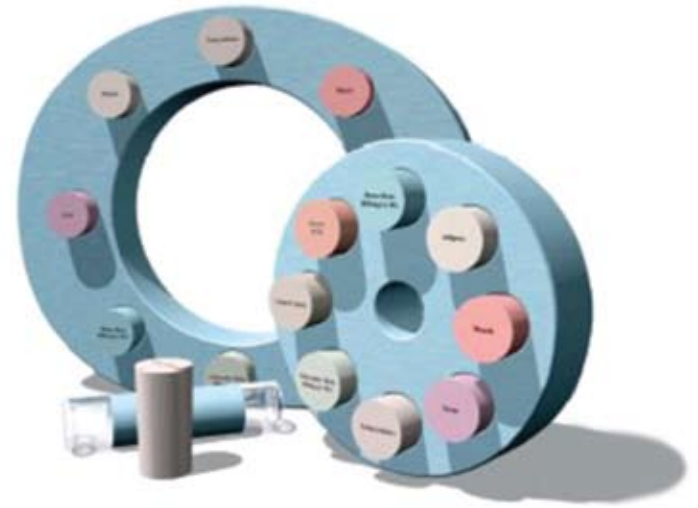# Model EDP-62
Electron Density CT Phantom

The accuracy of radiation oncology treatment planning systems is heavily dependent upon precise CT analysis of the patient anatomy which is to be irradiated. Physicists performing treatment planning need accurate tools to evaluate CT scan data, correct for inhomogeneities, and to document the relationship between CT number and tissue electron density. The Model EDP-62 Electron Density CT Phantom was designed and developed specifically to meet this requirement.

The EDP-62 phantom can be configured to simulate the head or abdomen. Tissue-equivalent plugs made of various tissue- and water-simulating materials can be positioned at 17 different locations within the scan field. Special marker plugs check the CT scanner's distance measurement accuracy.

Scanning this phantom on a periodic basis provides data useful for the Quality Assurance program of both the CT scanner and the treatment planning system. A padded carrying case is included.

Rod Material	Electron density per cc x10²³	Electron density relative to water	Physical density, g/cm³
Water (in syringe)	3.340	1.000	1.000
Lung (inhale)	0.634	0.190	0.195
Lung (exhale)	1.632	0.489	0.495
Breast 50/50	3.261	0.976	0.991
Dense bone 800 mg/cc HA	5.052	1.512	1.609
Trabecular bone 200mg/cc	3.730	1.117	1.161
Liver	3.516	1.052	1.071
Muscle	3.483	1.043	1.062
Adipose	3.180	0.952	0.967

Features:

▶ Provides accurate corrections for tissue heterogeneities

▶ Can be configured to simulate head or abdomen

▶ Tissue-equivalent plugs can be positioned at 17 different locations within the scan field

▶ Special marker plugs enable quick assessment of distance registration

▶ All materials accurately simulate indicated tissue within the diagnostic energy range

▶ Carrying case for convenient transport

Specifications

Material: .... proprietary epoxy, formulated for CT
Physical density: 1.004 g/cm3
Dimensions: .... Head: 18 cm diameter, 5 cm thick
Body: .... elliptical 27 cm x 33cm, 5 cm thick
Hole diameter: .... 3.05 cm, slightly tapered
Hole pattern: .... Head: 1 on center, 8 on 9 cm radius
Body: .... 8 on 11.5 cm radius

Options

EDP-62 .... Head and body including 19 plugs and case
EDP-6201 .... Head including 11 plugs
EDP-6202 .... Head and body - no inserts

Best
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