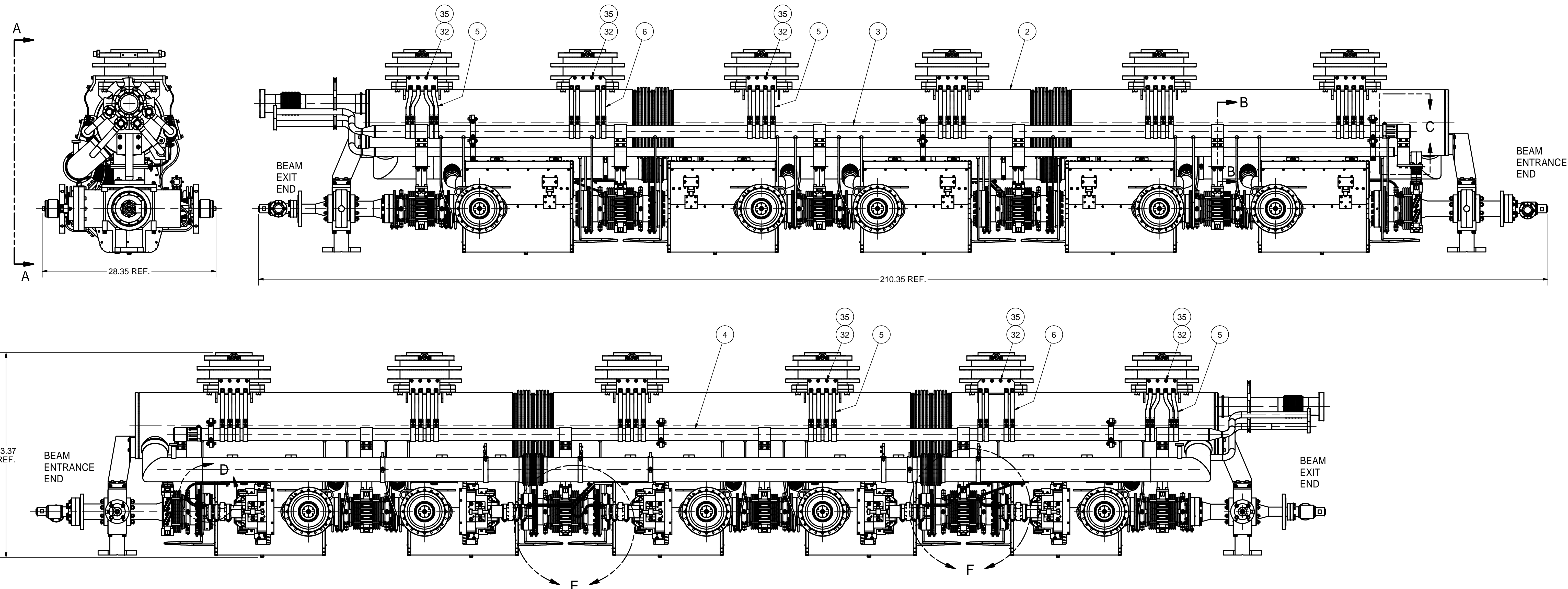


REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



VIEW A-A

1 ASSEMBLY, STEP 4

FILE NAME: 7102-093
SHEET NO.: 1
DFT. SCALE: 1:8
MATERIAL:
QTY: 1 PER CRYOMODULE
NOTES: 1. SEE NEXT SHEET FOR SECTION B-B AND DETAILS C, D, E, F.
2. WELD JUMPERS 8 THRU 17 IN PLACE (SEE SHEET 3, ISO VIEWS).
TIG UHV WELD.

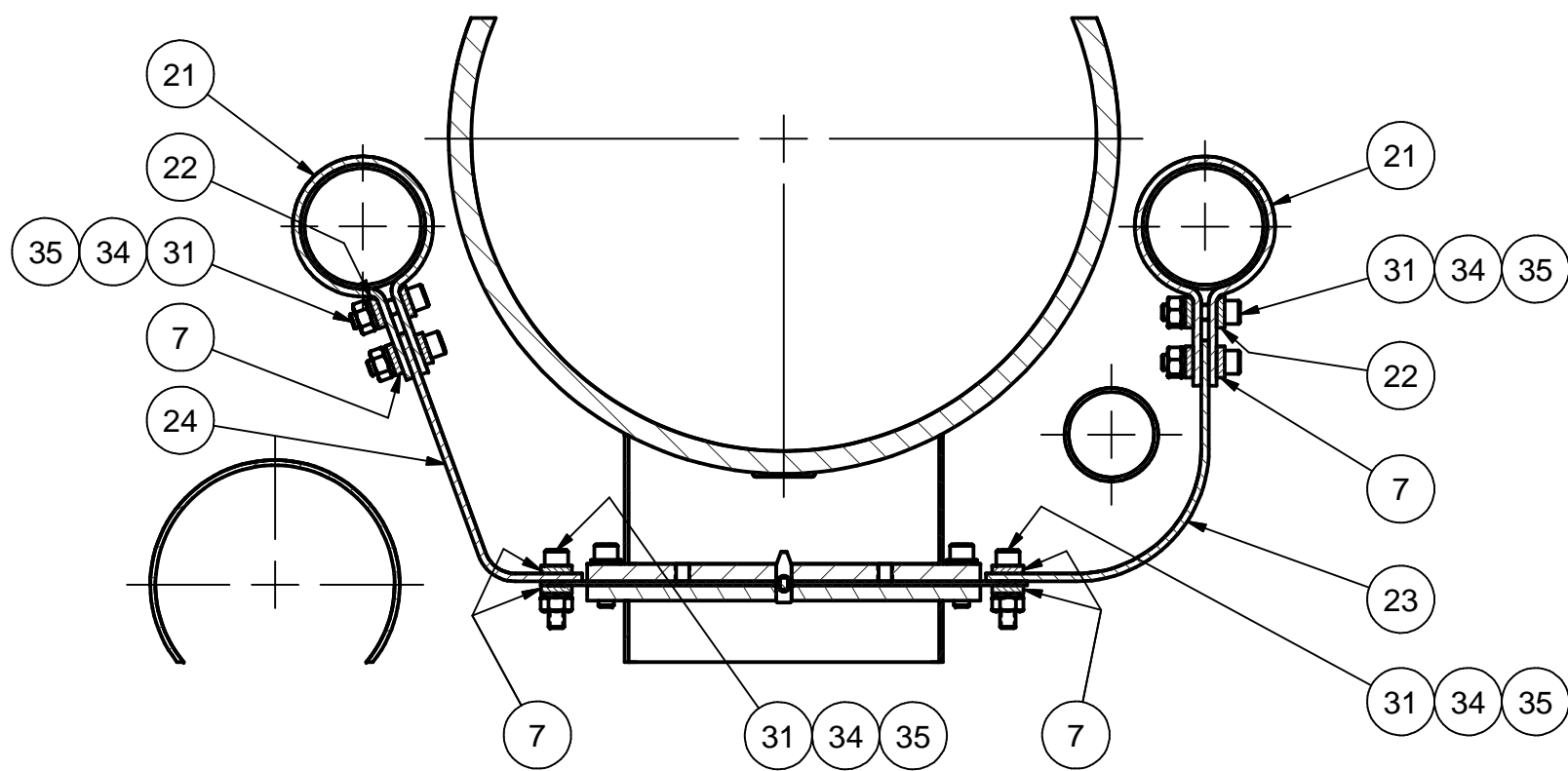
37	Purchased	#10 Washer, 0.5 OD, 316 SS	2		McMaster-Carr's 91950A027
36	Purchased	#10 Spring Washer, 316 SS	5		McMaster-Carr's 92147A430
35	Purchased	1/4 Spring Washer, 316 SS	130		McMaster-Carr's 92147A029
34	Purchased	1/4-20 Hex Nut, Silicon Bronze	82		McMaster-Carr's 93439A610
33	Purchased	#10-32 x 1/2 Socket Head Cap Screw, 316 SS	5		McMaster-Carr's 92185A989
32	Purchased	1/4-20 x 3/4 Socket Head Cap Screw, 316 SS	53		McMaster-Carr's 92185A540
31	Purchased	1/4-20 x 1-1/4 Socket Head Cap Screw, 316 SS	76		McMaster-Carr's 92185A542
30	Purchased	1/4-20 x 1-1/4 Socket Head Cap Screw, 316 SS	1		McMaster-Carr's 92185A544
29	Purchased	1-13/16" - 2-3/4" HOSE CLAMP (SIZE 36), 316 SS	2		McMaster-Carr's 5011T21
28	Purchased	Flexible Braid, L = 12"	10		Thomas & Betts FBB-12-1

