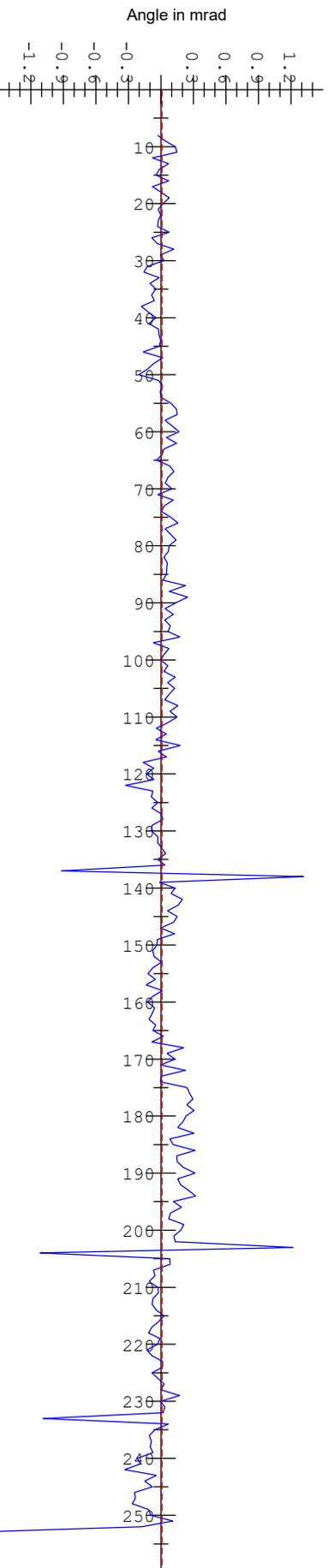


Included Angle Between Pole Tips

Pole Tip Num. ----->

Angle of Symmetry Line between Pole Tips to Grider ZX Plane



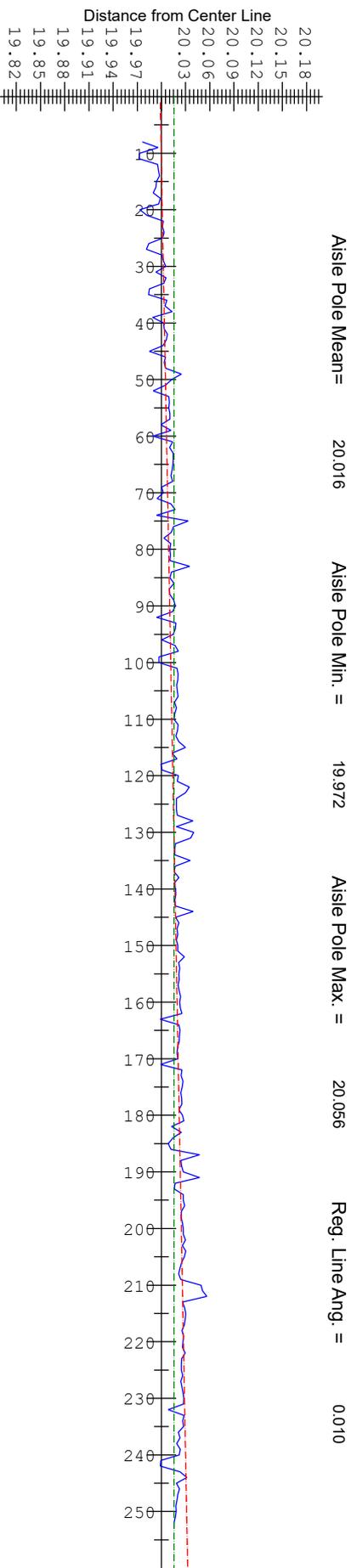
Dimensions in MM, Angles in Milliradians



HGVPU - Pole Tip Angles with Vacuum Chamber

Nominal Gap :	40.000	US Full :	40.000	DS Full :	40.0001
Nom. Taper :	0.000	US Wall Half :	19.9933	DS Wall Half :	19.9950
		US Aisle Half :	19.9935	DS Aisle Half :	19.9948

