pehamed

PEHAMED - THE COMPANY THAT SETS THE STANDARDS!

DENSOQUICK 2 DENSITOMETER

An easy to use "point read" only, calibrated Densitometer.
It works from either battery or mains power via an adapter (supplied)

- Zero reset & calibration with supplied film strip.
- LCD window gives an accurate spot density reading.
- ✔ Easy registration of films for measurements.
- ✔ Easy to read large character LCD display

Code: **PEH/DENS 02**

SENSI C SENSITOMETER

Single sided Sensitometer for Blue or Green sensitive X-ray film.
It works from either battery or mains power via an adapter (supplied).

- Highly accurate calibrated unit with 21 steps (D=0.15)
- Optimum exposure reproducibility via microprocessor.
- ✔ Immediate operation - no warm up time required.
- ✔ Mis-exposures are prevented by low battery cut-out.

Code: **PEH/SENSI C**

DENSONORM 21E COMBINED UNIT

Sensi C Sensitometer & Densoquick 2 Densitometer combination unit.
It offers all the functions & features of the above individual instruments.

- ✔ A compact and easy to handle instrument.
- ✔ Offers the accuracy & flexibility of the originals.

Code: **PEH/DENSONORM21E**

NORMSCAN DENSITOMETER

Fully calibrated combined 'point read' & automatic motorised strip reading Densitometer.
Can be used as a "stand alone", or connected to a PC when used with Q.C. software.

- Easy registration of films point read measurements (eg. "block tests" Mammo. phantoms)
- Motorised film strip reader automatically calculates all film processor QC parameters

NOTE: No need to replace an X-Rite Sensitometer - A version of this Densitometer that will read the X-Rite film strip format is available. Please ask for details.

Evaluation of :- Base + Fog Contrast Index Average gradient
D Step 21 Speed Index

Code: **PEH/NORMSCAN**

DENSONORM 21i COMBINATION UNIT

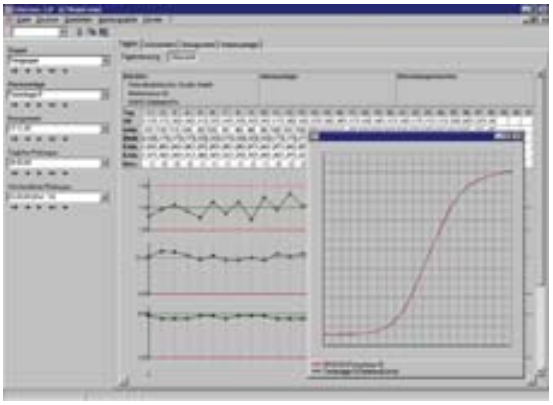
Sensi C Sensitometer & Normscan Densitometer combination unit.
It offers all the functions & features of the above individual instruments.

- A compact combination of Sensitometer, Densitometer & automatic scanner.
- ✔ Accurate & easy to handle unit with microprocessor control.

NOTE: No need to replace an X-Rite Sensitometer - A version of this Densitometer 21i that will read the X-Rite film strip format is available. Please ask for details.

Code: **PEH/DENSONORM/21i**

INFOSENS 3.0 FOR WINDOWS Q.C. SOFTWARE.



Multi-featured PC based software designed for use with Densitometers with RS232.
"Full" or "Light" versions of the software are available to suit any department.

- Detailed & instantaneous information of film processor performance.
- Comprehensive printouts of tables, graphs, charts & statistics.
- Trouble-shooting guide is included.
- ✔ Total eliminates the need to manually plot charts.
- ✔ Easy to use – simple & intuitive.

INFOSENS 3.0 'FULL'	Unlimited Processors.	Code: **PEH/INFOSENS**
INFOSENS 3.0 'LIGHT'	1 Processor version	Code: **PEH/INFOSENS1**
INFOSENS 3.0 'LIGHT'	2 Processor version	Code: **PEH/INFOSENS2**
INFOSENS 3.0 'LIGHT'	3 Processor version	Code: **PEH/INFOSENS3**

For full details on these Pehamed products, please contact the specialists in our Medical Sales department.

Southern Scientific Ltd. **Tel: 01903 604000** Fax: 01903 604026 e-mail: info@ssl.gb.com www.ssl.gb.com

Knight Imaging

ALPHA SYSTEM - TEST TOOLS (3)

X-RAY COLLIMATION & VERTICAL BEAM ALIGNMENT

Designed to test the relative positions of
- X-ray Field
- Light Beam Diaphragm (L.B.D.),
- Vertical X-ray Beam Alignment,

….**all in one exposure.**

- The above meets the requirements of IPEM 91*

'ALPHA' PHANTOM -
- For testing the synchronicity of the radiation field to that of the L.B.D.

CENTRE TUBE -
- Fixes to the Alpha phantom to check the accuracy of the Vertical Beam Alignment.

