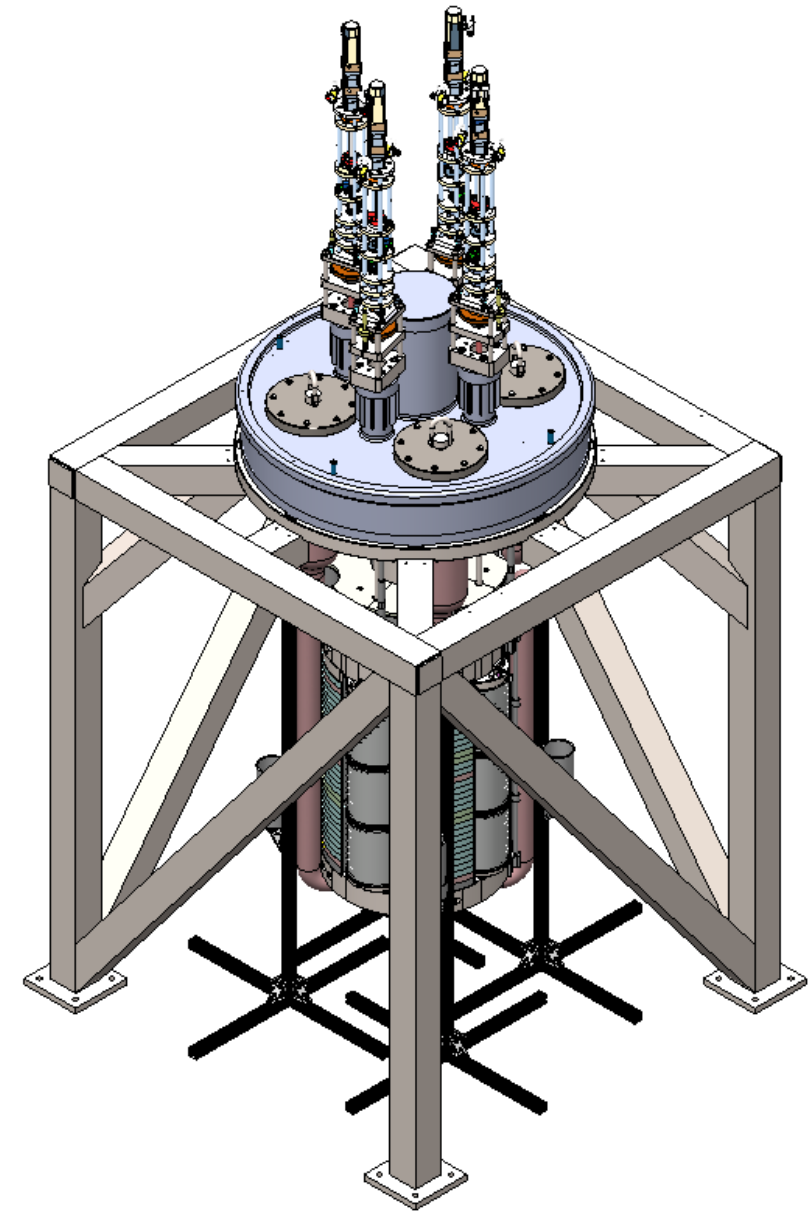


MARVEL Dry Criticality Assembly

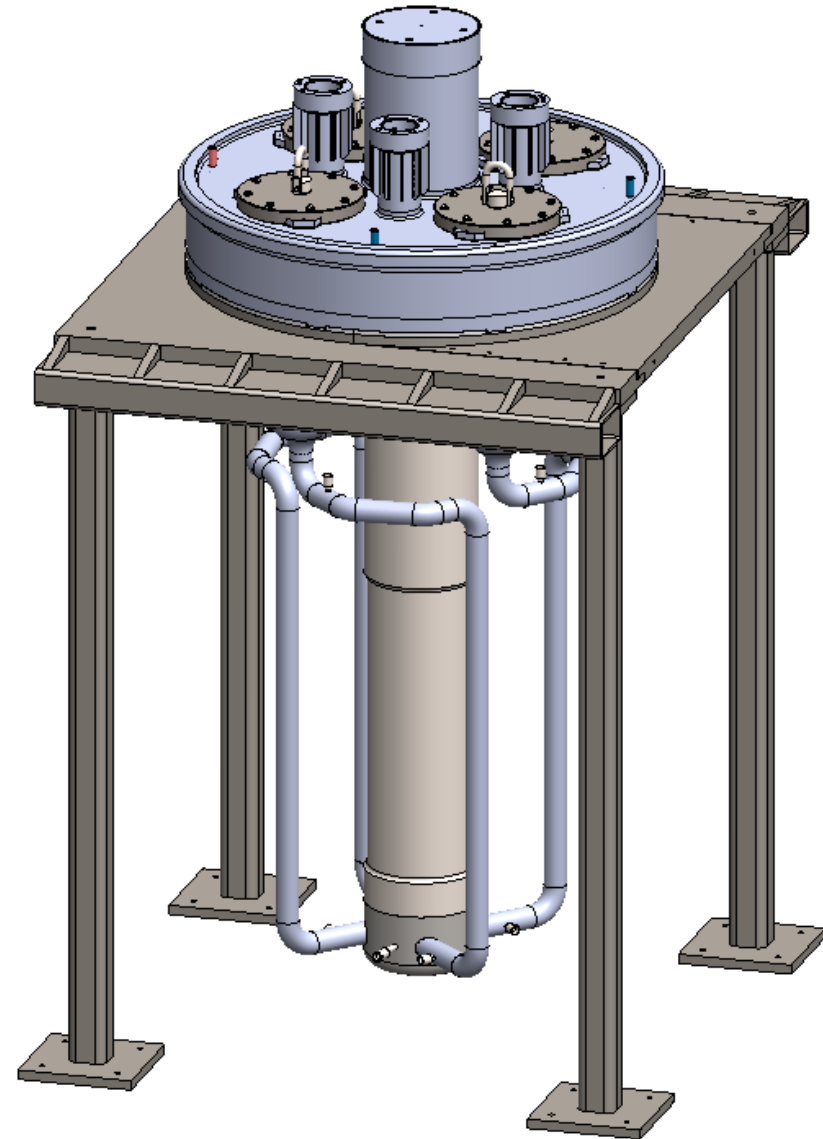
Chad Ryan, Walsh
Engineering Services

