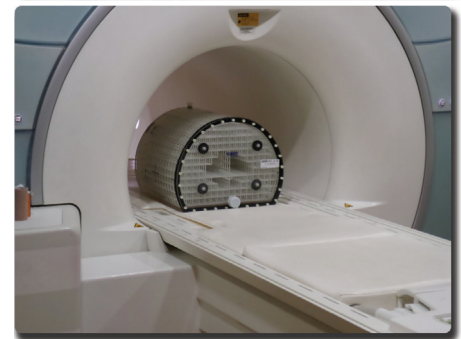
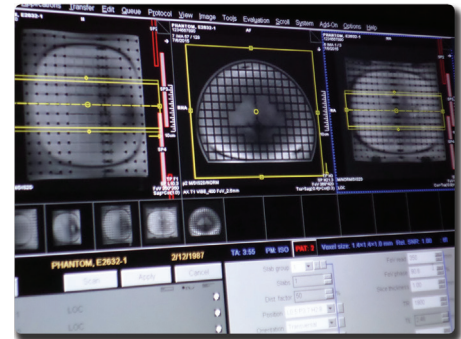
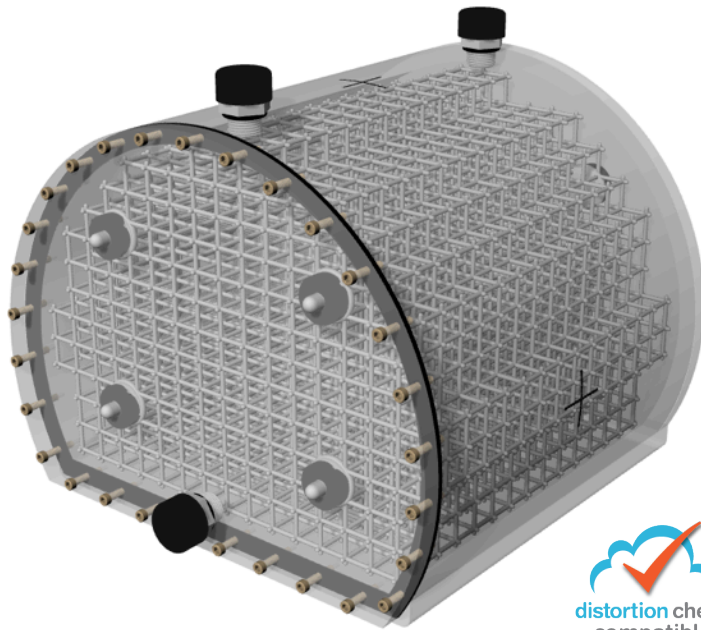


Large Field MRI Distortion Phantom

Model 604



ASSESS IMAGE DISTORTION IN LARGE-BORE MRI

The Large Field MRI Distortion Phantom, Model 604 is designed for assessment of magnetic resonance imaging distortion caused mainly by the nonlinearity of the magnetic gradients. It can also help quantify MRI image distortion due to chemical shifts and susceptibility due to density differences common in Diagnostic and RT treatment planning.

The phantom's 3D grid of large size and equal spacing in all three orthogonal dimensions makes it suitable for distortion QA of large bore MRI and CT scanning for distortion-free imaging. It can be filled with various signal-generating solutions for use in magnetic resonance imaging. Contrast of the grid-liquid interface varies under computed tomography depending on the liquid used for generating MRI background signal. When empty, the grid-air interface provides good contrast under CT. The phantom images well with all CT techniques and MRI sequences tested to date, including T1 weighted, T2 weighted, 3D Time of Flight, MPRAGE and CISS sequences.

The phantom is comprised of a leak-proof PMMA cylinder and measures 330 mm in diameter by 300 mm long. The

entire volume is filled with a unique orthogonal 3D grid of 3 mm diameter rods spaced 20 mm apart to provide complete geometric data throughout the imaging volume. The phantom is marked for ease of alignment to positioning lasers and is designed for use with both curved and flat gantry tables.