BUCKY WALL STAND HOLDER - (see illustration - right)
- An adjustable hanger that supports the Alpha phantom on the face of a vertical Bucky.

✔ Facilitates quick & easy positioning on both X-Ray table tops and vertical Bucky Systems
✔ Provides an easily interpreted pass/fail test.

Code: **PEH/ALPHA 3**

DIGRAD TEST PHANTOM FOR DIGITAL X-RAY

For routine performance testing of DR Imaging systems

DIGRAD phantom is able to test parameters including:-

- (Optional) Special holder for vertical bulky systems
✔ Dynamic range - 7 step copper step wedge
✔ Low contrast detectability 6 objects (15mm)
✔ Spatial resolution - Lead bar pattern rotated 45
✔ Signal calibration - 10 x 10cm free area
✔ Effective radiation field - Field markings

Code: **PEH/DIGRAD**

PATIENT EQUIVALENT FILTER (115 x 115mm)

Provides patient equivalent attenuation of the X-Ray beam when used with DIGRAD Phantom &/or when performing AEC tests with UNFORS Dose meters.
- Constructed of a uniform solid block of aluminium 25mm thick.
- Mounted onto an acrylic flange for attaching to the collimators.

Code: **PEH/FILT/PE**

ALUMINIUM STEP WEDGES

Conventional X-Ray Model
21 steps (11mm wide / G:1.5mm) Code:**PEH/STEPW/21C**

Conventional X-Ray Model
11 steps (12mm wide / G:3.0mm) Code: **PEH/STEPW/11C**

Mammographic Model
21 steps (5mm wide / G:0.3mm) Code: **PEH/STEPW/21M**

CD LUX DIGITAL LIGHT METER

Particularly suitable for LCD monitors - fitted with stand off pointer. Base unit has serial interface & connectors for Luminance / Illuminance detectors

✔ Measures the overall light intensity (cd/m2) of monitors etc.
✔ Automatic calculations of the light deviation across display.
✔ Able to store several measurements.
✔ Accurate positions for each measurement.

Code: **PEH/LUX/LM**

FILM-SCREEN CONTACT MESH

For testing the cassette film - screen contact performance.

Normal X-Ray cassettes - (42 x 45cm) Code: **PEH/MESH/4245**

Mammography cassettes - (24 x 30cm) Code: **PEH/MESH/2430**

For full details on these Pehamed products, please contact the specialists in our Medical Sales department.

VacuDAP System

The VacuDAP system is for measuring the radiation Dose Area Product (DAP) survey in accordance with the IEC 60580 Standard.

The DAP chambers are available in a variety of sizes for fitting to the X-Ray tube collimators, to provide patient dose information resultant from diagnostic X-ray procedures.

For conventional X-Ray units we can supply transparent rectangular chambers, that can either be fitted within the tube collimator or located on the accessory rails.

A selection of circular DAP chambers are also available for fitting onto C arm image intensifiers.

VacuDAP 2000

This rectangular ionisation chamber is ideal for retro-fitting onto existing X-Ray systems, or for use on Mobile X-Ray machines.

- The controls & digital display are integrated into the side wall of the chamber, obviating the need to run a communication cable to a remote display module.
- It has an integrated display & control keys directly attached to the ionisation chamber.
- The system only has to be plugged into the low voltage mains transformer supplied to operate.
- ✔ This arrangement represents a significant saving in time & installation costs.

Code: **VDP/2000**

VacuDAP 2002

The circular chambers are specifically designed for integration into X-Ray tube housing of mobile C arm image intensifiers, while the separately pulsed electronics & control/display module are positioned externally.

- The measurement system consists of a circular ionization chamber & miniaturised detector electronics.
- The systems can be made with customized pulse output, or a VacuTEC display unit.
- ✔ Transparent & non-transparent circular chambers of different sizes are available, which are selected according to the X-ray equipment specification.

Code: **VDP/2002**

VacuDAP 2004

This system is appropriate for use in situations where there is a need to position the display/control module remote to the chamber itself, e.g. near to the X-Ray control desk.

It is also appropriate where the chamber is positioned in a location where an integrated display could not be viewed e.g. on an undercouch X-Ray tube.

- The VacuDAP 2004 system comprises rectangular ionisation chamber(s) together with a remote display/control module & interface cable.
- The display/control modules are available with either single or twin displays to support single or twin chamber installations. These may be either desk or wall mounted.
- ✔ Variants of the VacuDAP 2000 & 2004 are available with a 10 times higher resolution for paediatric applications.

Codes: **VDP/2004(1)** **VDP/2004(2)**

PRINTERS

All VacuDAP chambers may be connected to an optional AXIOHM A711 Thermal label printer, in order to record dose records for appending to the patient record.

For full details of the VacuDAP range of products, please contact the specialists in our Medical Sales department.

For full details on the VacuTEC range of products, please contact the specialists in our Medical Sales department.

