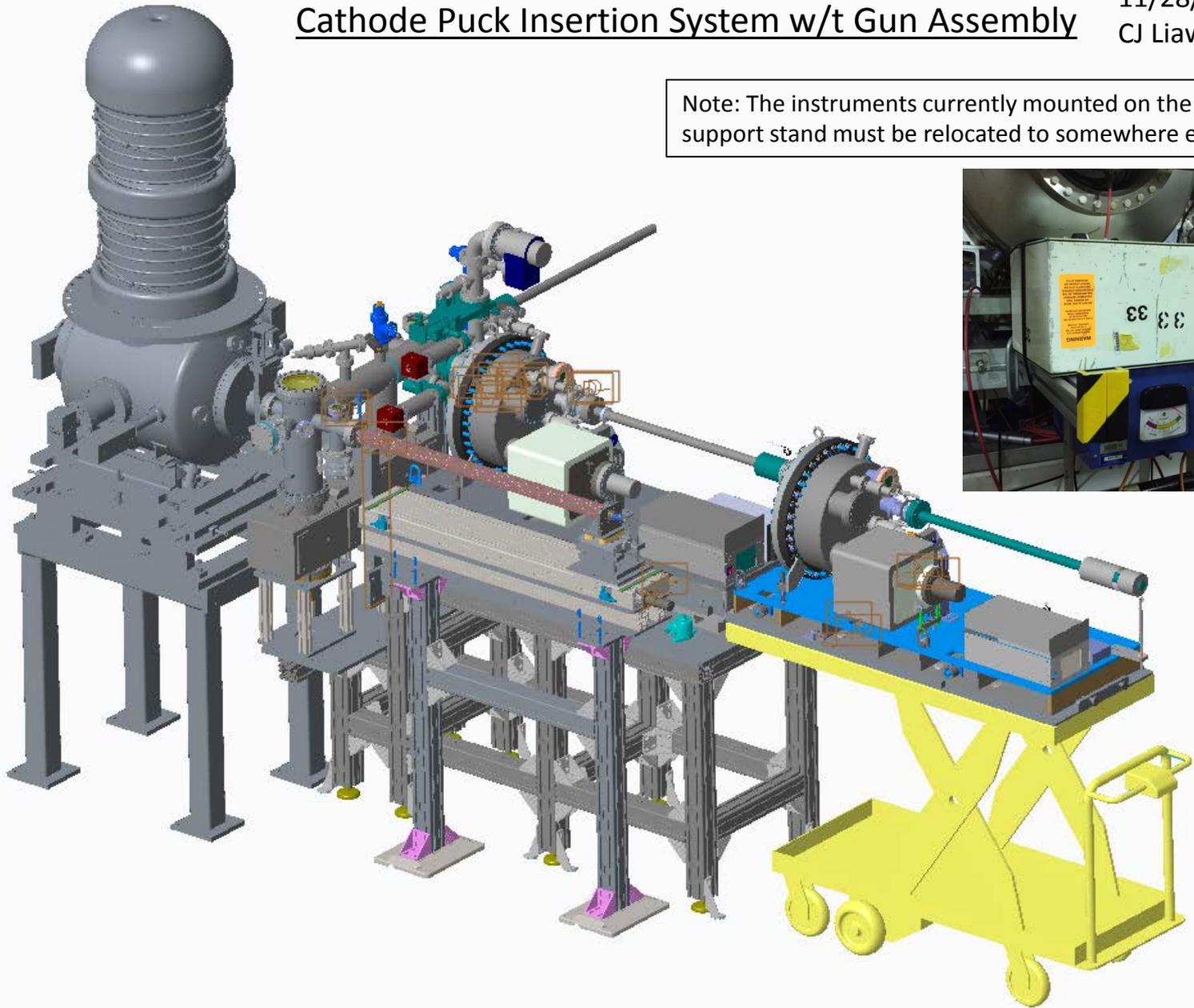


# Cathode Puck Insertion System w/t Gun Assembly

11/28/2016

CJ Liaw

Note: The instruments currently mounted on the Gun chamber support stand must be relocated to somewhere else.



## Preparation Table (To be purchased)

**NEW!** Little Giant - WSS2-3072-AH - Stationary Work Benches, Tables Type: Heavy-Duty Workbench with Stainless Steel Top Top Material: Stainless Steel

Mfr Part #: WSS2-3072-AH MSC Part #: 42482760 ★★★★★ Write the first review



Price:

\$1,407.00 ea.

Qty:

1

Item Notes

2 WEEKS



**\$1,407.00**

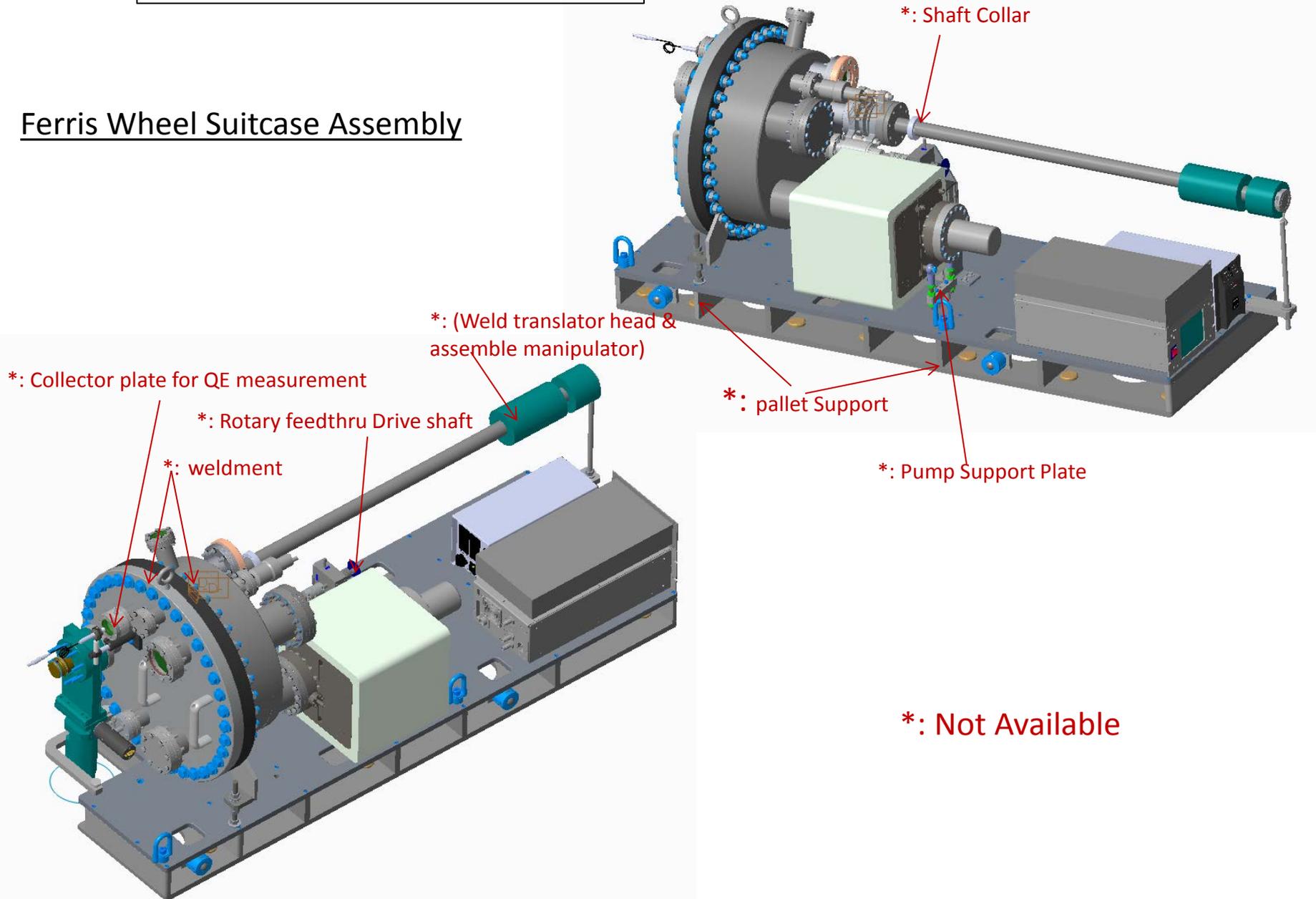
Add to Cart

Ship from Mfr. within 2 weeks

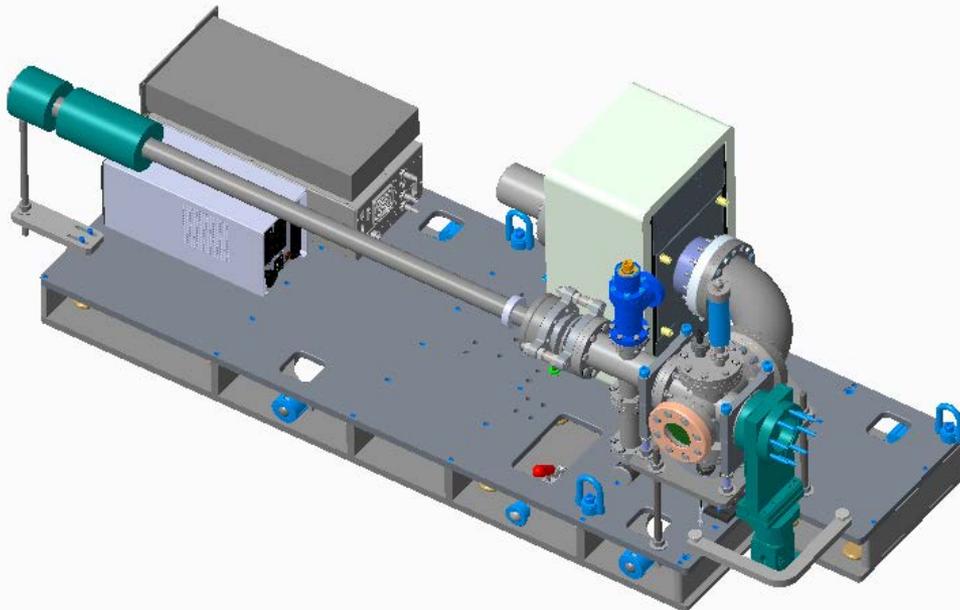
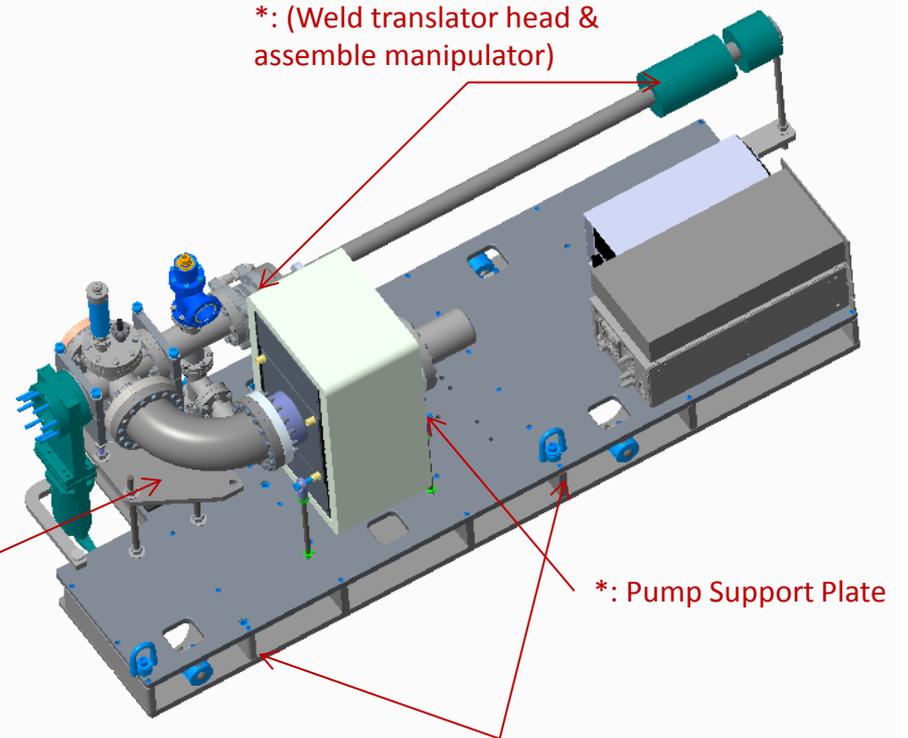
Some stops are needed on top of the Table.

