



# Precision Small Parts Grey Scale Phantoms

GAMMEX 404GSL EA ND 404L E

The Precision Small Parts Grey Scale Phantom 404GSL EA provides advanced technology for measuring image quality of small parts and intra-cavity ultrasound scanning systems. With added grayscale targets this small parts phantom also measures contrast, temporal resolution and system linearity. The 404L E has the same general target layout and specifications as the 404GSL E but does not include grey scale targets.

This phantom incorporates our new Tissue Mimicking (TM) gel which provides a smoother background texture and an new composite film scanning surface that has

improved transmission properties so more of the ultrasonic beam can be transmitted and received.

Unique to the Gammex 404GSL EA are closely spaced pin targets ideal for testing an array of high frequency transducers. Resolution patterns and all vertical and horizontal targets are made of 0.1 mm nylon fibers for better detail definition and spatial resolution.

Three grey scale targets of -6 dB, +6 dB and high scatter relative to the background material are included in the 404GS LE.

continued .....

WWW.GAMMEX.COM



# GAMMEX 404G SL EA ND 404L E

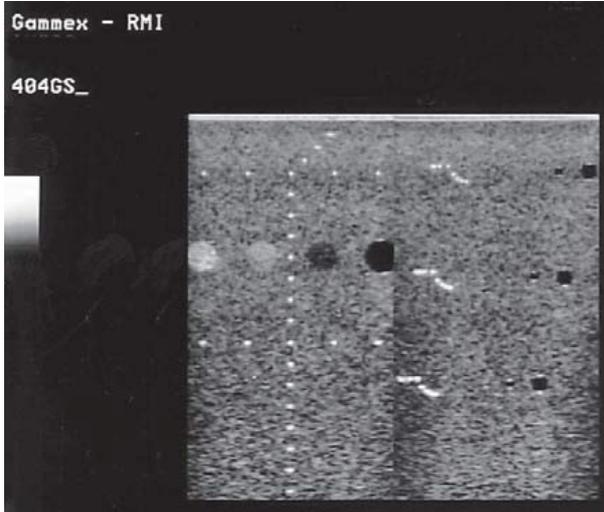
ULTRASOUND

continued from front...

The Gammex 404GSL Ep provides the sonographer with the following features:

- Axial and lateral resolution targets at 1, 3.5 and 6 cm for precise resolution measurements
- Low scatter cysts of 1, 2, 4 and 7 mm diameter to evaluate system noise and distortion
- 7 mm grey scale targets of -6 dB, +6 dB and high scatter relative to background material
- Attenuation coefficients of 0.5 or 0.7 dB/cm/MHz
- Convertible water dam or gel water coupled scanning
- Integral cover to protect scanning surface
- Durable ergonomic design for handling ease

Optional accessories for the Gammex line of ultrasound phantoms include Soft Foam-Lined Carrying Case, Rigid Case, or the Precision Ultrasound Transducer Guide.



This ultrasound image demonstrates a linear scan of the Precision Small Parts Grey Scale Phantom 404GSL E in split screen mode.

## SPECIFICATIONS

### High Resolution Tissue Mimicking Gel

Speed of sound .. 1540 ± 10 m/s at 22 °C  
Attenuation .... 0.5 or 0.7 ± 0.05 dB/cm/MHz

### Targets

#### Anechoic Cysts

Diameters ..... 1, 2, 4 and 7 mm  
Speed of sound .. 1540 ± 10 m/s at 22 °C  
Attenuation .... 0.5 or 0.7 ± 0.05 dB/cm/MHz

#### Grey Scale Targets

Contrast ..... -6, +6 and +12 dB relative to background  
Diameter ..... 7 mm  
Speed of sound .. 1540 ± 10 m/s at 22 °C  
Attenuation .... 0.5 or 0.7 ± 0.05 dB/cm/MHz

#### Pin Targets

Diameter of nylon lines ..... 0.1 mm (0.004 in)  
Vertical spacing .. 5 mm at 1 to 9 cm deep  
Horizontal spacing ..... 10 mm at 1 and 5 cm deep

### Construction

Scanning surface ..... Composite Film  
Walls ..... Extruded ABS  
Dimensions ..... 15.2 x 8.25 x 18.5 cm (6 x 3.25 x 7.25 in)  
Weight ..... 1.8 kg (4 lbs)  
All acoustic measurements at 4.5 MHz, 22 °C