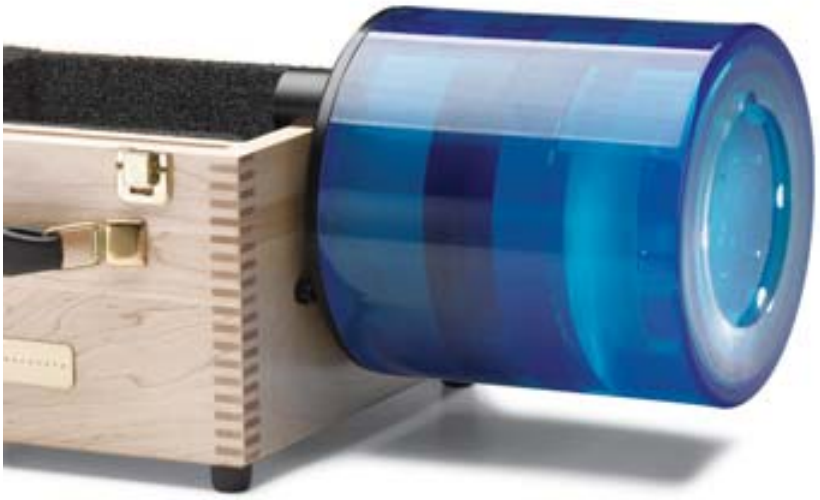
COMPREHENSIVE CT PERFORMANCE MEASUREMENTS

INTERNATIONALLY RECOGNISED FOR MEASURING THE *MAXIMUM* OBTAINABLE PERFORMANCE OF AXIAL SPIRAL & MULTI-SLICE CT SCANNER.

FAST & EASY POSITIONING & THE UNIVERSAL MOUNT OF THE CATPHAN PHANTOM MAKES IT IDEAL FOR ROUNTINE QUALITY ASSURANCE ON ANY CT SCANNER.

CATPHAN PHANTOM - 600

This Catphan phantom is constructed from modules that fit snugly into a durable 20cm housing. Easily transportable & no draining required.



- **CT404 SLICE GEOMETRY & SENSITOMETRY MODULE**
  - ✔ Circular symmetry
  - ✔ Pixel (matrix) size
  - ✔ Scan incrementation
  - ✔ Scan slice geometry (width)
  - ✔ Phantom position verification
  - ✔ Sensitometry (CT no. linearity)
  - ✔ Patient alignment system check.
- **CT591 BEAD GEOMETRY MODULE**
  - ✔ Slice width for thin slices
  - ✔ Slice width for thick slices
  - ✔ MTF & SSP with 2 size point sources
  - ✔ Test on multiple slices in a multi-slice sequence.
- **CT528 HIGH RESOLUTION MODULE**
  - ✔ Scan slice geometry (Slice width & sensitivity profile)
  - ✔ High resolution (1 to 21 line pairs per cm.)
  - ✔ Point spread function & modulation transfer function (MTF) for the X,Y & Z axis

- **CT515 LOW CONTRAST MODULE**
  - ✔ Low contrast sensitivity
  - ✔ Comparative sub-slice & supra slice low contrast sensitivity.
- **CTP486 UNIFORMITY MODULE**
  - ✔ Spatial uniformity (noise)
  - ✔ Noise (precision) of CT systems

Code: **TPL/CAT/600**

OPTIONAL PHANTOM ANNULI FOR CATPHAN

These units will slide over the 20cm Catphan housing.

- **TEFLON ANNULUS -SKULL**
  - ✔ Effect -It mimics the hardening effects similar to that of the skull in head imaging. Code: **TPL/CTP/299**
- **UNIFORMITY MATERIAL ANNULUS (30cm) - BODY**
  - ✔ Effect - It mimics body imaging attenuation. Code: **TPL/CTP/539**
- **UNIFORMITY MATERIAL ANNULUS (35cm) - BODY**
  - ✔ Effect - It mimics body imaging attenuation. Code: **TPL/CTP/540**
- **OVAL UNIFORMITY MATERIAL ANNULUS (25-35cm) - PATIENT**
  - ✔ Effect - It mimics the varied attenuation similar to scanning a patient. Code: **TPL/CTP/579**
- **OVAL UNIFORMITY MATERIAL ANNULUS (45-55cm) - LARGE PATIENT**
  - ✔ Effect - It mimics the varied attenuation similar to a very large patient. Code: **TPL/CTP/599**

Catphan® phantom with optional annuli

For full details on the Catphan Phantom, please contact the specialists in our Medical Sales department.

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Knight Imaging

'Phantom Lab' Sectional & Whole Body Phantoms are ideal for training & calibration

These phantoms are made with a human skeleton cast inside a urethane material and it has the same effective atomic number as the body's soft tissue. The mould material for all these phantoms is virtually indestructible.

