PROJECT NO.		SER. NO.	
ATLAS SILICON SUBSYSTEM		ATL-IP-ED-XXXX		27E545	
DWG. BY: W. K. MILLER		DATE: 3-27-07		SCALE: 2:1	
CHK. BY: W. O. MILLER		DATE: 3-27-07		SHEET 1 OF 2	
APPR. BY:		DATE:		DWG. NO. 27E546	
				REV. -	

MICROFILMED:	DWG. TYPE	SHOWN ON	SCALE:	DO NOT SCALE PRINTS
	ASSY	27E545	2:1	
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	SIZE
	P1AP-11	AP6250	27E546	

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DWG. NO.	SIZE	REV.	SH.
27E546	-	2	

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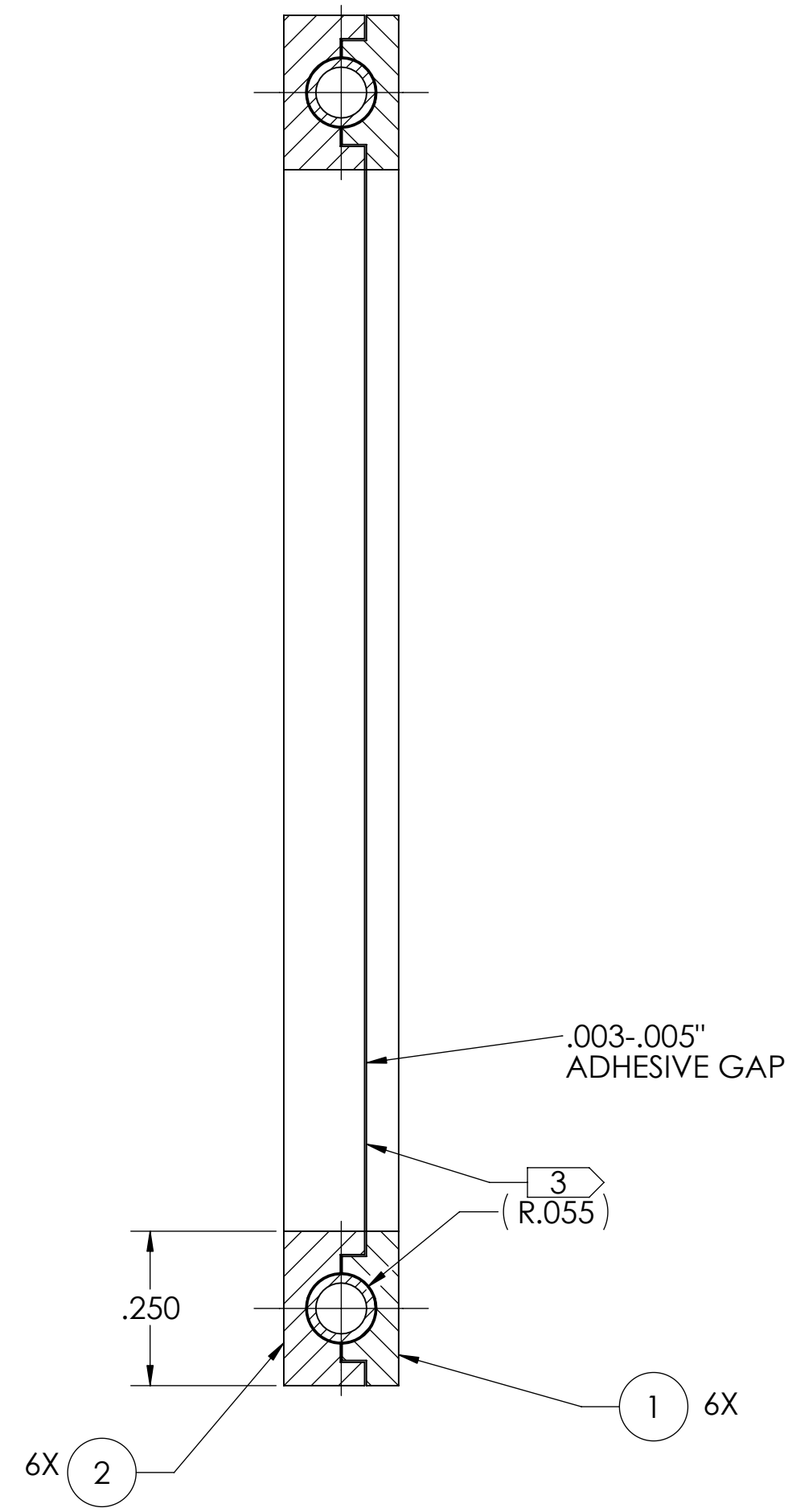
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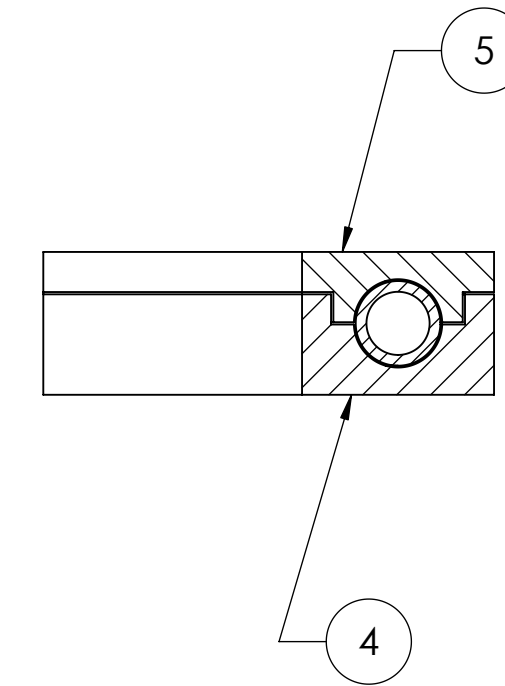
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SECTION A-A  
SCALE 4 : 1



SECTION E-E  
SCALE 4 : 1

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			10 cm WIDE CIRCULAR TUBE SUB-ASSEMBLY	
DO NOT SCALE PRINT		IDEN. METHOD TAG				
THREADS ARE CLASS 2		PROJECT NUMBER	ATL-IP-ED-XXXX			
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM	MICROFILMED:	DWG. TYPE	SHOWN ON
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE	3-27-07	SCALE: 1:2
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY	W. O. MILLER	DATE	3-27-07	DO NOT SCALE PRINTS
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APPR. BY		DATE		
IN ACCORDANCE WITH ASME Y14.5m & B46.1						
				PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE
					P1AP-11	AP6250
						DWG. NO. 27E546
						SIZE
						REV. -

