pc-dmis	PART NAME : F10015802_18		August 06, 2015	07:56
	REV NUMBER :	SER NUMBER :	STATS COUNT :	1

LCLS-II PRE-PRODUCTION
HELIUM VESSEL WELDMENT

RF#98357 SAMPLE#18
SERIAL NUMBER:RFCG-HE-018
INSPECTOR: O. LIRA

⌖	MM	3 - DATUM_C_PLN					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.234	0.100	0.100	0.234	0.134	
FL	0.000	0.158	0.100	0.000	0.158	0.058	
⌖	MM	4 - DAT_C_PNT1					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.219	3.000	0.000	0.219	0.000	
⌖	MM	5 - DAT_C_PNT2					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.000	3.000	0.000	0.000	0.000	
⌖	MM	6 - DAT_C_PNT3					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.013	3.000	0.000	0.013	0.000	
⌖	MM	7 - DAT_C_PNT4					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.080	3.000	0.000	0.080	0.000	
⌖	MM	8 - DAT_C_PNT5					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.418	3.000	0.000	0.418	0.000	
⌖	MM	9 - DAT_C_PNT6					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.458	3.000	0.000	0.458	0.000	
⌖	MM	10 - DAT_C_PNT7					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.433	3.000	0.000	0.433	0.000	
⌖	MM	11 - DAT_C_PNT8					
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL	
Y	0.000	0.251	3.000	0.000	0.251	0.000	

⌖	MM	12 - LENGTH_PLN				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.757	0.300	0.300	-0.443	0.143

⌖	MM	13 - LENGTH_PNT1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.155	0.300	0.300	-1.045	0.745

⌖	MM	14 - LENGTH_PNT2				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.402	0.300	0.300	-0.798	0.498

⌖	MM	15 - LENGTH_PNT3				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.783	0.300	0.300	-0.417	0.117

⌖	MM	16 - LENGTH_PNT4				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	962.079	0.300	0.300	-0.121	0.000

⌖	MM	17 - LENGTH_PNT5				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	962.100	0.300	0.300	-0.100	0.000

⌖	MM	18 - LENGTH_PNT6				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	962.164	0.300	0.300	-0.036	0.000

⌖	MM	19 - LENGTH_PNT7				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.838	0.300	0.300	-0.362	0.062

⌖	MM	20 - LENGTH_PNT8				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
Y	962.200	961.534	0.300	0.300	-0.666	0.366

FCFPROF1_ZMINUS_PLATES	MM	⌓ .25 D	ASME_Y14_5

Feature	MEAS	OUTTOL
Set	0.507	0.257

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	-0.039

FCFPROF1	MM	⌓ .25 AB	ASME_Y14_5

Feature	MEAS	OUTTOL
DATUM_D_PLN	0.298	0.093

FCFPROF1 Datum Shift

Segment	Shift X	Shift Y	Shift Z	Rotation X	Rotation Y	Rotation Z
Segment 1	Fixed	Fixed	Fixed	Fixed	-0.002	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	0.068	0.000

FCFPARL4	MM	// .25 D

Feature	MEAS	OUTTOL
Z_MINUS_PAD3_PLN1	0.151	0.000

FCFPARL5	MM	// .25 D

Feature	MEAS	OUTTOL
Z_MINUS_PAD4_PLN1	0.104	0.000

FCFPARL6	MM	// .25 D

Feature	MEAS	OUTTOL
Z_PLUS_PLATE1_PLN1	0.034	0.000

FCFPARL7	MM	// .25 D

Feature	MEAS	OUTTOL
Z_PLUS_PLATE2_PLN1	0.063	0.000

FCFPERP1	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_MINUS_PAD1_PLN1	0.037	0.000

FCFPERP2	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_MINUS_PAD2_PLN1	0.024	0.000

FCFPERP3	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_PLUS_PAD3_PLN1	0.055	0.000

FCFPERP4	MM	⊥ .25 D

Feature	MEAS	OUTTOL
X_PLUS_PAD4_PLN1	0.045	0.000

SIMUL1 Size	MM	Ø235.5 0.25/0

Feature	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
DATUM_A_CYL1	235.500	235.592	0.250	0.000	0.092	0.000
DATUM_B_CYL1	235.000	234.750	0.000	0.250	-0.250	0.000

