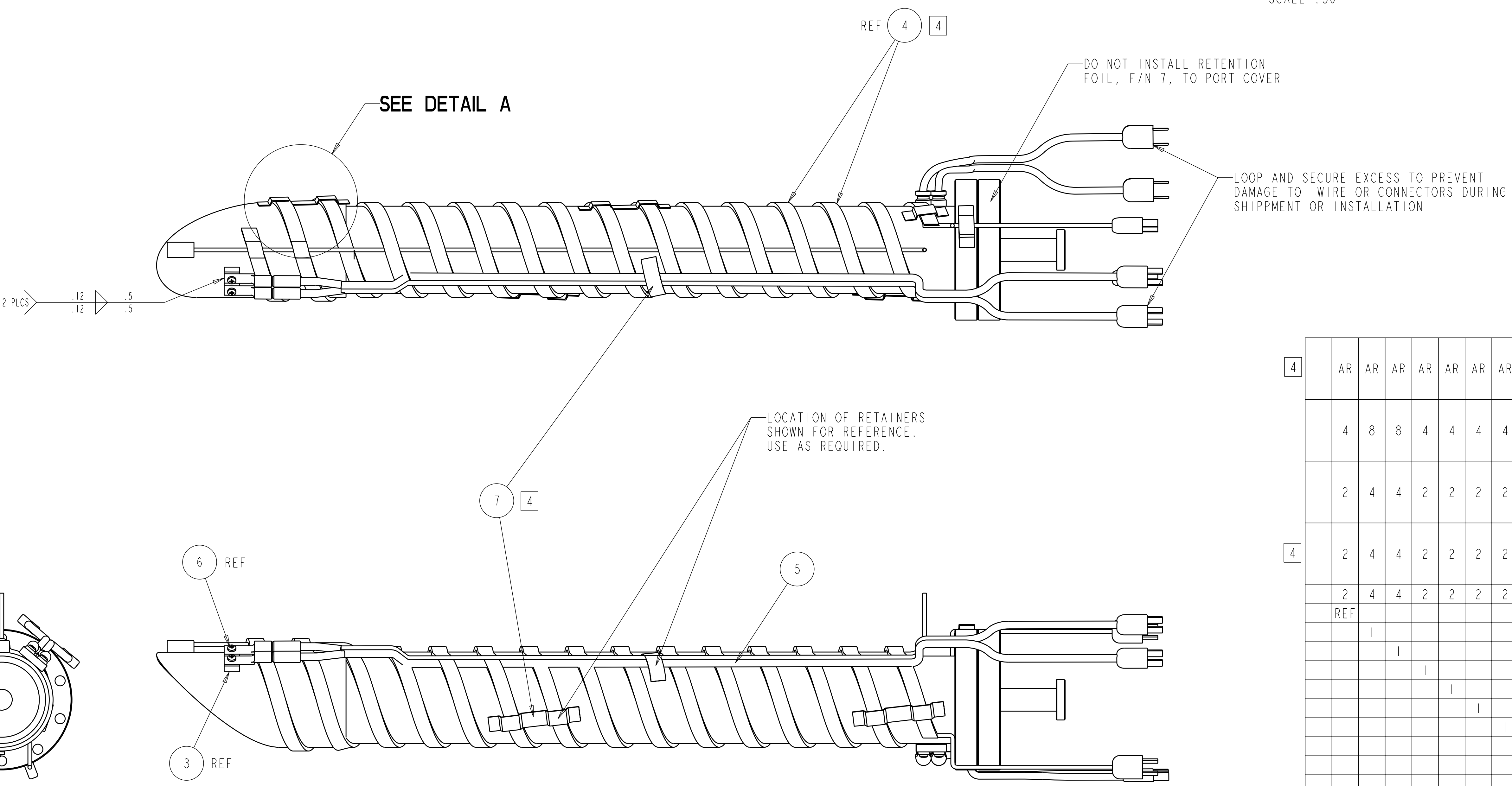
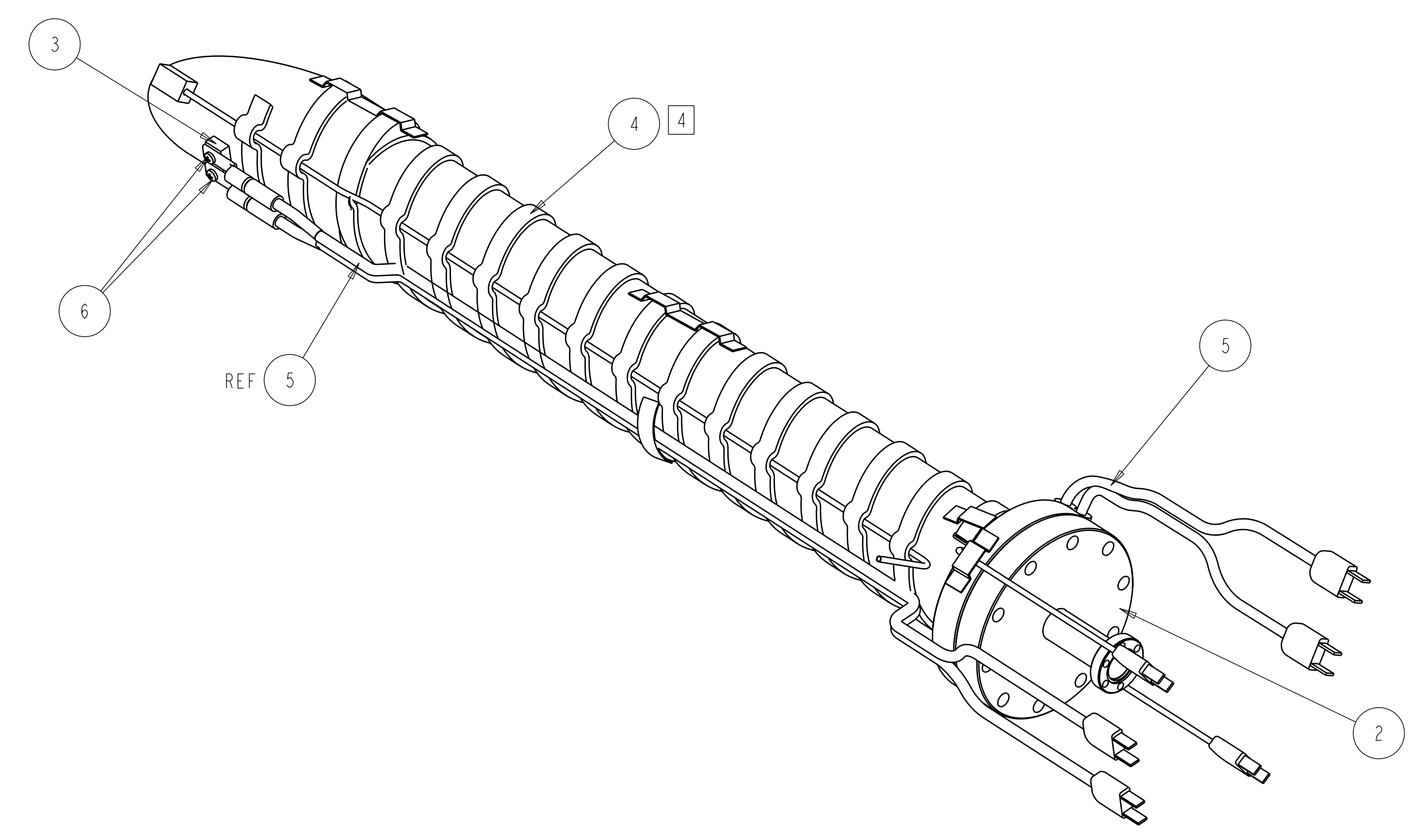
