CAPINTEC, INC.

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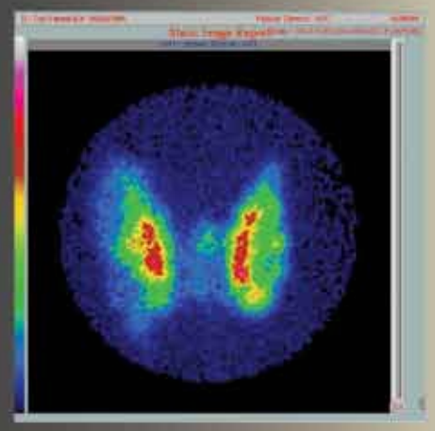
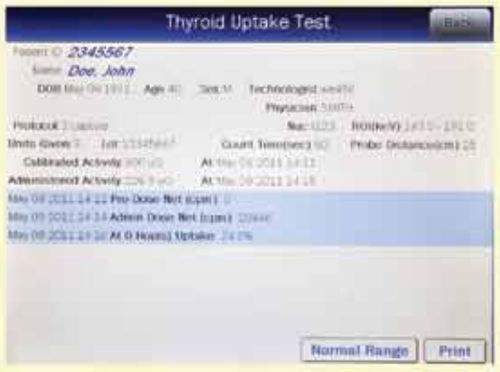
NUCLEAR MEDICINE

RADIATION PROTECTION

NUCLEAR CARCIOLOGY

ONCOLOGY





2012-2013 PRODUCT CATALOG

PRODUCT INDEX

Please Select a Product Category Below.

Dose Calibrators
Therapy Dose Calibrators
Standard Dose Calibrator Accessories
Reference Standards and Markers
Flood Sources
"L" Shields and Barriers
Syringe and Vial Shields
Syringe Holders
Sharps Shields
Lab Accessories
Fume Hoods
Lead Bricks & Enclosures
Shielded Containers
Disposables and Lab Equipment
Logs and Books
Warning Signs and Labels
Well Counters and Accessories
Thyroid Uptake Systems
PET Shielding & Accessories
Shielded Hoods and Work Stations
Hot Cells and Mini Cells
Lead-Lined Cabinetry
PET Monitors
Survey Meters and Probes
Surgical & Imaging Devices
QC Phantoms
Radiology & Dosimetry
Product Index by Item Number
Product index by Item

Not Just Quality... Capintec Quality

This issue of the Capintec catalog has been revised to offer a variety of products needed to make your tasks less labor intensive and/or safer from radiation exposure. Capintec continues its serious commitment to serve you and your needs as a valued customer.

If your are unable to locate a product or service required by your facility in this catalog, please give us a call as Capintec is continually adding products suggested by our customers.

Use the shaded edges of each page as a guide to locate product sections you need. For more detailed help in locating a product, a Quick Reference Guide is provided at the front; and a complete index printed alphabetically by product name, and/or system name plus page number, is located in the back of the catalog. Prices are not listed in this catalog, but price lists can be requested. If you have any questions regarding pricing or availability of a specific item or system, please call the Capintec order desk at our toll free numbers (1-800-ASK-4-CRC or 1-800-631-3826).

Rely on Capintec for all your equipment and accessory needs

Many systems require special configuration or modification to meet the specific needs of the user. As a manufacturer, Capintec is capable of configuring the systems to meet these special needs.

To all our customers

Thank you for making Capintec the most important name in radiation detection equipment and accessories.

At Capintec, We are proud to state: that we have received ISO 13485 certification. This attests to the seriousness with which we approach quality control, and it allows us to continue CE listings of our products for the international market. Together with the new and expanded FDA Quality System Regulation, Capintec continues to provide our customers with the highest quality products and systems available. As our quality policy states: Capintec will be the leading worldwide supplier of energy measurement products and services of uncompromising quality, on time, to our customers. We will do this by using the best technology and people in the industry, while striving for continuous improvement. ISO certification validates our effort to provide our customers with the highest quality products available.

Proud members of NRMAP: Capintec, Inc. is a participant in the radioactivity measurements assurance program conducted by the National Institute of Standards and Technology, in cooperation with NRMAP Incorporated.

Order and Service Information

In order to offer the very best service to our customers, here is the information for order placement, Capintec Service Center, Shipping Methods, Customer Support and Training, plus service and Repairs.

To place an Order Call:

Capintec Order Department
6 Arrow Road
Ramsey New Jersey 07446

Phone numbers:	800-ASK-4-CRC
	800-631-3826
	201-825-9500
Fax Numbers:	201-825-4829
	201-825-1336
E-mail Address:	getinfo@capintec.com
Website Address:	www.capintec.com
Hours of Operation:	Monday through Friday, 9:00AM to 5:00PM EST

An automated message center is available for the convenience of customers who call after 5:00PM EST.

Shipping Methods:

Unless specific shipping instructions are provided by the customer, Capintec ships by the most economical common carrier. Rates vary by weight and distance. Transit time is generally 3 to 7 working days. All products are insured for list price value. Expedited deliveries can be provided for all products except full thyroid systems. Radioactive sources cannot be shipped by ground service. International orders must specify freight forwarder. Requests for freight quotes or special shipping information should be given at the time of order placement.

Customer Support and Training:

Capintec provides telephone support for product information, application inquiries and problem resolution. In addition, on-site installation and application training are available for any product or group of products. Contact Capintec for assistance or scheduling.

Service and Repairs:

Capintec provides a dedicated team of technicians for troubleshooting, repair and service of all Capintec products. Primary test equipment maintains NIST traceable calibrations. Loaner equipment is available during repair if required (free of charge with service contract). Replacement parts (e.g., batteries, fuses) are available for customer installation. Contact the Service Center for assistance.

(201) 825-9500 / (800) 631-3826

Select Capintec as your single source of supply for virtually all of the instruments and accessories you require for Nuclear Medicine, PET, Radiation Oncology, Radiology, Mammography and CT. You will be pleased with our high quality, reliable products and responsive sales/service support

This Capintec catalog brings to you and your department innovative, problem solving accessories and supplies.

"When The Measurements Count... Count On Capintec."

Setting up a new department, remodeling an existing hot lab or seeking a product to meet a specific need, Capintec will either have it or help you locate it.

Should you require a specialized product or package for PET, Cardiology, Oncology, Research, or Radio pharmacy, Capintec will supply the products to meet your needs. Bring us your problems and our technical staff of Medical Radiation Physicists, Technologists, Product Managers and Engineers, all with clinical expertise, will be pleased to work with you and find a solution.

Quick Reference

Dose Calibrators	6-18
Therapy Dose Calibrators	19
Standard Dose Calibrator Accessories	20-25
Reference Standards and Markers	26-28
Flood Sources	29
"L" Shields and Barriers	30-31
Syringe and Vial Shields	32-33
Syringe Holders	34
Sharps Shields	35
Lab Accessories	36
Fume Hoods	37
Lead Bricks & Enclosures	38-39
Shielded Containers	40
Disposables and Lab Equipment	41-42
Logs and Books	43
Warning Signs and Labels	44-45
Well Counters and Accessories	46-52
Thyroid Uptake Systems	53-67
PET Shielding & Accessories	68-72
Shielded Hoods and Work Stations	73-75
Hot Cells and Mini Cells	76-77
Lead-Lined Cabinetry	78-81
PET Monitors	82-83
Survey Meters and Probes	84-87
Surgical & Imaging Devices	88-90
QC Phantoms	91-104
Radiology & Dosimetry	105-111
Product Index by Item Number	112-113
Product Index by Item	114-115
Warranty Information	116

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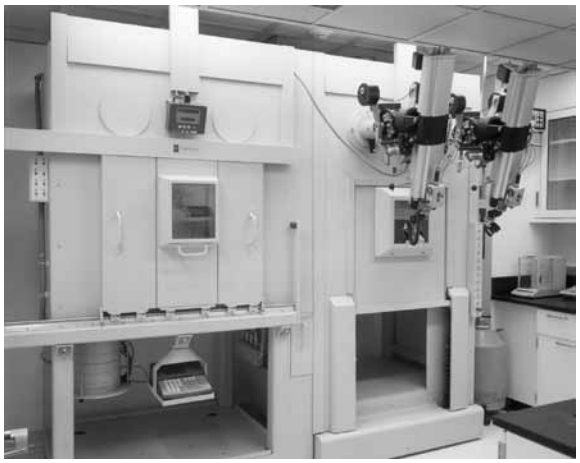
Capintec's Family of High Quality Reliable Products, Manufactured, Serviced and Supported in the U.S.A.



CRC® -55tR Dose Calibrator

Introducing the New Measure for Dose Calibrators

The new Capintec CRC®-55tR Dose Calibrator provides the speed and accuracy you need to measure and prepare doses with the reliability and performance you expect from Capintec. The CRC®-55tR's design includes a menu driven, color touch screen interface that is easy to learn and use.

The ion chamber is one of Capintec's time-tested, high pressure chamber designs capable of measuring a dose as high as 6 Ci (250 GBq) with high accuracy.

Additional features such as USB/PC Communications, printer capabilities, USB flash drive software upgrades, plug and play chamber and expanded remote capabilities make the CRC®-55tR integral in improving your department's efficiency.

The innovative functional design of the CRC®-55tR allows for a large, easy-to-read display that indicates Nuclide Name, Number, Activity, Unit of Measure and Calibration Number.

Entering data through the custom touch screen interface is fast and includes 28 programmable keys. The user can select from 80 nuclides by simply selecting the nuclide symbol on the touch screen interface.

Other 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 CRC®-55tR exceptionally easy to use. An optional printer enables the CRC®-55tR to print full size records and patient tickets with peel off labels for vial and syringe identification.

Count on Capintec for excellence in energy measurement and our unsurpassed customer service, training and support!

55tR Features

- English or Spanish versions available
- 8” color VGA touch screen display
- Chamber plug-and-play capability
- Chamber and remote can be placed 100 feet from the readout unit
- Selection of Nuclide and Daily Test can be done with the remote
- On screen display of Nuclide Name, Number, Activity, Unit of Measure and Calibration Number
- Large character, high visibility display
- Over 80 Nuclides with half-lives in memory
- Full alpha numeric touch pad
- Built-in dose calibration, quality control and self diagnostics
- Automated QC including constancy and linearity programs
- Compatible with Nuclear Medicine Management Systems via USB
- Optional printer for full size NRC records and patient labels for syringes and vials.
- Optional intelligent programmable remote display indicating Nuclide, Activity and Unit of Measure, and perform daily test
- Optional second chamber
- USB/PC Communications
- Software upgrade via USB or Flash Drive
- USB printer capability
- Automated Geometry and Linearity Testing
- ETL CE

continued on next page

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55tR Specifications

- Ionization Chamber
  - Type: Thin wall, deep well, high pressure
  - Fill Gas: 12 atm Ultra Pure Argon
- Measurement Range
  - Type: Auto Ranging
  - Activity: 250 GBq (6 Ci), max.
  - Resolution: .001 MBq (.01 µCi), max.
- Display Screen
  - Type: 8" VGA LCD color touch screen display
  - Format: Direct reading in Bq or Ci
  - Bq/Ci Reading: User selectable or fixed
  - Values Displayed: Nuclide name (Atomic symbol, Mass number), calibration number
- Electrometer
  - Accuracy: Better than ± 2%
  - Linearity: Within ± 2%
  - Response Time: Within 2 sec., 4 to 16 sec. for very low activity samples
- Repeatability of Measurement
  - Repeatability: Within ± 1% within 24 hours, during which time the calibrator is on all the time.
- Tests
  - Diagnostics: Full test of program, system memories
  - Daily: Auto Zero, Auto Background Adjust, Data Check, Accuracy and Constancy, Voltage Test
  - Enhanced: Linearity, Geometry, Strip QC
- Nuclear Data
  - Nuclide Keys: 28 programmable keys
  - System Memory: Over 80 nuclides (cal number and half-life)
- Standard Source Data
  - System Memory: Co-57, Co-60, Ba-133, Cs-137 Standard Sources
- Molybdenum-99 Assay
  - Methods: Canisters of CAPMAC
  - Measured Values: Mo-99 elution, Tc-99m, Tc-99m/Mo-99 Ratio
- PC Port
  - Interface: RS-232 & USB
  - Compatibility: Standard Nuclear Medicine Management Systems
- Printer (Optional)
  - Interface: RS-232 and USB
  - Type: Epson Roll, Epson Slip or Okidata full size dot matrix
  - Printing Options: Full size test reports. Measured results on tickets.
- Power Requirements
  - 100-240 VAC (50/60Hz) 90 MA
- Console Dimensions: Height: 42cm (9.5in); Width: 23cm (9.0in); Depth: 27cm (10.5in); Weight: 3.4kg (7.5lb)
- Chamber Dimensions: Height: 43.8cm (17.25in); Diameter: 17.2cm (6.76in); Weight: 13.6kg (30lb); Well Diameter: 6.1cm (2.4in); Well Depth: 25.4cm (10.0in); Cable Length[1]: 3.7m (12ft)
- Cables: Power1: 1.8m (6ft); Printer: 1.8m (6ft)

1: Longer cables are available. Consult factory.

CRC®-55tR Dose Calibrator 5130-3234
Additional R Chamber 5530-2237

Optional Accessories

CRC® Interactive Remote Display 5130-2224
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
CRP-200 Dose Tickets & Labels 7120-1199
CAP-MAC®-S Molly Assay Canister for Syringes 5130-2046
Molly Assay Canister 5130-0006
Chamber Well Insert 7300-2004
Environmental Shield 7300-2450
Dipper 7300-2005

CRC®-55tW Dose Calibrator/Well Counter

Introducing the new standard in providing dose calibration, wipe tests and lab tests all in one unit!

As a combination of the new CRC®-55tR Dose Calibrator and Well Counter, the CRC®-55tW's dose calibrator provides advanced features with the speed and accuracy you need to measure activity and prepare doses. Its ion chamber is one of Capintec's time-tested, high pressure well designs capable of measuring a dose as high as 6 Ci (250 GBq) with high accuracy. The CRC®-55tW features a new helpful chamber plug-and-play capability.

For wipe testing, the CRC®-55tW allows the user to define specific counting procedures (protocols) with trigger levels for work, patient, unrestricted areas and sealed source leak tests. The CRC®-55tW also performs counting functions for wipe tests in as little as 6 seconds at activities as low as 1 nCi. Low activities are measured with a drilled well high sensitivity Sodium Iodide (NaI) detector.

The well counter includes a 256 channel MCA which provides detailed spectrum for identification and analysis. Manual and automatic ROI selection are available.

The chamber and counter of the CRC®-55tW are combined in a menu driven, touch screen interface that is easy to learn and use.

Reports software, new for the CRC-55t-W, archives well counter data for quality assurance procedures, wipe measurements and laboratory tests. Well counter reports are stored and searchable by date range for later viewing or printing. Wipe tests are searchable by date range, wipe type, and activity.

Count on Capintec for excellence in energy measurement and for our unsurpassed customer service, training and support!

55tW Features

- 8" VGA touch screen color display
- USB/PC Communications
- Software upgrade via USB or Flash Drive
- USB printer capability
- Chamber plug-and-play capability
- Optional intelligent remote displays nuclide, activity, and performs daily tests
- 28 programmable nuclide keys
- Built-in dose calibration, quality control and self diagnostics
- Over 80 nuclides in memory
- Automatic chamber QC including linearity
- Hard copy records of data available from optional printer
- Compatible with nuclear medicine information management systems via USB
- 256 channel MCA with detailed spectrum for identification analysis
- Well counter for wipe tests and laboratory tests
- Lab tests include Schillings, Plasma and RBC volume
- User-definable protocols for wipe testing
- Automated well QC including Chi-Square and MDA
- Manual and Automatic ROI
- Includes a pre-set key for F-18 measurements
- Reports: Well counter reports for autocalibration, system test, MDA, Chi-Square and laboratory tests are archived and searchable by date, type, land activity
- Automated Linearity Testing and Geometry Testing
- ETL CE

continued on next page

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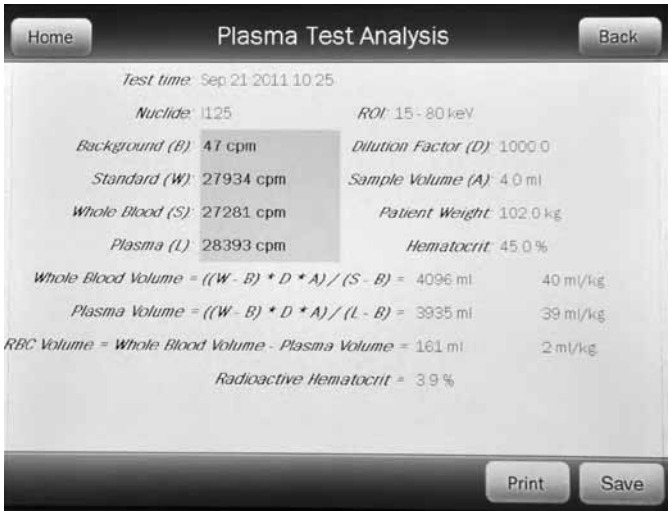
55tW Specifications

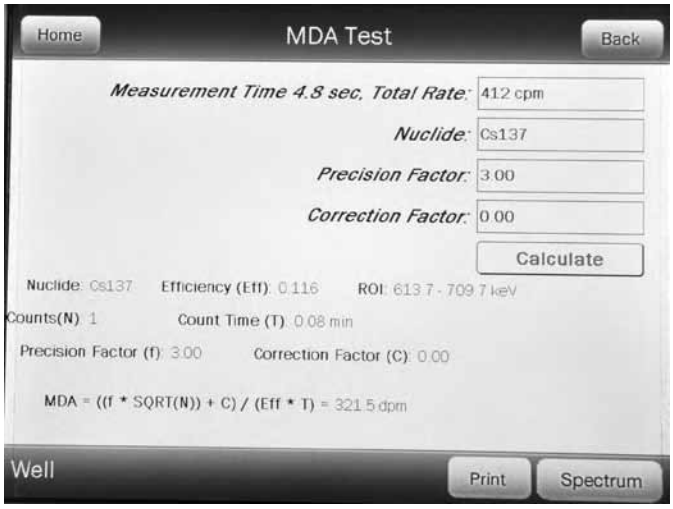
- Well Detector
  - Type: Sodium Iodide (NaI) drilled-well crystal detector
  - 256 Channel MCA, manual and automatic ROI
  - Warning Trigger Levels: User-definable
  - Tests: Daily test, energy calibration, and reproducibility
  - Enhanced QC includes Chi-Square and MDA
- Ionization Chamber
  - Fill Gas: 12 atm Ultra Pure Argon
  - Measurement: Auto ranging
  - Activity Range: Up to 6 Ci (250 GBq)
  - Resolution: .001 MBq (.01 µCi)
  - Response Time: Within 2 sec., for low activity sample, 4 to 16 sec. (user selectable)
  - Tests: Daily tests include Auto Zero, Background Adjustment, Voltage Test, Data Check, Accuracy and Constancy
  - Enhanced QC includes linearity, geometry, strip QC
- Display Screen
  - Type: 8" VGA LCD color touch screen display
  - Bq/Ci Reading: User selectable or fixed
  - Activity Display: Selected radionuclide, calibration number, measured activity and display units (Bq/Ci)
  - Count Rate Values: Wipe and lab test results
- Electrometer
  - Accuracy: Better than ± 2%
  - Linearity: Within ± 2%
- Repeatability of Measurement
  - Within ±1% within 24 hours, during which time calibration is powered at all times
- Nuclide Data
  - Nuclide Setting Keys: 28 programmable keys
  - System Memory: Over 80 nuclides (cal number and half-life)
  - A pre-set key measures up to 2.0 Ci (74.0 GBq) of F-18
- Standard Source Data
  - System Memory: Co-57, Co-60, Ba-133, Cs-137
- Molybdenum-99 Assay
  - Methods: CAPMAC® & canisters
  - Measured Values: Mo-99 elution, Tc-99m,Tc-99m/Mo-99 ratio
- PC Port
  - Interface: RS-232 and USB
  - Compatibility: Standard nuclear medicine management systems
  - Ethernet interface
- Printer
  - RS-232 & USB Ports
  - Epson Roll, Epson Slip or Okidata dot matrix
- Power Requirements
  - 100-240 VAC (50/60 Hz) 100 MA
- Tests
  - Diagnostics: Full test of program, system memories
- Cable
  - Printer (Optional): 1.8m (6ft)
  - Power: 1.8m (6 ft)
- Console Dimensions: Height: 42cm (9.5in); Width: 23cm (9.0in); Length: 27cm (10.5in); Weight: 3.4kg (7.5lb)
- Chamber Dimensions: Height: 43.8cm (17.25in); Diameter: 17.2cm (6.76in); Weight: 13.6kg (30lb); Well Diameter: 6.1cm (2.4in); Well Depth: 25.4cm (10.0in); Cable Length[1]: 3.7m (12ft)
- Well Counter Dimensions: Height: 23.8cm (9.38in.); Diameter: 15.2cm (6in.); Weight: 6.9kg (15.2lb.); Well Diameter: 1.7cm (.67in.); Well Depth: 3.8cm (1.5in.); Cable Length: 2.7m (9ft.)
- 1: Longer cables are available. Consult factory.

CRC®-55tW Calibrator 5130-2216

Optional Accessories

CRC® Interactive Remote Display 5130-2224
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
CRP-200 Dose Tickets & Labels 7120-1199
Environmental Shield 7300-2450
Well Detector Auxilary Shield 5420-2072
Moly Assay Liner 7300-2004
Moly Assay Dipper 7300-2005





CRC®-55tPET Dose Calibrator

Introducing the new standard for speed and accuracy in measuring PET isotopes…

The new Capintec CRC®-55tPET Dose Calibrator gives you the ultimate features in the industry's finest package. The CRC®-55tPET Dose Calibrator is designed to meet the demands of your department with accuracy and ease of operation. Reduced chamber pressure and increased bias voltage increases the maximum activity range for high energy PET isotopes.

The CRC®-55tPET provides a menu driven, touch screen interface that is easy to learn and use. The improved user interface contains an improved graphic color display, making operation and usage easier than ever. The unit provides 28 programmable keys. The user can select from over 80 nuclides by simply selecting the nuclide symbol on the touch screen interface.

Other capabilities include storage of reference sources in memory that automatically decay corrects for today's time and date. Automated quality control tests and self-diagnostics are built-in with automatic zero and background subtraction making the CRC®-55tPET exceptionally easy to use.

Count on Capintec for excellence in energy measurement and our unsurpassed customer service,training and support!

55tPET Features

- 8” color VGA touch screen display
- USB/PC Communications
- Software upgrade via USB or Flash Drive
- Optional second chamber
- USB printer capability
- Chamber plug-and-play capability
- Optional intelligent programmable remote displays nuclide, activities and unit of measure and performs daily test
- Chamber and remote can be placed 100 feet from the readout unit
- On-screen display of Nuclide, Activity, Unit of Measure and Calibration Number
- Large character, high visibility display
- Compatible with Nuclear Medicine Management Systems via USB
- Full alpha numeric touchpad
- Built-in dose calibration, quality control and self diagnostics
- Has a maximum activity up to 20 Ci of F-18
- Compatible with Nuclear Medicine Management Systems
- Optional printer for regulatory records and patient labels for syringes and vials
- Over 80 nuclide symbols and half-lives in memory
- Automated Geometry and Linearity Testing
-

continued on next page

(201) 825-9500 / (800) 631-3826

55tPET Specifications

- Ionization Chamber
  - Type: Thin wall, deep well
  - Fill Gas: 5 atm Ultra Pure Argon
- Measurement Range
  - Type: Auto Ranging
  - Activity: 20 Curies of F-18
  - Resolution: 0.1 µCi (0.01 MBq), max.
- Display Screen
  - Type: 8" VGA LCD Color Touch Screen Display
  - Format: Direct reading in Ci or Bq
  - Bq/Ci Reading: User selectable or fixed
  - Values Displayed: Nuclide name (Atomic symbol, Mass number), calibration number
- Electrometer
  - Accuracy: Better than ± 2%
  - Linearity: Within ± 2%
  - Response Time: Within 2 sec., 4 to 16 sec. for very low activity samples
  - Bias Voltage: +500V
- Repeatability of Measurement
  - Repeatability: Within ± 1% within 24 hours during which time the calibrator is continuously on all the time
- Overall Accuracy
  - Accuracy Determined By:
    1) Calibration for the specific nuclide and the sample configuration,
    2) Accuracies of standard sources used for calibration of electrometer
- Tests
  - Diagnostics: Full test of program, system memories
  - Daily: Auto Zero, Auto Background, Voltage Test, Data Check, Accuracy and Constancy
  - Enhanced: Linearity, Geometry
- Nuclear Data
  - Nuclide Keys: 28 programmable keys
  - System Memory: Over 80 nuclides (Cal number and half life)
- Standard Source Data
  - System Memory: Co-57, Co-60, Ba-133, Cs-137, Na-22 Standard Sources
- PC Port
  - Interface: RS-232 & USB
  - Compatibility: Standard Nuclear Medicine Management Systems
- Printer (Optional)
  - Interface: RS-232 and USB
  - Type: Epson Roll, Epson Slip or Okidata full size dot matrix
  - Printing Options: Full size test reports, measured results on tickets
- Power Requirements
  - 100-240 VAC (50/60 Hz) 100mA
- Console Dimensions: Height: 42cm (9.5in); Width: 23cm (9.0in); Depth: 27cm (10.5in); Weight: 3.4kg (7.5lb)
- Chamber Dimensions: Height: 43.8cm (17.25in); Diameter: 17.2cm(6.76in); Weight: 13.6kg (30lb); Well Diameter: 6.1cm (2.4in); Well Depth: 25.4cm (10.0in); Cable Length1: 3.7m (12ft)
- Cables: Power[1]: 1.8m (6ft); Printer: 1.8m (6ft)

1: Longer cables are available. Consult factory.

CRC®-55tW Calibrator 5130-3235
Multiple Chamber Option 5130-2238

Optional Accessories

CRC® Interactive Remote Display 5130-2224
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
CRP-200 Dose Tickets & Labels 7120-1199
Environmental Shield 7300-2450
Well Detector Auxiliary Shield 5420-2072
Moly Assay Liner 7300-2004
Moly Assay Dipper 7300-2005

CRC® -25R Dose Calibrator

The Measure for Dose Calibrators

The Capintec CRC®-25R Dose Calibrator gives you the state-of-the-art technology you've always expected from Capintec, plus many outstanding new features in one small package. The CRC®-25R is designed to meet the demands of your Nuclear Medicine Department with accuracy and ease of operation. With added features including USB/PC Communications and printer capability, SD flash card software upgrade, a chamber plug-and-play feature and expanded remote capabilities, the CRC®-25R will prove to be a long term asset in your workplace.

The space efficient design of the CRC®-25R allows for a large, easy-to-read display that indicates Nuclide Name, Number, Activity, Unit of Measure and Calibration Number.

All nuclide data is entered via the custom keyboard that includes 8 preset and five user-definable keys. In addition, the user can enter in over 80 nuclides by using the Nuclide symbol such as Co for cobalt and 60 for Co 60. Calibration numbers for over 200 radionuclides are easily accessed by use of the Cal key.

Other capabilities include storage of five reference sources in memory that are automatically decay corrected for today's time and date. Dose calibration quality control tests and self-diagnostics are built-in along with automatic zero and background subtraction making the CRC®-25R extremely easy to use. An optional printer enables the CRC®-25R to print full size records and patient tickets with peel off labels for vial and syringe identification.

Innovative designs, proven performance and the most comprehensive technical system available is what you would expect from the leader in dose calibrator design and development! For premium service, Count on Capintec for our long-standing commitment to customer satisfaction and support.

25R Features

- USB and RS232 Port
- SD flash card software upgrade
- USB printer capability
- Chamber plug-and-play capability
- Interactive intelligent remote display
- Both remote and chamber can be placed 100 feet from the readout unit
- Selection of Nuclide and Daily Test can be done with the remote
- On screen display of Nuclide Name, Number, Activity, Unit of Measure and Calibration Number
- Large character, high visibility display with automatic backlighting
- Over 80 Nuclides with half-lives in memory
- Automatic zero and background subtraction
- Built-in dose calibration, quality control and self diagnostics
- Includes a pre-set key for F-18 measurements
- Compatible with Nuclear Medicine Management Systems via USB
- Optional printer for full size NRC records and patient labels for syringes and vials.
- Inventory Control
- Dose table calculations
- Enhanced software includes linearity and geometry protocol

- Radiochromatorgraphy QC package
- Built-in geometry testing
- ETL CE

25R Specifications

- Ionization Chamber: Type: Thin wall, deep well, high pressure; Dimensions: 26 cm (10") deep x 6 cm (2.4") dia.; Cabling: 3.7m (12') interconnecting cable
- Measurement Range: Type: Auto Ranging; Activity: 250 GBq (6 Ci), max; Resolution: .001 MBq (.01 µCi), max.
- Display Screen: Type: Dot Matrix Liquid Crystal Display; Format: Direct reading in Bq or Ci; Bq/Ci Reading: User selectable or fixed; Values Displayed: Nuclide name (Atomic symbol, Mass number), calibration number
- Electrometer: Accuracy: Better than ± 2%; Linearity: Within ± 2%; Response Time: Within 2 sec., 4 to 16 sec. for very low activity samples (user selectable average period)
- Repeatability of Measurement: Repeatability: Within ± 1% within 24 hours, during which time the calibrator is on all the time.
- Tests: Diagnostics: Full test of program, system memories; Quarterly: Daily, Accuracy and Linearity; Daily: Auto Zero, Auto Background Adjust, Data Check, Accuracy and Constancy
- Nuclear Data: Nuclear Setting Keys: 8 Pre-set, 5 User; Calibration Key: Over 200 nuclides; System Memory: Over 80 nuclides (w/cal number and half-life); A pre-set key measures up to 2.0 Ci (74.0 GBq) of F-18
- Standard Source Data: System Memory: Co-57, Co-60, Ba-133, Cs-137 Standard Sources
- Molybdenum-99 Assay: Methods: Canisters of CAPMAC; Measured Values: Mo-99 elution, Tc-99m, Tc-99m/Mo-99 Ratio
- PC Port: Interface: Rs-232C Protocol & USB; Compatibility: Standard Nuclear Medicine Management Systems
- Printer (Optional): Type: Epson Roll, Epson Slip or Okidata full size dot matrix; Printing Options: Full size test reports. Measured results on tickets.
- Power Requirements: 100-240 VAC (50/60Hz) 90 MA;
- Display Unit Dimensions: 4.75" H x 10.0" W x 10.5" D (12.1 x 25.4 x 26.7cm); Weight: 4 lb (2 kg)

CRC®-25R Calibrator 5130-3215

Optional Accessories

CRC®-Interactive Remote Display 5130-2224
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
CRC®-200 Dose Tickets & Labels 7120-1199
CAP-MAC®-S Molly Assay Canister for Syringes 5130-2046
Molly Assay Canister 5130-0006
Chamber Well Insert 7300-2004
Environmental Shield 7300-2450
Dipper 7300-2005

(201) 825-9500 / (800) 631-3826

CRC®-25R Software

Increased Functionality for Your Dose Calibrator…

Enjoy the added functionality of enhanced software on the CRC®-25R, with all of the same great features of the CRC®-15R plus a few new ones.

- Inventory control
- Dose table calculations
- Newly added linearity protocol
- Radiochromatography QC package
- Built in geometry testing

The CRC®-25R ENHANCED SOFTWARE will still perform the Daily QC protocol, zero adjust, background subtraction, system test, accuracy (with a deviation percentage) and constancy. In addition, the software will calculate dose tables, perform geometry tests (for between 2 and 10 measurements), do radiochromatography, calculate linearity (using standard, Lineator or Calicheck methods) and maintain a radiopharmaceutical inventory of kits or unit doses. All of the acquired data are printable.

25R Enhanced Features

- Capintec quality and reliability
- Calculation of a printable dose table
- Inventory control - maintains inventory of unit doses and kits
- Linearity test - calculates a report for standard, lineator and calicheck methods
- Geometry test showing variations for 2 to 10 different measurements
- Radiochromatography of kit QC strips - one strip, two strip, HMPAO and MAG3

```
    STANDARD LINEARITY
#       MEASURED        %VAR
1       50.4mCi         2.10
2       36.5mCi         1.85

Any Key to Continue
```

Standard Linearity Test Results Screen

```
    INVENTORY
 1. ADD
 2. KIT
 3. WITHDRAW
 4. PRINT
 5. DELETE
```

Single Strip Result Screen

```
QC TEST
Single Strip
Top        / (Top + Bottom)
                        %
Bottom  / (Top + Bottom)
                        %
Any Key to Continue
```

Inventory Menu

CRC®-25R PC Series Communications Software

Fast and Easy Data Acquisition- Track, Record and Store Dose Calibrator Measurements on Your PC

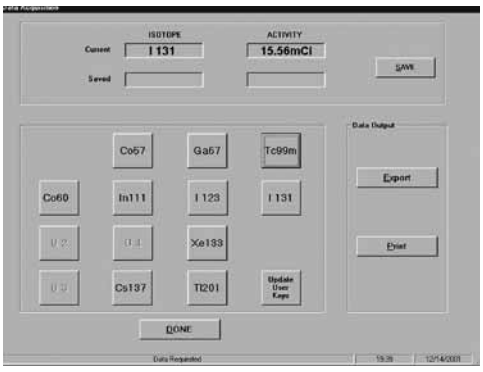
CRC® PC Communications software will allow for faster and easier data acquisition and storage to your computer. Measurement data, including isotope name and activity, will be transmitted and stored on your PC via an RS232 interface port and the Dose-Link Software package. Ideal for maintaining regulatory compliance, research studies or use in production facilities.

The PC Communications software will create an interface between your CRC®-25R dose calibrator and your PC. The Dose Link program has four modes of operation:

• Acquire and Store Data - Each second the name and activity of the isotope selected on the dose calibrator console will be updated by the program. This data can be saved and exported to an Excel spreadsheet.

• Repetitive Acquisitions - Following user defined parameters of time intervals and number of measurements, activity and isotope data are acquired and saved. The data can then be printed or exported. Great for performing quarterly linearity tests (you don't even have to be there).

• Maximum Activity Acquisition - The activity and isotope are updated and displayed at time intervals defined by the user, when data acquisition is stopped, the maximum activity and time will be saved and can be printed or exported.



Data Acquisition Screen

The CRC® PC Communications software is easy to install, easy to use and almost as cost conscious as you are. Help your department maintain accurate record keeping without breaking the department budget.

25R PC Communications Software..... 0960-0173

www.capintec.com

CRC®-25PET Dose Calibrator

For Speed and Accuracy in measuring PET isotopes…

The Capintec CRC®-25PET Dose Calibrator meets the demands of your Nuclear Medicine/PET Department with a host of features for optimized usage; including USB capabilities, SD flash cards for software upgrades, chamber plug-and-play, ability to add a second PET chamber, enhanced remote functionality, and more.

All nuclide data is entered via the custom keyboard that includes 9 user-definable keys. Four reference sources are stored in memory and are automatically decay-corrected for today's time and date. Its space efficient design allows for a large, easy to read display.

Dose calibration quality control tests and self-diagnostics are built in; along with automatic zero and background subtraction, making the CRC®-25PET extremely easy to use. Optional printers enable the CRC®-25PET to print full size records and patient tickets with peel off labels for vial and syringe identification.

Reduced chamber pressure and increased bias voltage increases the maximum activity range for high energy PET isotopes. Innovative designs, proven performance and the most comprehensive technical service and support system available is what you'd expect from the leader in dose calibrator design and development. For the latest technology and expert service, Count on Capintec for the proven performance of our dose calibrators and commitment to customer support!

25PET Features

- Bidirectional USB and RS232 ports
- SD flash card software upgrade
- USB printer capability
- Chamber plug-and-play capability
- Intelligent, interactive remote
- Both remote and chamber can be placed 100 feet from the readout unit
- Selection of Nuclide and Daily Test can be done with the remote
- On-screen display of Nuclide, Activity, Unit of Measure and Calibration Number
- Large character, high visibility display with automatic backlighting
- Automatic zero and background subtraction
- Built-in dose calibration, quality control and self diagnostics
- Maximum activity: 20 Ci of F-18
- Compatible with Nuclear Medicine Management Systems via USB
- Optional printer for regulatory records and patient labels for syringes and vials
- Over 80 nuclide symbols and half-lives in memory
- ETL CE

25PET Specifications

- Ionization Chamber: Type: Thin wall, deep well; Dimensions: 43.8 cm (17.25") high x 17.2 cm (6.76") dia.; Cabling: 3.7 m (12') interconnecting cable; Fill Gas: 5 atmospheres Argon; Well Dia: 6 cm (2.4"); Well Depth: 26 cm (10")
- Measurement Range; Type: Auto Ranging; Activity: 20 Curies of F-18; Resolution: 0.1 Ci (0.01 MBq), max.
- Display Screen; Type: Dot Matrix Liquid Crystal Display; Format: Direct reading in Ci or Bq; Bq/Ci Reading: User selectable or fixed; Values Displayed: Nuclide name (Atomic symbol, Mass number), calibration number
- Electrometer; Accuracy: Better than ± 2%; Linearity: Within ± 2%; Response Time: Within 2 sec., 4 to 16 sec. for very low activity samples; Bias Voltage: 500V; Automated Geometry and Linearity
- Repeatability of Measurement: Repeatability: Within ± 1% within 24 hours during which time the calibrator is continuously on all the time
- Overall Accuracy: Accuracy Determined By:
  1) Calibration for the specific nuclide and the sample configuration,
- 2) Accuracies of standard sources used for calibration of electrometer
- Tests: Diagnostics: Full test of program, system memories; Daily: Auto Zero, Auto Background, Voltage Test, Data Check, Accuracy and Constancy
- Nuclear Data: Nuclide Setting Keys: 9 programmable user keys, 4 pre-set
- Standard Source Data: System Memory: Co-57, Co-60, Ba-133, Cs-137, Na-22 Standard Sources
- PC Port: Interface: Rs-232 Protocol & USB; Compatibility: Standard Nuclear Medicine Management Systems
- Printer (Optional): Type: Epson Roll, Epson Slip or Okidata full size dot matrix; Printing Options: Full size test reports, measured results on tickets
- Power Requirements: 100-240 VAC (50/60 Hz) 100mA; Ability to add second PET chamber

CRC®-25PET Calibrator 5130-3217
Additional PET Chamber 5130-2212

Optional Accessories

Positron Shield 7300-2903
Interactive Remote Display 5130-2224
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
CRP-200 Dose Tickets & Labels 7120-1199
511 L-Block 5130-2090

(201) 825-9500 / (800) 631-3826

CRC®-Ultra Dose Calibrator

The Path Towards Multi-Functionality Starts Here

Design a Calibrator Setup with Your Department's Specific Needs in Mind! Finding the perfect combination for your department is quick and simple with the CRC®-Ultra. Call a Capintec representative today to learn more about the optimal choices for your department's field of expertise!

The flexible configuration of Capintec Beta Detector, Well Counter, and up to eight field upgradeable standard or PET chambers creates an endless possibility of combinations.

The CRC®-Ultra can also combine both standard 12 atmosphere and 5 atmosphere PET chambers, and uses the same outstanding proprietary sealed and pressurized Capintec chambers.

In addition to multiple chambers, the Ultra supports both a well counter and beta counter. The shielded well counter is designed for low activity measurements such as wipe tests or laboratory tests with user definable protocols. The beta counter is designed for measuring high energy pure beta emitters, such as P-32, Y-90, or Sr-89. With two source positions and custom holders, the beta counter provides excellent reproducibility with extended measurement range.

Whether you plan to operate a small setup or something on a grand scale, look to the future with the CRC-Ultra's expansive capabilities. By simply connecting additional units, the CRC-Ultra can adapt to changes as quickly as your department does!

Connect additional remote displays and Printers for enhanced functionality. The intelligent remote display unit is controlled by the CRC®-Ultra Dose Calibrator. It switches up to (8) pre-set nuclides independently for each chamber, measures bias voltage, Auto Zero, Auto Background, and performs accuracy tests. The remote can be located as far as 100 feet from the main unit.

The Epson roll printer makes an excellent companion to the CRC-Ultra. Compact and ideal in locations where space is a minimum, it uses an easily accessible ribbon cartridge that prints red or black. The CRC-Ultra also accomodates Okidata, HP Deskjet, and Epson Stylus printers with USB interface.

- CRC®-Ultra: Readout Unit: The CRC®-Ultra's comprehensive automated QC includes linearity, geometry and strip tests, and a complete inventory and dispensing module for unit or multi-vial doses. Design includes tilting display, user adjustable backlight, easy to read keypad and audible feedback on keypress. 6" H x 10.9" W x 10" L (15.2 x 27.6 x 25.4 cm); Weight: 4.2 lb (1.9 kg); Power Requirements: 110 to 240 VAC, 0.5A, 50/60 Hz
- CRC®-Ultra: Expansion Unit: The expansion module is necessary for combinations that utilize more than two Ion Chambers (contains ports for 6 additional Chambers). 3.7" H x 10.9" W x 10.6" L (9.4 x 27.6 x 27.0 cm); Weight: 2.6 lb. (1.2 kg)
- Additional Units: Chamber Assembly: The CRC®-Ultra can combine both standard 12 and 5 atmosphere PET chambers. Additional chambers are field upgradable. Suitable for most BT applications with appropriate source holder. 18" H x 6.75" Dia. (45.7 x 17.2 cm); Weight: 28.3 lb. (12.8 kg)
- Additional Units: Well Counter: The CRC®-Ultra's Well Counter option includes both wipe and lab tests. 9.4" H x 6" Dia. (23.8 x 15.2 cm); Weight: 15.2 lb. (6.9 kg)
- Additional Units: Beta Detector: The CRC®-Ultra's Beta Detector option is optimized for high energy beta measurements. 5.6" H x 3.3" W x 18" L (14.1 8.4 x 45.7 cm); Weight: 18.6 lb. (8.4 kg)

continued on next page

Ultra Software Features

- QC Module: Auto Zero, Auto Background, bias voltage, accuracy, constancy, linearity, geometry; one, two, or three strip models; Moly assay-CAPMAC or canister; Self diagnostics and reference data records
- Inventory: Maintains decay corrected inventory levels, generates dose tables, calculates multi-dose vials and unit doses
- Nuclides: Over 200 calibration numbers available; 80 nuclides with stored calibration numbers and half-lives for decay calculations; User can modify calibration numbers for geometry corrections; Up to 8 preset keys; Up to 9 user definable keys
- Utilities: Activity units in either Ci or Bq, with lock out feature; Decay calculation; Ci to Bq conversion; Future time calculations
- Remote: Dual LCD display; Switch up to eight preset nuclides independently for each chamber, Measure bias voltage, Auto Zero, and Auto Background; Perform accuracy test
- Well Counter: Auto-calibration includes energy calibration and constancy; Displays net counts with automatic background subtract; Six channel fixed MCA; User-definable wipe test protocols; Counting error displayed; Trigger limits to flag high values; Schilling, Blood Volume and RBC Volume lab tests
- Beta Counter: Auto-calibration includes energy calibration and constancy; Displays net counts with automatic background subtract; Six channel fixed MCA; Stores reference, vial, and syringe correction factors for each nuclide; Stores efficiencies for both 10 cm and 20 cm locations; Count rate corrections
- Interface: RS-232 or USB bi-directional ports; Software controlled switching features
- PC Features: Change isotope for any chamber in system; Select chamber displayed on main unit; Request measurement value for any chamber; Perform background, zero, bias voltage, and daily test; Export data to database; Measure wipe test value from Well counter; Measure activity from Beta counter; Enhanced PC control allows user to control readout through the PC

Ultra Hardware Specifications

- Dose Calibrator: Thin walled, pressurized, deep well re-entrant ionization chamber; Ultra Pure Argon fill gas; Electronic bias supply; Measurement Range (Auto Ranging); Maximum Activity: 300 GBq (8.0 Ci in Moly Assay Cannister) for standard 12 atm chambers; 500 GBq (12 Ci) for PET chamber; Maximum Resolution: 0.001 MBq (0.01 uCi) 0.01 MBq (0.1 uCi) for PET chamber; Measurements will repeat to within +/- 0.5% within 24 hours during which time the calibrator is powered at all times; Electrometer Accuracy < 2%, linearity +/- 2%, response time: 2 Seconds; 12 foot standard cable length, optional extension cables up to 200 feet
- Well Counter: Type: 1 1/2" Sodium Iodide (NaI) drilled-well crystal detector; Energy Discrimination: Fixed range MCA windows are 15-100, 100-200, 200-400, 400-660, 660-800, 800 keV; 9' (2.7 m) triax cable; Shielded with 1/2" (1.3 cm) painted lead including top shield; Optional auxiliary 1/2 in. lead shield available
- Beta Counter: Thin Sodium Iodide (NaI) scintillator optimized for bremsstrahlung sensitivity; Sample Distance: 4" (10 cm) and 8" (20 cm); Counting Rate: 50,000 counts per second, max. (25 to 100mCi pure beta emitter); Shielding: 1/2" (1.3 cm) lead collimator; 9.5' (2.9 m) triax cable; Optional auxiliary 1/2" lead shield available
- Multiple Chambers: Up to two chambers, well detector and beta detector connect directly to readout; Additional chambers require an expansion unit
- ETL CE

CRC®-Ultra Readout with Standard Chamber 5130-3209
CRC®-Ultra Readout with PET Chamber 5130-3210
CRC®-Ultra Expansion Unit 5120-2268
Chamber Assembly (Standard) 5130-2210
Chamber Assembly (PET Ion) 5130-2212
Well Counter 5130-2214
Beta Detector 5130-2213

Optional Accessories

Epson Ticket Printer 5430-0100
CAP-MAC®-2: Mallinckrodt 5130-0108
CAP-MAC®-2: NEN/Dupont 5130-0109
CRP-200 Dose Tickets & Labels 7120-1199
CRP-500 Radionuclide Dose Tickets 7120-1016
CRP-600 Radiochemical Purity Tickets 7120-1018
CRP-700 Pre-Cal Record Tickets 7120-1017
Well- Auxiliary Shield 5420-2072
Beta- Monojet Syringe Holder 7310-0304
Beta- NIST Amopoule Holder 7310-1262
Beta- Auxilary Shield 5530-2098
Ultra Remote Display 5130-2211
Dipper 7300-2005
Environmental Shield 7300-2450
Positron Shield 7300-2903
Roll Printer 5430-0058

(201) 825-9500 / (800) 631-3826

CRC® -127R Calibrator

Performance and Value in Perfect Balance...

The CRC-127R continues the tradition of outstanding performance characteristics and a worldwide reputation of excellence for which Capintec Dose Calibrators are known.

By incorporating a manual and Auto-Ranging range selection either Becquerel or Curie, functions, the CRC-127R is designed for simplicity of operation.

The CRC-127R provides 8 preset calibration settings for commonly used radionuclides: Tc-99m, Tl-201, Ga-67, In-111, I-131, I-123, Xe-133, and Moly Assay. It also allows calibration settings for >200 other nuclides. Precision Potentiometer "dials in" calibration settings for any radionuclide. The 10 year battery used in the CRC-127R offers stability when the current in your lab does not.

The CRC-127R is the most economical dose calibrator from Capintec and offers the longest warranty of any dose calibrator sold. This is what you have come to expect from the quality products of Capintec.

Features

- Curies or Becquerels units of measure
- Manual or Auto-Range selection
- Bright 4-digit, extra-large LED display
- Full THREE YEAR unconditional guarantee
- Full FIVE YEAR guarantee on battery
- Battery check
- Background and zero adjustment with manual dial
- ETL CE

Specifications

- System Configuration: Push-button/autoranging or manual ranging system; Becquerel or Curie readout, lockable in position; Well liner and Vial/Syringe dipper; Chamber cable 6' (longer if required)
- Power Requirements: 100-240 VAC 50/60Hz, 160mA
- Circuit Protection: Power line filter, transient voltage suppressor
- Measurement Range: Resolution: 0.01 µCi (0.001MBq); Maximum Range 8 Ci (200 Gbq)
- Optional printer with printer port
- Weight: 15lb. (6.8 kg) Readout, 35.3lb. (16 kg) Chamber

CRC-127R Dose Calibrator 5130-3092
RS-232 Interface 5120-1136-OPT

CRC®-712M Dose Calibrator

5 Chambers Plus your choice of Activity Range Equals Unsurpassed Performance...

Capintec proudly designed the industry's first multiple chamber dose calibrators. That innovation is now refined into the superior CRC®-712M. It has the same outstanding features found in several of Capintec's dose calibrators and now combined into the CRC-712M system, increasing its functionality and flexibility.

The CRC-712M radioisotope dose calibrator provides the Nuclear Medicine community with a wide range of features that are frequently needed in PET centers, and in research, manufacturing and radiopharmacy distribution facilities. Your CRC-712M can be configured with one, two, three, four or five remote ionization chambers, all controlled from the main unit. Each chamber can have its own remote readout.

As your requirements change, additional chambers may be added to your CRC-712M on site. There is no need to return the main unit for factory installation. The system now comes with a 10 year battery that eliminates power problems of "brown-outs" by supplying a constant bias voltage. Due to the special requirements of high dose brachytherapy, PET research and many other uses, Capintec makes available ionization chambers for three different high range activities The specially configured electronics allow the measurement of high activity levels. (such as those found in research and production facilities)

Features

- Manual and auto-range activity selection give both speed and convenience
- Selectable locking knob allows unit to switch between Curie and Becquerel units
- Widest range of accessories available from special mountings to special shielding
- Extra large, bright 4 digit LED activity display is easy to read from across the room
- Up to 5 remote chambers and remote displays
- Central unit can select any remote chamber to read activity

Specifications

- Multi-Chamber capability
- Power: 88 to 130 VAC, 0.1 A, 180 to 260 VAC, 50/60 Hz
- Circuit Protection: Power line filter, transient voltage suppressor
- Range: 0.001 MBq (0.01 µCi) to 200 GBq (8 Ci)
- Accuracy ± 2%
- Linearity: ± 1%
- Cable: 15' (4.5 m) (Longer cable lengths available)
- Chamber Connections: chamber ports for up to 5 remote chambers
- Readout Connections: RS-232 ports for up to 5 remote displays
- Readout Dimensions: 6" H x 12.5" W x 18" D (15 x 32 x 46 cm)
- Weight: Readout Unit: 15 lb. (6.8 kg) Chamber: 35 lb. (15.8 kg)
- Shipping weight: 48 lb. (22 kg)

CRC®-712MX 5130-3177
CRC®-712MH 5130-3176
CRC®-712M Calibrator 5130-3054
CRC®-HR Chamber 5120-2120
CRC®-712 Remote Display 5120-2125
CRC®-712 Remote Cable 8400-1178

(201) 825-9500 / (800) 631-3826

CRC®-15BT Dose Calibrator

Perfect for HDR or LDR Brachytherapy Source Calibration…

Accurate high activity brachytherapy measurements present new challenges in Radiation Therapy, the CRC-15BT easily overcomes these challenges. Both HDR and LDR brachytherapy sources are quickly and precisely measured by the CRC-15BT.

