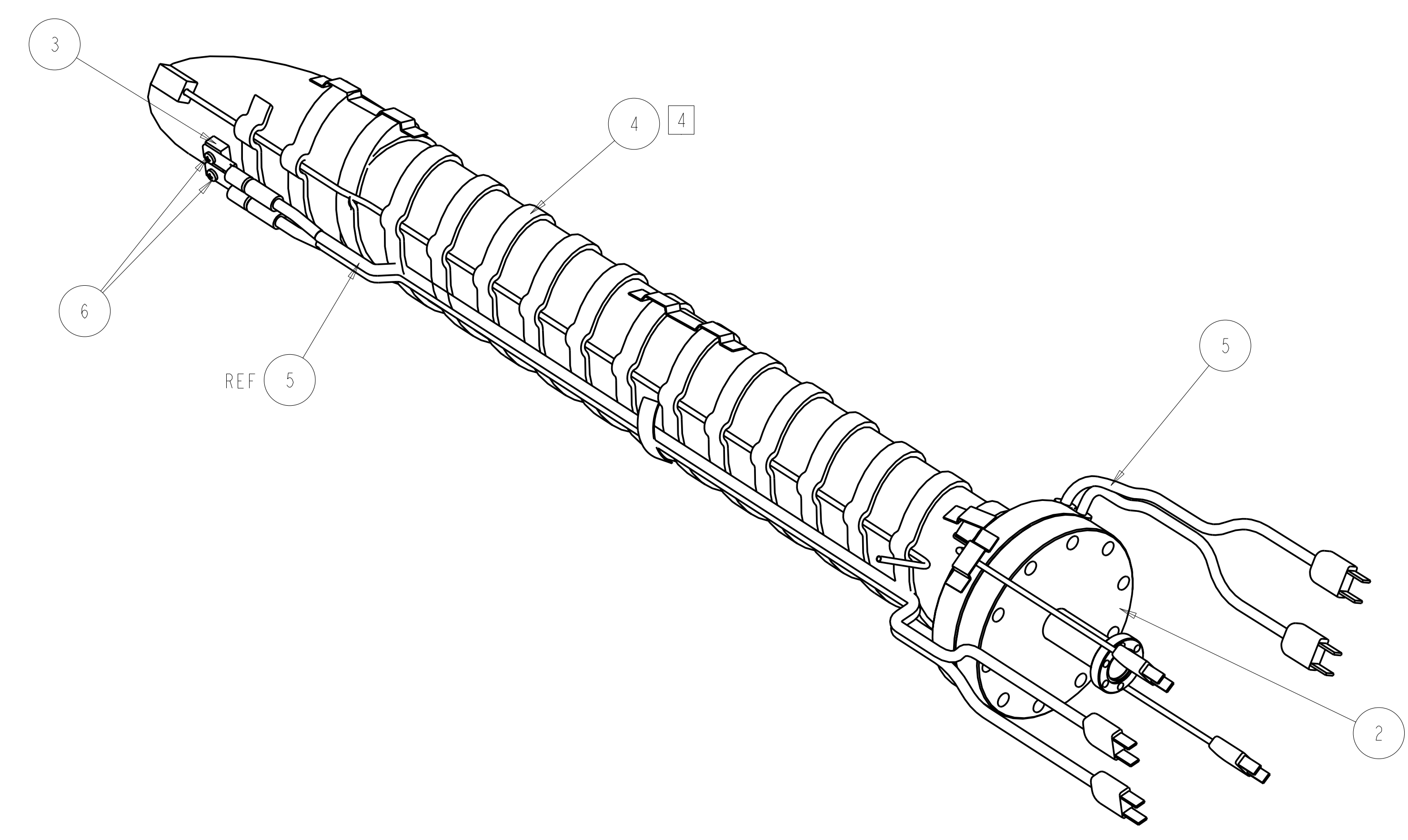
