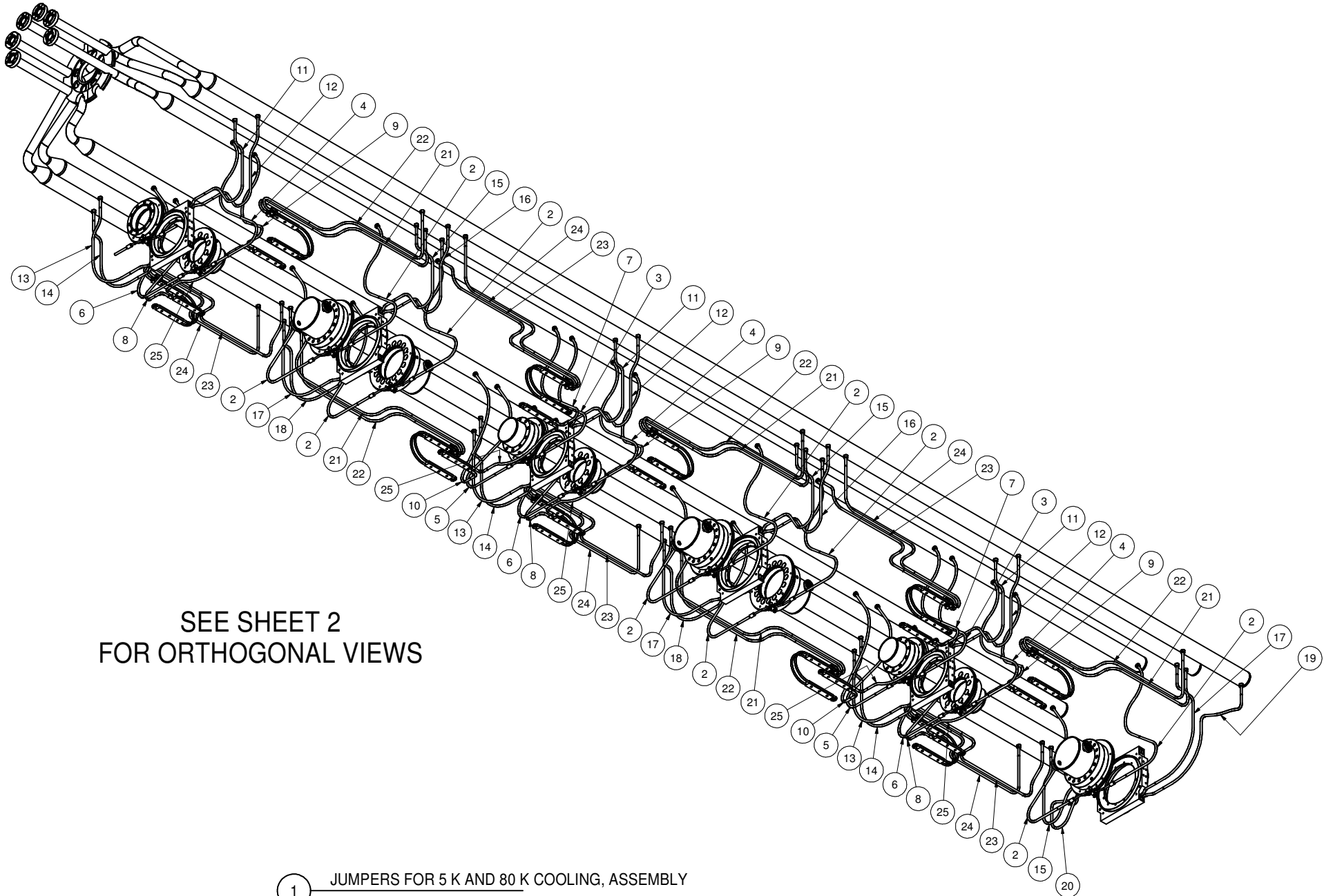


REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		PARTS ITEM 19 AND 29 MODIFIED.	11/05/07	VM



SEE SHEET 2  
FOR ORTHOGONAL VIEWS

- 1
- JUMPERS FOR 5 K AND 80 K COOLING, ASSEMBLY

FILE NAME: 7102-061  
SHEET NO.: 1  
DFT. SCALE: 1:8  
MATERIAL:  
QTY: 1 PER CRYOMODULE  
NOTES: 1. WELD ALL JUMPERS (ITEMS 2 - 25) IN SITU WITH ORBITING WELDER.  
CUT AND BEND JOINT ENDS IF NEEDED. WELDS TO CONFORM TO UHV SPEC.  
MAKE LEAK TEST. LEAK RATE: <2.0E-10 TORR-L/SEC.

Release of final PO version for Meyer Tool - July 16, 2007

25	7102-061 (Sh. 15)	INPUT COUPLER 5 K COOLING BRIDGE	5					
24	7102-061 (Sh. 14)	INPUT COUPLER 80 K COOLING JUMPER OUT-2	5					
23	7102-061 (Sh. 13)	INPUT COUPLER 80 K COOLING JUMPER IN-2	5					
22	7102-061 (Sh. 12)	INPUT COUPLER 80 K COOLING JUMPER OUT-1	5					
21	7102-061 (Sh. 11)	INPUT COUPLER 80 K COOLING JUMPER IN-1	5					
20	7102-061 (Sh. 10)	HOM-106-HALF 80 K COOLING JUMPER LEFT-OUT	1					
19	7102-061 (Sh. 9)	HOM-106-HALF 80 K COOLING JUMPER RIGHT-OUT	1					
18	7102-061 (Sh. 8)	HOM-106 80 K COOLING JUMPER LEFT-OUT	2					
17	7102-061 (Sh. 8)	HOM-106 80 K COOLING JUMPER LEFT-IN	3					
16	7102-061 (Sh. 7)	HOM-106 80 K COOLING JUMPER RIGHT-OUT	2					
15	7102-061 (Sh. 7)	HOM-106 80 K COOLING JUMPER RIGHT-IN	3					
14	7102-061 (Sh. 6)	HOM-78 80 K COOLING JUMPER LEFT-OUT	3					
13	7102-061 (Sh. 6)	HOM-78 80 K COOLING JUMPER LEFT-IN	3					
12	7102-061 (Sh. 5)	HOM-78 80 K COOLING JUMPER RIGHT-OUT	3					
11	7102-061 (Sh. 5)	HOM-78 80 K COOLING JUMPER RIGHT-IN	3					
10	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 LEFT	2					
9	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 RIGHT	3					
8	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 LEFT	3					
7	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 RIGHT	2					
6	7102-061 (Sh. 4)	HOM-78 5 K COOLING JUMPER LEFT, TYPE 4	3					
5	7102-061 (Sh. 3)	HOM-78 5 K COOLING JUMPER, TYPE 3 LEFT	2					
4	7102-061 (Sh. 3)	HOM-78 5 K COOLING JUMPER, TYPE 3 RIGHT	3					
3	7102-061 (Sh. 3)	HOM-78 5 K COOLING JUMPER RIGHT, TYPE 2	2					
2	7102-061 (Sh. 3)	HOM-106 5 K COOLING JUMPER, TYPE 1	10					
1	7102-061 (Sh. 1,2)	JUMPERS FOR 5 K AND 80 K COOLING, ASSEMBLY	X					

PRINT

DISTR.

7102-061

REV. A

CR-1

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES:  
TOLERANCES ON:  
.0 ±.02  
.00 ±.010  
FRACTIONS ±1/32  
ANGLES ±0.5°  
ALL SURFACES

CORNELL UNIVERSITY

**LEPP**

LABORATORY FOR ELEMENTARY PARTICLE PHYSICS

CORNELL UNIVERSITY

Floyd R. Newman Laboratory

Ithaca, NY 14853

ERL INJECTOR CRYOMODULE

Jumpers for 5 K and 80 K Cooling

CHECKED BY: EPC

APPROVED BY: EPC

DRAWN BY

V.Medjidzade

DRAWN FOR

M.Liepe

DATE

7/9/2007

SCALE

D

7102-061

SH. NO. 1 OF 15

REV. A

ITEM

DWG. NO.

DESCRIPTION

G1

G2

G3

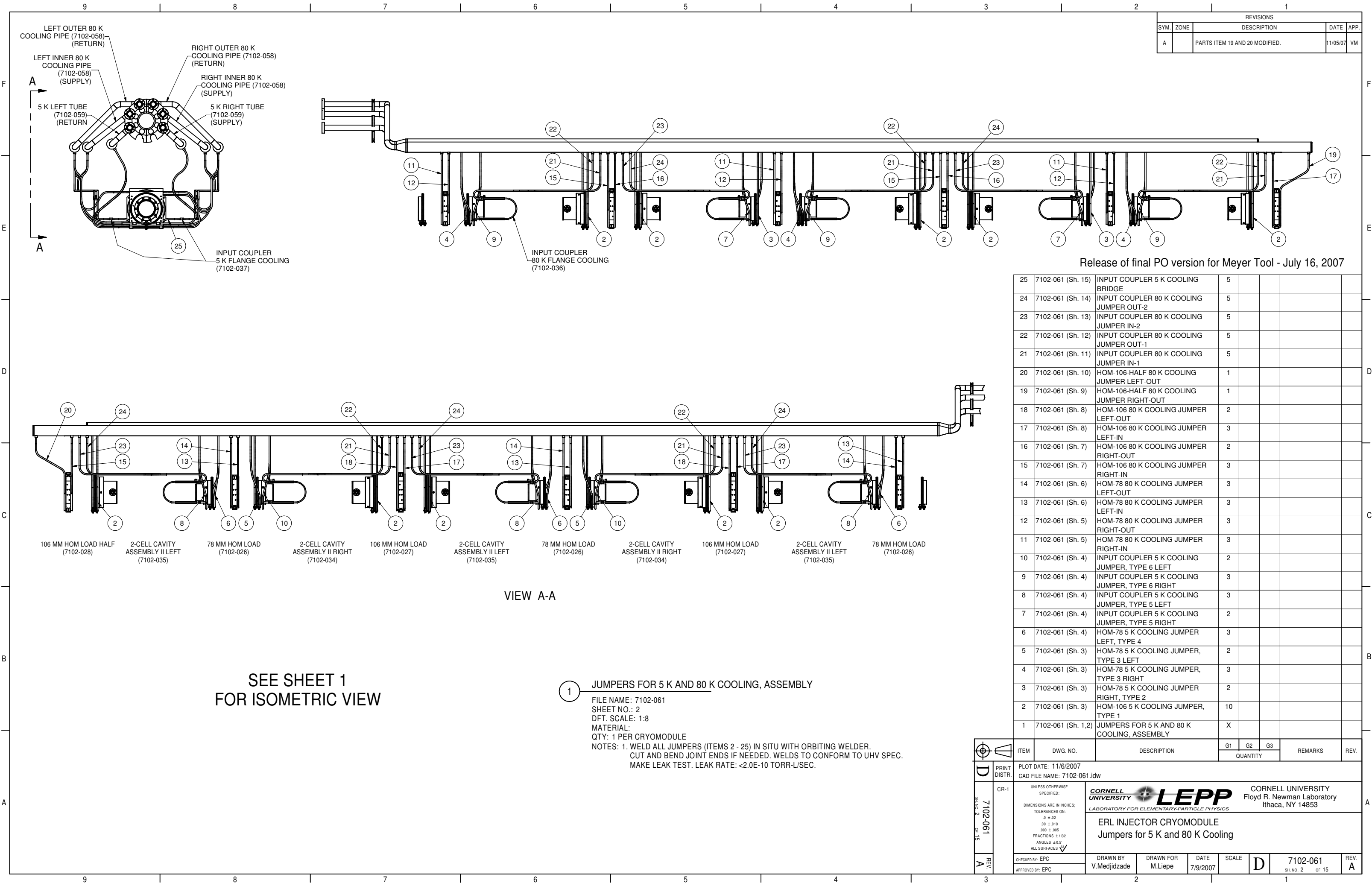
QUANTITY

REMARKS

REV.