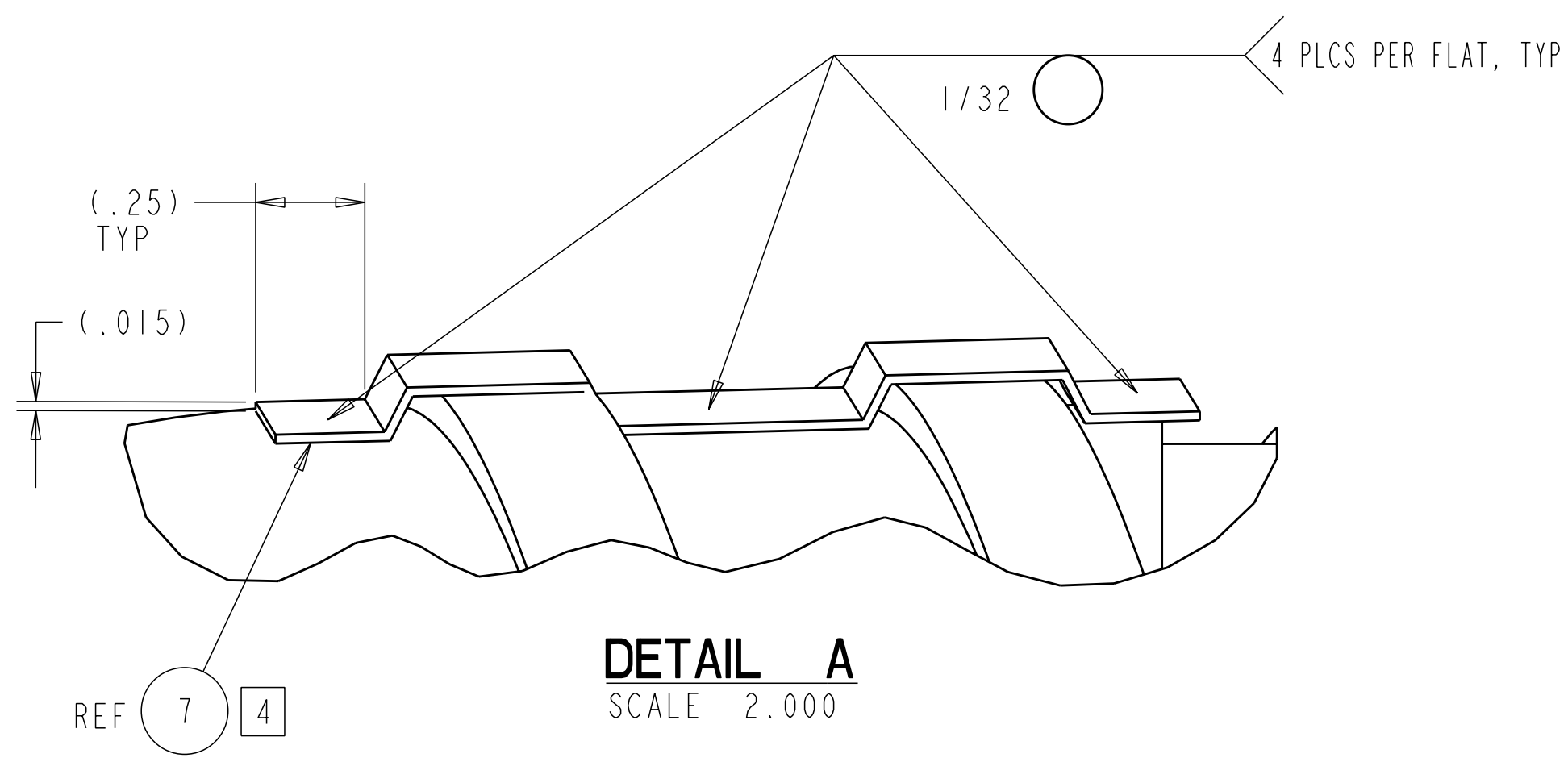


