

FANTÔMES D'AQ

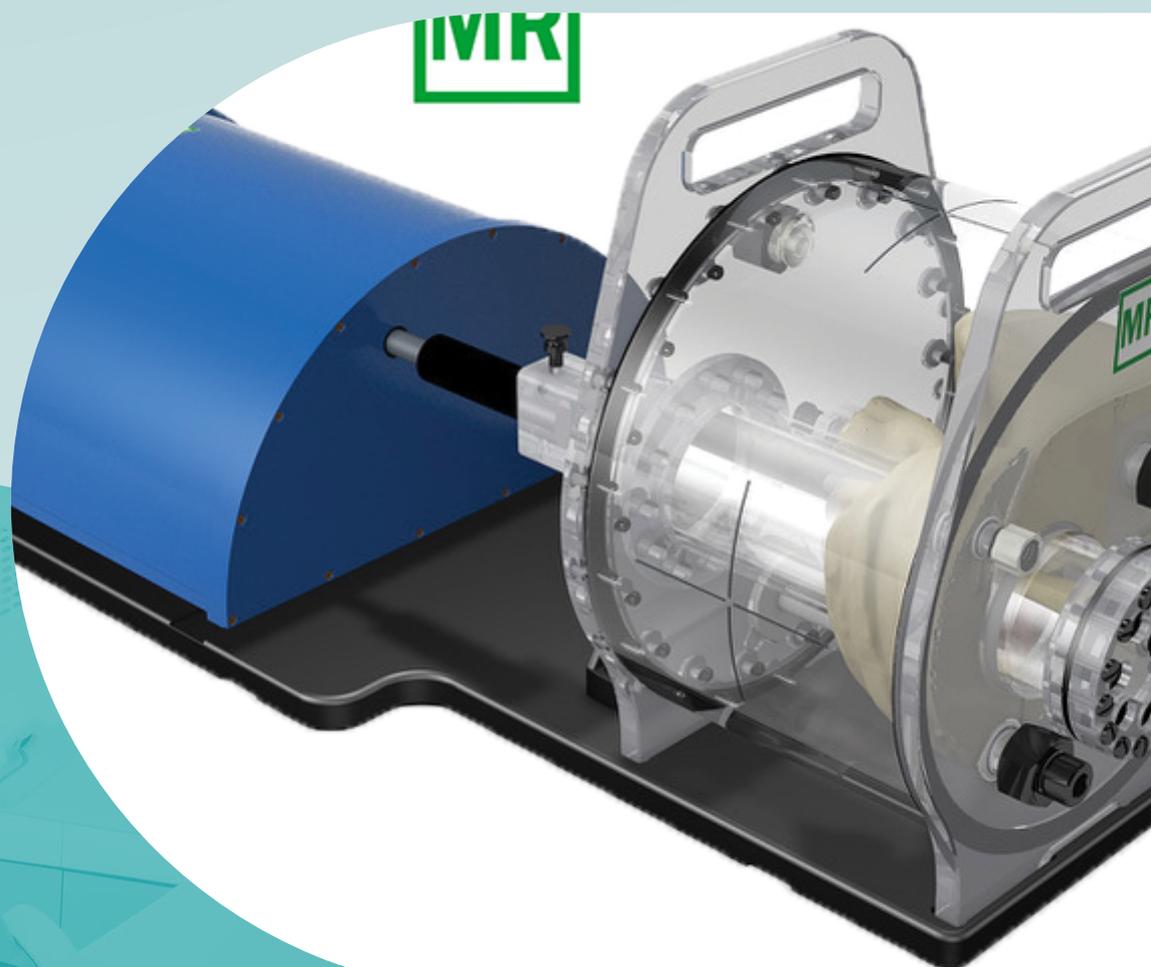


Table of contents

Bertin Technologies	4
Model 700-QA CT Imaging QA Kit for Atom & CT Dose Phantoms – CIRS	6
Model 061 Helical CT Phantom – CIRS	7
Model 610 AAPM CT Performance Phantom – CIRS	8
Model 026 DEXA Phantom – CIRS	9
Model 600 3D Sectional Torso Phantom – CIRS	10
Model 062MQA CBCT Electron Density & Image Quality Phantom – CIRS	11
Models 090, 091 & 092 MicroMouse & Water Filled Mouse Phantoms – CIRS	12
Models 18023 & 18043 Xsight Lung tracking Phantom Kit & 4D Planning Phantom – CIRS	13
Model 007TE Tissue Equivalent CT Dose Phantoms – CIRS	15
Model 004 CT Simulator for Bone Mineral Analysis – CIRS	16
Sun Nuclear Corporation	16
MultiPHAN™	20
Model 002H5 IMRT Phantom for Film and Ion chamber Dosimetry – CIRS	22
Model 036S-CVXX-xx E2E SBRT Phantom – CIRS	23
Proton Therapy Dosimetry Head (Model 731-HN) – CIRS	24
Shoulder, Head and Neck End-to-End Verification Phantom (SHANE)	25
Fantôme polyvalent et endoscopique (modèle ATS 570) – CIRS	26
Model 008A Dynamic Thorax Phantom – CIRS	27
Advanced iqModules™ – Sun Nuclear	29
CTDI Phantoms – Sun Nuclear	31
Mercury 4.0 Phantom – Sun Nuclear	32
CT Perfusion Phantom – Sun Nuclear	33
Advanced Electron Density Phantom – Sun Nuclear	34
Multi Energy CT Phantom – Sun Nuclear	36
Solid Water HE – Sun Nuclear	39
Model 701-706 ATOM Dosimetry Verification Phantoms – CIRS	40
Model 457-CTG – Sun Nuclear	41
Model 457, Standard Grade Solid Water – Sun Nuclear	42
Model 458 – Calibration Check Phantom – Sun Nuclear	43
Model 450, 452, 453, 454, 455, 456, 481 and 482 – Tissue Equivalent Materials – Sun Nuclear	44
Model 430 – Beam Alignment Test Instrument – Sun Nuclear	45
Model 432 – CT Perfusion Phantom – Sun Nuclear	46
Model 472 – Dual Energy Characterization CT Phantom – Sun Nuclear	47
Model 461A – Head / Body CT Phantom – Sun Nuclear	48
CT ACR 464 Phantom – Sun Nuclear	49
Model 464 – ACR CT Accreditation Extension Plates – Sun Nuclear	51
Model 602 3-Dimensional Torso Phantom – CIRS	52
Model 670 & 670S Water Equivalent Mini Phantom – CIRS	53
Model 800 NEMA PET Scatter Phantom – CIRS	54
Model 801-P Virtually Human Male Pelvis Phantom – CIRS	55
Model PW Plastic Water – CIRS	56

Model 062MA CBCT Electron Density Phantom – CIRS	57
Model 062M Electron Density Phantom – CIRS	58
Model 038 STEEV Stereotactic End-to-end Verification Phantom Patient	59
Model 023 ISO Cube Daily QA Phantom – CIRS	61
Model 009 Cube 20 Phantom – CIRS	62
StereoPHAN Phantom – Sun Nuclear	63
SRS Profiler – Sun Nuclear	64
TomoDose Scanning System – Sun Nuclear	65
IC Profiler – Sun Nuclear	66
Model 007 & 007A CT Dose Phantoms – CIRS	67
Ashland	67
Gafchromic Quick Phantom – Ashland	69



Partner Bertin Technologies



Bertin Technologies est un fournisseur mondial de solutions avancées de détection des rayonnements et de surveillance de l'environnement, spécialisé dans les moniteurs portatifs, les dosimètres électroniques personnels, les systèmes de surveillance de l'environnement et les technologies de gestion des déchets et du recyclage. Ses instruments sont conçus pour répondre aux exigences rigoureuses des installations nucléaires, des équipes d'intervention d'urgence et des agences environnementales.

Product offering

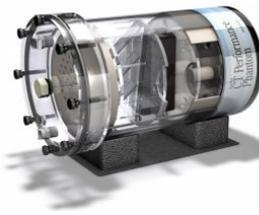
Model 700-QA CT Imaging QA Kit for Atom & CT Dose Phantoms - CIRS



Model 061 Helical CT Phantom - CIRS



Model 610 AAPM CT Performance Phantom - CIRS



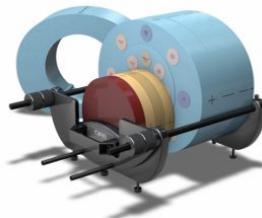
Model 026 DEXA Phantom - CIRS



Model 600 3D Sectional Torso Phantom - CIRS



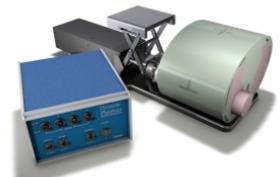
Model 062MQA CBCT Electron Density & Image Quality Phantom - CIRS



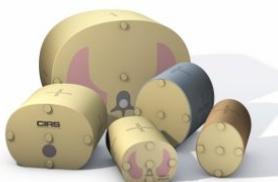
Models 090, 091 & 092 MicroMouse & Water Filled Mouse Phantoms - CIRS



Models 18023 & 18043 Xsight Lung tracking Phantom Kit & 4D Planning Phantom - CIRS



Model 007TE Tissue Equivalent CT Dose Phantoms - CIRS



Model 004 CT Simulator for Bone Mineral Analysis - CIRS





← Back to partner



Radiothérapie › Fantômes d'AQ

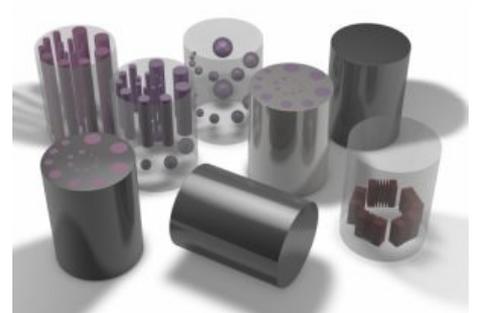
Model 700-QA CT Imaging QA Kit for Atom & CT Dose Phantoms - CIRS

The Model 700-QA CT Imaging QA Kit for Atom & CT Dose Phantoms has been designed for evaluating CT performance in anthropomorphic phantoms.

