pc-dmis	PART NAME : PN440004-n-Trans-Rings-000-TB9XXX000-v3-IR		January 20, 2010	11:50
	REV NUMBER :	SER NUMBER :	STATS COUNT :	1

440004-n
FNAL 1.3GHZ TESLA
RF CAVITY
ASSEMBLY
measurement of Transition Rings
@ 000 rotational orientation

'Inspected by ' : Robert Riley
'Cavity Number' : TB9RI024
' ' : 1001201007

Datum Discs

⌖	MM	LOC1 - CIRC_DATUM_DISC_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.000	0.000	0.000	0.000	0.000
Y	25.000	26.366	1.366	10.000	10.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	111.000	110.940	-0.060	0.050	0.050	0.010
RN	0.000	0.023	0.023	0.050	0.000	0.000

⌖	MM	LOC2 - CIRC_DATUM_DISC_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.000	0.000	0.000	0.000	0.000
Y	-1032.384	-1029.444	2.941	10.000	10.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	111.000	110.916	-0.084	0.050	0.050	0.034
RN	0.000	0.010	0.010	0.050	0.000	0.000

Datum Disc planes

⌖	MM	LOC3 - PLNC_DD_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	27.000	28.465	1.465	10.000	10.000	0.000
FL	0.000	0.037	0.037	0.100	0.000	0.000

⌖	MM	LOC4 - PLNC_DD_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1034.384	-1031.567	2.817	10.000	10.000	0.000
FL	0.000	0.038	0.038	0.100	0.000	0.000

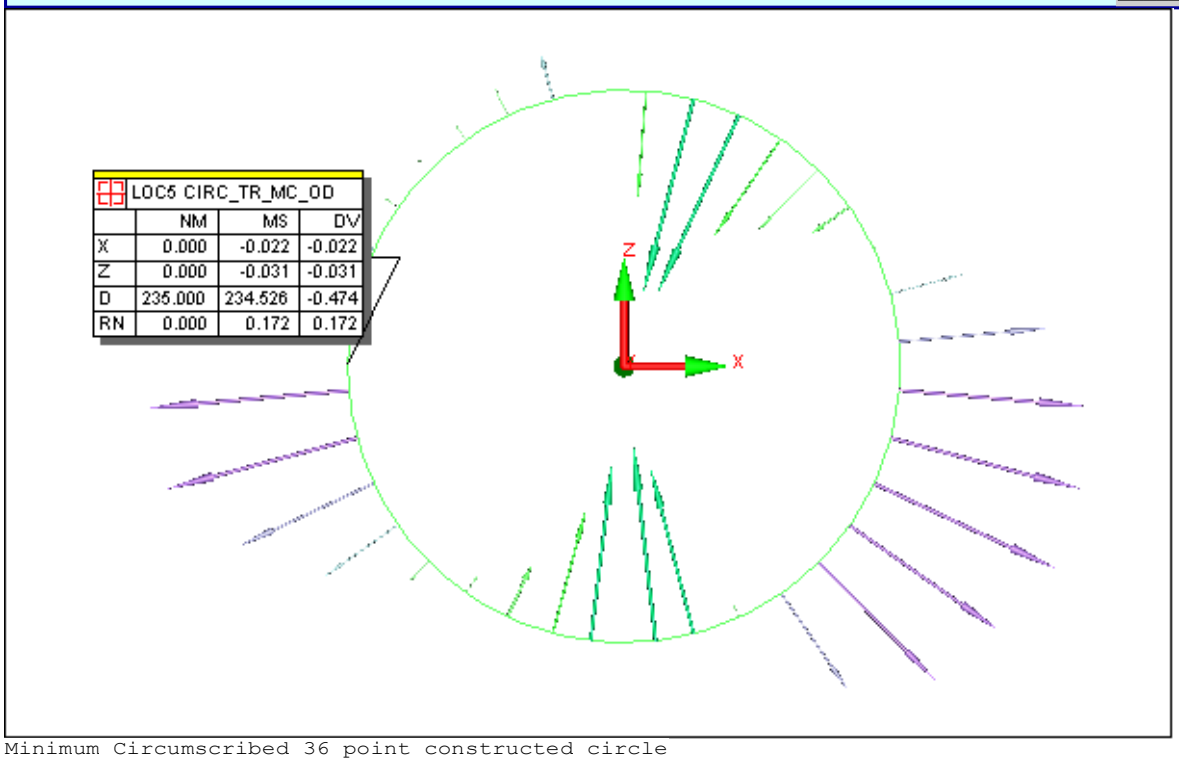
Distance between Datum Disc planes

↔	MM	DIST1 - PLNC_DD_FP TO PLNC_DD_MC (YAXIS)				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1061.060	1060.032	-1.028	0.200	0.200	-0.828

Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
235.0 O.D.

