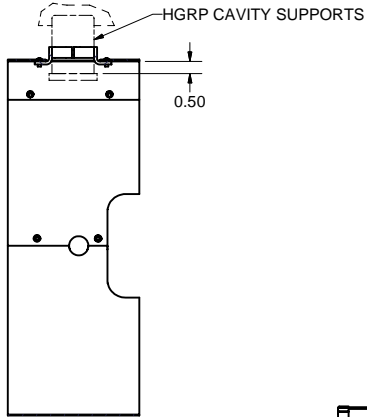
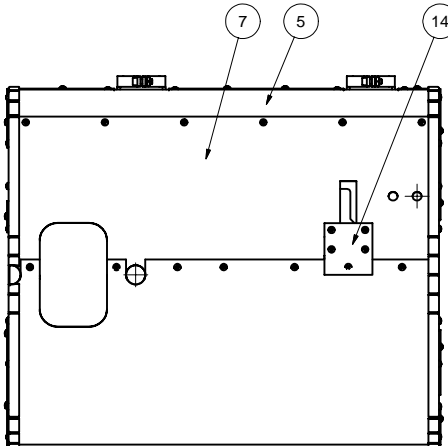
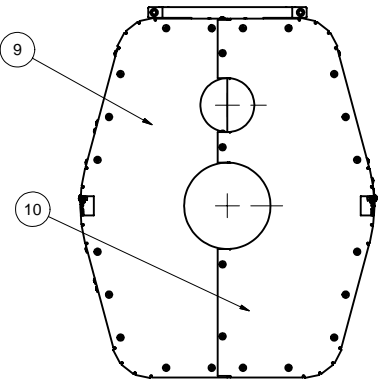
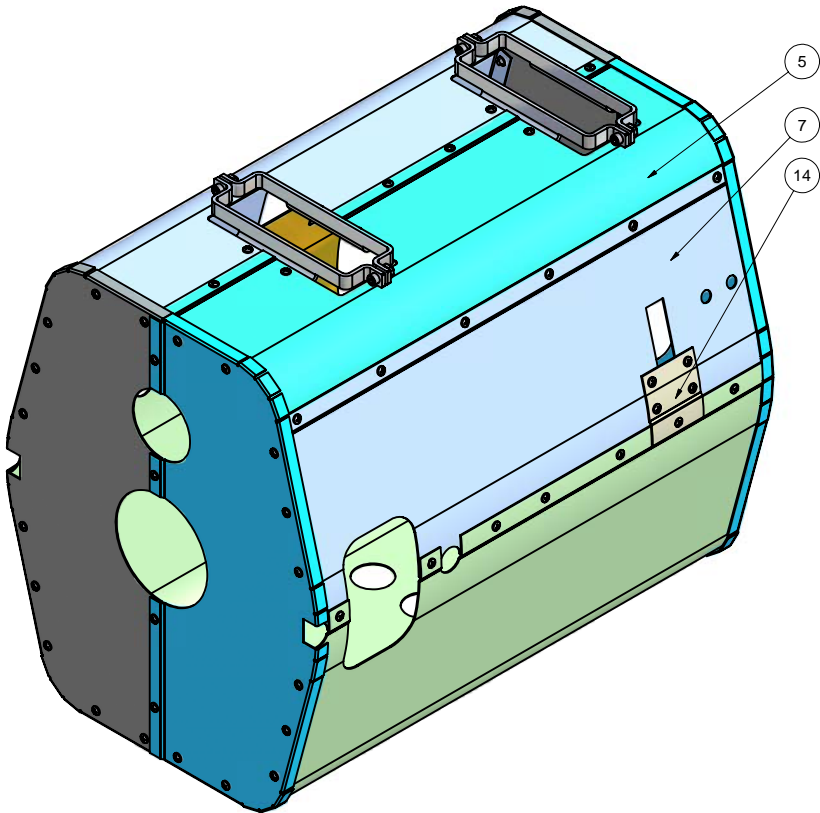
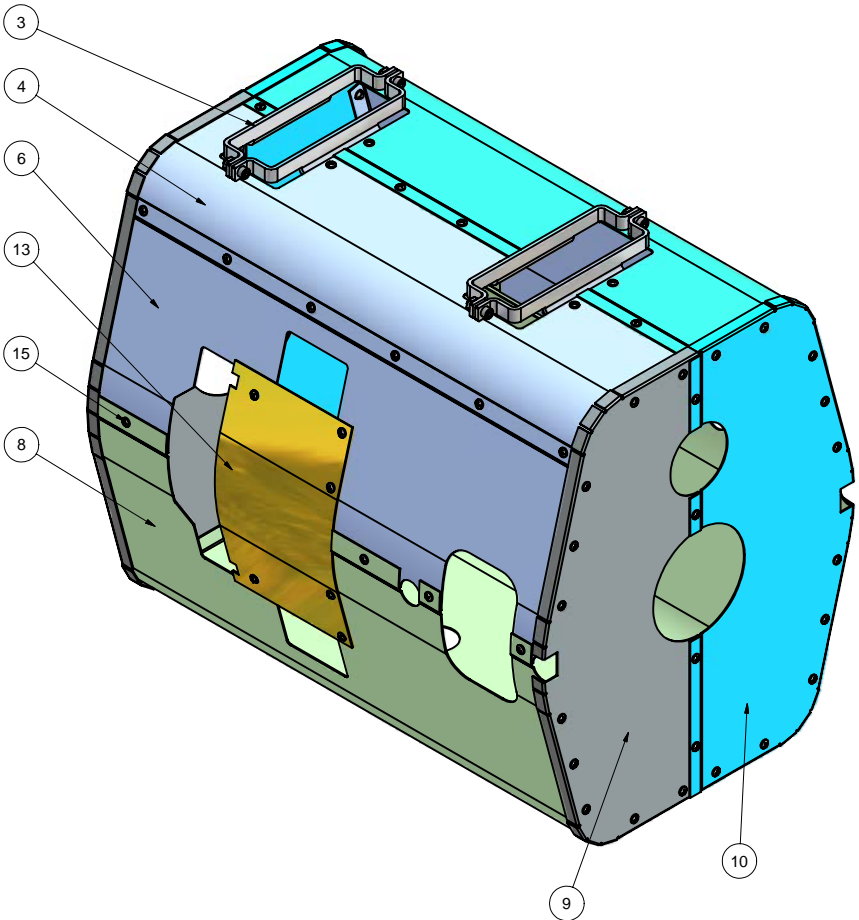
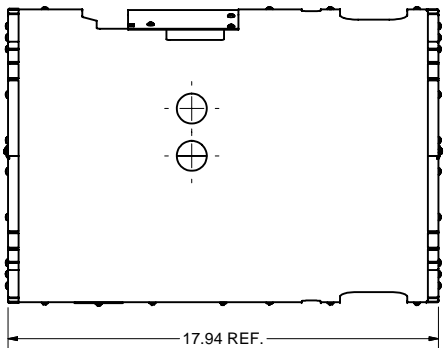
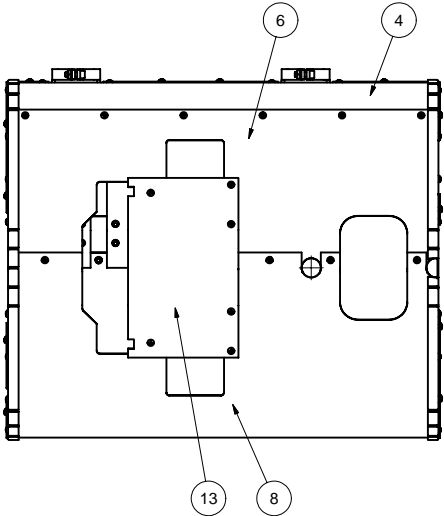
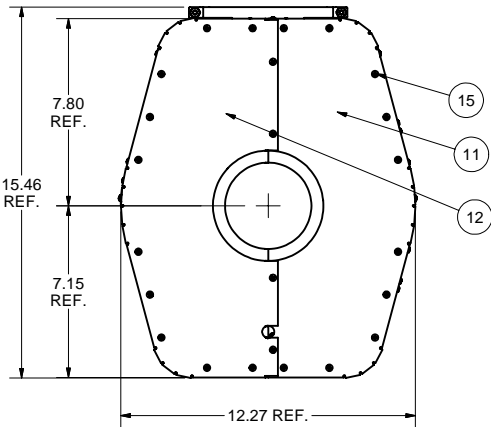
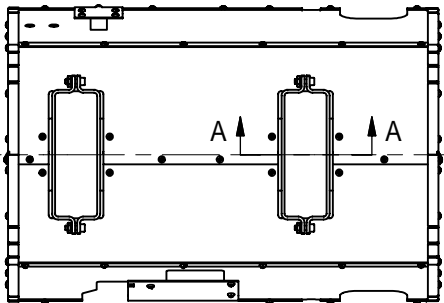


REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		FOR SHEETS 9 & 14: ITEMS 25 & 22 WERE REVISED, RESPECTIVELY.	3-21-07	J.O.S.
B		SIDE CUT FOR TUNER CHANGED DUE TO CORRECTION OF PART ITEM 42.	5/29/07	VM



SECTION A-A



1 MAGNETIC SHIELD II, LEFT, ASSEMBLY

FILE NAME: 7102-042  
SHEET NO.: 1  
DFT. SCALE: 1:2  
MATERIAL: NOTED  
QTY: 3 PER INJECTOR CRYOMODULE  
NOTES: 1.) SEE SHEET 16 FOR MAGNETIC SHIELD II, RIGHT, ASSEMBLY.  
2.) TOTAL QUANTITY OF CLS PEM NUTS AND SCREWS ITEM 15 FOR 5 MAGNETIC SHIELDS = 365 OF EACH.

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

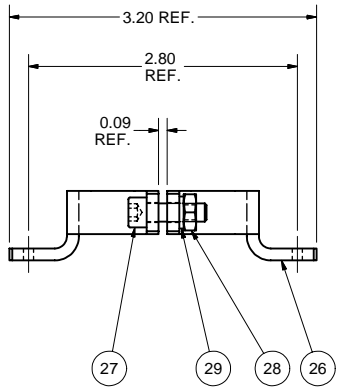
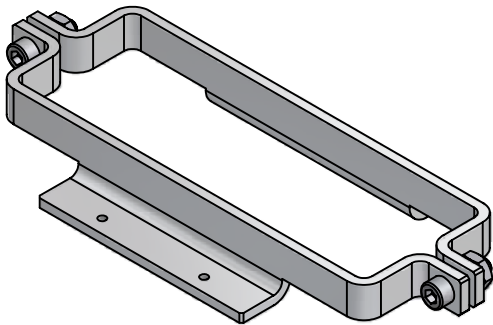
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	OK	DATE	N/A
DRAFTING (O'Connell):			
MACHINE SHOP (Kaminski):			
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):			
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):			
STOCKROOMS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

REV.	SH. NO.	DATE
D	1	6/6/2007
B	1	5/18/2007

ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
15	-	#6-32 x 1/4 Pan Head Machine Screw, 316 SS	93			McMaster-Carr's 91735A144	
14	Sheet 15	BACK PATCH	1				
13	Sheet 15	FRONT PATCH	1				
12	Sheet 6	LEFT BACK WALL	1				
11	Sheet 6	LEFT FRONT WALL SUB-ASM	1				
10	Sheet 3	RIGHT BACK WALL	1				
9	Sheet 4	RIGHT FRONT WALL SUB-ASM	1				
8	Sheet 9	BOTTOM SHELL, LEFT, SUB-ASM	1				A
7	Sheet 14	BACK SHELL, LEFT, SUB-ASM	1				A
6	Sheet 13	FRONT SHELL, LEFT, SUB-ASM	1				
5	Sheet 12	TOP BACK SHELL SUB-ASM	1				
4	Sheet 11	TOP FRONT SHELL SUB-ASM	1				
3	Sheet 2	HGRP SUPPORT CLAMP SUB-ASM	2				
2	Sheet 16	MAGNETIC SHIELD II, RIGHT, ASSEMBLY	X				
1	Sheet 1	MAGNETIC SHIELD II, LEFT, ASSEMBLY	X				

