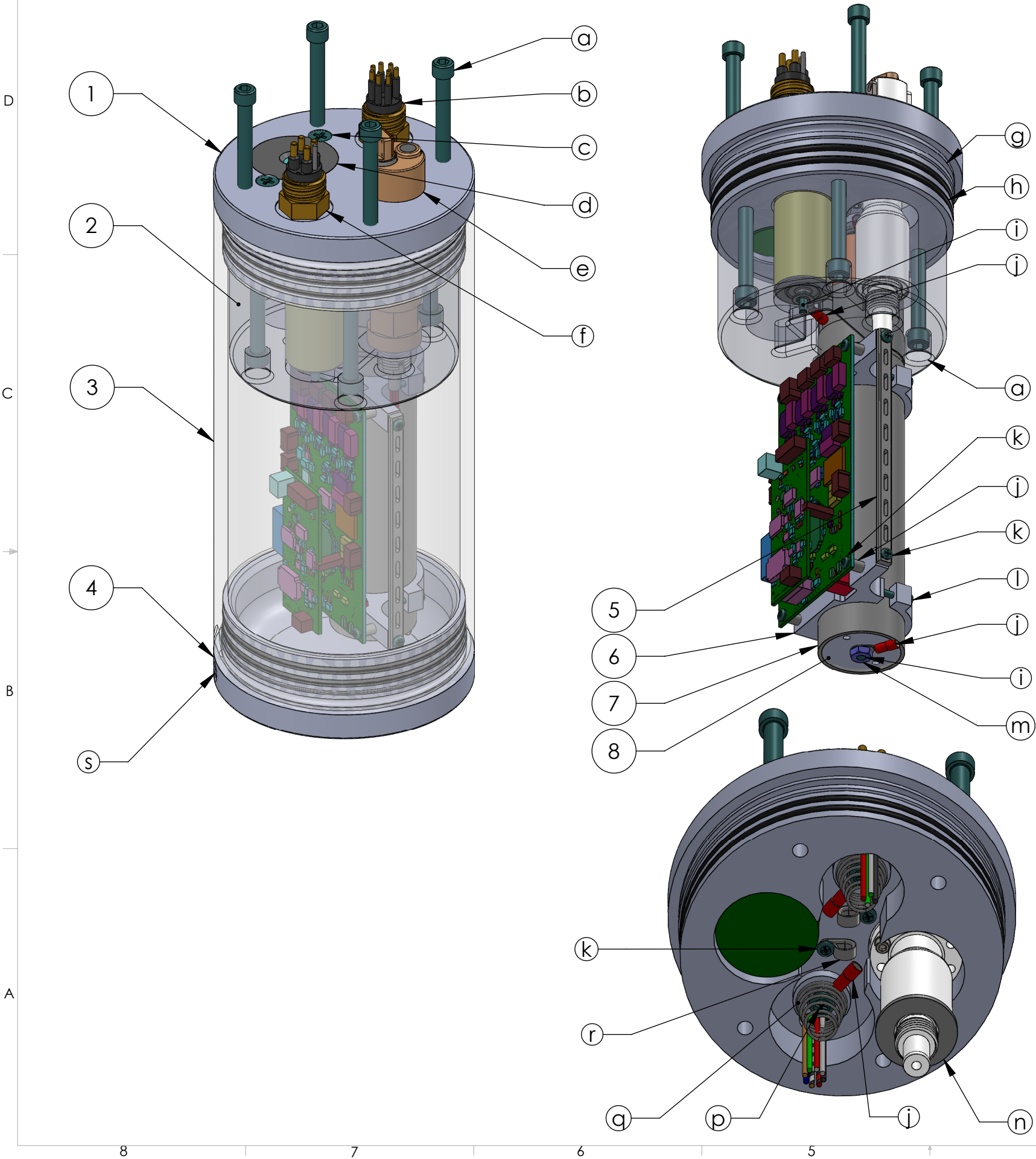


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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
INITIAL RELEASE			



s	1		Vent screw	McMaster 90825A185
r	2		Nylon loop clamp	McMaster 8876T56
q	2		Battery Springs	McMaster 2415N14
p	2		Battery Spring screws	8-32 *0.5 Panhead
n	1		GDF Spacer	1/16" Washer: McMaster 92150A166
m	1		Main Battery nut	8-32 Nut
l	2		Logger bracket screws	4-40*1.0 Panhead
k	8		Logger screws	4-40*0.5 Panhead
j	4		Ring Terminal	e.g., McMaster 69665K74
i	1		Battery + screw	8-32*0.25 Panhead
h	4		O-rings	Viton -155: McMaster 9464K518
g	1		Lock Cord	1/8" PolyPro: McMaster 7889A44
f	1		Pump connector	MCBH4M
e	1		DuraFET pH Sensor	Either: DSD or GDF
d	1		Oxygen Optode	Aanderaa 5730
c	2		Optode screws	5-.8*12mm flathead, McMaster 93395A304
b	1		CTD/COM connector	MCBH8M
a	8		Mounting screws	1/4-20 x 2.25" Socket head, McMaster 92185A553
Item No.	Qty	Part No.	Description	Material Specification

