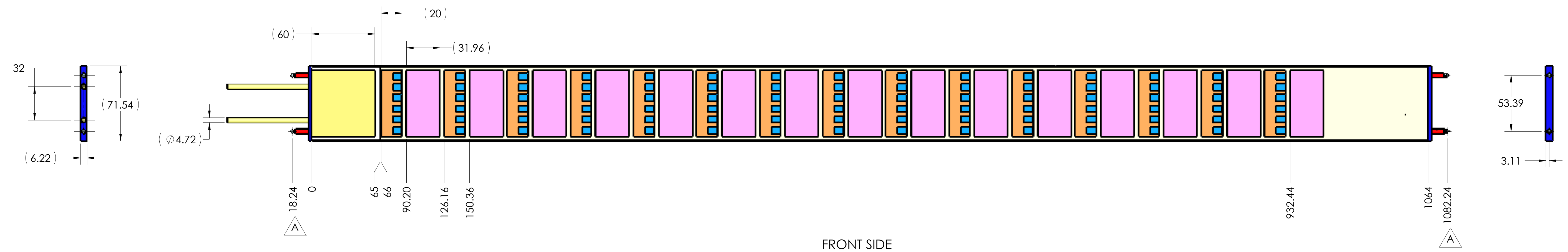
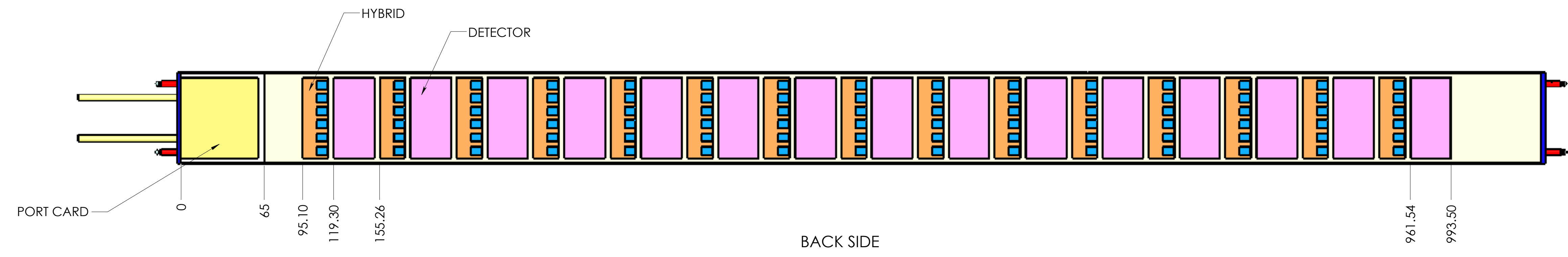


DWG. NO. nnXnnn4	SIZE A	REV. 1	SHEET 1
DESCRIPTION		MATERIAL	MAT. LOCATION



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 SURFACE TREATMENT	NO. REQD. DATE RECD.	DATE RECD.	4.72 mm CIRCULAR TUBE STAVE ASSEMBLY	
DO NOT SCALE PRINT				PROJECT NUMBER PROJECT NAME		MICROFILMED: DWG. TYPE SHOWN ON SCALE: 1:2 DO NOT SCALE PRINTS	
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 DWG. W. K. MILLER BY W. O. MILLER CHK W. O. MILLER APR - DATE -		DATE 12/17/06 DATE 12/17/06 DATE -	
REV		DWG		CHK		ZONE	
A		1-8-07		CHANGES REFLECT NEW TOOLING BALL		CHANGES	
DESIGN ACCT. NO.		CATEGORY CODE		DWG. NO.		SIZE	
P1AP-11		AP6250		nnXnnn4		REV. A	

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

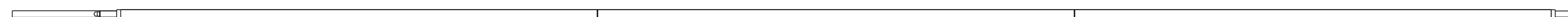
DESCRIPTION

MATERIAL

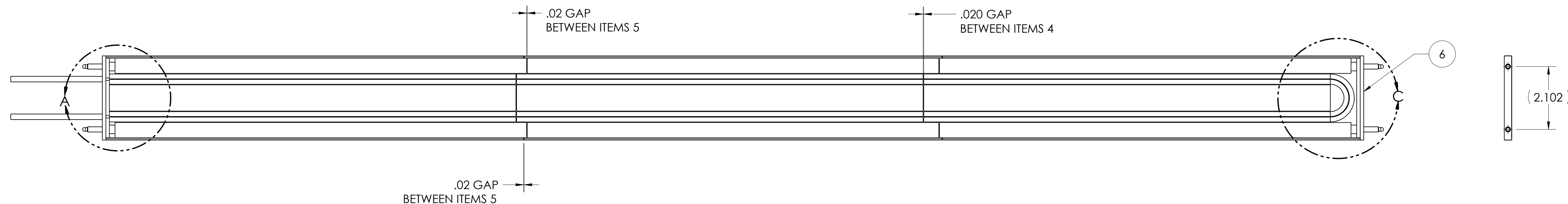
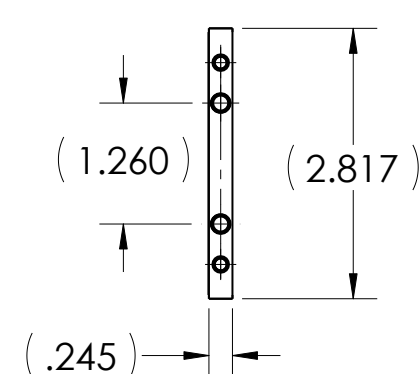
MAT. LOCATION



BACK SIDE



FRONT SIDE (FACESHEET HIDDEN FOR CLARITY)



NOTES:

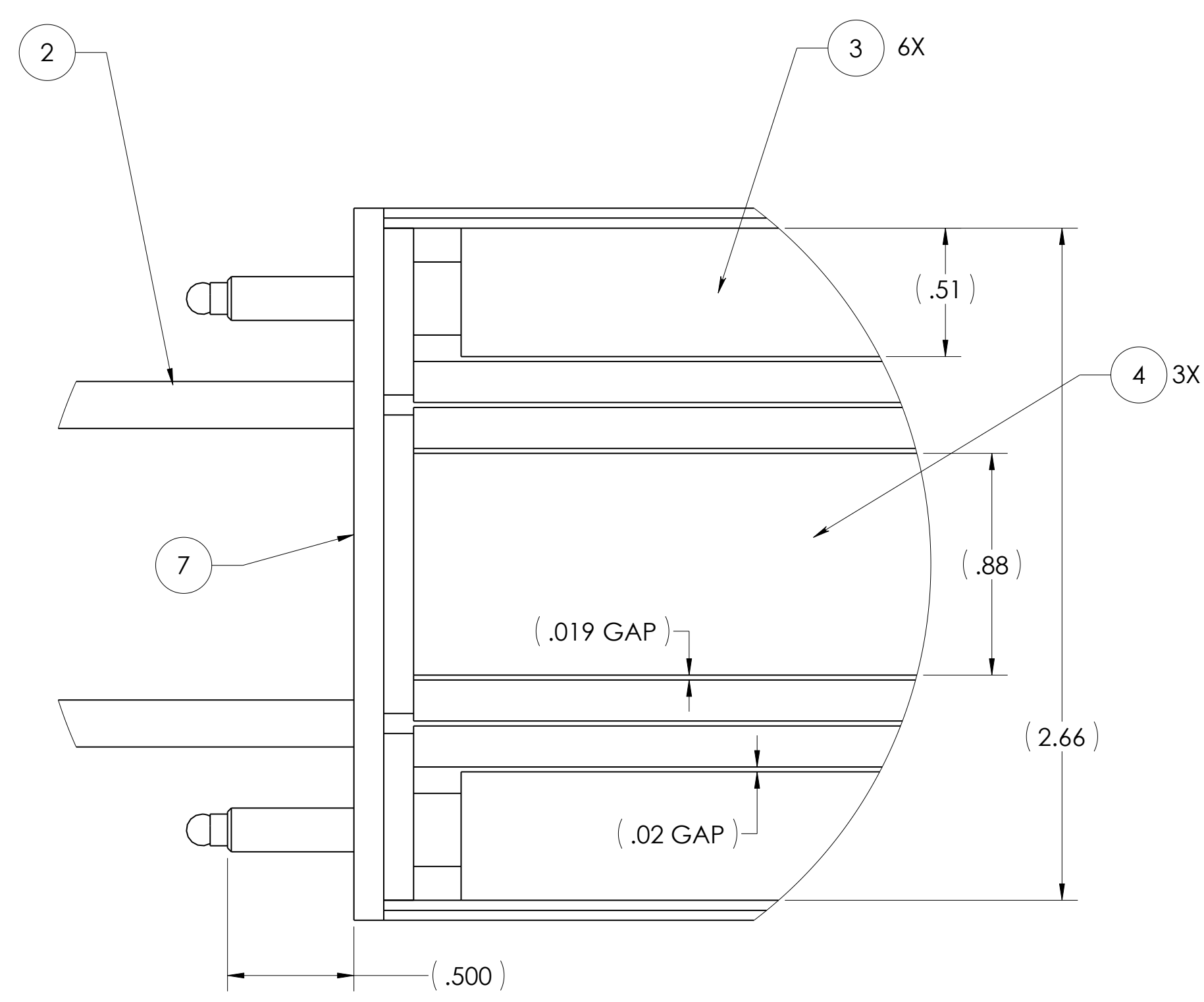
1. UNITS ARE IN INCHES.
2. CLEAN AND DEGREASE ALL PARTS WITH ALCOHOL BEFORE BONDING.
3. ABRABE BONDING SURFACE ON COMPOSITE FACING WITH SCOTCH BRITE.
4. BOND CIRCULAR TUBE SUBASSEMBLY TO COMPOSITE FACINGS WITH CGL7018.
5. BOND HONEYCOMB TO COMPOSITE FACINGS WITH HYSOL 9396. USE GLASS BEADS TO CONTROL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

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

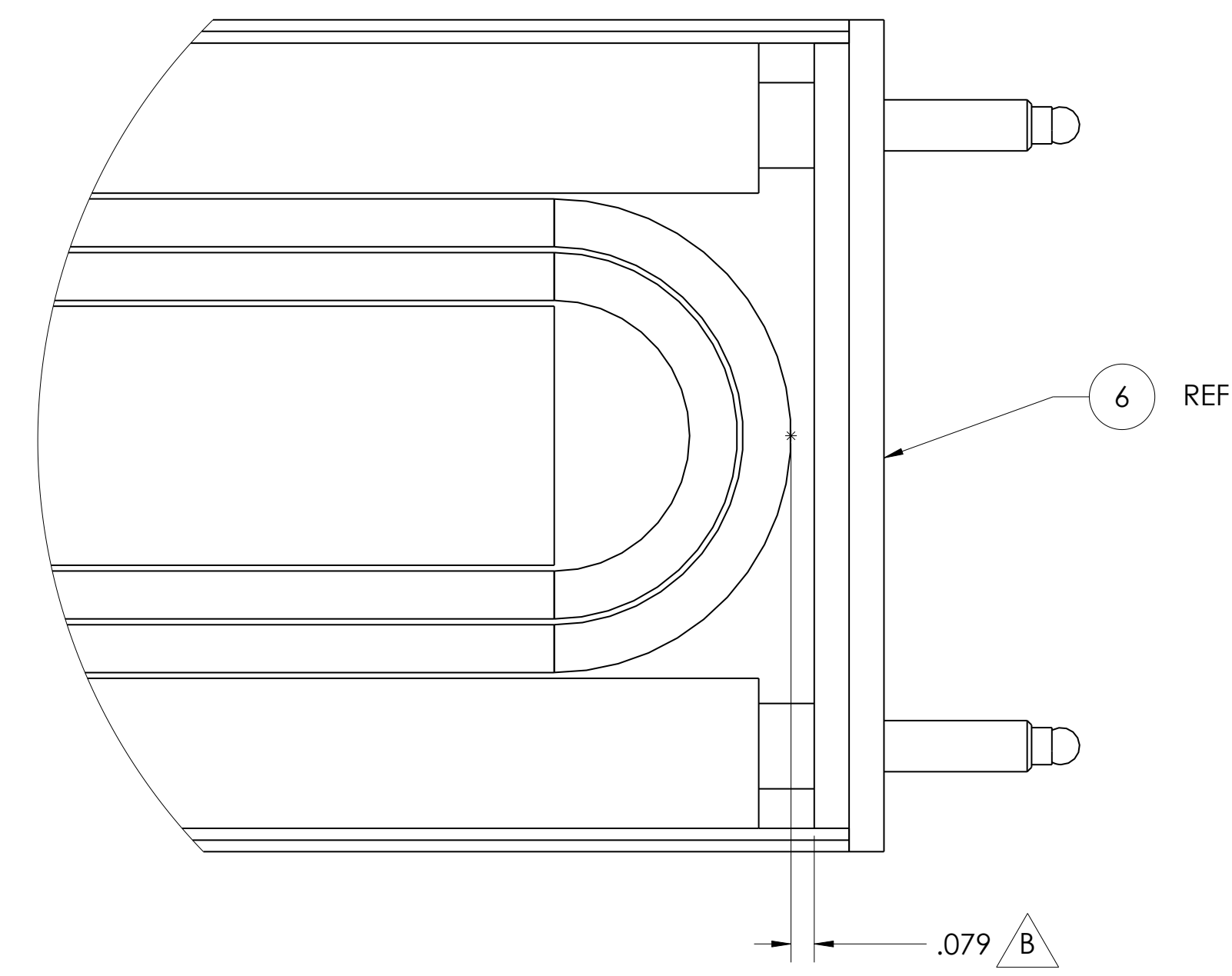
UNLESS OTHERWISE SPECIFIED	SHOP ORDERS	SER. NO.	DATE	ISSD	DATE	REQD.	RECD.
TOLERANCES X.X ± 0.1 X.XX ± 0.01 X.XXX ± 0.005	FRAC. ± 1/64 ANGLES ± 30° FINISH -	ACCT. NO.	NO. REQD.	DATE ISSD	DATE RECD.		
DO NOT SCALE PRINT		PROJECT NAME		SERIAL NO.			
THREADS ARE CLASS 2		PROJECT NO.		DATE			
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		DATE			
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		PROJECT NAME		DATE			
BREAK EDGES .016 MAX. ON MACHINED WORK		PROJECT NAME		DATE			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		PROJECT NAME		DATE			
IN ACCORDANCE WITH ASME Y14.5m & B46.1		PROJECT NAME		DATE			

REV	DWG	CHK	ZONE	DATE	CHANGES
B				1-17-07	CHANGES REFLECT COOLING TUBE SUB-ASSEMBLY
A				1-9-07	CHANGES REFLECT NEW TOOLING BALL

