**Dental CBCT QA Phantom (EXPERT)**

Measure imaging performance of dental Cone-Beam Computed Tomography equipment. Perform acceptance and constancy tests with a compact easy-to-use phantom.

The QRM-dentalCBCT Phantom (EXPERT) is designed to evaluate the imaging performance of conebeam-ct (CBCT) devices according to international guidelines (e.g. dental CBCT, Digital Volume Tomography).

The phantom offers the possibility to assess image quality metrics in accordance with national and international standards (e.g. DIN IEC 61223-3-5 or DIN IEC 61223-2-6).

The following image quality metrics can be obtained:

- CT value uniformity
- CT value accuracy
- image noise
- contrast-to-noise ratio
- spatial resolution (3D MTF, sphere)
- spatial resolution (visual, hole pattern)
- artifact behavior metal/bone/soft tissue

**5 defined sections:**

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<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>Section I</td>
<td>4 Inserts in water: air, -3% contrast, +3% contrast and bone arranged concentrically</td>
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<td>Section II</td>
<td>centrally placed high attenuating sphere</td>
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<td>Section III</td>
<td>homogenous water equivalent slice</td>
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<td>Section IV</td>
<td>acrylic resolution pattern</td>
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<td>Section V</td>
<td>Ti rods and tissue equiv. inserts</td>
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**Technical Specifications:**

- Diameter (xy): 100 mm
- Height (z): 100 mm
- Body: CTWater®
- Sphere: Al, Ø 12 mm
- Inserts: Ø 13 mm, L 17.5 mm
- Ø 9 mm, L 17.5 mm
- hole pattern: 0.3 to 1.0 mm h°/v°
- extension ring: Ø 160 mm

An automated evaluation software (ImpactIQ Wizard) is available separately or as a package with the phantom.

Please note: if using the software, your systems FOV has to completely cover the phantom in height, otherwise a correct automated evaluation is not possible.

Please ask for more information: info@qrm.de

![In-plane reconstruction of X-ray CBCT scans](image-url)