Bill of Materials: Ordered Parts

8	1		Batery Retainer	1/4" PVC or Delrin plate
7	2		Logger Mount	3/8" PVC or Delrin plate
6	1		Battery Tube	Stainess Tube; McMaster 1750T211
5	1		Rail	Aluminum: McMaster 4490T173
4	1		Endcap, Bottom	1.5" PVC plate
3	1		Housing Pipe	4" PVC Sched 40 pipe
2	1		Housing Support	4" PVC Rod OR 2-1/8" PVC plate
1	1		Endcap, Top	1.5" PVC plate
Item No.	Qty	Part No.	Description	Material Specification

Bill of Materials: Machined Pats

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	Designer		Hans Jannasch 9/31/2021	
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .015-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				CHECKED			
Engineer									
NEXT ASSY Description	NEXT ASSY Number					PROJECT			
Application		DO NOT SCALE DRAWING				WEIGHT			
								SIZE B	DWG. NO. 200jD-mpHoxHousing
								SCALE 1:3	REV.
								CAD FILE:	SHEET 1 OF 7

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mpHOx Housing

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

4X $\phi .201 \nabla 1.2$
1/4-20 UNC-2B $\nabla 1.0$

2X $\phi .391$ thru
tap 7/16-20 UNF-2B $\nabla .9$

2X $\phi 1.000$
 $\nabla .050$

2X $\phi .165 \nabla .7$
tap 5-.8mm $\nabla .5$
 $\nabla 90^\circ \nabla .122$

2X $\phi .089 \nabla .6$
4-40 UNF-2B $\nabla .5$

4X $\phi .201 \nabla 1.0$
1/4-20 UNC-2B $\nabla .75$

2X $\phi .136 \nabla .6$
8-32 UNF-2B $\nabla .5$

$\phi 1.370 \nabla .650$

$\phi .750 \nabla .500$
boss

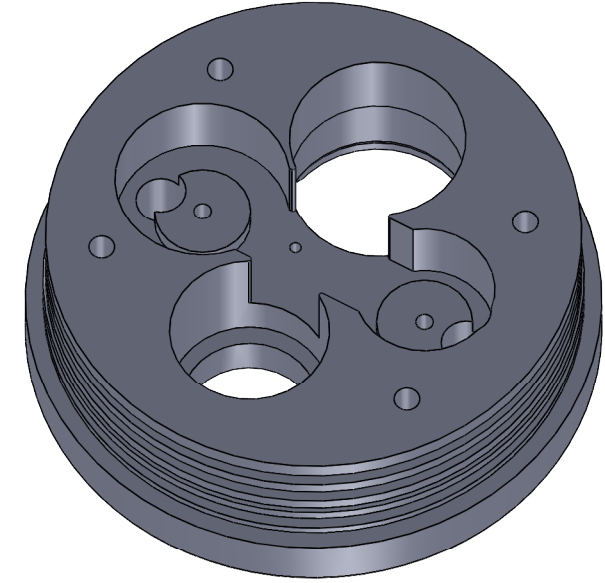
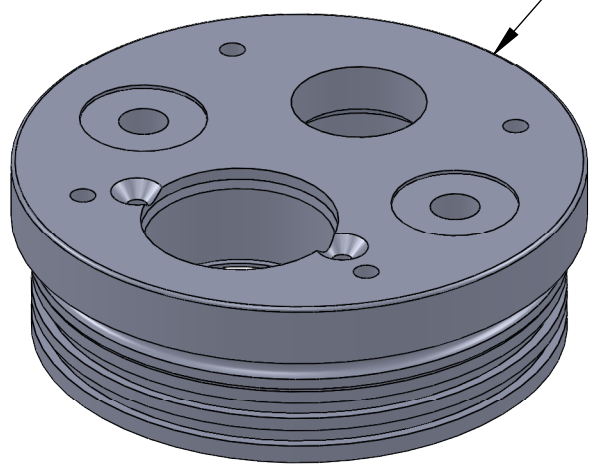
Debur corners to
R.02

$\phi 1.100 \nabla .650$

$\phi .750 \nabla .500$
(boss)

