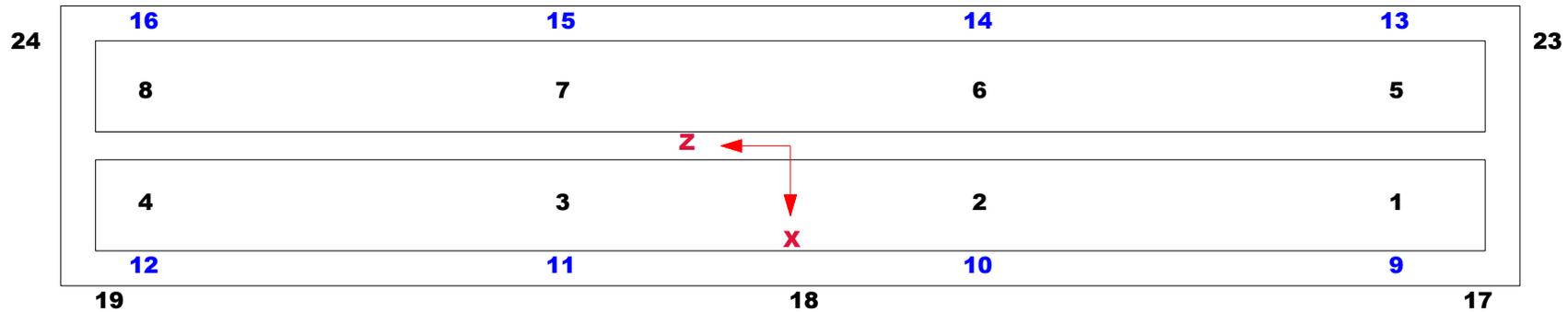


.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 9	430.100	-0.192	-1488.686
TB 10	430.132	0.264	-523.950
TB 11	429.943	0.021	524.539
TB 12	430.199	-0.039	1489.893
TB 13	-430.253	-0.059	-1489.483
TB 14	-430.304	-0.070	-524.171
TB 15	-430.314	0.366	524.555
TB 16	-430.263	0.203	1490.276

1.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 1	98.216	136.123	-1665.505
TB 2	98.396	136.134	-555.611
TB 3	98.655	136.128	556.232
TB 4	98.574	136.046	1666.103
TB 5	-98.866	136.117	-1666.065
TB 6	-98.718	136.127	-556.161
TB 7	-98.802	136.134	555.939
TB 8	-98.780	136.158	1665.961
TB 17	472.498	-230.975	-1582.873
TB 18	473.162	-226.428	83.841
TB 19	472.741	-230.911	1576.926
TB 23	-404.666	-229.619	-1710.653
TB 24	-405.199	-231.863	1704.292



