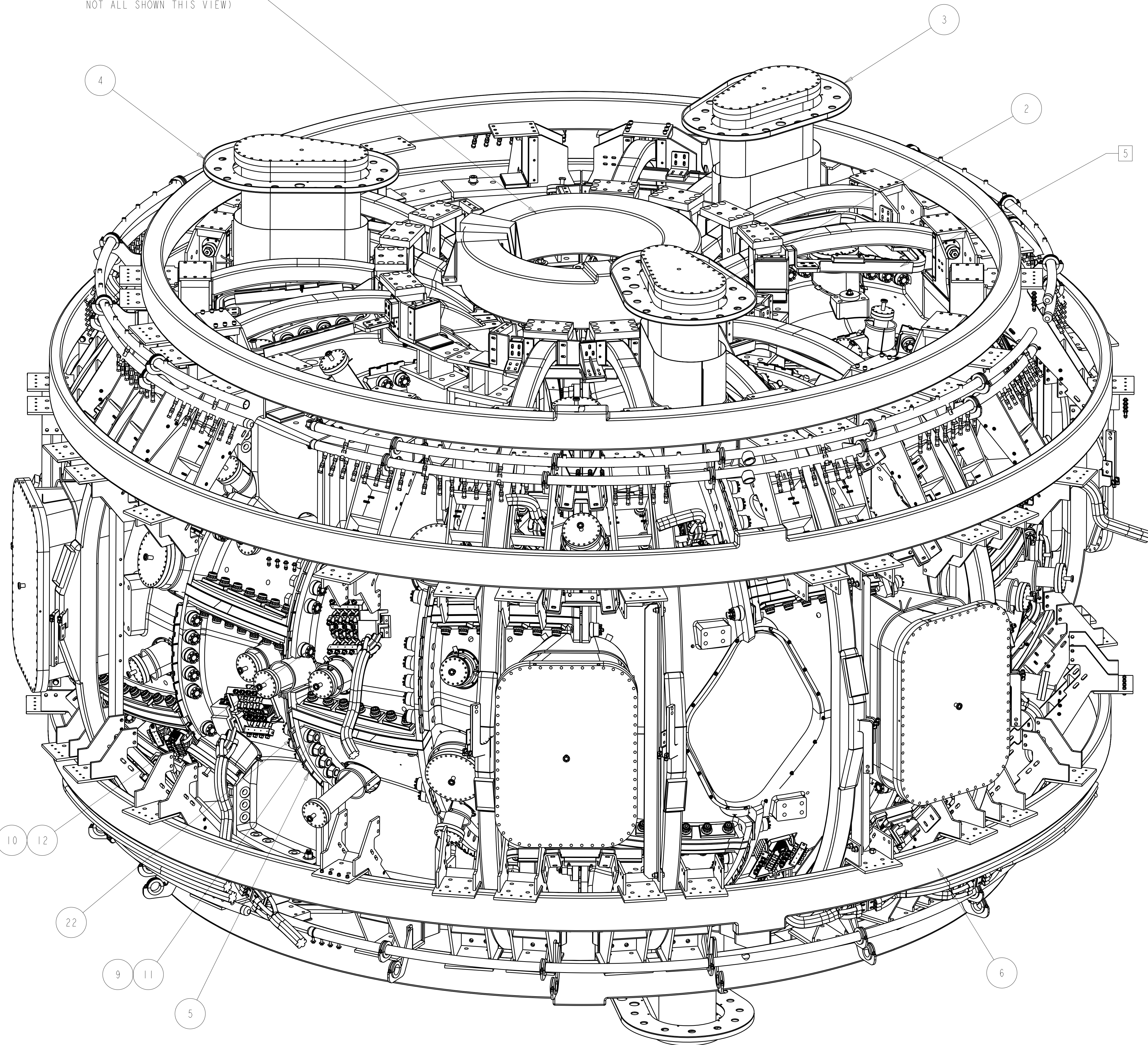


SEE PARTIAL TOP VIEW BELOW
(6 BRACKETS ON TOP AND 6 ON BOTTOM
NOT ALL SHOWN THIS VIEW)



