

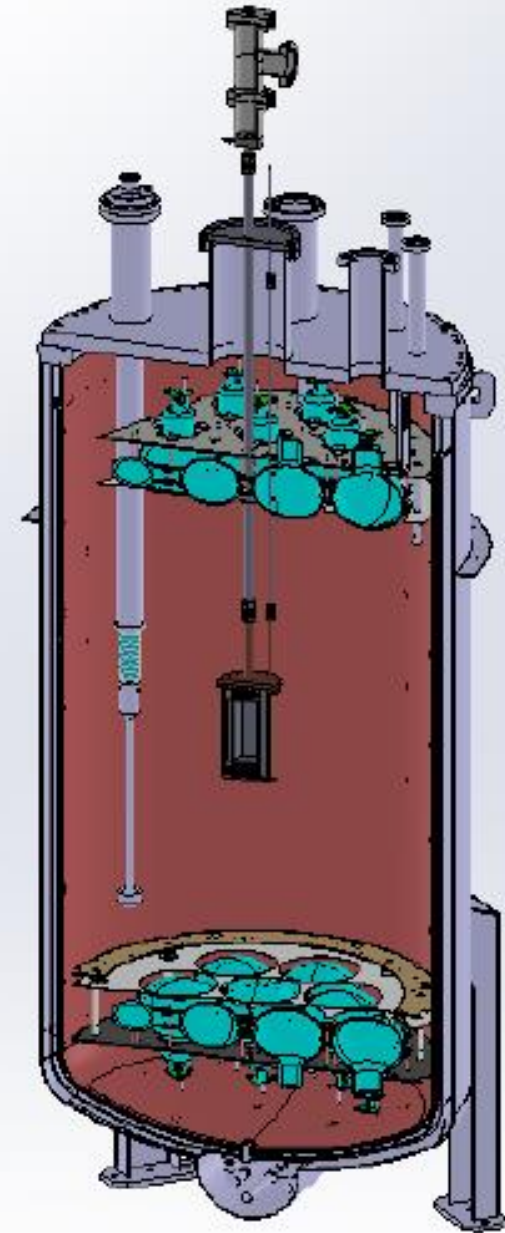
DArT integration in ArDM

6 february 2019

Luciano Romero

Cut view of ArDM/DArT

- DArT would be inserted/extracted from ArDM without dismounting the top main flange.
- DArT fits within the CF200 flange top access.
- The top PM support plate would have a central hole bigger than DArT diameter (156 mm).
- What is the required positioning precision for DArT?.





- External connections
- CF200 flange
- Pipes D22 & D8
- Cu/Inox interface
- DArT

DArT system

Cable connections
CF63 1x25 or 2x25

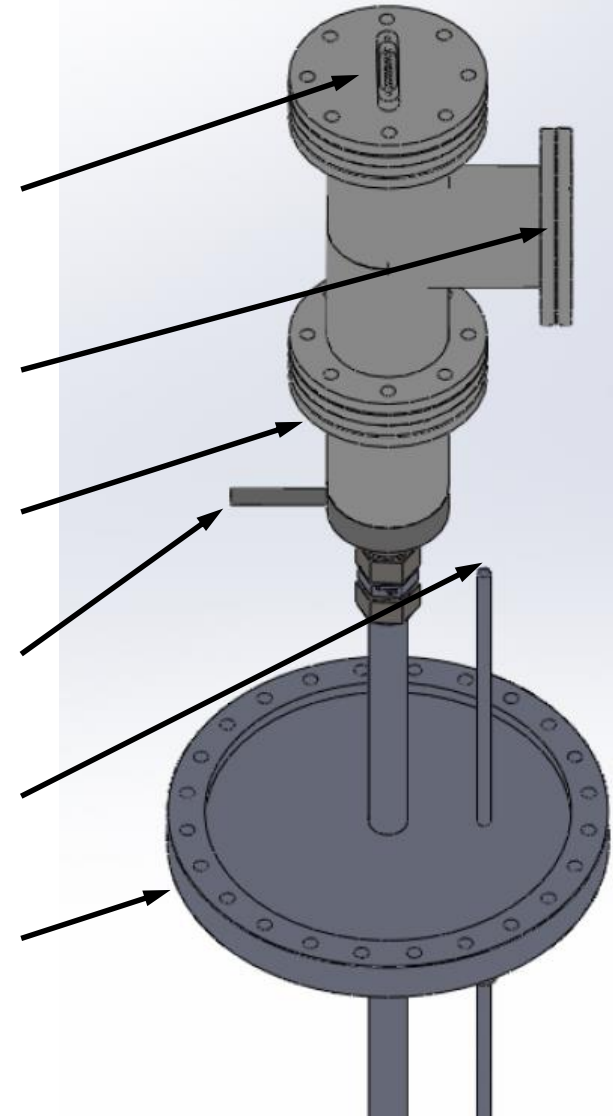
Vacuum port CF63

Cable reservoir

Gas outlet

Gas inlet

CF200



Cu/Inox interface, option 1

- Copper and inox pipes welded together.
- Welded with silver tin. (Soft weld).
- Copper and inox are very dissimilar materials.
- Mechanics dislike this kind of welding.
- Low mechanical resistance.
- Must be tested by the welders.

Cu/Inox interface, option 2

- Copper and inox pipes joined by a Sagana ferrule (CERN).
 - 41.40.06.134.1 for D22
 - 41.40.06.113.6 for D8
 - Cryogenic capability.
- Copper pipe reinforced internally with an inox tube.
- The Cu/Inox seal is very efficient.
- Same seal than CF high vacuum flanges
- High mechanic resistance.
- Must be tested anyway.

