



ESS spoke CM04/CM02 (2nd run)
weekly meeting
20210304
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- CM04 dismounting
- CM02 installation
- CM04 report
- Series CM statistic
- Test plan



CM04 dismounting



- Dismount with valve-box, waveguide ✓
- Move out of the bunker ✓
- Fill the insulation vacuum with dry nitrogen ✓
- Dismount the doorknob
- Electric continuity check
- Mount shock sensors
- Packing

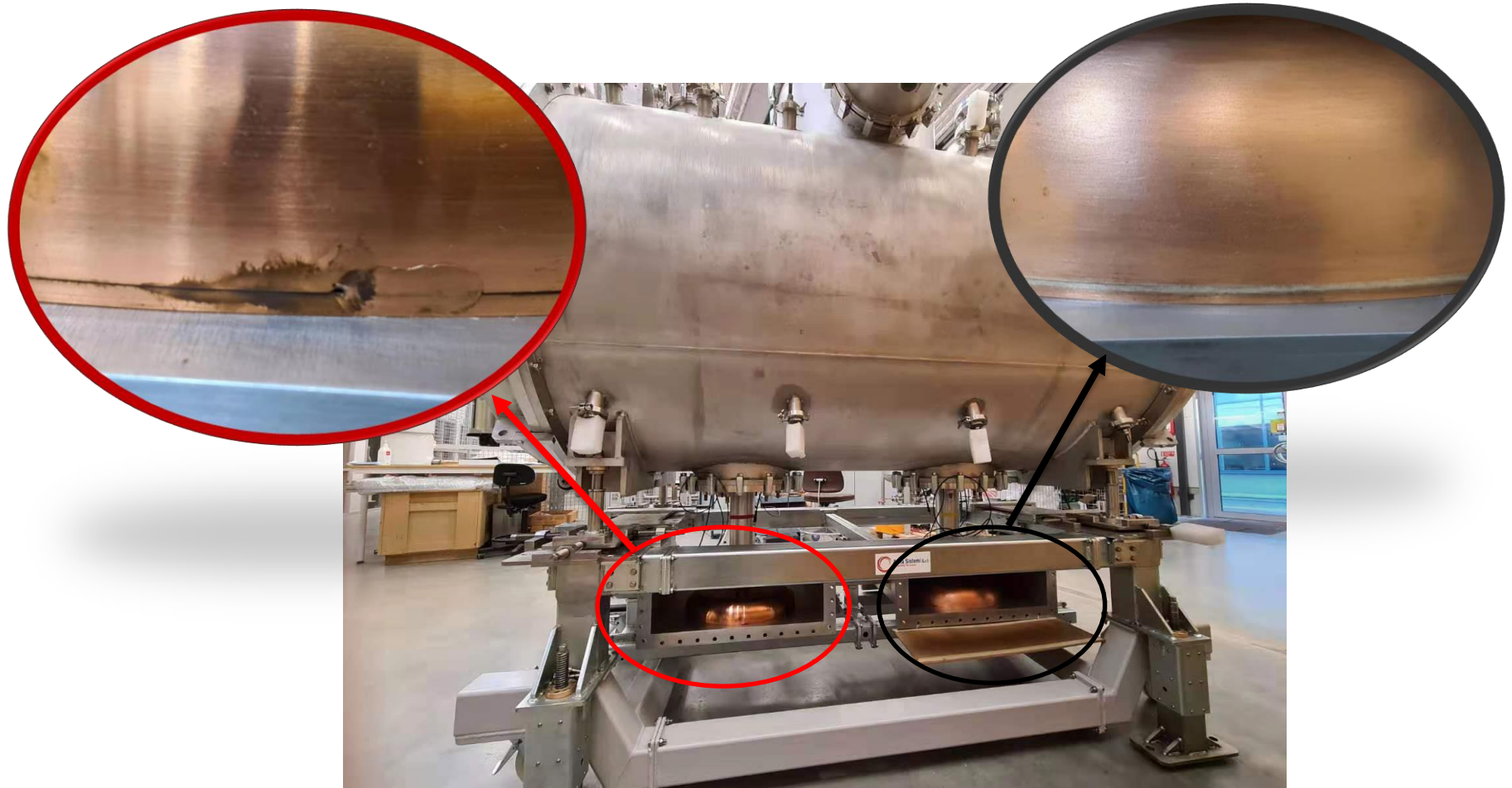




Hardware:

- Doorknob ✓
- Sensors and gauges: arc detector, electron pickup ✓
- Waveguide bellows mounting
- Safety valve mounting
- Pressure gauge mounting
- Turbo-pump mounting for insulation vacuum
- Cryogenic jumper
- View ports for alignment
- CM alignment checking with insulation vacuum
- Beam vacuum pumping cart connection
- FPC water cooling pipe connection
- Cabling: arc, e-pickup, lemo connector...
- Close bunker

- Installed with the new set of doorknob (doorknob pair 2)
- Electrical discontinuity are for one of the doorknob (CAV_IN)
- Any polish or cleaning is needed?