March 5, 2025



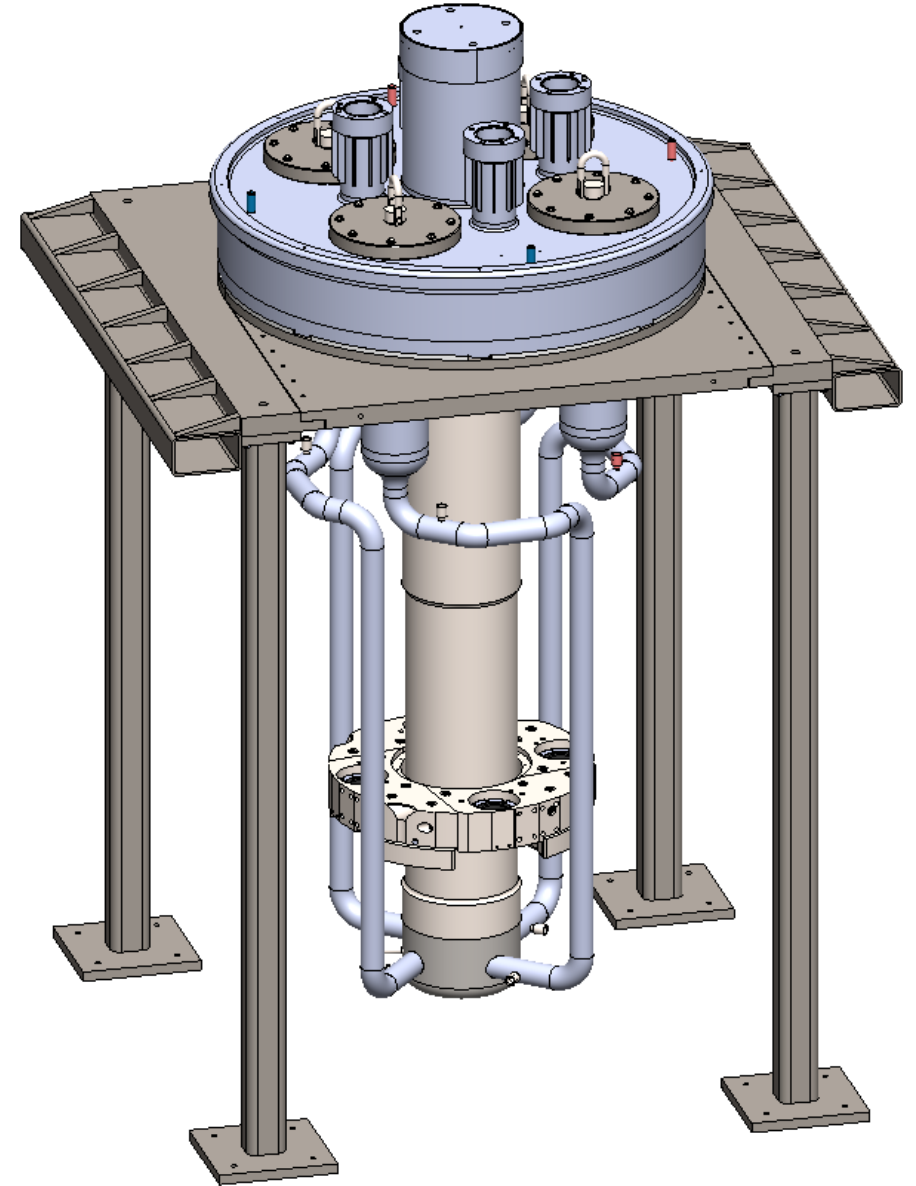
PCS Temporary Stand

- Temporary stand for assembly
- Allows clearance vs RSF
- Horseshoe Shape with Slide Out



