

Installation of CMS Barrel Muon Chambers. Sectors as seen from inside. Sectors 4 and 10 have the chambers subdivided in two, as shown here in red, only at station MB4. The difference between R (or A; right) and L (or B; left) types is the location of gas, coolant, HV and LV external connection; the bodies are identical. The staggering between the SuperLayers is, however, different between the Zp and Zm types for MB1, MB2 and MB3 chambers (have to extract the chambers in opposite directions in Z+ and Z- wheels, but the wheels have all the same orientation and are made left-right asymmetric to ensure an hermetic coverage in azimuth). For MB4 chambers the distinction of chambers types is related to the hemisphere (wrt a vertical line) and is indicated by d (destra=right) and s (sinistra=left). The cable and piping trays along the periphery of the wheel are close to the face with the main connections; on the central wheel the Barrel Muon gas and cooling piping is on the Zm side. The "bottom" side of a chamber has one, the "top" side has two SuperLayers (SL) attached to the honeycomb structure (not applicable to MB4 chambers, which have only two SLs).