Acrylic Test Phantom for Measuring PDD and Beam Profiles

An acrylic test phantom designed to be used for routine measurements for high energy photon and electron beams has been designed by PTW Freiburg. This phantom allows for central axis percent depth dose measurements as well as off axis profile measurements.

The phantom block contains two rotating cylinders that allow a radiation detector to be positioned along the central axis at any depth from 10mm to 122mm. In addition, off-axis measurements can be made at a depth of 100mm at a distance of $\pm$ 45mm from the central axis. The phantom is remotely controlled by means of two stepping motors and powered by a control unit. Interface software has been developed by PTW that supports the beam scans to be displayed and numerically analyzed.

This work was partially supported by PTW New York and PTW Freiburg.