pc-dmis	PART NAME : PN440004-n-Trans-Rings-000-TB9NR003-v4-IR		April 01, 2011	16:26
	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' : TB9NR003
' ' : 1104011542

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	25.546	0.546	10.000	10.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	111.000	110.658	-0.342	0.050	0.050	0.292
RN	0.000	0.067	0.067	0.050	0.000	0.017

#	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	-1032.286	0.098	10.000	10.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	111.000	110.755	-0.245	0.050	0.050	0.195
RN	0.000	0.033	0.033	0.050	0.000	0.000

Datum Disc planes

#	MM	LOC3 - PLNC_DD_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	27.000	27.646	0.646	10.000	10.000	0.000
FL	0.000	0.065	0.065	0.100	0.000	0.000

#	MM	LOC4 - PLNC_DD_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1034.384	-1034.292	0.093	10.000	10.000	0.000
FL	0.000	0.088	0.088	0.100	0.000	0.000

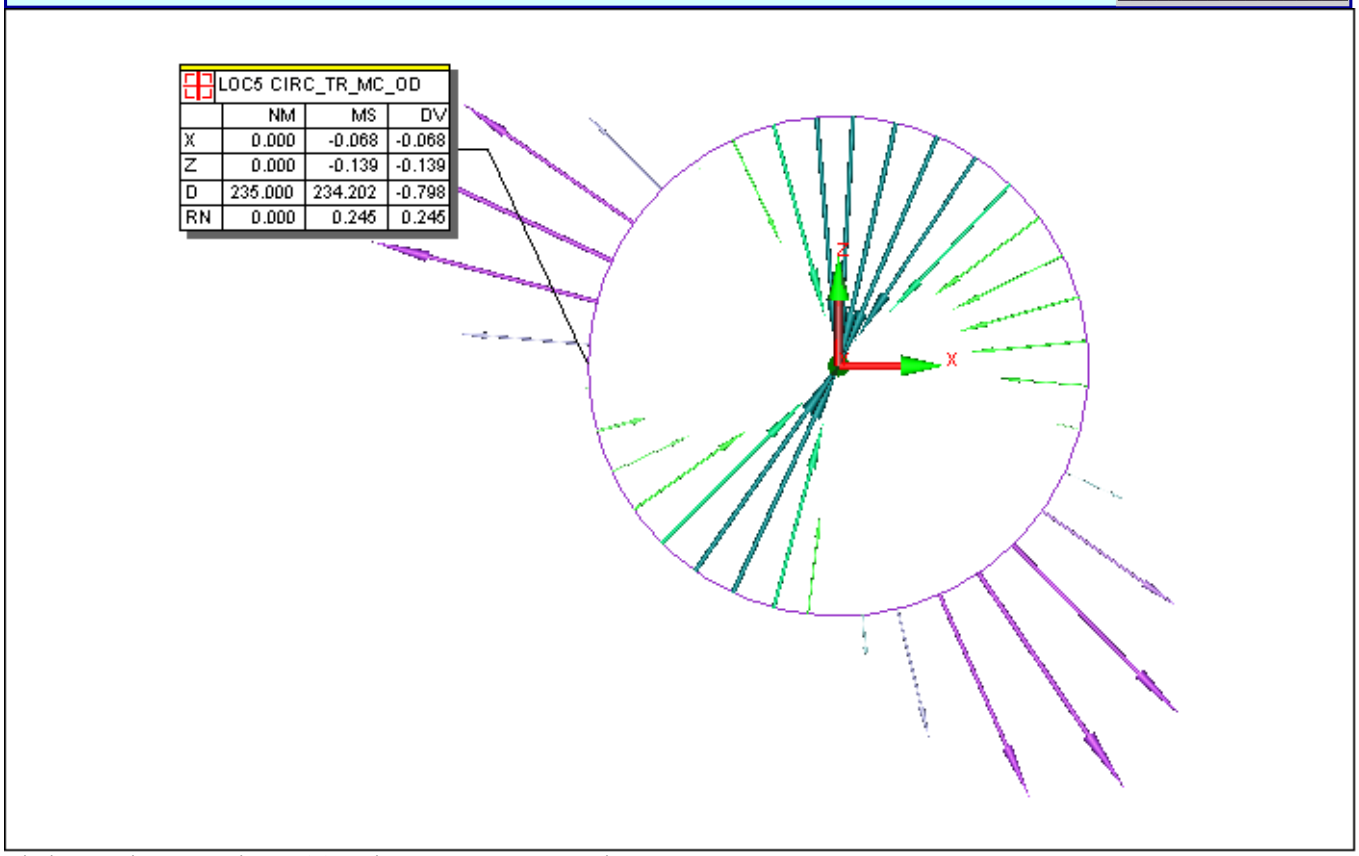
Distance between Datum Disc planes

↔	MM	DIST1 - PLNC_DD_FP TO PLNC_DD_MC (YAXIS)				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1061.060	1061.937	0.877	0.200	0.200	0.677

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	-0.068	-0.068	0.250	0.250	0.000
Z	0.000	-0.139	-0.139	0.250	0.250	0.000
D	235.000	234.202	-0.798	0.250	0.250	0.548
RN	0.000	0.245	0.245	0.250	0.000	0.000

○	MM	RND1 - CIRC_TR_MC_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.245	0.245	0.250	0.000	0.000

