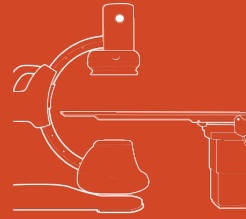


Now Available



Leeds Test Objects
medical imaging phantoms





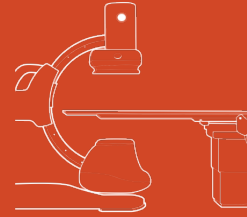
TO CDRH



Meets the criteria of the CDRH specification from AAPM reports 31 and 60 (the NEXT, FDA requirements).

Comprises;

- PMMA attenuator block and stand assembly
- Test Plate
- Filters

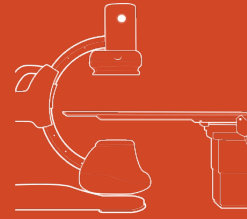


TO CDRH

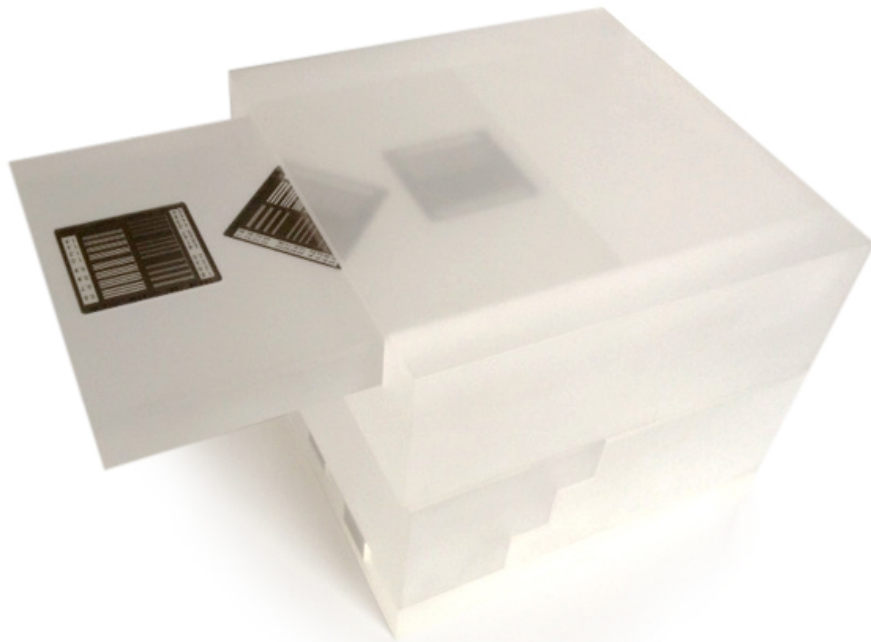


Allows the user to test;

- Contrast Resolution
- Spatial Resolution
- Dose (with dosemeter)



TO DSA



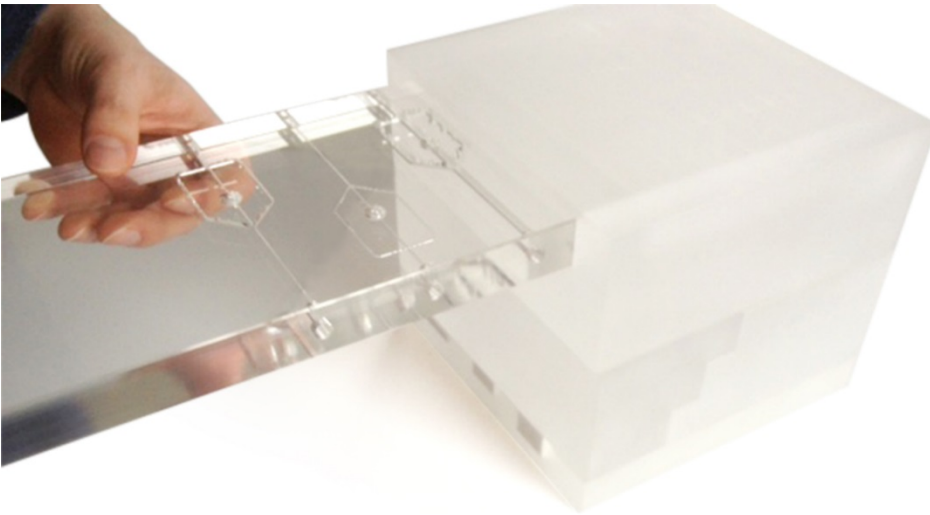
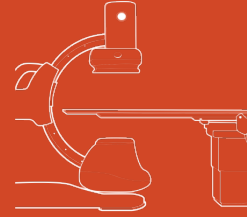
Based on AAPM Report #15

