

# Target and Scattering Chamber Configuration

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# Target and Chamber Requirements for E12-09-019

- **Standard** target with 10cm LH2 cells for production
- **Standard** 10 cm double cell loop with bremsstrahlung radiator on one cell for calibrations
- **Standard** solid targets
- **Standard** scattering chamber with slightly modified windows/covers

# Hall A Target and Scattering Chamber

- The required target and chamber are both considered “BASE EQUIPMENT”
  - Numerous safety and operational reviews
  - Minor modifications are made for each experiment to meet their needs.
  - This experiment does not need major alterations
- Target and Chamber both meet the requirements given in EHS&Q Chapter 6151 and all other applicable JLAB policies.

# Target Stack Assembly

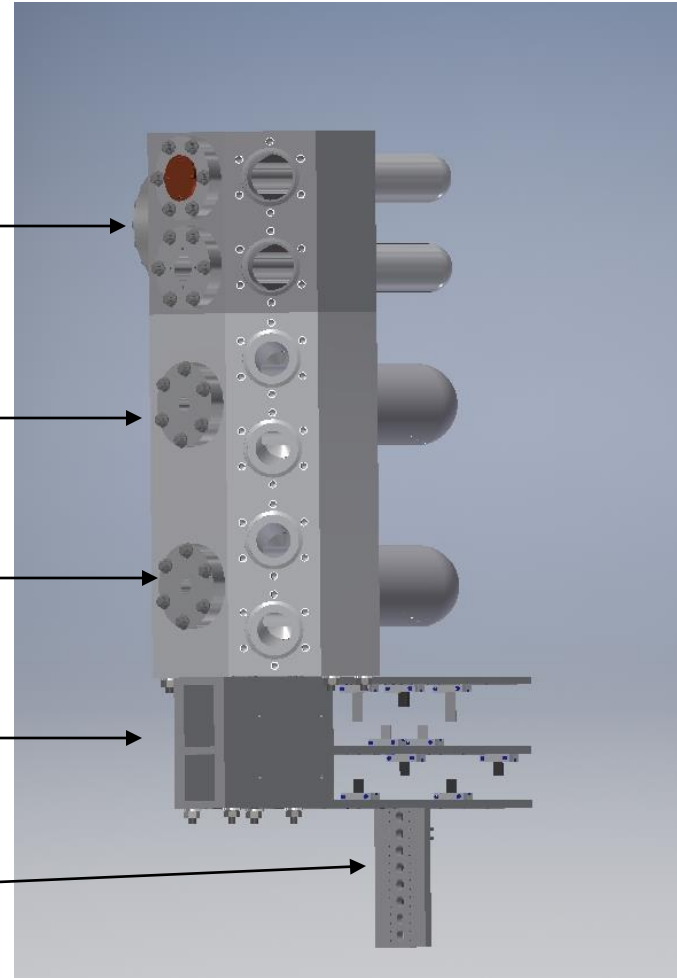
Loop 1 double cell with  
Radiator on top

