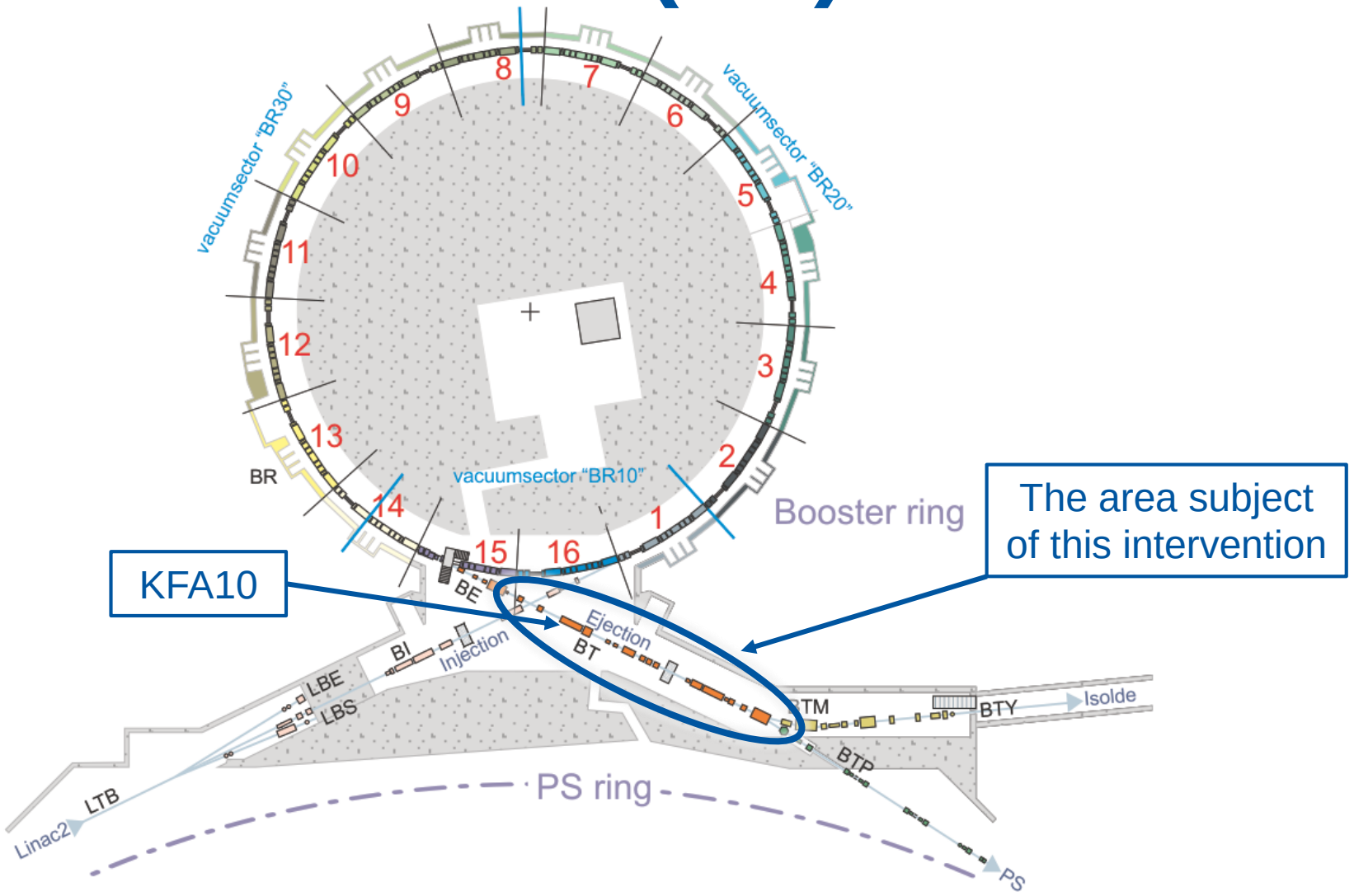