SECTIONAL PHANTOMS - INDIVIDUAL

SKULL PHANTOM
Skull phantom only - internal air cavity to represent the Oral cavity, Pharynx & Trachea.

Code: **TPL/SP/100**

HEAD PHANTOM
Skull + Upper Cervical Vertebrae - internal air cavity for Oral cavity, Pharynx & Trachea.

Code: **TPL/SP/150**

THORAX PHANTOM
Chest, Shoulder & upper 3rd of Humerus. The Lungs' lower density is simulated.

Code: **TPL/SP/200**

LOWER TORSO PHANTOM
Lumbar Vertebrae, Pelvis & upper 3rd of Femur. A hollow cavity reproduces the interior of the Sigmoid flexure with Diverticulum & Rectum.
It may be filled with contrast media.

Code: **TPL/SK/250**

HAND PHANTOM
Lower 3rd of Radius & Ulna with Carpal & Finger bones.

R. Hand - relaxed	Code: **TPL/XA/231R**
L. Hand - pronated	Code: **TPL/XA/231L**

ELBOW PHANTOM
Lower 3rd of Humerus and upper 3rd of Radius & Ulna.

R. Elbow- 90 flexion	Code: **TPL/XA/235R**
L. Elbow - extension	Code: **TPL/XA/235L**

FOOT PHANTOM
Lower 3rd of Tibia & Fibula with bones of the Foot.

R. Foot - plantar flexion	Code: **TPL/XA/241R**
L. Foot - relaxed	Code: **TPL/XA/241L**

KNEE PHANTOM
Lower 3rd Femur & upper 3rd of Tibia & Fibula bones

R. Knee - 90 flexion	Code: **TPL/XA/245R**
L. Knee - extension	Code: **TPL/XA/245L**

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Knight Imaging

SECTIONAL PHANTOMS - SETS

THE CHEST & LOWER TORSO
Set of 2 sectional phantoms - Chest & Lower Torso.

Code: **TPL/SP/300**

THE HEAD, CHEST & LOWER TORSO
Set of 3 sectional phantoms, Head, Chest & Lower Torso.

Code: **TPL/SP/400**

THE COMPLETE SECTIONAL SET
Set of 11 sectional phantoms - Whole Body anatomy.

Code: **TPL/SP/500**

PHANTOM PATIENT - WHOLE BODY

Ideal for training staff in the use of radiographic equipment

THE SKELETONS
The anthropomorphic phantoms use natural human skeletons. The dimensions are based on an average size male patient.

THE JOINTS
Articulation at the Shoulders, Elbows, Hips & Knees. Aluminium pins at these joints allow 90 degree rotation.

THE ORGANS
Lung like low density material is moulded to the rib cage. Cavities reproduce the interiors of the Stomach, Gall Bladder, Bladder, Sigmoid flexure, with a small Diverticulum & Rectum. Each of these cavities can be filled with contrast media.

THE AORTA ARTERIAL TREE
A hollow network represents an Aorta arterial tree with an Aortal Arch. It bifurcates into the Carotid & Femoral arteries at the neck & the groin. Each of these cavities can be filled with contrast media.

Code: **TPL/XR/110**

ALDERSON RADIATION THERAPY PHANTOMS (ART)

The ART phantoms are moulded of tissue-equivalent material and they are designed for accuracy & ease of use.
The world wide standard for Quality Assurance for Radiotherapy.

The ART phantom slices are held between aluminium plates by nylon tie rods & the knobs at the ends of the rods clamp the slices tightly in proper alignment. The external assembly facilities film Dosimetry, while the internal assembly is used generally with TLD's or ion-chamber Dosimetry

- Soft tissue equivalent is made to the average density of a human body.
- Detailed polymer skeleton that emulates the density.
- The phantom is subdivided into 2.5cm slices.
- Incorporates "Dosimetry Holes" for placement of TLDs.

✔ These are indispensable quality assurance tools.
✔ The skeleton has the attenuation co-efficient of natural bone.
✔ They provides an integrated test of the entire chain of treatment planning & delivery.

Male - A.R.T. represents a 175cm / 5'9" Male, weighing 73.5kgs / 11.5 stone.
Female - A.R.T. represents a 155cm / 5'1" Female, weighing 50kgs / 7.75 stone

Gender	Type	Sections	Not Drilled	*3 x 3cm	*1.5 x 1.5cm
Male	Body	0 - 35	**RSD/ART- 200X**	**RSD/ART-200**	**RSD/ART- 200A**
Male	Head & Neck	0 - 09	**RSD/ART- 210X**	**RSD/ART-210**	**RSD/ART- 210A**
Male	Chest	10- 25	**RSD/ART- 211X**	**RSD/ART-211**	**RSD/ART- 211A**
Male	Pelvis	26- 35	**RSD/ART- 212X**	**RSD/ART-212**	**RSD/ART- 212A**
Female	Body	0 – 32	**RSD/ART- 300X**	**RSD/ART-300**	**RSD/ART-300A**
Female	Head & Neck	0 – 09	**RSD/ART- 310X**	**RSD/ART-310**	**RSD/ART-310A**
Female	Chest	10 –23	**RSD/ART- 311X**	**RSD/ART-311**	**RSD/ART-311A**
Female	Pelvis	24 –32	**RSD/ART- 312X**	**RSD/ART-312**	**RSD/ART-312A**

