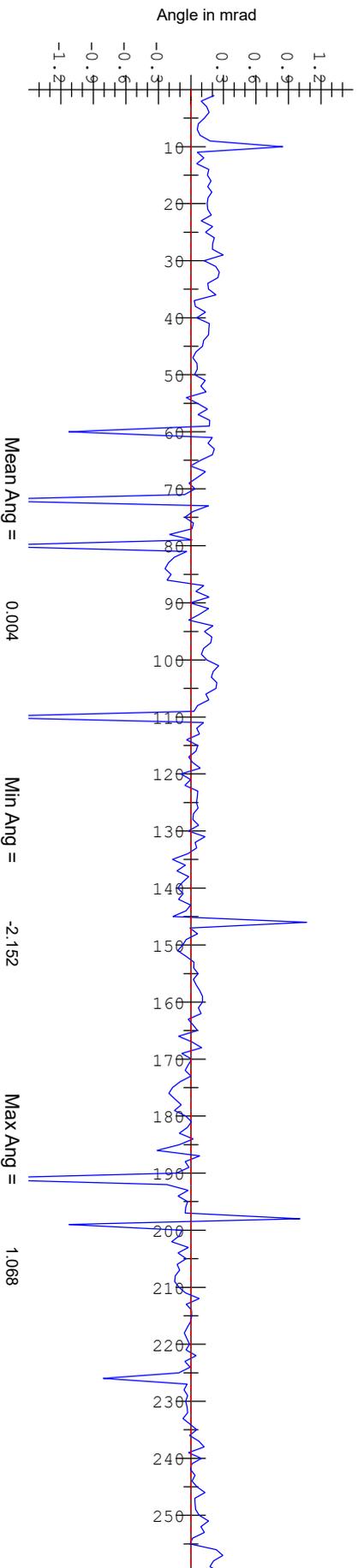


Included Angle Between Pole Tips

Pole Tip Num. ----->

Angle of Symmetry Line between Pole Tips to Tuning Gap ZX Plane



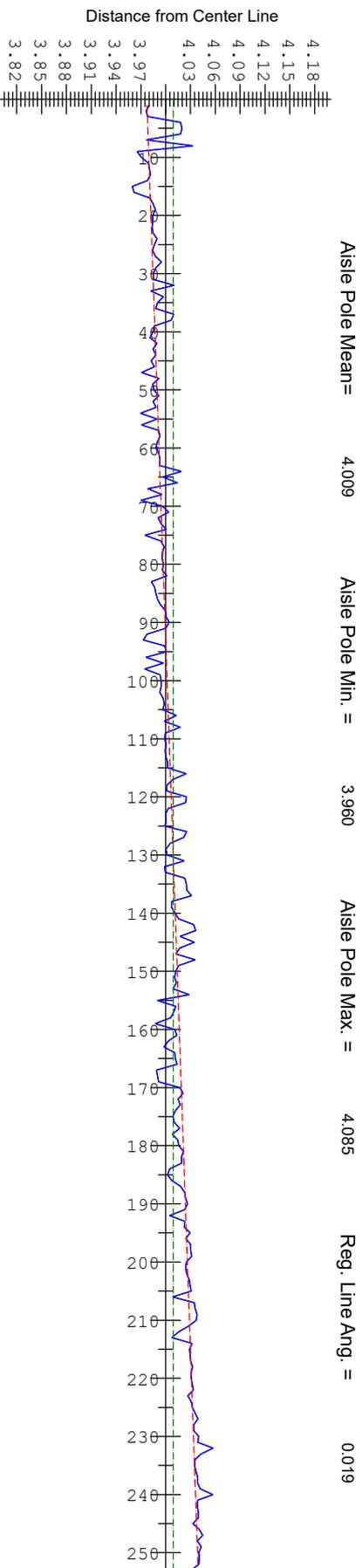
Dimensions in MM, Angles in Milliradians



HGVPU - Pole Tip Angles

| | | | | | |
|----------------------|--------------|------------------------|---------------|------------------------|---------------|
| Nominal Gap : | 8.000 | US Full : | 8.0001 | DS Full : | 8.1000 |
| Nom. Taper : | 0.100 | US Wall Half : | 4.0029 | DS Wall Half : | 4.0512 |
| | | US Aisle Half : | 4.0016 | DS Aisle Half : | 4.0529 |

| | |
|-----------------|----------------------|
| S/N | : HXU 016 |
| Date | : 10-SEP-2020 |
| Data Set | : 0001 |
| Run | : FINAL |
| Cam Pos. | : B |

