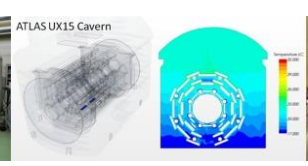


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Transfer lines status

10/11/2016



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Status

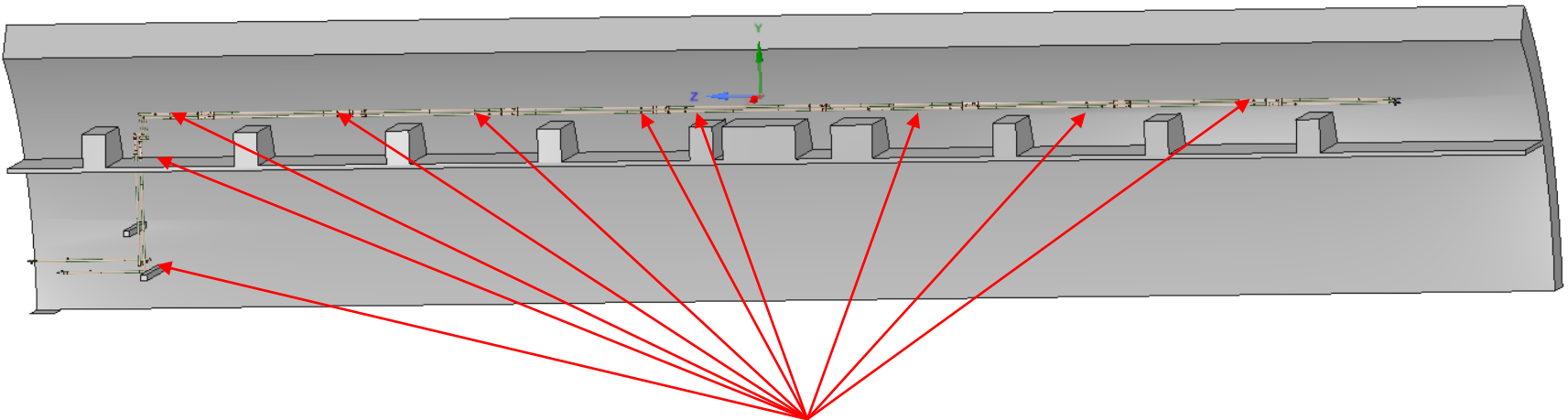
3D model: Done in accordance with LHCb model

Design report: Done, some minor modifications requested

2D drawings: normally today

Material ordering: this week

Support design: normally today



Vacuum ports

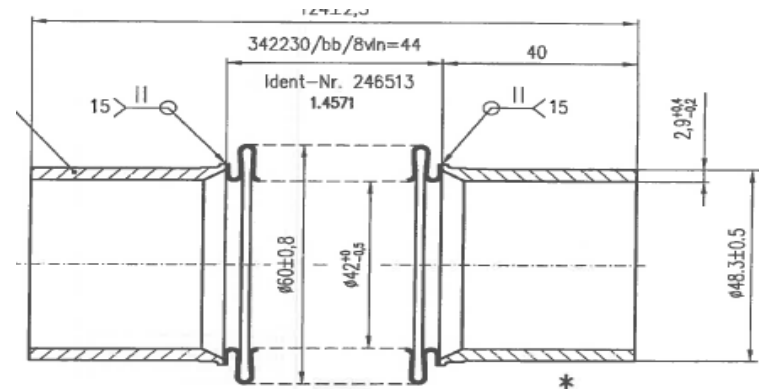


Thermal & mechanical study

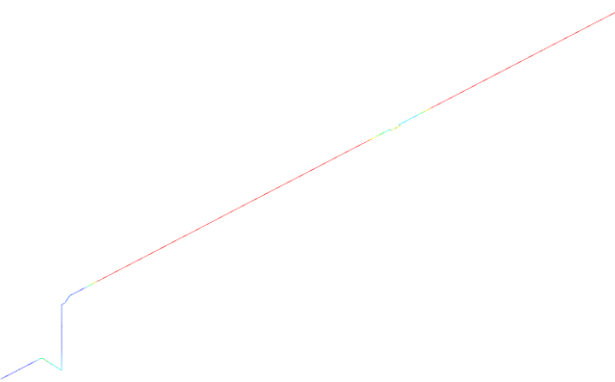
Tab. 3.1 Results of calculation

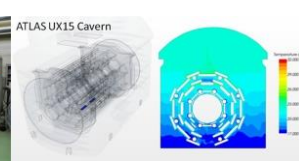
No	Parameter	Line DN20
1	DN [mm]	26,67
2	Pressure [barg]	130
3	Temperature [K]	228
4	Max. sustained stress σ_1 [MPa]	40,33
5	Max. secondary stress σ_3 [MPa]	205,7
6	Max. total stress σ_4 [MPa]	244,9
7	Allowable stress [MPa]	143,3+210,5
8	REQUIREMENT FULLFILED	NO*