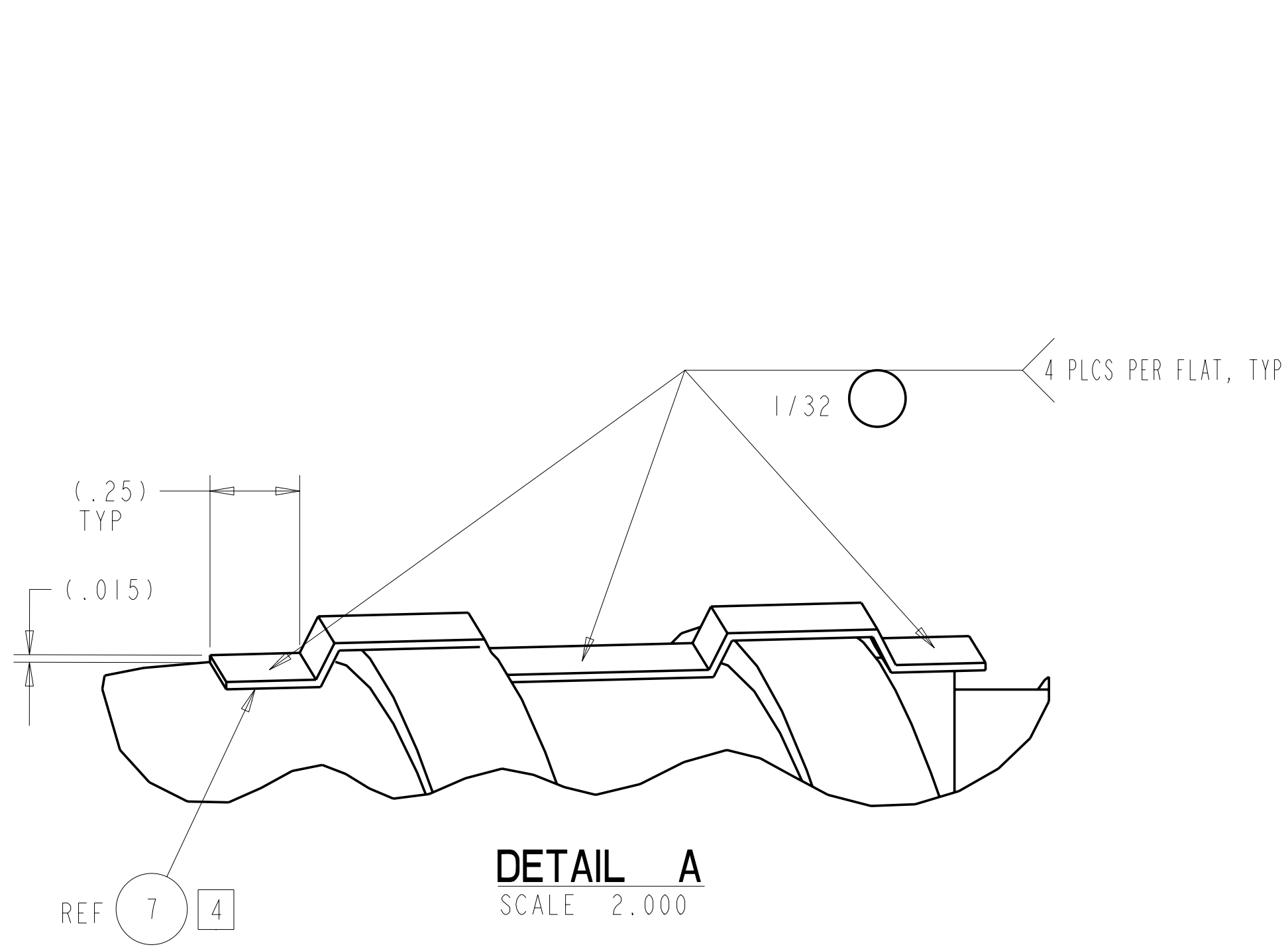
