

DXA-Spine-QA-Phantom

A Phantom for Quality Assurance of DXA Bone Mineral Density Measurements of the Spine.

Designed on the basis of the well established European Spine Phantom (ESP) the QRM-DXA-Spine-QA-Phantom incorporates a simplified and more cost effective design of the vertebrae specifically developed for quality assurance (QA) and stability monitoring of Dual X-ray Absorptiometry (DXA) devices.

The complex vertebrae of the ESP are replaced by a more dedicated shape explicitly adapted to the needs of a DXA QA-Phantom.

With the QRM-DXA-Spine-QA-Phantom, areal Bone Mineral Density (aBMD) can be easily determined in AP and lateral projections.

Benefits

- ✓ bone mineral content (BMC) in g
- ✓ bone mineral areal density (BMD) in g/cm^2 for DXA AP and lateral projections
- ✓ projected area (A) in cm^2

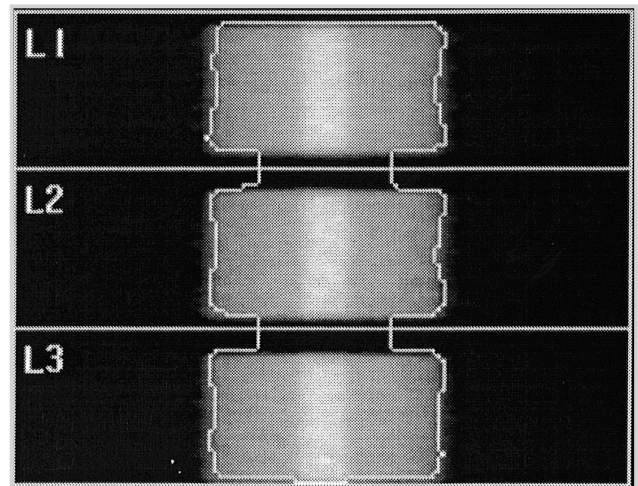
Specification

Phantom body	tissue-equivalent plastic at 120 kV (CT)
L1 - L3	3 full homogeneous vertebrae with a HA concentration of $270 \text{ mg}/\text{cm}^3$
aBMD (AP)	$1.0 \text{ g}/\text{cm}^2$
Accuracy	$\pm 3\%$ of specified values $\pm 1\%$ of certified values
Phantom body	260 mm x 180 mm ($\pm 2 \text{ mm}$)
Phantom weight	4300 g

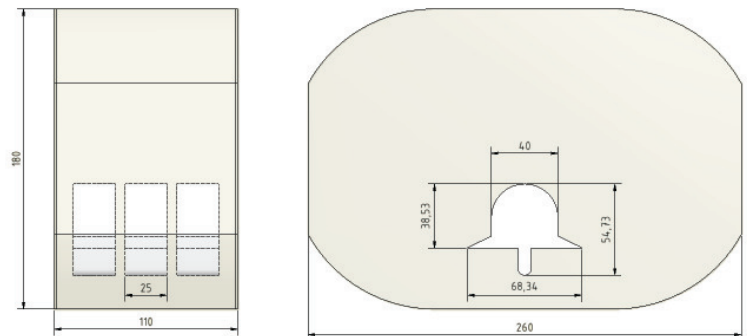
Different HA concentrations for the vertebrae are available upon request.



The QRM-DXA-Spine-QA-Phantom



DXA PA scan of the phantom



Measures of the QRM-DXA-Spine-QA-Phantom