pc-dmis	PART NAME : PN440004-n-Trans-Rings-000-TB9NR004-v4-IR		June 01, 2011	10:50
	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' : TB9NR006
' ' : 1106010717

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	20.006	-4.994	10.000	10.000	0.000	
Z	0.000	0.000	0.000	0.000	0.000	0.000	
D	111.000	110.879	-0.121	0.050	0.050	0.071	
RN	0.000	0.046	0.046	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	-1039.136	-6.751	10.000	10.000	0.000	
Z	0.000	0.000	0.000	0.000	0.000	0.000	
D	111.000	110.946	-0.055	0.050	0.050	0.005	
RN	0.000	0.085	0.085	0.050	0.000	0.035	

Datum Disc planes

#	MM	LOC3 - PLNC_DD_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	27.000	21.901	-5.099	10.000	10.000	0.000	
FL	0.000	0.059	0.059	0.100	0.000	0.000	

#	MM	LOC4 - PLNC_DD_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1034.384	-1041.232	-6.848	10.000	10.000	0.000	
FL	0.000	0.133	0.133	0.100	0.000	0.033	

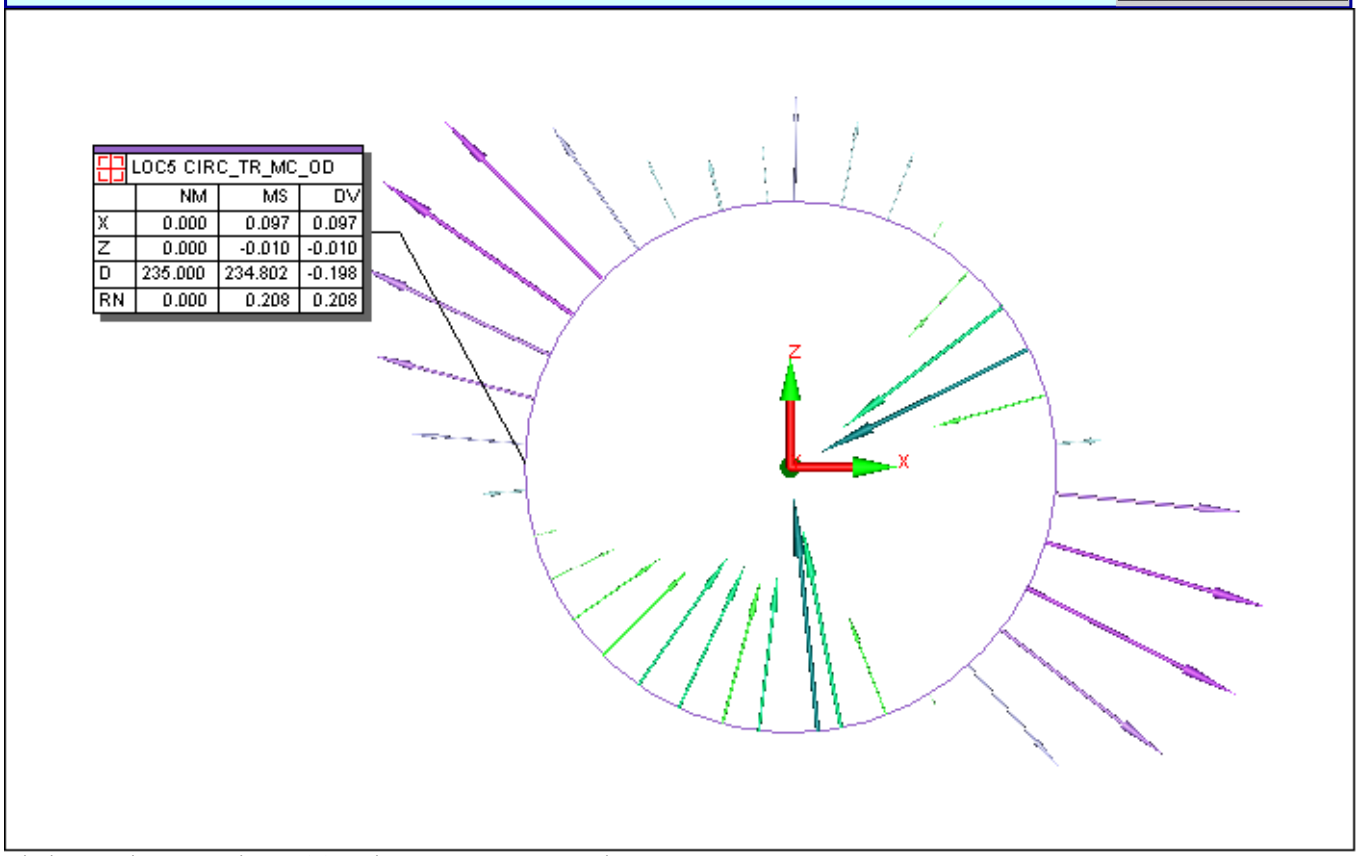
Distance between Datum Disc planes

↔	MM	DIST1 - PLNC_DD_FP TO PLNC_DD_MC (YAXIS)				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1061.060	1063.134	2.074	0.200	0.200	1.874

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	0.097	0.097	0.250	0.250	0.000
Z	0.000	-0.010	-0.010	0.250	0.250	0.000
D	235.000	234.802	-0.198	0.250	0.250	0.000
RN	0.000	0.208	0.208	0.250	0.000	0.000

○	MM	RND1 - CIRC_TR_MC_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.208	0.208	0.250	0.000	0.000