Comparison with old doorknob



- CM02 with doorknob pair 1
- Doorknob at CAV_IN side is less shiny and we encounter lots of arcing at the air side during high power



CM02 installation

- One of the doorknob (pair 2) has only one arc detector viewpoint at the air side (CAV_OUT)
- Currently covered by aluminum tape





Gate valve status



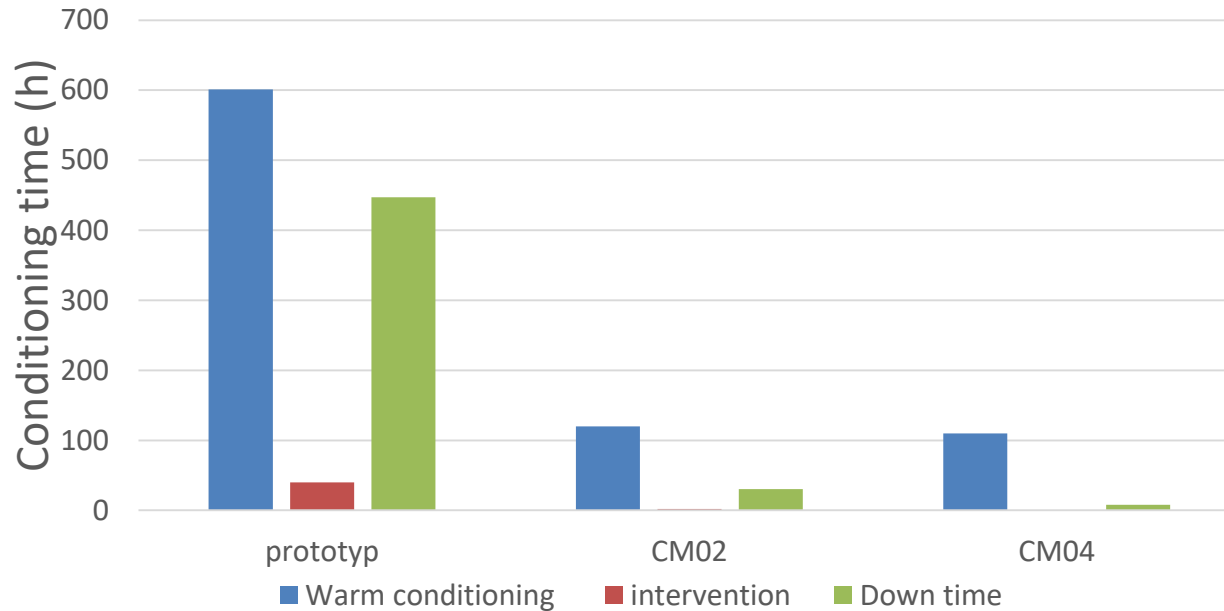
- Gate-valve at the CAV_IN side, does it mean open?



Plan for CM02 conditionig

FPC warm conditioning

- Around 4 days for FPC warm conditioning
- Will keep the same setting: one pumping cart + simultaneously conditioning





Test item	time	comment
CM04 Warm up (RGA connect) CM02 arrival	15 th -21 th Feb.	
CM04 Leak test /alignment at warm CM02 unpack, incoming test	22 th Feb.	
CM04 Disconnect, packing	23 th -26 th Feb.	
CM02 installation CM04 Disconnect, packing, shipment	1 st - 12 th Mar.	
CM02 FPC warm conditioning	15 th -17 th Mar.	CM02
CM alignment measurement	18 th Mar.	CM02
CM cooldown to 4 K	19 th Mar.	CM02
CM cooldown to 2 K	22 th Mar.	CM02
FPC cold conditioning	23 rd Mar.	Simultaneously
CTS test	24 th -25 th Mar.	CTS measurement
Cavity conditioning (on resonance) Heat load/Q measurement	29 th -31 st Mar.	Open loop
Warm up	1 st -4 th Apr.	
alignment at warm	5 th Apr.	
Disconnect, packing, shipment	6 th -14 th Apr.	