



Nuclear Medicine

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EXPERIENCE & EXPERTISE

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Amercare Automated Dose Dispenser

The Amercare Automated Dose Dispenser has been developed to completely mimic the manual syringe filling process for dispensing radiopharmaceuticals in unit doses or in multi dose vials.

The ADD enables dispensing operations to be carried out in remote Hot Cell situations where manipulation of syringes and vials by tongs and manipulators is extremely difficult. It is also suitable for bench top applications, Laminar Air Flow Cabinet or Safety Cabinets.

Simply dial up the type of syringe you want to fill and drop the syringe into the tungsten shield. Then enter the volume you want to fill and the ADD loads the syringe, fills the desired volume and presents the syringe to you for removal or recapping. You can add liquid to a previously filled syringe or dispense to vials in multiple aliquots, all with the minimum of manual handling. The ADD also makes recapping the syringe needle simple.

The total time to dispense a single dose from dropping in the syringe to removing the syringe ready capped is typically less than 45 seconds.

The ADD is specifically designed for high activity 511 keV Isotopes and makes light work of the heavy syringe and vial shields that are impossible to manipulate by hand.

- Significantly reduces finger dose in bench-top dispensing situations.
- Total cycle time of 28 seconds to dispense 1 ml, 48 seconds to dispense 9 ml.
- Mimics manual filling pharmacy procedures for vial to syringe and syringe to vial transfers.
- Increases accuracy, repeatability and throughput for dispensing operations where heavy shielding is required.
- Suitable for use with most types of syringes up to 10 ml size.
- Vial shield accepts vials up to 30 ml, custom vial adaptors are available if requested.
- Stainless steel and plastic construction, resistant to most commercially available cleaning and sanitising products.
- Designed for use with 25 mm long needles.



Posijet® Radiopharmaceutical fractionation and injection unit

The new Posijet® is the result of continuous improvement work to launch an automatic injector that meets the needs in radiation protection and efficiency during preparation and injection of FDG, FDopa, NaF, FCholine, but also ⁶⁸Ga.

Posijet® offers unrivalled ease of use for the preparation and injection of high energy radio-pharmaceuticals while guaranteeing the highest security conditions and radiation protection.

After 18 months, the new generation of Posijet® has been chosen by over 25 nuclear medicine departments and 300 users worldwide. After 5.535 mother solutions injected into 31.624 patients, Posijet® V3 satisfies users every day thanks to its reliability and ergonomics.

The Posijet®'s three main advantages are:

- 1. **Posijet® minimises operator's exposure.**
 - Injection and rinsing operations in automatic and/or remote manual mode.
 - Reduction of potential distal doses, with the proposal of a wash out of the dose solution kit at the end of the cycle before unloading.
- 2. **Easy to use and adapts to your work practices for maximum flexibility.**
 - Automatic mother solution volumic activity check and dilution assistant.
 - Consumables are quick and easy to install.
 - Intuitive, user-friendly interface.
 - 'Test injection site' function before the administration of the radiopharmaceutical by bolus NaCl (the volume of the bolus is adjustable).
 - Possibility to reassign an already prepared dose.
- 3. **Posijet® ensures the highest safety conditions for patient and operator.**
 - Maximum dose threshold, air bubble detector, injection force sensor.
 - Interoperability with all WIFI and ethernet connected radiopharmacy software.
 - The secure integrated website allows remote control and monitoring of all operations carried out with Posijet®, accessible on PC and mobile devices (smartphone, tablet, etc.).



Features

- Loading and planning assistant.
- Automatic mother solution volumic activity check.
- Dilution assistant.
- Volumic dosage with minimum dose of about 100 µL.
- Maximum dose threshold, air bubble detector, injection force sensor.
- Interoperability with all WIFI and ethernet connected radiopharmacy software.
- Consumables quick and easy to install.
- Intuitive, user-friendly interface.
- Radiation protection: dose rate < 15 µSv/h at 5 cm from the walls (mother solution 37 GBq of FDG in its 30 mm lead shielded transport pot).
- Injection and rinsing operations in automatic and/or remote manual mode.
- Remote maintenance.
- Reduction of potential distal doses, with the proposal of a wash out of the dose solution kit at the end of the cycle before unloading.
- Product adaptable to department practices.
- Secure integrated web site allows remote control and monitoring of all operations carried out with Posijet®, accessible on PC and mobile devices (smartphone, tablet, etc.).
- Ease of use: function 'test injection site' before the administration of the radiopharmaceutical by bolus NaCl. (the volume of the bolus is ajustable).
- Possibility to reassign an already prepared dose.

Care Wise C-Trak
Apollo Wireless/Wired
Gamma Probe

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.



Advantage™ ¹²⁵I Diagnostic Seeds

The C-Trak Galaxy Gamma Probe System can be used with 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™ ¹²⁵I 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.

Seedseeker

A compact and ergonomic digital radiation source finder designed specifically for locating ¹²⁵I seeds, the Seedseeker provides the sensitive response needed for the monitoring of low-energy gammas emitted by iodine isotopes.