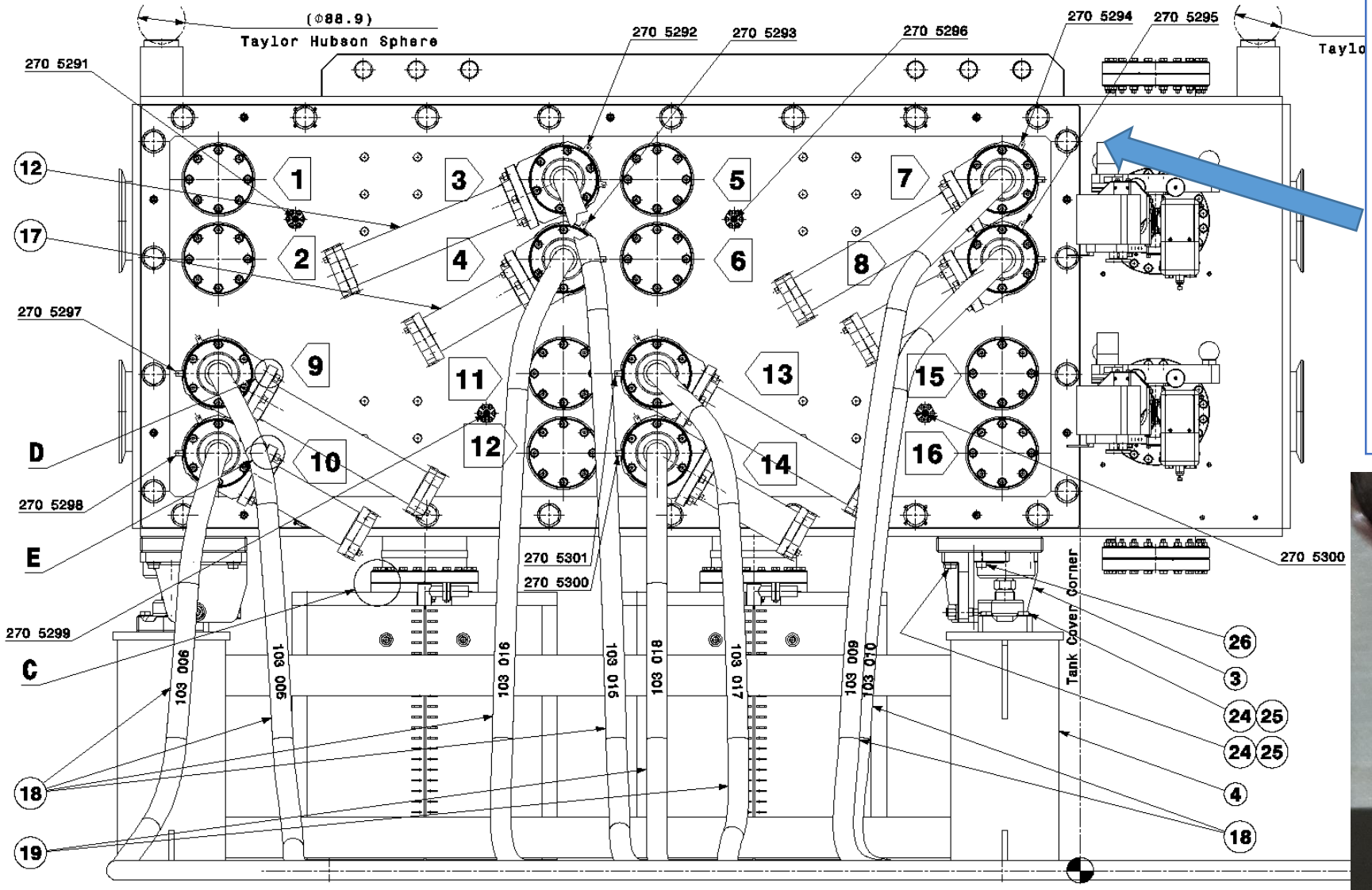
KFA10 Vacuum tank

