pc-dmis	PART NAME : PN440004-n-Trans-Rings-000-TB9XXX000-v4-IR		April 24, 2012	16:45
	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' : TB9NR016
' ' : 1204241536

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	26.106	1.106	10.000	10.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	111.000	110.951	-0.049	0.050	0.050	0.000
RN	0.000	0.028	0.028	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	-1037.659	-5.274	10.000	10.000	0.000
Z	0.000	0.000	0.000	0.000	0.000	0.000
D	111.000	110.864	-0.136	0.050	0.050	0.086
RN	0.000	0.034	0.034	0.050	0.000	0.000

Datum Disc planes

#	MM	LOC3 - PLNC_DD_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	27.000	28.142	1.142	10.000	10.000	0.000
FL	0.000	0.050	0.050	0.100	0.000	0.000

#	MM	LOC4 - PLNC_DD_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1034.384	-1039.728	-5.343	10.000	10.000	0.000
FL	0.000	0.047	0.047	0.100	0.000	0.000

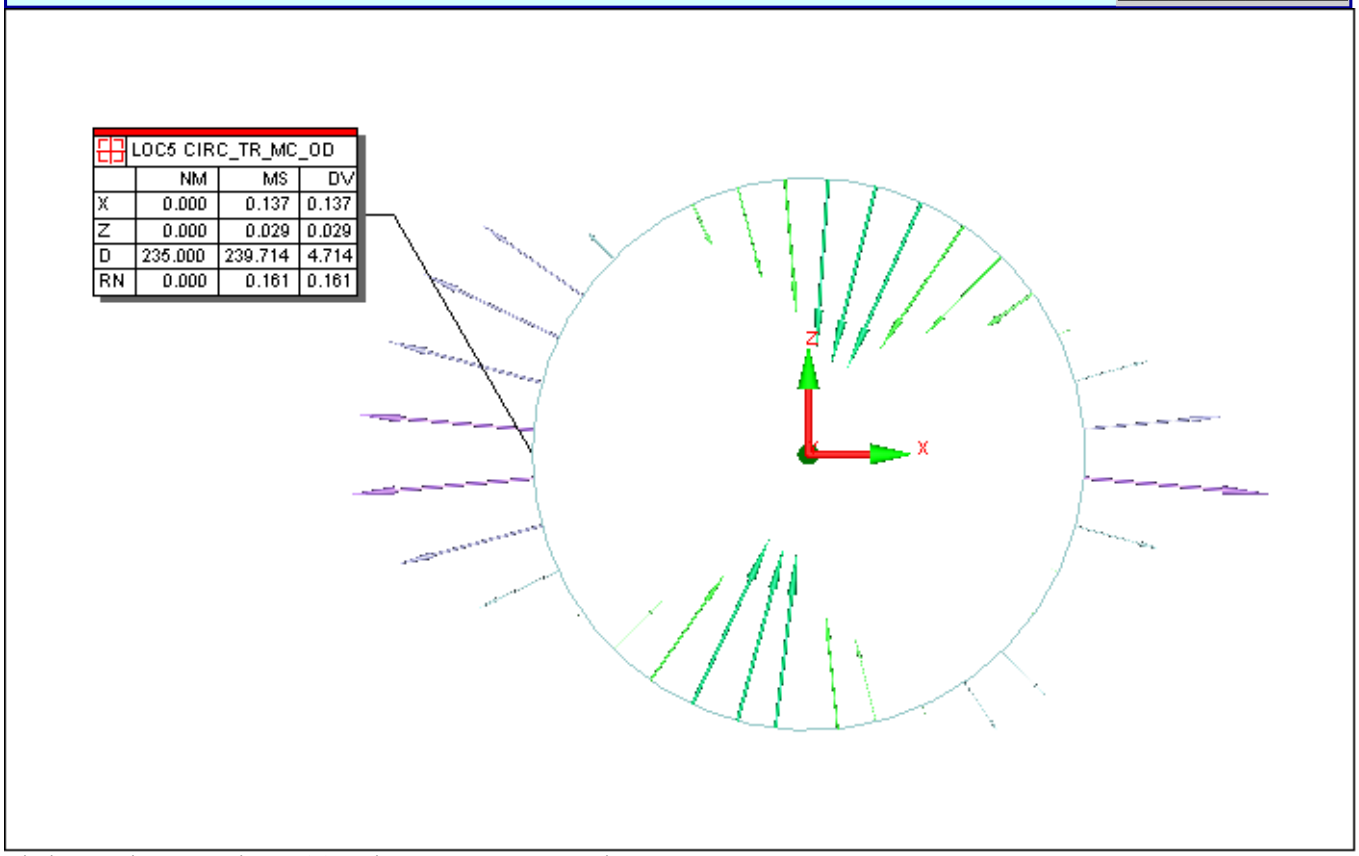
Distance between Datum Disc planes

↔	MM	DIST1 - PLNC_DD_FP TO PLNC_DD_MC (YAXIS)				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	1061.060	1067.870	6.810	0.200	0.200	6.610

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	0.137	0.137	0.250	0.250	0.000
Z	0.000	0.029	0.029	0.250	0.250	0.000
D	235.000	239.714	4.714	0.250	0.250	4.464
RN	0.000	0.161	0.161	0.250	0.000	0.000

○	MM	RND1 - CIRC_TR_MC_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.161	0.161	0.250	0.000	0.000

