CAPINTEC, INC.

An Eczacıbaşı-Monrol company

Catalog 2015

PRODUCT INDEX

Please Select a Product Category Below.

NOT JUST QUALITY... CAPINTEC QUALITY

This latest issue of Capintec's product catalog has been updated to highlight products that are designed to provide optimal radiation safety and improved productivity.

The Quick Reference Guide at the front of the catalog highlights product groups. The shaded edges of each page serve as a guide to locate specific product sections. A detailed alphabetical product list with page numbers can be found at the back of the catalog.

Capintec is committed to meet and exceed our customer's needs. If you are unable to find a product in this catalog, please call us as we are continuously adding products suggested by our customers that might not be included in this issue.

Prices are not listed in this catalog; however, a price list can be requested by contacting our sales department. To obtain a current price list or for questions regarding a specific product or availability, 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 configurations or modifications to meet specific needs of the user. As a manufacturer, Capintec is capable of configuring the systems to meet these special needs.

TO ALL OUR CUSTOMERS

Capintec's product catalog brings you innovative, problem solving accessories and supplies.

Setting up a new department, remodeling an existing hot lab or seeking a product to meet a specific need? Count on Capintec to fulfill your product needs.

If you're looking for a specialized product or project package including PET, Cardiology, Oncology, Research, or the Radiopharmacy, Capintec has the products to meet your needs. Bring us your problems and our technical staff of Medical Radiation Physicists, Technologists, Product Managers and Engineers, will apply their clinical expertise to help you find the solutions you are looking for.

CII is a trademark of Capintec, Inc. Product names mentioned in this guide may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

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.

CAPINTEC, INC.

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

CAPINTEC'S FAMILY OF HIGH QUALITY RELIABLE PRODUCTS, MANUFACTURED, SERVICED AND SUPPORTED IN THE U.S.A.

CAPINTEC, INC.

CRC®-PC
SMART CHAMBER
Capintec Innovation...Network Ready...Remote Connectivity

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

Available in two fill pressures. For unit dose hot labs, the HL model provides excellent low activity sensitivity while covering a wide clinical range of activities. For radiopharmacies, the lower fill pressure of the pharmacy RPh model extends the activity range to accommodate the higher activity yields of today's generators and cyclotron sites.

The innovative functional design of the PC Smart Chamber provides a small footprint, and direct interface to Nuclear Medicine Management Systems with remote viewing capability.

Additional features include Ethernet software upgrades, plug and play chamber, user adjustable threshold for faster response.

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

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

SPECIFICATIONS
- **Ionization Chamber:** Type: Thin wall, deep well, sealed and pressurized; Fill Gas: Ultra-Pure Argon
- **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
- **Nuclear Data:** 30 User Nuclides; Over 80 built-in nuclides (cal number and half-life)
- **Measurement Range**: Type: Auto Ranging; HL (hot Lab) 6 Ci Tc-99m, 2 Ci F-18; RPh (pharmacy) 72 CI Tc-99m, 20 Ci F-18

- **Standard Source Data:** System Memory: Co-57, Co-60, Ba-133, Cs-137, Na22 Standard Sources
- **Molybdenum-99 Assay:** Methods: Canisters or CAPMAC; Measured Values: Mo-99 elution, Tc-99m, Tc-99m/Mo-99 Ratio
- **PC Port:** Interface: Ethernet; Compatibility: Standard Nuclear Medicine Management Systems
- **PC Power Requirements:** 100-240 VAC (50/60Hz) 3A max
- **Chamber Power:** USB: 5Vdc, 0.5A; Power over Ethernet (PoE): 48Vdc, 0.35A

ITEM MEASUREMENTS
- **Dimensions:** 18.1" h x 6.76" d (45.8 x 17.2 cm)
- **Weight:** 39.3 lbs. (17.8 kg)
- **Well Diameter:** 2.4" (6.1 cm)
- **Well Depth:** 10.0" (25.4 cm)

ITEM NUMBERS

CRC®-PC Smart Chamber HL System 5130-30255
CRC®-PC Smart Chamber RPh System 5130-30256
CRC®-PC Smart Chamber HL Chamber 5130-20253
CRC®-PC Smart Chamber RPh Chamber 5130-20254

OPTIONAL ACCESSORIES

Molly Assay Canister 5130-0006
Environmental Shield 7300-2450
Chamber Well Insert 7300-2004
CAP-MAC-S Molly Assay Canister for Syringes 5130-2046
Dipper... 7300-2005

Optility™

NUCLEAR MEDICINE MANAGEMENT SOFTWARE

ADVANTAGES OF OPTILITY™

- **HL-7 Interface**
- **Bring your data with you**
- **Computer Based Training**
- **Your Data is Secure**
- **Bar Coded Inventory and Dose Calibrator Interface**
- **Highly Customizable**
- **Built-In Analytical Capabilities allow you to quickly view, print, or export data**
- **Create Standard Operating Procedures**
- **Easy Upgrades**
- **Provide Health Physics Services**
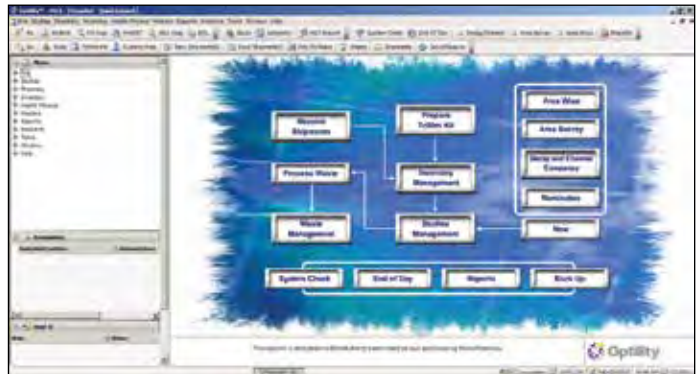
Turn to Page 22 for More Information

CRC®-55tR
DOSE CALIBRATOR

The new Capintec CRC®-55tR provides the quality and versatility that you've come to expect from Capintec. Using the menu-driven, color touch screen interface, the CRC®-55tR's performance and reliability has been designed to meet the demanding needs for speed and accuracy in the preparation and measurement of doses in any laboratory environment.

The enhanced 55t software supports dual chamber technology with an innovative functional design that includes a large, easy-to-read display that specifies 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.

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

Se habla español? New to the 55t family is bilingual English/Spanish software!

Features including USB/PC Communications, printer capabilities, USB flash drive software for upgrades, plug and play chamber and expanded remote capabilities make the CRC®-55tR an integral tool in improving your department's efficiency.

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

FEATURES
- 8" color VGA touch screen display
- Single or optional second plug and play chamber capability
- Chamber and remote can be placed 100 feet from the readout unit
- Bilingual (English/Spanish) Software
- 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 touchpad
- 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.
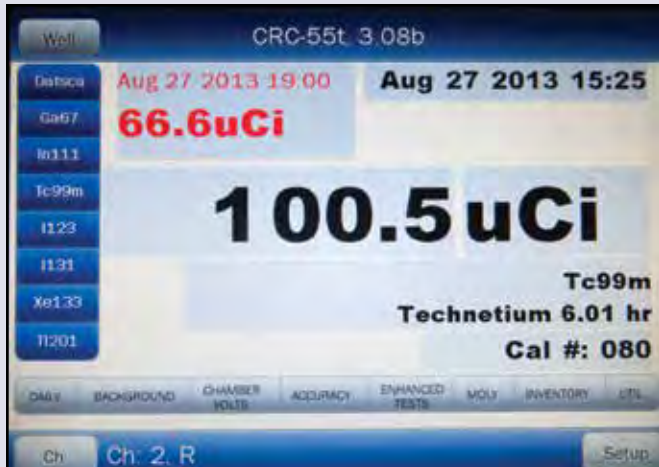
Dose Decay Screen
- Any selected isotope can be decay-corrected for specific time/date
- Large, easy to read decay-corrected data displayed in **RED**
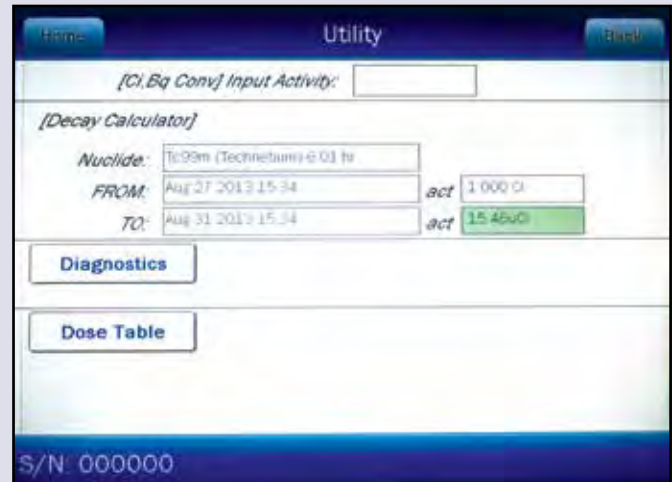
Utilities Screen
- Rapid conversion of Ci/Bq
- Decay calculator for dose calculations
- Diagnostics- tests the integrity of the dose calibrator
- Dose Table- defines specific volumes from a measured sample for user-defined doses at a future time

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- Optional intelligent programmable remote display indicating Nuclide, Activity and Unit of Measure, and perform daily test
- USB/PC Communications
- Software upgrade via USB or Flash Drive
- USB printer capability
- Automated Geometry and Linearity Testing
- Capable of dual chambers
- Supports exchange of chambers with the CRC®-55tPET dose calibrator
- Chamber energy range: 15 keV to 3 MeV

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
- **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
- **Repeatability of Measurement:** Repeatability: Within ± 1% within 24 hours, during which time the calibrator is on all the time.
- **Molybdenum-99 Assay:** Methods: Canister or 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):** Type: Epson Roll, Epson Slip or Okidata full size dot matrix or USB PCL compliant non-host based; Printing Options: Full size test report or measured results on a ticket
- **Power Requirements:** 100-240 VAC (50/60Hz) 90 MA
- **Cables:** Power: 1.8m (6ft)- Longer cables are available. Consult factory; Printer: 1.8m (6ft)

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ITEM MEASUREMENTS
- **Console Dimensions:** 9.5" h x 9.0" w x 10.5" d (42 x 23 x 27 cm)
- **Console Weight:** 7.5 lbs. (3.4 kg)
- **Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Chamber Weight:** 30 lbs. (13.6 kg)
- **Chamber Well Diameter:** 2.4" (6.1 cm)
- **Chamber Well Depth:** 10.0" (25.4 cm)
- **Chamber Cable Length:** 12' (3.7 m)- Longer cables are available. Consult factory

ITEM NUMBERS
CRC®-55tR Dose Calibrator 5130-3234
Additional R Chamber 5130-2210

OPTIONAL ACCESSORIES
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

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®-55tW, 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!

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-

Auto Calibration Report
- Provides detailed calibration data including Gain, FWHM, Linearity
- Well counter data archived by date for later viewing or printing
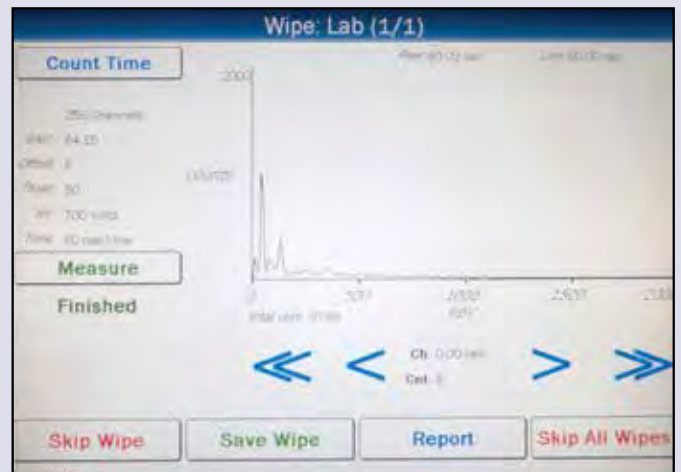
Wipe Test Spectrum
- 256 channel MCA with detailed spectrum for identification analysis
- Manual and automatic ROI capabilities

Square and laboratory tests are archived and searchable by date, type, land activity
- Automated Linearity Testing and Geometry Testing

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
- **Standard Source Data:** System Memory: Co-57, Co-60, Ba-133, Cs-137
- **Repeatability of Measurement:** Within ±1% within 24 hours, during which time calibration is powered at all times
- **Electrometer:** Accuracy: Better than ± 2%; Linearity: Within ± 2%
- **Molybdenum-99 Assay:** Methods: Canister or CAPMAC; Measured Values: Mo-99 elution, Tc-99m, Tc-99m/Mo-99 Ratio
- **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
- **PC Port:** Interface: RS-232 and USB; Compatibility: Standard nuclear medicine management systems
- **Printer (Optional):** Type: Epson Roll, Epson Slip or Okidata full size dot matrix or USB PCL compliant non-host based; Printing Options: Full size test report or measured results on a ticket
- **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 (6ft)

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ITEM MEASUREMENTS
- **Console Dimensions:** 9.5" h x 9.0" w x 10.5" l (42 x 23 x 27 cm)
- **Console Weight:** 7.5 lbs. (3.4 kg)
- **Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Chamber Weight:** 30 lbs. (13.6 kg)
- **Chamber Well Diameter:** 2.4" (6.1 cm)
- **Chamber Well Depth:** 10.0" (25.4 cm)
- **Cable Length:** 12' (3.7 m)- Longer cables are available. Consult factory.
- **Well Counter Dimensions:** 9.38" h x 6" d (23.8 x 15.2 cm)
- **Well Counter Weight:** 15.2 lbs. (6.9 kg)
- **Well Diameter:** .67" (1.7 cm)
- **Well Depth:** 1.5" (3.8 cm)
- **Cable Length:** 9' (2.7 m)

ITEM NUMBERS
CRC®-55tW Dose Calibrator...5130-2216

OPTIONAL ACCESSORIES
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

HTTP://WWW.FACEBOOK.COM/CAPINTECINC

CRC®-55tPET
DOSE CALIBRATOR

The new Capintec CRC®-55tPET combines the ultimate features in the industry's finest package with the quality and versatility that you've come to expect from Capintec. Using the menu-driven, color touch screen interface, the CRC®-55tPET's reduced chamber pressure and increased bias voltage increases the maximum activity range for high energy PET isotopes. The CRC®-55tPET's performance and reliability has been designed to meet the demanding needs for speed and accuracy in the preparation and measurement of doses in any laboratory environment.

The enhanced 55t software supports dual chamber technology with an innovative functional design that includes a large, easy-to-read display that specifies 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.

Additional 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. An optional printer enables the CRC®-55tPET to print full size records and patient tickets with peel off labels for vial and syringe identification.

Se habla español? New to the 55t family is bilingual English/Spanish software!

Features including USB/PC Communications, printer capabilities, USB flash drive software for upgrades, plug and play chamber and expanded remote capabilities make the CRC®-55tPET an integral tool in improving your department's efficiency.

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

FEATURES
- 8" color VGA touch screen display
- USB/PC Communications
- Software upgrade via USB or Flash Drive
- USB printer capability
- Single or optional second plug and play chamber with mixed chamber 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

Autolinearity
- Enhanced linearity software for time-specific automatic measurements, or
- User-defined linearity tests for Manual, Calicheck, Lineator


Daily Test
- Automated software provides:
- Improved productivity
- Rapid completion of daily tests
- User-defined constancy measurements

- Bilingual (English/Spanish) Software
- On-screen display of Nuclide, Activity, Unit of Measure and Calibration Number
- Large character, high visibility display
- 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 via USB
- 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
- Supports exchange of chambers with the CRC®-55tR dose calibrator

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
- **Standard Source Data:** System Memory: Co-57, Co-60, Ba-133, Cs-137, Na-22 Standard Sources
- **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
- **Repeatability of Measurement:** Repeatability: Within ± 1% within 24 hours during which time the calibrator is continuously on all the time
- **Nuclear Data:** Nuclide Keys: 28 programmable keys; System Memory: Over 80 nuclides

- **PC Port:** Interface: RS-232 & USB; Compatibility: Standard Nuclear Medicine Management Systems
- **Printer (Optional):** Type: Epson Roll, Epson Slip or Okidata full size dot matrix or USB PCL compliant non-host based; Printing Options: Full size test report or measured results on a ticket
- **Power Requirements:** 100-240 VAC (50/60 Hz) 100mA
- **Cables:** Power: 1.8m (6ft)- Longer cables are available. Consult factory; Printer: 1.8m (6ft)
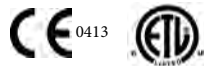
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ITEM MEASUREMENTS
- **Console Dimensions:** 9.5" h x 9.0" w x 10.5" d (42 x 23 x 27 cm)
- **Console Weight:** 7.5 lbs. (3.4 kg)
- **Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Chamber Weight:** 30 lbs. (13.6 kg)
- **Well Diameter:** 2.4" (6.1 cm)
- **Well Depth:** 10.0" (25.4 cm)
- **Cable Length:** 12' (3.7 m) - Longer cables are available. Consult factory.

ITEM NUMBERS
CRC®-55tPET Dose Calibrator 5130-3235
CRC®-55tPET Multiple Chamber Option 5130-2212

OPTIONAL ACCESSORIES
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

CAPINTEC, INC.

CRC®-25R
DOSE CALIBRATOR

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.

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

SPECIFICATIONS

- **Ionization Chamber:** Type: Thin wall, deep well, high pressure;
- **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.
- **Molybdenum-99 Assay:** Methods: Canister or CAPMAC; Measured Values: Mo-99 elution, Tc-99m, Tc-99m/Mo-99 Ratio
- **Tests:** Diagnostics: Full test of program, system memories; Quarterly: Daily, Accuracy and Linearity; Daily: Auto Zero, Auto Background Adjust, Data Check, Accuracy and Constancy
- **Standard Source Data:** System Memory: Co-57, Co-60, Ba-133, Cs-137 Standard Sources
- **Nuclear Data:** Nuclear Setting Keys: 8 Pre-set, 5 User; 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

- **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 or USB PCL compliant non-host based; Printing Options: Full size test report or measured results on a ticket
- **Power Requirements:** 100-240 VAC (50/60Hz) 90 MA

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ITEM MEASUREMENTS

- **Console Dimensions:** 5.38" h x 10.25" w x 10.5" d (13.7 x 26.0 x 26.7 cm)
- **Console Weight:** 3.9 lbs. (1.8 kg)
- **Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Chamber Weight:** 30 lbs. (13.6 kg)
- **Well Diameter:** 2.4" (6.1 cm)
- **Well Depth:** 10.0" (25.4 cm)
- **Cable Length:** 12' (3.7 m)- Longer cables are available. Consult factory.
- **Ionization Chamber Dimensions:** 10" h x 2.4" d (26 x 6 cm)
- **Ionization Chamber Cabling:** 12' (3.7 m) interconnecting cable
- **Power Cable:** 6' (1.8 m)
- **Printer Cable:** 6' (1.8 m)- Optional

ITEM NUMBERS

CRC®-25R Dose Calibrator 5130-3215

OPTIONAL ACCESSORIES

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

Introducing the Captus® 4000e

TURN TO PAGE 83 FOR DETAILS

CRC®-25W
DOSE CALIBRATOR

As a combination of the popular CRC®-25R Dose Calibrator and the CAPRAC®-R Well Counter, the CRC®-25W 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) of Tc 99m with high accuracy. The CRC®-25W also features chamber plug-and-play capability.

For wipe testing, the CRC®-25W allows the user to define specific counting procedures (protocols) with trigger levels for work, patient, unrestricted areas and sealed source leak tests. The CRC®-25W 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 6-channel pulse-height analyzer also provides the user with pulse amplitude discrimination, which can be used to help with radionuclide isotope identification.

The chamber and counter of the CRC®-25W are combined in a menu driven, push-button interface that is easy to learn and use. Perform nuclide and Daily Test selections

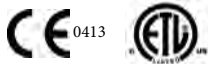hundreds of feet away from the CRC®-25W read out unit with our remote capabilities.

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

FEATURES
- USB and RS232 ports
- Software upgrade via SD flash card
- 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
- Built-in dose calibration, quality control and self diagnostics
- Well counter for wipe tests and laboratory tests
- User-definable protocols for wipe testing
- Large character, high visibility display with automatic backlighting
- Over 80 nuclides in memory
- Automatic energy calibration, zeroing and background subtraction
- Hard copy records of data available from optional dot matrix printer
- Vial and syringe labels on adhesive-backed strips available from optional mini-printer
- 6-channel pulse height analyzer with spectral pulse amplitude discrimination for preliminary isotope identification
- Compatible with nuclear medicine information management systems via USB or Rs-232 ports
- Calculation of printable dose table
- Inventory control maintains inventory of unit dose and kits
- Automated linearity and geometry testing
- Radiochromatography QC package

SPECIFICATIONS

- **Well Detector:** Type: Sodium Iodide (NaI) drilled-well crystal detector; Energy Discrimination: Fixed range MCA, channel windows are 15-100, 100-200, 200-400, 400-660, 660-800 and >800 keV; Warning Trigger Levels: User-definable; Tests: Daily test by standard sources (Cs-137 or Ba-133), data and program memory configuration
- **Ionization Chamber:** Type: Thin wall, deep well, high pressure; 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
- **Display Screen:** Type: Dot matrix liquid crystal display; Bq/Ci Reading: User selectable or fixed; Calibrator Values: Selected radionuclide,calibration number, measured activity and display units (Bq/Ci); Counter Values: Wipe and lab test results
- **Electrometer:** Accuracy: Better than ± 2%; Linearity: Within ± 2%
- **Nuclide Data:** Nuclide Setting Keys: 8 pre-set, 5 user selectable; System Memory: Over 80 nuclides (w/cal number and half-life Standard Source Data; System Memory: Co-57, Co-60, Ba-133, Cs-137, Ra-226 standard sources
- **Molybdenum-99 Assay:** Methods: Canister or CAPMAC; Measured Values: Mo-99 elution, Tc-99m, Tc-99m/Mo-99 Ratio
- **PC Port:** Interface: RS-232C and USB port; Compatibility: Standard nuclear medicine management systems
- **Printer (Optional):** Type: Epson Roll, Epson Slip or Okidata full size dot matrix or USB PCL compliant non-host based; Printing Options: Full size test report or measured results on a ticket
- **Printer Port:** RS-232 & USB
- **Power Requirements:**100-240 VAC (50/60 Hz) 100 MA
- **Tests:** Diagnostics: Full test of program, system memories
- **Cable:** Printer (Optional): 1.8m (6ft)

ITEM MEASUREMENTS

- **Console Dimensions:** 5.38" h x 10.25" w x 10.5" d (13.7 x 26.0 x 26.7 cm)
- **Console Weight:** 3.9 lbs. (1.8 kg)
- **Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Chamber Weight:** 30 lbs. (13.6 kg)
- **Well Diameter:** 2.4" (6.1 cm)
- **Well Depth:** 10.0" (25.4 cm)
- **Chamber Cable Length:** 12' (3.7 m)- Longer cables are available. Consult factory.
- **Well Counter Dimensions:** 9.38" h x 6" d (23.8 x 15.2 cm)
- **Well Counter Weight:** 15.2 lbs. (6.9 kg)
- **Well Diameter:** .67' (1.7 cm)
- **Well Depth:** 1.5' (3.8 cm)
- **Well Counter Cable Length:** 9' (2.7 m)- Longer cables are available. Consult factory.

ITEM NUMBERS

CRC®-25W Dose Calibrator 5130-3216

OPTIONAL ACCESSORIES

CRC®-25 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®
ENHANCED SOFTWARE
Increased Functionality for Your Dose Calibrator…

Enjoy the added functionality of enhanced software including:

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

The 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.

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

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

Inventory Menu

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

Single Strip Result Screen

CRC®-25PET
DOSE CALIBRATOR

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!