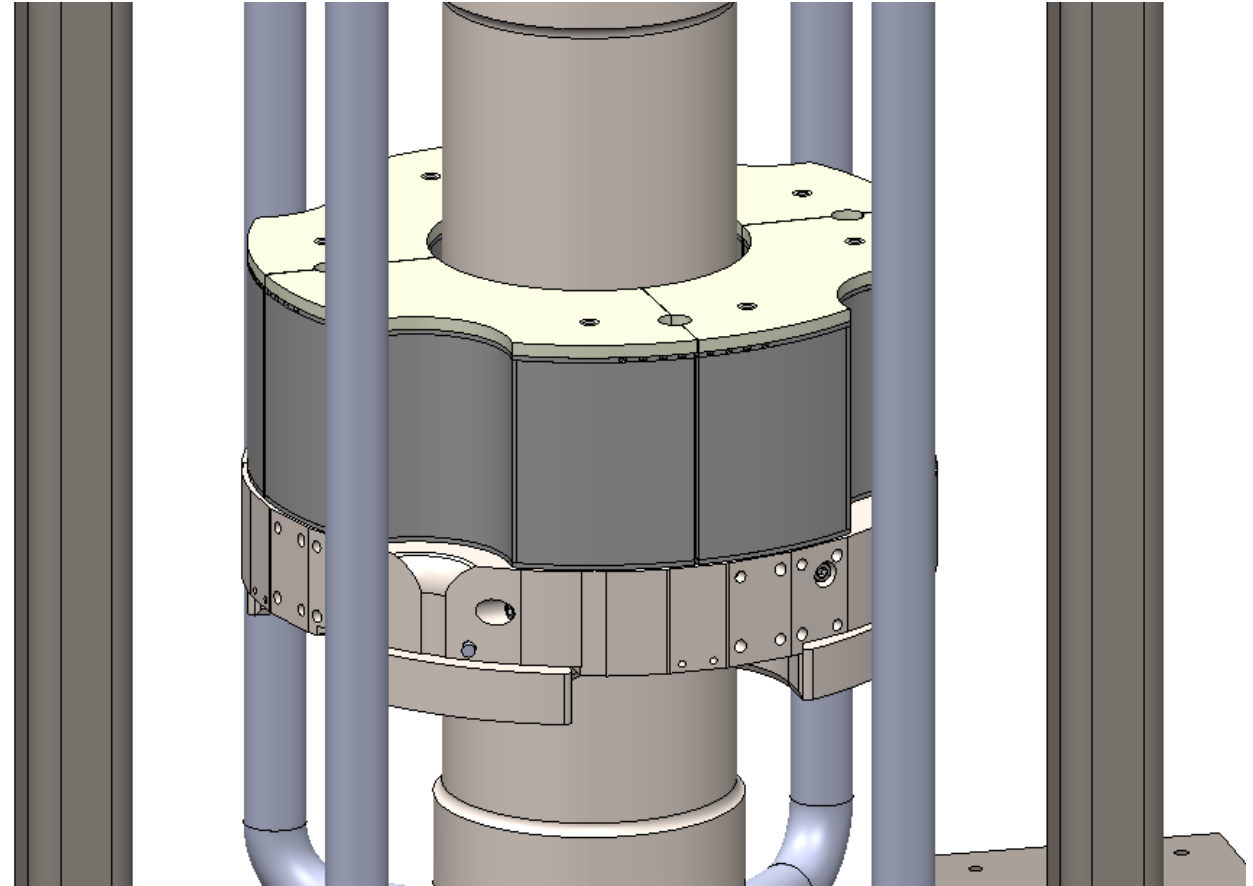
Upper Supports

- The upper reflectors are installed using temporary supports (not shown).
- Supports the shielding
- Reflectors Preload
- Control Drums Support