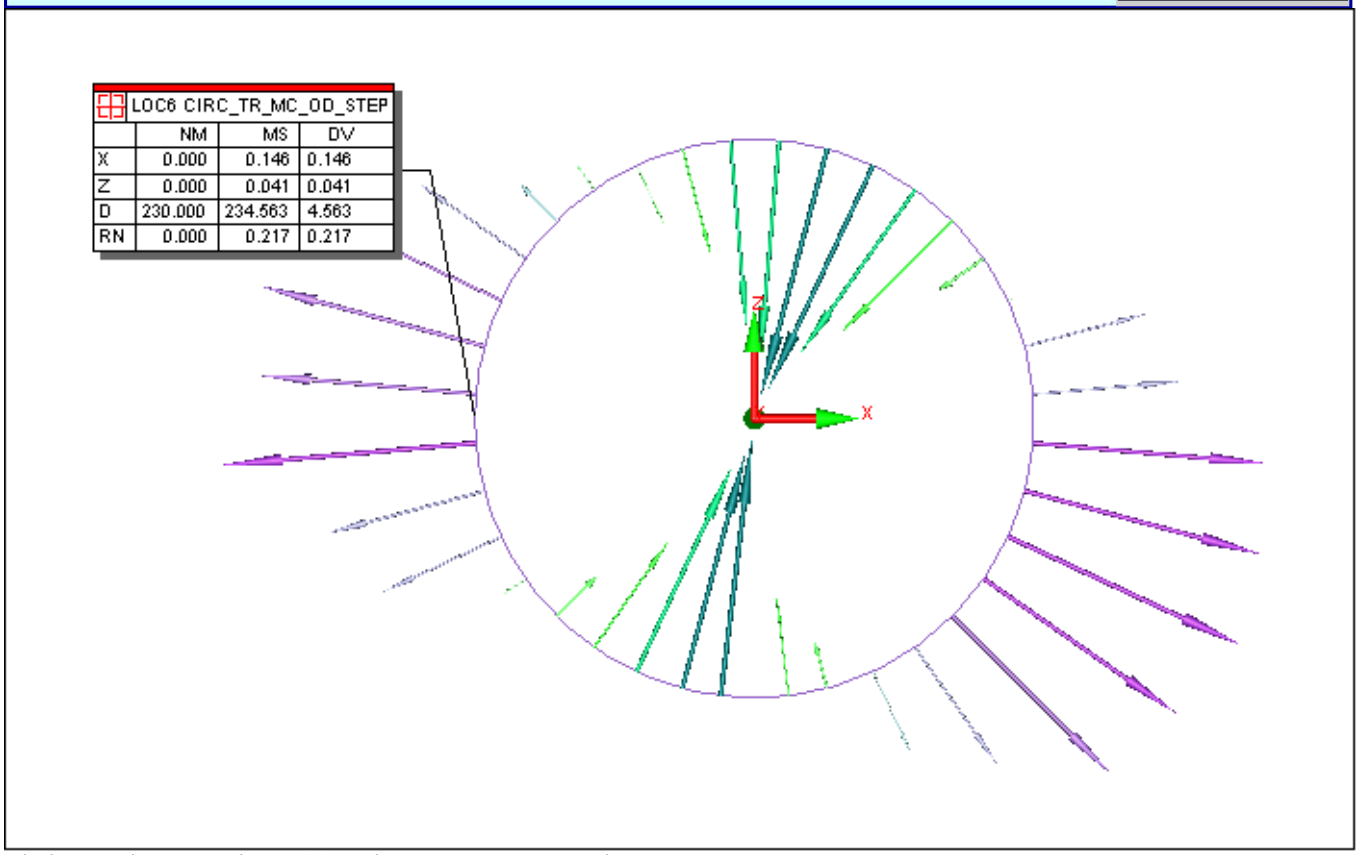


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
235.0 O.D. x1000

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	0.146	0.146	0.250	0.250	0.000
Z	0.000	0.041	0.041	0.250	0.250	0.000
D	230.000	234.563	4.563	0.000	0.250	4.563
RN	0.000	0.217	0.217	0.250	0.000	0.000

	MM	RND2 - CIRC_TR_MC_OD_STEP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.217	0.217	0.250	0.000	0.000