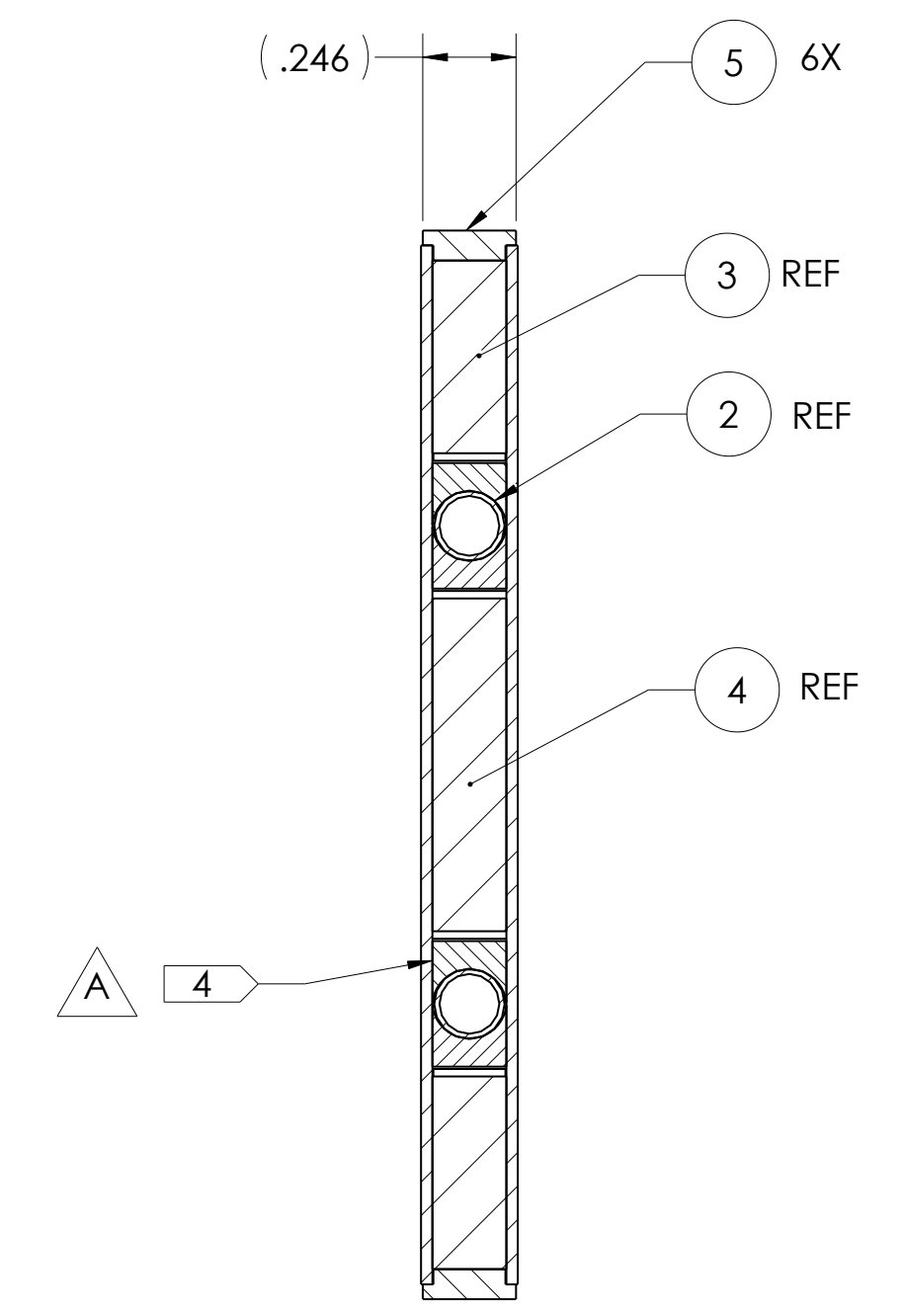
ERNEST ORLANDO LAWRENCE	BERKELEY NATIONAL LABORATORY	UNIVERSITY OF CALIFORNIA - BERKELEY
4.72 mm CIRCULAR TUBE STAVE SUB ASSEMBLY		
MICROFILMED:	DWG. TYPE	SHOWN ON
	PART	nnXnnn
PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CODE
	P1AP-11	AP6250
SCALE:	1:2	DO NOT SCALE PRINTS
SHEET 1 OF 2		
DWG. NO.	SIZE	REV.
nnXnnn4	B	



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.	NO.	DATE ISSD	BERKELEY NATIONAL LABORATORY
X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.	DATE REQD.	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	
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NAME	US ATLAS SILICON SUBSYSTEM	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				DWG. BY	DATE	12/17/06
BREAK EDGES .016 MAX. ON MACHINED WORK				CHK. BY	DATE	12/17/06
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				APR. BY	DATE	
IN ACCORDANCE WITH ASME Y14.5m & B46.1				MICROFILMED: DWG. TYPE PART SHOWN ON nnXnnn SCALE: 1:2 DO NOT SCALE PRINTS		
				PATENT CLEAR: P1AP-11	DESIGN ACCT. NO. AP6250	CATEGORY CIDE AP6250
				DWG. NO. nnXnnn4	SIZE B	REV. B
				SHEET 2 OF 2		

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DWG. NO. nnXnnn4

SIZE -

REV. 1

SH. 1

DESCRIPTION	MATERIAL	MAT. LOCATION

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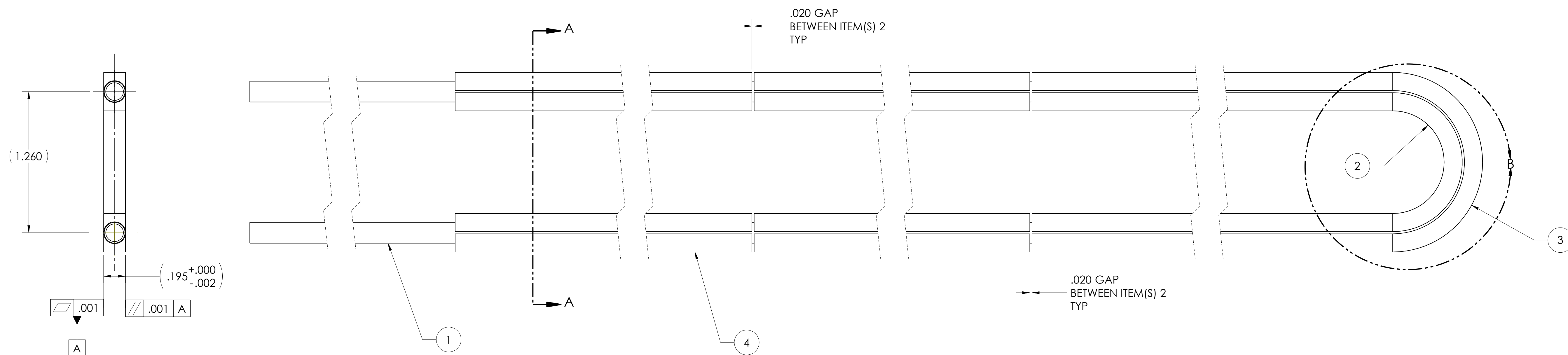
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FRONT SIDE (FACESHEET HIDDEN FOR CLARITY)

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.

ITEM NO	SHEET LOCATION	ZONE	QTY	PART DOCUMENT NUMBER	DESCRIPTION	REFERENCE DESIGNATION MATERIAL NOTES
4	1	B5	12		POCO FOAM PART 3	
3	1	C1	1		POCO FOAM PART 2	
2	1	C2	1		POCO FOAM PART 1	
1	1	B6	1		CIRCULAR COOLING TUBE	

UNLESS OTHERWISE SPECIFIED	SHOP ORDERS	SER. NO.	NO. REQD.	DATE ISSD	DATE RECD.
TOLERANCES: X.X ± 0.1	ACCT. NO.				
X.XX ± 0.01	DEL. TO				
X.XXX ± 0.005	SURFACE TREATMENT				
ANGLES ± 30°	FINISH -				
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					

REV	DWG	CHK	ZONE	DATE	CHANGES

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY	4.72 mm CIRCULAR TUBE SUB-ASSEMBLY	SCALE: 2:1	DO NOT SCALE PRINTS
MICROFILMED:	DWG. TYPE: PART	SHOWN ON: nnXnnn	SHEET 1 OF 2
PATENT CLEAR:	DESIGN ACCT. NO. P1AP-11	CATEGORY CODE: AP6250	DWG. NO. nnXnnn4
			SIZE: -
			REV. -

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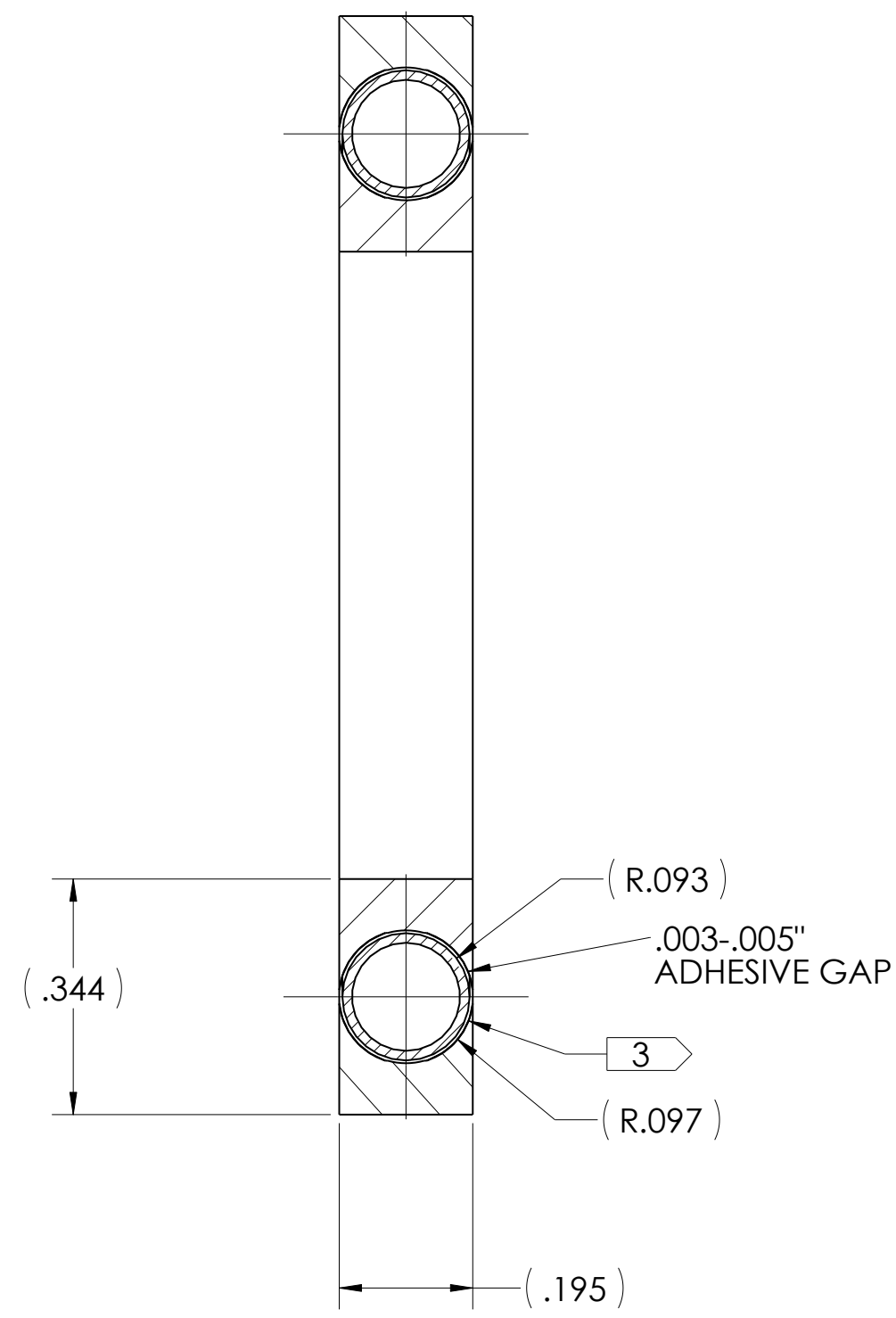
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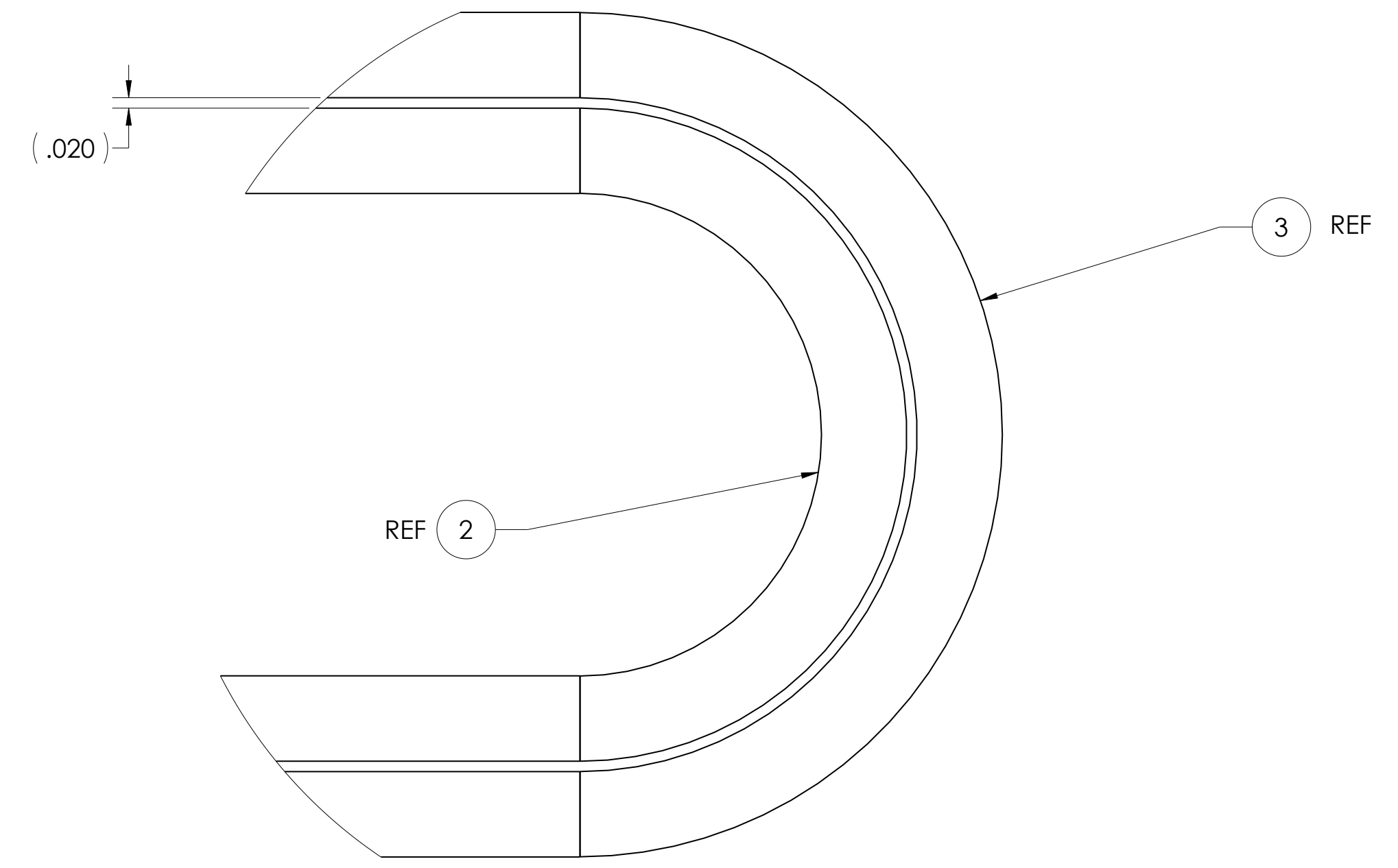
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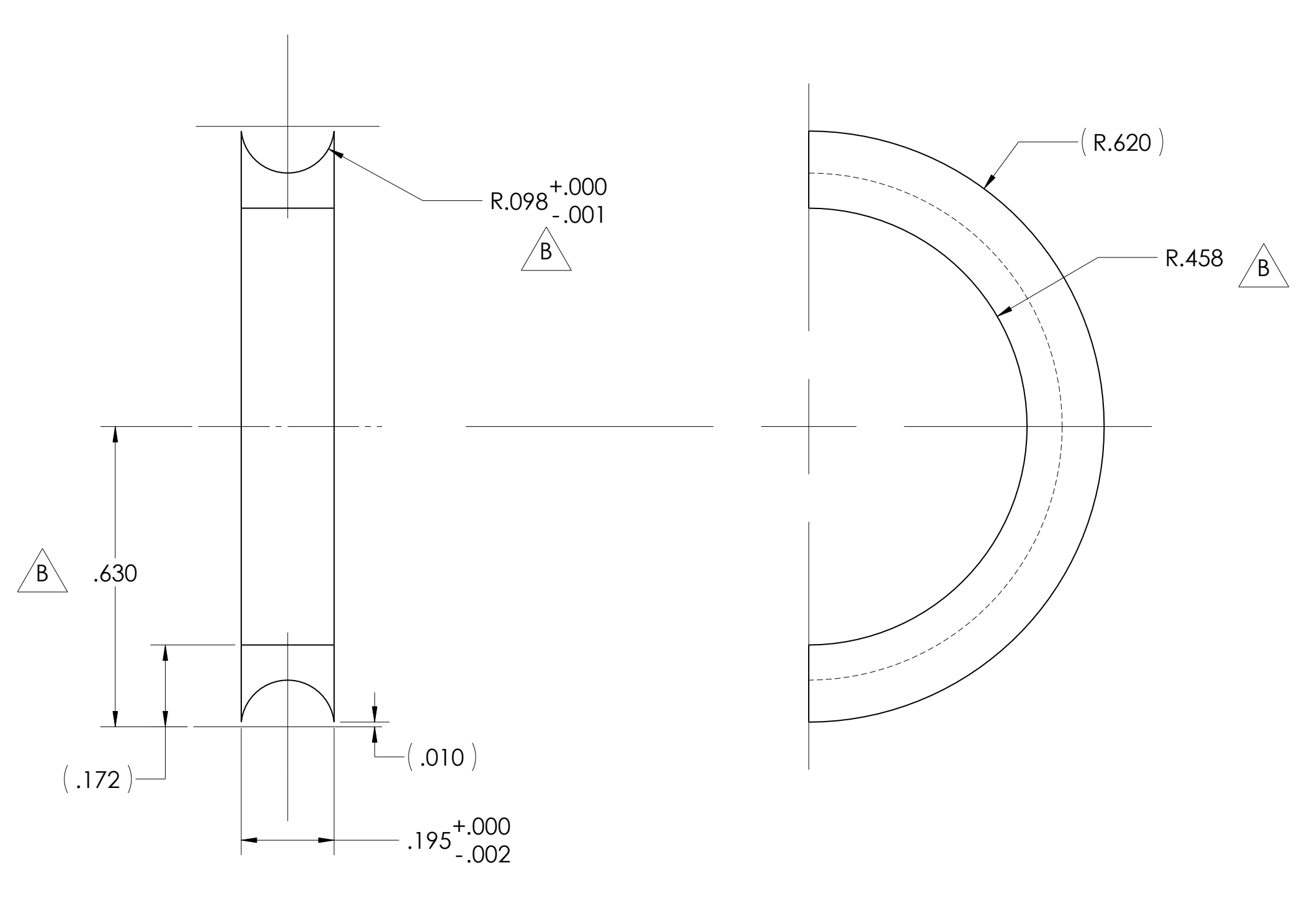
SECTION A-A
SCALE 4 : 1



