



# MEBT MEETING AGENDA

November 13, 2001

---

## Mechanical Systems Update

1. **Assembly Status**
  - Raft 2 Assembly ([photo](#))
    - Fiducialization ([results](#))
  - All quads ([results](#))
  
2. **Design Status ([MEBT](#))**
  - PM5 vacuum manifold ([image](#))
  - Raft assembly drawings
  - Water system ([diagram, views](#))
  - Quad power lead routing
  - Quad Electrical Covers

## Electrical Systems Update

1. **Low Level RF**
2. **Rebuncher System ([photo](#))**
  - Cavity #1 received 11/12/01
3. **Beam Diagnostics**

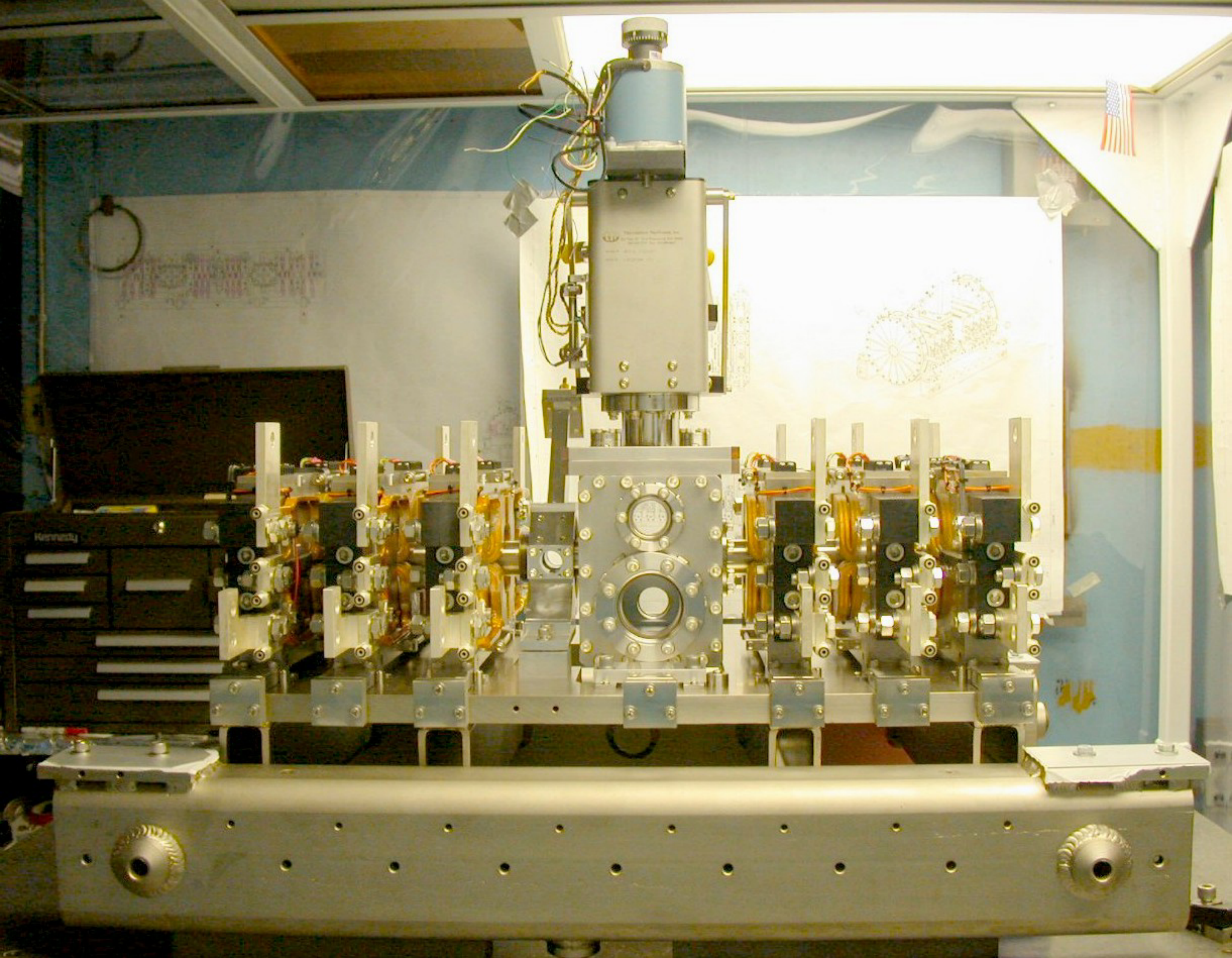
## System Integration / Installation

1. **Installation of MEBT frame**
2. **Water system installation**

## Upcoming Tasks and Milestones

- ◆ Rebuncher Cavity #2-4 Received 6/30/01
- ◆ Profile Monitor all complete 7/31/01

*Next Meeting: Thursday, 12/6/01, 10 AM*



Photomicrograph of the  
[illegible]  
[illegible]  
[illegible]