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	0.048	0.500		0.048	0.000
DATUM_B_CYL1	0.000	0.086	0.500		0.086	0.000

SIMUL1 Datum Shift

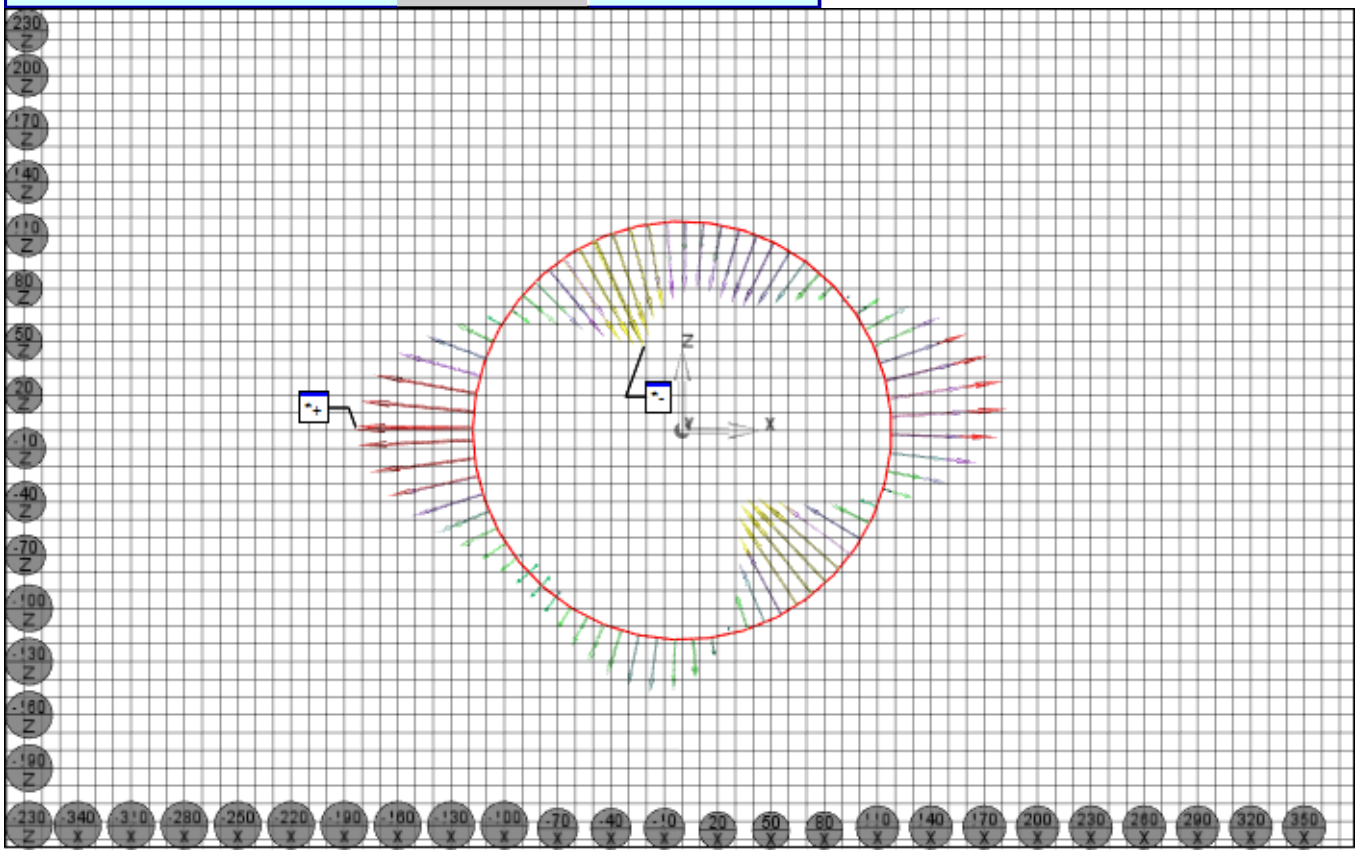
Segment	Shift X	Shift Y	Shift Z	Rotation X	Rotation Y	Rotation Z
Segment 1	0.000	0.000	0.000	0.000	0.000	0.000