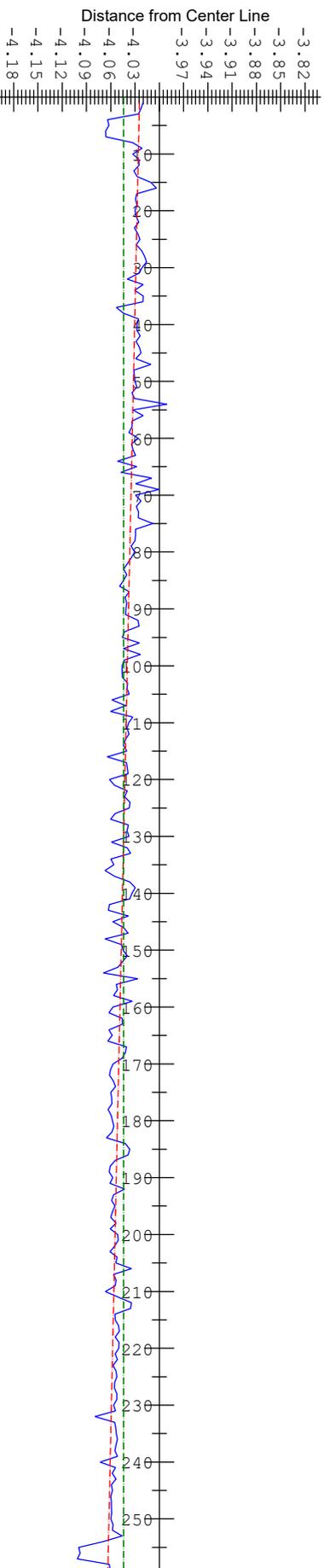


Aisle Pole Tips at Nom. Beam Height

Pole Tip Num. ----->

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

Minimum Clearance Gap = 7.919



Girder centerline in reference to Pointed Magnets

Dimensions in MM, Angles in Milliradians

| | | | | | |
|--|---|-----------------|----------------|----------------|--|
|  | HGVPU - Pole Tip Location from Girder Centerline | | | | |
| | Nominal Gap : | 8.000 | US Wall Half : | 4.0029 | |
| Nom. Taper : | 0.100 | US Full : | 8.0001 | DS Full : | 8.1000 |
| | | US Aisle Half : | 4.0016 | DS Wall Half : | 4.0512 |
| | | DS Aisle Half : | 4.0529 | | |
| S/N | Date | Data Set | Run | Carm Pos. | : HXU 016 : 10-SEP-2020 : 0001 : FINAL : B |

Values Calculated from Regression Line End Points

| Dimension | X Value | Y Value | Z Value | Calc. Value |
|------------------------|---------|---------|----------|-------------|
| US Aisle Pole Tip(1) | 3.977 | 0.000 | 8.750 | |
| US Wall Pole Tip(1) | -4.025 | 0.000 | 8.750 | |
| US Sym. Pt. | -0.024 | | | |
| US Gap | | | | 8.002 |
| DS Aisle Pole Tip(260) | 4.041 | 0.000 | 3375.750 | |
| DS Wall Pole Tip(260) | -4.064 | 0.000 | 3375.750 | |
| DS Sym. Pt. | -0.011 | | | |
| DS Gap | | | | 8.105 |
| Taper | | | | 0.103 |