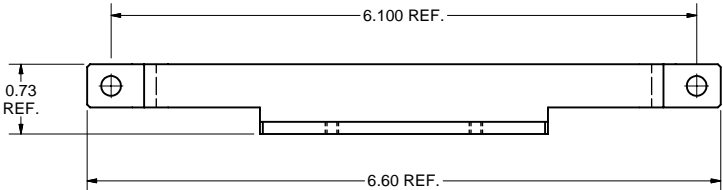
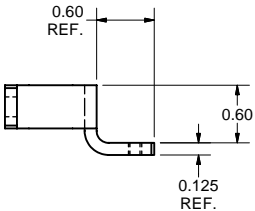
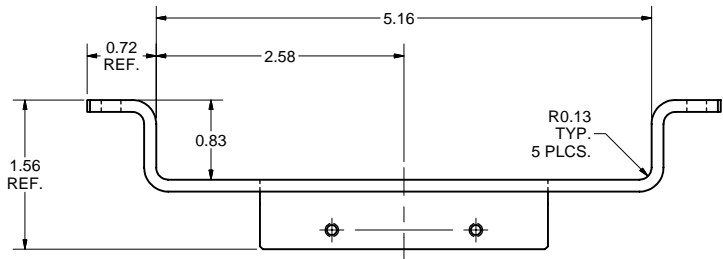
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES	<b>CORNELL UNIVERSITY</b> <b>LEPP</b> LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS <b>ERL INJECTOR CRYOMODULE</b> <b>MAGNETIC SHIELD II</b> <b>LEFT ASSEMBLY</b>	DRAWN BY dme4	DRAWN FOR M.LIEPE	DATE 1/18/2007	SCALE D	7102-042 SH. NO. 1 OF 16	REV. B
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REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



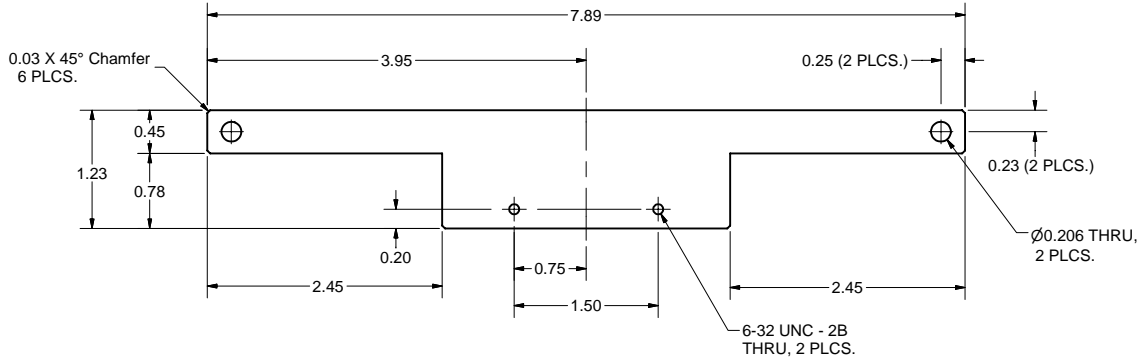
3 HGRP SUPPORT CLAMP SUB-ASM

FILE NAME: 7102-042  
SHEET NO.: 2  
DFT. SCALE: 1:1  
MATERIAL:  
QTY: 2 PER ASSEMBLY  
NOTES:



26 HGRP SUPPORT CLAMP

FILE NAME: 7102-042  
SHEET NO.: 2  
DFT. SCALE: 1:1  
MATERIAL: 1/8" 316L ST. STEEL SHEET  
QTY: 2 PER SUBASM, 4 TOTAL  
NOTES:



FLAT PATTERN

29	-	#10 Spring Lock Washer, 316 SS	4			McMaster-Carr's 91475A027	
28	-	#10-32 Hex Machine Screw Nut, 316 SS	4			McMaster-Carr's 90257A411	
27	-	#10-32 x 5/8 Socket Head Cap Screw, 316 SS	4			McMaster-Carr's 92185A990	
26	Sheet 2	HGRP SUPPORT CLAMP	2			316L SST	
3	Sheet 2	HGRP SUPPORT CLAMP SUB-ASM	X				

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'Connel):			
MACHINE SHOP (Kaminski):			
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):			
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):			
STOCKROOMS (Lockwood):			

ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
			QUANTITY				

PLOT DATE: 6/6/2007  
CAD FILE NAME: 7102-042.idw

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES:  
TOLERANCES ON:  
.00 ± .010  
.000 ± .005  
FRACTIONS ± 1/64  
ANGLES ± 0.5°  
ALL SURFACES



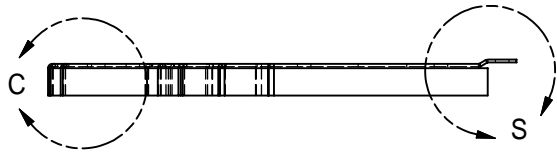
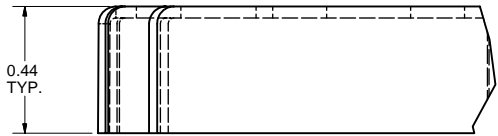
CORNELL UNIVERSITY  
Floyd R. Newman Laboratory  
Ithaca, NY 14853

ERL INJECTOR CRYOMODULE  
MAGNETIC SHIELD II  
HGRP SUPPORT CLAMP SUB-ASM

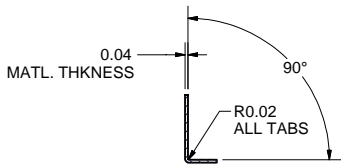
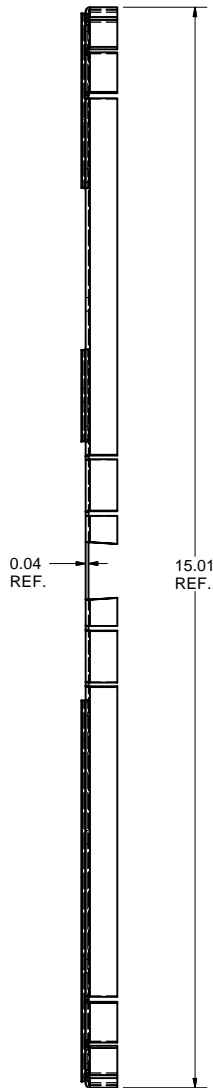
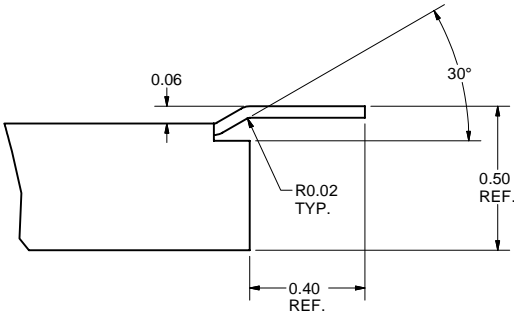
CHECKED BY: J. Sears	DRAWN BY: dne4	DRAWN FOR: M.LIEPE	DATE: 1/18/2007	SCALE: D	7102-042	REV.
APPROVED BY: J. Sears					SH. NO. 2 OF 16	

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

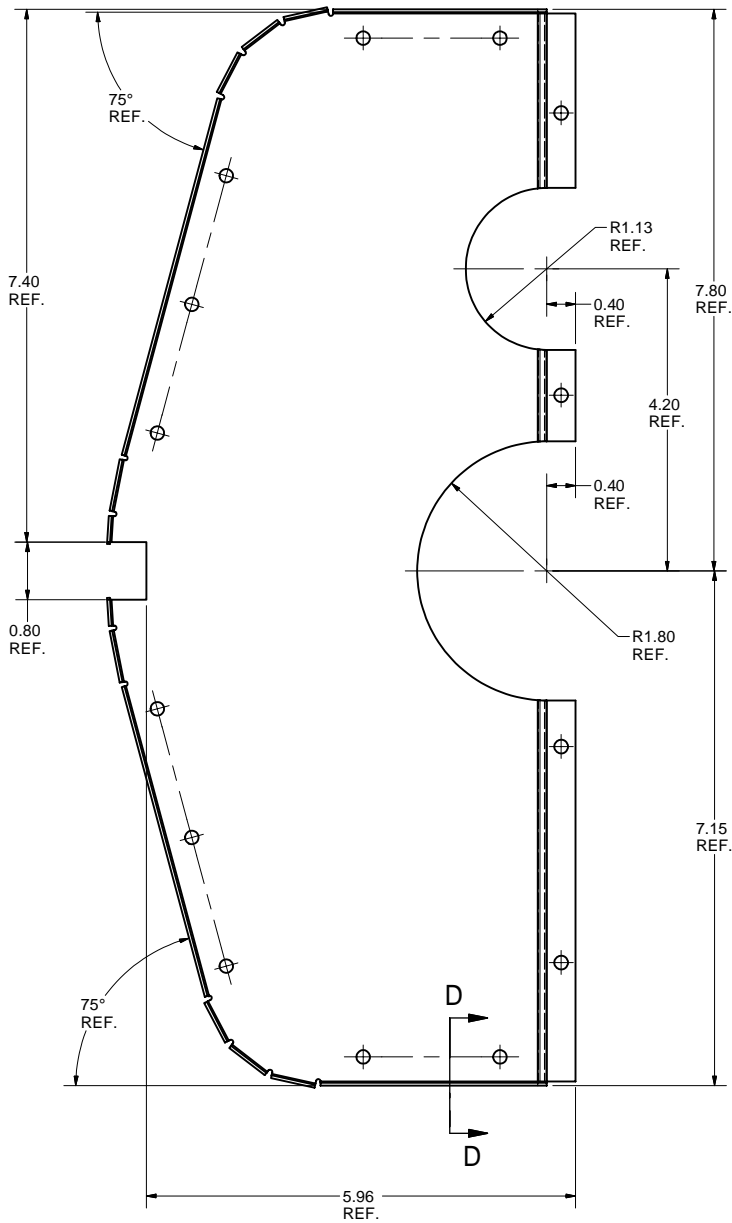
DETAIL C  
SCALE 3 : 1



DETAIL S  
SCALE 3 : 1



SECTION D-D  
SCALE 3 : 4








10 RIGHT BACK WALL

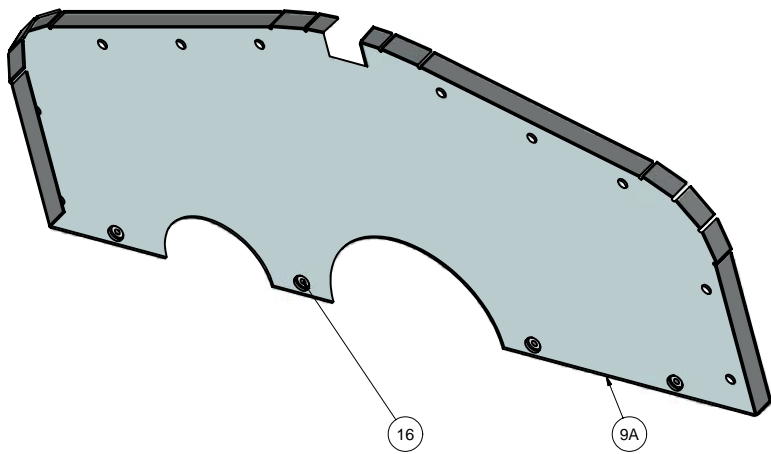
FILE NAME: 7102-042  
SHEET NO.: 3  
DFT. SCALE: 3:4  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: SEE SHEET 5 FOR FLAT PATTERN.