Model 700-QA CT Imaging QA Kit for Atom & CT Dose Phantoms features:

- can be used in ATOM or CIRS 007TE phantoms
- 3 soft tissue inserts
- determines low contrast detectability
- evaluates spatial resolution
- 1 lung insert

Read more about the Model 700-QA CT Imaging QA Kit for Atom & CT Dose Phantoms on the [CIRS website](#)



← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 061 Helical CT Phantom - CIRS

The Model 061 Helical CT Phantom has been designed to test scanning protocols to verify that small low contrast lesions will be detected. The phantom contains a CT disk with clinically-relevant spherical targets that are 5, 10 and 20 HU above the background matrix.

Model 061 Helical CT Phantom features:

- usable on all standard and helical scanners
- compact
- valid contrast at all energy settings

Read more about the Model 061 Helical CT Phantom on the [CIRS website](#)



← **Back to partner**



Radiothérapie > Fantômes d'AQ

Model 610 AAPM CT Performance Phantom - CIRS

The CIRS Model 610 AAPM CT Performance Phantom: a single test object that measures ten distinct CT performance parameters.



Model 610 AAPM CT Performance Phantom features:

- contrast test object is adhered to the bottom of the tank that includes two rows of cavities from 1 to 0.125" diameter
- design is based on the guidelines presented in Report 1 of the American Association of Physicists
- CT number linearity insert, high contrast resolution insert and slice width insert are housed in an 8.5" diameter PMMA water tank

measurement capabilities:

- spatial resolution and line spread function
- noise
- slice thickness
- size independence
- HU linearity
- detectability/sensitivity
- beam hardening
- radiation dose
- spatial uniformity
- mechanical alignment

Read more about the Model 610 AAPM CT Performance Phantom on the [CIRS website](#)

← **Back to partner**



Radiothérapie > Fantômes d'AQ

Model 026 DEXA Phantom - CIRS

The Model 026 DEXA Phantom is a quality control tool for Dual-Energy X-ray Absorptiometry (DEXA) instruments, which features an acrylic-embedded calcium hydroxyapatite (CHA) step-wedge.



Model 026 DEXA Phantom features:

- no water bath needed
- realistic soft tissue mimic
- checks a range of densities
- FDA compliant
- universal Axial DEXA instrument compatibility
- Edge-Detection Challenge
- easy to carry and can be scanned in the bag

Read more about the Model 026 DEXA Phantom on the [CIRS website](#)

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 600 3D Sectional Torso Phantom - CIRS

The Model 600 3D Sectional Torso Phantom has been designed for providing an accurate simulation of an average torso (22 cm posterior-anterior thickness) for medical imaging and dosimetry applications.



Model 600 3D Sectional Torso Phantom features:

- can be configured to accommodate a multitude of dose measurement media
- usable on any X-ray imaging or treatment device
- includes internal organ structures
- ideal for calibration, QA and training purposes when specific internal organs are of interest

Read more about the Model 600 3D Sectional Torso Phantom on the [CIRS website](#)

[Model 600 3D Sectional Torso Phantom CIRS](#)



Radiothérapie › Fantômes d'AQ

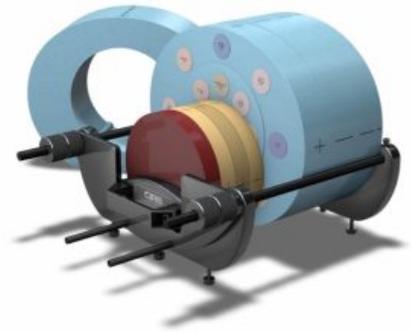
Model 062MQA CBCT Electron Density & Image Quality Phantom - CIRS

The Model 062MQA CBCT Electron Density & Image Quality Phantom is an instrument that can be used for image quality assessment and electron density calibration of Cone Beam CT systems integrated in radiation therapy devices.

Model 062MQA CBCT Electron Density & Image Quality Phantom features:

- position simulated tissue materials in CT & CBCT energy range at 17 different locations
- uses ionization chambers for dose measurements
- optimized for volumetric imaging
- performs all CT Image QA tests for AAPM TG Report 1
- calibrates electron density in multi-slice CT and Cone Beam CT
- performs off-set and central axis measurements

Read more about the Model 062MQA CBCT Electron Density & Image Quality Phantom on the [CIRS website](#)



← Back to partner



Radiothérapie > Fantômes d'AQ

Models 090, 091 & 092 MicroMouse & Water Filled Mouse Phantoms - CIRS

The Models 090, 091 & 092 MicroMouse & Water Filled Mouse Phantoms have been developed for providing standard of reference for micro CT scanners.

Models 090, 091 & 092 MicroMouse & Water Filled Mouse Phantoms features:

- solid or liquid filled
- lung, muscle and adipose
- water-filled Mouse Phantom contains 11 rods in a water-tight, polycarbonate housing
- provide tools for quantifying calcium and bone density with respect to X-ray attenuation and absorption properties
- 25 mg/cc - 750 mg/cc HA targets

Read more about the Models 090, 091 & 092 MicroMouse & Water Filled Mouse Phantoms on the [CIRS website](#)





Radiothérapie > Fantômes d'AQ

Models 18023 & 18043 Xsight Lung tracking Phantom Kit & 4D Planning Phantom - CIRS

The Models 18023 & 18043 Xsight Lung tracking Phantom Kit & 4D Planning Phantom have been designed for QA and E2E testing on Cyberknife systems.



Models 18023 & 18043 Xsight Lung tracking Phantom Kit & 4D Planning Phantom features:

- validated and verified by Accuray (Cyberknife)
- execute E2E software analysis of the films (without CT number adjustment)
- visualize 4D treatment optimization using the MultiPlan System
- display detected respiratory motion of tissue-simulated lung, torso tumor and critical structures with Synchrony System
- use Xsight Spine Tracking System for initial phantom alignment

Xsight Lung tracking Phantom:

- represents an average human thorax in proportion, shape and composition
- pre-programmed motion controller, surrogate platform and motion actuator box for linear target motion
- 3D anthropomorphic spine with cortical and trabecular ribs, bone and lung lobes
- Lung Ball Cube Rod with tumor-simulating target and radiochromic film

4D Planning Phantom:

- rotating (manual) trabecular bone-equivalent spine with film insert
- can be interchanged with the XLT body and connected to the motion actuator box
- modified phantom body with lung lobes and spine
- high-density Lung Ball Cube Rod with tumor-simulating target and radiochromic film

Read more about the Models 18023 & 18043 Xsight Lung tracking Phantom Kit & 4D Planning Phantom on the [CIRS website](#)



Radiothérapie > Fantômes d'AQ

Model 007TE Tissue Equivalent CT Dose Phantoms - CIRS

The CIRS Tissue Equivalent CT Dose Phantoms (model 007TE) accurately simulate the patient's anatomy in the range of sizes from small infants to large adult patients rendering more accurate and reliable CT dose data.

The phantom bodies are made from proprietary epoxy formulations that faithfully mimic the scatter properties and X-ray absorption of water or soft tissue within 1% in the diagnostic energy range.

Available are 4 head, 8 thorax and 8 abdominal phantoms of different sizes and ages.

Model 007TE Tissue Equivalent CT Dose Phantoms specifications:

- can be used on all CT scanners;
- inside hole sized for standard CT Dose probes, 1.30 cm diameter;
- simulates patient abdominal, thorax and head regions;
- from infant to large adult, size-specific options;
- made from tissue equivalent epoxy.

Read more about the Model 007TE Tissue Equivalent CT Dose Phantoms on the [CIRS website](#).





Model 004 CT Simulator for Bone Mineral Analysis - CIRS

The Model 004 CT Simulator for Bone Mineral Analysis takes into account all the known sources of variance affecting the measurement of density in the vertebral area. The model 004 simulates the average patient's anatomy in terms of density and shape. Also materials are used which are essentially equivalent to human tissues as far as X-ray interactions are concerned, this includes age-related variations in vertebral composition.



Model 004 CT Simulator For Bone Mineral Analysis features:

- special scanner software is not required
- for mineral content and marrow fat: age related variable corrections
- accurate correlation for quantitative studies
- measure calcium hydroxyapatite content directly
- directly usable on any CT scanner
- simulation of the CT density, shape and size of human tissue
- effects monitoring of therapy on trabecular structure

Read more about the Model 004 CT Simulator for Bone Mineral Analysis on the [CIRS website](#).



Partner Sun Nuclear Corporation



Sun Nuclear est l'un des principaux fournisseurs de solutions complètes de gestion de la qualité pour la radiothérapie et l'imagerie diagnostique. Son portefeuille comprend des systèmes de positionnement, des outils de dosimétrie, des fantômes d'assurance qualité, des détecteurs, des dispositifs de surveillance du débit de dose, des logiciels d'analyse et des fantômes de formation. Ces solutions sont conçues pour aider les professionnels de la santé à assurer des soins précis, sûrs et efficaces aux patients.

