



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

ECN-5251 approved alternate welding detail to permit orbital welding for connecting heating and cooling tubes. See sketch.

RELEASED FOR FABRICATION / INSTALLATION

PPPL Drafting:

- 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.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 AWS D1.1 SECTION 6.
 - ASSEMBLE PER THIS DRAWING AND SPECIFICATION NCSX-CSPEC-185-01.

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

QTY	DESCRIPTION	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
128	128	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	128	128	5182K719	316 SS YOR-LOK COMPRESSION TUBE FITTING COUPLING FOR 5/16" TUBE OD		17
16	16	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	48	48	95878A310	HEX LOCKNUT 5/16-18 UNC - ASME B18.2.2 316 SST		15
96	96	96	94819A046	HEX NUT 5/16-18 UNC - ASME B18.2.2 316 SST		14
16	16	16	NCSX-PRL-12-002-00	5/16-18UNC X .75 LG CD INCONEL WELD STUD		13
64	64	64	SE123-169-2	VV HEATING/COOLING SUPPLY LINE DETAIL		12
64	64	64	SE123-169-1	VV HEATING/COOLING SUPPLY LINE DETAIL		11
16	16	16	SE123-168-6	U-BRACKET STOP		10
8	8	8	SE123-168-5	U-BRACKET LONG		9
8	8	8	SE123-168-4	U-BRACKET		8
8	8	8	SE123-168-1	HEADER BRACKET STANDOFF WELDMNT		7
2	2	2	SE123-163	OUTER HEADER B		6
2	2	2	SE123-162	OUTER HEADER A		5
2	2	2	SE123-161	INNER HEADER B		4
2	2	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

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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

DES: P GORANSON 10/06
 DRW: MT BROWN 10/06

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NATIONAL COMPACT STELLARATOR EXPERIMENT

VVSA ASSEMBLY STATION 1 PHASE 3

PPPL DRFT J SIEGEL 10/06

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

RELEASE LEVEL Fabrication

SEI21-009