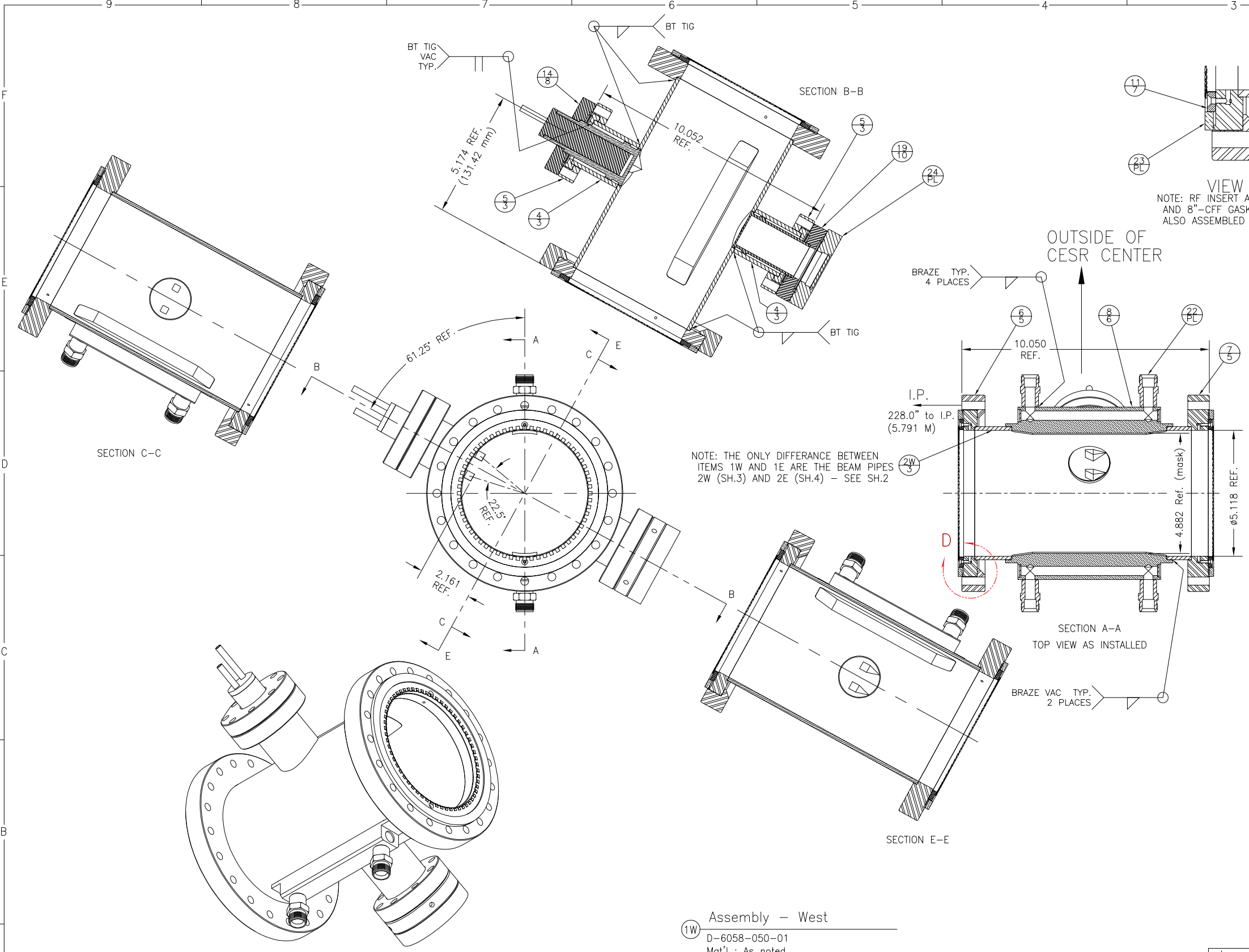


REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		MAJOR REVISIONS	8/13/01	Y.L.



25	SH. 9	Cooling Tube 2			1	Use in Item 14
24	SH. 1	3-3/8" Viewport	1	1		Purchase MDC 450003 or Equiv.
23	6046-012-P13	8"-CFF Gasket, Phase III IR	2	2		
22	SH. 1	Water Fitting	4	4		
21	SH. 10	Window Body			1	
20	SH. 10	3-3/8" Double-Sided Flange			1	
19	SH. 10	Window Assembly	1	1	X	
18	SH. 9	Cooling Tube			2	
17	SH. 9	Cooling Plug			1	
16	SH. 9	Mirror Flange			1	
15	SH. 9	Mirror			1	
14	SH. 8	Mirror Assembly	1	1	X	
13	SH. 7	RF Finger Stock			1	Instrument Specities Inc. PN: 970223-02X
12	SH. 7	RF Insert			1	
11	SH. 7	RF Insert Assembly	2	2	X	
10	SH. 6	Cooling Bar Disk			2	
9	SH. 6	Cooling Bar			1	
8	SH. 6	Cooling Bar, Sub-Asm.	2	2	X	
7	SH. 5	8" Non-Rot Flange	1	1		
6	SH. 5	8" Rot Flange	1	1		
5	SH. 3	3-3/8" Flange			1	
4	SH. 3	Detector Port Tube			1	
3		PART OBSOLETE				
2E	SH. 4	Beam Pipe East			1	
2W	SH. 3	Beam Pipe West	1			
1E	SH. 2	Assembly East			X	
1W	SH. 1	Assembly West	X			

(1W) Assembly - West
 D-6058-050-01
 Mat'l : As noted
 Scale : Half
 Qn'ty : As requested

RELEVANT APPROVALS REQUIRED BEFORE FABRICATION.			
OK	DATE	N/A	
Y.L.	4/4/00		
DHR	4/4/00		
MGB	4/3/00		
DLR	4/4/00		
Y.L.	4/4/00		

VACUUM PROPERTIES:
 SYNCH. RAD. POWER:
 H.O.M. HEATING:
 APERTURE CHECKOUT:
 INSTALLATION PROCEDURE:

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

PLOT DATE 8/13/01
 CAD FILE NAME ASM-6058-050-WEST

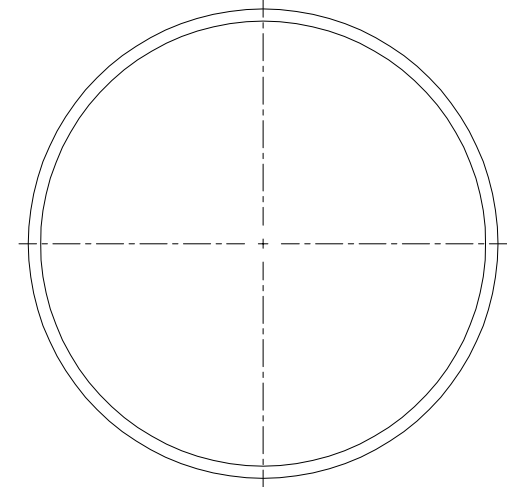
UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES ON:
 .00 ±.010
 .000 ±.005
 FRACTIONS ±1/64
 ANGLES ±0.5°
 ALL SURFACES

