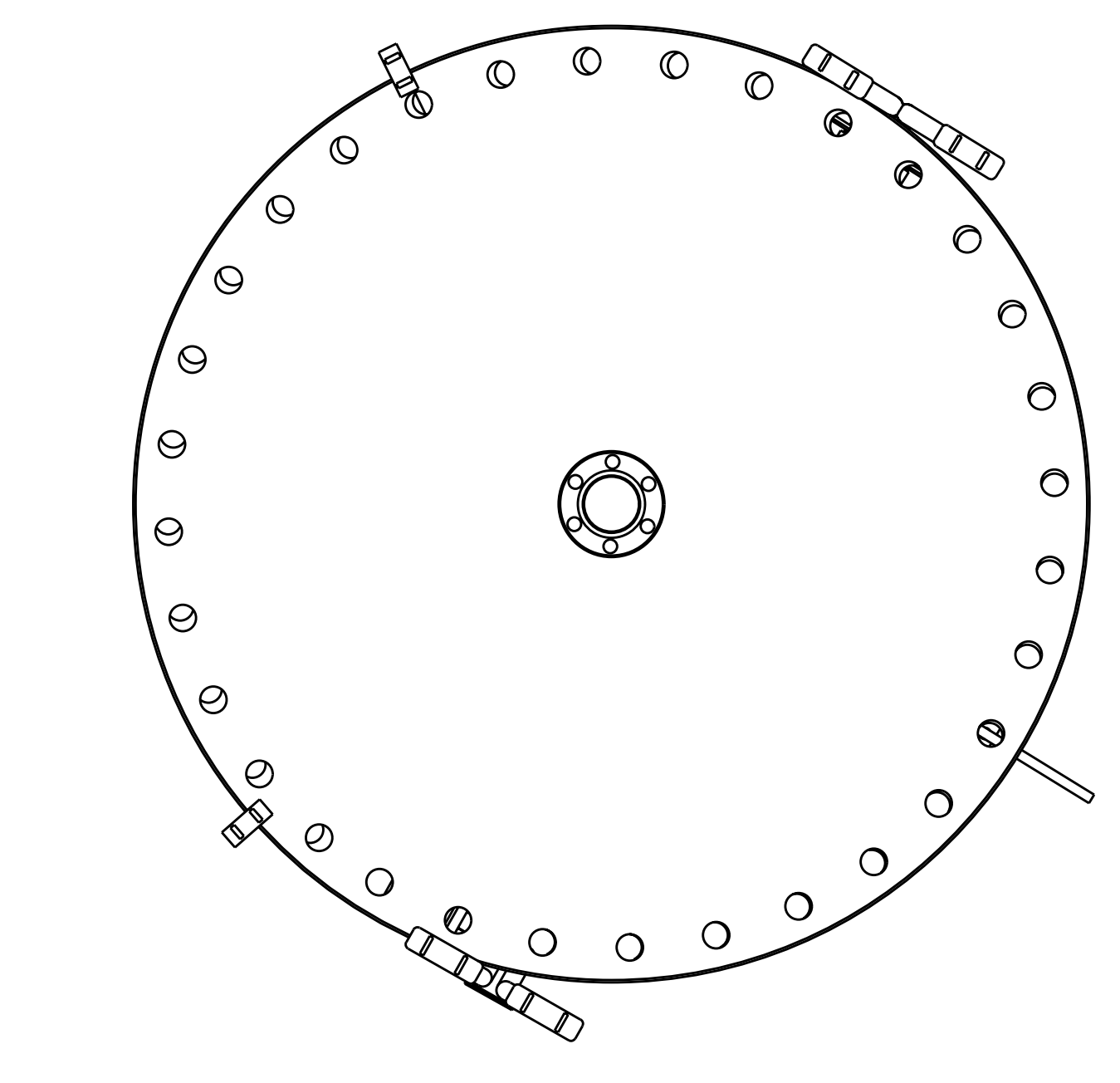
