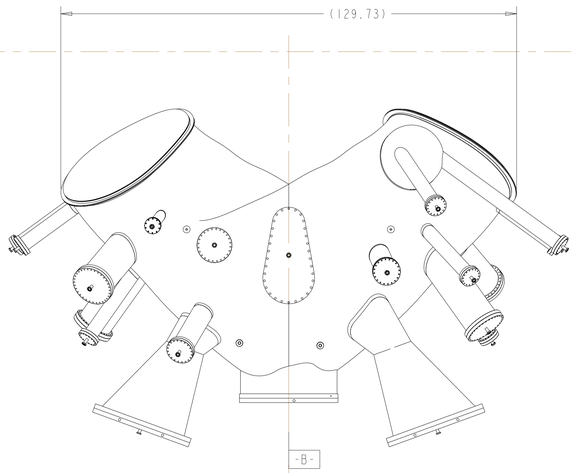
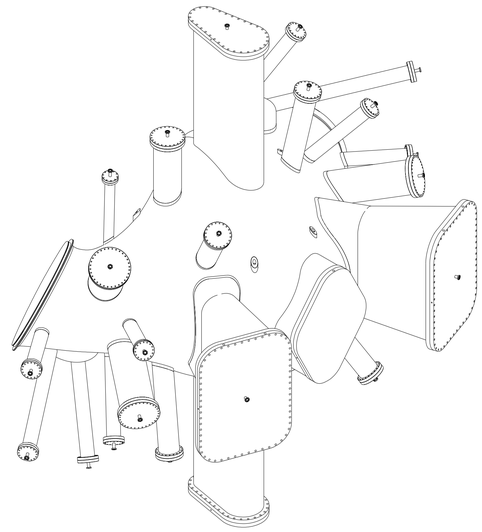
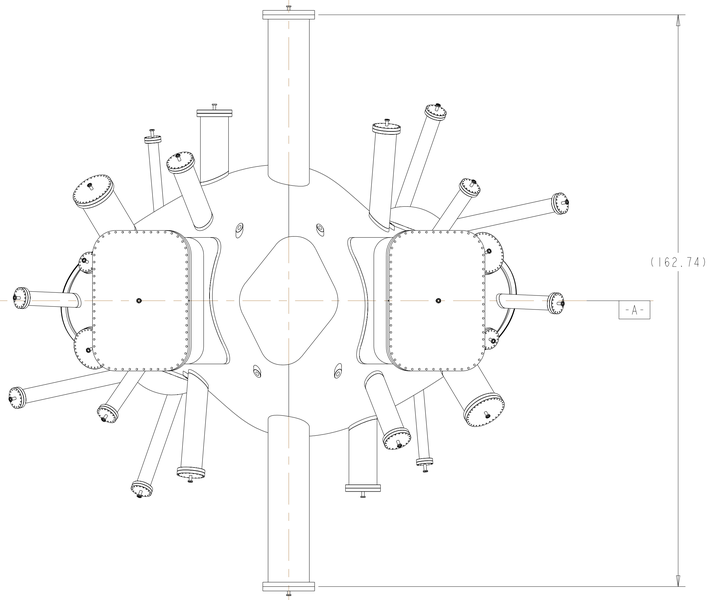
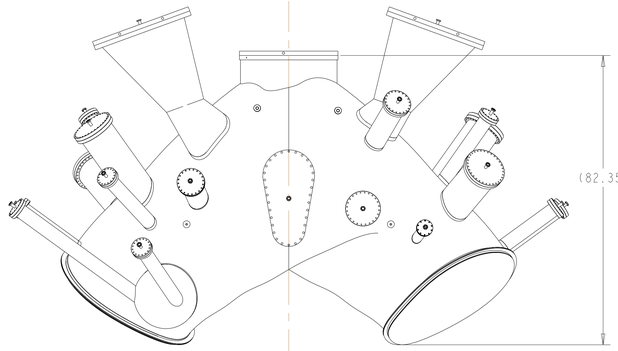




ISOMETRIC VIEW





SCALE: .06 WEIGHT= 7147 LBS

NCSX-RFD-12-002-r1

NOTES:

1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M.
2. DIMENSION ARE IN INCHES.
3. FABRICATION,INSPECTION,TESTING SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION NCSX-CSPEC-121-02 AND STATEMENT OF WORK NCSX-SOW-121-03.
4. PROFILE TOLERANCE ON OUTER VACUUM SURFACE IS BILATERAL, i.e. 0.1875 EITHER SIDE OF REFERENCE SURFACE.
5. THE MINIMUM THICKNESS AFTER FORMING SHALL BE .338. THINNING BELOW THE STOCK THICKNESS SHALL NOT OCCUR OVER MORE THAN 10% OF THE TOTAL POLOIDAL CIRCUMFERENCE OF ANY CROSS-SECTION
6. (8) PORT LENGTH DIMENSIONS SHOWN ARE FINAL DIMENSIONS AFTER PORTS ARE CUT OFF AND REASSEMBLLED. TOLERANCE OF LENGTH IS ± 0.125. INSPECTED DIMENSION SHALL BE AS SHOWN ON DRAWING PLUS 0.50".
7. PORT 4 DIMENSIONS SHOWN ARE INSPECTED DIMENSIONS.
8. SUPPLIED BY PPPL
9. ALL DIMENSIONS TO BE MET AT DWG SE120-002.
10. (9) REDUCING NIPPLES ARE OPTIONAL. BLANK FLANGES MAY BE SUBSTITUTED.
11. (9) A TOLERANCE DEVIATION OF + 3/16 - 7/16 AT THE PERIMETER OF PORT 4 AND PORT 12 WHICH RETURNS TO THE NOMINAL SHELL PROFILE WITHIN 8" OF THE PREIMETER OF THE PORT, WILL BE ACCEPTED.
12. (9) A TOLERANCE DEVIATION OF + 3/16 - 5/16 AT THE PERIMETER OF THE ROUND PORTS, NB PORT, AND THE DOME PORT WHICH RETURNS TO THE NOMINAL SHELL PROFILE WITHIN 8" OFTHE PREIMETER OF THE PORT, WILL BE ACCEPTED.

DATUM "A" = PLANE THRU "XY"
DATUM "B" = PLANE THRU "XZ"
DATUM "C" = PLANE THRU "YZ"

next assy		CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
	-1		NEXT ASSEMBLY	PARTS LIST			
	34		-57	SILVER PLATED, 12-POINT BOLTS, .50-20UNF, 2.00 LG	INCO 718	ASTM A1014	57
(4)	218		-56	WASHER, Ø0.531 ID X Ø1.062 OD X .095 THICK	A286	ANSI 18.22.1	56
(4)	184		-55	NUT, 0.50 X 20UNF	GRADE 8	ASTM A194	55
	2		SE121-095	VACUUM VESSEL SEAL DETAIL			54
(8)	1		-53	O-RING, METAL, HELICOFLEX TYPE HNV	HELICOFLEX PO BOX 9889 COLUMBIA, SC 29209 PHONE # 1-800-233-1722		53
(8)	1		-52	O-RING, METAL, HELICOFLEX TYPE HNV			52
	2		-51	CLEVIS BOSS "D"	UNS N06625		51
	2		-50	CLEVIS BOSS "C"	UNS N06625		50
	2		-49	CLEVIS BOSS "B"	UNS N06625		49
	2		-48	CLEVIS BOSS "A"	UNS N06625		48
	40		-47	BUTTON HD CAP SCREW #8-32UNC X .25 LG	300 SERIES SST		47
	2		-46	O-RING, .211 OD, 95.51 LG +0.0/-0.25	VITON		46
	2		-45	O-RING, .211 OD, 90.93 LG +0.0/-0.25	VITON		45
	2		-44	O-RING, .211 OD, 117.82 LG +0.0/-0.25	VITON		44
	2		-43	O-RING, .211 OD, 113.23 LG +0.0/-0.25	VITON		43
	2		-42	O-RING, .211 OD, 63.12 LG +0.0/-0.25	VITON		42
	2		-41	O-RING, .211 OD, 53.53 LG +0.0/-0.25	VITON		41

SE120-004	-1	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
			NEXT ASSEMBLY	PARTS LIST			
	1		191094	GASKET, COPPER 10.00 ID, PKG 10 REF 12 FLG	MDC VACUUM PRODUCTS CORP. 23842 CABOT BOULEVARD HAYWARD, CA. 94545-1651. OR EQUIVALENT		40
	1		191019	GASKET, COPPER 8.01 ID, PKG 10 REF 10 FLG			39
	1		191017	GASKET, COPPER 6.01 ID, PKG 10 REF 8.00 FLG			38
	1		191013	GASKET, COPPER 4.01 ID, PKG 10 REF 6.00 FLG			37
	1		191011	GASKET, COPPER 3.01 ID, PKG 10 REF 4.63 FLG			36
	10		190059	BOLT SET 8.00 OD & 10.00 OD FLG 12PT BOLT, SILVER PLTG, PKG 25	MDC VACUUM PRODUCTS CORP. 23842 CABOT BOULEVARD HAYWARD, CA. 94545-1651. OR EQUIVALENT		35
	12		190058	BOLT SET 4.63 OD & 6.00 OD FLG 12PT BOLT, SILVER PLTG, PKG 25			34
	4		190165	HEX HD, .312-24UNC, 2.00 LG PKG 36 WITH NUTS & FLAT WASHERS			33
(1)	184		-32	SILVER PLATED, 12-POINT BOLTS, .50-20UNF, 3.5 LG	GRADE 660	ASTM A 453	32
(10)	2		FA10000133	REDUCING NIPPLE 10.00 TO 1.33	VARIAN VACUUM TECHNOLOGIES 121 HARTWELL AVENUE LEXINGTON, MA. 02421 OR EQUIVALENT		31
	4		FA08000133	REDUCING NIPPLE 8.00 TO 1.33			30
	10		FA06000133	REDUCING NIPPLE 6.00 TO 1.33			29
(10)	2		FA04620133	REDUCING NIPPLE 4.63 TO 1.33			28
							27
	4		130093	CONFLAT, 12.00 OD, TAPPED	MDC VACUUM PRODUCTS CORP. 23842 CABOT BOULEVARD HAYWARD, CA. 94545-1651. OR EQUIVALENT		26
	2		130033	CONFLAT, 10.00 OD, TAPPED			25
	4		130031	CONFLAT, 8.00 OD, TAPPED			24
	10		130026	CONFLAT, 6.00 OD, TAPPED			23
	2		130022	CONFLAT, 4.63 OD TAPPED			22
	2		SE121-013	VACUUM VESSEL FLANGE DETAIL			21
	2		-20	ELLIPTICAL HD, 18.00 OD X .375 WALL	BRIGHTON TRU-EDGE HEADS 4955 SPRING GROVE AVE CINCINNATI, OHIO 45232 PHONE # 800 543-1644		20
	AR		-19	TUBE, 10.00 X .250 WALL	UNS 06625		19
	AR		-18	TUBE, 8.00 X .188 WALL	UNS 06625		18
	AR		-17	TUBE, 6.00 X .188 WALL	UNS 06625		17
	AR		-16	PIPE, 2.5 SCH 40	UNS 06625		16
	AR		-15	PIPE, 3.5 SCH 40	UNS 06625		15
	AR		-14	PLATE, .500 THK	UNS 06625		14
	AR		-13	PLATE, .375 THK	UNS 06625		13
	4		SE122-112	VACUUM VESSEL 12 IN COVER TEST FLANGE DETAIL			12
	2		SE121-102	VACUUM VESSEL BLANK OFF COVER SEAL WELDMENT			11
(2)	1		SE122-172	VACUUM VESSEL NB PORT COVER TEST FLANGE DETAIL			10
(2)	1		SE122-173	VACUUM VESSEL PORT NB SEAL RETAINER DETAIL			9
(2)	1		SE122-072	VACUUM VESSEL PORT NB FLANGE DETAIL			8
	2		SE122-149	VACUUM VESSEL PORT 4 COVER TEST FLANGE WELDMENT			7
	2		SE122-057	VACUUM VESSEL PORT 4 SEAL RETAINER DETAIL			6
	2		SE122-049	VACUUM VESSEL PORT 4 FLANGE DETAIL			5
	2		SE122-104	VACUUM VESSEL PORT 12 COVER TEST FLANGE WELDMENT			4
	2		SE122-019	VACUUM VESSEL PORT 12 SEAL RETAINER DETAIL			3
	2		SE122-018	VACUUM VESSEL PORT 12 FLANGE DETAIL			2
			-1	VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY			1

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
	REVISED PER ECN-4945 & ECN-4961	GHJ	2/28/05	MJC								
	(1) SHT 16 ADDED 8.00 (2) SHT 1 DIM WAS 8.95 (3) SHT 1 DIM WAS 14.83"											
	(4) SHT 16 ADDED DETAIL 7 (5) SHT 16 ADDED OPTIONAL WELD DETAIL											
	(6) SHT 15 ADDED DIM (7) SHT 15 REMOVED WELD BACKING											
	(8) SHT 15 CHG'D DIM TOL (9) SHT 15 SECT X-X ALL DIM MADE BASIC											
	(10) SHT 15 ADDED OPTIONAL WELD DETAIL (11) SHT 15 ADDED 8.0" DIM											
	(12) SHT 13 ADDED 8.0" DIM (13) SHT 13 CHG'D DIM TOL											
	(14) SHT 5 ADDED OPTIONAL WELD DETAIL (15) SHT 13 ADDED OPTIONAL WELD DETAIL											
	(16) SHT 5 DIM WAS 4.00 (17) SHT 5 ADDED 8.0" DIM											
	(18) SHT 5 DIM WAS 23.65 (19) SHT 5 DIM WAS 6.25											
2	(20) SHT 1 CHG'D NOTE 6 (21) SHT 1 ADDED NOTES 10,11,& 12											
	REVISED PER ECN-4933	MJC	11/22/04	PLG								
	(22) SHT 1 WAS 0.50 X 20UNF X 3.0 LG											
	(23) SHT 15 ADDED BALLON 57 AND 56											
	(24) SHT 13 ADDED BALLON 55 AND 56											
	(25) SHT 1 ADDED ITEM 55, 56, AND 57											
	(26) SHT 18 REVISED SECTIONS											
	(27) SHT 1 QUANTITY WAS 2											
1	(28) SHT 15 BALLOON WAS 51											

REVISION OR ISSUE PURPOSE — REVISION APPROVAL

WELDING ENGINEER
APPROVED R. PARSELLS DATE: 6/04

DRAWING APPROVALS		DATE
SCALE NOTED	DES P. L. GORANSON	12/02
TOLERANCES UNLESS OTHERWISE SPECIFIED	DRW M.J.COLE & G.H.JONES	12/02
	CHK :	:
	SECT :	:
FRACTIONS :	DEPT :	:
XX DECIMALS ±.01	PE :	:
XXX DECIMALS ±.005	CR :	:
ANGLES ±0°15'	PJ :	:
BREAK SHARP EDGES .06 MAX	REQ :	:
FINISH .125 UNLESS OTHERWISE SPECIFIED	PPPL DRFT :	:
	:	:

UT-BATTELLE — Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC Oak Ridge, Tennessee

PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT

VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	1 19	A	U

RELEASE LEVEL: Fabrication — SE120-004 — REV 2

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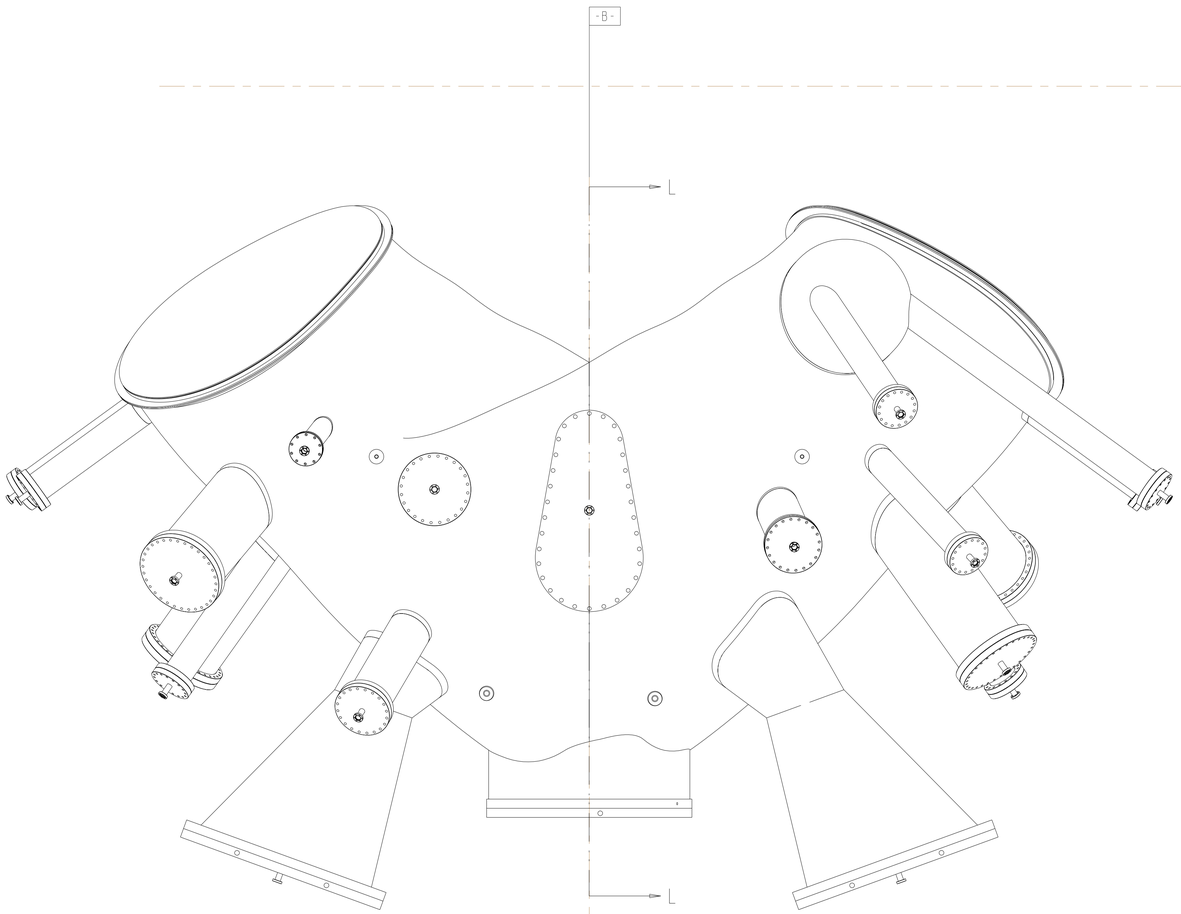
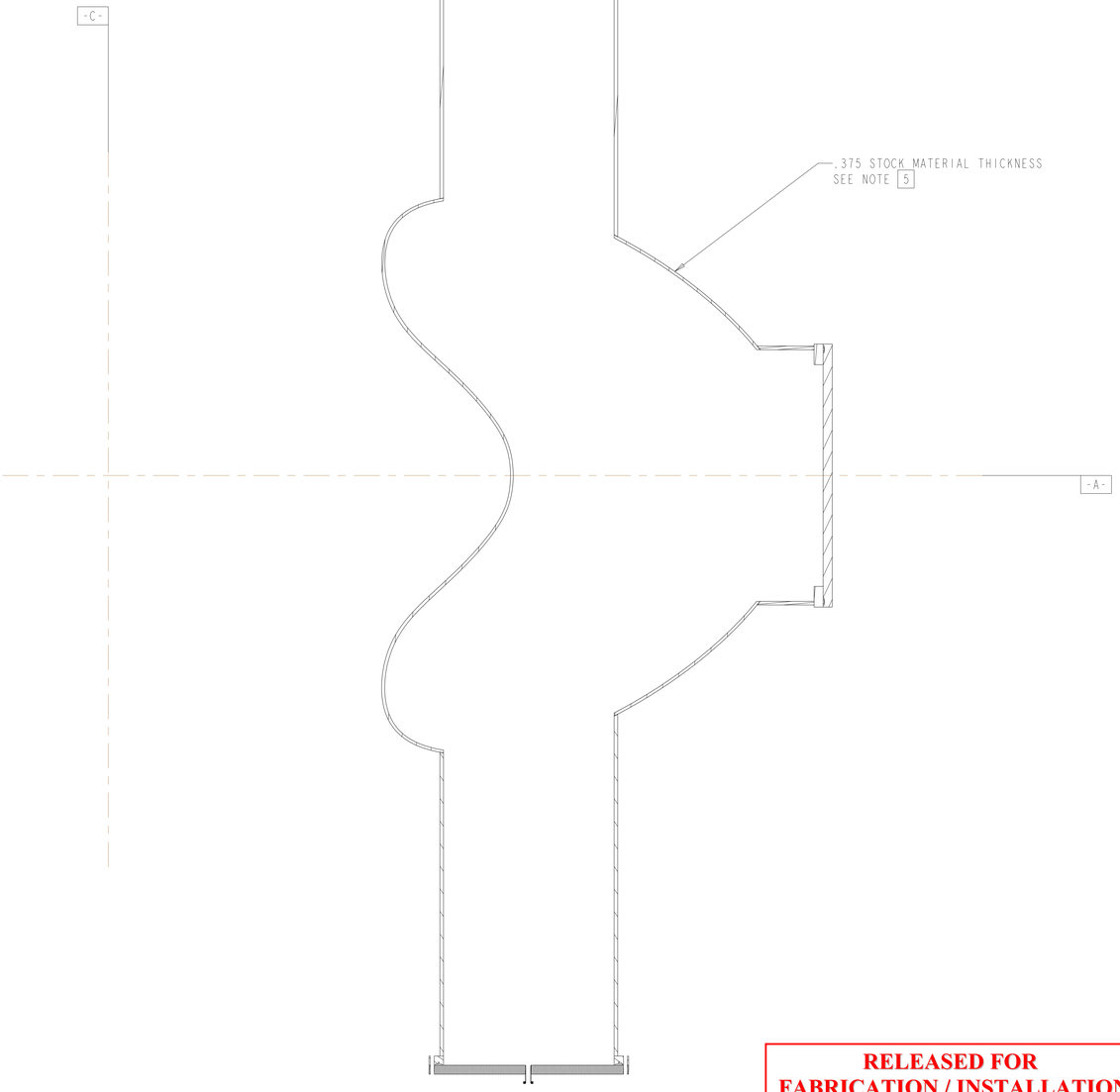
NO REPRESENTATION OR WARRANTY,EXPRESSED OR IMPLIED,IS MADE AS TO THE ACCURACY, COMPLETENESS OR USEFULNESS OF THE INFORMATION OR STATEMENTS CONTAINED IN THESE DRAWINGS, OR THAT THE USE OR DISCLOSURE OF ANY INFORMATION, APPARATUS, METHOD OR PROCESS DISCLOSED IN THESE DRAWINGS MAY NOT INFRINGE PRIVATE RIGHTS OF OTHERS. NO LIABILITY IS ASSUMED WITH RESPECT TO THE USE OF, OR FOR DAMAGES RESULTING FROM THE USE OF, ANY INFORMATION, APPARATUS, METHOD OR PROCESS DISCLOSED IN THESE DRAWINGS. DRAWINGS MADE AVAILABLE FOR INFORMATION TO BIDDER ARE NOT TO BE USED FOR OTHER PURPOSES, AND ARE TO BE RETURNED UPON REQUEST OF THE FORWARDING CONTRACTOR.

