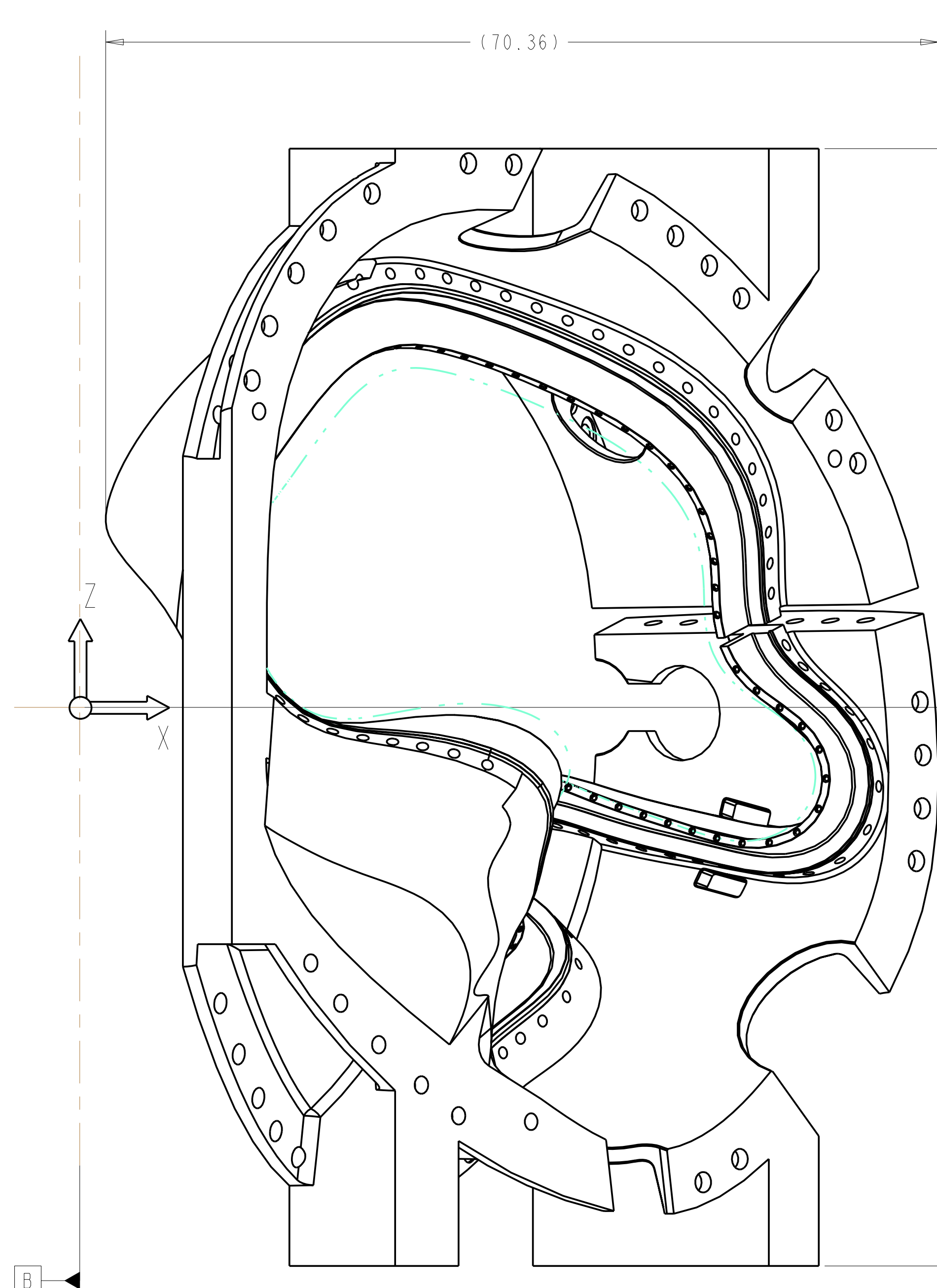


- NOTES:
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M
 2. DIMENSIONS ARE IN INCHES
 3. REMOVE ALL DIRT, GREASE, AND OIL. VISUALLY INSPECT AFTER CLEANING.
 4. SEE SPECIFICATION, NCSX-CSPEC I41-01-01, FOR ADDITIONAL REQUIREMENTS.
 5. GEOMETRY IS DEFINED IN PRO ENGINEER CAD MODELS/FILES SEI41-116.PRT.
 6. DRAWING AND MODELS COMBINED DEFINE FINISHED MACHINED PART.
 7. MACHINED FINISHED SURFACES TO CAD DATA, PROFILE WITHIN 0.020" PROFILE TOLERANCE IS BILATERAL, i.e. 0.010" EITHER SIDE OF THE REFERENCE SURFACE.
 8. AS-CAST SURFACES SHOWN IN NOMINAL MATERIAL CONDITION, THICKNESS TOLERANCE +/- 0.25. SURFACE PROFILE MUST BE WITHIN 0.5 INCHES OF CAD DATA, EXCEPT IN REGIONS OF INTERSECTING SURFACES WHERE FILLETS ARE EXPECTED.
 9. DIMENSIONS APPLY AT ROOM TEMPERATURE. OPERATING TEMP 80 K.

R17.00 ^{+0.25} / _{-0.00}

8 AS CAST SURFACES .5A|B|C

8 AS CAST SURFACES .5A|B|C



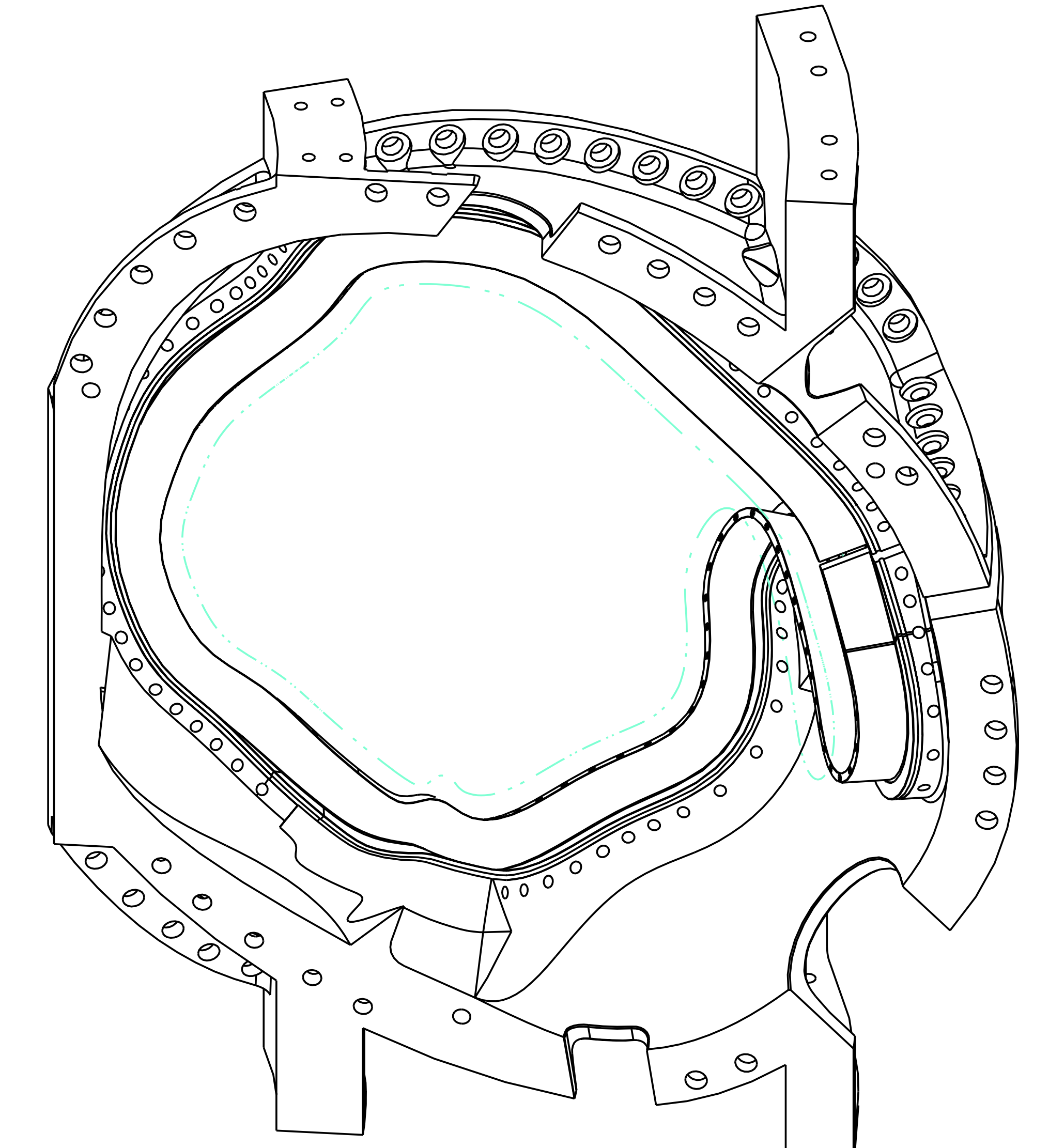
/// .02 | A

47.19 ± .03

47.19 ± .03

□ .02

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



ISOMETRIC VIEW

APPROXIMATE WEIGHT = 5051 LBS

I scale : .125

next assy	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
SEI41-103			TYPE "C" WINDING FORM	SEE NOTE 4	SEE NOTES	
			SEE NOTE 4			
			NEXT ASSEMBLY		PARTS LIST	

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

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE

SCALE NOTED	DES T BROWN	5-5-04
TOLERANCES UNLESS OTHERWISE SPECIFIED	DRW G LOVETT	5-5-04
FRACTIONS	CHK :	:
XX DECIMALS ± .01	SECT :	:
XXX DECIMALS ± .005	DEPT :	:
ANGLES ± 0°15'	PE :	:
BREAK SHARP EDGES 06 MAX	CR :	:
FINISH .125 UNLESS OTHERWISE SPECIFIED	PJ :	:
	RD :	:
	PPPL DRFT :	:
	VERSION NO. :	:
	PLANT :	:
	BLDG :	:
	FL :	:
	SHT OF :	:
	TYPE :	:
	CLASS :	:
	RELEASE LEVEL :	:
	WIP :	:

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

UT-BATTELLE

NATIONAL COMPACT STELLARATOR EXPERIMENT

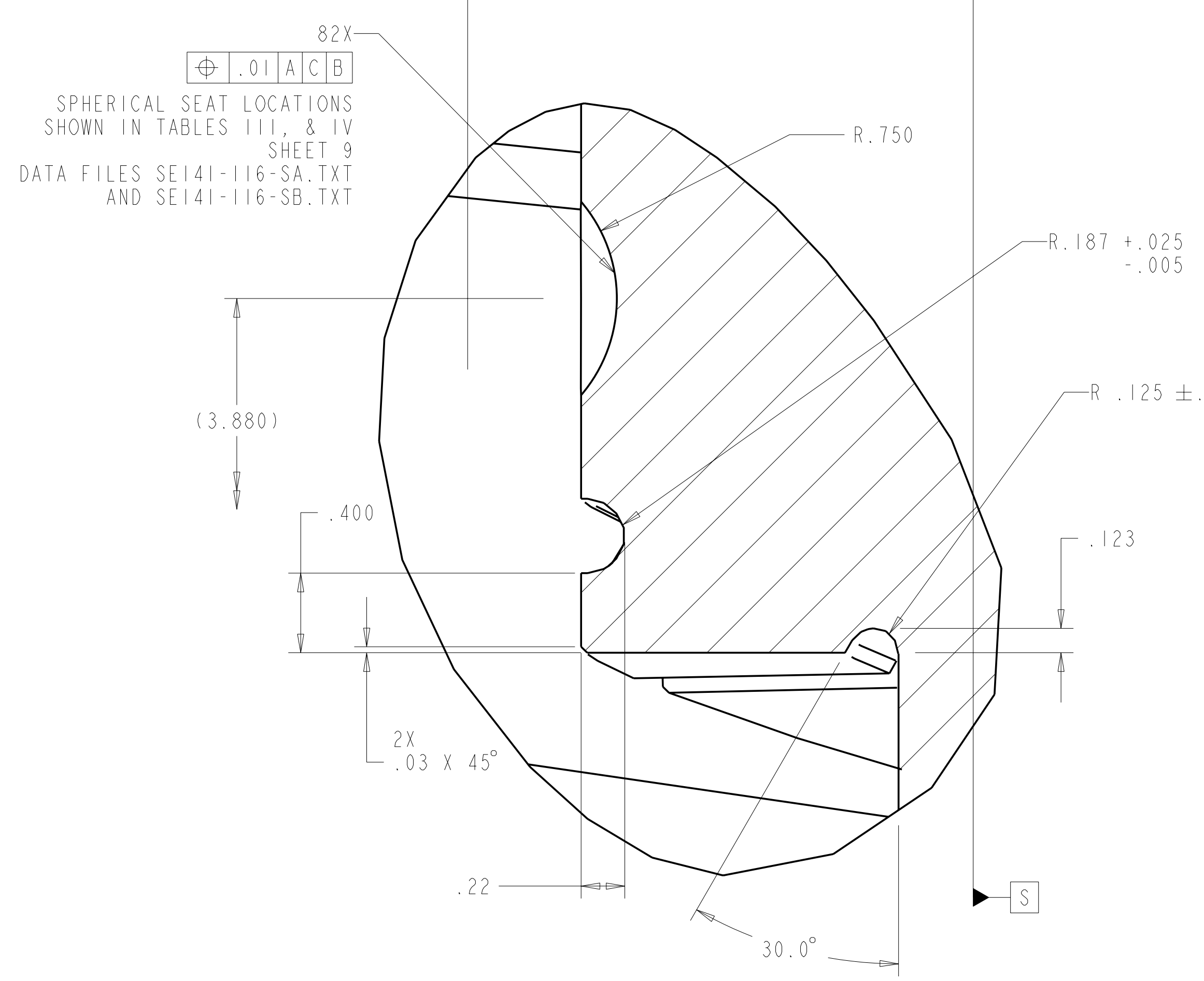
MODULAR COIL "C"

