phantomx

Article Number
55-01

Made in Germany

ABDOMEN / PELVIS PHANTOM PV

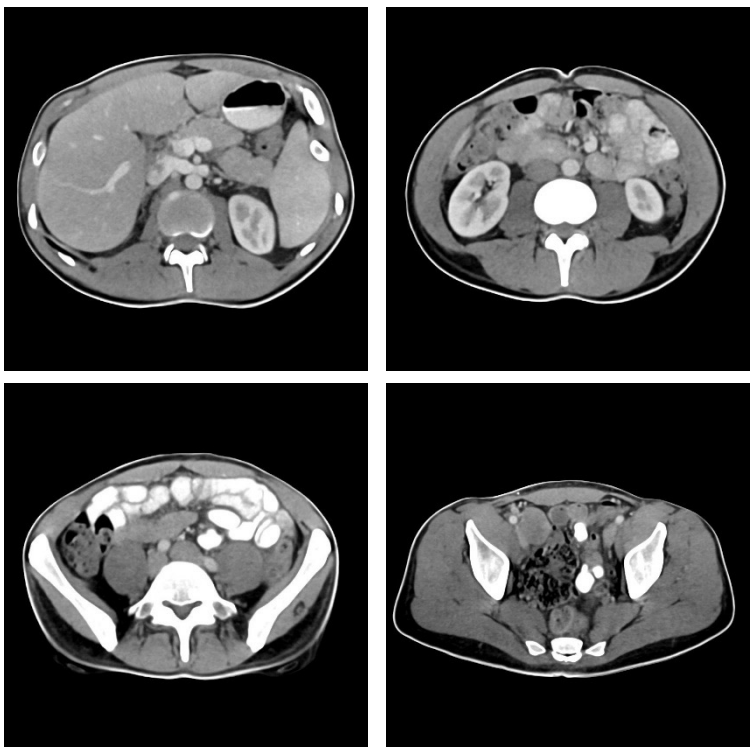
Age Category	Adult
Body Region	Abdomen, pelvis
Target Modality	CT
Diagnostic Features	Lymph node masses

This phantom simulates a contrast medium enhanced abdomen and pelvis in portal venous phase. It covers the first lumbar vertebra to the perineum.

It has iliac lymph node masses on the right side.

The phantom can be used in CT (including CBCT) to evaluate and optimize imaging performance and post-processing applications, including AI-enabled applications. It is also suited for training purposes.

The phantom provides a detailed and realistic simulation of soft and bone tissue. Air voids are filled with a cellulose-polymer composite of approx. -160 HU.



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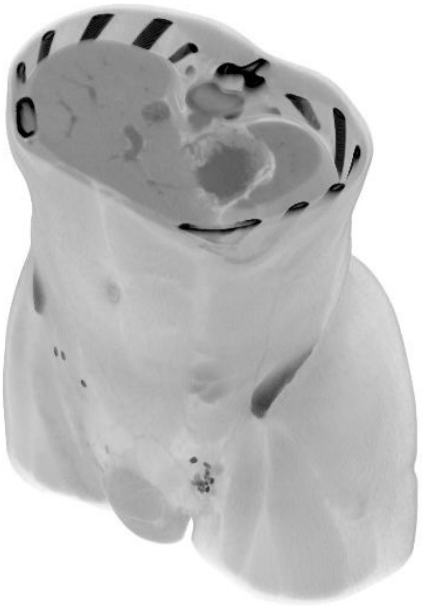
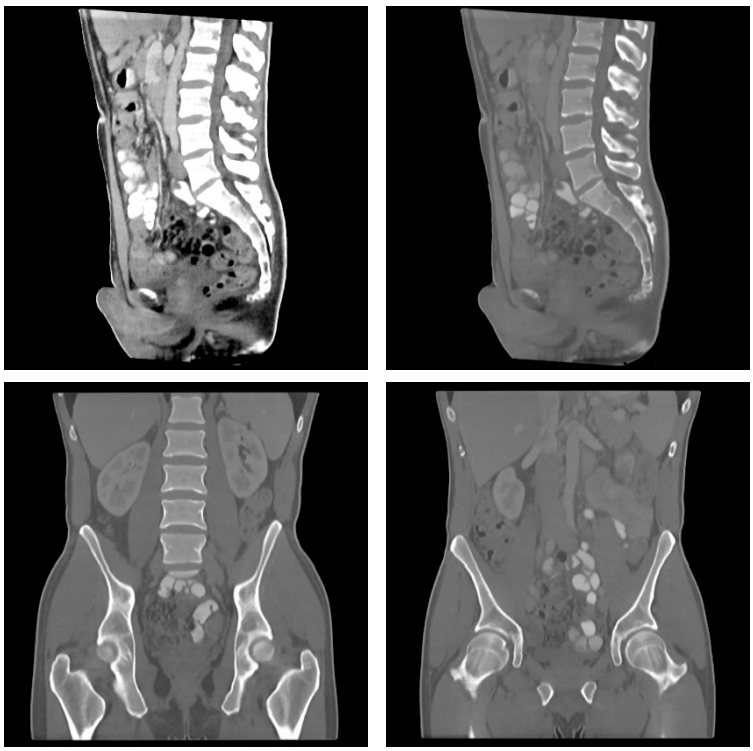
ABDOMEN / PELVIS PHANTOM PV