Used for Digital Subtraction Angiography (DSA)

Comprises;

- PMMA stepwedge
- Bone block
- Contrast filled vascular block
- Spatial resolution block

TO DSA



Allows the use to perform the following tests;

- Contrast Resolution
- Spatial Resolution
- Dynamic Range
- Digital Subtraction



TO ANSI

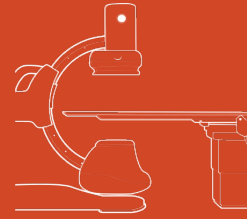


Based on AAPM Report #31

Comprises;

- PMMA blocks
- Spacers x4
- Al filters

Used for patient equivalent AEC checks and dosimetry



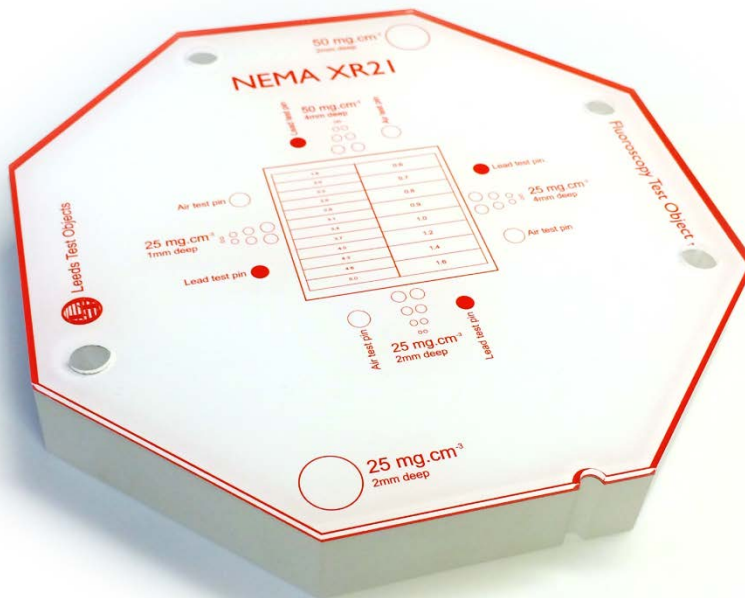
TO NEMA XR21

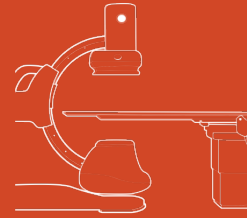
Used for quality control testing of the image quality of fluoroscopy imaging in interventional procedures.

Designed in accordance with the NEMA XR21 standard

TO XR21 phantom comprises:

- detail plate (shown)
- attenuator plates
- beam centring assembly
- field size plate
- copper plate
- lead plate
- test stand
- test base





TO NEMA XR21

The modular stacking design of the plates allows variation of phantom thickness in steps of 25mm, up to a total of 300mm, thus simulating a range of patient sizes.

TO XR21 enables the following measurements to be performed:

- beam alignment
- radiation field size
- x-ray to light field alignment
- spatial resolution
- contrast (iodine) resolution
- working thickness range
- dose measurements (dosemeter not supplied)

