

CAMERA & LIGHT SEAL

SECTION VIEW

SPACER CUT: .38 TO .41
TO PROVIDE CORRECT FOCUS

CAMERA

LENS

1002402-009

1002402-002

1002402-008

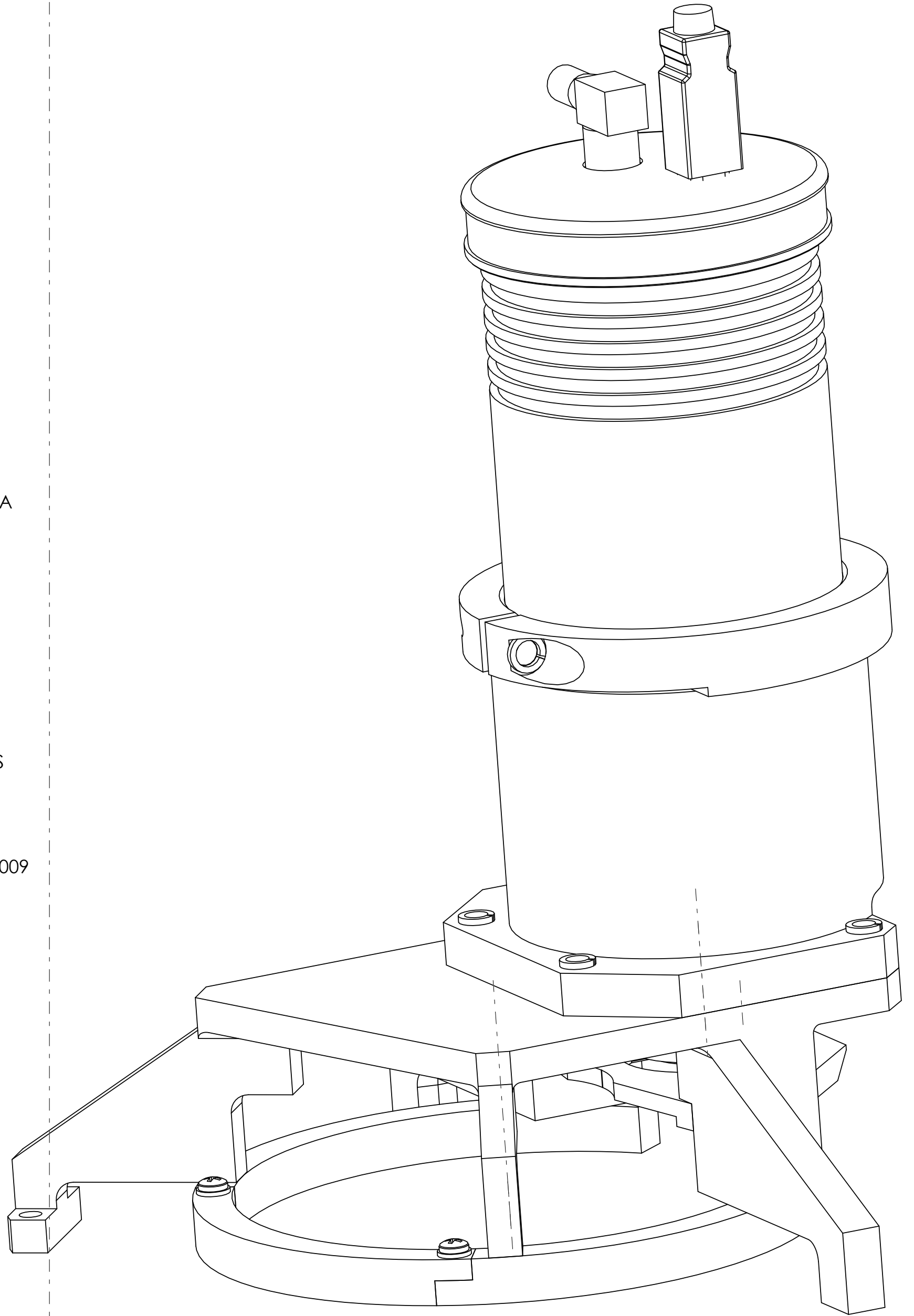
1002402-010

1002402-011

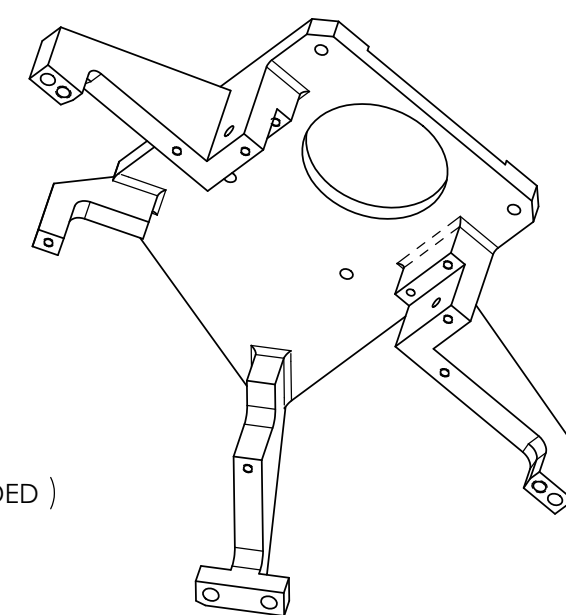
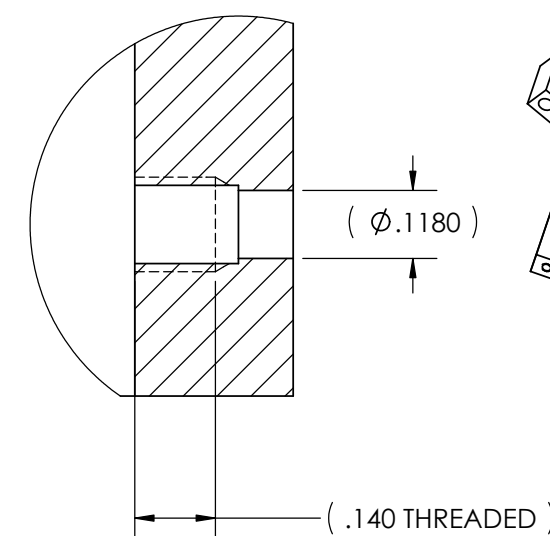
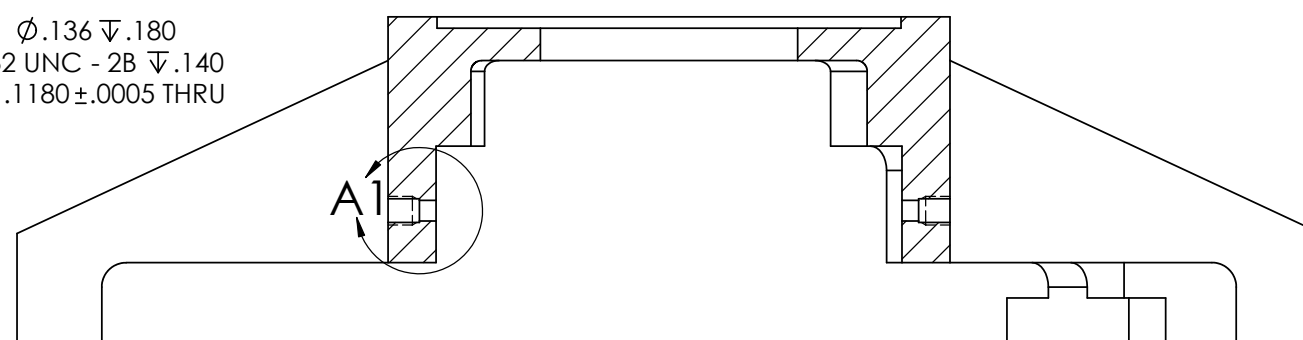
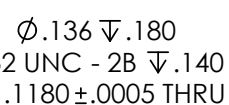
1002402-006

1002402-001

1002402-003

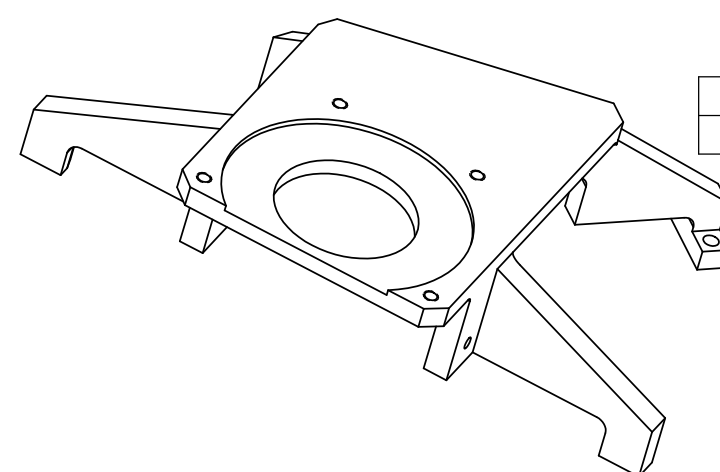
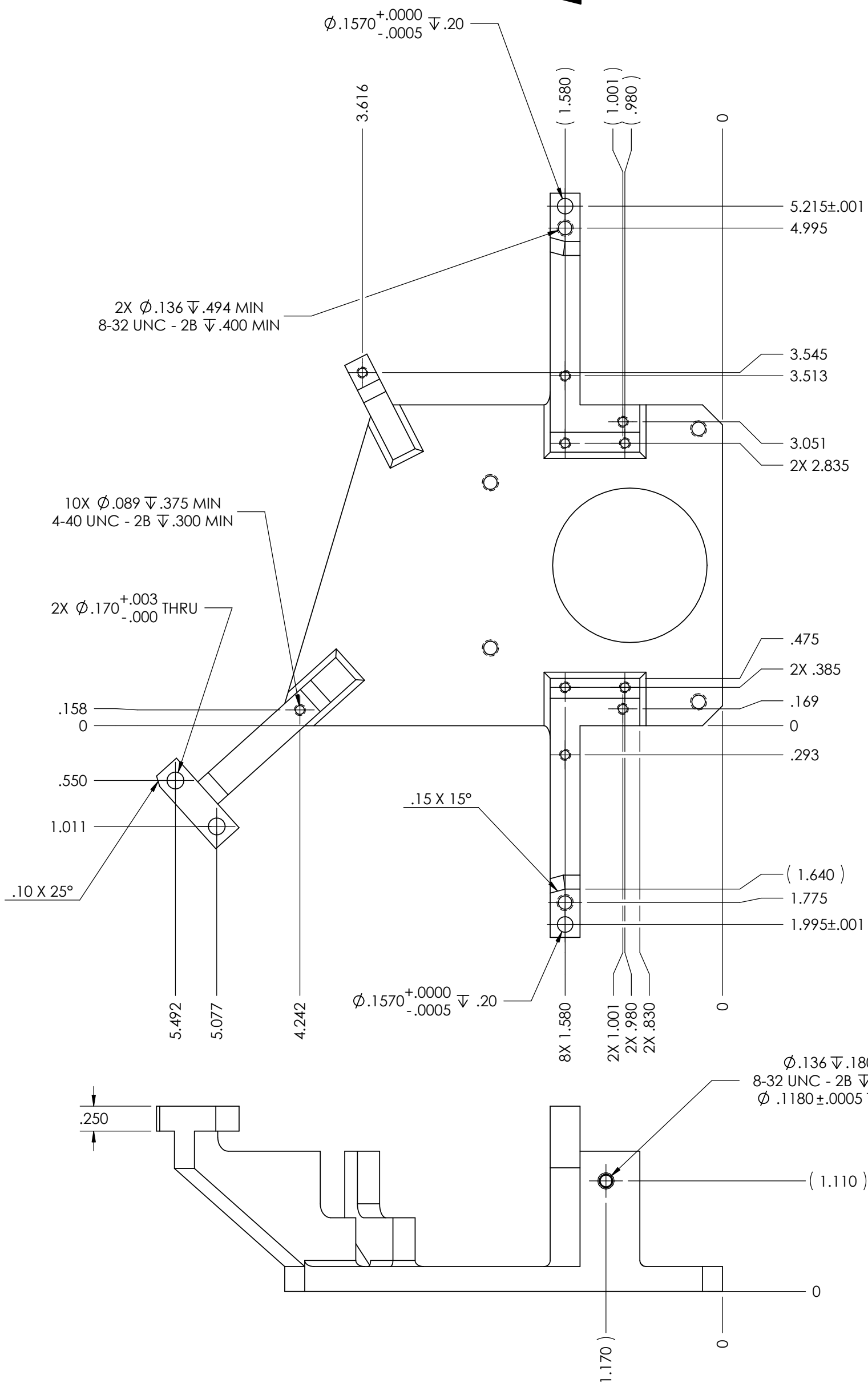
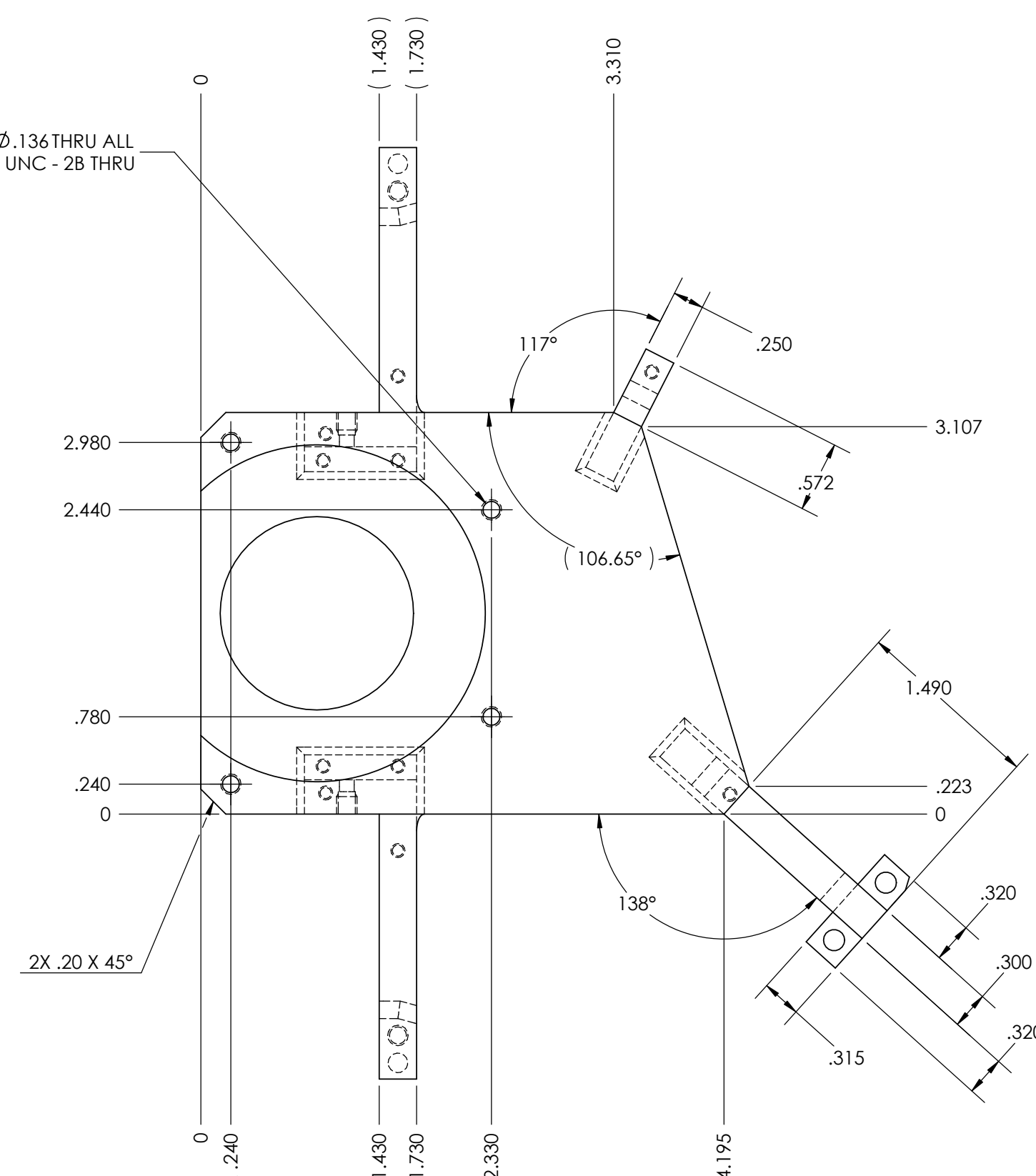
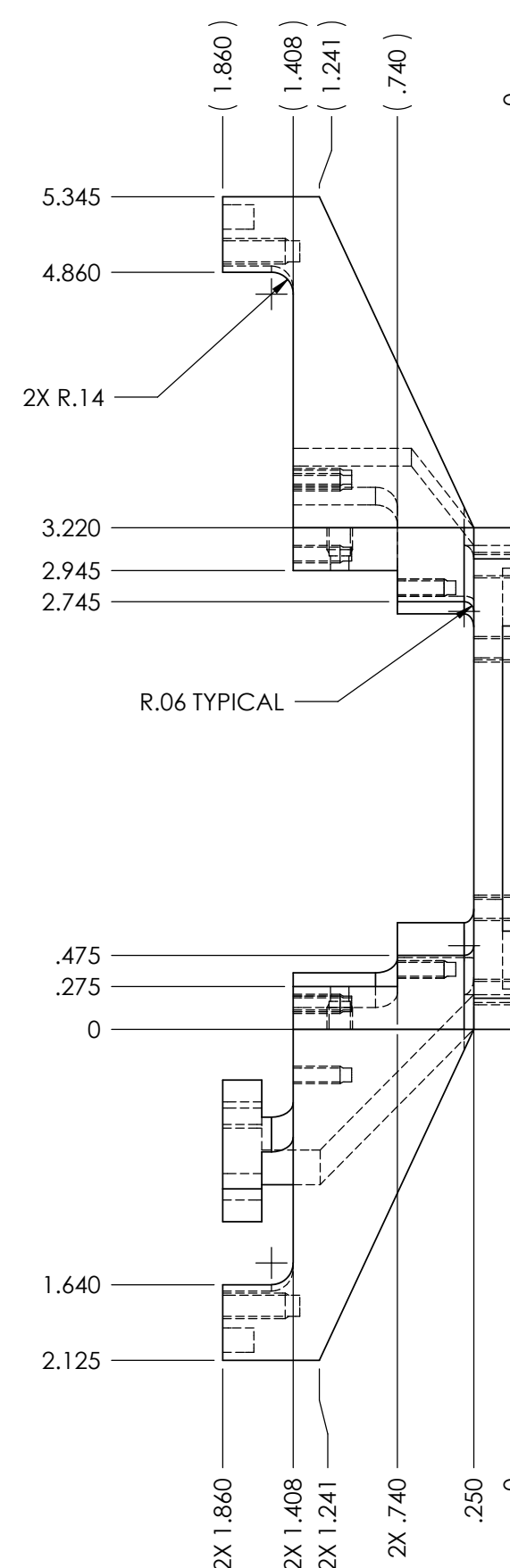


