

Fiducials for BM2 Std. Vac. Chamber

BM2008

Date:

11/25/02

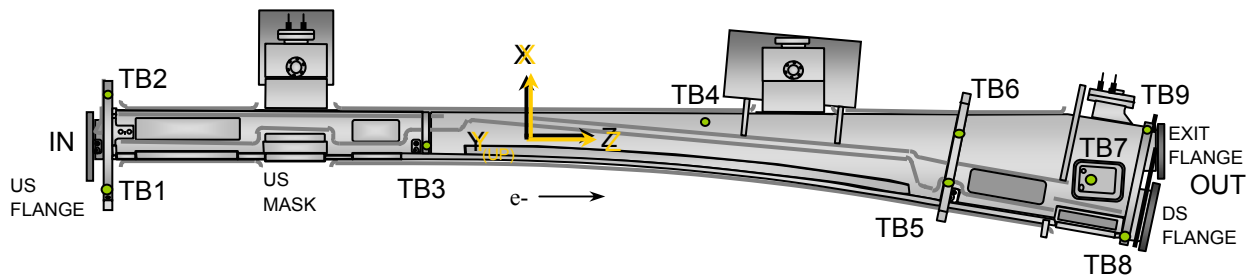
Chamber:

BM2008

Operator(s):

F. Gaudreault
M. Rogers

Notes:



Fiducial Coordinates for BM2 Standard Vacuum Chamber: (inches)

Fiducial	Z	X	Y
TB1	-77.074	-6.249	4.383
TB2	-77.182	7.292	4.378
TB3	-34.845	0.111	4.380
TB4	0.411	3.866	2.381
TB5	34.493	-4.656	4.377
TB6	35.776	2.283	4.381
TB7	53.877	-4.280	2.403
TB8	58.030	-12.403	2.909
TB9	60.993	2.995	2.927

Nominal Deltas For H1 Absorber (TB7)

Z	X	Y
53.877	-4.280	2.403
53.933	-4.302	2.408
-0.056	0.022	-0.005

inches inches inches

Source

FINAL

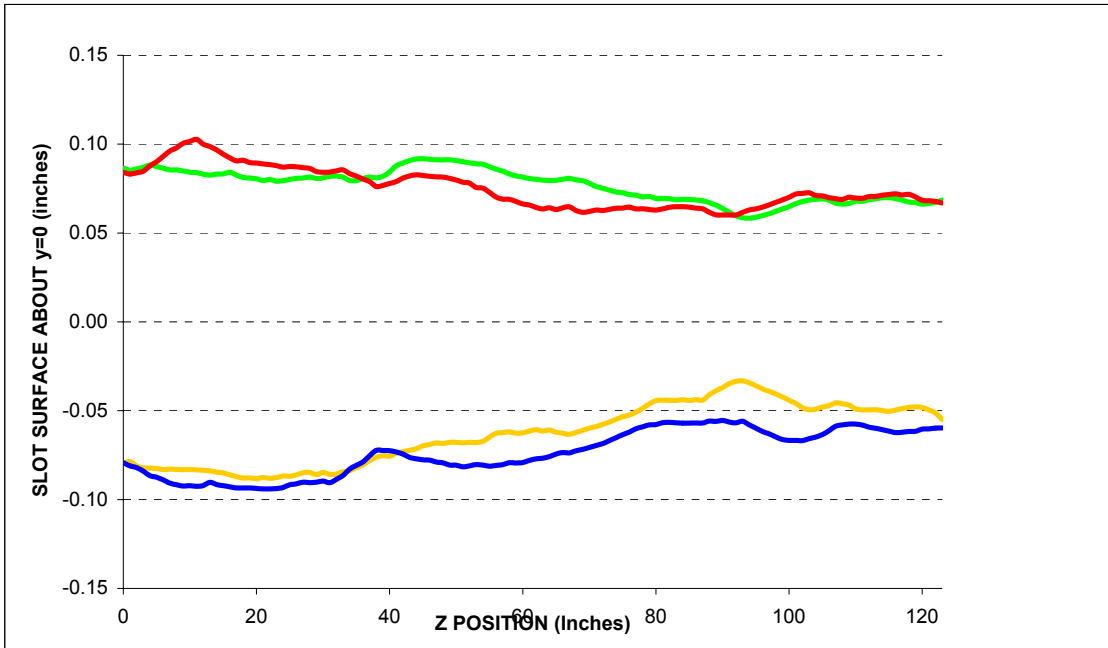
Description:

Fiducial vals based on established chamber datum. Source="Final" indicates final data.

Fiducialization Step: (Traveler Step # 1380)

Slot Calibration	
Ideal	0.511
Meas.	
Delta	-----

Inverted Mouse Slot Calibration	
Ideal	0.511
Meas.	
Delta	-----



BM2008

Step 1: Heights for BM2 Std. Vac. Chamber

Fiducial	Y
TB1	4.383
TB2	4.378
TB3	4.380
TB4	2.373
TB5	4.377
TB6	4.381

inches

Description:
 Fiducial heights of the six tooling balls are based on leveled datum as defined by outside surface measurements. (L1 through L5)

US Flange Position

Step 2: UpStream Flange Position

US MASK X-Position	
-2.529	Measured
-2.667	Nominal
0.138	Delta

inches

US PIN TOP	Z	X	Y
Measured	-80.211	0.002	2.306
Nominal	-80.229	0.000	2.282
Difference (inches)	0.019	0.002	0.024

US PIN BOTTOM	Z	X	Y
Measured	-80.246	0.000	-2.259
Nominal	-80.229	0.000	-2.282
Difference (inches)	-0.017	0.000	0.023