# Design and Fabrication Status

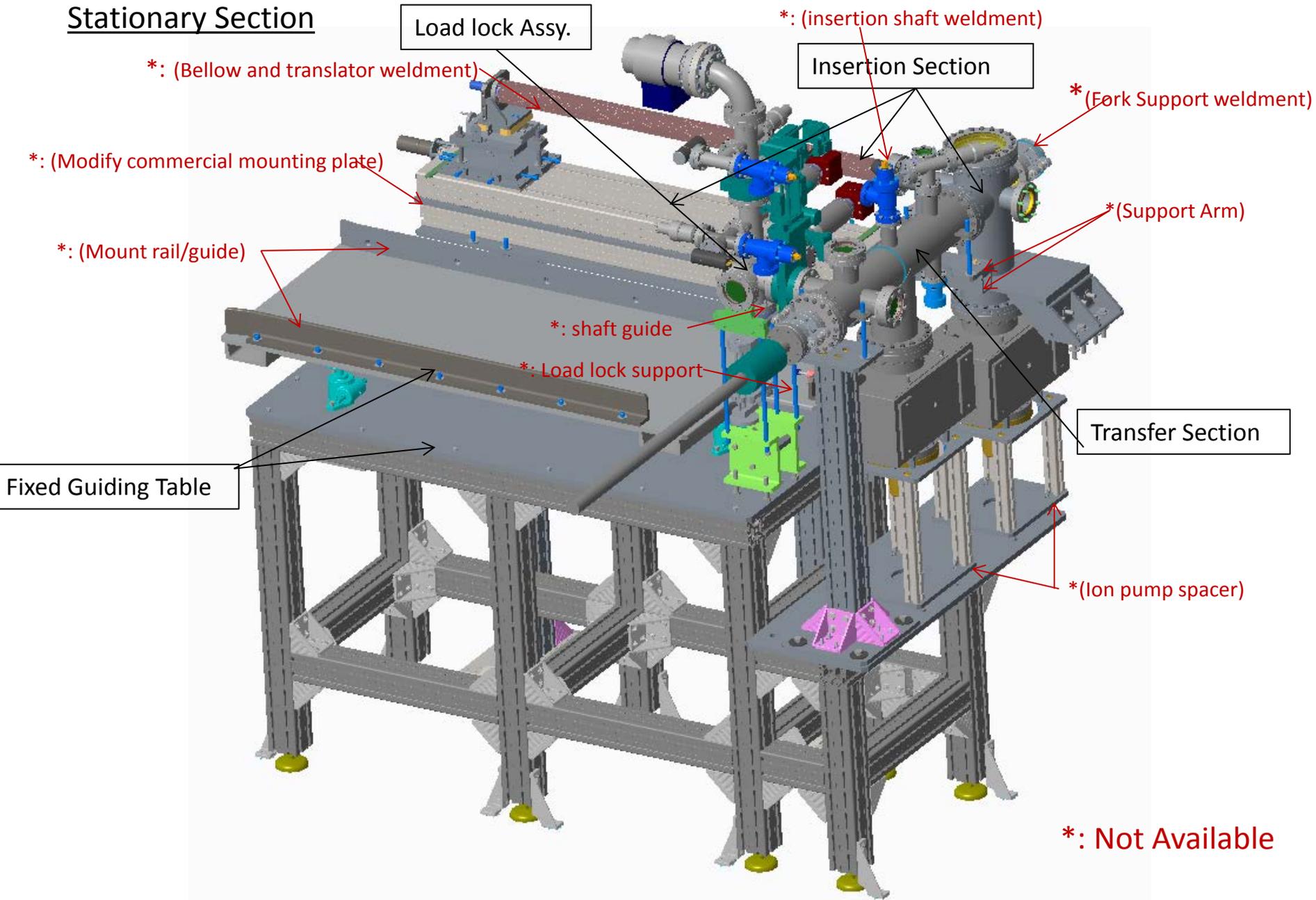
## Ferris Wheel Suitcase Assembly



# Single Carrier Suitcase Assembly



# Stationary Section



Load lock Assy.

