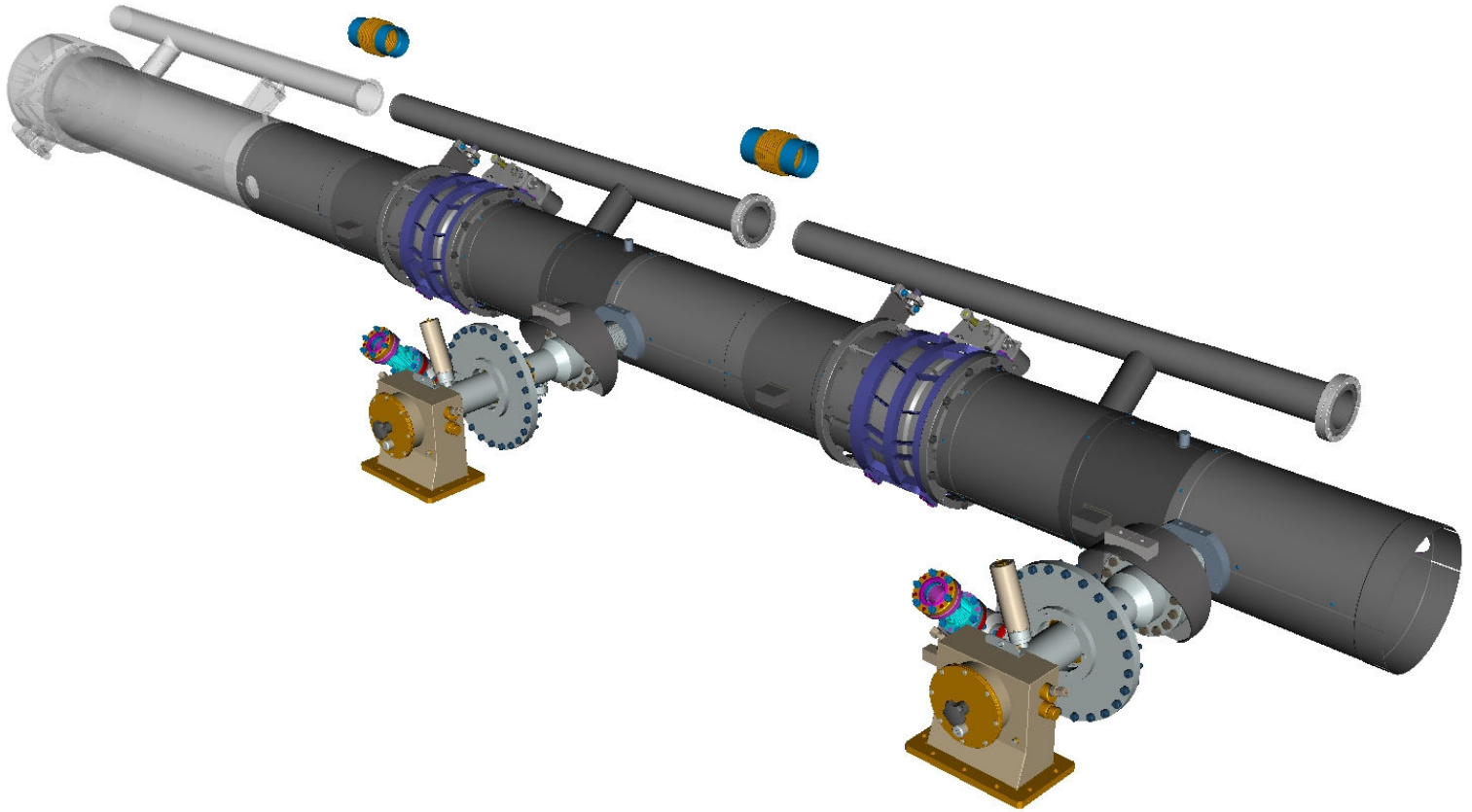
Check the component list with FNAL solid model

