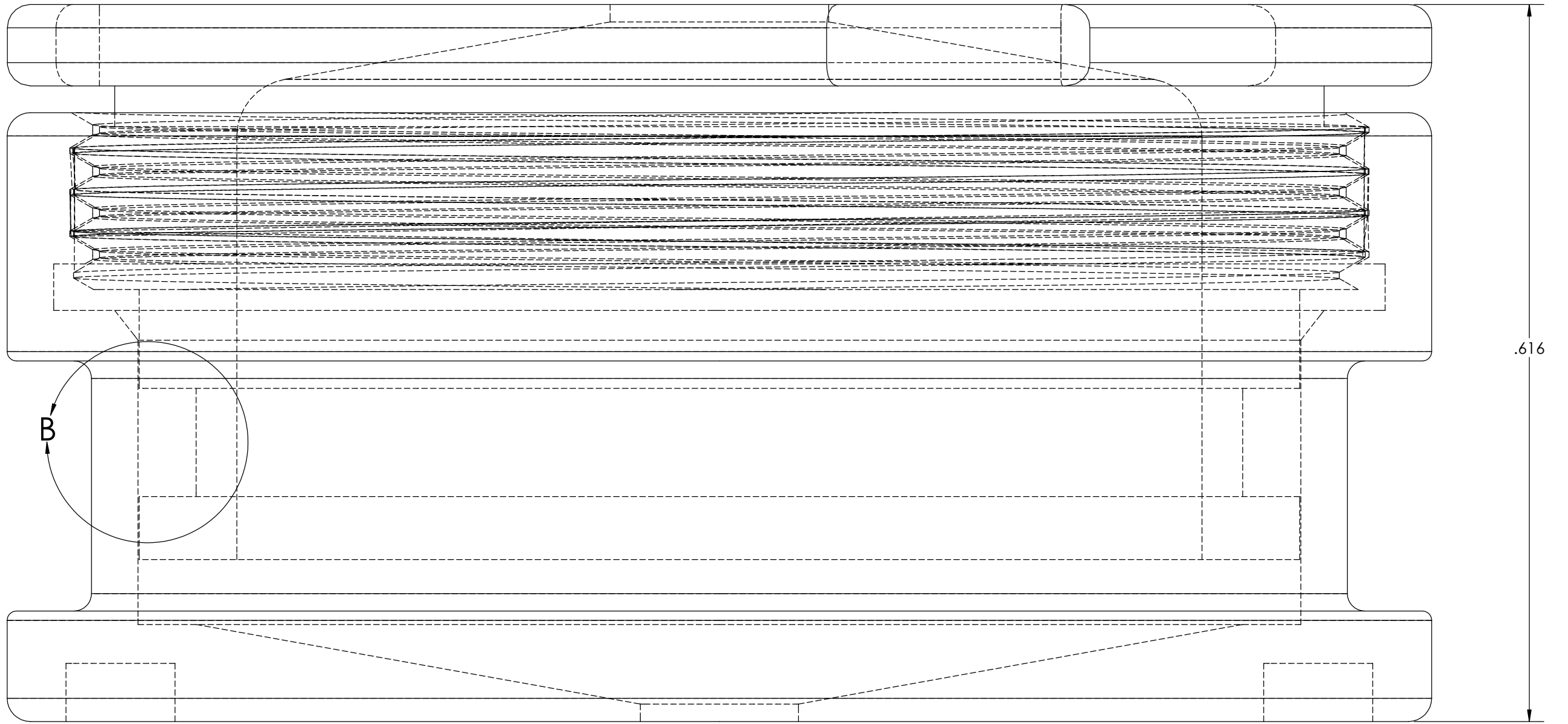
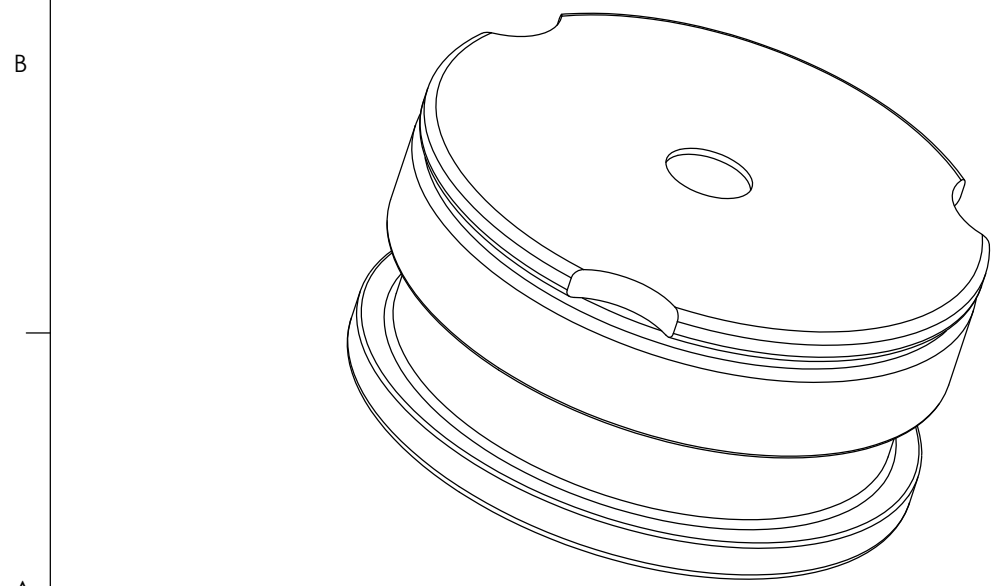
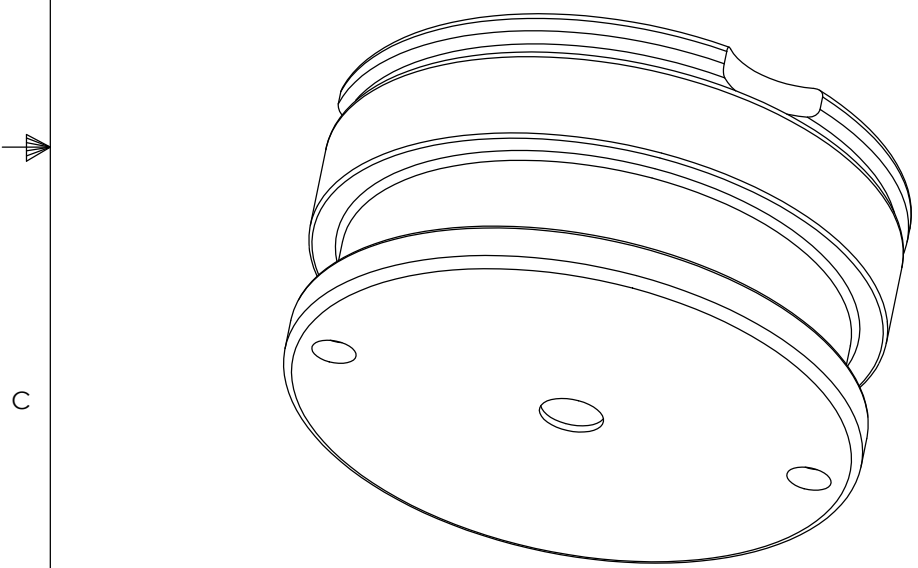
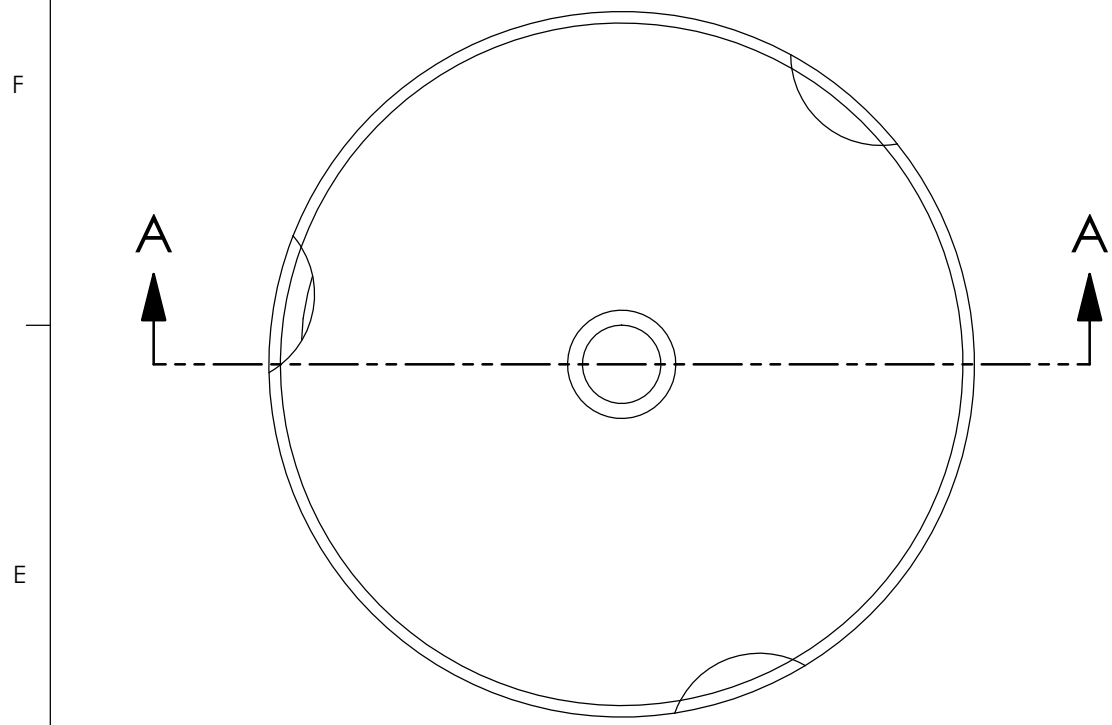
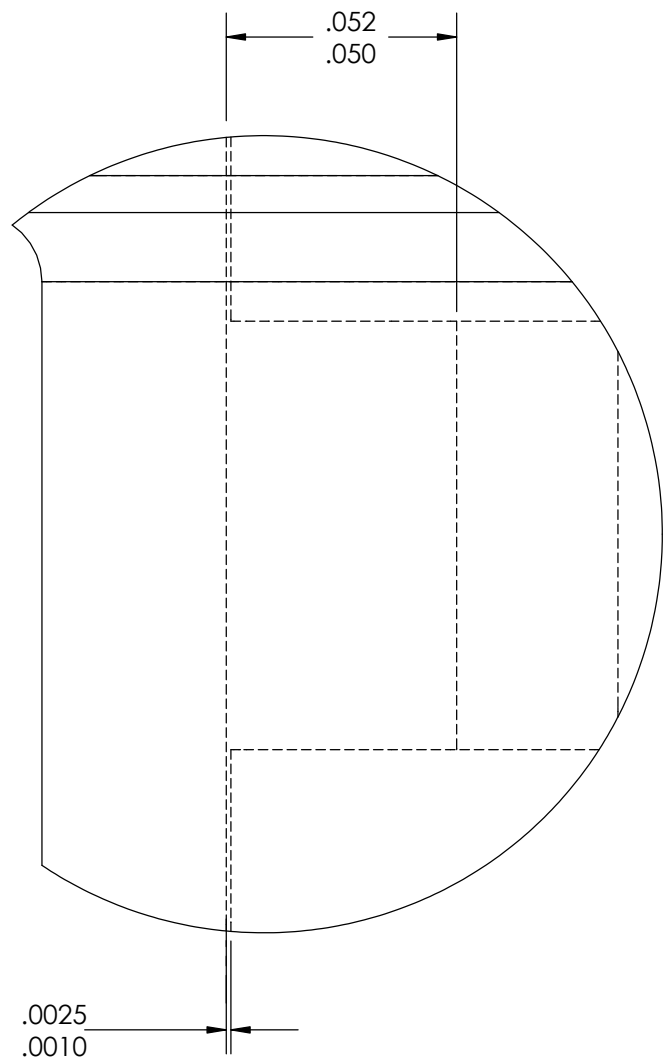