SECTION A-A
SCALE 2 : 3

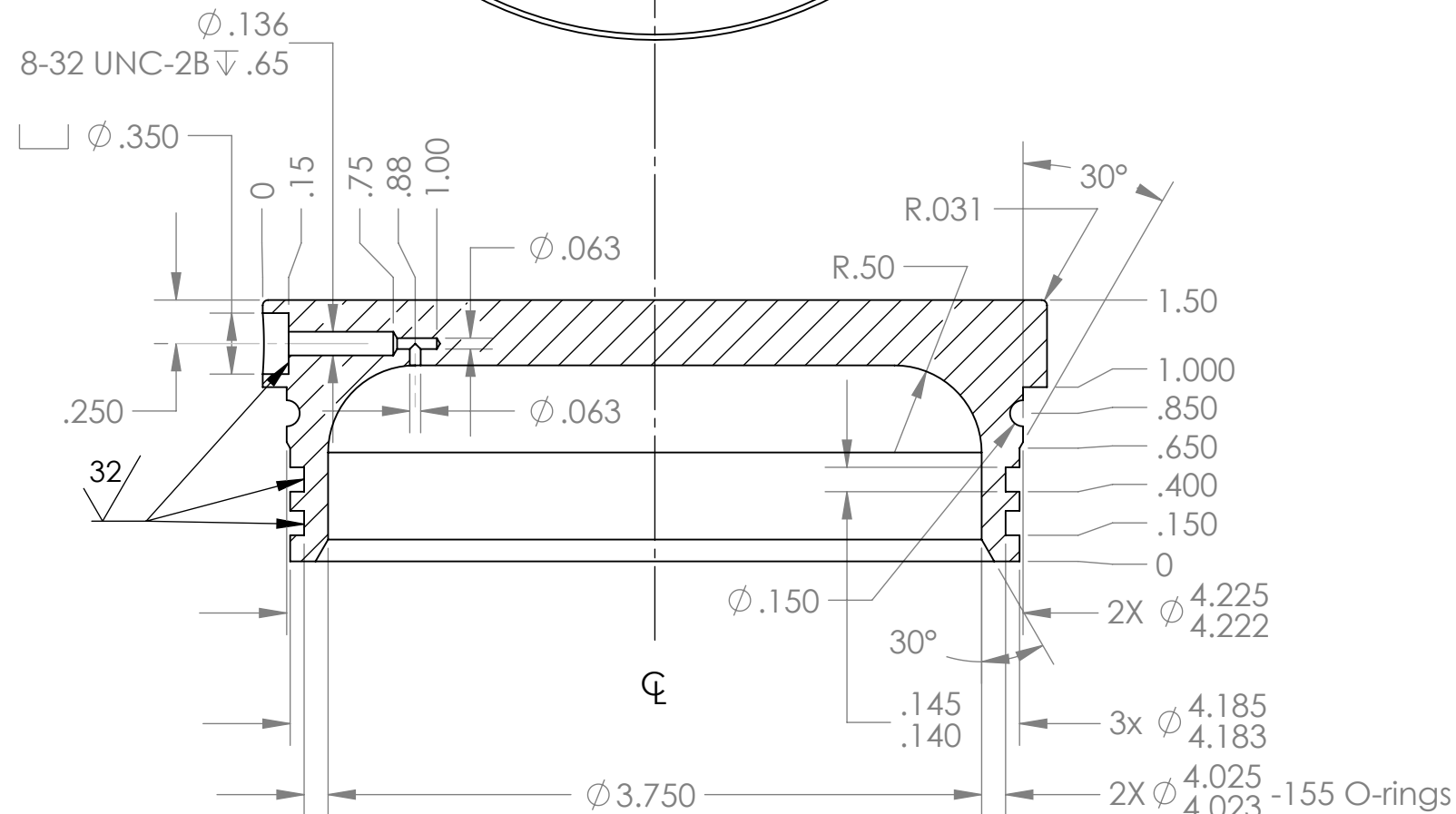
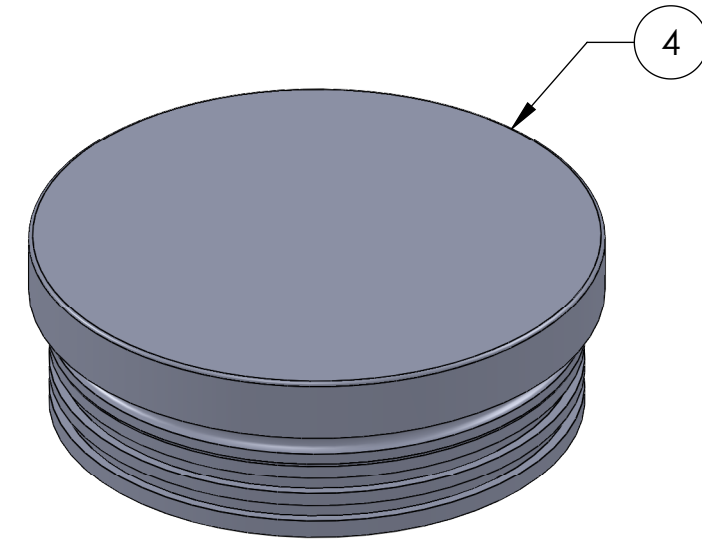