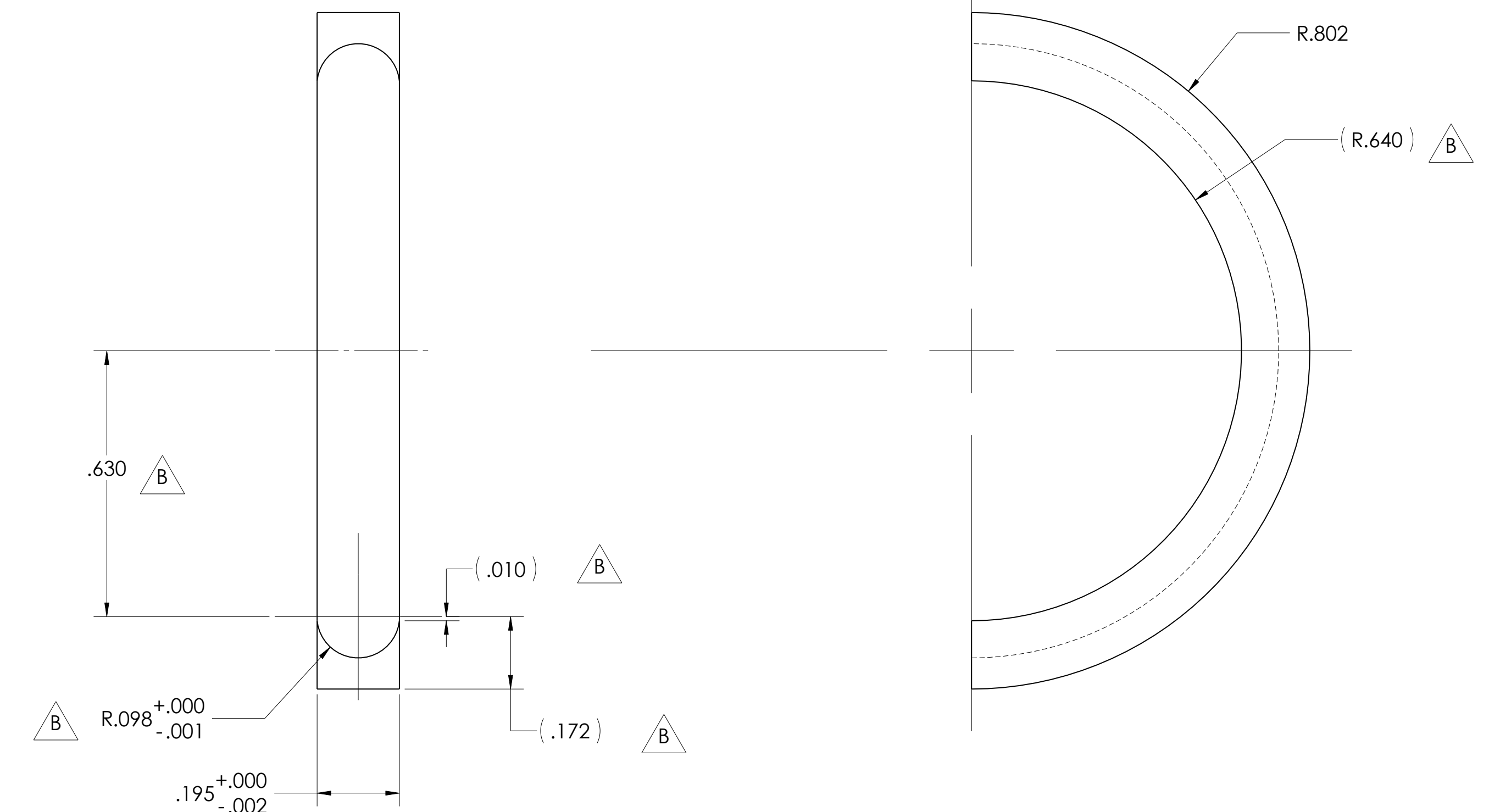
DETAIL B
SCALE 4 : 1

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
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		4.72 mm 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	1-17-07	SCALE: 1:2
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY	W. O. MILLER	DATE	1-17-07	DO NOT SCALE PRINTS
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR. BY		PATENT CLEAR:	DESIGN ACCT. NO.	CATEGORY CIDE
IN ACCORDANCE WITH ASME Y14.5m & B46.1		BY		P1AP-11	AP6250	DWG. NO. nnXnnn4
				SCALE:	1:2	SHEET 2 OF 2
				SIZE:	nnXnnn4	REV. -

DESCRIPTION	MATERIAL	MAT. LOCATION
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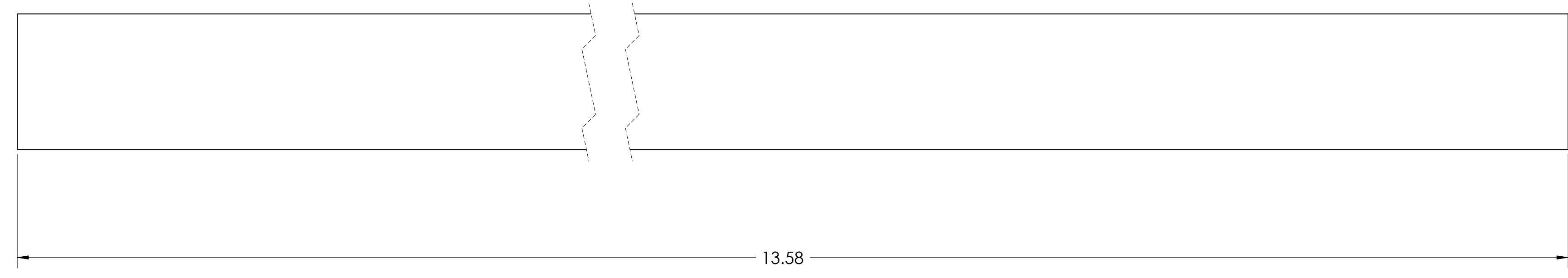
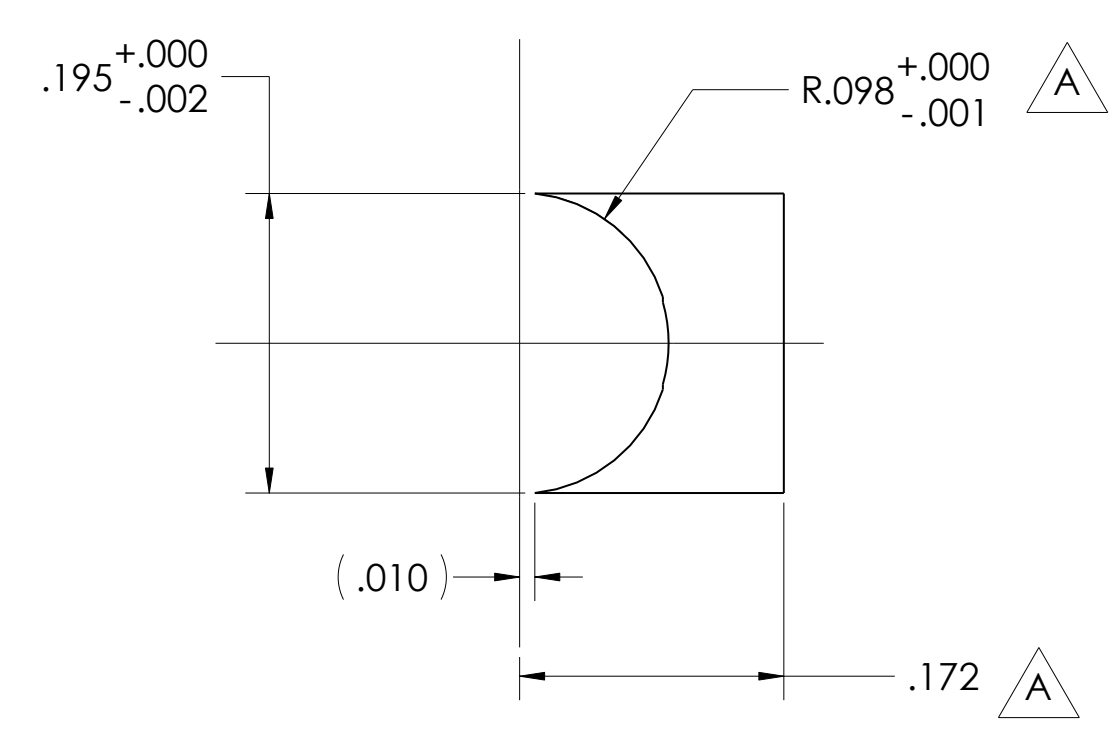
-1 POCO FOAM PART #1
 QTY: 1



-3 POCO FOAM PART #2
 QTY: 1

NOTES:
 1. UNITS ARE IN INCHES.

