pc-dmis	PART NAME : F10015802_16		July 09, 2015	08:40
	REV NUMBER :	SER NUMBER :	STATS COUNT :	1

LCLS-II PRE-PRODUCTION
HELIUM VESSEL WELDMENT

RF#98308 SAMPLE#16
SERIAL NUMBER:RFCG-HE-016
INSPECTOR: O. LIRA

⌖	MM	3 - DATUM_C_PLN				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.000	0.333	0.100	0.100	0.333	0.233
FL	0.000	0.167	0.100	0.000	0.167	0.067

⌖	MM	4 - DAT_C_PNT1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.399	0.607	3.000	0.000	0.208	0.000

⌖	MM	5 - DAT_C_PNT2				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.000	0.383	3.000	0.000	0.383	0.000

⌖	MM	6 - DAT_C_PNT3				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	-0.008	0.186	3.000	0.000	0.195	0.000

⌖	MM	7 - DAT_C_PNT4				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.000	0.000	3.000	0.000	0.000	0.000

⌖	MM	8 - DAT_C_PNT5				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.000	0.209	3.000	0.000	0.209	0.000

⌖	MM	9 - DAT_C_PNT6				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	-0.004	0.293	3.000	0.000	0.297	0.000

⌖	MM	10 - DAT_C_PNT7				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.187	0.479	3.000	0.000	0.292	0.000

⌖	MM	11 - DAT_C_PNT8				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	0.000	0.504	3.000	0.000	0.504	0.000

⌖	MM	12 - LENGTH_PLN				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.873	0.300	0.300	-0.327	0.027

⌖	MM	13 - LENGTH_PNT1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	961.643	961.774	0.300	0.300	0.131	0.000

⌖	MM	14 - LENGTH_PNT2				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.848	0.300	0.300	-0.352	0.052

⌖	MM	15 - LENGTH_PNT3				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.880	0.300	0.300	-0.320	0.020

⌖	MM	16 - LENGTH_PNT4				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.893	0.300	0.300	-0.307	0.007

⌖	MM	17 - LENGTH_PNT5				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	961.794	961.789	0.300	0.300	-0.006	0.000

⌖	MM	18 - LENGTH_PNT6				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	961.712	962.001	0.300	0.300	0.289	0.000

⌖	MM	19 - LENGTH_PNT7				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	961.892	961.893	0.300	0.300	0.001	0.000

⌖	MM	20 - LENGTH_PNT8				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.906	0.300	0.300	-0.294	0.000

FCFPROF1_ZMINUS_PLATES	MM	⌓ .25 D	ASME_Y14_5

Feature	MEAS	OUTTOL
Set	0.316	0.191

FCFPROF1_ZMINUS_PLATES Datum Shift

Segment	Shift X	Shift Y	Shift Z	Rotation X	Rotation Y	Rotation Z
Segment 1	0.000	0.000	Fixed	Fixed	Fixed	0.050

FCFPROF1	MM	⌓ .25 AB	ASME_Y14_5

Feature	MEAS	OUTTOL
DATUM_D_PLN	0.329	0.174

FCFPROF1 Datum Shift

Segment	Shift X	Shift Y	Shift Z	Rotation X	Rotation Y	Rotation Z
Segment 1	Fixed	Fixed	Fixed	Fixed	-0.009	Fixed

FCFPARL1_ZMINUS_PADS	MM	// .25 D

Feature	MEAS	OUTTOL
Z_MINUS_PAD1_PLN1	0.022	0.000

FCFPARL3	MM	// .25 D

Feature	MEAS	OUTTOL
Z_MINUS_PAD2_PLN1	0.031	0.000

FCFPARL4	MM	// .25 D

Feature	MEAS	OUTTOL
Z_MINUS_PAD3_PLN1	0.099	0.000

FCFPARL5	MM	// .25 D

Feature	MEAS	OUTTOL
Z_MINUS_PAD4_PLN1	0.150	0.000

FCFPARL6	MM	// .25 D

Feature	MEAS	OUTTOL
Z_PLUS_PLATE1_PLN1	0.021	0.000

FCFPARL7	MM	// .25 D

Feature	MEAS	OUTTOL
Z_PLUS_PLATE2_PLN1	0.049	0.000

FCFPERP1	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_MINUS_PAD1_PLN1	0.015	0.000

FCFPERP2	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_MINUS_PAD2_PLN1	0.038	0.000

FCFPERP3	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_PLUS_PAD3_PLN1	0.020	0.000

