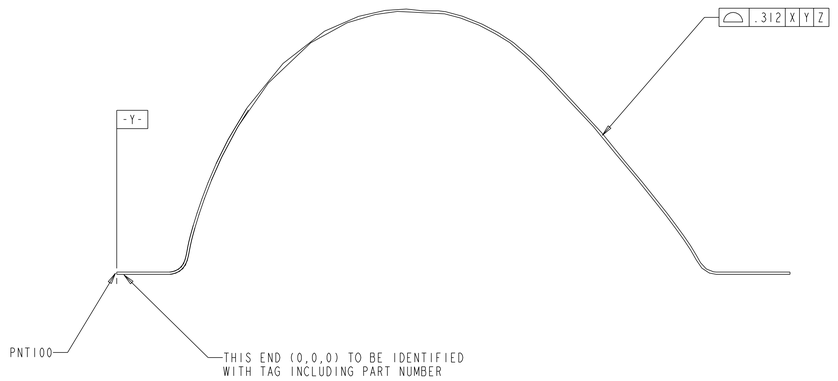
NEXT ASS'Y: | FINAL ASS'Y:

NOTES

1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M.
2. DIMENSIONS ARE IN INCHES.
3. FABRICATION AND MATERIALS PER NCSX-CSPEC-123-01
4. PROFILE TOLERANCE OF TUBE SURFACE IS BILATERAL, I.E. 0.156" ANY DIRECTION OFF REFERENCE SURFACE.
5. ALL TUBE BEND RADII ARE 5/8" TO CENTERLINE OF TUBE.
6. DATUM POINTS ON CHART ARE THEORETICAL INTERCEPTS OF THE TUBE CENTERLINE. BEND RADII ARE OMMITTED. PROFILE TOLERENCE INCLUDES ALLOWANCES FOR THE RADII ERRORS.

Point Name	X	Y	Z
PNT100	0.000	0.000	0.000
PNT101	7.248	0.000	-0.000
PNT102	8.246	0.235	-0.000
PNT103	9.109	0.933	0.000
PNT104	9.523	1.869	-0.000
PNT105	9.818	3.679	-0.000
PNT106	10.317	5.471	-0.000
PNT107	10.738	6.949	0.000
PNT108	11.205	8.414	-0.000
PNT109	11.678	9.768	-0.000
PNT110	12.124	11.018	0.077
PNT111	12.587	12.233	0.159
PNT112	13.080	13.435	0.240
PNT113	13.600	14.626	0.319
PNT114	14.147	15.805	0.398
PNT115	14.583	16.698	0.456
PNT116	15.141	17.787	0.527
PNT117	15.649	18.730	0.588
PNT118	16.175	19.663	0.648
PNT119	16.719	20.585	0.707
PNT120	17.242	21.430	0.760
PNT121	17.824	22.330	0.816
PNT122	18.382	23.153	0.866
PNT123	18.913	23.902	0.912
PNT124	19.505	24.701	0.960
PNT125	20.068	25.426	1.003
PNT126	20.647	26.138	1.045
PNT127	21.243	26.837	1.085
PNT128	21.961	27.633	1.130
PNT129	22.648	28.352	1.170
PNT130	23.412	29.103	1.212
PNT131	24.202	29.828	1.251
PNT132	25.135	30.621	1.294
PNT133	25.980	31.280	1.328
PNT134	26.725	31.819	1.357
PNT135	27.618	32.411	1.388
PNT136	28.470	32.926	1.415
PNT137	29.548	33.508	1.445
PNT138	30.655	34.032	1.474
PNT139	31.790	34.494	1.500
PNT140	33.022	34.915	1.526
PNT141	34.201	35.245	1.546
PNT142	35.472	35.530	1.568
PNT143	36.754	35.752	1.593
PNT144	37.819	35.876	1.601
PNT145	39.196	35.932	1.561
PNT146	40.262	35.879	1.468
PNT147	41.088	35.771	1.341
PNT148	41.843	35.681	1.263
PNT149	42.527	35.684	1.336
PNT150	43.199	35.723	1.486
PNT151	44.108	35.682	1.606
PNT152	44.865	35.570	1.636
PNT153	45.910	35.331	1.619
PNT154	47.161	34.970	1.599
PNT155	48.388	34.536	1.575
PNT156	49.234	34.178	1.543
PNT157	49.994	33.817	1.500
PNT158	50.670	33.461	1.451
PNT159	51.272	33.127	1.414
PNT160	51.952	32.779	1.460
PNT161	52.627	32.430	1.549
PNT162	53.273	32.019	1.558
PNT163	54.053	31.410	1.453
PNT164	54.870	30.724	1.344
PNT165	55.631	30.083	1.308
PNT166	56.604	29.218	1.287
PNT167	57.596	28.262	1.238
PNT168	58.558	27.276	1.171
PNT169	59.504	26.275	1.111
PNT170	60.489	25.206	1.044
PNT171	61.311	24.300	0.979
PNT172	61.981	23.564	0.942
PNT173	62.819	22.669	0.954
PNT174	63.581	21.892	1.050
PNT175	64.131	21.338	1.138
PNT176	64.754	20.679	1.186
PNT177	65.280	20.096	1.177
PNT178	65.876	19.413	1.122
PNT179	66.495	18.663	0.988
PNT180	66.990	18.040	0.838
PNT181	67.554	17.321	0.652
PNT182	68.171	16.545	0.477
PNT183	68.808	15.774	0.368
PNT184	69.492	14.972	0.315
PNT185	70.259	14.078	0.286
PNT186	70.955	13.252	0.246
PNT187	71.625	12.439	0.189
PNT188	72.305	11.602	0.126
PNT189	73.035	10.662	-0.000
PNT190	73.875	9.628	0.000
PNT191	74.892	8.342	0.000
PNT192	75.763	7.202	0.000
PNT193	76.732	5.880	-0.000
PNT194	77.555	4.704	-0.000
PNT195	78.293	3.596	-0.000
PNT196	79.059	2.382	-0.000
PNT197	79.736	1.235	-0.000
PNT198	80.381	0.517	-0.000
PNT199	81.191	0.111	-0.000
PNT200	81.922	-0.000	0.000
PNT201	92.000	0.000	0.000



RELEASED FOR FABRICATION / INSTALLATION

PPPL Drafting: Jerry Siegel 2005.06.24 13:32:47 -05'00'

APPROX TUBE LENGTH = 127.6 IN

3	AR			-1	COOLANT TUBE 6-1	316L SS 5/16"-.032 WALL	SEE NOTE 4	1
SE123-090	-1	CAGE CODE		PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
			NEXT ASSEMBLY		PARTS LIST			

SE123-091

-1 COOLANT TUBE 6-1

SCALE .125

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
1	⚠ PER ECN NO. 5003	MJC	6/24/05	PLG								

REVISION OR ISSUE PURPOSE — REVISION APPROVAL

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

DRAWING APPROVALS		DATE
DES	P GORANSON	4-22-05
DRW	G MCGINNIS	4-22-05
CHK	G.H. JONES	05-04-05
SECT	:	:
DEPT	:	:
PE	:	:
CR	:	:
PJ	:	:
REQ	:	:
PPPL DRFT	:	:
	:	:
	:	:

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

VACUUM VESSEL HEATING/COOLING COOLANT TUBE 6-1 DETAIL

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

RELEASE LEVEL: Fabrication — SE123-091 — REV 1

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