⌖	MM	LOC5 - CIRC_TR_MC_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.022	-0.022	0.250	0.250	0.000
Z	0.000	-0.031	-0.031	0.250	0.250	0.000
D	235.000	234.526	-0.474	0.250	0.250	0.224
RN	0.000	0.172	0.172	0.250	0.000	0.000

○	MM	RND1 - CIRC_TR_MC_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.172	0.172	0.250	0.000	0.000

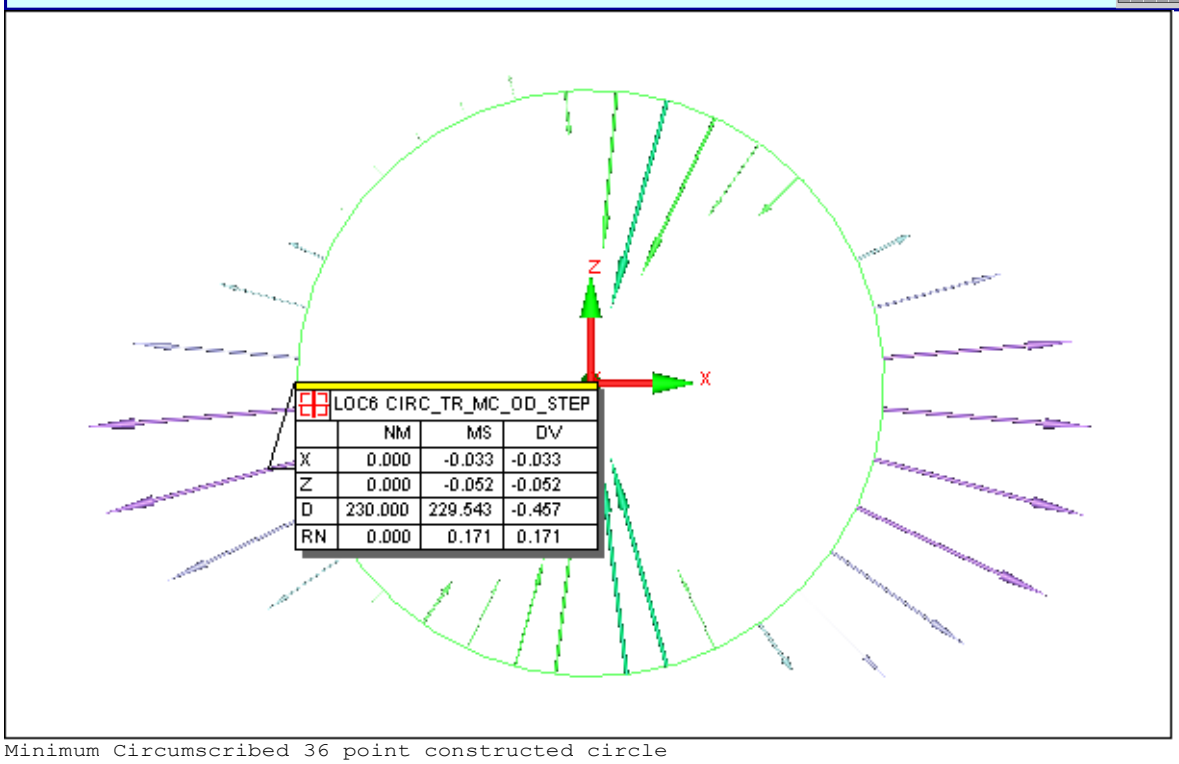


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
235.0 O.D. x1000

Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
233.00 O.D. step

	MM	LOC6 - CIRC_TR_MC_OD_STEP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.033	-0.033	0.250	0.250	0.000
Z	0.000	-0.052	-0.052	0.250	0.250	0.000
D	230.000	229.543	-0.457	0.000	0.250	0.207
RN	0.000	0.171	0.171	0.250	0.000	0.000

	MM	RND2 - CIRC_TR_MC_OD_STEP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.171	0.171	0.250	0.000	0.000