24	7102-093 (Sh.5)	HOM SUPPORT 5K HEAT SINK FOIL STRIPS, LEFT	6		
23	7102-093 (Sh.5)	HOM SUPPORT 5 K HEAT SINK FOIL STRIP, RIGHT	6		
22	7102-093 (Sh.4)	CLAMP STRIP	24		
21	7102-093 (Sh.5)	5 K TUBE CLAMP	12		
20	7102-093 (Sh.4)	HOM SUPPORT EXTENSION STRIP	2		
19	7102-093 (Sh.4)	COPPER EXTENSION	1		
18	7102-093 (Sh.4)	5 K TUBE COPPER EXTENSION	2		
17	7102-061 (Sh.15)	INPUT COUPLER 5 K COOLING BRIDGE	5		
16	7102-061 (Sh.4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 LEFT	2		
15	7102-061 (Sh.4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 RIGHT	3		
14	7102-061 (Sh.4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 LEFT	3		
13	7102-061 (Sh.4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 RIGHT	2		
12	7102-061 (Sh.4)	HOM-78 5 K COOLING JUMPER LEFT, TYPE 4	3		
11	7102-061 (Sh.3)	HOM-78 5 K COOLING JUMPER, TYPE 3 LEFT	2		
10	7102-061 (Sh.3)	HOM-78 5 K COOLING JUMPER, TYPE 3 RIGHT	3		

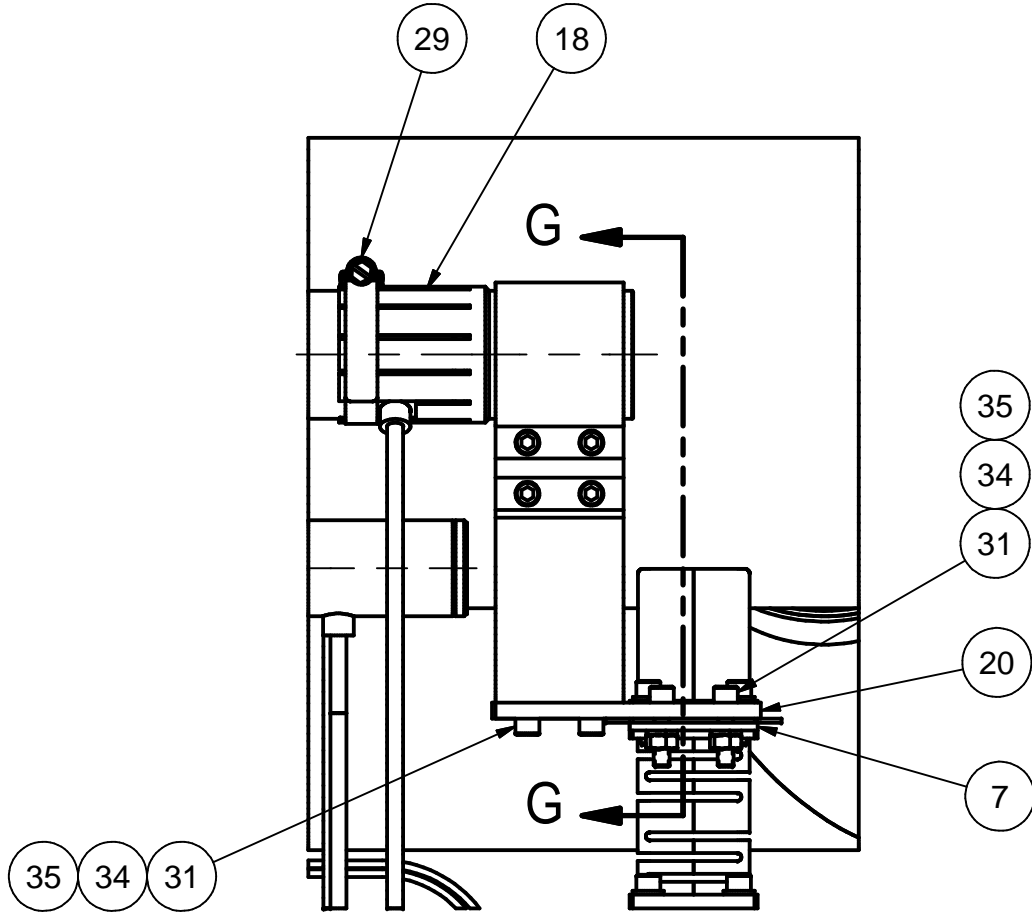
9	7102-061 (Sh.3)	HOM-78 5 K COOLING JUMPER RIGHT, TYPE 2	2					
8	7102-061 (Sh.3)	HOM-106 5 K COOLING JUMPER, TYPE 1	10					
7	7102-031 (Sh.4)	CLAMP PLATE	48					
6	7110-027	SUPPORT POST 5K FLANGE COOLING	2					
5	7102-077	SUPPORT POST 5 K FLANGE COOLING II	10					
4	7102-059 (Sh.1)	5 K LEFT TUBE ASSEMBLY	1					
3	7102-059 (Sh.4)	5 K RIGHT TUBE ASSEMBLY	1					
2	7102-092	ASSEMBLY, STEP 3	1					
1	7102-093 (Sh.1)	ASSEMBLY, STEP 4	X					

		ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS		REV.	
					QUANTITY						
D	PRINT DISTR.	PLOT DATE: CAD FILE NAME: 7102-093.idw									
	CR-1	<div>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .0 ± .02 .00 ± .010 .000 ± .005 FRACTIONS ± 1/32 ANGLES ± 0.5° ALL SURFACES </div>				<div><div><div>CORNELL UNIVERSITY</div><div></div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div><div>ERL INJECTOR CRYOMODULE ASSEMBLY, STEP 4 ASSEMBLY, STEP 4: ORTHO VIEWS</div></div>					
SH. NO. 1 OF 5	7102-093			CHECKED BY:	DRAWN BY	DRAWN FOR	DATE	SCALE	D	7102-093	REV.
REV.		APPROVED BY:			vm	M.Liepe	10/12/07			SH. NO. 1 OF 5	

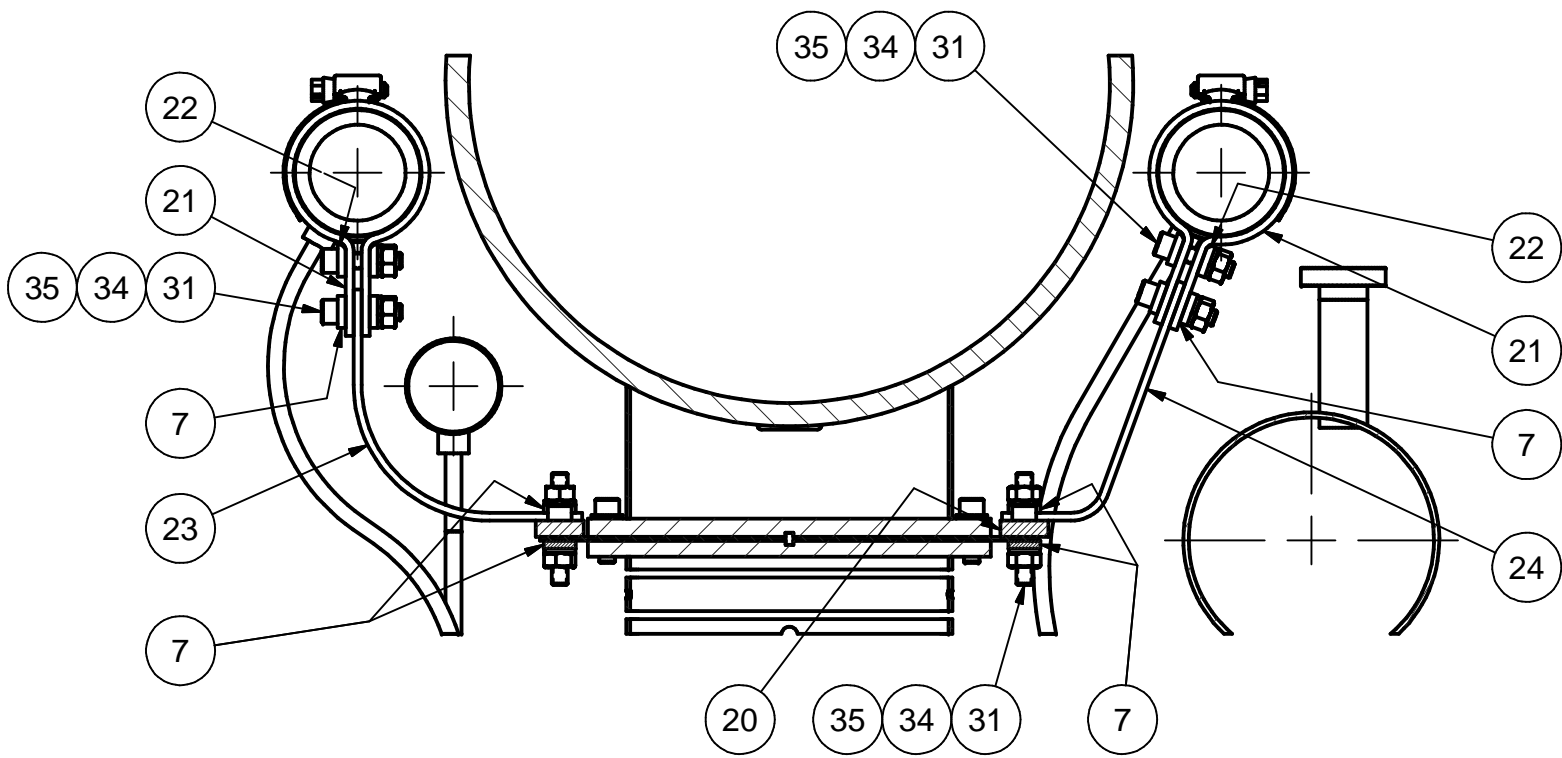
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