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

SPECIFICATIONS
- **Ionization Chamber:** Type: Thin wall, deep well; Fill Gas: 5 atmospheres Argon
- **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 or USB PCL compliant non-host based; Printing Options: Full size test report or measured results on a ticket
- **Power Requirements:** 100-240 VAC (50/60 Hz) 100mA
- **Chamber Ports:** 2 Ports- Chamber 1 and Chamber 2- Software selectable

ITEM MEASUREMENTS
- **Dimensions:** 5.38" h x 10.25" w x 10.5" d (13.7 x 26.0 x 26.7 cm)
- **Weight:** 3.9 lbs. (1.8 kg)
- **Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Weight:** 30 lbs. (13.6 kg)
- **Well Diameter:** 2.4" (6.1 cm)
- **Well Depth:** 10.0" (25.4 cm)
- **Cable Length:** 12' (3.7 m) - Longer cables are available. Consult factory.
- **Power Cable:** 6' (1.8 m)- Optional
- **Printer Cable:** 6' (1.8 m)

IONIZATION CHAMBER DIMENSIONS
- **Ionization Chamber Dimensions:** 17.25" h x 6.76" d (43.8 x 17.2 cm)
- **Cabling:** 12' (3.7 m) interconnecting cable
- **Well Diameter:** 2.4" (6 cm)
- **Well Depth:** 10" (26 cm)

ITEM NUMBERS
CRC®-25PET Dose Calibrator 5130-3217
Additional PET Chamber 5130-2212

OPTIONAL ACCESSORIES
Positron Shield 7300-2903
Epson Roll Printer 5430-0058
Epson Ticket Printer 5430-0100
CRP-200 Dose Tickets & Labels 7120-1199
511 L-Block..5130-2090

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CRC®-25-55T
PC SERIES COMMUNICATIONS SOFTWARE
Fast and Easy Data Acquisition

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
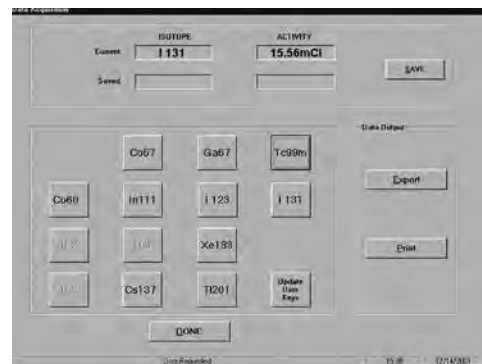
Data Acquisition Screen

user, when data acquisition is stopped, the maximum activity and time will be saved and can be printed or exported.

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.

ITEM NUMBERS
PC Communications Software...Item #0960-0173

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.

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

SPECIFICATIONS
- **Ionization Chamber:** Thin wall, deep well, Argon gas
- **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

- **Interconnecting Cable:** 8' (2.4m) (Longer lengths available)
- Metal cable connectors with thumb screws
- No battery required

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ITEM MEASUREMENTS
- **Display Unit Dimensions:** 4.75" h x 10.0" w x 10.5" d (12.1 x 25.4 x 26.7 cm)
- **Weight:** 4 lbs. (2 kg)
- **Chamber Dimensions:** 12.3" h x 6.7" w (31.3 x 17.0 cm)
- **Weight:** 26.8 lbs. (12.2 kg)
- **Ionization Chamber Depth:** 6.4" (16.3 cm)
- **Ionization Chamber Opening Diameter** 2.4" (6.1 cm)

ITEM NUMBERS
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

AREAEXPERT DIGITAL AREA RADIATION MONITOR

- Touch screen LCD
- Colorful visual and audio indications
- Network compatible with CenterExpert software
- PC controllable
- Easily configured
- Battery backup

2.05 mR/h

CAPINTEC, INC.

OPTILITY™
Nuclear Medicine Management Software

A Nuclear Medicine Management Software Like No Other...

Optility™ is a Nuclear Medicine Management Software Package available in three forms- Optility™ NMM, Optility™ CPM, and Optility™ NPM. It efficiently captures and retrieves all regulatory and administrative data. It keeps track of all patients, procedures, drugs and health physics functions with the touch of a few keys. It allows you to print predefined reports or export the data to excel spreadsheets or XML formats, and to create your own custom reports.

Don't lose the data you've been acquiring for years within the Nuclear Medicine Manager®, Commercial Pharmacy Manager®, or Nuclear Pharmacy Manager®! With Optility™ you can convert all of your information: drugs, procedure settings, health physics configurations, referring physicians current and historical patient data for immediate use within the program.

Paired with the Most Trusted Dose Calibrators on the Market.

For over 45 years, Capintec has consistently used superior technology, materials and workmanship in our dose calibrators.

All of our dose calibrators are constructed utilizing our unique proven chamber designs and high grade pure aluminum alloy. Additionally, our quality precision rotary welded technology assures optimal chamber pressure with NO gas leakage for years of steady, consistent and reliable use.

Interfacing with a CRC® Dose Calibrator is simple. When connected, an icon appears on screens where the dose calibrator can be utilized. When on an activity field on the screen, simply press CTRL ENTER to pull the value from the dose calibrator, rather than typing in the value. This saves time and potential mistakes.

This option is available in a number of screens, including dosing screens, kit prep, elutions, and health dose calibrator health physics tests.

Optility™ is Available in Three Forms:

- **Optility™ NMM-** For Hospitals and Clinics that dose patients and perform studies.

- **Optility™ CPM-** For Radiopharmacies that dispense nuclear or P.E.T. prescriptions.

- **Optility™ NPM-** For Institutions, such as large universities, that perform studies and dispense prescriptions.
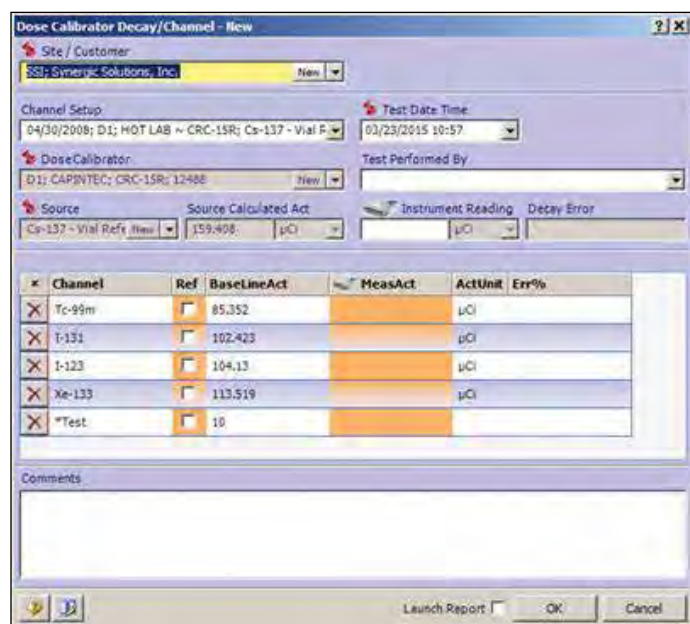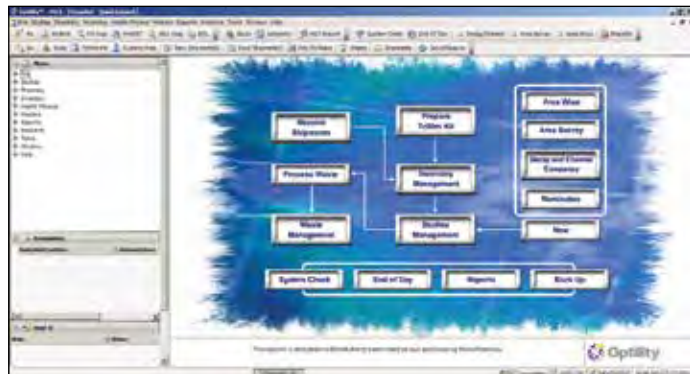
TOP 10 ADVANTAGES OF OPTILITY™

• **HL-7 Interface-** Use the HL-7 interface to import and export HIS/RIS patient schedule information eliminating duplicate data entry efforts and avoiding potential errors.

• **Bring your data with you-** Seamlessly convert your own current system data and setups. Everything comes over allowing you to quickly integrate Optility into your department. All the functionality that you currently have is available for you.

• **Computer Based Training-** Computer Based Training for a shorter learning curve and easy instruction of multiple staff members.

• **Your Data is Secure-** HIPPA compliant, Audit trail on sensitive data. Multiple levels of security allow you to define roles and access rights for your users.

• **Bar Coded Inventory and Dose Calibrator Interface-** Increase productivity and reduce errors by using Bar Code techniques for receiving, shipping, prescription drawing and administering patient doses. Also, you may interface with Dose Calibrator to directly pull in the activity readings.

• **Highly Customizable-** Change the look and feel of your system to suit your taste. Choose colors, fonts, or even the language. Apply your own business and validation rules whether fields are visible or mandatory. Configure your menus and toolbars so that they closely match your role.

• **Built-In Analytical Capabilities allow you to quickly view, print, or export data-** Predefined tabs organize your data, enabling you to easily manage frequently accessed data sets. Use out of the box capabilities to drill-down, rollup, filter, sort and group the data, so that you quickly view exactly the data you need. Print as a report, save as a worksheet, pdf, or word document or interface with external applications.

• **Create Standard Operating Procedures-** Increase productivity and reduce errors by establishing standard defaults and limits throughout the system.

• **Easy Upgrades-** The latest upgrade is always available through an Internet download.
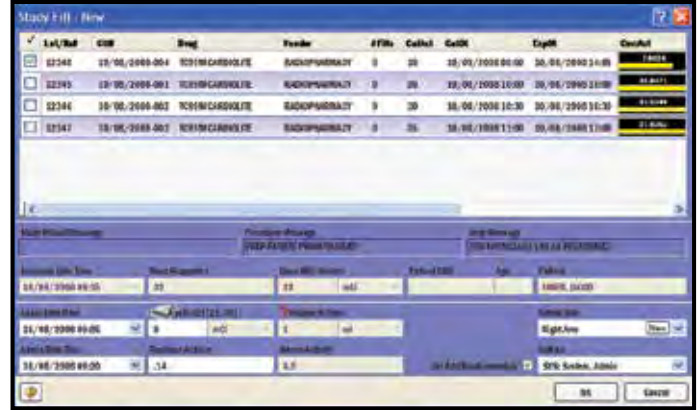
• **Provide Health Physics Services-** Whether you are a Health Physics group at a large university, a pharmacy providing services for your customers, or a business; you can maintain instruments and sources and administer health physics tests for yourself and your clients.

ITEM NUMBERS

Annual Support fees with free product upgrades 9501-0029
On-site work per day plus travel and expenses 9501-0030
Annual Subscription (Initial Fees) Unlimited Clients/Users 9501-0031
Annual Subscription (Renewal with Support) Unlimited Clients 9501-0032
Optility Service License with Unlimited Clients/Users 9501-0033
Optional Configuration for HL7 Interface 9501-0034
Data Converter for legacy customers (NMM, CPM, NPM) 9501-0035

Customizable Lead-Lined Cabinetry

Turn to Page 108 for More Information

CAPINTEC, INC.

T-MAC SYSTEMS
Superior Radiation Safety for Generator and Kit Users

The T-MAC system will provide a fast, efficient and safer way to handle elution vials or radiopharmaceutical kits. The T-MAC has a tungsten vial canister, 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. The canister 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 T-MAC System has 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 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

ITEM NUMBERS
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.

MOLY 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.

ITEM NUMBERS
Moly Assay.. 5130-0006

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.

ITEM NUMBERS
Mounting Flange.. 7310-2307

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.

ITEM NUMBERS
CAP-MAC-S®.. 5130-2046

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.

ITEM MEASUREMENTS
• **Dimensions:** 2.75" od x 11.75" l (6.9 x 29.8 cm)

ITEM NUMBERS
Copper Liner....................5120-2286

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
• Platform Coating: Epoxy enamel

ITEM MEASUREMENTS
• **Platform Dimensions:** 12" w x 10" d (30.5 x 25.4 cm)
• **Weight:** 15 lbs. (6.8 kg)

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

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.
• Capintec will custom design to meet your exact specifications.

DIMENSIONS
• Standard Range of height with adjustable feet is 22 7/8" to 25 3/8".

ITEM NUMBERS
Positron Shield Stand 5126-2001

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.

ITEM NUMBERS
Environmental Shield 7300-2450

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.

ITEM MEASUREMENTS
• **Height:** 19.75" (50.1 cm)
• **Outside Diameter:** 11.38" (28.9 cm)
• **Weight:** 560 lbs. (254 kg)

ITEM NUMBERS
Positron Shield 7300-2903

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

ITEM NUMBERS
Calicheck Linearity Kit 5120-2144

CAP-LIFT
Hands free dose measurements...

- Reduces hand and body exposure
- Stainless steel construction
- Auto return to elevated dose reception position
- Small size hand control and/or optional foot switch
- Standard and optional custom lengths
- Color coded supply lines
- Perfect alignment with all Capintec dose calibrators
- Pneumatic system for faster operations
- No electrical power needed

Note: This unit requires a low pressure or regulated pressure to operate. A minimum of 25psi supply line is needed.

ITEM DIMENSIONS
- **Height of lift mechanism:** 19.25" (48.9 cm) from top of chamber
- **Diameter of lift stand:** 6" (15.25 cm) at top of chamber
- **Travel:** 8" (20.3 cm) (Standard) Custom travel lengths available for situations where lift stand is not sitting directly on the chamber
- **Control Box Dimensions:** 4" h x 4" w x 2" d (10.1 x 10.1 x 5 cm)

ITEM NUMBERS
Standard CAP-Lift 5130-30251

OPTIONAL ACCESSORIES
Foot Pedal 5130-20252
Replacement Dipper 5130-20302

CONNECT WITH US

http://www.linkedin.com/company/capintec-inc-

CAPINTEC, INC.

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.

SPECIFICATIONS

CE

ITEM NUMBERS
Epson Roll Printer 5430-0058

OPTIONAL
ROLL PRINTER ACCESSORIES

ITEM NUMBERS
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

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.

SPECIFICATIONS

CE

ITEM NUMBERS
Epson Ticket Printer 5430-0100

OKIDATA
PRINTER

For use with the CRC®-25R, CRC®-25W, CRC®-55tR, CRC®-55tW, and CRC®-127R, the Okidata Microline™ 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.

SPECIFICATIONS

CE

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

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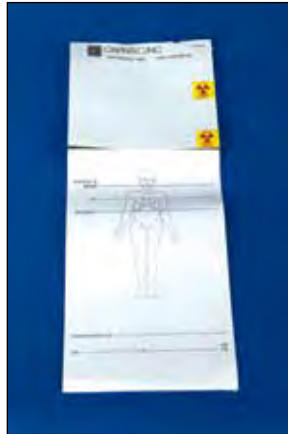
All tickets and labels are easily separated after printing. Use them for patient charts, department log books, and syringe or vial shields. A special adhesive makes labels easy-to-remove after use.

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

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.

ITEM NUMBERS
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.

ITEM NUMBERS
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.

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

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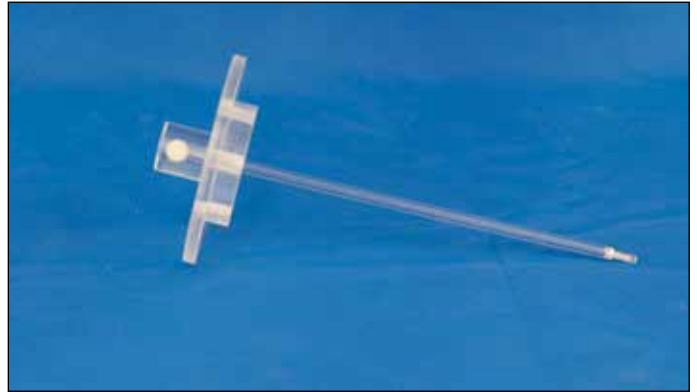
ITEM NUMBERS
Ir-192 Ribbon Holder, Standard Length Chamber......................0976-0005
Ir-192 Ribbon Holder, BT Chamber...0976-0007

SYRINGE DIPPER ADAPTOR

ITEM NUMBERS
**Syringe dipper adaptor
to 1cc**................................7310-1109
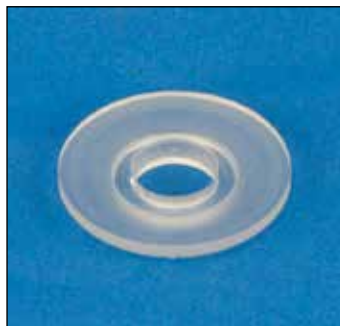
BT-I-125

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.

ITEM NUMBERS
I-125 Seed Tube..0976-0003

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.

ITEM NUMBERS
Cs-137 Seed Holder, Standard Length Chamber.........................0976-0004

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.

ITEM NUMBERS
Mick Cartridge Holder, Small BT Chamber 5120-2244

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).

ITEM NUMBERS
Dipper.. 7300-2005

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.

ITEM NUMBERS
Liner.. 7300-2004

CAPINTEC, INC.

Social Networking Links

https://www.linkedin.com/company/capintec-inc-

https://www.facebook.com/capintecinc

https://twitter.com/CapintecInc

https://instagram.com/capintec_inc/

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.

ITEM NUMBERS
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.

ITEM NUMBERS
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.

ITEM NUMBERS
Pen Marker- Co-57, 100 µCi...0975-P054

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.

ITEM NUMBERS
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.

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).

ITEM NUMBERS
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

CUSTOM ACTIVITIES AVAILABLE UPON REQUEST. PLEASE CALL (800) 631-3826

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.

ITEM NUMBERS

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 0.1 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.

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 127 mm (5") as a standard size. The active diameter of the rod source is 0.187" (4.75 mm).

ITEM NUMBERS
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 0975-100S
Co-57, Na-22, Cs-137, Mn-54 Co-60, Ba-133 (0.1 µCi), Cd-109 (1 µCi) Rods
Rod Set 0975-100T
Co-57, Na-22, Cs-137, Mn-54 Co-60, Ba-133 (.1 µCi), Cd-109 (7-10 µCi) Rods

REFERENCE STANDARDS

Guaranteed Accuracy, Highest Quality Lowest Cost in Industry

Each "E"-vial reference source comes with a certificate of radio-activity 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

ITEM NUMBERS
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 0975-0007
Co-57 (5 mCi), Co-60 (100 µCi), Cs-137 (200 µCi)
Reference Source Set 0975-0008
Co-57 (5 mCi), Co-60 (100 µCi), Cs-137 (200 µCi), Ba-133 (250 µCi)
Reference Source Set 0975-0009
Co-57 (5 mCi), Co-60 (100 µCi), Ba-133 (250 µCi)
Reference Source Set 0975-0010
Co-57 (5 mCi), Cs-137 (200 µCi), Ba-133 (250 µCi)

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.

ITEM NUMBERS
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 SOURCE

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

ITEM NUMBERS
Rectangular Flood Phantom 5250-0801
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 Flood Phantom 5250-0804
Cavity 17" (43.2 cm) diameter, 0.5" (1.3 cm) thick, 9 lb. (4 kg)
Gigantic Flood Phantom 5250-0807
Cavity 22" (55.9 cm) diameter, 0.5" (1.3 cm) thick, 13 lb. (5.6 kg)

COBALT-57
FLOOD SOURCE

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.

ITEM NUMBERS

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

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.

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
- .25" Lead Glass
- .5" Lead Shielding
- Additional .25" Lead Glass
- Additional .25" Plain Glass
- Optional Side Shielding .25"

ITEM MEASUREMENTS
- **Dimensions:** 16.75" h x 12" w x 12" d (42.5 x 30.5 x 30.5 cm)
- **Weight:** 35 lbs. (15.87 kg)

ITEM NUMBERS
Mini "L" Shield...5130-2086

OPTIONAL ACCESSORIES
Additional Lead Glass for Mini..1000-0207
Additional Plain Glass for Mini 1000-0208
Side Shields for Mini "L" Shield..7310-1302

STAINLESS STEEL
"L" SHIELD

The Tech L-Block is specially designed to protect staff 99m members working with Tc isotopes. This leadcontaining L-Block gives full protection to the techologist's torso while the leaded glass window allows the technologist full view of the work area and offers shielding from radiation. This is an excellent product for facilities that compound significant 99m quantities of Tc based radiopharmaceuticals.

SPECIFICATIONS
- 12" w x 8.19" h x .59" Tk (30.5 x 20.8 x 1.5 cm)
- Lead glass density of 4.77 g/cm³
- Lead thickness of .24" (.6 cm) front and bottom

ITEM MEASUREMENTS
- **Dimensions:** 15.16" h x 10.43 w x 10.08" d (38.5 x 26.5 x 25.6 cm)
- **Weight:** 40 lbs. (18.1 kg)

ITEM NUMBERS
Stainless Steel "L" Shield..5550-0002

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
- .25" lead glass.
- .5" lead shielding.
- Optional Side Shield .25"
- Additional .25" Lead Glass
- Additional .25" plain glass

ITEM MEASUREMENTS
- **Dimensions:** 26" h x 18.5" w x 17.75" d (66 x 47 x 45 cm)
- **Weight:** 100 lbs. (45.35 kg)

ITEM NUMBERS
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

CRC®-PC Smart Chamber

Turn to Page 7
for Details

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 .25 inch or .5 inch lead. Optional wall mount brackets also available.

ITEM NUMBERS
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

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.

ITEM MEASUREMENTS
- **Dimensions:** 12.125" h x 11.75" w (30.8 x 29.85 cm)

ITEM NUMBERS
Acrylic "L" Beta Shield 5130-2083

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

ITEM MEASUREMENTS
• **CLEAR Pb Viewing Panel Dimensions:** 24" h x 36" w (61.6 x 91.4 cm)
• **Opaque Lower Panel Dimensions:** 34" h x 36" w (86.3 x 91.4 cm)
• **Weight:** 170 lbs. (71.1 kg)

ITEM NUMBERS
Nuclear Medicine Mobile Barrier 0651-0010

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 .25" acrylic plastic interior "L" Shield.
• Two shields in one (Beta/Gamma).
• Avoid the hassle of switching out "L" blocks.

ITEM DIMENSIONS
• **Weight:** 100 lbs. (45.35 kg)

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

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, Standard, or Jumbo 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

ITEM NUMBERS
Mini-Clear-Pb "L" Shield *12" (H) x 9" (W)* 5730-0033
Standard Clear-Pb "L" Shield *18" (H) x 12" (W)* 5730-0031
Jumbo Clear-Pb "L" Shield *24" (H) x 15" (W)* 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 .25 inch or .5 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.

ITEM NUMBERS
Lead Mobile Shield Barrier 0695-2249

ILLUMINATED
VIAL SHIELD

The Illuminated Vial Shield is designed to provide a lighted protective radiation shield for vials containing radioactive pharmaceutical solutions which are used in both medical and research applications.

The shielded vial is illuminated by a gravity sensitive battery powered lighting circuit when the shield is turned upside down. The shielding material consists of tungsten with a leaded glass viewing window and penetration in the lid for syringe access to the solution in the vial. The tungsten version has a sliding section in the lid which can cover the penetration when not in use for improved shielding. The illumination circuitry allows the user to clearly observe the volume of solution which remains in the vial as various amounts are withdrawn from the vial during use. The Illuminated Vial Shield is available in two sizes, to accommodate a 5 ml and 10 ml vial.

SPECIFICATIONS
• Battery: 3V lithium CR 2450

CE

ITEM MEASUREMENTS
• **Dimensions:** 3.6875" h x 1.0625" id x .5625" od (9.31 x 2.71 x 3.97 cm)
• **Tungsten Thickness:** .25" (.64cm)
• **Lead Glass Window:** .24" (.6cm) thick at 5.2 g/cm^3

ITEM NUMBERS
Illuminated Vial Shield, 5/10 ml 5530-2017

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
• 1.75 mm tungsten wall thickness

SPECIFICATIONS

CE

ITEM NUMBERS
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

HotPot
Shielded Dry Heating Block

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
- 0.195" (.5 cm) thick tungsten shielding (0.32" (.8 cm) Lead equivalence).

ITEM MEASUREMENTS
- **Dimensions:** 2.85" h x 1.06" id x 1.45" od (7.23 x 2.7 x 3.7 cm)
- **Weight:** 1.6 lbs. (.73 kg)

ITEM NUMBERS
T-Vial Shield 0665-0002

Need a Manual?

http://www.capintec.com/support/manuals/

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.

ITEM NUMBERS
Lead Glass Syringe Shield (3-5 ml) 4300-0619
Lead Glass Syringe Shield (up to 10 ml) 4300-0620

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.

