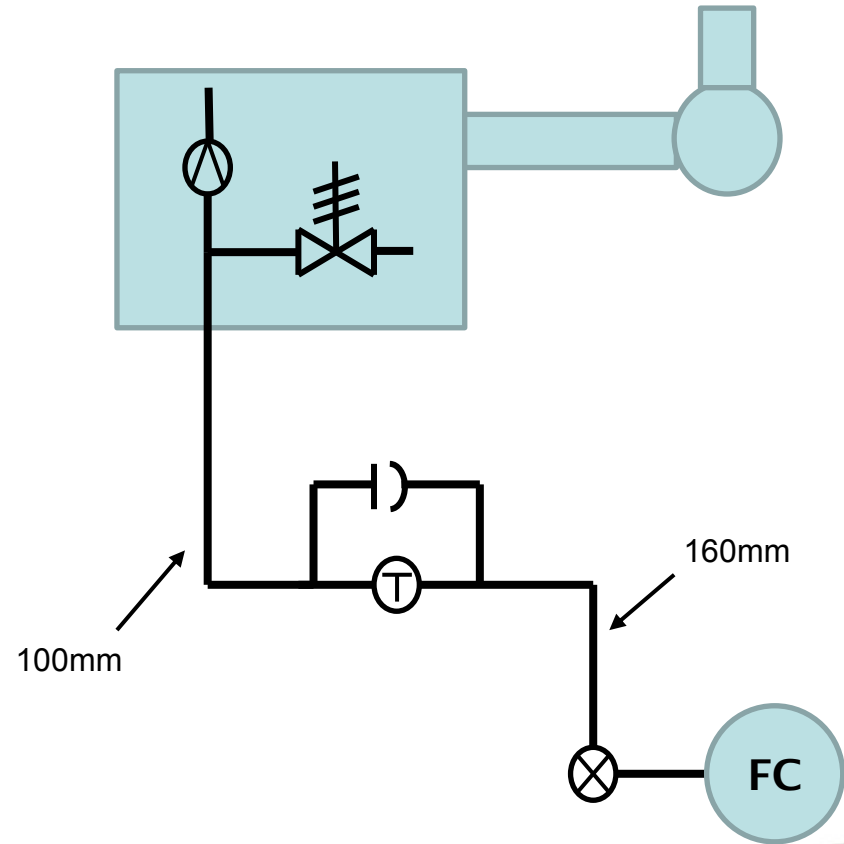
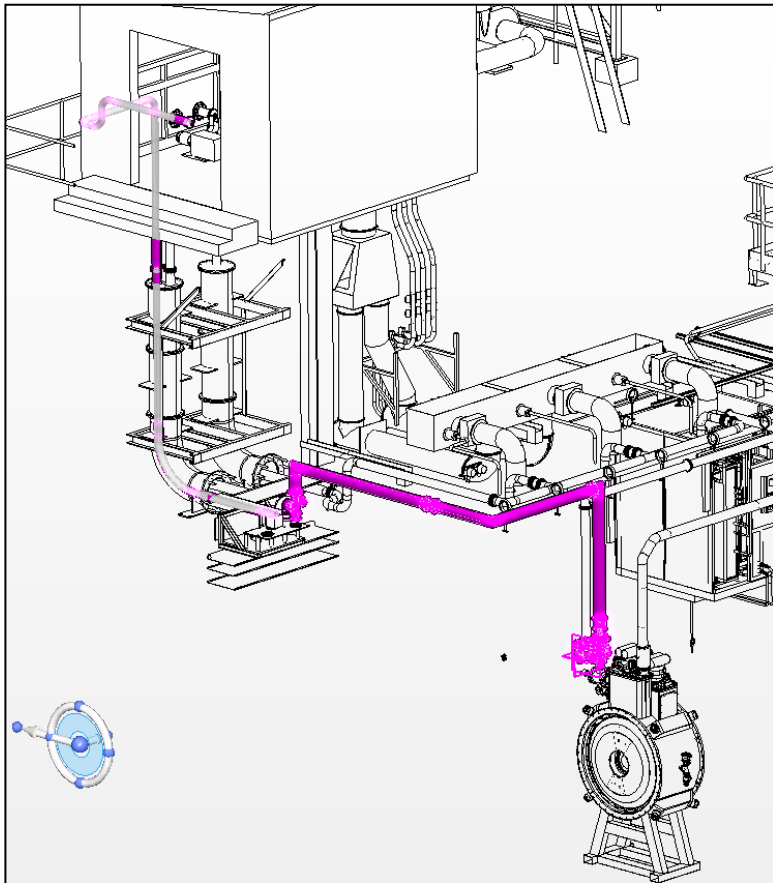


