

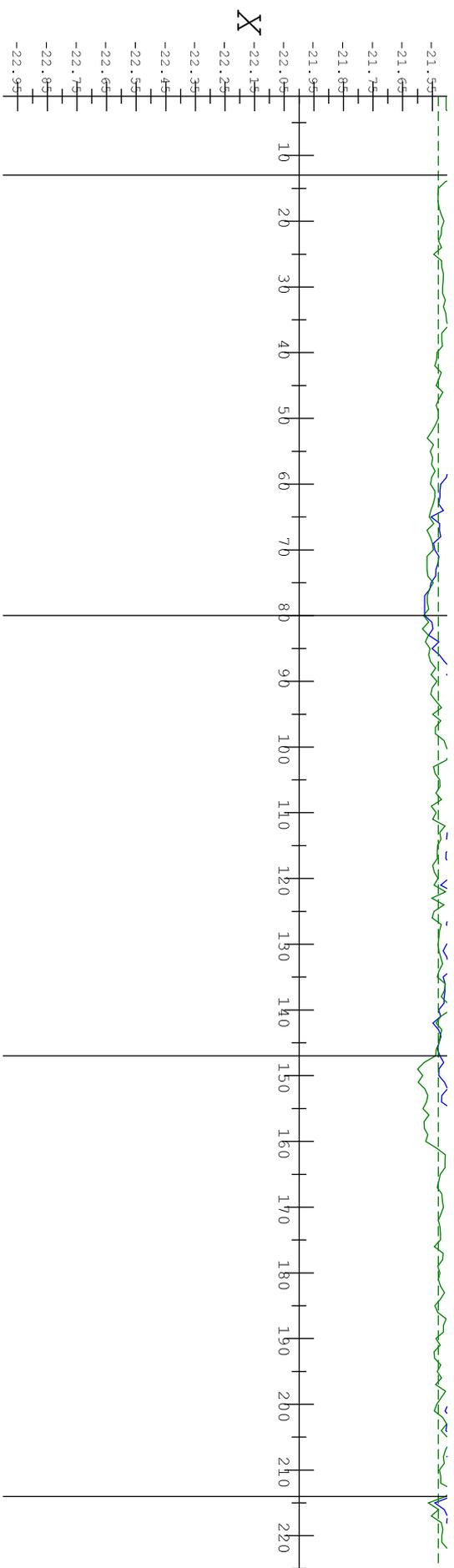
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles  
 Post Magnetic Alignment