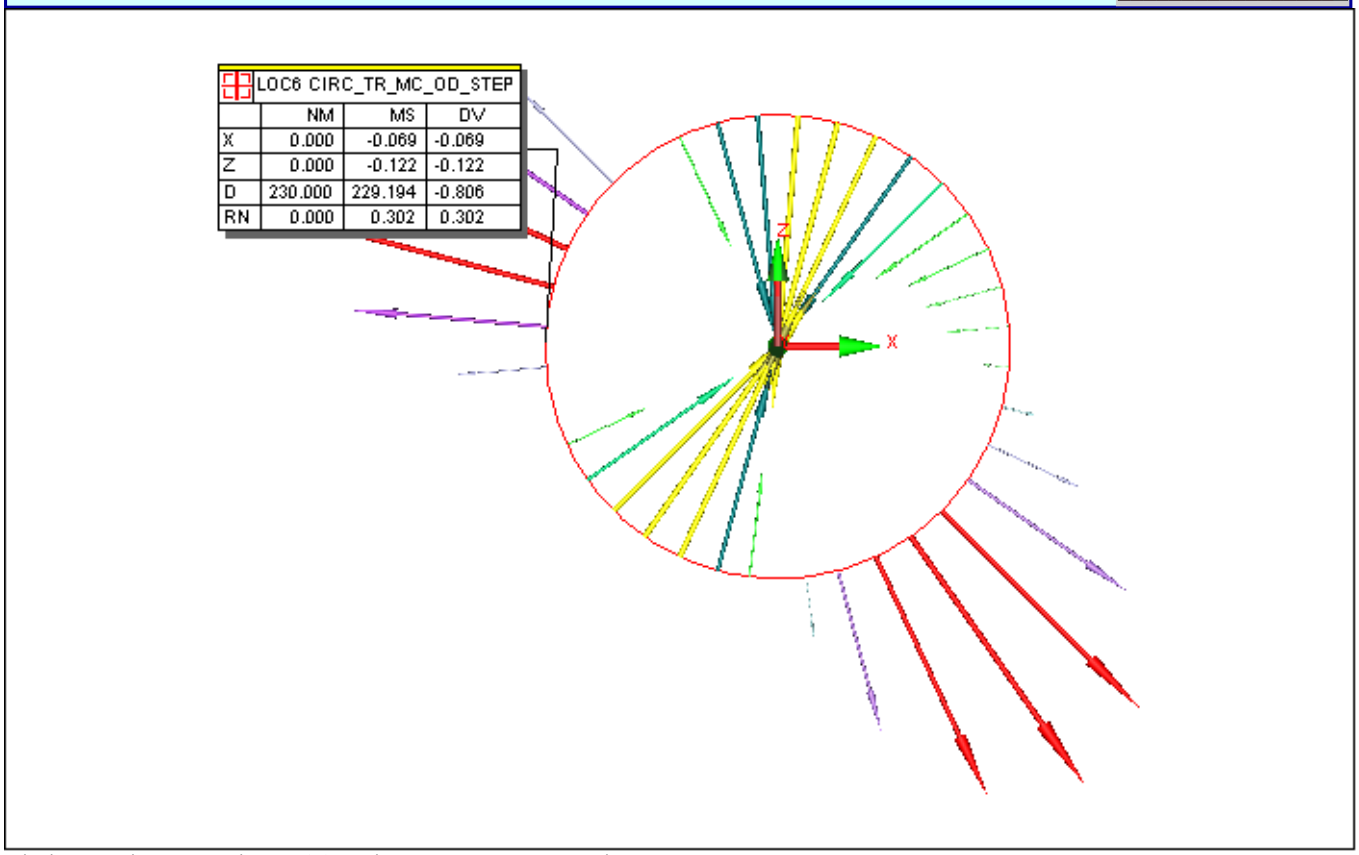


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
235.0 O.D. x1000

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	-0.069	-0.069	0.250	0.250	0.000
Z	0.000	-0.122	-0.122	0.250	0.250	0.000
D	230.000	229.194	-0.806	0.000	0.250	0.556
RN	0.000	0.302	0.302	0.250	0.000	0.052

	MM	RND2 - CIRC_TR_MC_OD_STEP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.302	0.302	0.250	0.000	0.052