Insertion Section

Transfer Section

Fixed Guiding Table

\*: (Bellow and translator weldment)

\*: (insertion shaft weldment)

\*(Fork Support weldment)

\*: (Modify commercial mounting plate)

\*(Support Arm)

\*: (Mount rail/guide)

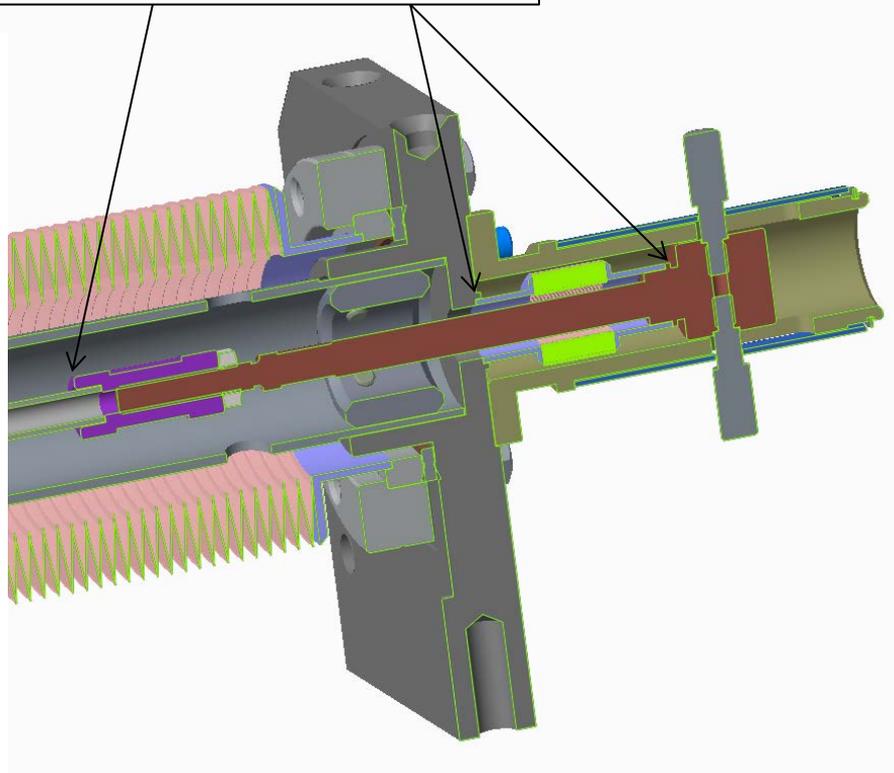
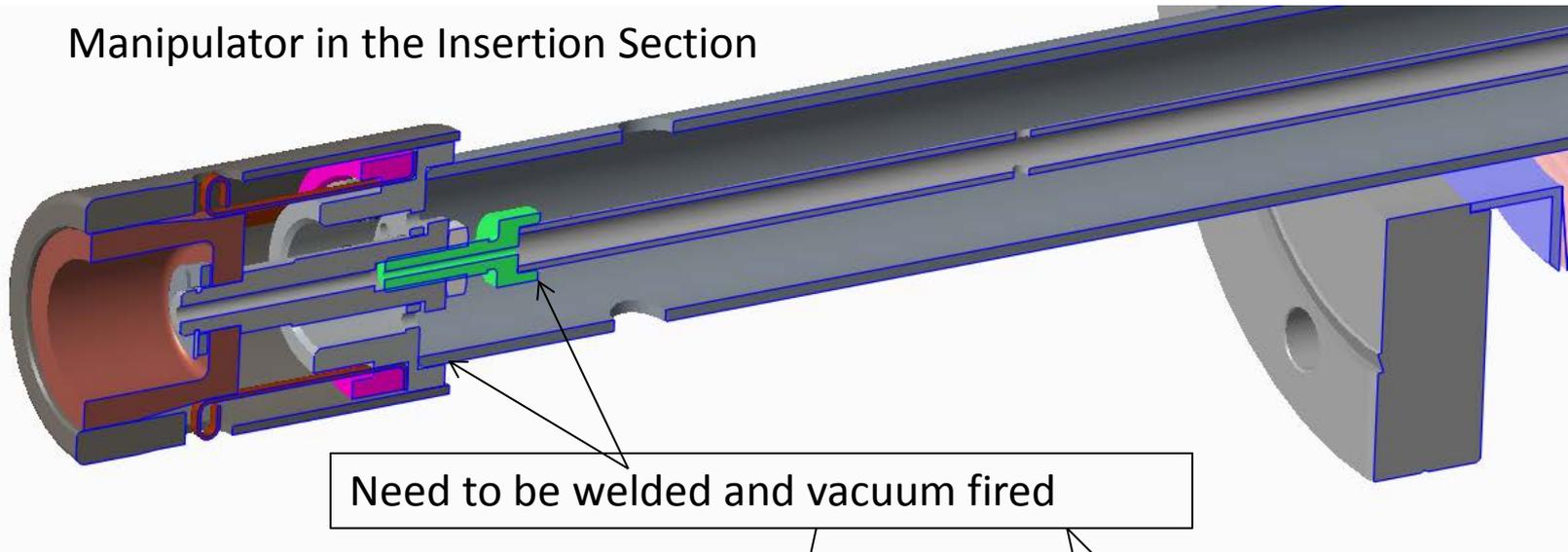
\*: shaft guide

\*: Load lock support

\*(Ion pump spacer)