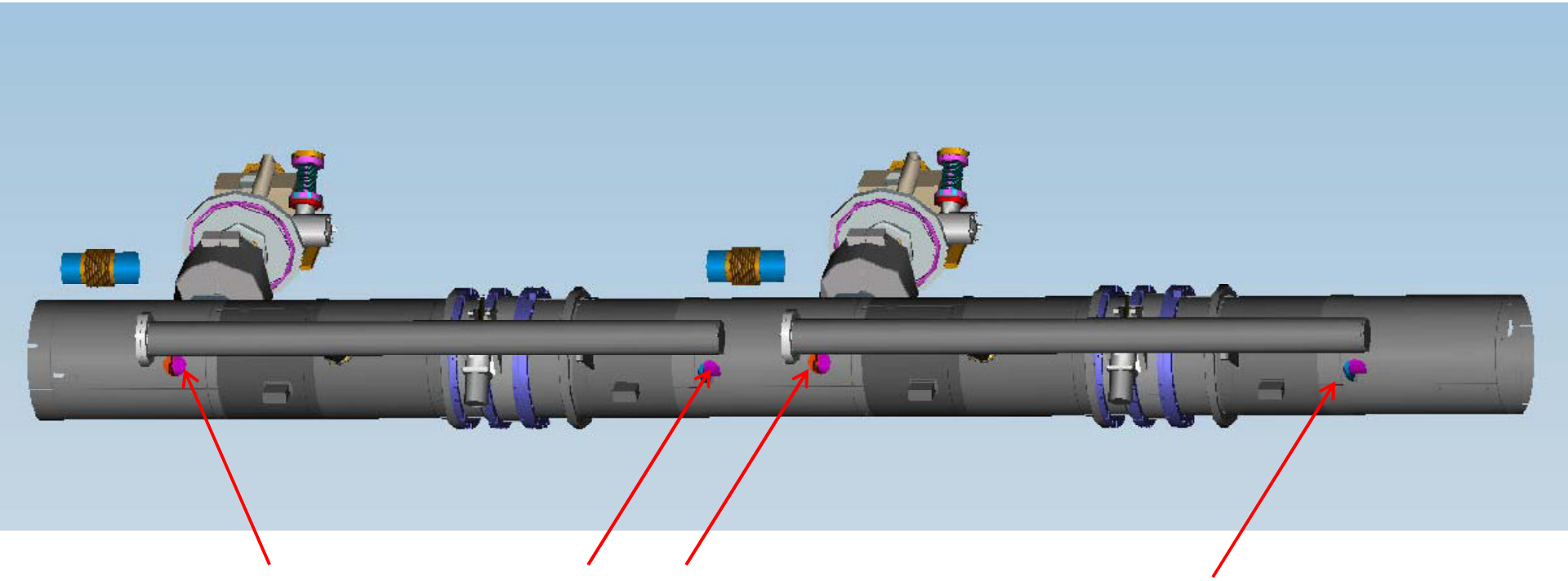
Norihito Ohuchi

Solid model of FNAL S1-G cavities



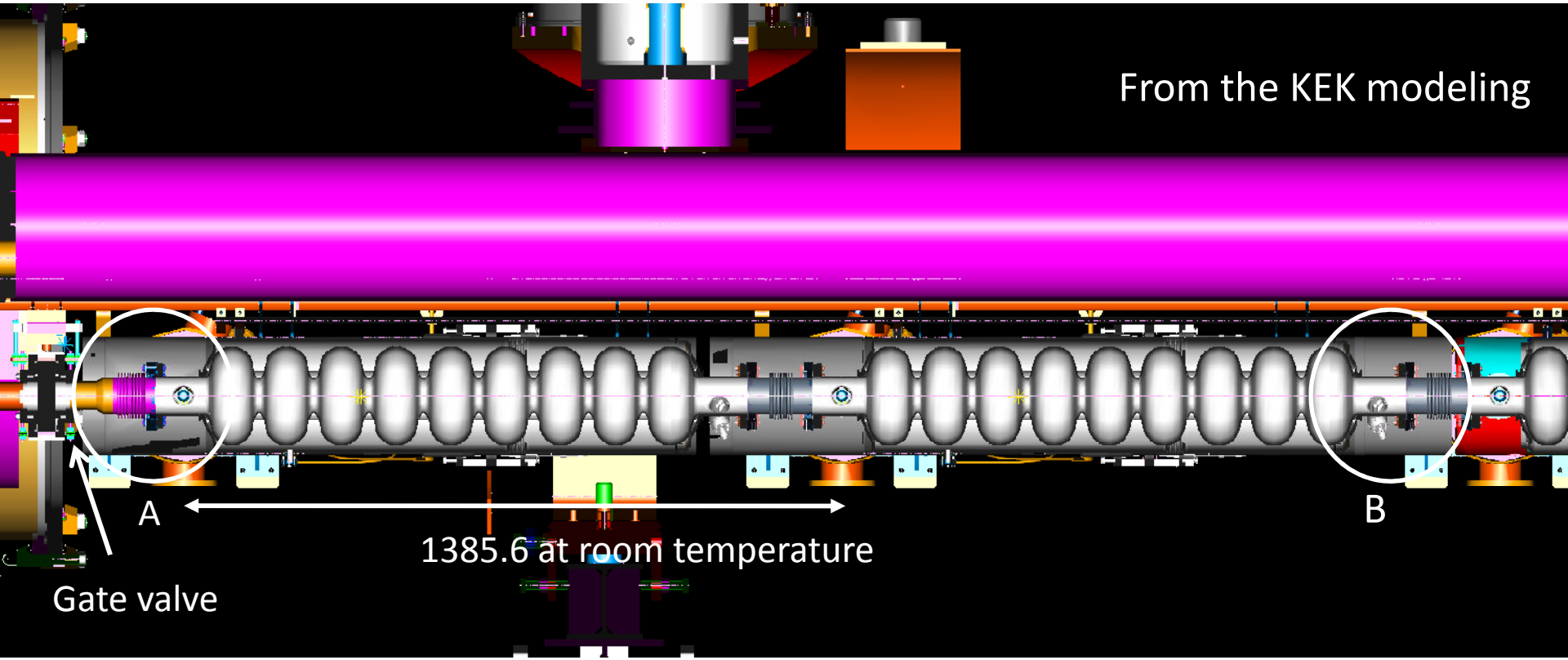
From the slide by Don

