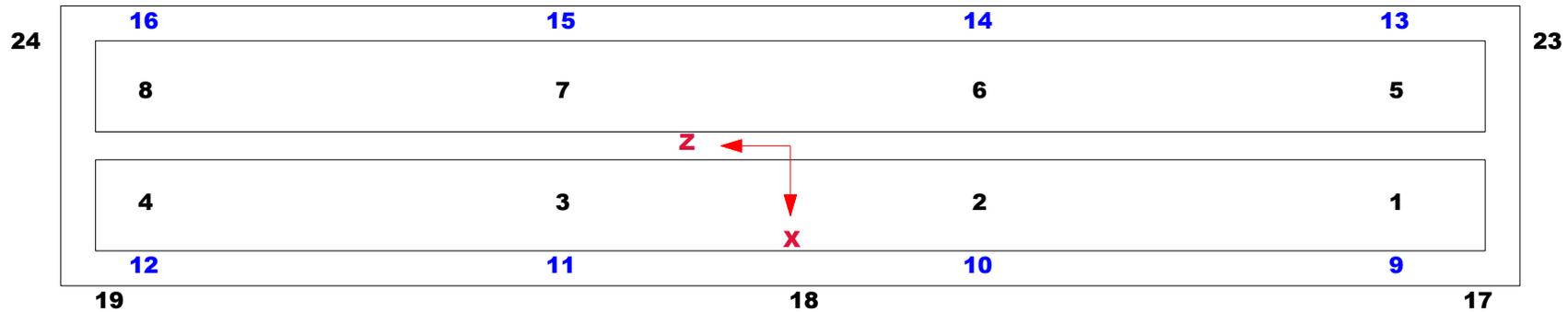


.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 9	430.049	-0.498	-1489.459
TB 10	430.070	-0.210	-524.052
TB 11	430.046	-0.575	524.179
TB 12	430.047	-0.417	1489.323
TB 13	-430.159	-0.165	-1489.911
TB 14	-430.165	0.261	-524.116
TB 15	-430.158	0.076	523.534
TB 16	-430.144	-0.316	1489.432

1.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 1	98.444	135.894	-1666.026
TB 2	98.579	135.920	-556.126
TB 3	98.573	135.924	556.234
TB 4	98.393	135.982	1665.955
TB 5	-98.555	136.109	-1666.135
TB 6	-98.558	136.050	-556.114
TB 7	-98.600	136.042	555.586
TB 8	-98.463	136.029	1665.602
TB 17	473.028	-231.978	-1580.240
TB 18	470.931	-229.334	87.965
TB 19	469.272	-229.591	1579.424
TB 23	-404.020	-229.091	-1710.335
TB 24	-407.202	-231.783	1708.530



Grider centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



HGVPU - Fiducialization at 9mm Gap, Tooling Balls

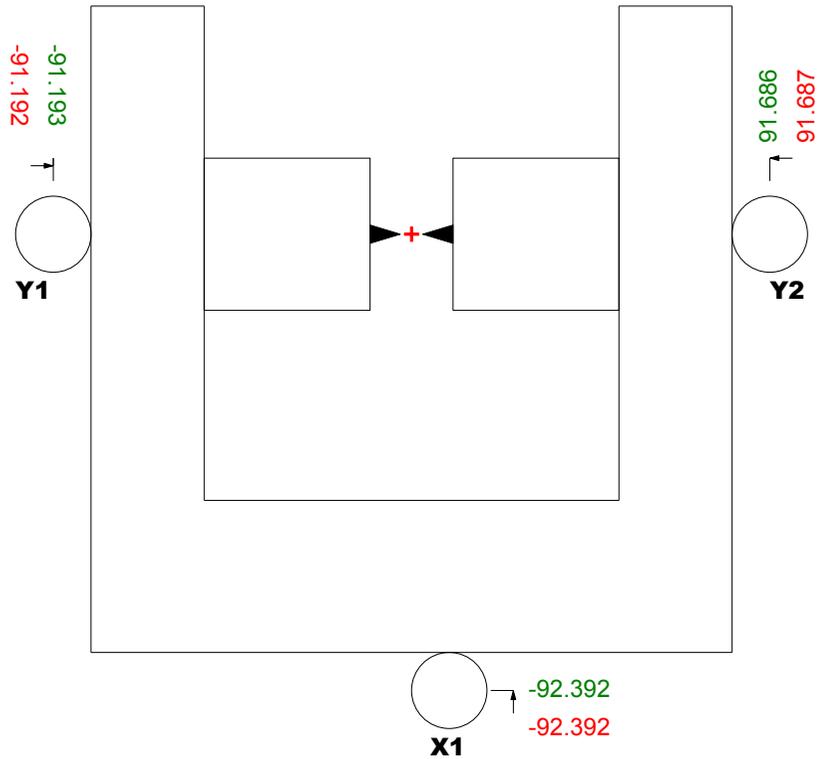
Nominal Gap :	9.000	US Full :	9.000	DS Full :	8.9995
Nom. Taper :	0.000	US Wall Half :	4.5013	DS Wall Half :	4.4997
		US Aisle Half :	4.4991	DS Aisle Half :	4.5025