The console of the CRC-15BT is designed for ease and efficiency. There are 14 programmable nuclide keys, and a large LCD display that will show the isotope name, activity (in Ci or U) and calibration number. A custom alphanumeric keyboard drives all of the menus and functions.

The chamber of the CRC-15BT has 1/8" (3.2mm) mechanically reinforced lead shielding. The chamber is a sealed thin wall, deep well design with 2.5 atmospheres of Argon gas and a 500V bias in order to achieve optimal response time (within 2 seconds) without temperature or pressure corrections.

ADCL Calibration is available with the CRC-15BT to ensure maximum accuracy. Calibrated with the specific brachytherapy source(s) utilized in your department, activity can be measured precisely in either Curies (Ci) or Air Kerma strength (U).

The CRC-15BT software is a menu driven design that will allow the user to move rapidly through all of the system functions. The Daily QC protocol will perform zero adjust, background subtraction, system test, accuracy (with a deviation percentage) and constancy. The nuclide library is programmed with more than 80 nuclides and half-lives, plus available space for 10 additional nuclides. The system memory can also support up to 20 brachytherapy sources with isotope name, calibration number, Air Kerma strength and ADCL factor.

Overall the CRC-15BT is quick, reliable and cost effective. With optional features such as the RS-232 computer interface port, a selection of printers (ticket, roll or full page) or the CRC-AD15 auxiliary display you can configure a system that is right for your department.

For those customers who require a more portable measurement solution, the BT is also available as a stand alone chamber, which can be connected directly to your department's electromer. Available with either TNC or BNC connector.

15BT Features

- Sealed gas filled ionization chamber (no temperature/pressure corrections required)
- Auto ranging
- Max activity up to 12 Ci
- Remote ionization chamber with 8-foot cable (longer lengths available)
- Microprocessor controlled
- Large LCD display with nuclide name, activity (Ci or Bq) and calibration number
- Daily QC functions, including zero adjust, background subtraction, system test, accuracy (with deviation percentage) and constancy

- Library of over 80 nuclides and half-life with room for 10 additional nuclides
- Menu driven programming for easy navigation
- An unsurpassed technical support and service team
- ETL CE

15BT Specifications

- Ionization Chamber: Thin wall, deep well, Argon gas [16.3cm (6.4") deep x 6.1cm (2.4") dia. opening]
- Chamber Shielding: 1/8" (3.2mm) mechanically reinforced lead
- Measurement Range: Autoranging, up to 12 Ci
- Resolution: 0.001 MBq (0.01 µCi)
- Electrometer Accuracy: Better than ±2%
- Linearity: Within ±2%
- Response Time: Within 2 sec., for very low activity 4 or 16 sec. (user selectable)
- Nuclide Keys: 14 user defined
- Calibration Key: Over 200 Nuclides
- Printer Interface: Provided for serial printer
- System Memory: Over 80 Nuclides (w/ half-life),
- Ability to add 10 nuclides and 20 brachytherapy sources (w/cal #, U and ADCL factor)
- Power Requirements: 100-240 VAC 0.1A or 50/60 Hz 120mA
- Display Unit Dims: 4.75" x 10.0" x 10.5" (12.1 x 25.4 x 26.7 cm); Weight: 2kg (4lb)
- Chamber External Dims: 12.3" x 6.7" (31.3 x 17.0cm) Weight: 26.8 lb. (12.2 kg)
- Interconnecting Cable: 8' (2.4m) (Longer lengths available)
- Metal cable connectors with thumb screws
- No battery required

CRC®-15BT Dose Calibrator 5130-3127
CRC®-15BT Stand Alone Chamber 5130-2135

Optional Accessories

CRC® Auxiliary Display 5130-2082
RS-232-R Serial Port 5130-0080
Okidata Printer 5130-0074
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
Ir-192 Brachytherapy Ribbon Holder (15BT) 0976-0007
Cs137 Brachytheraphy Seed Holder 0976-0004
I-125 Brachytherapy Seed Holder 0976-0003
Liner (15BT) 5120-2236
Dipper (15BT) 5120-2237

CAP-MAC-2 Canister And T-MAC Systems

Superior Radiation Safety for Generator and Kit Users

The CAP-MAC-2 or the T-MAC system will provide a fast, efficient and safer way to handle elution vials or radiopharmaceutical kits. The CAP-MAC-2 has a lead vial canister and the T-MAC has a tungsten vial canister, both providing exceptional shielding.

No matter which canister is chosen the user will receive outstanding protection from hand, eye and whole body exposure due to handling of high activity vials. Both canisters can accommodate a 5-20ml vial that will allow the user to "milk" a generator, reconstitute a kit or draw a dose without removing the vial from the protective shield.

In addition, the CAP-MAC/T-MAC Systems have Capintec's proprietary hanger design to facilitate the safe handling of generator elution or reconstituted kits. Simply place the shielded vial into the hanger and slide the entire assembly into any Capintec CRC Dose Calibrator for a quick and accurate Mo99 breakthrough measurement or a current Tc99m elution or kit activity measurement. All of this is accomplished without having to handle an unshielded vial.

Maximize your departments regulatory compliance by minimizing your exposure.

Note: When ordering your CAP-MAC-2 or T-MAC System always specify the generator manufacturer.

Features

- Fits all Capintec CRC Dose Calibrators
- Permits Mo-99 and Tc-99m assays with no exposure to unshielded vial
- Allows generator to elute directly into canister
- Reduces hand and eye exposure by factor of 6
- Accommodates 5 to 20 ml vials
- T-MAC offers smaller, unbreakable canister
- Canisters may be used with “Kit” vials to store and measure activity contained, without removing the vial from the shield
- New and improved hanger for smoother operation

CAP-MAC-2 Complete (Mallinckrodt)	5130-0108
CAP-MAC-2 Complete (NEN/Dupont)	5130-0109
T-MAC Complete Assembly (Mallinckrodt)	5130-3100
T-MAC Complete Assembly(NEN/Dupont)	5130-0107
Tungsten Canister Only (Mallinckrodt)	5120-0193
Tungsten Canister Only (NEN/Dupont)	5120-0195
NEN/Dupont Lead Canister	5120-2199
Mallinckrodt Lead Canister	5120-2200
Medi-Physics Lead Canister	5120-2055
Holder Only	5120-2192

Complete units include canister and holder.

(201) 825-9500 / (800) 631-3826

Molly Assay Canister

Measures Molybdenum Content Of Tc-99m

Verify that the amount of Mo-99 contamination in your vial of Tc-99m is within NRC or state regulatory limits with a molybdenum assay canister. Use it with all Capintec dose calibrators. The kit has a lead canister and a wire basket to ensure proper placement of the Tc-99m vial in the ionization chamber. It is designed to accommodate all vials up to 30 ml without changing parts or dose calibrator settings.

Moly Assay 5130-0006

Mick-Bard Source Holder for Standard Chamber

This seed holder is specifically designed to hold seed cartridges. This device allows cartridges to be properly placed in any Capintec standard length Dose Calibrator chamber for the most accurate and reproducible measurement available.

Mick-Bard Source Holder, Standard Length Chamber 5120-1238

CAP-MAC-S® Molly Assay Canister For Syringes

Measures Mo-99 In Tc-99m Unit Doses

The CAP-MAC-S® is similar to the moly assay canister, but is specially designed for unit-dose syringes of Tc-99m labeled radiopharmaceuticals. Use the CAP-MAC-S to verify that the amount of Mo-99 contamination in unit doses is within NRC or state regulatory limits. It fits all Capintec dose calibrators. The CAP-MAC-S kit has a lead canister and a wire basket to ensure proper placement of the syringe in the ionization chamber. It is designed to accommodate all syringes up to 30 ml without changing parts or dose calibrator settings.

CAP-MAC-S® 5130-2046

Positron Shield

Constructed of nine sets of 2 1/4"(6 cm) thick lead split rings for full shielding of a dose calibrator chamber. The positron shield gives maximum radiation protection when working with 511 KeV nuclides. The shield can either be flush mounted to a work surface or mounted on a table or cabinet.

Features

- Rings are 2 3/8" thick lead.
- Lead contains 3% antimony for strength.
- Manufactured to fit all remote chamber Capintec dose calibrators except the CRC®-15 BT.

Specifications

- 19 3/4" h with an outside diameter of 11 3/8"
- Weight: 560 lbs.

Positron Shield 7300-2903

Environmental Shield

9 Interlocking Lead Rings Surround Chamber

Reduce background radiation more than 10 times with the environmental shield. Fitting any Capintec CRC® dose calibrator with a remote ionization chamber, the shields consists of 9 interlocking lead rings that surround the chamber. Uniform wall thickness (4 cm standard, or 1 1/2") also reduces radiation exposure during calibration. The lead contains 3% antimony for added strength. For use with CRC®-25R, CRC®-25W, CRC®-712M, and CRC® Ultra.

Environmental Shield 7300-2450

Positron Shield Stand

Solidly built to support a Capintec dose calibrator encased in the Positron Shield

Features

- 3-Legged stand made of arc-welded steel.
- Standard Range of height with adjustable feet is 22 7/8" to 25 3/8".
- Capintec will custom design to meet your exact specifications.

Positron Shield Stand 5126-2001

BT-I-125 Brachytherapy Linear Seed Tube

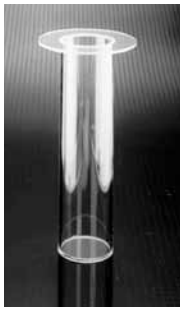
Holds I-125 Source Seeds for Counting

The BT-I-125 brachytherapy linear seed tube features a thin-walled section (1 cm length, 1.5 mm diameter) for counting I-125 source seeds. Includes positioning markings for both standard and BT chambers.

I-125 Seed Tube 0976-0003

Chamber Well Insert

Use Backup Well Insert As Other Decays



Every Capintec dose calibrator in the CRC family already comes with this protective chamber well insert. If it becomes contaminated, you can easily remove it for washing with a decontaminate. Or, you can buy an extra chamber well insert to use until the other one decays to background levels.

The chamber well insert is made of clear, tough Plexiglas for improved durability, reduced breakage, and longer life.

Liner..... 7300-2004

BT-CS-137 Brachytherapy Source Holder

Positions Cs-137 Seeds in Dose Calibrator

Specially designed to fit Capintec dose calibrators, the BT-Cs-137 brachytherapy source holder positions Cs-137 seeds in the ionization chamber for accurate assays of activity in any Capintec Dose Calibrator.

Centimeter markings allow convenient positioning and determination of source length. The centrally positioned tube is easily adjusted with a thumb screw.

Cs-137 Seed Holder, Standard Length Chamber 0976-0004

Vial/Syringe Sample Holder

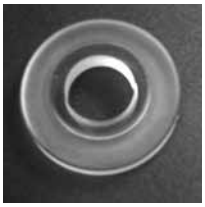
Ensures Proper Placement Every Time

Every calibrator comes with a sample holder. Sometimes known as the dipper, this holder is specially designed to hold syringes and vials of all sizes. You can order additional sample holders as a separate item.

The sample holder offers a safe, convenient way to hold a vial or syringe during activity measurement. Proper placement in the dose calibrator is assured every time. New material in the shaft reduces breakage for longer life, and eliminates the attenuation problems of low-energy gamma emissions that occur with other dippers. Syringe inserts available for tuberculin syringes (1.0 ml).

Dipper..... 7300-2005

Syringe Dipper Adaptor



Syringe dipper adaptor to 1cc..... 7310-1109

BT-IR-192 Brachytherapy Ribbon Source Holder

Positions Ir-192 Seeds in Dose Calibrator

Specially designed to fit Capintec standard dose calibrators, the BT-Ir-192 brachytherapy ribbon-source holder positions Ir-192 seeds in the ionization chamber for accurate assays of activity.

The coil holds up to 12 Ir-192 seeds with 1-cm spacing and no overlap.

Ir-192 Ribbon Holder, Standard Length Chamber..... 0976-0005
Ir-192 Ribbon Holder, BT Chamber..... 0976-0007

Mick Cartridge Holder

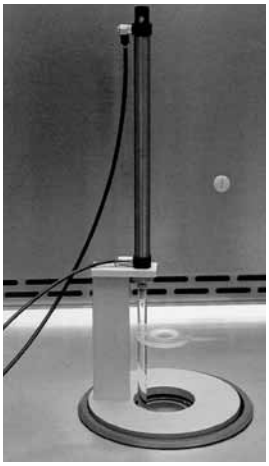
This seed holder is specifically designed to hold seed cartridges. This device allows these cartridges to be properly placed in any Capintec CRC-series Dose Calibrator chamber for the most accurate and reproducible measurement available.

Mick Cartridge Holder, Small BT Chamber 5120-2244

(201) 825-9500 / (800) 631-3826

Dosilift™

Eliminate Ergonomic Problems and Reduce Radiation Dose to Staff



Dosilift is a pneumatically driven system for the transfer of vials or syringes with radioactivity to the measuring position in the dose calibrator ionization chamber. Both lifting power and speed can be optimized in accordance with individual needs.

In striving to comply with ALARA, many departments are looking for ways to reduce hand exposure for the staff. Because it operates remotely the Dosilift does not require the technologist or pharmacist to place a hand over the well to lower the sample into the chamber. The Dosilift eliminates ergonomic problems that can occur if the sample holder is introduced into the measuring chamber when the chamber is recessed into a counter or a fume hood.

The Dosilift can be connected to a normal hospital air line because the system has a built-in pressure regulator. The air consumption is very light allowing the Dosilift to be connected to a small air container. The system is simple to install and can be mounted without any attachments on the top of the ionization chamber. Ideal for high energy PET applications to reduce hand dose. Standard length 200 mm. Custom lengths available for hot cells or hoods.

Features

- Facilitates lowering and raising of syringes or vials into the dose calibrator chamber remotely
- Ideal for radiopharmacy or PET operations
- Operated by hand or foot pedal
- Helps to reduce radiation dose. Hand doses are reduced to a minimum
- Allows ionization chamber to be located in places not easily accessible
- No batteries required; operates by air pressure

Dosilift, Standard Length 5120-2175
Dosilift, Custom Length 5120-2222

Calicheck Long Linearity Test Kit

The CALICHECK long linearity test kit has an extended reach of about 5 inches over the original kit and is designed for use in counter sunk dose calibrators. It makes inserting and retrieving each tube very easy. Both kits are displayed for comparison. Storage container and instructions included.

Calicheck Long Linearity Kit.....5120-2285

Calicheck Linearity Test Kit

Accurately Tests Linearity in Less Than 10 Minutes

The innovative CALICHECK linearity test kit provides system testing of a dose calibrator in less than 10 minutes. The CALICHECK attenuates Tc-99m by known values.

Simulating decay for a range of a few hours up to 4 days, the CALICHECK eliminates the need to fractionate eluants or decay them for several days while periodically collecting data.

The unique design of 7 color-coded, lead-wrapped tubes allows for accurate testing. They are complete with their own storage container and record-keeping sheets with easy-to-follow instructions.

Features

- Performs linearity in <10 minutes
- Accurately simulates decay down to 10 μCi
- Results comparable to standard linearity tests
- Meets NRC and state standards

Calicheck Linearity Kit 5120-2144

Shielded Platform

The dose calibrator shielded work platform is designed to reduce the dose received by the technologist when transferring activity in and out of the dose calibrator. The unit can be mounted on any Capintec dose calibrator chamber without the need of tools and can be readily moved between calibrator chambers.

The shielded work platform is constructed of steel, providing a large, sturdy working surface with easy access to the chamber well. It was designed specifically to increase technologist safety and efficiency when low energy, low activity working with radioactive materials. Shields containing a vial or syringe to be assayed can be placed on the working surface, behind the leaded glass, before opening.

Specifications

- Leaded Glass: equivalent to 2 mm lead. Double pane glass is available
- Work Platform: 12" W x 10" D (30.5 x 25.4 cm)
- Platform Coating: Epoxy enamel
- Weight: 15 lb. (6.8 kg)

Shielded Platform with 2mm lead glass 5150-3010
Shielded Platform with 4mm lead glass 5150-3011

CRC® Ultra Remote Display

Interactive intelligent remote permits user to switch nuclides, measure bias voltage, zero and background and perform accuracy tests.

CRC® Ultra Remote Display 5130-2221
CRC® Interactive Remote Display . 5130-2224

CRC®-127/712 Auxiliary Display Unit

Displays Activity, Units, Nuclide

Take full advantage of our CRC®-712M dose calibrator with an individual display unit for each remote chamber. The CRC®-712M displays the activity, unit of measure, and selected nuclide. It is particularly useful for PET and manufacturing operations.

Features

- LED display
- 15' cable (longer lengths available)

CRC-127/712M Auxiliary Display 5120-2125

Copper Liner

This liner eliminates variations in readings when measuring I-123. It is 2-3/4" in diameter (outside), and 11-3/4" in length (overall). It receives a standard dipper.

Copper Liner 5120-2286

Cable

The interconnecting cable to attach additional chambers to the CRC-712M is a low-noise, flexible, triaxial cable, shielded to reduce any interference. The connectors provided on the cable allow easy connection to the main unit and the chamber. Extension cable may be ordered for placement up to 150 feet.

The cable for the CRC-AD series auxiliary displays is a shielded 4 conductor cable and can be purchased in any required length.

Cable for CRC-712M Auxiliary Displays 8400-1178

Optional Printer Accessories

RS-232 (712M) 5110-0130-OPT
RS-232 (127R) 5120-1136-OPT
Paper Rolls (12 pack) 9282-0009
Paper Rolls (50 case) 9282-0010
Ribbon Cartridge (Red/Black) Epson Roll 2001-0055
Printer Cable (6' Parallel) 8400-1127

Okidata Printer

For use with the CRC®-25R, CRC®-25W, CRC®-55tR, CRC®-55tW, and CRC®-127R, the Okidata MicrolineTM 320i provides for ease of use and rugged reliability. It is rated for 5,000 hours and offers Near Letter Quality documents plus high-resolution graphics with only 9 pins.

An automatic paper park feature lets you switch quickly to and from continuous feed paper to sheet-fed printing without removing the tractor paper. Tickets are easily inserted and properly indexed to print in the proper alignment, every time.

120V Okidata Printer 5130-0074
220V Okidata Printer 5110-1150

Epson Ticket Printer

This hard working printer made by Epson is offered as an option for the CRC®-25 and CRC®-55t Families of Dose Calibrators, CRC-Beta Enhanced Counter, CAPRAC® and the CAPRAC®-R Well/Wipe Counters. It allows individual tickets to be positioned easily for printing. The printer automatically aligns the ticket and after printing feeds it out the back. Although designed for tickets, standard paper can be used and is printed along one side. Suggested tickets for the Ticket Printer are the CRP-200 and CRP-700.

Epson Ticket Printer 5430-0100

Epson Roll Printer

The Epson roll printer makes an excellent companion to the CRC®-25 and CRC®-55t Families of Dose Calibrators, CRC®-Beta Enhanced Counter, CRC®-127R Dose Calibrator, CAPRAC® and the CAPRAC®-R Well/Wipe Counters. This very compact printer is ideal in locations where space is at a premium. A built-in self-test function reviews the printer's condition. The Epson model uses an easily accessible ribbon cartridge that prints Red or Black. Selected for its long life and exceptional reliability, Capintec offers this printer as a valuable accessory to Capintec products.

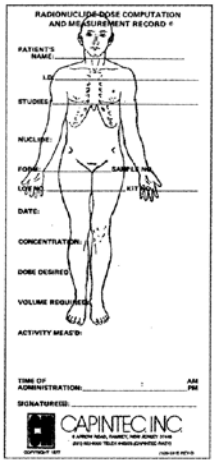
Epson Roll Printer 5430-0058

(201) 825-9500 / (800) 631-3826

CRP-500 Radionuclide Dose Tickets

"Tickets with the Little Patient"

Sometimes known as the "tickets with the little patient," the CRP-500 forms are designed for printers connected to a Capintec dose calibrator. Works with Epson ticket & Okidata printers.

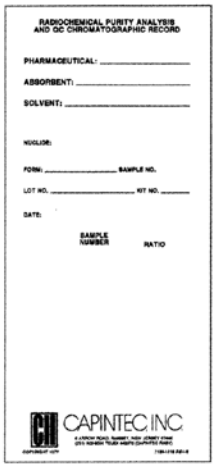


CRP-500 (250 per pack) 7120-1016
CRP-500C (1500 per case) 7120-1241

CRP-600 Radiochemical Purity Tickets

Records Results of Radiochromatography QC

Use these CRP-600 forms in printers connected to a Capintec dose calibrator. Works with Epson ticket or Okidata printers.

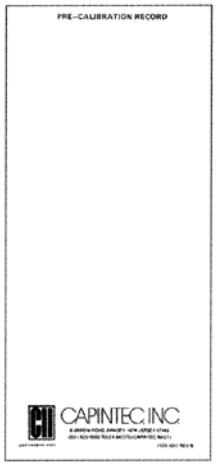


CRP-600C (100 per pack) 7120-1018
CRP-600C (1500 per case) 7120-1242

CRP-700 Pre-Cal Record Tickets

Prints Decay Chart for Vial

Designed for printers connected to a Capintec dose calibrator. Works with Epson ticket or Okidata printers.

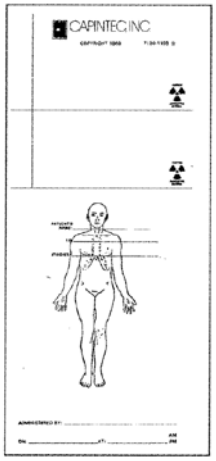


CRP-700 (100 per pack) 7120-1017
CRP-700C (1500 per case) 7120-1243

CRP-200 Dose Tickets And Labels

Duplicate Tickets with Peel-off, Self-Stick Labels

By popular demand we have added the "little patient" to this ticket making it possible to mark the site of injection. Also included, for your convenience, is a place to write the patients Name, I.D. number, Study performed, who administered the dose and when used with the CRC®-25R, 25W, or Ultra, one pass through the printer, produces two copies of each ticket and two easy to remove peel-off labels.



All tickets and labels are easily separated after printing. Use them for patient charts, department log books, and syringe or vial shields. A special adhesive makes labels easy-to-remove after use.

CRP-200 (250 per pack) 7120-1199
CRP-200C (1500 per case) 7120-1240

Mounting Flange

The Mounting Flange allows the chamber for the CRC®-25R to be mounted in a cabinet or fume hood flush with the surface of the counter top, saving counter space. This is a MUST for all hot labs with limited counter space.

This mounting unit is designed to be used with the chamber for the CRC®-25R. It can also be used for the CRC®-15 Ultra, and the CRC®-127R. The flange is made of attractive brushed aluminum that lies flat against the counter top. It allows the well liner insert to be installed from the top and permits removal of the well for cleaning or decontamination.

The flush Mounting Flange is easily installed in existing or new cabinets or hoods. Drawings are available upon request.

Mounting Flange 7310-2307

Reference Standards

Guaranteed Accuracy, Highest Quality Lowest Cost in Industry

Each "E"-vial reference source comes with a certificate of radioactivity calibration that guarantees accuracy within 5%. The critical nature of NRC and agreement state regulations for dose calibrator QC demand the most accurate reference sources available.

Reference sources can be purchased individually, or in cost-effective sets of three or four. Sets come in various combinations of radionuclide sources to fit your needs. An 18 month day to day decay calender is available to eliminate calculations.

If you need a reference source with an activity not listed in this catalog, Capintec can meet your special request promptly. Capintec will arrange for disposal of original source with purchase of replacement source.

Features

- High-quality sources
- Lowest cost (available)
- Guaranteed accuracy within 5%
- Ensures that your dose calibrator meets NRC/Agreement State QC requirements
- Daily 18-month decay calendar
- Purchase individually or in sets
- Return policy eliminates expense of disposal

Co-57 vial- 3 mCi 0975-0573
Co-57 vial- 5 mCi 0975-0006
Co-57 vial- 10 mCi 0975-5710
Cs-137 vial- 100 µCi 0975-0002
Cs-137 vial- 200 µCi 0975-3720
Cs-137 vial- 250 µCi 0975-3725
Ba-133 vial- 250 µCi 0975-0003
Co-60 vial- 100 µCi 0975-0001
Reference Source Set- Co-57 (5 mCi), Co-60 (100 µCi), Cs-137 (200 µCi) 0975-0007
Reference Source Set- Co-57 (5 mCi), Co-60 (100 µCi), Cs-137 (200 µCi), Ba-133 (250 µCi) 0975-0008
Reference Source Set- Co-57 (5 mCi), Co-60 (100 µCi), Ba-133 (250 µCi) 0975-0009
Reference Source Set- Co-57 (5 mCi), Cs-137 (200 µCi), Ba-133 (250 µCi) 0975-0010

(201) 825-9500 / (800) 631-3826

Disk & Rod Sources

Disk Source

Disk Sources are mainly used for checking the performance of GM tubes and NaI detectors. The disks measure 1" (25.4 mm) by 0.25" (6.35 mm) and are manufactured of high-strength plastic. The active diameter of the disk is 0.197" (5.0 mm) with the active area centered in the disk.

Capintec offers the highest quality disk source at the lowest cost (to you.) There are many more nuclide disk sources available than are shown. If you do not find the source you need, call Capintec; we will let you know what is available.

DISK SOURCES ARE 25 mm (0.250") THICK, NIST TRACEABLE +/-5% GAMMA

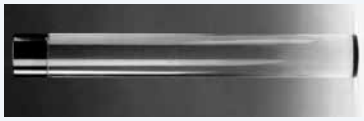
Am-241 0.370 MBq- (10 µCi) Disk 0975-128S
Ba-133 0.037 MBq- (1 µCi) Disk 0975-130S
Cd-109 0.370 MBq- (7-10 µCi) Disk 0975-105S
Cs-137 0.037 MBq- (1 µCi) Disk 0975-131S
Cs-137 0.37 MBq- (10 µCi) Disk 0975-139X
Co-57 0.037 GBq- (1 mCi) Disk 0975-129S
Co-60 0.037 MBq- (.7-1 µCi) Disk 0975-134S
I-129 3700 Bq- (0.1 µCi) Disk 0975-186S
Mn-54 0.037 MBq- (1 µCi) Disk 0975-132S
Na-22 0.037 MBq- (1 µCi) Disk 0975-133S
Co-57, Na-22, Cs-137, Mn-54, Co-60, Ba-133(1 µCi), Cd-109 (7-10 µCi) Disk ALPHA 0975-101S

Am-2410.1 µCi NIST Traceable +/- 5% in A-2 Disk, 0.5mm dia. ALPHA 0975-0241
Sr-90/Y-90 0.1 µCi NIST Traceable +/- 5% in A Disk, 25.4mm dia. BETA 0975-0090
Tc-99 0.1 µCi NIST Traceable +/- 5% in A Disk, 25.4mm dia. BETA 0975-0099

* Shorter 3" size must be custom ordered. When ordering, please specify rod size.

Custom Activities Available Upon Request. Please Call (800) 631-3826

Rod Source



Capintec offers a wide variety of *Rod Sources for well counters to satisfy the needs of your department. These sources are used for calibrating well type NaI detectors. They are constructed of high- strength plastic to withstand the rigors of constant use in a busy department. They have a flat base which allows easy positioning in the vertical position required for consistent accuracy (in the counting of) many tests.

Capintec Rod Sources are calibrated as NIST traceable with an accuracy of ± 5% at the 99% confidence level. Each source consists of a lucite rod measuring 12.7 mm (0.5") x 75 mm (2.95") as a standard size. The active diameter of the rod source is 0.187" (4.75 mm).

ROD SOURCES 12.7mm (0.5") X 127mm (5") NOMINAL CALIBRATION +/-15%

Eu-152- (0.5 µCi Rod) 0975-152R
Cs-137- (0.5 µCi Rod) 0975-137R

ROD SOURCES 12.7mm (0.5") X 127mm (5") NIST TRACEABLE +/-5%

Ba-133 3700 Bq- (0.1 µCi) Rod 0975-138S
Ba-133 0.370 MBq- (10 µCi) Rod 0975-138T
Cd-109 0.037 MBq- (1 µCi) Rod 0975-146S
Cd-109 0.370 MBq- (7-10 µCi) Rod 0975-146T
Cs-137 3700 Bq- (0.1 µCi) Rod 0975-139S
Cs-137 0.037 MBq- (1 µCi) Rod 0975-139R
Cs-137 0.370 MBq- (10 µCi) Rod 0975-139T
Co-57 3700 Bq- (0.1 µCi) Rod 0975-137S
Co-57 37 kBq- (1.0 µCi) Rod 0975-0025
Co-57 0.370 MBq- (10 µCi) Rod 0975-137T
Co-60 3700 Bq- (0.1 µCi) Rod 0975-142S
Co-60 0.037 MBq- (1 µCi) Rod 0975-142R
Co-60 0.370 MBq- (7-10 µCi) Rod 0975-142T
I-129 3700 Bq- (0.1 µCi) Rod 0975-135S
Mn-54 3700 Bq- (0.1 µCi) Rod 0975-140S
Mn-54 0.370 MBq- (10 µCi) Rod 0975-140T
Mn-54 37 kBq - (1.0 µCi) Rod 0975-0026
Na-22 3700 Bq- (0.1 µCi) Rod 0975-141S
Na-22 0.320 MBq- (7-10 µCi) Rod 0975-141T
Na-22 37 kBq- (1.0 µCi) Rod 0975-0027
Rod Set: Co-57, Na-22, Cs-137, Mn-54 Co-60, Ba-133 (0.1 µCi), Cd-109 (1 µCi) Rods 0975-100S
Rod Set: Co-57, Na-22, Cs-137, Mn-54 Co-60, Ba-133 (.1 µCi), Cd-109 (7-10 µCi) Rods 0975-100T

Markers & Rulers

Spot Markers

Our Spot Markers are 1" in diameter by 0.25" and made of clear acrylic. The activity is supplied as a nominal value of ±15%. NIST traceable calibrations with accuracies of ±5% are available. A wooden storage box is also available (upon request).

If the activities above do not meet your specific requirements, give Capintec a call; other activities are available upon request.

"L" and "R" Spot Markers

In order to better mark the orientation of the patient, these spot markers containing 100 µCi of Co-57 identify the Left side and/or the Right side of the patient. The "L" and "R" are clearly identified on the patients film.

Spot Marker- Co-57, 10 µCi 0975-S010
Spot Marker- Co-57, 25 µCi 0975-S025
Spot Marker- Co-57, 50 µCi 0975-S050
Spot Marker- Co-57, 100 µCi 0975-S100
Spot Marker- Co-57, 200 µCi 0975-S200
Spot Marker- Au-195, 30 µCi 0975-8030

Rigid Ruler

The Capintec Rigid Ruler is a plastic tube 0.197" (5.0 mm) in diameter, containing 15 sequential 0.394" (10.0 mm) sections of Co-57 and inactive lead. The overall length of the ruler is 6.7" (17 cm) with an active length of 5.91" (15.0 cm). Contained activity is supplied as a nominal value ±15%. The standard Capintec Rigid Ruler contains 140 µCi (0.74 MBq) of Co-57. Other activities are available upon request.

Rigid Ruler- Co-57, 140 µCi 0975-RR57

Penpoint Markers

The Penpoint Marker is used in tracing the outlines of anatomical features on a patient. The trace appears almost instantly on the gamma camera display. Capintec's Penpoint Markers contain 100 µCi of Co-57 in a bead at the end of an anodized aluminum rod. The pen-shaped rod screws into a brass cap which shields the active point.

Pen Marker- Co-57, 100 µCi 0975-P054

Flexible Marker

Flexible Markers are useful in outlining anatomical parts or borders of organs on patients. Co-57 is uniformly dispersed in an epoxy matrix and contained in a 2.4 mm flexible plastic tube. The overall and active length of the marker is 19.7" (50 cm).

Flex Marker- Co-57, 50 µCi 0975-F050
Flex Marker- Co-57, 150 µCi 0975-F150
Flex Marker (Long)- Co-57, 3 µCi 0975-0283

Flexible Rulers

The Capintec Flexible Ruler is a plastic tube 0.19" (4.8 mm) in diameter, containing 45 sequential 0.394" (10.0 mm) sections of Co-57 and inactive lead. The overall length of the ruler is 18.5" (47 cm), with an active length of 17.7" (45 cm). Contained activity is supplied as a nominal value ±15%. The standard Capintec Flexible Ruler contains 20 µCi (0.74 MBq) of Co-57. Other activities are available upon request.

Flex Ruler- Co-57, 440 µCi 0975-FR57
Flex Ruler- Co-57, 460 µCi 0975-8005*
Radioactive Ruler- Co-57, 160 µCi 0975-8004*
Radioactive Pointer- Co-57, 50 µCi 0975-0260*

Other activities are available upon request.

*Produced three times per year. Order by Feb. 1st, June 1st, or Oct. 1st.

(201) 825-9500 / (800) 631-3826

Cobalt-57 Flood Source Phantoms

In today's market we must look for the best value. That does not necessarily mean the lowest price, but it does mean that the product you buy must meet its expected performance standards while providing a sufficient margin of safety and reliablilty. Most of the present Flood Source manufacturers understand this and have strived to meet this criteria.

Give Capintec an Opportunity to Provide Your Flood Phantom

Capintec's interest in the Flood Source business is to provide you, the customer, with the BEST POSSIBLE VALUE to meet the quality control you must have. Therefore, Capintec pledges to offer you the best service for your Flood Source needs regardless of phantom size, activity, manufacturer or time of need. We also provide sources for special requirements with transmission sources and as needed special activity amounts for floods.

Full Line of Flood Sources

We have available, circular and rectangular flood phantoms for standard, LFOV, Dual and Triple Head Cameras. Capintec offers FREE disposal of your old floods when you place an order for a new one, relieving you of that concern.

RECTANGULAR FLOOD SOURCES (Active Area Listed)

Co-57 Flood- 18" x 14," 185 MBq (5 mCi) 0975-0017
Co-57 Flood- 18" x 14," 370 MBq (10 mCi) 0975-0018
Co-57 Flood- 23.9" x 16.4," 185 MBq (5 mCi) 0975-0019
(Alternate sizes for Rect. Floods listed below are 23" x 17")
Co-57 Flood- 23.9" x 16.4," 370 MBq (10 mCi) 0975-8400
Co-57 Flood- 23.9" x 16.4," 555 MBq (15 mCi) 0975-0020
Co-57 Flood - 23.9" x 16.4," 740 MBq (20 mCi) 0975-8450

CIRCULAR FLOOD SOURCES (Active Area Listed)

Co-57 Flood- 14," 111 MBq (3 mCi) 0975-0296
Co-57 Flood- 14," 185 MBq (5 mCi) 0975-0297
Co-57 Flood- 18.5," 111 MBq (3 mCi) 0975-0393
Co-57 Flood- 18.5," 185 MBq (5 mCi) 0975-0391
Co-57 Flood- 18.5," 370 MBq (10 mCi) 0975-0392
Co-57 Flood- 18.5," 740 MBq (20 mCi) 0975-0014
Co-57 Flood- 23.5/24," 185 MBq (5 mCi) 0975-8009
Co-57 Flood- 23.5/24," 370 MBq (10 mCi) 0975-8012
Co-57 Flood- 23.5/24," 740 MBq (20 mCi) 0975-0015
Co-57 Flood- 18.50," 74 MBq (2 mCi) 0975-0390

Perflexion Flood Source

Eckert and Ziegler Isotope Products Perflexion flood source eliminates bulk and weight with its unique tungsten composite shield. Together with the superior uniformity, low impurities and excellent durability, Perflexion makes every other source obsolete.

Features

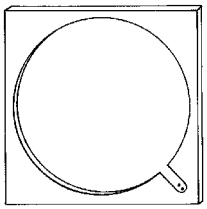
- Lightest Weight – weighs less than 29lbs including the tungsten shield and soft case
- Smallest form factor – source rolls to fit in a 6"x6"x22" tube for convenient storage.
- Best Shielding – 5-10 times better than lead cases.

23.9"x16.4" 10 mCi Co57 0975-0060
23.9"x16.4" 5 mCi Co57 0975-0061
23.9"x16.4" 15 mCi Co57 0975-0062
23.9"x16.4" 20 mCi Co57 0975-0063

Fillable Flood Sources

Designed for More Uniformity Required by SPECT

Capintec's fillable floods are plastic forms with a water-tight central cavity that holds radioactive solution. To increase their accuracy in testing uniformity, these floods are designed for horizontal filling, which prevents the bulging caused by water pressure during vertical filling and ensures greater uniformity of radioactivity distribution. This enhanced uniformity is particularly important when testing SPECT systems.



Features

- Horizontal filling
- Built-in bubble trap

Specifications

- Rectangular: cavity 16" W x 21" H x 0.5" D (40.6 x 53.3 x 1.3 cm), 10 lb. (4.5 kg)
- Jumbo: cavity 17" (43.2 cm) diameter, 0.5" (1.3 cm) thick, 9 lb. (4 kg)
- Gigantic: cavity 22" (55.9 cm) diameter, 0.5" (1.3 cm) thick, 13 lb. (5.6 kg)

Rectangular Flood Phantom 5250-0801
Jumbo Flood Phantom 5250-0804
Gigantic Flood Phantom 5250-0807

Capintec "L" Bench Shields

Capintec "L" blocks provide effective radiation protection without a larger cost

Capintec has studied the working area in the Hot Lab and has designed an "L" shield that provides greater protection without a bigger price tag. The lead glass is 4.8 gm/c³ while not sacrificing optical quality. Capintec "L" Shields are provided with 1/4" lead glass, plus 1/4"clear glass to protect the lead glass from scratching during use. Additional thicknesses of glass are available, if required. The 1/4" lead shield is designed with a steel frame and base.

Features

- 4.8 g/cm3 density lead
- Industry exclusive 1/4" clear glass to protect lead glass from scratching.
- Total Frontal shielding for safety (no plastic or particle board and no air gaps).
- The shields are painted with a high gloss epoxy paint, for easy cleaning.

Capintec Mini "L" Shield

The Mini "L" shield offers the greatest in flexibility of positioning. This smaller unit is perfect for those very small work areas where additional protection is required for temporary storage of syringes or vials. Excellent for remote stations where syringes must be filled or as an additional work station.

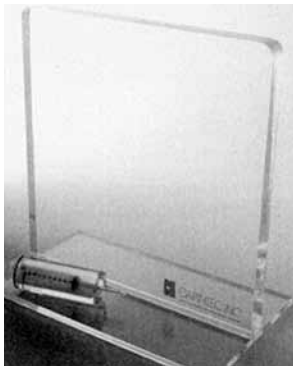
Specifications

- 12" w x 12"d x 16 3/4" h.
- 1/4" Lead glass.
- 1/4" Lead shielding.
- Optional Side shielding 1/4"
- Additional 1/4" Lead Glass
- Additional 1/4" plain glass
- Weight: 35 lbs.

Mini "L" Shield 5130-2086
Additional Lead Glass for Mini 1000-0207
Additional Plain Glass for Mini 1000-0208
Side Shields for Mini "L" Shield 7310-1302

Acrylic "L" ßETA Shield

This crystal-clear acrylic portable "L" shield is designed to provide a safe working area for handling pure beta emitting nuclides. With dimensions of 12.125" high by 11.75" wide on a stable base, the ßETA Shield offers an excellent viewing area. The shield is a full inch-thick stopping beta radiation from nuclides producing up to 5 MeV energies. With all these features, the Capintec ßETA "L" Shield is an excellent companion to the ßETA Dose Calibrator.



Acrylic "L" Beta Shield 5130-2083

Capintec Standard "L" Shield

The Standard "L" shield is the favorite as a drawing station and as a storage shield for unit doses with easy access. Side shields or lead brick may be used to form walls when the Standard shield is used to store higher activity or for additional shielding. Capintec offers shields with lead greater than the standard 1/2" when working with afterloaders or PET products. (see PET section for more info.)

Specifications

- 18 1/2" w x 17 3/4" d x 26" h.
- 1/4" lead glass.
- 1/2" lead shielding.
- Optional Side Shield 1/4"
- Additional 1/4" Lead Glass
- Additional 1/4" plain glass
- Weight: 100lbs

Standard "L" Shield 5130-2090
Additional Lead Glass for Standard 1000-0211
Additional Plain Glass for Standard 1000-0209
Side Shields for Standard "L" Shield 7310-1305

Brand New Beta/Gamma "L" Shield

Manufactured by Capintec for facilities that use both Beta emitting and Gamma emitting nuclides.

Features

- Utilizes all the specifications and features of the Standard "L" block, with a 1/4" acrylic plastic interior "L" Shield.
- Two shields in one (Beta/Gamma).
- Avoid the hassle of switching out "L" blocks.
- Weight: 100 lbs

Standard "L" Shield 5130-2090
Beta Shield Insert 5130-2161

(201) 825-9500 / (800) 631-3826

Nuclear Medicine Protection Barriers

Nuclear Medicine Mobile Barrier

This easy-to-position shielding system gives clear visibility of patient while protecting the personnel. The CLEAR-Pb Mobile Barrier has a large shatter-resistant lead-plastic window (0.8 mm lead equiv.) which blocks nearly 90% of Tc-99m emissions. The lower panel is lined with 1.5mm of lead to give full body protection.

The barrier is large enough to shield two persons at once. Heavy-duty, easy-glide casters allow the user to position in seconds.

Features

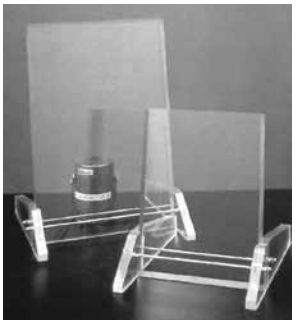
- Provides shielding for patient emitted radiation
- Easy to position in a selected location
- Shatter-resistant CLEAR-Pb® window

Specifications

- CLEAR Pb Viewing panel 24" x 36"
- Opaque lower panel 34" high x 36" wide.
- Weight: 170 lbs.

Nuclear Medicine Mobile Barrier 0651-0010

Clear-pb® "L" Block Shields



This Clear-Pb table top "L" shield offers protection from low energy gamma and beta radiation while providing complete visibility of the work area. The truly portable shield is rugged, shatter-resistant and is made from a lead impregnated polymer providing full working accessibility plus full protection of your face and upper body. The Clear-Pb Shields are offered as a Mini 12" (H) x 9" (W), Standard 18" (H) x 12" (W), or Jumbo 24" (H) x 15" (W) sizes.

Nuclide	I-125	Xe-133	Co-57	Tc-99	123	Ga-67
Attenuation	99.9%	97.6%	99.8%	98%	99.5%	67%

Features

- Totally clear and distortion-free for easy viewing
- Provides 1.5 mm lead equivalency
- Portable for use in many areas
- Available in three sizes

Mini-Clear-Pb "L" Shield 5730-0033
Standard Clear-Pb "L" Shield 5730-0031
Jumbo Clear-Pb "L" Shield 5730-0032

Lead Mobile Shield Barrier

As the volume of PET scans increases, so does radiation exposure to personnel, patients, and visitors. In response to this growing safety concern, Capintec has developed Modular Personal Shields. Designed with the flexibility to adapt to a wide variety of facility configurations, standard 4 ft high interlocking panels are available in 3, 4 and 5 ft lengths with either ¼ inch or ½ inch lead. Optional wall mount brackets also available.

These shields are ideal for adding an extra layer of protection, and assuring radiation levels are As Low As Reasonably Achievable in the most cost effective manner.

Lead Mobile Shield Barrier 0695-2249

Modular Personal Shield

Designed with the flexibility to adapt to a wide variety of facility configurations, standard 4 ft high interlocking panels are available in 3, 4 and 5 ft lengths with either ¼ inch or ½ inch lead. Optional wall mount brackets also available.

Modular Personal Shield- 5' Panel with 1/4" Shielding.....5520-0322
Modular Personal Shield- 4' Panel with 1/4" Shielding.....5520-0323
Modular Personal Shield- 3' Panel with 1/4" Shielding.....5520-0324

Pin-Tec™ Syringe Shield

Capintec's PIN-TEC syringe shield incorporates the most popular design in syringe shields today. It is built to withstand the rigors of daily use by using a unique pin-action that grips the syringe and prevents it from inadvertently backing out or twisting in the shield. Capintec's unique bright yellow florescent gloss reflects light better, which brightens the view of the syringe.

The tungsten alloy used gives a technologist maximum protection available. This syringe shield has a 2.2mm thick tungsten wall, which is currently thicker than all other nuclear medicine syringe shields.

Features

- Unique sharp pins hold the syringe in shield
- 2.2 mm thick tungsten wall is thickest on market
- Bright yellow florescent interior for easy viewing
- One hand operation to remove syringe

1 cc Pin-Tec Syringe Shield 4300-0034
2cc Pin-Tec Syringe Shield 4300-0060
3 cc Pin-Tec Syringe Shield 4300-0035
5 cc Pin-Tec Syringe Shield 4300-0036
10 cc Pin-Tec Syringe Shield 4300-0037

C-Tec™ Syringe Shield

The C-Tec Syringe Shields by Capintec offer efficient shielding, while not restricting the ease of use even in the smallest hands. Capintec's unique bright yellow florescent gloss reflects light better, which brightens the view of the syringe. This shield features a plasticized rubber ring around the glass, which prevents shattering and reduces breakage.

A standard thumb screw holds the syringe firmly in place. Both sides of the syringe shield are taped for insertion of the thumb screw making it equally convenient for left hand or right-hand users.

Features

- Tungsten alloy with lead glass viewing port
- Bright yellow florescent interior for easy viewing
- Slim design for ease of use
- Unique rubber lining protects lead glass
- 1.75mm tungsten wall thickness

1 cc C-Tec™ Syringe Shield 4300-0030
2 cc C-Tec™ Syringe Shield 4300-1059
3 cc C-Tec™ Syringe Shield 4300-0031
5 cc C-Tec™ Syringe Shield 4300-0032
10 cc C-Tec™ Syringe Shield 4300-0033

T-Vial Shields

Capintec T-Vial shields have the same shielding characteristics as the lead vial shields with the added Durability and greater stopping power of Tungsten.

Features

- The Tungsten T-Vial shield is more rugged than its lead counterpart.
- The top features a sliding top that when opened allows access to the encased vial.
- Vials can be loaded from top or bottom.

Specifications

- 1.45" outside diameter x 2.85" high.
- 1.06" inside diameter.
- 0.195" thick tungsten shielding (0.32" Lead equivalence).
- Weight: 1.6 lbs.

T-Vial Shield 0665-0002

Needle Safe II Recapper

Complies with OSHA Regulations

The Needle Safe II enables single-handed uncapping and recapping of syringes/needles. The universal gripper core securely grips not just needle caps but vacutainer and IV catheter caps. The Needle Safe II can be sterilized and it can be mounted on a countertop, injection or instrument stand.

Needle Recapper 4300-0054

Pin-Tec™ BETA Syringe Shields

The Pin-Tec ßETA Syringe Shield is designed using push clip for one handed release. The clear acrylic allows full visibility of the volume in the syringe. One hand operation assures ease-of-use. Available in 5 cc and 10 cc sizes.

Features

- Uses the Pin-Tec design latch to hold syringe
- Light weight and easy to position
- Specifically designed for beta nuclides

Pin-Tec™ ßETA Syringe Shield (5/6 cc) 4300-0028
Pin-Tec™ ßETA Syringe Shield (10/12 cc) 4300-0029

Optional Accessories for C-Tec/Pin-Tec Shields

Replacement Glass for 3 & 5 cc C-Tec/Pin - Tec 1000-0224
Replacement Glass for 10 cc C-Tec/Pin - Tec 7310-1601
Replacement Glass for 1cc C-Tec/Pin - Tec 7310-1603

(201) 825-9500 / (800) 631-3826

Pin-Tec™ BETA Plus Syringe Shields

The new Pin-Tec Beta Plus from Capintec will provide a superior level of protection for anyone handling pure beta emitting radioisotopes. The Pin-Tec design utilizes a double-pronged grip for maximum syringe hold with an easy release push clip for quick syringe release. The shield is constructed of acrylic and the exterior is encased with a thin layer of lead to shield Bremsstrahlung.

The Beta Plus comes in 5cc and 10cc models.

Features

- Designed for pure beta emitters
- 1 cm acrylic with 0.2 cm lead casing
- Light weight and easy to handle

Pin-Tec ßETA + Syringe Shield (10 cc) 4300-1057
Pic-Tec ßETA + Syringe Shield (5 cc) 4300-1058

Lead Glass Syringe Shield

This high density lead glass shield provides almost 2.5 mm lead equivalent shielding and offers complete 360° visibility. The stainless steel syringe holder fits most 3 and 5 ml syringes. The end steel cap offers the protection from breaking.

Lead Glass Syringe Shield (3-5 ml)..... 4300-0619
Lead Glass Syringe Shield (up to 10 ml) 4300-0620
Lead Glass Syringe Shield (up to 30 ml) 4300-0621

Glass Vial Shield

The unique design of our Capintec lead glass vials shields reduces hand exposure and offers complete 360° visibility during operating low/ medium energy radio-pharmacy. Automatic centering actioon gives a perfect alignment for extra safety and convenience.

