

LCLS II Magnet Fiducialization Report XLEAP Dipole Magnet - 11mm Gap



Inspector : K. Caban
Engineer : J. Amann
Drawing No. : DRW-20171114-8425
Barcode # : 4552-BCXXL3
Mfg. S/N : SLM3_03

Coordinate System Setup

Spatial Alignment

Constructed using the Midplane of Upper (+Y) and Lower (-Y) Pole with the Midplane of the 2 Poles sets Y Zero and the Y+ Direction points towards the Tooling Balls/Terminal Strip.

Planar Alignment

Constructed using the Upstream (-Z) and Downstream (+Z) Ends of the poles. The Midplane from both ends sets Z Zero and +Z points towards TB 3/4 Side.

Coordinate Origins

X Origin - Symetry Plane between side poles planes (planes parallel to the Coils)

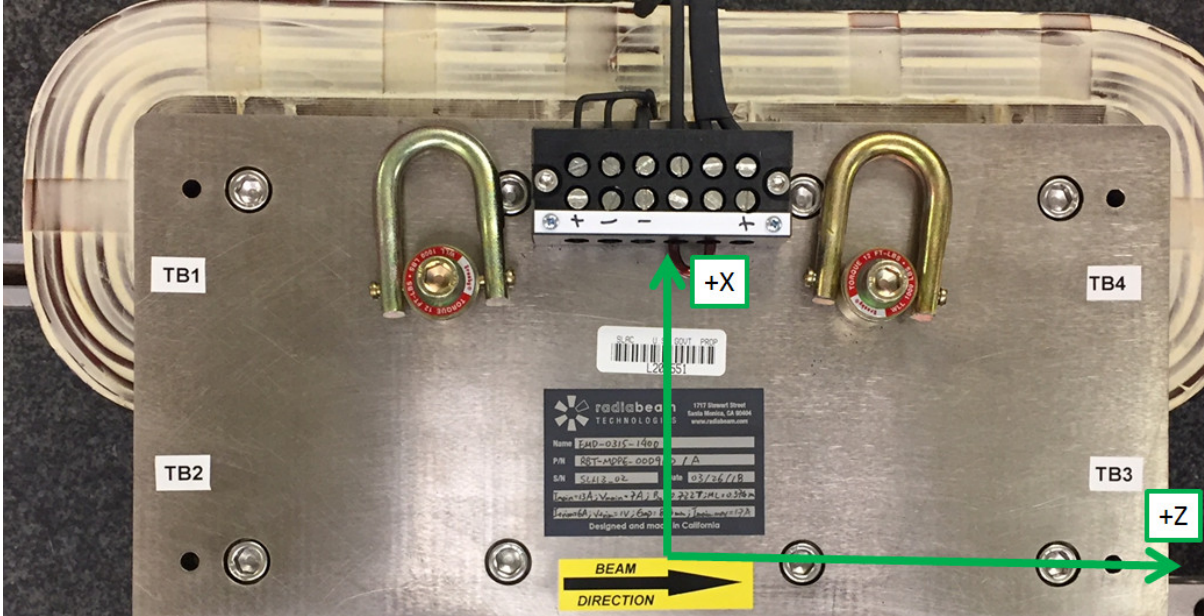
Y Origin - Symetry Plane between the Poles (.315 Gap Symetry)

Z Origin - Symmetry plane between Up Stream and Down Stream end surfaces

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Tooling Ball Locations



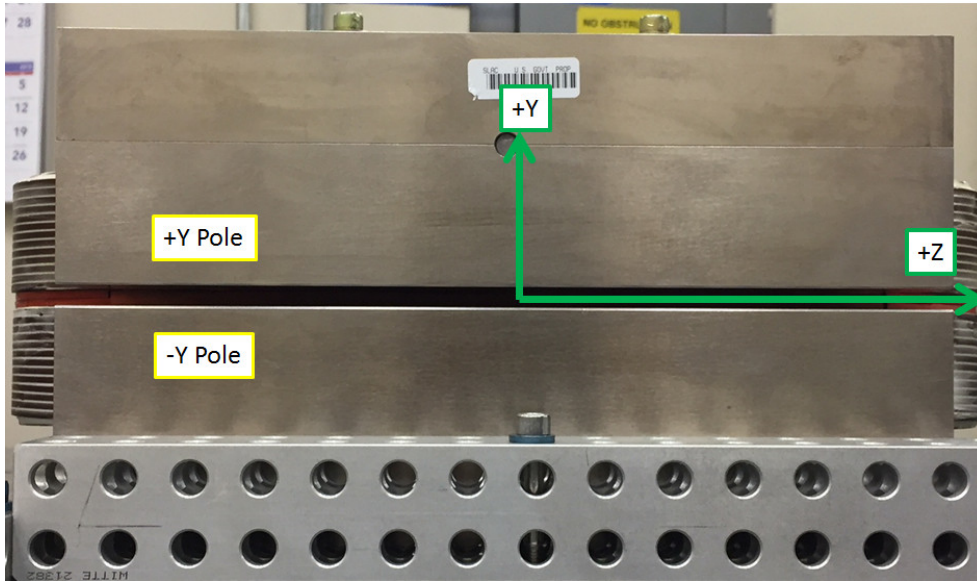
Tooling Ball	X Coord.	Y Coord.	Z Coord.
TB 1	4.9864	5.1341	-6.2474
TB 2	0.0009	5.1351	-6.2474
TB 3	-0.0015	5.1351	6.2511
TB 4	4.9887	5.1345	6.2525
TB A	4.9863	4.4466	-6.2473
TB B	0.0000	4.4476	-6.2477
TB C	-0.0012	4.4476	6.2513
TB D	4.9874	4.4470	6.2521

Tooling Ball Locations (1-4) are 1 inch above Tooling Ball Plane
 Tooling Ball Locations (A-D) are 5/16 inch above Tooling Ball Plane
 Dimensions in Inch

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Pole Gap Measurements, Flatness & Parallelism



	-Y Pole Fltns	+Y Pole Fltns	Pole Parallel	Avg. Gap	Min. Gap	Max. Gap
POLE DATA	0.001	0.0008	0.0013	0.4312	0.4297	0.4318

Dimensions in Inch

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