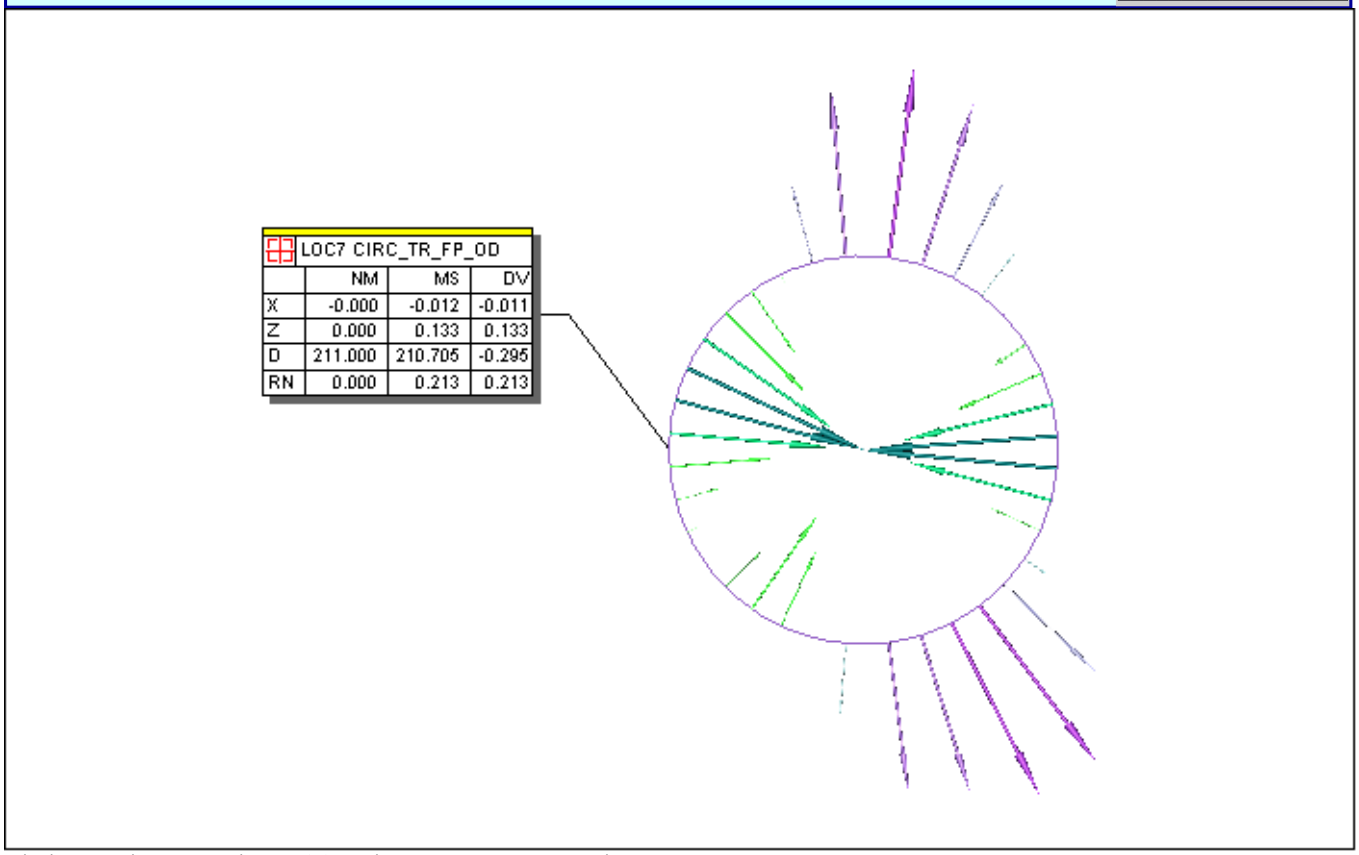


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
233.00 O.D. step x1000

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	-0.012	-0.011	0.250	0.250	0.000
Z	0.000	0.133	0.133	0.250	0.250	0.000
D	211.000	210.705	-0.295	0.250	0.250	0.045
RN	0.000	0.213	0.213	0.250	0.000	0.000

○	MM	RND3 - CIRC_TR_FP_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.213	0.213	0.250	0.000	0.000

