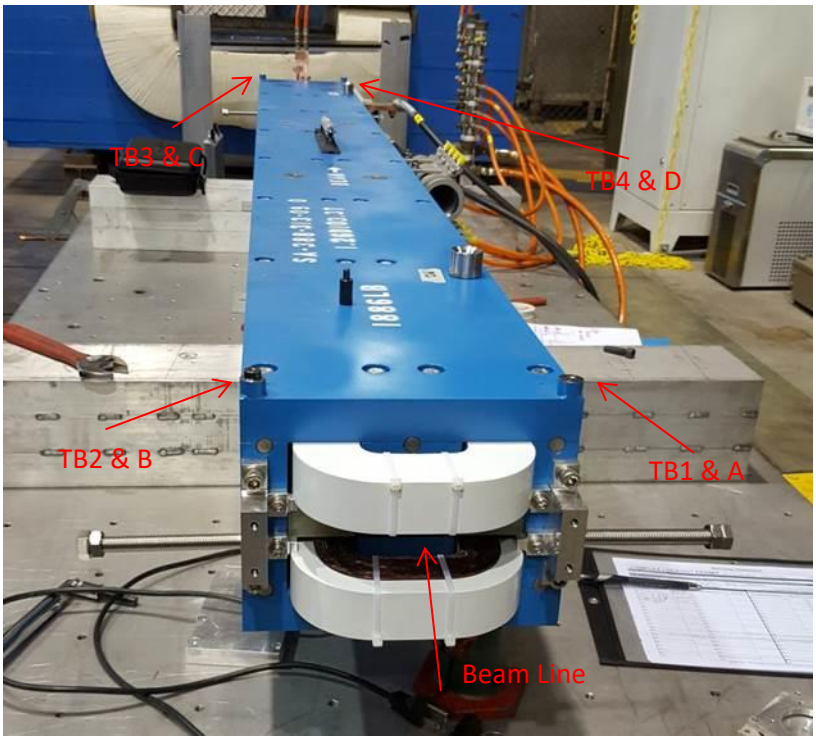
Bend 1.26D103.3T

SN 16102

LCLS2 Barcode 4510

Alignment Engineering Group

August 22, 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	-51.2874	-4.6753	5.4046
TB2	-51.2861	4.6673	5.4054
TB3	51.2923	4.6691	5.4078
TB4	51.2932	-4.6764	5.4098
TBA	-51.2864	-4.6733	4.7170
TBB	-51.2851	4.6691	4.7179
TBC	51.2947	4.6692	4.7200
TBD	51.2942	-4.6766	4.7222

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

-Computed the distances from the origin to the top and bottom pole planes along the Z axis. +/- 0.6304” for a total gap of 1.2608”.