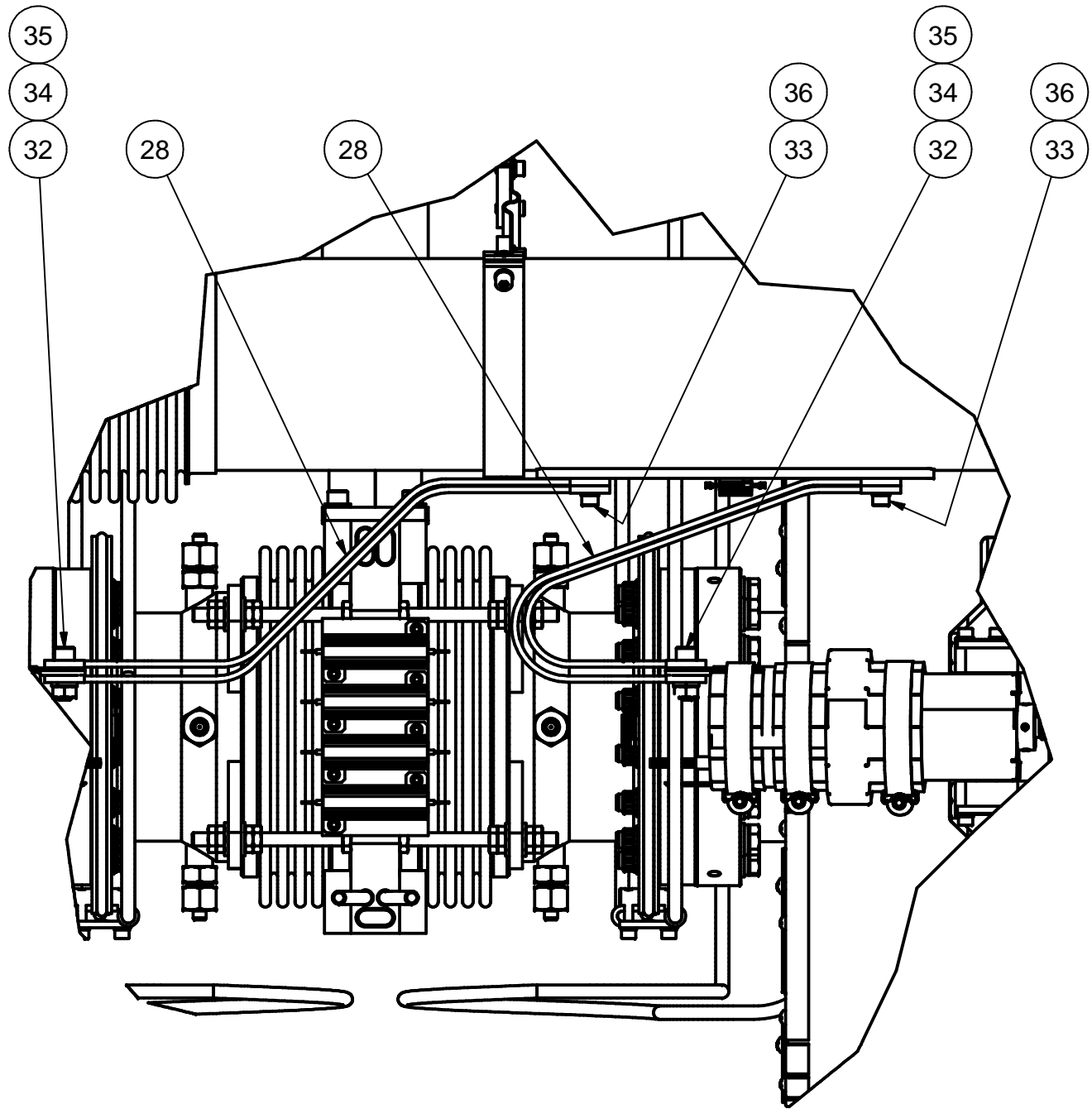
SECTION B-B
SCALE 1 : 3



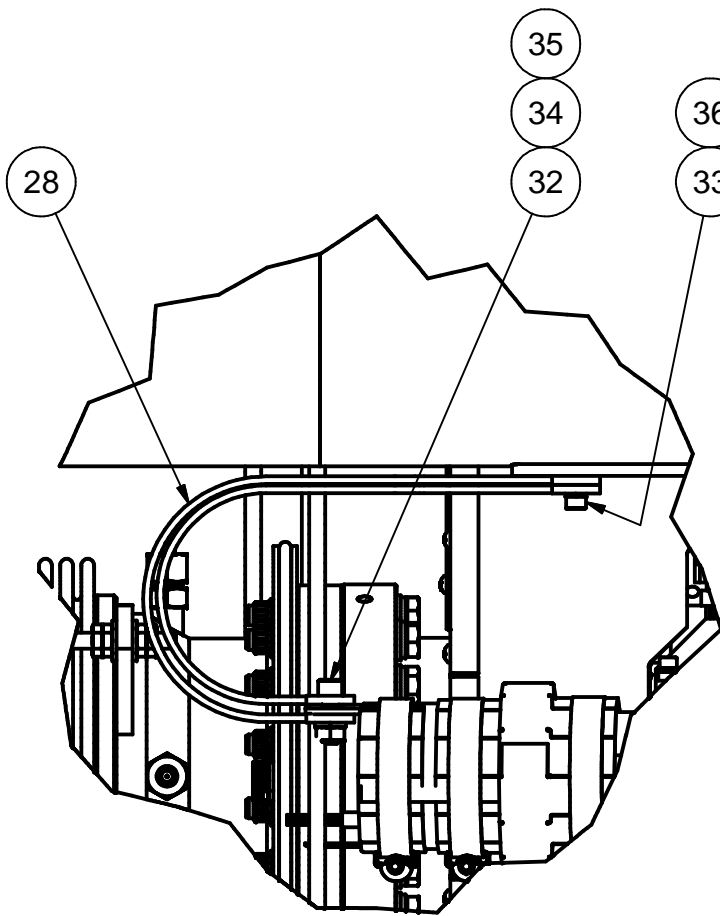
DETAIL C
SCALE 1:3



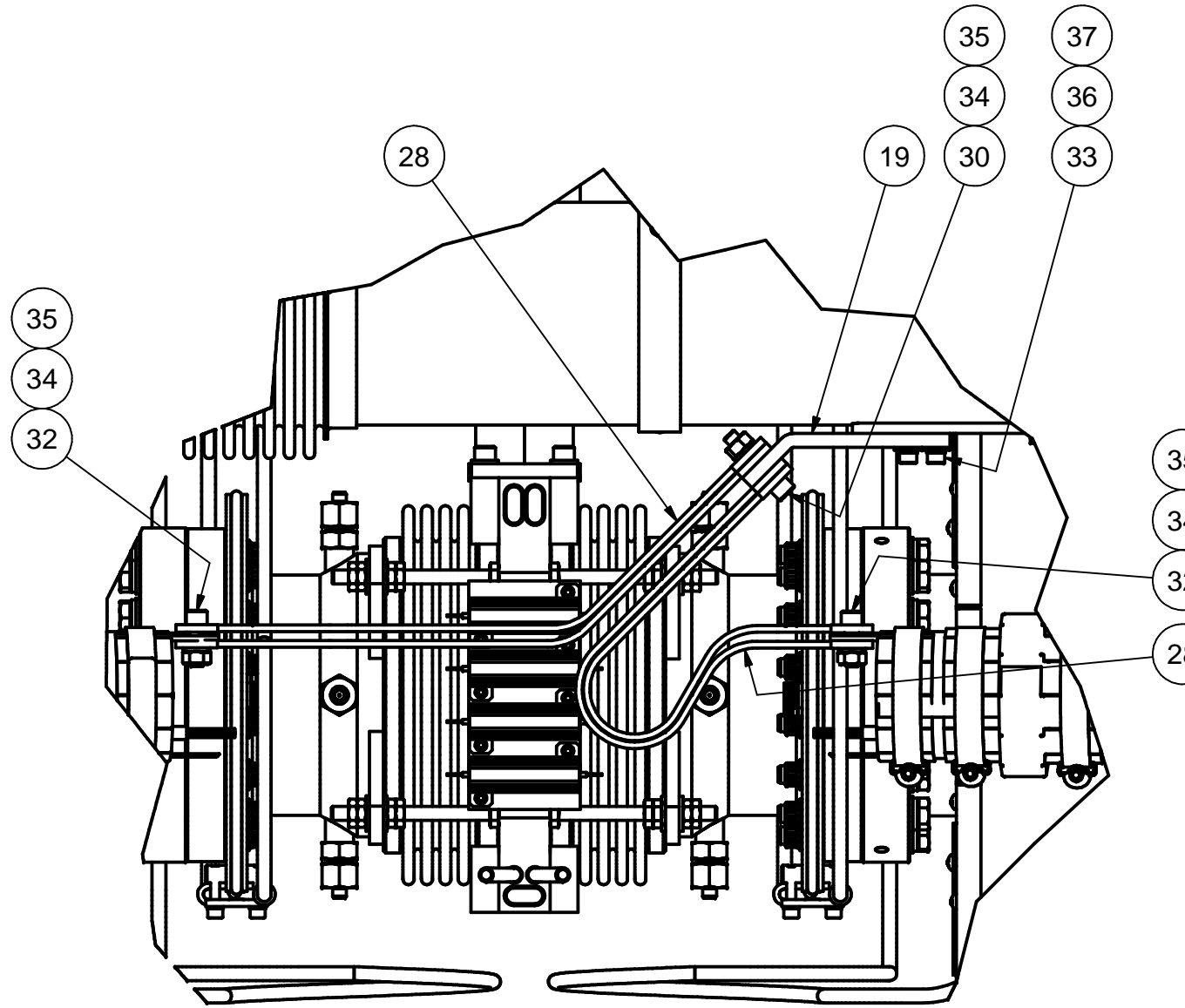
SECTION G-G
SCALE 1:3







DETAIL F
SCALE 1:3



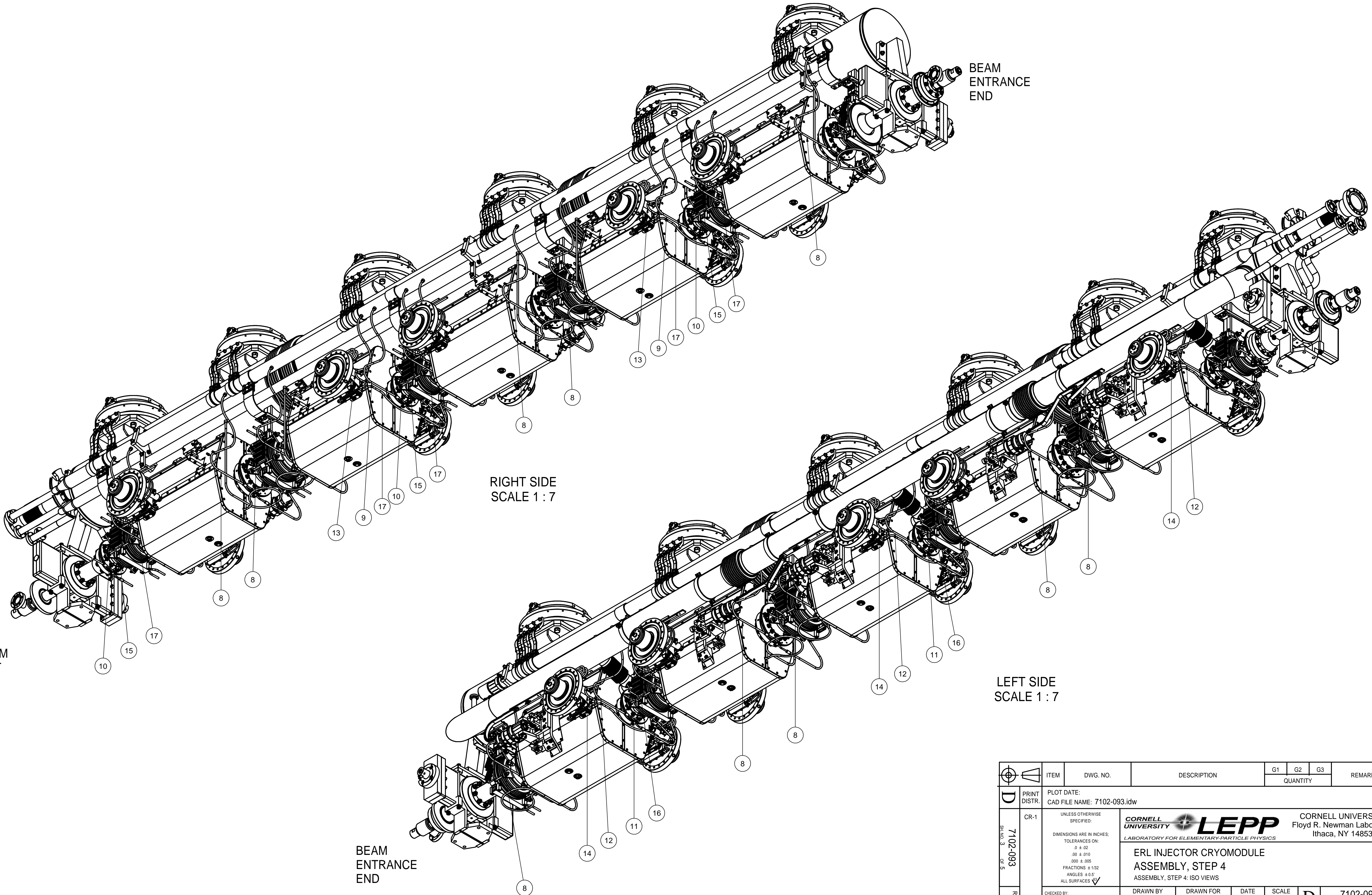
DETAIL D
SCALE 1:3






DETAIL E
SCALE 1:3

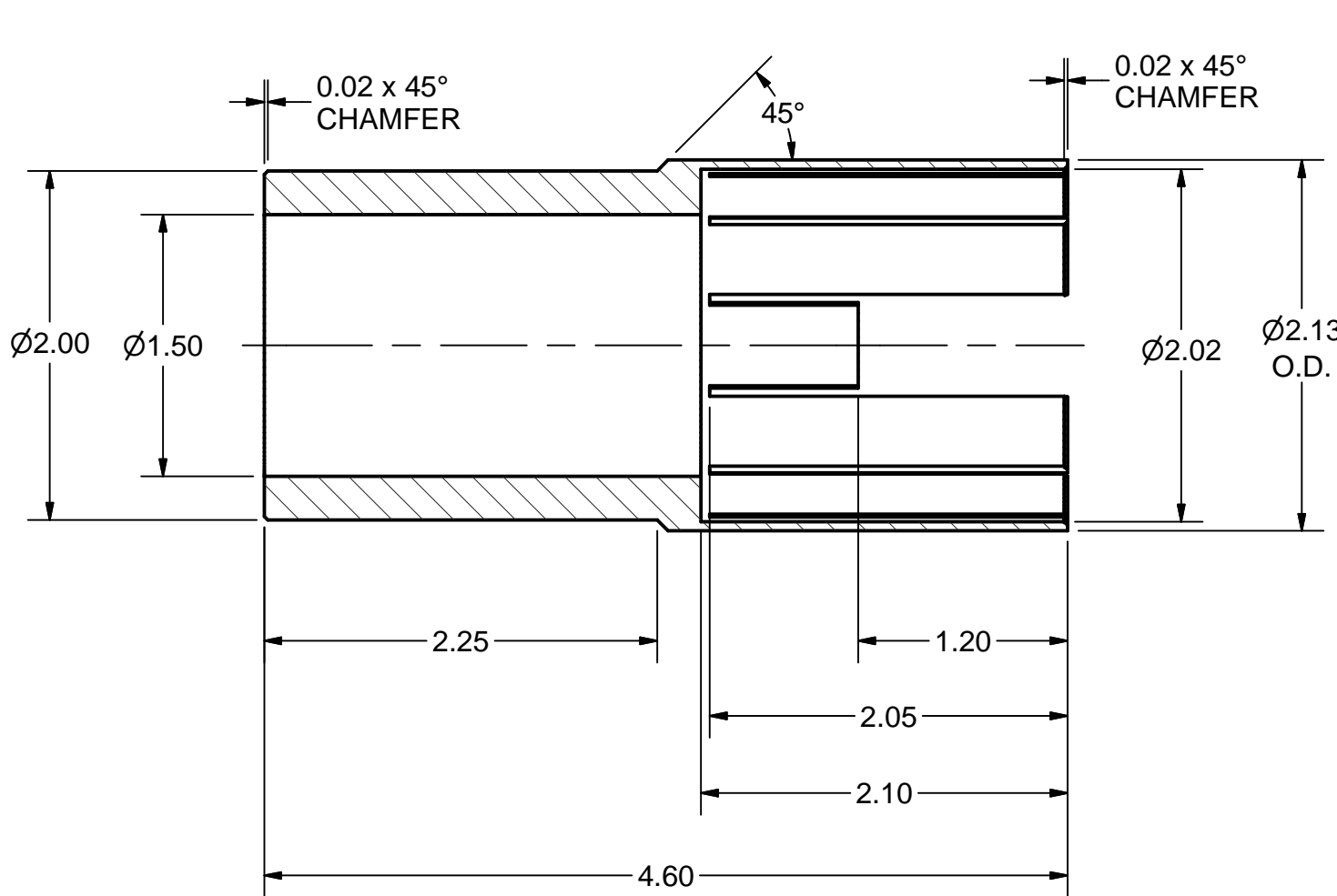
	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
	QUANTITY									
	PRINT DISTR.	PLOT DATE: CAD FILE NAME: 7102-093.idw								
	CR-1	<div>UNLESS OTHERWISE SPECIFIED:</div> <div>DIMENSIONS ARE IN INCHES:</div> <div>TOLERANCES ON:</div> <div> .0 ± .02</div> <div> .00 ± .010</div> <div> .000 ± .005</div> <div>FRACTIONS ± 1/32</div> <div>ANGLES ± 0.5°</div> <div>ALL SURFACES </div>		<div><div><div>CORNELL UNIVERSITY</div><div></div><div>CORNELL UNIVERSITY</div><div>Floyd R. Newman Laboratory</div><div>Ithaca, NY 14853</div></div></div> <div>ERL INJECTOR CRYOMODULE</div> <div>ASSEMBLY, STEP 4</div> <div>ASSEMBLY, STEP 4: SECTIONS AND DETAIL VIEWS FROM SHEET 1</div>						
	SH. NO. 2 OF 5			7102-093	CHECKED BY:		DRAWN BY	DRAWN FOR	DATE	SCALE
REV.		APPROVED BY:		vm	M.Liepe	10/12/07			SH. NO. 2 OF 5	