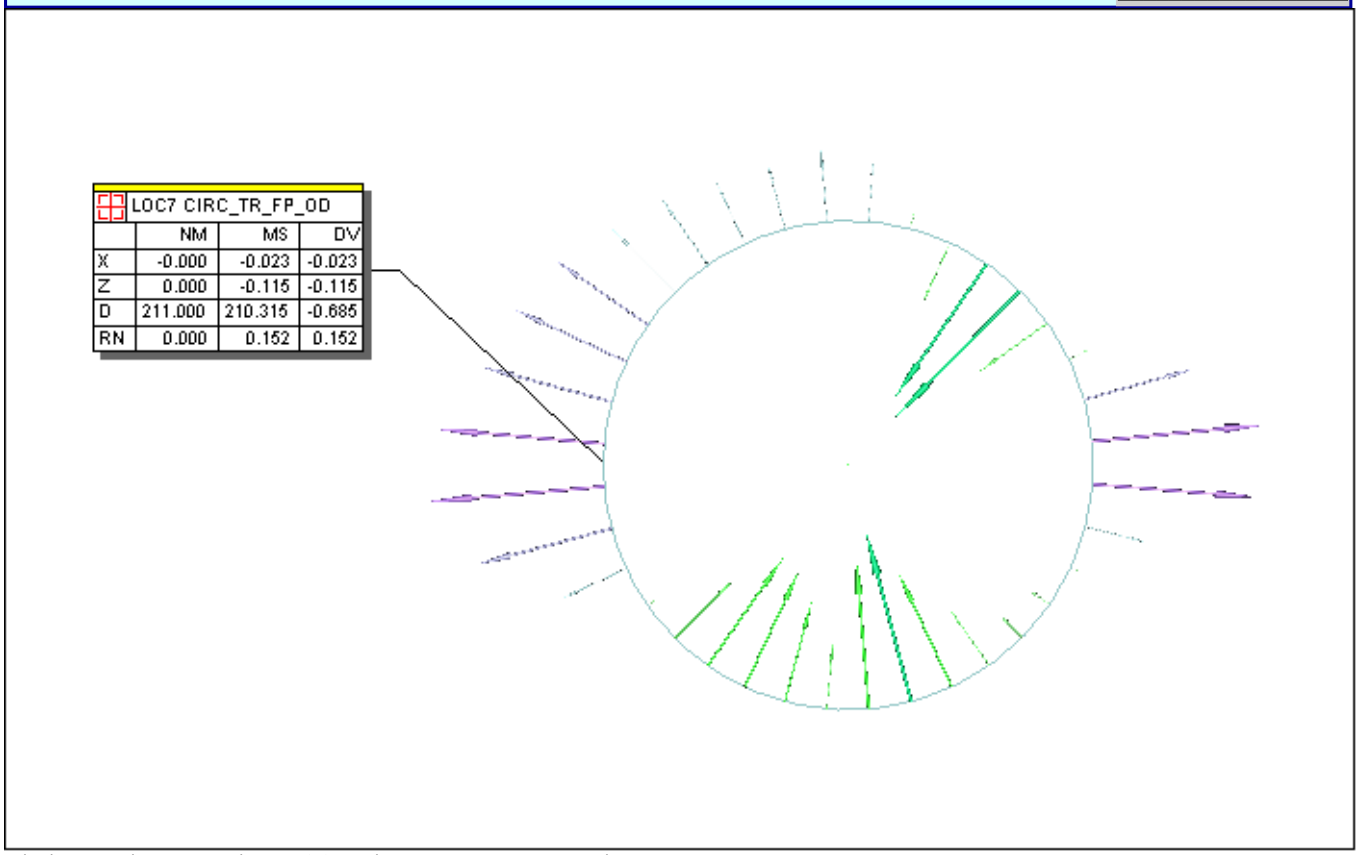


Minimum Circumscribed 36 point constructed circle
Transition Ring Main Coupler end
233.00 O.D. step x1000

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	-0.023	-0.023	0.250	0.250	0.000
Z	0.000	-0.115	-0.115	0.250	0.250	0.000
D	211.000	210.315	-0.685	0.250	0.250	0.435
RN	0.000	0.152	0.152	0.250	0.000	0.000

○	MM	RND3 - CIRC_TR_FP_OD				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.152	0.152	0.250	0.000	0.000

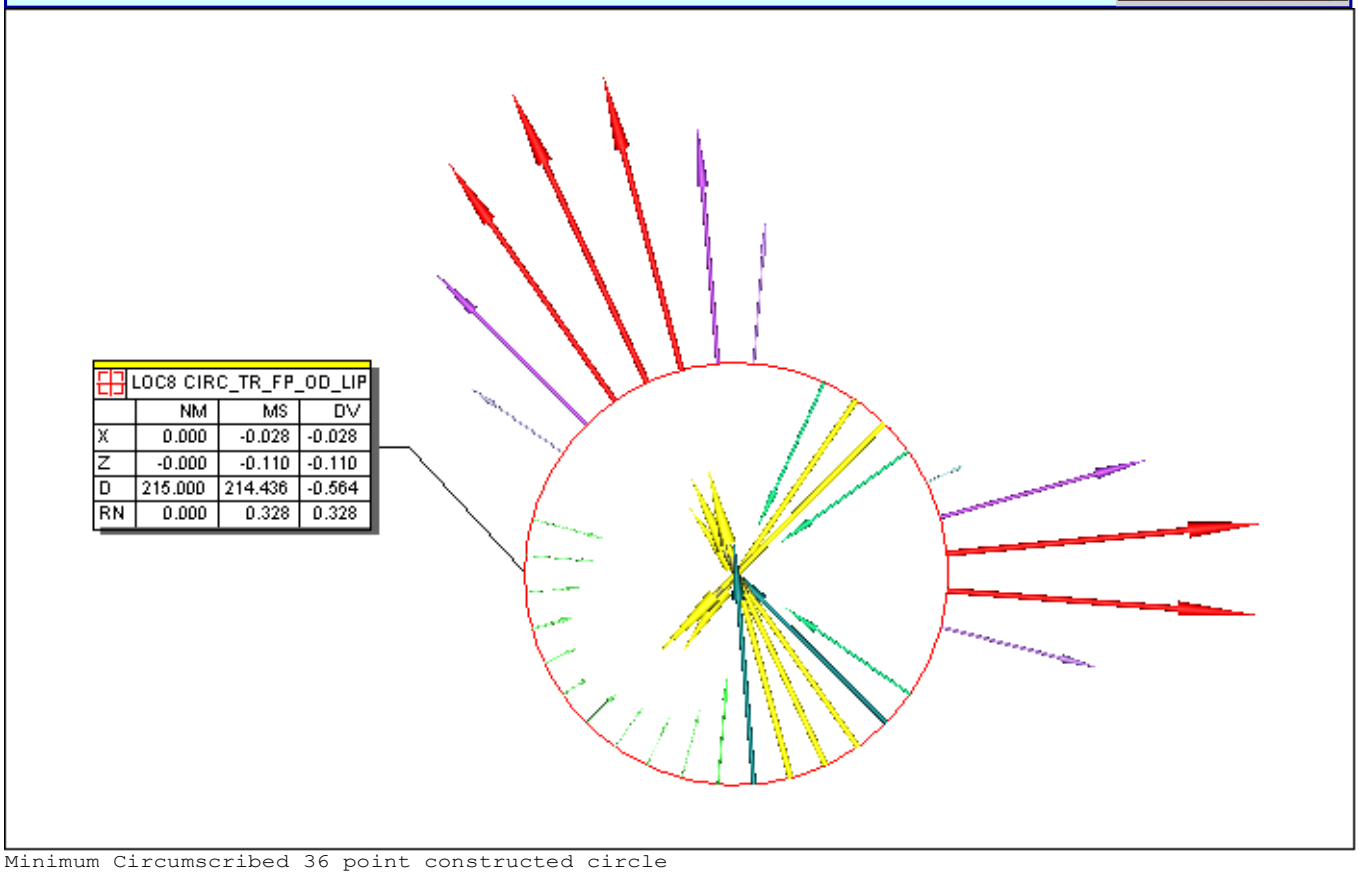


Minimum Circumscribed 36 point constructed circle
Transition Ring Field Probe end
211.0 O.D. x1000