Features

- 360° visibility lead glass protection
- Double top stainless steel protection
- Plastic adaptors to accommodate vials from 5 ml to 30 ml
- 5 mm lead equivalent shield

Vial Shield, Lead Glass, 10 cc 4300-0622
Vial Shield, Lead Glass, 30 cc 4300-0623

Multi-Syringe Holder

Designed to cleanly hold up to 6 syringes easily while providing maximum protection, Capintec has designed the Multi-Syringe Holder with 1/8" lead in the walls, top and bottom of the shield. The openings will contain syringes of 1 cc to 10 cc. Also available but not pictured is a Multi-Syringe Holder with openings able to hold 1 cc to 10 cc syringes in a syringe shield. This offers extra protection when several doses must be drawn at once and stored prior to patient studies.

Specifications

- Unshielded: Size: 6” H x 6” O Dia. (15.2 x 15.2 cm) Weight: 4 lbs (1.8kg)
- Shielded: Size: 5” H x 6” O Dia. (12.7 x 15.2 cm) Weight: 3.3 lbs (1.5kg)

Syringe Holder (multiple)For Unshielded Syringes 0670-0001
Syringe Holder (multiple)For Pin-Tec or C-Tec Shielded Syringes 0670-0020

Syringe Holder

The Syringe Holder gives protection to the technologist, provides safe storage, and facilitates hand carrying of syringes containing radioisotopes. The Syringe Holder is designed to hold syringes that have been placed in a syringe shield. This unit can hold syringes from 2 to 20 cc.

Multiple Syringe Holders are available to safely store and/or transport up to 5 syringes in a single holder.

Specifications

- Size: 6 1/8” H x 2 3/8” O Dia. x 1” I Dia (15.6 x 6 x 2.5cm) Weight: 4 lbs (1.8kg)

Syringe Holder (single) 0670-0002

Shielded Storage Vessel

This Stainless Steel container is ideal for containment of syringes or low energy gamma sources. The vessel features a snug fitting cover and recessed handle plus easy-to-clean seamless construction. The container is completely lined with 1/8" lead and is available with optional liners. The outside dimensions are: 4 7/8" diameter and 6 1/2" high. Weight is approximately 7 lbs.

Specifications

- Size: 6 1/2” H x 4 7/8” O Dia. x 4 3/8” I Dia (16 1/2 x 12.4 x 11.1cm) Weight: 7 lbs (3.2kg)

Small Shielded Vessel 0670-0009

CII Transporter Shielded Syringe Carrier

The Capintec syringe and vial TRANSPORTER is designed to minimize cost and maximize function. The handle is attached to the body of the carrier which permits the the lid to be easily lifted for syringe removal. The inside floor of the TRANSPORTER contains an insert designed to keep syringes separated and held in place. The large interior accommodates shielded 10 cc syringes as well as unshielded 20 cc vials. The TRANSPORTER is shielded all around with 1/8" lead and measures 7"x3" wide x 3”high.

Specifications

- Size: 7 7/8” H x 10 1/2” O L x 4” O W x 9” Int L x 3 1/16 Int W(20 x 26.7 x 10.2 x 22.9 x 7.8cm) Weight: 9.8 lbs (4.4kg)

CII Transporter 0670-0007

Rotund Container With Handle

Some activities call for greater shielding than is usually available in the department. The Rotund Lead container is designed with full 1" thick shielding and is provided with an easy carry handle attached. This shield will hold vials up to a 30 cc vial and can even be used in PET for quick transport of product when portability is required.

Specifications

- Size: 6 1/2” H x 3 1/2” O Dia. x 1 1/2” I Dia (16.5x 8.9 x 3.8cm) Weight: 22 lbs (10kg)

Rotund Container with Handle 0670-0010

CII Transporter II For PET

The Capintec PET Transporter II is designed for low cost and maximum function. The handle is attached to the body of the carrier allowing the lid to be lifted easily for syringe removal. The Transporter II contains .125” lead on the top, bottom, front and back; it has an additional .5” lead on each end. This increases the shielding during transport for a 511 Syringe Shield with syringe.

Specifications

- Size: 7 7/8” H x 10 1/2” O L x 4” O W x 8 1/4” Int L x 3 1/16” Int W(20 x 26.7 x 10.2 x 21 x 7.8cm) Weight: 12 lbs (5.4kg)

CII-II PET Transporter 0670-2026

(201) 825-9500 / (800) 631-3826

Vertical Drop CII Sharps Shield

Capintec offer the most complete line of Sharps Shields and containers available for Nuclear Medicine. These Sharps leaded container cabinets offer a convenient way to store spent syringes in a safe manner. Two sizes are shown: One is designed for containment of one medium-size Chimney-Top Monoject® Sharps container and the other holds two small or one large Monoject Sharps Container.

The Vertical Drop CII Sharps Shield comes with a Key-Lock safety feature not found elsewhere . The hinged top is easily opened to remove the Sharps container for replacement, requiring no removal of a heavy lid. Shielded with 1/8" lead, this unit can be specified with 1/4" shielding.

The Vertical Drop CII Sharps is designed to use a Chimney-Top Sharps Container which protects the user's fingers in use.. Convenient needle notches facilitate safe and rapid removal of needles from tube holders.

Features

- All units have Key-Lock tops to meet OSHA requirements
- Table Top or Flush Mount in work counter
- Single or double stacked models
- Lead thickness 1/8" or 1/4"
- Hinged top for easy opening and removal of sharps

Specifications

- Standard Model: Shielding: 1/8" lead with 4 pi shielding; Size: 7.25" W x 11" L x 11" H; Weight: 54lb.
- Tall Model: Shielding: 1/8" lead with 4 pi shielding; Size: 7.25" W x 11" L x 18" H; Weight: 76lb.

Vertical Drop CII Sharps Shield (Standard)..... 0660-0018
Vertical Drop CII Sharps Shield (Tall)..... 0660-0019
Monoject Sharps Medium (For Standard) Box of 20..... 0660-1811
Monoject Sharps Large (For Tall) Box of 10..... 0660-1812
Monoject Sharps Small (For Tall) Box of 40..... 0660-1813

Horizontal Drop CII Sharps Shield

These Sharps leaded containers are available for Nuclear Medicine needs. Shown are: one designed for containment of one medium size Horizontal-Entry Monoject® Sharps Container or one medium Gator Sharps container; the other holds one tall Gator Sharps container.

The Horizontal Drop CII Sharps Shield comes with a Key-Lock safety feature, and hinged top and easy opening for replacement. Shielded with 1/8" lead, this unit can be specified with 1/4" shielding.

The Horizontal Drop CII Sharps is designed to use a Horizontal-Entry Sharps Container with greater filling capacity since the syringes lie flat.

Features

- All units have Key-Lock tops to meet OSHA requirements
- Lead thickness 1/8" or 1/4"
- Hinged top for easy opening and removal of sharps

Specifications

- Standard Model: Shielding: 1/8" lead with 4 pi shielding ; Size: 7.25" W x 11" L x 11" H; Weight: 52lb.

Horizontal Drop CII Sharps Shield (Standard)..... 0660-0038
Davon Gator Sharps Medium (For Standard) case of 30..... 0660-1832

Big Digit Timer

Read Your Timed Studies Easily From Across the Room

This large screen small timer has two channels allowing one channel to count up and the other to act as a clock, or to display two count down channels. This permits simultaneous timing of two procedures of different lengths. Perfect for timing those critical kit preparation times.

The display is a full 3" wide by 2 1/2" high. The timer can be mounted on the wall, carried in a lab coat pocket or folded and placed on the bench top. It features a large start/stop button and a loud alarm.

Big Digit Timer 5250-0048

Mechanical Timer/Alarm

The count-down timer/alarm requires no batteries or AC power. It is spring-powered and goes anywhere it's needed. Time intervals are from 15 seconds to 2 hours. Built for laboratory use, it is chemical resistant.

Mechanical Timer/Alarm..... 5250-0049

Corning® Hot Plate

This hot plate is perfect for heating sulfur colloid and other kits that require specific and constant temperatures.

Corning hot plates feature unique Pyroceram® glass ceramic tops that heat and cool evenly and quickly, and resist stains from corrosion, rust and scratching. Overhang design protects against accidental spills. Heat settings range from 65 to 510°C (149 to 950 °F).

Corning Hot Plate (120) 0651-0009
Corning Hot Plate (230) 0651-0018

Forceps

These forceps are perfect for gripping vials rather than handling them with your hand. The serrated jaws and looped tip assure a solid grasp on the vial. The 9 1/2" length of these forceps reduces exposure. They are available straight or curved.

Straight 9 1/2" forceps 0645-0025
Curved 9 1/2" forceps 0645-0026

Utility Portable Lab Tray

This durable lab tray made of Nalgene® (high-density polyethylene for strength and ease of cleaning) is perfect when you must go to the patient to give an injection or draw blood. The tray measures 15" long by 13 3/4" wide by 4 3/8" deep, The molded handle in the center is placed high for stability. There is a center divider and inserts are supplied to help separate samples placed in the tray.

Utility Lab Tray 0652-0014

Cap-Tongs

CAP-TONGS were designed for use in Capintec's own facility to pick up vials. We now offer this simple device to you for use in your lab. The CAP-TONGS are made of aluminum with rubber tips for a positive grip on the vial. Standard length is 9".

CAP-TONG 9" Forceps 0645-0022

(201) 825-9500 / (800) 631-3826

Fume Free™ Radioiodine Fume Hood

Capintec's Fume FreeTM hood is custom designed to work effectively in situations involving the use of I-131, I-125 or any other iodine compound.

This portable unit, is efficient in reducing exposure from chemical fumes without exterior venting. This is accomplished through the special filtration system mounted on the hood.

Features

- Designed specifically to trap radioactive iodines
- Ultra quiet blower with low vibration
- Meets or exceeds all NRC and ANSI requirements
- • Options include outside venting adapter, light kit, stainless steel cart
- Multiple sizes and other options available
- Correct size for insertion of Capintec's Mini "L" shield
- Capintec quality with full year warranty

Fume Free..... 5730-0029
FUME-CAP Radioiodine Hood (24")..... 5730-0034
FUME-CAP Radioiodine Hood (30")..... 5730-0035
FUME-CAP Radioiodine Hood (50")..... 5730-0036

Radiation Fume Hoods

Radiation Fume Hoods in a wide variety of configurations are now available from Capintec. The hoods are constructed of type 304 stainless steel and include an integral bottom with cup sink option. The one piece interior is free of joints, cracks, or crevices which prevents buildup of residue and simplifies decontamination procedures. Available in six colors to match your lab decor, these radiation fume hoods can be configured for a seated or standing working height. Because of the unique air flow and accessory requirements that are typical for radiation fume hood applications please contact Capintec to discuss your special needs.

Features

- Capintec offers both shielded and standard configurations
- 4 and 6 foot lengths available
- 1 1/4" and 2" lead shielding also available
- Custom configuration services available
- Optional integrated mobile lead glass work shields
- Three remotely controlled service fixtures
- Dedicated remote blower for superior exhaust characteristics

Radiation Fume Hood 4 ft...... 5730-0025

Laminar Flow Hoods

Capintec now offers a complete line of CLASS II type total exhaust safety cabinets for the most exacting requirements. These cabinets provide the highest levels of worker protection when using toxic chemicals and radionuclides. The interior of the cabinet is 304 stainless steel and includes a removable leak tight, 18 gauge stainless steel work surface.

Available in widths up to 6 feet, laminar flow hoods can be outfitted with standard or custom base units as well as optional service fixture kits and canopies. The hoods feature both supply and exhaust HEPA filtering, secured by a spring loaded clamping system. Because of the variety of installation options available, please contact Capintec for assistance with your specific application needs.

Features

- Purifier CLASS II type total exhaust cabinets for laminar flow applications
- Easy access filter replacement for minimal down time
- 3/8" clear safety glass sash (three position)
- Variable speed blower to optimize power consumption
- NSF listed. Meets NSF standard # 49
- Face velocity alarm to protect operator from contamination
- Dedicated remote blower for superior exhaust characteristics
- Optional 1 1/4" and 2" lead shielding
- Optional U.V. lighting and service fixtures

Laminar Flow Hood 4 ft. 5730-0024

Interlocking Lead Brick

Interlocking chevron lead bricks make it easy to erect, modify and relocate protective walls and cells of any size. Their V-shaped edges eliminate the danger of leakage common to all straight edged bricks and create sturdier walls with less chance of toppling.

The system accepts lead glass windows, remote handling tools and other accessories which can be removed and used for other projects. All bricks are guaranteed to be homogeneous and free of air voids.

Standard Constructions

The construction of an interlocking enclosure requires careful calculation for selection of the proper combination of bricks. To simplify ordering, there are 3 enclosures on the following page, using 3 walls, which show the quantity and descriptions of the brick required.

Description		Size of enclosure		
			Config. A	Config. B
Config. C				
Inside length		26"	22"	18"
Inside depth		22"	18"	14"
Height		14"	14"	14"
Qty	Qty	Qty		
ITEM #	Type of Brick	Config. A	Config. B	Config. C
7410-0023	Standard	44	36	28
7410-0024	Base	22	18	14
7410-0025	Top	22	18	14
7410-0026	Corner	8	8	8
7410-0027	Corner Base	4	4	4
7410-0028	Corner Top	4	4	4
Shipping Weight, lbs	(Total)	1204	1019	834

Features

- Homogeneous and void free
- V-shaped (chevron) allowing no open joints
- Unlimited configurations
- Optional lead glass viewing window
- Shielded remote manipulators

Standard 2" x 4" x 4" 13.2 lb. 7410-0023
Base 2" x 4" x 4" 14.9 lb. 7410-0024
Top 2" x 4" x 2" 6.23 lb. 7410-0025
Corner 2" x 4" x 4" 19.68 lb. 7410-0026
Corner Base 2" x 4" x 4" 20.64 lb. 7410-0027
Corner Top 2" x 4" x 2" 5.77 lb. 7410-0028
Wall Sphere Unit 2" x 4" x 8" 26.2 lb. 7410-0029
Lead Glass Window 4" x 4" x 8" 49 lb. 1000-0212

Lead Glass Brick

Modular Radiation Shielding Using Lead Glass Bricks

These Lead Glass Bricks are made from unique Hi-D® lead glass. Mounted in steel frames, they can be used to customize a permanent or temporary installation providing a high shielding capability without compromising optical clarity. Each inch of glass thickness provides the equivalent of approximately 10 mm of lead.

Lead Glass Brick 4" x 8" x 2" (10 x 20 x 5 cm) 7440-0001
Lead Glass Brick 4" x 8" x 4" (10 x 20 x 10 cm) 7440-0002
Lead Glass Brick 8" x 8" x 2" (20 x 20 x 5 cm) 7440-0003
Lead Glass Brick 8" x 8" x 4" (20 x 20 x 10 cm) 7440-0004

Chevron Lead Brick

For The Best Protection — Chevron Brick

The flat surface of rectangular lead brick gives good protection. But for maximum protection, we offer interlocking chevron bricks. Their V-shaped edges allow safe and easy stacking to form a walled enclosure, thus minimizing the chance of collapsing. Capintec offers several sizes and thicknesses as well as end and corner brick to meet your particular requirements.

Chevron Lead Brick 2" x 4" x 8" 7410-0002
Right Corner Chevron Lead Brick 7410-0003
Left Corner Chevron Lead Brick 7410-0004
Chevron Lead Brick 2 3/8", 60 mm Thick 7410-0008

Lead Brick Painted Options

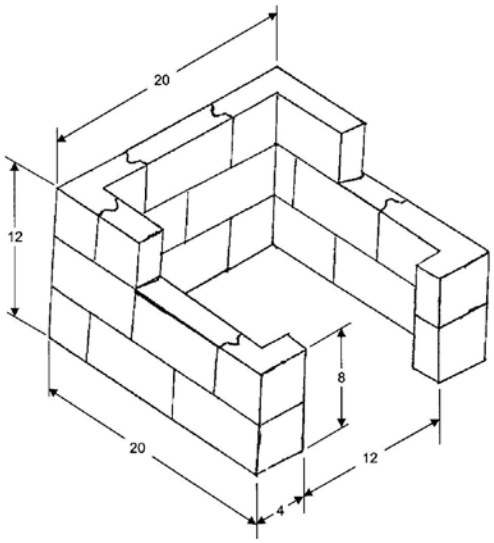
Capintec will paint any lead brick type to protect users with durable epoxy paint.

Lead Brick painting Option 2500-4179

(201) 825-9500 / (800) 631-3826

3 Walled Brick Enclosures

Item # 5530-2074

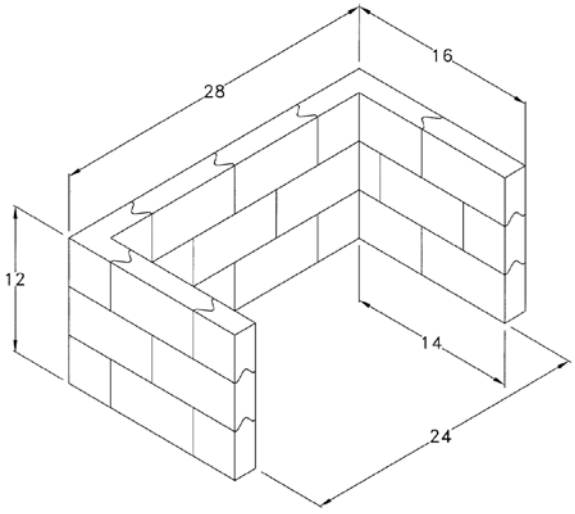


New configuration will completely enclose your 511 L block for added radiation protection.

Specifications

- Lead Brick Enclosure 2 " lead
- 12" H x 20" W x 20" D (outer)
- Weight 475 lbs.

Item # 5530-1030

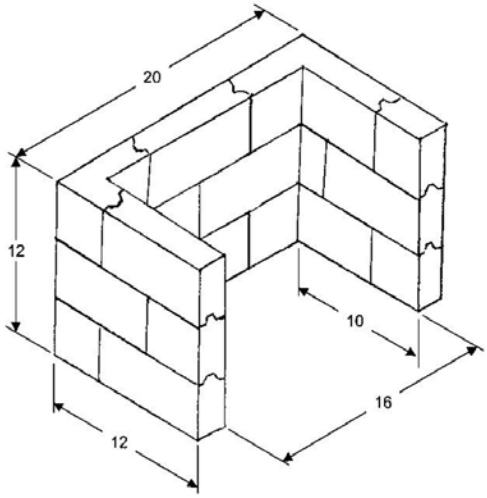


Larger 3 sided cave provides flexible placement of L block, easy side access, and more room for source storage

Specifications

- Lead Brick Enclosure 2 " lead
- 12” H x 28" W x 16" D (outer)
- Weight 550 lbs

Item # 5530-2010

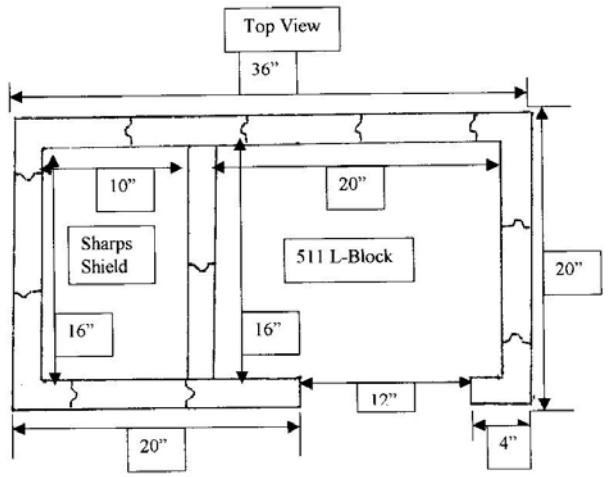


Designed to provide radiation shielded for fit 511 shielded sharps containers

Specifications

- Lead Brick Enclosure 2 " lead
- 12” H x 20" W x 12" D (outer)
- Weight 400 lbs

Item # 5530-2079



2 connected caves designed to snugly L block and completely enclose sharps container

Specifications

- Lead Brick Enclosure 2 " lead
- 16" H x 36" W x 20" D
- Weight 1050 lbs

Square Lead Container

This is an ideal storage container for the small hot lab where space is at a premium. The 1/2" walls offer adequate protection from exposure to radiation from most nuclides used in the Nuclear Medicine Department. The shield has a removable tray that provides a second level for maximum use of the storage area. Carrying handles are on the tray, cover and sides of container. The clasp on the lid allows locking of the shield to meet requirements, and the unit dimensions are 9” H x 9” W x 9” D and weighs 125 lb.

Square Lead Storage Container..... 0660-2880

Waste Storage

Apache Low Cost Waste Container

As an alternative to the stainless steel container, Capintec offers an economical foot-operated waste container in several sizes. The Apache Waste Container is epoxy painted for easy cleaning and is lined with 1/8" lead on sides, top and bottom. Additional thicknesses of lead may be requested.

15 Gal Apache Style..... 0660-0002
Dolly for 30 gallon container 0645-0021

Lead-Lined Decay Drum

These rugged containers will meet your needs for both short and long term storage of radiopharmaceuticals for decay. The lead-lined walls within the steel container drums significantly reduce the radiation hazard of waste generated in both the Nuclear Medicine Department and Nuclear Pharmacy. Our various sizes and lead wall thicknesses permit you to choose the Waste Container Drum that will best suit your needs.

Features

- Made of 14 Ga-steel with regular barrel tops for sealing
- Waste drums come in 15 gal, 30 gal and 55 gal sizes
- Lined with 1/4" or 1/8" lead
- Dolly permits easy movement

15 Gal Waste Drum- 1/8" lead
15” OD x 27” H x 13” ID x 26” ID H x 95 lb...... 0660-1518
15 Gal Waste Drum- 1/4" lead
15” OD x 27” H x 13” ID x 25 1/4” ID H x 110 lb. 0660-1514
30 Gal Waste Drum- 1/8" lead
19 1/2” OD x 29” H x 18” ID x 25 1/4” ID H x 195 lb. 0660-3018
30 Gal Waste Drum- 1/4" lead
19 1/2” OD x 29” H x 17 3/4” ID x 27” ID H x 265 lb. 0660-3014
55 Gal Waste Drum- 1/8" lead
23 1/2” OD x 34 1/2” H x 22 3/4” ID x 33” ID H x 325 lb...... 0660-5518
55 Gal Waste Drum- 1/4" lead
23 1/2” OD x 34 1/2” H x 22 1/2” ID x 32 3/4” ID H x 400 lb. 0660-5514
*These measurements are not exact due to differences in manufacturing tolerances.
Dolly for 30 gallon container 0645-0021
Dolly for 55 gallon container 0645-0030

(201) 825-9500 / (800) 631-3826

Decontamination Kit

This kit contains all protective clothing, de contaminants and accessories for handling radioactive spills or other routine contamination problems in the lab. Each kit comes in a 13 gallon metal drum with a radioactive label and can be used for storing radioactive waste.

Kit Components: Metal drum (13 gal.), Latex gloves (2 pr), Coveralls (2 Lg.), Hoods and shoe covers (2 ea.), Respirators (2), Radiclean (1 liter), Rad-Con hand and surface cleaner, Poly bag (10), Niptongs (12"), Sponge mop, scrub brush, plastic pail and assorted warning signs, placards and rope.

Decontamination Kit Includes:

- 13 gal. metal drum
- 2 pr. latex gloves
- 2 lg. coveralls
- 2 ea. hoods and shoe covers
- 2 respirators
- 1 liter Radiclean
- Rad-Con hand and surface cleaner
- 10 Poly bags
- Nip-Tongs (12")
- Sponge mop
- Scrub brush
- Plastic pail
- Assorted warning signs, placards and rope

Decontamination Kit, complete 0601-0001

Rad-Con™ Decontaminant

RAD-CON™ Surface Cleaner cleans laboratory glass, plastic and metal ware as well as areas such as work benches, containers, instruments and detectors, etc. The non-corrosive foam removes difficult substances (blood, grease) even from rough surfaces.

RAD-CON™ Hand Cleaner is very effective on exposed parts of the body. It lifts contaminants from the pores and skin surface and holds them in solution until rinsed away with water. RAD-CON™ contains no abrasives or skin irritants. Both cleaners are packaged in large aerosol spray cans, net weight 18 oz.

RAD-CON™ Surface Cleaner (12 in a case) 0601-0005
RAD-CON™ Hand Cleaner (12 in a case) 0601-0006

Radi-clean® Decontaminant

This mild but powerful concentrate will safely remove radioactive contamination and problem substances from all types of lab apparatus. Radi-clean's cleaning power is comparable to a hot acid bath but with no hazard to personnel. At nominal dilution (1 to 50) with warm tap water, Radi-clean is negligibly corrosive, mildly alkaline, and harmless to skin and clothing. One liter makes 12 gallons of solution.

Radi-clean® Decontaminant (1 liter) 0601-0003
Radi-clean® Decontaminant (4 liter) 0601-0004

Minor Spill Emergency Kit

Capintec's Minor Spill Emergency Kit is based on the suggested contents described in NRC Reg Guide. The Minor Spill Kit is better suited for use in the Nuclear Medicine area.

All kits include translucent yellow tint, 4 mil plastic liners to be stored for quick retrieval in the event of a contamination incident. The kit includes Emergency Procedures and forms to document a spill and decontamination efforts

Minor Spill Kit Includes:

- 6 prs. of disposable gloves
- 1 pr. housekeeping gloves
- 2 ea. disposable lab coats
- 2 ea. paper hats
- 2 prs. disposable shoe covers
- 1 roll absorbent paper w/ plastic backing
- 6 yellow plastic bag liners with twist ties
- 1 roll tape "Caution Radioactive"
- 1 pencil
- 1 black pen
- 3 pre-strung tags "Caution Radioactive Material"
- 10 supplies for contamination smears samples
- 1 clear clip board
- Instructions for "Emergency Procedures"

Minor Spill Emergency Kit 0601-0009

Instrument Stand

In many situations the technologist needs an extra hand. The Instrument Stand provides a convenient place for numerous small objects in order to have them available when needed. The stainless steel tray may be removed for easy cleaning. Capintec also offers absorbent tray liners elsewhere in this catalog.

Specifications

- Height: adjustable from 30" (76.2 cm) up to 50"(127 cm)
- Chrome-plated tubular steel for easy cleaning
- Heavy base offers stability
- Weight: 13.5 lbs (6.4 kg)

Instrument Stand 0652-0008

Absorbent Paper

To line all work surfaces, Capintec offers a highly absorbent paper. This consists of multi-ply embossed paper laminated to thin plastic for protection from bleed-through and strength. Supplied in rolls with perforated sheets for easy tearing in convenient pre-cut sheets, it soaks up spills without allowing liquid to penetrate and contaminate the surface below.

Absorbent Paper 300' x 20" roll (2 pack) 0651-0002
Wall Mounted Paper Dispenser 0651-0005

Instrument Trays

Known as "Protective Tray" or "Splash Tray" Capintec offers instrument trays made from either fiberglass or stainless steel. Both materials are easy to decontaminate or clean. There are many sizes and lip heights available. The most popular sizes are listed below. If you require a special size for a special application, let us know. Absorbent paper to line these trays is described above.

Fiberglass Tray (14" x 18" x 7/8" deep) 0652-0001

Stainless Steel Lab Carts

The mobile stainless steel lab cart gets a lot of use in a nuclear medicine or X-ray department. Capintec offers a full line of carts. These sturdy carts are used to transport heavy or bulky shields or equipment from room to room or down the hall. The casters are hard, non-marking rubber for smooth and quiet movement on any floor surface. The number listed below is for a "standard" size. If you require other dimensions, please let us know.

Stainless Steel (21" x 16 1/4" x 7/8" deep) 0652-0003
Stainless Steel Cart (19" x 31" x 33") 0652-0004

High-Handle Step Stool

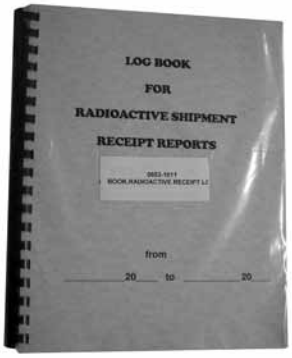
Increase your patient's safety when getting on or off an imaging or x-ray table, by using the high-handled step stool. This stool provides a strong and stationary step for patients due to its steel construction and non-skid foot covers. This item should be available in any room where a patient lies down on a table or stretcher. The step stool can also be used in labratory applications

High-Handle Step Stool 0652-0005

(201) 825-9500 / (800) 631-3826

Daily Log Books

The Log Books listed below are nicely bound and clearly written to make the task of daily record keeping as painless as possible. These Log Books help meet the NRC recommendations for record keeping by Nuclear Medicine Departments. They are useful even if you currently have a computerized department management system.



Radioactive Receipt Log Book

This log is used to record all receiving information concerning radioactive materials at your facility. It holds 150 reports.

Radioactive Receipt Log Book 0653-1011

Wipe Test Log Book

The Wipe Test and Daily Area Monitoring log book allows you to record alpha, beta and gamma counts daily. It holds information for 12 months of monitoring.

Wipe Test Log Book 0653-2021

Radiopharmaceutical Log Book

This log is designed to keep records for up to 20 patients and 7 different kits per page. Data entries include: lot #, calibration, date and time, activity, number of doses, assay vials or caps, expiration date and technologist I.D.

Radiopharmaceutical Log Book 0653-3031

Patient And Kit Log Book

This log contains enough space for up to 2000 patients and 300 kits.

Patients and Kits Log Book 0653-4041

Thallium, Xenon, And Iodine Log Books

Each of these books is for a specific nuclide and study. They are designed for departments using only one nuclide or those requiring separate logs.

Xenon Log Book 0653-5051
Thallium Log Book 0653-6061
I-123 or I-131 Log Book 0653-7071

Generator, Kit And Patient Log Book

Keep complete information on generators eluted, kits made up and patient data. This log book is designed for Technetium only.

Generator, Kit, Patient (60 Pts/wk) 0653-9560
Generator, Kit, Patient (80 Pts/wk) 0653-9561
Generator, Kit, Patient (100 Pts/wk) 0653-9562
Generator, Kit, Patient (120 Pts/wk) 0653-9563

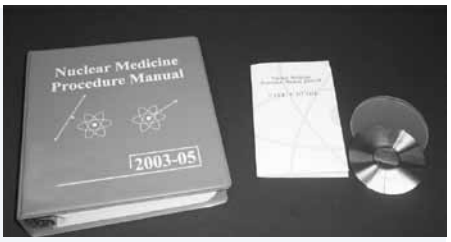
Nuclear Medicine Procedure Manual©

SoftProtocols™ Based on Hard Data

The Nuclear Medicine Procedure Manual is an up-to-date, fully referenced, authoritatively written manual available either printed in a three ring binder, or in software media on CD. It can be used as a reference source or as your department's official procedure manual, either as is or, after modification, to incorporate local preferences and needs.

The Manual covers clinical procedures as well as radiopharmacy, equipment quality control, regulatory requirements, and departmental guidelines. The Manual is edited by Wm. C. Klingensmith III, MD — Clinical Studies, Dennis Eshima, Ph.D. — Radiopharmacy, and John Goddard, Ph.D. — Medical Physics.

The Journal of Nuclear Medicine Book Review section stated the following. It received the highest marks with comments such as , "Because of the information contained in this manual, the ease of using the manual and the ability to continually update it, every facility performing diagnostic and therapeutic nuclear medicine procedures would benefit from acquiring this manual."



Manual in CD Format (PC compatible / Word™)

NM Procedure Manual- Book Format 0653-0015
NM Procedure Manual- Word/CD Format 0653-0016

Warning Labels & Tape

State and Federal regulations require that all radiation areas and radioactive materials be identified conspicuously and properly to provide adequate warning to anyone in the area.

Roll Paper Tapes

These tapes are easily marked with a pencil or pen and are pressure sensitive for easy application. Each label is perforated and may be used with or without a tape dispenser. The official NRC radiation symbol and wording are printed in magenta on a yellow background.

Roll Labels

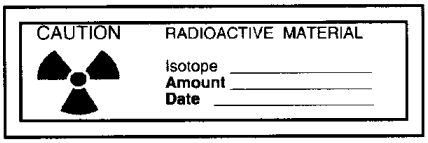
These tapes are pressure sensitive and will stick to almost anything, resist moisture and can be removed if required. The official NRC radiation symbol and wording are printed in magenta on a yellow background. These tapes can be marked with a pen or permanent marker.

Warning Tape

In areas where hazards may require a warning, these vinyl tapes offer the greatest strength and versatility. This pressure-sensitive durable tape is able to stand long-lived usefulness in many applications. The official NRC radiation symbol and wording are printed in magenta on a yellow background.

CAUTION RADIOACTIVE MATERIAL
1" x 1/2" x 180' Roll 0685-T001
CAUTION RADIOACTIVE MATERIAL Isotope, Amount, & Date
3" x 3/4" x 42' Roll 0685-T002
RADIOACTIVE MATERIAL 3" x 1" x 180' Roll 0685-T013
CAUTION RADIOACTIVE MATERIAL
5/8" x 1" (500 per roll) 0685-M001
CAUTION RADIOACTIVE MATERIAL Isotope, Amount & Date .....
2" X 1" (500 per roll) 0685-M003
RADIOACTIVE MATERIAL SECURITY SEAL
7" x 1" (100/pack) 0685-T104
Radiation Symbol 1 1/4" dia. (100 per roll) 0685-M005
Magenta and Yellow stripe with symbol 1" x 180' Roll 0685-101V
Magenta and Yellow stripe no symbol 2" x 108" Roll 0685-200V
Heavy duty tape/label dispenser 0645-0023

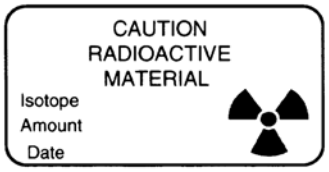
0685-T001



0685-T002

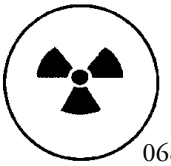
0685-T013

0685-M001



0685-M003

0685-T104


0685-M005


0685-101V


0685-200V

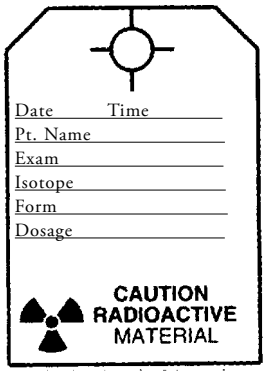
(201) 825-9500 / (800) 631-3826

Syringe I.D. Tag

There are numerous ways of labeling a syringe. Capintec offers labels and tags to meet virtually all requirements. The small syringe I.D. tag shown on the right is easily placed over the plunger of a syringe for identification during transport, or as a removable tag when making up several pre-loaded syringes, thus reducing the chance for error.

Tags

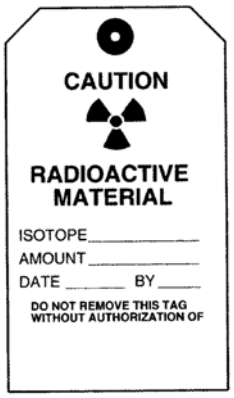
The use of tags can be very helpful in many situations. The tags shown on the right have magenta lettering on yellow cardstock. If the tag you need is not shown, please give us a call with your requirements.



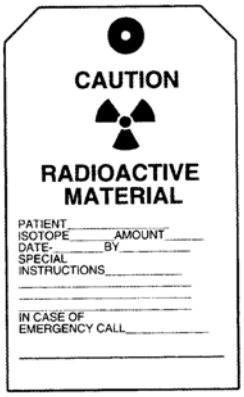
0685-M103

Labels and Signs

Easy peel-off backing and pressure sensitive label adheres to almost any surface. High durability adhesive insures that the labels will stay in place after applying. These labels and signs are available in several different materials.



0685-100M



0685-P103

Radioactive Material 8 1/2" x 11" Cardboard
(Sold Individually) 0685-M200
Radioactive Material 8" x 10" Aluminum (Sold Individually).....0685-200R
Radioactive Material 3" x 5" Paper P/S Adhesive Backing
(100/pack) 0685-M100
Radioactive Material 5" x 6" Paper P/S Adhesive Backing
(100/pack) 0685-M101
Radioactive Material 3" x 4" Vinyl P/S Adhesive Backing
(100/pack) 0685-R100

Caution Radiation Area 8 1/2" x 11" Cardboard
(Sold Individually) 0685-A200
Caution Radiation Area 8" x 10" Aluminum
(Sold Individually) 0685-R200
Caution Radiation Area 3" x 5" Paper P/S Adhesive Backing
(100/pack) 0685-A100
Caution Radiation Area 3" x 4" Vinyl P/S Adhesive Backing
(100/pack) 0685-100V
Caution Radiation Area Date, Time, Agent & Dose 2" x 3 1/2"
(100 pkg) Procedure Tag.....0685-M103
Caution Radioactive Material Tag 2 5/8" x 5 1/2"
(100/pack) 0685-100M
Caution Radioactive Material Tag 3 1/8" X 6 1/4"
(100/pack) 0685-P103
NOTE: Signs also available in Spanish - Call for price and availability (only certain ones available)

0685-100V

0685-R100

CAPRAC®-t Wipe Test / Well Counter

No Other Well Counter Offers the Features, Capabilities and Easy to Learn User Interface of the CAPRAC-t!

Don't worry about meeting the regulations in 10 CFR Part 35.315 (200 dpm requirements for unrestricted areas and iodine contamination). Capintec's CAPRAC®-t Wipe-Test Counter handles all of them.

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.

The CAPRAC-t can also serve as a single-well gamma counter in departments that do not need multi-sample changers. User-defined protocols, trigger levels, and counting times are a "snap". A 256-channel pulse-height analyzer permits built-in gamma spectroscopy. Definable conversion factors for specific radionuclides allow the CAPRAC-t to calculate results in cpm, dpm, nCi, cps, dps, or kBq. The CAPRAC-t also displays photon-energy histograms.

The CAPRAC-t is engineered and built for years of consistent, reliable performance and is Curie or Becquerel selectable. The unit has automatic background subtraction and self-diagnosis programs for systems testing with optimized signal-to-noise ratio. It includes a lead outer shield (1.3 cm thick) with optional auxiliary shield available.

Features

- 8" SVGA touch screen color 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
- ETL CE

Specifications

- Performance: Type: Drilled-well crystal, NaI (T1) scintillator; Crystal Dimensions: 3.8cm (1.5") x 4.4cm (1.75"); Shielding: 1.3cm (0.5")lead
- • Shielding: 2.75m (9ft) interconnecting cable; Channels: 256; Counting Rate: 100,000 cps, max
- Well Detector: Type: 1 1/2" Sodium Iodide (NaI) drilled-well crystal detector; 256 Channel MCA, manual and automatic ROI; Trigger Levels: User-definable; Automated Calibration and Background Subtract; QC tests: Reproducibility, Chi-square, MDA
- Display Screen: Type: 8" VGA LCD color touch screen display; Bq/Ci Reading: User selectable or fixed; Activity Display: Selected radionuclide, efficiency, measured activity and display units (Bq/Ci); Count Rate Values: Wipe and lab test results
- Standard Source Data: System Memory: Cs-137, Eu-152; Efficiency for commonly used isotopes
- PC Port: Interface: RS-232 and USB; Compatibility: Standard nuclear medicine management systems
- Printer: RS-232 & USB Ports
- Power Requirement: 100-240 VAC (50/60 Hz) 25W
- Tests: Diagnostics: Full test of program, system memories
- Cable: Printer (Optional): 1.8m (6ft); Power: 1.8m (6 ft)Display Unit Dimensions: 9.5" H x 9.0" W x 10.5" D (42 x 23 x 27cm); Weight: 7.5lb (3.4kg)
- Well Counter Dimensions: 9.38" H x 6" D x .67" Well Dia. x 1.5" Well D. (23.8 x 15.2 x 1.7 x 3.8cm); Weight: 15.2lb (6.9kg); Cable Length 9ft. (2.7m)- Longer cables are available. Consult factory.

CAPRAC®-t Wipe Test/Well Counter 5430-3136
Auxiliary Shield 5420-2072
Epson Roll Printer 5430-0058
Protective Screen Covers 7900-0352
Cs-137 Road Source 0975-137R
Eu-152 Rod Source 0975-152R
Test Tubes 0670-0016
Well Auxiliary Shield 5420-2141
Roll Paper 9282-0009
Well Liners 5420-0121

(201) 825-9500 / (800) 631-3826

Captus® 700t Well Counting System

Small in size... power packed

The Captus® 700t Well Counting System has state-of-the-art wipe testing with a simple menu-driven format. The system will perform a peak search on each wipe identifying any contamination by peak and by nuclide. The user decides how many wipe locations are entered; there are no location limits. Trigger levels may be selected on a user-specified limit set to flag wipes above a specific activity level. Wipes may be grouped by location.

Features

- Lab Tests
- 512 Multichannel Analyzer
- Wipe testing module allows flexibility of pre-defined or user groupings
- Improved data storage, archive and reporting functions
- "Quick Start" menu
- Automated QC functions, including energy calibration, constancy, Chi-Square and MDA backscatter from lead X-rays

Specifications

- MCA interface PC board: 1024 channels.
- Maximum count rate of 100,000 cps.
- ROI's are automatic or manual.
- Preset live time, real time or total counts.
- Automatic peak-finding.
- Flat field collimated to meet ANSI N44.3-1973.
- Drilled well with 1" lead shielding (optional 2' shielding available) and brass liner.
- Calibration sources: Cs-137 and Eu-152 (calibrated exempt sources provided at no charge).
- Power requirements: (With circuit protection, line filter and isolation transformer)
- Standard: 115V 90-127V 50-60HZ
- Optional: 220V 180-250V 50-60HZ

CAPTUS 700t Well Counting System 5430-3143

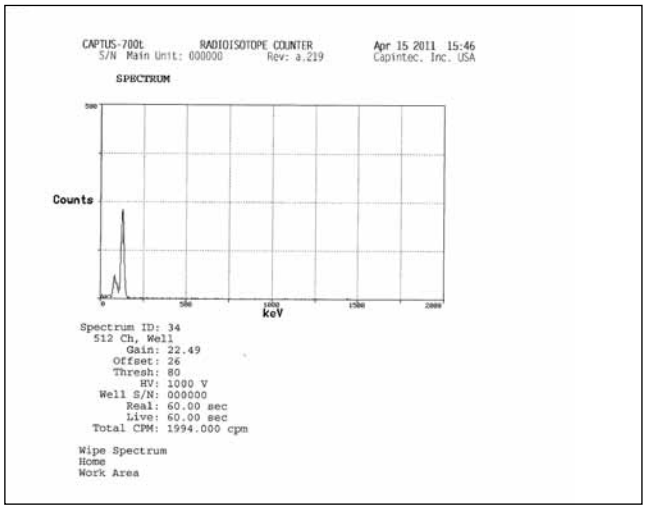
Optional 2" Shielding Well Detector 5430-0069
Custom Protocol..... 0960-0152
Test Tubes (100 Count) 5420-0090

Captus® 700t Well Counting System Printouts

Wipe Test Report

The CAPTUS® 700t easily performs wipe test counting with full cpm/dpm reporting. Thanks to its high performance 512 channel MCA, nuclides are identified automatically. Corresponding ROIs can also be displayed.

Whether you choose the dedicated well counter or optional drilled crystal configuration, the CAPTUS® 700t offers you up to 5 wipe categories with adjustable trigger levels for each category, dpm reporting, full spectrum display and complete report printing.



CAPTUS-700t RADIOISOTOPE COUNTER Apr 15 2011 15:46
S/N Main Unit: 000000 Rev: a.219 Capintec, Inc. USA

SPECTRUM

Counts

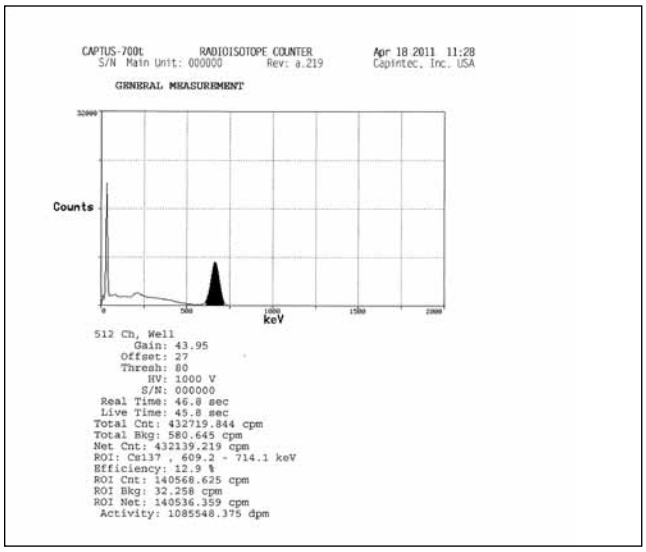
keV

Spectrum ID: 34
512 Ch, Well
Gain: 22.49
Offset: 26
Thresh: 80
HV: 1000 V
Well S/N: 000000
Real: 60.00 sec
Live: 60.00 sec
Total CPM: 1994.000 cpm

Wipe Spectrum
Home
Work Area

General Measurement

The 512 channel MCA coupled with the large display screen allows full spectrum displays of all your acquisitions. The MCA includes various setups for ROI, automatic peak search and identification programs.



CAPTUS-700t RADIOISOTOPE COUNTER Apr 18 2011 11:28
S/N Main Unit: 000000 Rev: a.219 Capintec, Inc. USA

GENERAL MEASUREMENT

Counts

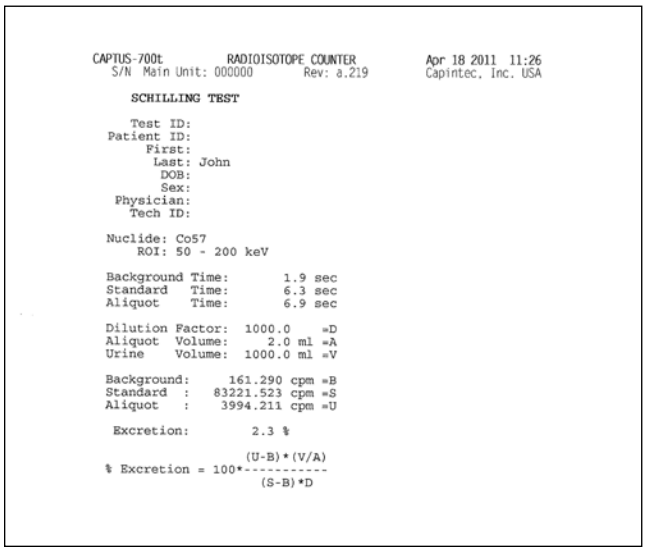
keV

512 Ch, Well
Gain: 43.95
Offset: 27
Thresh: 80
HV: 1000 V
S/N: 000000
Real Time: 46.8 sec
Live Time: 45.8 sec
Total Cnt: 432719.844 cpm
Total Bkg: 580.645 cpm
Net Cnt: 432139.219 cpm
ROI: Cs137 , 609.2 - 714.1 keV
Efficiency: 12.9 %
ROI Cnt: 140568.625 cpm
ROI Bkg: 32.258 cpm
ROI Net: 140536.359 cpm
Activity: 1085548.375 dpm

Lab Test Measurements

The CAPTUS® 700t is programmed for a variety of lab tests including Schilling, Blood Volume (Cr-51 or I-125) and Red Blood Cell Survival. Results are automatically calculated and displayed for your review. A printout of the results is also available for patient record keeping.

All lab test modules feature easy step-by-step programs to guide you through each acquisition, eliminating calculations and saving you time!



CAPTUS-700t RADIOISOTOPE COUNTER Apr 18 2011 11:26
S/N Main Unit: 000000 Rev: a.219 Capintec, Inc. USA

SCHILLING TEST

Test ID:
Patient ID:
First:
Last: John
DOB:
Sex:
Physician:
Tech ID:

Nuclide: Co57
ROI: 50 - 200 keV

Background Time: 1.9 sec
Standard Time: 6.3 sec
Aliquot Time: 6.9 sec

Dilution Factor: 1000.0 =D
Aliquot Volume: 2.0 ml =A
Urine Volume: 1000.0 ml =V

Background: 161.290 cpm =B
Standard : 83221.523 cpm =S
Aliquot : 3994.211 cpm =U

Excretion: 2.3 %

$$\% \text{ Excretion} = 100 * \frac{(U-B)*(V/A)}{(S-B)*D}$$

(201) 825-9500 / (800) 631-3826

Captus® 3000 Well Counting System

The Captus® 3000 Well Counting System has state-of-the-art wipe testing with a simple menu-driven format and a desktop computer system. The system will perform a peak search on each wipe identifying any contamination by peak and by nuclide. The user decides how many wipe locations are entered; there are no location limits. Trigger levels may be selected on a user-specified limit set to flag wipes above a specific activity level. Wipes may be grouped by location.

Captus® 3000 Well Counting System

Features

- Lab Tests
- 1024 Multichannel Analyzer
- Wipe testing module allows flexibility of pre-defined or user groupings
- Improved data storage, archive and reporting functions
- "Quick Start" menu
- Automated QC functions, including energy calibration, constancy, Chi-Square and MDA backscatter from lead X-rays

Specifications

- Desktop computer system
- MCA interface PC board: 1024 channels.
- Maximum count rate of 100,000 cps.
- ROI's are automatic or manual.
- Preset live time, real time or total counts.
- Automatic peak-finding.
- Flat field collimated to meet ANSI N44.3-1973.
- Drilled well with 1" lead shielding (optional 2' shielding available) and brass liner.
- Calibration sources: Cs-137 and Eu-152 (calibrated exempt sources provided at no charge).
- Power requirements: (With circuit protection, line filter and isolation transformer)
- Standard: 115V 90-127V 50-60HZ
- Optional: 220V 180-250V 50-60HZ

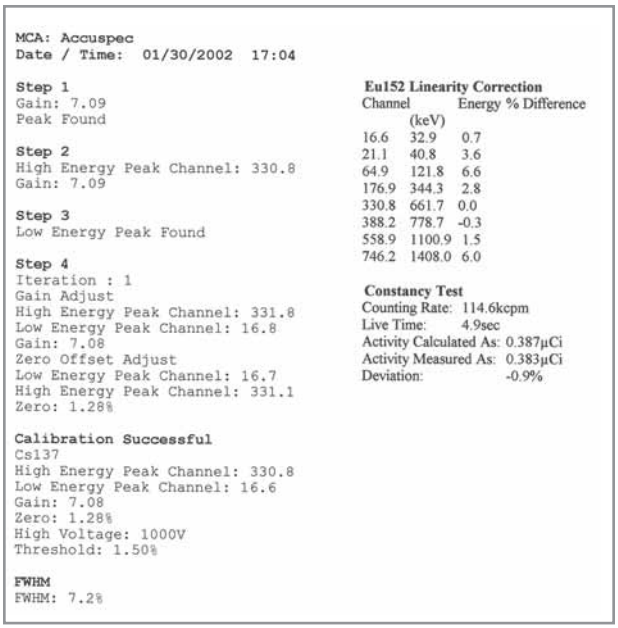
CAPTUS 3000 Well Counting System 5430-0075

Optional 2" Shielding Well Detector 5430-0069
Custom Protocol..... 0960-0152
Test Tubes (100 Count) 5420-0090

Captus® 3000 Reports

Auto Calibration For Well

The Autocalibrate module provides high voltage, zero offset and automatic gain adjustment; as well as a linearity correction and constancy test. Also included in QA are automatic chi-square and MDA calculation selections. Finally, the program has the ability to automatically perform efficiency calculation and storage for various isotopes.