BILL OF MATERIALS					last updated on: Thursday, August 11, 2005 12:09:16 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS	DATE		
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.01	3 PLACE DIM ±.005	ANGLES ±1°	Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039 		
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020						
Engineer		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005						
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE.						
DO NOT SCALE DRAWING		7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED				PROJECT NUMBER 701312.00	CAMERA MOUNT & LIGHT SEAL	
						PROJECT ESP 2G		
						SIZE C	DWG. NO. 1002402	REV. E
CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)						SHEET 1 OF 11		



DETAIL A1

SECTION A-A

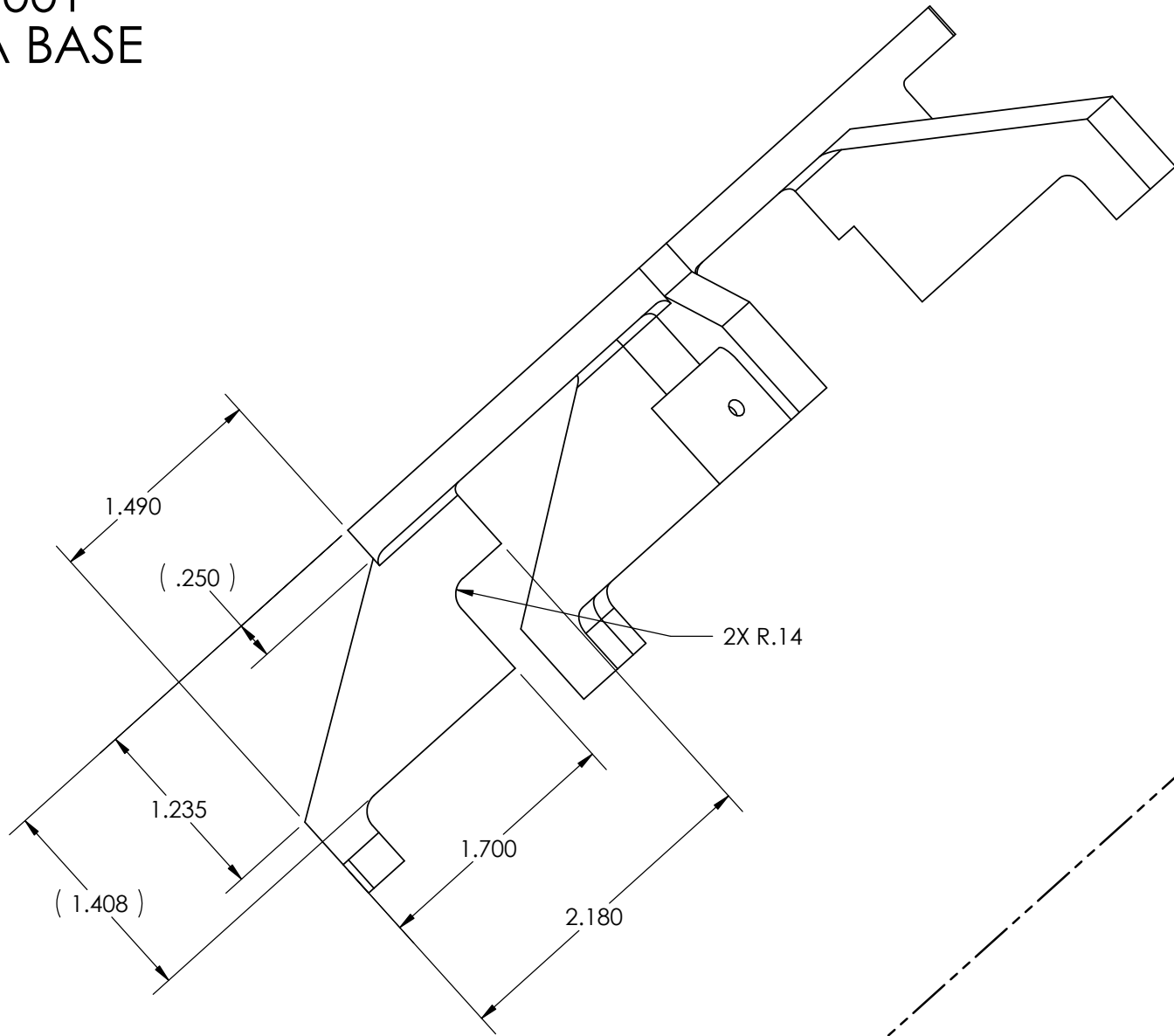


ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	1002402-001	camera mount - base	6061-T6 Aluminum	1

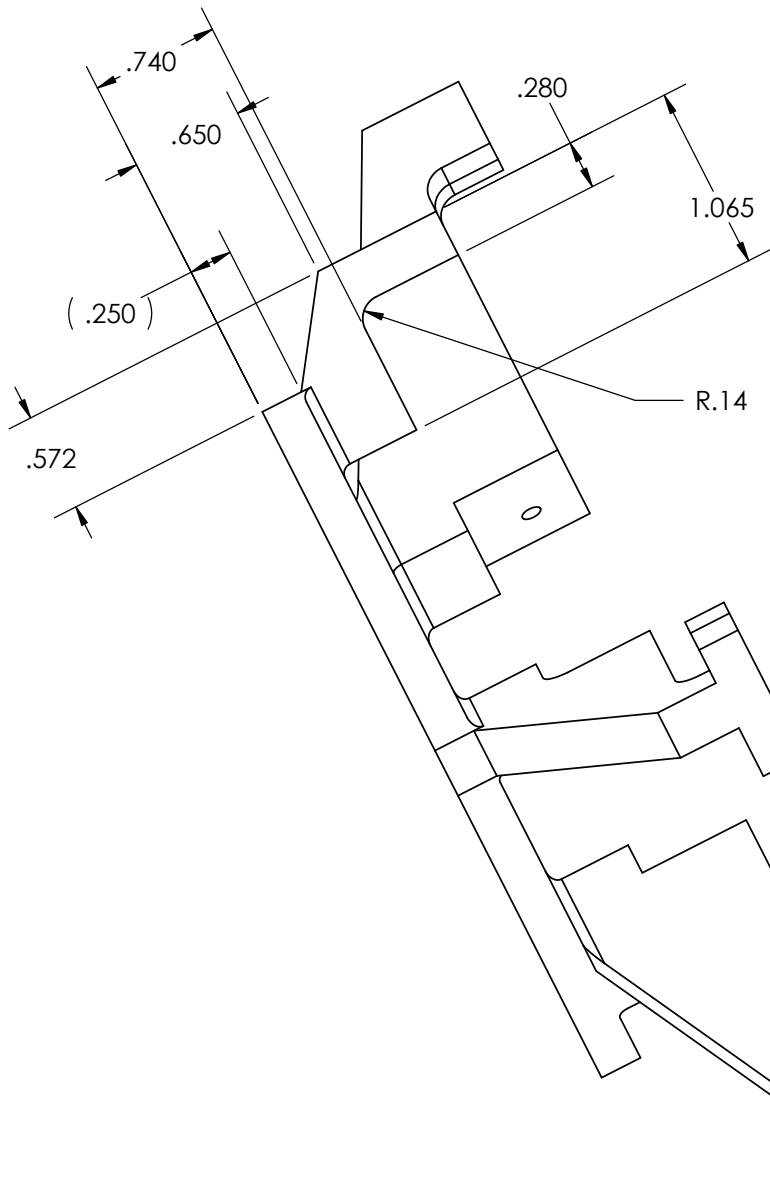
		BILL OF MATERIALS			last updated on: Thursday, August 11, 2005 12:09:16 PM	
		Shop / Q.C.			APPROVALS DATE	
Inspector	UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: 1 PLACE DIM $\pm 1/16$ 2 PLACE DIM $\pm .01$ 3 PLACE DIM $\pm .005$ ANGLES $\pm 1^\circ$ 1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED			ENGINEER Jason Feldman 831-775-1837		Monterey Bay Aquarium Research Institute  7700 Sandholdt Road Moss Landing, CA 95039
Shop Foreman				CHECKED		
Engineer				PROJECT NUMBER 701312.00		CAMERA MOUNT & LIGHT SEAL
NEXT ASSY Description	NEXT ASSY Number	PROJECT ESP 2G			SIZE C	DWG. NO. 1002402
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)			REV. E	SHEET 2 OF 1

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

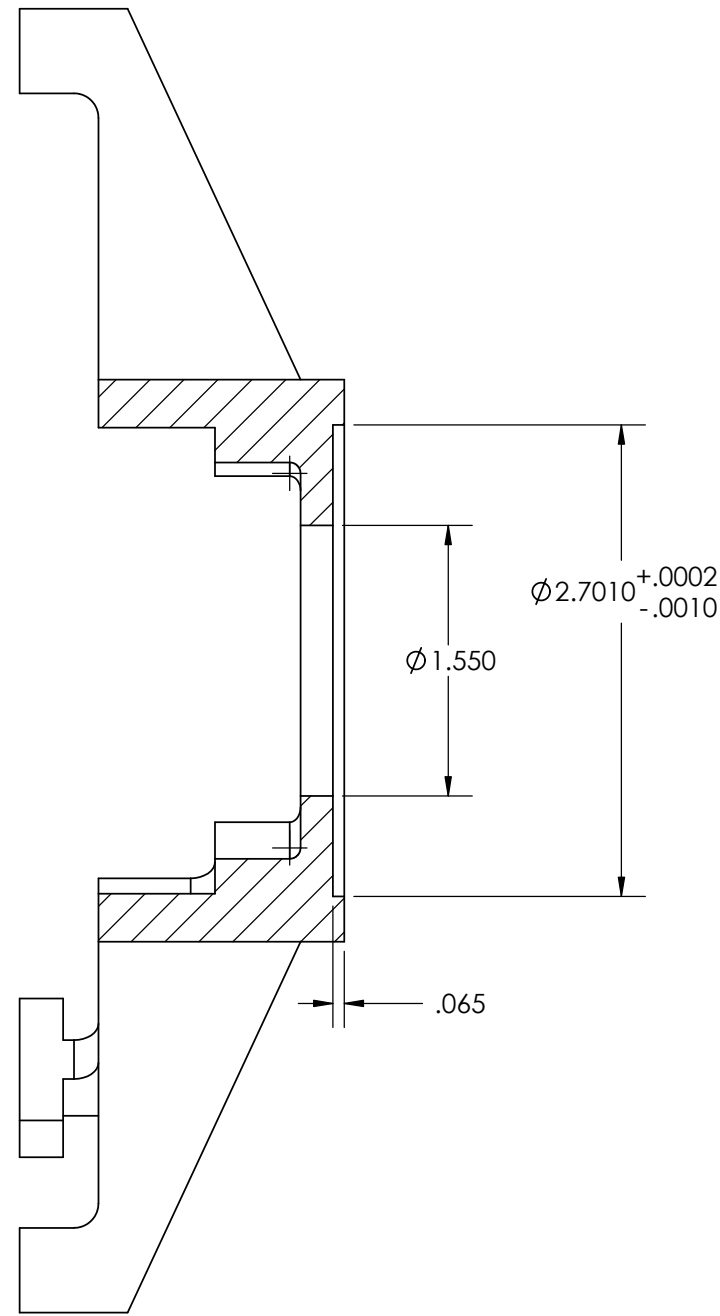
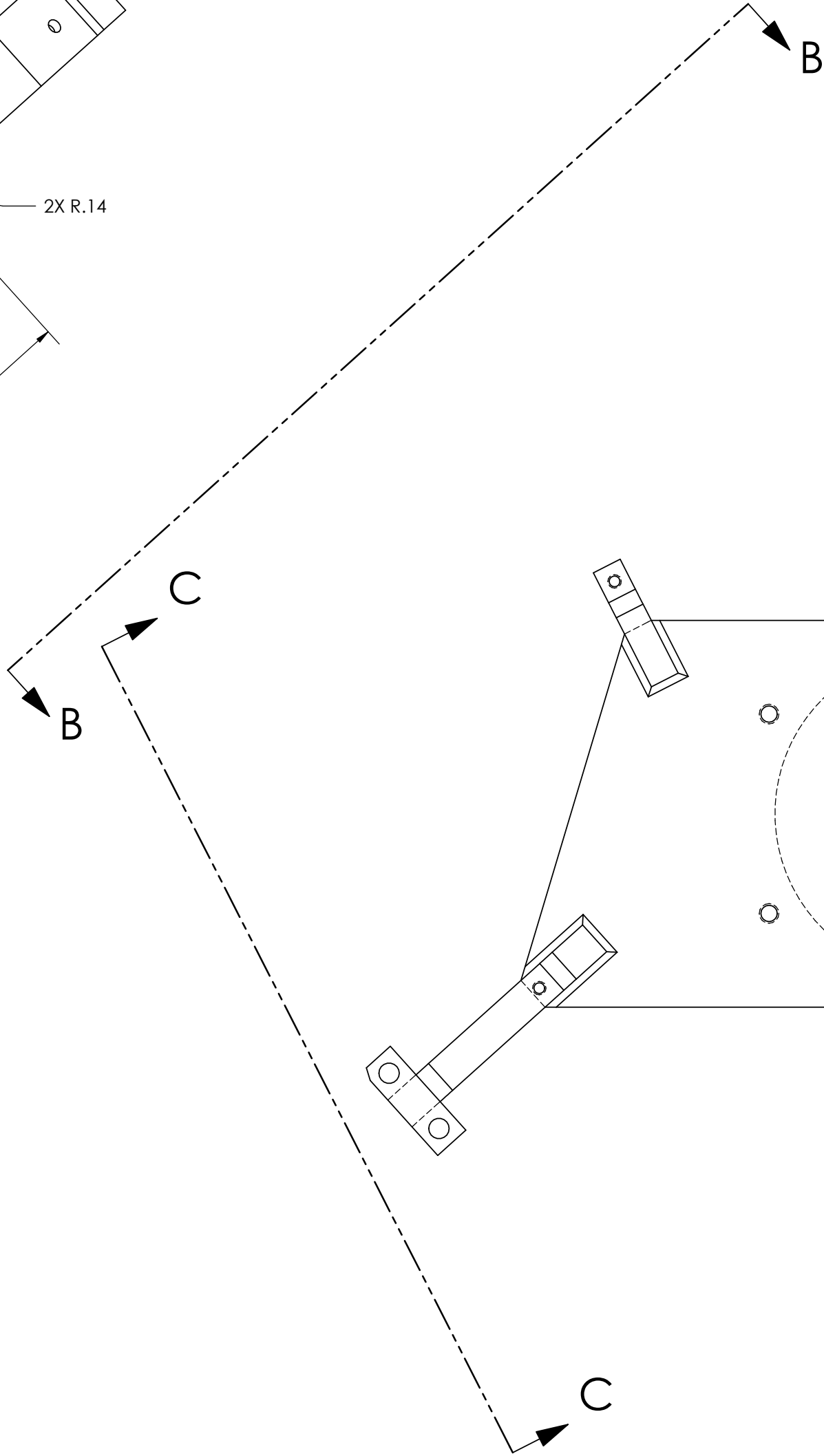
1002402-001
CAMERA BASE