Cornell University
 Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853

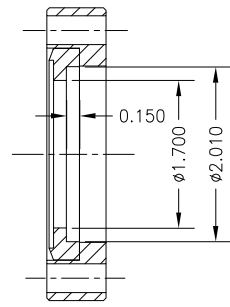
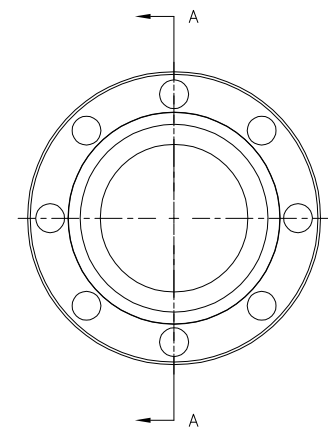
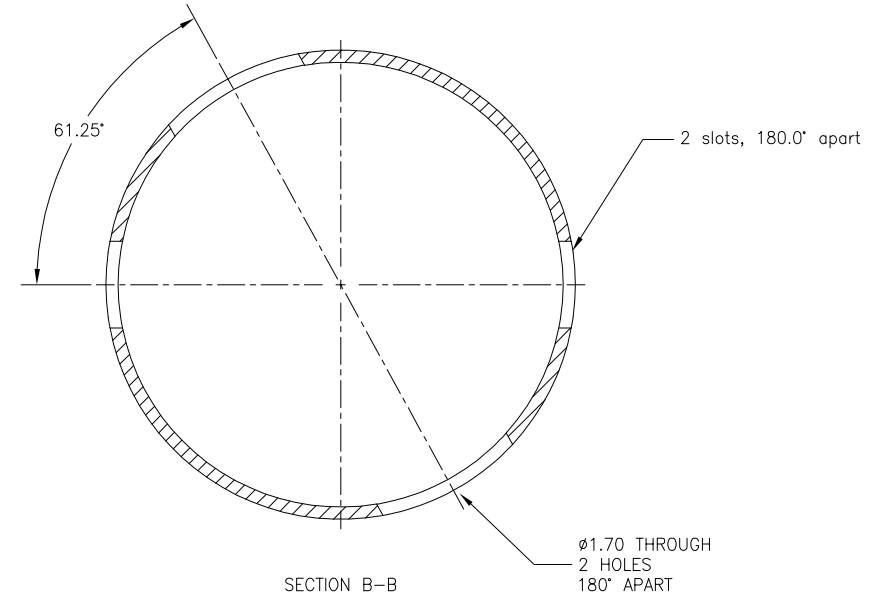
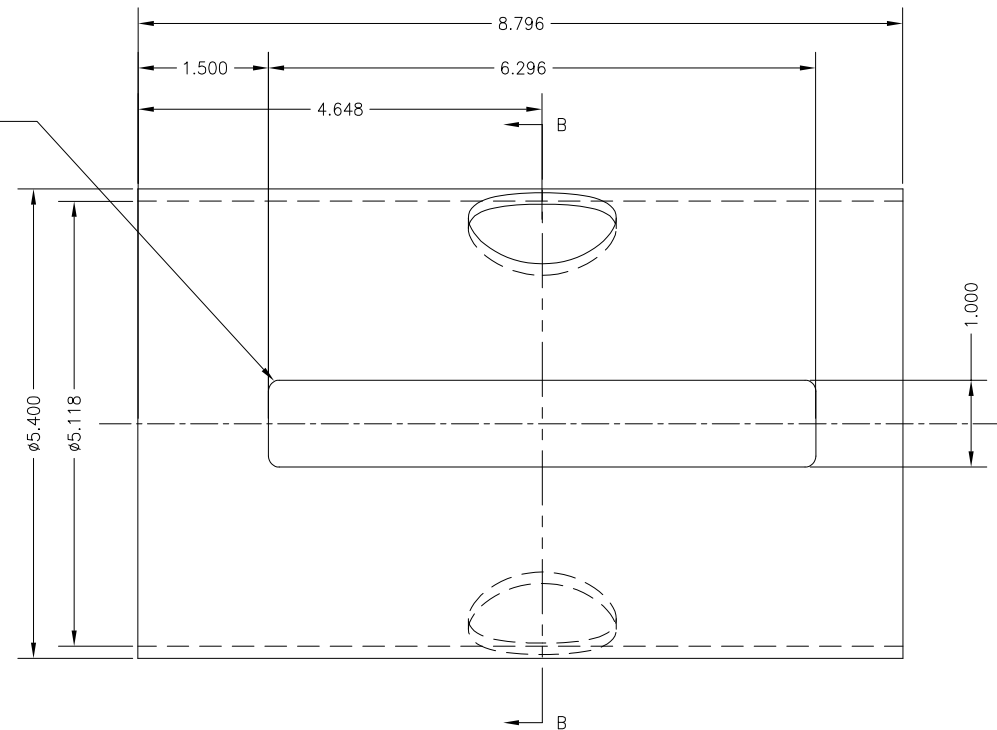
Phase III IR Beam Pipe at 6m - West
 Assembly with Bremsstrahlung Detector

CHECKED BY	Yulin Li	DRAWN BY	Yulin Li	DRAWN FOR	Yulin Li	DATE	4/1/00	SCALE	HALF	D	6058-050	REV.	A
APPROVED BY	Yulin Li										SH. NO. 1	CONT. ON 2	

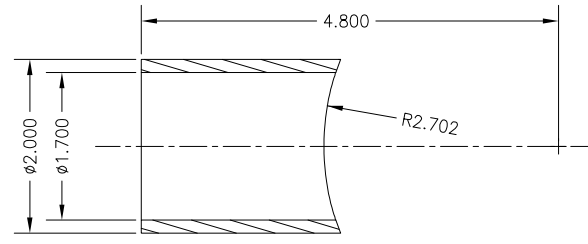
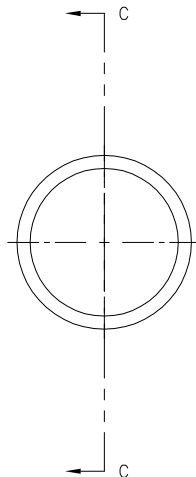
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		MAJOR REVISIONS	8/13/01	Y.L.



R.125 at 4 Corners



SECTION A-A



SECTION C-C

②W Beam Pipe West
 D-6058-050-03
 Mat'l : CD10100 Copper
 Scale : Full
 Qn'ty : 1 per Assembly West
 (USE ONLY IN WEST ASM.)
 NOTE: ITEM 2W (SH.3) DIFFERS FROM ITEM 2E (SH.4) IN THE ORIENTATION OF THE 1.70 HOLES.

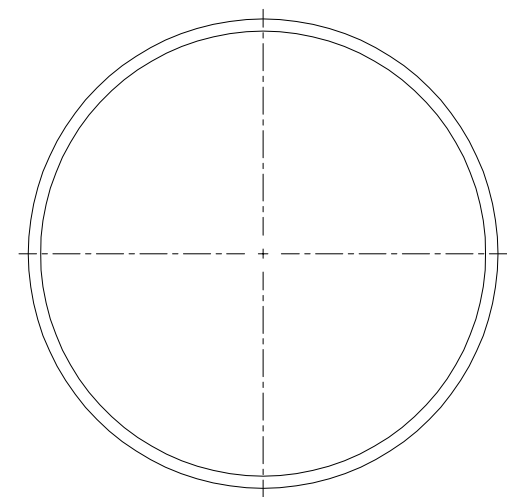
⑤ 3-3/8" Rot. Flange
 D-6058-050-03
 Mat'l : Make from Varian #F03380000R
 Scale : Full
 Qn'ty : 2 per assembly

④ Detector Port Tube
 D-6058-050-03
 Mat'l : Type 304L SST
 Scale : Full
 Qn'ty : 2 per assembly

