



HL-LHC Engineering Change Request #2159673

**REDUCTION OF Q1 BEAM SCREEN COOLING TUBE
DIAMETER FROM Ø16 MM TO Ø10 MM**

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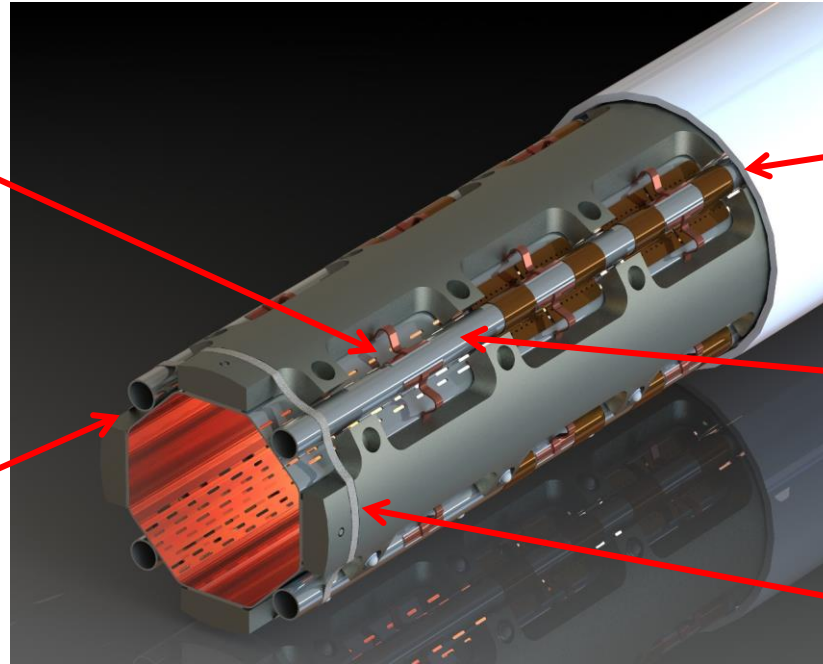


TCC #77, 06 - 06 - 2019

Reasons for proposed change



Suppression of specific Q1-type interface plate for thermal links



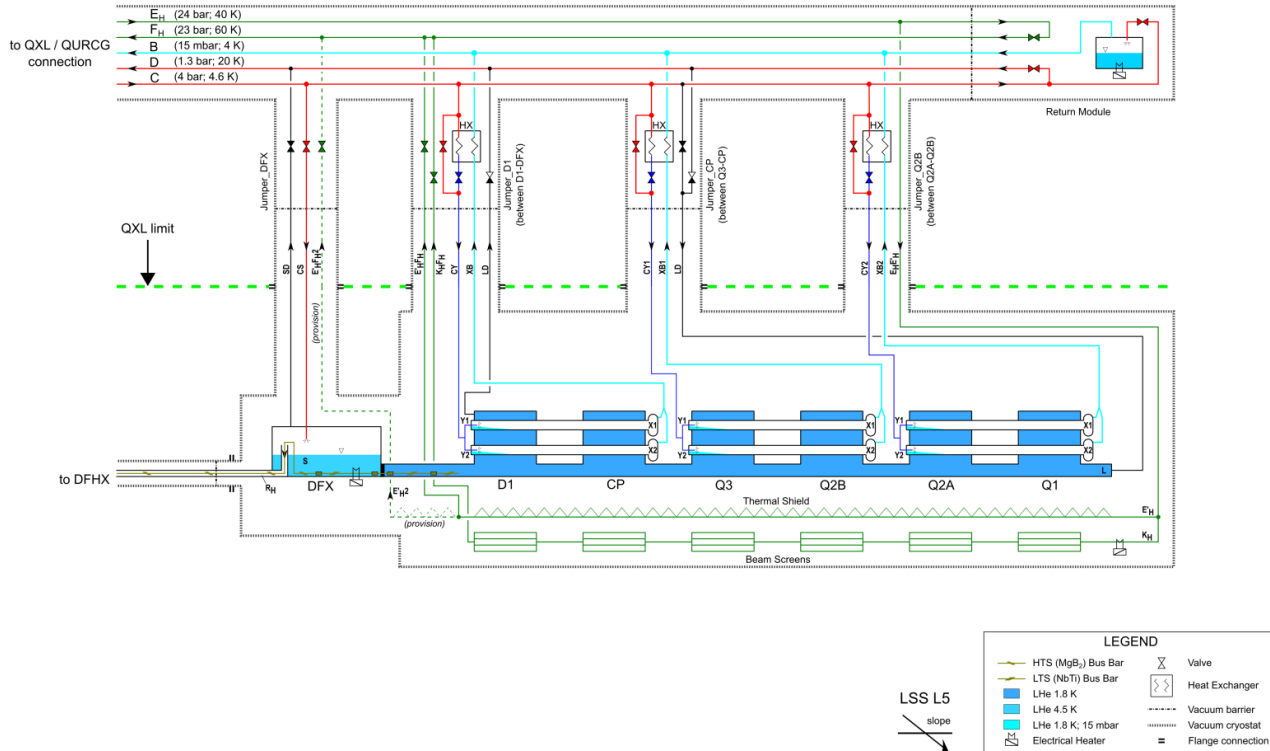
Suppression of specific Q1-type pumping slot shield

Reduced cooling tube rigidity simplifies tooling for cooling tube welding.

Design of elastic support ring to be modified (cost neutral)

Suppression of dedicated 16 mm bending tooling and less space issues due to smaller bending radii.

Cryogenic layout – IT5L



PFD HL-LHC IT L5_v.1.3 - 27 Aug 2018 - EDMS # 1963716 - M.Sisti