





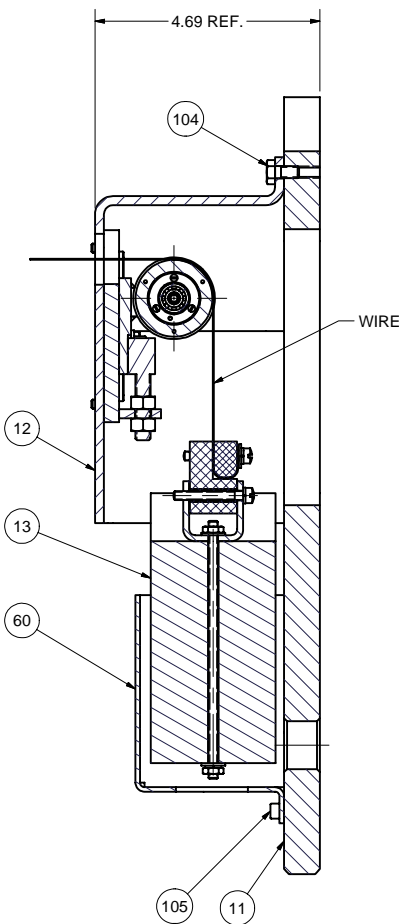
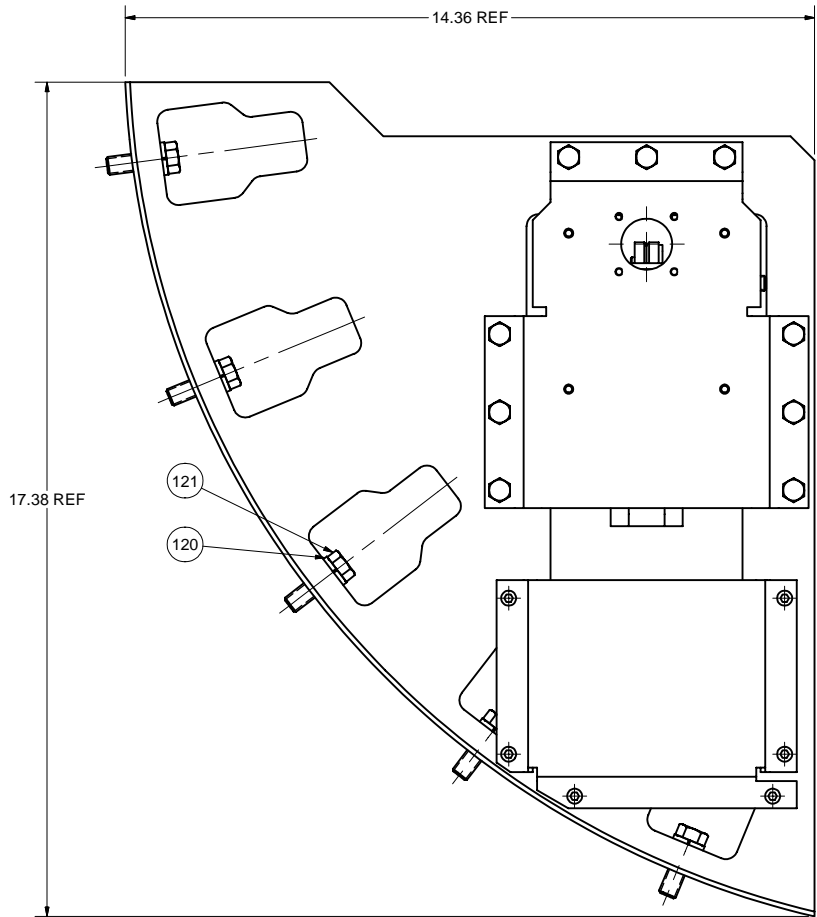
1 WPM TEST ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 1
DFT. SCALE: 1 : 5
MATERIAL:
QTY: 1
NOTES: ITEM 4 WILL BE INSTALLED ON CAVITY (7102-030)
ITEM 2 WILL BE INSTALLED ON THE BEAM EXIT SIDE OF VACUUM VESSEL (7110-003)
ITEM 6 WILL BE INSTALLED ON BEAM ENTRANCE SIDE OF VACUUM VESSEL (7110-003)

200	PUR.	WPM WIRE	1			0.02" DIA BeCu WIRE	
102	PUR.	8-32 x 1/2" Socket Head Cap Screw	16			St. Steel, Diconited	
101	PUR.	# 8 Washer	16			St. Steel, Diconited	
7	7110-011 (SH 7)	WPM TUBE2 SUB-ASSEMBLY	1				
6	7110-011 (SH 3)	WPM SUPPORT, OTHER SIDE ASM	1				
4	7102-039	WPM BLOCK	1				
3	7110-011 (SH 7)	WPM TUBE1 SUB-ASSEMBLY	1				
2	7110-011 (SH 2)	WPM SUPPORT, WEIGHT SIDE ASM	1				
1	7110-011 (SH 1)	WPM TEST ASSEMBLY	X				

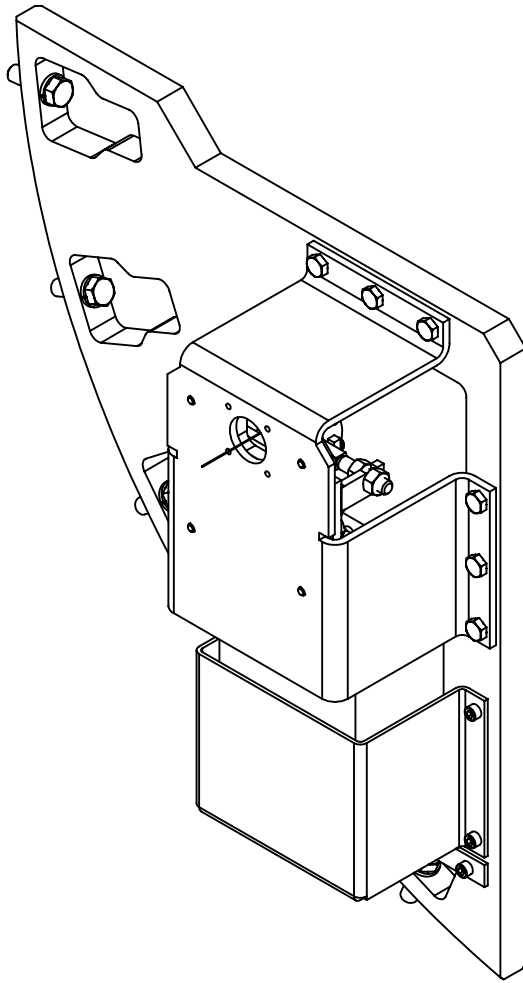
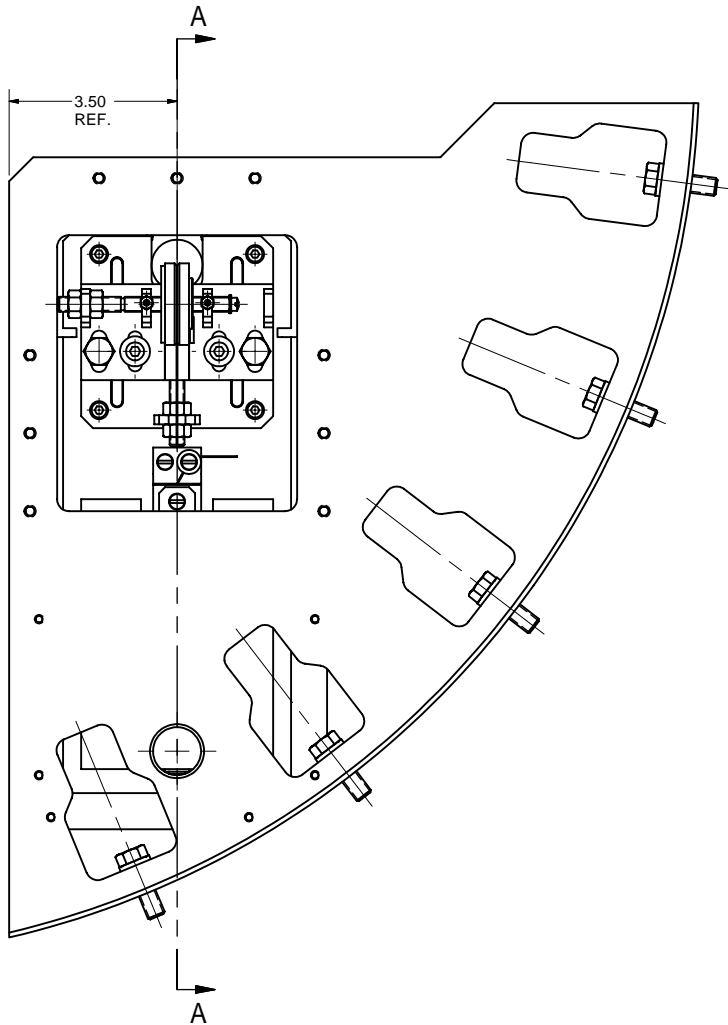
		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
					QUANTITY						
	PRINT DISTR.	PLOT DATE: 3/12/2007 CAD FILE NAME: 7110-011.idw									
	7110-011 SH. NO. 1 OF 18	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓		 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853						
ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM TEST ASSEMBLY DETAIL											
REV.		CHECKED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE		7110-011 SH. NO. 1 OF 18		REV.	
		APPROVED BY: Vadim V.									

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OR EQUIVALENT APPROVED BY CORNELL LEPP

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



SECTION A-A



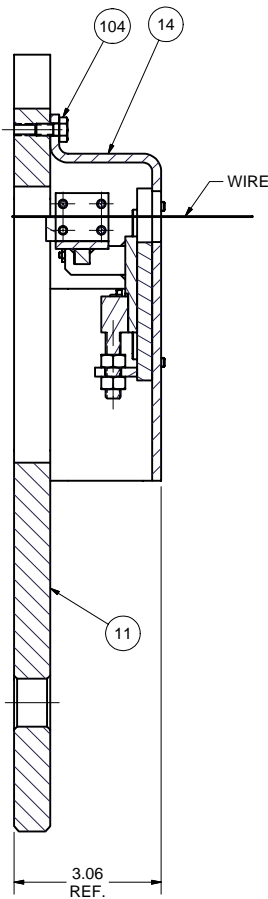
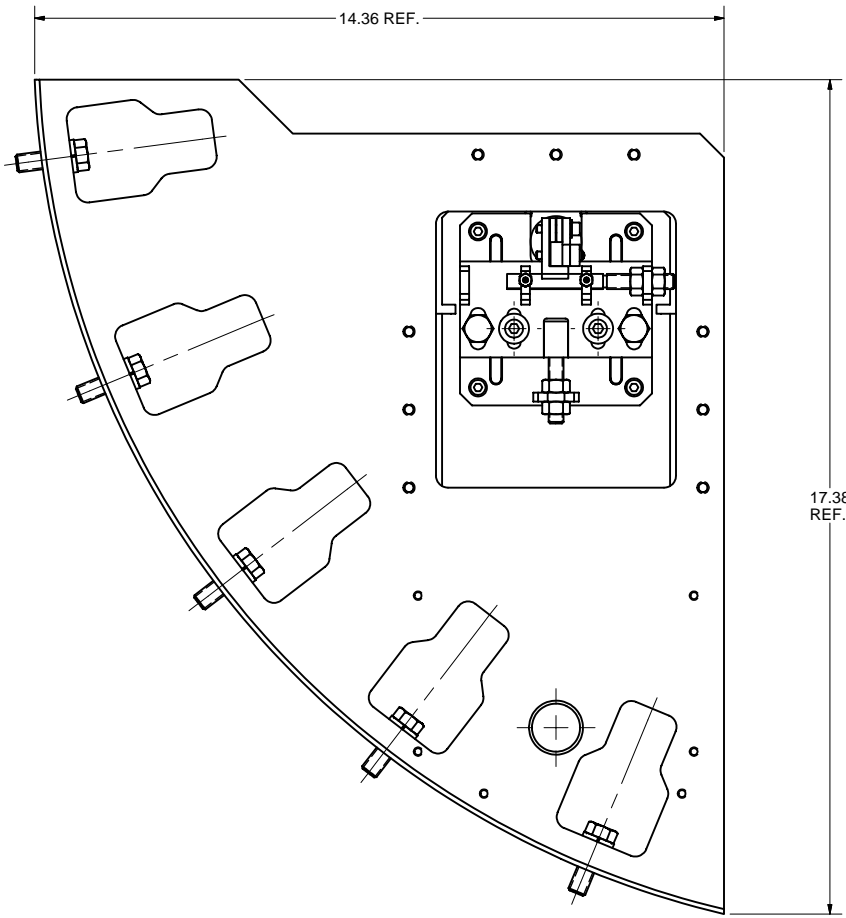
- 2 WPM SUPPORT, WEIGHT SIDE ASM.
- FILE NAME: 7110-011
SHEET NO.: 2
DFT. SCALE: 1 : 2
MATERIAL:
QTY:
NOTES:

121	PUR.	3/8-16 x 1-1/4" Hex Hd. Cap Screw	5			St. Steel, Dicronited	
120	PUR.	3/8 Spring Lock Washer	5			ST. STEEL	
105	PUR.	10-24 x 3/8 Socket Head Cap Screw	6			St. Steel, Dicronited	
104	PUR.	1/4-20 x 1/2 Hex CAP SCREW	9			St. Steel, Dicronited	
60	7110-011 (SH 17)	WPM WEIGHT SHIELD	1				
13	7110-011 (SH 9)	WPM: WEIGHT SUB-ASM	1				
12	7110-011 (SH 5)	WPM WEIGHT SIDE SUPPORT SUB-ASM	1				
11	7110-011 (SH 6)	VACUUM VESSEL: WPM SUPPORT	1				
2	7110-011 (SH 2)	WPM SUPPORT WEIGHT SIDE ASM	X				

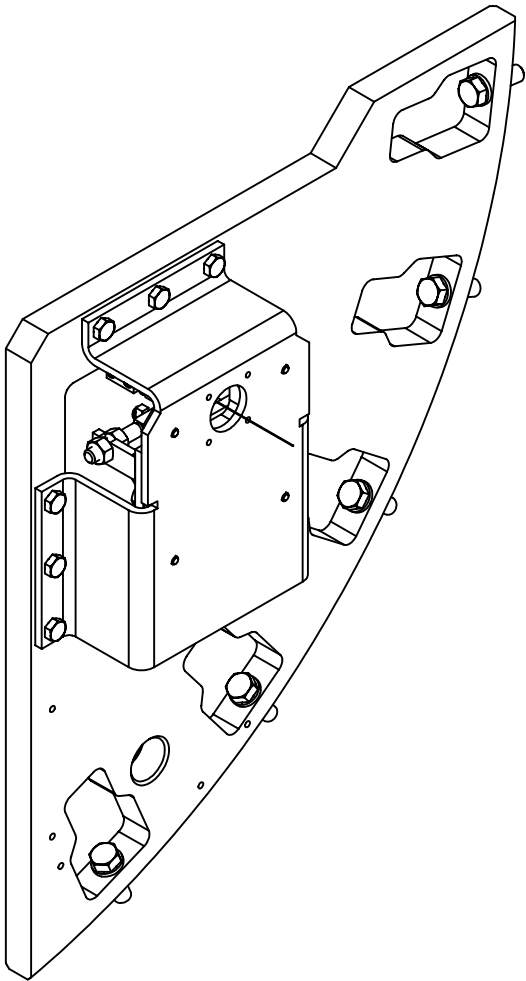
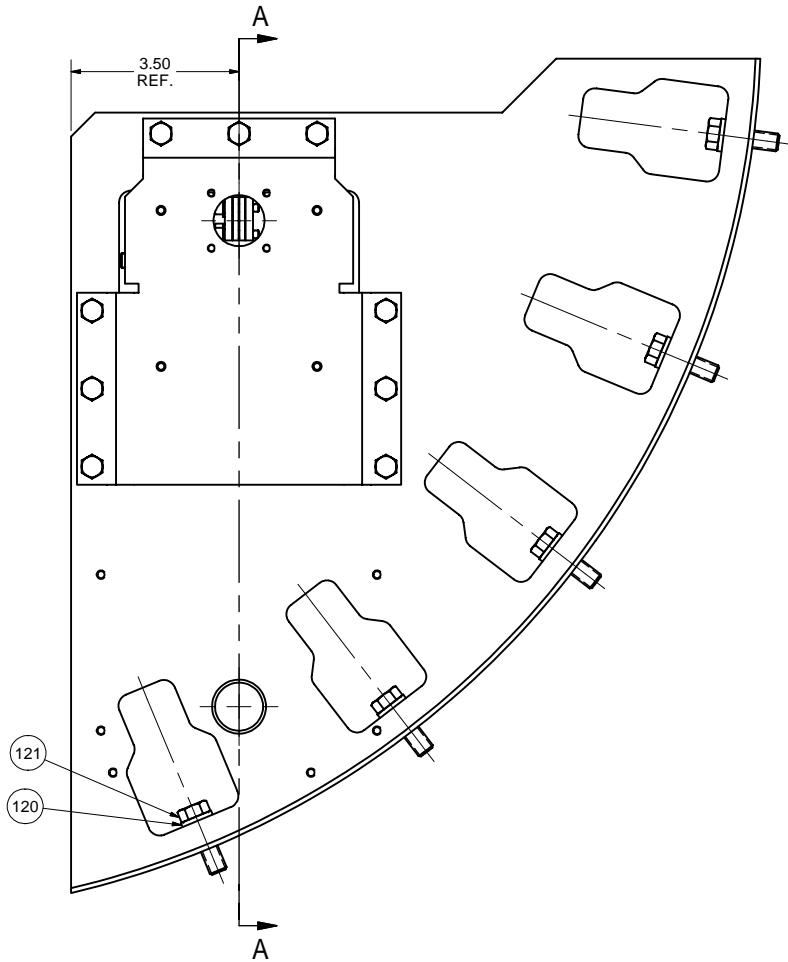
D	PRINT DISTR.	PLOT DATE: 3/12/2007 CAD FILE NAME: 7110-011.idw						
	7110-011 SH. NO. 2 OF 18	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓	CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY VACUUM VESSEL WPM SUPPORT ASSEMBLY DETAIL				
REV.	CHECKED BY: Vadim V. APPROVED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE	D	7110-011 SH. NO. 2 OF 18	REV.