Coming Soon



Leeds Test Objects
medical imaging phantoms



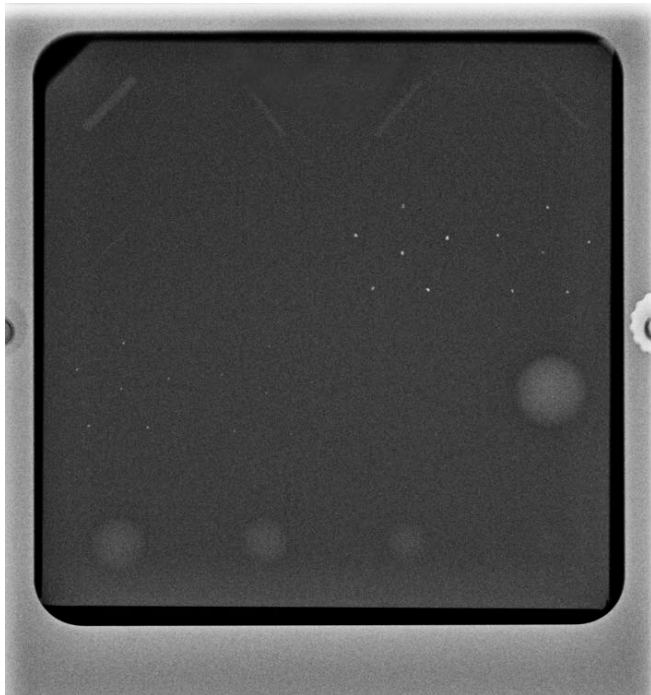
TO PASMAM



Developed according to the German PAS 1054 guidelines especially for Digital Mammography.

- Base phantom (40 mm PMMA) with Al step wedge (14 steps from 0—5,2 mm)
- Insert High Contrast (50% covered with steel plate)
- Insert for Contrast Noise Ratio (covered with 0,1 mm Alu)
- 4 rows of metal balls for check of missed tissue at chest wall side
- Four attenuation plates (2 x 10 mm, 2 x 20 mm)

ACR Mammo



Meets ACR requirements

Fibres, specks and masses embedded in wax insert to simulate microcalcifications, fibrous structures and tumours

Simulates 4.2 cm compressed breast of average glandular/adipose composition

Quattro

Quality Control of Tumour Tracking in Radiation Oncology

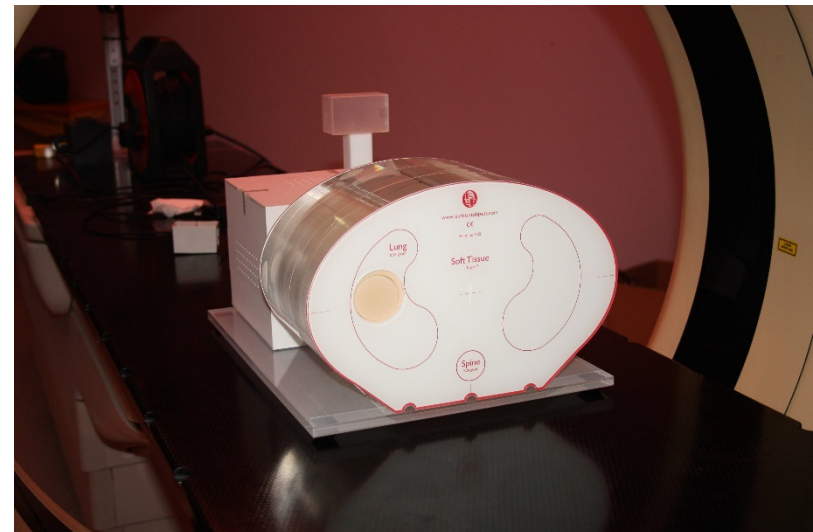
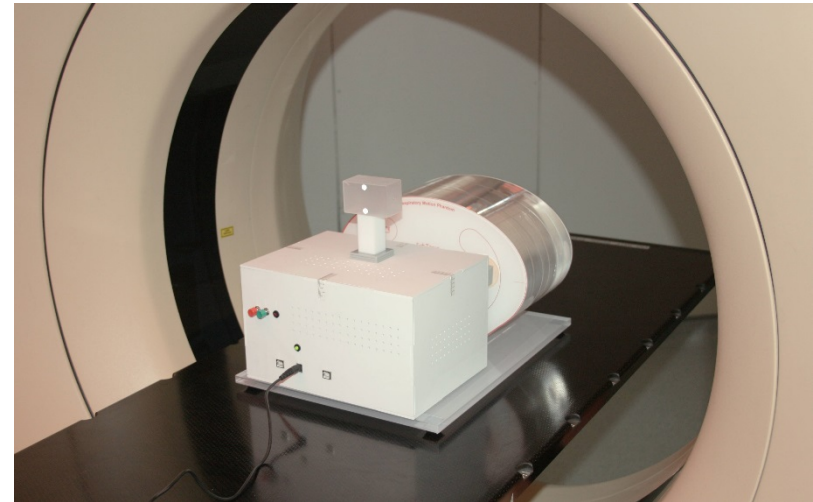