ISOMETRIC VIEW
SCALE 0.100

NOTE
SOME DETAIL ON ALL VIEWS OMITTED FOR CLARITY

-1 NCSX STELLARATOR CORE ASSEMBLY
SCALE 0.080

NOTES

- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
- INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
- DIMENSIONS ARE IN INCHES
- FINAL UPPER SUPPORT ADJUSTMENTS TO BE MADE AFTER ALL WELDING IS COMPLETE. MAINTAIN ALL 3 FIELD PERIODS TO WITHIN ± 0.60 OF DIM SHOWN.
- TRIM COILS, SE133-002, OVER THE C MOD COILS WILL BE INSTALLED AT THIS ASSY LEVEL BUT ARE CALLED FOR ON THE SE100-002 B.O.M.
- LOWER SUPPORT INSTALLATION: REF DRAWING SE124-054. ASSEMBLY SHALL BE DONE WITH BOTH THE VACUUM VESSEL AND MOD COIL SHELLS AT ROOM TEMPERATURE.
 - PRE-ASSEMBLE THE SUPPORT ASSEMBLY(1), LEAVING OFF ONE OF THE TWO JAM NUTS(8). THE BELLEVILLE WASHERS(10) SHOULD SNUGGED UP BUT UNCOMPRESSED. THE POSITION OF THE SUPPORT ADJUSTER(7) AND IT'S MOUNTED COMPONENTS ON THE SUPPORT ROD(4) IS NOT IMPORTANT AT THIS POINT BUT SHOULD BE ON FAR ENOUGH TO CLEAR THE FLAT ON THE SUPPORT ROD.
 - INSERT THE SUPPORT ASSEMBLY UP THRU THE MATING HOLE IN THE MOD COIL SHELL AND USING THE FLAT ON THE SUPPORT ROD SCREW THE CLEVIS(9) INTO THE VACUUM VESSEL LUG UNTIL IT BOTTOMS OUT. TURN THE SUPPORT ASSEMBLY BACK OUT UNTIL THE CLEVIS IS APPROXIMATELY RADIAL TO THE VACUUM VESSEL, I.E., THE ROD END IS FREE TO ROTATE RADIALLY.
 - USING THE WRENCH FLAT ON THE SUPPORT ADJUSTER, ROTATE IT AND IT'S COMPONENTS UP UNTIL IT JUST CONTACTS THE SHELL, THEN TURN ANY ADDITIONAL AMOUNT REQ'D TO ALIGN THE HOLES IN THE SUPPORT INSERT(5) WITH THE HOLES IN THE SHELL. THE SUPPORT ROD MUST BE HELD BY ITS WRENCH FLAT DURING THIS OPERATION TO PREVENT IT FROM TURNING.
 - INSTALL THE BOLTS AND WASHERS AND TORQUE TO 40 FT-LBS.
 - COMPRESS THE LOWER BELLEVILLES $0.25 \pm .06$ INCHES BY HOLDING THE FLAT ON THE SUPPORT ADJUSTER AND TURNING THE JAM NUT. THE UPPER BELLEVILLES MUST REMAIN UNCOMPRESSED.
 - INSTALL THE SECOND JAM NUT ON THE SUPPORT ADJUSTER AND TORQUE TO 50 FT-LBS WHILE PREVENTING THE SUPPORT ADJUSTER AND OTHER JAM NUT FROM ROTATING.

THIS DRAWING RELEASED FOR FABRICATION 09/2008 TO DOCUMENT CLOSURE OF PROGRAM. IF PROGRAM IS RESTARTED AT A LATER DATE THIS DRAWING SHALL BE CHECKED AND UPDATED.

