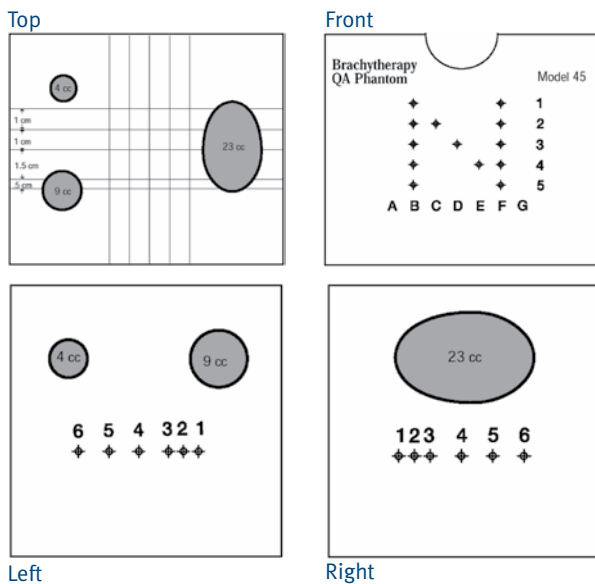


Model US-45 Brachytherapy QA Phantom

The Model US-45 ultrasound phantom, unlike human subjects or random scanable materials, offers specific, known test objects for repeatable qualitative assessment of ultrasound scanner performance over time.

The US-45 was designed for transrectal ultrasound QA and calibration of brachytherapy systems. It contains targets to assess volume measurements, internal and external grid accuracy, and probe retraction accuracy. When scanning towards the top of the phantom, a partial grid of wires appears. These wires should line up with the grid that appears on your screen, thus ensuring correct vertical and horizontal distance measurements.

Five cross wires are embedded within the phantom to determine if the probe is being retracted the specified distance. Turn the probe 60° to the right or left to visualize and measure the volume of three different calibrated objects, one of which is non-spherical.



Features:

- ▶ Internal grid assessment
- ▶ External grid assessment
- ▶ Probe retraction step assessment
- ▶ Volume verification

Specifications

Material: Zerdine™
Attenuation coefficient: .. 0.50 dB/cm/MHz (± 0.05)
Speed of sound: 1540 m/s (± 6m/s)

INTERNAL GRID ASSESSMENT:
Material: Nylon monofilament
Diameter: 0.5 mm
Number of targets: 13
Position: B1 - B5, C4, D3, F1 - F5

PROBE RETRACTION ASSESSMENT:
Material: Nylon monofilament
Diameter: 0.5 mm
Number of targets: 5
Spacing: 0.1, 0.5, 1, 1.5 cm
Position: along row 4

VOLUMES:
Material: Zerdine™
Sizes: Small: 4 cc, Med.: 9 cc, Large: 23 cc