VIEW B-B



VIEW C-C

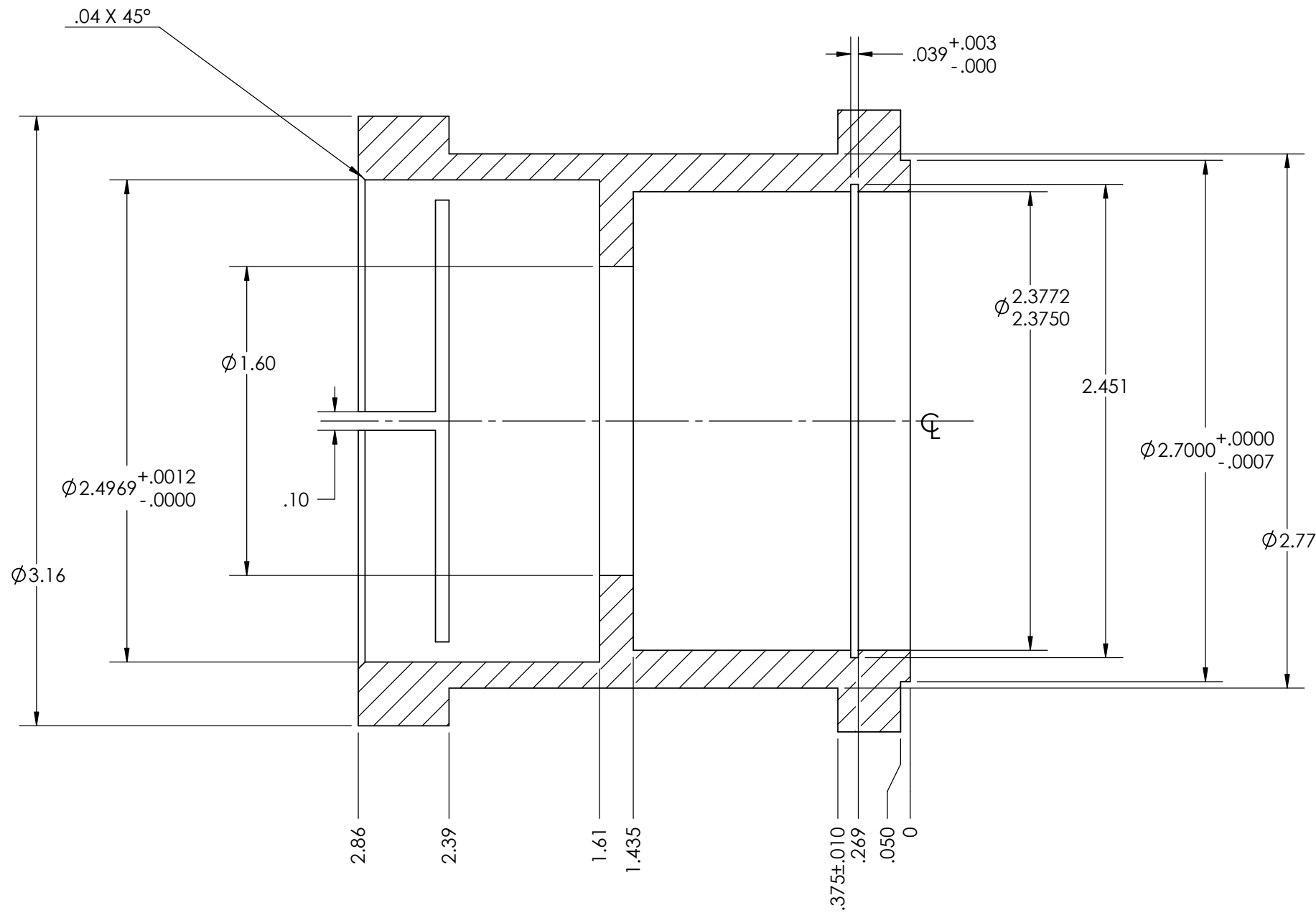
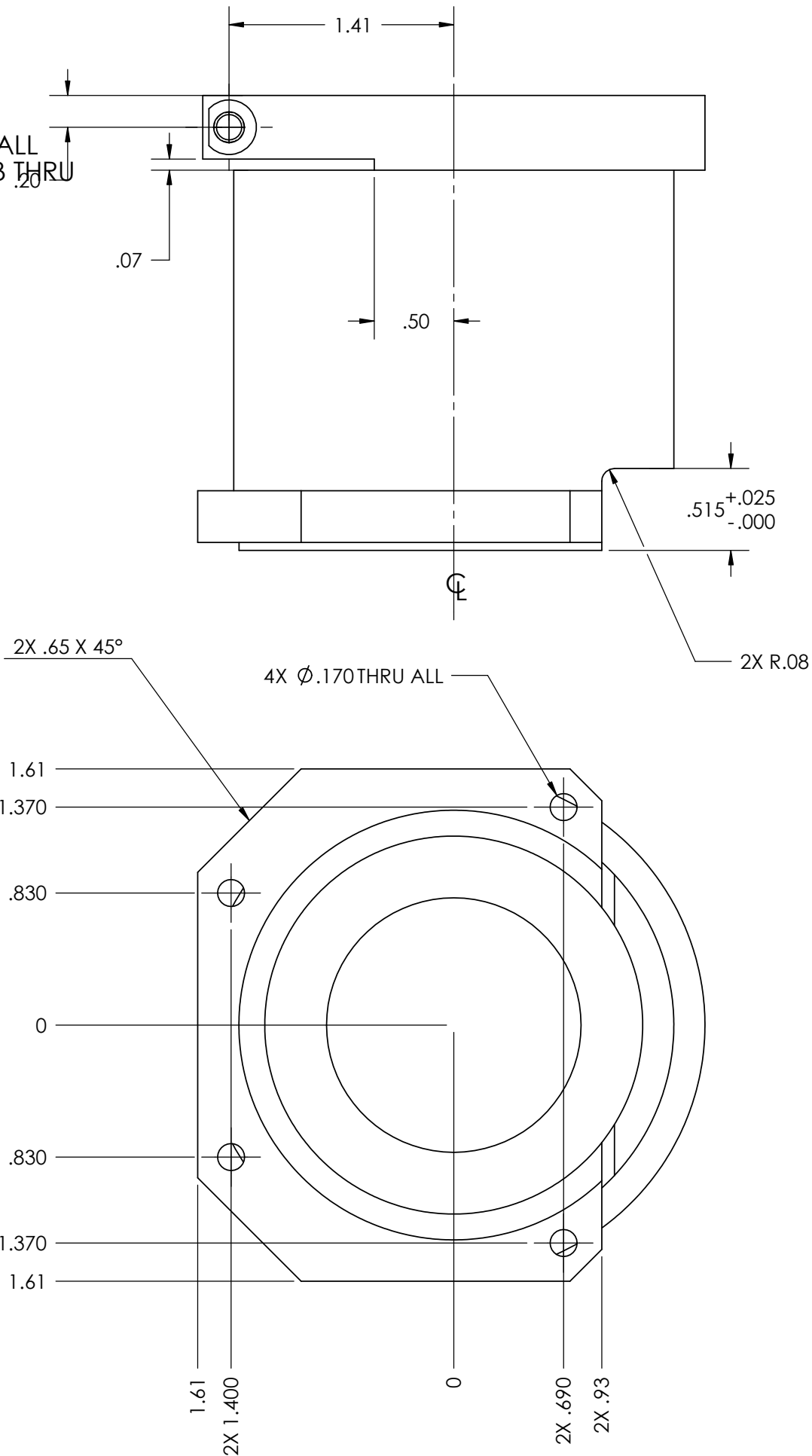
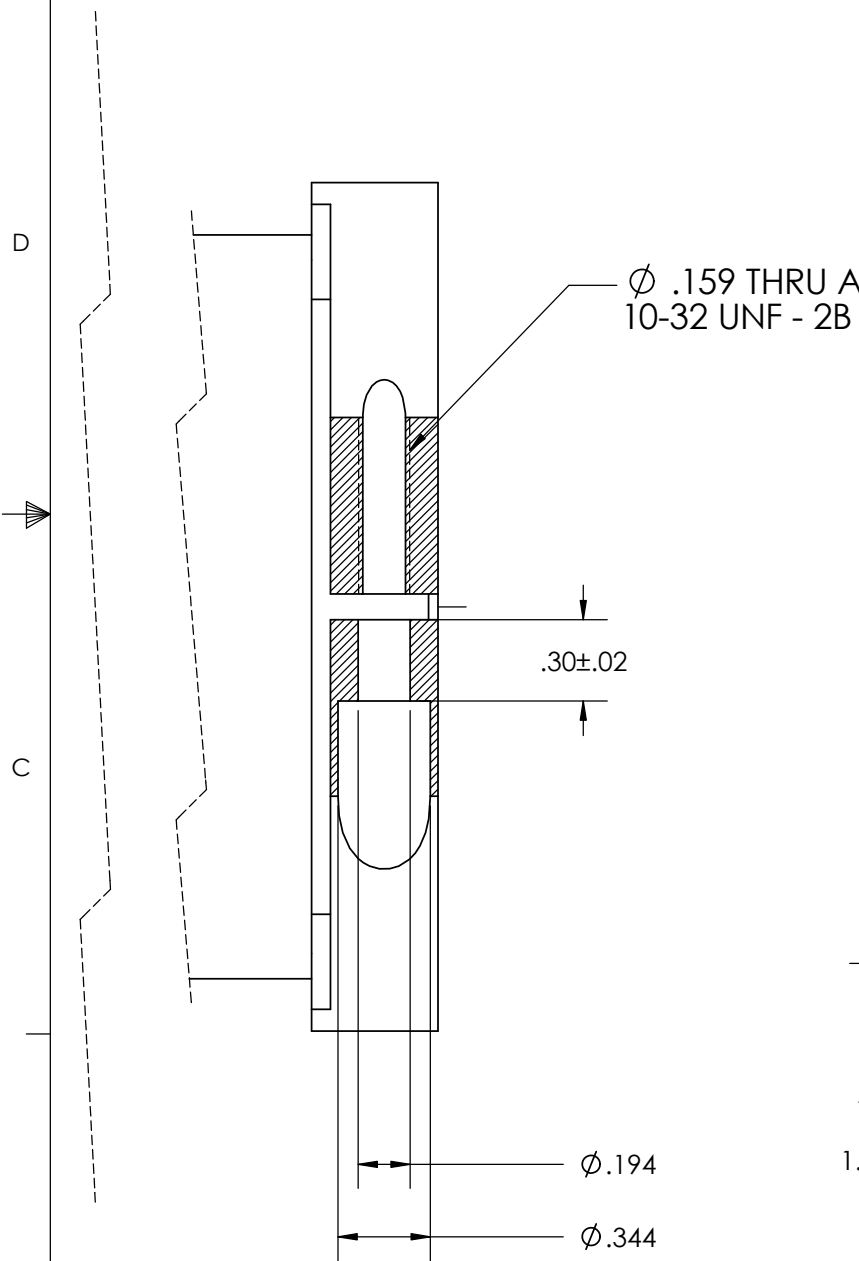
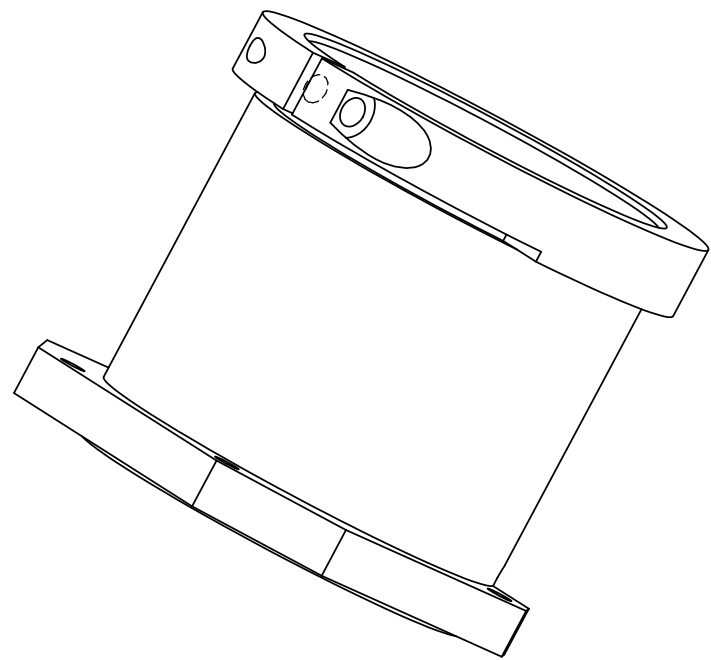
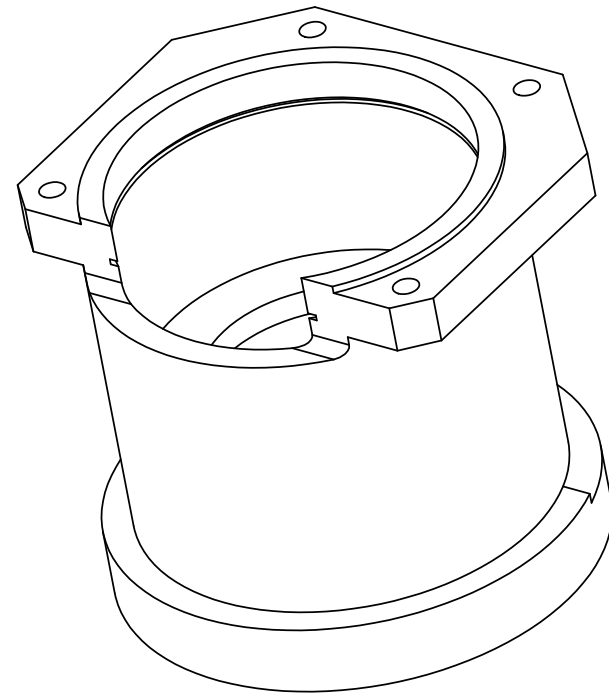
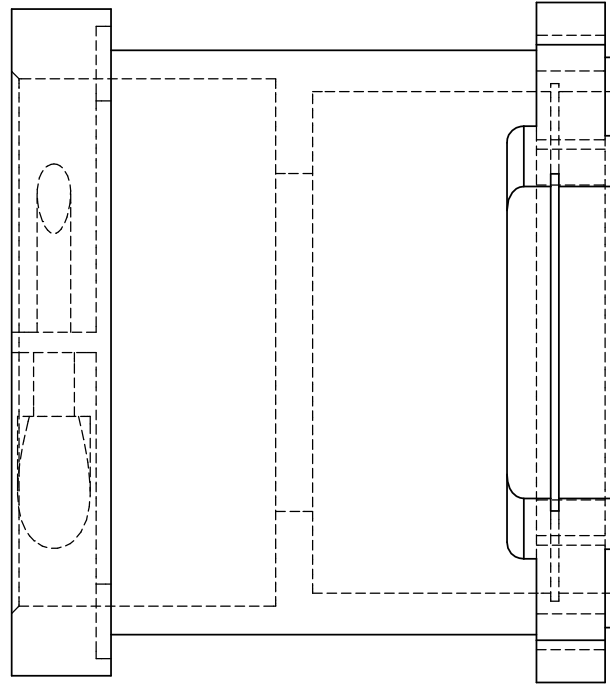
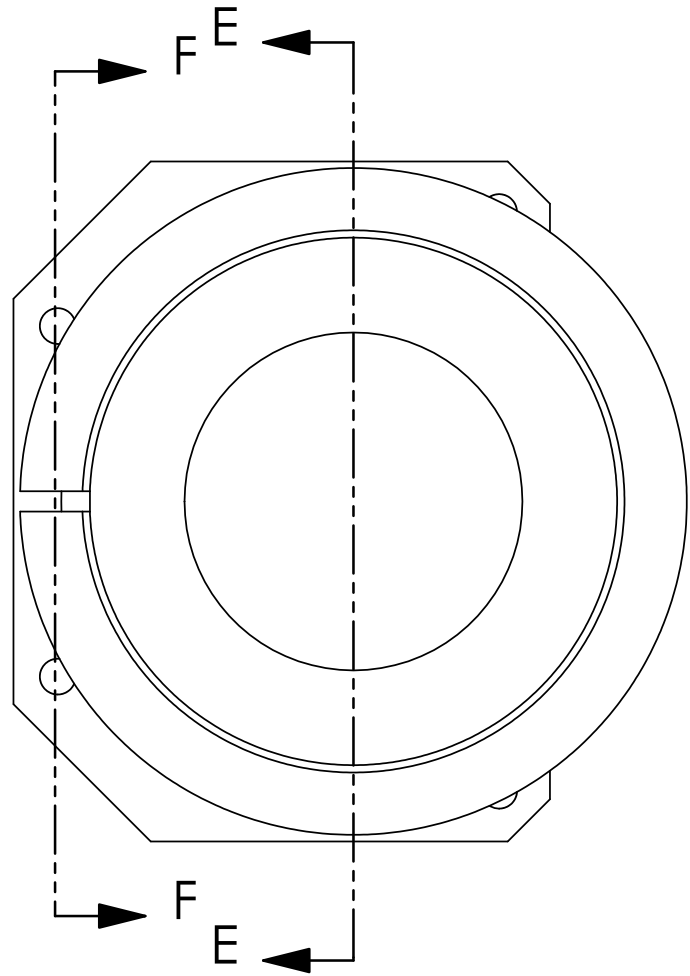
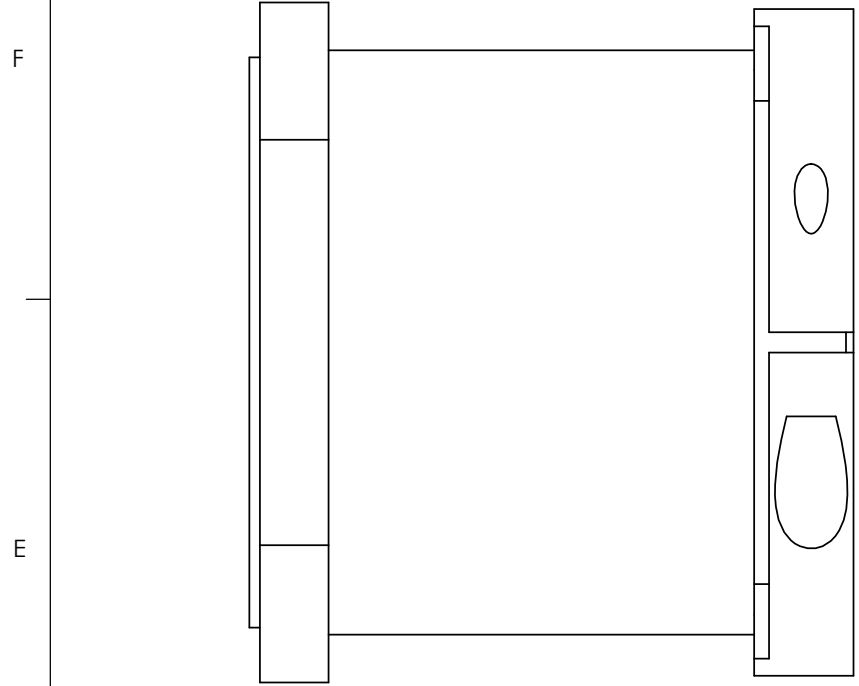