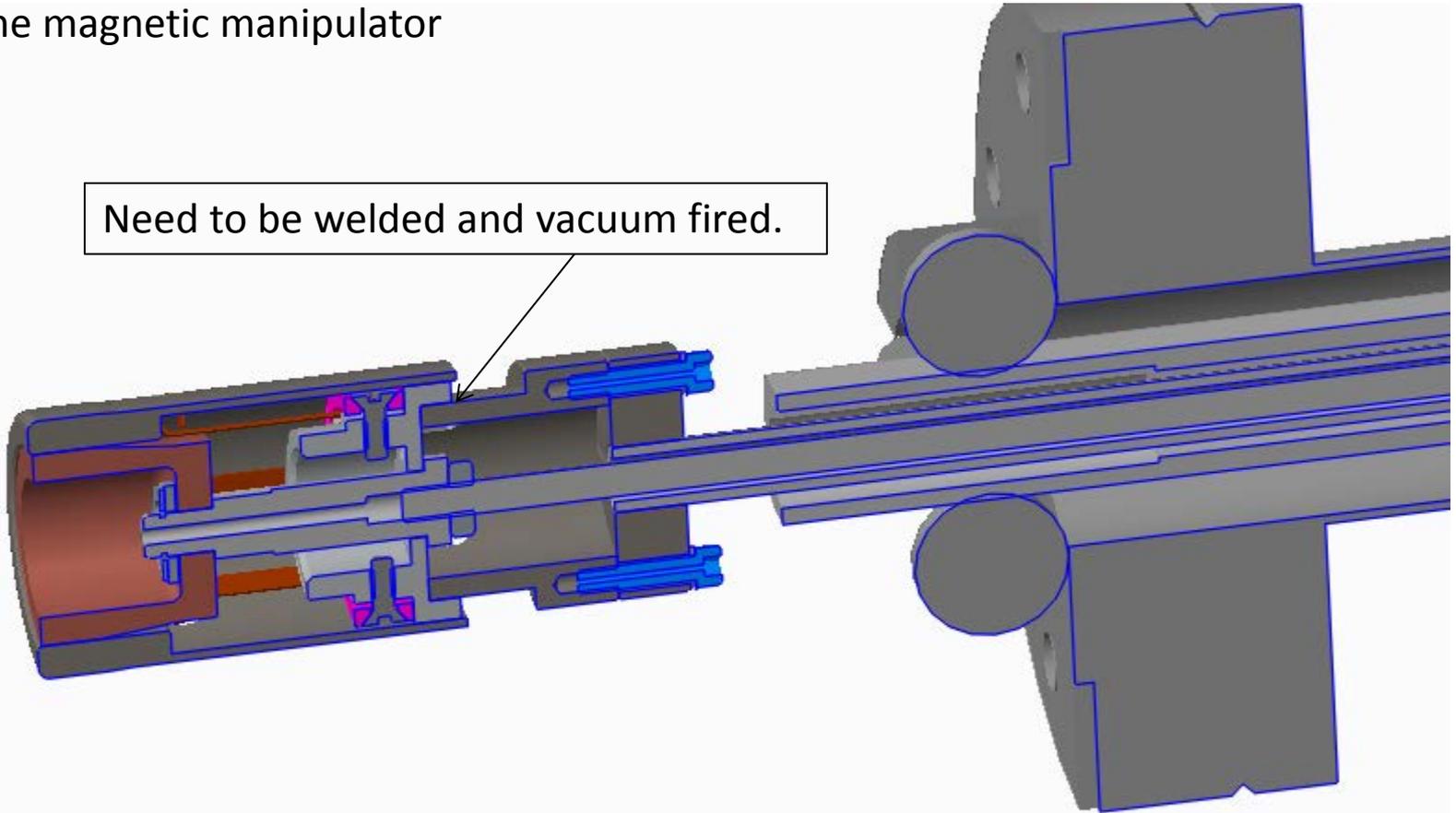
\*: Not Available

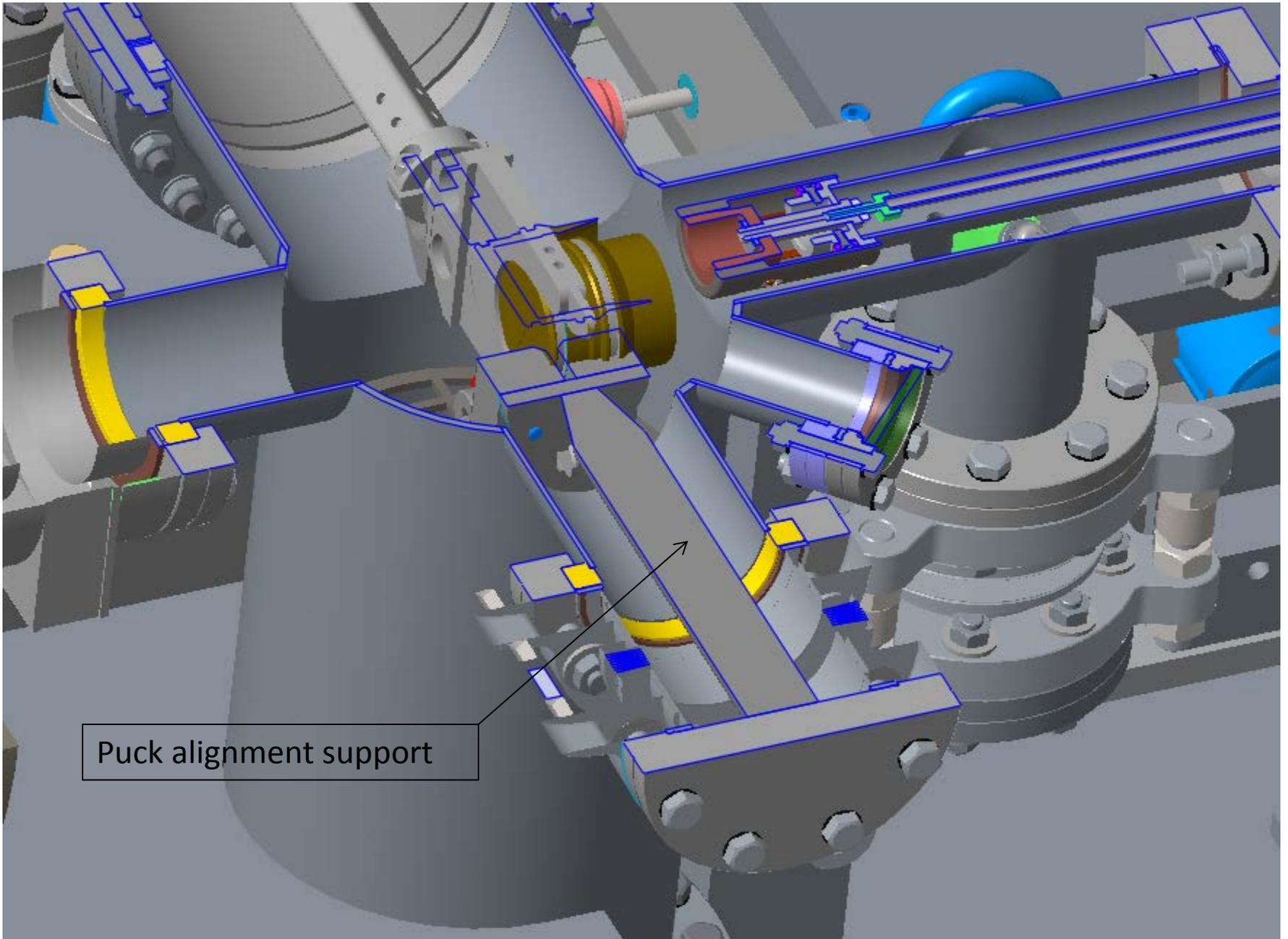
# Manipulator in the Insertion Section



Puck locking mechanism at the end of the magnetic manipulator