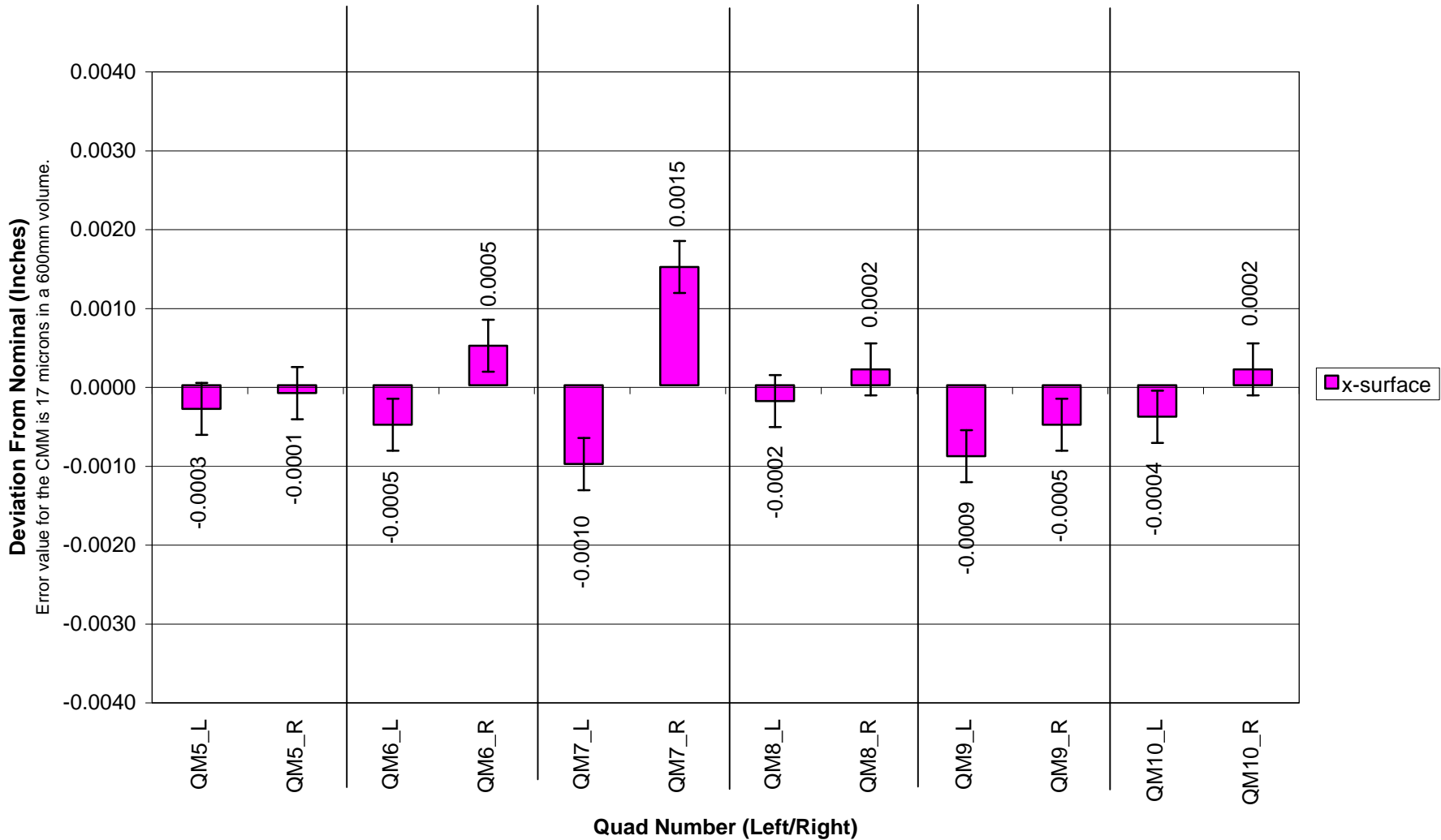


Kennedy

# Raft 2 Quad Locational Deviations (x)

## Third Run

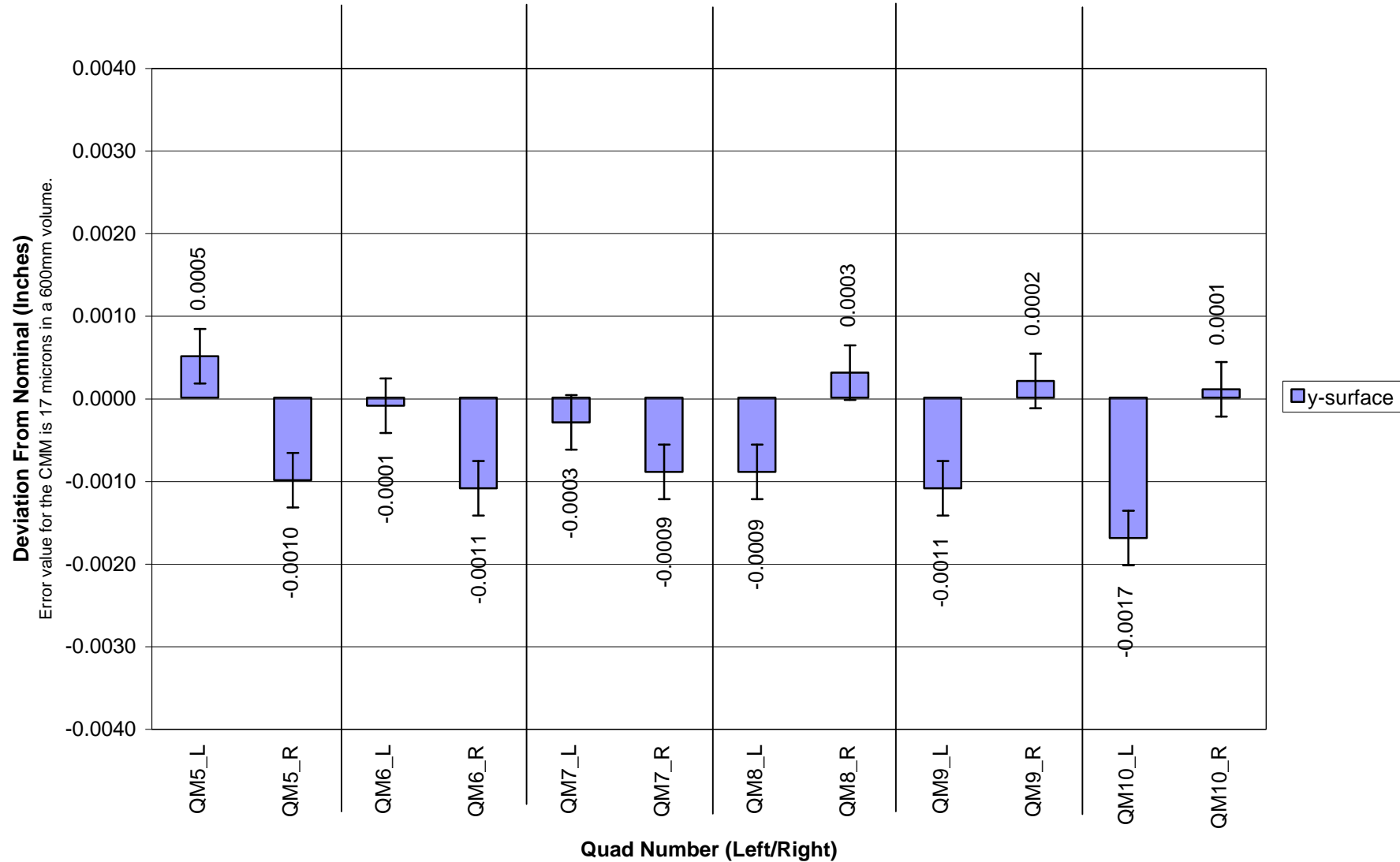
Deviation values: The difference between the measured position of each fiducial surface and its nominal position. Measurements taken 11/8/01



# Raft 2 Quad Locational Deviations (y)

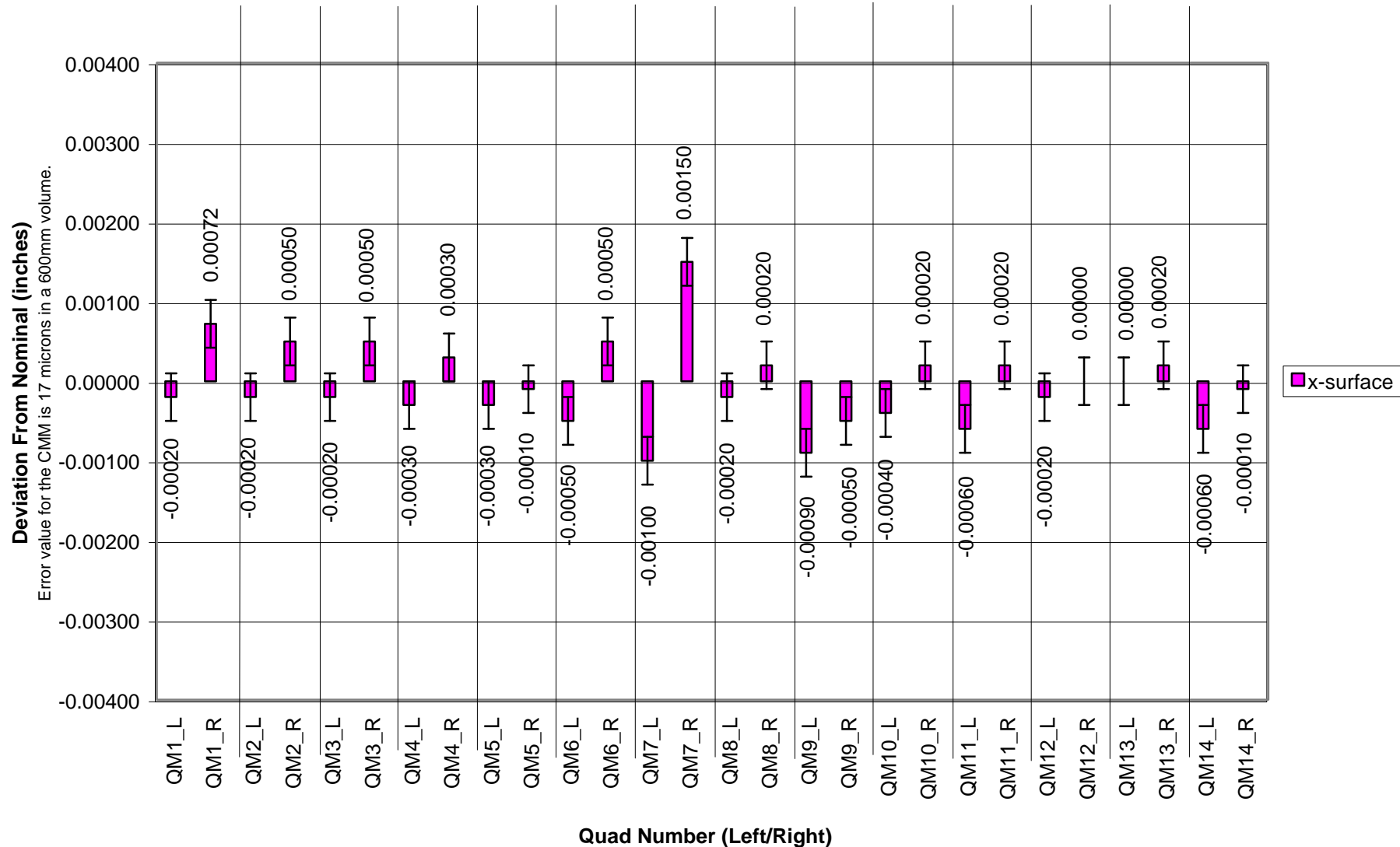
## Third Run

Deviation values: The difference between the measured position of each fiducial surface and its nominal position. Measurements taken 11/8/01



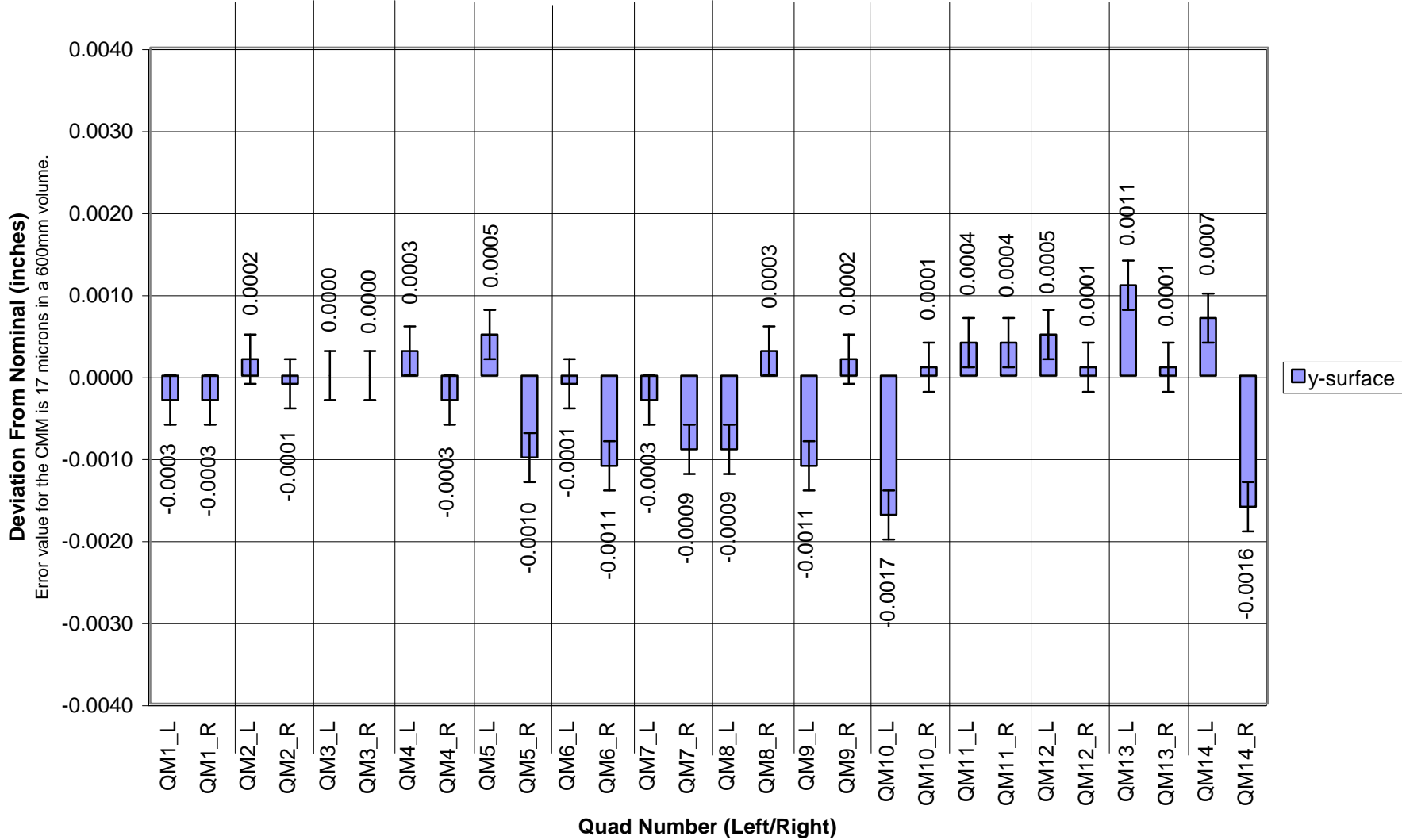
# MEBT Quadrupole Magnet Locational Deviations (x)

Deviation values: The difference between the measured position of each fiducial surface and its nominal position. Measurements taken 11/8/01.



