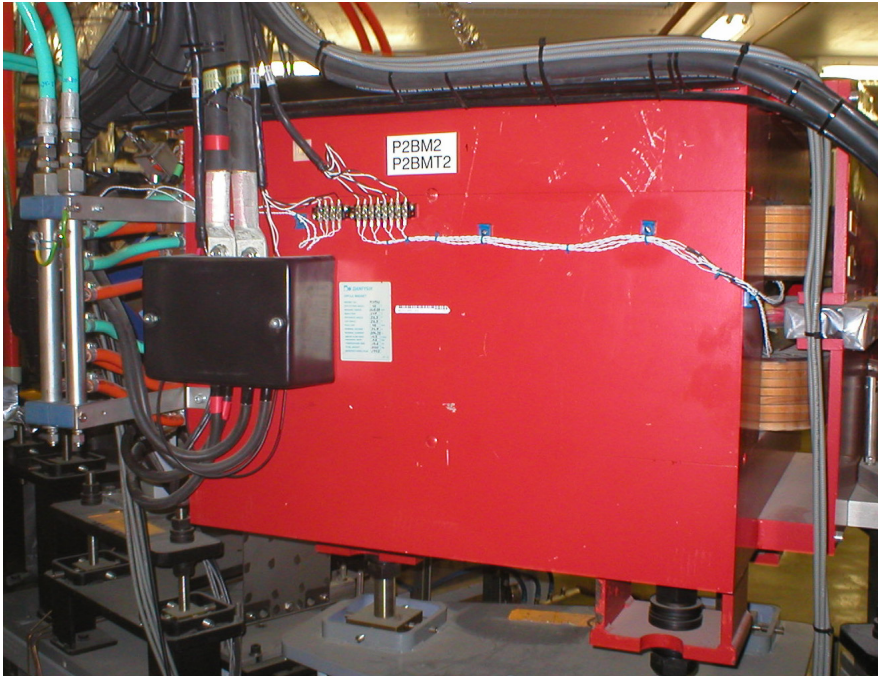


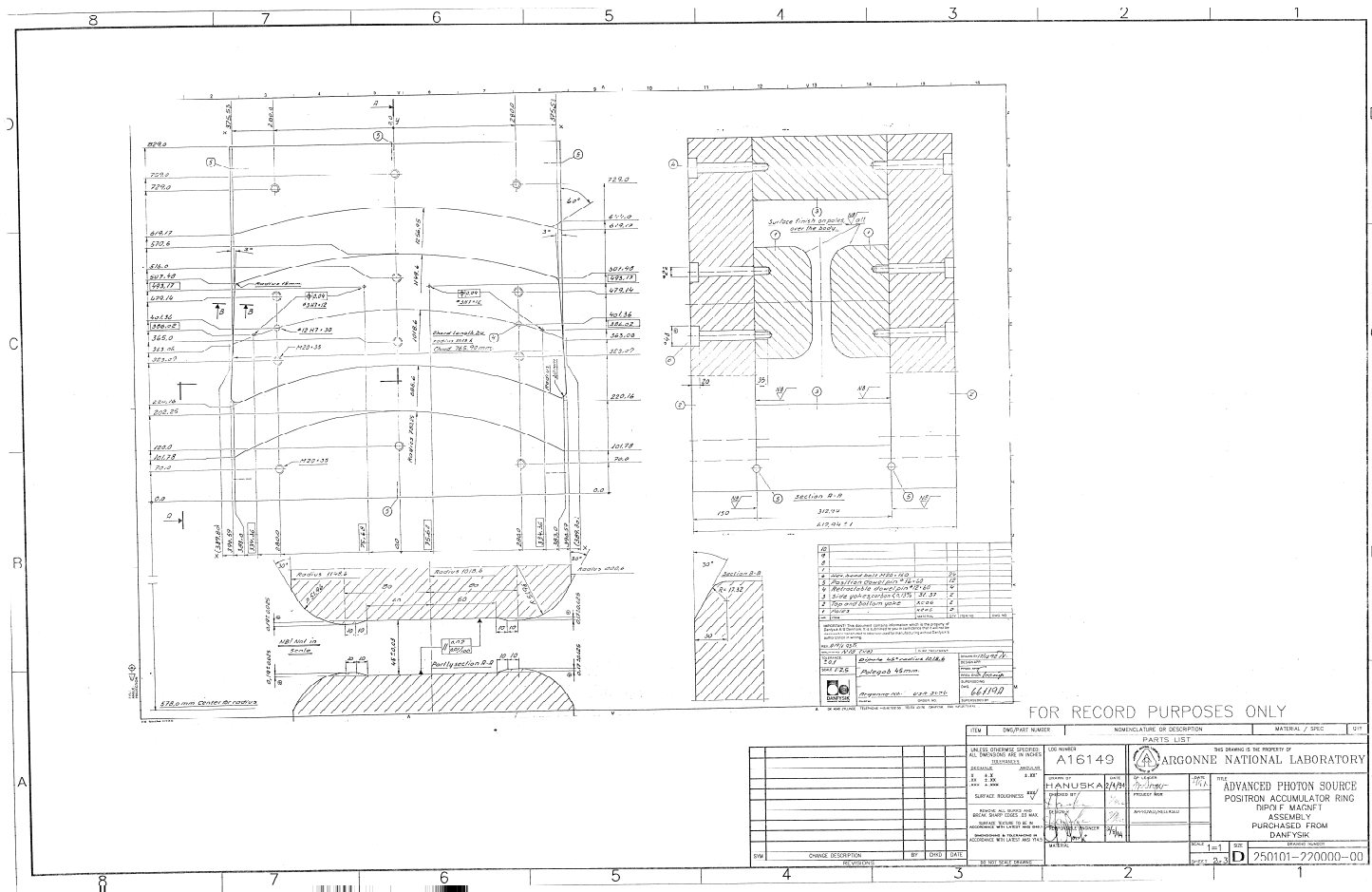
PAR DIPOLE MAGNET

Dwg. No. 250101-220000



The dipoles steer the electrons around the PAR. There are 8 of these dipole magnets in the PAR. The length of the dipole is .8 m. The field strength is 1.472 T. Each dipole magnet also contains trim coils to make small magnetic corrections. The identification numbers are as follows: P1BM1, P1BMT1, P1BM2, P1BMT2, P2BM1, P2BMT1, P2BM2, P2BMT2, P3BM1, P3BMT1, P3BM2, P3BMT2, P4BM1, P4BMT1, P4BM2, and P4BMT2.