SECTION D-D

BILL OF MATERIALS					last updated on: Thursday, August 11, 2005 12:09:16 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.01	3 PLACE DIM ±.005	ANGLES ±1°	Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039 
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020				
Engineer		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE.				
DO NOT SCALE DRAWING		7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED				PROJECT NUMBER 701312.00
		PROJECT ESP 2G				CHECKED
						PROJECT NUMBER 701312.00
						CAMERA MOUNT & LIGHT SEAL
						SIZE C
						DWG. NO. 1002402
						REV. E
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)				SHEET 3 OF 11

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1002402-002
CAMERA CLAMP



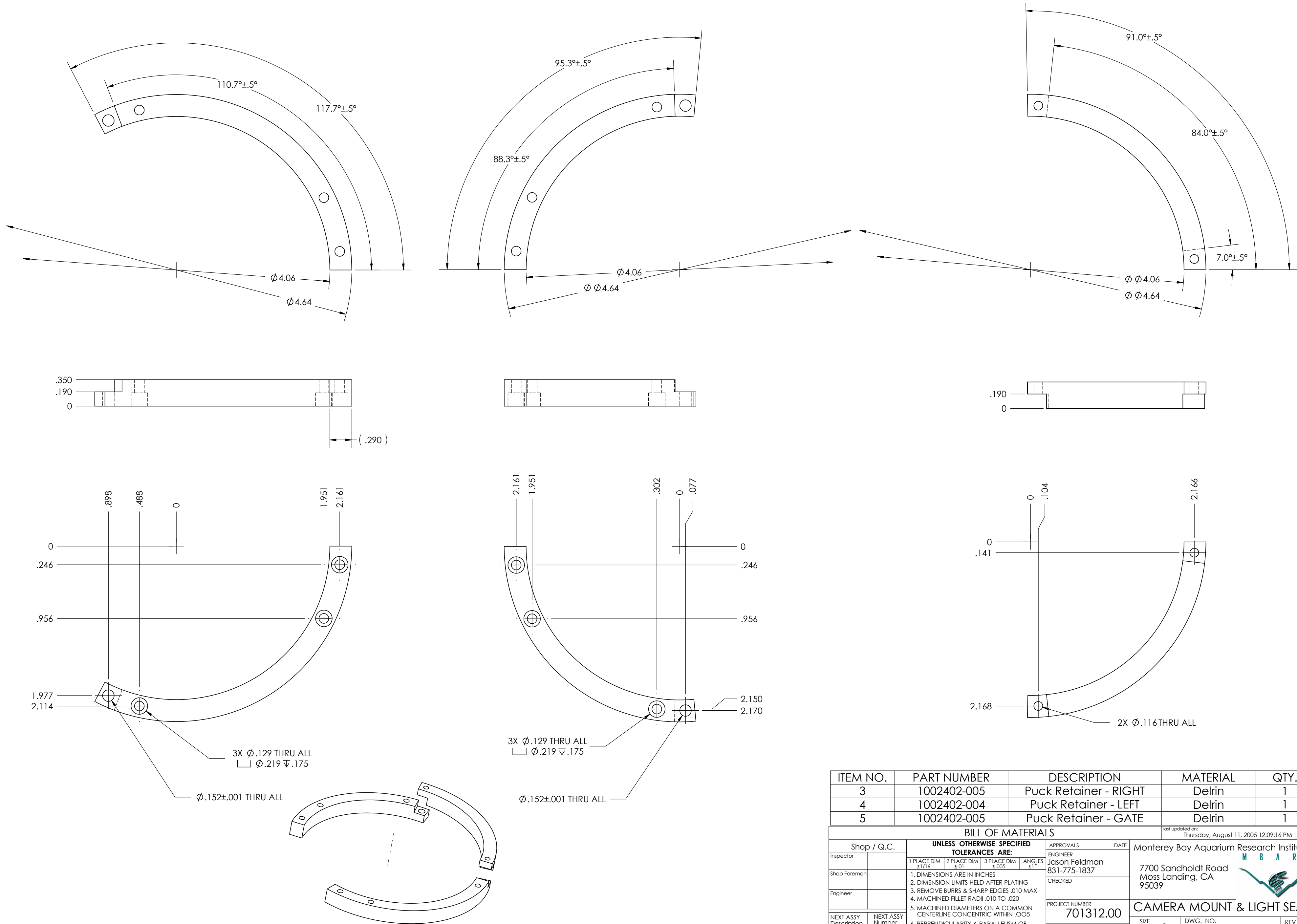
SECTION E-E

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	1002402-002	camera mount - clamp	7075-T6 Aluminum	1
BILL OF MATERIALS				
Shop / Q.C.		last updated on: Thursday, August 11, 2005 12:09:16 PM		
Inspector		APPROVALS DATE		
Shop Foreman		ENGINEER Jason Feldman 831-775-1837		
Engineer		CHECKED		
NEXT ASSY Description	NEXT ASSY Number	PROJECT NUMBER 701312.00		
		PROJECT ESP 2G		
DO NOT SCALE DRAWING		CAMERA MOUNT & LIGHT SEAL		
		SIZE C	DWG. NO. 1002402	REV. E
CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209) SHEET 4 OF 11				

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1002402-003, -004, -005
PUCK RETAINER

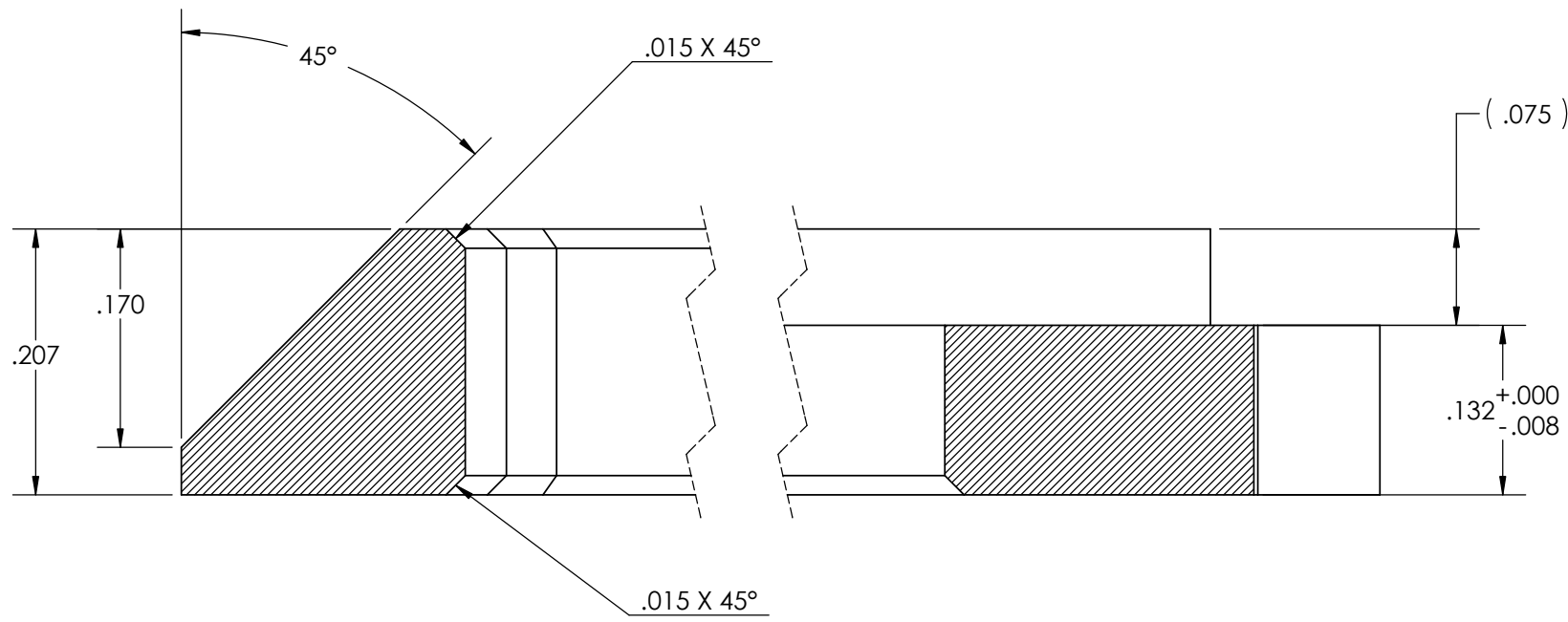
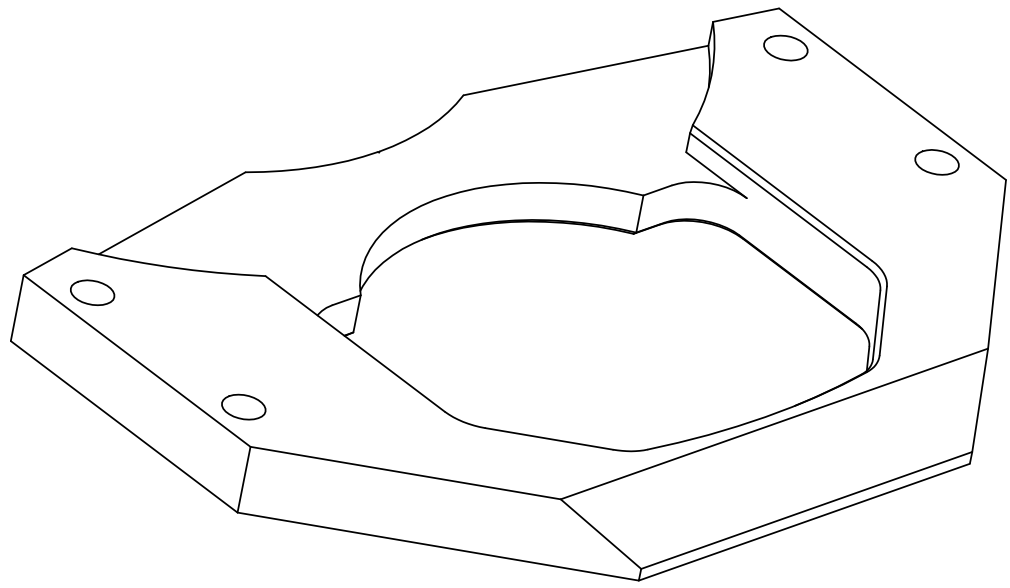
DIMENSIONS AND TOLERANCES ON PARTS #1002402-003, -004, &-005 TO BE ON A BEST EFFORT BASIS. OK TO ADD HOLES FOR JIG & FIXTURE AS NEEDED.