FCFPERP4	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_PLUS_PAD4_PLN1	0.043	0.000

SIMUL1 Size	MM	Ø235.5 0.25/0

Feature	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
DATUM_A_CYL1	235.500	235.621	0.250	0.000	0.121	0.000
DATUM_B_CYL1	235.000	234.679	0.000	0.250	-0.321	0.071

SIMUL1 : FCFLOC1 Position	MM	⌖ Ø0.5 Ⓢ AB
SIMUL1 : FCFLOC2 Position	MM	⌖ Ø0.5 Ⓢ AB

Feature	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
DATUM_A_CYL1	0.000	0.117	0.500		0.117	0.000
DATUM_B_CYL1	0.000	0.019	0.500		0.019	0.000

SIMUL1 Datum Shift

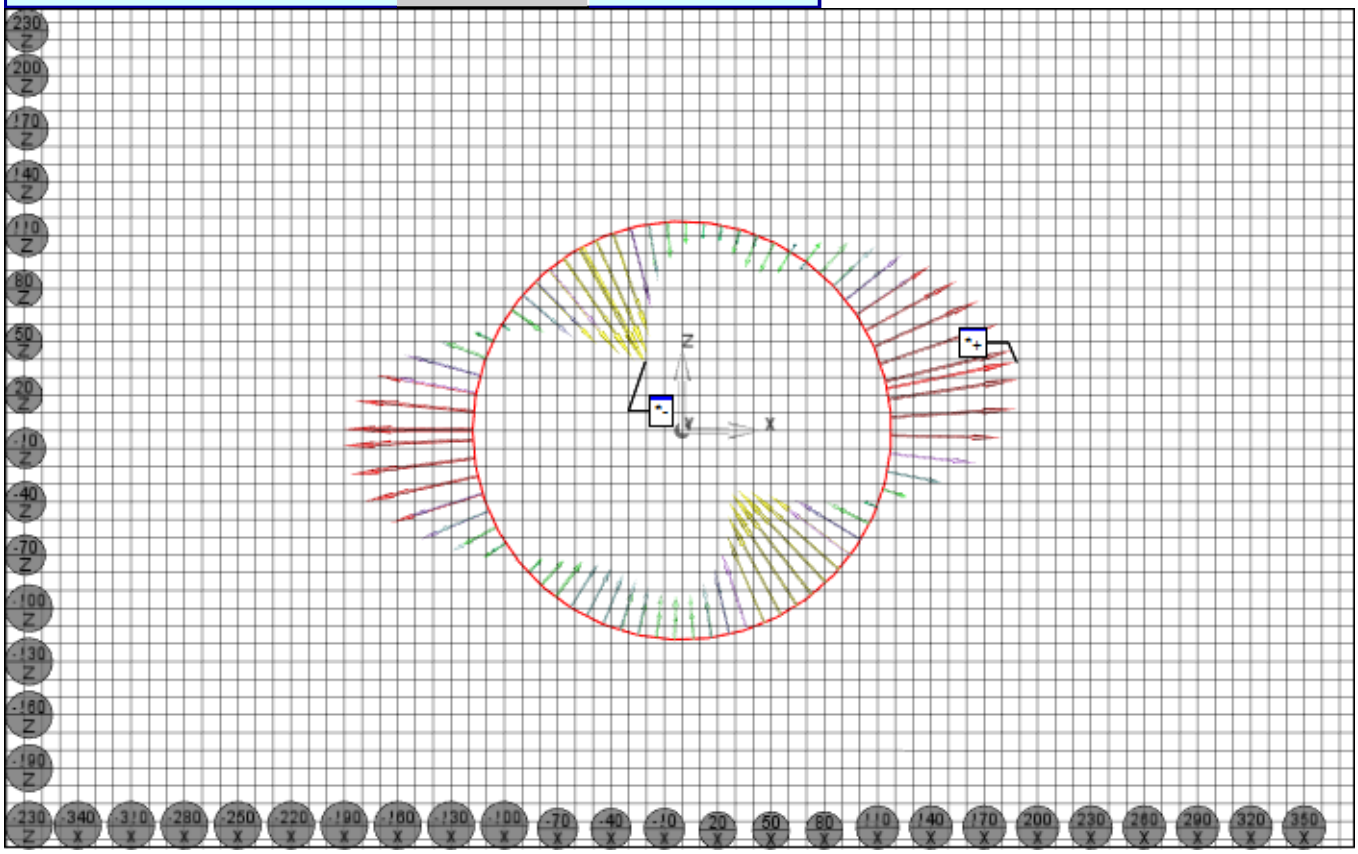
Segment	Shift X	Shift Y	Shift Z	Rotation X	Rotation Y	Rotation Z
Segment 1	0.000	0.000	0.000	0.000	0.000	0.000

