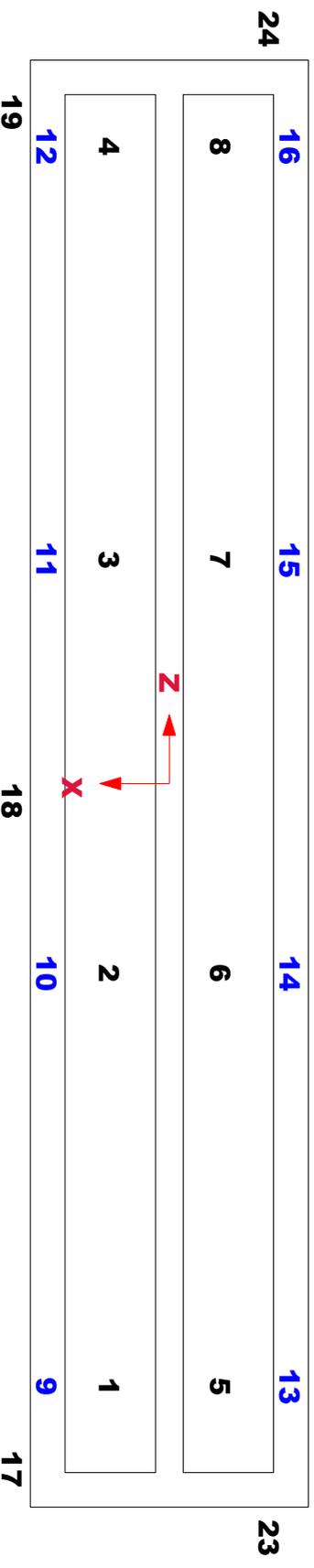


.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 9	430.177	-0.687	-1489.311
TB 10	430.184	-0.675	-524.075
TB 11	430.169	-0.751	524.170
TB 12	430.182	-0.829	1489.725
TB 13	-430.182	0.286	-1489.745
TB 14	-430.264	0.185	-524.468
TB 15	-430.220	0.521	523.880
TB 16	-430.288	0.296	1489.040

1.5in Tooling Ball Center Coordinates

Name	X Corr.	Y Corr.	Z Corr.
TB 1	98.656	135.163	-1665.805
TB 2	98.727	135.256	-556.108
TB 3	98.884	135.277	555.909
TB 4	98.976	135.243	1666.138
TB 5	-98.558	136.065	-1666.296
TB 6	-98.682	136.069	-556.117
TB 7	-98.482	136.059	555.571
TB 8	-98.703	136.054	1665.600
TB 17	472.612	-232.720	-1582.136
TB 18	471.955	-229.084	85.920
TB 19	471.442	-232.368	1579.001
TB 23	-403.545	-229.418	-1709.187
TB 24	-405.121	-232.838	1706.857