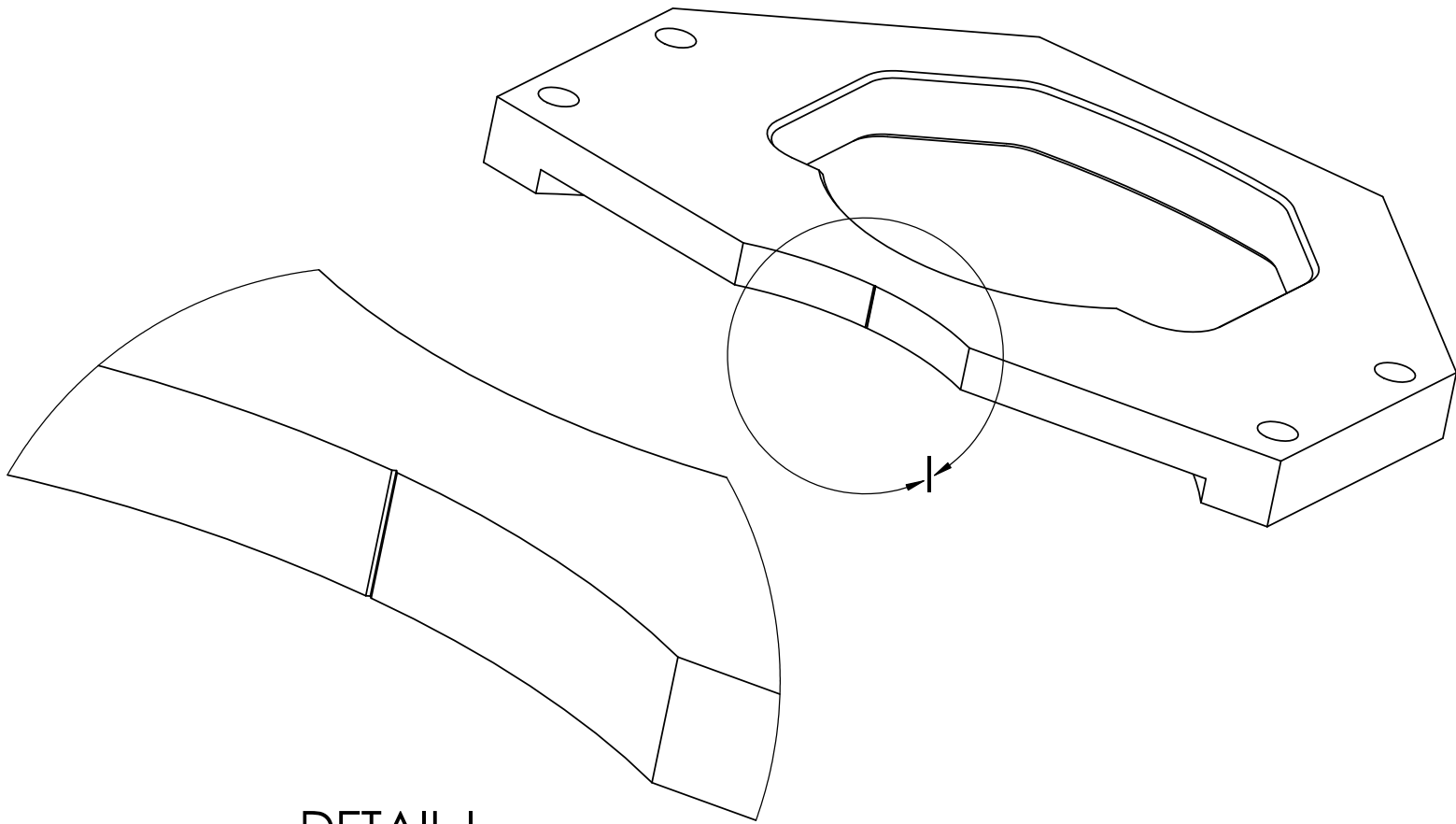
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
3	1002402-005	Puck Retainer - RIGHT	Delrin	1
4	1002402-004	Puck Retainer - LEFT	Delrin	1
5	1002402-005	Puck Retainer - GATE	Delrin	1

BILL OF MATERIALS				last updated on: Thursday, August 11, 2005 12:09:16 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector		1 PLACE DIM $\pm 1/16$	2 PLACE DIM $\pm .01$	3 PLACE DIM $\pm .005$	ANGLES $\pm 1^{\circ}$
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED			
Engineer		ENGINEER Jason Feldman 831-775-1837			
NEXT ASSY Description	NEXT ASSY Number	PROJECT NUMBER 701312.00			
DO NOT SCALE DRAWING		PROJECT ESP 2G		CAMERA MOUNT & LIGHT SEAL	
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				SHEET 5 OF 11	

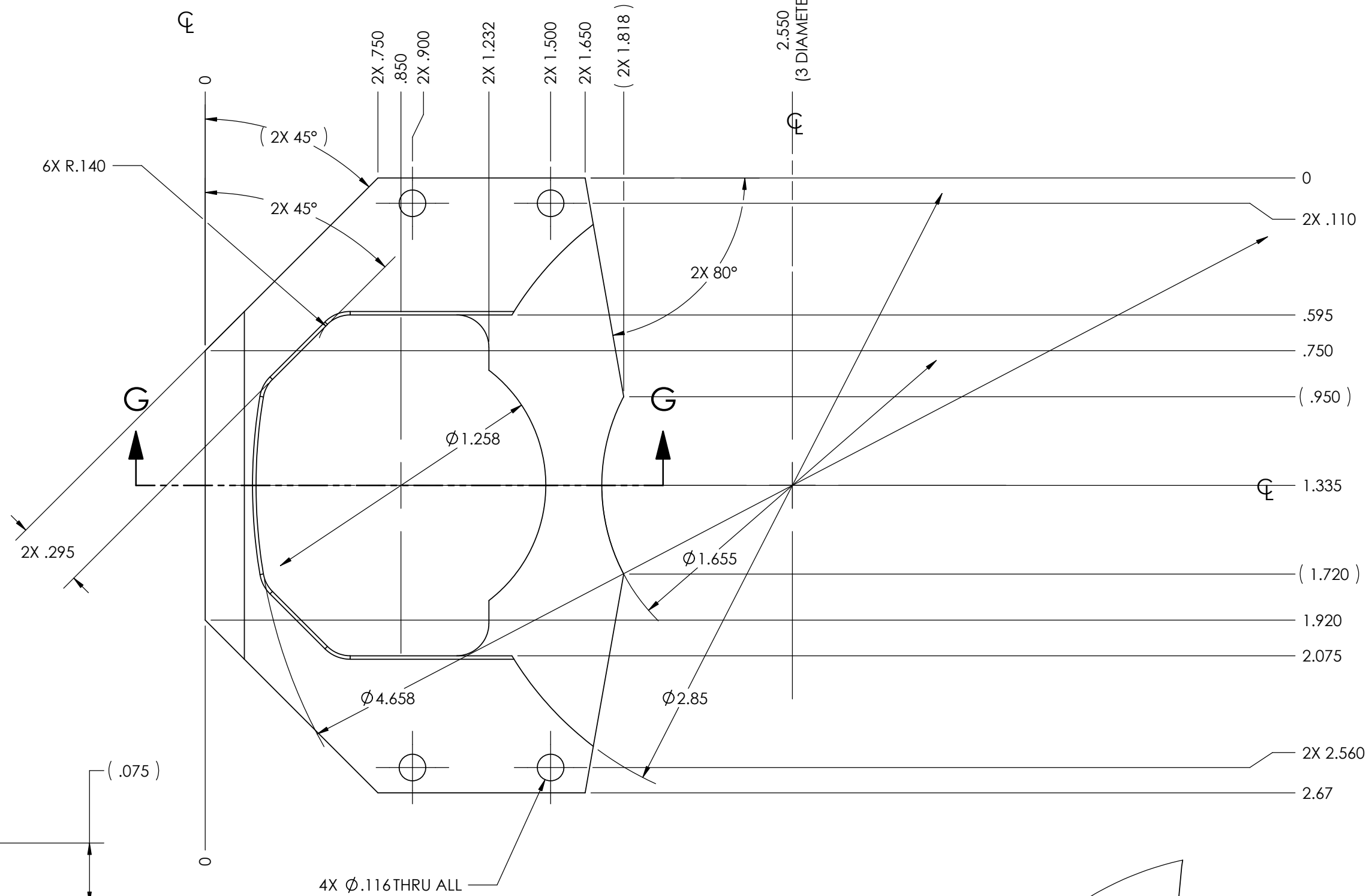
1002402-006
CAMERA - PUCK GUIDE



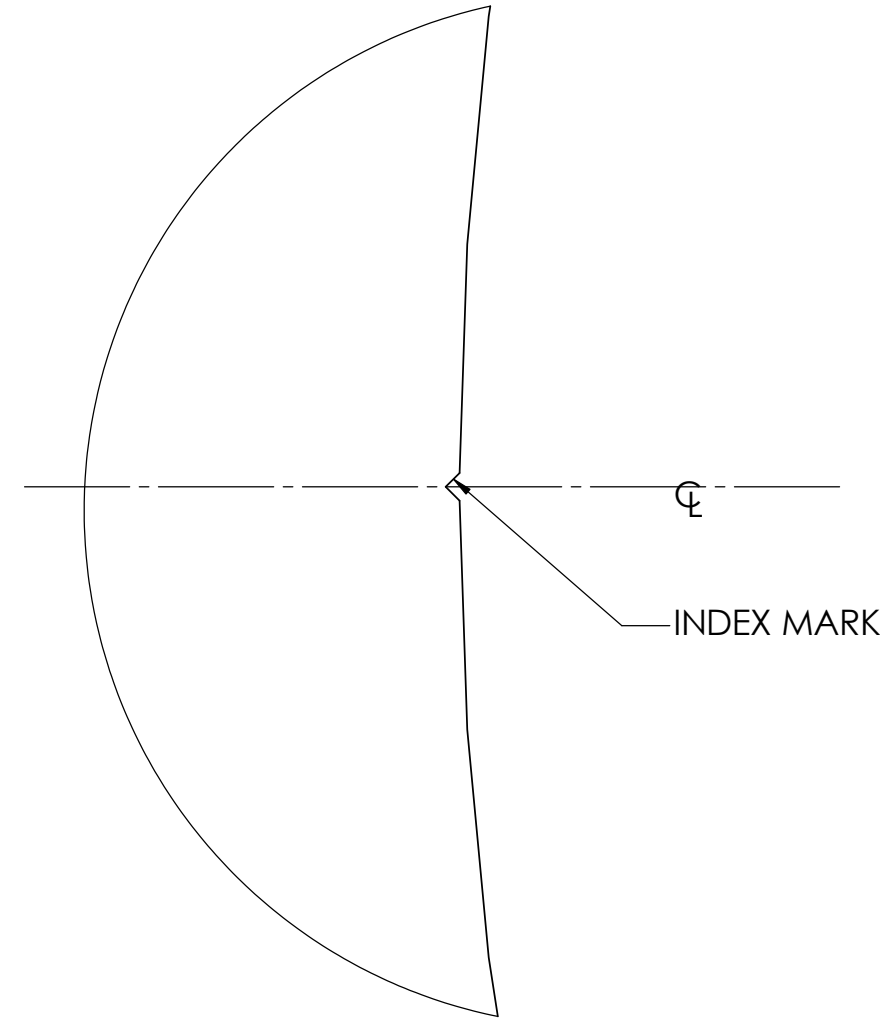
SECTION G-G



DETAIL I



4X ϕ .116THRU ALL



DETAIL H

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
6	1002402-006	Puck Guide	Delrin	1

BILL OF MATERIALS					last updated on: Thursday, August 11, 2005 12:09:16 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS DATE			
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.01	3 PLACE DIM ±.005	ANGLES ±1°	ENGINEER Jason Feldman 831-775-1837 CHECKED PROJECT NUMBER 701312.00 PROJECT ESP 2G CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED						
Engineer								
NEXT ASSY Description	NEXT ASSY Number					SIZE C	DWG. NO. 1002402	REV. E
DO NOT SCALE DRAWING						CAMERA MOUNT & LIGHT SEAL		
						SHEET 6 OF 11		



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1002402-008 LIGHT SEAL FLANGE

F

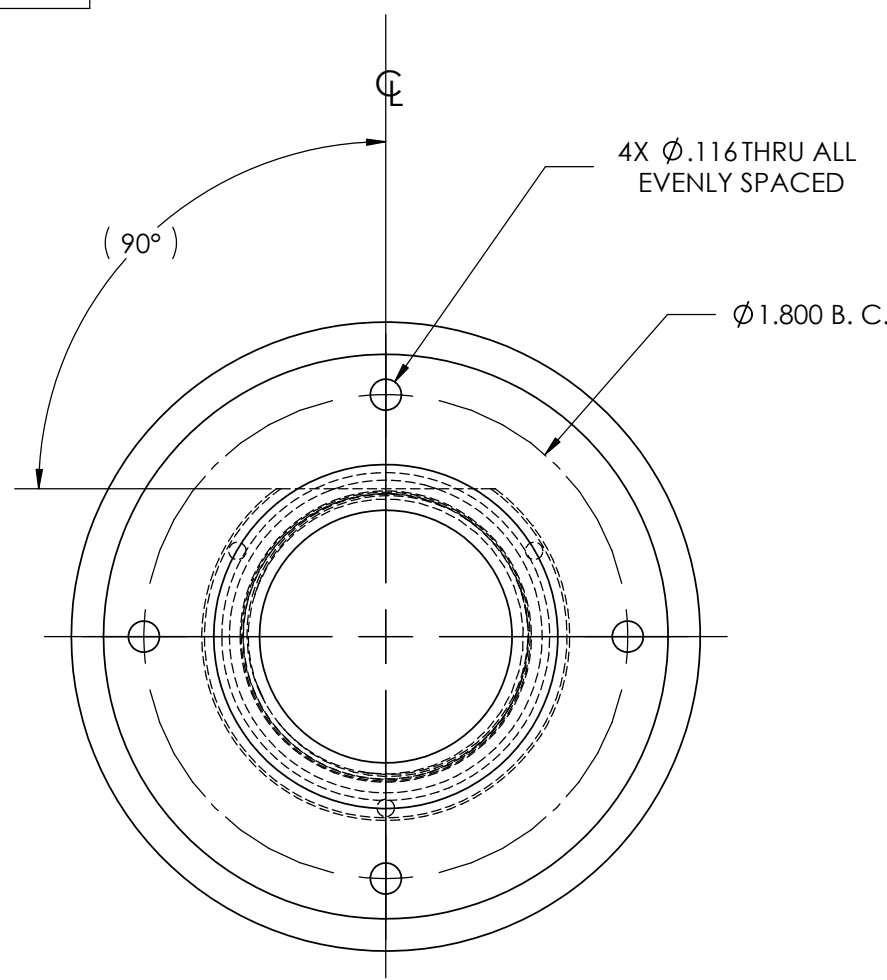
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D

