

# Fid. Data Summary for 145D-2 Rafts

145D-54

## Raft Description:

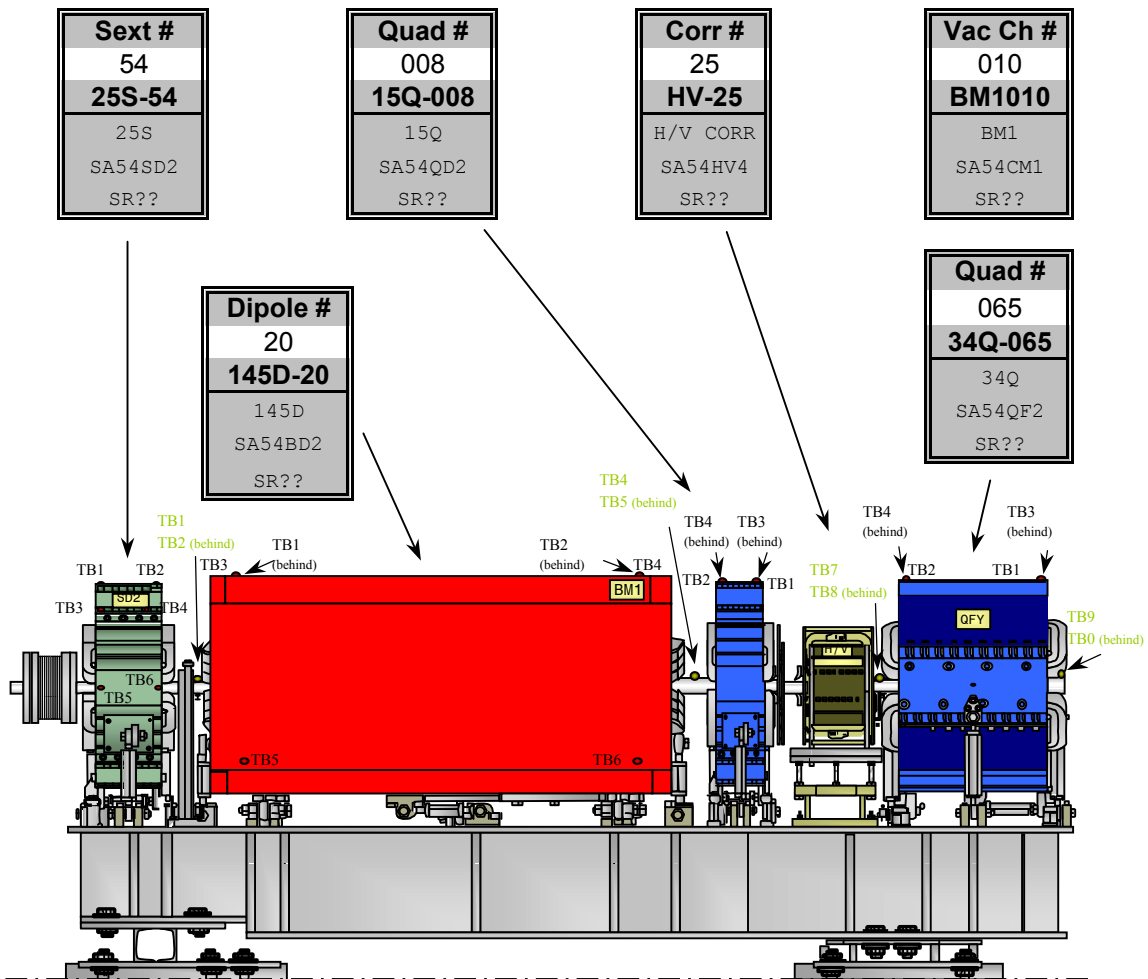
Date May 13, 2002

<b>Raft #</b> 54 145D-54	<b>Type</b> 2 145D T-2	<b>Bld. 750 Name</b> SA54	<b>S3 Ring Name</b> SR??
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### Notes:

The above date represents the latest fiducial date of all components listed below.

Chamber As-Built show TRUE position after correcting for INSIGHT / NAM error.



**Sextupole: Fiducial Values for 25S Sextupole**

Fiducial	Z	X	Y
TB1	-4.312	4.220	15.511
TB2	4.331	4.202	15.501
TB3	-4.381	-10.459	12.564
TB4	3.531	-10.479	12.552
TB5	-4.560	-15.065	0.065
TB6	4.517	-15.062	0.048

inches          inches          inches

Weld 2  
1.5 inch  
Target Mounts

Weld 2 Standard  
Target Mounts on  
"Full" Ears

Weld 2 Standard  
Target Mounts

25S Length =  
240 mm=9.3 inch

25S Length =  
250 mm=9.8 inch

Use Index Flats  
on Six Poles  
Each End to  
Establish z=0.