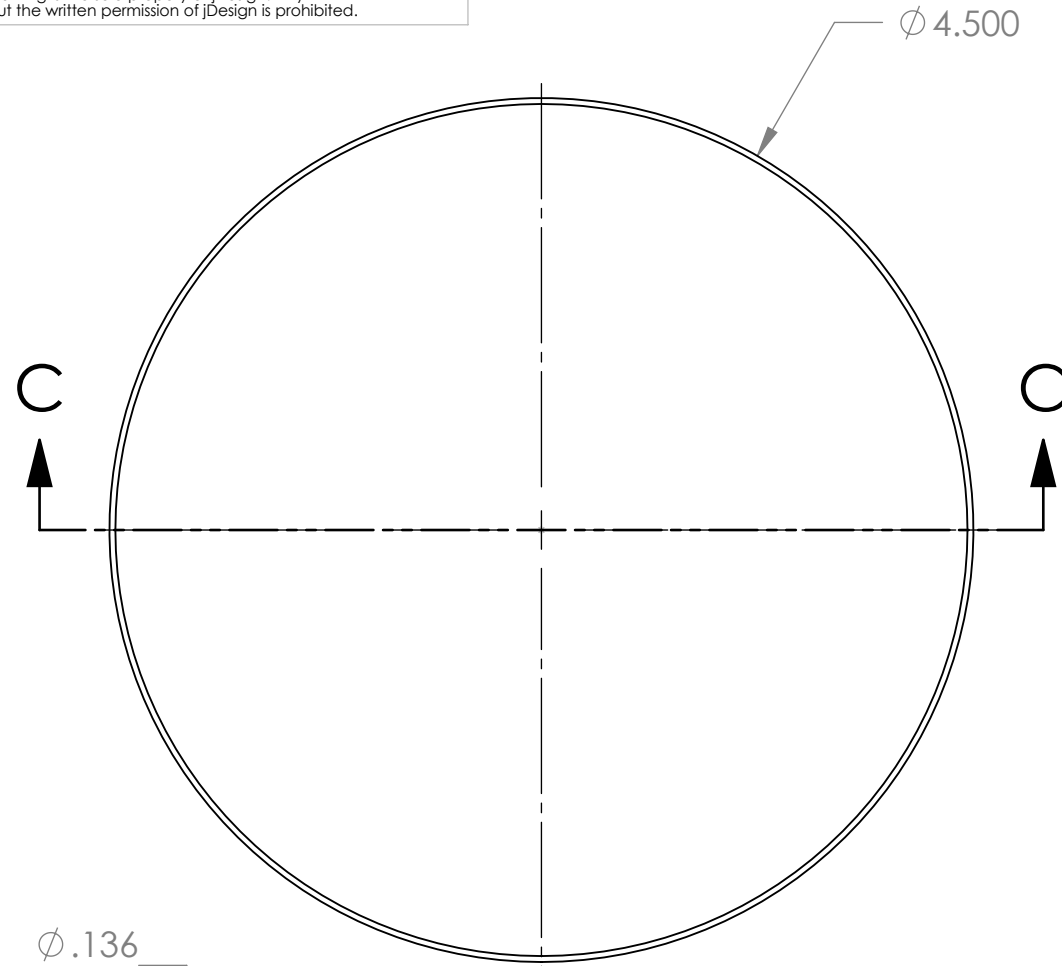
DETAIL B
SCALE 1.5 : 1