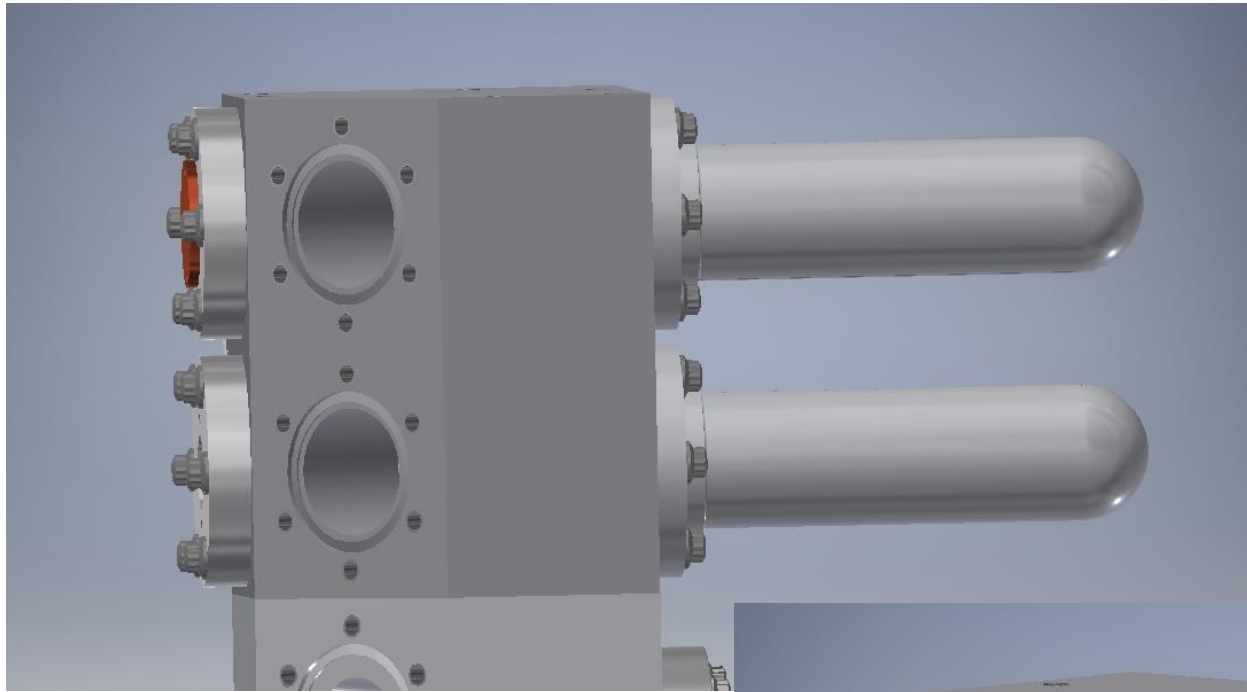
10 cm loop 2

10 cm loop 3

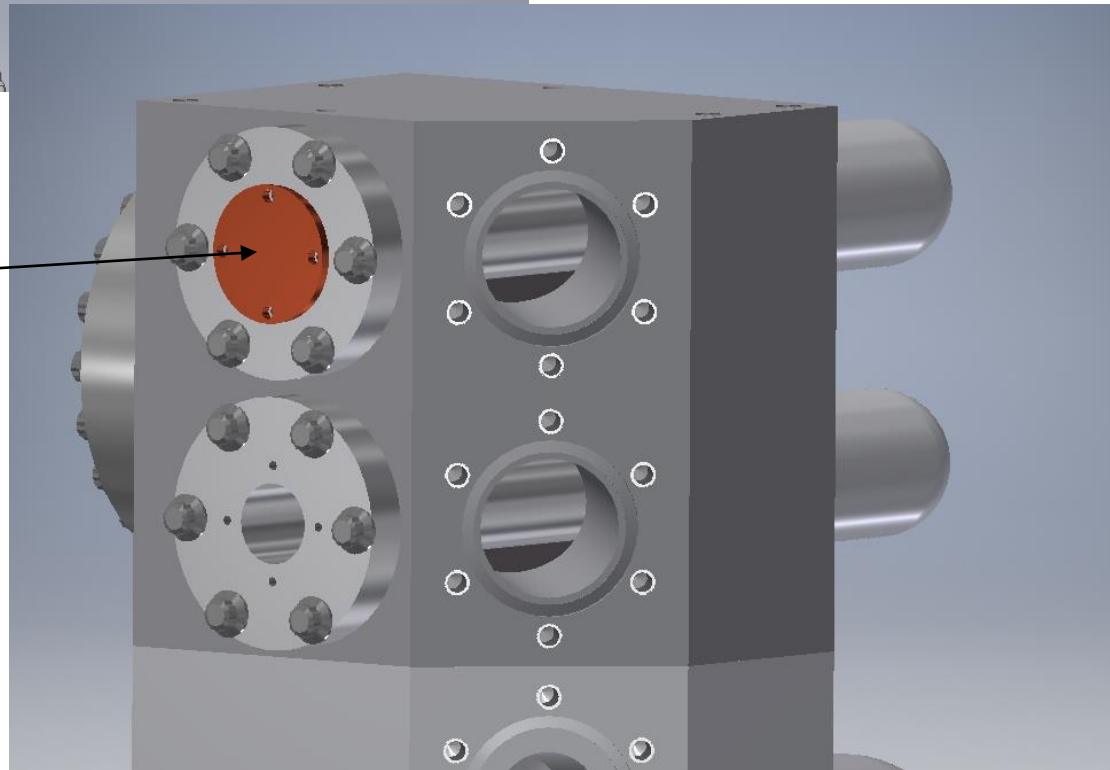
Dummy and optics

Solid target ladder





Radiator is 6% copper foil  
attached to entrance  
window by #6 machine  
screws