P THIS DRAWING PRODUCED ON PRO-ENGINEER

FOR NOTES AND PARTS LIST SEE SHEET 1



TOP VIEW



SECTION L-L
VESSEL THICKNESS

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SE120-004

UT-BATTELLE

Oak Ridge National Laboratory
managed for the DEPARTMENT OF ENERGY under
U.S. GOVERNMENT contract DE-AC05-00OR22725
UT-BATTELLE, LLC Oak Ridge, Tennessee

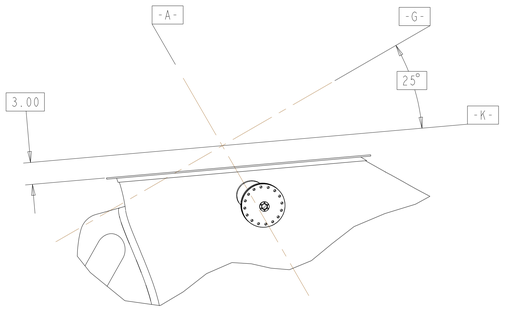
PROJECT NAME
NATIONAL COMPACT STELLERATOR EXPERIMENT

VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK
ASSEMBLY

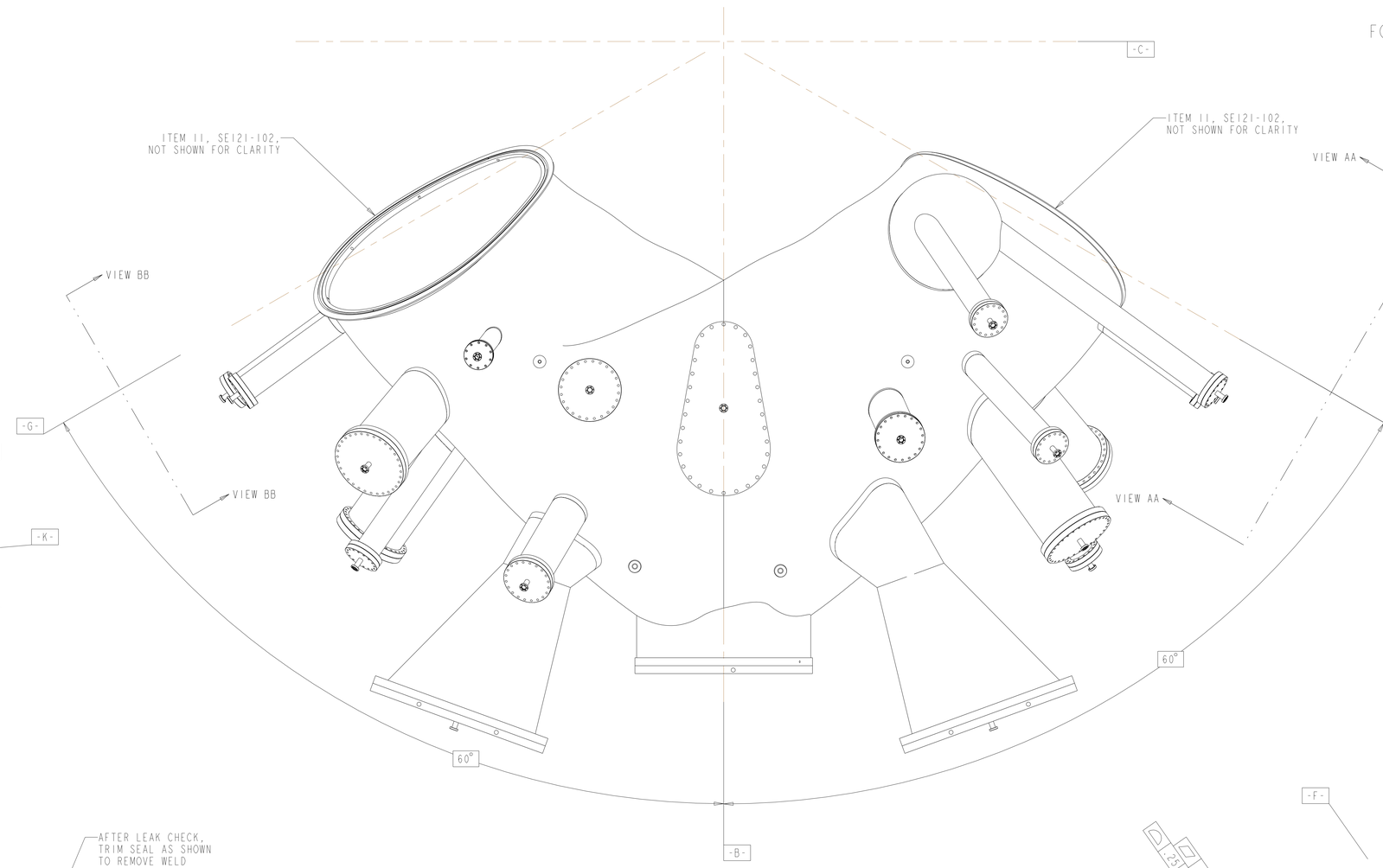
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	2 19	A	U

RELEASE LEVEL		REV
Fabrication	SE120-004	2

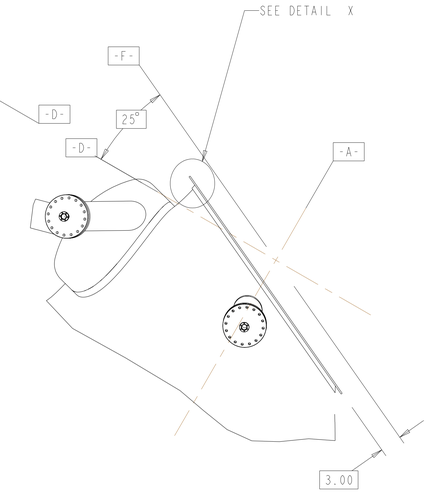
FOR NOTES AND PARTS LIST SEE SHEET 1



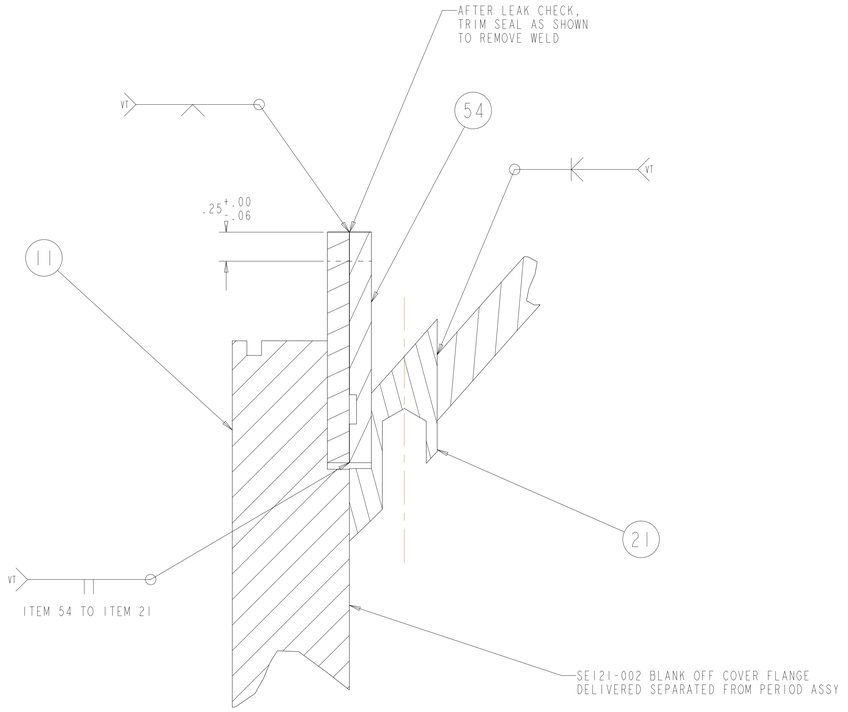
VIEW BB-BB



TOP VIEW



VIEW AA-AA



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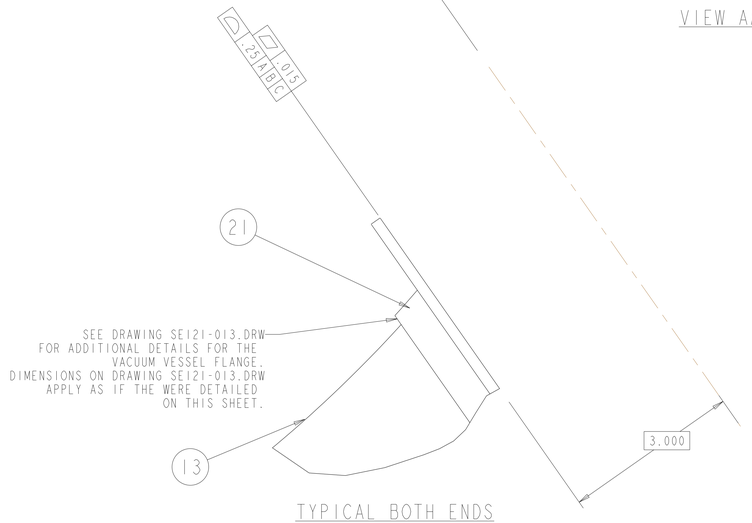
SCALE 2.00



TYPICAL BOTH ENDS
DETAIL X
SCALE 1.00

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SE120-004

UT-BATTELLE
Oak Ridge National Laboratory
managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-000R22725
UT-BATTELLE, LLC Oak Ridge, Tennessee

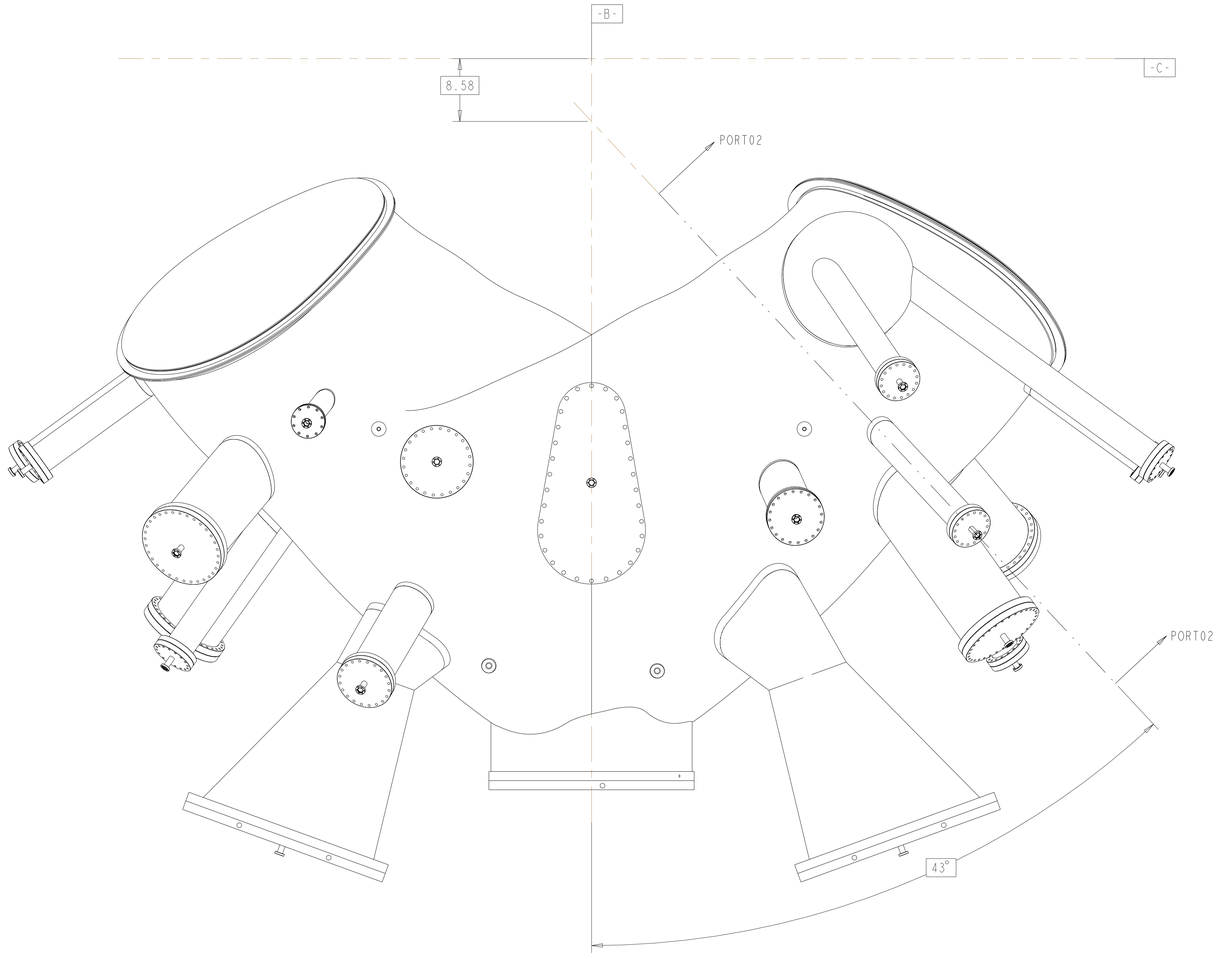
PROJECT NAME
NATIONAL COMPACT STELLARATOR EXPERIMENT

VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

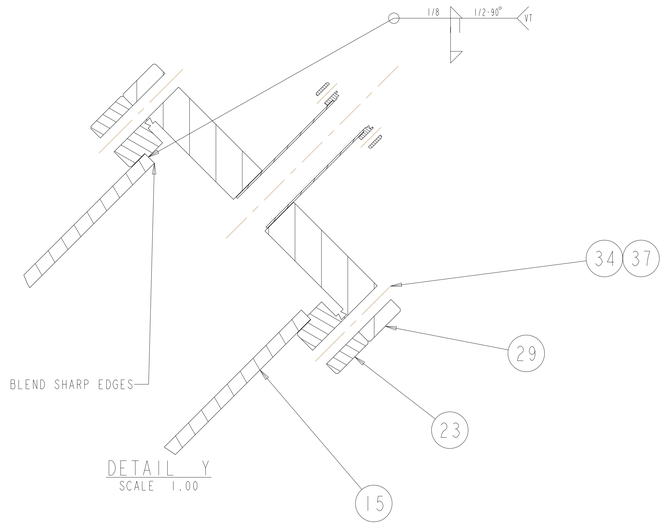
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	3 19	A	U

RELEASE LEVEL		REV
Fabrication	SE120-004	2

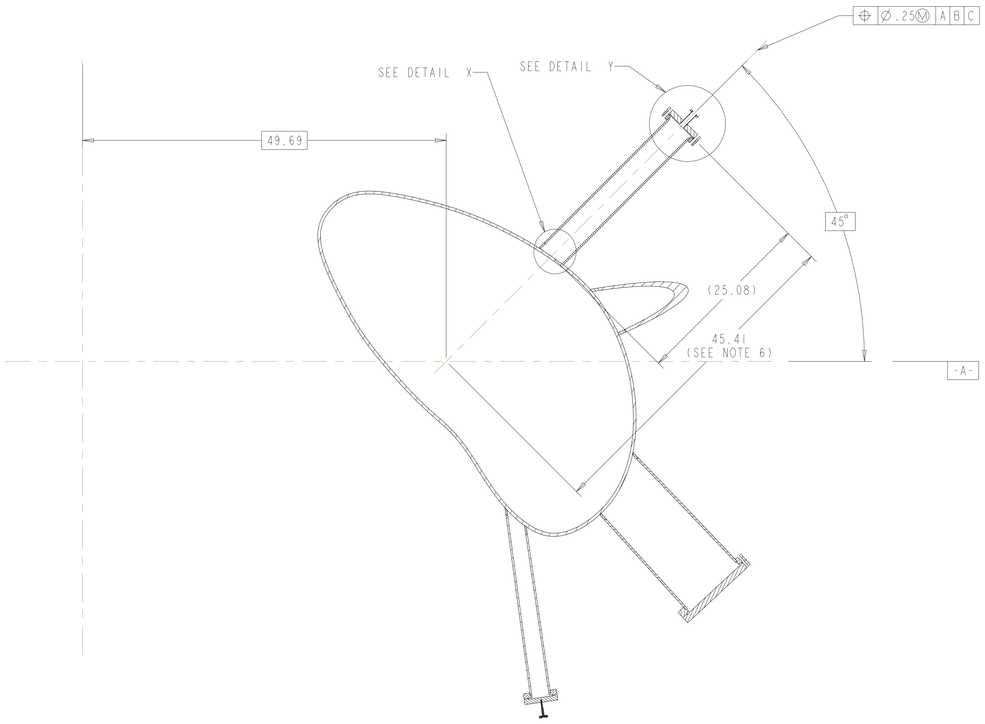
FOR PARTS LIST AND NOTES SEE SHEET 1.



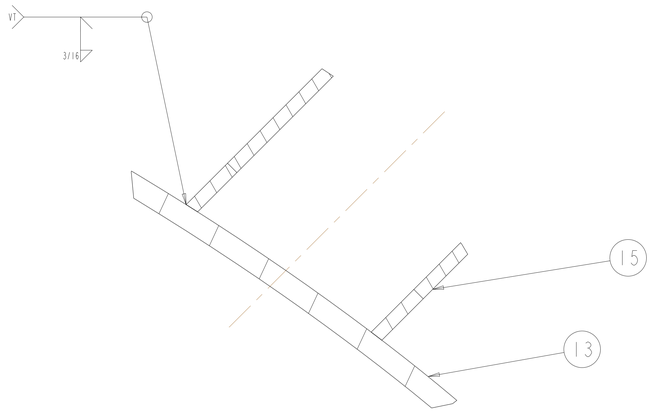
TOP VIEW



DETAIL Y
SCALE 1.00



TYPICAL PORT 2A AND 2B
SECTION PORT02-PORT02



DETAIL X
SCALE 1.00

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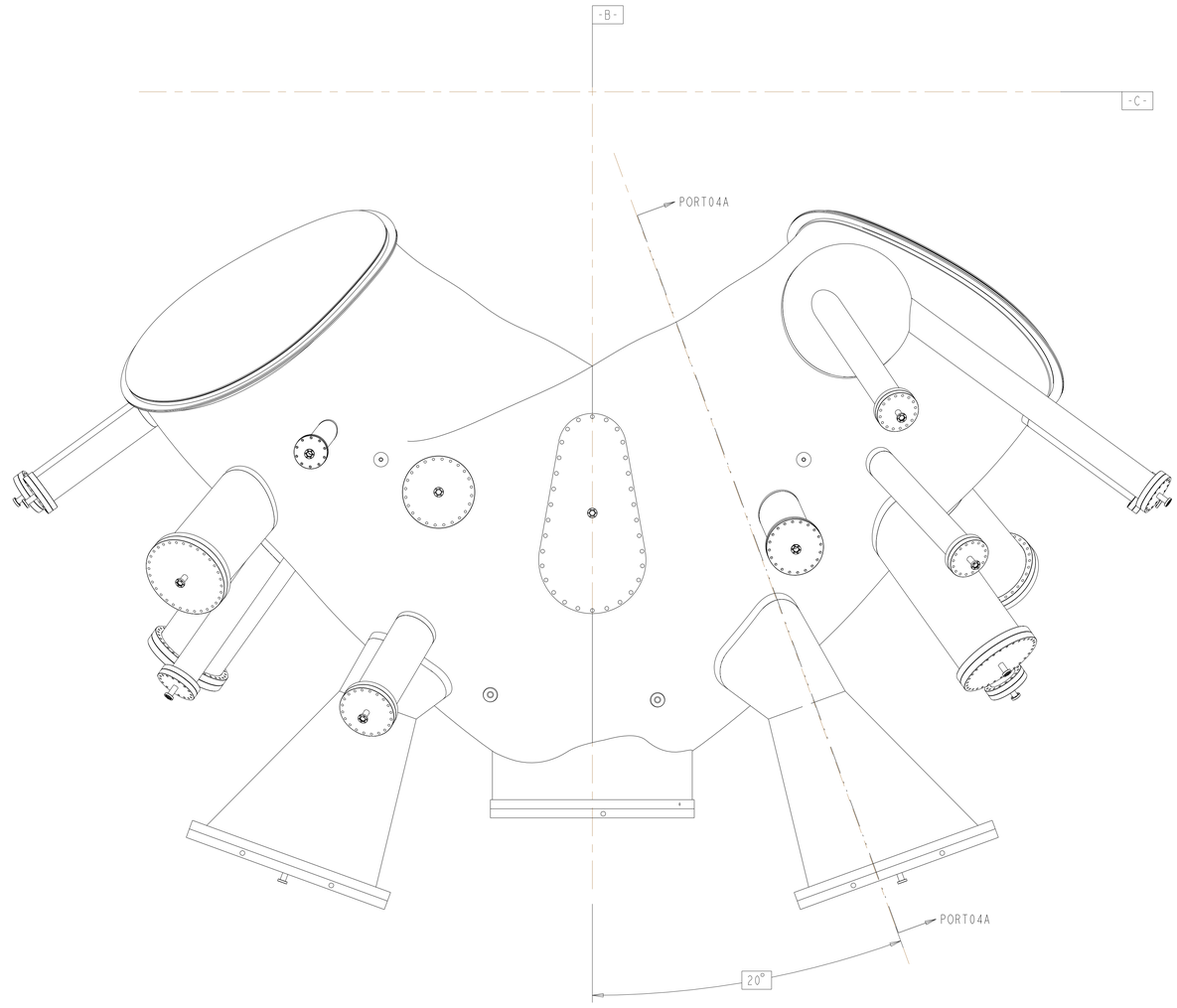
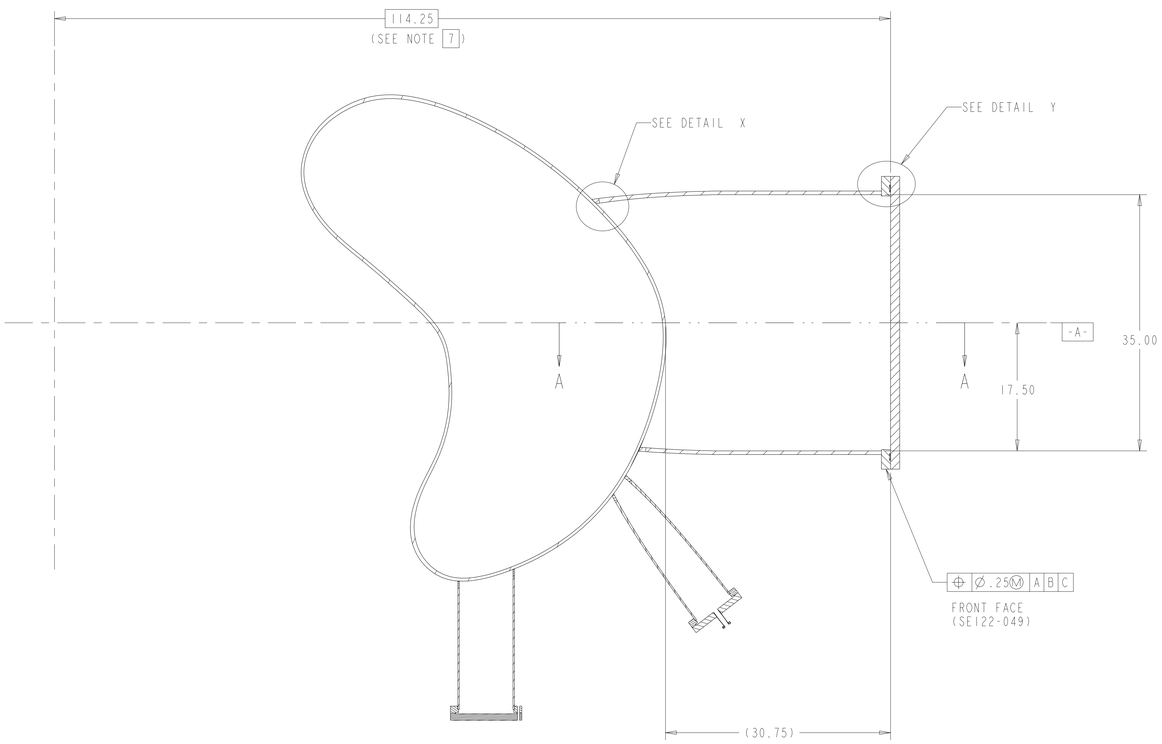
SE120-004

UT-BATTELLE	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee						
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT 4 OF 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication	SE120-004					REV 2	

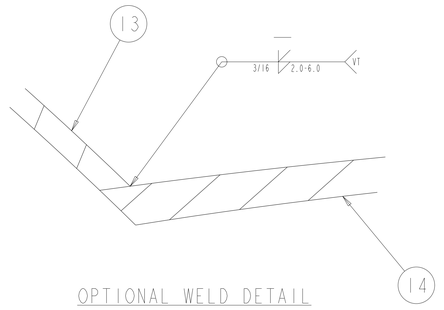
FOR PARTS LIST AND NOTES SEE SHEET 1.



