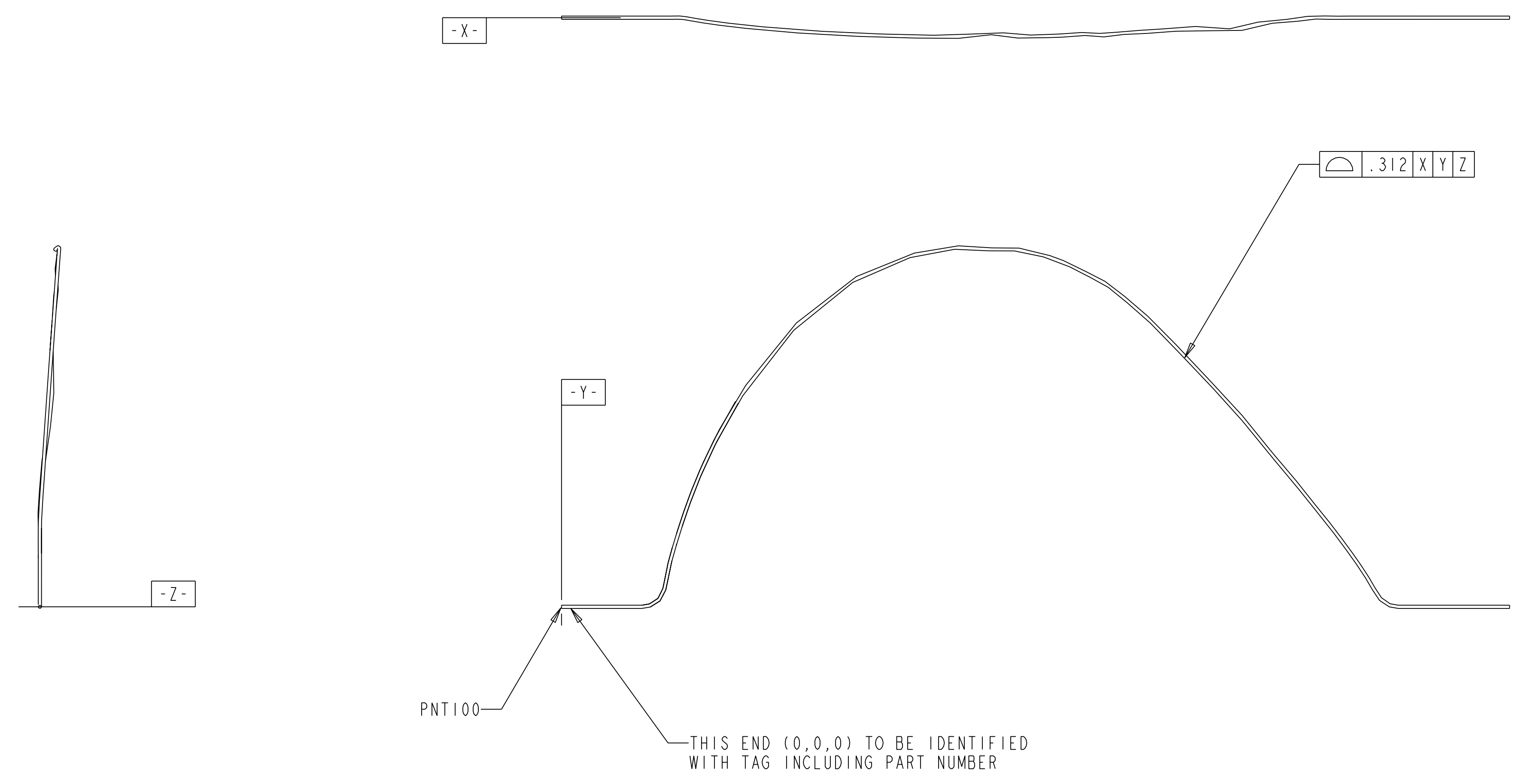


- NOTES
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M.
  2. DIMENSIONS ARE IN INCHES.
  - 3 FABRICATION AND MATERIALS PER NCSX-CSPEC-123-01
  4. PROFILE TOLERANCE OF TUBE SURFACE IS BILATERAL, I.E. 0.156" ANY DIRECTION OFF REFERENCE SURFACE.
  5. ALL TUBE BEND RADII ARE 5/8" TO CENTERLINE OF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