Dynamic Platform for quantification of tumour motion in 4DCT

Insert Z axis movement

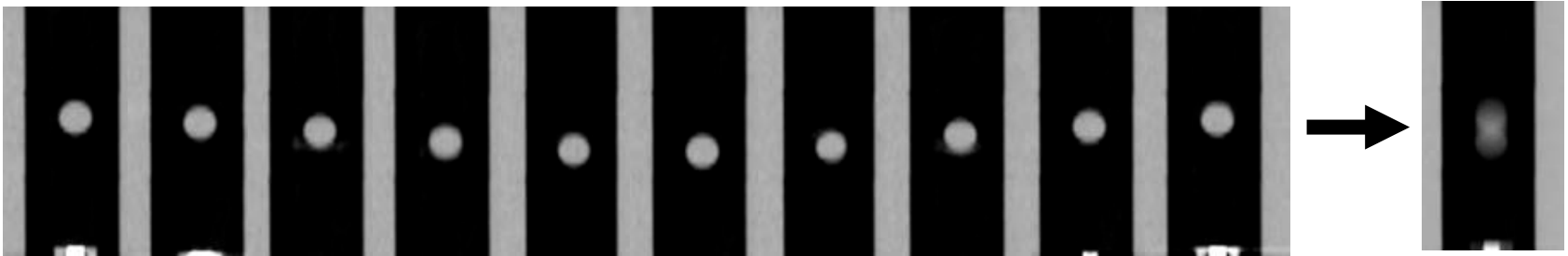
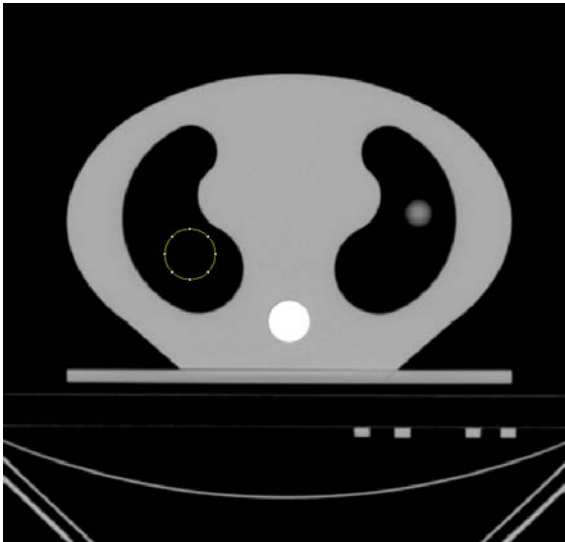
Y axis movement (trigger Varian RPM)

Allows exact replication of respiratory motion based on clinical patient breathing traces, or sinusoidal traces.



