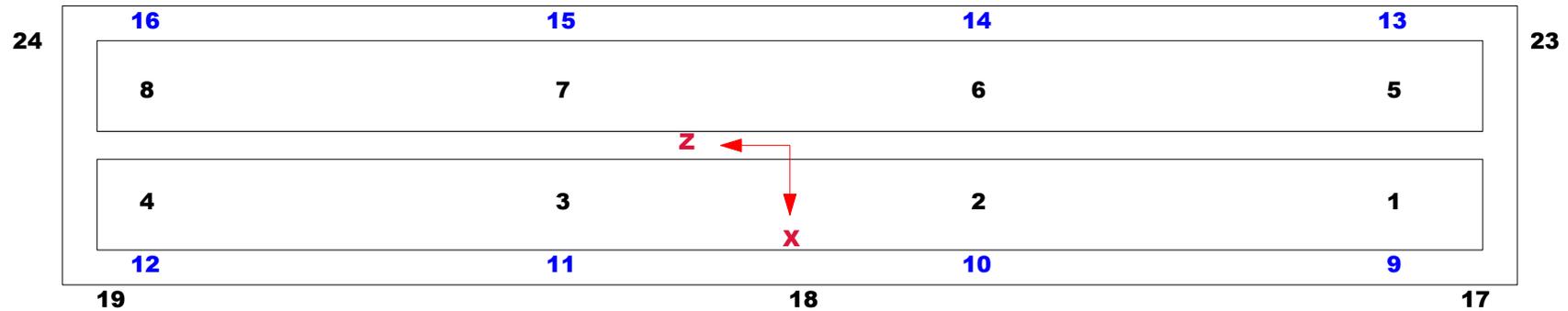


.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 9	429.984	0.139	-1489.513
TB 10	430.018	0.199	-524.059
TB 11	429.987	0.125	523.619
TB 12	429.949	-0.143	1489.171
TB 13	-430.062	0.032	-1489.952
TB 14	-430.064	0.186	-524.754
TB 15	-430.008	0.488	524.058
TB 16	-430.031	0.271	1489.721

1.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 1	98.768	135.841	-1666.144
TB 2	98.534	135.817	-556.362
TB 3	98.620	135.799	555.716
TB 4	98.229	135.749	1665.825
TB 5	-98.452	136.048	-1666.325
TB 6	-98.427	136.036	-556.346
TB 7	-98.564	136.022	555.744
TB 8	-98.245	136.018	1665.441
TB 17	471.602	-229.396	-1580.371
TB 18	472.246	-227.331	86.681
TB 19	472.628	-230.804	1579.502
TB 23	-404.927	-230.721	-1708.719
TB 24	-404.938	-230.303	1708.438



Grider centerline in reference to Pointed Magnets

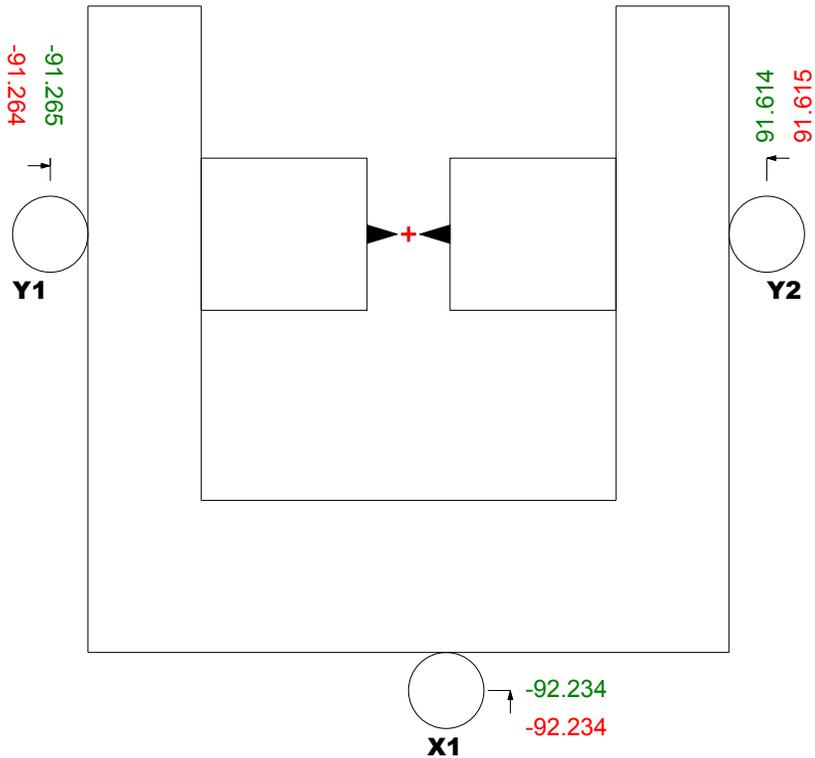
Dimensions in MM, Angles in Milliradians