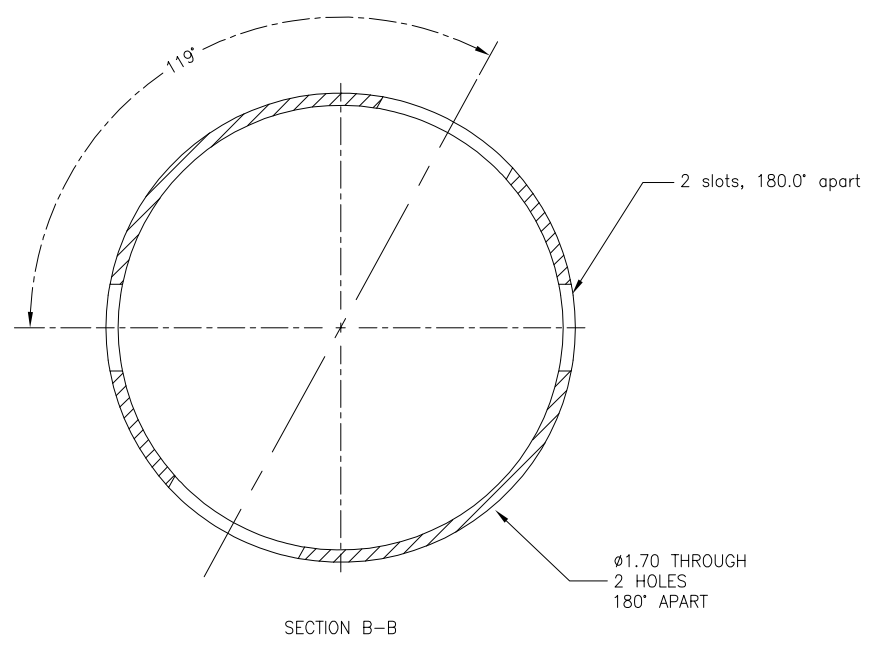
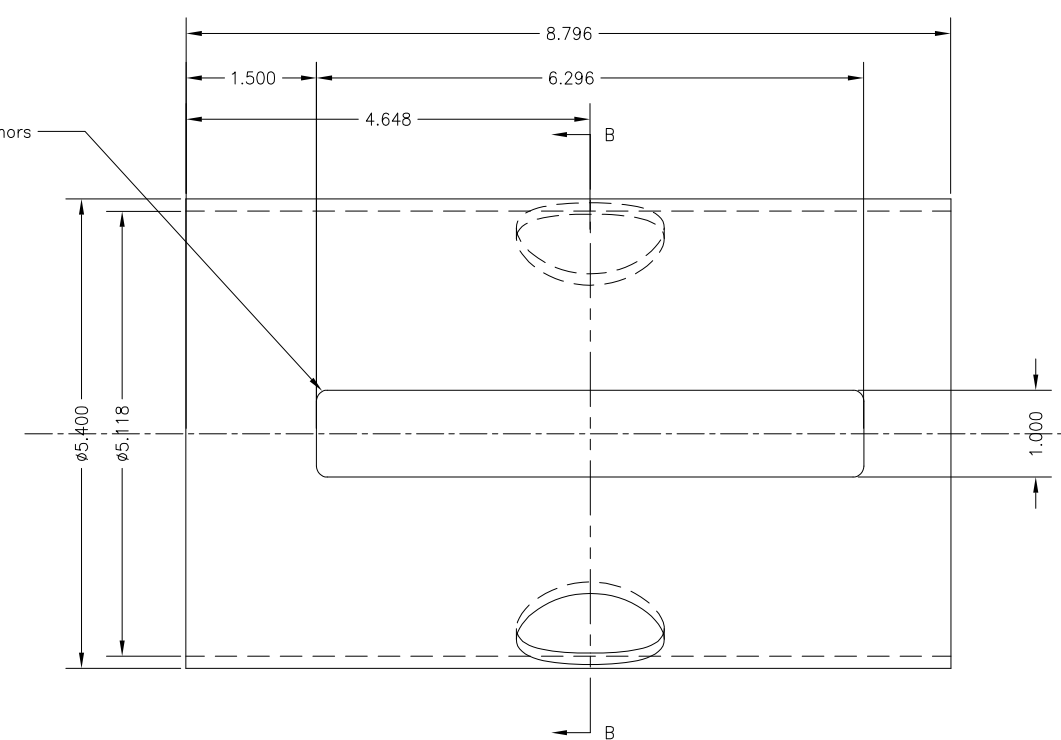
FOR MACHINING LUBRICANT USE ONLY
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40
 OR EQUIVALENT APPROVED BY CORNELL LNS.

REV.	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
				QUANTITY					
D	PRINT		PLOT DATE 8/13/01						
	DISTR.		CAD FILE NAME ASM-6058-050-WEST						
SH. NO. 3	6058-050	CR-1	<input type="checkbox"/> Cornell University Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853 Phase III IR Beam Pipe at 6m --- Beam pipe and Cooling Bar						
CONT. ON 4	BJ-1								
			UNLESS OTHERWISE SPECIFIED						
			DIMENSIONS ARE IN INCHES						
			TOLERANCES ON:						
			.00 ±0.010						
			.000 ±0.005						
			FRACTIONS ±1/64						
			ANGLES ±0.5°						
			ALL SURFACES						
	CHECKED BY	Yulin Li	DRAWN BY	Yulin Li	DRAWN FOR	Yulin Li	DATE	4/1/00	
	APPROVED BY	Yulin Li	SCALE	FULL	D	6058-050	REV.	A	
			SH. NO. 3	CONT. ON 4					

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		MAJOR REVISIONS	8/13/01	Y.L.



R.125 at 4 Corners

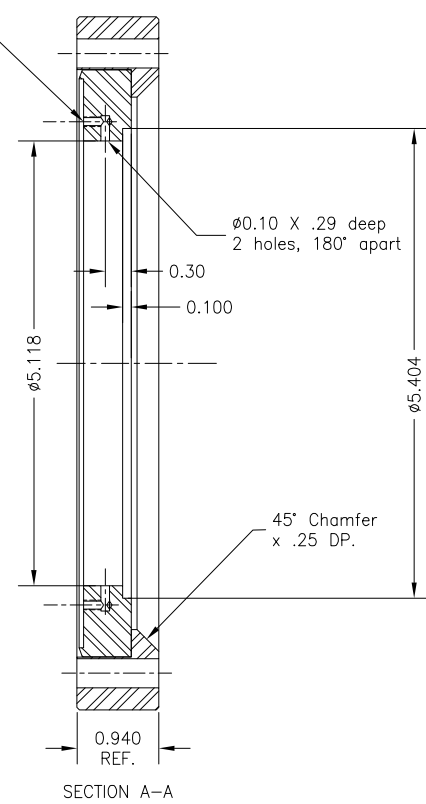
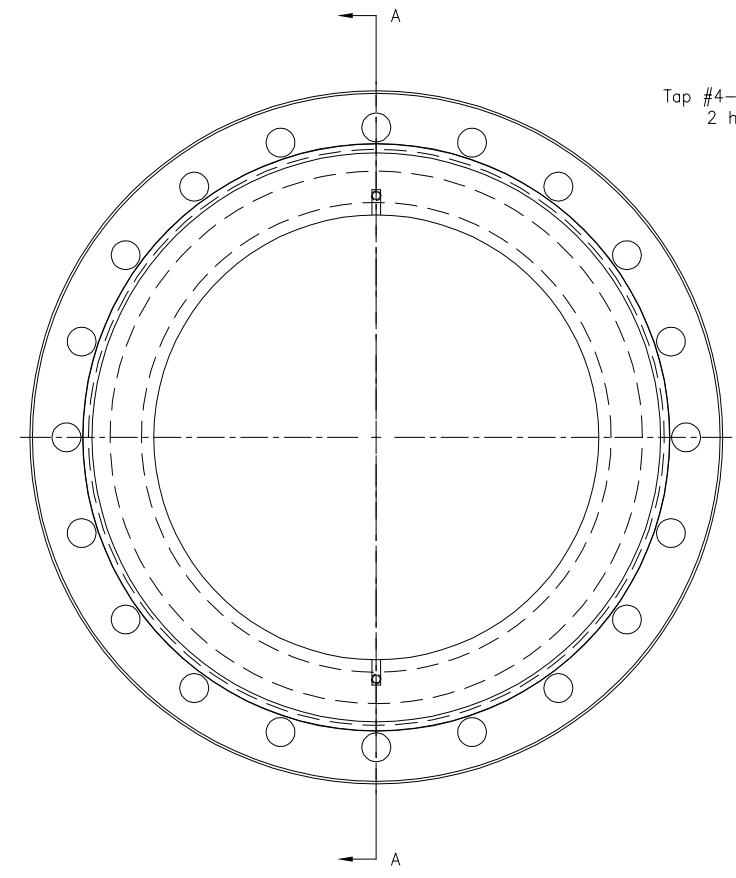


2E Beam Pipe East
 D-6058-050-04
 Mat'l : CD10100 Copper
 Scale : Full
 Qn'ty : 1 per assembly (USE IN 'EAST ASM. ONLY)
 NOTE: ITEM 2E (SH.4) DIFFERS FROM ITEM 2W (SH.3) IN THE ORIENTATION OF THE 1.70 HOLES.