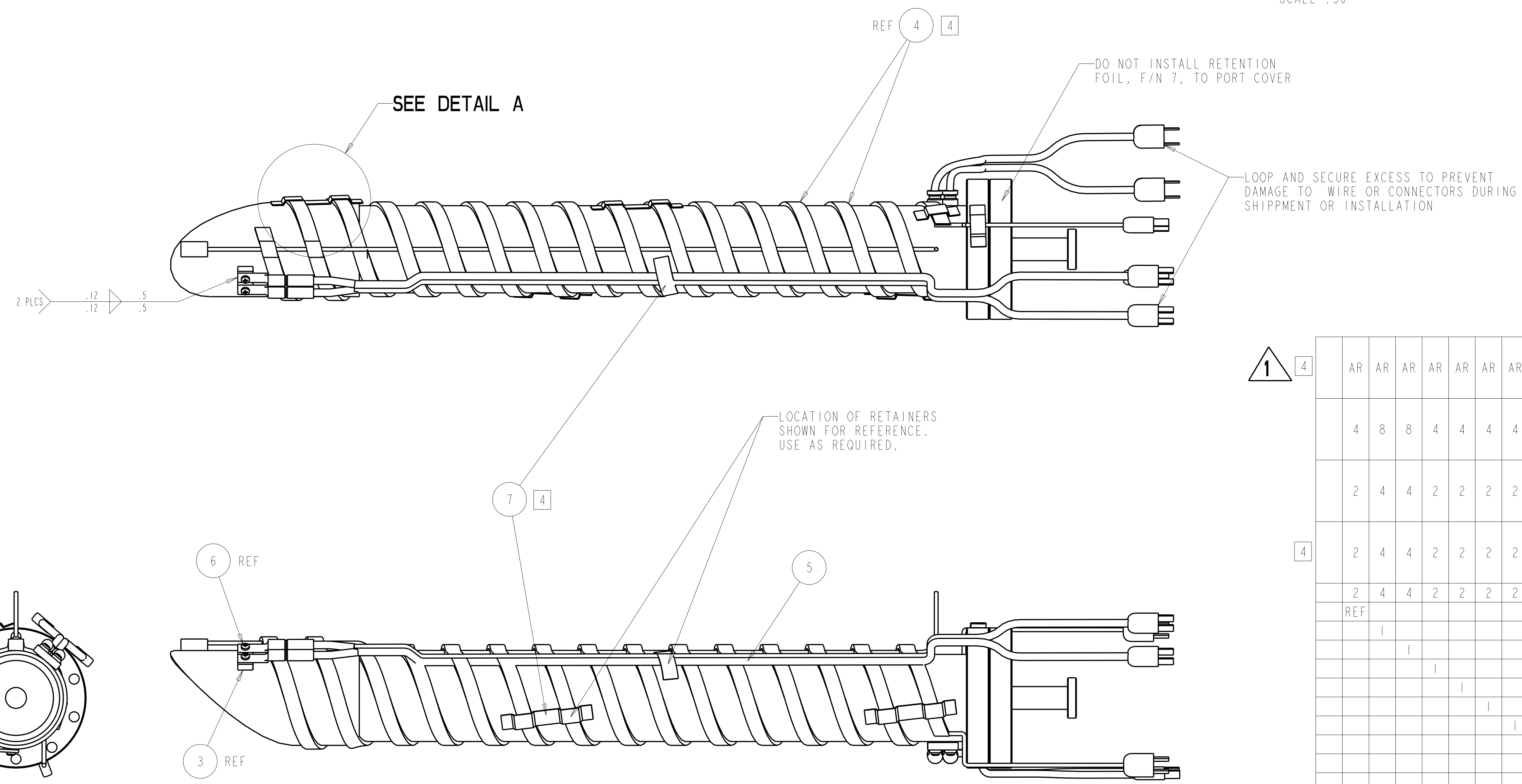