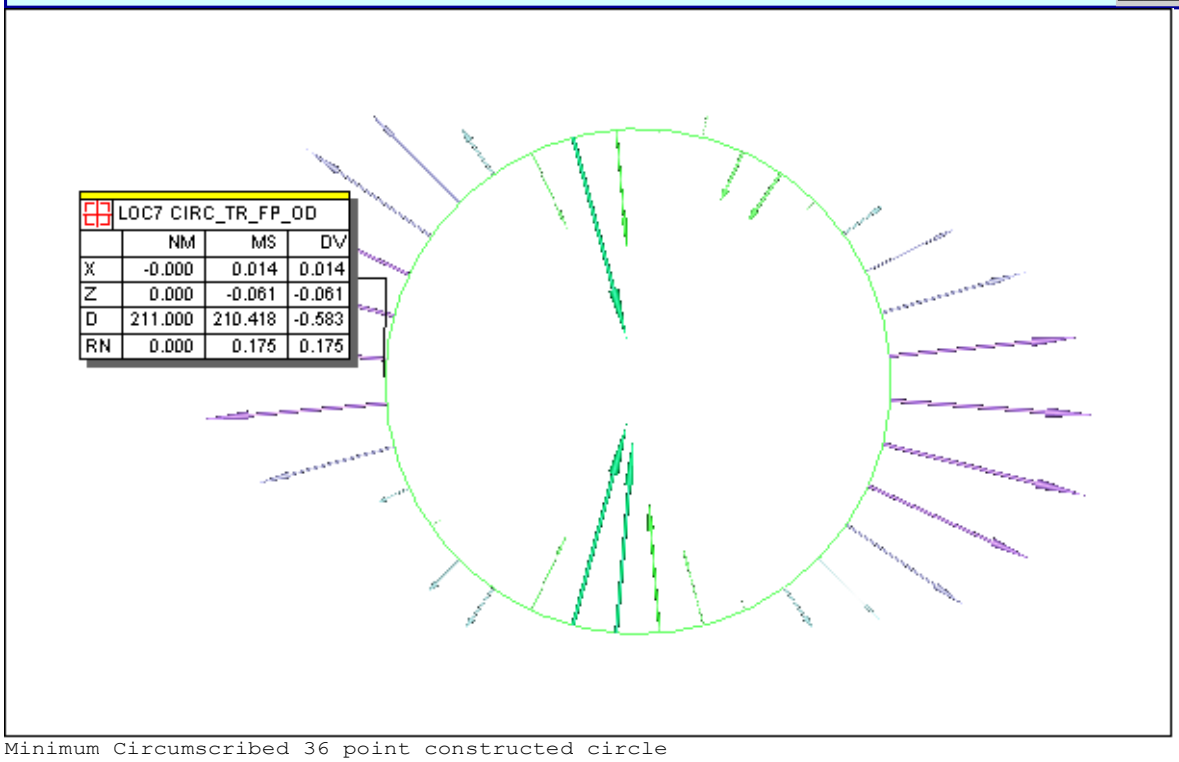


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
233.00 O.D. step x1000

Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
211.0 O.D.

⌗	MM	LOC7 - CIRC_TR_FP_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.014	0.014	0.250	0.250	0.000
Z	0.000	-0.061	-0.061	0.250	0.250	0.000
D	211.000	210.418	-0.583	0.250	0.250	0.333
RN	0.000	0.175	0.175	0.250	0.000	0.000

○	MM	RND3 - CIRC_TR_FP_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.175	0.175	0.250	0.000	0.000

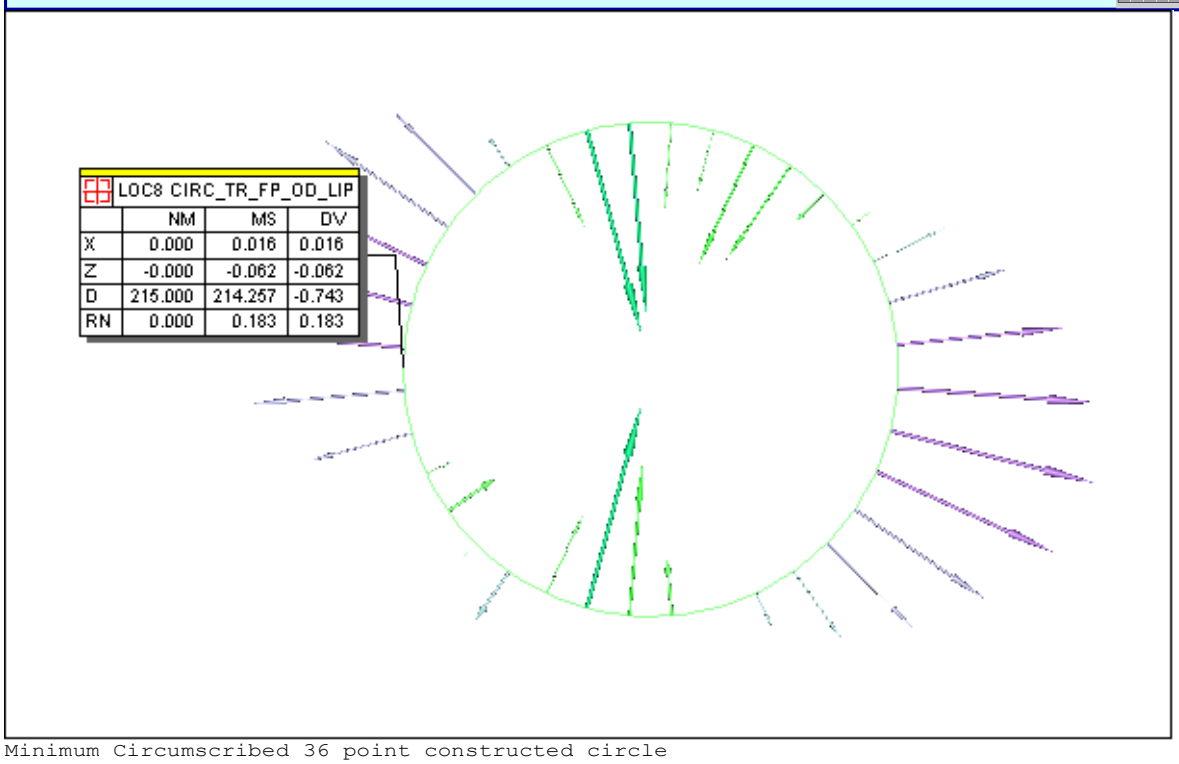


Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
211.0 O.D. x1000

Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
215.0 O.D. lip

	MM	LOC8 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.016	0.016	0.250	0.250	0.000
Z	0.000	-0.062	-0.062	0.250	0.250	0.000
D	215.000	214.257	-0.743	0.250	0.250	0.493
RN	0.000	0.183	0.183	0.250	0.000	0.000