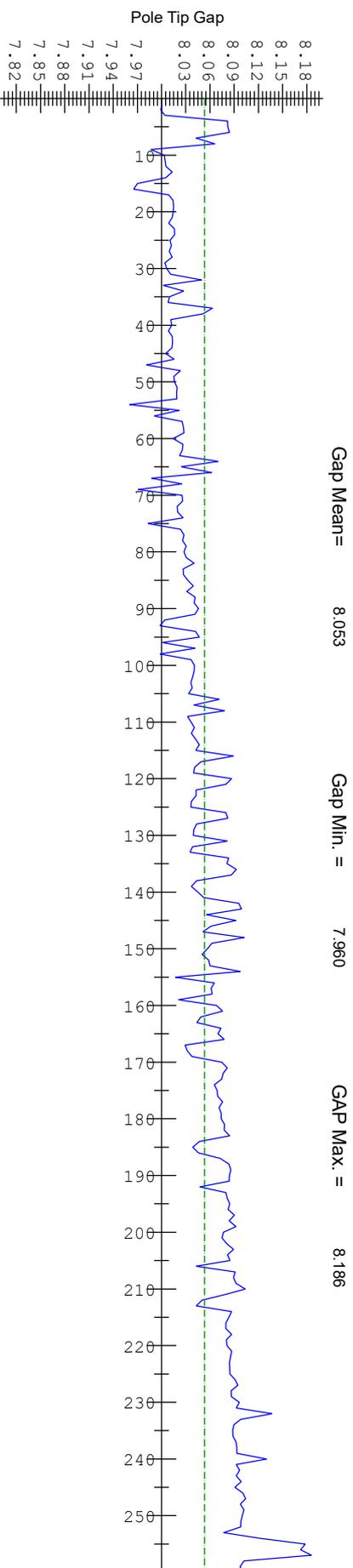
Dimensions in MM



HGVPU - Gap Calc. from Regression Line End Points

| | | | | | |
|---------------|-------|-----------------|--------|-----------------|--------|
| Nominal Gap : | 8.000 | US Full : | 8.0001 | DS Full : | 8.1000 |
| Nom. Taper : | 0.100 | US Wall Half : | 4.0029 | DS Wall Half : | 4.0512 |
| | | US Aisle Half : | 4.0016 | DS Aisle Half : | 4.0529 |

| | |
|----------|---------------|
| S/N | : HXU_016 |
| Date | : 10-SEP-2020 |
| Data Set | : 0001 |
| Run | : FINAL |
| Cam Pos. | : B |

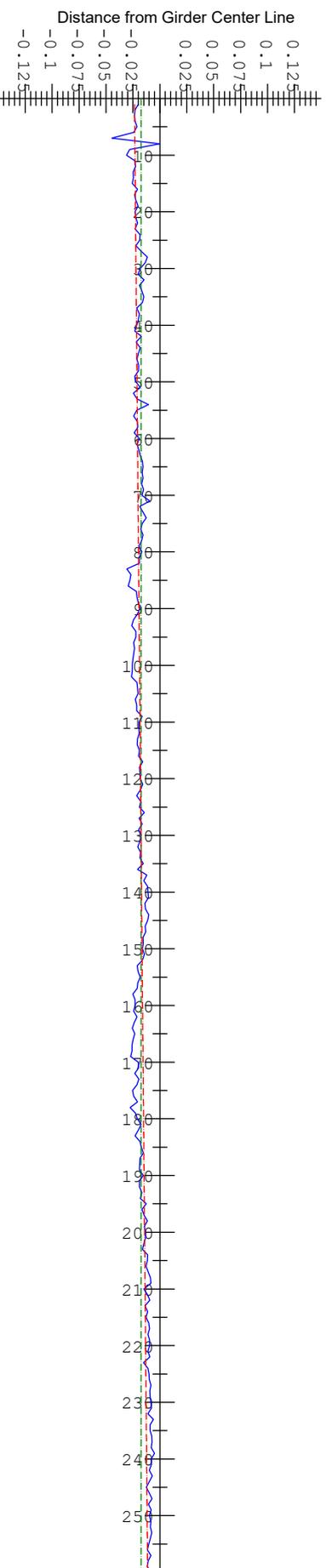


Pole Tip Gap at Nom. Beam Height

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

SLAC
NATIONAL ACCELERATOR LABORATORY
METROLOGY

HGVPU - Pole Tip Gap and Symmetry Point Location

| | | | | | |
|---------------|-------|-----------------|--------|-----------------|--------|
| Nominal Gap : | 8.000 | US Full : | 8.0001 | DS Full : | 8.1000 |
| Nom. Taper : | 0.100 | US Wall Half : | 4.0029 | DS Wall Half : | 4.0512 |
| | | US Aisle Half : | 4.0016 | DS Aisle Half : | 4.0529 |

| | |
|----------|---------------|
| S/N | : HXU 016 |
| Date | : 10-SEP-2020 |
| Data Set | : 0001 |
| Run | : FINAL |
| Cam Pos. | : B |