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	0.012	0.012
	Z	0.000	0.020	0.020
DATUM_B_CYL1 (END PT)	X	0.000	-0.043	-0.043
	Z	0.000	-0.010	-0.010

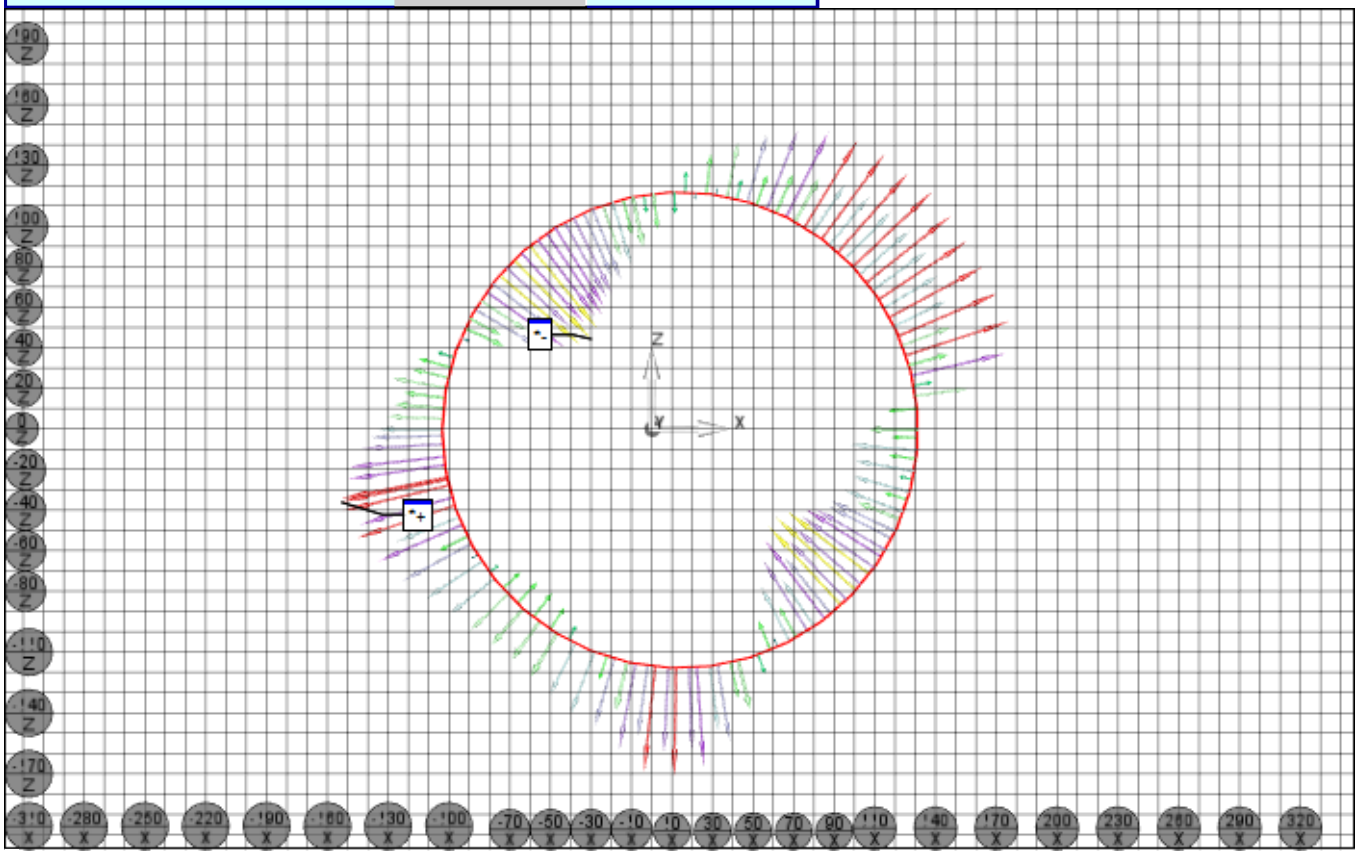
FCFCYLY1	MM	⌭ 1

Feature	MEAS	OUTTOL	MAX	MIN
DATUM_A_CYL1	1.321	0.321	0.661	-0.661



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

FCFCYLY2	MM	⌭ 1		
Feature	MEAS	OUTTOL	MAX	MIN
DATUM_B_CYL1	1.076	0.076	0.538	-0.538



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

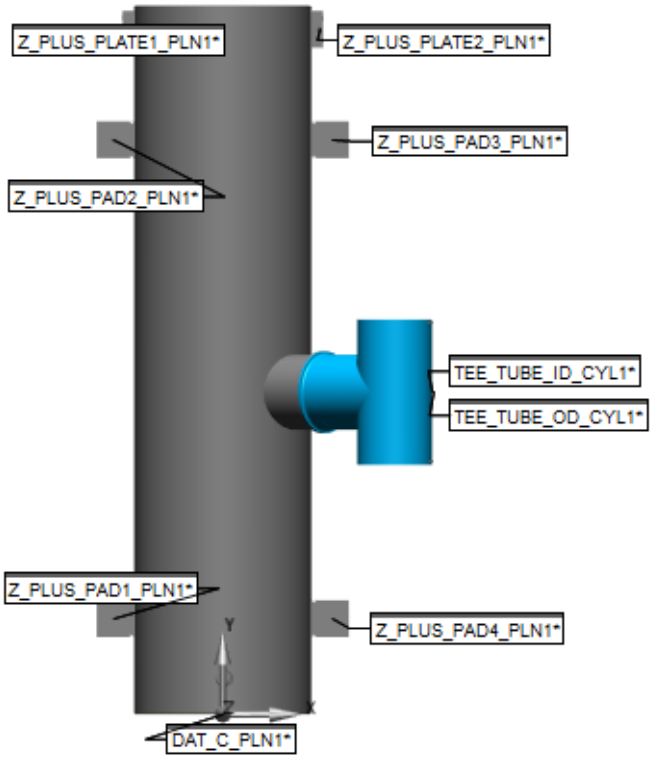
↔	MM	DIST1 - Z_MINUS_PAD1_PLN1 TO Z_PLUS_PAD1_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.912	0.000	0.300	-0.088	0.000
↔	MM	DIST2 - Z_MINUS_PAD2_PLN1 TO Z_PLUS_PAD2_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.985	0.000	0.300	-0.015	0.000
↔	MM	DIST3 - Z_MINUS_PAD3_PLN1 TO Z_PLUS_PAD3_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.955	0.000	0.300	-0.045	0.000
↔	MM	DIST4 - Z_MINUS_PAD4_PLN1 TO Z_PLUS_PAD4_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.901	0.000	0.300	-0.099	0.000
↔	MM	DIST5 - Z_MINUS_PLATE1_PLN1 TO Z_PLUS_PLATE1_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.874	0.000	0.300	-0.126	0.000
↔	MM	DIST6 - Z_MINUS_PLATE2_PLN1 TO Z_PLUS_PLATE2_PLN1 (ZAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	24.000	23.870	0.000	0.300	-0.130	0.000