	<p>HGVPU - Fiducialization at 9mm Gap, Tooling Balls</p>				<p>S/N : HXU_025</p>
	<p>Nominal Gap : 9.000</p>	<p>US Full : 8.999</p>	<p>DS Full : 8.9999</p>	<p>DS Wall Half : 4.5013</p>	<p>Date : 15-OCT-2019</p>
	<p>Nom. Taper : 0.000</p>	<p>US Wall Half : 4.5013</p>	<p>DS Wall Half : 4.5013</p>	<p>US Aisle Half : 4.5003</p>	<p>DS Aisle Half : 4.5016</p>
					<p>Data Set : 0001</p>
					<p>Run : FINAL</p>
					<p>Cam Pos. : B</p>

PM 2

Up Stream

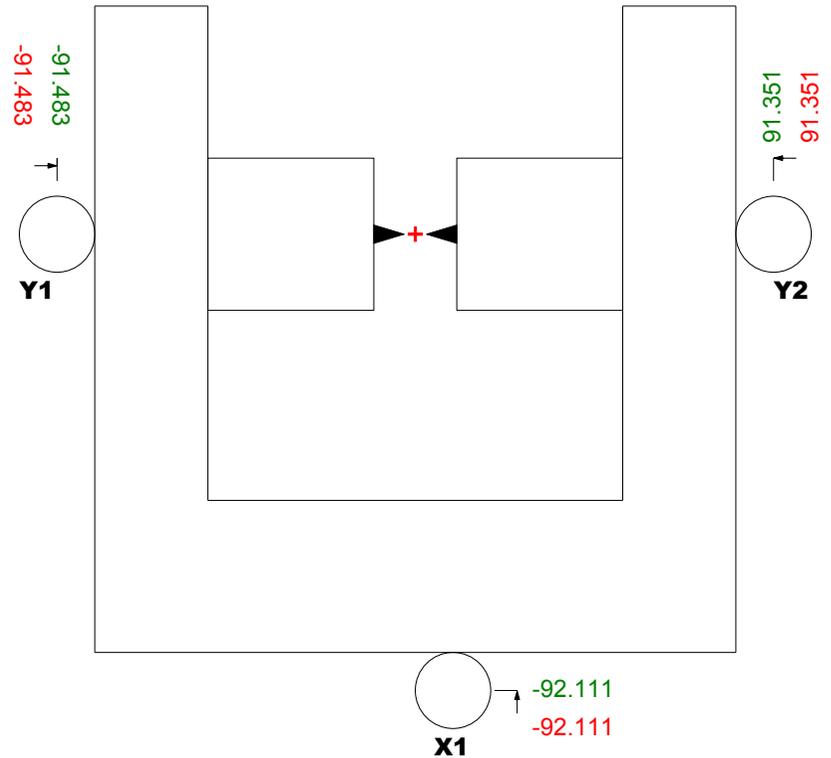
Z Center = -1842.025



PM 3

Down Stream

Z Center = 1842.511



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 :	8.999	DS Full :	8.9999
Nom. Taper :	0.000	US Wall Half :	4.5013	DS Wall Half :	4.5013
		US Aisle Half :	4.5003	DS Aisle Half :	4.5016

S/N	: HXU_025
Date	: 15-OCT-2019
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B