***Grid hole spacing.**

SECTIONAL PHANTOMS

Anthropomorphic Body sections with applications throughout the field of Radiography.
Ideal substitute for real patients for training /teaching applications.
Realistic duplicated human tissue and architecture.

- A selection of body parts all with the same anatomic & radiographic fidelity as the PIXY phantom.

✔ These phantoms provide comprehensive evaluation of the imaging system & imaging techniques under realistic conditions.

Sectional models & codes:-	Opaque	Transparent
Head with Cervical spine	**RSD/RS-108**	**RSD/RS-108T**
Head w/o Cervical spine	**RSD/RS-109**	**RSD/RS-109T**
Thorax	**RSD/RS-111**	**RSD/RS-111T**
Pelvis	**RSD/RS-113**	**RSD/RS-113T**
Hand/Wrist – natural position	**RSD/RS-114**	**RSD/RS-114T**
Hand/Wrist – oblique position	**RSD/RS-115**	**RSD/RS-115T**
Foot/Ankle – natural position	**RSD/RS-116**	**RSD/RS-116T**
Foot/Ankle – extended position	**RSD/RS-117**	**RSD/RS-117T**
Knee – natural position	**RSD/RS-118**	**RSD/RS-118T**
Knee – 90 flexion	**RSD/RS-119**	**RSD/RS-119T**
Elbow – natural position	**RSD/RS-120**	**RSD/RS-120T**
Elbow – 90 flexion	**RSD/RS-121**	**RSD/RS-121T**
Arm/Shoulder – natural position	**RSD/RS-122**	**RSD/RS-122T**
Leg/Hip – natural position	**RSD/RS-123**	**RSD/RS-123T**

RSD/RS-109

RSD/RS-109T

PIXY – THE ANTHROPOMORPHIC TRAINING PHANTOM

An anatomically & radiologically correct Female.

- Life-like flexible joints.
- Available in either opaque or transparent materials.

✔ Allows positioning for most radiographic techniques & Organs accept contrast media.
✔ Demonstrates anatomy & evaluate positioning & imaging techniques, including kVp, mAs, contrast, optical density, OFD & TFD.
✔ Radiographs of PIXY give an optically equivalent in density & contrast to human patients.

Pixy Phantom, complete with stomach, gall bladder, urinary bladder, kidneys & sigmoid flexure. (Supplied with permanent storage case.)

Opaque Pixy Phantom	Code: **RSD/RS-102**
Transparent Pixy Phantom	Code: **RSD/RS-102T**
Animal Lungs **	Code: **RSD/RS-157**
Custom fractures & Pathologies **	Code: **RSD/RS-102SP**
Standard PIXY refurbishment.	Code: **RSD/RS-102R**

(** Must be ordered with Phantom – cannot be retrofitted.)

MAMMO II PHANTOM

A Mammography Teaching / Training Phantom.

- Comprises a breast & chest wall on a stand.
- Moulded gel construction gives realistic compression.

✔ A patient substitute for practicing Mammographic positioning.
✔ Produces realistic radiographic images.

Code: **RSD/RS-750** (Complete with stand & case.)

STRIATAL PHANTOMS FOR SPECT/PET.

Head phantom with removable Brain shell.

The Brain shell has 5 separate compartments:-

- Right & Left of both Nucleus Caudate & Putamen & the remainder of the Brain, which can be filled separately.

✔ Allows the different Nucleus Caudate to Putamen ratios.
✔ Also permits differences between L & R Striatal activity to be examined

Fillable external markers to facilitate image registration when using SPECT and PET techniques.

Description	Codes
Head with transparent Brain shell Containing Striatum (includes a set of fillable markers)	**RSD/RS-900T**
Transparent Brain shell containing Striatum.	**RSD/RS-901T**

KOHRMAN INJECTION PHANTOM (KIP)

Fluoroscopically realistic phantom for training staff in needle placement.

- Gel filled injectable body parts encased in a latex “skin”.

✔ Ideal for practicing caudals, epidurals, selective nerve & root blocks, facet injections etc.

Code: **RSD/RS-1300**

ARTINIS RANGE OF X-RAY PHANTOMS - THE GOLD STANDARD FOR Q.A. IN RADIOLOGY & MAMMOGRAPHY

FLUOROSCOPY - CR / DR

ARTINIS CD RAD 2.0 PHANTOM

For evaluation of Fluoroscopy & CR / DR imaging systems.
Optional CD RAD Analyser software for Automatic Image Scoring.