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OR EQUIVALENT APPROVED BY CORNELL LEPP

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.





SECTION A-A

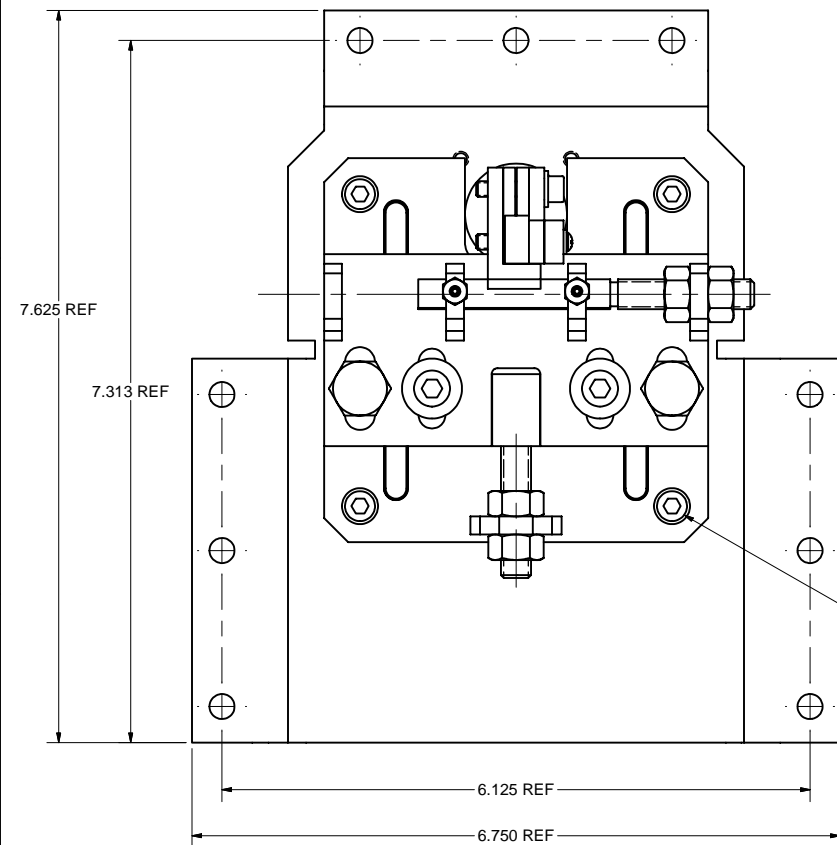
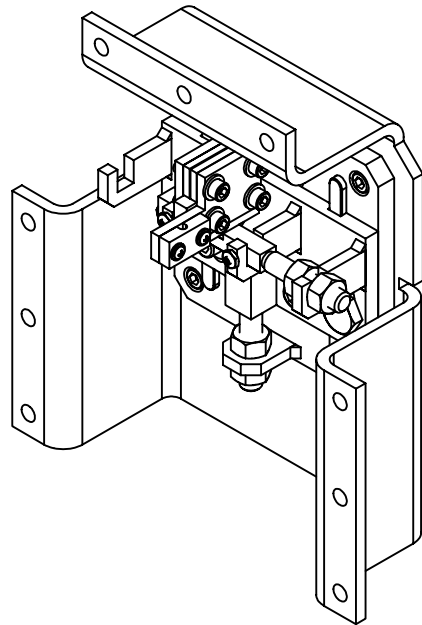


- 6
- WPM SUPPORT OTHER SIDE ASSEMBLY
- FILE NAME: 7110-011
- SHEET NO.: 3
- DFT. SCALE: 1 : 2
- MATERIAL:
- QTY: 1
- NOTES:

121	-	3/8-16 x 1-1/4 Hex Head Cap Screw	5			St. Steel, Diconited	
120	-	3/8 Spring Lock Washer	5			ST. STEEL	
104	-	1/4-20 x 1/2 Hex HEAD CAP SCREW	9			St. Steel, Diconited	
14	7110-011 (SH 4)	WPM SUPPORT OTHER SIDE SUB-ASSEMBLY	1				
11	7110-011 (SH 6)	VACUUM VESSEL: WPM SUPPORT	1				
6	7110-011 (SH 3)	WPM SUPPORT OTHER SIDE ASSEMBLY	X				

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
							QUANTITY			
D	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw								
7110-011 SH. NO. 3 OF 18	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓		<div>CORNELL UNIVERSITY  CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div> <div>ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM SUPPORT OTHER SIDE ASSEMBLY DETAIL</div>						
REV.	CHECKED BY: Vadim V. APPROVED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE	D	7110-011 SH. NO. 3 OF 18		REV.	

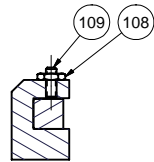
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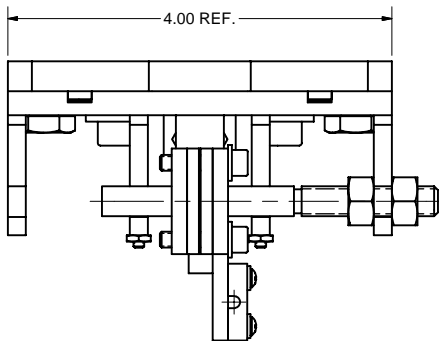
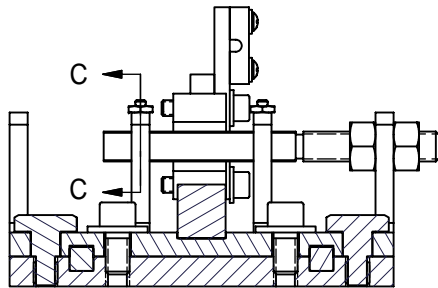
105	PUR.	10-24 x 3/8 Socket Head Cap Screw	4		St. Steel, Diconited	
53	7110-011 (SH 15)	WRM SUPPORT, OTHER SIDE	1			
15	7110-011 (SH 4)	WPM: ADJUSTER, OTHER SIDE, SUB-ASSEMBLY	1			
14	7110-011 (SH 4)	WPM SUPPORT OTHER SIDE SUB-ASSEMBLY	X			

14 WPM SUPPORT OTHER SIDE SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 4
DFT. SCALE: 1 : 1
MATERIAL:
QTY: 1
NOTES:

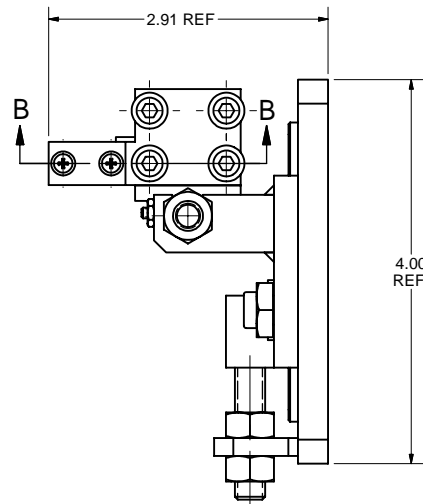
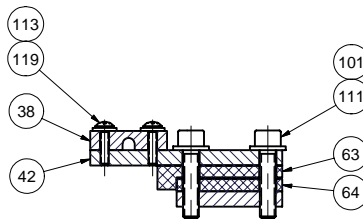
SECTION C-C



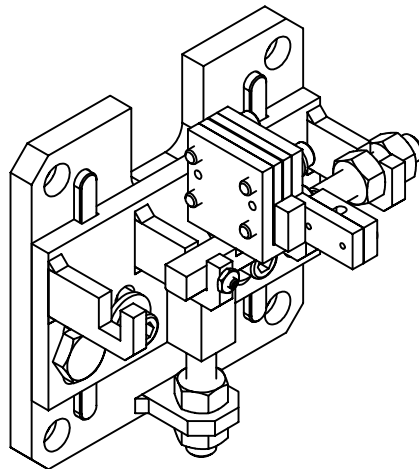
SECTION A-A



SECTION B-B



15 WPM ADJUSTER OTHER SIDE SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 4
DFT. SCALE: 1 : 1
MATERIAL:
QTY: 1
NOTES:

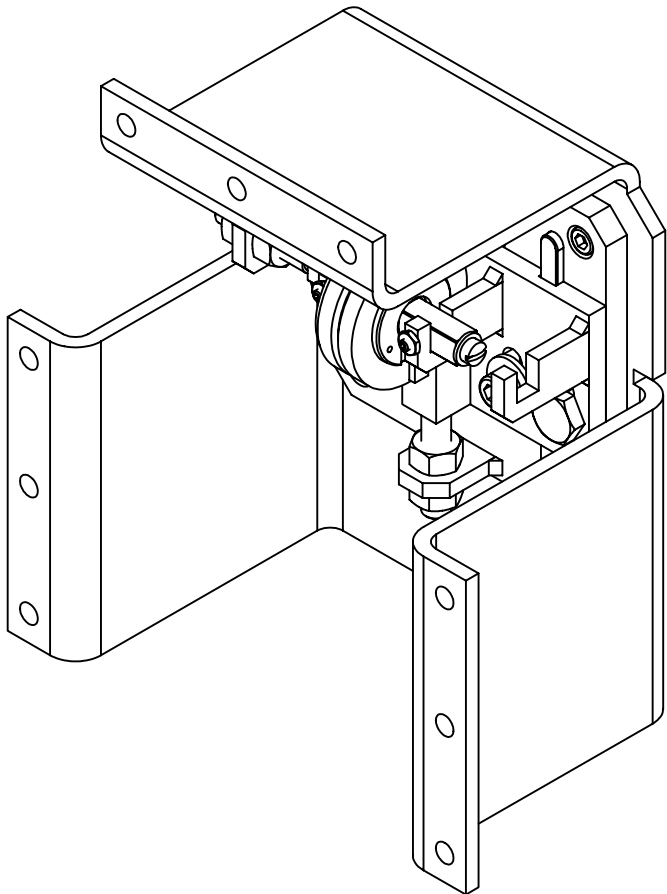
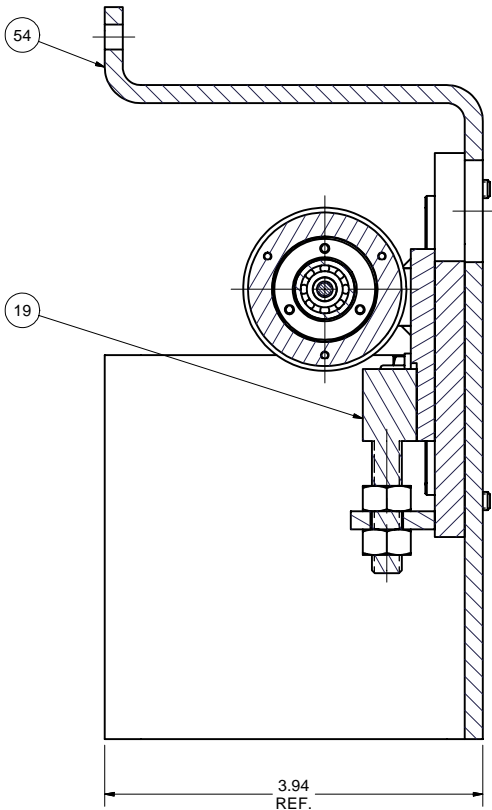
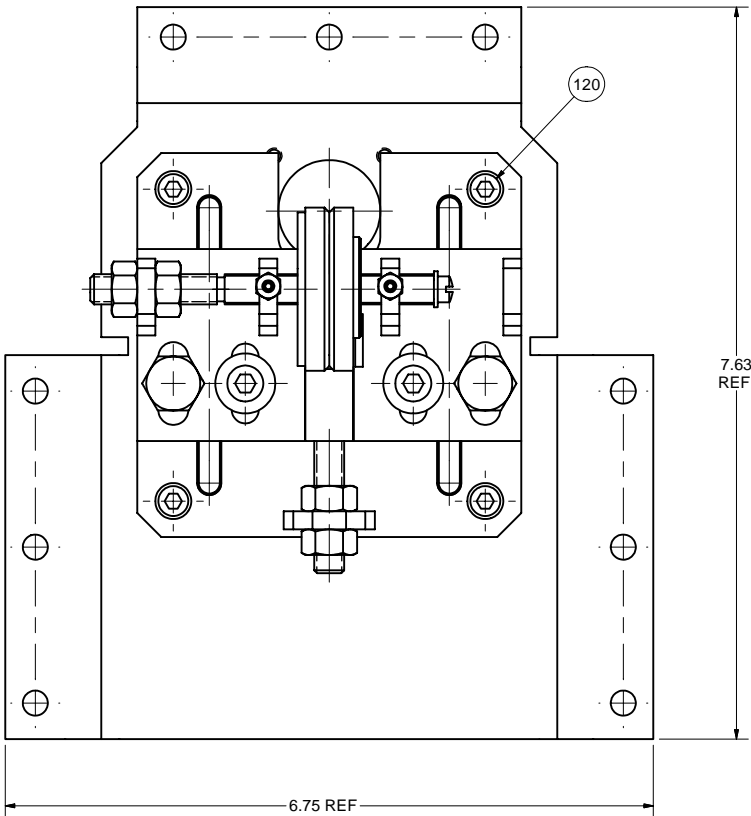


119	PUR.	2-56 x 3/8 Fillister Head Screw	2		St. Steel, Diconited	
113	PUR.	#2 Washer	2		St. Steel	
111	PUR.	8-32 x 3/4 Socket Head Cap Screw	4		St. Steel, Diconited	
110	PUR.	5/16 x 18 Hex Nut	4		Silicon Bronze	
109	PUR.	4-40 x 5/16 Flat Point Set Screw	2		St. Steel, Diconited	
108	PUR.	4-40 NUT	2		St. Steel	
106	PUR.	1/4 Washer	2		St. Steel	
104	PUR.	1/4-20 x 1/2 Socket Head Cap Screw	2		St. Steel, Diconited	
101	PUR.	#8 Washer	4		St. Steel	
64	7110-011 (SH 18)	WPM WIRE HOLDER PLATE 2	1			
63	7110-011 (SH 18)	WPM WIRE HOLDER PLATE 1	1			
48	7110-011 (SH 14)	WPM: SCREW 2	2			
42	7110-011 (SH 12)	WPM: CONTACT PLATE 2	1			
38	7110-011 (SH 12)	WPM: CABLE HOLDER	1			
18	7110-011 (SH 8)	WPM: SLIDE PLATE SUB-ASM	1			
17	7110-011 (SH 8)	WPM WIRE HOLDER SHAFT SUB-ASM	1			
16	7110-011 (SH 8)	WPM: FIXED PLATE SUB-ASM	1			
15	7110-011 (SH 4)	WPM ADJUSTER OTHER-SIDE SUB-ASSY.	X			

ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
			QUANTITY				
D	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw					
7110-011	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES √	CORNELL UNIVERSITY LEPP LABORATORY FOR ELEMENTARY PARTICLE PHYSICS CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853				
		ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM OTHER SIDE ADJUSTER ASSEMBLY DETAILS					
	CHECKED BY: Vadim V. APPROVED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE D	7110-011 SH. NO. 4 OF 18	REV.