QTY	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
AR	-24	\varnothing .25 ROUND	316L SST	ASTM A276	22
18	151322	5/8 FLAT WASHER			21
24	NS151355	3/4 BELLEVILLE WASHER			20
12	NS151356	1 BELLEVILLE WASHER	SST	ANSI B18.21.1	19
25	151335	3/4 SPLIT LOCK WASHER			18
9	150263	5/8-11 UNC STANDARD HEX NUT		ANSI B18.2.2	17
9	92245A809	5/8-11 UNC X 2 HEX HEAD CAP SCREW	300 SERIES SST ANSI B18.2.1	MCMaster-CARR ATLANTA, GA 30336 404-346-7000 WWW.MCMaster.COM	16
24	NS151773	3/4-10 UNC X 1 3/4 HEX HEAD BOLT			15
23	NS151779	3/4-10 UNC X 2 HEX HEAD BOLT	18-8 SST	ANSI B18.2.1	14
12	NS151778	1-8 UNC X 2 1/2 HEX HEAD BOLT			13
AR	SE140-190-2	MCWF FLANGE TAPPED STUD KIT			12
AR	SE140-190-1	MCWF FLANGE THRU STUD KIT			11
60	SE140-190-4	MCWF FLANGE TAPPED STUD KIT			10
72	SE140-190-3	MCWF FLANGE THRU STUD KIT			9
12	SJDR151-026	PF-4 COIL ASSEMBLY CLAMP			8
3	SE132-250	HUB SUPPORT BRACKET			7
1	SE132-000	PF SYSTEM ASSEMBLY			6
3	SE140-044	C-C MOD COIL SHIM AND SHEAR PLATE KIT			5
1	SE100-002-3	FIELD PERIOD ASSEMBLY 3			4
1	SE100-002-2	FIELD PERIOD ASSEMBLY 2			3
1	SE100-002-1	FIELD PERIOD ASSEMBLY 1			2
1	-1	NCSX STELLARATOR CORE ASSEMBLY			1

CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO

WELDING ENGINEER
APPROVED L. DUDEK DATE: 08/2008

RELEASED FOR FABRICATION / INSTALLATION
PPPL Drafting

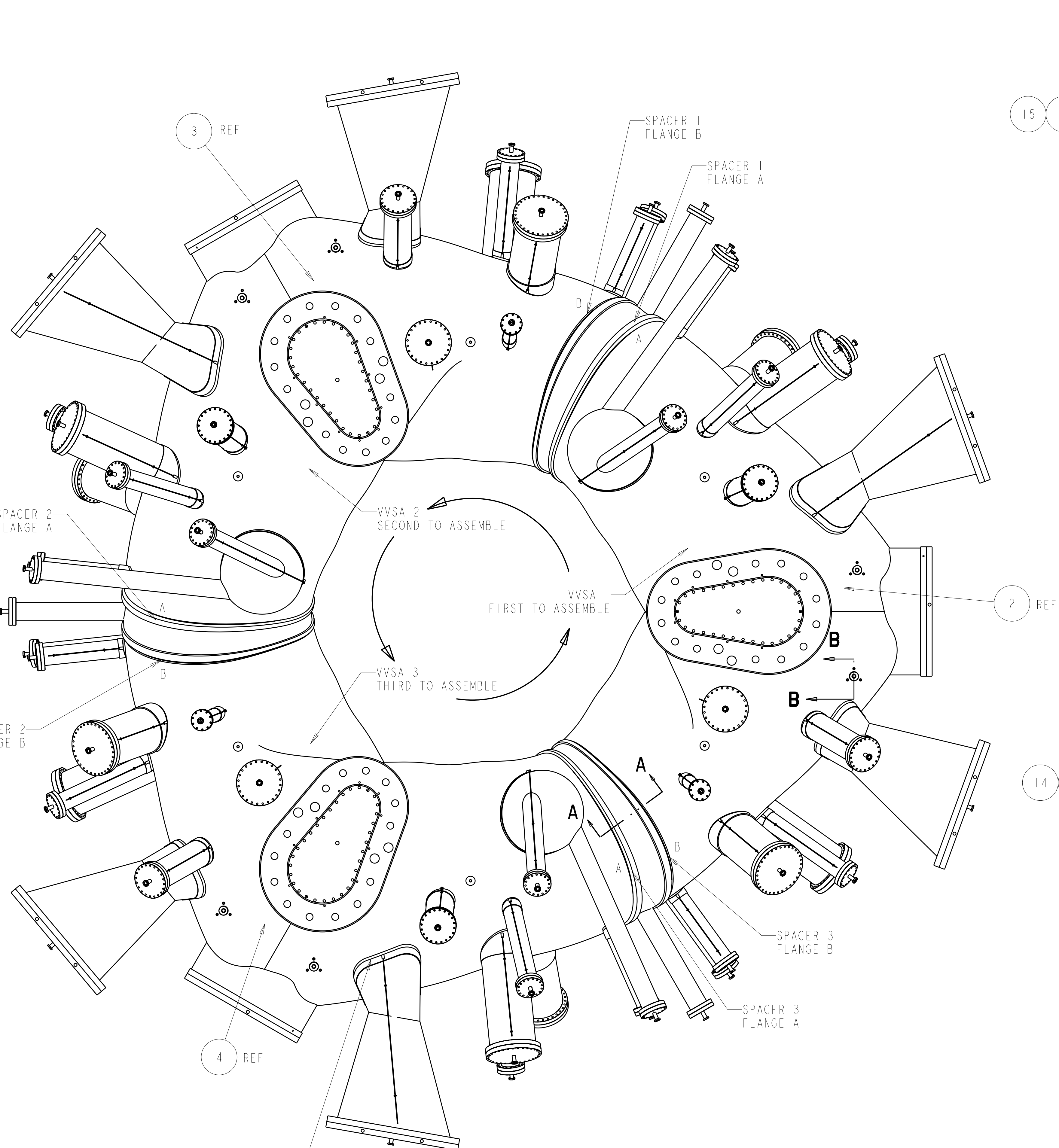
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P THIS DRAWING PRODUCED ON PRO-ENGINEER