C

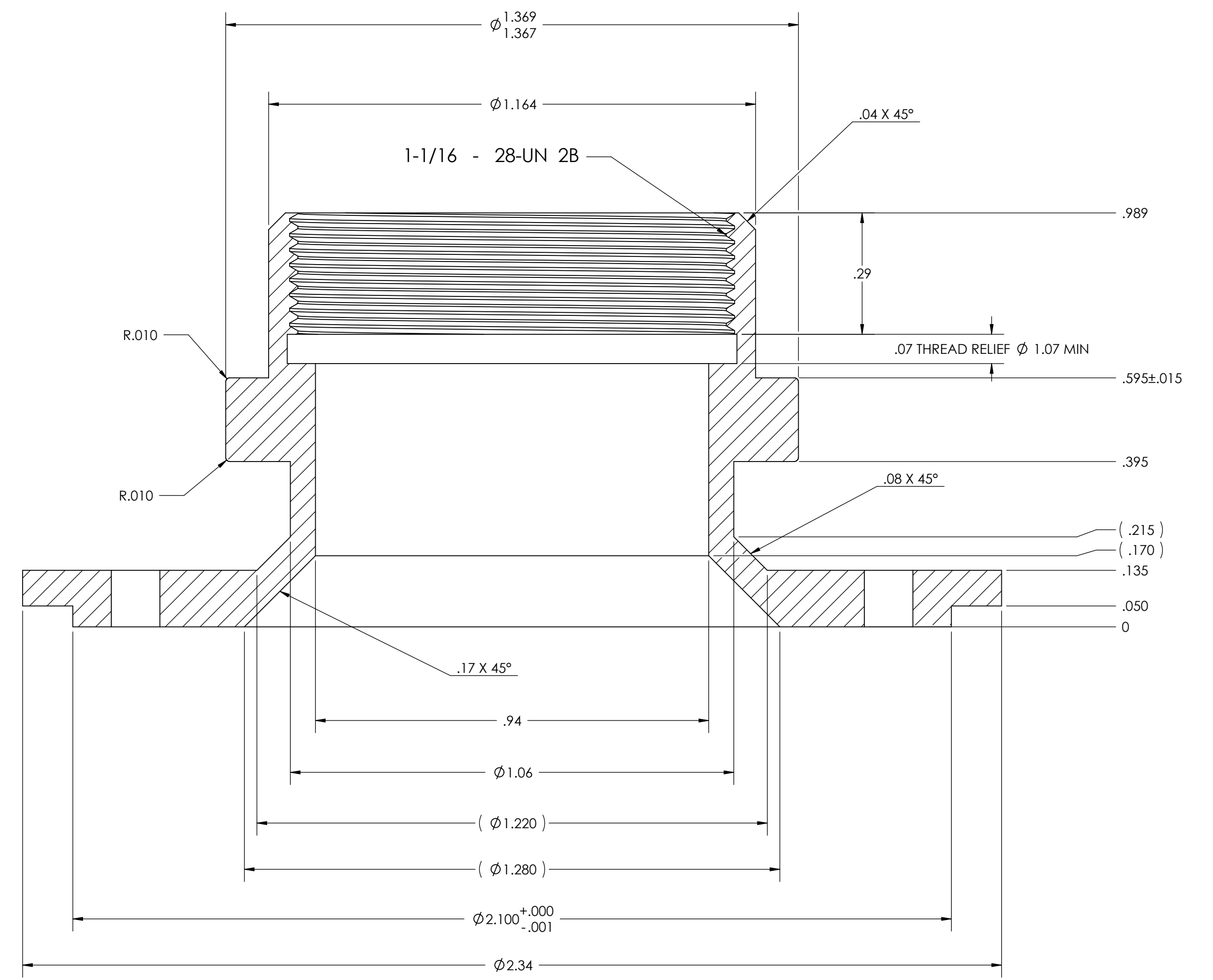
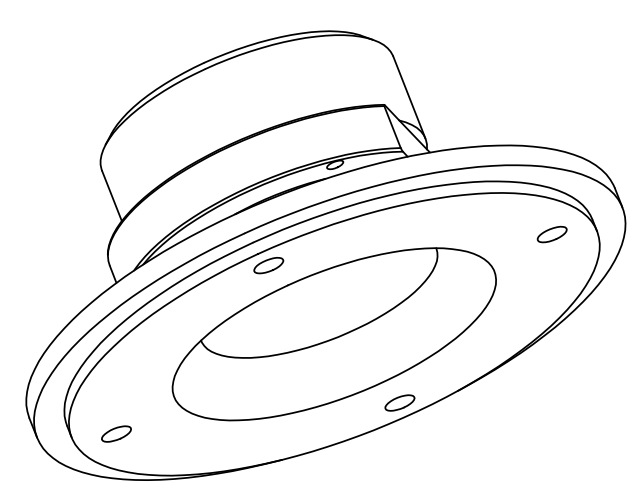
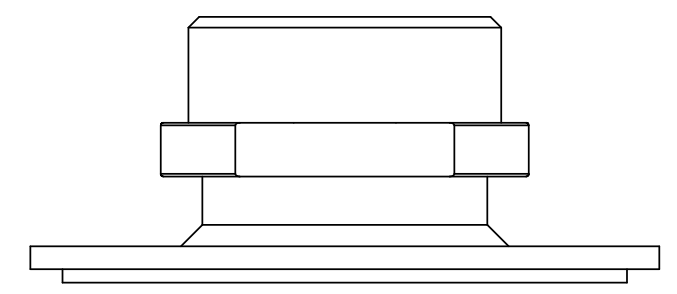
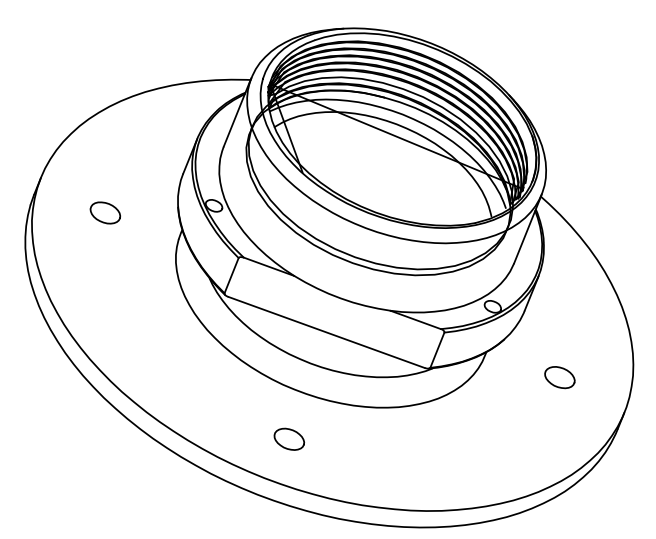
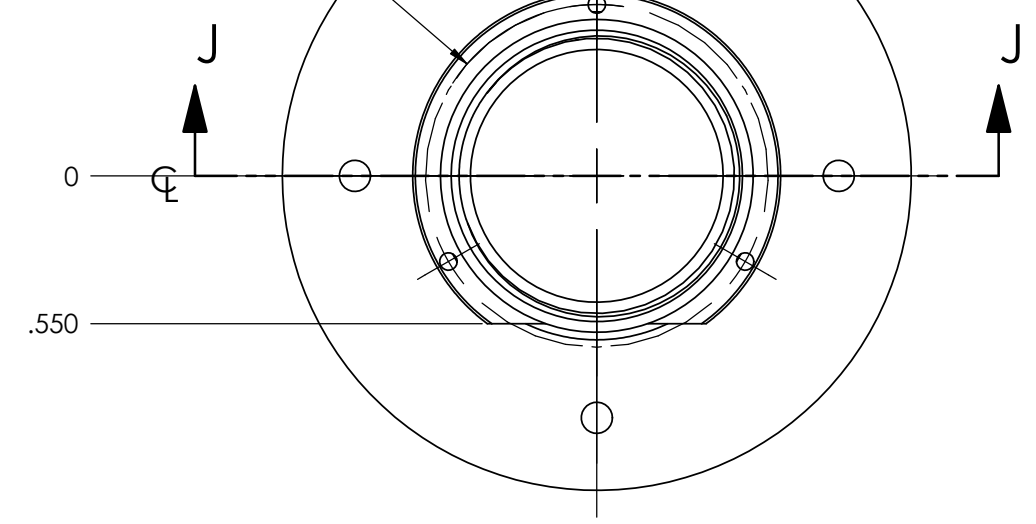
B

A



3X Ø.065±.001 ∇ THRU FLANGE (.20 MIN) EVENLY SPACED

Ø1.275 B.C.

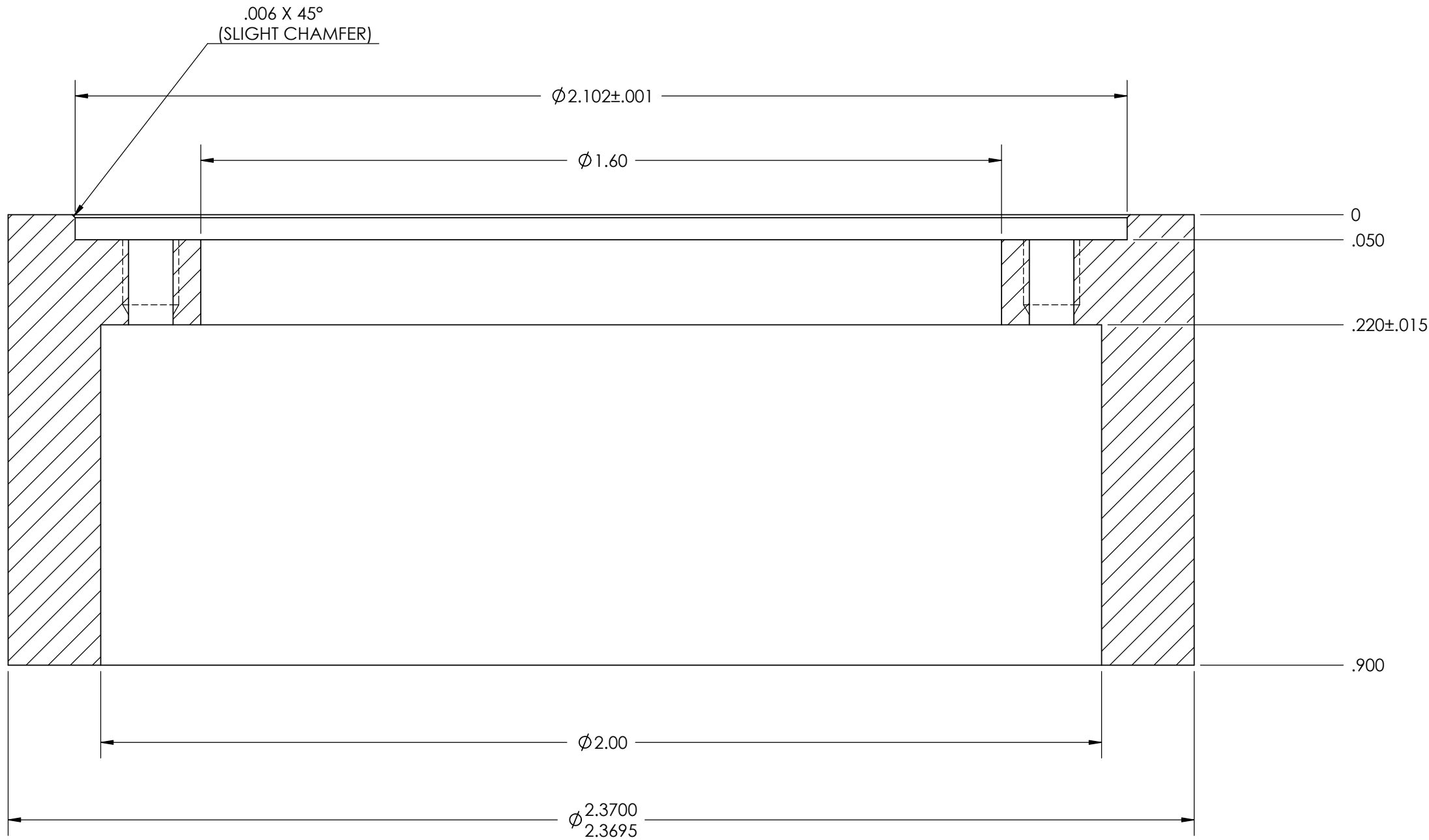
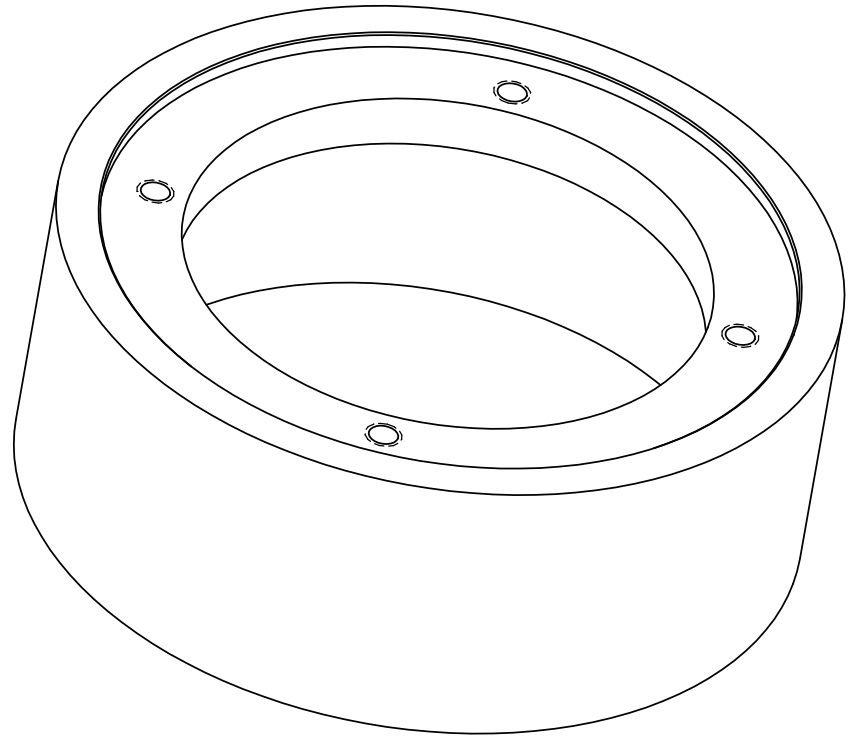
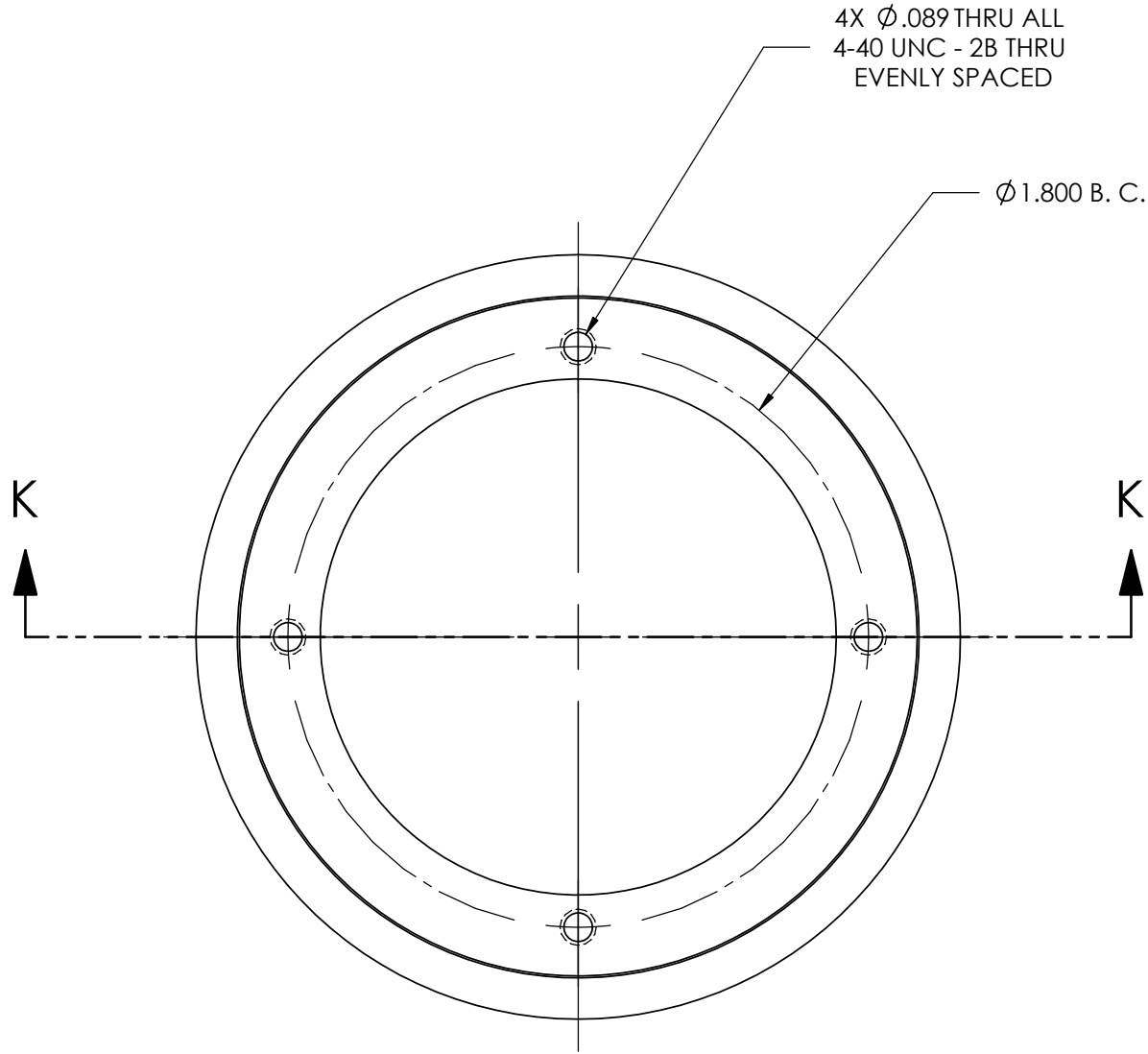