Product offering

MultiPHAN™



Model 002H5 IMRT Phantom for Film and Ion chamber Dosimetry - CIRS



Model 036S-CVXX-xx E2E SBRT Phantom - CIRS



Proton Therapy Dosimetry Head (Model 731-HN) - CIRS



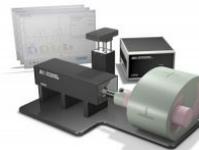
Shoulder, Head and Neck End-to-End Verification Phantom (SHANE)



Fantôme polyvalent et endoscopique (modèle ATS 570) - CIRS



Model 008A Dynamic Thorax Phantom - CIRS



Advanced iqModules™ - Sun Nuclear



CTDI Phantoms - Sun Nuclear



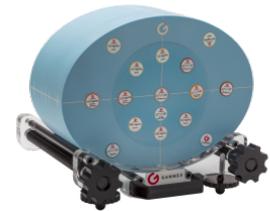
Mercury 4.0 Phantom - Sun Nuclear



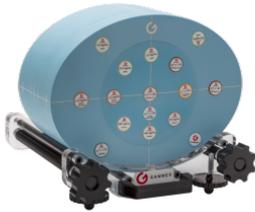
CT Perfusion Phantom - Sun Nuclear



Advanced Electron Density Phantom - Sun Nuclear



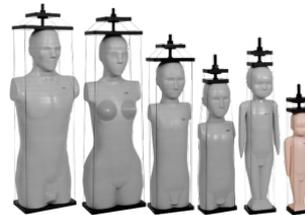
Multi Energy CT Phantom - Sun Nuclear



Solid Water HE - Sun Nuclear



Model 701-706 ATOM Dosimetry Verification Phantoms - CIRS



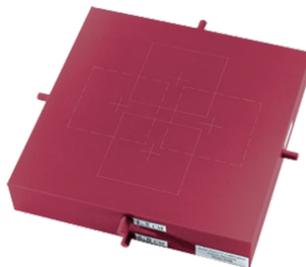
Model 457-CTG - Sun Nuclear



Model 457, Standard Grade Solid Water - Sun Nuclear



Model 458 - Calibration Check Phantom - Sun Nuclear



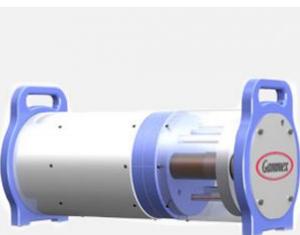
Model 450, 452, 453, 454, 455, 456, 481 and 482 - Tissue Equivalent Materials - Sun Nuclear



Model 430 - Beam Alignment Test Instrument - Sun Nuclear



Model 432 - CT Perfusion Phantom - Sun Nuclear



Model 472 - Dual Energy Characterization CT Phantom - Sun Nuclear



Model 461A - Head / Body CT Phantom - Sun Nuclear



CT ACR 464 Phantom - Sun Nuclear



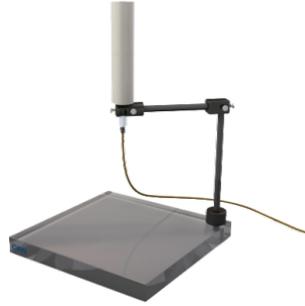
Model 464 - ACR CT Accreditation Extension Plates - Sun Nuclear



Model 602 3-Dimensional Torso Phantom - CIRS



Model 670 & 670S Water Equivalent Mini Phantom - CIRS



Model 800 NEMA PET Scatter Phantom - CIRS



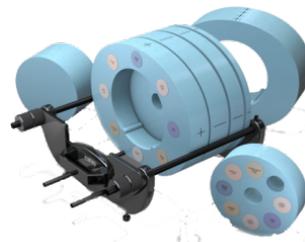
Model 801-P Virtually Human Male Pelvis Phantom - CIRS



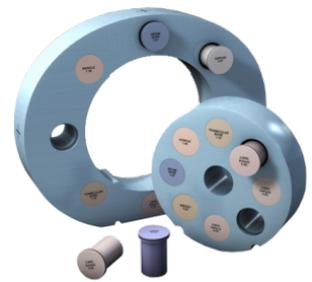
Model PW Plastic Water - CIRS



Model 062MA CBCT Electron Density Phantom - CIRS



Model 062M Electron Density Phantom - CIRS



Model 038 STEEV Stereotactic End-to-end Verification Phantom Patient



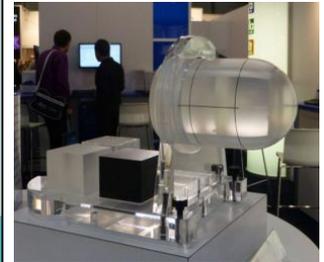
Model 023 ISO Cube Daily QA Phantom - CIRS



Model 009 Cube 20 Phantom - CIRS



StereoPHAN Phantom - Sun Nuclear



SRS Profiler - Sun Nuclear



TomoDose Scanning System - Sun Nuclear



IC Profiler - Sun Nuclear



Model 007 & 007A CT Dose Phantoms - CIRS



← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

MultiPHAN™

Daily Isocenter Checks Made Easy

Ensure isocenters match from lasers to EPIDs to CBCT. MultiPHAN™ is a practical, cost-effective tool for Radiation Therapists to perform daily isocenter checks and meet TG-142 requirements.



Efficient Daily Alignment Verification

Comprised of deliberately placed rods, two low-Z ceramic beads and scribe lines, MultiPHAN supports efficient daily verification of the alignment of imaging modalities, lasers, and surface-guided alignment systems.

Smart design features, such as a positioning stand, allow easy and precise shifting from isocentric alignment to the offset target, and enact rotations to test registration and 6 Degrees of Freedom couch repositioning.

Verify All Daily IGRT Alignments in Support of TG-142

MultiPHAN is simple, yet comprehensive, and can validate alignment of:

- Treatment beam isocenter
- Light field
- Field sizes
- Lasers
- kV CBCT
- MV CBCT
- MV EPID
- TomoTherapy® MVCT
- Treatment couch
- Optical Guidance systems

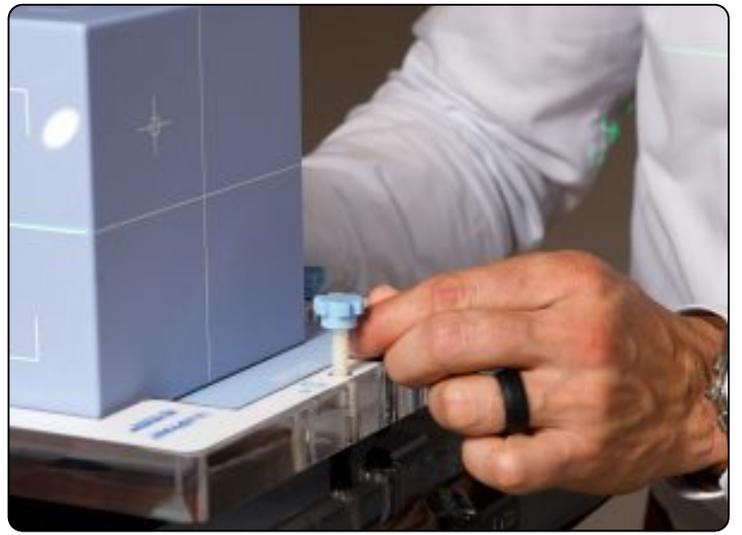
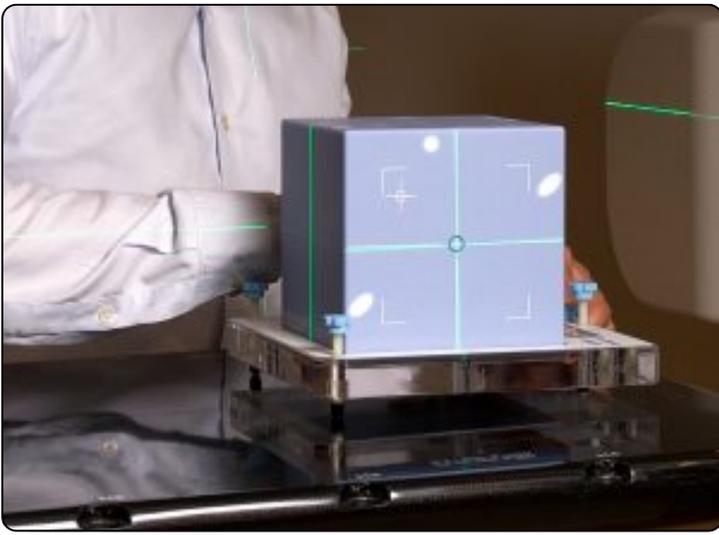
Start at the CT Scanner

Simply align the MultiPHAN with lasers and collect MVCT images. Register and re-align as necessary, and confirm shifts are within tolerance. Repeat this process with kV portal images, CBCT images, light field and ODI.

Move to the Treatment System

At the treatment system, shift the MultiPHAN from an aligned phantom. Image and determine offsets in the shifted position.

Use couch or other correction mechanism to move the phantom back to the original position. Image the phantom and confirm it's back in the original position.



← Back to partner



Radiothérapie › Fantômes d'AQ

Model 002H5 IMRT Phantom for Film and Ion chamber Dosimetry - CIRS

The Model 002H5 IMRT Phantom for Film and Ion chamber Dosimetry has been developed to address the complicated issues surrounding commissioning and comparison of treatment planning systems while delivering an easy and reliable method for the verification of individual patient plans and delivery.

Model 002H5 IMRT Phantom for Film and Ion chamber Dosimetry features:

- calibrate film with ion chamber quickly verifies individual patient treatment plans
- dose measurements in multiple planes
- checks 2D dose distributions (3D distributions optional)

Read more about the Model 002H5 IMRT Phantom for Film and Ion chamber Dosimetry on the [CIRS website](#)

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 036S-CVXX-xx E2E SBRT Phantom - CIRS

The E2E® SBRT Phantom with Removable Spine is a single tool for end-to-end commissioning and routine QA. The anthropomorphic, tissue-equivalent thorax phantom contains articulated spine, ribs, and lungs. All materials are suitable for use in kV and MV energies.



- High Resolution Anthropomorphic Characteristics
- Tissue-Equivalent from 50 keV to 15 MeV
- Thorax with articulated spine, ribs and lungs
- Center point fiducial and offset target for daily system checks
- Optional Abdomen with spine
- Optional Abdomen accommodates image-quality insert



Proton Therapy Dosimetry Head (Model 731-HN) - CIRS

The CIRS Proton Therapy Dosimetry Head is an anthropomorphic head phantom designed for commissioning and treatment planning system (TPS) verification with any conformal or IMRT Proton Therapy system¹.

The phantom consists of CIRS tissue-equivalent materials. The proton therapy head is suitable for all standard IMRT procedures.