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REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



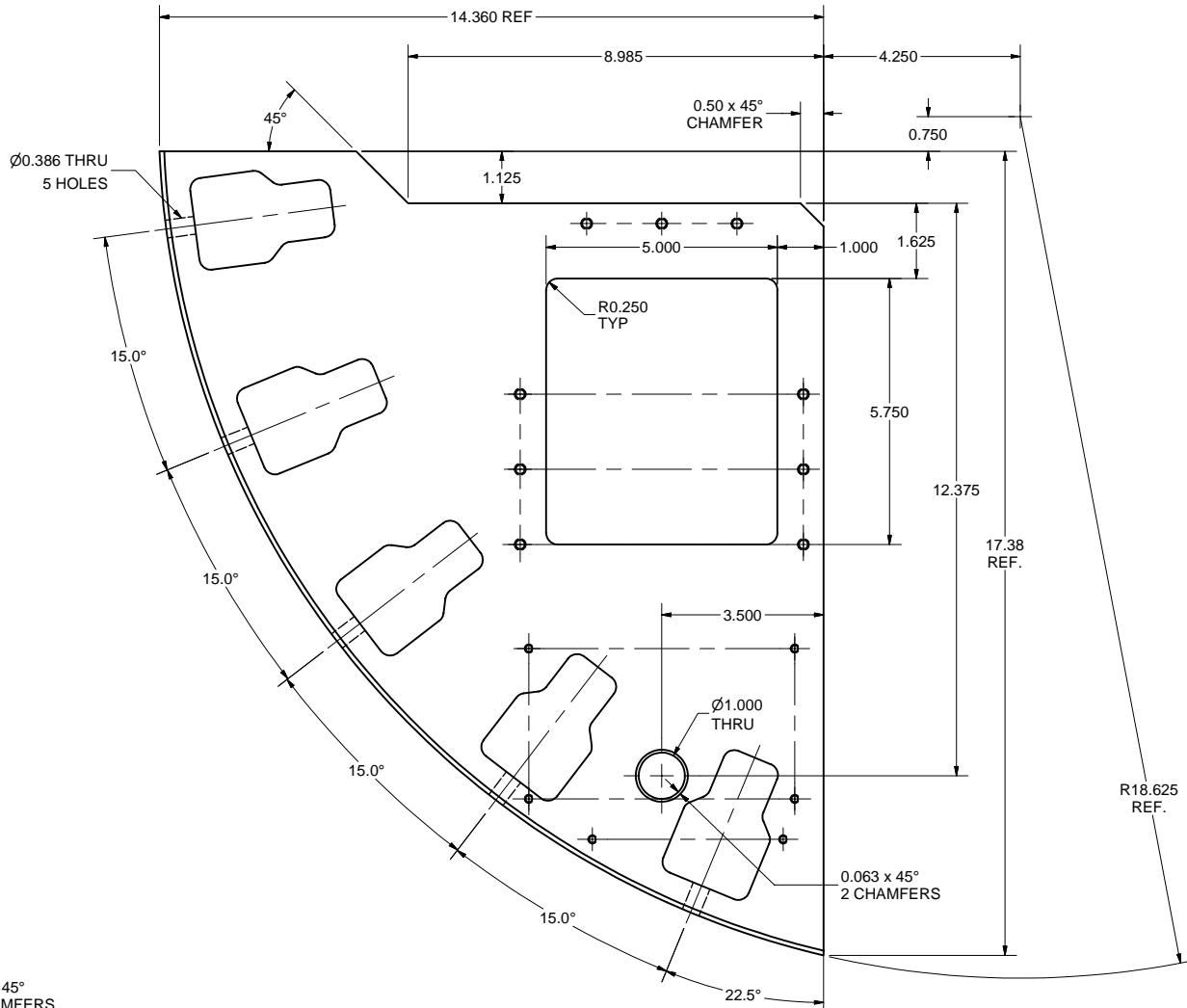
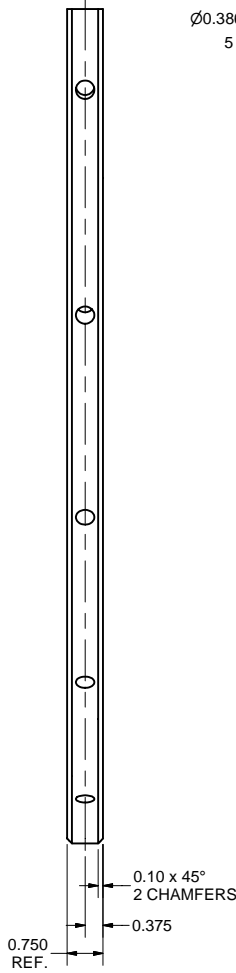
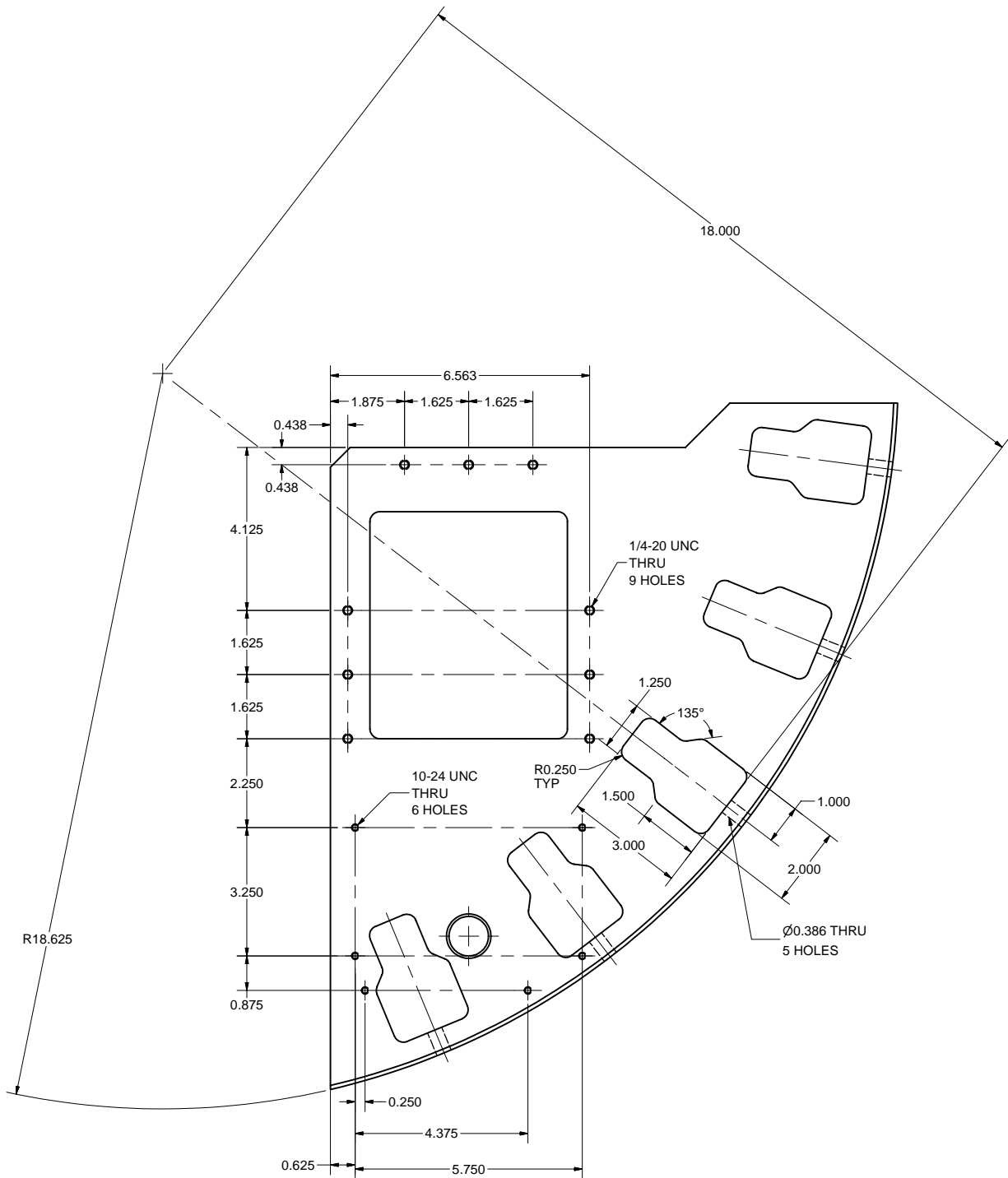
12 WPM WEIGHT SIDE SUPPORT SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 5
DFT. SCALE: 1 : 1
MATERIAL:
QTY: 1
NOTES:

120	PUR.	10-24 x 3/8" Socket Head Cap Screw	4			St. Steel, Dicronited	
54	7110-011 (SH 15)	WPM SUPPORT, WEIGHT SIDE	1				
19	7110-011 (SH 9)	WPM: WEIGHT SIDE ADJUSTER SUB-ASSEMBLY	1				
12	7110-011 (SH 5)	WPM WEIGHT SIDE SUPPORT SUB-ASSEMBLY	X				

		ITEM		DWG. NO.		DESCRIPTION			G1	G2	G3	REMARKS		REV.	
									QUANTITY						
D		PRINT DISTR.		PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw											
7110-011 SH. NO. 5 OF 18		CR1		CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853											
				ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM WEIGHT SIDE SUPPORT ASSEMBLY DETAILS											
				UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓											
REV.		CHECKED BY: Vadim V.		DRAWN BY applin		DRAWN FOR VV		DATE 8/18/2006		SCALE D		7110-011 SH. NO. 5 OF 18		REV.	
		APPROVED BY: Vadim V.													






FOR MACHINING LUBRICANT USE ONLY
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REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

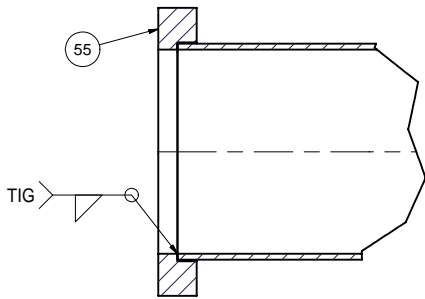


11 VACUUM VESSEL WPM SUPPORT
FILE NAME: 7110-011
SHEET NO.: 6
DFT. SCALE: 1 : 2
MATERIAL: 3/4" 304L STAINLESS STEEL SHEET
QTY: 2 PER ASSEMBLY
NOTES:

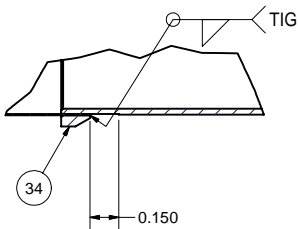
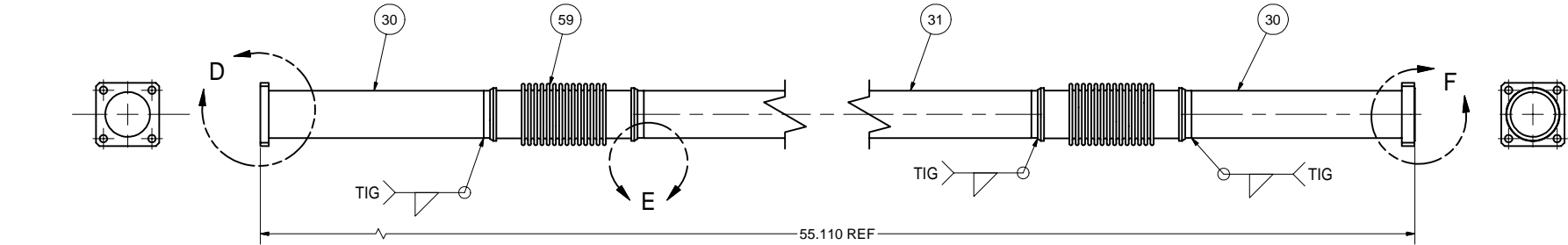
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OR EQUIVALENT APPROVED BY CORNELL LEPP

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.				
					QUANTITY										
	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw													
	7110-011 SH. NO. 6 OF 18	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 		<div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY VACUUM VESSEL WPM SUPPORT DETAIL</div>										
CHECKED BY: Vadim V.		DRAWN BY applin									DRAWN FOR VV	DATE 8/18/2006	SCALE		7110-011 SH. NO. 6 OF 18
APPROVED BY: Vadim V.															

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



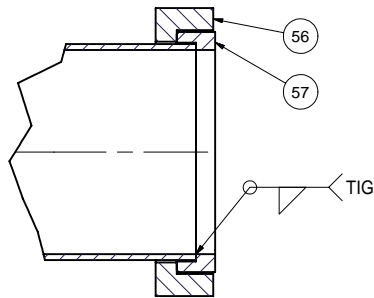
DETAIL D
SCALE 2:1



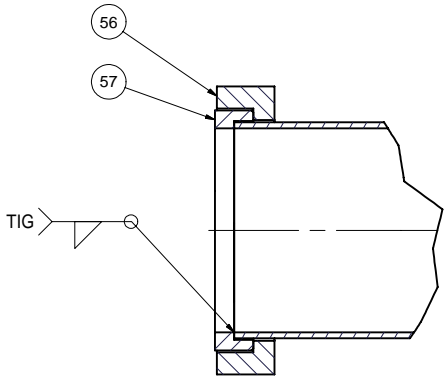
DETAIL E
SCALE 2:1

3 WPM TUBE 1 SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 7
DFT. SCALE: 1 : 2
MATERIAL:
QTY: 1
NOTES:

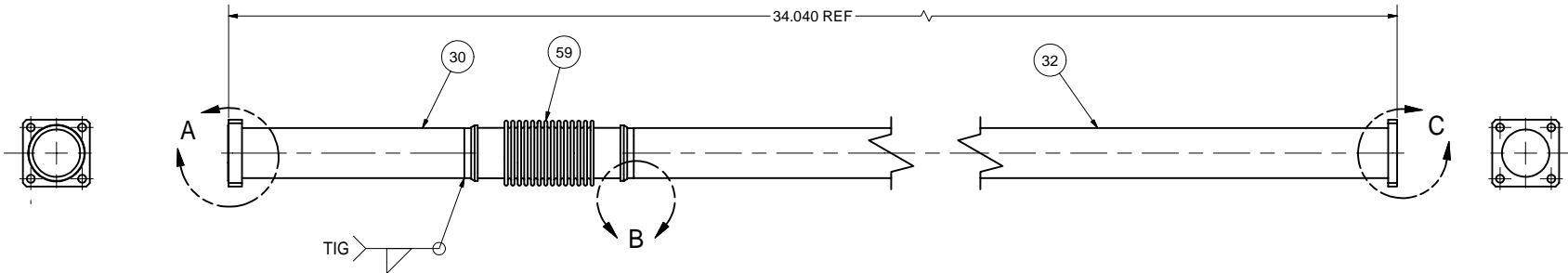
59	PUR.	1.12" ID x 1.46" OD x 0.006 W BELLOWS	2			MDC FB 6516	
57	7110-011 (SH 16)	WPM: ROTATABLE FLANGE END PIECE	1			316 ST. STEEL	
56	7110-011 (SH 16)	WPM: ROTATABLE FLANGE	1				
55	7110-011 (SH 16)	WPM: TUBE FLANGE	1				
34	7110-011 (SH 11)	WPM BELLOWS RING	4				
31	7110-011 (SH 11)	WPM: 1-1/8 OD TUBE-5	1				
30	7110-011 (SH 11)	WPM: 1-1/8 OD TUBE-4	2				
3	7110-011 (SH 7)	WPM TUBE 1 ASSEMBLY	X				



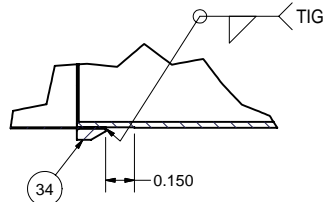
DETAIL F
SCALE 2:1



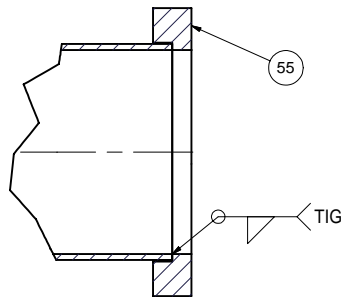
DETAIL A
SCALE 2:1



59	PUR.	1.12" ID x 1/46" OD x 0.006 W BELLOWS	1			MDC FB-6516	
57	7110-011 (SH 16)	WPM: ROTATABLE FLANGE END PIECE	1			316 ST. STEEL	
56	7110-011 (SH 16)	WPM: ROTATABLE FLANGE	1				
55	7110-011 (SH 16)	WPM: TUBE FLANGE	1				
34	7110-011 (SH 11)	WPM BELLOWS RING	2				
32	7110-011 (SH 11)	WPM: 1-1/8" OD TUBE-6	1				
30	7110-011 (SH 11)	WPM: 1-1/8" OD TUBE-4	1				
7	7110-011 (SH 7)	WPM TUBE 2 ASSEMBLY	X				









DETAIL B
SCALE 2:1

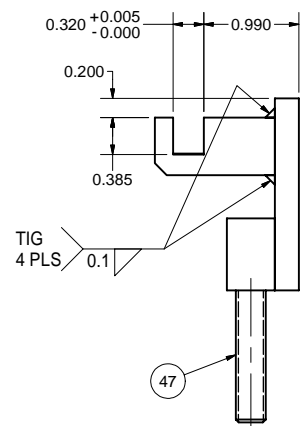
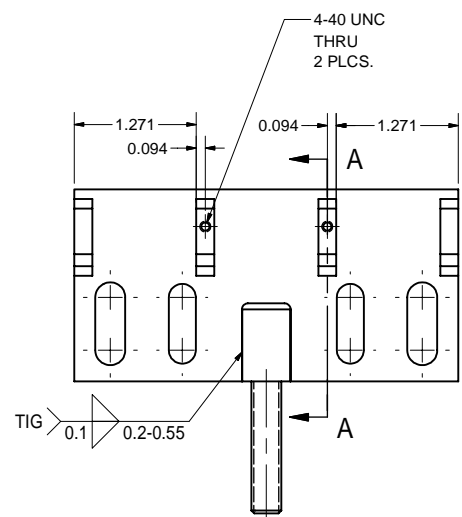


