Radiotherapy Dosimetry

Phoenix Dosimetry Ltd

www.phoenix-dosimetry.co.uk

Telephone: +44 (0)1252 871990

Unit 8, Lakeside Business Park, Swan Lane, Sandhurst, Berkshire GU47 9DN

Dosimetry Solutions from Phoenix Dosimetry Ltd

Phoenix Dosimetry Ltd are specialists in Dosimetry

PEP (Electron: Photon) Phantom



NPL 2611 Secondary Standard Chamber



Harshaw TLD Readers



and Bolus

Secondary Standard

Intercomparison

Phantom NE2566



Barts Solid Water



Dosimetry Extension Cables and Patch Panels



Original Farmer 0.6cc Ionisation Chambers NE2571 and NE2581. Repairs and parts also available



RadEye PRD with Sodium lodide Scintillator for high sensitivity survey monitoring. 30 KeV 1-3



Repairs for Mini Instruments and legacy NE Equipment



Realtime Electronic Dosemeter

Trudose Personal



PAR ACD-4





Contents:

Dosimetry Phantoms — Pages 1-2

PEP versatile 1D small Water Phantom, NE-2566A Inter-Comparison Phantom for Farmer and secondary standard, NE-2528/3 5cm depth Water Phantom for Farmer Chamber

Solid Water and Bolus Material — Pages 3-4

Solid Water Slabs for Photons/Electrons with optional customised cut-outs, Bolus material – Vaseline based and Brass

Extension Cables and Patch Panels - Pages 5-7

Customised Dosimetry Cables, Bespoke and 'off the shelf' Patch Panels

Quality Assurance Tools by Eckert & Ziegler - Page 8

Isocentric Beam Checkers, PermaDoc Phantom, Reinstein EZ Cube Phantom

TLD Readers, Materials and Accessories — Page 9

Harshaw TLD Readers Model 3500 and 5500 for Radiotherapy Dosimetry

Ionisation Chambers - Pages 10-14

NE2571/NE2581 Original Farmer Chambers, NPL-2611 Secondary Standard Chamber, Chamber Accessories / Spares, Bespoke Detector Holders

PAR Scientific Mould Room Equipment — Page 15

Automatic Block Cutter, VacFix Bags, VacFix Pump, Melting Pots, Alloy

Radiological Service and Repairs - Page 15

Radiation Monitors - Page 16

RadEye and Portable Radiation / Contamination Monitors for all types of Radiation

PEP Phantom Phoenix Electron Photon Water Phantom

The PEP Phantom has many applications and was originally designed for Electron Dosimetry to meet the requirements of the Electron Code of Practice; however it has also proved excellent for Photon Dosimetry. We have recently redesigned the PEP Phantom, removing all ferrous parts to make it MRI compatible.

The unit comprises a compact and robust water phantom complete with a levelling platform suitable for both chamber and treatment machine calibration / output measurements. It is capable of accepting all chambers recommended in the Electron Code of Practice.

The unique rotational chamber mounting, and the opposed thin windows, allow for measurements to be made with both vertical and horizontal beam incidence. Vertical chamber position is continuously variable. Lateral chamber positioning can also be easily achieved.





The '2611 Special PEP Holder' accepts both the NPL-2611 in its waterproof sleeve alongside the Farmer chamber in a vertical orientation at 2 cm from the external surface of the side window



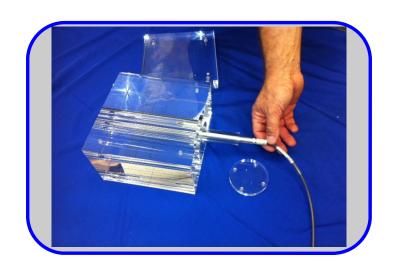
Specification			
Material:	10mm clear acrylic		
Internal Dimensions: External Dimensions:	350mm(I) x 294mm(w) x 300mm(d) Thin Windows: 3mm clear acrylic x 150mm diameter 420mm(I) x 400mm(w) x 390mm(h)		
Range of Movements:	Depth: 250mm with 1mm scale (continuously variable) Lateral: 240mm in 10mm intervals		
Levelling Capability:	Three point levelling platform Drain Hole:		
Weight Empty:	8kg		
Weight Full:	39kg		
Acceptable Chambers:	NACP, Markus, Roos, NE2571, NE2581,IBA IC70 and PPC-40, NPL2611 others upon request.		