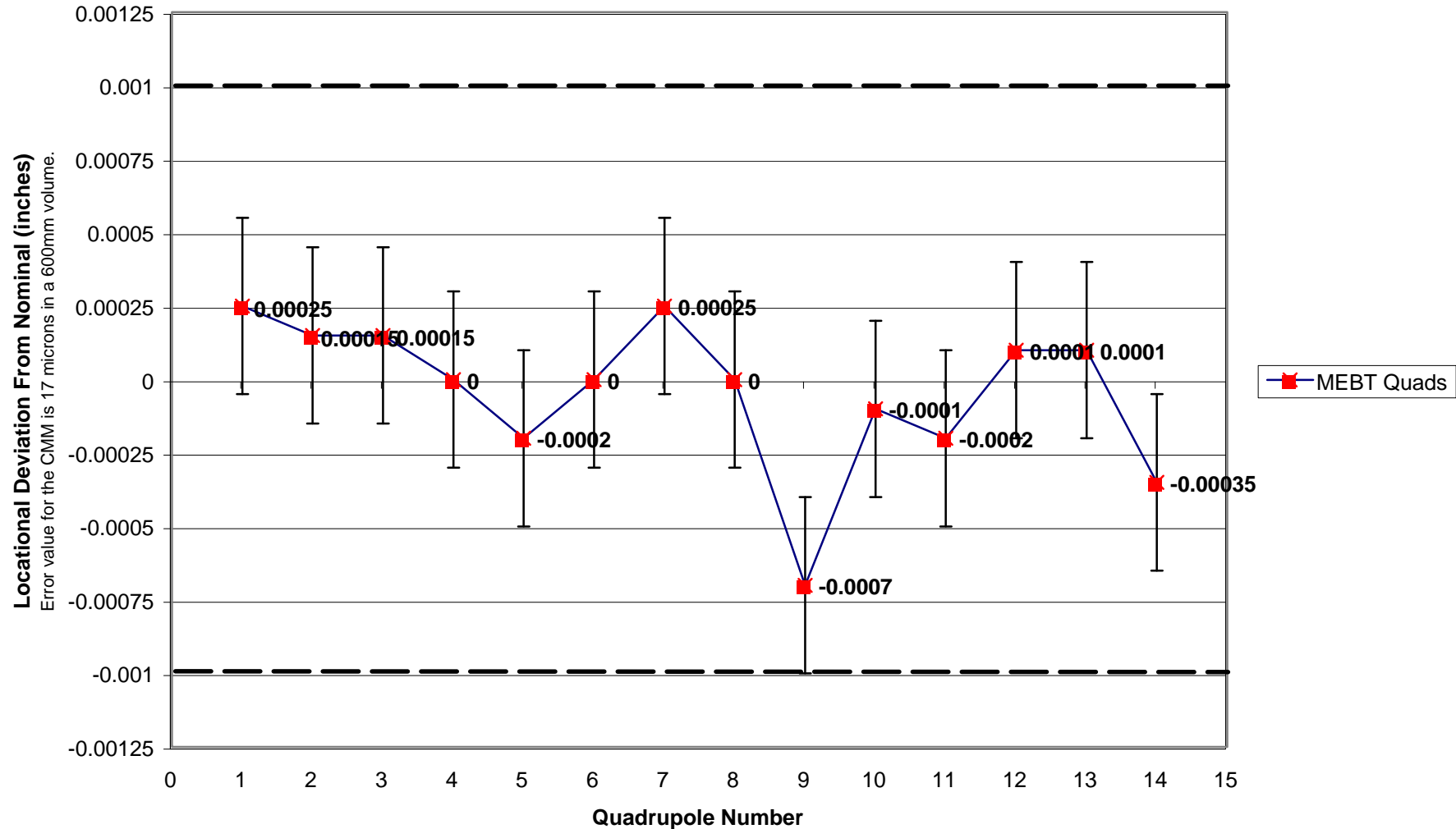
# MEBT Quadrupole Magnet Locational Deviations (y)

Deviation values: The difference between the measured position of each fiducial surface and its nominal position. Measurements taken 11/8/01.



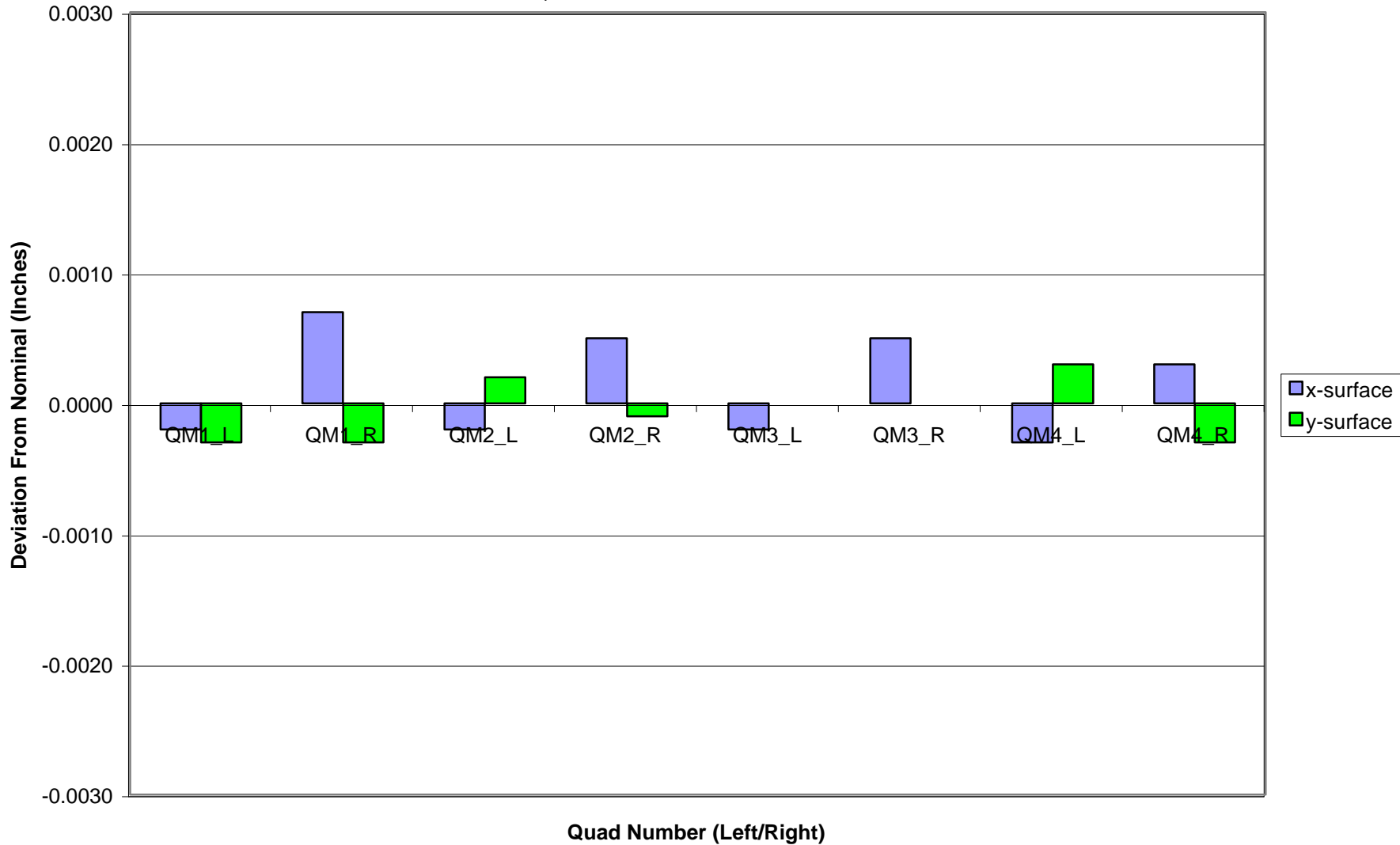
# MEBT Quadrupole Magnet Locational Deviations (x)

Deviation values: The difference between the averaged left/right positions of each fiducial surface and the centerline position of the quad. Measurements taken 11/8/01



