



Jefferson Lab Alignment Group

Data Transmittal

TO: C. Hernandez-Garcia

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Checked:

: L2053

DETAILS:

M:\align\DATA\Fiduc\INJ\200kv_18 in\220901A\Process

Below are the results of Gun Chamber R30-3 alignment and fiducialization. Three components were fiducialized relative to their respective centerlines: Gun Chamber, Cathode and Anode. All coordinates below are relative to the Gun Chamber. In this coordinate system, a line constructed between the upstream and downstream flange defines the Z axis, the TopFlange controls roll and is also used to define Z=0. A +Z is downstream, a +X is to the left and a +Y is above centerline.

Several features are used to define the centerline of the cathode. The Z axis is defined by two points, the intersection of the downstream cone and puck with the measured circle at the upstream end of the cylinder. Again, the top flange was used to control roll and to define Z=0. The measured value from the face of the puck to the center of the TopFlange along Z is 63.30mm

The anode centerline is constructed using the DS Circle to define the origin and its normal vector to define the Z axis.

Values are in mm and degrees.

Gun Chamber	X	Y	Z	Yaw Angle
US FLG	0.00	0.00	-269.03	0.0000
DS FLG ID	0.00	0.00	-199.64	
TopFlange	0.08	262.41	0.00	
Cathode	X	Y	Z	Yaw Angle
Puck	-0.28	0.09	63.25	0.0268
US Cathode_Cyl.	-0.35	0.68	-79.83	
TopFlange	0.31	262.61	-0.10	
Anode	X	Y	Z	Yaw Angle
US	0.23	-0.92	126.34	0.0079
DS	-0.02	-0.05	199.61	



