

Fiducials for BM2 Std. Vac. Chamber

BM2003

Date:

11/8/02

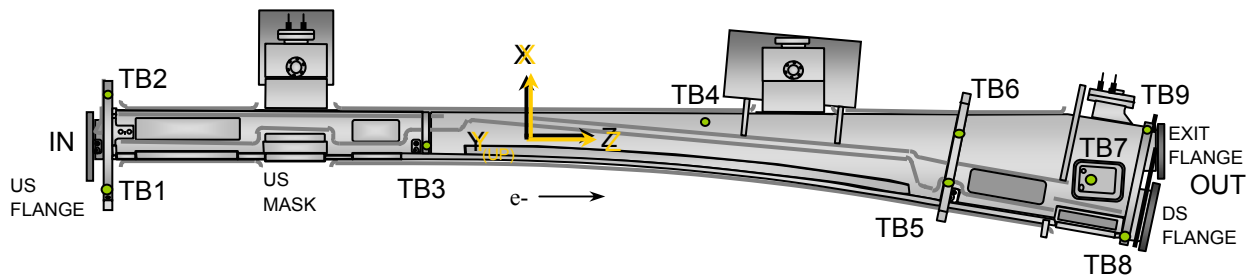
Chamber:

BM2003

Operator(s):

F. Gaudreault
L. Griffin

Notes:



Fiducial Coordinates for BM2 Standard Vacuum Chamber: (inches)

Fiducial	Z	X	Y
TB1	-77.110	-6.156	4.389
TB2	-77.168	7.287	4.378
TB3	-34.833	0.118	4.373
TB4	0.341	3.893	2.369
TB5	34.451	-4.588	4.372
TB6	35.787	2.478	4.374
TB7	53.883	-4.258	2.423
TB8	58.104	-12.411	2.951
TB9	60.965	3.004	2.960

Nominal Deltas For H1 Absorber (TB7)

Z	X	Y
53.883	-4.258	2.423
53.933	-4.302	2.408
-0.050	0.044	0.015

inches inches inches

Source

FINAL

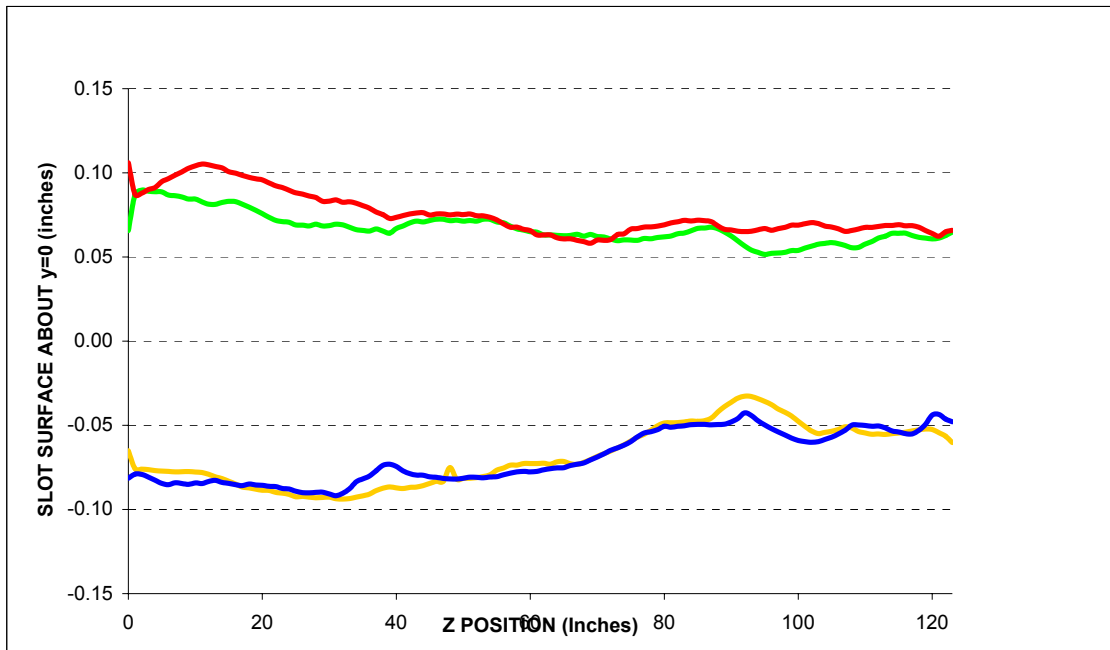
Description:

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	-----



BM2003

Step 1: Heights for BM2 Std. Vac. Chamber

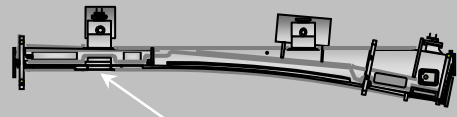
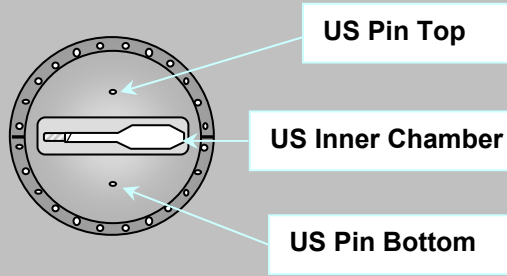
Fiducial	Y
TB1	4.389
TB2	4.378
TB3	4.373
TB4	2.359
TB5	4.373
TB6	4.373

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 Postion



US MASK X-Position	
-2.543	Measured
-2.667	Nominal
0.124	Delta

inches

US PIN TOP	Z	X	Y
Measured	-80.220	0.005	2.300
Nominal	-80.229	0.000	2.282
Difference (inches)	0.009	0.005	0.018

US PIN BOTTOM	Z	X	Y
Measured	-80.236	0.007	-2.266
Nominal	-80.229	0.000	-2.282
Difference (inches)	-0.007	0.007	0.017

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

US Flange Position	Plane	From Circle Fit	
	Z	X	Y
Measured	-80.763	0.008	0.007
Nominal	-80.763	0.000	0.000
Difference (inches)	0.000	0.008	0.007

inches inches inches

US Flange Attitude		
	yaw	pitch
Measured	8.1	3.5
Nominal	0.0	0.0
Difference	8.1	3.5

mrad mrad

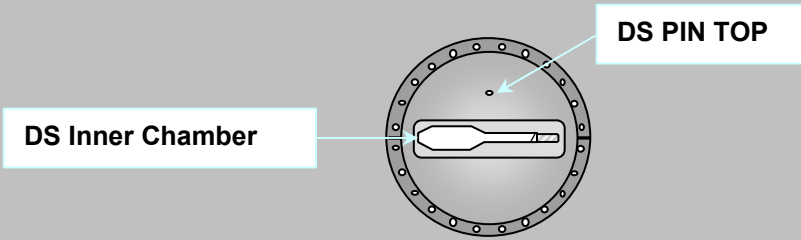
US Flange Diameter	
	DIA
Measured	11.471
Nominal	11.500
Difference	-0.029

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	1.861	2.279
Nominal	62.859	1.836	2.282
Difference (inches)	-0.093	0.025	-0.003

DS Inner Chamber	Z	X	Y
Measured	N/A	-1.375	0.087
Nominal	N/A	-1.404	0.000
Difference (inches)	N/A	0.029	0.087

DS Flange Position	Plane	From Circle Fit	
	Z	X	Y
Measured	63.309	1.856	-0.006
Nominal	63.393	1.836	0.000
Difference (inches)	-0.084	0.020	-0.006
	inches	inches	inches

DS Flange Attitude		
	yaw	pitch
Measured	3.1	0.1
Nominal	0.0	0.0
Difference	3.1	0.1
	mrad	mrad

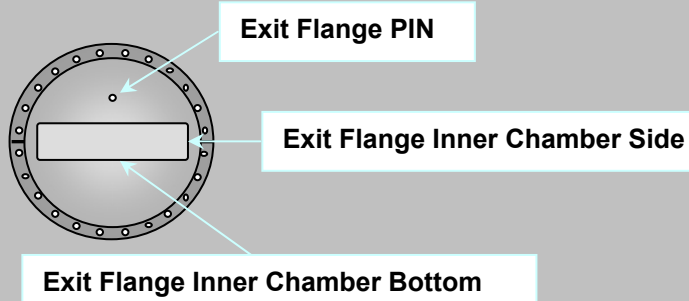
DS Flange Diameter	
	DIA
Measured	11.471
Nominal	11.500
Difference	-0.029
	inches

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



EXIT FLANGE PIN	Z	X	Y
Measured	63.319	0.008	1.798
Nominal	63.422	0.000	1.782
Difference (inches)	-0.103	0.008	0.016

EXIT FLANGE Inner Chamber Side	Z	X	Y
Measured	N/A	2.461	0.051
Nominal	N/A	2.453	0.000
Difference (inches)	N/A	0.008	0.051

EXIT FLANGE Inner Chamber Bottom	Z	X	Y
Measured	N/A	-0.112	-0.206
Nominal	N/A	0.000	-0.219
Difference (inches)	N/A	-0.112	0.013

EXIT Flange Position	Plane	From Circle Fit	
	Z	X	Y
Measured	63.872	0.008	0.013
Nominal	63.956	0.000	0.000
Difference (inches)	-0.084	0.008	0.013
	inches	inches	inches

EXIT FLANGE Attitude		
	yaw	pitch
Measured	-2.8	-7.6
Nominal	0.0	0.0
Difference	-2.8	-7.6
	mrاد	mrاد

EXIT FLANGE Diameter	
	DIA
Measured	9.470
Nominal	9.500
Difference	-0.030
	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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TB1	-77.110	-6.156	4.389
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inches inches inches

Description:
Fiducial values based on established chamber datum.

