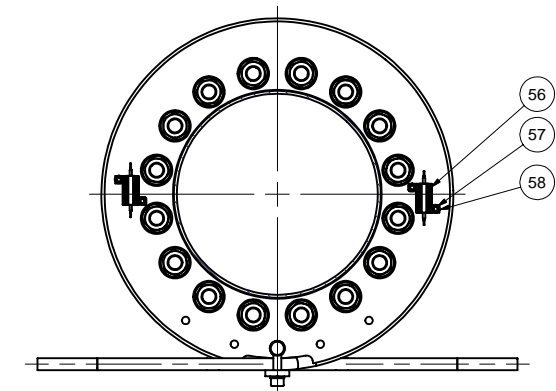
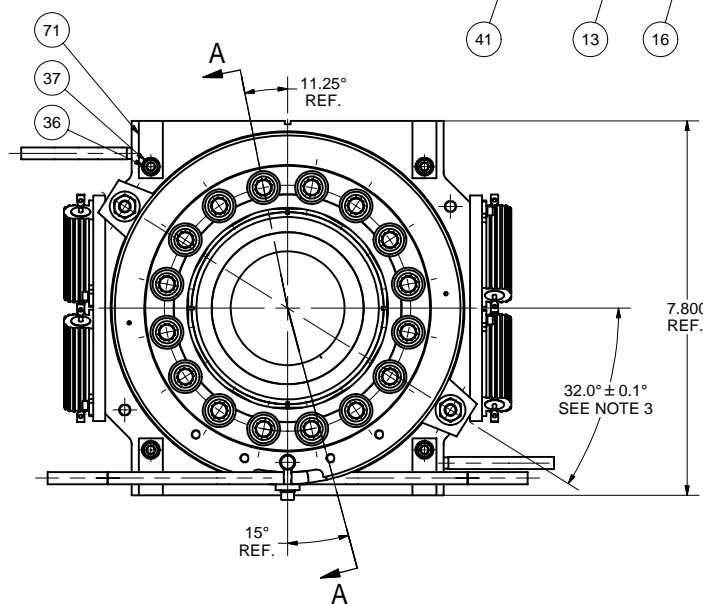
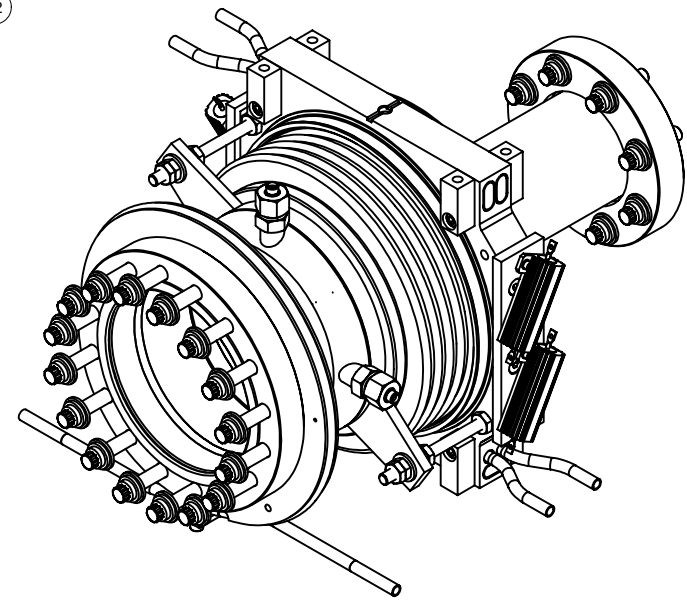
