

Precision Small Parts Grey Scale Phantoms 404GS LE and 404 LE

As one of the new generation of grey scale phantoms, the Precision Small Parts Grey Scale Phantom 404GS LE provides new advanced technology for measuring image quality of small parts and intra-cavity ultrasound scanning systems. With added grey scale targets, this small parts phantom also measures contrast, temporal resolution and system linearity. The 404 LE has the same general target layout and specifications as the 404GS LE but does not include grey scale targets. Both phantoms incorporate Tissue Mimicking™ gel, which provides a smoother background texture, and a new composite film scanning surface so more of the ultrasonic beam can be transmitted and received.

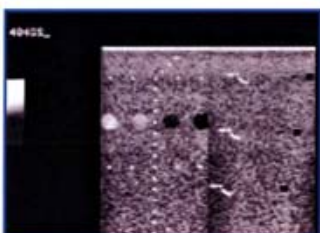


Unique to the 404GS LE are closely spaced pin targets ideal for testing a range of high frequency transducers. Resolution patterns and all vertical and horizontal targets are made of 0.1 mm nylon fibers for better detail definition and spatial resolution. Three grey scale targets of -6 dB, +6 dB and high scatter relative to the background material are included.

The 404GS LE provides the sonographer with the following features and options:

- axial and lateral resolution targets at 1, 3.5 and 6 cm for precise resolution measurements
- low scatter cysts of 1, 2, and 4 mm diameters
- 7 mm grey scale targets of -6 dB, +6 dB and high scatter relative to background material
- 7 mm anechoic cyst to evaluate system noise distortion
- attenuation coefficients of 0.5 or 0.7 dB/cm/MHz
- convertible water dam for gel or water couple scanning
- integral cover to protect scanning surface
- durable ergonomic design for handling ease
- optional form-lined carrying case

This ultrasound image demonstrates a linear scan of the Precision Grey Scale Phantom 404GS LE in split screen mode.



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Specifications:

Tissue Mimicking Material:

Speed of sound 1540 ±10 m/s at 22 °C
Attenuation 0.5 or 0.7 ±0.05 dB/cm/MHz at 4.5 MHz

Targets:

Grey Scale Targets (404GS only)
Contrast -6 dB, + 6 dB, high scatter relative to background
Diameter 7 mm (.27 in)
Speed of sound 1540 ±10 m/s at 22 °C
Attenuation 0.5 or 0.7 ±0.05 dB/cm/MHz

Anechoic Cysts:

Diameter 1, 2, 4 and 7 mm (.04, .08, .16 and .27 in)
Speed of sound 1540 ±10 m/s at 22 °C
Attenuation 0.5 ±0.01 dB/cm/MHz at 4.5 MHz

Pin Targets:

Diameter of nylon lines 0.1 mm (0.004 in.)
Vertical spacing 5 mm at 1 to 9 cm deep (.394 to 3.54 in)
Horizontal spacing 10 mm at 1 and 5 cm deep (.394 to 1.97 in)

Container:

Walls Extruded ABS
Scanning surface Composite Film
Size 15.2 x 8.25 x 18.5 cm (6 x 3.25 x 7.25 in.)

Phantom weight:

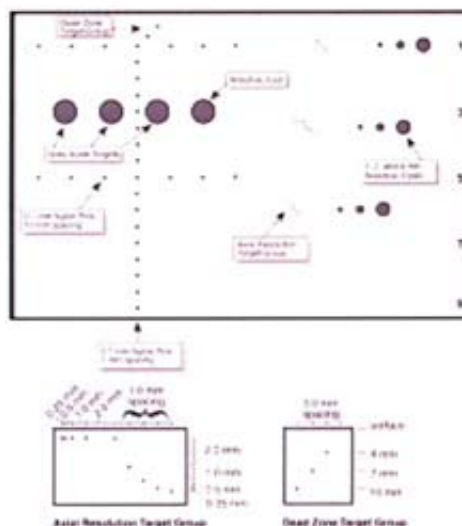
1.8 kg (4lbs)

Options:

Foam-line carrying case

on request

NOTE: The 404 LE has the same general target layout and specifications as the 404GS LE but does not include grey scale targets.



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