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
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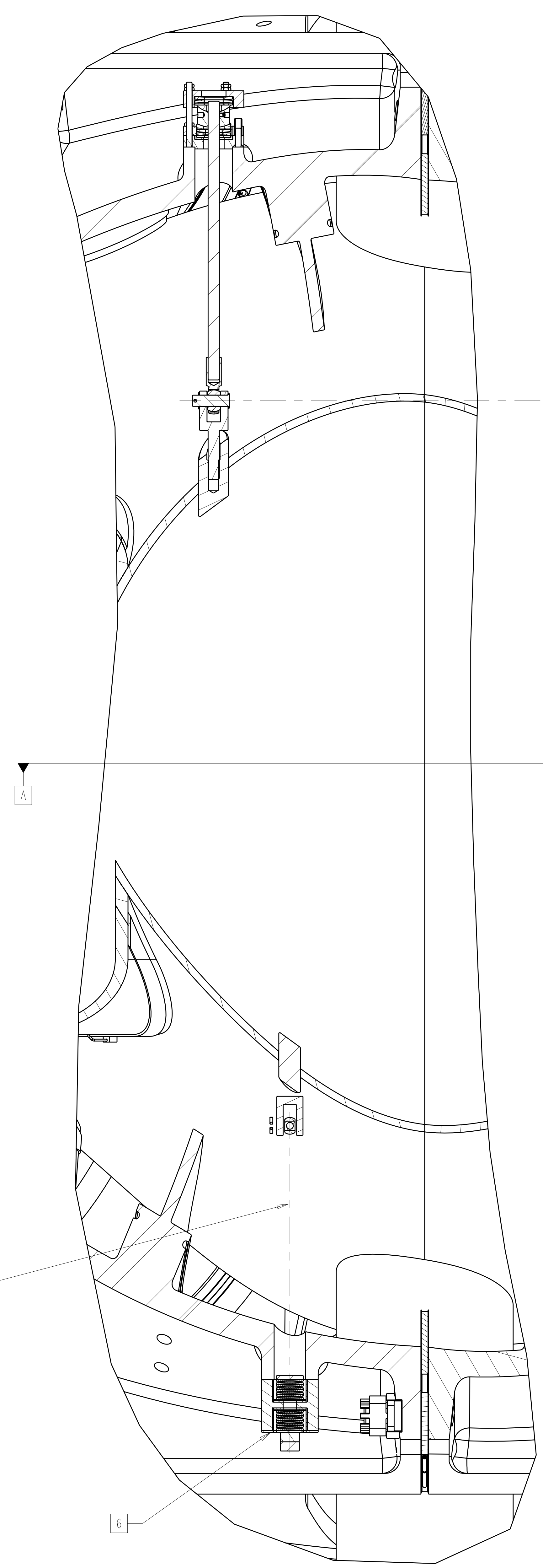
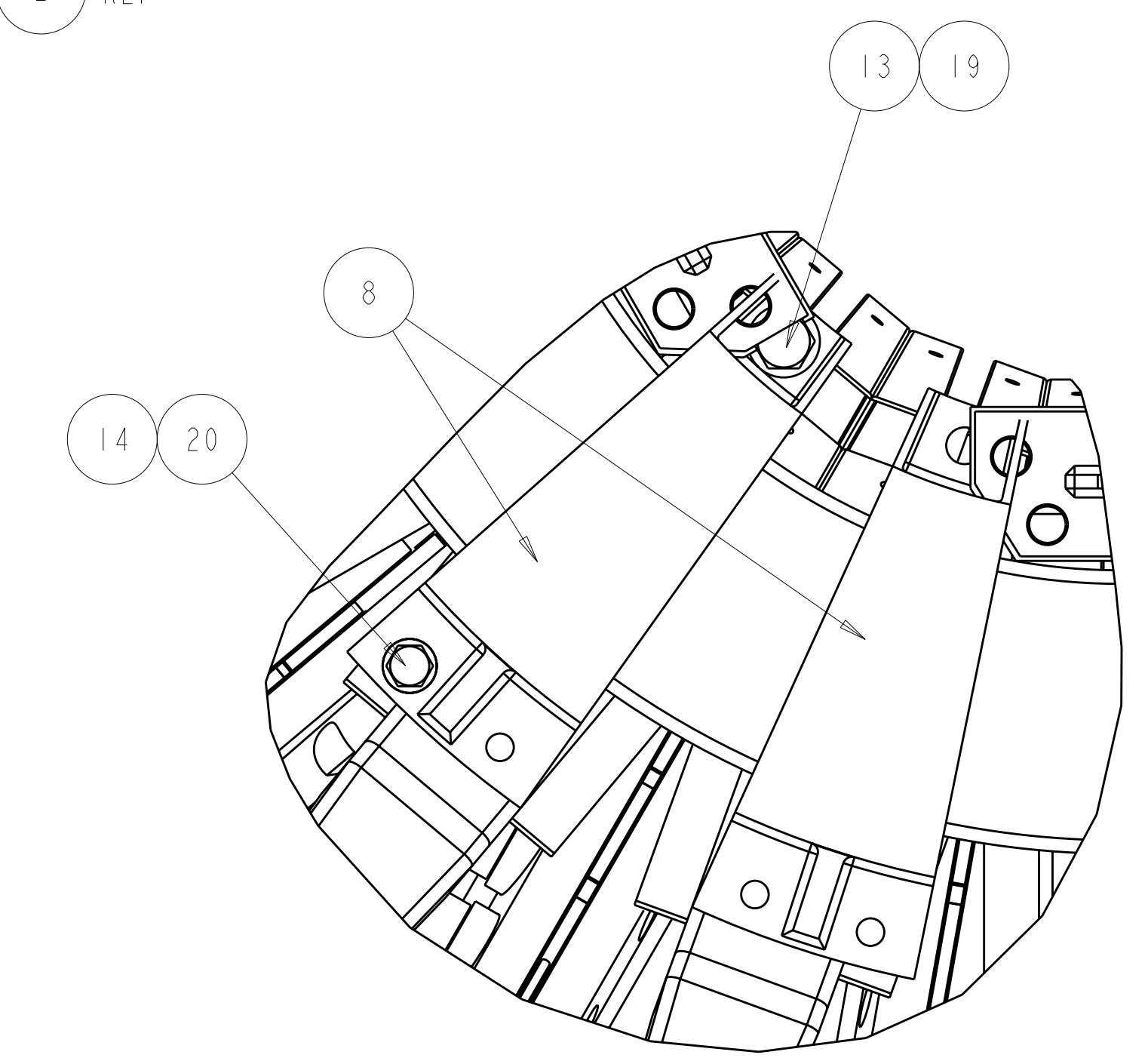
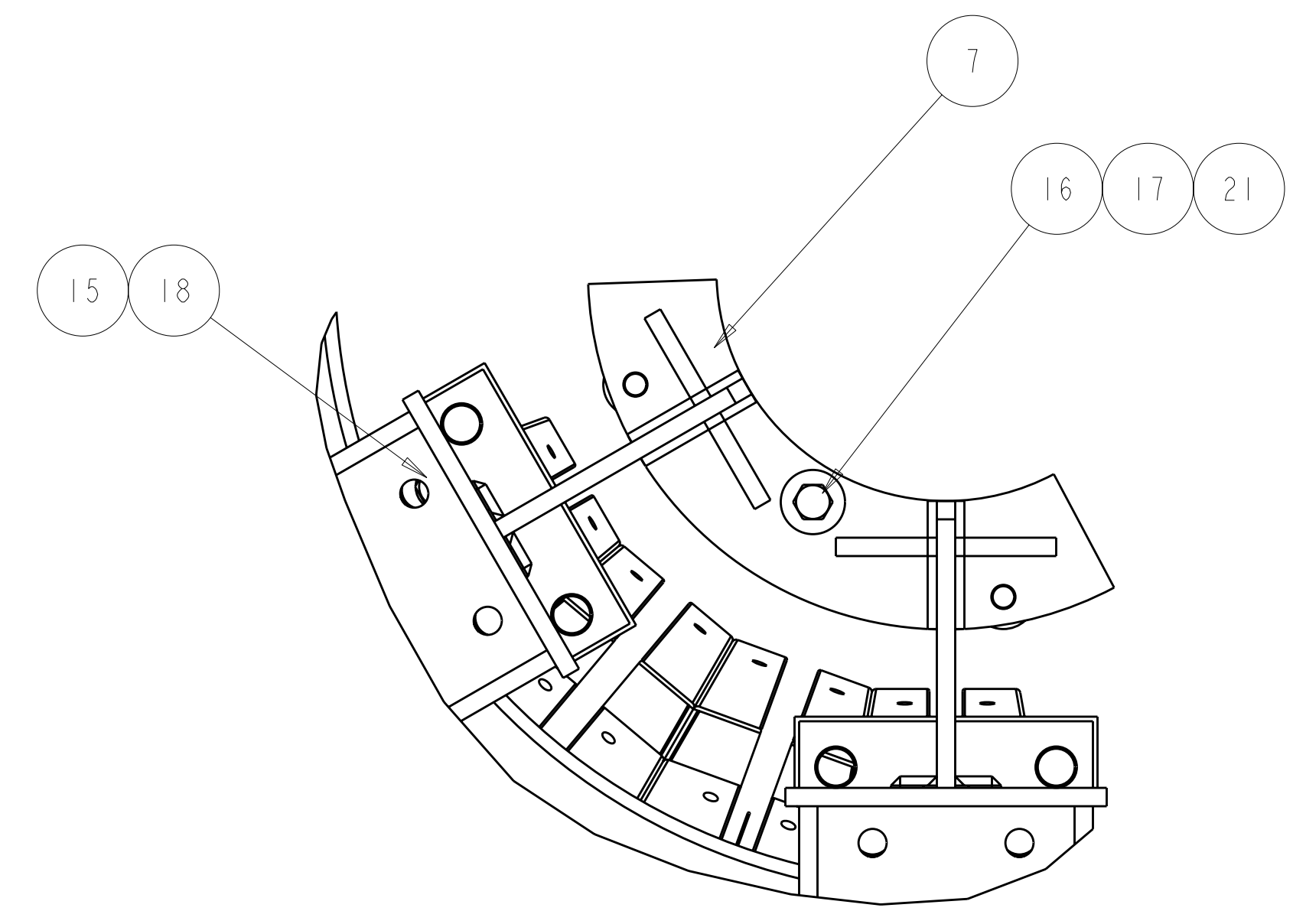
SCALE	NOTED	DES	PL	DRW	CHK	DATE	PLANT	BLDG	FL	SHT	OF	TYPE	CLASS
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Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT CONTRACT DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee
PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT
NCSX STELLARATOR CORE ASSEMBLY
PPPL DRFT J SIEGEL 08/2008
VERSION NO. 10
PLANT ORNL
BLDG 5700
FL 3
SHT 1
OF 2
TYPE A
CLASS U
RELEASE LEVEL Fabrication
SE100-001
REV 0