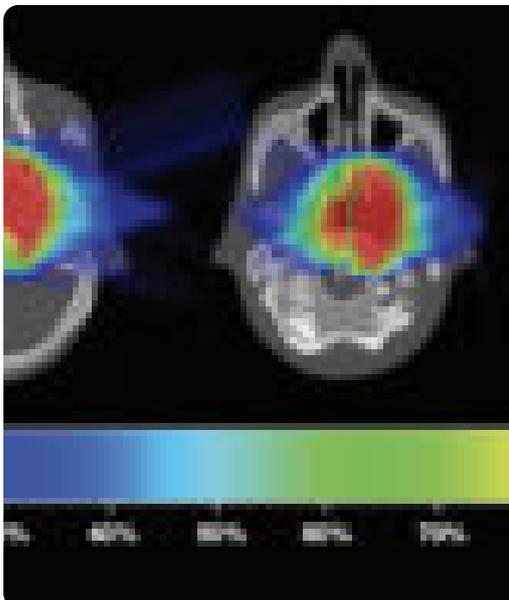
This phantom is ideal for treatment plan evaluation in high density gradient locations. This is because of the tissue equivalency of detailed internal structures. The internal structures include brain, bone with cortical and trabecular distinction, larynx, trachea, fully-open sinus cavities, nasal and mouth cavities, and teeth with distinct dentine, enamel and root structure.

This model approximates the average male human head in both size and structure to allow for intuitive set up with any patient positioning or fixation device.

PROTON THERAPY DOSIMETRY HEAD FEATURES

- Detailed internal anatomy including bone and air
- Three film locations in sagittal direction
- Tissue equivalent for protons and photons
- Dental filling and spine prosthesis

If you want to read more about this phantom, take a look at [our partner's website!](#)



PROTON THERAPY DOSIMETRY HEAD FEATURES

- Detailed internal anatomy including bone and air
- Three film locations in sagittal direction
- Tissue equivalent for protons and photons
- Dental filling and spine prosthesis

If you want to read more about this phantom, take a look at [our partner's website!](#)

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Shoulder, Head and Neck End-to-End Verification Phantom (SHANE)

The CIRS Shoulder, Head and Neck End-to-End Verification Phantom (SHANE) is designed for end-to-end testing of treatment planning systems. The phantom can be used for every step in this process from imaging acquisition to dosimetry verification and patient-specific QA during head-and-neck VMAT and IMRT procedures.



High fidelity simulation

The head and shoulders are cut in the coronal plane to receive large radiochromic or radiographic film for treatment plan verification. The phantom also receives ion chambers or other detectors, which can be positioned in four parallel holes drilled through the phantom in Inferior-Superior direction.

The high-fidelity anthropomorphic design contains complex internal anatomy that provides a realistic clinical simulation to evaluate the challenging effects of intra- and extracranial anatomies. Head and shoulder portions are manufactured as a single piece to enable use with various fixation devices. The shoulder portion contains thoracic vertebrae, which enable TPS verification to the level of T2 vertebra. Shoulders also include tissue inserts for electron density calibration.

Advantages

- High fidelity phantom-patient
- Suitable for use with various commercially available fixation devices
- Enables dose measurements in large regions of head and neck through use of radiographic film
- Allows dose measurements with ion chambers
- Performs Electron Density calibration in shoulders

Would you like to take a look at the specifics of this Verification Phantom?



Radiothérapie > Fantômes d'AQ

Fantôme polyvalent et endoscopique (modèle ATS 570) - CIRS

Le fantôme polyvalent et endoscopique (modèle ATS 570) est un moyen simple et complet d'évaluer les systèmes d'imagerie sur toute la gamme de fréquences d'imagerie clinique (2 MHz à 18 MHz).

Le fantôme comporte une combinaison de cibles en ligne monofilament pour les mesures de distance et de structures cibles imitant les tissus de différentes tailles et contrastes. En raison de la similitude acoustique du matériau de fond et des structures cibles, les artefacts causés par la distorsion, les ombres et l'amélioration ont été éliminés.

ed



Quatre cibles d'échelle de gris allant de +6 à -3 dB évaluent la plage dynamique affichée du système et les performances de traitement de l'échelle de gris. Ce modèle offre une nouvelle conception de surface de numérisation améliorée pour des sondes endoscopiques et des sondes sectorielles mécaniques faciles à loger.

TESTS FANTÔMES POLYVALENTS ET ENDOSCOPIQUES

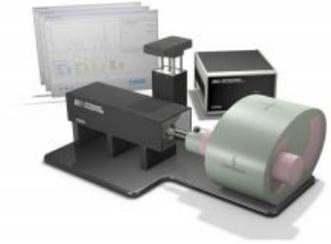
- Uniformité des tests
- Profondeur de pénétration
- Profil du faisceau, zone focale, largeur de réponse latérale
- Étalonnage de mesure verticale linéaire
- Résolution axiale et latérale
- Secteur d'étalonnage des mesures horizontales
- Résolution de contraste
- Sensibilité au contraste en niveaux de gris
- Évaluation des zones mortes

[Si vous souhaitez en savoir plus sur ce modèle, jetez un œil au site de notre partenaire !](#)



Model 008A Dynamic Thorax Phantom - CIRS

The CIRS Dynamic Thorax Phantom (model 008A) is a precision instrument for investigating and minimising the impact of tumor motion inside the lung. It provides known, accurate and repeatable three-dimensional target motion inside a tissue-equivalent phantom. The phantom is perfect for comprehensive analysis of image acquisition, planning and dose delivery in image-guided radiation therapy.



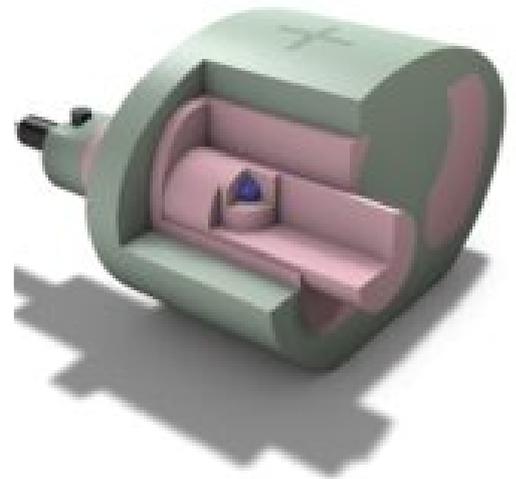
The phantom body represents an average human thorax in shape, proportion and composition.

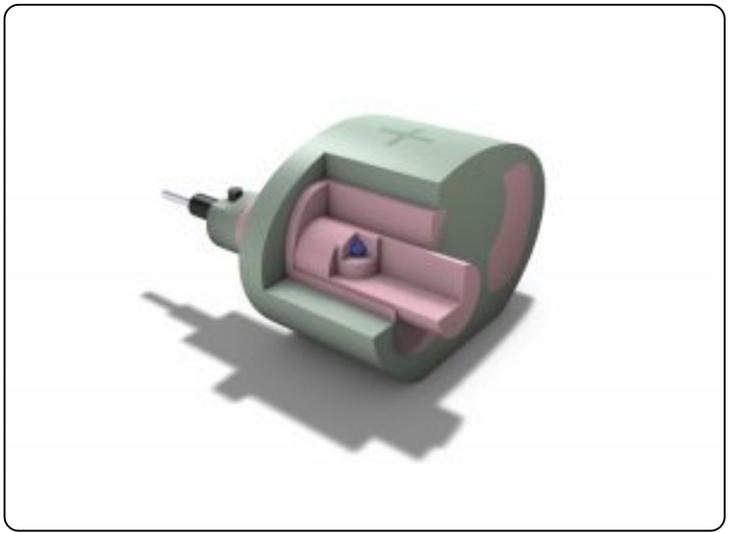
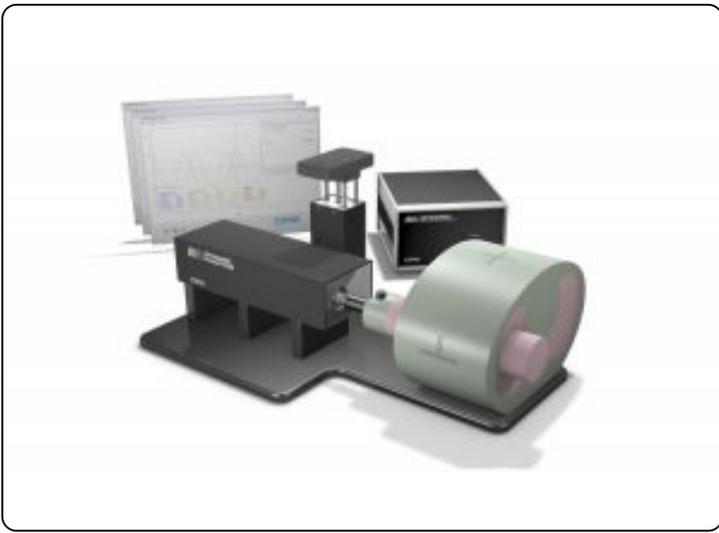
You can control the target and surrogate motion independently with the [CIRS Motion Control Software](#). The graphical user interface provides an unlimited variety of motions while simplifying the operation of the phantom.

DYNAMIC THORAX PHANTOM FEATURES

- Complex 3D tumor motion within the lung
- Sub-millimeter accuracy and reproducibility
- Motion software enables different cycles, amplitudes and wave forms
- Tissue equivalent from 50 keV to 15 MeV
- Compatible with TLD, MOSFET, Dose Gel, micro-chamber, NanoDot OSL, PET/CT targets and film
- Surrogate breathing platform accommodates numerous gating devices

Read more about this phantom on [our partner's website](#), or read [our article](#).





<https://youtu.be/zmWKzqxXFek>



https://youtu.be/lhRXFOK_y2U



SCAN TO VIEW VIDEO



SCAN TO VIEW VIDEO

← [Back to partner](#)

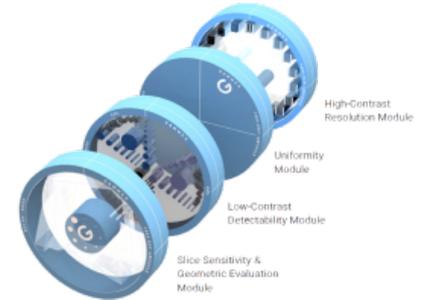


Radiothérapie > Fantômes d'AQ

Advanced iqModules™ - Sun Nuclear

Expanded Image Quality CT QA

Perform robust image quality testing of advanced CT systems with Advanced iqModules from Sun Nuclear (formerly Gammex). This set of 4 modules provides comprehensive testing of high-contrast resolution, low-contrast detectability, slice sensitivity, geometric evaluation, and uniformity.