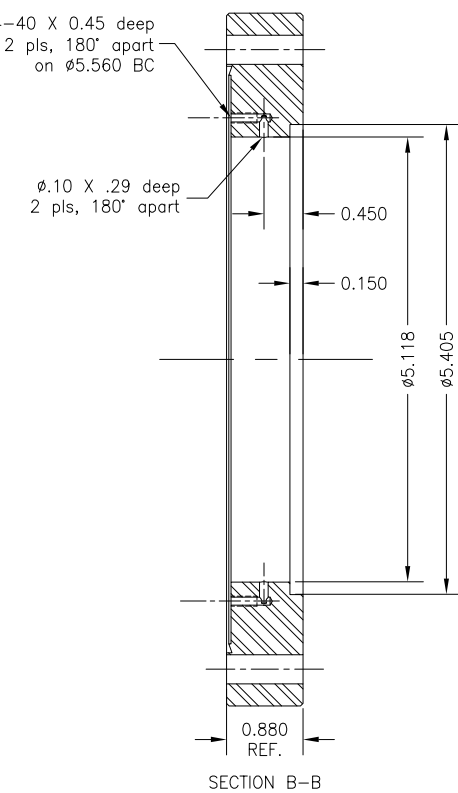
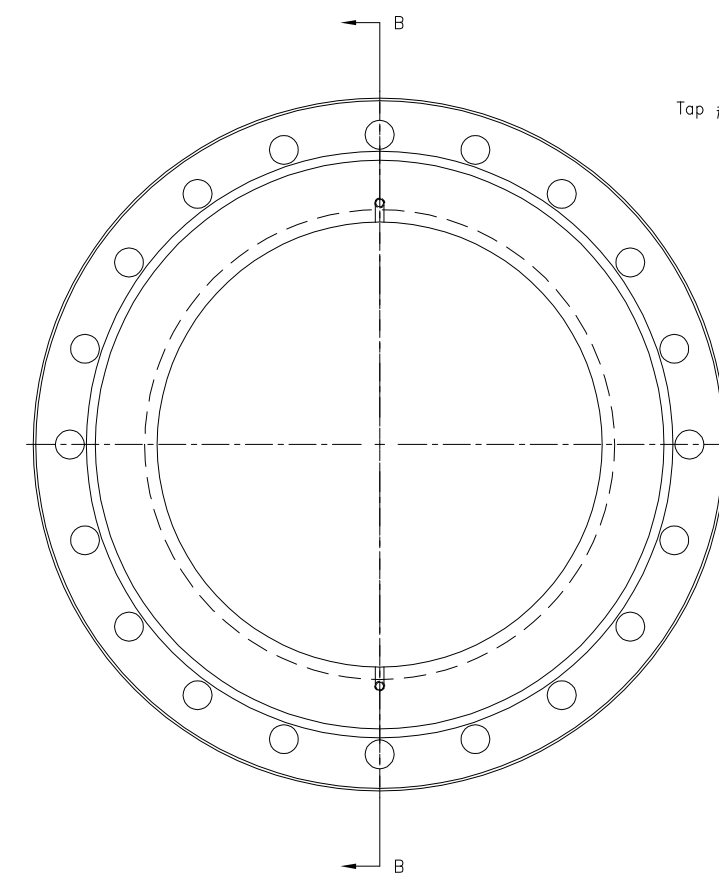
FOR MACHINING LUBRICANT USE ONLY
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40
 OR EQUIVALENT APPROVED BY CORNELL LNS.

ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
			QUANTITY					
PRINT DISTR.		PLOT DATE 8/13/01 CAD FILE NAME ASM-6058-050-EAST						
6058-050 SH. NO. 4 CONT. ON 5	CR-1	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: .00 ±.010 .000 ±.005 FRACTIONS ±1/64 ANGLES ±0.5° ALL SURFACES	<input type="checkbox"/> Cornell University Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853			Phase III IR Beam Pipe at 6m --- Beam Pipe East		
	BJ-1							
REV. A		CHECKED BY Yulin Li APPROVED BY Yulin Li	DRAWN BY Yulin Li	DRAWN FOR Yulin Li	DATE 4/1/00	SCALE FULL	D 6058-050 SH. NO. 4 CONT. ON 5	REV. A

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.
A		MAJOR REVISIONS	8/13/01	Y.L.



⑥ 8" Rot. Flange
 D-6058-050-05
 Mat'l : Varian PN# F08000000R
 Scale : Full
 Qn'ty : 1 per assembly

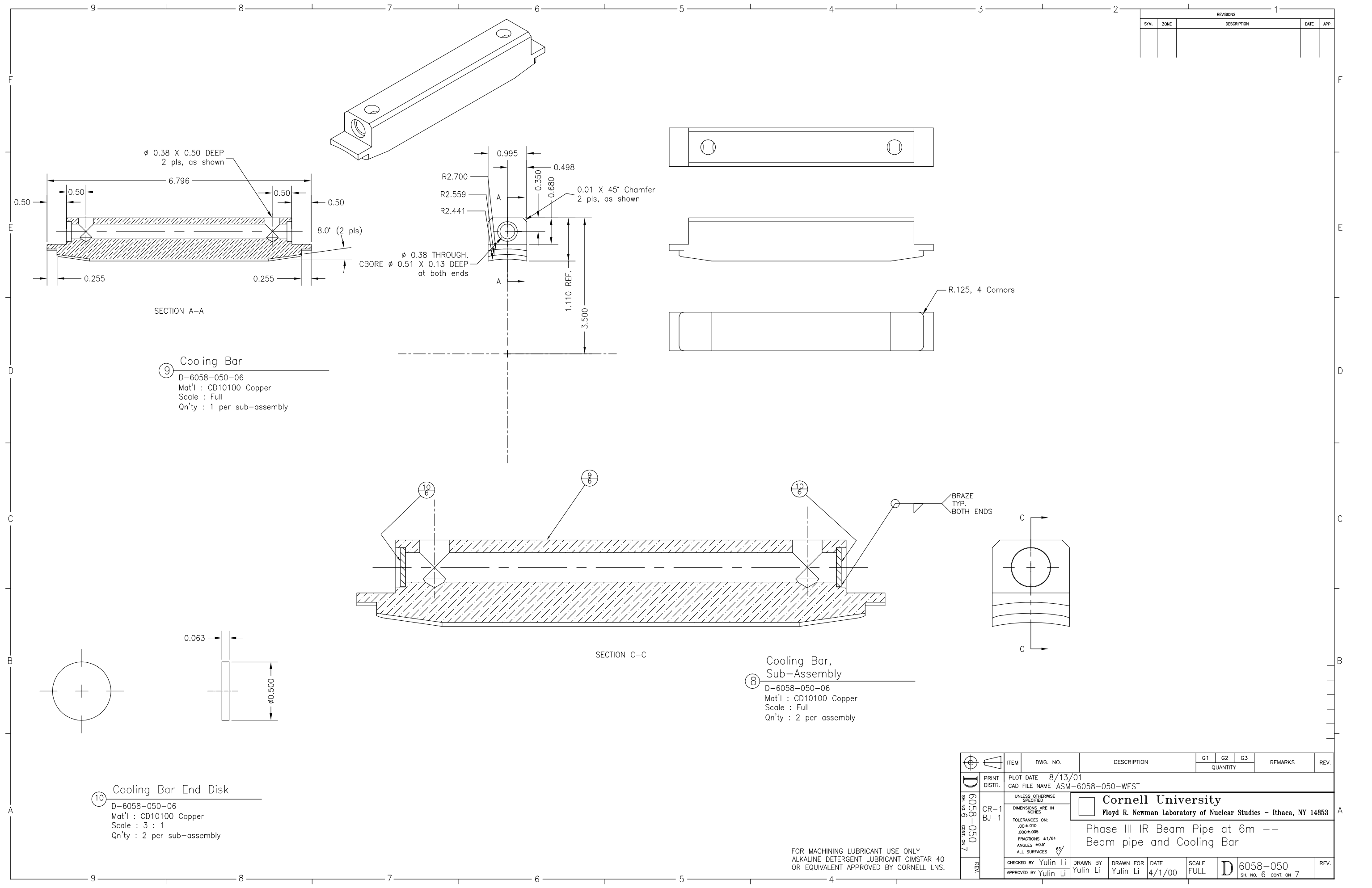


⑦ 8" Non-Rot. Flange
 D-6058-050-05
 Mat'l : Varian PN# F08000000
 Scale : Full
 Qn'ty : 1 per assembly

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

REV.	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.	
				QUANTITY					
D	PRINT		PLOT DATE 8/13/01						
	DISTR.		CAD FILE NAME ASM-6058-050-WEST						
			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 of Nuclear Studies - Ithaca, NY 14853						
			Phase III IR Beam Pipe at 6m -- Flanges						
			CHECKED BY Yulin Li	DRAWN BY Yulin Li	DRAWN FOR Yulin Li	DATE 4/1/00	SCALE FULL	D 6058-050	REV. A
			APPROVED BY Yulin Li					SH. NO. 5 CONT. ON 6	