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

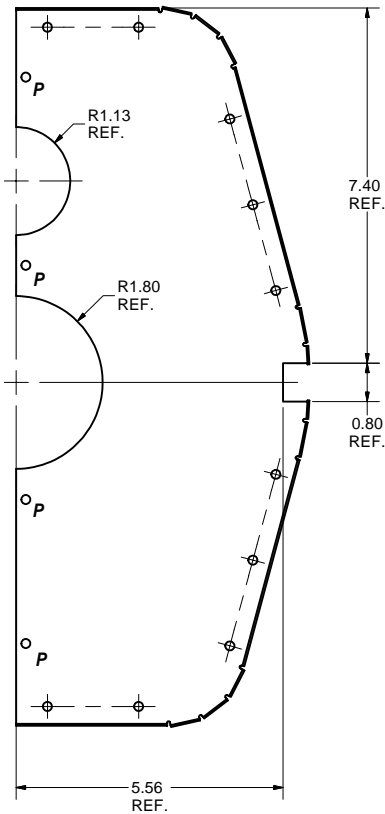
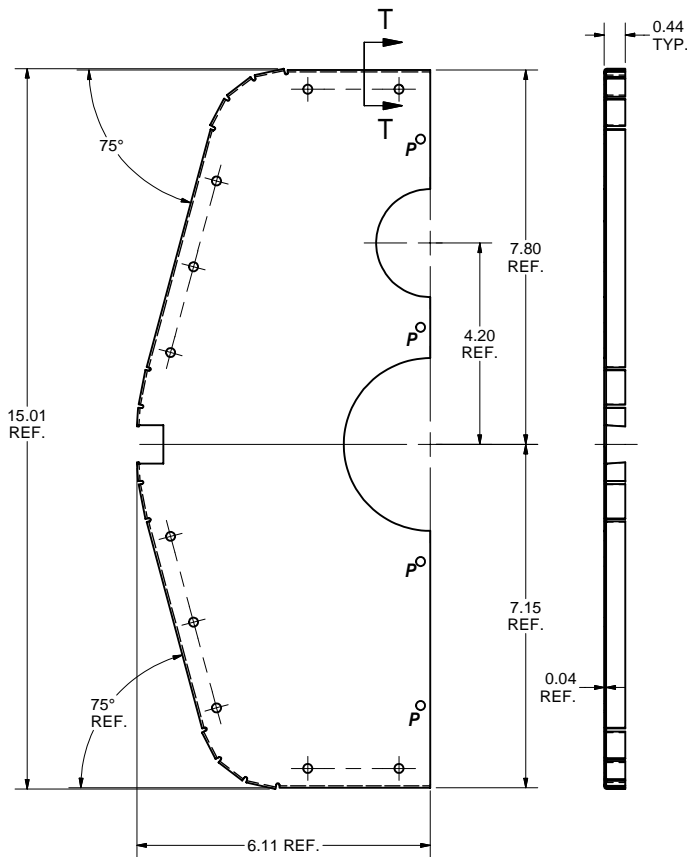
TECHNICAL RESOURCE APPROVALS REQUIRED BEFORE FABRICATION			
	OK	DATE	N/A
DRAFTING (O'Connell):			
MACHINE SHOP (Kaminski):			
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):			
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):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

 	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
				QUANTITY				
	PRINT DISTR.	PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw						
	7102-042 SH. NO. 3 OF 16	CR-1	<div>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  CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div>			ERL INJECTOR CRYOMODULE  MAGNETIC SHIELD II  RIGHT BACK WALL
CHECKED BY: J. Sears  APPROVED BY: J. Sears		DRAWN BY dme4						

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.

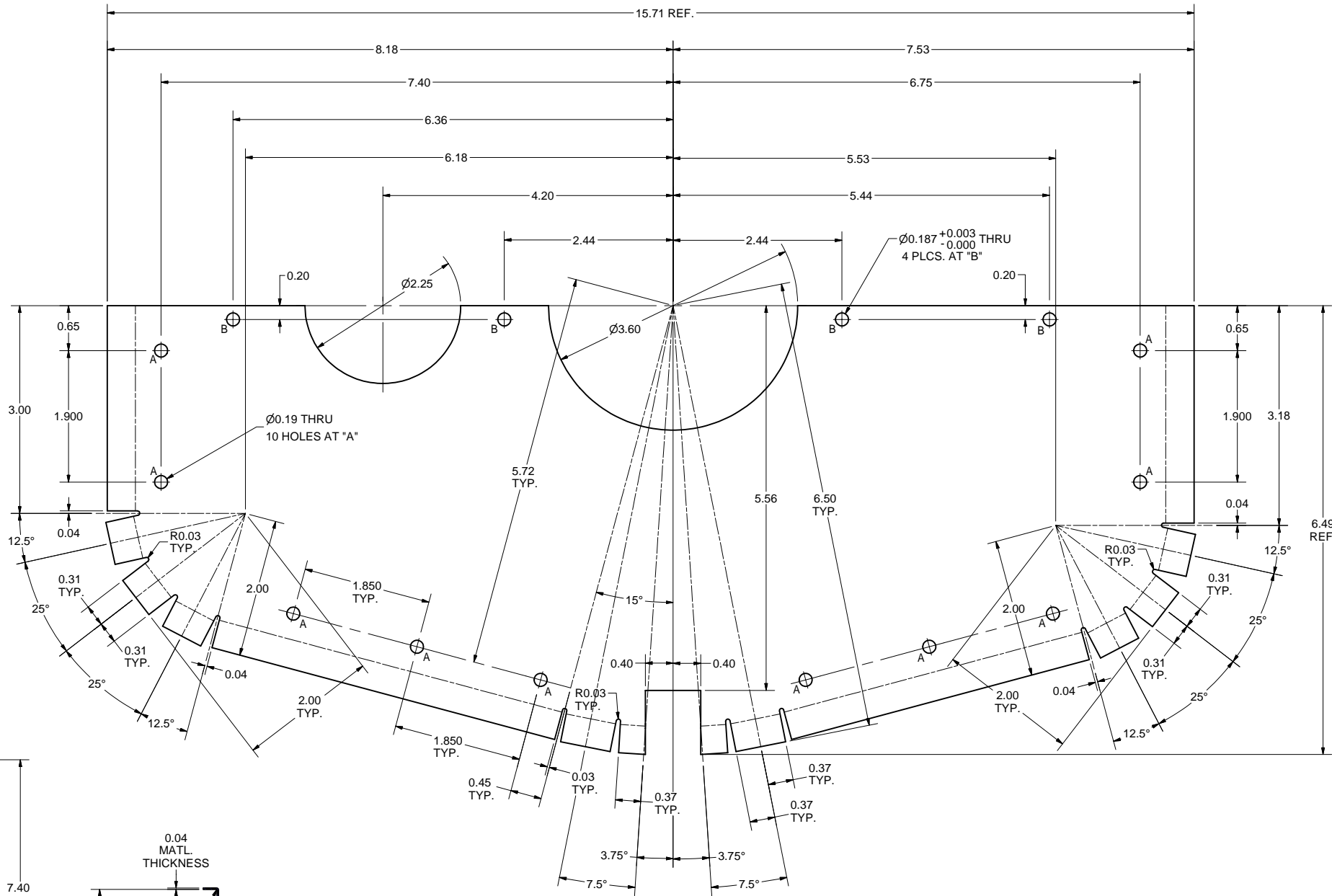


**9 RIGHT FRONT WALL SUB-ASM**  
FILE NAME: 7102-042  
SHEET NO.: 4  
DFT. SCALE: 1:2  
MATERIAL:  
QTY: 1 PER ASSEMBLY  
NOTES:



**SECTION T-T  
SCALE 1:2**

**9A RIGHT FRONT WALL**  
FILE NAME: 7102-042  
SHEET NO.: 4  
DFT. SCALE: 1:2  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: "P" DENOTES PEM NUT LOCATION,  
INSTALLED FROM INSIDE WALL OF  
MAGNETIC SHIELD.



**RIGHT FRONT WALL (ITEM 9A)  
FLAT PATTERN  
SCALE 1:1**

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):			

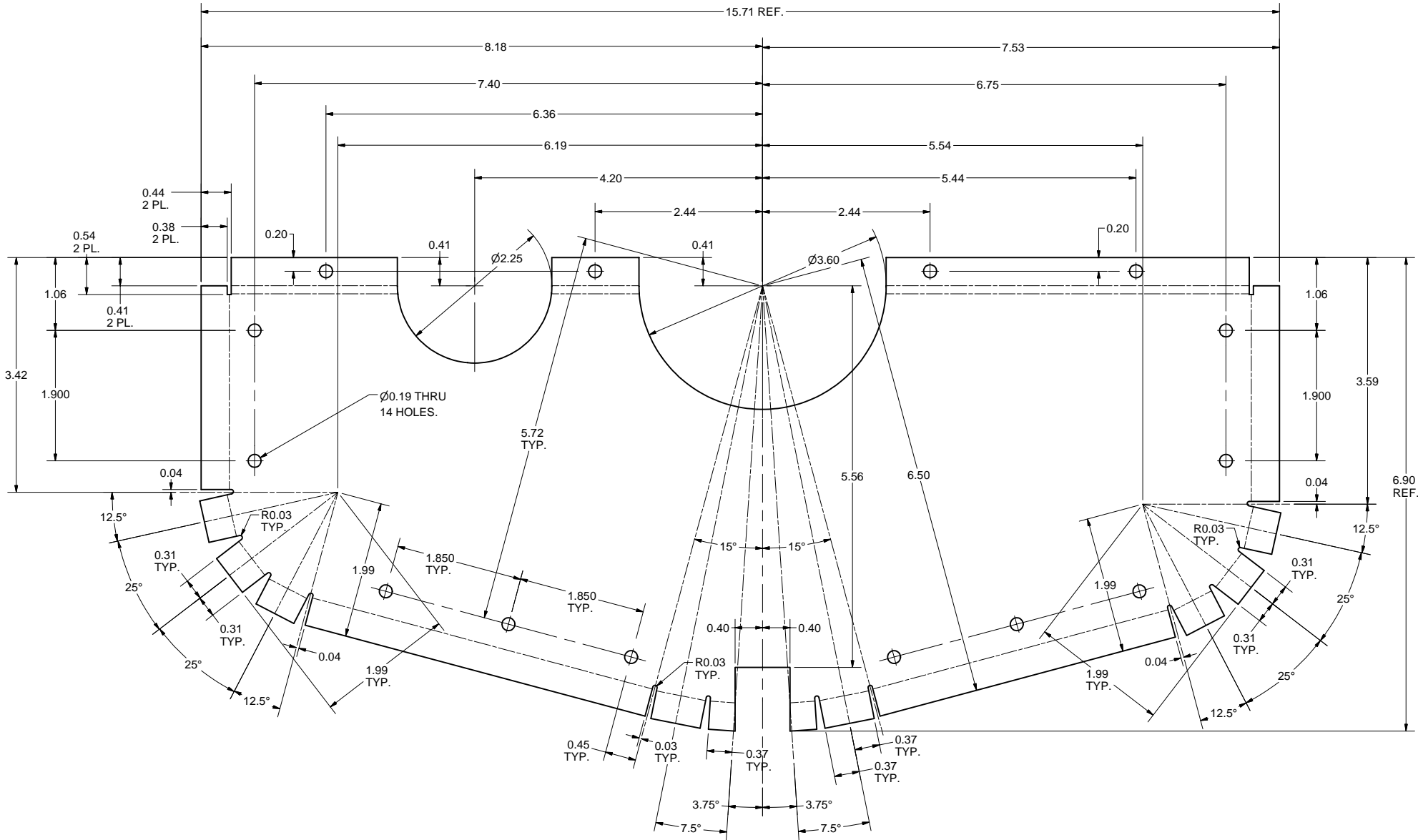
ITEM	DWG. NO.	DESCRIPTION	QTY	REMARKS	REV.
16	PURCHASE	CLS-632-1 PEM SELF-CLINCHING NUT	4		
9A	SHEET 4	RIGHT FRONT WALL	1		
9	SHEET 4	RIGHT FRONT WALL SUB-ASM	X		

PLOT DATE: 6/6/2007  
CAD FILE NAME: 7102-042.idw

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES	CHECKED BY: J. Sears APPROVED BY: J. Sears
--	---

CORNELL UNIVERSITY LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS		CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853	
ERL INJECTOR CRYOMODULE MAGNETIC SHIELD II RIGHT FRONT WALL		DRAWN BY: dne4	DRAWN FOR: M.LIEPE
DATE: 1/18/2007		SCALE: D	7102-042 SH. NO. 4 OF 16