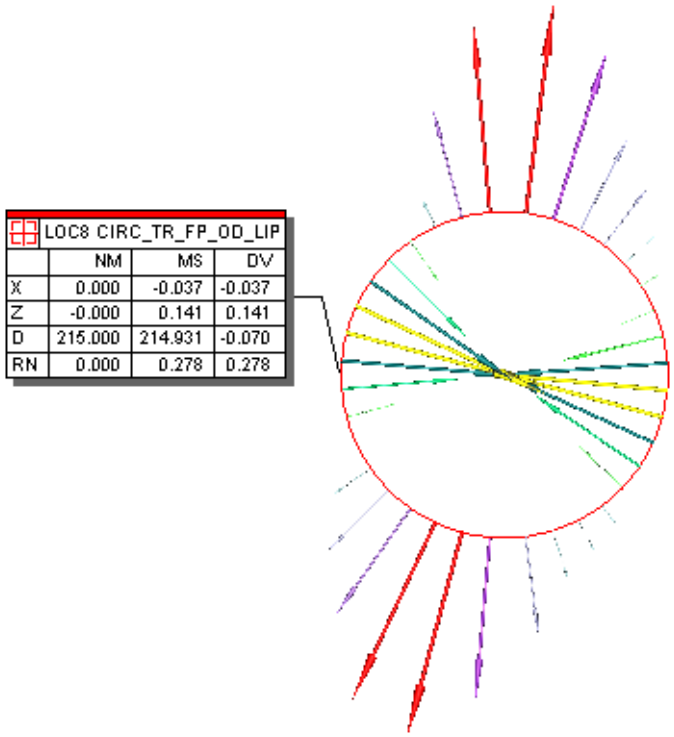


Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
211.0 O.D. x1000

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

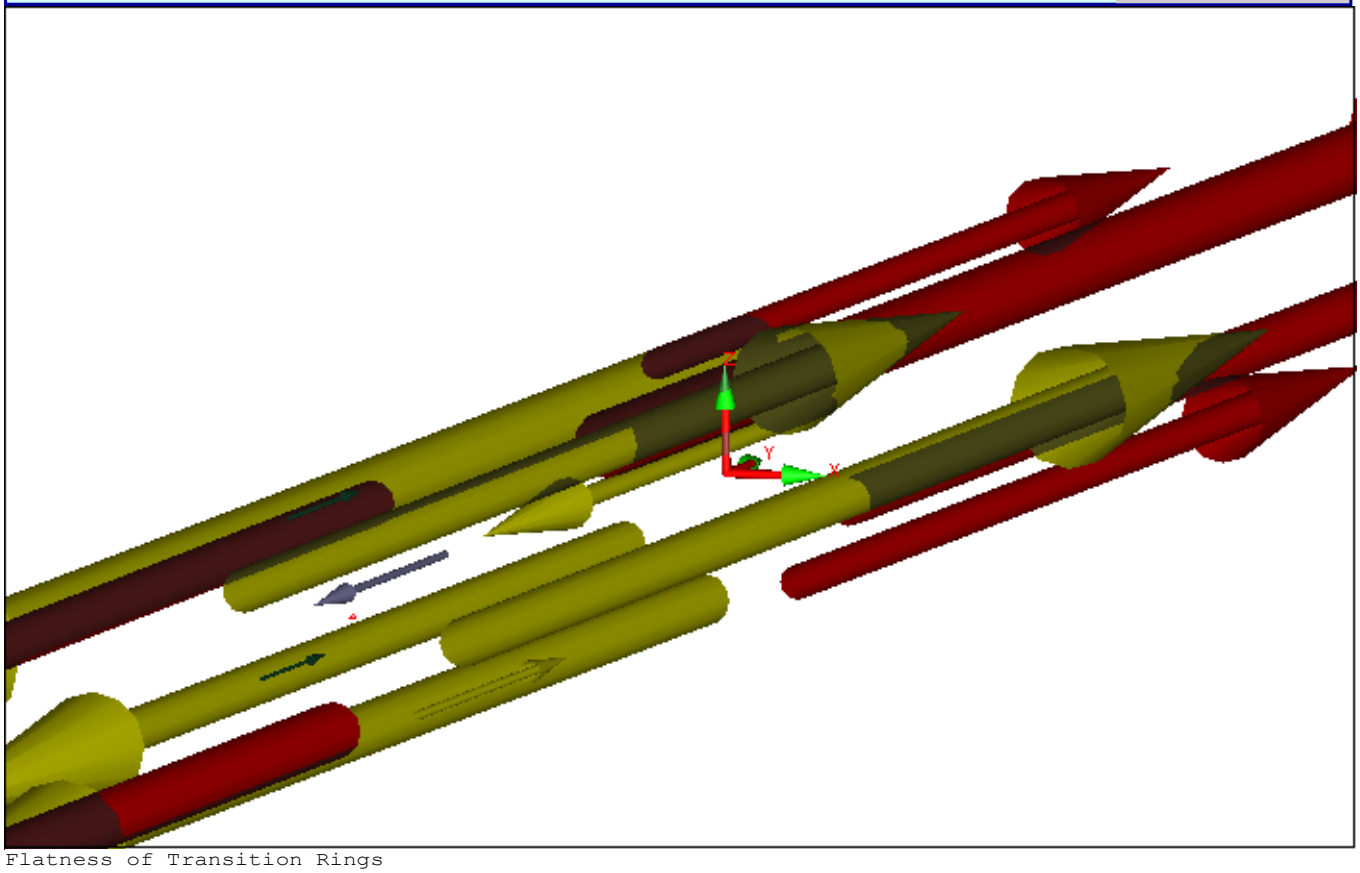
⌗	MM	LOC8 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.037	-0.037	0.250	0.250	0.000
Z	0.000	0.141	0.141	0.250	0.250	0.000
D	215.000	214.931	-0.070	0.250	0.250	0.000
RN	0.000	0.278	0.278	0.250	0.000	0.028

○	MM	RND4 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.278	0.278	0.250	0.000	0.028



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

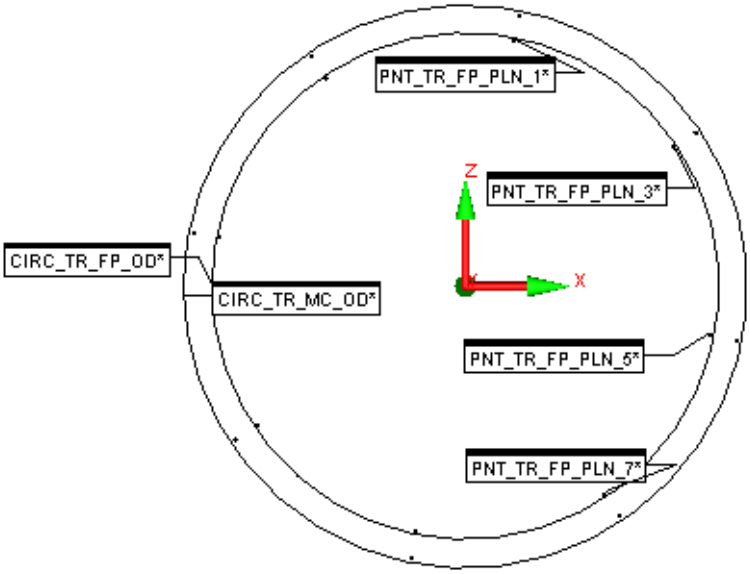
	MM	LOC9 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	0.000	0.000	0.000	0.000	0.000	0.000	
FL	0.000	1.180	1.180	0.200	0.000	0.980	
AX		I		J		K	
V		0.000		1.000		-0.002	
	MM	LOC10 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1008.695	-1.195	10.000	10.000	0.000	
FL	0.000	0.952	0.952	0.200	0.000	0.752	
AX		I		J		K	
V		0.002		-1.000		0.000	
	MM	FLAT3 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	1.180	1.180	0.200	0.000	0.980	
	MM	FLAT4 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.952	0.952	0.200	0.000	0.752	



