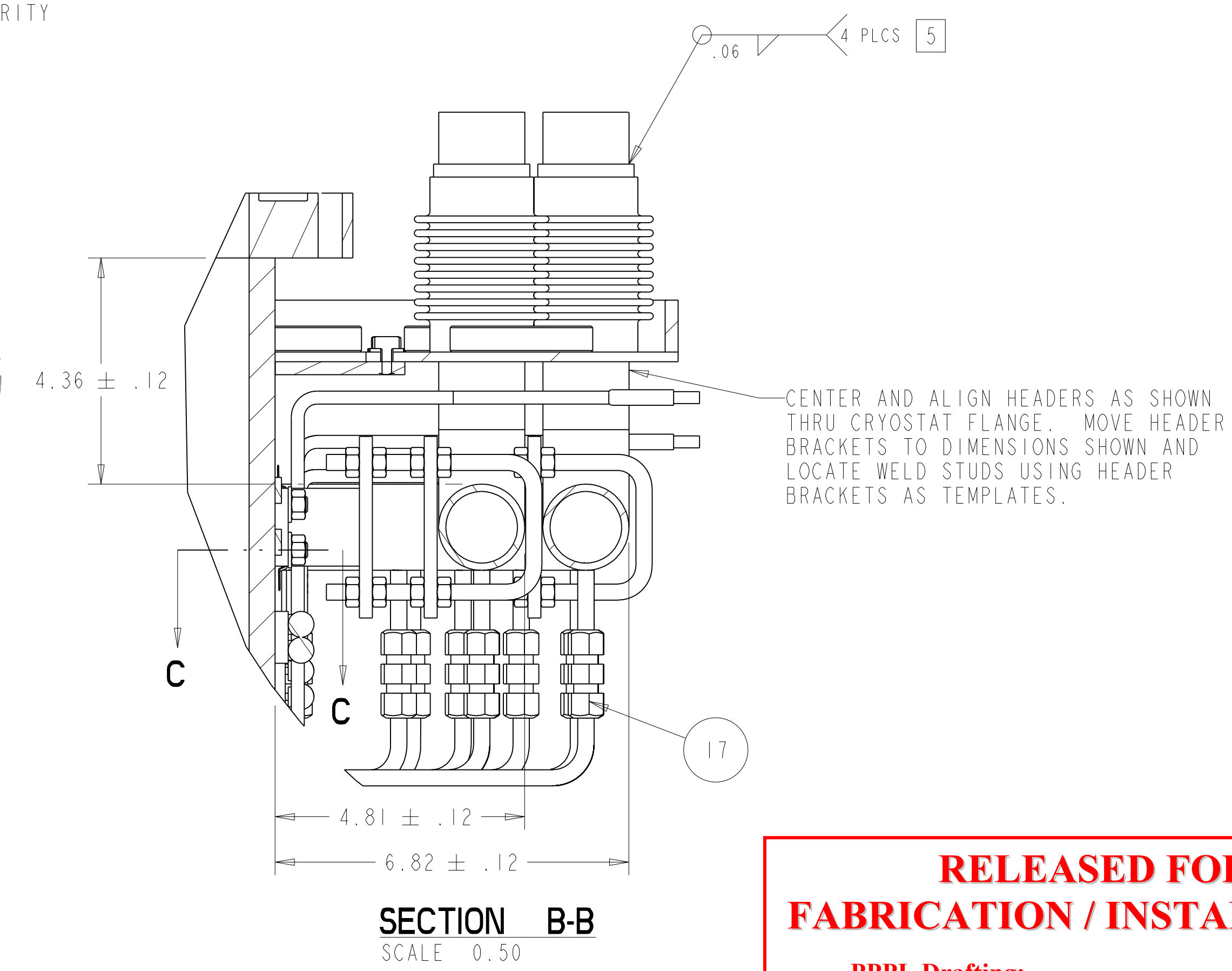
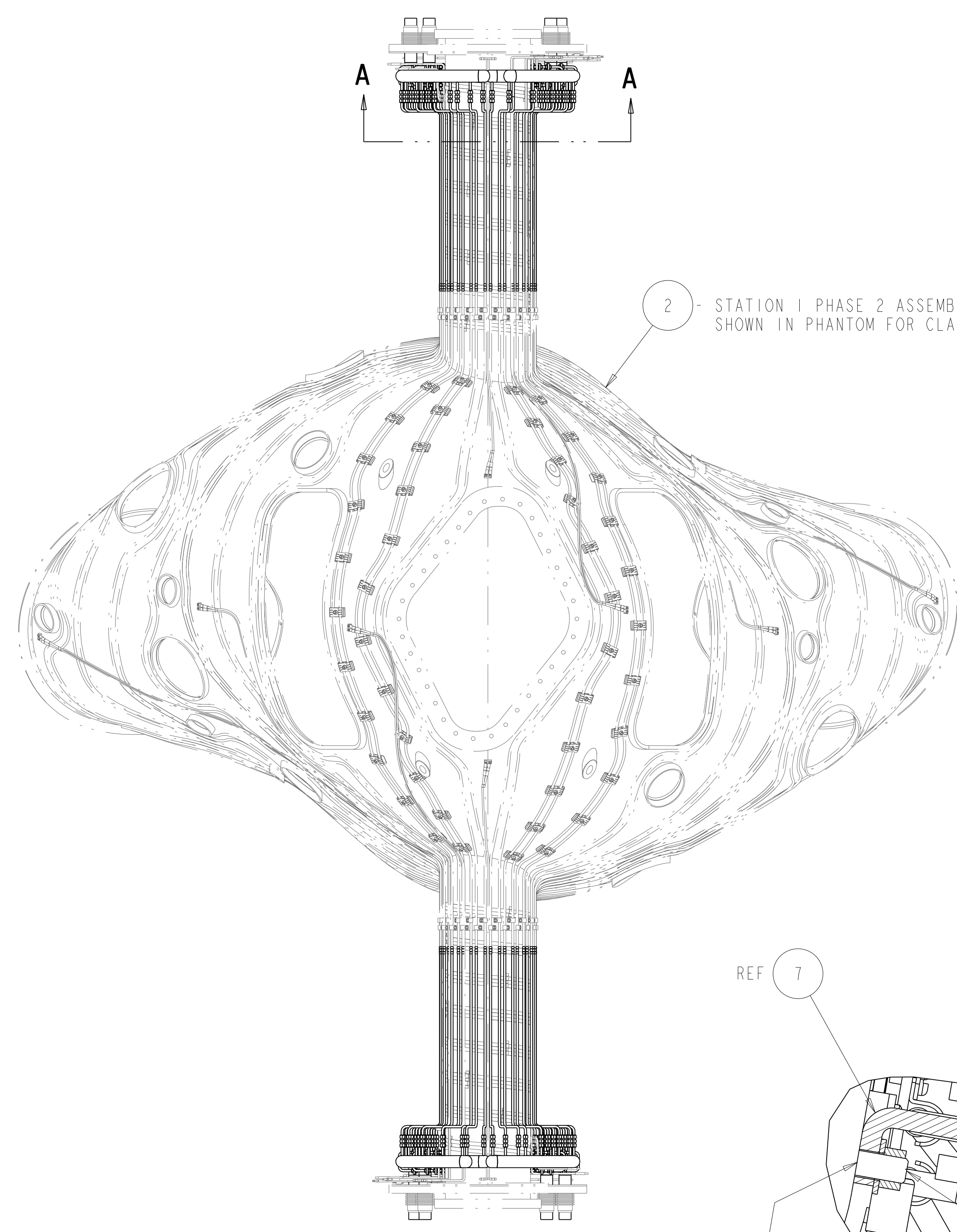
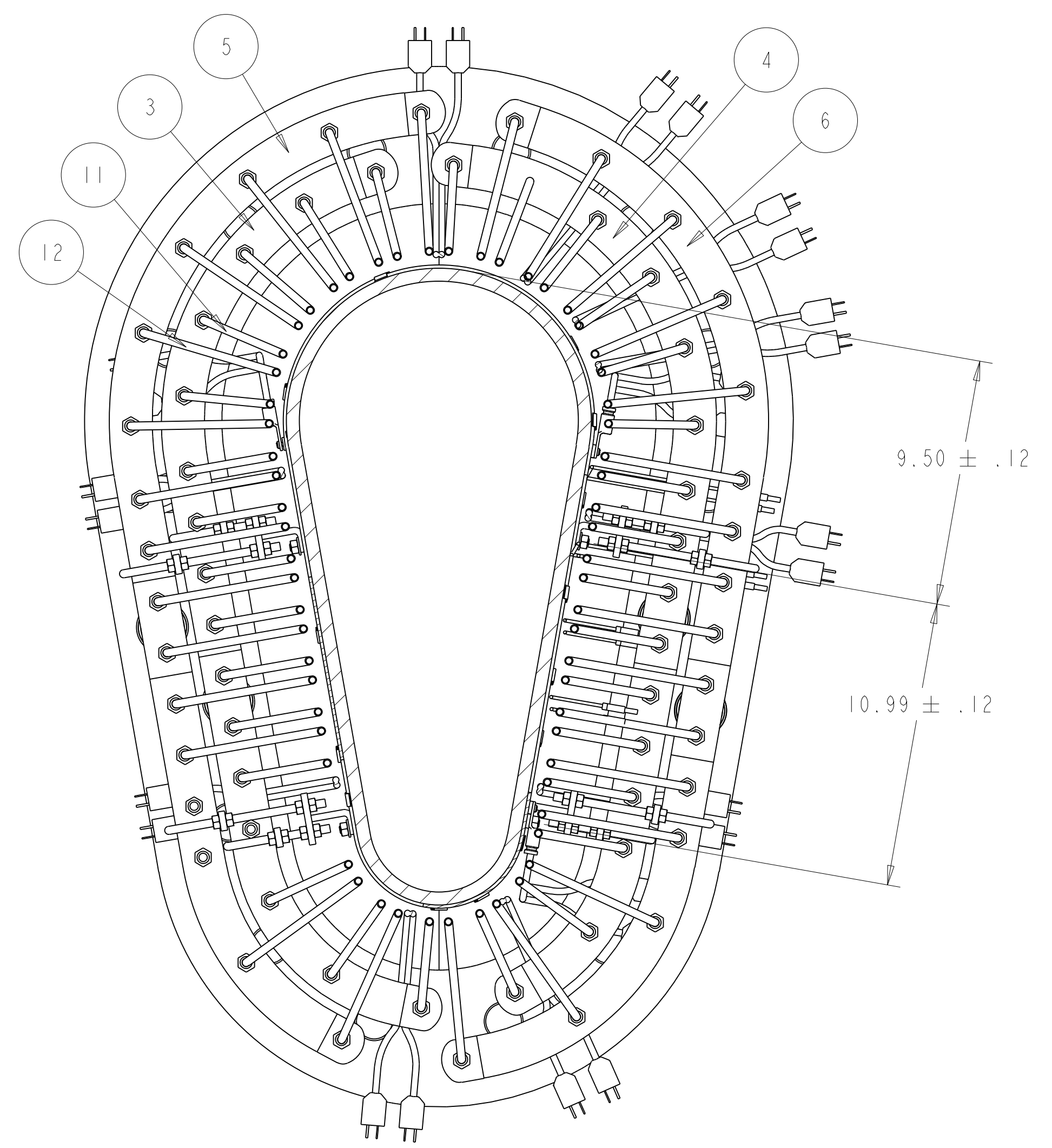
