

Fiducials for QFC Std. Vac. Chamber

QFC011

Date:

8/28/01

Chamber:

QFC011

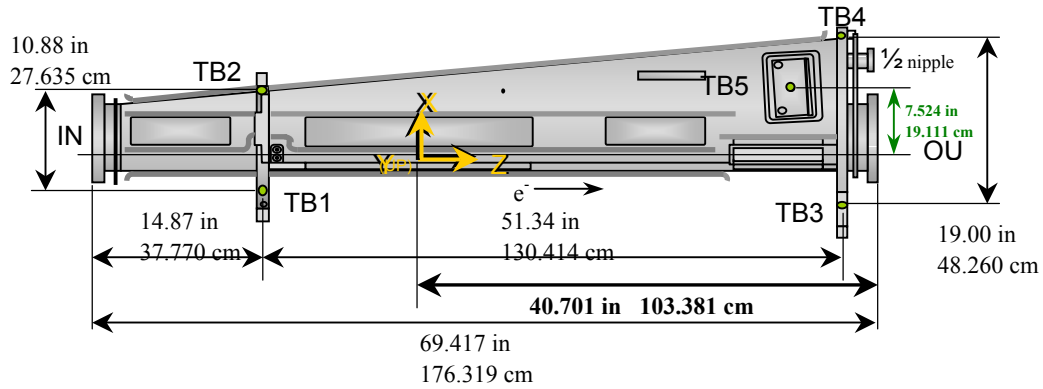
Operator(s):

H. Imfeld

L. Griffin

Notes:

Trav. Step #1200: 8/15/01; #1280: 8/16/01. TBs 6 and 7 were not on orig chamber



Fiducial Coordinates for QFC Standard Vacuum Chamber: (inches)

Fiducial	Z	X	Y
TB1	-13.793	-3.392	4.408
TB2	-13.816	7.284	4.368
TB3	37.454	-5.393	4.413
TB4	37.564	13.328	2.974
TB5	33.458	7.579	2.068
TB6	13.429	2.626	2.382
TB7	13.415	2.651	-2.363

TB5 _x Absorber Check	
Measured	7.579
Nominal	7.524
Difference	0.055

STATUS: **OK**
< 0.100 in

Source: **US Step**

Description:
Fid. vals based on internal chamber datum. Source="US Step" indicates final data unless rechecked.

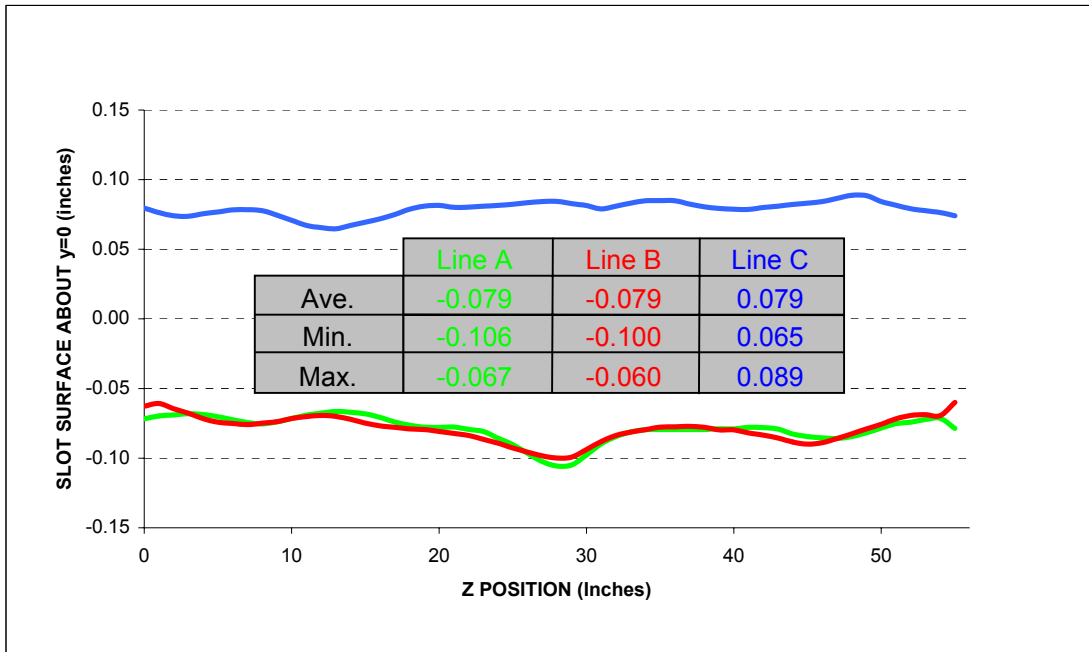
Flange Positions: (inches)

Flange	Z	X	Y	Source
IN	-28.616	1.819	0.004	US
OUT	40.701	1.855	0.007	DS
NIP	N/A	10.529	-0.013	DS

Source: **US Step**

Description:
Flange values based on scans of flange surfaces and referenced to internal chamber datum.