SECTION J-J

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
8	1002402-008	Light Seal Flange	6061-T6 Aluminum	1
BILL OF MATERIALS				
Shop / Q.C.		APPROVALS DATE		
Inspector		ENGINEER Jason Feldman 831-775-1837		
Shop Foreman		CHECKED		
Engineer		PROJECT NUMBER 701312.00		
NEXT ASSY Description	NEXT ASSY Number	PROJECT ESP 2G		
DO NOT SCALE DRAWING		CAMERA MOUNT & LIGHT SEAL		
		SIZE C	DWG. NO. 1002402	REV. E
CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209) SHEET 7 OF 11				

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1002402-009
LIGHT SEAL SHAFT

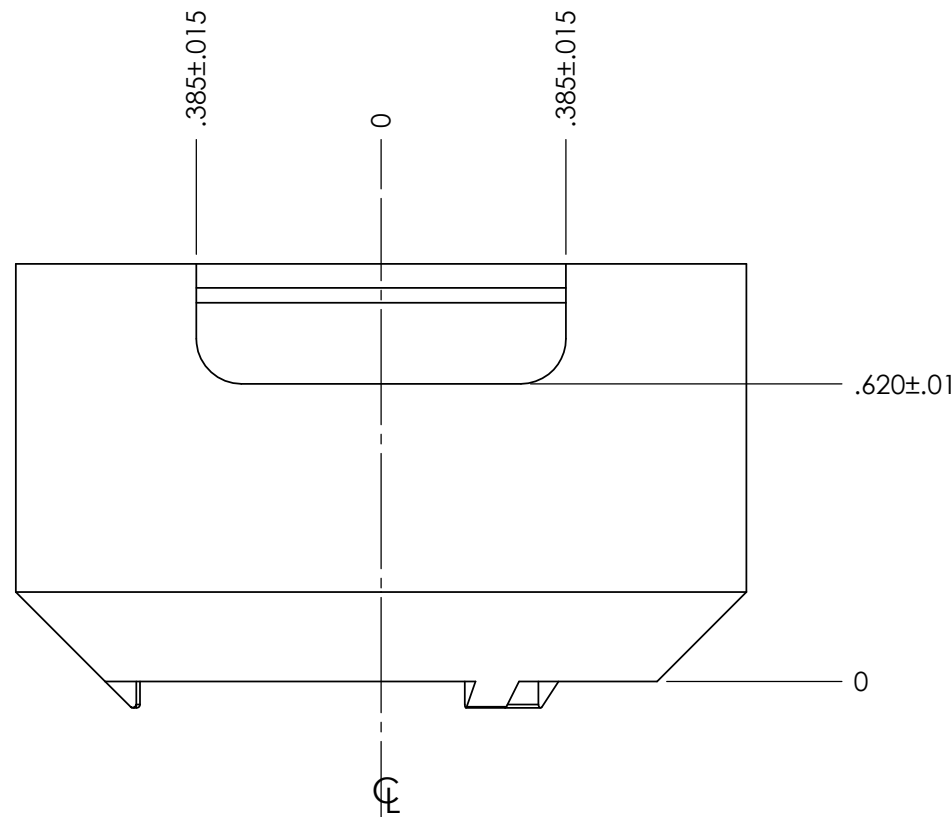
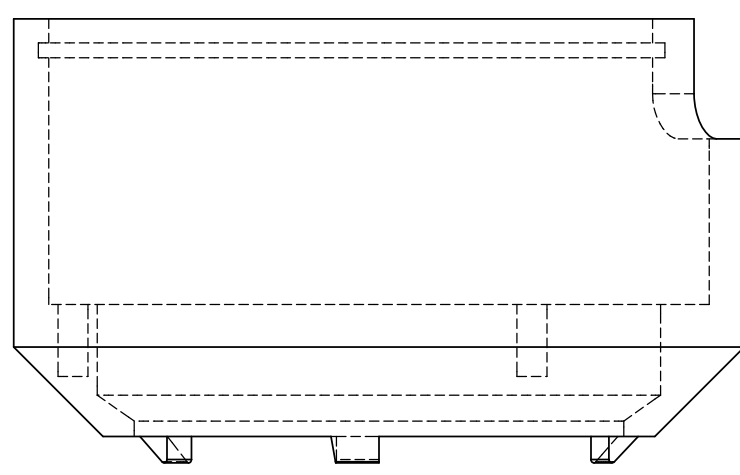
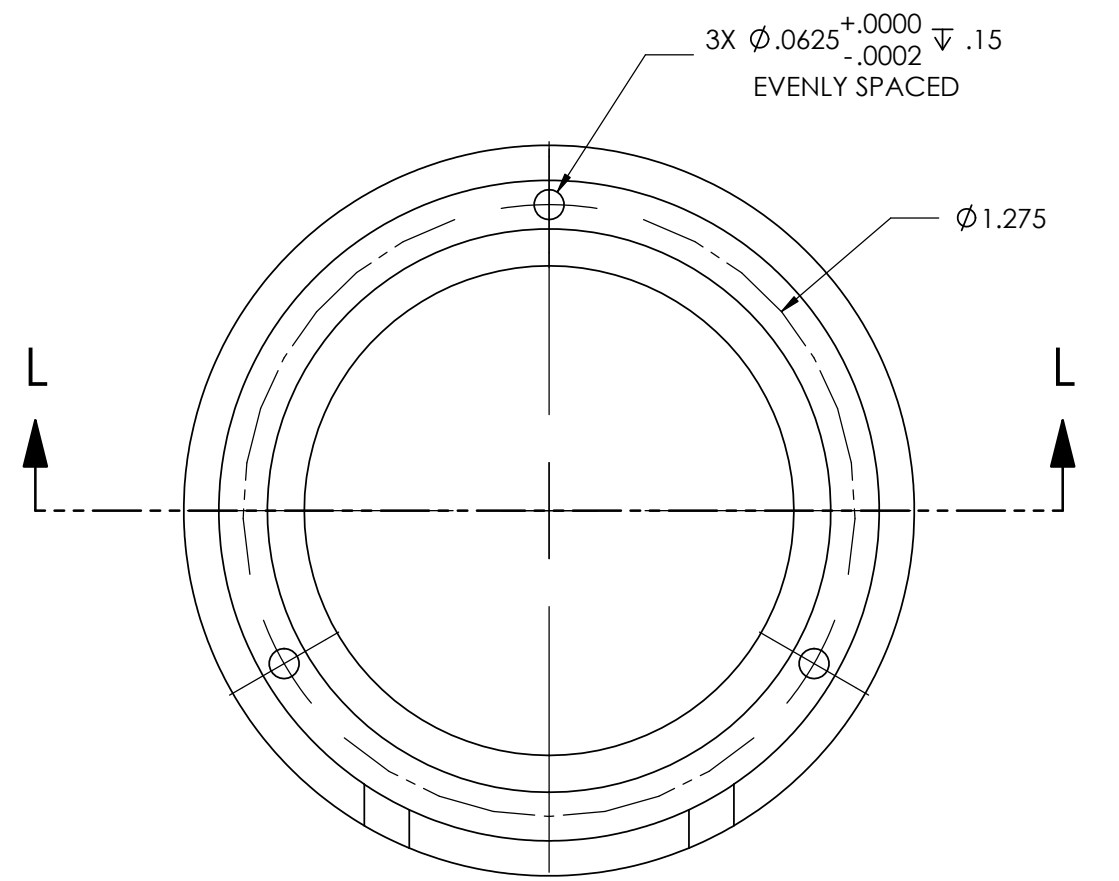


SECTION K-K

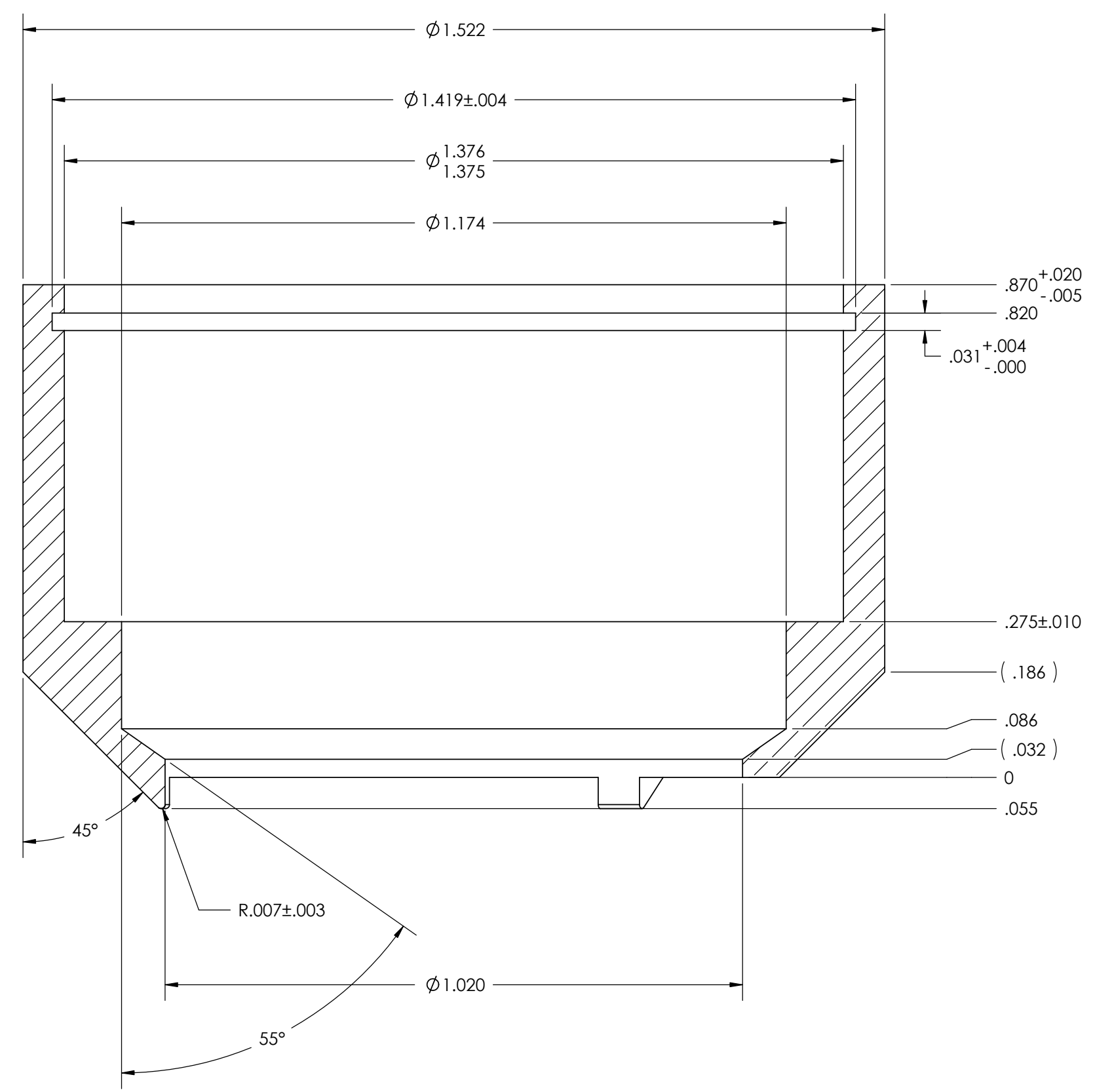
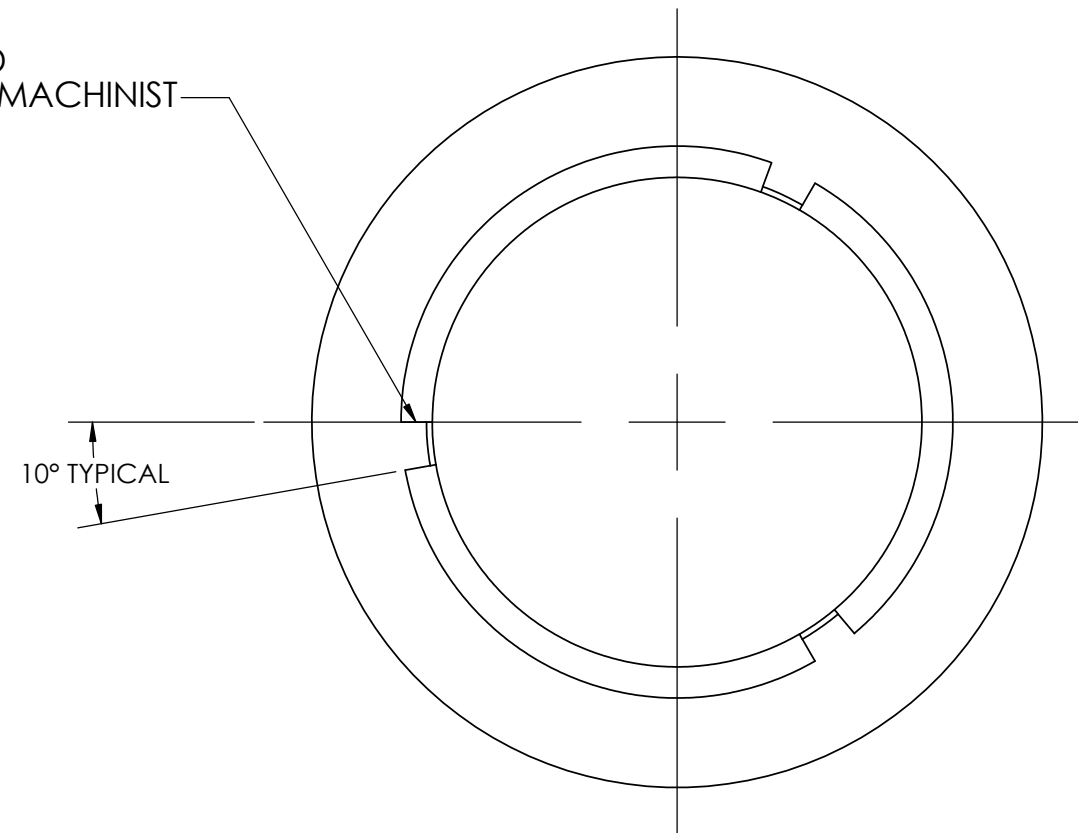
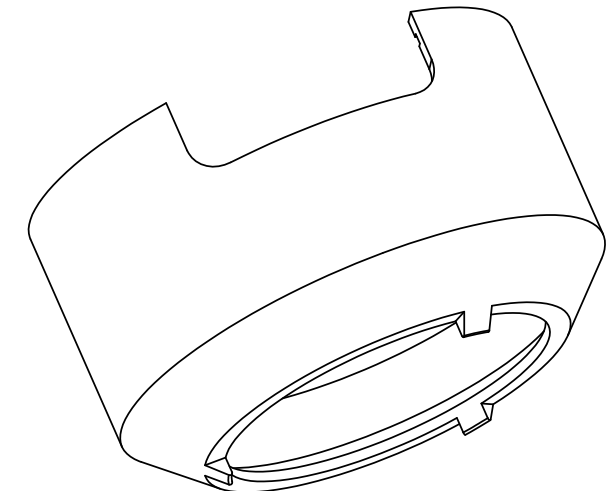
BILL OF MATERIALS				last updated on: Thursday, August 11, 2005 12:09:16 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector		1 PLACE DIM $\pm$ 1/16	2 PLACE DIM $\pm$.01	ENGINEER Jason Feldman 831-775-1837	Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039
Shop Foreman		3 PLACE DIM $\pm$.005	ANGLES $\pm$ 1°	CHECKED	
Engineer		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		PROJECT NUMBER 701312.00	CAMERA MOUNT & LIGHT SEAL
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED		PROJECT ESP 2G	
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		SIZE C	DWG. NO. 1002402
				REV. E	

