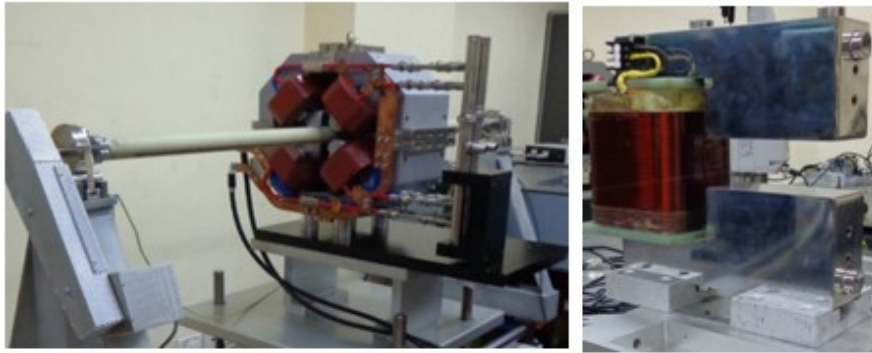


Electromagnetic quadrupoles and dipole correctors under IIFC

Electromagnetic quadrupoles under IIFC



Electromagnetic quadrupoles for MEBT line and quadrupoles and dipole correctors for LBHB 650 MHz section of PIP-II at Fermilab has been designed, developed, characterised and shipped to Fermilab. Quadrupoles are used to provide transverse focusing to the beam. Dipole Correctors are used to provide optical correction and steering to the beam.

Detailed Report:

Different types of quadrupoles have been designed and developed for different sections of the beam line depending on the energy of the beam (up to 800 MeV). Integral magnetic field gradient for quadrupoles are 1.5 T and 3 T with uniformity in a GFR of 26 mm diameter better than 0.1 %. Integral magnetic field for dipole corrector is 10 mT.m with uniformity better than 1 % in a GFR of 26 mm diameter.