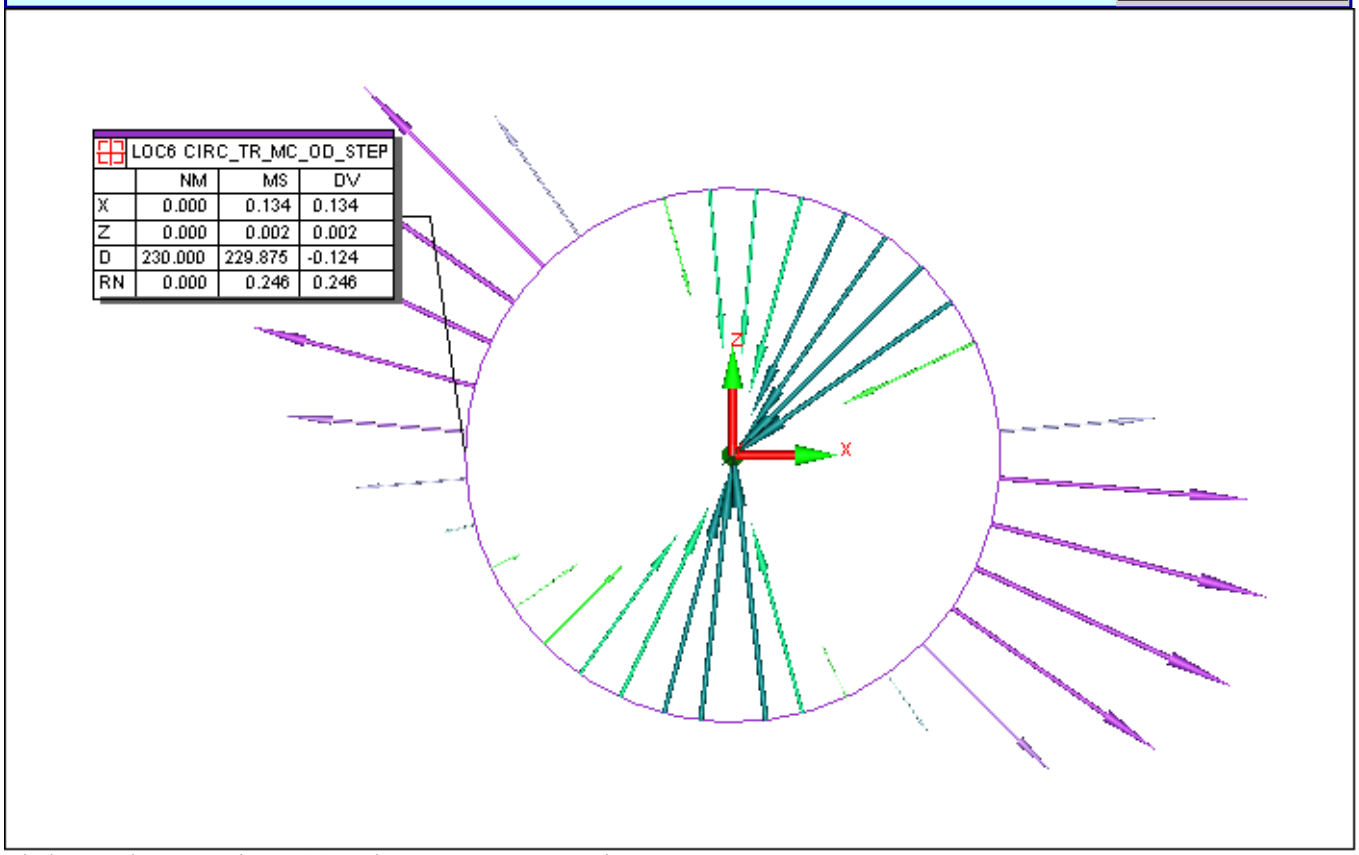


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
235.0 O.D. x1000

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	0.134	0.134	0.250	0.250	0.000
Z	0.000	0.002	0.002	0.250	0.250	0.000
D	230.000	229.875	-0.124	0.000	0.250	0.000
RN	0.000	0.246	0.246	0.250	0.000	0.000

	MM	RND2 - CIRC_TR_MC_OD_STEP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.246	0.246	0.250	0.000	0.000