Flatness of Transition Rings
x5000

⊥	MM	PERP1 - PLNC_TR_MC TO LINC_LEVEL_DCC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0	1.220	1.220	0.200	0	1.020

⊥	MM	PERP2 - PLNC_TR_FP TO LINC_LEVEL_DCC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0	1.243	1.243	0.200	0	1.043



Transition Ring points Main Coupler end

#	MM	LOC11 - PNT_TR_MC_PLN_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.401	-0.401	1.000	1.000	0.000
PR	115.000	114.959	-0.041	1.000	1.000	0.000
PA	101.250	101.245	-0.005	1.000	1.000	0.000

#	MM	LOC12 - PNT_TR_MC_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.038	0.038	1.000	1.000	0.000
PR	115.000	114.982	-0.018	1.000	1.000	0.000
PA	146.250	146.257	0.007	1.000	1.000	0.000

#	MM	LOC13 - PNT_TR_MC_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.573	0.573	1.000	1.000	0.000
PR	115.000	115.013	0.013	1.000	1.000	0.000
PA	-168.750	-168.743	0.007	1.000	1.000	0.000

⌗	MM	LOC14 - PNT_TR_MC_PLN_7				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.275	0.276	1.000	1.000	0.000
PR	115.000	115.038	0.038	1.000	1.000	0.000
PA	-123.750	-123.748	0.002	1.000	1.000	0.000

⌗	MM	LOC15 - PNT_TR_MC_PLN_9				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.647	-0.647	1.000	1.000	0.000
PR	115.000	115.030	0.030	1.000	1.000	0.000
PA	-78.750	-78.765	-0.015	1.000	1.000	0.000

⌗	MM	LOC16 - PNT_TR_MC_PLN_11				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.611	-0.611	1.000	1.000	0.000
PR	115.000	115.019	0.019	1.000	1.000	0.000
PA	-33.750	-33.779	-0.029	1.000	1.000	0.000

⌗	MM	LOC17 - PNT_TR_MC_PLN_13				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.460	0.460	1.000	1.000	0.000
PR	115.000	114.994	-0.006	1.000	1.000	0.000
PA	11.250	11.219	-0.031	1.000	1.000	0.000

⌗	MM	LOC18 - PNT_TR_MC_PLN_15				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.312	0.312	1.000	1.000	0.000
PR	115.000	114.965	-0.035	1.000	1.000	0.000
PA	56.250	56.227	-0.023	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	-1009.082	-1.582	1.000	1.000	0.582
PR	104.000	104.014	0.014	1.000	1.000	0.000
PA	101.250	101.227	-0.023	1.000	1.000	0.000

⌗	MM	LOC20 - PNT_TR_FP_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1008.561	-1.061	1.000	1.000	0.061
PR	104.000	103.999	-0.001	1.000	1.000	0.000
PA	146.250	146.229	-0.021	1.000	1.000	0.000

⌗	MM	LOC21 - PNT_TR_FP_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1007.985	-0.485	1.000	1.000	0.000
PR	104.000	103.983	-0.017	1.000	1.000	0.000
PA	-168.750	-168.769	-0.019	1.000	1.000	0.000

⌗	MM	LOC22 - PNT_TR_FP_PLN_7					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1008.436	-0.936	1.000	1.000	0.000	
PR	104.000	103.975	-0.025	1.000	1.000	0.000	
PA	-123.750	-123.759	-0.009	1.000	1.000	0.000	
⌗	MM	LOC23 - PNT_TR_FP_PLN_9					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1009.228	-1.728	1.000	1.000	0.728	
PR	104.000	103.904	-0.096	1.000	1.000	0.000	
PA	-78.750	-78.616	0.134	1.000	1.000	0.000	
⌗	MM	LOC24 - PNT_TR_FP_PLN_11					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1008.865	-1.365	1.000	1.000	0.365	
PR	104.000	104.125	0.125	1.000	1.000	0.000	
PA	-33.750	-33.622	0.128	1.000	1.000	0.000	
⌗	MM	LOC25 - PNT_TR_FP_PLN_13					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1008.573	-1.073	1.000	1.000	0.073	
PR	104.000	104.267	0.267	1.000	1.000	0.000	
PA	11.250	11.291	0.041	1.000	1.000	0.000	
⌗	MM	LOC26 - PNT_TR_FP_PLN_15					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1008.833	-1.333	1.000	1.000	0.333	
PR	104.000	104.250	0.251	1.000	1.000	0.000	
PA	56.250	56.173	-0.077	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	1009.033	1.533	1.000	1.000	0.533	
↔	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	1009.145	1.645	1.000	1.000	0.645	
↔	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	1008.681	1.181	1.000	1.000	0.181	
↔	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	1008.599	1.099	1.000	1.000	0.099	
↔	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	1008.557	1.057	1.000	1.000	0.057	

↔	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	1008.711	1.211	1.000	1.000	0.211	

