

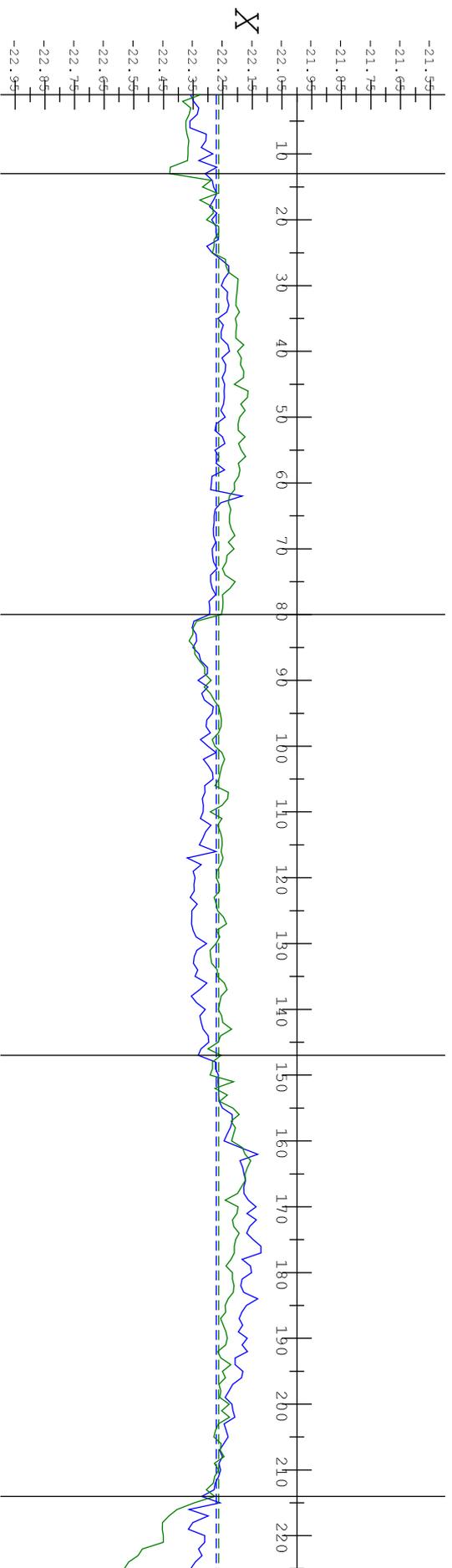
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 31 - JAN - 2012
 UNDULATOR # 13
 DATASET # 0039
 PROGRAM VERSION 2.9