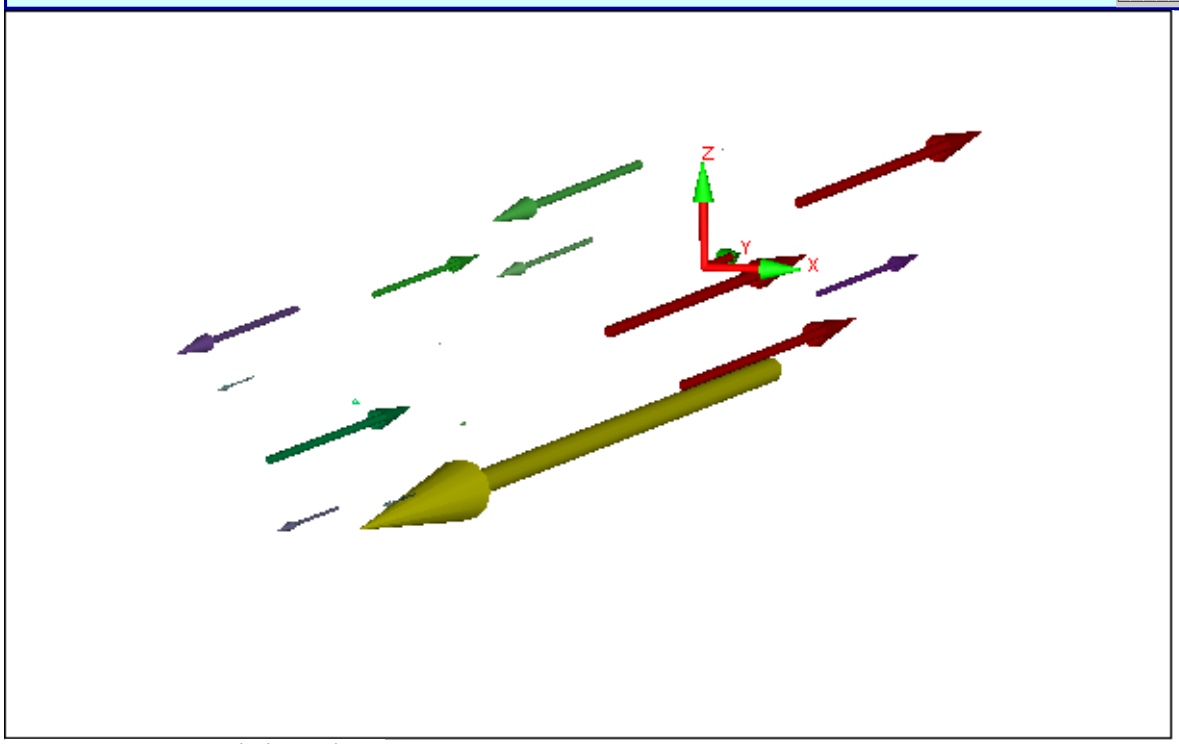
	MM	RND4 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.183	0.183	0.250	0.000	0.000



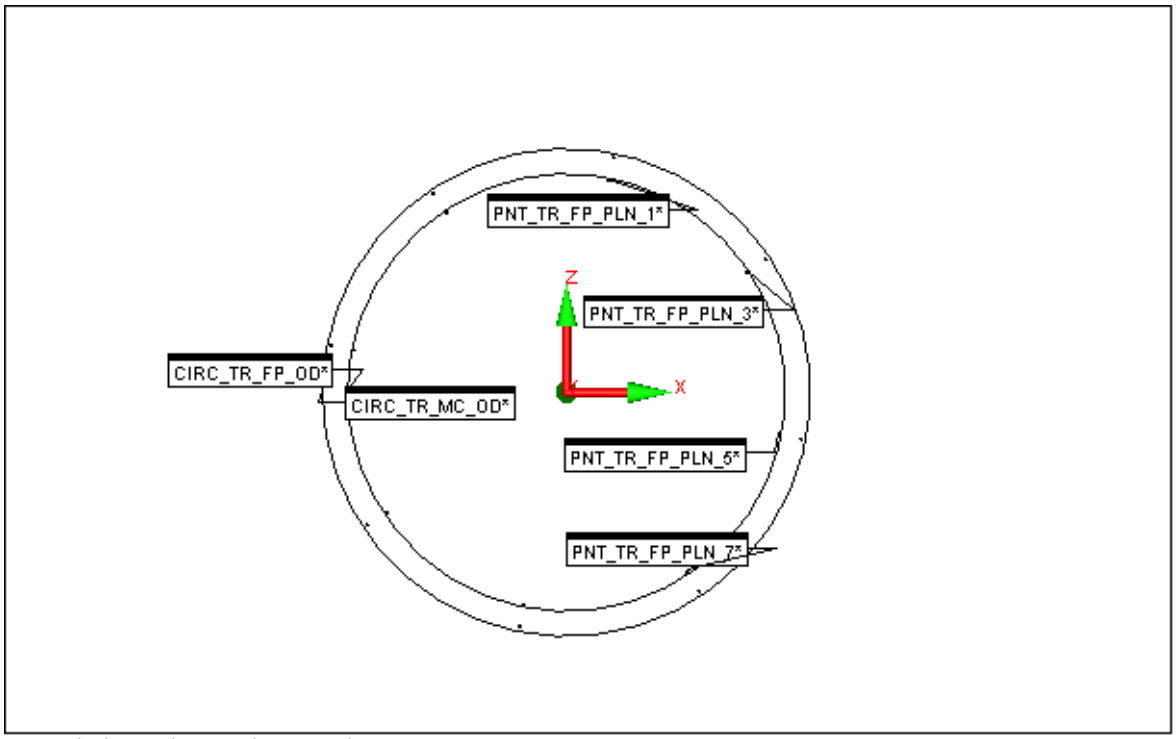
Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
215.0 O.D. lip x1000