DETAIL C
SCALE 2:1

7 WPM TUBE 2 SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 7
DFT. SCALE: 1 : 2
MATERIAL:
QTY: 1
NOTES:

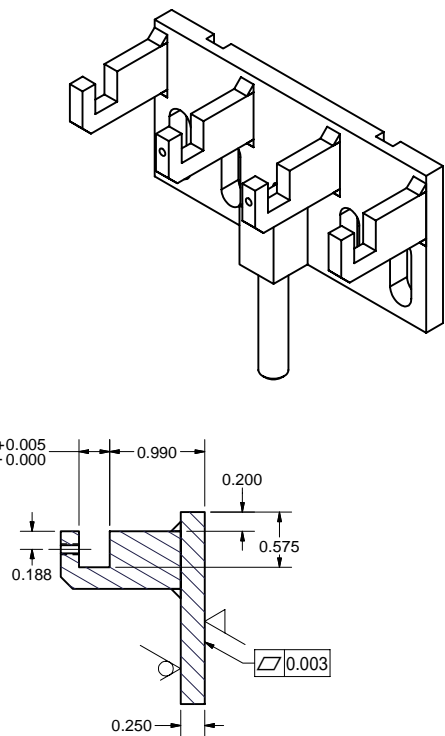
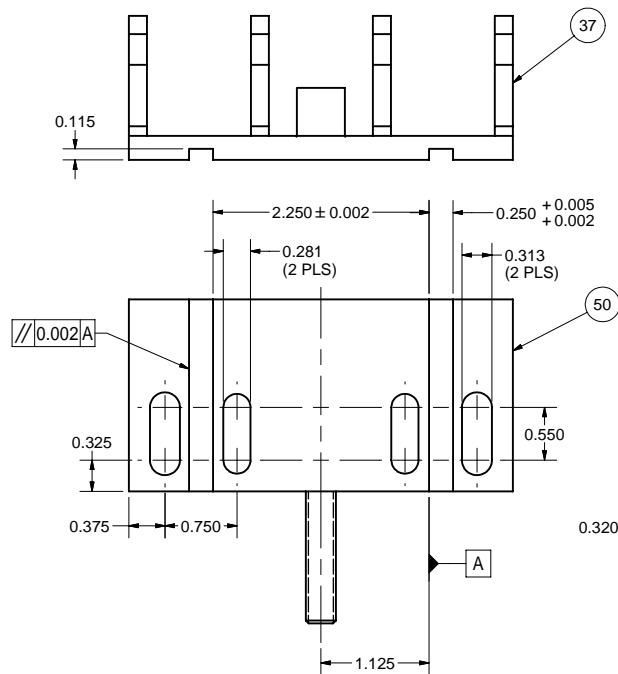
FOR MACHINING LUBRICANT USE ONLY
ALKALINE DETERGENT LUBRICANT CIMSTAR 40
OR EQUIVALENT APPROVED BY CORNELL LEPP

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.		
							QUANTITY					
	PRINT DISTR.	PLOT DATE: 12/6/2006										
		CAD FILE NAME: 7110-011.idw										
	CR1	UNLESS OTHERWISE SPECIFIED:		<div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div>								
		DIMENSIONS ARE IN INCHES:										
		TOLERANCES ON:										
	7110-011 SH. NO. 7 OF 18	.00 ± .010		ERL HORIZONTAL TEST CRYMODULE								
		.000 ± .005										
		FRACTIONS ± 1/64										
	REV.	ANGLES ± 0.5°		WPM TEST ASSEMBLY								
		ALL SURFACES										
CHECKED BY: Vadim V.		DRAWN BY applin		DRAWN FOR VV		DATE 8/18/2006		SCALE D		7110-011		REV.
APPROVED BY: Vadim V.		SH. NO. 7 OF 18										

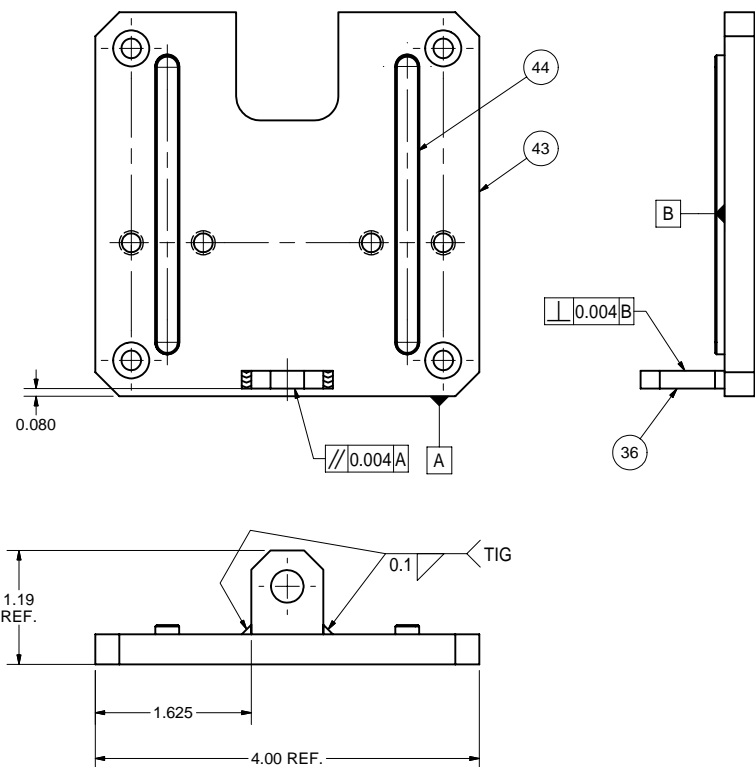


2 OUTER BRACKETS

50	7110-011 (SH 14)	WPM: SLIDE PLATE	1				
47	7110-011 (SH 14)	WMP: SCREW 1	1				
37	7110-011 (SH 12)	WPM: BRACKET 2	4				
18	7110-011 (SH 8)	WPM SLIDE PLATE SUB-ASSEMBLY	X				

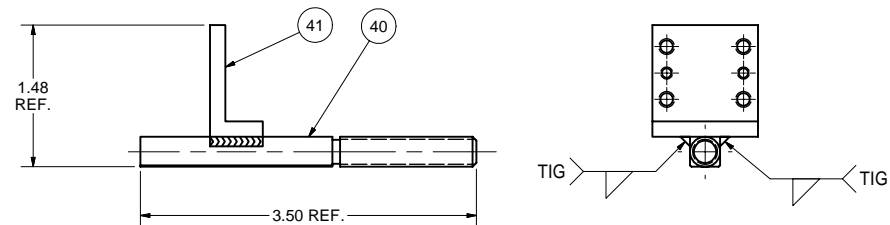
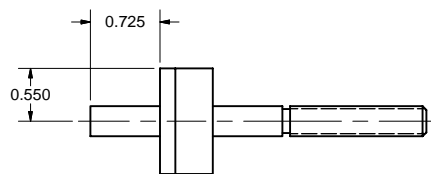
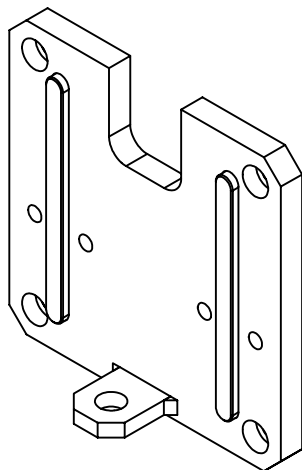


2 INNER BRACKETS
SECTION A-A



16 WPM FIXED PLATE SUB-ASSEMBLY

FILE NAME: 7110-011
SHEET NO.: 8
DFT. SCALE: 1 : 1
MATERIAL:
QTY: 1 PER ASSEMBLY
NOTES:









41	7110-011 (SH 12)	WPM ELBOW	1			
40	7110-011 (SH 12)	WPM: WIRE HOLDER SHAFT	1			
17	7110-011 (SH 8)	WPM WIRE HOLDER SHAFT SUB-ASSEMBLY	X			

17 WPM WIRE HOLDER SHAFT SUB- ASSEMBLY

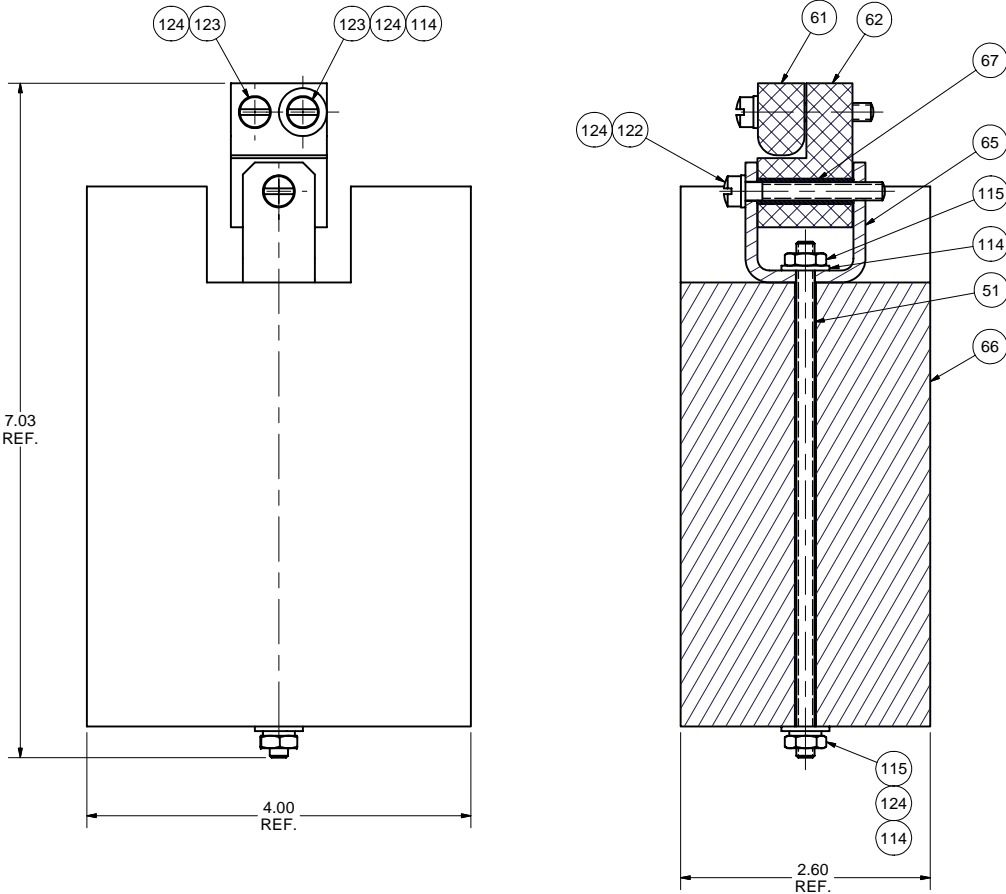
FILE NAME: 7110-011
SHEET NO.: 8
DFT. SCALE: 1 : 1
MATERIAL:
QTY: 1
NOTES:

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

44	7110-011 (SH 13)	WPM: KEY	2			MMC PT.# 98530A136	
43	7110-011 (SH 13)	WPM: FIX PLATE	1				
36	7110-011 (SH 12)	WPM: BRACKET 1	1				
16	7110-011 (SH 8)	WPM FIXED PLATE SUB-ASSEMBLY	X				

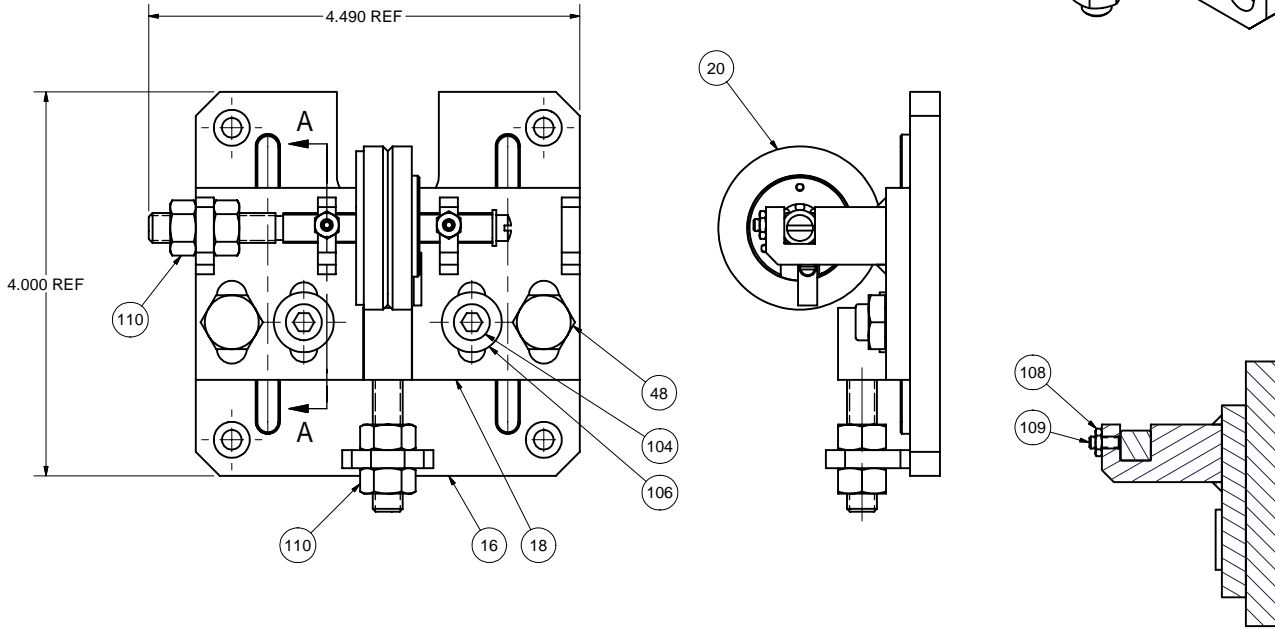
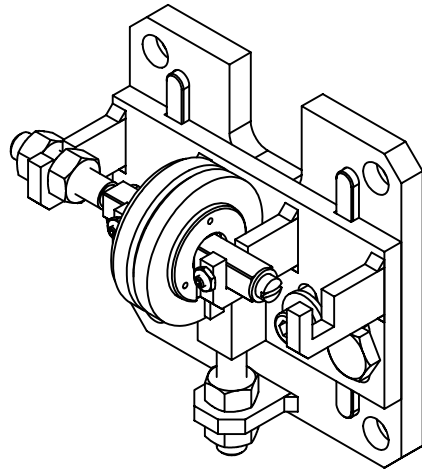
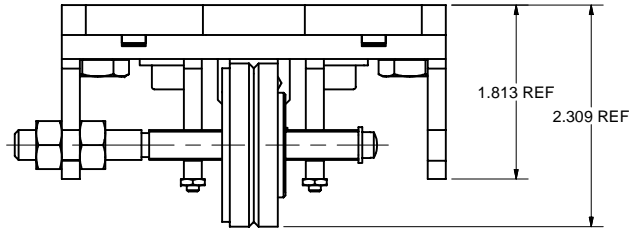
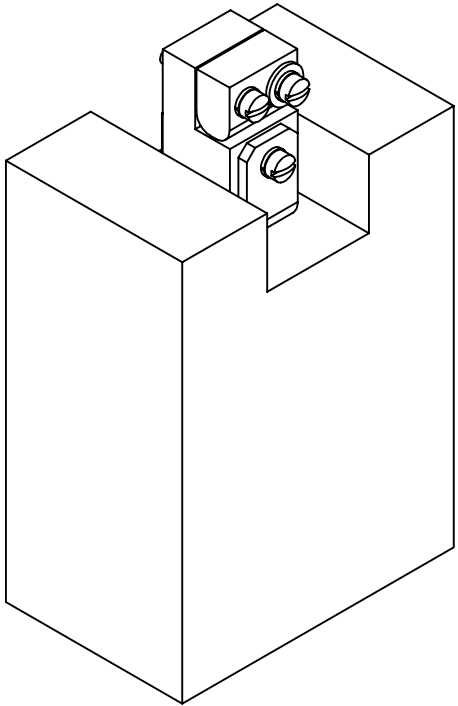
 		ITEM	DWG. NO.	DESCRIPTION				G1	G2	G3	REMARKS	REV.
						QUANTITY						
	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw										
	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .010 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES 			 <div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div>							
					ERL HORIZONTAL TEST CRYMODULE WPM TEST ASSEMBLY WPM PLATE DETAILS							
REV.		CHECKED BY: Vadim V. APPROVED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE		7110-011			REV.	
								SH. NO. 8 OF 18				

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A	B-8	in WPM WEIGHT SUB-ASSEMBLY P.L. Item #115, 10-24 WAS 8-32 JGL	12/6/06	JOS



124	-	#10 Spring Lock Washer	4		St.Steel	
123	-	10-24 x 1-1/4 Fillister Head Screw	2		St. Steel, Dicronited	
122	-	10-24 x 1-1/2 Fillister Head Screw	1		St. Steel, Dicronited	
115	-	10-24 Hex Nut	2		Silicon Bronze	
114	-	#10 Washer	3		St. Steel	
67	7110-011 (Sh.17)	TUBE	1			
66	7110-011 (Sh.16)	WPM WEIGHT	1			
65	7110-011 (Sh.13)	WPM: HOOK	1			
62	7110-011 (Sh.18)	WIRE CLAMP PLATE 2	1			
61	7110-011 (Sh.18)	WIRE CLAMP PLATE 1	1			
51	7110-011 (Sh.14)	WPM: STUD	1			
13	7110-011 (Sh. 9)	WPM WEIGHT SUB-ASSEMBLY	X			