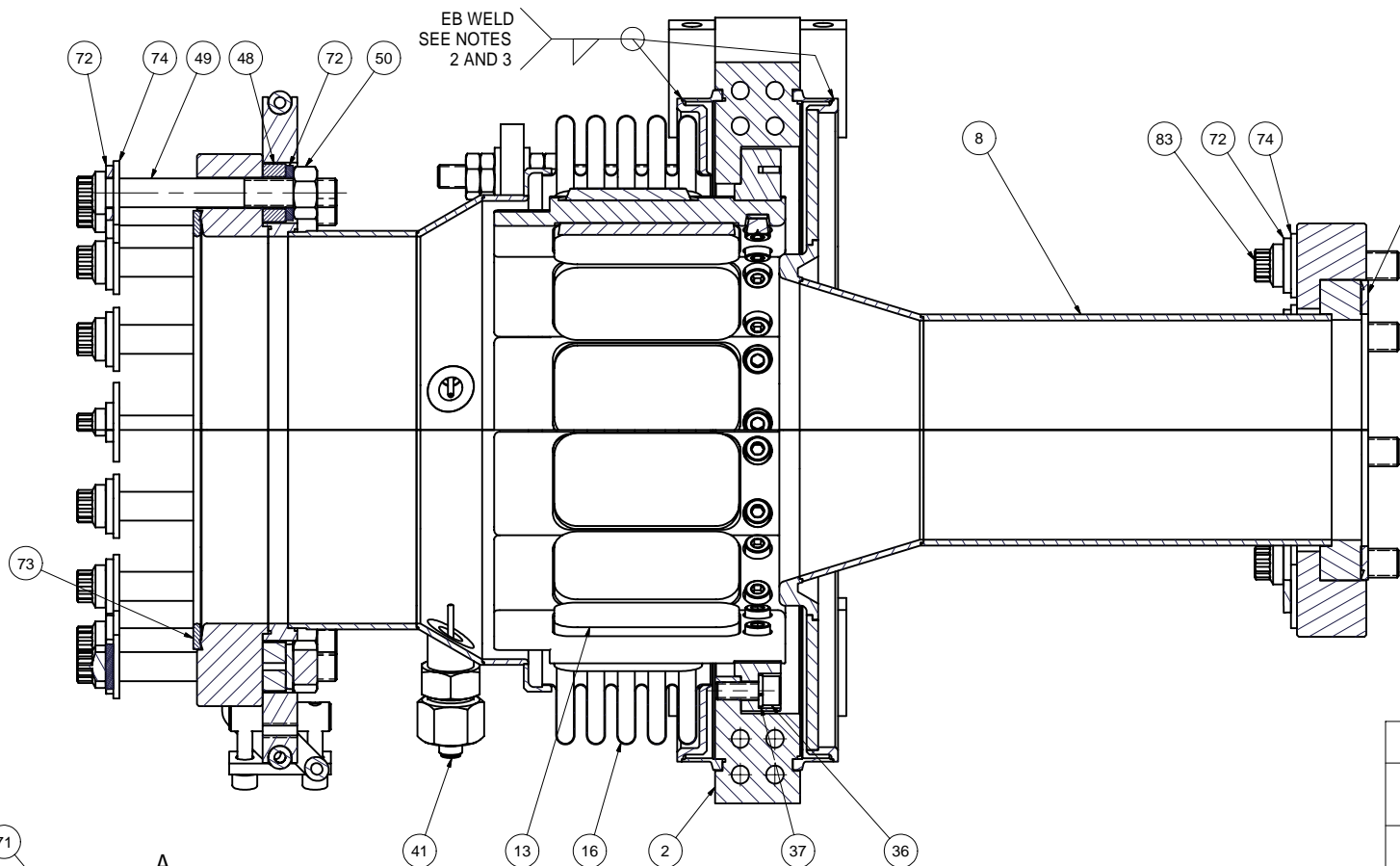
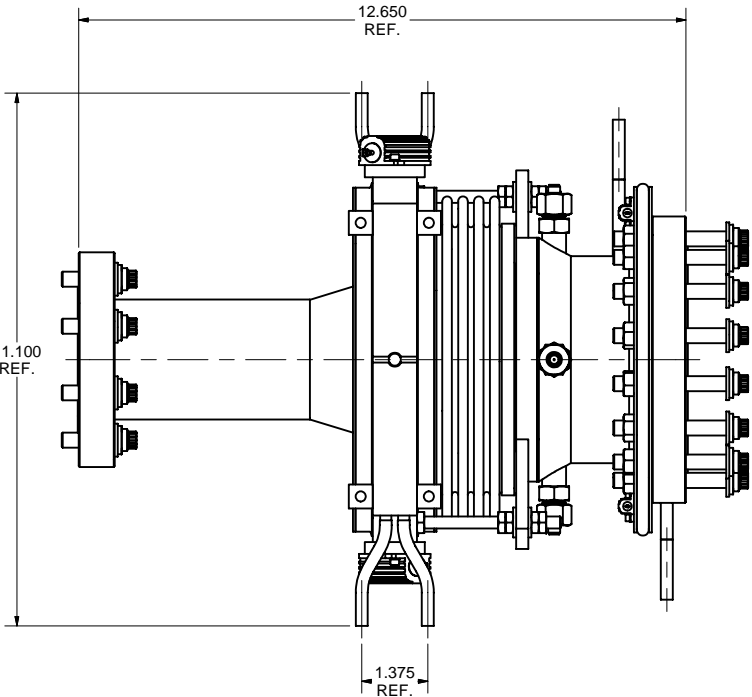


REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



SECTION A-A  
SCALE 1 : 1

SECTION B-B

- 1 106 MM HOM HALF LOAD ASSEMBLY - Version 2
- FILE NAME: 7102-028  
SHEET NO.: 1  
DFT. SCALE: 1:2  
MATERIAL:  
QTY: 1 PER CRYOMODULE
- NOTES: 1. PAY ATTENTION ON SUBASSEMBLY ITEM 13 GROOVE POSITION. IT SHOULD BE ON TOP.  
2. WELDS TO CONFORM TO UHV SPEC.  
3. RODS ITEM 76 SHOULD BE IN CENTER OF BELLOWS BRACKET HOLES WITHIN 0.01 IN.  
4. LEAK RATE:  $\leq 1 \times 10^{-9}$  mbar x l/sec.

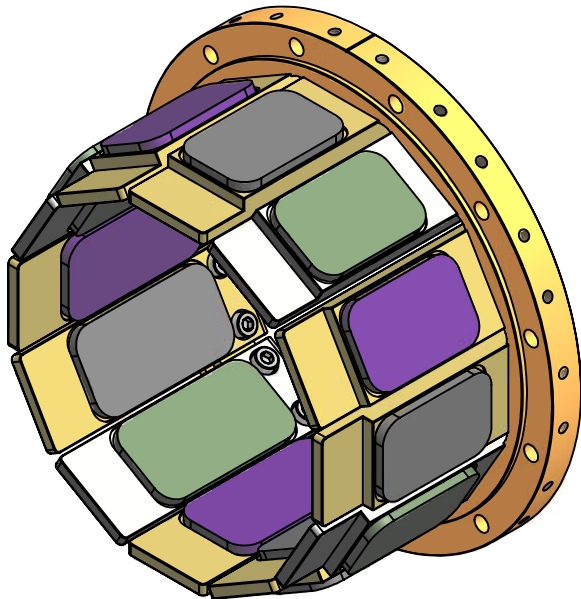
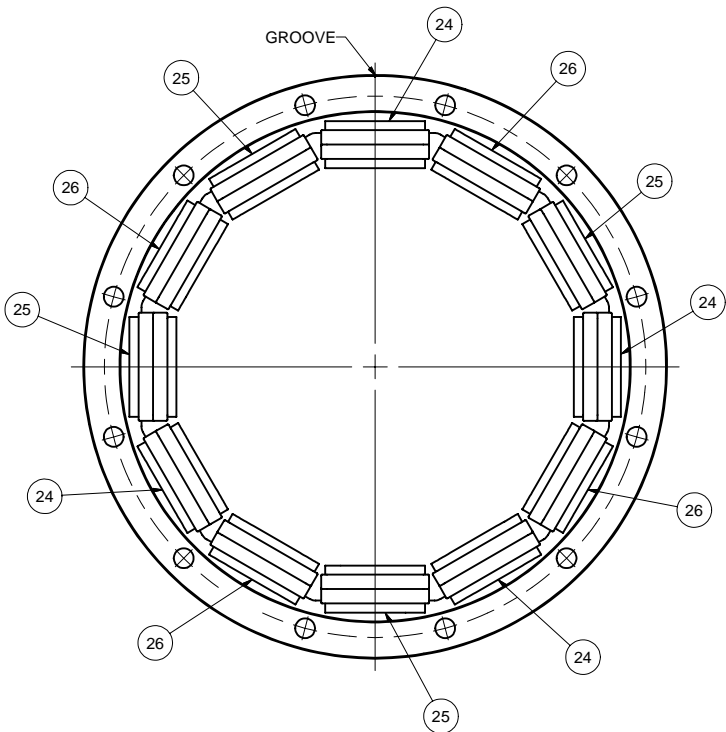
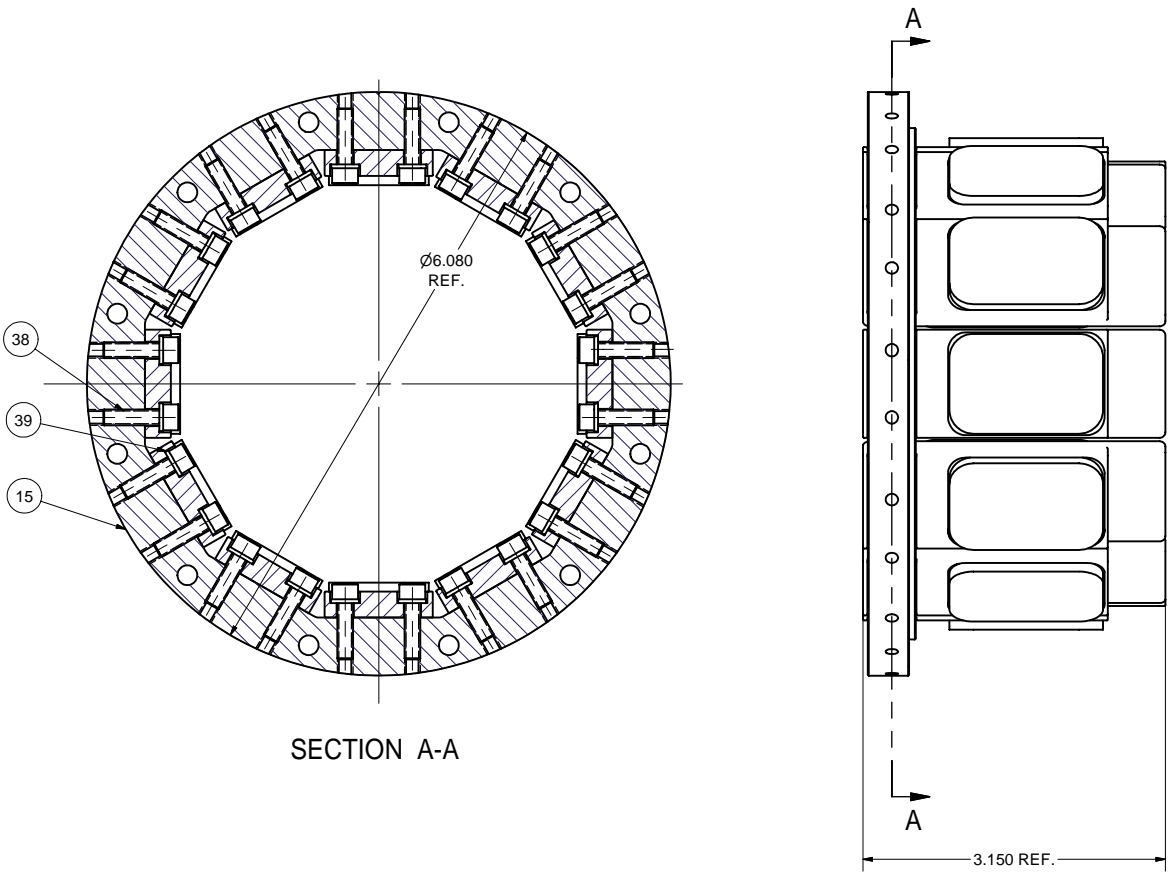
FOR MACHINING LUBRICANT USE ONLY  
ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
OR EQUIVALENT APPROVED BY CORNELL LEPP