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



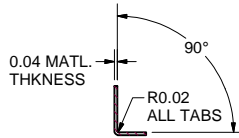
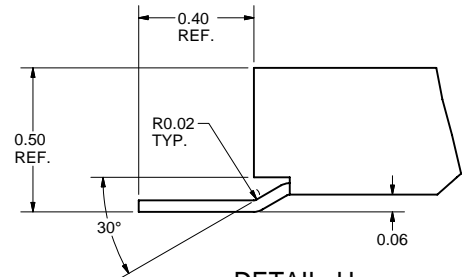
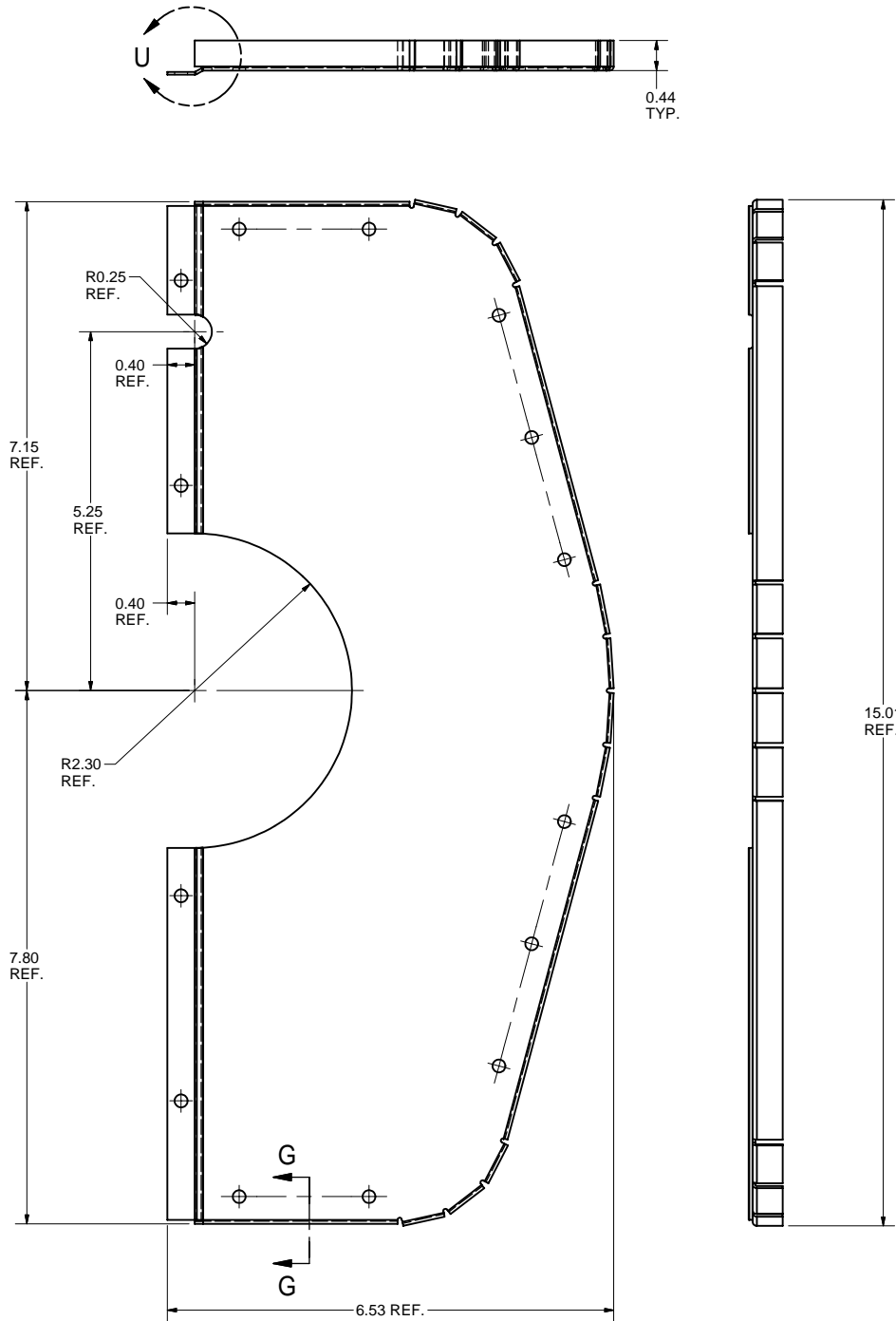
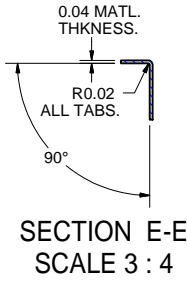
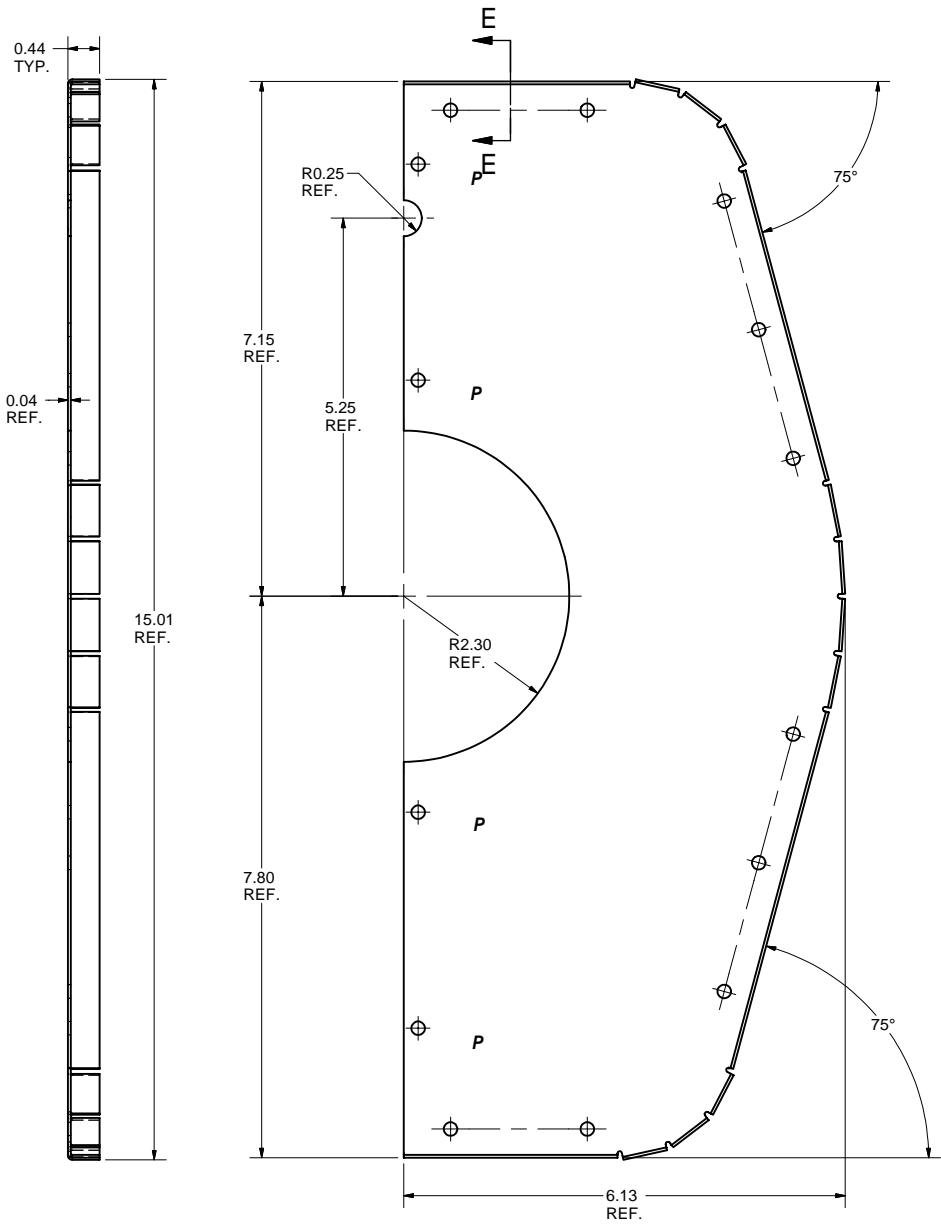
FULL SCALE FLAT PATTERN  
ITEM 10 (Right Back Wall)

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):			

		ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
		QUANTITY							
D	PRINT DISTR.	PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw							
		CR-1							
7102-042 SH. NO. 5 OF 16	REV.	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 MAGNETIC SHIELD II RIGHT BACK WALL FLAT PATTERN							
		CHECKED BY: J. Sears	DRAWN BY: dme4	DRAWN FOR: M.LIEPE	DATE: 1/18/2007	SCALE: D	7102-042 SH. NO. 5 OF 16	REV.	
		APPROVED BY: J. Sears							

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



**11A LEFT FRONT WALL**  
FILE NAME: 7102-042  
SHEET NO.: 6  
DFT. SCALE: 3:4  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. SEE SHEET 7 FOR FLAT PATTERN.  
2. "P" DENOTES PEM NUT LOCATION, INSTALLED FROM INSIDE WALL OF MAGNETIC SHIELD.

**12 LEFT BACK WALL**  
FILE NAME: 7102-042  
SHEET NO.: 6  
DFT. SCALE: 3:4  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: SEE SHEET 8 FOR FLAT PATTERN.

**11 LEFT FRONT WALL SUB-ASM**  
FILE NAME: 7102-042  
SHEET NO.: 6  
DFT. SCALE: 1:2  
MATERIAL:  
QTY: 1 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):			




ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
16	PURCHASE	CLS-632-1 PEM SELF-CLINCHING NUT	4				
11A	SHEET 6	LEFT FRONT WALL	1				
11	SHEET 6	LEFT FRONT WALL SUB-ASM	X				

PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw		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	
EERL INJECTOR CRYOMODULE MAGNETIC SHIELD II LEFT FRONT & BACK WALL		DRAWN BY dme4	DRAWN FOR M.LIEPE	DATE 1/18/2007	SCALE D
7102-042 SH. NO. 6 OF 16		REV.		REV.	



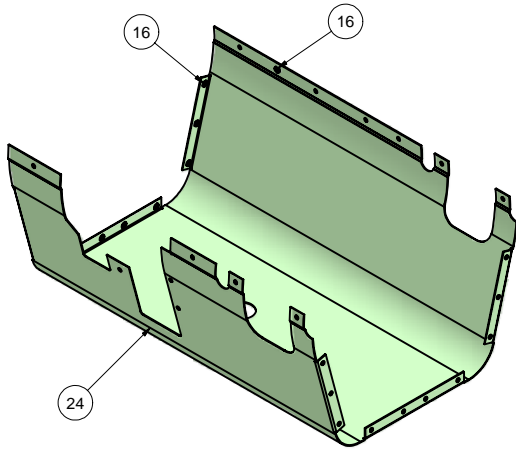




FOR MACHINING LUBRICANT USE ONLY ALKALINE DETERGENT LUBRICANT CIMSTAR 40 OR EQUIVALENT APPROVED BY CORNELL LEPP						ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.																																							
<div>TECHNICAL RESOURCE APPROVALS REQUIRED BEFORE FABRICATION</div> <table><tr><td></td><td>OK</td><td>DATE</td><td>N/A</td></tr><tr><td>DRAFTING (O'Connell):</td><td></td><td></td><td></td></tr><tr><td>MACHINE SHOP (Kaminski):</td><td></td><td></td><td></td></tr><tr><td>CHEMISTRY (Conklin):</td><td></td><td></td><td></td></tr><tr><td>ELECTRONICS SHOP (Barley):</td><td></td><td></td><td></td></tr><tr><td>FURNACE BRAZING (Sherwood):</td><td></td><td></td><td></td></tr><tr><td>BEAM WELDING (Sears):</td><td></td><td></td><td></td></tr><tr><td>WELDING OTHER (Gallagher):</td><td></td><td></td><td></td></tr><tr><td>UTILITIES INTEGRATION (Gallagher):</td><td></td><td></td><td></td></tr><tr><td>STOCKROOMS (Lockwood):</td><td></td><td></td><td></td></tr></table>					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):				<div>D</div>	PRINT DISTR.	PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw									
					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):																																																							
<div>SH. NO. 8 OF 16</div>	<div>7102-042</div>	<div>CR-1</div>	<div>UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES:  TOLERANCES ON:  .00 ± 0.10 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES </div>	<div><div>CORNELL UNIVERSITY</div><div> <b>LEPP</b></div><div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div></div> <div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div>																																																			
				<div>ERL INJECTOR CRYOMODULE  MAGNETIC SHIELD II  LEFT BACK WALL FLAT PATTERN</div>																																																			
				CHECKED BY: J. Sears	DRAWN BY	DRAWN FOR	DATE	SCALE	<div>D</div>	7102-042	<div>SH. NO. 8 OF 16</div>	REV.																																											
					dme4	M.LIEPE	1/18/2007																																																

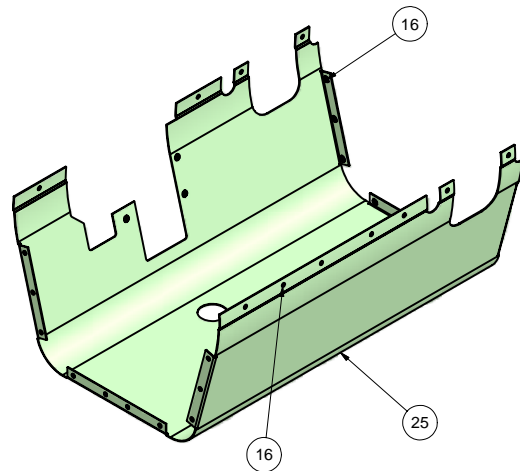


REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A	A-5	MADE CORRECTION TO PART INFO; IN NOTE 1, MIRROR IMAGE OF ITEM 24 WAS ITEM 21. D.M.E.	3-21-07	J.O.S
B		Side cut for tuner changed due to correction of part item 24.	5/29/07	VM