US Inner Chamber	Z	X	Y
Measured	N/A	-1.404	-0.037
Nominal	N/A	-1.404	0.000
Difference (inches)	N/A	0.000	-0.037

US Flange Position	Plane	From Circle Fit	
	Z	X	Y
Measured	-80.763	0.005	0.013
Nominal	-80.763	0.000	0.000
Difference (inches)	0.000	0.005	0.013

inches inches inches

US Flange Attitude		
	yaw	pitch
Measured	8.1	7.8
Nominal	0.0	0.0
Difference	8.1	7.8

mrad mrad

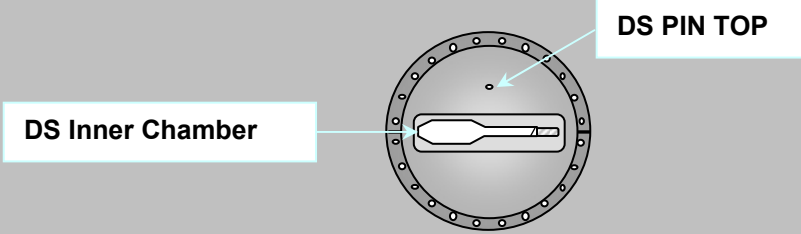
US Flange Diameter	
	DIA
Measured	11.472
Nominal	11.500
Difference	-0.028

inches

Description:
 Measured vs. nominal values for US flange expressed in the FRAME FINAL coordinate system.
 Tol +/- 10mils and +/- 3 mrad. Values in **BOLD** or **RED** are most critical.

DS Flange Position

Step 3: DownStream Flange Position



DS PIN TOP	Z	X	Y
Measured	62.766	1.812	2.209
Nominal	62.859	1.836	2.282
Difference (inches)	-0.093	-0.024	-0.073

DS Inner Chamber	Z	X	Y
Measured	N/A	-1.412	-0.026
Nominal	N/A	-1.404	0.000
Difference (inches)	N/A	-0.008	-0.026

DS Flange Position	Plane	From Circle Fit	
	Z	X	Y
Measured	63.276	1.830	-0.074
Nominal	63.393	1.836	0.000
Difference (inches)	-0.117	-0.007	-0.074
	inches	inches	inches

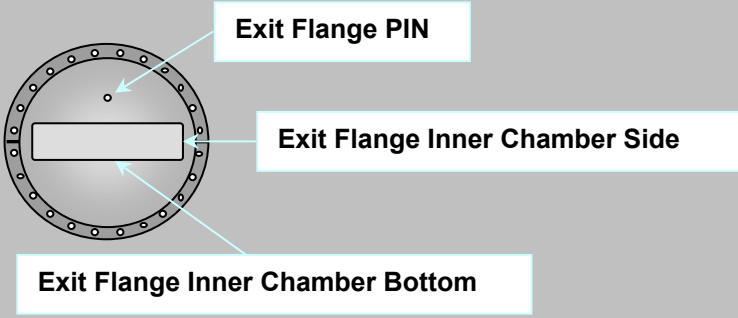
DS Flange Attitude		
	yaw	pitch
Measured	-5.9	6.8
Nominal	0.0	0.0
Difference	-5.9	6.8
	mrad	mrad

DS Flange Diameter	
	DIA
Measured	11.471
Nominal	11.500
Difference	-0.029
	inches

Description:
 Meas. vs. nom. values for DS flange expressed in a ROTATED FRAME FINAL coordinate system (10.5882°). Tol +/- 10mils and +/- 3 mrad. Values in **BOLD** or **RED** are most critical.

Exit Port Flange Position (DownStream)

Step 3: DownStream EXIT PORT Flange Position



The diagram shows a circular flange with a central rectangular opening. Three callouts point to specific features: 'Exit Flange PIN' points to a small dot in the center of the opening; 'Exit Flange Inner Chamber Side' points to the inner vertical surface of the opening; and 'Exit Flange Inner Chamber Bottom' points to the inner horizontal surface of the opening.

EXIT FLANGE PIN	Z	X	Y
Measured	63.352	0.006	1.721
Nominal	63.422	0.000	1.782
Difference (inches)	-0.070	0.006	-0.061

EXIT FLANGE Inner Chamber Side	Z	X	Y
Measured	N/A	2.460	-0.089
Nominal	N/A	2.453	0.000
Difference (inches)	N/A	0.007	-0.089

EXIT FLANGE Inner Chamber Bottom	Z	X	Y
Measured	N/A	0.232	-0.277
Nominal	N/A	0.000	-0.219
Difference (inches)	N/A	0.232	-0.058

EXIT Flange Position	Plane	From Circle Fit	
	Z	X	Y
Measured	63.877	0.005	-0.059
Nominal	63.956	0.000	0.000
Difference (inches)	-0.080	0.005	-0.059
	inches	inches	inches

EXIT FLANGE Attitude		
	yaw	pitch
Measured	-0.2	9.1
Nominal	0.0	0.0
Difference	-0.2	9.1
	mrads	mrads

EXIT FLANGE Diameter	
	DIA
Measured	9.466
Nominal	9.500
Difference	-0.034
	inches

Description:
 Meas. vs. nom. values for exit flange expressed in the FRAME FINAL coordinate system.
 Tol +/- 10mils and +/- 3 mrad. Values in **BOLD** or **RED** are most critical.

Final Fiducial Coordinates for BM2 Standard Vacuum Chamber

Final: Fiducial Coordinates for BM2 Std. Vac. Chamber

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inches inches inches

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Fiducial values based on established chamber datum.