PLOT DATE: 11/6/2007

CAD FILE NAME: 7102-061.idw



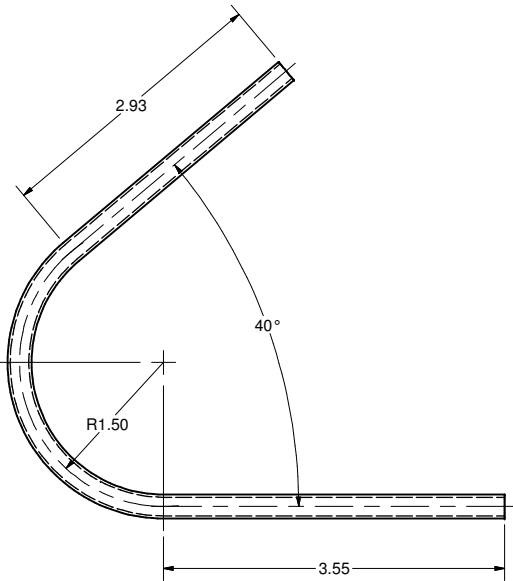
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		PARTS ITEM 19 AND 20 MODIFIED.	11/05/07	VM

Release of final PO version for Meyer Tool - July 16, 2007

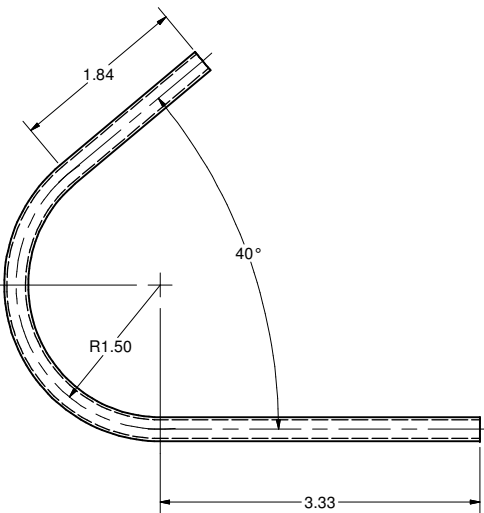
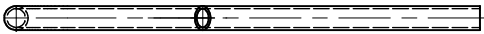
25	7102-061 (Sh. 15)	INPUT COUPLER 5 K COOLING BRIDGE	5					
24	7102-061 (Sh. 14)	INPUT COUPLER 80 K COOLING JUMPER OUT-2	5					
23	7102-061 (Sh. 13)	INPUT COUPLER 80 K COOLING JUMPER IN-2	5					
22	7102-061 (Sh. 12)	INPUT COUPLER 80 K COOLING JUMPER OUT-1	5					
21	7102-061 (Sh. 11)	INPUT COUPLER 80 K COOLING JUMPER IN-1	5					
20	7102-061 (Sh. 10)	HOM-106-HALF 80 K COOLING JUMPER LEFT-OUT	1					
19	7102-061 (Sh. 9)	HOM-106-HALF 80 K COOLING JUMPER RIGHT-OUT	1					
18	7102-061 (Sh. 8)	HOM-106 80 K COOLING JUMPER LEFT-OUT	2					
17	7102-061 (Sh. 8)	HOM-106 80 K COOLING JUMPER LEFT-IN	3					
16	7102-061 (Sh. 7)	HOM-106 80 K COOLING JUMPER RIGHT-OUT	2					
15	7102-061 (Sh. 7)	HOM-106 80 K COOLING JUMPER RIGHT-IN	3					
14	7102-061 (Sh. 6)	HOM-78 80 K COOLING JUMPER LEFT-OUT	3					
13	7102-061 (Sh. 6)	HOM-78 80 K COOLING JUMPER LEFT-IN	3					
12	7102-061 (Sh. 5)	HOM-78 80 K COOLING JUMPER RIGHT-OUT	3					
11	7102-061 (Sh. 5)	HOM-78 80 K COOLING JUMPER RIGHT-IN	3					
10	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 LEFT	2					
9	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 RIGHT	3					
8	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 LEFT	3					
7	7102-061 (Sh. 4)	INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 RIGHT	2					
6	7102-061 (Sh. 4)	HOM-78 5 K COOLING JUMPER LEFT, TYPE 4	3					
5	7102-061 (Sh. 3)	HOM-78 5 K COOLING JUMPER, TYPE 3 LEFT	2					
4	7102-061 (Sh. 3)	HOM-78 5 K COOLING JUMPER, TYPE 3 RIGHT	3					
3	7102-061 (Sh. 3)	HOM-78 5 K COOLING JUMPER RIGHT, TYPE 2	2					
2	7102-061 (Sh. 3)	HOM-106 5 K COOLING JUMPER, TYPE 1	10					
1	7102-061 (Sh. 1,2)	JUMPERS FOR 5 K AND 80 K COOLING, ASSEMBLY	X					

ITEM	DWG. NO.	DESCRIPTION	QUANTITY			REMARKS	REV.
			G1	G2	G3		
PRINT DISTR.	7102-061	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES: TOLERANCES ON: .0 ±.02 .00 ±.010 FRACTIONS ±1/32 ANGLES ±0.5° ALL SURFACES					
CR-1		CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY Ithaca, NY 14853					
REV. A		ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling					
CHECKED BY: EPC APPROVED BY: EPC		DRAWN BY: V.Medjidzade	DRAWN FOR: M.Liepe	DATE: 7/9/2007	SCALE: D	7102-061 SH. NO. 2 OF 15	REV. A

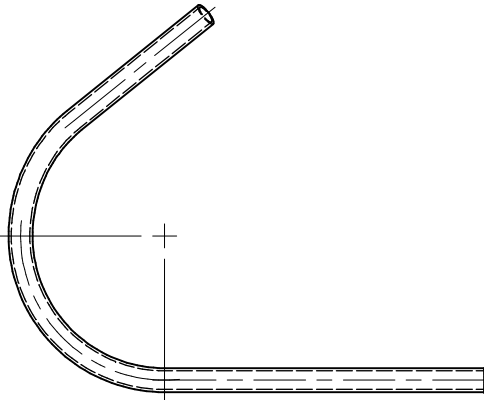
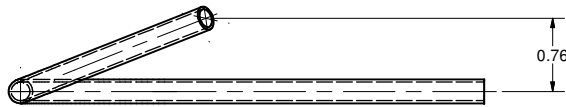
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



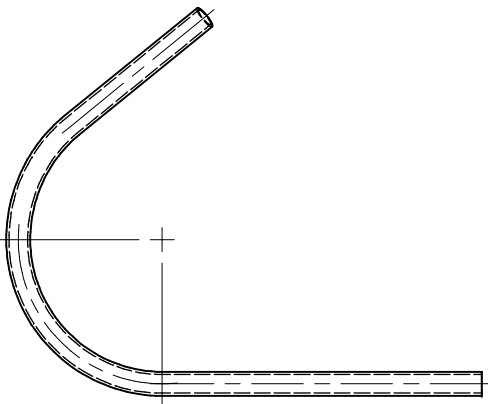
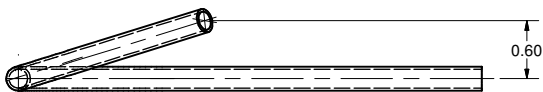
2 HOM-106 5 K COOLING JUMPER, TYPE 1  
FILE NAME: 7102-061  
SHEET NO.: 3  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 10 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 10.15 IN.



3 HOM-78 5 K COOLING JUMPER RIGHT, TYPE 2  
FILE NAME: 7102-061  
SHEET NO.: 3  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 2 PER ASSEMBLY + 8 FOR OTHER ITEMS: TOTAL 10  
NOTES: 1. DEVELOPED LENGTH: L = 8.83 IN.






4 HOM-78 5 K COOLING JUMPER, TYPE 3 RIGHT  
FILE NAME: 7102-061  
SHEET NO.: 3  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 3  
QTY: 3 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 3.

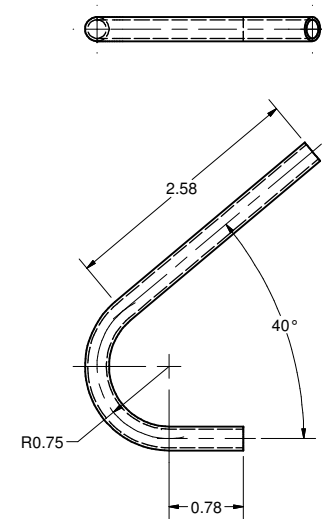


5 HOM-78 5 K COOLING JUMPER, TYPE 3 LEFT  
FILE NAME: 7102-061  
SHEET NO.: 3  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 3  
QTY: 2 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 3.

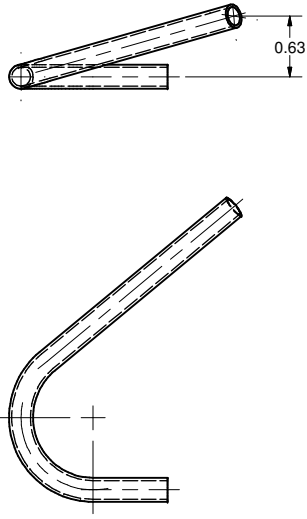
Release of final PO version for Meyer Tool - July 16, 2007

		ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
					QUANTITY				
D	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw							
SH. NO. 3 OF 15	7102-061	CR-1	CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853						
	UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES:  TOLERANCES ON: .0 ± .02 .00 ± .010 .000 ± .005 FRACTIONS ± 1/32 ANGLES ± 0.5° ALL SURFACES 		 LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS						
	EVL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling								
REV.	CHECKED BY: EPC	DRAWN BY V.Medjidzade	DRAWN FOR M.Liepe	DATE 7/9/2007	SCALE	D	7102-061	REV.	
	APPROVED BY: EPC	SH. NO. 3 OF 15							

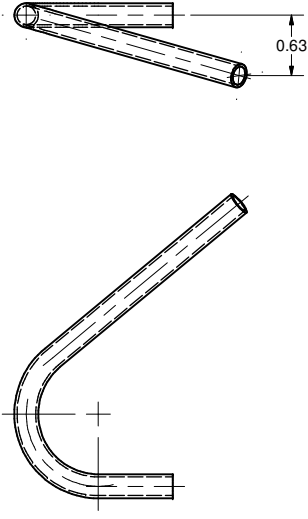
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



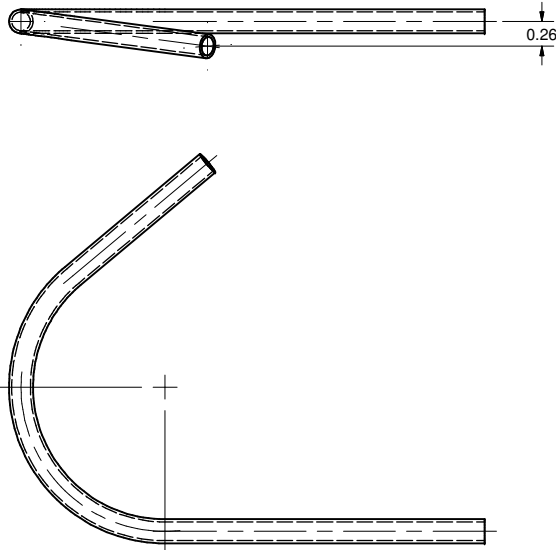
26 INPUT COUPLER 5 K COOLING JUMPER, BLANK  
FILE NAME: 7102-061  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 10 TOTAL  
NOTES: 1. THIS PART IS A BLANK FOR ITEMS 7, 8, 9, 10.  
2. DEVELOPED LENGTH: L = 5.19 IN.



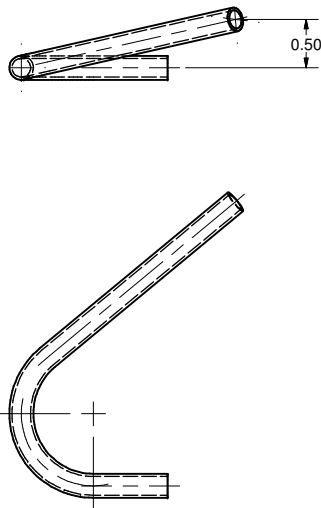
7 INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 RIGHT  
FILE NAME: 7102-061  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 26  
QTY: 2 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 26.



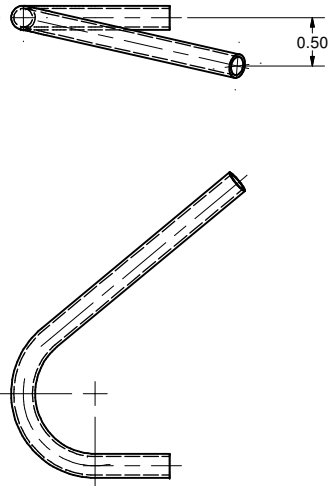
9 INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 RIGHT  
FILE NAME: 7102-061  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 26  
QTY: 3 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 26.



6 HOM-78 5 K COOLING JUMPER LEFT, TYPE 4  
FILE NAME: 7102-061  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 3  
QTY: 3 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 3.




8 INPUT COUPLER 5 K COOLING JUMPER, TYPE 5 LEFT  
FILE NAME: 7102-061  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 26  
QTY: 3 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 26.