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SECTION A-A



DETAIL B

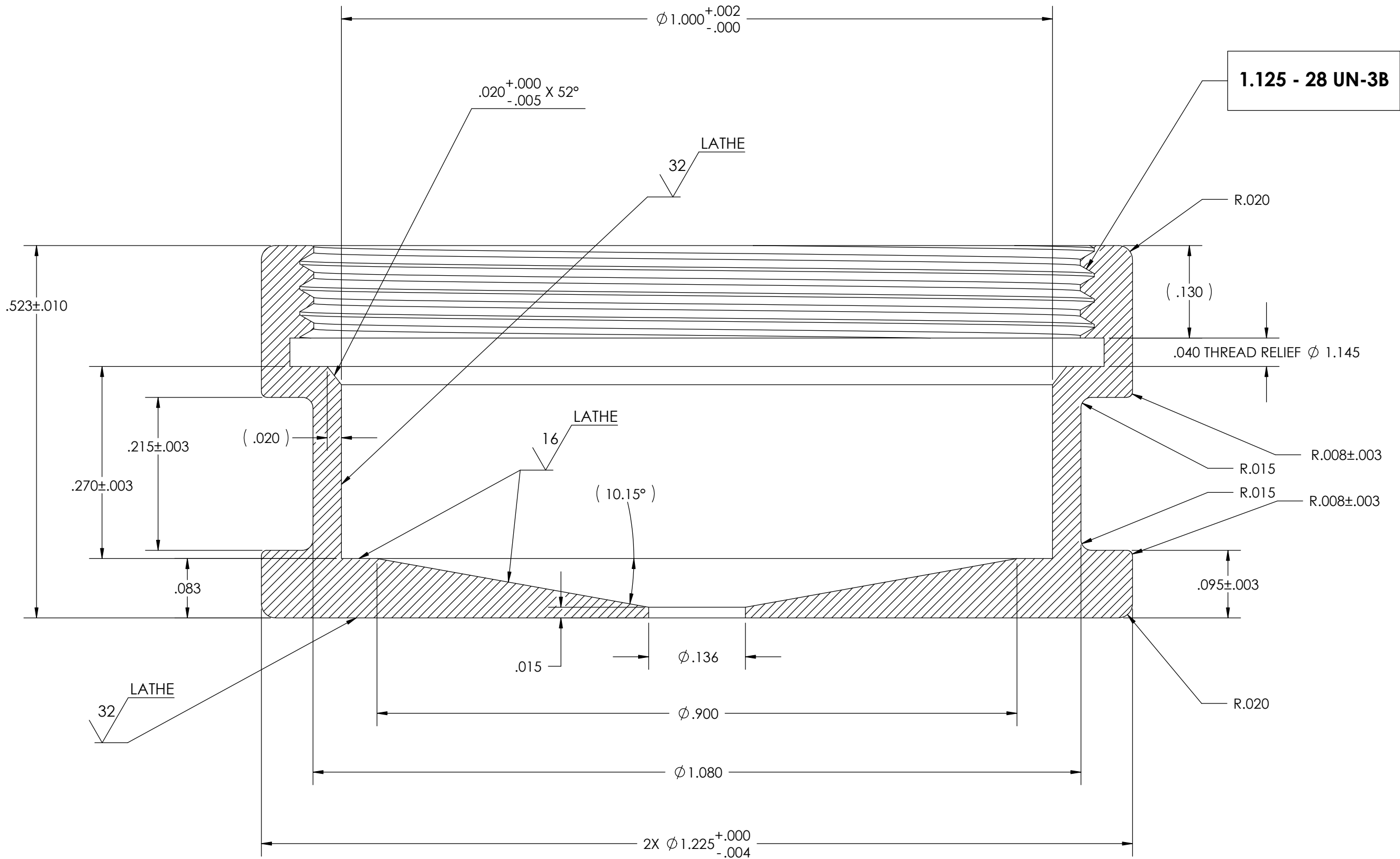
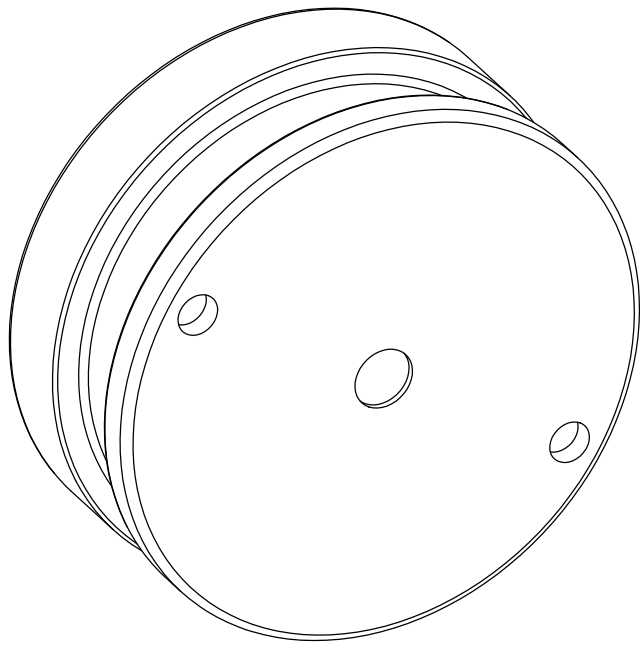
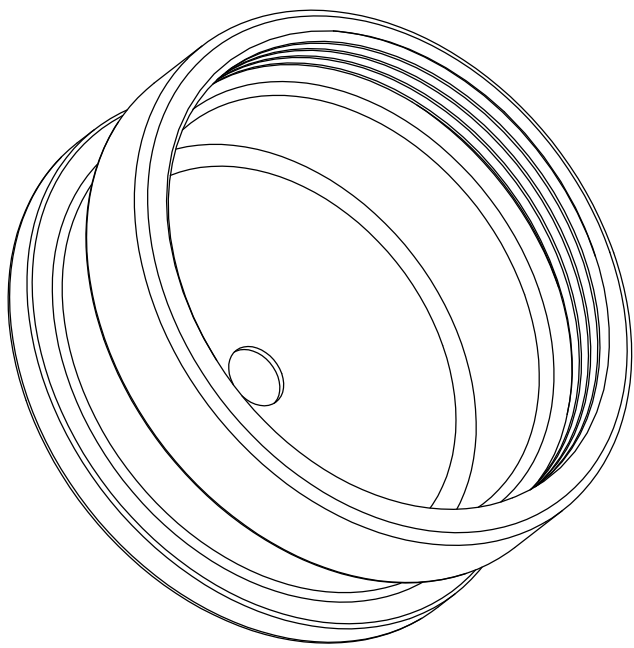
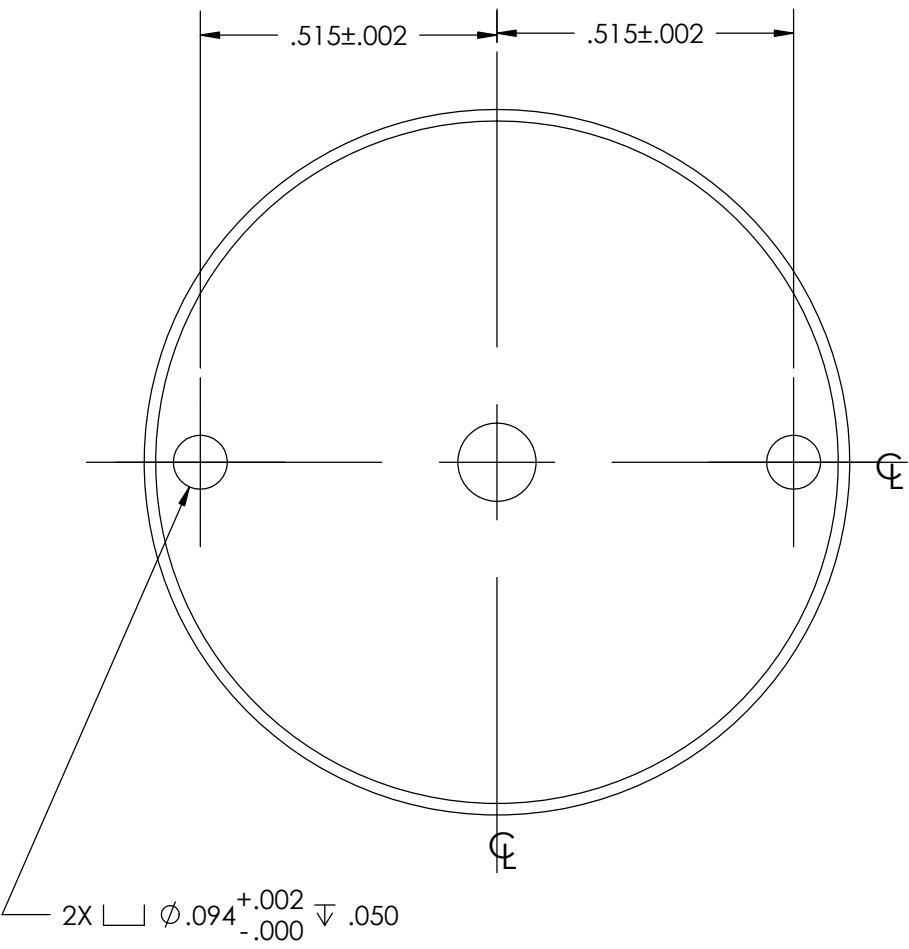
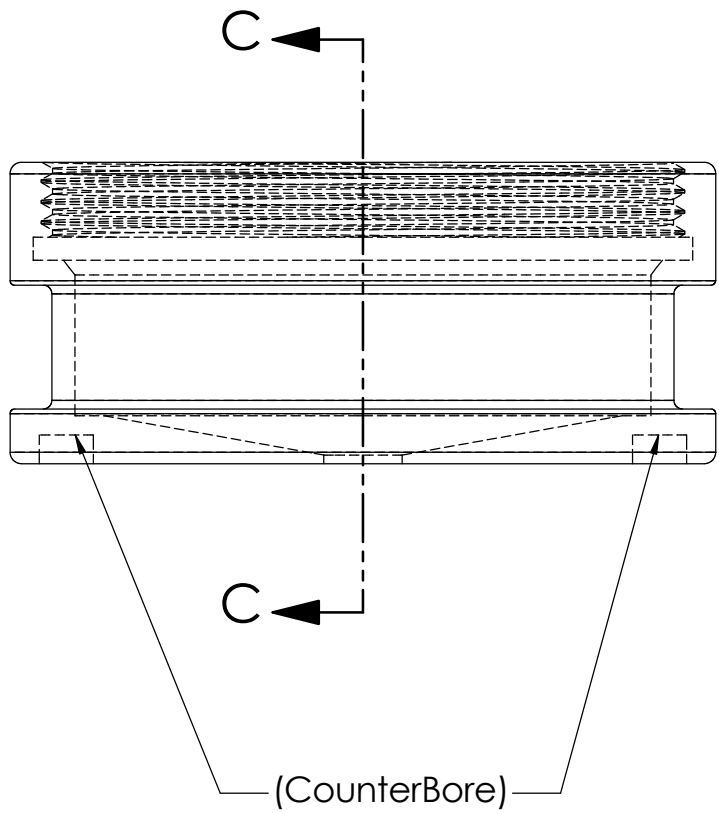
to utilize #2-020 O-ring
1.004 Mean OD x 0.070 Width
material: Buna-N
durometer: 70 Shore A

O-RING COMPRESSION:
MIN: 26%
MAX: 29%

BILL OF MATERIALS				last updated on: Tuesday, March 14, 2006 4:41:00 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	ENGINEER	Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039
Shop Foreman		4 PLACE DIM ±.0005	ANGLES ±1°	Jason Feldman 831-775-1837 cell: 831-295-4546	
Engineer		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .003 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		CHECKED	
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH, MAX .001 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED		PROJECT NUMBER 701312.00	ESP filter holder (puck)
				PROJECT ESP 2G	
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		SIZE C	DWG. NO. 1002433
				REV. B	

1002433-001
SH1 & SH1-HV BOTTOM

SURFACE FINISH TO BE ACHIEVED ON LATHE - NO ABRASIVE POLISHING



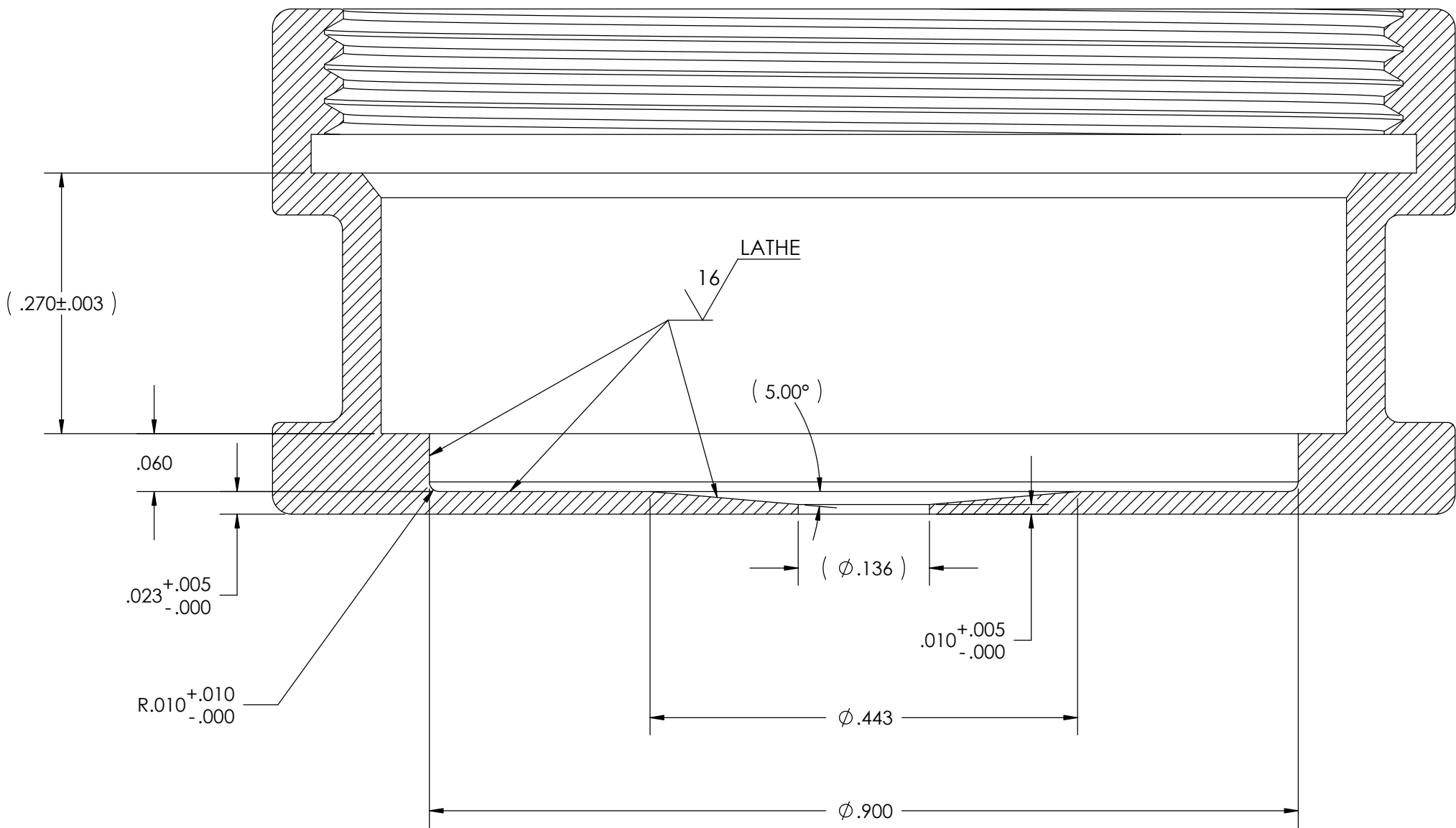
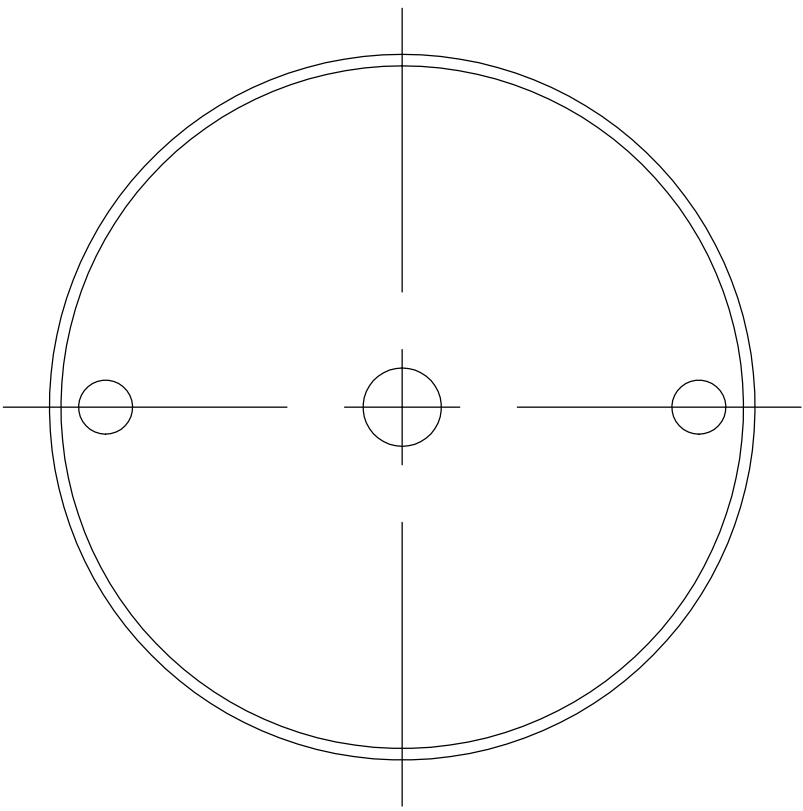
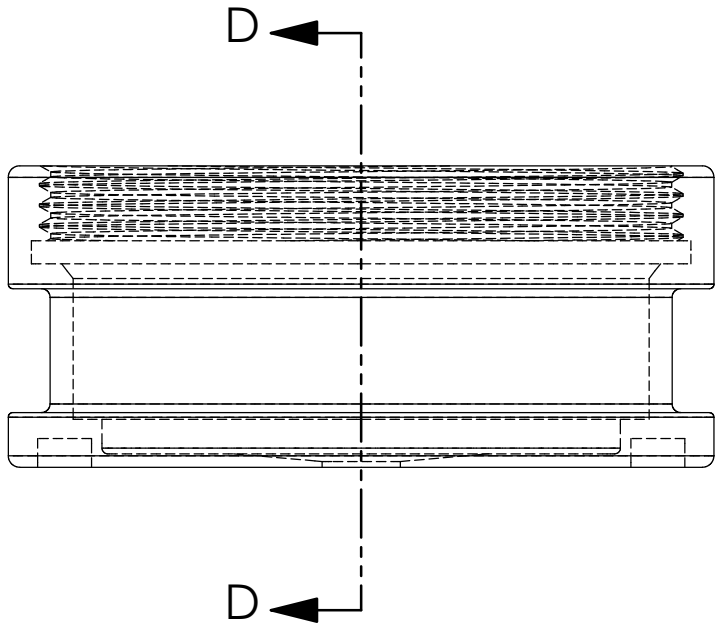
SECTION C-C

