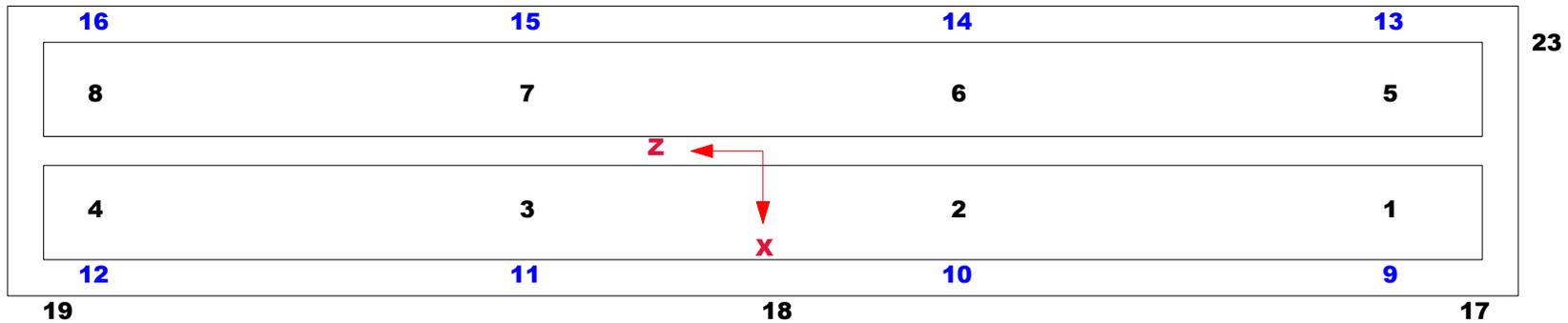


**.5in Tooling Ball Center Coordinates**

Name	X Corr.	Y Corr.	Z Corr.
TB 9	430.048	-0.165	-1489.346
TB 10	430.078	-0.172	-524.159
TB 11	430.202	0.129	524.388
TB 12	430.164	0.289	1489.643
TB 13	-430.078	-0.262	-1489.798
TB 14	-430.032	-0.215	-523.973
TB 15	-430.033	-0.331	524.553
TB 16	-429.984	-0.212	1489.854

**1.5in Tooling Ball Center Coordinates**

Name	X Corr.	Y Corr.	Z Corr.
TB 1	98.607	136.055	-1665.762
TB 2	98.852	136.098	-555.515
TB 3	98.895	136.199	556.178
TB 4	98.584	136.352	1666.421
TB 5	-98.465	136.014	-1666.197
TB 6	-98.414	135.894	-556.138
TB 7	-98.360	135.924	555.941
TB 8	-98.341	136.024	1665.877
TB 17	479.074	-162.965	-1642.039
TB 18	479.347	-163.183	44.759
TB 19	479.394	-162.797	1638.064
TB 23	-406.245	-232.580	-1709.779



**Grider centerline in reference to Pointed Magnets**

Dimensions in MM, Angles in Milliradians



**HGVPU - Fiducialization at 9mm Gap, Tooling Balls**

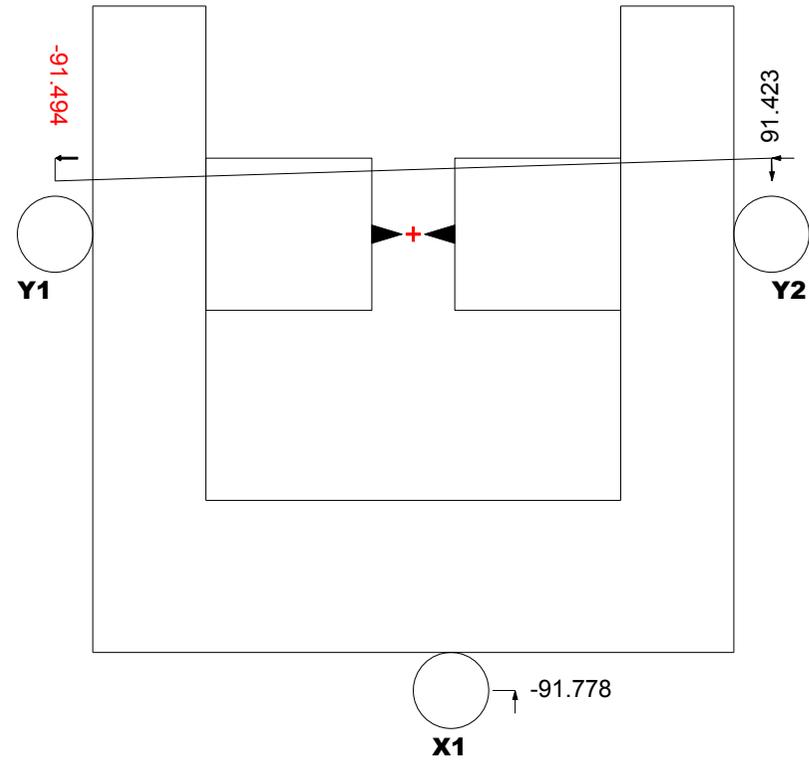
<b>Nominal Gap :</b>	<b>9.000</b>	<b>US Full :</b>	<b>8.989</b>	<b>DS Full :</b>	<b>8.9925</b>
<b>Nom. Taper :</b>	<b>0.000</b>	<b>US Wall Half :</b>	<b>4.4996</b>	<b>DS Wall Half :</b>	<b>4.4995</b>
		<b>US Aisle Half :</b>	<b>4.5001</b>	<b>DS Aisle Half :</b>	<b>4.5001</b>