The meter is turned on-and-off by the trigger on the handle and overcomes many common issues associated with other meters such as excessive weight, cost, and fragility.

The Seedseeker uses a CsI(Tl) Silicon Photomultiplier (SiPM) integrated scintillation detector for a quick and sensitive response. SiPMs, being solid-state devices, exhibit resistance to shocks and vibrations resulting from frequent handling by users. They find widespread use in radiation detection and medical imaging systems.

The compact design involves thousands of micron-sized avalanche photodiodes (APD) arranged in a customised array to achieve optimal optical coupling with the Seedseeker's scintillation crystal. This reduction in size and weight is achieved without compromising counting efficiency.



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.

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.

- On screen display of nuclide name, number, activity, measure and calibration number.
- Over 80 nuclides with half-lives in memory.
- Built in dose calibration, quality control and self diagnostics.
- Automated QC including constancy and linearity programmes.
- 8" colour VGA touch screen display with high visibility display and full alpha numeric touchpad.
- Optional intelligent programmable remote display.
- 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 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 including: Schillings, blood plasma and 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.

CAPRAC®-t Well Counter

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.

- 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.
- Direct readouts with spectrum display are in cpm, dpm, curies and bequerels.
- USB and RS-232 communication ports for PC and printer.
- Compatible with nuclear medicine information management systems via USB.
- Built-in database for test and wipe results as well as QC.



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.
- 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.



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

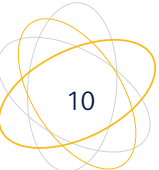
The Fidelis fully certified Secondary Standard ionisation chamber is an identical version of the national standard chamber held at NPL. Each chamber is tested against the master chamber using a range of radionuclides before delivery. The flexible software makes it very easy to update calibration factors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



Inserts

Vial/Syringe Samplers (Dipper)

Ensures accurate placement every time.
Various dippers available.



Thompson Copper Filter

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



Chamber Well Insert

Protects chamber well, easily washable with decontaminate. Custom sizes available.



Moly Assay Canister

Measures Molybdenum content of ^{99m}Tc



Brachytherapy Ribbon Holder

Positions ¹⁹²Ir seeds in the dose calibrator.



Brachytherapy Source Holders

Positions ¹³⁷Cs seeds in the dose calibrator.



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

Accessories

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.



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.



Calicheck Linearity Test Kit

Accurately tests linearity in less than ten minutes.



Pro-NM Performance

The ideal phantom for NM and PET systems performance evaluation (collimator, artifacts, calibration, reconstruction parameters), it can be used to evaluate, for example: centre-of-rotation error, non-uniformity artifacts, changes of radius-of-rotation on spatial resolution, reconstruction filters on spatial resolution, attenuation and scatter compensation.

Main Cylinder

- Inside cylinder diameter: 206 mm
- Inside cylinder height: 186 mm
- Cylinder wall thickness: 7 mm

Cold Rods Insert

- Rod diameters: 4.8, 6.4, 7.9, 9.5, 11.1 and 12.7 mm
- Height of rods: 88 mm

Cold Spheres

- Solid sphere diameters: 9.5, 12.7, 15.9, 19.1, 25.4 and 31.8 mm
- Height of the center of the spheres from the base plate: 127 mm

Optional PET Lid with Cylindrical Samples

- Refillable thin-walled cylinders, diameters: 8, 12, 16 and 25 mm
- Water filled cylinder diameter: 25 mm
- Air filled cylinder diameter: 25 mm
- PTFE solid cylinder diameter: 25 mm
- Cylinder height: 38 mm



Pro-NM Autoflood

The Pro-NM AutoFlood is dedicated for weekly inhomogeneity and sensitivity control and acquisition of correction matrices.

- Fully automatic mixing with integrated circulation pump including air chambers for pressure compensation.
- Compact, closed system.
- Measuring areas made of glass/acrylic glass composite design.
- Optional positioning cart for different camera systems.
- Dimension of the cuvette: 545 x 630 x 80 mm
- Dimension with attachment parts: 635 x 630 x 90 mm
- Filling quantity approx. 12 litres
- Weight empty approx. 21 kg
- Operation weight approx. 31 kg
- Effective field of view: 400 x 540 mm
- Total field of view: 440 x 580 mm
- Low voltage (12V wall plug transformer) power supply.
- Mixing time: 4 minutes.



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.

