Nuclear Medicine

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scientific
EXPERIENCE & EXPERTISE

Contents

Gamma Cameras, Thyroid Uptake Systems and Lung Ventilation

Gamma Probes, Diagnostic Seeds and Gamma Counters

Dose Calibrators and Well Counters

Radiation Safety

CAPTUS® 4000E – Thyroid Uptake System

The Captus® 4000E is a comprehensive Nuclear Medicine Measurement System, with specific software modules for thyroid uptake, bioassay, wipe tests, automated quality assurance tests, lab tests, and isotope library.

The system includes a fully functional 1024 channel MCA with auto and manual calibration. Timed activity mode features a programmable repetitive timed measurement program.

- New and improved colour touch screen user interface.
- Large 20" all-in-one touch screen computer.
- Fully integrated DICOM interface for patient data, QC and wipe tests.
- Custom Protocol included as standard.
- Ergonomically designed mobile stand.
- Articulating arm with wide range of motion.
- Medical grade corian countertop with document storage shelf.
- Secure neck phantom storage location.
- Source holder for reproducible QC positioning.
- Microsoft Office Professional 2010 option.

ECAM® – Gamma Camera

The ECAM® is available as a single or dual head gamma camera system designed for SPECT, whole body and planar imaging.

- 1 or 2 large rectangular detectors.
- 59 high efficiency PMT's.
- Controlled by Scintron® software.
- Caudal, cephalic and external rotation versatility.
- Variable-angle model offering 90° to 180° configurability.
- Automatic PMT tuning.
- Real-Time Infrared Bodycontour System minimises patient-to- detector distance for all whole body and SPECT studies.
- Motorised Patient Handling System.
- Special ultra thin imaging pallet improving image resolution.
- A comprehensive selection of collimators for general and specialised application.
- User friendly intuitive clinical applications software with easy to use applications protocols.
- Network ready communication and printing capabilities allow for smooth connectivity with HIS/RIS and PACS.
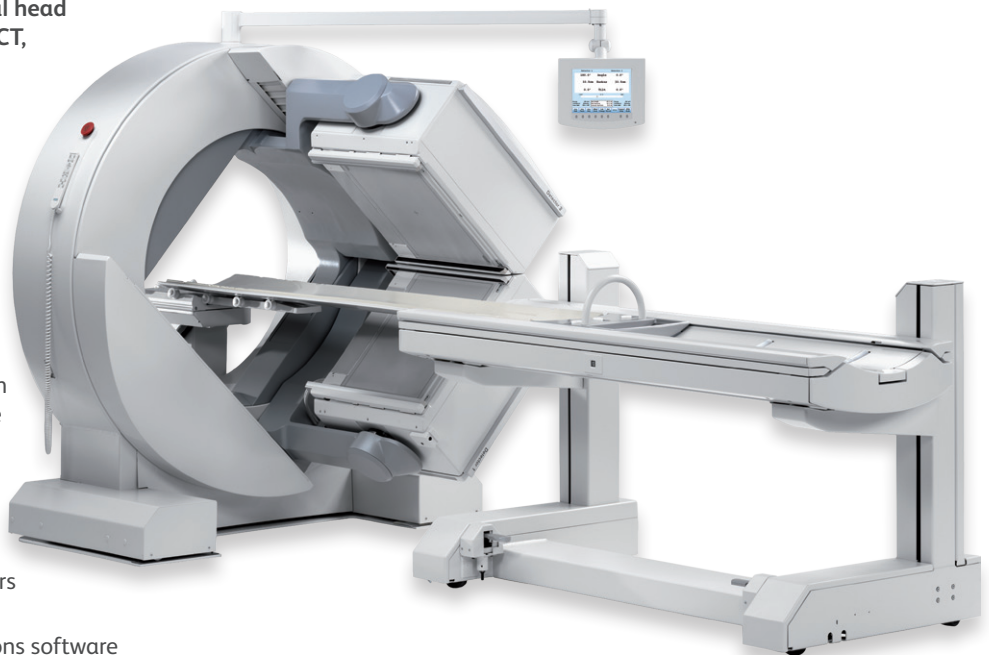
ERGO – Solid-State Gamma Camera

Utilising powerful new solid-state technology, the Ergo is a large field of view camera that provides unprecedented image quality and unparalleled clinical flexibility both in the department and on the ward.