Status vacuum leak

Beam Transfer (BT) line

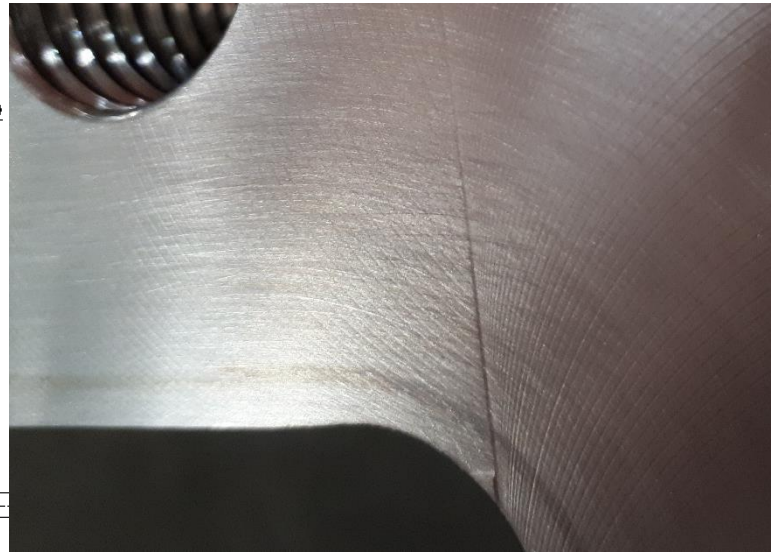


After repair still leaking & ~~RGA~~

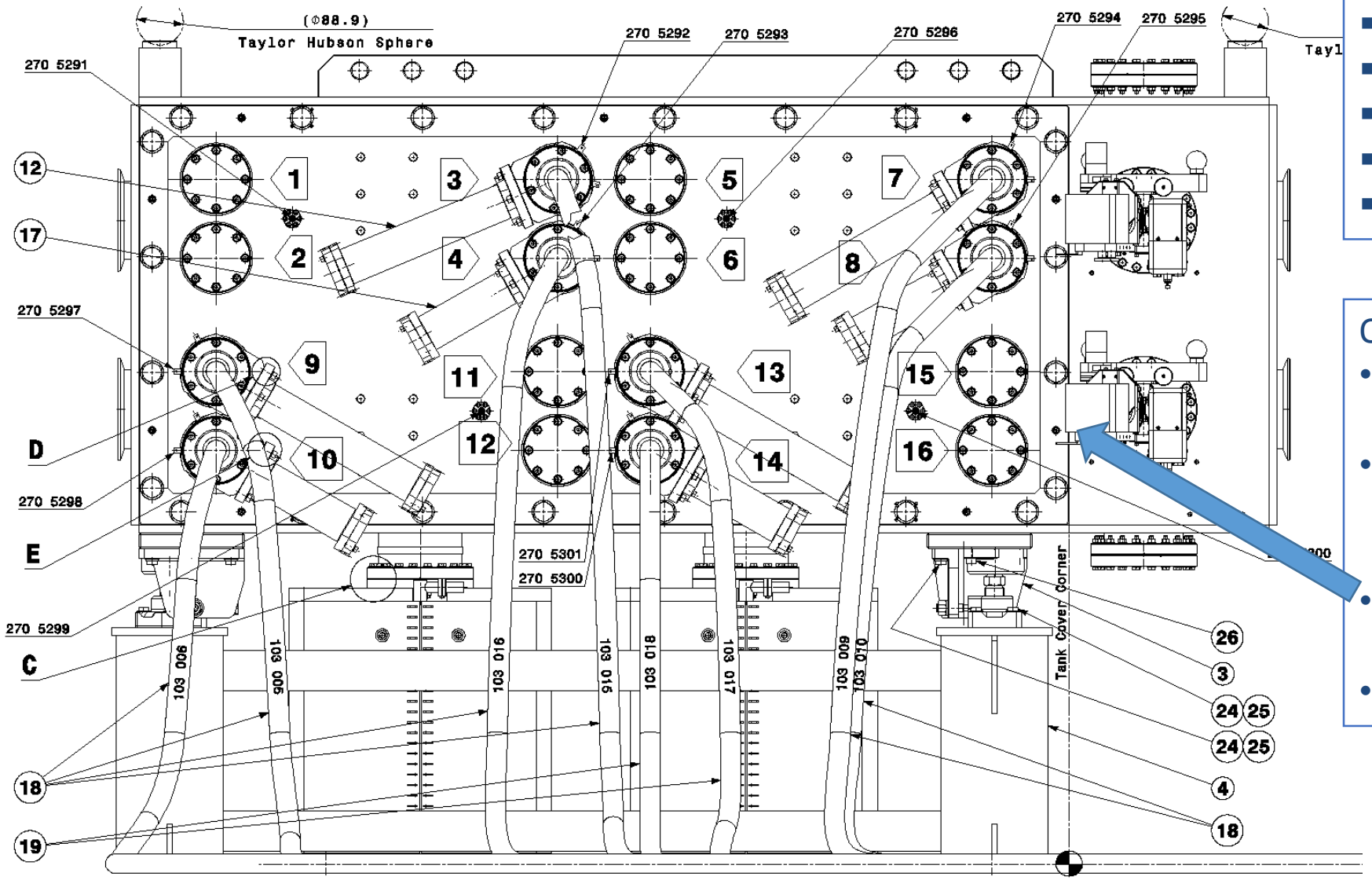


From Nicolas Thaus:

- Avant resserrage de la porte (180-200Nm) le taux de fuite sous poche à saturation était de 5.6×10^{-7} mbar.l/s
- Après resserrage de la porte à 300Nm, nous sommes a 4.2×10^{-7} mbar.l/s
- La fuite la plus importante soit dans l'angle en haut à droite. Ce qui ne veux pas dire qu'il n'y ai pas de fuite plus petite autre part.