Ordering Information

The unit comes supplied with 2 chamber holders, one for the Farmer thimble chamber and the other for a parallel plate chamber of the customers choice. Additional chamber mountings available on request. Also available is the NPL-2611 Special Holder pictured above.

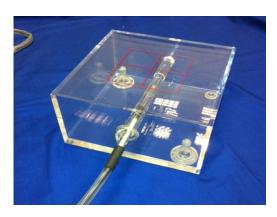
NE2566A Phantom

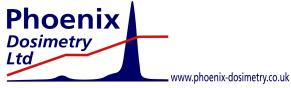
The NE2566A is a solid "Perspex" phantom for the calibration of Farmer cylindrical chambers (e.g. NE-2571) against a secondary standard (NPL Therapy Level system) by supporting both chambers in exactly reproducible geometries at the recommended depths in the calibration beam. It can be used for X and Gamma ray calibration over the range 150kV to 50MV.



NE2528/3 Small Water Phantom

The NE2528/3 is a small portable water phantom comprising a strong "Perspex" (Polymethyl methacrylate) box containing a transverse tubular sleeve into which the 0.6cc Farmer Ionisation Chamber 2505/3 fits. The centre of the chamber volume aligns exactly with the intersection point of reference lines engraved on the beam entrance side of the box. A small sprung clip prevents the chamber moving during use. The useful energy range is 150kV to 10MV.





Dimensions		
Internal Height	200mm	
Internal Width	200mm	
Internal Depth	100mm	
Wall Thickness Front Beam Entrance	3.2mm	
-Back -Top, Base and Sides	12.7mm 6.4mm	
Thickness of wall surrounding chamber thimble	4.6mm	
Distance of wall surrounding chamber thimble	50mm (Water equivalent)	
Weight Empty Weight Full	1.5kg approx 5.5kg approx	

Bart's Solid Water for Electrons and Photons

The Bart's Solid Water was originally developed by David White and has undergone continual improvements with new production facilities now in place at Bart's Health NHS Trust.

We are able to offer customised sizes from 1mm thick upwards with user specified thicknesses e.g. 41mm. We also offer various sizes 20 X 20, 25 x 25, 30 X 30, 35 X 35 cm etc.

The Bart's Solid Water mimics the absorption characteristics of water over a wide range of energies. Radiation beam calibration is made simpler 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 chambers and detectors. We also precision machine cavities in slabs of 2.0cm thickness or greater to accommodate most commercially available ion chambers/ detectors.

A cut out for the PTW Roos chamber can be included with a plug to enable simple removal of the chamber obviating any damage.

Tissue Equivalent Material

Elemental composition, physical density, CT number (Hounsfield)

		Elemental composition (%)				Density (gm/cm- 3)	CT number	
Material	н	С	N	0	CI	Ca		
Water Equivalent WT1	8.41	67.97	2.27	18.87	0.13	2.35	1.00	0
Water Equivalent Wte	7.39	61.99	2.01	22.18	0.11	6.32	1.04	80
							Tol 0.5%	Tol ±/-10





Benefits & Features

- Solid Water allows for calibrations within 1% of the true water dose
- Useful in relative ionisation calibration, depth dose measurements and absolute calibrations
- Readily machined for custom sizes
- Bart's was the original Solid Water and reference information is available in many scientific publications
- Electron and Photon Stopping power relative to water of 1.030+/- 0.005 for Photon energies from 100kV to 24MV
- Wide range of sizes and dimensions
- Mouldable material for custom requests
- Rigid construction eliminates broken ion chambers
- Wide range of applications and uses
- Dedicated Solid Water (WTE) for Electrons available
- New proton Solid Water available shortly

Bolus and Tissue Equivalent Materials

In addition to specialised WTE and WT1 Solid Water equivalent materials for Electrons and Photons, we now offer other types of mimicking materials; these include Adipose, Breast, Bone, Lung etc.

These materials are available in the same standard sizes as the Solid Water but can also be purchased to user defined shapes for phantoms and test blocks.

Bart's Bolus Bags offer soft comfortable muscle or water substitute material for use in Megavoltage Radiotherapy.

The bags are supplied in standard sizes and are manufactured from highly elastic film offering excellent durability, further information is available on our Bolus data sheet which can be downloaded from our website.