VERSION NO. :
 PLANT :
 BLDG :
 FL :
 SHT OF :
 TYPE :
 CLASS :
 RELEASE LEVEL :
 WIP :

SEI41-116

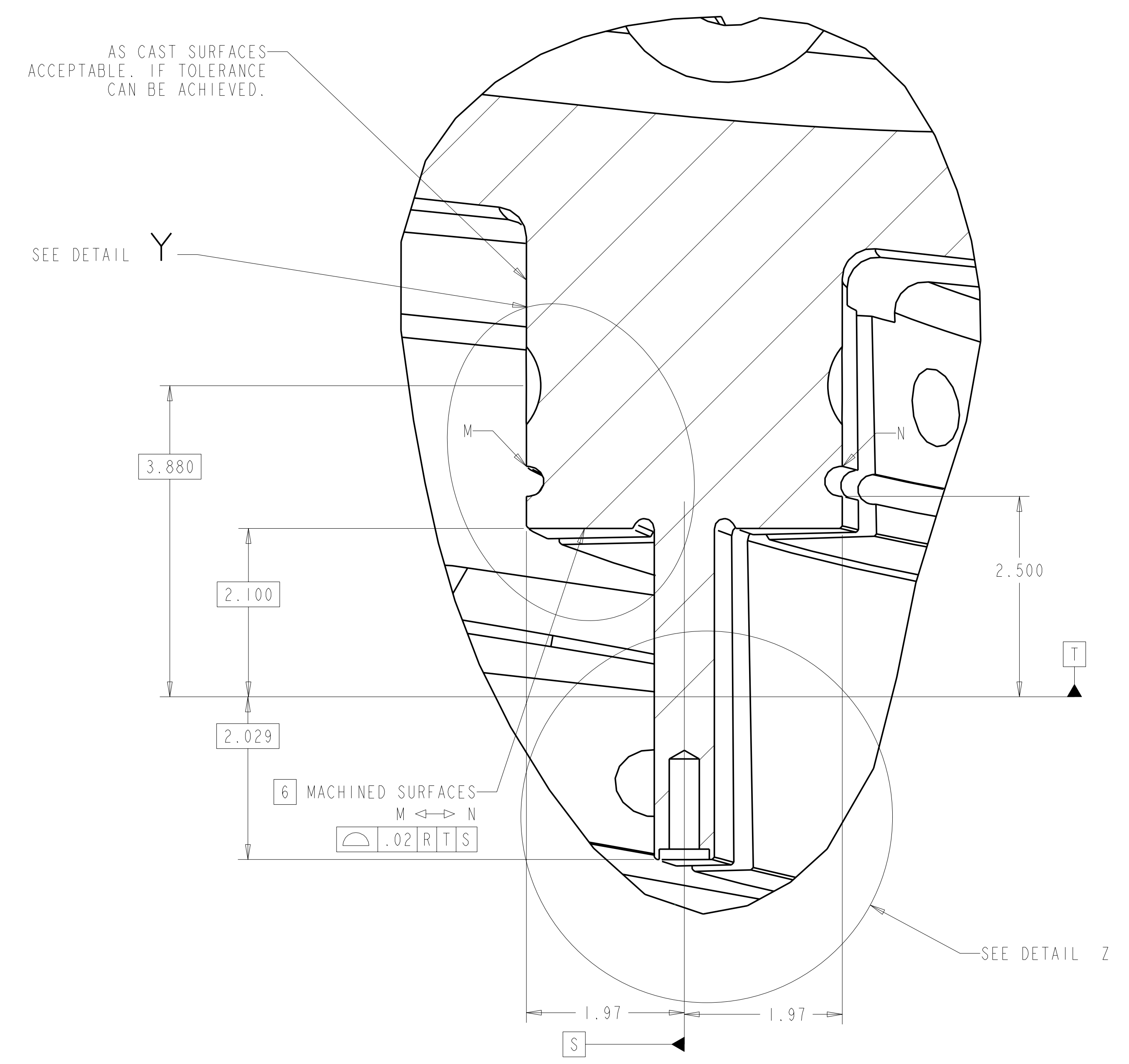
FOR GENERAL NOTES AND PARTS LIST, SEE SHT 1

DATUM R = PLANE NORMAL TO WINDING CENTER
 DATUM S = PLANE PASSING THRU WINDING CENTER AND X VECTOR AT DATUM R
 DATUM T = PLANE PASSING THRU WINDING CENTER ORTHOGONAL TO DATUM S
 DETAIL A IS TYPICAL TO ALL POINTS ALONG WINDING CENTER.



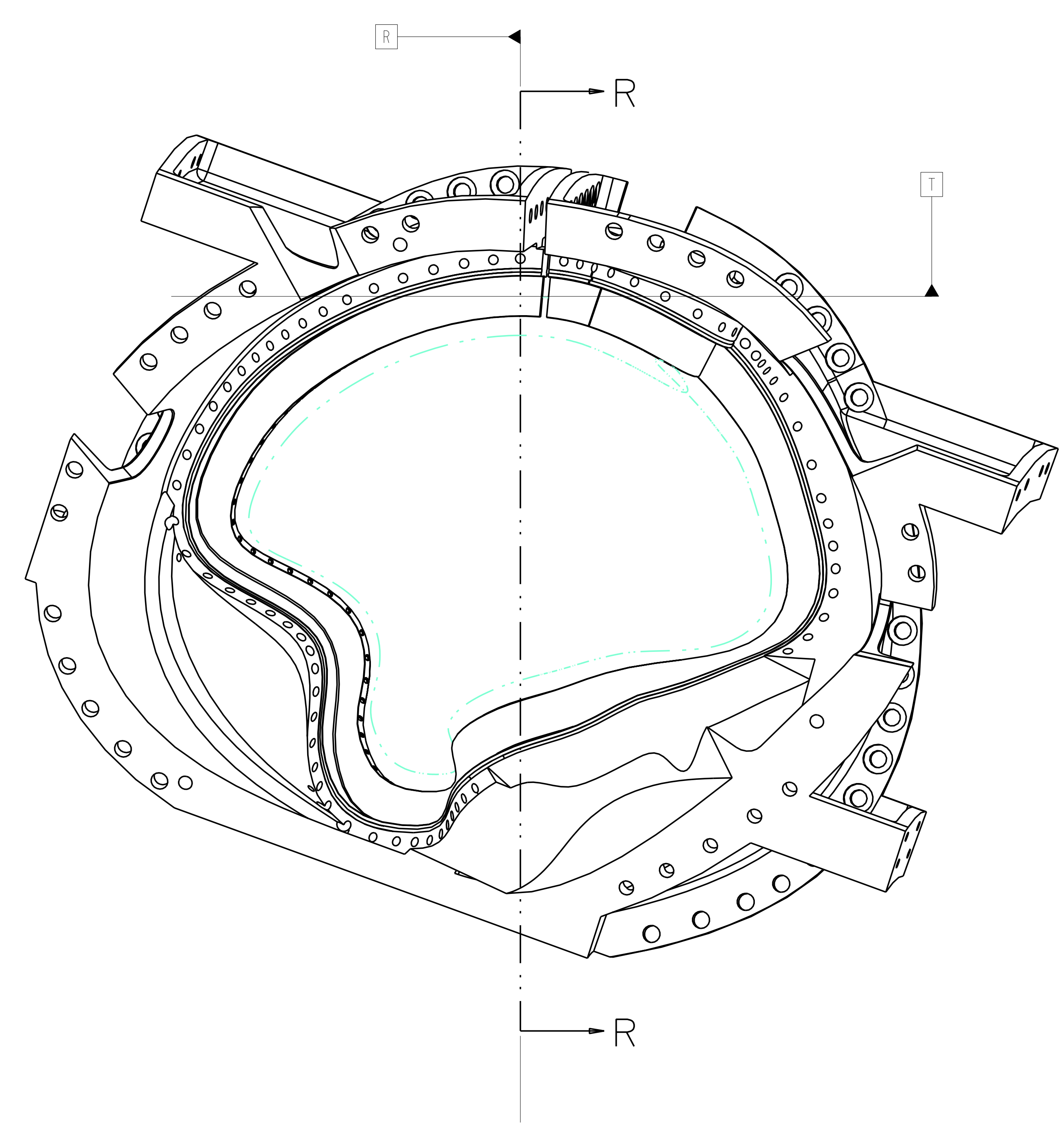
DETAIL Y
 SCALE 2.000

VPI GROOVE TO BE MACHINED BY BALL AND MILL, OR DISC CUTTER IF SAME TOLERANCE CAN BE ACHIEVED.



