

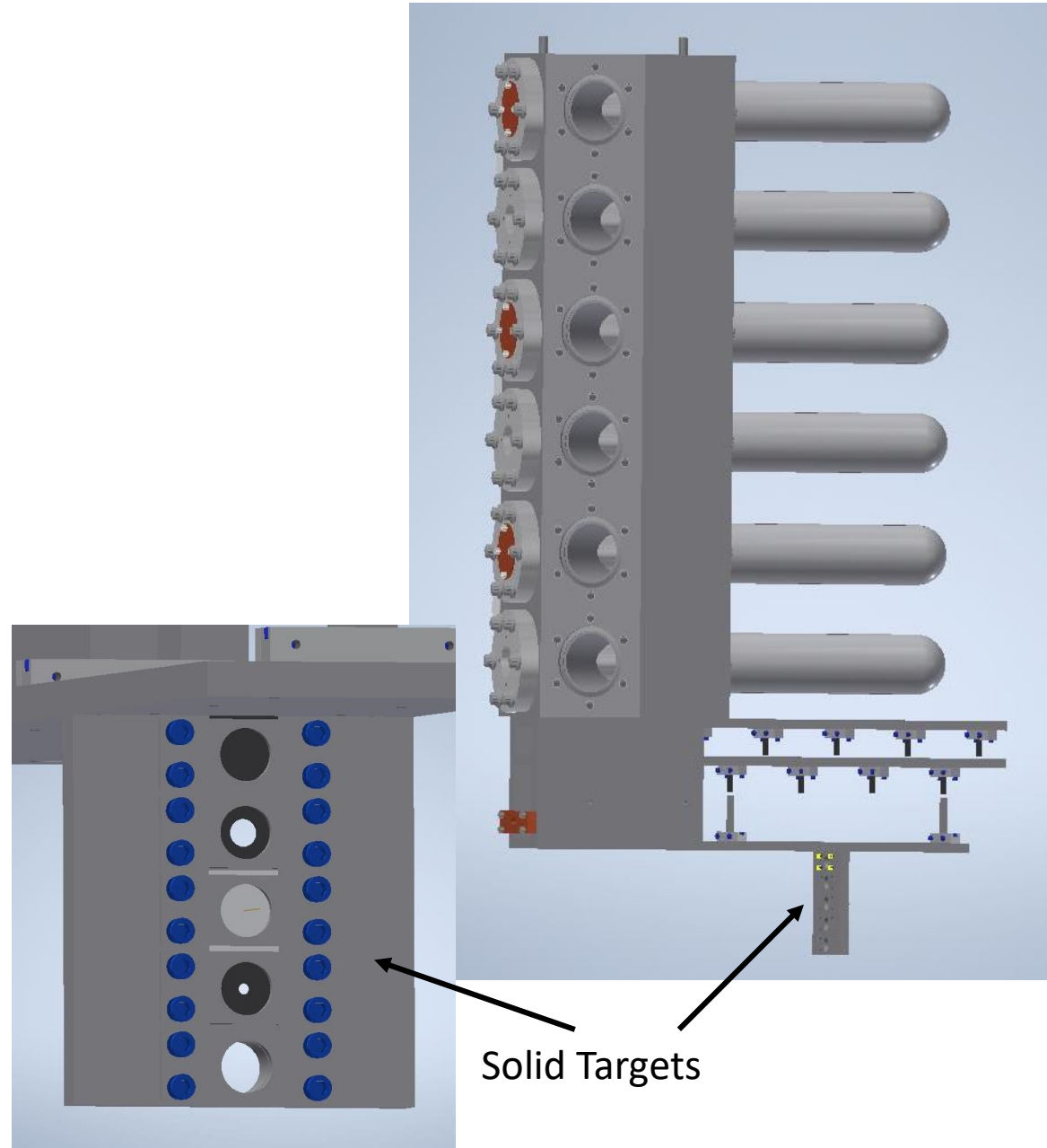
GMn Target

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Target Stack

- Six 15 cm cells
 - Current on 15 cm cells 50 microA
 - Each loop will have two cells
With/without Radiator
- Optics Target
 - 2 sub assys with (5) foils ± 10 cm.
and 4 foils ± 7.5 cm.
- Dummy Target(s)
 - One 15 cm position
with/without radiator
 - Current limit 20 microA
- Solid targets
 - 5 solid target positions
 - Carbon
 - C-hole 2 mm
 - C-hole 5 mm
 - BeO
 - W wire 100 μm .