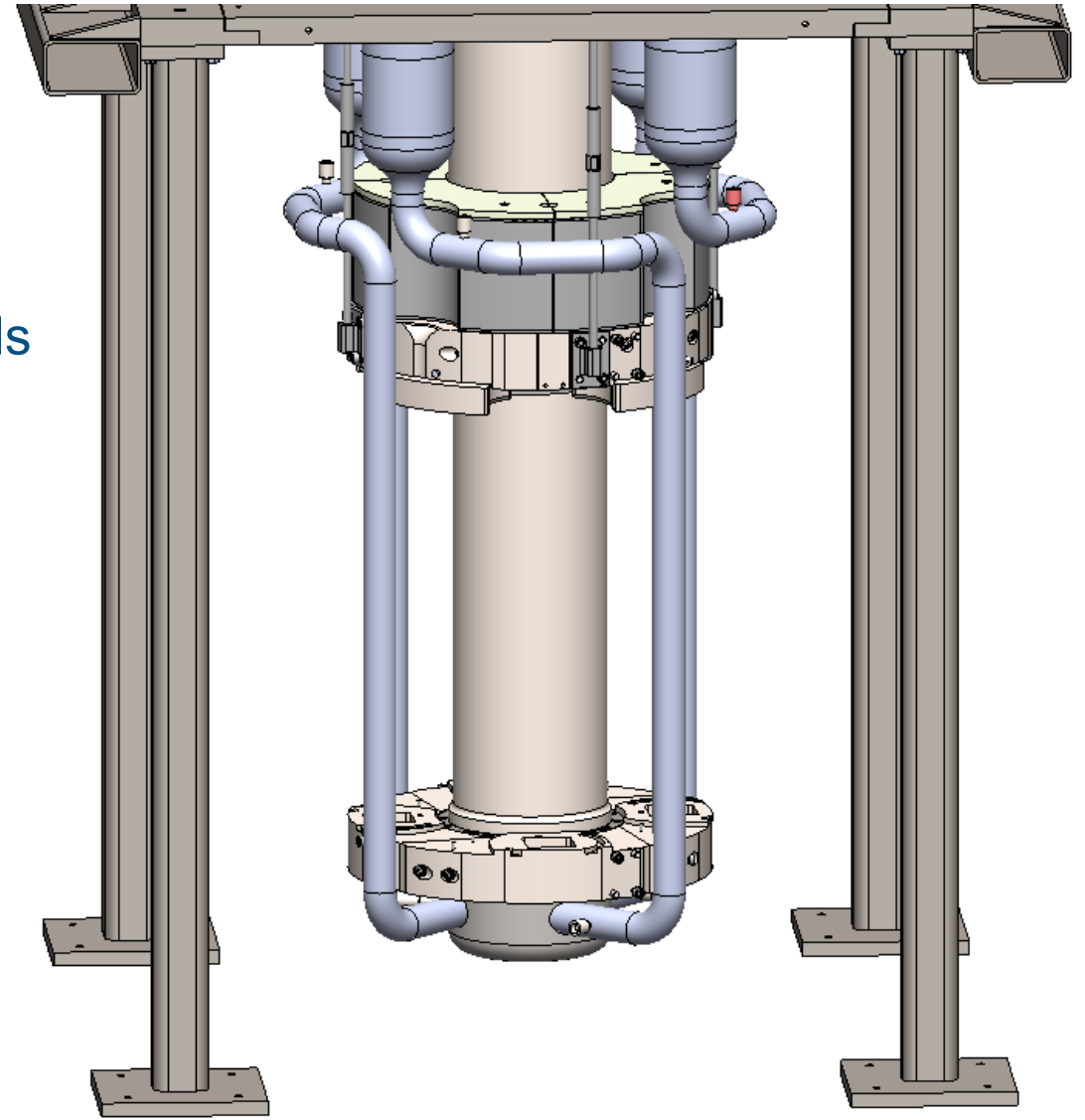
Shielding

- Boron powder installation
- Tungsten Shield Installation