After repair still leaking & ~~RGA~~



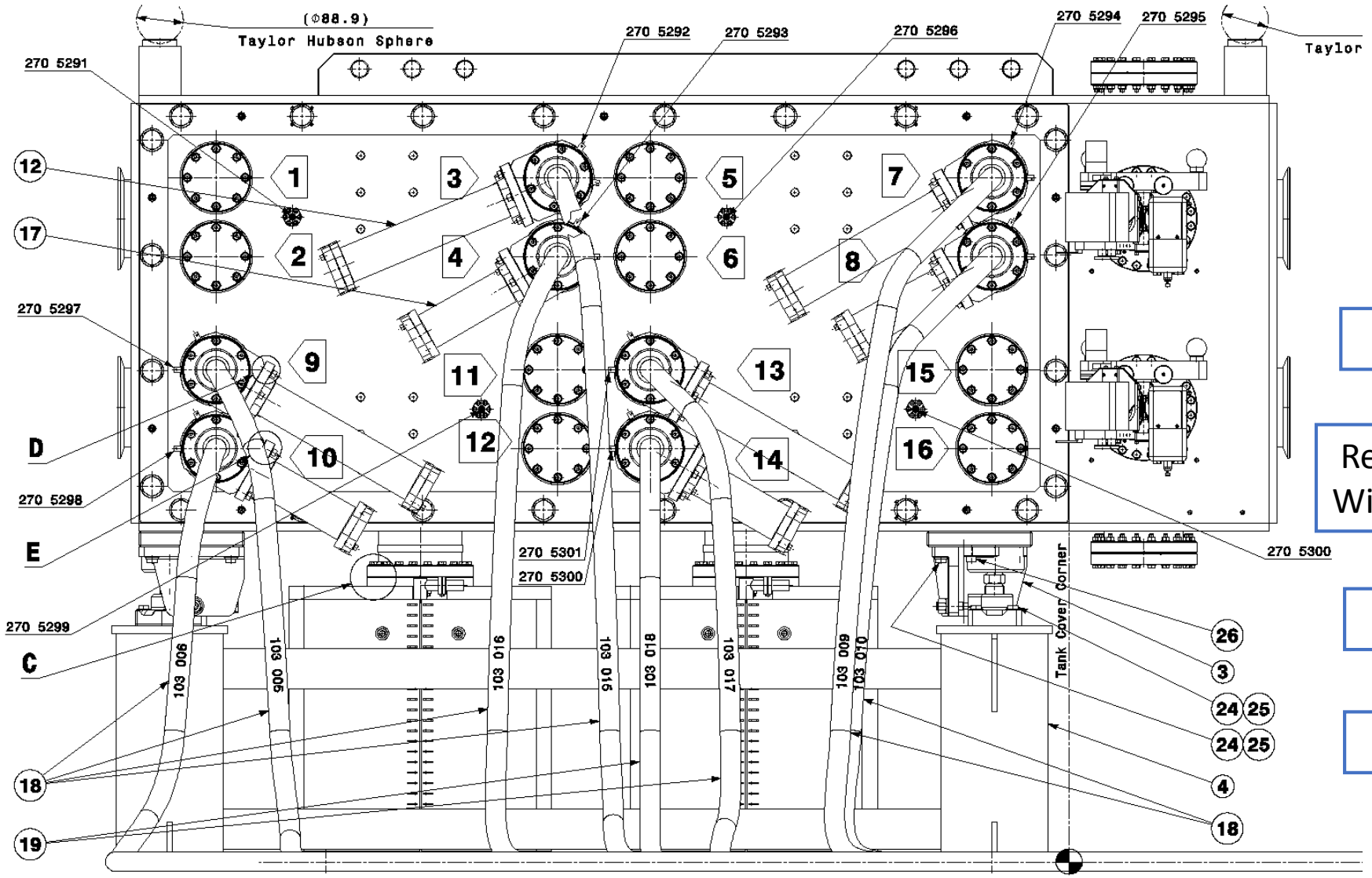
From Nicolas Thaus, Leaks on the flanges:

- 2 : 2×10^{-8} mbar.l/s
- 3 : 7×10^{-10} mbar.l/s
- 5 : 4×10^{-8} mbar.l/s
- 8 : 6×10^{-10} mbar.l/s
- 11: 5×10^{-9} mbar.l/s
- 12: 2×10^{-9} mbar.l/s

Open Questions:

- Leaks due to tank, cover, seal, or combination?
- What is the best method of seal preparation?, remove oxide or just clean
- Is ~220mm bolt spacing to large (~80mm theory)
- ..