Need to be welded and vacuum fired.

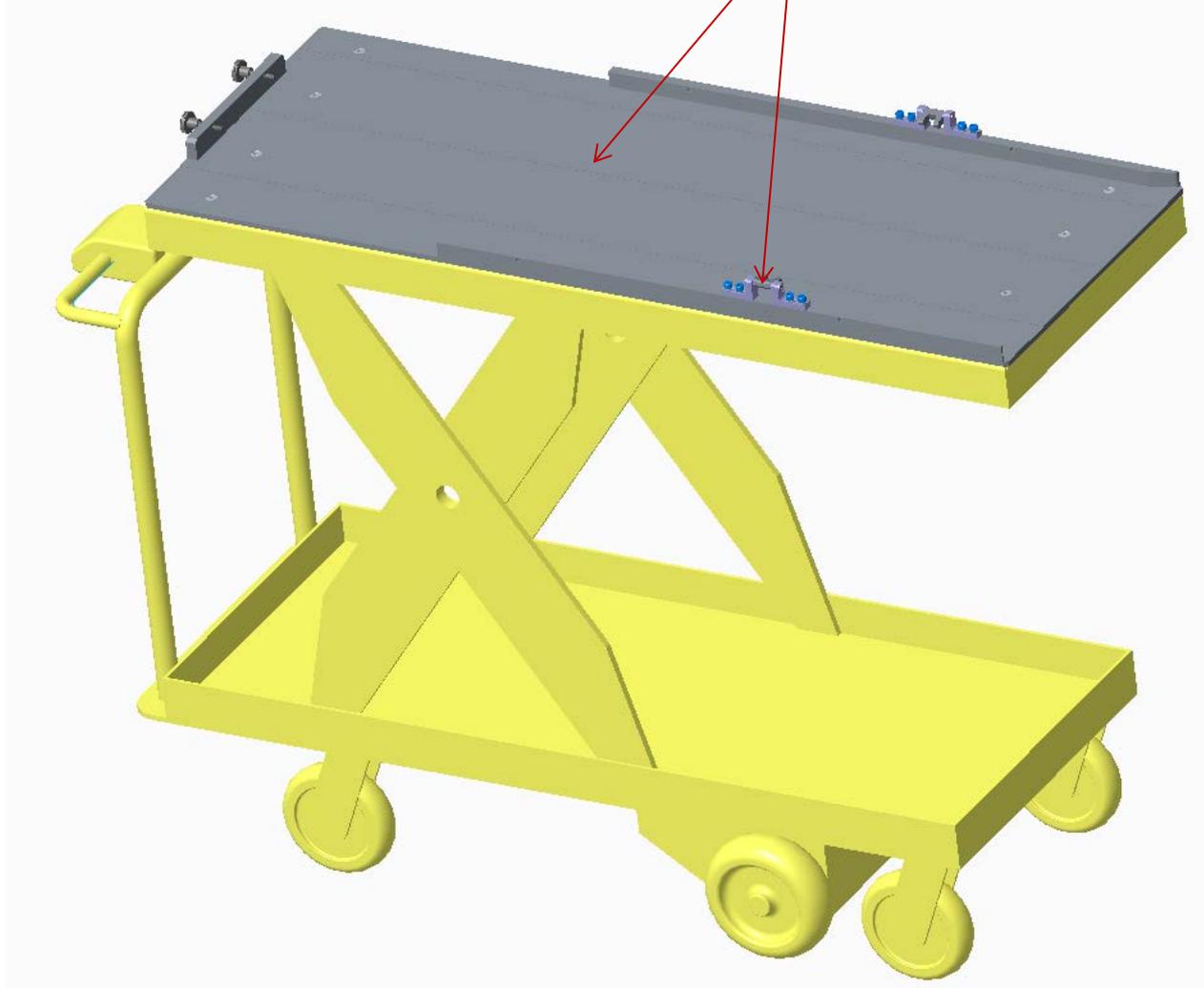




Puck alignment support

## Mobile Cart

\*: Mobile Cart Top plate /Lever Lock.