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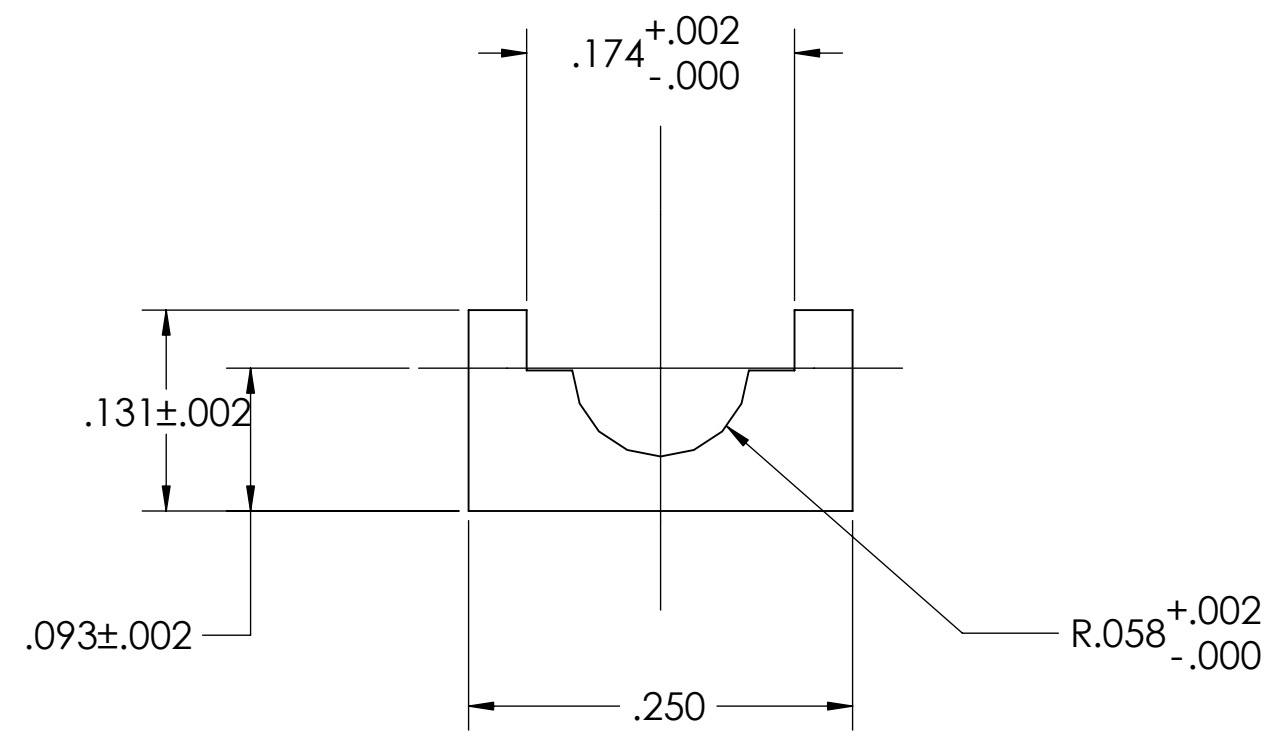
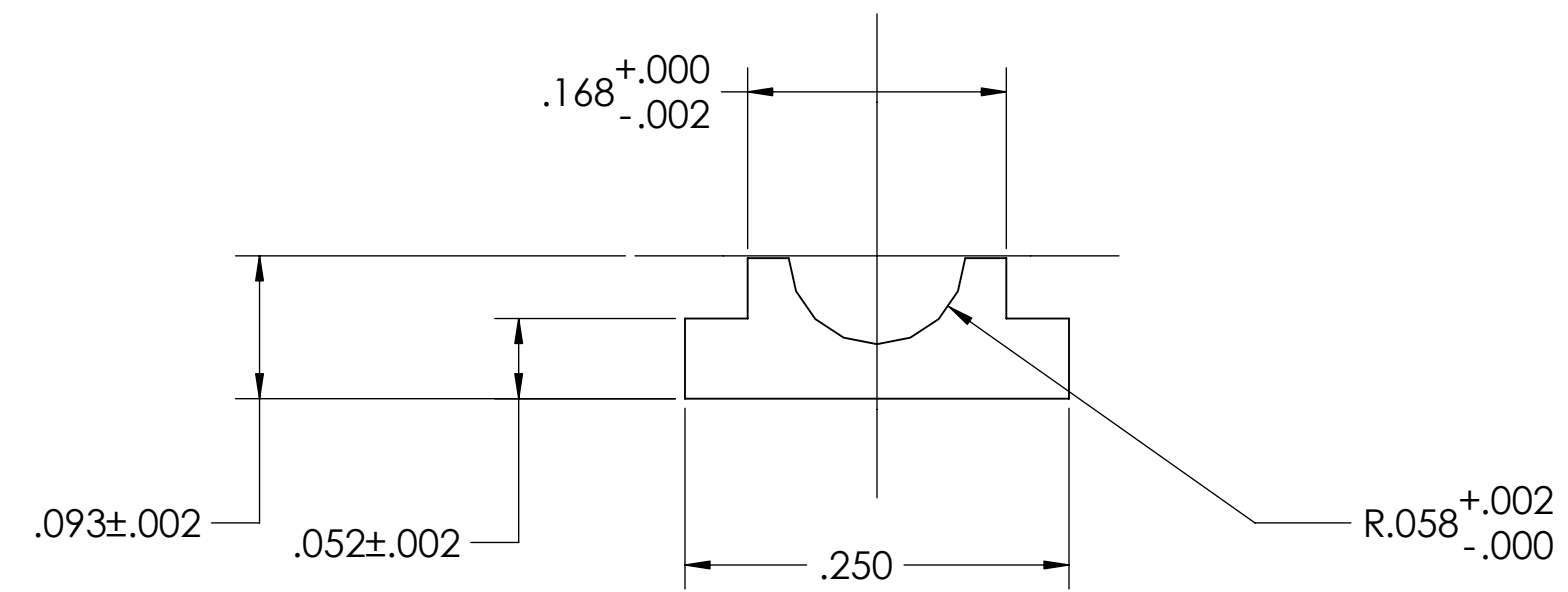
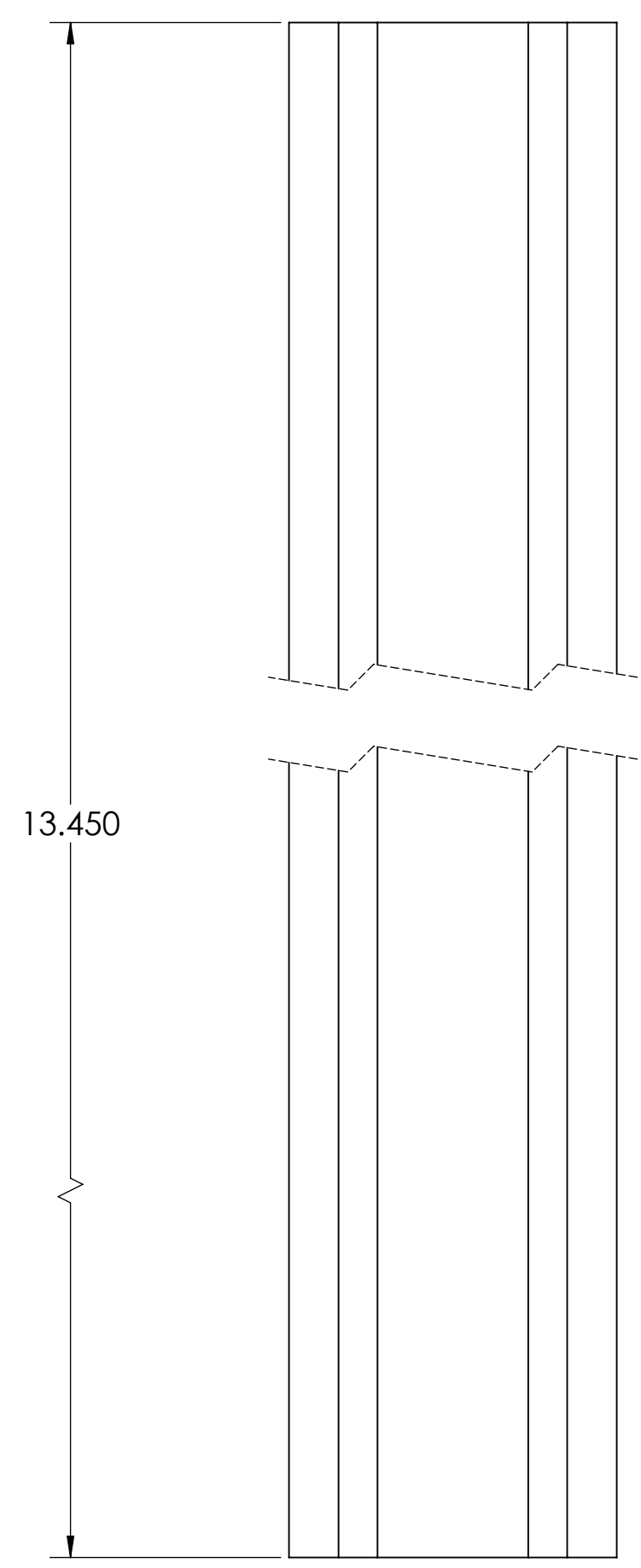
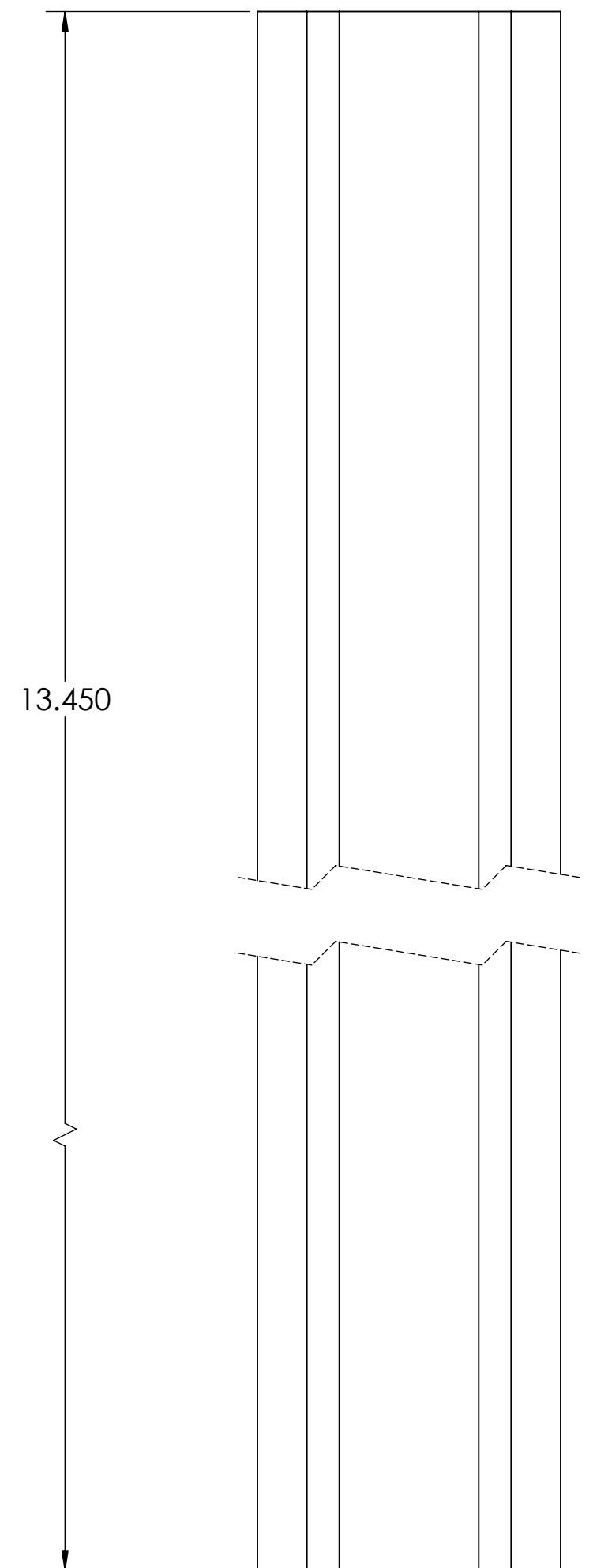
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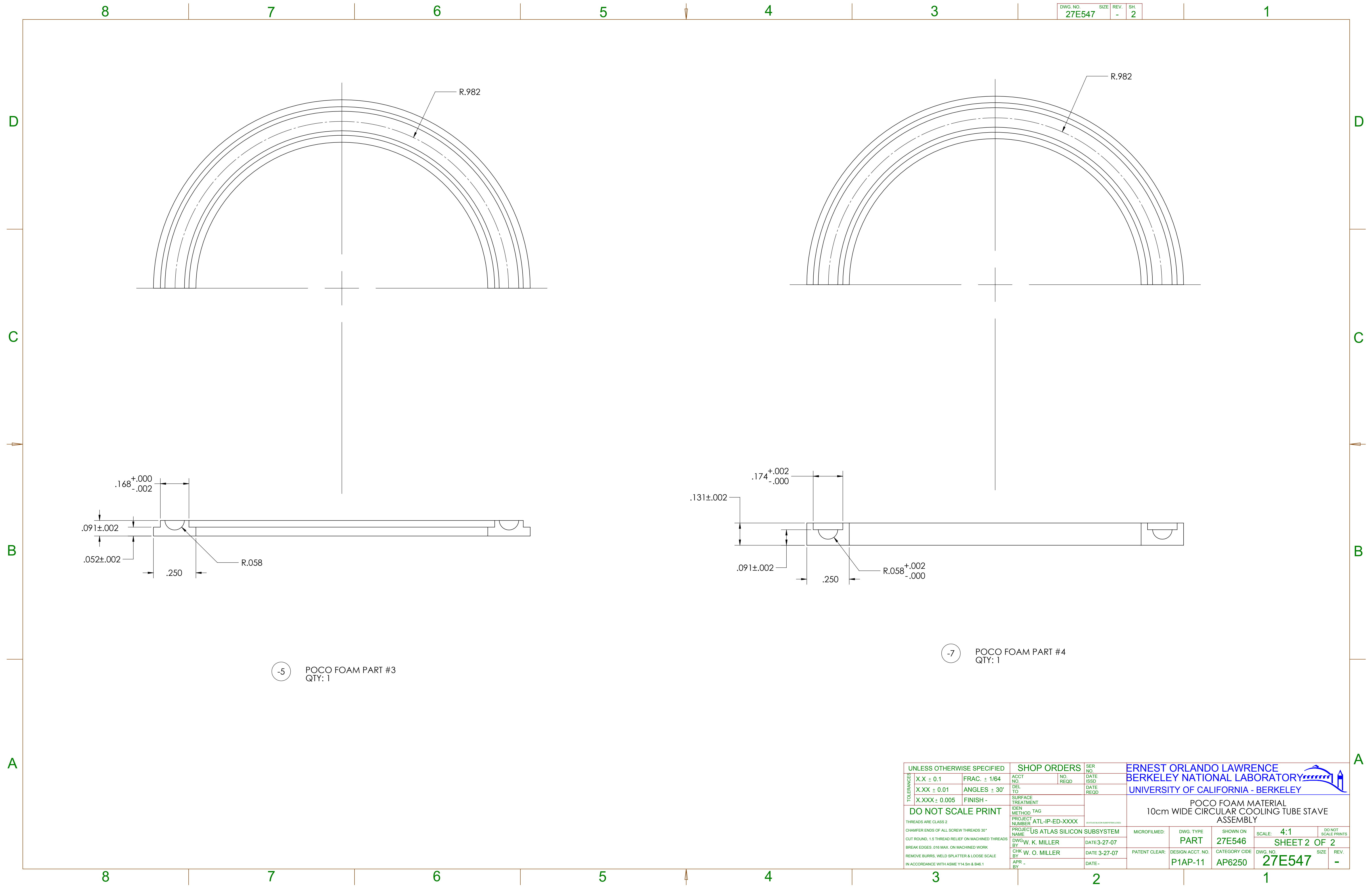


-1 POCO FOAM PART #1  
QTY : 6

-3 POCO FOAM PART #2  
QTY: 6

NOTES:  
1. UNITS ARE IN INCHES.

UNLESS OTHERWISE SPECIFIED				SHOP ORDERS		SER. NO.		ERNEST ORLANDO LAWRENCE		
TOLERANCES		FRAC. ± 1/64		NO. REQD.		DATE ISSD		BERKELEY NATIONAL LABORATORY		
X.X ± 0.1		ANGLES ± 30°		DEL TO		DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY		
X.XX ± 0.01		FINISH -		SURFACE TREATMENT		10 cm WIDE CIRCULAR COOLING TUBE STAVE ASSEMBLY				
X.XXX ± 0.005		DO NOT SCALE PRINT		IDEN METHOD TAG						
THREADS ARE CLASS 2				PROJECT NAME		MICROFILMED:		SCALE: 8:1		
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NAME		PART		SHEET 1 OF 2		
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				DWG. BY: W. K. MILLER		DATE: 3-27-07		DWG. NO. 27E547		
BREAK EDGES .016 MAX. ON MACHINED WORK				CHK BY: W. O. MILLER		DATE: 3-27-07		REV. -		
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				APPR -		DATE -				
IN ACCORDANCE WITH ASME Y14.5m & B46.1										
REV	DWG	CHK	ZONE	DATE	CHANGES					



-5 POCO FOAM PART #3  
QTY: 1

-7 POCO FOAM PART #4  
QTY: 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 RECD.		UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			
DO NOT SCALE PRINT			IDEN. METHOD TAG			
THREADS ARE CLASS 2			PROJECT NUMBER			
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME			
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	DATE		
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK. BY	DATE		
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APPR. BY	DATE		
IN ACCORDANCE WITH ASME Y14.5m & B46.1						
				MICROFILMED:	DWG. TYPE	SHOWN ON
					PART	27E546
				PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE
					P1AP-11	AP6250
				SCALE:	4:1	DO NOT SCALE PRINTS
						SHEET 2 OF 2
				DWG. NO.	27E547	SIZE
						REV.
						-

