



Jefferson Lab Alignment Group

Data Transmittal

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Checked: cwg

: B1618

DETAILS:

DATA: M:\align\DATA\Step2B\HALLB\HPS\150326A

Below are the current positions of the HPS Pair Spectrometer, SVT, and pivot rods. Since the SVT was not fiducialized the coordinates are given to the tooling ball locations only. The positions are given in the CEBAF Machine coordinates. The deltas are listed in a beam following system where a positive X is to the beam left, a positive Y is up and a positive Z is downstream. The pair spectrometer magnet position is from the October 2014 survey.

Summary	Measured (M)			Ideal (M)			BFS delta (mm)		
Element	X	Y	Z	X	Y	Z	X	Y	Z
Pair Spectrometer	-80.68805	103.35450	-417.75641	-80.68865	103.35526	-417.75607	88.05	-0.76	0.34
							PITCH	YAW	ROLL
							0.05°	0.07°	0.09°
SVT Tooling Balls									
HPSVTA	-80.68850	103.28099	-417.01455	-80.68856	103.28107		88.50	-74.27	
HPSSVTB	-80.56163	103.42961	-417.01453	-80.56168	103.42945		-38.37	74.35	
HPSSVTC	-80.81579	103.42958	-417.01446	-80.81580	103.42945		215.79	74.32	
HPSSVTD	-80.68873	103.28108	-418.27834	-80.68873	103.28109		88.73	-74.18	
HPSSVTE	-80.56155	103.42949	-418.27828	-80.56156	103.42942		-38.45	74.23	
HPSSVTF	-80.81562	103.42951	-418.27825	-80.81559	103.42945		215.62	74.25	
Pair Spec. Chamber									
US Center	-80.68786	103.35479		-80.68865	103.35526		87.86	-0.47	
DS Center	-80.68922	103.35485		-80.68865	103.35526		89.22	-0.41	
US BL BOTTOM Y		103.26488						-90.38	
US BL TOP Y		103.44360						88.34	
US BR BOTTOM Y		103.26560						-89.66	
US BR TOP Y		103.44505						89.79	
US BL BOTTOM X	-80.89623						296.23		
US BL TOP X	-80.89732						297.32		
US BR BOTTOM X	-80.47859						-121.41		
US BR TOP X	-80.47932						-120.68		
DS BL BOTTOM Y		103.18452						-170.74	
DS BL TOP Y		103.52659						171.33	

DS BR BOTTOM Y			103.18302							-172.24	
DS BR TOP Y			103.52528							170.02	
DS BL BOTTOM X		-81.01575							415.75		
DS BL TOP X		-81.01517							415.17		
DS BR BOTTOM X		-80.36334							-236.66		
DS BR TOP X		-80.36260							-237.40		
SVT Top Rod											
SVT_T1		-80.59830	103.40581	-416.86175					-1.70	50.55	
SVT_T2		-80.59831	103.40850	-416.86172					-1.69	53.24	
SVT_T3		-80.59834	103.41120	-416.86170					-1.66	55.94	
SVT_T1_REPEAT		-80.59825	103.40580	-416.86176		-80.59830	103.40581	-416.86175			
SVT Bottom Rod											
SVT_B1		-80.59776	103.30867	-416.86215					-2.24	-46.59	
SVT_B2		-80.59782	103.30572	-416.86208					-2.18	-49.54	
SVT_B3		-80.59782	103.30280	-416.86204					-2.18	-52.46	
SVT_B1_REPEAT		-80.59765	103.30861	-416.86215		-80.59776	103.30867	-416.86215			