Unmatched Image Quality Testing

Versatile and unique, the Advanced iqModules offer resolution up to 32 lp/cm, the widest range of test objects to evaluate low contrast detectability, and a broad range of methods to evaluate Slice Sensitivity.

Modular CT QA Support

Combine modules with the CT ACR 464 Phantom for expanded, independent CT QA. Or, combine them with the Advanced Electron Density Phantom or the Multi-Energy Phantom, to create a robust system for testing image quality and other parameters such as dose distributions concurrent with evaluating Multi-Energy CT performance and performing HU calibrations.

Low-Contrast Detectability Module

Use this module to test the low-contrast detectability of the most demanding CT scanners.

- Test performance across scanners and protocols with 3 different contrast levels 0.3%, 0.6%, and 1.0% (3 HU, 6 HU, and 10 HU)
- Ensure robustness against noise with multiple contrast objects

Sized from 1.5 to 25 mm with two of each size

High-Contrast Resolution Module

Use this module to expand your CT ACR 464 testing.

- Includes all resolutions from the CT ACR 464 Phantom, plus high resolution up to 32 lp/cm
- Large bar patterns offer easy visualization and analysis
- Zinc high-contrast material provides visibility without over-ranging scanners

Slice Sensitivity & Geometric Evaluation Module

Use this module to validate slice thickness, slice sensitivity profile, and system geometry.

- Measure slice thickness and slice sensitivity profile with an opposed pair of wire ramps and 2 opposed pairs of bead ramps
- Calculate Modulation Transfer Function with one-off vertical wire
- Check geometric accuracy with 8 acrylic spheres
- Perform MTF measurements with BBs of two different sizes

Uniformity Module

Use this module to assess CT number uniformity.

- Measure uniformity and noise
- Measure distance and calibrate pixel size using 2 embedded BBs spaced 100 mm apart
- Calculate MTF, NPS, and other noise-related metrics
- Doubles as an extension plate for use with the CT ACR 464 Phantom and other Advanced iqModules

Read the full specifications, benefits and scope in datasheet.

Links

Advanced Electron Density Phantom link -

<https://www.sunuclear.com/products/advanced-electron-density-phantom>

CT ACR-464 Phantom link - <https://www.sunuclear.com/products/ct-acr-464-phantom>

RapidCHECK Diagnostic QA Software - <https://www.sunuclear.com/products/rapidcheck-software>

View Sun Nuclear website: <https://www.sunuclear.com/products/multi-energy-ct-phantom>

← Back to partner



Radiothérapie > Fantômes d'AQ

CTDI Phantoms - Sun Nuclear

This Computed Tomography Dose Index (CTDI) Phantom by Sun Nuclear (formerly Gammex) is used to measure absorbed doses and monitor scanner output for Dose Index QA with the this phantom.



Compliance Maintenance

The CTDI Phantom addresses specifications outlined by the FDA (FDA 21CFR 1020.33) and IEC (IEC 60601-2-44, IEC 61223-2-6 and IEC 61223-3-5IEC 60601-2-44).

Configurable to Your Needs

Offered as a 2-piece or 3-piece configuration, it includes nested modules to adapt the phantom to the size required by user protocol. The 2-piece configuration supports adult body and adult head/pediatric body sizes, and the 3-piece option offers an additional pediatric head size.

"The clever phantom and case design allows me to setup and tear down the phantom in 50% of the time compared to my previous CTDI phantom." Nicholas Bevins, Ph.D., Henry Ford HospitalAdvantages CTDI-Phantoms

- Measure absorbed dose and monitor scanner output
- New, easy-to-use design available in two models

Links

Multi Energy CT Phantom - <https://www.sunnuclear.com/products/multi-energy-ct-phantom>

CT ACR-464 Phantom - <https://www.sunnuclear.com/products/ct-acr-464-phantom>

RapidCHECK Diagnostic QA Software - <https://www.sunnuclear.com/products/rapidcheck-software>

View Sun Nuclear website: <https://www.sunnuclear.com/products/>

← **Back to partner**



Radiothérapie > Fantômes d'AQ

Mercury 4.0 Phantom - Sun Nuclear

This Advanced CT Performance Assessment Phantom makes it possible to characterize advanced CT features, including Automatic Exposure Control and Iterative Reconstruction, to support protocol optimization and proper dose management for your patients.



Characterization for Effective Dose Management

The Mercury 4.0 Phantom addresses performance and effectiveness of Automatic Exposure Control / Tube Current Modulation, and evaluates image quality for Iterative Reconstruction.

TG-233 Compliance

Meet AAPM Task Group 233 requirements for performance evaluation of CT systems.

Advanced CT Metrics

Collect and analyze data for advanced CT testing recommended by AAPM Task Group 233:

- Automatic Exposure Control
- Noise Power Spectrum
- Modulation Transfer Function & Task Transfer Function
- Detectability (d')
- Cone-beam artifacts
- Superior-Inferior resolution

If you want to know more, take a look at [our partner's website!](#)

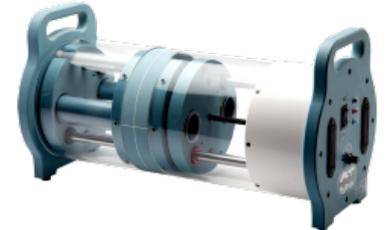
← **Back to partner**



Radiothérapie > Fantômes d'AQ

CT Perfusion Phantom - Sun Nuclear

Sun Nuclear's (formerly Gammex) CT Perfusion Phantom is designed to mimic the injection of a contrast bolus into a region of interest allowing you to generate precise time-attenuation curves.



Continuous Improvement for CT Perfusion Programs

Designed to mimic injection of a contrast bolus into a region of interest, this Phantom generates precise time-attenuation curves (TAC), of differing velocities, to better monitor your CT Perfusion program, and patients.

Benchmark perfusion rates and TACs for each system for better insights into if future measurements show a true change, or if follow-up results are within the precision error of the measurements.

Optimize to Image Gently

Use the dose port to optimize imaging and perfusion protocols and results at the lowest possible dose.

Advantages CT Perfusion

- An easy-to-use contrast simulation tool
- Help ensure your CT scanner and perfusion software are providing consistent results
- Generate precise time-attenuation curves (TAC)

Full specifications, benefits and scope in datasheet.

Links

Advanced iq modules link - <https://www.sunnuclear.com/products/advanced-iqmodules>

CT ACR-464 Phantom link - <https://www.sunnuclear.com/products/ct-acr-464-phantom>

RapidCHECK Diagnostic QA Software - <https://www.sunnuclear.com/products/rapidcheck-software>

View Sun Nuclear website: <https://www.sunnuclear.com/products/>



Radiothérapie > Fantômes d'AQ

Advanced Electron Density Phantom - Sun Nuclear

The Advanced Electron Density Phantom from Sun Nuclear (formerly Gammex) accurately converts CT values to HU or electron density values. It plays an important role in transitioning from diagnosis to a specific treatment protocol. With the Advanced Electron Density Phantom, ICRU-44 matched tissue equivalence, automation and smart design all serve to remove uncertainties from your energy conversions.



Automated CT-to-Density Analysis

Patent-pending rod markers uniquely identify each material in a CT scan and automatically generate CT-to-density tables with capabilities forthcoming in the RapidCHECK™ software. Rod markers eliminate the risk of misplaced rods, rotated phantoms, or incorrect selection of ROIs — further fool-proofing this analysis.

Sized for Wide-Beam Applications

A larger phantom body diameter supports evaluation of cone-beam CT and wide-beam CT scanners, with a removable section to support head and small body protocols.

Superior Tissue Equivalence

Phantom base and rods meet medical standards ICRU-44 and ICRP for human tissue densities, giving users additional assurance that the calculation of energy to be put into the patient is highly precise.

Highly Accurate CT-to-Density Conversion

Rods within the Advanced Electron Density Phantom mimic water, cortical bone, inner bone, and liver at a high equivalency to medical standards (ICRU-44 and ICRP) for human tissue densities, offering confidence that CT values will be optimally converted to treatment energy values.

Analysis Automation

RapidCHECK software forthcoming automatically identifies the rods in the CT scan and converts the values. Software image registration further removes human errors by uncovering any discrepancies in the phantom's position (e.g., rotated or translated head, head rotated relative to the body).

Once completed, easily export results to CSV or Excel.

Features and Benefits

- Expanded Size
 - Extends 16.5 cm in the superior/inferiordirection
 - Full-length 16.5 cm rods, not just 5 cm
 - Oblate-shaped, 40 cm wide by 30 cm high
 - Removable 20 cm head section
 - Increases to 26.5 cm in length with optionalextension plates
- Proven Gammex Materials
 - Constructed from zero HU CT Solid Water® HE
 - Materials developed in accordance with ICRU-44 and ICRP specifications
- Automation
 - Patent-pending rod markers uniquely identify each material in a CT scan
 - Automatically generate CT-to-density tables with upcoming RapidCHECK™ software support
 - Rod markers remove risk of misplaced rods, rotated phantoms, and incorrect selection of ROIs
- Ease of Use
 - Single-pour, no-drop design simplifies transport and setup
 - Self-aligning rods and sections lie flush for fast and reliable positioning
 - Custom wheeled case and deluxe stand included

Links

Advanced iq modules link - <https://www.sunuclear.com/products/advanced-iqmodules>

CT ACR-464 Phantom link - <https://www.sunuclear.com/products/ct-acr-464-phantom>

RapidCHECK Diagnostic QA Software - <https://www.sunuclear.com/products/rapidcheck-software>

View Sun Nuclear website: <https://www.sunuclear.com/products/multi-energy-ct-phantom>

← [Back to partner](#)

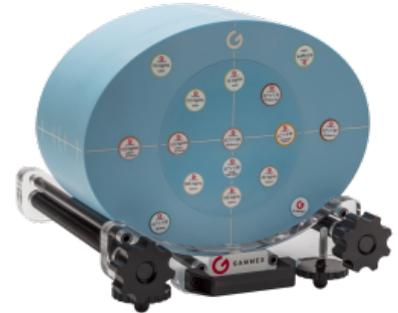


Radiothérapie > Fantômes d'AQ

Multi Energy CT Phantom - Sun Nuclear

To ensure the performance and consistency of your multi-energy scans, Sun Nuclear (formerly Gammex) developed the Multi Energy CT Phantom.