Brass Bolus now available



A list of the specialised tissue equivalent materials are listed below, these can be purchased to user specified shapes and sizes.

Electron Density

		relative to water
•	Adipose (Fat) Tissue AP-7	0.90
•	Breast Tissue BR-12	0.96
•	Hard Cortical Bone SB-5	1.47
•	Inner Bone IB-7	1.11
•	Average Rib Bone RB-2	1.50
•	Lung Tissue LN-10	0.28
•	Liver I V-1	1.05



Please contact our Sales Office for further information on any of these products.

High Quality Customised Dosimetry Extension Cables and Patch Panels

Phoenix Dosimetry offer custom made 'Dosimetry Cables' for Radiotherapy and associated departments. We offer a wide range of connectors including Triax TNC, Banana BNC etc.

The cables are specifically manufactured to customers individual requirements and we pride ourselves on a fast delivery service.

The range of cables available includes, but is not limited to:

- Triax TNC extension cables up to 60m length — these are suitable for Farmer type chambers for connecting to a range of precision Electrometers
- Triax TNC to Banana BNC cables / adaptors for use with NACP chambers
- Triax BNC connectors can also be fitted if required
- RJ-45—Network Cables
- Bulk Head connectors also available











Patch Panels

We offer customised patch panels which would be located in the Linac control room and main Linac room. Patch Panels make for a tidy environment with clear labeling to avoid ambiguity when connecting up different chambers QA equipment. We can also include network and DIN connectors.



BNC Triax 2 Lug



BNC Triax Male (L) and Female (R) Part No: Male = PD1



BNC Triax Male Part No: PD1

BNC—Banana



BNC—Banana Female genders shown Part No: Male BBNC = PD9 Female BBNC = PD10

Converters





Converter for NPL 2611 Chamber which is now supplied with Triax BNC plug converts to Triax TNC



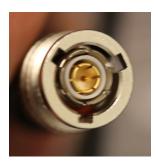
Threaded Triax TNC





Triax TNC Female (top) and Male (bottom) Part No: Male = PD3

BNC Triax 3 Lug



BNC 3 lug Triax Male Part No: Male = PD5

M Type Connector



Patch Panels from Phoenix Dosimetry

Phoenix Dosimetry now offer custom made Patch Panels and Extension Cables for Radiotherapy and associated departments.

We offer panels which are built to your specifications in terms of the size, detector types and labeling.

The panels are produced with engraved lettering on hard anodised aluminum plates and typically take 3 weeks to produce.

Why use Patch Panels?

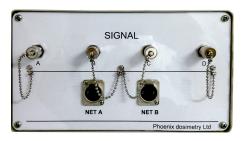
The use of patch panels is now increasing rapidly as customers realise the many benefits which include:

- Cable management; eliminates the need to run cables around the maze or through 'rat runs'.
- The cables between the patch panels are never moved which makes them more reliable.
- Easy identification of which channel the cable is connected to making set up faster and easier.
- All common QA connections are catered for e.g. Triax TNC, 2 and 3 lug BNC, Sun, RJ-45, HDMI, Network, RS-232, USB etc.
- Optional mounting of the panel in a protective steel box (see picture RHS) and also versions so that the excess/extension cable can be stored, if required, within the box.

If you would like a quotation then please email us with your requirements which should include the connector types, size of plate and distance between the 2 patch panels.



Example Patch Panels:









Eckert & Ziegler QA Phantoms

Quality Assurance Tools



Isocentric Beam Checker I

The Isocentric Beam Checker IBC I, is used to precisely determine the isocentre of any radiation therapy machine. It checks the alignment of the side / laser lights used for patient set-ups in radiation therapy, conventional tomography, and CT scanning.



Isocentric Beam Checker II

Tungsten markers of 2 mm diameter are embedded in the centre and corners of the fields.

The multifunctional Isocentric Beam Checker, IBC II, consists of a large opaque acrylic screen backed by a secondary plate, both supported by two lateral uprights. The screen is inscribed with lines precisely defining corners, edges, and centre of the screen's 2mm x 2mm, 5cm x 5cm, 10cm x 10cm, 15cm x 15cm, and 20cm x 20cm fields.

