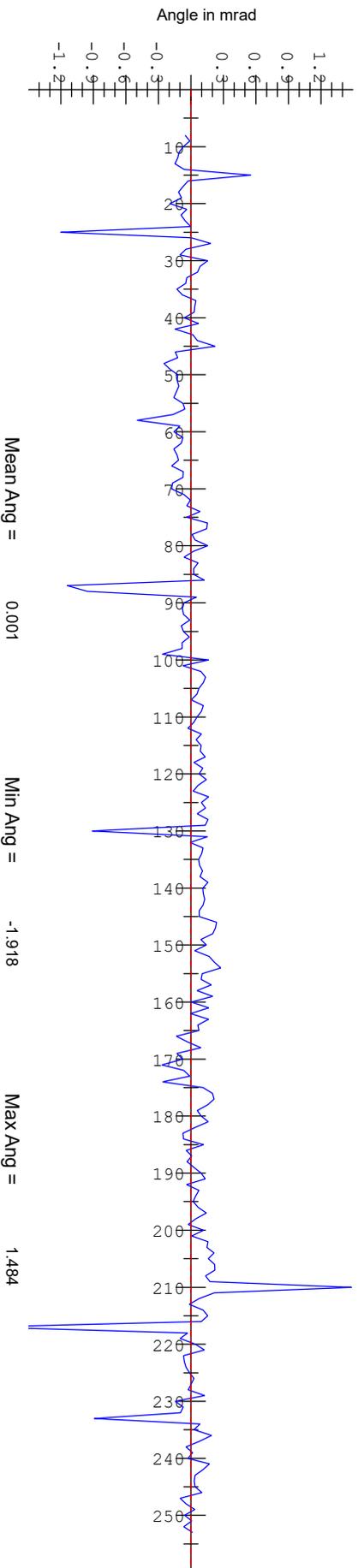


Included Angle Between Pole Tips

Pole Tip Num. ----->

Angle of Symmetry Line between Pole Tips to Gridler ZX Plane



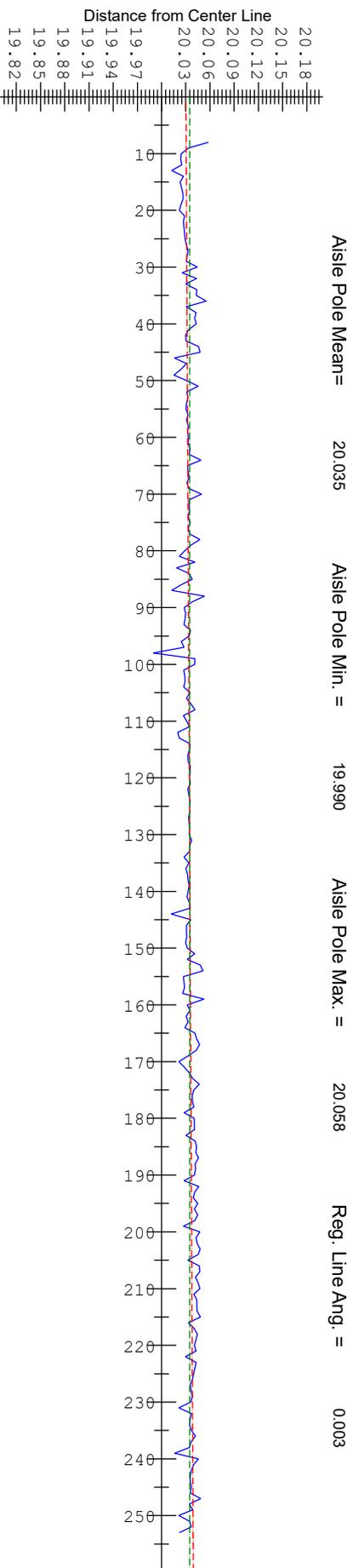
Dimensions in MM, Angles in Milliradians



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 :	19.9898	DS Wall Half :	19.9876
		US Aisle Half :	19.9883	DS Aisle Half :	19.9880