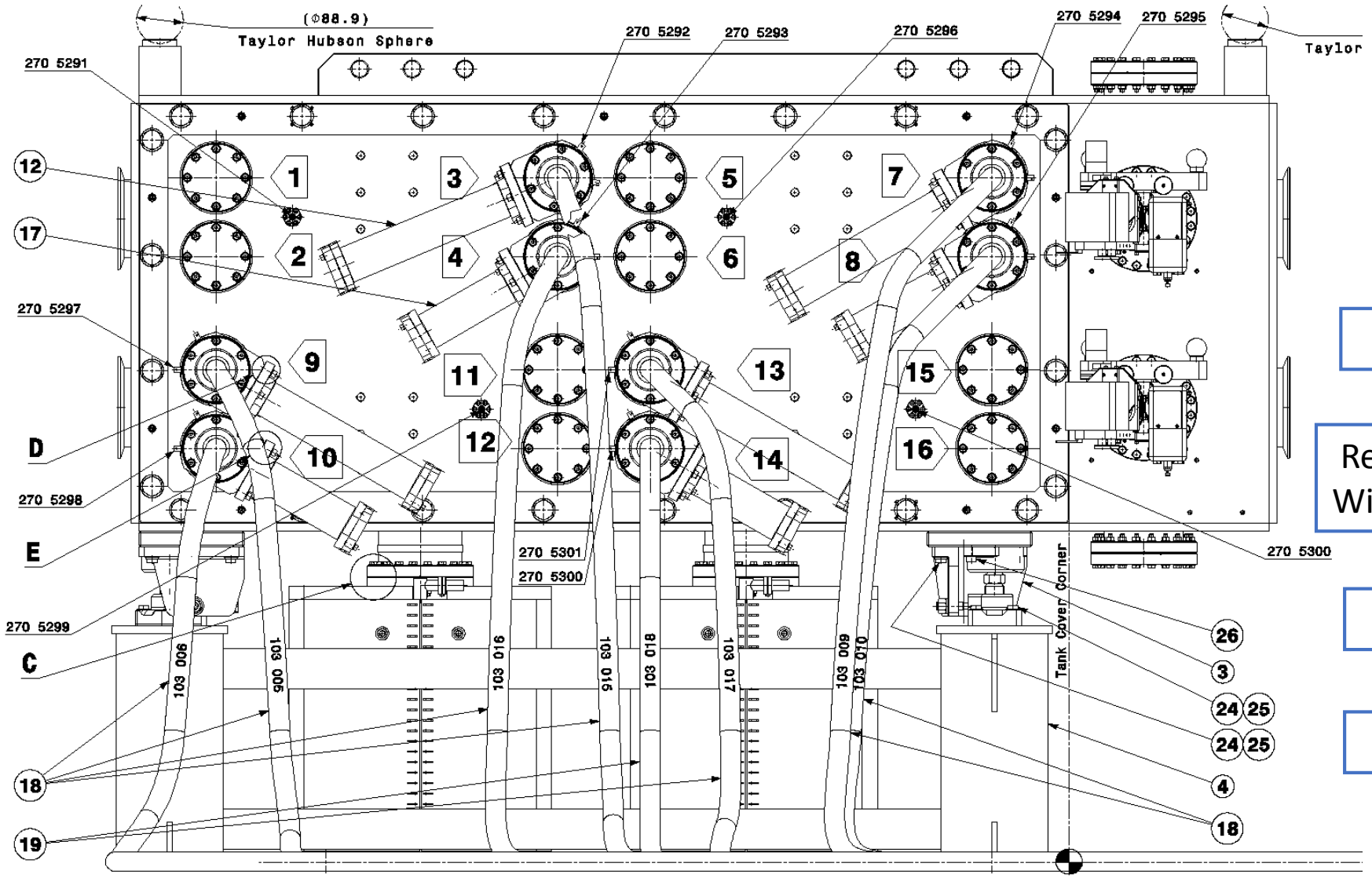
Plan of action 11/01/2019



- Dismantle
  - Metrology ? (OK MME)
  - Add 4 lifting holes cover? (OK MME)
  - Add addition cover holes ? (4wks MME)
- Clean
- Re-Assemble With magnets
- Vacuum
  - New Ø100 seals ?,
  - 1st test with rubber seal ?,
  - New MME door seal (4 wks) ?,
  - How to prepare the seal?,
  - Close leaks with varnish?,
  - …….?
- Test

Plan of action

- Inspection showed machining marks
- Fixation of magnets tested on the doors
- Circular seals have been re-polished



Dismantle & Inspection

Metrology (19/01)

Add 4 lifting holes cover? (OK MME)

Add addition cover holes ? (4wks MME)