Pole Tip Number ----->



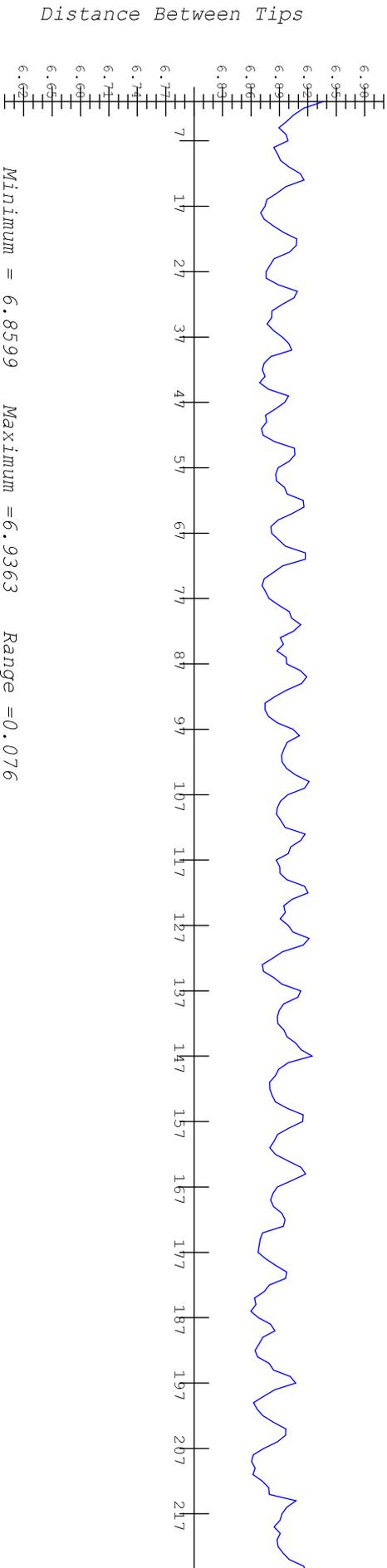
X values in mm

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 = -22.264

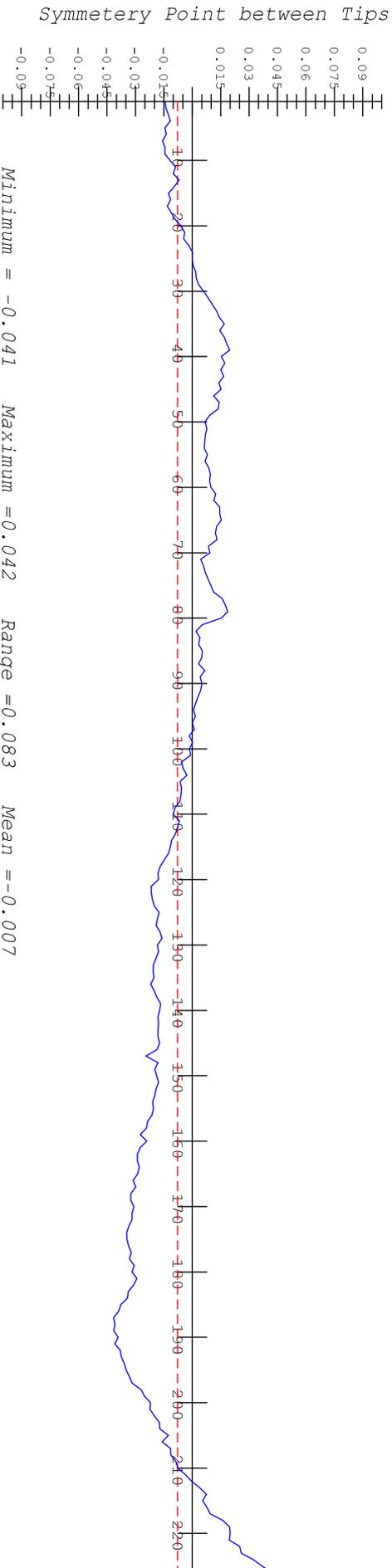
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.272