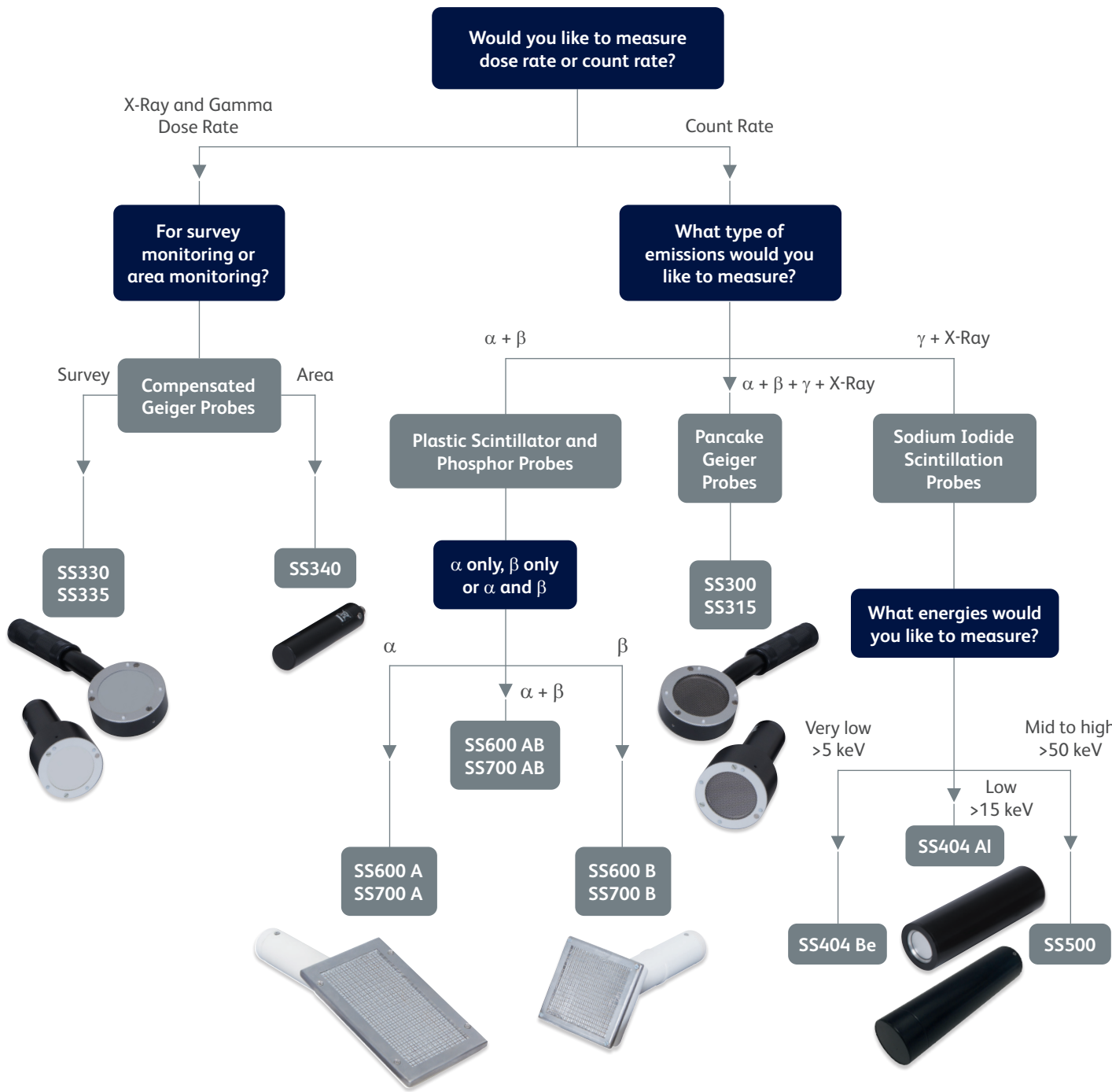
This feature-packed instrument boasts some unique features, such as the ability to switch between probes via the menu allowing, for example, a dose rate probe and a contamination probe to be configured for use with one instrument. This flexibility allows any standard probe to be used (300 - 1200 V).

- 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

Probe Selection Guide

All Radhound monitors are compatible with a range of probes to meet your detection requirements.

Southern Scientific supply a selection of probes with a variety of different detectors. Use the guide below to determine which probe (or probes) is best for you, or call to speak with one of our product specialists.



Geiger-Müller Probes

The SS300 is an uncompensated pancake Geiger-Müller-based probe for alpha beta and gamma contamination measurement.

The SS315 is functionally identical to the SS300 but with a different probe geometry.

Geiger-Müller Dose Rate Probes

The SS330 probe is an excellent general purpose end window compensated pancake Geiger-Müller probe with H*(10) energy compensation, which permits reliable measurements from ambient background up to 1 µSv/hr.

The SS335 probe is functionally identical to the SS330, but with a different probe geometry.

The SS340 is a side-window Geiger-Müller probe for ambient gamma radiation measurement to H*(10). Dose rate range is 0 - 2 mSv/hr and energy range 45 keV - 2 MeV.



Scintillation Probes (Al and Be)

The SS404 Al is equivalent to the Mini 44A. This probe incorporates a Ø 1.25" x 0.098" (32 x 2.5 mm) thick NaI(Tl) crystal mounted on an aluminium window and is fitted with an internal 3.15 mm lead collimator to reduce background counts.

The SS404 Be is similar to the SS404 Al but is fitted with a beryllium window, which extends the low energy response down to 5 keV, making it suitable for counting ⁵⁵Fe.



