

IMRT Pelvic 3D Phantom

- Verify heterogeneity corrections
- Correlate CTU to electron density
- Check dose distributions in sensitive areas
- Check depth doses and absolute dose
- 2D and 3D isodose
- Calibrate film with ion chamber and other detectors



Complete QA from CT Imaging to Dose Verification

The IMRT Pelvic 3D Phantom for film and ion chamber dosimetry is designed to address the complex issues surrounding commissioning and comparison of treatment planning systems and complete system QA from CT imaging to dose verification.

Tissue Equivalent Technology

The Pelvic 3D Phantom properly represents human pelvic anatomy in shape, proportion and structure as well as density. This enables thorough analysis of both the imaging and dosimetry system. Elliptical in shape, the phantom approximates the size of an average patient, and has a tissue equivalent three dimensional skeleton. It's constructed of proprietary tissue equivalent epoxy materials. The phantom includes four different Electron Density reference plugs which can be interchanged in five separate locations within the phantom. The surface of the phantom is marked with alignment marks to ensure proper orientation of the CT slices and accurate film to plan registration.

 $^1 \text{The CIRS}$ line of IMRT phantoms is compatible with the RIT 113 software for film to plan analysis. GafChromic® is a registered trademark of International Specialty Products, Wayne, NJ.

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IMRT Verification and End-to-End Solution

The IMRT phantoms are manufactured from tissue equivalent materials that mimic within 1% from 50 keV to 15 MeV for accurate simulation during all necessary steps of IMRT verification. The interchangeable rod design allows the phantom to accommodate many dose measurement devices such as ion chambers, TLD, diodes and MOSFET's in the same location within the phantom. Phantom cross sections accommodate GafChromic[®] film.



35.6 cm x 38.1 cm x 22.9 cm

Inserts: Tissue Equivalent

Materials (epoxy resin based)

Phantom Body: Tissue Equivalent Epoxy

(14 "x 15" x 9")

28 lbs (10.5 kg)

Items Included with IMRT Head & Torso Freepoint

Materials

Specifications

Dimensions

Weight

Materials

Dhontom



Insert Options

Part No.	Description	
002RW-CVXX-XX	Water equivalent rod insert with ion chamber cavity	
002RB-CVXX-XX	Bone equivalent insert with ion chamber cavity	

*Customers must complete their order with the purchase of at least one (1) insert option listed above. For best results, the full set is recommended. Refer to separate cavity and plug code list for available chamber cavities.

Optional Accessories

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Quanity	Description	Part No.	Description	
1	5 cm tissue equivalent reference section for interchangeable ED inserts	9501	Case for IMRT Phantoms (002H9K, 002LFC, 002PRA) when ordered with corresponding Cavity Slab (002HCV, 002LCV, 002PCV)	
10	1 cm thick contiguous 3D pelvic sections each drilled to accommodate rod inserts	9502	Case for IMRT Phantoms (002H9K, 002LFC, 002PRA)	
1	Homogeneous section that accommodates 002FC (002HCV)			
1	Film stack for 3D reconstruction			
5	Water equivalent solid rod inserts (002RW-S)			
20	Bone equivalent solid disks			
30	Water equivalent solid disks			
1	Electron density reference plugs, set of 4 (lung, bone core in water, muscle, adipose)			
1	Set of CT to film fiducial markets			
1	Alignment base			
1	Holding device			
1	User guide			