REV	DWG	CHK	ZONE	DATE	CHANGES	TOLERANCES	UNLESS OTHERWISE SPECIFIED	SHOP ORDERS	SER. NO.	DATE ISSD	ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY		
B				1-17-07	REVISED PARTS	X.X ± 0.1	FRAC. ± 1/64		ACCT. NO.	NO. REQD.	POCO FOAM MATERIAL 4.72 mm CIRCULAR COOLING TUBE STAVE ASSEMBLY		
A				1-8-07	REVISED PARTS	X.XX ± 0.01	ANGLES ± 30°		DEL. TO	DATE REQD.	MICROFILMED: DWG. TYPE PART SHOWN ON nnXnnn SCALE: 4:1 DO NOT SCALE PRINTS		
						X.XXX ± 0.005	FINISH -		PROJECT NAME		DESIGN ACCT. NO. P1AP-11 CATEGORY CODE AP6250 DWG. NO. nnXnnn4 SIZE B		
						DO NOT SCALE PRINT			PROJECT NO.		DATE 12/17/06 PATENT CLEAR: SHEET 1 OF 2		
						THREADS ARE CLASS 2			PROJECT TAG		DATE 12/17/06		
						CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NAME		DATE -		
						CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	W. K. MILLER	DATE 12/17/06		
						BREAK EDGES .016 MAX. ON MACHINED WORK			CHK BY	W. O. MILLER	DATE 12/17/06		
						REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APR BY		DATE -		
						IN ACCORDANCE WITH ASME Y14.5m & B46.1							



(-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		MICROFILMED:		
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		DWG. TYPE		
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. W. K. MILLER		PART		
BREAK EDGES .016 MAX. ON MACHINED WORK		DATE 12/17/06		SHOWN ON		
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		CHK BY W. O. MILLER		SCALE: 8:1		
IN ACCORDANCE WITH ASME Y14.5m & B46.1		DATE -		DO NOT SCALE PRINTS		
		APR -		SHEET 2 OF 2		
		BY -		P1AP-11		
				AP6250		
				nnXnnn4		
				B		

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

DESCRIPTION

MATERIAL

MAT. LOCATION

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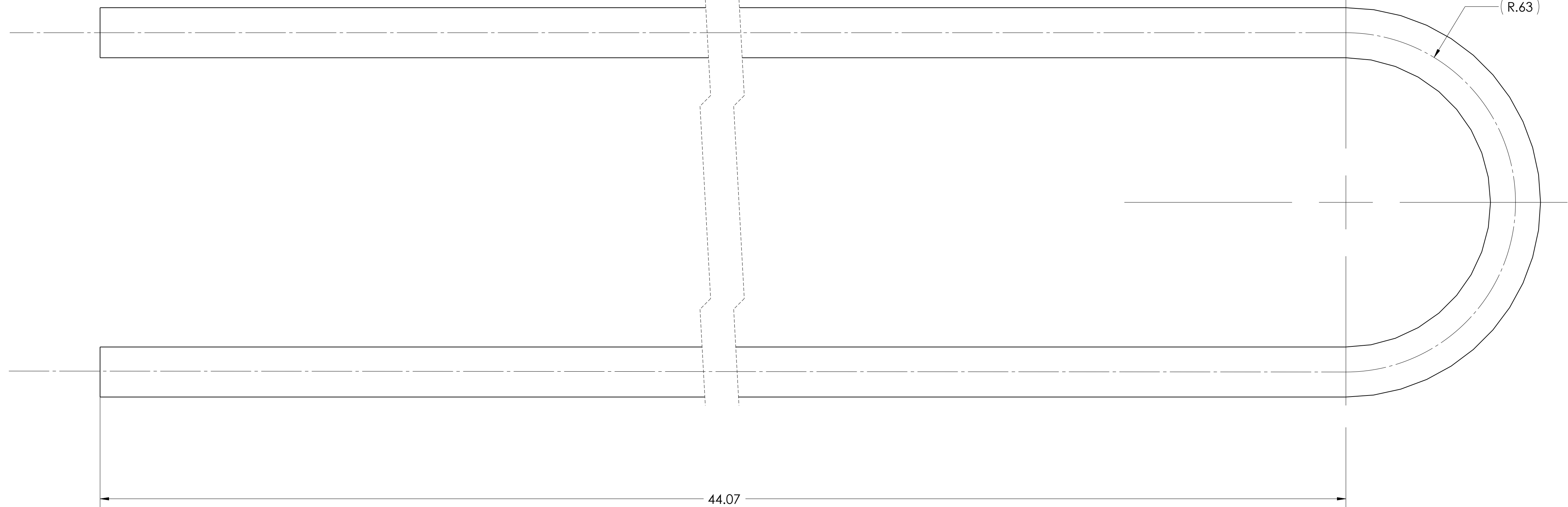
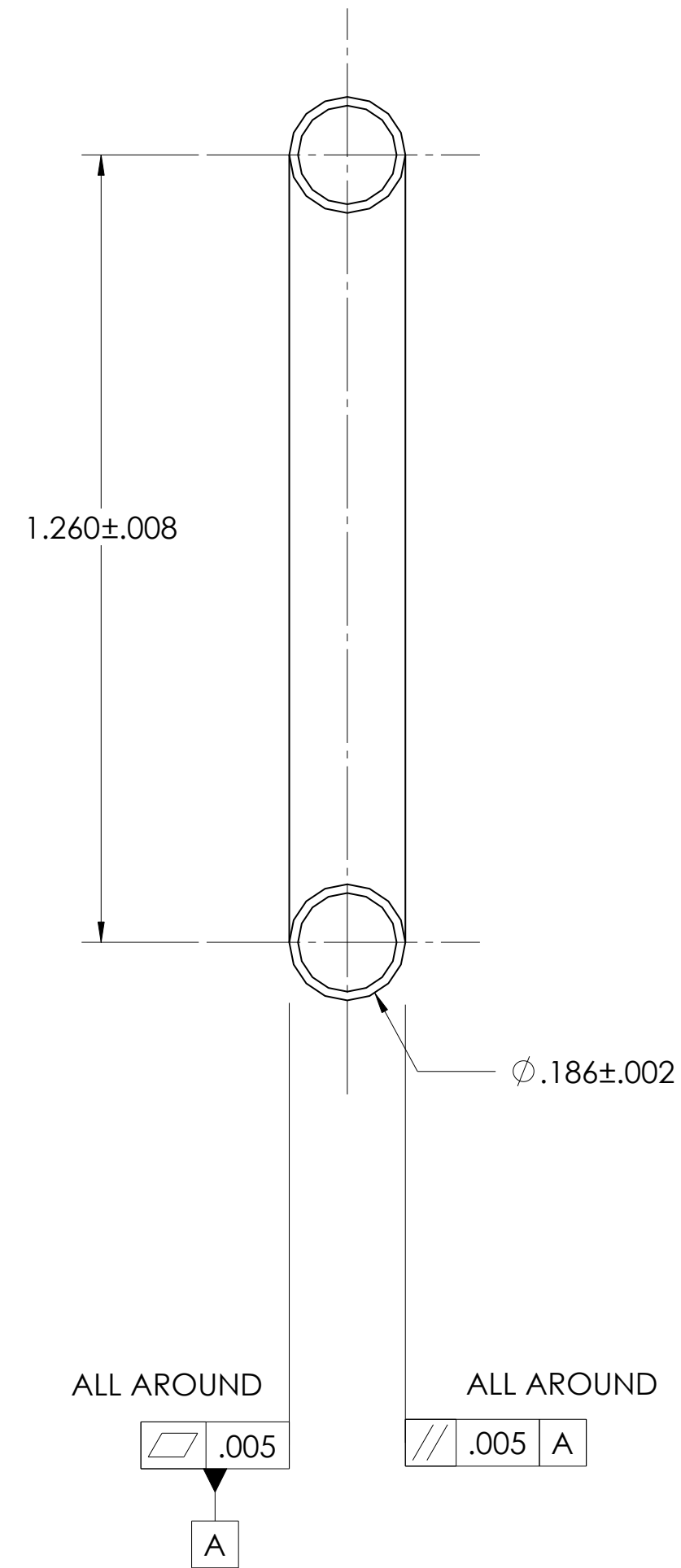
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NOTES:

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

UNLESS OTHERWISE SPECIFIED			SHOP ORDERS		SER. NO.		ERNEST ORLANDO LAWRENCE			
X.X ± 0.1			NO. REQD.		DATE ISSD		BERKELEY NATIONAL LABORATORY			
X.XX ± 0.01			DEL. TO		DATE REQD.		UNIVERSITY OF CALIFORNIA - BERKELEY			
X.XXX ± 0.005			SURFACE TREATMENT		TAG		4.72 mm CIRCULAR COOLING TUBE			
ANGLES ± 30°			PROJECT NAME		ATL-IP-ED-XXXX		SCALE: 4:1			
FINISH -			DWG. NO.		DATE		DO NOT SCALE PRINTS			
DO NOT SCALE PRINT			W. K. MILLER		12/17/06		MICROFILMED: PART			
THREADS ARE CLASS 2			CHK BY		DATE		SHOWN ON: nnXnnn			
CHAMFER ENDS OF ALL SCREW THREADS 30°			W. O. MILLER		12/17/06		DESIGN ACCT. NO: P1AP-11			
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			APR -		-		CATEGORY CODE: AP6250			
BREAK EDGES .016 MAX. ON MACHINED WORK							DWG. NO: nnXnnn4			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE							SHEET 1 OF 1			
IN ACCORDANCE WITH ASME Y14.5m & B46.1							REV. 1			

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

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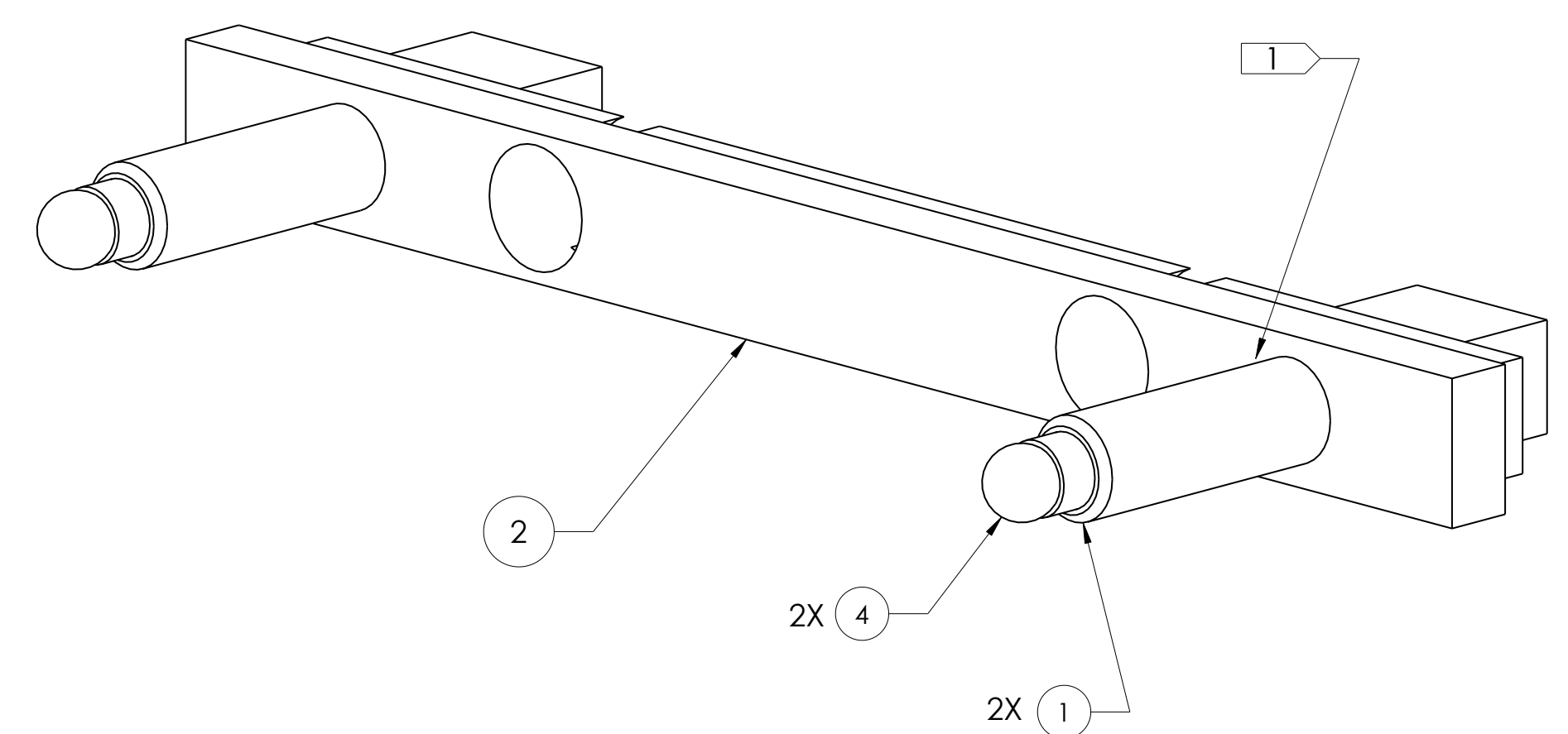
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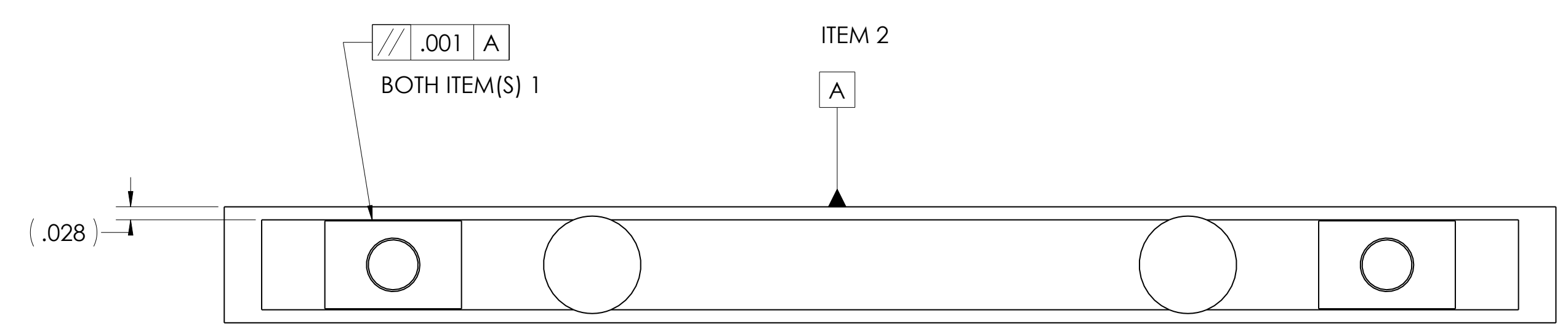
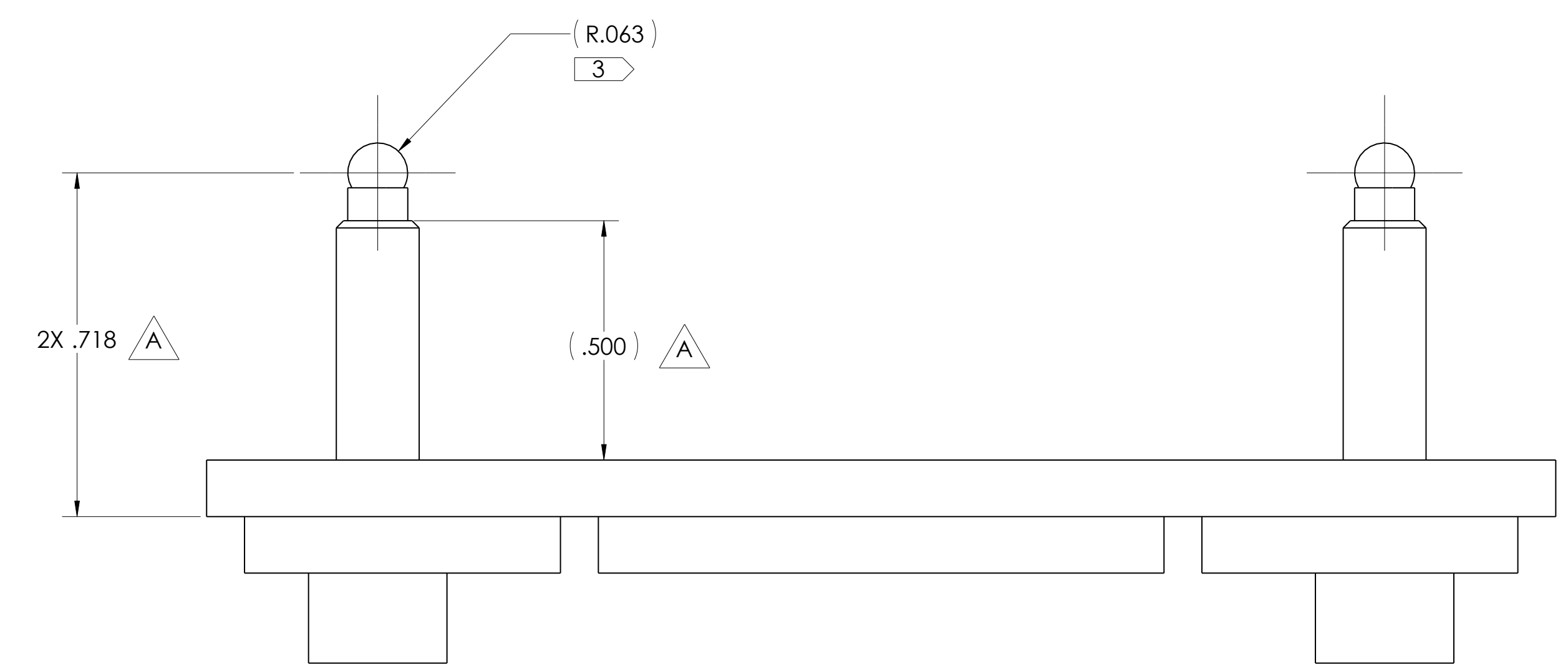
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DWG. NO.	SIZE	REV.	SH.	
nnXnnn4	A	1		
DESCRIPTION		MATERIAL	MAT. LOCATION	