S/N	: HXU 017
Date	: 05-JAN-2023
Data Set	: 0002
Run	: RUN 2
Cam Pos.	: B



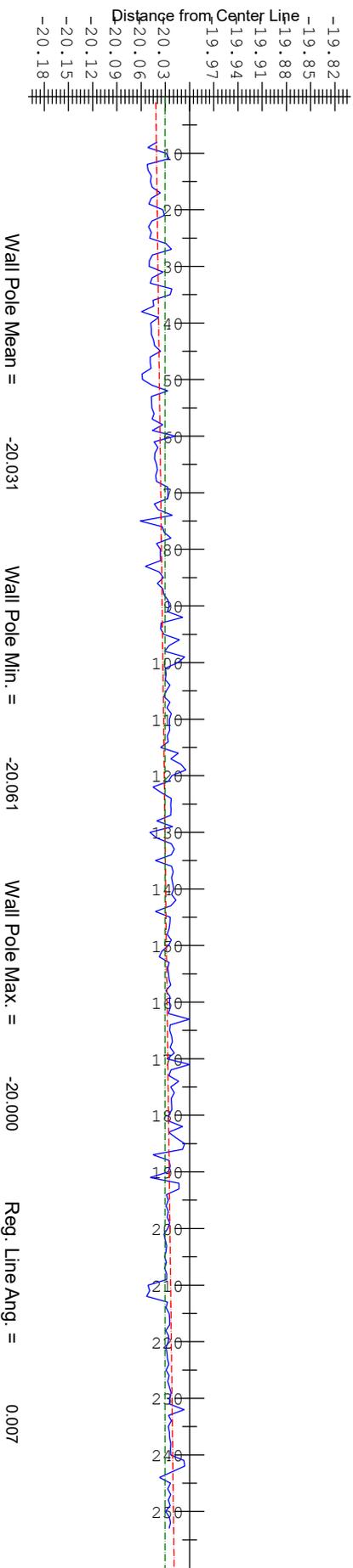
Pole Tip Num. ----->

Aisle Pole Tips at Nom. Beam Height

Blue = Pole Tip points
Green = Mean line
Red = Regression line thru points

Wall Pole Tips at Nom. Beam Height

Minimum Clearance Gap = 39.944



Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians



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HGVPU - Pole Tip Location with Vacuum Chamber

Nominal Gap : 40.000 US Full : 40.000 DS Full : 40.0001
 US Wall Half : 19.9933 DS Wall Half : 19.9950
 Nom. Taper : 0.000 US Aisle Half : 19.9935 DS Aisle Half : 19.9948

S/N : HXU 017
Date : 05-JAN-2023
Data Set : 0002
Run : RUN 2
Carm Pos. : B

Values Calculated from Regression Line End Points

Dimension	X Value	Y Value	Z Value	Calc. Value
US Aisle Pole Tip(1)	19.999	0.000	8.750	
US Wall Pole Tip(1)	-20.042	0.000	8.750	
US Sym. Pt.	-1.723			
US Gap				40.040
DS Aisle Pole Tip(260)	20.033	0.000	3375.750	
DS Wall Pole Tip(260)	-20.019	0.000	3375.750	
DS Sym. Pt.	0.534			
DS Gap				40.052
Taper				0.011

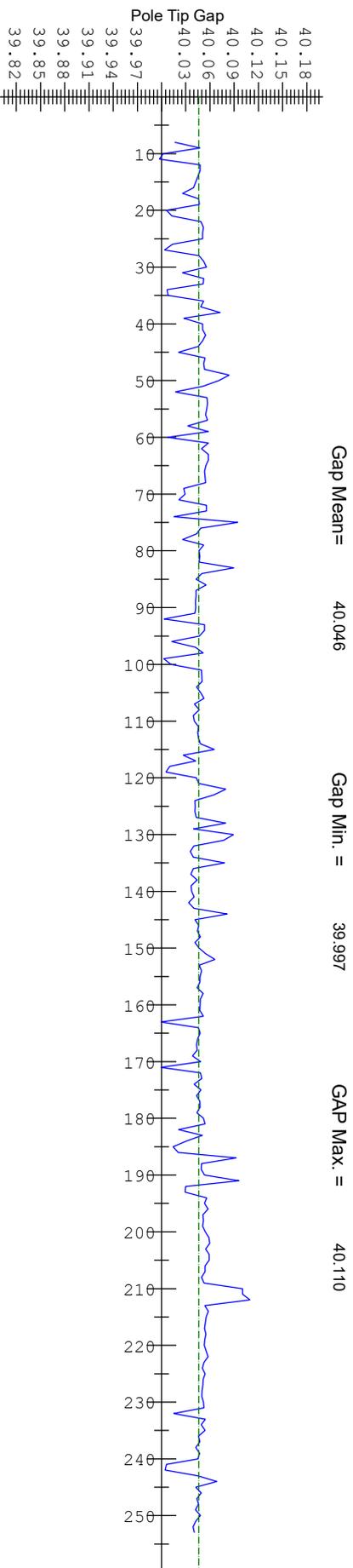
Dimensions in MM



HGVPU - Gap Calc. with Vacuum Chamber

Nominal Gap :	40.000	US Full :	40.000	DS Full :	40.0001
Norm. Taper :	0.000	US Wall Half :	19.9933	DS Wall Half :	19.9950
		US Aisle Half :	19.9935	DS Aisle Half :	19.9948