Gamma Scintillation Probe

The SS500 is a very sensitive end-window gamma scintillation probe.

Equipped with a Ø 1" x 1" (25.4 x 25.4 mm) NaI(Tl) crystal, it is designed to provide a cost effective gamma monitor for energies of 50 keV upwards.



Alpha/Beta Probes

Equivalent to the NE BP6 / AP2, there are three versions of these 100 cm² window probes available:

- SS600 A Alpha only (Zinc sulphide layer).
- SS600 B Beta only (Plastic scintillator).
- SS600 AB Alpha/Beta (Zinc sulphide bonded to a plastic scintillator).

The use of a plastic scintillator avoids the traditional use of anthracene in this application, with a comparable response.

Also available are a series of three ergonomically balanced probes with a square window of 50 cm² and a 64° angled handle which are equivalent to the NE BP7, these are:

- SS700 A Alpha only (Zinc sulphide layer).
- SS700 B Beta only (Plastic scintillator).
- SS700 AB Alpha/Beta (Zinc sulphide bonded to a plastic scintillator).



DMC 3000 / DMC 3000 Personal Electronic Radiation Dosimeter

The DMC 3000 Personal Electronic Radiation Dosimeter features superior gamma and X-ray energy response, programmable alarms with visual LED, audible, and vibrating alarm indicators, simple 2-button navigation, and the ability to be fitted with external modules for expanded capabilities.

The DMC 3000 has a complete line of attachable modules that expand the detection and communications capabilities of the dosimeter these are: DMC 3000 Beta Module, DMC 3000 Neutron Module and DMC 3000 Telemetry Module.

- Designed for ruggedness and durability.
- Loud audible alarms, coupled with ultrabright LEDs and vibration capability.
- Simple 2-button operation and navigation of display options.
- Meets or exceeds applicable IEC and ANSI standards.
- Operates for up to 9 months on a single standard AAA battery.

The add-on PRD Module attaches to the DMC 3000 dosimeter and provides radiation counting information for source and hot spot location assessment, while providing dosimetry protection to the operator. It is powered by the DMC 3000 for over 1000 hours of use.



Radhound Mini F Floor Contamination Meter

The Radhound Mini F is an extension of the Mini, providing the same cost-effective and intuitive solution with a pole-mounted detector allowing the instrument to be used as a floor monitor.

The Mini F has the same intuitive operation and functionality as that of the standard model. Users can measure tight and low areas from a standing position, whilst reducing exposure. It is lightweight and well balanced, ensuring that the system can be used comfortably for long periods of time.



Radhound Mini Digital Contamination Meter

A lightweight digital radiation survey meter dedicated to Nuclear Medicine contamination monitoring, the Radhound Mini is a cost-effective and intuitive solution designed ergonomically for ease of use, and providing the sensitive response needed for the monitoring of gamma contamination.

- Clear LCD display with backlighting.
- NaI(Tl) scintillation detector for sensitive contamination monitoring measurements.
- A USB-C connection to charge NiMH AA-cell batteries, which can be easily swapped if needed.
- Fully adjustable alarm levels.
- Count rate displayed in large clear numbers and also on a bar scale.
- Optional sounds.
- Integrator function.



Tracerco Personal Electronic Dosimeter (PED)

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.

- One button operation.
- Large screen displaying dose rate, accumulated dose and peak dose rate.
- Multiple languages.
- Easy to change between multiple users.
- Rated water resistant as per IP67.

PED-Blue (Ideal for Hospitals and Veterinary practices)

- Energy Range: 33 keV to 3 MeV
- Dose Rate Range: 0 - 100 mSv/h
- Battery Life: 300 hours typically with background radiation.
- Weight: 190 g including belt clip.

PED-ER (Extended Dose Rate Range)

- Energy Range: 48 keV to 3 MeV
- Dose Rate Range: 0 - 1 Sv/h
- Battery Life: 300 hours typically with background radiation.
- Weight: 190 g including belt clip.

PED+ (with GPS)

- Energy Range: 33 keV to 3 MeV
- Dose Rate Range: 0 - 100 mSv/h
- Battery Life: 300 hours typically with background radiation.
- Weight: 190 g including belt clip.
- Wireless connectivity.
- Hand-held dose rate survey meter mode.
- Ability to connect to mobile phones.



Contamination Monitor (T401)

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. It can be used one-handed, or detach the probe for two-handed operation.

The T401 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/cm² for 14+ pre-programmed nuclides (natural and man-made) including ¹⁴C, ³²P, ¹³⁷Cs.
- Optional extension arm.
- Detachable probe.
- Background reading and storage.
- Audible response with adjustable alarm thresholds.

Dose Rate and X-ray Monitors (T402, T406)

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.
- T402HR – extended range for high dose rates.
- 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.



Hand, Foot and Clothes Monitors

The HandFoot-Fibre monitors are used for contamination screening of hands, feet and clothes for alpha, beta and gamma radiation. Due to their weight and agility these monitors are used in circumstances which do not require a full body monitor or for mobile monitoring purposes. The monitor's eight detectors are based on the state-of-the-art Mirion fibre detector technology, enabling a fast and reliable measurement process, even in high or fluctuating background conditions.