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



9 Cooling Bar
 D-6058-050-06
 Mat'l : CD10100 Copper
 Scale : Full
 Qn'ty : 1 per sub-assembly

8 Cooling Bar, Sub-Assembly
 D-6058-050-06
 Mat'l : CD10100 Copper
 Scale : Full
 Qn'ty : 2 per assembly

10 Cooling Bar End Disk
 D-6058-050-06
 Mat'l : CD10100 Copper
 Scale : 3 : 1
 Qn'ty : 2 per sub-assembly

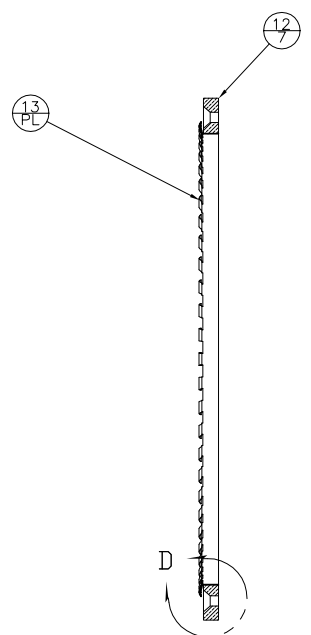
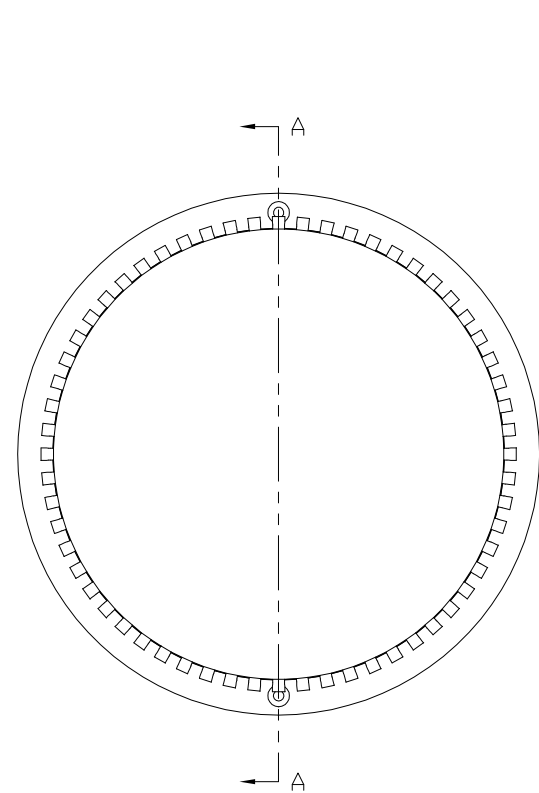
FOR MACHINING LUBRICANT USE ONLY
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40
 OR EQUIVALENT APPROVED BY CORNELL LNS.

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

PRINT DATE	8/13/01
CAD FILE NAME	ASM-6058-050-WEST
UNLESS OTHERWISE SPECIFIED	
DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
	.00 ±.010
	.000 ±.005
	FRACTIONS ±1/64
	ANGLES ±0.5°
	ALL SURFACES
CHECKED BY	Yulin Li
DRAWN BY	Yulin Li
DRAWN FOR	Yulin Li
DATE	4/1/00
SCALE	FULL
DWG. NO.	D 6058-050
SH. NO.	6
CONT. ON	7

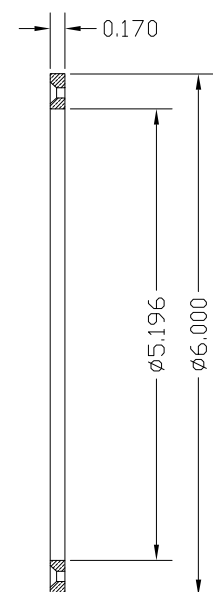
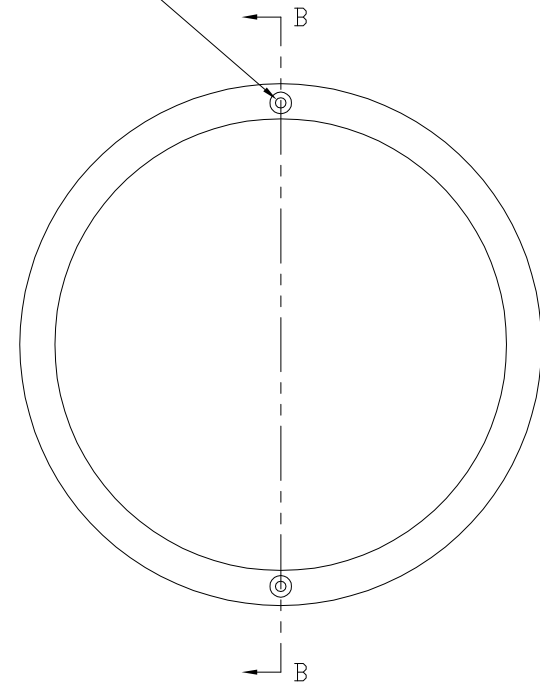
Cornell University
 Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853
 Phase III IR Beam Pipe at 6m --
 Beam pipe and Cooling Bar

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.