DATE: 15-JUL-2009  
 UNDULATOR # 27  
 DATASET # 0001  
 PROGRAM VERSION 2.9

# Pole Tip Number ----->



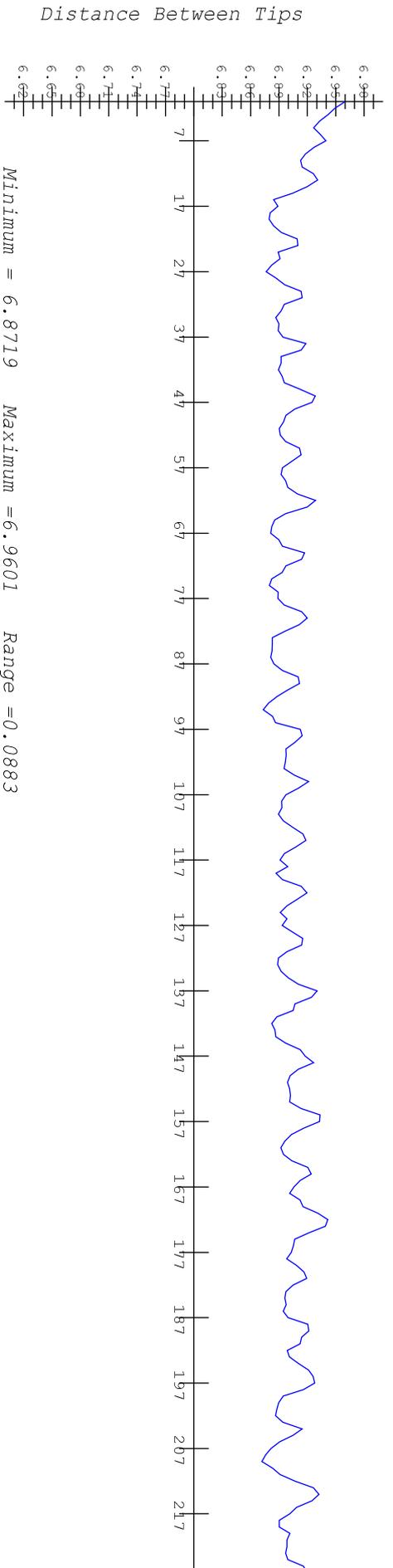
X values in mm

Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L

Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -21.529

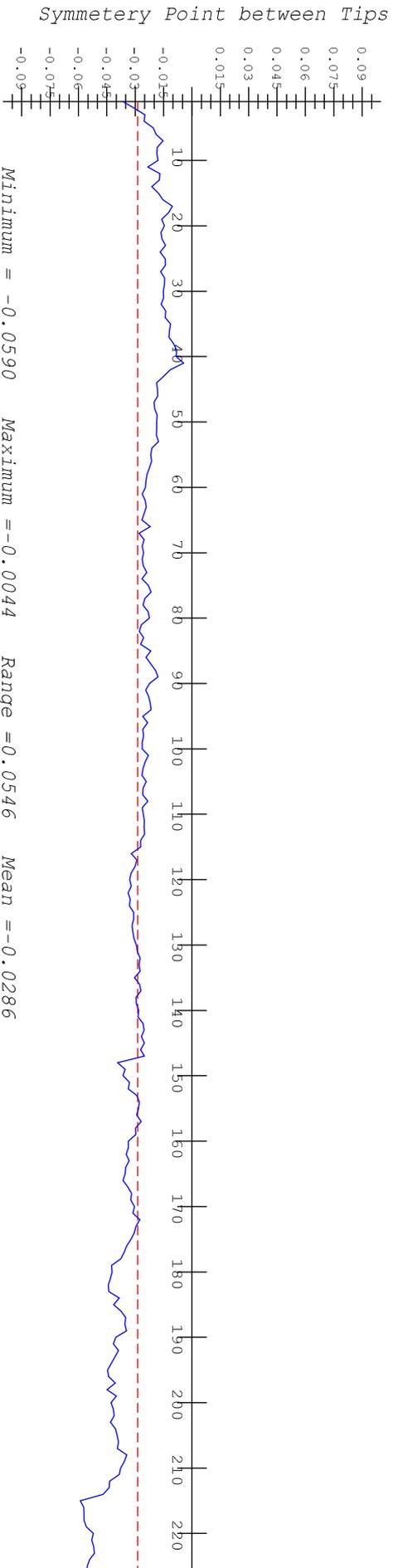
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.475



in mm

Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L  
 Broken Red line is Mean Value of Symmetry Points  
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C\L