Features

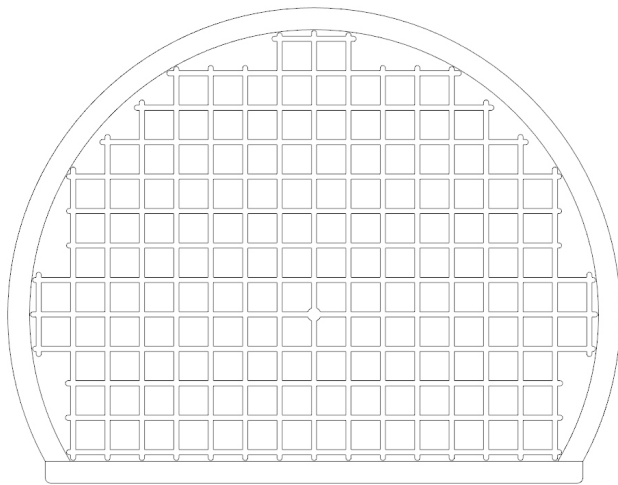
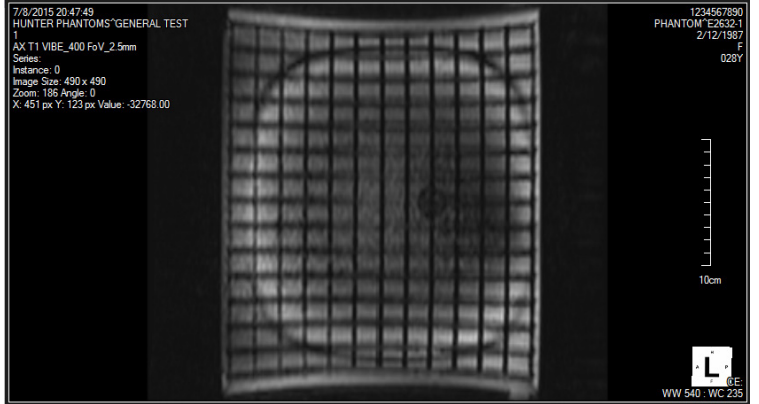
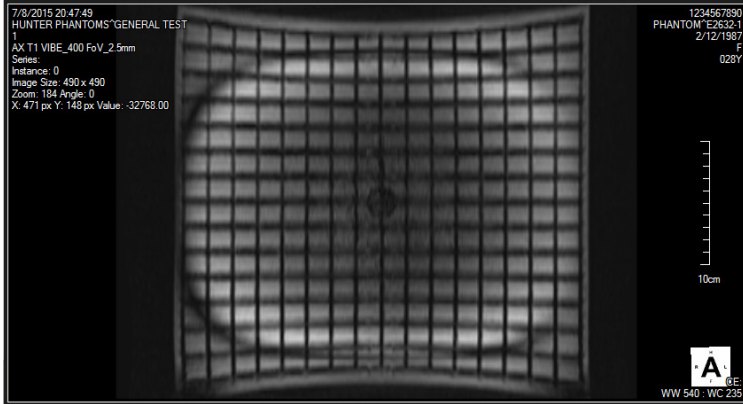
- Large FOV distortion evaluation
- Unique orthogonal grid with equal 3D spacing
- Leak-proof design
- Sub-millimeter precision
- Easy integration and laser alignment
- Ground truth files for grid available in various digital formats
- 2623 control points

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

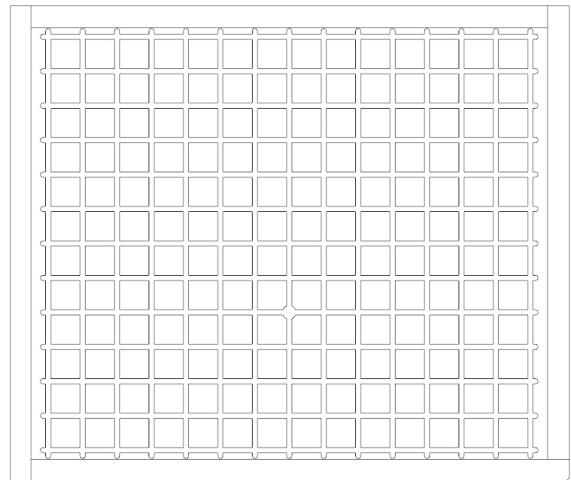
WWW.CIRSINC.COM

CIRS

Tissue Simulation & Phantom Technology



Model 604 Axial Cross-Section



Model 604 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

MODEL 604 INCLUDES

QTY	COMPONENT DESCRIPTION
1	Large Field MRI Distortion Phantom
1	3/4" garden hose filling tube (USA)
1	Complimentary 90 day license for 5 successful analyzed scans using Distortion Check Software
1	User Guide
1	Foam-Lined Carry Case
-	48-Month Warranty

SOFTWARE OPTIONS

PART NO.	DESCRIPTION
603S-25	Distortion Check software (license for 2 years or 25 successfully analyzed scans, whichever expires first) Phantom Serial Number Required
603S-50	Distortion Check software (license for 2 years or 50 successfully analyzed scans, whichever expires first) Phantom Serial Number Required
603S-100	Distortion Check software (license for 2 years or 100 successfully analyzed scans, whichever expires first) Phantom Serial Number Required
603S-200	Distortion Check software (license for 2 years or 200 successfully analyzed scans, whichever expires first) Phantom Serial Number Required
603S-500	Distortion Check software (license for 2 years or 500 successfully analyzed scans, whichever expires first) Phantom Serial Number Required