Point Name	X	Y	Z
PNT100	0.000	0.000	0.000
PNT101	7.796	0.000	0.000
PNT102	8.729	0.193	-0.000
PNT103	9.477	0.718	-0.000
PNT104	9.978	1.721	0.000
PNT105	10.328	3.491	0.000
PNT106	10.764	5.241	-0.000
PNT107	11.182	6.685	0.000
PNT108	11.646	8.115	0.000
PNT109	12.117	9.436	0.000
PNT110	12.521	10.627	0.138
PNT111	12.980	11.818	0.221
PNT112	13.468	12.997	0.303
PNT113	13.985	14.164	0.385
PNT114	14.529	15.318	0.465
PNT115	14.963	16.192	0.526
PNT116	15.518	17.258	0.601
PNT117	16.024	18.179	0.665
PNT118	16.548	19.091	0.729
PNT119	17.090	19.991	0.792
PNT120	17.611	20.817	0.850
PNT121	18.191	21.693	0.911
PNT122	18.747	22.496	0.968
PNT123	19.277	23.225	1.019
PNT124	19.867	24.003	1.075
PNT125	20.429	24.708	1.125
PNT126	21.006	25.400	1.174
PNT127	21.600	26.078	1.223
PNT128	22.313	26.850	1.278
PNT129	22.997	27.548	1.329
PNT130	23.757	28.275	1.382
PNT131	24.540	28.977	1.433
PNT132	25.466	29.744	1.490
PNT133	26.303	30.381	1.537
PNT134	27.040	30.901	1.576
PNT135	27.922	31.474	1.618
PNT136	28.763	31.972	1.656
PNT137	29.825	32.536	1.698
PNT138	30.916	33.044	1.737
PNT139	32.032	33.493	1.770
PNT140	33.242	33.903	1.799
PNT141	34.401	34.228	1.821
PNT142	35.648	34.509	1.841
PNT143	36.907	34.732	1.861
PNT144	37.952	34.858	1.863
PNT145	39.303	34.914	1.806
PNT146	40.347	34.855	1.685
PNT147	41.155	34.749	1.543
PNT148	41.903	34.691	1.495
PNT149	42.576	34.693	1.555
PNT150	43.237	34.735	1.698
PNT151	44.128	34.712	1.825
PNT152	44.872	34.604	1.842
PNT153	45.898	34.372	1.812
PNT154	47.129	34.025	1.783
PNT155	48.334	33.601	1.745
PNT156	49.911	33.251	1.701
PNT157	49.911	32.896	1.648
PNT158	50.575	32.548	1.591
PNT159	51.172	32.230	1.568
PNT160	51.845	31.899	1.625
PNT161	52.510	31.557	1.703
PNT162	53.134	31.141	1.670
PNT163	53.895	30.541	1.542
PNT164	54.711	29.882	1.449
PNT165	55.467	29.263	1.417
PNT166	56.431	28.423	1.383
PNT167	57.413	27.493	1.318
PNT168	58.368	26.537	1.244
PNT169	59.309	25.565	1.178
PNT170	60.285	24.523	1.104
PNT171	61.099	23.639	1.038
PNT172	61.762	22.921	1.005
PNT173	62.591	22.049	1.021
PNT174	63.384	21.254	1.119
PNT175	63.930	20.710	1.203
PNT176	64.548	20.061	1.243
PNT177	65.069	19.486	1.227
PNT178	65.654	18.810	1.156
PNT179	66.259	18.068	1.003
PNT180	66.745	17.452	0.847
PNT181	67.303	16.742	0.666
PNT182	67.918	15.978	0.508
PNT183	68.553	15.219	0.413
PNT184	69.232	14.430	0.365
PNT185	69.983	13.549	0.334
PNT186	70.682	12.736	0.293
PNT187	71.346	11.934	0.234
PNT188	72.019	11.109	0.171
PNT189	72.637	10.284	0.000
PNT190	73.463	9.277	0.000
PNT191	74.462	8.023	0.000
PNT192	75.318	6.911	0.000
PNT193	76.270	5.621	0.000
PNT194	77.078	4.474	0.000
PNT195	77.803	3.392	-0.000
PNT196	78.555	2.207	-0.000
PNT197	79.222	1.088	0.000
PNT198	79.676	0.546	0.000
PNT199	80.392	0.139	0.000
PNT200	81.205	0.000	0.000
PNT201	92.000	0.000	0.000



**-1 COOLANT TUBE 6-2**  
SCALE .125

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

APPROX TUBE LENGTH = 126.4 IN

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE
1	PER ECN NO. 5003			MJC	6/24/03	PLG						

CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION	FIND NO
AR	-1	COOLANT TUBE 6-2	316L SS 5/16" ±.032 WALL	SEE NOTE 4	I

← NEXT ASSEMBLY

**UT-BATTELLE**  
National Compact Stellarator Experiment  
VACUUM VESSEL HEATING/COOLING  
COOLANT TUBE 6-2  
DETAIL

DESIGNER	P. GORANSON	DATE	4-22-05
DRAWN	G. MCGINNIS	DATE	4-22-05
CHECKED	G. H. JONES	DATE	05-04-05

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

RELEASE LEVEL: Fabrication  
SEI23-092

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