Applications include: Bone Spots, Lung, Liver, HIDA, Gastric Emptying, GI Bleed, Renal, Thyroid, Parathyroid, Brain Flow, MUGA, Breast (MBI), Gallium, Indium, 3 Phase Bone, Sentinel Node, Lymphoscintigraphy and Animal Studies.

- Compact and open design.
- Large field of view.
- Swivel acquisition and viewing station.
- Multiple compound motions.
- Detachable hand control.
- Portable.
- Range of collimators available.

AMICI – Lung Ventilation Equipment

AMICI is the leading manufacturer of diagnostic and therapeutic products for Lung Ventilation.

- NP Krypton 81M systems.
- Masks.
- Mouthpieces, Noseclips, Harnesses and Tourniquets
- Tubing.
- Filters.
- Adapters, Connectors and Connector Accessories.

Care Wise C-Trak Apollo – Wireless/Wired Gamma Probe

Currently in development, the C-Trak Apollo gamma probe allows for the detection of radiation for use during sentinel node biopsies.

Featuring both wireless and wired connectivity with the same probe, the C-Trak Apollo eliminates any potential issues with connectivity, interference and charging – ensuring surgeries are completed without complication.

- Large touchscreen display for maximum visibility.
- Probes which provide the optimal balance between directionality and sensitivity.
- An automatic transcription of timed counts is stored.
- Save timed counts locally – for retrieval of counts at a later date.
- Fast calibration and enhanced diagnostics quickly ensure correct functioning.
- Multiple probes can be stored within for use in a range of procedures.
- Energy threshold and window technology for a variety of isotopes.
- Built-in user manual.

Coming soon

Care Wise C-Trak Galaxy – Gamma Probe

The C-Trak Galaxy System provides accurate and precise detection of radiation for use during sentinel node biopsies in breast, melanoma and other types of cancer.

- Large touchscreen display for maximum visibility.
- Unbeatable directionality allowing for smaller incisions and faster patient recovery.
- No manual transcription required – timed counts are stored within the system to eliminate the need for manual transcription.
- Patient data stored locally – for retrieval of counts at a later date.
- Fast calibration and enhanced diagnostics quickly ensure the system is functioning correctly.
- Multiple probes can be stored within the system for use in a range of procedures.
- Energy threshold and window technology for a variety of isotopes.
- Built-in user manual.
- Mains operated.

CARE WISE

Advantage™ – I-125 Diagnostic Seeds

The C-Trak Galaxy Gamma Probe System can be used with Advantage™ I-125 diagnostic seeds to help treat patients in a more convenient and accurate way.

The seeds are supplied in pre-loaded needles which saves time, skill, and effort for radiologists as well as minimising the risk of dropping or losing a seed compared to the manual loading of needles.

Advantage™ I-125 diagnostic seeds offer the following benefits:

- Low activity, pre-loaded in a choice of 5, 7, or 12 cm needles.
- Available in two different activities – 2.4 MBq and 9 MBq
- All loaded needles are supplied sterile with a 180 day shelf life.
- Minimise migration with the option of having the seed loaded alone with a trailing spacer or with the seed and spacer stranded together.

Every order is supplied with:

- A decay chart stating the activity on each day.
- A lead pouch for the safe and easy transport of individual needles.

We can also provide transportation and disposal of your seeds in an efficient and convenient way.