Quattro

Quality Control of Tumour Tracking in Radiation Oncology



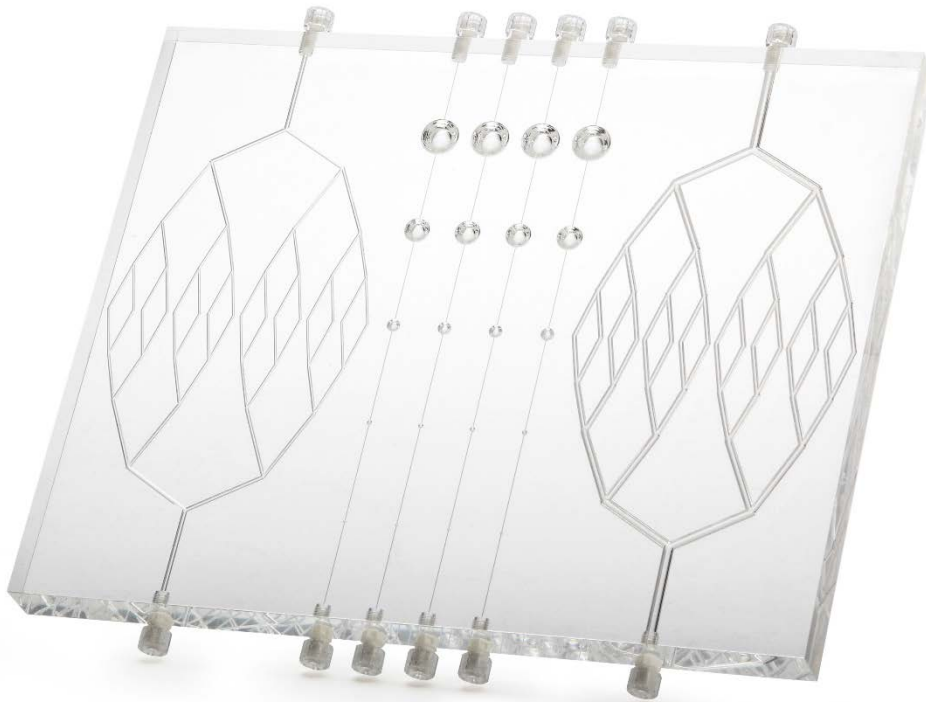
Research & Development



Leeds Test Objects
medical imaging phantoms



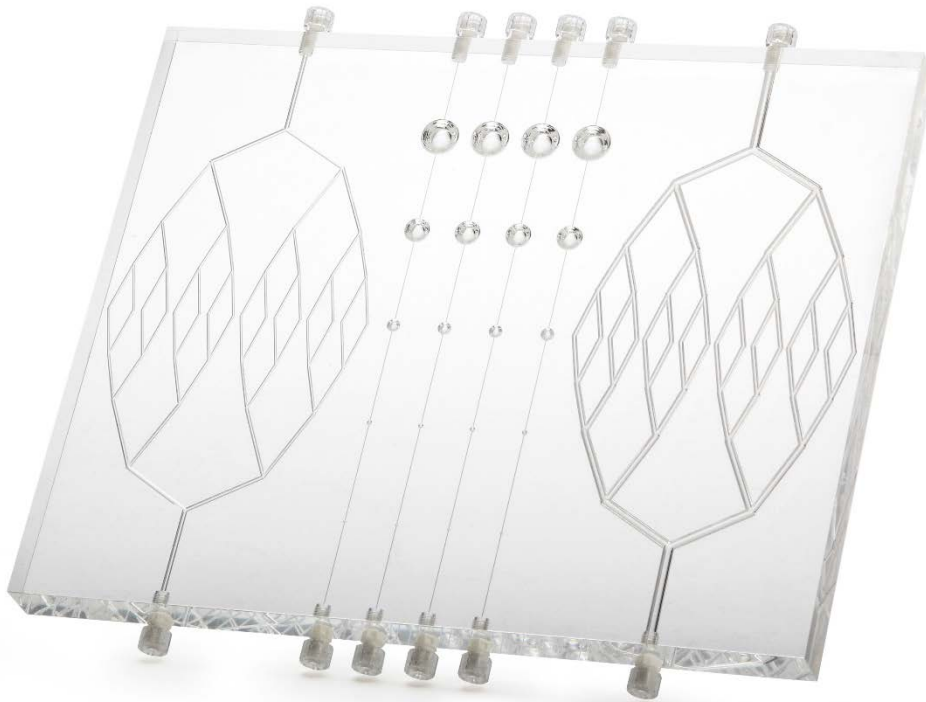
Contrast Enhancement Phantom



Comprises a range of liquid fillable voids in a PMMA plate, including;

- four rows of spheres of diameters 15.0, 10.0, 5.0, 2.0, 1.0 mm
- Two sets of diverging and reconverging tubes of diameters 3.5, 3.0, 2.4, 2.0, 1.7, 1.4, 1.2, 1.0 mm

Contrast Enhancement Phantom



Allows the user to perform the following tests;

