QRM A PTW COMPANY

QRM-10164

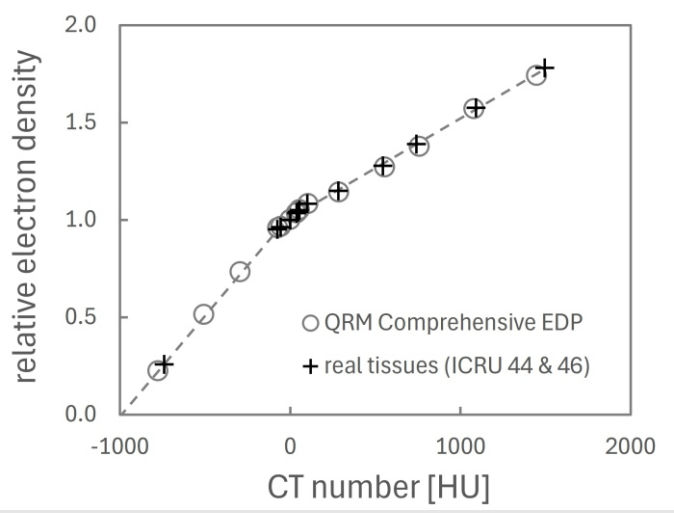
Comprehensive Electron Density Phantom

The phantom is an excellent tool for the calibration of Hounsfield Unit (HU) vs. electron density of radiotherapy treatment plans to optimize the dose delivered to the patient (CT/CBCT).

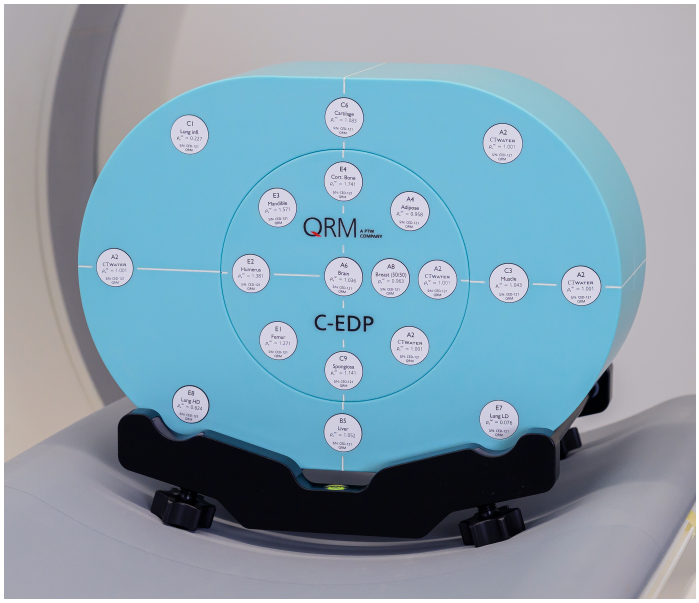
The Comprehensive EDP phantom is ideally suited for the creation of a HU vs the electron density table for treatment planning CT (4DCT). It consists of a water-equivalent body section and a removable/stand-alone head section with in total 19 holes for exchangeable inserts that mimic real human tissue regarding its physical and electron density according to the ICRU Report 44 and 46. Remarkably, the phantom provides realistic tissue also in the higher density range (bone).

The phantom comes with a protocol displaying physical density, electron density, electron density relative to water and effective atomic number (other values are optional).

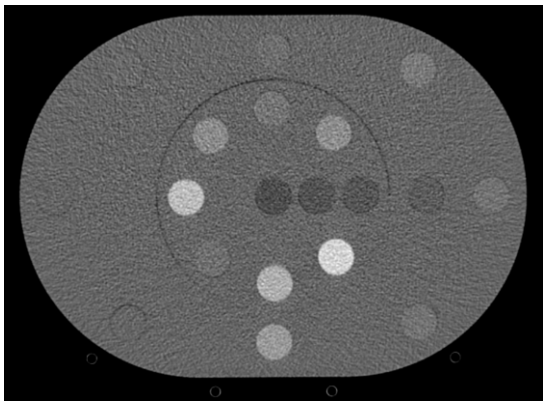
The phantom is not only suitable for the high energy ranges (MeV electron, photon, and proton therapy systems), but is also a valuable tool for kV-energies in diagnostic imaging (e.g. Multi-Energy CT).