### Raft 1 Quad Locational Deviations (x&y)

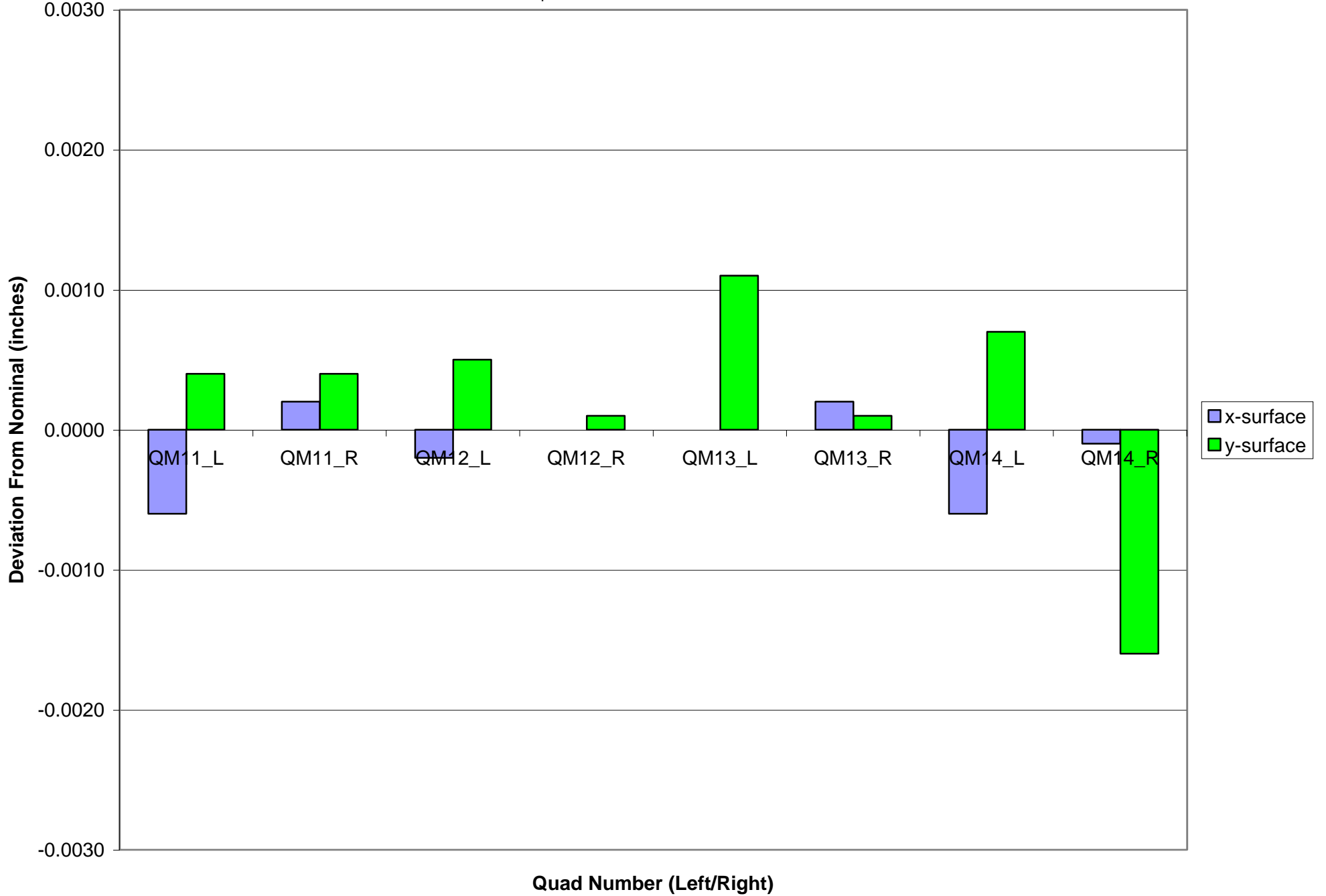
Deviation values: the difference between the measured position of each fiducial surface and its nominal position. Measurements taken 10/23-10/24/01.

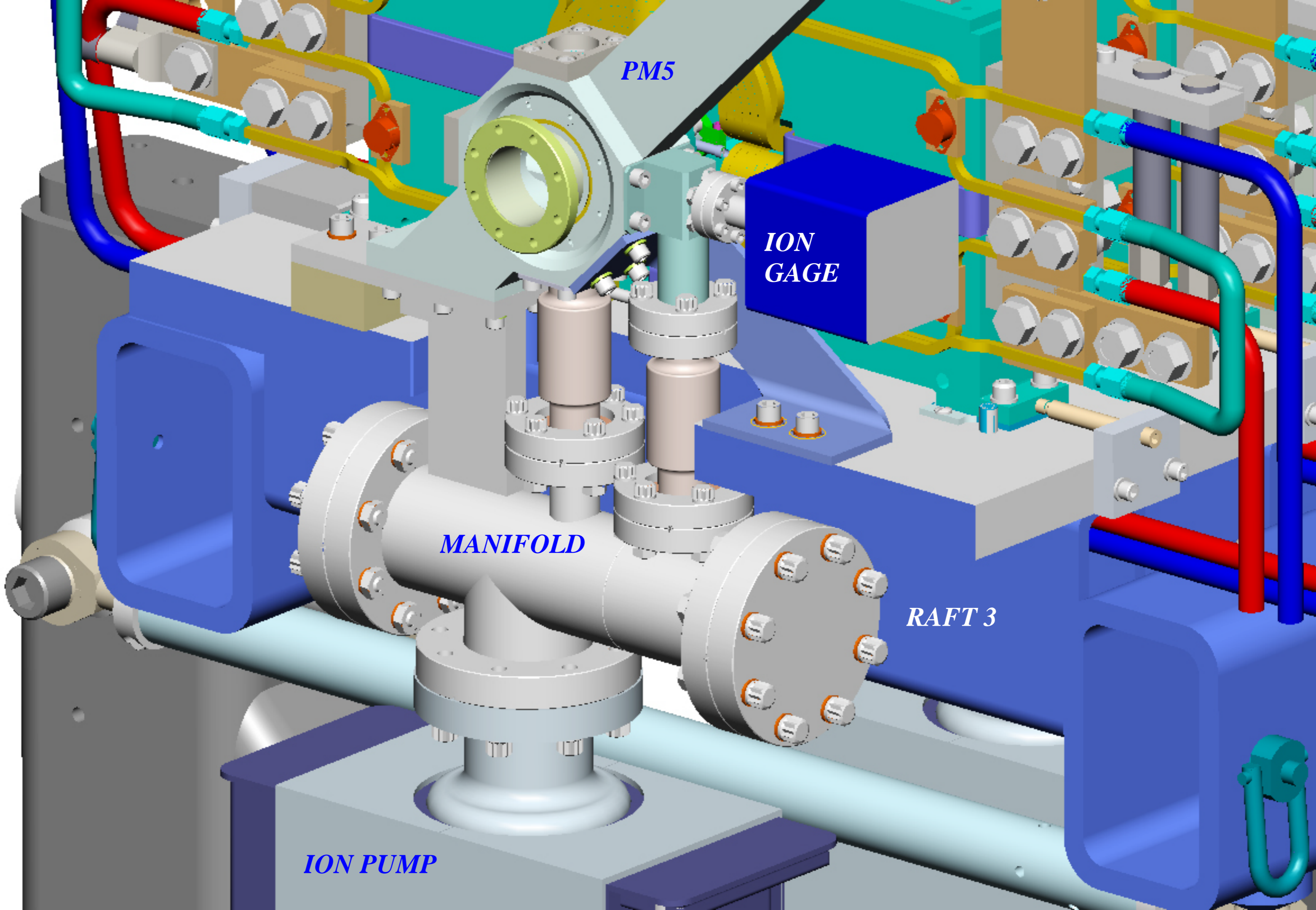




### Raft 3 Quad Locational Deviations (x&y)

Deviation values: the difference between the measured position of each fiducial surface and its nominal position. Measurements taken 10/4-10/8/01.