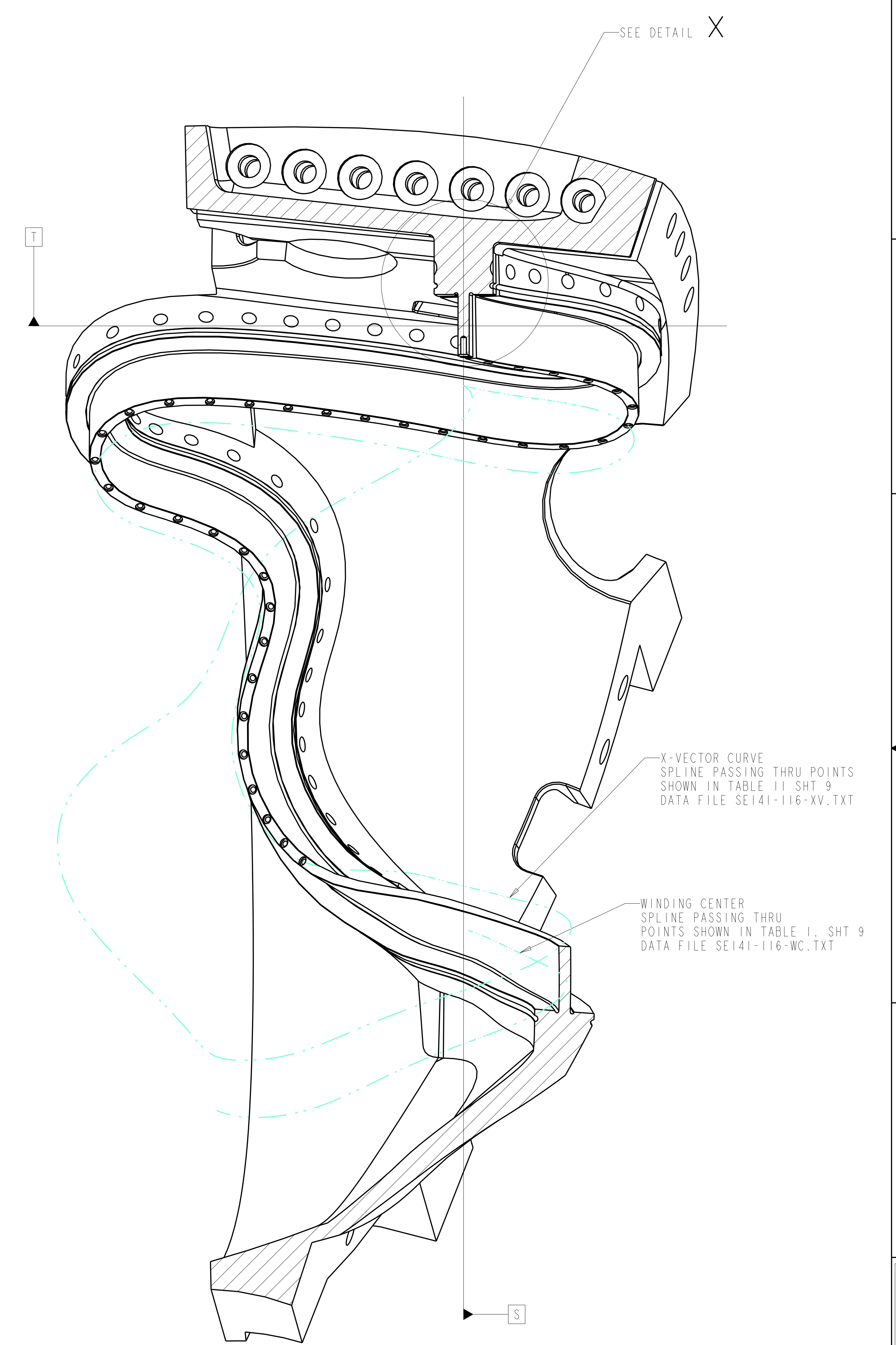
DETAIL X
 SCALE 1.000

6 MACHINED SURFACES
 M ↔ N
 .02 R | T | S



DETAIL Z
 SCALE 2.000

Ø.375 -16 UNC ±.125
 Ø.625
 .01 R | T | S



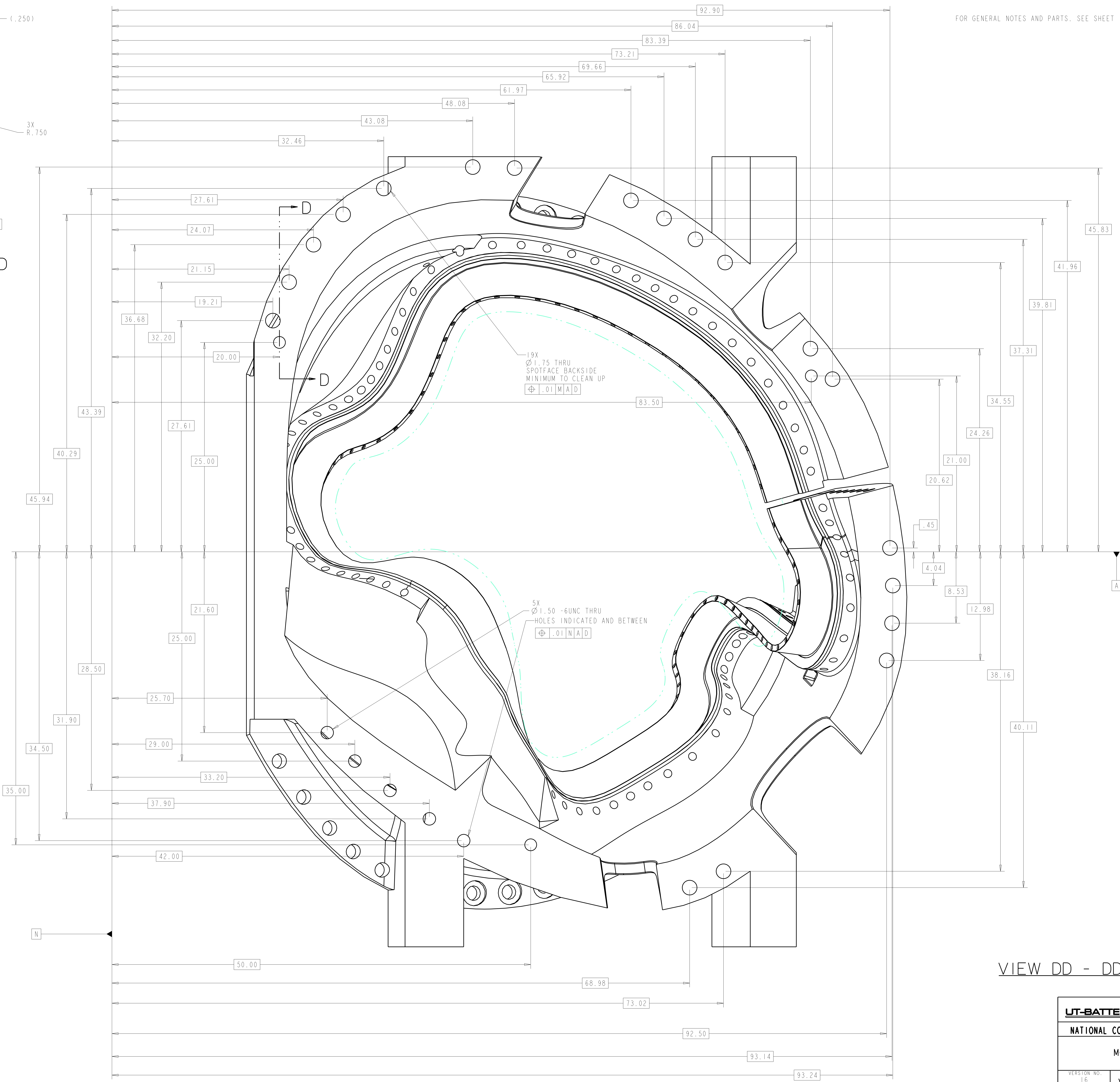
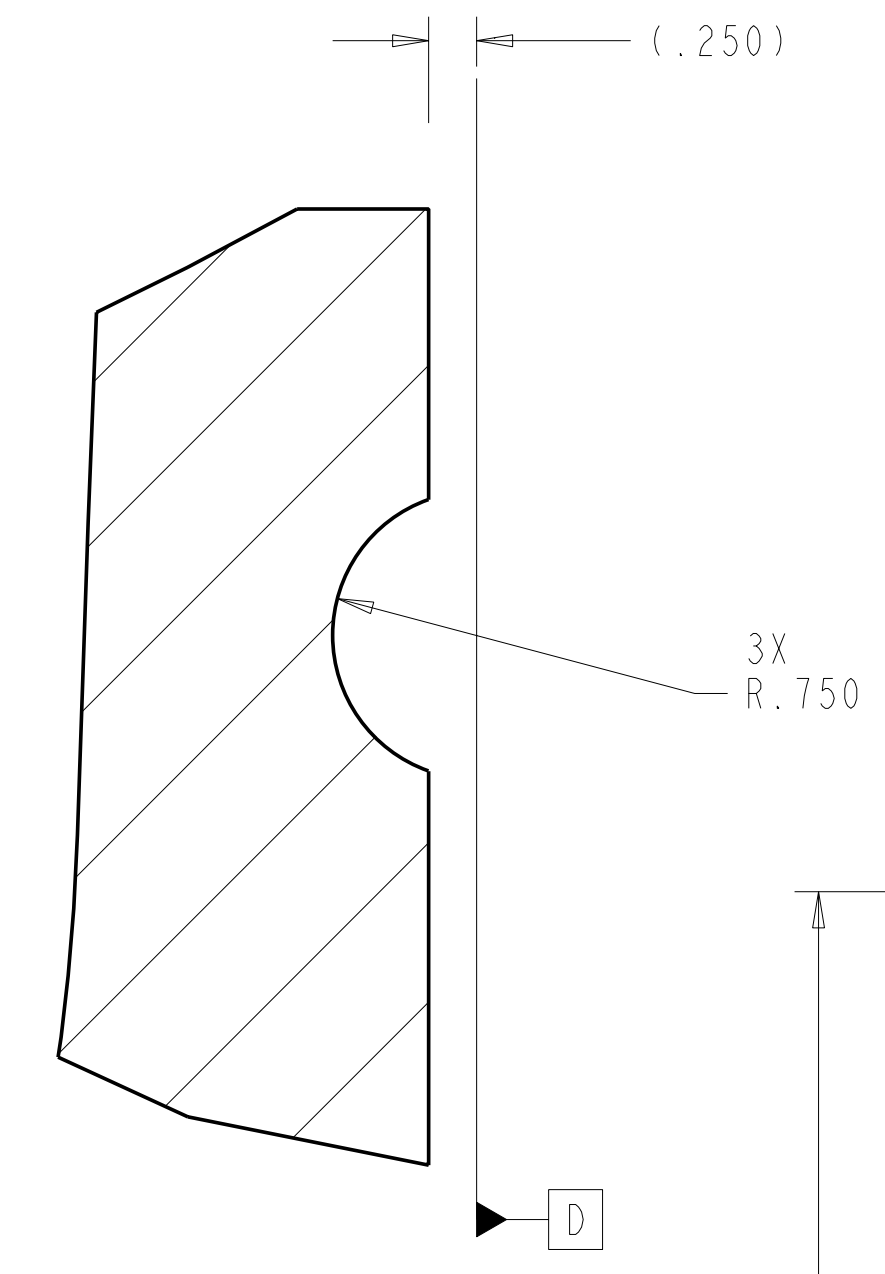
SECTION R-R
 SCALE 0.250

WINDING CENTER SPLINE PASSING THRU POINTS SHOWN IN TABLE I, SHT 9 DATA FILE SEI41-116-WC.TXT

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
MODULAR COIL "C"							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
16	X-10	5700	3	29	S	U	
RELEASE LEVEL	SEI41-116						REV
WIP							-

FOR GENERAL NOTES AND PARTS, SEE SHEET 1.

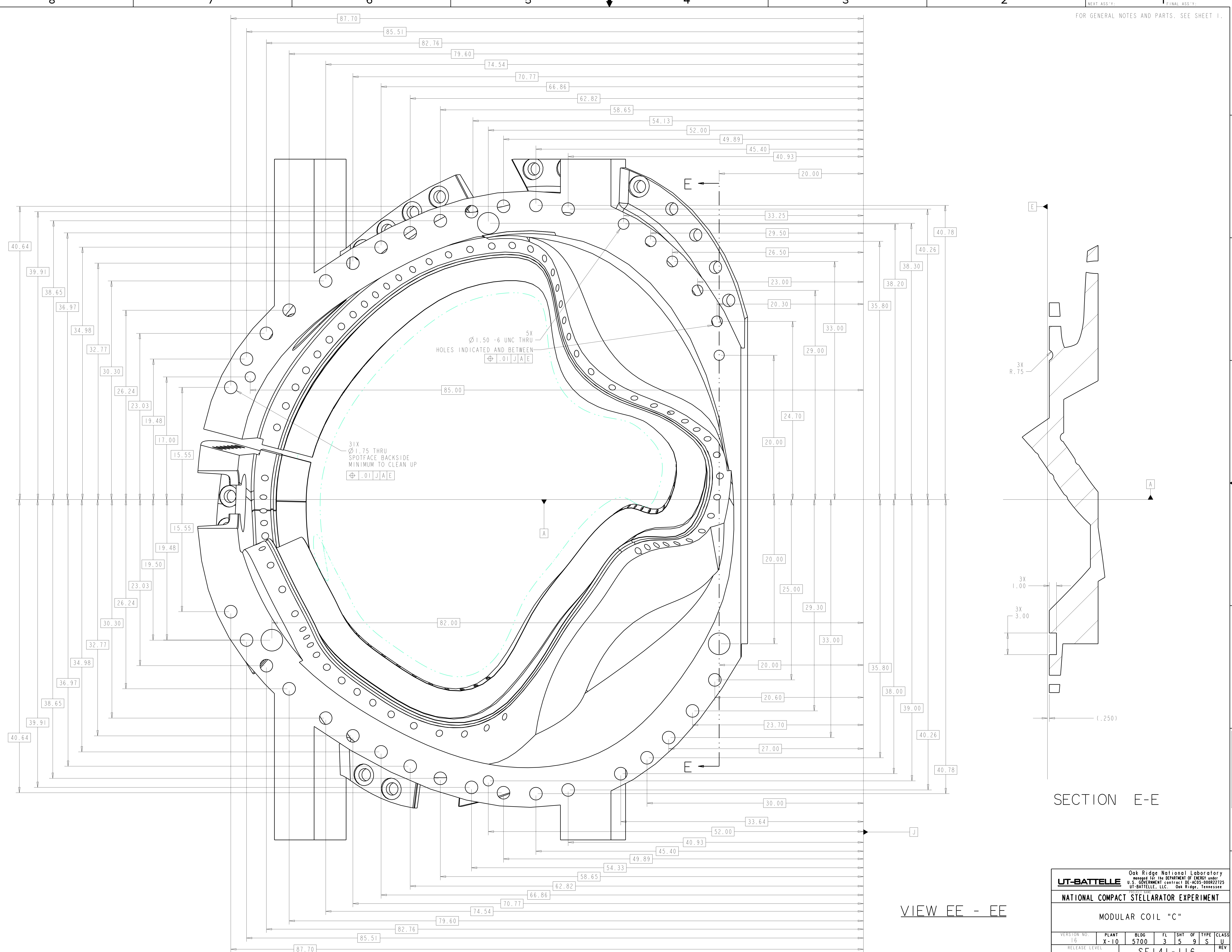
SECTION D-D
SCALE 1:000



VIEW DD - DD

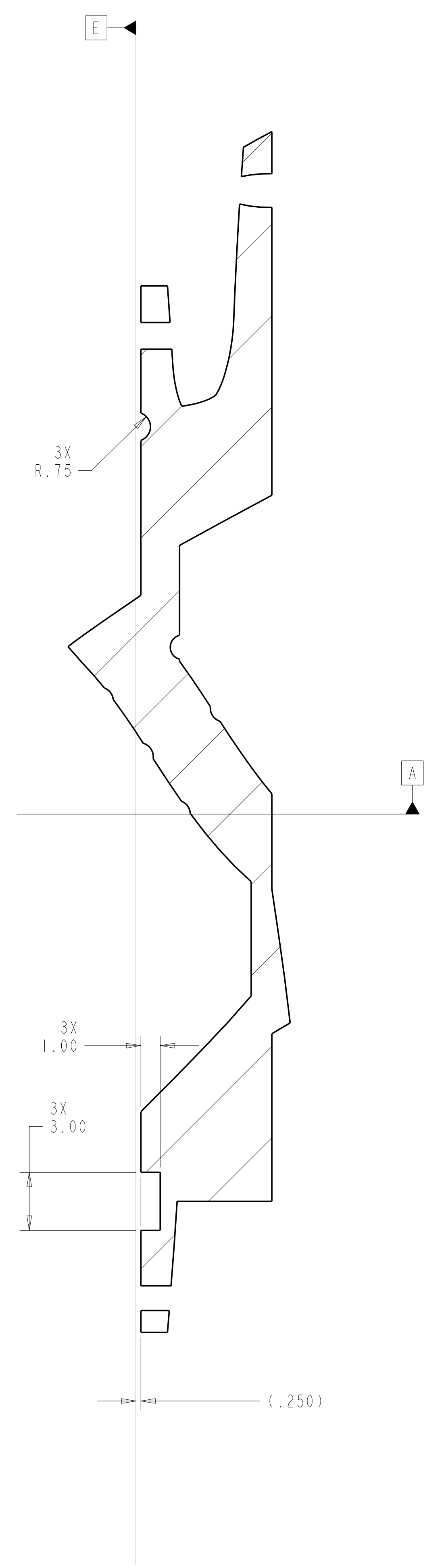
Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME						
UT-BATTELLE NATIONAL COMPACT STELLARATOR EXPERIMENT						
MODULAR COIL "C"						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
16	X-10	5700	3	4 9	S	U
RELEASE LEVEL		REV				
WIP		SEI41-116				