-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			END CLOSEOUT #2
2	1	C5			1		END CLOSEOUT #1
1	MULT	MULT		2	2		CLOSEOUT PIN
ITEM NO	SHEET	ZONE	A3	A2	A1	PART DOCUMENT NUMBER	DESCRIPTION
UNLESS OTHERWISE SPECIFIED			SHOP ORDERS			SER. NO. DATE ISSD	
X.X ± 0.1			FRAC. ± 1/64			NO. REQD. DATE RECD	
X.XX ± 0.01			ANGLES ± 30°			DATE RECD	
X.XXX ± 0.005			FINISH -			SURFACE TREATMENT	
DO NOT SCALE PRINT			PROJECT TAG			PROJECT NUMBER	
THREADS ARE CLASS 2			METHOD			PROJECT NAME	
CHAMFER ENDS OF ALL SCREW THREADS 30°			PROJECT NO.			PROJECT DATE	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. NO.			DATE	
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK. BY			DATE	
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APR. BY			DATE	
IN ACCORDANCE WITH ASME Y14.5m & B46.1			APPROVED			DATE	

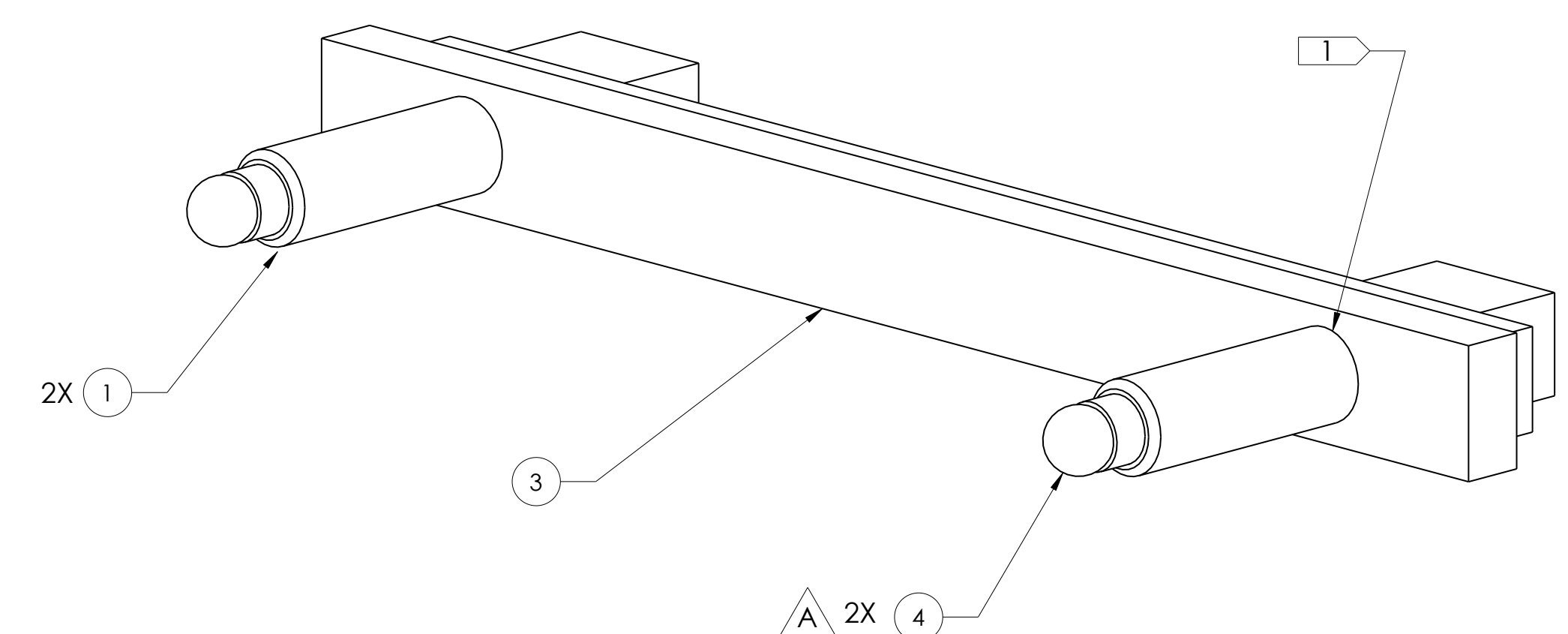
REV	DWG	CHK	ZONE	DATE	CHANGES
A				1-8-07	CHANGES REFLECT NEW TOOLING BALL

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY
UNIVERSITY OF CALIFORNIA - BERKELEY

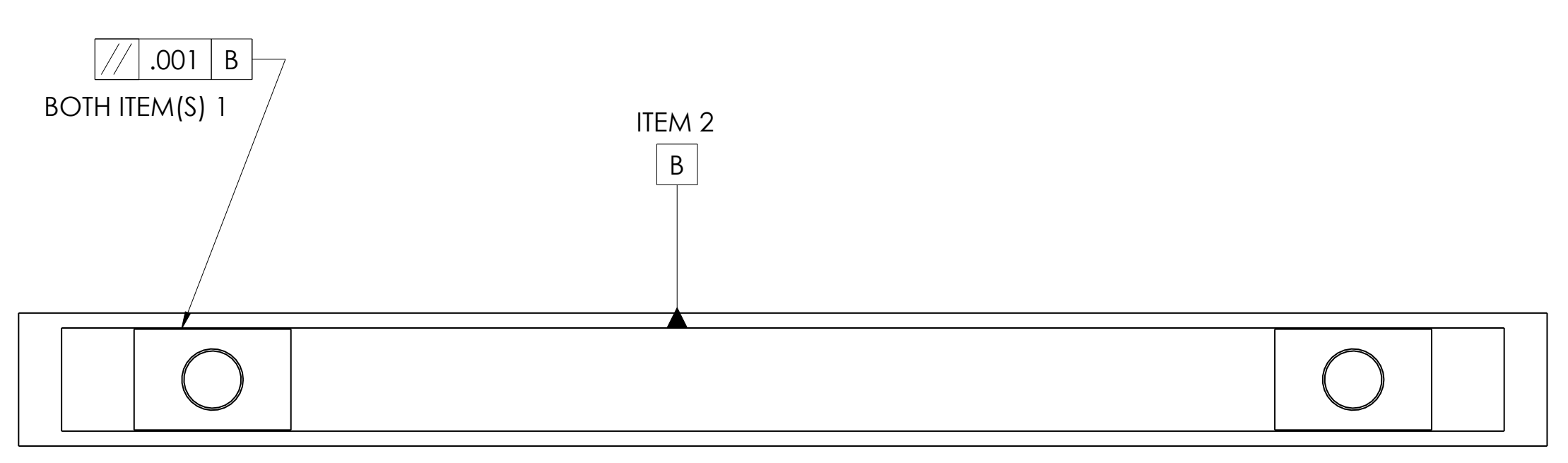
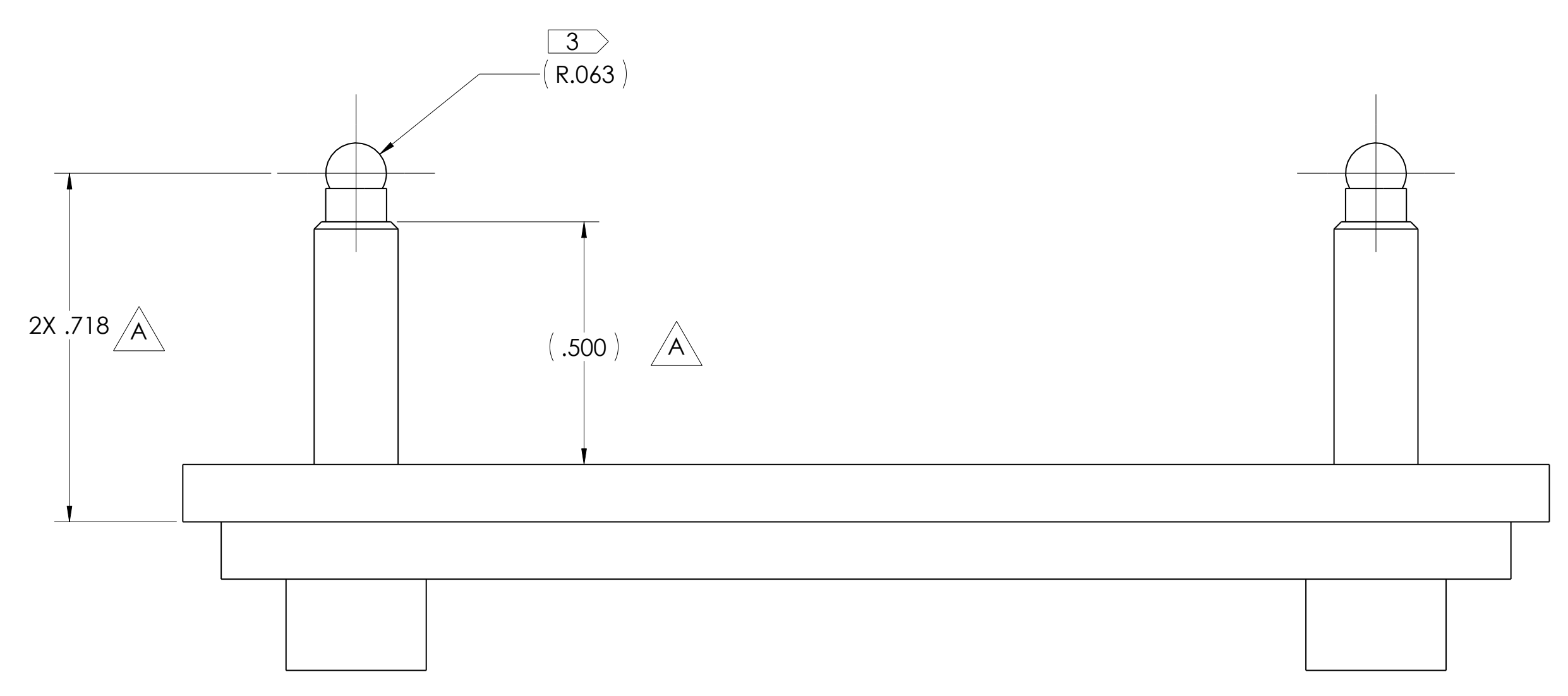
END CLOSEOUT SUB ASSEMBLY
4.72 mm CIRCULAR TUBE STAVE ASSEMBLY

MICROFILMED: DWG. TYPE PART SHOWN ON nnXnnn SCALE: 4:1 DO NOT SCALE PRINTS

PATENT CLEAR: DESIGN ACCT. NO. P1AP-11 CATEGORY CIDE AP6250 DWG. NO. nnXnnn4 SHEET 1 OF 2 SIZE A REV. A



-3 STAVE END CLOSEOUT #2
QTY: 1



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.	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		SCALE: 4:1		
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME		DO NOT SCALE PRINTS		
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY		MICROFILMED:		
BREAK EDGES .016 MAX. ON MACHINED WORK		W. K. MILLER		DWG. TYPE: PART		
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		DATE 12/17/2006		SHOWN ON: nnXnnn		
IN ACCORDANCE WITH ASME Y14.5m & B46.1		CHK BY: W. O. MILLER		SCALE: SHEET 2 OF 2		
		DATE 12/17/2006		CATEGORY CIDE: P1AP-11		
		APR -		DWG. NO. nnXnnn4		
				REV. A		