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



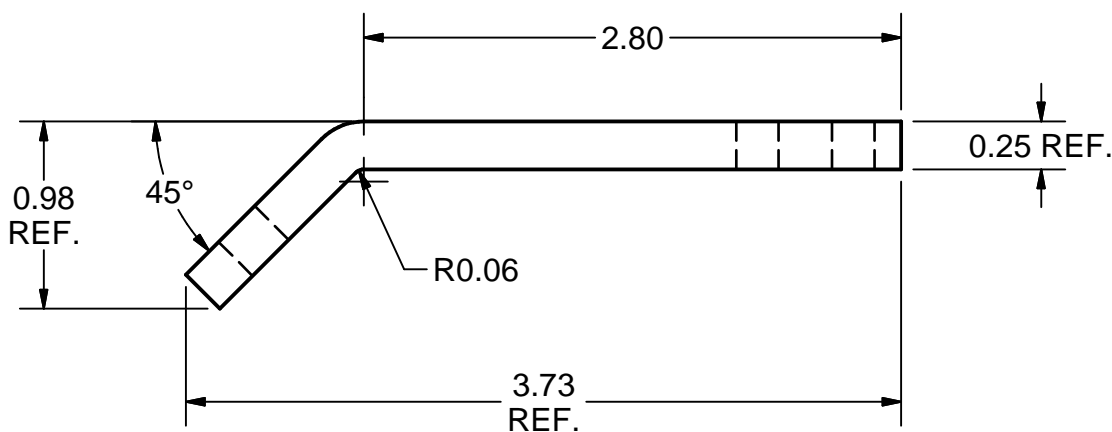
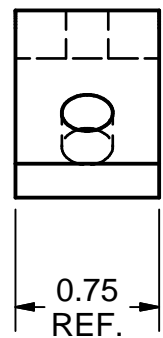
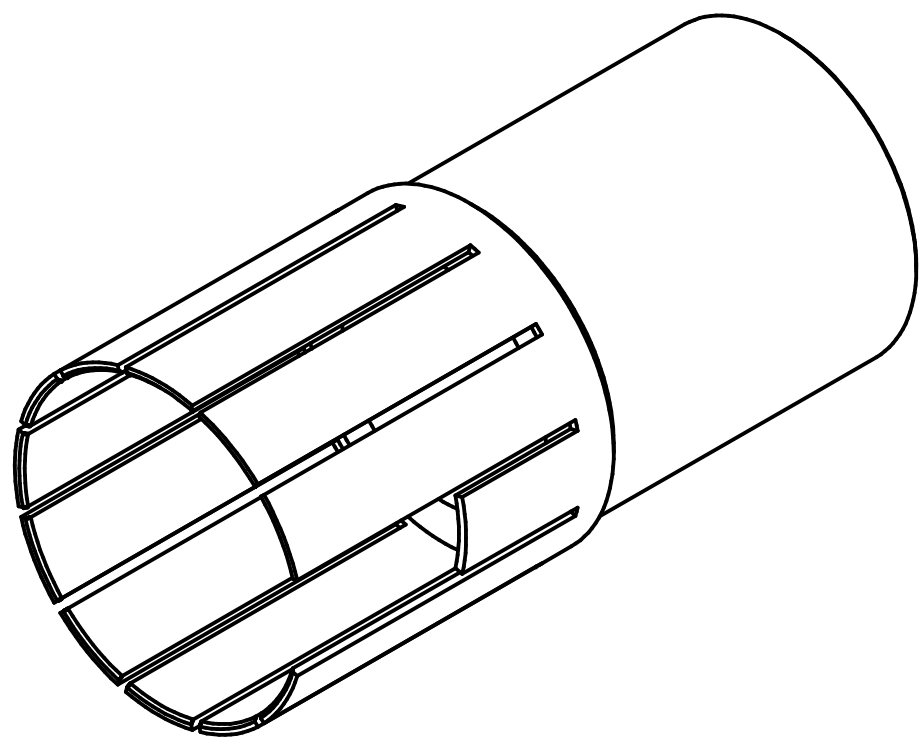
	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
	QUANTITY									
PRINT DISTR.	PLOT DATE: CAD FILE NAME: 7102-093.idw									
D SH. NO. 3 OF 5	7102-093 OF 5	CR-1	<div><div>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .0 ± .02 .00 ± .010 .000 ± .005 FRACTIONS ± 1/32 ANGLES ± 0.5° ALL SURFACES </div><div><div><div> LEPP</div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div><div>ERL INJECTOR CRYOMODULE ASSEMBLY, STEP 4 ASSEMBLY, STEP 4: ISO VIEWS</div></div></div>							
		CHECKED BY:	DRAWN BY	DRAWN FOR	DATE	SCALE	D	7102-093 SH. NO. 3 OF 5	REV.	
		APPROVED BY:	vm	M.Liepe	10/12/07					

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



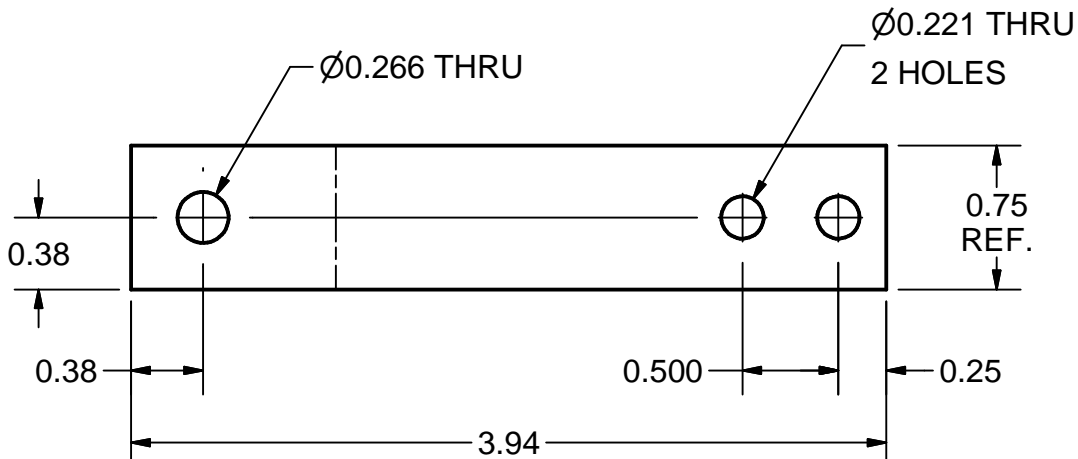
18 5 K TUBE COPPER EXTENSION

FILE NAME: 7102-093
SHEET NO.: 4
DFT. SCALE: 1:1
MATERIAL: OFE COPPER
QTY: 2 PER CRYOMODULE
NOTES:

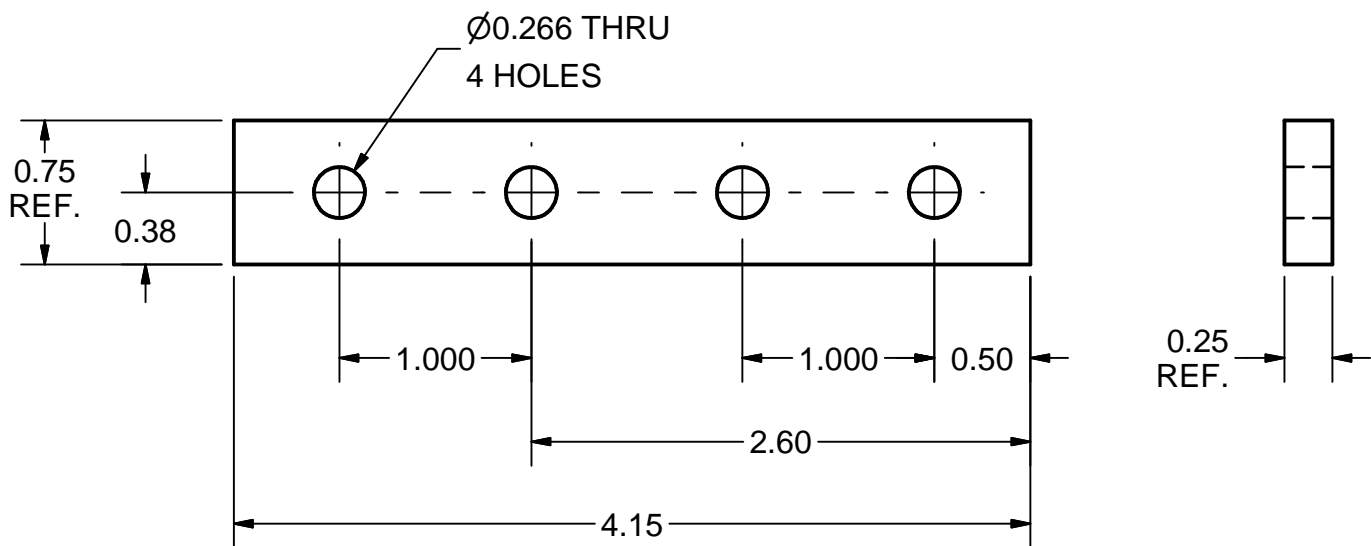


19 COPPER EXTENSION

FILE NAME: 7102-093
SHEET NO.: 4
DFT. SCALE: 1:1
MATERIAL: 1/4" x 3/4" OFE COPPER RECT. BAR
QTY: 1 PER CRYOMODULE
NOTES:

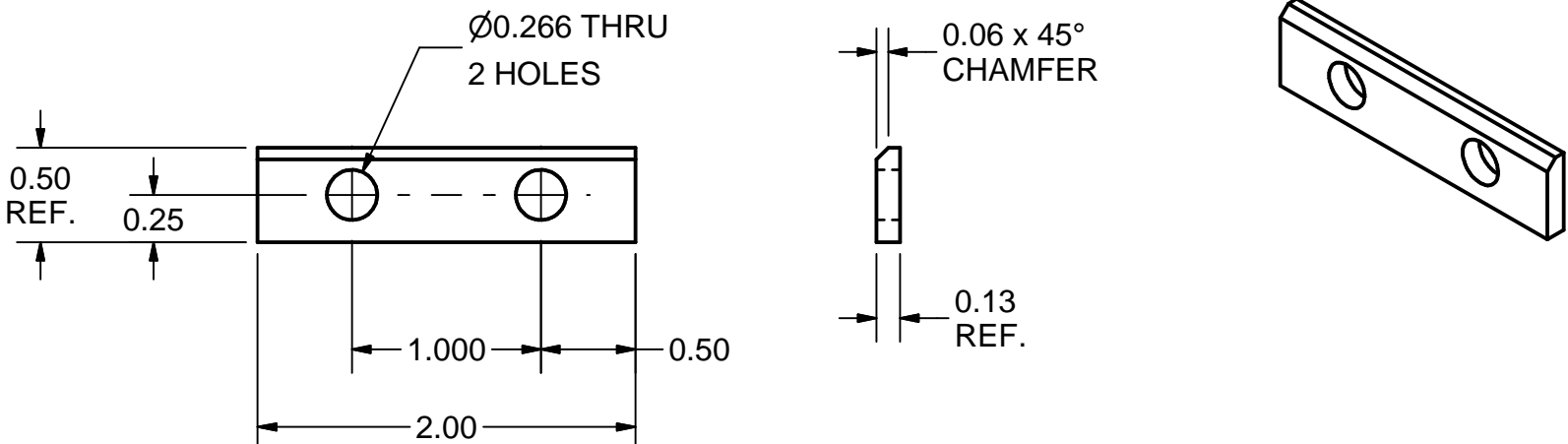


FLAT PATTERN



20 HOM SUPPORT EXTENSION STRIP

FILE NAME: 7102-093
SHEET NO.: 4
DFT. SCALE: 1:1
MATERIAL: 1/4" x 3/4" OFE COPPER RECT. BAR
QTY: 2 PER CRYOMODULE
NOTES:

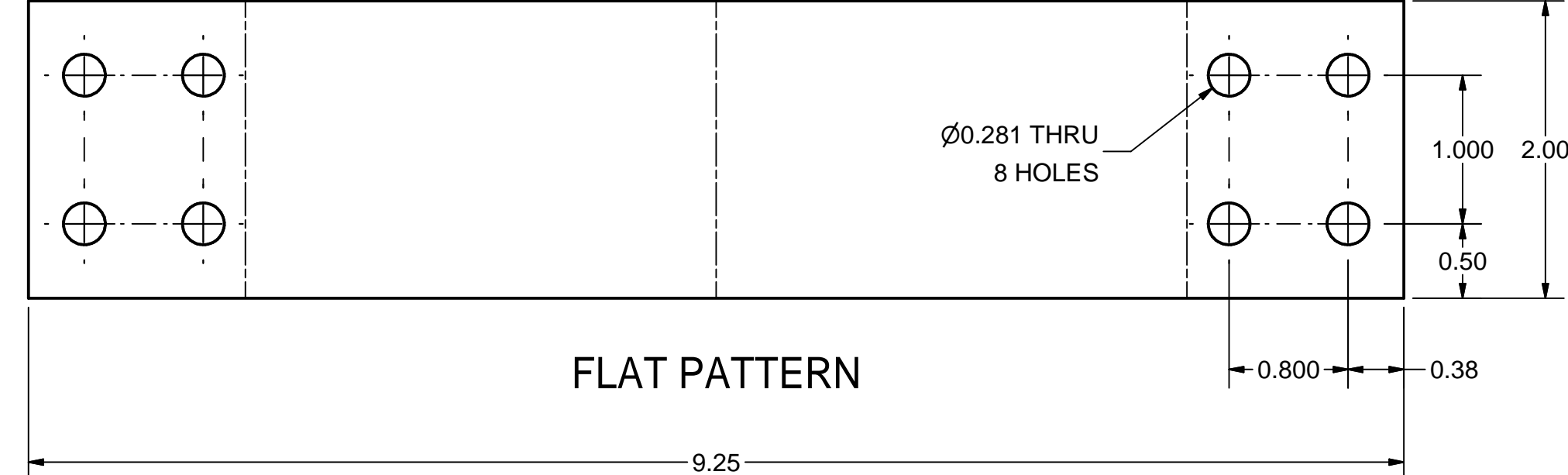
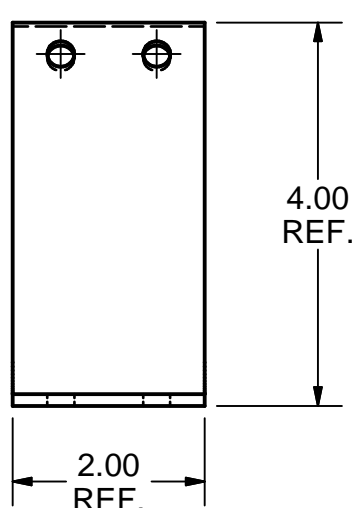
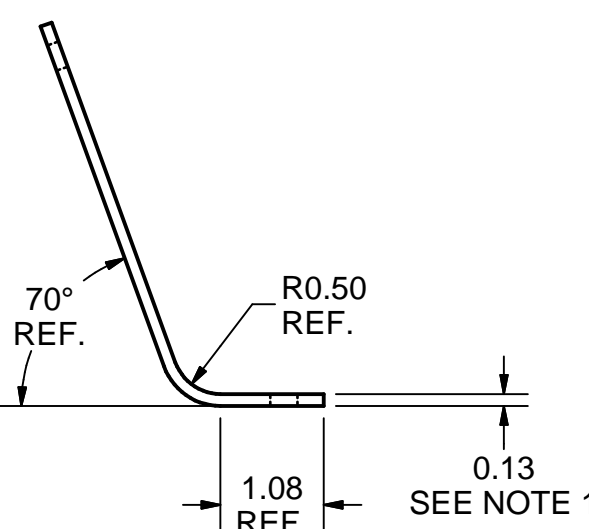
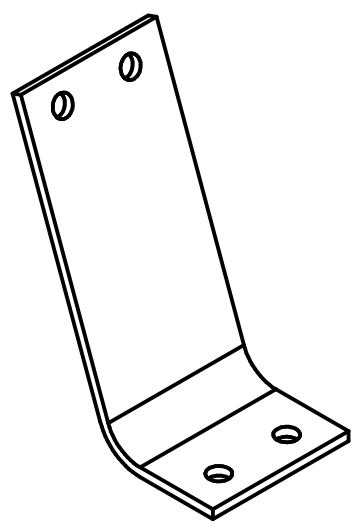
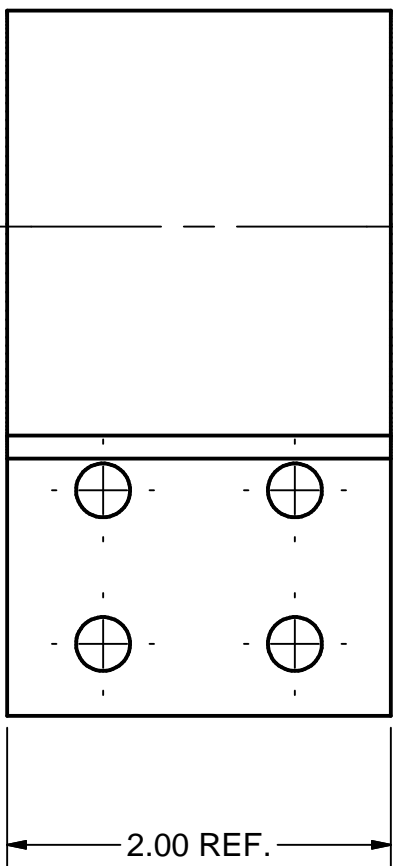
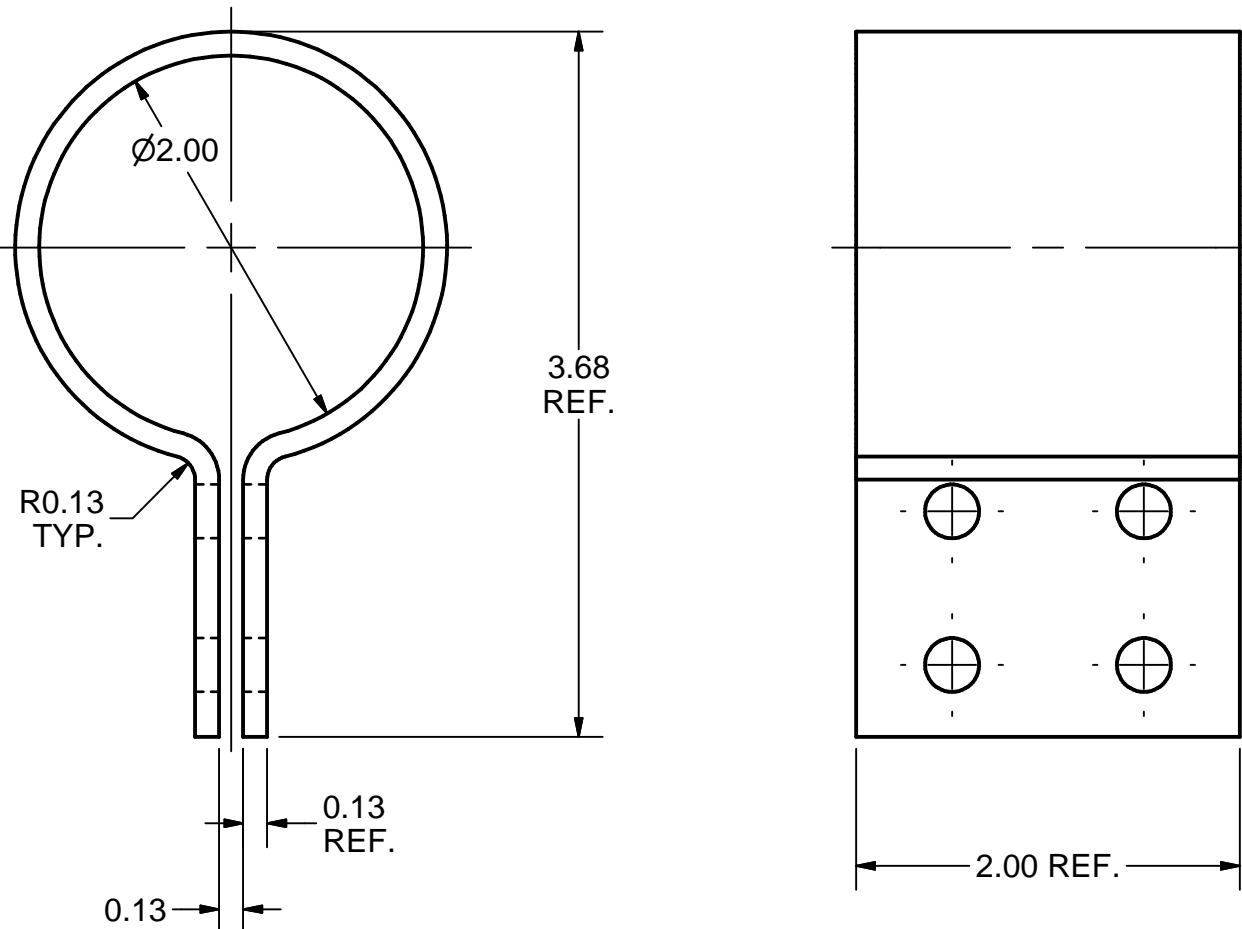
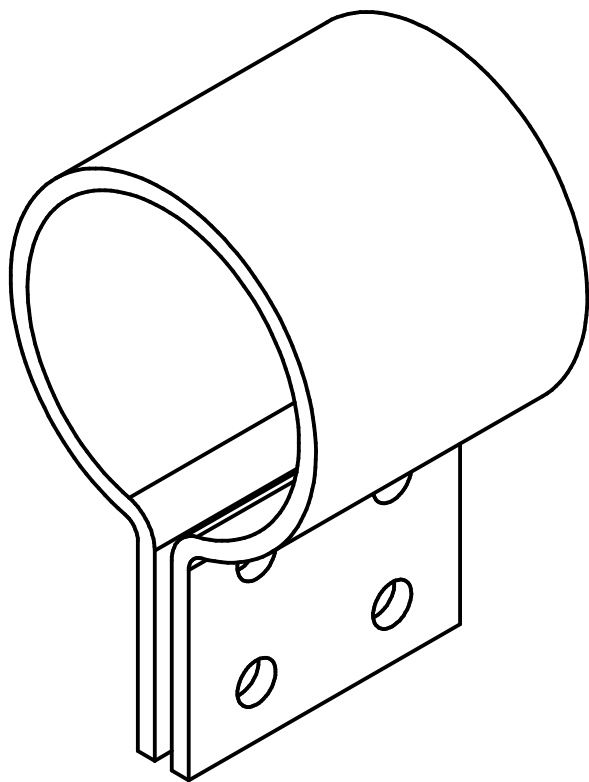