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DWG. NO. 27E548

SIZE -

REV. 1

SH. 1

DESCRIPTION

MATERIAL

MAT. LOCATION

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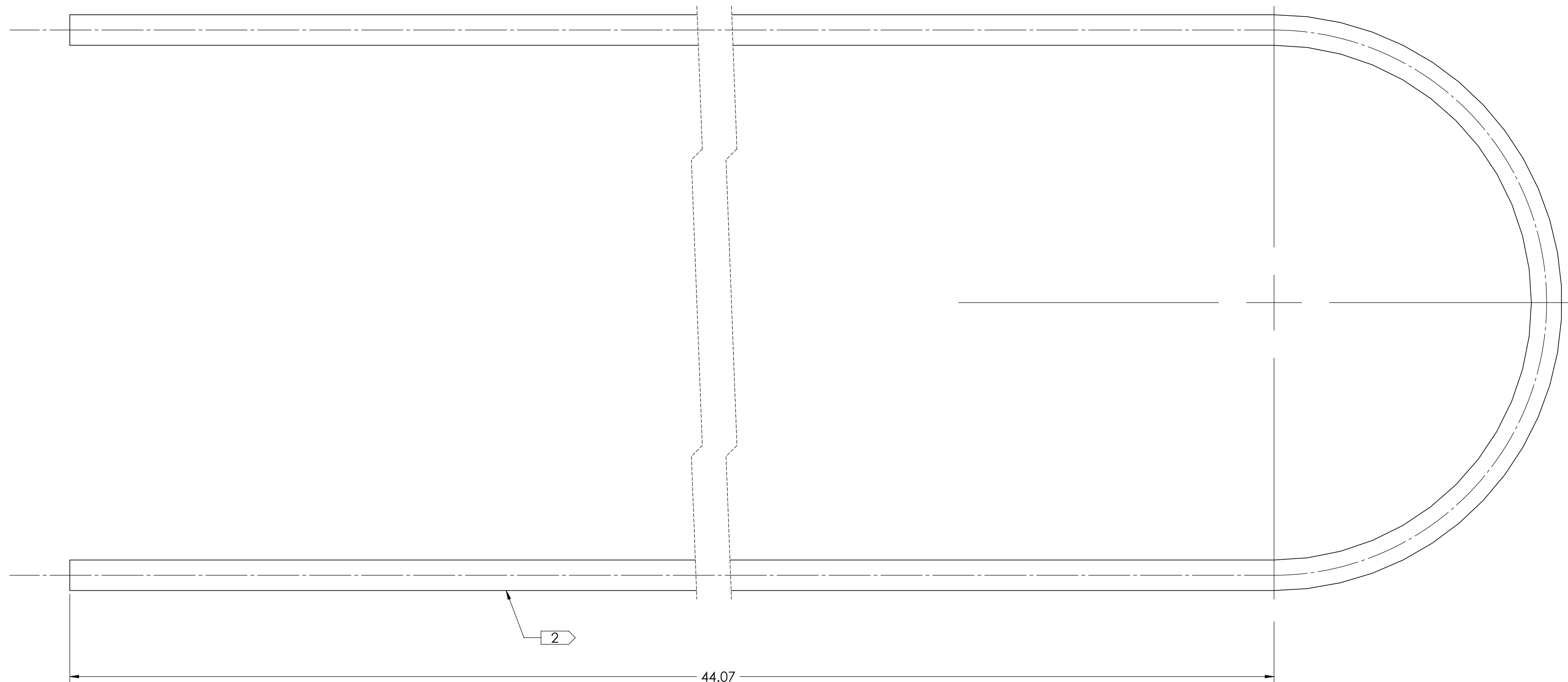
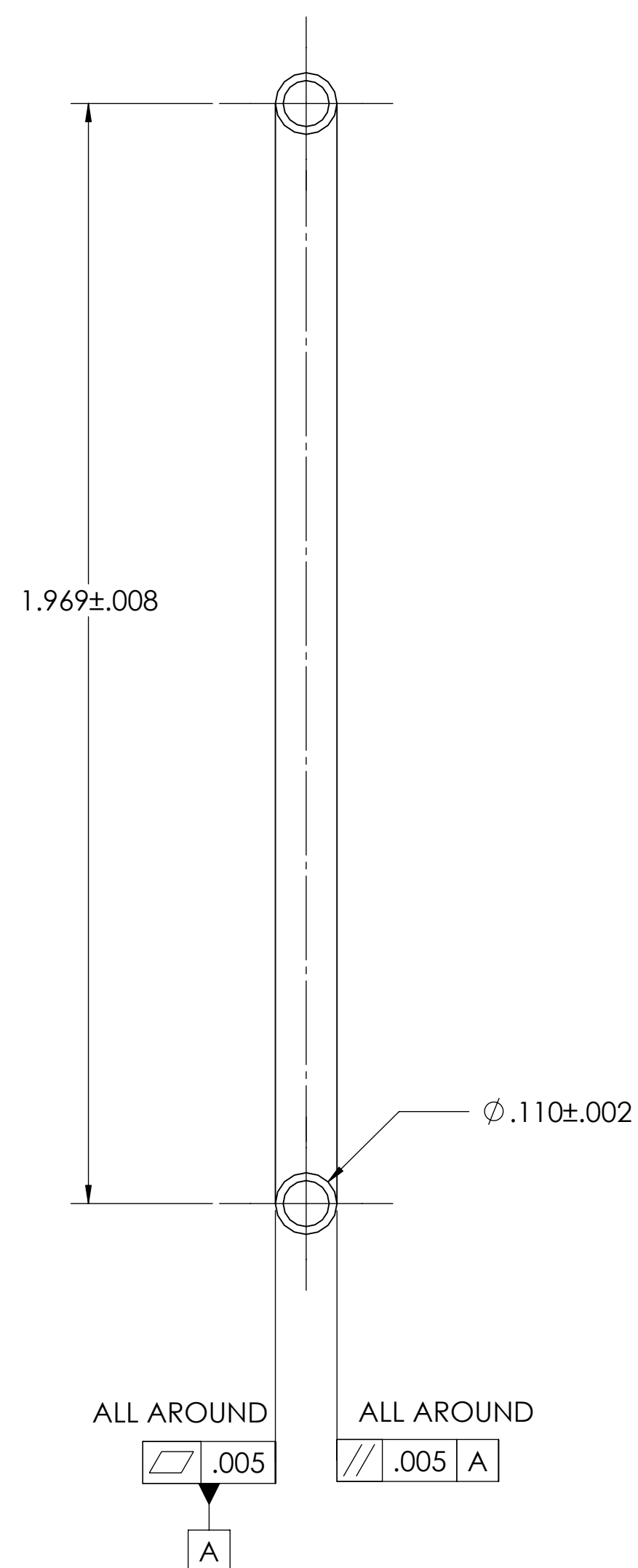
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NOTES:

1. EXTRUDED ALUMINUM TUBING (.012 WALL THICKNESS).

2 FINISH: GRAY ANODIZE ALL SURFACES

REV	DWG	CHK	ZONE	DATE	CHANGES
-	-	-	-	-	-

UNLESS OTHERWISE SPECIFIED	
TOLERANCES	FRAC. ± 1/64
X.X ± 0.1	
X.XX ± 0.01	ANGLES ± 30°
X.XXX ± 0.005	FINISH: NOTE 2
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	

SHOP ORDERS	
ACCT NO.	NO. REQD.
DEL TO	DATE REQD.
PROJECT NAME	SURFACE TREATMENT
IDEN METHOD TAG	
PROJECT NUMBER	
PROJECT NAME	
DWG. BY: W. K. MILLER	DATE: 3-27-07
CHK. BY: W. O. MILLER	DATE: 3-27-07
APP. BY:	DATE:

SER. NO.	DATE ISSD
NO. REQD.	DATE REQD.

ERNEST ORLANDO LAWRENCE  
BERKELEY NATIONAL LABORATORY  
UNIVERSITY OF CALIFORNIA - BERKELEY

10cm WIDE CIRCULAR COOLING TUBE

MICROFILMED:	DWG. TYPE: PART	SHOWN ON: 27E546	SCALE: 4:1	DO NOT SCALE PRINTS
PATENT CLEAR:	DESIGN ACCT. NO. P1AP-11	CATEGORY CODE: AP6250	DWG. NO. 27E548	DO NOT SCALE PRINTS
			SHEET 1 OF 1	REV. -



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DWG. NO. 27E549

SIZE REV. SH. 1

DESCRIPTION

MATERIAL

MAT. LOCATION

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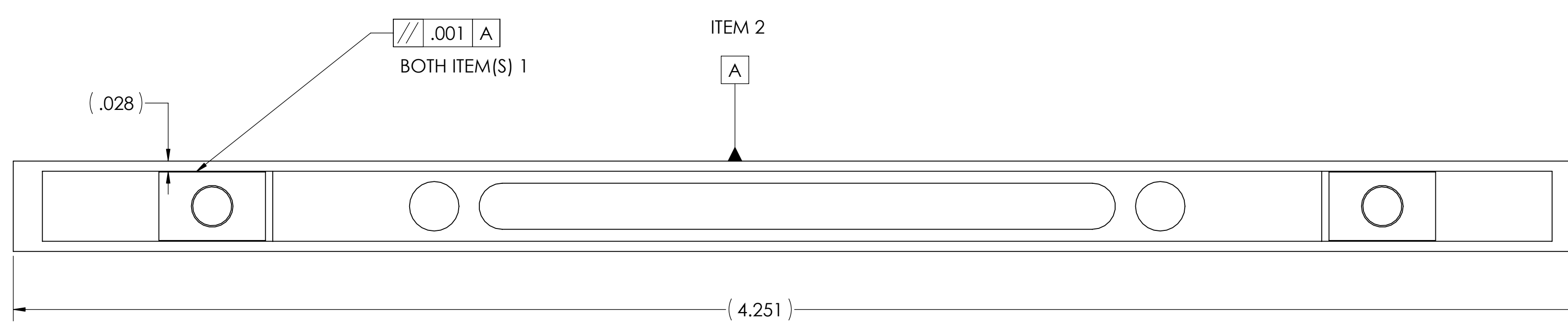
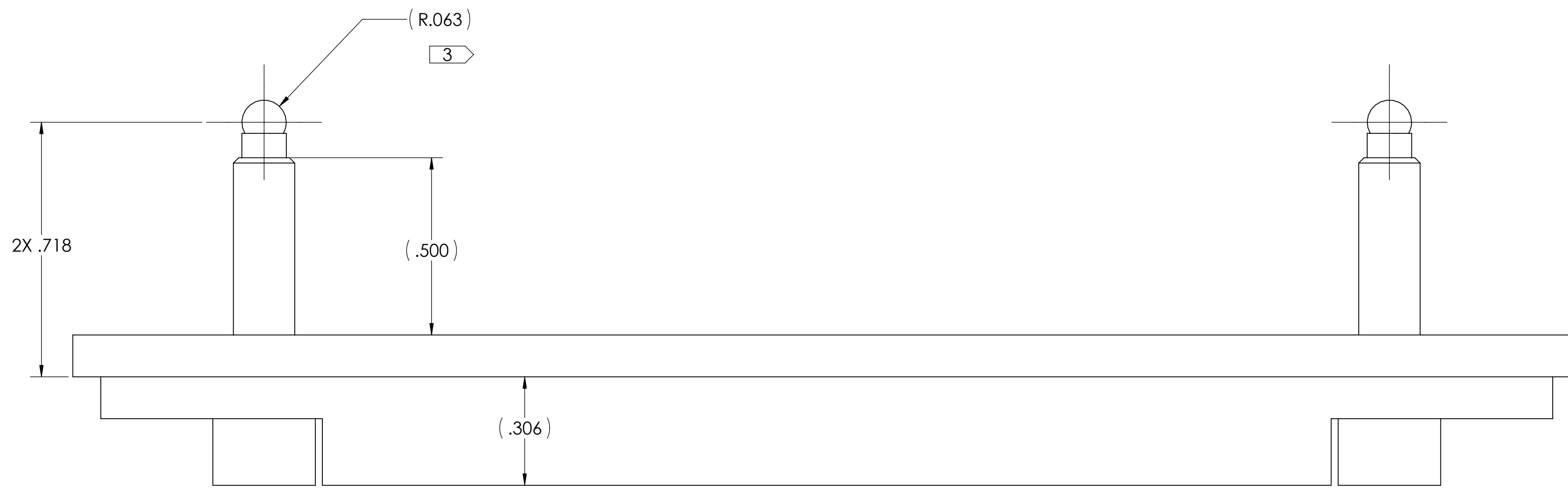
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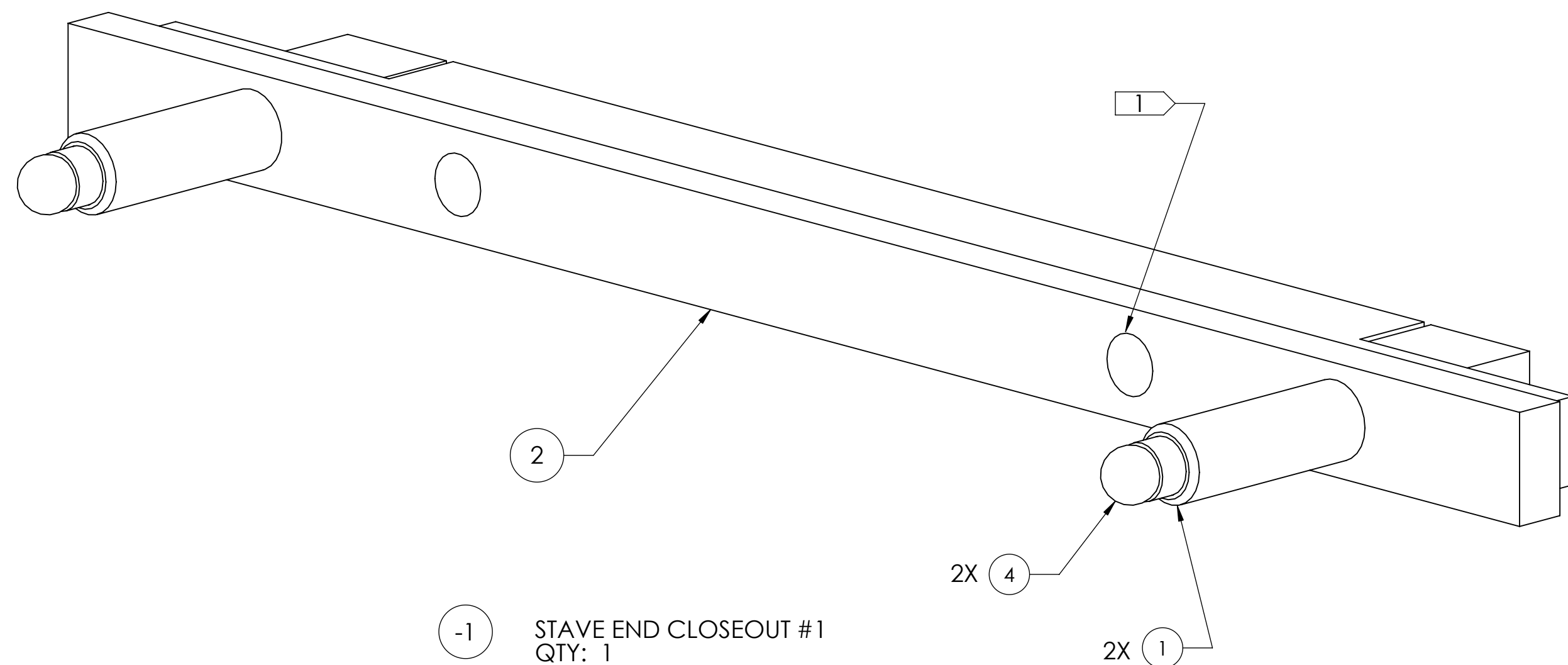
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REAR VIEW