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
1	1002433-001	Puck bottom - SH1	Titanium Grade 2	125
BILL OF MATERIALS			last updated on: Tuesday, March 14, 2006 4:41:00 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005
Shop Foreman		1. DIMENSIONS ARE IN INCHES	ANGLES ±1°	
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING		
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS & SHARP EDGES .010 MAX	APPROVALS DATE	
		4. MACHINED FILLET RADII .000 TO .003	ENGINEER Jason Feldman	
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005	831-775-1837	
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH. MAX .001 INCHES FOR SINGLE SURFACE.	cell: 831-295-4546	
DO NOT SCALE DRAWING		7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED	CHECKED	
		PROJECT NUMBER 701312.00		Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039 
		PROJECT ESP 2G		
		SIZE C	DWG. NO. 1002433	
		REV. B		
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		
		SHEET 2 OF 11		

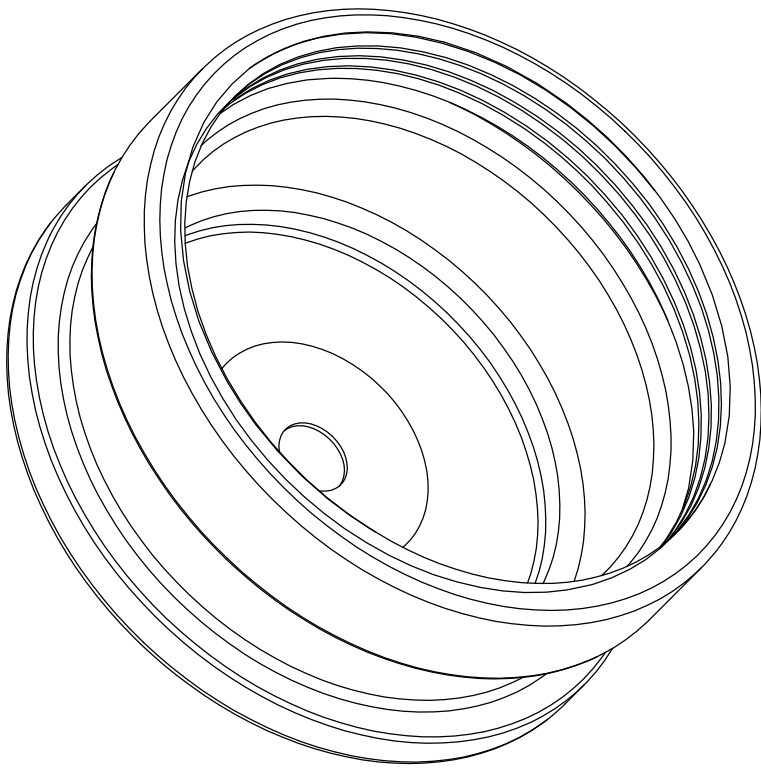
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1002433-002
WCR BOTTOM

DIMENSIONS NOT SHOWN SAME AS PER 1002433-001 (Sheet 2)



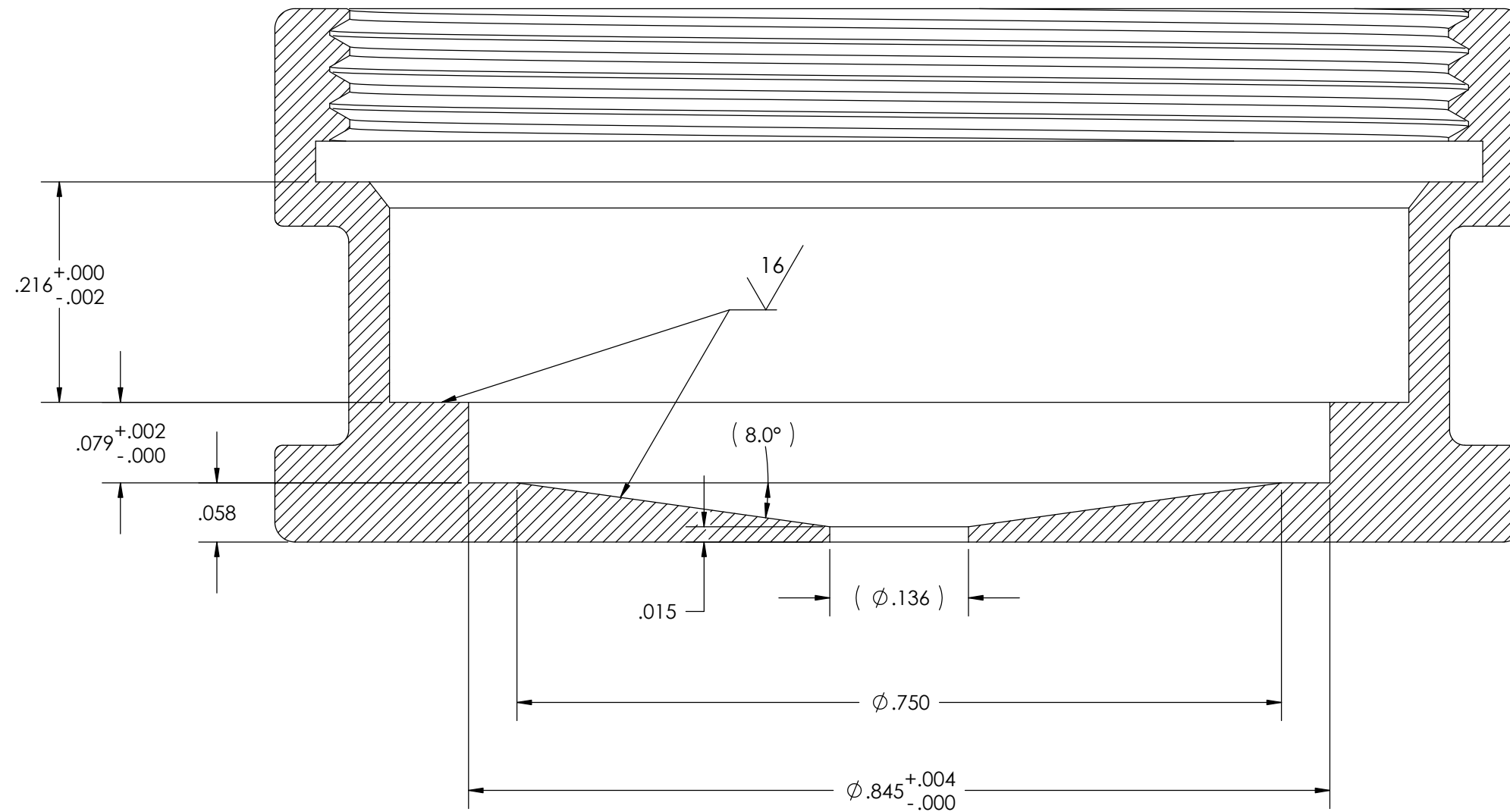
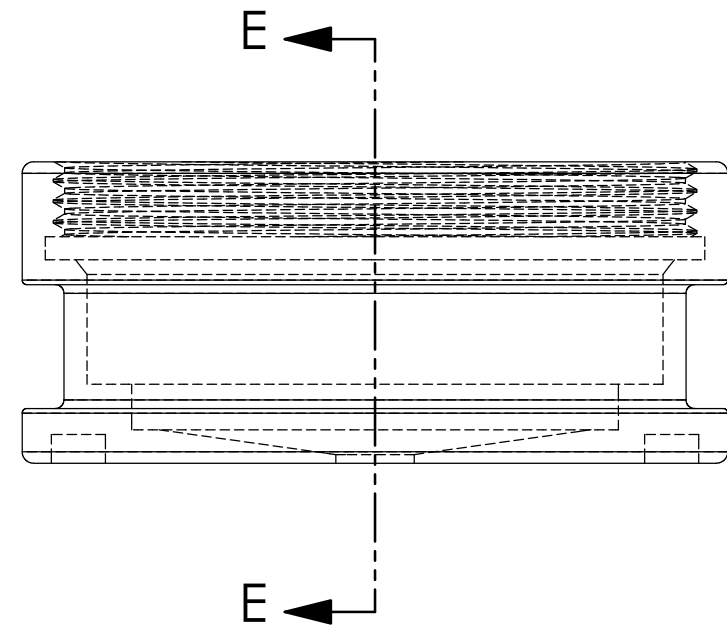
SECTION D-D



ITEM NO.		PART NUMBER		DESCRIPTION		MATERIAL		QTY.		
2		1002433-002		Puck bottom - WCR		Titanium Grade 2		65		
BILL OF MATERIALS							last updated on: Tuesday, March 14, 2006 4:41:00 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS		DATE			
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005	ENGINEER		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 .000 TO .003 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005			Jason Feldman 831-775-1837 cell: 831-295-4546					
Engineer		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .005 PER INCH, MAX .001 INCHES FOR SINGLE SURFACE.			CHECKED					
NEXT ASSY Description	NEXT ASSY Number	7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED			PROJECT NUMBER 701312.00					
DO NOT SCALE DRAWING					PROJECT ESP 2G		SIZE C		DWG. NO. 1002433	
					CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		REV. B			
					SHEET 3 OF 11					

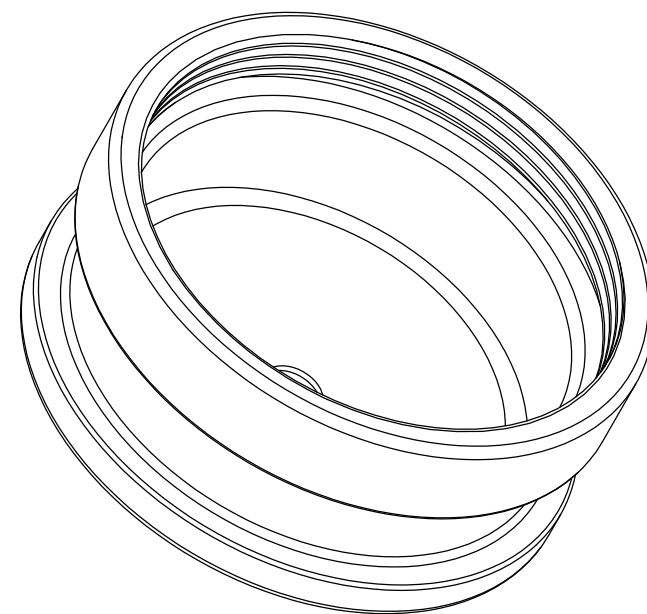
1002433-003
SH2 BOTTOM

ALL DIMENSIONS AND SPECIFICATIONS NOT SHOWN AS PER 1002433-001 (Sheet 2)



SECTION E-E

Magnaplate HCR - all dimensions & tolerances to be held after plating
CLASS 3B Thread tolerance to be held after plating as per specification

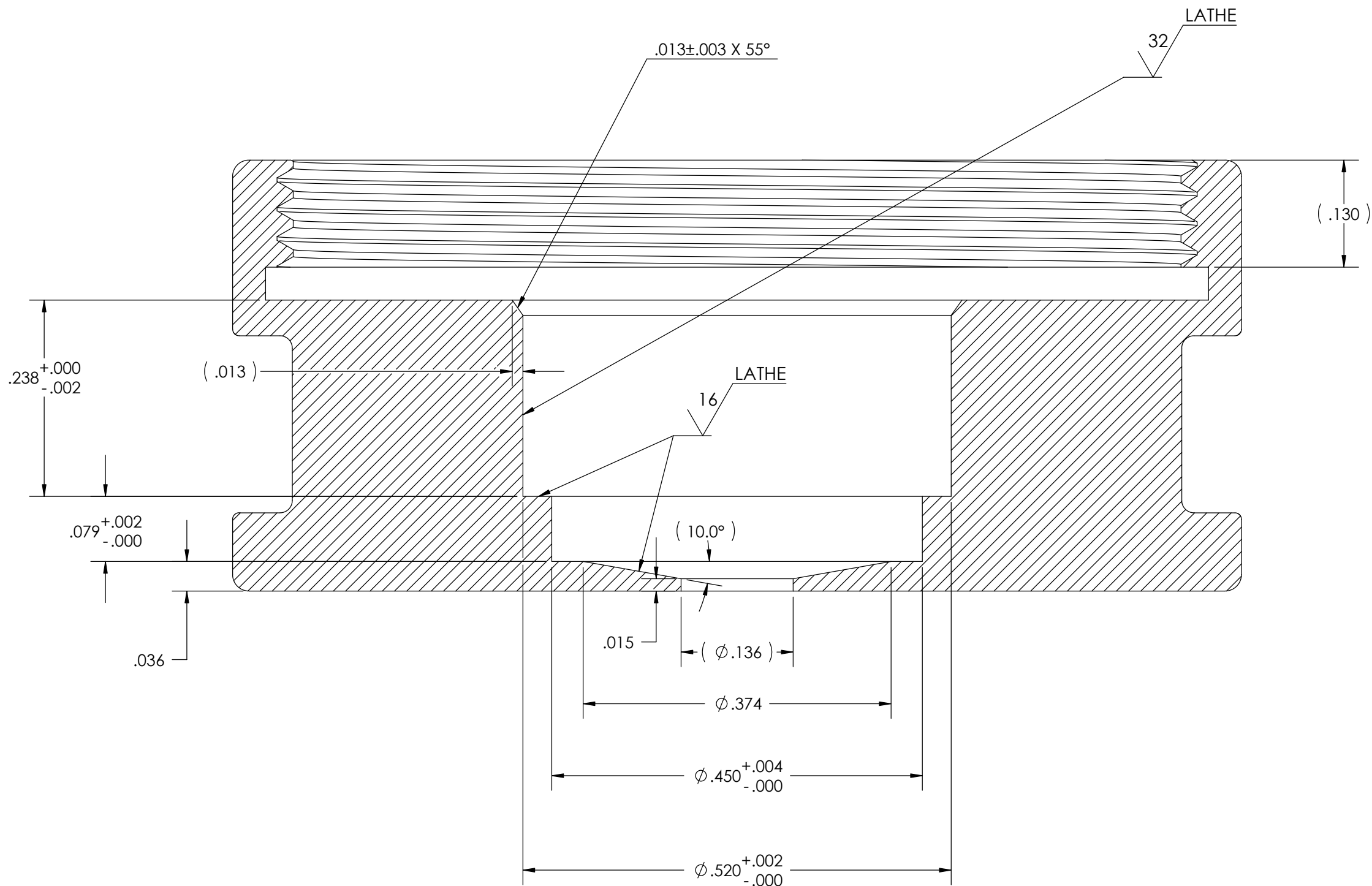
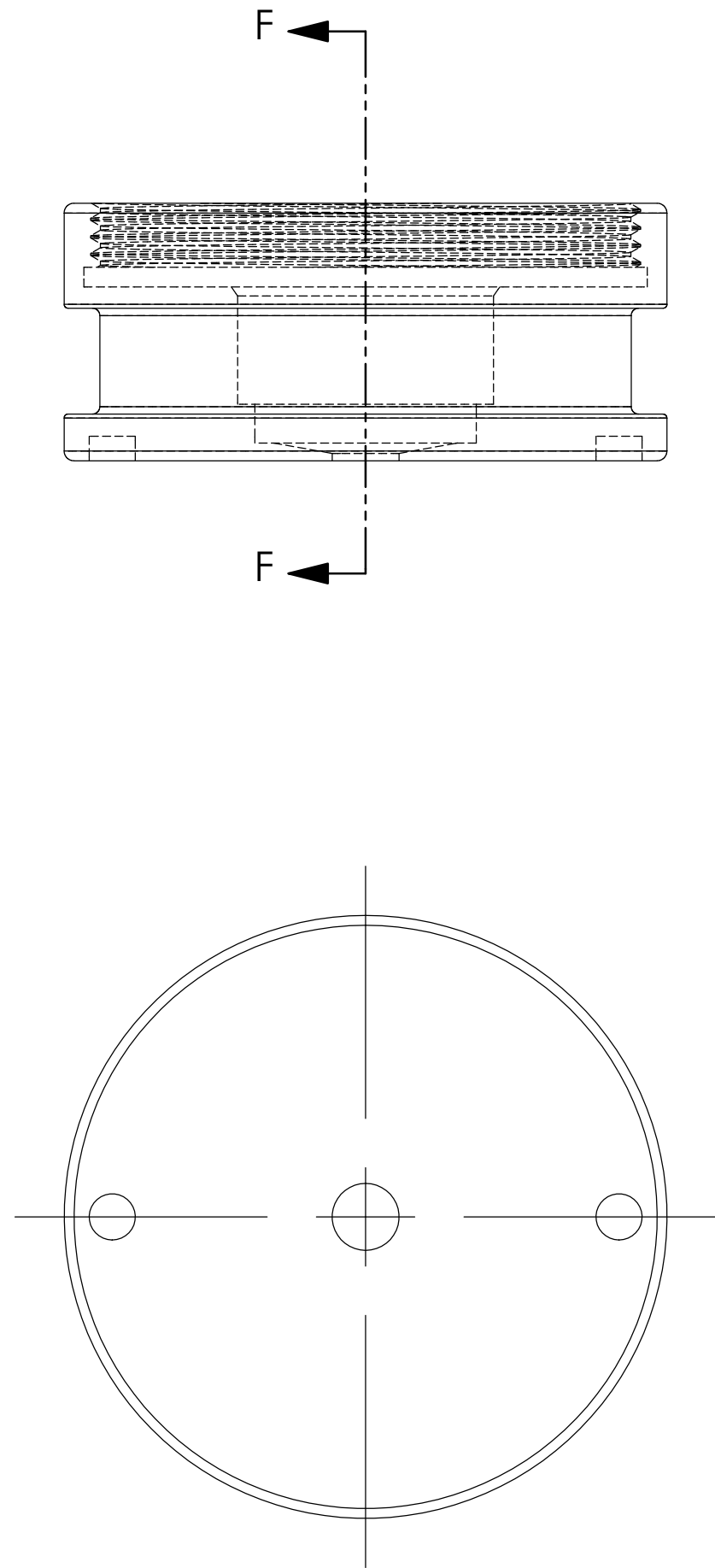


ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
3	1002433-003	SH2 Bottom	6061-T6 Aluminum	40
BILL OF MATERIALS			last updated on: Tuesday, March 14, 2006 4:41:00 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		
Inspector	2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0003	ANGLES ±.1°
Shop Foreman	1. DIMENSIONS ARE IN INCHES			
Engineer	2. DIMENSION LIMITS HELD AFTER PLATING			
	3. REMOVE BURRS & SHARP EDGES .010 MAX			
	4. MACHINED FILLET RADII .000 TO .003			
	5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005			
NEXT ASSY Description	NEXT ASSY Number	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH, .001 INCHES FOR SINGLE SURFACE.		
DO NOT SCALE DRAWING		7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED		
		APPROVALS DATE		
		ENGINEER Jason Feldman 831-775-1837 cell: 831-295-4546 CHECKED		
		PROJECT NUMBER 701312.00		
		PROJECT ESP 2G		
		SIZE C		
		DWG. NO. 1002433		
		REV. B		
		Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039 		
		PROJECT NUMBER ESP filter holder (puck)		
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209) SHEET 4 OF 11		

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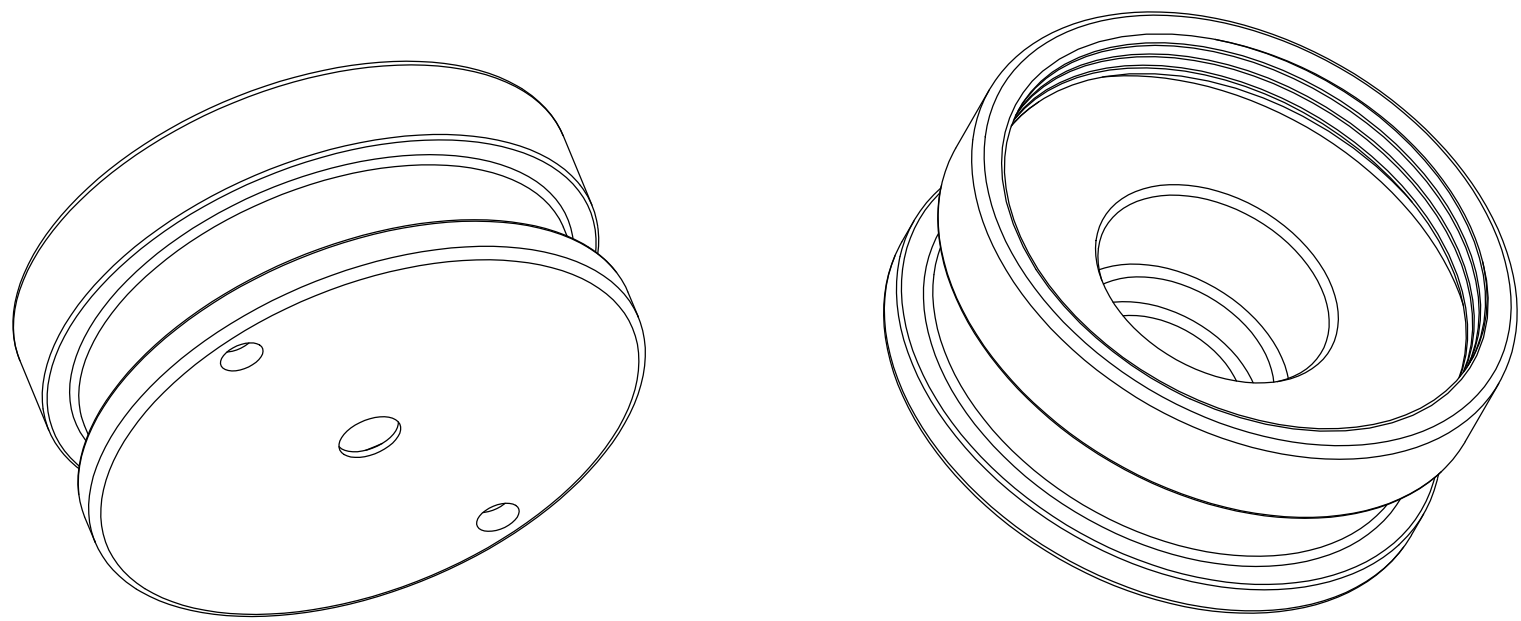
1002433-004
TOX - Array BOTTOM

ALL DIMENSIONS AND SPECIFICATIONS NOT SHOWN AS PER 1002433-001 (Sheet 2)



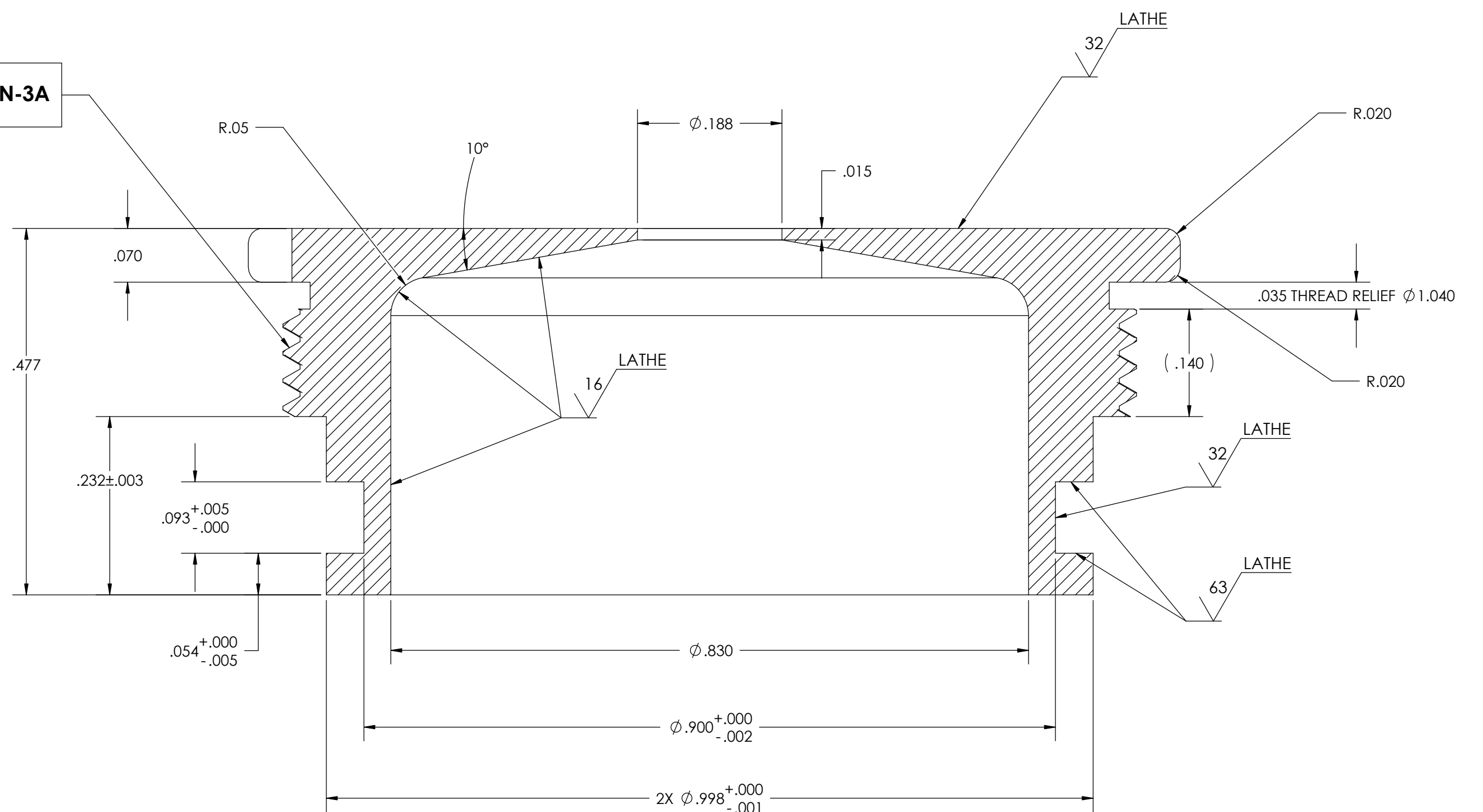
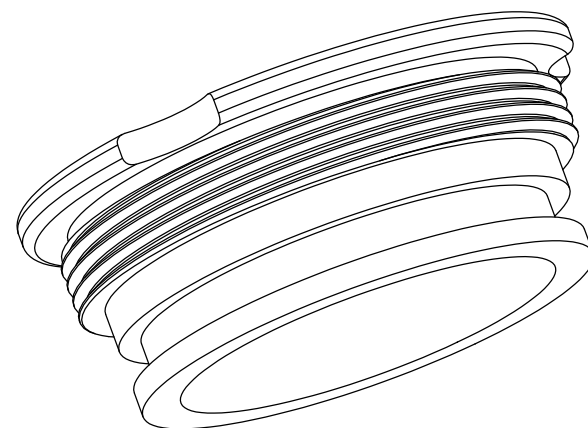
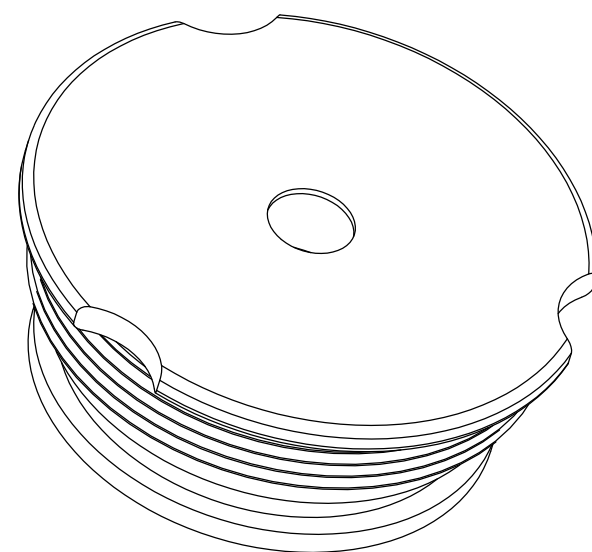
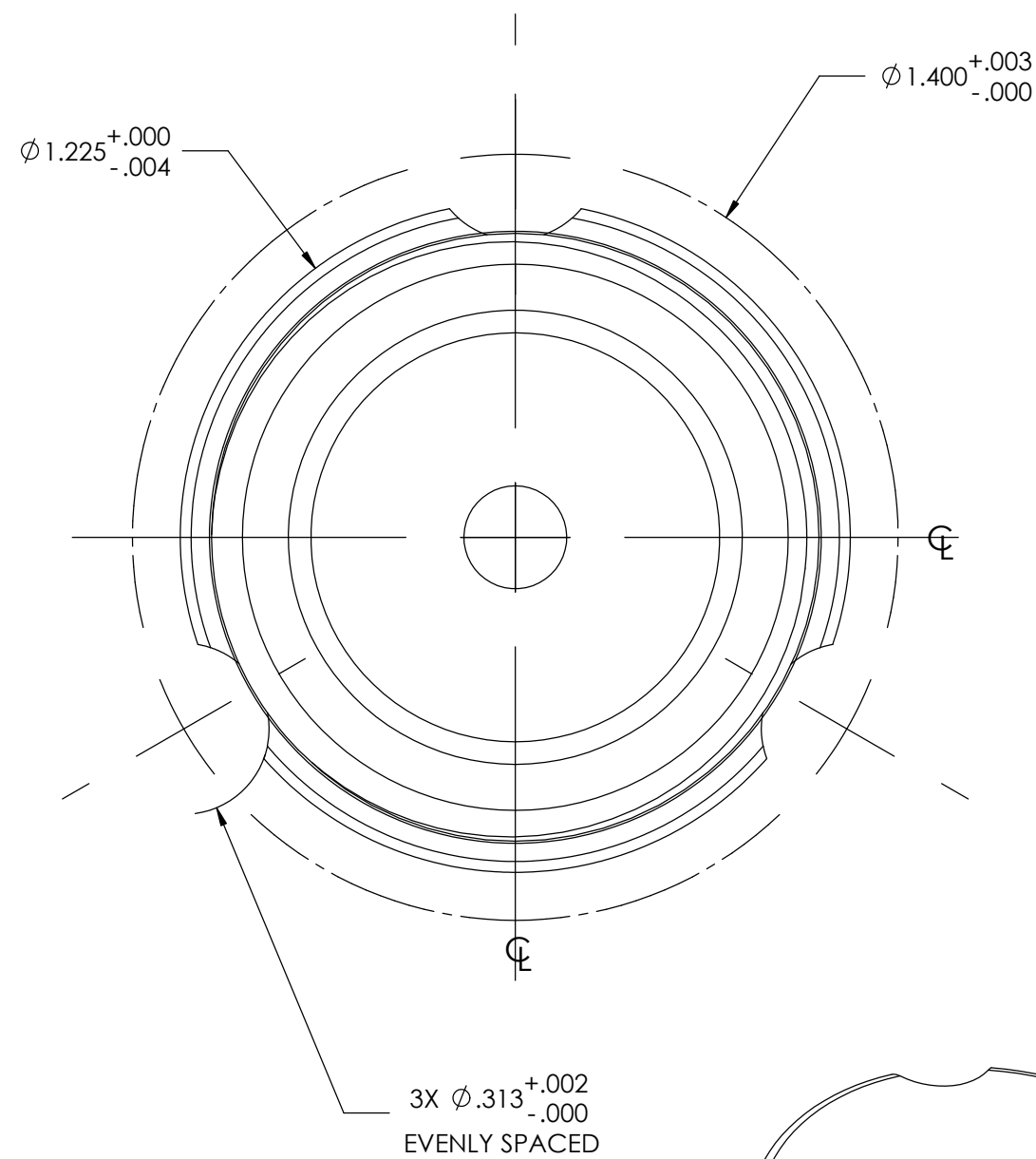
SECTION F-F