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

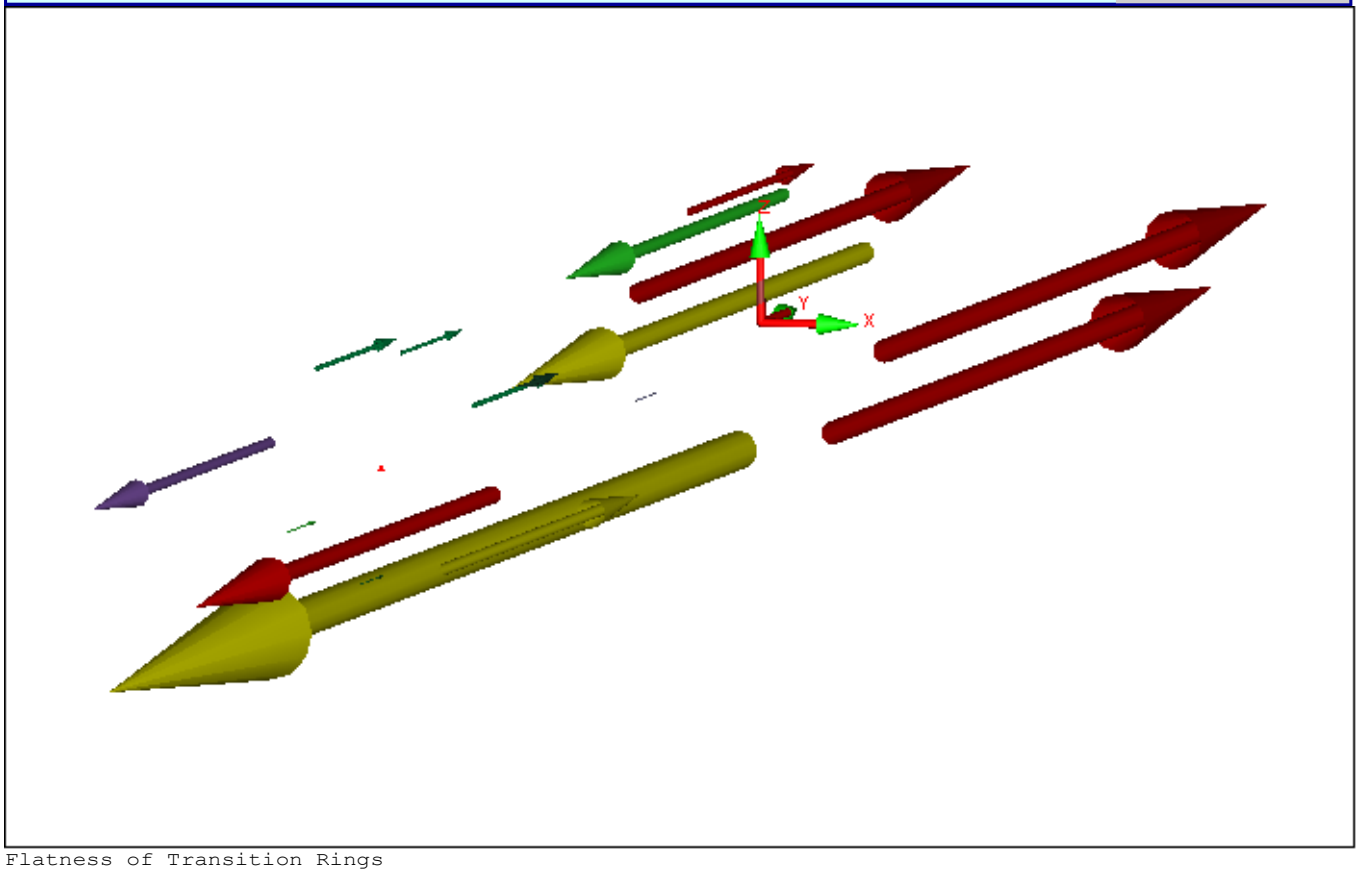
	MM	LOC8 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.028	-0.028	0.250	0.250	0.000
Z	0.000	-0.110	-0.110	0.250	0.250	0.000
D	215.000	214.436	-0.564	0.250	0.250	0.314
RN	0.000	0.328	0.328	0.250	0.000	0.078

	MM	RND4 - CIRC_TR_FP_OD_LIP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0.000	0.328	0.328	0.250	0.000	0.078