13 WPM WEIGHT SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 9
DFT. SCALE: 1:1
MATERIAL:
QTY: 1
NOTES:



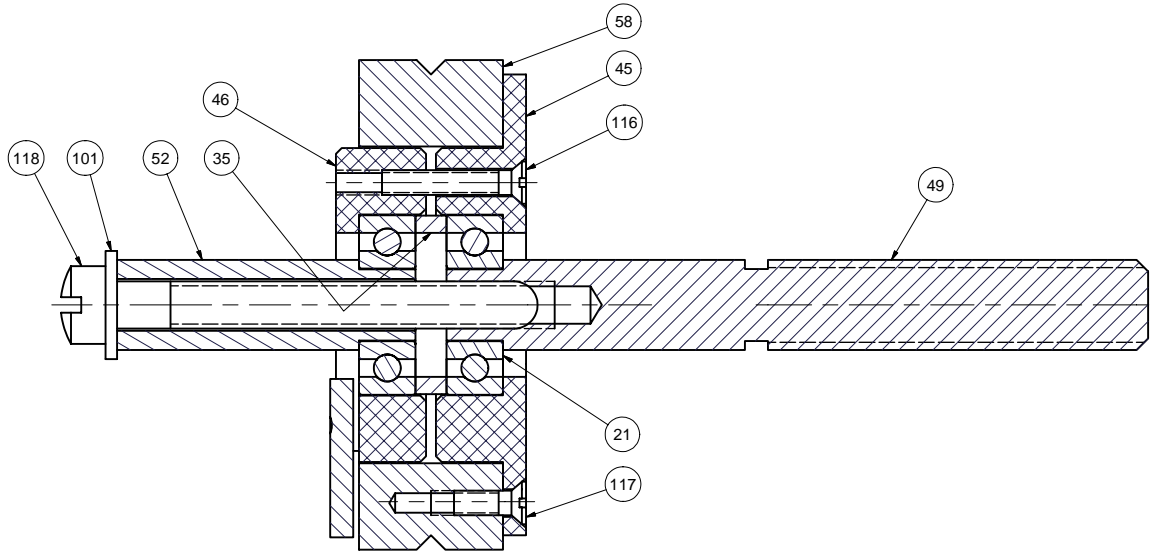
19 WPM WEIGHT SIDE ADJUSTER SUB-ASSEMBLY
FILE NAME: 7110-011
SHEET NO.: 9
DFT. SCALE: 1 : 1
MATERIAL:
QTY: 1
NOTES:

110	PUR.	5/16 - 18 Hex Nut	4		Silicon Bronze	
109	PUR.	4-40 x 5/16 Flat Point Set Screw	2		St. Steel, Dicronited	
108	PUR.	4-40 Hex Nut	2		St. Steel	
106	PUR.	1/4 Washer	2		St. Steel	
104	PUR.	1/4-20 x 1/2 Socket Head Cap Screw	2		St. Steel, Dicronited	
48	7110-011 (SH 14)	WPM: SCREW 2	2			
20	7110-011 (SH 10)	WPM: WHEEL SUB-ASM	1			
18	7110-011 (SH 8)	WPM: SLIDE PLATE SUB-ASM	1			
16	7110-011 (SH 8)	WPM: FIX PLATE SUB-ASM	1			
19	7110-011 (SH 9)	WPM WEIGHT SIDE ADJUSTER SUB-ASSEMBLY	X			

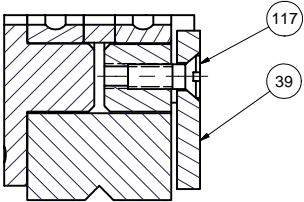
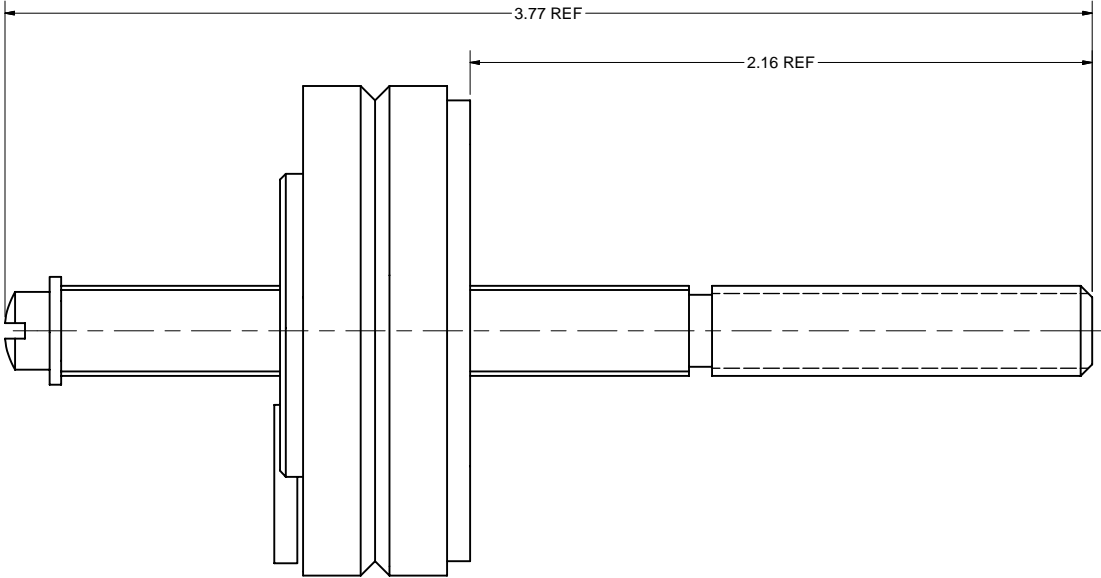
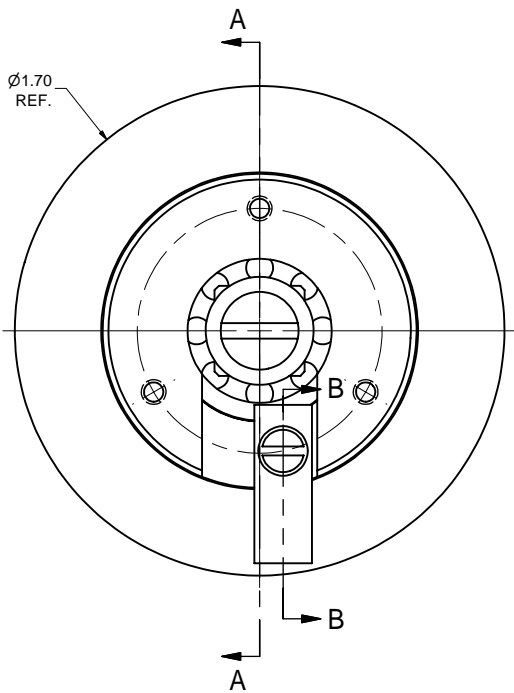
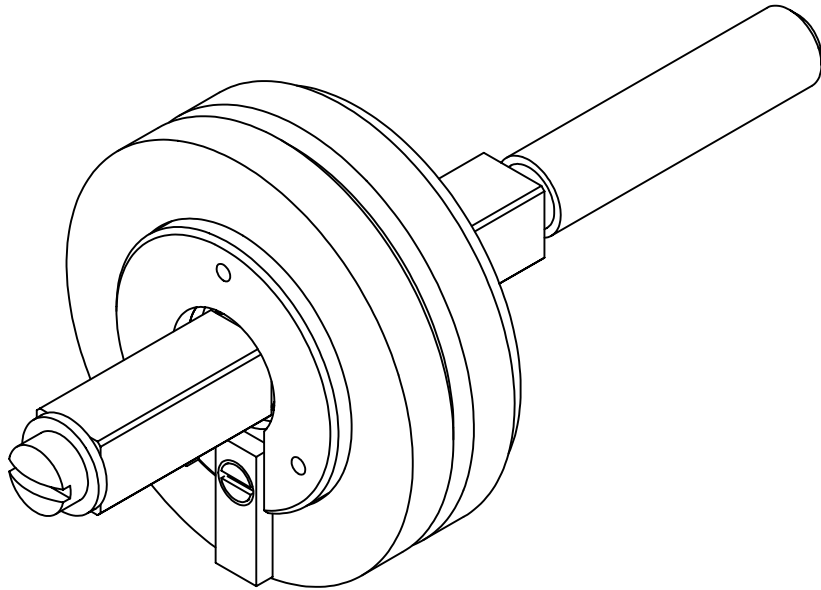
ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw			QUANTITY				
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES			CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853			ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM WEIGHT ADJUSTER SUB-ASSEMBLY DETAILS	
CHECKED BY: Vadim V. APPROVED BY: Vadim V.		DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE D	7110-011 SH. NO. 9 OF 18	REV. A

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

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



SECTION A-A





SECTION B-B

20 WPM WHEEL SUB-ASSEMBLY

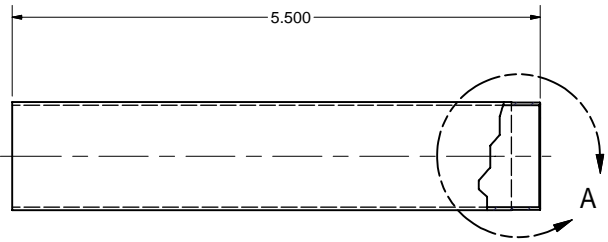
FILE NAME: 7110-011
SHEET NO.: 10
DFT. SCALE: 3 : 1
MATERIAL:
QTY: 1
NOTES: THOROUGHLY REMOVE ALL OIL LUBRICANT
FROM BALL BEARINGS (ITEM 21)
BEFORE ASSEMBLY

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

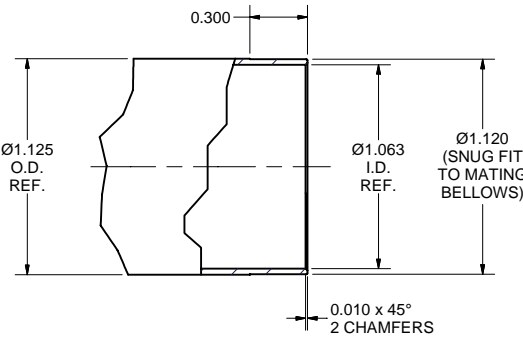
118	PUR.	8-32 x 1-1/2 Fillister Head Screw	1			St. Steel, Dicronited	
117	PUR.	2-56 x 1/4 Flat Head Screw	4			St. Steel, Dicronited	
116	PUR.	2-56 x 1/2 Flat Head Screw	3			St. Steel, Dicronited	
101	PUR.	# 8 Washer	1			St. Steel	
21	PUR.	BALL BEARING	2			MMC PART# 5908K11 316 S.S.	
58	7110-011 (SH 16)	WPM: WHEEL	1				
52	7110-011 (SH 14)	WPM WHEEL SHAFT 2	1				
49	7110-011 (SH 14)	WPM WHEEL SHAFT 1	1				
46	7110-011 (SH 13)	WPM: INSULATION RING 2	1				
45	7110-011 (SH 13)	WPM: INSULATION RING 1	1				
39	7110-011 (SH 12)	WPM: CONTACT PLATE	1				
35	7110-011 (SH 11)	WPM: BEARING SPACER	1				
20	7110-011 (SH 10)	WPM WHEEL SUB-ASSEMBLY	X				

	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
				QUANTITY					
PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw								
7110-011 SH. NO. 10 OF 18	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓	<div><div>LEPP</div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div><div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div></div> <div>ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM WHEEL ASSEMBLY DETAIL</div>						
		CHECKED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE	D	7110-011 SH. NO. 10 OF 18	REV.
		APPROVED BY: Vadim V.							

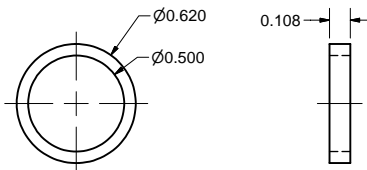
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



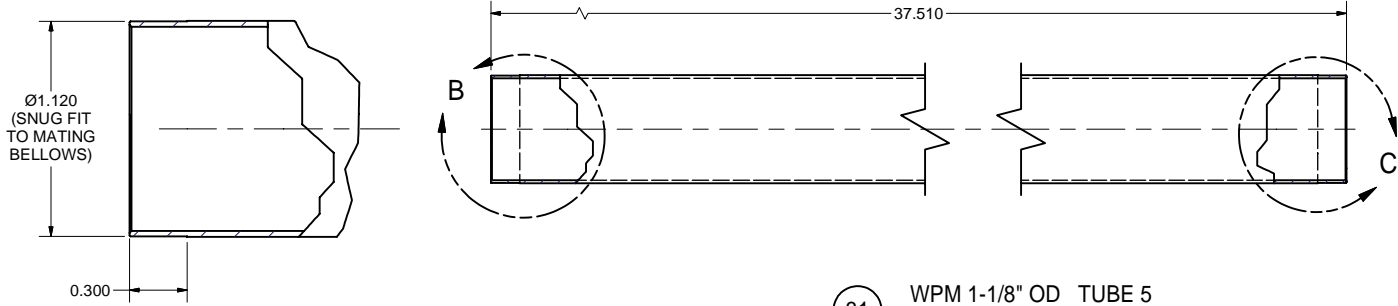
30 WPM 1-1/8" OD TUBE 4
FILE NAME: 7110-011
SHEET NO.: 11
DFT. SCALE: 1 : 1
MATERIAL: 1-1/8" x 0.031" 316L STAINLESS STEEL TUBE
QTY: 3
NOTES:



DETAIL A
SCALE 2 : 1

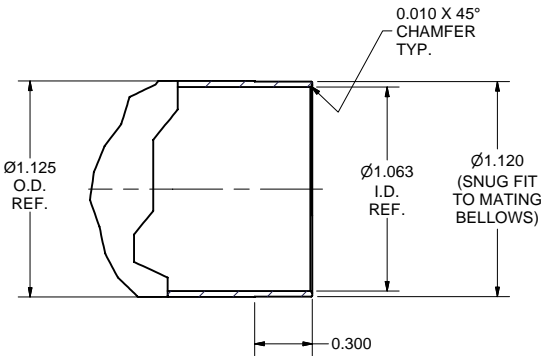


35 BEARING SPACER
FILE NAME: 7110-011
SHEET NO.: 11
DFT. SCALE: 2 : 1
MATERIAL: AMPCO-18 AL. BRONZE OR EQUIV.
QTY: 1
NOTES:

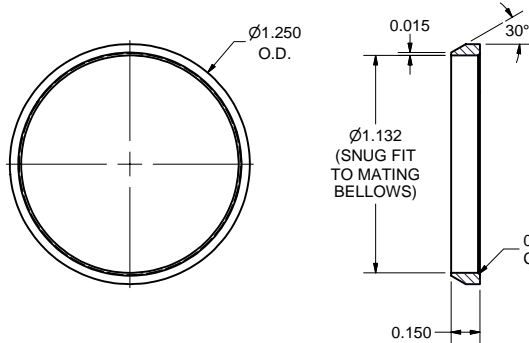


DETAIL B
SCALE 2 : 1

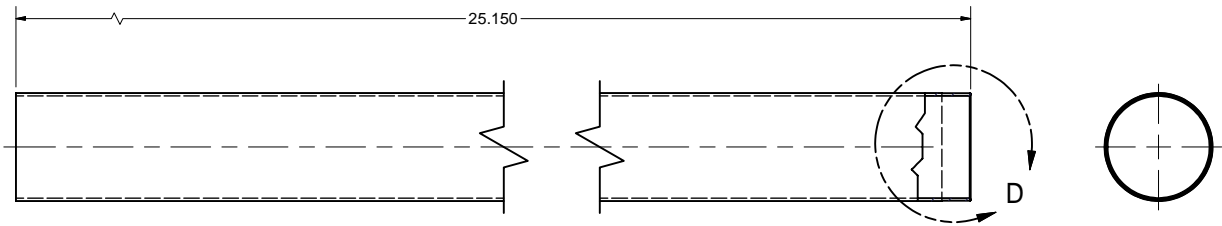
31 WPM 1-1/8" OD TUBE 5
FILE NAME: 7110-011
SHEET NO.: 11
DFT. SCALE: 1 : 1
MATERIAL: 1-1/8" x 0.031" 316L STAINLESS STEEL TUBE
QTY: 1
NOTES:



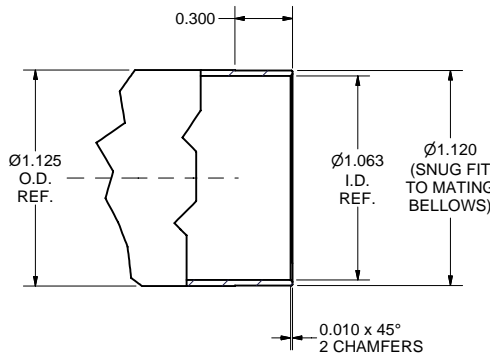
DETAIL C
SCALE 2 : 1



34 BELLOWS RING
FILE NAME: 7110-011
SHEET NO.: 11
DFT. SCALE: 2 : 1
MATERIAL: 316L STAINLESS STEEL
QTY: 6
NOTES:









32 WPM 1-1/8" OD TUBE 6
FILE NAME: 7110-011
SHEET NO.: 11
DFT. SCALE: 1 : 1
MATERIAL: 1-1/8" x 0.031" 316L STAINLESS STEEL TUBE
QTY: 1
NOTES:

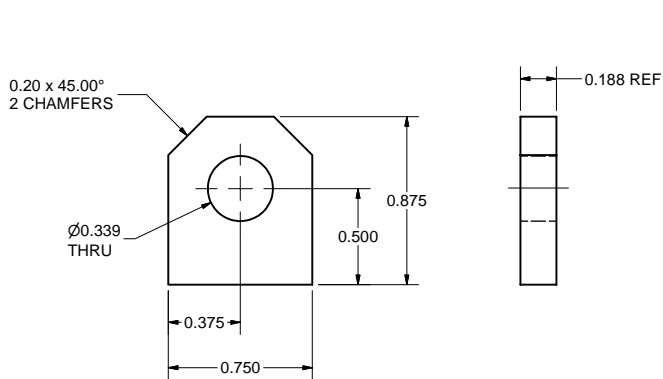


DETAIL D
SCALE 2 : 1

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

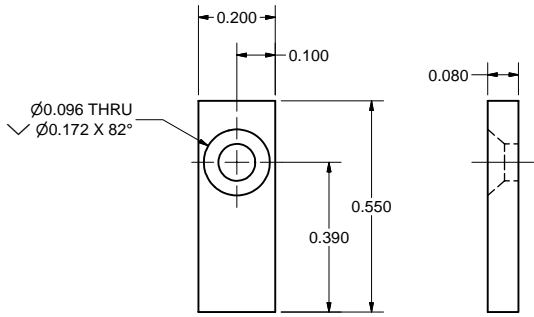
		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.
		QUANTITY										
	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw										
	CR1	<p>UNLESS OTHERWISE SPECIFIED:</p> <p>DIMENSIONS ARE IN INCHES:</p> <p>TOLERANCES ON:</p> <p>.00 ± .010 .000 ± .005</p> <p>FRACTIONS ± 1/64</p> <p>ANGLES ± 0.5°</p> <p>ALL SURFACES </p>		<div><div></div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM TUBES & SPACER DETAILS</div>								
7110-011 SH. NO. 11 OF 18	REV.	CHECKED BY: Vadim V. APPROVED BY: Vadim V.	DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE		7110-011 SH. NO. 11 OF 18		REV.		