-1 STAVE END CLOSEOUT #1 QTY: 1

2X 4 2X 1

- 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.

ITEM NO	SHEET	ZONE	A3	A2	A1	PART DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION
4	MULT	C7		2	2	448-2	TOOLING BALL (SEE NOTE 3)	
3	2	B5		1		27E550-3	END CLOSEOUT #2	
2	1	C5			1	27E550-1	END CLOSEOUT #1	
1	MULT	MULT		2	2	27E551	CLOSEOUT PIN	

REV	DWG	CHK	ZONE	DATE	CHANGES
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

UNLESS OTHERWISE SPECIFIED

TOLERANCES: X.X ± 0.1, X.XX ± 0.01, X.XXX ± 0.005

ANGLES ± 30°

FINISH -

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

SHOP ORDERS

SER. NO. DATE ISSD

NO. REQD. DATE REQD.

PROJECT: ATL-IP-ED-XXXX

PROJECT NAME: US ATLAS SILICON SUBSYSTEM

DWG. BY: W. K. MILLER DATE: 3-27-07

CHK. BY: W. O. MILLER DATE: 3-27-07

APR. BY: DATE:

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY

END CLOSEOUT SUB ASSEMBLY 10cm WIDE CIRCULAR TUBE STAVE ASSEMBLY

MICROFILMED: DWG. TYPE: ASSY SHOWN ON: 27E545 SCALE: 4:1 DO NOT SCALE PRINTS

PATENT CLEAR: DESIGN ACCT. NO. P1AP-11 CATEGORY CODE: AP6250 DWG. NO. 27E549 SHEET 1 OF 2

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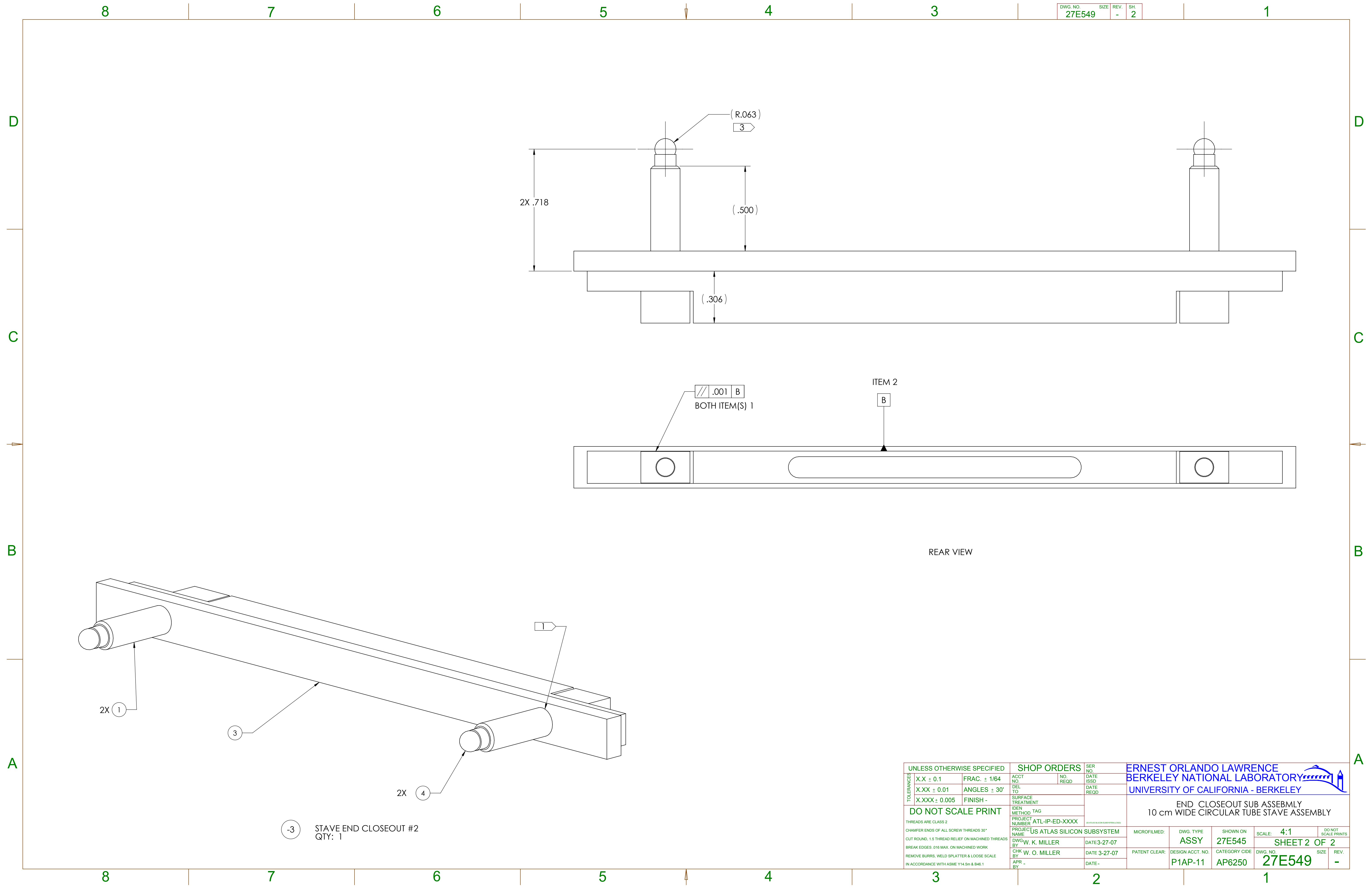
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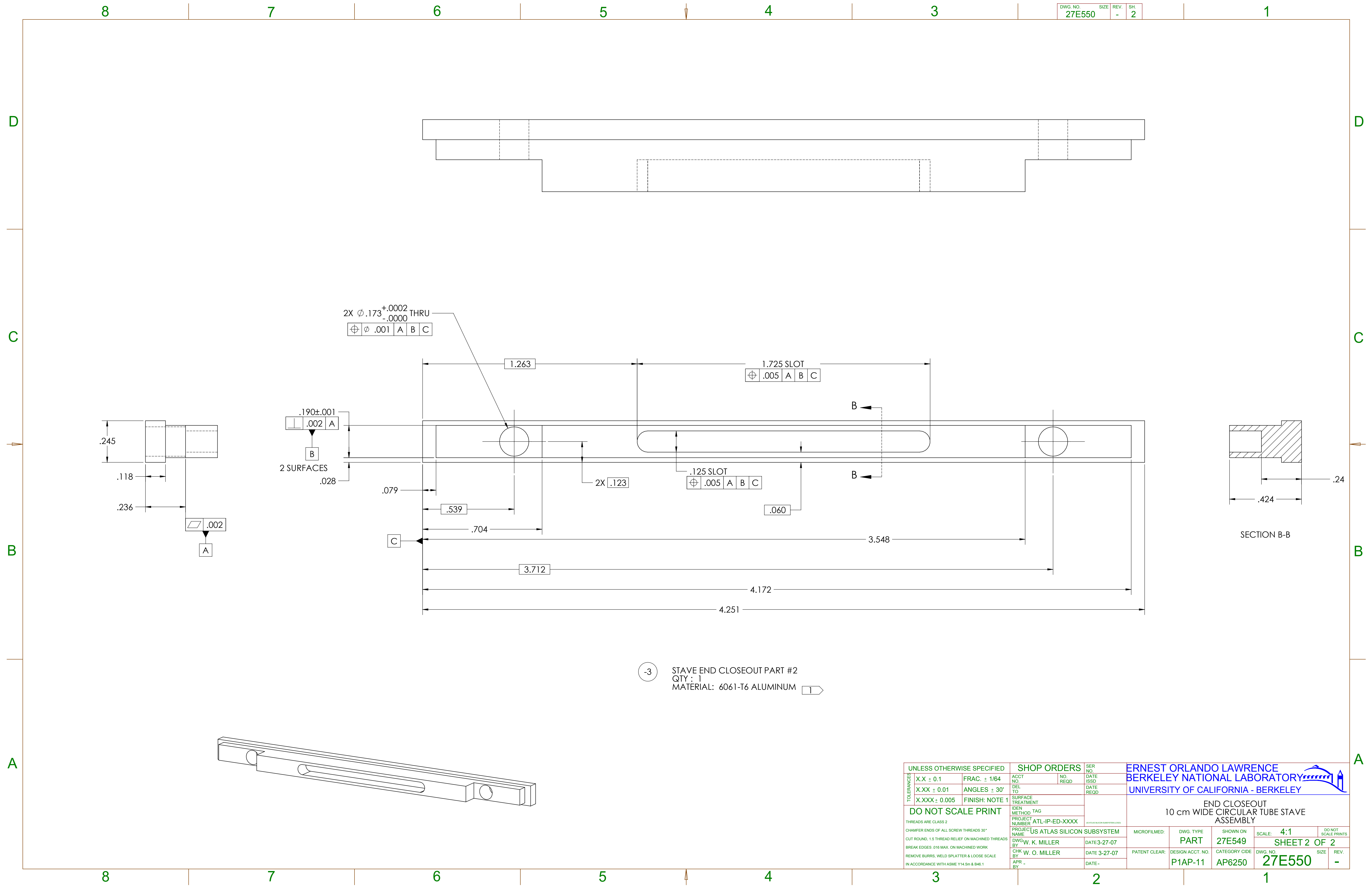
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REAR VIEW

3 STAVE END CLOSEOUT #2  
QTY: 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 RECD.		UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			
DO NOT SCALE PRINT			IDEN. METHOD TAG			END CLOSEOUT SUB ASSEMBLY
THREADS ARE CLASS 2			PROJECT NAME	ATL-IP-ED-XXXX		10 cm WIDE CIRCULAR TUBE STAVE ASSEMBLY
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NUMBER	US ATLAS SILICON SUBSYSTEM	MICROFILMED:	DWG. TYPE
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			BY	W. K. MILLER	DATE	3-27-07
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK	W. O. MILLER	DATE	3-27-07
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APPR		DATE	
IN ACCORDANCE WITH ASME Y14.5m & B46.1						
				PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE
					P1AP-11	AP6250
				SCALE:	4:1	DO NOT SCALE PRINTS
				SHOWN ON	27E545	SHEET 2 OF 2
				DWG. NO.	27E549	SIZE
						REV.
						-



