

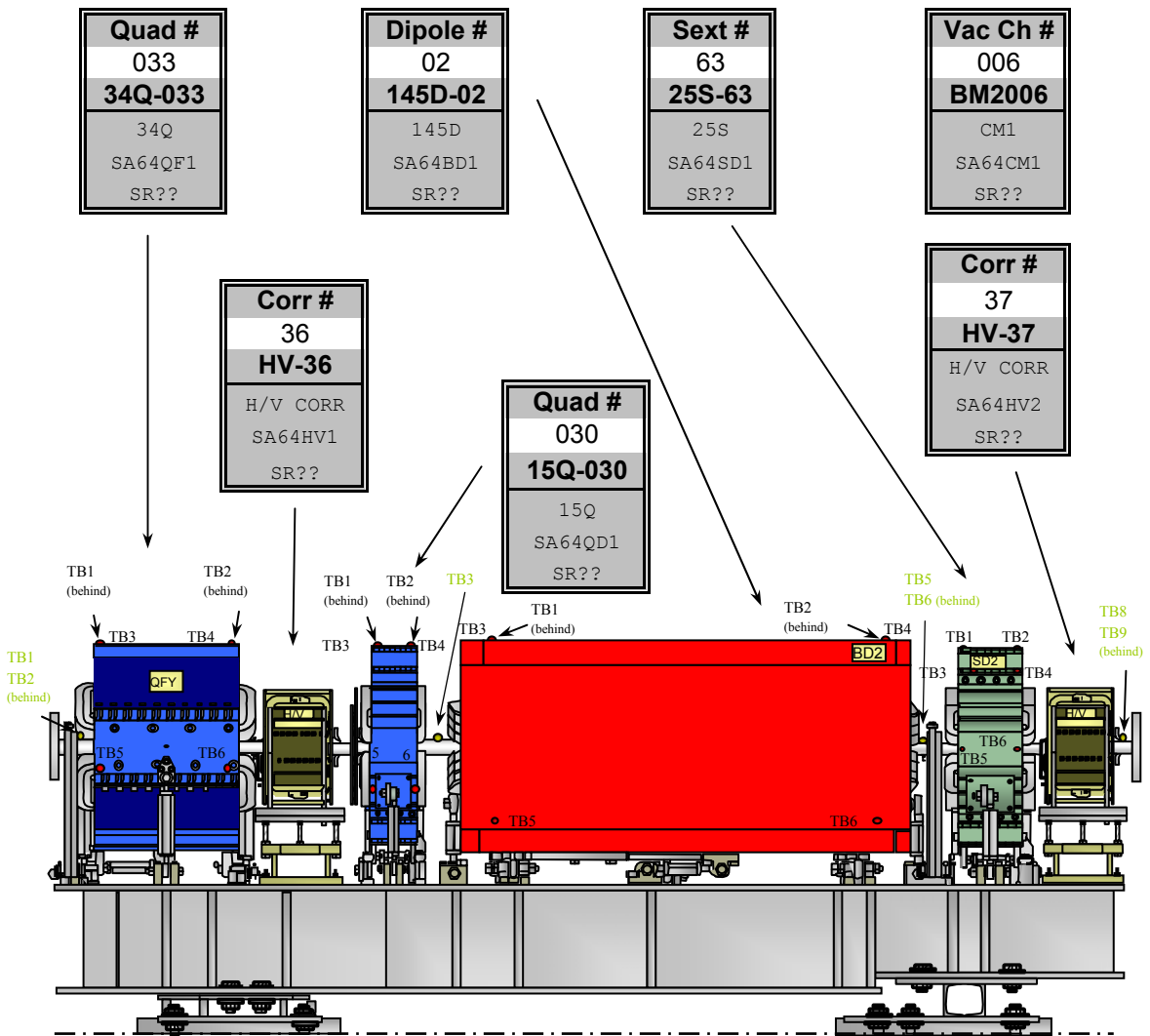
Raft Description:

Date October 31, 2002

| | | | |
|--------------------------------|------------------------------|------------------------------|-----------------------------|
| Raft # 64 145D-64 | Type 1 145D T-1 | Bld. 750 Name SA64 | S3 Ring Name SR?? |
|--------------------------------|------------------------------|------------------------------|-----------------------------|

Notes:

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



Quadrupole: Fiducial Values for Upstream (34Q) Quadrupole

| Fiducial | Z | X | Y |
|----------|--------|---------|--------|
| TB1 | -6.321 | 11.264 | 16.201 |
| TB2 | 6.322 | 11.247 | 16.200 |
| TB3 | -6.320 | -11.254 | 16.202 |
| TB4 | 6.337 | -11.243 | 16.202 |
| TB5 | -5.268 | -15.203 | -4.723 |
| TB6 | 4.601 | -15.208 | -4.729 |

inches inches inches

**QUADRUPOLE
34Q-033**

SA64QF1
SR??

