



Jefferson Lab Alignment Group

Data Transmittal

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DETAILS:

Data: Step2b\HallA\Sieve_Slits\090716A

Below are the results from the left and right collimator/sieve surveys carried out on July 16, 09. The values (in millimeters) are based on each Q1 centerline and are to the upstream face of the collimators. A +X is to the beam left, a +Y is above, and -Z is upstream. A +yaw angle is counter clockwise looking from above, a +pitch angle is ccw looking from the beam right side, and a +roll angle is cw looking from the upstream.

ELECTRON (LEFT) SPECTROMETER

ROTATION ANGLES OF UPSTREAM FACE: yaw = +0.004°, pitch = -0.211°, roll = -0.018°

LOCATION	Z	X	Y	ENCODER
Sieve center hole	-876.08	-0.67	-0.07	0.3675
Sieve top hole	-875.89	-0.60	74.95	0.3675
Sieve bottom hole	-876.44	-0.74	-75.08	0.3675
6M collimator	-950.48	-1.99	0.12	0.6188
Open collimator	-866.23	0.58	4.24	0.8705
6M collimator repeat	-950.45	-1.98	0.11	0.6188
Sieve center hole repeat	-876.09	-0.69	-0.04	0.3675
Sieve top hole repeat	-875.76	-0.63	74.94	0.3675
Sieve bottom hole repeat	-876.38	-0.79	-74.97	0.3675

NOTE: EQ1 center is downstream from the ideal target location by 2058.6 millimeters. This puts the upstream face of the sieve slit at 1182.5 mm from the ideal target location. Also, EQ1 center is above the ideal target location by 1.4 mm and pitched at -0.100° which places the center hole of the sieve at 2.9 mm above the ideal target location.

HADRON (RIGHT) SPECTROMETER

ROTATION ANGLES OF UPSTREAM FACE: yaw = +0.076°, pitch = -0.137°, roll = -0.011°

LOCATION	Z	X	Y	ENCODER
Sieve center hole	-892.28	1.04	0.05	0.3629
Sieve upper hole	-892.12	1.13	62.79	0.3629
Sieve bottom hole	-892.45	0.95	-74.82	0.3629
6M collimator	-966.81	2.40	-0.03	0.6153
Open collimator	-882.20	0.63	-1.03	0.8630
6M collimator repeat	-966.84	2.41	-0.11	0.6153
Sieve center hole repeat	-892.24	1.04	0.06	0.3629
Sieve bottom hole repeat	-892.46	0.98	-74.75	0.3629

NOTE: HQ1 center is downstream from the ideal target location by 2068.2 millimeters. This puts the upstream face of the sieve slit at 1175.9 mm from the ideal target location. Also, HQ1 center is below the ideal target location by 0.5 mm and pitched at .073° which places the center hole of the sieve at 1.6 mm below the ideal target location.