H
G
F
E
D
C
B
A



5X
Ø 1.50 -6 UNC THRU
HOLES INDICATED AND BETWEEN
Ⓢ .01 | J | A | E

31X
Ø 1.75 THRU
SPOTFACE BACKSIDE
MINIMUM TO CLEAN UP
Ⓢ .01 | J | A | E



SECTION E-E

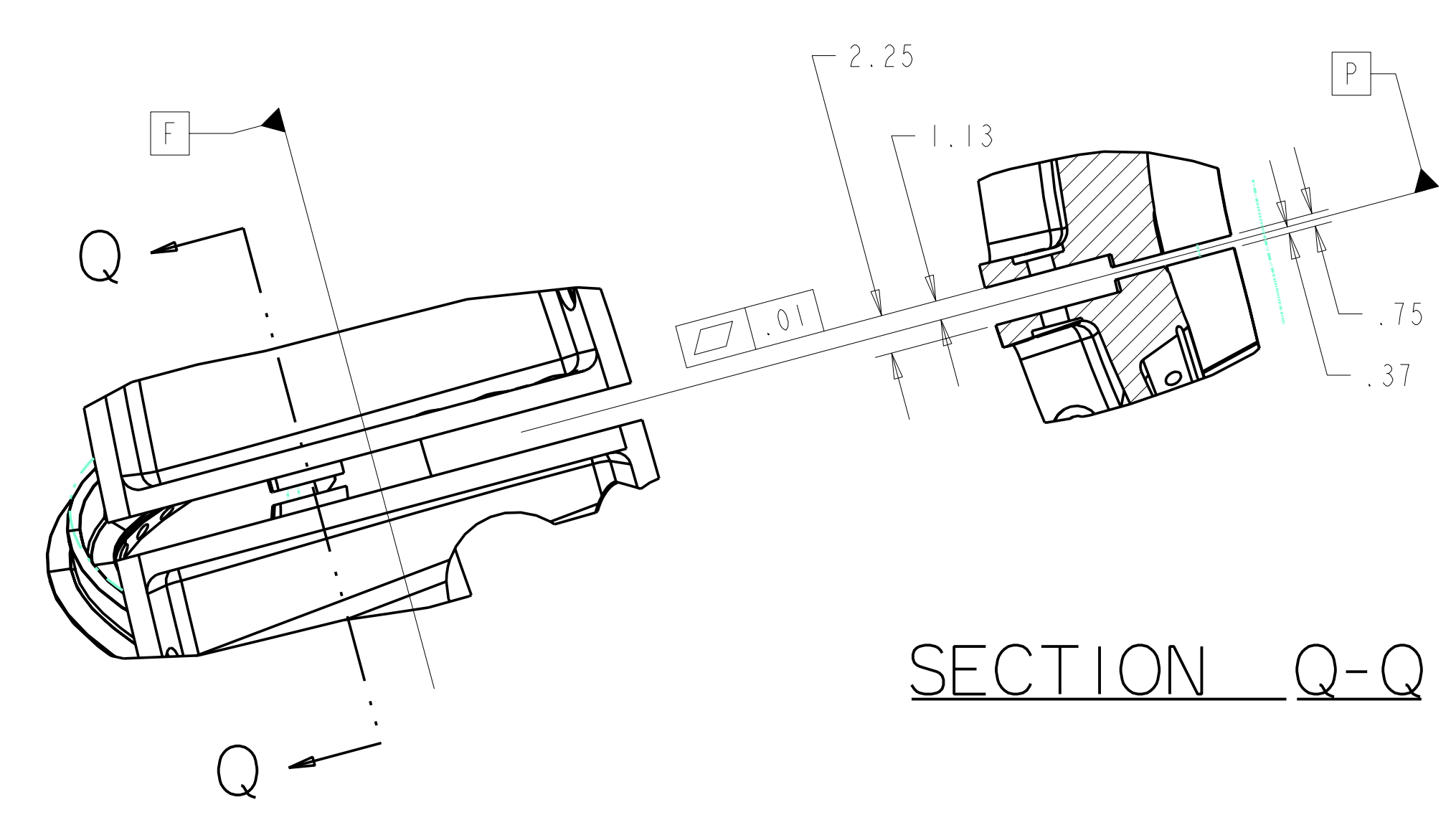
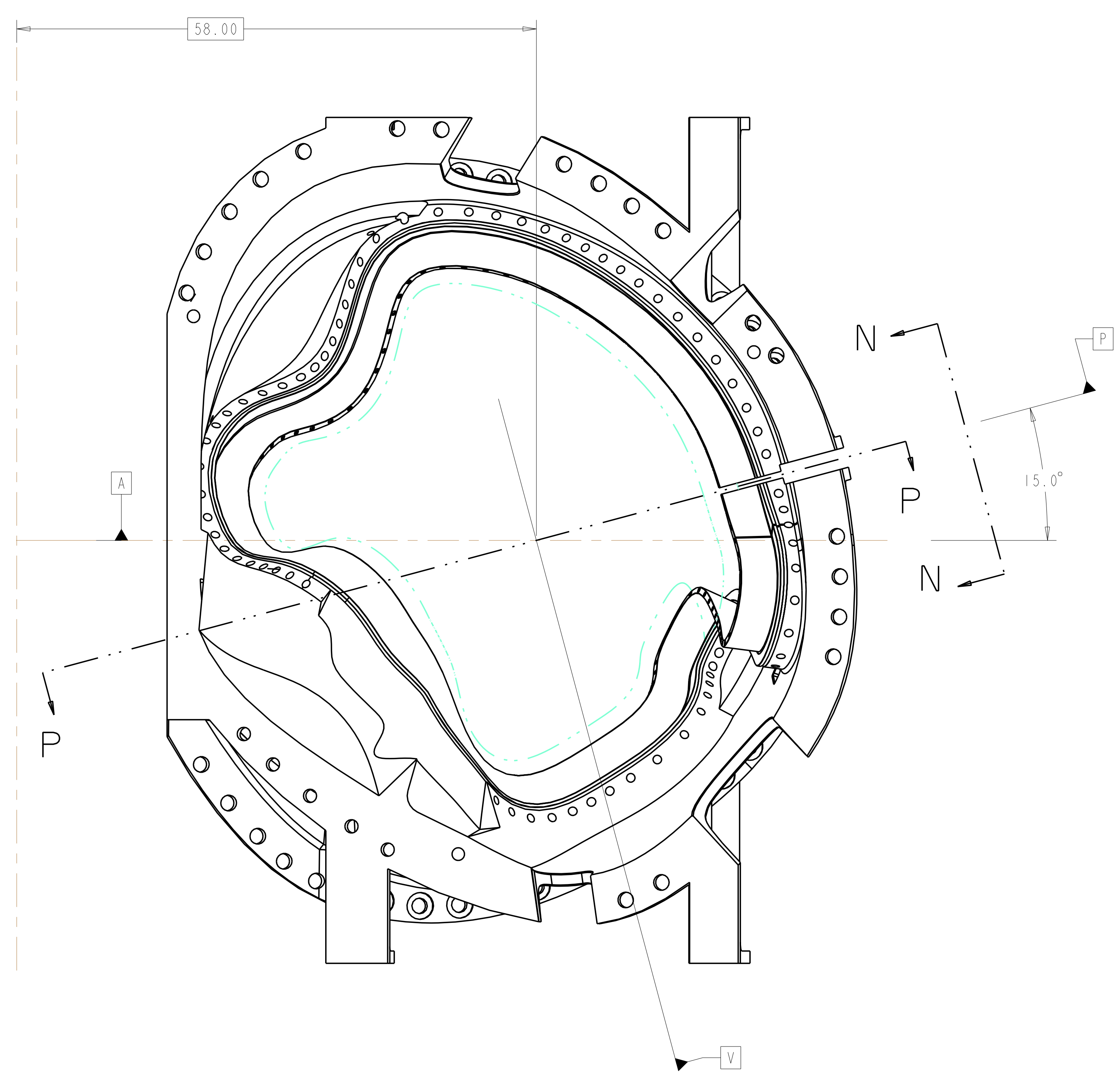
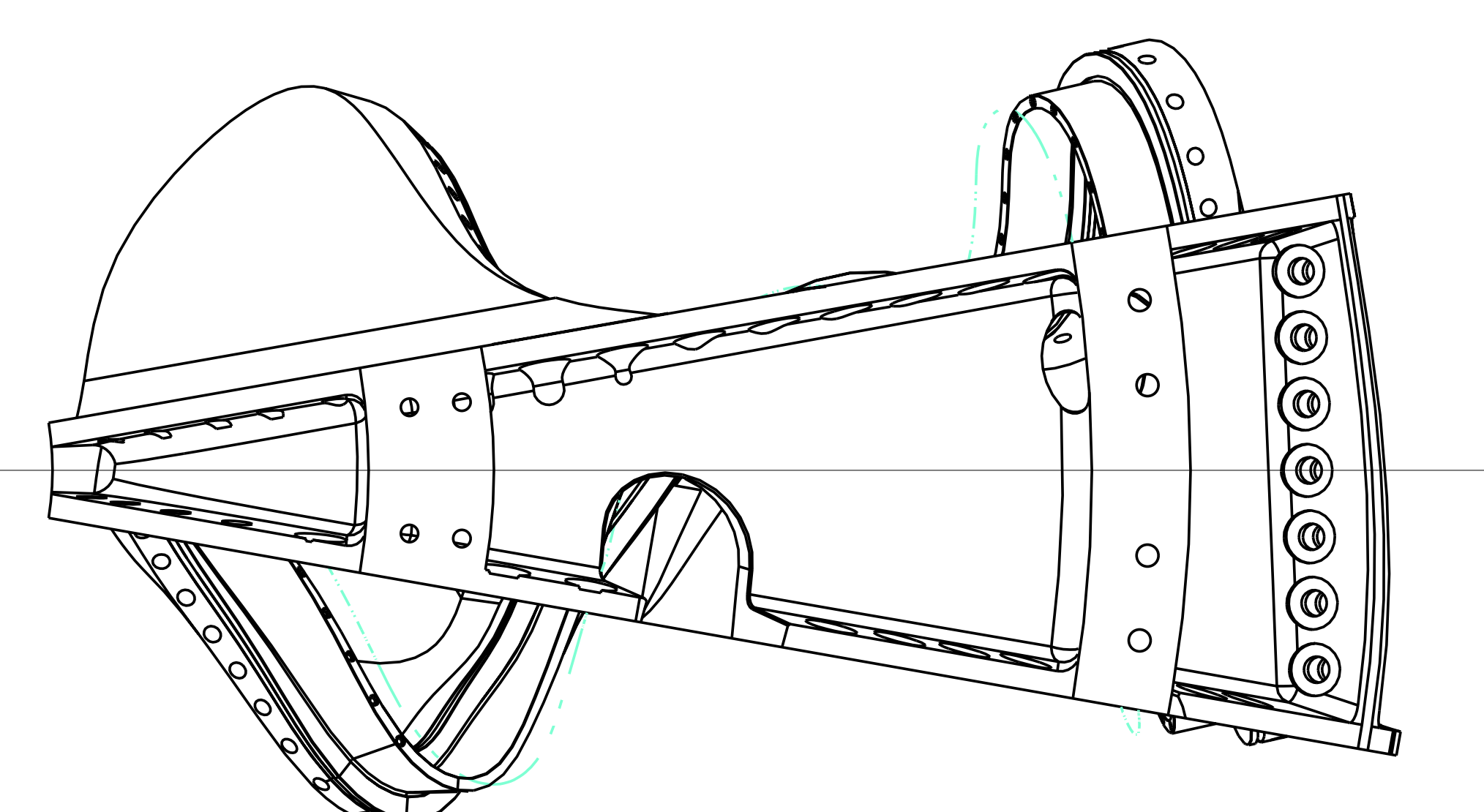
VIEW EE - EE

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee							
UT-BATTELLE							
PROJECT NAME NATIONAL COMPACT STELLARATOR EXPERIMENT							
MODULAR COIL "C"							
VERSION NO. 16	PLANT X-10	BLDG 5700	FL 3	SHT OF 59	TYPE S	CLASS U	REV -
RELEASE LEVEL WIP	SEI41-116						