Transition Ring planes

⌖	MM	LOC9 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	0.000	0.000	0.000	0.000	0.000	0.000	
FL	0.000	0.351	0.351	0.200	0.000	0.151	
⌖	MM	LOC10 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1005.085	2.415	10.000	10.000	0.000	
FL	0.000	0.151	0.151	0.200	0.000	0.000	
▱	MM	FLAT3 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.351	0.351	0.250	0.000	0.101	
▱	MM	FLAT4 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.151	0.151	0.250	0.000	0.000	



Flatness of Transition Rings
x5000



Transition Ring points Main Coupler end

⊕	MM	LOC11 - PNT_TR_MC_PLN_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.255	-0.255	1.000	1.000	0.000
PR	115.000	115.030	0.030	1.000	1.000	0.000
PA	101.250	101.261	0.011	1.000	1.000	0.000

⊕	MM	LOC12 - PNT_TR_MC_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.139	-0.139	1.000	1.000	0.000
PR	115.000	115.013	0.013	1.000	1.000	0.000
PA	146.250	146.252	0.002	1.000	1.000	0.000

⊕	MM	LOC13 - PNT_TR_MC_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.036	-0.035	1.000	1.000	0.000
PR	115.000	114.987	-0.013	1.000	1.000	0.000
PA	-168.750	-168.748	0.002	1.000	1.000	0.000

⊕	MM	LOC14 - PNT_TR_MC_PLN_7				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.125	-0.124	1.000	1.000	0.000
PR	115.000	114.970	-0.030	1.000	1.000	0.000
PA	-123.750	-123.739	0.011	1.000	1.000	0.000

⊕	MM	LOC15 - PNT_TR_MC_PLN_9				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.352	0.353	1.000	1.000	0.000
PR	115.000	114.967	-0.033	1.000	1.000	0.000
PA	-78.750	-78.726	0.024	1.000	1.000	0.000

⌖	MM	LOC16 - PNT_TR_MC_PLN_11				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.359	0.359	1.000	1.000	0.000
PR	115.000	114.995	-0.005	1.000	1.000	0.000
PA	-33.750	-33.723	0.027	1.000	1.000	0.000

⌖	MM	LOC17 - PNT_TR_MC_PLN_13				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.040	0.040	1.000	1.000	0.000
PR	115.000	115.013	0.013	1.000	1.000	0.000
PA	11.250	11.279	0.029	1.000	1.000	0.000

⌖	MM	LOC18 - PNT_TR_MC_PLN_15				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.197	-0.198	1.000	1.000	0.000
PR	115.000	115.025	0.025	1.000	1.000	0.000
PA	56.250	56.271	0.022	1.000	1.000	0.000

Transition Ring points Field Probe end

⌖	MM	LOC19 - PNT_TR_FP_PLN_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1004.789	2.711	1.000	1.000	1.711
PR	104.000	103.994	-0.006	1.000	1.000	0.000
PA	101.250	101.261	0.011	1.000	1.000	0.000

⌖	MM	LOC20 - PNT_TR_FP_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1004.969	2.531	1.000	1.000	1.531
PR	104.000	103.990	-0.010	1.000	1.000	0.000
PA	146.250	146.266	0.016	1.000	1.000	0.000

⌖	MM	LOC21 - PNT_TR_FP_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1005.146	2.354	1.000	1.000	1.354
PR	104.000	103.992	-0.008	1.000	1.000	0.000
PA	-168.750	-168.729	0.021	1.000	1.000	0.000

⌖	MM	LOC22 - PNT_TR_FP_PLN_7				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1005.317	2.183	1.000	1.000	1.183
PR	104.000	103.998	-0.002	1.000	1.000	0.000
PA	-123.750	-123.726	0.024	1.000	1.000	0.000

⌖	MM	LOC23 - PNT_TR_FP_PLN_9				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1005.355	2.145	1.000	1.000	1.145
PR	104.000	104.019	0.019	1.000	1.000	0.000
PA	-78.750	-78.807	-0.057	1.000	1.000	0.000

MM	LOC24 - PNT_TR_FP_PLN_11						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1005.122	2.378	1.000	1.000	1.378	
PR	104.000	103.919	-0.081	1.000	1.000	0.000	
PA	-33.750	-33.791	-0.041	1.000	1.000	0.000	
MM	LOC25 - PNT_TR_FP_PLN_13						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1005.040	2.460	1.000	1.000	1.460	
PR	104.000	103.868	-0.132	1.000	1.000	0.000	
PA	11.250	11.257	0.007	1.000	1.000	0.000	
MM	LOC26 - PNT_TR_FP_PLN_15						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1004.942	2.558	1.000	1.000	1.558	
PR	104.000	103.893	-0.107	1.000	1.000	0.000	
PA	56.250	56.312	0.062	1.000	1.000	0.000	

