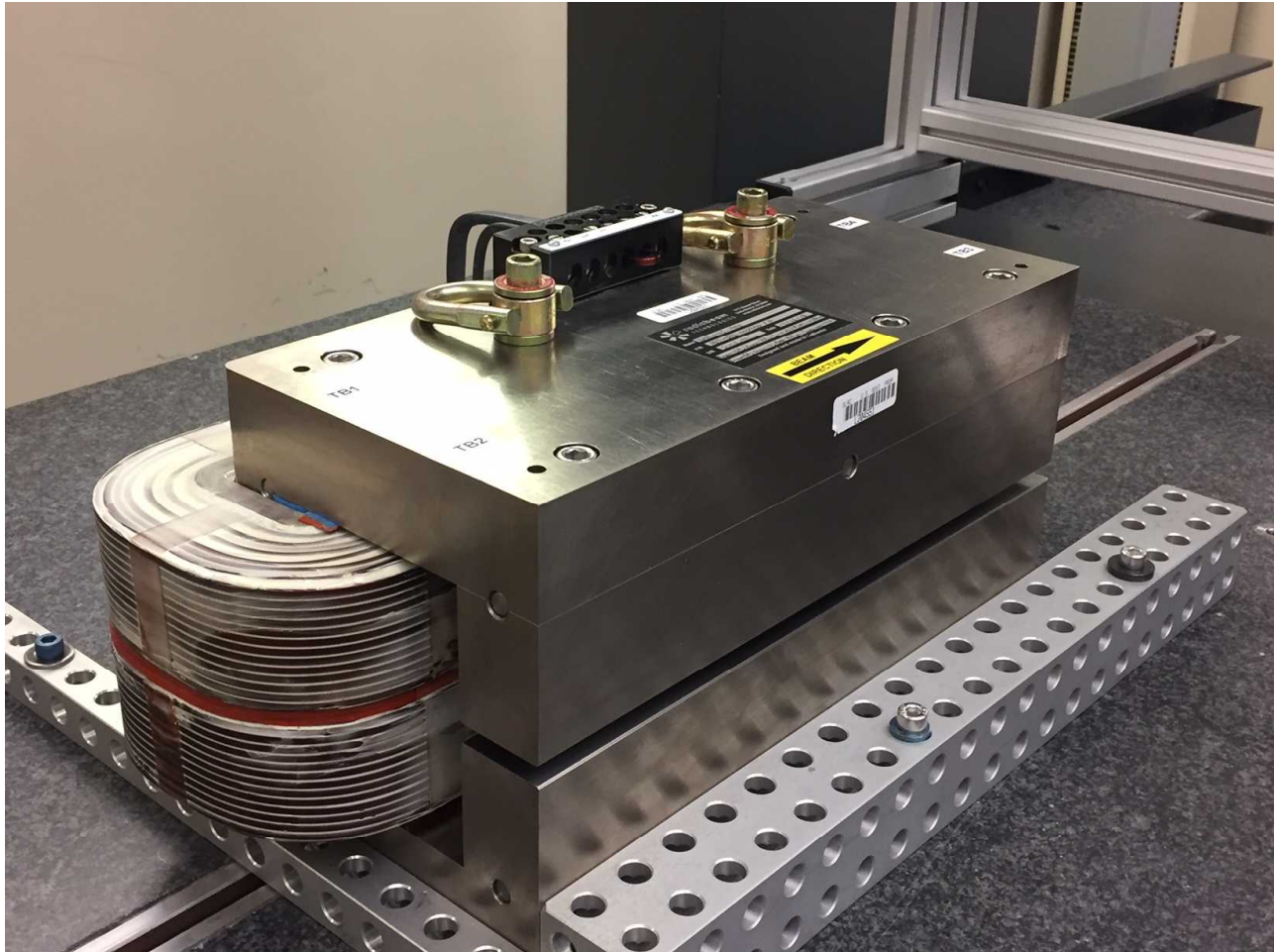


## LCLS II Magnet Fiducialization Report XLEAP Dipole Magnet



Inspector : K. Caban  
Engineer : J. Amann  
Drawing No. : DRW-20171114-8425  
Barcode # : 4550  
Mfg. S/N : SLM3\_01

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## **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)