MCA: Accuspec
Date / Time: 01/30/2002 17:04

Step 1
Gain: 7.09
Peak Found

Step 2
High Energy Peak Channel: 330.8
Gain: 7.09

Step 3
Low Energy Peak Found

Step 4
Iteration : 1
Gain Adjust
High Energy Peak Channel: 331.8
Low Energy Peak Channel: 16.8
Gain: 7.08
Zero Offset Adjust
Low Energy Peak Channel: 16.7
High Energy Peak Channel: 331.1
Zero: 1.28%

Calibration Successful
Cs137
High Energy Peak Channel: 330.8
Low Energy Peak Channel: 16.6
Gain: 7.08
Zero: 1.28%
High Voltage: 1000V
Threshold: 1.50%

FWHM
FWHM: 7.2%

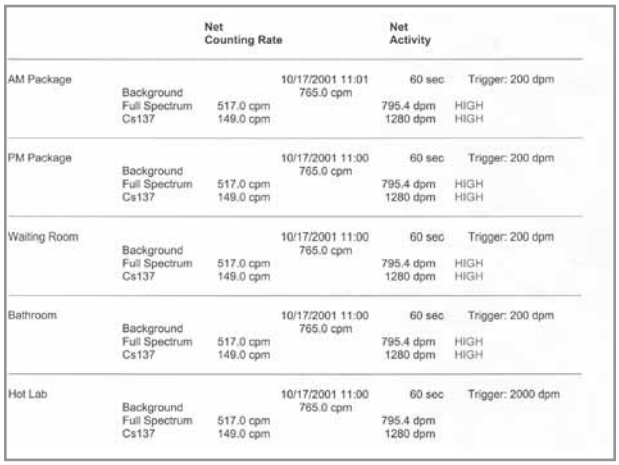
Eu152 Linearity Correction

Channel	Energy (keV)	% Difference
16.6	32.9	0.7
21.1	40.8	3.6
64.9	121.8	6.6
176.9	344.3	2.8
330.8	661.7	0.0
388.2	778.7	-0.3
558.9	1100.9	1.5
746.2	1408.0	6.0

Constancy Test
Counting Rate: 114.6kcpm
Live Time: 4.9sec
Activity Calculated As: 0.387µCi
Activity Measured As: 0.383µCi
Deviation: -0.9%

Wipe History

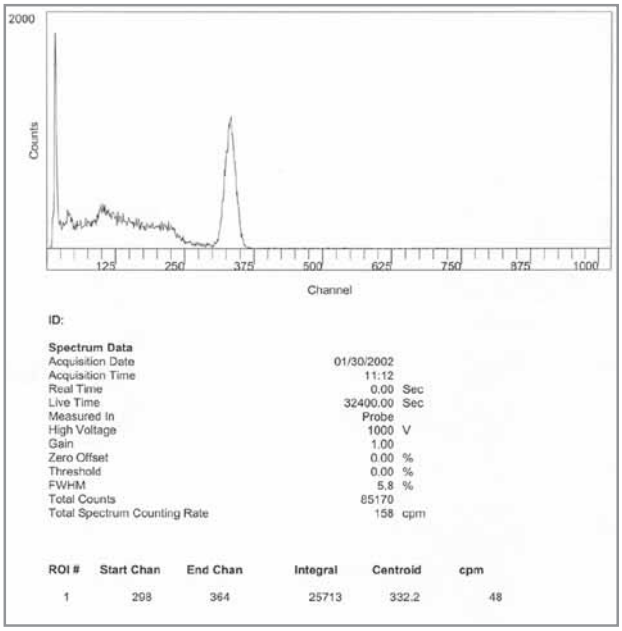
The highly versatile wipe test module will allow users to establish as many locations as needed and to arrange the locations into either pre-defined or user-defined groupings. The program will perform an automatic peak and isotope identification of wipe results in order to advise the user of the type contamination encountered. There are pre-set trigger levels loaded or the user can define their own trigger levels, either way the results will flag any wipe that exceeds a trigger. Finally, the system will maintain a history of wipe results that can be printed as a whole or in part.



		Net Counting Rate		Net Activity	
AM Package		10/17/2001 11:01 765.0 cpm	60 sec	Trigger: 200 dpm	
	Background				
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH
	Cs137	149.0 cpm		1280 dpm	HIGH
PM Package		10/17/2001 11:00 765.0 cpm	60 sec	Trigger: 200 dpm	
	Background				
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH
	Cs137	149.0 cpm		1280 dpm	HIGH
Waiting Room		10/17/2001 11:00 765.0 cpm	60 sec	Trigger: 200 dpm	
	Background				
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH
	Cs137	149.0 cpm		1280 dpm	HIGH
Bathroom		10/17/2001 11:00 765.0 cpm	60 sec	Trigger: 200 dpm	
	Background				
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH
	Cs137	149.0 cpm		1280 dpm	HIGH
Hot Lab		10/17/2001 11:00 765.0 cpm	60 sec	Trigger: 2000 dpm	
	Background				
	Full Spectrum	517.0 cpm		795.4 dpm	
	Cs137	149.0 cpm		1280 dpm	

MCA Spectrum Report

The Multi-Channel Analyzer is very user friendly. ROI's can be selected from a convenient menu of isotopes with predefined regions or the user can define them. Protocols can be defined for real time, live time or acquired counts. Results are reported with full spectrum counts and counts by region of interest. All results can be saved in the database or exported to a spreadsheet.



ID:

Spectrum Data

Acquisition Date	01/30/2002	
Acquisition Time	11:12	
Real Time	0.00	Sec
Live Time	32400.00	Sec
Measured In	Probe	
High Voltage	1000	V
Gain	1.00	
Zero Offset	0.00	%
Threshold	0.00	%
FWHM	5.8	%
Total Counts	85170	
Total Spectrum Counting Rate	158	cpm

ROI #	Start Chan	End Chan	Integral	Centroid	cpm
1	298	364	25713	332.2	48

Lab Test Report

In vitro lab test protocols are incorporated into the software; the user has access to Schilling, RBC Survival and both Cr51 and I125 blood volume studies. The program will integrate all patient demographic, physician and dose data and will perform automatic result calculations. By utilizing the report functionality all of the test data can be documented in a hardcopy format for physician review or for documentation in the patients file.

(201) 825-9500 / (800) 631-3826

Auxiliary Shield (CAPRAC®-t, 55tW, Ultra Well)

The CAPRAC® Wipe Test/Well Counter is a very sensitive system which uses a NaI detector that can be affected by high background activity or changes in the room background during counting periods. If the CAPRAC® is used in a location which might have a high background, an Auxiliary Shield can be used to reduce background levels. The Auxiliary Shield walls and top are 0.5" thick. The top lid has a handle for easy removal. The shield fits snugly around the well chamber and can be easily installed or removed.

Specifications

- 4" x 9 3/4"
- 22 lb.

Auxiliary Shield (CAPRAC®, 25R, Ultra Well)..... 5420-2072

Auxiliary Shield (CAPRAC®-R)

CAPRAC®-R Well/Wipe Counter utilizes a NaI crystal that must be protected for high levels of background or changes in room background activity. This is accomplished by placing the system in a low background area or by using the CAPRAC®-R Auxiliary Shield with walls and top that are .5" thick. Utilizing this extra lead brings the total shielding up to 1". The shield fits snugly around the well chamber and can be easily installed or removed. Capintec suggests using the Auxiliary Shield for all CAPRAC®-Rs.

Specifications

- 4 1/8" x 12 1/2"
- 26 lb.

Auxiliary Shield (CAPRAC®-R)..... 5420-2116

Caprac® PET Auxiliary Shield

The CAPRAC® PET Auxiliary Shield allows for greater shielding of the NaI crystal when higher energy isotopes are being used. This is accomplished by shielding which is 1" thick on the top and walls. The shield fits snugly around the well chamber and can be easily installed or removed.

Specifications

- 8 3/4" x 6 3/4" x 16 5/8"
- 91 lb.

CAPRAC® PET Auxiliary Shield..... 5420-2137

Caprac®-R PET Auxiliary Shield

The CAPRAC®-R PET Auxiliary Shield utilizes 1.5" of shielding to reduce background levels. The shield fits snugly around the chamber for a total of 2"and the top lid has a handle for easy removal.

Specifications

- 6 1/4" x 13 1/2"
- 110 lb.

CAPRAC®-R PET Auxiliary Shield..... 5420-2138

Well Auxiliary Shield for CAPRAC®-t

The Well Auxiliary Shield is made with 1.5" thickness for shielding and sits on its own supporting base. The shield fits snugly around the well chamber for a total of 2" and can be easily installed or removed, as needed.

Specifications

- 7 1/2" x 6 3/4" x 15 5/8"
- 90 lb.

Well Auxiliary Shield.... 5420-2141

Wipe Spot Pads

Ultra-absorbent Wipe Spot Pads from Capintec easily absorb any removable contamination for wipe testing. These wipe pads are backed by a card with space for indicating the wipe location, date and time, activity found, and the initials of the user. These soft, highly absorbent cotton pads may be used either wet or dry to discover contamination.

The Wipe Spot Pads are packed 500 to a box. Cases of 5000 are available for facilities that process large numbers of wipes. The adhesive backing allows the wipe to be folded back upon itself and inserted into a test tube for counting.

Wipes- 500..... 5420-0086

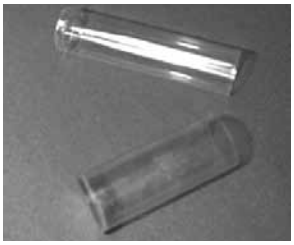
CAPRAC®-t Printer

An Epson printer is provided as an option for the CAPRAC® Wipe Test/Well Counter. This sturdy, high-quality printer provides graphic output with wipe reports, showing the peak energy range of the nuclides on the wipe. The printer utilizes a black/red ribbon to report wipes that are higher than the trigger levels for contamination. Abnormal values are printed in red for easy/fast identification.

Epson Roll Printer..... 5430-0058

CAPRAC®-5 Liner/Test Tube

Size: 5/8" x 2 1/2"



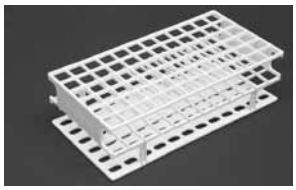
Test Tubes- 100..... 5420-0087
Test Tubes- 250..... 0670-0016
Liners- 5..... 5420-0121

Counting Tubes

Popular size 12 x 75mm test tubes are available boxed and oriented in one direction for ease of use. The re-closable box minimizes scratches and damage during storage and protects the unused tubes. Box contains 250 tubes. Caps are leakproof, but can be easily removed. Caps may be ordered in white, red, yellow, blue, green or assorted colors.

Counting Tubes..... 0670-0016

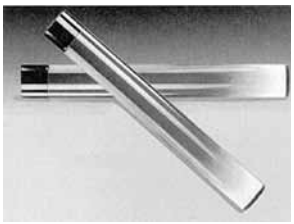
Uniwire Test Tube Rack



Stackable with a single mold design that is coated with Nalgene® and easily cleaned, these racks are designed to hold the counting tubes above and hold up to 40 tubes.

Uniwire Test Tube Rack (specify tube size when ordering)..... 0670-0022

Calibration Rod Sources



Capintec offers two rod sources for use with the CAPRAC® and CAPRAC®-R to perform the auto-calibration function. The Cs-137 source has a nominal activity of 0.5 µCi and the Ba-133 source is 0.1 µCi. If you do not have a rod source of Cs-137 or Ba-133 in your department, one of these sources should be ordered when purchasing your CAPRAC® or CAPRAC®-R.

Ba-133 Rod Source..... 0975-138S
Cs-137 Rod Source.....0975-137R

(201) 825-9500 / (800) 631-3826

Captus® 3000 Portable Thyroid Uptake System

The new portable Captus® 3000 provides significantly improved portability and maneuverability. This lightweight module is easy to move and position. The stand can also be quickly disassembled into four lightweight sections for easy handling and transport to another site. It can be quickly reassembled in only a few minutes. The portable system provides enhanced range of motion for patients on a gurney, chair or standing.

The portable system includes all of the well known Captus® 3000 software modules.

The thyroid uptake module provides flexible protocols, including decay corrected dose, standard capsule measurement, aliquot correction and multiple capsule factor. Reports include detailed count information and calculated percent uptake. Results which exceed predefined normal ranges will be flagged.

Bioassay module stores individual efficiencies for bioassay geometry, multiple measurements for each staff member and flags values above preset trigger levels.

Fully automated quality assurance program using Cs-137 and Eu-152 rod sources provided with system. QA includes full system calibration, Zero offset, energy resolution, energy linearity, efficiency calculations, constancy, chi-squared and MDA functions.

1024 channel user friendly Multi-Channel Analyzer provides automatic and manual ROI selection, ability to use stored auto-calibration setup, or manually adjust zero, gain and voltage. Spectra can be saved and retrieved for comparison. An isotope library with data for over 90 isotopes is included. All MCA adjustments are software controlled.

Timed Activity Analysis module enables automatic timed measurements with decay corrected results in either graphical or numeric display.

Wipe test functions include menu driven format and automatic isotope identification feature. Wipes may be grouped for convenience. Values above preset trigger levels will be flagged.

Lab test features include I-125 and Cr-51 Blood Volume protocols. Red Blood Cell Survival for Cr-51 results are decay corrected with report options for graphical or numeric representation.

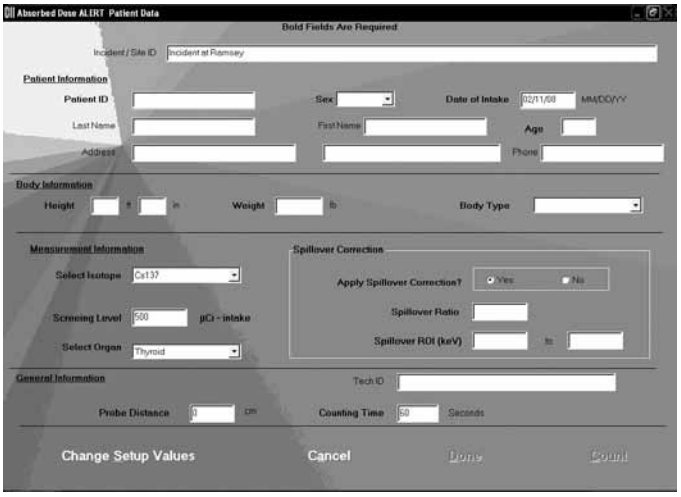
System also provides data storage and retrieval, archive and export features. Both summary and individual detail reports are available for each module.

Optional Dicom interface pulls patient information from information systems network and sends reports back to PACS.

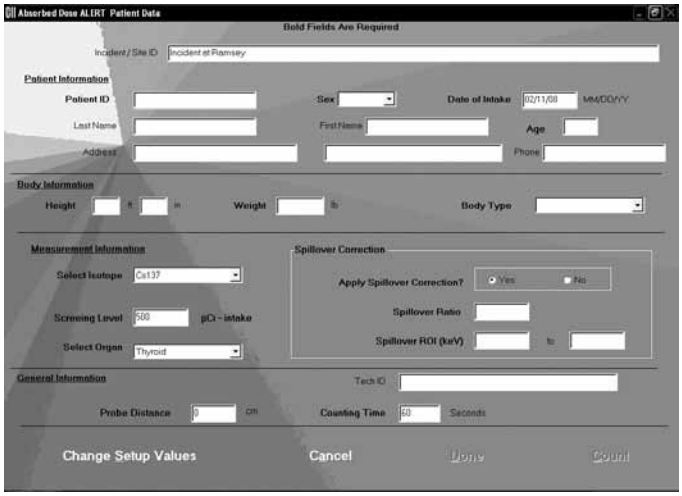
Continued on next page

Hardware Features

- 2 inch diameter flat NaI detector
- Collimator designed to meet ANSI N44.3
- Laptop computer
- External MCA card with USB interface
- Protection isolation transformer
- Unique tip proof design
- Articulating spring arm, with 3 adjustable joints
- Range of motion for gurney, chair or standing positions
- Portable stand for easy transport
- Disassembles into four lightweight sections
- Two locking wheels
- Can be assembled in less than 10 minutes
- Includes Cs-137 and Eu-152 reference sources
- Meets all applicable safety standards



Patient Data Screen



Count Patient Screen

Multichannel Analyzer Board:

- 1024 Channels
- Software Controlled
- Maximum count rate,100,000 cps
- Differential Linearity <2% over top 98% of channels
- Integral Linearity <1% over top 98% of channels
- Automatic and manual ROIs
- Presets for live time, real time and total counts
- Automatic peak finding algorithm
- Automatic and manual calibration features
- Timed activity analysis features

Well Counter Option:

- 2 inch diameter drilled well NaI detector (Well is 1.5 in. deep by 0.7 in. dia)
- 1 inch lead shielding, including top cap
- Brass liner to absorb scatter
- Weight 70 lbs (32 kg)
- Approx. Shipping Dimensions and Weights, Not Assembled:
  - Box 1: 15" H x 10" W x 10" D (38 x 25 x 25 cm), Weight: 50 lb. (23 kg)
  - Box 2: 15" H x 10" W x 10" D (38 x 25 x 25 cm), Weight: 27 lb. (12 kg)

Dimensions:

- Height: 47" H x 30" W x 40" D (119 cm x 76 cm x 102 cm)
- Weight 120 lb. (55 kg) (without well counter)
- Weight 190 lb. (87 kg) with well counter
- Shipping Dimensions, Assembled: 56" H x 33" W x 47" D (142 x 84 119 cm)
- Approx. Shipping Weight 260 lb. (117 kg)
- Approx. Shipping Dimensions and Weights, Not Assembled:
  - Box 1 (Collimator & Vertical Tube) : 30" H x 10" W x 10" D (76 x 25 x 25 cm), Weight: 45 lb. (21 kg)
  - Box 2 (Base): 32" H x 16" W x 30" D (81 x 41 x 76 cm), Weight: 55 lb. (25 kg)
  - Box 3 (Electronics, Handles, Spring Arms): 45" H x 20" W x 10" D (114 x 51 x 25 cm), Weight: 50 lb. (23 kg)
  - Box 4 (Lead Weights): 6 1/4" H x 6 1/4" W x 11" D (16 x 16 x 28 cm), Weight: 43 lb. (20 kg)

Captus® 3000 Portable System Stand, Laptop & Printer 5430-2130
Well Counter 5430-2132

Optional Accessories

ALERT Software Upgrade 0960-0177
Custom Protocol 0960-0152
Cap-DICOM™ Software 5450-0003
Wipe Samples 5420-0086
Neck Phantom 5230-0038
Rod Source Holder 7315-1850

(201) 825-9500 / (800) 631-3826

Captus® 3000 Thyroid Uptake And Well System

The Ultimate... User Friendly... Intuitive

Performing Thyroid Uptake measurements has never been easier. The Captus® 3000 combines a software program with the latest PC technology to create a Thyroid Uptake system that is fast, reliable, and extremely easy to use.

The Captus software has been designed to get you up and running in virtually no time at all. The program contains a "Quick-Start" feature that walks the user through all of the initial setup functions. The "Quick-Start" feature also serves as an excellent teaching tool. The Captus 3000 software is a full service program with Thyroid Uptake, Wipe Testing, Bioassay, Schillings, Blood Volume and RBC Survival functionality built in. The Wipe Test module has a feature that allows the flexibility of predefined or user defined groupings. The entire program has "Fly Over" control bars to allow quick access to whatever function is necessary.

QA is of course completely automated and now includes the ability to measure Minimum Detectable Activity. With the use of the two included reference standards (Cs-137 and Eu-152) the system will move from Calibration to Constancy to Chi-square with limited time and effort.

There is a versatile 1024 Multichannel Analyzer (MCA) module that allows measurements of energies up to 2 MeV. The MCA module also has an isotope selection library with over 70 preloaded isotopes and adjustable ROI's for easily reproducible counting parameters.

As always, the entire system comes with Capintec's unsurpassed Quality Construction and Customer Service. From Installation and Training to Applications Support just call 800-631-3826 to speak to a Technical Support Specialist.

Features

- Thyroid Uptake
- Bioassay
- Lab Tests
- 1024 Multichannel Analyzer
- Flexible pre-defined or user-defined Wipe Test groupings
- Improved data storage, archive and reporting functions
- "Quick Start" menu
- Automated QC functions, including energy calibration, constancy,X2 and MDA
- 360° Articulating Spring Arm

Specifications

- Desktop computer system
- MCA interface PC board:
- 1024 channels.
- Maximum count rate of 100,000 cps.

- ROI's are automatic or manual.
- Differential Linearity: <2% over the top 98% of channels.
- Integral Linearity: <1% over the top 98% of channels.
- Preset live time, real time or total counts.
- Automatic peak-finding.
- Two 2" NaI (Tl) detectors:
- Flat field collimated to meet ANSI N44.3-1973.
- Drilled well with 1" lead shielding (optional 2' shielding available) and brass liner.
- Calibration sources: Cs-137 and Eu-152 (calibrated exempt sources provided at no charge).
- Power requirements: (With circuit protection, line filter and isolation transformer)
- Standard: 115V 90-127V 50-60HZ
- Optional: 220V 180-250V 50-60HZ
- Approximate Weight: 450lbs.

Captus® 3000 Thyroid Uptake System 5430-0076
Captus® 3000 Thyroid Uptake & Well System 5430-0077

Optional Accessories

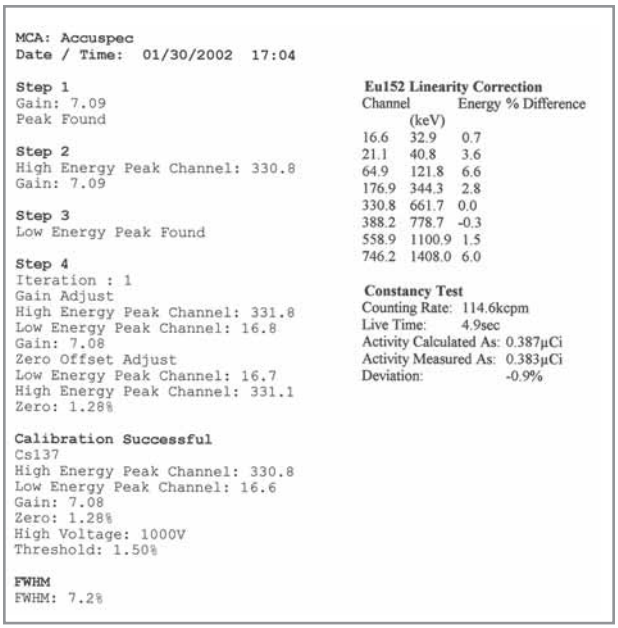
ALERT Software Upgrade 0960-0177
Custom Protocol 0960-0152
Cap-DICOM™ Software 5450-0003
Neck Phantom 5230-0038
Rod Source Holder 7315-1850
Dicom Interface 5450-0003
Test Tubes for Wipe Samples (Qty. 100) 5420-0087
Wipe Spot Pads (Box of 500) 5420-0086
Wall Mount Stand 5430-3095
Table Top Stand 5430-2038
Well Detector (2" Shield) 5430-0069
Drilled Well Crystal 5430-0081

www.capintec.com

Captus® 3000 Reports

Auto Calibration For Well

The Autocalibrate module provides high voltage, zero offset and automatic gain adjustment; as well as a linearity correction and constancy test. Also included in QA are automatic chi-square and MDA calculation selections. Finally, the program has the ability to automatically perform efficiency calculation and storage for various isotopes.



MCA: Accuspec
Date / Time: 01/30/2002 17:04

Step 1
Gain: 7.09
Peak Found

Step 2
High Energy Peak Channel: 330.8
Gain: 7.09

Step 3
Low Energy Peak Found

Step 4
Iteration : 1
Gain Adjust
High Energy Peak Channel: 331.8
Low Energy Peak Channel: 16.8
Gain: 7.08
Zero Offset Adjust
Low Energy Peak Channel: 16.7
High Energy Peak Channel: 331.1
Zero: 1.28%

Calibration Successful
Cs137
High Energy Peak Channel: 330.8
Low Energy Peak Channel: 16.6
Gain: 7.08
Zero: 1.28%
High Voltage: 1000V
Threshold: 1.50%

FWHM
FWHM: 7.2%

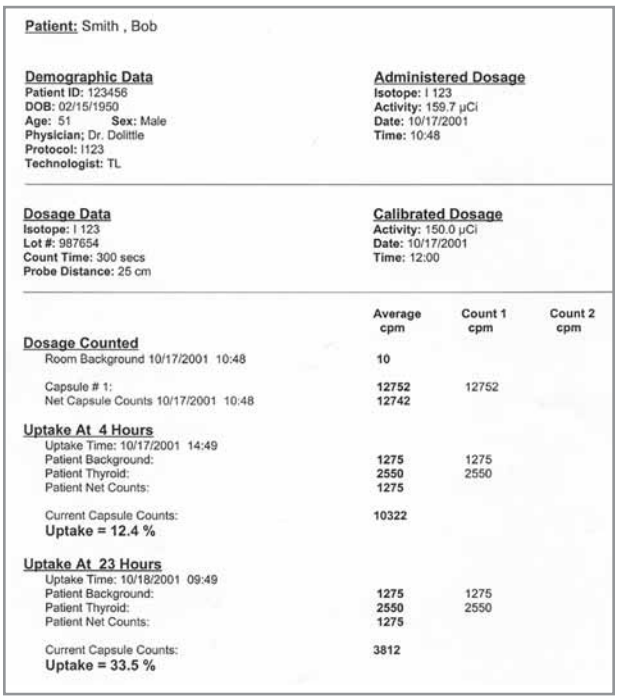
Eu152 Linearity Correction

Channel	Energy (keV)	% Difference
16.6	32.9	0.7
21.1	40.8	3.6
64.9	121.8	6.6
176.9	344.3	2.8
330.8	661.7	0.0
388.2	778.7	-0.3
558.9	1100.9	1.5
746.2	1408.0	6.0

Constancy Test
Counting Rate: 114.6kcpm
Live Time: 4.9sec
Activity Calculated As: 0.387µCi
Activity Measured As: 0.383µCi
Deviation: -0.9%

Thyroid Uptake Report

In this module multiple TU protocols can be established utilizing I-123, I-131 or Tc-99m. The protocols can use a standard capsule method or allow the system to perform an automatic decay correction to the administered dose. The system will store detailed patient demographics, physician data and administered dose data. There is no limit to the number of uptakes that can be performed and the results will be reported with detailed count information and automatic percentage uptake calculations. Also, there are user defined normal values that will be compared to the uptake results and "flagged" when the results are out of range.



Patient: Smith , Bob

Demographic Data
Patient ID: 123456
DOB: 02/15/1950
Age: 51 Sex: Male
Physician; Dr. Dolittle
Protocol: I123
Technologist: TL

Administered Dosage
Isotope: I 123
Activity: 159.7 µCi
Date: 10/17/2001
Time: 10:48

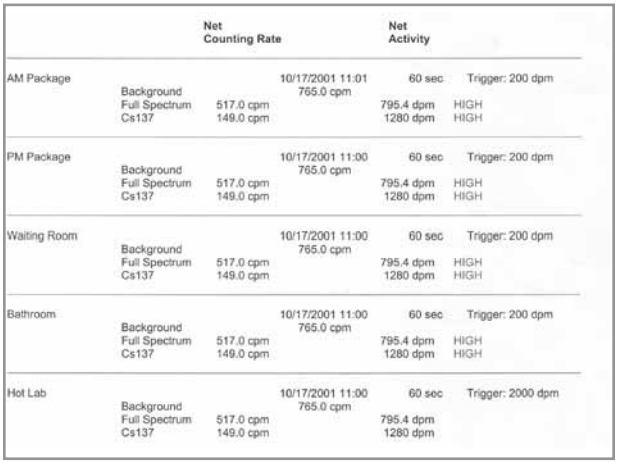
Dosage Data
Isotope: I 123
Lot #: 987654
Count Time: 300 secs
Probe Distance: 25 cm

Calibrated Dosage
Activity: 150.0 µCi
Date: 10/17/2001
Time: 12:00

	Average cpm	Count 1 cpm	Count 2 cpm
Dosage Counted			
Room Background 10/17/2001 10:48	10		
Capsule # 1:	12752	12752	
Net Capsule Counts 10/17/2001 10:48	12742		
Uptake At 4 Hours			
Uptake Time: 10/17/2001 14:49			
Patient Background:	1275	1275	
Patient Thyroid:	2550	2550	
Patient Net Counts:	1275		
Current Capsule Counts:	10322		
Uptake = 12.4 %			
Uptake At 23 Hours			
Uptake Time: 10/18/2001 09:49			
Patient Background:	1275	1275	
Patient Thyroid:	2550	2550	
Patient Net Counts:	1275		
Current Capsule Counts:	3812		
Uptake = 33.5 %			

Wipe History

The highly versatile wipe test module will allow users to establish as many locations as needed and to arrange the locations into either pre-defined or user-defined groupings. The program will perform an automatic peak and isotope identification of wipe results in order to advise the user of the type contamination encountered. There are pre-set trigger levels loaded or the user can define their own trigger levels, either way the results will flag any wipe that exceeds a trigger. Finally, the system will maintain a history of wipe results that can be printed as a whole or in part.



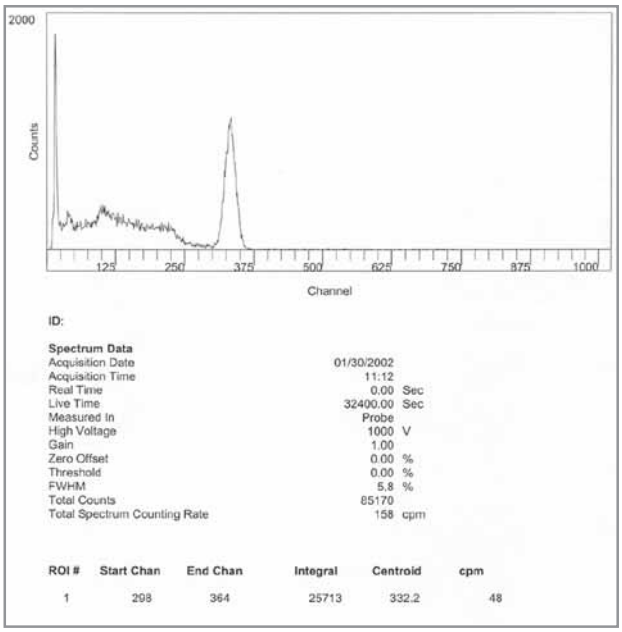
		Net Counting Rate		Net Activity		
AM Package			10/17/2001 11:01		60 sec	Trigger: 200 dpm
	Background		765.0 cpm			
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH	
	Cs137	149.0 cpm		1280 dpm	HIGH	
PM Package			10/17/2001 11:00		60 sec	Trigger: 200 dpm
	Background		765.0 cpm			
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH	
	Cs137	149.0 cpm		1280 dpm	HIGH	
Waiting Room			10/17/2001 11:00		60 sec	Trigger: 200 dpm
	Background		765.0 cpm			
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH	
	Cs137	149.0 cpm		1280 dpm	HIGH	
Bathroom			10/17/2001 11:00		60 sec	Trigger: 200 dpm
	Background		765.0 cpm			
	Full Spectrum	517.0 cpm		795.4 dpm	HIGH	
	Cs137	149.0 cpm		1280 dpm	HIGH	
Hot Lab			10/17/2001 11:00		60 sec	Trigger: 2000 dpm
	Background		765.0 cpm			
	Full Spectrum	517.0 cpm		795.4 dpm		
	Cs137	149.0 cpm		1280 dpm		

(201) 825-9500 / (800) 631-3826

Captus® 3000 Reports

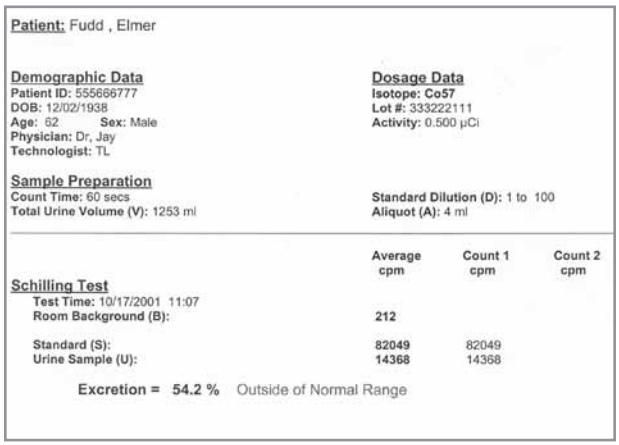
MCA Spectrum Report

The Multi-Channel Analyzer is very user friendly. ROI's can be selected from a convenient menu of isotopes with predefined regions or the user can define them. Protocols can be defined for real time, live time or acquired counts. Results are reported with full spectrum counts and counts by region of interest. All results can be saved in the database or exported to a spreadsheet.



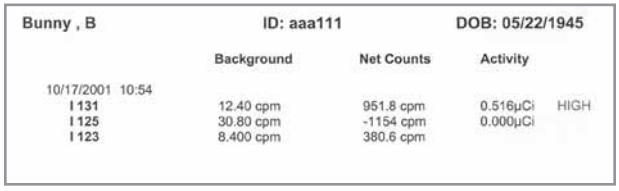
Schilling Test Report

In vitro lab test protocols are incorporated into the software; the user has access to Schilling, RBC Survival and both Cr51 and I125 blood volume studies. The program will integrate all patient demographic, physician and dose data and will perform automatic result calculations. By utilizing the report functionality all of the test data can be documented in a hardcopy format (Schilling is displayed) for physician review or for documentation in the patients file.



Staff Bioassay Report

The bioassay allows for the quick and efficient measurement of the staff thyroid burden for I-123, I-125 or I-131. Measurement results can be reported in CPM's or uCi's. In order to meet regulatory requirements a cumulative history can be maintained on the computer and/or printed out for a hardcopy record.



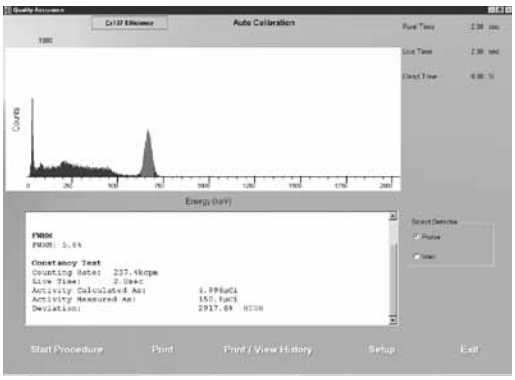
Captus® 3000 Upgrade Package

Improve the versatility and capability of your Captus 500, 600, 1000 or 2000…

Capintec has integrated the latest software and hardware to produce our most accurate and efficient Thyroid Uptake and Well Counting system yet, the Captus 3000. If you currently have a Captus 600 or 2000 it can be easily upgraded to a new Captus 3000 and give you all of the exceptional functionality that goes along with it.

The Captus 3000 has a completely redesigned software package, with Quality Assurance, Thyroid Uptakes, Wipe Testing, Bioassay, Multi-Channel Analyzer and Lab Tests (Schilling, RBC Survival, I125 & Cr51 Blood Volumes). All of the functions are easily accessed through "Flyer Over" control bars (no searching for drop-down menus).

The modifications needed and the cost involved in upgrading an older Captus system will vary. Please contact your Capintec sales representative for the specific requirements to upgrade your system.



Wipe Screen

Captus Upgrade W/ New MCA Card 5430-0118
Captus Upgrade W/ out New MCA Card 5430-0119

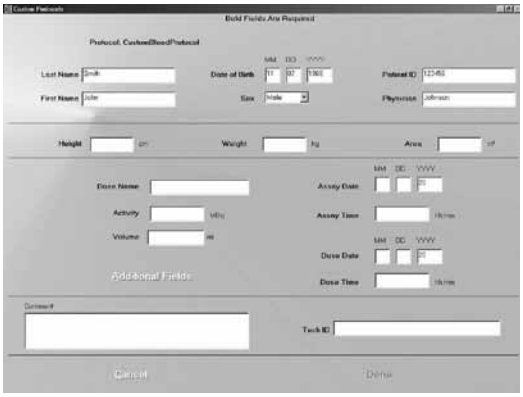
Captus® 3000 Custom Protocol

Capintec is very excited to introduce our new Custom Protocol Software for the Captus® 3000. The Custom Protocol works in conjunction with your existing Captus® 3000 to turn any user into a programmer.

As Nuclear Medicine moves forward, new and exciting diagnostic studies will be developed. With the Custom Protocol Software, it is remarkably easy to design and execute your own protocol to keep pace with cutting-edge research.

- Perfect for facilities that need to perform repeated protocols that are not widely adopted
- Gives you the flexibility needed to collect almost any type of data required for the study
- Perform simple or complex data analysis
- Create standard reports
- Available for use with all existing and new Captus® 3000 Systems
- Analysis and report generation is performed in Microsoft Excel
- Integration with Excel allows analysis of data and reporting to be at any level of complexity…it is completely user defined

Custom Protocol..... 0960-0152



Captus® 3000 Sample Custom Protocol

(201) 825-9500 / (800) 631-3826

Captus® 3000 System Configurations

The Captus 3000 is a highly versatile system that can be configured to meet any Nuclear Medicine department's needs. The standard configuration comes with the mobile stand, the thyroid uptake probe and the drilled crystal well. Optional systems can be equipped with a thyroid probe only, drilled well only, a full tabletop arrangement with well and probe, a modified tabletop with probe or well, or a tabletop system with a wall mounted thyroid probe.

If one of these variations of the Captus 3000 doesn't meet your needs let us know and we will work with you in creating the most user-friendly and cost effective system for your department.

CAPTUS-3000 Thyroid Uptake System Stand 5430-0076
CAPTUS-3000 Thyroid Uptake System Mobile Stand..... 5430-2130
CAPTUS-3000 Thyroid Uptake & Well Detector 5430-0077
CAPTUS-3000 Table Top Thyroid Uptake System..... 5430-0103
CAPTUS-3000 Table Top Thyroid Uptake System & Well Detector..... 5430-0087
CAPTUS-3000 Wall Mounted Thyroid Uptake System 5430-0106
CAPTUS-3000 Wall Mounted Thyroid Uptake System & Well Detector..... 5430-0107

Captus® 3000 Table Top System with well

Captus® 3000 Wall Mount

Cap-DICOM™
PACS Compatibility for the Capintec Captus 3000

With Cap-DICOM™, the Capintec Captus® 3000 gains the advantage of DICOM connectivity.

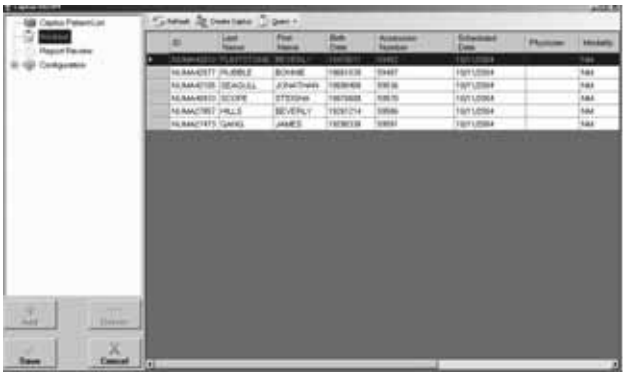
Cap-DICOM™ adds DICOM modality worklist and DICOM export to the Captus® 3000. This solution allows patient information and demographics to be pulled from the Radiology Information System (RIS) or Hospital Information System (HIS), thus, reducing errors and time associated with the manual input of patient information.

Cap-DICOM™ creates a DICOM secondary capture image from information generated during the uptake procedure. The software exports the DICOM image files to a destination DICOM C-Store provider specified by the user. This destination may be a nuclear medicine workstation or PACS.

Features

- Configurable options integrate nuclear medicine into the RIS and PACS environment
- Ability to query the worklist provider by accession number, patient ID, patient name or date
- Intuitive, easy to read user interface to quickly sort and search the worklist
- Ability to correct patient information before exporting
- Ability to review final reports before exporting to a nuclear medicine workstation or PACS

Report View



User Interface

Specifications

- Integrates the Captus® 3000 into a Dicom Radiology Information system and PACS environment
- Supports multiple vendors for nuclear medicine workstations, RIS and PACS systems
- Increases department efficiency and workflow
- Reduces errors associated with the manual input of patient information
- Increases accuracy of patient information in the PACS environment
- Merged uptake reports with thyroid scans can be displayed as a DICOM image
- Improved physician efficiency in interpretation and clinical review of the combined thyroid uptake report and imaging procedure

Cap-DICOM™ Software..... 5450-0003

ALERT Software Upgrade

In an emergency involving release of radioactive materials, internal contamination due to inhalation is a potential health concern. When a large population is potentially impacted, a critical public health challenge is to provide an initial field screening to rapidly triage and identify individuals with significant amounts of internal contamination. Capintec is proud to announce a measurement solution to this challenge.*

Captus® 3000 Alert Software adds this valuable feature to your Captus® 3000 system, providing dual functionality for both routine and emergency requirements. The system can measure and quantify internal organ burden after a radiologic event and perform all standard thyroid uptake, bioassay and MCA functions routinely required in a Nuclear Medicine department. The Emergency Population Screening module records demographic data, calculates BMI values and selects appropriate body type and generates results in mCi intake.

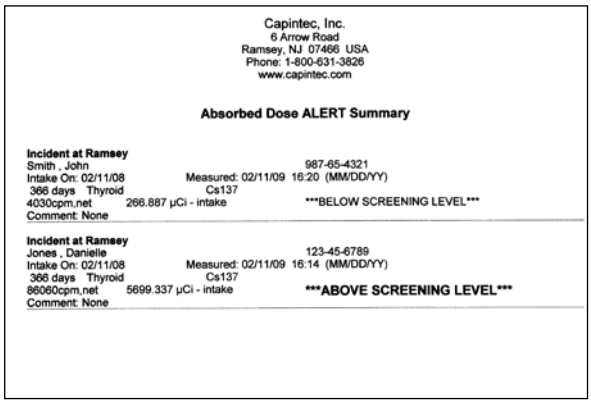
Measurements may be performed at thyroid, outer thigh and back of right lung, and data are currently available for Co-60, Ir-192, Cs-137 and I-131. The software utilizes conversion factors to calculate mCi-intake values from 1 to 30 days after intake. Results will be flagged when user defined trigger levels are exceeded. Those values which exceed limit are displayed in RED, and those under limit are displayed in GREEN. User can modify default measurement protocols as required to accommodate individual variability.

Collimated and shielded detector provides enhanced sensitivity. Can detect 1 ALI (Annual Limit of Intake) up to 30 days after intake within sixty seconds.

The Custom Protocol program supports customized measurements and calculations by integrating predefined measurement screens with Microsoft Excel® for analysis and report generation. This feature is ideal for post event data analysis.

Software Features

- Stores patient demographic data, measurements and calculated results
- Detects one ALI in 60 seconds or less up to 30 days after intake
- Multiple prompts assure user friendly format
- Automatically calculates Body Mass Index (BMI)
- Selects appropriate conversion factors* based on BMI
- Calculates mCi-intake at elapsed time after event
- Data currently available for following categories:
- Isotopes: Co60, Ir192, Cs137, and I131
- Organ sites: thyroid, lung, and outer thigh
- Elapsed time: day 1 through day 30 after intake
- Results flagged in RED if values exceed trigger levels

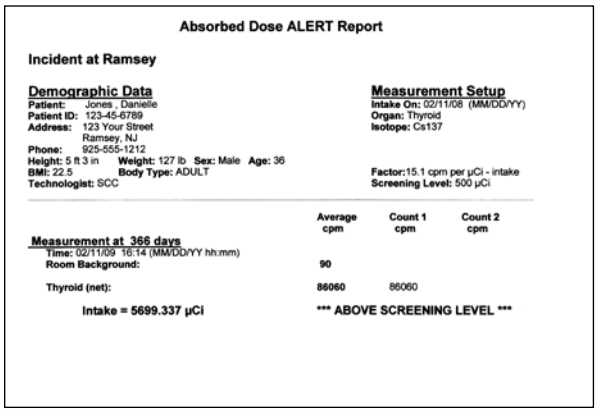


Capintec, Inc.
6 Arrow Road
Ramsey, NJ 07466 USA
Phone: 1-800-631-3826
www.capintec.com

Absorbed Dose ALERT Summary

Incident at Ramsey
Smith , John — 987-65-4321
Intake On: 02/11/08 — Measured: 02/11/09 16:20 (MM/DD/YY)
366 days Thyroid — Cs137
4030cpm.net — 266.887 µCi - intake — ***BELOW SCREENING LEVEL***
Comment: None

Incident at Ramsey
Jones , Danielle — 123-45-6789
Intake On: 02/11/08 — Measured: 02/11/09 16:14 (MM/DD/YY)
366 days Thyroid — Cs137
86060cpm.net — 5699.337 µCi - intake — ***ABOVE SCREENING LEVEL***
Comment: None



Absorbed Dose ALERT Report

Incident at Ramsey

Demographic Data
Patient: Jones , Danielle
Patient ID: 123-45-6789
Address: 123 Your Street, Ramsey, NJ
Phone: 925-555-1212
Height: 5 ft 3 in Weight: 127 lb Sex: Male Age: 36
BMI: 22.5 Body Type: ADULT
Technologist: SCC

Measurement Setup
Intake On: 02/11/08 (MM/DD/YY)
Organ: Thyroid
Isotope: Cs137
Factor:15.1 cpm per µCi - intake
Screening Level: 500 µCi

Measurement at 366 days	Average cpm	Count 1 cpm	Count 2 cpm
Time: 02/11/09 16:14 (MM/DD/YY hh:mm)			
Room Background:	90		
Thyroid (net):	86060	86060	
Intake = 5699.337 µCi	*** ABOVE SCREENING LEVEL ***		

- Enhanced archive, storage and data retrieval features
- Specialized export features transfer data directly to Excel®
- Flexible report formats, detailed and summary
- Custom Protocol module
- Fully automated quality assurance program including:
- Calibration • Chi-square
- Resolution • MDA
- Constancy • Efficiencies
- 1024 channel MCA with manual and automated controls
- Password protected
- Includes all of the Captus® 3000 software programs
- Wipe Tests • Bioassay
- Lab tests • Isotope Library
- Quick Start Menu
- Thyroid uptake with multiple protocol choices

* This product was developed using physical measurements on Capintec's Captus 3000 and computer modeling data developed at Georgia Institute of Technology with support and research funded by the Centers for Disease Control and Prevention.

Note: Additional ingestion data pending

ALERT Software Upgrade 0960-0177

www.capintec.com

Captus® 700t Thyroid Uptake System

Fast, Accurate and Efficient

With the Captus® 700t Thyroid Uptake System and its new color touch screen interface, performing thyroid uptake measurements has never been easier.

Using HIPAA compliant software, the Captus 700t provides fast, dedicated modules for Thyroid Uptake, Wipe Tests, Bio-Assay, and Lab Tests including Schillings Test, Blood Volume, and RBC Survival.

QA is automated and easy to perform for calibration, constancy, Chi Square, MDA and resolution functions. System calibration, constancy and Chi-Square are automatically performed using a Cs-137 reference source. Eu-152 can be used for enhanced point to point spectral energy calibration. The General Measurement software is very user friendly. ROI's can be selected from a convenient menu of isotopes with pre-defined regions, or, ROI's can defined by the user. Results are reported with full spectrum counts and counts by region of interest.

Multiple TU protocols can be created for I-123, I-131 or Tc-99m. The protocols can use a standard capsule method or allow the system to perform an automatic decay correction to the administered dose. The system will store detailed patient demographics, physician data and administered dose data. There is no limit to the number of uptakes that can be performed, and the results will be reported with detailed count information and automatic percentage uptake calculations.

Diagnostics and Tests:

- Quality Assurance includes zero adjust, automatic gain adjust, calibrator detector resolution, Chi-square, constancy, MDA, automatic efficiency calculation and storage.
- Thyroid Uptake protocols allow entry of patient demographics and the selection of a pre-defined procedure protocol. The standard can be measured with each uptake or automatically decay-corrected by the software. The number of uptakes for each patient procedure is user-defined. The Captus 700t software will automatically calculate and store each uptake which will be available for immediate access/printing or may be retrieved at the conclusion of the study or at a later point in time.
- Wipe Testing is state-of-the-art and uses a simple menu-driven format. The system will perform a peak search on each wipe sample and will identify any contamination by peak and by nuclide. The user determines and defines the number of wipe locations. Wipe locations can be grouped by a variety of variables including wipe location and type. Pre-defined or user-defined trigger levels are set to flag wipes above a specific activity level.
- Lab tests including Schillings Test and I-125 or Cr-51 Blood Volume offers step-by-step guidance through the counting procedure and automatic calculation of the results. Patient demographics and procedure results are printed or archived, as necessary.
- Red Blood Cell Survival is an added feature and provides the same step-by-step guidance through the counting procedure and automatic calculation of results.
- Bioassay for Staff allows for the quick and efficient assessment of potential thyroid burden for I-123, I-123 or I-131. Staff records, as with other test results, are maintained and archived on the instrument or available as printed records.

