

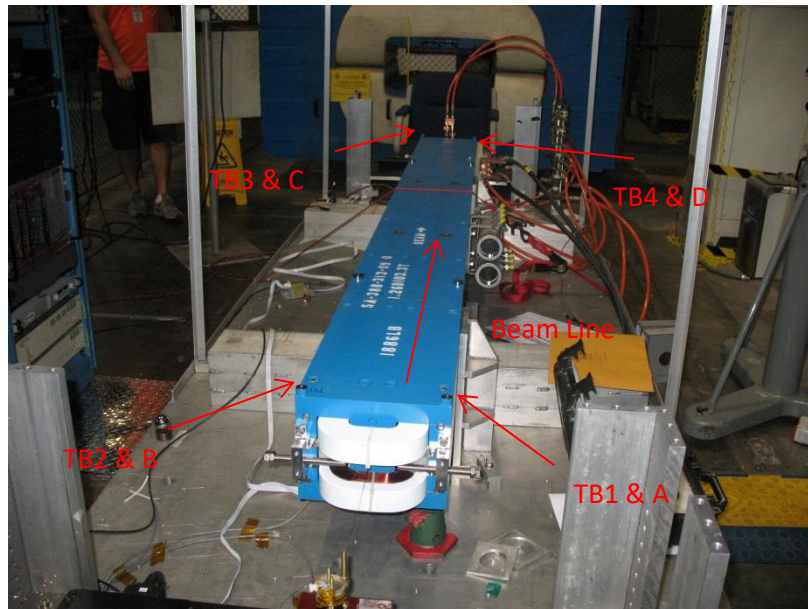
Bend 1.26D103.3T

SN 16101

LCLS2 Barcode 4509

Alignment Engineering Group

Sept.26, 2016



Tooling ball values 1 to 4 to center of 1.0000 inch tooling ball, A to D to center of 0.3125 inch tooling ball, all units are inches.

Tooling Ball	Z (in)	X (in)	Y (in)
TB1	-51.2902	-4.6818	5.3989
TB2	-51.292	4.6632	5.4082
TB3	51.2865	4.6724	5.4056
TB4	51.2884	-4.6688	5.4044
TBA	-51.2886	-4.6797	4.7126
TBB	-51.2878	4.6647	4.7195
TBC	51.2852	4.6723	4.7178
TBD	51.2881	-4.6696	4.7164

-Constructed 6 planes, top pole, bottom pole, +X side top and bottom pole, -X side top and bottom pole, upstream end of steel and downstream end of steel.

- Bisected two Y planes for Y = 0 plane , two X planes for X = 0 plane, and two Z planes for Z = 0 plane.
- Origin is the intersection of three planes. Used the Y = 0 as primary plane, and X = 0 plane to clock the yaw angle.
- Measured both 1.0000 inch and 0.3125 inch tooling balls.
- Used AT401 for overall control. Used 9 foot Edge Arm on each end of magnet tied to tracker control to measure upstream and downstream poles.
- Average distance from the top and bottom pole planes or a total gap of 1.2631”.