# Scattering Chamber Configuration

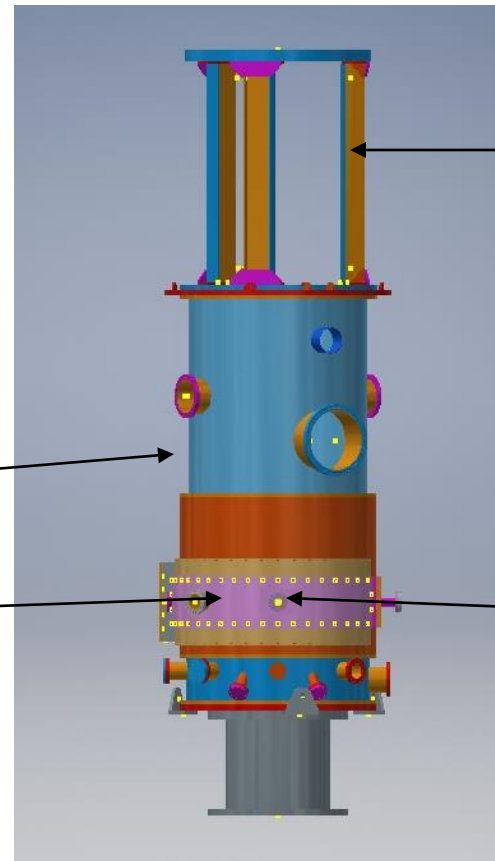
Chamber configuration is standard but rotated