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

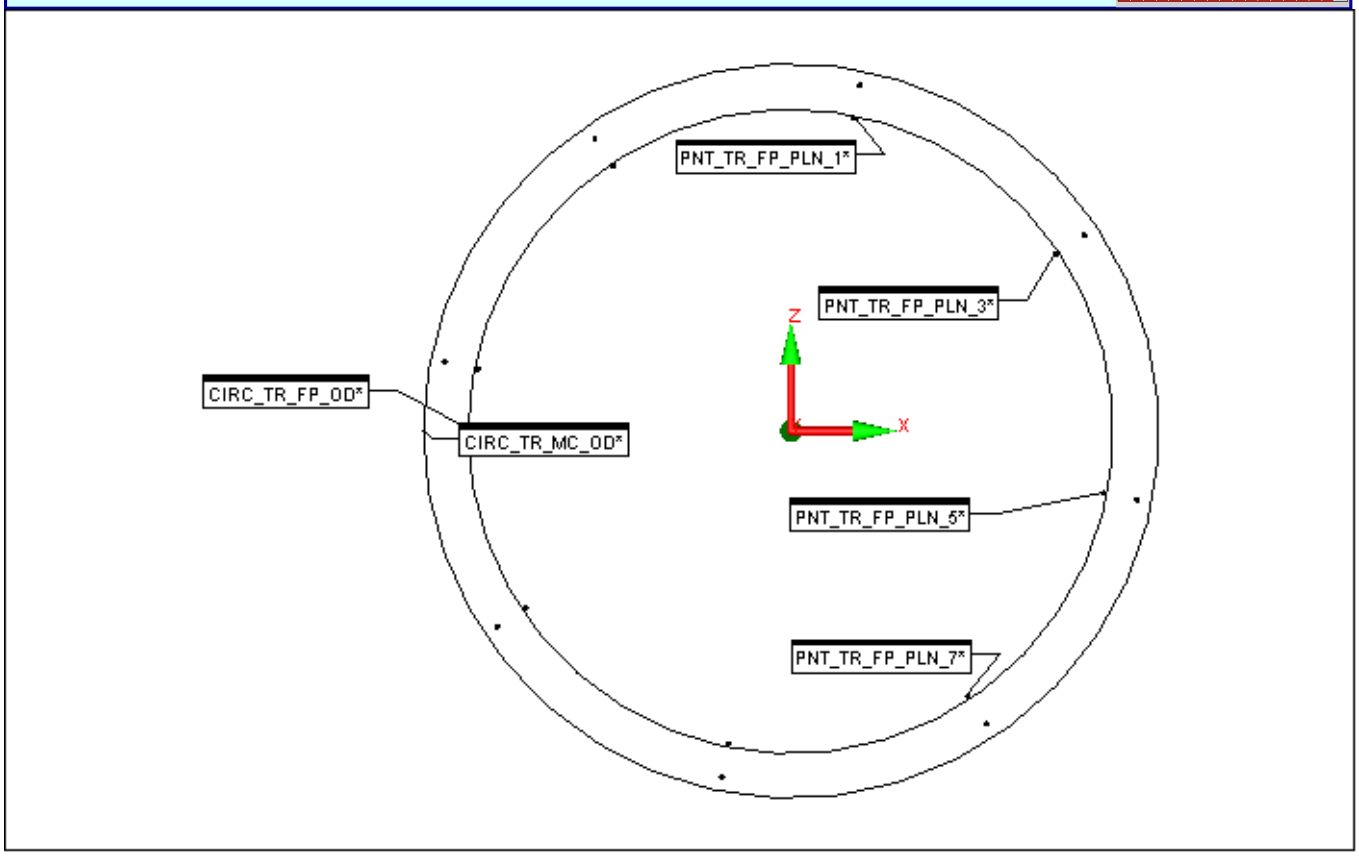
⌗	MM	LOC9 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	0.000	0.000	0.000	0.000	0.000	0.000	
FL	0.000	0.547	0.547	0.200	0.000	0.347	
AX		I		J		K	
V		-0.002		1.000		-0.001	
⌗	MM	LOC10 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.659	-6.159	10.000	10.000	0.000	
FL	0.000	0.263	0.263	0.200	0.000	0.063	
AX		I		J		K	
V		0.000		-1.000		0.002	
▱	MM	FLAT3 - PLNC_TR_MC					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.547	0.547	0.200	0.000	0.347	
▱	MM	FLAT4 - PLNC_TR_FP					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	0.000	0.263	0.263	0.200	0.000	0.063	



Flatness of Transition Rings
x5000

⊥	MM	PERP1 - PLNC_TR_MC TO LINC_LEVEL_DCC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0	1.194	1.194	0.200	0	0.994

⊥	MM	PERP2 - PLNC_TR_FP TO LINC_LEVEL_DCC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
M	0	0.523	0.523	0.200	0	0.323



Transition Ring points Main Coupler end

#	MM	LOC11 - PNT_TR_MC_PLN_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.130	0.130	1.000	1.000	0.000
PR	115.000	115.028	0.028	1.000	1.000	0.000
PA	101.250	101.254	0.004	1.000	1.000	0.000

#	MM	LOC12 - PNT_TR_MC_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.268	0.268	1.000	1.000	0.000
PR	115.000	115.006	0.006	1.000	1.000	0.000
PA	146.250	146.246	-0.004	1.000	1.000	0.000

#	MM	LOC13 - PNT_TR_MC_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.606	0.606	1.000	1.000	0.000
PR	115.000	114.984	-0.016	1.000	1.000	0.000
PA	-168.750	-168.749	0.001	1.000	1.000	0.000

⌖	MM	LOC14 - PNT_TR_MC_PLN_7				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	0.312	0.312	1.000	1.000	0.000
PR	115.000	114.973	-0.027	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	-0.588	-0.587	1.000	1.000	0.000
PR	115.000	114.971	-0.029	1.000	1.000	0.000
PA	-78.750	-78.729	0.021	1.000	1.000	0.000

⌖	MM	LOC16 - PNT_TR_MC_PLN_11				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.470	-0.470	1.000	1.000	0.000
PR	115.000	114.993	-0.008	1.000	1.000	0.000
PA	-33.750	-33.721	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	-0.219	-0.219	1.000	1.000	0.000
PR	115.000	115.020	0.020	1.000	1.000	0.000
PA	11.250	11.276	0.026	1.000	1.000	0.000

⌖	MM	LOC18 - PNT_TR_MC_PLN_15				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	0.000	-0.039	-0.039	1.000	1.000	0.000
PR	115.000	115.034	0.034	1.000	1.000	0.000
PA	56.250	56.265	0.015	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	-1013.380	-5.880	1.000	1.000	4.880
PR	104.000	104.026	0.027	1.000	1.000	0.000
PA	101.250	101.259	0.009	1.000	1.000	0.000

⌖	MM	LOC20 - PNT_TR_FP_PLN_3				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1013.370	-5.870	1.000	1.000	4.870
PR	104.000	104.020	0.020	1.000	1.000	0.000
PA	146.250	146.249	-0.001	1.000	1.000	0.000

⌖	MM	LOC21 - PNT_TR_FP_PLN_5				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
Y	-1007.500	-1013.720	-6.220	1.000	1.000	5.220
PR	104.000	103.997	-0.003	1.000	1.000	0.000
PA	-168.750	-168.752	-0.002	1.000	1.000	0.000

