



μ – Rwell Endcaps detectors for the EPIC tracking at EIC February 1st 2024

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ENDCAPS



Component	Sub-Component	WBS	Length (cm)	Inner Radius (cm)	Outer Radius (cm)	Offset from Center (cm)	Physical Start (cm)	Physical End (cm)	Volume (m ³)	Weight (kg)	Technology	Notes
HD MPGD 2			2.5	7.014	50	161	161	163.5	0.02	3.85414078		Weight: based on parametric estimate from SBS Gem Offset: measured from face nearest to interaction point
HD MPGD 1			2.5	7.014	50	148	148	150.5	0.02	3.85414078		Weight: based on parametric estimate from SBS Gem Offset: measured from face nearest to interaction point
LD MPGD 1			2.5	4.635	50	-110	-112.5	-110	0.02	3.89772228		Weight: based on parametric estimate from SBS Gem Offset: measured from face nearest to interaction point
LD MPGD 2			2.5	4.635	50	-120	-122.5	-120	0.02	3.89772228		Weight: based on parametric estimate from SBS Gem Offset: measured from face nearest to interaction point

- 1. The envelope defined in the geometry database does not refer to the expected active area of the endcaps but the total available space, including signal connectors, gas frame, gas inlet \$ outlet, HV.
- 2. The expected active area radius is 45-46 cm, with an outer service region of 4-5 cm thickness.
- 3. The electronics front end boards (FEB) may be mounted at 90 degrees, parallel to the beam pipe, sticking out of the 2.5 cm thick envelope.
- 4. The integration team (Andy Jung) has informed us that they will provide 3 mounting points on rail to support each semi-circle.
- 5. The integration team (Andy Jung) has confirmed that they expect that all the disks (Silicon trackers and MPDG) should be mounted in two semi-circles.

