

## Model IMRT-2PRA IMRT Pelvic 3D Phantom

The Model IMRT-2PRA 3D pelvic phantom is designed to address the complex issues surrounding the commissioning and comparison of treatment planning systems and verification of individual patient's treatment plans and delivery.

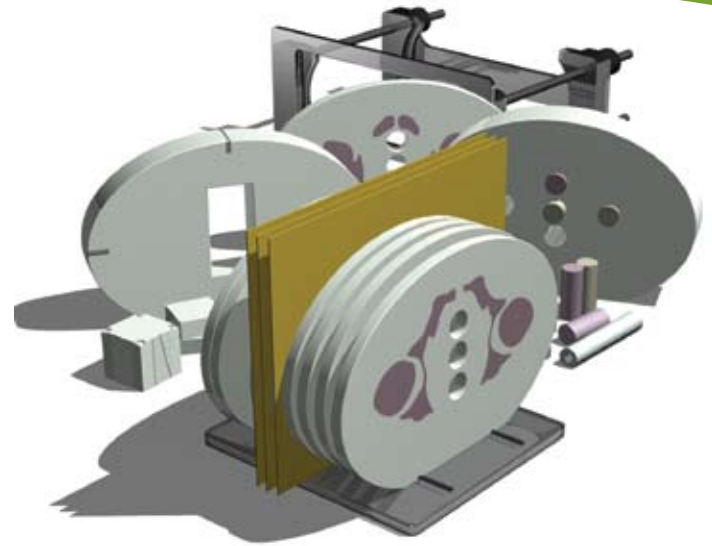
The phantom properly represents human pelvis anatomy in shape, proportion and structure, as well as density. This enables thorough analysis of both the imaging and dosimetry system. The phantom is manufactured from unique proprietary materials that faithfully mimic bone and water within 1% from 50 keV to 25 MeV.

The phantom is elliptical in shape, approximates the size of an average patient and has a tissue-equivalent three dimensional skeleton. Tissue-equivalent, interchangeable rod inserts for ion chambers allow for point dose measurements in multiple planes in the phantom and film calibration. The phantom also supports film dosimetry with not only standard radiographic films but also Gafchromic media. Optional inserts are available to support a variety of other detectors including TLDs, MOSFETs and diodes.

A 6.35 cm thick section is machined to accommodate a film stack for 3D image reconstruction or a Barrex cylinder for dosimetry gel. With the aid of three spacers, the film stack or the gel cube can be positioned in six different locations within the section.

Included are four different electron density reference plugs which can be interchanged in five separate locations within the phantom. The surface of the phantom is etched with grooves to ensure proper orientation of the CT slices and accurate film-to-plan registration.

When fully assembled, the phantom measures 30 x 20 x 21.4 cm. An alignment plate and compression device are included.



### Features:

- ▶ Check dose distributions in sensitive areas
- ▶ Check depth doses and absolute dose
- ▶ 2D and 3D isodoses
- ▶ Verify individual patient treatment plans
- ▶ Calibrate film with ion chamber
- ▶ Verify heterogeneity corrections
- ▶ Correlate CTU to electron density

### Model IMRT-2PRA includes:

- 1 x ..... 5 cm thick tissue equivalent for ED reference section
- 10 x ..... 1 cm thick contiguous 3D pelvic sections, each drilled to accommodate rod inserts
- 1 x ..... Homogenous section that accommodates 002FC or 002GC cassettes
- 1 x ..... Film stack for 3D reconstruction
- 5 x ..... Water equivalent rods, 2.5 cm dia., 1 cm long
- 20 x ..... Bone equivalent solid disks, 2.5 cm dia., 1 cm long
- 1 x ..... Bone equivalent insert with ion chamber cavity\*
- 1 x ..... Water equivalent insert with ion chamber cavity\*
- 4 x ..... Electron density reference plugs, bone, lung, muscle, adipose
- 1 x ..... Set of CT fiducial markers
- 1 x ..... Alignment base
- 1 x ..... Compression device

\*Specify chamber type

### Accessories

- 002GC ..... 6.35 cm GEL Dosimetry stack with spacers
- 002CS ..... Foam lined carrying case