There are three versions available:

- HandFoot-Fibre™ XL with alpha and beta sensitive RFD485 fibre detectors for the use in all nuclear environments.
- HandFoot-Fibre™ A+ with RFD485 A+ detectors, featuring a discrimination of alpha and beta radiation.
- HandFoot-Fibre™ MED featuring HybridFibre™ detectors, which are sensitive to alpha, beta and gamma radiation and particularly well suited for medical applications.

Features:

- Outstanding detector sensitivity and homogeneity.
- Economic and robust operation and maintenance.
- 100% gas-free.
- Very short measurement time.
- Easy and intuitive usage.
- Touch screen and audio interface.
- Detachable probe for monitoring of clothing.
- Wheels for easy transport.
- Optional RFID Card Reader for easy operator recognition.

Medical application

HandFoot-Fibre MED has been developed for medical applications. The HybridFibre™ detectors are detecting alpha, beta, and gamma radiation with a particularly high sensitivity for low energy radiation (up to 30 keV). In handling medical isotopes like ⁵⁷Co-, ^{99m}Tc, or ¹²⁵I the HandFoot-Fibre MED is an expert. A nuclide database is provided, and can be extended with user's own entries. The monitor applies to the EMC requirements of laboratory medicine.

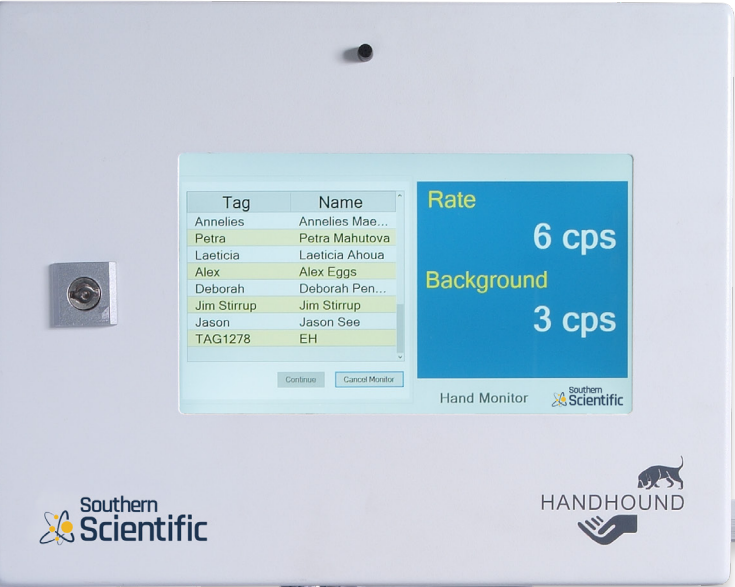


Handhound Voice Activated Monitor

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.



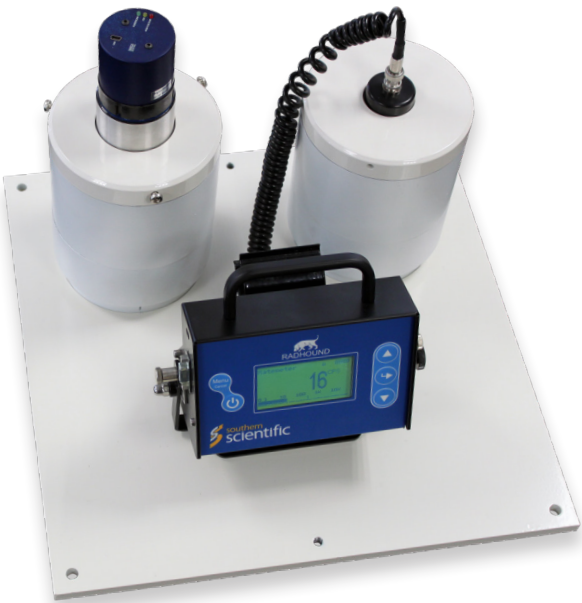
Ceiling Monitor

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.



Bind-It™ Decontaminant

Bind-It™ Decontamination Fluid has a unique affinity for ¹²³I / ¹²⁵I/ ¹³¹I. 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.



DeconGEL

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.



Mediclic Tungsten Syringe Shields

These syringe shields (lead glass and tungsten shielding) are designed for easy and quick insertion and withdrawal of the syringe.

- Available in low, medium, and high energy.
- Ready for safe handling with just one click.
- Can be fully dismantled and decontaminated.
- Shock resistant.
- Compatible with all syringes of the market.
- Lead glass window with zoom effect and white lining for optimum viewing.



Easyview Syringe Shields

Easyview syringe shields are available in a wide and complete range of sizes and shielding (from 2 to 7 mm of tungsten) to offer users an ergonomic and protective solution that is essential during the preparation, transfer and injection of all-energy radiopharmaceutical doses for SPECT and PET activities.