12 cm

7 cm

5 cm

ISOAID
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Port Richey, FL 34668
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www.isoaid.com

Hidex AMG – Automatic Gamma Counter

A automatic gamma counter specifically designed to meet the needs of modern Nuclear Medicine, PET and environmental laboratories. With touchscreen interface and application focused design it guarantees effortless work flow and results simply at your fingertips.

- 3" NaI well type crystal provides superb counting efficiency and optimised lead shielding ensures low background and minimal interference from samples on the conveyor.
- Powerful 2048 channel MCA for detailed spectrum analysis.
- An optional onboard 4 decimal balance means samples can be weighed automatically and results reported as activity per mass or volume. This saves the operator valuable time and prevents transcription errors.
- For short lived isotopes there is an optional foot pedal for precise timing of the sampling.
- Software automatically calculates decay corrected activities.
- All results, raw data and calculated data are exported directly at the touch of a button.

HIDEX

Dose Calibrators and Well Counters

CRC®-55tR and CRC®-55PET – Dose Calibrators

The Capintec CRC®-55tR and CRC®-55PET Dose Calibrators provide the speed and accuracy you need to measure and prepare doses with excellent reliability and performance.

The design includes a menu driven, colour touch screen interface that is easy to learn and use. Capabilities include storage of reference sources in memory that automatically decay correct for today's time and date.

Automated quality control tests and self-diagnostics are built-in with automatic zero and background subtraction making the unit exceptionally easy to use.

An optional printer is available to print records and patient labels with peel off labels for vial and syringe identification.

The Capintec CRC®-55PET Dose Calibrator has reduced chamber pressure and increased bias voltage which increases the maximum activity range for high energy PET isotopes.

Touchscreen

- 8" colour VGA touch screen display with high visibility display and full alpha numeric touchpad.
- Optional intelligent programmable remote display.

Nuclides

- On screen display of nuclide name, number, activity, measure and calibration number.
- Over 80 nuclides with half-lives in memory.

Quality Assurance

- Built in dose calibration, quality control and self diagnostics.
- Automated QC including constancy and linearity programmes.

Chamber

- Chamber plug and play capability.
- Chamber and remote can be placed up to 30 metres from the readout unit.
- Optional second chamber.
- Maximum activity of up to 250 GBq (CRC®-55tR).
- Maximum activity of up to 740 GBq (CRC®-55PET).

CRC®-55tW – Dose Calibrator and Well Counter

The CRC-55tW dose calibrator provides advanced features with the speed and accuracy you need to measure activity and prepare doses.

- Well counter includes 256 channel MCA with detailed spectrum for ID analysis.
- Automated well QC including chi-square, wipe tests and MDA (manual and automatic ROI).
- Lab tests incl. Schillings, blood plasma and RBC volume.
- Performs counting functions for wipe tests in as little as 6 seconds at activities as low as 37 Bq.
- Low activities are measured with a drilled well high sensitivity NaI(Tl) detector.

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7

CII CAPINTEC

CRC®-PC Smart Chamber – Dose Calibrator

The new Capintec CRC-PC Smart Chamber combines Capintec's well-known and highly reliable measurement chamber with an innovative Web based user interface to meet today's business requirements. Remote connectivity and network ready interface set the Smart Chamber apart as the most advanced in dose calibration.

- Connects to network infrastructure so that display can be viewed from any PC (remote viewing).
- Direct interface to Nuclear Medicine Management Systems – no readout required.
- Ethernet Communications.
- Automated QC.
- Software upgrade via Ethernet interface.
- Built-in database to store QC, Moly and User Log.
- Powered over Ethernet or USB Port.
- User adjustable threshold for faster response times.
- Small footprint.
- User Manual viewable on PC.

CAPRAC®-t – Well Counter

Measure for measure, no other well counter offers the speed, accuracy and complete range of built-in features provided by the compact CAPRAC®-t. It performs a wipe test in just 6 seconds (for 1 nCi) and detects extremely low levels of activity with the accuracy only a NaI drilled-well detector can provide.