Specifications

Size	Approx. 263 x 186 x 288 mm 10.4 × 7.3 × 11.3 in
Weight	Approx. 6990 g 15.4 lb
Base material	Cellulose-polymer composite
Optimal tube voltage	120 kVp (cf page 3) - adaptable upon request -

Diagnostic features

Realistic simulation of vasculature, bone and soft tissues, including the liver, gallbladder, pancreas, spleen, adrenals, kidneys, stomach, small intestine, colon, bladder and prostate.

External iliac lymph node masses on the right side.

For more information visit
www.phantomx.de

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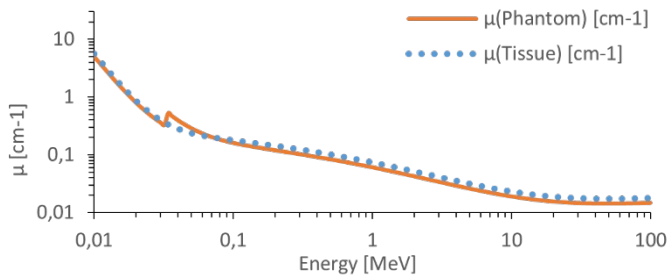
General indications

- The phantom is made of a cellulose-polymer composite material with properties similar to hardwood. If handled carefully, it will last a long time.
- The phantom is coated with a protective layer. If the protective layer is undamaged, the phantom can be cleaned using a damp cloth (water or mild detergent).
- Protect from direct sunlight.
- Maintain a storage temperature of 10 °C to 30 °C. If the phantom is exposed to temperatures below -10 °C or above 45 °C, it can be severely damaged.
- The phantom is not equipped for dose measurements with dosimeters and it is not suited for material characterization with dual energy CT.
- The phantom is not certified as medical device.
- Air voids are filled with cellulose-polymer composite of approx. -160 HU.
- Handle with care to prevent injury or damage.
- If external damage is observed, it is recommended to consult PhantomX.

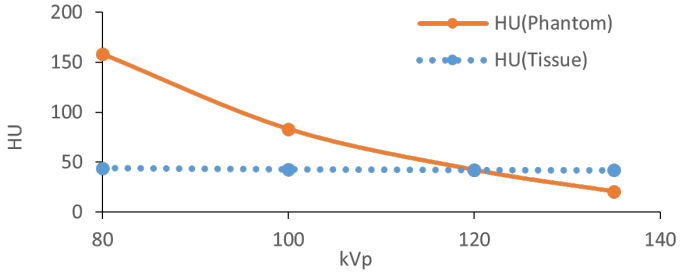
Attenuation properties

Soft Tissue

Linear attenuation coefficients [cm^{-1}] (calculated)

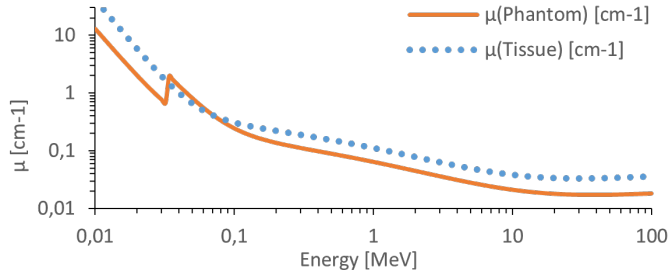


Hounsfield units (calculated)

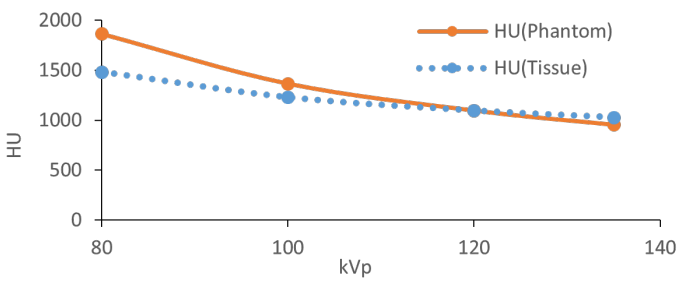


Bone Tissue

Linear attenuation coefficients [cm^{-1}] (calculated)



Hounsfield units (calculated)



Tissue Reference: Woodard HQ, White DR. The composition of body tissues. Br J Radiol. 1986.

Phantom based on modified data, originally published by Roth H et al. A new 2.5 D representation for lymph node detection in CT. The Cancer Imaging Archive (2015) DOI: 10.7937/K9/TCIA.2015.AQIIDCNM (CC BY 3.0)