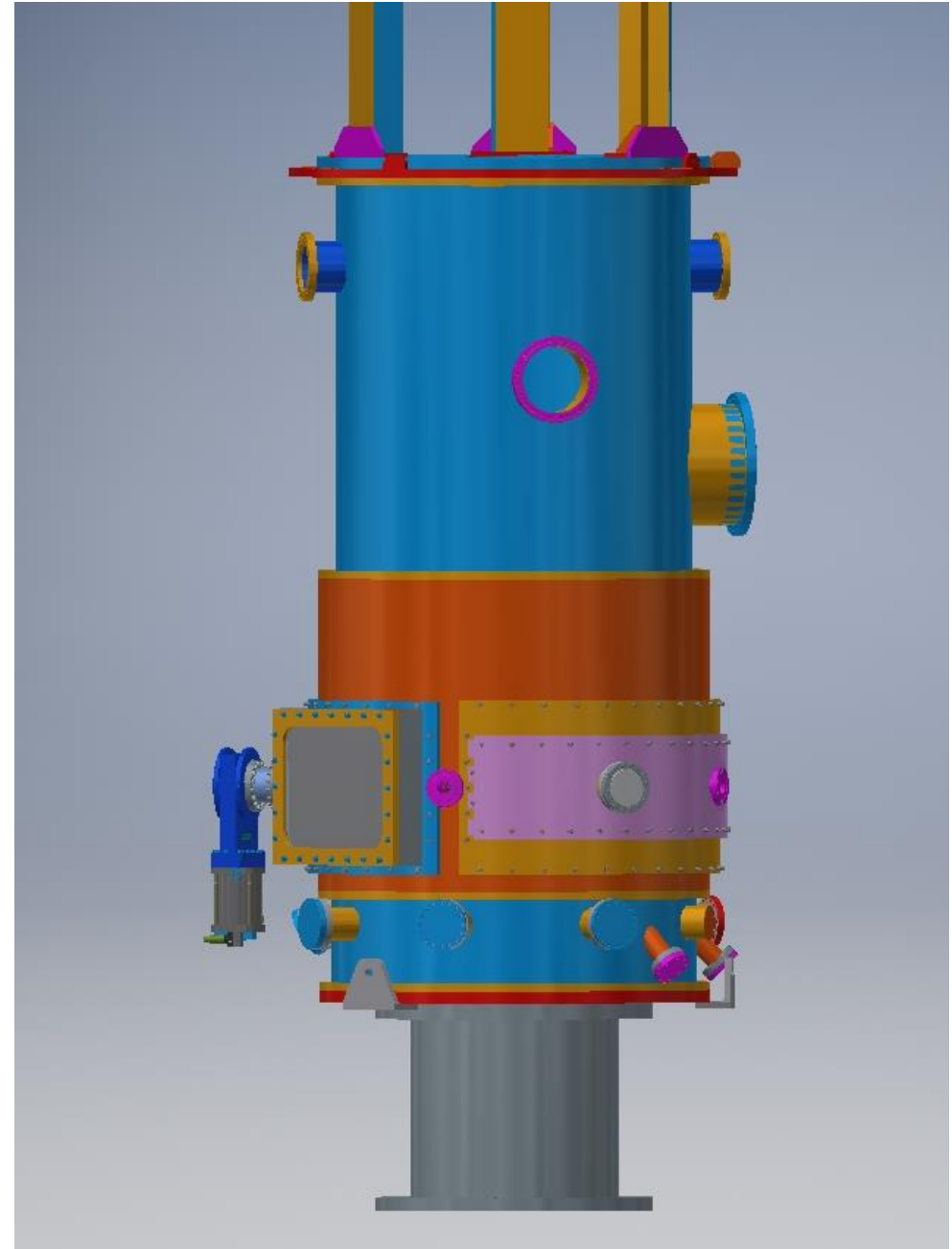


Refrigeration Requirements

- Heat load is:
 - ~300W for Beam
 - ~150 W for Standby loop
 - ~100 W for heater overhead
 - ~100 W for T-line losses.
 - Total is 650W
- This affects Hall C 15K operational capabilities
 - Hall A/C target operators will need to cooperate