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

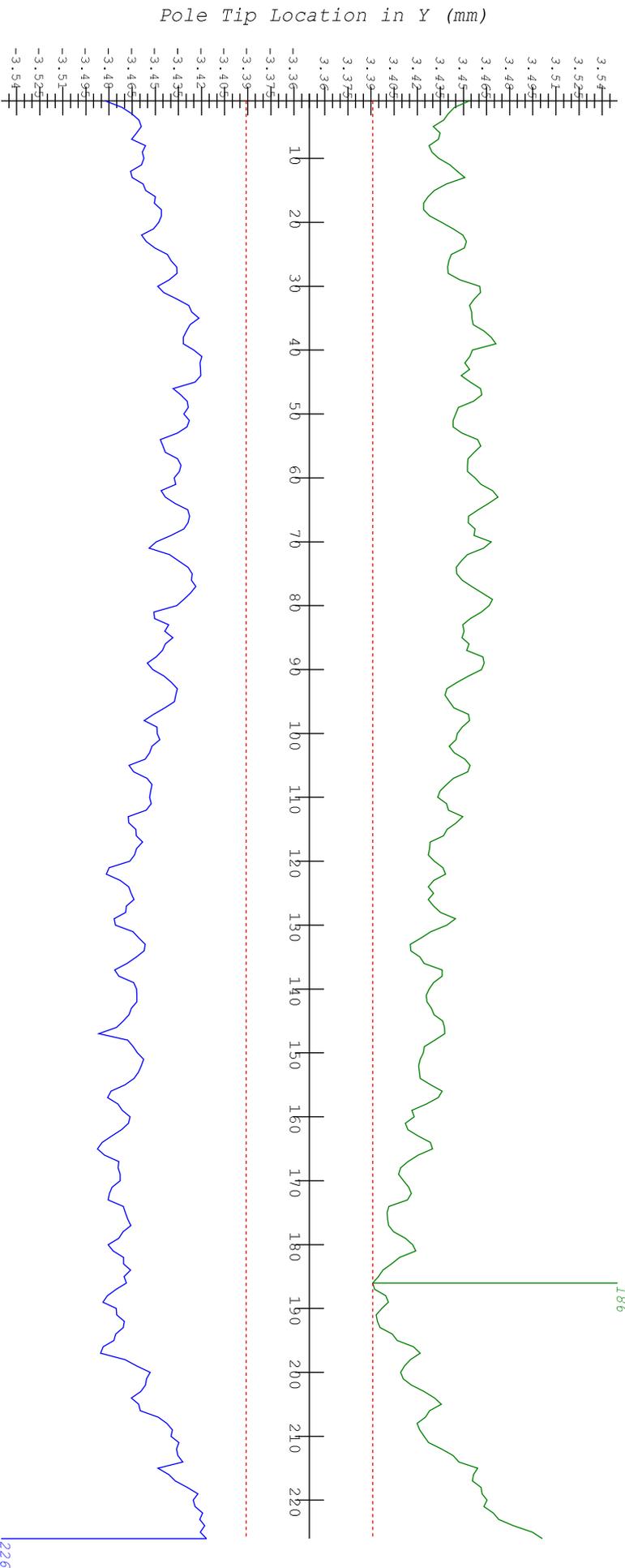


Undulator Pole Tip Location
 Post Magnetic Alignment

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Maximum Chamber Gap = 6.7822