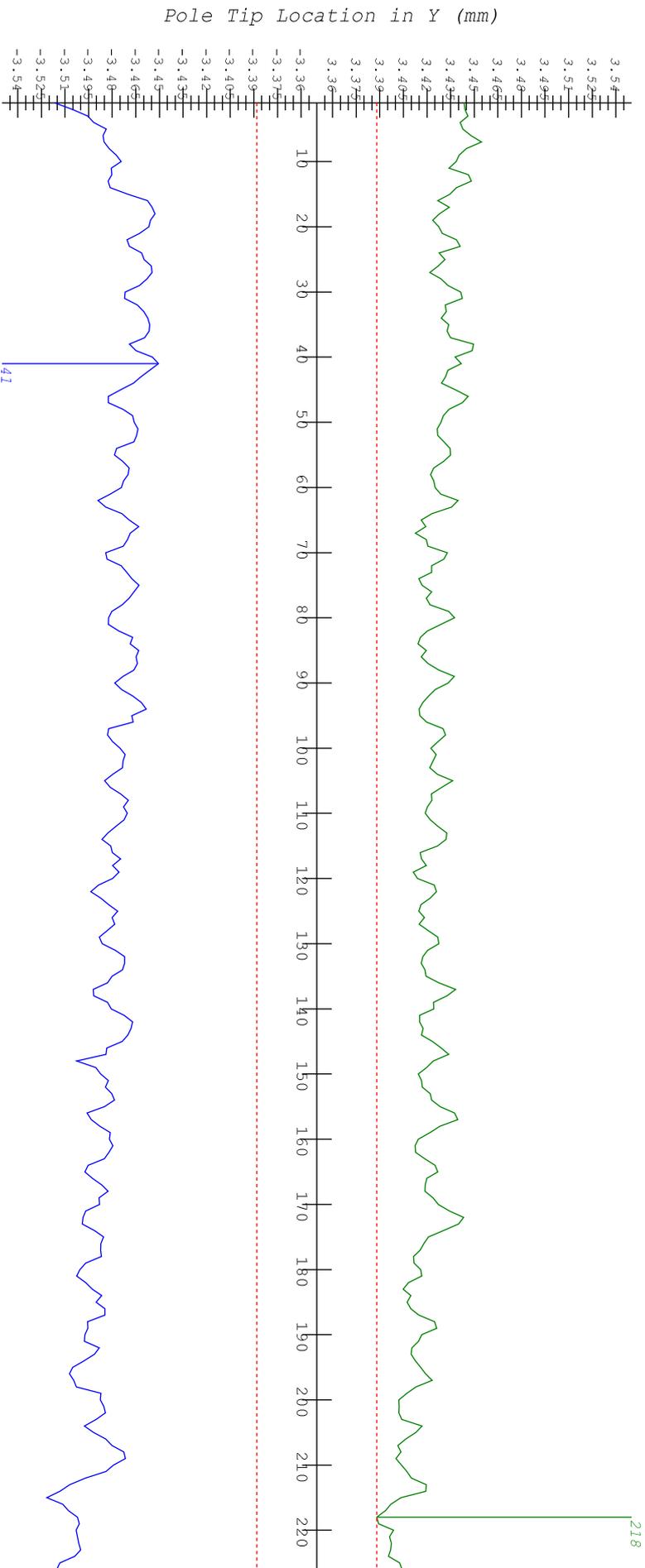


Undulator Pole Tip Location  
 Post Magnetic Alignment

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Maximum Chamber Gap = 6.7762

Minimum = 3.3881 Maximum = 3.4546 Range = 0.0665



Minimum = -3.5216 Maximum = -3.4506 Range = 0.0710

Pole Tip Number ----->

Green = The position of the Upper Pole Tips at Magnetic C\L  
Blue = The position of the Lower Pole Tips at Magnetic C\L  
Max. Chamber Gap = The maximum width vacuum chamber that will fit centered on the Magnetic C\L (2\*Min. Dev. from C\L)