The phantom features 19 inserts representing different dimensions and concentrations of iodine, calcium, blood, adipose and other materials of particular interest to Multi-Energy CT (MECT). The phantom enables comprehensive tests of multi-energy CT performance.



AUTOMATED MATERIAL DISCRIMINATION

With this phantom, you can easily test material discrimination using solid rods representing iodine, calcium, blood, adipose, and more. Patented rod markers enable automated analysis to streamline this process.

ENSURE SCANNER EFFICACY & CONSISTENCY

But, you can also test the efficacy of your clinical protocols for multi-energy analysis and compare consistency and stability across different scanners

COMPREHENSIVE TESTING OF SCANNER PERFORMANCE

This CT phantom enables robust evaluation of the scanner's performance.

These features include:

- Material discrimination testing using solid rods representing iodine, calcium, blood, adipose, and more
- Ensuring efficacy of clinical protocols for multi-energy analysis
- Verifying quantitative accuracy of multi-energy scans
- Comparing consistency and stability across different scanners
- Checking for artifacts in an extended field-of-view
- Testing in head (20 cm) and body (40 cm x 30 cm) configurations
- Automating analysis with patent-pending rod marker technology

If you want to read more about this phantom, take a look at [our partner's website](#) or you can read [our article about this](#)



phantom.



PRODUCT VIDEO | Multi Energy CT Phantom (GAMMEX) ft. Maarten Peters - PEO radiation 'radiology' https://youtu.be/BaOhc4hF_hs



SCAN TO VIEW VIDEO

If you have any questions...

Contact PEO!

← **Back to partner**



Radiothérapie > Fantômes d'AQ

Solid Water HE - Sun Nuclear

Solid Water HE from Sun Nuclear (formerly Gammex) is the next generation of solid water. It is designed for both therapy and imaging with improved uniformity and durability in mind. Solid Water®HE uses new nano-spheres to create homogeneous slabs while mimicking true water within 0.5% across a wide range of energies.



Each slab of Solid Water comes with a Certificate of Conformance which includes, measured density, measured thickness, ionization measurements, calculated electron densities, calculated effective atomic number and elemental composition.

Solid Water features:

- wide range of sizes and dimensions.
- moldable material for custom requests
- rigid construction eliminates broken ion chambers
- wide range of applications and uses
- standard ranges of thicknesses from 0.1 to 6.0 cm
- ion chamber cavities free from air pockets or voids
- economical

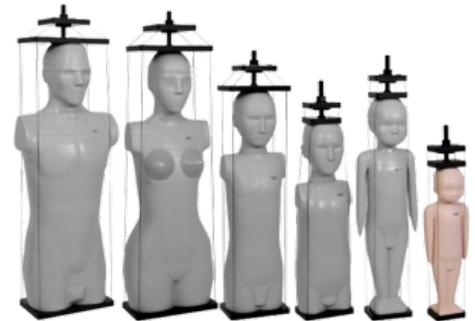
Do you want to know more about the Solid Water HE?

If you want to continue your search for additional information on this product try this [link](#).



Model 701-706 ATOM Dosimetry Verification Phantoms - CIRS

The CIRS Model 701-706 ATOM Dosimetry Verification Phantoms are a complete line of anthropomorphic, cross sectional dosimetry phantoms developed to examine whole body effective dose, organ dose and verification of delivery of therapeutic radiation doses.



Model 701-706 ATOM Dosimetry Verification Phantoms features:

- superior tissue simulation and lifelike imaging properties
- age appropriate references
- organ specific dosimetry with minimal detectors
- homogeneous bone
- optimized TLD locations specific to 21 inner organs
- tissue-equivalent epoxy

Read more about the Model 701-706 ATOM Dosimetry Verification Phantoms on the [CIRS website](#)

[Brochure Model 701-706 ATOM Dosimetry Verification Phantoms CIRS](#)

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 457-CTG - Sun Nuclear

Certified Therapy Grade Solid Water® from Sun Nuclear (formerly Gammex) is a specially developed grade of Solid Water that is manufactured to the most exact quality assurance standards in the industry. It is designed for electron and photon beam measurements including relative ionization, depth dose and uniformity.



Each slab of CTG-Solid Water comes with a Certificate of Conformance which includes 1) a calculated elemental composition, 2) calculated mass, 3) volume electron densities, 4) electron and photon transmission characteristics and 5) measured physical dimensions.

Features:

- wide range of sizes and dimensions.
- moldable material for custom requests
- rigid construction eliminates broken ion chambers
- wide range of applications and uses
- standard ranges of thicknesses from 0.2 to 6.0 cm
- ion chamber cavities free from air pockets or voids
- economical

← [Back to partner](#)



Radiothérapie › Fantômes d'AQ

Model 457, Standard Grade Solid Water - Sun Nuclear

Standard Grade Solid Water from Sun Nuclear (formerly Gammex) mimics the absorption characteristics of water over a wide range of energies. Radiation beam calibration is made easier when using Solid Water. It is designed to scatter and attenuate radiation in the same way as water and can be easily machined to accommodate custom applications. Solid Water does not adhere to surfaces or other slabs and the rigid construction eliminates broken ion chambers.



Gammex has the ability to provide ion cavities in slabs of 2.0 cm thickness or greater to accommodate most commercially available ion chambers.

Solid Water has been the industry standard for water mimicking material used by medical physicists for years.

Features:

- wide range of sizes and dimensions.
- moldable material for custom requests
- rigid construction eliminates broken ion chambers
- wide range of applications and uses
- standard ranges of thicknesses from 0.2 to 6.0 cm

← [Back to partner](#)



Radiothérapie › Fantômes d'AQ

Model 458 - Calibration Check Phantom - Sun Nuclear

The Sun Nuclear (formerly Gammex) model 458 Calibration Check Phantom is an excellent test tool for checking energy output from radiotherapy machines.

The phantom contains six cavities with corresponding plugs. This allows for measurements at depth of maximum dose deposition. Gammex technology also provides a custom adaptor to exactly match the ion chamber you use.



Calibration Check Phantom features:

- contains 6 cavities placed at 1.2, 1.5, 2.0 2.5, 3.2 and 5.0 cm distances.
- custom adaptor is provided for the ion chamber that you use
- inscribed squares on the top surface guides you in the setting of your light field for quick energy readings
- compact design for easy shipping and storage

Do you want to know more about the Calibration Check Phantom?

If you want to continue your search for additional information on this product try this [link](#).

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 450, 452, 453, 454, 455, 456, 481 and 482 - Tissue Equivalent Materials - Sun Nuclear

Tissue Equivalent Materials from Sun Nuclear (formerly Gammex) allow simple, convenient and accurate simulations for therapy dose determinations. Tissue Equivalent Materials (TEM) have a variety of uses for routine quality assurance and quality control in both diagnostic and therapeutic physics.



TEM are user friendly and provide adequate simulations for electron and photon applications between 0.01 and 100 MeV.

Tissue Equivalent Materials features:

- wide range of sizes and dimensions.
- moldable material for custom requests
- wide range of applications and uses
- standard ranges of thicknesses from 0.2 to 6.0 cm

Do you want to know more about the Tissue Equivalent Materials?

If you want to continue your search for additional information on this product try this link.

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 430 - Beam Alignment Test Instrument - Sun Nuclear

The Sun Nuclear (formerly Gammex) 430 Beam Alignment Test Instrument is an instrument used to analyze the alignment of a linear accelerator.

It is recommended that beam alignment tests be completed at least once a year to determine problem situations such as:

- displaced focal spot,
- asymmetrical collimators,
- non-intersection of the collimator and gantry axes and
- lack of gantry arm support.



Beam Alignment Test Instrument features:

- acrylic design with lead blocks
- designed to accommodate standard size film
- compact design
- economical

← Back to partner



Radiothérapie › Fantômes d'AQ

Model 432 - CT Perfusion Phantom - Sun Nuclear

The Sun Nuclear CT Perfusion Phantom with Gammex technology is designed to mimic a perfusion study where traceable material is monitored as it travels through brain tissue. Software that is proprietary to the CT scanner is then used to determine blood flow rates curves and to compare them to known normals. This provides a reference baseline.

The proprietary rods and vessels are designed to mimic brain tissue, but are interchangeable with ones available in the future. The battery operated phantom has a delay built into the circuitry allowing the user to set the phantom up, and move out of the scanner room to the control.

CT Perfusion Phantom features:

- interchangeable tissue and vascular slots
- 5 discrete speeds to simulate different flow rates
- time delay On/Off switch
- battery operated
- compact design
- use with any manufacturer's CT

If you want to continue your search for additional information on this product try this [link](#).





Radiothérapie > Fantômes d'AQ

Model 472 - Dual Energy Characterization CT Phantom - Sun Nuclear

The Sun Nuclear Dual Energy Characterization CT Phantom with Gammex technology provides users with the ability to perform Quality Assurance for Dual Energy CT analysis of Iodine and Calcium.

The Phantom consists of a Solid Water disk approximately the size of an average pelvis. A matrix of 16 holes in the disk hold interchangeable rods made of materials containing 7 different concentrations each of Iodine and Calcium. The rods can be positioned as the user chooses.

Scanning the phantom on a periodic basis provides data useful for the QA program related to the detectability range of the Dual Energy CT scanner.

The phantom uses the same base as the Gammex 467 Tissue Characterization Phantom, meaning owners of that phantom can take advantage of the interchangeability of the rods for the 2 products to provide a more economic approach to your Quality Assurance program



Dual Energy Characterization CT Phantom features:

- solid sample rods
- rods cover a wide concentration range for both Iodine and Calcium
- owners of the Gammex 467 phantom can upgrade by purchasing only the Dual Energy rods
- distance measurement holes to assist in measuring CT distance measurement accuracy
- includes a handy carrying case for storage and transportation
- proven Solid Water core design
- interchangeable rods permits positioning customization

← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 461A - Head / Body CT Phantom - Sun Nuclear

Sun Nuclear's (formerly Gammex) model 461A Head/ Body CT Phantom provides a set of tools for evaluating CT image quality.