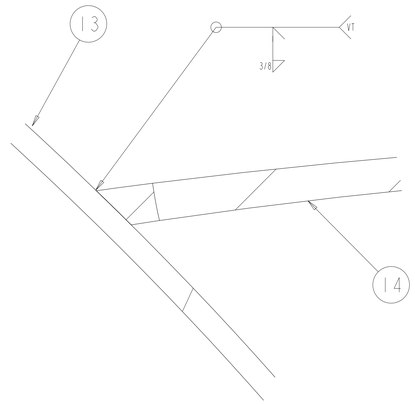
TOP VIEW



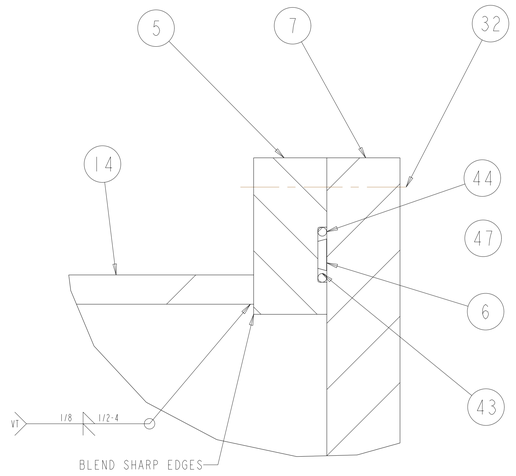
TYPICAL PORT 4A AND 4B
SECTION PORT04A-PORT04A



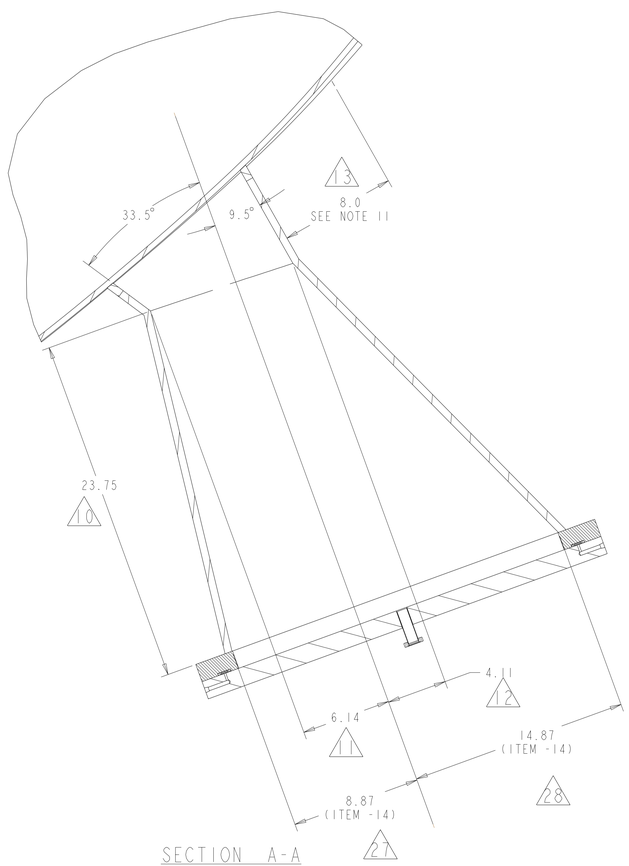
OPTIONAL WELD DETAIL



DETAIL X
SCALE 1.00



DETAIL Y
SCALE 1.00



SECTION A-A
SCALE 0.25

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UT-BATTELLE
Oak Ridge National Laboratory
managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725
UT-BATTELLE, LLC. Oak Ridge, Tennessee

PROJECT NAME: NATIONAL COMPACT STELLERATOR EXPERIMENT

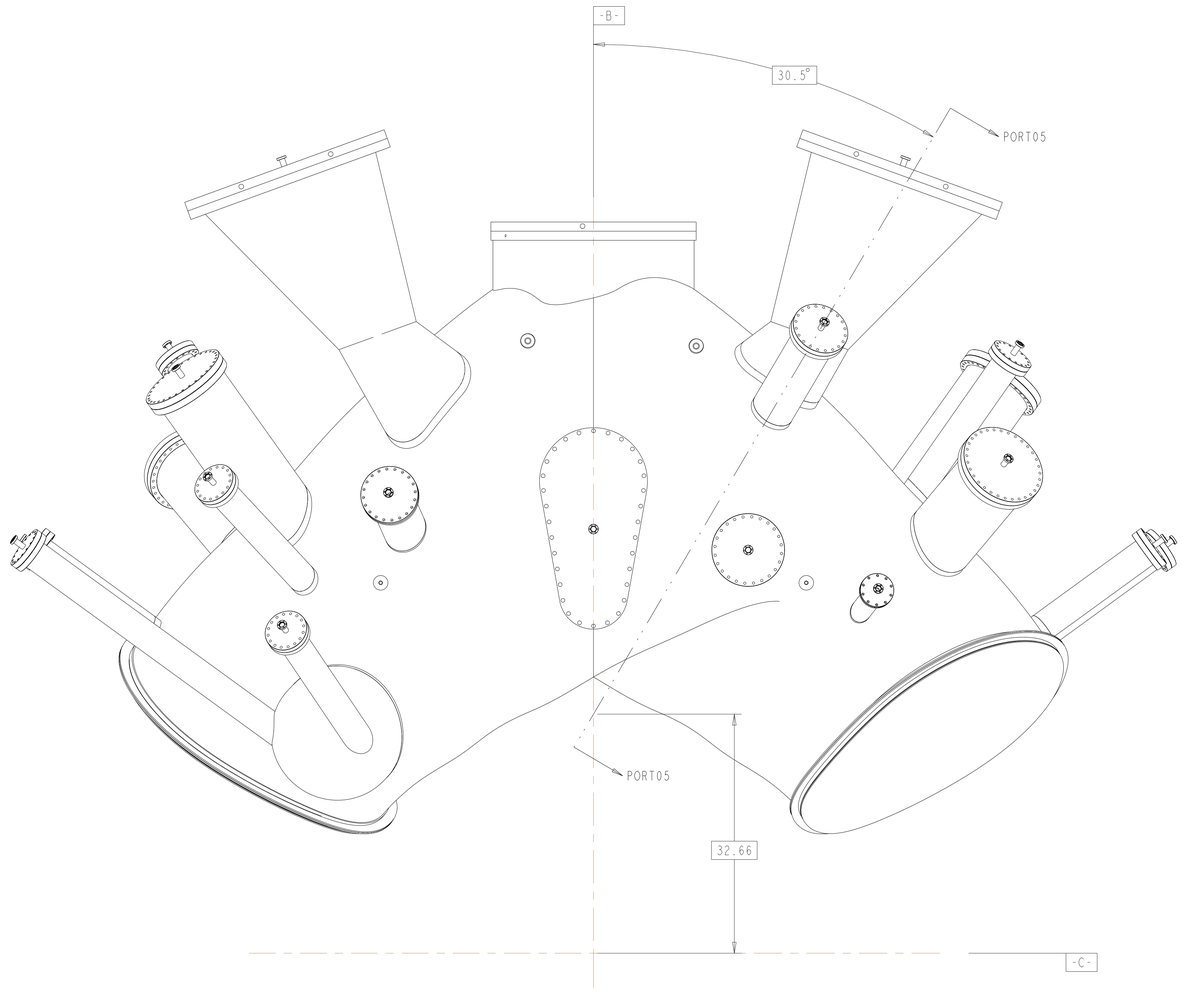
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT	OF	TYPE	CLASS
5	X-10	5700	3	5	19	A	U

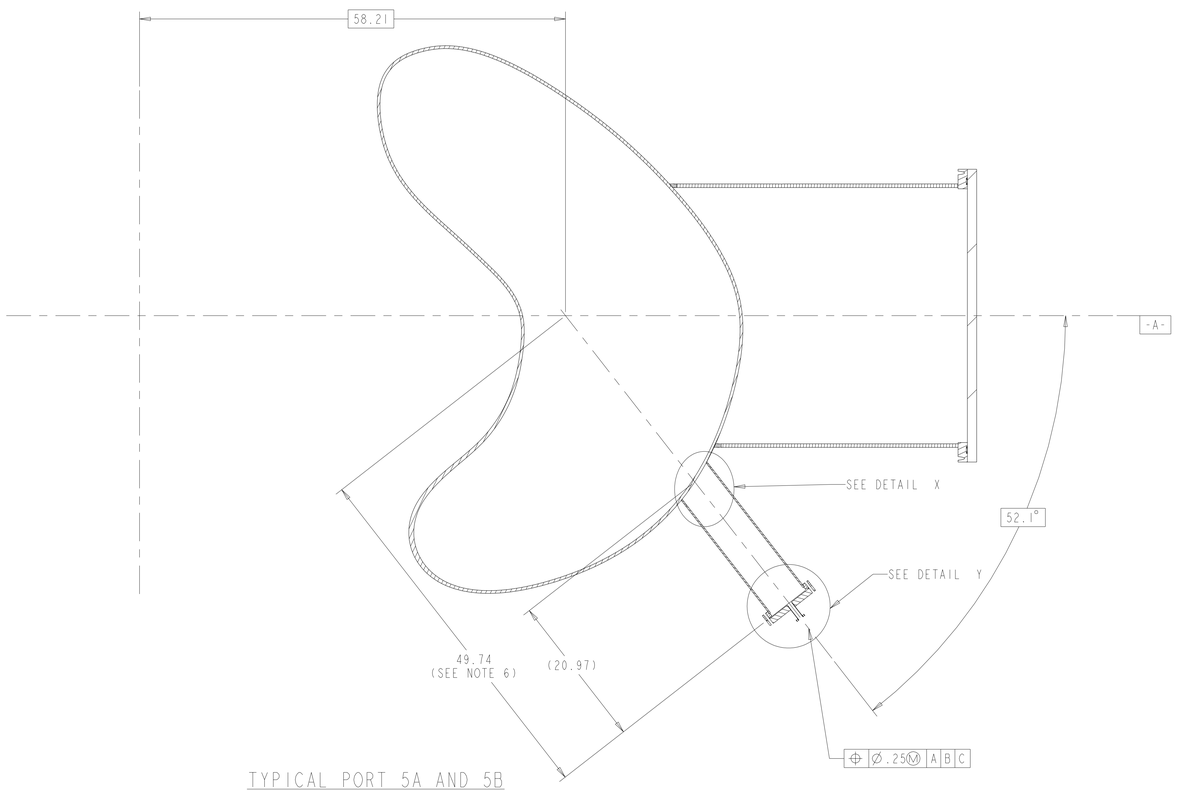
RELEASE LEVEL: Fabrication
SE120-004
REV 2

SE120-004

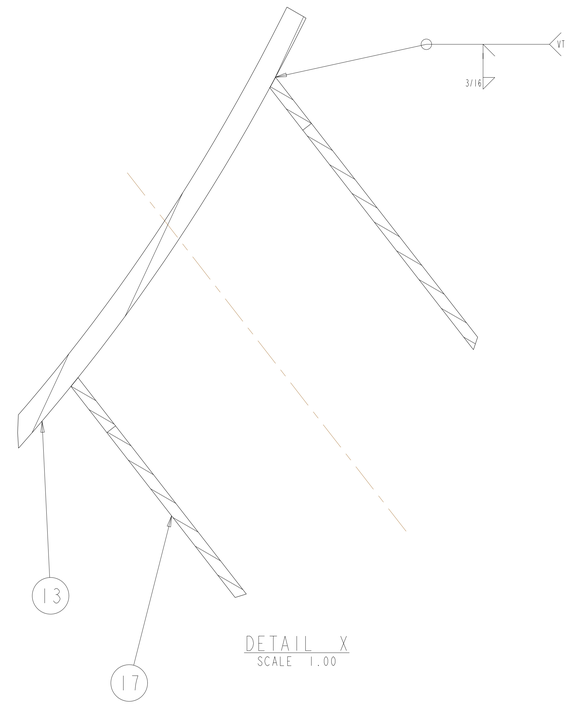
FOR PARTS LIST AND NOTES SEE SHEET 1.



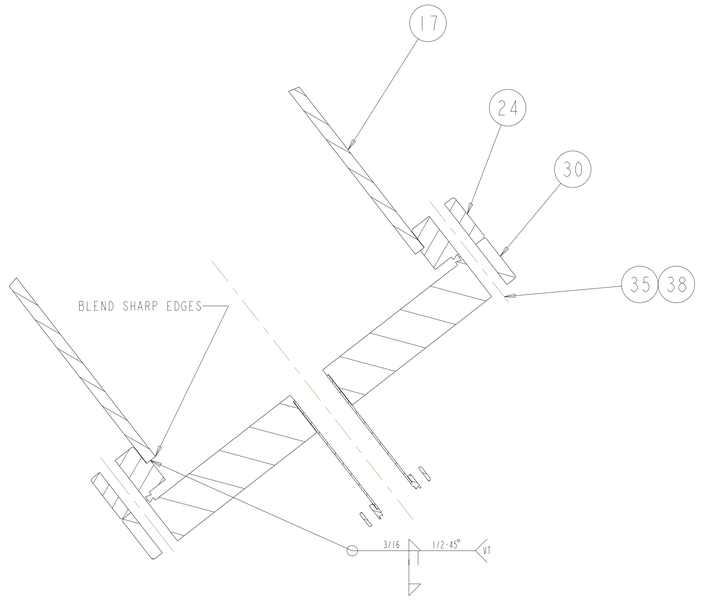
BOTTOM VIEW



TYPICAL PORT 5A AND 5B
SECTION PORT05-PORT05



DETAIL X
SCALE 1.00



DETAIL Y
SCALE 1.00

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PPPL Drafting: Jerry Siegel 2005.03.25 13:20:11 -05'00'

SE120-004

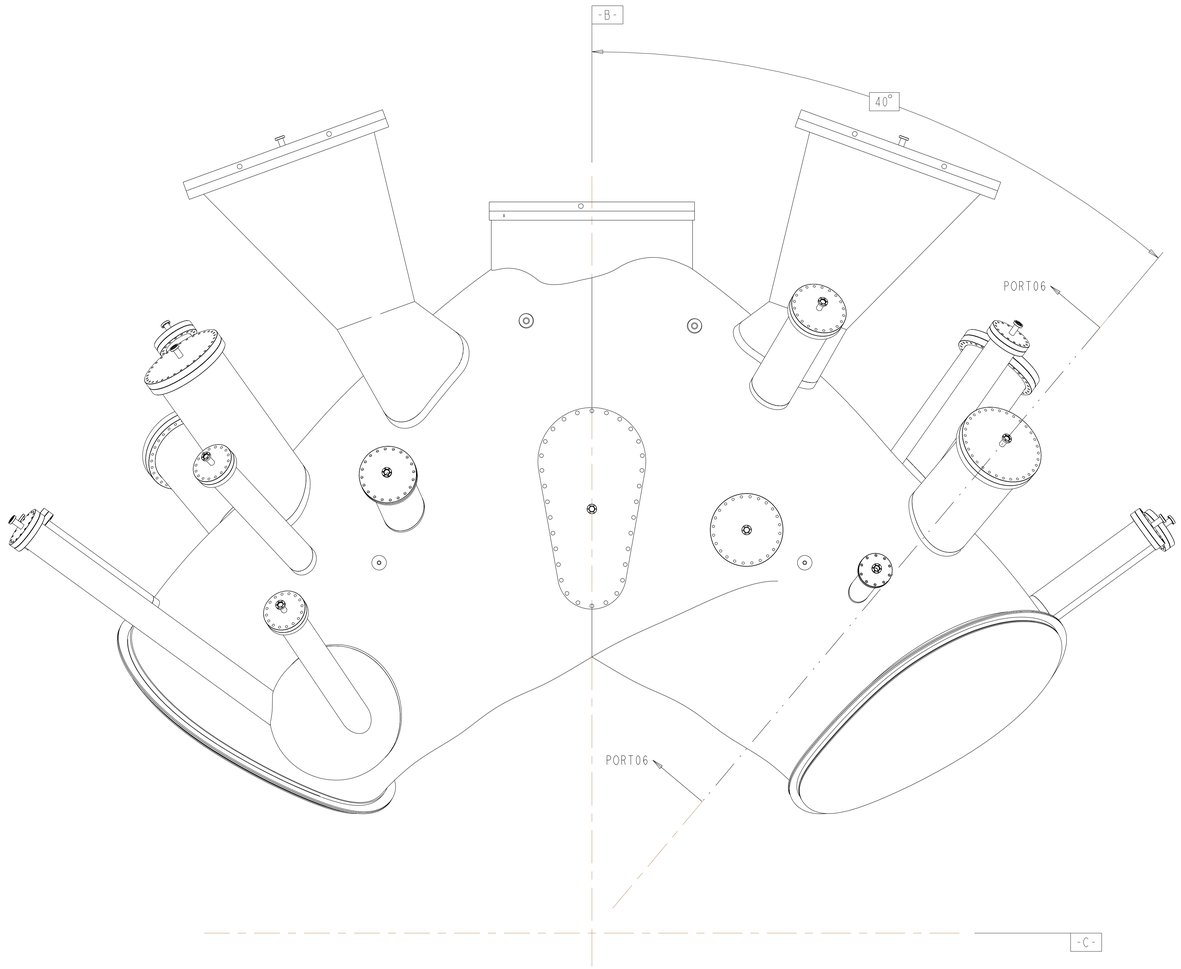
UT-BATTELLE
Oak Ridge National Laboratory
managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-000R22725
UT-BATTELLE, LLC. Oak Ridge, Tennessee

PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT

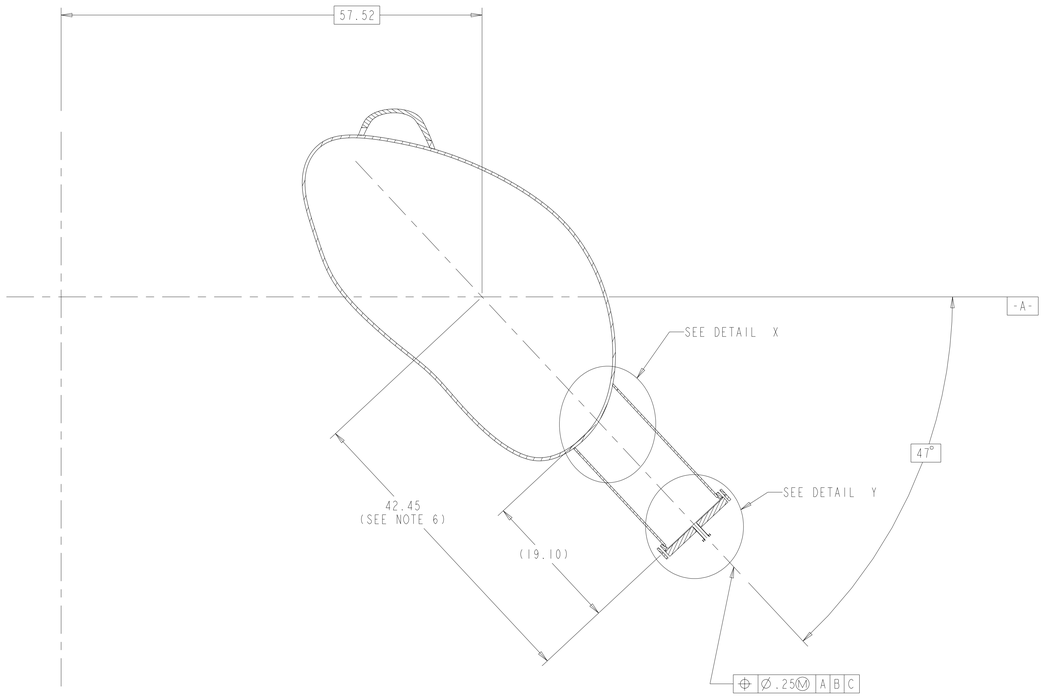
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	6 19	A	U