↔	MM	DIST7 - X_MINUS_PLATE1_PLN1 TO X_PLUS_PLATE2_PLN1 (XAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	272.000	272.021	0.000	0.300	0.021	0.021
↔	MM	DIST8 - X_MINUS_PAD1_PLN1 TO X_PLUS_PAD4_PLN1 (XAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	342.000	341.945	0.000	0.300	-0.055	0.000
↔	MM	DIST9 - X_MINUS_PAD2_PLN1 TO X_PLUS_PAD3_PLN1 (XAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	342.000	341.671	0.000	0.300	-0.329	0.029
⌖	MM	21 - TEE_TUBE_ID_CYL1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
PR	300.000	299.496	1.000	1.000	-0.504	0.000
PA	39.000	38.444	1.000	1.000	-0.556	0.000
D	97.384	97.750	0.500	0.550	0.366	0.000
RN	0.000	1.572	0.100	0.000	1.572	1.472
⌖	MM	22 - TEE_TUBE_OD_CYL1				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
PR	300.000	299.483	1.000	1.000	-0.517	0.000
PA	39.000	38.444	1.000	1.000	-0.556	0.000
D	101.600	101.632	0.500	0.550	0.032	0.000
RN	0.000	1.567	0.100	0.000	1.567	1.467
↔	MM	DIST10 - DAT_C_PLN1 TO Y_MINUS_PAD1_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	104.681	104.299	0.300	0.300	-0.382	0.082
↔	MM	DIST11 - DAT_C_PLN1 TO Y_MINUS_PAD4_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	104.681	104.607	0.300	0.300	-0.074	0.000