The Solid Water composed phantom permits use of the phantom without the need to fill it with water.

Head / Body CT Phantom features:

- the head module consists of uniform disc of Solid Water Material
- a Ring of Bone mimicking material that mounts around the head module is included
- a body scanning module; the body annulus is mounted on the head module
- the head has 5 tapered cavities which accept tapered inserts and the body annulus ring has 4 cavities, providing a total of 9 test positions
- the phantom comes in a durable case that is suitable for storage or shipping



← **Back to partner**



Radiothérapie > Fantômes d'AQ

CT ACR 464 Phantom - Sun Nuclear

The ACR CT Accreditation Phantom from Sun Nuclear (Gammex) is designed to be an integral part of the American College of Radiology (ACR) CT Accreditation Program. This voluntary program provides physicians with an opportunity for a comprehensive peer review of their CT facility, personnel qualifications, image quality and quality assurance programs.



The phantom can be used for initial QA assessment and routine monthly QA testing to help ensure that patients are receiving the lowest possible CT dose.

The Gammex ACR CT phantom is the only phantom authorized for use in the ACR CT Accreditation Program. Gammex submits the phantoms to rigorous quality control testing standards, as outlined by ACR, to assure users of the high level of performance and integrity of each phantom.

ACR CT Accreditation Phantom features:

- designed to meet specifications of ACR for CT accreditation
- Solid Water construction
- made of 4 modules designed to measure a wide range of scanner parameters
- white scribed markings on the axial coronal and sagittal axis help ensure proper alignment
- measure
 - positioning
 - CT number accuracy
 - alignment
 - slice thickness
 - low contrast resolution
 - CT number uniformity
 - high contrast resolution

Do you want to know more about the ACR CT Accreditation Phantom?

If you want to continue your search for additional information on this product try this [link](#).

Links

RapidCHECK Diagnostic QA Software

- <https://www.sunnuclear.com/products/rapidcheck-software>

Advanced iq modules -

<https://www.sunnuclear.com/products/advanced-iqmodules>

Multi Energy CT Phantom -
<https://www.sunnuclear.com/products/multi-energy-ct-phantom>

View Sun Nuclear
website: <https://www.sunnuclear.com/products>

← Back to partner



Radiothérapie > Fantômes d'AQ

Model 464 - ACR CT Accreditation Extension Plates - Sun Nuclear

Accurately represent scatter effects from widebeam CT scanners with the ACR 464 extension plates from Sun Nuclear (Gammex). Made from identical solid water materials, these extension plates allow images to begin and end in the same material to eliminate artifacts that may be introduced by scanning in air.



ACR CT Accreditation Extension Plates features:

- this kit includes two Extension Plates with an adjustable stand to accurately represent scatter effects from wide-beam CT scans. The extension plates allow images to begin and end in the same material to eliminate artifacts that may be introduced by scanning in air.
- Solid Water construction
- designed to work exclusively with the 464 CT Phantom

Do you want to know more about the ACR CT Accreditation Extension Plates?

If you want to continue your search for additional information on this product try this [link](#).

← Back to partner



Radiothérapie > Fantômes d'AQ

Model 602 3-Dimensional Torso Phantom - CIRS

The Model 602 3-Dimensional Torso Phantom has been developed to deliver an accurate simulation of an average male torso for medical imaging applications. The removable organs enable flexibility in the placement of TLD's, contrast agents, etcetera. The materials used for the phantom provide optimal tissue simulation in the 40 keV to 20 MeV energy range.



Model 602 3-Dimensional Torso Phantom features:

- physical density and linear attenuation within 2 percent of actual tissue
- interstitial voids fillable with water or blood-mimicking fluid
- removable lungs, heart, liver, pancreas, kidney and spleen
- phantom lower portion: soft bolus material, 30% adipose and 70% muscle

Read more about the Model 602 3-Dimensional Torso Phantom on the [CIRS website](#)

← Back to partner



Radiothérapie > Fantômes d'AQ

Model 670 & 670S Water Equivalent Mini Phantom - CIRS

The Model 670 & 670S Water Equivalent Mini Phantom is designed for precise evaluation of scatter. The Phantom provides an excellent tissue simulation and opportunity of true dose comparison with the 30 x 30 cm Plastic Water slab phantom.

Model 670 & 670S Water Equivalent Mini Phantom features:

- water-equivalent for photon beams (150 keV - 100 MeV)
- meets the requirements of ESTRO Booklet 3
- vertical or horizontal positioning
- three axis rotation

Read more about the Model 670 & 670S Water Equivalent Mini Phantom on the [CIRS website](#)



← **Back to partner**



Radiothérapie > Fantômes d'AQ

Model 800 NEMA PET Scatter Phantom - CIRS

The CIRS Model 800 NEMA PET Scatter Phantom has been designed for NEMA standard NU2-2007.

Model 800 NEMA PET Scatter Phantom

features:

- the cylinder consists of three segments that are assembled during testing
- test count losses, scatter fraction and random measurements in accordance with NEMA-NU2-2007
- foam lined carry case included

Read more about the Model 800 NEMA PET Scatter Phantom on the [CIRS website](#)



← Back to partner



Radiothérapie › Fantômes d'AQ

Model 801-P Virtually Human Male Pelvis Phantom - CIRS

The Model 801-P Virtually Human Male Pelvis Phantom is the most realistic tissue equivalent phantom on the market. The phantom is used for radiation therapy and diagnostic radiology for demonstration applications and imaging dosimetry teaching.



Model 801-P Virtually Human Male Pelvis Phantom features:

- is made from proprietary epoxy materials
- human tissue equivalent within 1% from 50 keV to 25 MeV
- accommodates a wide variety of detectors
- based on the Visible Human Project data set

Learn more about the Model 801-P Virtually Human Male Pelvis Phantom on the [CIRS website](#)

← Back to partner



Radiothérapie > Fantômes d'AQ

Model PW Plastic Water - CIRS

CIRS PW Plastic Water is a water equivalent for use with photon and electron beams within 0,5% of true water dose. It is flexible and resists breakage under impact.



Model PW Plastic Water features:

- easy to machine
- durable
- five year written warranty
- available in 1 mm thickness

CIRS water equivalent materials specific energy ranges:

- Plastic Water - The Original - 150 keV - 100 MeV; permits calibration of photon and electron beams within 0.5% of true water dose (routine beam constancy checks)
- Plastic Water DT - 50 keV - 15 MeV; use for special applications requiring exposures to both diagnostic and therapeutic energies such as radiation therapy planning and dose verification in IMRT
- Plastic Water LR - 15 keV - 8 MeV; use for such things as dose evaluation for low energy brachytherapy sources or CT dose verification

Read more about Model PW Plastic Water on the [CIRS website](#)

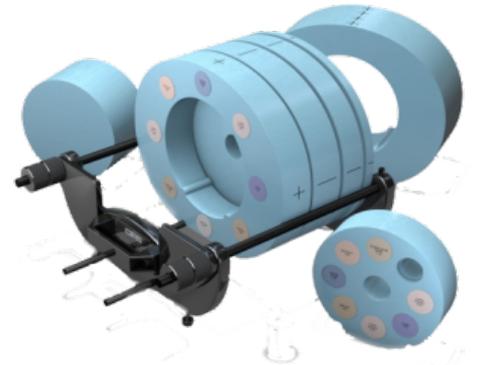
← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 062MA CBCT Electron Density Phantom - CIRS

The Model 062MA CBCT Electron Density Phantom has been designed for Cone Beam CT Imaging systems. The Phantom is made of Plastic Water and covers geometries for imagers with dimensions of up to 40 cm x 40 cm.



Model 062MA CBCT Electron Density Phantom is an extension of the standard [Model 062 Electron Density Phantom](#).

Model 062MA CBCT Electron Density Phantom features:

- special marker inserts enable quick assessment of distance registration
- can be used for multi-slice CT and Cone Beam CT
- tissue equivalent inserts can be positioned at seventeen different locations
- all materials accurately simulate indicated tissue within CT and Cone beam CT energy range
- can be configured for off-set and central axis measurements

Read more about the Model 062MA CBCT Electron Density Phantom on the [CIRS website](#)

[Brochure CBCT Electron Density & Image Quality Phantom System](#)

← [Back to partner](#)



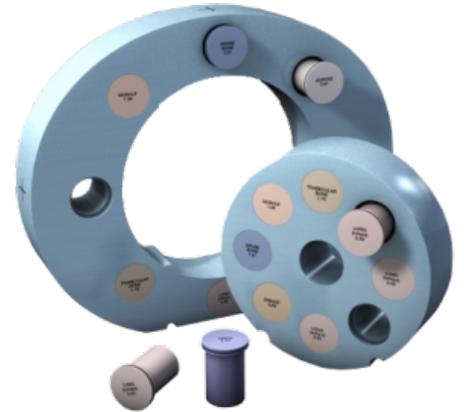
Radiothérapie > Fantômes d'AQ

Model 062M Electron Density Phantom - CIRS

CIRS designed this phantom for precise correlation of CT data to electron density of various tissues. The phantom consists of two disks made from Plastic Water®. The disks can represent both head and abdomen configurations.

Nine different tissue equivalent electron density plugs can be positioned at 17 different locations within the scan field. There is also a water vial plug that the user can fill with any fluid.

Physicists need accurate tools to evaluate CT-scan data and document the relationship between CT number and tissue density. This model is a great option if you want to improve the accuracy of your treatment planning.



PHANTOM FEATURES

- Evaluate CT-scan data
- Correct for inhomogeneties
- Document relationship between CT number and tissue electron density
- Simulate indicated tissue within the diagnostic energy range
- Quick assessment of distance registration

If you want to know more, you can take a look at [our partner's website](#).

Ask us

Contact PEO!



Model 038 STEEV Stereotactic End-to-end Verification Phantom Patient

STEEV™ Phantom

The STEEV Phantom provides the most realistic clinical simulation to perform end-to-end testing of SRS QA systems in the most challenging anatomical regions.