RELEASE LEVEL		REV
Fabrication	SE120-004	2

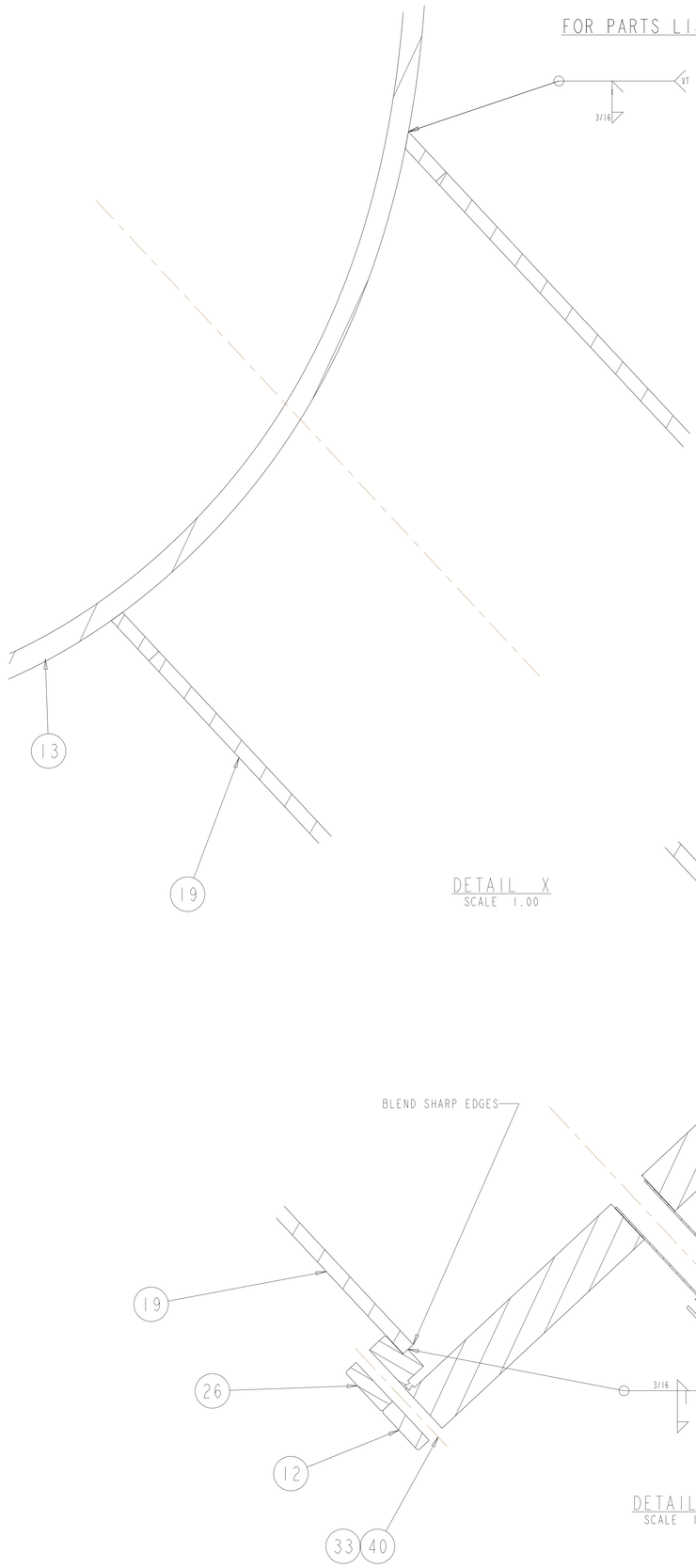


BOTTOM VIEW

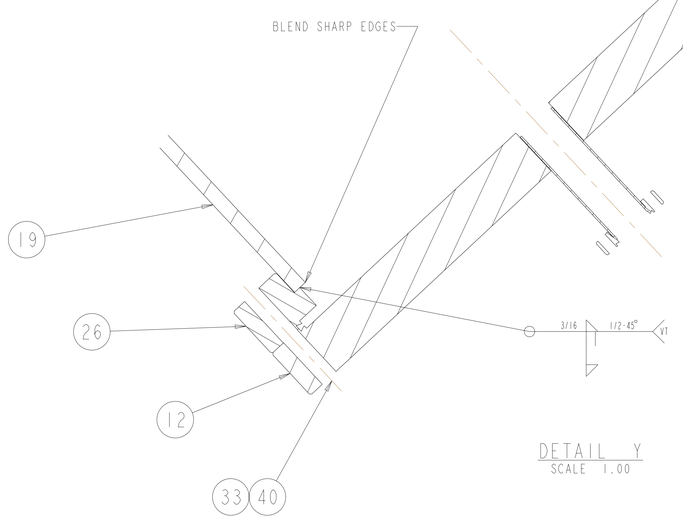


TYPICAL PORT 6A AND 6B
SECTION PORT06-PORT06

FOR PARTS LIST AND NOTES SEE SHEET 1.



DETAIL X
SCALE 1.00



DETAIL Y
SCALE 1.00

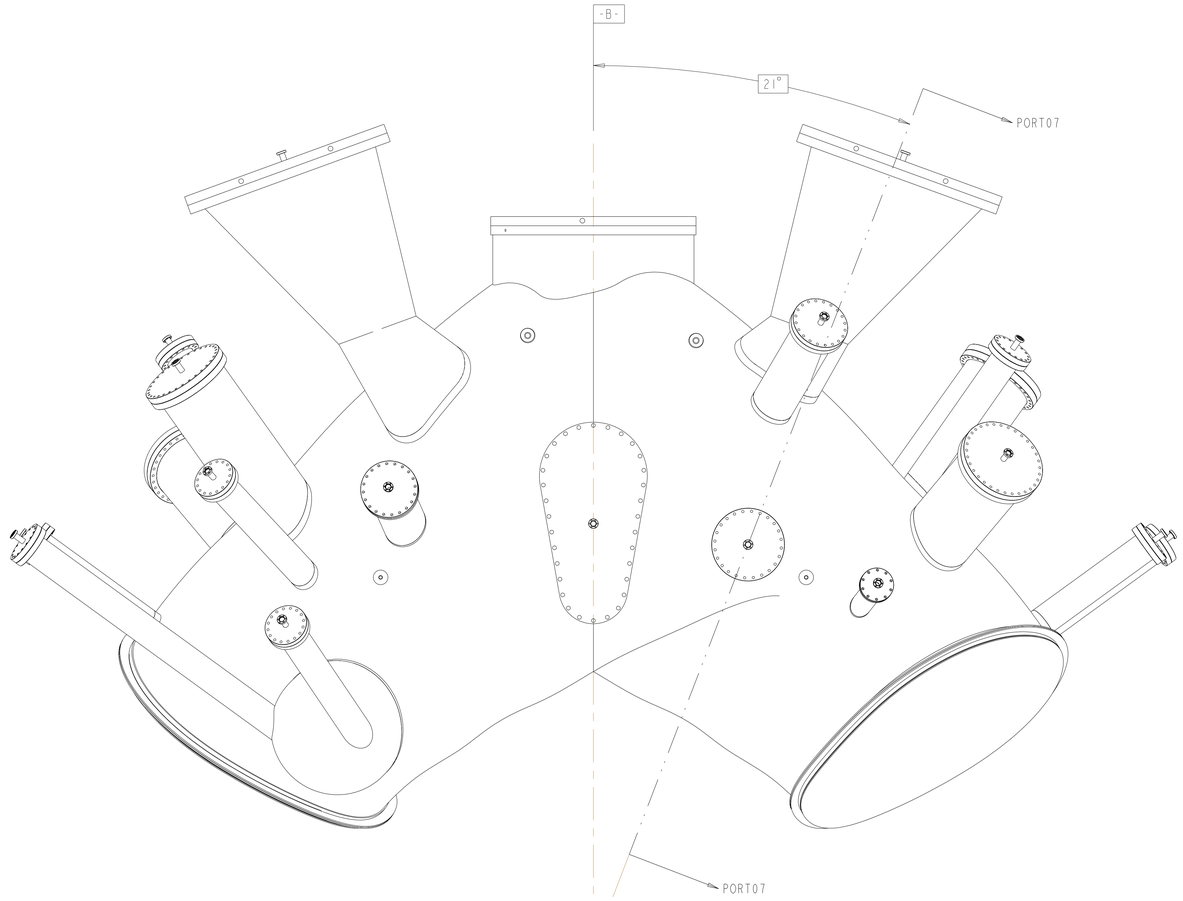
RELEASED FOR FABRICATION / INSTALLATION

PPPL Drafting: ? Jerry Siegel 2005.03.25 13:20:11 -05'00'

UT-BATTELLE	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee						
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 7 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication	SE120-004					REV 2	

SE120-004

FOR PARTS LIST AND NOTES SEE SHEET 1.



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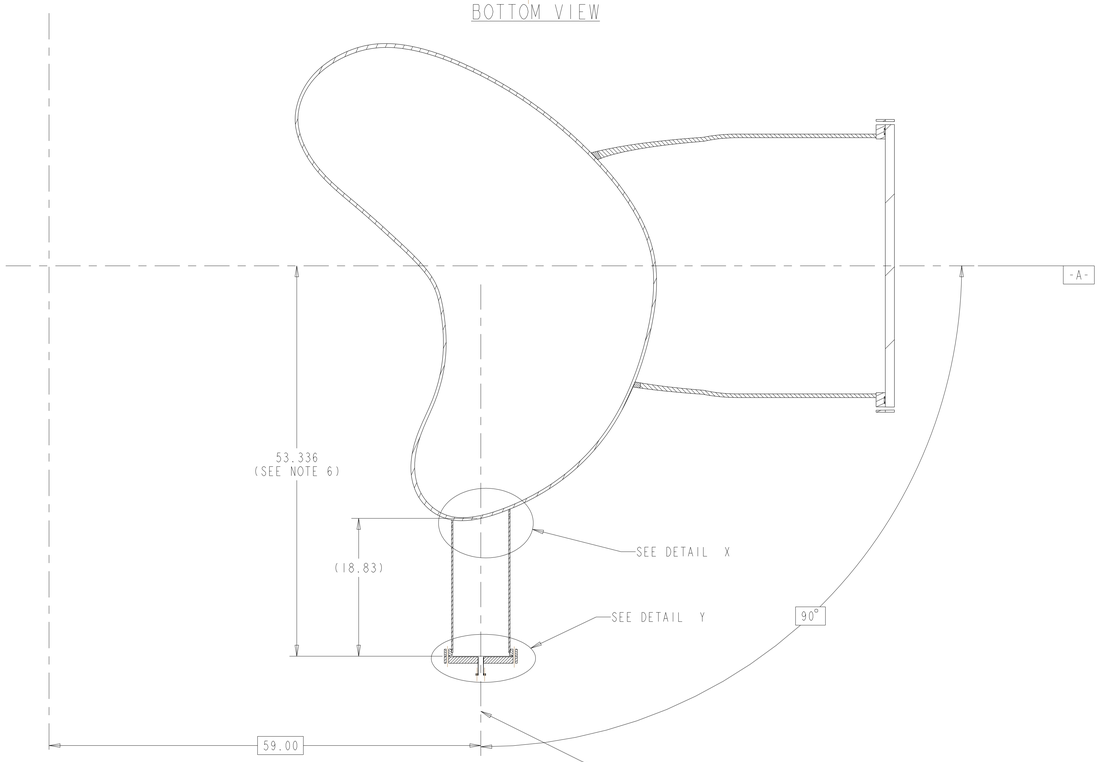
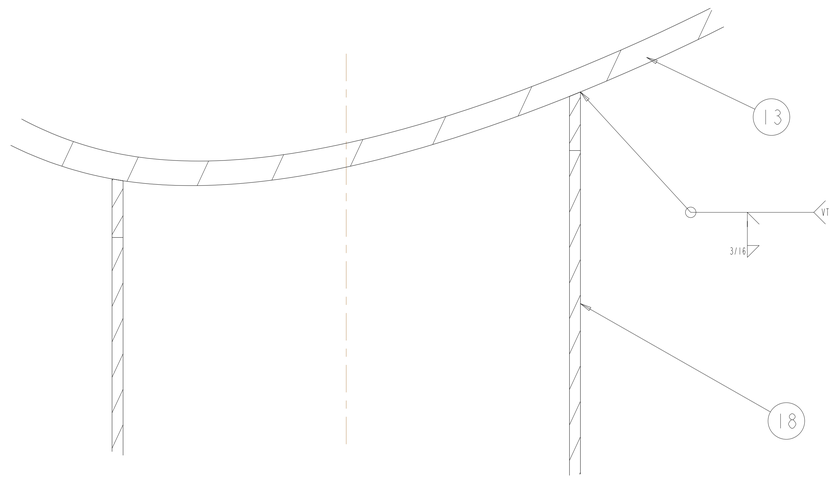


TYPICAL PORT 7A AND 7B
SECTION PORT07-PORT07



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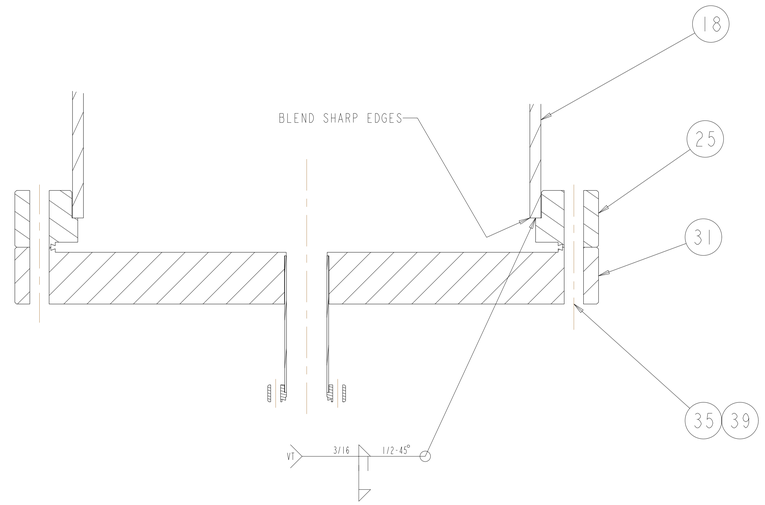

DETAIL Y
SCALE 1.00

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UT-BATTELLE, LLC. Oak Ridge, Tennessee

PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT

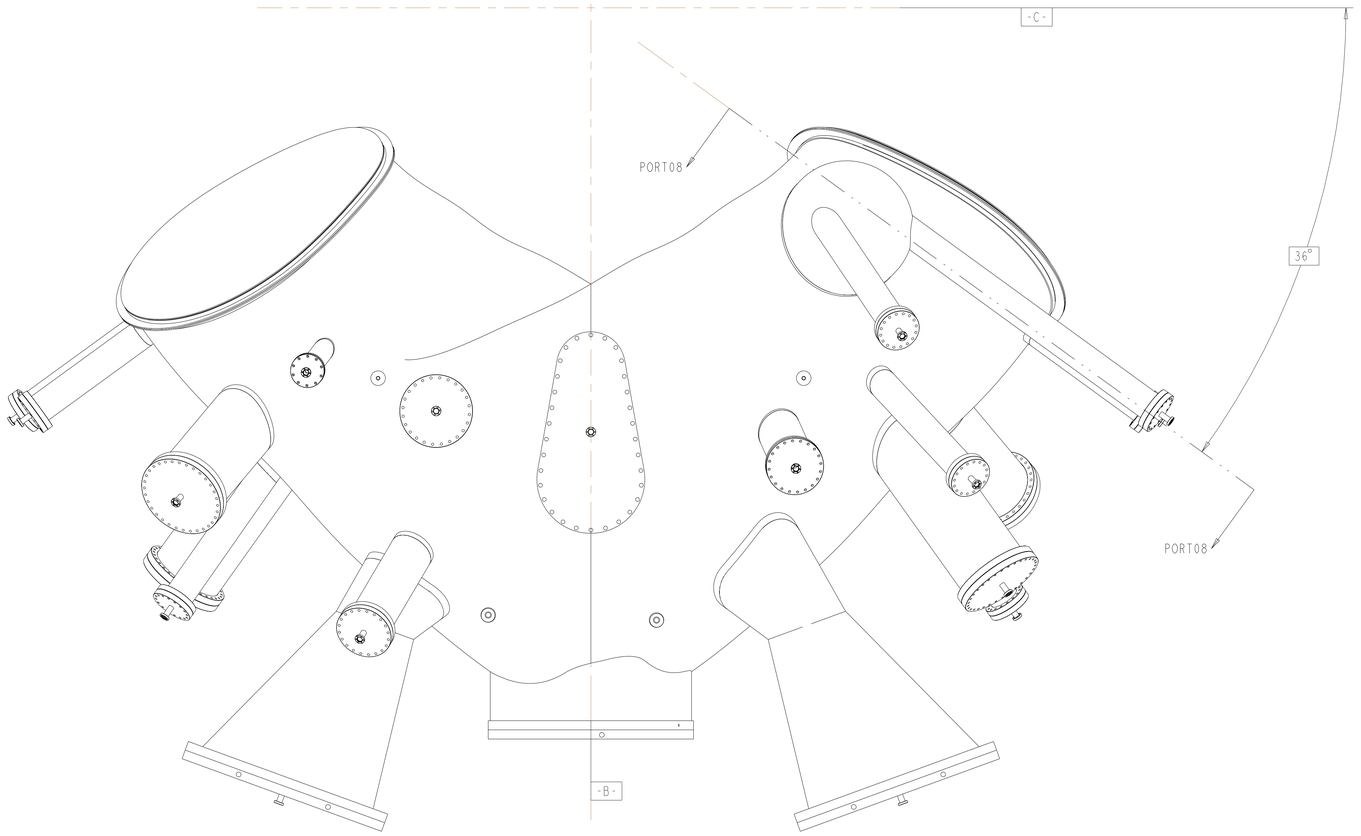
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK
ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	8 19	A	U

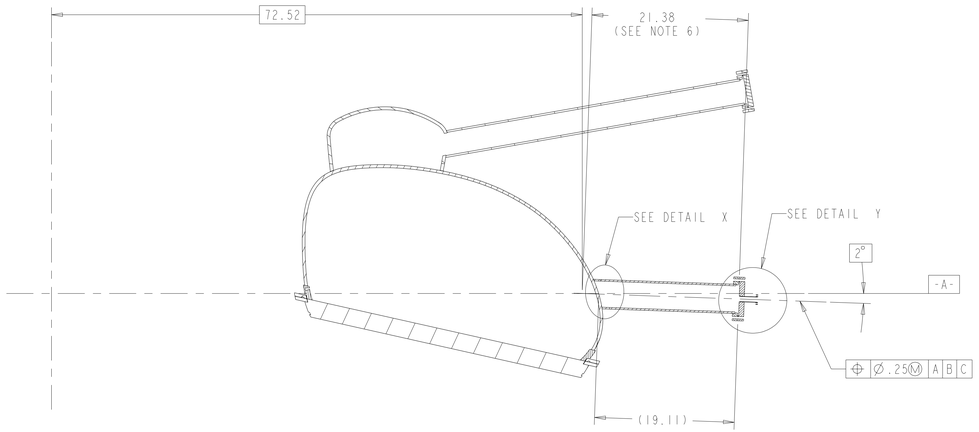
RELEASE LEVEL		REV
Fabrication	SE120-004	2

SE120-004

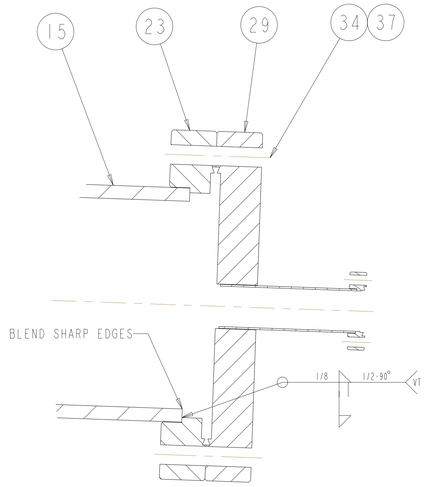
FOR PARTS LIST AND NOTES SEE SHEET 1.



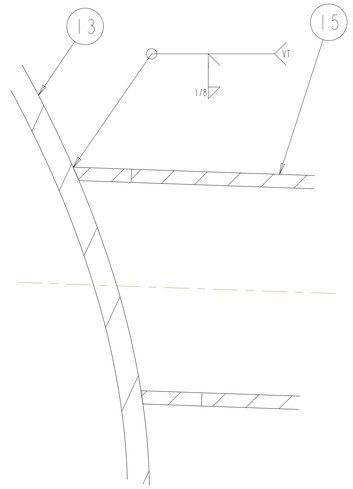
TOP VIEW



TYPICAL PORT 8A AND 8B
SECTION PORT08-PORT08



DETAIL Y
SCALE 1.00



DETAIL X
SCALE 1.00

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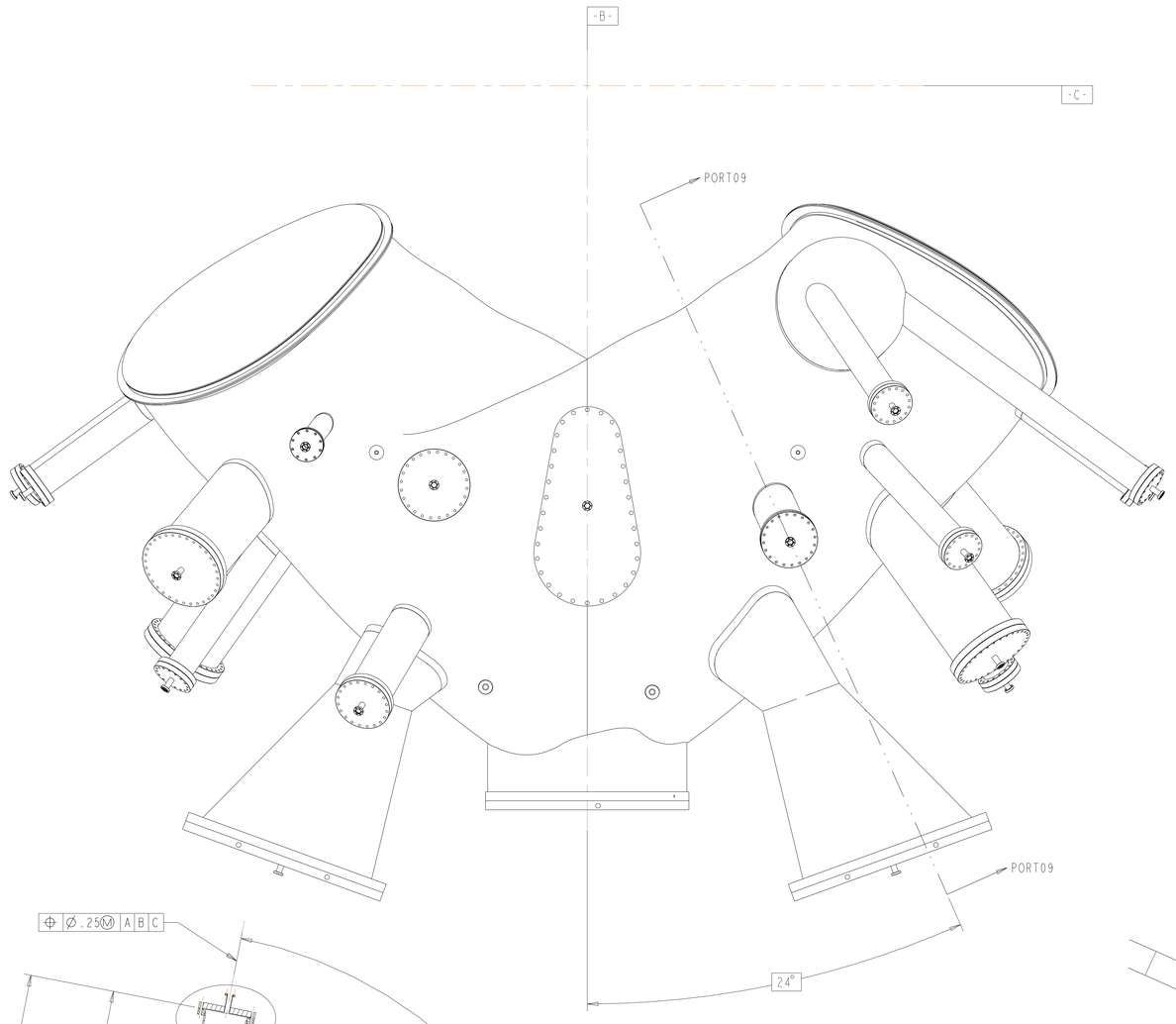
UT-BATTELLE	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-000R22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee							
PROJECT NAME: NATIONAL COMPACT STELLERATOR EXPERIMENT								
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY								
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT 9 OF 19	TYPE A	CLASS U		
RELEASE LEVEL Fabrication	SE120-004					REV 2		

SE120-004

FOR PARTS LIST AND NOTES SEE SHEET 1.