- Contrast agent studies

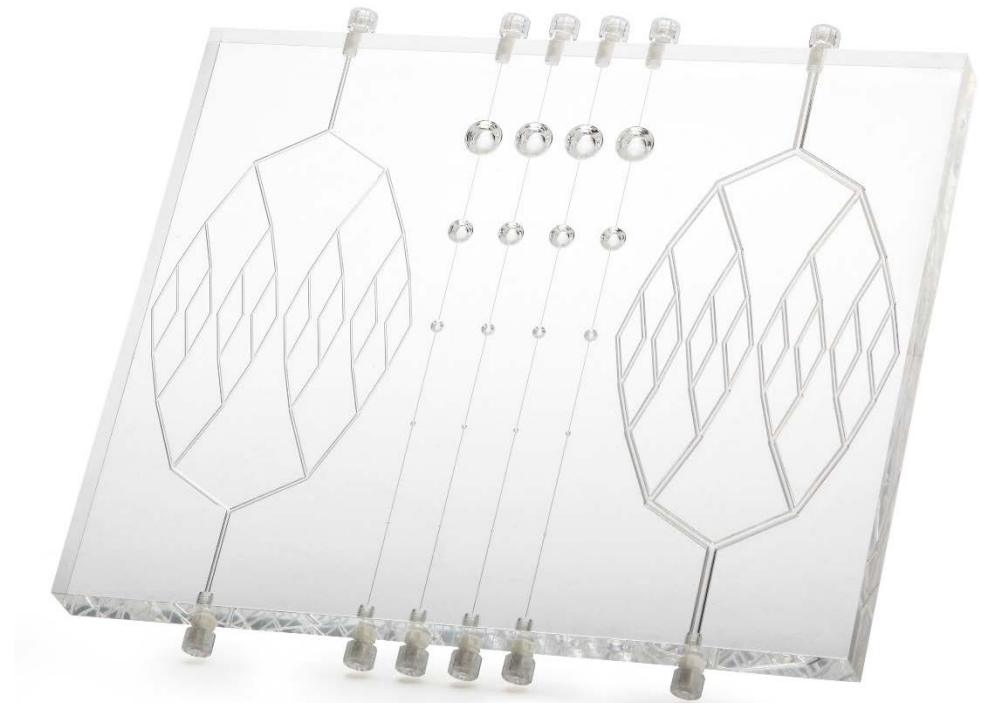
Might also be used for;

- Multi-modality fusion alignment (especially PET/CT)

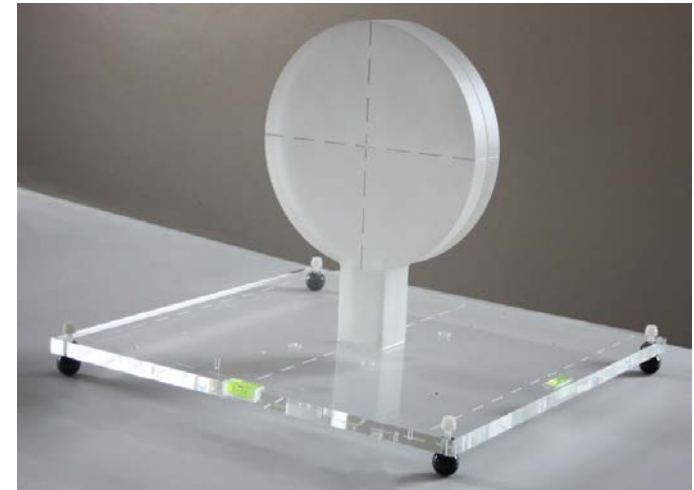
Dynamic Phantoms

Flow Phantom

Microprocessor controlled flow rate of BMF through a network of tubes mimicking vasculature