- Conclusion:
 - Due to the extreme conditions (-45°C & 130 bar) some bellow are mandatory



Bellow example

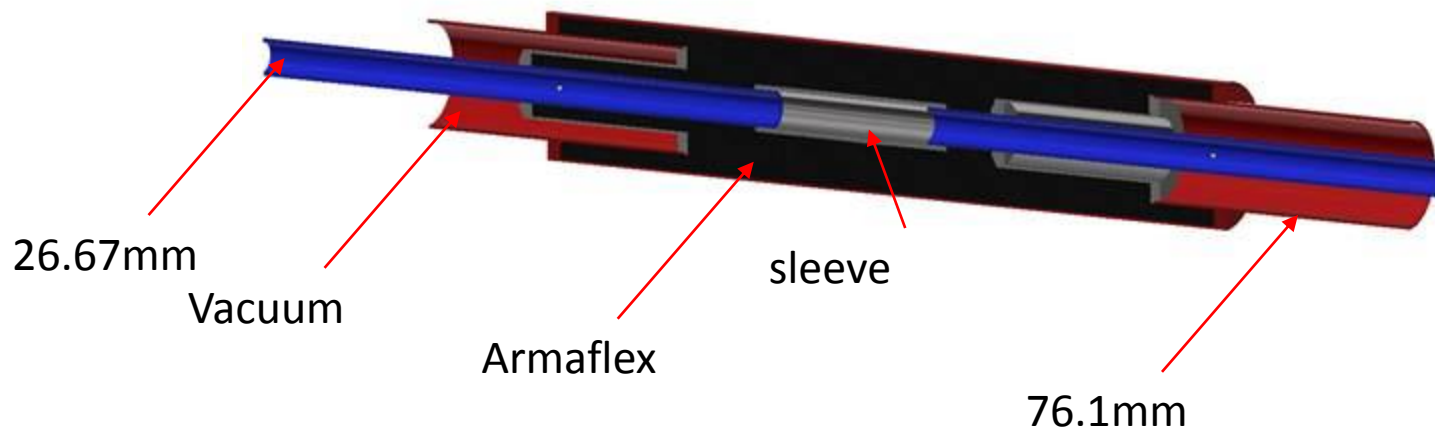
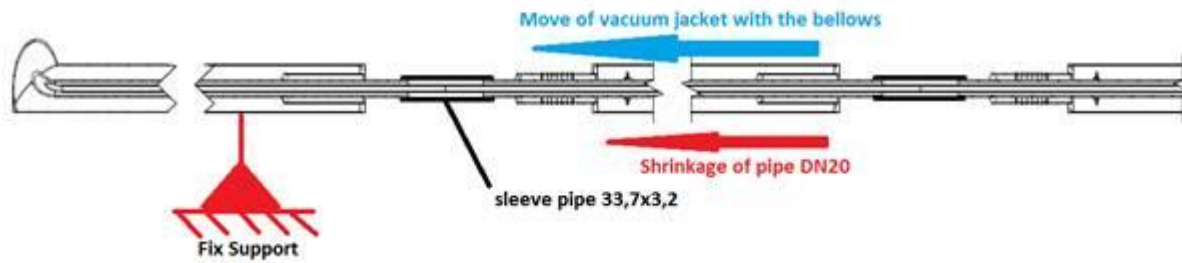




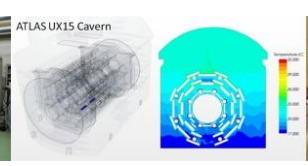
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Interconnection