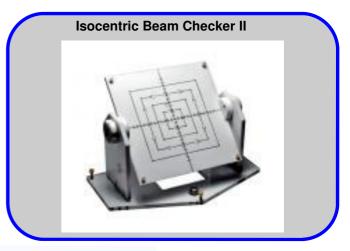


Isocentric Beam Checker III

The Isocentric Beam Checker, IBC III, is designed to facilitate routine quality assurance tasks required daily, weekly or monthly on linear accelerators or Teletherapy units. Numerous mechanical parameters can be tested in a very short time due to the simplicity of the set-up.

See our website for other QA Phantoms





Isocentric Beam Checker IV



The Isocentric Beam Checker, IBC IV, is a QA phantom, manufactured to ISO specifications, for performing Quality assurance checks as recommended by TG-142. The IBC IV can perform monthly checks of MV imaging system and treatment coordinate coincidence, MV scaling, kV Imaging system and treatment coordinate coincidence, kV scaling, and kV positioning / repositioning (shifts).



PermaDoc Phantom

The PermaDoc Phantom provides the necessary permanent documentation required by the NRC quality assurance tests associated with HDR. The PermaDoc Phantom, with its centimetre scale automatically transferred to the film by fluorescent radiation, readily identifies up to 20 source positions and their stepping accuracy.



PermaDoc GC Phantom

The Gafchromic® PermaDoc GC Phantom is designed to check source positioning and stepping accuracy of HDR remote afterloading systems and provides a permanent record. It has a centimetre scale, which is projected onto the Gafchromic® RTQA film by fluorescent radiation, and readily locates, up to 20 source positions.

TLD for Radiotherapy Dosimetry

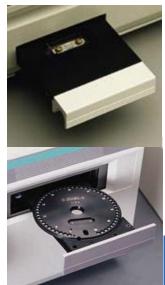
TLD has long been used for Radiotherapy Dosimetry whether it be for TBI, Basic Patient Dose measurements or in Phantom work, TLD offers a precise and effective form of measurement.

There are 2 readers in the Harshaw Product range suitable for this application; the manual 3500 or the automated Model 5500. The 5500 also utilises hot nitrogen gas to ensure fast efficient and reproducible heating of TLD's.

The WinRems software allows for automated glowcurve storage and a simple dose output to a user prescribed spreadsheet for the calculation and presentation of data. The TLD chips can be reused over many years and full QA can be controlled by the user making TLD a cost effective long term dosimetry solution.

Accessories include the TLD-3 annealing oven together with Chips and annealing trays—see also our new storage / irradiation / transposition jig (below) so chips can be moved quickly and efficiently from the annealing trays.







Harshaw Model 5500



Readers			
Model 3500	For manual processing of loose chips, pellets and powder		
Model 5500	For automated processing of loose chips, pellets and microrods / cubes		
Accessories	TLD-100 or 100H Chips, TLD-3 oven, Stainless Steel Annealing Trays, Vacuum Tweezers, Transposition / Irradiation jig		
Upgrades	Please contact our sales office for information on mid life upgrades and Windows 7 compatible WinRems Software		

TLD-3 Annealing Oven

The TLD-3 Oven is designed especially for TLD annealing with a programmable controller and two fans, one for air circulation and the other for assisted cooling. Maximum temperature of 400° C.





NE2571 Farmer 0.6cc Ionisation Chamber

The Farmer **NE2571A** cylindrical ionisation chamber is the original 0.6 cm3 chamber designed by Professor F. T. Farmer. It is constructed from a thin-walled, high purity graphite thimble and aluminium electrode, with a detachable build-up cap which also protects the thimble. Careful guarding of the signal conductors and cable has ensured low postirradiation leakage. The NE2571A is used throughout the world for the measurement of photon and electron beam dosimetry. It is also possible to purchase the graphite thimble replacements and water proof sheaths (please refer to the sales office).

NE2571A is delivered as standard with a detachable build-up cap, 10 metre cable, Triax TNC plug; and carry case. Variations to this are available upon request.