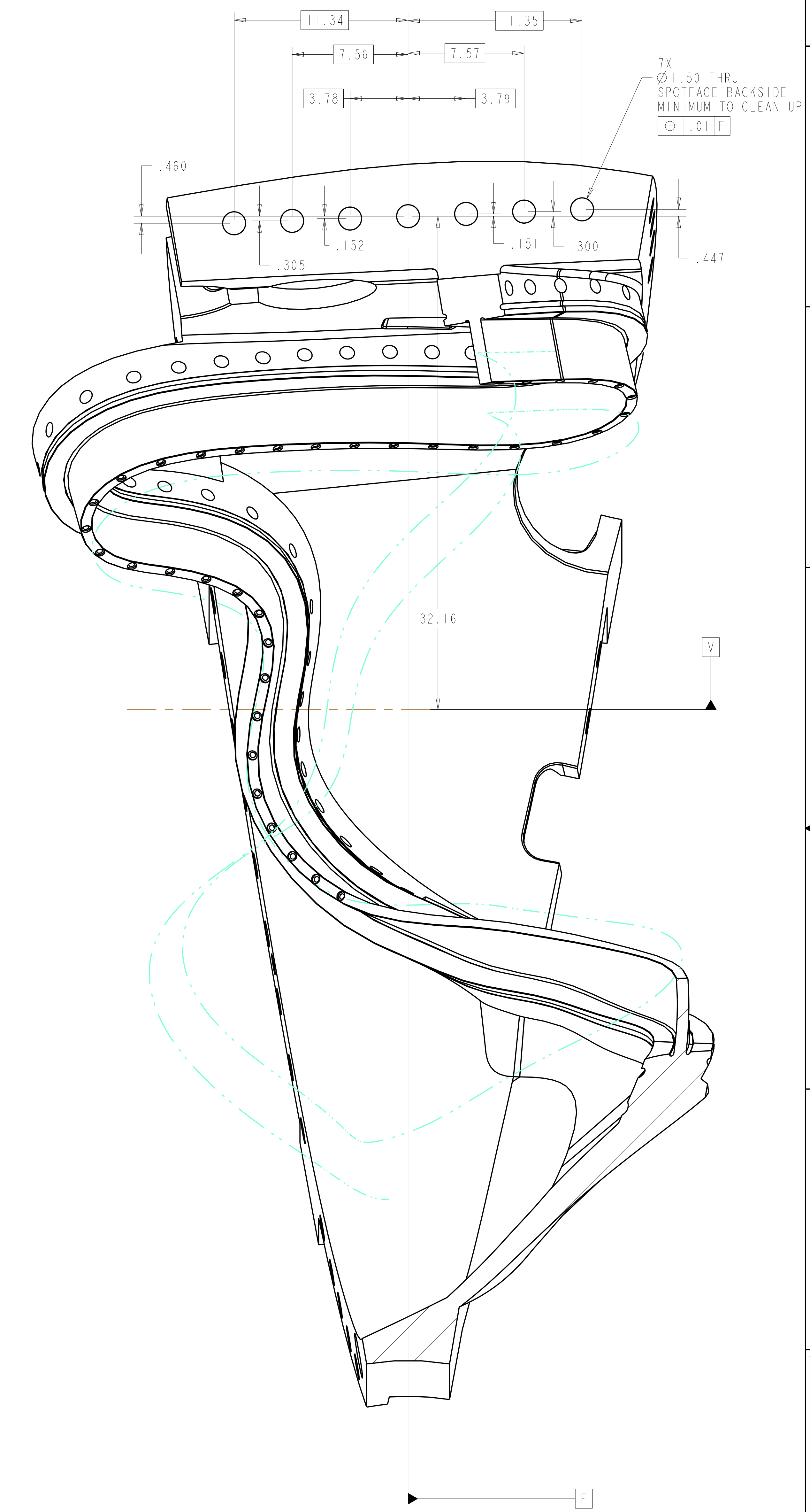
SEI41-116

A

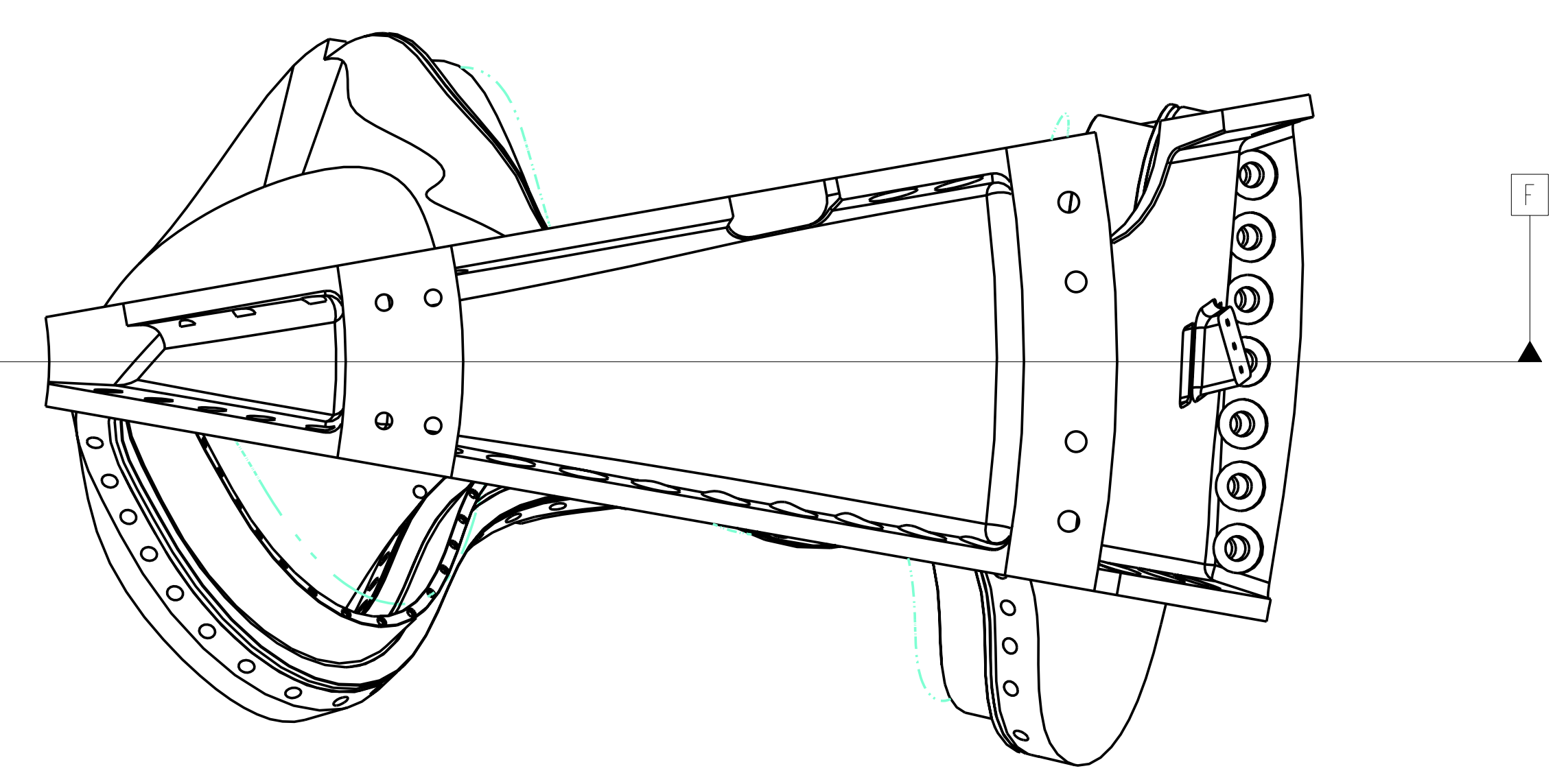
FOR GENERAL NOTES AND PARTS. SEE SHEET 1.



VIEW N-N



SECTION P-P
SCALE 0.250

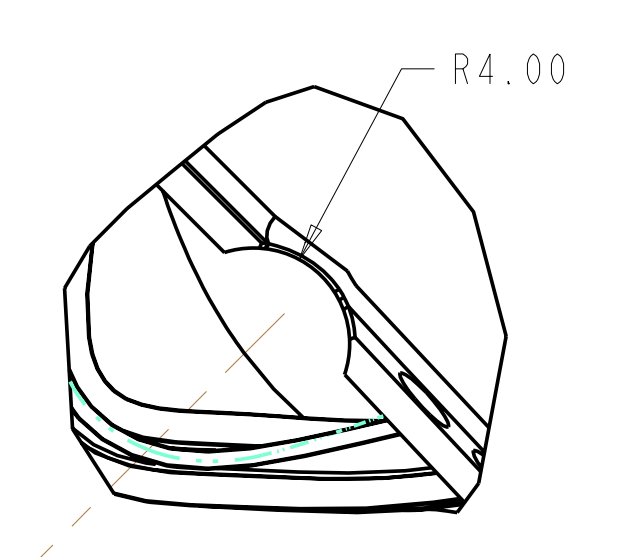
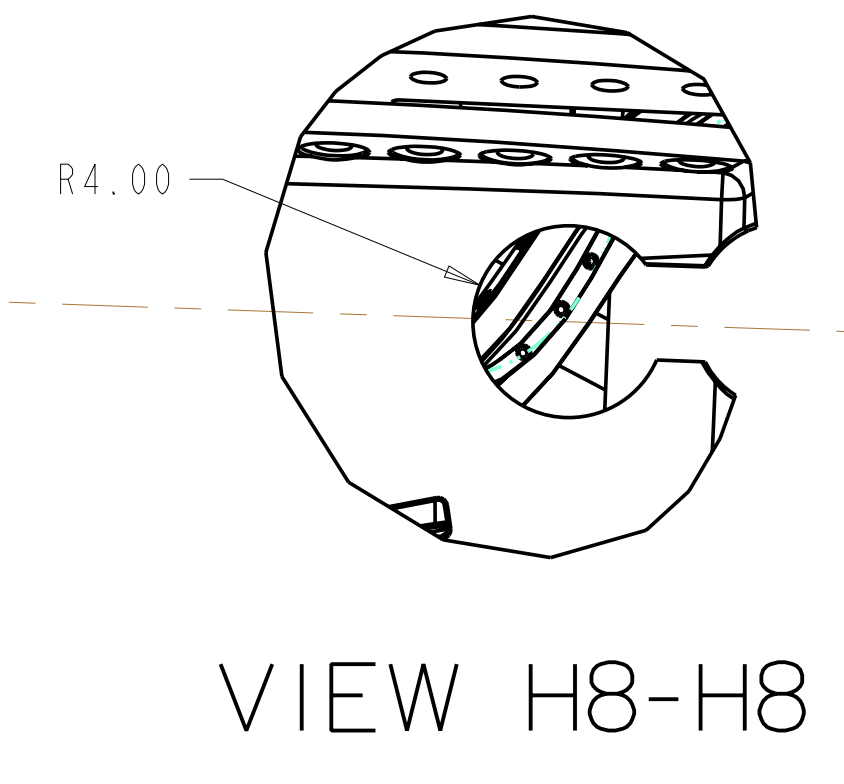
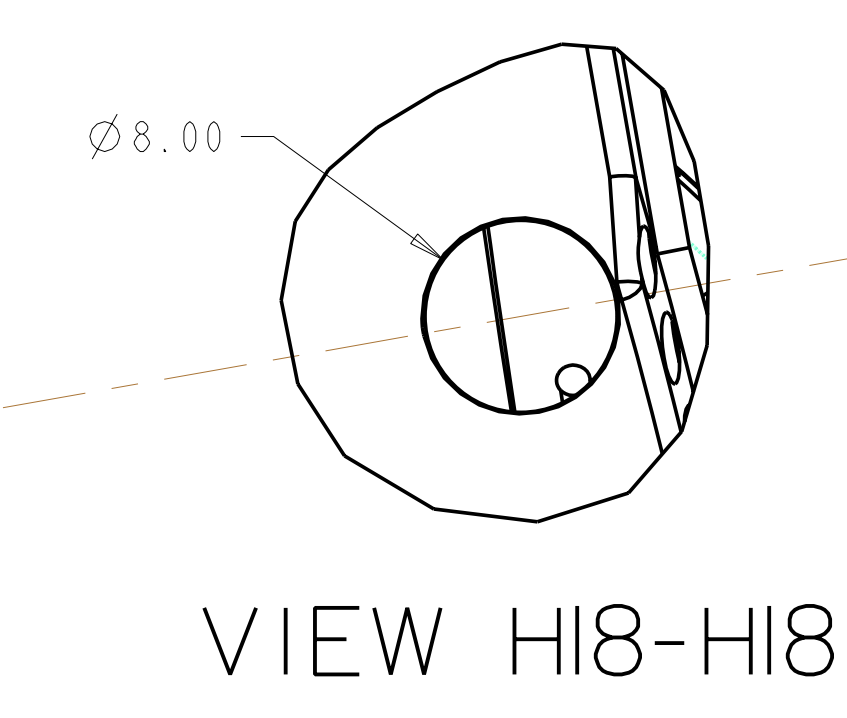
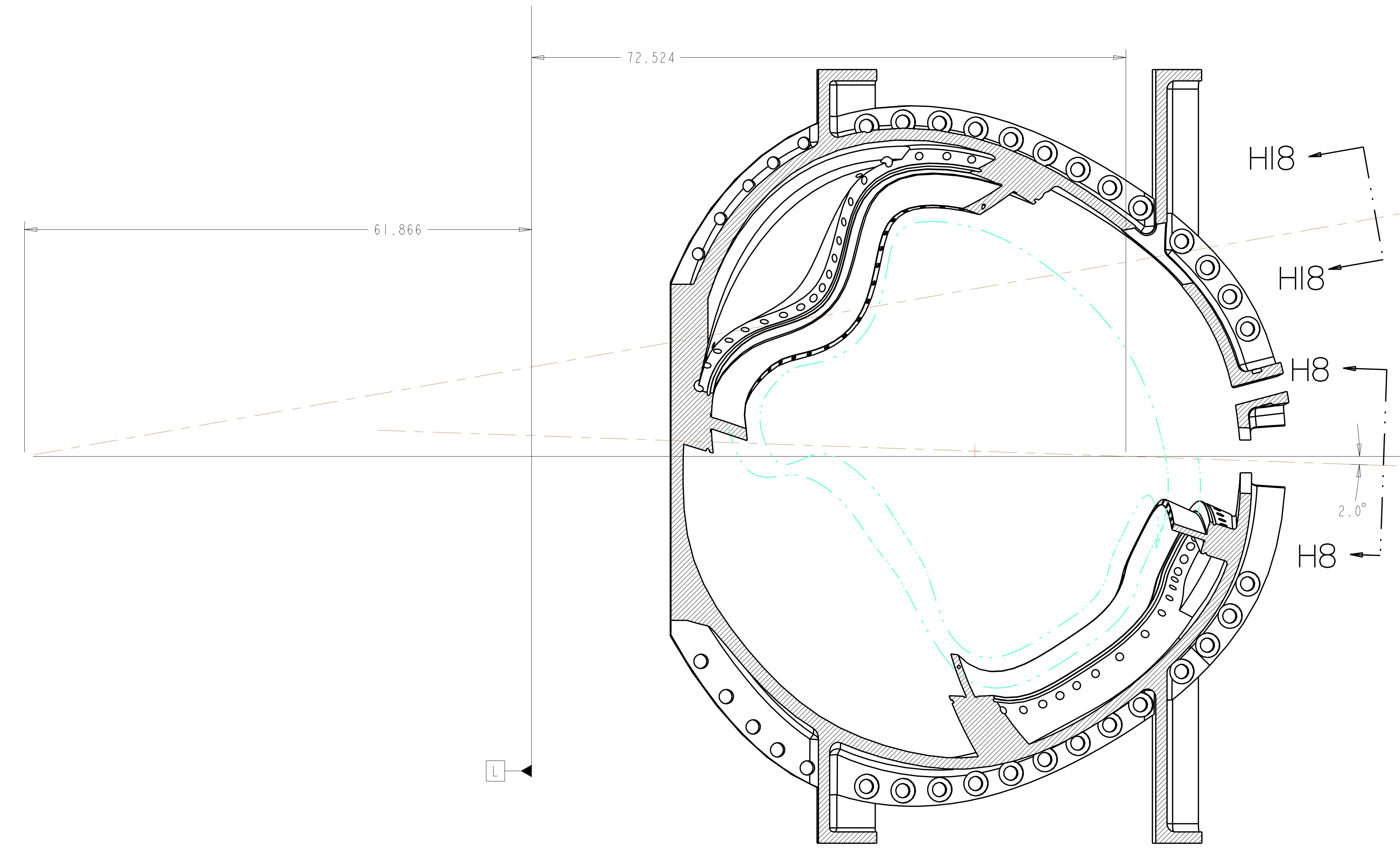
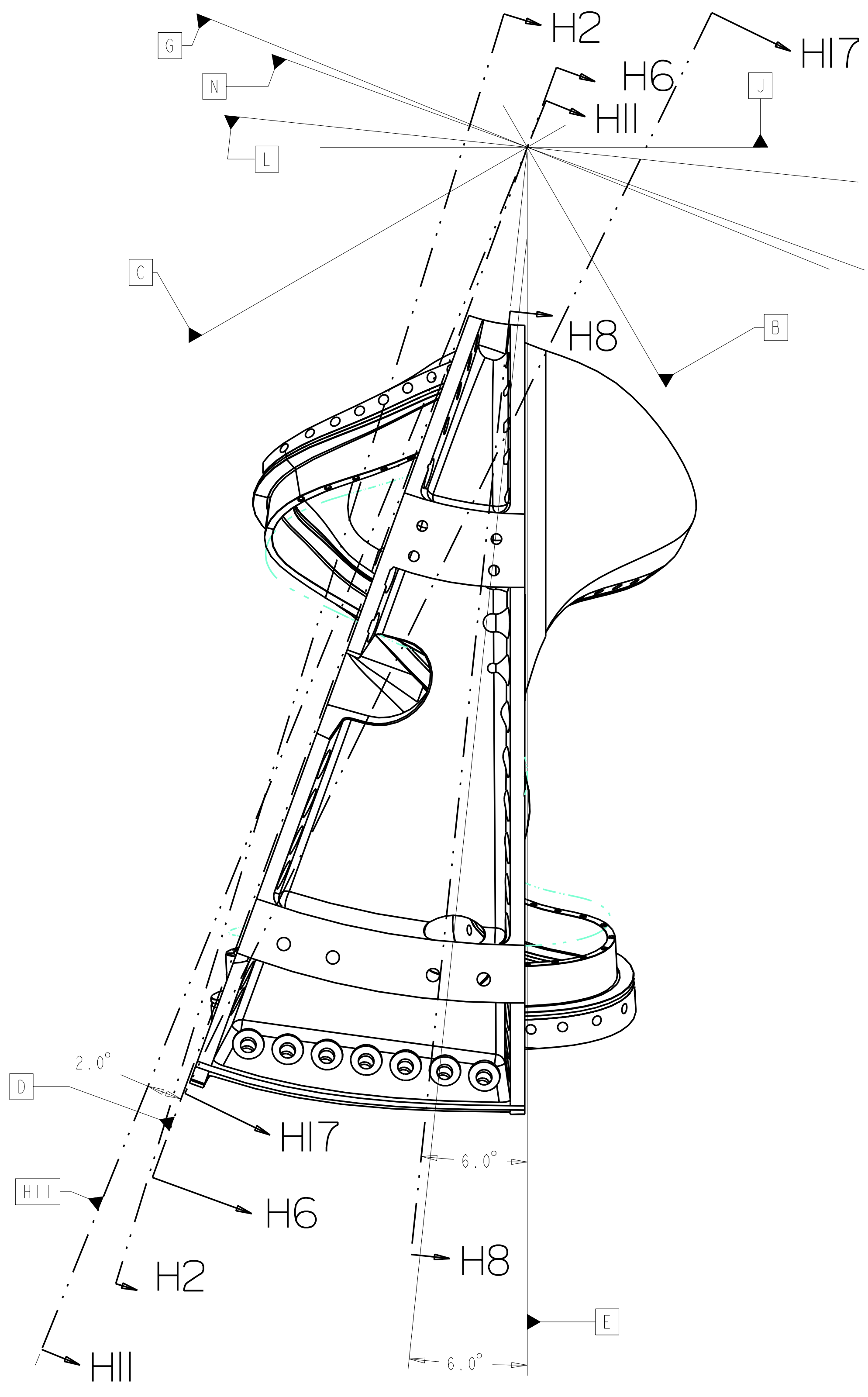


Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT CONTRACT DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee							
UT-BATTELLE							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
MODULAR COIL "C"							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
16	X-10	5700	3	6	9	S	U
RELEASE LEVEL	SEI41-116						REV
WIP							-

SEI41-116

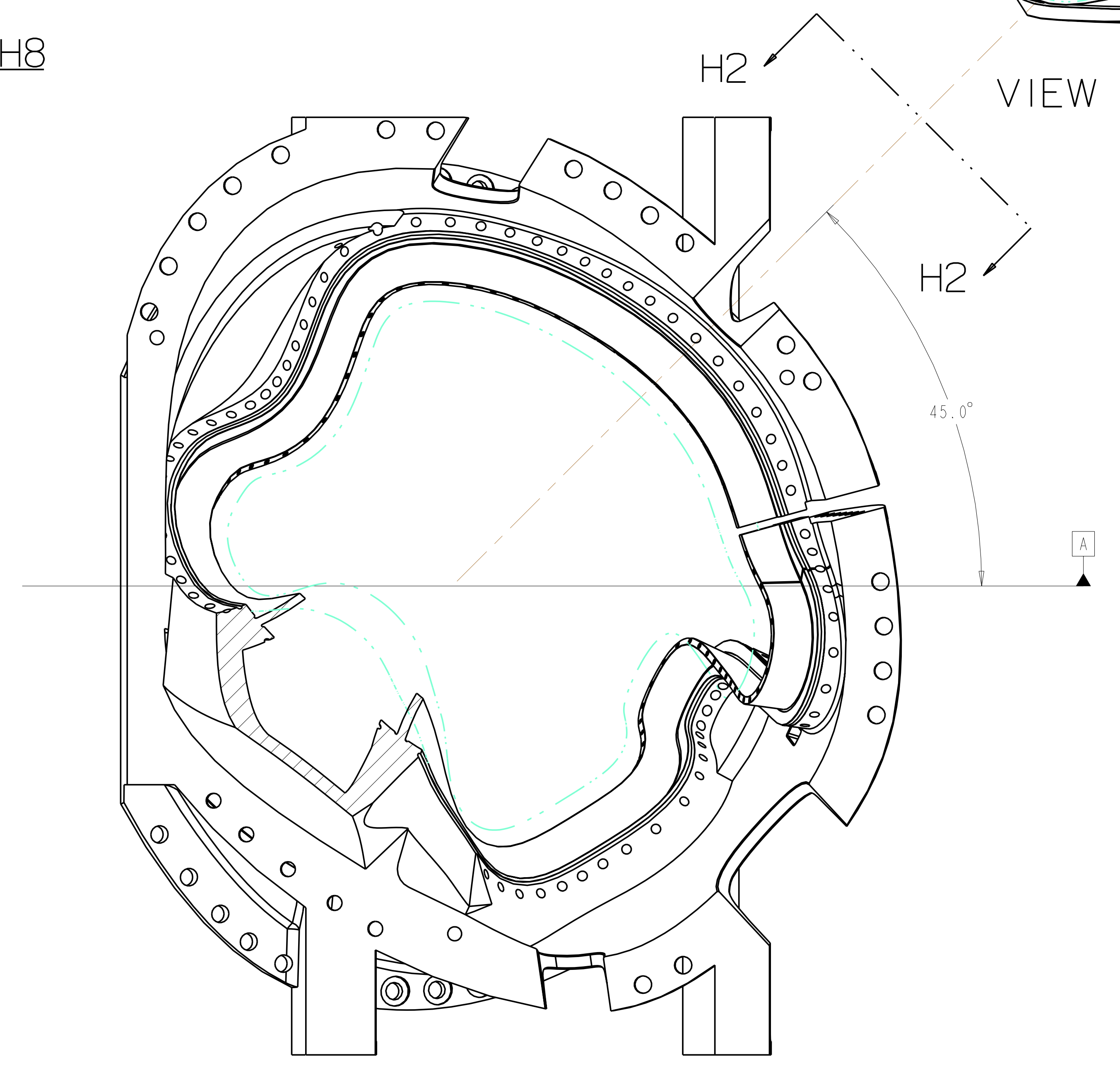
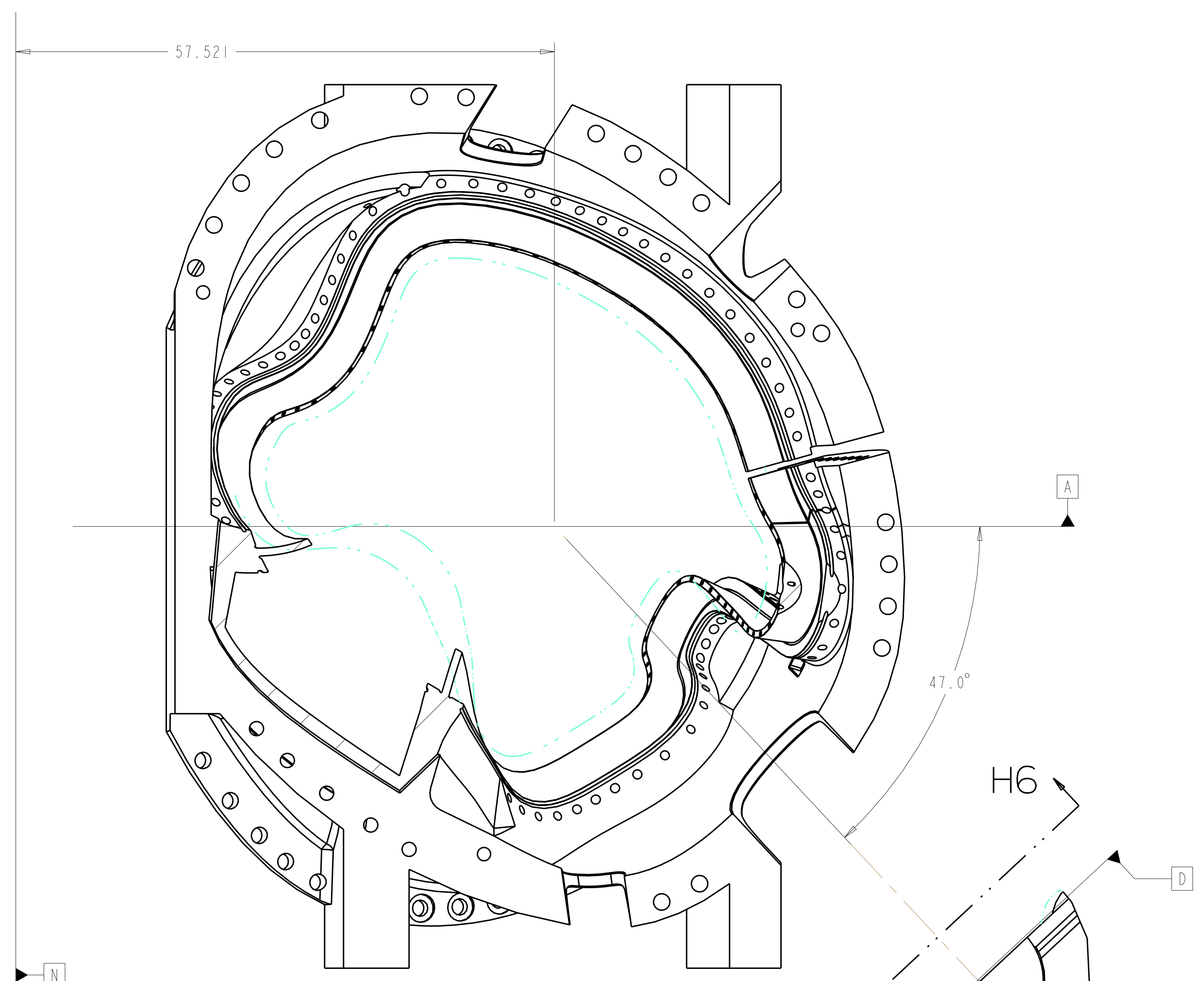
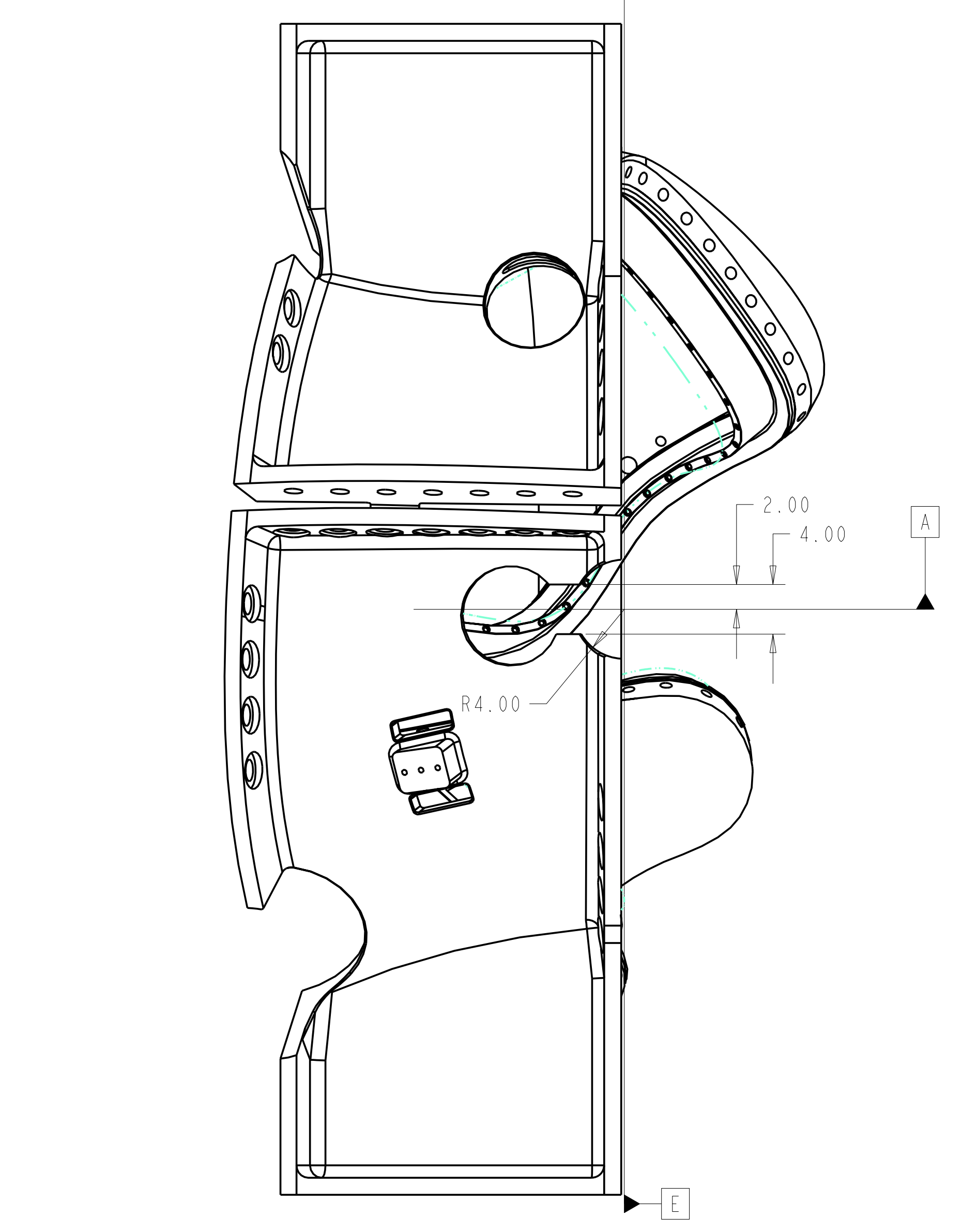
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FOR GENERAL NOTES AND PARTS, SEE SHEET 1.