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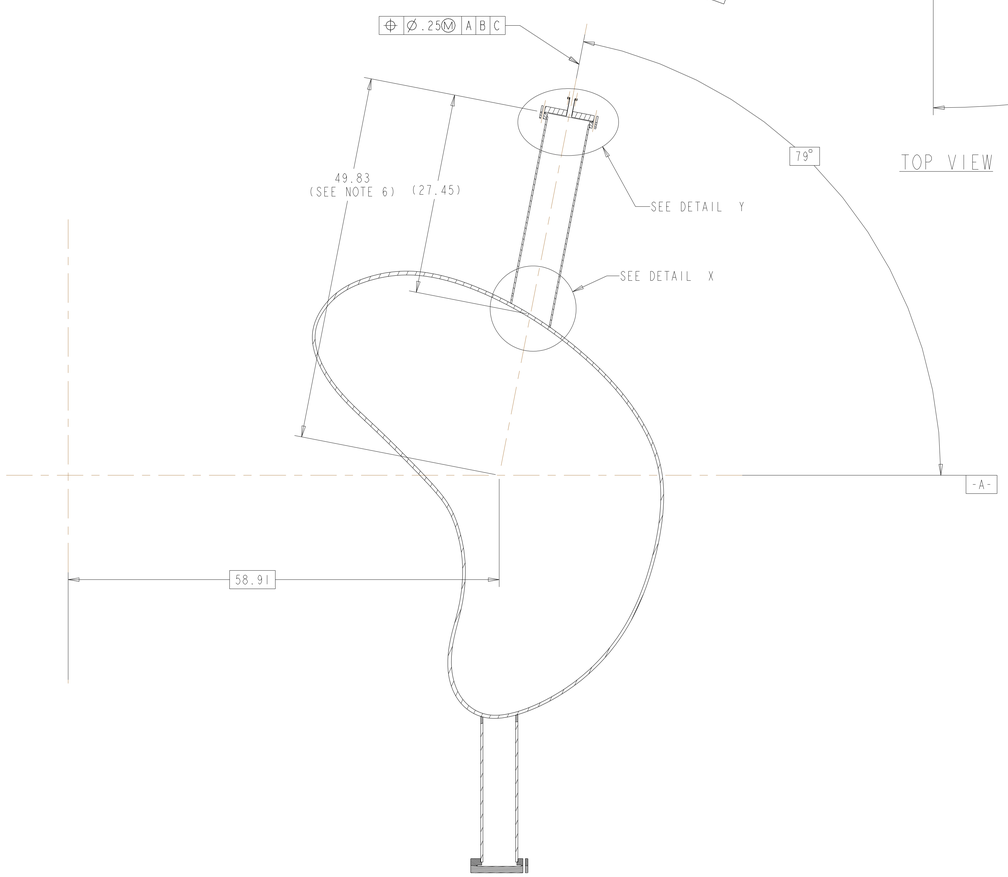
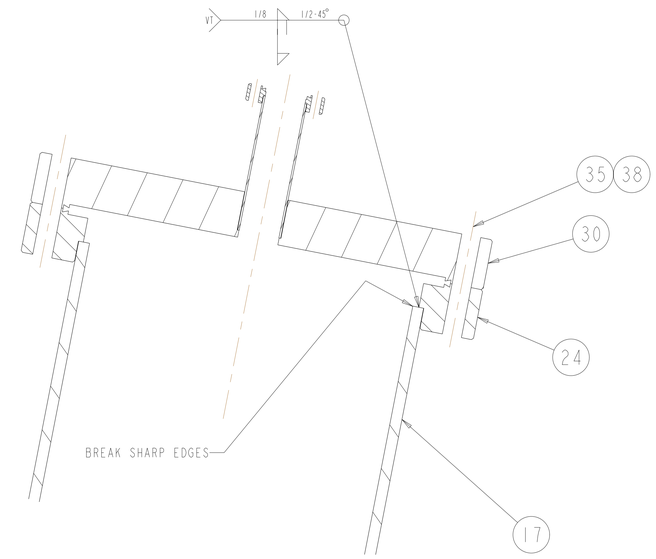
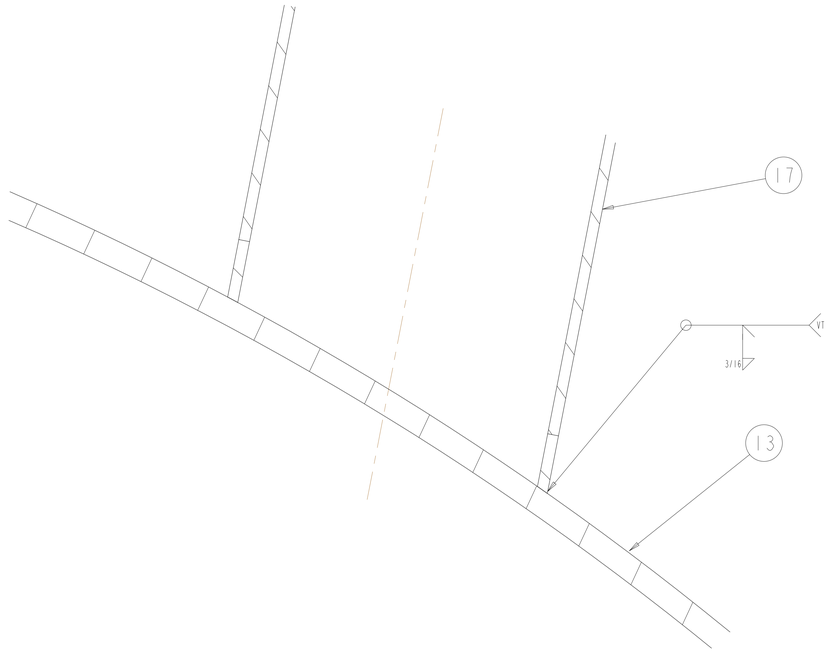


TYPICAL PORT 9A AND 9B
SECTION PORT09-PORT09



DETAIL Y
SCALE 1.00



DETAIL X
SCALE 1.00

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SE120-004

UT-BATTELLE
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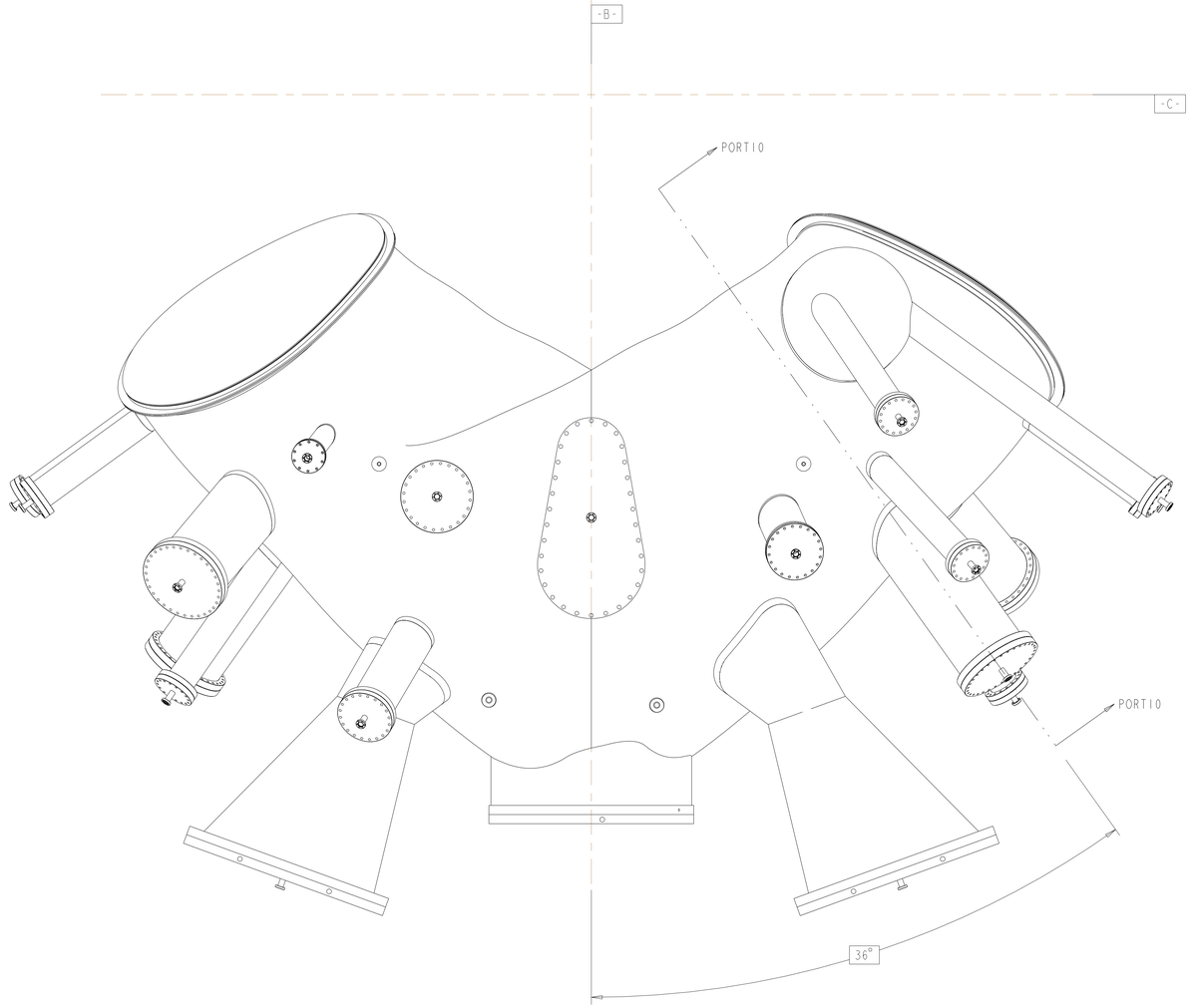
UT-BATTELLE, LLC. Oak Ridge, Tennessee

PROJECT NAME
NATIONAL COMPACT STELLARATOR EXPERIMENT

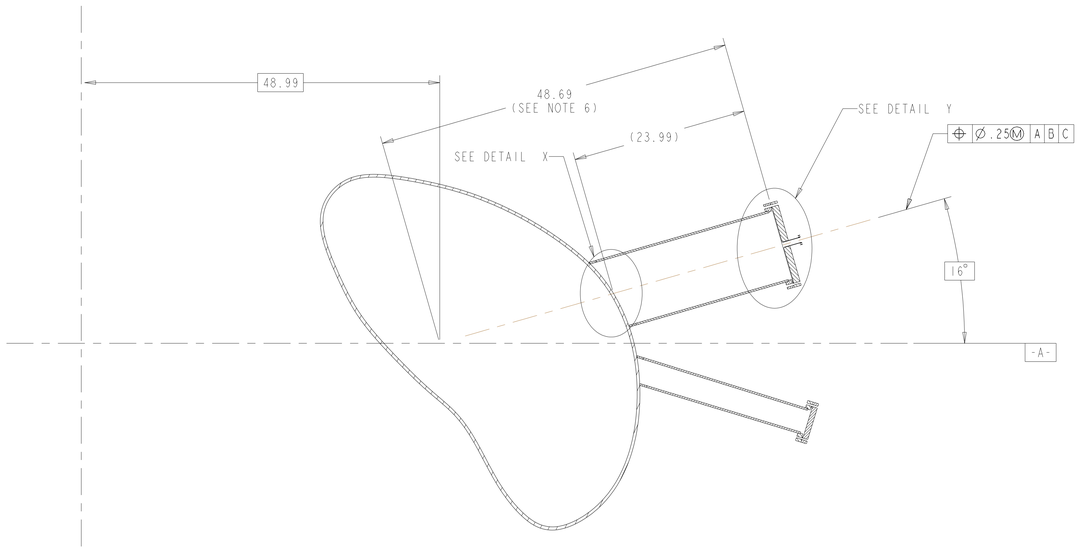
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT	OF	TYPE	CLASS
5	X-10	5700	3	10	19	A	U

RELEASE LEVEL		REV
Fabrication	SE120-004	2

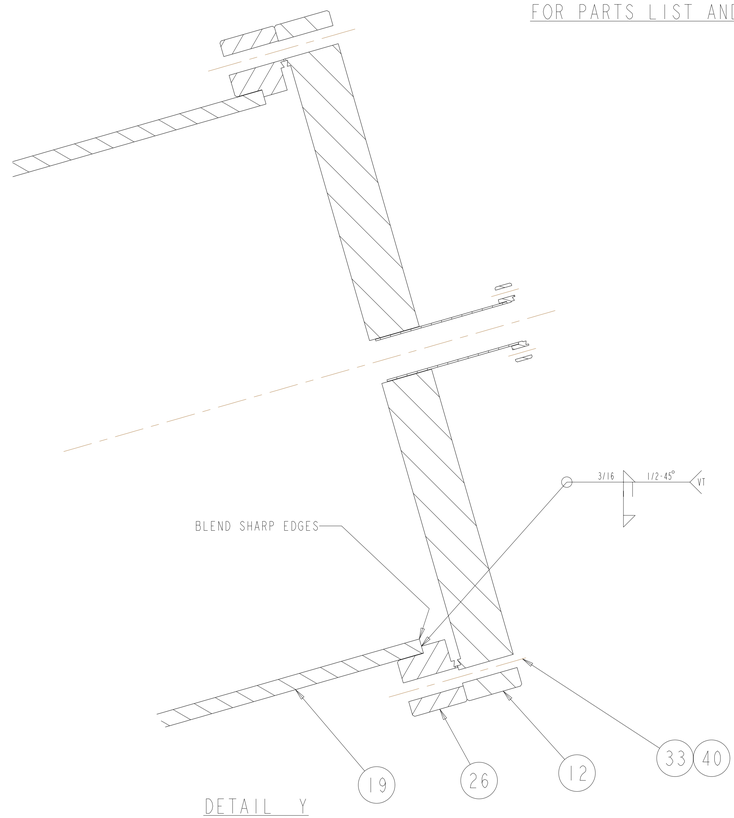


TOP VIEW

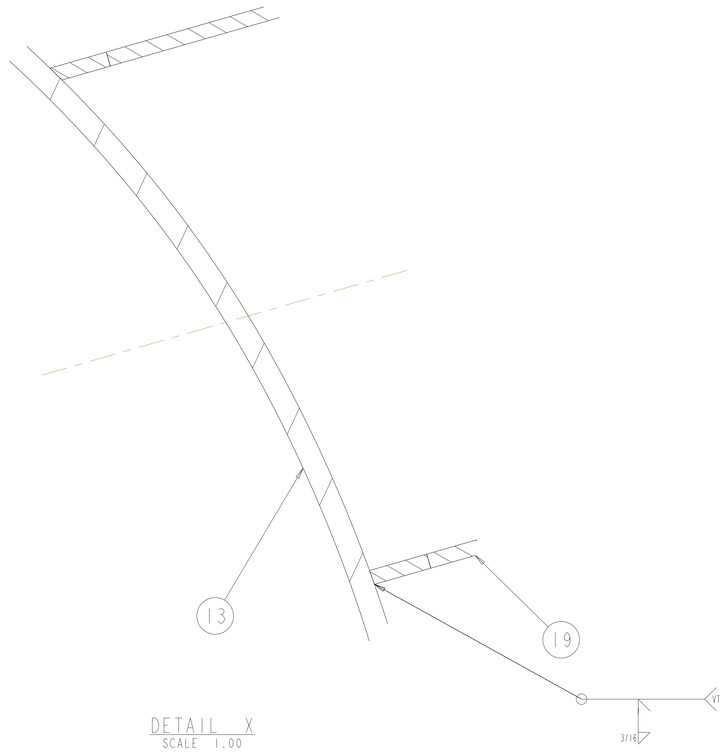


TYPICAL PORT 10A AND 10B
SECTION PORT10-PORT10

FOR PARTS LIST AND NOTES SEE SHEET 1.



DETAIL Y
SCALE 1.00



DETAIL X
SCALE 1.00

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UT-BATTELLE, LLC. Oak Ridge, Tennessee

PROJECT NAME
NATIONAL COMPACT STELLARATOR EXPERIMENT

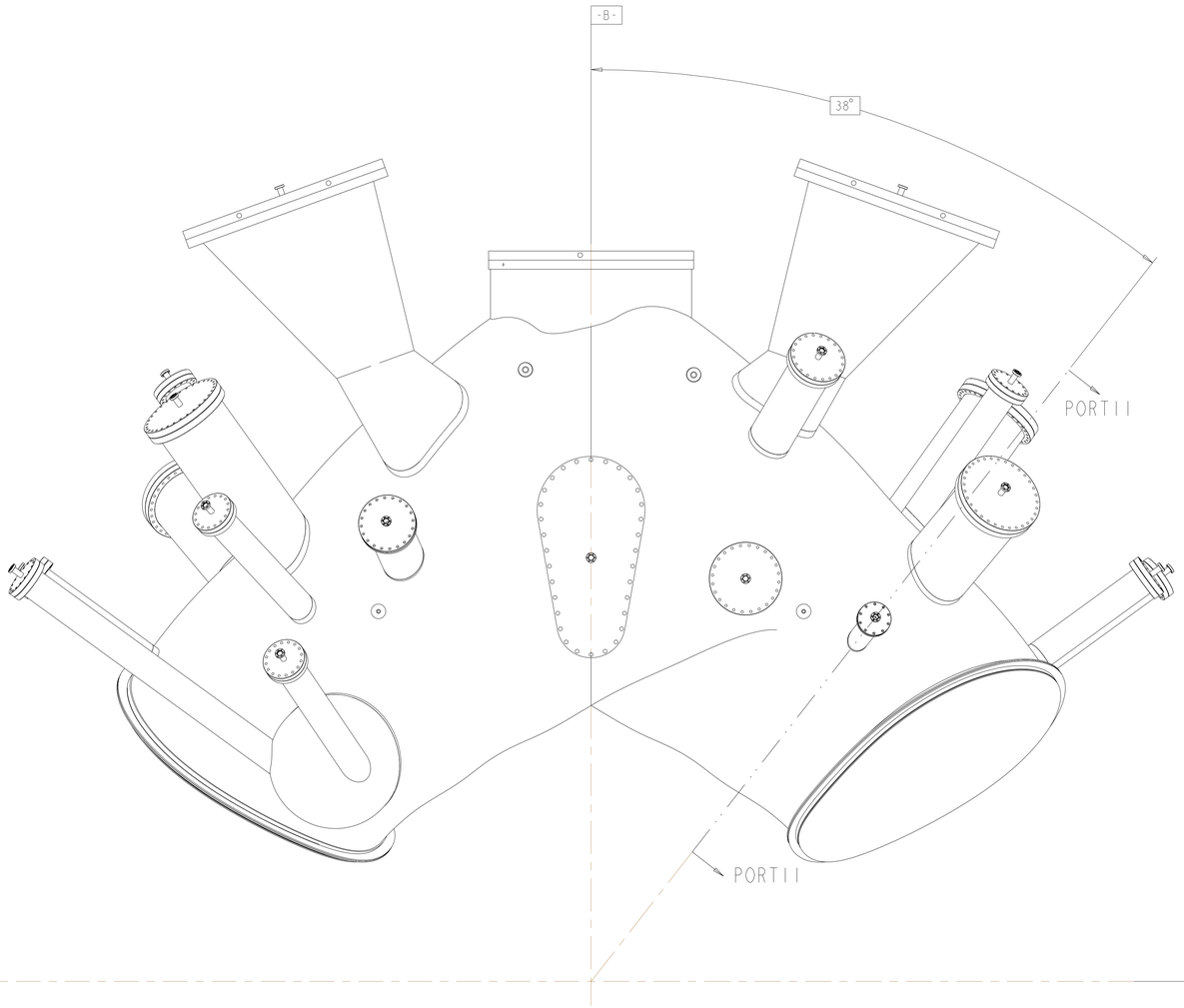
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

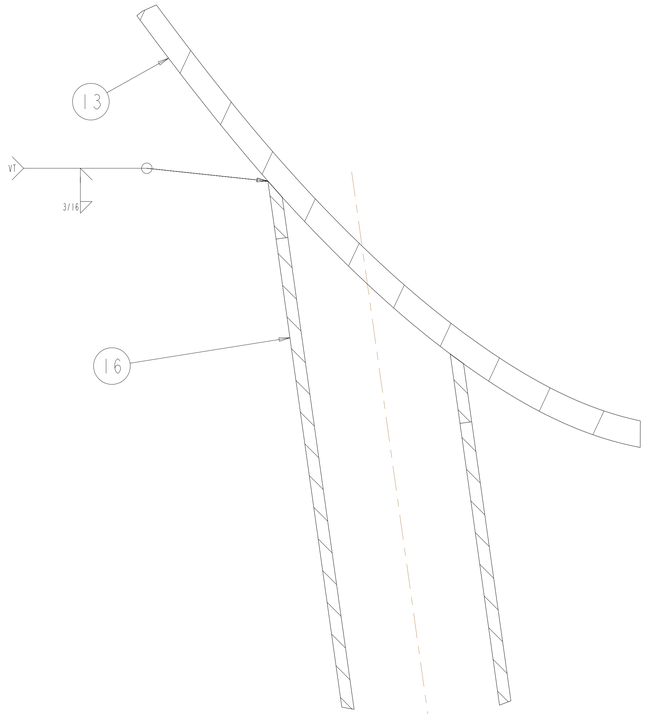
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	11 19	A	U