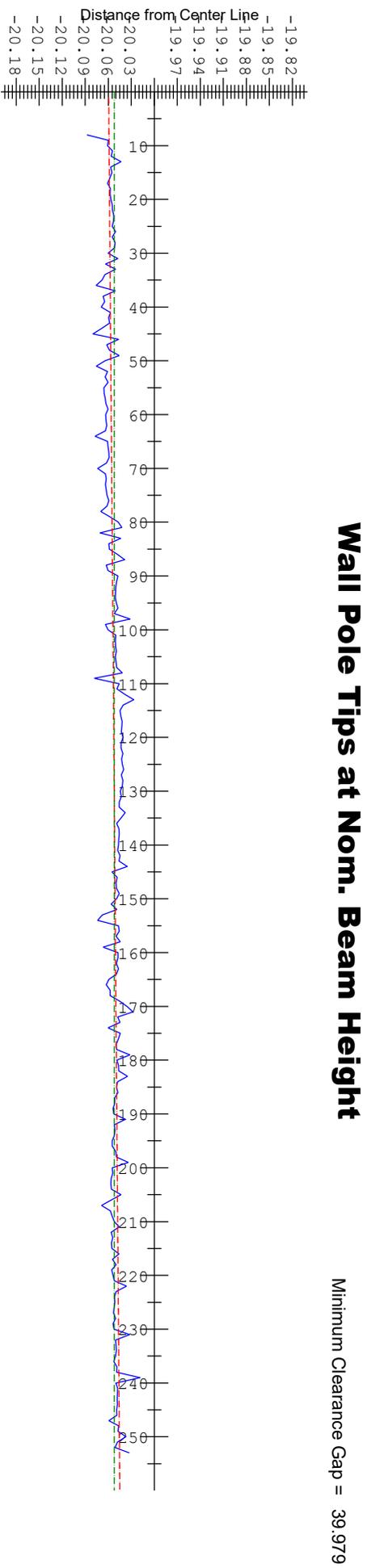
S/N	: HXU_001
Date	: 24-AUG-2020
Data Set	: 0002
Run	: RUN 2
Cam Pos.	: B



Aisle Pole Tips at Nom. Beam Height

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

Pole Tip Num. ----->



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

Nom. Taper : 0.000 US Wall Half : 19.9898 DS Wall Half : 19.9876

US Aisle Half : 19.9883 DS Aisle Half : 19.9880

S/N : HXU_001

Date : 24-AUG-2020

Data Set : 0002

Run : RUN 2

Cam Pos. : B

Values Calculated from Regression Line End Points

Dimension	X Value	Y Value	Z Value	Calc. Value
US Aisle Pole Tip(1)	20.030	0.000	8.750	
US Wall Pole Tip(1)	-20.060	0.000	8.750	
US Sym. Pt.	-1.871			
US Gap				40.090
DS Aisle Pole Tip(260)	20.039	0.000	3375.750	
DS Wall Pole Tip(260)	-20.045	0.000	3375.750	
DS Sym. Pt.	0.819			
DS Gap				40.084
Taper				-0.005

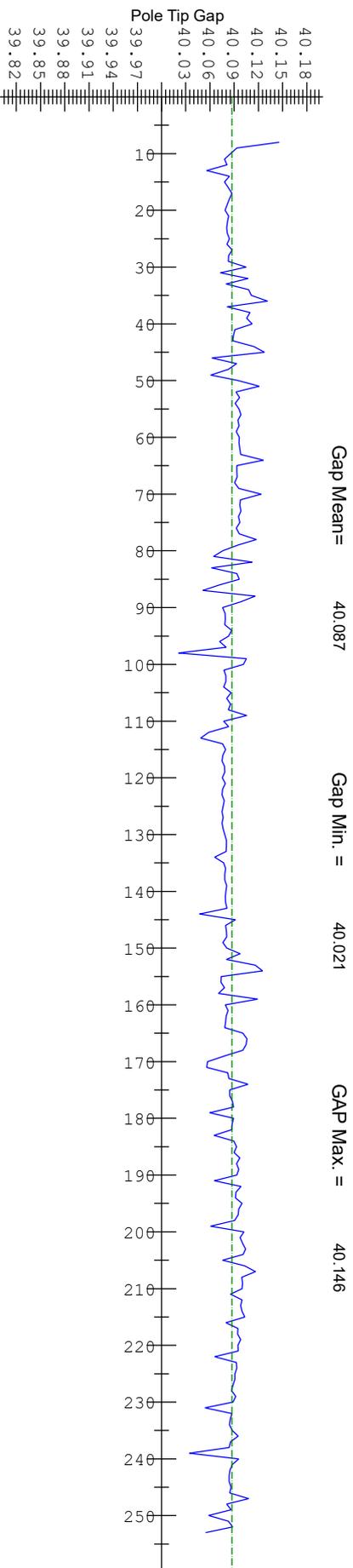
Dimensions in MM



HGVPU - Gap Calc. with Vacuum Chamber

Nominal Gap :	40.000	US Full :	40.000	DS Full :	40.0001
Nom. Taper :	0.000	US Wall Half :	19.9898	DS Wall Half :	19.9876
		US Aisle Half :	19.9883	DS Aisle Half :	19.9880