Continued on next page

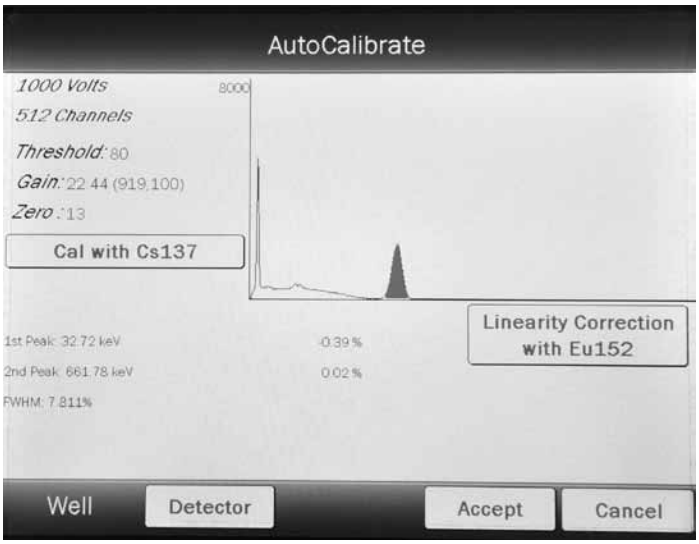
(201) 825-9500 / (800) 631-3826

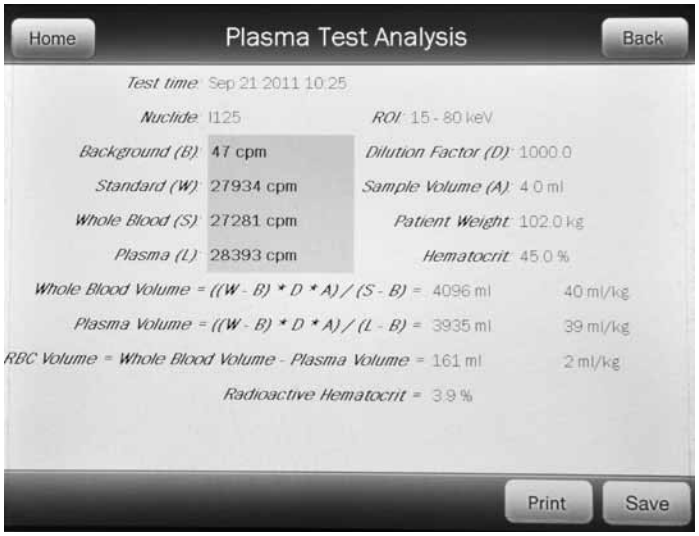
Specifications

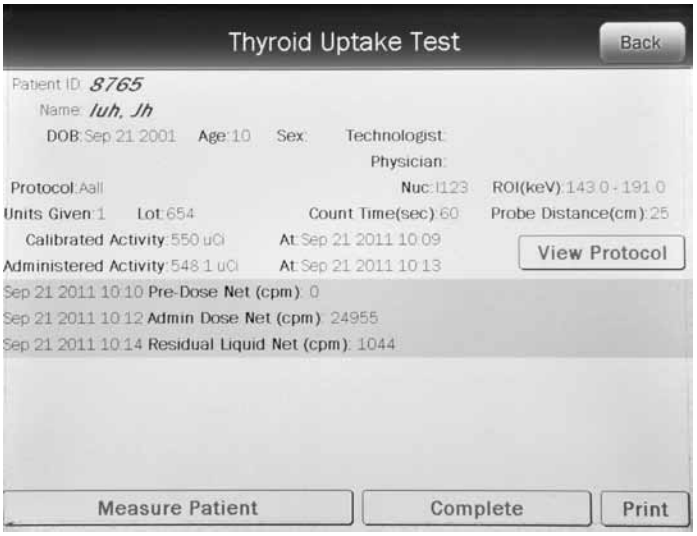
- Display Screen: Type: 8" VGA LCD Color Touch Screen Display; Patient Demographics; Test Results; Spectral Display
- Detector: 2" x 2" shielded NaI (TI) crystal with standard or optional Pediatric/ Bioassay collimator
- Well Detector: Optional drilled well type NaI (TI)- lined with brass to minimize back scatter
  - 1:Well Diameter: 1.6 cm max (5/8"); Depth: 4 cm (1 1/2"); Lead: 2.5 cm (1")
  - 2: Well Diameter: 1.6 cm max (5/8"); Depth: 4 cm (1 1/2"); Lead: 5 cm (2")
- Multichannel Pulse Height Analyzer: 512 Channels; Automatic self-calibration; Linearity - within 2% full scale; Differential Linearity - 2% SD; A to D conversion time - 10 microseconds; Low Energy Discrimination Level - 16 KeV, 4 Channels (whichever is greater); ROI - Automatic or Manual; Background subtraction and mean energy calculation via curve fittings; Maximum Count Rate - 100,000 counts per second (Real Time); Linear Display - Automatic/Manual
- Nuclide Data: Over 90 Nuclides in Memory (major gamma-ray energies, keV and half-life)
- Advanced System Setup: Test Sources, Efficiencies, User Nuclides, Wipe Test Data, Bioassay Data, Thyroid Uptake protocols, Thyroid Uptake Normal Values
- Diagnostics and Tests: Full system self-diagnostics including all program and data memories; Comprehensive test programs include automatic Chi-Square and FWHM, and MDA
- Printer: Inkjet Color Printer; Print results of studies including graphic displays
- Thyroid Uptake Stand: Rugged floor stand with spring arm and shelves; Heavy duty locking casters; Base designed to hold Shielded Well Detector
- Power Requirements: Standard: 115V .25A 90-127V 50-60Hz; Optional: 220V .125A 180-250V 50-60HZ; (With circuit protections, line filter and isolation transformer)

Captus® 700t Thyroid Uptake System 5430-3137
Captus® 700t Thyroid Uptake System with Well 5430-3138
Optional Well Detector with 2" Lead Shield 5430-0069

Neck Phantom 5230-0038
Wipe Spot Pads (Box of 500) 5420-0086
Test Tubes for Wipe Samples (Qty. 100) 5420-0090
Table Top Stand 5430-2038
Eu-152 (0.5 µCi Rod) 0975-152R
Cs-137 (0.5 µCi Rod) 0975-137R
Rod Source Holder 7315-1850
Wall Mount Stand 5430-3095
Drilled Well Crystal 5430-0081





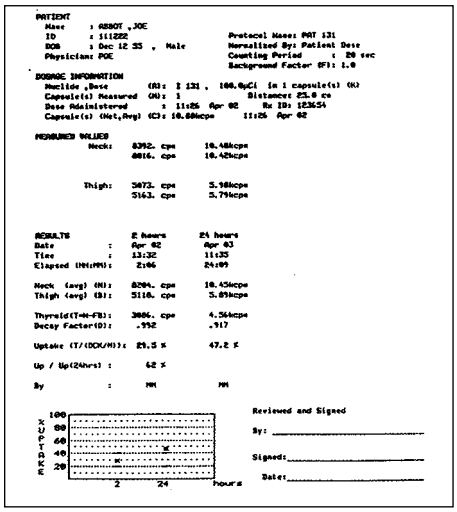


Captus® 700t Reports

Thyroid Uptake Measurement

The CAPTUS® 700t speeds you through uptakes with accurate results and professional color reports. Our thyroid uptake program allows for three different protocols and the choice of I-123, I-131 or Tc-99m. Simply select your protocol, enter patient data and start the procedure. All screens prompt you automatically for the proper measurement. The CAPTUS® 700t also shows the full spectrum display of each acquisition.

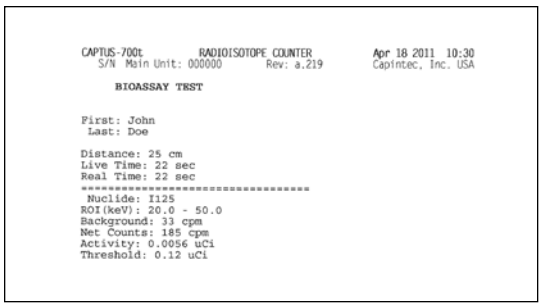
A pre-dose feature allows checking of activity levels before starting the procedure; any residual activity is automatically subtracted from the patient measurements during the uptake. At the completion of the test, a full report can be printed which includes patient data, dosage information, measured values, uptake results and even a graph of the study!



Staff Thyroid Burden Measurement

Through the Bioassay program, the CAPTUS® 700t measures and calculates the system efficiency for I-123, I-125, and I-131 in order to provide the most accurate results. The CAPTUS®-700t calculates and displays your staff member data for review.

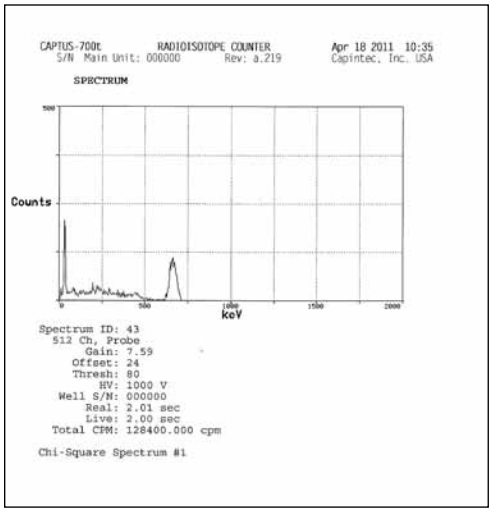
Results can be printed individually, or, by selecting the ALL option, making your record keeping a snap!



Autocalibration, System Test, Chi Square Test & MDA

Autocalibration and system test have never been easier thanks to the smart software of the CAPTUS® 700t. System testing simply requires selecting the TEST button, selecting probe or well, inserting the source and pressing START! The CAPTUS® 700t automatically adjusts the gain of the MCA, calculates the FWHM value of the detector, and prints the results.

Chi-Square testing is just as simple! Set counting time and counting repetitions and then you're ready to start acquisitions. The system calculates all the results for you, displays them for your review and prints them automatically. There is even an MDA module (Minimum Detectable Activity). Based upon a user selectable count time and choice of isotope, MDA calculates the minimum detectable activity of the system.



(201) 825-9500 / (800) 631-3826

Captus® 700t Thyroid Uptake Table Top System

Small foot-print saves space

If space and budget are a limiting factor, consider the Captus® 700t Tabletop Thyroid Uptake and Well System for all of your uptake and well counting needs. Counting procedures using HIPAA compliant software and dedicated modules for Thyroid Uptake, Wipe Tests, Bio-Assay, and Lab Tests including Schillings Test, Blood Volume, and RBC Survival have never been faster or easier.

QA is fully automated and easy to perform for calibration, Constancy, Chi Square, MDA and resolution functions. System calibration, constancy and Chi-Square are automatically performed using a Cs-137 reference source. Eu-152 can be used for enhanced point to point spectral energy calibration. The General Measurement software is very user friendly. ROI's can be selected from a convenient menu of isotopes with pre-defined regions, or, ROI's can defined by the user. Results are reported with full spectrum counts and counts by region of interest.

Multiple TU protocols can be created for I-123, I-131 or Tc-99m. The protocols can use a standard capsule method or allow the system to perform an automatic decay correction to the administered dose. The system will store detailed patient demographics, physician data and administered dose data. There is no limit to the number of uptakes that can be performed, and the results will be reported with detailed count information and automatic percentage uptake calculations.

Well procedures for wipe and lab tests allow user-defined counting protocols to be developed using a simple, step-by-step format to define, count, store and retrieve data.

Features

- Quality Assurance includes zero adjust, automatic gain adjust, calibrator detector resolution, Chi-square, constancy, MDA, automatic efficiency calculation and storage.
- Thyroid Uptake protocols allow entry of patient demographics and the selection of a pre-defined procedure protocol. The standard can be measured with each uptake or automatically decay-corrected by the software. The number of uptakes for each patient procedure is user-defined. The Captus 700t software will automatically calculate and store each uptake which will be available for immediate access/printing or may be retrieved at the conclusion of the study or at a later point in time.
- Wipe Testing is state-of-the-art and uses a simple menu-driven format. The system will perform a peak search on each wipe sample and will identify any contamination by peak and by nuclide. The user determines and defines the number of wipe locations. Wipe locations can be grouped by a variety of variables including wipe location and type. Pre-defined or user-defined trigger levels are set to flag wipes above a specific activity level.
- Lab tests including Schillings Test and I-125 or Cr-51 Blood Volume offers step-by-step guidance through the counting procedure and automatic calculation of the results. Patient demographics and procedure results are printed or archived, as necessary.
- Red Blood Cell Survival is an added feature and provides the same step-by-step guidance through the counting procedure and automatic calculation of results.
- Bioassay for Staff allows for the quick and efficient assessment of potential thyroid burden for I-123, I-123 or I-131. Staff records, as with other test results, are maintained and archived on the instrument or available as printed records.
- ETL CE

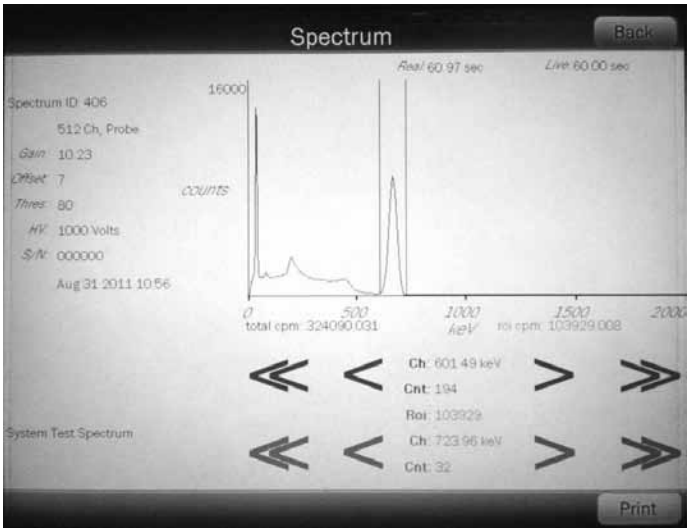
Specifications

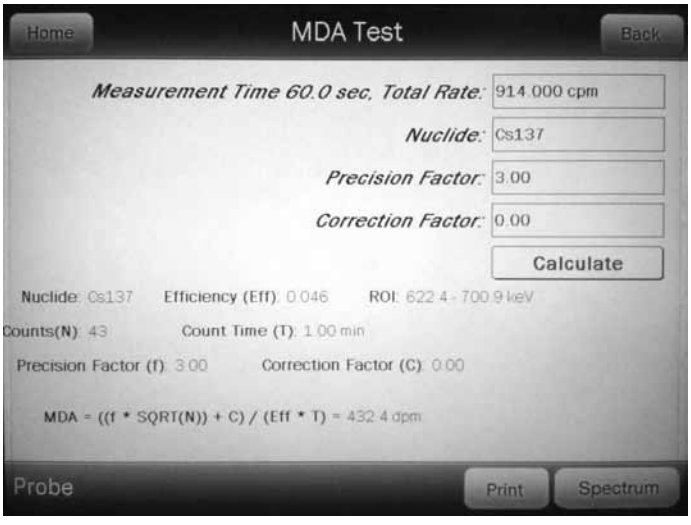
- 8” VGA LCD Color Touch Screen Display
- Detector: 2” x 2” shielded NaI (TI) crystal with standard or optional Pediatric/Bioassay collimator
- Well Detector: Drilled well 2”x2” NaI (TI) – lined with brass to minimize backscatter
- 1: Well Diameter: 1.6 cm max (5/8”) x Depth: 4 cm (1 1/2”) x Lead: 2.5 cm (1”)
- 2: Well Diameter: 1.6 cm max (5/8”) x Depth: 4 cm (1 1/2”) x Lead: 5* cm (2”)
- Multichannel Analyzer: 512 Channels; Automatic self-calibration; Linearity - within 2% full scale; Differential Linearity - 2% SD; A to D conversion time - 10 microseconds; Low Energy Discrimination Level - 16 KeV, 4 Channels (whichever is greater); ROI - Automatic or Manual; Background subtraction and mean energy calculation via curve fittings; Maximum Count Rate - 100,000 counts per second (Real Time); Linear Display - Automatic/Manual
- Nuclide Data: Over 90 Nuclides in Memory (major gamma-ray energies, keV and half-life)
- Advanced System Setup: Test sources, Efficiencies, User Nuclides, Wipe Test Data, Bioassay Data, Thyroid Uptake protocols, Thyroid Uptake Normal Values
- Diagnostics and Tests: Full system self-diagnostics including all program and data memories; Comprehensive test programs include automatic Chi-Square, MDA and FWHM.
- Printer: Color Inkjet; Print results of studies including color graphic displays
- Power Requirements: Standard: 115V .25A 90-127V 50-60Hz; Optional: 220V .125A 180-250V 50-60HZ (With circuit protections, line filter and isolation transformer)
- Reports: Thyroid uptake, Bioassay, autocalibration, system test, MDA, Chi-Square and laboratory tests are archived and searchable by date. Wipe tests are archived and searchable by date, type, location and activity.

CAPTUS® 700t Thyroid Uptake System..... 5430-3137
CAPTUS® 700t Thyroid Uptake & Well System..... 5430-3138

Optional Accessories

Europium 152 (0.5µCi) Rod Source.....0975-152R
Cesium 137 (0.5µCI) Rod Source.....0975-137R
Well Detector with 2" Lead Shield..... 5430-0069





(201) 825-9500 / (800) 631-3826

Table Top Stand

The Capintec Table Top Stand is an excellent alternative to the floor stand when space is at a premium. This stand is designed to work with the CAPTUS 3000 and the CAPTUS 700t Thyroid Uptake Systems. The Capintec Table Top Stand is very stable when placed on a sturdy table or bench, yet the unit may be easily moved to another location when desired. When fitted with a drilled crystal, the stand acts as a Well Detector System.

Features

- Small size makes the Table Top Stand perfect for small departments and clinics
- Large 2" x 2" NaI (Tl) crystal for highest sensitivity
- Same style and quality collimator or available with standard pediatric collimator as Captus 3000 or 600
- Rotates a full 360o with large locking knobs for ease of placement

Table Top Stand..... 5430-2038-OPT

Capintec Well Detectors

All well shields supplied by Capintec contain a 2" x 2" NaI (Tl) crystal, tube base and PM tube for the highest quality in counting statistics. The shield is lined with 0.25" thick copper or brass to minimize interference from lead x-rays and is finished in an attractive durable textured epoxy paint.

Capintec offers two shield thicknesses: 1" is standard, and 2" is the heavy shield. Both are suitable for use with the CAPTUS 3000, CAPTUS 700t, or CAPRAC-t.

Features

- Completely shielded for low background
- Accommodates large samples
- 3 3/4 p geometry

Well Detector (2" Shield)..... 5430-0069
Well Detector (1" Shield)..... 5420-2033

Pediatrics And/Or Bio-Assay Collimator

The collimator shown on the Table Top Stand is especially used for Thyroid Uptakes on pediatric patients. The reduced field-of-view is perfect for a smaller size thyroid without picking up unwanted body activity. When bioassay is the main function of the system, the shorter length collimator allows the detector to be within a closer distance of thyroid for enhanced sensitivity. The system is perfect for use in a Radiopharmacy.

Pediatric/Bio-Assay Collimator..... 5420-3110

Drilled Well Crystal

Capintec offers a Drilled Crystal that is matched to fit the collimator for the CAPTUS 3000 or the CAPTUS 700t Thyroid Uptake Systems. If your system is not located in an area where high activities would cause high background, the drilled crystal is a low cost alternative to purchasing a well counter. The drilled crystal replaces the flat faced crystal in the thyroid probe and becomes both a thyroid detector and a well detector without loss of sensitivity. This crystal is the same quality as the rest of the excellent NaI (Tl) crystals provided by Capintec.

A special “dipper” is used to lower samples into the well, to reduce the possibility of damage. There is also a well liner of very thin plastic that is shipped with each crystal (replacements are available).

Features

- Same sensitivity as flat field crystal for thyroid uptake
- Lower cost alternative to purchase of additional well counter
- Improved geometry for counting wipes

Drilled Well Crystal..... 5430-0081
Well Liner (pkg. of 5)..... 5120-0176

Rod Source Holder

Designed to provide precise, reproducible positioning of check sources in the thyroid uptake collimator. Easy to clean, and break resistant.

Rod Source Holder.....7315-1850

511 Spring Armed Dose Drawing Station

Capintec knows how important radiation safety is to your department, 511 keV nuclides make achieving this goal even more challenging.

The Capintec Dose Drawing Station was designed to help you meet the ALARA requirements of your department. With its proprietary spring arm design and exceptional shielding, the Dose Drawing Station is a fast and safety conscious way of handling your PET nuclides.

The Four Key Features

The Spring Arm (1):

The Dose Drawing Station's proprietary spring arm design allows for quick and near effortless positioning of the 35lb. (16 kg) vial shield. With minimal exertion and minimal time the vial shield can be raised, lowered and/or inverted.

The 511 Vial Shield (2):

There are two components to the vial shield. First is the inner T-vial shield, which is made of tungsten and provides a 1" (25.4 mm) lead equivalence. Second is the outer shield, which has 1" (25.4 mm) thick walls of epoxy-coated lead.

The Dose Drawing Syringe Shields (3):

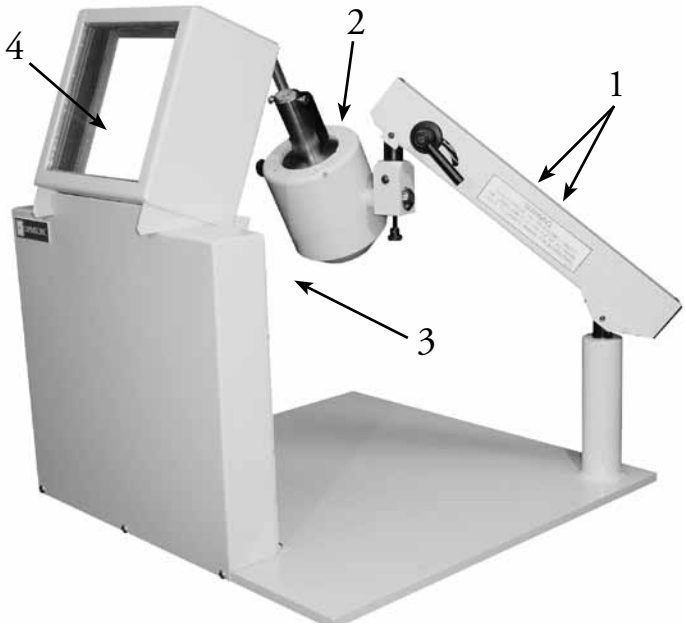
Included with the Dose Drawing Station is a Dose Drawing Syringe Shield in 5, 10 or 20 cc sizes. The syringe shield has a tungsten flange that provides maximum protection and locks onto the 511 vial shield with a twist of the wrist.

The 511 "L" Block Body Shield (4):

Inside of the steel covering of the body shield lie interlocking 2 3/8" (6 cm) lead bricks. Mounted at a 20o angle on top of the steel cover is an 8" x 8" x 4" (51 x 51 x 25 cm) High Density lead glass view port.

Features

- Designed for maximum radiation protection and greater flexibility when drawing doses.
- Spring arm is constructed to provide ease of positioning and effortless lifting of the 35 lb. Tungsten vial.
- Easily removable inner tungsten vial shield with 1" lead equivalence shielding.
- Outer shield is 1" thick epoxy coated lead. In conjunction with the inner tungsten shield the user gets a combined 2" of lead shielding.



- Flanged tungsten shield is manufactured to twist and lock into the tungsten vial shield. One flanged tungsten shield is included in the purchase of the dose drawing station. (When purchasing specify which shield size you would require, 5cc., 10cc or 20cc).
- Lead glass is protected by 1/4" plate glass laminated to the front and back viewing surface to protect lead glass from scratching and chipping.

Specifications

- 23 7/8" H x 22 1/2" W x 22" D
- 8" H x 8" W x 4" D (51 x 51 x 25 cm) 5.2 g/cc density lead glass window at a fixed angle to ease viewing.
- 2 3/8" (6 cm) Gapless lead shielding.
- Weight: 250 lbs.

Drawing Station with body shield 5510-3003
Drawing Station without body shield 5510-3004

Optional Items

5 cc Dose Drawing Syringe Shield..... 0665-2017
10 cc Dose Drawing Syringe Shield..... 0665-2011
20 cc Dose Drawing Syringe Shield..... 0665-2018
Unpainted Dose Drawing Station Brick Kit-
12" H x 32" W x 24" D x 2" Thick (31 x 82 x 61 x 5 cm)..... 5530-1028
Painted Dose Drawing Station Brick Kit-
12" H x 32" W x 24" D x 2" Thick (31 x 82 x 61 x 5 cm)..... 5530-1031
Unpainted Dose Drawing Station Brick Kit-
12" H x 32" W x 24" D x 2 3/8" Thick (31 x 82 x 61 x 6 cm) 5530-1033
Painted Dose Drawing Station Brick Kit-
12" H x 32" W x 24" D x 2 3/8" Thick (31 x 82 x 61 x 6 cm) 5530-1034

(201) 825-9500 / (800) 631-3826

511 "L" Block Table Top Shield

Maximum protection for safe handling of 511 KeV nuclides.

The newly designed 511 "L" Block Shield is placed in front of the Drawing Station and used to provide a protected work area for safe handling of 511 keV nuclides. The front wall and the base of the unit are constructed of steel with built-in lead shielding. A 4" thick lead glass window offers maximum protection and an unrestricted viewing area. In addition, the lead glass is protected from scratches and chips by a sheet of window glass.

Features

- The fixed angle design of the lead glass allows easier viewing.
- Contains two sheets of 1/4" window glass to protect lead glass from scratching and chips (Industry exclusive).
- Lead shielding thickness- 1.0" (2.54 cm)

Specifications

- 20 1/4" H x 14" W x 14" D (51 x 35.5 x 35.5 cm)
- 8" H x 8" W x 4" D (51 x 51 x 25 cm) 5.2 g/cc density lead glass.
- Weight: 195 lb. (89 kg)

PET L-Block Shield w/4" glass 0665-2014

Optional Brick Kits for 511 "L" Block.

Unpainted Chevron Brick Kit 12" H x 28" W x 16" D x 2" thick (41 x 71 x 30 x 5 cm) 5530-1029

Painted Chevron Brick Kit 12" H x 28" W x 16" D x 2" thick (41 x 71 x 30 x 5 cm) 5530-1030

Unpainted Chevron Brick Kit 12" H x 28" W x 16" D x 2 3/8" thick (41 x 71 x 30 x 6 cm) 5530-1035

Painted Chevron Brick Kit 12" H x 28" W x 16" D x 2 3/8" thick (41 x 71 x 30 x 6 cm) 5530-1036

PIG-30 & PIG-50

Lead Pigs for PET store vials of radiotracers for daily use, ensuring staff safety and reducing background levels. Built with 2.38" (60 mm) lead shielding. Model PIG-30 holds vials up to 30 ml; Model PIG-50 holds vials up to 50 ml.

Specifications

- PIG-30: 8" H x 6.4" Dia. (20 x 16 cm); 109 lb. (49.4 kg)
- PIG-50: 9.75" H x 6.75" Dia. (25 x 17 cm); 148 lb. (67.1 kg)

PIG-30 Vial Shield 5730-2030

PIG-50 Vial Shield 5730-2027

511 Adjustable "L" Block Table Top Shield

Excellent radiation protection with exceptional flexibility

Capintec is very pleased to introduce our first Adjustable 511 L Block Table Top Shield. Designed to exceed the basic requirement of outstanding radiation protection it now also boasts the luxury of an adjustable lead glass window for greater work area flexibility. The front wall shields with 2 3/8" thick lead and the window is 4" thick lead glass, with a clear glass cover to protect it from scratching. The front, base and glass frame are each constructed of high gauge steel for superior strength and stability.

Use the Adjustable L Block in conjunction with the Capintec Dose Drawing Station or as a stand-alone unit. Either way, the optional Brick Kits (for side and back wall protection) will provide the perfect finishing touch for your 511 Adjustable L Block.

The 511 "L" Block Shield is shipped in three pieces and easily assembled on site. Side walls are available as an option.

Features

- Adjustable lead glass window from 30-55 degrees.
- Clear glass covering to protect lead glass from chipping and scratching.
- Steel construction for strength and stability.

Specifications

- 2-3/8" (6 cm) Lead Shielding
- 8" x 8" x 4" (51 x 51 x 25 cm) lead glass (5.2 density, 1.6" lead equivalence)
- Adjustable window angle of 30-55 degrees with respect to vertical
- 21" H x 15-3/4" W x 15-1/2" D (40 x 39 cm)
- Weight: 500 lb. (227 kg)

511 Adjustable "L" Block Shield 5530-2077

PET Transport Case

Safe... Versatile... Secure

Approved for DOT Ground and IATA Air Transport

Easy-to-use and handle

The Capintec PET Transport System has been designed with you in mind. It is safe, secure, and easy to use. You can ship up to three single syringes (3cc or 5cc) in our three (3) part Tungsten Syringe Shield. The PET Transport System is approved for DOT Ground and IATA Air Transport.

Features

- Approved for DOT Ground and IATA Air Transport
- Rugged steel ammo box design
- High density polyethylene foam insert for secure transport of pigs
- For use with 1, 2 or 3 syringe shields

Specifications

- Weight: 27 lb. (12 kg) (without tungsten syringe shields)
- Dimensions: 12" x 15" x 15" (30 x 38 x 38 cm)

PET transport case 5530-0069

Tungsten Syringe Shield (3 piece)

Features

- Three (3) part shield design for versatility; can be used as both a transport shield and injection shield
- Sturdy and comfortable nylon web strap/ handle for easy removal from DOT Transporter, and carrying

Specifications

- Dimensions: 2.5" x 9" (6 x 23 cm) with wall thickness of 1" (2.5 cm)
- Weight of each tungsten syringe shield: 27 lb. (2.5 cm)
- Total weight of three (3) tungsten syringe shields and transporter: 108 lb.

Tungsten syringe shield 5530-2040

Universal 511 T-Vial Shield

The 511 “T” Vial Shield is made entirely of Tungsten to provide the best protection for the user. The shield offers 1" lead equivalent on all sides. "T" lifting handle is removable. Holds 10, 20 and 30cc Vials.

Specifications

- Dimensions: 4.7” H x 3.1” Dia. (12 x 8 cm)
- Weight: 16 lb. (7 kg)

Universal T-Vial 5530-2014

Rotund Container

Greatest mobility in a small shield

As some activities call for greater shielding than is usually found in the department, the Rotund Lead Container is designed with 1” (24.5 mm) shielding. The canister is fitted with an easy carry handle that fastens the top down securely using thumb screws attached to the steel band around the container. This shield will hold vials up to a 30 cc and can be used for quick transport of 511 keV products when portability is required.

A smaller shield is available that offers 1" lead walls, when lighter shielding is required and still with the same inside diameter for 30 cc vials. Both of these units may be used as a primary shield for high energy products but should be placed behind additional shielding when storing activity.

Features

- Has 24.5 mm lead shielding 44.5 lead equivalent on all sides
- Bail handle fastens down to secure the top
- Holds up to a 30cc vial

Specifications

- 9 1/2” H x 4 1/2” Dia. (16 x 11 cm)
- 22 lb. (10 kg)

Rotund Container 0670-0010

(201) 825-9500 / (800) 631-3826

511 C-Tec™ Syringe Shield

This special Syringe Shield is manufactured to provide shielding for 511 keV nuclides. The 511 Syringe Shield is made of Tungsten with a 0.5" (12.7 mm) lead equivalency. It has a viewing area of 0.75" (19 mm) thick lead glass surrounded by a rubber grommet to prevent damage to the glass. Fluorescent gold gloss covers the interior of the syringe shield for exceptional visibility of the syringe contents.

An optional "Double Clip" security holder is also available.

511 C-Tec Syringe Shield 5cc..... 0665-2020
511 C-Tec Syringe Shield 10cc..... 0665-2015
511 C-Tec Syringe Shield 20cc..... 0665-2021

Syringe Security Holder

Syringe Security Holder 5530-2007

PET Sharps Container Shield

The Capintec PET sharps container shield is constructed to stand alone or to be recessed within a countertop. The shield is constructed of steel with 1" lead lining and allows for simple and convenient disposal of 511keV radionuclides.

Features

- Hinged cover for syringe disposal
- Sliding top with lock for container removal

Specifications

- 13 9/16" H x 10 5/8" O Dia. x 6 1/8 I Dia. (34.4 x 27 x 15.6cm); Weight 160 lb. (72.6 kg)
- 1" (2.5 cm) Lead lining
- Use with Monoject Sharps Container

PET Sharps Container..... 5730-2271

511 Dose-Drawing Syringe Shield

The 511 Dose Drawing Syringe Shields are constructed with the same featured shielding as the 511 C-Tec Syringe Shields. The needle end of the syringe shield has a Tungsten disc that protects the user's hands during the dose drawing procedure.

There are 2 pins in the end disc that secure the shield to the Drawing Station. This allows single handed dose removal from the drawing station

SIZES AVAILABLE: 5 cc, 10 cc and 20 cc Drawing Shield Dia.

511 Dose Drawing Syringe Shield 5cc 0665-2017
511 Dose Drawing Syringe Shield 10cc 0665-2011
511 Dose Drawing Syringe Shield 20cc 0665-2018

High Radiation Transport Cart

Safe Transport of Heavy Lead Containers

The High Radiation Transport Cart is a safe way to transport heavy lead containers within your facility without risk of the cart turning over or struggling with a container too heavy to carry safely. The cart has a single box measuring 12 5/8" x 9 3/8" square and 3 3/8" (12.6 x 24 x 8.6 cm) high to hold lead canisters up to 6.75" (17 cm) in diameter safely, close to the floor. To handle weighty loads the unit has heavy duty roller bearing rear wheels and a locking front caster. The self-standing handle is held by friction in any position.

Weighing only 25 pounds (11 kg) and with a small footprint, the unit is easily lifted in and out of a vehicle and stored in a small space.

Features

- Long, self-standing handle
- Low center of gravity for stability
- Removable insert included to subdivide box into two smaller sections
- Locking front wheels

Transport Cart..... 0652-0029

PET Mobile Shield

The Capintec PET Mobile Shield provides excellent protection from the high-energy 511keV photons of PET isotopes. The shield is a cost-effective and versatile way of ensuring adequate radiation protection in a PET facility.

The mobile shield can be easily rolled into position for injecting, dispensing or handling PET isotopes. Once it is no longer needed it can be conveniently stored out of the way. The mobility of the shield will save on the cost of constructing high-energy work areas in the nuclear medicine department.

The PET Mobile Shield is the perfect compliment to Capintec's extensive line of 511keV measurement and shielding products.

Features

- 2 3/8" (60 mm) thick lead bricks encased in steel
- 4" (10 cm) thick lead glass view port
- 99% attenuation of 511 keV photons
- Height adjustment range of 5 1/2" (14 cm)
- Two 360° locking swivel casters

Specifications

- Viewing Port:
- 8" x 8" x 4" (51 x 51 x 25 cm) thick leaded glass
- 5.2 g/cm density
- Body Shield:
- 2 3/8" (6 cm) thick interlocking chevron lead bricks
- Attenuates >99% at 511 keV
- Completely encased in a painted steel cover
- 24 1/2" H x 16 1/2" W (62 x 42 cm)
- Base Support:
- 8" Hydraulic height adjustment
- Footprint: 24" x 28" (61 x 71 cm)
- Two 360° degree locking swivel casters
- Overall Dimensions:
- Maximum Height including window: 63" (160 cm)
- Total weight: 500 lb. (227 kg)

PET Mobile Shield 5530-3042

Positron Shield

Constructed of nine sets of 2 3/8" (60 mm) thick lead split rings for full shielding of a dose calibrator chamber. The positron shield gives maximum radiation protection when working with 511 KeV nuclides. The shield can either be flush mounted to a work surface or mounted on a table or cabinet.

Features

- Rings are 2 3/8" (6 cm) thick lead.
- Lead contains 3% antimony for strength.
- Manufactured to fit all remote chamber Capintec dose calibrators except the CRC-15 BT.

Specifications

- 19" H with an outside diameter of 11 3/8" (48 x 29 cm)
- Weight: 518 lb. (236 kg)

Positron Shield 7300-2903

Positron Shield Stand

Solidly built to support a Capintec dose calibrator encased in the Positron Shield

Features

- 3-Legged stand made of arc-welded steel.
- Standard Range of height with adjustable feet is 22 7/8" to 25 3/8" (58-64.5 cm)
- Capintec will customize the length to meet your exact specifications.

Positron Shield Stand 5126-2001

511 Transport Container

The shield is designed to fit into the Transport Cart shown above. It is designed to hold vials of 511 emitters.

Features

- Fits into box on Transport Cart
- Designed with over 1.5 inches (3.8 cm) of safety shielding
- Lift rings for easy removal of lid
- Holds up to 30 cc vial
- Ball handle fastens to secure top
- 6.5" H x 5" Dia. (16.5 x 13 cm)

PET Rotund Container 5730-2041

(201) 825-9500 / (800) 631-3826

CAP-Cell® Isolator

The new Capintec CAP-Cell® Isolator is designed to provide an ISO Class 5 (Class 100) clean air environment to meet the new and more stringent requirements of USP <797> for aseptic sterile compounding.

This shielded negative pressure recirculating isolator is the ideal system for compounding and dispensing injectable Nuclear Medicine radiopharmaceuticals. The unit incorporates a sealed glove box and interchange chamber, with 1/8 inch (optional ¼ inch) of lead shielding to front door, sides, and floor. Additional shielding on front face provides a full ¼ inch lead body shield. The sealed isolator also eliminates the costly requirement for placement in an exterior ISO Class 7 (Class 10,000) clean room. The standard system uses HEPA filtered air with partial recirculation and room air exhaust. This feature eliminates the need for HVAC hookup and reduces operating costs. Optional external exhaust accessories are available for HVAC hookup if desired. The model has a fully hinged front panel to allow easy access for cleaning and equipment placement. The sealed interchange chamber allows the user to transfer materials without compromising the air quality of the primary cell.

Specifications:

- Isolator:
- Sealed glove box design with sealed interchange chamber
- Unit shall maintain ISO Class 5 (Federal Standard 209E Class 100) within workzone and interchange chamber
- Interchange chamber may be configured on the right or left side
- Negative pressure, with sufficient interchange chamber pressure differential to maintain sterility in glove box
- Interchange door is interlocked to prevent inadvertent opening when outer door is open
- Two removable work trays with cove corners for main and interchange chambers
- HEPA filter for supply air protected by non flammable perforated metal diffuser
- HEPA filter seal is spring loaded Neoprene
- Partial re-circulating airflow with minimal room air exhaust
- Externally mounted fluorescent lighting
- Hospital grade duplex outlet on back wall with drip proof cover
- Hinged front face, ergonomically slanted at 10° from vertical
- 16 GA, Type 304 stainless steel liner with reinforced U channels
- Top/Front filter removal access without disassembly of control panel
- Penetrations in base for sharps container and flush mount dose calibrator chamber
- Two circular nitrile rubber gloves
- Two circular nitrile rubber sleeves
- Three position IV bar with six hooks
- Key locks included on external front face
- Shielding/Base:
- Viewing window: 1/2” (1.27 cm) of 4.8 g/cm3 leaded glass, 7 1/2” H x 25” W (19.05 x 63.5 cm)
- 1/8” (3.175 mm) lead shielding on base, back and sides (optional 1/4” (6.35 mm))
- 1/8” (3.175 mm) lead shielding on hinged front panel excluding glove ports and viewing window
- 1/4” (6.35 mm) lead body shield in center of front panel
- Two 5” (12.7 cm) diameter penetrations in base for sharps container and flush mount dose calibrator chamber
- 1/8” (3.175 mm) lead shielding for sharps container (optional 1/4” (6.35 mm))
- Articulating arm for calibrator readout mounted on base
- Exterior aluminum cosmetic panels painted epoxy enamel
- Heavy duty base support-adjustable height with 10” (25.4 cm) range
- Height adjustment to center of glove port- 41 1/2” to 51 1/2” (105 cm to 130 cm)
- Electrical/Control Panel:
- Negative pressure design
- Exhaust interlock to prevent positive pressure workzone and interchange
- Centrally located control panel for adjustable airflow and lights
- Airflow adjustment via solid state motor voltage regulator
- Fuses located in control panel
- Two minihelic gauges
- Meets UL requirements for U.S. and Canada for electrical safety
- UL/UL-C Listed 115 V, AC 60 Hz, 6 Amps (220V/50 Hz option)
- 12’ (3.7 m) Hospital Grade Power Cord
- Exhaust rate 65 CFM (110CMH) @ 0.1in. w.g. (external exhaust option only)
- Heat Rejected, 795 BTU per hour

Continued on next page

- Dimensions
- Overall Dimensions: 80”-90 1/2” H (depending upon adjustable base setting) x 51 1/2” W x 31” D (204-230 x 130 x 78.7 cm)
- Workzone Dimensions: Main Cell- 27 3/8” H x 35 1/4” W x 23 1/4” D (69.5 x 89.5 x 59 cm)
- Interchange chamber Dimensions: 27 3/8” H x 14 1/8” W x 24” D (69.5 x 35.9 x 60.96 cm)
- Interior sliding door: 8 1/2 H x 18” W (21.59 x 45.72 cm)
- Weight: 1/8” 1,200 lb. (545 kg) 1/4” option 1,600 lb. (726 kg)
- Installation
- Unit is designed for customer installation
- Disassembled unit will fit through standard 36 in. doorway
- Base adjustment must be set before placing shielded glove box

- Options
- Thimble kit for external exhaust
- Additional lead shielding (1/4 in. total) on sides, floor, and sharps shield

CAP-Cell® with 1/8 inch lead..... 5530-3140
CAP-Cell® with 1/4 inch lead..... 5530-3141

Optional Accessories

CRC®-25R Dose Calibrator..... 5130-3215

Shielded Hoods For Any Application

As a leading manufacturer of shielded enclosures for a variety of Nuclear Medicine, PET and 511 SPECT applications, Capintec can provide custom shielding for any of the hoods or enclosures listed on these pages. Whether your requirement is for an eighth of an inch of lead surrounding a work area or 2" (50 mm) of PET thick shielding and an integral lead glass mobile body shield for quality assurance or dose preparation, we can design custom hood shielding to your specifications. If you are not sure of an exact shielding design, contact Capintec for typical design characteristics, specifications and pricing.

The bottom photo on this page is a fully shielded Laminar Flow Hood and Radioisotope Fume Hood. These units feature a 'full' mobile body shield with lead glass, to view the working area while protecting the worker. The mobile body shield can be moved to allow replacement of filters and to service the hood. The mobile body shield, although weighing several hundred pounds, moves smoothly into place or out of the way. Our mechanical engineers will be glad to work with you to design the product that suits your application best.

Features

- Wide variety of shielding applications up to 2" (50mm) PET thick shielding
- Optional lead glass mobile body shield
- Flush mounting for dose calibrator ion chambers
- Environmental shielding for dose calibrator or other equipment
- Optional Z traps for shielded exhaust applications
- 3', 4', 5' and 6' configurations available- Note that dimensions vary with shielding selection

For detailed information, part numbers, pricing and a quotation call us at 1.800.631.3826

(201) 825-9500 / (800) 631-3826

Custom Work Stations

8”x 8” x 4” Lead glass window with 2” Lead shielding on all sides. Dose Calibrator Chamber, 2 sharps shield are flush mounted to work surface floor. Sharp shield can be accessed via a shielding drawer.

Give us your specifications and we will custom build one for your facility.

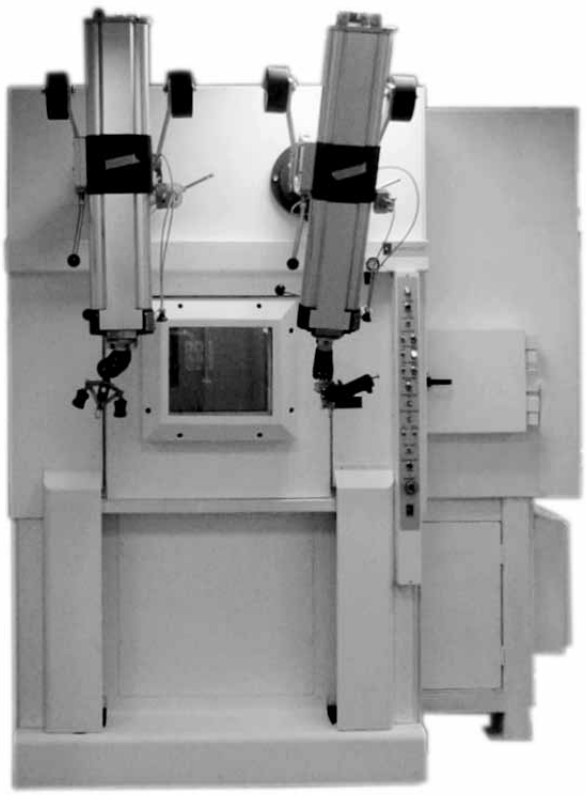
Features

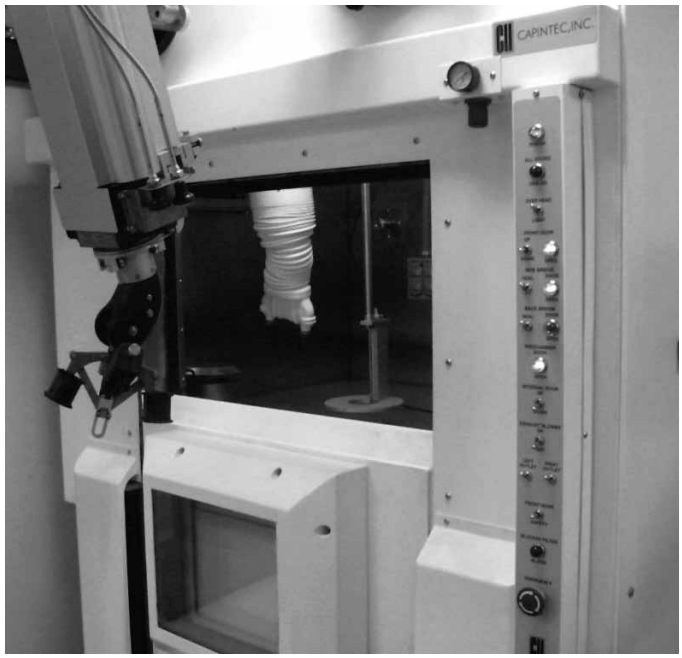
- Leaded glass window
- Stainless steel frame
- L-Block Shield
- Optional 1” PET Shielding Available

Class 100 cGMP Isolator

- 2 models available
- Complies to FDA cGMP guidelines and USP <797>
- Conforms to CETA testing guidelines
- Sealed with vertical unidirectional air flow
- Class 100 [ISO level 5] with 99.9% HEPA filter
- Negative Pressure
- Available 2 3/8" (60 mm) or 3" (75 mm) lead shielding
- Prechamber can be located on either right or left side
- Pneumatically operated shielded door between prechamber and main chamber
- Full exhaust or partial recirculating air available

For detailed information, part numbers, pricing and a quotation call us at 1.800.631.3826



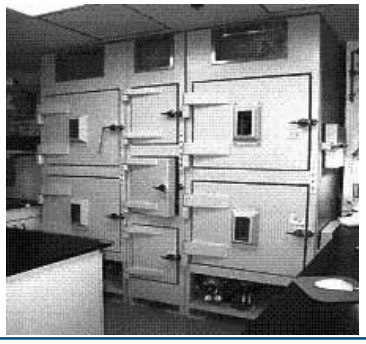


(201) 825-9500 / (800) 631-3826

Single, Dual & Quad Mini Cells

For Enclosure of Radiotracer Synthesis Modules; Store Radioactive Materials

The Capintec Mini Cell is a custom designed shielded enclosure for storage and operation of an automated chemistry module. They can be designed in single, dual or quad configurations as free standing units or integration with Capintec Hot Cells/ Isolators.



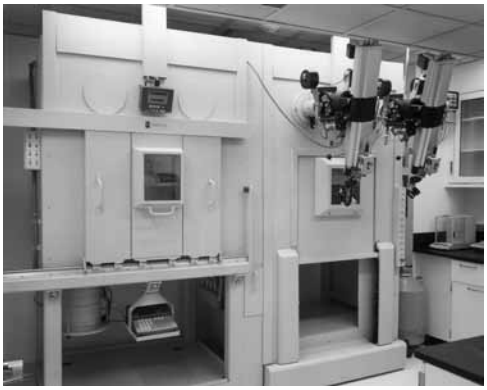
Features

- Capintec uses a chevron brick design to prevent gaps or open seams on all walls, roof and floor. (Standard design contains 2 3/8" (60 mm) lead bricks; however, 3" (76 mm) lead bricks are available for both the entire cell and/or just the doors).
- Interior is lined with continuously welded stainless steel.
- Each cell contains a stainless steel tray, mounted on a three-section drawer slide for increased ease of access to automated chemistry module.
- Air supply: Intake is located at base of cell with exhaust located at the top of each cell. Point of individual cell air supply (bottom corner) and exhaust (top corner) is accorded to insure non-channeling of air-flow in cell interior. (Optional HEPA or dust filtered intake and charcoal filtered exhaust is available upon request.
- Heavy duty, secure hinged doors.
- All utilities, penetrations, dimensions and ancillary shielding can be custom designed to meet your facility's requirements.

For detailed information, part numbers, pricing and a quotation call us at 1.800.631.3826

Hot Cells

Capintec Hot Cells are specifically manufactured for radiopharmaceutical research, production and/or processing. Our Hot Cells are sophisticated, lead lined enclosures that provide maximum radiation protection. Isolators are available with Class 100 uniform downward air flow.