Physical Characteristics		
Sensitive Volume:	0.69cm ³	
Sensitive Length:	24.1mm	
Thimble materials:	99.99% graphite	
Inner diameter:	6.3mm	
Wall thickness:	0.36mm	
Inner electrode:	99.99% aluminium	
Length:	20.6mm	
Outer diameter:	1.0mm	
Build-up cap:	Delrin CH₂0	
Wall thickness:	3.87mm	
Outside diameter	15.1mm	
Density:	1.425gm cm ⁻³	
Stem: Outside diameter	8.62mm	
Length of connecting cable:	10mm	





Specification			
Sensitive Volume	0.69cm ³		
Sensitivity for X-rays of 1mm Cu HVL	4.6 R.nC ⁻¹ 275 R.min ⁻¹ .nA ⁻¹ 46 Gy.μC ⁻¹ 2.75 Gy.min ⁻¹ .nA ⁻¹		
Energy range for X and gamma radiation: (a) Without build-up cap: (measures exposure)	50kV to 300kV		
(b) With build-up cap: (measures exposure)	0.3MV to 35MV		
(c) In suitable phantom (measures absorbed dose to water)	2MV to 35MV		
Energy range for electrons: In suitable phantom (measures absorbed dose to water)	5MeV to 35MeV		
Leakage current: Typical: Maximum:	5 x 10 ⁻¹⁵ A 1.5 x 10 ⁻¹⁴ A		
Maximum exposure rate (approx) or 99% collection efficiency: Polarising potential—250V	4 kR.min ⁻¹ , continuous 25 mR/Pulse, pulsed 40 Gy.min ⁻¹ , continuous 0.25 mGy/Pulse, pulsed		
Polarising potential— 400V	10 kR.min ⁻¹ , continuous 40mR/Pulse, pulsed 100 Gy.min ⁻¹ , continuous 0.4 mGy/Pulse, pulsed		

NE2581 Robust Farmer 0.6cc Ionisation Chamber

The 0.6 cm3 **NE2581A** is a robust Shonka Plastic version of the Graphite based NE2571A with similar applications but using a tissue equivalent inner electrode and thimble. This is particularly suitable for routine output checks of X-ray, 60Co and Linacs.

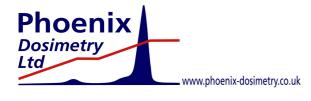


Associated and Peripheral equipment includes:

- Chamber repair kit
- NPL2611 Secondary Standard Chamber
- **NE2566A** Intercomparison Phantom (see picture)
- NE2528/3 Small Water Phantom for NE2571
- PEP small Photon Electron Water Phantom
- Dosimetry Extension Cables
- Solid Water

The **NE2581A** is delivered as standard with a detachable build-up cap, 10 metre cable, TNC plug; carry case – variations available upon request.

Physical Characteristics		
Sensitive Volume:	0.56cm ³	
Sensitive Length:	24.1mm	
Thimble materials:	Shonka A-150	
Inner diameter:	6.3mm	
Wall thickness:	0.36mm	
Inner electrode:	Shonka A-150	
Length:	20.6mm	
Outer diameter:	3.0mm	
Build-up cap:	Lucentine CH	
Wall thickness:	5.61mm	
Outside diameter	18.6mm	
Density:	1.06gm cm ⁻³	
Stem: Outside diameter	8.62mm	
Length of connecting cable:	8.62mm	



NE-2566A Secondary Standard Intercomparison Phantom.



Specification		
Sensitive Volume	0.56cm ³	
Sensitivity for X-rays of 1mm Cu HVL	5.9 R.nC ⁻¹ 350 R.min ⁻¹ .nA ⁻¹ 59 Gy.μC ⁻¹ 3.5 Gy.min ⁻¹ .nA ⁻¹	
Energy range for X and gamma radiation: (a) Without build-up cap: (measures exposure)	100kV to 300kV	
(b) With build-up cap: (measures exposure)	0.3MV to 2MV	
(c) In suitable phantom (measures absorbed dose to water)	2MV to 35MV	
Energy range for electrons: In suitable phantom (measures absorbed dose to water)	5MeV to 35MeV	
Leakage current: Typical: Maximum:	5 x 10 ⁻¹⁵ A 1.5 x 10 ⁻¹⁴ A	
Maximum exposure rate (approx) or 99% collection efficiency: Polarising potential—250V	50 kR.min ⁻¹ , continuous 100 mR/Pulse, pulsed 50 Gy.min ⁻¹ , continuous 1 mGy/Pulse, pulsed 130 kR.min ⁻¹ , continuous	
400V	150mR/Pulse, pulsed 1.3 kGy.min ⁻¹ , continuous 1.5 mGy/Pulse, pulsed	

Accessories for the NE-2571 and NE-2581

Phoenix Dosimetry now offer a wide range of accessories for the Farmer Chambers together with spare parts.