ITEM NUMBERS
Needle Recapper 4300-0054

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

SPECIFICATIONS

CE

ITEM NUMBERS
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

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

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

SPECIFICATIONS

CE

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

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

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

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.

ITEM DIMENSIONS
• **Dimensions:** 7 7/8" h x 10.5" ol x 4" ow x 8.25" il x 3 1/16" iw (20 x 26.7 x 10.2 x 21 x 7.8 cm)
• **Weight:** 12 lbs (5.4kg)

ITEM NUMBERS
CII-II PET Transporter 0670-2026

The "Optimal" Combination!

Optility ™
Nuclear Medicine Management System

and Capintec CRC® Dose Calibrators

Turn to Page 22 for More Information

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

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

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" (25.4mm) 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.

ITEM MEASRUREMENTS
• **Dimensions:** 6 1/2" h x 3.5" od x 1.5" id (16.5 x 8.9 x 3.8 cm)
• **Weight:** 22 lbs. (10 kg)

ITEM NUMBERS
Rotund Container with Handle 0670-0010

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.

ITEM MEASUREMENTS
- **Dimensions:** 7 7/8" h x 10.5" ol x 4" ow x 9" il x 3 1/16" iw (20 x 26.7 x 10.2 x 22.9 x 7.8 cm)
- **Weight:** 9.8 lbs (4.4 kg)

ITEM NUMBERS
CII Transporter 0670-0007

Remote Viewing

CRC®-PC
Smart Chamber

Turn to Page 6
for More Information

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.

ITEM MEASUREMENTS
- **Dimensions:** 6 1/8" x 2 3/8" od x 1" id (15.6 x 6 x 2.5 cm)
- **Weight:** 4 lbs (1.8 kg)

ITEM NUMBERS
Syringe Holder (single) 0670-0002

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.

ITEM MEASUREMENTS
- **Unshielded Dimensions:** 6" h x 6" od (15.2 x 15.2 cm)
- **Unshielded Weight:** 4 lbs (1.8 kg)
- **Shielded Dimensions:** 5" h x 6" od (12.7 x 15.2 cm)
- **Shielded Weight:** 3.3 lbs (1.5 kg)

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

VERTICAL DROP
CII SHARPS SHIELD

Capintec offers 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 .125" lead, this unit can be specified with .25" 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 .125" or .25"
• Hinged top for easy opening and removal of sharps

ITEM MEASUREMENTS
• **Standard Model:**
   • **Shielding:** .125" lead with 4 pi shielding
   • **Dimensions:** 11" h x 7.25" w x 11" l (28 x 18.4 x 28.2 cm)
   • **Weight:** 54 lbs. (24.5 kg)
• **Tall Model:**
   • **Shielding:** .125" lead with 4 pi shielding
   • **Dimensions:** 18" h x 7.25" w x 11" l (45.7 x 18.4 x 28 cm)
   • **Weight:** 76 lbs. (34.5 kg)

ITEM NUMBERS
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. Designed for containment of one medium size Horizontal-Entry Monoject Sharps Container or one medium 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 .125" lead, this unit can be specified with .25" 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 .125" or .25"
• Hinged top for easy opening and removal of sharps

ITEM MEASUREMENTS
• **Standard Model:**
   • **Shielding:** .125" lead with 4 pi shielding
   • **Interior Dimensions:** 11" h x 7.25" w x 11" l (28 x 18.4 x 28.2 cm)
   • **Exterior Dimensions:** 12.625" h x 9.19" w x 13.75" l (32 x 23.34 x 35 cm)
   • **Weight:** 52 lbs. (23.6 cm)

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

https://twitter.com/ CapintecInc

UNIVERSAL
BODY STRAP

• Universal straps

• Strap fastens around patient, table or both simultaneously

• Velcro closures allow easy, fast attachment back onto itself

• Multiple sizes available

• Customized for your departmental needs

ITEM NUMBERS
Universal Body Strap, Black Nylon 0625-0003
12"W x 60"L (30.5 x 152.4 cm)
Universal Body Strap, Black Nylon 0625-0004
12" w x 70" L (30.5 x 177.8 cm)
Universal Body Strap, Black Nylon 0625-0005
13"w x 68" L (33 x 172.7 cm)
Universal Body Strap, Black Nylon 0625-0006
13" W x 70"L (33 x 177.8 cm)
Universal Body Strap, Black Nylon 0625-0007
15" w x 60" L (38.1 x 152.4 cm)
Universal Body Strap, Black Nylon 0625-0008
15"w x 70" L (38.1 x 177.8 cm)
Universal Body Strap, Black Nylon 0625-0009
20" w x 72" L (50.8 x 182.9 cm)
Universal Body Strap, Black Nylon 0625-0010
8.5"W x 71"L (21.6 x 180.3 cm)

PATIENT
ARM SUPPORT

Head/Arm Supports are designed to safely fit the multi head imaging and diagnostic cameras. They can accommodate any patients with its soft, yet durable coating. They are easily cleaned.
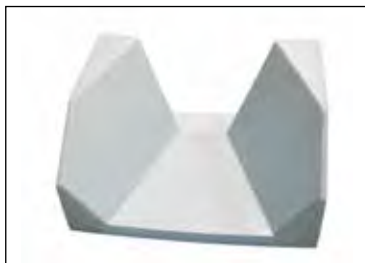
ITEM NUMBERS
Patient Arm Support II, Antimic 0652-0038

PILLOW WEDGE
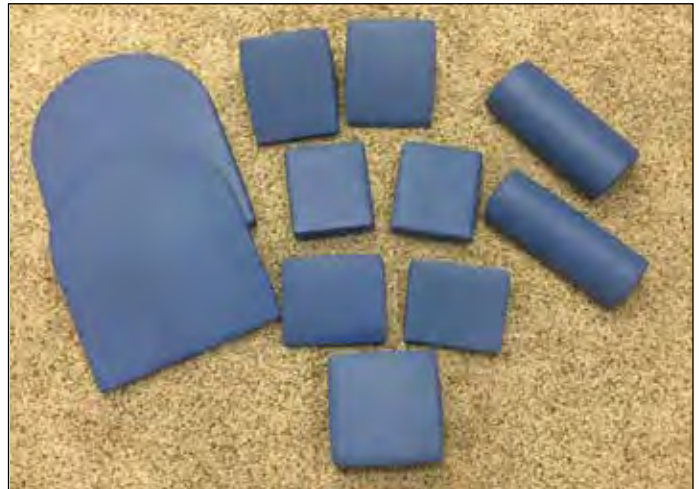
Stabilizing while still making your patients comfortable for accurate imaging with DaTscan and General Brain Imaging. Each set comes as a 13 piece set, including a case and 2 sizes of each pad for use with adults and children. Choose from Clinical Vinyl Coated or Clinical Healthcare Fabric. Both options are hand made from the highest grade "Memory Foam" and easily cleaned with hospital grade disinfectant. Clinical Vinyl Coated Pillow Wedge Kits are precision cut, vinyl coated impermeable kits with a puncture resistant coating. Clinical Healthcare Fabric Pillow Wedge Kits are tear resistant, polyurethane coated on weft knitted fabric for "high volume use."

ITEM NUMBERS
Pillow Wedge 13 piece Clinical Immobilization set 0652-0039
includes: 2 head rest 1 pads, 2 neck rolls, 4(small/large)wedges for lateral support, 4(small/large) squares and a strap to support the head. Complete in a carrying/storage case, choice of antibacterial vinyl coated or Healthcare Fabric

ILLUMINATED VIAL SHIELD

Designed to provide a lighted protective radiation shield for vials containing radioactive pharmaceutical solutions which are used in both medical and research applications.
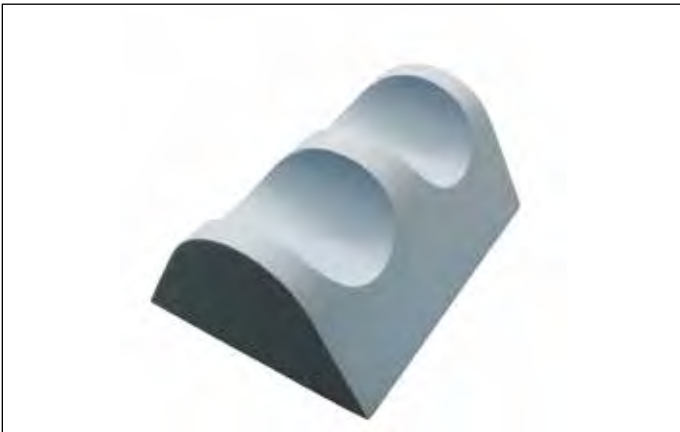
LEG REST

Contoured Leg Rests come in 3 sizes.

These unique leg rests help with comfort and support which minimizing body motion.

Traditional Leg Wedges also come in all size to accommodate patients of any size and height.

ITEM NUMBERS

Leg Rest, Knee Cut-out, Cont- Sm 0652-0037
5" h x 18" w x 14" d (12.7 x 45.7 x 35.5 cm)
Leg Rest, Knee Cut-out, Cont- Med 0652-0040
7" h x 18" w x 17" d (17.8 x 45.7 x 43.2 cm)
Leg Rest, Knee Cut-out, Cont- Lg 0652-0041
10" h x 18" w x 24" d (25.4 x 45.7 x 61 cm)

ANTIMICROBIAL
TABLE PADS

• We provide table pads to fit all OEM tables.

• Call Capintec to order your table pad today!

ITEM NUMBERS

Cardio MD Long Table Pad................0652-0042
107" x 106" x 1" (271.8 x 269.2 x 2.5 cm)
Cardio MD Short Table Pad 0652-0043
78.25" x 15.5" x 1" (198.8 x 39.3 x 2.5 cm)
Orbiter Table Pad................................0652-0044
74"L x 16"W x 2"D (188 x 40.6 x 5 cm)
Vertex Classic Table Pad.....................0652-0045
70"L x 15"W x 1"D (177.8 x 38.1 x 2.5 cm)
E-Cam Table Pad................................0652-0046
83"L x 15"W x 1"D (210.8 x 38.1 x 2.5 cm)
**Infinia Antimicrobial Table Pad
without strap**.......................................0652-0047
78"L x 14"W x 1"D (198.1 x 35.5 x 2.5 cm)

VENTICIS COMPATIBLE
RADIOAEROSOL SYSTEMS
Easy...Safe...This Administration Guarantees it.

- Inexpensive
- Efficient
- Convenient
- Economical
- Disposable
- Easy to Use

AEROSOL® RADIOAEROSOL ACCESSORIES

SEAL-RITE™ KIT

ITEM NUMBERS
SEAL-RITE™ Kit 0630-0149
With 1021 mthpce (22mm ID) and noseclip- Qty 20 per package

CUSHIONSEAL™ MASKS

ITEM NUMBERS
CushionSeal™ Mask.. 0611-5010
Qty 20 per Package

CUSHIONSEAL™ INFLATABLE MASK

ITEM NUMBERS
CushionSeal™ Inflatable Mask.. 0611-5050
Qty 20 per Package

AEROSOL® RADIOAEROSOL (OPEN LOOP) SYSTEMS

ITEM NUMBERS
AeroSol® Open Loop System (for VentiCIS II Shield)................ 0614-8161
Qty 10 per Package

CAPINTEC, INC.

XENON SYSTEMS

Convenience, plus...

This self contained system includes, at no additional cost, a dust filtering cartridge prefilled with SODA-LIME. The large collection bag assures patient comfort throughout the study. The new style bag hangs directly on an IV pole, eliminating the need for a hanger hook.

XENON ADMINISTRATION SYSTEM WITH 1030

ITEM NUMBERS
Xenon Administration System with 1030 0640-0133
Qty 10 per Package

XENON ADMINISTRATION SYSTEM WITH 5071

ITEM NUMBERS
Xenon Administration System with 5071 0640-0137
Qty 10 per Package

DIRECT DOSE XENON ADMINISTRATION SYSTEM WITH 5081

ITEM NUMBERS
Direct Dose Xenon Administration System with 5081 0640-0138
Qty 10 per Package

XENOVAP™ ADMINISTRATION SYSTEM

ITEM NUMBERS
XenoVAP™ Administration System, Adult 0640-0139
Qty 1 per Package
XenoVAP™ Adminstration System, Infant Size 0640-0008
Qty 1 per Package

KRYPTON ADMINISTRATION SYSTEMS

Easy...Safe...This Administration System Guarantees it.

The unique inhalation reservoir comfortably delivers the Krypton gas to the patient while the exhaust reservoir confines the gas away from the camera detector.

- Inexpensive
- Efficient
- Convenient
- Economical
- Disposable
- Easy to Use

KRYPTON RESERVOIR ADMINISTRATION SYSTEM WITH TRU-FIT MOUTHPIECE AND NOSECLIP

ITEM NUMBERS

Krypton Reservoir Administration System
with Tru-Fit Mouthpiece and Noseclip 0635-0123
Qty 20 per Package

KRYPTON RESERVOIR SYSTEM WITH ADULT MASK

ITEM NUMBERS

Krypton Reservoir System with Adult Mask 0635-0127
Qty 20 per Package

KRYPTOVAP™ ADMINISTRATION SYSTEM
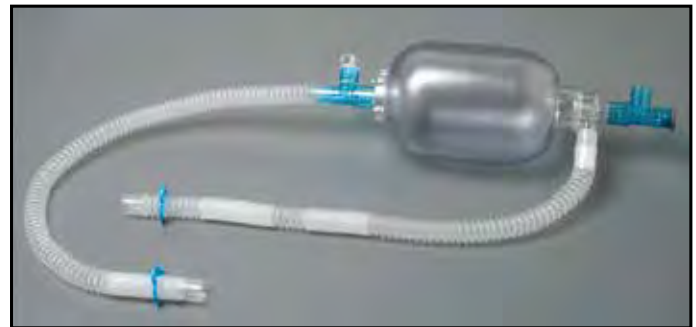
ITEM NUMBERS

KryptoVAP™ Administration System 0635-0129
Qty 1 per Package

DIRECT DOSE KRYPTON ADMINISTRATION SYSTEM

ITEM NUMBERS

Direct Dose Krypton Administration System 0635-0128
Qty 20 per Package

CUSHIONSEAL™ INFLATABLE MASKS/KITS

The CushionSeal™ disposable air cushion masks have human engineered natural contour to provide an excellent seal while promoting patient comfort and cooperation. The transparent material allows for unobstructed patient viewing. The luer lock Direct Dose check valve guarantees a "no-leak administration" within the mask cavity.

CS™ INFLATABLE MASK

ITEM NUMBERS
CS™ Inflatable Mask 0611-5050
Qty 20 per Package

CS™ INFLATABLE MASK CONVENIENCE KIT

ITEM NUMBERS
CS™ Inflatable Mask
Convenience Kit 0611-0150
Qty 20 per Package

CS™ INFLATABLE MASK KIT WITH 6" TO 16" ENB TUBING

ITEM NUMBERS
CS™ Inflatable Mask Kit
with 6" to 16"
ENB Tubing 0611-0155
Qty 20 per Package

CUSHIONSEAL™ INFLATABLE MASKS, DIRECT DOSE

CS™ INFLATABLE DD MASK

ITEM NUMBERS
CS™ Inflatable DD Mask 0612-5060
Qty per Package 20

CS™ INFLATABLE MASK DD CONVENIENCE KIT

ITEM NUMBERS
CS™ Inflatable Mask DD Convenience Kit................................. 0612-0160
Qty 20 per Package

CS™ INFLATABLE MASK DD KIT WITH 6" TO 16" ENB TUBING

ITEM NUMBERS
CS™ Inflatable Mask DD Kit with 6" to 16" ENB Tubing 0612-0165
Qty 20 per Package

https://www.linkedin.com/company/capintec-inc-

CUSHIONSEAL™ MASKS/KITS

All masks are available in time and space-saving convenience kits. One package per patient gives you everything you require. The new convenience kits featuring Extend-N-Bend™ (ENB) tubing are especially convenient. Just grasp the tubing end cuffs firmly around the connected fittings and stretch, gently, to the size you need (within the limits of the tubing).

CS™ MASK

ITEM NUMBERS
CS™ Mask................................. 0611-5010
Qty 20 per Package

CS™ MASK CONVENIENCE KIT

ITEM NUMBERS
CS™ Mask Convenience Kit......0611-0110
Qty 20 per Package

CS™ MASK WITH 6" TO 16" ENB TUBING

ITEM NUMBERS
CS™ Mask with 6" to 16" ENB Tubing.........0611-0115
Qty 20 per Package

CUSHIONSEAL™ MASKS, DIRECT DOSE

CS™ DD MASK

ITEM NUMBERS
CS™ DD Mask.. 0612-5020
Qty 20 per Package

CS™ MASK WITH DD CONVENIENCE KIT

ITEM NUMBERS
CS™ Mask with DD Convenience Kit.. 0612-0120
Qty 20 per Package

CS™ MASK DD KIT WITH 6" TO 16" ENB TUBING

ITEM NUMBERS
CS™ Mask DD Kit with 6" to 16" ENB Tubing.......................... 0612-0125
Qty 20 per Package

Interested in Visiting us at a Trade Show?

15

Visit our Events Calendar at
http://www.capintec.com/events/

SWIRLER AEROSOL SYSTEM
FOR VENTILATOR PATIENTS

The Swirler can easily accommodate a ventilator-assisted patient, without additional components.

Patented

SWIRLER® AEROSOL SYSTEM FOR TRACH OR MASK

Patented

ITEM NUMBERS
Swirler® Aerosol System
for Trach or Mask......................0630-7020
Qty 20 per Package

SWIRLER AEROSOL SYSTEM
WITH THE TRUFIT™ MOUTHPIECE KIT

The comfort & performance you demand for lung imaging.

An Aerosol Drug Delivery System that is "Precisely Alveolar"! The Swirler's patented air-flow design utilizes shear forces to create efficient atomization. This technology increases the delivery of droplets having the desired size (0.5 to 1.5 microns) to assure a more rapid coating of the alveoli resulting in a high resolution system.

Patented

SWIRLER® AEROSOL SYSTEM WITH TRUFIT® MOUTHPIECE KIT

Patented

ITEM NUMBERS
Swirler® Aerosol System
with TruFit® Mouthpiece Kit..0630-7030
Qty 20 per Package

CADEMA COMPATIBLE RADIOAEROSOL SYSTEMS

Easy...Safe...This Administration System Guarantees it.

- Inexpensive
- Convenient
- Disposable
- Efficient
- Economical
- Easy to Use

AEROSOL® RADIOAEROSOL (OPEN LOOP) SYSTEMS

AEROSOL® OPEN LOOP CADEMA TYPE SYSTEM (FOR ORIGINAL SHIELD #106)

ITEM NUMBERS

AeroSol® Open Loop Cadema Type System
(for original shield #106) 0614-8024
Qty 10 per Package

AEROSOL® OPEN LOOP FINE RES. CADEMA TYPE SYSTEM WITH 12" TUBING

ITEM NUMBERS

AeroSol® Open Loop Fine Res.
Cadema Type System with 12" Tubing 0614-0001
Qty 10 per Package

AEROSOL® OPEN LOOP CADEMA TYPE SYSTEM WITH 24" TUBING

ITEM NUMBERS

AeroSol® Open Loop
Cadema Type System
with 24"
Tubing 0614-8124
Qty 10 per Package

AEROSOL® OPEN LOOP FINE RES. CADEMA TYPE SYSTEM WITH 24" TUBING

ITEM NUMBERS

AeroSol® Open Loop Fine Res.
Cadema Type System with 24" Tubing 0614-0002
Qty 10 per Package

AEROSOL® RADIOAEROSOL (CLOSED LOOP) SYSTEMS

AEROSOL® CLOSED LOOP CADEMA TYPE SYSTEM WITH 24" TUBING

ITEM NUMBERS

AeroSol® Closed Loop
Cadema Type System
with 24" Tubing 0614-8160
Qty 10 per Package

AEROSOL® CLOSED LOOP FINE RES. CADEMA TYPE SYSTEM WITH 24" TUBING

ITEM NUMBERS

AeroSol® Closed Loop Fine Res. Cadema Type System
with 24" Tubing 0614-0003
Qty 10 per Package

AEROSOL® RADIOAEROSOL ACCESSORIES

SEAL-RITE® KIT WITH 1021 MOUTHPIECE (22MM ID) AND NOSECLIP

ITEM NUMBERS

SEAL-RITE® Kit with 1021 mouthpiece
(22mm ID) and noseclip 0630-0149
Qty 20 per Package

RESPIRATOR PATIENT ADAPTOR KIT

ITEM NUMBERS

Respirator Patient Adaptor Kit 0630-0018
Qty 1 per Package

AEROSOL® RADIOAEROSOL SHIELD

ITEM NUMBERS

AeroSol® Radioaerosol Shield 0630-7043
Qty 1 per Package

MOUTHPIECES

You've made the 1030 TRU-FIT™ soft plastic mouthpiece our most popular model. The natural contour and pleasant vanilla scent provide total patient comfort while allowing visibility of obstructions and patient cooperation. The TRU-FIT™ mouthpiece is compatible with any round shaped 22mm OD (male) adapter fitting and all mouthpiece styles can be used in conjunction with the 2000 noseclips.

MOUTHPIECE KITS

TRU-FIT™ FILTER KIT

ITEM NUMBERS
TRU-FIT™ Filter Kit............. 0630-0140
Qty 20 per Package

TRU-FIT™ KIT WITH 9" TO 26" ENB TUBING WITH #4030 "L" & CO2 FILTER

ITEM NUMBERS
TRU-FIT™ Kit with 9" to 26" ENB Tubing with #4030 "L" & CO2 Filter...0630-0141
Qty 20 per Package

TRU-FIT™ CONVENIENCE KIT, 22MM FML.

ITEM NUMBERS
TRU-FIT™ Convenience Kit, 22mm fml. 0630-0142
Qty 20 per Package

TRU-FIT™ KIT WITH 6" TO 16" ENB TUBING WITH #4030 "L"

ITEM NUMBERS
TRU-FIT™ Kit with 6" to 16" ENB Tubing with #4030 "L"........... 0630-0143
Qty 20 per Package

TRU-FIT™ FLTR KIT WITH 12" CORRUG TUBING

ITEM NUMBERS
TRU-FIT™ Fltr Kit with 12" Corrug Tubing...................................... 0640-0144
Qty 20 per Package

TRU-FIT™ KIT WITH 6" TO 16" ENB TUBING

ITEM NUMBERS
TRU-FIT™ Kit with 6" to 16" ENB Tubing.... 0630-0147
Qty 20 per Package

SEAL-RITE™ KIT WITH 1021 MOUTHPIECE (22MM OD) AND NOSECLIP

ITEM NUMBERS
SEAL-RITE™ Kit with 1021 mouthpiece (22mm OD) and noseclip 0630-0148
Qty 20 per Package

SEAL-RITE™ KIT WITH 1021 MOUTHPIECE (22MM ID) AND NOSECLIP

ITEM NUMBERS
SEAL-RITE™ Kit with 1021 mouthpiece (22mm ID) and noseclip 0630-0149
Qty 20 per Package

MOUTHPIECES

SEAL-RITE™ MOUTHPIECE

ITEM NUMBERS
SEAL-RITE™ Mouthpiece
22mm male...............................0630-1020
Qty 20 per Package
SEAL-RITE™ Mouthpiece
22mm female............................0630-1021
Qty 20 per Package

TRU-FIT™ MOUTHPIECE
& DISP. HARD MOUTHPIECE
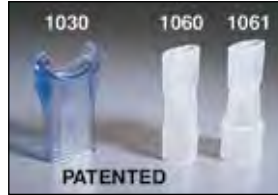
ITEM NUMBERS
TRU-FIT™ Mouthpiece
22mm female............................0630-1030
Qty 20 per Package
Disp. Hard Mouthpiece
22mm male...............................0630-1060
Qty 100 per Package

Disp. Hard Mouthpiece 22mm female..0630-1061
Qty 100 per Package

HARNESS AND TOURNIQUETS

When contamination is a possibility, disposable straps are an inexpensive substitute for the reusable harness. All Latex Free.