Re-polish seal surfaces

Clean

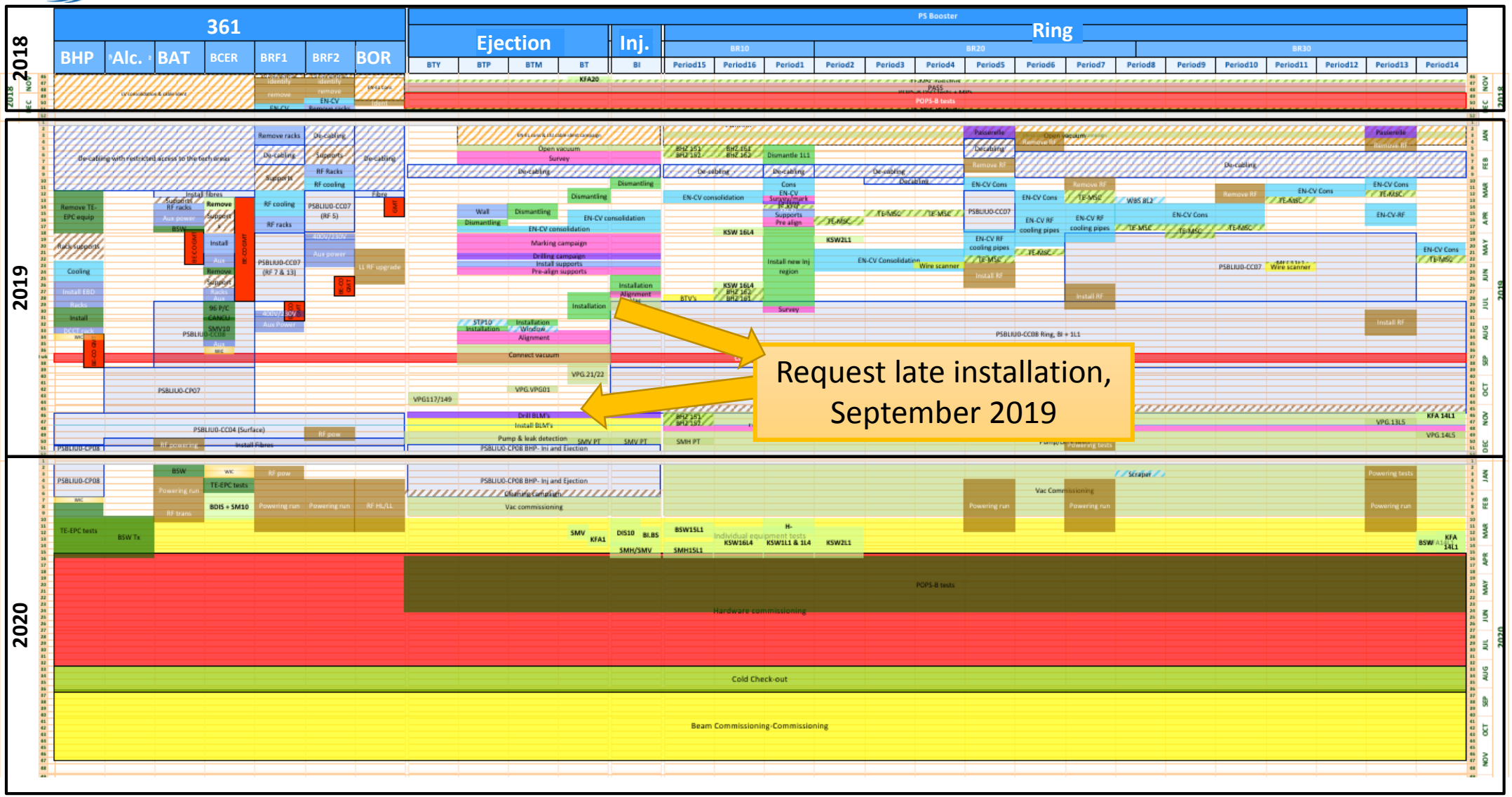
Re-Assemble With magnets

Vacuum

Test

- New Ø100 seals, Should arrive in week 10
- 1st test with rubber seal ?,
- New MME door seal (4 wks) ?,
- How to prepare the seal?,
- Close leaks with varnish?,

PSB Linear Schedule *Baseline* https://edms.cern.ch/document/1810496/2.0



POPS-B Tests

Dismantling & Reinstallation Phase

Commissioning Phase

Spare slides

KFA45 seal from MME