Magnaplate HCR - all dimensions & tolerances to be held after plating
CLASS 3B Thread tolerance to be held after plating as per specification



ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
4	1002433-004	TOXARRAY BOTTOM	6061-T6 Aluminum	25
BILL OF MATERIALS				
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005
Shop Foreman		1. DIMENSIONS ARE IN INCHES	ANGLES ±1°	
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING		
		3. REMOVE BURRS & SHARP EDGES .010 MAX		
		4. MACHINED FILLET RADII .000 TO .003		
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH. MAX .001 INCHES FOR SINGLE SURFACE.		
		7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED		
NEXT ASSY Description	NEXT ASSY Number	APPROVALS		
		DATE		
		ENGINEER		
		Jason Feldman		
		831-775-1837		
		cell: 831-295-4546		
		CHECKED		
		PROJECT NUMBER		
		701312.00		
		PROJECT		
		ESP 2G		
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		
		SHEET 5 OF 11		
DO NOT SCALE DRAWING		APPROVALS		
		DATE		
		ENGINEER		
		Jason Feldman		
		831-775-1837		
		cell: 831-295-4546		
		CHECKED		
		PROJECT NUMBER		
		701312.00		
		PROJECT		
		ESP 2G		
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		
		SHEET 5 OF 11		

A schematic diagram of a multi-layered cylindrical structure, possibly a core-shell or a multi-layered fiber. The structure consists of a central core surrounded by multiple concentric layers. A vertical dashed line passes through the center, with arrows labeled 'E' at both ends, indicating a vertical axis or direction. The layers are represented by horizontal lines of varying thicknesses, suggesting different materials or structures.

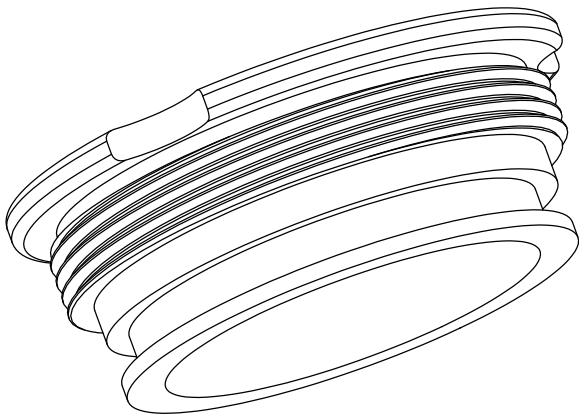
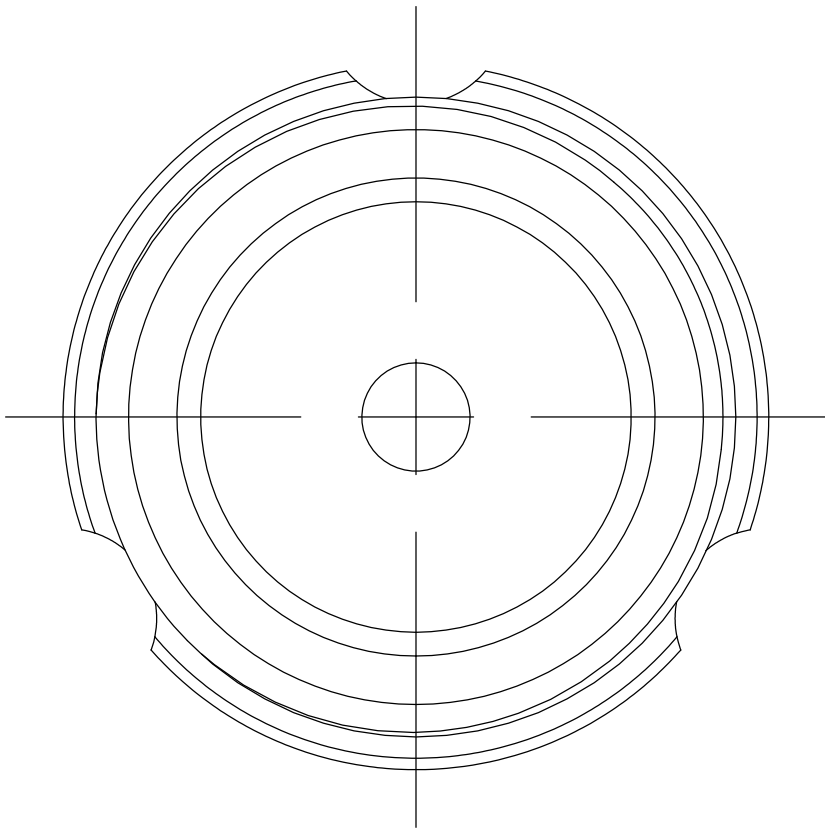
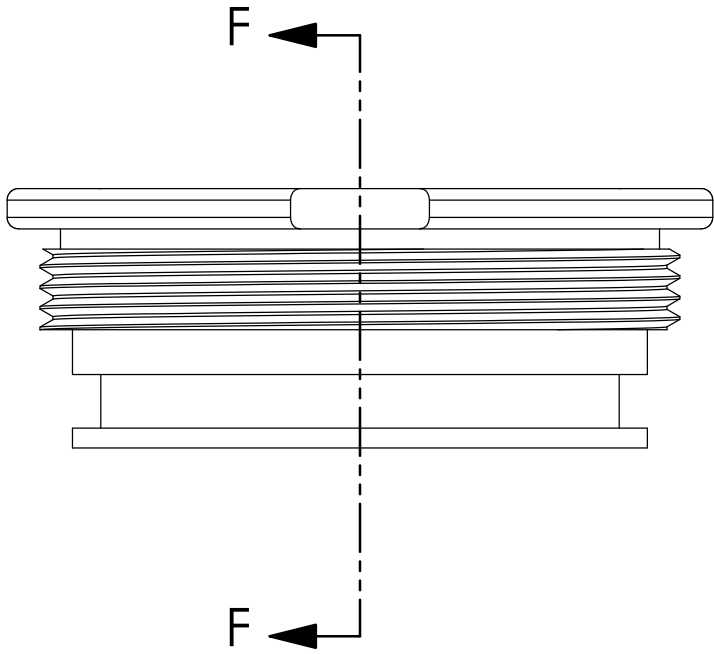


SECTION E-E

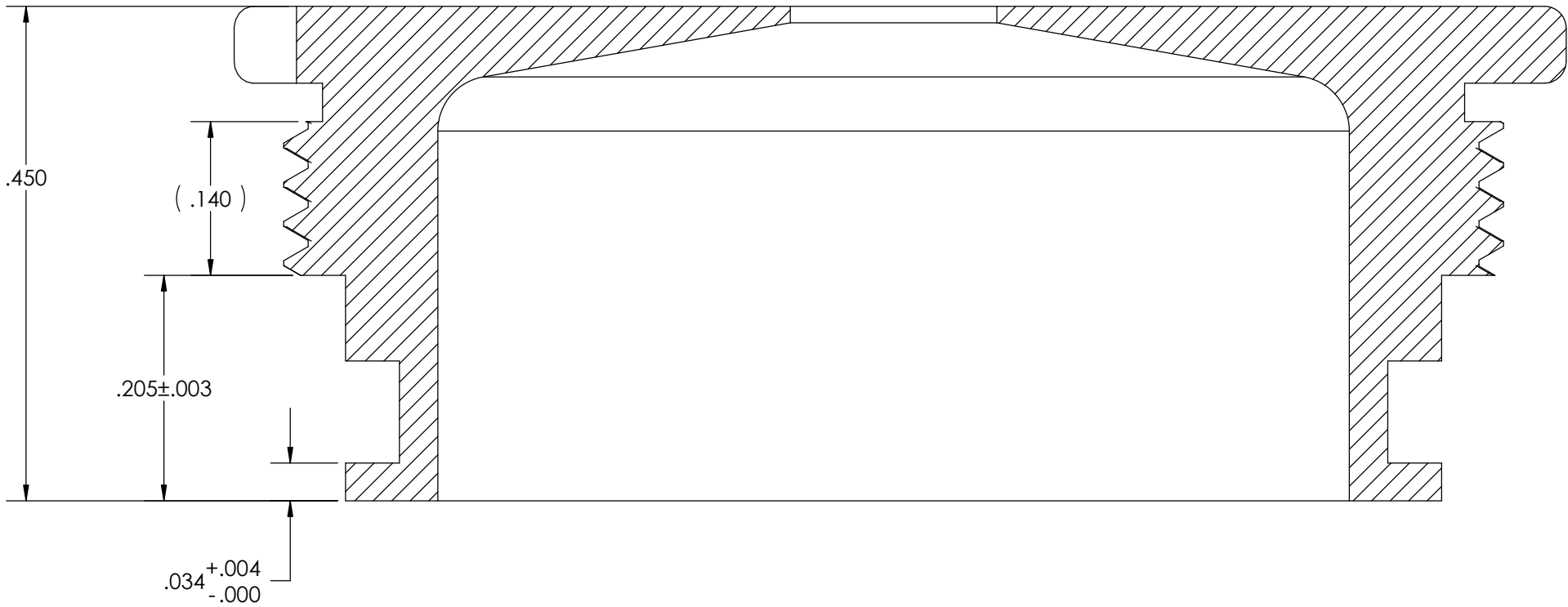
ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
5	1002433-005	Puck top - SH1 & TOXR	Titanium Grade 2	100
BILL OF MATERIALS				last updated on: Tuesday, March 14, 2006 4:41:00 PM
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:	DATE APPROVALS ENGINEER Jason Feldman 831-775-1837 cell: 831-295-4546 CHECKED	Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039 
Inspector	2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0003	ANGLES ±1°
Shop Foreman	1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADI .000 TO .003 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005			ESP filter holder (puck)
Engineer	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH. MAX. .001 INCHES FOR SINGLE SURFACE.			
NEXT ASSY Description	NEXT ASSY Number	7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED		
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		SHEET 6 OF 11

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1002433-006
SH1 - High Volume TOP



DIMENSIONS NOT SHOWN PER 1002433-005 (Sheet 6)