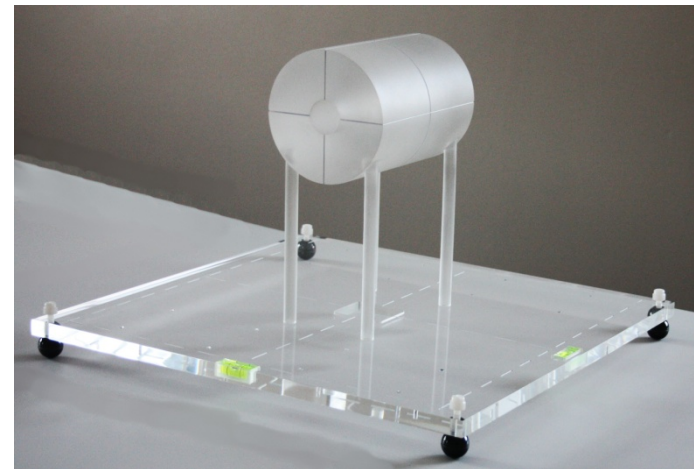


LINAC QA

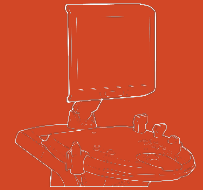


Set of phantoms for checking geometric alignment
& dosimetry of LINAC systems

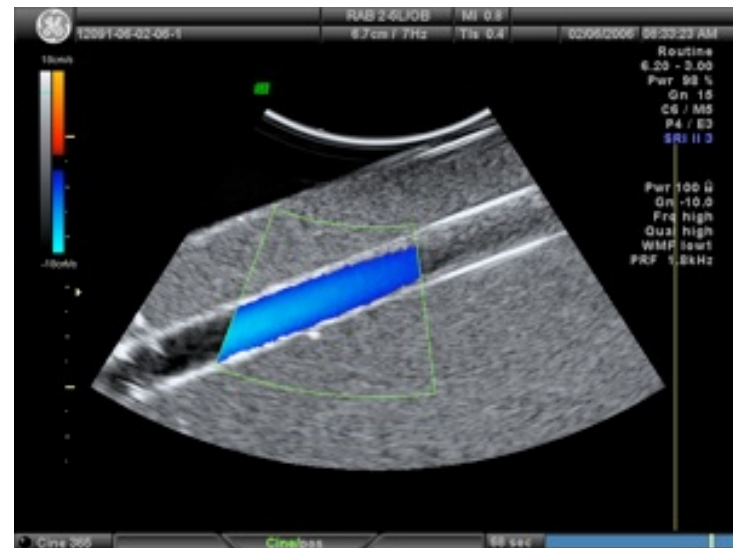
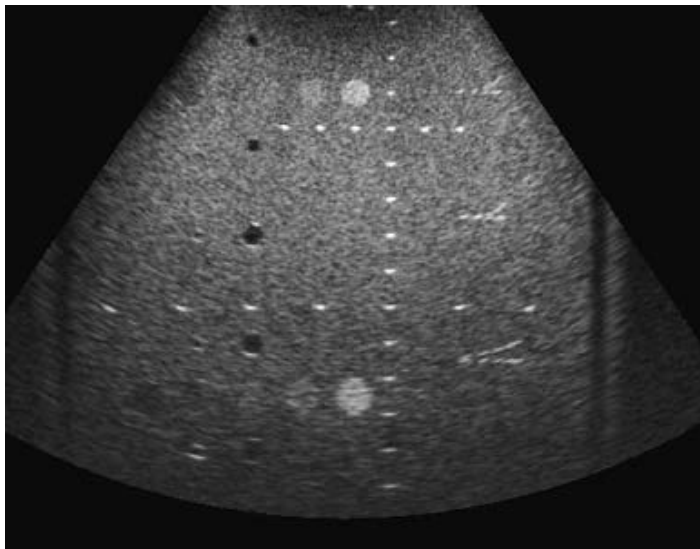
Designed to IEC 60976:2007; IEC 60977:2008; IPEM
Report 94

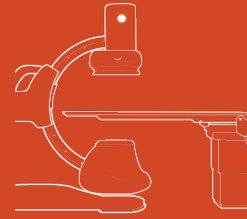


Ultrasound



We are partnering with the UK's top clinical centre for ultrasound to develop an exciting new range of ultrasound phantoms. We expect to release our first models in 2015.