We have a full service capability at our workshop in Sandhurst and are able to both repair and rebuild the chambers at a very reasonable price.

Many older chambers become fragile with extended use including the Shonka Plastic thimbles on the NE-2581.

Why not give your old chambers a new lease of life? Just send them to us and we will send you a no obligation quote for the cost to update them to the latest specification.

Accessories Include:

Thimble Repair Kit (Part No: 2542/3A) for the NE- 2571 which includes – 2 Thimbles and 2 Collets cleaned and prepared for use and 2 spanners in a case

Thimble Repair Kit (Part No: 2542/3C) for the NE-2581 which includes 2 Shonka Plastic Thimbles cleaned and prepared for use and 2 spanners in a case

Waterproof Plastic Sheath for NE-2571 or NE-2581 for use in a Water Phantom

Latex Sheath (Part No: 2513B) - length at 1 meter long

Brass Build up caps – available in other materials and to user specified sizes

Extension Cables

Chamber case with protective foam insert Solid water Blocks milled out for the NE-2571/2581

Adapter Rods for the NE-2566A Intercomparison Phantom – also available for other chamber types

Other parts are available upon request, please email us at sales@phoenix-dosimetry.co.uk







Chamber Repair Kit



Waterproof Plastic Sheath



Build Up Caps

NPL-2611 Secondary Standard Therapy Dosimetry Chamber

The 2611A chamber consists of a thin walled high purity graphite thimble, PEEK insulators and a hollow pure aluminium electrode supported by a thin walled aluminium stem. The stem terminates in a robust cable entry, by which the chamber is mounted to a 10 metre length of low noise triaxial cable to a BNC triaxial plug and is provided with a Triax TNC converter.



Key Features:

- Air Vented Chamber so air density corrections are to be applied
- The chamber is manufactured in the UK by the 'NPL' (National Physical Laboratory)
- Maintenance and Calibration are carried out by NPL
- Secondary Standard calibrations for Electrons and Photons are carried out normally twice per annum and are available directly from NPL





Performance

- Energy response uniform +/- 1% from 1.0mm AL 20mm AL HVL (0.030mm Cu to 4.00mm Cu HVL)
- Sensitivity 11nC/Gy nominal
- Better than +/- 0.35 over 3 years
- Polarising potential— 200V / Max +/-400 V DC
- Collection efficiency (HV@-200V) continuous radiation better than 99.9% for dose/pulse values less than 43.5 microGy
- Leakage better than +/-2X10^{E-14A}

Specification			
Active Dimensions	Sensitive Volume—325mm³ Length of Volume—9.22mm Thimble wall thickness– 0.5mm Diameter—7.35 mm		
Exterior Dimensions	Length — 185mm Diameter — 12.5 mm		
Materials	Thimble—high density (1.80b/cm³) high purity extruded graphite Collecting electrode - aluminum 99.99% pure Main insulator — PEEK stem insulators P.C.T.F.E. HV insulator – PEEK The chamber stem is guarded to a point 15mm from the measuring Volume		
Reference Point	The effective measurement point for positioning the chamber should be taken to be the axis of the chamber 5mm from the tip of the graphite thimble		
Venting	To ensure that the chamber is equilibrated with the atmosphere the measuring volume is vented giving pressure equilibration times for just a few seconds		
Build up Cap	PEEK with external diameter of 17.0 mm and wall thickness of 600mg/cm ²		
Cable	Suhner GO 233OHT connections Centre core—signal at HV Inner screen—guard at HV Outer screen—earth potential Length 10m		

Accessories:

- NPLSL—Water Proof Sleeve (one delivered with each new chamber)
- NPLCDC Sleeve to accommodate NPL-2611 into IBA CDC Check Source—see left picture
- NE2566A Perspex Phantom for Intercomparison between Farmer Type and 0.33cc Secondary Standard Chambers

Bespoke Detector Holders for Phantoms and Check Sources

Phoenix Dosimetry offer a service for the provision of 'bespoke' detector holders and adaptors for a variety of Phantoms and Check Sources.

We provide adaptors for the IBA CDC Check Source including the NPL-2611, Standard Imaging A1SL Chamber, PTW Semiflex 3D and many other types. We can also customise these for specific requests.





