

Sono410™ Full Contact™ Phantoms

Gain greater flexibility to meet more QA program requirements.

- Featuring Full Contact™ curved surface to improve coupling between convex transducers and the phantom scanning window
- Includes patented HE (High Equivalency) Gel™
- Ensure efficient testing across entire frequency range



Gammex's latest collaborative development has been designed to easily and efficiently meet your changing needs in maintaining uniformity and accurate QC measurements. Our first phantom with the Full Contact curved scanning surface, Sono410:

- Allows you to invert the phantom 180 degrees, and use the patented flat scanning surface for linear arrays
- Exceeds ACR, ECR, AIUM and other international program requirements

Performance measures include:

- Image uniformity
- Artifact surveys
- Lateral resolution
- Horizontal and vertical distance
- Depth of penetration
- Signal-to-noise ratio
- Anechoic and echogenic mass resolution
- Gray scale contrast resolution



Consistent testing with a Sono410 QC test device...



... means confidence in your patient's assessment.

Sono410 Full-Contact Phantoms

- HE Gel's response of attenuation-to-frequencies above 8 MHz supports accurate penetration depth representative of human tissue.^{1,2}
- Check resolution against published limiting values using the targets at 80 and 150 mm.
- HE Gel is very uniform and has a nonlinearity parameter (B/A) that is equivalent to human liver.
- HE Gel can be rejuvenated and your phantom re-validated any time to strengthen your investment.

"The tissue-like properties in Gammex ultrasound phantoms make them ideal for testing the performance of scanners."

James A. Zagzebski, Ph.D., FAAPM
Professor Emeritus, Retired Chair
Department of Medical Physics,
Wisconsin Institutes for Medical Research

Specifications

HE Gel™: Gammex's multi-frequency tissue mimicking material

Attenuation Coefficient ³ :	0.5 or 0.7 dB/cm/MHz
Variation with Attenuation to Frequency ^{1,4} :	f ^{1.08} at 0.5 dB/cm/MHz f ^{1.1} at 0.7 dB/cm/MHz
HE Gel Freezing Point:	<0°C
HE Gel Melting Point:	>100°C
Frequency Range ¹ :	2 -18 MHz
Speed of Sound:	1540 m/s
Feature	Sono410 SCG
Patented Curved Scanning Surface:	Full Contact
Anechoic Cysts/Depth of Visualization:	12 Cysts, 1, 2, 4 and 8 mm diameter
Grey Scale Targets:	6 Targets, 8 mm diameter
Horizontal Geometry Groups:	3
Vertical Geometry Targets:	7

Accessories

- Precision Transducer Holder
 - Securely holds a transducer in a precise location for reproducible tests over time.
 - Fits all Gammex B-Mode & Doppler Flow phantoms
- Padded travel case with shoulder strap



Feature	Sono410 SCG	Sono410 SC	Sono410 S
Multiple Transducer Scanning Surfaces:	✓	✓	✓
Uniformity Assessments:	✓	✓	✓
Geometry Assessments:	✓	✓	✓
Sensitivity Assessments:	✓	✓	✓
Resolution Assessments:	✓	✓	✓
Depth of Penetration:	✓	✓	✓
Harmonic Imaging:	✓	✓	✓
Skolnick Method:	✓	✓	✓
Anechoic Cysts:	✓	✓	✓
Grey Scale Targets:	✓		

¹ Browne, J., Ramnarine, K., Watson, A., Hoskins, P., Assessment of the Acoustic Properties of Common Tissue-mimicking Test Phantoms. Ultrasound in Medicine and Biology, Vol. 29 (7), pp. 1053-1060, 2003.

² Goldstein, A., The Effect of Acoustic Velocity on Phantom Measurements. Ultrasound in Medicine and Biology, Vol. 26, pp. 1133-1143, 2003.

³ An attenuation coefficient of 0.5 dB/cm/MHz represents healthy human liver tissue and 0.7 dB/cm/MHz represents fatty liver tissue.

⁴ Near-linear responses of attenuation with frequencies between 2 to 18 MHz support accurate axial resolution and penetration depth representative of human tissue.