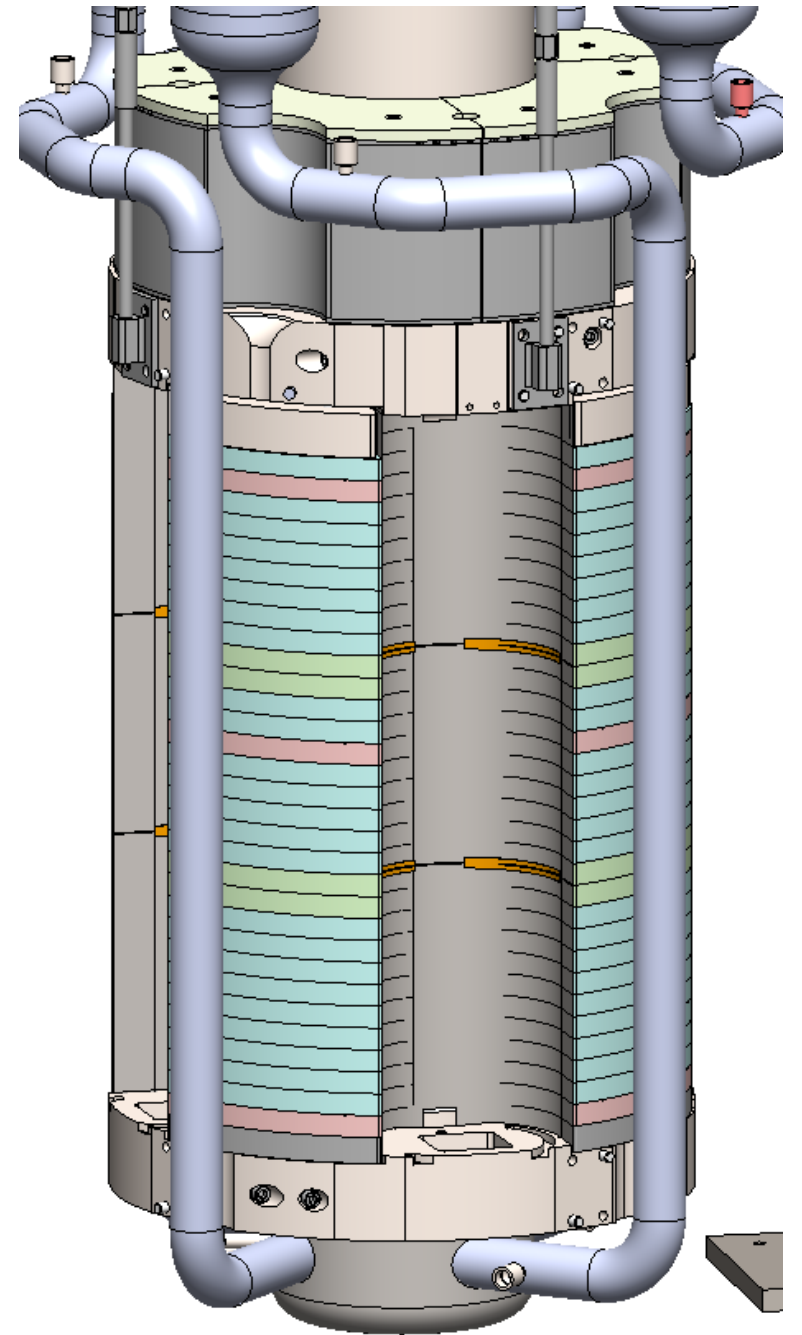
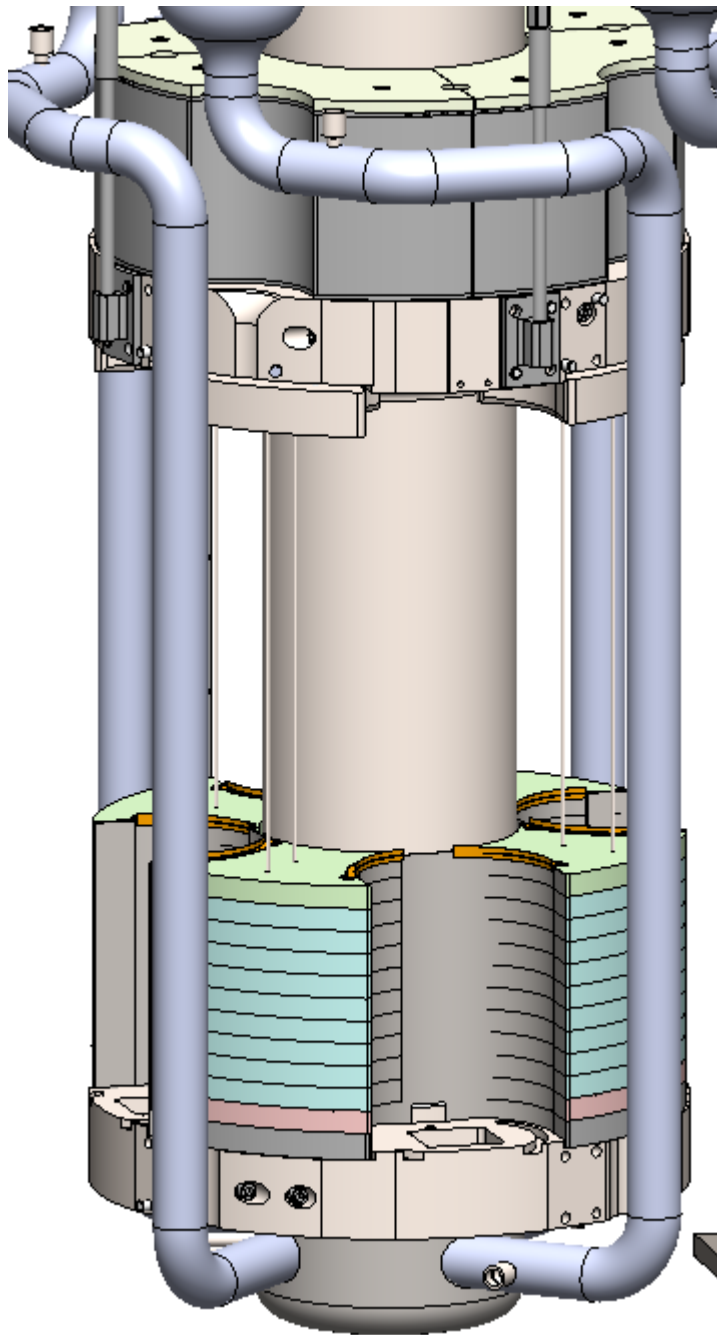
Lower Supports