- Consists of Plexiglas tablet with cylindrical holes of exact diameter & depth.
- The image shows 225 squares in which either 1 or 2 spots are present.
- ✔ Radiographic image gives information about the performance of the system.
- ✔ Tests Low Contrast detection and Spatial resolution.

Code: **ART/CDRAD2-0**

ARTINIS CD RAD ANALYSER SOFTWARE.

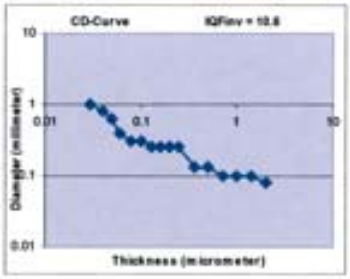
Companion to the above CD RAD phantom.

- Automatic scoring diagram & correction scheme.
- Image quality figure. Statistically sound.
- ✔ Excellent user friendly & time-saving software.
- ✔ Reports the quality of the images.

Code: **ART/CDRAD/AN**

ARTINIS CD MAM ANALYSER SOFTWARE

A companion to the CD MAM phantom



- Multiple images & Image quality figure
- Automatic scoring diagram & correction scheme
- ✔ Excellent user friendly software

Code: **ART/CDMAM AS**

ANALOGUE & DIGITAL MAMMO. PHANTOM

ARTINIS CD MAM 3.4 PHANTOM

Developed for monitoring information content of a Mammo. image - detecting very low contrast & very small details.
Optional CD MAM Analyser software for Automatic Image Scoring.

- This consists of an aluminium base attached to a Plexiglas cover.
- Together with the base are gold discs of various dimensions.
- These gold discs are arranged in a matrix of 16 rows & columns.
- ✔ Compares image quality with various film/screen combinations.
- ✔ Optimises digital mammography system.
- ✔ Determines the optimum background.

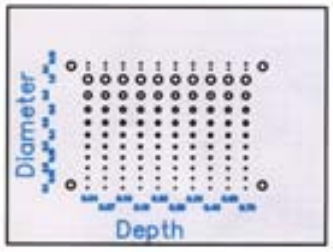
The CD MAM is considered to be the World Gold Standard!

Code: **ART/CDMAM3-4**

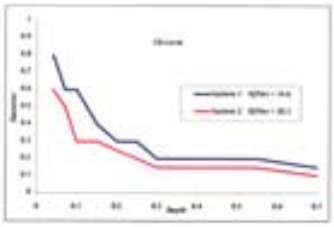
ARTINIS CD DENT PHANTOM

Consists of a tablet with cylindrical objects of exact diameter & depth

Designed to test the performance of Digital Dental X-Ray systems



- ✔ Quality control and optimisation of (digital) dental X-ray systems
- ✔ Optimization of the radiation dose - image quality relationship
- ✔ Suitable for all common intra-oral sensor sizes



Example of resultant contrast depth curve

Code: **ART/CDDENT**

For full details of the Artinis products, please contact the specialists in our Medical Sales department.

Southern Scientific Ltd. **Tel: 01903 604000** Fax: 01903 604026 e-mail: info@ssl.gb.com www.ssl.gb.com

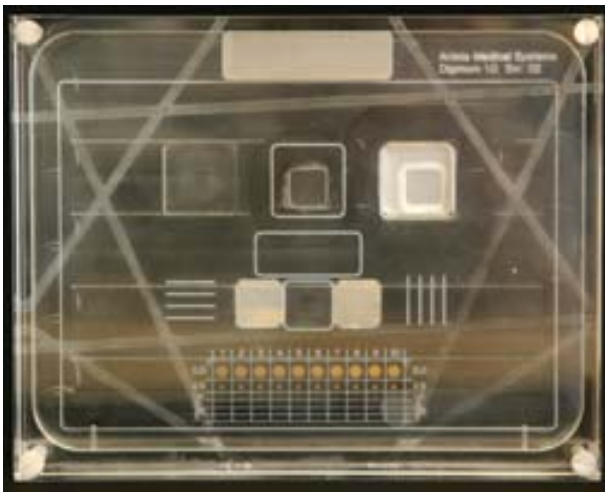
ARTINIS DIGIMAM 1.0 PHANTOM

This phantom is designed for Digital Mammography.
Developed in co-operation with the European Breast Cancer Network.

- Consists of a Plexiglas tablet that simulates an average breast.
- Contains gold discs of various dimensions for contrast/detail analysis.
- Low contrast inserts for “fatty”, “normal” & “dense” breast tissue.
- Reference point for Signal-to-noise ratio measurements.