SLAC
NATIONAL ACCELERATOR LABORATORY
METROLOGY

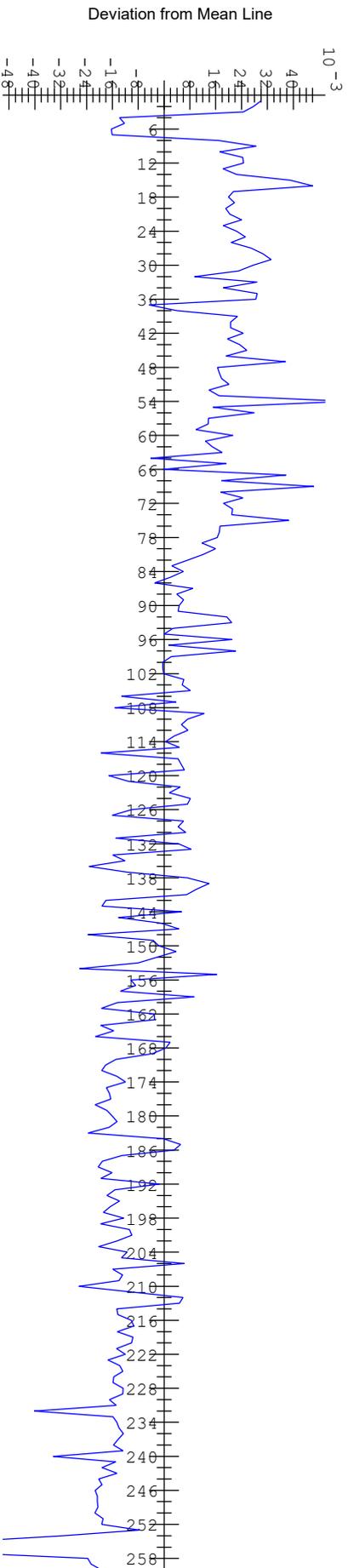
HGVPU - Pole Tip Deviation from Mean Line

Nominal Gap : 8.000 US Full : 8.0001 DS Full : 8.1000
 Nom. Taper : 0.100 US Wall Half : 4.0029 DS Wall Half : 4.0512
 US Aisle Half : 4.0016 DS Aisle Half : 4.0529

S/N : HXU 016
 Date : 10-SEP-2020
 Data Set : 0001
 Run : FINAL
 Cam Pos. : B

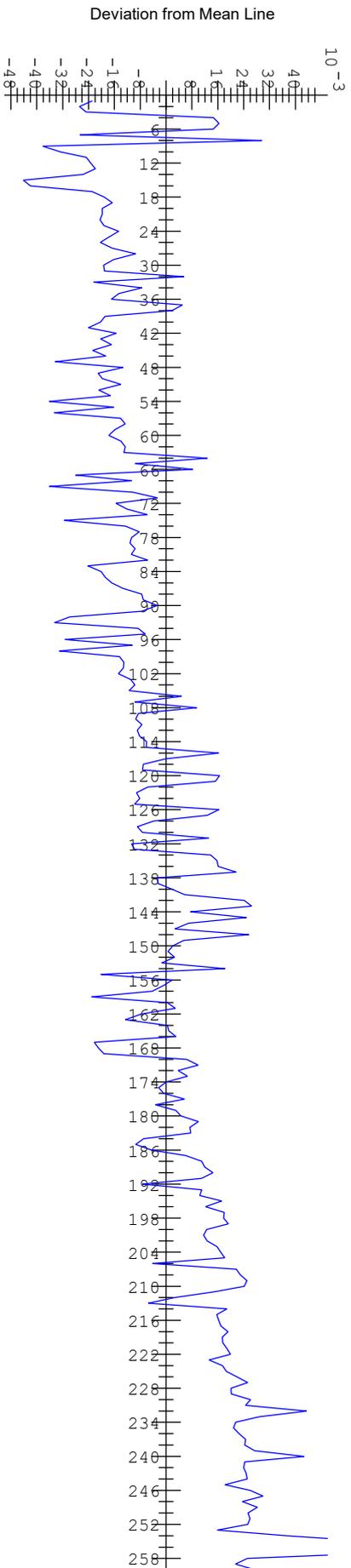
Pole Tip Deviations from Jaw Mean Lines when aligned to actual Gap Sym. Plane

Dimensions in MM



Pole Tip Num. ----->

Wall Pole Tips



Aisle Pole Tips