1	1		Endcap, Top	1.5" PVC plate
Item No.	Qty	Part No.	Description	Material Specification
Bill of Materials: Machined Pats				
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS
Inspector		1 PLACE DIM $\pm 1/16$	2 PLACE DIM $\pm .02$	DATE
Shop Foreman		3 PLACE DIM $\pm .005$	ANGLES $\pm 1^\circ$	Designer
Engineer		1. DIMENSIONS ARE IN INCHES		Hans Jannasch 9/31/2021
		2. DIMENSION LIMITS HELD AFTER PLATING.		CHECKED
		3. REMOVE BURRS AND SHARP EDGES .015 MAX.		
		4. MACHINED FILLET RADII .015-.030.		PROJECT
NEXT ASSY Description	NEXT ASSY Number	5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.		
Application		DO NOT SCALE DRAWING		WEIGHT
			SIZE B	DWG. NO. 200jD-mpHoxHousing
			SCALE 1:3	CAD FILE: SHEET 2 OF 7

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

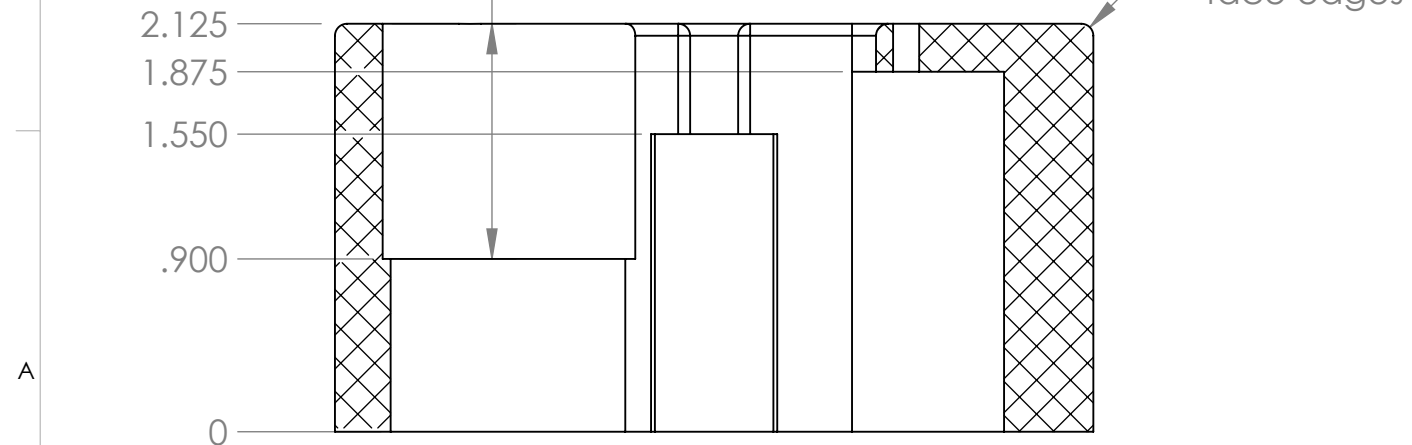
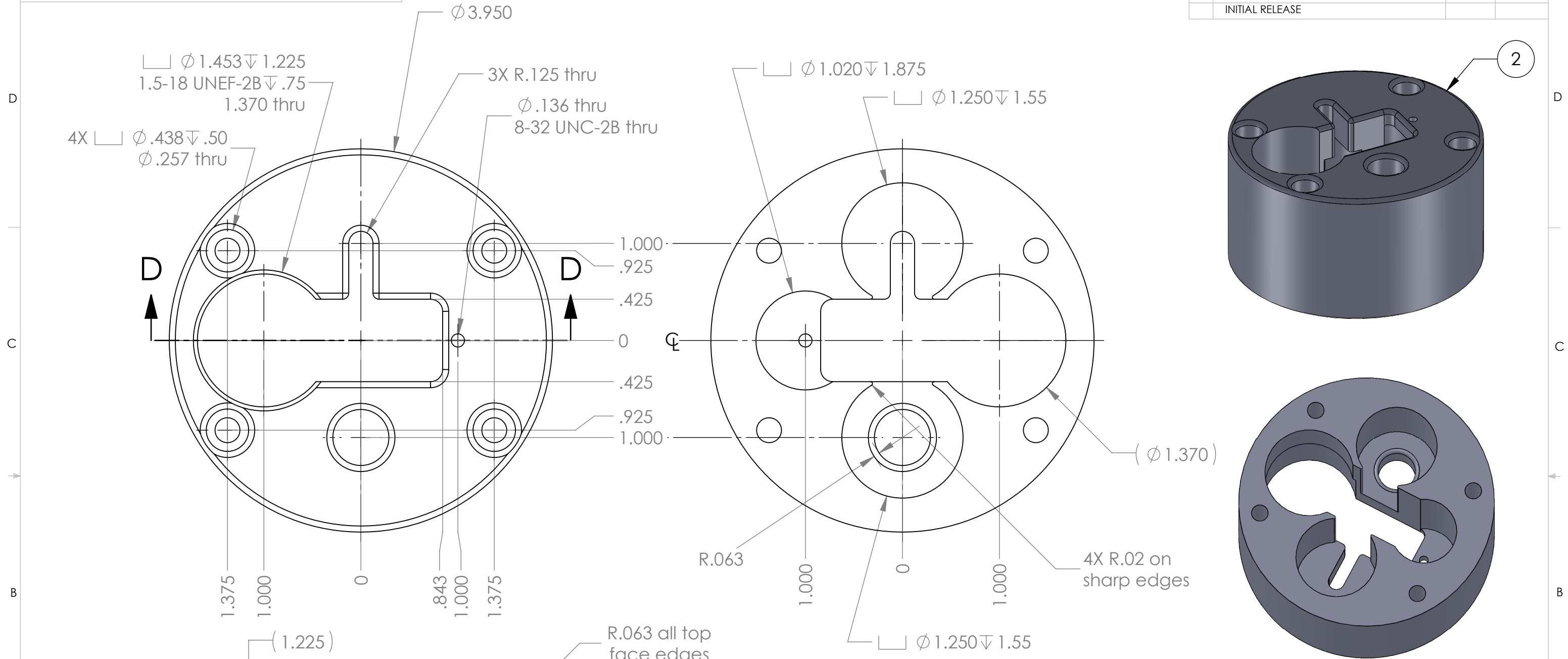