- Upper Support Straps
- Lower Support Plates with Temporary Stands
- Support the Fixed Reflectors
- Support the Control Drums



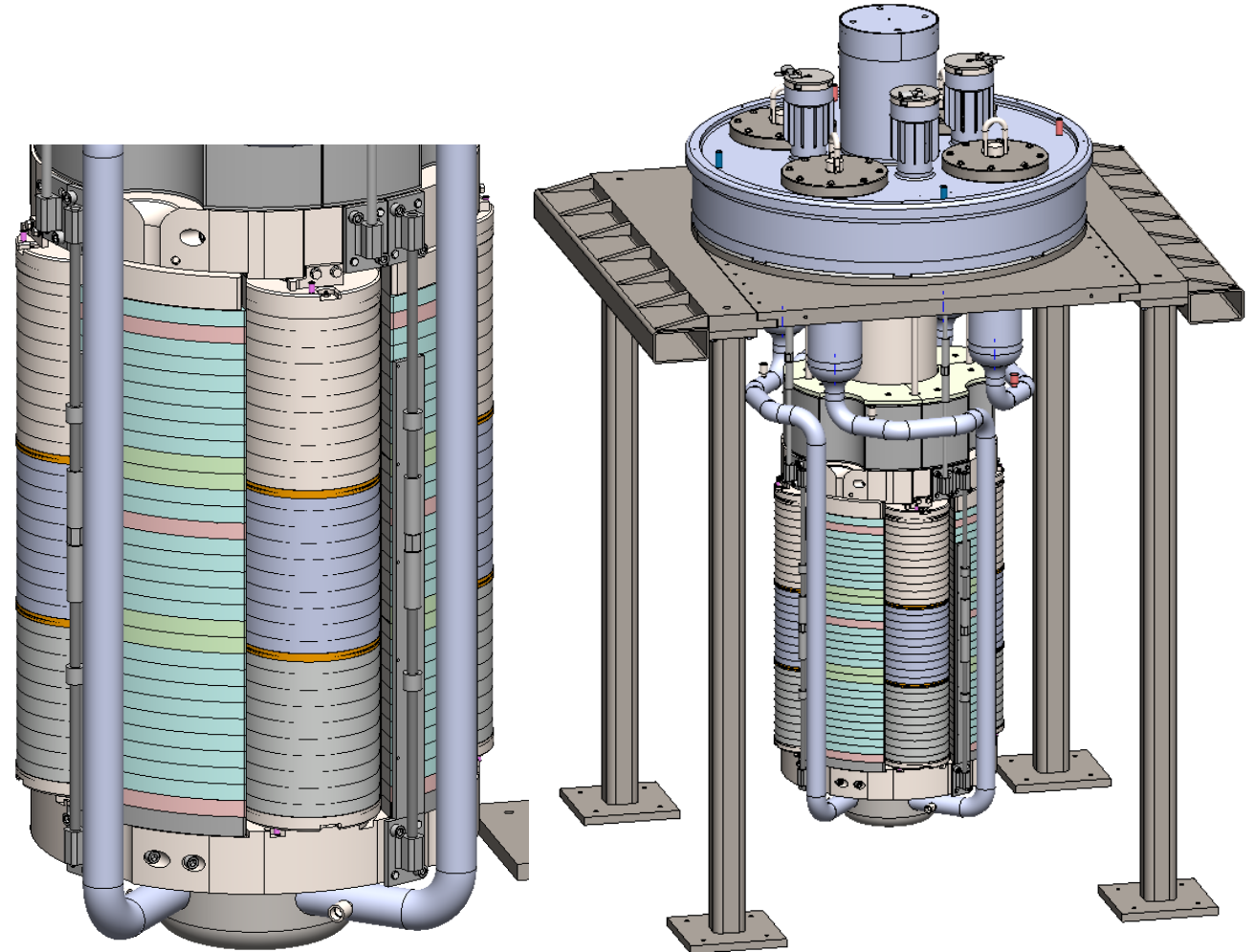
Fixed Reflectors

- BeO reflectors
 - Three forms
 - Bracket
 - Thermocouple
 - Plain
- Thermocouples
- Debris Shielding