RELEASE LEVEL		REV
Fabrication	SE120-004	2

SE120-004

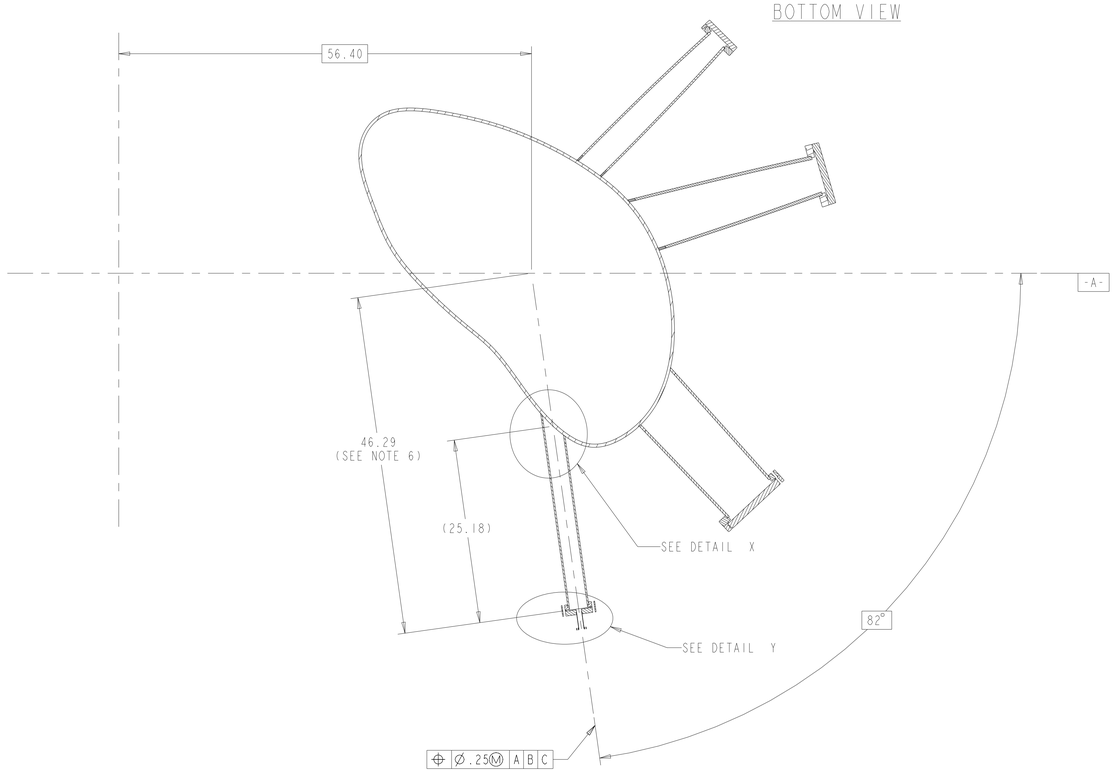
FOR PARTS LIST AND NOTES SEE SHEET 1.



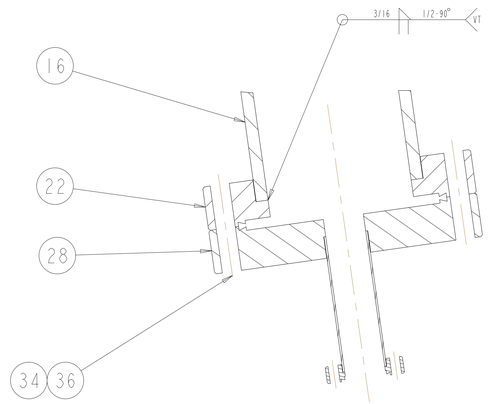


DETAIL X
SCALE 1.00

BOTTOM VIEW



TYPICAL PORT IIA AND IIB
SECTION PORTII-PORTII



DETAIL Y
SCALE 1.00

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UT-BATTELLE, LLC. Oak Ridge, Tennessee

PROJECT NAME
NATIONAL COMPACT STELLARATOR EXPERIMENT

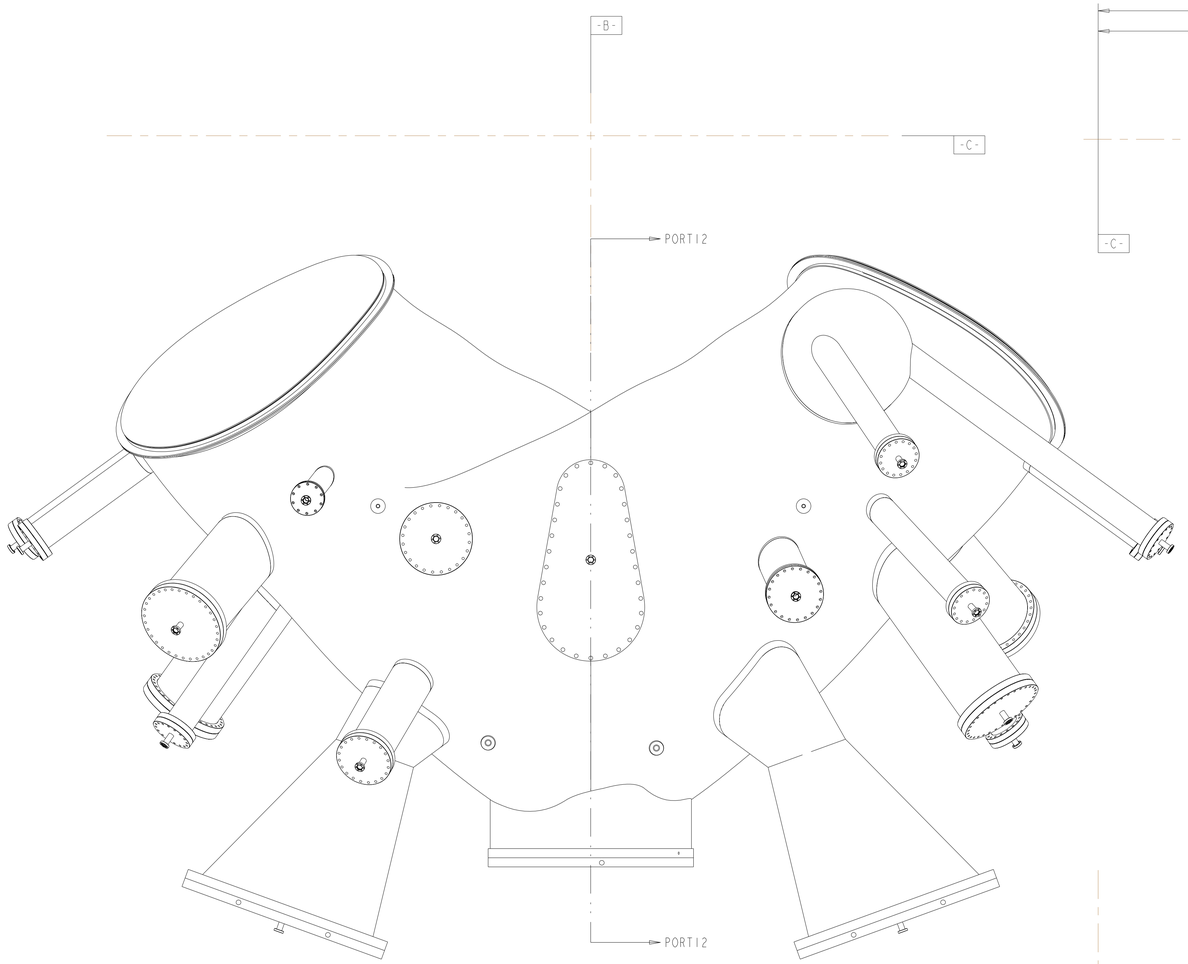
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK
ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	12 19	A	U

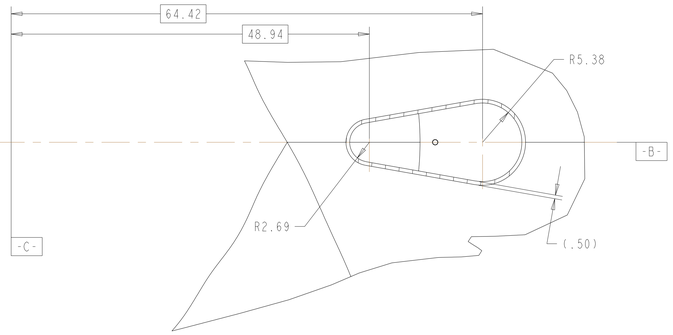
RELEASE LEVEL		REV
Fabrication	SE120-004	2

SE120-004

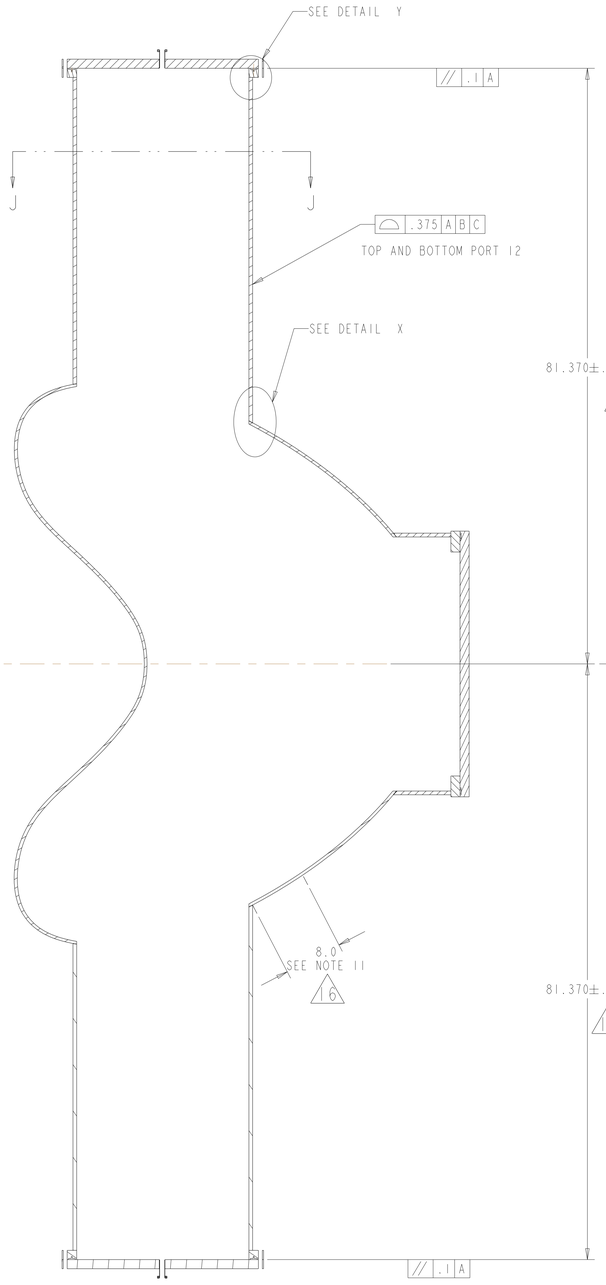
FOR PARTS LIST AND NOTES SEE SHEET 1.



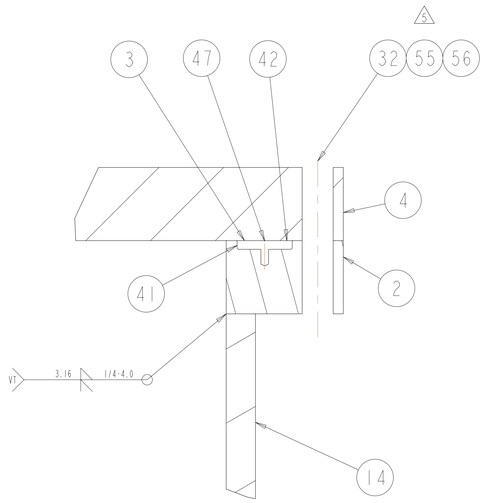
TOP VIEW



SECTION J-J
TYP TOP AND BOTTOM



SECTION PORT12-PORT12



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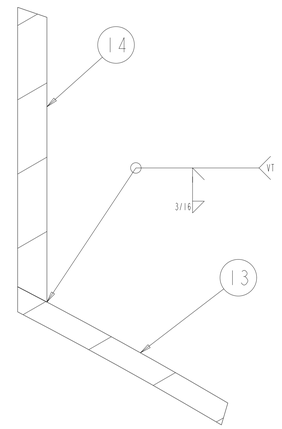
SCALE 1.00



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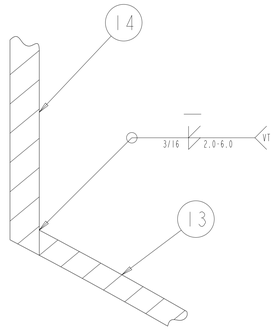
SCALE 1.00



OPTIONAL WELD DETAIL
15

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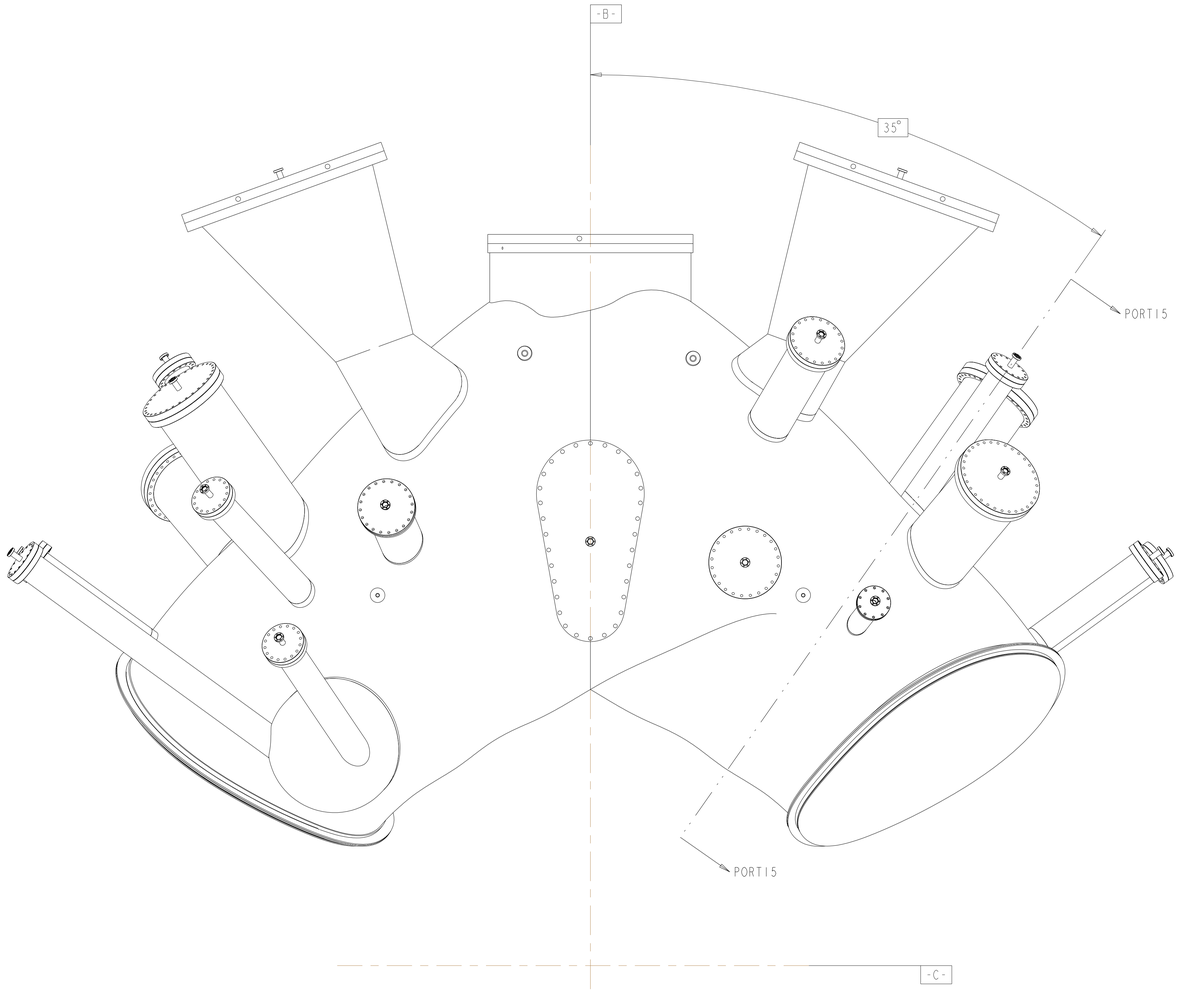
PPPL Drafting: Jerry Siegel 2005.03.25 13:20:11 -05'00'

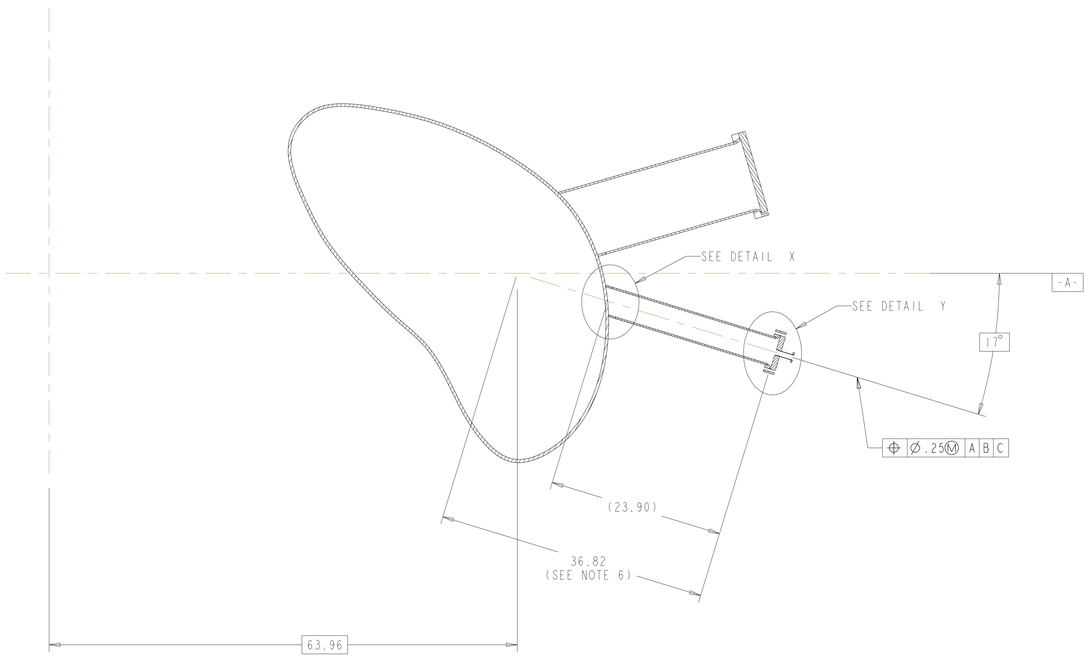
UT-BATTELLE — Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee							
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 13 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication	SE120-004					REV 2	

SE120-004

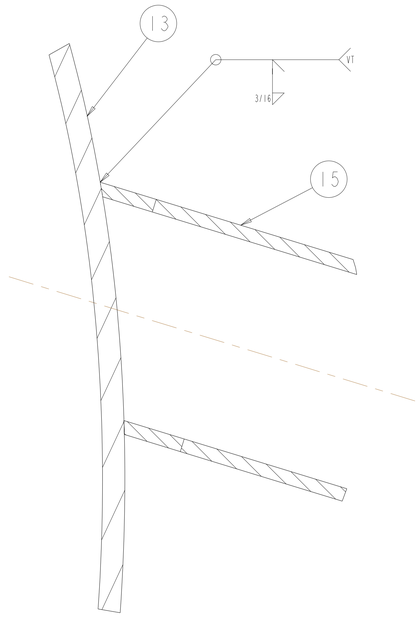
FOR PARTS LIST AND NOTES SEE SHEET 1.