↔	MM	DIST12 - Y_MINUS_PAD1_PLN1 TO Y_MINUS_PAD2_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	650.000	650.056	0.300	0.300	0.056	0.000

↔	MM	DIST13 - Y_MINUS_PAD4_PLN1 TO Y_MINUS_PAD3_PLN1 (YAXIS)				
AX	NOMINAL	MEAS	+TOL	-TOL	DEV	OUTTOL
M	650.000	649.834	0.300	0.300	-0.166	0.000

FCFPARL1	MM	// Ø.5 AB
Feature	MEAS	OUTTOL
TEE_TUBE_ID_CYL1	1.042	0.542

FCFPARL2	MM	// Ø.5 AB
Feature	MEAS	OUTTOL
TEE_TUBE_OD_CYL1	1.044	0.544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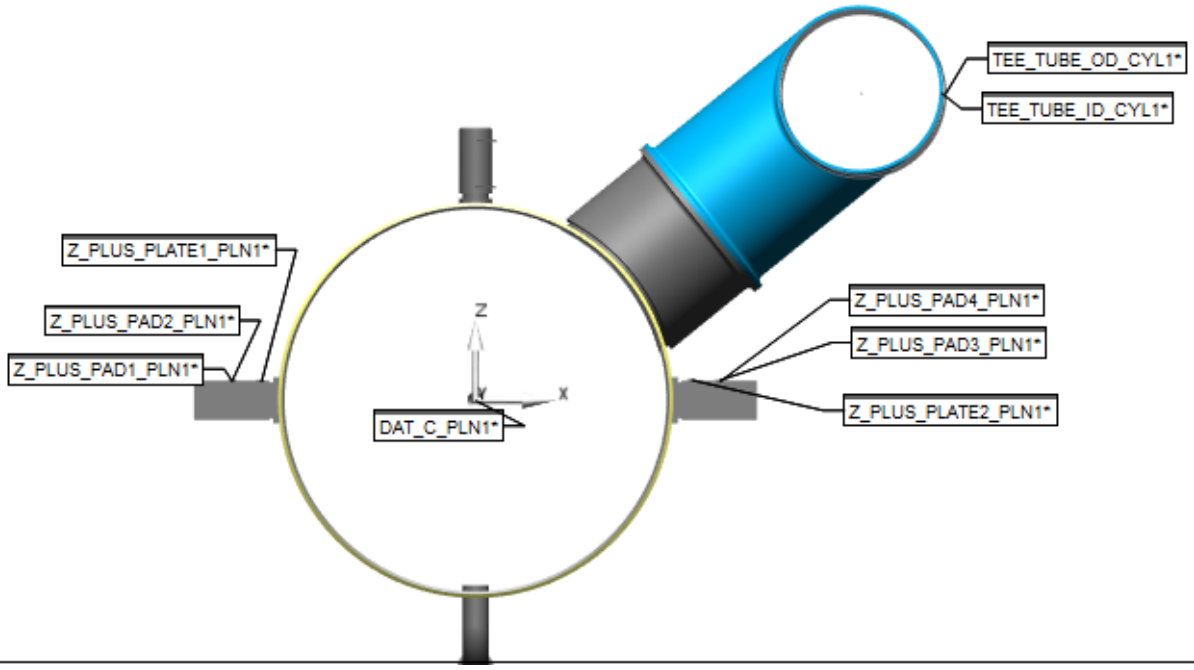
Z_PLUS_PLATE2_PLN1*
Z_PLUS_PAD3_PLN1*
Z_PLUS_PAD2_PLN1*
TEE_TUBE_ID_CYL1*
TEE_TUBE_OD_CYL1*
Z_PLUS_PAD1_PLN1*
Z_PLUS_PAD4_PLN1*
Y
Z
X
DAT_C_PLN1*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TEE_TUBE_ID_CYL1*
Z_PLUS_PLATE1_PLN1*
Z_PLUS_PAD2_PLN1*
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Z
Y
X
DAT_C_PLN1*
Z_PLUS_PAD4_PLN1*
Z_PLUS_PAD3_PLN1*
Z_PLUS_PLATE2_PLN1*