REUSABLE MASK HARNESS

ITEM NUMBERS
Reusable Mask Harness...........0625-1600
Qty 1 per Package

DISPOSABLE MASK HARNESS

ITEM NUMBERS
Disposable Mask Harness........0625-1604
Qty 20 per Package

DISPOSABLE HEAD RUBBER STRAP

ITEM NUMBERS
Disposable Head
Rubber Strap.............................0625-1601
Qty 100 per Package

DISPOSABLE TOURNIQUET

ITEM NUMBERS
Disposable Tourniquet 0625-1605
Qty 100 per Package

AreaExpert Digital Area Radiation Monitor

- Touch screen LCD

- Colorful visual and audio indications

- Network compatible
  with CenterExpert software

- PC controllable

- Easily configured

- Battery backup

Turn to Page 111 for Details

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, here are 3 enclosures 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" (66 cm)	22" (55.8 cm)	18" (45.7 cm)
Inside depth	22" (55.8 cm)	18" (45.7 cm)	14" (35.5 cm)
Height	14" (35.5 cm)	14" (35.5 cm)	14" (35.5 cm)

ITEM #	Type of Brick	Qty Config. A	Qty Config. B	Qty 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

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.

ITEM NUMBERS
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

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

ITEM NUMBERS
Standard.. 7410-0023
2" x 4" x 4" 13.2 lbs. (5 x 10.1 x 10.1 6 kg)
Base.. 7410-0024
2" x 4" x 4" 14.9 lbs. (5 x 10.1 x 10.1 6.7 kg)
Top 7410-0025
2" x 4" x 2" 6.23 lbs. (5 x 10.1 x 5 cm 2.8 kg)
Corner 7410-0026
2" x 4" x 4" 19.68 lbs. (5 x 10.1 x 10.1 cm 8.9 kg)
Corner Base 7410-0027
2" x 4" x 4" 20.64 lbs. (5 x 10.1 x 10.1 cm 9.3 kg)
Corner Top.. 7410-0028
2" x 4" x 2" 5.77 lbs. (5 x 10.1 x 5 cm 2.6 kg)
Wall Sphere Unit 7410-0029
2" x 4" x 8" 26.2 lbs. (5 x 10.1 x 20.3 cm 11.9 kg)
Lead Glass Window 1000-0212
4" x 4" x 8" 49 lbs. (10.1 x 10.1 x 20.3 cm 22.2 kg)

LEAD BRICK PAINTED OPTIONS

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

ITEM NUMBERS
Lead Brick Painting Option.. 2500-4179

CHEVRON
LEAD BRICK
For The Best Protection

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.

ITEM NUMBERS
Chevron Lead Brick 2" x 4" x 8" (5 x 10.1 x 20.3 cm)................ 7410-0002
Right Corner Chevron Lead Brick 7410-0003
Left Corner Chevron Lead Brick.. 7410-0004
Chevron Lead Brick 2.375" (6 cm), 60 mm Thick 7410-0008

3 WALLED BRICK ENCLOSURES

ITEM # 5530-2074
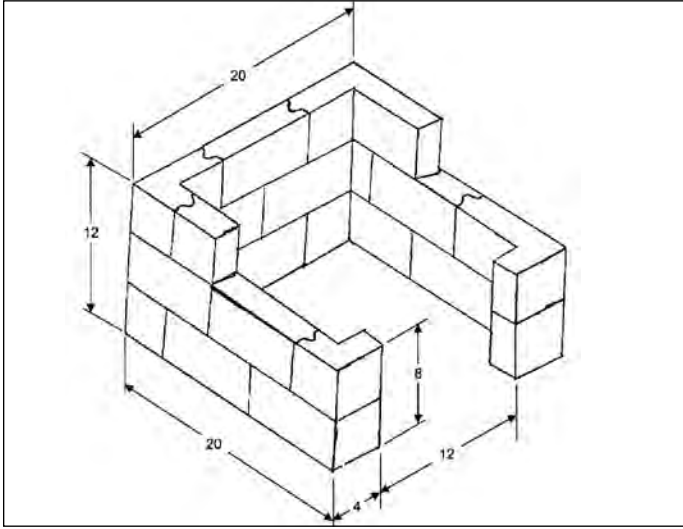
New configuration will completely enclose your 511 L block for added radiation protection.

ITEM MEASUREMENTS
- Lead Brick Enclosure 2" (5 cm) lead
- Dimensions: 12" H x 20" W x 20" D (30.5 x 50.8 x 50.8 cm) (outer)
- Weight: 475 lbs. (215.4 kg)

ITEM # 5530-1030
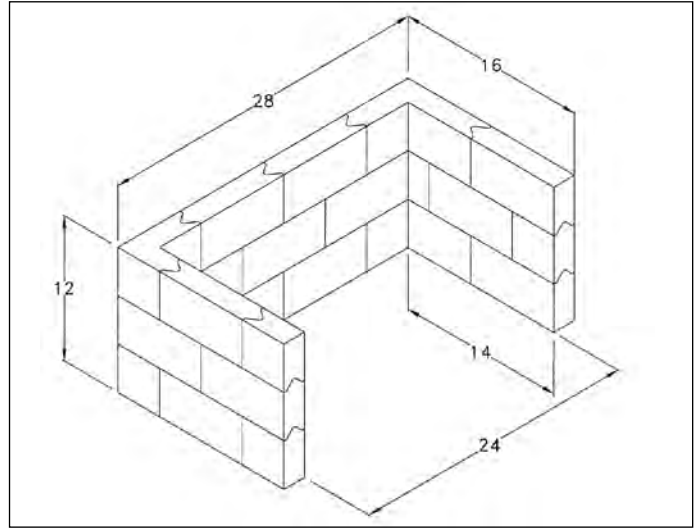
Larger 3 sided cave provides flexible placement of L block, easy side access, and more room for source storage

ITEM MEASUREMENTS
- Lead Brick Enclosure 2" (5 cm) lead
- Dimensions: 12" H x 28" W x 16" D (30.5 x 71.1 x 40.6 cm) (outer)
- Weight: 550 lbs. (249.7 kg)

ITEM # 5530-2010
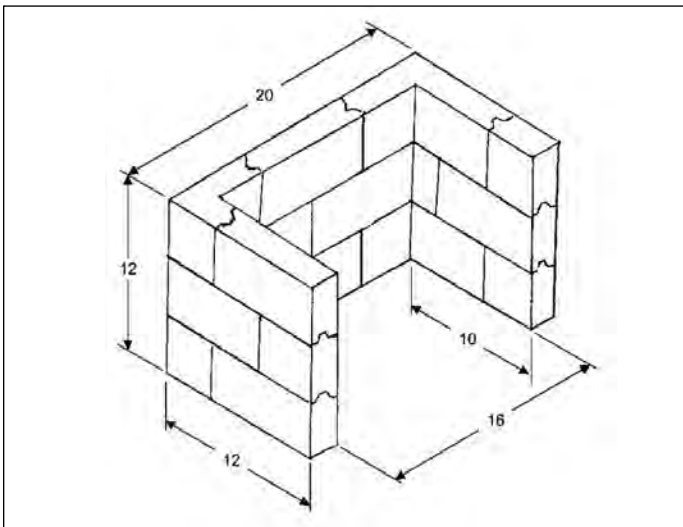
Designed to provide radiation shielded for fit 511 shielded sharps containers

ITEM MEASUREMENTS
- Lead Brick Enclosure 2" (5 cm) lead
- Dimensions: 12" H x 20" W x 12" D (30.5 x 50.8 x 30.5 cm) (outer)
- Weight: 400 lbs. (181.4 kg)

ITEM # 5530-2079
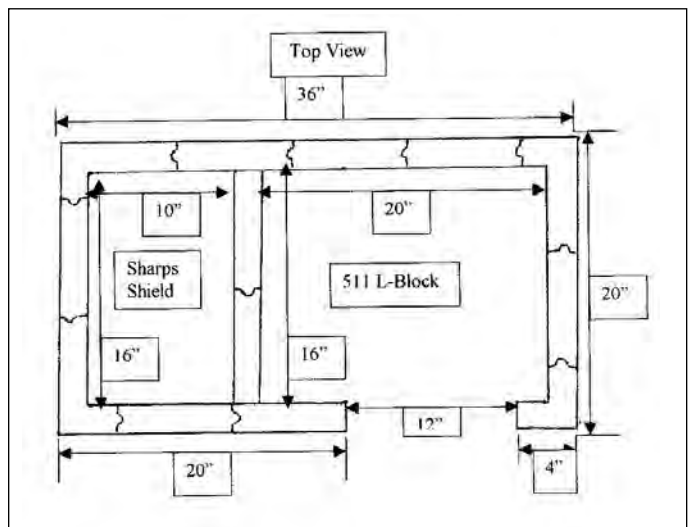
2 connected caves designed to snugly fit L block and completely enclose sharps container

ITEM MEASUREMENTS
- Lead Brick Enclosure 2" (5 cm) lead
- Dimensions: 16" H x 36" W x 20" D (40.6 x 91.4 x 50.8 cm)
- Weight: 1050 lbs. (476.2 kg)

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.

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

ITEM NUMBERS
Decontamination Kit, complete 0601-0001

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"

ITEM NUMBERS
Minor Spill Emergency Kit.. 0601-0009

Captus® 4000e Thyroid Uptake System

Fully integrated
DICOM Interface

Turn to Page 83 for Details

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.

ITEM NUMBERS
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.

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

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.

ITEM NUMBERS
Straight 9.5" (24.1 cm) forceps.......................................0645-0025
Curved 9.5" (24.1 cm) forceps.......................................0645-0026

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".

ITEM NUMBERS
CAP-TONG 9" Forceps..0645-0022

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 lbs.

ITEM MEASUREMENTS
• **Dimensions:** 9" h x 9" w x 9" d (22.8 x 22.8 x 22.8 cm)
• **Weight:** 125 lbs. (56.7 kg)

ITEM NUMBERS
Square Lead Storage Container 0660-2880

Shielded Refrigerator

Shielded Laboratory Grade Refrigerator Ideal for Radiopharmaceuticals and Temperature Sensitive Radioactive Materials

Turn to Page 110 for More Information

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

ITEM NUMBERS
15 Gal Waste Drum- 1/8" lead 0660-1518
15" OD x 27" H x 13" ID x 26" ID H x 95 lbs.
(38.1 x 68.6 x 33 x 66 cm x 43 kg)
15 Gal Waste Drum- 1/4" lead 0660-1514
15" OD x 27" H x 13" ID x 25.25" ID H x 110 lbs.
(38.1 x 68.6 x 33 x 64.1 cm x 50 kg)
30 Gal Waste Drum- 1/8" lead 0660-3018
19.5" OD x 29" H x 18" ID x 25.25" ID H x 195 lbs.
(49.5 x 73.6 x 45.7 x 64.1 cm x 88.4 kg)
30 Gal Waste Drum- 1/4" lead 0660-3014
19.5" OD x 29" H x 17.75" ID x 27" ID H x 265 lbs.
(49.5 x 73.6 x 45 x 68.6 cm x 120.2 kg)
55 Gal Waste Drum- 1/8" lead 0660-5518
23.5" OD x 34.5" H x 22.75" ID x 33" ID H x 325 lbs.
(59.7 x 87.6 x 57.8 x 83.8 cm x 147.4 kg)
55 Gal Waste Drum- 1/4" lead 0660-5514
23.5" OD x 34.5" H x 22.5" ID x 32.75" ID H x 400 lbs.
(59.7 x 87.6 x 57.1 x 83.1 cm x 181.4 kg)
*These measurements are not exact due to differences in manufacturing tolerances.

OPTIONAL ACCESSORIES
Dolly for 30 gallon container 0645-0021
Dolly for 55 gallon container 0645-0030

HOTPOT
Shielded Dry Heating Block- Ideal for Tc-99 Kit Preparation

FEATURES
- Eliminates splashes from boiling water
- Digital temperature control
- Count down timer with automatic shut off
- 4mm lead shielding on all sides
- Heater range up to 160°C
- Durable powder coated steel housing
- Protective Teflon cover over heating element
- Four heating cavities to accommodate most common kit vials
- Custom size cavities available upon request

SPECIFICATIONS
- **Temperature Setting Range-** 5°-160°C (41°-320°)
- **Resolution-** 1°C (33.8°F)
- **Accuracy-** +%5
- **Operating Temperature-** 5°-40°C (41°-104°F)
- **Storage Temperature-** 0°-50°C (0°-122°F)
- **Power-** 120V/60Hz or 220-240V/50Hz
- **Weight-** 6.5kg (14.3 lbs.)

CE

ITEM MEASUREMENTS
- 209x140x129mm (8.2"x5.5"x5.1")
- Shielding- 4mm (.16") lead
- Kit Vial Well Dimensions-
    - Hole 1- 25.5 mm x 43 mm deep (1" x 1.7")
    - Hole 2- 22.6 mm dia. x 41 mm deep (.9" x 1.6") (+an optional disk for 10 mm height adjustment)
    - Hole 3- 24.2 mm dia. x 27 mm deep (.95" x 1.1")
    - Hole 4- 24.2 mm dia. x 27 mm deep (.95" x 1.1")

ITEM NUMBERS
HotPot (110V)..0651-0024
HotPot (220V)..0651-0023
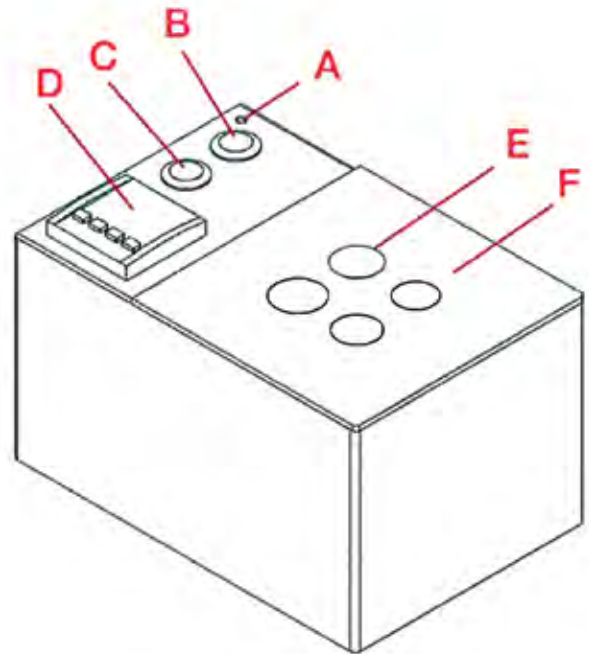
A- Power on indicator light
B- Heater start
C- Timer start
D- Digital display, time-temperature settings
E- Kit vial wells
F- Teflon lid

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.

ITEM NUMBERS
High-Handle Step Stool 0652-0005

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).

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

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
• Chrome-plated tubular steel for easy cleaning
• Heavy base offers stability

ITEM MEASUREMENTS
• **Height:** Adjustable from 30" (76.2 cm) up to 50" (127 cm)
• **Weight:** 13.5 lbs (6.4 kg)

ITEM NUMBERS
Instrument Stand 0652-0008

12 GALLON STEP
WASTE CAN

• Rugged Steel Construction
• Positive Leverage Foot Petal with Hinged Lid for "Hands Free" Operation
• Shielded with 1/8" of lead- ideal for low energy radioactive waste
• Includes Rigid Spill Proof Liner
• Available in durable white glossy finish or stainless steel exterior

ITEM MEASUREMENTS
• **Height:** 23" (58.4 cm)
• **Depth:** 12" (30.5 cm)
• **Width:** 12" (30.5 cm)
• **Weight:** 80 lbs. (36.3 kg)
• **Circumference:** 48" (121.92 cm)
• **Capacity:** 12 gal (45.4 kg)

ITEM NUMBERS
12 Gallon Step Waste Can, White 5530-20178
12 Gallon Step Waste Can, Stainless Steel 5530-20179

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.

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

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.

ITEM NUMBERS
RAD-CON™ Surface Cleaner (12 in a case) 0601-0005

BIND-IT
DECONTAMINATION PRODUCTS

Bind-It decontamination spray is ideal for general purpose cleanup of nuclear medicine isotopes. Whether in the hot lab, receiving, camera rooms or patient isolation areas, Bind-It does the job. Besides being very economical, Bind-It offers three distinct advantages over other decontamination products:

• Pleasantly scented - Bind-It spray is formulated with a mild, pleasant scent. No harsh odors, no sulfur smell, no wrinkled noses.

• Bind-It WILL NOT cloud lead glass - finally a way to clean syringe shields and L-blocks - without damaging or clouding the glass.

• Bind-It is extremely effective at removing nuclear medicine isotopes, including radio-iodines.

Bind-It Spray is also safe to use on delicate well detectors, thyroid probes and camera heads. Bind-It Spray is non-corrosive, so it is equally safe on painted, coated or varnished surfaces.

Bind-It works by attracting and binding the isotope, thereby trapping it in solution. This attraction is so powerful, it will even "pull" spilled isotope out of tile grout and other semi-porous surfaces. It is also highly effective as a shield when used to pre-treat surfaces such as bench tops and workplaces where spills are likely. Simply spray the surface and allow to dry. This makes cleanup faster and easier.

Bind-It Hand Soap is the ideal choice for Hot Lab use. Bind-It Hand Soap will not dry hands like other laboratory soaps. Bind-it hand soap is pleasantly scented and more importantly - it removes skin contamination.

Be proactive, do your hands a favor and ensure ALARA is met every time you wash your hands.

ITEM NUMBERS
Decontamination, Bind-It, 237ml concentrate 12/Case................ 0601-0011
Cleaner, Bind-It 946ml Spray 12/Case.. 0601-0012
Soap, Hand, Bind-It 237ml 12/Case.. 0601-0013
Soap, Hand, Bind-it Starter Kit 0601-0014
Soap, Hand, Bind-It 946ml Refill 12/Case 0601-0015
Dispenser, Bind-It, Wall Mount... 0601-0016
Soap, hand, Bind-It, 237ml Home 12/Case 0601-0017
Bind-It Patient Care Pack, I131 0601-0018

STAINLESS STEEL
LAB CART

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.

ITEM NUMBERS
Stainless Steel 0652-0003
21" x 16.25" x .875" deep (53.3 x 41.2 x 2.2 cm)
Stainless Steel Cart 0652-0004
19" x 31" x 33" (48.2 x 78.4 x 83.8 cm)

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.

ITEM NUMBERS
Absorbent Paper 300' x 20" (91.4 m x 50.8 cm) roll (2 pack).....0651-0002
Wall Mounted Paper Dispenser...0651-0005

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.

ITEM NUMBERS
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.

ITEM NUMBERS
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.

ITEM NUMBERS
Radiopharmaceutical Log Book... 0653-3031

PATIENT AND KIT LOG BOOK

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

ITEM NUMBERS
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.

ITEM NUMBERS
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.

ITEM NUMBERS
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

12 GALLON STEP
WASTE CAN

Turn to Page 62 for More Information

CAPINTEC, INC.

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.

ITEM NUMBER
Caution Radioactive Material Roll...................................0685-T001
1" x .5" x 180' (2.5 x 1.2 cm x 54.8 m)

ITEM NUMBER
Radioactive Material Roll...................................0685-T013
3" x 1" x 180' (7.6 x 2.5 cm x 54.8 m)

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.

ITEM NUMBER
Magenta and Yellow stripe with symbol Roll....................0685-101V
1" x 180' (2.5 cm x 54.8 m)

ITEM NUMBER
Magenta and Yellow stripe no symbol Roll....................0685-200V
2" x 108" (5 x 274.3 cm)

OPTIONAL ACCESSORIES

ITEM NUMBER
Heavy duty tape/label dispenser...................................0645-0023

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.

ITEM NUMBER
Caution Radioactive Material Isotope, Amount & Date...........................0685-M003
2" X 1" (5 x 2.5 cm) (500 per roll)

ITEM NUMBER
Caution Radioactive Material...........................0685-M001
.625" x 1" (1.5 x 2.5 cm) (500 per roll)

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.

ITEM NUMBER
Caution Radiation Area Date, Time, Agent & Dose Procedure Tag...................................0685-M103
2" x 3.5" (5 x 8.9) (100 pkg)

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.

ITEM NUMBER
Caution Radioactive Material Tag...................................0685-100M
2.625" x 5.5" (6.6 x 14 cm) (100/pack)

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.
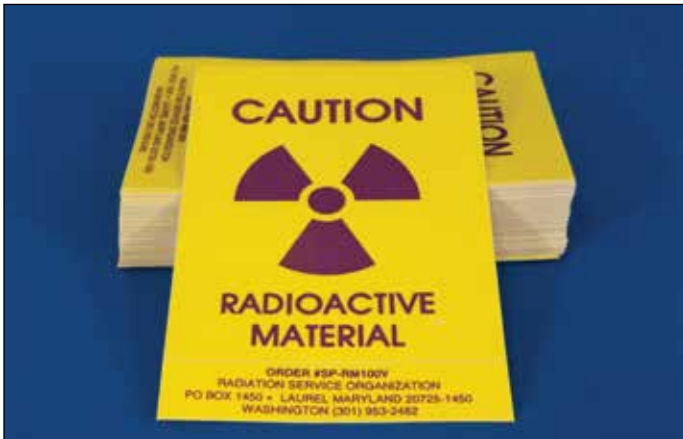
ITEM NUMBER

Radioactive Material Cardboard (Sold Individually).................0685-M200
 8.5" x 11" (21.6 x 27.9 cm)

Radioactive Material Aluminum (Sold Individually)...................0685-200R
8" x 10" (20.3 x 25.4 cm)

Radioactive Material Paper P/S Adhesive Backing (100/pack)..0685-M100
3" x 5" (7.6 x 12.7 cm)

Radioactive Material Paper P/S Adhesive Backing (100/pack)..0685-M101
5" x 6" (12.7 x 15.2 cm)

Radioactive Material Vinyl P/S Adhesive Backing (100/pack)....0685-R100
3" x 4" (7.6 x 10.1 cm)

NOTE: Signs also available in Spanish - Call for price and availability (only certain ones available)

ITEM NUMBER

Caution Radiation Area Cardboard (Sold Individually)............ 0685-A200
8.5" x 11" (21.6 x 28 cm)

Caution Radiation Area Aluminum (Sold Individually)..............0685-R200
8" x 10" (20.3 x 25.4 cm)

Caution Radiation Area Paper P/S Adhesive Backing (100/pk) 0685-A100
3" x 5" (7.6 x 12.7 cm)

Caution Radiation Area Vinyl P/S Adhesive Backing (100/pk).. 0685-100V
3" x 4" (7.6 x 10.1 cm)

NOTE: Signs also available in Spanish - Call for price and availability (only certain ones available)

NUCLEAR MEDICINE MANAGEMENT SOFTWARE

ADVANTAGES OF OPTILITY™

• **HL-7 Interface**

• **Bring your data with you**

• **Computer Based Training**

• **Your Data is Secure**

• **Bar Coded Inventory and Dose Calibrator**

   Interface
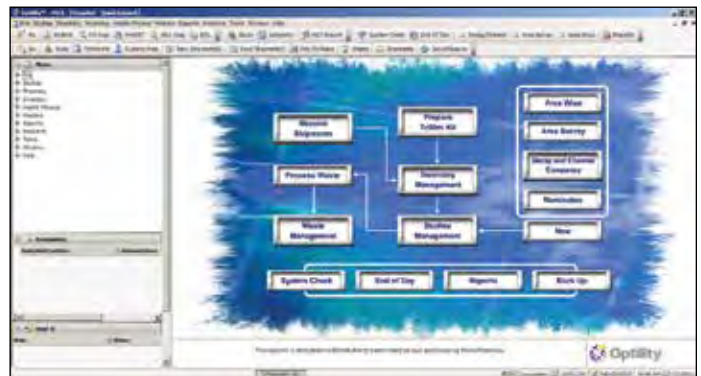
Turn to Page 22 for More Information

CAPRAC®-t WELL COUNTER

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

SPECIFICATIONS
- **Performance:** Type: 1.5" Sodium Iodine (NaI) drilled-well crystal; 256 Channel MCA manual and automatic ROI; Trigger Levels: User definable; Automated Calibration and Background Subtraction; QC Tests: Reproducibility, Chi-Square, MDA; Counting Rate: 10,000 cps
- **Display Screen:** Type: 8" VGA-LCD color touch screen; Bq/Ci Reading: User selectable; Activity Display: Selected radionuclide, efficiency, measured activity, and display units; Count Rate Values for both wipe and lab results
- **Printer:** RS-232 or USB Ports for compatible non-host based printers
- **PC Port:** Interface: RS-232 and USB
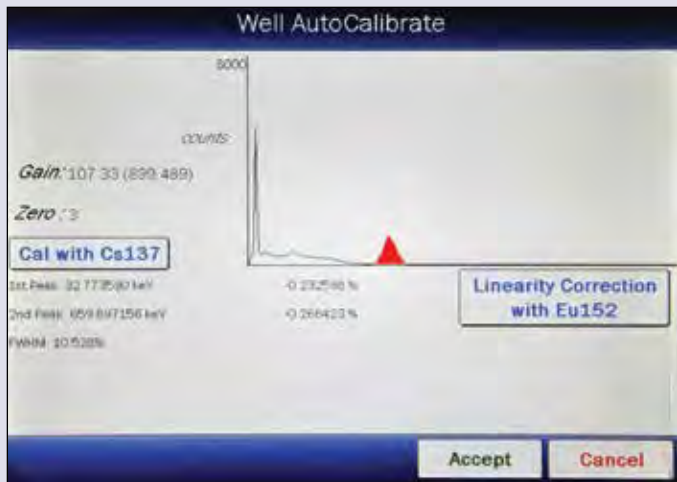
Well Autocalibrate

Calibration with Cs137 sets the voltage gain and establishes the FWHM for the detector using both the 32.5 kev and 662 kev peaks. Linearity correction with Eu152 applies correction factors for the non-linear response of NaI crystals to different kev's detected by the crystal. This results in accurately centered peak detection for different nuclides.
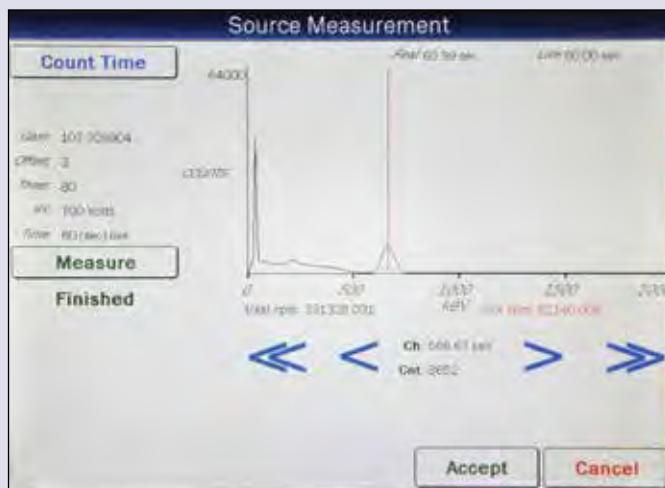
Sample Measurement

Isotope peaks found in sample measurements are compared to data in the isotope library to assist the user in the identification of the specific nuclide.