SECTION H8-H8

VIEW H2-H2



SECTION H6-H6

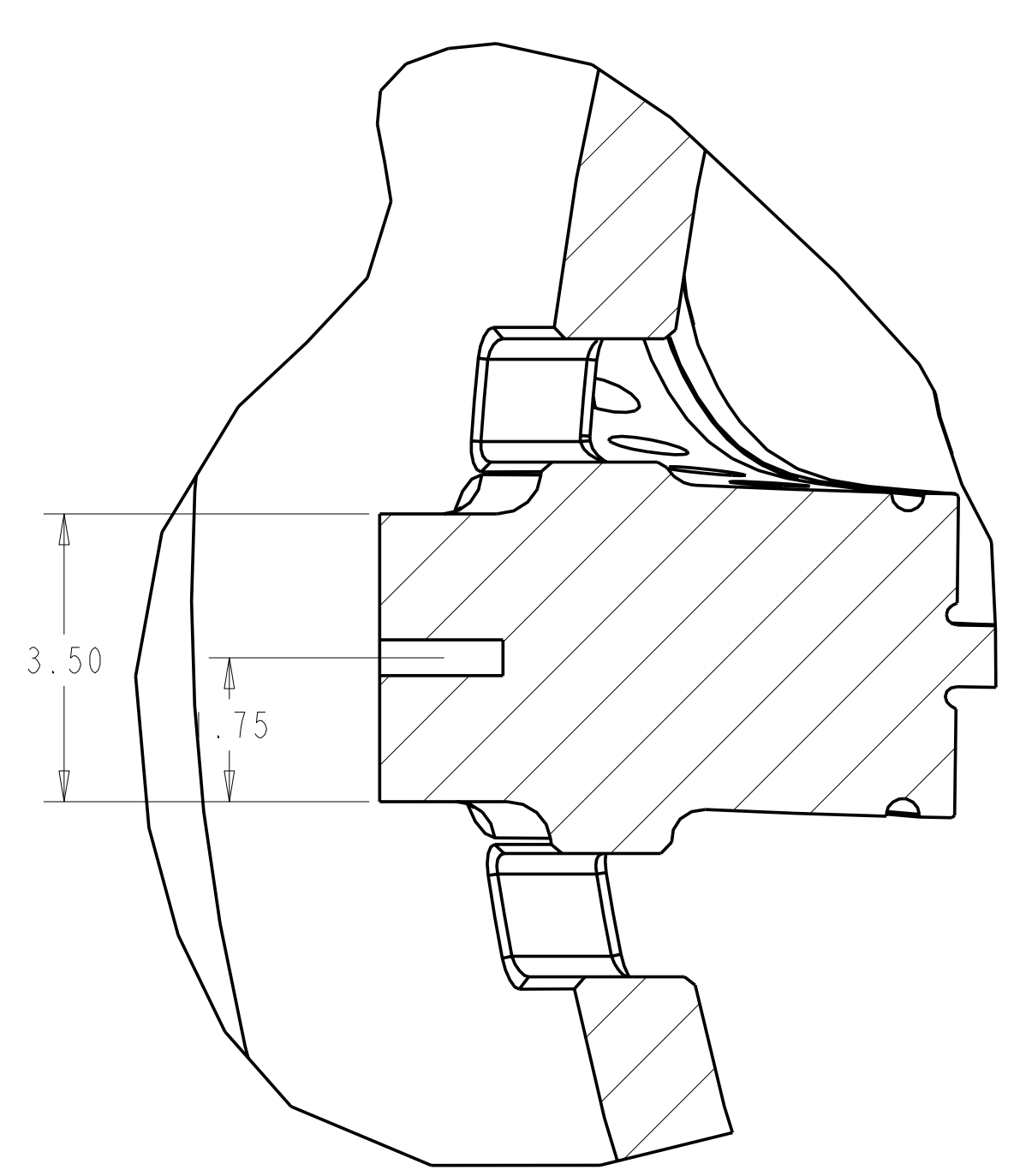
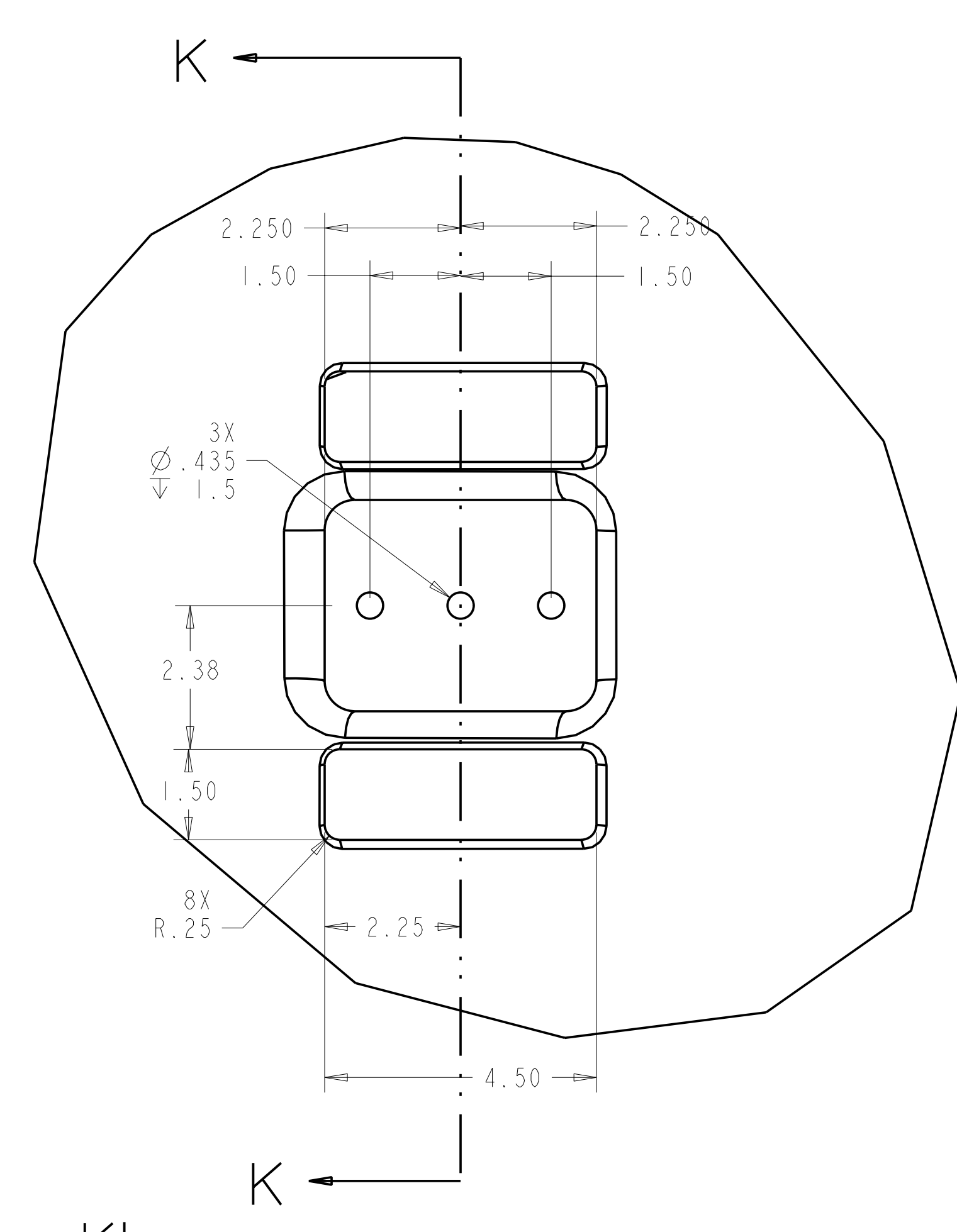
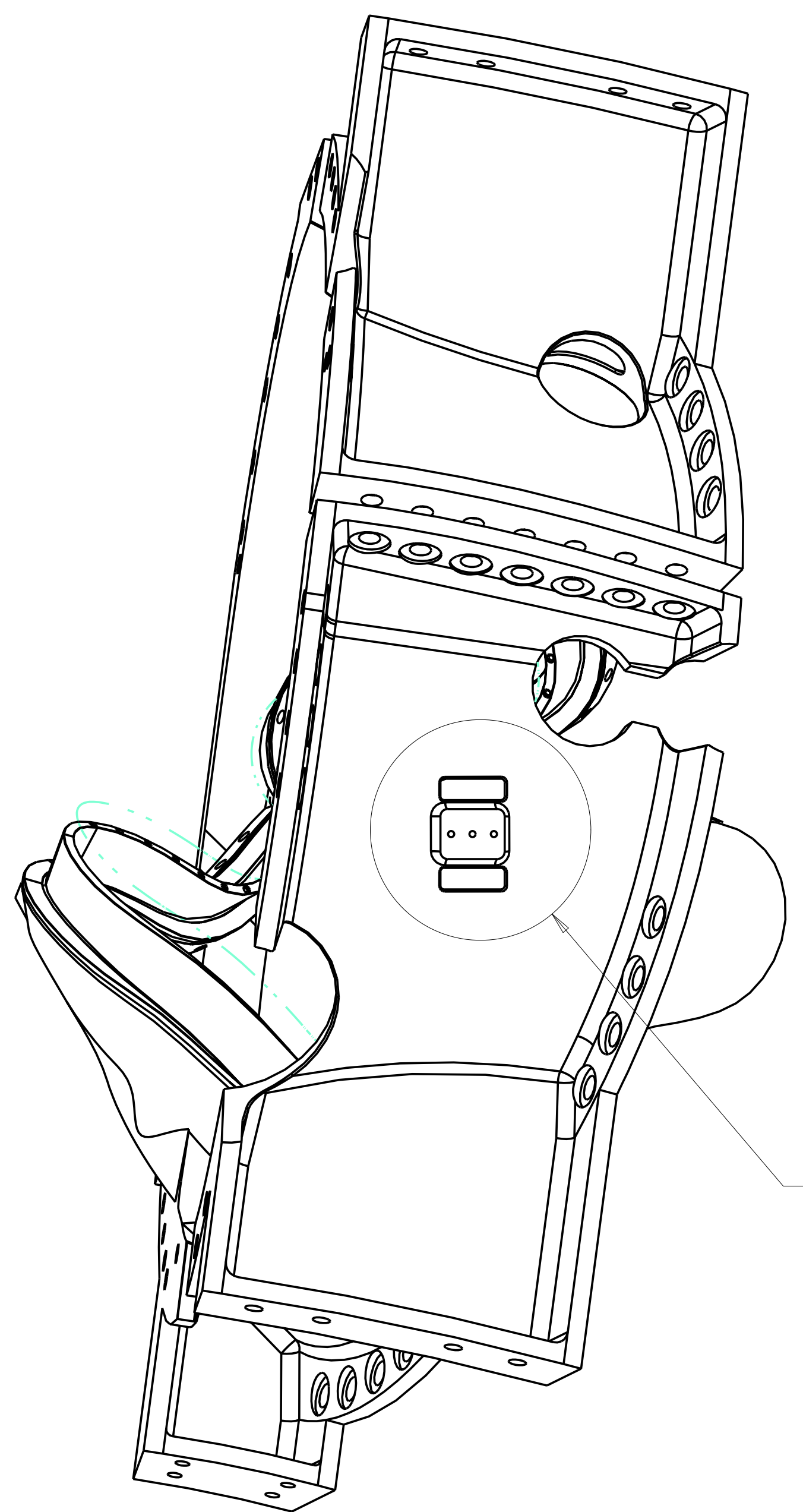
SECTION H2-H2