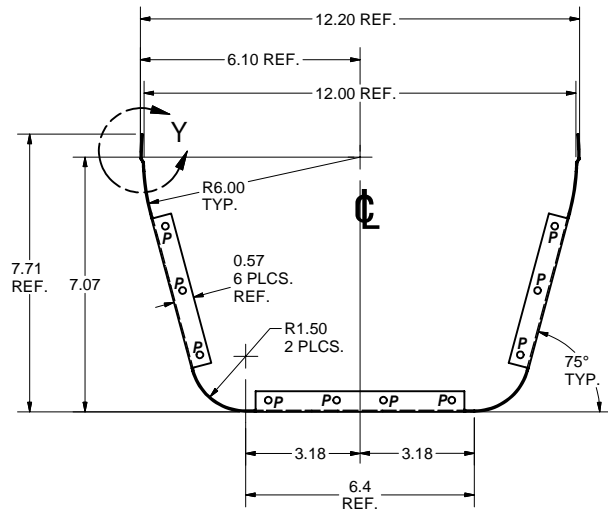
8 BOTTOM SHELL, LEFT SUB-ASM

FILE NAME: 7102-042  
SHEET NO.: 9  
DFT. SCALE: 1:4  
MATERIAL: NOTED  
QTY: 1 PER ASSEMBLY  
NOTES:



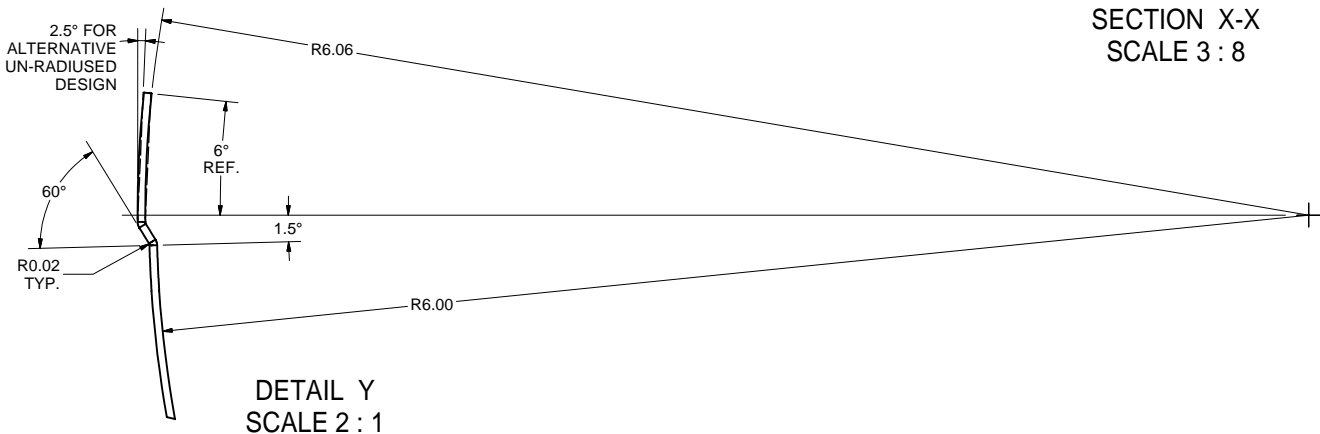
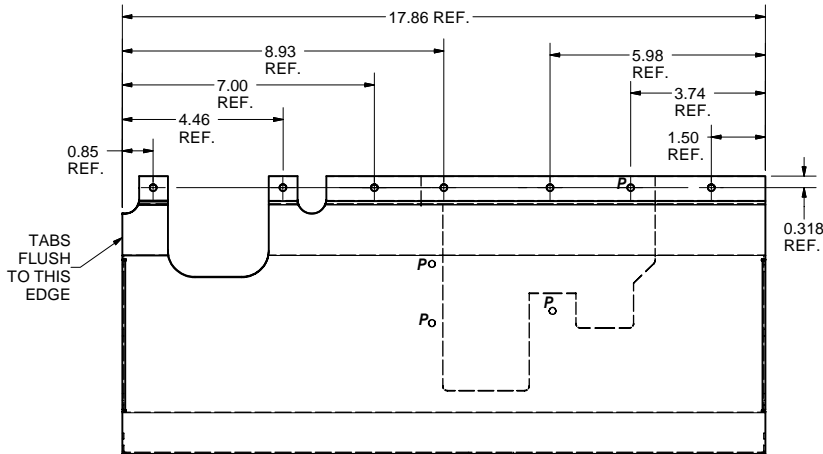
23 BOTTOM SHELL, RIGHT, SUB-ASM

FILE NAME: 7102-042  
SHEET NO.: 9  
DFT. SCALE: 1:4  
MATERIAL: NOTED  
QTY: 1 PER ASSEMBLY  
NOTES:

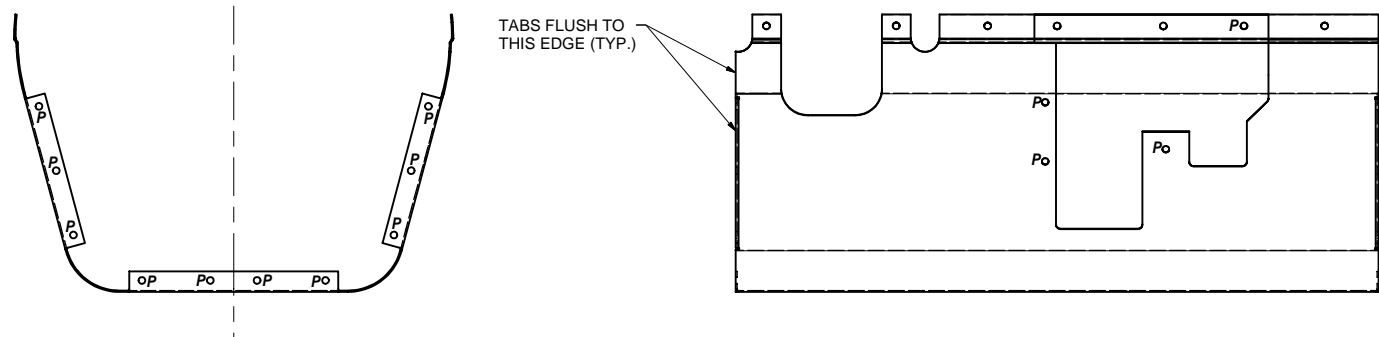


24 BOTTOM SHELL, LEFT

FILE NAME: 7102-042  
SHEET NO.: 9  
DFT. SCALE: 3:8  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. SEE SHEET 10 FOR FLAT PATTERN.  
2. "P" DENOTES PEM NUT LOCATION, INSTALLED FROM INSIDE WALL OF MAGNETIC SHIELD.



DETAIL Y  
SCALE 2 : 1



25 BOTTOM SHELL, RIGHT

FILE NAME: 7102-042  
SHEET NO.: 9  
DFT. SCALE: 3:8  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. MIRROR IMAGE OF ITEM 24.  
2. SEE SHEET 10 FOR FLAT PATTERN.  
3. "P" DENOTES PEM NUT LOCATION, INSTALLED FROM INSIDE WALL OF MAGNETIC SHIELD.

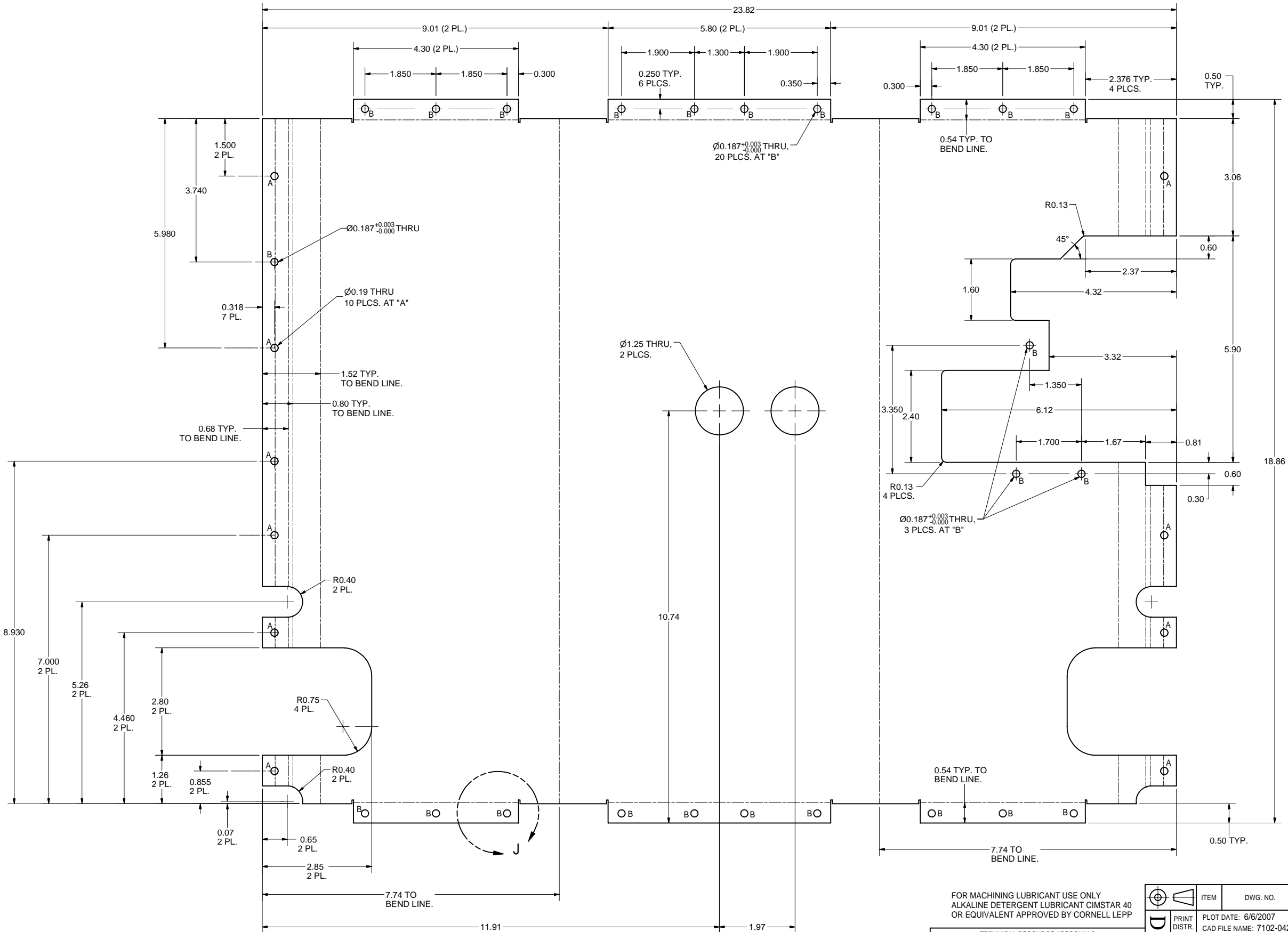
FOR MACHINING LUBRICANT USE ONLY  
ALKALINE DETERGENT LUBRICANT CIMSTAR 40  
OR EQUIVALENT APPROVED BY CORNELL LEPP

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):			

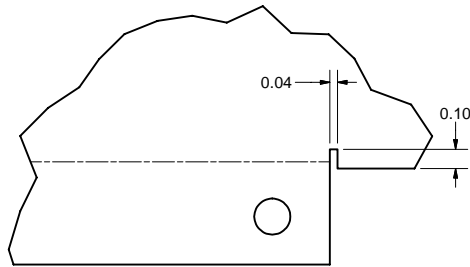
16	Purchase	CLS-632-1 PEM SELF-CLINCHING NUT	24	24					
25	Sheet 9	BOTTOM SHELL, RIGHT		1					A
24	Sheet 9	BOTTOM SHELL, LEFT	1						
23	Sheet 9	BOTTOM SHELL, RIGHT, SUBASM	X						
8	Sheet 9	BOTTOM SHELL, LEFT, SUBASM	X						
ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	QUANTITY	REMARKS	REV.	

PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw		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 MAGNETIC SHIELD II BOTTOM SHELL, LEFT & RIGHT		CHECKED BY: J. SEARS APPROVED BY: J. SEARS	DRAWN BY: dne4 DRAWN FOR: M.LIEPE DATE: 1/18/2007 SCALE: D 7102-042 SH. NO. 9 OF 16 REV. B
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REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A	VAR.	Dim. 4.32 (E3) was 3.64, 3.32 (D3) - 3.64, 6.12 (D4) - 5.44.	5/29/07	VM



ITEMS 24 & 25 (BOTTOM SHELL)  
FLAT PATTERN  
SCALE 3 : 4



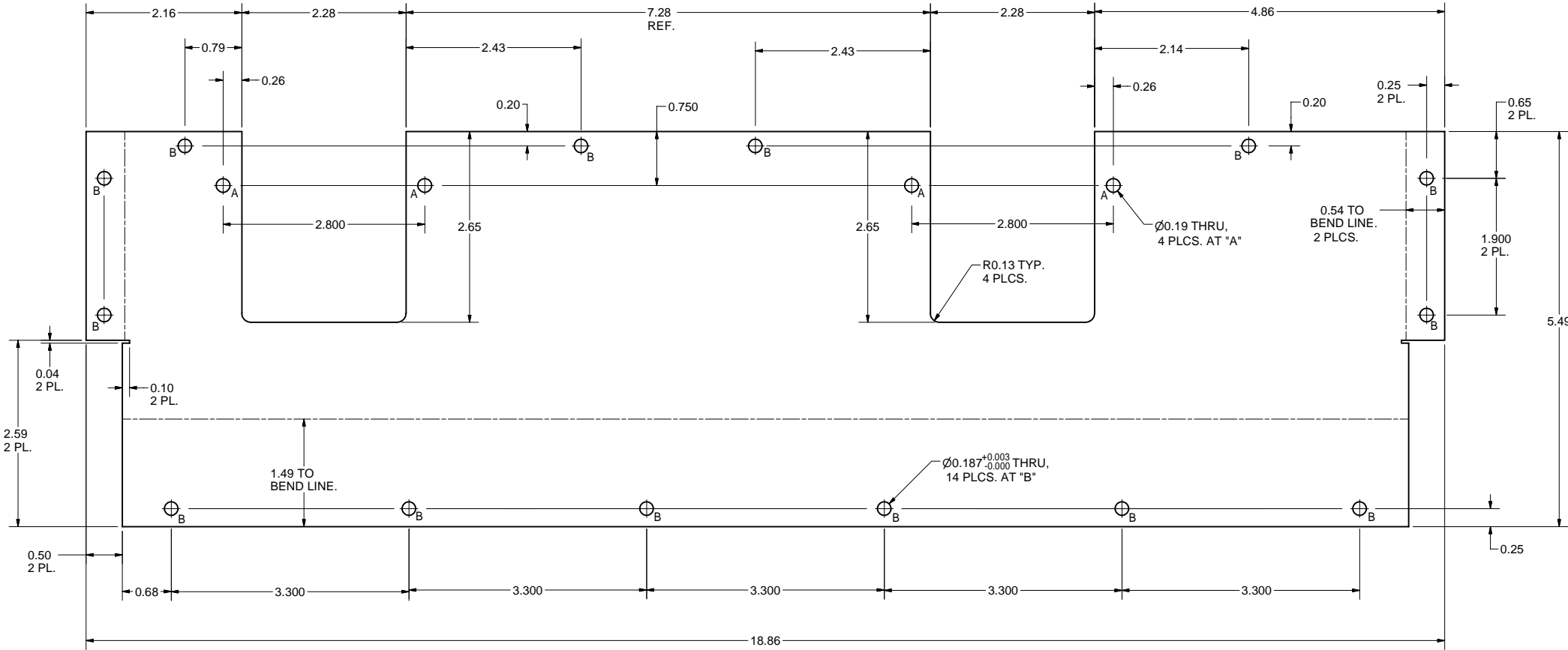
DETAIL J  
SCALE 2 : 1  
(TYP. 12 PLCS.)

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

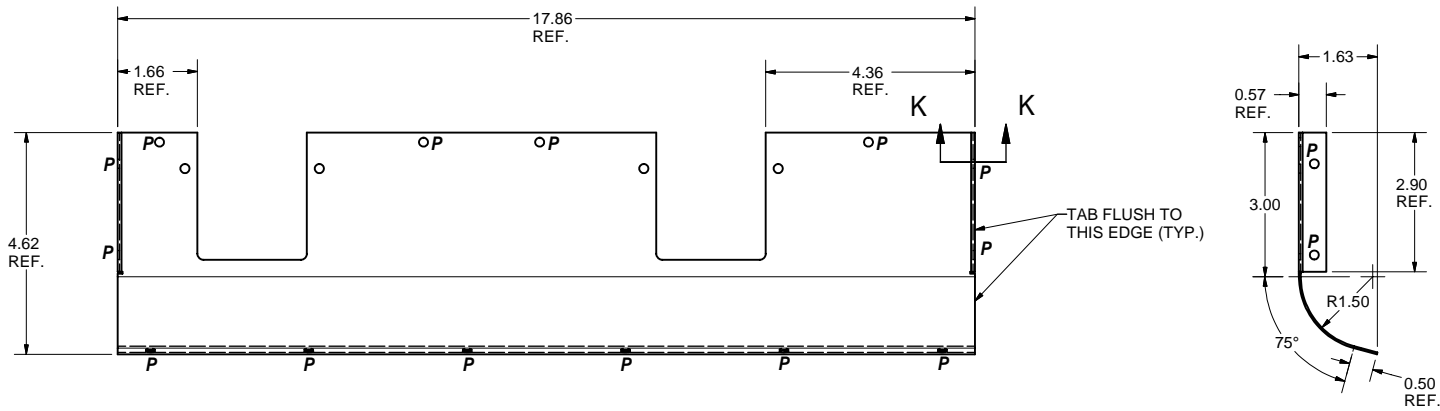
TECHNICAL RESOURCE APPROVALS REQUIRED BEFORE FABRICATION			
	OK	DATE	N/A
DRAFTING (O'Connell):			
MACHINE SHOP (Kaminski):			
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):			
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):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

ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
			QUANTITY				
PRINT DISTR.	7102-042	CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES ✓				
SH. NO. 10 OF 16	REV. A		CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY ITHACA, NY 14853				
			ERL INJECTOR CRYOMODULE MAGNETIC SHIELD II BOTTOM SHELL FLAT PATTERN				
CHECKED BY: J. SEARS APPROVED BY: J. SEARS			DRAWN BY dme4	DRAWN FOR M.LIEPE	DATE 1/18/2007	SCALE D	7102-042 SH. NO. 10 OF 16

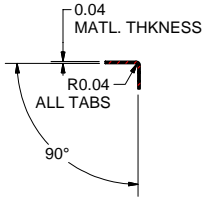
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



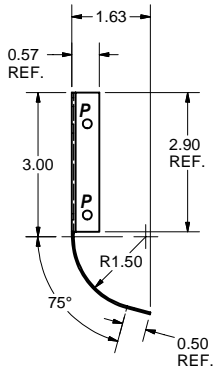
ITEM 4A (TOP FRONT SHELL)  
FLAT PATTERN  
SCALE 1 : 1



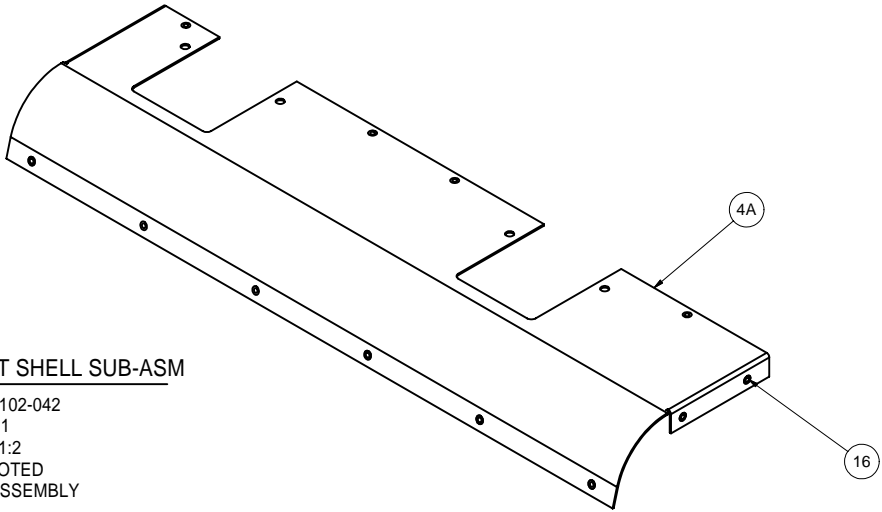
4A TOP FRONT SHELL  
FILE NAME: 7102-042  
SHEET NO.: 11  
DFT. SCALE: 1:2  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. SEE THIS SHEET FOR FLAT PATTERN.  
2. "P" DENOTES PEM NUT LOCATION, INSTALLED FROM INSIDE WALL OF MAGNETIC SHIELD.



SECTION K-K  
SCALE 1 : 2



4 TOP FRONT SHELL SUB-ASM  
FILE NAME: 7102-042  
SHEET NO.: 11  
DFT. SCALE: 1:2  
MATERIAL: NOTED  
QTY: 1 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):			

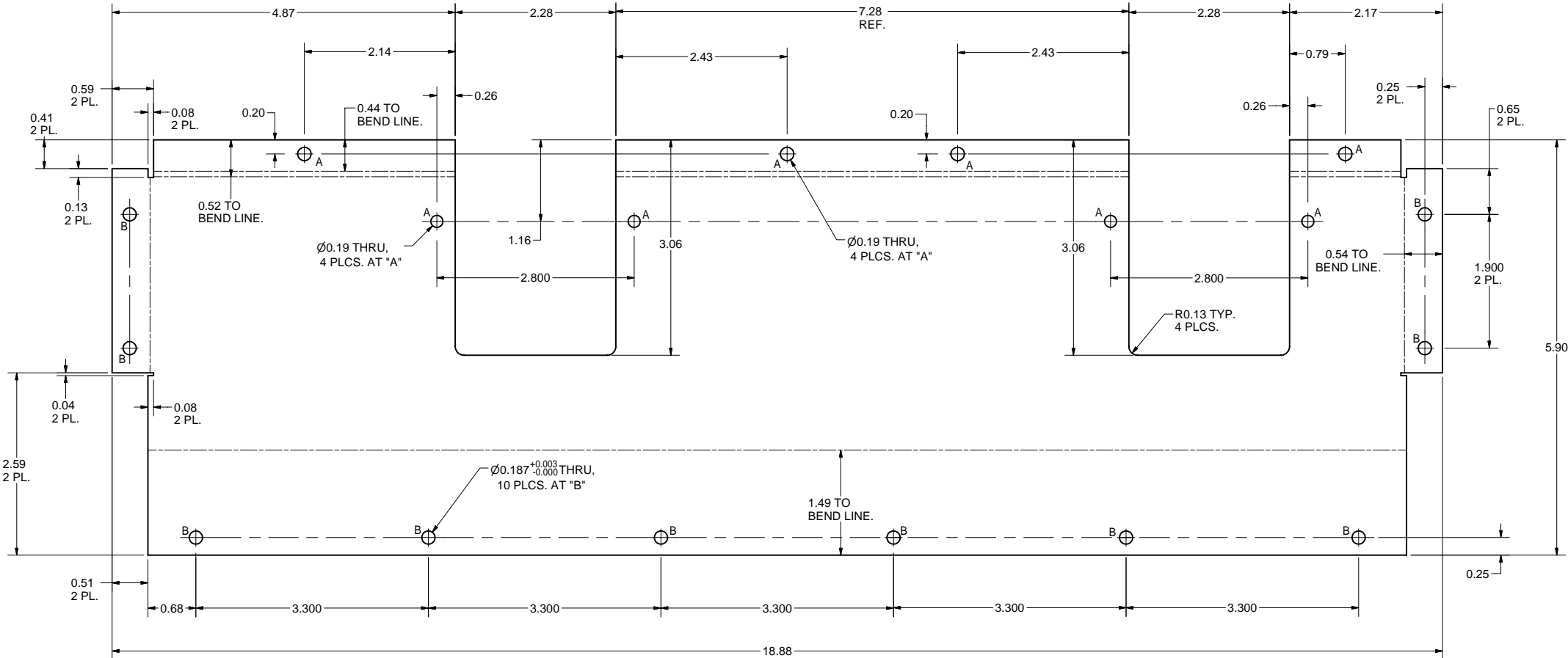


PRINT  
DISTR.