Minimum = 3.3911 Maximum = 3.5012 Range = 0.1101



Minimum = -3.4876 Maximum = -3.4168 Range = 0.070

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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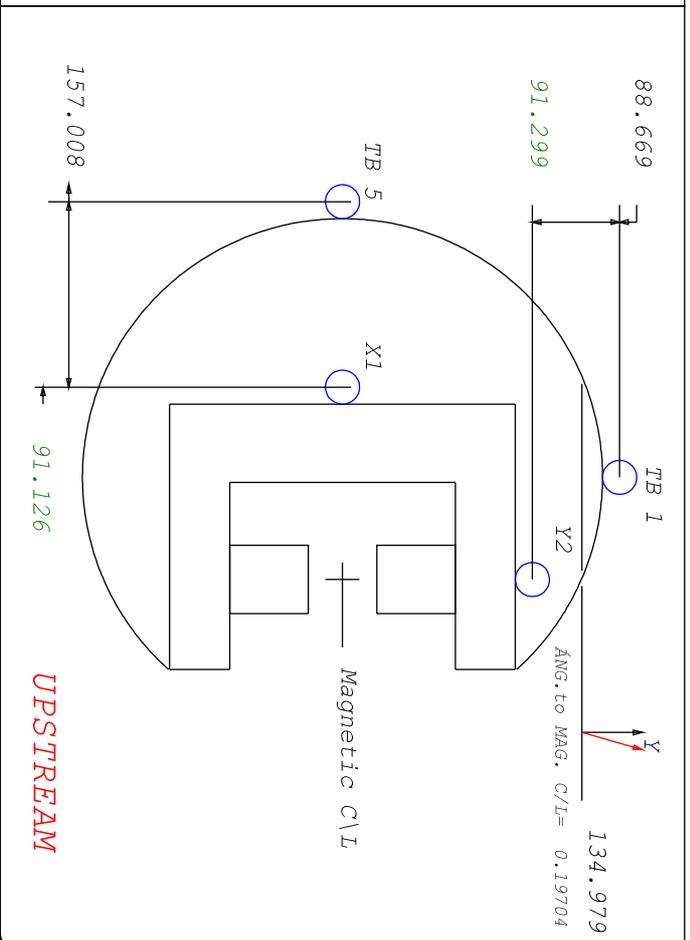
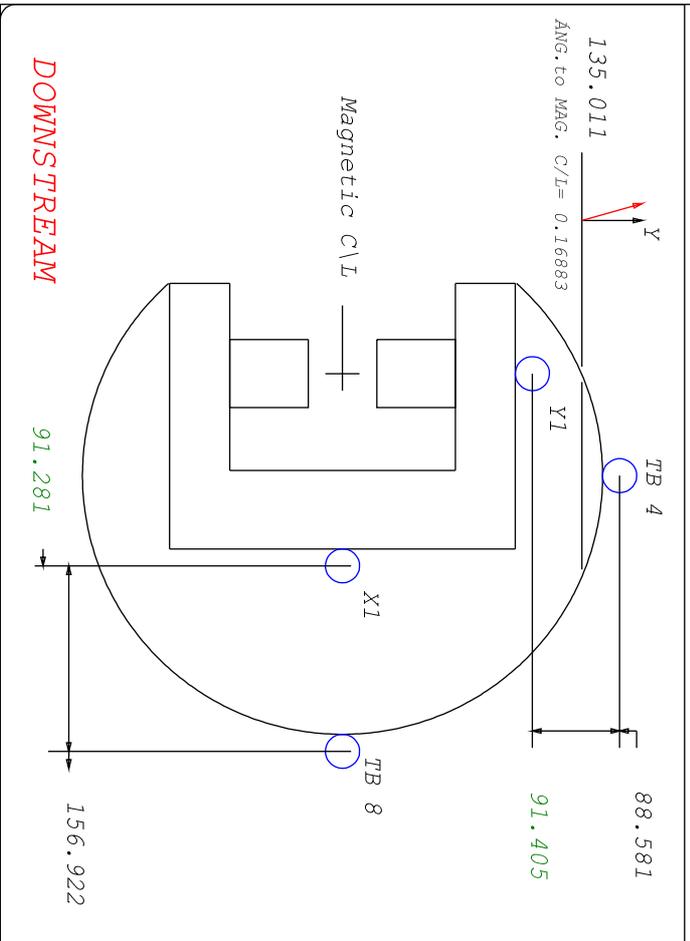
TOOLING BALL LOCATIONS