TECHNICAL RESOURCE APPROVALS REQUIRED BEFORE FABRICATION			
	OK	DATE	N/A
DRAFTING (O'Connell):	TIO		
MACHINE SHOP (Kaminski):	JKP		
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):	JOS		
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):			
STOCKROOMS (Lockwood):			

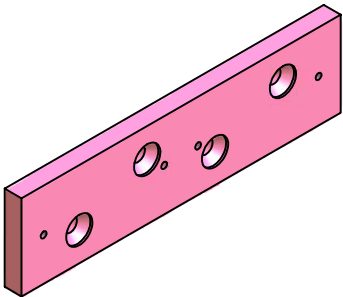
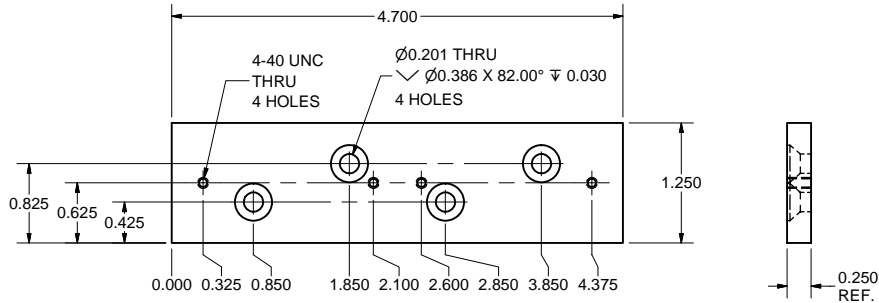
ITEM	DWG. NO.	DESCRIPTION	QUANTITY			REMARKS	REV.
			G1	G2	G3		
83	-	DICRONITED 5/16-24 x 1-1/4 12-POINT BOLT	8			316 SST	
82	-	4-1/2" CF GASKET	1			Varian's FG-0450-CU or equiv.	
78	-	1/4-28 Hex Jam Nut	10			MMC 94805A209 316 SST	
77	-	1/4 Washer	4			MMC 90107A029 316 SST	
76	7102-026 (SH. 11)	1/4-28 THREADED ROD	2			316 SST	
74	-	5/16 WASHER, SAE	24			MMC 91950A030 316 SST	
73	7102-024 (SH. 1)	6" CF GASKET MODIFICATION-106	1			-	
72	-	8 MM FLANGE INCONEL 718 BELLEVILLE WASHER	40			SOLON M8-F-2.0-718	
71	7102-026 (SH. 9)	SUPPORT BAR	8			316L SST	
58	-	#2 Spring Lock Washer	4			MMC 92147A410 316 SST	
57	-	2-56 x 1/4 Socket Hd. Cap Screw	4			MMC 92185A077 316 SST	
56	-	5 W RESISTOR (RH005 TYPE)	1			-	
55	-	#4 Spring Lock Washer	8			MMC 92147A415 316 SST	
54	-	4-40 x 3/8 Socket Hd. Cap Screw	8			MMC 92185A108 316 SST	
53	-	50 W RESISTOR (RH050 TYPE)	4			-	
52	-	10-32 x 1/2 Sock. Flat Hd. Cap Screw	8			MMC 90585A989 316 SST	
51	7102-028 (SH. 2)	50 W RESISTORS PLATE-106H	2			OFE COPPER	
50	-	5/16-24 HEX NUT	16			316 SST	
49	-	DICRONITED 5/16-24 x 2-1/2 12-POINT BOLT	16			316 SST	
48	7102-026 (SH. 9)	THICK WASHER	16			316L SST	
41	7102-027 (SH. 9)	RF PROBE-106 SUBASM	4			-	
37	-	#10 SPRING WASHER	20			MMC 92147A430 316 SST	
36	-	10-32 x 1/2 SOCK. HD. CAP SCREW	20			MMC 92185A989 316 SST	
16	7102-027 (SH. 9)	OUTER HALF SUBASM-106	1			-	
13	7102-028 (SH. 2)	ABSORBERS SUBASSEMBLY-106H	1			-	
8	7102-028 (SH. 4)	TRANSITION UNIT SUBASM	1			-	
2	7102-027 (SH. 2)	COPPER BASE SUBASM-106	1			-	
1	7102-028 (SH. 1)	106 MM HOM HALF LOAD ASMBL.	X			-	

CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES	<b>CORNELL UNIVERSITY</b> <b>LEPP</b> LABORATORY FOR ELEMENTARY PARTICLE PHYSICS	CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853
7102-028 SH. NO. 1 OF 5	7102-028 OF 5	ERL INJECTOR CRYOMODULE 106 MM HOM HALF LOAD VERSION-2: ASSEMBLY	
REV.	CHECKED BY: J. SEARS APPROVED BY: M. LIEPE	DRAWN BY: VM DRAWN FOR: M. Liepe	DATE: 5/5/2006 SCALE: D 7102-028 SH. NO. 1 OF 5

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.








13 ABSORBERS SUBASSEMBLY-106H  
FILE NAME: 7102-028  
SHEET NO.: 2  
DFT. SCALE: 1:1  
MATERIAL:  
QTY: 1 PER ASSEMBLY  
NOTES: 1. MAX. TORQUE ON SCREWS ITEM 38: 75 in-lbs.