- NOTES
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
 - INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
 - DIMENSIONS ARE IN INCHES
 - EVENLY DISTRIBUTE THE ENTIRE LENGTH OF BOTH HEAT TAPES IN A HELICAL FASHION ACROSS THE LENGTH OF THE PORT. ADJUST PITCH OF HEATER TAPE HELIX TO 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.SEVERNGINEERING.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:

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
4															HEAT TAPE RETENTION FOIL	36 GA (.005 THK) X 1.00 WIDE INCONEL 625 OR 316 SST	ASTM B443 ASTM A240	7
														91735A146	#6-32 UNC X .38 LG PAN HEAD PHILLIPS MACHINE SCREW 316 SST	McMASTER-CARR ATLANTA, GA 30336-2852 (404) 346-7000 WWW.MCMMASTER.COM		6
														NCSX-PRL-12-003	THERMOCOUPLE - 36" LEADS	OMEGA ENGINEERING, INC. STAMFORD, CONNECTICUT 06907 (800)-848-4286 WWW.OMEGA.COM		5
														PPY491001	HEAT TAPE .50 WIDE X 120" LG LEADS ON SAME END NON-MAGNETIC	NCSX-PRL-12-002		4
														SE123-155-1	THERMOCOUPLE MOUNT PLATE			3
														REF	SE121-014	SPACER PORT WELDMENT		2
															SE122-007-2	PORT 17B, 18B DOME WELDMENT		2
															SE122-007-1	PORT 17A, 18A DOME WELDMENT		2
															SE120-005-18	PORT 15B EXTENSION WELDMENT		2
															SE120-005-17	PORT 15A EXTENSION WELDMENT		2
															SE120-005-16	PORT 11B EXTENSION WELDMENT		2
															SE120-005-15	PORT 11A EXTENSION WELDMENT		2
															SE120-005-10	PORT 8B EXTENSION WELDMENT		2
															SE120-005-9	PORT 8A EXTENSION WELDMENT		2
															SE120-005-2	PORT 2B EXTENSION WELDMENT		2
															SE120-005-1	PORT 2A EXTENSION WELDMENT		2
AR															-11	SPACER PORT EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-10	PORT 17B, 18B DOME EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-9	PORT 17A, 18A DOME EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-8	PORT 15B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-7	PORT 15A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-6	PORT 11B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-5	PORT 11A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-4	PORT 8B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-3	PORT 8A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-2	PORT 2B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
AR															-1	PORT 2A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1
SE122-000																		