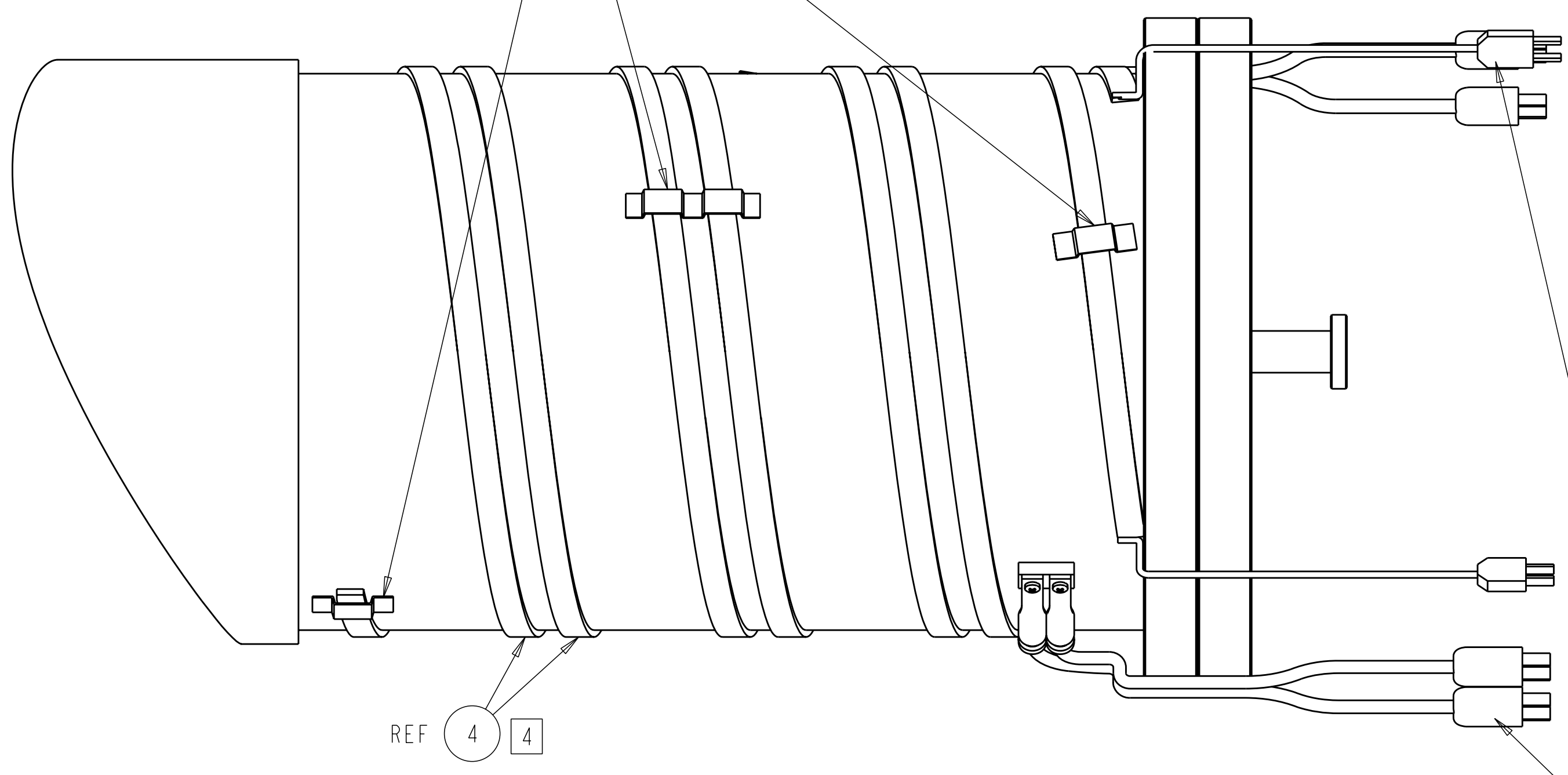