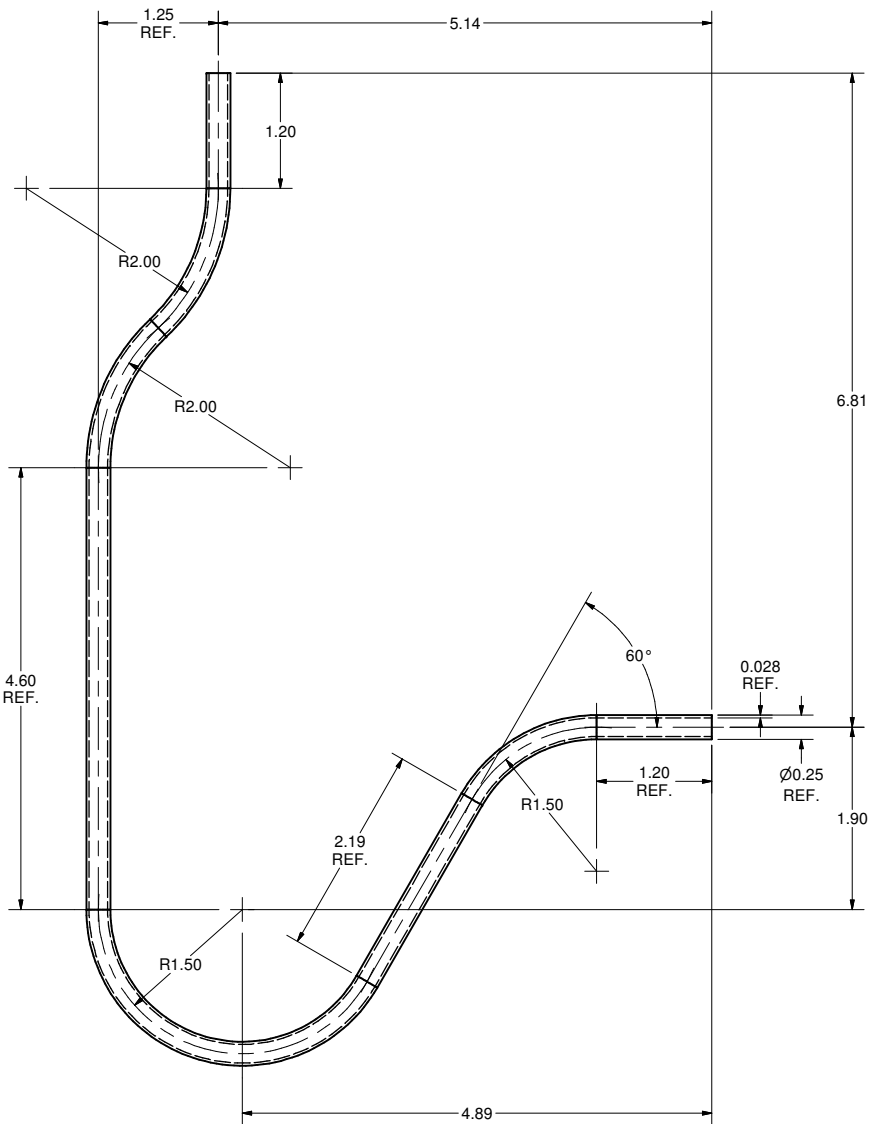


10 INPUT COUPLER 5 K COOLING JUMPER, TYPE 6 LEFT  
FILE NAME: 7102-061  
SHEET NO.: 4  
DFT. SCALE: 1:1  
MATERIAL: MAKE FROM ITEM 26  
QTY: 2 PER ASSEMBLY  
NOTES: 1. FOR OTHER DIMENSIONS SEE ITEM 26.

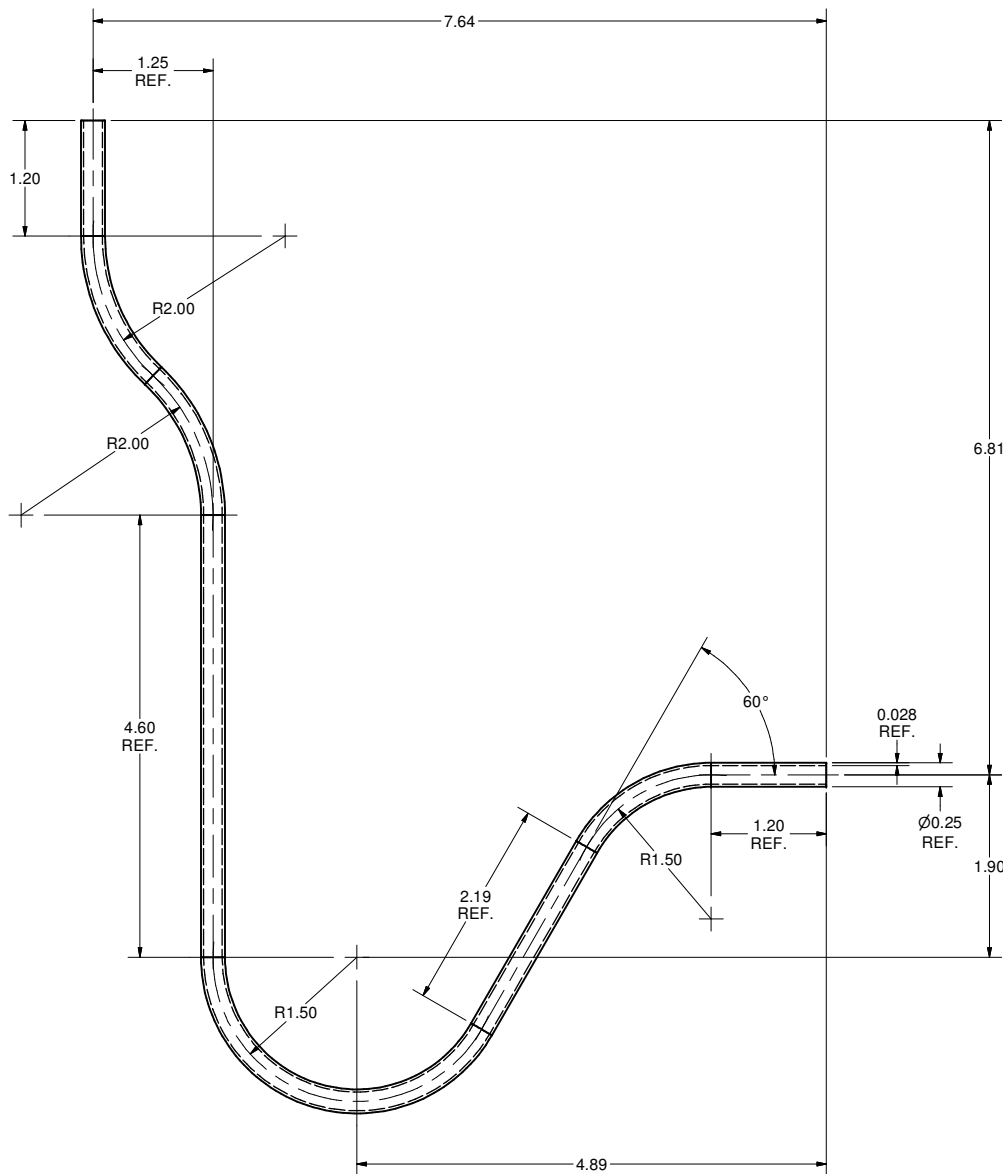
Release of final PO version for Meyer Tool - July 16, 2007

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.
		QUANTITY										
D	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.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			<div><div>CORNELL UNIVERSITY</div><div>LEPP</div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div>							
SH. NO. 4 OF 15		7102-061	ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling									
	REV.	CHECKED BY: EPC  APPROVED BY: EPC	DRAWN BY V.Medjidzade	DRAWN FOR M.Liepe	DATE 7/9/2007	SCALE	D	7102-061 SH. NO. 4 OF 15		REV.		

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.




11 HOM-78 80 K COOLING JUMPER RIGHT-IN  
FILE NAME: 7102-061  
SHEET NO.: 5  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 3 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 17.94 IN.

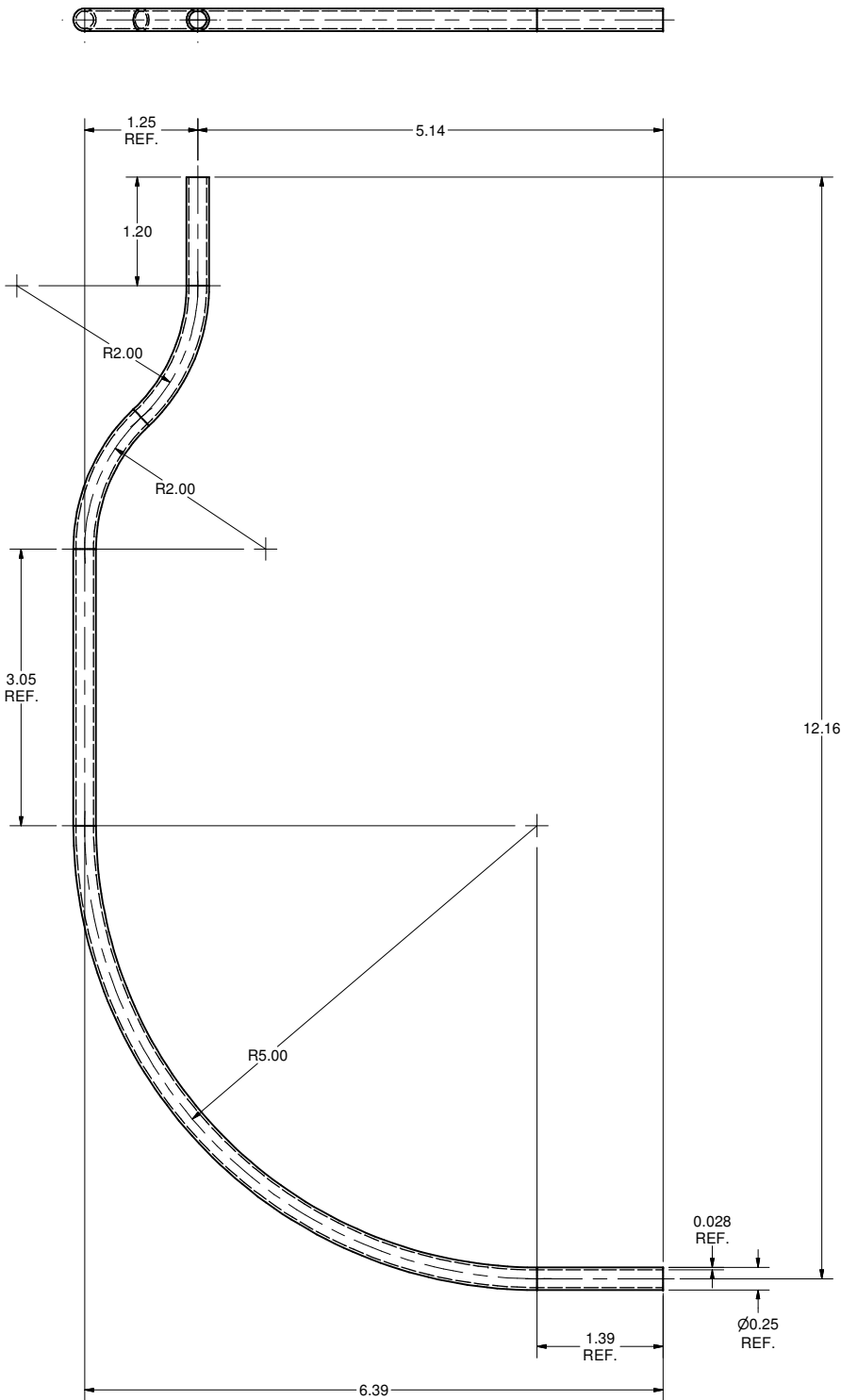


12 HOM-78 80 K COOLING JUMPER RIGHT-OUT  
FILE NAME: 7102-061  
SHEET NO.: 5  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 3 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 17.94 IN.