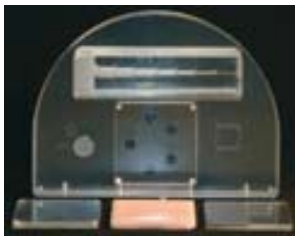
- ✔ Evaluation of Dynamic range.
- ✔ Checks for Geometric distortion.
- ✔ Checks for missed tissue at the chest wall.
- ✔ Quickly checks for bad columns of the detector.

Code: **ART/DGMAM/1**



ARTINIS PASMAM - 1054 PHANTOM

The PASMAM - 1054 has been specially developed for Digital Mammography Acceptance & Constancy testing.
It is designed to meet the German Mammography Quality Assurance Standard - PAS1054



- Basic phantoms (40mm) with Aluminium & PMMA stepwedges (14steps).
- Structure plate (6mm) with rotatable lead line resolution test pattern (5,6,7,8 & 10 Lp/mm)
- Absorption & Test Plates, plus optional Inserts for Acceptance testing.

- ✔ Very versatile phantom, using different inserts as Test Object.
- ✔ Tests the limitation of the image at the chest wall side.
- ✔ Evaluates the contrast resolution over the whole dynamic range.

Code: **ART/PASMAM/1054**

ARTINIS QA MAM 4.0 PHANTOM

The QA MAM was developed for the Breast Screening Centres.
This phantom was designed to comply with European Guidelines.

- Consists of a 45mm Perspex block, which contains embedded test pieces for the measurement of the radiation quality, low contrast & spatial resolutions.

- ✔ Tests the limitation of the image at the chest wall side.
- ✔ Measures spatial resolution - both parallel & perpendicular to axis.
- ✔ Evaluates the contrast resolution over the whole dynamic range - both qualitative & quantitative.

Code: **ART/QAMAM/4**

ARTINIS CD INVERSE PHANTOM

This phantom can be used with all Diagnostic Imaging Systems, Including Fluoroscopy & Digital Subtraction Angiography.
Its merit is where denser spots in tissue indicate Pathological areas.

- Consists of a Plexiglas tablet with cylindrical rods of exact dimensions.
- The images shows 225 squares - 15 rows & 15 columns.
- Correct location of the 2nd. spot in each square proves that a contrast is seen.

- ✔ For comparison of the imaging performance of different X-Ray systems.

Code: **ART/CD/INV**

ARTINIS DINMAM PHANTOM

This phantom is for acceptance & constancy testing.
This phantom complies with both DIN 6868 Part 7 & Part 152.

- It is made of 4 plates; 1 for structure & 3 for absorption.
- Cavity for the positioning of an Unfors dose detector.

- ✔ Test for limitation of the image at the chest wall side.
- ✔ Reference point for optical density measurement.

Code: **ART/DIN/MAM**

For full details of the Artinis products, please contact the specialists in our Medical Sales department.

Southern Scientific Ltd. **Tel: 01903 604000** Fax: 01903 604026 e-mail: info@ssl.gb.com www.ssl.gb.com

Knight Imaging

STEREOTACTIC NEEDLE BIOPSY TRAINING PHANTOM

A tissue equivalent, non-leak, compressible biopsy training phantom.

- This phantom is made of a solid material - does not leak when punctured.
- It closely mimics the properties of the human breast.

✔ Ideal teaching tool for mammographic needle biopsy procedures.

✔ Serves as an excellent Q.A. testing device for stereotactic systems

Code: **CIR/013**

MAMMO.TISSUE EQUIVALENT PHANTOM

Designed to test the performance of any Mammo. systems.

- Contains targets to test threshold of the new Mammo.systems
- Test objects within the phantom range in size.

✔ Simulates the average breast tissue composition.

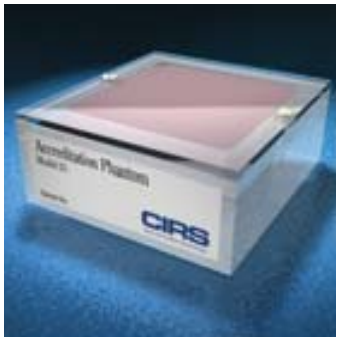
✔ Simulates calcifications, fibrous calcifications in ducts tumour masses.

Code: **CIR/011A**

MAMMOGRAPHIC ACCREDITATION PHANTOM

Designed to test the performance of a Mammographic system.

- It is 44mm thick & is made of a 7mm block insert containing 16 sets of test objects.
- Objects within the unit simulate calcifications, fibrous calcifications in duct & tumours.



✔ Tests the performance of a Mammographic system by a quantative evaluation of the system's ability to image small structures simulate to those found clinically.

Code: **CIR/015**

BREAST ULTRASOUND NEEDLE BIOPSY PHANTOM

The perfect training device for U/S guided needle biopsy procedures.

- The phantom flesh-like consistency simulates needle resistance.
- Each cystic mass aspirated once, each solid mass biopsied multiple times.