↔	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	1008.581	1.081	1.000	1.000	0.081	

↔	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	1008.255	0.755	1.000	1.000	0.000	

↔	MM	DIST_BETWEEN_PLANES - PLNC_TR_MC TO PLNC_TR_FP (YAXIS)					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1008.695	1.195	1.000	1.000	0.195	

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	0.041	0.041	0.200	0.200	0.000	
Y	0.000	-970.561	-970.561	2000.000	2000.000	0.000	
Z	0.000	0.022	0.022	0.200	0.200	0.000	
D	210.300	211.008	0.708	0.200	0.200	0.508	
RN	0.000	0.486	0.486	0.200	0.000	0.286	

⊞	MM	LOC_CC4 - CIRC_CAV_1_2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
X	0.000	-0.163	-0.163	0.200	0.200	0.000	
Y	0.000	-960.152	-960.152	2000.000	2000.000	0.000	
Z	0.000	0.083	0.083	0.200	0.200	0.000	
D	210.300	210.950	0.650	0.200	0.200	0.450	
RN	0.000	0.204	0.204	0.200	0.000	0.004	

⊞	MM	LOC_CC5 - CIRC_CAV_2_1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
X	0.000	0.223	0.223	0.200	0.200	0.023	
Y	0.000	-853.246	-853.246	2000.000	2000.000	0.000	
Z	0.000	-0.156	-0.156	0.200	0.200	0.000	
D	210.300	210.901	0.601	0.200	0.200	0.401	
RN	0.000	0.355	0.355	0.200	0.000	0.155	

⌗	MM	LOC_CC6 - CIRC_CAV_2_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.314	0.314	0.200	0.200	0.114
Y	0.000	-844.133	-844.133	2000.000	2000.000	0.000
Z	0.000	-0.114	-0.114	0.200	0.200	0.000
D	210.300	210.904	0.604	0.200	0.200	0.404
RN	0.000	0.416	0.416	0.200	0.000	0.216

⌗	MM	LOC_CC7 - CIRC_CAV_3_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.647	0.647	0.200	0.200	0.447
Y	0.000	-738.622	-738.622	2000.000	2000.000	0.000
Z	0.000	-0.160	-0.160	0.200	0.200	0.000
D	210.300	210.907	0.607	0.200	0.200	0.407
RN	0.000	0.502	0.502	0.200	0.000	0.302

⌗	MM	LOC_CC8 - CIRC_CAV_3_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.425	0.425	0.200	0.200	0.225
Y	0.000	-728.831	-728.831	2000.000	2000.000	0.000
Z	0.000	-0.383	-0.383	0.200	0.200	0.183
D	210.300	210.973	0.673	0.200	0.200	0.473
RN	0.000	0.486	0.486	0.200	0.000	0.286

⌗	MM	LOC_CC9 - CIRC_CAV_4_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.159	0.159	0.200	0.200	0.000
Y	0.000	-623.458	-623.458	2000.000	2000.000	0.000
Z	0.000	-0.510	-0.510	0.200	0.200	0.310
D	210.300	210.971	0.671	0.200	0.200	0.471
RN	0.000	0.390	0.390	0.200	0.000	0.190

⌗	MM	LOC_CC10 - CIRC_CAV_4_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.213	0.213	0.200	0.200	0.013
Y	0.000	-614.005	-614.005	2000.000	2000.000	0.000
Z	0.000	-0.387	-0.387	0.200	0.200	0.187
D	210.300	210.932	0.632	0.200	0.200	0.432
RN	0.000	0.213	0.213	0.200	0.000	0.013

⌗	MM	LOC_CC11 - CIRC_CAV_5_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.098	0.098	0.200	0.200	0.000
Y	0.000	-508.472	-508.472	2000.000	2000.000	0.000
Z	0.000	-0.332	-0.332	0.200	0.200	0.132
D	210.300	210.894	0.594	0.200	0.200	0.394
RN	0.000	0.328	0.328	0.200	0.000	0.128

⊞	MM	LOC_CC12 - CIRC_CAV_5_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.055	0.055	0.200	0.200	0.000
Y	0.000	-499.072	-499.072	2000.000	2000.000	0.000
Z	0.000	-0.446	-0.446	0.200	0.200	0.246
D	210.300	210.890	0.590	0.200	0.200	0.390
RN	0.000	0.608	0.608	0.200	0.000	0.408

⊞	MM	LOC_CC13 - CIRC_CAV_6_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.176	0.176	0.200	0.200	0.000
Y	0.000	-392.106	-392.106	2000.000	2000.000	0.000
Z	0.000	-0.422	-0.422	0.200	0.200	0.222
D	210.300	210.907	0.607	0.200	0.200	0.407
RN	0.000	0.465	0.465	0.200	0.000	0.265

⊞	MM	LOC_CC14 - CIRC_CAV_6_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.030	-0.030	0.200	0.200	0.000
Y	0.000	-383.845	-383.845	2000.000	2000.000	0.000
Z	0.000	-0.375	-0.375	0.200	0.200	0.175
D	210.300	210.985	0.685	0.200	0.200	0.485
RN	0.000	0.276	0.276	0.200	0.000	0.076