Regardless of the radioisotope to be handled: ^{99m}Tc, ¹¹¹In, ¹²³I, ¹⁷⁷Lu, ²⁰¹Tl, ¹³¹I, ¹⁸F, ⁶⁸Ga and the required administration method: direct injection to the patient, connection to a catheter or a 3-way valve, the comfortable hold of this syringe shield allows for dexterity, precision and speed of execution of the operation, thus limiting contact time with the radioactive element to a minimum.

- Perfectly smooth finish allows comfortable handling and helps with the cleaning and decontamination by immersion or with adapted wipes.
- The attenuation of 140 KeV gamma radiation from ^{99m}Tc is over 99.7% for 740 MBq activity and 86.95% attenuation for 300 MBq activity of ⁶⁸Ga.
- Large shielded viewing window made of high density 5.2 lead glass with magnifying effect allows for improved viewing of the volume held in the syringe and its graduations in full, to facilitate precision sampling.
- Engraved identification data indicates the model and energy (LME or HE) on the tungsten body making it easier to choose the syringe shield to be used in accordance with the capacity of the syringe and the radioisotope used. The engraved data also facilitates inventory and ordering of accessories.
- A black plastic lock (PA 6.6) ensures that the syringe is secured in the syringe shield and secures its position by preventing unwanted random movement.



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Tungsten Syringe Shield with Lead Glass Window

Available with two different types of locks: Spring Lock and Twist Lock.

Spring Lock – encloses the syringe by pushing a button to release a small raised point that attaches the syringe into the sleeve.

Twist Lock – encloses the syringe by twisting the syringe into the two flanges that attaches the syringe into the sleeve.

Screw Lock – encloses the syringe using an external screw to lock the syringe into place (only available on volumes 10 mL and above).

The Tungsten Syringe Shield is designed for all types of syringes and for the following sizes: 1 ml, 2 ml, 2.5 ml, 3 ml, 5 ml and 10 ml.



Lead Glass Syringe Shield

The Hoy Scandinavian Lead Glass Syringe Shield is designed to offer the best mix of personal protection and a high functionality, whilst providing the perfect fit for the syringe. They are most suitable for nuclear medicine imaging departments.

Available with two different types of locks: Spring Lock and Twist Lock.

Spring Lock – encloses the syringe by pushing a button to release a small raised point that attaches the syringe into the sleeve.

Twist Lock – encloses the syringe by twisting the syringe into the two flanges that attaches the syringe into the sleeve.

Screw Lock – encloses the syringe using an external screw to lock the syringe into place (only available on volumes 10 mL and above).

The Lead Glass Syringe Shield is designed for all types of syringes and for the following sizes: 1 ml, 2 ml, 2.5 ml, 3 ml, 5 ml, 10 ml, 30 ml and 50 ml.



| Specifications | |
|-------------------------|-----------------------|
| Lead Glass High Density | 5.2 g/cm ³ |
| Thickness | 5.5 mm |

Low Energy Vial Shield

Developed for low activity whilst offering complete 360° visibility at all times, this shield is designed to protect the user against radiation when working with syringes and vials.

The top is close-fitting thanks to the use of magnets, and is opened with a light twist. Tungsten is incorporated in the top and bottom to increase safety and cut down on weight.

| Specifications | |
|---------------------|-------------------------------------|
| Glass Thickness | 12.5 mm, equivalent to 4 mm of lead |
| External Dimensions | 65 x 95 mm |
| Internal Dimensions | 30 x 60 mm |
| Weight | 1.1 kg |
| Capacity | Fits 5 - 30 ml vials |



High Energy Vial Shield

Developed for high activity and featuring extra thick, 20 mm lead glass whilst offering complete 360° visibility at all times, this shield is designed to protect the user against radiation when working with syringes and vials.

| Specifications | |
|---------------------|---------------------------------------|
| Glass Thickness | 19.5 mm, equivalent to 6.4 mm of lead |
| External Dimensions | 79 x 95 mm |
| Internal Dimensions | 31 x 60 mm |
| Weight | 1.7 kg |
| Capacity | Fits 5 - 30 ml vials |

Hoy Syringe Carriers

Designed for storage and transportation of syringes with radioactive content, while protecting the user against radiation.

Supplied with a practical handle, a lock and magnetic separators are available as accessories.

| Specifications | |
|--------------------|--------------------|
| Tungsten Thickness | Minimum 2 mm |
| Glass Thickness | 8 mm (density 5.2) |



EasyBOX Syringe Carriers

Cast in one piece from flexible resin, this syringe carrier gives users an excellent grip on the Easysqueeze and makes the product virtually unbreakable. Furthermore, the innovative locking system enables quick and flexible insertion of the syringe, whilst keeping it firmly in position, whatever the desired insertion depth.

- Fully protected lead glass.
- Comprises a tungsten structure to provide the operator with optimum protection.
- Colour-coded to identify the syringe capacity or the type of examination.
- Its optimised design and patented system allow complete disassembly and 100 % recycling of its components.
- Due to the glueless design, all parts of the syringe shield can be changed in situ in just a few seconds (high-density bevelled glass, tungsten protection or resin envelope).



