# Multi-Purpose, Multi-Tissue Ultrasound Phantom

## Model 040GSE



The CIRS Model 040GSE Multi-Purpose, Multi-Tissue Ultrasound Phantom is the most complete solution available for performance and quality assurance testing. Its dual frequency design and detachable water wells allows testing of most transducer shapes – including curvilinear and endocacity – and frequencies. It is also the only QA

The phantom is made of CIRS' proprietary Zerdine® hydrogel polymer, which has been formulated to provide tissue mimicking properties including compatibility with harmonic imaging. To maximize phantom lifetime, this gel is contained in a rugged ABS plastic housing with a Saran-based laminate membrane.

phantom on the market that provides both elasticity targets and all the standard B-mode imaging test objects.

CIRS ultrasound QA phantoms come standard with a robust housing, carry case, 48-month warranty, and user guide.

# The Standard for Ultrasound Quality Assurance

- Unique dual attenuation design allows testing on low frequency abdominal probes up to 5 MHz and high frequency probes to 15 MHz and higher
- Detachable water wells allow for testing curvilinear and endocavity probes
- Only general purpose QA phantom on market with elasticity targets
- Ensure over ten years of reliable use through reinspection and repair services

Includes best in industry four-year warranty

ZERDINE® Inside
A registered trademark of CIRS

# Key Tests with Model 040GSE

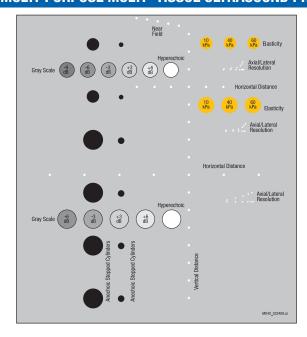
- Uniformity
- Depth of Penetration
- Beam Profile/ Focal Zone/ Lateral Response Width
- Vertical Distance Measurement
- Horizontal Distance Measurement
- Axial and Lateral Resolution
- Elevational Resolution
- Contrast Resolution
- Grayscale Contrast Sensitivity
- Elasticity Sensitivity
- Dead Zone Assessment



深圳为尔康科技有限公司 联系人:曾祥满 手机:13632925349

QQ: 274798107 电话: 0755-28896837 地址: 深圳市龙岗区沙平北路111号608A

网址:www.medicalQC.com 邮箱:szchina1718@163.com







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)                           |
| HOUSING MATERIALS            | ABS Plastic                                |
| MEMBRANE                     | Saran-based laminate                       |
| TISSUE-MIMICKING<br>MATERIAL | Zerdine® solid elastic hydrogel            |

#### ZERDINE® PROPERTIES

0° C Freezing point: Melting point: Speed of Sound: Above 100° C 1540 m/s

Other: Compatible with harmonic imaging

#### VERTICAL DISTANCE GROUP

Number of targets:

Wire diameter: 100-micron, nylon monofilament

Depth range: 1 to 16 cm Spacing: 10 mm

HORIZONTAL DISTANCE GROUP Number of groups:

2 100-micron, nylon monofilament Wire:

4 & 9 cm 6 & 7 respectively Depths: Number of Targets: 10 & 20 mm respectively Spacing:

NEAR FIELD GROUP

Number of targets: 100 microns Wire Diameter: Depth range: 1 to 5 mm

Distance b/w Targets: 1 mm

#### **ELASTICITY TARGETS**

1.5 cm deep, Ø 6 mm Group 1: 5 cm deep, Ø 8 mm 10, 40 & 60 kPa Group 2: Elasticity:

Grayscale Contrast: 0 db with respect to background

### **MODEL 040GSE INCLUDES**

| QTY | COMPONENT DESCRIPTION                          |
|-----|--|
| 1   | Multi-Purpose, Multi-Tissue Ultrasound Phantom |
| 1   | Detachable Protective Cover                    |
| 1   | Detachable Water Well (1cm deep)               |
| 1   | Detachable Endocavity Well                     |
| 1   | Carry Case                                     |
| -   | 48-Month Warranty                              |
| -   | User Guide                                     |
| -   | Certificate of Compliance                      |

#### AXIAL-LATERAL RESOLUTION GROUPS

Wire diameter: 80 microns

Group 1&2 Depths: 3 & 6.5 cm

4, 3, 2, 1, 0.5 & 0.25 mm 4, 3, 2, 1, 0.5 & 0.25 mm Axial separation: Lateral separation:

Group 3 Depths: 10.5 cm Axial separation:

5, 4, 3, 2 & 1 mm Lateral separation: 5, 4, 3, 2 & 1 mm

#### ANECHOIC STEPPED CYLINDERS

Number of targets: Diameter of targets:

1.3, 2.0, 3.0, 4.5, 6.7 & 10.0 mm 1.5, 4.5, 7.0, 10.0, 13.0, 16.0 cm Depth of Targets: Contrast: Anechoic, Cyst-like, 1mm

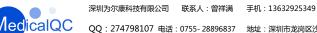
#### **GRAY SCALE TARGETS**

Group 1: 3 cm deep, Ø 8 mm

-9, -6, -3, +3, +6 & > +15 dB with respect to back Contrast: ground 11.5 cm deep, Ø 10mm

Group 2: -6, -3, +3, +6 & > +15 dB with respect to back Contrast:

around



QQ: 274798107 电话: 0755-28896837 地址: 深圳市龙岗区沙平北路111号608A

网址:www.medicalQC.com 邮箱:szchina1718@163.com