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DWG. NO. nnXnnn4 SIZE 1 2

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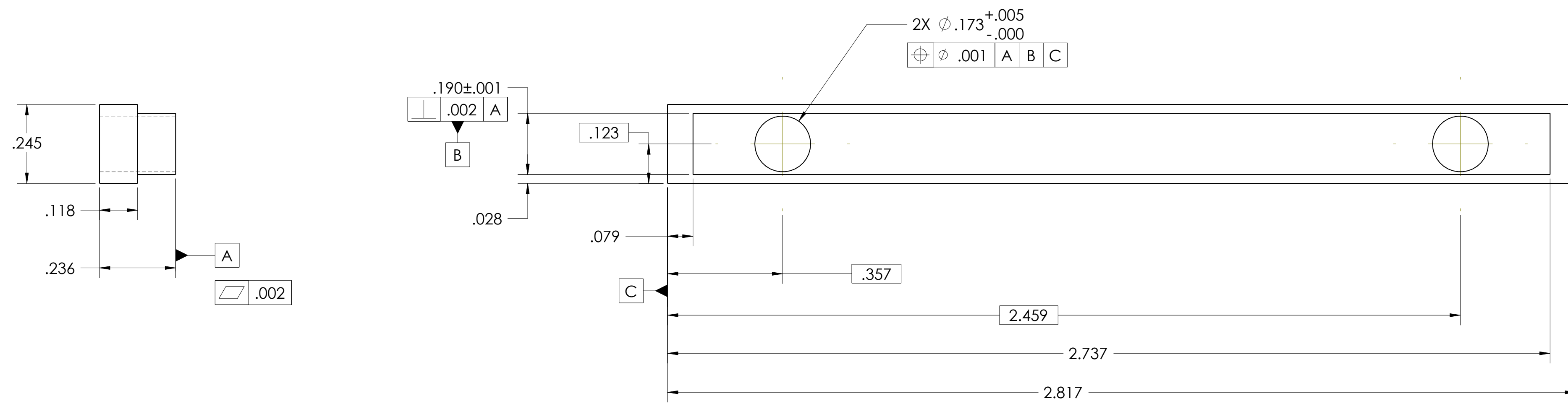
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-3 STAVE END CLOSEOUT PART #2
 QTY : 1
 MATERIAL: AIBeMET 162H

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 4.72mm CIRCULAR 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		NO.	SHOWN ON
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	DATE	12/17/06	SCALE: 4:1	DO NOT SCALE PRINTS
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK BY	DATE	12/17/06	PART	nnXnnn
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR BY	DATE		P1AP-11	AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1					SCALE: 4:1	SHEET 2 OF 2
					DWG. NO.	SIZE
					nnXnnn4	REV. 1

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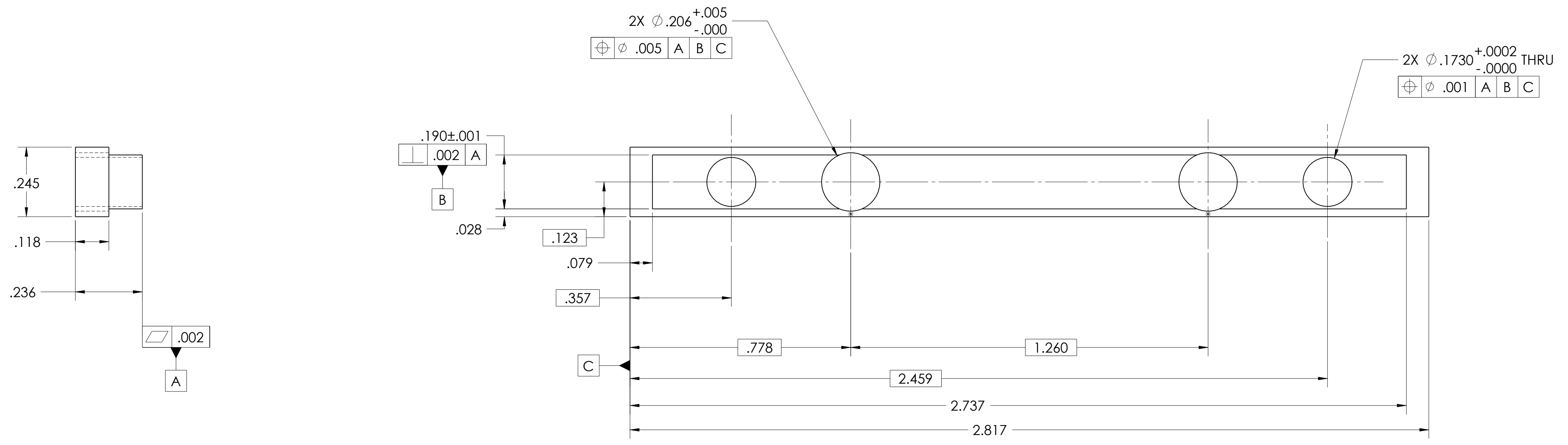
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DWG. NO. nnXnnn4	SIZE 1	REV. 1	SH. 1
DESCRIPTION		MATERIAL	MAT. LOCATION



(-1) STAVE END CLOSEOUT PART #1
 QTY : 1
 MATERIAL: AlBeMET 162H

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.		END CLOSEOUT 4.72mm CIRCULAR TUBE STAVE ASSEMBLY	
X.XXX ± 0.005 FINISH -		SURFACE TREATMENT		MATERIAL		SCALE: 4:1	
DO NOT SCALE PRINT		IDEN. METHOD TAG		PROJECT NUMBER		DO NOT SCALE PRINTS	
THREADS ARE CLASS 2		PROJECT NAME		PROJECT NO.		SHEET 1 OF 2	
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NO.		DWG. NO.		DWG. NO. nnXnnn4	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		PROJECT NAME		DATE 12/17/06		SIZE	
BREAK EDGES .016 MAX. ON MACHINED WORK		PROJECT NAME		DATE 12/17/06		REV. 1	
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		PROJECT NAME		DATE		P1AP-11	
IN ACCORDANCE WITH ASME Y14.5m & B46.1		PROJECT NAME		DATE		AP6250	
REV DWG CHK ZONE DATE		CHANGES		DWG. TYPE PART		CATEGORY CIDE AP6250	
				SHOWN ON nnXnnn		DWG. NO. nnXnnn4	
				SCALE: 4:1		SHEET 1 OF 2	
				DATE 12/17/06		DWG. NO. nnXnnn4	
				DATE 12/17/06		SIZE	
				DATE		REV. 1	

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DWG. NO.	SIZE	REV.	SH.
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DESCRIPTION

MATERIAL

MAT. LOCATION

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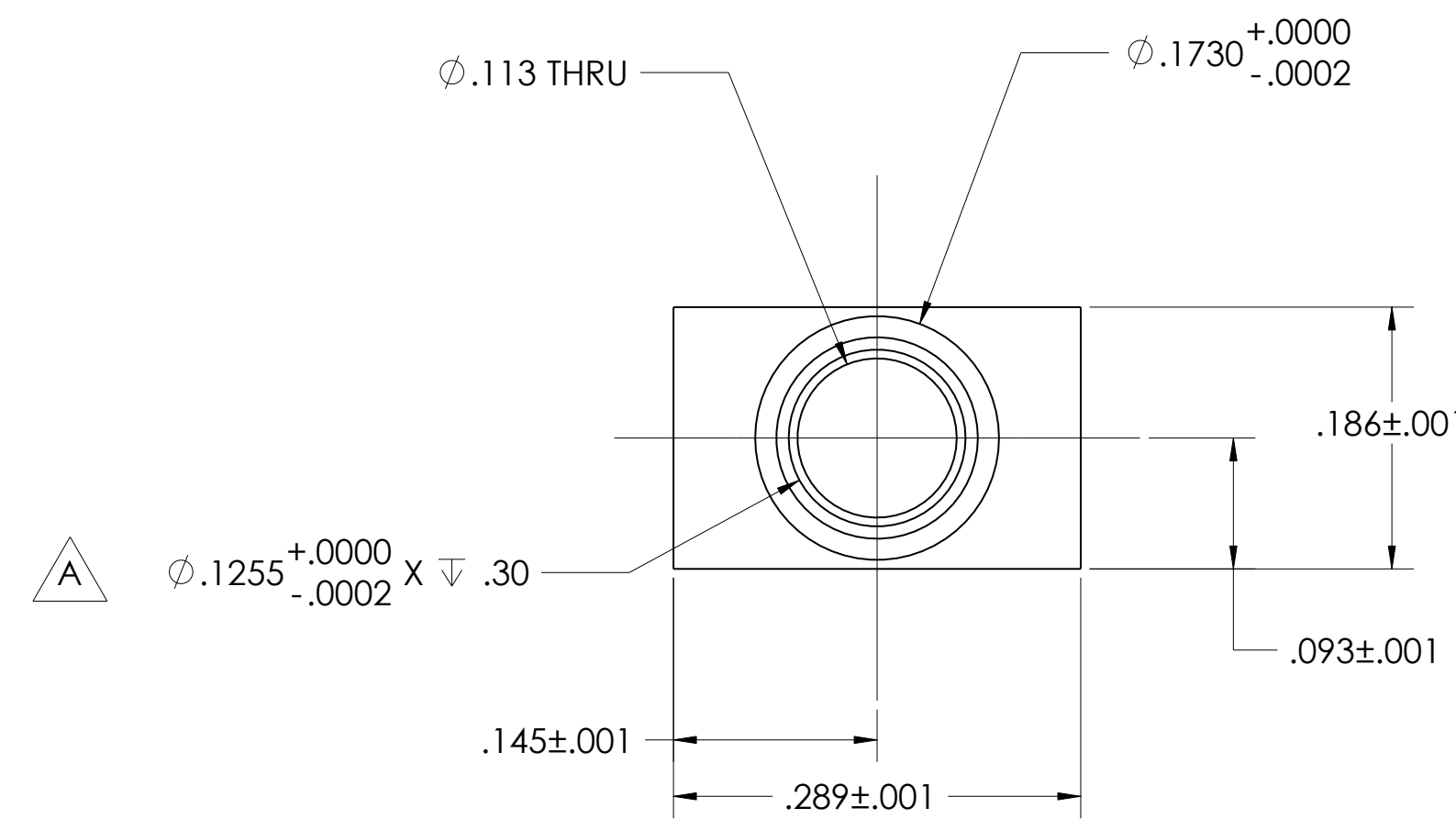
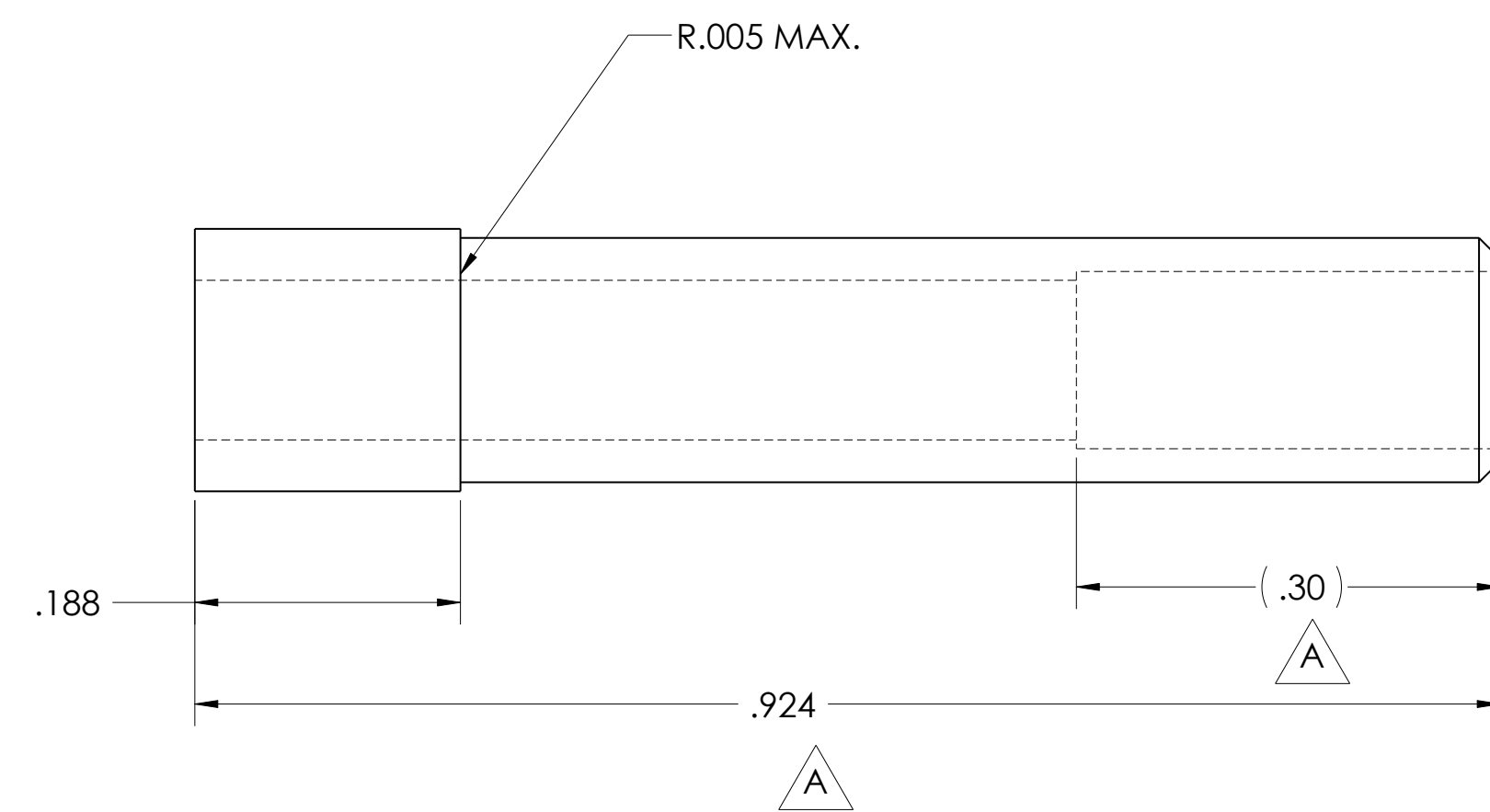
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NOTES:

1. MATERIAL: AlBeMET 162H

				UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO. DATE ISSD		ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY			
				X.X ± 0.1 FRAC. ± 1/64		ACCT. NO. NO. REQD.		DATE ISSD		CLOSEOUT PIN 4.72 mm CIRCULAR TUBE STAVE ASSEMBLY			
				X.XX ± 0.01 ANGLES ± 30°		DEL. TO		DATE REQD.					
				X.XXX ± 0.005 FINISH -		SURFACE TREATMENT							
				DO NOT SCALE PRINT		IDENT. METHOD TAG				SCALE: 8:1 DO NOT SCALE PRINTS			
				THREADS ARE CLASS 2		PROJECT NUMBER				MICROFILMED: DWG. TYPE SHOWN ON SCALE: 8:1 DO NOT SCALE PRINTS			
				CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME				PART nnXnnn SHEET 1 OF 1			
				CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. W. K. MILLER		DATE 12/17/2006		P1AP-11 AP6250 nnXnnn4 A			
				BREAK EDGES .016 MAX. ON MACHINED WORK		CHK BY W. O. MILLER		DATE 12/17/2006		PATENT CLEAR: DESIGN ACCT. NO. CATEGORY CODE DWG. NO. SIZE REV.			
				REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APR -		DATE -					
				IN ACCORDANCE WITH ASME Y14.5m & B46.1									
				REV DWG CHK ZONE DATE DATE		CHANGES							

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

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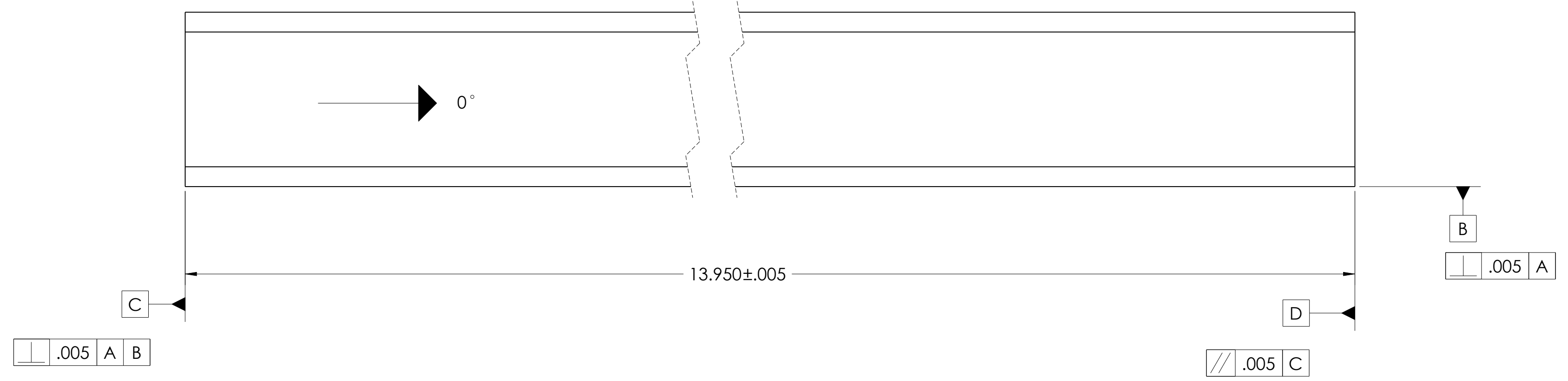
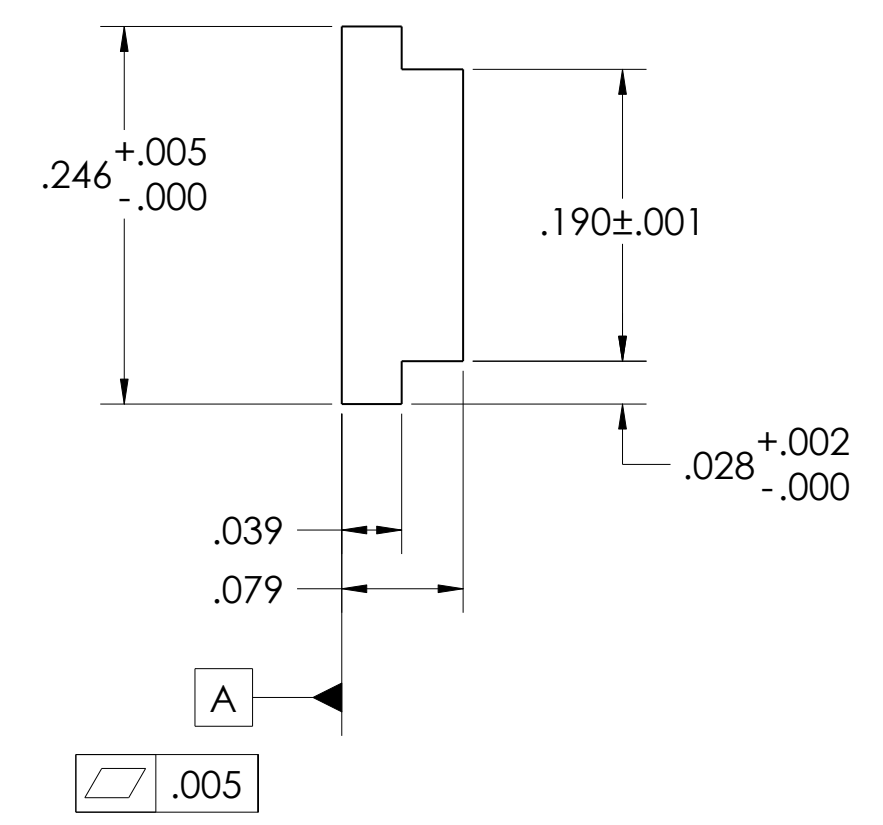
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- NOTES:
1. K13D2U 90fsm FIBER AREAL WEIGH T/EX 1515 CYANATE ESER RESIN (250 °F CURE) 34% RESIN CONTENT. 6" UNITAPE WIDTH (BRYTE TECHNOLOGY).
 2. FIBER ORIENTATION: (90,0,0,0,0/S).
 3. FIBER VOLUME FRACTION 60%.
 4. UNITS ARE IN INCHES.

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UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE	
TOLERANCES	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	SIDE COMPOSITE CLOSEOUT	
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:	DESIGN ACCT. NO.
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE			APR -	DATE -		AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1						AP6250
REV	DWG	CHK	ZONE	DATE	CHANGES	

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SCALE: 8:1	DO NOT SCALE PRINTS
SHEET 1 OF 1	
DWG. NO. nnXnnn4	REV. 1

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

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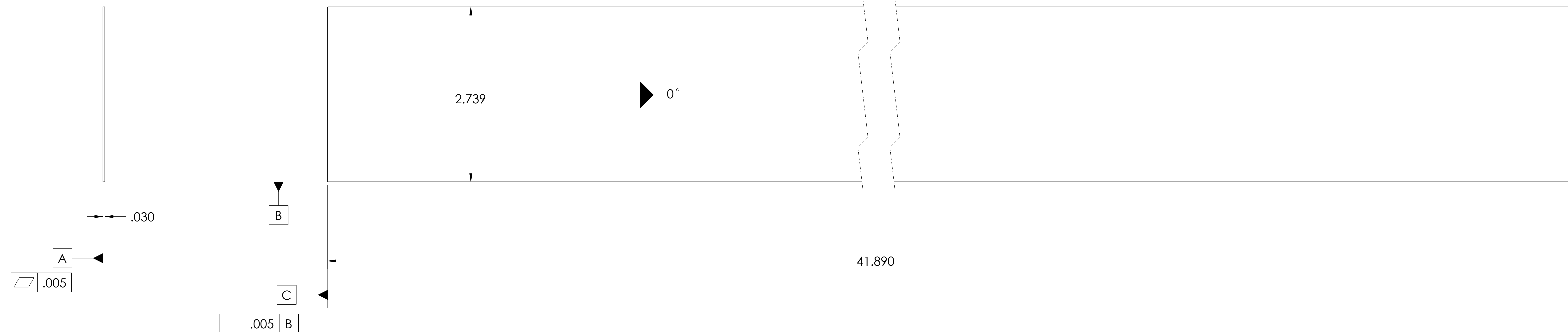
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NOTES:

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.

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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. 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						
REV	DWG	CHK	ZONE	DATE	CHANGES	

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SCALE: 1:1	DO NOT SCALE PRINTS
PART	nnXnnn
P1AP-11	AP6250
SHEET 1 OF 1	nnXnnn4
REV. 1	

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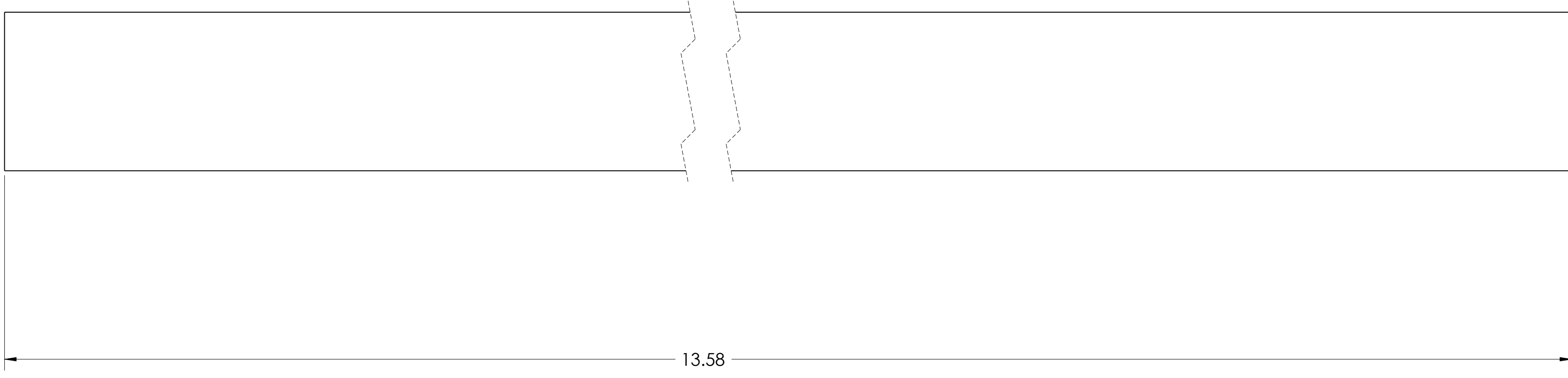
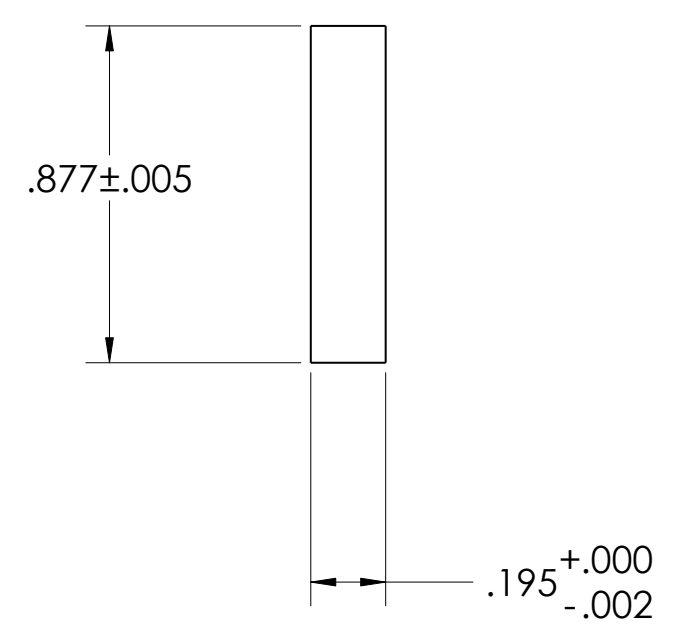
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DWG. NO.	SIZE	REV.	SH.
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DESCRIPTION	MATERIAL	MAT. LOCATION



-1 HONEYCOMB PART #1
 QTY #1
 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	
TOLERANCES	X.X ± 0.1	FRAC. ± 1/64	ACCT. NO.	NO. REQD.	DATE ISSD	BERKELEY NATIONAL LABORATORY UNIVERSITY OF CALIFORNIA - BERKELEY
	X.XX ± 0.01	ANGLES ± 30°	DEL. TO	DATE REQD.		
	X.XXX ± 0.005	FINISH -	SURFACE TREATMENT			
DO NOT SCALE PRINT			IDEN. METHOD	TAG	HONEYCOMB CORE MATERIAL 4.72 mm CIRCULAR COOLING TUBE STAVE ASSEMBLY	
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	DWG. NO.	SHOWN ON
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS			DWG. BY	W. K. MILLER	DATE	12/17/06
BREAK EDGES .016 MAX. ON MACHINED WORK			CHK. BY	W. O. MILLER	DATE	12/17/06
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	P1AP-11	
CHANGES					AP6250	SCALE: 2:1
					DO NOT SCALE PRINTS	SCALE: 2:1
					SHEET 1 OF 2	
					DWG. NO.	SIZE
					nnXnnn4	REV. 1

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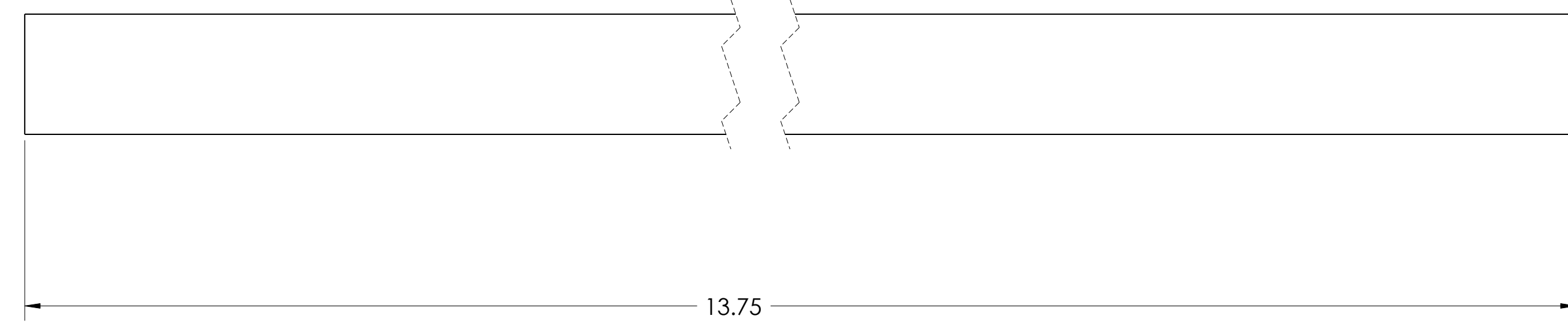
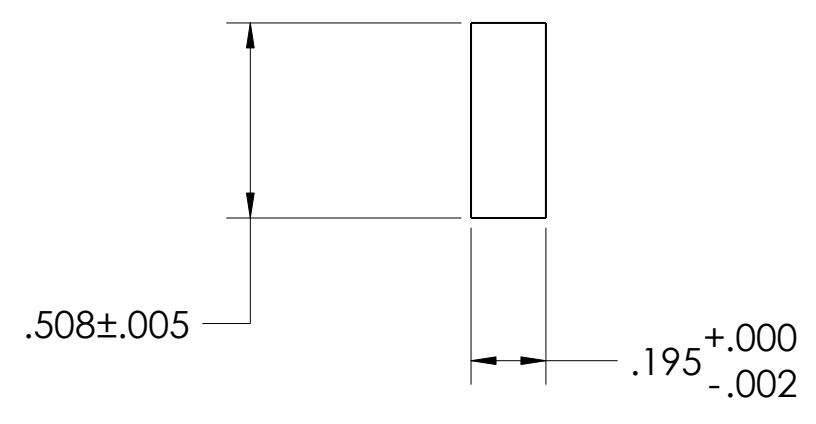
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(-3) HONEYCOMB PART #2
 QTY #2
 MATERIAL: ULTRACORE UCF-119-3/16-3.5
 GRAPHITE FIBER HONEYCOMB WITH
 RS-3 CYANATE ESTER RESIN

