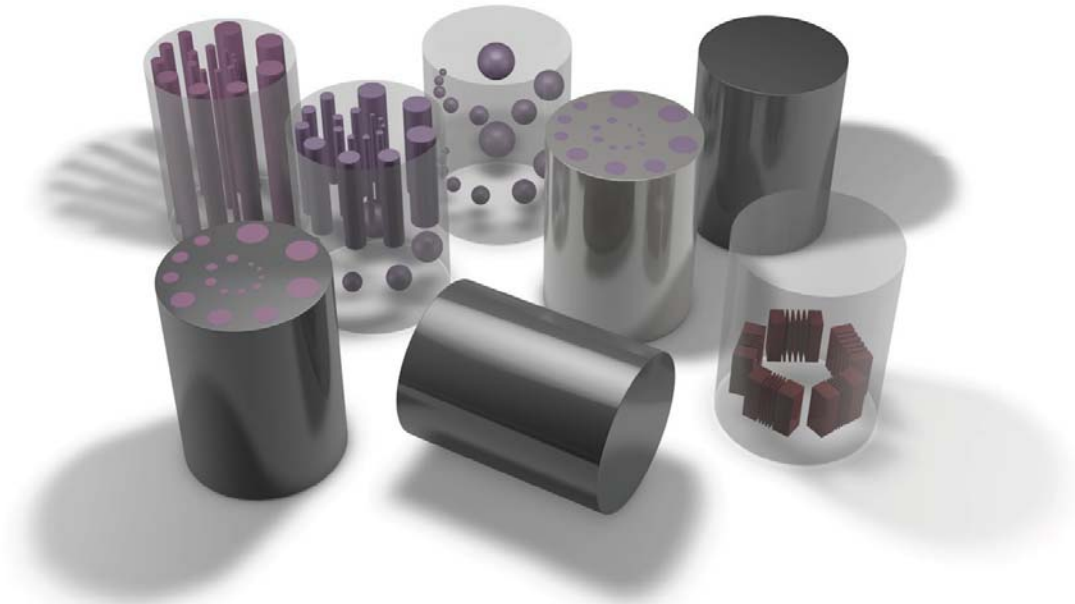


CT Imaging QA Kit for ATOM[®] & CT Dose Phantoms

Model 700-QA



EVALUATE CT PERFORMANCE IN ANTHROPOMORPHIC PHANTOMS

Traditional dosimetry of CT scanners uses standard CTDI phantoms like the Model 007TE Tissue Equivalent CT Dose Phantoms. However, more sophisticated CT protocols and continuing equipment improvement require the use of an anthropomorphic phantom of different sizes and/or ages such as the ATOM[®] family of dosimetry phantoms.

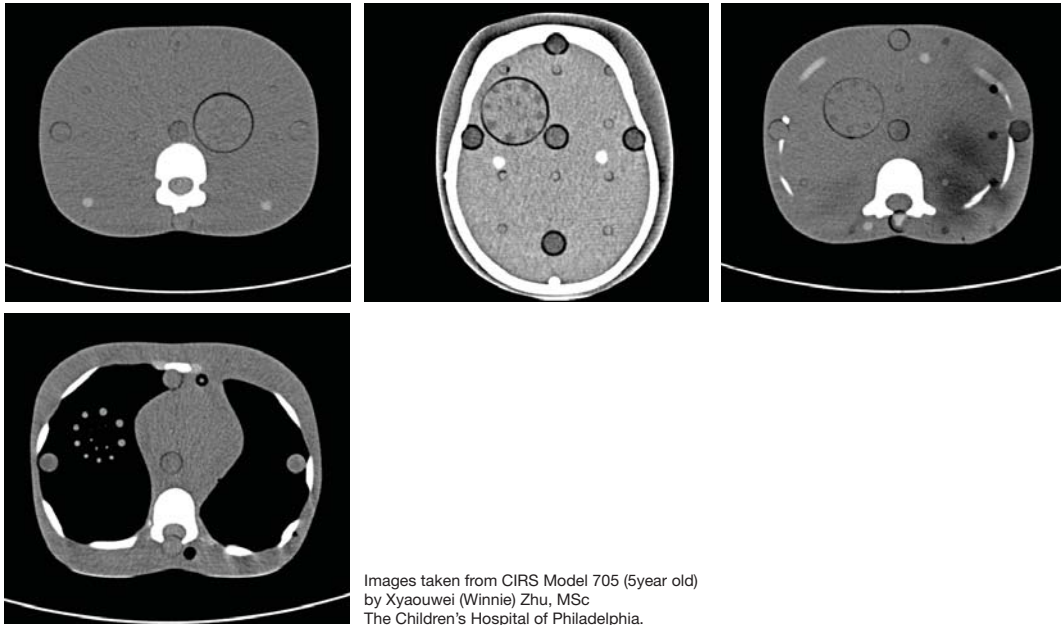
The CIRS Model 700-QA CT Imaging QA Kit are suitable for use in ATOM[®] Dosimetry phantoms and Model 007TE Tissue Equivalent CT Dose Phantoms which are already used widely for CT dosimetry. The inserts contained in the kit are designed to investigate correlation between the image quality and CT doses. The kit provides various targets for evaluation of two important CT performance parameters: low contrast detectability and spatial resolution in soft tissues and lung regions.