Distances between matching points on Transition Rings

MM	DIST_PA_11.25 - PNT_TR_MC_PLN_13 TO PNT_TR_FP_PLN_13 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1005.080	-2.420	1.000	1.000	-1.420	
MM	DIST_PA_56.25 - PNT_TR_MC_PLN_15 TO PNT_TR_FP_PLN_15 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1004.744	-2.756	1.000	1.000	-1.756	
MM	DIST_PA_101.25 - PNT_TR_MC_PLN_1 TO PNT_TR_FP_PLN_1 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1004.535	-2.965	1.000	1.000	-1.965	
MM	DIST_PA_146.25 - PNT_TR_MC_PLN_3 TO PNT_TR_FP_PLN_3 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1004.830	-2.670	1.000	1.000	-1.670	
MM	DIST_PA_-168.75 - PNT_TR_MC_PLN_5 TO PNT_TR_FP_PLN_5 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1005.111	-2.389	1.000	1.000	-1.389	
MM	DIST_PA_-123.75 - PNT_TR_MC_PLN_7 TO PNT_TR_FP_PLN_7 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1005.192	-2.308	1.000	1.000	-1.308	
MM	DIST_PA_-78.75 - PNT_TR_MC_PLN_9 TO PNT_TR_FP_PLN_9 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1005.707	-1.793	1.000	1.000	-0.793	
MM	DIST_PA_-33.75 - PNT_TR_MC_PLN_11 TO PNT_TR_FP_PLN_11 (YAXIS)						
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1005.482	-2.018	1.000	1.000	-1.018	

↔	MM	DIST_BETWEEN_PLANES - PLNC_TR_MC TO PLNC_TR_FP (YAXIS)				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1007.500	1005.085	-2.415	1.000	1.000	-1.415

LOCATIONS OF CONSTRUCTED CIRCLES
ON 18 HALF CELLS

⊕	MM	LOC_CC3 - CIRC_CAV_1_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.009	0.009	0.200	0.200	0.000
Y	0.000	-968.273	-968.273	2000.000	2000.000	0.000
Z	0.000	-0.085	-0.085	0.200	0.200	0.000
D	210.300	210.444	0.144	0.200	0.200	0.000
RN	0.000	0.126	0.126	0.200	0.000	0.000

⊕	MM	LOC_CC4 - CIRC_CAV_1_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.010	0.010	0.200	0.200	0.000
Y	0.000	-956.500	-956.500	2000.000	2000.000	0.000
Z	0.000	-0.122	-0.122	0.200	0.200	0.000
D	210.300	210.381	0.081	0.200	0.200	0.000
RN	0.000	0.071	0.071	0.200	0.000	0.000

⊕	MM	LOC_CC5 - CIRC_CAV_2_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.004	-0.004	0.200	0.200	0.000
Y	0.000	-853.320	-853.320	2000.000	2000.000	0.000
Z	0.000	-0.322	-0.322	0.200	0.200	0.122
D	210.300	210.305	0.005	0.200	0.200	0.000
RN	0.000	0.139	0.139	0.200	0.000	0.000

⊕	MM	LOC_CC6 - CIRC_CAV_2_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.017	-0.017	0.200	0.200	0.000
Y	0.000	-840.844	-840.844	2000.000	2000.000	0.000
Z	0.000	-0.339	-0.339	0.200	0.200	0.139
D	210.300	210.373	0.073	0.200	0.200	0.000
RN	0.000	0.115	0.115	0.200	0.000	0.000

⊕	MM	LOC_CC7 - CIRC_CAV_3_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.045	-0.045	0.200	0.200	0.000
Y	0.000	-737.426	-737.426	2000.000	2000.000	0.000
Z	0.000	-0.505	-0.505	0.200	0.200	0.305
D	210.300	210.388	0.088	0.200	0.200	0.000
RN	0.000	0.180	0.180	0.200	0.000	0.000

⊕	MM	LOC_CC8 - CIRC_CAV_3_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.045	-0.045	0.200	0.200	0.000
Y	0.000	-726.129	-726.129	2000.000	2000.000	0.000
Z	0.000	-0.491	-0.491	0.200	0.200	0.291
D	210.300	210.382	0.082	0.200	0.200	0.000
RN	0.000	0.201	0.201	0.200	0.000	0.001

⊕	MM	LOC_CC9 - CIRC_CAV_4_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.109	-0.109	0.200	0.200	0.000
Y	0.000	-623.198	-623.198	2000.000	2000.000	0.000
Z	0.000	-0.632	-0.632	0.200	0.200	0.432
D	210.300	210.366	0.066	0.200	0.200	0.000
RN	0.000	0.153	0.153	0.200	0.000	0.000

⊕	MM	LOC_CC10 - CIRC_CAV_4_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.112	-0.112	0.200	0.200	0.000
Y	0.000	-611.109	-611.109	2000.000	2000.000	0.000
Z	0.000	-0.522	-0.522	0.200	0.200	0.322
D	210.300	210.345	0.045	0.200	0.200	0.000
RN	0.000	0.080	0.080	0.200	0.000	0.000

⊕	MM	LOC_CC11 - CIRC_CAV_5_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.054	-0.054	0.200	0.200	0.000
Y	0.000	-506.857	-506.857	2000.000	2000.000	0.000
Z	0.000	-0.564	-0.564	0.200	0.200	0.364
D	210.300	210.295	-0.005	0.200	0.200	0.000
RN	0.000	0.250	0.250	0.200	0.000	0.050