22 CLAMP STRIP

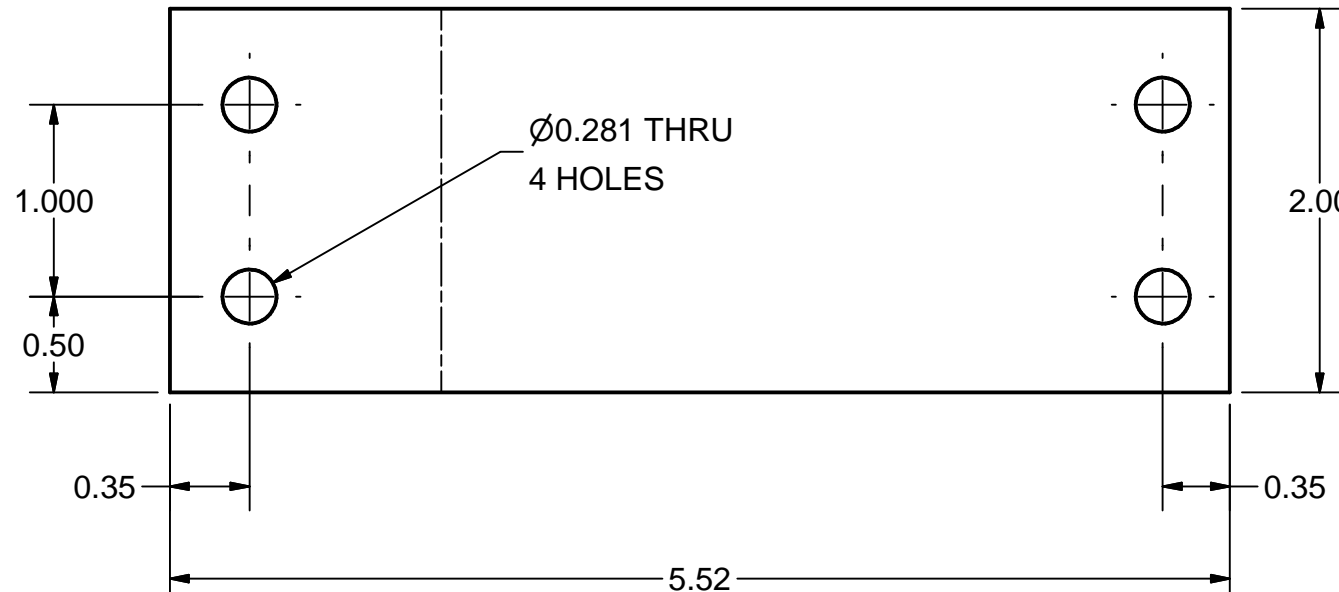
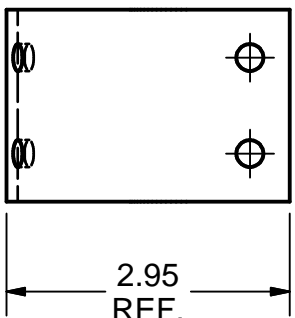
FILE NAME: 7102-093
SHEET NO.: 4
DFT. SCALE: 1:1
MATERIAL: 1/8" x 1/2" 316L ST. STEEL RECT. BAR
QTY: 24 PER CRYOMODULE
NOTES:

		ITEM	DWG. NO.		DESCRIPTION			G1	G2	G3	REMARKS		REV.
								QUANTITY					
D	PRINT DISTR.	PLOT DATE: CAD FILE NAME: 7102-093.idw											
		CR-1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .0 ± .02 .00 ± .010 .000 ± .005 FRACTIONS ± 1/32 ANGLES ± 0.5° ALL SURFACES			 CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853 ERL INJECTOR CRYOMODULE ASSEMBLY, STEP 4 5 K TUBE COPPER EXTENSION; HOM SUPPORT EXTENSION STRIP; CLAMP STRIP; COPPER EXTENSION							
SH. NO. 4 OF 5	7102-093	REV.	CHECKED BY:	DRAWN BY	DRAWN FOR	DATE	SCALE	D	7102-093		REV.		
			APPROVED BY:	vm	M.Liepe	10/12/07			SH. NO. 4 OF 5				