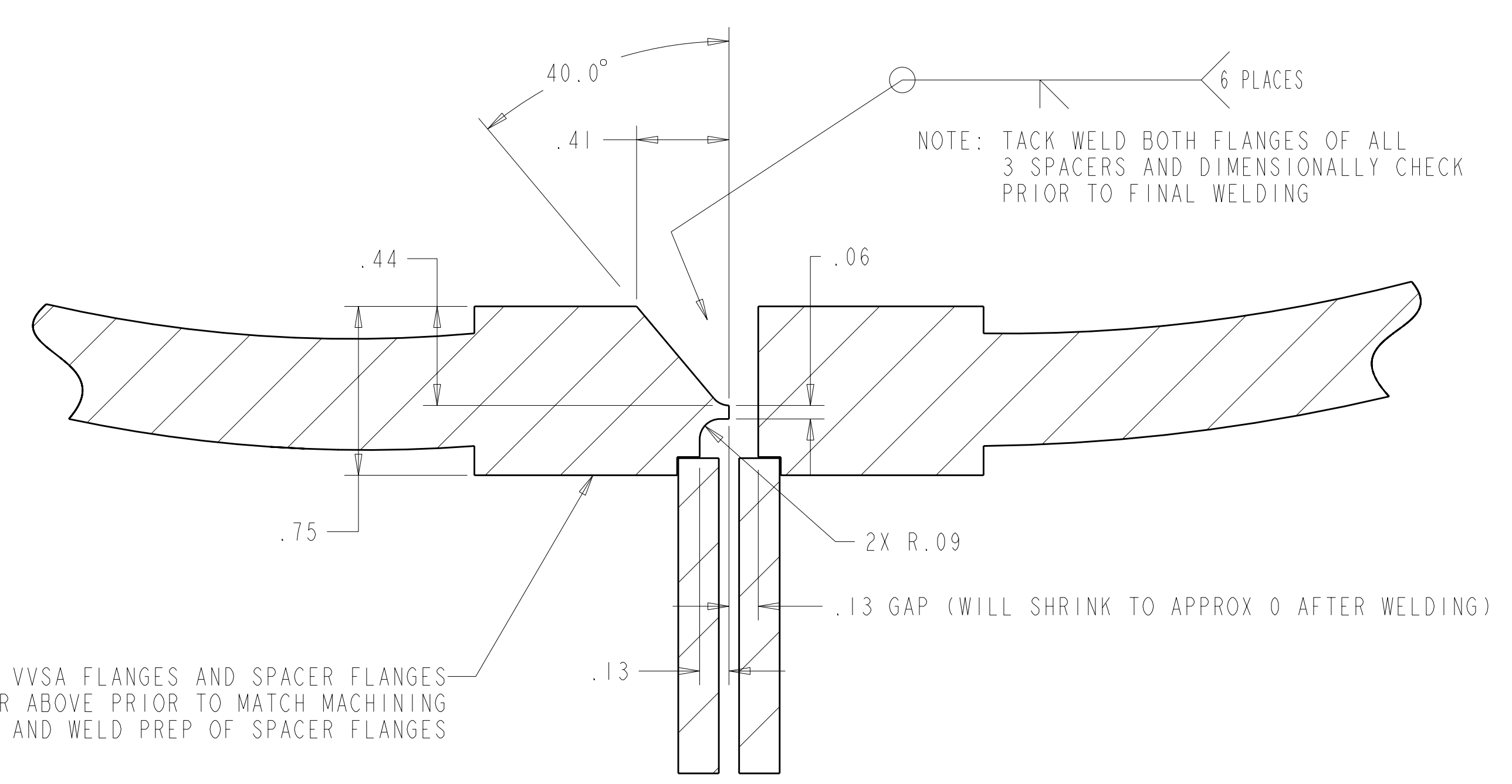


FINAL WELD PORT 4, SEE DRAWING SE100-002, AFTER FINAL WELDING OF SPACERS SEE SECTION A-A

TOP VIEW (DETAIL OMITTED TO VIEW VACUUM VESSEL)
SCALE .08



THE LOWER AREA OF THIS SECTION IS SLIGHTLY BEHIND THE SUPPORT ROD THEREFORE IT IS NOT VISIBLE



MARK VVSA FLANGES AND SPACER FLANGES PER ABOVE PRIOR TO MATCH MACHINING AND WELD PREP OF SPACER FLANGES

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									
NCSX STELLARATOR CORE ASSEMBLY									
VERSION NO.	PLANT	BLDG	FL	SHT	OF	TYPE	CLASS		
10	ORNL	5700	3	2	2	A	U		
RELEASE LEVEL		SE100-001							
Fabrication									
								REV	0

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