

Production and quality control for the CMS iRPC

Friday, 19 July 2024 20:40 (20 minutes)

During the upcoming High Luminosity phase of the Large Hadron Collider (HL-LHC), the integrated luminosity of the accelerator will increase to 3000 fb⁻¹. The expected experimental conditions in that period, in terms of background rates, event pileup and the probable aging of the current detectors, present a challenge for all existing experiments at the LHC, including the Compact Muon Solenoid (CMS) experiment. To ensure the high performance of the CMS muon system, several upgrades are currently being implemented. In the case of the Resistive Plate Chamber (RPC) system, an improved version of the already existing RPCs (iRPC), will be installed in the forward region on the 3rd and 4th endcap disks of CMS, to extend the RPC coverage in the high pseudorapidity region up to 2.4. The iRPCs have entered a mature stage of the production stream at CERN and Ghent. In this poster, the production facilities and the selection procedures of the certified RPC gaps and chambers are presented.

Alternate track

I read the instructions above

Yes

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Session Classification: Poster Session 2

Track Classification: 12. Operation, Performance and Upgrade (incl. HL-LHC) of Present Detectors