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



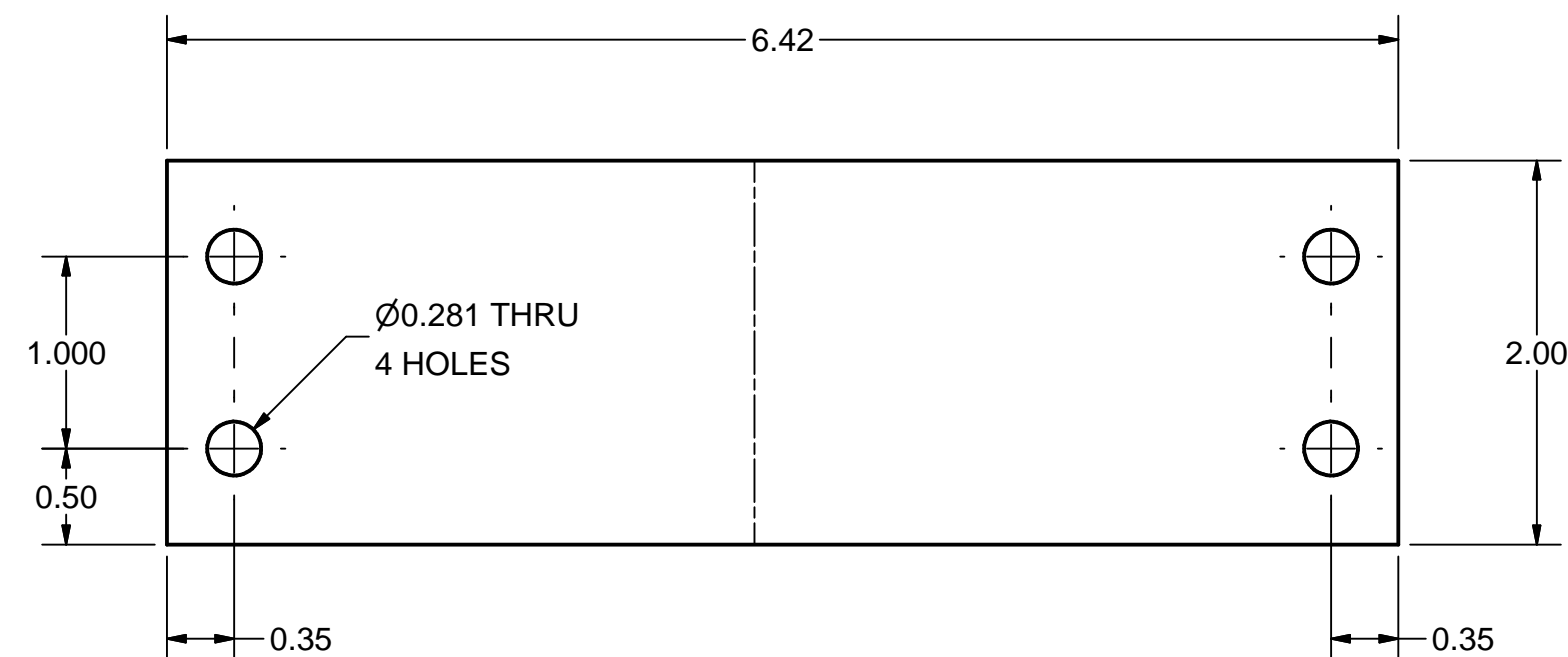
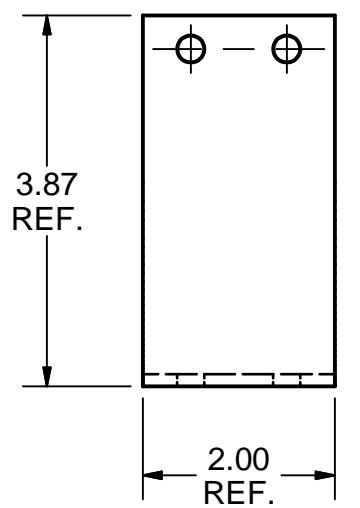
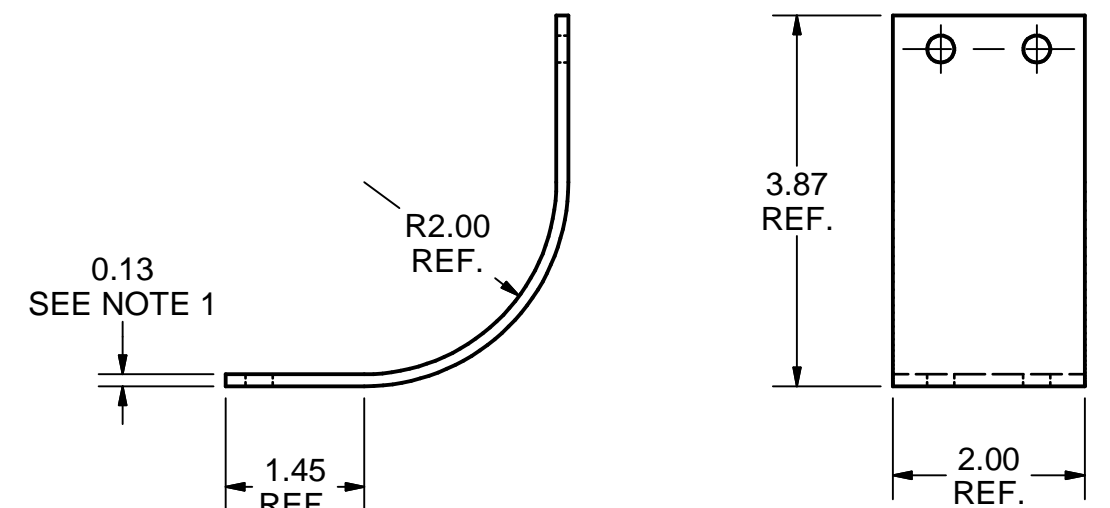
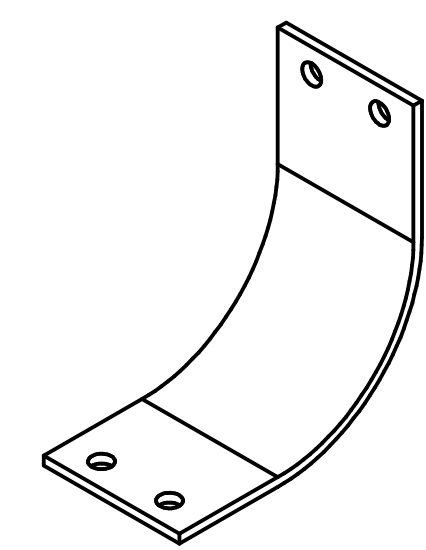
FLAT PATTERN



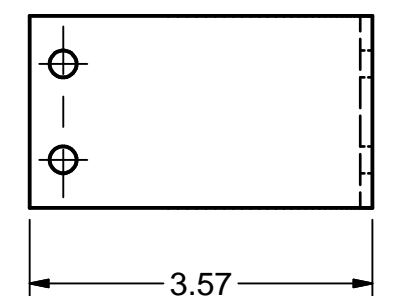
FLAT PATTERN
SCALE 1 : 1

21 5 K TUBE CLAMP
FILE NAME: 7102-093
SHEET NO.: 5
DFT. SCALE: 1:1
MATERIAL: 1/8" OFE COPPER SHEET
QTY: 12 PER CRYOMODULE
NOTES:

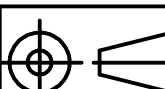


23 HOM SUPPORT 5 K HEAT SINK FOIL STRIPS, RIGHT
FILE NAME: 7102-093
SHEET NO.: 5
DFT. SCALE: 1:2
MATERIAL: 0.002" THK. OFE COPPER FOIL
QTY: 6 PER CRYOMODULE (378 FOILS)
NOTES: 1. EVERY HEAT SINK MADE OF 63 PIECES (378 TOTAL)



FLAT PATTERN
SCALE 1 : 1



24 HOM SUPPORT 5 K HEAT SINK FOIL STRIPS, LEFT
FILE NAME: 7102-093
SHEET NO.: 5
DFT. SCALE: 1:2
MATERIAL: 0.002" THK. OFE COPPER FOIL
QTY: 6 PER CRYOMODULE (378 FOILS)
NOTES: 1. EVERY HEAT SINK MADE OF 63 PIECES (378 TOTAL)

	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
				QUANTITY				
PRINT DISTR.	PLOT DATE: CAD FILE NAME: 7102-093.idw							
7102-093 SH. NO. 5 OF 5	CR-1	UNLESS OTHERWISE SPECIFIED:	<div>CORNELL UNIVERSITY  LEPP</div> <div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div>					
		DIMENSIONS ARE IN INCHES: TOLERANCES ON: .0 ± .02 .00 ± .010 .000 ± .005 FRACTIONS ± 1/32 ANGLES ± 0.5° ALL SURFACES 						
		ERL INJECTOR CRYOMODULE ASSEMBLY, STEP 4 5 K TUBE CLAMP; HOM SUPPORT 5 K HEAT SINK FOIL STRIPS, RIGHT AND LEFT						
REV.	CHECKED BY:	DRAWN BY	DRAWN FOR	DATE	SCALE	D	7102-093 SH. NO. 5 OF 5	REV.
	APPROVED BY:	vm	M.Liepe	10/12/07				