PAR DIPOLE MAGNET CORE

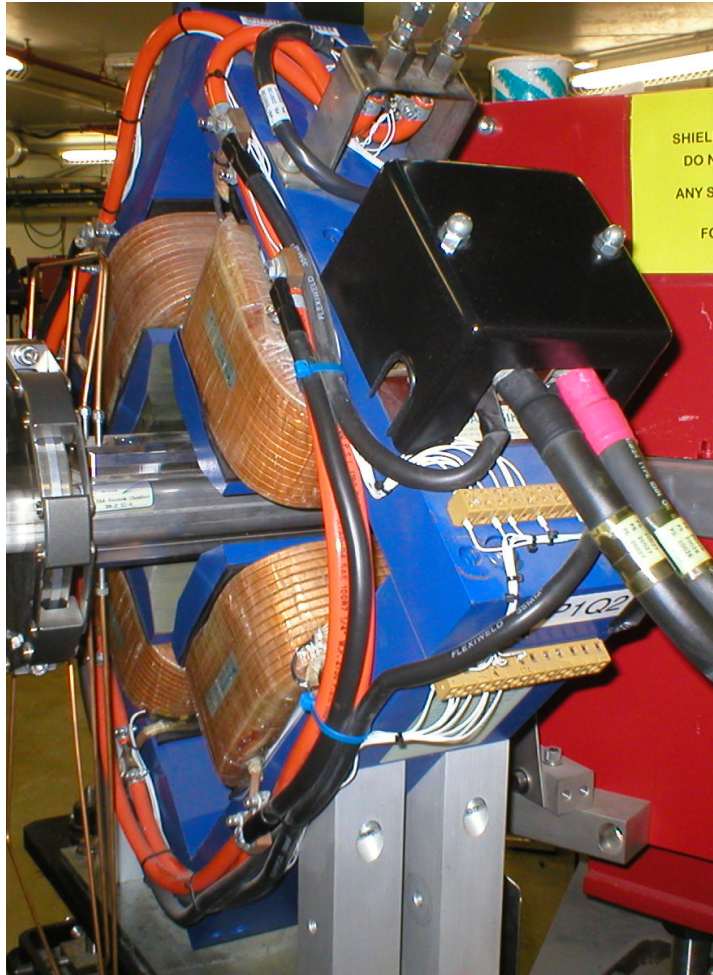


James Humbert
5/5/2005

MECHANICAL ENGINEERING GROUP
ACCELERATOR SYSTEMS DIVISION



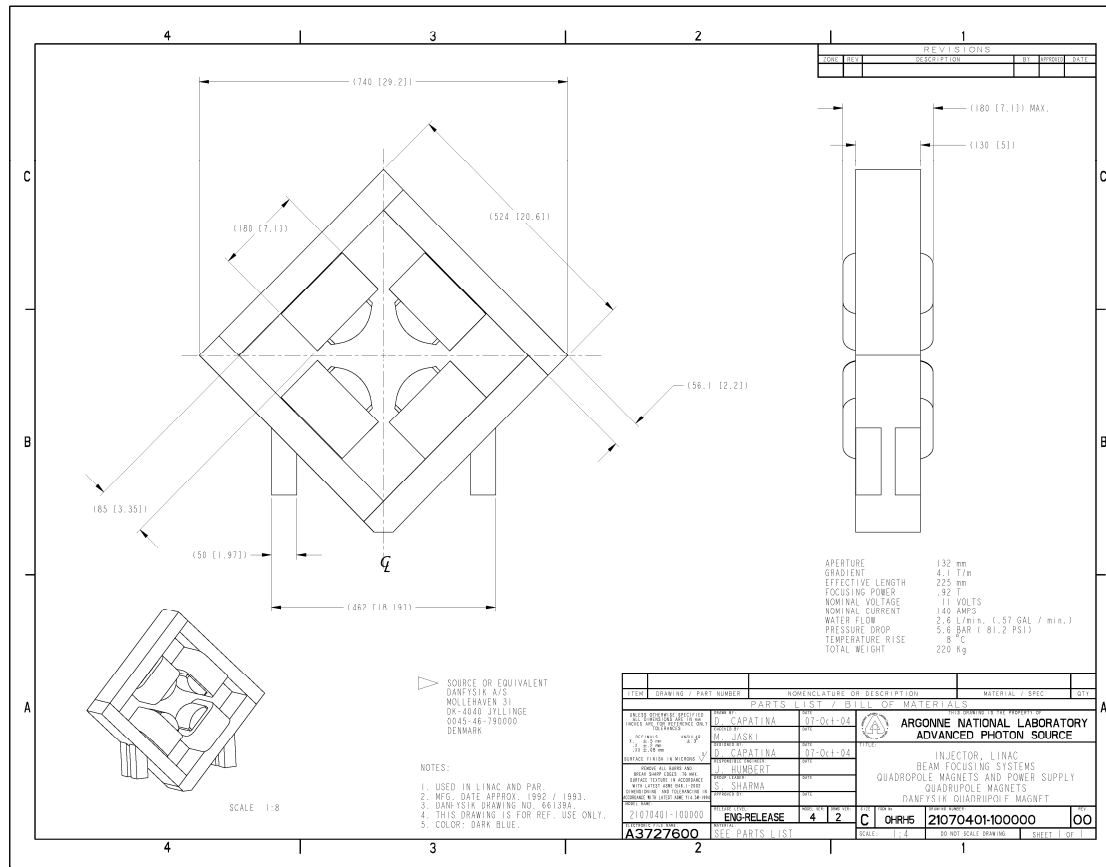
PAR QUADRUPOLE MAGNET



Dwg. No. 21070401-100000

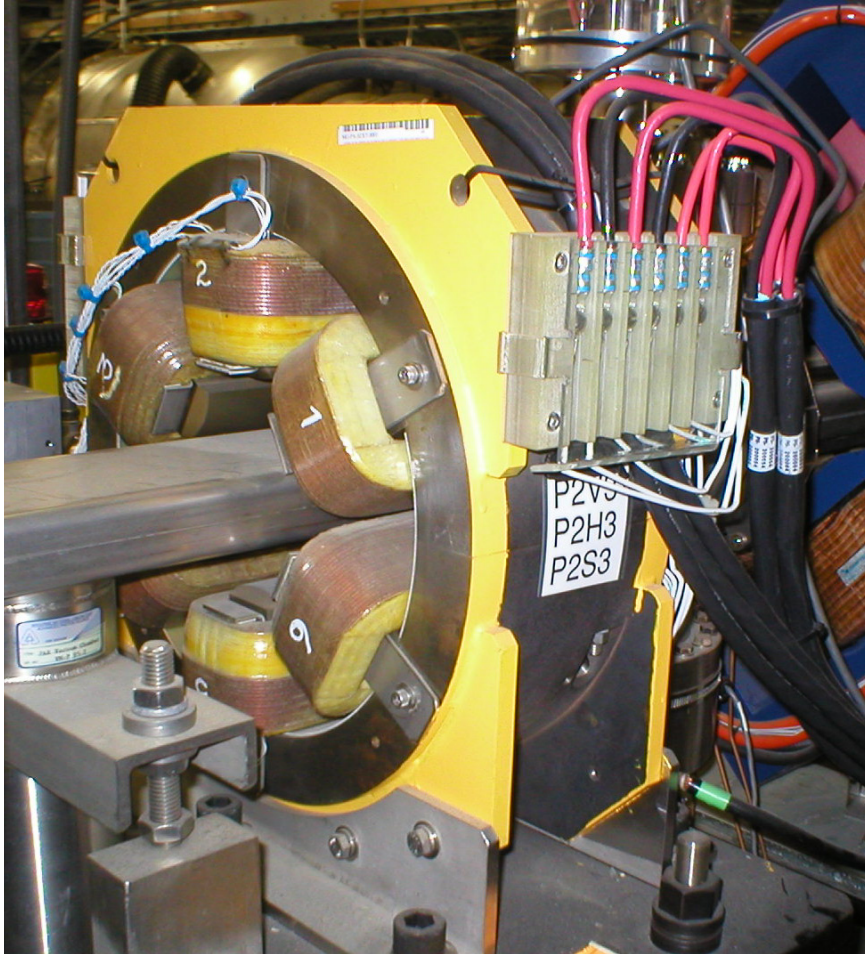
This magnet is used to focus and defocus the electron beam in the PAR. There are 16 magnets of this type used, however there is 1 magnet of this size in the LINAC. The effective magnetic length is 225 mm. The identification numbers are as follows: P1Q1, P1Q2, P1Q3, P1Q4 P2Q1, P2Q2, P2Q3, P2Q4, P3Q1, P3Q2, P3Q3, P3Q4, P4Q1, P4Q2, P4Q3, and P4Q4.

PAR QUADRUPOLE MAGNET



PAR SEXTUPOLE / CORRECTOR MAGNET

Dwg. No. 250103-00003



This sextupole has two magnets built into one magnet. The sextupole corrects for the nonlinearity field errors of the quadrupole and dipole magnets in the PAR. The other magnet is a horizontal and vertical correction magnet. This magnet makes very small corrections horizontally and vertically of the electron beam. There are 10 magnets of this type in the PAR. The identification numbers are as follows: P1S1, P1H1, P1V1, P1S2, P1H2, P1V2, P1S3, P1H3, P1V3, P2S1, P2H1, P2V1, P2S2, P2H2, P2V2, P2S3, P2H3, P2V3, P3S1, P3H1, P3V1, P3S2, P3H2, P3V2, P4S1, P4H1, P4V1, P4S2, P4H2, and P4V2.