- 8" SVGA touch screen colour display.
- 256 channel MCA with detailed spectrum for identification analysis.
- NaI drilled-well crystal detector.
- Automatic Energy Calibration, Constancy Check, and Background Subtraction.
- Automated well QC including chi-square and MDA.
- Manual and Automatic ROI.
- Sets user definable protocols for wipes.
- Print outs of all data for permanent records with the optional printer.
- Direct readouts with spectrum display are in cpm, dpm, Curies and Bequerels.
- Meets all state and NRC wipe test requirements.
- USB and RS232 communication ports for PC and printer.
- Compatible with nuclear medicine information management systems via USB.
- Lab tests include Schilling, Plasma and RBC volume.
- Built-in database for test and wipe results as well as QC.

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Fidelis – Radionuclide Calibrator

The FIDELIS is a next generation radionuclide calibrator with unsurpassed accuracy and traceability, and enables rapid, demonstrable compliance with NPL good practice guidance on the assay of radiopharmaceuticals.

The instrument uses our own high resolution, high linearity 'PAM Electrometer Module,' in conjunction with an ionisation chamber designed at the National Physical Laboratory (NPL).

User-friendly interface

The user-friendly interface makes it well suited for use as a reference instrument – to assay samples for calibrating other radionuclide calibrators, thus saving money on calibrators and reference sources.

Meeting national standards

The FIDELIS fully certified Secondary Standard ionisation chamber is an identical version of the national standard chamber held at NPL. Each chamber is tested against the master chamber using a range of radionuclides before delivery. The flexible software makes it very easy to update calibration factors for the instrument using data published by NPL.

- Secondary Standard Radionuclide calibrator with full traceability to the UK national standards maintained by NPL.
- Designed to meet or exceed the requirements of The Measurement Good Practice Guide No.93: Protocol for Establishing and Maintaining the Calibration of Medical Radionuclide Calibrators and their quality control (available from NPL).
- Provided with a well liner and removable sample holder for the assay of vial and ampoules.
- Supplied calibrated for more than 60 radionuclides (with the option to add user defined factors, and holders).
- Future proof – Calibration factors for new types of vial or new isotopes can be added using published data. Calibration data stored in chamber.
- Fully automatic self testing and daily checks.
- USB interface for easy connection to a PC.
- Available with either a laptop or desktop PC and optional printers.
- Upgrades available for older systems.

Software

- Comprehensive Windows® software included (XP and Windows 7 compatible), providing a simple to use, unparalleled set of measurement tools.
- Compatible with nuclear medicine management systems (export to MS Excel etc).
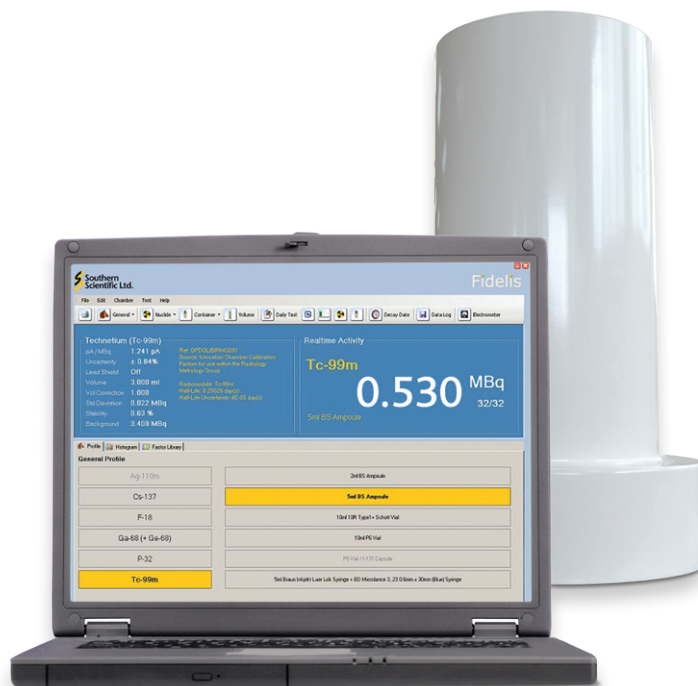
Dose Calibrators and Well Counters

Accessories

The products featured are just a selection of the Capintec accessories available. For a comprehensive list please visit our website.

