

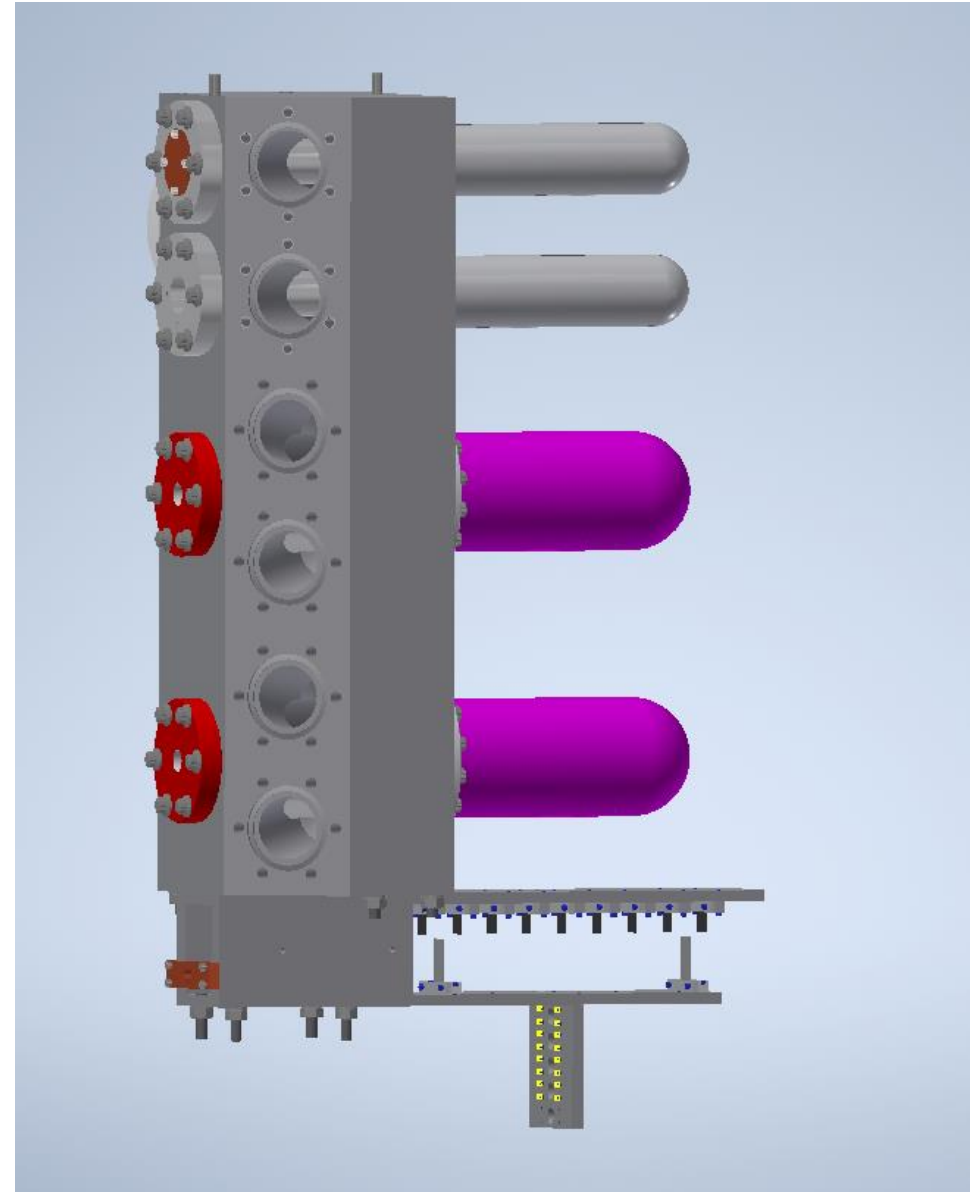
GMn Target

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Target Stack

- Four 15 cm cells
 - Current on 15 cm cells 50 microA
 - One loop (H2) will have two cells With and without Radiator
- Optics Target
 - 9 foils 17 cm length
- Dummy Target(s)
 - One 15 cm position with/without radiator
- Solid targets
 - 10 solid target positions available
 - Carbon, Carbon hole 2 mm and 5 mm and BeO
- There is nothing off mass shell for this configuration