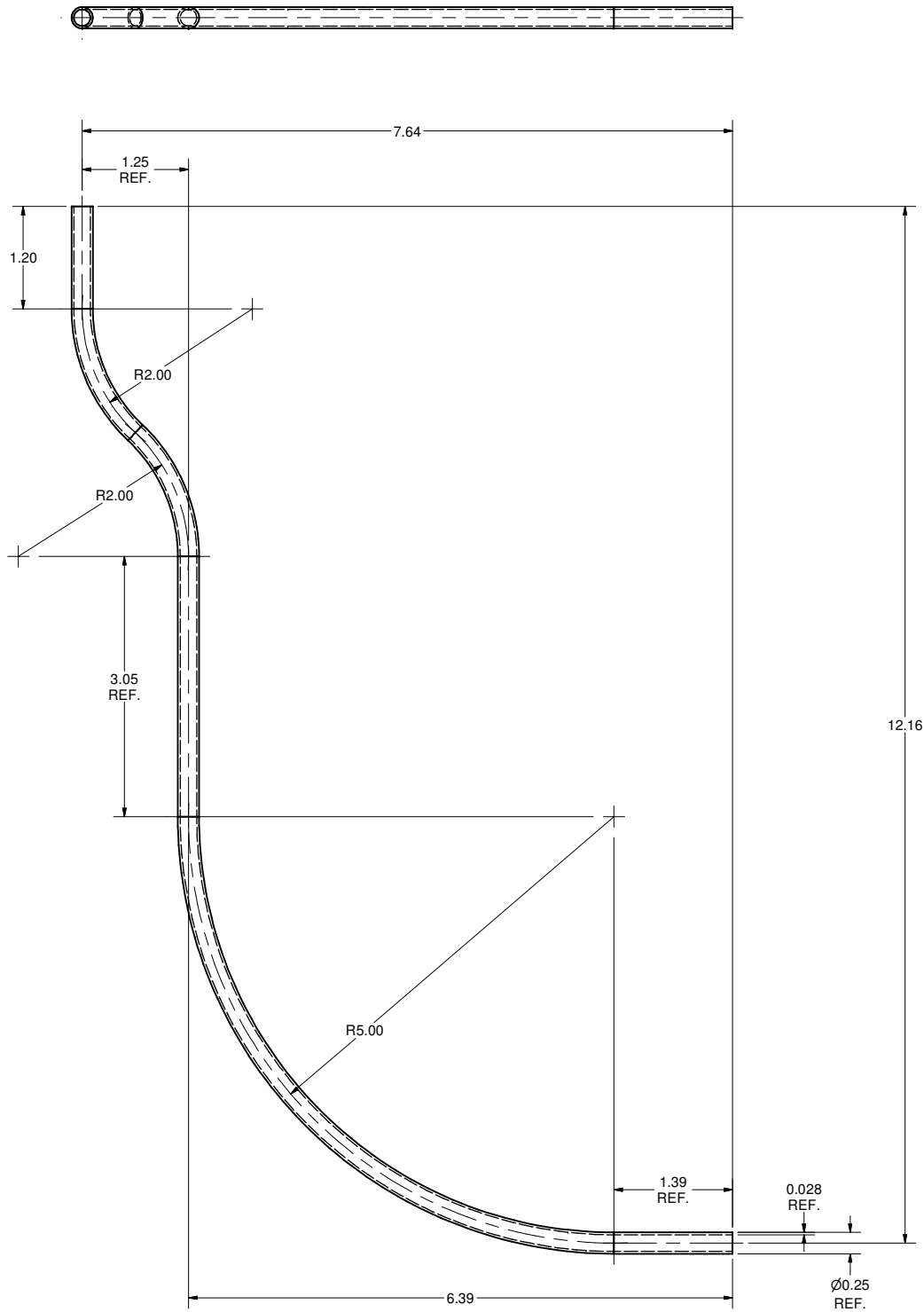
Release of final PO version for Meyer Tool - July 16, 2007

		ITEM	DWG. NO.		DESCRIPTION			G1	G2	G3	REMARKS		REV.
								QUANTITY					
D	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.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 ✓			<div>CORNELL UNIVERSITY </div> <div>LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS</div>					CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853			
7102-061 <small>SH. NO. 5 OF 15</small>					ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling								
REV.	CHECKED BY: EPC	DRAWN BY V.Medjidzade		DRAWN FOR M.Liepe		DATE 7/9/2007		SCALE		D	7102-061		REV.
	APPROVED BY: EPC										<small>SH. NO. 5 OF 15</small>		

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.








13 HOM-78 80 K COOLING JUMPER LEFT-IN  
FILE NAME: 7102-061  
SHEET NO.: 6  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 3 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 16.75 IN.



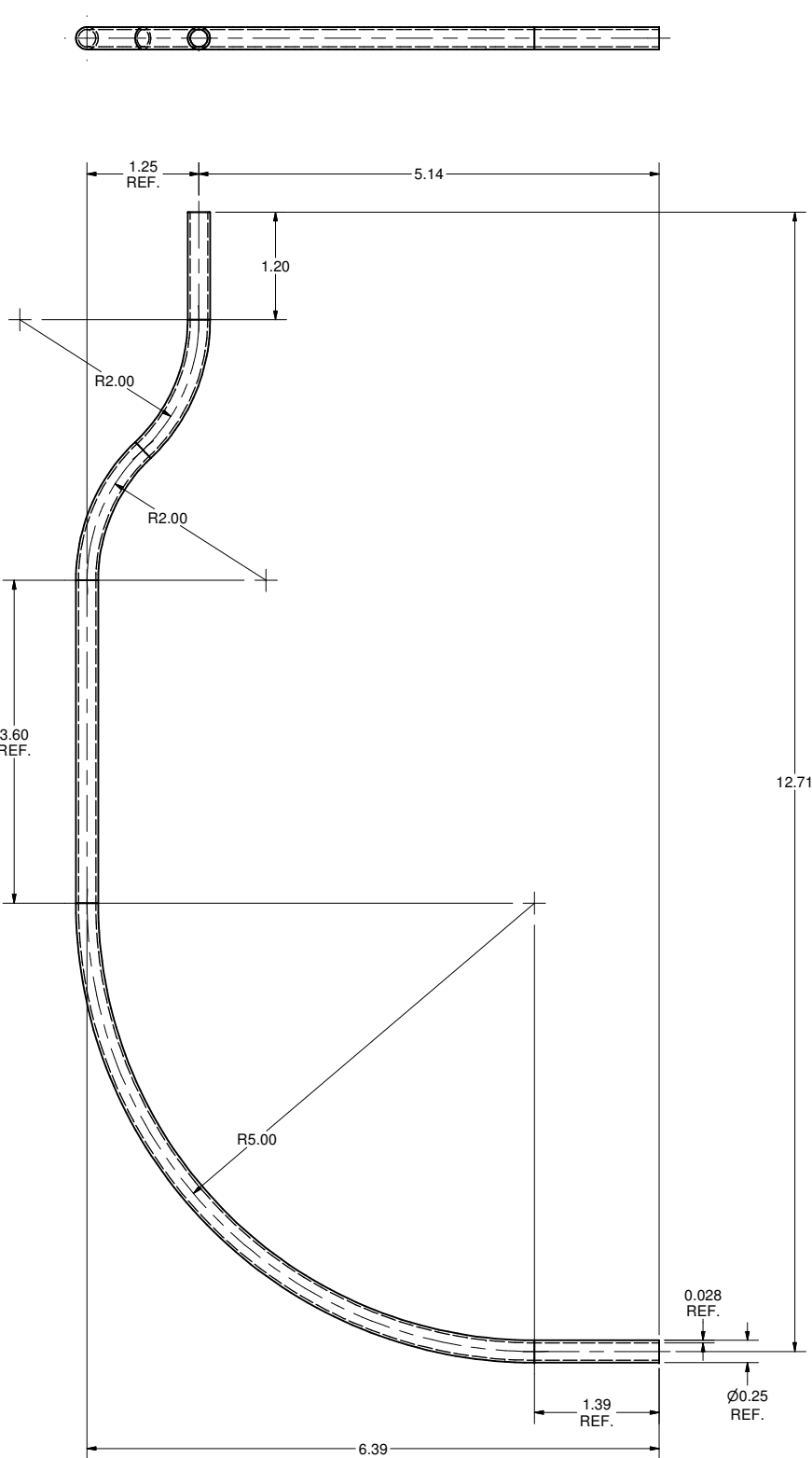
14 HOM-78 80 K COOLING JUMPER LEFT-OUT  
FILE NAME: 7102-061  
SHEET NO.: 6  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 3 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 16.75 IN.

Release of final PO version for Meyer Tool - July 16, 2007

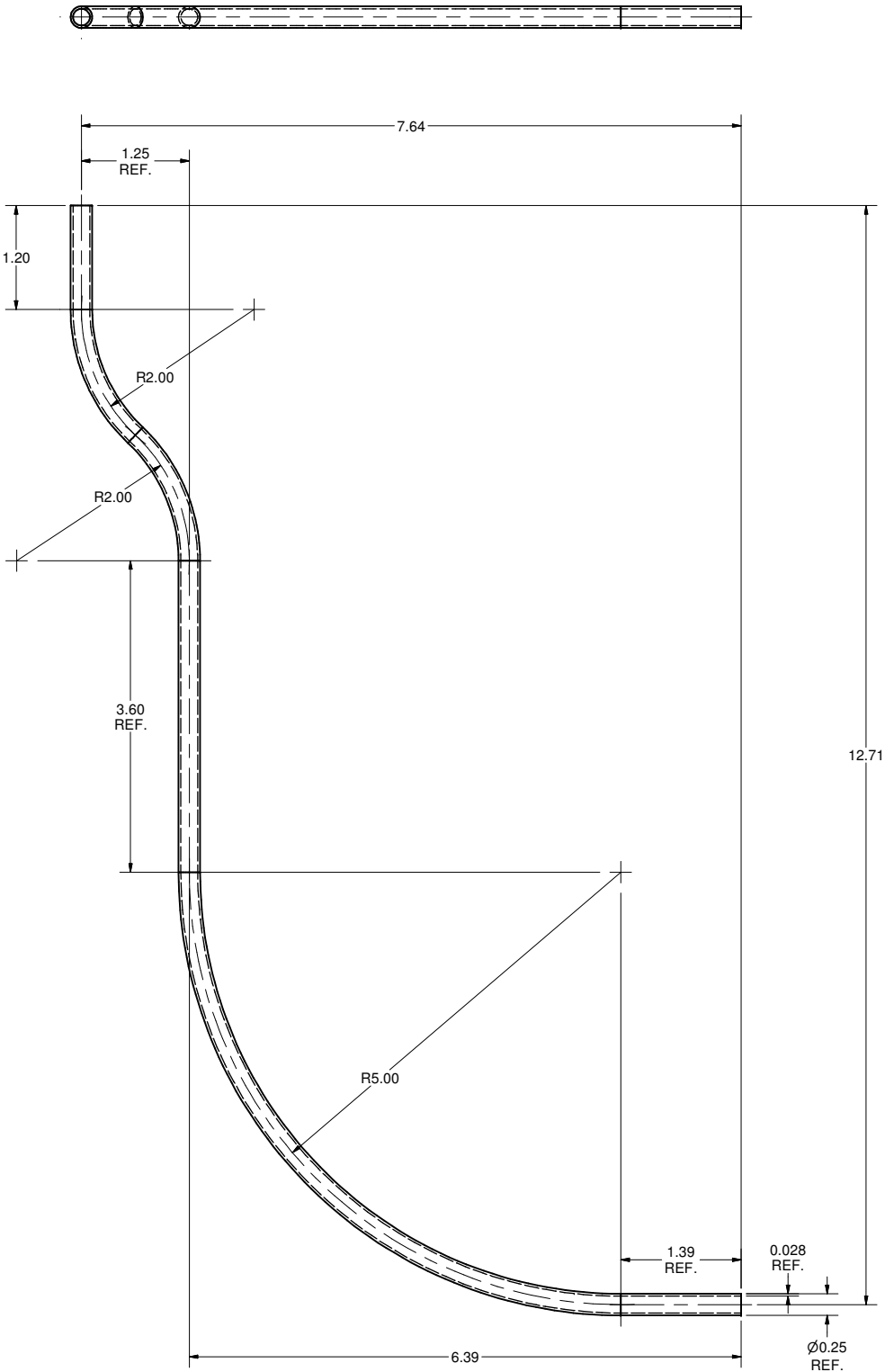
		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.
								QUANTITY				
	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw										
	7102-061 <small>SH. NO. 6 OF 15</small>	CR-1	UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES: TOLERANCES ON: .0 ± .02 .00 ± .010 .000 ± .005 FRACTIONS ± 1/32 ANGLES ± 0.5° ALL SURFACES 		<div> CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div> <div>ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling</div>							
CHECKED BY: EPC		DRAWN BY V.Medjizade	DRAWN FOR M.Liepe	DATE 7/9/2007	SCALE		7102-061		REV.			
APPROVED BY: EPC		<small>SH. NO. 6 OF 15</small>										



REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



17 **HOM-106 80 K COOLING JUMPER LEFT-IN**  
 FILE NAME: 7102-061  
 SHEET NO.: 8  
 DFT. SCALE: 1:1  
 MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
 QTY: 3 PER ASSEMBLY  
 NOTES: 1. DEVELOPED LENGTH: L = 17.30 IN.