51 50 W RESISTORS PLATE-106H  
FILE NAME: 7102-028  
SHEET NO.: 2  
DFT. SCALE: 1:1  
MATERIAL: 1/4" OFE COPPER SHEET  
QTY: 2 PER ASSEMBLY  
NOTES:

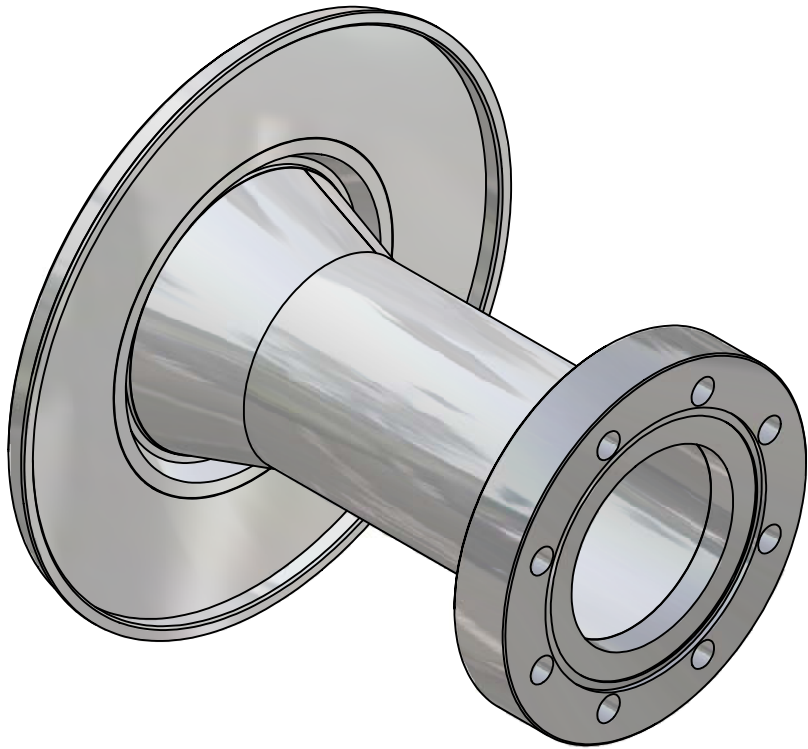
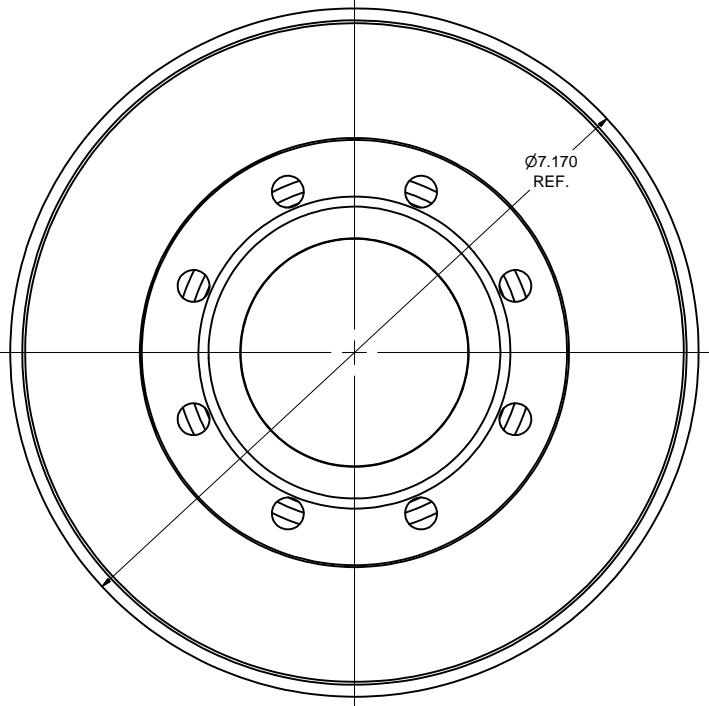
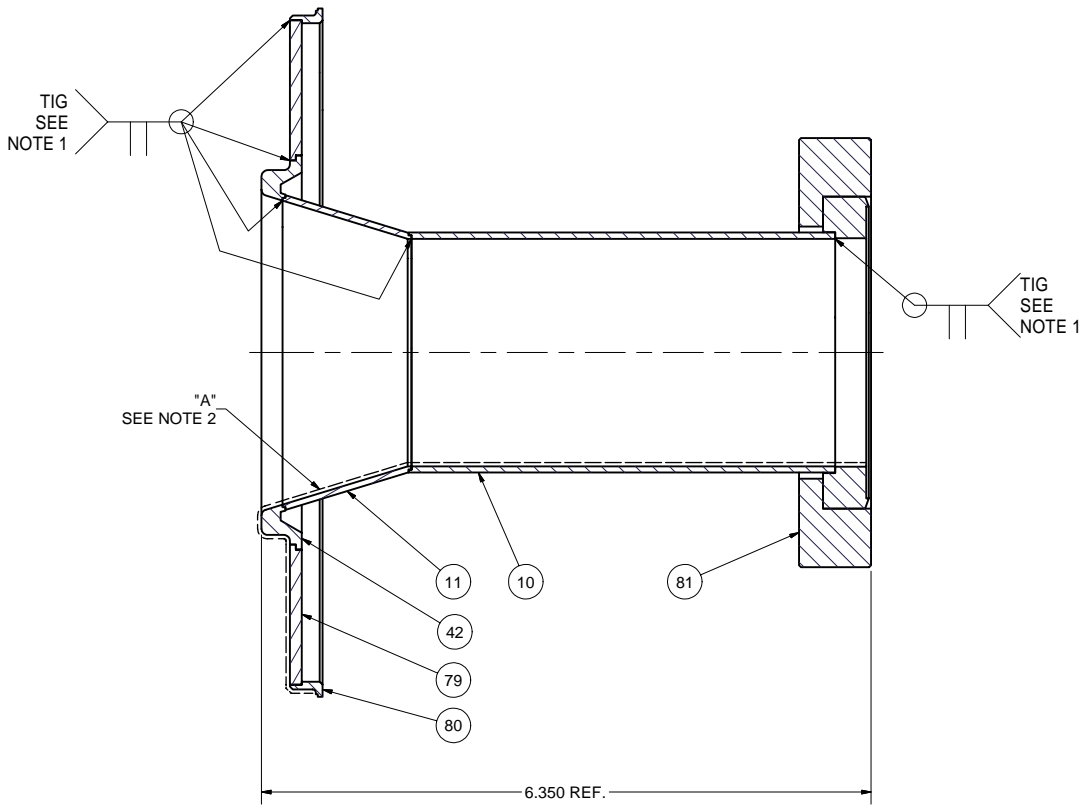
FOR MACHINING LUBRICANT USE ONLY  
ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
OR EQUIVALENT APPROVED BY CORNELL LEPP