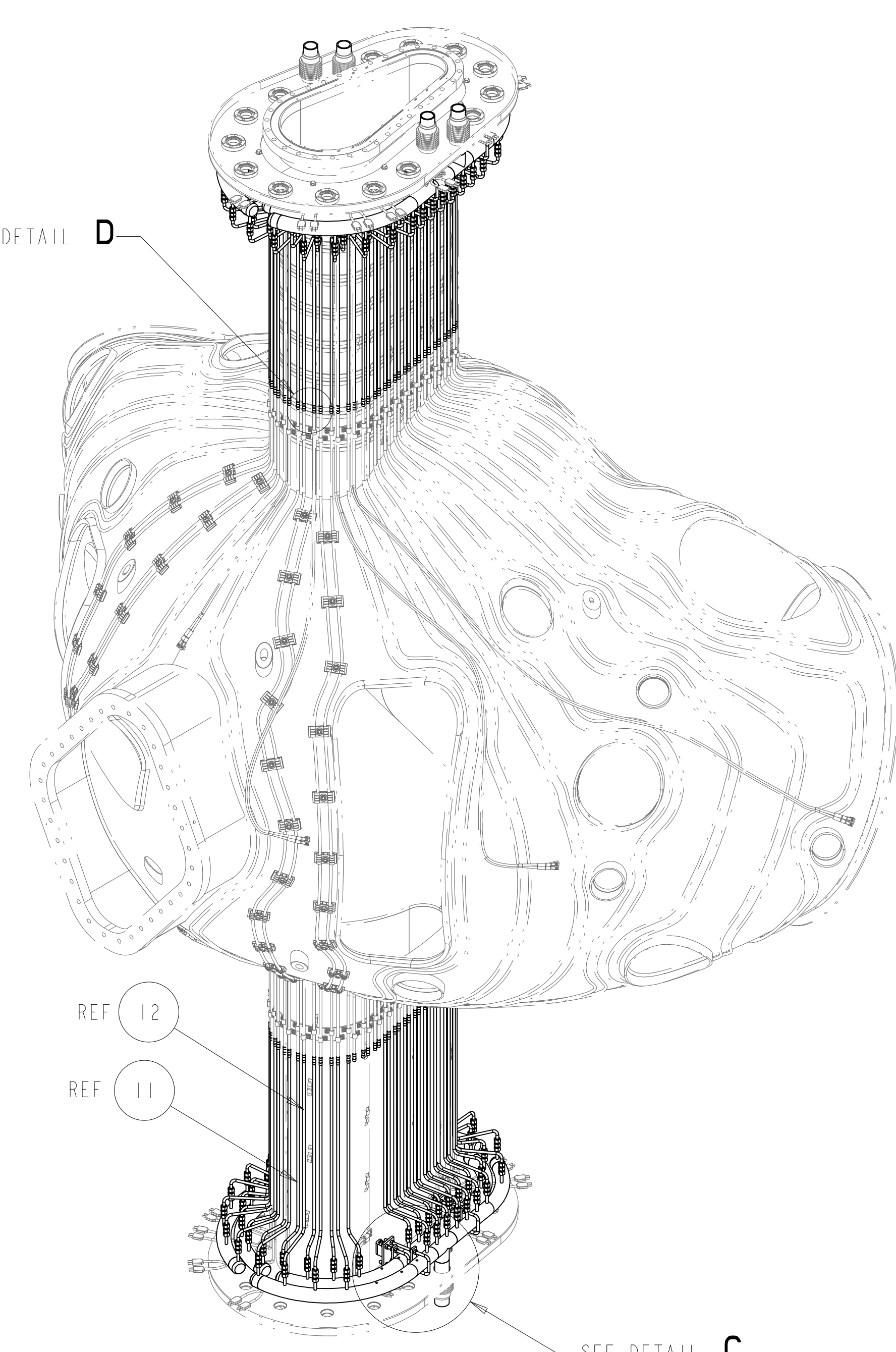
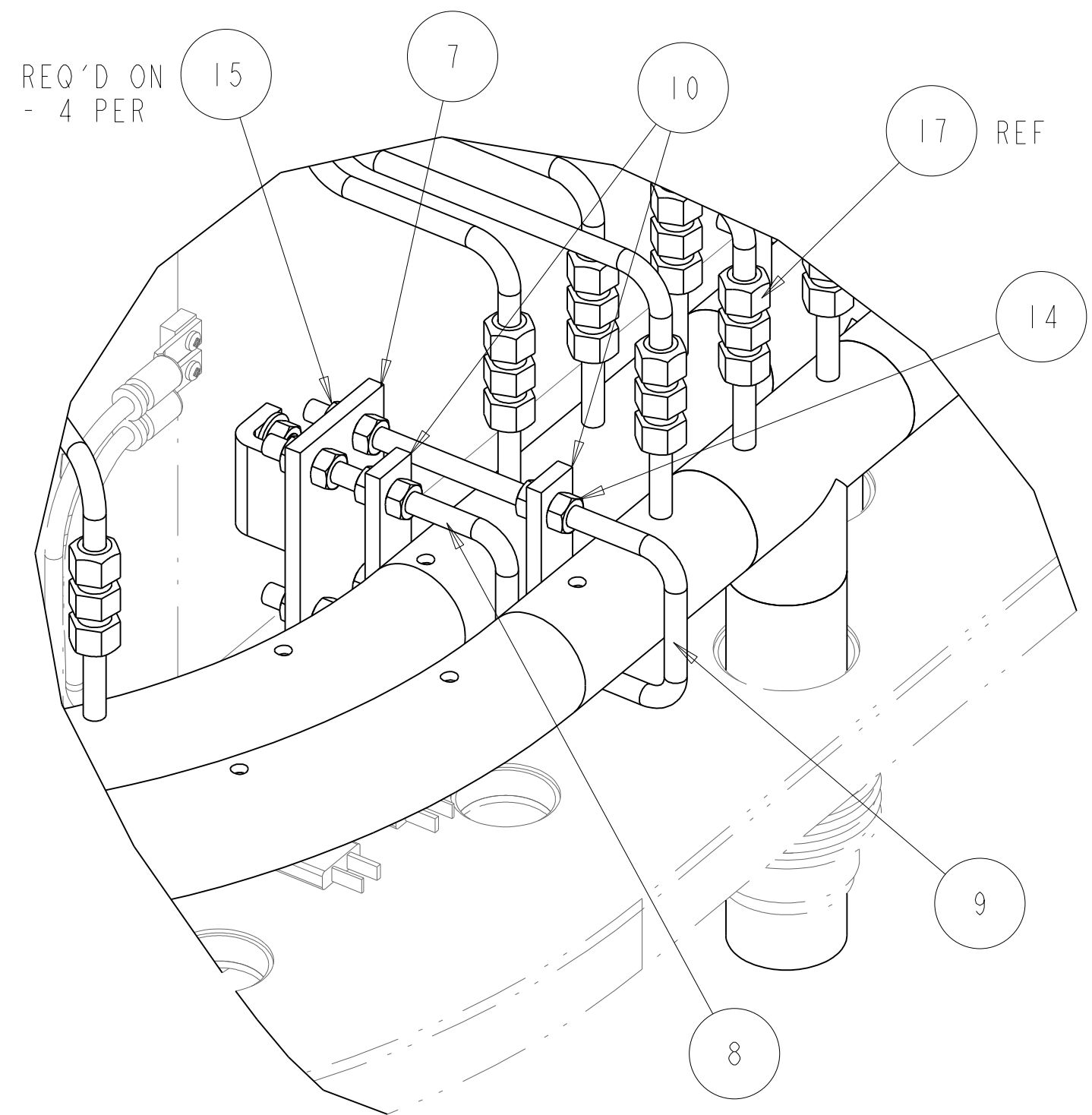
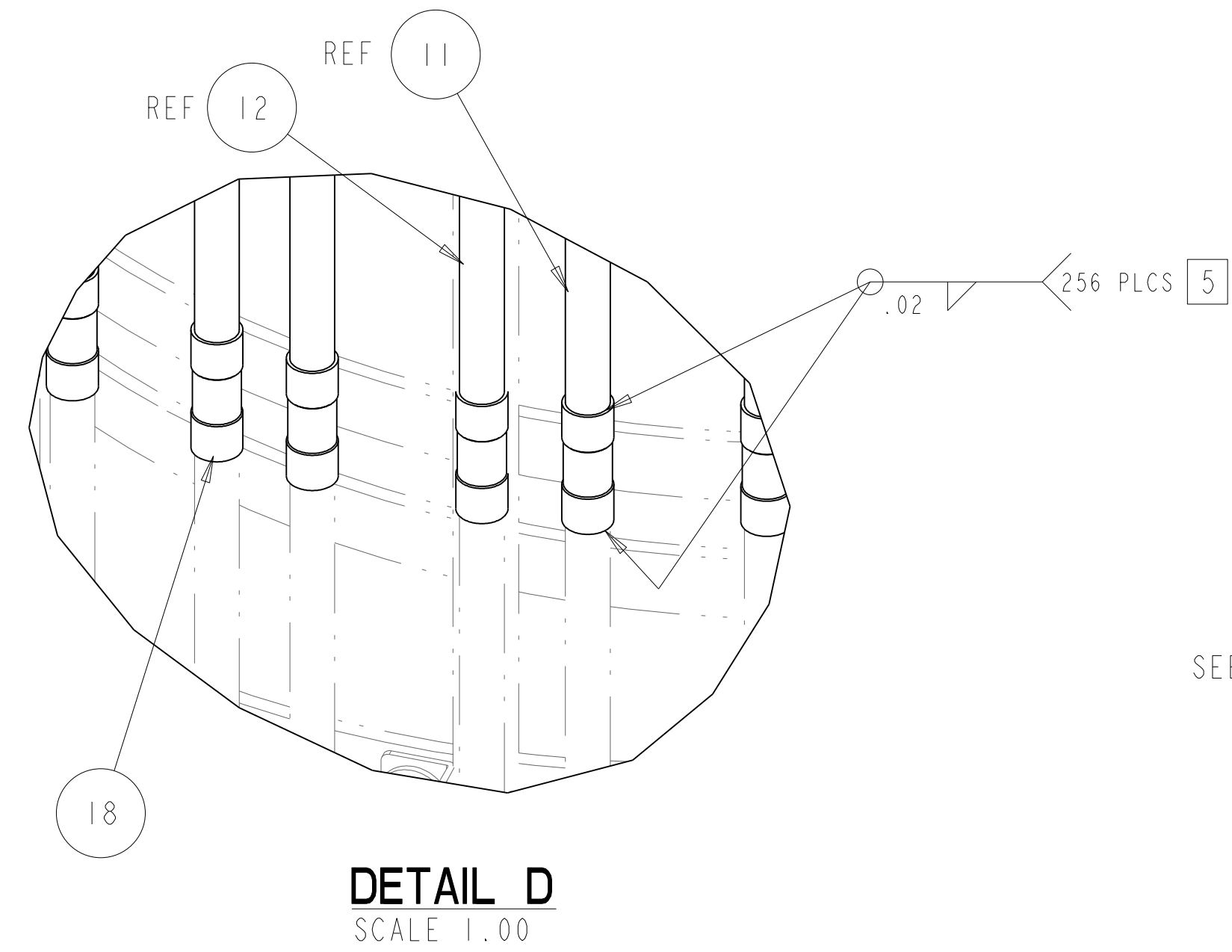