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



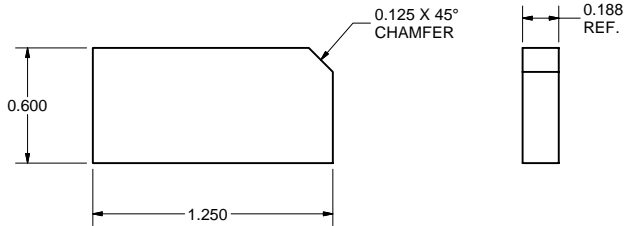
36 WPM BRACKET 1

FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 2 : 1
MATERIAL: 3/16" 304L STAINLESS STEEL SHEET
QTY: 2 PER ASSEMBLY
NOTES:



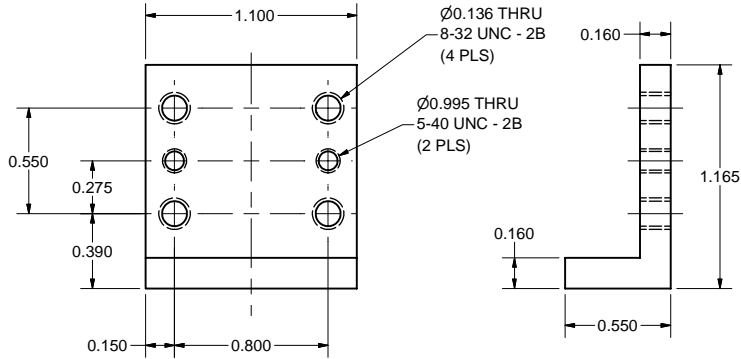
39 WPM CONTACT PLATE

FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 4 : 1
MATERIAL: G-10
QTY: 1
NOTES:



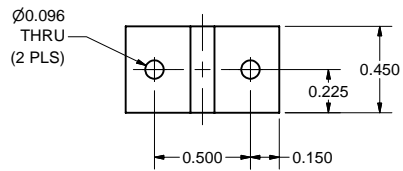
37 WPM BRACKET 2

FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 2 : 1
MATERIAL: 3/16" 304L STAINLESS STEEL SHEET
QTY: 8 PER ASSEMBLY
NOTES:



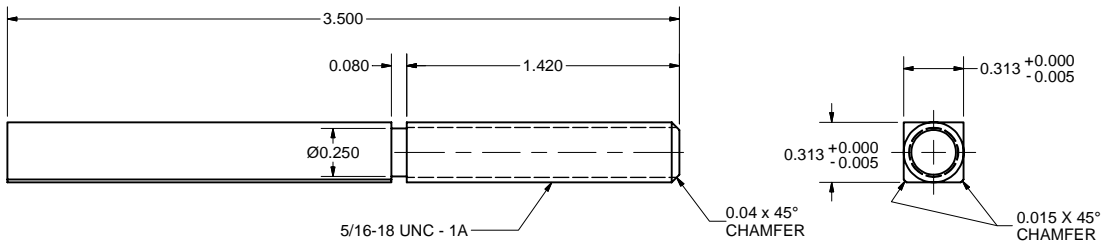
41 WPM ELBOW

FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 3 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1
NOTES:



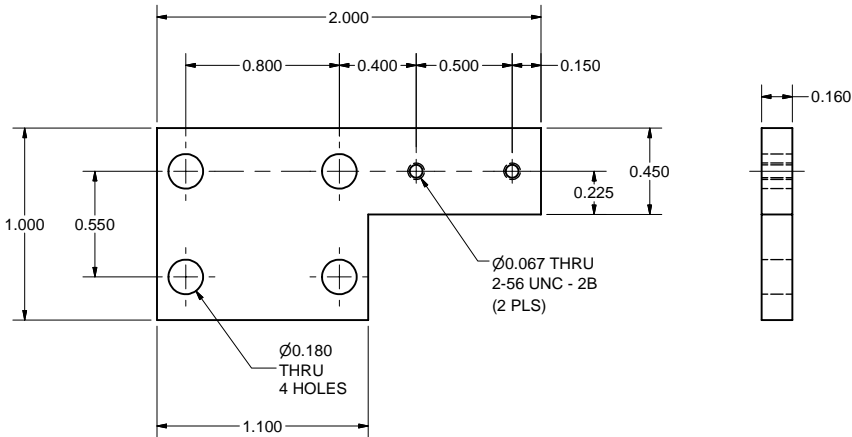
38 WPM CABLE HOLDER

FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 4 : 1
MATERIAL: OFHC COPPER
QTY: 1
NOTES:



40 WPM WIRE HOLDER SHAFT





FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 2 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1
NOTES:



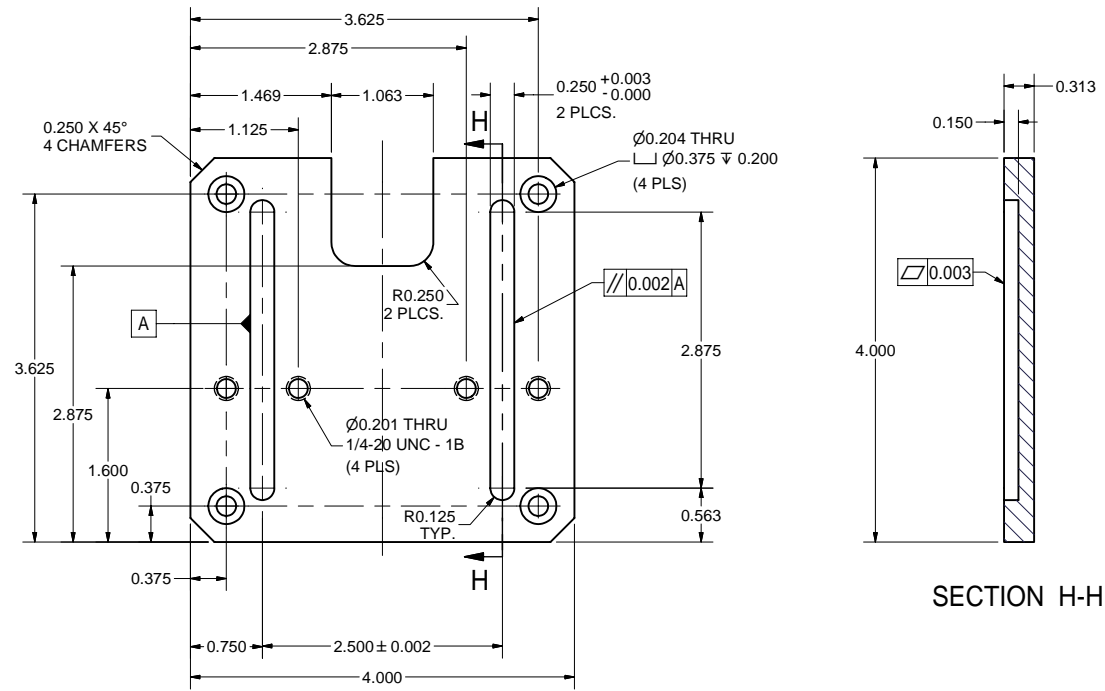
42 WPM CONTACT PLATE 2

FILE NAME: 7110-011
SHEET NO.: 12
DFT. SCALE: 4 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1 PER ASSEMBLY
NOTES:

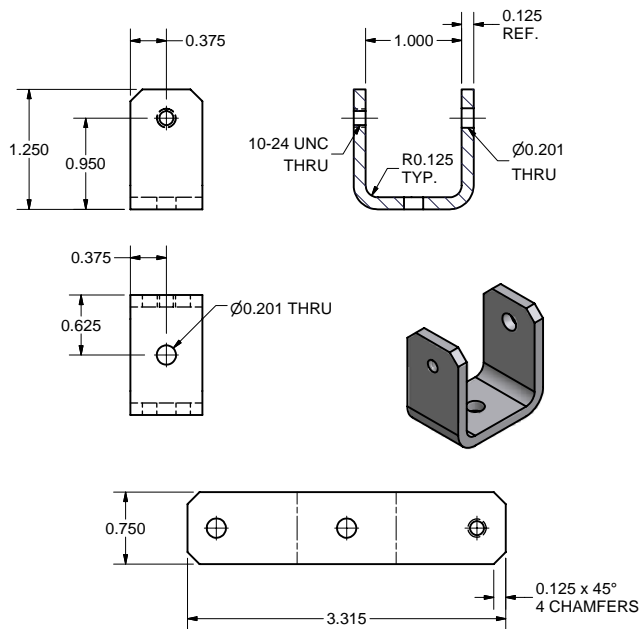
FOR MACHINING LUBRICANT USE ONLY
ALKALINE DETERGENT LUBRICANT CIMSTAR 40
OR EQUIVALENT APPROVED BY CORNELL LEPP

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
					QUANTITY						
	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw									
	7110-011 SH. NO. 12 OF 18	CR1	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 HORIZONTAL TEST CRYMODULE WPM TEST ASSEMBLY WPM PLATE & SHAFT DETAILS								
REV.	CHECKED BY: Vadim V.		DRAWN BY	DRAWN FOR	DATE	SCALE		7110-011		REV.	
	APPROVED BY: Vadim V.		applin	VV	8/18/2006	SH. NO. 12 OF 18					

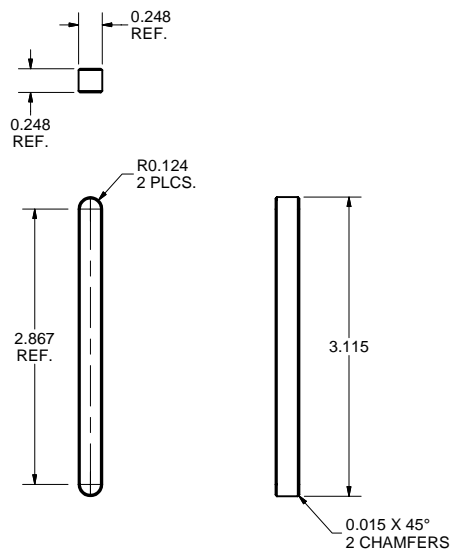
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A	A-8	WPM HOOK was Item # 43	JGL	12/6/06
			JOS	



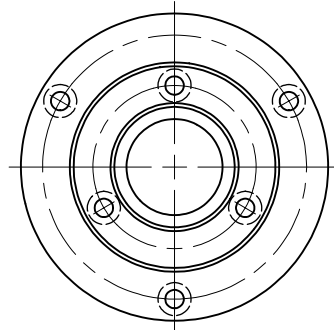
43 WPM FIX PLATE
FILE NAME: 7110-011
SHEET NO.: 13
DFT. SCALE: 1 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1 PER ASSEMBLY
NOTES:



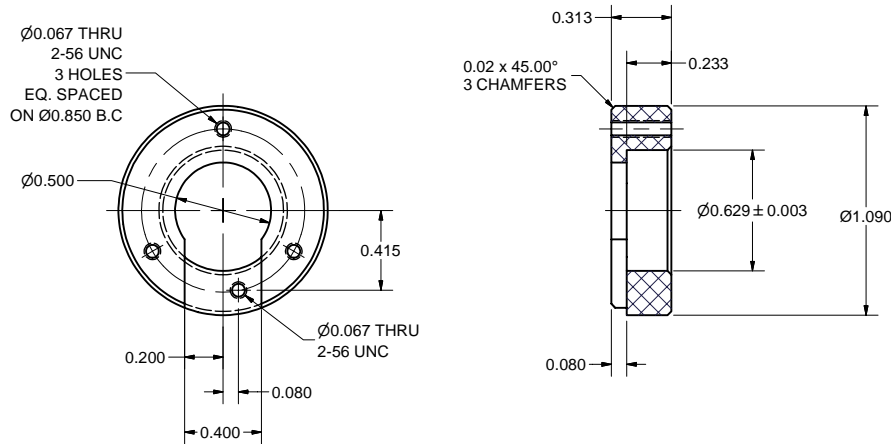
65 WPM HOOK
FILE NAME: 7110-011
SHEET NO.: 13
DFT. SCALE: 1:1
MATERIAL: 1/8" 304L STAINLESS STEEL SHEET
QTY: 1 PER ASSEMBLY
NOTES:



44 WPM KEY
FILE NAME: 7110-011
SHEET NO.: 13
DFT. SCALE: 1:1
MATERIAL: 1/4" x 1/4" 316L STAINLESS STEEL UNDERSIZED KEY STOCK
QTY: 4 PER ASSEMBLY
NOTES:







45 WPM INSULATION RING 1
FILE NAME: 7110-011
SHEET NO.: 13
DFT. SCALE: 2 : 1
MATERIAL: G10
QTY: 1
NOTES:

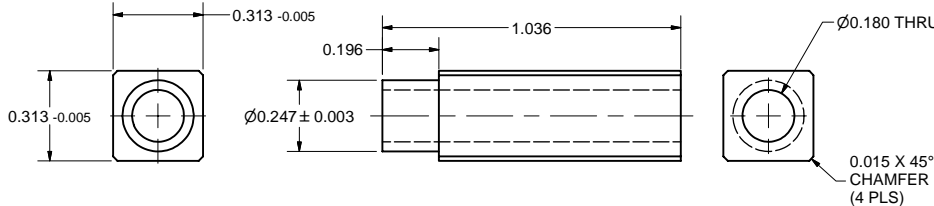
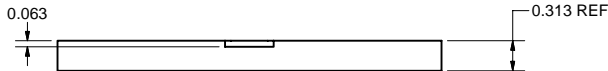
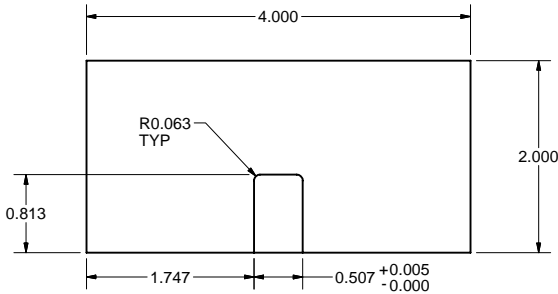
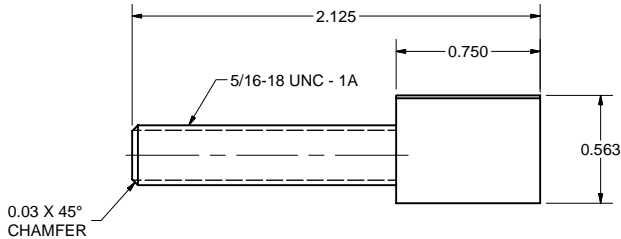
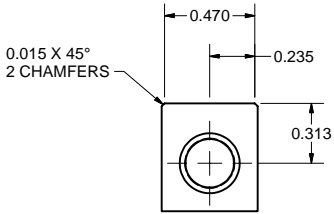


46 WPM INSULATION RING 2
FILE NAME: 7110-011
SHEET NO.: 13
DFT. SCALE: 2 : 1
MATERIAL: G10
QTY: 1
NOTES:

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

 		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.		
								QUANTITY						
D	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw												
	CR1	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 HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM PLATE & WHEEL DETAILS														
A	REV.	CHECKED BY: Vadim V.			DRAWN BY applin		DRAWN FOR VV		DATE 8/18/2006		SCALE D		7110-011 SH. NO. 13 OF 18	REV. A
		APPROVED BY: Vadim V.												