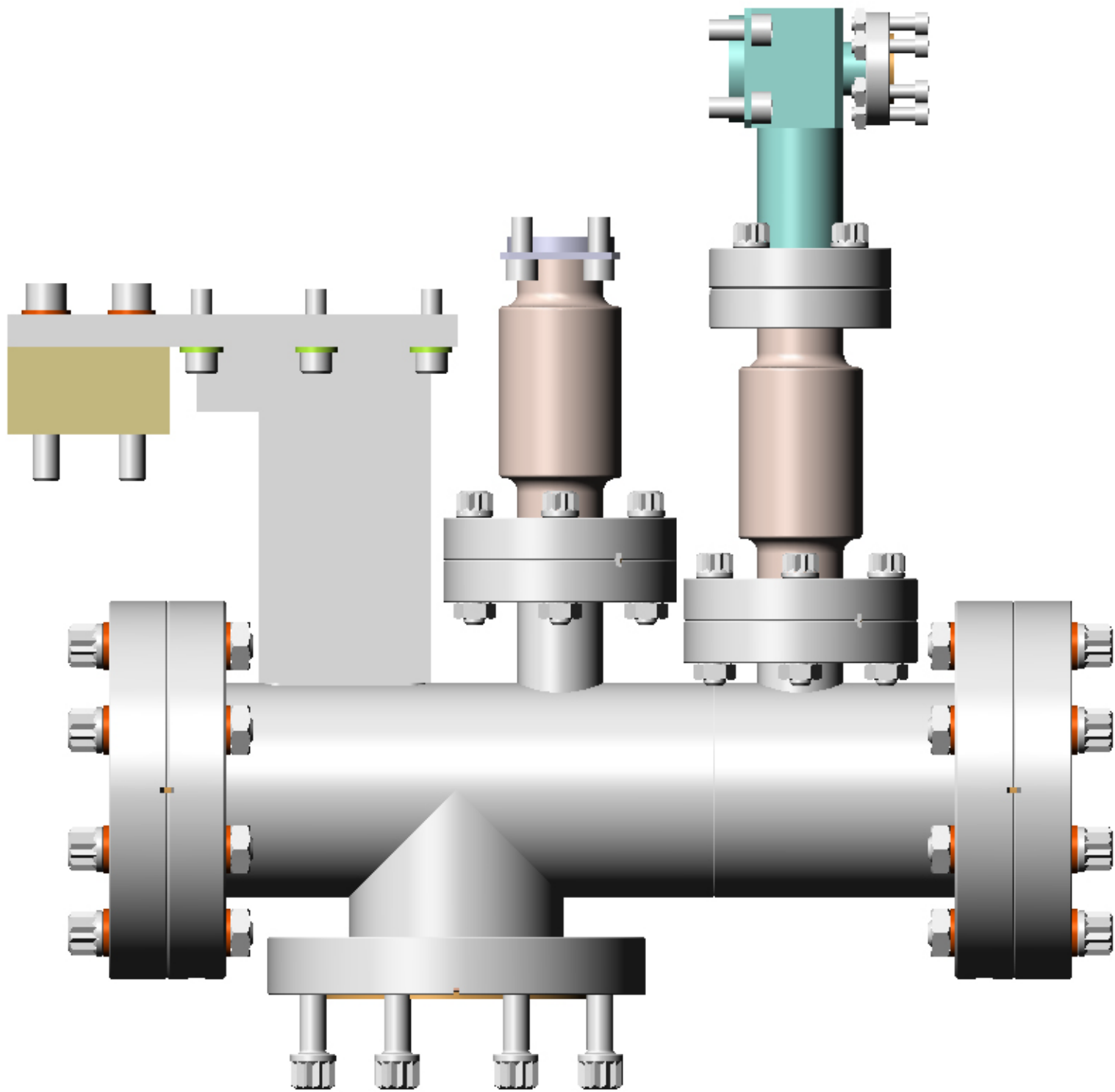
*PM5*

*ION  
GAGE*

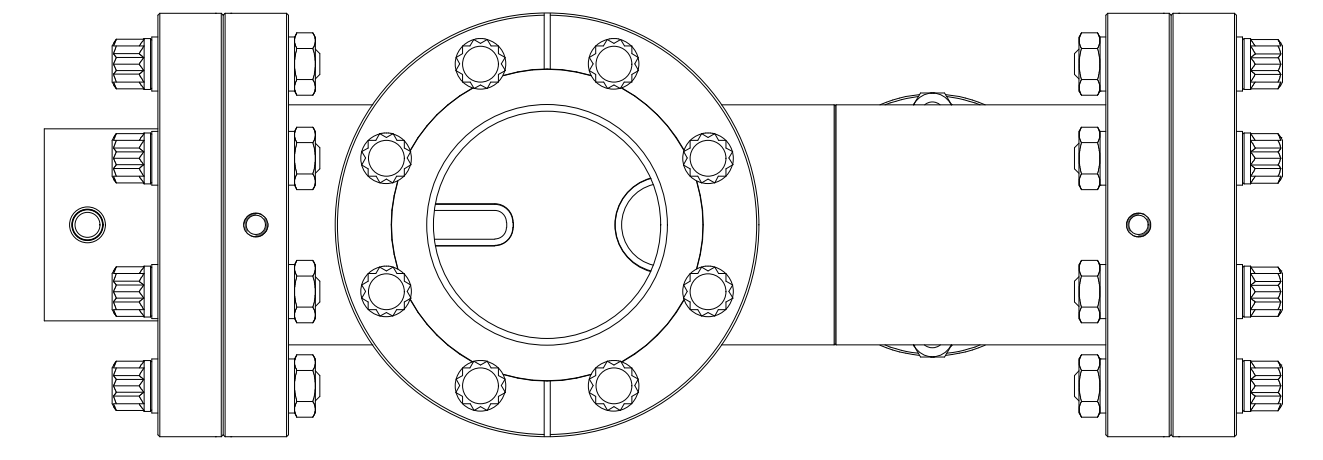
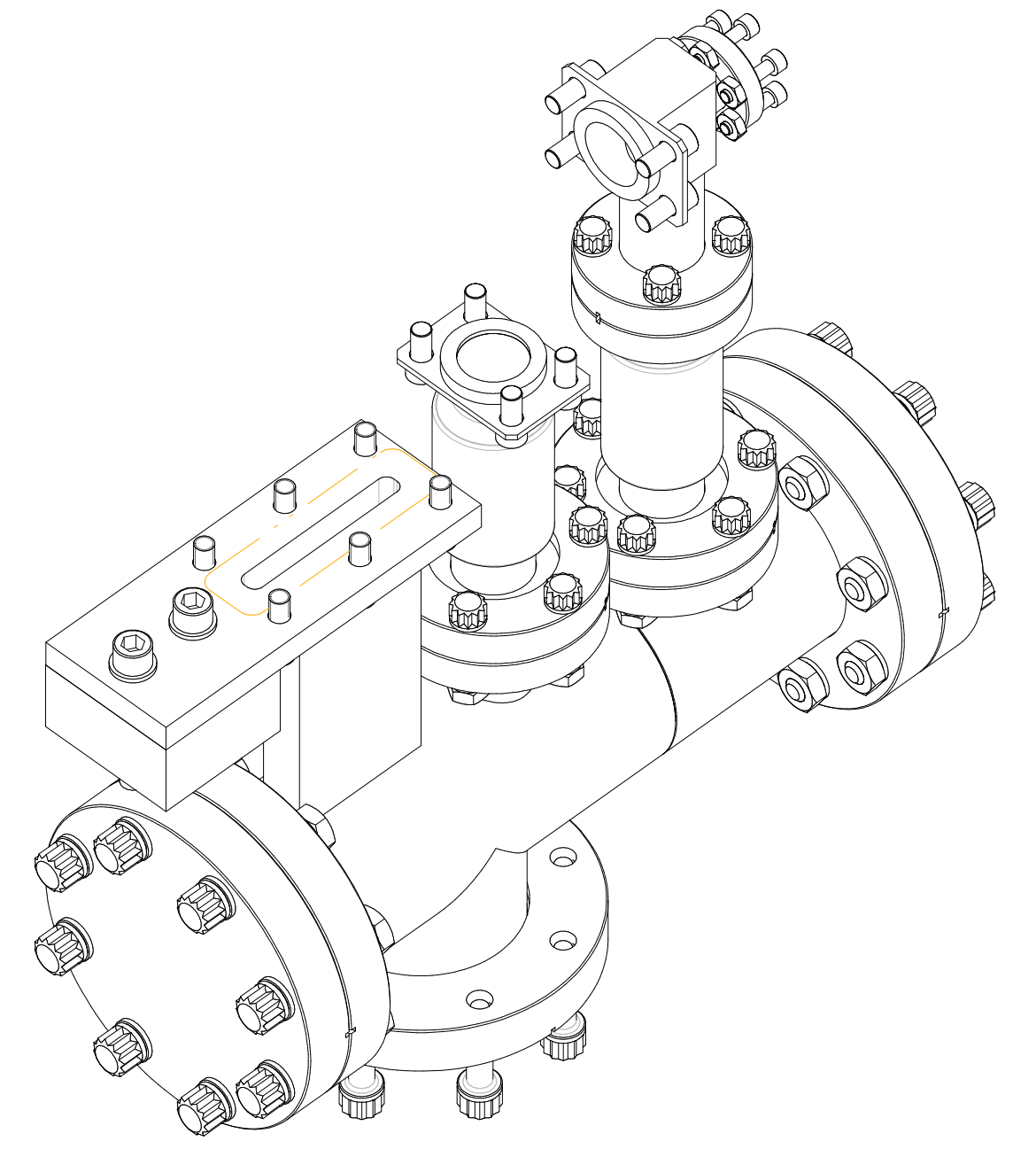
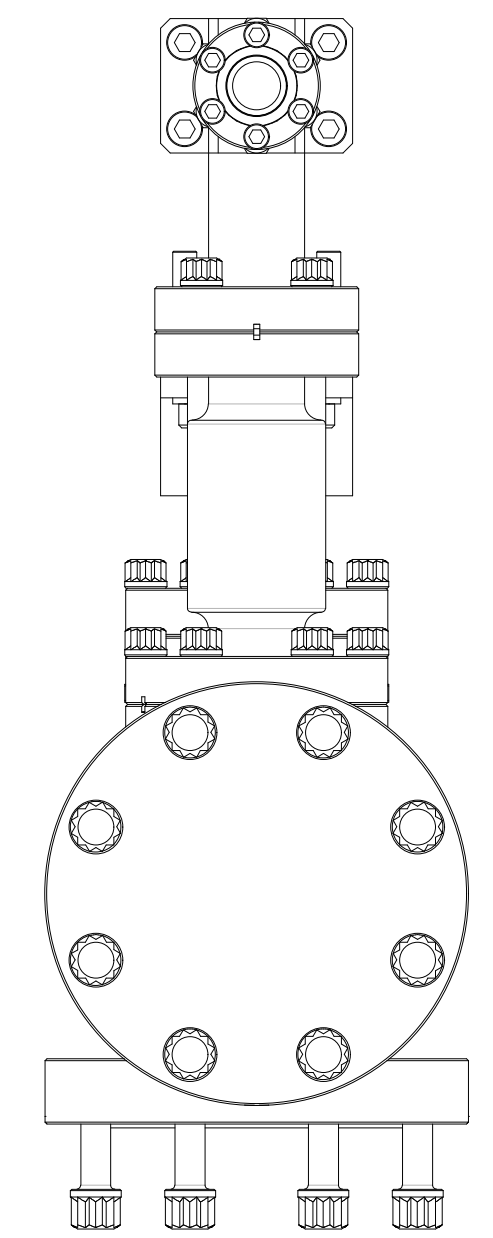
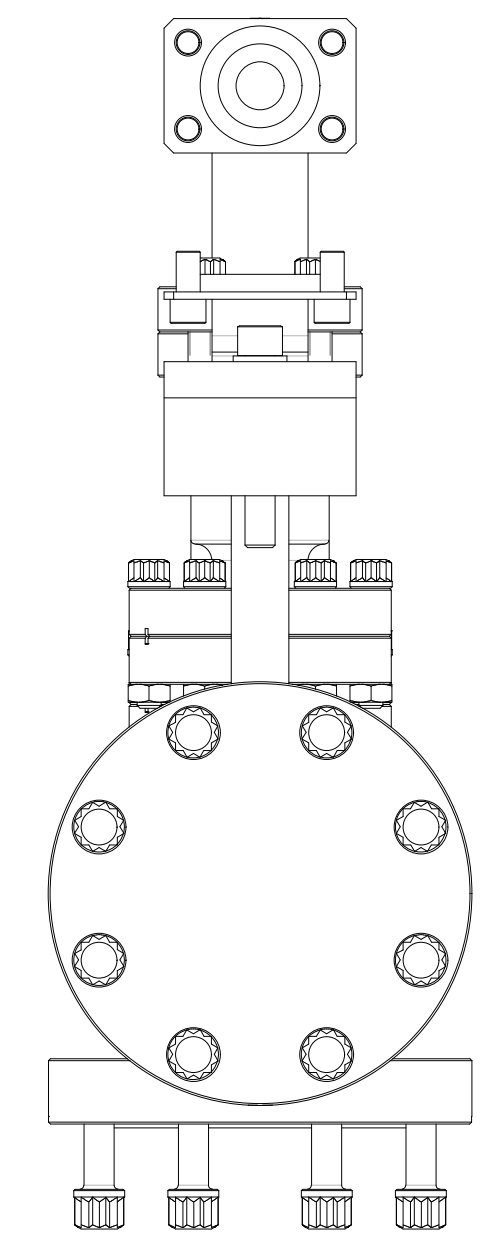
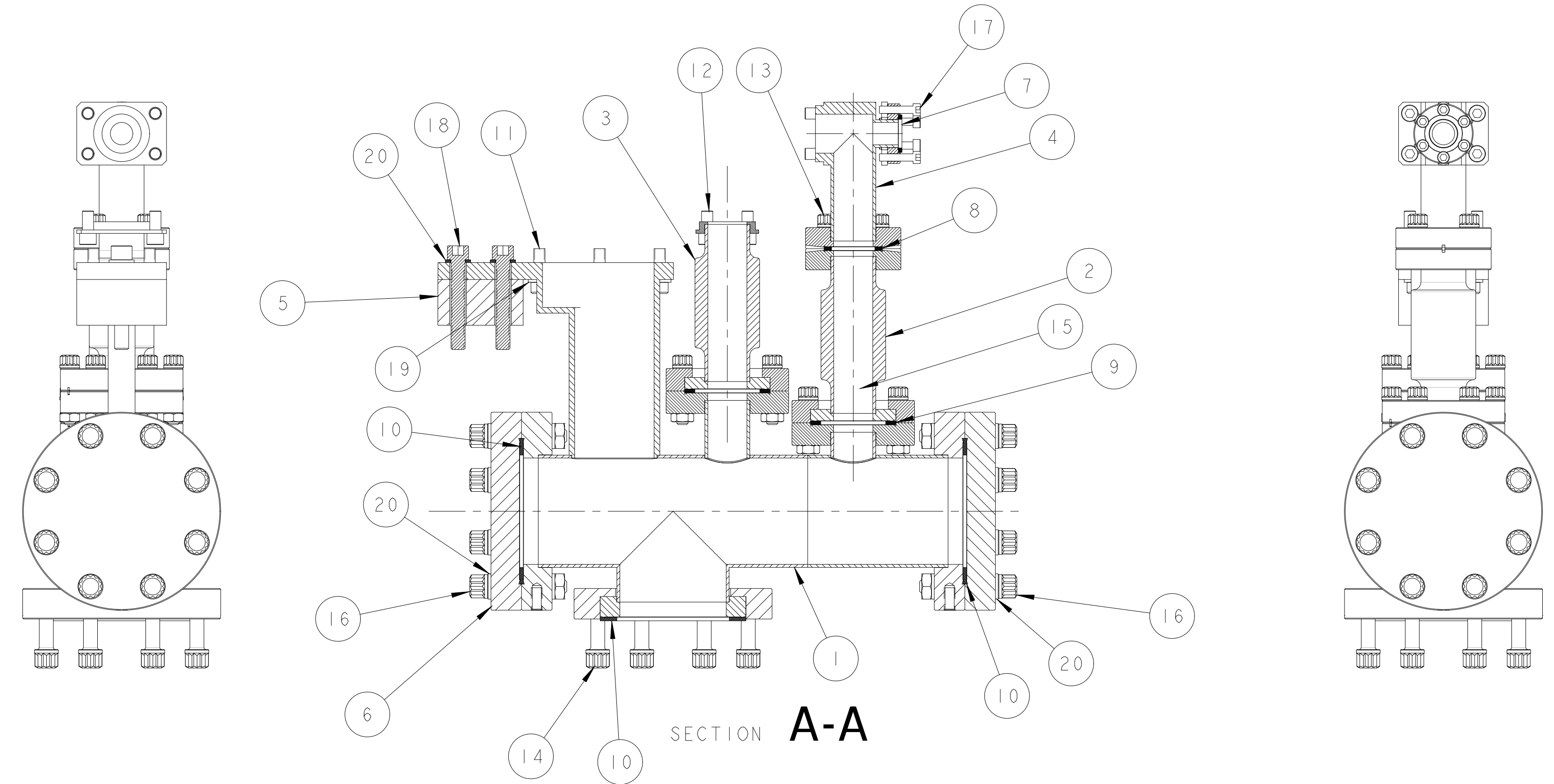
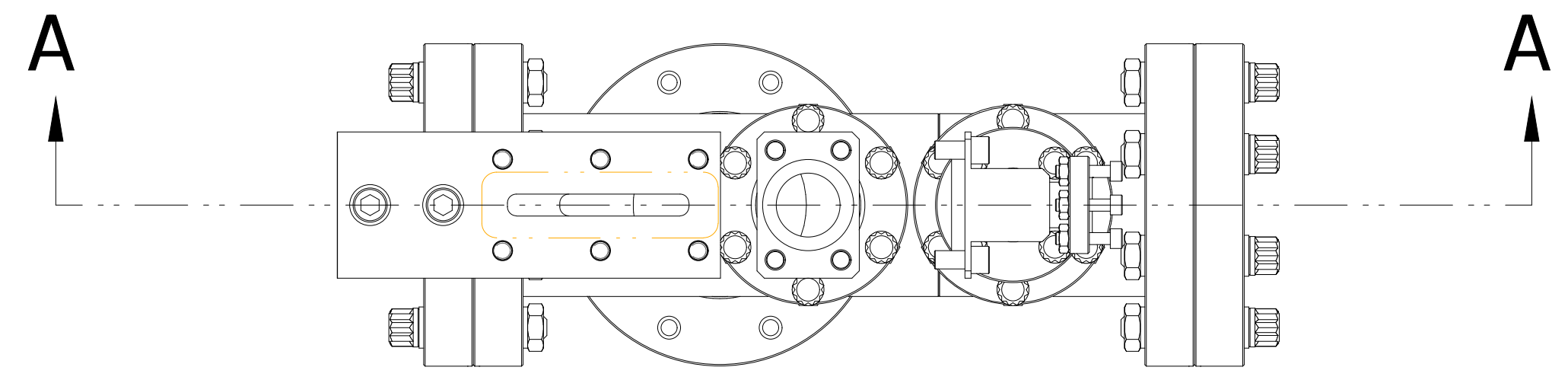
*MANIFOLD*