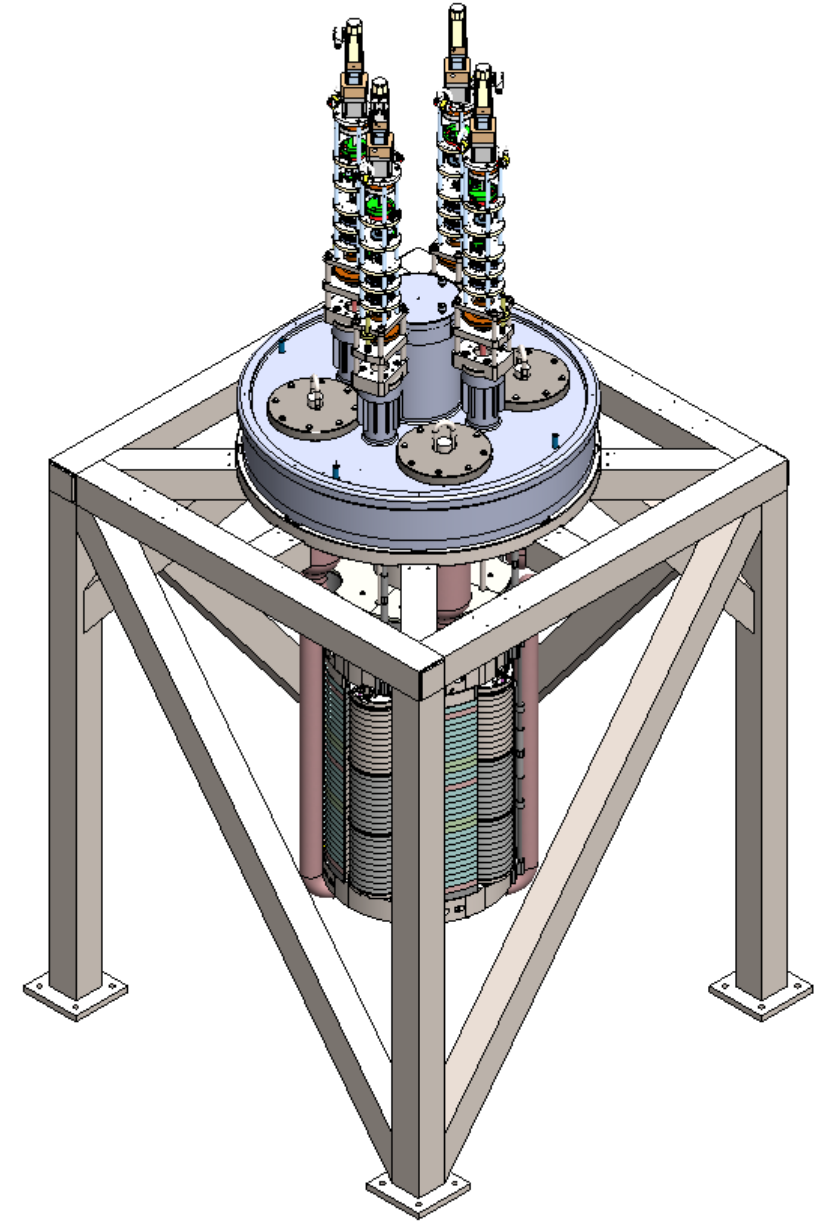
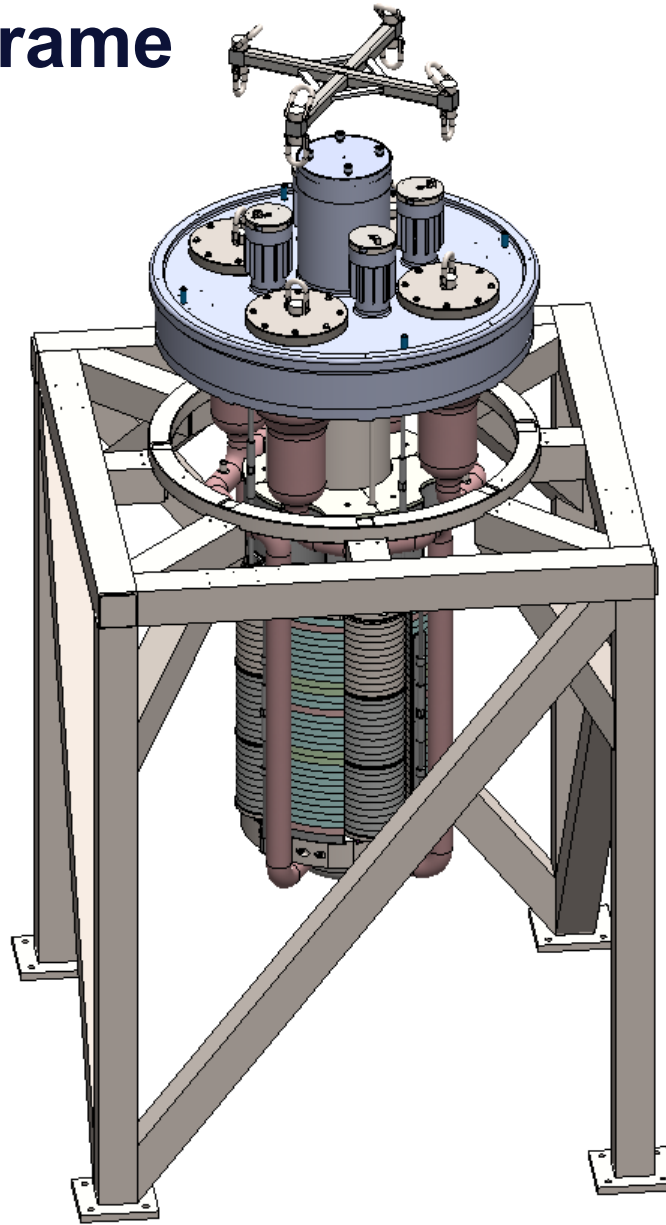
Control Drums