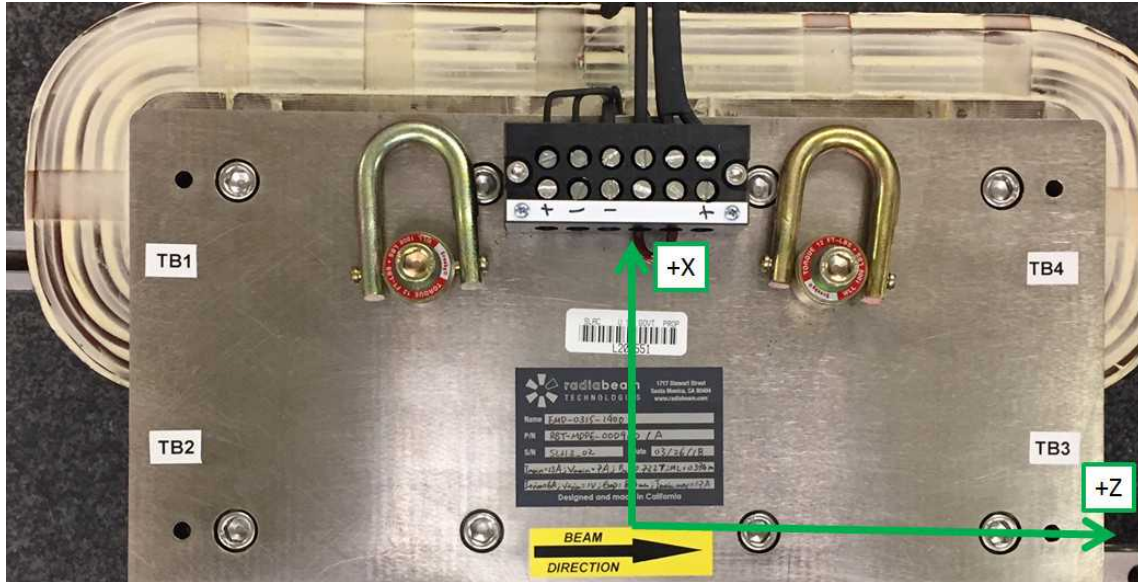
Y Origin - Symetry Plane between the Poles (.315 Gap Symetry)

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

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## Tooling Ball Locations



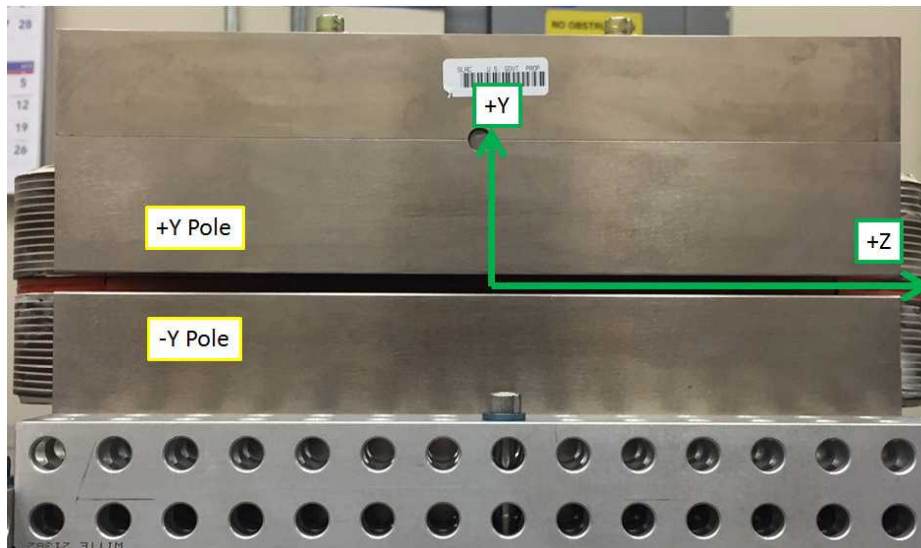
Tooling Ball	X Coord.	Y Coord.	Z Coord.
TB 1	4.9855	5.1347	-6.2489
TB 2	-0.0002	5.1356	-6.2503
TB 3	-0.0015	5.1346	6.2484
TB 4	4.9860	5.1348	6.2487
TB A	4.9865	4.4489	-6.2508
TB B	-0.0006	4.4478	-6.2503
TB C	-0.0014	4.4475	6.2490
TB D	4.9854	4.4471	6.2494

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
POLE DATA	0.0005	0.0005	0.0005	0.3206	0.3202

Dimensions in Inch

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