✔ Improve eye-hand coordination./ Experiment with new techniques.
✔ Build confidence & reduce patient anxiety./ Also test new equipment.

Code: **CIR/052**

TRIPLE MODALITY BIOPSY TRAINING PHANTOM

Anthropomorphic shape is suitable for Ultrasound examinations

- This phantom was designed specifically for needle biopsy.
- The consistency simulates needle resistance in human tissue.

✔ Ideal for training as it can be imaged by U/S, as well as X-Ray & MRI.

✔ Each cystic mass may be aspirated once - each solid mass biopsied multiple times.

Code: **CIR/051**

PLASTIC WATER PHANTOMS

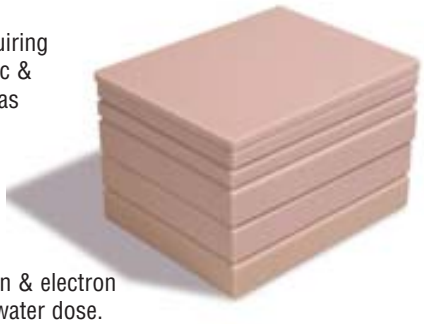
Calibrate photon & electron beams within 0.5% of true water dose.
CIRS Plastic Water phantoms are flexible & will not break under impact.

Plastic Water LR 15 keV - 8MeV

- For dose evaluation, such as low energy Brachytherapy sources or CT dose verification.

Plastic Water DT
50keV - 25 MeV

- For special applications requiring exposures to both diagnostic & radiotherapy energies such as radiation therapy planning & dose verification in IMRT.



Plastic Water Original
150 keV - 100MeV

- Permits calibration of photon & electron beams within 0.5% of true water dose.

✔ Ideal for routine beam constancy checks.

For full details of the CIRS products, please contact the specialists in our Medical Sales department.

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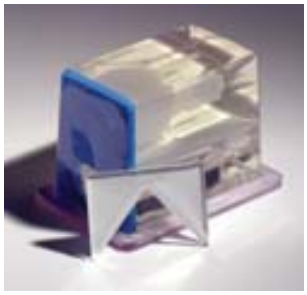
Knight Imaging

ULTRASOUND PROSTATE TRAINING PHANTOM



A disposable phantom for practicing permanent seed implantation.

- Simulated perineal membrane permits needle insertion with realistic resistance.
- The prostate is transparent to allow visual verification of seed placement.
- ✔ Visualisation of probe orientation is permitted by clear gel area below rectal wall.
- ✔ Ideal disposal training device, which includes a removable pubic arch.

Code: **CIR/053-1**

PROSTATE DEMONSTRATION PHANTOM

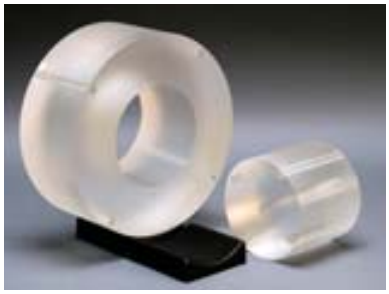
Non-disposable urethane phantom for Prostate imaging.

- Durable & appropriate for repetitive demonstration scanning.
- This contains a simulated lesion & calcification cluster.
- ✔ This is an ideal demonstration device for rectal scanning.
- ✔ Needle localisation is demonstrated by an embedded needle.

Code: **CIR/058**

CT DOSE PHANTOM

Designed to comply with FDA performance standard. (21CFR 1023.33)



- Consists of a Head & a Body phantom.
- Made of acrylic - density 1.19grams/cc
- ✔ Useable on all types of CT scanners.
- ✔ Inside hole sized for standard CT dose probes.

Code: **CIR/007**

3D SECTIONAL TORSO PHANTOM

Anthropomorphic phantom accurately simulating an average torso

- Includes organ structures - lungs, heart, liver, kidneys, spleen & pancreas
- Can be configured to accommodate a multitude of dose measurement media.
- ✔ Tissue simulation between Diagnostic & Radiotherapy - 40keV to 20MeV
- ✔ Ideal for Calibration, Q.A. & Training purposes for specific internal organs.

Code: **CIR/600**

GENERAL PURPOSE ULTRASOUD PHANTOM

Basic standard phantom for ultrasound Quality Assurance. Code: **CIR/054**

GENERAL PURPOSE MULTI-TISSUE PHANTOM

The Standard for Ultrasound Quality Assurance. Code: **CIR/040**

GENERAL PURPOSE URETHANE U/S PHANTOM

Three Scan surfaces with three separate scanning windows. Code: **CIR/042**

ULTRASOUND RESOLUTION PHANTOM

Designed for evaluating system resolution. Code: **CIR/044**

NEAR FIELD ULTRASOUND PHANTOM

Quality Assurance standard for high frequency probes. Code: **CIR/050**

For full details of the CIRS products, please contact the specialists in our Medical Sales department.

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