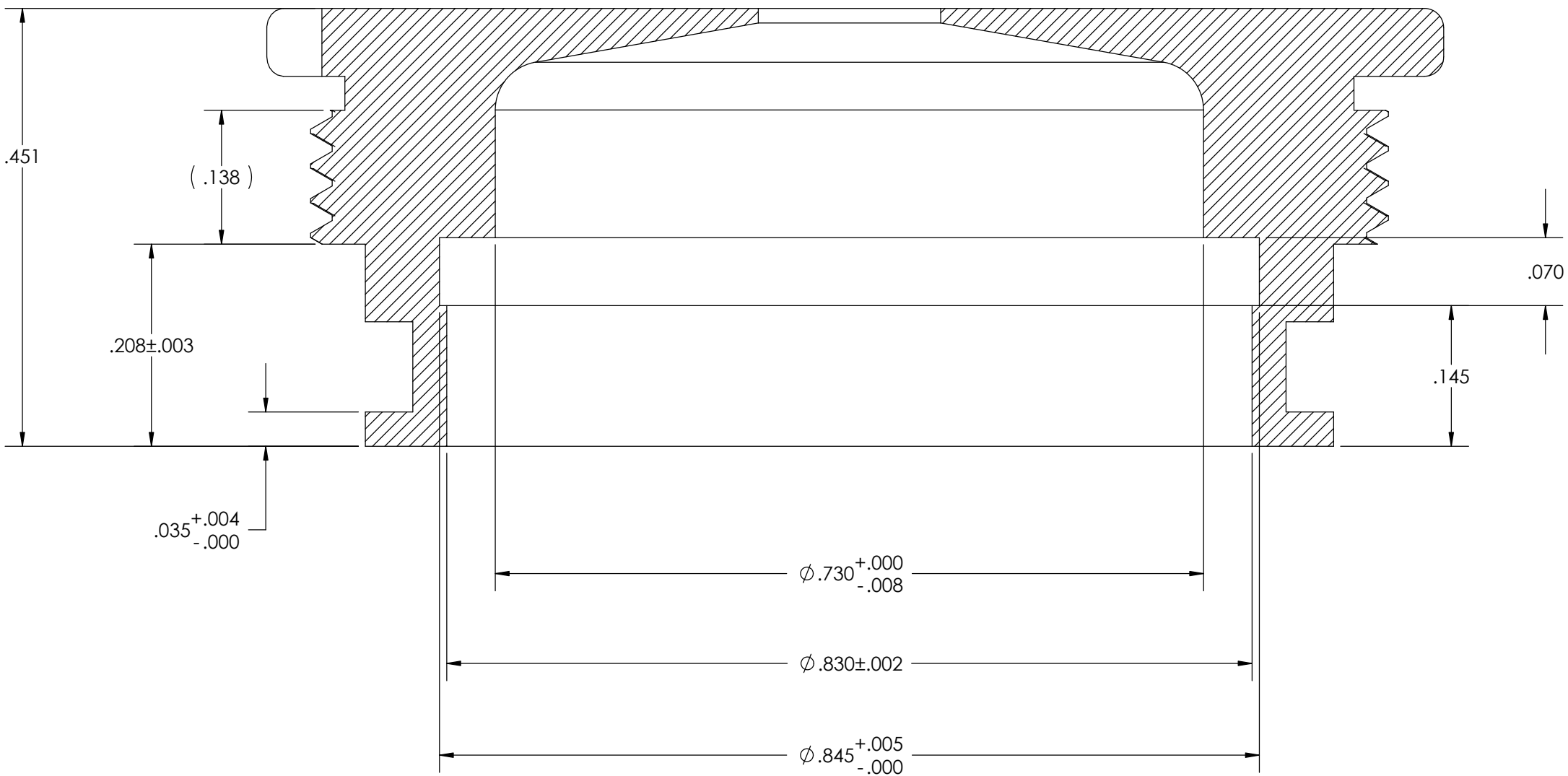
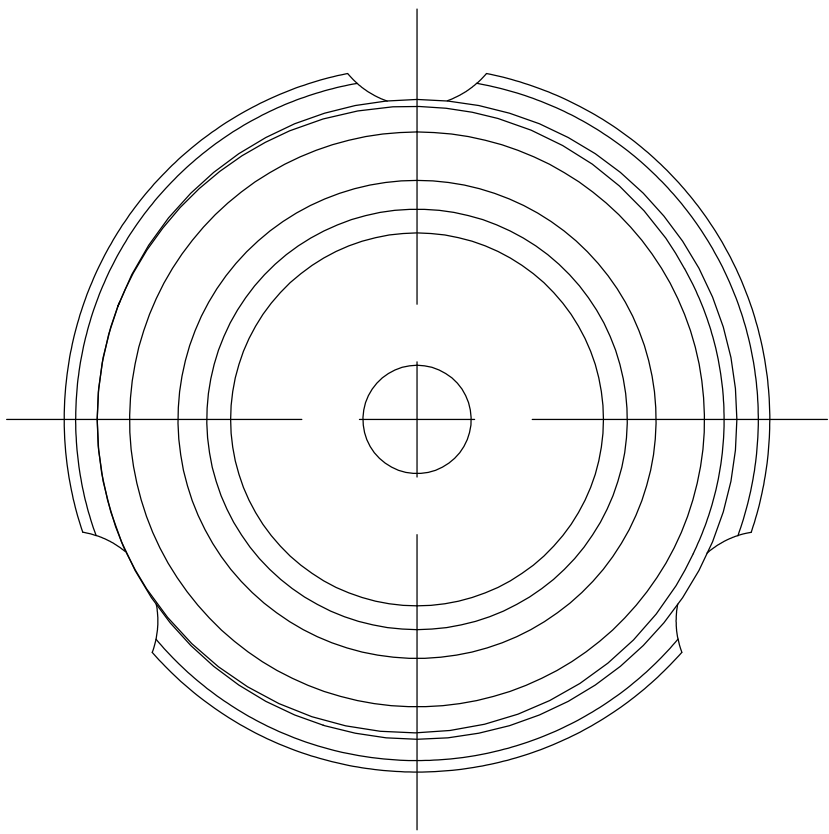
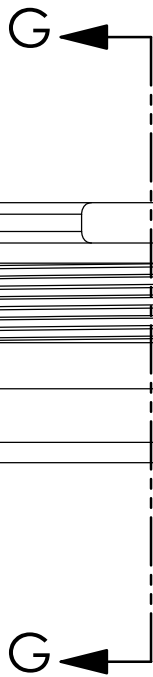
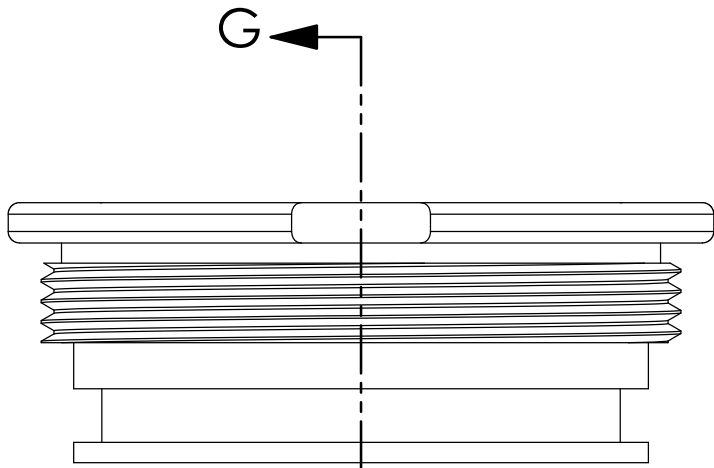
SECTION F-F

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
6	1002433-006	Puck top - SH1-HV	Titanium Grade 2	25
BILL OF MATERIALS				
Shop / Q.C.		APPROVALS		
Inspector		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE: 2 PLACE DIM ±.01 3 PLACE DIM ±.005 4 PLACE DIM ±.0005 ANGLES ±1° 1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .003 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH, MAX .001 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED	DATE	
Shop Foreman			ENGINEER Jason Feldman 831-775-1837 cell: 831-295-4546 CHECKED	
Engineer			PROJECT NUMBER 701312.00	
NEXT ASSY Description	NEXT ASSY Number	PROJECT ESP 2G		Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039
DO NOT SCALE DRAWING		SIZE C		DWG. NO. 1002433
		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)		REV. B
		SHEET 7 OF 11		

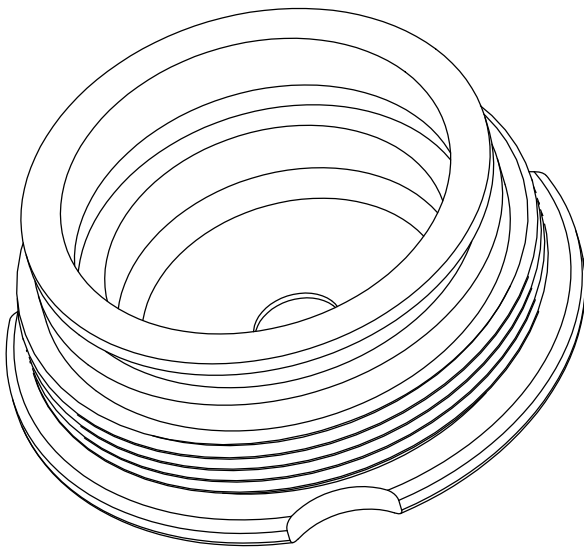
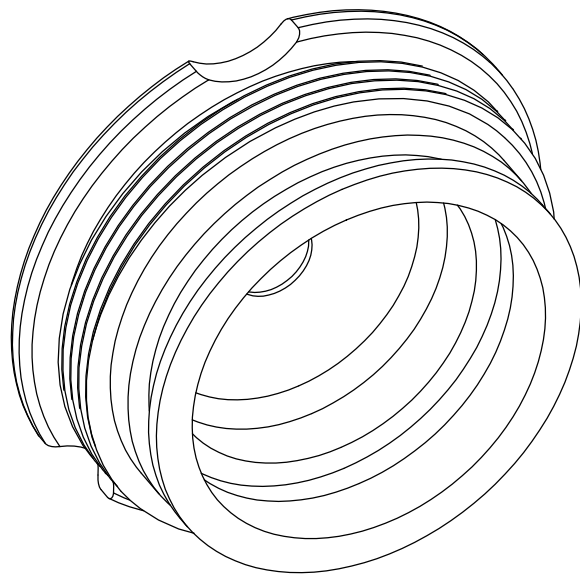
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1002433-007
WCR TOP

DIMENSIONS NOT SHOWN PER 1002433-005 (Sheet 6)



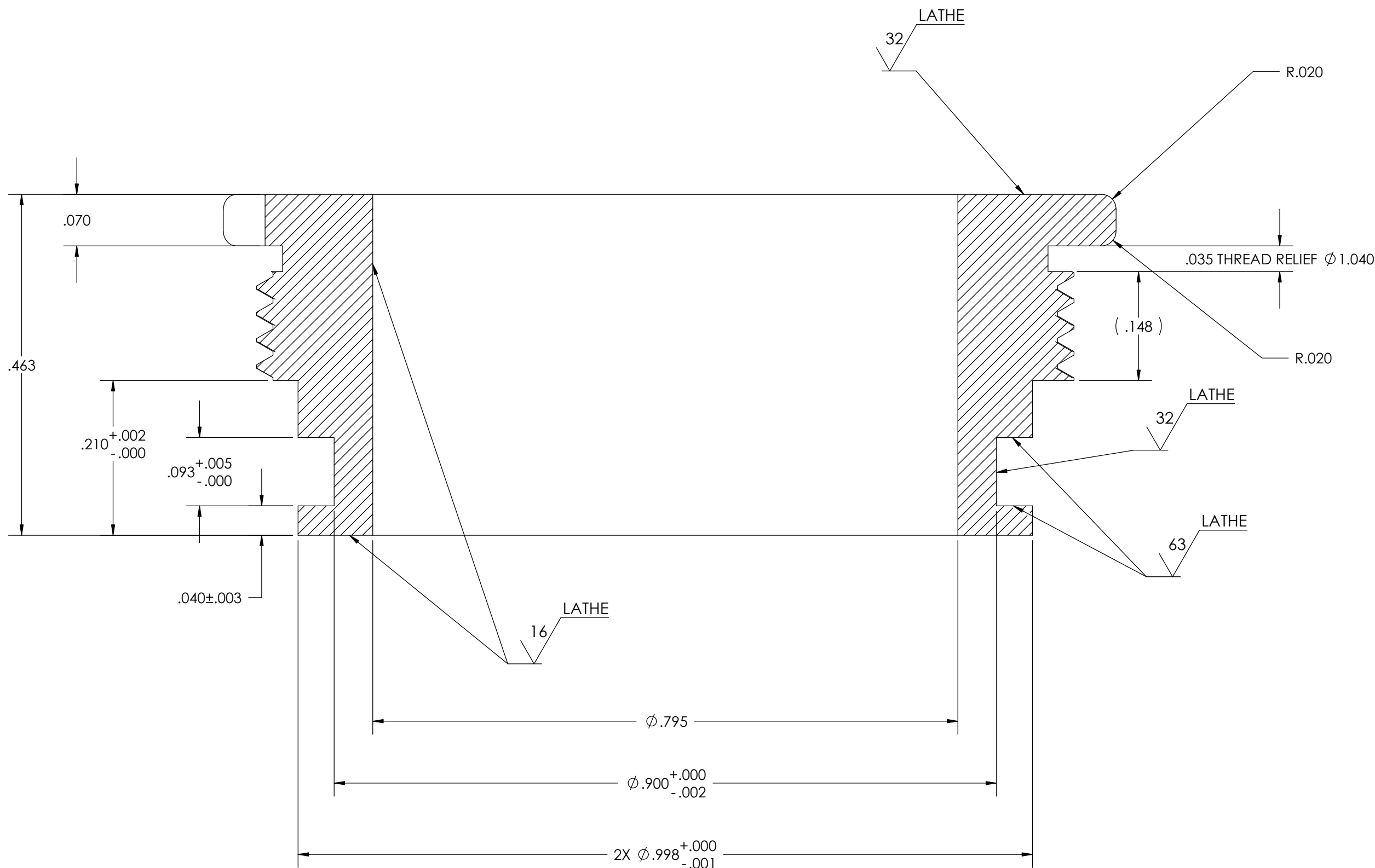
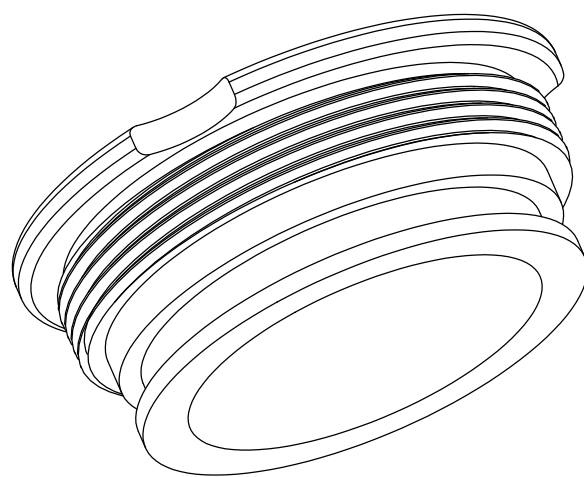
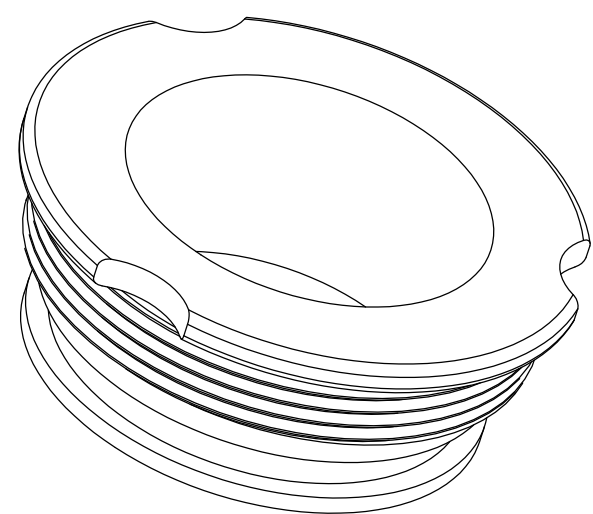
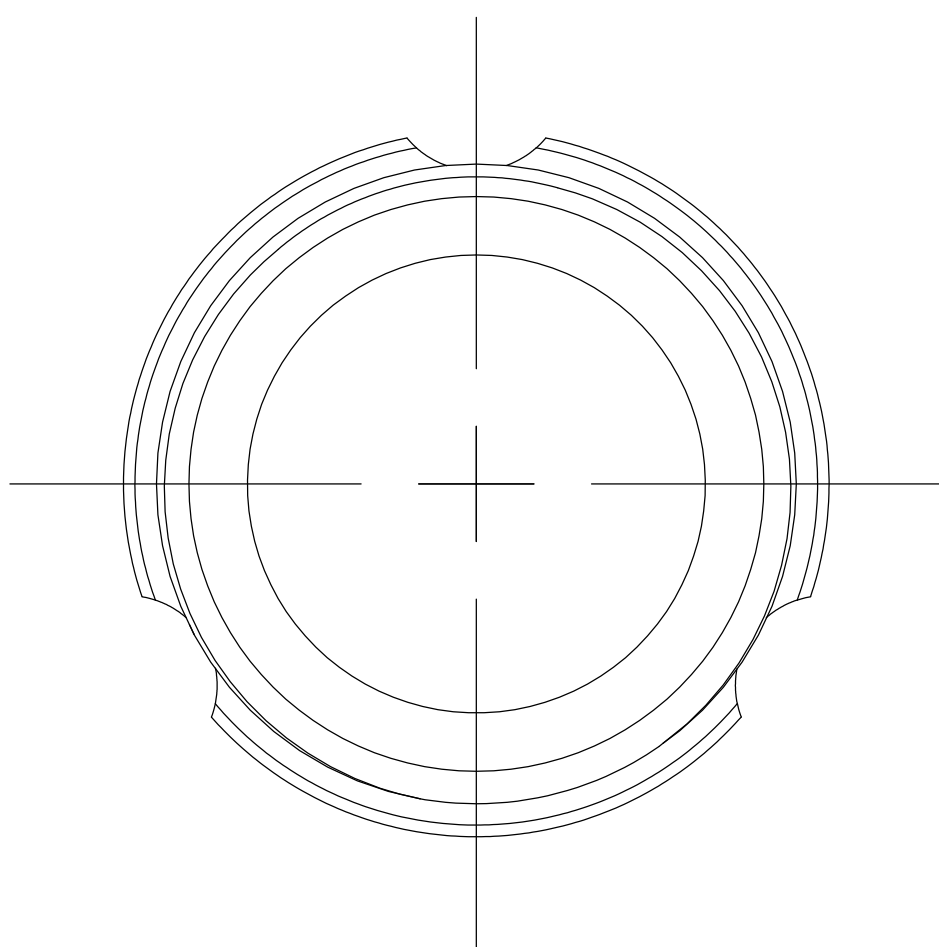
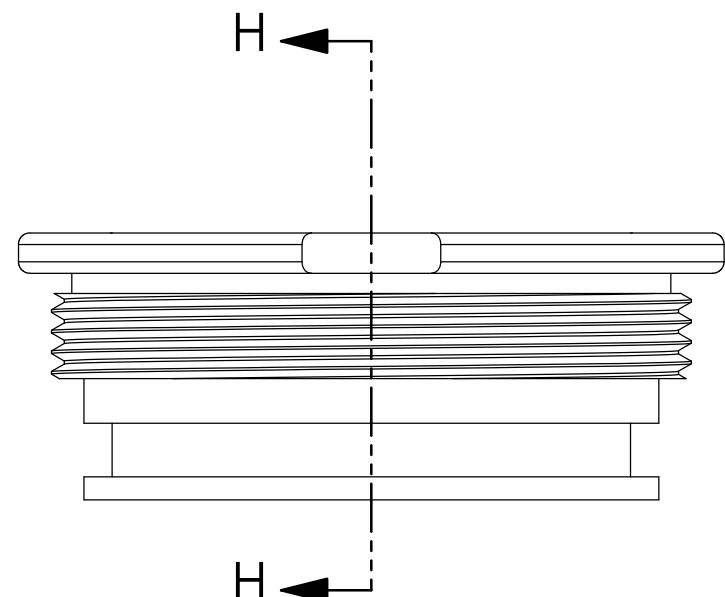
SECTION G-G