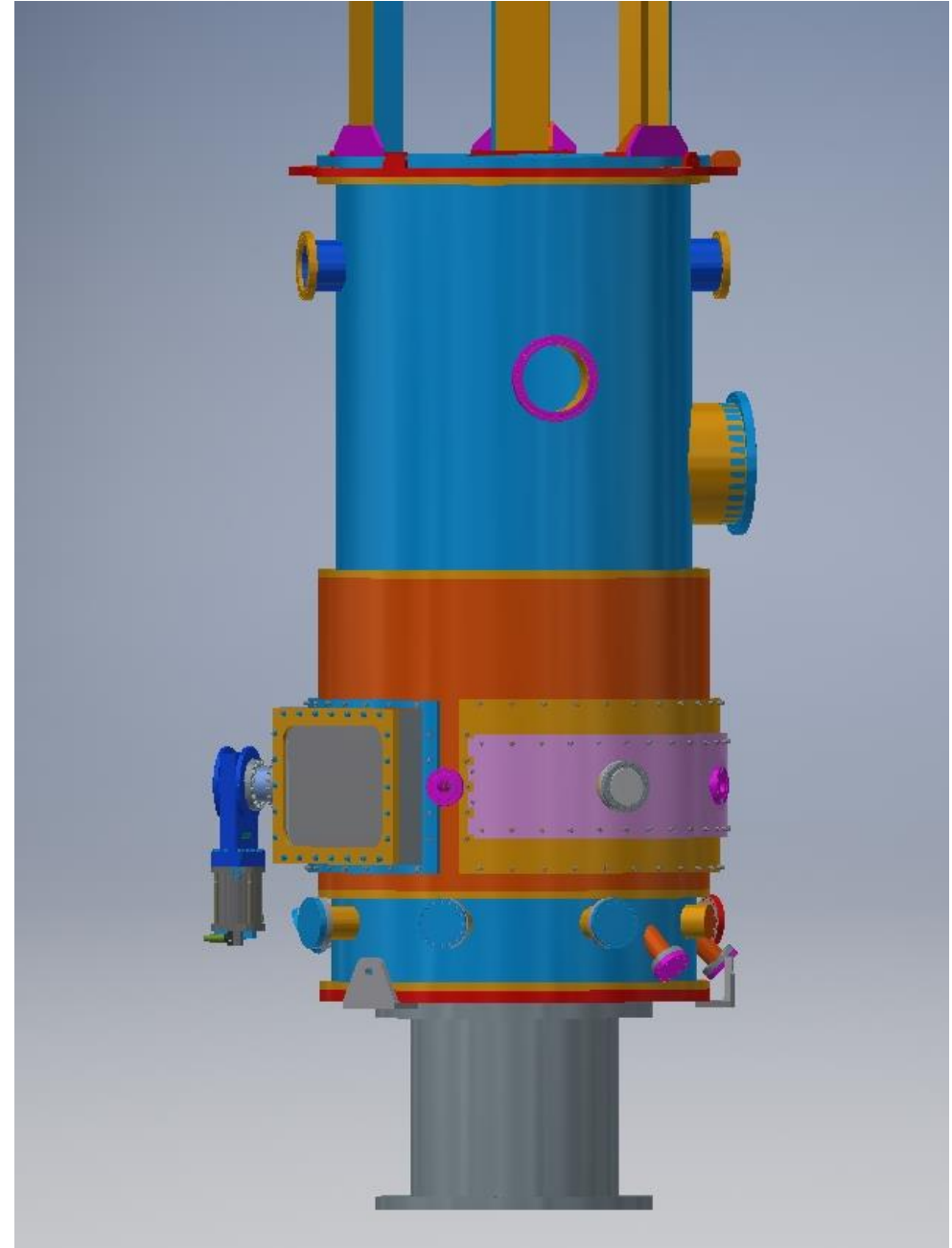


Refrigeration Requirements

- Heat load is:
 - ~300W for Beam
 - ~100 W for Standby loop
 - ~100 W for heater overhead
 - ~100 W for T-line losses.
 - Total is 600W
- This affects Hall C 15K operational capabilities
- When not in use for calibrations is it possible to turn off the H2 loop.

Installation

- Install chamber and align (90 degree from normal)
- Recover from PREX/CREX
 - Install all electronics removed from the Hall during PREX/CREX
 - Test these systems
 - This will likely take a few weeks
- Install target in chamber
 - Connect all plumbing
 - Connect all cables
 - Test motion systems and feedthrus
 - Alignment will be more difficult
- Leak test
- Cold test with He first (not required but should)
- Installation will be affected by Covid-19 work restrictions.



Status

Item	Status
CREX Target installed now	System needs to be removed at end of CREX run. There will be a significant delay for RadCon hold
Target Cryo/Motion System	On stand in Hall A. T2 configuration back-out required. Check T-line. Start after CREX completes.
Cells and blocks	Fabrication underway 50% complete. Machine shops are running below 50% capacity in most cases.
Electronics	Will need to backout of PREX/CREX config Will need to install all components that were removed for safety. Cannot start until after CREX is completed
Controls	Will need to test after install
Chamber configuration	90 degrees from normal presents minor issues for alignment/installation

Needed Infrastructure

Item	Status
Access for alignment	Will need access for alignment and for portable CMM. Cannot assemble beamline completely
New Cells	Will need new cells/blocks 50% complete at shop
Scattering chamber installed	Will need the chamber installed and aligned on the pivot prior to installing the target

Summary

- Fall 2020:
 - Restore configuration from CREX to std target
- Fall 2020:
 - Fabricate cells (blocks also maybe)
 - Return target to standard config (back out of T2)
 - Test cell/block assemblies
 - Install chamber
- Post CREX
 - Return electronics removed for safety to Hall
 - Install electronics and test
- After chamber placement (Winter 2021)
 - Install target in chamber
 - Connect piping and cables
 - Test
 - Alignment
 - Leak test
 - Cold test
- Complete install May 1, 2011
- Most of target work cannot start until after CREX has been completed and pivot area is cleared