S/N	: HXU_023
Date	: 26-AUG-2019
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B

PM 2

Up Stream

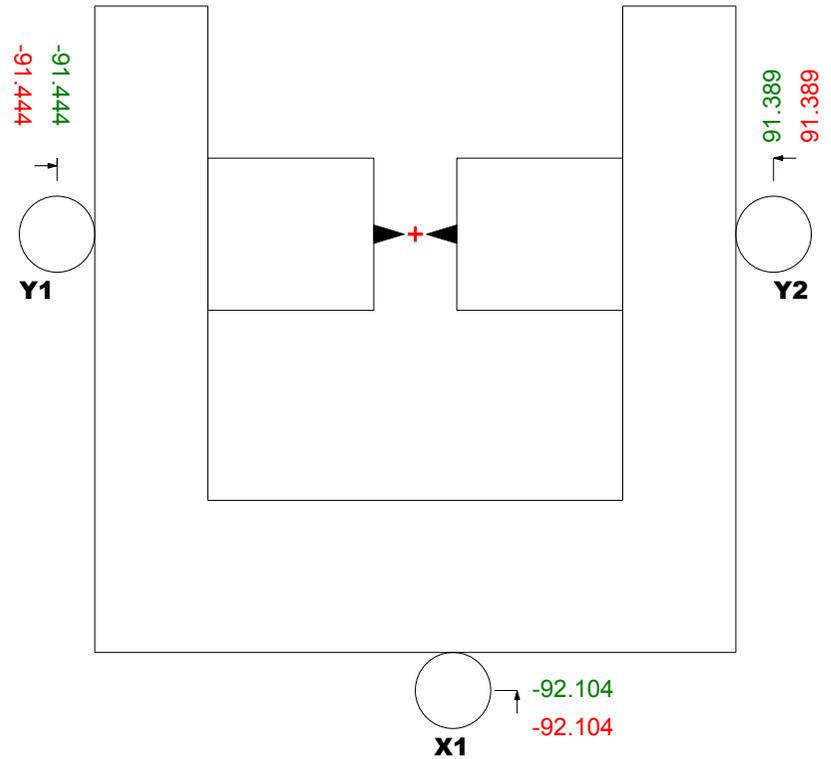
Z Center = -1842.127



PM 3

Down Stream

Z Center = 1842.660



Red values are in Girder Coordinate System, includes Roll component from Girder

Green values are in End Magnet Coordinate System

Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



HGVPU - Fiducialization, Pointed End Magnet Values

Nominal Gap :	9.000	US Full :	9.000	DS Full :	8.9995
Nom. Taper :	0.000	US Wall Half :	4.5013	DS Wall Half :	4.4997
		US Aisle Half :	4.4991	DS Aisle Half :	4.5025

S/N	: HXU_023
Date	: 26-AUG-2019
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B