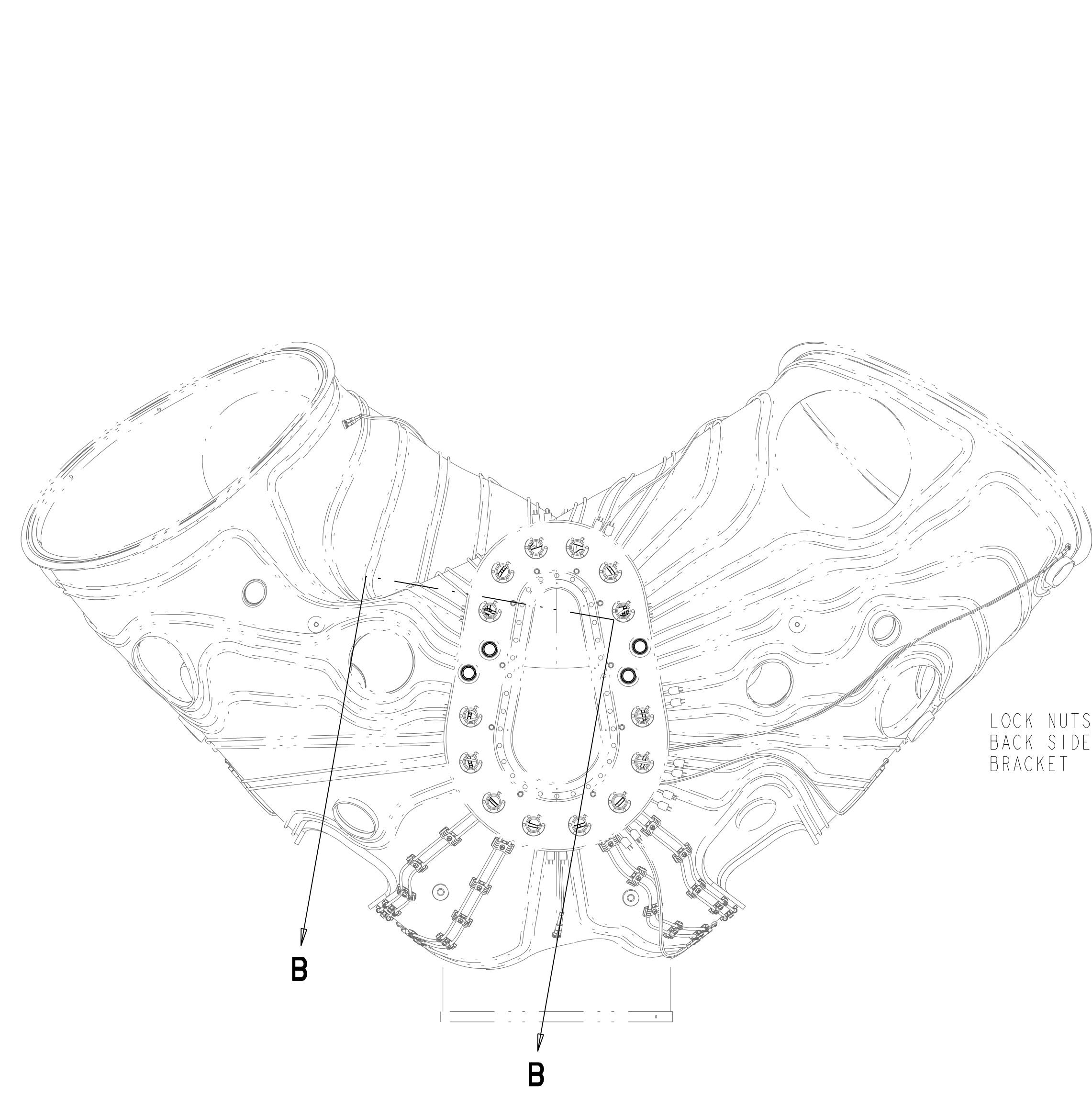
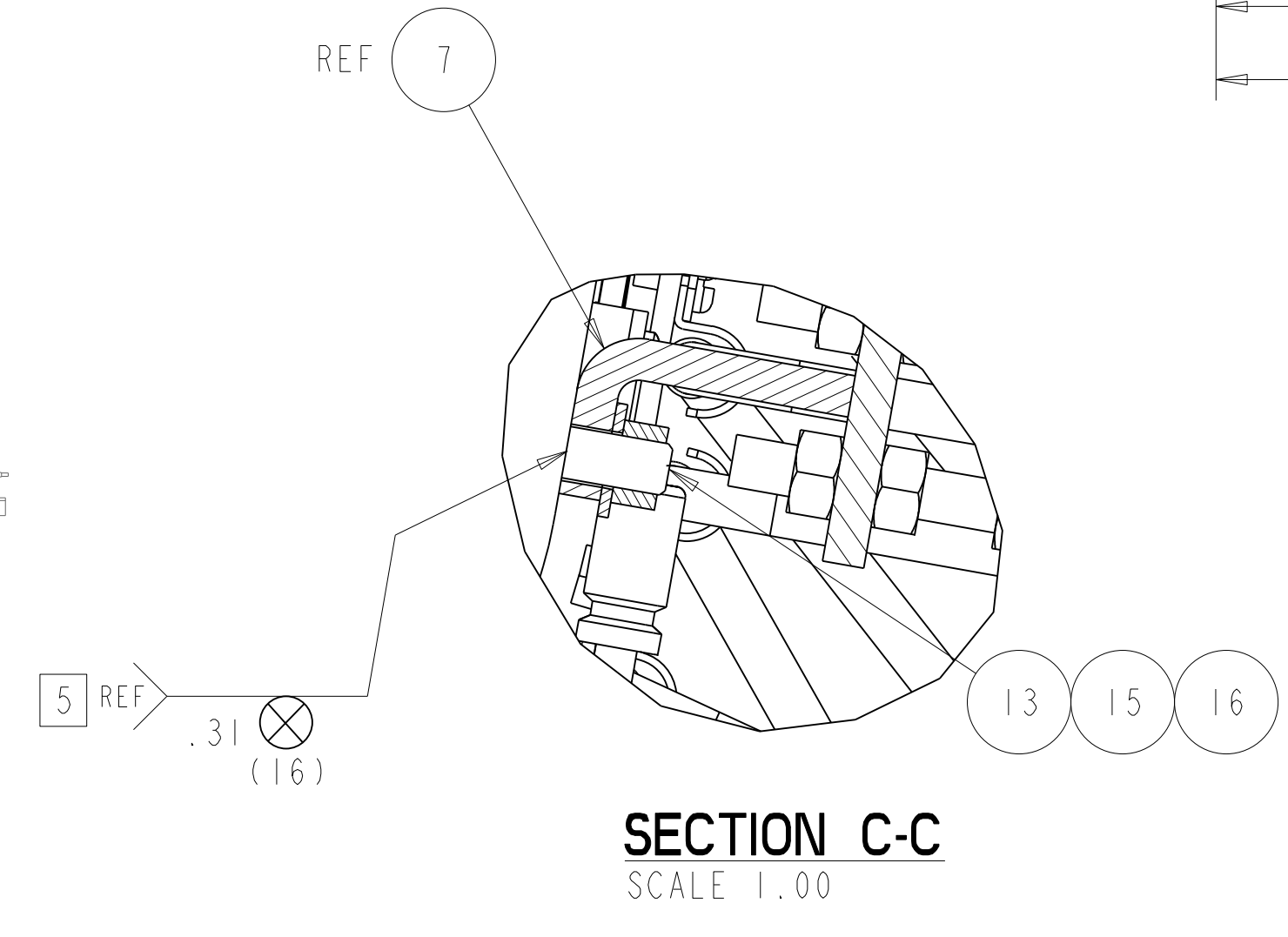


- NOTES
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
 - INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
 - DIMENSIONS ARE IN INCHES
 - MAGNETIC PERMEABILITY NOT TO EXCEED 1.02 AS TESTED BY A SEVERN INDICATOR. AVAILABLE FROM:
 SEVERN ENGINEERING
 AUBURN, ALABAMA 36830
 WWW.SEVERNENGINEERING.COM
 - WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF PPPL PROCEDURE ENG-037. VISUAL WELD INSPECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE ACCEPTANCE CRITERIA OF AWS D1.1 SECTION 6.