VIEW H6-H6

VIEW H3 - H3

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UT-BATTELLE NATIONAL COMPACT STELLARATOR EXPERIMENT							
MODULAR COIL "C"							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
16	X-10	5700	3	7 9	S	U	
RELEASE LEVEL	SEI41-116						REV
WIP							-

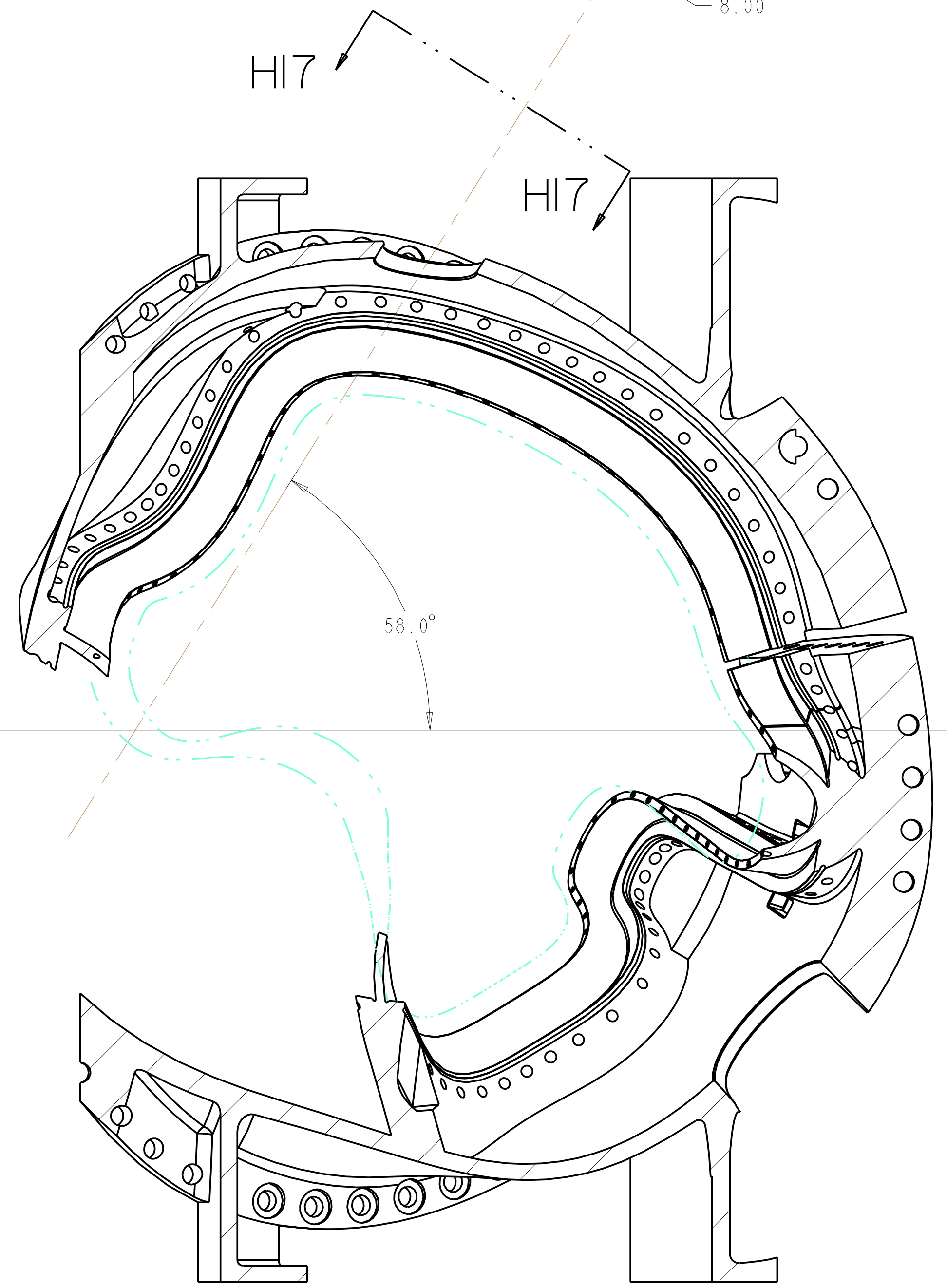
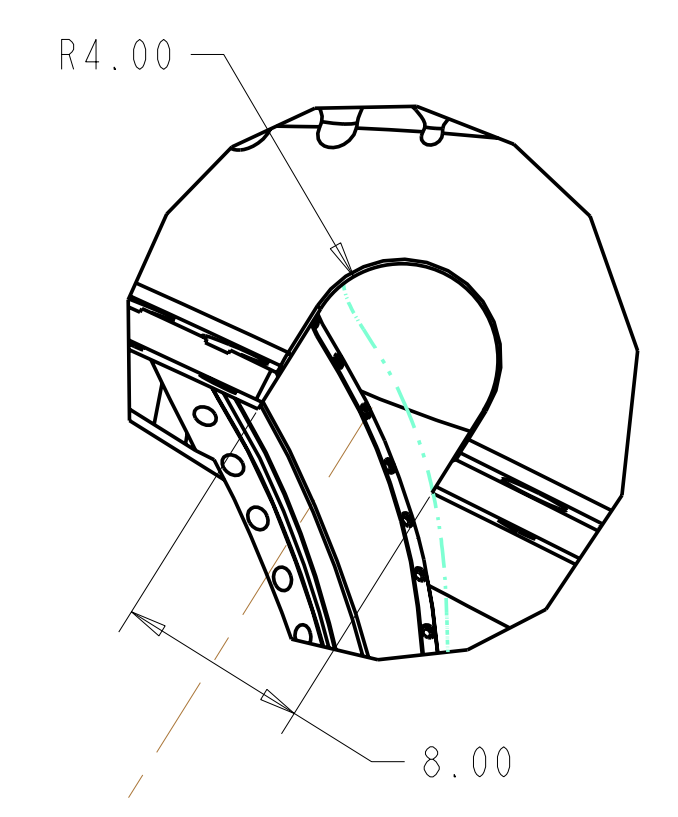
SEI41-116



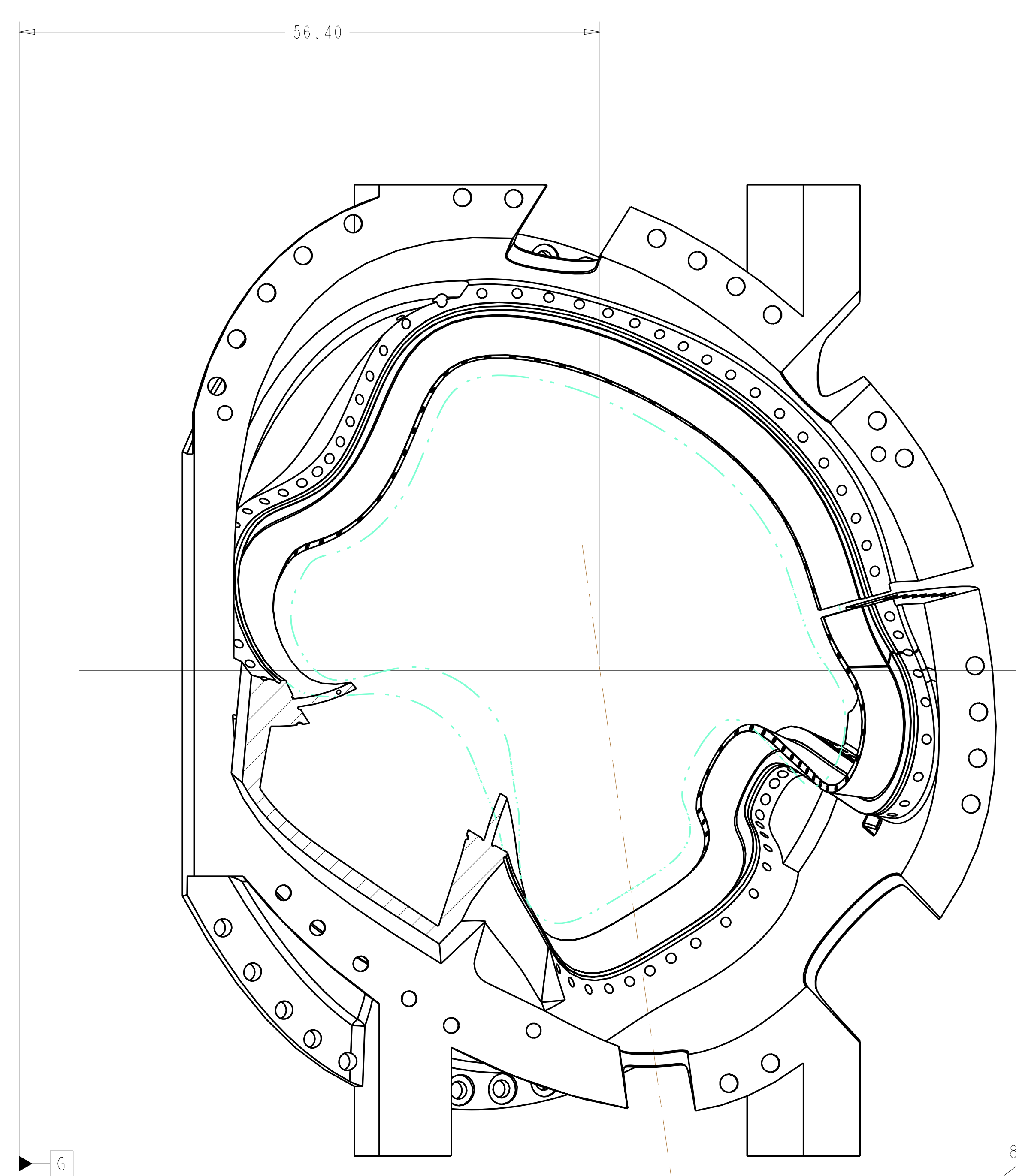
SECTION K-K

DETAIL KI
SCALE 0.500

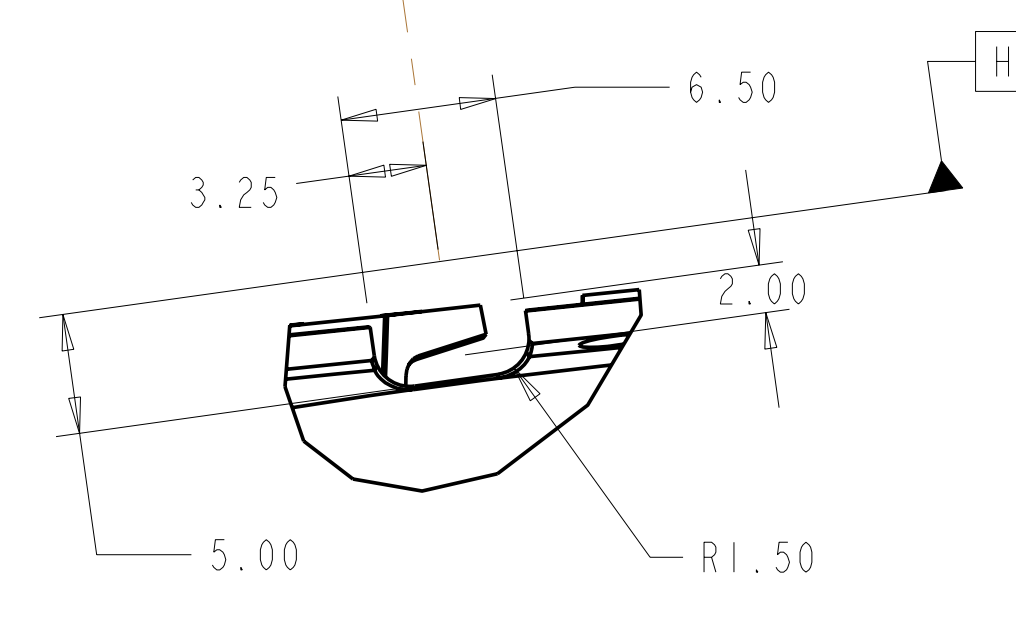
VIEW NORMAL TO LEAD PENETRATIONS



SECTION HI7-HI7



SECTION HII-HII



VIEW HII-HII

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee							
UT-BATTELLE							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
MODULAR COIL "C"							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
16	X-10	5700	3	8 9	S	U	
RELEASE LEVEL	SEI41-116						REV
WIP							-

H
G
F
E
D
C
B
A

SEI41-116

A

TABLE I WINDING CENTER SPLINE
(FILE SEI4I-II6-WC.TXT)

Table with 4 columns: No., x, y, z. Contains 82 rows of coordinate data for the winding center spline.

TABLE II X-VECTOR SPLINE
(FILE SEI4I-II6-XV.TXT)

Table with 4 columns: No., x, y, z. Contains 82 rows of coordinate data for the x-vector spline.

TABLE III SPHERICAL SEAT CENTERS
SIDE A
(FILE SEI4I-II6-SA.TXT)

Table with 4 columns: No., x, y, z. Contains 82 rows of coordinate data for spherical seat centers on side A.

TABLE IV SPHERICAL SEAT CENTERS
SIDE B
FILE (SEI4I-II6-SB.TXT)

Table with 4 columns: No., x, y, z. Contains 82 rows of coordinate data for spherical seat centers on side B.

ALL POINT LOCATIONS ARE BASIC

Administrative form containing project name (NATIONAL COMPACT STELLARATOR EXPERIMENT), version number (16), plant (X-10), and other technical details.