FNAL cavities and magnetic shieldings



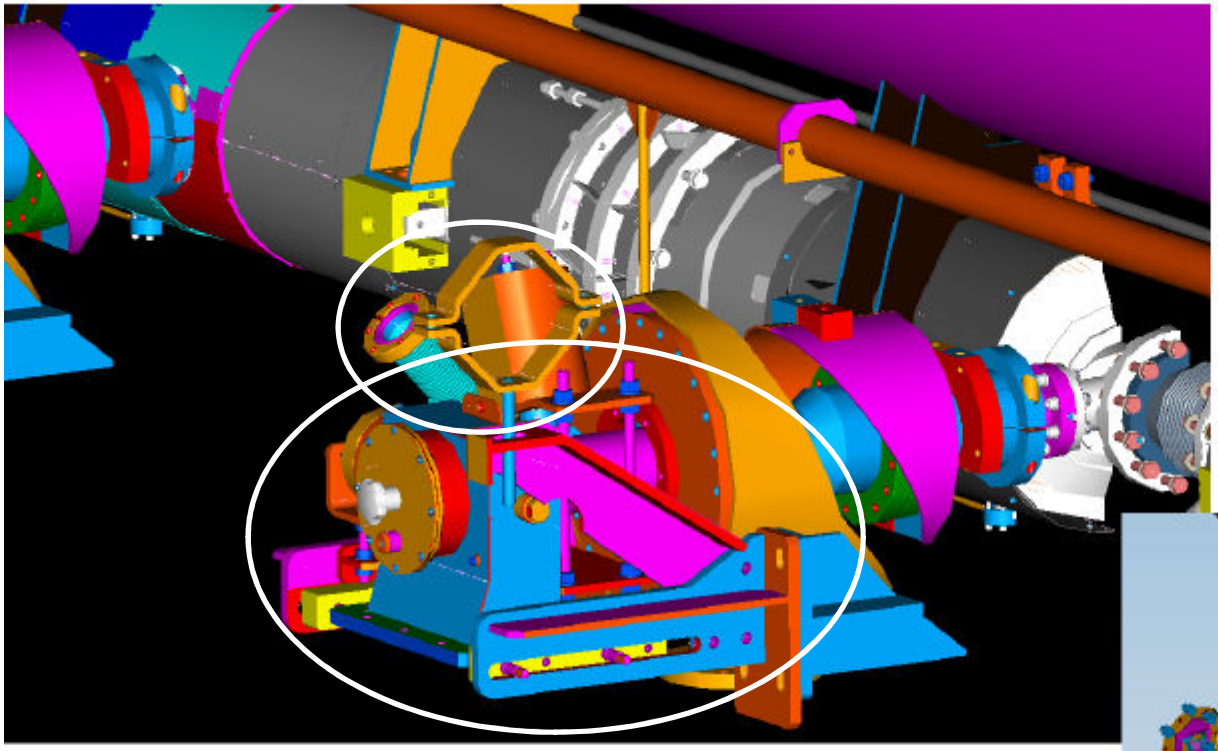
Holes on the shield plates
What is the function of the holes?