Grid centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



HGVPU - Fiducialization at 9mm Gap, Tooling Balls

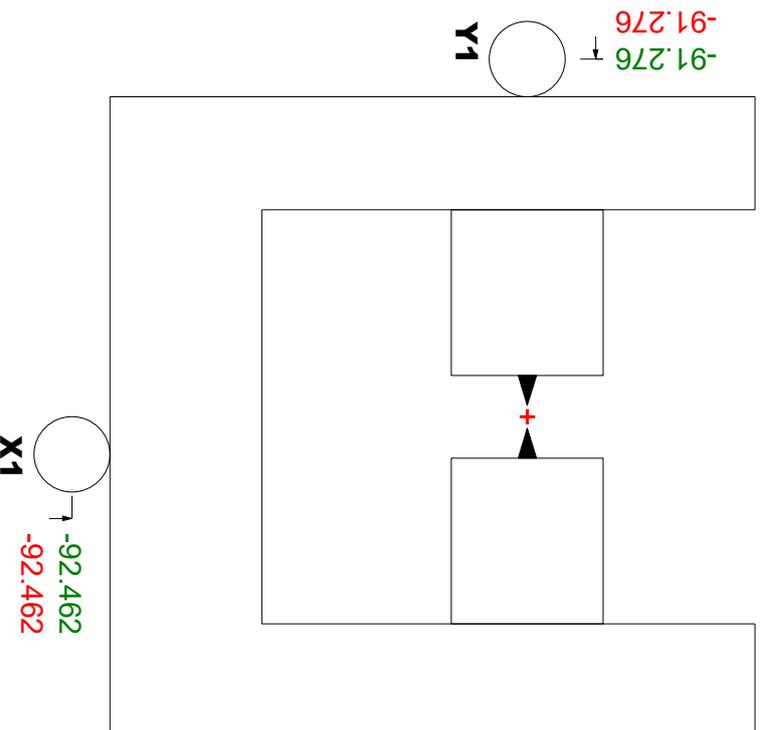
Nominal Gap :	9.000	US Full :	9.000	DS Full :	8.9994
Nom. Taper :	0.000	US Wall Half :	4.4994	DS Wall Half :	4.4999
		US Aisle Half :	4.4998	DS Aisle Half :	4.4991

S/N	: HXU 031
Date	: 05-MAR-2020
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B

PM 2

Up Stream

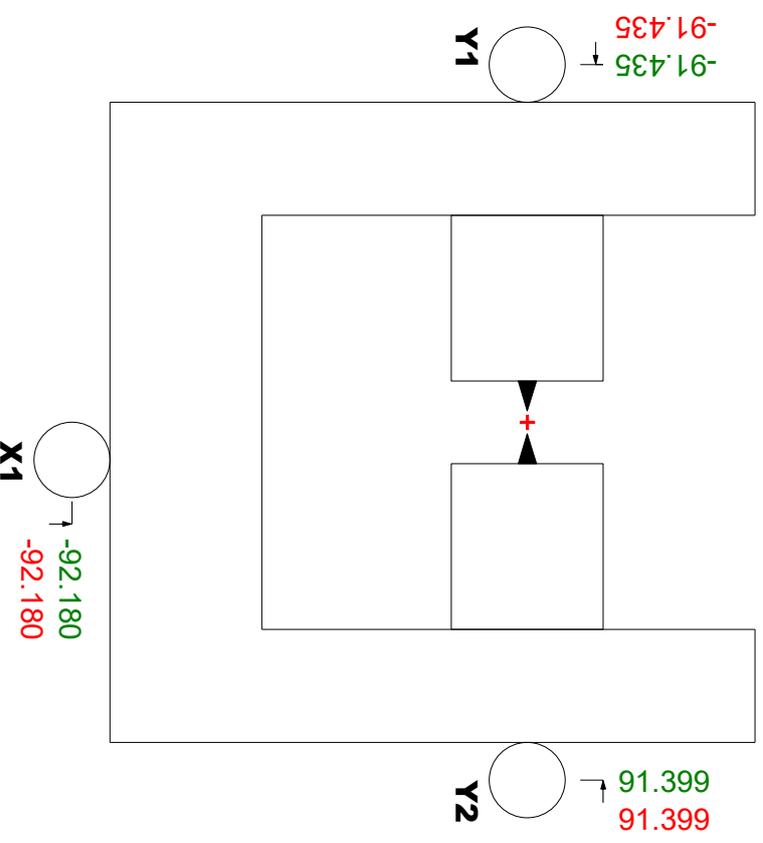
Z Center = -1842.193



PM 3

Down Stream

Z Center = 1842.522



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 :	8.9994
Nom. Taper :	0.000	US Wall Half :	4.4994	DS Wall Half :	4.4999
		US Aisle Half :	4.4998	DS Aisle Half :	4.4991

S/N	: HXU_031
Date	: 05-MAR-2020
Data Set	: 0001
Run	: FINAL
Cam Pos.	: B