Acrylic Syringe Shield

Developed to combine user friendly functionality with high safety, the Hoy Acrylic Syringe Shield is designed for working with syringes and injection of beta isotopes.

Made of 10 mm acrylic plastic, the transparent material makes it possible to see the syringe inside.

- 100% acrylic plastic.
- Fits many different types of syringes, including BD Plastipak, B Braun and Terumo.
- Locking mechanism – Spring lock.



PET Syringe Shield

The Hoy Scandinavian PET Syringe Shield provides the user with optimal radiation shielding during PET / MR or PET / CT procedures.

Magnetic / non-magnetic with two different types of locks: Spring Lock and Twist Lock.

Spring Lock – encloses the syringe by pushing a button to release a small raised point that attaches the syringe into the sleeve.

Twist Lock – encloses the syringe by twisting the syringe into the two flanges that attaches the syringe into the sleeve.

Available for the following syringe sizes: 1 ml, 3 ml, 5 ml, and 10 ml.

- Shielding: 10 mm tungsten.
- Weight: 750 g (1 ml)



Straight Tongs

Available in two variants.

- Short model (160 mm from handle to claw)
- Long model (265 mm from handle to claw)
- Short claws: 30 mm
- Long claws: 60 mm

Each model can have either long claws or short claws.

| Order Code | Product |
|-----------------|--|
| 101.060.101.000 | Tongs for Vials, w/Spring Grip Short Model w/Short Claws |
| 101.060.102.000 | Tongs for Vials, w/Spring Grip Short Model w/Long Claws |
| 101.060.201.000 | Tongs for Vials, w/Spring Grip Long Model w/Short Claws |
| 101.060.202.000 | Tongs for Vials, w/Spring Grip Long Model w/Long Claws |
| 101.060.601.000 | Tongs for Vials, w/Spring Grip for 100 ml Vials |
| 101.060.701.000 | Tongs for Vials, w/Spring Grip for 11.5 ml Vials |

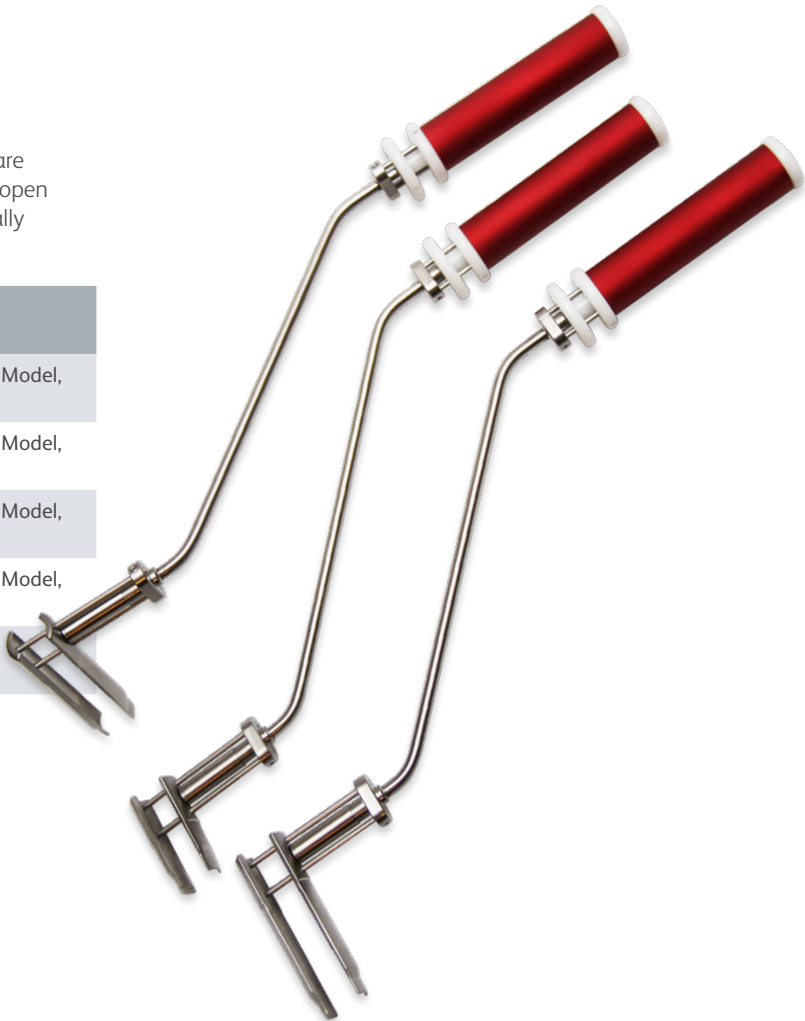


Angled Tongs

Hoy Scandinavian Tongs are available in different lengths, angles and with different claw types.