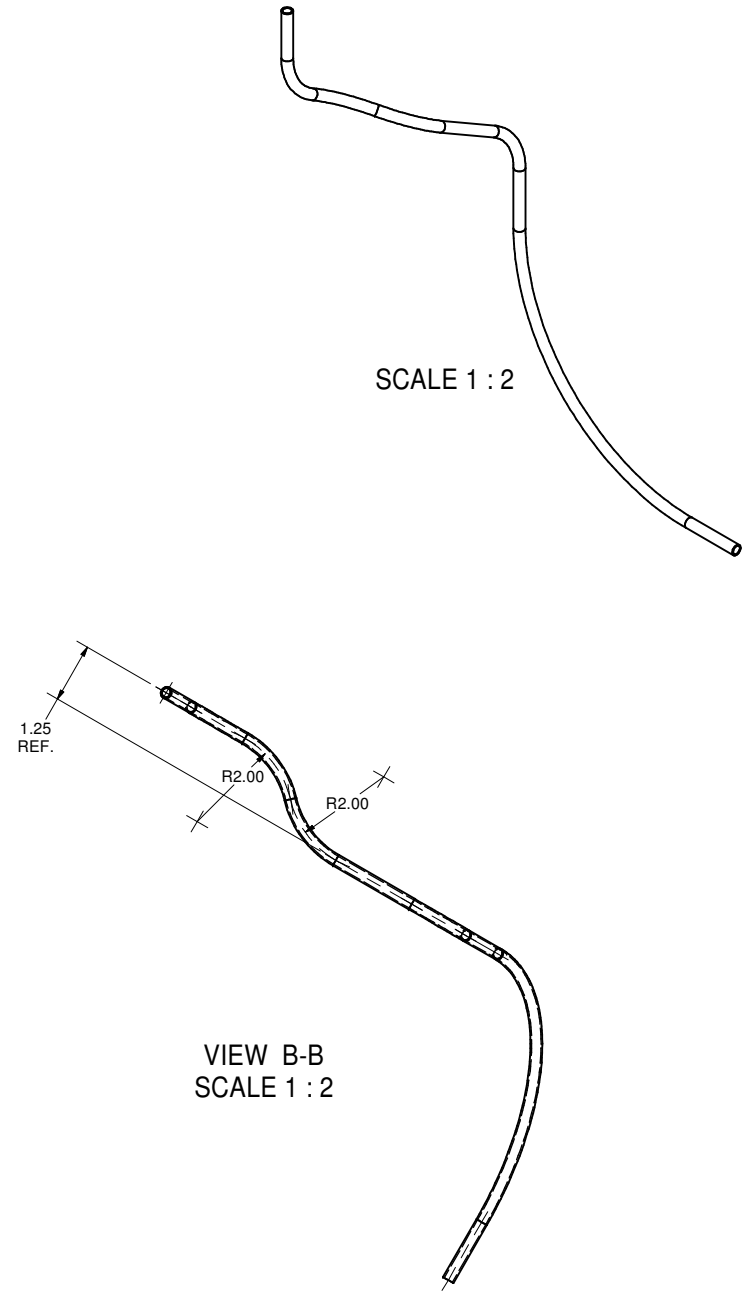
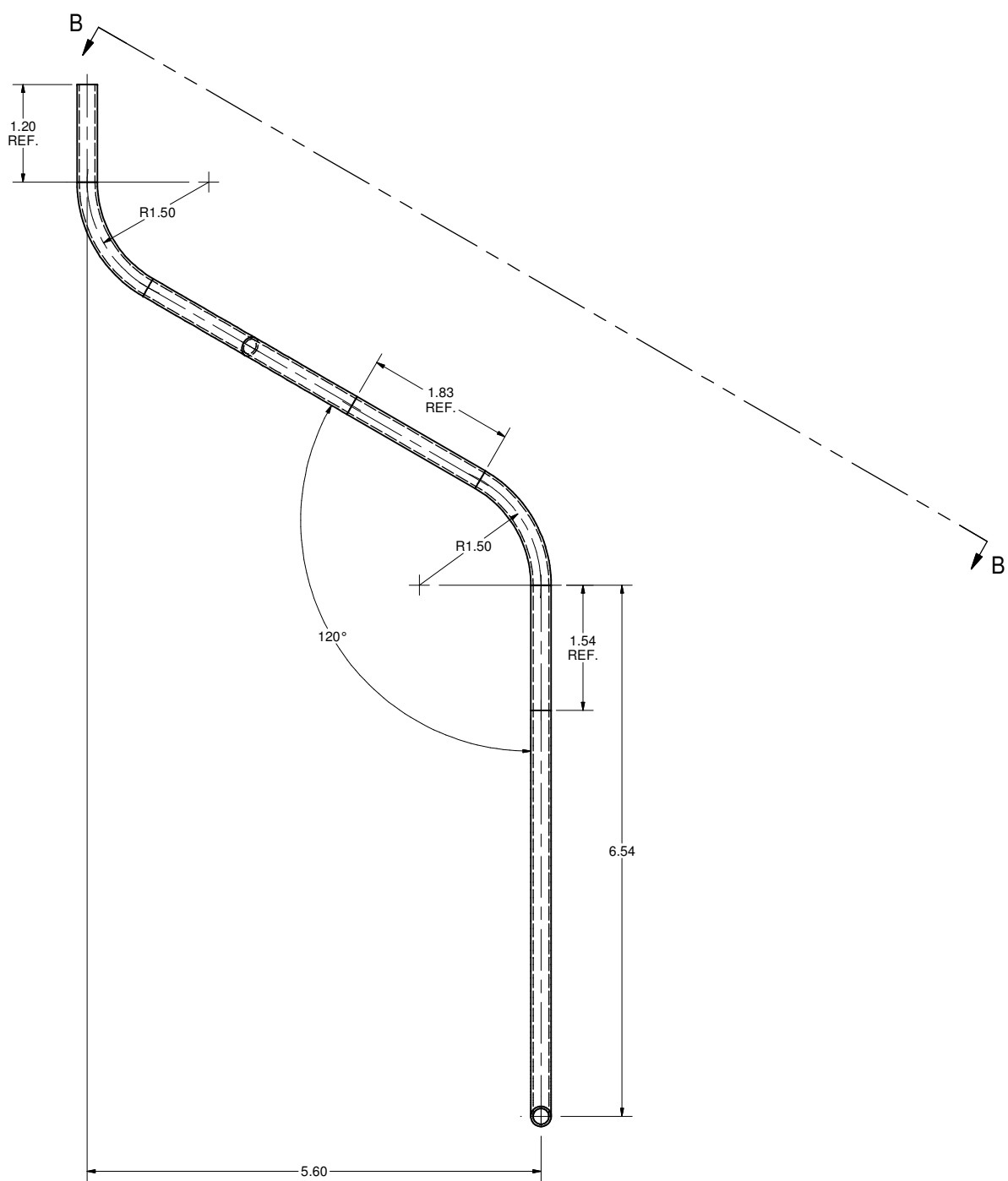
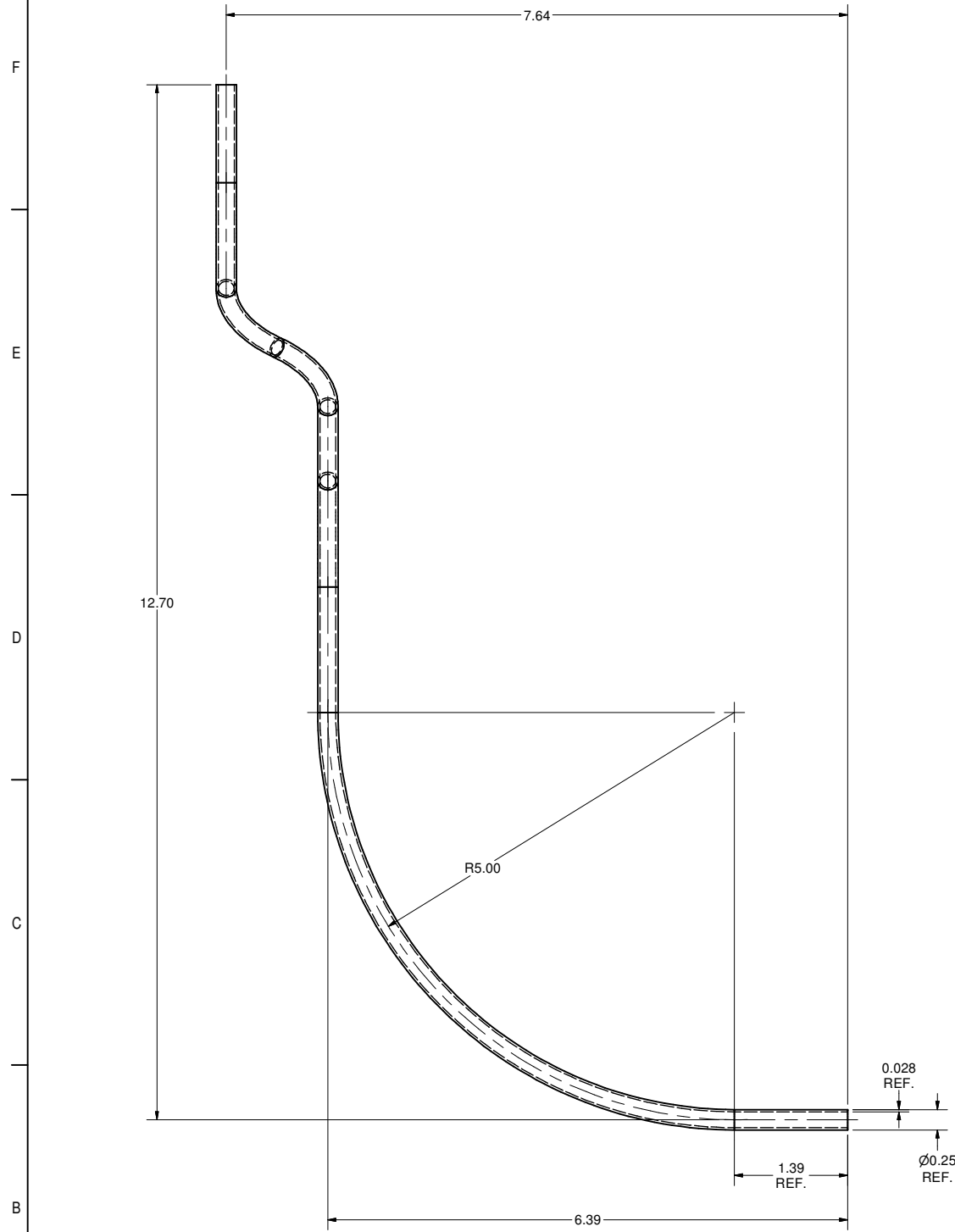
18 **HOM-106 80 K COOLING JUMPER LEFT-OUT**  
 FILE NAME: 7102-061  
 SHEET NO.: 8  
 DFT. SCALE: 1:1  
 MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
 QTY: 2 PER ASSEMBLY  
 NOTES: 1. DEVELOPED LENGTH: L = 17.30 IN.

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.	
								QUANTITY				
	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw										
	7102-061 SH. NO. 8 OF 15	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 Jumpers for 5 K and 80 K Cooling							
		CHECKED BY: EPC		DRAWN BY V.Medjidzade		DRAWN FOR M.Liepe		DATE 7/9/2007		SCALE 	7102-061 SH. NO. 8 OF 15	
REV.		APPROVED BY: EPC										

Release of final PO version for Meyer Tool - July 16, 2007







REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		JUMPER SHAPE CHANGED.	11/05/07	VM