TECHNICAL RESOURCE APPROVALS REQUIRED BEFORE FABRICATION			
	OK	DATE	N/A
DRAFTING (O'Connell):			
MACHINE SHOP (Kaminski):			
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):			
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):			
STOCKROOMS (Lockwood):			

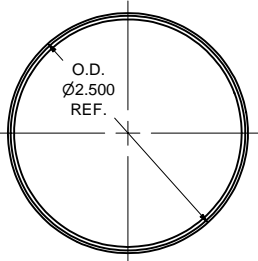
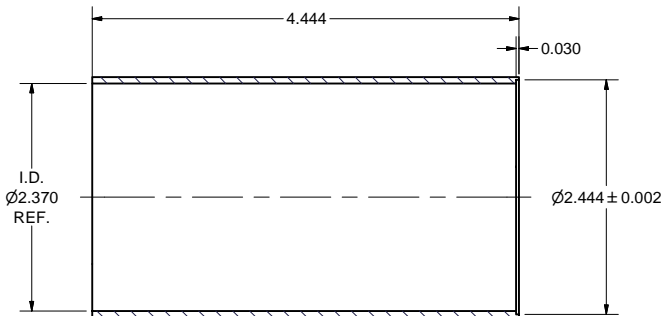
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	7102-028 SH. NO. 2 OF 5	CR-1	UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 		<div> <b>LEPP</b> LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div> <div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div>							
					ERL INJECTOR CRYOMODULE 106 MM HOM HALF LOAD VERSION-2: ABSORBER SUBASM							
REV.		CHECKED BY: J. SEARS	DRAWN BY VM	DRAWN FOR M.Liepe	DATE 5/5/2006	SCALE -		7102-028		SH. NO. 2 OF 5		REV.
		APPROVED BY: M. LIEPE										



REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.






**8 TRANSITION UNIT SUBASM**  
FILE NAME: 7102-028  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL:  
QTY: 1 PER ASSEMBLY  
NOTES: 1. WELDS TO CONFORM TO UHV SPEC.  
2. COPPER PLATE 0.0004" SURFACE "A".



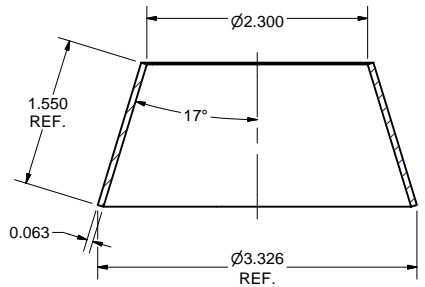
**10 SMALL TUBE-106H**  
FILE NAME: 7102-028  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: 2.5" OD x 0.065 W 316L ST. STEEL TUBE  
QTY: 1 PER ASSEMBLY  
NOTES:

81	-	4-1/2" CF ROTATABLE FLANGE	1			Varian's (or eqv.) F0450-0250-RC 316L SST	
80	7102-028 (SH. 5)	WELD RING-106H	1			316L SST	
79	7102-028 (SH. 5)	TRANSITION DISK	1			316L SST	
42	7102-028 (SH. 5)	CONE RING	1			316L SST	
11	7102-028 (SH. 5)	CONE-106H	1			316L SST	
10	7102-028 (SH. 4)	SMALL TUBE-106H	1			316L SST	
8	7102-028 (SH. 4)	TRANSITION UNIT SUBASM	X				

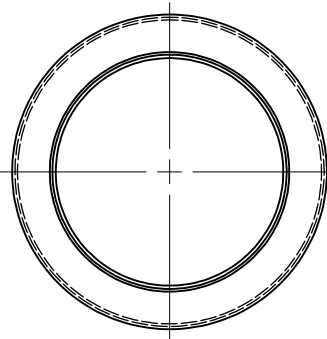
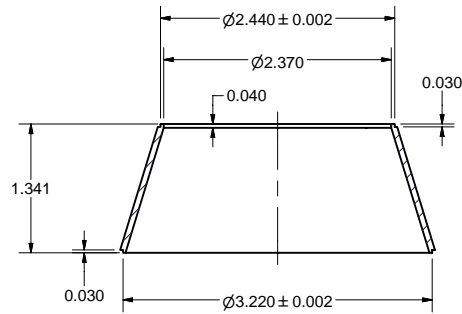
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	7102-028 SHEET NO. 4 OF 5	CR-1	UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES; TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓	CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853					
		ERL INJECTOR CRYOMODULE 106 MM HOM HALF LOAD VERSION-2: TRANSITION UNIT SUBASM & DETAILS							
		REV.	CHECKED BY: J. SEARS APPROVED BY: M. LIEPE	DRAWN BY VM	DRAWN FOR M.Liepe	DATE 5/5/2006	SCALE		7102-028 SHEET NO. 4 OF 5