Grider centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



HGVPU - Fiducialization at 9mm Gap, Tooling Balls

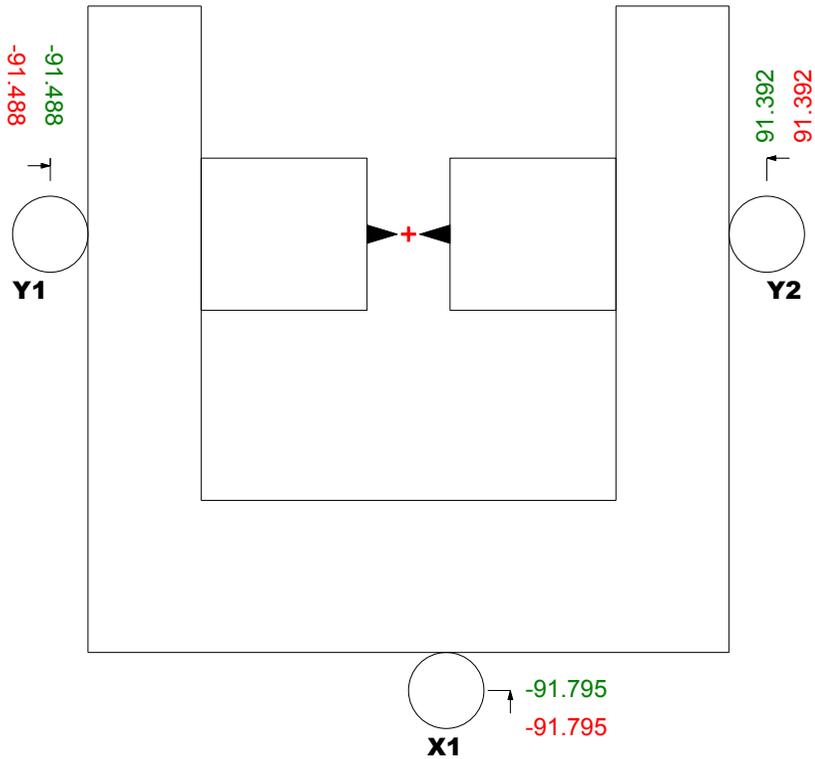
Nominal Gap :	9.000	US Full :	8.999	DS Full :	9.0000
Nom. Taper :	0.000	US Wall Half :	4.5022	DS Wall Half :	4.5014
		US Aisle Half :	4.5007	DS Aisle Half :	4.5029

S/N	: HXU_005
Date	: 14-AUG-2019
Data Set	: 0002
Run	: FINAL
Cam Pos.	: B

PM 2

Up Stream

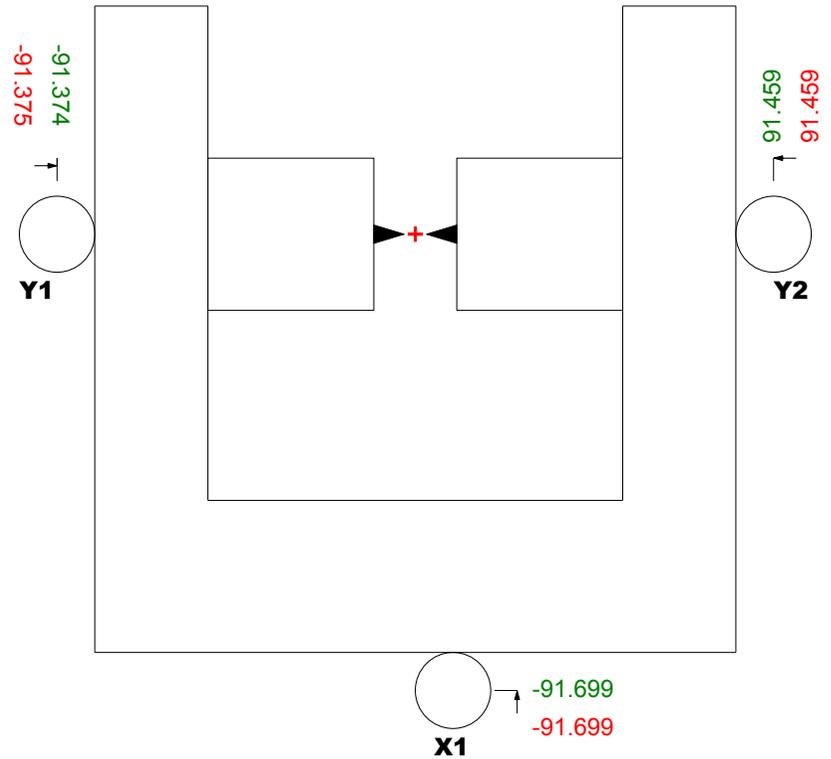
Z Center = -1842.301



PM 3

Down Stream

Z Center = 1842.369



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 :	9.0000
Nom. Taper :	0.000	US Wall Half :	4.5022	DS Wall Half :	4.5014
		US Aisle Half :	4.5007	DS Aisle Half :	4.5029

S/N	: HXU_005
Date	: 14-AUG-2019
Data Set	: 0002
Run	: FINAL
Cam Pos.	: B