ISOMETRIC VIEW  
 SCALE .500

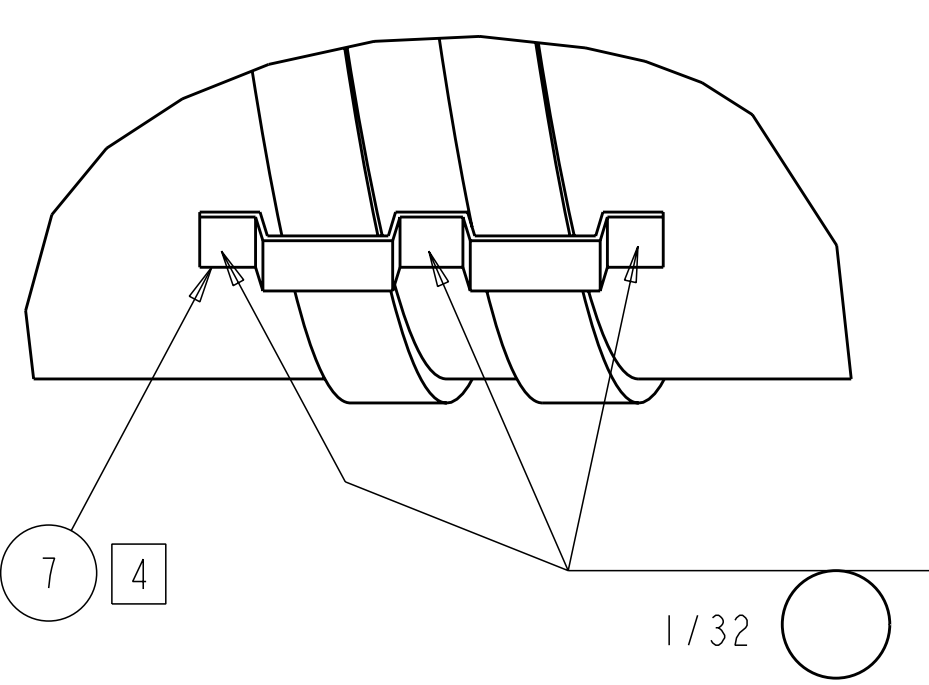
- NOTES
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
  - INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
  - DIMENSIONS ARE IN INCHES.
  - EVENLY DISTRIBUTE THE ENTIRE LENGTH OF HEAT TAPE IN A HELICAL FASHION ACROSS THE LENGTH OF THE PORT. ADJUST PITCH OF HEATER TAPE HELIX TO ENSURE FULL COVERAGE. USE FOIL, F/N 7, SPOT WELDED ACROSS HEAT TAPE AND THERMOCOUPLES TO SECURE IN PLACE.
  - 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 ASME B31.3.

**RELEASED FOR FABRICATION / INSTALLATION**  
 PPPL Drafting:

LOCATIONS OF RETAINERS ARE SHOWN FOR REFERENCE. USE AS REQUIRED.



LOOP AND SECURE EXCESS TO PREVENT DAMAGE TO WIRE OR CONNECTORS DURING SHIPMENT OR INSTALLATION



DETAIL A  
 SCALE 1.000

-1 THRU -10 PORT 5, 6, 7, 9, 10 EXTENSION WITH HEAT TAPE AND THERMOCOUPLES  
 SCALE 0.500

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
0	ORIGINAL ISSUE	MTB	01/07	SP		01/07						
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
1	HEAT TAPE RETENTION FOIL	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR	AR
2	#6-32 UNC X .38 LG PAN HEAD PHILLIPS MACHINE SCREW 316 SST	4	4	4	4	4	4	4	4	4	4	4
3	THERMOCOUPLE - 36" LEADS	4	4	4	4	4	4	4	4	4	4	4
4	HEAT TAPE .50 WIDE X 120" LONG LEADS ON SAME END NON-MAGNETIC	2	2	2	2	2	2	2	2	2	2	2
5	THERMOCOUPLE MOUNT PLATE	2	2	2	2	2	2	2	2	2	2	2
6	PORT 10B EXTENSION WELDMENT	1										
7	PORT 10A EXTENSION WELDMENT		1									
8	PORT 9B EXTENSION WELDMENT			1								
9	PORT 9A EXTENSION WELDMENT				1							
10	PORT 7B EXTENSION WELDMENT					1						
11	PORT 7A EXTENSION WELDMENT						1					
12	PORT 6B EXTENSION WELDMENT							1				
13	PORT 6A EXTENSION WELDMENT								1			
14	PORT 5B EXTENSION WELDMENT									1		
15	PORT 5A EXTENSION WELDMENT										1	
16	PORT 10B EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
17	PORT 10A EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
18	PORT 9B EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
19	PORT 9A EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
20	PORT 7B EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
21	PORT 7A EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
22	PORT 6B EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
23	PORT 6A EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
24	PORT 5B EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										
25	PORT 5A EXTENSION WITH HEAT TAPE AND THERMOCOUPLES	AR										

WELDING ENGINEER  
 APPROVED G. GETTELFINGER DATE: 01/2007

P THIS DRAWING PRODUCED ON PRO-ENGINEER

SCALE NOTED: TOLERANCES UNLESS OTHERWISE SPECIFIED: FRACTIONS ±.01, XX DECIMALS ±.01, XXX DECIMALS ±.005, ANGLES ±0'15", FINISH .125 UNLESS OTHERWISE SPECIFIED

DES: PL GORANSON 01/07, DRW: MT BROWN 01/07, CHK: S PARSON 01/07, SECT: , DEPT: , PE: , CR: , PJ: , RED: , PPPL DRFT J SIEGEL 01/07, VERSION NO. 8, PLANT ORNL, BLDG 5700, FL 3, SHT OF 1, TYPE A, CLASS U, REV 0

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  
 PORT 5, 6, 7, 9, AND 10 EXTENSION WITH HEAT TAPE AND THERMOCOUPLES TYPICAL INSTALLATION

RELEASE LEVEL: Fabrication

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