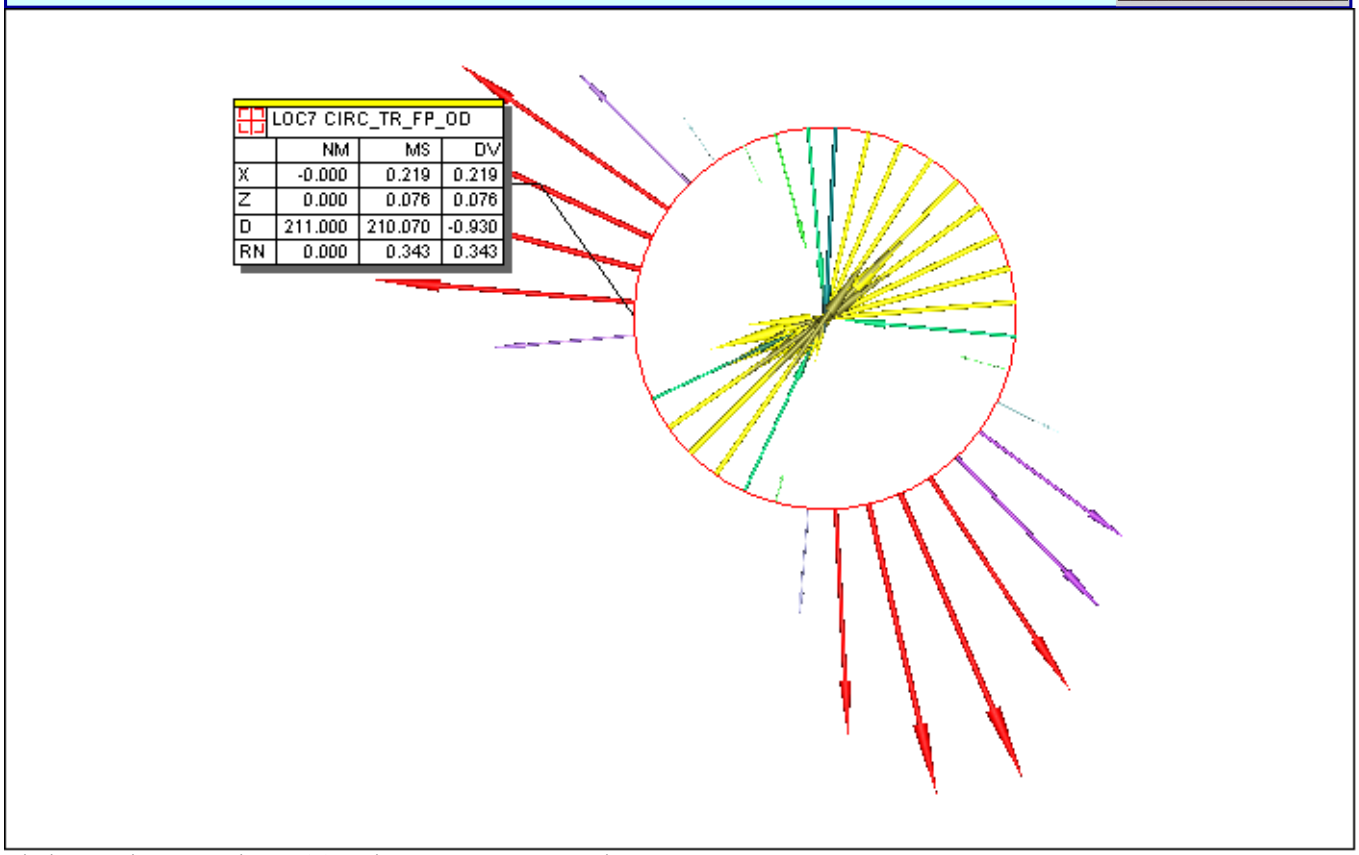


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
233.00 O.D. step x1000

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	0.219	0.219	0.250	0.250	0.000	
Z	0.000	0.076	0.076	0.250	0.250	0.000	
D	211.000	210.070	-0.930	0.250	0.250	0.680	
RN	0.000	0.343	0.343	0.250	0.000	0.093	

	MM	RND3 - CIRC_TR_FP_OD					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.343	0.343	0.250	0.000	0.093	