Scattering Chamber Assy

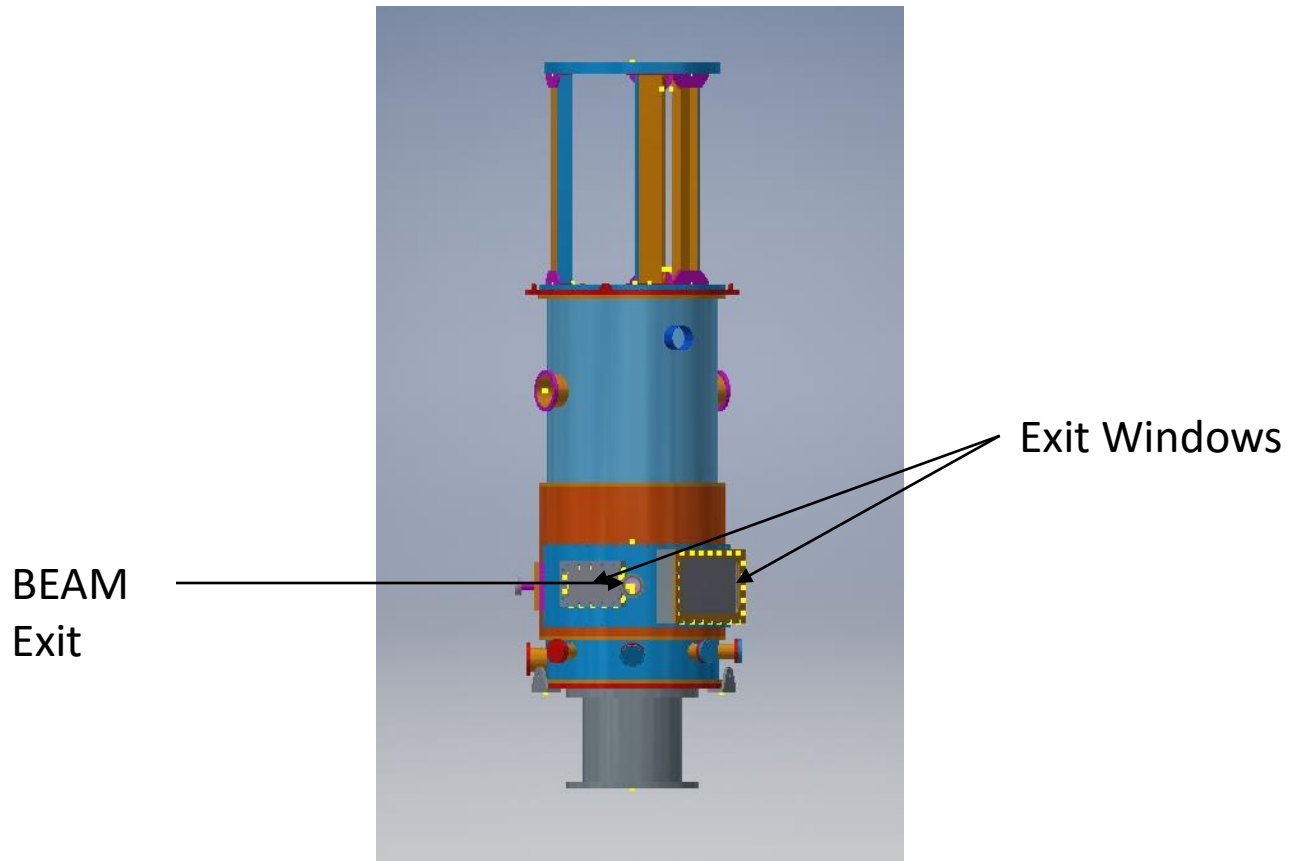
Beam Left Cover

Target cryostat  
(not shown)