8/7/01

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

Vacuum Chamber: Fiducial Values for BM2 Vacuum Chamber

| Fiducial | Z | X | Y |
|----------|---------|---------|-------|
| TB1 | -77.097 | -6.224 | 4.374 |
| TB2 | -77.197 | 7.254 | 4.384 |
| TB3 | -34.879 | 0.078 | 4.379 |
| TB4 | 0.264 | 3.976 | 2.393 |
| TB5 | 34.485 | -4.640 | 4.395 |
| TB6 | 35.768 | 2.483 | 4.396 |
| TB7 | 53.857 | -4.277 | 2.429 |
| TB8 | 58.004 | -12.463 | 2.961 |
| TB9 | 60.996 | 3.010 | 2.962 |
| TB0 | N/A | N/A | N/A |

inches inches inches

**VACUUM CHAMBER
BM2006**

SA64CM1
SR??

10/31/02

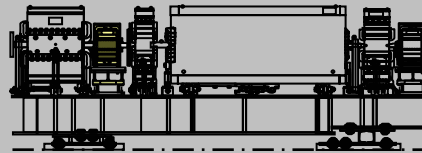
Description:
Fiducials based on values posted on web-page. (Check for updates.)

HV1 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

**HV1 CORRECTOR
HV-36**



SA64HV1
SR??

No Date

Description:

Fiducials based on known nominal values.

Quadrupole: Fiducial Values for Upstream (15Q) Quadrupole

| Fiducial | Z | X | Y |
|----------|--------|---------|--------|
| TB1 | -2.563 | 11.226 | 16.198 |
| TB2 | 2.560 | 11.236 | 16.199 |
| TB3 | -2.560 | -11.229 | 16.197 |
| TB4 | 2.571 | -11.253 | 16.198 |
| TB5 | -1.465 | -15.198 | -4.820 |
| TB6 | 2.441 | -15.199 | -4.855 |

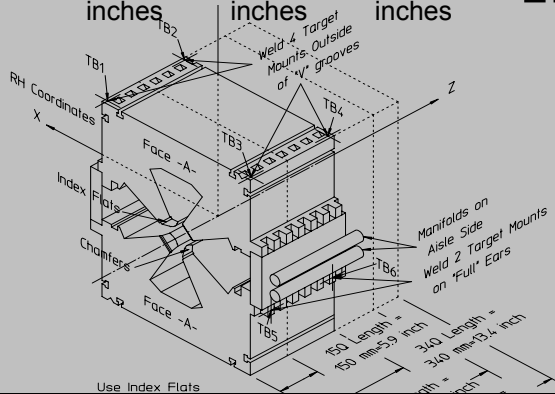
inches inches inches

**QUADRUPOLE
15Q-030**



SA64QD1
SR??

9/5/01



Description:

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

Gradient Dipole: Fiducial Values for Dipole (145D)

| Fiducial | Z | X | Y |
|----------|---------|---------|---------|
| TB1 | -26.544 | 3.442 | 17.011 |
| TB2 | 26.559 | 3.458 | 17.006 |
| TB3 | -26.545 | -22.418 | 17.001 |
| TB4 | 26.554 | -22.409 | 17.001 |
| TB5 | -26.449 | -24.265 | -11.616 |
| TB6 | 26.577 | -24.273 | -11.706 |

inches inches inches

GRADIENT DIPOLE
145D-02

SA64BD1
SR??

5/25/01

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

Sextupole: Fiducial Values for 25S Sextupole

| Fiducial | Z | X | Y |
|----------|--------|---------|--------|
| TB1 | -4.540 | 4.173 | 15.512 |
| TB2 | 4.511 | 4.199 | 15.512 |
| TB3 | -4.403 | -10.488 | 12.545 |
| TB4 | 3.495 | -10.489 | 12.539 |
| TB5 | -4.533 | -15.063 | 0.017 |
| TB6 | 4.555 | -15.062 | 0.010 |

inches inches inches

SEXTUPOLE
25S-63

SA64SD1
SR??

11/13/01

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

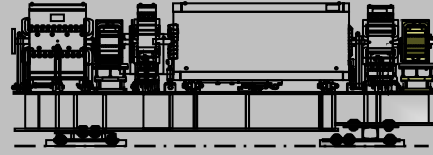
HV2 Corrector: Fiducial Values for Corrector

| 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

HV2 CORRECTOR

HV-37



SA64HV2
SR??

No Date

Description:

Fiducials based on known nominal values.