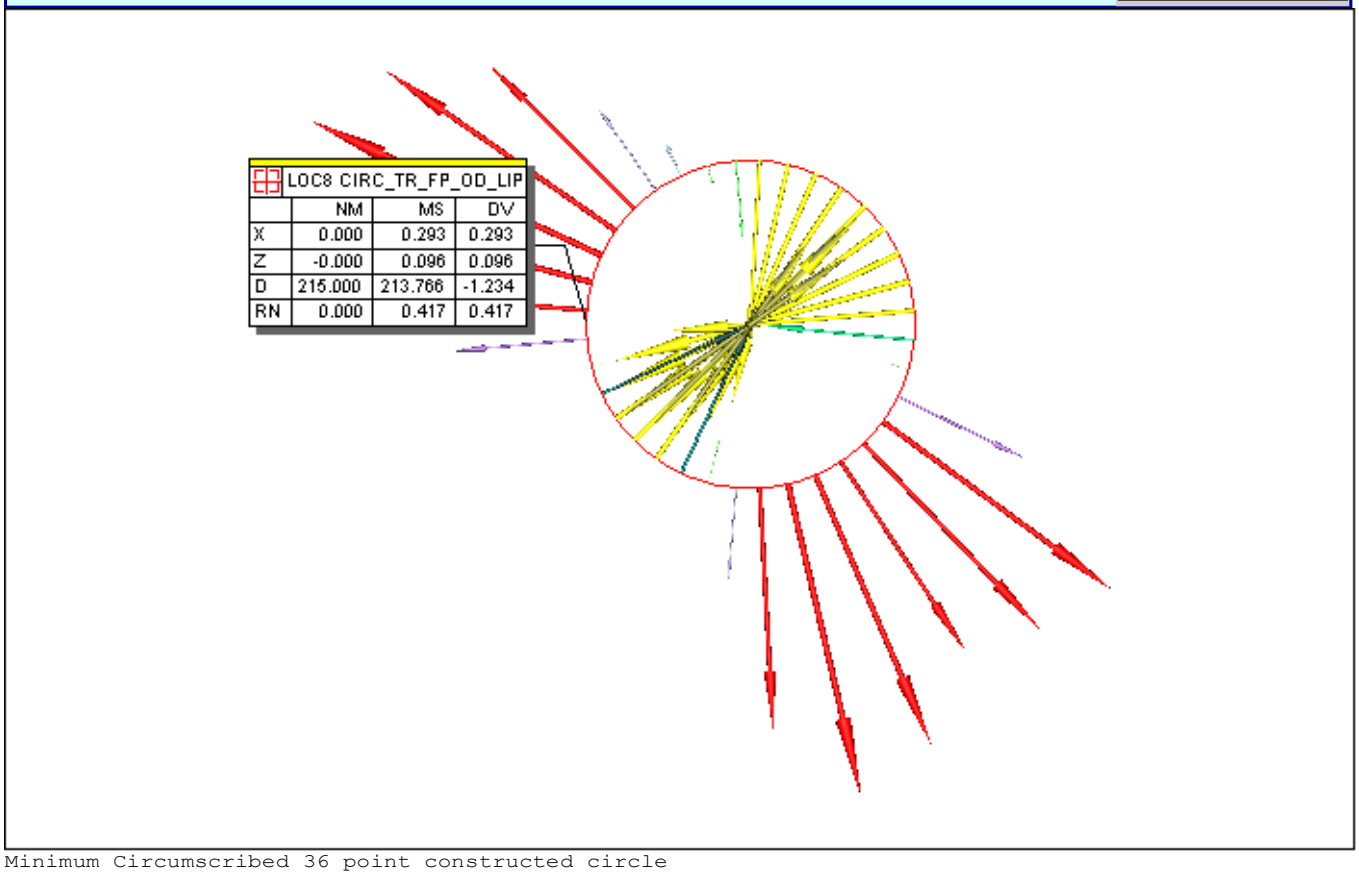


Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
211.0 O.D. x1000

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

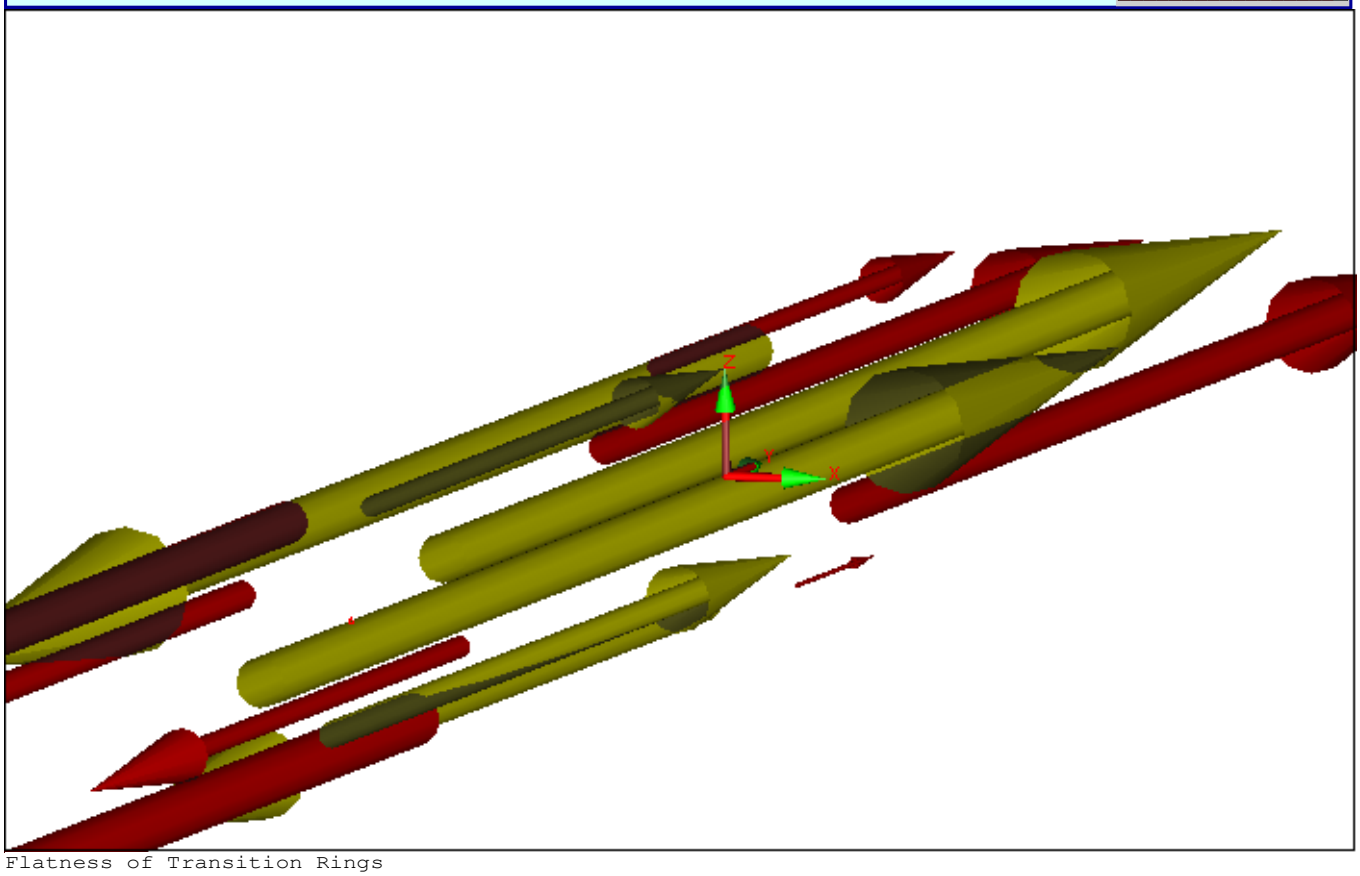
	MM	LOC8 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.293	0.293	0.250	0.250	0.043
Z	0.000	0.096	0.096	0.250	0.250	0.000
D	215.000	213.766	-1.234	0.250	0.250	0.984
RN	0.000	0.417	0.417	0.250	0.000	0.167

	MM	RND4 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.417	0.417	0.250	0.000	0.167