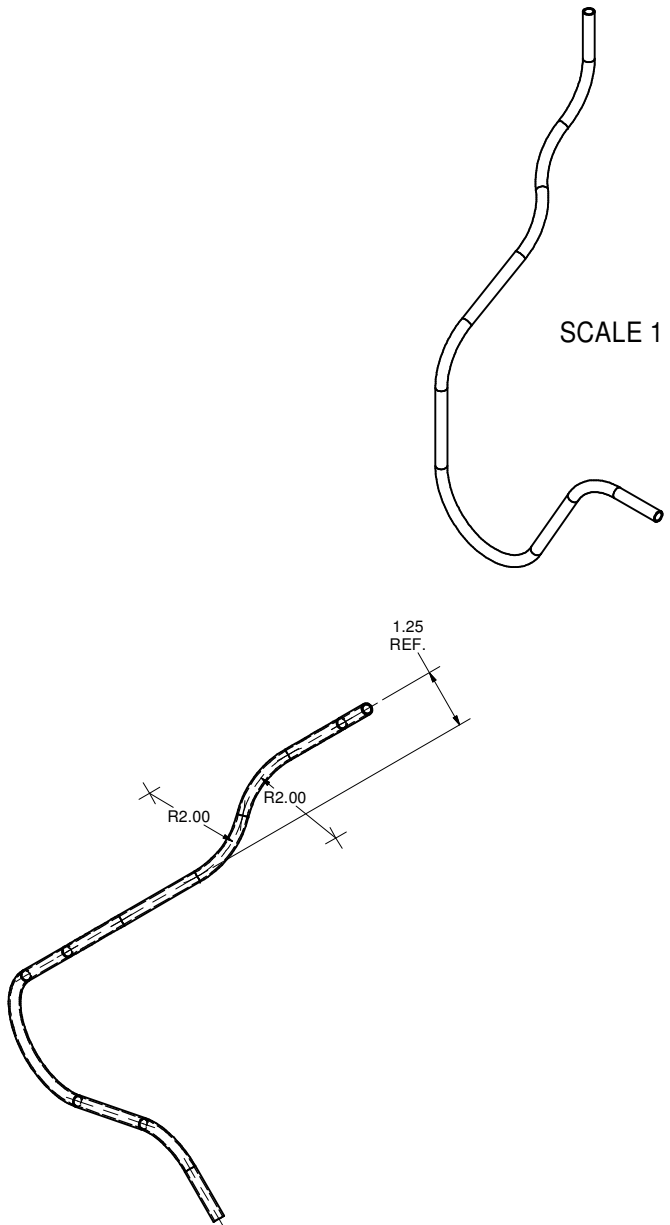
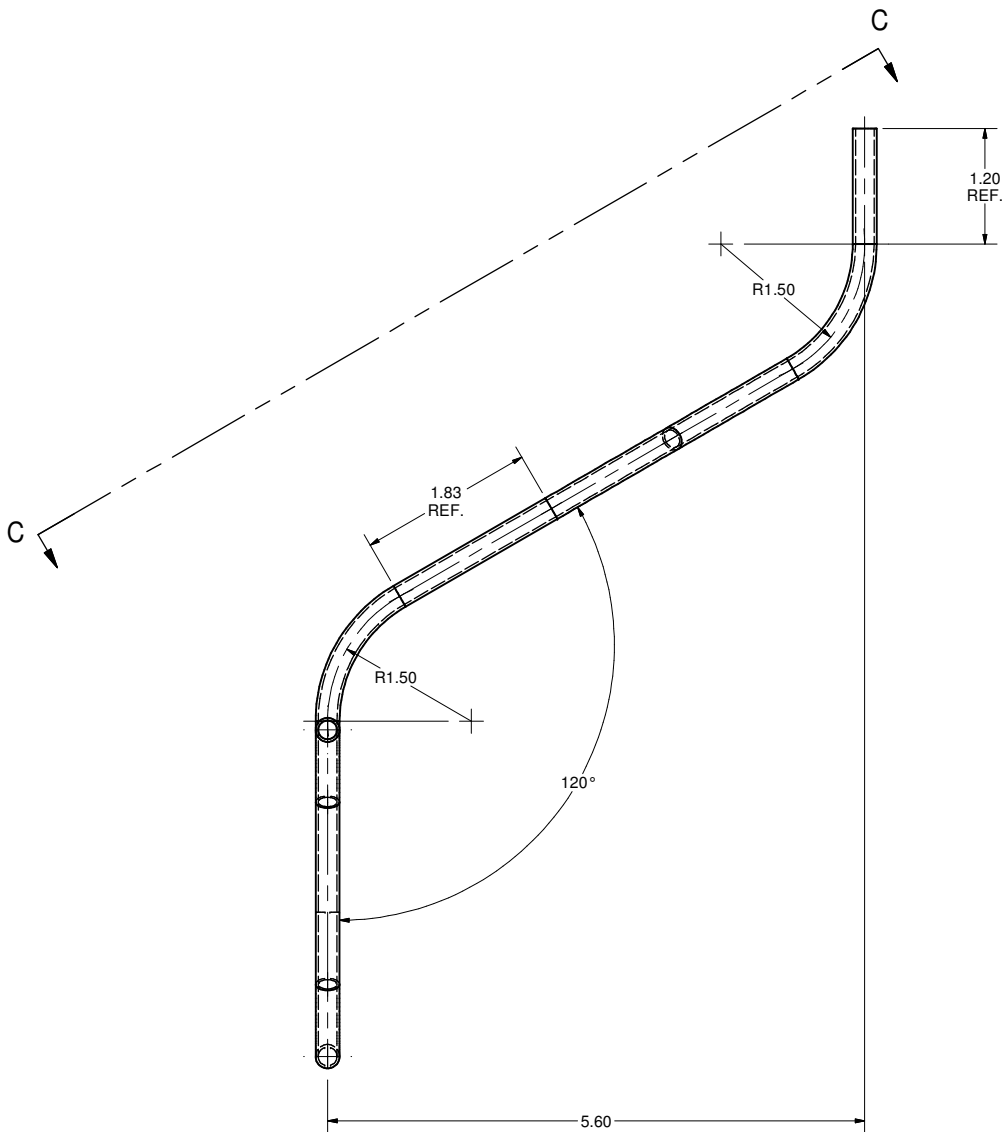
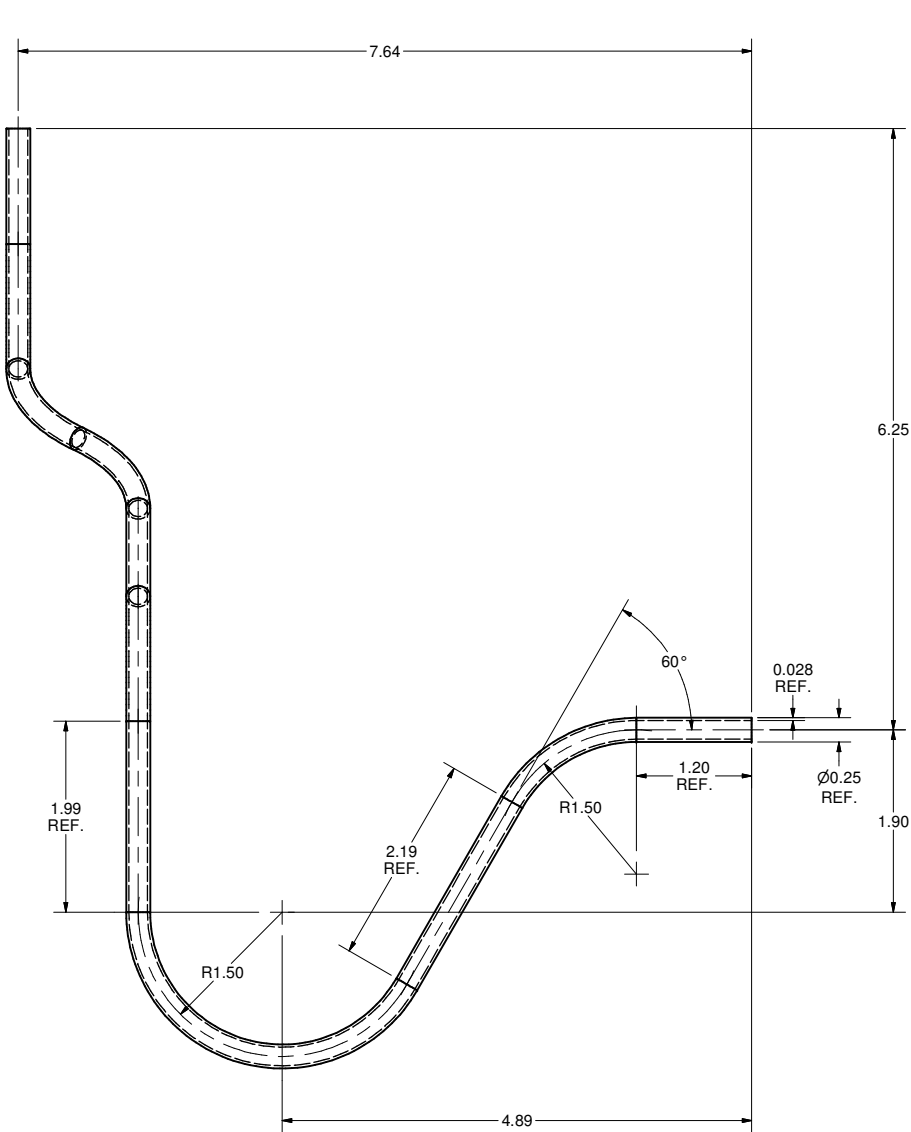


19 HOM-106-HALF 80 K COOLING JUMPER RIGHT-OUT  
FILE NAME: 7102-061  
SHEET NO.: 9  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 1 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 20.2 IN.

Release of final PO version for Meyer Tool - July 16, 2007


	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
	QUANTITY									
	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw								
	7102-061 SH. NO. 9 OF 15	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> CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div> <div>ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling</div>				
CHECKED BY: EPC		DRAWN BY V.Medjdzade								
REV. A	APPROVED BY: EPC									

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		JAMPER SHAPE CHANGED.	11/05/07	VM

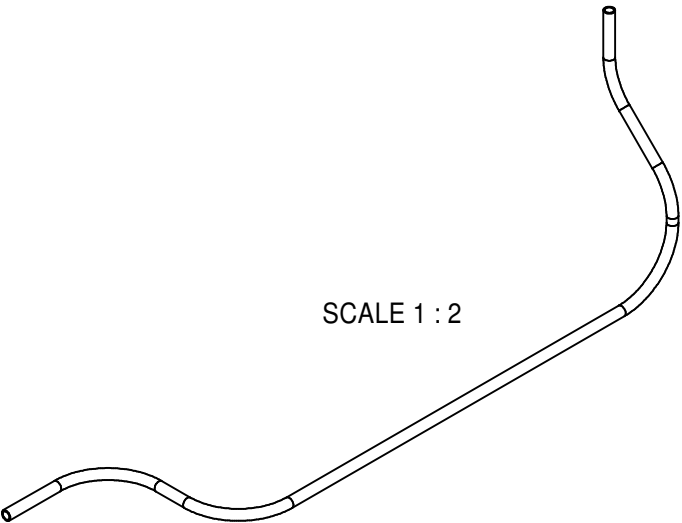


20 HOM-106-HALF 80 K COOLING JUMPER LEFT-OUT  
FILE NAME: 7102-061  
SHEET NO.: 10  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 1 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 20.3 IN.

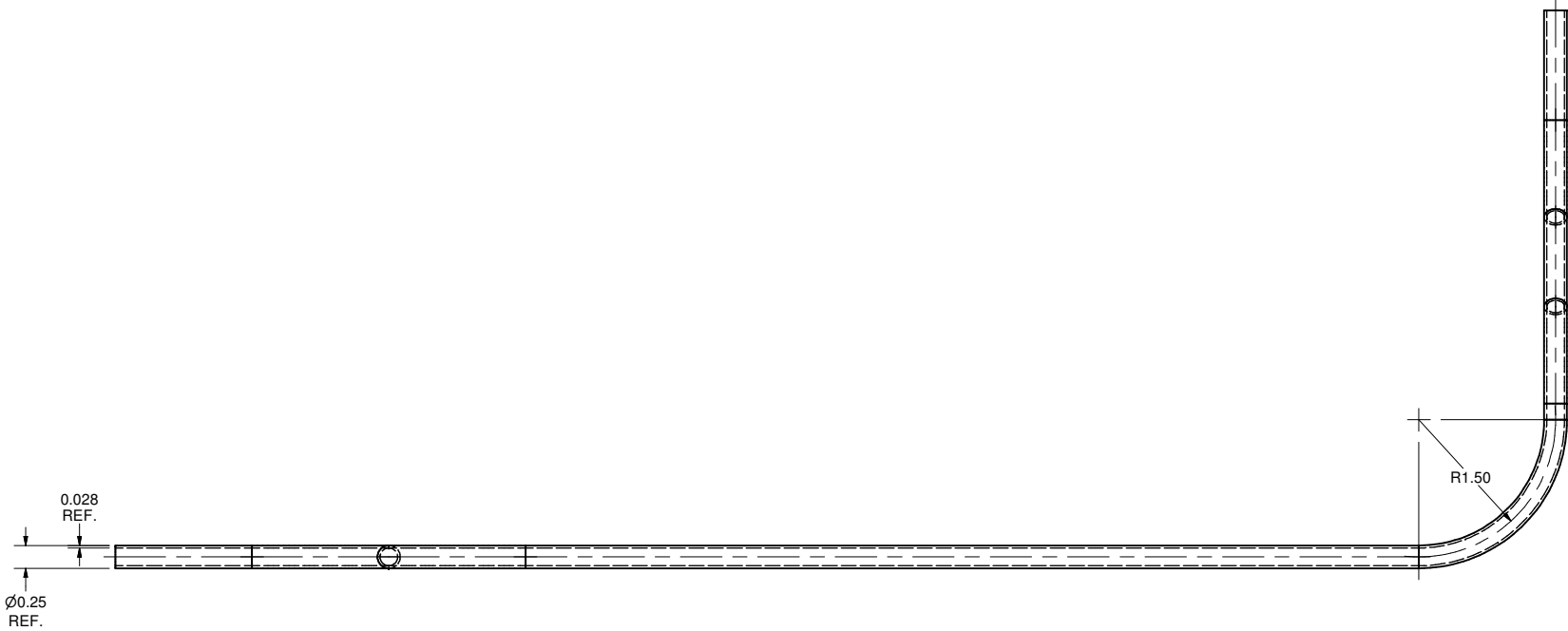
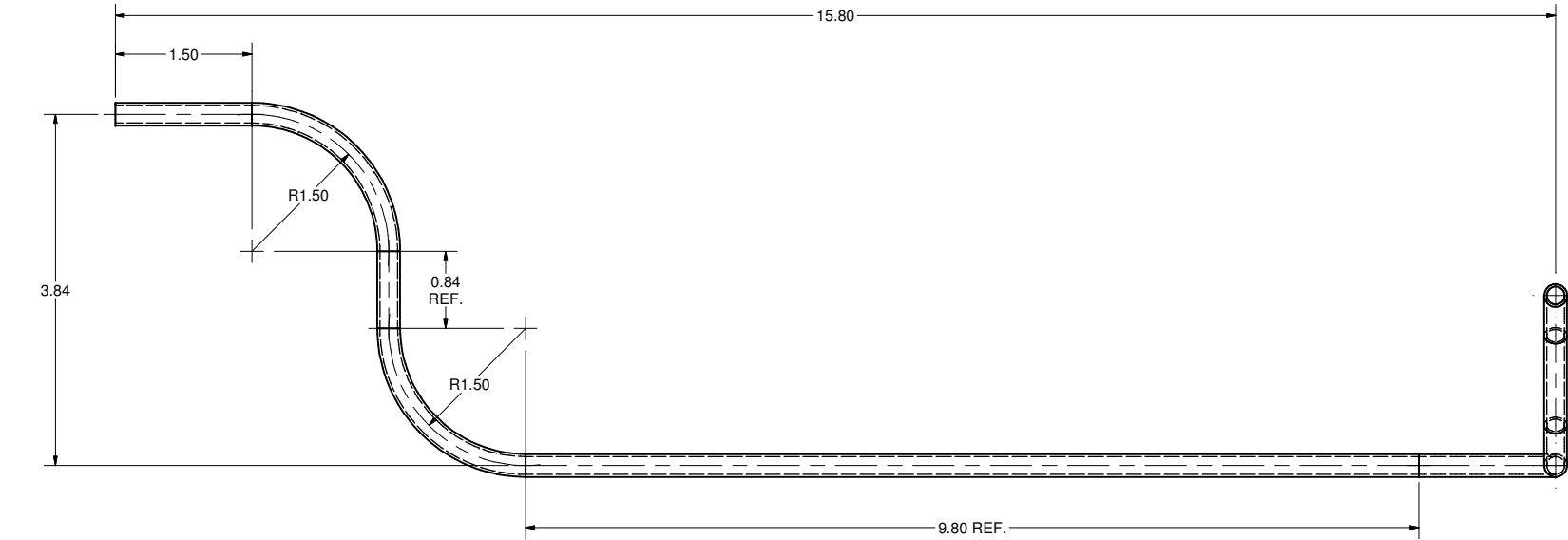
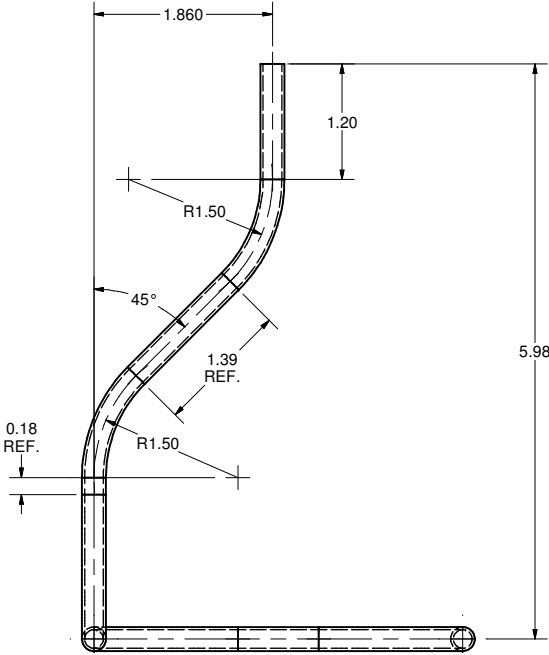
Release of final PO version for Meyer Tool - July 16, 2007

		ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
					QUANTITY				
D	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.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		<div><div> <b>LEPP</b></div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling</div>					
		CHECKED BY: EPC APPROVED BY: EPC		DRAWN BY V.Medjdzade	DRAWN FOR M.Liepe	DATE 7/9/2007	SCALE	D	7102-061 SH. NO. 10 OF 15

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.






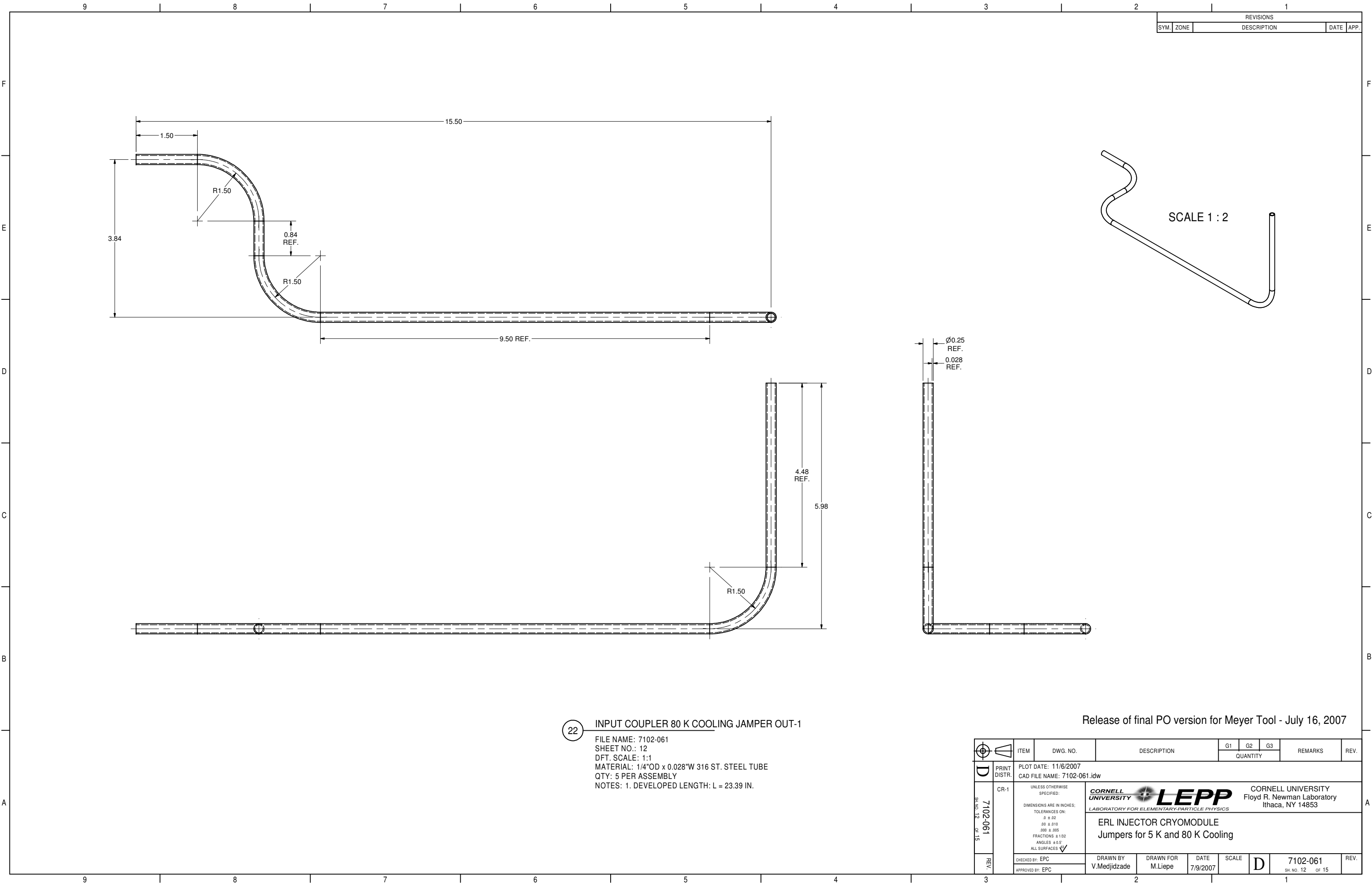
SCALE 1 : 2



21 INPUT COUPLER 80 K COOLING JAMPER IN-1  
 FILE NAME: 7102-061  
 SHEET NO.: 11  
 DFT. SCALE: 1:1  
 MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
 QTY: 5 PER ASSEMBLY  
 NOTES: 1. DEVELOPED LENGTH: L = 24.33 IN.

Release of final PO version for Meyer Tool - July 16, 2007

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.			
		QUANTITY													
D		PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw													
PRINT DISTR.															
7102-061 SH. NO. 11 OF 15		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 		<div><div><b>LEPP</b></div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling</div>										
		CHECKED BY: EPC		DRAWN BY V.Medjidzade		DRAWN FOR M.Liepe		DATE 7/9/2007		SCALE		D		7102-061 SH. NO. 11 OF 15	REV.
		APPROVED BY: EPC													
		REV.													



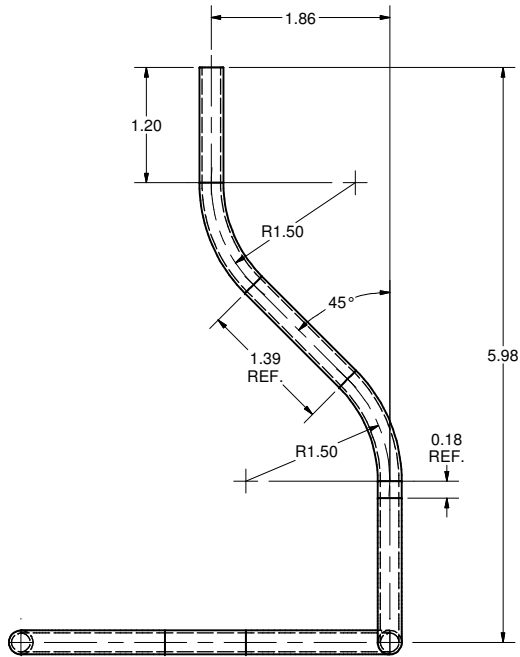
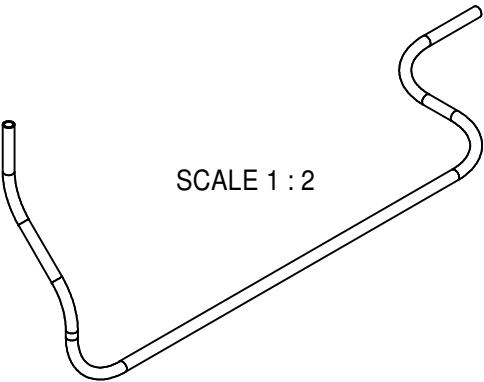
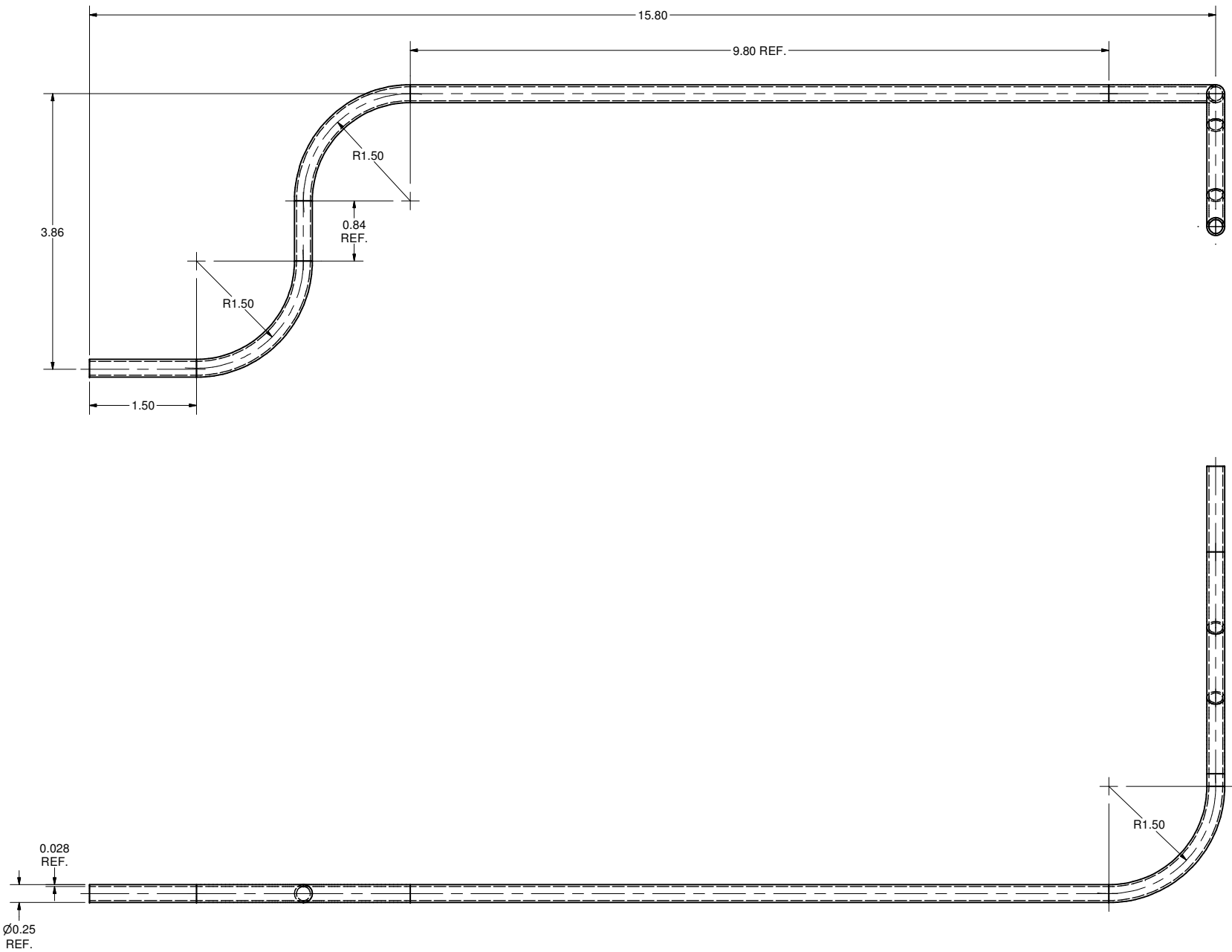
SCALE 1 : 2

22 INPUT COUPLER 80 K COOLING JAMPER OUT-1  
FILE NAME: 7102-061  
SHEET NO.: 12  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 5 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 23.39 IN.