-1 THRU -11 PORT 2, 8, 11, 15, 17, 18 AND SPACER PORT EXTENTION HEAT TAPE AND THERMOCOUPLES
 SCALE 0.500

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: 01/2007

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
0	ORIGINAL ISSUE	MTB	01/07	SP		01/07						
	REVISION OR ISSUE PURPOSE											

SCALE NOTED
 TOLERANCES UNLESS OTHERWISE SPECIFIED
 FRACTIONS ± .01
 XX DECIMALS ± .01
 XXX DECIMALS ± .005
 ANGLES ± 0'15"
 BREAK SHARP EDGES 06 MAX
 FINISH ±.025 UNLESS OTHERWISE SPECIFIED

DES: P GORANSON 01/07
 DRW: MT BROWN 01/07
 CHK: S PARSON 01/07

UT-BATTELLE
 NATIONAL COMPACT STELLARATOR EXPERIMENT
 PORT 2, 8, 11, 15, 17, 18 AND SPACER PORT EXTENTION WITH HEAT TAPE AND THERMOCOUPLES TYPICAL INSTALLATION

PPPL DRFT J SIEGEL 01/07
 VERSION NO. 9
 PLANT ORNL
 BLDG 5700
 FL 3
 SHT 1
 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

RELEASE LEVEL Fabrication
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