⌗	MM	LOC22 - PNT_TR_FP_PLN_7					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.659	-6.159	1.000	1.000	5.159	
PR	104.000	103.978	-0.022	1.000	1.000	0.000	
PA	-123.750	-123.746	0.004	1.000	1.000	0.000	
⌗	MM	LOC23 - PNT_TR_FP_PLN_9					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.893	-6.393	1.000	1.000	5.393	
PR	104.000	104.067	0.067	1.000	1.000	0.000	
PA	-78.750	-78.774	-0.024	1.000	1.000	0.000	
⌗	MM	LOC24 - PNT_TR_FP_PLN_11					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.886	-6.386	1.000	1.000	5.386	
PR	104.000	104.001	0.001	1.000	1.000	0.000	
PA	-33.750	-33.787	-0.037	1.000	1.000	0.000	
⌗	MM	LOC25 - PNT_TR_FP_PLN_13					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.852	-6.352	1.000	1.000	5.352	
PR	104.000	103.937	-0.063	1.000	1.000	0.000	
PA	11.250	11.226	-0.024	1.000	1.000	0.000	
⌗	MM	LOC26 - PNT_TR_FP_PLN_15					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
Y	-1007.500	-1013.511	-6.011	1.000	1.000	5.011	
PR	104.000	103.904	-0.096	1.000	1.000	0.000	
PA	56.250	56.261	0.011	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	1013.633	6.133	1.000	1.000	5.133	
↔	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	1013.472	5.972	1.000	1.000	4.972	
↔	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	1013.510	6.010	1.000	1.000	5.010	
↔	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	1013.638	6.138	1.000	1.000	5.138	
↔	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	1014.326	6.826	1.000	1.000	5.826	

↔	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	1013.971	6.471	1.000	1.000	5.471	

↔	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	1013.305	5.805	1.000	1.000	4.805	

↔	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	1013.416	5.916	1.000	1.000	4.916	

↔	MM	DIST_BETWEEN_PLANES - PLNC_TR_MC TO PLNC_TR_FP (YAXIS)					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
M	1007.500	1013.659	6.159	1.000	1.000	5.159	

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	0.056	0.056	0.200	0.200	0.000	
Y	0.000	-975.678	-975.678	2000.000	2000.000	0.000	
Z	0.000	-0.248	-0.248	0.200	0.200	0.048	
D	210.300	210.931	0.631	0.200	0.200	0.431	
RN	0.000	0.291	0.291	0.200	0.000	0.091	

⌗	MM	LOC_CC4 - CIRC_CAV_1_2					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
X	0.000	0.033	0.033	0.200	0.200	0.000	
Y	0.000	-964.307	-964.307	2000.000	2000.000	0.000	
Z	0.000	-0.342	-0.342	0.200	0.200	0.142	
D	210.300	211.187	0.887	0.200	0.200	0.687	
RN	0.000	0.291	0.291	0.200	0.000	0.091	

⌗	MM	LOC_CC5 - CIRC_CAV_2_1					
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL	
X	0.000	0.329	0.329	0.200	0.200	0.129	
Y	0.000	-859.467	-859.467	2000.000	2000.000	0.000	
Z	0.000	-0.606	-0.606	0.200	0.200	0.406	
D	210.300	211.212	0.912	0.200	0.200	0.712	
RN	0.000	0.193	0.193	0.200	0.000	0.000	

⌗	MM	LOC_CC6 - CIRC_CAV_2_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.334	0.334	0.200	0.200	0.134
Y	0.000	-848.527	-848.527	2000.000	2000.000	0.000
Z	0.000	-0.734	-0.734	0.200	0.200	0.534
D	210.300	211.205	0.905	0.200	0.200	0.705
RN	0.000	0.340	0.340	0.200	0.000	0.140

⌗	MM	LOC_CC7 - CIRC_CAV_3_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.693	0.693	0.200	0.200	0.493
Y	0.000	-743.383	-743.383	2000.000	2000.000	0.000
Z	0.000	-0.591	-0.591	0.200	0.200	0.391
D	210.300	211.232	0.932	0.200	0.200	0.732
RN	0.000	0.274	0.274	0.200	0.000	0.074

⌗	MM	LOC_CC8 - CIRC_CAV_3_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.841	0.841	0.200	0.200	0.641
Y	0.000	-732.686	-732.686	2000.000	2000.000	0.000
Z	0.000	-0.691	-0.691	0.200	0.200	0.491
D	210.300	211.333	1.033	0.200	0.200	0.833
RN	0.000	0.180	0.180	0.200	0.000	0.000

⌗	MM	LOC_CC9 - CIRC_CAV_4_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.994	0.994	0.200	0.200	0.794
Y	0.000	-627.253	-627.253	2000.000	2000.000	0.000
Z	0.000	-0.761	-0.761	0.200	0.200	0.561
D	210.300	211.260	0.960	0.200	0.200	0.760
RN	0.000	0.352	0.352	0.200	0.000	0.152

⌗	MM	LOC_CC10 - CIRC_CAV_4_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.854	0.854	0.200	0.200	0.654
Y	0.000	-615.610	-615.610	2000.000	2000.000	0.000
Z	0.000	-0.818	-0.818	0.200	0.200	0.618
D	210.300	211.202	0.902	0.200	0.200	0.702
RN	0.000	0.255	0.255	0.200	0.000	0.055

⌗	MM	LOC_CC11 - CIRC_CAV_5_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.945	0.945	0.200	0.200	0.745
Y	0.000	-511.037	-511.037	2000.000	2000.000	0.000
Z	0.000	-0.681	-0.681	0.200	0.200	0.481
D	210.300	211.228	0.928	0.200	0.200	0.728
RN	0.000	0.314	0.314	0.200	0.000	0.114

⊞	MM	LOC_CC12 - CIRC_CAV_5_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.998	0.998	0.200	0.200	0.798
Y	0.000	-500.874	-500.874	2000.000	2000.000	0.000
Z	0.000	-0.832	-0.832	0.200	0.200	0.632
D	210.300	211.290	0.990	0.200	0.200	0.790
RN	0.000	0.276	0.276	0.200	0.000	0.076

