

To monitor the calibration and flatness of our accelerator beams, we use a device (called the MATRIX DOSEMETER) specially made for this purpose as previously described¹. Each accelerator has its own matrix unit, which is used to set the calibration in cGy/MU and tune all beams for flatness via a dynamic flatness mode. Once all 49 chambers are calibrated, our experience of 20 years with these devices show that the calibration factors never change, i.e. the matrix and calibration factor easily outlast the lifetime of its accelerator. This experience extends over 178 matrix-years and 21 accelerators. The matrix is water free, can rotate with the machine, can monitor short MU segments, locates firmly in a jig attached to the machine and can be used by any of the groups who QA the machine. A matrix viewer program automatically sends the calibration and flatness record of each machine to the computer of the QA Physicist responsible for that machine.

1. "A flatness and calibration monitor for accelerator photon and electron beams"

E. Martell, D. Galbraith, P. Munro, J A. Rawlinson, W.B. Taylor

International Journal. Radiation Oncology. Biology. Physics **Vol. 12**, pp 271-275