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

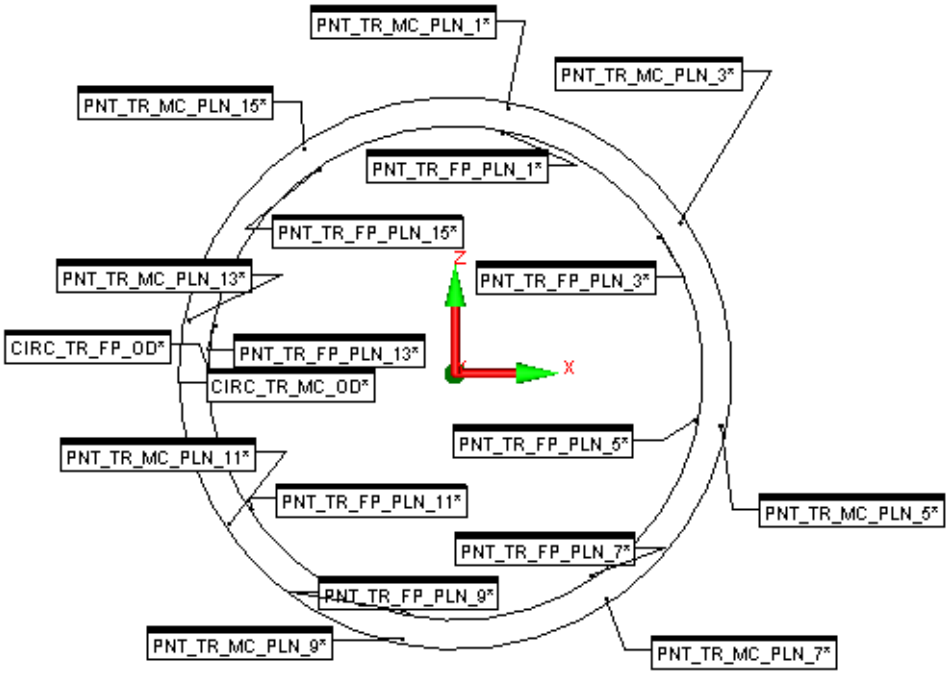
	MM	LOC9 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	0.000	0.000	0.000	0.000	0.000	0.000	
FL	0.000	0.805	0.805	0.200	0.000	0.605	
AX		I		J		K	
V		-0.010		1.000		-0.003	
	MM	LOC10 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1014.748	-7.248	10.000	10.000	0.000	
FL	0.000	0.926	0.926	0.200	0.000	0.726	
AX		I		J		K	
V		-0.010		-1.000		-0.006	
	MM	FLAT3 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.805	0.805	0.200	0.000	0.605	
	MM	FLAT4 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.926	0.926	0.200	0.000	0.726	



Flatness of Transition Rings
x5000

⊥	MM	PERP1 - PLNC_TR_MC TO LINC_LEVEL_DCC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0	2.646	2.646	0.200	0	2.446

⊥	MM	PERP2 - PLNC_TR_FP TO LINC_LEVEL_DCC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0	2.804	2.804	0.200	0	2.604



Transition Ring points Main Coupler end

#	MM	LOC11 - PNT_TR_MC_PLN_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.115	0.114	1.000	1.000	0.000
PR	115.000	114.954	-0.046	1.000	1.000	0.000
PA	101.250	101.212	-0.038	1.000	1.000	0.000

#	MM	LOC12 - PNT_TR_MC_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	1.166	1.166	1.000	1.000	0.166
PR	115.000	114.988	-0.012	1.000	1.000	0.000
PA	146.250	146.227	-0.023	1.000	1.000	0.000

#	MM	LOC13 - PNT_TR_MC_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	1.416	1.416	1.000	1.000	0.416
PR	115.000	115.030	0.030	1.000	1.000	0.000
PA	-168.750	-168.776	-0.026	1.000	1.000	0.000

⌗	MM	LOC14 - PNT_TR_MC_PLN_7				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.393	0.394	1.000	1.000	0.000
PR	115.000	115.048	0.048	1.000	1.000	0.000
PA	-123.750	-123.791	-0.041	1.000	1.000	0.000

⌗	MM	LOC15 - PNT_TR_MC_PLN_9				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.906	-0.905	1.000	1.000	0.000
PR	115.000	115.043	0.043	1.000	1.000	0.000
PA	-78.750	-78.812	-0.062	1.000	1.000	0.000

⌗	MM	LOC16 - PNT_TR_MC_PLN_11				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-1.230	-1.230	1.000	1.000	0.230
PR	115.000	115.016	0.016	1.000	1.000	0.000
PA	-33.750	-33.825	-0.075	1.000	1.000	0.000

⌗	MM	LOC17 - PNT_TR_MC_PLN_13				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.771	-0.772	1.000	1.000	0.000
PR	115.000	114.977	-0.023	1.000	1.000	0.000
PA	11.250	11.177	-0.073	1.000	1.000	0.000

⌗	MM	LOC18 - PNT_TR_MC_PLN_15				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.184	-0.184	1.000	1.000	0.000
PR	115.000	114.952	-0.048	1.000	1.000	0.000
PA	56.250	56.191	-0.059	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	-1015.396	-7.896	1.000	1.000	6.896
PR	104.000	104.020	0.020	1.000	1.000	0.000
PA	101.250	101.187	-0.063	1.000	1.000	0.000

⌗	MM	LOC20 - PNT_TR_FP_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1015.546	-8.046	1.000	1.000	7.046
PR	104.000	104.002	0.002	1.000	1.000	0.000
PA	146.250	146.184	-0.066	1.000	1.000	0.000

⌗	MM	LOC21 - PNT_TR_FP_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1015.862	-8.362	1.000	1.000	7.362
PR	104.000	103.981	-0.019	1.000	1.000	0.000
PA	-168.750	-168.812	-0.062	1.000	1.000	0.000