⊞	MM	LOC_CC13 - CIRC_CAV_6_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.928	0.928	0.200	0.200	0.728
Y	0.000	-394.905	-394.905	2000.000	2000.000	0.000
Z	0.000	-0.660	-0.660	0.200	0.200	0.460
D	210.300	211.220	0.920	0.200	0.200	0.720
RN	0.000	0.277	0.277	0.200	0.000	0.077

⊞	MM	LOC_CC14 - CIRC_CAV_6_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.897	0.897	0.200	0.200	0.697
Y	0.000	-384.395	-384.395	2000.000	2000.000	0.000
Z	0.000	-0.749	-0.749	0.200	0.200	0.549
D	210.300	211.277	0.977	0.200	0.200	0.777
RN	0.000	0.252	0.252	0.200	0.000	0.052

⊞	MM	LOC_CC15 - CIRC_CAV_7_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.775	0.775	0.200	0.200	0.575
Y	0.000	-278.026	-278.026	2000.000	2000.000	0.000
Z	0.000	-0.575	-0.575	0.200	0.200	0.375
D	210.300	211.209	0.909	0.200	0.200	0.709
RN	0.000	0.234	0.234	0.200	0.000	0.034

⊞	MM	LOC_CC16 - CIRC_CAV_7_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.735	0.735	0.200	0.200	0.535
Y	0.000	-267.534	-267.534	2000.000	2000.000	0.000
Z	0.000	-0.552	-0.552	0.200	0.200	0.352
D	210.300	211.208	0.908	0.200	0.200	0.708
RN	0.000	0.153	0.153	0.200	0.000	0.000

⊞	MM	LOC_CC17 - CIRC_CAV_8_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.612	0.612	0.200	0.200	0.412
Y	0.000	-161.944	-161.944	2000.000	2000.000	0.000
Z	0.000	-0.378	-0.378	0.200	0.200	0.178
D	210.300	211.192	0.892	0.200	0.200	0.692
RN	0.000	0.281	0.281	0.200	0.000	0.081

⌗	MM	LOC_CC18 - CIRC_CAV_8_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.608	0.608	0.200	0.200	0.408
Y	0.000	-150.658	-150.658	2000.000	2000.000	0.000
Z	0.000	-0.237	-0.237	0.200	0.200	0.037
D	210.300	211.211	0.911	0.200	0.200	0.711
RN	0.000	0.224	0.224	0.200	0.000	0.024

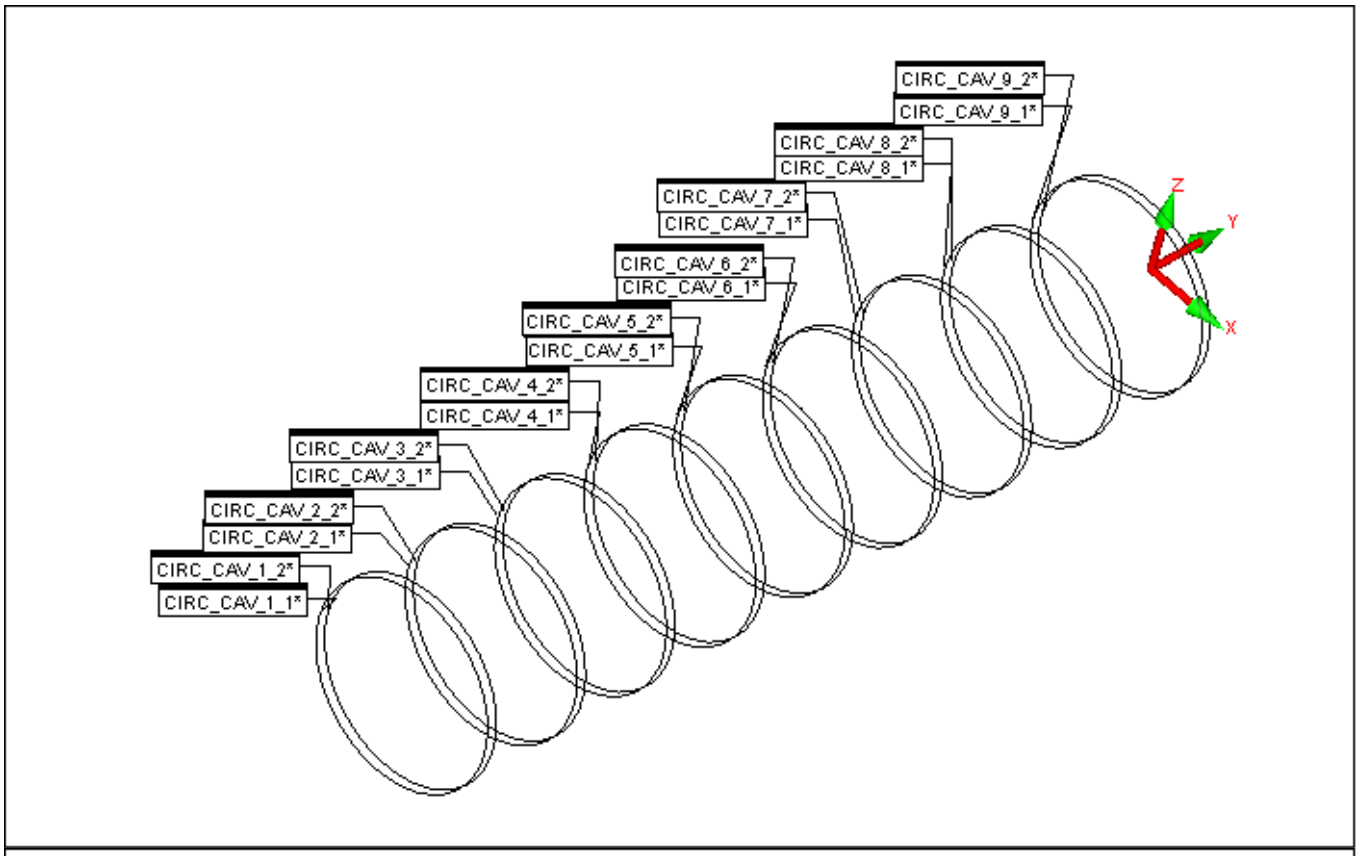
⌗	MM	LOC_CC19 - CIRC_CAV_9_1				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.277	0.277	0.200	0.200	0.077
Y	0.000	-45.901	-45.901	2000.000	2000.000	0.000
Z	0.000	-0.104	-0.104	0.200	0.200	0.000
D	210.300	211.329	1.029	0.200	0.200	0.829
RN	0.000	0.329	0.329	0.200	0.000	0.129