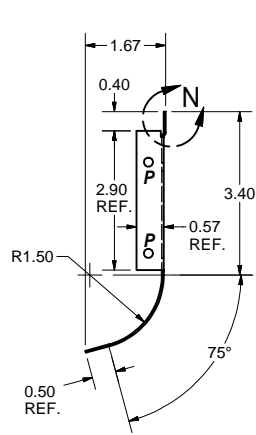
7102-042	REV.
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16	Purchase	CLS-632-1 PEM SELF-CLINCHING NUT		14				
4A	Sheet 11	TOP FRONT SHELL		1				
4	Sheet 11	TOP FRONT SHELL SUB-ASM		X				
ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
			QUANTITY					
PLOT DATE: 6/6/2007								
CAD FILE NAME: 7102-042.idw								
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 MAGNETIC SHIELD II TOP FRONT SHELL SUB-ASM				
CHECKED BY: J. Sears		DRAWN BY	DRAWN FOR	DATE	SCALE	D	7102-042	REV.
APPROVED BY: J. Sears		dme4	M.LIEPE	1/18/2007			SH. NO. 11 OF 16	

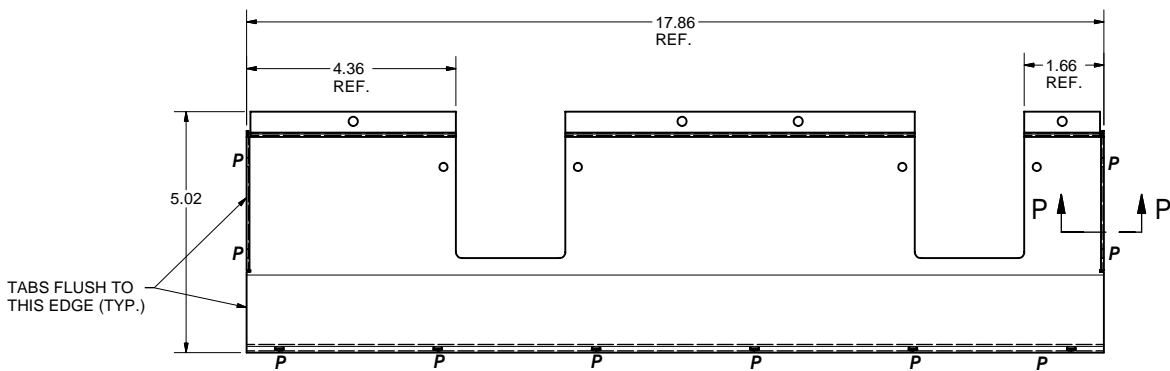
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



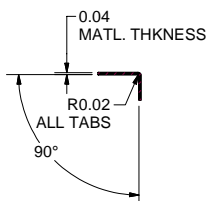
ITEM 5A (TOP BACK SHELL)  
FLAT PATTERN  
SCALE 1 : 1



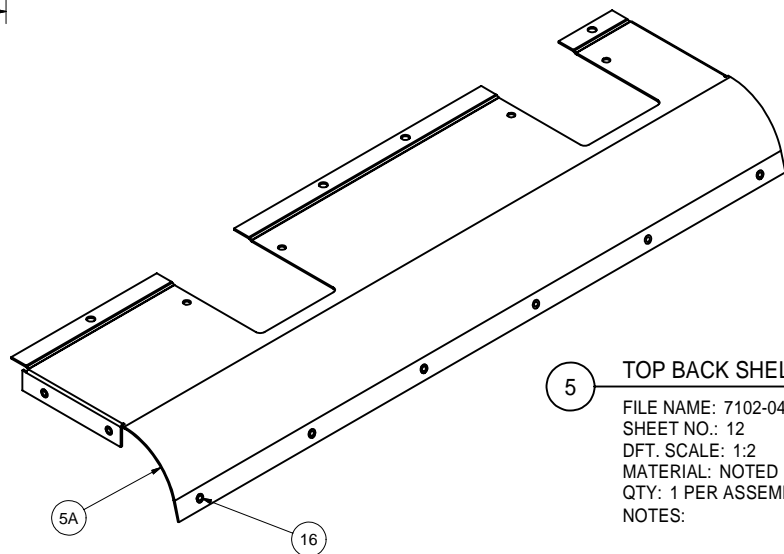
DETAIL N  
SCALE 2 : 1



5A TOP BACK SHELL  
FILE NAME: 7102-042  
SHEET NO.: 12  
DFT. SCALE: 1:2  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. SEE THIS SHEET FOR FLAT PATTERN.  
2. "P" DENOTES PEM NUT LOCATION, INSTALLED  
FROM INSIDE WALL OF MAGNETIC SHIELD.



SECTION P-P  
SCALE 1 : 2



5 TOP BACK SHELL SUB-ASM  
FILE NAME: 7102-042  
SHEET NO.: 12  
DFT. SCALE: 1:2  
MATERIAL: NOTED  
QTY: 1 PER ASSEMBLY  
NOTES:

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

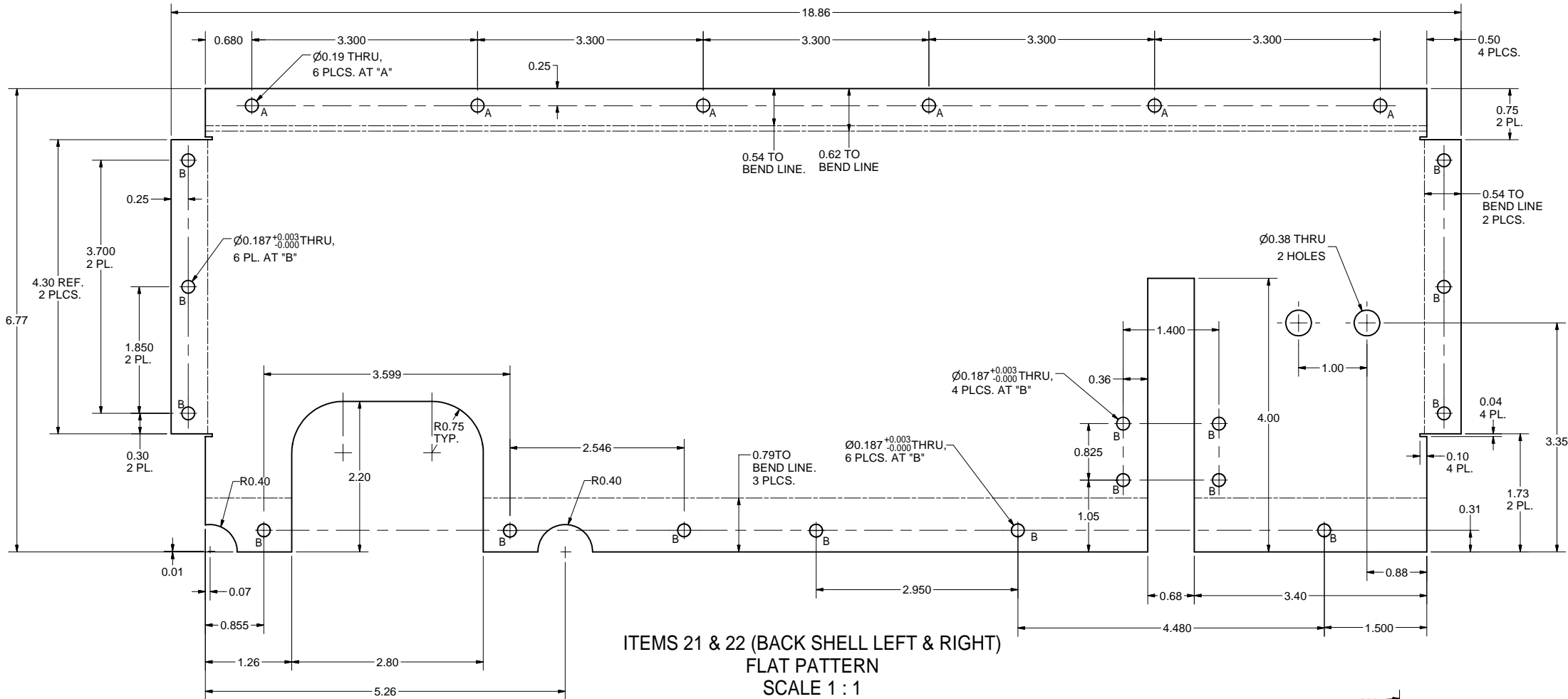
TECHNICAL RESOURCE APPROVALS REQUIRED BEFORE FABRICATION			
	OK	DATE	N/A
DRAFTING (O'Connell):			
MACHINE SHOP (Kaminski):			
CHEMISTRY (Conklin):			
ELECTRONICS SHOP (Barley):			
FURNACE BRAZING (Sherwood):			
BEAM WELDING (Sears):			
WELDING OTHER (Gallagher):			
UTILITIES INTEGRATION (Gallagher):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

REV.	PRINT DISTR.	7102-042	SH. NO. 12 OF 16
3	CR-1		

16	Purchase	CLS-632-1 PEM SELF-CLINCHING NUT	10					
5A	Sheet 12	TOP BACK SHELL	1					
5	Sheet 12	TOP BACK SHELL SUB-ASM	X					
ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	QUANTITY	REMARKS	REV.
PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw								
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5° ALL SURFACES			CORNELL UNIVERSITY LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS ERL INJECTOR CRYOMODULE MAGNETIC SHIELD II TOP BACK SHELL SUB-ASM					
CHECKED BY: J. Sears APPROVED BY: J. Sears			DRAWN BY dme4	DRAWN FOR M.LIEPE	DATE 1/18/2007	SCALE D	7102-042 SH. NO. 12 OF 16	REV.

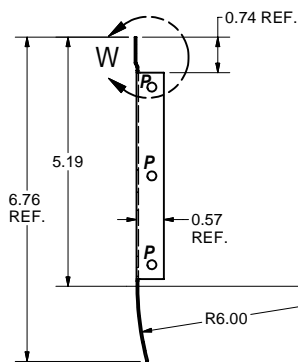
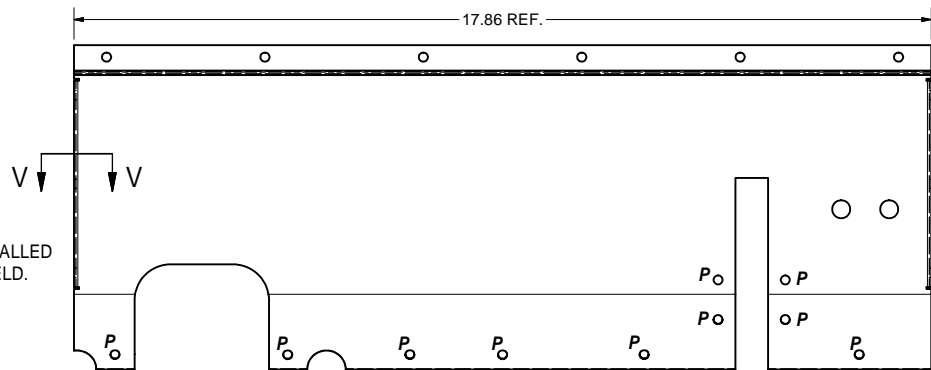


REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A	A-9	MADE CORRECTION TO PART INFO; ITEM 22 WAS SHOWN AS ITEM 21 AND "BACK SHELL, LEFT." D.M.E.	3-21-07	J.O.S.



### 21 BACK SHELL, LEFT

FILE NAME: 7102-042  
SHEET NO.: 14  
DFT. SCALE: 1:2  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. SEE THIS SHEET FOR FLAT PATTERN.  
2. "P" DENOTES PEM NUT LOCATION, INSTALLED FROM INSIDE WALL OF MAGNETIC SHIELD.