BOTTOM VIEW



TYPICAL PORT 15A AND 15B
SECTION PORT15-PORT15



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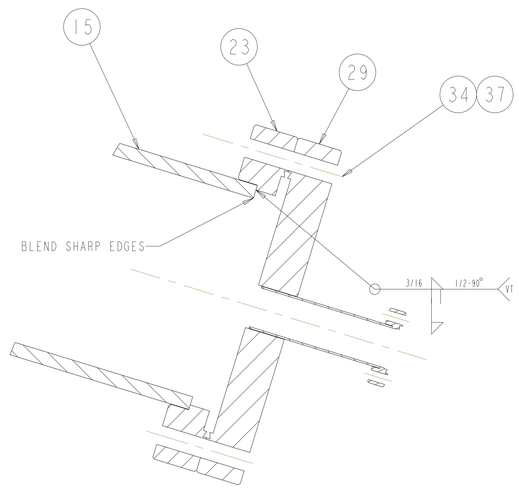
SCALE 1.00



DETAIL Y
SCALE 1.00

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SE120-004

UT-BATTELLE
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UT-BATTELLE, LLC Oak Ridge, Tennessee

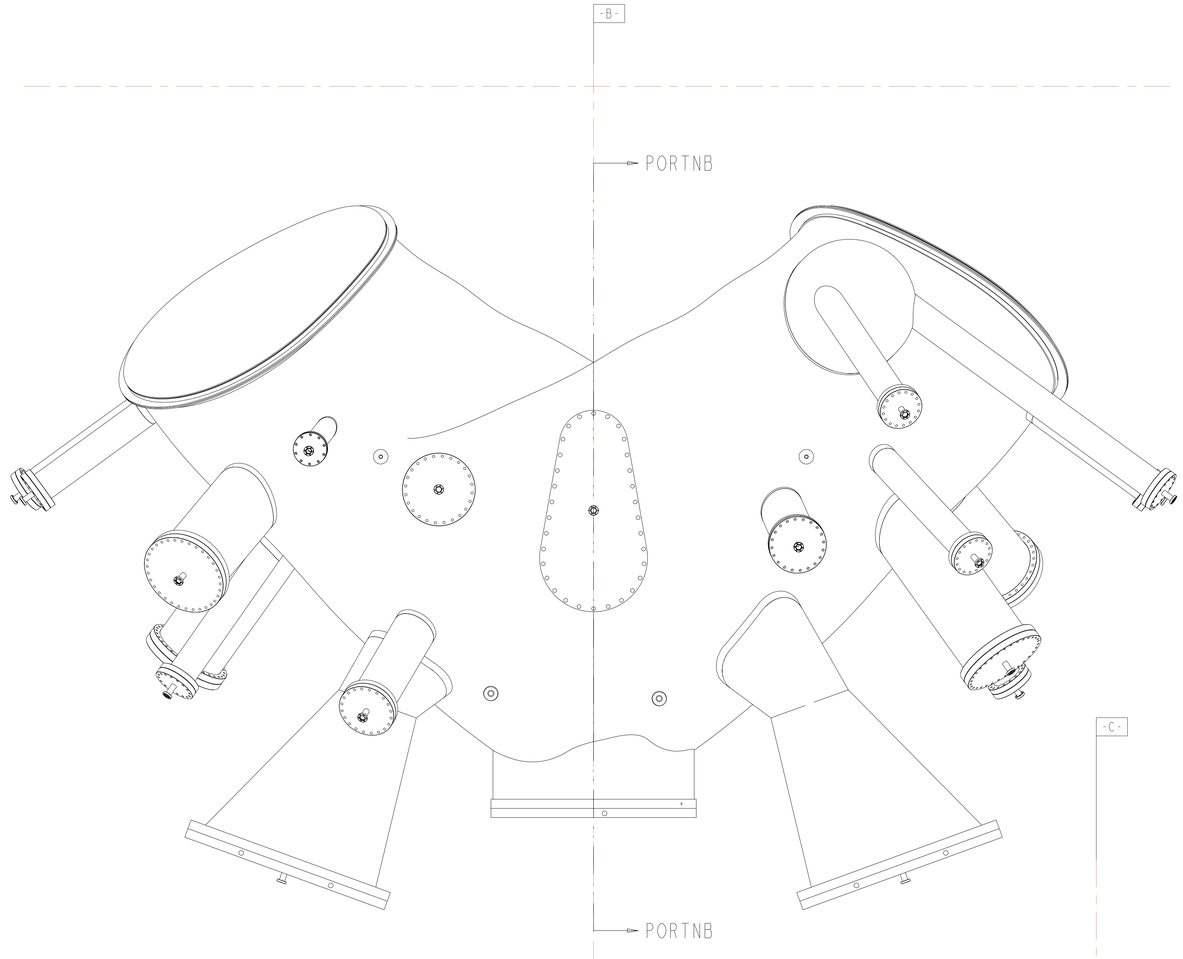
PROJECT NAME
NATIONAL COMPACT STELLARATOR EXPERIMENT

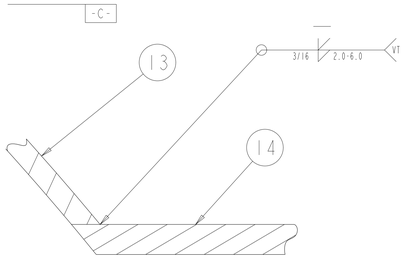
VACUUM VESSEL
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	14 19	A	U

RELEASE LEVEL		REV
Fabrication	SE120-004	2

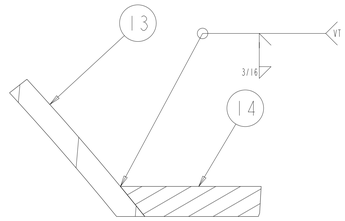
FOR PARTS LIST AND NOTES SEE SHEET 1



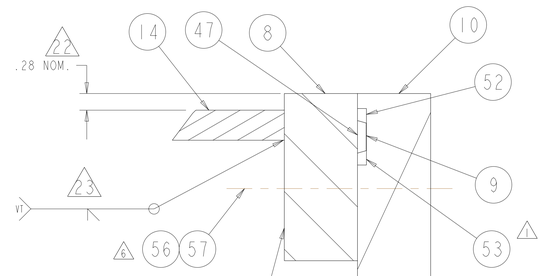


OPTIONAL WELD DETAIL

18



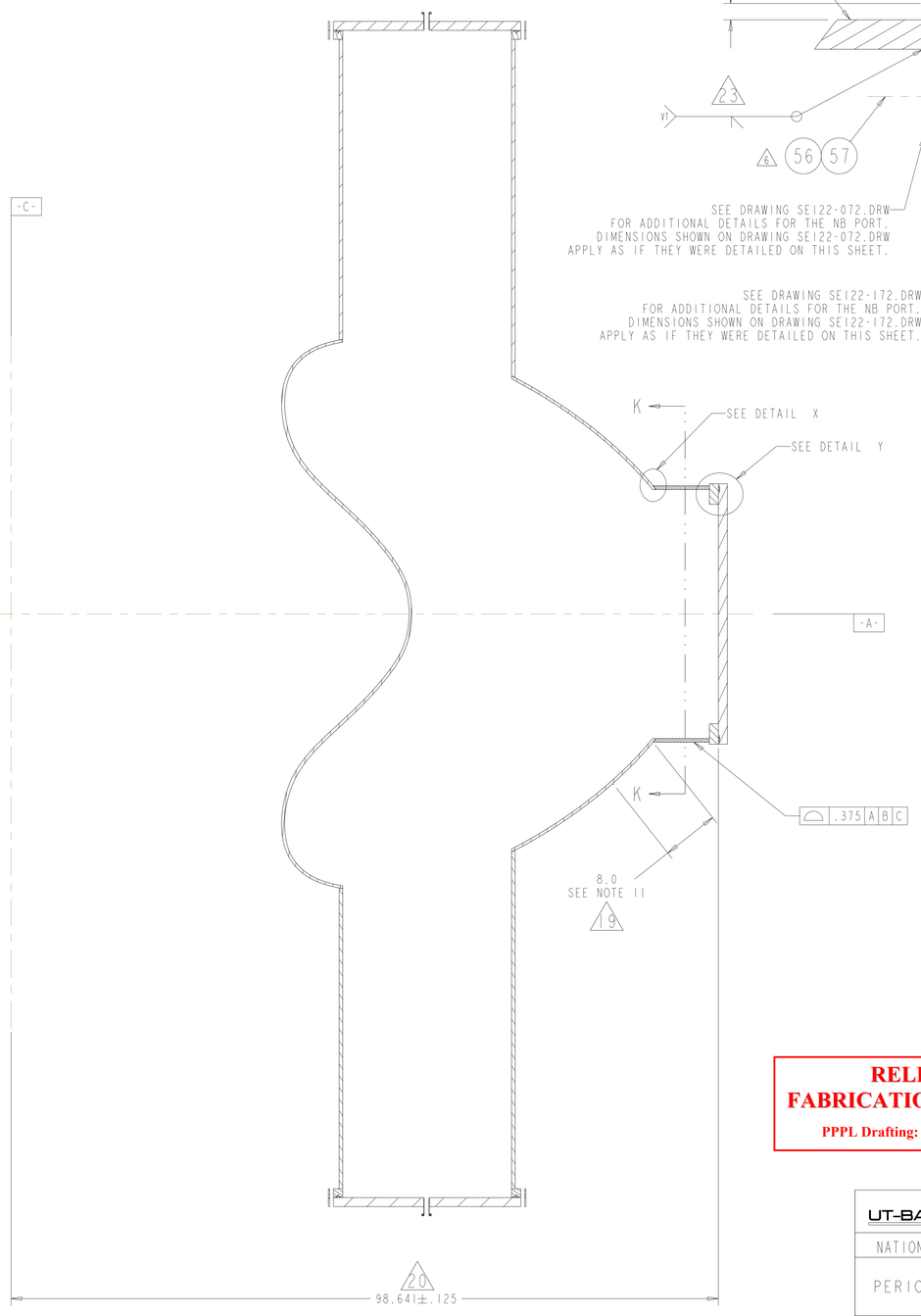
DETAIL X
SCALE 1.00



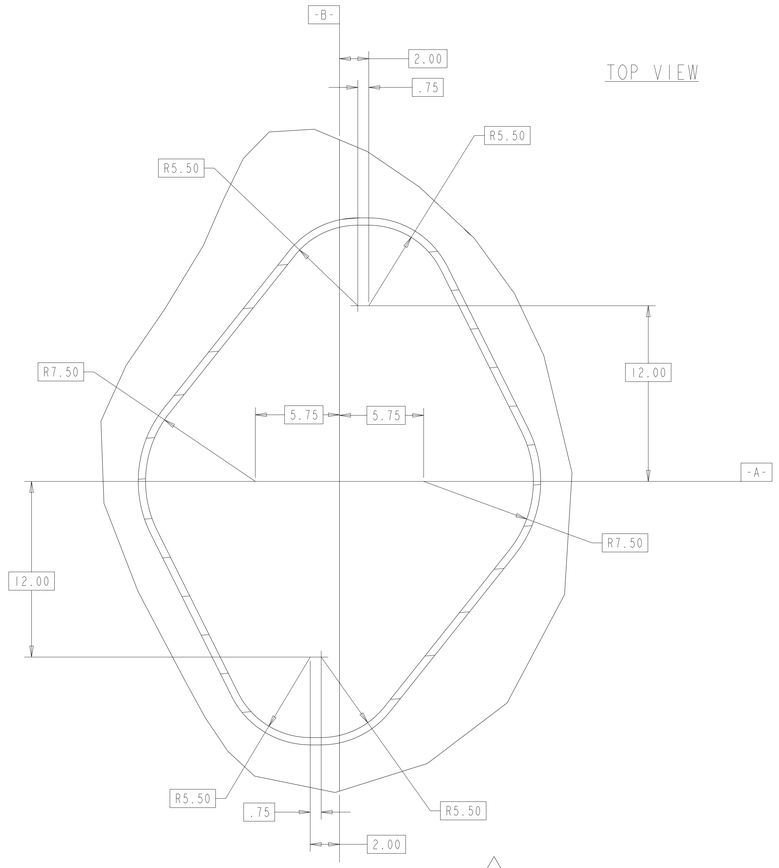
SEE DRAWING SE122-072.DRW
FOR ADDITIONAL DETAILS FOR THE NB PORT.
DIMENSIONS SHOWN ON DRAWING SE122-072.DRW
APPLY AS IF THEY WERE DETAILED ON THIS SHEET.

SEE DRAWING SE122-172.DRW
FOR ADDITIONAL DETAILS FOR THE NB PORT.
DIMENSIONS SHOWN ON DRAWING SE122-172.DRW
APPLY AS IF THEY WERE DETAILED ON THIS SHEET.

DETAIL Y
SCALE 1.00



SECTION PORTNB-PORTNB



TOP VIEW

SECTION K-K
SCALE 0.25

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PPPL Drafting: Jerry Siegel 2005.03.25 13:20:11 -05'00'

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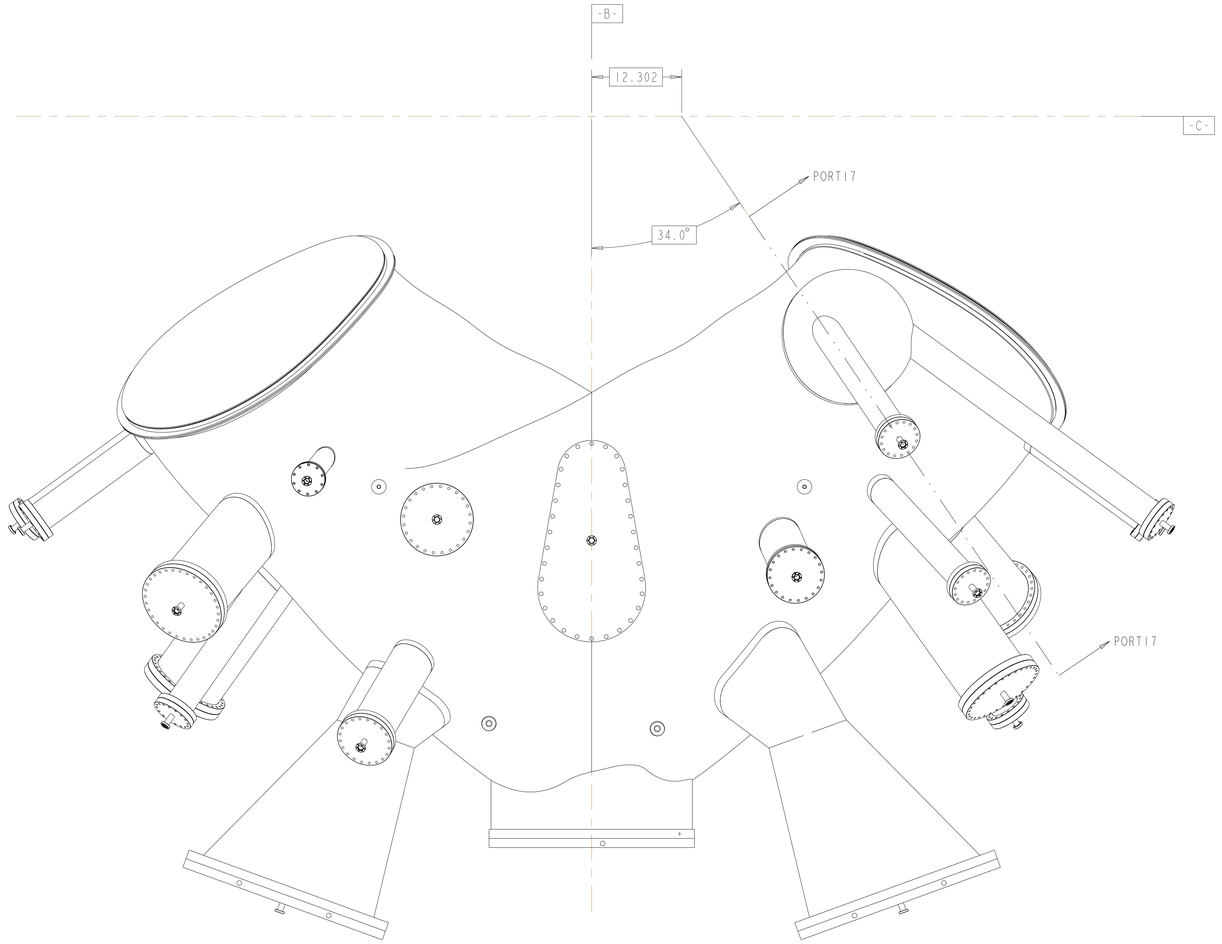
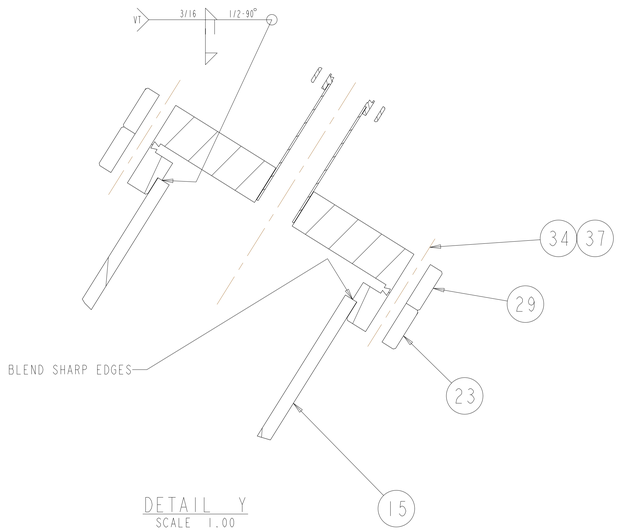
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT 15 OF 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication	SE120-004					REV 2	

SE120-004

FOR PARTS LIST AND NOTES SEE SHEET 1.



TOP VIEW



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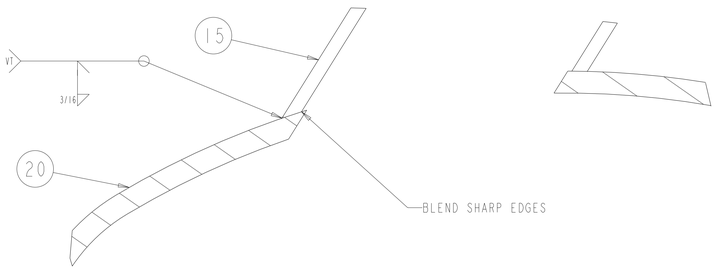

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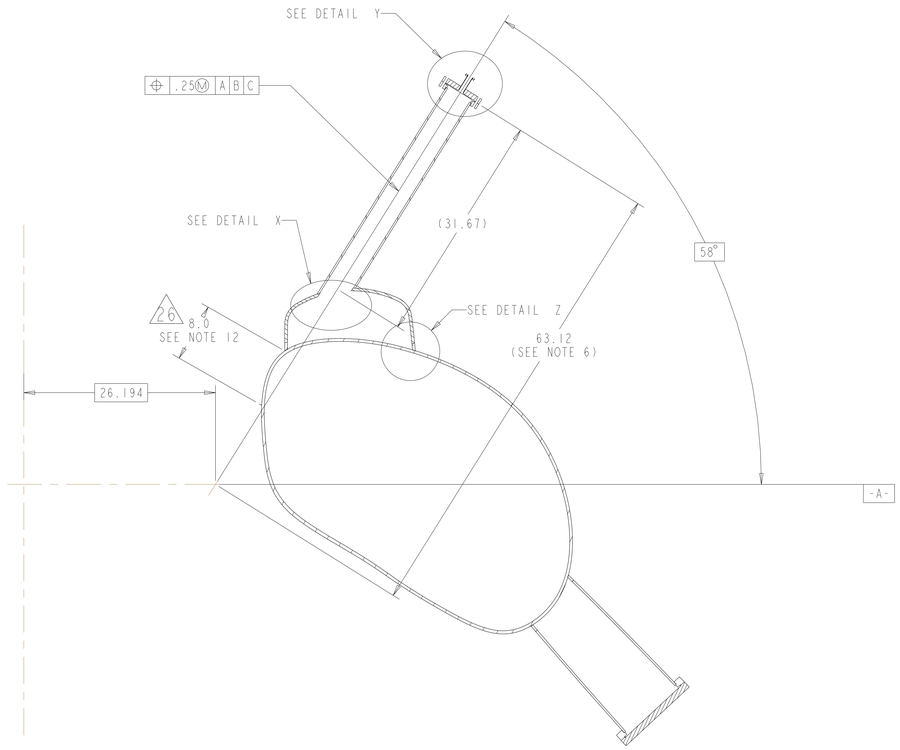
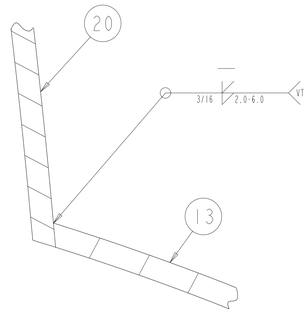
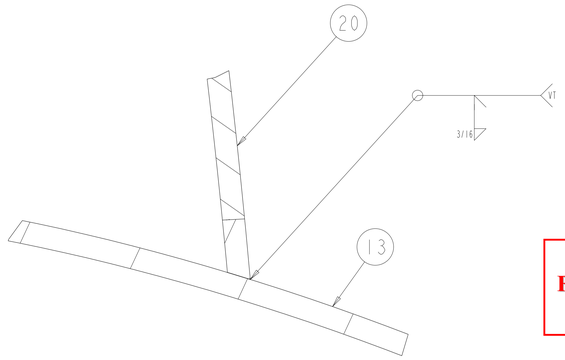


TYPICAL PORT 17A AND 17B
SECTION PORT17-PORT17



OPTIONAL WELD DETAIL
25



DETAIL Z
SCALE 1.00
24

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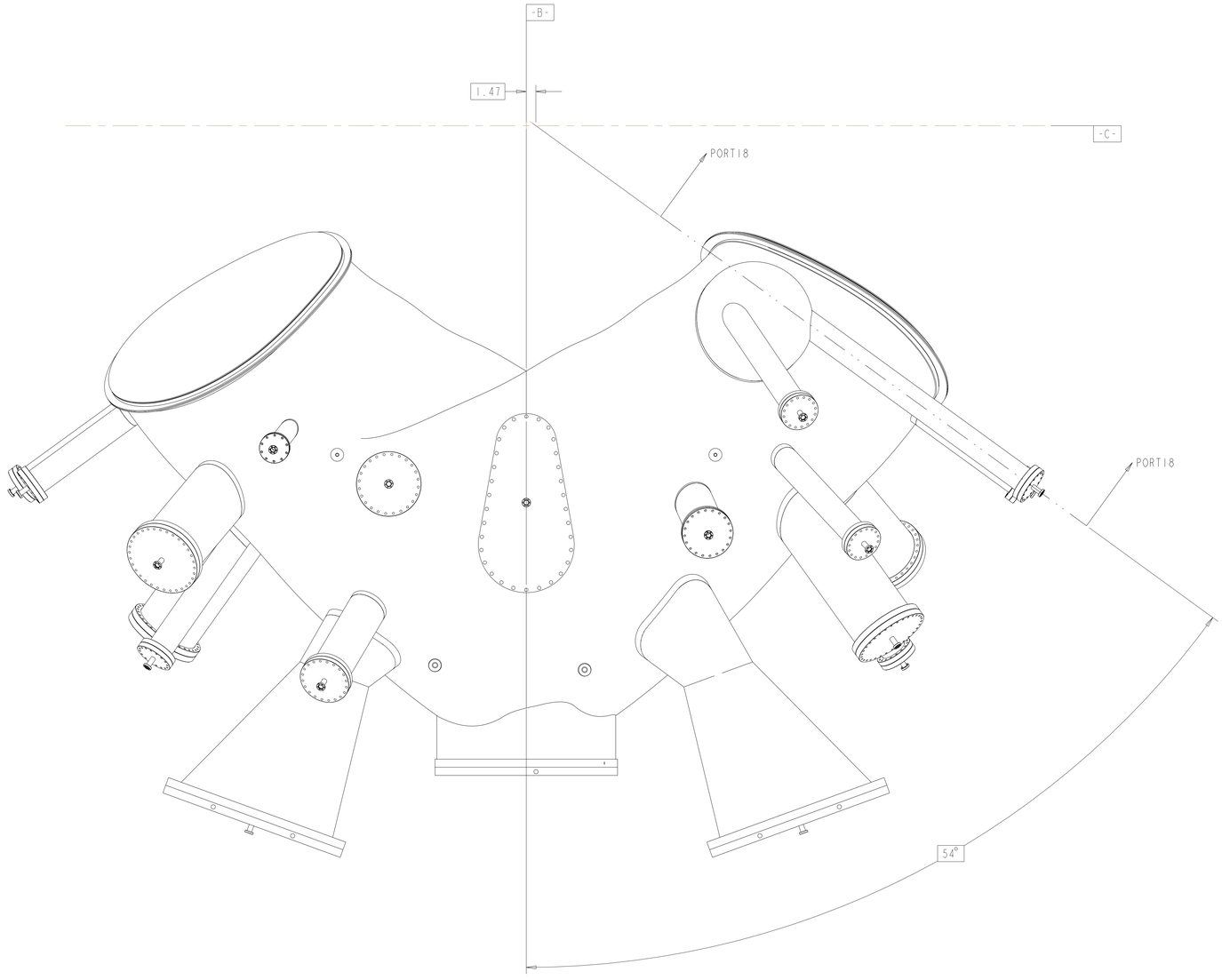
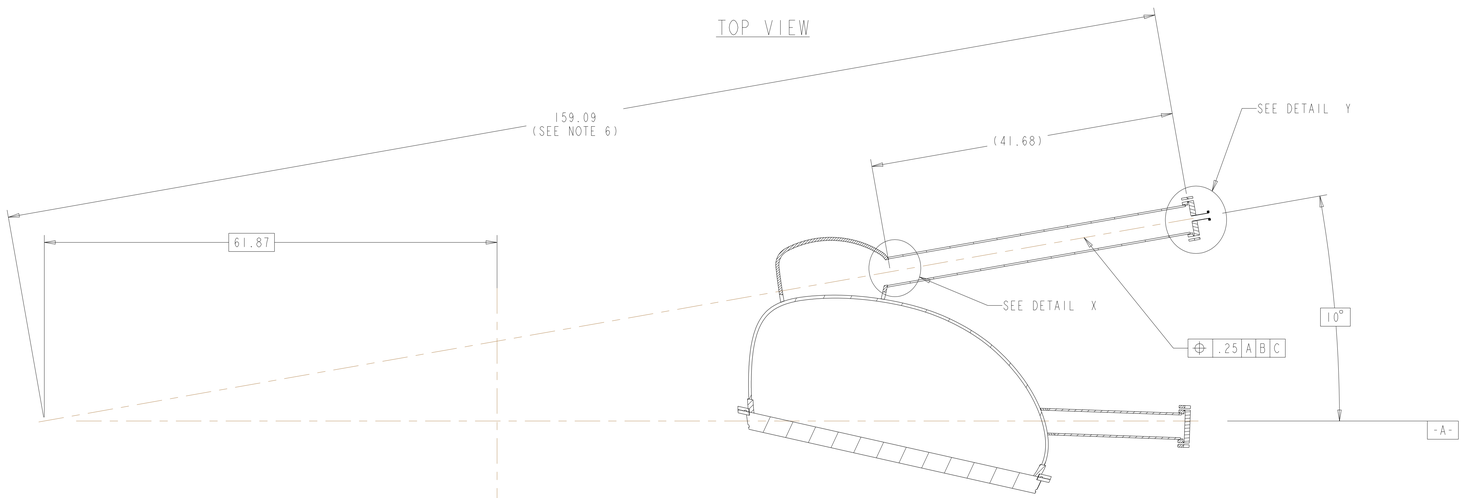
SE120-004

UT-BATTELLE	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-000R22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee						
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 16 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication	SE120-004					REV 2	

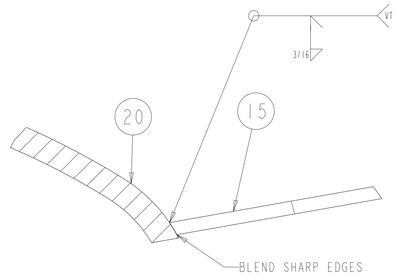
FOR PARTS LIST AND NOTES SEE SHEET 1.