<b>S/N</b>	<b>: HXU_001</b>
<b>Date</b>	<b>: 11-MAR-2019</b>
<b>Data Set</b>	<b>: 0001</b>
<b>Run</b>	<b>: Final</b>
<b>Cam Pos.</b>	<b>: B</b>

# PM 3

## Down Stream

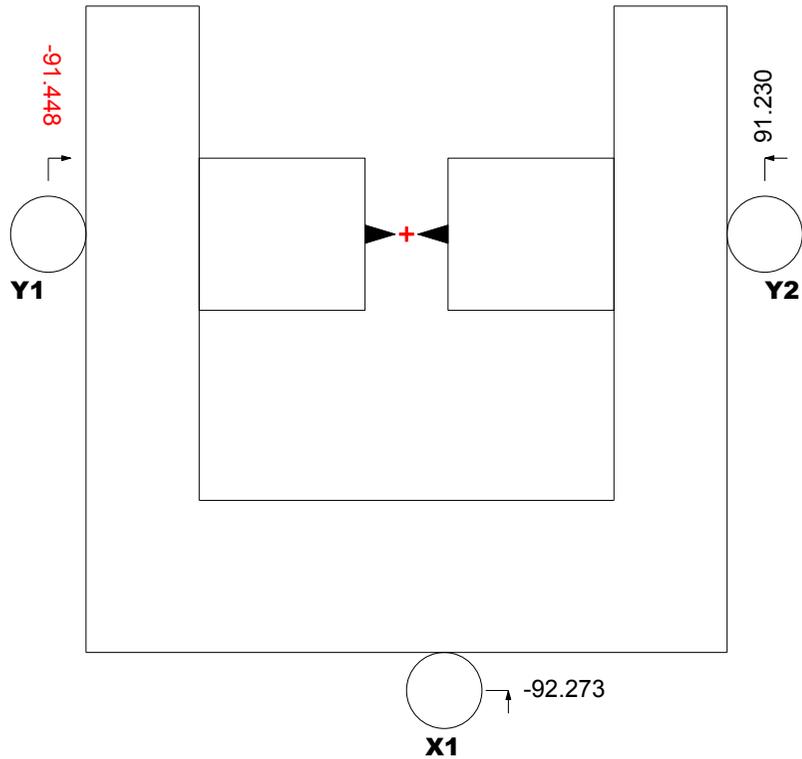
Z Center = 1842.386



## PM 2

### Up Stream

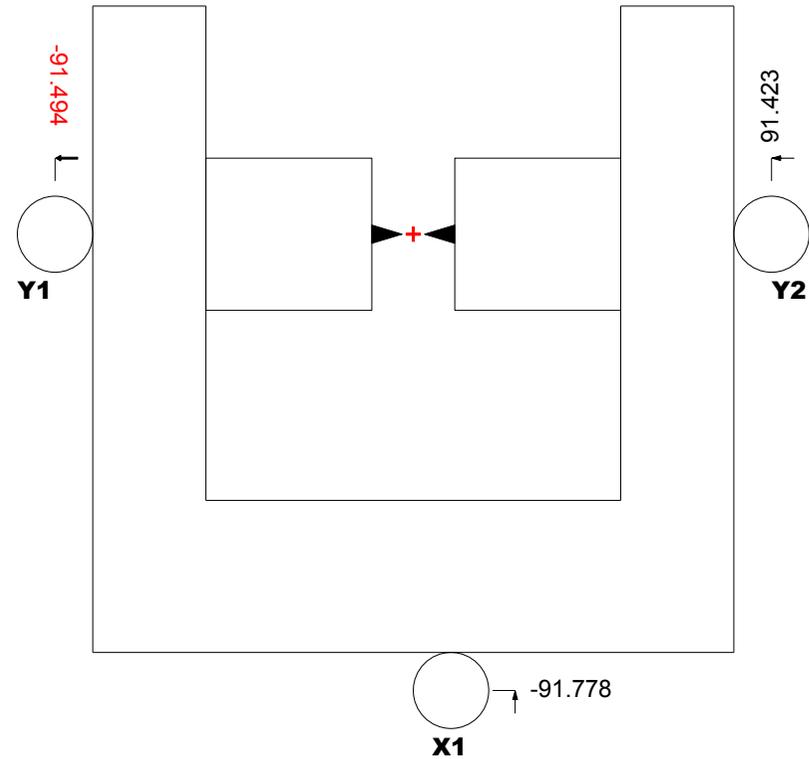
Z Center = -1842.360



## PM 3

### Down Stream

Z Center = 1842.386



#### Grid centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



### HGVPU - Fiducialization, Pointed End Magnet Values

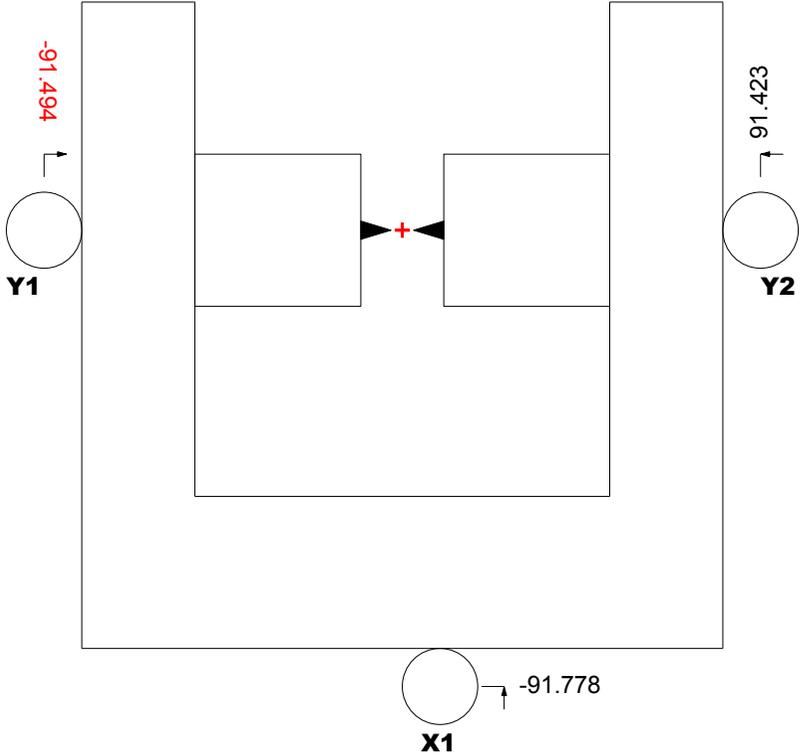
<b>Nominal Gap :</b>	<b>9.000</b>	<b>US Full :</b>	<b>8.989</b>	<b>DS Full :</b>	<b>8.9925</b>
<b>Nom. Taper :</b>	<b>0.000</b>	<b>US Wall Half :</b>	<b>4.4996</b>	<b>DS Wall Half :</b>	<b>4.4995</b>
		<b>US Aisle Half :</b>	<b>4.5001</b>	<b>DS Aisle Half :</b>	<b>4.5001</b>

<b>S/N</b>	<b>: HXU_001</b>
<b>Date</b>	<b>: 11-MAR-2019</b>
<b>Data Set</b>	<b>: 0001</b>
<b>Run</b>	<b>: Final</b>
<b>Cam Pos.</b>	<b>: B</b>