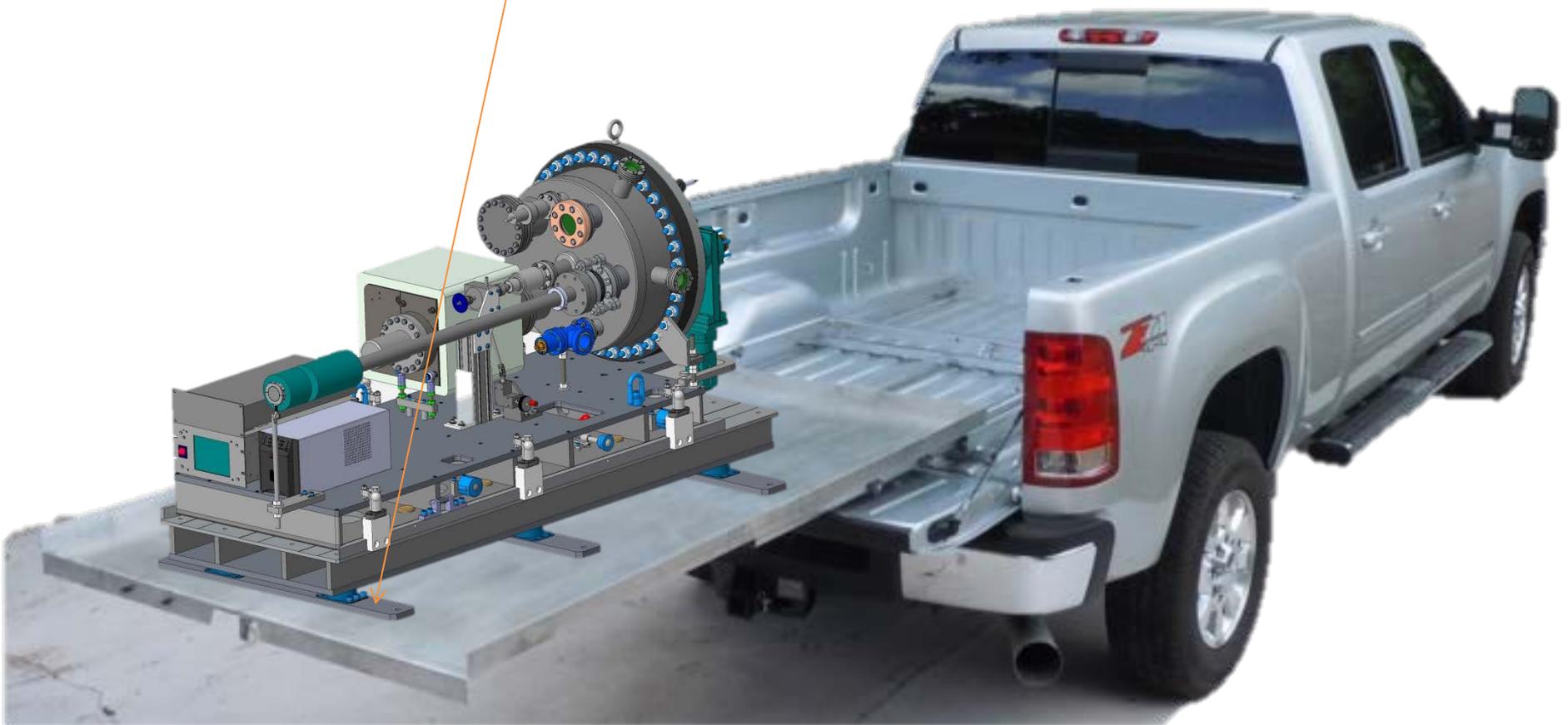


## Transportation from 535 to 1002

- Initially suitcase assembly will be carried by riggers from 535 to 1002. (Two Single carrier suitcase assemblies will be used to carry cathode pucks for the commissioning.)
- In the future, suitcase assemblies will be delivered by our own truck.
  - The design is near completion.
  - Fabrication of additional support structures will begin after the desirable truck has been confirmed.

