Dialy ISO Phantom

Model 023

ACCURATE • ECONOMICAL • EASY TO USE

Target positioning through imaging guidance is critical for the accurate delivery of radiation treatment. Verifying that all of the imaging, localization and targeting systems are aligned with the true radiation isocenter is crucial. The CIRS ISO phantom provides a cost-effective, quick and accurate means of testing radiation isocenter coincidence with the isocenters of the image guidance systems.

The ISO phantom is designed specifically for daily system checks. LINAC lasers and light field can be "tuned" to the true radiation isocenter using the engraved markings on the exterior of the ISO phantom. The light field and radiation field alignment can be checked using built-in radiographic markers. More importantly, the isocenters of both the OBI and the EPID can be checked for true spatial alignment and coincidence with that of the treatment beam.

The ISO phantom contains a unique center point fiducial and an offset target. The offset target is used to ensure the table offset coordinates generated by kV/MV imaging are accurate by locating the target, moving the table the determined amounts and verifying that the offset target has been positioned at the isocenter. The center fiducial and off-set target measure 6.35 mm in diameter and are made of ceramic. The exterior is machined with concentric circle targets to allow user to objectively assess all setup errors, including rotations, and to easily align the phantom to the true radiation isocenter. ISO phantom is manufactured with machining tolerance of ± 0.02 mm. Target positioning accuracy is ± 0.1 mm.

Features

- Unique fiducials produce sharp clear images in EPID, kV and CBCT imaging
- Offset target fiducial to check accuracy of couch corrections
- Check laser alignment, light field size verification, kV and MV imager coincidence, CBCT process accuracy, ODI accuracy, Table height accuracy and Radiation field/ light field alignment

An optional optical target frame adapter is available that mechanically registers any frameless SRS RF or optical tracking target array to the ISO phantom in a simple and repeatable manner. You can mount the target array via adhesive or mechanical fasteners of your choosing.

There are two platforms available for use with ISO phantom. One is designed to register with couch indexing bars and provide indices for incremental adjustment of pitch, roll and yaw. The second platform provides leveling legs and embedded markers for kV/MV pixel size computation using Iso Analyze software.

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CIRS
Tissue Simulation & Phantom Technology

DAILY ISO PHANTOM

Model 023

ALIGNMENT EXAMPLE

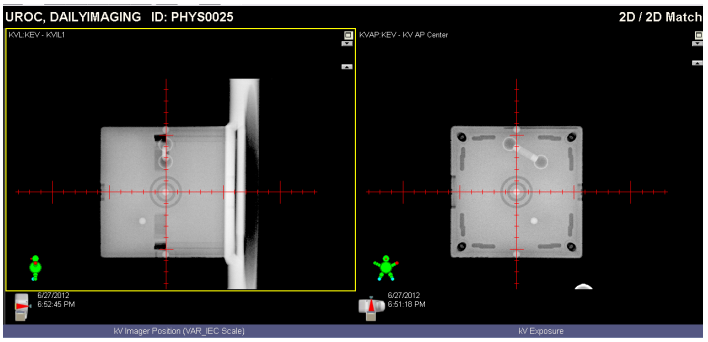


Figure 1. 2D/2D match of kV and DRR

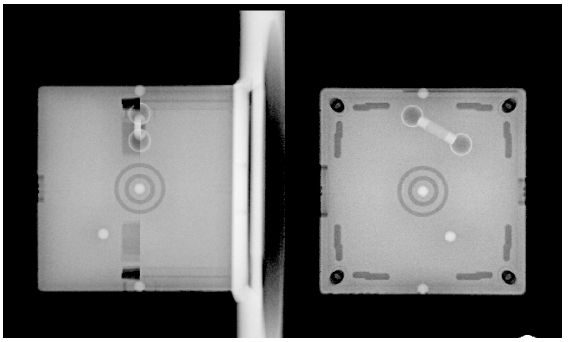


Figure 2. Concentric circles verify accurate alignment of ISO Phantom and establish true position of the kV radiation isocenter

SPECIFICATIONS

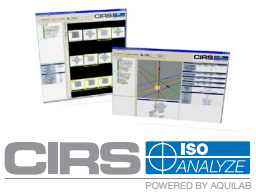
PHANTOM BODY	Dimensions: 12 cm x 12 cm x 12 cm Weight: 1.7 kg Material: Plastic Water®
FIDUCIALS	Qty: Four (1) Center Fiducial (1) Offset Target (2) Magnification Check Fiducials Material: Ceramic Diameter: 6.35 mm
OBI AUTO-REGISTRATION TARGET	Qty: One Material: Aluminum

MODEL 023 INCLUDES

QTY	DESCRIPTION
1	Dialy ISO Phantom
1	User Guide
-	48 Month Warranty

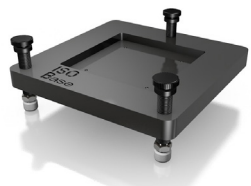
OPTIONAL ACCESSORIES

PART NO.	DESCRIPTION
023-01	ISO Opt Frameless SRS Fiducial Array Frame Adapter
023-03	ISO Analyze™ Image Analysis Software
023-04	ISO Base™ Alignment Platform
023-08	6DOF ISO Base™



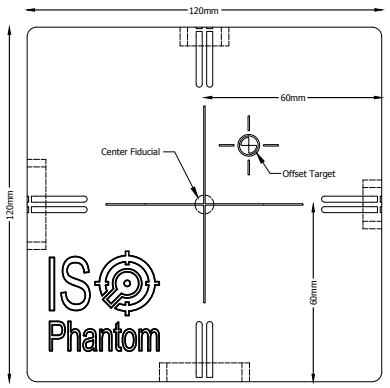
Software solution for auto image analysis of ISO phantom

ISO Opt Frameless SRS Fiducial Array Frame Adapter

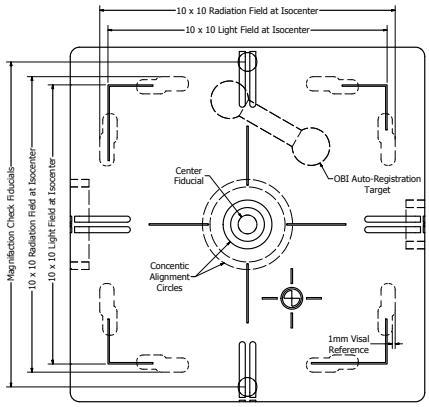


ISO Base™ Alignment Platform

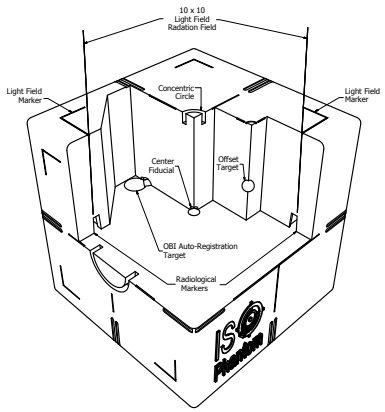
6DOF ISO Base™



Inferior / Superior View



Anterior / Posterior View



Interior View

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