*RAFT 3*

*ION PUMP*



NOTES:  
1) ASSEMBLE IN A CLEAN ENVIRONMENT.



ITEM	PART NO	REOD	DESCRIPTION	MATERIAL
20	98017A690	34	5/16" FLAT WASHER AN 960 , MCMASTER-CARR OR EQUIV	-
19	98017A660	6	1/4" DIA FLAT WASHER AN 960 , MCMASTER-CARR OR EQUIV	18-8 SS
18		2	5/16-18 UNC, 2.0 LG SHC SCREW	
17	MDC_190037	6	SCREW, SCH, 8-32 UNC-2A X 3/4 L	SS
16	MDC_190062	16	SCREW, 12-PT, 5/16-24 UNF X 1-3/4" LG, SILVER PLATED	SS
15	MDC_190061	12	SCREW, 12-PT, 1/4-28 UNF X 1-1/4" LG, SILVER PLATED	SS
14	MDC_190058	8	SCREW, 12-PT, 5/16-24 UNF X 1-1/4" LG, SILVER PLATED	SS
13	MDC_190057	4	SCREW, 12-PT, 1/4-28 UNF X 7/8" LG, SILVER PLATED	SS
12		8	SCREW, SCH, 8-32 UNC-2A X 3/8 L, SILVER PLATED	18-8 SS
11		6	1/4-28 UNF, .750 LG SOC HD SCREW, SILVER PLATED	18-8 SS
10	MDC_191009	3	GASKET, CONFLAT, 4-1/2 FLANGE, OFHC CU	CU
9	MDC_191004	2	GASKET, CONFLAT, 2-3/4 FLANGE, OFHC CU	CU
8	MDC_191002	1	GASKET, CONFLAT, 2-1/8 FLANGE, OFHC CU	CU
7	MDC_191000	1	GASKET, CONFLAT, 1-1/3 FLANGE, OFHC CU	CU
6	MDC_110018	2	FLANGE, CONFLAT, 4-1/2" OD, CL HOLE, NON-ROT, BLANK	-
5	25B121	1	PM SPACER	ALUMINUM 6061
4	25B739	1	NIPPLE, ADAPTER, RIGHT ANGLE, PM5_VMFD	-
3	25B740	1	SPOOL, BELLWS, CONFLAT, PM5_VMFD	-
2	25B738	1	SPOOL, BELLWS, ADAPTER, PM5_VMFD	-
1	25B734	1	MANIFOLD WELDMENT, PM5	-