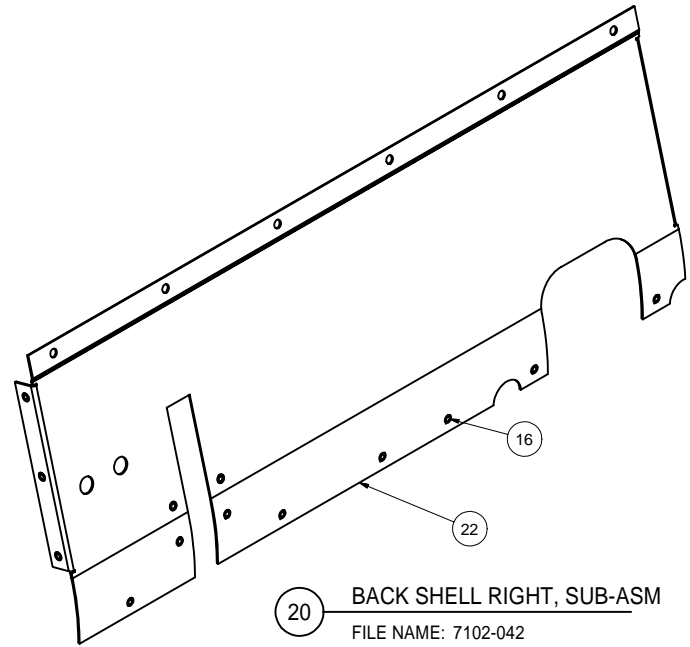
### SECTION V-V SCALE 1:1

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):			

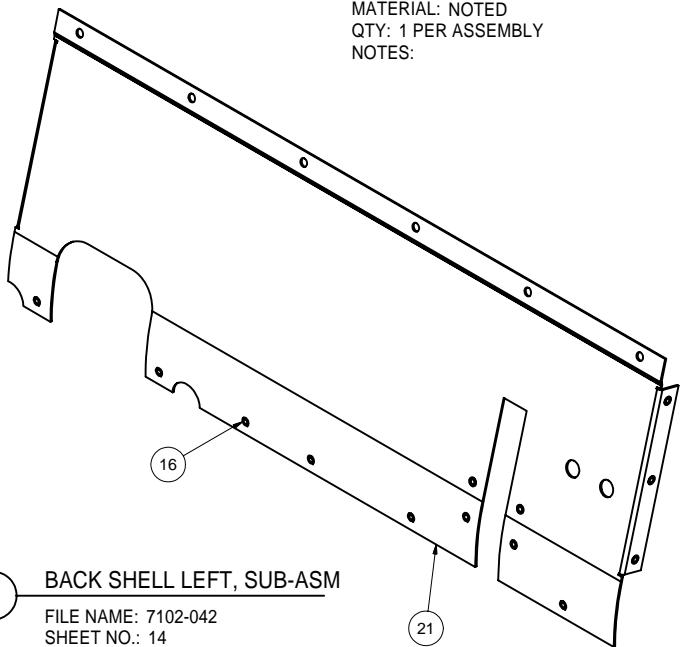
PRINT DISTR.	CR-1
7102-042	REV. A

22	Sheet 14	BACK SHELL RIGHT		1				A
21	Sheet 14	BACK SHELL LEFT		1				
16	Purchase	CLS-632-1 PEM SELF-CLINCHING NUT		16	16			
20	Sheet 14	BACK SHELL RIGHT SUB-ASM		X				
7	Sheet 14	BACK SHELL LEFT SUB-ASM		X				
ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
			QUANTITY					
PLOT DATE: 6/6/2007								
CAD FILE NAME: 7102-042.idw								
UNLESS OTHERWISE SPECIFIED:				CORNELL UNIVERSITY				
DIMENSIONS ARE IN INCHES: TOLERANCES ON: .00 ± .010 .000 ± .005 FRACTIONS ± 1/64 ANGLES ± 0.5 ALL SURFACES ✓				Floyd R. Newman Laboratory Ithaca, NY 14853				
		ERL INJECTOR CRYOMODULE MAGNETIC SHIELD II BACK SHELL LEFT & RIGHT SUB-ASM						
CHECKED BY: J. Sears		DRAWN BY	DRAWN FOR	DATE	SCALE	7102-042		REV.
APPROVED BY: J. Sears		dne4	M.LIEPE	1/18/2007	D	SH. NO. 14 OF 16		A



### 20 BACK SHELL RIGHT, SUB-ASM

FILE NAME: 7102-042  
SHEET NO.: 14  
DFT. SCALE: 1:2  
MATERIAL: NOTED  
QTY: 1 PER ASSEMBLY  
NOTES:

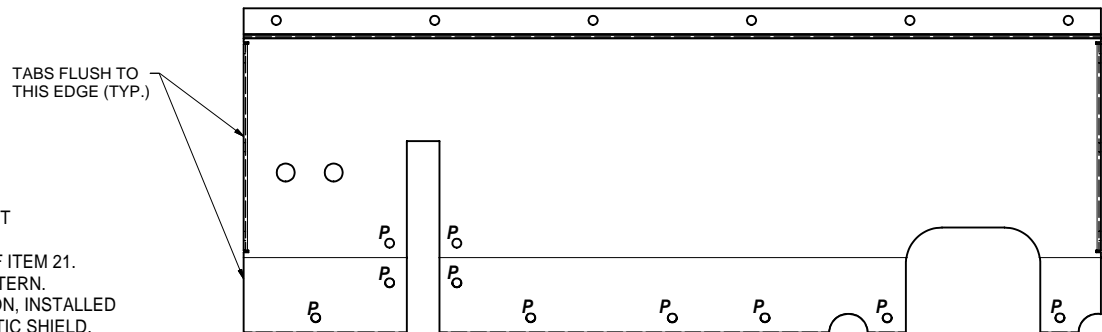


### 7 BACK SHELL LEFT, SUB-ASM

FILE NAME: 7102-042  
SHEET NO.: 14  
DFT. SCALE: 1:2  
MATERIAL: NOTED  
QTY: 1 PER ASSEMBLY  
NOTES:

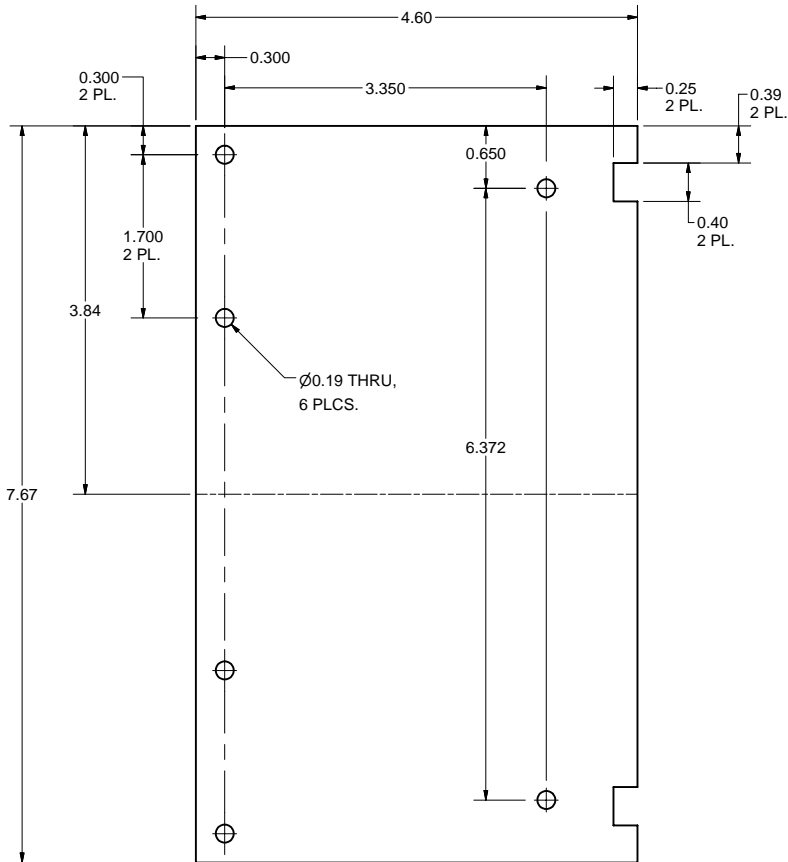
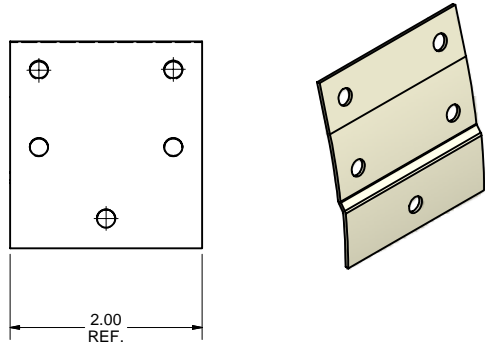
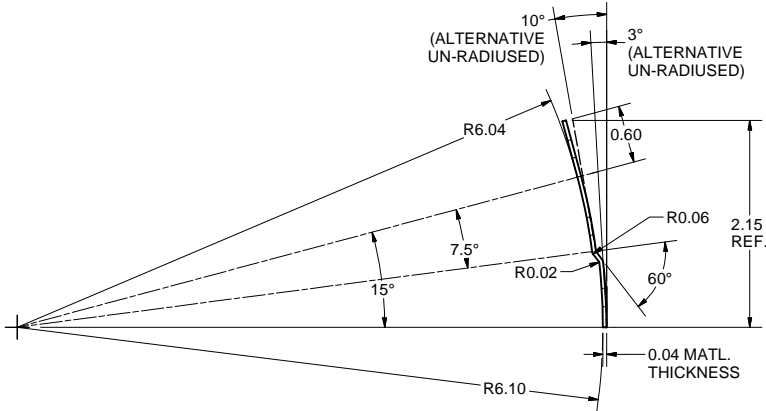
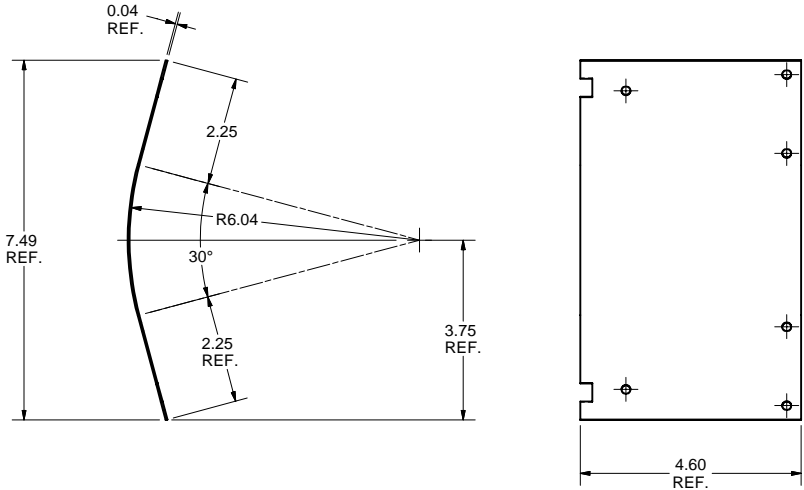
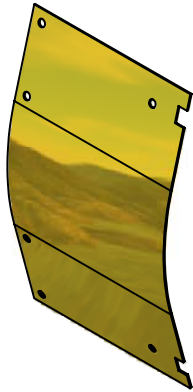
### 22 BACK SHELL, RIGHT

FILE NAME: 7102-042  
SHEET NO.: 14  
DFT. SCALE: 1:2  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES: 1. THIS PART IS MIRROR IMAGE OF ITEM 21.  
2. SEE THIS SHEET FOR FLAT PATTERN.  
3. "P" DENOTES PEM NUT LOCATION, INSTALLED FROM INSIDE WALL OF MAGNETIC SHIELD.



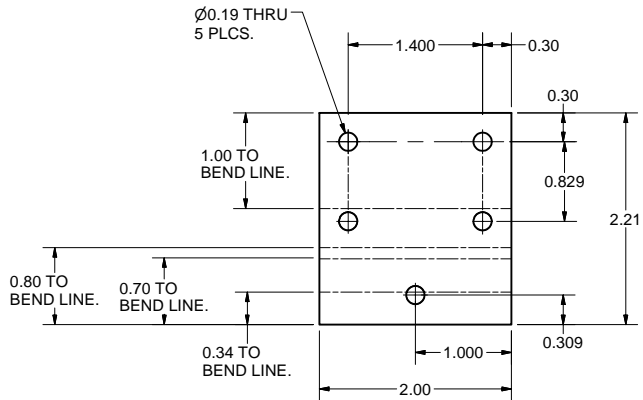


REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



FLAT PATTERN  
SCALE 1 : 1

13 FRONT PATCH  
FILE NAME: 7102-042  
SHEET NO.: 15  
DFT. SCALE: 1:2  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 PER ASSEMBLY  
NOTES:






FLAT PATTERN

14 BACK PATCH  
FILE NAME: 7102-042  
SHEET NO.: 15  
DFT. SCALE: 1:1  
MATERIAL: 0.04" THK. CRYOPERM-10 SHEET  
QTY: 1 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):			

	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
				QUANTITY				
PRINT DISTR.	PLOT DATE: 6/6/2007 CAD FILE NAME: 7102-042.idw							
7102-042 SH. NO. 15 OF 16	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 MAGNETIC SHIELD II FRONT & BACK PATCH DETAILS					
REV.	CHECKED BY: J. Sears	DRAWN BY dme4	DRAWN FOR M.LIEPE	DATE 1/18/2007	SCALE	D	7102-042	REV.
	APPROVED BY: J. Sears						SH. NO. 15 OF 16	

CORNELL UNIVERSITY  
FLOYD R. NEWMAN LABORATORY  
ITHACA, NY 14853  
ERL INJECTOR CRYOMODULE  
MAGNETIC SHIELD II  
FRONT & BACK PATCH DETAILS