-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	BERKELEY NATIONAL LABORATORY	
X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE RECD.	DATE RECD.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH: NOTE 1	SURFACE TREATMENT		END CLOSEOUT		
DO NOT SCALE PRINT		IDEN. METHOD TAG		10 cm WIDE CIRCULAR TUBE STAVE ASSEMBLY		
THREADS ARE CLASS 2		PROJECT NUMBER		MICROFILMED:	DWG. TYPE	SHOWN ON
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		DATE 3-27-07	PART	27E549
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY W. K. MILLER		DATE 3-27-07	SCALE: 4:1	DO NOT SCALE PRINTS
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY W. O. MILLER		DATE 3-27-07	PATENT CLEAR:	SHEET 2 OF 2
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APPR. BY		DATE -	DESIGN ACCT. NO. P1AP-11	CATEGORY CODE AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1					DWG. NO. 27E550	SIZE REV. -

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DWG. NO. 27E550

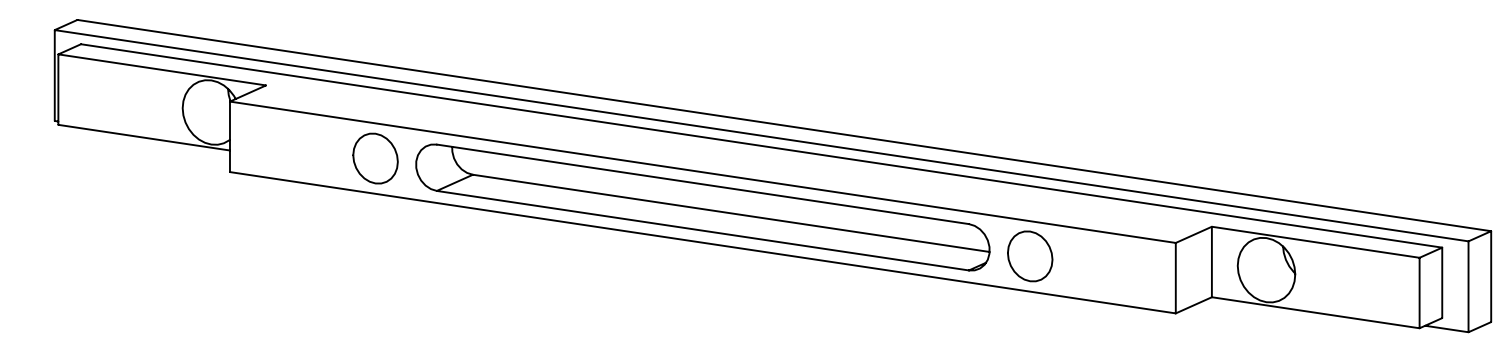
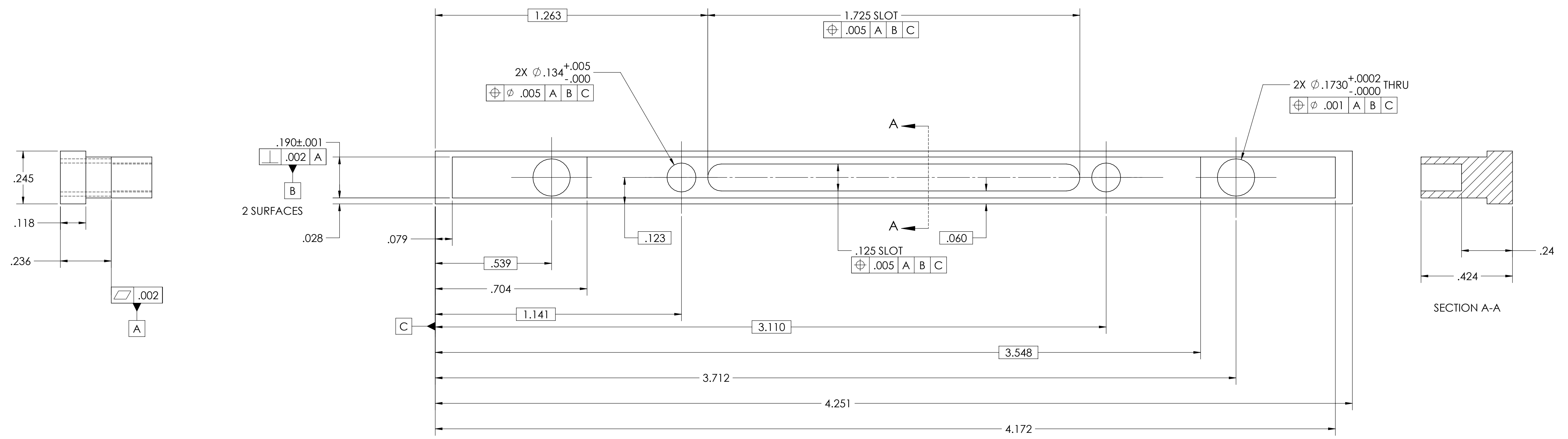
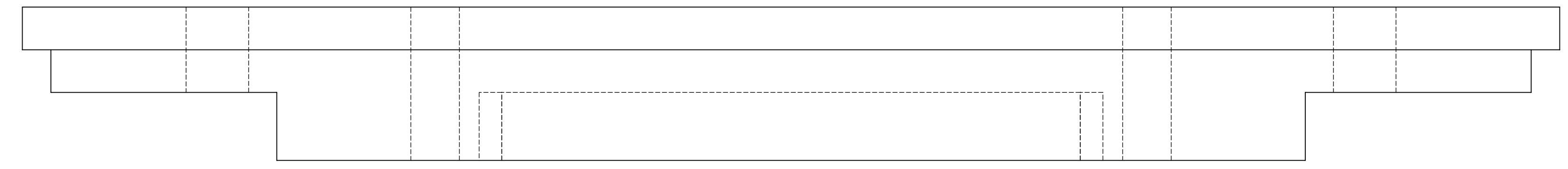
SIZE REV. SH. 1

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DESCRIPTION

MATERIAL

MAT. LOCATION



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

NOTES:  
1 FINISH: GRAY ANODIZE ALUMINUM

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO. DATE ISSD		ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY		
X.X ± 0.1		FRAC. ± 1/64		NO. REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY		
X.XX ± 0.01		ANGLES ± 30°		DATE REQD.		10cm WIDE CIRCULAR TUBE STAVE ASSEMBLY		
X.XXX ± 0.005		FINISH: NOTE 1		SURFACE TREATMENT		SCALE: 4:1		
DO NOT SCALE PRINT		PROJECT NAME		PROJECT NO.		SHEET 1 OF 2		
THREADS ARE CLASS 2		PROJECT NO.		DATE 3-27-07		DWG. NO. 27E549		
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		DATE 3-27-07		CATEGORY CODE AP6250		
CUT ROUND. 1.5 THREAD RELIEF ON MACHINED THREADS		PROJECT NAME		DATE 3-27-07		DWG. NO. 27E550		
BREAK EDGES .016 MAX. ON MACHINED WORK		PROJECT NAME		DATE -		SIZE -		
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		PROJECT NAME		DATE -		REV. -		
IN ACCORDANCE WITH ASME Y14.5m & B46.1		PROJECT NAME		DATE -		REV. -		
REV	DWG	CHK	ZONE	DATE	CHANGES			DO NOT SCALE PRINTS

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DWG. NO.	SIZE	REV.	SH.
27E551		-	1

DESCRIPTION

MATERIAL

MAT. LOCATION

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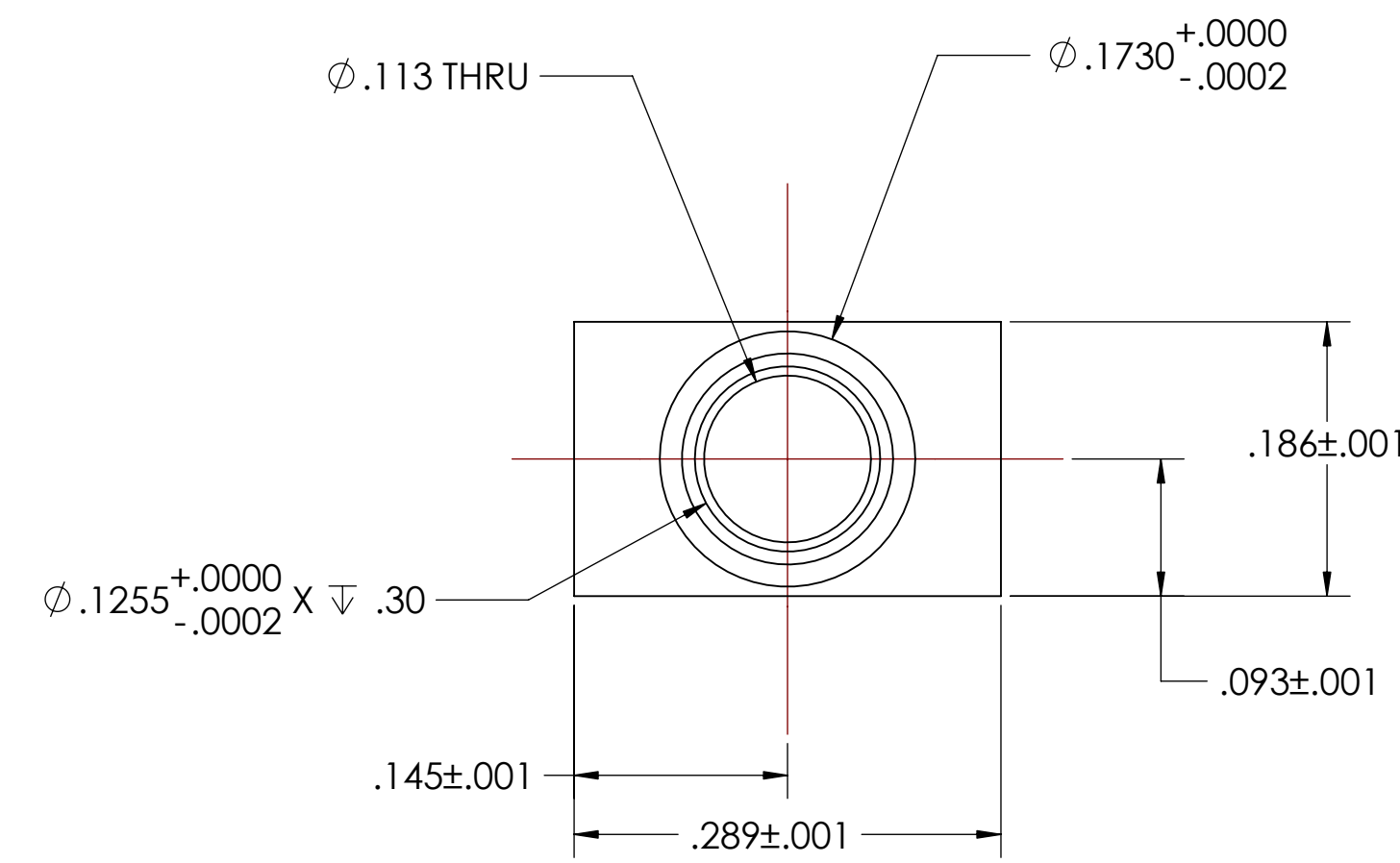
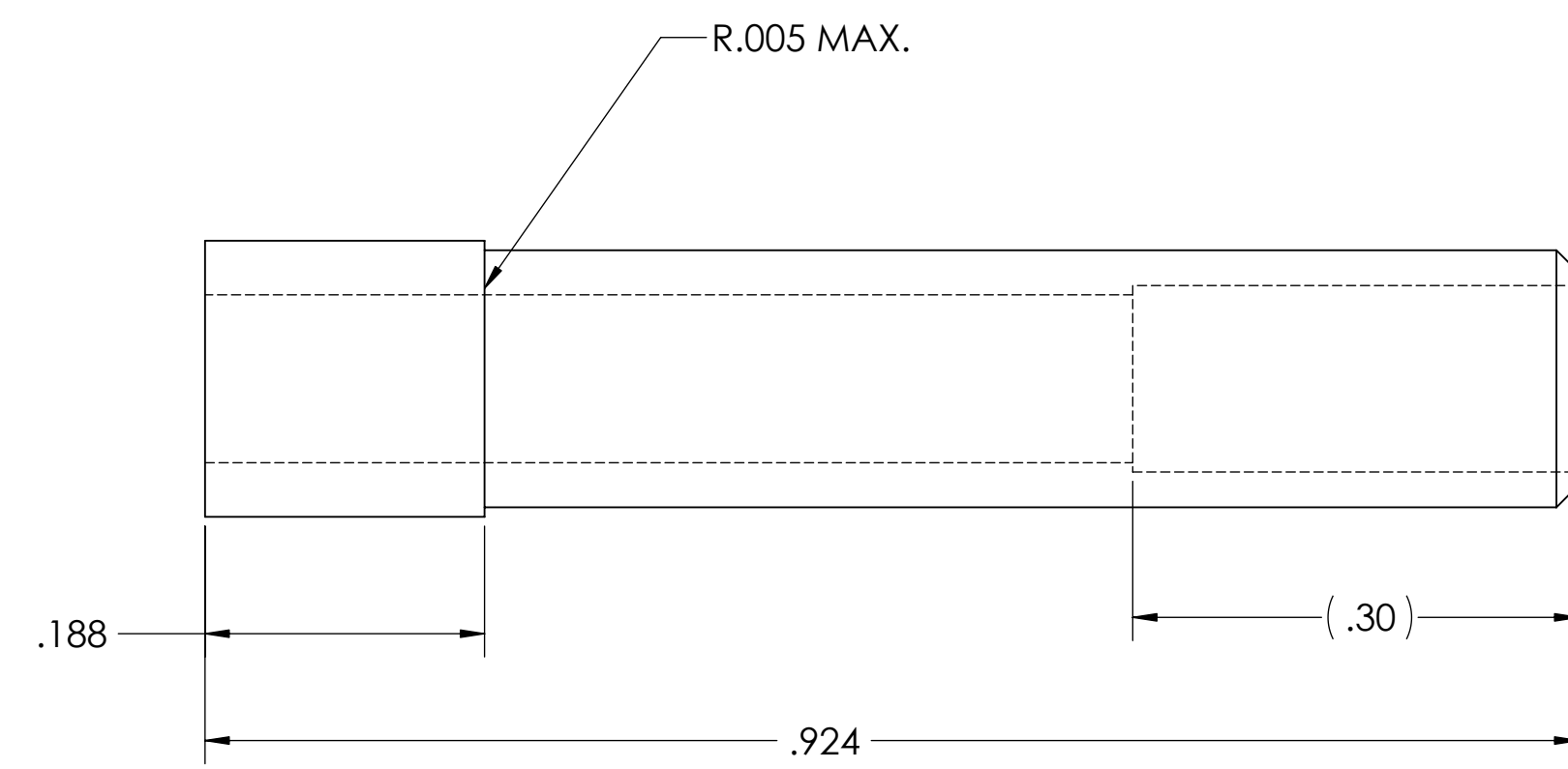
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NOTES:

- 1. MATERIAL: 303 STAINLESS STEEL

				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.		CLOSOUT PIN 10 cm WIDE CIRCULAR TUBE STAVE ASSEMBLY	
				X.XXX ± 0.005    FINISH -		SURFACE TREATMENT				SCALE: 8:1    DO NOT SCALE PRINTS	
				DO NOT SCALE PRINT		IDENT. METHOD TAG				SHEET 1 OF 1	
				THREADS ARE CLASS 2		PROJECT NAME		PROJECT NO.		MICROFILMED:    DWG. TYPE    SHOWN ON    SCALE: 8:1    DO NOT SCALE PRINTS	
				CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		PROJECT NO.		PART    27E549    SHEET 1 OF 1	
				CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		PROJECT NAME		PROJECT NO.		DESIGN ACCT. NO.    CATEGORY CODE    DWG. NO.    SIZE    REV.	
				BREAK EDGES .016 MAX. ON MACHINED WORK		PROJECT NAME		PROJECT NO.		P1AP-11    AP6250    27E551    -	
				REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		PROJECT NAME		PROJECT NO.			
				IN ACCORDANCE WITH ASME Y14.5m & B46.1		PROJECT NAME		PROJECT NO.			
REV	DWG	CHK	ZONE	DATE	CHANGES						

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DWG. NO.	SIZE	REV.	SH.
27E552	-	-	1

DESCRIPTION

MATERIAL

MAT. LOCATION

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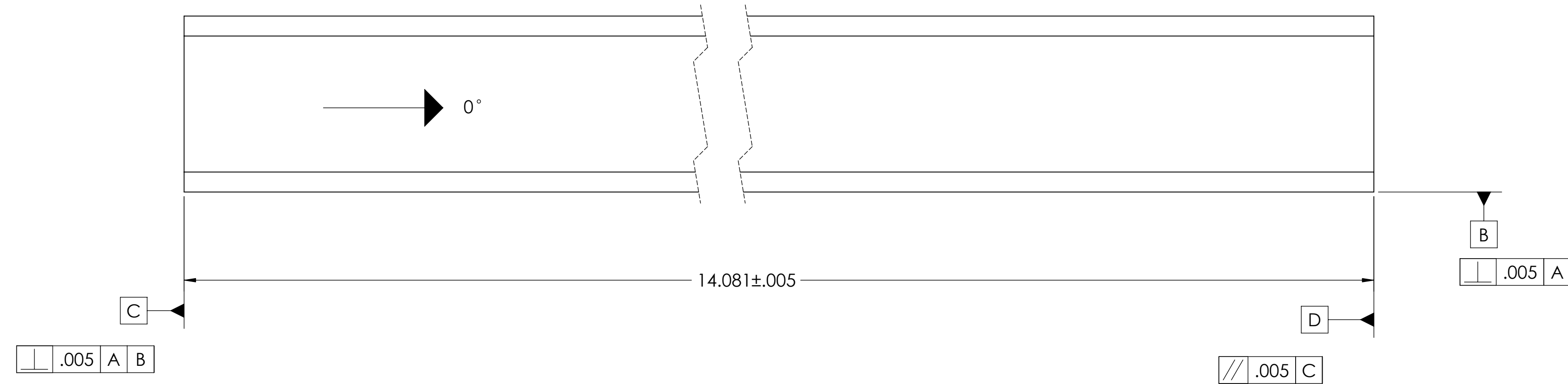
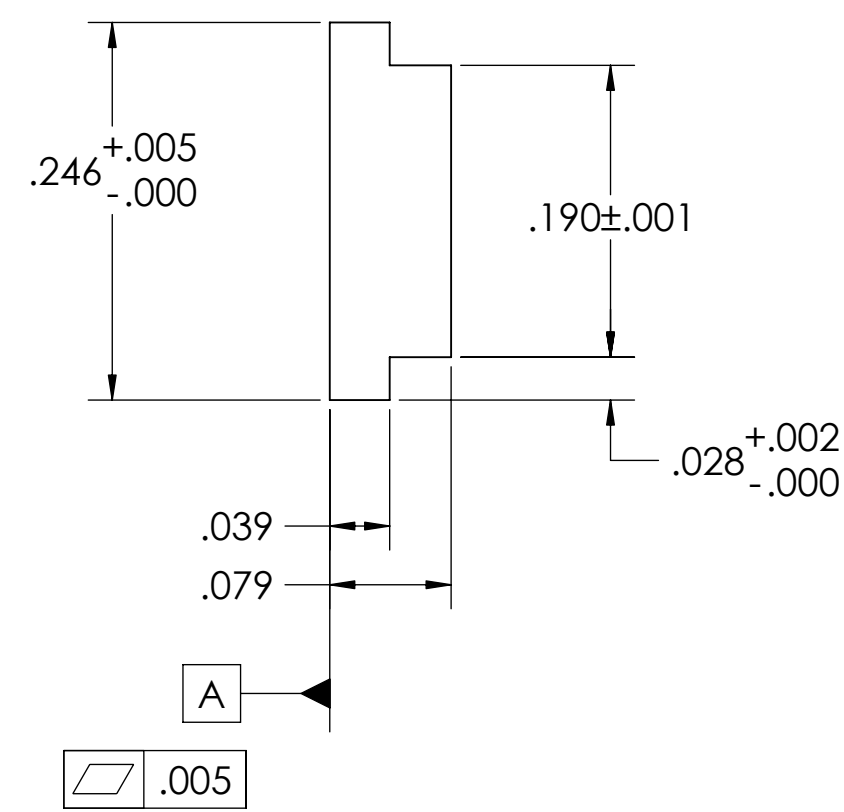
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NOTES:

1. K13D2U 90sm FIBER AREAL WEIGHT/EX 1515 CYANATE ESER RESIN (250°F CURE) 34% RESIN CONTENT. 6" UNITAPE WIDTH (BRYTE TECHNOLOGY).
2. FIBER ORIENTATION: (90,0,0,0,0/S).
3. FIBER VOLUME FRACTION 60%.
4. UNITS 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 RECD.	UNIVERSITY OF CALIFORNIA - BERKELEY				
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT		SIDE COMPOSITE CLOSEOUT				
DO NOT SCALE PRINT				IDEN. METHOD TAG		10 cm WIDE CIRCULAR TUBE STAVE ASSEMBLY			
THREADS ARE CLASS 2		PROJECT NUMBER		PROJECT NAME		MICROFILMED:			
CHAMFER ENDS OF ALL SCREW THREADS 30°		ATL-IP-ED-XXXX		US ATLAS SILICON SUBSYSTEM		DWG. TYPE			
CUT ROUND. 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY: W. K. MILLER		DATE: 3-27-07		PART			
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY: W. O. MILLER		DATE: 3-27-07		CATEGORY CODE			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APPR. BY:		DATE:		P1AP-11			
IN ACCORDANCE WITH ASME Y14.5m & B46.1						AP6250			
REV	DWG	CHK	ZONE	DATE	CHANGES			SCALE: 8:1	DO NOT SCALE PRINTS
-								SHEET 1 OF 1	REV.
								27E552	-

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DWG. NO. 27E553	SIZE -	REV. -	SH. 1
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DESCRIPTION	MATERIAL	MAT. LOCATION
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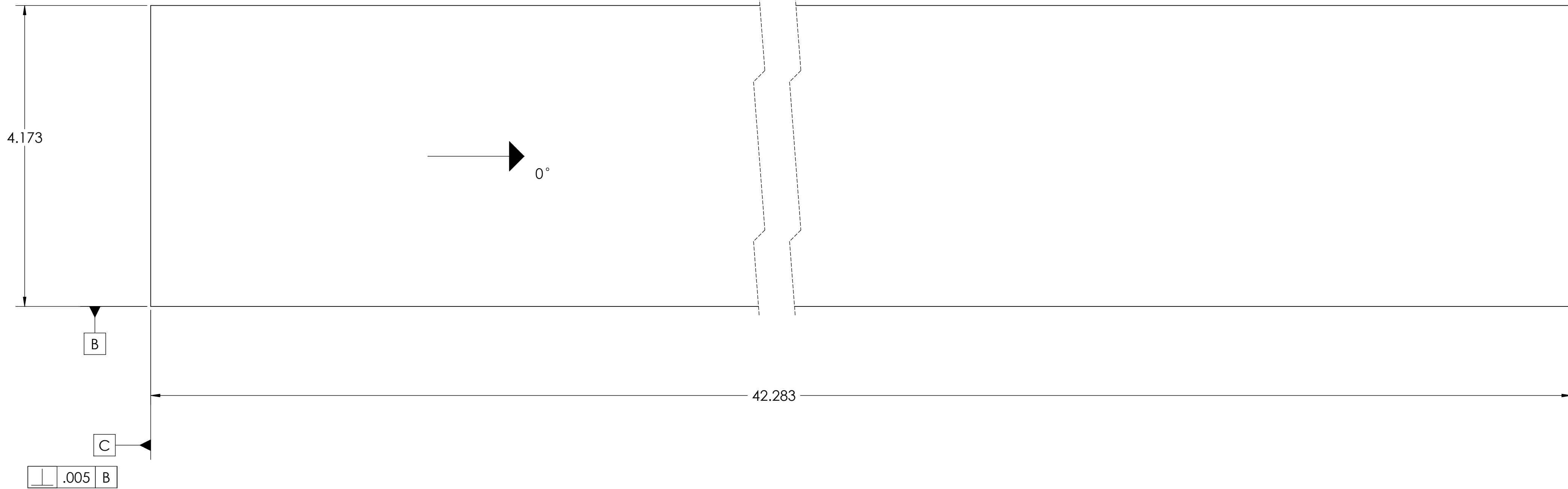
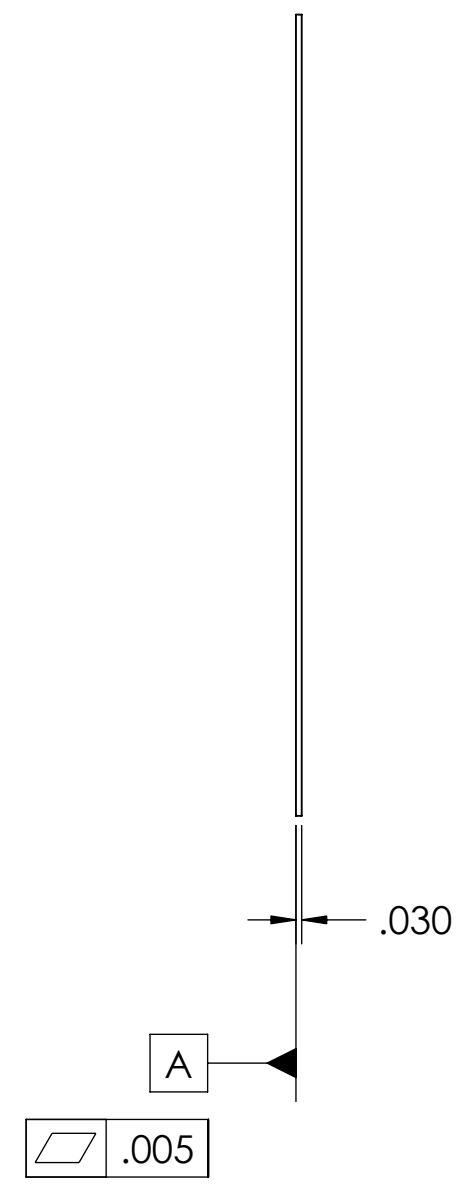
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NOTES:

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: (90,0,0,0,0/S).
3. FIBER VOLUME FRACTION 60%.
4. DIMENSIONS ARE IN INCHES.