The Model 700-QA provides four inserts: lung, soft tissue - cylindrical, soft tissue - spherical and soft tissue - true 3D line pair targets. The diameter of the spheres and cylinders

were selected to provide a 2:1 volume and cross-sectional area ratios respectively for each adjacent pair of spheres and cylinders. When ordered with ATOM[®] the inserts can be positioned in the abdomen, liver, mediastinum and lung.

Features

- Determine Low Contrast detectability
- Evaluate spatial resolution
- Use in ATOM[®] or Model 007TE phantoms
- 3 soft tissue inserts
- 1 lung insert



Images taken from CIRS Model 705 (5year old) by Xyauwei (Winnie) Zhu, MSc The Children's Hospital of Philadelphia.

SPECIFICATIONS

MODEL 700-QA INCLUDES

QTY	COMPONENT DESCRIPTION
1	Lung Insert
1	Soft Tissue Insert - Cylindrical Targets
1	Soft Tissue Insert - Spherical Targets
1	Soft Tissue Insert - True 3D Line Pair Targets
	User Guide
	48 Month Warranty

LUNG INSERT

OVERALL DIMENSIONS:	Ø 1.5" X 2"
BACKGROUND:	Lung Exhale Tissue-Equivalent Epoxy
CYLINDRICAL TARGETS	
PROPERTIES:	+10 HU; +1 linear attenuation
DIMENSIONS:	Ø 7, 5, 3.5, 2.5, 1.8 & 1.2 mm
QUANTITY:	18 - three (3) of each diameter
SPHERICAL TARGETS	
PROPERTIES:	+20 HU; +2 linear attenuation
DIMENSIONS:	Ø 10, 8, 6.5, 5, 4, 3.2, 2.5 & 2 mm
QUANTITY:	8 - one (1) of each diameter

SOFT TISSUE INSERT - TRUE 3D LINE PAIR TARGETS

BACKGROUND:	Soft Tissue-Equivalent Epoxy
PROPERTIES:	350 HU above soft tissue 300 HU above line pair pattern background (low contrast)
DIMENSIONS:	5 line pairs: 5 mm wide x 12 mm deep
LP/CM	6, 8, 10, 11 & 12

SOFT TISSUE INSERT - CYLINDRICAL TARGETS

OVERALL DIMENSIONS:	Ø 1.5" X 2"
BACKGROUND:	Soft Tissue-Equivalent Epoxy
PROPERTIES:	Group 1: +10 HU contrast above background +1 linear attenuation Group 2: +20 HU contrast above background +2 linear attenuation
DIMENSIONS:	Ø 7, 5, 3.5, 2.5, 1.8 & 1.2 mm
QUANTITY:	18 per target group 1 & 2; Three (3) of each diameter

SOFT TISSUE INSERT - SPHERICAL TARGETS

OVERALL DIMENSIONS:	Ø 1.5" X 2"
BACKGROUND:	Soft Tissue-Equivalent Epoxy
PROPERTIES:	Group 1: +10 HU contrast above background +1 linear attenuation Group 2: +20 HU contrast above background +2 linear attenuation
DIMENSIONS:	Ø 10, 8, 6.5, 5, 4, 3.2, 2.5 & 2 mm
QUANTITY:	8 per target group 1 & 2; One (1) of each diameter

