# breastCT-QA Phantom

## Measure imaging performance of Breast-CT Systems and other 3D Cone-Beam tomography equipment. Perform acceptance and constancy tests with a compact phantom.

The QRM-breastCT-QA Phantom is designed to perform quality checks and test the imaging performance of Breast- CT and CBCT systems.

The following image quality metrics can be obtained:

- CT value uniformity
- CT value accuracy
- Image noise
- Contrast-to-noise ratio
- Spatial resolution (3D MTF)

The phantom contains 3 defined sections:

#### Section I:

4 Inserts in water equivalent material (background), 13 mm diameter, 25 mm length: air, -3% contrast, +3% contrast and bone - arranged concentrically inside the phantom

#### Section II:

Homogenious water-equivalent section to measure uniformity and noise

### Section III:

A centrally placed 12mm PTFE sphere to perform a 3D-MTF

Diameter (Ø): 140 mm Length (z): 180 mm Body: CTWater® (water equivalent material) Sphere: PTFE, Ø 12 mm Inserts: Ø 13 mm, Length 25 mm

A dedicated evaluation software is currently <u>not</u> available.



Breast-CT-QC Phantom







Section I

Section II



Section III