⌗	MM	LOC22 - PNT_TR_FP_PLN_7					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1015.283	-7.783	1.000	1.000	6.783	
PR	104.000	103.970	-0.030	1.000	1.000	0.000	
PA	-123.750	-123.800	-0.050	1.000	1.000	0.000	
⌗	MM	LOC23 - PNT_TR_FP_PLN_9					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.672	-6.172	1.000	1.000	5.172	
PR	104.000	104.067	0.067	1.000	1.000	0.000	
PA	-78.750	-78.853	-0.103	1.000	1.000	0.000	
⌗	MM	LOC24 - PNT_TR_FP_PLN_11					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.058	-5.558	1.000	1.000	4.558	
PR	104.000	103.979	-0.021	1.000	1.000	0.000	
PA	-33.750	-33.863	-0.112	1.000	1.000	0.000	
⌗	MM	LOC25 - PNT_TR_FP_PLN_13					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1014.095	-6.595	1.000	1.000	5.595	
PR	104.000	103.909	-0.091	1.000	1.000	0.000	
PA	11.250	11.164	-0.086	1.000	1.000	0.000	
⌗	MM	LOC26 - PNT_TR_FP_PLN_15					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1015.074	-7.574	1.000	1.000	6.574	
PR	104.000	103.891	-0.109	1.000	1.000	0.000	
PA	56.250	56.213	-0.037	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	1013.323	5.823	1.000	1.000	4.823	
↔	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	1014.890	7.390	1.000	1.000	6.390	
↔	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	1015.511	8.011	1.000	1.000	7.011	
↔	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	1016.712	9.212	1.000	1.000	8.212	
↔	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	1017.278	9.778	1.000	1.000	8.778	

↔	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	1015.677	8.177	1.000	1.000	7.177	

↔	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	1012.767	5.267	1.000	1.000	4.267	

↔	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	1011.828	4.328	1.000	1.000	3.328	

↔	MM	DIST_BETWEEN_PLANES - PLNC_TR_MC TO PLNC_TR_FP (YAXIS)					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1014.748	7.248	1.000	1.000	6.248	

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	0.510	0.510	0.200	0.200	0.310	
Y	0.000	-976.473	-976.473	2000.000	2000.000	0.000	
Z	0.000	-0.059	-0.059	0.200	0.200	0.000	
D	210.300	210.631	0.331	0.200	0.200	0.131	
RN	0.000	0.335	0.335	0.200	0.000	0.135	

⊞	MM	LOC_CC4 - CIRC_CAV_1_2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
X	0.000	0.555	0.555	0.200	0.200	0.355	
Y	0.000	-966.187	-966.187	2000.000	2000.000	0.000	
Z	0.000	-0.039	-0.039	0.200	0.200	0.000	
D	210.300	210.896	0.596	0.200	0.200	0.396	
RN	0.000	0.232	0.232	0.200	0.000	0.032	

⊞	MM	LOC_CC5 - CIRC_CAV_2_1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
X	0.000	1.361	1.361	0.200	0.200	1.161	
Y	0.000	-860.079	-860.079	2000.000	2000.000	0.000	
Z	0.000	-0.078	-0.078	0.200	0.200	0.000	
D	210.300	210.962	0.662	0.200	0.200	0.462	
RN	0.000	0.364	0.364	0.200	0.000	0.164	

⊞	MM	LOC_CC6 - CIRC_CAV_2_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	1.332	1.332	0.200	0.200	1.132
Y	0.000	-850.758	-850.758	2000.000	2000.000	0.000
Z	0.000	0.021	0.021	0.200	0.200	0.000
D	210.300	210.951	0.651	0.200	0.200	0.451
RN	0.000	0.364	0.364	0.200	0.000	0.164

⊞	MM	LOC_CC7 - CIRC_CAV_3_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	2.182	2.182	0.200	0.200	1.982
Y	0.000	-745.457	-745.457	2000.000	2000.000	0.000
Z	0.000	0.221	0.221	0.200	0.200	0.021
D	210.300	210.926	0.626	0.200	0.200	0.426
RN	0.000	0.252	0.252	0.200	0.000	0.052

⊞	MM	LOC_CC8 - CIRC_CAV_3_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	2.143	2.143	0.200	0.200	1.943
Y	0.000	-735.715	-735.715	2000.000	2000.000	0.000
Z	0.000	-0.018	-0.018	0.200	0.200	0.000
D	210.300	210.921	0.621	0.200	0.200	0.421
RN	0.000	0.408	0.408	0.200	0.000	0.208

⊞	MM	LOC_CC9 - CIRC_CAV_4_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.075	3.075	0.200	0.200	2.875
Y	0.000	-629.688	-629.688	2000.000	2000.000	0.000
Z	0.000	0.097	0.097	0.200	0.200	0.000
D	210.300	210.886	0.586	0.200	0.200	0.386
RN	0.000	0.519	0.519	0.200	0.000	0.319

⊞	MM	LOC_CC10 - CIRC_CAV_4_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	2.955	2.955	0.200	0.200	2.755
Y	0.000	-619.890	-619.890	2000.000	2000.000	0.000
Z	0.000	0.142	0.142	0.200	0.200	0.000
D	210.300	210.968	0.668	0.200	0.200	0.468
RN	0.000	0.278	0.278	0.200	0.000	0.078

⊞	MM	LOC_CC11 - CIRC_CAV_5_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.527	3.527	0.200	0.200	3.327
Y	0.000	-514.213	-514.213	2000.000	2000.000	0.000
Z	0.000	0.208	0.208	0.200	0.200	0.008
D	210.300	210.922	0.622	0.200	0.200	0.422
RN	0.000	0.375	0.375	0.200	0.000	0.175

⌗	MM	LOC_CC12 - CIRC_CAV_5_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.576	3.576	0.200	0.200	3.376
Y	0.000	-504.326	-504.326	2000.000	2000.000	0.000
Z	0.000	0.380	0.380	0.200	0.200	0.180
D	210.300	210.936	0.636	0.200	0.200	0.436
RN	0.000	0.432	0.432	0.200	0.000	0.232