**PM 3**

**Down Stream**

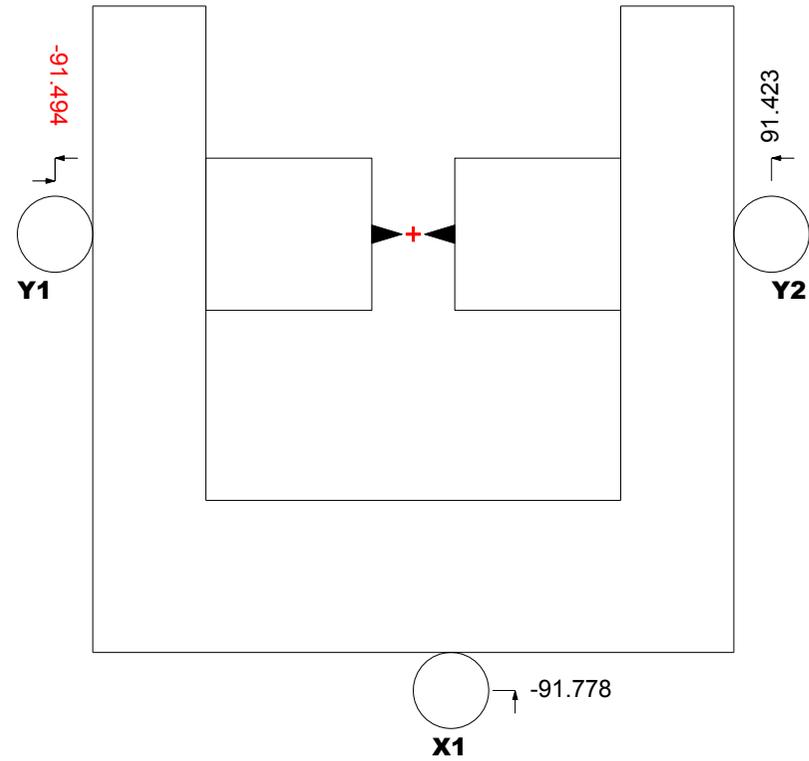
**Z Center = 1842.386**



# PM 3

## Down Stream

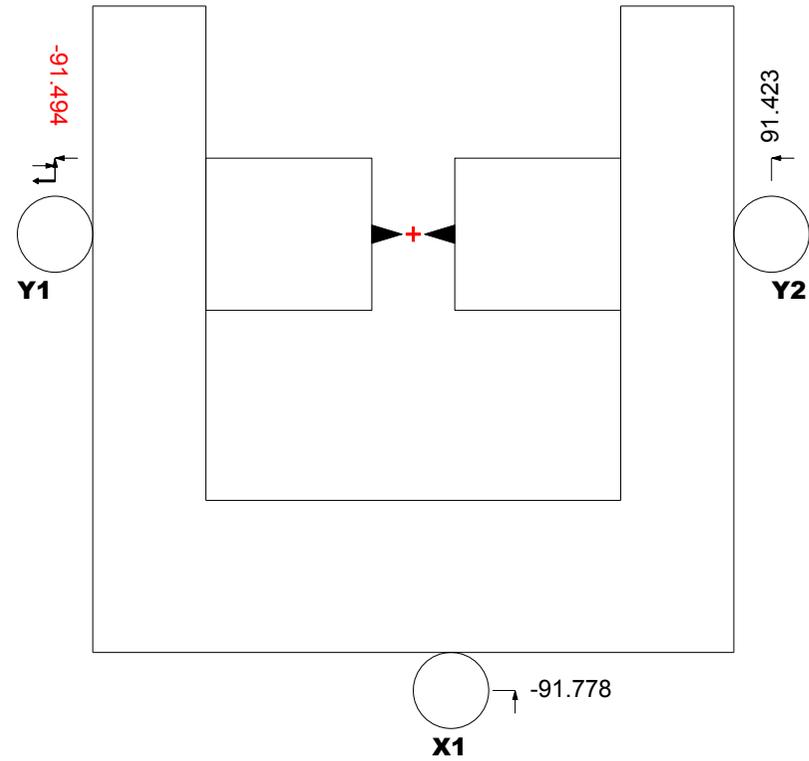
Z Center = 1842.386



# PM 3

## Down Stream

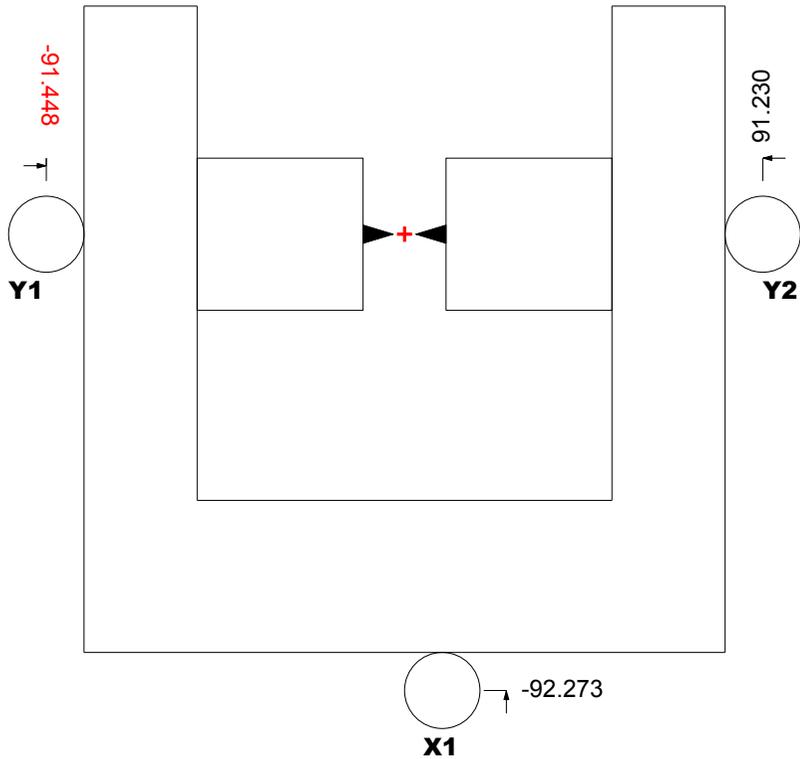
Z Center = 1842.386



## PM 2

### Up Stream

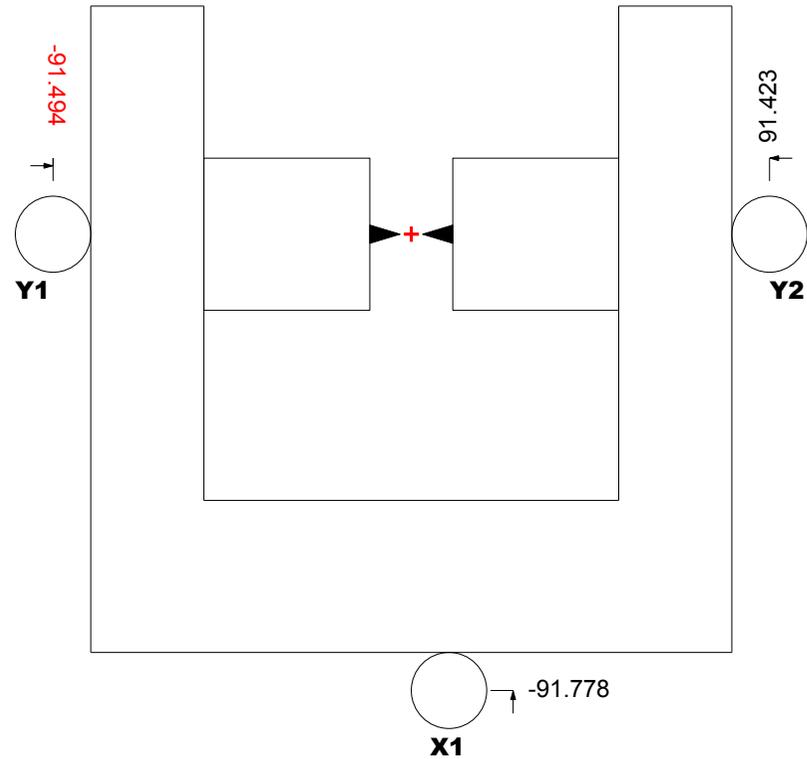
Z Center = -1842.360



## PM 3

### Down Stream

Z Center = 1842.386



#### Grid centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



### HGVPU - Fiducialization, Pointed End Magnet Values

<b>Nominal Gap :</b>	<b>9.000</b>	<b>US Full :</b>	<b>8.989</b>	<b>DS Full :</b>	<b>8.9925</b>
<b>Nom. Taper :</b>	<b>0.000</b>	<b>US Wall Half :</b>	<b>4.4996</b>	<b>DS Wall Half :</b>	<b>4.4995</b>
		<b>US Aisle Half :</b>	<b>4.5001</b>	<b>DS Aisle Half :</b>	<b>4.5001</b>

<b>S/N</b>	<b>: HXU_001</b>
<b>Date</b>	<b>: 11-MAR-2019</b>
<b>Data Set</b>	<b>: 0001</b>
<b>Run</b>	<b>: Final</b>
<b>Cam Pos.</b>	<b>: B</b>