Release of final PO version for Meyer Tool - July 16, 2007






REVISIONS		SYM.		ZONE		DESCRIPTION		DATE		APP.	
ITEM		DWG. NO.		DESCRIPTION		G1		G2		G3	
QUANTITY		REMARKS		REV.							
PRINT		PLOT DATE: 11/6/2007		CAD FILE NAME: 7102-061.idw							
DISTR.		UNLESS OTHERWISE SPECIFIED:		DIMENSIONS ARE IN INCHES:		TOLERANCES ON:		FRACTIONS ±1/32		ANGLES ±0.5°	
CR-1		.0 ±.02		.00 ±.010		.000 ±.005		ALL SURFACES		✓	
7102-061		CORNELL UNIVERSITY		LEPP		LABORATORY FOR ELEMENTARY-PARTICLE PHYSICS		CORNELL UNIVERSITY		Floyd R. Newman Laboratory	
SH. NO. 12 OF 15		ERL INJECTOR CRYOMODULE		Jumpers for 5 K and 80 K Cooling				Ithaca, NY 14853			
REV.		CHECKED BY: EPC		DRAWN BY: V.Medjdzade		DRAWN FOR: M.Liepe		DATE: 7/9/2007		SCALE: D	
		APPROVED BY: EPC								7102-061	
										SH. NO. 12 OF 15	

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

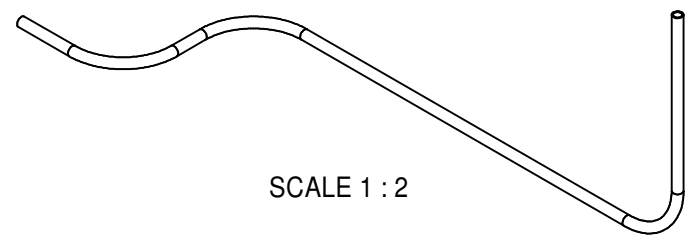
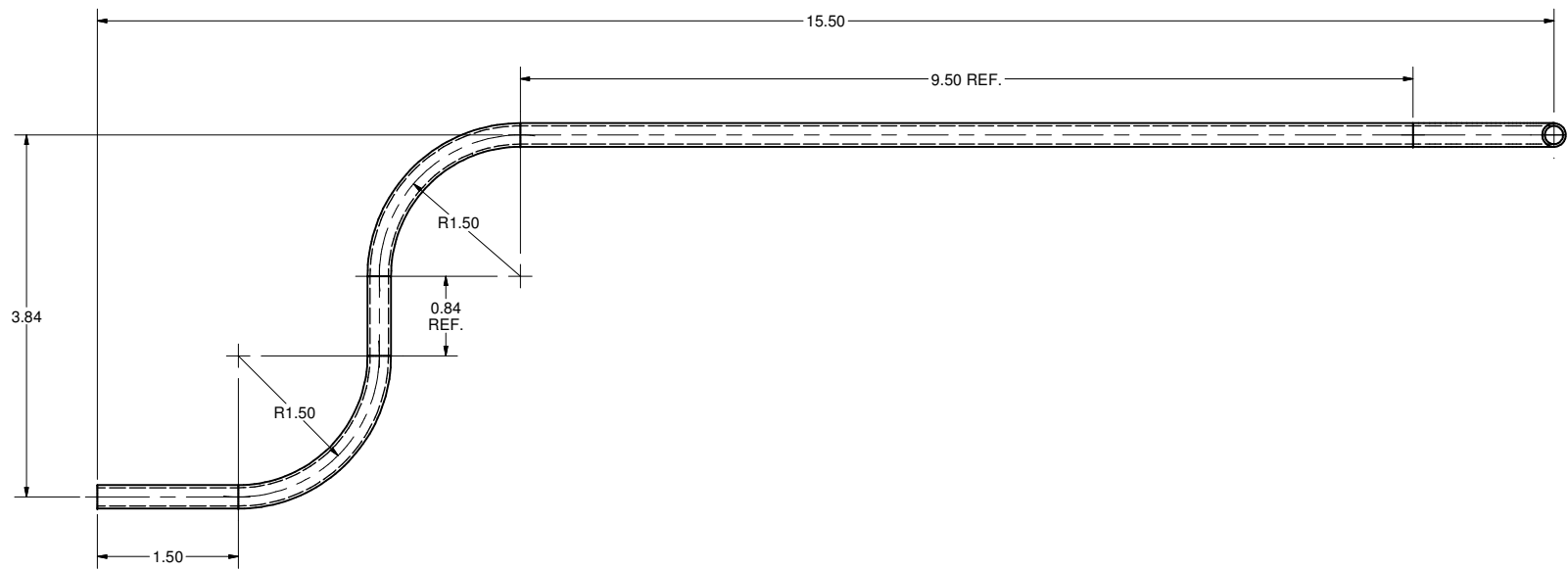


23 INPUT COUPLER 80 K COOLING JAMPER IN-2  
FILE NAME: 7102-061  
SHEET NO.: 13  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 5 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 24.33 IN.

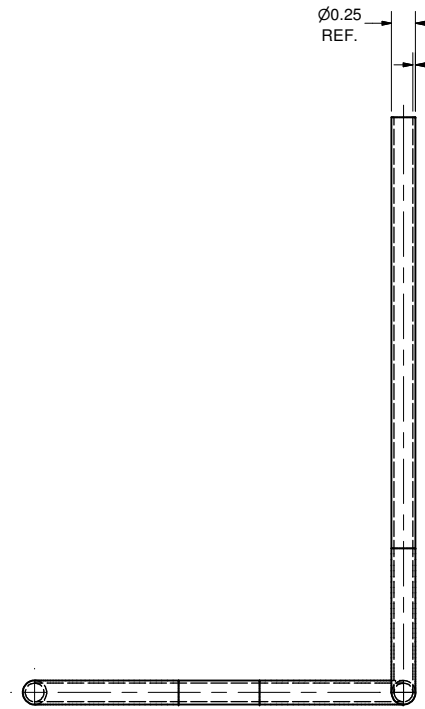
Release of final PO version for Meyer Tool - July 16, 2007

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS		REV.
		QUANTITY										
	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.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 			<div><div>CORNELL UNIVERSITY Floyd R. Newman Laboratory Ithaca, NY 14853</div></div> <div>ERL INJECTOR CRYOMODULE Jumpers for 5 K and 80 K Cooling</div>							
SH. NO. 13 OF 15	7102-061											
	REV.	CHECKED BY: EPC  APPROVED BY: EPC		DRAWN BY V.Medjdzade		DRAWN FOR M.Liepe		DATE 7/9/2007		SCALE		7102-061  SH. NO. 13 OF 15

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.



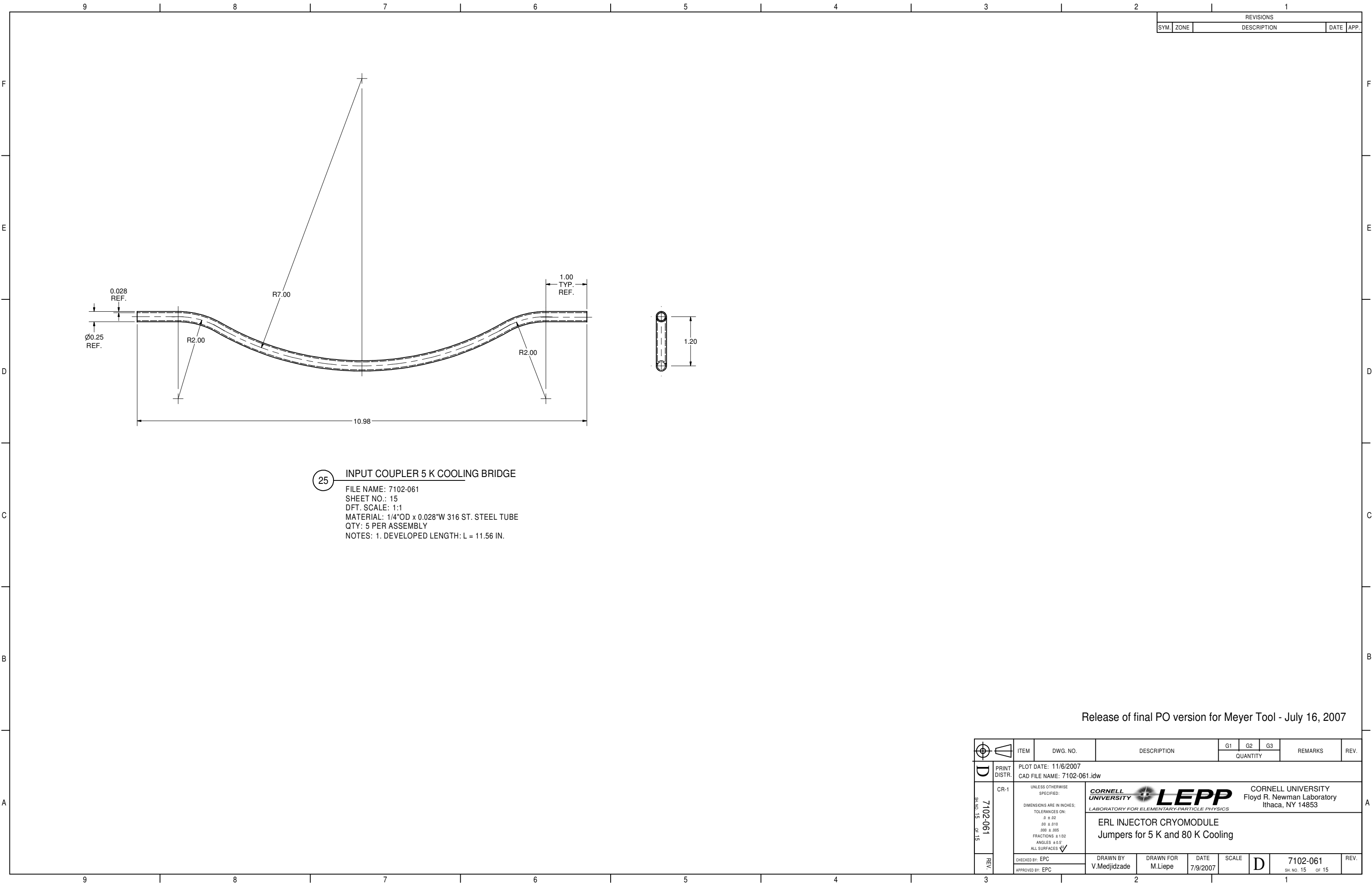
SCALE 1 : 2



Release of final PO version for Meyer Tool - July 16, 2007

24 INPUT COUPLER 80 K COOLING JAMPER OUT-2  
FILE NAME: 7102-061  
SHEET NO.: 14  
DFT. SCALE: 1:1  
MATERIAL: 1/4"OD x 0.028"W 316 ST. STEEL TUBE  
QTY: 5 PER ASSEMBLY  
NOTES: 1. DEVELOPED LENGTH: L = 23.39 IN.

	ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
	QUANTITY									
PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw									
7102-061 SH. NO. 14 OF 15	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 Jumpers for 5 K and 80 K Cooling								
REV.	CHECKED BY: EPC APPROVED BY: EPC	DRAWN BY V.Medjdzade	DRAWN FOR M.Liepe	DATE 7/9/2007	SCALE D	7102-061 SH. NO. 14 OF 15		REV.		



REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE APP.

		ITEM	DWG. NO.	DESCRIPTION			G1	G2	G3	REMARKS	REV.
					QUANTITY						
	PRINT DISTR.	PLOT DATE: 11/6/2007 CAD FILE NAME: 7102-061.idw									
	7102-061 SH. NO. 15 OF 15	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 Jumpers for 5 K and 80 K Cooling		
REV.	CHECKED BY: EPC	DRAWN BY V.Medjizade			DRAWN FOR M.Liepe		DATE 7/9/2007		SCALE 	7102-061 SH. NO. 15 OF 15	REV.
		APPROVED BY: EPC									