**SEXTUPOLE  
25S-54**

SA54SD2  
SR??

7/9/01

**Description:**  
Fiducials based on values posted on web-page. (Check for updates.)

**Gradient Dipole: Fiducial Values for Dipole (145D)**

Fiducial	Z	X	Y
TB1	-26.552	3.440	16.997
TB2	26.531	3.445	17.001
TB3	-26.531	-22.420	16.997
TB4	26.550	-22.417	17.000
TB5	-26.541	-24.271	-11.414
TB6	26.554	-24.260	-11.560

inches          inches          inches

Weld 4 Target  
Mounts Outside  
of y-graves

1590 Overall  
Length = 140.9 inch

1550 Overall  
Length = 131.1 inch

4 inches  
Typical  
4 Places

Weld 2 Target Mounts

4 inches  
Typical  
2 Places

End Plate  
Thickness = 2 inch

Pole End Surfaces to Establish  
Longitudinal Center (from  
front).

**GRADIENT DIPOLE  
145D-20**

SA54BD2  
SR??

10/3/01

**Description:**  
Fiducials based on values posted on web-page. (Check for updates.)

**Quadrupole: Fiducial Values for Upstream (15Q) Quadrupole**

Fiducial	Z	X	Y
TB1	-2.566	11.254	16.207
TB2	2.576	11.258	16.207
TB3	-2.584	-11.253	16.205
TB4	2.567	-11.254	16.205
TB5	-1.522	-15.206	-4.752
TB6	2.357	-15.204	-4.831

inches inches inches

TB1, TB2, TB3, TB4, TB5, TB6  
 RH Coordinates X, Z  
 Face -A-  
 Index Flats  
 Chamfers  
 Weld 4 Target Mounts Outside of "V" grooves  
 Manifolds on Aisle Side Weld 2 Target Mounts on "Full" Ears  
 15Q Length = 150 mm = 5.9 inch  
 31Q Length = 310 mm = 12.4 inch  
 Use Index Flats

**QUADRUPOLE 15Q-008**

SA54QD2  
SR??

8/22/01

**Description:**  
Fiducials based on values posted on web-page. (Check for updates.)

**H/V Corrector: Fiducial Values for Corrector**

Fiducial	Z	X	Y
1	-0.003	-0.323	-10.196
2	-0.002	-10.046	-10.205
A	0.000	-20.003	0.000
B	0.000	-20.003	0.000
C	0.000	-20.003	0.000
D	0.000	-20.003	0.000
E	0.000	0.000	17.935
F	0.000	0.000	17.935

inches inches inches

1, 2, A, B, C, D, E, F

**H/V CORRECTOR HV-25**

SA54HV4  
SR??

No Date

**Description:**  
Fiducials based on known nominal values.

**Quadrupole: Fiducial Values for Downstream (34Q) Quadrupole**

Fiducial	Z	X	Y
TB1	-6.344	11.243	16.201
TB2	6.314	11.243	16.205
TB3	-6.313	-11.253	16.201
TB4	6.316	-11.259	16.203
TB5	-5.199	-15.201	-4.867
TB6	4.665	-15.204	-4.749

QUADRUPOLE  
**34Q-065**

SA54QF2  
SR??

7/3/01

**Description:**  
Fiducials based on values posted on web-page. (Check for updates.)

**Vacuum Chamber: Fiducial Values for BM1 Vacuum Chamber**

Fiducial	Z	X	Y
TB1	-34.837	1.491	4.350
TB2	-34.855	8.434	4.362
TB3	11.026	4.156	2.340
TB4	34.591	-4.840	4.365
TB5	36.667	6.210	4.332
TB6	52.482	-1.896	2.293
TB7	55.596	-11.183	3.062
TB8	59.425	8.991	3.006
TB9	74.626	-20.283	4.369
TB0	76.954	-7.972	4.382

VACUUM CHAMBER  
**BM1010**

SA54CM1  
SR??

