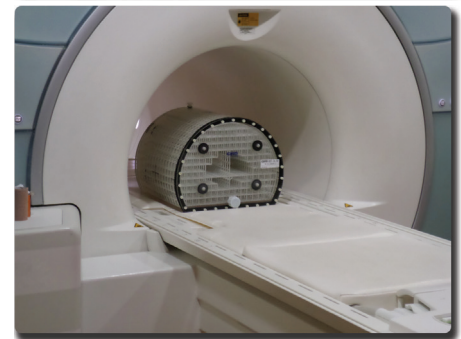
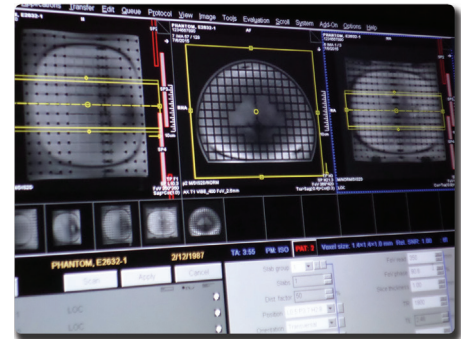
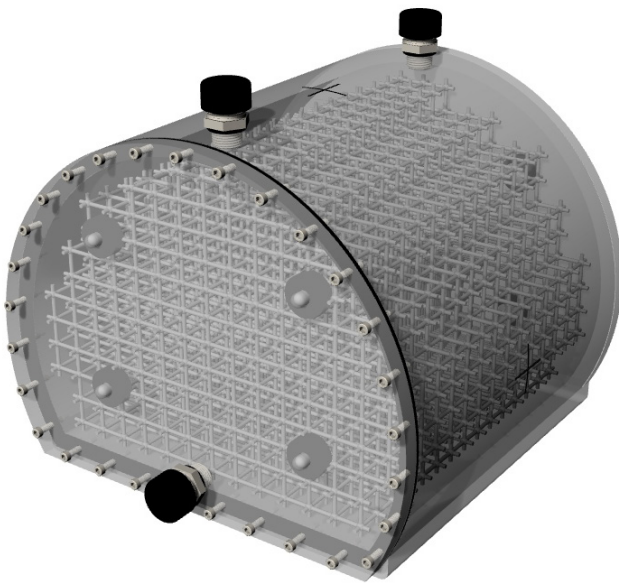


Large Field MR Image Distortion Phantom

Model 604-GS



ASSESS IMAGE DISTORTION IN A TISSUE-LIKE MEDIUM

The Model 604-GS provides a tissue-like imaging environment for assessing geometric distortion in whole-body MRI scanners. The 604-GS is designed to assess image distortion caused by B_0 inhomogeneity and nonlinearity of the magnetic gradients. Unlike other air-filled phantoms, the liquid-filled 604-GS is also sensitive to chemical shifts and susceptibility artifacts, additional causes of distortion found when encountering density differences in diagnostic MRI and radiation therapy treatment planning.

The phantom features a unique orthogonal 3D grid that provides complete geometric data throughout the imaging volume. Users can fill the phantom with the AAPM TG 100 recommended solution, or with specialized solutions for high-field MRI or unique scan sequences. Ground-truth measurements of grid locations can be obtained through CT scanning of the phantom.

The phantom is marked for ease of alignment to position lasers and is designed for use with both curved and flat gantry tables.

Features

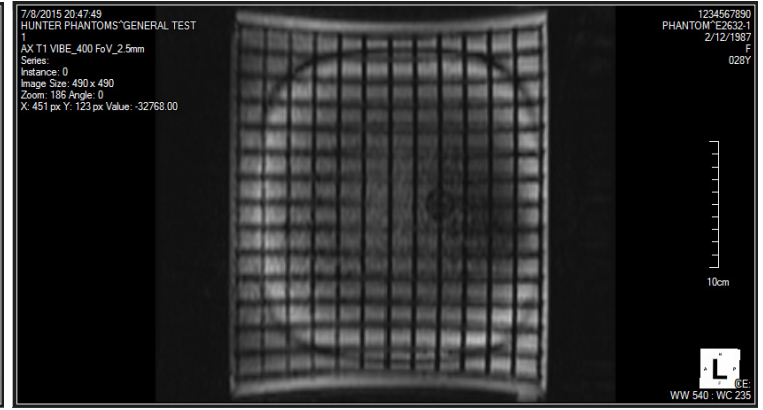
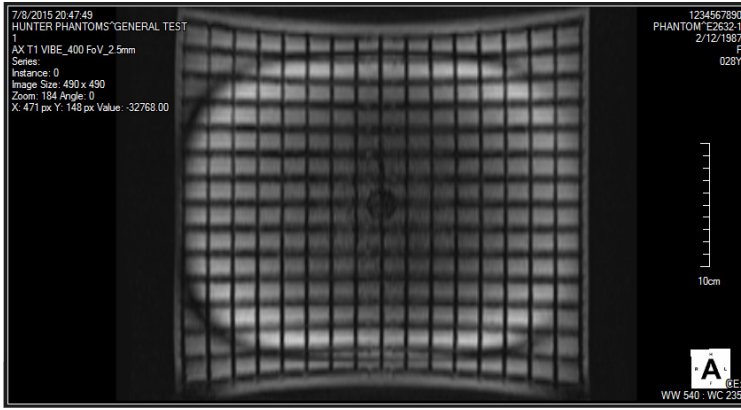
- With a tissue-like MRI signal, assess image distortion due to:
 - B_0 field inhomogeneities
 - Gradient nonlinearity
 - Chemical shifts
 - Susceptibility artifacts
- Works with Distortion Check software
- Submillimeter control point detection
- Optimized 3D grid spacing fills entire volume
- 2152 control points
- Easy integration and laser alignment
- Ground truth files for grid available