S/N	: HXU_001
Date	: 24-AUG-2020
Data Set	: 0002
Run	: RUN 2
Cam Pos.	: B

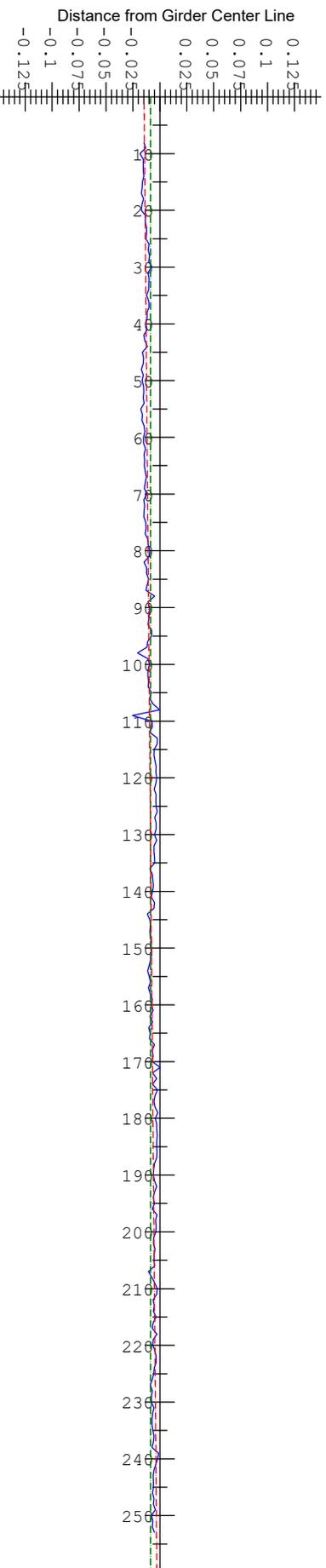


Pole Tip Gap at Nom. Beam Height

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

Pole Tip Num. ----->

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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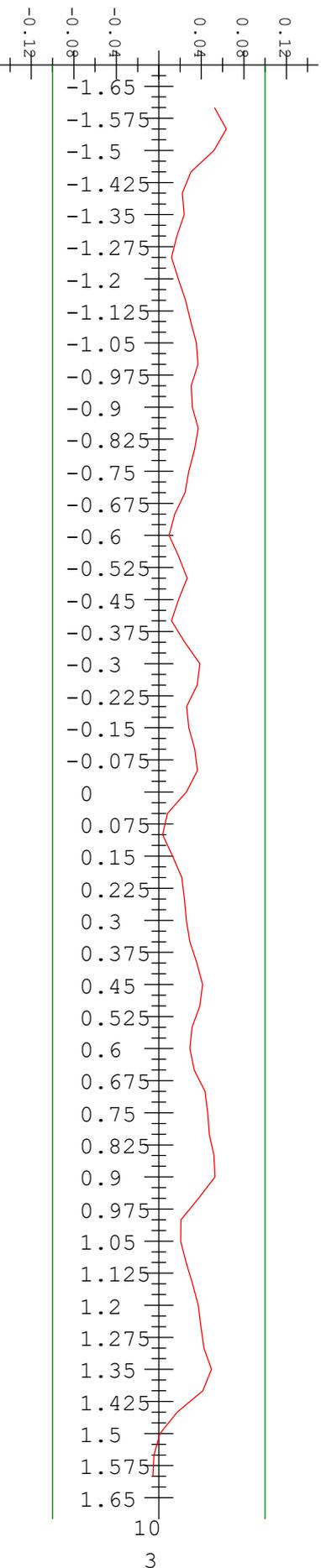
HGVPU - Gap and Symmetry Point with Vacuum Chamber

Nominal Gap :	40.000	US Full :	40.000	DS Full :	40.0001
Nom. Taper :	0.000	US Wall Half :	19.9898	DS Wall Half :	19.9876
		US Aisle Half :	19.9883	DS Aisle Half :	19.9880

S/N	: HXU_001
Date	: 24-AUG-2020
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	-0.017	-0.017
Y Center	0.000	0.008	0.008
Z Center	1830.000	1830.199	0.199
Roll	0.000	0.264	0.264
Pitch	0.000	0.877	0.877
Yaw	0.000	0.045	0.045

BPM

Value	Nominal	Actual	Deviation
US X	0.000	0.024	0.024
US Y	0.000	-0.017	-0.017
DS X	0.000	0.017	0.017
DS Y	0.000	-0.004	-0.004
Roll	0.000	0.249	0.249
BPM-QUAD	128.120	128.003	-0.118

Phase Shifter Chamber

Value	Nominal	Actual	Deviation
US X	0.000	-0.117	-0.117
US Y	0.000	0.088	0.088
DS X	0.000	-0.121	-0.121
DS Y	0.000	0.203	0.203

Dimensions in MM, Angles in Milliradians



HGVPU - Chamber Profile and Interspace Components

Installed Quad S/N: 0707

S/N	: HXU_001
Date	: 24-AUG-2020
Data Set	: 0002
Run	: RUN 1
Cam Pos.	: B