

Model IMRT-2H9K Point Dose Measurement Phantom

With the IMRT-2H9K phantom, you may choose any point dose location within a circular area with a diameter of 11.2 cm by simply rotating a cylinder within a cylinder etched with indices for precise alignment. Each cylinder accepts an interchangeable rod that can be drilled for a variety of ion chambers, diodes, MOSFETS, or TLDs. One water-equivalent and one bone-equivalent rod drilled for a specified detector are included. Additional lung - and bone - equivalent rods can be positioned at any location within the circular area for assessment of heterogeneity correction.

The phantom is homogeneous, made from proprietary material that faithfully mimics water within 0.5% from 50 KeV to 25 MeV. This unique material eliminates the need for correction factors, thus improving accuracy and saving time. The phantom simulates the patient through the entire process from CT data acquisition and planning to delivery and dose verification.

The shape is elliptical and approximates the size of an average patient. 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. CT to film markers ensure accurate film to plan registration. Close placement of detectors to film improves film calibration. Optional inserts are available to support a variety of other detectors including TLDs, MOSFETs and diodes.

The center cylinder may be removed to simulate head and neck setups.

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



Features:

- ▶ Infinite measurement locations within 11.2 cm diameter area
- ▶ Water equivalent
- ▶ Accommodates any ion chamber, diode, MOSFET or TLD using interchangeable rods
- ▶ Configure with or without heterogeneities

Model IMRT-2H9K includes:

- 1 x water equiv. torso section with cylindrical inserts, 15 cm
- 2 x spacer slabs, 2 cm thick
- 1 x spacer slab, 1 cm thick
- 1 x spacer slab, 10 cm thick
- 1 x water equivalent rod with specific chamber cavity*
- 1 x bone equivalent rod with specific chamber cavity*
- 4 x solid water equivalent rod inserts
- 1 x bone equivalent rod insert
- 1 x set of 5 CT to film fiducial markers
- 1 x alignment plate
- 1 x compression device

*Specify chamber type

Accessories

- 002BR Single breast attachment
- 002HCV Homogeneous section to accommodate 002FC or 002GC
- 002LCV Thorax section to accommodate 002FC or 002GC
- 002SPH 5 cm long rods for 5 mm dia. TLD's (set of 5)
- 002FC 6.35 cm³ film stack with 3 spacers
- 002GC 6.35 cm³ dosimetry gel stack with 3 spacers
- 002CTF CT to film fiducial markers (set of 5)
- 002ED Electron density reference plugs (set of 5)
- 002RW15 Water-equiv. rod insert (specify chamber cavity)
- 002RB15 Bone-equiv. rod insert (specify chamber cavity)
- 002RL15 Lung-equiv. rod insert (specify chamber cavity)
- 002CS Foam-lined carrying case