⊞	MM	LOC_CC15 - CIRC_CAV_7_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.187	0.187	0.200	0.200	0.000
Y	0.000	-277.302	-277.302	2000.000	2000.000	0.000
Z	0.000	-0.224	-0.224	0.200	0.200	0.024
D	210.300	210.645	0.345	0.200	0.200	0.145
RN	0.000	0.197	0.197	0.200	0.000	0.000

⊞	MM	LOC_CC16 - CIRC_CAV_7_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.187	0.187	0.200	0.200	0.000
Y	0.000	-267.841	-267.841	2000.000	2000.000	0.000
Z	0.000	-0.343	-0.343	0.200	0.200	0.143
D	210.300	210.672	0.372	0.200	0.200	0.172
RN	0.000	0.383	0.383	0.200	0.000	0.183

⊞	MM	LOC_CC17 - CIRC_CAV_8_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.272	0.272	0.200	0.200	0.072
Y	0.000	-161.548	-161.548	2000.000	2000.000	0.000
Z	0.000	-0.183	-0.183	0.200	0.200	0.000
D	210.300	210.937	0.637	0.200	0.200	0.437
RN	0.000	0.307	0.307	0.200	0.000	0.107

⌗	MM	LOC_CC18 - CIRC_CAV_8_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.186	0.186	0.200	0.200	0.000
Y	0.000	-151.724	-151.724	2000.000	2000.000	0.000
Z	0.000	-0.233	-0.233	0.200	0.200	0.033
D	210.300	210.986	0.686	0.200	0.200	0.486
RN	0.000	0.482	0.482	0.200	0.000	0.282

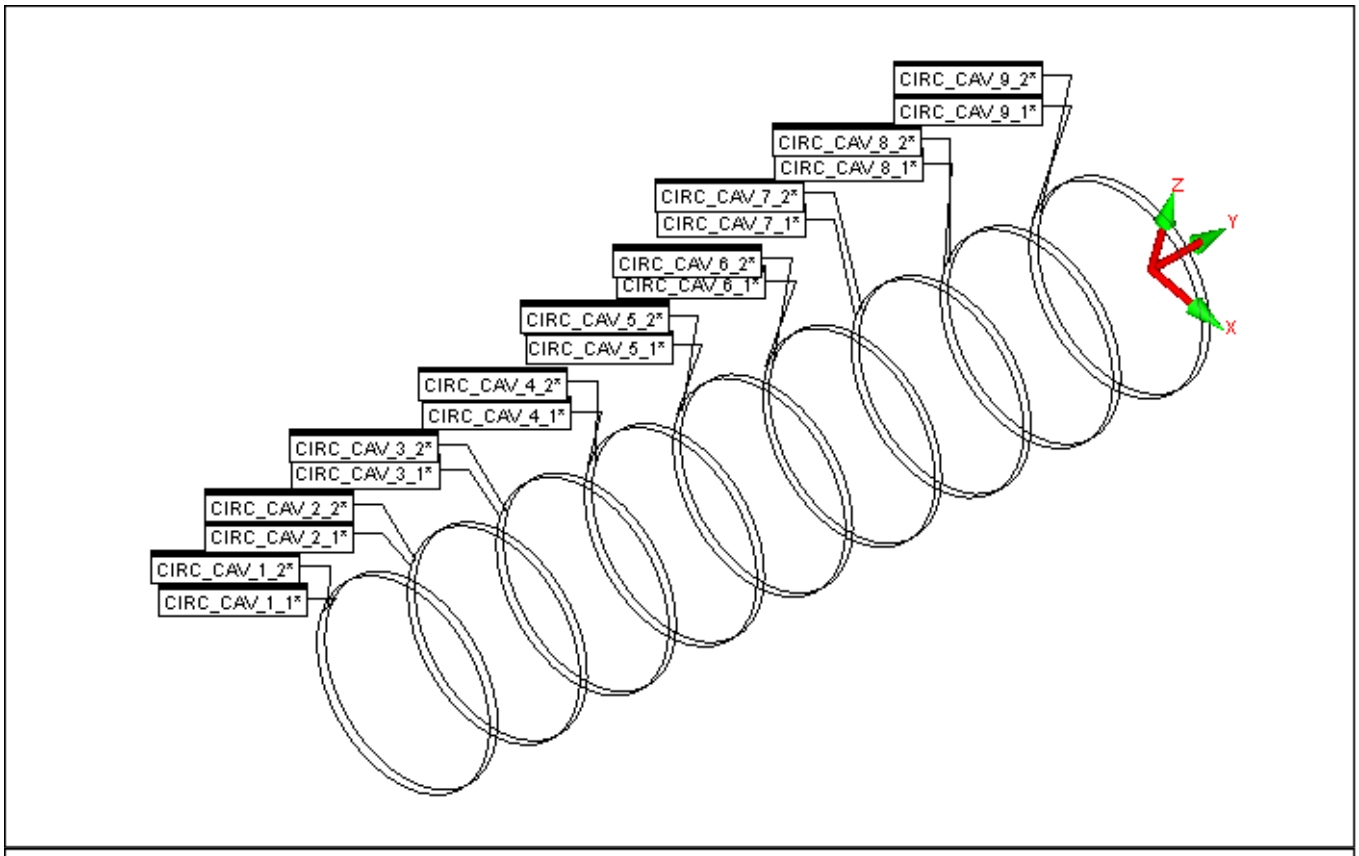
⌗	MM	LOC_CC19 - CIRC_CAV_9_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.090	0.090	0.200	0.200	0.000
Y	0.000	-46.345	-46.345	2000.000	2000.000	0.000
Z	0.000	-0.099	-0.099	0.200	0.200	0.000
D	210.300	210.773	0.473	0.200	0.200	0.273
RN	0.000	0.312	0.312	0.200	0.000	0.112