BEAM  
Entance



# Chamber Configuration

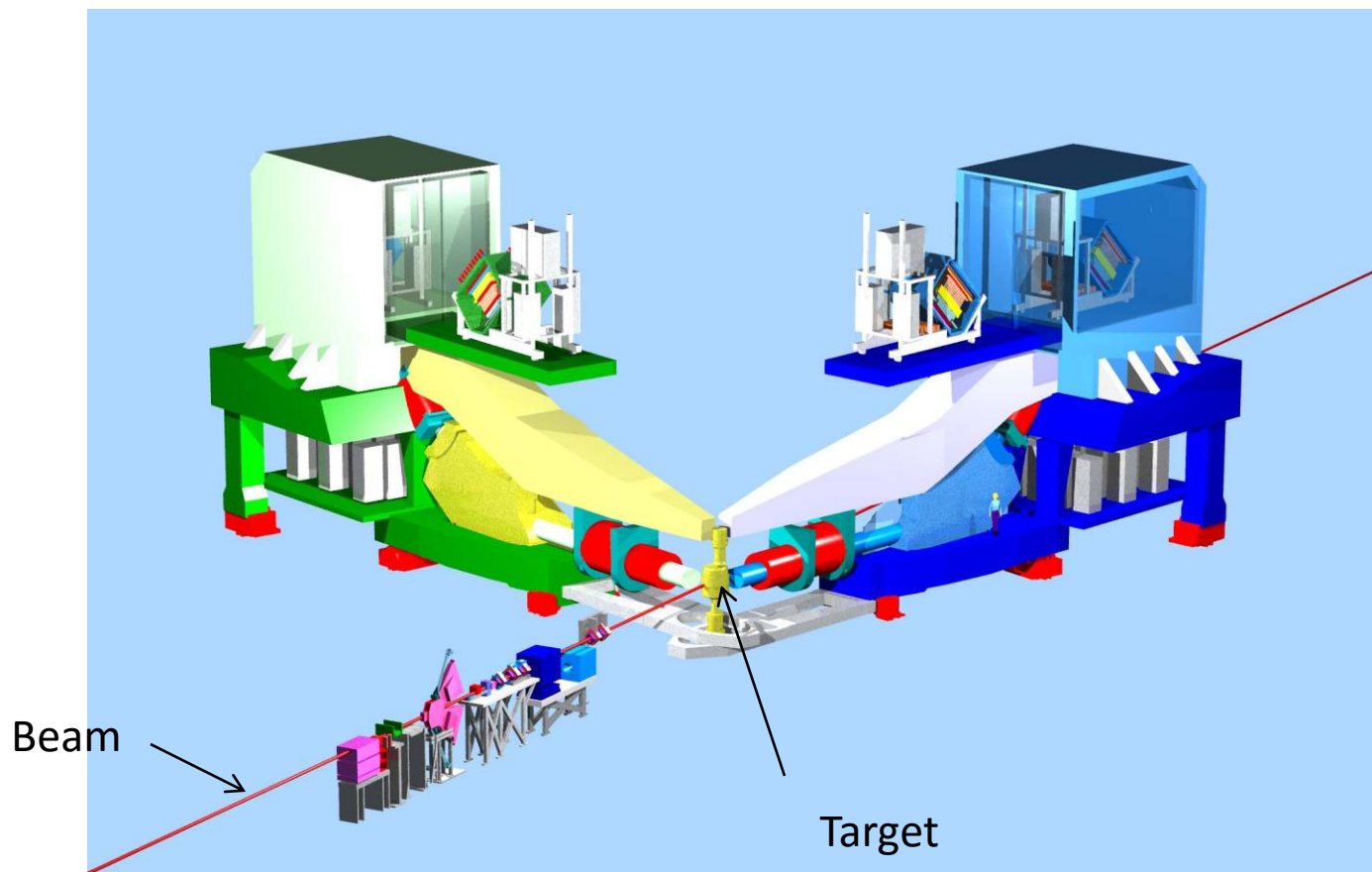


# Summary

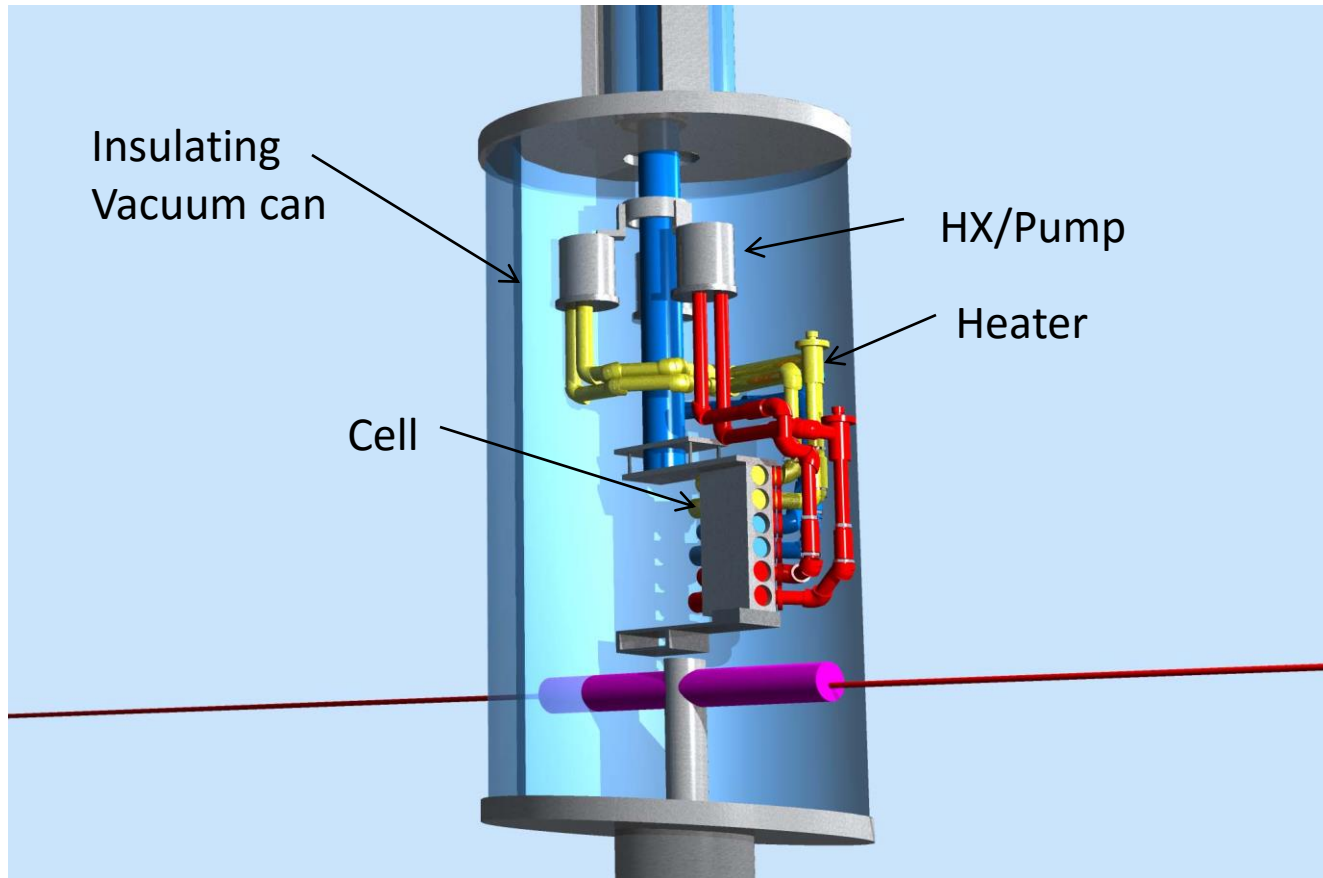
- The target and chamber are BASE EQUIPMENT
- All applicable ESH&Q requirements shall be met
- There are no substantive alterations required to the target
- A minor alteration to the chamber is required
  - Alteration reduces the area of thin windows



# Targets for Beam Physics



# Fluid Target Schematic



# Target Loop Schematic