Installation for SBS

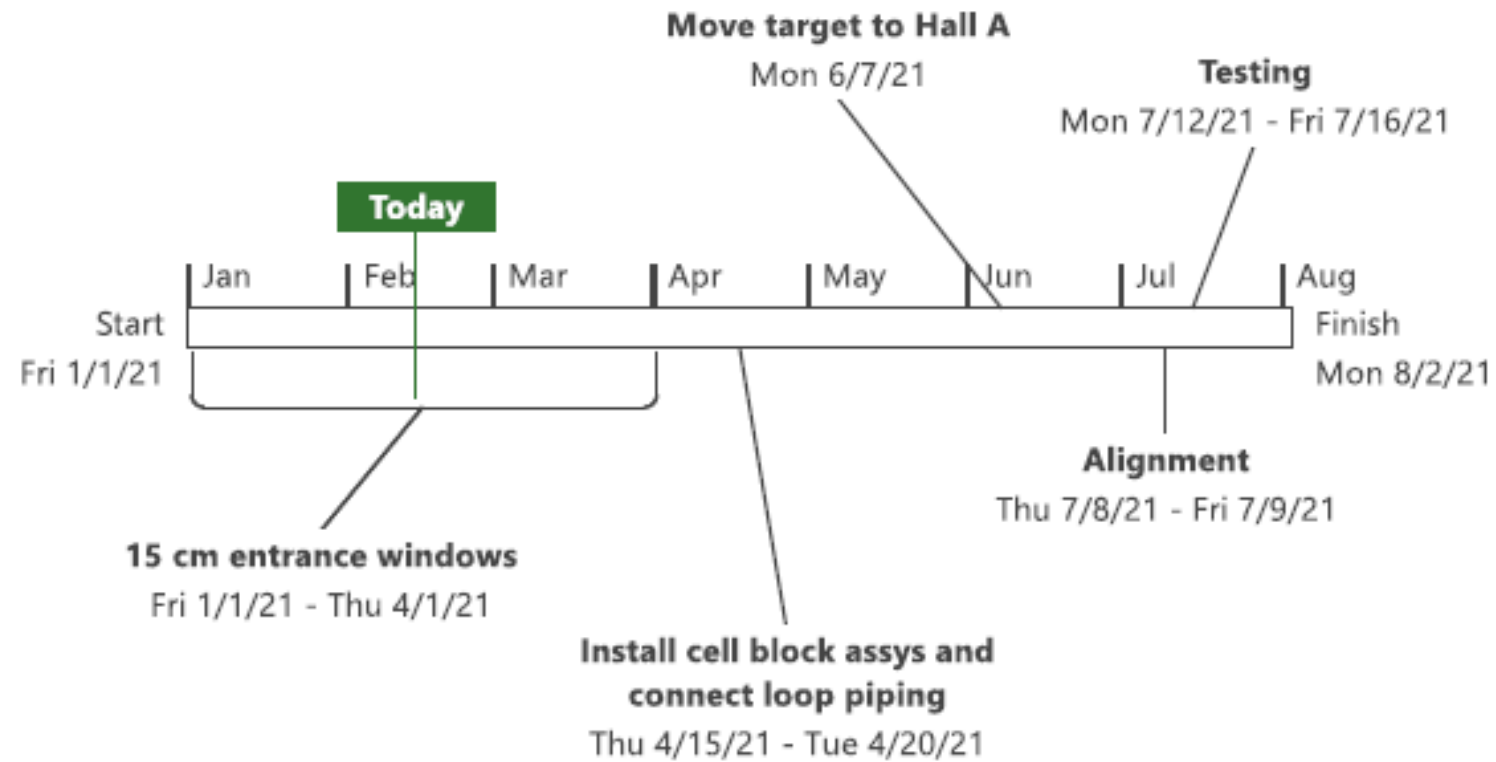
- Install chamber and align (90 degree from normal)
- Recover from PREX/CREX (done)
 - Install all electronics removed from the Hall during PREX/CREX
 - Test these systems
 - This will likely take a few weeks
- Fabricate new cells (in process)
- Install target in chamber
 - Connect all plumbing
 - Connect 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
Scattering chamber	CREX Target has been fully removed. Std chamber has been mounted on pivot
Target Cryo/Motion System	On stand in Target Shop. Installing borrowed(by PREX) components on the motion system
Cells and blocks	Fabrication on cell blocks has been completed. Cell fabrication is ~10% complete. Solid target fabrication is 90% complete. Machine shops are running behind schedule in most cases causing many delays.
Electronics	Will need to install all components that were removed for to prevent RadDamage. Reconfig start is schd 3/1/21
Controls	Will need to test after install. Schd July
Chamber configuration	90 degrees from normal presents minor issues for alignment/installation. ASVCs have been completed but still need final leak test.

Project Timeline Key Tasks



Summary

- Fall 2020:
 - Remove PREX/CREX
- Dec 2020 to March 2021:
 - 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 (June 2021)
 - Connect piping and cables
 - Test
 - Alignment
 - Leak test
 - Cold test
- There are enough resources (FTEs and time) to complete the work