900 Asbury Ave • Norfolk, Virginia 23513 • USA
Tel: 800.617.1177 • 757.855.2765 • Fax: 757.857.0523

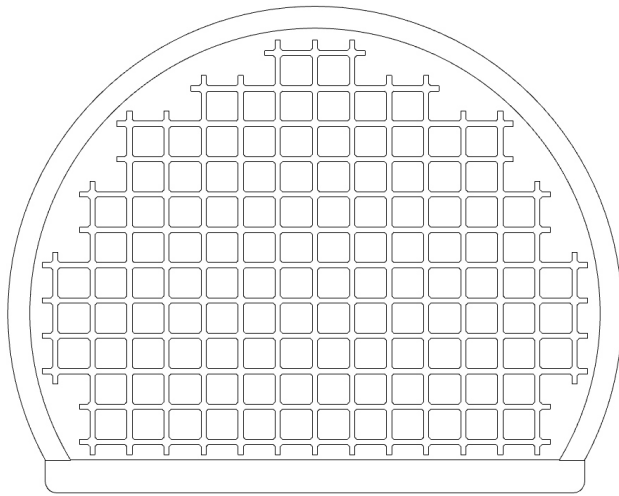
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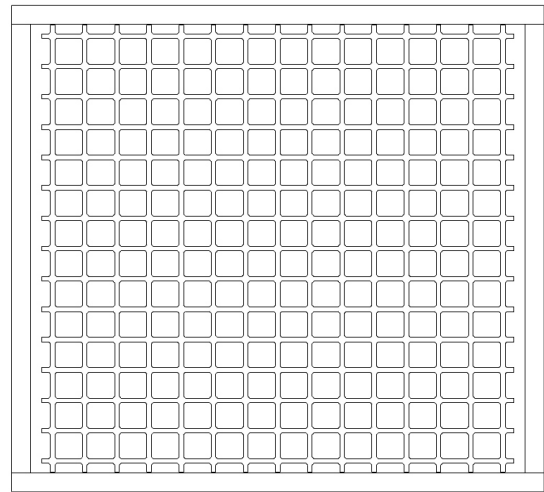
Tissue Simulation & Phantom Technology



T1-weighted MRI images are shown above. The 604-GS has been successfully tested in multiple sequences including T1-weighted, T2-weighted, 3D Time-of-Flight, MPRAGE and CISS



Model 604-GS Axial Cross-Section



Model 604-GS Lateral Cross-Section

SPECIFICATIONS

OVERALL DIMENSIONS	300 mm (L), 276 mm (H) , 330 mm (DIA)
WEIGHT (DRY)	17 lb. (7.7 kg)
WEIGHT (FILLED)	62 lb. (28.1 kg)
MATERIAL	PMMA
GRID SPACING	20.3mm (I-S), 20.5mm (AP) and 21.5mm (L-R). Grid intersections enhanced by 6mm diameter sphere.

SOFTWARE OPTIONS

PART NO.	DESCRIPTION
603S	Distortion Check software 2 year renewal license

MODEL 604-GS INCLUDES

QTY	COMPONENT DESCRIPTION
1	Large Field MR Image Distortion Phantom
1	Filling Funnel
10	Extra plastic screws
1	Harness
1	Plastic tray
2	User Guides
1	Foam-Lined Carry Case
-	Unlimited scans using MRI Distortion Check Software for initial 2 year period. For instructions on how to create your account, go to https://www.cirsinc.com/software/distortion-check/
-	60-Month Warranty