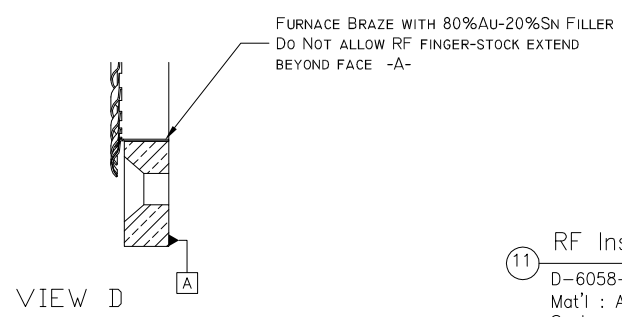


SECTION A-A

Ø 0.120 THROUGH.
CSINK Ø 0.250 X 82°
2 holes, 180° apart on Ø5.560BC



SECTION B-B



FURNACE BRAZE WITH 80%AU-20%SN FILLER
DO NOT ALLOW RF FINGER-STOCK EXTEND
BEYOND FACE -A-

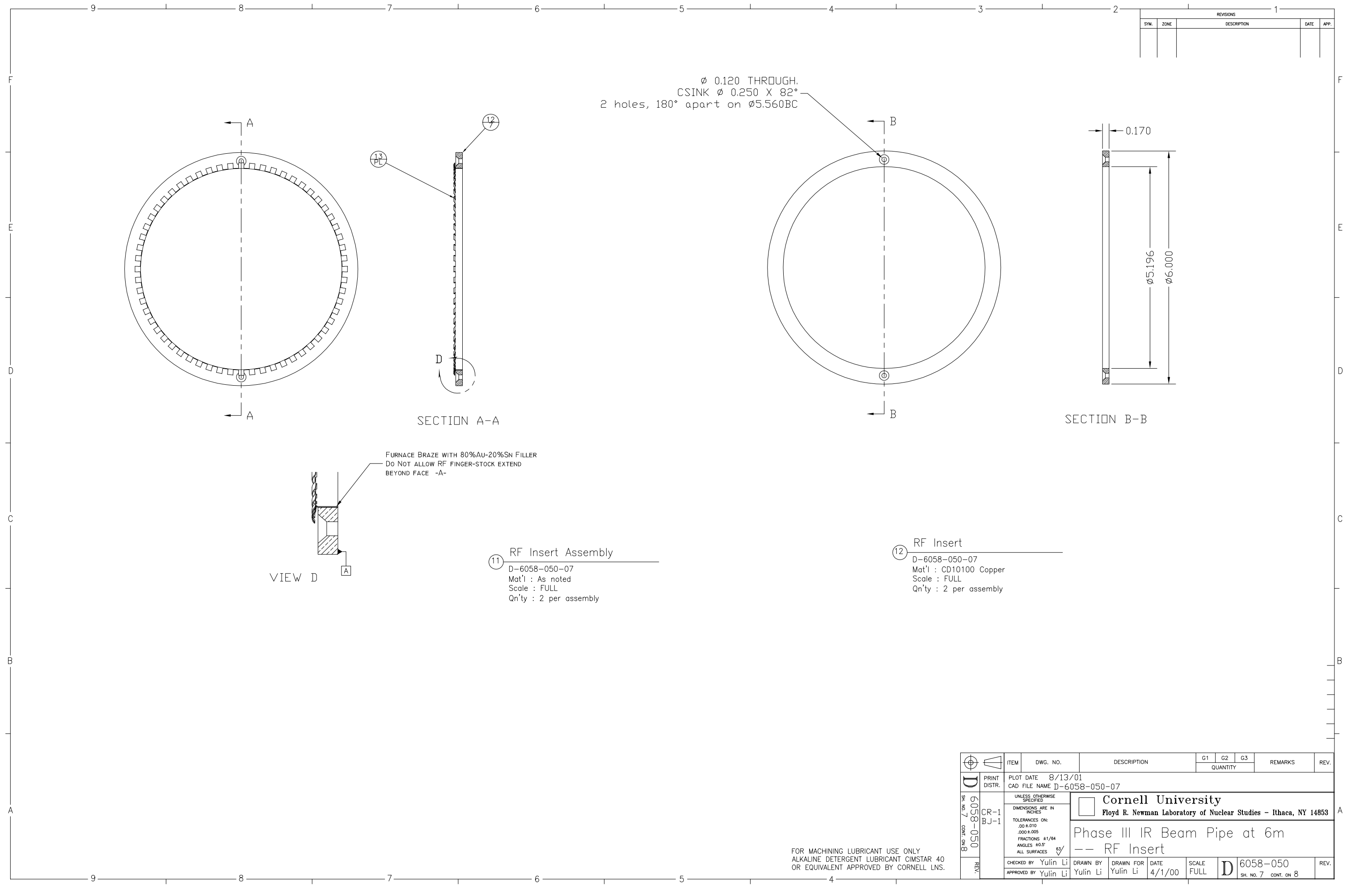
VIEW D

11 RF Insert Assembly
D-6058-050-07
Mat'l : As noted
Scale : FULL
Qn'ty : 2 per assembly

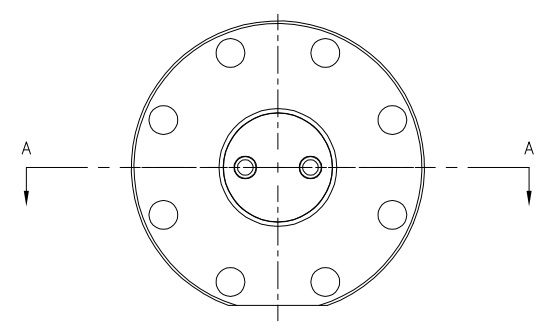
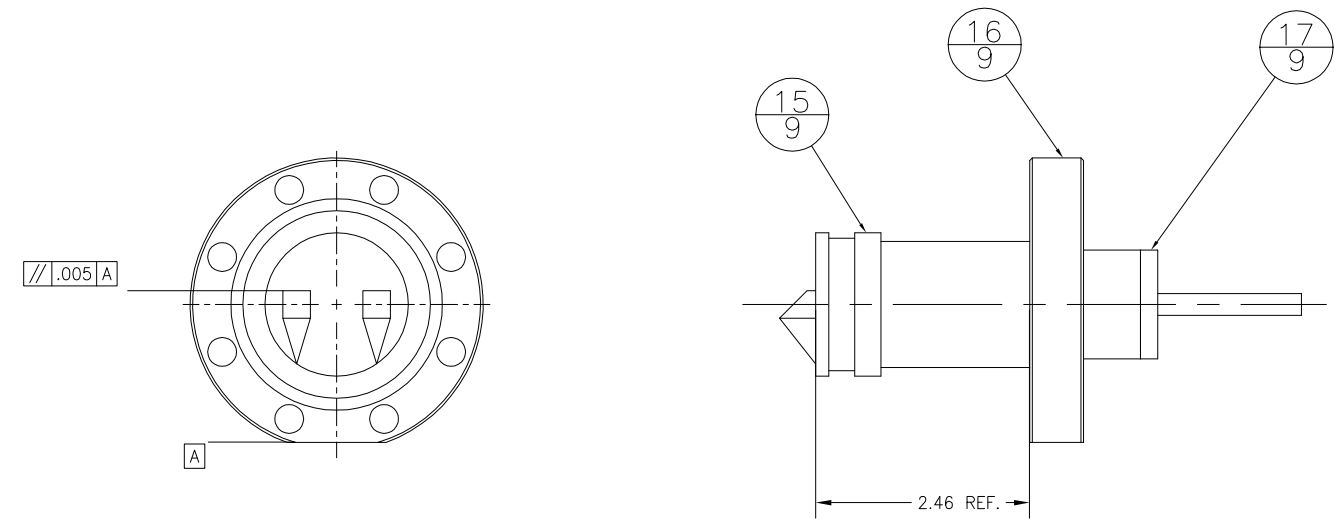
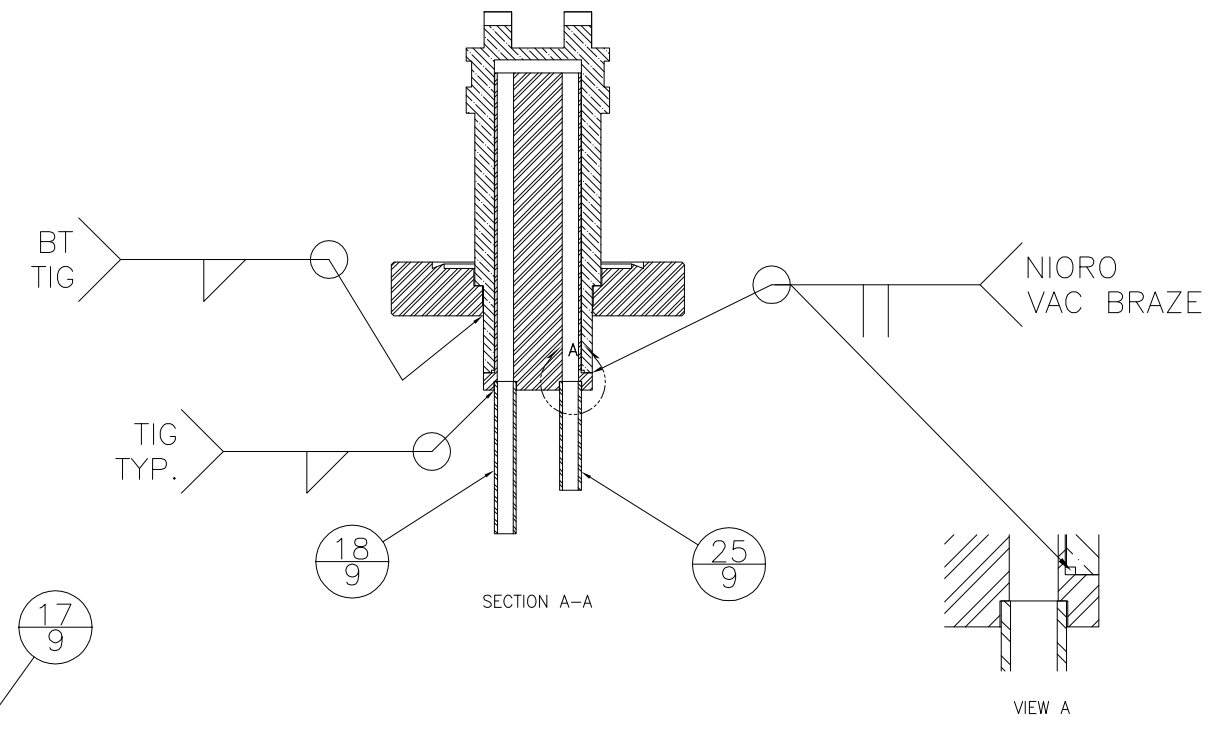
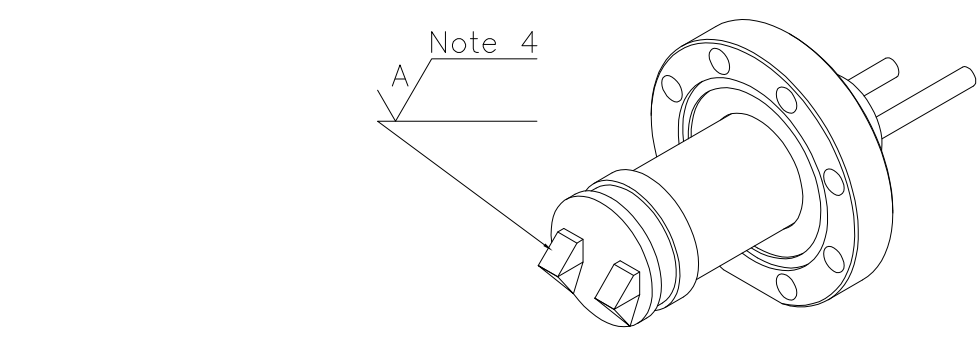
12 RF Insert
D-6058-050-07
Mat'l : CD10100 Copper
Scale : FULL
Qn'ty : 2 per assembly

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

ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
			QUANTITY				
PRINT DISTR.	PLOT DATE 8/13/01 CAD FILE NAME D-6058-050-07	<input type="checkbox"/> Cornell University Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853					
6058-050 SH. NO. 7 CONT. ON 8	CR-1 BJ-1	Phase III IR Beam Pipe at 6m -- RF Insert					
REV.	CHECKED BY Yulin Li APPROVED BY Yulin Li	DRAWN BY Yulin Li	DRAWN FOR Yulin Li	DATE 4/1/00	SCALE FULL	D 6058-050 SH. NO. 7 CONT. ON 8	REV.



REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



14 Mirror Assembly
 D-6058-050-08
 Mat'l : As noted
 Scale : FULL
 Qn'ty : 1

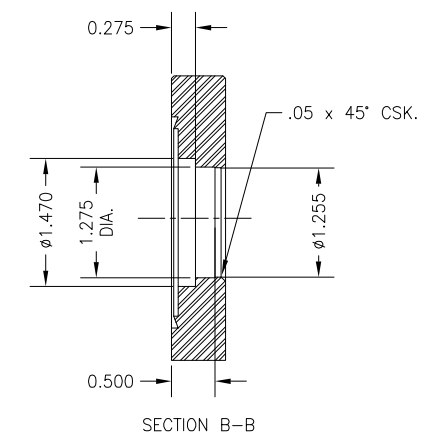
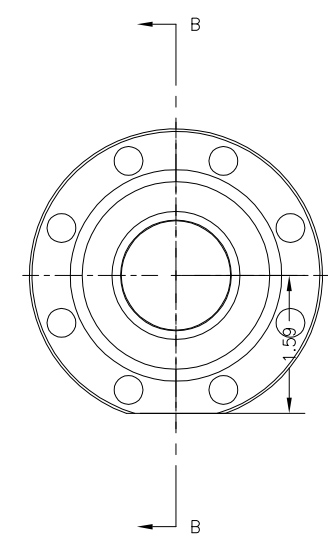
- ASSEMBLY NOTES:
- VACUUM BRAZE COOLING PLUG (#17) TO MIRROR BODY (#15).
 - TIG WELD COOLING TUBES (#18 AND #25) TO THE PLUG (#17) AND PRESSURE TEST THE COOLING CHANNEL.
 - WELD MIRROR BODY (#15) TO THE FLANGE (#16), UNDER Ar ENVIRONMENT TO PREVENT THE MIRROR SURFACE FROM OXIDIZING. ENSURE THE ORIENTATION OF THE MIRROR RELATIVE TO THE FLANGE AS SHOWN.
 - ACHIEVE MIRROR FINISH ON "FACE A" VIA DIAMOND TURNING.

ITEM	DWG. NO.	DESCRIPTION	Q1	Q2	Q3	REMARKS	REV.
25	6058-050-09	Cooling Tube 2					
18	6058-050-09	Cooling Tube					
17	6058-050-09	Cooling Plug					
16	6058-050-09	3-3/8" Non-Rot Flange					
15	6058-050-09	Mirror Body					
14	6058-050-08	Mirror Assembly					

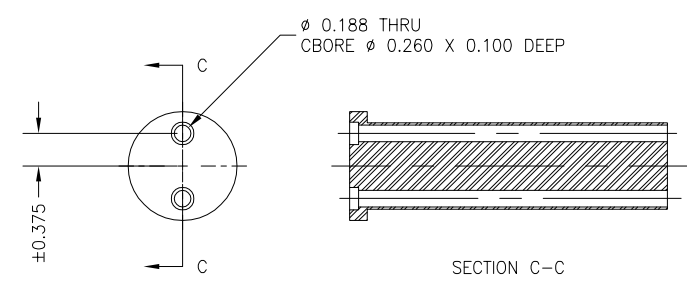
D SH. NO. 8 CONT. ON 9	PRINT DISTR.	PLOT DATE 8/13/01 CAD FILE NAME D-6058-050-08 and 09	CORNELL UNIVERSITY FLOYD R. NEWMAN LABORATORY OF NUCLEAR STUDIES - ITHACA, NY 14853	
	CR-1 BJ-1	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: .00 ±.010 .000 ±.005 FRACTIONS ±1/64 ANGLES ±0.5° ALL SURFACES	CESR Bremsstrahlung Detector at 6m -- Mirror Assembly	
REV.	CHECKED BY Yulin Li APPROVED BY Yulin Li	DRAWN BY Yulin Li DRAWN FOR Yulin Li	DATE 5-30-00	SCALE D 6058-050 SH. NO. 8 CONT. ON 9

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

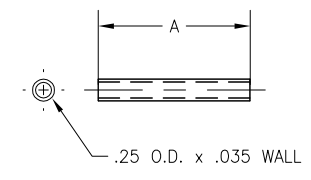
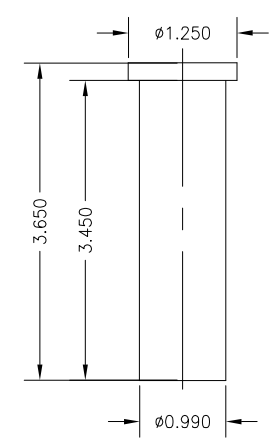
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