- **Power Requirement:** 100-240 VAC (50/60 Hz) 25W
- **Test:** Diagnostic: Full test of program and system memories
- **Cable:** Printer (Optional): 6' (1.8m); Power: 6' (1.8m)

CE 0413   ETL
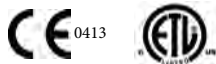
CONSOLE MEASUREMENTS
- **Dimensions:** 9.5" h x 9.0" w x 10.5" l (42 x 23 x 22 cm)
- **Weight:** 7.5 lbs. (.4kg)

WELL COUNTER MEASUREMENTS
- **Well Counter Dimensions:** 9.28" h x 6" d (23.8 x 15.2 cm)
- **Weight:** 15.2 lbs. (6.9 kg)
- **Crystal Dimensions:** 1.5" x 1.75" (3.8 x 4.4 cm)
- **Shielding:** .5" (1.3 cm) lead
- **Well Diameter:** .67" (1.7 cm)
- **Well Depth:** 1.5" (3.8 cm)
- **Cable Length:** 9' (2.7 m)

ITEM NUMBERS
CAPRAC®-t Wipe Test/Well Counter... 5430-3136

OPTIONAL ACCESSORIES
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

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https://www.linkedin.com/company/capintec-inc-

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
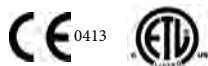
ITEM NUMBER
CAPTUS 700t Well Counting System..5430-3143

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

The New Measure for Dose Calibrators

Turn to Page 7 for More Information

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.
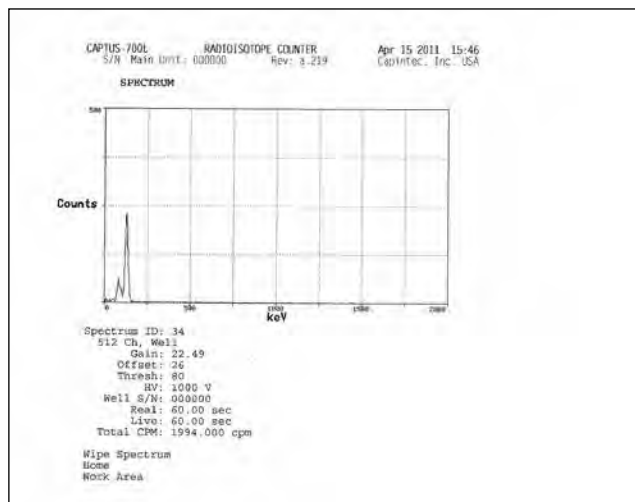
GENERAL MEASUREMENT

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.
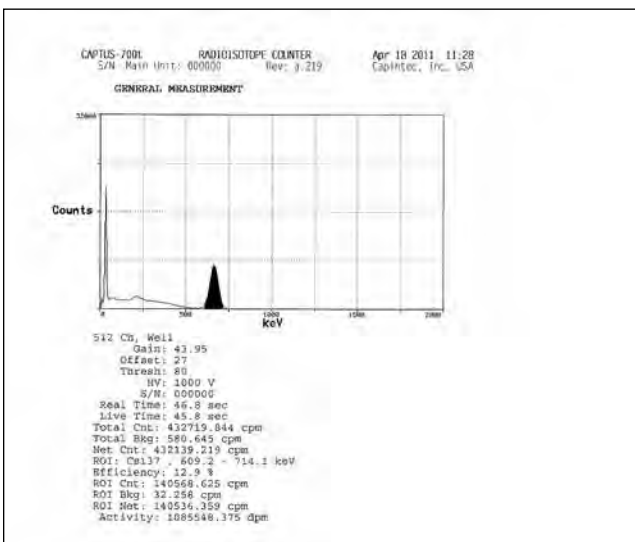
LAB TEST MEASUREMENTS

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!
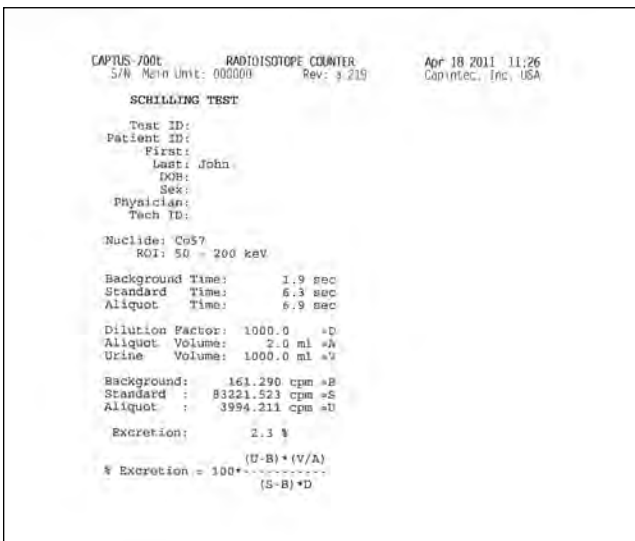
CAPTUS® 4000e
WELL COUNTING SYSTEM

The Captus® 4000e 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.

FEATURES
- Lab Tests
- 1024 Multichannel Analyzer- Timed Activity Module
- Wipe testing module allows flexibility of pre-defined or user groupings
- Improved data storage, archive and reporting functions
- "Quick Start" menu
- Automated Quality Assurance, including energy calibration, Chi-Squared and MDA functions
- Sophisticated MCA includes automatic and manual calibration, timed activity feature for automatic repetitive timed measurements, live time, real time and total counts presets

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.
- 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
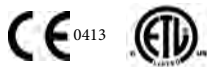
Captus® 4000e Well Counting System

ITEM NUMBER
CAPTUS 4000e Well Counting System 5430-30152

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

CAPTUS® 4000e
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.

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.

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.

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.

CAPINTEC, INC.

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.

ITEM MEASUREMENTS
• **Dimensions:** 13.5" h x 6.25" w (34.2 x 15.8 cm)
• **Weight:** 110 lbs. (50 kg)

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

CAPRAC®-t
WELL AUXILIARY SHIELD

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.

ITEM MEASUREMENTS
• **Dimensions:** 15.625" h x 7.5" w x 6.75" d (39.6 x 19 x 17 cm)
• **Weight:** 90 lbs. (40.8 kg)

ITEM NUMBERS
Well Auxiliary Shield.......5420-2141

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https://www.facebook.com/capintecinc

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.

ITEM MEASUREMENTS
• **Dimensions:** 16.625" h x 6.75" w x 8.75" d (42.2 x 17.1 x 22.2 cm)
• **Weight:** 91 lbs. (41.2 kg)

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

CAPRAC®-t, 55tW, ULTRA WELL
AUXILIARY SHIELD

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.

ITEM MEASUREMENTS
• **Dimensions:** 9 3/4" h x 4" w (24.7 x 10.1 cm)
• **Weight:** 22 lbs. (10 kg)

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

CAPRAC®-R
AUXILIARY SHIELD

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.

ITEM MEASUREMENTS
• **Dimensions:** 12.5" h x 4.125" w (31.75 x 10.4 cm)
• **Weight:** 26 lbs. (11.8 kg)

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

CALIBRATION
ROD SOURCES

Capintec offers two rod sources for use with the all Capintec Well Counters and Well Counting Systems 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®-t.

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

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.

ITEM NUMBERS
Wipes- 500.. 5420-0086

EPSON
ROLL 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.

SPECIFICATIONS
CE

ITEM NUMBERS
Epson Roll Printer 5430-0058

CAPINTEC, INC.

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.

ITEM NUMBERS
Counting Tubes.........................0670-0016

CAPRAC
TEST TUBES

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

ITEM NUMBERS
Test Tubes- 100.................5420-0087

CAPRAC
WELL LINER/ TEST TUBE

Size: .625" x 2.5" (1.5 x 6.3 cm)

ITEM NUMBERS
Test Tubes- 250.. 0670-0016
Liners- 5.. 5420-0121

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.

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

CAPRAC
WELL LINER

ITEM NUMBERS
Liners- 5.. 5420-0121

POSI-RAM™ METABOLITE DETECTOR

With more and more sophisticated nuclear medicine applications, positron (ß+) counting has become of increasing interest. Positrons are unique in that their lifetime is measured in picoseconds. Once they interact with a nearby electron, they give rise to two directly-opposed 511 KeV gammas ("annihilation radiation"), one or both of which then may be counted with a conventional gamma counter. Today, 11C and 18F are the ß+-emitters of greatest interest. Produced at high activity levels with a cyclotron, their relatively short half-lives – 11C (t½ = 20.4 min), 18F (t½ = 110 min) – necessitate fast chemical processing and almost instantaneous utilization.

As production methods have improved, and with chemistry automated, it has become possible to rapidly synthesize and employ more complex molecules. The natural progression has then been to study metabolism. With the time for synthesis, the time within the biological system, the time for metabolite isolation, and the short half-lives, low-level ß+-counting is suddenly a requirement. The Posi-RAM has been developed specifically for that need.

The Posi-RAM is a coincidence counter based upon the same electronics platform employed in our ß-RAM detectors. Two opposed 1" x 1" BGO crystal photomultiplier assemblies

sandwich a flat thin-wall cell coil. With the separation between the crystals < 0.2", the geometric efficiency for collecting the annihilation gammas, one in each assembly, is quite high. At the same time, backgrounds are inherently low since only coincidences are recorded; PMT noise and conventional gamma counter backgrounds are rejected.

The Posi-RAM is a complete counter and is as suitable for gamma measurement as it is for positrons. It has two counting channels and a digital display. A built-in collector valve at the cell exit responds to manual or automatic control. There are digital and analog outputs. Laura software is available to perform decay correction, to automatically find and integrate peaks, and to control fraction collectors and auto-injectors.

On special order, the detector and electronics can be housed in separate cabinets.

ITEM NUMBERS
Posi-RAM Model 4 Coincidence BGO Detection System 0602-0139
For highly sensitive on-line detection of metabolites in PET tracer studies. Includes Flow Cell of user's choice (5-200uL). Requires Laura radiochroma-tography software
Posi-RAM Installation and Training 0602-0140
Flow Cell for Posi-RAM (Specify volume, 5-250uL) 0602-0141
1 Year Instrument Technical Assistance 0602-0142
1 Year Instrument Service Contract 0602-0143

FLOW-RAM™

The Flow-RAM is an innovative and low cost radio HPLC detector that addresses PET and SPECT production and research requirements. The instrument is compatible with all makes of HPLC systems and with the availability of the specifically designed range of detectors, the Flow-RAM is ideally suited for PET and Nuclear Medicine applications.

FEATURES

• GLP/GMP compliance as standard

• A wide range of detectors for all Nuclear Medicine and PET Radionuclides

• Bespoke lead shielding to limit the background interference

• Intelligent and informative front end display

• Flexibility; two detectors can be connected to the same instrument simultaneously AND independently of one another to provide a two in one instrument

• USB connection for power supply, instrument control and data collection, rather than the now outdated and slow serial output of older systems

• Flow-RAM is the first radiodetector of its type to offer stand alone control of data collectionthrough a pocket digital assistant via a Bluetooth™ wireless link.

ITEM NUMBERS

Flow-RAM radio-HPLC system 0602-0084
Single channel with inputs for either PMT or PIN Diode detectors. Includes Laura full version software. Requires detector and PC
Flow-RAM radio-HPLC system 0602-0085
Single channel with inputs for either PMT or PIN Diode detectors. Includes Laura Academia software. Requires detector and PC
Flow-RAM radio-HPLC system 0602-0086
Single channel with inputs for either PMT or PIN Diode detectors. Includes Basic Control Software. Requires detector, chromatography software and PC
Flow-RAM radio-HPLC system 0602-0087
Dual channel inputs available simultaneously and independently for both PMT and/or PIN Diode detectors. Includes Laura full version software X 2. Requires detectors and PC
Flow-RAM radio-HPLC system 0602-0088
Dual channel inputs available simultaneously and independently for both PMT and/or PIN Diode detectors. Includes Laura Academia software X 2. Requires detectors and PC
Flow-RAM radio-HPLC system 0602-0089
Dual channel inputs available simultaneously and independently for both PMT and/or PIN Diode detectors. Includes Basic Control software. Requires detectors, chromatography software and PC
Hand held wireless preloaded with Laura Mobile (Flow-RAM) 0602-0090
1 Year Instrument Technical Assistance 0602-0091
1 Year Instrument Service Contract 0602-0092

DETECTORS FOR FLOW-RAM™ RADIO-HPLC

PMT - 1" NaI detector suitable for detection of high-energy gamma radionuclides for HPLC and TLC (not suitable for radio-TLC of PET isotopes).. 0602-0093
Includes HV/signal C cable. (requires shield and flow cell)
PMT - 2" NaI detector for high energy gammas 0602-0094
Includes HV/signal C cable. (requires shield and flow cell)
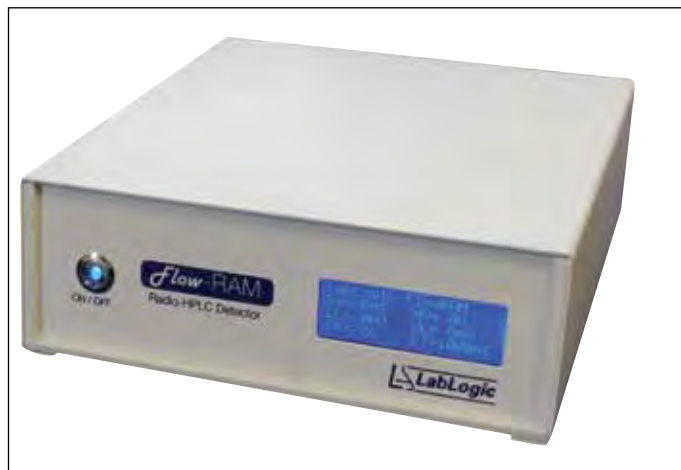
PMT - Plastic Scintillator detector suitable for detection of PET isotopes for TLC and high energy beta radionuclides for HPLC 0602-0095
Includes HV/signal C cable
PMT - NaI detector for 125I, and other low energy gammas 0602-0096
Includes HV/signal C cable. (requires shield and flow cell)
Well Type PMT - NaI detector with 4Pi counting geometry. Well: 1.7 cm Dia x 3.9 cm L Detector: 4.5 x 5.1 cm. 0602-0097
Requires lead shield PJ-FXX-15
Miniature PIN Diode radio-HPLC detector for high activity monitoring of gammas up to 1 Curie 0602-0098
Miniature CsI/PIN Diode radio-HPLC detector for high energy gammas 0602-0099

SHIELDS FOR RADIO-HPLC

Five part 1" lead shield for PMT detectors 0602-0100
Ideal for low-energy isotopes. Includes flow cell
Five part 2" lead shield for PMT detectors 0602-0101
Ideal for QC of PET/SPECT products in areas with high background. Includes flow cell
Five part 3" lead shield for PMT detectors 0602-0102
Ideal for QC of PET/SPECT products in areas with high background. Includes flow cell
Lead shielded holder and flow cell for PIN Diode detectors 0602-0103
Six part 2" lead shield for 2" NaI/PMT detectors/PN-FXX-04 .. 0602-0104
Ideal for QC of PET/SPECT products in areas with high background. Includes flow cell
Six part 2" lead shield for the 2" NaI/PMT well type detector PN-FXX-14 0602-0105
Sleeve insert for lead shield (PJ-FXX-11) that is suitable for PIN Diode detectors 0602-0106

FLOW-RAM™ VALIDATION

Single output Flow-RAM hardware IQ/OQ 0602-0107
Dual output Flow-RAM hardware IQ/OQ 0602-0108

SCAN-RAM™

The Scan-RAM is specifically designed to address PET and SPECT production and research requirements. The operation of the Scan-RAM is intuitive and easy to do. The wide range of specifically designed detectors with the latest technological advances make the Scan-RAM your ideal solution for radio-TLC analysis of all PET and SPECT radiolabeled compounds.

FEATURES
- GLP/GMP compliance as standard
- A wide range of detectors for all Nuclear Medicine and PET Radionuclides
- Easily adjustable lead collimator that enables optimization of sensitivity and resolution
- A range of easy to clean removable TLC support beds
- Intelligent and informative front end display
- Flexibility; two detectors can be connected to the same instrument simultaneously AND independently of one another to provide a Radio TLC scanner and a Radio HPLC detector
- USB connection for power supply, instrument control and data collection, rather than the now outdated and slow serial output of older systems
- Scan-RAM is the first instrument of its type to offer stand alone control of data collection through a pocket digital assistant via a Bluetooth™ wireless link.

ITEM NUMBERS
Scan-RAM radio-TLC system 0602-0109
Single channel with inputs for either PMT or PIN Diode detectors. Includes Laura full version software. Requires detector and PC.
Scan-RAM radio-TLC system 0602-0110
Single channel with inputs for either PMT or PIN Diode detectors. Includes Laura Academia software. Requires detector and PC
Scan-RAM radio-TLC system 0602-0111
Single channel with inputs for either PMT or PIN Diode detectors. Includes Basic Control Software. Requires detector, chromatography software and PC.

Scan-RAM radio-TLC and radio-HPLC system 0602-0112
Dual channel inputs available simultaneously and independently for both PMT and/or PIN Diode detectors. Includes Laura full version software. Requires detectors and PC.
Scan-RAM radio-TLC and radio-HPLC system 0602-0113
Dual channel inputs available simultaneously and independently for both PMT and/or PIN Diode detectors. Includes Laura Academia software x 2. Requires detectors and PC.
Scan-RAM radio-TLC and radio-HPLC system 0602-0114
Dual channel inputs available simultaneously and independently for both PMT and/or PIN Diode detectors. Includes Basic Control Software. Requires detectors, chromatography software and PC.
1 Year Instrument Technical Assistance 0602-0115
1 Year Instrument Service Contract 0602-0116

DETECTORS FOR SCAN-RAM™ (RADIO-TLC) ITEM NUMBERS
PMT - NaI detector suitable for detection of high-energy gamma radionuclides for TLC (not suitable for radio-TLC of PET isotopes) 0602-0117
Includes HV/signal C cable.
PMT - Plastic Scintillator detector suitable for detection of PET isotopes for TLC 0602-0118
Includes HV/signal C cable
PMT - NaI detector for 125I, and other low energy gammas 0602-0119
Includes HV/signal C cable.

SCAN-RAM™ VALIDATION ITEM NUMBERS
Single output Scan-RAM hardware IQ/OQ 0602-0120
Dual output Scan-RAM hardware IQ/OQ 0602-0121

LAURA FOR PET

Laura for PET offers the complete QC solution to the busy PET/SPECT production or R&D facility. The software features a single solution for control and data collection from radio detectors, radio TLC scanners, MCAs, GC and HPLC systems. This means users only have one software system to control the instrumentation, collect the data, extract results and report.

All of this is accomplished in one regulatory compliant software package.

Laura for PET supplies the user with clear, easy to interpret data. Values such as % total calculations for purity checks are easily extracted and reports automatically generated.

Laura for PET provides the highest possible connectivity to support devices and third-party software. Full control of gradient HPLC pumps is now possible, as is connection to autoinjectors and fraction collectors. View our list of supported instruments. More than one HPLC station can be operated by a single PC. Data from TLC analysers and liquid scintillation counters can be input either directly or via disk transfer to enable data to be compared, interrogated and reported. Laura for PET is the complete radio-chromatography package, and

can be used equally effectively to quantify the mass channel (UV or RI etc.) as well as the radioactive channels since it combines many features from conventional chromatography systems such as internal and external standardisation and peak skimming.

FEATURES

- Single software for the complete suite of QC instruments, radio-detectors, HPLC, GC, radio-TLC, MCA
- Easy to use
- Half life correction
- Regulatory compliance
- Automatically generates the QC report
- Laura for PET is unique because it is the only software system that offers support of the complete suite of QC instruments. This means users only have to be familiar with one software system which cuts down on both learning time and production time in the working day.