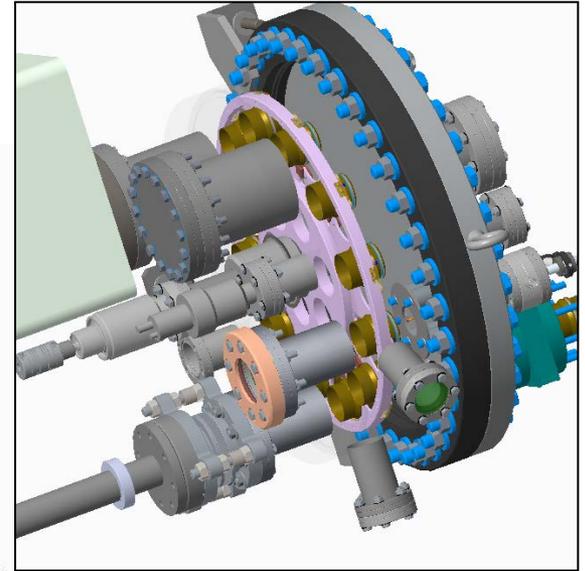
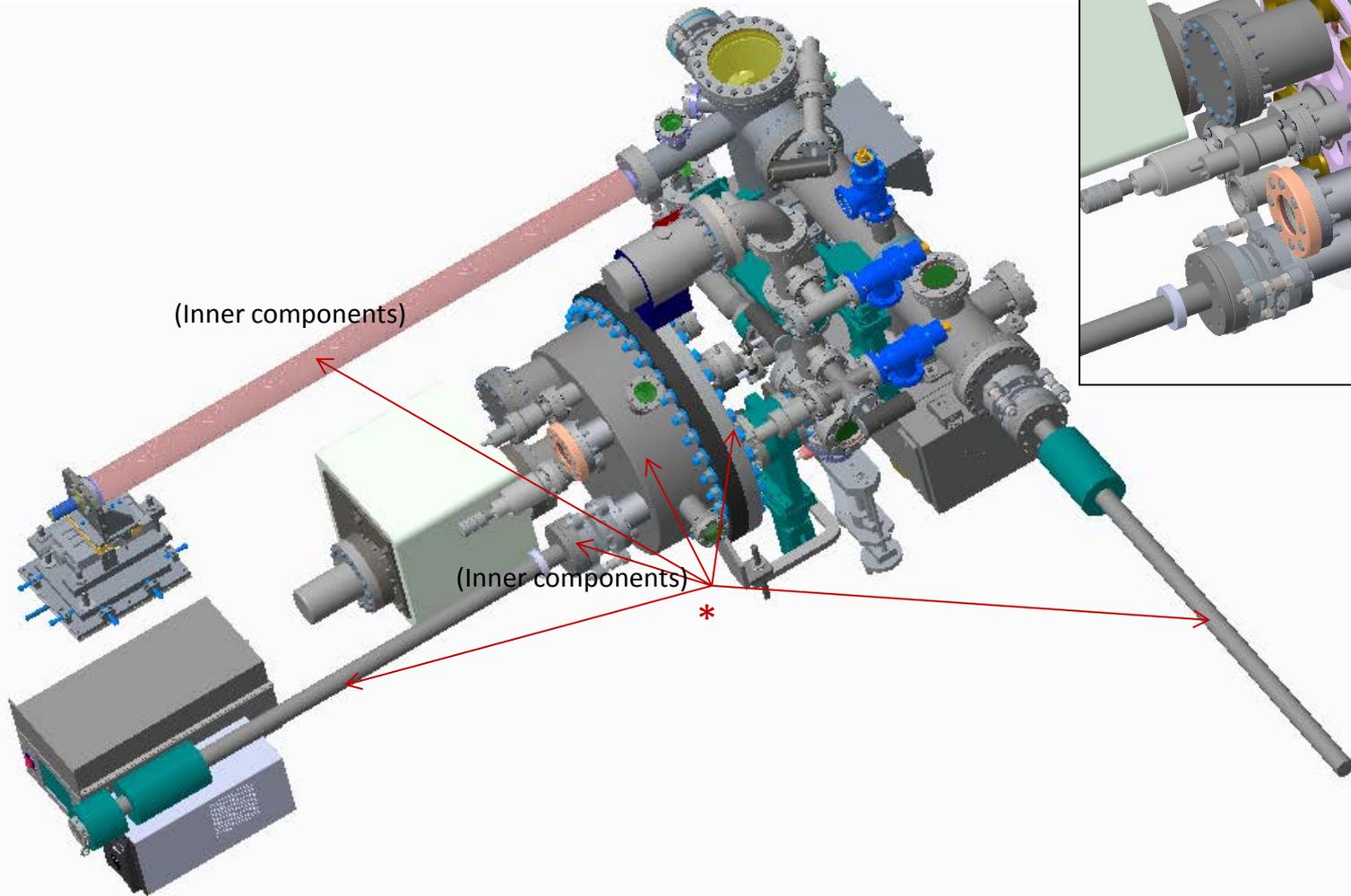
FRAME TO BE SECURED TO BED SLIDE USING ½-13 BOLTS FOR A TOTAL OF 6 PLACES.

PICKUP TRUCK WILL HAVE AN 8' LONG BED.



BED SLIDE TO EXTEND PAST TAILGATE BETWEEN 12" TO 24" FOR OFF LOADING INSTRUMENTATION DEVICE. EXTENDED POSITION NEEDS TO LOCK IN PLACE TO PREVENT BED SLIDE FROM SLIDING IN OR OUT.

# Vacuum Cleaning & Firing Status (?)



\*: To Be Baked

## Integration and Test Insertion system

- Assemble insertion system in a clean room.
- Puck manipulation test inside the insertion system.
  - Use a single carrier suitcase assembly.
  - Use a Ferris wheel suitcase assembly.
- Puck removing/insertion test to the cathode production chamber.
  - Receive a puck from cathode production chamber and store it into a suitcase assembly.
  - Bring a puck in a suitcase assembly and insert it into cathode production chamber.
- Install stationary section to gun at 1002.
- Leak check/bake out stationary section.

## Schedule of Remaining Work

	Task Mode	Task Name	Duration	Start	Finish	December					January			
						11/27	12/4	12/11	12/18	12/25	1/1	1/8	1/15	1/22
1		<b>DC Gun Insertion System Remaining work</b>	<b>45 days</b>	<b>Mon 11/28/16</b>	<b>Fri 1/27/17</b>									
2		Tranport design with Truck	10 days	Mon 11/28/16	Fri 12/9/16									
3		Fabrication	10 days	Mon 11/28/16	Fri 12/9/16									
4		Vacuum cleaning/firing	10 days	Mon 11/28/16	Fri 12/9/16									
5		Single Carrier Suitcase Assy	10 days	Mon 12/12/16	Fri 12/23/16									
6		Ferris Wheel Suitcase Assy	10 days	Mon 12/19/16	Fri 12/30/16									
7		Transfer/Insertion section & Guide Table	9 days	Tue 1/3/17	Fri 1/13/17									
8		Mobile Cart w/t Mounting Table	5 days	Mon 12/12/16	Fri 12/16/16									
9		System Test in Clean Room	5 days	Mon 1/16/17	Fri 1/20/17									
10		Installation	5 days	Mon 1/23/17	Fri 1/27/17									