Electron density vs. HU (at 120 kV)



Comprehensive Electron Density Phantom (QRM-10164)
Optional Phantom Cradle (QRM-10162)



QRM-Comprehensive -EDP with different tissue equivalent rods

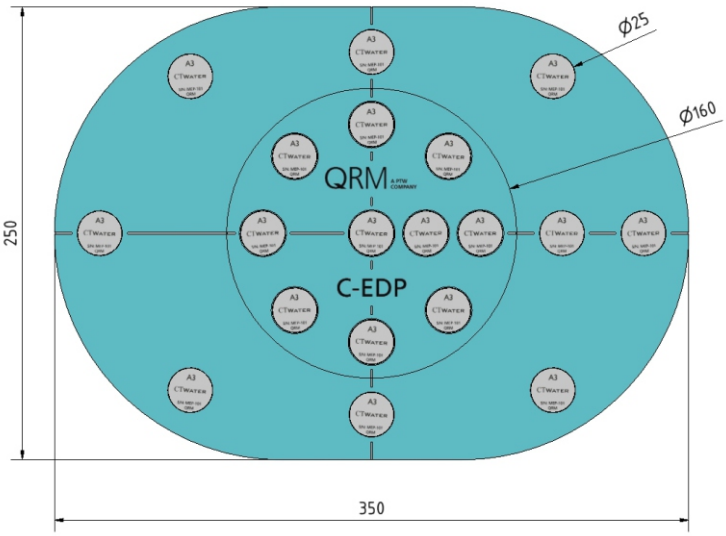
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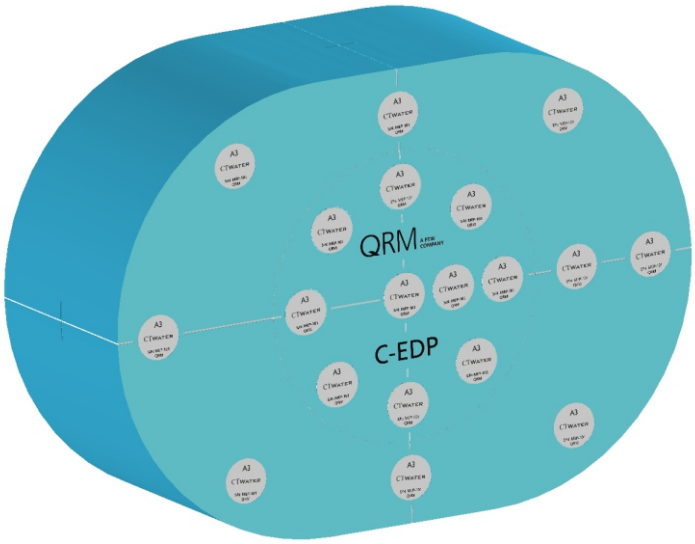
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QRM-10164

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Comprehensive Electron Density Phantom







Specifications

Body:

Phantom dimension:	250 mm x 350 mm
Phantom length:	125 mm
Holes:	9 pcs., 25 mm diameter

Head insert:

Phantom diameter:	160 mm
Phantom length:	125 mm
Holes:	10 pcs., 25 mm diameter

Tissue-equivalent rods:

Diameter:	25 mm
Length:	125 mm

Phantom weight:	11.0 kg
Material:	Water-equivalent (CTwater®) app. 0 ± 5 HU (at 80-140 kV)

The phantom includes the following 19 inserts:

- CTwater (5 pcs.)
- ICRU Lung I (inflated)
- Lung II
- Lung III
- ICRU Adipose
- ICRU Breast (50/50)
- ICRU Brain
- ICRU Muscle
- ICRU Liver
- ICRU Cartilage
- ICRU Skeleton-Spongiosa
- ICRU Skeleton-Femur
- ICRU Skeleton-Humerus
- ICRU Skeleton-Mandible
- ICRU Skeleton-Cortical Bone

Options:

QRM-10165: Titanium core, Rod D25/D10
QRM-10166: Stainless Steel core, Rod D25/D10
QRM-10167: Aluminum core, Rod D25/D10
QRM-10162: Phantom Cradle

The phantom comes with a protocol displaying: Physical density, electron density, electron density relative to water, effective Z (other values are optional).

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