LAURA FOR PET/SPECT SOFTWARE ITEM NUMBERS

Laura - Base License 0602-0122
PET/SPECT, GLP/GMP compliant software; radiochromatography and spectrum anlysis instrument control and data analysis software.
"Laura - Additional Instrument Acquisition License" 0602-0123
Needs to be installed on the same PC as the Base License

Laura - Database Mode for increased security............................0602-0124
Base License Only
Laura - Off-Line / Desktop Evaluation License 0602-0125
Laura for PET Installation and Training....................................0602-0126

HARDWARE ITEM NUMBERS
Pearl Interface Box for Laura Software.......................................0602-0131

LAURA FOR PET VALIDATION SERVICES ITEM NUMBERS
Lite Validation...0602-0127
*Services to include: IQ/OQ Test Scripts and execution of IQ/OQ Test Scripts by
a LabLogic Validation Specialist (1 day validation of Laura modules for radio-
HPLC,radioTLC, GC and HPLC)*
Compact Validation 0602-0128
*Services to include:- IQ Test Scripts, Execution of IQ Test Scripts by a LabLogic
Validation Specialist (1 day), OQ Test Scripts, Execution of OQ Test Scripts
by a LabLogic Validation Specialist (3.5 days) (Covers validation of Laura
modules for radio-HPLC,radioTLC, GC and HPLC)*
Full Validation...0602-0129
*Services to include: IQ Test Scripts, Execution of IQ Test Scripts by a LabLogic
Validation Specialist (1 day), OQ Test Scripts, Execution of OQ Test Scripts by
a LabLogic Validation Specialist (15 days) (Covers validation of Laura mod-
ules for radio-HPLC,radioTLC, GC and HPLC)*

LAURA – SUPPORT CONTRACT ITEM NUMBERS
Laura Annual Support Contract..0602-0130

LAURA RADIOCHROMATOGRAPHY SOFTWARE FOR ACQUISTION AND EVALUATION ITEM NUMBERS
Laura 4 applications software 0602-0144
Acquisition/measurement for radioactivity
Laura Academia applications software 0602-0145
Acquisition/measurement for radioactivity
Hand held wireless preloaded with Laura Mobile 0602-0146
HPLC control module for Laura software....................................0602-0147

(pumps, autosamplers, UV, DAD, etc.)
Active Counting Mode in Laura 0602-0148
StopFlow Control Module in Laura...0602-0149
Micro Fast LC Module (UPLC/UHPLC) 0602-0150
LSC Import Module 0602-0151
Regression Analysis Acquisition Module......................................0602-0152
Laura 4 database only mode...0602-0153
For improved data security and regulatory compliance

LAURA DESKTOP/EVALUATION COPY ITEM NUMBERS
Laura 4 Evaluation Software..0602-0154
Evaluation/desktop copy (no instrument control)
LSC Import option for Laura Evaluation Software 0602-0155
Regression Analysis Module for Laura Evaluation Software 0602-0156
Database only mode for Laura Evaluation Software...................0602-0157
Improved data security and regulatory compliance

LAURA VALIDATION SERVICES ITEM NUMBERS
Lite Validation...0602-0158
*Services to include: IQ/OQ Test Scripts and execution of Test Scripts by a Lab-
Logic Validation Specialist (1 day)*
Compact Validation 0602-0159
*Services to include: IQ Test Scripts, Execution of IQ Test Scripts by a LabLogic
Validation Specialist (1 day), OQ Test Scripts, Execution of OQ Test Scripts by
a LabLogic Validation Specialist (3.5 days)*
Full Validation...0602-0160
*Services to include: IQ Test Scripts, Execution of IQ Test Scripts by a LabLogic
Validation Specialist (1 day), OQ Test Scripts, Execution of OQ Test Scripts by
a LabLogic Validation Specialist (15 days)*

LAURA – SUPPORT CONTRACT ITEM NUMBERS
Laura Annual Support Contract..0602-0161
From date of installation
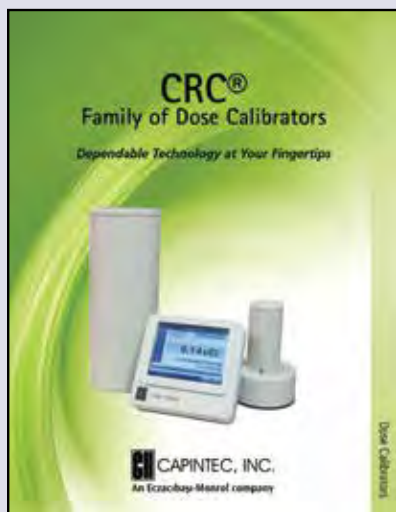
GAMMA-RAM™ RADIO-HPLC DETECTOR

For day-in day-out work with soft gamma emitters such as 125I, 99mTc, and intermediate gammas having energies up to about 1 MeV, the Gamma-RAM with its well- type Tl-activated NaI crystal and its heavy lead shield offers the best performance. Beta counters may be suitable for occasional measurement of 125I and 99mTc, though with lower counting efficiency. However, they are unsatisfactory for anything more energetic; counting efficiencies are low and sometimes unacceptable, and resolution is so poor as to preclude double-isotope analysis of two gamma emitters in the same sample.

On the other hand, a NaI crystal with its great stopping power for gammas gives high counting efficiencies, even for more energetic isotopes, as well as superior resolution which makes dual isotope counting practical.

The Gamma-RAM detector employs a hermetically sealed crystal/photomultiplier assembly. For use with HPLC eluates, two types of counting cells are offered:

A fixed volume cell, suitable for low energy emitters only,

consisting of a Teflon tubing coil. Available sizes are from 10 uL to 200 uL.

When unusually high activity levels or more energetic isotopes are encountered, fixed volume cells made of stainless steel chromatography tubing are preferable. With the tubing bent into a U and surrounded by a lead or tungsten plug excepting at the bottom, cells may have exposed volumes as small as 5 ul. Such cells are especially useful for preparative work where the activity levels might otherwise overwhelm more conventional coil cells.

ITEM NUMBERS

Y-RAM Model 4 Self Shielded, NaI well type Gamma & Positron Detection System with NaI crystal. Includes cell holder and 5 coils (10, 25, 50, 100 and 200uL). Requires Laura radiochromatography software............ 0602-0132
Cell holder plus sample coils 10, 25, 50, 100 and 200μL.............. 0602-0133
Y-RAM Installation and Training... 0602-0134
I-129 Gamma Standard.. 0602-0135
Cs-137 Gamma Standard... 0602-0136
1 Year Instrument Technical Assistance 0602-0137
1 Year Instrument Service Contract 0602-0138

CAPTUS® 4000e
THYROID UPTAKE SYSTEM

The Captus® 4000e is a comprehensive Nuclear Medicine Measurement System, with specific software modules for thyroid uptake, bioassay, wipe tests, automated quality assurance tests, lab tests, and isotope library. The system includes a fully functional 1024 channel MCA with auto and manual calibration. Timed activity mode features a programmable repetitive timed measurement program.

Improved menu driven workflow and large 20 inch color touch screen streamlines user interface.

The fully integrated DICOM interface communicates directly with hospital information systems, and can transfer patient, wipe test, and QC data.

New and improved stand provides ergonomically adjustable monitor and easy to position articulating collimator arm. Four sided comfortable handle grips and swivel wheels ensure easy mobility. PC can be attached to either right or left side to optimize workspace.

NEW FEATURES
- New and improved color touch screen user interface
- Large 20 inch All-in-One Touch Screen Computer
- Fully integrated DICOM interface for patient data, QC and wipe tests
- Custom Protocol Capabilities
- Ergonomically Designed Mobile Stand
- Articulating Arm with Wide Range of Motion
- Medical Grade Corian Countertop with document storage shelf
- Secure Neck Phantom Storage Location
- Source holder for reproducible QC positioning

SOFTWARE FEATURES
- **Diagnostics and Tests:** Fully automated Quality Assurance Section includes energy calibration, zero adjust, gain adjust, detector efficiency, detector resolution, chi-square, constancy, and MDA; Manual calibration available in MCA module.
- **Thyroid Uptake:** Provides four predefined protocols; Supports both capsule and liquid dose formats; Dose may be pre-counted before patient assignment; Predose measurement option; Normal range option
- **Wipe Tests:** Setup for multiple groupings; Isotope identification available; Spectrum is displayed for each wipe; Activity exceeding trigger levels flagged in red
- **MCA:** 1024 channels; Automated and manual calibration selection; Preset or user defined ROI; Count set by real time, live time, or total peak counts; Timed activity feature enables predefined continual repetitive measurements
- **DICOM Interface (Optional):** Fully integrated interface iwth Captus® 4000e; Retrieve patient data from worklist; Upload patient, wipe test, and QA reports
- **Bioassay:** Monitors Staff for I 123, I 125, and I 131 exposure; User defined action levels for each isotope; Individual and summary reports available
- **Reports**: Reports include full spectrum graphics; Thyroid report includes time vs. uptake value graph; Data is archived; Reports can be printed or saved as a .pdf file
- **Custom Protocol**: Create Custom Measurement Sequence; Customizable Reports

CE 0413

HARDWARE SPECIFICATIONS
- **Thyroid Uptake Stand:** Ergonomically designed floor stand; Medical grade Corian countertop with shelf; Adjustable height PC stand, left or right side mounting; Articulating arm with 34" vertical range of travel and 220° collimator rotation; Protective cable management system; Neck phantom storage location; Fully protected internally routed cables; (4) Heavy duty locking casters that swivel 360°; Isolation transformer for patient and user safety; QA source holder for reproducible geometry
- **Computer**: 20" All in One Touch Screen Flat Panel Computer; Windows 8 Platform
- **Printer:** Color Ink Jet printer
- **Collimator:** 2" dia. 14 pin NaI (TI) detector iwth 1.55" deep and .66"
- diameter well; Flat field collimator meets ANSI N44.3, IAEA; Precision measurement and alignment rod, which measures distance directly to thyroid
- **Well Counter:** 2" dia. NaI (TI) well detector with 1.55" deep and .66" diameter well; 1" lead well shield with brass liner; (Optional 2" shield available)
- **Multichannel Analyzer Interface PC Board:** Two detector input; 1024 Channels; Maximum count rate: 100,000 cps; ROIs automatic or manual; Differential Linearity <2% over the top 98% of channels; Integral Linearity <1% over the top 98% of channels; Presets live time, real time, total counts; Automatic peak finding; Software controlled lower level discriminator
- **Thyroid Uptake Stand Dimensions:** Closed Storage Position: 56" h x 28" w x 32" d (142 x 71 x 81 cm); Arm able to extend 36" (91 cm) horizontally beyond shelf; Vertical travel 25" to 63" (64 to 160 cm); Weight: Uptake System 340 lbs (154 kg); Weight with 1" Shielded Well: 410 lbs (186 kg); Weight with 2" Shielded Well: 540 lbs (245 kg)
- **Power:** Line Voltage; 120 VAC, 60 Hz, 2.6 AMP; 230 VAC, 50 Hz, 1.1 AMP; Isolation Transformer with hospital grade cord and plug

ITEM NUMBERS
Captus® 4000e Thyroid Uptake System......................................5430-30151
Captus® 4000e Thyroid Uptake System with Well....................5430-30152
Captus® 4000e Well Counting System 5430-30153
Captus® 4000e DICOM Interface 5430-00007

OPTIONAL ACCESSORIES
Well Detector (2" Shield)..5430-0069
Neck Phantom 5230-0038

AUTOMATED QUALITY ASSURANCE SOFTWARE

Provides rapid, automatic completion of daily and quarterly quality assurance protocols

INTUITIVE, USER-DEFINED THYROID UPTAKE PROTOCOLS

Designed to meet the most demanding counting protocols for capsules or liquid. Detailed patient demographics, isotope information and count data with an unlimited number of uptakes automatically stored. Results reported and compared with user-defined normals and 'flagged' when results are out-of-range in RED. Optional Dicom-compatible software allows the rapid acquisition of patient demographics from the site's HIS/RIS, interfaces with work stations and storage of the completed study in PACs.

VERSATILE MULTICHANNEL ANALYZER

The 1024 keV multichannel analyzer allows measurements of energies up to 2 meV. Adjustable ROI's for reproducible counting parameters.

CAPTUS® 4000e THYROID UPTAKE SYSTEM
REPORTS

AUTO CALIBRATION FOR WELL

Automated calibration tests include:

• high voltage

• zero offset

• automatic gain adjustments

• linearity correction

• constancy test
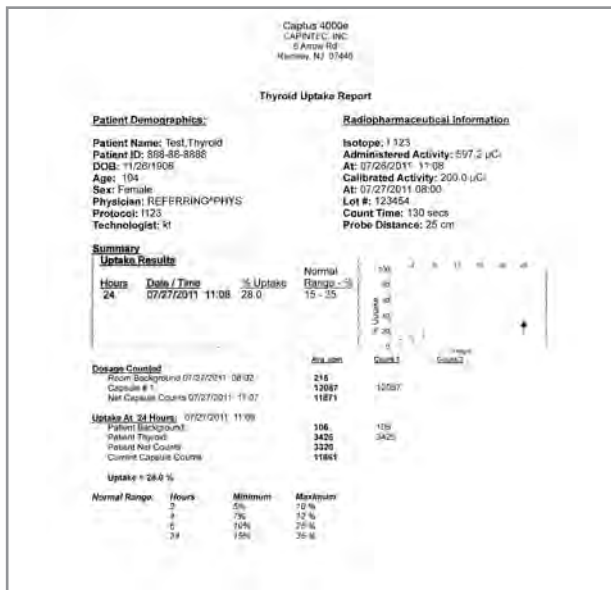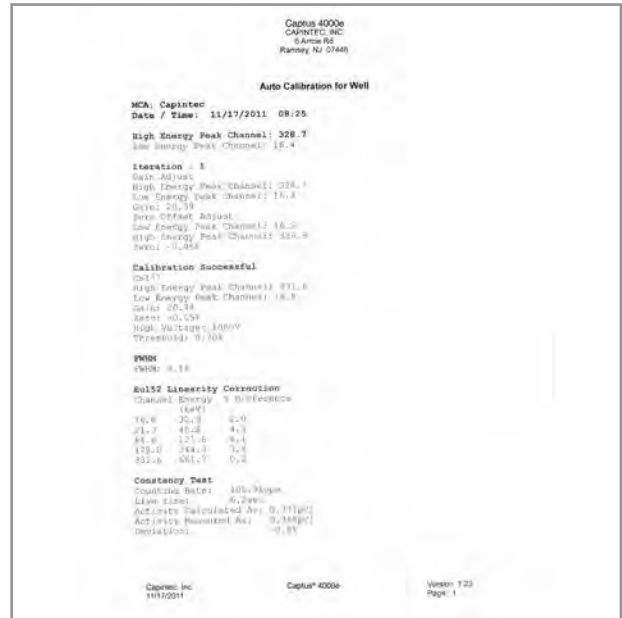
THYROID UPTAKE REPORT

Patient demographics, isotope data, count parameters and user normals clearly displayed for rapid evaluation and interpretation.

WIPE HISTORY

User-defined wipe locations and trigger levels. Pre-defined wipe groups for expedited wipe counts. 1024 channel MCA provides automatic peak and isotope identification. Flagged wipe data for any count that exceeds trigger level.

CAPTUS® THYROID UPTAKE SYSTEM
CUSTOM PROTOCOL

Capintec is very excited to introduce our new Custom Protocol Software for the Captus® 4000e. The Custom Protocol works in conjunction with your existing Captus® 4000e 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® 4000e Sample Custom Protocol

CAPTUS® 4000e
SYSTEM CONFIGURATIONS

The Captus 4000e 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, or a modified tabletop with probe or well.

CAPTUS-3000 Table Top Thyroid Uptake System 5430-0103
CAPTUS-3000 Table Top Thyroid Uptake System
& Well Detector.. 5430-0087

CAP-DICOM™
PACS COMPATIBILITY FOR THE CAPTUS® 4000e

With Cap-DICOM™, the Capintec Captus® 4000e gains the advantage of DICOM connectivity.

Cap-DICOM™ adds DICOM modality worklist and DICOM export to the Captus® 4000e. 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.

The fully integrated DICOM interface communicates directly with hospital information systems, and can transfer patient, wipe test, and QC data.

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

SPECIFICATIONS
• Integrates the Captus® 4000e 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
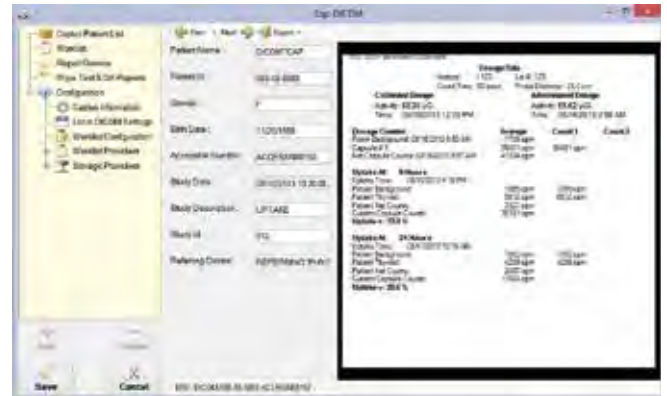
Report View
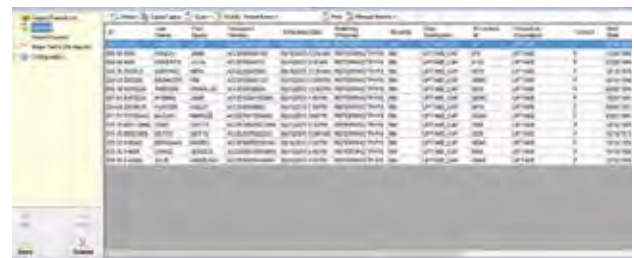
Worklist

• Improved physician efficiency in interpretation and clinical review of the combined thyroid uptake report and imaging procedure

Cap-DICOM™ Software.. 5450-0003

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Facebook
http://www.facebook.com/capintecinc/

CAPTUS® 700T
THYROID UPTAKE SYSTEM

- Touch Technology
  - 8 inch VGA LCD Color touch screen display
- Compact Design
- Comprehensive Software
  - User defined, HIPAA compliant counting protocols
    - Thyroid uptake
    - Wipe test
    - Bioassay
    - Multichannel analyzer
    - Laboratory procedures
      - Blood volume; Red Cell Survival; Schilling
- Streamlined Automated Quality Assurance
  - Calibration: includes FWHM, Linearity, Constancy
  - Chi-Square
  - MDA
- Unique 360° Balanced Articulating Arm and Collimator
  - Exclusive design allows for rapid patient positioning
  - Articulating arm accommodates any patient position from supine to upright.
- Isotope library
  - Over 70 pre-loaded and 10 user-defined isotope data including: half-life; keV(s); user-defined efficiencies
- Enhanced Data Capacity for High Volume Storage
  - Patient studies
  - Wipe tests
  - Quality assurance tests

SPECIFICATIONS
- **Display Screen**
  - Type: 8" VGA LCD Color Touch Screen Display
- **Two Detector Input 2" NaI (TI)**
  - Standard: Flat field collimated to meet ANSI N44.3-1973
  - Optional drilled well with 1" lead shielding (Optional 2" shield available)
  - Brass liner to absorb back scatter
- **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 70 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
- **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)

ITEM MEASUREMENTS
- **Thyroid Uptake Stand Dimensions**
  - Height: 60" (152.4 cm) x Width: 20.5" (52.07 cm) x Depth: 31" (78.7 cm)
  - Weight: 400 lbs (181.8 kg)
  - Weight w/optional standard well: 470 lbs (213.6 kg)
- **Console Dimensions**
  - Height: 9.5" (42 cm) x Width: 9" (23 cm) x Depth: 10.5" (27 cm)
  - Weight: 7.5 lb. (3.4 kg)

ITEM NUMBERS
CAPTUS 700t Thyroid Uptake System 5430-3137
CAPTUS 700t Thyroid Uptake System with Well 5430-3138
Optional 2 inch Shielded Well 5430-0069

OPTIONAL ACCESSORIES
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
Drilled Well Crystal 5430-0081

HOME SCREEN

Comprehensive software selection using touch-screen technology provides rapid access to counting protocols
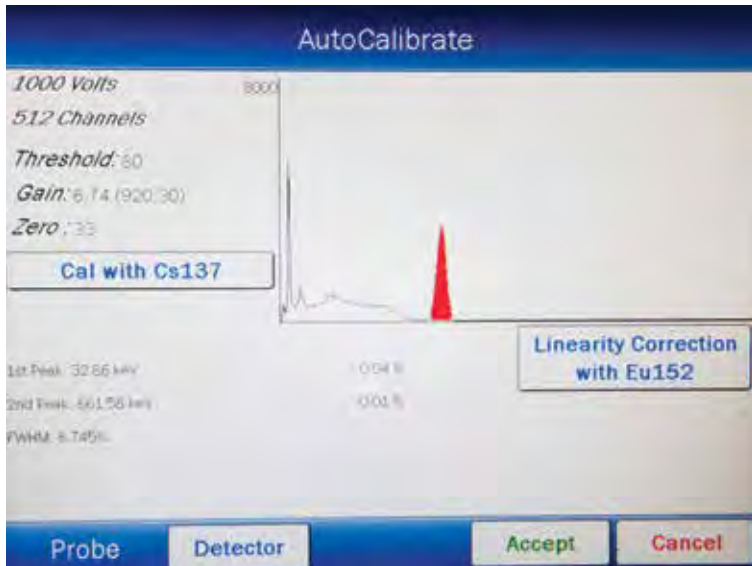
AUTOMATED QUALITY ASSURANCE

Quality assurance measurements including calibration, FWHM, linearity and constancy are rapidly completed and stored.

INTUITIVE, USER-DEFINED THYROID UPTAKE PROTOCOLS

User-defined counting protocols for I-123, I-131 or Tc-99m. Detailed patient demographics, isotope information and count data with an unlimited number of uptakes automatically stored. Results reported and compared with user-defined normals and 'flagged' when results are out-of-range.
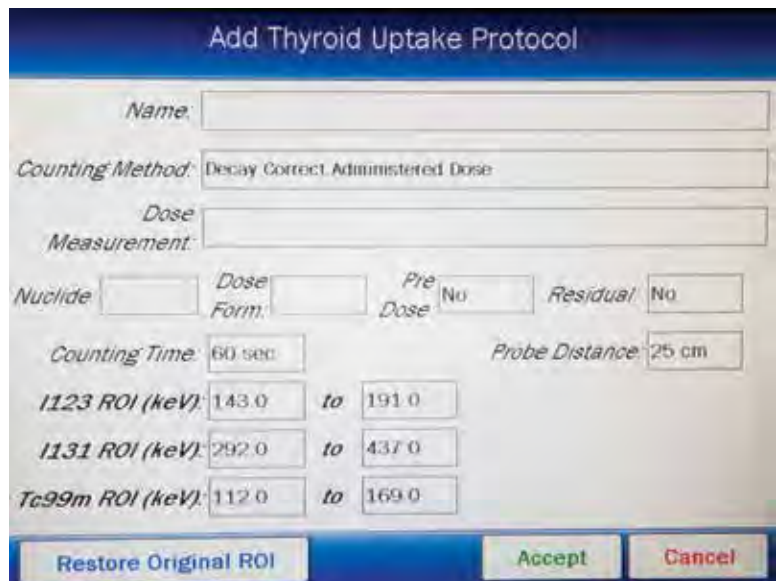
WELL DETECTORS

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

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

ROD SOURCE HOLDER

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

ITEM NUMBERS
Rod Source Holder.. 7315-1850

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.

ITEM NUMBERS
Pediatric/Bio-Assay Collimator 5420-3110

DRILLED
WELL CRYSTAL

Capintec offers a Drilled Crystal that is matched to fit the collimator for the CAPTUS 4000e 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

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

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.

ITEM MEASUREMENTS
- **Dimensions:** 23.875" h x 22.5" w x 22" d (60.6 x 57.1 x 55.8 cm)
- **Weight:** 250 lbs.
- 8" H x 8" W x 4" D (20.3 x 20.3 x 10.1 cm) 5.2 g/cc density lead glass window at a fixed angle to ease viewing.
- 2.375" (6 cm) Gapless lead shielding.

ITEM NUMBERS
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 5530-1028
12" H x 32" W x 24" D x 2" Thick (31 x 82 x 61 x 5 cm)
Painted Dose Drawing Station Brick Kit 5530-1031
12" H x 32" W x 24" D x 2" Thick (31 x 82 x 61 x 5 cm)
Unpainted Dose Drawing Station Brick Kit 5530-1033
12" H x 32" W x 24" D x 2.375" Thick (31 x 82 x 61 x 6 cm)
Painted Dose Drawing Station Brick Kit 5530-1034
12" H x 32" W x 24" D x 2.375" Thick (31 x 82 x 61 x 6 cm)

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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)

ITEM MEASUREMENTS
• **Dimensions:** 20 1/4" h x 14" w x 14" d (51 x 35.5 x 35.5 cm)
• **Lead Glass Density:** 8" x 8" x 4" (20.32 x 20.32 x 10.16cm) 5.2 g/cc
• **Weight:** 195 lbs. (89 kg)

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

OPTIONAL BRICK KITS FOR 511 "L" BLOCK
Unpainted Chevron Brick Kit 5530-1029
12" H x 28" W x 16" D x 2" thick (41 x 71 x 30 x 5 cm)
Painted Chevron Brick Kit 5530-1030
12" H x 28" W x 16" D x 2" thick (41 x 71 x 30 x 5 cm)
Unpainted Chevron Brick Kit 5530-1035
12" H x 28" W x 16" D x 2 3/8" thick (41 x 71 x 30 x 6 cm)
Painted Chevron Brick Kit 5530-1036
12" H x 28" W x 16" D x 2 3/8" thick (41 x 71 x 30 x 6 cm)

511 ADJUSTABLE "L" BLOCK
TABLE TOP SHIELD
Excellent radiation protection with exceptional flexibility
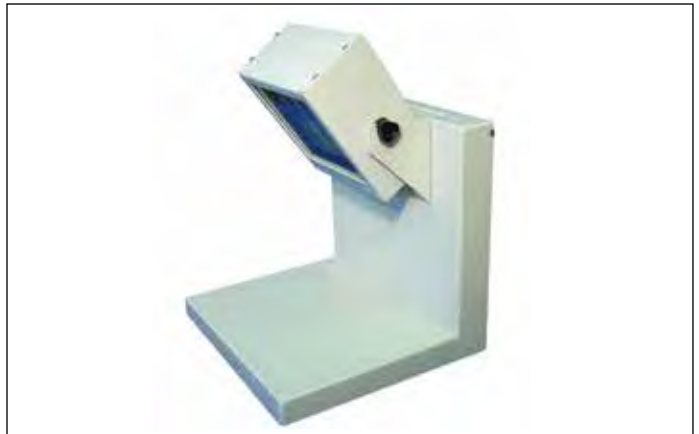
Capintec is very pleased to introduce our first Adjustable 511 L Block Table Top Shield. Designed to exceed the basic requirement of outstanding radiation protection it now also boasts the luxury of an adjustable lead glass window for greater work area flexibility. The front wall shields with 2 3/8" 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 as a stand-alone unit. 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.
• Adjustable window angle of 30-55 degrees with respect to vertical.