- Added between the fixed reflectors
- Temporary Locks
- Test Control Drum Rotation

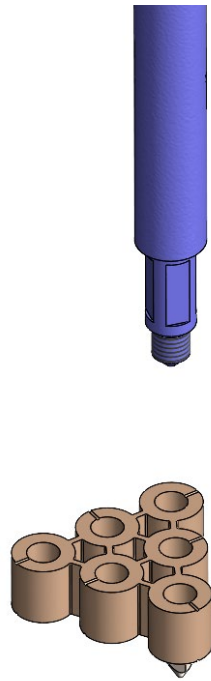
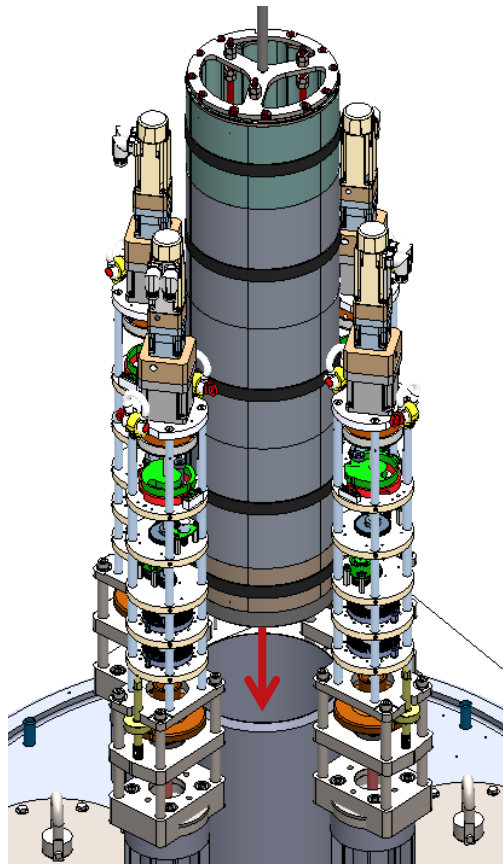


Reactor Support Frame

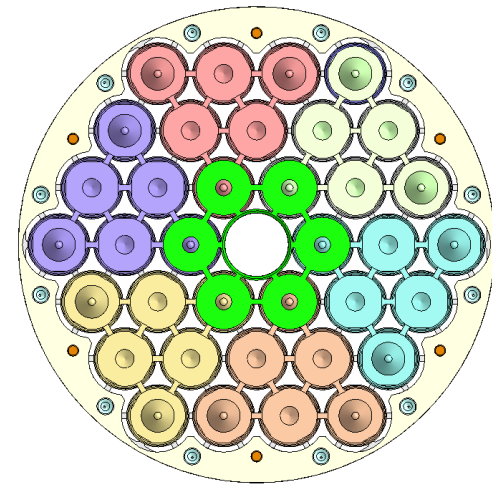
- Install into Reactor Support Frame
- Temporary Ring
- Install and test the Actuators



Fuel Loading



- Load Core Reflectors
- Assemble Fuel Bundles
- Load Fuel Bundles
 - 5 Fuel
 - 1 Dummy





MRP Microreactor
Program