SIMUL1 Summary FIT TO DATUMS=ON, DEV PERPEN CENTERLINE=ON, USE AXIS=WORST

Feature	AX	NOMINAL	MEAS	DEV
DATUM_A_CYL1 (END PT)	X	0.000	-0.059	-0.059
	Z	0.000	0.000	0.000
DATUM_B_CYL1 (END PT)	X	0.000	-0.009	-0.009
	Z	0.000	-0.003	-0.003

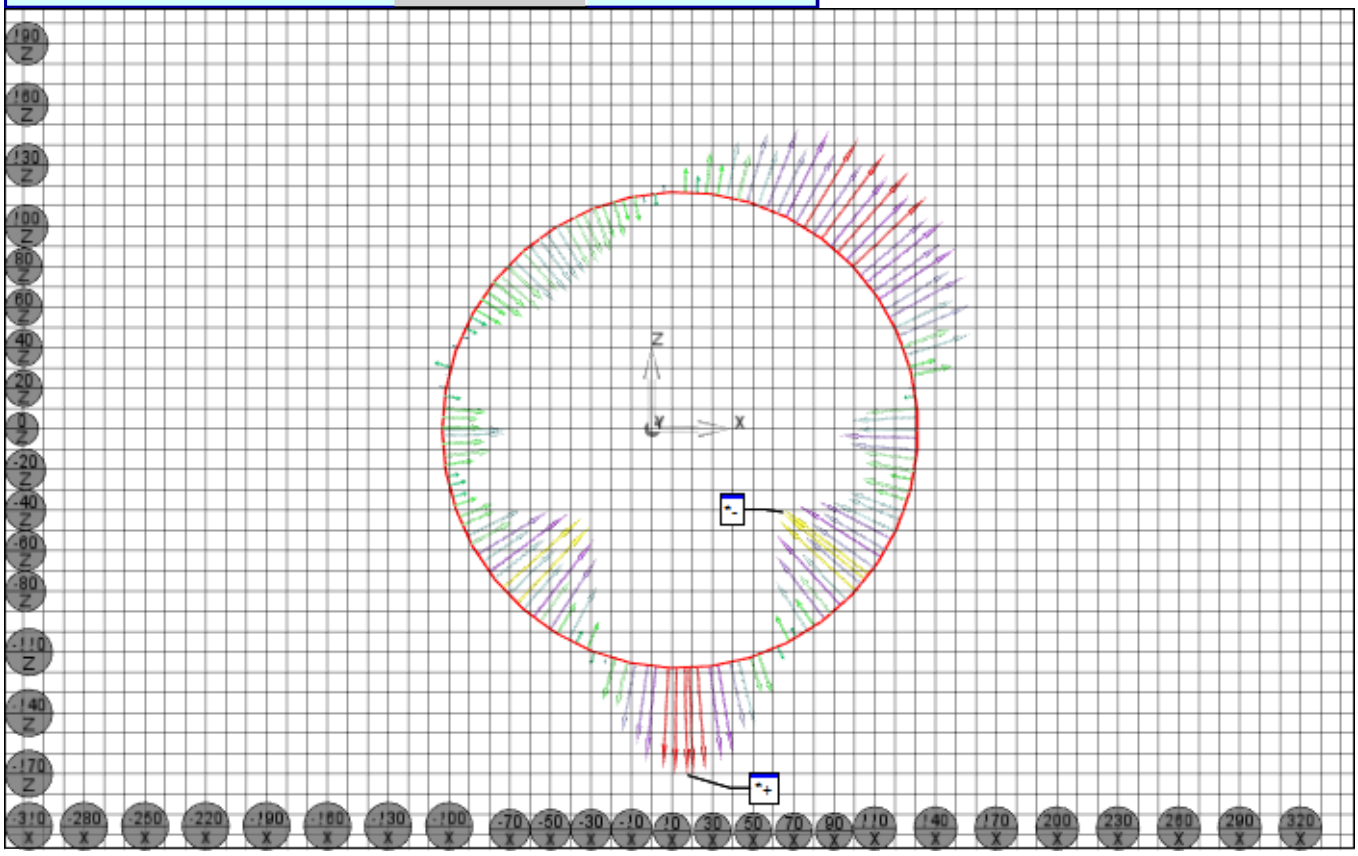
FCFCYLY1	MM	⌭ 1

Feature	MEAS	OUTTOL	MAX	MIN
DATUM_A_CYL1	1.478	0.478	0.739	-0.739



CYLINDRICITY OF DATUM A EXAGGERATION X 100 EACH SQUARE= .10

FCFCYLY2	MM	⌭ 1		
Feature	MEAS	OUTTOL	MAX	MIN
DATUM_B_CYL1	1.063	0.063	0.532	-0.532



CYLINDRICITY OF DATUM B EXAGGERATION X 100 EACH SQUARE= .10

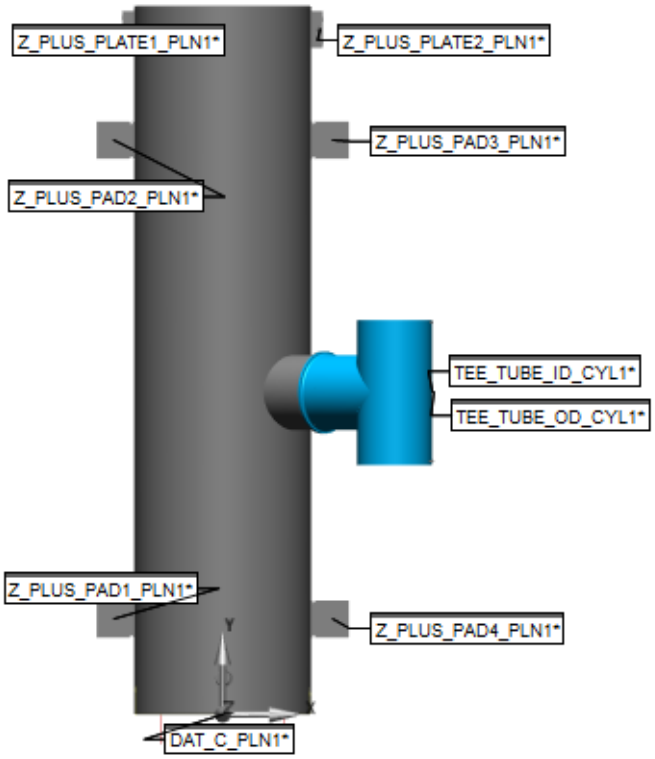
↔	MM	DIST1 - Z_MINUS_PAD1_PLN1 TO Z_PLUS_PAD1_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.790	0.000	0.300	-0.210	0.000
↔	MM	DIST2 - Z_MINUS_PAD2_PLN1 TO Z_PLUS_PAD2_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.844	0.000	0.300	-0.156	0.000
↔	MM	DIST3 - Z_MINUS_PAD3_PLN1 TO Z_PLUS_PAD3_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.799	0.000	0.300	-0.201	0.000
↔	MM	DIST4 - Z_MINUS_PAD4_PLN1 TO Z_PLUS_PAD4_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.772	0.000	0.300	-0.228	0.000
↔	MM	DIST5 - Z_MINUS_PLATE1_PLN1 TO Z_PLUS_PLATE1_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.869	0.000	0.300	-0.131	0.000