Undulator Pole Tip Location  
Post Magnetic Alignment

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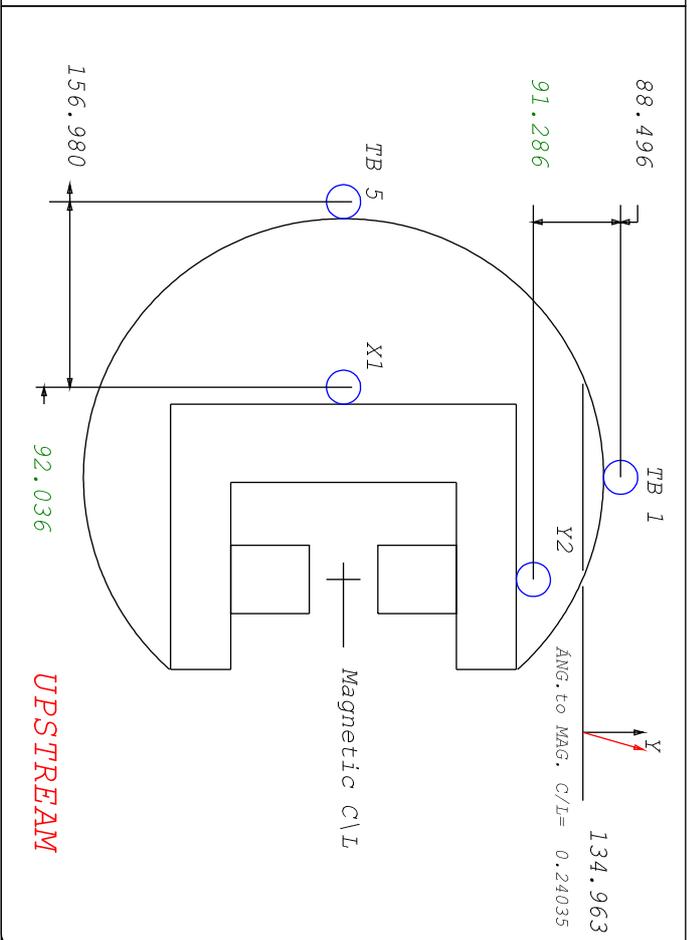
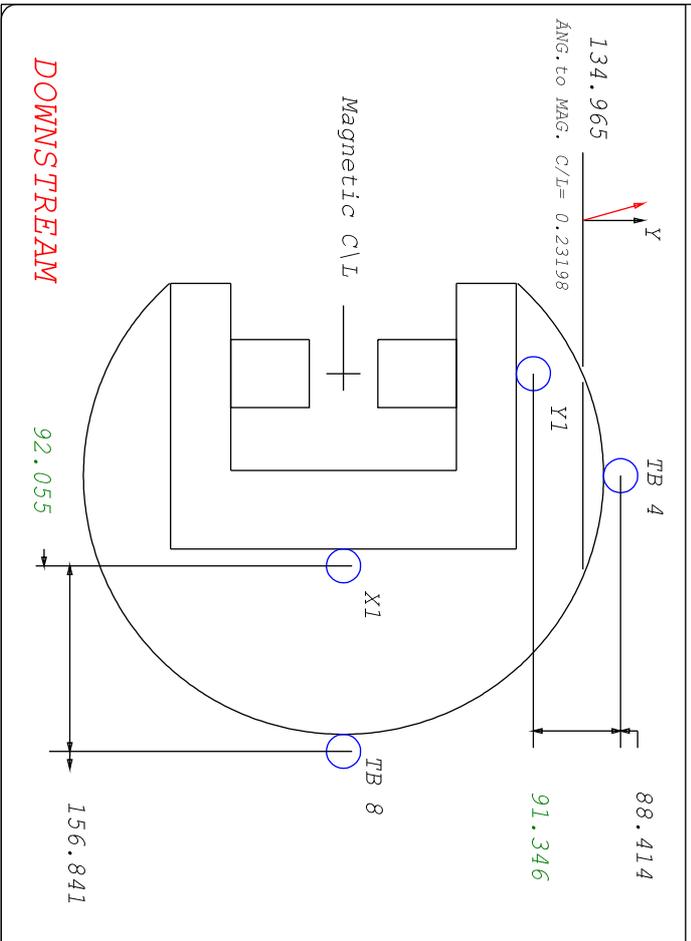
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.6810	179.7818	-1558.387
2	0.5016	179.7469	-584.6660
3	0.5420	179.7003	591.3115
4	0.4732	179.7597	1562.1514
5	249.0164	-0.0312	1558.114
6	248.8642	0.0964	-584.5973
7	248.8120	0.0524	591.3717
8	248.8959	-0.0432	1562.2317

	C/L Offset	Length
Top Magnetic Structure	-0.010	3380.961
Bottom Magnetic Structure	0.010	3381.017
Strongback	0.399	3399.763