Fiducialization Step: (Traveler Step # 1380: 08/24/01 & 11/09/01)



QFC011

Step 1: Fiducial and Flange Coordinates for QFC Std. Vac. Chamber

Fiducial	Z	X	Y	Downstream Flanges	
TB1	-13.795	-3.389	4.408	OUT	NIP
TB2	-13.815	7.281	4.368	Z	41.451 N/A in
TB3	37.444	-5.402	4.413	X	1.847 10.529 in
TB4	37.563	13.328	2.976	Y	0.006 -0.013 in
TB5	33.460	7.579	2.065		
TB6	0.000	0.000	0.000		
TB7	0.000	0.000	0.000		
	inches	inches	inches	Nominals:	Xout 1.836 Yout 0.000

Description:
Fiducial values based on internal chamber datum. Flange OUT X and Y values checked ± 0.020 in.

Status

Step 2: Downstream Flange Check

Flange	Yaw	Pitch	Diameter		Nominal Diameter	
			Meas.	Actual		
OUT	-10.80	-0.09	11.466	9.966	9.970	OK
NIP	N/A	N/A			2.730	PENDING ??
	mrad	mrad	inches			± 0.015 in

Description:
Yaw -6 to -13 mrad. Pitch ± 3 mrad. Diameter difference ± 0.015 in

Step 1: Change in Fiducial Values Check

Fiducial	Delta Z	Delta X	Delta Y
TB1	0.001	-0.003	-0.001
TB2	-0.002	0.003	0.001
TB3	0.010	0.009	0.000
TB4	0.002	0.000	-0.002
TB5	-0.001	0.000	0.003
TB6	13.429	2.626	2.382
TB7	13.415	2.651	-2.363

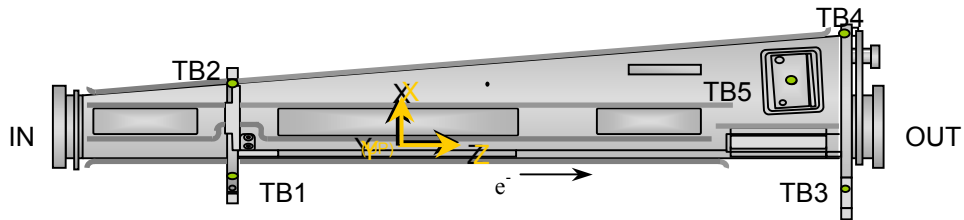
inches inches inches

OK
OK
DELTA Z?
OK
OK
DELTA Z?
DELTA Z?

±0.006 in

Description:
Difference between current and previous fiducial values.

Global: **UPDATE**



Step 2: Change in Downstream Flange Check

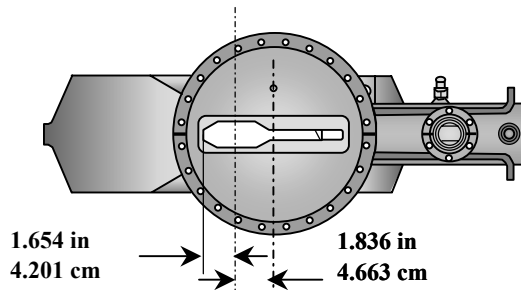
Flange	X	Y	Diameter
OUT			
New:	1.855	0.007	11.472 in
Delta:	0.008	0.001	0.006 in

Diameter:

UPDATE

X and Y: ±0.006 in
Diameter: ±0.015 in

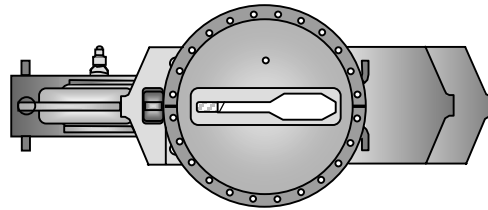
Description:
Difference between current and previous fiducial values and diameter. If the current diameter is acceptable, only then will the corresponding X and Y vals be updated if either exceed the tolerance.



Final "Upstream Flange" Step (#1465 continued):

QFC011
Status

Step 3: Upstream Flange Values					
Flange IN		Flange IN			
-29.366	Z	8.58	-2.99	mrad	
1.819	X	Yaw	Pitch		
0.004	Y				
inches		Meas.	Actual	Nominal Diameter	
Diameter		11.470	9.970	9.970	OK
			in	±0.015 in	
Description:					
Location and orientation of Flange IN (upstream) plus its measured diameter.					
Flange IN X and Y values are also checked ±0.020 in. Yaw 5 to 9 mrad. Pitch ±3 mrad.					



QFC011
Status

Step 4: QFC Chamber Length				
Length with SMR	Length	Nominal Length		
70.817	69.317	69.417	OK	
inches	inches			
Description:				
Length should be between nominal value and nominal value - 0.125 in.				

