

Elasticity QA Phantoms



Model 049 & 049A

ZERDINE® Inside
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DEVELOPED TO PROVIDE USERS WITH ACOUSTIC TARGETS OF DISCRETE KNOWN STIFFNESS

The Model 049 and 049A Elasticity QA Phantoms are tools developed for both shear wave and compression elastography. These are the only phantoms commercially available for sonoelastography quality assurance. The phantoms contain targets of known stiffness relative to the background material and range in stiffness, diameter and depth.

The Elasticity QA Phantoms are suitable for determining the dynamic range of the system, checking system performance over time, demonstrating system features and training personnel and customers on this rapidly growing field. The phantoms can also be used by researchers developing and verifying new techniques.

The Model 049 is a basic QA phantom as it contains two sizes of spheres positioned at two different depths. At each depth there are two spheres that are softer than the background and two that are harder than the background.

For a broader range of target sizes, the Model 049A phantom has stepped mass targets instead of spheres. Each stepped mass consists of six diameters so that you

can evaluate the ability to visualize targets that are located at the same depth and have the same relative stiffness but vary in diameter. The Model 049A is housed in the same size container as the original Model 049.

Both phantoms come standard with a four-year warranty and a carry case.

Features

- Four types of lesions with discrete elastic moduli (contact CIRS for custom moduli)
- Targets appear almost isoechoic on standard B-mode imaging
- No metal Components: compatible with magnetic resonance elastography
- Phantom includes carry case
- Four-Year Warranty
- Compatible with both shear wave and compression elastography

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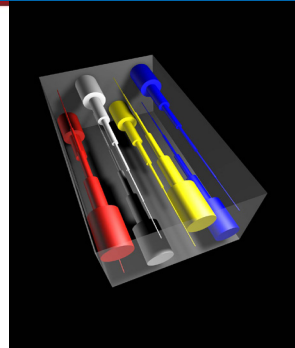
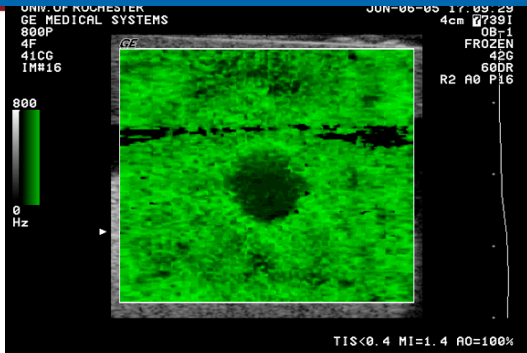
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ELASTICITY QA PHANTOMS

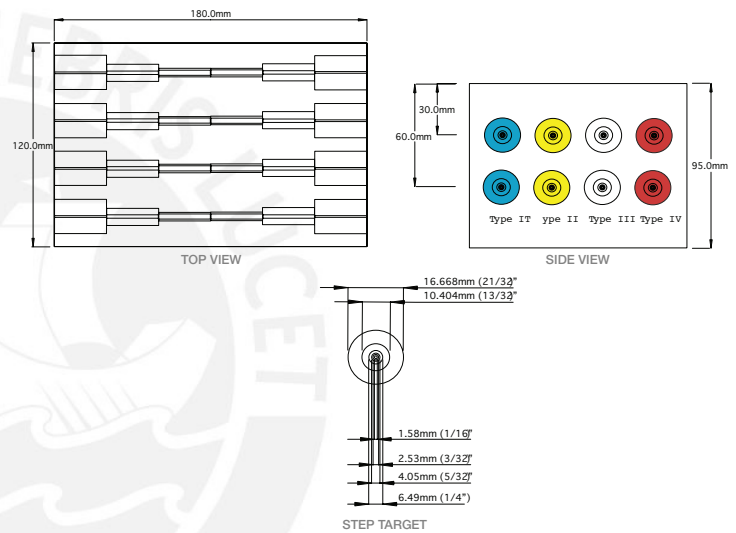
Model 049 & 049A



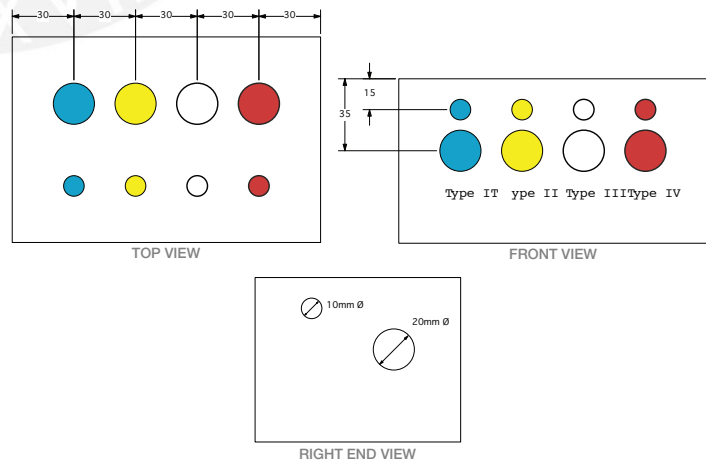
SPECIFICATIONS

DIMENSIONS:¹	8.5" in x 6" in x 4" in (20cm x 15cm x 10cm)
PHANTOM WEIGHT:	Model 049 - 6 lb Model 049A - 7 lb
MATERIALS:	Background Material: Zerdine® Speed of Sound: 1540 m/s Attenuation: 0.5 dB/cm-MHz Lesions Material: Zerdine Attenuation: 0.5 dB/cm-MHz Elasticity^{2,3} Background: 25 kPa Lesion Type I: 8 kPa Lesion Type II: 14 kPa Lesion Type III: 45 kPa Lesion Type IV: 80 kPa
SCANABLE SURFACE AREA	17 x 10 cm

MODEL 049A ELASTICITY QA PHANTOM - STEPPED CYLINDER



MODEL 049 ELASTICITY QA PHANTOM - SPHERICAL



- ¹ Users of magnetic resonance elastography (MRE) systems may require custom housing to provide a larger opening for MRE drivers. Contact CIRS to customize the phantom for this application.
- ² Contact CIRS for custom elasticities. Stiffness can be changed from 3 kPa to 150 kPa.
- ³ Elasticity values will vary depending on the measurement system used. Batch sample measurements, made using a quasi-static load frame, are provided with a certification sheet on all phantoms.

QTY	COMPONENT DESCRIPTION
1	Elasticity QA Phantom (Spherical or Stepped Cylinder)
1	User Guide
-	48 Month Warranty

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Specifications subject to change without notice.
Publication: 049 & 049A DS 101915