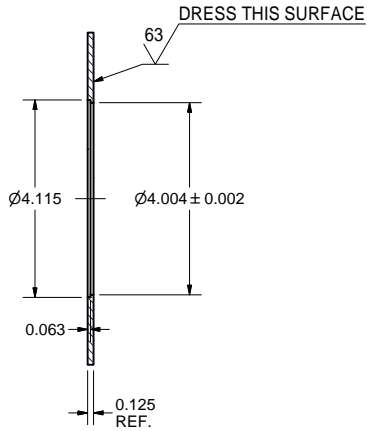
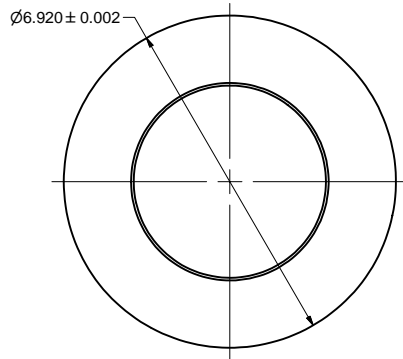
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



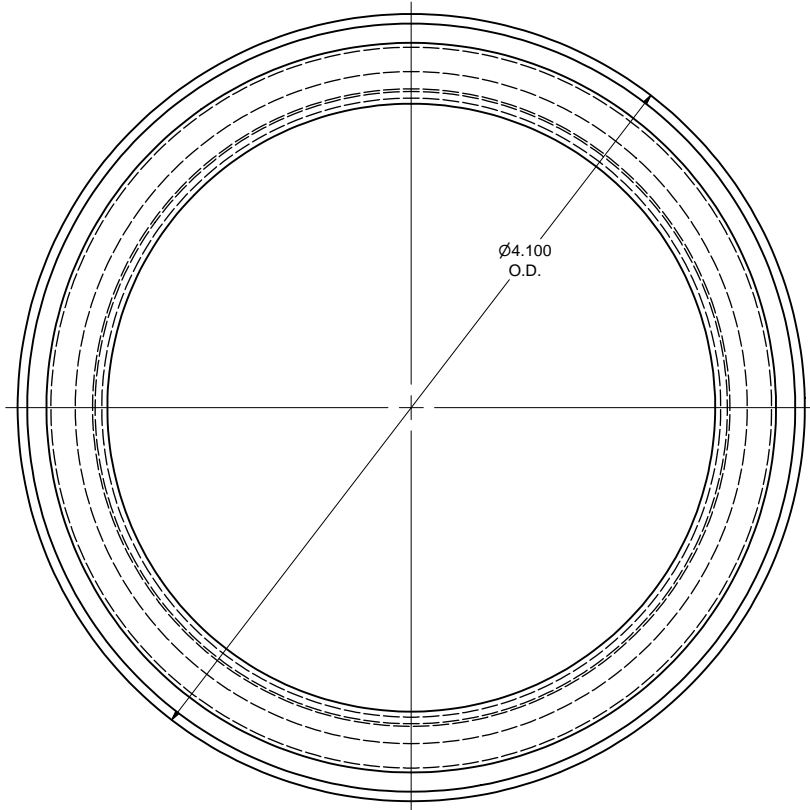
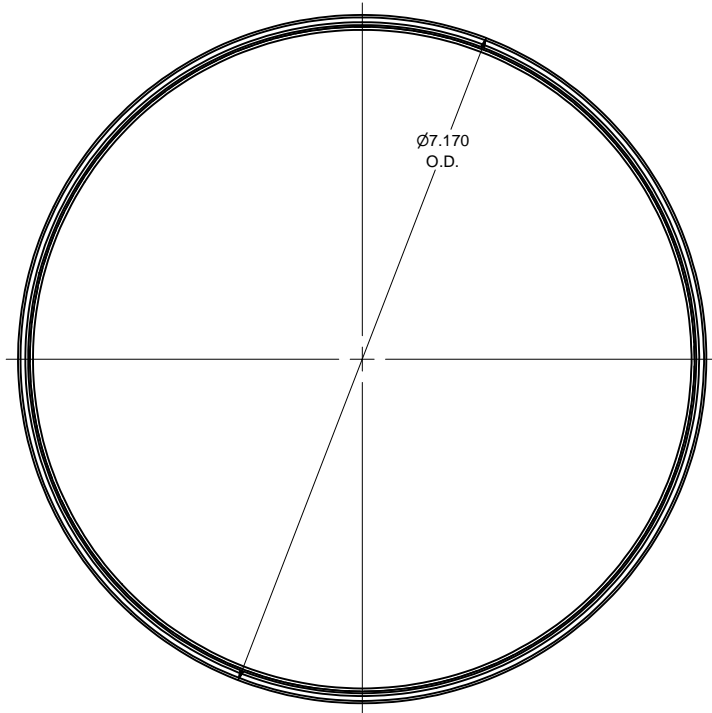
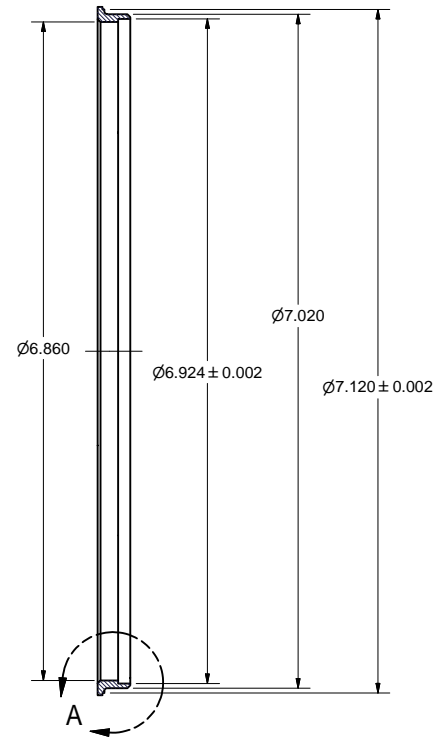
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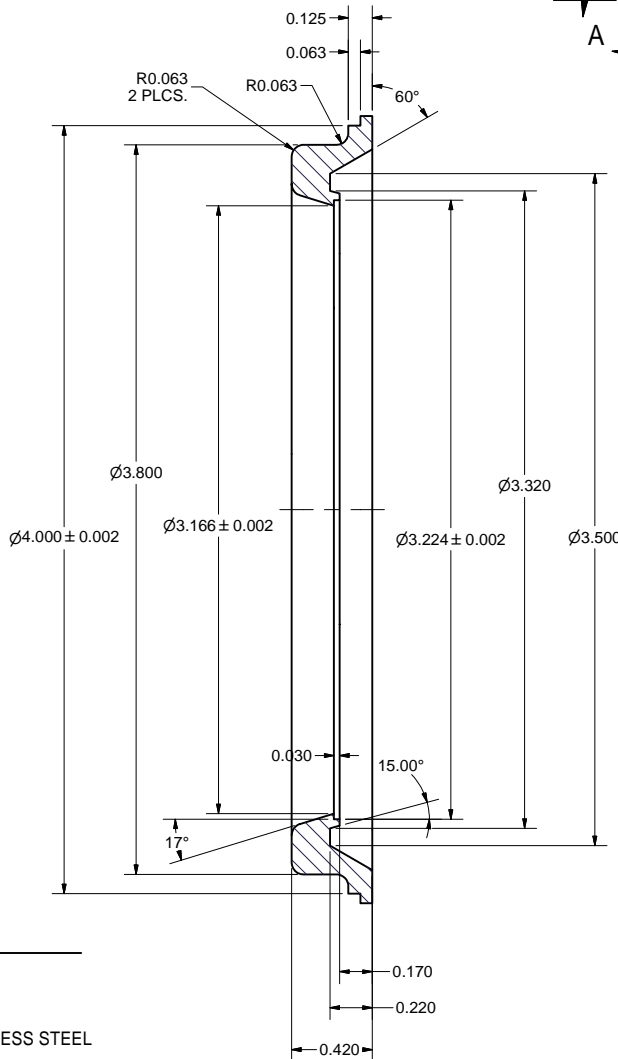
**11** CONE-106H  
FILE NAME: 7102-028  
SHEET NO.: 5  
DFT. SCALE: 1:1  
MATERIAL: 316L STAINLESS STEEL  
QTY: 1 PER ASSEMBLY  
NOTES:



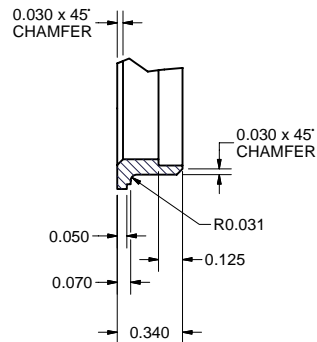
**79** TRANSITION DISK  
FILE NAME: 7102-028  
SHEET NO.: 5  
DFT. SCALE: 1:2  
MATERIAL: 1/4" 316L STAINLESS STEEL SHEET  
QTY: 1 PER ASSEMBLY  
NOTES:




**42** CONE RING  
FILE NAME: 7102-028  
SHEET NO.: 5  
DFT. SCALE: 2:1  
MATERIAL: 316L STAINLESS STEEL  
QTY: 1 PER ASSEMBLY  
NOTES:



**80** WELD RING-106H  
FILE NAME: 7102-028  
SHEET NO.: 5  
DFT. SCALE: 1:1  
MATERIAL: 316L ST. ST.  
QTY: 1 PER SSEMBLY  
NOTES:



DETAIL A  
SCALE 2 : 1

		ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
					QUANTITY				
D	PRINT DISTR.	PLOT DATE: 6/16/2006 CAD FILE NAME: 7102-028.idw							
		CR-1	UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓	CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853  ERL INJECTOR CRYOMODULE 106 MM HOM HALF LOAD   VERSION-2: TRANSITON UNIT DETAILS					
CHECKED BY: J. SEARS	DRAWN BY								DRAWN FOR
REV.	APPROVED BY: M. LIEPE	VM	M.Liepe	5/5/2006		SH. NO. 5 OF 5			