

PAR MAGNETS DESCRIPTION

The PAR consists of four quadrants. They are numbered as quadrant Q1, Q2, Q3 and Q4. The injected beam from the LINAC enters the PAR Septum magnet which kicks the beam into the PAR. The electron beam is steered around the PAR by eight dipole magnets. Each dipole bends the beam by 45 degrees. Each dipole has back leg winds so minor adjustments can be made to the magnetic field. The electron beam is accumulated in the PAR and compressed into smaller bunch lengths. After various combinations of bending magnets, quadrupole magnets, corrector magnets and sextupole magnets the beam is extracted through the PAR Septum magnet. The Septum magnet kicks the beam into the Booster injection beam line. When the electron beam leaves the PAR the energy is anywhere between 325 to 450 MeV, at a current of 10 to 50mA.