⊕	MM	LOC_CC12 - CIRC_CAV_5_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.037	-0.037	0.200	0.200	0.000
Y	0.000	-494.896	-494.896	2000.000	2000.000	0.000
Z	0.000	-0.564	-0.564	0.200	0.200	0.364
D	210.300	210.338	0.038	0.200	0.200	0.000
RN	0.000	0.147	0.147	0.200	0.000	0.000

⊕	MM	LOC_CC13 - CIRC_CAV_6_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.026	-0.026	0.200	0.200	0.000
Y	0.000	-391.648	-391.648	2000.000	2000.000	0.000
Z	0.000	-0.525	-0.525	0.200	0.200	0.325
D	210.300	210.337	0.037	0.200	0.200	0.000
RN	0.000	0.093	0.093	0.200	0.000	0.000

⌖	MM	LOC_CC14 - CIRC_CAV_6_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.019	-0.019	0.200	0.200	0.000
Y	0.000	-379.956	-379.956	2000.000	2000.000	0.000
Z	0.000	-0.552	-0.552	0.200	0.200	0.352
D	210.300	210.438	0.138	0.200	0.200	0.000
RN	0.000	0.159	0.159	0.200	0.000	0.000

⌖	MM	LOC_CC15 - CIRC_CAV_7_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.004	-0.004	0.200	0.200	0.000
Y	0.000	-276.363	-276.363	2000.000	2000.000	0.000
Z	0.000	-0.470	-0.470	0.200	0.200	0.270
D	210.300	210.440	0.140	0.200	0.200	0.000
RN	0.000	0.148	0.148	0.200	0.000	0.000

⌖	MM	LOC_CC16 - CIRC_CAV_7_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.026	-0.026	0.200	0.200	0.000
Y	0.000	-264.759	-264.759	2000.000	2000.000	0.000
Z	0.000	-0.516	-0.516	0.200	0.200	0.316
D	210.300	210.443	0.143	0.200	0.200	0.000
RN	0.000	0.131	0.131	0.200	0.000	0.000

⌖	MM	LOC_CC17 - CIRC_CAV_8_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.025	-0.025	0.200	0.200	0.000
Y	0.000	-160.789	-160.789	2000.000	2000.000	0.000
Z	0.000	-0.379	-0.379	0.200	0.200	0.179
D	210.300	210.410	0.110	0.200	0.200	0.000
RN	0.000	0.154	0.154	0.200	0.000	0.000

⌖	MM	LOC_CC18 - CIRC_CAV_8_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.082	-0.082	0.200	0.200	0.000
Y	0.000	-149.683	-149.683	2000.000	2000.000	0.000
Z	0.000	-0.415	-0.415	0.200	0.200	0.215
D	210.300	210.381	0.081	0.200	0.200	0.000
RN	0.000	0.223	0.223	0.200	0.000	0.023

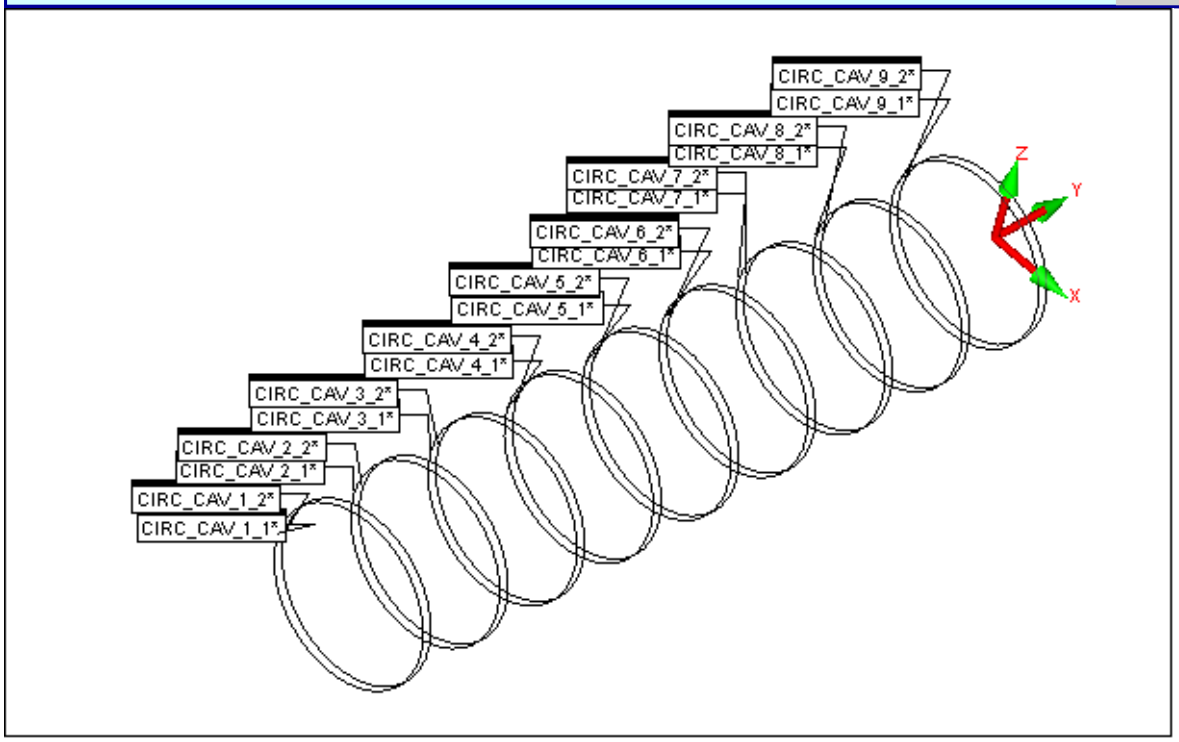
⌖	MM	LOC_CC19 - CIRC_CAV_9_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.043	-0.043	0.200	0.200	0.000
Y	0.000	-45.647	-45.647	2000.000	2000.000	0.000
Z	0.000	-0.175	-0.175	0.200	0.200	0.000
D	210.300	210.316	0.016	0.200	0.200	0.000
RN	0.000	0.173	0.173	0.200	0.000	0.000