Features

- Industry exclusive three part sliding horizontal doors. The center section of the door contains a 12" x 10" x 6" (30 x 25 x 15 cm) thick 5.2 g/cc density lead glass window that acts as a body shield when working inside the cell.
- Chevron brick design is used for greater strength and to prevent gaps or open seams on all walls, roof and floor of the cell. (Standard Design contains 2 3/8" (60 mm) lead bricks: however, 3" (76 mm) bricks are available upon request).
- Interior is lined completely with seamless stainless steel.
- Dose calibrator chamber is mounted flush, recessed into the floor of the cell and suspended on a support bracket with a 2 3/8" (60 mm) lead positron shield (7300-2903).
- The front wall contains two ports (which may be plugged) for the insertion of remote manipulator arms.
- All utilities, penetrations, dimensions and ancillary shielding can be custom designed to meet your facility's requirements.

For detailed information, part numbers, pricing and a quotation call us at 1.800.631.3826

Lead-Lined Cabinetry

Everything about Capintec's lead-lined cabinetry conveys quality. Attention to detail is what you expect from Capintec… and that's what you get. Manufactured using only the highest quality materials for a lifetime of reliable service. The use of heavy duty door hinges and drawer/shelf glides ensure effortless trouble-free use. Its sleek modern appearance, with smooth rounded corners and triple coated paint finish will enhance any nuclear medicine department or PET facility. Capintec's lead-lined cabinetry has been specifically designed for use in all areas where radionuclides and radioactive sources are stored, handled or used. You can choose from a selection of standard cabinet configurations or have lead-lined cabinets manufactured to your exact specifications. Members of our engineering and manufacturing teams are prepared to assist you in customizing lead-lined cabinetry to meet your requirements.

All Capintec lead-lined cabinets have been designed with you in mind. They are attractive and provide the ultimate in versatility and flexibility. Each cabinet may be used as an individual storage module or combined with other Capintec lead-lined cabinetry, enabling you to create virtually any layout configuration. Capintec lead-lined cabinetry may be easily rearranged to meet the changing needs of your department, without the need for time consuming and expensive renovations or alterations.

The lead-lined cabinetry is available in your choice of 1/4", 1/2" or 1" lead shielding to meet your radiation shielding requirements. Select models available in 2" thickness for PET. All cabinet drawers and doors are supplied with key locks. The counter tops are top quality stainless steel and include a backsplash. You may order Capintec lead-lined cabinetry in any combination of modules. On request, we will supply you with a seamless single stainless steel countertop with backsplash. This will provide you with a convenient and large continuous work area. Optional storage wells and sharps port are available. Capintec lead-lined cabinetry is supplied in a handsome soft white color. Optional designer colors are available.

(201) 825-9500 / (800) 631-3826

Lead-Lined PET Unit Dose Cabinet

- Lifetime guarantee on frame and assembly
- All units have solid steel frames, an industry exclusive!
- Compact design for limited hot lab space
- Raised dose calibrator readout mount for easy viewing
- Counter sunk calibrator chamber mount
- Lead thickness 1”
- Easy glide rollers on shelves
- Waste penetration
- Supports 511 L blocks
- Custom brick kits available for each L block
- 1/2” spill restricting lip
- Heavy duty locks for security
- Available in stainless steel finish

Specifications

- Overall: 40” H x 36 1/3” W x 25 1/2” L (101.6 x 92.7 x 64.8 cm)
- Internal: 2 sections, each 23” H x 13” W x 20” L (58 x 33 x 51 cm)
- Weight: PET Unit Dose 2800 lb. (1270 kg), Custom Brick Kit 750 lb. (340 kg), Modified 1” lead 511 L block 195 lb. (88 kg)

Unit 1” Lead with Mounting for Shielded Sharps 5530-3088
Modified L Block for PET Unit Dose Cabinet..... 5130-2208
Custom Brick Kit for 511 L block and PET Unit Dose Cabinet . 5520-2200
1” Lead PET Shielded Waste Container with Locking Lid 5730-2271

Four Drawer Work Station

The Four Drawer Work Station is one of Capintec's most versatile designs. The module has 4 drawers with easy-glide rollers for nearly effortless operation and enough space to hold a variety of items, radioactive or not. The large cabinet has 2 adjustable shelves each with a capacity of 100 lbs. to hold radioactive materials or waste for decay. In addition, the stainless steel work surface provides a wide-open space with a 4" backsplash and a 1/2" spill restricting lip.

When purchased with other modules a solid, seamless work surface can be included to produce a clean, professional appearance.

Features

- Four drawers with easy-glide rollers
- One large capacity cabinet
- Two adjustable shelves
- Choice of lead thickness (1/4”, 1/2” or 1”)
- Heavy gauge steel hinges for durability
- Heavy duty locks for security
- Sleek stainless steel work area with a 4” backsplash and a 1/2” spill restricting lip
- Off white, textured polyurethane enamel finish (other optional colors available)

Specifications

- Overall: 40”H x 36 1/2”W x 24 3/4”D (101.6 x 92.7 x 62.9 cm)
- Internal: 27” H x 20” W x 21”D (68.6 x 50.8 x 53.3 cm)
- Drawers: 4 3/8” H x 6” W x 19”D (11.1 x 15.2 x 48.3 cm)
- Weights: 1,300 lb. (590 kg) - 1/4” (.6 cm) lead thickness, 2,200 lb. (998 kg) - 1/2" (1.3 cm) lead thickness and 3,900 lb. (1769 kg) - 1” (2.5 cm) lead thickness

Unit with 1/4” (.6 cm) lead..... 5530-3048
Unit with 1/2” (1.3 cm) lead..... 5530-3049
Unit with 1” (2.5 cm) lead..... 5530-3050

Four Drawer Waste Storage Unit

Designed to do it all, the Four Drawer Waste Storage Unit has drawers to hold your radioactive sources and a large storage area for holding or decay of radioactive waste. With a 6 1/2" diameter port, a shielded lid in the work surface and a 7 gallon polyethylene waste can, this module is an efficient addition to your work area.

Design a complete system with multiple modules and include a seamless work surface to cover all modules at no extra cost.

Features

- Four drawers with easy-glide rollers
- Large waste storage cabinet
- 7 Gallon plastic waste can
- Choice of lead thickness (1/4", 1/2" or 1")
- Heavy gauge steel hinges for durability
- Heavy duty locks on drawers and doors for security
- Sleek stainless steel work area with a 4" backsplash and a 1/2" spill restricting lip
- Soft white, textured polyurethane enamel finish (other optional colors available)

Specifications

- Overall: 40" H x 36" W x 24 3/4" D (101.6 x 91.4 x 62.9 cm)
- Internal: 27" H x 20" W x 21" D (69.5 x 53.3 x 52.7 cm)
- Drawers: 4 1/2" H x 5 3/4" W x 15" D (11.4 x 14.6 x 38.1 cm)
- Waste Port: 6 1/2" Diameter (16.5 cm)
- Weights: 1,300 lb. (590 kg) - 1/4" (.6 cm) lead thickness, 2,200 lb. (998 kg) - 1/2" (1.3 cm) lead thickness and 3,900 lb. (1,769 kg) - 1" (2.5 cm) lead thickness

Unit with 1/4" (.6 cm) lead 5530-3051
Unit with 1/2" (1.3 cm) lead 5530-3052
Unit with 1" (2.5 cm) lead 5530-3053

Unit Dose Cabinet

Limited space? Not a problem with the Capintec Unit Dose Cabinet. Fully shielded with 2 cabinets and 3 drawers (2 small and 1 large) the user can organize sharps, radioactive sources and patient doses.

The left cabinet can hold up to 2 sharps containers, one active and one for decay. The right cabinet can hold a various items including radioactive sources, unit doses or waste for decay. The different sized drawers will provide ample space for storage of many items, such as QC sources, markers or other materials requiring shielding. Also, with the covered sharps ports built into the work surface, disposal of sharps and removal of containers is safe and easy.

All of the drawers and cabinets come with locks for added security and the counter top is stainless steel for an attractive low maintenance work surface.

Specifications

- Overall: 40"H x 30 1/2 "W x 24 3/4 "D (101.6 x 77.5 x 62.9 cm)
- Waste Ports: 6 1/2" Diameter (16.5cm)
- Weights: 1,200 lbs. - 1/4" lead thickness, 2,000 lbs. - 1/2" lead thickness and 3,500 lbs. - 1" lead thickness

Unit with 1/4" lead 5530-3058
Unit with 1/2" lead 5530-3059
Unit with 1" lead 5530-3060

(201) 825-9500 / (800) 631-3826

Large Capacity Waste Unit (2" Lead available for PET)

The Large Capacity Waste Cabinet is the ideal space to safely store all of your radioactive waste. The 7 gallon polyethylene waste container will handle significant quantities of materials, which can be stored in the cabinet for decay or until they are moved to a separate decay area.

The stainless steel work surface has a 6 1/2" diameter opening with a shielded lid for easy access to the waste container. Purchased in combination with other modules a single, seamless work surface can be added to create a clean, professional work area.

Features

- Large cabinet with a 7 gallon polyethylene waste container
- Fully lead lined
- Choice of lead thickness (1/4", 1/2", 1" or 2" for PET)
- Waste port built into work surface
- Large door for easy access
- Heavy gauge steel hinges for durability
- Sleek stainless steel work area with a 4" backsplash and a 1/2" spill restricting lip
- Soft white, textured polyurethane enamel finish (other optional colors available)
- Each shelf supports 100 pounds
- 2"= 6,500 pounds

Specifications

- Overall: 40"H x 30 1/2 "W x 24 3/4 "D (101.6 x 77.5 x 62.9 cm)
- Cabinet: 27" H x 32" W x 21" D (69.5 x 83.8 x 52.7 cm)
- Waste Port: 6 1/2" Diameter (16.5cm), 1/2" thick cover
- Weights: 1,200 lb. (544 kg) - 1/4" (.6 cm) lead thickness, 1,900 lb. (907 kg) - 1/2" (1.3 kg) lead thickness and 3,500 lb. (1,587 kg) - 1" (2.5 cm) lead thickness

Unit with 1/4" (.6 cm) lead..... 5530-3061
Unit with 1/2" (1.3 cm) lead..... 5530-3062
Unit with 1" (2.5 cm) lead..... 5530-3063
PET with 2" (5.1 cm) lead..... 5530-3071

Standard Storage Cabinet (2" Lead available for PET)

The Standard Storage Cabinet is a highly flexible unit with 2 adjustable shelves and plenty of space to store radioactive materials or decay radioactive waste. Each of the shelves has a maximum capacity of 100 lbs. Choose either the single or double door option to best fit your needs.

If the storage unit is purchased in combination with other modules, a single, seamless countertop can be added to create a clean, professional work area.

Features

- One or two door selection
- Choice of lead thickness (1/4", 1/2", 1" or 2")
- Heavy gauge steel hinges for durability
- Heavy duty locks for security
- Two adjustable shelves
- Sleek stainless steel work area with a 4" backsplash and a 1/2" spill restricting lip
- Soft white, textured polyurethane enamel finish (other optional colors available)
- Each shelf supports 100 pounds

Specifications

- Overall: 40" H x 36 1/2" W x 24 3/4" D (101.6 x 92.7 x 62.9 cm)
- Internal: 27" H x 32" W x 21" D (69.5 x 83.8 x 52.7 cm)
- Weights: 1,200 lb. (590 kg) - 1/4" (.6 cm) lead thickness, 1,407 lb. (998 kg) - 1/2" (1.3 cm) lead thickness, 3,900 lb. (1769 kg) - 1" (2.5 cm) lead thickness, 6,500 lb. (2,948 kg) - 2" (5.1 cm) lead thickness.

Unit with 1/4" (.6 cm) lead..... 5530-3045
Unit with 1/2" (1.3 cm) lead..... 5530-3046
Unit with 1" (2.5 cm) lead..... 5530-3047
PET with 2" (5.1 cm) lead..... 5530-3064

Flow-Count™ For HPLC

Flow-Count provides affordable, state-of-the-art HPLC detection for radiopharmaceutical development, monoclonal antibody labeling, environmental analysis and PET chemistry. A wide selection of detectors cover a range of activities found in metabolite studies, radiopharmaceutical purity measurements and monitoring prep HPLC.

Interchangeable Detectors Give Ultimate Flexibility

A thin-window NaI detector is well suited to low-energy gamma such as I-125, while 1" detectors are matched to detection requirements of Tc-99m, In-111, PET isotopes, and other high-energy gamma emitters. High-energy beta emitters such as Y-90 can be monitored with a plastic scintillation detector. Very high activities, up to 1 Curie, can be monitored with a miniature PIN diode detector. It's small size makes it easy to shield inside a hot-cell or other containment area.

Monitor Two Separates Applications Simultaneously

A scintillation detector and a PIN diode detector can be connected to the Flow-Count simultaneously. A front panel switch allows run-time detector selection.

Remote operation of the Flow-Count up to 12' away from the compact base unit, allows the detector you need to fit where you need it...in the hood, hot cell, or in close proximity to a UV detector on a crowded lab bench.

Flow cells for all Flow-Count detectors are easily prepared and replaced by the user with standard plastic tubing. Flow cell volumes are determined by the number of loops of tubing placed in the field of view of the detector

Features

- In-line counting of all isotopes used in nuclear medicine including I-125, Tc-99m, I-131, In-111, PET isotopes and Y-90
- Detectors separate from electronics and easily shielded
- Detector selection covers wide range of activities from 1 nCi to 1 Ci
- Output compatible with all strip chart recorders and chromatography data systems
- Disposable flow cells with user selectable volumes

APPLICATIONS

- Radiopharmaceutical Development
- PET Chemistry
- Monoclonal Antibody Labeling
- Protein Purification
- HPLC or low level I-125

Base Unit:

Flow-Count base unit for both NaI and PIN diode gamma detectors 5450-0001

Detectors:

NaI remote detector for I-125 low-energy gamma 1200-0044

NaI remote detector for high-energy gamma 1200-0045

NaI well detector with 4 pi geometry, built-in lead shielding for all gamma 1200-0046

Miniature PIN diode remote detector for high-activity monitoring up to 1 Curie 5250-0068

PMT/plastic scintillator remote detectors for P-32 high-energy beta 1200-0047

(201) 825-9500 / (800) 631-3826

Hot-Cell Monitor For PET

The Hot-Cell Monitor Provides a Unique System for Monitoring High Level Isotope Production and Radiochemistry.

This Hot-Cell Monitor answers the need for multiple detectors when you want to locate and measure the activity. The unit monitors gamma and high energy beta emitters with activity levels from 1 mCi to 100 Curies. There is Remote operation for hot-cell and other high level radiation environments. Up to 8 detectors, with either linear or logarithmic output, are powered and monitored simultaneously. Front panel bar displays provide instant, visual information on the movement and accumulation of activity at each detector location. Analog signals, 0-1 volt are provided for computer interfacing.

The miniature, solid state detectors monitor activity at distances of 6 meters or more from the base unit. The detectors are rugged, easy to mount, easy to shield and connect to the base unit with standard BNC connector coax cable.

Features

- For PET, Chemistry, Nuclide Production and Purification
- Monitors activity in as many as 8 locations
- Reads activities from 1 mCi to 100 Curies

Specifications

- Base Unit:
- Bar Display (1-8): 10 LED display; Log, 3 or 6 decade; Linear, gain adjustable
- Digital Meter: Detector assignable; Log, 1.0 V / decade; Linear, gain adjustable
- Back Panel
- Detector Controls (1-8): BNC connectors; Log, zero adjust; Linear, gain adjust
- Analog Output (1-8): 0 - 1V / decade; Log, 1.0 V / decade; Linear, gain adjustable; BNC connectors
- Detector - Standard
- Type: PIN Diode / CsI/(Na); 1 x 1 cm2 effective area
- Configuration: Metal housing, fully potted; Dimensions, 2.5 x 2.5 cm dia.; BNC connector
- Sensitivity Range: 0.5 mCi - 100 Ci
- Linearity: ±10%, 1 mCi - 5 Ci
- Operating Temp.: 0 -60° C
- Detector - Ultra-Miniature
- Type: PIN Diode / CsI/(Na); 6 x 6 mm2 effective area
- Configuration: Epoxy, fully potted; Dimensions, 1.5 x 1.0 cm dia.; Flying lead with BNC connector
- Sensitivity Range: 1 mCi - 100 Ci
- Linearity: ±10%, 5 mCi - 5 Ci
- Operating Temp.: 0-50° C

Hot-Cell Monitor Base Unit 5250-0069
Logrithmic channel amplifier electronics, 5 decade range, 1 mCi to 100 Ci 5250-0063
Linear channel amplifier electronics, 2.5 decade adjustable range 5250-0064
Standard, high sensitivity detector, full potted in aluminum housing, 2.5 cm x 2.5 cm (dia) 1200-0048
BNC cable, 2 meters 8400-0326
BNC cable, 4 meters 8400-0327
BNC cable, 6 meters 8400-0328

Surface Contamination Monitor

DESCRIPTION: Small Digital Ratemeter with built -in 2" diameter pancake tube and speaker. Reads out in mR/hr (or counts per minute). Thin window recessed and protected by sturdy grill. Additionally TBM-3SR-D has sliding methacrylate beta shield which also acts as additional protection for thin GM tube window. Instrument will see alpha, beta, and gamma radiation. Anti saturation circuit will not fall below full scale in high fields. Tested to100 R/h.

APPLICATION: Its small size, light weight, one hand operation, and large detector area make this a very useful monitor for surveying bench tops or checking hands, clothes, and fingertips for almost any radioactive contamination. Excellent for Fire Department, Ambulance, Police, First Response, and U.S. Custom Personnel use for surveying people, cars, luggage, surface of rooms, etc.

Features

- Sensitive to Alpha, Beta & Gamma
- One Hand Operation
- Digital Display
- Built-In Speaker
- Anti Saturation Circuit
- Large 2" Pancake Detector
- Beta Shield/Window Protection

Specifications

- Radiation Detected: Alpha, beta, gamma, and x-ray depending upon detector used.
- Digital Display: Large 6 digit LCD Display. (Optional lighted LCD Display.)
- Ranges: 0.01 to 100.00 mR/hr. (Optional: 0 to 100,000cpm.)
- Front Panel Switches: Power: On/Off. Battery Test.
- Detector: T-1190 "pancake GM tube"
- Diameter: 2 inches (5cm).
- Window Diameter: 1-3/4 inches (4.5 cm).
- Window Thickness: 1.5 mg/cm2
- Quench Gas: Halogen for long life.
- Background: Typical <50 cpm. Thin Profile of tube (13mm) gives low background.
- Efficiency: 100% for all Betas and Alphas that have the energy to penetrate the thin window.
- Gamma sensitivity nominal is 3,500 cpm/mR/h (based on Cs137).
- Physical dimensions: 3" Wide x 5-1/4" Long x 2-1/4" High. Excluding knobs and handle. (7.6 cm x 13.3 cm x 6 cm)
- Beta Shield: Methacrylate 0.125", 3.1 mm.
- Calibration: Single master calibration pot as well as individual cal pots for each range.
- Power: 9 volt "transistor" battery; Eveready 1222, or equivalent.
- Battery Life: 100 hours in normal operation.
- Handle: Swivel type, polished anodized aluminum.
- (Optional Detachable Handle TBM-3SR(DL) Upon Request)
- Weight: 22 oz. (625 grams).
- Optional: Lighted LCD Display.
- Detachable Handle TBM-3SR-D(DL).

Surface Contamination Monitor (Analog) 5250-0135
Surface Contamination Monitor (Digital) 5250-0136

Pancake Probe

Alpha, Beta, Gamma Probe (GM) for rapid checking of laboratory bench and equipment surfaces and for checkout of personnel, the P-15 uses a 1-3/4'' mica window diameter, 1.5 mg/cm2 pancake tube. Background is normally 50 to 60 counts per minute. Extremely sensitive to , and alphas with sufficient energy to penetrate window (Betas > 50 KeV). Window is protected by a 79% open, grill to prevent puncture or other damage while presenting minimum absorption to incoming radiation. Detects 5 KeV X-Rays and above.

Pancake Probe 5250-0130

(201) 825-9500 / (800) 631-3826

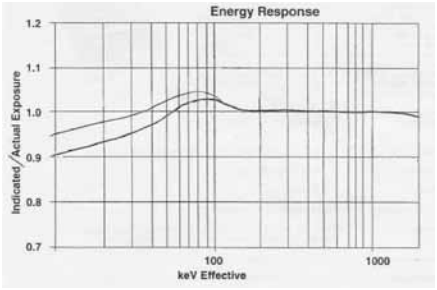
Hi Range Survey Meter

APPLICATION: Whenever a fast, sensitive ion chamber instrument is needed, the TBM-IC-MARK V is the latest in a series. The TBM-IC-MARK V ion chambers are now smaller and lighter. Based on newest more stable, essentially drift-free electrometer technology.

DESCRIPTION: The TBM-IC-MARK V consists of a 2.5" dia x 3.5" long air ion chamber coupled to a stable solid state MOSFET input electrometer with built in A to D converter to read out directly in mR/h or mR. Rate range is 0.1 mR/h to 9.999 R/h in a single range. Dose range is 0.01mR - 99.9R in a single range. 180 mg/cm graphite lined methacrylate walls accurate "air equivalence." Thin (0.5 mg/cm) Mylar window allows high sensitivity readings for alpha and for low energy beta such as C14 in addition to higher energy Betas, Gammas and X-rays.

Features

- Digital Readout: 8 digit-rate, 8 digits integrate
- Dose Rate & Total Dose Read Out
- Small Lightweight 26 oz.
- TBM Package
- Flat Response - Free Air Ion Chamber
- See Axially Below 5 KEV Gamma or X-Ray
- Sees Alpha, Beta, Gamma, X-Ray
- Fast Response
- Wide Range: 0.1 mR/hr to 9.999 R/hr



Specifications

- Detector: Free Air ion chamber 2.5" dia x 3.5" long. Internal volume 260 cc
- Wall & Cap: Methacrylate, graphite lined 180 mg/cm walls and 540 mg/cm cap.
- Window: 2.0" dia. x 0.5 mg/cm Mylar.
- Readout: LCD 8 digits.
- Indicator Lamp: Green LED 10 pulses/sec per mR/h
- Red Over-range Indicator
- Range: Rate 8 digit 0.1 mR/h to 9.999 R/h in a single range.
- Integrate 8 digits 0.01 mR to 99.9R in a single range.
- Electrometer: Solid State MOSFET input.
- Electronics: A-D converter LCD drivers.
- Batteries: 10 ea. (Button) NEDA CR-1220 - shelf life 7 years.
- 6 ea. (AA) NEDA 15A - 1000hr.
- Dimensions: 5-1/2" x 3-1/2" x 8" including handle.
- Weight: 26 oz. complete with batteries.
- Options: Readout in Si units: Sv and Sv/h.

Hi Range Survey Meter 5250-0141

Wide Range Beta-Gamma GM Area Monitor

Area monitor in and around nuclear reactors, hot cells, irradiators and other facilities handling radioactive materials.

The FML-7B Series Radiation Monitors incorporate a digital alarm ratemeter, power supply, alarm, amplifier, choice of rack or case, and reliable GM detector. Because of the plug-in modular construction, additional channels or functions can be added. GM detectors and circuit design prevent the system readings from falling even in very high fields. Front panel controls allow the alarm set point to be displayed. Alarm activation produces flashing red light on front panel and piercing intermittent 2000Hz tone.

Optional relay is also closed (or opened) for activation of remote alarms. Optional stand-by battery power available.

Features

- On-line real-time monitoring
- All plug-in modular
- Rack mounting, or case
- Single or multi-channel
- Rugged GM detectors
- Local or remote monitoring (up to 500 ft. cable optional)
- High level alarm, solid state, non-contacting
- RS-232 output for printer or PC and remote display outputs
- Microprocessor based data measurement and display

Specifications

- • • • Range: 4 decade dynamic range 0.1 mR/hr to 1 R/hr * (artificial background supplied by internal radiation source in probe)
- Other ranges available to 1,000 R/hr or down to 0.01 mR/hr.
- Accuracy: +/- 10% of decade
- Detector: Energy compensated halogen quenched GM detectors, in ruggedized probe with internal radiation source. Supplied with 8ft. cable. (Up to 500ft. of cable can be supplied as an Option.) Optional high range systems use High Range GM detectors. Detector is supplied with 8 ft. cable (up to 500 ft. of cable can be supplied as an option).
- Anti-Saturation: Circuity is incorporated to prevent readings from falling below full scale in over range conditions (tested to 1,000 R/hr).
- High Voltage Output: 0 to +1500V at 200 µ A continuously adjustable.
- Energy Dependence: µ20% from 100 KeV to 1.2 MeV.
- Temperature: Operating range -30°C-50°C; drift less than 17% per °C at room temp. 0-95% humidity non-condensing.
- Readout: Large, easy to read Roentgen or Sievert display. User programmable.
- Front Panel Controls: Alarm Level Set, Display Alarm Set Point, Alarm Reset Pushbutton Power On-Off, Switch
- Alarms: Level is adjustable. Indicators include flashing red light and beeper.
- Power: 105-125 V (or 200-240 V), 50-60 Hz. Optional 12 Volt operation. Optional standby batteries, normally under continuous charge, automatically provide power for one week in event of AC power failure.
- Mounting: Electronics are normally furnished in FM-7 case but can be furnished uncased with mounting bars for rack or NEMA-4 (hostile environment) cabinet.
- Options: Multiple channel systems; Solenoid activated check source for system calibration; Remote alarm-flasher-howler; Remote meter readout with alarm; Analog output for chart recorder; Standby batteries; Cable to 500'.

Wide Range Beta-Gamma GM Area Monitor 5250-0148

Digital Frisker

Small Digital Ratemeter with separable 2" diameter pancake probe. Reads out in mR/hr (Optional mSv/h or cpm/cps. Thin probe window is recessed and protected by sturdy stainless steel grill. Instrument will see alpha, beta and gamma radiation. Anti-saturation circuit will not fall below full scale in high fields. Tested to 100 R/hr. Sonalert gives audible rate indication.

APPLICATION: Its small size, light weight, separable probe and large detector area make this a very useful monitor for surveying bench tops or checking hands, clothes and fingertips for almost any radioactive contamination.

Features

- Light Weight
- One Hand Operation
- No Range Switching
- Detachable Pancake Probe
- Built-In Sonalert
- Anti-Saturation Circuit

Specifications

- Read-out: Rugged 6 digit display.
- Ranges: 0.01 to 100 mR/hr, no range switching.
- Battery Test: Push button.
- Audio: Sonalert.
- Detector: T-1190 2" diameter (5cm) "pancake GM" tube.
- Window Diameter: 1 3/4" (4.5 cm)
- Window Thickness: 1.5 mg/cm
- Quench Gas: Halogen for long life.
- Background: Typical 50 cpm. Thin profile of tube (13mm) gives low background.
- Efficiency: 100% for all betas and alphas that have sufficient energy to penetrate the thin window. (See attached graph pg. 2)
- Physical Dimensions: 3" W x 5 1/4" L x 2 1/4" D (7.6 x 13.3 x 6 cm) (excluding probe, meter, and handle).
- Calibration: Single master calibration pot as well as programable calibration factor.
- Power: 6 "AA" cells.
- Weight: Electronics only: 22 oz. (625 g)
- Total: including separable pancake probe 34oz. (0.97 kg)
- Battery Life: 100 hours in normal operation (Longer with Li or NiMH Battery).

Digital Frisker..... 5250-0140

Wide Range Frisker

The Inspector is a microprocessor controlled radiation measuring instrument which offers excellent sensitivity to low level (0.001 to 50 mR/hr) activity. The digital readout is displayed with a red count light and audible beep, providing instant indication of the radiation level. The Inspector includes an adjustable timer and external calibration controls.

The Inspector is a must for all Nuclear Medicine Departments because of its ease-of-use and accuracy. Small size does not limit the power of its performance. Dual miniature jack drives CMOS or TTL devices with count to computer or data logger.

Features

- 5 Ranges: 0-0.2, 2, 20, 200, 2000 mR/h
- Measures Background Easily
- Measures Alpha, Beta, Gamma on 3 Most Sensitive Ranges
  Anti Saturation Circuit
- Light Weight; Accurate
- Upper Range to R/hr
- One Handed Surface Monitoring
- Detachable 2" Pancake Probe

Specifications

- Ranges: 0-0.2, 2, 20, and 200 mR/hr (thin window 2" dia. P-15 external probe) 200, 2000 mR/hr (energy compensated - internal probe)
- Indicator: In addition to meter indication, a red LED flashes once for each count of the detector.
- Switch Positions: Rotary switch: OFF, x 1K, x 100, x 10, x 1, x 0.1
- Battery test switch: Push button.
- Audio: Piezoelectric - 103 Db at1 ft. with volume control.
- Detectors: Internal: Energy compensated detector +_20% 80 KeV-1.2 MeV, External: 2" dia. pancake GM with thin end window alpha, beta, gamma probe on one meter; detachable coil cord.
- Anti-Saturation: Instrument will not fall below full scale in high fields. Tested to 100 times highest reading.
- Meter: Rugged meter with recessed glass or lexan face and jeweled movement.
- Probe Holder: Unique tongue and grove probe holder for one or two handed surface mounting.
- Dimensions: 3" x 5-1/4" x 2-1/4" (7.6 x 13.3 x 5.7 cm) excluding handle and probe holder.
- Weight: 1-3/4 lbs.; 28 oz. (800g)
- Shipping Weight: 3 lbs. (1350g)
- OPTIONAL: Other units on meter readout such as SI, Sn/h, cpm, or cps.
- Dual scale - mR/hr and cpm.
- Available Accessories Include: Check Source and Holder, Shoulder Strap, Pelican Carrying Case, Other External GM or Scintillation Probes.

Wide Range Frisker..... 5250-0129

(201) 825-9500 / (800) 631-3826

Ion Chamber Area Monitor

APPLICATION: Area monitoring in and around nuclear reactors, hot cells, irradiators and other facilities handling radioactive materials or X-rays.

GENERAL DESCRIPTION: The FIL Series Radiation Monitors incorporate a log alarm ratemeter, power supply, alarm, electrometer and reliable free air ion chamber. Because of the plug-in modular construction, additional channels or functions can be added. Ion chamber and circuit design prevent the system readings from falling off full scale during an over range condition. High level alarm can be set to any point on the scale; a switch causes the alarm set point to be displayed. Alarm activation produces flashing red light on front panel and piercing intermittent 2000 Hz tone. Optional relay is also closed (or opened) for activation of remote alarms. Stand-by battery power is optional. Rack or case mounting is supplied.

Features

- All plug-in monitor
- Rack mounting or case
- Single or multi-channel
- Free air ion chamber for excellent energy response
- Local or remote monitoring (up to 500 ft. cable optional)
- High level alarm, solid state, non-contacting
- Reorder and remote display outputs

Specifications

- Range: FIL-5C: 0.1 mR/hr to 100 mR/hr standard; FIL-5D: 0.1 mR/hr to 10 R/hr standard. Optional high range systems offer any 3 or 5 consecutive decades to 106 R/hr.
- Detector: Air equivalent ion chamber. Standard systems use Model IC-2 (for gamma) or Model IC-1 (for beta-gamma). Both models have graphite lined phenolic walls and an active free air volume of 300 cubic inches. Optional high range systems use smaller chambers. Detector is supplied with 8 ft. cable (up to 500 ft. of cable can be supplied as an option with no circuit adjustment necessary).
- Detector Response: Gamma Energy: IC-1 is sensitive down to 2 KeV; and is energy independent (± 15%) 4 KeV to 6 MeV. IC-2 is sensitive down to 10 KeV; and is energy independent (± 15%) 20 KeV to 7 MeV. Beta Energy: Sensitive down to 0.15 MeV; energy independent (± 25%) 0.4 MeV to 7 MeV (IC-1 only). Temperature: Operating range between -30° C and 65° C; drift less than -0.4% per °C at room temperature.
- Readout: Three decade log scale is used on a large, easy to read 4-1/2'' meter. The FIL-5D autoranges with one decade of overlap, on two ranges. The three decade FIL-5C does not autorange. LED indicates high or low range.
- Front Panel Controls: (Cover plate to prevent unauthorized changes) Alarm Level Set; Display Alarm Set Point; Alarm Reset Pushbutton; Power On-Off Switch
- Alarms: Alarm level is adjustable over entire range. Alarm indicators include flashing red light and beeper.
- Power: 105-125 V (or 200-240 V), 50-60 Hz. Optional standby batteries, normally under continuous charge, automatically provide power for one week in event of AC power failure.
- Mounting: Electronics are normally furnished in FM-5 case but can be furnished uncased with mounting bars for rack or Nema 4 (hostile environment) cabinet.
- Options: Multiple channel systems; Solenoid activated check source for system calibration; Remote alarm-flasher-howler; Remote meter readout with alarm; Chart recorder; Standby batteries; Cable to 500 feet.

Ion Chamber Area Monitor 5250-0149

Monitor 4EC Survey Meter

The Monitor 4EC is a compact general purpose easy-to-use survey meter capable of detecting alpha, beta, gamma and x-rays over 3 selectable ranges. A red counting light flashes and audible beep will sound with rising radiation levels. The Monitor 4 EC is accurate for reading gamma and x-rays above 40 keV.

The Halogen-quenched GM tube, energy compensated sidewall detects activity down to 10 keV through the window. The meter reads in Sv or R units and will hold full scale in activity 100 times maximum reading. Size: 145 x 72 x 38mm (5.7" x 2.8" x 1.5") Weight: 178 grams (6.3 oz)

Monitor 4EC Survey Meter 5250-0046

Inspector Deluxe Radiation Monitor

The Inspector is a microprocessor controlled radiation measuring instrument which offers excellent sensitivity to low level (0.001 to 50 mR/hr) activity. The digital readout is displayed with a red count light and audible beep, providing instant indication of the radiation level. The Inspector includes an adjustable timer and external calibration controls.

The Inspector is a must for all Nuclear Medicine Departments because of its ease-of-use and accuracy. Small size does not limit the power of its performance. Dual miniature jack drives CMOS or TTL devices with count to computer or data logger.

Features

- 4 Digit liquid crystal display
- Set counting periods from 1 min to 24 hours
- For counting alpha, beta, gamma or x-rays

Inspector Deluxe Radiation Monitor 5250-0047

CapIMAGE™ SFOV Gamma Camera

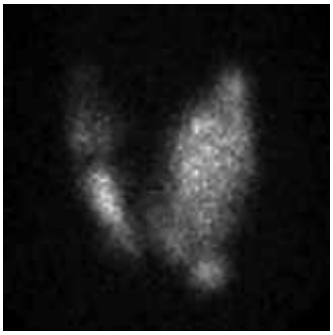
The CapIMAGE™ is a small field of view gamma camera system designed for imaging small organs and body parts such as the thyroid, parathyroid, planar bone images, and gated cardiac studies. Experience improved staff productivity in your lab by using the CapIMAGE™ for small organ imaging; thereby freeing up large field of view cameras for more complex procedures. The camera is ideal and convenient for pediatric imaging.

The CapIMAGE™ is equipped with intelligent features to make it easy to use. Clear angle markings on the head provide measurements for precise head positioning. Buttons on the front of the head control tilt and rotation of the detector. Quick collimator exchange is possible with the lightweight LEHR and LE Pinhole collimators that come standard with the camera system. The Laptop PC performs simultaneous acquisition and processing for expedited test results.

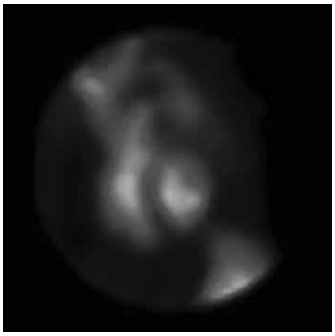
The camera's small footprint and free-rolling wheels allows CapIMAGE to be transported to the patient's bedside or alternate clinical site by simply pulling up the wheel lock release and pushing the unit to the desired destination.

The DICOM interface features rapid data communication with HIS/RIS and PACS systems, and test results may be viewed from any workstation which is compatible. The CapIMAGE also contains batteries capable of running the unit for up to one hour when not plugged into an electrical outlet.

CapIMAGE™ SFOV Gamma Camera	5830-3001
Diverging Collimator	5820-2001
LEGP Collimator	5820-0025
MUGA Option	5830-2002
LEPH Collimator	5820-0024
LEDV Collimator	no number
LEHR Collimator	5820-0023
Gated Trigger Monitor	5830-2002



LAO Pinhole Thyroid



Gated MUGA LAO

Right Shoulder

(201) 825-9500 / (800) 631-3826

Acquisition and Processing:

- Hardware: Laptop- Min. 1200 MHz Pentium III Windows Vista- Minimum screen resolution 1400x1050
- Acquisition functionality:
- **General:**
- Persistence scope: 256x256 matrix plus energy spectrum
- Pixel size: 4 mm square (64 matrix)
- Zoom factors: 1-5 user selectable in 0.1 increments
- Image orientation: 0, 90, 180 and 270 degrees
- User definable acquisition protocols: Pre-defined acquisitions with all parameters set: Select acquisition, position camera (manually), hit start. Manual definition of acquisition protocols
- Patient data entry and manipulation:
- Manual entry (and editing) of patient information
- HIS/RIS Patient database (via Access and Interfile format)
- Patient dataset export: DICOM 3.0. Manual "push and automatic "push" protocol. Configurable (Password protected)
- Image display for all dataset types:
- Selectable gray and color maps
- Cine display for dynamics and multi-gated
- **Static:**
- Matrix: 64,128, 256, 512, 1024 pixels
- Energy windows: 3 datasets can be acquired simultaneously. Up to 3 windows can be summed within each acquired dataset. Total of 9 individual energy regions can be defined. Energy regions cannot overlap. Each window is defined by a centroid energy and a percent width
- Termination:
- Automatic stop: Time or counts
  Time: 1-10,000 seconds
  Counts: 1-1,000,000 kcounts
- **Camera QC (user accessible):**
- Uniformity correction Isotope and collimator specific, Intrinsic or extrinsic calibration
- Detector peaking: Automated calibration procedure
- Uniformity check: Isotope and collimator specific, Intrinsic or extrinsic flood check. "Low count" for visual checks, "High count" for automatic NEMA analysis and reporting. Reporting comprises measured energy peak, uniformity results and energy resolution
- Resolution check: 4 field bar phantom image visual inspection
- **Camera QC (password protected - Service use):**
- Detector calibrations: Automated procedures for High voltage calibration, PMT tuning, Spatial linearity calibration, Energy linearity calibration, Energy calibration. Geometric calibration

System Specifications:

Specifications	CFOV	UFOV
Intrinsic Spatial Resolution		
FWHM	<3.7mm	<3.7
FWTM	<7.6mm	<7.6mm
Intrinsic Energy Resolution		
FWHM	-	<9.42
Intrinsic Flood Field Uniformity		
Integral	<2.5	<2.5
Differential	<1.5	<1.5
Intrinisic Spatial Linearity		
Absolute	<0.5mm	<0.5mm
Differential	<0.2mm	<0.2mm
Intrinsic High County Rate Performance		
Maximum Count Rate	250kps	

- **Environmental Specifications**
- Temperature/Humidity Requirements: 59-86° F (15-30° C) 20%-80% RH at 77° F (25° C)
- Voltage/Current: 90-264 VAC, 200VA
- **General**
- System type: Mobile, single detector system dedicated for planar imaging
- Acquisition types: Static, Dynamic, Gated Planar.
- Approx. Dimensions: 46.5/68.1" H x 23.6" W x 51.2 D (118/173 x 60 cm x 13-0 cm)
- Weight: 440 lb. (<200 kg)
- Detector Reach; >25.2" (64 cm) from edge of gantry to center of detector UFOV
- Detector Height: Approx. 29.5"-51.2" (75-130 cm) (parallel hole collimator surface above floor level)
- **Motions**
- Detector vertical: Motorized with two speeds
- Fast speed: >4.5 cm/sec
- Slow Speed: <1 cm/sec
- Detector tilt: Manual with lock
- Range: >-35 to +90 degrees
- Detector Rotate: Manual with Lock
- Range: >-90 to +180 degrees
- Specifications
- Intrinsic Flood Field Uniformity at 75 kcps
- Integral <2.7 <2.7
- Differential <1.7 <1.7
- Multiple Window Spatial Resolution <2mm
- System Sensitivity
- Pinhole Collimator 89 cpm/µCi
- Energy Range 55-200 keV
- Crystal Thickness 3/8"
- Detector Size 8.25 in
- **Optional Accessories:**
- Diverging Collimator
- LEGP Collimator
- MUGA Option
- LEPH Collimator
- LEDV Collimator
- LEHR Collimator

Diverging Collimator

LEHR Collimator

Pinhole Collimator

Europrobe3

Proven Performance- Elegant Simplicity- Unsurpassed Versatility

The EuroProbe3 has been specifically designed to meet the most demanding protocols of surgeons or nuclear medicine physicians working in the surgical suite or nuclear medicine department. It provides precise detection and localization of radiopharmaceuticals during intraoperative surgical procedures such as sentinel lymph node mapping for breast cancer and melanoma, parathyroid protocols and the detection of malignancies using PET radiopharmaceuticals.

EuroProbe3 is unsurpassed in its ability to detect a wide range of isotopes. Its elegant design and simplicity - the result of utilizing the most advanced microprocessor technology in the design of the control module, offers a user-friendly 'one button activation' protocol - nothing could be easier!

The EuroProbe3 provides the ultimate in flexibility and choice. Choose from a wide variety of wired ergonomically designed probes that are compact, lightweight and easy to handle – or - for enhanced operational flexibility, choose EuroProbe3's state-of-the-art Blue Tooth Probe – the wireless alternative for radio-guided surgical procedures with an energy range of 100 keV to 1 MeV for protocols utilizing Tc-99m, In-111, I-131 or F-18.

The EuroProbe3 control module can be used in the automatic mode or each setting and function can be individually set to meet the most demanding and precise protocol requirements. Additionally, it allows a choice of display setting including the extra large digital display and/or the two analog displays located on the upper section of the control unit for a crystal-clear view of all information during the surgical procedure.

The EuroProbe3 incorporates powerful performance capabilities and features. It is reliable, accurate, compact, easy-to-use and transport and includes a built in carrying handle and integrated probe holder.

Detector Features

- High efficiency solid state scintillation detectors operating at room temperature.
- High sensitivity and target to background ratio.
- Hot swappable.
- Can be sterilized with Ethylene Oxide gas.
- Preferred ergonomic angled design.
- Integrated tungsten collimator.
- Additional detachable collimator is available.
- All probes are waterproof.

Detector Features

- Direct read-out (digital and bar-graph type) through large, easy to read display.
- Pre-set or user definable energy window setting for ultimate flexibility.
- Choice of two types of audible signals proportional to counting rate.
- Both probes are standard.
- Easily switch between probes.
- Store up to 9 custom configurations.
- Built in background subtraction.
- Choice of bent or straight probes.
- Automatic probe identification
- Optional foot switch.

EuroProbe3 Specifications

- Operating Power: 115VAC, F=50Hz, I= 0.5A or 230VAC, F=50HZ, I= 0.250A
- Power Consumption: Max. 15 watts
- Maximum Counting Rate: 15,000 cps/s
- Operating Temperature Range: +15°C to +40°C
- Dimensions: 245mm H x 233mm W x 270 mm D
- Weight: 4.4 lb. (2 kg)

Bluetooth Probe Specifications

- Detector: Detector Crystal: CsI 10mm long x 5mm diameter coupled to a 25mm² silicon photodiode
- Energy Range: 100 keV to 1 MeV (Tc-99m, In-111, I-131, F18)
- Probe Dimensions: Probe Length 261 mm Diameter 11 mm
- Collimation: The collimator is integrated in the probe
- Weight: 200g
- Protection IP: IP64
- Probe Battery: Pile Li-SOCL² 1/2AA 3,6V SAFT LS 14250
- Wireless connection: Module Bluetooth ID: ES9LMX9838
- Decontamination: By Immersion, ONLY AFTER THE BATTERY HAS BEEN REMOVED

CdTe or CdZnTe probe: "small"J139 probe

- Semiconductor crystal either CdTe or CdZnTe: 5x5x3mm3 CdTe or CdZnTe (Cadmium Telluride)
- Energy range: 20 to 300 keV (can also be used from 170 to 364 keV, but the detection efficiency within this range is better with the CsI probe) Detector efficiency for I-125 (27-35 keV): > 80% Detector efficiency for Tc- 99m (140 keV): > 60% Storage Temperature : +1°C to +40°C Operating Temperature Range: +15°C to +40°C Final Size of the Probe: Length = 175mm, detection head diameter = 11 mm. Slightly angled to permit easier access to certain tissues. The collimator is an integral part of the probe. Weight: 5 oz. (140 g) (excluding cable)
- Maximum ambient humidity for good operation: 80% at 40°C

CsI probe: "large" probe

- Scintillator: Diameter = 5 mm, Length = 10mm CsI (T1) crystal coupled to a 25 mm2 Silicon photodiode Energy Range: 100 keV to 1 MeV Detector Efficiency for Tc- 99m (140keV): > 80% Detector Efficiency for In-111 (245keV): > 70% Detector Efficiency for I-131 (364keV): > 45% Storage Temperature: +1°C to +50°C Operating Temperature Range: +15°C to +50°C Final Size of the Probe: Length = 184mm, detection head diameter = 16 mm. Slightly angled to permit easier access certain tissues. The collimator is an integral part of the probe. Weight: 6.2 oz. (175 g) (excluding table)
- Maximum ambient humidity for good operation: 80% at 40°C

EuroProbe3 Surgical Probe..... 5250-0111
EuroProbe3 Surgical Probe, (CdTe), Straight..... 5250-0117
EuroProbe3 Surgical Probe, Cs(I), Bent..... 5250-0118
EuroProbe3 Surgical Probe, Cs(II), Straight..... 5250-0119
EuroProbe3 Surgical Probe, CsI, High Sensitivity..... 5250-0120
EuroProbe3 Surgical Probe, Endoscopic..... 5250-0121
Source Holder..... 5250-0122
511 Collimator, CsI..... 5250-0125
Collimator, CdTe..... 5250-0112
Collimator, CSI..... 5250-0113
EuroProbe3 Surgical Probe, CdTe, Bent..... 5250-0116
EuroProbe3 with Bluetooth Probe..... 5250-0152
EuroProbe3 Bluetooth 511 Collimator..... 5250-0153
Surgical Probe Sheath..... 5250-0094
EuroProbe3 Source Holder..... 5230-2124

(201) 825-9500 / (800) 631-3826

Anthropomorphic Phantoms For Nuclear Medicine

Radiation Equivalent And Anatomically Correct Realistic Test Subjects

The Heart/Thorax Phantom is ideal for evaluation of detectability, extent and severity of myocardial infarcts in patients.This Phantom also provides valid assessment of mammoscintigraphy techniques.The Striatal Phantom optimizes quantitative imaging in patients, using PET or SPECT.

Heart/Thorax Phantom

Myocardial perfusion SPECT is a widely-used, non-invasive method for the diagnosis and management of patients with coronary disease. However, non-uniform photon attenuation, Compton scatter, limited and depth-dependent spatial resolution, as well as image noise, limit the ability of SPECT to obtain images that reliably represent the true tracer distribution. The non-uniform attenuation of the thorax is the most significant factor limiting the diagnostic efficacy of myocardial SPECT.

The currently used attenuation, scatter and resolution correction methods are suboptimal, since they do not provide improvement in the 25% false-negative findings in a group of about 100 patients with luminal diameter stenoses of at least 50%. Furthermore, the ability to detect multivessel disease was 70% without and 47% with corrections. This finding implies that myocardial SPECT can seriously underestimate the extent of disease in high risk patients. On the other hand, the false-positive findings in the group with a low probability of coronary disease were reduced from 14% without corrections to 3% with corrections.

Obviously, further improvements in both hardware and software for myocardial SPECT are necessary before this important diagnostic technique can realize its full potential. These improvements must be carefully evaluated on realistic, anthropomorphic phantoms to improve results in clinical practice.

Disassembled Phantom

Features

- Receptor Quantification As A Function Of Uptake Ratio
- Partial Volume Effects
- Scatter And Attenuation-Correction Schemes
- Threshold for Changes in Uptake
- Comparison Of Different Acquisition Modes, e.g. 2-D Vs 3-D Pet
- Design Of Different Reconstruction Strategies
- Testing And Validation Of Image Registration Techniques
- Design Of Imaging Protocol For Patients

Heart/Thorax Phantom..... 5220-RS800T

The Head

The Head Phantom is based upon a standard head with a calvarial cut to insert or remove the brain shell easily. The nasal cavity and maxillary sinuses are filled with foam with a mass density of 0.23 g/cc.

Striatal Phantom Head with Transparent Brain & Striatum ... 5220-RS900T

Brain Shell

The brain shell has five compartments which can be filled separately: left and right nucleus caudate, left and right putamen, and the remainder of the brain. This allows different nucleus caudate to putamen ratios as well as different striatal to background ratios to be obtained; this also permits differences between left and right striatal activity to be examined.

Transparent Brain Shell with Striatum 5220-RS901T

Livermore Organs

Organs	**Inert, Hole, Matrix**	**Solid, Active**	**Inert, Hollow**
Lungs	N/A	5220-RS503A	N/A
Lymph Nodes(set of 3)	N/A	5220-RS506A	5220-RS506S
Liver &Liver Envelope	5220-RS507H	5220-RS508A	5220-RS519S
		(Liver only)	(Liver only)
Abdominal Contents*	5220-RS510H	5220-RS511A	N/A

(*Replaces Liver and Liver Envelope)

Fission-Product Organs

Organs	**Inert, Hole, Matrix**	**Solid, Active**	**Inert, Hollow**
Lungs	5220-RS502H	5220-RS503A	N/A
Lymph Nodes(set of 3)	N/A	5220-RS506A	5220-RS506S
Thyroid	N/A	5220-RS543A	5220-RS543S
Liver	5220-RS507H	5220-RS508A	5220-RS519S
Kidneys (pair)	5220-RS530H	5220-RS531A	5220-RS532S
Stomach	5220-RS533H	5220-RS534A	5220-RS535S
Pancreas	5220-RS536H	5220-RS537A	5220-RS538S
Spleen	5220-RS539H	5220-RS540A	5220-RS541S
Small Intestine	5220-RS544H	N/A	N/A
Large Intestine	5220-RS546H	N/A	N/A

Pixy Body Phantoms

Transparent Whole Body Phantom w/ Storage Case 0695-0001
Opaque Whole Body Phantom w/ Storage Case..... 0695-0002

RH-2 Kyoto Heart Phantom

Specially Designed for SPECT and PET

The RH-2 heart phantom has 9 simulated myocardial infarctions in the left ventricle (1, 2, or 3 cm diameter). Designed to test the accuracy of myocardial perfusion SPECT or PET images, the phantom simulates radiation scattering and attenuation. It's a valuable tool for both QC and teaching purposes.