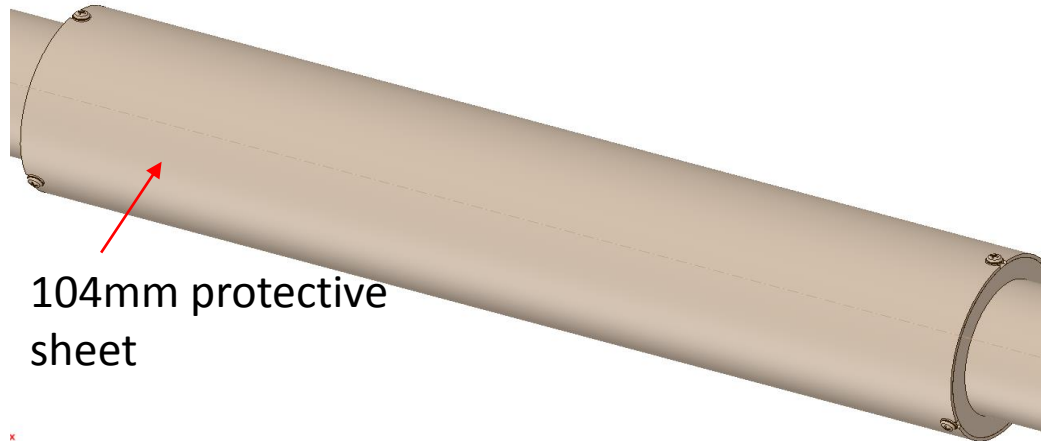
O.Crespo-Lopez



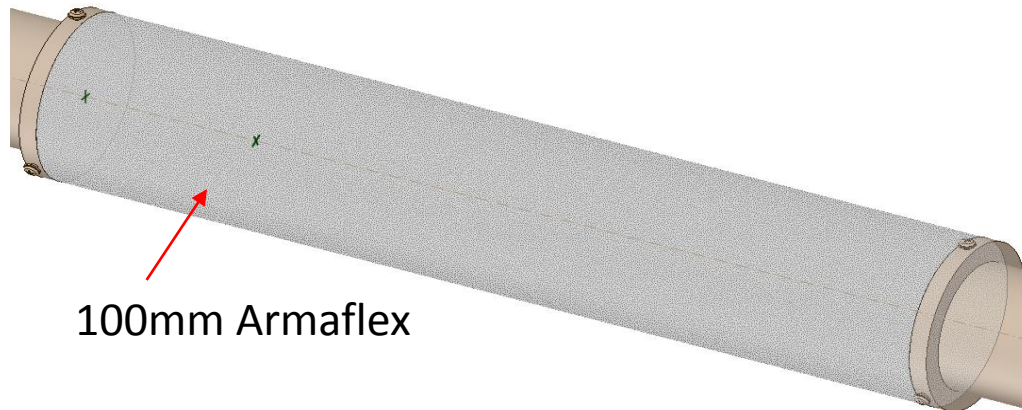
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Interconnection



104mm protective sheet



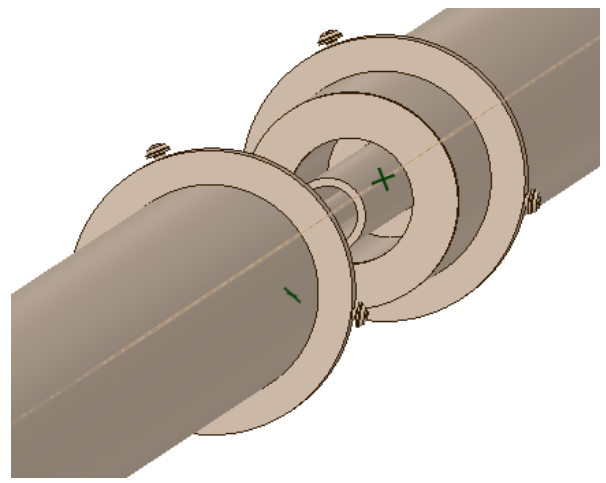
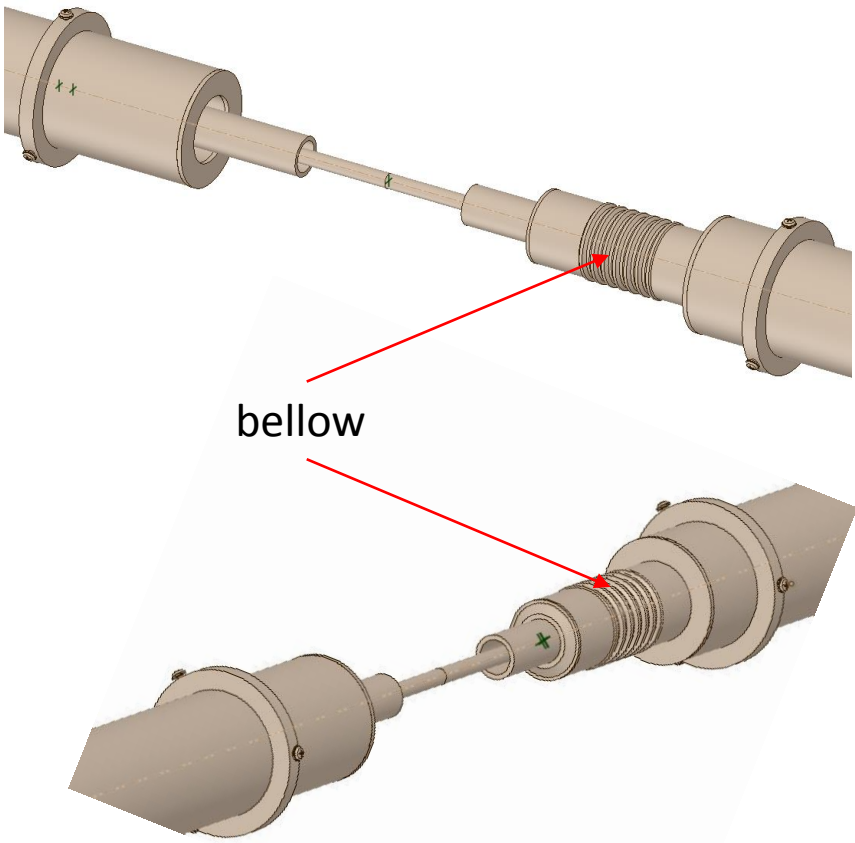
100mm Armaflex