Chamber Well Insert

Protects chamber well, easily washable with decontaminate. Custom sizes available.
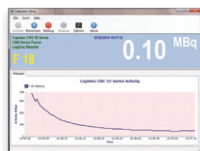
Calicheck Linearity Test Kit

Accurately tests linearity in less than ten minutes.

Linearity Software

CalUtility provides graphical display and data logging for CRC®-15, CRC®-25 and CRC®-55 Calibrators.

Thompson Copper Filter

Allows the 123I activity to be measured accurately in a wide range of syringes.

Epson Roll Printers

For CAPRAC®-T, CRC®-25W, CRC®-55tW, CAPRAC®, CAPRAC®-R.

Epson Ticket Printer

For CAPRAC®-T, CRC®-25W, CRC®-55tW, CAPRAC®, CAPRAC®-R.

Vial/Syringe Samplers (Dipper)

Ensures accurate placement every time. Various dippers available.

Brachytherapy Ribbon Holder

Positions ^{192}Ir seeds in the dose calibrator.

Brachytherapy Source Holders

Positions ^{137}Cs seeds in the dose calibrator.

Moly Assay Canister

Measures Molybdenum content of Tc-99m.

Lead Shielding

Nine sets of 6 cm thick lead split rings for full chamber shielding.

Mounting Flange

A must for all hot labs with limited counter space.

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Radhound – Multi-purpose Digital Radiation Meter

A multi-purpose digital radiation survey meter suitable for all your contamination monitoring and radiation protection requirements, the Radhound is a cost effective, feature packed digital radiation monitor that is simple and easy to use.

Count rate is displayed in large clear numbers and also on a bar scale. Our smart averaging software means a steady display that can be read with confidence, yet provides a fast response.

For source finding, one button push changes the display to a histogram plot. Alpha and Beta/Gamma counts can be displayed separately or on the same screen.

For surveying operations the Radhound also has an integrator mode.

- Clear digital LCD display with backlight.
- GM and scintillation detector options.
- Scaler timer function.
- Ergonomic tilt stand.
- Wall mountable.
- Fully adjustable alarm levels.

Radhound X/E and X/I

The Radhound X/E is an advanced hand-held general purpose radiation monitor, suitable for a wide range of probes. The X/I is a Radhound with an internal dose rate detector.

This feature-packed instrument boasts some unique features, such as the ability to switch between probes via the menu allowing, for example, a dose rate probe and a contamination probe to be configured for use with one instrument. This flexibility allows any standard probe to be used (300 - 1200 V).

- Clear digital LCD display with backlight.
- GM and scintillation detector options.
- Fully adjustable alarm levels.
- Scaler timer function.
- Multiple probe library/configuration.
- Peak mode.
- Over range.

Radiation Safety

T401 and T403 – Contamination Monitors

Designed to meet the challenge of combining operational reliability with excellent sensitivity the T401 offers a range of features including direct surface, peak and background readings. The T401 can be used one-handed, or detach the probe for two-handed operation.

The T403 is identical to the T401 except that its detector probe is attached to 10 metres of cable, allowing the monitor to be used to survey ceilings, chimneys, behind instruments, and other hard to reach areas.

Both monitors can be supplied with an extension pole kit to securely deploy the detector probe during monitoring operations.

- Dual bar graph meter display 0 - 1000 cps.
- Digital numeric display with automatic direct translation to Bq/cm^2 for 14+ pre-programmed nuclides (natural and man-made) including C-14, P-32, Cs-137.
- Optional extension arm.
- Detachable probe.
- Background reading and storage.
- Audible response with adjustable alarm thresholds.