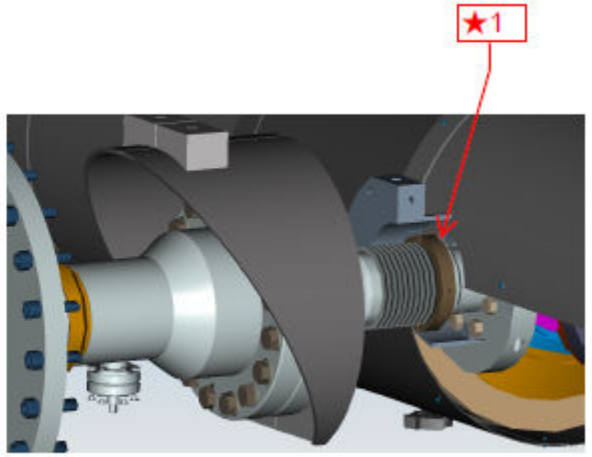
Cavity Packages

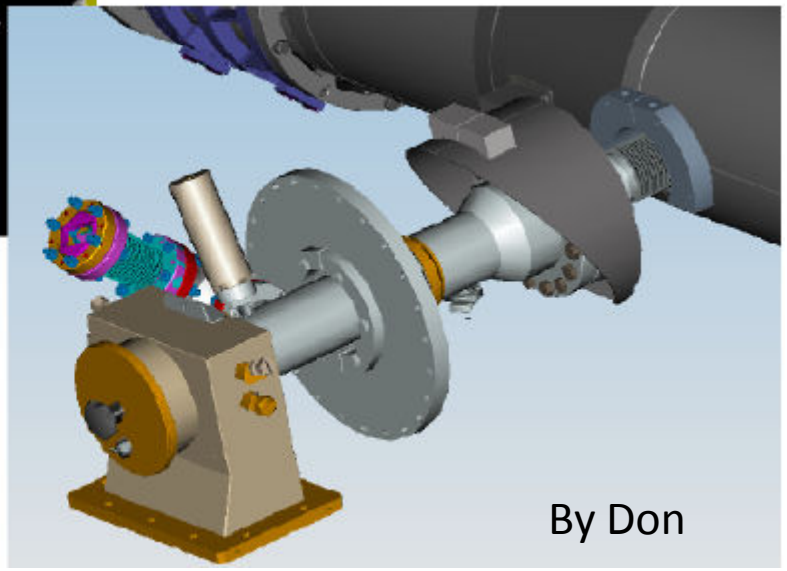


A: The present shield design by FNAL/Don has an interference with the gate valve. The length of the shield in the solid model by Don is 351.5 mm while the length might be 286.5mm.
B: The length of the FNAL shield is 351.5 mm. For overlapping to DESY shield, the length might be 231.5 mm.
The length between the input couplers is 1385.6 mm at room temperature. In the drawing by Don, the distance is 1385.15mm. Are the modeling made at cold temperature?

Input couplers







The enclosed components by white circles are required for assembling and supporting warm coupler and vacuum pipes.
The hole on the shield has interference with the coupler components.

- S1-G cryomodule JT file
  - http://www-mec.kek.jp/norio/ilc_cryo/
  - File: S1_Assembly_090820.jt

- In the solid model by Don, cavity packages are same as the KEK modeling and component list. In some components, the seals and bolts are missed.
  - FNAL cavities in KEK modeling are based on the CAD data by Don.