

Multi-Purpose, Multi-Tissue Ultrasound Phantom

Model 040GSE



ZERDINE® Inside
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THE NEW STANDARD FOR ULTRASOUND QUALITY ASSURANCE

The CIRS Model 040GSE Multi-Purpose, Multi-Tissue Ultrasound Phantom contains nine performance measurements, including gray scale targets, anechoic stepped masses and elasticity targets. The CIRS Multi-Purpose, Multi-Tissue Ultrasound phantom exceeds ACR accreditation requirements, making it the only phantom of its kind designed to meet the ultrasound QA challenges of today and tomorrow.

The unique dual attenuation of the background gel allows for evaluation of transducers that range from 2 MHz - 15 MHz. A removable water well and endocavity cover extends the use of the phantom by allowing evaluation of all transducer configurations: linear, curvilinear and intercavity.

CIRS ultrasound QA phantoms come standard with a robust housing, rugged carry case, 4-year warranty, and user guide.

Features

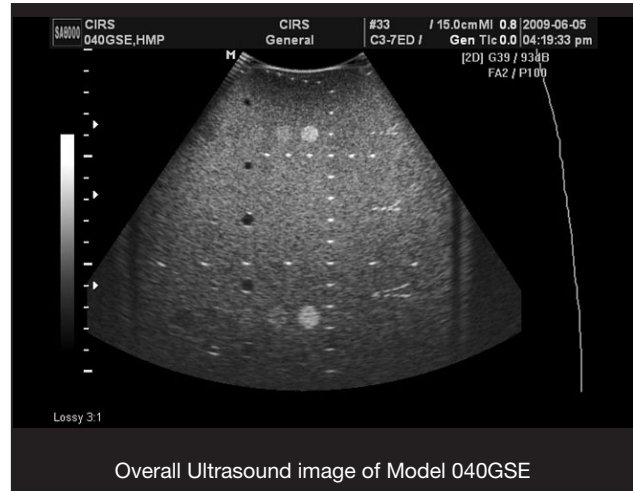
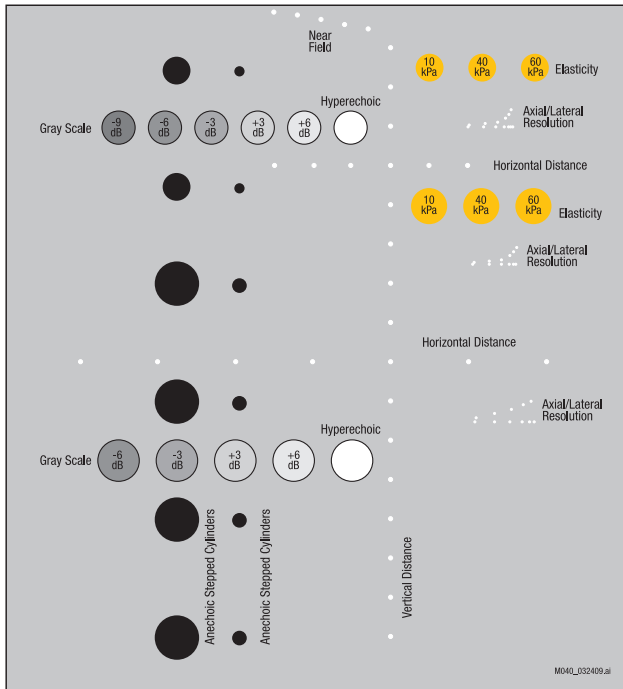
- Performs nine performance measurements
- Contains dual attenuation for thorough evaluation
- Compatible with all transducer configurations
- Exceeds ACR accreditation requirements
- Made from Zerdine® to simulate acoustic properties of human soft tissue
- Housed in rugged ABS plastic for added durability

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CIRS

Tissue Simulation & Phantom Technology



Overall Ultrasound image of Model 040GSE



Phantom comes with detachable scanning wells to accommodate large sector probes and small endocavity probes. It is packaged in a foam lined carry case.

SPECIFICATIONS

| | |
|------------------------|---|
| DIMENSIONS: | 17.8 cm x 12.7 cm x 20.3 cm (7" x 5" x 8") |
| PHANTOM WEIGHT: | 11 lbs. (4.1 kg) |
| MATERIALS: | Zerdine |

BACKGROUND MATERIALS

Material: Zerdine(1), solid elastic water-based polymer
 Freezing point: 0° C
 Melting point: Above 100° C
 Attenuation: 0.5 dB/cm-MHz & 0.07 dB/cm-MHz
 Speed of Sound: 1540 m/s ± 10 m/s

SCANNING WELL

1 cm deep

SCANNING MEMBRANE

Saran-based laminate

WIRE TARGETS

Material: Nylon monofilament

NEAR FIELD GROUP

Number of targets: 5
 Wire Diameter: 100 microns
 Depth range: 1 to 5 mm
 Distance b/w Targets: 1 mm

VERTICAL DISTANCE GROUP

Number of targets: 16
 Wire diameter: 100 microns
 Depth range: 1 to 16 cm
 Spacing: 10 mm

HORIZONTAL DISTANCE GROUPS

Number of groups: 2
 Wire diameter: 100 microns
 Depths: 4 & 9 cm
 Number of targets: 4 & 7 respectively
 Spacing: 10 & 20 mm respectively

MODEL 040GSE INCLUDES

| QTY | COMPONENT DESCRIPTION |
|-----|--|
| 1 | Multi-Purpose, Multi-Tissue Ultrasound Phantom |
| 1 | Detachable Protective Cover |
| 2 | Detachable Scan Wells |
| 1 | Carry Case |
| - | 48 Month Warranty |
| - | User Guide |

AXIAL-LATERAL RESOLUTION GROUPS

Number of groups: 2
 Wire diameter: 80 microns
 Depths: 3 & 6.5 cm
 Axial separation: 4, 3, 2, 1, 0.5 & 0.25 mm
 Lateral separation: 4, 3, 2, 1, 0.5 & 0.25 mm

Number of groups: 1
 Wire diameter: 80 microns
 Depths: 10.5 cm
 Axial separation: 4, 3, 2, 1, & 0.5 mm
 Lateral separation: 4, 3, 2, 1, & 0.5 mm

ANECHOIC STEPPED CYLINDERS

Number of targets: 12
 Diameter of targets: 1.3, 2.0, 3.0, 4.5, 6.7 & 10.0 mm
 Depth of Targets: 1.5, 4.5, 7.0, 10.0, 13.0, 16.0 cm
 Attenuation: 0.5 dB/cm-MHz
 Contrast: Anechoic, Cyst-like

GRAY SCALE TARGETS

Attenuation: 0.5 dB/cm-MHz ± 0.07
 Number of groups: 2; 6 Targets, Ø 8mm at 3 cm depth
 Contrast: -9, -6, -3, +3, +6 & > +15 dB
 5 Targets, Ø 10mm at 11.5 cm depth
 Contrast: -6, -3, +3, +6 & > +15 dB

ELASTICITY TARGETS

Attenuation: 0.5 dB/cm-MHz
 Number of groups: 2; 3 targets per group
 Ø 6 mm at 1.5 cm depth
 Ø 8 mm at 5 cm depth
 Elasticity: 10, 40 & 60 kPa