⌗	MM	LOC_CC20 - CIRC_CAV_9_2				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	0.179	0.179	0.200	0.200	0.000
Y	0.000	-35.126	-35.126	2000.000	2000.000	0.000
Z	0.000	0.032	0.032	0.200	0.200	0.000
D	210.300	210.642	0.342	0.200	0.200	0.142
RN	0.000	0.612	0.612	0.200	0.000	0.412

Location of End Flanges

⌗	MM	LOC_23 - CIR_END_FLANGE_MC				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.364	-0.364	0.200	0.200	0.164
Y	0.000	115.891	115.891	2000.000	2000.000	0.000
Z	0.000	-0.016	-0.016	0.200	0.200	0.000
D	140.000	139.886	-0.114	0.300	0.300	0.000
RN	0.000	0.007	0.007	0.200	0.000	0.000

⌗	MM	LOC_24 - CIR_END_FLANGE_FP				
AX	NOMINAL	MEAS	DEV	+TOL	-TOL	OUTTOL
X	0.000	-0.190	-0.190	0.200	0.200	0.000
Y	-1153.884	-1126.162	27.722	2000.000	2000.000	0.000
Z	0.000	0.277	0.277	0.200	0.200	0.077
D	140.000	139.901	-0.099	0.300	0.300	0.000
RN	0.000	0.008	0.008	0.200	0.000	0.000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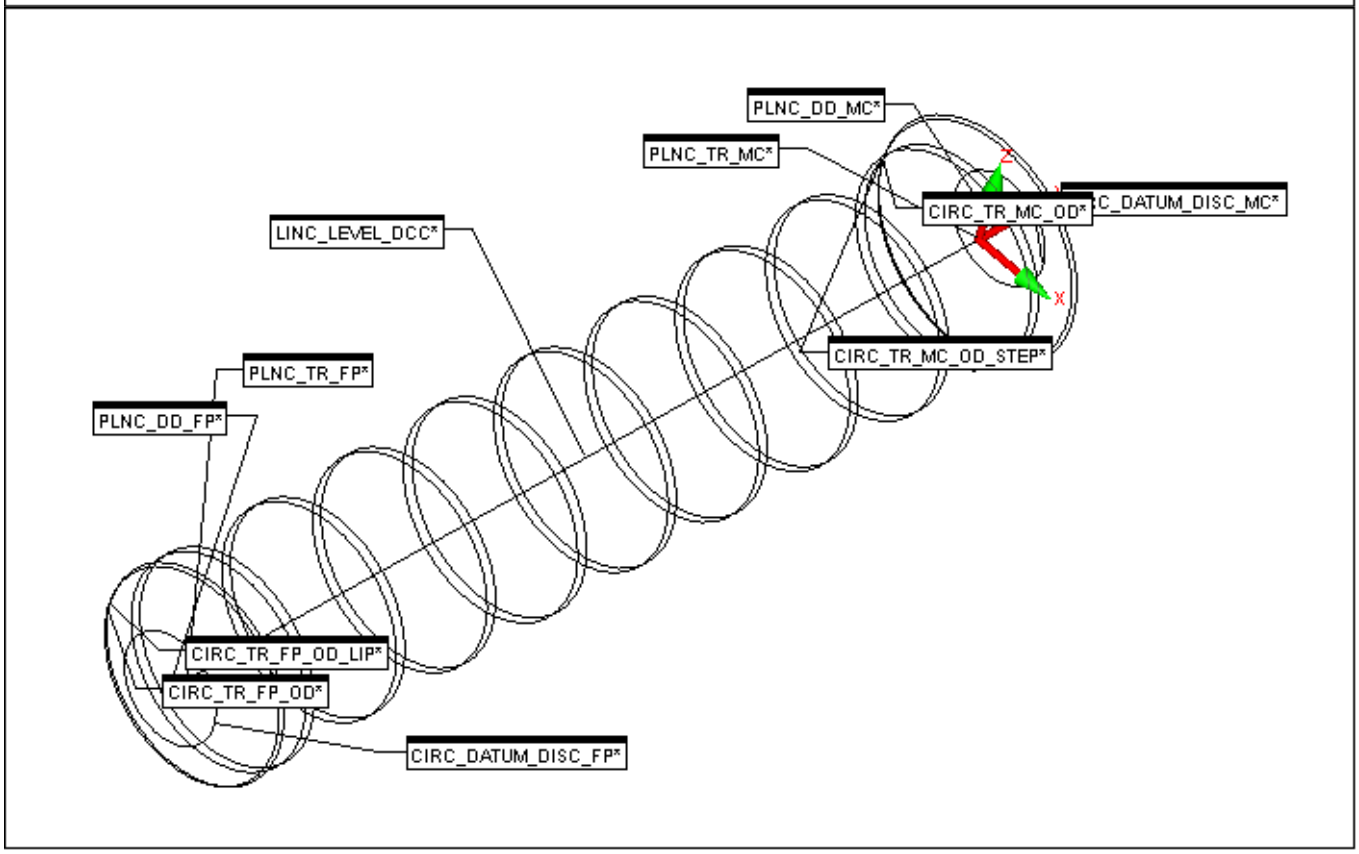
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X