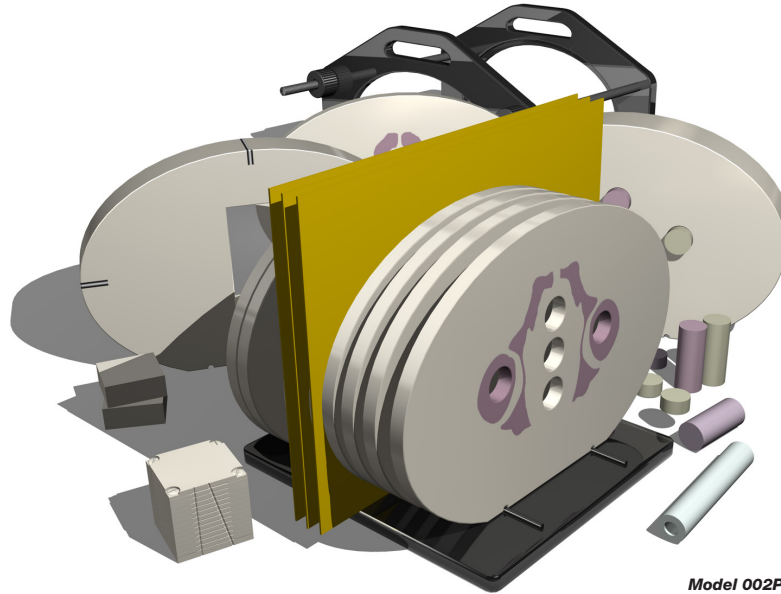




IMRT Pelvic 3D Phantom

Model 002PRA



**Model 002PRA with
optional accessories**

COMPLETE QA FROM CT IMAGING TO DOSE VERIFICATION

The CIRS Model 002PRA IMRT Pelvic 3D Phantom for film and ion chamber dosimetry is designed to address the complex issues surrounding commissioning and comparison of treatment planning systems and complete system QA from CT imaging to dose verification.

Our CIRS Pelvic 3D Phantom properly represents human pelvic anatomy in shape, proportion and structure as well as density. This enables thorough analysis of both the imaging and dosimetry system. Elliptical in shape, the phantom approximates the size of an average patient, and has a tissue equivalent three dimensional skeleton. It's constructed of proprietary tissue equivalent epoxy materials.

The Model 002PRA includes four different Electron Density reference plugs which can be interchanged in five separate locations within the phantom. The surface of the phantom is etched with grooves to ensure proper orientation of the CT slices and accurate film to plan registration.

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Features

- Verify heterogeneity corrections
- Correlate CTU to electron density
- Check dose distributions in sensitive areas
- Check depth doses and absolute dose
- 2D and 3D isodoses
- Calibrate film with ion chamber*

* The CIRS line of IMRT phantoms is compatible with the RIT 113 software for film to plan analysis. GaFChronic® is a registered trademark of International Specialty Products, Wayne, NJ.

深圳市展业达鸿科技有限公司

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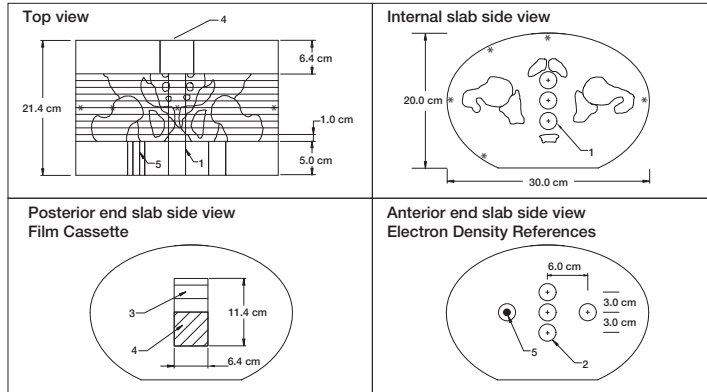
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IMRT VERIFICATION SYSTEM

CIRS IMRT phantoms are manufactured from tissue equivalent materials that mimic within 1% from 50 keV to 15 MeV for accurate simulation during all necessary steps of IMRT verification. The interchangeable rod design allows the phantom to accommodate many dose measurement devices such as ion chambers, TLD, diodes and MOSFET's in the same location within the phantom. Phantom cross sections accommodate GafChromic® or standard ready-pack films.



1 - Holes plugged with rods (Ø 2.5 cm) 4 - Film stack (cube 2.5 inches)
 2 - Holes for electron density inserts 5 - Bone core (diam. 1 cm in water background)
 3 - Spacers



SPECIFICATIONS

OVERALL DIMENSIONS:	35.6 cm x 38.1 cm x 22.9 cm (14" x 15" x 9")
WEIGHT:	10.5 kg (28 lb)
MATERIALS:	Phantom Body: Tissue Equivalent Epoxy Materials Inserts: CIRS Tissue Equivalent Materials (epoxy resin based)

INSERT OPTIONS

*Customers are required to complete their order with the purchase of at least one (1) of each insert option listed below. Refer to separate CIRS cavity and plug code list for available chamber cavities.

PART NO.	DESCRIPTION
002RB-CVXX-XX	Bone equivalent rod insert with ion chamber cavity
002RW-CVXX-XX	Water equivalent rod insert with ion chamber cavity

MODEL 002PRA INCLUDES

QTY	PART NO.	DESCRIPTION
1		5 cm tissue equivalent reference section for interchangeable ED inserts
10		1 cm thick contiguous 3D pelvic sections each drilled to accommodate rod inserts
1	002HCV	Homogeneous section that accommodates 002FC or 002GC cassettes
1	002FC	Film stack for 3D reconstruction
5		Water equivalent rods, 2.5 cm ø x 5 cm long
20		Bone equivalent solid disks, 2.5 cm ø x 1 cm thick
30		Water equivalent solid disks, 2.5 cm ø x 1 cm thick
1	002ED	Electron density reference plugs, set of 4 (lung, bone, muscle, adipose)
1		Set of CT to film fiducial markers
1		Alignment base
1		Holding device
-		60-Month Warranty

ADDITIONAL OPTIONS

9501	Case for IMRT Phantoms (002H9K, 002LFC, 002PRA) when ordered with corresponding Cavity Slab (002HCV, 002LCV, 002PCV)
9502	Case for IMRT Phantoms (002H9K, 002LFC, 002PRA)

References:

Gershkevitch, Eduard, et al., Dosimetric Verification of Radiotherapy Treatment Planning Systems: Results of IAEA Pilot Study. 2008 Elsevier Ireland Ltd., Radiotherapy and Oncology 89 (2009) 338-346, pgs. 338-346, March 2009.

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Luo, W., et al., Analysis of image quality for real-time target tracking using simultaneous KV-MV imaging. Med. Phys., vol. 35 (12), pgs. 5501-5509, December 2008.

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 Computerized Imaging Reference Systems, Inc. has been certified by UL DQS
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