ITEM MEASUREMENTS
• **Lead Shielding:** 2 3/8" (6 cm)
• **Lead Glass:** 8" x 8" x 4" (20.32 x 20.32 x 10.16 cm) (5.2 density, 1.6" lead equivalence)
• **Dimensions:** 21" h x 15.75" w x 15.5" d (53.3 x 39 x 39.3 cm)
• **Weight:** 500 lbs. (227 kg)

ITEM NUMBERS
511 Adjustable "L" Block Shield.. 5530-2077

511 STAINLESS STEEL "L" SHIELD

This shield is designed for facilities that prepare and dispense high activity 131I therapy doses. The shield offers excellent protection from beta and gamma radiation and has a fully shielded floor. The lead glass is 3.5 inches thick to shield out the high energy gamma photons from this radionuclide.

ITEM MEASUREMENTS
- **Dimensions:** 17.64" h x 13.78" w 12.2" d (44.8 x 35 x 40 cm)
- **Lead Thickness:** 1.42" (3.6 cm)
- 11.61" w x 8.98" h (29.5 x 22.8 cm) x 2.68Tk 4.7 g/cm^3 density lead glass.
- **Weight:** 227 lbs. (102.9 kg)

ITEM NUMBERS
511 Stainless Steel "L" Block..0550-0003

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

ITEM DIMENSIONS
- **Viewing Port:**
  - 8" x 8" x 4" (20.3 x 20.3 x 10 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
  - 24.5" H x 16.5" 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:** 63" (160 cm) (including window)
  - **Weight:** 500 lbs. (227 kg)

ITEM NUMBERS
PET Mobile Shield...5530-3042

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

ITEM MEASUREMENTS
- **Dimensions:** 12" h x 15" w x 15" d (30 x 38 x 38 cm)
- **Weight:** 27 lbs. (12 kg) (without tungsten syringe shields)

ITEM NUMBERS
PET Transport Case 5530-0069

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" (25.4 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 25.4 mm lead shielding 44.5 lead equivalent on all sides
- Bail handle fastens down to secure the top
- Holds up to a 30cc vial

ITEM MEASUREMENTS
- **Dimensions:** 9.5" h x 4.5" d (16 x 11 cm)
- **Weight:** 22 lbs. (10 kg)

ITEM NUMBERS
Rotund Container 0670-0010

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

ITEM MEASUREMENTS
- **Dimensions:** 3.375" h x 12.625" w x 9.375" d (8.5 x 32 x 23.8 cm)
- **Weight:** 25 lbs. (11 kg)

ITEM NUMBERS
Transport Cart 0652-0029

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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

ITEM MEASUREMENTS
- **Dimensions:** 6.5" h x 5" d (16.5 x 13 cm)

ITEM NUMBERS
PET Rotund Container 5730-2041

3 PIECE TUNGSTEN
SYRINGE SHIELD

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

ITEM MEASUREMENTS
- **Dimensions:** 9" h x 2.5" w (23 x 6 cm)
- **Wall Thickness:** 1" (2.5 cm)
- **Weight, per Shield:** 27 lbs. (2.5 cm)
- **Total weight of 3 tungsten syringe shields and transporter:** 108 lbs. (49 kg)

ITEM NUMBERS
Tungsten Syringe Shield 5530-2040

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.

ITEM MEASUREMENTS
• **Dimensions:** 19" h x 11.375" od (48 x 29 cm)
• **Weight:** 518 lbs. (236 kg)

ITEM NUMBERS
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.

ITEM DIMENSIONS
• 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.

ITEM NUMBERS
Positron Shield Stand 5126-2001

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.

ITEM MEASUREMENTS
• **Dimensions:** 4.7" h x 3.1" d (12 x 8 cm)
• **Weight:** 16 lbs. (7 kg)

ITEM NUMBERS
Universal T-Vial 5530-2014

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
• Use with Monoject Sharps Container

ITEM MEASUREMENTS
• **Dimensions:** 13.5625" h x 10.625" od x 6.125 id (34.4 x 27 x 15.6 cm)
• **Weight:** 160 lbs. (72.6 kg)
• **Lead Lining:** 1" (2.5 cm)

ITEM NUMBERS
PET Sharps Container 5730-2271

511 C-TEC™
SYRINGE SHIELD
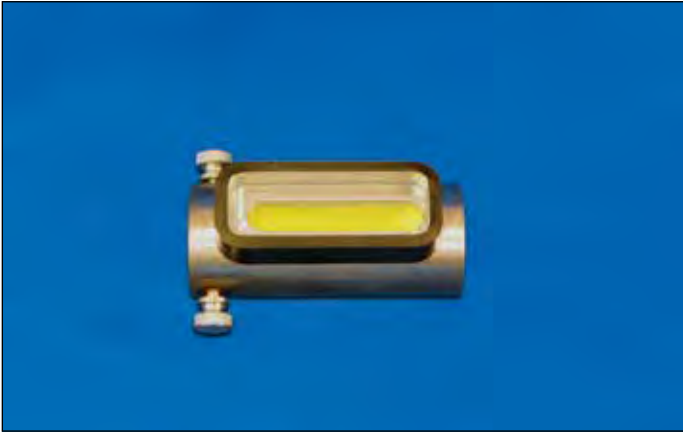
This special Syringe Shield is manufactured to provide shielding for 511 keV nuclides. The 511 Syringe Shield is made of Tungsten with a 0.5" (12.7 mm) lead equivalency. It has a viewing area of 0.75" (19 mm) thick lead glass surrounded by a rubber grommet to prevent damage to the glass. Fluorescent 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.

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

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.

ITEM NUMBERS
PIG-30 Vial Shield..........5730-2030
8" H x 6.4" Dia. (20 x 16 cm); 109 lb. (49.4 kg)
PIG-50 Vial Shield..........5730-2027
9.75" H x 6.75" Dia. (25 x 17 cm); 148 lb. (67.1 kg)

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. The syringe shield has a Tungsten thickness of .315".

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

SYRINGE
SECURITY HOLDER

ITEM NUMBERS
Syringe Security Holder...5530-2007

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
  - 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 or total exhaust choice
  - 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
  - Two 8 inch diameter glove ports
  - 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 in. of 4.8 g/cm3 leaded glass, 25 in. wide x 7 1/2 in. height
  - 1/8 in. lead shielding on base, back and sides (optional 1/4 in.)
  - 1/8 in. lead shielding on hinged front panel excluding glove ports and viewing window
  - 1/4 in. lead body shield in center of front panel
  - Base penetrations are sized for sharps container and flush mount dose calibrator chamber
  - 1/8 in. lead shielding for sharps container (Optional 1/4 in.)
  - Articulating arm for calibrator readout mounted on base
  - Exterior steel cosmetic panels painted epoxy enamel
  - Heavy duty base support-adjustable height with 10 in. range
  - Height adjustment to center of glove port-42 1/2 in. to 52 1/2 in.
- **Electrical/Control Panel**
  - 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 ft. Hospital Grade Power Cord
  - Exhaust rate 65 CFM (110CMH) @ 0.1in. w.g. (external exhaust option only)
- **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

ITEM MEASUREMENTS
- **Overall Dimensions:** 51.5" w x 31" d x 80.5"- 90.5" h (130.8 x 78.7 x 204.4 - 229.9 cm) , depending upon adjustable base setting
- **Workzone Dimensions:** Main Cell 35.25" w x 23.25" d x 27.375" h (89.5 x 59 x 69.5 cm)
- **Interchange Chamber Dimensions:** 14.125" w x 24" d x 27.375" h (35.8 x 60.9 x 69.5 cm)
- **Interior sliding door:** 18" w x 8.5" h (45.7 x 21.6 cm)
- **Weight:** 1/8" 1,200 lbs. (.3175 cm 544 kg), 1/4" option 1,600 lbs. (.635 cm 725.7 kg)

ITEM NUMBERS
CAP-Cell® with 1/8" lead 5530-3140
CAP-Cell® with 1/4" lead 5530-3141

OPTIONAL ACCESSORIES
CRC®-25R Dose Calibrator 5130-3215
2 Gallon Chemotherapy Sharps Containers 0660-0022
Nitrile Rubber Gloves (25 Pair): Small 5500-0006
Nitrile Rubber Gloves (25 Pair): Medium 5500-0007
Nitrile Rubber Gloves (25 Pair): Large 5500-0008
Nitrile Rubber Gloves (25 Pair): X-Large 5500-0009
Nitrile Rubber Sleeves 5500-0004
Glove Port Clamps 5500-0003
CRC®-55tR Dose Calibrator 5130-3234

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

ITEM NUMBERS
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 swith 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

ITEM NUMBERS
Laminar Flow Hood 4 ft.. 5730-0024

CUSTOM
WORK STATIONS

8"x 8" x 4" (20.3 x 20.3 x 10.1 cm) lead glass window with 2" lead shielding on all sides. Dose Calibrator Chamber, shielded waste container 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

- 2" lead shielding in brick kit
- Lead glass view windows
- Variable exterior dimensions
- Optional removable stainless steel tray for work areas
- Compartment for shielded waste and storage
- Heavy gauge steel hinges for durability
- Heavy duty locks for security
- Optional shielding for base
- Soft white, textured polyurethane enamel finish (optional colors available)

RESEARCH
HOT CELLS

Precisely engineered and constructed for continuous dependable protection and reliable everyday laboratory use. These cells come standard with shielding for the ionization chamber and utility connections.

FEATURES
- Precision engineered and designed with your needs in mind
- Manufactured using the highest quality materials
- All utilities, penetrations, dimensions and ancillary shielding can be custom designed to meet your facility's requirements
- Shielding on all sides (360°)
- Available in 50mm, 60mm or 75mm shielding
- Hinged, sliding or vertical door options
- Custom configurations available
- Large workspace areas
- High intensity illumination
- Seamless welded stainless steel interior

Please call 201-825-9500 for more information.

DISPENSING
HOT CELLS

Designed for aseptic dispensing of radiopharmaceuticals. The internal unidirectional laminar flow provides cGMP Class A air quality for the entire working area.

FEATURES
- Complies to FDA cGMP guidelines and USP 797
- Conforms to CETA testing guidelines
- Air tight seal with vertical unidirectional air flow
- Class 100 [ISO level 5] with 99.9% HEPA filter
- Negative Pressure
- Available in 50mm, 60mm or 75mm shielding
- Prechamber can be located on either right or left side
- Pneumatically operated shielded prechamber door
- Full exhaust or partial recirculating air available
- Testing, validation and certification provided
- Available with hinged or vertical door

Please call 201-825-9500 for more information.

Optility™

NUCLEAR MEDICINE MANAGEMENT SOFTWARE

ADVANTAGES OF OPTILITY™

- HL-7 Interface
- Bring your data with you
- Computer Based Training
- Your Data is Secure
- Bar Coded Inventory and Dose Calibrator Interface
- Highly Customizable
- Built-In Analytical Capabilities allow you to quickly view, print, or export data
- Create Standard Operating Procedures
- Easy Upgrades
- Provide Health Physics Services
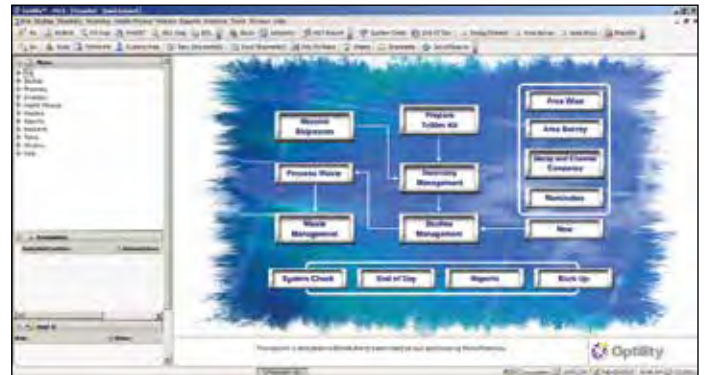
Turn to Page 22 for More Information

PRODUCTION
HOT CELLS

Designed for manufacturing of radioisotopes and precisely engineered and constructed for continuous dependable protection and reliable use. Different configurations of external dimensions, shielding and utilities available. Developed for production purposes and/or to house various radiochemistry modules. Available with turbulent flow ventilation and continuous negative pressure.

FEATURES:

- Sealed units available
- Available in 50mm, 60mm or 75mm shielding
- Dual configuration synthesis cells with "over/under" or side by side design
- Large working space permits use with all current automated synthesis modules
- Optional waste chute and storage available
- Modular design
- Optional viewing windows available
- Shielding on all sides
- Stainless steel lined on all sides and doors
- Custom configurations available

Please call 201-825-9500 for more information.

CUSTOMIZABLE
LEAD-LINED CABINETRY
Customizable Configuration to Fit Your Facility's Unique Workspace Needs

Capintec has developed a new shielded cabinetry line with two sizes to optimally fit within the space constraints of your laboratory. The stainless steel internal configuration is customizable to streamline workflow for improved efficiency.

First select the preferred size cabinet exterior, and then customize the inside in any combination of modular inserts: drawer sets, flood and phantom inserts, or shelves.

Finally, select either stainless steel or powder-coated cabinet finish, with either a stainless steel or medical grade Corian countertop.

FEATURES:
- Cabinets available in two sizes
    - 22" wide x 24" deep x 40" high
    - 30" wide x 24" deep x 40" high
- Larger custom widths available
- Lead shielding available in ¼, ½ or 1 inch (0.63, 1.3, or 2.5 cm)
- Doors can be hinged on right or left side
- Three types of modular inserts currently available:
    - 4 Drawer Set- Optional additional lead shielding
    - Adjustable Vertical Dividers for floods and phantoms
    - Adjustable Height Horizontal Shelves- 1 to 8
- Custom inserts available by request
- All inserts are fabricated from stainless steel
- Lead shielding is fully encased in your choice of stainless steel or powder-coated steel
- Countertops available in stainless steel or medical grade Corian with drip-edge and 4" high back-splash
- Contiguous countertop option for multiple units
- Each drawer or shelf can support up to 80 lbs.
- Sink and Refrigerator also available

Example of a 30 inch cabinet in stainless steel finish with a Corian countertop, one 4-drawer module and two shelves

MODULAR INSERTS:

Drawer Module
Available with or without individually shielded fronts- Select up to three (depending on cabinet width) for each cabinet
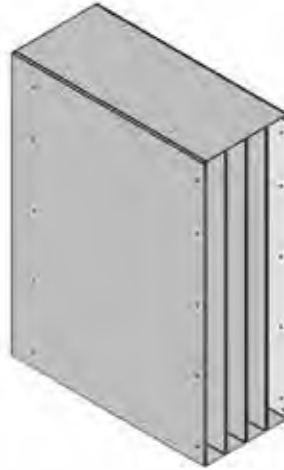
Flood Phantom Module
Vertical dividers allow for easy storage of up to four flood phantoms- Select up to three modules (depending on cabinet width) for each cabinet (up to 12 Phantoms)
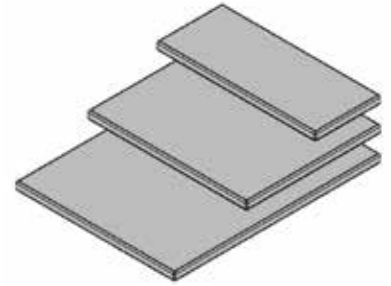
Shelves
Adjustable height shelves- Available in three different widths (dependent on selection of other modules)- Select up to eight per cabinet

EXAMPLE CABINET CONFIGURATIONS:
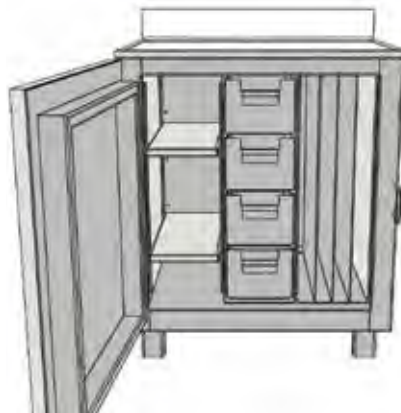
SHIELDED
REFRIGERATOR

Shielded Laboratory Grade Refrigerator
Ideal for Radiopharmaceuticals and
Temperature Sensitive Radioactive Materials

CABINET FEATURES

• Fully shielded and vented cabinet style enclosure provides maximum personnel radiation protection
• Easy access for refrigerator replacement. No need to replace your entire cabinet!
• Available in 1/8 " (3 mm), 1/4" (6 mm), or 1/2" (13 mm) lead shielding
• Includes key lock

REFRIGERATOR FEATURES

• Exterior mounted control with temperature display Temperature range of 1° to 7° C
• Audible and visual alarms for temperature conditions outside expected range, or door ajar
• Three adjustable shelves to maximize storage
• Finish: White (powder coated) or Stainless Steel
• Oversized fan motor maintains critical temperatures. Assure quick recovery times
• Refrigerator is UL and cUL listed

ITEM DIMENSIONS

• **Overall:** 44.3" h x 31" d x 30.3" w (112.5 x 78.7 x 76.8 cm)
• **Weight:** 1/8" lead: 1,000 lbs (454 kg); 1/4" lead: 1,300 lbs (589 kg); 1/2" lead: 1,900 lbs (862 kg)
• **Capacity:** 5.6 cu. ft. (159 liters)
• **Power Specifications:** 115 VAC, 60 Hz or 230 V, 50 Hz, 3.3 amps

ITEM NUMBERS

Leaded Refrigerator, White- 1/8" Lead......................................5530-30181
Leaded Refrigerator, White- 1/4" Lead......................................5530-30180
Leaded Refrigerator, White- 1/2" Lead......................................5530-30184
Leaded Refrigerator, Stainless Steel- 1/8" Lead........................5530-30182
Leaded Refrigerator, Stainless Steel- 1/4" Lead........................5530-30183
Leaded Refrigerator, Stainless Steel- 1/2" Lead........................5530-30185

LEAD-LINED
PET UNIT DOSE CABINET

FEATURES

• 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

ITEM DIMENSIONS
• **Overall:** 40" h x 36.5" w x 24.75" l (101.6 x 92.9 x 62.9 cm)
• **Internal:** 2 sections, each 23" h x 13" w x 20" l (58 x 33 x 51 cm)
• **Weight:** PET Unit Dose 3500 lbs. (1588 kg), Custom Brick Kit 750 lbs. (340 kg), Modified 1" lead 511 L block 195 lbs. (88 kg)

ITEM NUMBERS
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
Unit 1" Lead Stainless Steel Finish 5530-3170

AREAEXPERT
DIGITAL AREA RADIATION MONITOR

FEATURES
- Touch screen LCD
- Colorful visual and audio indications
- Network compatible with CenterExpert software
- PC controllable
- Easily configured
- Battery backup

SPECIFICATIONS
- **Detector Type:** Energy Compensated GM
- **Display Type:** Color LCD Touch Screen, Block LED indicator during operation
- **Units:** Improved counting system in units µR/hr-R/hr, µSv/hr
- **Sensitivity:** Depends on detector type: 0.013 mR/hr to 1000 mR/hr with 71210 detector
- **Response Time:** 1 to 3 s for the 90% of the actual value
- **Alarm:** Programmable alarm levels
- **Safe Area (Green LED):** Indicates the effective area is safe
- **Low Alarm (Yellow LED):** Indicates the low alarm in the effective area
- **High Alarm (Red LED):** Indicates the high alarm in the effective area
- **Battery Life:** 2 hours in no alarm conditions
- **Battery Indicator:** Low battery indicator on blinking Green LED
- **Battery Charger:** Trickle charging system and battery over discharge protection increases battery life
- **Calibration:** Calibration via touch screen or remotely from a PC
- **Remote Management:** PC remote management
- **Monitoring:** Remote PC monitoring
- **Data Output:** Ethernet, USB
- **High Voltage:** 550 VDC
- **Power:** 85-265 VAC 50-60 Hz, Battery powered up to 2 hr with no alarm conditions
- **External Device Switch:** Switching ON/OFF of external device on alarm condition
- **Working Environment:** 0 to + 60C, 0 to 90%RH
- **Mount:** Wall mount type

$\mathsf{C}\mathsf{E}$ 0413 ETL

ITEM MEASUREMENTS
- **Dimensions:** 8.31" h x 6.63" w x 3.27" d (211.2 x 168.5 x 83 mm)
- **Weight:** 3.75 lbs. (1.7 kg)

ITEM NUMBERS
AreaExpert 5250-0162

CENTEREXPERT SOFTWARE FEATURES
- Remotely displays AreaExpert's real-time readings and alarm status
- Simultaneously configures individual or groups of AreaExperts
- Automatically adds new AreaExperts via network scan
- Compatible with Windows, Mac and Linux

CENTEREXPERT SOFTWARE SPECIFICATIONS
- Displays real-time information from AreaExpert
  - Activity readings
  - Alarm status
  - Cumulative alarm status
- Data Connection: Ethernet
- Software platform: Java
- Units: mR/hr; uSv/hr

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

DETECTOR ITEM NUMBERS
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

HotPot
Shielded Dry Heating Block

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

ITEM NUMBERS

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

Captus® 4000e Thyroid Uptake System

Fully integrated
DICOM Interface

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:** 3,500 cpm/mR/h (based on Cs137).
- **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
- **Optional:** Lighted LCD Display.

CE

ITEM MEASUREMENTS
- **Dimensions:** 3" w x 5.25" l x 2.25" h. Excluding knobs and handle. (7.6 cm x 13.3 cm x 6 cm)
- **Weight:** 22 oz. (625 g)

ITEM NUMBERS
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.

ITEM NUMBERS
Pancake Probe 5250-0130

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.

SPECIFICATIONS
- **Detector:** Halogen-quenched GM tube, energy compensated sidewall 2mm thin filter. Thin mica window 1.5-2.0 mg/cm2 thick. Effective diameter of window is 9.1 mm (.36 in.).
- **Operating Range:** 0-.5, 0-5, 0-50 mR/hr 0-500, 0-5,000, 0-50,000 CPM or 0-5, 0-50, 0-500 µSv/hr (SI Scale Meter Option)
- **Energy Sensitivity:** 1000 CPM/mR/hr (Cs137). M4EC is the same as M4 except the energy response for gamma and x-rays 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. Detects beta at 50 keV with typical 35% detection efficiency and beta at 150 keV with typical 75% detection efficiency.
- **Accuracy:** Typically ±15% of reading (Cs137)
- **Range Switch:** X1, X10, X100, Battery Check. Meter Face Options
- **Display:** Analog Meter holds full scale in fields as high as 100X maximum reading. CPM & mR/hr scale. Optional SI Scale Meter Available
- **Audio Indicator:** Internally mounted beeper (can be turned off for silent operation).
- **Power Requirements:** 9-volt alkaline battery. Approx. 2,000 hrs. at normal background
- **Temperature Range:** -20° to 55°C (-4° to 131°F)
- **Outputs:** 3.5 mm jack with pulse out.
- **Includes:** Carrying Case w/ Belt Clip
- **Options:** SI Meter Option, Observer Software, Mini-USB Option w/ USB Observer Software
- **Limited Warranty:** 1 year limited warranty
- **Monitor 4 Kits:** Build your own Monitor 4! Learn about how a geiger counter works!