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1002402-010 PUCK RELEASE



DETAIL 3 PLCS EVENLY SPACED
ORIENTATION DETERMINED BY MACHINIST

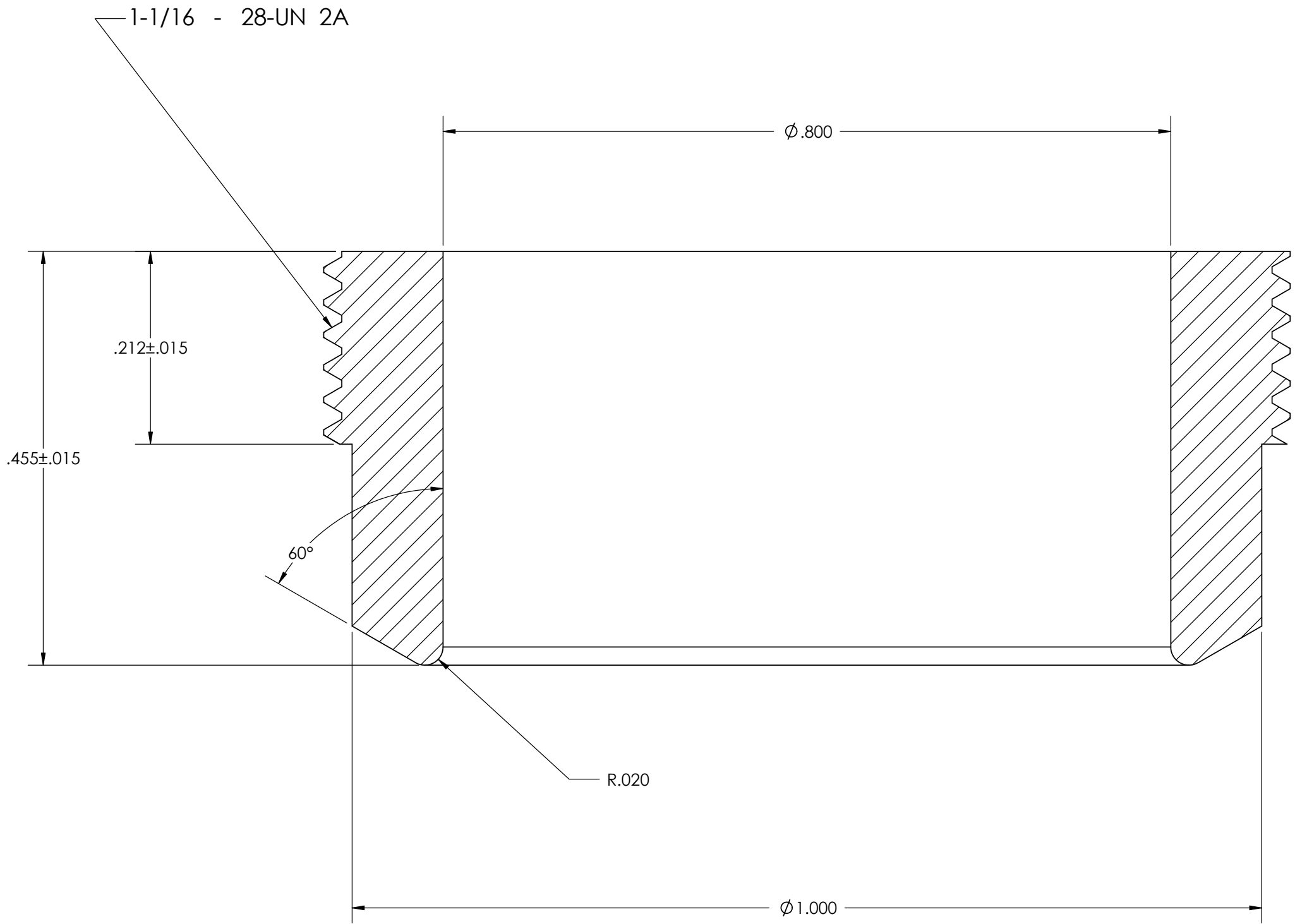
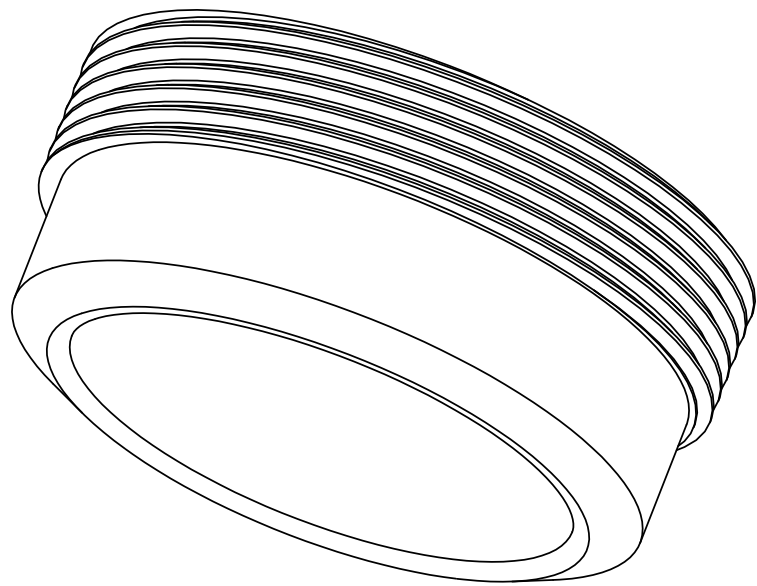
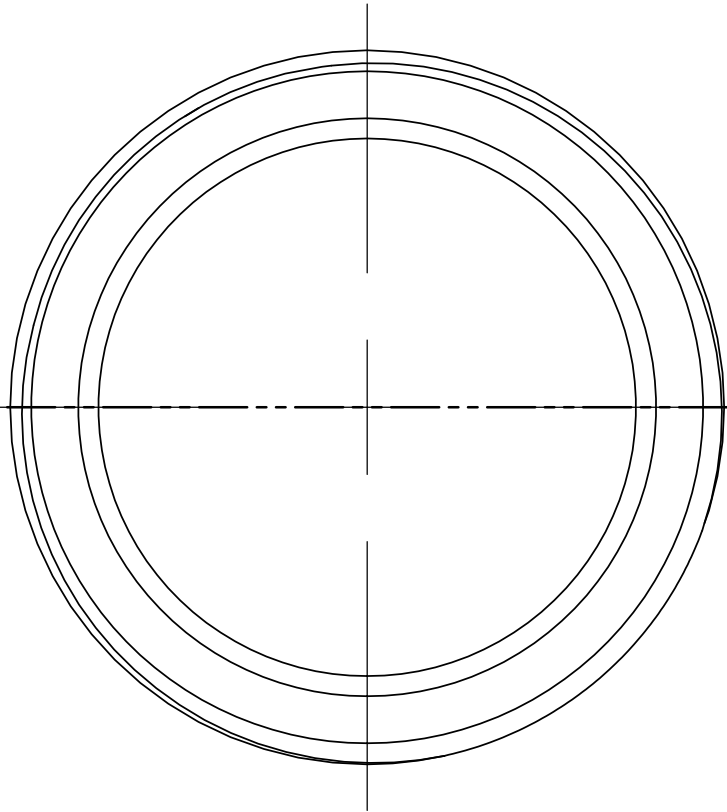
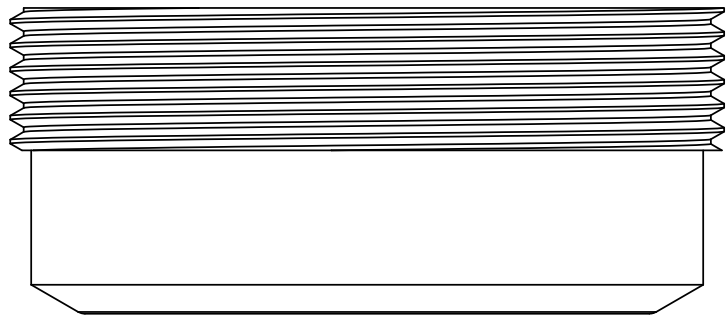


SECTION L-L

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
10	1002402-010	Puck Release	Vespel SP- 21	1
BILL OF MATERIALS			last updated on: Thursday, August 11, 2005 12:09:16 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE
Inspector		1 PLACE DIM ± .016		ENGINEER Jason Feldman 831-775-1837
Shop Foreman		2 PLACE DIM ± .005		CHECKED
Engineer		3 PLACE DIM ± .005		PROJECT NUMBER 701312.00
		4. DIMENSIONS ARE IN INCHES		CAMERA MOUNT & LIGHT SEAL
		5. DIMENSION LIMITS HELD AFTER PLATING		
		6. REMOVE BURRS & SHARP EDGES .010 MAX		SIZE DWG. NO.
		7. MACHINED FILLET RADII .010 TO .020		REV. E
		8. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		
NEXT ASSY Description	NEXT ASSY Number	9. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH MAX .010 INCHES FOR SINGLE SURFACE.		
DO NOT SCALE DRAWING		10. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED		
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		SHEET 9 OF 11

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1002402-011
LIGHT SEAL

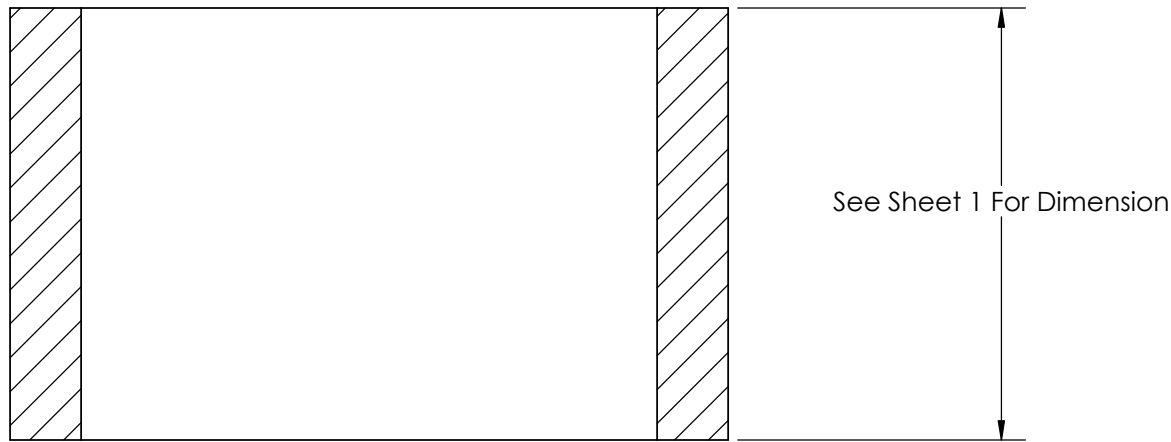
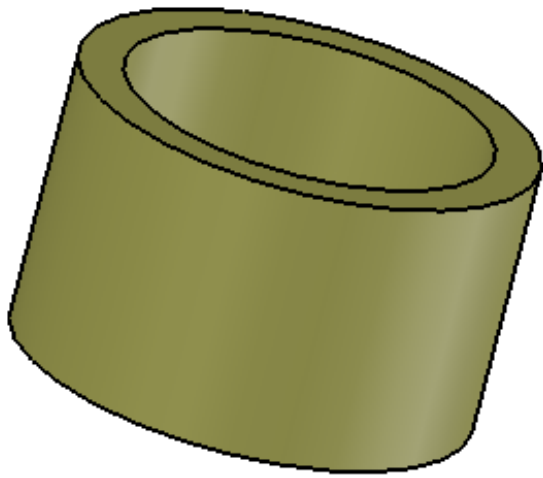
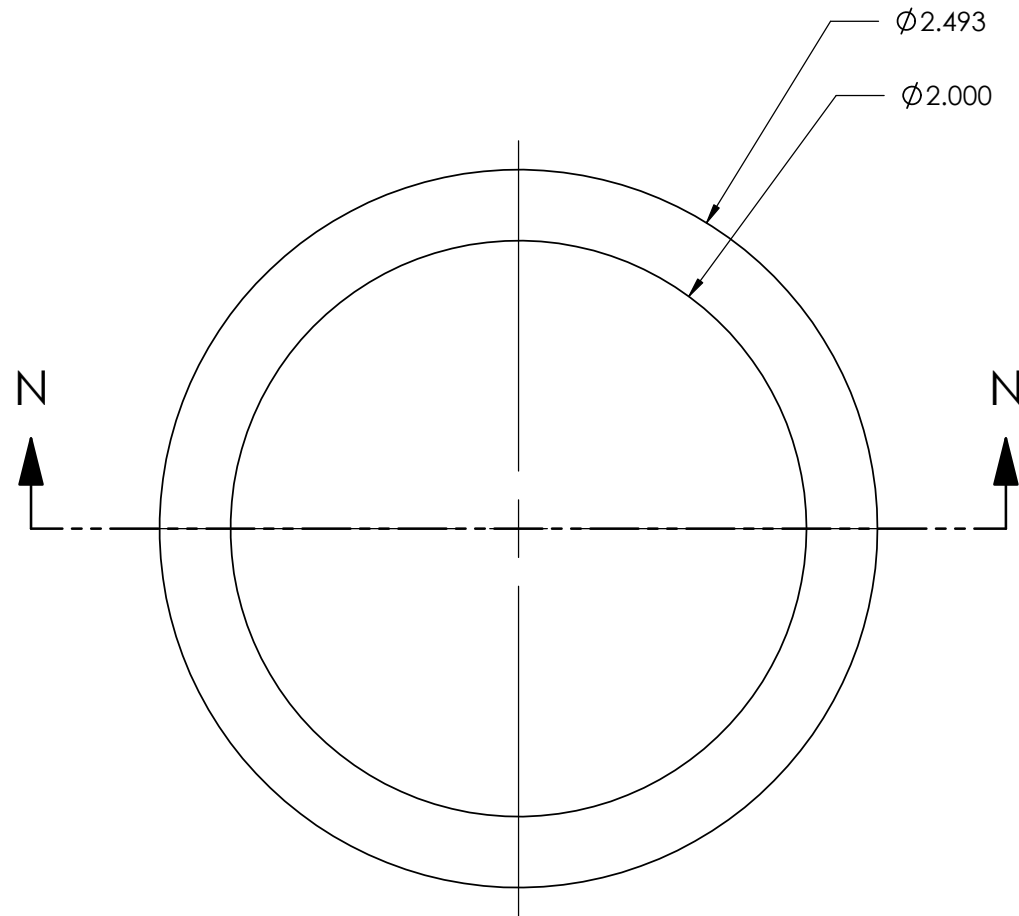


SECTION M-M

ITEM NO.		PART NUMBER		DESCRIPTION		MATERIAL		QTY.	
11		1002402-011		Light Seal		Torlon 4301		2	
BILL OF MATERIALS						last updated on: Thursday, August 11, 2005 12:09:16 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS		DATE		Monterey Bay Aquarium Research Institute M B A R I 7700 Sandholdt Road Moss Landing, CA 95039 
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.01	3 PLACE DIM ±.005	ANGLES ±1°	ENGINEER Jason Feldman 831-775-1837			
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED			CHECKED				
Engineer					PROJECT NUMBER 701312.00		CAMERA MOUNT & LIGHT SEAL		
NEXT ASSY Description	NEXT ASSY Number				PROJECT ESP 2G		SIZE C	DWG. NO. 1002402	
DO NOT SCALE DRAWING									
CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)						SHEET 10 OF 11			

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1002402-007
CAMERA SPACER



SECTION N-N

BILL OF MATERIALS				last updated on: Thursday, August 11, 2005 12:09:16 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector				ENGINEER Jason Feldman 831-775-1837	
Shop Foreman		1 PLACE DIM ±1/16	2 PLACE DIM ±.01	3 PLACE DIM ±.005	ANGLES ±1°
Engineer		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .010 TO .020 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .001 PER INCH. MAX .010 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 63 MICRON UNLESS OTHERWISE SPECIFIED			
NEXT ASSY Description	NEXT ASSY Number	PROJECT NUMBER 701312.00		CHECKED	
DO NOT SCALE DRAWING		PROJECT ESP 2G	SIZE C	DWG. NO. 1002402	REV. E
CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209) SHEET 11 OF 11					

Monterey Bay Aquarium Research Institute
7700 Sandholdt Road
Moss Landing, CA
95039



CAMERA MOUNT & LIGHT SEAL