

Cryogenics – Alignment Cryoline-Users

Basic considerations and proposal

- What was foreseen for LHC_QRL interfaces:
 - Tolerance X-Y (horizontal): +/- 25mm
 - Tolerance Z (vertical): +/- 50mm
- This is to be considered for the vacuum jacket plane (circle) at the junction interface of the jumpers towards the magnets
- These are Maxi values, including tolerance for position, installation and operation
- My interpretation:
 - These capacities are meant to be for possible slow movements outside of operating conditions
 - Tracking of the history for each jumper probably exists (which form?)
 - An remote alignment system could be applied only for small displacement (mm), and automation is best for controls/electrical systems, I doubt it could be adapted for moving tons at few Hz
- Proposal for Hi-Lumi:
 - Once needs will be defined, we will study what has to be done
(Present QRL from Q7 to return modules will be replaced by new QXL)