Features

- High-quality acrylic
- Simulates left and right ventricle
- Left ventricle contains 9 myocardium infarcts
- Tests system integrity for myocardial perfusion SPECT and PET studies

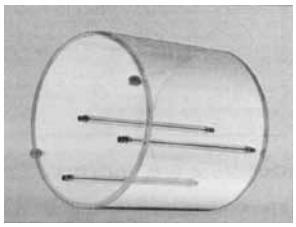
Specifications

- Dimensions: 8.27" H x 11.81" W x 7.87" D (21 x 30 x 20 cm)

RH-2 Heart Phantom..... 5230-0045

(201) 825-9500 / (800) 631-3826

Spacial Resolution Phantom



NEMA has developed standards for making performance measurements of SPECT systems. This phantom meets the specification for measuring the system's line spread function. These standards provide a uniform criterion for measuring and reporting SPECT performance parameters. The user can use NEMA measurements when performing acceptance testing against the manufacturers specifications.

The phantom consists of 8" x 8" cylindrical acrylic tank with three stainless steel tubes that can be filled with Tc-99m. The tank is filled with water to provide appropriate scatter.

Features

- Conforms to NEMA Standards
- Measures line spread function
- Fits and tests all SPECT systems under clinical conditions

Spatial Resolution Phantom 5230-0082

IB-10 Kyoto Brain Phantom

Additional Geometric Test Objects

Identical to the IB-20 brain phantom, the IB-10 offers additional geometric test objects: six isolated compartments, and resolution test objects of 6, 8, 10, 12, 14, 16 mm diameter.

IB-10 Brain Phantom.....5230-0052

CAPTUS Neck Phantom For Thyroid Uptakes

The CAPTUS neck phantom is made of clear Lucite designed to represent a patient's neck. The phantom has a two part insert that allows counting in a bottle or vial, as well as capsule counting. The unit is etched to show where the caliper of the thyroid probe should be placed for proper alignment. The phantom allows for placement in a vertical or horizontal position. This phantom meets all suggested requirements for use in counting a thyroid uptake standard source.

CAPTUS Neck Phantom..... 5230-0038

IB-20 Kyoto Brain Phantom

Simulates Cerebral Blood Flow

Made of high-quality acrylic, the IB-20 brain phantom simulates regional cerebral perfusion studies, with correct representation of gray and white matter. The IB-20 may be used to verify integrity of both SPECT and PET systems. Useful for both QC and teaching.

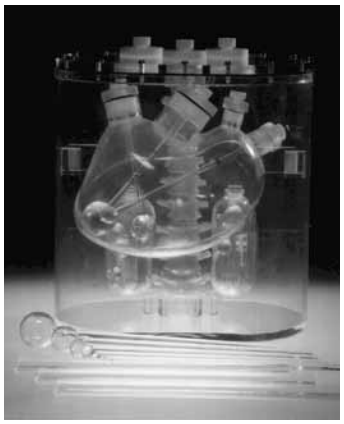
Specifications

- Dimensions: Skull container: 3.94" H x 8.07" W x 6.10" D (10 x 20.5 x 15.5 cm)
- Brain activity distribution: 1.97" (5 cm) thick

IB-20 Brain Phantom..... 5230-0051

LK-S Kyoto Liver/Kidney Phantom

Contains Various Cold and Hot Spots



This outstanding, high-quality acrylic phantom simulates the liver and both kidneys to evaluate gamma camera system integrity for these scans. The LK-S liver/kidney phantom, designed for SPECT and PET imaging, contains various-sized cold and hot spots with a defect locator (3 positions). Useful for both QC and teaching. Simulated or real (plastic-coated) human vertebrae.

Specifications

- Dimensions: 11.81" H x 11.81" W x 7.87" D (30 x 30 x 20 cm)
- Liver: volume: 1.8 ml
- cold spots: 1, 2, 3, 4 cm (1 each size)
- •hot spots: 1, 2, 3, 4 cm (3 each size)
- Kidney: volume: 170 and 180 ml
- cold spots: 1.5, 2, 3 cm (5 total)

LK-5 Liver/Kidney Phantom 5230-0050

Specphan™ Phantom

Key features include mounting and set-up that allow the Specphan™ phantom itself to be scanned off the table in the air, eliminating the table attenuation issue and enabling the user to position the detector(s) as close to the phantom as needed. This mount design simplifies and speeds the acquisition set-up time and increases the reproducibility of the QC measurements.

The mounting procedure is simple. The Specphan™ phantom case is placed on the patient table and is secured by wrapping the case's velcro strap around the table. An extension piece is fitted onto the case and the phantom is then affixed to this extension thus suspending it in air between the detector(s). The phantom is quickly leveled by turning an adjustment knob on the extension piece.

The design of the Specphan™ phantom was developed in response to a number of performance standard groups' test proposals, including:

(1) the American Association of Physicists in Medicine (AAPM) "Quantitation of SPECT performance: Report of Task Group 4, Nuclear Medicine Committee"

(2) the National Electrical Manufacturers Association (NEMA) "Nuclear Medicine Section Recommendations for implementing SPECT instrumentation quality control.

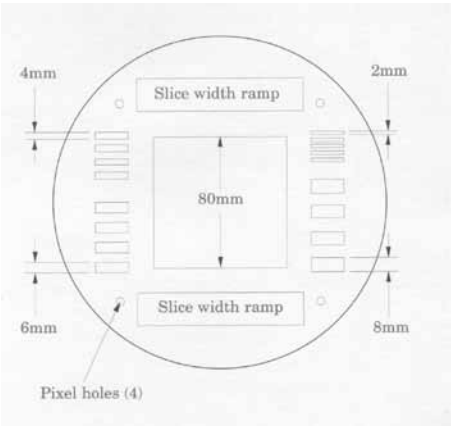
The Specphan™ phantom contains four main imaging sections and inserts described in the following pages:

- Slice Width, Pixel Size and High
- Resolution Section
- Point Source Insert
- Image Uniformity and Noise Section
- Low Contrast Inserts

Point Source Insert (Point Spread Function)

This section provides options to incorporate a point source, which is mounted on the fill plug positioned at the center or at radial plug locations. This source contains a well (3mm diameter x 5mm length) that can be mounted outside or inside the Specphan™ housing. Spatial resolution is measured by calculating the full-width at half-maximum (FWHM), or full-width tenth-maximum (FWTM) measurements of the point spread function (PSF) along the vertical and horizontal axes in the axial plane.

When positioned in the radial fill port, the point source holder can be used to calibrate the center of rotation when the point source data is evaluated in the x-axis. Similarly, detector tilt can be determined when the point source data is evaluated in the horizontal axis of the sagittal plane or the vertical axis of the coronal plane.



Slice Width, Pixel Size and High Resolution Section

Slice width is a reconstruction parameter that defines the thickness or the number of slices that are summed to generate a reconstructed image. Methodology for this measurement resembles that for CT, whereby the full-width at half-maximum (FWHM) of the background corrected, angled ramp profile is

continued on next page

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computed for each ramp using linear interpolation. In the Specphan™, a channel 20 mm x 10 mm thick at 23o is used as a hot target, providing a magnification factor of 2.3 times for slice width measurement. A trigonometric conversion is then performed, based on the known angle of the ramps, to yield the slice width in millimeters. This measurement indicates the extent of volume averaging, and can be used to optimize the slice widths used for specific clinical acquisition and processing protocol. Since these ramps are always used in opposing pairs, a phantom offset (z-axis) can also be used to evaluate scan localizer's accuracy or external patient alignment systems.

This pixel test section is used to verify the image pixel size and evaluate the degree of non-linearity or geometric distortion. To validate the pixel size, the phantom uses four hot calibration holes that are 5mm in diameter and separated by 120mm (169mm apart in the orthogonal direction). Based on the known physical locations of these holes, the pixel dimensions can be calculated for the x and y axes.

This slice width/pixel size section contains 'hot' and 'cold' resolution gauges (2mm, 4mm, 6mm, and 8mm) for visual evaluation of spatial resolution. The correspondence to square wave pattern is 2.5 lp/cm, 1.25 lp/cm, 0.83 lp/cm and 0.625 lp/cm respectively.

Image Uniformity and Noise Section

This section, approximately 14cm in length and 20cm in diameter, can be used to evaluate the image parameters for noise (percentage of root mean square), artifacts, image uniformity, and slice and volume sensitivity.

Low Contrast Inserts

Three low contrast inserts are threaded into the end of the Specphan™ housing. The three inserts can be placed in a radial pattern 63.5mm off the center axis or one can be placed in the phantom's central axis. The inserts are comprised of three sections, 10, 15 and 20mm in diameter and 40mm long. The inserts are filled through a port at the threaded end. The inserts can be used to simulate 'hot' or 'cold' lesions.

Spect & PET Phantom 5230-0132

The Breathing Phantom

Dynamic Anatomical Respiring Humanoid Phantom with Incorporated Target Motion

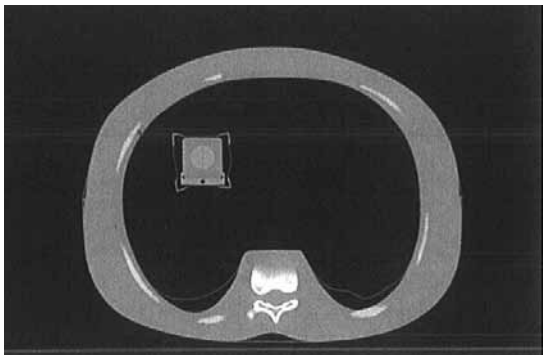
APPLICATION: Image guidance and respiratory gated systems calibrated to known motion.

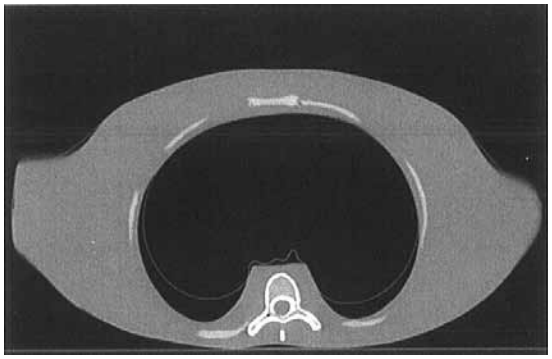
The breathing phantom torso mannequin is a complex plastic simulation of a humanoid torso including lungs, ribcage/chest-wall bone, skin and sub-dermis, and an independently movable tumor within one of the lung volumes. Under the programmed application of increasing and decreasing air pressure, the phantom lungs fill and empty of air to replicate humanoid lung function. Chest movement of one cm and more can be programmed. As the lungs expand and contract, the simulated ribcage bones also move as does the anterior and antero-lateral skin surface. Under the independent programmed application of air pressure to one of several industry standard pneumatic motion actuators, target motion within one lung is accomplished. The materials and composition of the phantom are devised to be a faithful simulation of the physical form of a human thorax and to the radiological image properties. A CT shows a device that looks similar to a human thorax.

Features

- Electro-pneumatic motion controller
- The Breathing Phantom thoracic mannequin
- Target fixtures for imaging and radiation dosimetry
- Individual thorax and target motions & rates: sin2, sin4, 1-sin4, 1-sin6, 5-20 breath/min
- Microsoft Windows (2000, XP, VISTA) hosted Phantom Control Software
- USB attached Control Hardware with 150 foot vault cabling

Breathing Phantom 5250-0142





Contrast-Detail Phantom (CDRAD 2.0)

Most definitions of image quality in radiology are based on characterizing the psychical properties of the image chain. However, medical diagnosis is not made by the image alone, also the perception by the observer is crucial for the result. A test of the observers perception is possible with so called Contrast-Detail (CD) phantoms. With a CD-phantom it is possible to quantify both, details and contrasts, as observed by the radiologist.

The CDRAD 2.0 phantom can be used within the entire range of diagnostic imaging systems, such as fluoroscopy and digital subtraction angiography.

Construction

The CDRAD phantom consists of a plexiglass tablet with cylindrical holes of exact diameter and depth (tolerances: 0.02 mm).

Together with additional plexiglass tablets, to simulate the dimensions of the patient, the radiographic image of the phantom gives information about the imaging performance of the whole system (refs. 1 and 2).

The image shows 225 squares, 15 rows and 15 columns. In each square either one or two spots are present, being the images of the holes. The first three rows show only one spot, while the other rows have two identical spots, one in the middle and one in a randomly chosen corner (fig. 1).

The optical densities of the spots are higher as compared to the uniform background.

Due to the (exponentially) increasing depth of the holes in horizontal direction, the image shows 15 columns of spots with increasing contrast. In the vertical direction the diameter of the holes increases stepwise and exponentially from 0.3 to 8.0 mm. For the image this means 15 rows of spots with increasing spatial resolution.

Evaluation

For evaluation of the phantom image the observer indicates the location of the second spot in each square. Correct indication proves that a contrast is really seen. At the transition from visible to invisible it is difficult to decide in which corner the second spot is located and the response equals pure chance. The line connecting the central spots with smallest visible diameter and contrast is called the Contrast-Detail (CD) curve.

For comparison of the imaging performance of different systems, phantom images are made under identical conditions and evaluated by the same observer and at the same time. The better system will produce an image in which smaller contrasts and details are visible. This results in a shift of the CD-curve to the lower left part of the image (see fig. 2)

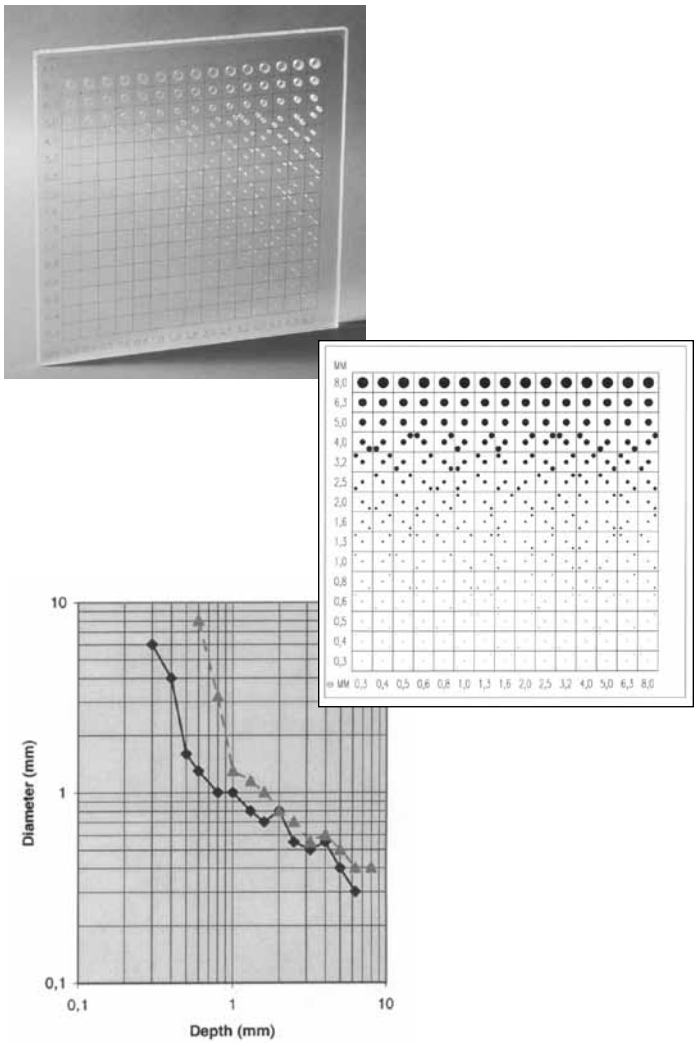


Figure 2: Contrast detail lines of monitor image ( ) and the hard copy image (- - - -) of the same DSA equipment

Comparison of the performance of several observers is also possible. The better performing observer produces a CD-curve more to the lower left part of the image.

After some experience one tends to memorize the positions of the corner spots. Therefore, to avoid this, four versions are available upon request.

Contrast-Detail Phantom (CDRAD 2.0) 0695-0118

References

1. Thijssen MAO, et al: Quality Analysis of DSA equipment, Neuroradiology (1988) 30: 561-568.

2. Thijssen MAO, Rosenbush G, Gerlach H.J.: Reduction of exposure in fluoroscopy, Electromedica (198804) 56: 126.133.

3. Rose A: Vision, human and electronic, Plenum, New York, 1974.

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Contrast-Detail Phantom (CD DISC 2.0)

Most definitions of image quality in radiology are based on characterizing the psychical properties of the image chain. However, medical diagnosis is not made by the image alone, also the perception by the observer is crucial for the result. A test of the observers perception is possible with so called Contrast-Detail (CD) phantoms. With a CD-phantom it is possible to quantify both, details and contrasts, as observed by the radiologist.

The CD DISC 2.0 phantom is especially designed for the evaluation of fluoroscopes.

Construction

The CD DISC phantom consists of a plexiglass tablet with cylindrical holes of exact diameter and depth (tolerances: 0.02 mm).

Together with additional plexiglass tablets, to simulate the dimensions of the patient, the radiographic image of the phantom gives information about the imaging performance of the whole system (refs. 1 and 2).

The image shows 240 curved segments. These segments are formed by 16 concentric rings divided by 15 rays from the center of the rings. In each segment one spot is present, in a randomly chosen corner, being the images of the hole (fig. 1).

The optical densities of the spots are higher as compared to the uniform background.

Due to the (exponentially) increasing depth of the holes in clockwise direction, (from 0.3 to 8.0 mm) the image shows 15 disc-segments of spots with increasing contrast. From the center towards the edge the diameter of the holes increases stepwise and exponentially from 0.3 to 8.0 mm. For the image this means 16 rings of spots with increasing spatial resolution.

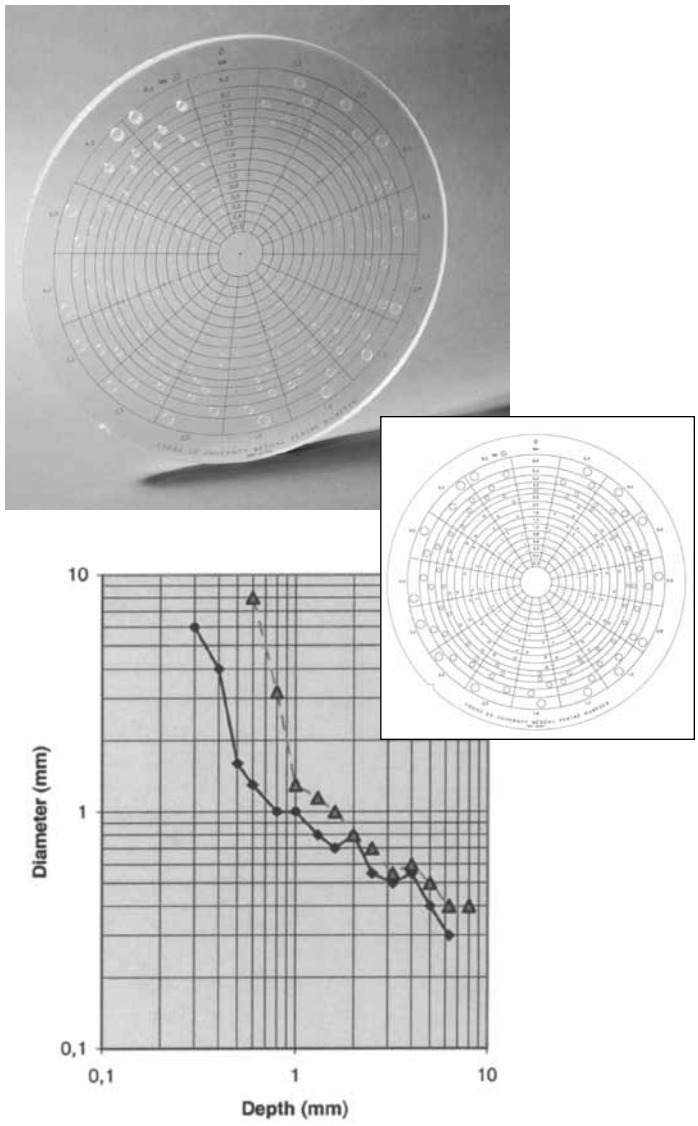

Figure 2: Contrast detail lines of monitor image ( ) and the hard copy image (- - - -) of the same equipment

Evaluation

For evaluation of the phantom image the observer indicates the location of the spot in each square. Correct indication proves that a contrast is really seen. At the transition from visible to invisible it is difficult to decide at which position the spot is located and the response equals pure chance. The line connecting the spots with smallest visible diameter and contrast is called the Contrast-Detail (CD) curve.

For comparison of the imaging performance of different systems, phantom images are made under identical conditions and evaluated by the same observer and at the same time. The better system will produce an image in which smaller contrasts and details are visible. This results in a shift of the CD-curve to the lower left part of the diagram / graph (see fig. 2)

Comparison of the performance of several observers is also possible. The better performing observer produces a CD-curve more to the lower left part of the diagram.

Contrast-Detail Phantom (CD DISC 2.0) 0695-0119

References

1. Thijssen MAO, et al: Quality Analysis of DSA equipment, Neuroradiology (1988) 30: 561-568.
2. Thijssen MAO, Rosenbush G, Gerlach H.J.: Reduction of exposure in fluoroscopy, Electromedica (198804) 56: 126.133.
3. Rose A: Vision, human and electronic, Plenum, New York, 1974.

Diagnostic X-Ray Phantoms

JCAHO requires that x-ray exposure measurements be determined for commonly used projections in all radiographic suites. In order to provide this information when using Automatic Exposure Control (AEC) or Automatic Brightness Control (ABC) systems, specially designed phantoms must be used. Attenuating material must be used between the source and AEC or ABC detectors. Since these detectors are energy dependent, measurement of skin entrance exposure requires the use of patient-equivalent phantoms for meaningful results.

AAPM Report #31 recommends the use of four special phantoms for use in diagnostic x-rays. These acrylic and aluminum phantoms are patient equivalent, and are specifically designed to conform to the AAPM recommendations.

- Patient-equivalent acrylic and aluminum phantoms provide the necessary attenuation between the source and AEC or ABC detectors
- Helps you comply with JCAHO requirements for radiographic exposure measurements
- Easy-to-use

Chest X-Ray Phantom

The Chest Phantom consists of four sheets of 25cm x 25cm x 2.54cm clear acrylic. One sheet of 25cm x 25cm x 1 mm and one sheet of 25cm x 25cm x 2mm type 1100 high-purity aluminum and spacers to provide a 5.08 cm air gap. Clinical testing of the phantom has shown it to be equivalent to a 23 cm patient for the PA chest projection.

Weight: 17.5 lbs (8 kg)

Chest X-Ray Phantom..... 0695-0180

Abdomen/Lumbar Spine Phantom

The Phantom consists of five sheets of 25cm x 25cm x 2.54 cm and one sheet of 25 cm x 25 cm x 5.08 clear acrylic to achieve a 17.78 cm thick phantom. In order to provide additional attenuation in the spinal region, a 7cm x 25cm x 4.5cm thick piece of high-purity aluminum is included.

Weight: 37 lbs (17kg)

Abdomen/Lumbar Spine Phantom..... 0695-0181

Phantoms conform to AAPM recommendations contained in Report #31, “Standardized Methods for Measuring Diagnostic X-Ray Exposure.”

Skull X-Ray Phantom

The Skull Phantom has the same configuration as the Chest Phantom, but without the air gap. It consists of four sheets of 25cm x 25cm x 2.54 clear acrylic, one sheet of 25cm x 25cm x 1 mm and one sheet of 25cm x 25cm x 2mm high-purity alloy aluminum and a center sheet of 25cm x 25cm x 5.08 clear acrylic.

Weight: 26.5 lbs (12kg)

Skull X-Ray Phantom..... 0695-0182

Extremity X-Ray Phantom

The extremity Phantom consists of one 25cm x 25cm x 2 cm piece of high-purity alloy aluminum sandwiched between two sheets of 25cm x 25cm x 2.54 cm clear acrylic.

Weight: 10 lbs (4.5kg)

Extremity X-Ray Phantom..... 0695-0183

These Phantoms are recommended in AAPM Report #60, "Instrumentation Requirements of Diagnostic Radiological Physicists."

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Anthropomorphic Phantoms

Anthropomorphic Phantoms... Ideal Substitute Patients for Teaching/Training Radiologic Technologists

• Permit unlimited repetitions of most views…patients cannot be used for this…

• Demonstrate effects of changing technical factors…

• Provide valid feedback to evaluate trainee performance…

• Because the same phantom can be used year after year, performance norms can be derived to guide training procedures…

Human Skeletal Architecture Is Duplicated More Realistically with Capintec Skeletons Than With Cadaveric Skeletons

Soft-tissue molds and skeleton molds are matched for anatomic fidelity.

The skeletons meet radiation interaction properties of both cortical bone and spongiosa as standardized by the International Commission on Radiation Units and Measurements. Many cadaveric human skeletons do not… especially when dried out for their preparation.

PIXY The Anthropomorphic Training/Teaching Phantom

- An anatomically and radiologically correct female
- Small size and low weight simplify positioning
- Permits evaluation of student performance
- Organs accept contrast media
- Opaque or transparent

PIXY was designed specifically for training radiologic technologists. PIXY is 5 ft. 1 in. (156cm) tall and weighs 105 lbs (48kg). She is repeatable, virtually indestructible, and a convenient substitute for patients.

PIXY is made of tissue-equivalent materials and has life-like articulations. Students have no difficulty in maneuvering PIXY into most desired positions.

PIXY is used to demonstrate anatomy and evaluate positioning and imaging techniques, including kVp, mAs, contrast, optical density, OFD and TFD. Radiographs of PIXY are optically equivalent in density and contrast to human patients.

PIXY permits unlimited exposures and tolerates trainee errors.

PIXY Anatomy

PIXY shoulders have ball and socket joints, elbows and knees flex 90° to 100°. Hips flex 130° with 30° hyperextension.

A "frog position" is made possible by lateral flexion at the hips. The right hand is molded with fingers positioned for an AP view, while the left hand is in an oblique-lateral position. The left foot is in full plantarflexion, the right foot is in a neutral position.

C1, C2, C6 and C7 were converted to mechanical nylon joints because educators in the field prefer full positioning capabilities for the head. The design permits the remaining neck vertebrae to be fixed in a normal position, while assuring a full range of head motion.

Pixy... Opaque Phantom

PIXY contains abdominal and pelvic organs: stomach, gall bladder, urinary bladder, kidneys, rectum and sigmoid flexure. These are air-filled, but accept water or contrast media and can be easily flushed after use. Custom fractures and custom pathologies are optional.

PIXY Materials

Skeletons

Skeletons are in continuous production, so prompt shipments are routine. Nevertheless, human skeletons are available for users who desire them. There is a surcharge to cover the high cost of scarce natural skeletons and for added labor needed to rework them to fit PIXY molds.

The matching of skeletons and soft-tissues permits external and bony landmarks to coincide. The position of bones within the soft tissues is anatomically correct.

The detail cast into skeletons is considered a triumph of the sculptural moldmaker's craft. The skull, for example, has frontal and sphenoidal sinuses, ethmoidal and mastoid air cells and the auditory ossicles. Bone sutures are radiographically visible.

Soft Tissues

PIXY is available in opaque or transparent tissue-equivalent materials. The transparent PIXY has visible organs and skeleton except at the hips, knees and elbows, which are opaque because, as on the opaque PIXY, latex coverings are needed to retain tissue-equivalent gels for soft-tissue continuity at these articulations. Two-ply coverings protect against gel leakage.

Lungs

Standard PIXY lungs are molded of tissue-equivalent foam with the mass density of inflated human lungs (0.30 g/cc). They are connected to the oro-nasal cavity by the stem bronchi and trachea. The oro-nasal pharynx is filled with a nearly air-equivalent foam.

Optional animal lungs, which duplicate the intricate detail of the vascular trees, are available. These lungs are fixed in the inflated state and molded to confirm to the pleural cavities of the phantom. The pulmonary arteries are injected with a blood-equivalent plastic. In addition, low, medium or high contrast material may be selected by the user.

Pixy... Transparent Phantom

Refurbishment

Capintec offers a PIXY refurbishment service which, after wear and tear from usage over an extended period of time, restores PIXY to its original condition. This service includes repair of minor bone fractures of hands and feet. Quotes are furnished upon request for more extensive damage.

Pixy	0695-0001
Pixy- Transparent	0695-0002
Actual Lungs	0695-0003
Custom Fractures & Pathologies	0695-0004
Standard Pixy Refurb	0695-0005

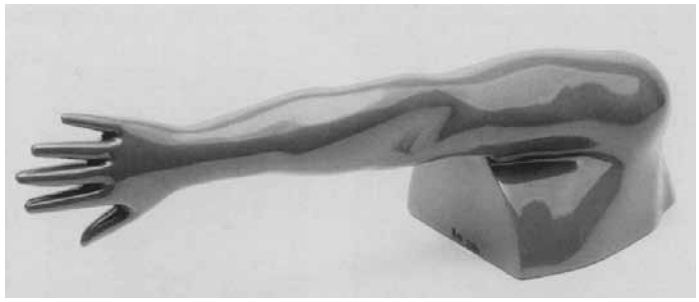
Sectional Phantoms

Anthropomorphic Body Sections With Applications Throughout The Field of Radiography

Sectional phantoms, with the anatomic and radiofidelity of PIXY, are used widely in teaching/training, with many other applications. They represent an average male 5 ft. 9 in. tall (175cm) with a weight of 162 lbs (74kg). They are rugged, easily transported and shatter-proof.

Sectional phantoms do not replace simple geometric phantoms that are used to evaluate individual characteristics of an imaging system. They provide comprehensive evaluation of the imaging system and imaging techniques under realistic conditions. Typical applications are the same as PIXY.

Organs	**Opaque**	**Transparent**
Head with Complete Cervical Spine	0695-0006	0695-0007
Head without Cervical Spine	0695-0008	0695-0009
Head w/o Cervical Spine + a 5 Stepwedge and Test Pattern	0695-0010	0695-0011
Thorax	0695-0012	0695-0013
Pelvis	0695-0014	0695-0015
Hand/Wrist; natural position	0695-0016	0695-0017
Hand/Wrist; oblique position	0695-0018	0695-0019
Foot/Ankle; natural position	0695-0020	0695-0021
Foot/Ankle; oblique position	0695-0022	0695-0023
Knee; natural position	0695-0024	0695-0025
Knee (90 flexion)	0695-0026	0695-0027
Elbow; natural position	0695-0028	0695-0029
Elbow; 90 flexion	0695-00030	0695-0031
Complete Arm/Shoulder; natural position	0695-0032	0695-0033
Complete Leg/Hip; natural position	0695-0034	0695-0035



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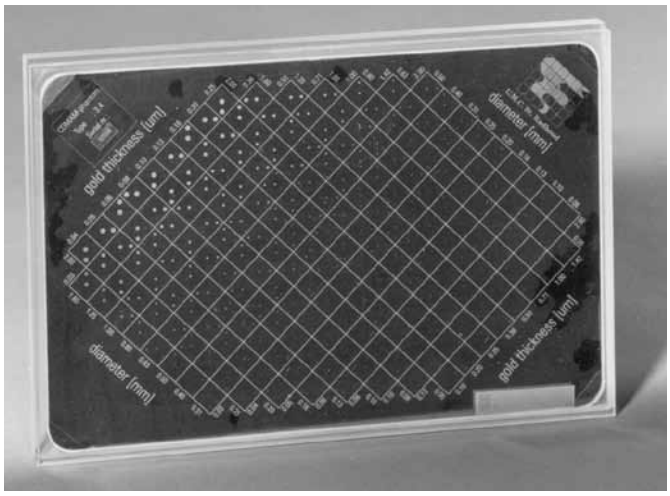
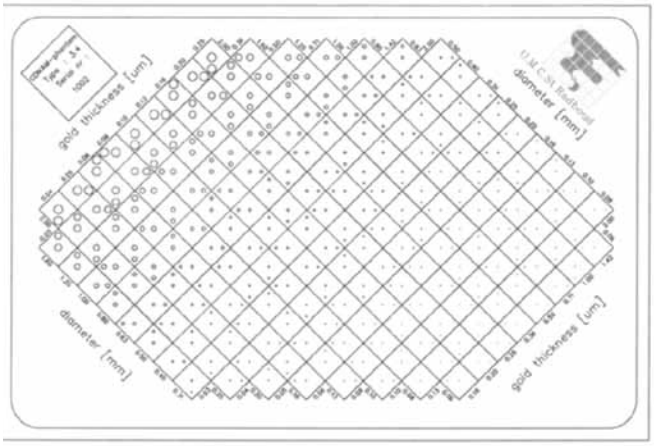
CD Phantom for Mammography (CDMAM 3.4)

In mammography it's essential that objects with very small contrast and diameter can be distinguished. Therefore the quality of the technical aspects of the mammography equipment should be monitored at regular time-intervals. Usually this is performed by measurement of the physical parameters of the X-ray equipment, screen-film combination, developing process and observation conditions. The main item in quality control however should be the assurance of information transfer from the tissue under examination to the radiologist. Therefore the information content of an image should be monitored.

The CDMAM 3.4 is specially developed to facilitate the evaluation of mammography systems, i.e. detecting very low contrast and very small details.

With the phantom the "threshold contrast" as a function of the object diameter can be determined and plotted in a Contrast-Detail curve.





Construction

The CDMAM phantom consists of an aluminum base with gold discs of various thickness and diameter. The aluminum base is attached to a plexiglass (PMMA) cover. Under normal mammography-radiation conditions (Mo anode, 30 mm Mo filter, 28 kV) the aluminum base and plexiglass cover together has a equivalent plexiglass thickness of 10 mm. The phantom is delivered with 4 PMMA plates of each 10 mm thickness. Every plate has an engraved marker with lead inlet for identification.

The gold discs are arranged in a matrix of 16 rows by 16 columns. Within a row the disc diameter is constant, with (partly) logarithmic increasing thickness (see specifications) and within a column the thickness of the discs is constant and the diameter increases logarithmic.

Each square contains two identical discs (same thickness, same diameter), one in the center and one in a randomly chosen corner. Easily recognizable patterns have been avoided.

The total matrix is rotated by 45 degrees and the corners of the matrix are skipped. This is done for 2 reasons, getting a better focus on the interesting part (low contrast, small diameter) and making the recognition of the patterns more difficult.

Measurements

To make an X-ray image, the CDMAM phantom (in combination with one or more plexiglass plates) should be positioned on the bucky with the smallest disc diameters at the thorax side.

After the film has been processed, the density of the film should be checked. In a series of CD-images, all the images should have approximately the same densities in a reference position on the film.

After this preprocessing, the following measurements are possible:

- Comparison of image quality with various film-screen combinations
- Optimization of digital mammography systems
- Determination of the optimum background density, by variation of this density
- Determination of the optimum exposure technique, e.g. by variation of the tube potential
- Comparison of image quality at various thickness, by variation of the amount of plexiglass at a fixed density

Specifications

- Base:
- Material: Aluminum(99,5%)
- Thickness: 0.5 mm
- Size: 180 x 240 mm (mammography film size)
- Gold discs:
- Material: Gold (99.9999%)
- Thickness: 0.03, .. 2.00 mm (16 exponential steps) contrast range 0,5 - 30% under standard conditions*
- Diameter: 0.06..2.0 mm (16 exponential steps)
- Cover:
- Material: PMMA
- Thickness: together with base, under standard conditions 10 mm plexiglass equivalent
- Size: 180 x 240 mm
- Grid: silkscreen printed with X-ray contrasting paint.
- Plexiglas plates (4):
- Material: PMMA
- Thickness: 10 mm
- Size: 180 x 240 mm
- Markers: identification markers with lead inlet

Every phantom is delivered with a reference photo, made under the following standard conditions*:

- Tube: Mo anode with 30 mm Mo filter
- Potential: 28 kV
- Focal spot: large (IEC-grade 0.3)
- Grid: present
- Exposure time: resulting in D .1.2 O.D. + base and fog
- Compression plate: present

CD Phantom for Mammography (CDMAM 3.4)..... 0695-0120

The CDMAM 3.4 phantom is a result of the project: "Quality Assurance in Mammography, Department of Radiology, University Medical Centre Nijmegen, (St. Radboud), the Netherlands."

By M.A.O. Thijssen, Ph.D., K.R. Bijkerk, M.Sc. and J.M. Lindeyer, B.Sc.

Digital Mammographic Phantom

The Digital Mammography Phantom is a small version of the Mammographic Accreditation Phantom. The Phantom is used for monitoring digital mammography systems currently used for stereotactic biopsy and localization.

The wax insert of the phantom is 5 x 5 cm and contains simulated microcalcifications, nylon fibrils and tumor-like masses. These are identical to the test objects in the Mammographic Accreditation Phantom, except the two largest fibers, microcalcification groups and masses are omitted. The largest simulated microcalcification and tumor-like masses are the image requirement for Screen Film accreditation. The second nylon fibril is the accreditation requirement.

An 8x8 cm acrylic adapter with a cutout for placement of the 5x5 cm wax insert allows users to use the standard base (supplied with the phantom).

Specifications

- Test Objects:
- (3) Simulated Microcalcifications
- (4) Nylon Fibrils
- (3) Tumor-like Masses
- Size 1.75” x 4” x 4.25” (4.5 x 10.2 x 10.8 cm)
- Weight 1.2 lb. (0.55 kg)

Digital Mammography Phantom..... 0695-0129

Mammographic Accreditation Phantom

This phantom assures optimum imaging performance of your mammographic system by providing a baseline from which you can easily monitor your unit’s performance.

The Accreditation Phantom contains test objects which simulate malignancies and other small structures seen in the breast (microcalcifications, fibrils, and tumor-like masses). All the test objects are contained in a single wax block which is enclosed in an acrylic base.

This phantom is designed to simulate a 4.0 to 4.5 cm compressed breast. Included with each phantom is a 4 mm acrylic disk for making density difference measurements as required by the American College of Radiology (ACR)

Specifications

- Test Objects:
- (5) Simulated Microcalcifications
- (6) Nylon Fibrils
- (5) Tumor-like Masses
- (1) 4 mm Acrylic Disk
- Size 1.75” x 4” x 4.25” (4.5 x 10.2 x 10.8 cm)
- Weight 1.2 lb. (0.55kg)

Mammographic Accreditation Phantom 0695-0128

(201) 825-9500 / (800) 631-3826

CT Performance Phantom

Meets guidelines in AAPM Report #1 for performance and quality assurance of CT scanners.

This ONE phantom evaluates

- Noise
- Size dependence
- Spatial resolution
- Contrast scale
- Sensitivity (low contrast resolution)
- Alignment
- Absorbed dose
- Linearity
- Slice thickness

The increasing use of computerized tomography (CT) as a diagnostic tool creates the need for an efficient means of evaluating the performance of the CT scanners now in use. Recognizing this requirement, the American Association of Physicists in Medicine established the AAPM Task Force on CT Scanner Phantoms. Its goals are to define CT scanner performance and present practical methods of performance testing through the utilization of special phantoms. This phantom design is based on the guidelines presented in Report #1 of the Task Force and approved by the AAPM.

The modular CT Performance Phantom offers the CT user a single system with which to measure nine performance parameters. ONE PHANTOM DOES IT ALL! This phantom permits the routine standardization of alignment, beam width, spatial uniformity, linearity contrast, spatial resolution, linespread, noise, size independence, and absorbed dose. All components of the phantom are housed in a compact, transparent tank which holds the system together in the correct orientation.

The phantom consists of an 8 1/2" diameter acrylic tank containing a beam-width insert, a spatial resolution and linespread block, a high-contrast insert and a means for inserting alignment pins and/or TLD holders. Additionally, a 1/4" thick Teflon band, positioned at the base of the tank and concentric to the 8" internal diameter, simulates human bone. Attached to the base of the tank is a low-contrast section with resealable cavities (from 1" to 1/8" diam.) which can be filled with a diluted dextrose or other appropriate solution to provide a low-contrast media. The optional External Resolution and Noise Ring slides snugly over the outside diameter of the tank, allowing whole-body scanner systems to be evaluated.

Specifications

- Water Tank: Made of acrylic 8 1/2 " O.D x 8" I.D x 12 3/4" long. Resealable with fill and drain ports. Low-contrast detectability block is attached to base.
- Linearity and Contrast Insert: 7 1/2" O.D. x 2 1/2" long. Contains 1" diameter contrast pins of polyethylene, acrylic, polycarbonate, polystryene, and nylon. Density values: polyethylene, 0.95 gm/cc, polystryene, 1.05 gm/cc, nylon 1.10 gm/cc, acrylic 1.19 gm/cc, polycarbonate 1.20 gm/cc.
- The contrast pins in each CT Performance Phantom are identical in density to the contrast pins of similar material in every other Capintec CT Phantom. For example, the nylon pin in every CT Phantom we manufacture has the same density.
- This uniform density among the phantoms provides the user with a standard for comparing the performance of different scanners.
- Resolution Insert: 7 1/2" O. D. x 2 1/2" long with 6" diameter solid acrylic block. In the model 76-410-4130, the block has eight sets of five holes (1.75, 1.5, 1.25, 1.00, .75, 0.61, 0.5, and 0.4 mm round). In the model 76-410-4132, the block has nine sets of five holes (1.75, 1.5, 1.25, 1.00, .75, 0.61, .05, .04, and 0.2 mm round). In both phantom inserts, the holes are spaced longitudinally on 5 mm centers and vertically on centers equal to twice the hold width. All cavities are filled with air. The 6" block is sectored 1 1/4" out on radius. Insert contains 0.014" stainless steel wire positioned longitudinally to the insert plates. The wire allows simple computation of linespread functions. A sectored 1 1/4" portion of the main 6" block permits an edge gradient to be measured.
- Beam Width Insert: 7 1/2" O.D. x 3 1/2" long solid acrylic block. Has two each of the following: 2 1/4" deep cavities: 1", 3/4", 1/2", 3/8", 1/4" and 1/8" diameter spaced twice the appropriate diameter apart, one row of cavities on each side of the center line. Cavities with screw-locking sealing ports are easily filled with dextrose or sodium chloride solutions of various densities. The user may adjust densities to any value suitable for the scanner. Typically, 2% or 3% differentials in density between cavities are used.
- Alignment Pin: 0.25 O.D. x 3" long aluminum with tapped hold, allowing pin to be secured to cover plate.
- TLD Insert: 1/2" O.D. x 3 1/2" long polystryene rod drilled 3" deep to accept TLD inserts. Resealable cavity. Tapped on other end to allow mounting to cover plate.
- External (Whole-Body) Resolution and Noise Ring: Annulus 12" O.D. x 8 1/2" I.D. x 2 1/2" long contains the same hole pattern as the Resolution Insert, at two locations 90° apart. Permits whole-body resolution and noise measurements when positioned on the main tank. Inner and outer resolution values are easily determined.
- Dimensions: 15 1/2" long x 8 1/2" diamter
- Weight: 17.25 lbs.

CT Performance Phantom with Resolution Insert (to .4mm)..... 0695-0105
CT Performance Phantom with Resolution Insert (to 0.2 mm)... 0695-0106
External (Whole-Body) Resolution & Noise Ring..... 0695-0107

CT Head and Body Dose Phantoms

Allows the user to calculate:

• Computed Tomography Dose Index (CTDI).

• Dose profile.

The CT Dose Phantoms were designed in accordance with the Food and Drug Administration's performance standard for diagnostic x-ray systems, which includes regulations specifically applicable to CT systems (21 CFR 1020.33).

These phantoms can be used with any CT system designed to image both head and body. They can separate dose information for each. When performing dose profile measurements, the dose phantoms allow the user to collect information for the maximum, minimum and mid-range value of the nominal tomographic section thickness.

This essential phantom consists of two parts: a body phantom and a head phantom. Both are made of solid acrylic, 15cm thick, with diameters of 32 cm and 16cm respectively. Each part contains five probe holes, one in the center and four around the perimeter, 90° apart and 1 cm from the edge. The inside diameter of the holes is 1.31 cm. Each part includes five acrylic rods for plugging all the holes in the phantom.

The CTDI can be measured

- At the axis of rotation of the phantom
- Along a line parallel to the axis of rotation and 1.0 cm interior to the surface of the phantom
- For each selectable CT condition of operation that varies either the rate or duration of x-ray exposure
- At the location coincidence with the maximum CTDI at 1 cm interior to the surface of the dosimetry phantom for each selectable peak tube potential

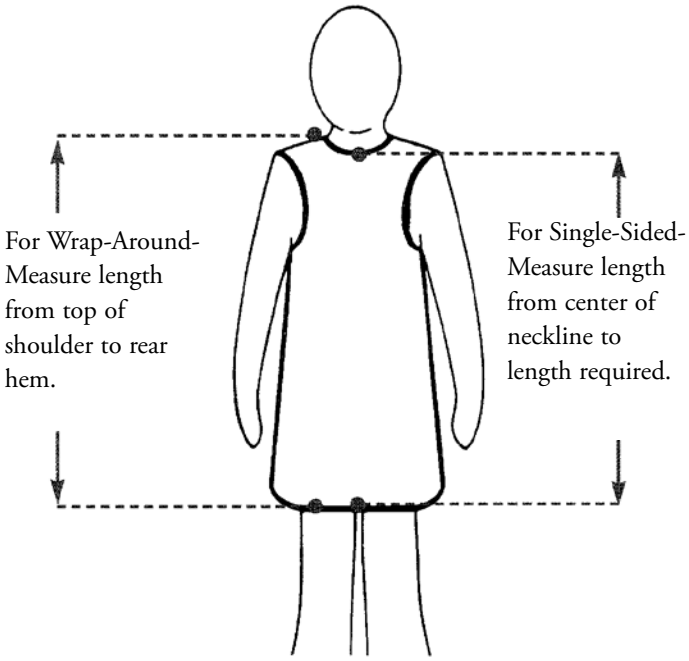
Meets FDA Performance Standards!

- Component Weights: Body Phantom, 32 lbs, head phantom, 8 lbs
- CT Head Dose Phantom, with Five Plugs
- CT Body Dose Phantom, with five Plugs
- Storage and Carrying Case (Only available if head and body are purchased)

CT Head Dose Phantom 0695-0113
CT Body Dose Phantom 0695-0114

(201) 825-9500 / (800) 631-3826

Lead Aprons



Colors & Their Number

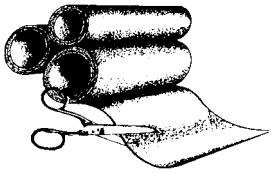
Royal Blue.....5
Beige.....43
Charcoal.....34
Purple.....21
Gray.....10
Green 9

Determine your size and order by letter code.

MEN'S	32-34	35-38	39-46	Larger
WOMEN'S	6-810-14	16-20	Larger	
HEIGHT:				
To 5'3"	A(18"x30")	E(20"x30")	I(24"x30")	M(28"x30")
5'4"-5'7"	B(18"x33")	F(20"x33")	J(24"x33")	N(28"x33")
5'8"-5'11"	C(18"x36")	G(20"x36")	K(24"x36")	O(28"x36")
6'0"-6'3"	D(18"x38")	H(20"x38")	L(24"x38")	P(28"x38")

Note: Sizes A-D and M-P are not returnable.

Lead Vinyl Sheets



Lead Vinyl offers a smooth, easy to clean material that is both non-absorbent and abrasion resistant on both sides. It is very pliable and easy to cut to the shape or size desired. Lead Vinyl Sheets come in rolls 24" wide, in assorted thicknesses.

Lead Vinyl 0.50 mm lead equiv., 24" x 4' x 1/16" Wt. 12 lb. 8100-7902
Lead Vinyl 1.00 mm lead equiv., 24" x 3' x 1/8" Wt. 18 lb. 8100-7904

Lead Vinyl Scanning Cape

Eliminate Body Background During Scans

This pre-cut garment effectively prevents a patient's body background from affecting the image obtained during a cardiac procedure, or when placed over the shoulders, during a vertex brain scan. The cape is made of 1/8" thick Lead Vinyl (1.0 mm lead equiv.) whose light weight and pliability assure minimal discomfort to the patient. The ends are designed to overlap, eliminating the need for a fastener. The material is both durable and easy to clean.

Lead Vinyl Scanning Cape 8100-7851

Utility Tie Apron

This is the most durable apron, manufactured with the finest possible protection, at the most economical price. The prime component is coated lead vinyl. Due to its integrity, this material provides wear well beyond that of any fabric cover. Ideal where economy and durability are of primary importance.

The Utility Tie Apron incorporates many design features of expensive coat styled technologist aprons. Comfortable to wear and easy to get on and off.

Utility Tie Apron 0680-0014
NOTE: To place order please specify size and color.
Sizing chart and colors are on the following page.

Vari-Weight Apron

Even when working with unit dose, the exposure to the nuclear medicine technologist can be significant. This is especially true when it is necessary to remain at the patients side during a procedure. The whole-body dose can be significantly reduced by using this easy to wear protective apron.

Extensive weight redistribution is obtained by snugly drawing the 2 Velcro flaps across the lower back, and by firmly fastening them above the hips. These attractive, light-weight aprons are also available with hand-painted or embroidery designs. Ask for a listing of the many different designs available. Lead vinyl features a .5 mm lead attenuation.

Vari-Weight Apron, .25 mm, .5 mm, 1.0 mm 0680-0012
Thyroid Collar (Removable) 0680-0013

Kleenguard® Coveralls

The cloth-like material is comfortable to wear and features a breathable fabric with zipper front and flap cover. The coveralls are useful for clean-up of larger spills as they repel liquid splashes and are non-absorbent. Coveralls are supplied in white with hip pocket, elastic back, wrists and ankles. (Box of 12)

Coverall (Medium) 0680-0007
Coverall (X-Large) 0680-0008

Latex Disposable Gloves

These high quality latex gloves offer excellent protection against all types of biohazardous material contamination The skin-tight fit assures bare-hand sensitivity. These gloves resist tearing and punctures. All sizes come in boxes of 100 or cases of 1000.