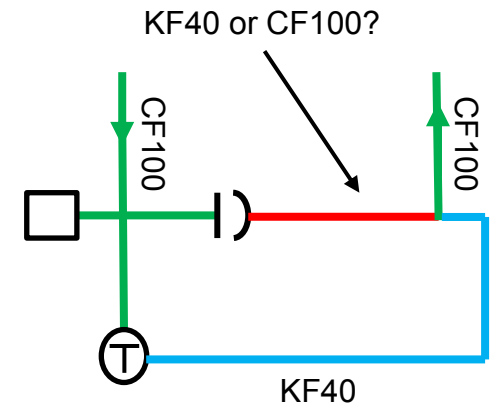
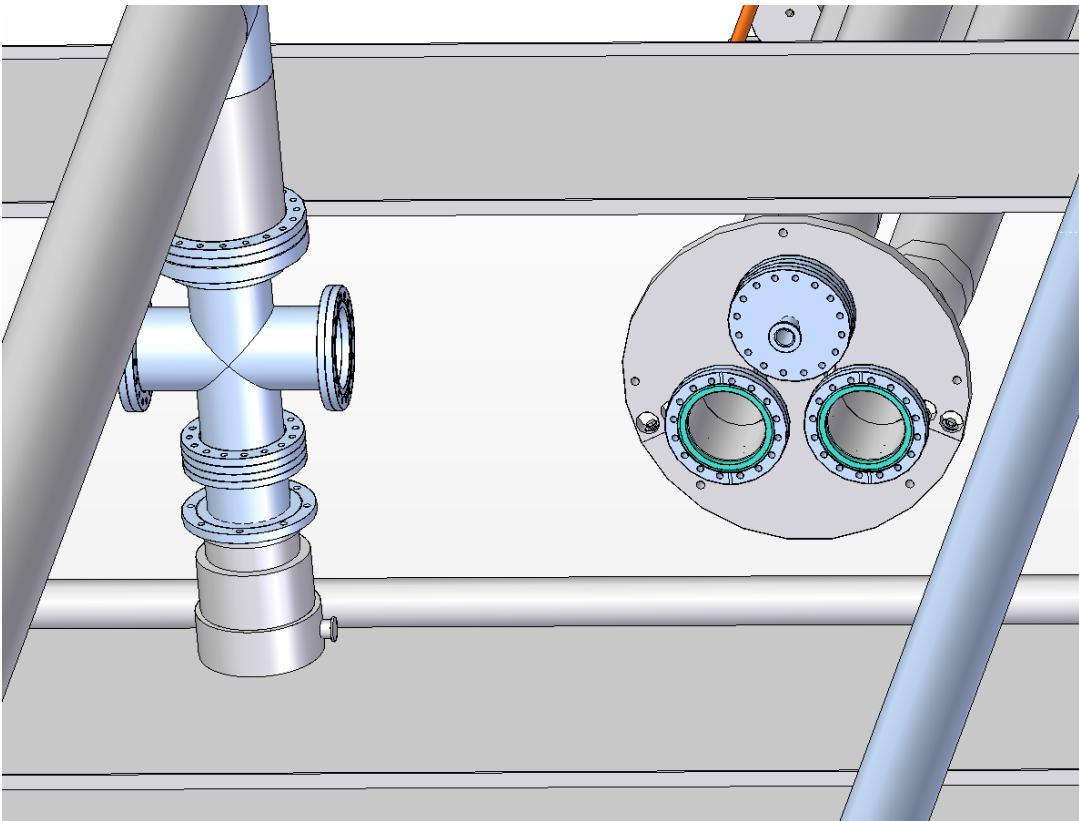
# Proposal

- To use the existing vacuum line as a relief route from the insulating vacuum in the event of a cryogen spill



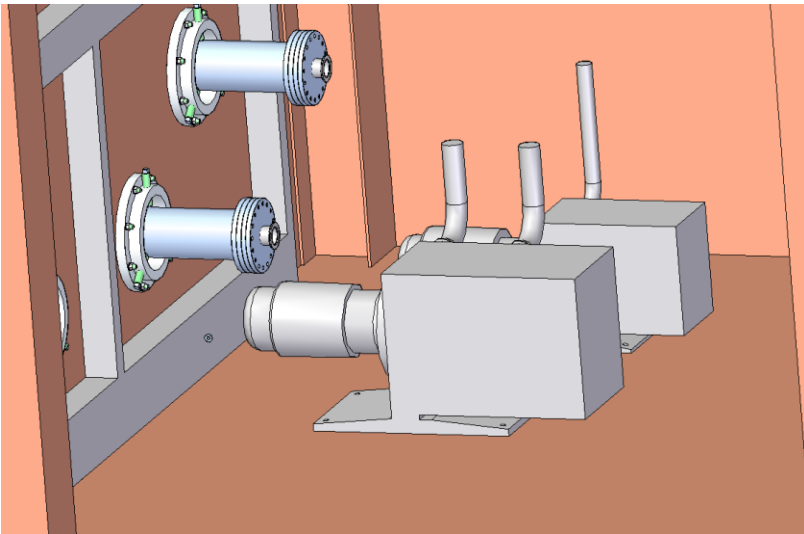
# Burst disk

- BS&B welded assembly ( $10^{-9}$  mbar.l/s)
- 4" reverse stainless disk
- 0.35 bar.g
- CF100 flanges



# *Relief valve*

- Oxford Instruments cryogenic PRV
- KF40
- 0.36 bar.g
- Used on FC to relieve helium in quench



# *Other implications*

- Extra care to be taken during initial pump-down as pressure drop across turbo could blow burst disk
- Software interlock closing the gate valve in the event of vacuum loss would be removed
- Access to the pump enclosure will be more tightly controlled, with access entirely prohibited while LH2 is present
  - Consider using some hardwired safety measure. For example, enclosure key necessary to start fill sequence. Removal would set off alarms (but not automatically vent!)
- Access to the roof should also be more tightly controlled, although this needs discussion as there is also ISIS plant up there

