

# Panther DAO Solid-Compensator IMRT

## IMRT without MLC



*“Compared with the MLC-IMRT technique, the compensator-IMRT technique can deliver equal and comparable or higher patient treatment throughput. Additional benefits of using compensators as IMRT hardware can include faster IMRT quality assurance, easier dosimetry data management, less accelerator wear and tear, and less accelerator vault radiation-shielding requirement.”*

**A report by Sha Chang, Associate Professor and Chief of Physics & Computing, Department of Radiation Oncology, University of North Carolina Medical School, “Compensator-intensity-modulated Radiotherapy - A traditional tool for modern application.”**

### **Treat your patients using IMRT without the expense of an MLC**

Panther Solid-Compensator IMRT utilizes precision-machined blocks for beam shaping, effectively eliminating the need for a MLC. Solid-Compensator IMRT gives you and your patient’s superior end result using the most advanced technology.

### **Savings of hundreds of thousands of dollars**

Because an MLC attachment for a linear accelerator is very costly, many clinics have delayed the implementation of IMRT. The significant investment in additional equipment necessary to deliver IMRT plans has also prevented many clinics from being able to offer this treatment technique.

Prowess recognizes the need for a less expensive way of delivering IMRT and has developed Panther Solid-Compensator based IMRT that does not compromise on the quality of the treatment.

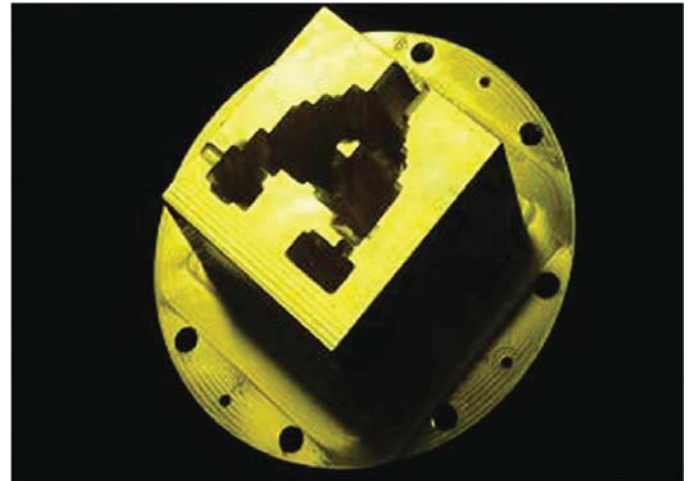
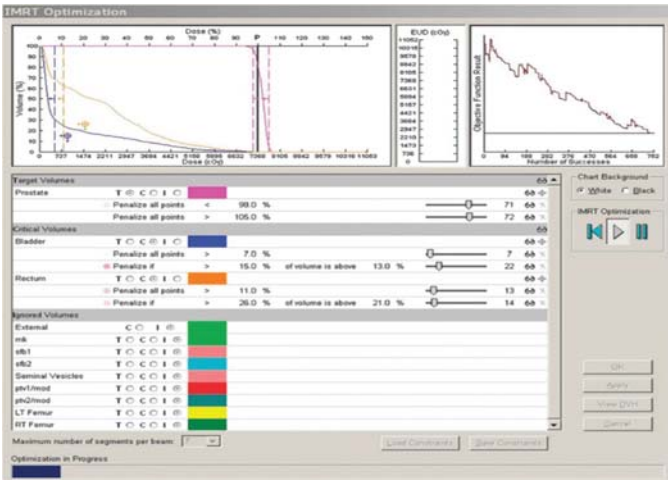
### **Benefits of DAO Solid-Compensator IMRT compared to MLC-IMRT**

Because a MLC is very expensive and a sophisticated piece of equipment, IMRT with MLC incurs high implementation and maintenance costs for the hospital. Solid-Compensator IMRT saves on these costs.

Treatments can be delivered with a 50% or more reduction in Monitor Units (MUs) saving on the wear and tear of the LINAC.

More patients can be treated using Panther Solid-Compensator based IMRT than compared to IMRT with an MLC, because the delivery time is much shorter.

# Panther DAO Solid-Compensator Features



## Key Features

- Superior spatial resolution
- IMRT treatment done with lower Monitor Units
- Less wear and tear on the LINAC
- Bigger Field Size IMRT
  - o No need for Split fields
  - o No over/under dose at junction
- Less complicated planning and QA
- Higher patient throughput
- Easy implementation
- Low implementation and maintenance costs
- One click export of the compensator parameters in '.decimal' format
- Simulated Annealing based optimization
- Quick convergence ability of the algorithm reduces the time for optimization
- Single window interface for the complete Optimization procedure
- Able to change any and all the constraints, parameters during the optimization cycle
- Can stop, quit and continue optimization as needed
- Eight different types of constraints supported
- Fast and easy to use Constraint Libraries
- Non-coplanar beams support of IMRT

## Standard Features

- Fully DICOM 3.0 and DICOM RT compliant for import and export
- Support for CT, MRI, PET, SPECT images
- Automatic and manual Image Fusion
- Support up to 60 contours
- Undo, Redo contouring utility
- Multiple Boolean operators
- Asymmetric margins
- 512 x 512 DRR with enhancement tools
- Single interface window throughout the planning procedure
- CT view in 3D with efficient multi-planar reconstruction
- Plan comparison
- User selectable window layout
- Zoom any view to full screen
- Isodose, Iso-Fill and Colorwash features
- Beam, Plan template
- Photons and Electron beams can be combined
- Composite plans with Brachytherapy
- Side by side plan comparison
- DVH comparison
- Multiple dose calculation algorithm support
- Relative and Absolute dose values
- User defined calculation matrix
- Non-coplanar beams planning