SECTION C-C
SCALE 1 : 1

4	1	Endcap, Bottom		1.5" PVC plate	
Item No.	Qty	Part No.	Description	Material Specification	
Bill of Materials: Machined Pats					
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .015-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.			Designer Hans Jannasch 9/31/2021
Engineer					CHECKED
NEXT ASSY Description	NEXT ASSY Number				PROJECT
Application		DO NOT SCALE DRAWING		WEIGHT	SIZE B DWG. NO. 200jd-mpHoxHousing
				SCALE	1:3 CAD FILE:
					REV.
				SHEET 3	OF 7

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REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		

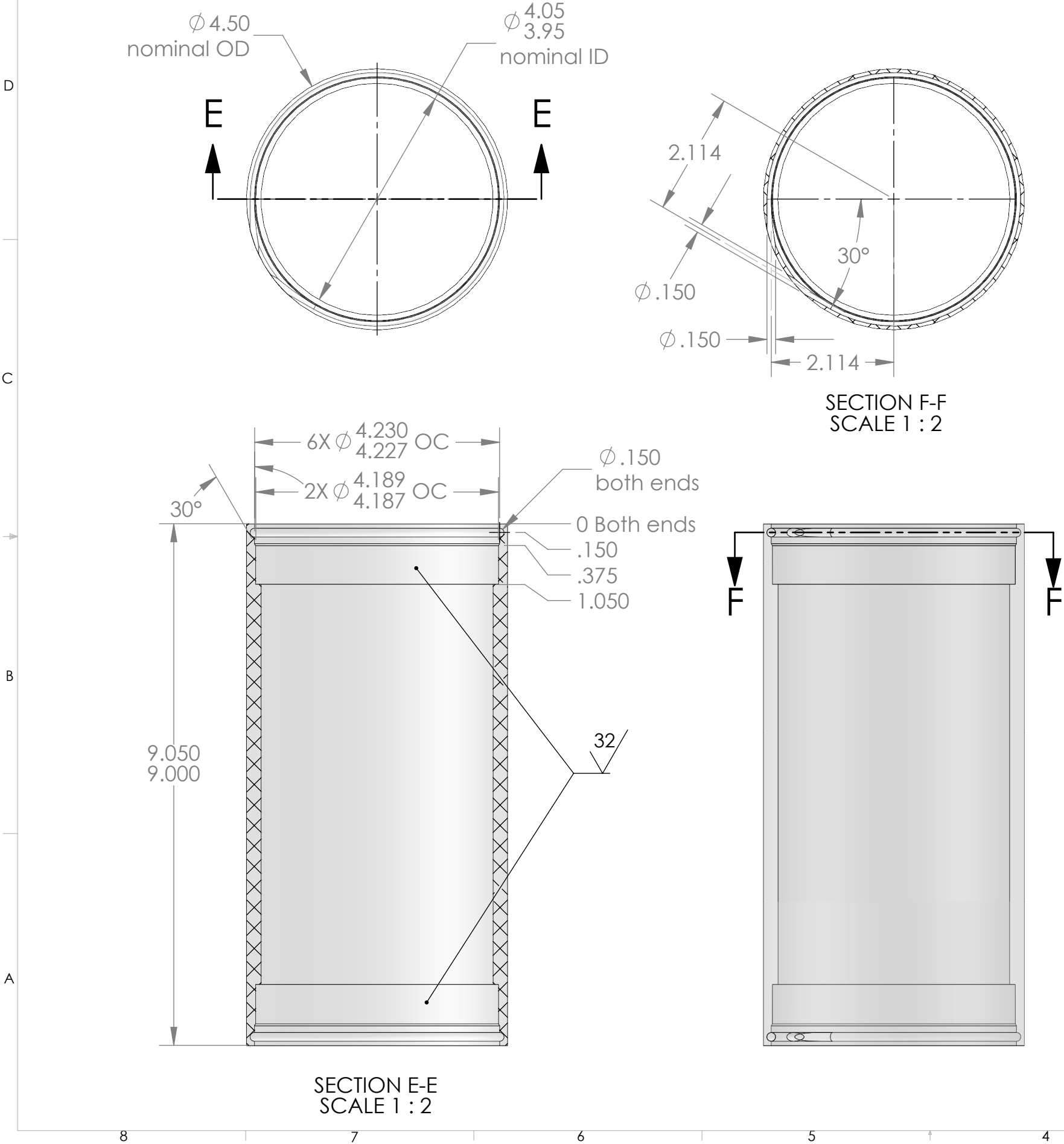


SECTION D-D
SCALE 1 : 1

2		1		Housing Support		4" PVC Rod OR 2-1/8" PVC plate			
Item No.		Qty	Part No.	Description		Material Specification			
Bill of Materials: Machined Pats									