S/N	: HXU_017
Date	: 05-JAN-2023
Data Set	: 0002
Run	: RUN 2
Cam Pos.	: B

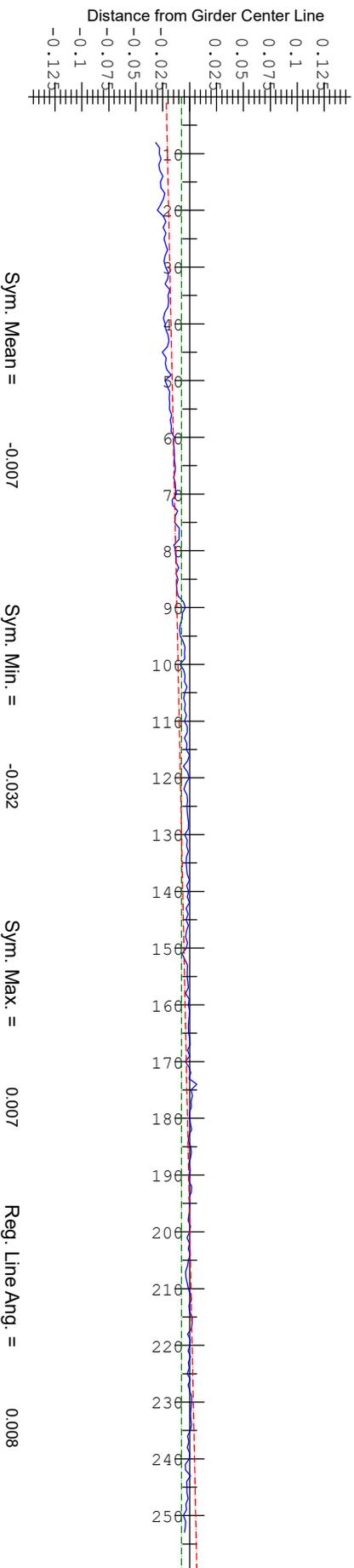


Pole Tip Gap at Nom. Beam Height

Pole Tip Num. ----->

Blue = Pole Tip points
 Green = Mean line
 Red = Regression line thru points

Pole Tip Symmetry Point at Nom. Beam Height



Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians

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METROLOGY

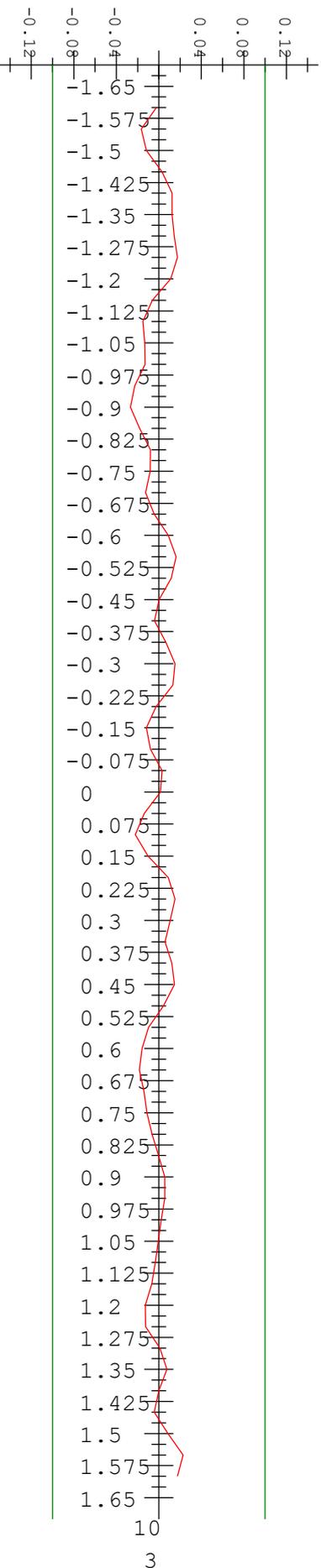
HGVPU - Gap and Symmetry Point with Vacuum Chamber

Nominal Gap :	40.000	US Full :	40.000	DS Full :	40.0001
Nom. Taper :	0.000	US Wall Half :	19.9933	DS Wall Half :	19.9950
		US Aisle Half :	19.9935	DS Aisle Half :	19.9948

S/N	: HXU 017
Date	: 05-JAN-2023
Data Set	: 0002
Run	: RUN 2
Cam Pos.	: B

Vacuum Chamber Centerline Profile to Magnetic Axis X Centerline, Green line = +/- .100 Tol.

Red = Actual Chamber Centerline



Quadrupole

Value	Nominal	Actual	Deviation
X Center	0.000	-0.007	-0.007
Y Center	0.000	0.003	0.003
Z Center	1830.000	1830.030	0.030
Roll	0.000	0.007	0.007
Pitch	0.000	0.708	0.708
Yaw	0.000	0.356	0.356

BPM

Value	Nominal	Actual	Deviation
US X	0.000	-0.010	-0.010
US Y	0.000	0.019	0.019
DS X	0.000	0.029	0.029
DS Y	0.000	0.004	0.004
Roll	0.000	0.041	0.041
BPM-QUAD	128.120	127.882	-0.238

Phase Shifter Chamber

Value	Nominal	Actual	Deviation
US X	0.000	0.004	0.004
US Y	0.000	-0.164	-0.164
DS X	0.000	-0.006	-0.006
DS Y	0.000	-0.018	-0.018

Dimensions in MM, Angles in Milliradians



HGVPU - Chamber Profile and Interspace Components

Installed Quad S/N: 0737

S/N	: HXU 017
Date	: 13-JAN-2023
Data Set	: 0002
Run	: RUN 1
Cam Pos.	: B