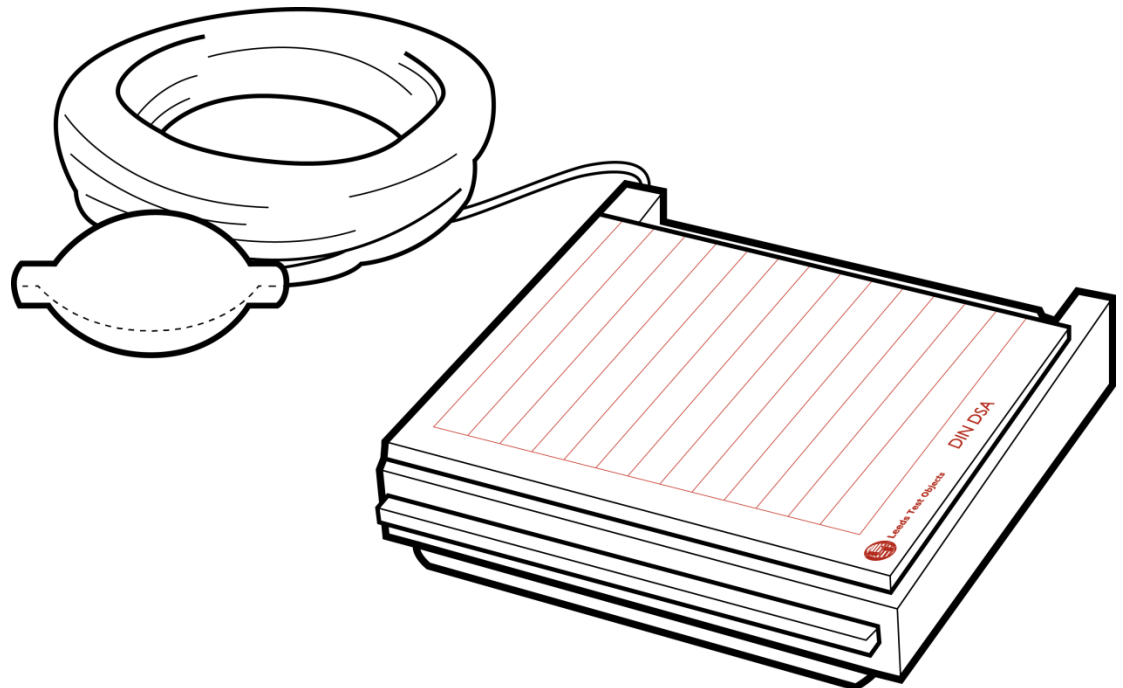
DSA 8/54

Designed in accordance with DIN 6868/Parts 8 and 54.

DSA 8/54 contains a dynamic insert with AI strips simulating contrast enhanced blood vessels. The dynamic insert is moved via a pneumatic system during fluoroscopic imaging.

Allows the user to measure;

- Artefacts
- Dynamic range
- Logarithmic errors
- Contrast media sensitivity



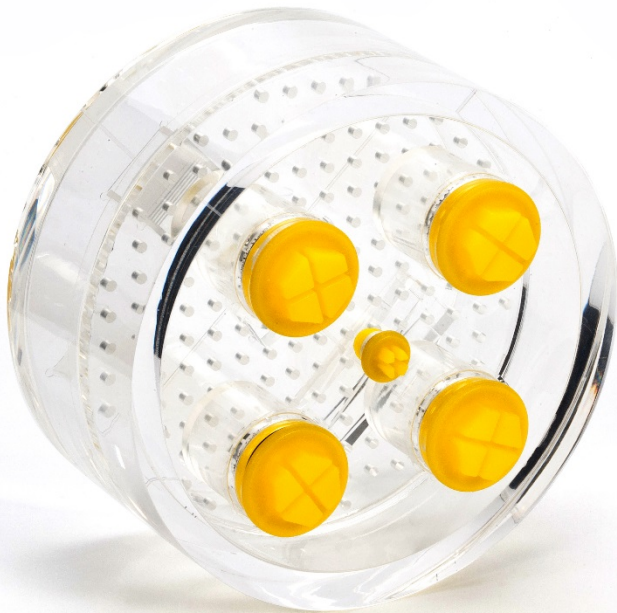


Tissue Equivalent Materials

After small scale trials, we are building a TEM lab at our factory to be completed by the end of 2014. Following completion we will begin the final stages of the development of a range of anthropomorphic tissue equivalent phantoms.

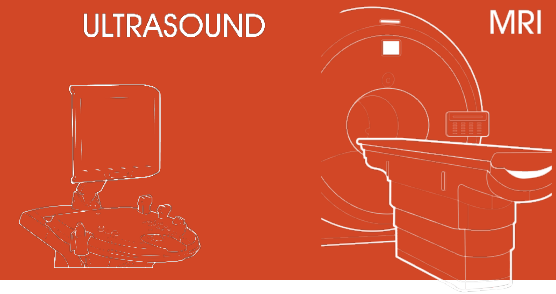


MagIQ Breast/Prostate



A miniaturised version of the head coil phantom MAGIQ, allows the user to measure essential image quality parameters for breast and prostate cancer imaging using MR.

Horizon 2020



Leeds Test Objects will take part in an EU funded project wherein our role is to develop a novel flow phantom for Ultrasound and MRI.

Leeds Test Objects is also part of a second consortium of academic and industrial partners which is hoping to secure funding for a project with the aim of standardising MRI image quality for quantitative renal imaging.