5/13/02

**Description:**  
Fiducials based on values posted on web-page. (Check for updates.)

**Building 750 Deck: Positions of Component Origins**

750 Name	Z	X	Y	Yaw
SA54SD2	1.367	-3.500	0.000	0.0000
SA54CM1	2.450	-3.500	0.000	0.0000
SA54BD2	2.447	-3.534	0.000	-5.2941
SA54QD2	3.485	-3.694	0.000	-10.5882
SA54QF2	4.114	-3.811	0.000	-10.5882
	meters	meters	meters	degrees

Date of Deck File: September 9, 2002

**145D-54**

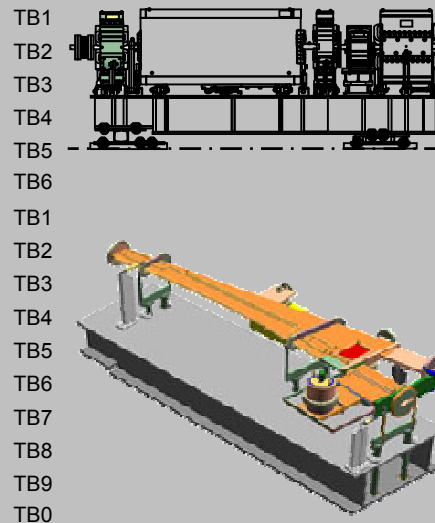
Location of Raft: WEST

**Description:**

Deck coordinates representing origin of the specific component's coordinate system.

**Building 750 As-Built: (TABLE 1 of 2)**

750 Name	delta Z	delta X	delta Y (delta H)
SA54SD2	0.011	0.008	0.003
	0.009	0.005	0.004
	0.007	0.003	-0.001
	0.005	0.004	0.000
	0.008	0.004	-0.004
	0.006	0.006	-0.003
SA54CM1	0.008	-0.002	0.007
	0.006	0.001	0.003
	missing	missing	missing
	0.012	0.004	-0.002
	0.010	-0.002	-0.001
	0.006	0.003	-0.023
	0.012	-0.002	-0.033
	0.004	0.000	-0.015
	0.000	0.003	-0.010
	0.004	0.003	0.006
	inches	inches	inches



Latest File Date: September 25, 2002

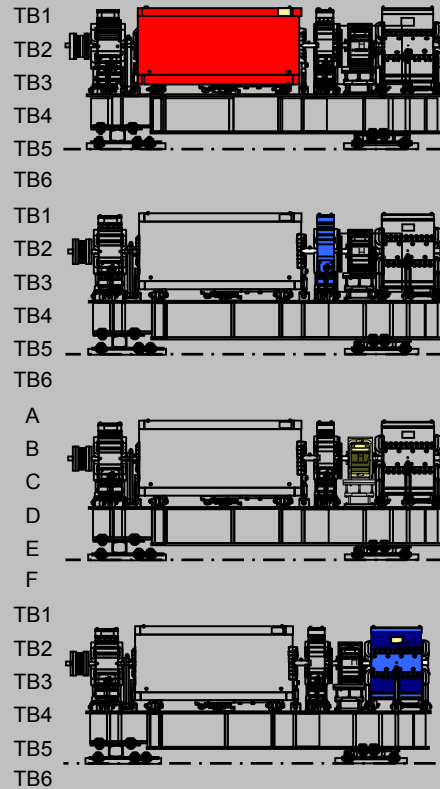
**145D-54**

**Description:**

Values representing the difference between the design and actual fiducial measurements.

**Building 750 As-Built: (TABLE 2 of 2)**

750 Name	delta Z	delta X	delta Y ( delta H )
SA54BD2	-0.009	0.002	-0.004
	-0.008	0.001	-0.002
	-0.009	-0.004	0.001
	-0.009	-0.004	-0.002
	-0.010	-0.004	-0.001
	-0.011	-0.001	-0.002
SA54QD2	0.002	-0.001	0.002
	-0.004	-0.002	-0.001
	0.005	0.002	-0.001
	0.003	-0.003	-0.002
	0.000	0.000	0.000
	-0.009	0.002	-0.008
SA54HV4		-0.002	
		-0.002	
		-0.008	
		0.003	
			-0.001
SA54QF2	-0.004	0.000	-0.001
	-0.007	0.000	0.000
	-0.004	0.005	-0.001
	-0.003	0.006	-0.001
	-0.004	0.004	-0.006
	-0.004	0.002	-0.006
	inches	inches	inches



Latest File Date: September 26, 2002

**145D-54**

**Description:**

*Values representing the difference between the design and actual fiducial measurements.*