T402 and T406 – Dose Rate and X-ray Monitors

The T402 and T406 are lightweight, yet robust and comfortable to use over extended periods.

- T402 detects gamma and X-rays from 60 keV - 1.33 MeV.
- T406 detects gamma and X-rays from 17 keV - 1.33 MeV.
- Digital bar graph display: 0.1 - 1000 µSv/h.
- Digital dose rate indication: 0 - 10,000 µSv/h.
- Peak dose rate memory – allows maximum exposure levels to be recorded.
- Accumulated dose rate memory – for risk assessment and total exposure.
- Audible response with adjustable alarm thresholds.
- Water-resistant so easy to clean and decontaminate.
- Shock and drop tested so highly durable.

Personal Electronic Dosimeter (PED)

PED-IS

PED+

PED Blue

Ideal for users who are not specially trained to measure radiation exposure, the PED family have been specially designed to be easy to use and understand. Encased in weather, shock and drop proof housings each PED features a smooth clean design and simple to use DoseVision™ software.

- Detects X-rays and gamma rays from 33 keV - 1.33 MeV.
- One touch operation.
- Easy to read large Amoled display screen displaying dose rate, accumulated dose and animated silhouette indicating dose received.
- Multiple languages.
- Multiple users.
- Waterproof up to 1 m.

PED-IS

This intrinsically safe PED is perfect for both radiation specialists and those who do not work with radiation every day. Robust and reliable, it is safe to use in potentially explosive areas, making it ideal for challenging environments.

PED Blue

This is the non-intrinsically safe version of the PED-IS. Lighter, it retains the same high quality design and features a direct micro USB connection.

PED+

An advanced version of the PED Blue, it can be used as both a PED and a hand held dose rate survey meter. The PED+ has a number of added features, such as Bluetooth, GPS and pop-up message alarms.
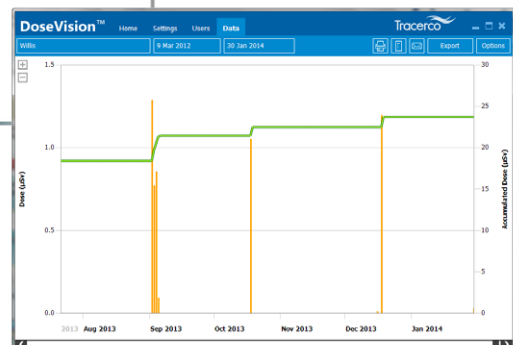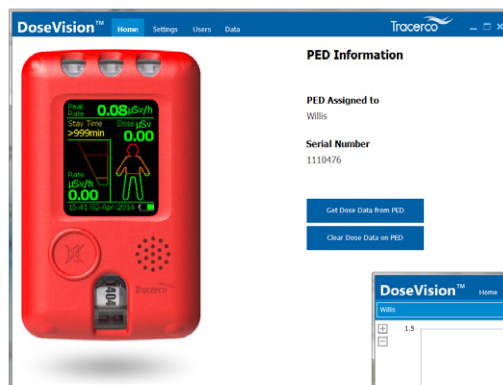
Handhound – Voice Activated Monitor

Designed for use in 'wet-chemistry' radio-isotope handling situations where hands could be contaminated, the mains-operated Handhound voice activated monitor is an ideal solution.

A touchscreen interface is also incorporated to allow configuration and manual triggering if needed.