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	SCALE: 2:1
CHAMFER ENDS OF ALL SCREW THREADS 30°		PROJECT NAME	US ATLAS SILICON SUBSYSTEM	PART	nnXnnn	DO NOT SCALE PRINTS
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS		DWG. BY	W. K. MILLER	DATE	12/17/06	SHEET 2 OF 2
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK. BY	W. O. MILLER	DATE	12/17/06	REV. 1
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		APPR. BY		PATENT CLEAR:	DESIGN ACCT. NO. P1AP-11	CATEGORY CIDE AP6250
IN ACCORDANCE WITH ASME Y14.5m & B46.1		DATE		DWG. NO.	nnXnnn4	SIZE

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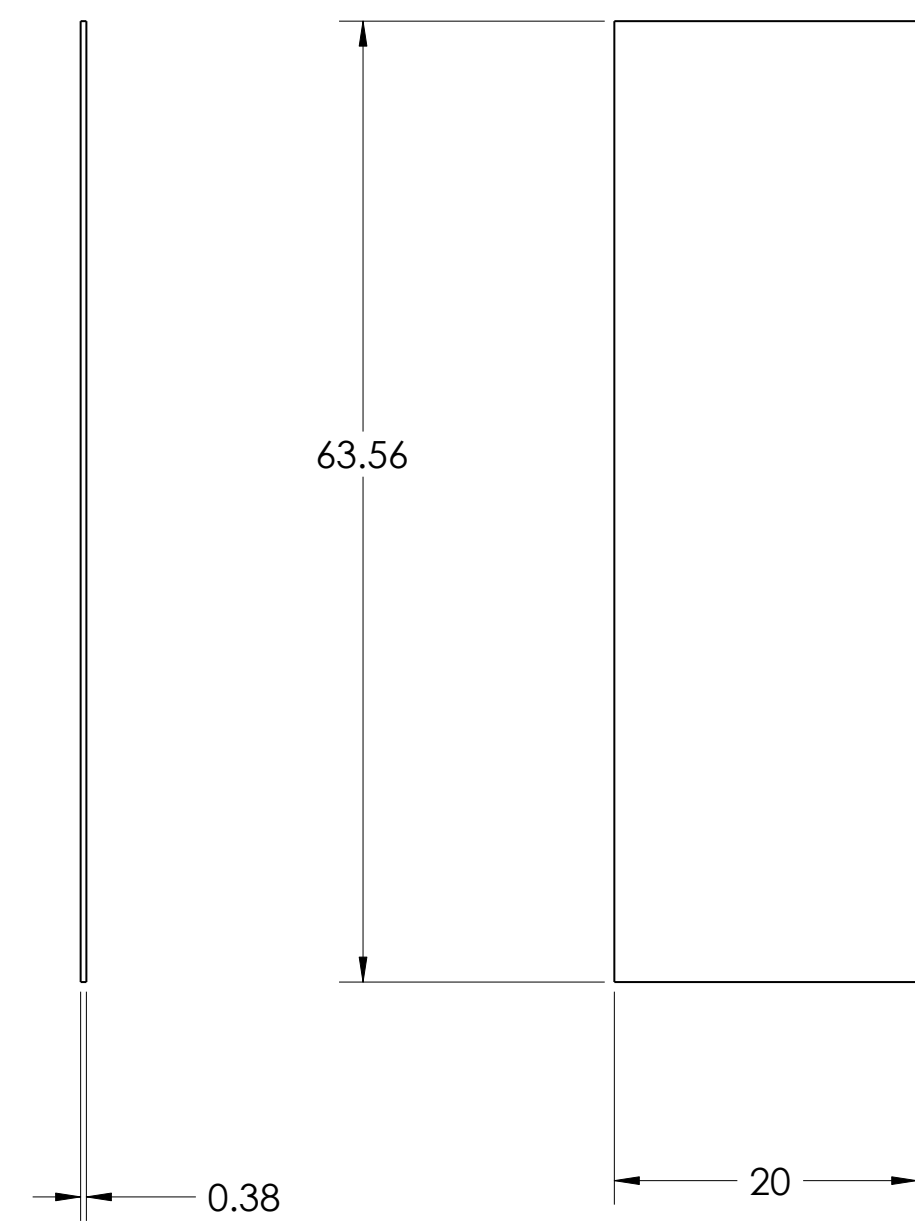
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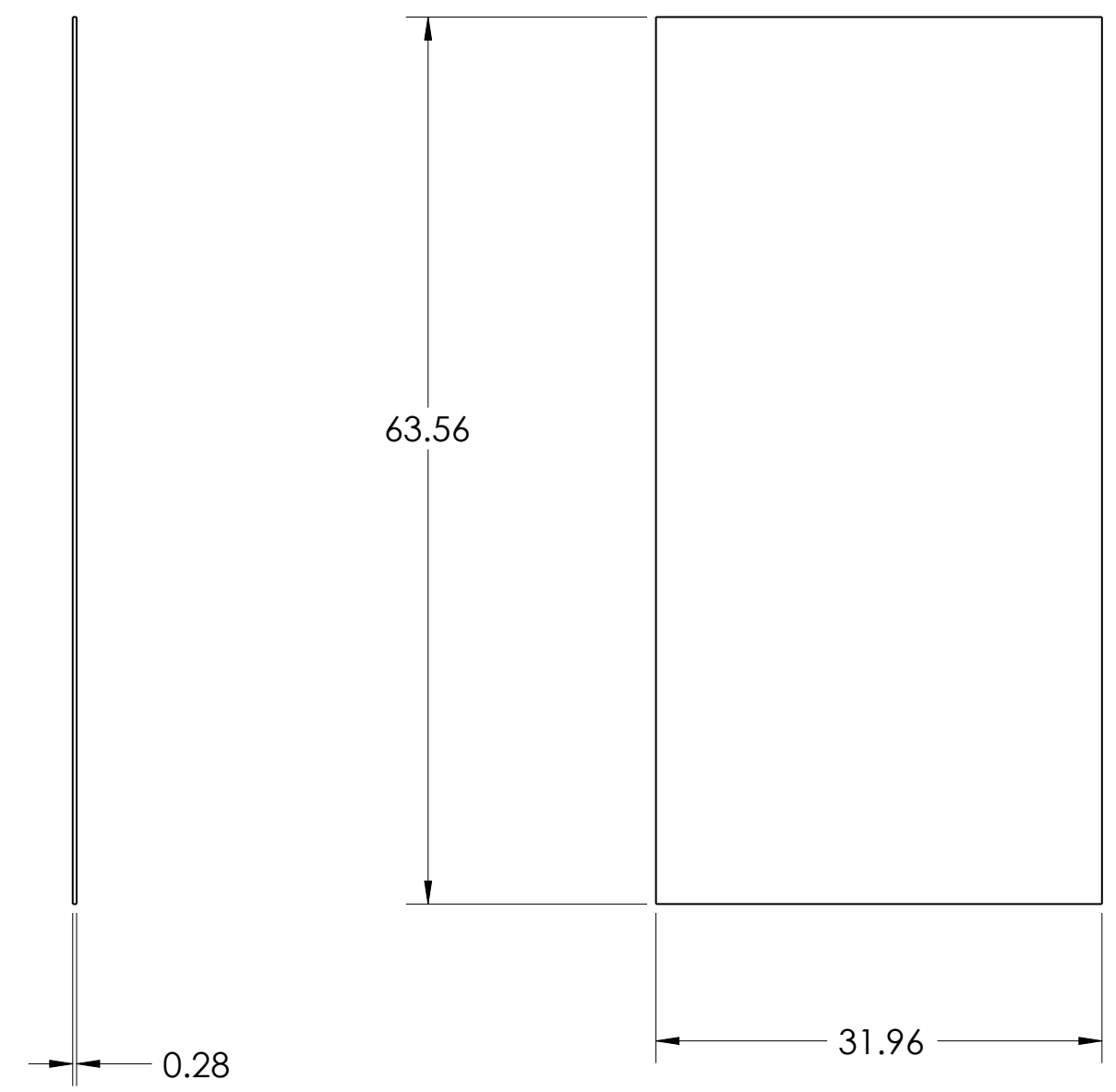
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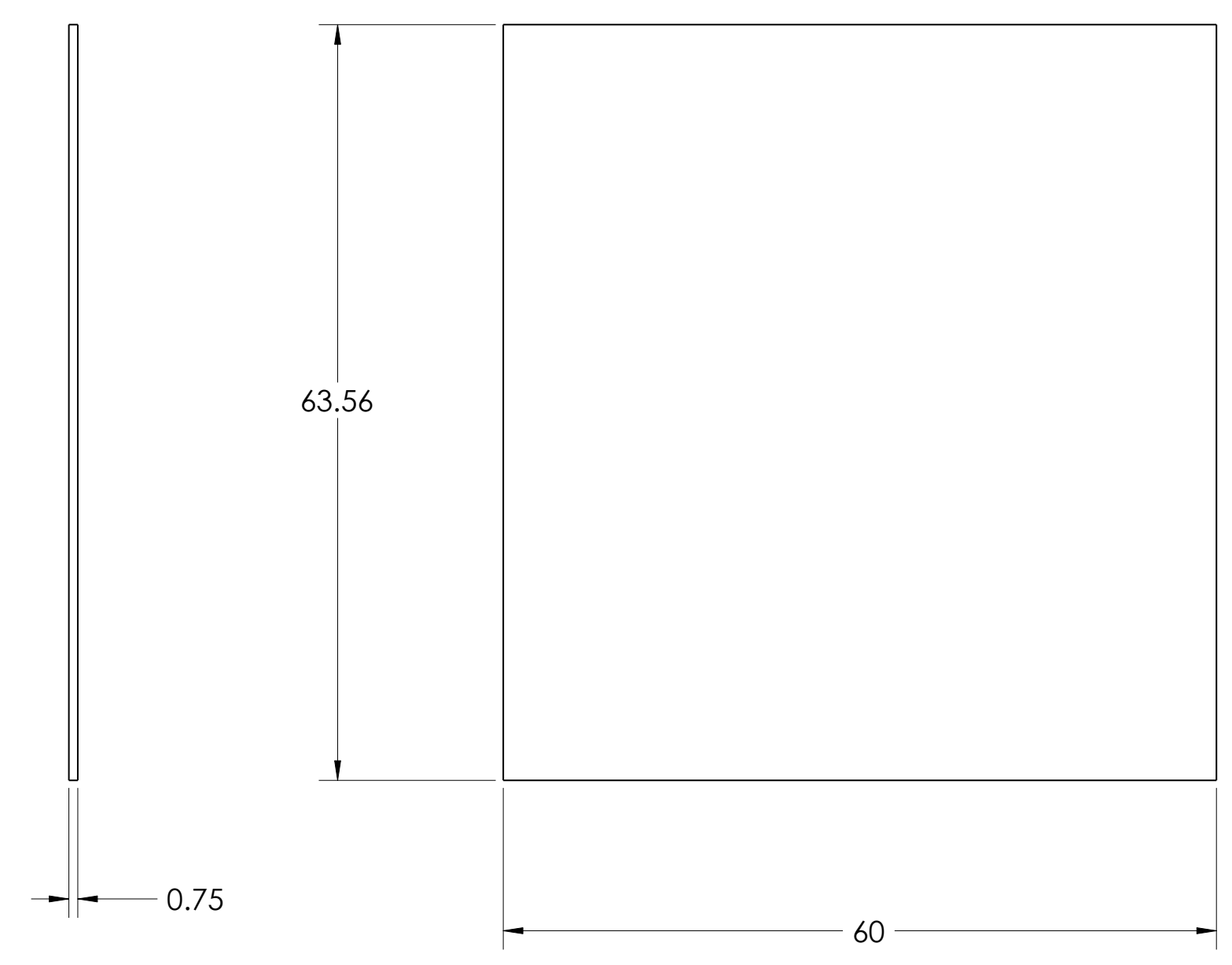
DWG. NO. nnXnnn4	SIZE 1	REV. 1	SH. 1
DESCRIPTION		MATERIAL	MAT. LOCATION



① HYBRID CHIP



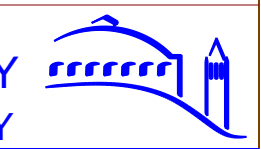
② DETECTOR CHIP



③ PORT CARD

NOTES:
1. UNITS ARE IN METRIC.

UNLESS OTHERWISE SPECIFIED				SHOP ORDERS		SER. NO.	ERNEST ORLANDO LAWRENCE		
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.	DATE REQD.	UNIVERSITY OF CALIFORNIA - BERKELEY		
X.XXX ± 0.13		FINISH -		SURFACE TREATMENT		HYBRID AND DETECTOR CHIP			
DO NOT SCALE PRINT				IDEN. METHOD TAG		4.72 mm CIRCULAR TUBE STAVE ASSEMBLY			
THREADS ARE CLASS 2				PROJECT NUMBER		MICROFILMED:			
CHAMFER ENDS OF ALL SCREW THREADS 30°				PROJECT NAME		DWG. TYPE		SCALE: 2:1	
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				DWG. W. K. MILLER		PART		DO NOT SCALE PRINTS	
BREAK EDGES .016 MAX. ON MACHINED WORK				DATE 12/17/2006		SHOWN ON		DATE 12/17/2006	
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE				CHK BY W. O. MILLER		P1AP-11		DATE 12/17/2006	
IN ACCORDANCE WITH ASME Y14.5m & B46.1				APR BY -		AP6250		DATE -	
REV	DWG	CHK	ZONE	DATE	CHANGES				DO NOT SCALE PRINTS



SHEET 1 OF 1

nnXnnn4 1