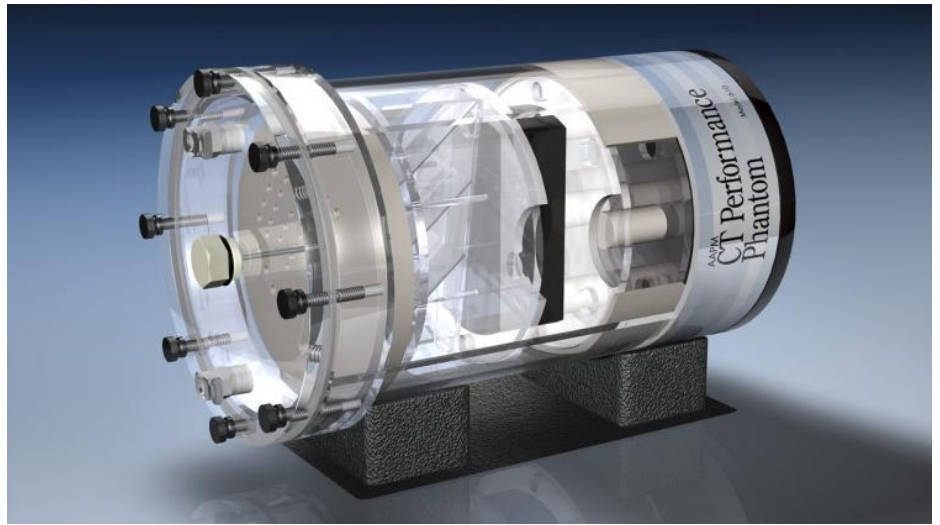


AAPM CT Performance Phantom

Model 610

Meets guidelines in AAPM Report #1 "Performance Evaluation and Quality Assurance of CT Scanners"

The CIRS Model 610 AAPM CT Performance Phantom offers the user a single test object that measures ten distinct CT performance parameters. The phantom design is based on the guidelines presented in Report #1 of the American Association of Physicists in



Medicine Task Force on CT Scanner Phantoms. The goals of report #1 were to "(1) define 'performance' of a CT scanner and (2) describe methods of performance testing through utilization of particular phantoms."

A CT number linearity insert, high contrast resolution insert and slice width insert are housed in an 8.5" diameter PMMA water tank with quick disconnect valves for ease of filling and draining between use. Also included is a 0.25" bone equivalent ring that can be fit over the inserts to evaluate the effects of beam hardening.

A contrast test object is adhered to the bottom of the tank that includes two rows of cavities from 1 to 0.125" diameter. The cavities can be filled with various solutions for contrast evaluation. An aluminum alignment insert is incorporated in the lid of the tank and can be interchanged with a polystyrene TLD insert for dose measurements. A user's manual, holding cradle, filling tubes and other accessories are included.

Measurement Capability:

- Noise
- Size Independence
- Sensitivity / Detectability
- Radiation Dose
- Mechanical Alignment
- Spatial Uniformity
- Beam Hardening
- HU Linearity
- Slice Thickness
- Spatial Resolution and line spread function

Specifications:

Overall Dimensions 21.6 cm X 39.4 cm (8.5" OD x 15.5" L)

Weight 7.8 kg (17.25 lb)

Materials PMMA cast - 21.6 OD 20.3 cm ID x 32.4 L
(8.5" OD x 12.75" L) with removable lid

Model 610 Includes 610-01-02 - Contrast Test Object
610-01-05 - Alignment pin
610-02 - CT Number Linearity Insert
610-03 - Resolution insert
610-04 - Slice Thickness Insert
610-05 - Bone Ring
User Guide
48 Month Warranty

Optional Accessories 610-06 - Low Contrast Insert
610-07 - Whole Body Resolution & Noise Ring
610-08 - TLD Insert
610-10 - Low Contrast Insert - Spherical Targets