Build up caps are also available for the NE2571/ NE2581 Chambers manufactured from Brass and other materials upon request. Specifications are also available.

Phoenix Dosimetry offer a repair service for NE2571 and NE2581 Chambers, extension Cables and NE Electrometers.

NE2566A Rod Inserts are available for other chamber types to allow inter-comparison with another chamber. Please enquire for further information.



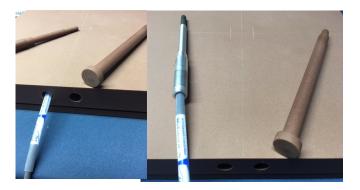
A1SL Insert for IBA Check Source



NPL-2611 Insert for IBA Check Source



Bart's Solid Water Intercomparison Phantom with scribed marks both sides for the NE2571 and NPL-2611 Chambers.





Mould Room Products from PAR Scientific

The ACD-4 MK5 is the very latest automatic Block Cutter for Radiotherapy Mould Rooms available from Phoenix Dosimetry — it is table mounted and uses the latest software with a DICOM Daemon for block calculations.

Phoenix Dosimetry also support and offer software upgrades on the older ACD-4 Block Cutters for Windows 10 compatibility.

MT49A Alloy Melting Pot



MCP-96 Cadmium Free Alloy



Latest ACD-MK5 Block Cutter





VacFix® Cushions



Service and Repairs for Automated Block Cutters

Phoenix Dosimetry offer a repair service for Par Automatic Block Cutters. We are able to perform infield service of these units and our workshop in Sandhurst has a large inventory of spare parts. We are also able to offer repairs for the NE Farmer Chamber, Extension Cables and older NE Radiological equipment including Farmer Dosemeters and 2630B Dosecheckers.



www.phoenix-dosimetry.co.uk





15

Radiation Protection Instrumentation



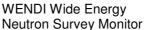
RadEye PRD with Sodium Iodide Scintillator for high sensitivity survey monitoring



RadEye NL Neutron Survey Monitor is normally worn in a holster. In order to use it as handheld and to Increase efficiency, it can be put into an optional moderator with handle #425067110

RadEye SPRD-GN Monitors For detection of Gamma & Neutrons

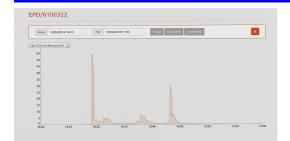






Area Alarm enclosure for RadEye

Personal Dosimetry NEW TruDose EPD Personal Dosemeter



RadSight Software compatible with older EPD MK2 units and TruDose. Also interfaces with older IR Readers allowing mixed populations of older and newer EPD's

NEW - Thermo TruDose EPD





Uncompromised Radiological Performance

- Unprecedented sensitivity, as low as 0.05µSv/hr (0.005mrem/hr), at lower dose rates provides assurance in the accuracy of exposure
- Improved pulsed field detection
- Multi-detector technology measuring both gamma and beta radiation
- IP65 (EPD TruDose BG) and IP67 (EPD TruDose G) provides improved protection from dust and water
- Integrated electromagnetic shielding improves tolerance to electromagnetic fields
- Beta Gamma or just Gamma versions available



About Phoenix Dosimetry:

Phoenix Dosimetry Ltd is a company who specialise in providing equipment and services to the Dosimetry market. Our core areas are in Radiotherapy and Health Physics, to both industrial and Hospital environments.

Our staff have over thirty years experience in providing our customers with unique solutions and advice for all aspects of Dosimetry and Radiation monitoring.

We have teamed up with some of the biggest companies from around the world to provide the best equipment to meet our customers' requirements. These include Thermo Fisher incorporating Harshaw TLD, Par Scientific, John Caunt and NPL. In addition we also provide a variety of Phantoms, Farmer Chambers, customised Dosimetry cables and Patch Panels.

Our newly refurbished offices in Sandhurst provide the back office support one would expect from a company dedicated to providing the best customer experience. Our Sales and Service team are based from here and travel throughout the UK and Ireland to provide on-site demonstrations, service and maintenance support. We can also facilitate training and demonstrations of equipment in our new training room.

Please visit our website for further information and details of all our products and services.

www.phoenix-dosimetry.co.uk
Contact: sales@phoenix-dosimetry.co.uk



Unit 8, Lakeside Business Park, Swan Lane, Sandhurst, Berkshire GU47 9DN