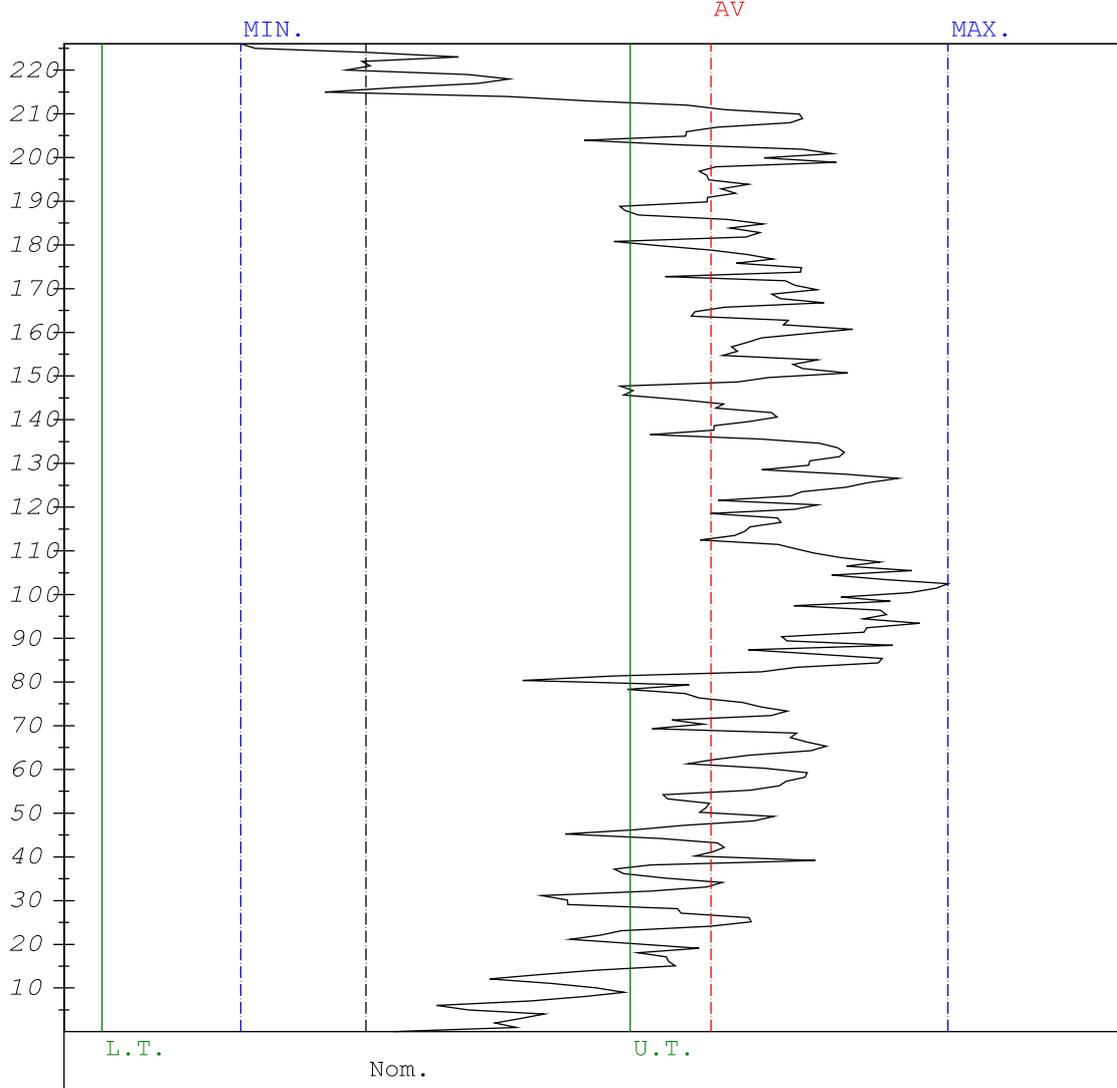
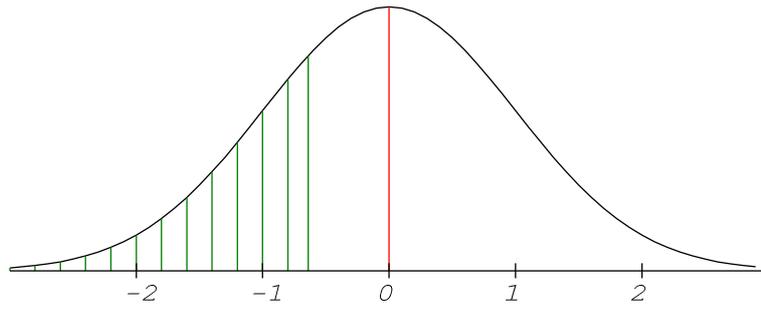
NUM.	X	Y	Z
1	-0.2018	179.9676	-1558.287
2	-0.0287	179.9965	-584.4537
3	-0.1156	179.8791	591.3050
4	-0.1617	179.9858	1562.0627
5	248.1335	0.0629	1558.364
6	248.1195	-0.0344	-584.6030
7	248.1539	0.0307	591.3262
8	248.2034	-0.0672	1562.0847

	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.041
Bottom Magnetic Structure	0.096	3381.266
Strongback	0.248	3399.767

Dimensions in mm

Angles in mrad





Nominal : 4.5000	Averag : 5.1532	Cent.-Dev. : 0.6532
Up. Tol. : 0.5	Maximum : 5.6018	U.Tol.Ex. > : 73.9 %
Low.Tol. : -0.5	Minimum : 4.2628	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2394	In Tolerance: 26.1 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
 Pole Tip Gap Angle
 Post Magnetic Alignment

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