- NOTES
- DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2004.
 - INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M-1994.
 - DIMENSIONS ARE IN INCHES
 - EVENLY DISTRIBUTE THE ENTIRE LENGTH OF BOTH HEAT TAPES IN A HELICAL FASHION ACROSS THE LENGTH OF THE PORT. ADJUST PITCH OF HEATER TAPE HELIX TO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



ISOMETRIC VIEW
SCALE .50



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
1	ZONE D-1 MODIFIED TAPE WIDTH FROM 1.0 TO .5"	GLL	7/08	MJC		7/08									HEAT TAPE RETENTION FOIL	36 GA (.005 THK) X .5" WIDE INCONEL 625 OR 316 SST	ASTM B443 ASTM A240	7
2	REVISE PART AND DRAWING PER ECN 5377												91735A146	#6-32 UNC X .38 LG PAN HEAD PHILLIPS MACHINE SCREW 316 SST	MCMaster-CARR ATLANTA, GA 30336-2852 (404) 346-7000 WWW.MCMaster.COM		6	
3	ORIGINAL ISSUE	MTB	01/01	SP		01/01							NCSX-PRL-12-003	THERMOCOUPLE - 36" LEADS	OMEGA ENGINEERING, INC. STAMFORD, CONNECTICUT 06907 (800)-848-4286 WWW.OMEGA.COM		5	
4													PPY491001	HEAT TAPE .50 WIDE X 120" LG LEADS ON SAME END NON-MAGNETIC		NCSX-PRL-12-002	4	
5													SE123-155-1	THERMOCOUPLE MOUNT PLATE			3	
6													REF	SE121-014	SPACER PORT WELDMENT		2	
7														SE122-007-2	PORT 17B, 18B DOME WELDMENT		2	
8														SE122-007-1	PORT 17A, 18A DOME WELDMENT		2	
9														SE120-005-18	PORT 15B EXTENSION WELDMENT		2	
10														SE120-005-17	PORT 15A EXTENSION WELDMENT		2	
11														SE120-005-16	PORT 11B EXTENSION WELDMENT		2	
12														SE120-005-15	PORT 11A EXTENSION WELDMENT		2	
13														SE120-005-10	PORT 8B EXTENSION WELDMENT		2	
14														SE120-005-9	PORT 8A EXTENSION WELDMENT		2	
15														SE120-005-2	PORT 2B EXTENSION WELDMENT		2	
16														SE120-005-1	PORT 2A EXTENSION WELDMENT		2	
17														-11	SPACER PORT EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
18														-10	PORT 17B, 18B DOME EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
19														-9	PORT 17A, 18A DOME EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
20														-8	PORT 15B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
21														-7	PORT 15A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
22														-6	PORT 11B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
23														-5	PORT 11A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
24														-4	PORT 8B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
25														-3	PORT 8A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
26														-2	PORT 2B EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	
27														-1	PORT 2A EXTENTION WITH HEAT TAPES AND THERMOCOUPLES		1	

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

RELEASED FOR FABRICATION / INSTALLATION
PPPL Drafting

SCALE NOTED		DES: P GORANSON	01/07	Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC. Oak Ridge, Tennessee	
TOLERANCES UNLESS OTHERWISE SPECIFIED		DRW: MT BROWN	01/07	UT-BATTELLE	
FRACTIONS ±.01		CHK: S PARSON	01/07	PROJECT NAME: NATIONAL COMPACT STELLARATOR EXPERIMENT	
XX DECIMALS ±.005		DEPT: :		PORT 2, 8, 11, 15, 17, 18 AND SPACER PORT EXTENTION WITH HEAT TAPE AND THERMOCOUPLES TYPICAL INSTALLATION	
XXX DECIMALS ±.0015		PE: :		RELEASE LEVEL: Fabrication	
ANGLES ±0°15'		CR: :		SE123-151	
BREAK SHARP EDGES 06 MAX		PJ: :		REV: 1	
FINISH .125 UNLESS OTHERWISE SPECIFIED		RED: :			
		PPPL DRFT J SIEGEL	01/07		
		DRW: :			
		PLANT ORNL	5700		
		FL: 3	SHT: 1		
		TYPE: A	CLASS: U		
		DATE: :			

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WELDING ENGINEER
APPROVED G. GETTELFINGER DATE: 01/2007

THIS DRAWING PRODUCED ON PRO-ENGINEER