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER NO. -	
PROJECTION:		ACCT NO.	NO.	DATE	-
TOLERANCES		DEL TO	ISSD	DATE	-
X.X ± 0.1	FRAC. ± 1/64	REOD	REOD	REOD	-
X.XX ± 0.01	Angles ± 0.1°	SURFACE TREATMENT			
X.XXX ± 0.005	FINISH 125/	IDENT. METHOD. TAG			
DO NOT SCALE PRINT		PROJECT NUMBER N/A			
THREADS ARE CLASS 2		PROJECT NAME N/A			
CHAMFER ENDS OF ALL SCREW TREADS 30°		DWG BY PAL			
CUT ROUNDS, 1.5 THREAD RELIEF ON MACHINED THREADS		DATE 30-Oct-01			
BREAK EDGES .016 MAX. ON MACHINED WORK		CHK BY DPO			
REMOVE BURRS, WELD SPLATTER & LOOSE SCALE		DATE 11-12-01			
IN ACCORDANCE WITH ASME Y14.5M & B46.1		APR BY DPO			
		DATE 11-12-01			

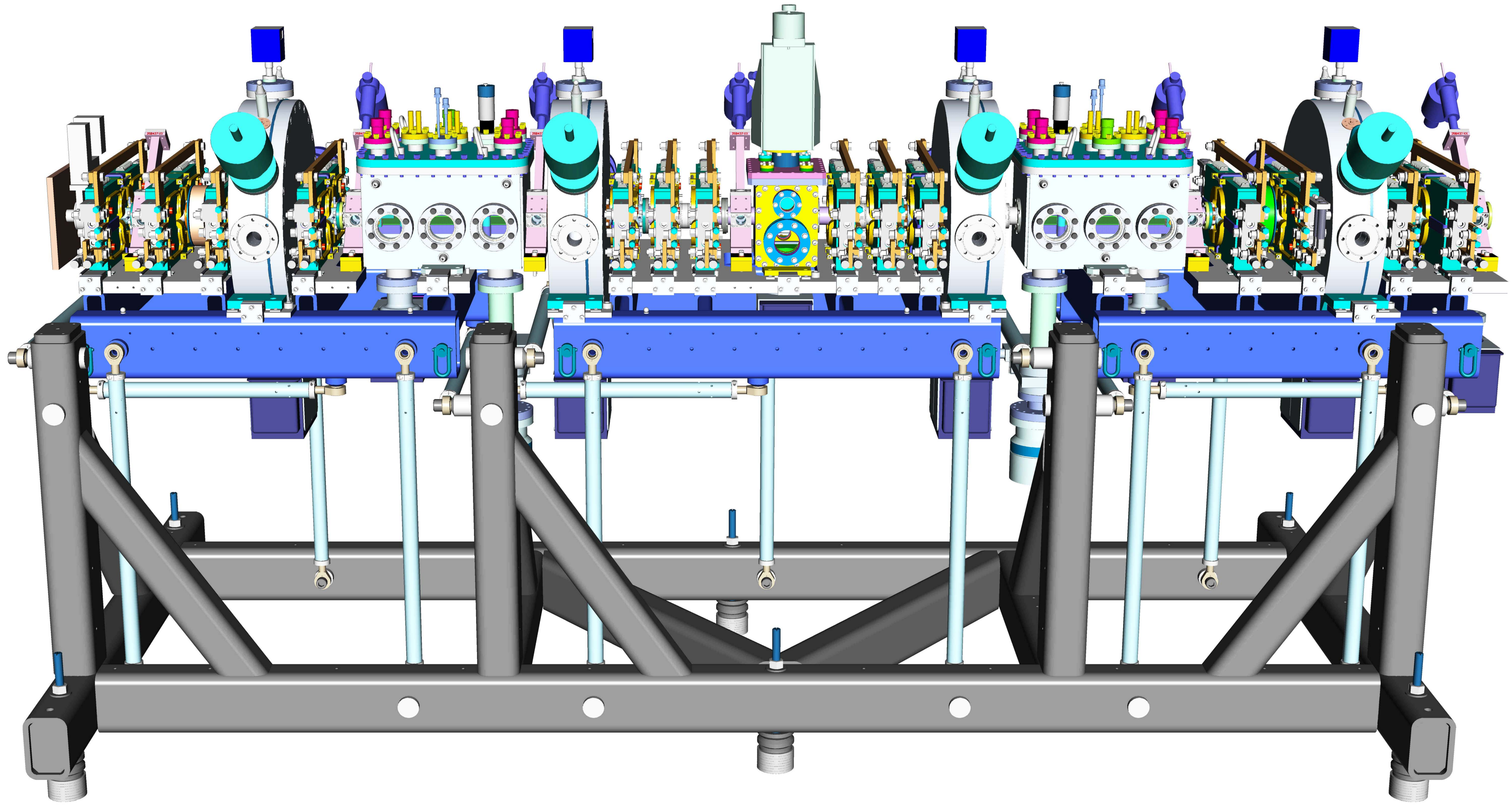
ERNEST ORLANDO LAWRENCE  
BERKELEY NATIONAL LABORATORY  
UNIVERSITY OF CALIFORNIA - BERKELEY