 - ASSEMBLE PER THIS DRAWING AND SPECIFICATION NCSX-CSPEC-185-01.



RELEASED FOR FABRICATION / INSTALLATION
PPPL Drafting:

-1-2-3 VVSA ASSEMBLY STATION 1 PHASE 3
SCALE .09



REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
0	ORIGINAL ISSUE	MTB	10/06									
1												
2												
3												

QTY	DESCRIPTION	UNIT	MATERIAL	SPECIFICATION	FIND NO
128	10FF-5		5/16 FEMALE UNION 316 SST	TRULY TUBULAR FITTING CORP MT VERNON, NY 10550 914-664-8686 WWW.TRULYTUBULAR.COM	18
128	5182K719		316 SS YOR-LOK COMPRESSION TUBE FITTING COUPLING FOR 5/16" TUBE OD		17
16	91950A030		FLAT WASHER .688 OD X .344 ID X .064 THK 316 STAINLESS STL	McMASTER-CARR ATLANTA, GA 30336-2852 (404) 346-7000 WWW.MCMMASTER.COM	16
48	95878A310		HEX LOCKNUT 5/16-18 UNC - ASME B18.2.2 316 SST		15
96	94819A046		HEX NUT 5/16-18 UNC - ASME B18.2.2 316 SST		14
16	NCSX-PRL-12-002-00		5/16-18UNC X .75 LG CD INCONEL WELD STUD		13
64	SE123-169-2		VV HEATING/COOLING SUPPLY LINE DETAIL		12
64	SE123-169-1		VV HEATING/COOLING SUPPLY LINE DETAIL		11
16	SE123-168-6		U-BRACKET STOP		10
8	SE123-168-5		U-BRACKET LONG		9
8	SE123-168-4		U-BRACKET		8
8	SE123-168-1		HEADER BRACKET STANDOFF WELDMENT		7
2	SE123-163		OUTER HEADER B		6
2	SE123-162		OUTER HEADER A		5
2	SE123-161		INNER HEADER B		4
2	SE123-160		INNER HEADER A		3
1	SE121-008-3		VVSA ASSEMBLY STATION 1, PHASE 2 - VVSA 3		2
1	SE121-008-2		VVSA ASSEMBLY STATION 1, PHASE 2 - VVSA 2		2
AR	SE121-008-1		VVSA ASSEMBLY STATION 1, PHASE 2 - VVSA 1		2
AR	-3		VVSA ASSEMBLY STATION 1, PHASE 3 - VVSA 3		1
AR	-2		VVSA ASSEMBLY STATION 1, PHASE 3 - VVSA 2		1
AR	-1		VVSA ASSEMBLY STATION 1, PHASE 3 - VVSA 1		1

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

WELDING ENGINEER
 APPROVED G. GETTELFINGER DATE: 10/2006

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
0	ORIGINAL ISSUE	MTB	10/06									
1												
2												
3												

SCALE NOTED
 TOLERANCES UNLESS OTHERWISE SPECIFIED
 FRACTIONS :
 XX DECIMALS ± .01
 XXX DECIMALS ± .005
 ANGLES ± 0'15"
 BREAK SHARP EDGES .06 MAX
 FINISH .125 UNLESS OTHERWISE SPECIFIED

DES: P GORANSON 10/06
 DRW: MT BROWN 10/06
 CHK: :
 SECT: :
 DEPT: :
 PE: :
 CR: :
 PJ: :
 RED: :
 PPPL DRFT J SIEGEL 10/06

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

VVSA ASSEMBLY STATION 1 PHASE 3

VERSION NO.	PLANT ORNL	BLDG	FL	SHT OF	TYPE	CLASS
3		5700	3	1	A	U

RELEASE LEVEL: Fabrication
 DRAWING APPROVALS: DATE: SEI21-009
 REV 0