⌗	MM	LOC_CC13 - CIRC_CAV_6_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.795	3.795	0.200	0.200	3.595
Y	0.000	-398.561	-398.561	2000.000	2000.000	0.000
Z	0.000	0.623	0.623	0.200	0.200	0.423
D	210.300	210.869	0.569	0.200	0.200	0.369
RN	0.000	0.310	0.310	0.200	0.000	0.110

⌗	MM	LOC_CC14 - CIRC_CAV_6_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.729	3.729	0.200	0.200	3.529
Y	0.000	-388.090	-388.090	2000.000	2000.000	0.000
Z	0.000	0.629	0.629	0.200	0.200	0.429
D	210.300	210.918	0.618	0.200	0.200	0.418
RN	0.000	0.347	0.347	0.200	0.000	0.147

⌗	MM	LOC_CC15 - CIRC_CAV_7_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.373	3.373	0.200	0.200	3.173
Y	0.000	-282.286	-282.286	2000.000	2000.000	0.000
Z	0.000	0.845	0.845	0.200	0.200	0.645
D	210.300	210.904	0.604	0.200	0.200	0.404
RN	0.000	0.411	0.411	0.200	0.000	0.211

⌗	MM	LOC_CC16 - CIRC_CAV_7_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	3.278	3.278	0.200	0.200	3.078
Y	0.000	-272.780	-272.780	2000.000	2000.000	0.000
Z	0.000	0.864	0.864	0.200	0.200	0.664
D	210.300	210.893	0.593	0.200	0.200	0.393
RN	0.000	0.252	0.252	0.200	0.000	0.052

⌗	MM	LOC_CC17 - CIRC_CAV_8_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	2.592	2.592	0.200	0.200	2.392
Y	0.000	-166.747	-166.747	2000.000	2000.000	0.000
Z	0.000	0.862	0.862	0.200	0.200	0.662
D	210.300	210.928	0.628	0.200	0.200	0.428
RN	0.000	0.359	0.359	0.200	0.000	0.159

⌗	MM	LOC_CC18 - CIRC_CAV_8_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	2.714	2.714	0.200	0.200	2.514
Y	0.000	-156.412	-156.412	2000.000	2000.000	0.000
Z	0.000	0.571	0.571	0.200	0.200	0.371
D	210.300	210.972	0.672	0.200	0.200	0.472
RN	0.000	0.284	0.284	0.200	0.000	0.084

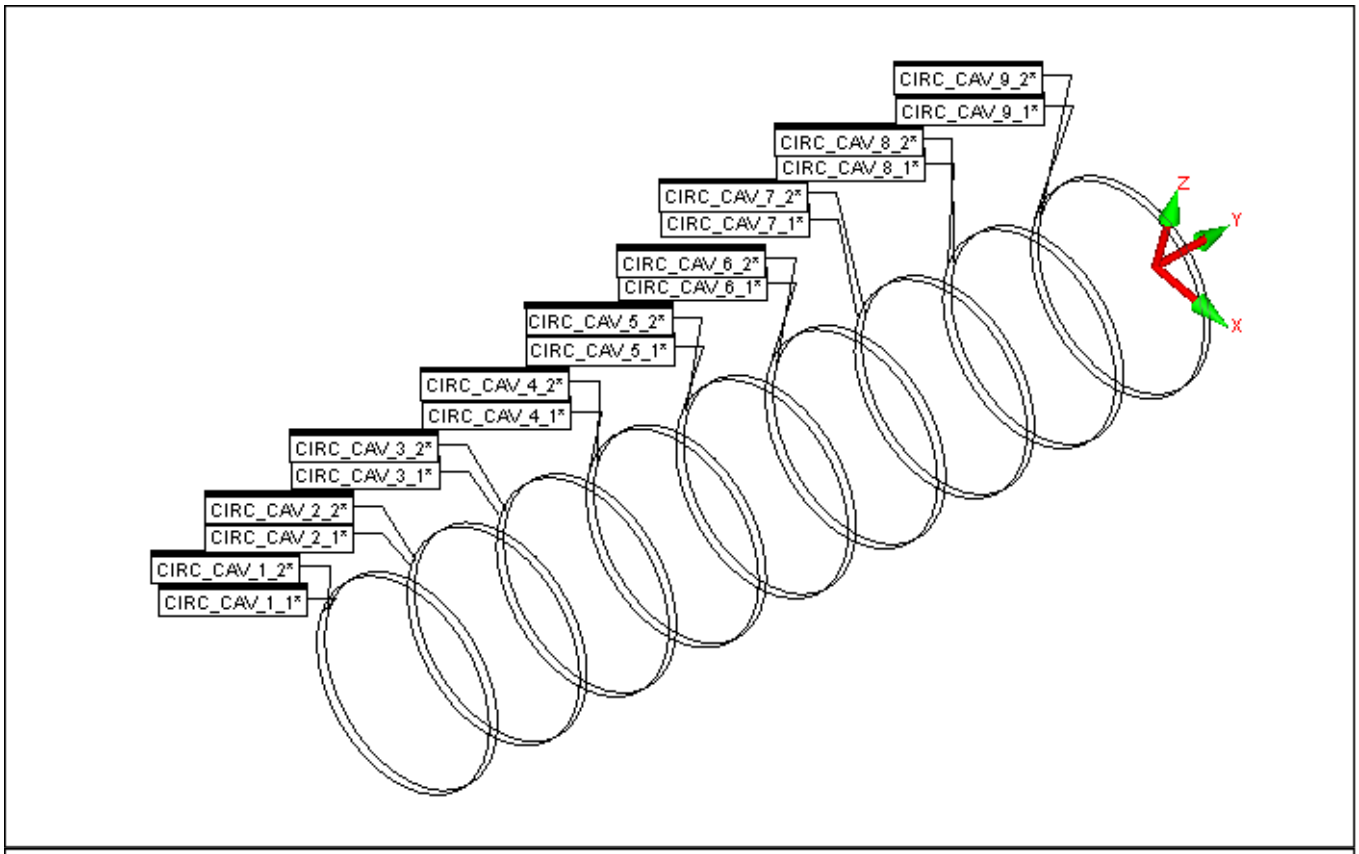
⌗	MM	LOC_CC19 - CIRC_CAV_9_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	1.757	1.757	0.200	0.200	1.557
Y	0.000	-51.272	-51.272	2000.000	2000.000	0.000
Z	0.000	0.400	0.400	0.200	0.200	0.200
D	210.300	210.909	0.609	0.200	0.200	0.409
RN	0.000	0.424	0.424	0.200	0.000	0.224