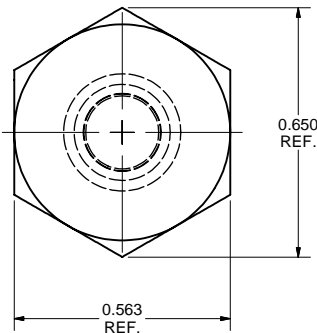
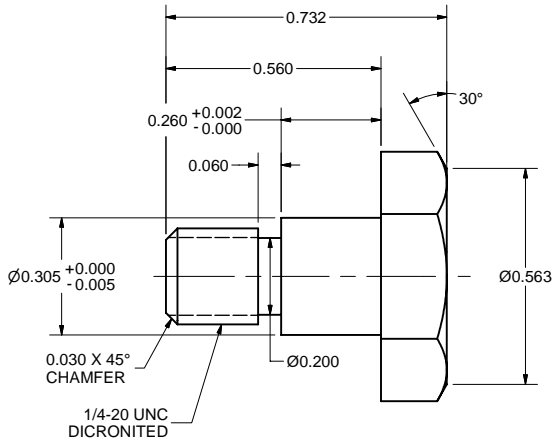
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A	B-2	Item #51, in Mat'l 10-24 UNC was 8-32 JGL	12/6/06	JOS



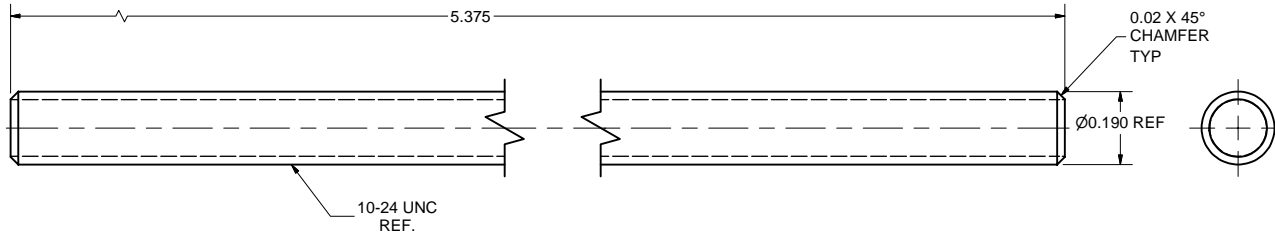
47 WPM SCREW 1
FILE NAME: 7110-011
SHEET NO.: 14
DFT. SCALE: 2 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1
NOTES:

50 WPM SLIDE PLATE
FILE NAME: 7110-011
SHEET NO.: 14
DFT. SCALE: 1 : 1
MATERIAL: 5/16" 304L STAINLESS STEEL SHEET
QTY: 2 PER ASSEMBLY
NOTES:

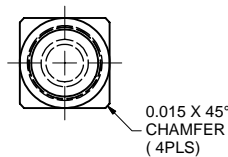
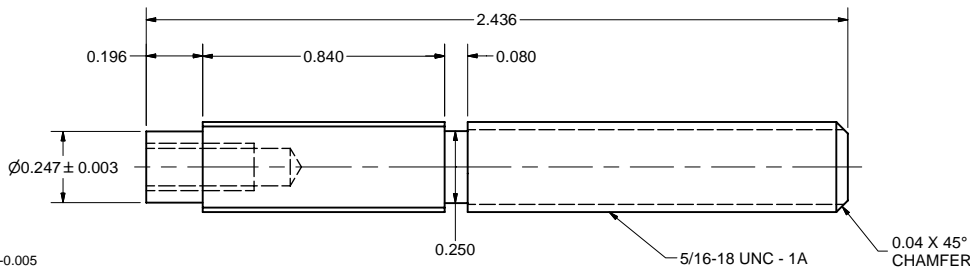
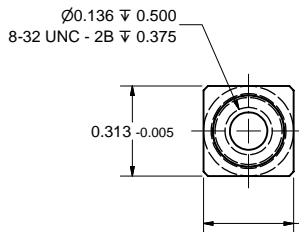
52 WHEEL SHAFT 2
FILE NAME: 7110-011
SHEET NO.: 14
DFT. SCALE: 3 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1
NOTES:



48 WPM SCREW 2
FILE NAME: 7110-011
SHEET NO.: 14
DFT. SCALE: 4 : 1
MATERIAL: 9/16" 304L STAINLESS STEEL HEX STOCK
QTY: 2 PER ASSEMBLY
NOTES:



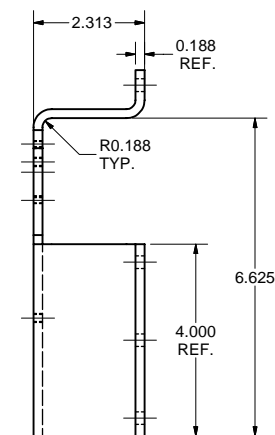
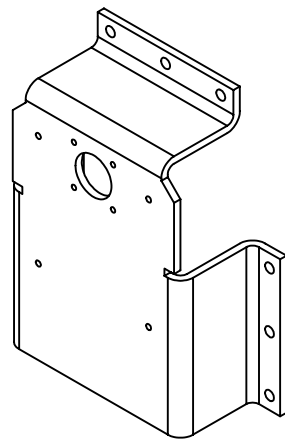
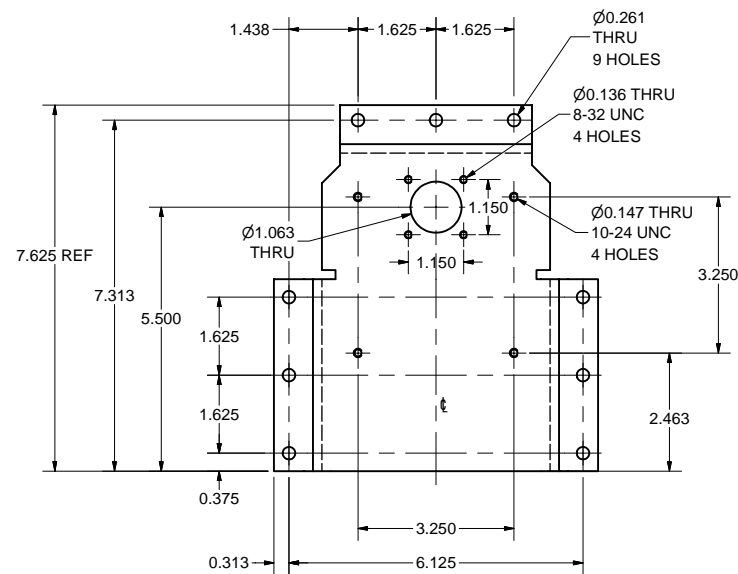
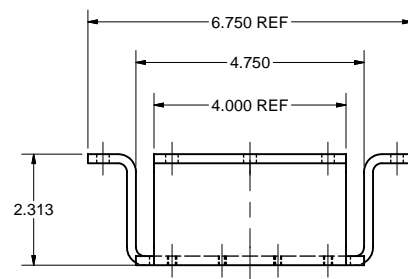
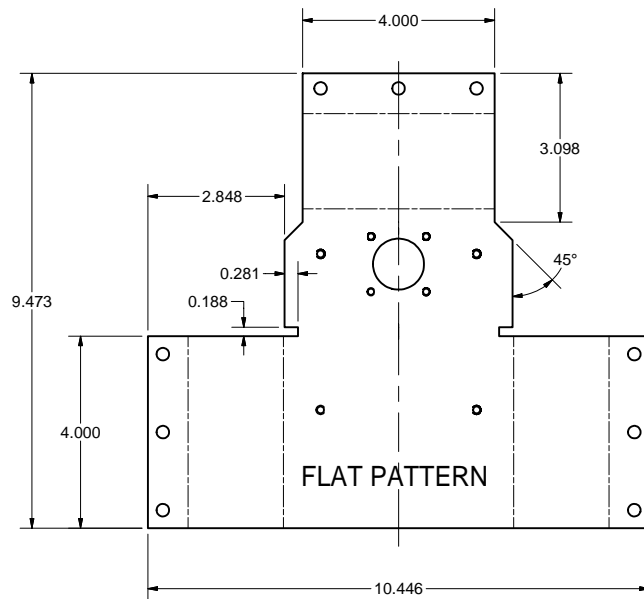
51 WPM STUD
FILE NAME: 7110-011
SHEET NO.: 14
DFT. SCALE: 4 : 1
MATERIAL: 10-24 UNC 304L STAINLESS STEEL THREADED ROD
QTY: 1
NOTES:



49 WHEEL SHAFT 1
FILE NAME: 7110-011
SHEET NO.: 14
DFT. SCALE: 3 : 1
MATERIAL: 304L STAINLESS STEEL
QTY: 1
NOTES:

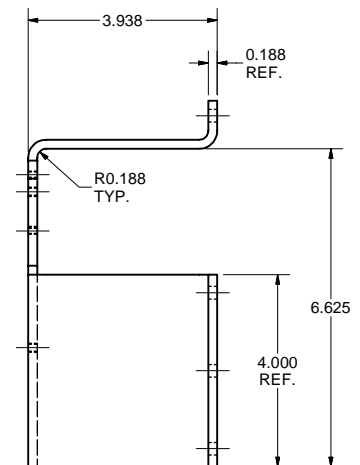
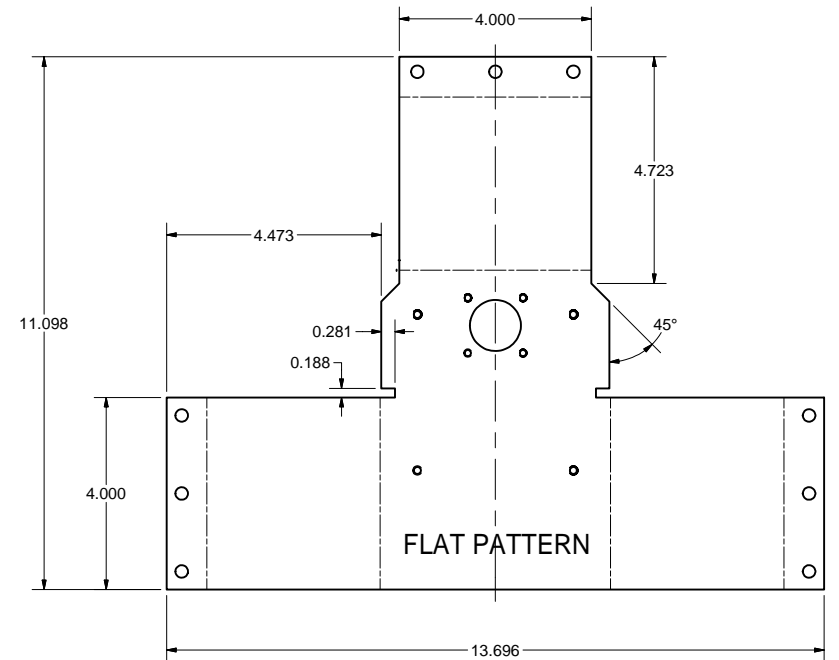
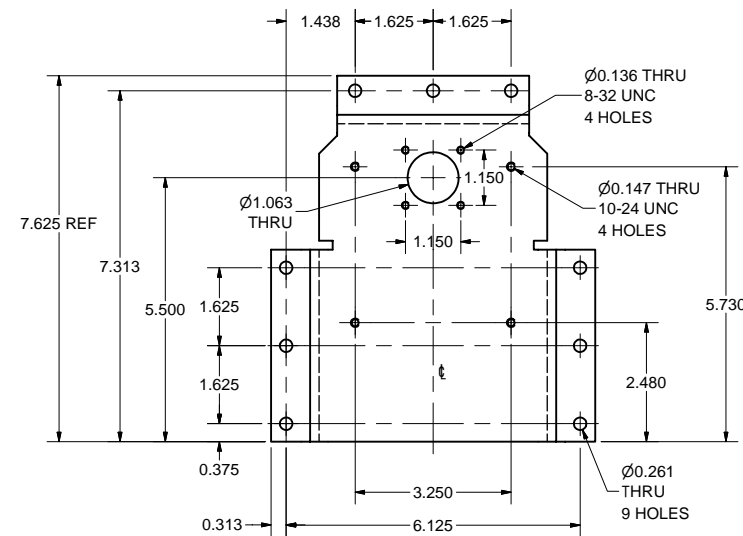
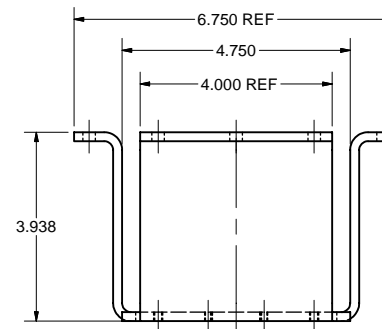
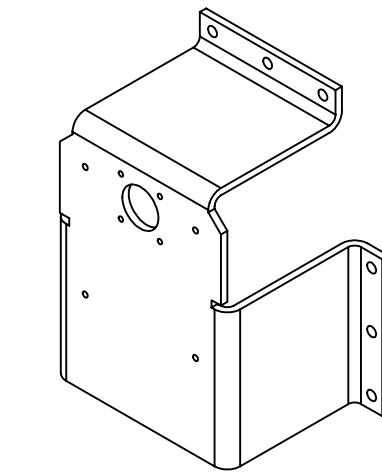
FOR MACHINING LUBRICANT USE ONLY
ALKALINE DETERGENT LUBRICANT CIMSTAR 40
OR EQUIVALENT APPROVED BY CORNELL LEPP

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.	
								QUANTITY					
D	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw											
7110-011 SH. NO. 14 OF 18	CR1	UNLESS OTHERWISE SPECIFIED:		<div>CORNELL UNIVERSITY CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div> <div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div>									
		DIMENSIONS ARE IN INCHES:											
		TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES		ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM SCREWS, PLATE & SHAFT DETAILS									
A	REV.	CHECKED BY: Vadim V.		DRAWN BY applin		DRAWN FOR VV		DATE 8/18/2006		SCALE	D	7110-011 SH. NO. 14 OF 18	REV. A
		APPROVED BY: Vadim V.											









53 WPM SUPPORT - OTHER SIDE

FILE NAME: 7110-011
SHEET NO.: 15
DFT. SCALE: 1/2
MATERIAL: 3/16" 304L STAINLESS STEEL SHEET
QTY: 1
NOTES:

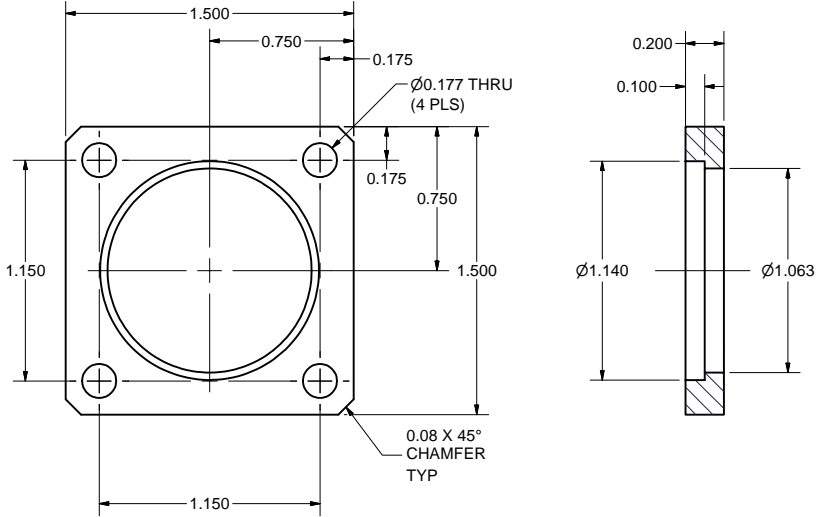


54 WPM SUPPORT WEIGHT SIDE
FILE NAME: 7110-011
SHEET NO.: 15
DFT. SCALE: 1:2
MATERIAL: 3/16" 304L STAINLESS STEEL SHEET
QTY: 1 PER ASSEMBLY
NOTES:

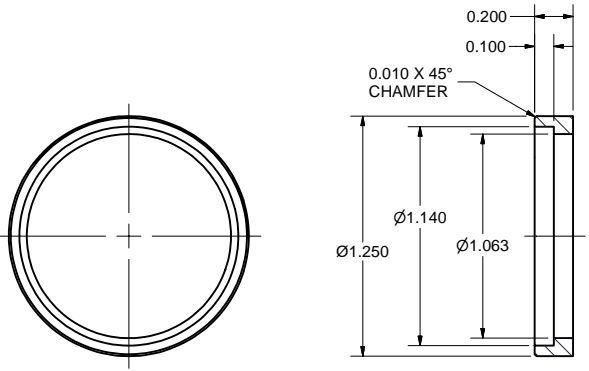
FOR MACHINING LUBRICANT USE ONLY
ALKALINE DETERGENT LUBRICANT CIMSTAR 40
OR EQUIVALENT APPROVED BY CORNELL LEPP

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
								QUANTITY			
	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw									
		CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS: 1/164 ANGLES: ± 0.5° ALL SURFACES ✓			<div><div><div style="text-align: center;"><p>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</p></div></div><div>ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM SHEET METAL SUPPORT DETAILS</div></div>					
SH. NO. 15 OF 18 7110-011	REV.	CHECKED BY: Vadim V. APPROVED BY: Vadim V.	DRAWN BY aplin	DRAWN FOR VV	DATE 8/18/2006	SCALE		7110-011 SH. NO. 15 OF 18			REV.