16 Mirror Flange
 D-6058-050-09
 Mat'l : Make from VARIAN #F0338000
 Scale : FULL
 Qn'ty : 1

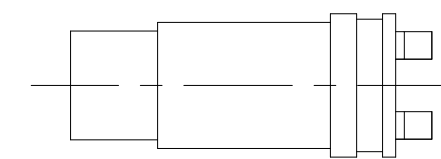


17 Cooling Plug
 D-6058-050-09
 Mat'l : Type 304L SST
 Scale : FULL
 Qn'ty : 1

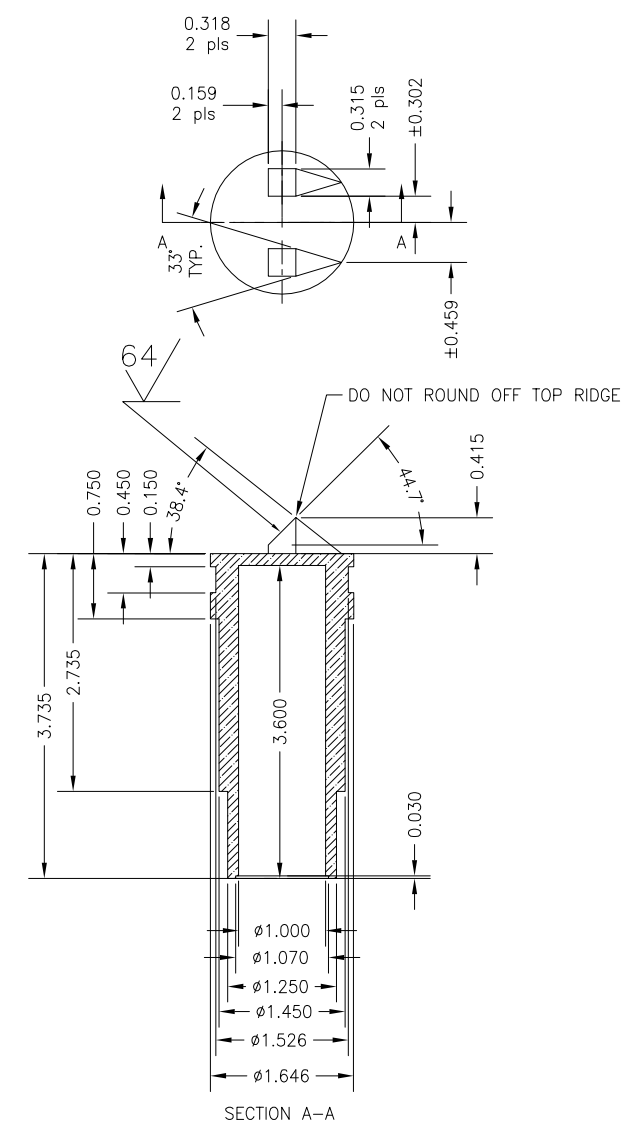


18 Cooling Tube
 D-6058-050-09
 Mat'l : SST tube "A" DIM. = 1.75"
 Scale : FULL
 Qn'ty : 1

25 Cooling Tube 2
 D-6058-050-09
 Mat'l : SST tube "A" DIM. = 1.25"
 Scale : FULL
 Qn'ty : 1



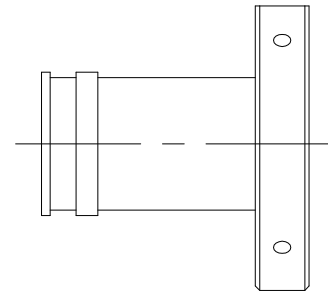
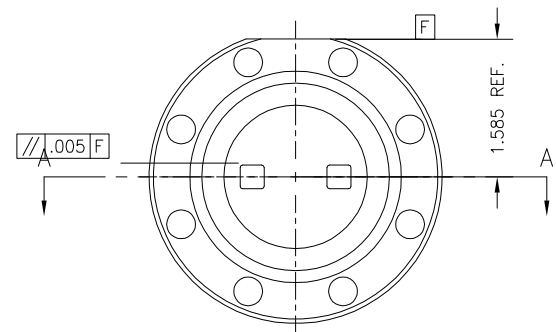
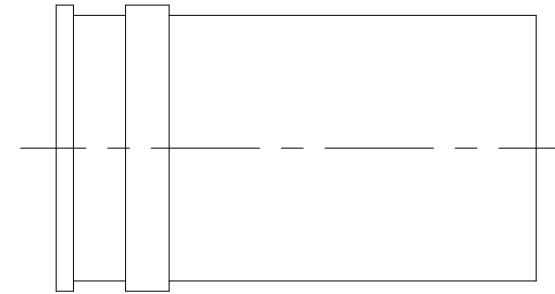
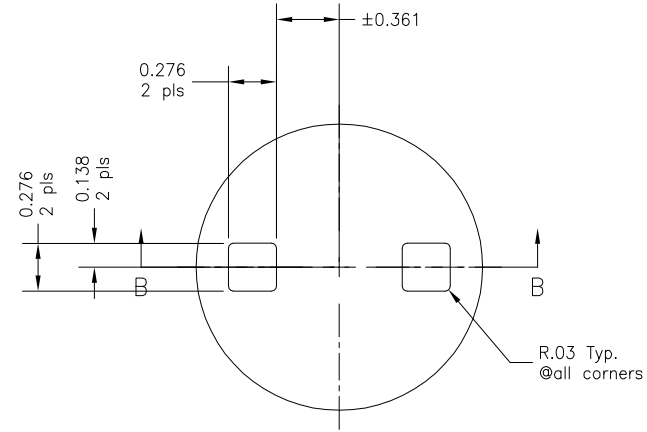
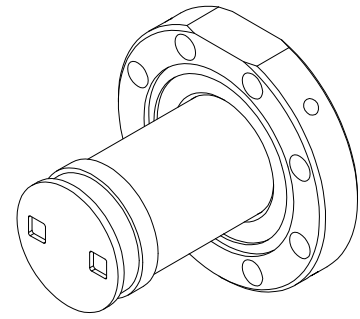
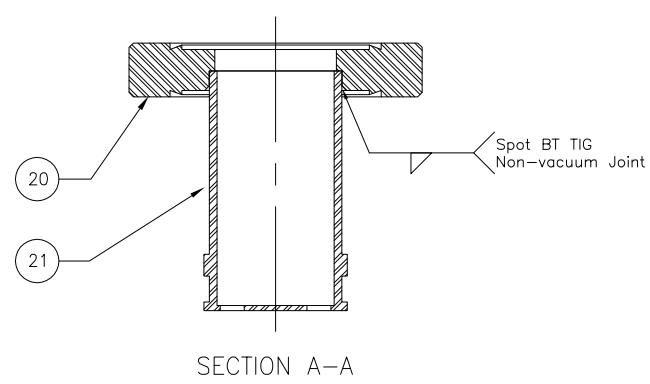
15 Mirror
 D-6058-050-09
 Mat'l : CD10100 Copper
 Scale : 1 : 1
 Qn'ty : 1



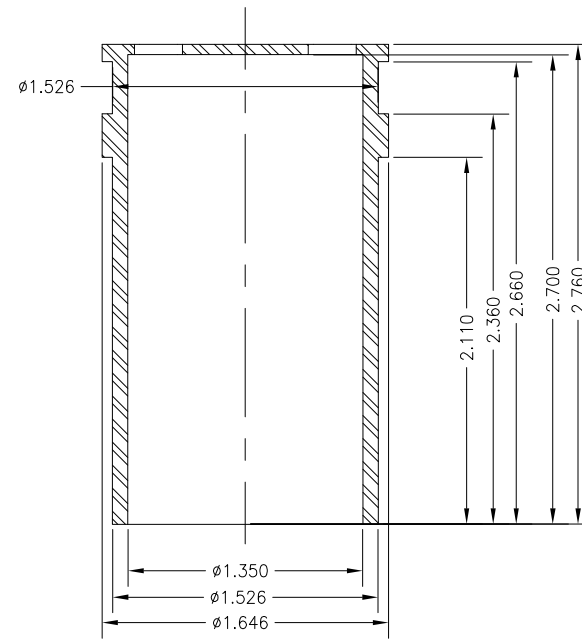
FOR MACHINING LUBRICANT USE ONLY
 ALKALINE DETERGENT LUBRICANT CIMSTAR 40
 OR EQUIVALENT APPROVED BY CORNELL LNS.

REV.	SH. NO. 9	CONT. ON 10	ITEM	DWG. NO.	DESCRIPTION	G1	G2	G3	REMARKS	REV.
						QUANTITY				
D	6058-050	CR-1	BJ-1	PRINT DISTR.	PLOT DATE 8/13/01 CAD FILE NAME D-6058-050-08 and 09					
					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 of Nuclear Studies - Ithaca, NY 14853 CESR Bremsstrahlung Detector at 6m -- Mirror Assembly Parts				
				CHECKED BY Yulin Li APPROVED BY Yulin Li	DRAWN BY Yulin Li DRAWN FOR Yulin Li	DATE 5-30-00	SCALE	D	6058-050 SH. NO. 9 CONT. ON 10	

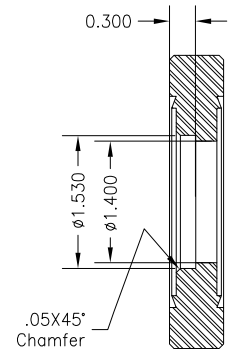
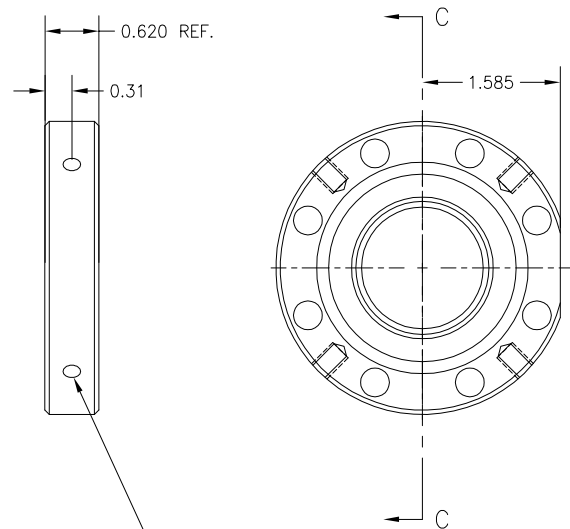
REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APP.



19 Window Assembly
 D-6058-050-10
 Mat'l : As noted
 Scale : FULL
 Qn'ty : 1



21 Window Body
 D-6058-050-10
 Mat'l : CD10100 Copper
 Scale : 2 : 1
 Qn'ty : 1



20 3-3/8" Double-Sided Flange
 D-6058-050-10
 Mat'l : Make from Varian #DF03380000E
 Scale : FULL
 Qn'ty : 1

Tap 1/4-28, 0.35 Deep
 4 Holes, evenly distributed
 as shown

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

ITEM	DWG. NO.	DESCRIPTION	QUANTITY			REMARKS	REV.
			G1	G2	G3		
21	SH.10	Window Body	1				
20	SH.10	3-3/8" Double Sided Flange	1				
19	SH.10	Window Assembly	X				

D 6058-050 SH. NO. 10 CONT. ON F.	PRINT DISTR.	PLOT DATE 8/13/01 CAD FILE NAME D-6058-050-10	<input type="checkbox"/> Cornell University Floyd R. Newman Laboratory of Nuclear Studies - Ithaca, NY 14853	
	CR-1 BJ-1	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: .00 ±.010 .000 ±.005 FRACTIONS ±1/64 ANGLES ±0.5° ALL SURFACES	CESR Bremsstrahlung Detector at 6m --- Window Assembly	
REV.	CHECKED BY Yulin Li APPROVED BY Yulin Li	DRAWN BY Yulin Li DRAWN FOR Yulin Li DATE 5-26-00	SCALE D	6058-050 SH. NO. 10 CONT. ON FIN