UNLESS OTHERWISE SPECIFIED				SHOP ORDERS				SER. NO. DATE ISSD				ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY			
TOLERANCES				SURFACE TREATMENT				DATE REQD.				UNIVERSITY OF CALIFORNIA - BERKELEY			
X.X ± 0.1				FRAC. ± 1/64				NO. REQD.				COMPOSITE FACESHEET			
X.XX ± 0.01				ANGLES ± 30°				DATE REQD.				10 cm WIDE CIRCULAR TUBE STAVE ASSEMBLY			
X.XXX ± 0.005				FINISH -				DATE REQD.				SCALE: 1:1			
DO NOT SCALE PRINT				PROJECT NAME				DATE				SHEET 1 OF 1			
THREADS ARE CLASS 2				PROJECT NUMBER				DATE				DWG. NO. 27E553			
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT TAG				DATE				REV. -			
CUT ROUND. 1.5 THREAD RELIEF ON MACHINED THREADS				PROJECT NAME				DATE				DWG. TYPE PART			
BREAK EDGES .016 MAX. ON MACHINED WORK				PROJECT NAME				DATE				CATEGORY CODE AP6250			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				PROJECT NAME				DATE				DWG. NO. 27E553			
IN ACCORDANCE WITH ASME Y14.5m & B46.1				PROJECT NAME				DATE				REV. -			
REV DWG CHK ZONE DATE				CHANGES				MICROFILMED:				DO NOT SCALE PRINTS			
								PATENT CLEAR:							
								DESIGN ACCT. NO. P1AP-11							
								CATEGORY CODE AP6250							
								SCALE: 1:1							
								DWG. TYPE PART							
								DATE 3-27-07							
								DATE 3-27-07							
								DATE -							

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DWG. NO.	SIZE	REV.	SH.
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DESCRIPTION	MATERIAL	MAT. LOCATION

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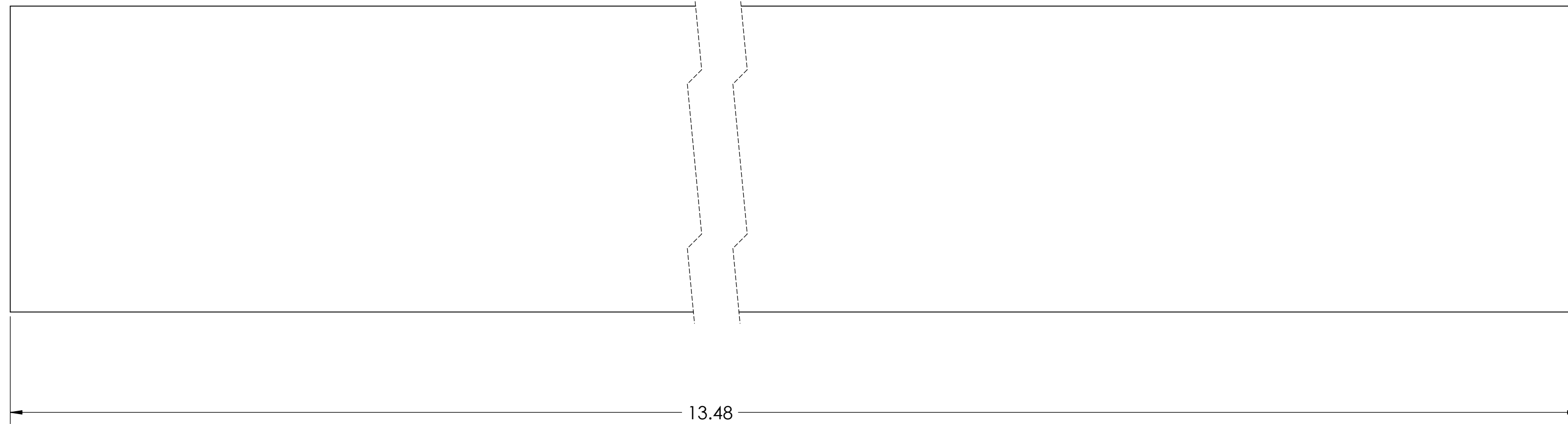
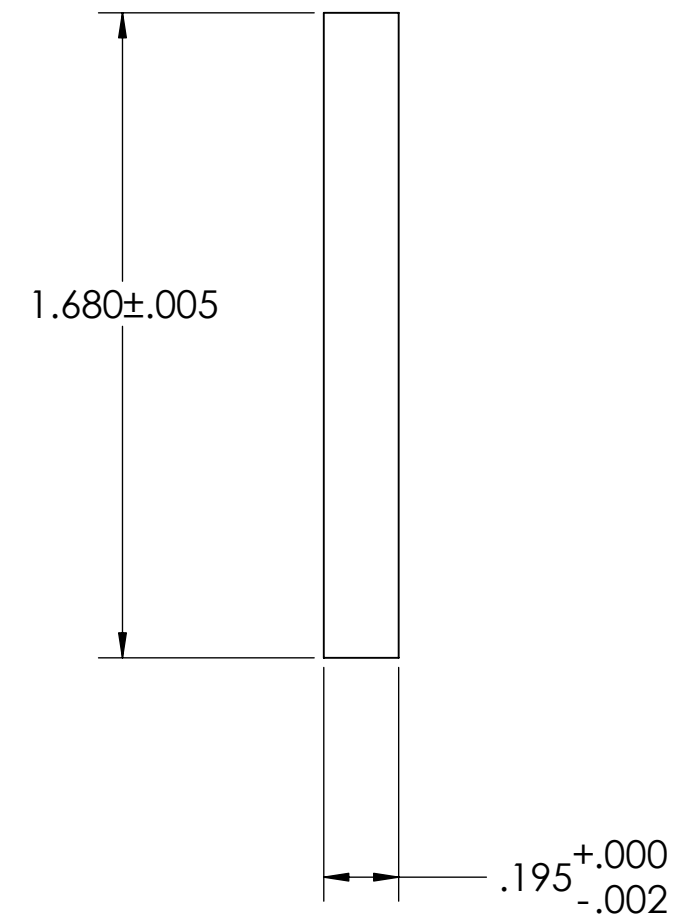
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-1 HONEYCOMB PART #1  
 QTY# 3  
 MATERIAL: ULTRACORE UCF-119-3/16 -3.5  
 GRAPHITE FIBER HONEYCOMB WITH  
 RS-3 CYANATE ESTER RESIN

NOTES:  
 1. UNITS ARE IN INCHES.

UNLESS OTHERWISE SPECIFIED				SHOP ORDERS				SER. NO. DATE ISSD				ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY							
TOLERANCES		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.		HONEYCOMB CORE MATERIAL 10 cm WIDE CIRCULAR COOLING TUBE STAVE ASSEMBLY							
		X.XXX ± 0.005		FINISH -		SURFACE TREATMENT		IDEN. METHOD TAG		MICROFILMED:		DWG. TYPE		SHOWN ON		SCALE: 2:1		DO NOT SCALE PRINTS	
DO NOT SCALE PRINT				PROJECT NUMBER				PROJECT NAME				P1AP-11							
THREADS ARE CLASS 2				PROJECT NAME				DWG. NO. DATE				AP6250							
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NAME				DWG. NO. DATE				AP6250							
CUT ROUND. 1.5 THREAD RELIEF ON MACHINED THREADS				PROJECT NAME				DWG. NO. DATE				AP6250							
BREAK EDGES .016 MAX. ON MACHINED WORK				PROJECT NAME				DWG. NO. DATE				AP6250							
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				PROJECT NAME				DWG. NO. DATE				AP6250							
IN ACCORDANCE WITH ASME Y14.5m & B46.1				PROJECT NAME				DWG. NO. DATE				AP6250							
REV DWG CHK ZONE DATE				CHANGES				DWG. NO. DATE				AP6250							
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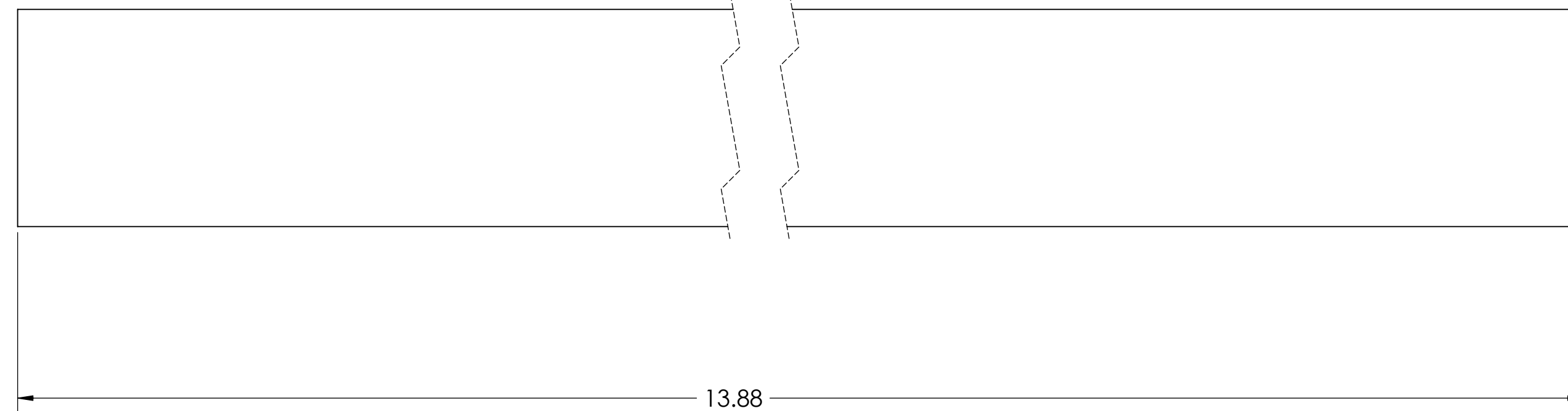
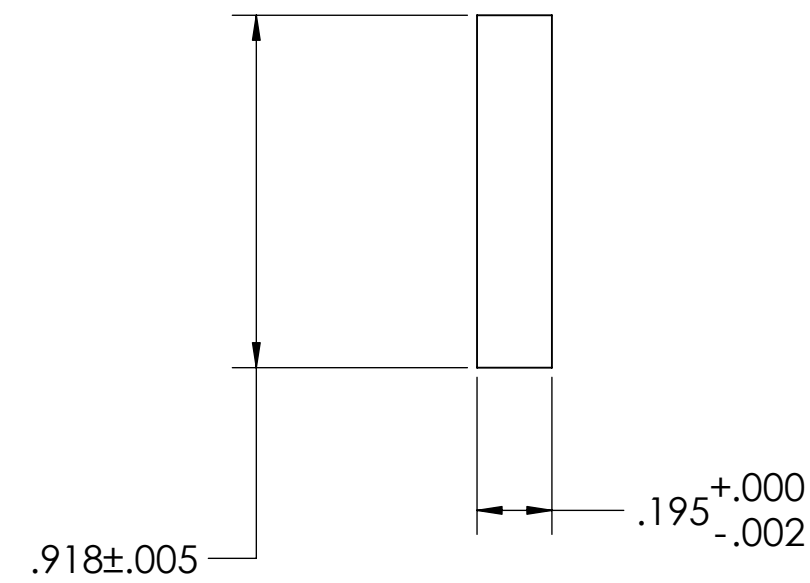
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(-3) HONEYCOMB PART #2  
 QTY# 6  
 MATERIAL: ULTRACORE UCF-119-3/16 -3.5  
 GRAPHITE FIBER HONEYCOMB WITH  
 RS-3 CYANATE ESTER RESIN

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.	UNIVERSITY OF CALIFORNIA - BERKELEY	
X.XXX ± 0.005	FINISH -	SURFACE TREATMENT		HONEYCOMB CORE MATERIAL 10 cm WIDE CIRCULAR COOLING TUBE STAVE ASSEMBLY		
DO NOT SCALE PRINT		IDEN. METHOD TAG				
THREADS ARE CLASS 2		PROJECT NUMBER	PROJECT NAME		MICROFILMED:	DWG. TYPE
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM			PART
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	DATE		SHOWN ON	SCALE: 2:1
BREAK EDGES .016 MAX. ON MACHINED WORK		BY W. K. MILLER	3-27-07		27E545	SHEET 2 OF 2
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		CHK BY W. O. MILLER	DATE 3-27-07	PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE
IN ACCORDANCE WITH ASME Y14.5m & B46.1		APR BY	DATE -		P1AP-11	AP6250
				DWG. NO.	SIZE	REV.
				27E554	-	-