The two claws provide an excellent grip of the vial. These are operated by pushing the white disc against the handle to open the claws. The spring locking mechanism then automatically holds the vial until the white disc is pushed back again.

| Order Code | Product |
|-----------------|--|
| 101.060.401.000 | Tongs for Vials, w/Spring Grip, Angled Model, Right Hand w/Short Claws |
| 101.060.402.000 | Tongs for Vials, w/Spring Grip, Angled Model, Right Hand w/Long Claws |
| 101.060.501.000 | Tongs for Vials, w/Spring Grip, Angled Model, Left Hand w/Short Claws |
| 101.060.502.000 | Tongs for Vials, w/Spring Grip, Angled Model, Left Hand w/Long Claws |
| 101.060.502.000 | Tongs for Vials, w/Spring Grip Angled Model w/Short Claws |
| 101.060.302.000 | Tongs for Vials, w/Spring Grip Angled Model w/Long Claws |



¹⁷⁷Lu Vial Shield

The Hoy Scandinavian ¹⁷⁷Lu Vial Shield provides the user with optimal radiation shielding within all work phases with the use of acrylic and lead glass.

- Lead Glass Thickness: 26 mm equal to 8 mm Pb.
- Outer Dimensions: 94 (dia.) x 120 (H) mm
- Inner Dimensions: 37 (dia.) x 72 (H) mm
- Weight: 2.9 kg

Lead-lined Furniture

Suitable for nuclear medicine departments and radiochemistry labs, our customisable range of lead-lined furniture can be tailored to specific specifications and requirements.

Cabinets, Cupboards and Safes

Custom made to your specification and available in a range of lead thicknesses.

Castles

Designed to shield portable apparatus such as an incubator or centrifuge, our castles are custom made and can be tailored to suit your specification.

Benchtop Screens and Portable Shields

Available in a range of sizes and shielding thicknesses, our L-shaped screens are fitted with cantilevered glass to provide the user with an unobstructed view of the working area whilst still offering maximum protection.

Our portable shields are available in large, tall, and to the floor configurations. Lead encased in a stainless steel structure, they are mounted on castors and fitted with pull handles for easy positioning.

Assemblies and Benches

Modular systems can be supplied to suit any purpose with combinations of storage safes, storage drawers, cupboards, and benches.

Waste and Sharps

Custom made to your specification these lead lined sharp shields can be fitted with either 3 mm or 6 mm lead.

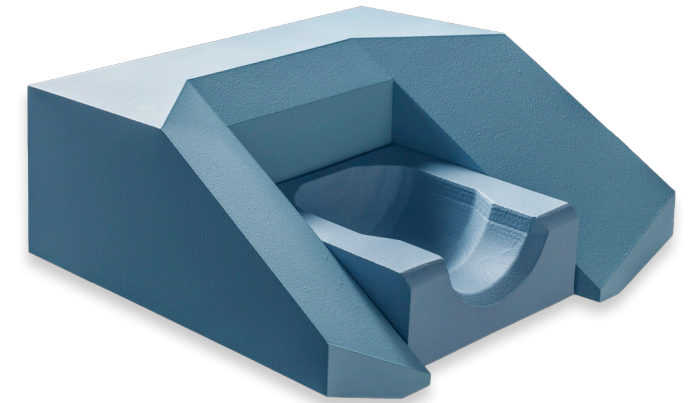
Constructed of steel with a lead lining, the outer surfaces have a durable powder coated finish whilst the inner surfaces are covered with a white plastic liner.



FOR-MED Arm, Head and Grip Support

The FOR-MED arm, head, and grip support is specifically designed for patient comfort and optimal positioning during medical procedures, while maintaining proper alignment and preventing collision between the equipment involved and the patient.

- Head is fixed in a supine position during scans.
- A hand grip can be used to cross the hands for steady positioning.
- Keeps the patient within the equipment's scanning area.



FOR-MED Neck/Thyroid Support

The FOR-MED neck support is used to stabilise and fix the head into position so that when scanning the same viewing angles are given.

- Special foam used for the head support provides extra comfort for the patient, and supports the neck.
- For thyroid scanning, the chin can be tilted backwards for an optimal projection of the thyroid.



FOR-MED Knee Support

Designed for comfortable patient positioning during medical procedures, whilst maintaining proper alignment, the FOR-MED knee angle provides better support to patients when they are positioned on the table.

As a result of bending the knees, the patient's back becomes more convex, allowing it to provide more support during medical procedures.



FOR-MED Foot Support

The FOR-MED foot support is specially designed to facilitate a comfortable position for the patient during medical procedures, while maintaining proper foot alignment.

- Promotes patient comfort.
- Ideal for use during lengthy procedures.
- Contributes to better stability and reproducibility, regarding the target area.



Experts in nuclear medicine and radiopharmacy quality control systems

Southern Scientific is part of the LabLogic Group, a market-leading and award-winning instrument and software provider supporting positron emission tomography (PET), nuclear medicine, and radiopharmacy facilities for over 40 years.

Our systems for radioisotope detection, radiochromatography and quality control are designed and manufactured to help streamline operations and meet with demanding compliance regulations.

ISO Certified

Southern Scientific Ltd is certified to ISO 9001 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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