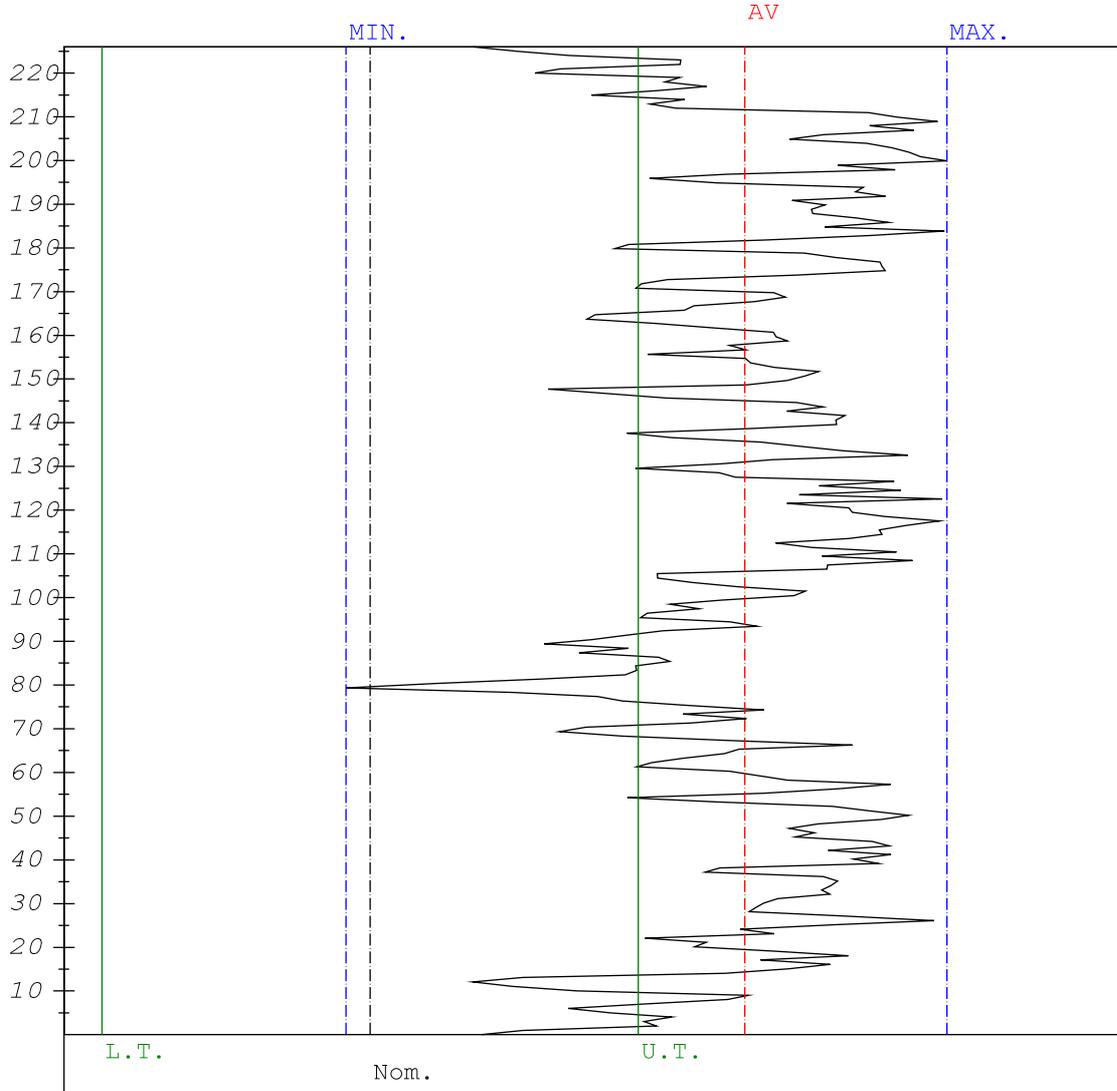
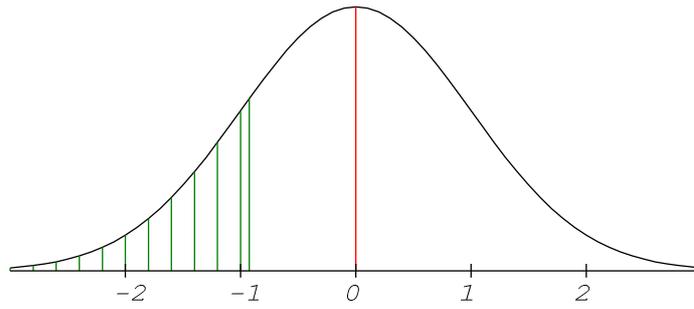
Dimensions in mm

Angles in mrad



# Undulator Dimensional Fiducialization Post Magnetic Alignment

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Nominal : 4.5000	Averag : 5.1988	Cent.-Dev. : 0.6988
Up. Tol. : 0.5	Maximum : 5.5756	U.Tol.Ex. > : 82.3 %
Low.Tol. : -0.5	Minimum : 4.4550	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2148	In Tolerance: 17.7 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation  
 Pole Tip Gap Angle  
 Post Magnetic Alignment

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