⌗	MM	LOC_CC20 - CIRC_CAV_9_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.738	0.738	0.200	0.200	0.538
Y	0.000	-41.735	-41.735	2000.000	2000.000	0.000
Z	0.000	-0.011	-0.011	0.200	0.200	0.000
D	210.300	210.602	0.302	0.200	0.200	0.102
RN	0.000	0.572	0.572	0.200	0.000	0.372

Location of End Flanges

⌗	MM	LOC_23 - CIR_END_FLANGE_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-1.878	-1.878	0.200	0.200	1.678
Y	0.000	109.799	109.799	2000.000	2000.000	0.000
Z	0.000	0.389	0.389	0.200	0.200	0.189
D	140.000	140.143	0.143	0.300	0.300	0.000
RN	0.000	0.034	0.034	0.200	0.000	0.000

⌗	MM	LOC_24 - CIR_END_FLANGE_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-1.091	-1.091	0.200	0.200	0.891
Y	-1153.884	-1127.643	26.242	2000.000	2000.000	0.000
Z	0.000	0.367	0.367	0.200	0.200	0.167
D	140.000	140.178	0.178	0.300	0.300	0.000
RN	0.000	0.039	0.039	0.200	0.000	0.000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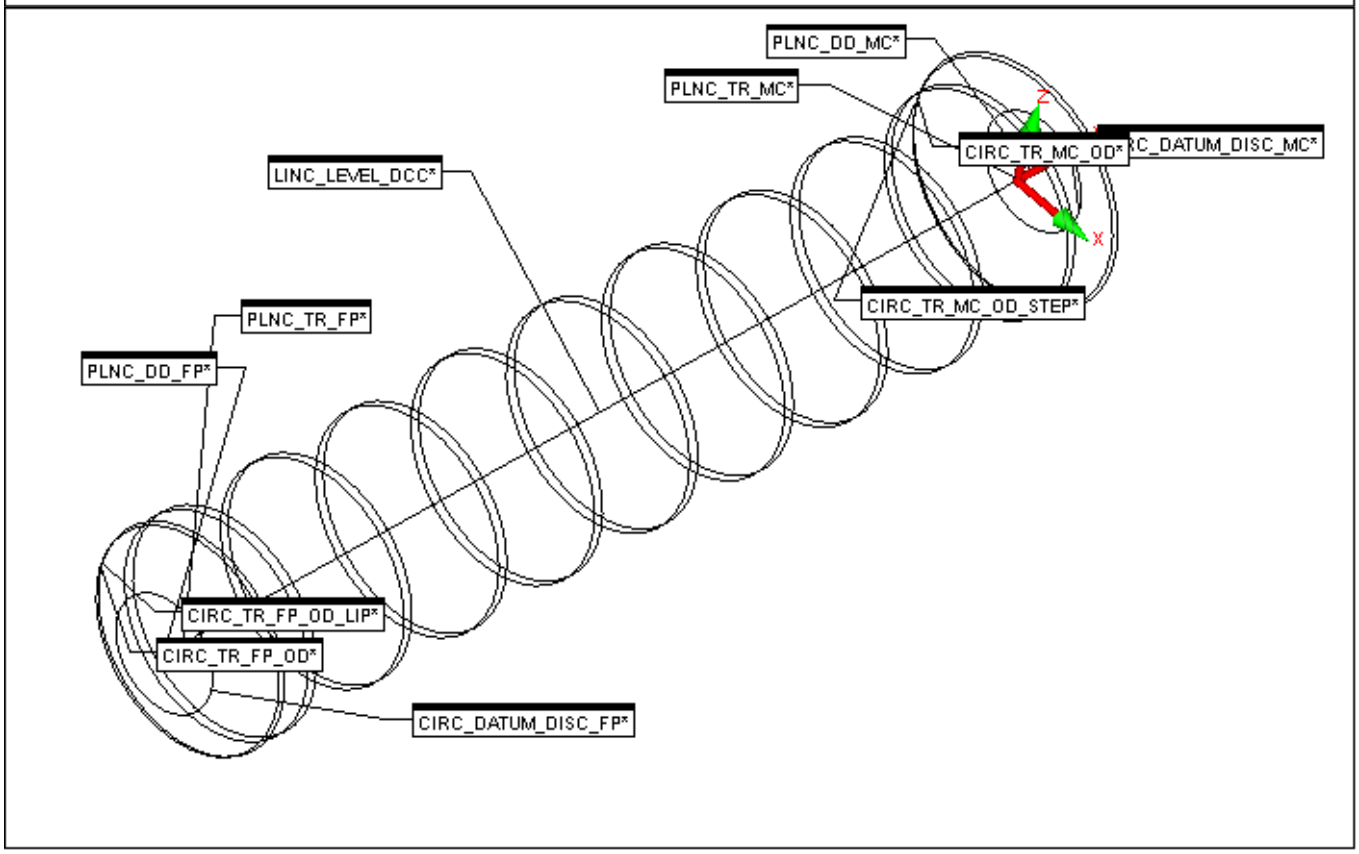
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Z
X