ITEM NO.		PART NUMBER		DESCRIPTION		MATERIAL		QTY.	
7		1002433-007		WCR TOP		Titanium Grade 2		65	
BILL OF MATERIALS						last updated on: Tuesday, March 14, 2006 4:41:00 PM			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				Monterey Bay Aquarium Research Institute			
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005	ANGLES ±1°	ENGINEER Jason Feldman 831-775-1837 cell: 831-295-4546 CHECKED			
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .003 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005				7700 Sandholdt Road Moss Landing, CA 95039			
Engineer		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH. MAX .001 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED				ESP filter holder (puck)			
NEXT ASSY Description	NEXT ASSY Number					SIZE C DWG. NO. 1002433 REV. B			
						PROJECT ESP 2G			
DO NOT SCALE DRAWING		CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)				SHEET 8 OF 11			

1002433-008
SH2 TOP

DIMENSIONS NOT SHOWN PER 1002433-005 (Sheet 6)



SECTION H-H

Magnaplate HCR - all dimensions & tolerances to be held after plating
CLASS 3A Thread tolerance to be held after plating as per specification

ITEM NO.	PART NUMBER	DESCRIPTION	MATERIAL	QTY.
8	1002433-008	SH2 Top	6061-T6 Aluminum	40

BILL OF MATERIALS			last updated on: Tuesday, March 14, 2006 4:41:00 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:	APPROVALS	DATE
Inspector		2 PLACE DIM ±.01	ENGINEER	
Shop Foreman		3 PLACE DIM ±.005	Jason Feldman	
Inspector		4 PLACE DIM ±.0005	831-775-1837	
		ANGLES ±1°	cell: 831-295-4546	
		1. DIMENSIONS ARE IN INCHES	CHECKED	
		2. DIMENSION LIMITS HELD AFTER PLATING		
		3. REMOVE BURRS & SHARP EDGES .010 MAX		
		4. MACHINED FILLET RADII .000 TO .003		
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH, MAX .001 INCHES FOR SINGLE SURFACE.	PROJECT NUMBER	
		7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED	701312.00	
			PROJECT	
			ESP 2G	
			SIZE	
			C	
			DWG. NO.	
			1002433	
			REV.	
			B	
			CAD FILE:	
			X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)	
				SHEET 9 OF 11

Monterey Bay Aquarium Research Institute

7700 Sandholdt Road
Moss Landing, CA 95039



ESP filter holder (puck)

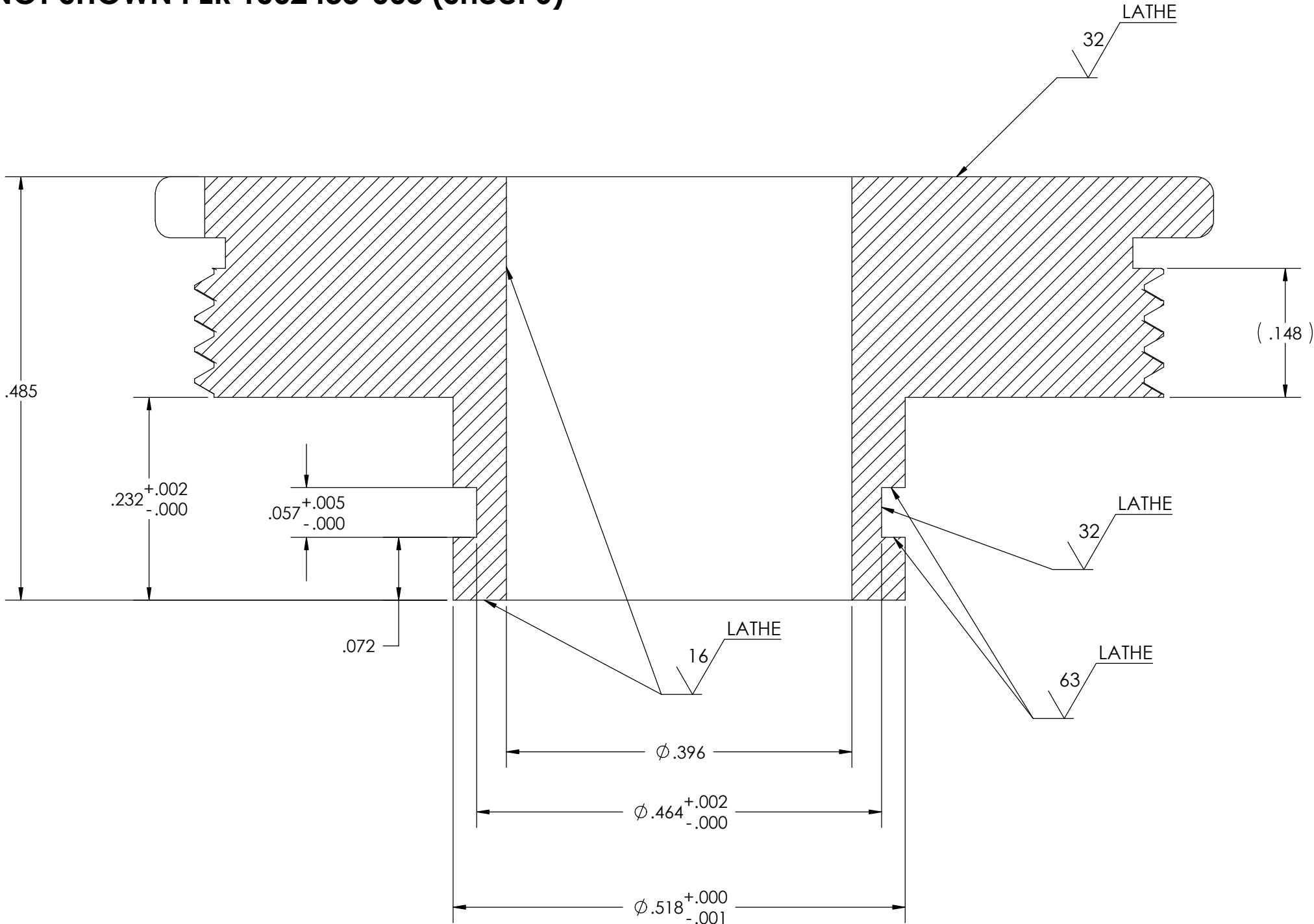
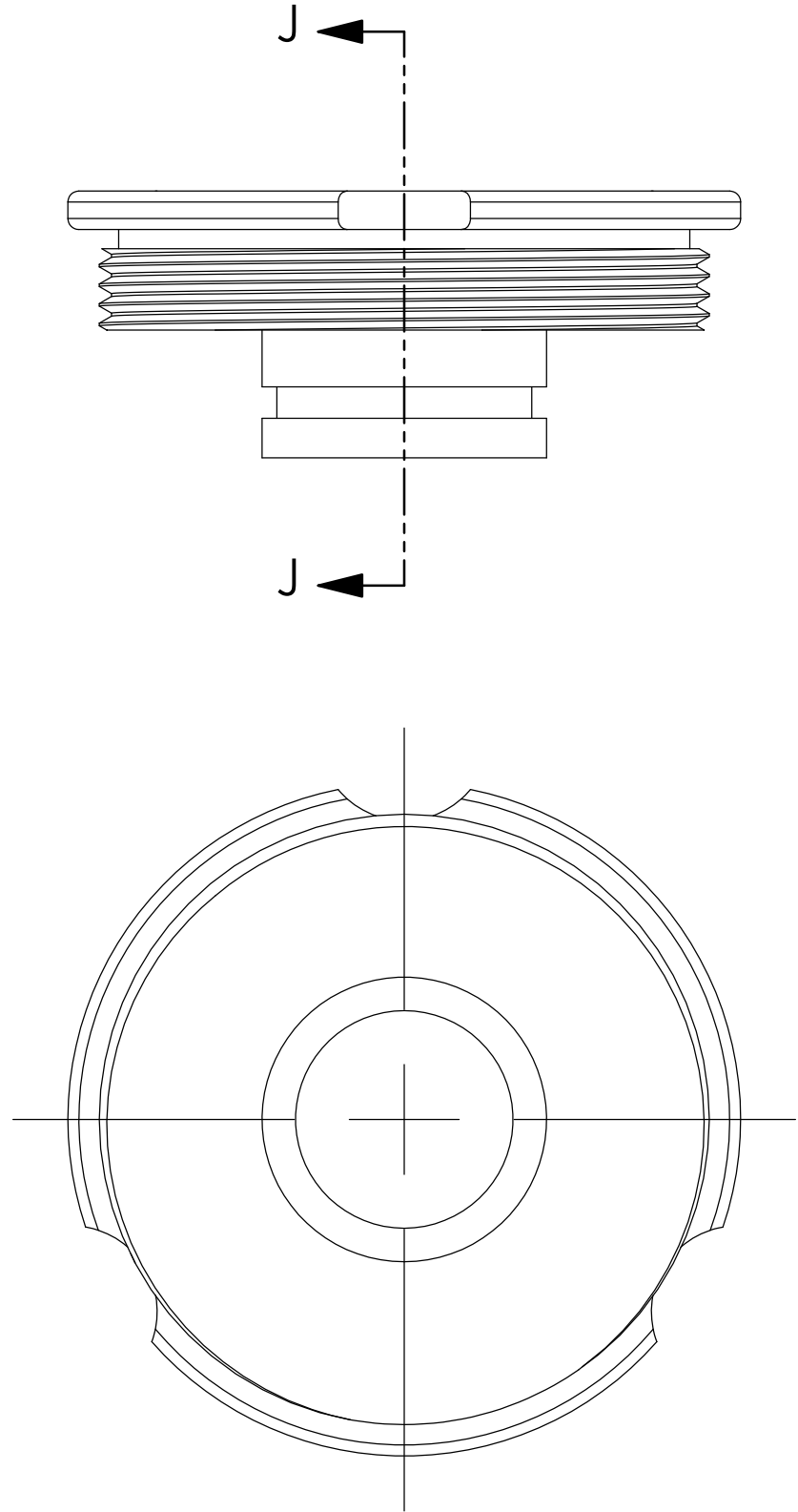
DO NOT SCALE DRAWING

1002433-009
TOX - Array TOP

DIMENSIONS NOT SHOWN PER 1002433-005 (Sheet 6)

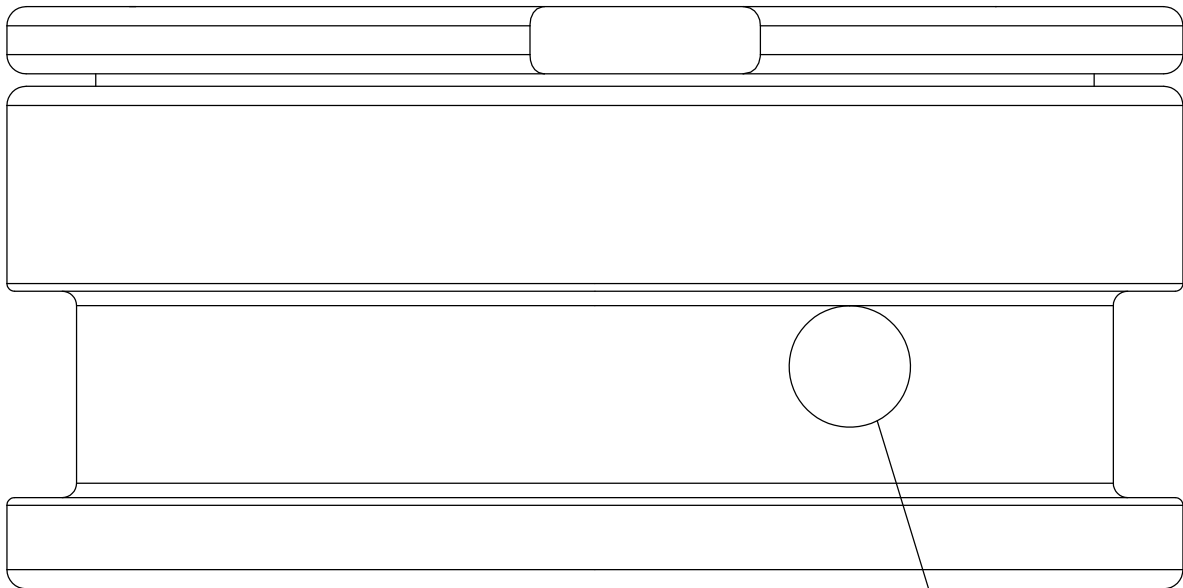
to utilize APPLE O-ring
0.453 I.D. x 0.039 Width
material: Buna-N
durometer: 60 Shore A