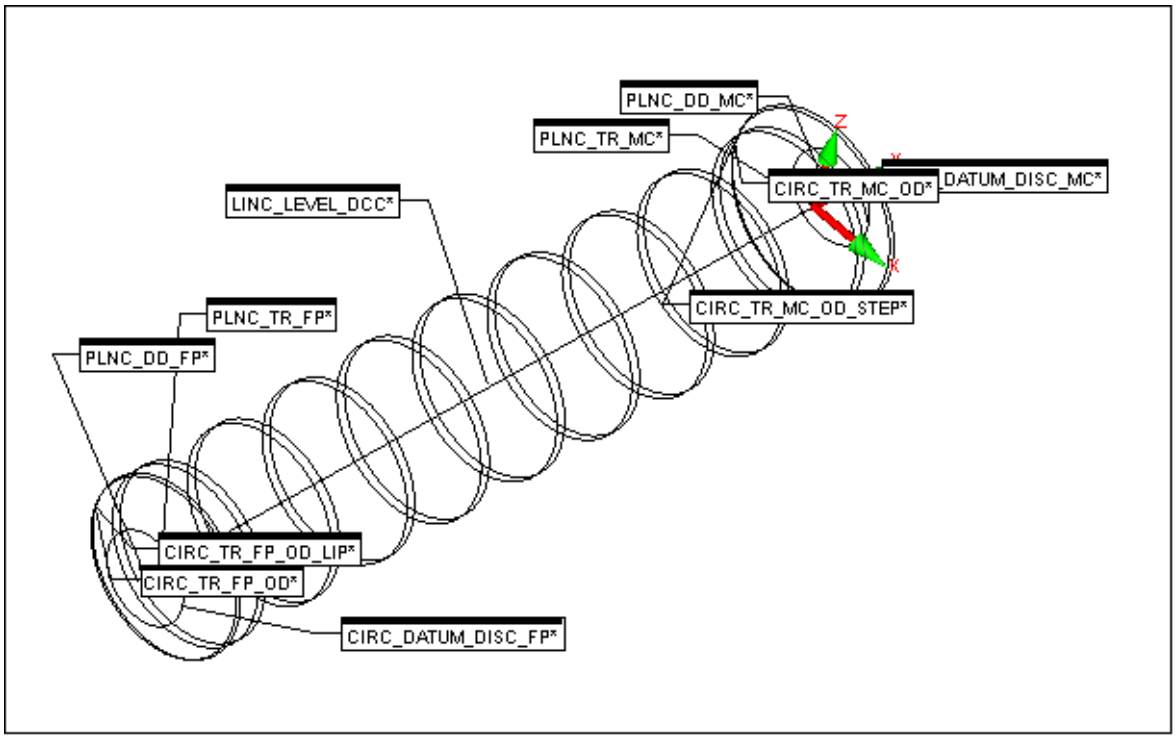
⌖	MM	LOC_CC20 - CIRC_CAV_9_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.079	-0.079	0.200	0.200	0.000
Y	0.000	-33.711	-33.711	2000.000	2000.000	0.000
Z	0.000	-0.084	-0.084	0.200	0.200	0.000
D	210.300	210.359	0.059	0.200	0.200	0.000
RN	0.000	0.304	0.304	0.200	0.000	0.104

Location of End Flanges

⌖	MM	LOC_23 - CIR_END_FLANGE_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.008	0.008	0.200	0.200	0.000
Y	0.000	116.156	116.156	2000.000	2000.000	0.000
Z	0.000	0.237	0.237	0.200	0.200	0.037
D	140.000	140.083	0.083	0.300	0.300	0.000
RN	0.000	0.004	0.004	0.200	0.000	0.000

⌖	MM	LOC_24 - CIR_END_FLANGE_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.067	-0.067	0.200	0.200	0.000
Y	-1153.884	-1117.952	35.933	2000.000	2000.000	0.000
Z	0.000	0.268	0.268	0.200	0.200	0.068
D	140.000	140.061	0.061	0.300	0.300	0.000
RN	0.000	0.003	0.003	0.200	0.000	0.000

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PLNC_TR_MC*
LINC_LEVEL_DCC*
CIRC_TR_MC_OD*
DATUM_DISC_MC*
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PLNC_TR_FP*
PLNC_DD_FP*
CIRC_TR_FP_OD_LIP*
CIRC_TR_FP_OD*
CIRC_DATUM_DISC_FP*