↔	MM	DIST6 - Z_MINUS_PLATE2_PLN1 TO Z_PLUS_PLATE2_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.862	0.000	0.300	-0.138	0.000
↔	MM	DIST7 - X_MINUS_PLATE1_PLN1 TO X_PLUS_PLATE2_PLN1 (XAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	272.000	271.550	0.000	0.300	-0.450	0.150
↔	MM	DIST8 - X_MINUS_PAD1_PLN1 TO X_PLUS_PAD4_PLN1 (XAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	342.000	342.172	0.000	0.300	0.172	0.172
↔	MM	DIST9 - X_MINUS_PAD2_PLN1 TO X_PLUS_PAD3_PLN1 (XAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	342.000	341.737	0.000	0.300	-0.263	0.000
⌖	MM	21 - TEE_TUBE_ID_CYL1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
PR	300.000	298.959	1.000	1.000	-1.041	0.041
PA	39.000	38.091	1.000	1.000	-0.909	0.000
D	97.384	97.378	0.500	0.550	-0.006	0.000
RN	0.000	0.596	0.100	0.000	0.596	0.496
⌖	MM	22 - TEE_TUBE_OD_CYL1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
PR	300.000	298.955	1.000	1.000	-1.046	0.046
PA	39.000	38.090	1.000	1.000	-0.910	0.000
D	101.600	101.497	0.500	0.550	-0.103	0.000
RN	0.000	0.605	0.100	0.000	0.605	0.505
↔	MM	DIST10 - DAT_C_PLN1 TO Y_MINUS_PAD1_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	104.681	104.460	0.300	0.300	-0.221	0.000
↔	MM	DIST11 - DAT_C_PLN1 TO Y_MINUS_PAD4_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	104.681	104.741	0.300	0.300	0.060	0.000