O-RING COMPRESSION:
MIN: 26%
MAX: 31%
O-Ring I.D. 2.4% less than groove

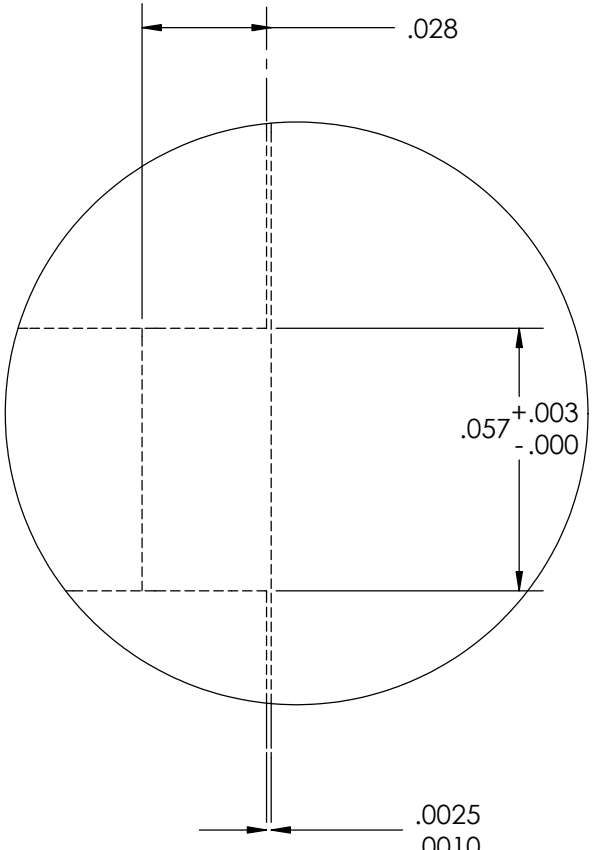


SECTION J-J

Magnaplate HCR - all dimensions & tolerances to be held after plating
CLASS 3A Thread tolerance to be held after plating as per specification



SECTION (assembly)

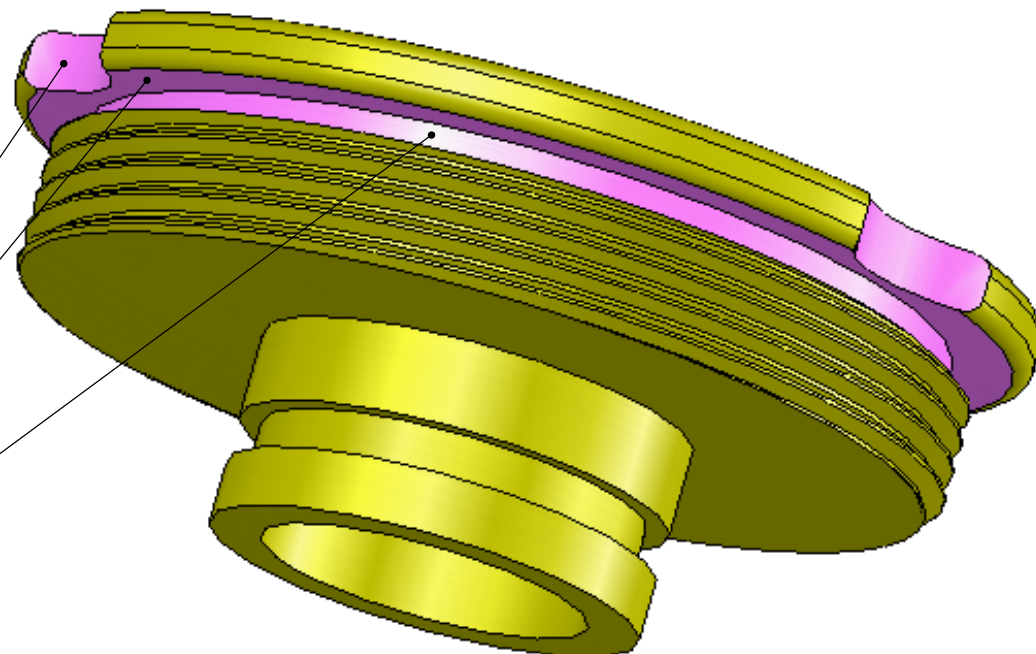
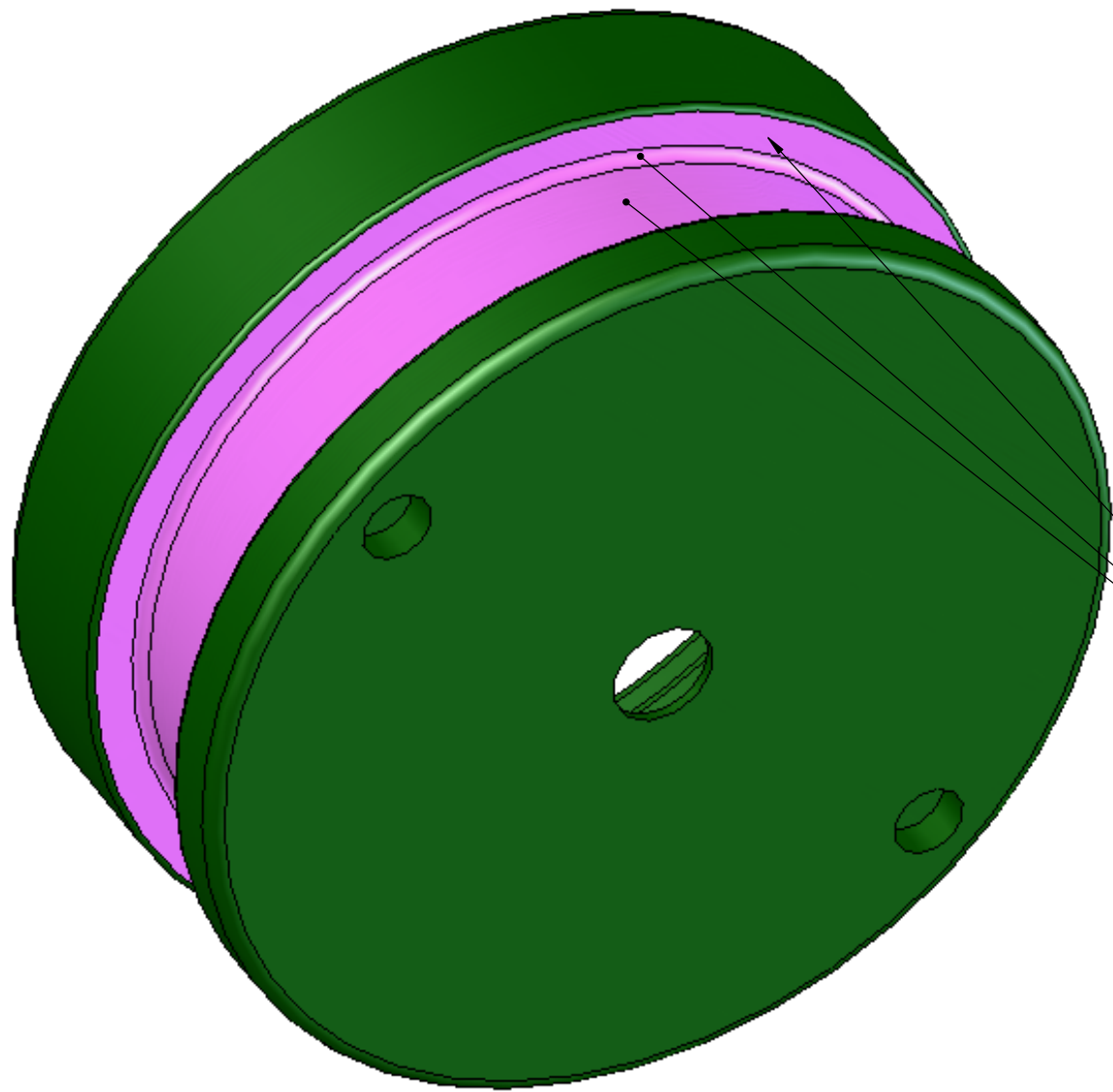


DETAIL L

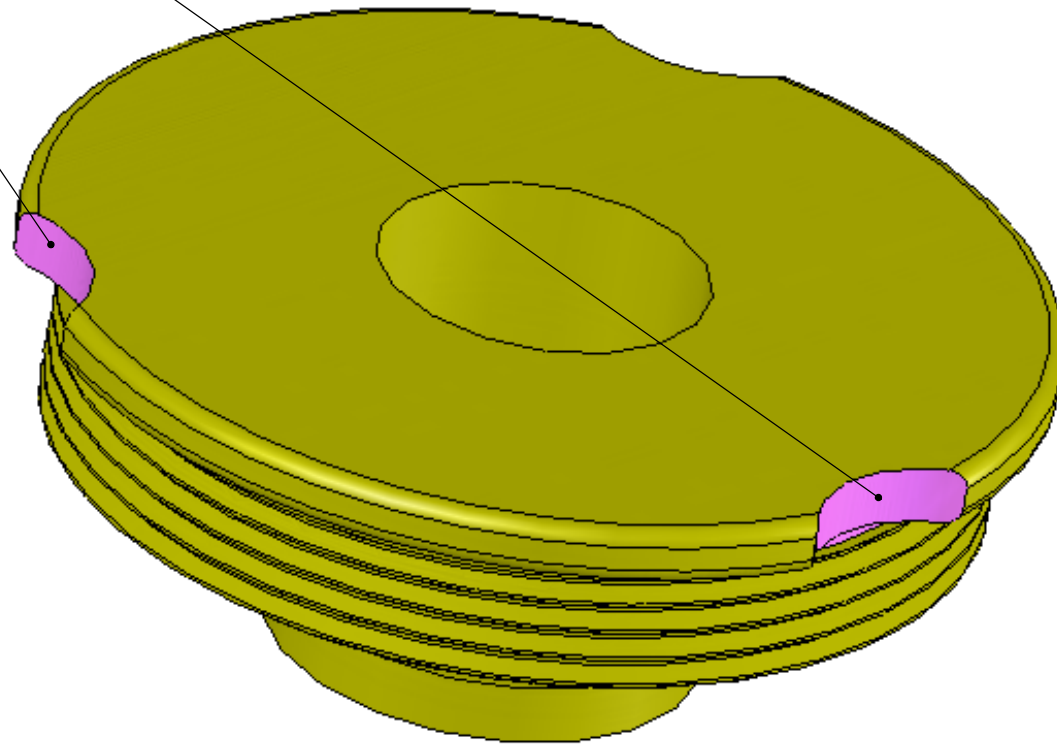
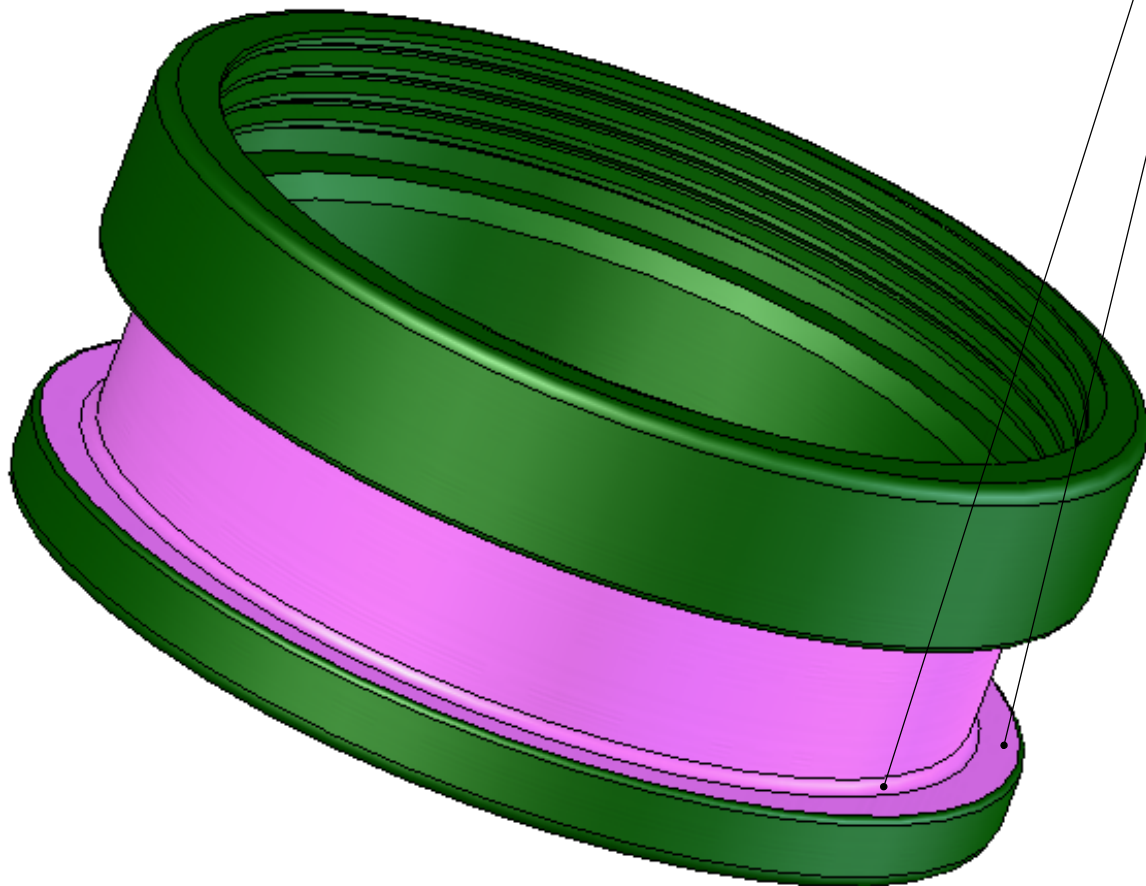


ITEM NO.		PART NUMBER		DESCRIPTION		MATERIAL		QTY.	
9		1002433-009		TOXARRAY TOP		6061-T6 Aluminum		25	
BILL OF MATERIALS								last updated on: Tuesday, March 14, 2006 4:41:00 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	
Inspector		2 PLACE DIM ±.01		3 PLACE DIM ±.005		4 PLACE DIM ±.0005		ANGLES ±1°	
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING 3. REMOVE BURRS & SHARP EDGES .010 MAX 4. MACHINED FILLET RADII .000 TO .003 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH, MAX .001 INCHES FOR SINGLE SURFACE. 7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED				ENGINEER		Monterey Bay Aquarium Research Institute 7700 Sandholdt Road Moss Landing, CA 95039 	
Engineer						Jason Feldman 831-775-1837 cell: 831-295-4546 CHECKED			
NEXT ASSY Description	NEXT ASSY Number					PROJECT NUMBER 701312.00			
DO NOT SCALE DRAWING		PROJECT		ESP 2G		SIZE		DWG. NO.	
						C		1002433	
								REV. B	
CAD FILE: X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)				SHEET 10 OF 11					

FIXTURE NOTES FOR RACKING PARTS FOR MAGNAPLATE HCR PROCESSING



MAGNAPLATE HCR NOT
REQUIRED IN PINK AREAS



BILL OF MATERIALS					last updated on: Tuesday, March 14, 2006 4:41:00 PM	
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS DATE	
Inspector		2 PLACE DIM ±.01	3 PLACE DIM ±.005	4 PLACE DIM ±.0005	ENGINEER	Monterey Bay Aquarium Research Institute
Shop Foreman		1. DIMENSIONS ARE IN INCHES			Jason Feldman	7700 Sandholdt Road Moss Landing, CA 95039
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING			831-775-1837	
		3. REMOVE BURRS & SHARP EDGES .010 MAX			cell: 831-295-4546	ESP filter holder (puck)
		4. MACHINED FILLET RADII .000 TO .003			CHECKED	
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005			PROJECT NUMBER	SIZE
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .0005 PER INCH. MAX .001 INCHES FOR SINGLE SURFACE.			701312.00	C
		7. SURFACE FINISH TO BE 32 MICRON UNLESS OTHERWISE SPECIFIED			PROJECT	DWG. NO.
					ESP 2G	1002433
					CAD FILE:	REV.
					X:\701312 ESP 2G\SolidWorks files\internal structure (1002209)	B
					SHEET 11 OF 11	