⌗	MM	LOC_CC20 - CIRC_CAV_9_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.090	0.090	0.200	0.200	0.000
Y	0.000	-35.746	-35.746	2000.000	2000.000	0.000
Z	0.000	-0.106	-0.106	0.200	0.200	0.000
D	210.300	210.931	0.631	0.200	0.200	0.431
RN	0.000	0.160	0.160	0.200	0.000	0.000

Location of End Flanges

⌗	MM	LOC_23 - CIR_END_FLANGE_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.148	-0.148	0.200	0.200	0.000
Y	0.000	115.334	115.334	2000.000	2000.000	0.000
Z	0.000	0.476	0.476	0.200	0.200	0.276
D	140.000	140.072	0.072	0.300	0.300	0.000
RN	0.000	0.020	0.020	0.200	0.000	0.000

⌗	MM	LOC_24 - CIR_END_FLANGE_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.112	0.112	0.200	0.200	0.000
Y	-1153.884	-1120.796	33.089	2000.000	2000.000	0.000
Z	0.000	-0.135	-0.135	0.200	0.200	0.000
D	140.000	140.015	0.015	0.300	0.300	0.000
RN	0.000	0.035	0.035	0.200	0.000	0.000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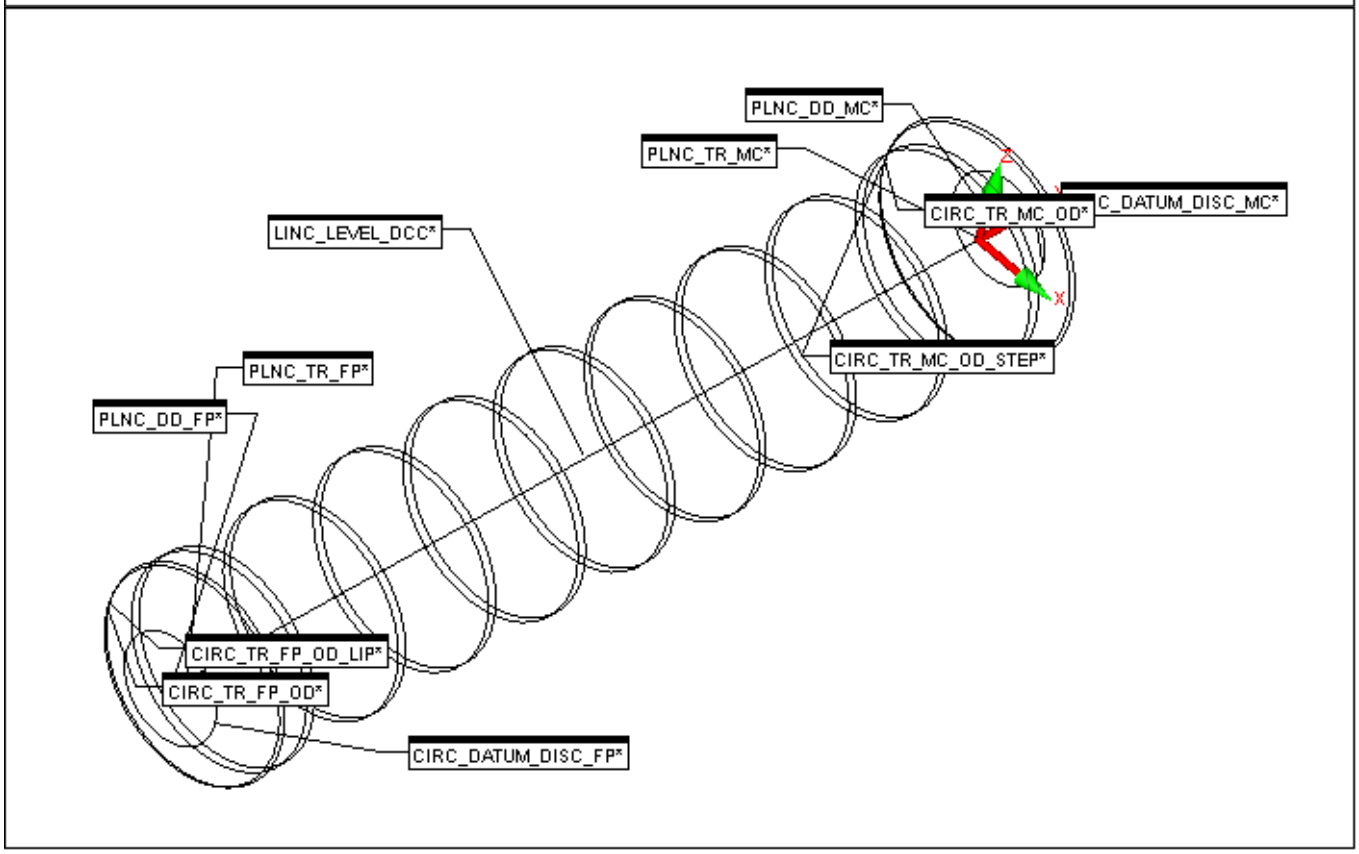
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