- Entirely voice operated to avoid instrument contamination.
- Sensitive scintillation counter for gamma emitters.
- Automatic background updates.
- Fixed or dynamic alarm thresholds.
- Alternative detector options covering wide range of nuclides.
- Stainless steel housing for ease of cleaning and decontamination.
- Automatic record keeping against user names, to aid with HSE compliance.
- Touch-screen compatibility included as an alternative to voice operation.
- Data can be downloaded onto USB.
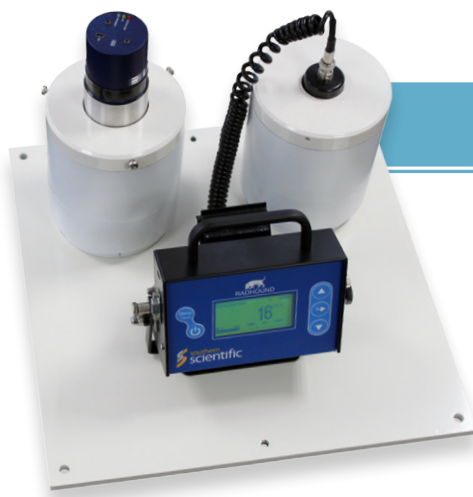
Ceiling Monitor

Typically the monitoring detector(s) is mounted in the ceiling (generally behind the ceiling tiles). A lead shield is used to collimate the detector to improve measurement response.

The systems are available with a range of optional detector configurations, the selection of which are dependent on the application, i.e. the isotope of interest, the expected activity range to be measured and the distance to the patient bed.

The system has two key advantages:

1. To follow ALARA regarding unnecessary exposure to staff.
2. Improve security and safety – with assurance that the patient is resident in the therapy ward.

ARM-X – Area Monitor

A flexible system for gamma and neutron measurements, the ARM-X can be set up in minutes, offering programmable alarm levels and six communication ports that can be shared between detectors, Ethernet, USB and external devices.

An energy spectrum can also be displayed using a scintillator crystal with an internal multi-channel analyser alongside a colour display with an indication of radiation level.

There are nine different options available, including GM Detector options ranging from as low as 0.01 μSv/h to 100 Sv/h, gamma monitor CsI (Tl) scintillators and waterproof options.

- Desktop and wall mount configurations.
- Automatic power fail recovery.
- Internal data logger.

Decontamination Gel

A range of easily peelable decontamination gels to suit all applications. Effective on a vast range of smooth and porous surfaces, encapsulating and removing up to 99% of loose and fixed contamination.

- In addition to industrial decontamination, the gels can be used to fix contamination or to form a protective barrier.
- Extensively used to recommission contaminated instruments and glove boxes.
- Film can be analysed in a laboratory afterwards by HPGe or LSC.
- Cleaner, more effective and safer than alternative decontamination methods.
- Minimises contaminated waste output.

Bind-It™ – Decontaminant

Bind-It™ Decontamination Fluid has a unique affinity for ^{123}I / ^{125}I/ ^{131}I. The strong attraction binds the radioiodine and suspends it in solution so that when combined with water it becomes a subsidising cleaner. This 'lifts' dirt and residual radioiodine off surfaces so it can be easily wiped away.

- Safe for use on delicate well counter detectors, thyroid probes, survey meters and gamma camera heads.
- Available as a concentrated cleaner, ready-to-use spray and a hand soap, all in convenient 237 ml and 946 ml sizes.

Service and Support

Southern Scientific has a team of fully qualified service engineers, who support customers spanning the length and breadth of the UK. We can provide factory or on-site service as required, based on single visits, planned maintenance or full support under contract. We maintain a high level of spare parts, ensuring lifetime support capability.

Our systems group can offer its service for the larger installed equipment, from initial planning to installation, completion and training. We can provide expert knowledge and experience, gained through involvement in a number of large-scale projects throughout the years.

ISO Certified

Southern Scientific Ltd is certified to ISO9001 and ISO 13485 representing the high level of quality assurance and management that we provide at every stage of the supply process, whether a product is distributed on behalf of our trusted manufacturers or constructed in our UK workshop. This accreditation means that our customers can place an order knowing that the delivered product will be suitable for its intended use, fully compliant with EU legislation and in full working order.

All our products are CE marked.

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