Building 750 Deck: Positions of Component Origins

| 750 Name | Z | X | Y | Yaw |
|----------|--------|--------|-------|---------|
| SA64QF1 | -4.114 | -3.811 | 0.000 | 10.5882 |
| SA64QD1 | -3.485 | -3.694 | 0.000 | 10.5882 |
| SA64CM1 | -2.450 | -3.500 | 0.000 | 10.5882 |
| SA64BD1 | -2.447 | -3.534 | 0.000 | 5.2941 |
| SA64SD1 | -1.367 | -3.500 | 0.000 | 0.0000 |

meters meters meters

degrees

Date of Deck File: March 10, 2003

145D-64

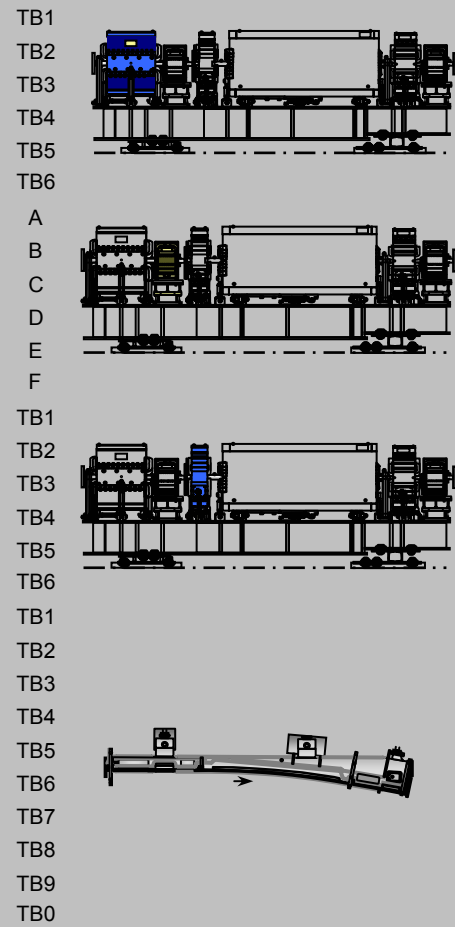
Location of Raft: WEST

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) | |
|----------|---------|---------|------------------------|--------|
| SA64QF1 | -0.003 | -0.009 | 0.001 | |
| | -0.010 | 0.001 | 0.000 | |
| | 0.000 | -0.006 | 0.003 | |
| | 0.004 | -0.004 | 0.003 | |
| | N/A | N/A | N/A | |
| | N/A | N/A | N/A | |
| SA64HV1 | | N/A | | |
| | | N/A | | |
| | | N/A | | |
| | | N/A | | |
| | | | N/A | |
| | | | N/A | |
| SA64QD1 | -0.002 | -0.005 | 0.003 | |
| | -0.011 | 0.004 | -0.002 | |
| | 0.009 | -0.003 | -0.002 | |
| | 0.017 | 0.002 | -0.002 | |
| | N/A | N/A | N/A | |
| | N/A | N/A | N/A | |
| SA64CM1 | 0.013 | 0.005 | 3.001 | |
| | 0.001 | 0.001 | 0.004 | |
| | -0.004 | 0.003 | 0.000 | |
| | -0.007 | 0.002 | 0.010 | |
| | 0.001 | -0.001 | -0.001 | |
| | 0.001 | 0.000 | -0.002 | |
| | 0.003 | 0.001 | -0.003 | |
| | 0.003 | 0.008 | 2.961 | |
| | -0.003 | 0.004 | -0.051 | |
| | N/A | N/A | N/A | |
| | | inches | inches | inches |



Latest File Date: January 24, 2003

145D-64

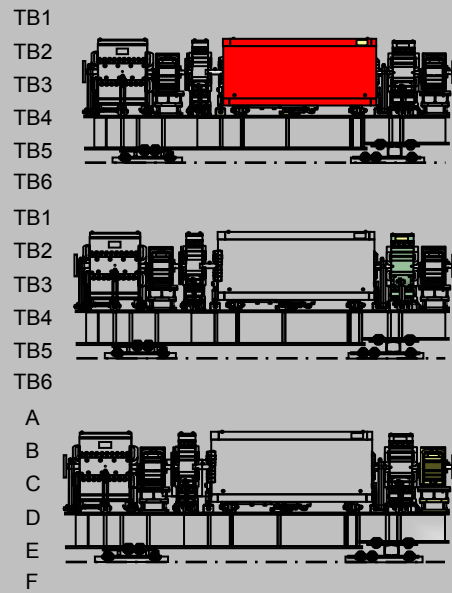
Description:

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)**

| | | | |
|---------|--------|--------|--------|
| SA64BD1 | N/A | N/A | N/A |
| | N/A | N/A | N/A |
| | N/A | N/A | N/A |
| | N/A | N/A | N/A |
| | N/A | N/A | N/A |
| | N/A | N/A | N/A |
| SA64SD1 | -0.005 | -0.006 | -0.006 |
| | 0.001 | -0.011 | -0.003 |
| | -0.012 | -0.002 | -0.008 |
| | 0.000 | -0.007 | -0.002 |
| | 0.002 | -0.004 | -0.003 |
| | -0.001 | -0.001 | -0.003 |
| SA64HV2 | | N/A | |
| | | N/A | |
| | | N/A | |
| | | N/A | |
| | | | N/A |
| | | | N/A |
| | inches | inches | inches |



Latest File Date: May 16, 2002

145D-64

Description:

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