↔	MM	DIST12 - Y_MINUS_PAD1_PLN1 TO Y_MINUS_PAD2_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	650.000	649.987	0.300	0.300	-0.013	0.000

↔	MM	DIST13 - Y_MINUS_PAD4_PLN1 TO Y_MINUS_PAD3_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	650.000	649.940	0.300	0.300	-0.060	0.000

FCFPARL1	MM	// Ø.5 AB
Feature	MEAS	OUTTOL
TEE_TUBE_ID_CYL1	0.902	0.402

FCFPARL2	MM	// Ø.5 AB
Feature	MEAS	OUTTOL
TEE_TUBE_OD_CYL1	0.905	0.405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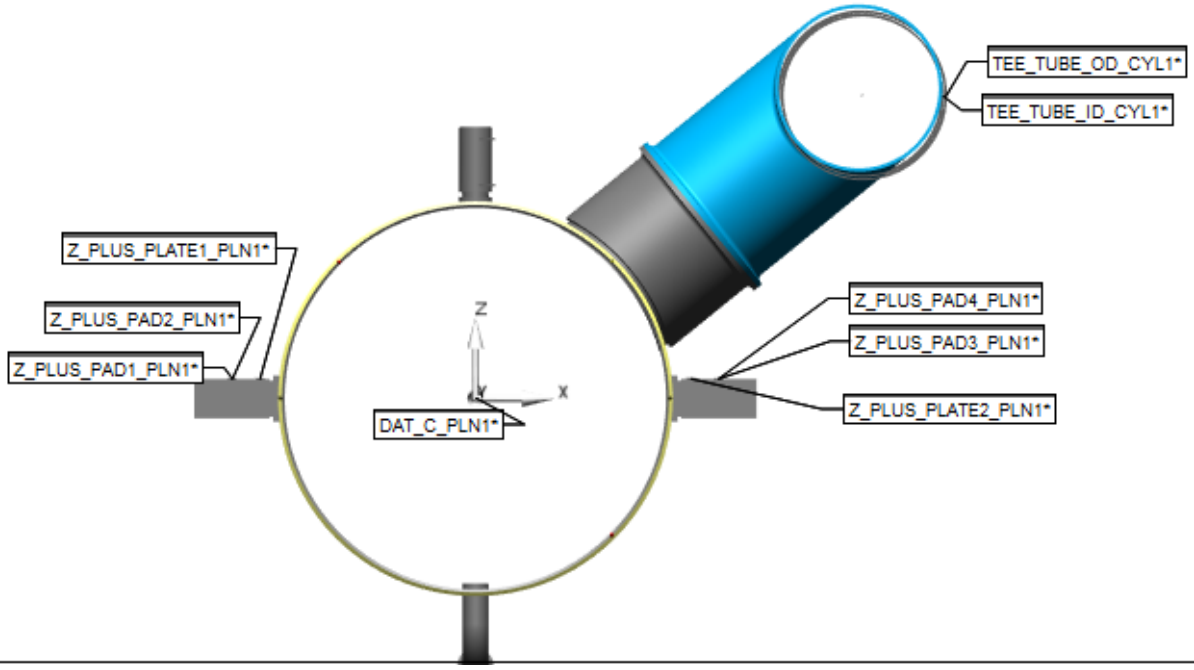
Z_PLUS_PLATE2_PLN1*
Z_PLUS_PAD3_PLN1*
Z_PLUS_PAD2_PLN1*
TEE_TUBE_ID_CYL1*
TEE_TUBE_OD_CYL1*
Z_PLUS_PAD1_PLN1*
Z_PLUS_PAD4_PLN1*
DAT_C_PLN1*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TEE_TUBE_ID_CYL1*
Z_PLUS_PLATE1_PLN1*
Z_PLUS_PAD2_PLN1*
Z_PLUS_PAD1_PLN1*
Z_PLUS_PAD4_PLN1*
Z_PLUS_PAD3_PLN1*
Z_PLUS_PLATE2_PLN1*
DAT_C_PLN1*