Latex Disposable Gloves (Small) 0680-0004
Latex Disposable Gloves (Medium) 0680-0002
Latex Disposable Gloves (Large) 0680-0003

Shoe and Boot Covers

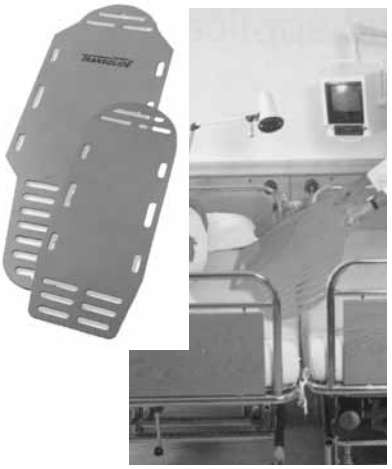
To clean up a spill work in an area where foot cover protection is needed, Capintec offers shoe or boot covers. Universial size and elastic top give secure protection while holding covers in place. Both come in white in boxes of 100 or cases of 300.

Shoe Covers 0680-0006
Boot Covers 0680-0005

Transglide

The inexpensive patient transfer aid with an easy-glide surface

- Lightweight - only 3.5 kg
- Made from solid, unbreakable Ecologically and toxicologically safe Material
- Smooth surface allows easy gliding
- Easy to clean, acid resistant
- Radioluscent
- Safety strips on underside
- Easy to store - may be hung on wall
- Non-toxic
- Anti-static
- Can bridge height differences up to 15 cm



Transglide - Large 170 x 65 cm 0695-0188
Transglide - Small 140 x 48 cm 0695-0189

(201) 825-9500 / (800) 631-3826

Radiation Alert

Monitor 4 and Monitor 4EC

The Monitor 4 and Monitor 4EC are compact general purpose survey meters capable of detecting alpha, beta, gamma and x-rays over 3 selectable ranges. A red count light flashes and audible beep sounds with rising radiation levels. The Monitor 4EC offers a more accurate linear reading for gamma and x-rays (above 40 keV).

Specifications

- Monitor 4- Halogen-quenched uncompensated GM tube with thin mica window 1.5-2.0 mg/cm2 thick.
- Monitor 4EC- Halogen quenched GM tube, energy compensated sidewall 2 mm tin filter. Thin mica window 1.5-2.0 mg/cm2 thick.
- Effective diameter .36"/.92cm
- Monitor 4 Energy Sensitivity: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6 MeV is greater than 80%. Detects beta at 50 keV with typical 35% detection efficiency. Detects beta at 150 keV with 75% typical detection efficiency. Detects gamma and x-rays down to 10keV typical through the window, 40 keV minimum through the sidewall dectector. Normal background is approx. 10-20 CPM. Gamma Sensitivity: 1000 CPM/mR/hr.
- Monitor 4EC Energy Sensitivity: Same as Monitor 4 except the energy response through the detector sidewall is flat within +61% or -26% over the range of 40 keV to 100 keV, and within +35% or -17% over the range of 100 keV to 1.3 MeV (referenced to Cs-137)
- Accuracy: + 10% of full scale (referenced to Cs-137)
- Audio Indicator: Internally mounted beeper (can be switched off for silent operation)
- Range Switch: X1, X10, X100, Battery Check
- Operating Range: 0-.5, 0-5, 0-50 hR/hr and 0-500, 0-5000, 0-50,000 CPM
- Optional SI meter scale: 0-500 µSV/hr and 0-50 mR/hr
- Anti-Saturation: Meter will hold at full scale in fields as high as 100 times the maximum reading
- Power Requirements: One 9 volt alkaline battery. Battery life is up to 2,000 hours at normal background radiation levels.
- Temperature Range: -4° F to 131° F (-20° C to 55° C)
- Weight of the Monitor 4: 178 grams (6.3 oz) without battery
- Weight of the Monitor 4EC: 7oz (198.1 grams) without battery
- Size: 5.7" x 2.8" x 1.5" (145 x 72 x 38mm)
- Includes: 1 year limited warranty, CE mark, carrying case
- Options: Stainless steel belt clip (attached to instrument)

Radiation Alert Monitor 4 0695-0050
Radiation Alert Monitor 4EC 5250-0046
Radiation Alert Monitor Kit 0695-0051
Belt Clip 0695-0052

Digilert 50

The Digilert 50 measures alpha, beta, gamma, and x-radiation. Its digital display shows readings in your choice of counts per minute (CPM) or mR/hr, or in accumulated counts. A red LED flashes and beeper sounds with each count detected. An audible alert sounds when the radiation reaches a user set alert level.

Specifications

- Detector: Halogen-quenched uncompensated GM tube with thin mica window 1.5-2.0 mg/cm2 thick.
- Display: 4-digit liquid crystal display with mode indicators; Updates every 60 sec.
- Operating Range: µR/hr: .001 to 50 mR/hr (c's -137); CPM: 0 to 50,000; Total - 1 to 60,000 counts; Optional- µSv/hr .01 to 500
- Energy Sensitivity: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6; MeV is greater than 80%; Detects beta at 50 keV with typical 35% detection efficiency; Detects beta at 150 keV with 75% typical detection efficiency; Detects gamma and x-rays down to 10keV typical through the window, 40 keV minimum through the sidewall of the detector; Normal background is approx. 10-20 CPM; Gamma Sensitivity: 1000 CPM/mR/hr.
- Accuracy: 10% Typical + maxim
- Alert: Pulsating beeper sounds at exceeded alert threshold. User adjustable alert elves are used for mR/hr and CPM
- Count Light: Red LED flashes with each count
- Beeper: Sounds with each count (can be muted)
- Outputs: Dual miniature jack sends counts to CMOS compatible devices including computers, data logger, and educational data collection systems. Submini jack provides audio output to an external earpiece, amplifier or tape recorder.
- Anti-Saturation: Readout to hold at full scale in high radiation fields as high as 100 times the maximum reading
- Temperature Range: 14° to 122° F (-10° to +50°C)
- Power: One 9-volt alkaline battery. Battery life is 2000 hours typical at normal background
- Size: 5.9" x 3.2" x 1.2" (150 x 80 x 30 mm)
- Weight: 8 oz (225 g) including battery
- Includes: 1 year limited warranty, CE mark, carrying case

Digilert 50 Monitor 5250-0009
Instrument Stand 0695-0053

Inspector

The Inspector is a small handheld microprocessor based instrument which offers excellent sensitivity to low levels of alpha, beta, gamma, x-rays. The digital readout is displayed with a red count light and audible beep, providing instant indications of the radiation level. Other benefits include an adjustable timer and external calibration controls.

Specifications

- Detector: Halogen-quenched uncompensated GM tube with thin mica window, 1.4-2.0 mg/cm2 areal density. Effective diameter of window is 45 mm (1.75 in.).
- Display: 4 digit liquid crystal display with indicators
- Averaging Periods: Display will update every 3 seconds. At low background levels, the update is the moving average for the past 30 second time period. Timed period for moving average decreases as the radiation level increases.
- Operating Range: mR/hr- .001 (1µR) to 100 mR/hr; µSv/hr- .01 to 1000; CPM- 0 to 300,000; CPS- 0 to 5000; Total/Timer- 1 to 9,999,000 counts
- Accuracy: mR/hr + 15% from 0 to 50 mR/hr; mR/hr + 20% from 50 to 100 mR/hr; CPM + 15% from 0 to 130,000 CPM; CPM + 20% from 130,000 to 300,000 CPM; (Referenced to Cs-137)
- Sensitivity to Common Isotopes: Typical GM tube efficiency for 4 Pi geometry at contact

Beta Isotopes	Energy	Efficiency
C-14	49 keV Avg. 156 keV	5.3%
Bi-210	390 keV Avg. 1.2 MeV max.	32%
Sr(Y)-90	546 keV and 2.3 MeV	38%
P-32	693 keV Avg. 1.7 MeV max	33%
Alpha		
AM-241	5.5 MeV	18%

- Gamma Sensitivity: 3500 CPM/mR/hr referenced to Cs-137; Smallest detectable level for 1-125 is .02 µCi at contact
- Timer: Can set 1 minute sampling periods from 1 to 10 minutes. 10 minute sampling periods 10 to 60 minutes; 1 hour sampling periods from 1 to 24 hours
- Count Light: Red LED flashed with each radiation event
- Size: 150 x 80 x 30 mm (5.9" x 3.2" x 1.2")
- Weight: 225 grams (8 oz) including 1 nine volt battery

Radiation Alert Inspector 5250-0047
Radiation Alert Inspector Exp 0695-0055
RAP-RSI Replacement Probe for Inspector Exp 0695-0056
Probe Case Replacement for Exp 0695-0057

Wipe Test Plate

The stainless steel WipeTest Plate slide easily onto the Inspector positioning the depression and wipe directly in front of the detector window at a fixed distance of 1 centimeter. The WipeTest plate is removable for general surveying or decontamination. It can also protect the GM from damage and prevent the instrument from contamination while the Inspector is not in use. Fits in carrying case with Inspector.

Specifications

- Audio Indicator: Internally mounted beeper (can be switched off for silent operation)
- Outputs: Dual miniature jack drives CMOS or TTL devices: count to computer or datalogger. Submini jack input allows for electronic calibration.
- Anti-Saturation: Meter will hold at full scale in fields as high as 100 time the maximum reading.
- Utility Menu: A Utility Menu offers several options accessible by holding down the + button while turning the instrument on. 3 second (fast response); Switches from mR/hr and CPM to µSv/hr and CPS; Reset the CAL factor to 100; Probe adjustment settings; Adjust the CAL factor; Reset all settings to original factory settings (default)
- Includes: 1 year limited warranty, CE mark, carrying case
- WipeTest Plate (patent pending)
- Option to be used with the Inspector

Wipe Test Plate 0695-0054

(201) 825-9500 / (800) 631-3826

PDM-122 and PDM-127

The PDM-122 and PDM-127 are excellent electronic pocket dosimeters that use a semiconductor detector which is sensitive to gamma and x-rays. Both models are battery operated and do not require a charger, separate reader or developing. The PDM-122 and PDM-127 have an automatic zero reset when the unit is turned off.

The range is 20 keV and above with a measuring from 1 to 9999 µSv.

Features

- Simple Operation
- High Sensitivity
- Light Weight
- Easy-to-Read Digital Display

Pocket Dosimeter PDM-127..... 5250-0011
Pocket Dosimeter PDM-122..... 5250-0020

	PDM-127	PDM-122
Dimensions	Approx. 30 (W) x 11(D) x 108 (H) mm (excluding clip)	Approx. 30 (W) x 11(D) x 108 (H) mm (excluding clip)
Weight	Approx. 40g	Approx. 40g
Measurement Unit	Sv and rem(rem is a factory setting option)	Sv and rem(rem is a factory setting option)
Measurement Item	Accumulated Dose and Dose Rate	Accumulated Dose and Dose Rate
Measurement Range	Dose: 1µSv to 1 Sv (.1mrem to 100 rem) Dose Rate: 1µSv/h to 100mSv/h (.1mrem/h to 10rem/h)	Dose: 1µSv to 10 Sv (.1mrem to 1000 rem) Dose Rate: 1µSv/h to 1Sv/h (.1mrem/h to 100rem/h)
Environmental Requirements in Operation	Temperature: -10 to +50 degrees C Relative humidity: up to 90% (non-condensing)	Temperature: -10 to +50 degrees C Relative humidity: up to 90% (non-condensing)
Remaining Battery Level	Battery Down mark Remaining Battery Level (3 steps)	Battery Down mark Remaining Battery Level (3 steps)

Radiation Protection Eyewear

Capintec Radiation Protective Eyewear provides the highest level of comfort, quality and lightweight radiation protection. Capintec Eyewear and Side Shields reduce up to 90% of scatter radiation. The lightweight Euro and Astro frames provide 20% more radiation protection with .5mm leaded side shields.

Capintec radiation protection non-prescription lenses provide .75mm of lead equivalency. Prescription lenses are also available. All eyewear has a 100% satisfaction guarantee and a one year warranty.

Astro

The lightweight frame has molded side shields and is adjustable for close fitting comfort. Temple length and frame angle are adjustable.

- Weight: 75 grams, Side Shield- 82 grams
- Lead Equiv. Front: Plano (non-prescription) 0.75mm**
- Lead Equiv. Side Shields: 0.50mm lead sheet
- Color: Blue
- Available in: Non-prescription, Single Rx, Bifocal Rx

Astro, Plain Lenses (no side shield) 0680-0023
Astro, Plain Lenses (side shield) 0680-0024
Astro, Prescription Lenses (no side shield) 0680-0030
Astro, Prescription Lenses (side shield) 0680-0031
Astro, Bifocal Lenses (no side shield) 0680-0037
Astro, Bifocal Lenses (side shield) 0680-0038

Tortoise Flex Wrap

The new Tortoise wrap with flexible hinge design for increased durability. This eyewear provides excellent peripheral vision with leaded glass side shields for increased scatter protection.

- Weight: 85 grams
- Lead Equiv. Front: Plano (non-prescription) 0.75mm**
- Lead Equiv. Side Shields: 0.75mm
- Color: Tortoise
- Available in: Non-prescription, Single Rx, Bifocal Rx

Tortoise Flex Wrap, Plain Lenses 0680-0026
Tortoise Flex Wrap, Prescription Lenses 0680-0033
Tortoise Flex Wrap, Bifocal Lenses 0680-0040

- Capintec Eyewear meets all standards for lens quality and tolerances according to Optical Laboratories Association and ANZI tolerances.
- All manufacturing supervised by Licensed and Board Certified Opticians
- All lenses meet or exceed standards for optical clarity, light transmission, power and prism correction
- Nonprescription and prescription lenses are available
- All eyewear warranted for one year*

Silver Flex Wrap

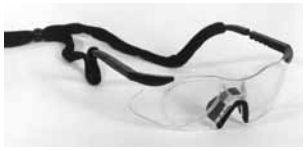
The new Silver wrap with flexible hinge design for increased durability. This eyewear provides excellent peripheral vision with leaded glass side shields for increased scatter protection.

- Weight: 85 grams
- Lead Equiv. Front: Plano (non-prescription) 0.75mm**
- Lead Equiv. Side Shields: 0.75mm
- Color: Silver
- Available in: Non-prescription, Single Rx, Bifocal Rx

Silver Flex Wrap, Plain Lenses 0680-0025
Silver Flex Wrap, Prescription Lenses 0680-0032
Silver Flex Wrap, Bifocal Lenses 0680-0039

Navigator

This frame has a one piece wrap around polycarbonate front shield and adjustable temples. The flexible lightweight design provides the most comfortable, soft unifit bridge available for scatter radiation protection. Also available for single vision prescriptions.



- Weight: 70 grams
- Lead Equiv. Front: Plano (non-prescription) 0.75mm**
- Color: Black
- Available in: Single Rx, .55mm Pb Eq. min.

Navigator, Plain Lenses 0680-0027
Navigator, Prescription Lenses 0680-0034

(201) 825-9500 / (800) 631-3826

Radiation Protection Eyewear

Euro

Lightweight eyewear with side shields molded into clear templates. The flexible nylon frame has a comfortable fitting bridge. The side shield model provides .5mm of lead protection.

- Weight: 73 grams, SS- 78 grams
- Lead Equiv. Front: Plano (non-prescription) 0.75mm**
- Color: Blue
- Available in: Non-prescription, Single RX, Bifocal Rx
- Lead Equiv. Side Shield: 0.50mm lead sheet

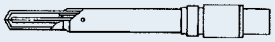
Euro, Plain Lenses (no side shield) 0680-0028
Euro, Plain Lenses (side shield) 0680-0029
Euro, Prescription Lenses (no side shield) 0680-0035
Euro, Prescription Lenses (side shield) 0680-0036
Euro, Bifocal Lenses (no side shield) 0680-0041
Euro, Bifocal Lenses (side shield) 0680-0042

- Capintec eyewear lens material has passed the following international standards:
- International Standards ISO 9001- British Standards BS 4031
- Certificate to Foreign Government- FDA Certificate No. 9625-5-2001 approved for U.S. export
- Certification- CE N. 010113- Notified Body No. 0120- SGS approved for European import
- *Warranty: All frames sold by Capintec are warranted for one year from date of sale. The warranty covers manufacturing defects resulting in frame and/or lenses breakage only. Misuse of these products, such as dropping, impact or damage by flying projectiles are specifically not covered.
- **Lead Equivalency Tolerances: Plano (non-prescription) + 0.1mm. Rx 0.6mm minimum.
- Caution: Do not use glasses if they become damaged. These lenses are not to be used where the possibility of impact exists. Use clear impact resistant over spectacles to provide any necessary impact protection. For scatter x-ray radiation reduction in the medical field only. Not to be worn outside of the medical facility.

Capintec Ionization Chambers

Therapeutic Chambers

PR-06C Farmer



The PR-06C Farmer Chamber is one of the most widely used Capintec chambers. The active volume is 0.65 ml and is made of air-equivalent conducting plastic. It is manufactured to be mechanically rugged for many years of constant use. The chamber is normally fitted with a BNC style triaxial connector but may be ordered with a TNC style connector. Its uses include exposure calibrations, depth dose measurements, iso-dose plotting and beam flatness verification.

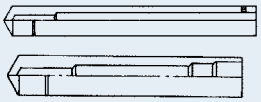
PR-06C Farmer Chamber (Includes Build-Up Cap).....5230-2010-OPT

PR-06G Farmer Chamber

The PR-06G Farmer-type chamber has a fully guarded stem and offers a different approach to measurement. Like the PR-06C, it has an Active Volume of 0.65 ml and is made of air-equivalent conducting plastic. This unit is mechanically rugged and is connected with 6 feet (1.764 m) of triaxial cable and a BNC connector (TNC connector available upon request).

PR-06G Farmer Chamber (Includes Build-Up Cap) 5230-2018-OPT

BC-06F Build-Up Cap For Chamber



A series of polystyrene caps providing optimized electron equilibrium for one photon energy range, is available in thicknesses for cobalt-60 and 4, 6, 10, and 18 MeV photons. (For higher energies, use the Cobalt-60 cap in a Capintec PP-33 phantom of the proper thickness.) Available in 4,6,8,10,15,18 MeV

BC-06F Build-Up Cap for Co-60 and 2 MeV (PR-06C Chamber) 4200-1079

Item #	Page
0250-3007	18
0250-3008	18
0601-0001	41
0601-0003	41
0601-0004	41
0601-0005	41
0601-0006	41
0601-0009	41
0645-0021	40
0645-0022	36
0645-0023	44
0645-0025	36
0645-0026	36
0645-0030	40
0651-0002	42
0651-0005	42
0651-0009	36
0651-0010	31
0651-0012	41
0651-0018	36
0652-0001	42
0652-0003	42
0652-0004	42
0652-0005	42
0652-0007	42
0652-0008	42
0652-0014	36
0653-0015	43
0653-0016	43
0653-1011	43
0653-2021	43
0653-3031	43
0653-4041	43
0653-5051	43
0653-6061	43
0653-7071	43
0653-9560	43
0653-9561	43
0653-9562	43
0653-9563	43
0660-0002	40
0660-0018	35
0660-0019	35
0660-0038	35
0660-1514	40
0660-1518	40
0660-1811	35
0660-1812	35
0660-1813	35
0660-1832	35
0660-2042	40
0660-2880	40
0660-3014	40
0660-3018	40
0660-3371	40
0660-5514	40
0660-5518	40
0665-0001	70
0665-0002	32
0665-0003	70
0665-2011	68,71
0665-2014	69
0665-2015	71
0665-2017	68,71
0665-2018	68,71
0665-2020	71
0665-2021	71
0670-0001	34
0670-0002	34
0670-0007	34
0670-0009	34
0670-0010	34,70
0670-0016	46,52
0670-0020	34
0670-0022	52
0670-2026	34
0680-0002	106
0680-0003	106
0680-0004	106
0680-0005	106
0680-0006	106
0680-0007	106
0680-0008	106
0680-0012	106
0680-0013	106
0680-0014	105
0680-0023	110
0680-0024	110
0680-0025	110
0680-0026	110
0680-0027	110
0680-0028	111
0680-0029	111
0680-0030	110
0680-0031	110
0680-0032	110
0680-0033	110
0680-0034	110
0680-0035	111
0680-0036	111
0680-0037	110
0680-0038	110
0680-0039	110
0680-0040	110
0680-0041	111
0680-0042	111
0685-100M	45
0685-100V	45
0685-101V	44
0685-200R	45
0685-200V	44
0685-A100	45
0685-A200	45
0685-M001	44
0685-M003	44
0685-M005	44
0685-M100	45
0685-M101	45
0685-M103	45
0685-M200	45
0685-R100	45
0685-R200	45
0685-T001	44
0685-T002	44
0685-T013	44
0685-T104	44
0695-0001	99-100
0695-0002	99-100
0695-0003	100
0695-0004	100
0695-0005	100
0695-0006	100
0695-0007	100
0695-0008	100
0695-0009	100
0695-0010	100
0695-0011	100
0695-0012	100
0695-0013	100
0695-0014	100
0695-0015	100
0695-0016	100
0695-0017	100
0695-0018	100
0695-0019	100
0695-0020	100
0695-0021	100
0695-0022	100
0695-0023	100
0695-0024	100
0695-0025	100
0695-0026	100
0695-0027	100
0695-0028	100
0695-0029	100
0695-0030	100
0695-0031	100
0695-0032	100
0695-0033	100
0695-0034	100
0695-0035	100
0695-0050	107
0695-0051	107
0695-0052	107
0695-0053	107
0695-0054	108
0695-0055	108
0695-0056	108
0695-0057	108
0695-0105	103
0695-0106	103
0695-0107	103
0695-0113	104
0695-0114	104
0695-0118	96
0695-0119	97
0695-0120	101-102
0695-0128	102
0695-0129	102
0695-0180	98
0695-0181	98
0695-0182	98
0695-0183	98
0695-0188	106
0695-0189	106
0695-2249	31
0960-0152	47,49,54,55,58
0960-0173	13
0960-0177	54,55,61
0975-0001	26
0975-0002	26
0975-0003	26
0975-0006	26
0975-0007	26
0975-0008	26
0975-0009	26
0975-0010	26
0975-0014	29
0975-0015	29
0975-0017	29
0975-0018	29
0975-0019	29
0975-0020	29
0975-0025	27
0975-0026	27
0975-0027	27
0975-0060	29
0975-0061	29
0975-0062	29
0975-0063	29
0975-0090	27
0975-0099	27
0975-0241	27
0975-0260	28
0975-0283	28
0975-0296	29
0975-0297	29
0975-0390	29
0975-0391	29
0975-0392	29
0975-0393	29
0975-0573	26
0975-100S	27
0975-100T	27
0975-101S	27
0975-105S	27
0975-128S	27
0975-129S	27
0975-130S	27
0975-131S	27
0975-132S	27
0975-133S	27
0975-134S	27
0975-135S	27
0975-137R	27,46,52,63,66
0975-137S	27
0975-137T	27
0975-138S	27,52
0975-138T	27
0975-139R	27
0975-139S	27
0975-139T	27
0975-139X	27
0975-140S	27
0975-140T	27
0975-141S	27
0975-141T	27
0975-142R	27
0975-142S	27
0975-142T	27
0975-146S	27
0975-146T	27
0975-152R	27,46,63,66
0975-186S	27
0975-3720	26
0975-3725	26
0975-5710	26
0975-8004	28
0975-8005	28
0975-8009	29
0975-8012	29
0975-8030	28
0975-8400	29
0975-8450	29
0975-F050	28
0975-F150	28
0975-FR57	28
0975-P054	28
0975-RR57	28
0975-S010	28
0975-S025	28
0975-S050	28
0975-S100	28
0975-S200	28
0976-0003	19,22
0976-0004	19,22
0976-0005	22
0976-0007	19,22
1000-0207	30
1000-0208	30
1000-0209	30
1000-0211	30
1000-0212	38
1000-0224	32
1200-0044	82
1200-0045	82
1200-0046	82
1200-0047	82
1200-0048	83
2001-0055	24
2500-4179	38
4200-1079	111
4300-0028	32
4300-0029	32
4300-0030	32
4300-0031	32
4300-0032	32
4300-0033	32
4300-0034	32
4300-0035	32

(201) 825-9500 / (800) 631-3826

Item #	Page
4300-0036	32
4300-0037	32
4300-0054	32
4300-0060	32
4300-0619	33
4300-0620	33
4300-0621	33
4300-0622	33
4300-0623	33
4300-1057	33
4300-1058	33
4300-1059	32
5110-0130-OPT	24
5110-1150	24
5120-0176	67
5120-0193	20
5120-0195	20
5120-1136-OPT	17,24
5120-1238	21
5120-2055	20
5120-2125	18,24
5120-2144	23
5120-2175	23
5120-2192	20
5120-2199	20
5120-2200	20
5120-2222	23
5120-2236	19
5120-2237	19
5120-2244	22
5120-2268	15-16
5120-2286	24
5126-2001	21,72
5130-0006	7,12,21
5130-0074	19,24
5130-0080	19
5130-0107	20
5130-0108	16,20
5130-0109	16,20
5130-2046	7,12,21
5130-2082	19
5130-2083	30
5130-2086	30
5130-2090	14,30
5130-2135	19
5130-2161	30
5130-2208	79
5130-2210	15-16
5130-2211	16
5130-2212	14,15-16
5130-2213	15-16
5130-2214	15-16
5130-2216	8-9
5130-2218	14
5130-2221	24
5130-2224	7,911,12,14,24
5130-2238	11
5130-3054	18
5130-3092	17
5130-3100	20
5130-3127	19
5130-3176	18
5130-3177	18
5130-3209	15-16
5130-3210	15-16
5130-3215	12,74
5130-3217	14
5130-3234	6-7
5130-3235	10-11
5150-3010	23
5150-3011	23
5220-RS502H	92
5220-RS503A	92
5220-RS506A	92
5220-RS506S	92
5220-RS507H	92
5220-RS508A	92
5220-RS510H	92
5220-RS511A	92
5220-RS519S	92
5220-RS530H	92
5220-RS531A	92
5220-RS532S	92
5220-RS533H	92
5220-RS534A	92
5220-RS535S	92
5220-RS536H	92
5220-RS537A	92
5220-RS538S	92
5220-RS539H	92
5220-RS540A	92
5220-RS541S	92
5220-RS543A	92
5220-RS543S	92
5220-RS544H	92
5220-RS546H	92
5220-RS800T	91
5220-RS900T	92
5220-RS901T	92
5230-0038	54,55,63,93
5230-0045	92
5230-0050	93
5230-0051	93
5230-0052	93
5230-0082	93
5230-0132	94-95
5230-2010-OPT	111
5230-2018-OPT	111
5130-2124	90
5250-0009	107
5250-0011	88
5250-0020	88
5250-0046	87
5250-0047	87,108
5250-0048	36
5250-0049	36
5250-0063	83
5250-0064	83
5250-0068	82
5250-0069	83
5250-0111	90
5250-0112	90
5250-0113	90
5250-0116	90
5250-0117	90
5250-0118	90
5250-0119	90
5250-0120	90
5250-0121	90
5250-0122	90
5250-0125	90
5250-0129	86
5250-0130	84
5250-0135	84
5250-0140	86
5250-0141	85
5250-0142	95
5250-0148	85
5250-0149	87
5250-0152	90
5250-0153	90
5250-0094	90
5250-0801	29
5250-0804	29
5250-0807	29
5250-1036	84
5420-0086	52,54,55,63
5420-0087	52,55
5420-0090	47,49,63
5420-0121	46,52
5420-2033	65,67
5420-2072	9,11,16,46,51
5420-2116	51
5420-2137	51
5420-2138	51
5420-2141	46,51
5420-3110	67
5430-0058	7,9,11,12,14, 16,19,24,46,52
5430-0069	49,55,63,66,67
5430-0075	49
5430-0076	55,59
5430-0077	55,59
5430-0081	55,63,67
5430-0087	59
5430-0100	7,9,11,12, 14,16,19,24
5430-0103	59
5430-0106	59
5430-0107	59
5430-0118	58
5430-0119	58
5430-2038-OPT	67
5430-2038	55,63
5430-2130	53-54,59
5430-2132	54
5430-3095	55,63,67
5430-3136	46
5430-3137	62-63,65-66
5430-3138	62-63,65-66
5450-0001-	82
5450-0003	54,55,60
5510-3003	68
5510-3004	68
5520-2200	79
5530-0069	70
5530-1028	68
5530-1029	69
5530-1030	39,69
5530-1031	68
5530-1033	68
5530-1034	68
5530-1035	69
5530-1036	69
5530-2007	71
5530-2010	39
5530-2014	70
5530-2237	7
5530-2040	70
5530-2074	39
5530-2077	69
5530-2079	39
5530-2098	16
5530-3042	72
5530-3045	81
5530-3046	81
5530-3047	81
5530-3048	79
5530-3049	79
5530-3050	79
5530-3051	80
5530-3052	80
5530-3053	80
5530-3058	80
5530-3059	80
5530-3060	80
5530-3061	81
5530-3062	81
5530-3063	81
5530-3064	81
5530-3071	81
5530-3088	79
5530-3140	73-74
5530-3141	73-74
5730-0024	37
5730-0025	37
5730-0029	37
5730-0031	31
5730-0032	31
5730-0033	31
5730-0034	37
5730-0035	37
5730-0036	37
5730-2027	69
5730-2030	69
5730-2041	72
5730-2271	71,79
5820-0023	88
5820-0024	88
5820-0025	88
5820-2001	88
5830-2002	88
5830-3001	88-89
7120-1016	16,25
7120-1017	16,25
7120-1018	16,25
7120-1199	7,9,11,12, 14,16,25
7120-1240	25
7120-1241	25
7120-1242	25
7120-1243	25
7300-2004	7,9,11,12,22
7300-2005	7,9,11,12, 16,22
7300-2450	7,9,11,12, 16,21
7300-2903	14,16,21,72
7310-0304	16
7310-1109	22
7310-1262	16
7310-1302	30
7310-1305	30
7310-2307	25
7315-1850	54,55,63,67
7410-0001	38
7410-0002	38
7410-0003	38
7410-0004	38
7410-0008	38
7410-0023	38
7410-0024	38
7410-0025	38
7410-0026	38
7410-0027	38
7410-0028	38
7410-0029	38
7440-0001	38
7440-0002	38
7440-0003	38
7440-0004	38
7900-0352	46
8100-1006	102
8100-1015	105
8100-1030	105
8100-7851	105
8100-7902	105
8100-7904	105
8400-0326	83
8400-0327	83
8400-0328	83
8400-1127	24
8400-1178	18,24
9282-0009	24,46
9282-0010	24

A
Abdomen/Lumbar Spine Phantoms 101
Absorbent Paper 42
Acrylic "L" Beta Shield 30
Alarm Timer (Mechanical, Big Digit) 36
ALERT Software Upgrade 61
Anthropomorphic Phantoms 92,102-103
Apron (Lead Vinyl) 99
Apron (Vari-Weight) 100
Auxiliary Displays (Dose Calibrators) 24
Auxiliary Shields
CAPRAC, 25W, Ultra Well 51
CRC-25W/Ultra Well 51

B
Bench Top "L" Shields 30-31
Beta Auxilary Shield 16
Beta Detector 16
Beta Monojet Syringe Holder 16
Beta NIST Amopoule Holder 16
Beta Syringe Shields 32
Boot Covers 100
Brachytherapy Source Holders 22
Brachytherapy Linear Seed Tube 22
Brachytherapy Ribbon Source Holder 22
Brachytherapy Linear Source Holder 22
Brachytherapy Seed Holder 22
Brain Phantoms 94
Breathing Phantoms 96
Bricks: Lead, Lead Glass,
Chevron, Interlocking 38-39

C
C-Tec Syringe Shields 32
Cabinets, Lead Lined 40,78-81
Calibration Rod Sources 52
Calibrators ..... see Dose Calibrators
Calicheck Linearity Test Kit 23
Camera 89-90
CAP-Cell Isolator 73-74
Cap-DICOM Software 54,55,60
CAP-MAC 2i Mallinckrodt 16,20
CAP-MAC 2i NEN Dupont 16,20
CAP-MAC (Moly Assay System) 20
CAP-MAC (Canister) 20
CAP-MAC-S (Moly Assay Canister for Syringes) 21
Cap-Tongs 36
CapIMAGE SFOV Gamma Camera 89-90
CAPRAC-t Wipe Test/Well Counter 46
CAPRAC Accessories 51-52
CAPTUS 3000, Custom Protocol Software 58
CAPTUS 3000 Portable System 53-54
CAPTUS 3000 Thyroid Uptake System 55
CAPTUS 3000 Thyroid Table Top 59
CAPTUS 3000 Well Counting System 48
Cart (Lab Stainless Steel) 42
CD Phantom for Mammography 104-105
Chamber Mounting Flange for Dose Calibrators 25
Chamber Well Insert 22
Chest X-Ray Phantoms 101
Chevron Bricks 38-39
Collimators 89
Communications Software 13
Contamination Clean-Up Kits 41
Contrast-Detail Phantom (CD DISC 2.0) 98
Contrast-Detail Phantom (CDRAD 2.0) 97
Copper Liner 24
Counting Tubes 52
Coveralls (disposable) 100
CRC Interactive Remote Display 14,24
CRC-127R Dose Calibrator 17
CRC-15 BT Dose Calibrator 19
CRC-55tPET Dose Calibrator 10
CRC-55tR Dose Calibrator 6-7
CRC-55tW Dose Calibrator/Well Counter 8-9
CRC-200 Dose Tickets & Labels 25
CRC-712 Remote Cable 18
CRC-712 Remote Display 18
CRC-712M Dose Calibrator 18
CRC-712MH 18
CRC-712MX 18
CRC-Ultra Expansion Unit 15-16
CRC-Ultra Readout with PET Chamber 15-16
CRC-Ultra Readout with Standard Chamber 15-16
CRP Dose Calibrator Tickets and Labels 14,16
CRP-200 Dose Tickets & Labels 25
CRP-500 Radionuclide Dose Tickets 16,25
CRP-600 Radiochemical Purity Tickets 16,25
CRP-700 Pre-Cal Record Tickets 16,25
Cs137 Brachytherapy Seed Holder 22
CT Head & Body Dose Phantoms 107
CT Performance Phantom 106
Custom Protocol 54,58

D
Daily Log Books 43
Decontamination Kit and Products 41
Diagnostic X-Ray Phantoms 101
Digilert 50 108
Digital (personal dosimeter) 88
Digital Frisker 86
Digital Mammographic Phantom 105
Dipper 22
Disk and Rod Sources 27
Display for CRC-55t Dose Calibrators 24
Disposable Protection Products 100
Diverging Collimator 89-90
Dose Calibrators
CRC-127R Dose Calibrator 17
CRC-15BT Dose Calibrator 19
CRC-55tPET Dose Calibrator 10-11
CRC-55tR Dose Calibrator 6-7
CRC-55tR Enhanced
Dose Calibrator Software 13
CRC-55tW Dose
Calibrator/Well Counter 8-9
CRC-712M Dose Calibrator 18
CRC-712MH Dose Calibrator 18
CRC-712MX Dose Calibrator 18
CRC-Ultra Readout with Chamber 15-16
Dose Calibrator Accessories
Auxiliary Lead Shield 51
Calicheck Linearity Test Kit 23
Cap-Mac-S Moly Assay Canister 21
Cap-Mac-2 Canister 20
CRC Ultra Remote Display 24
CRC Display 24
CRC-PS Positron Chamber Shield 72
CRC-ST Positron Shield Stand 72
CRC-245 Environmental Shield 16,21
Dosilift 23
Shielded Platform 23
Moly Assay canister 21
Printers 24
Tickets 25
Vial Syringe Dipper 22
Dose Drawing Station 68
Dose Drawing Syringe Shields 68,71
Drilled Well Crystal 67

E
Environmental Shield 21
Epson Roll Printer 24
Epson Ticket Printer 24
EuroProbe3 91
Extremity X-Ray Phantom 101
Eyewear 110-111

F
Flexible Marker and Rulers 28
Flood Sources (fillable) 29
Flood Sources (CO-57) 29
Flood Sources (Perflexion) 29
Flow-Count for HPLC 82
Foil (Lead) 99
Forceps and Tongs 36
Fume Hoods 37

G
Gamma Camera 89-90
Gamma Reference Source 26
Gammed VI Surgical Probe 91
Gated Trigger Monitor 89
Glass Bricks 38
Gloves (Latex) 100

H
Heart Phantoms 92
Hi-Range Survey Meter 85
High Handle Step Stool 42
Hoods
Fume Hoods 37
Laminar Flow Hoods 37
Radioiodine Fume Hoods 37
Shielded Laminar Flow Hood 37
Hot Cell Products 76-77
Hot Cell Monitor 83
Hot Plate (Corning) 36

I
Ir-192 Brachytherapy Ribbon Holder 22
Ion Chamber Area Monitor 87
Ionization Chambers
BC-06F Build-Up Cap for Chamber 111
PR-06C Farmer 111
PR-06G Farmer Chamber 111
Injection Stand 42
Inspector 109
Inspector Deluxe Radiation Monitor 87
Instrument Stand 42
Instrument Trays 42
Interlocking Lead Bricks 38-39
Ionization Chambers 111

K
Kyoto Phantoms 93-94

L
"L" Block Shields
"L" Beta Shield Acrylic 30
"L" Block Side Shields 30
"L" Shield Table-Top 69
Lab Carts, Stainless Steel 42
Lab Trays 36,42
Labels and Signs 44-45
Educational Materials
Nuclear Medicine Procedures Manual 44
Laminar Flow Hoods 37
Lead Products
Lead and Lead Glass Brick 38-39
Lead Brick (Chevron) 38-39
Lead Glass Syringe Shields 33
Lead Glass Vial Shields 33
Lead "L" Bench Shields 30-31,69
Lead Mobile Shield Barrier 31
Lead-Lined Products
Lead Lined Cabinetry 78-81
Lead-Lined Decay Drum 40
Lead-Lined Sharps Shield 71
Lead-Lined Storage Cabinet 40
Lead-Lined Syringe Carrier 34
Lead-Lined Syringe Holder 34
Lead-Lined Waste Can (stainless steel) 40
Lead Vial Shields 33
Lead Vinyl Sheets and Scanning Cape 99
LEAP Collimator 89-90
Linearity Test Kit (Calicheck) 23
Log Books 43

(201) 825-9500 / (800) 631-3826

M
Mammographic Accreditation Phantom 103
Markers and Rulers 28
Mick-Bard Source Holder 21
Mini "L" Block shields 30
Mini Cells 77
Minor Spill Kit for Contamination 41
Mobile Shield for PET 72
Moly Assay Canister 21
Moly Assay Dipper 22
Moly Assay Liner 22
Monitors
Digilert 50 108
Digital Frisker 86
Inspector Deluxe Radiation Monitor 109
Hi-Range Survey Meter 85
Monitor 4 Survey Meter 108
Monitor 4EC Survey Meter 87,108
Surface Contamination 84
Wide Range Frisker 86
Mounting Flange 25

N
Neck Phantoms 94
Needle Safety Sets (re-capper) 32
Nuclear Medicine Mobile Barrier 31

O
Okidata Printer 19,24

P
Pancake Probe 84
Paper (Absorbent) 42
PDM-122 88
PDM-127 88
Penpoint Markers 28
Perflexion Flood Source 29
Personal Dosimeters 88
PET HOT CELL SYSTEMS
PET Hot Cells 76-77
PET Laminar Flow Hoods 37
PET Single, Dual and Quad Mini Cells 77
PET Accessories
Adjustable PET "L" Block Shield 69
DOSILIFT 23
Flow-Count 82
Hot Cell Monitor 83
"L" Block Shield for PET 69
Mobile Shield for PET 72
Pig-30 and Pig-50 Vial Shields 69
PET Sharps Container Shield 71
PET Transport System 70,72
PHANTOMS
Abdomen/Lumbar Spine Phantoms 99
Anthropomorphic Phantoms 92-93,100-101
Breathing 96
Brain Phantom 94
CD Phantom for Mammography 102-103
Chest X-Ray Phantoms 99
Contrast-Detail Phantom 97-98
CT Head & Body Dose Phantoms 105
CT Performance Phantom 104
Diagnostic X-Ray Phantoms 99
Digital Mammographic Phantom 103
Extremity X-Ray Phantom 99
Flood Phantoms 29
Heart Phantoms 92
Kyoto Phantoms 93-94
Liver/Kidney Phantom 94
Lungs Phantoms 93
Mammographic Accreditation Phantom 103
Neck Phantom for Thyroid Uptake 54
Organ Phantoms 93
PIXY Training Phantom 100-101
Sectional Phantoms 103
Specphan Phantoms 95-96
Skull X-Ray Phantom 99
Thorax Phantoms 92
Pin-Tec Syringe Shields 32
Pin-Tec Beta Syringe Shields 32
Pin-Tec Beta/Gamma Syringe Shields 33
PIXY Training Phantom 100-101
Pocket Dosimeter
PDM-122 & PDM-127 88
Positron Shield 21
PR-06C Farmer 111
PR-06G Farmer Chamber 111
PRINTERS
Epson Roll Printer 24
Epson Ticket Printer 24
Okidata Printer 24
Procedure Manual (Nuclear Medicine) 43

R
Rad-Con Decontaminant 41
Radi-clean Decontaminant 41
Radiation Fume Hoods 37
Radioactive Rulers 28
Radioiodine Fume Hoods 37
Recapper for Needles 32
Record Keeping Log Books 43
Remote Displays for Dose Calibrators 16
RH-2 Kyoto Heart Phantom 93
Rod Source Holder 67
Rod Sources 27
Roll Labels and Paper Tapes 44
Roll Printer 24
RS-232 Interface 17
RS-232-R Serial Port 19
Rulers 28

S
Sectional Phantoms 101
Seed Handling System
Linear Seed Tube 22
BT-I-125 Brachytherapy
Linear Seed Tube 22
Ribbon Source Holder 22
Mick Applicator Holder 21
Sharps Shields, Horizontal & Vertical 35
Shielded Hoods 74
Shielded Platforms 23
Shields
Auxiliary Shield (Beta Enhanced) 51
Auxiliary Shields (Caprac, Caprac-R, CRC-25W/Ultra Well) 51
Bench Top "L" Shield 30-31
Shoe Covers 107
Signs and Tape 44-45
Skull X-Ray Phantom 99
SOFTWARE
CRC-25R Software 13
CRC-25R PC Communication Software 13
SOURCES
Disk & Rod Sources 27
Dose Calibrator Reference Sources 26
Fillable Flood Sources 29
Flood Sources (CO-57) 29
Markers and Rulers 28
Spot Markers 28
Spacial Resolution Phantom 94
Specphan Phantoms 95-96
Stainless Steel Garbage Can (Shielded) 40
Stainless Steel Lab Carts 42
Stainless Steel Tray 42
Stools (High Handle) 42
Storage Cabinets, Lead Lined 40,78-81
Surface Contamination Monitor 84
Surgical Probes 91
Survey Meters 84-87
Syringe Carriers 34
Syringe Dipper Adaptor 22
Syringe Holders 34,71
Syringe CAP-MAC-S Moly Shield 21
SYRINGE SHIELDS
Beta Syringe Shields 32
C-Tec Syringe Shields 32,71
Dose-Drawing Syringe Shield 71
Lead Glass 33
PET C-Tec Syringe Shields 32
PET Dose Drawing Syringe Shields 71
Pin-Tec Syringe Shields 32
Syringe Transporters 34,71

T
T-MAC Systems 20
T-Vial Shields 32,70
Table Top Fume Free Fume Hood 37
Tags 45
Test Tubes for Well Counting 52
Test Tube Rack 52
THYROID SYSTEMS
CAPTUS 3000 Thyroid Uptake System 55
CAPTUS 3000 Thyroid Uptake System (Table Top) 59
THYROID UPTAKE ACCESSORIES
Collimator (Pediatrics & Bio Assay) 67
Drilled Crystal 67
Neck Phantom for Thyroid Uptakes 52
Table Top Stand 67
Wall Mount for TUS System 67
Well Detectors 1" & 2" Shields 67
Ticket Printer, Epson 24
Tickets for Dose Calibrators 25
Timers/Alarms 36
Tongs 36
Transglide 107
Transport Cart 71
Trays (Stainless steel and Fiberglass) 42
Tungsten CAP-MAC 20
Tungsten Syringe Shields ..... (See Syringe Shields)
Tungsten Vial Shields 70

U
Ultra Expansion Unit 15-16
Ultra Readout with PET Chamber 15-16
Ultra Readout with Standard Chamber 15-16
Ultra Remote Display 16,24
Unit Dose Cabinets 78-81
Universal 511 Tungsten Vial Shield 32
Utility Cart (stainless Steel) 42
Utility Tie Apron 99

V
Vari-Weight Apron 107
Vial Shields 70
Vial Syringe Dipper 22

W
Wall Mount for TUS System 67
Warning Labels and Tape 44-45
Waste Containers (Lead Lined) 40
Well Auxilary Shield 16
WELL COUNTING SYSTEMS
CAPRAC-t Wipe Test/Well Counter 46
CAPTUS 3000 Portable Well System 53-54
CAPTUS 3000 Well Counting System 48
Wide Area Beta-Gamma GM Area Monitor 85
Wide Range Frisker 86
Wipe Spot Pads 52
Work Stations 75

1. Acceptance. Buyer's purchase order will, upon receipt by us, be deemed accepted subject to the terms and conditions herein set forth. Unless specifically requested by buyer, no confirmation of our acceptance will be made.

2. Payment Terms. Net amount of invoice shall be paid in full within thirty days of invoice date. If, in our opinion, the financial condition of the buyer at any time does not justify continuance of production or shipment on the terms of payment specified, we may, in addition to other rights lawfully available to us, require advance full or part payment.

3. Shipment. Shipment shall be FOB Pittsburgh, Pennsylvania except where expressly noted. Method and route of shipment are at our discretion, unless the buyer supplies explicit instructions that are accepted by us in writing. All shipments are made at the buyer's expense and risk and, if at our discretion, insured, are insured at the buyer's expense. If this is an export shipment or if special crating is requested, additional crating and export costs shall be added to the purchase price and shall be paid by the buyer.

4. Taxes. The amount of the present or future sales, revenue, excise or other similar tax applicable to the products listed herein shall be added to the purchase price and shall be paid by the buyer. Alternatively, in lieu thereof, the buyer shall provide us with a tax exemption certificate acceptable to the taxing authorities.

5. Quotations and Prices. Prices set forth in quotations may be changed at any time prior to our receipt of buyer's purchase order, except that the quotation shall be firm for the period, if any, shown on the face thereof.

6. Design Changes. We reserve the right to make changes in design at any time without incurring any obligation to install such changes on our products previously sold.

7. Warranty, Conditions and Limitations. We warrant our products to be free from defects in material and workmanship for a period of twelve months after delivery to the original buyer (unless indicated otherwise on reverse side or previous page). Our obligation under this warranty is limited to servicing or adjusting products returned to our factory for that purpose promptly upon any claim under this warranty, provided our examination discloses to our satisfaction that the affected parts were originally defective and have not been subjected to misuse, abuse, mishandling or improper operation. This warranty extends to every part of the product except batteries, fuses, ink, magnetic storage media, toner, transistors, tubes or any other normally consumable item. In no event shall we be liable for transportation, installation, adjustment or other expenses which may arise in connection with such products or their servicing or adjustment. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTIES, AND WE MAKE NO WARRANTY THAT THE PRODUCTS SOLD HEREIN ARE MERCHANTABLE OR ARE SUITABLE FOR ANY PARTICULAR PURPOSE. THE BENEFITS OF THIS WARRANTY SHALL BE EXTENDED ONLY TO THE BUYER AND TO NONE OTHER. WE SHALL HAVE NO LIABILITY OF ANY NATURE ARISING OUT OF THE USE OR APPLICATION OF THE PRODUCT IN CONFORMITY WITH THIS WARRANTY. IF THE PRODUCT SHALL FAIL TO PERFORM IN CONFORMITY WITH THE WARRANTY MADE HEREIN, WE SHALL BE LIABLE SOLELY FOR THE REPAIR AND REPLACEMENT OF THE PRODUCT AS PROVIDED HEREINABOVE, AND SHALL HAVE NO OTHER LIABILITY IN RESPECT OF SUCH FAILURE OF PERFORMANCE, OR ANY CONSEQUENCES THEREFROM, INCLUDING, WITHOUT LIMITATION, BUSINESS IMPAIRMENT OR LOSS, PERSONAL INJURY OR PROPERTY DAMAGE. No agent, employee or representative of ours has any authority to bind us to any representation or warranty concerning the product sold herein, and unless a representation or warranty made by an agent, employee or representative is specifically included herein, it shall not be enforceable by the buyer. No waiver, alteration or modification of the foregoing conditions shall be valid, unless made in writing and signed by an executive officer of our corporation.

8. Force Majeure. We shall not be liable for loss or damage of any kind resulting from delay or inability to deliver on account of any cause beyond our control, including without limitation, accident, acts of civil or military authorities, environmental disaster, export controls, fire, labor troubles, or transportation problems caused by the carrier after shipment leaves our premises.

9. Cancellation. An order once placed with and accepted by us can be canceled only with our consent, and may be subject to a restocking charge.

10. Mandatory Clause Required Under Government Contracts or Subcontracts. If a United States government contract number is shown (on reverse side or on previous page), clauses contained in the ASPR and FAR and which the government makes mandatory for a contractor under a government contract to include in its subcontracts thereunder, will apply to this sale.

11. Conflicting Terms. Our acceptance of buyer's order is expressly limited to the terms and conditions contained herein and any additional or different terms or conditions contained in buyer's response hereto shall be deemed objected to by us without need of further notice of objection and shall be of no effect nor in any circumstances binding upon us. Buyer will be deemed to have assented to all terms and conditions contained herein.