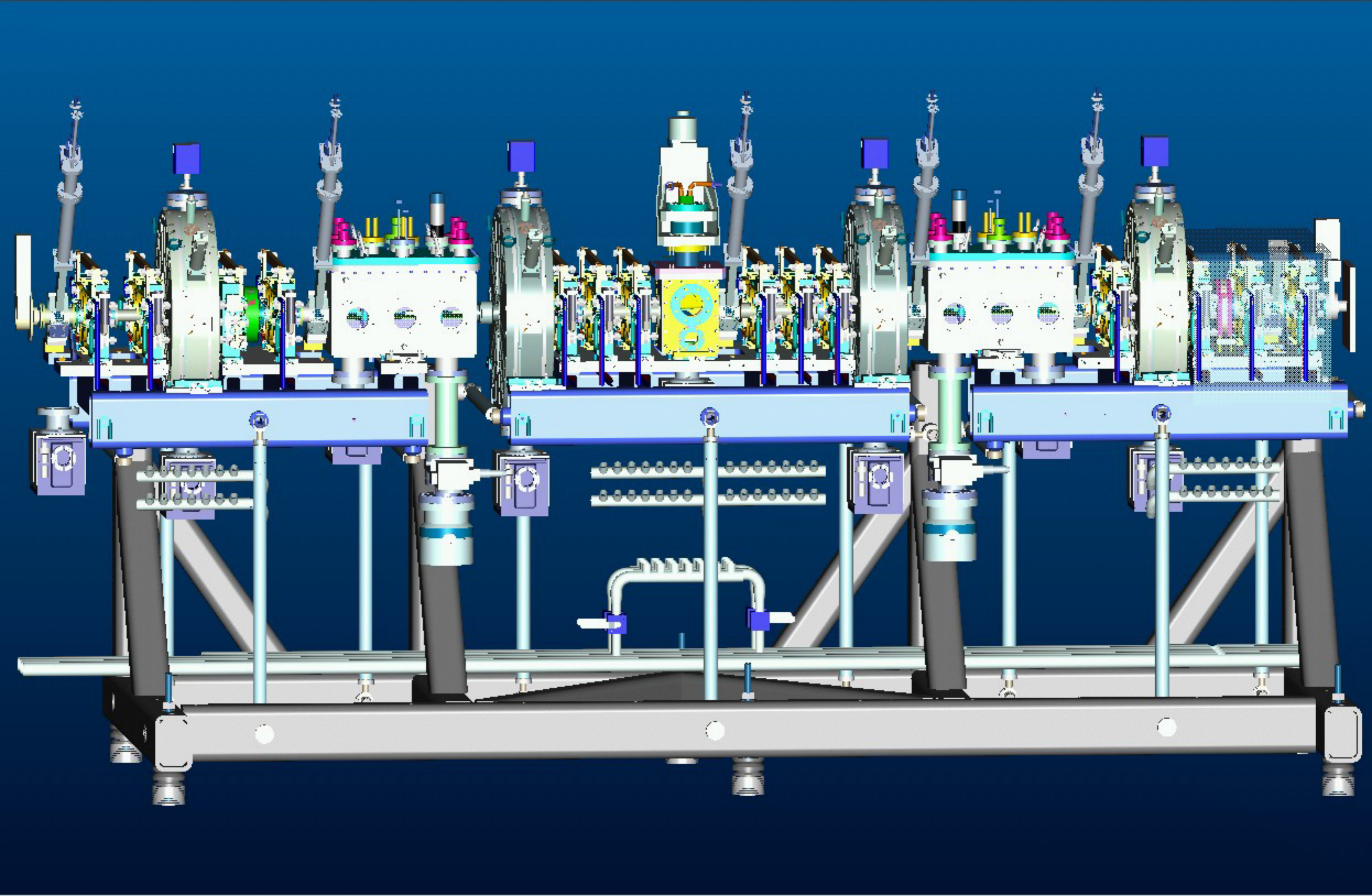
SNS - FES MBT  
PM5 VACUUM MANIFOLD  
PM5 VACUUM MANIFOLD ASSY

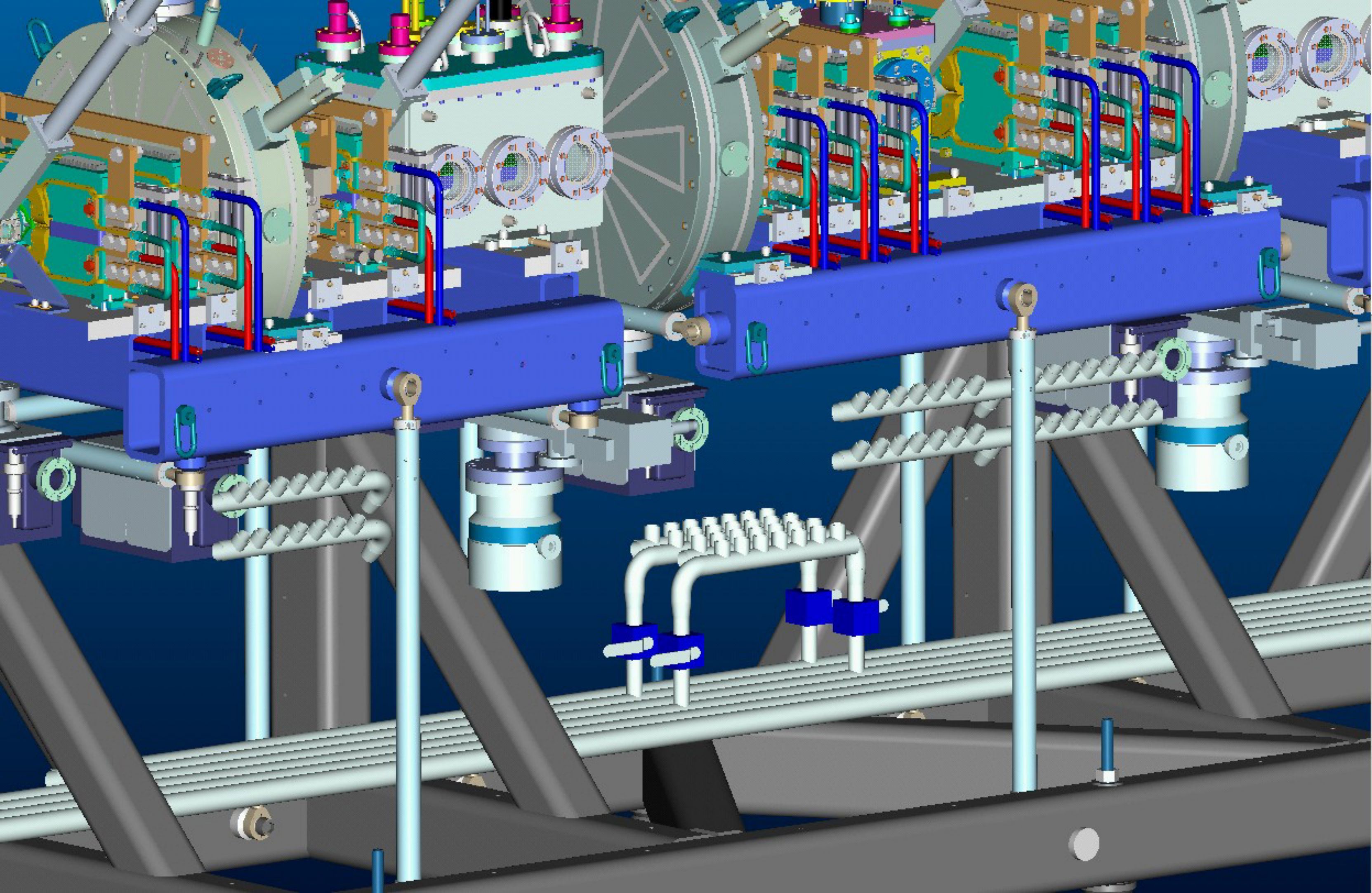
DWG. TYPE: ASSEM  
SHOWN ON: -  
SCALE: 1/2  
SHEET 1 OF 1

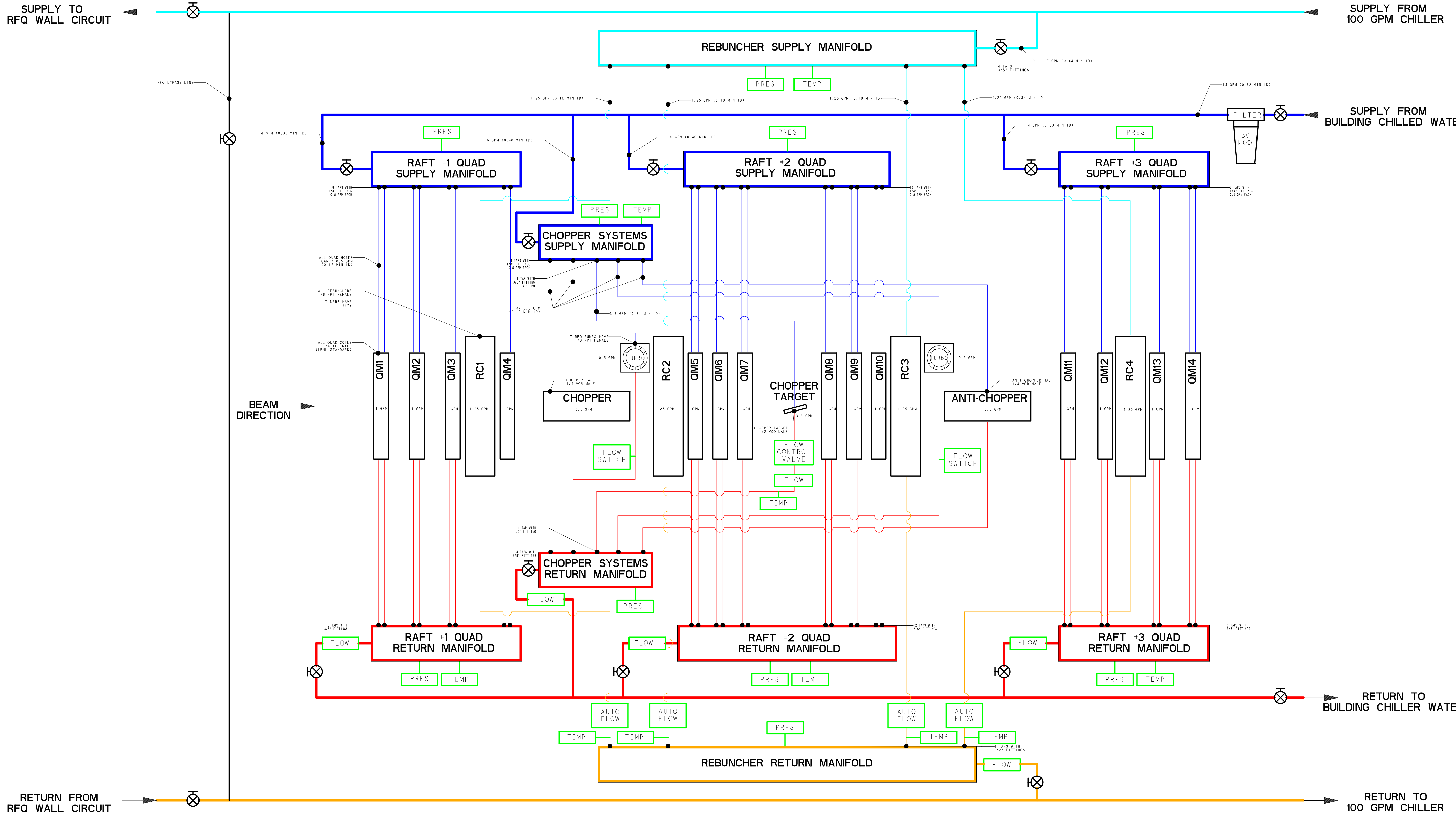
PATENT CLEAR: -  
DESIGN ACCT. NO. FE3313  
DWC. NO. 25B7114  
SIZE A

REV	DWG	CHK	ZONE	DATE	CHANGES
A	PAL	DPO		11/12/01	INITIAL RELEASE









100 GPM CHILLER SUPPLY  
 100 GPM CHILLER RETURN  
 CHILLED WATER SUPPLY  
 CHILLED WATER RETURN

TEMP THERMOCOUPLE  
 PRES PRESSURE TRANSDUCER  
 FLOW FLOW METER  
 MANUAL VALVE

FLEXIBLE HOSE  
 NOTE: ALL MAGNET HOSES TO BE NON-CONDUCTIVE  
 RIGID TUBING

REV	DWG	CHK	ZONE	DATE	CHANGES

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS		SER. NO.
PROJECTION:	ACCT. NO.	NO.	REQD.	-
TOLERANCES	FRAC. ± 1/64	SURFACE TREATMENT		
X.XX ± 0.1	Angles ± 1.0°	IDENT. METHOD TAG		
X.XX ± 0.03	FINISH 125	PROJECT NUMBER		
X.XXX ± 0.010		PROJECT NAME		
DO NOT SCALE PRINT				
THREADS ARE CLASS 2				
CHAMFER ENDS OF ALL SCREW TRENDS 30°				
CUT ROUND, 1.5 THREAD RELIEF ON MACHINED THREADS				
BREAK EDGES .016 MAX. ON MACHINED WORK				
REMOVE BURRS, WELD SPATTER & LOOSE SCALE				
IN ACCORDANCE WITH ASME Y14.5M & B46.1				
DWG BY	D. OSHATZ	DATE	22-May-01	
CHK BY	-	DATE		
APR BY	D. OSHATZ	DATE		

**ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY**  
 UNIVERSITY OF CALIFORNIA - BERKELEY

SNS - FES MBT  
 MECHANICAL SUBSYSTEMS  
 WATER SYSTEM ASSEMBLY

ASSEM 25B603  
 FE3313

SCALE: 13/100  
**SHEET 1 OF 3**  
 DWG. NO. 25B6154  
 SIZE 3



