

Contrast Detail Phantom for Mammography

- Optimized for digital imaging
- Easy-to-use, compact and lightweight
- Closely simulates scattering conditions of the breast
- Rotatable support plate accommodates prone-position x-ray units
The plate can be returned to a position which does not interfere with placement of the phantom on flat surfaces
- Geometrically-increasing hole depths result in linearly increasing x-ray transmission
- Geometrically-increasing hole diameters enable quantitative measurement of the contrast threshold of the mammographic system



The Contrast Detail Phantom for Mammography is designed to provide a means of quantitatively testing and monitoring the total performance of an entire mammographic imaging chain. Its small size, as well as the number and distribution of holes simulating embedded objects, make this phantom particularly useful in evaluating digital spot mammography systems.

With 49 holes generating subtle contrast variations, the phantom makes it possible to detect small changes in overall system performance. The Contrast Detail Phantom for Mammography contains a 7 x 7 matrix of objects. The diameter of each row of objects decreases from 0.169 to 0.007 inch. In each row, the subject contrast decreases from approximately 6.6% to 0.41% at mammographic energies.

The Contrast Detail Phantom for Mammography is easy to use...Simply place the phantom on the image receptor surface in the same position as a breast. Position the x-ray tube and compression device as in a craniocaudal examination. When using the phantom on prone-position breast biopsy systems, use the rotating top plate of the phantom and the compression device to secure the phantom against the image receptor. Choose the appropriate kV and mAs factors (26 kV and 60 mAs works well on most systems), or select automatic exposure control.

SPECIFICATIONS

Object Depth Column 1: 0.033 in (0.853 mm) Column 2: 0.021 in (0.533 mm) Column 3: 0.013 in (0.332 mm) Column 4: 0.008 in (0.208 mm) Column 5: 0.005 in (0.129 mm) Column 6: 0.003 in (0.080 mm) Column 7: 0.002 in (0.50 mm)

Typical Contrast at Mammographic Energies Column 1: 6.60 Column 2: 4.20 Column 3: 2.60 Column 4: 1.70 Column 5: 1.00 Column 6: 0.65 Column 7: 0.41

Object Diameter Row 1: 0.169 in (4.292 mm) Row 2: 0.099 in (2.524 mm) Row 3: 0.058 in (1.485 mm) Row 4: 0.034 in (0.873 mm) Row 5: 0.020 in (0.513 mm) Row 6: 0.011 in (0.302 mm) Row 7: 0.007 in (0.177 mm)

Phantom Material Plexiglas

Dimensions 2.47 (w) x 2.47 (d) x 2.47 in (t) (6.27 x 6.27 x 6.27 cm)

Weight 1.2 lb (0.58kg)

18-252 Mammography Contrast Detail Phantom