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:			APPROVALS		DATE		
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	Designer Hans Jannasch 9/31/2021		jDesign Hans Jannasch 532 Herrmann Drive Monterey, CA 93940 jannasch@mac.com; 831-521-8425	
Shop Foreman		1. DIMENSIONS ARE IN INCHES				CHECKED			
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.				PROJECT			
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.							
		4. MACHINED FILLET RADII .015-.030.						mpHOx Housing	
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005							
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.						SIZE B DWG. NO. 200jD-mpHoxHousing REV.	
Application		DO NOT SCALE DRAWING			WEIGHT		SCALE 1:3 CAD FILE:		SHEET 4 OF 7

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	INITIAL RELEASE		

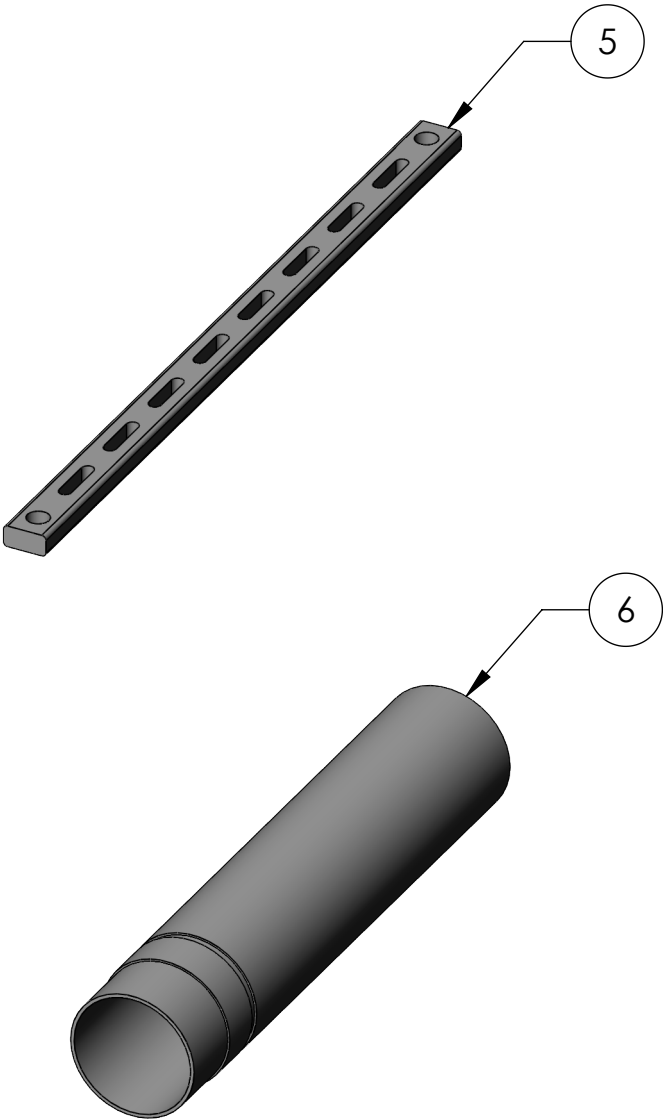
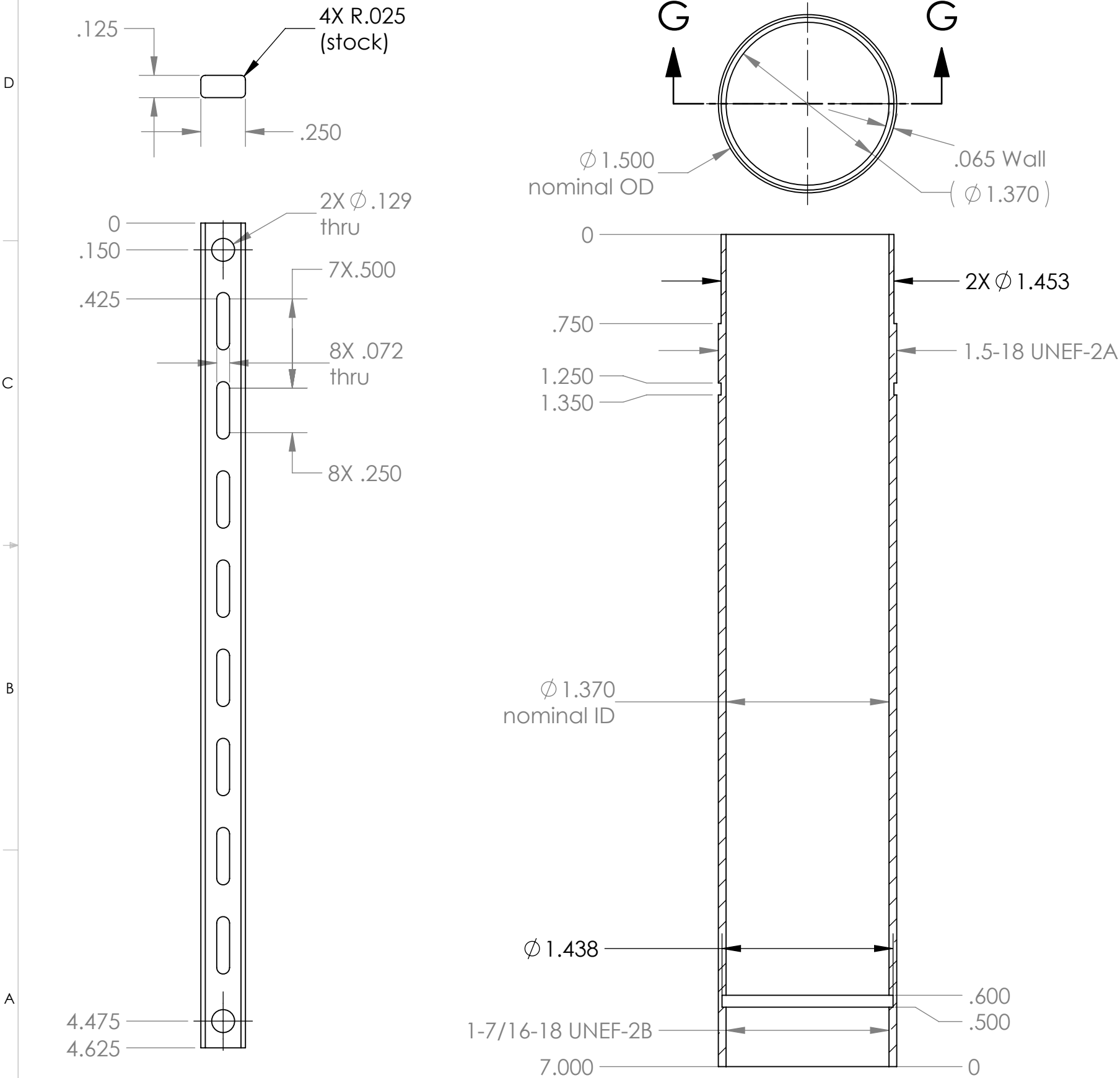