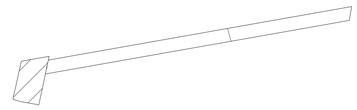


TOP VIEW



TYPICAL PORT 18A AND 18B
SECTION PORT18-PORT18





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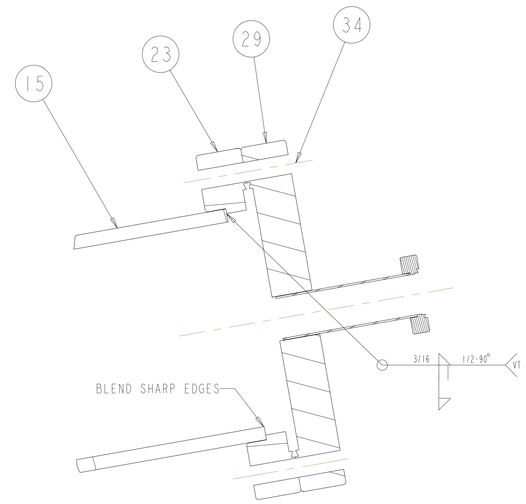

DETAIL Y
SCALE 1.000

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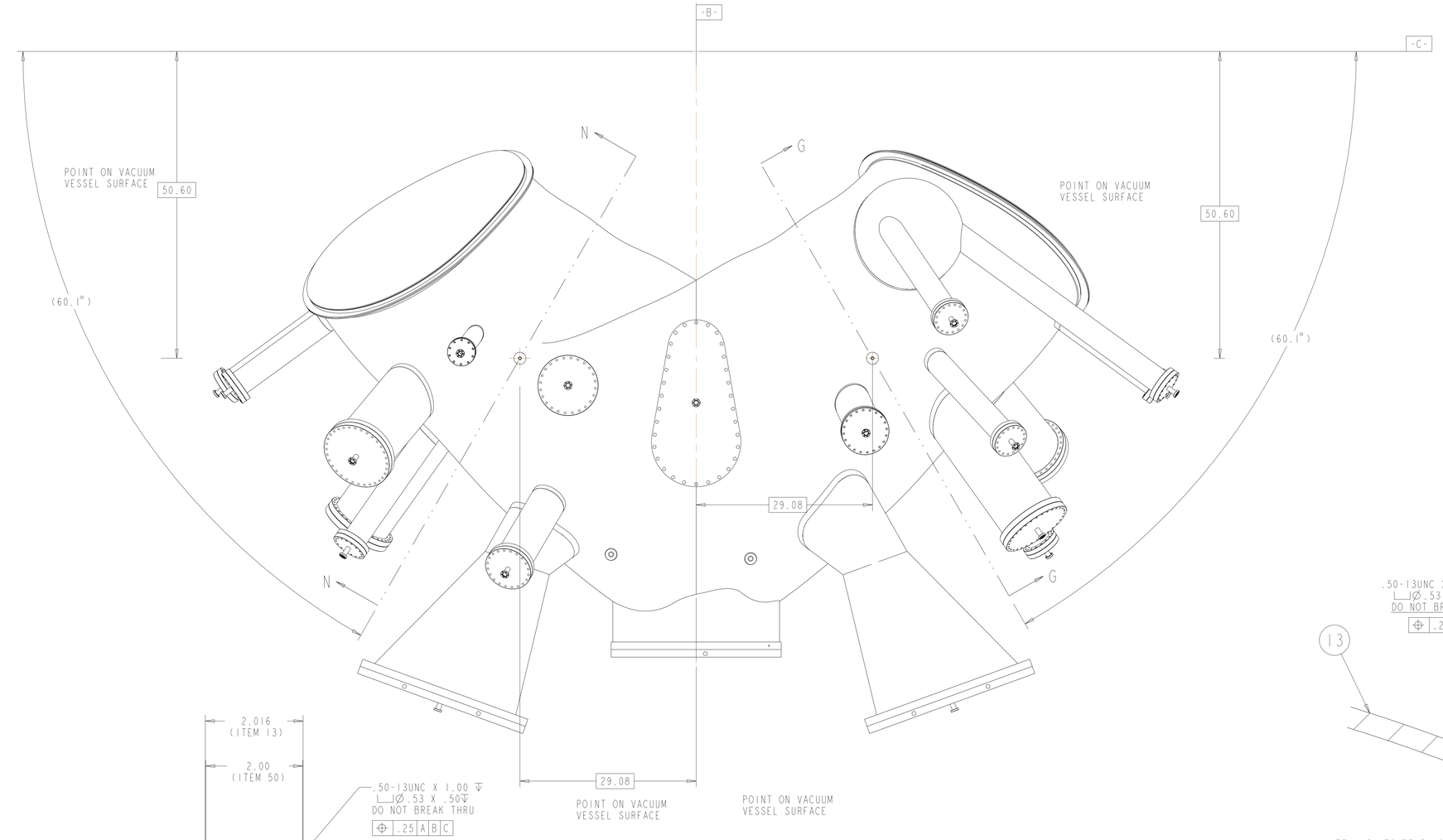
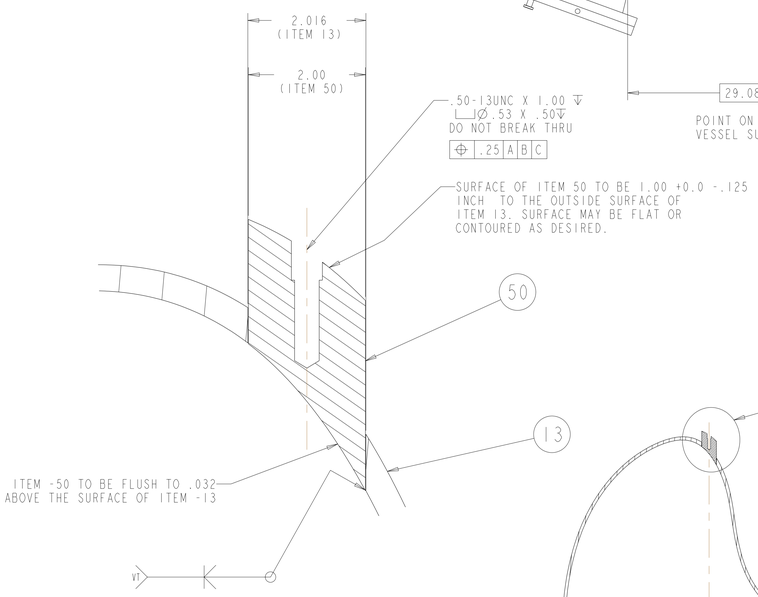
UT-BATTELLE	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-000R22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee							
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT								
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY								
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT 17 OF 19	TYPE A	CLASS U		
RELEASE LEVEL Fabrication	SE120-004					REV 2		

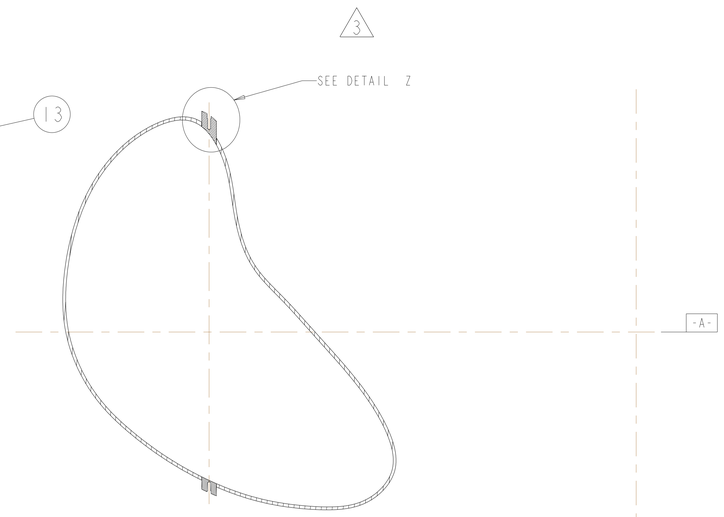
SE120-004

FOR PARTS LIST AND NOTES SEE SHEET 1.



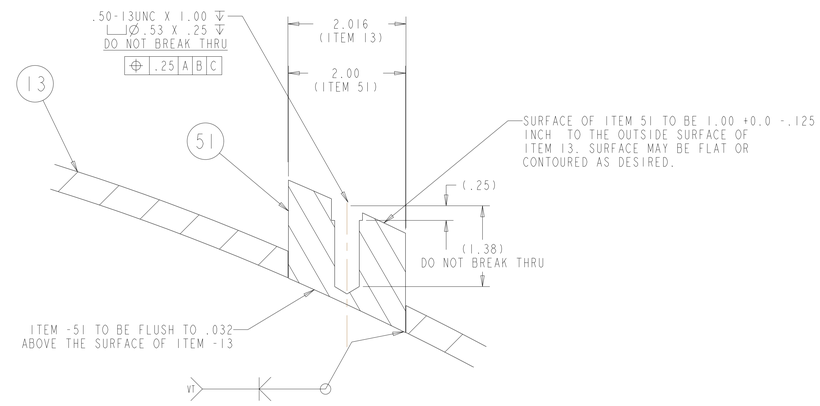


TOP VIEW

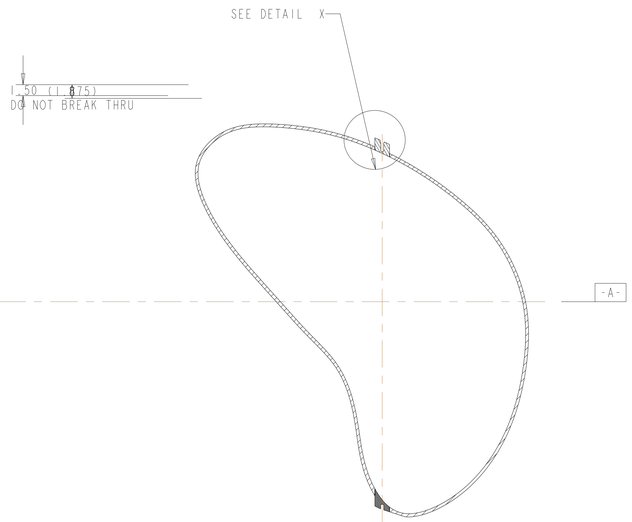


DETAIL Z
SCALE 1.00

SECTION N-N



DETAIL X
TYPICAL 2 PLACES
SCALE 1.00



SECTION G-G

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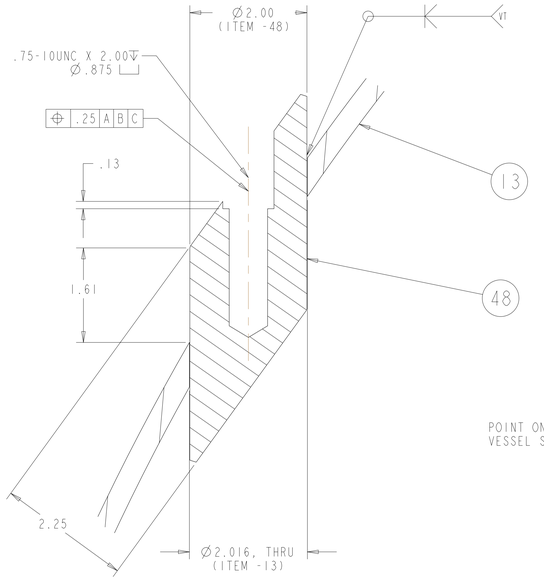
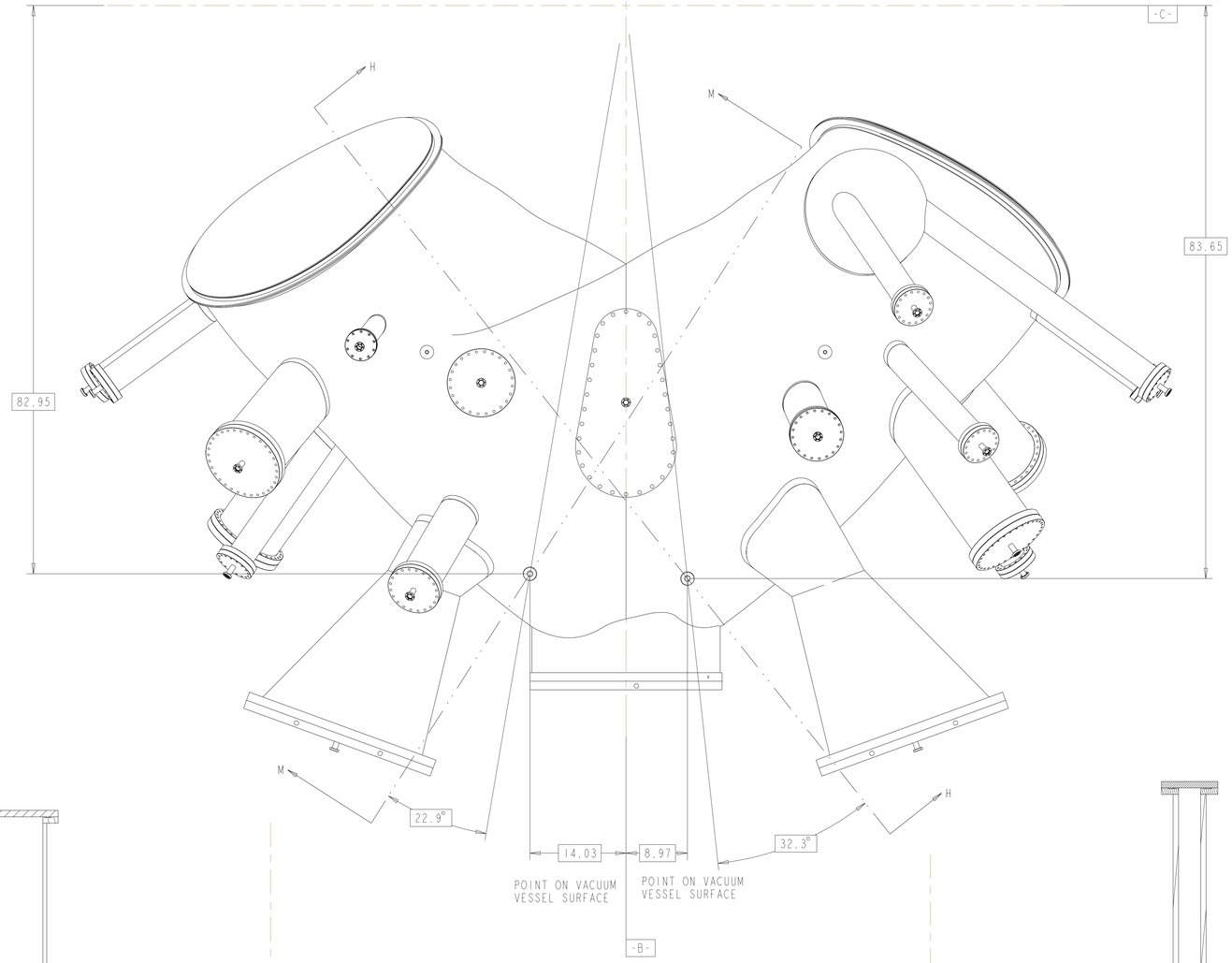
UT-BATTELLE — Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee							
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
3+	X-10	5700	3	18 19	A	U	
RELEASE LEVEL: Fabrication	SE120-004					REV 2	

SE120-004

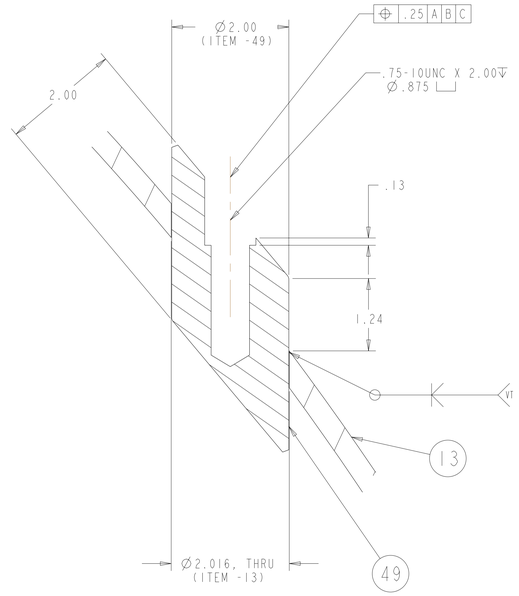
FOR PARTS LIST AND NOTES SEE SHEET 1.



DETAIL W
SCALE 1.00



TOP VIEW



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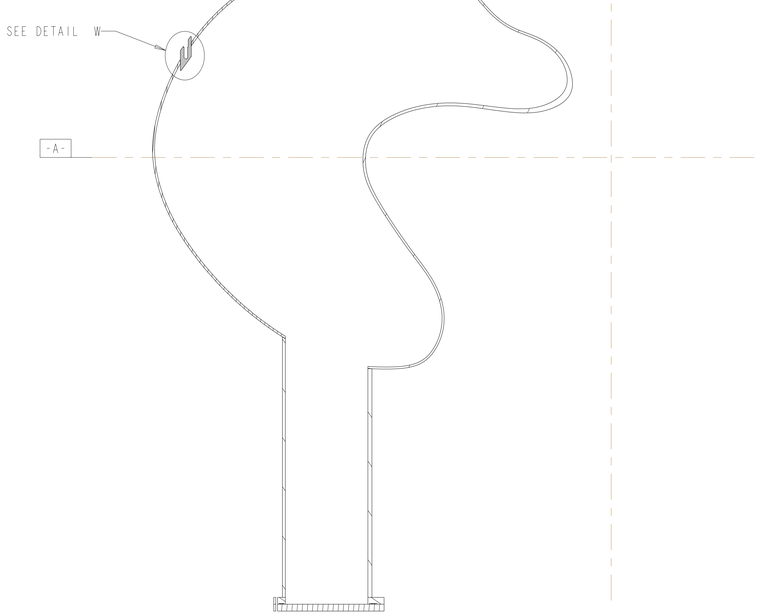
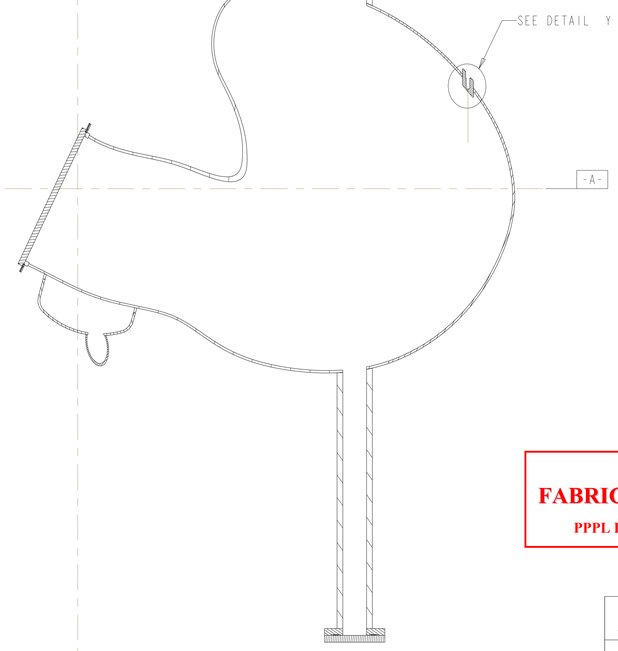


SECTION M-M
SCALE 0.09



SECTION H-H
SCALE 0.09

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SE120-004

UT-BATTELLE — Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-000R22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee							
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 19 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication	SE120-004					REV 2	