The Model 038 STEEV Stereotactic End-to-end Verification Phantom Patient is used for comprehensive testing of stereotactic radiosurgery systems. The Phantom provides a means to check every step the patient will undergo in the treatment process from diagnostic imaging with MR, CT, and PET to treatment plan verification.



Model 038 STEEV Stereotactic End-to-end Verification Phantom Patient features:

- Performs IGRT QA procedure for X-ray and onboard kV and MV imagers including CBCT
- TPS Deformable Image registration algorithm accuracy QA
- Performs end-to-end testing for commissioning as directed by AAPM TG-101
- Verifies patient treatment plan in critical regions
- performs geometric machine QA Winston-Lutz isocenter verification tests and localization/repositioning with couch shift
- Verifies patient positioning using frame/frameless systems, head and shoulder masks or other positioning fixation devices
- Assesses image transfer QA, image fusion, accuracy verification and TPS testing with Multi-modality imaging capabilities (CT, MRI and PET)

Workflow step:

- Treatment planning
- Pre-Treatment delivery
- Commissioning & acceptance
- Monthly QA
- Annual QA
- Dosimetry
- End-to-End QA

Modality:

- Linac
- SRS/SBRT
- Bore-based Linacs
- Cyberknife
- TomoTherapy

- Imaging

The standard model 038 includes:

- Phantom head and neck with external fiducials and markings
- Three brain equivalent spacers to fill rectangular intercranial cavity
- Two tissue-equivalent rods to fill cylindrical channels (one includes MRI/CT fiducial)
- MRI/CT/PET ISO Center Insert
- Neck alignment plate
- Foam-lined carry case
- User guide and warranty

Read more about the Model 038 STEEV Stereotactic End-to-end Verification Phantom Patient on the [Sun Nuclear website](#)



Model 023 ISO Cube Daily QA Phantom - CIRS

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 ISO Cube provides a cost-effective, quick and accurate means of testing radiation isocenter coincidence with the isocenters of the image guidance systems.

Model 023 ISO Cube Daily QA Phantom

features:

- unique fiducials produce sharp clear images in EPID, kV and CBCT imaging
- offset fiducial to check accuracy of couch corrections
- easy to use and fast
- checks: table height accuracy, light field size verification, laser alignment, CBCT process accuracy, radiation field/light field alignment, OBI accuracy and kV and MV imager coincidence

Read more about the Model 023 ISO Cube Daily QA Phantom on the [CIRS website](#)



← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Model 009 Cube 20 Phantom - CIRS

The Model 009 Cube 20 Phantom has been designed for routine QA in RT and IMRT applications where quick set-up and ease of use are important. The cube is manufactured from Plastic Water DT which mimics the linear attenuations of water within 1% from 50 keV to 15 MeV.

Model 009 Cube 20 Phantom features:

- MLC QA
- routine patient QA
- beam constancy checks
- suitable for head/neck and torso treatments

Read more about the Model 009 Cube 20 Phantom on the [CIRS website](#)



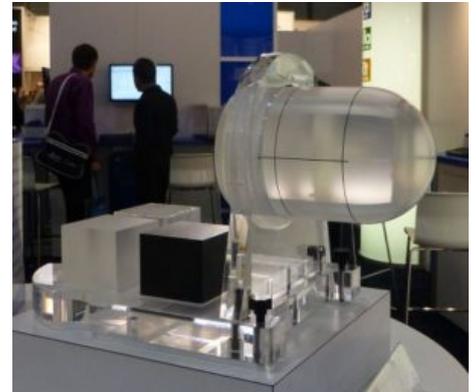


StereoPHAN Phantom - Sun Nuclear

StereoPHAN is designed for end-to-end commissioning and quality assurance testing on all parts of the SRS process. StereoPHAN inserts and configurations are quickly exchanged with no tools or change in setup. It's that simple, and that powerful.

StereoPHAN Phantom features:

- easy setup and assembly; no tools required for assembly, stand base can be mounted to a couch that uses the prevalent Lok-Bar system, phantom stand holds the inserts, making them easily accessible during testing
- single cube insert tests CT and MRI imaging, including slice position, thickness and alignment
- target volumes in CT/MRI cube eliminate need for CT/MRI markers
- flat surface of ion chamber insert enables easier cross-calibration to water than the curved surface of a spherical geometry
- all components fit into a durable rolling case suitable for storage and air travel
- stereotactic (SRS/SRT/SBRT) end-to-end testing and patient-specific QA
- adapters for Head-Frames and CyberKnife
- quality assurance of image fusion algorithms for CT and MRI imaging modalities
- absolute, relative and point dose dosimetry QA measurements at isocenter with ion chambers; relative dose distribution using film
- dosimetry detector cabling remains outside of beam for interference-free dose measurement regardless of measurement setup
- geometric accuracy; optical and geometric isocenter, laser alignment, indexed table positioning alignment and positioning coordinates, CBCT and MV/kV isocenter alignment



Read more about the StereoPHAN Phantom on the [Sun Nuclear website](#)

← **Back to partner**



Radiothérapie > Fantômes d'AQ

SRS Profiler - Sun Nuclear

The SRS Profiler (Sun Nuclear) is a refined beam QA device for stereotactic radiosurgery areas measuring several beam parameters in a single exposure.

SRS Profiler features:

- SunPoint diode detectors (125)
- streamlines commissioning, acceptance testing and routine QA tests
- compatible with Accuray CyberKnife
- support FFF beam
- 0.64 mm²: smallest size
- 32.0 nC/Gy: highest sensitivity
- first QA array designed for cone based SRS
- update interval: 50 ms
- geometry: 4 axis
- one cable for data and power
- set-up requires only a few minutes
- user can self calibrate

Read more about the SRS Profiler on the [Sun Nuclear website](#)



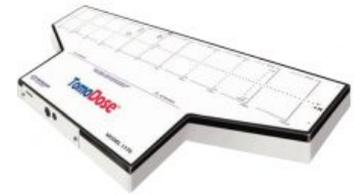
← [Back to partner](#)



Radiothérapie › Fantômes d'AQ

TomoDose Scanning System - Sun Nuclear

The TomoDose (Sun Nuclear) is a two dimensional array for trouble-shooting and QA measurements of a TomoTherapy system.



TomoDose features:

- SunPoint diode detectors
- 53.0 cm x 9.8 cm field size
- delivers fast and accurate beam data acquisition
- no water tanks and electrometers are required
- few minutes set-up (single person)
- small detector size makes very precise dose measurement possible in fields of steep dose gradient
- data is immediately available after measurement
- detector temperature, beam time, and beam pulse detection measurement capable
- software included

Contact our product specialist or download the datasheet below.

← **Back to partner**



Radiothérapie > Fantômes d'AQ

IC Profiler - Sun Nuclear

The IC Profiler (Sun Nuclear) is an ionization chamber based solution for direct QA on linac. It can be seen as the perfect substitute for a water phantom. IC Profiler is a complete scanning system for field adjustments, Linac factory testing, and routine and service QA dosimetry. The ionization chambers on the Y, X and diagonal axes measure all beam profiles after a single beam delivery.

IC Profiler features:

- accepted and proven for clinical use and factory acceptance
- solid state, ion chambers, no moving parts (or water)
- total beam QA within 30 minutes
- high speed acquisition of field profiles
- universal cable for data and power
- 32 cm X and Y length and 45 cm diagonal length
- high dose rate limit >6000cGy per minute
- start/stop button for simple measurement control
- narrow chamber design of 2,9mm width minimizes 'dose volume averaging'
- high speed data acquisition - fast set-up of radiation field
- multiple parameters: symmetry, beam center, flatness, field size, radiation coincidence and penumbra width
- applications: diagnostics, bundle steering, beam constancy and collimator and rotational sag QA

Read more about the IC Profiler Scanning System on the [Sun Nuclear website](#)



Model 007 & 007A CT Dose Phantoms - CIRS

Each section of the Model 007 & 007A CT Dose Phantoms can provide separate dose information. Users are able to measure minimum, mid-range and maximum values of the nominal tomographic section thickness when performing dose profile measurements.



A third nesting disk (10cm diameter) for pediatric head measurements is included in model 007A.

The model 007 & 007A comply with the FDA's performance standard, 21 CFR 1020.33 that details the measurement requirements.

Model 007 & 007A CT Dose Phantoms features:

- nesting PMMA disks minimize storage space
- PMMA disks and plugs with 1.19 g/cc density
- pediatric head, adult head, abdominal configurations
- holes sized for standard CT Dose probes, 13.1 mm diameter

Read more about the Model 007 & 007A CT Dose Phantoms on the [CIRS website](#).



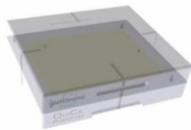
Partner **Ashland**



Ashland est un leader mondial dans le domaine des matériaux de spécialité, offrant des solutions innovantes qui améliorent la sécurité, la précision et les résultats pour les patients dans diverses disciplines médicales. Son portefeuille soutient les prestataires de soins de santé dans les domaines de la radiothérapie, de l'imagerie diagnostique, du traitement des plaies et de la médecine régénérative.

Product offering

Gafchromic Quick Phantom - Ashland



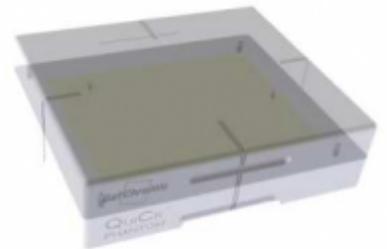
← [Back to partner](#)



Radiothérapie > Fantômes d'AQ

Gafchromic Quick Phantom - Ashland

The Gafchromic Quick Phantom (Ashland) is used for accurate and fast radiation therapy QA procedures. The device works with Gafchromic EBT-3 film.



Gafchromic Quick Phantom features:

- dimensions: 29 x 32 x 5 cm³
- two-pin indexing bar
- provides accurate, quick and repeatable positioning of the phantom on both treatment couches and CT
- phantom body: two slabs of CIRS Plastic Water water-equivalent to within 1% from 150 keV to 25
- accurate and quick setup