NOTE 7
Ensure that 1/8" Polypro welding cord easily slides through grove with end caps (Parts 1 and 4) inserted in Part 3.

3	1		Housing Pipe	4" PVC Sched 40 pipe
Item No.	Qty	Part No.	Description	Material Specification
Bill of Materials: Machined Pats				
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	DATE
Shop Foreman		3 PLACE DIM ±.005	ANGLES ±1°	Designer
Engineer		1. DIMENSIONS ARE IN INCHES		Hans Jannasch 9/31/2021
NEXT ASSY Description	NEXT ASSY Number	2. DIMENSION LIMITS HELD AFTER PLATING.		CHECKED
Application		3. REMOVE BURRS AND SHARP EDGES .015 MAX.		PROJECT
		4. MACHINED FILLET RADII .015-.030.		WEIGHT
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		SIZE B
		6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.		DWG. NO. 200jD-mpHoxHousing
		DO NOT SCALE DRAWING		REV.
				SCALE 1:3
				CAD FILE:
				SHEET 5 OF 7

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REV.	DESCRIPTION	DATE	APPROVED
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6	1		Battery Tube	Stainless Tube; McMaster 1750T211			
5	1		Rail	Aluminum: McMaster 4490T173			
Item No.	Qty	Part No.	Description	Material Specification			
Bill of Materials: Machined Pats							
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS DATE jDesign Hans Jannasch 532 Herrmann Drive Monterey, CA 93940 jannasch@mac.com; 831-521-8425 mpHOx Housing			
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02		3 PLACE DIM ±.005	ANGLES ±1°	Designer Hans Jannasch 9/31/2021
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .015-.030.				CHECKED	
Engineer		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				PROJECT	
NEXT ASSY Description	NEXT ASSY Number						
Application		DO NOT SCALE DRAWING		WEIGHT	SIZE B	DWG. NO. 200jD-mpHoxHousing	REV.
					SCALE 1:3	CAD FILE:	SHEET 6 OF 7