DESCRIPTION	MATERIAL	MAT. LOCATION

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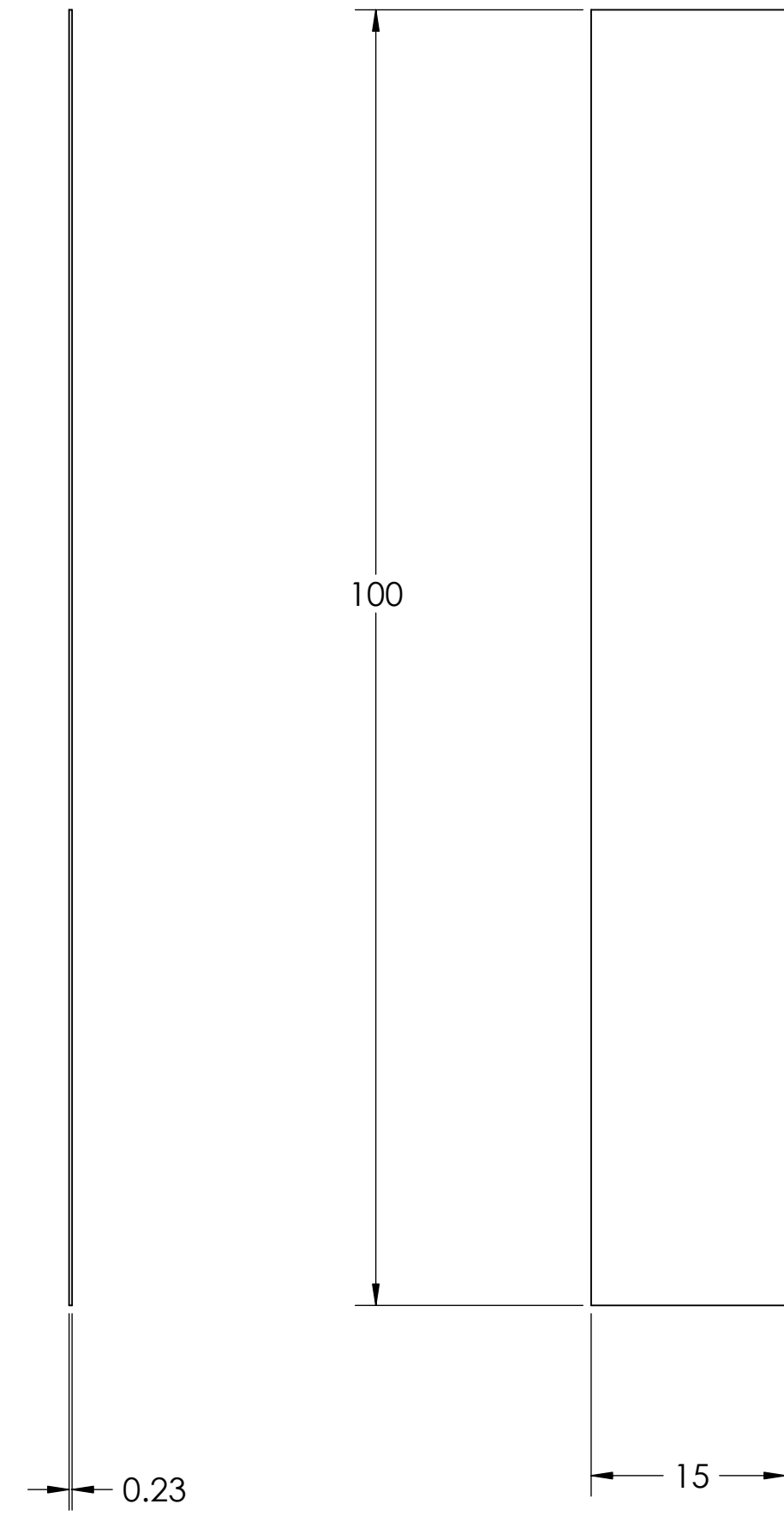
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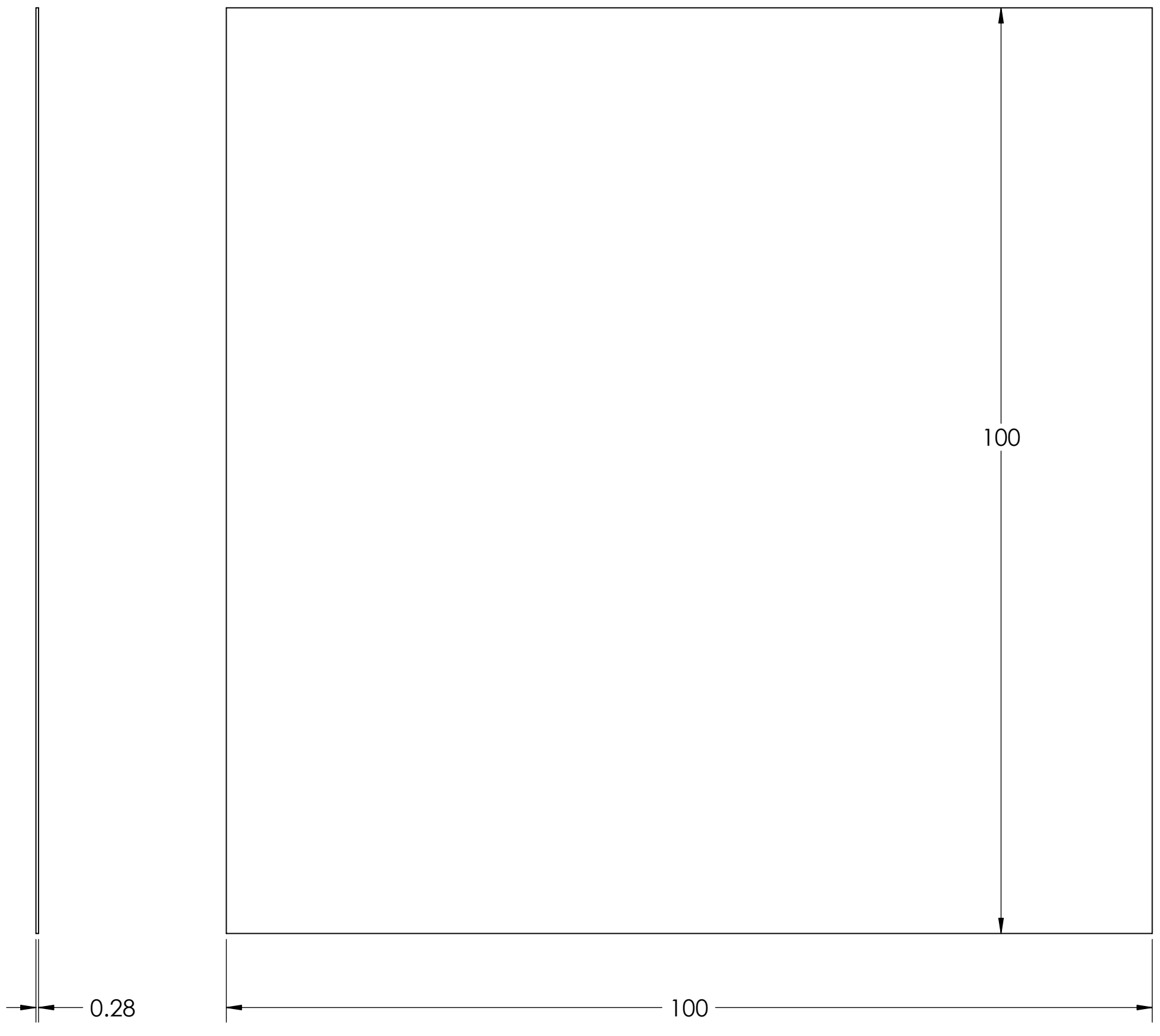
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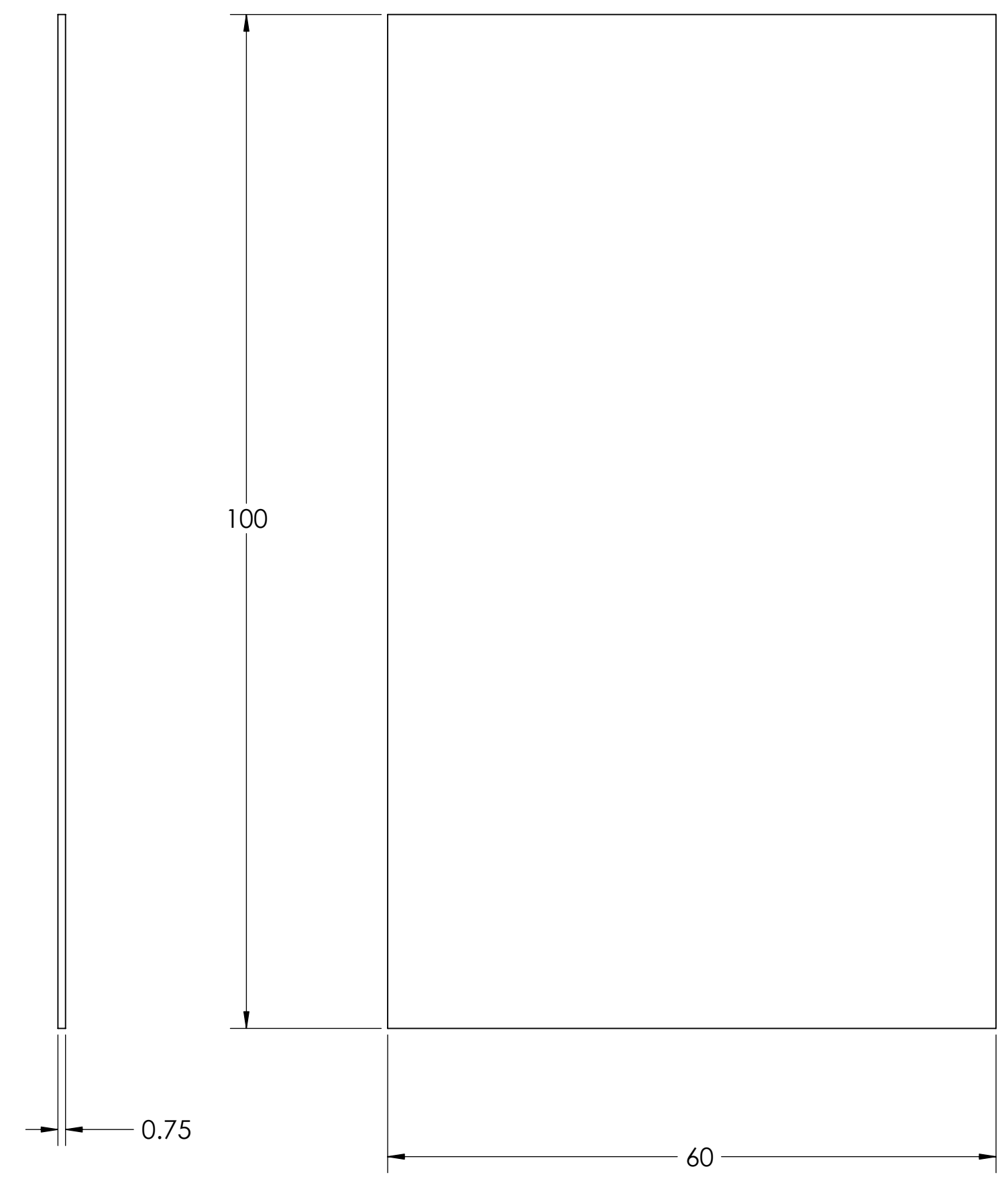
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-1 HYBRID CHIP



-3 DETECTOR CHIP



-5 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 RECD.	DATE RECD.	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 NAME	10cm WIDE CIRCULAR TUBE STAVE ASSEMBLY		
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NUMBER	MICROFILMED:	DWG. TYPE	SHOWN ON
CUT ROUND. 1.5 THREAD RELIEF ON MACHINED THREADS			PROJECT NAME		PART	SCALE: 2:1
BREAK EDGES .016 MAX. ON MACHINED WORK			DWG. BY	DATE	27E544	DO NOT SCALE PRINTS
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			CHK. BY	DATE	3-27-07	SHEET 1 OF 1
IN ACCORDANCE WITH ASME Y14.5m & B46.1			APPR. BY	DATE	3-27-07	DWG. NO.
REV	DWG	CHK	ZONE	DATE	CHANGES	PATENT CLEAR:
						DESIGN ACCT. NO.
						CATEGORY CODE
						P1AP-11
						AP6250
						DWG. NO.
						27E555
						SIZE
						-
						REV.
						-

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