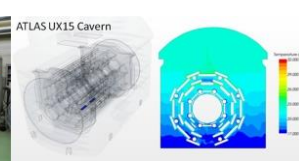


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Interconnection

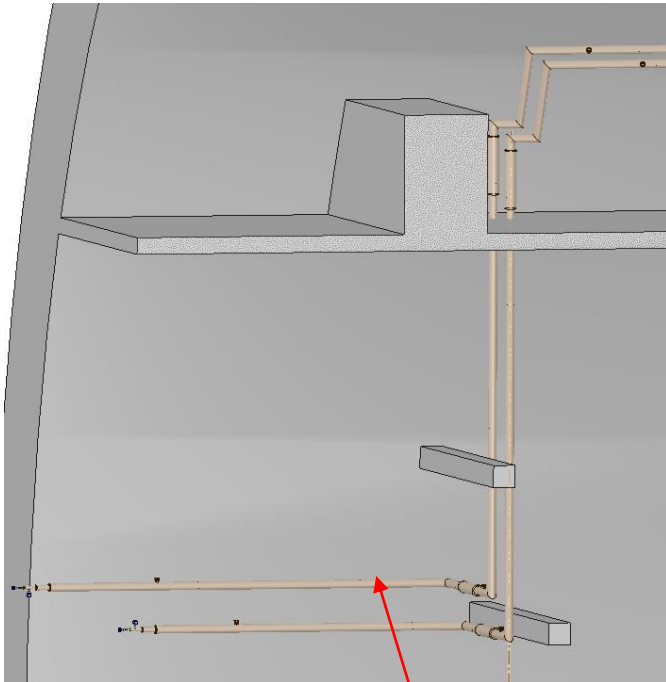




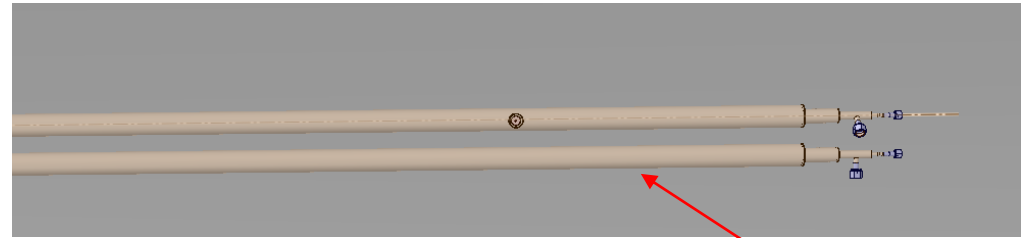
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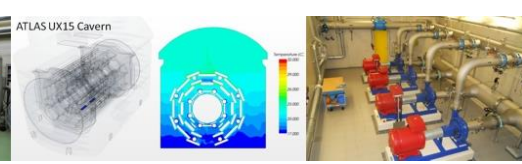
End points



Cavern



Alcove



Next steps

1. Get final documentation (EN-CV)
 1. Support proposal
 2. Final bellow design
 3. Information about the 10mm supporting
2. Ordering and installation of the support (LHCb)
3. Check of the 1st weld samples (EN-CV)
4. construction schedule (EN-CV)
 1. On-site visit???
5. Installation schedule (EN-CV)
 1. PDP or PPSPS + VIC
 2. Training organization
 1. Weld test
 2. Biocell training
 3. SIR training
 3. Tests



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Conclusion

- We are late but the company seems re-active and professional
- Do we organize a factory visit during the construction?
- We need to think about the final test!!