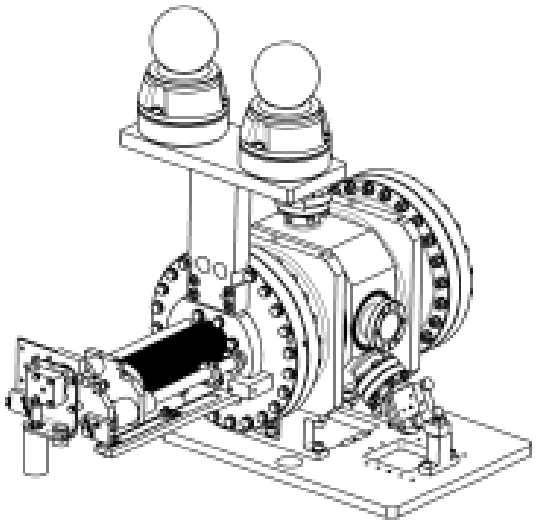
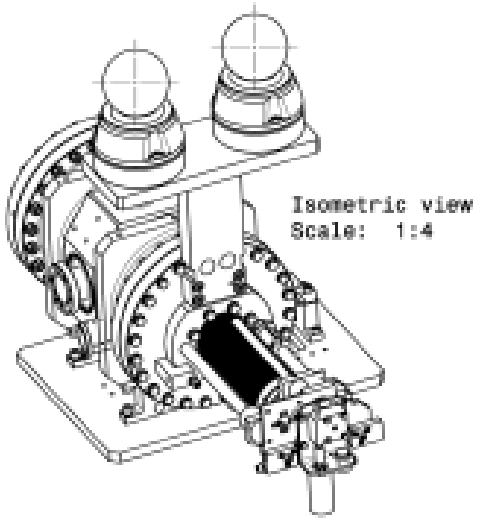
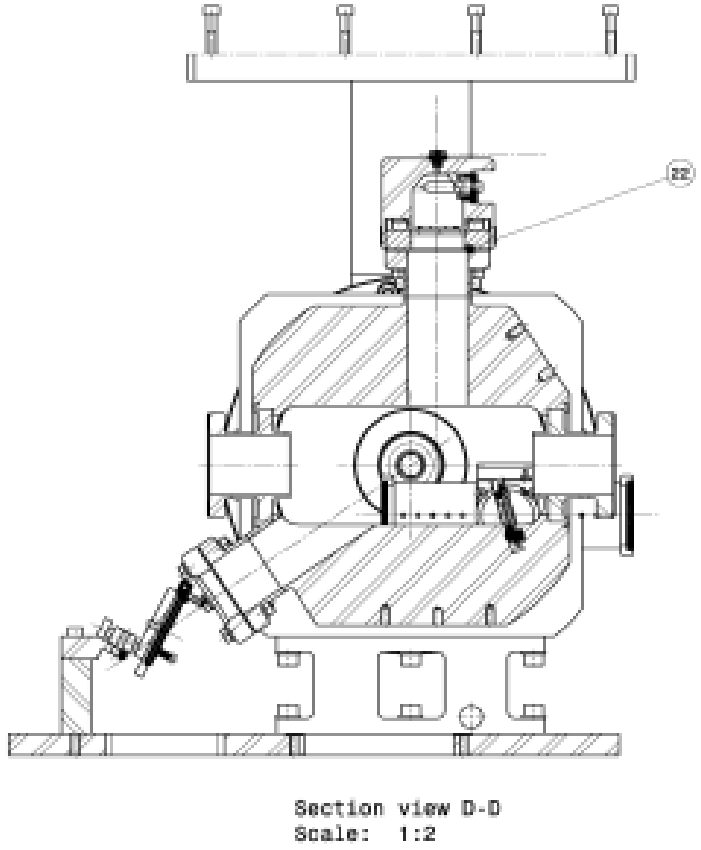
From Oct4 Collab. mtg

- BTV shall have OTR + “fast enough” scintillating screen (YAG) + calibration target
- Linear screen actuator
- 40 mm flange aperture. Possible exception in large beta region.
- Adapt CTF3 design no need for replacement chamber
- Start design with MME in 2025







BTVs

- **Actuators**
  - use commercial magnetically-coupled actuators from UHV design
  - Either **DC** or stepper motor. Pneumatic limited to in / out.
  - Max stroke 120 mm. Multiple positions possible (one / two types of screen, target,…) depending on beta function
- **Vacuum chamber**
  - commercial cross or cube possible for 45 deg screen. Various elements to be consider: cost, standardization, integration.
  - no replacement chamber needed
  - Depth of field?
    - for F2 50 mm lens, image at 50 cm: **8 mm**
    - can reach sub mm values for very short distances / high resolution systems
    - should not be a problem, need to verify with actual beta functions.

BTVs

- Magnetic actuators driven by new ‘BTV card’ that includes light control
- Likely to have 45 deg screen in all locations. Will be studied.
- screens plus target when possible (depends on final beta functions)
- actual design of chamber (custom vs off the shelf) to be evaluated