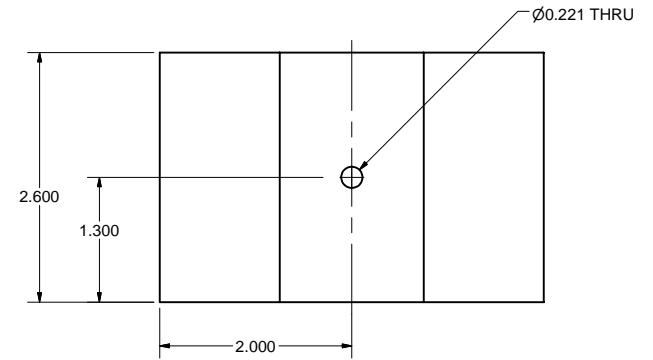
REVISIONS					
SYM.	ZONE	DESCRIPTION		DATE	APP.
A	B-2	WPM WEIGHT WAS Item #59	JGL	12/6/06	JOS



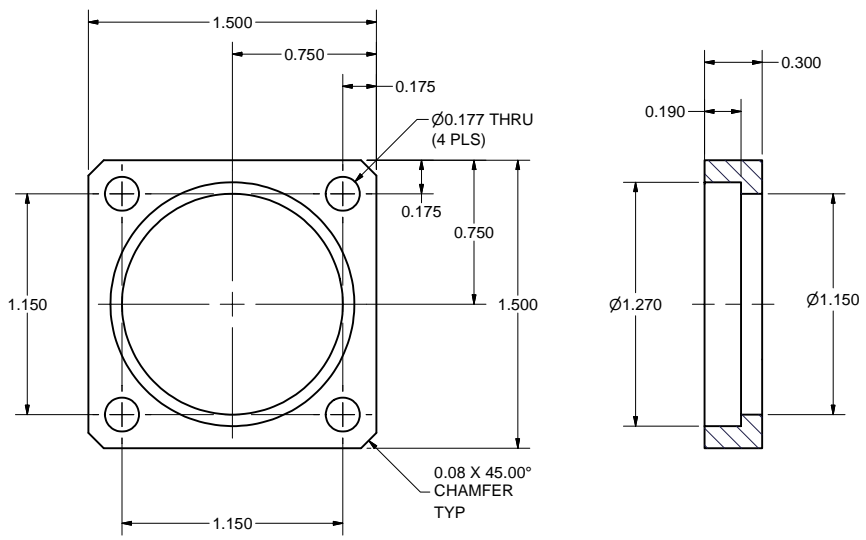
55 WPM TUBE FLANGE
FILE NAME: 7110-011
SHEET NO.: 16
DFT. SCALE: 2 : 1
MATERIAL: 316L STAINLESS STEEL
QTY: 2 PER ASSEMBLY
NOTES:



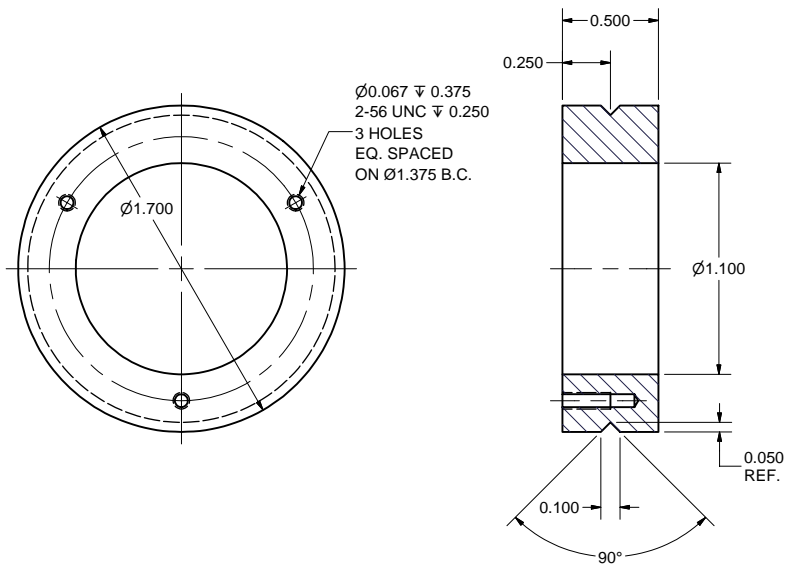
57 WPM ROTATABLE FLANGE END PIECE
FILE NAME: 7110-011
SHEET NO.: 16
DFT. SCALE: 2 : 1
MATERIAL: 316L STAINLESS STEEL
QTY: 2 PER ASSEMBLY
NOTES:



66 WPM WEIGHT
FILE NAME: 7110-011
SHEET NO.: 16
DFT. SCALE: 1 : 1
MATERIAL: LEAD
QTY: 1
NOTES:

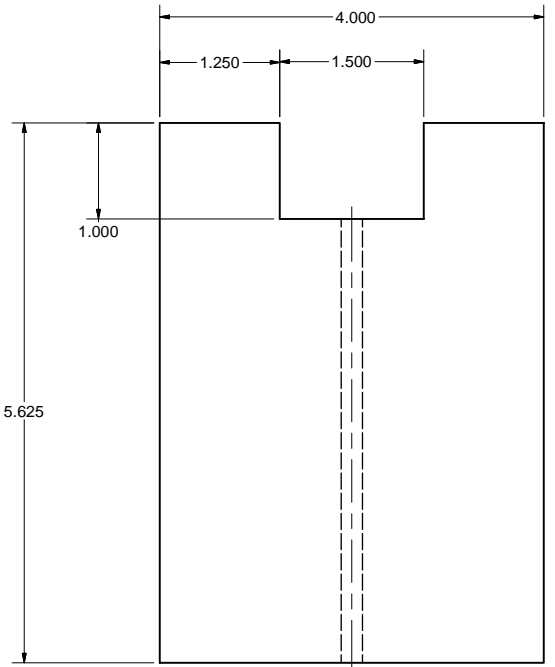






56 WPM ROTATABLE FLANGE
FILE NAME: 7110-011
SHEET NO.: 16
DFT. SCALE: 2 : 1
MATERIAL: 316L STAINLESS STEEL
QTY: 2 PER ASSEMBLY
NOTES:

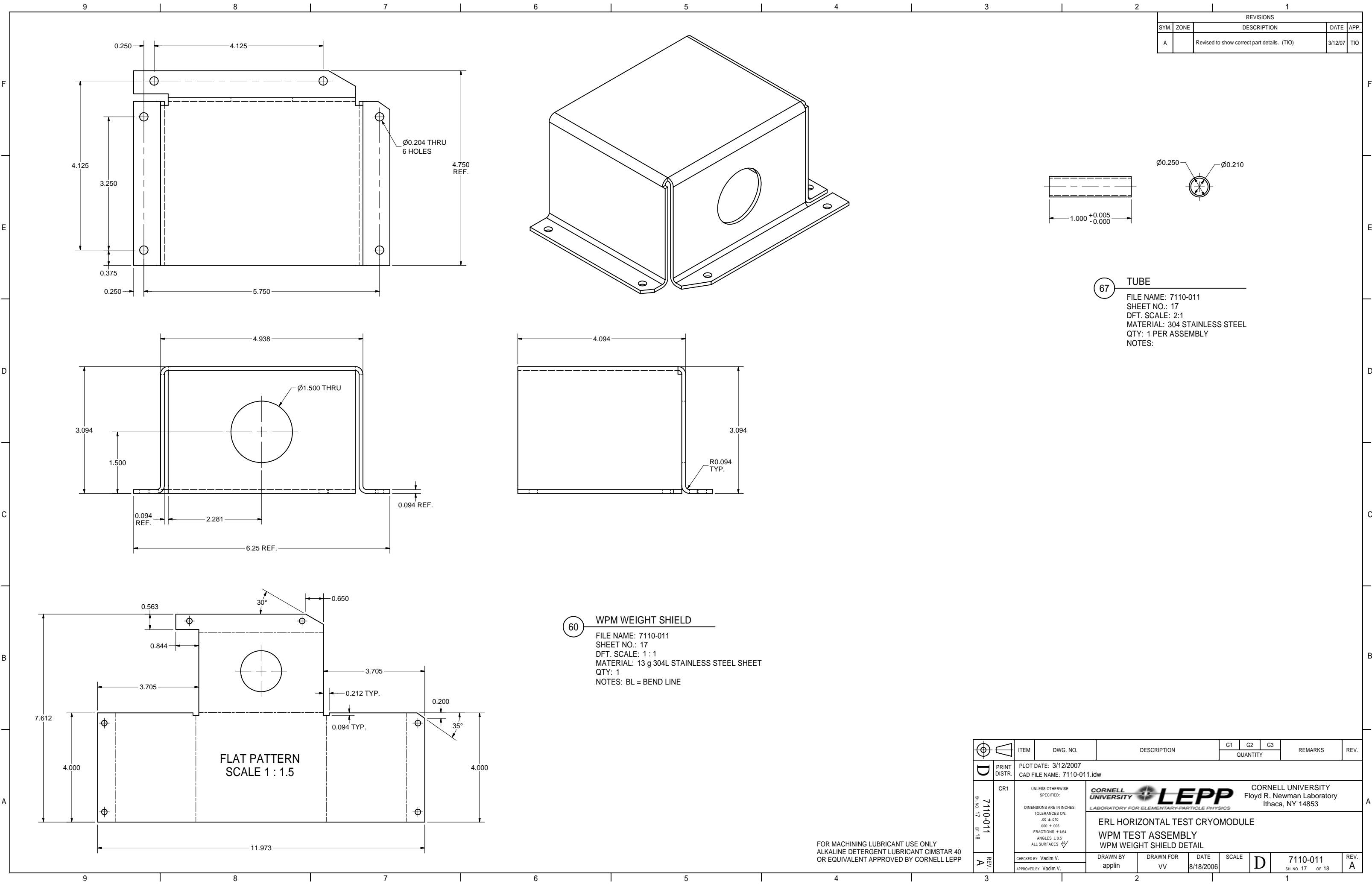


58 WPM WHEEL
FILE NAME: 7110-011
SHEET NO.: 16
DFT. SCALE: 2 : 1
MATERIAL: AMPCO-18 AL. BRONZE OR EQUIV.
QTY: 1
NOTES:

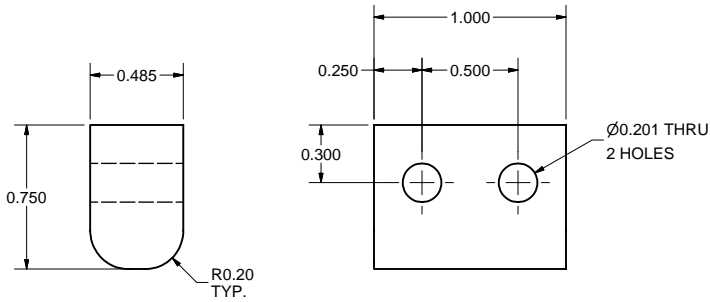
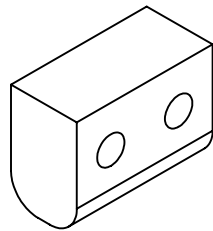
FOR MACHINING LUBRICANT USE ONLY
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OR EQUIVALENT APPROVED BY CORNELL LEPP



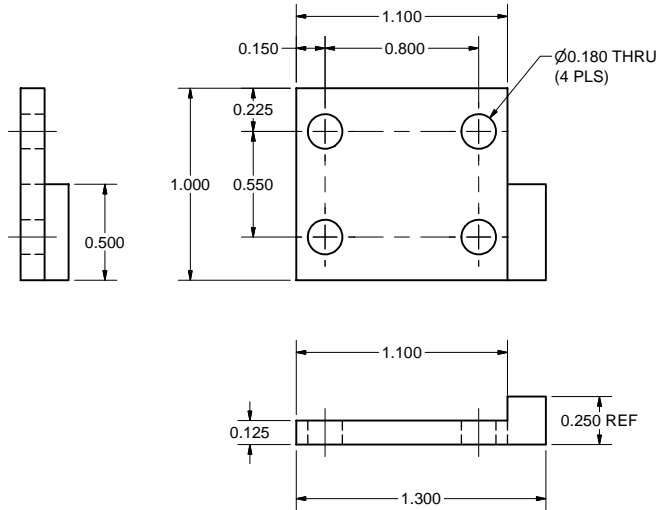
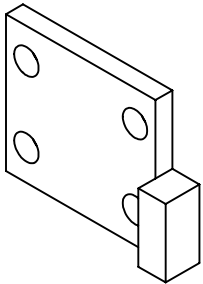
		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
					QUANTITY						
	PRINT DISTR.	PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw									
	7110-011 SH. NO. 16 OF 18	CR1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES; TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓		 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853						
ERL HORIZONTAL TEST CRYMODULE WPM TEST ASSEMBLY WPM FLANGE & WEIGHT DETAILS											
CHECKED BY: Vadim V.			DRAWN BY applin	DRAWN FOR VV	DATE 8/18/2006	SCALE		7110-011 SH. NO. 16 OF 18	REV. A		
APPROVED BY: Vadim V.											



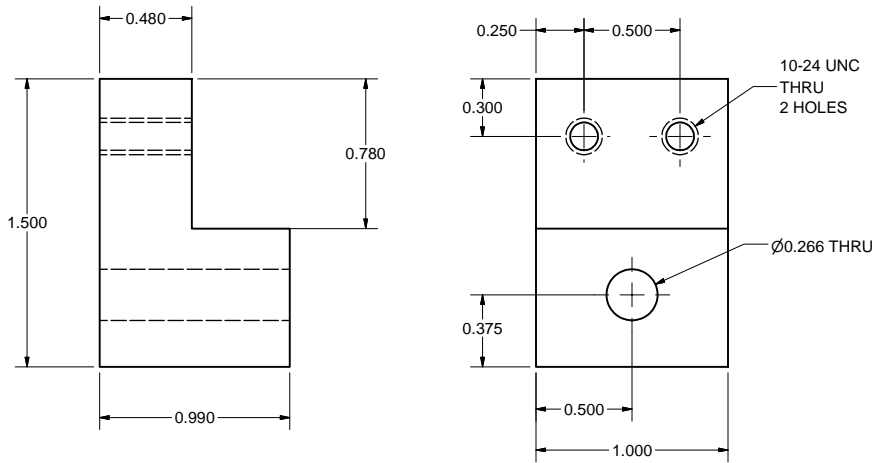
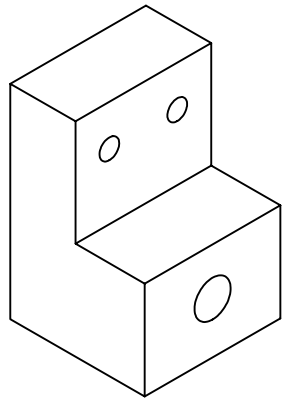
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



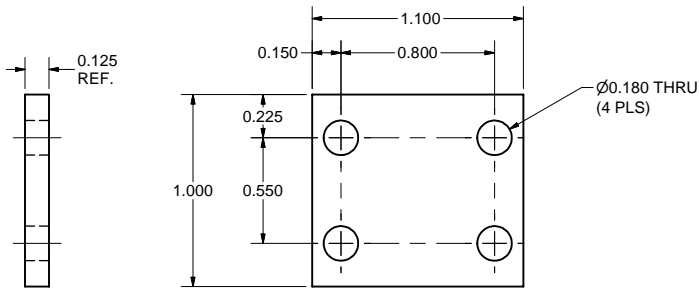
61 **WPM WIRE CLAMP PLATE 1**
FILE NAME: 7110-011
SHEET NO.: 18
DFT. SCALE: 2 : 1
MATERIAL: G 10
QTY: 1 PER ASSEMBLY
NOTES:



63 **WPM WIRE HOLDER PLATE 1**
FILE NAME: 7110-011
SHEET NO.: 18
DFT. SCALE: 2 : 1
MATERIAL: 1/4" G10 SHEET
QTY: 1 PER ASSEMBLY
NOTES:





62 **WPM WIRE CLAMP PLATE 2**
FILE NAME: 7110-011
SHEET NO.: 18
DFT. SCALE: 2 : 1
MATERIAL: G 10
QTY: 1 PER ASSEMBLY
NOTES:



64 **WPM WIRE HOLDER PLATE 2**
FILE NAME: 7110-011
SHEET NO.: 18
DFT. SCALE: 2: 1
MATERIAL: 1/8" G10 SHEET
QTY: 1 PER ASSEMBLY
NOTES:

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OR EQUIVALENT APPROVED BY CORNELL LEPP

		ITEM		DWG. NO.		DESCRIPTION		G1		G2		G3		REMARKS		REV.	
								QUANTITY									
D		PRINT DISTR.		PLOT DATE: 12/6/2006 CAD FILE NAME: 7110-011.idw													
7110-011 SH. NO. 18 OF 18		CR1		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓		<div><div>CORNELL UNIVERSITY FLOYD R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL HORIZONTAL TEST CRYOMODULE WPM TEST ASSEMBLY WPM WIRE CLAMP & HOLDER DETAILS</div>											
REV.		CHECKED BY: Vadim V.		DRAWN BY applin		DRAWN FOR VV		DATE 8/18/2006		SCALE		D		7110-011 SH. NO. 18 OF 18		REV.	
		APPROVED BY: Vadim V.															