ITEM MEASUREMENTS
- **Weight of the Monitor 4EC:** 7.9 oz (224 grams) without battery
- **Dimensions:** 8.2" x 2.8" x 1.9" (209 x 71 x 50 mm)

ITEM NUMBERS
Monitor 4EC Survey Meter 5250-0046
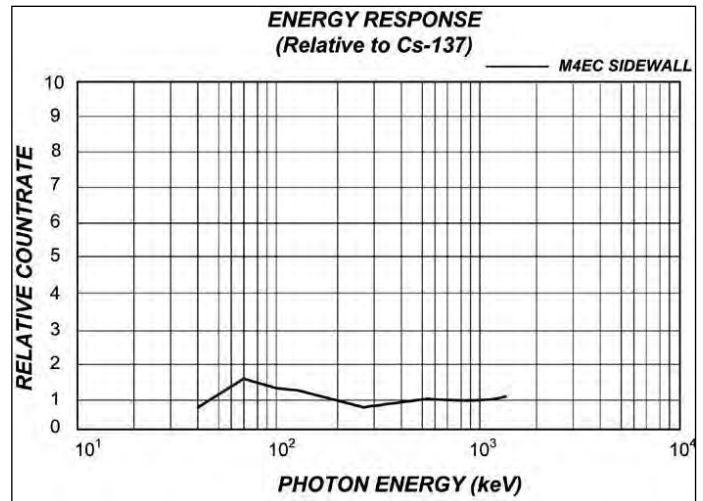
Monitor 4EC: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6 MeV is greater than 80%. Detects gamma and x-rays down to 10 keV typical through the window (non-compensated), 40 keV through the sidewall.

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

SPECIFICATIONS

ITEM NUMBERS
Inspector Deluxe Radiation Monitor 5250-0047

ION CHAMBER
AREA MONITOR

APPLICATION:

For use in and around nuclear reactors, hot cells, irradiators, and other facilities handling radioactive materials or x-ray equipment.

DESCRIPTION:

TA's FM-9W Area Monitor Series are rugged and ideal for either laboratory or industrial application. AC Operation.

These versatile radiation control instruments fill a varied list of applications and placement needs.

The FM-9W Area Monitor Series utilize a variety of probes including Technical Associates P & S series, Geiger, and Scintillation. The many choices in probes provide instrumentation will fit your need. User settable to preferred engineering units: mR/h; Sv/h, cpm, etc.

FEATURES
- Single or multi-detector system
- Single read out serves multiple detectors
- Detects beta, gamma, X-Ray- Optional Neutrons
- Plug in modular system
- Built in data logger
- Wall mount case
- Highly sensitive
- Local or remote monitoring
- User settable A / V alarm
- USB & Ethernet ports
- Relay control can lock doors, trigger a siren or send alert

SPECIFICATIONS
- Range Sensitivity: Beta 0.1 – 10,000 mR/h; 5 Decades is Standard,; Other ranges available up to 5 Decades; Down to 0.15 MeV; Energy independent (±25%) 0.4 KeV to 7 MeV. Gamma 0.1 – 10,000 mR/h; Down to 2 KeV;Energy independent (±15%) 4 KeV to 6 MeV.
- Operating range between -30°C and 65°C; drift less than -0.4% per°C at room temperature. 0-
- 95% humidity non-condensing.
- 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 2 liters.
- 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).

ELECTRONICS SPECIFICATIONS
- Engineering Units: User can input correct conversion factor and change to any units.
- Controls: Front Panel: On-Off, Alarm-mute, Rate, Integrate, Reset.
- Recessed or Internal: Discriminator level, high voltage. Other adjustable settings: See calibration.
- Input Sensitivity: Adjustable from less than 1 millivolt to 100 millivolt
- Anti-saturation and Dead-time Corrections are available.
- Alarm: 2000 Hz audio tone with audio "mute" switch + RED LIGHT
- High current relay. 0-100% of full scale.
- Alarm Set Point: User settable to any point on detector range.
- Serial Output: Two way USB standard, Ethernet optional.
- Power: 105-125 volts, 50-60 Hz (220 V optional)
- Construction: Gasketed aluminum case.

DETECTOR SPECIFICATIONS
- Probe Holder: Probe Holder is provided for probe purchased.
- Any GM (such as P-13, P-15, P-6LB, etc.) or
- Alpha, Beta, Gamma or Neutron Scintillator (such as PAS-8, PAS-9, PGS-3, PNS-19, etc.).

CE

ITEM MEASUREMENTS
- **Dimensions:**13.5 w x 11" h x 3.6" d (25 x 18 x 10 cm), exluding probe holder, feet, and knobs
- **Weight:** 3 lbs. (1.4 kg), including batteries and hardware, excluding probe

Ion Chamber Area Monitor...5250-0149

Need a manual?

http://www.capintec.com/support/manuals/

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.
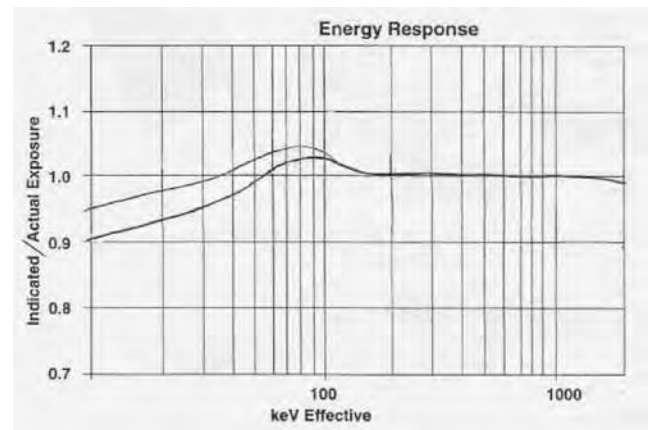
- Electronics: A-D converter LCD drivers.
- Batteries: 10 ea. (Button) NEDA CR-1220 - shelf life 7 years.
- 6 ea. (AA) NEDA 15A - 1000hr.
- Dimensions: 5-1/2" x 3-1/2" x 8" including handle.
- Weight: 26 oz. complete with batteries.
- Options: Readout in Si units: Sv and Sv/h.

$C \epsilon$

Hi Range Survey Meter.. 5250-0141

WIDE RANGE BETA-GAMMA GM
AREA MONITOR

APPLICATION:

For use in and around nuclear reactors, hot cells, irradiators, and other facilities handling radioactive materials or x-ray equipment.

DESCRIPTION:

TA's FM-9W Area Monitor Series are rugged and ideal for either laboratory or industrial application. AC Operation.

These versatile radiation control instruments fill a varied list of applications and placement needs.

The FM-9W Area Monitor Series utilize a variety of probes including Technical Associates P & S series, Geiger, and Scintillation. The many choices in probes provide instrumentation will fit your need. User settable to preferred engineering units: mR/h; Sv/h, cpm, etc.

FEATURES
- Single or multi-detector system
- Single read out serves multiple detectors
- Detects beta, gamma, X-Ray- Optional Neutrons
- Plug in modular system
- Built in data logger
- Wall mount case
- Highly sensitive
- Local or remote monitoring
- User settable A / V alarm
- USB & Ethernet ports
- Relay control can lock doors, trigger a siren or send alert

ELECTRONICS SPECIFICATIONS
- Engineering Units: User can input correct conversion factor and change to any units.
- Controls: Front Panel: On-Off, Alarm-mute, Rate, Integrate, Reset.
- Recessed or Internal: Discriminator level, high voltage. Other adjustable settings: See calibration.
- Input Sensitivity: Adjustable from less than 1 millivolt to 100 millivolt
- Anti-saturation and Dead-time Corrections are available.

- Alarm: 2000 Hz audio tone with audio "mute" switch + RED LIGHT
- High current relay. 0-100% of full scale.
- Alarm Set Point: User settable to any point on detector range.
- Serial Output: Two way USB standard, Ethernet optional.
- Power: 105-125 volts, 50-60 Hz (220 V optional)
- Construction: Gasketed aluminum case.

DETECTOR SPECIFICATIONS
- Probe Holder: Probe Holder is provided for probe purchased.
- Any GM (such as P-13, P-15, P-6LB, etc.) or
- Alpha, Beta, Gamma or Neutron Scintillator (such as PAS-8, PAS-9, PGS-3, PNS-19, etc.).

$C \in$

ITEM MEASUREMENTS
- 13.5" W X 11" H X 3.6" D (25 cm x 18 cm x 10cm), excluding probe holder, feet, and knobs.
- 3 pounds (1.4 kg) including batteries and hardware, excluding probe.

ITEM NUMBERS
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- sold separately under item 5250-0130
• 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)
• **Calibration:** Single master calibration pot as well as programable calibration factor.
• **Power:** 6 "AA" cells.
• **Battery Life:** 100 hours in normal operation (Longer with Li or NiMH Battery).

CE

ITEM MEASUREMENTS
• **Dimensions:** 3" w x 5.25" l x 2.25" d (7.6 x 13.3 x 6 cm) (excluding probe, meter, and handle).
• **Weight:** Electronics only: 22 oz. (625 g); Total weight including separable pancake probe (sold separately) 34oz. (0.97 kg)

ITEM NUMBERS
Digital Frisker- Only includes Digital Frisker Meter...................5250-0140
Pancake Probe...5250-0130

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.
• **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.

ITEM MEASUREMENTS
• **Dimensions:** 3" x 5.25" x 2.25" (7.6 x 13.3 x 5.7 cm) excluding handle and probe holder.
• **Weight:** 1.75 lbs.; 28 oz. (800g); Shipping Weight: 3 lbs. (1350g)

CE

ITEM NUMBERS
Wide Range Frisker...5250-0129

CAPINTEC, INC.

EUROPROBE3

The EuroProbe3 meets the demanding specifications of radioguided surgical procedures to identify increased radionuclide uptake in a variety of clinical and surgical settings.

Multiple detector options, size and configurations have been designed to meet specific surgical requirements and assure the versatility to perform optimal radioguided surgical procedures.

- Wireless
  - Blue Tooth probe:
    - 100 keV to 1 MeV (Tc-99m, In-111, I-131, F-18)
    - Collimator integrated in probe for low energy isotopes
    - Detector crystal: CsI
- Wired
  - Large CsI probe:
    - 110keV to 1 MeV

- Straight or angled probes
- High sensitivity straight or angled probes available
- Small CdTe probe:
  - 20 keV to 170 keV
  - Straight, angled, ROLL or endoscopic probes
  - Excellent spatial resolution

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

CE

ITEM MEASUREMENTS
- **Dimensions:** 9.6" h x 9.1" w x 10.6" d (245 x 233 x 270 mm)
- **Weight:** 4.4 lbs. (2 kg)

ITEM NUMBERS
EuroProbe3 Surgical Probe System..5250-0111
includes CsI & CdTe (bent probes)
EuroProbe3 with Bluetooth Probe System....................................5250-0152
includes CsI (bent wireless probe)

ADDITIONAL PROBES
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

OPTIONAL ACCESSORIES
Source Holder..5250-0122
Co-57 0.370 MBq -(10uCi) Rod..0975-137T
511 Collimator, CsI 5250-0125
Collimator, CdTe...5250-0112
Collimator, CsI 5250-0113
EuroProbe3 Surgical Probe, CdTe, Bent.......................................5250-0116
EuroProbe3 Bluetooth 511 Collimator 5250-0153
Surgical Probe Sheath 5250-0094
EuroProbe3 Source Holder..5230-2124
EuroProbe3 footswitch, standard 2m cable 5250-0115
EuroProbe3 footswitch, 5m cable...5250-0172

EUROPROBE3
OPTIONAL COMPONENTS

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 LOW ENERGY PROBE SPECIFICATIONS
- **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 HIGHER ENERGY PROBE SPECIFICATIONS
- **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 (245 keV):** > 70%
- **Detector Efficiency for I-131 (364 keV):** > 45%
- **Storage Temperature:** +1°C to +50°C
- **Operating Temperature Range:** +15°C to +50°C
- **Final Size of the Probe:** Length = 7.2" (184mm), detection head diameter = .6" (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
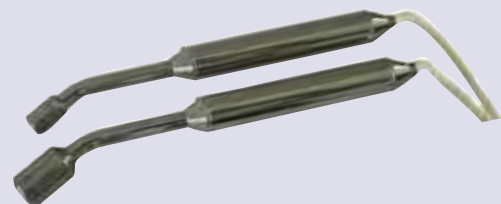
ANTHROPOMORPHIC PHANTOMS FOR NUCLEAR MEDICINE
Radiation Equivalent And Anatomically Correct Realistic Test Subjects

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.

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.

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

ITEM NUMBERS
Heart/Thorax Phantom 5220-RS800T

Heart/Thorax Phantom

Disassembled Phantom

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.

ITEM NUMBERS
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.

ITEM NUMBERS
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 (Liver only)	5220-RS519S (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...0695-0001
Opaque Whole Body Phantom.. 0695-0002

CAPINTEC, INC.

HOLLOW SPHERE SETS (6)™

APPLICATIONS
- Designed for use in all circular and elliptical ECT cylinders
- Simulates hot or cold spherical "lesions"
- Quantitative evaluation of spatial resolution/object size, attenuation and scatter effects
- Evaluation of quantitative ECT reconstruction methods
- Research

ITEM MEASUREMENTS
- **Outer diameter:** ~ 11.89 mm, ~ 14.43 mm, ~ 17.69 mm, ~ 21.79 mm, ~ 26.82 mm, ~ 33.27 mm
- **Volume of Spheres:** ~ 0.5 mL, ~ 1.0 mL, ~ 2.0 mL, ~ 4.0 mL, ~ 8.0 mL, and ~16.0 mL

ITEM NUMBER
Hollow Sphere Sets (6)™.. 5250-0160

HOLLOW SPHERE OUTER DIAMETERS (OD) AND VOLUMES (APPROX.)

OD (mm)	ID (mm)	OD (cm)	OD (inches)	Measured volume (mL)
11.89	9.89	1.2	.468	0.5 mL
14.43	12.43	1.4	.568	1.0 mL
17.69	15.43	1.8	.696	2.0 mL
21.79	19.79	2.2	.858	4.0 mL
26.82	24.82	2.7	1.056	8.0 mL
33.27	31.27	3.3	1.310	16.0 mL

NEMA IEC
PET BODY PHANTOM SET™

FEATURES
- The NEMA IEC Body Phantom Set™ consists of a body phantom, a lung insert and an insert with six spheres with various sizes
- It is designed in accordance with the recommendations by the International
- Electrotechnical Commission (IEC) and modified by the National Electrical manufacturers Association (NEMA)
- It is recommended for use in the evaluation of reconstructed image quality in whole body PET imaging

APPLICATIONS
- Simulation of whole-body imaging especially using PET and camera-based coincidence imaging techniques
- Evaluation of reconstructed image quality in wholebody PET and camera-based coincidence imaging
- Determination of the coincidence count rate characteristics in brain and cardiac imaging
- Evaluation of the relationship between true coincidence count rate and radioactivity
- Determination of the address errors caused by address pile up
- Evaluation of the count loss correction scheme
- Research

ITEM MEASUREMENTS
- **Interior length of phantom:** 180 mm
- **Fillable spheres (6) inner diameter:** 10 mm, 13 mm, 17 mm, 22 mm, 28 mm, and 37 mm.
- **Distance from sphere plane to inside wall:** 70 mm
- **Volume of empty cylinder:** 9.7 liters
- **Cylindrical insert dimension:**
  - **Outside diameter:** 51 mm
  - **Length:** 180 mm
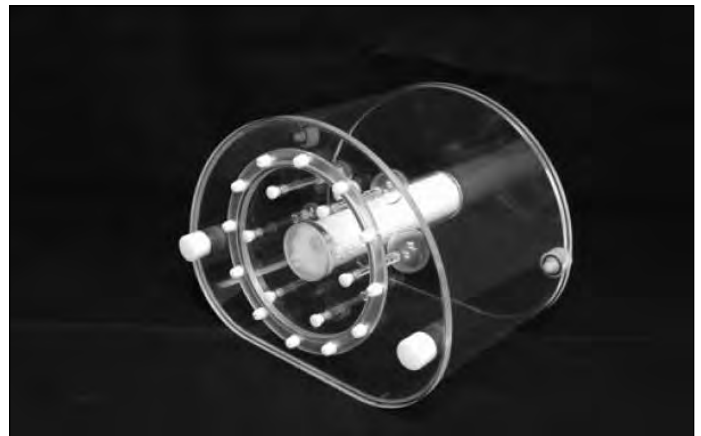
* International Standard: Radionuclide imaging devices –Characteristics and test conditions – Part 1: Positron emission tomographs, International Electrotechnical Commission (IEC), 61675-1, Geneva, Switzerland, 1998.

* Performance Measurements of Scintillation Cameras, NEMA Standards Publication No. NU2, National Electrical Manufacturers Association (NEMA), Washington, D.C., 2001.

ITEM NUMBERS
NEMA IEC Body Phantom Set™ 5250-0161

NEMA
PET SCATTER PHANTOM™

FEATURES
- The NEMA Scatter Phantom™ is designed in accordance with the recommendations by the National Electrical manufacturers Association
- (NEMA) to standardize the measurement of count rate performance of a scintillation camera in the presence of scatter*
- Is a solid right circular high density polyethylene cylinder
- Has a fillable line source holder parallel to the center axis of the cylinder and offset a distance O.D. 4.5 cm
- The cylinder is made of four sections for ease of carrying/storage

APPLICATIONS
- Acceptance testing with NEMA standard
- Determine the imaging systems relative sensitivity to scatter radiation
- Measure the effects of dead-time and the effects of random events generated at different levels of activity of the line source

ITEM MEASUREMENTS
- **Outside diameter:** 203 cm
- **Length:** 70 cm
- **Hole size:** 6.4 mm
- **Offset distance:** 4.5 cm
- **Line source insert:**
  - **Length:** 80 cm
  - **Inside diameter:** 3.2 mm
  - **Outside diameter:** 5 mm

ITEM NUMBERS
NEMA PET Scatter Phantom™...5250-0166

NEMA
PET SENSITIVITY PHANTOM™

- 6 Concentric aluminum tubes used to detect camera sensitivity in PET

ITEM MEASUREMENTS
- 5 internally stacked aluminum tubes all 700 mm in length
- **1st Tube:**
  - **Inside Diameter:** 3.9 mm
  - **Outside Diameter:** 6.4 mm
- **2nd Tube:**
  - **Inside Diameter:** 7.0 mm
  - **Outside Diameter:** 9.5 mm
- **3rd Tube:**
  - **Inside Diameter:** 10.2 mm
  - **Outside Diameter:** 12.7
- **4th Tube:**
  - **Inside Diameter:** 13.4 mm
  - **Outside Diameter:** 15.9
- **5th Tube:**
  - **Inside Diameter:** 16.6 mm
  - **Outside Diameter:** 19.1
- **Innermost tube** (fillable polyethylene tubing):
  - **Inside Diameter:** 1 mm
  - **Outside Diameter:** 3 mm

Close-up of NEMA PET Sensitivity Phantom
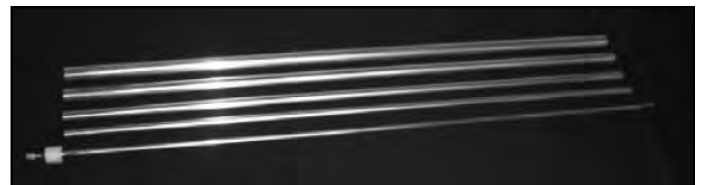
Aluminum Tubes

* Performance Measurements of Scintillation Cameras, NEMA Standards Publication No. NU2, National Electrical Manufacturers Association (NEMA), Washington, D.C., 2001

ITEM NUMBER
NEMA PET Sensitivity Phantom™ 5250-0165

CAPINTEC, INC.

NEMA SPECT TRIPLE LINE
SOURCE PHANTOM™

FEATURES
- The NEMA SPECT Triple Line Source Phantom is designed in accordance with the recommendations by the National Electrical manufacturers Association (NEMA) to standardize the measurement of reconstructed spatial resolution of SPECT*
- Material clear is PMMA

APPLICATIONS
- Acceptance testing with NEMA standard
- Center-of-rotation error evaluation
- Evaluation of changes of radius-of-rotation on spatial resolution
- Quantitative evaluation of reconstruction filters and scatter compensation methods
- Research

ITEM MEASUREMENTS
- **Cylinder Outside Diameter:** 22.2 cm
- **Cylinder Inside Diameter:** 20.2 cm
- **Cylinder Outside Height:** 23.8 cm
- **Cylinder Inside Height:** 20.0 cm
- **Diameter of Line Sources:** ~ 1 mm
- **Spacing of Line Sources:** 7.5 cm
- **Useful Height of Line Sources:** 18.4 cm

* Performance Measurements of Scintillation Cameras, NEMA Standards Publication No. NU 1, National Electrical Manufacturers Association (NEMA), Washington, D.C., 2007

ITEM NUMBERS
NEMA SPECT Triple Line Source Phantom................................ 5250-0179
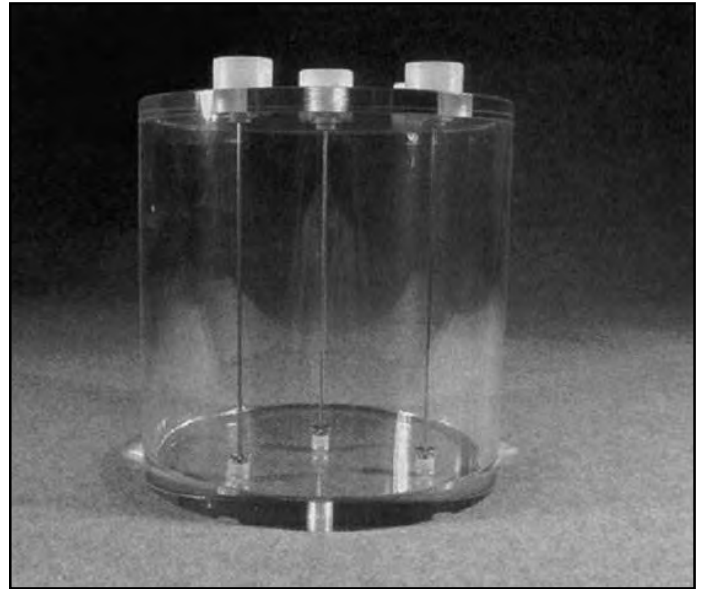
EXCLUSIVE DISTRIBUTOR
RSD Phantoms

Turn to Page 134 for More Details

ACR SMALL FLANGELESS
SPECT PHANTOM™

FEATURES
• For use with high spatial resolution SPECT systems.

APPLICATIONS
• System performance evaluation (collimator, artifacts, calibration, reconstruction parameters)
• Acceptance testing
• Routine quality assurance and control
• Evaluation of center-of-rotation error
• Evaluation of non-uniformity artifact
• Evaluation of changes of radius-of-rotation on spatial resolution
• Evaluation of reconstruction filters on spatial resolution
• Evaluation of attenuation and scatter compensation
• Research
• ACR recommended phantom for small field of view dedicated cardiac SPECT systems (Camera Specific)

CYLINDER MEASUREMENTS
• **Overall length:** 23.0 cm
• **Inside diameter:** 14.0 cm
• **Outside Diameter:** 15.3 cm
• **Wall thickness:** .64 cm
• **Inside length:** 15.0 cm
• NEW Cylinder Twist and Lock Lid Design!
• **Lid closure mechanism:** Bayonet-style with Lock Screw to prevent accidental opening; O-ring seal

INSERT MEASUREMENTS
• **Cold Rod diameters:** 4.8, 6.4, 7.9, 9.5, 11.1 and 12.7 mm
• **Height of cold rods:** 4.0 cm

SPHERE MEASUREMENTS
• **Solid sphere diameters:** 6.4, 9.5, 12.7, 15.9, 19.1, and 25.4 mm
• **Height above inside base plate:** 7.85 cm
• **Sphere circle pattern diameter:** 9.7 cm
• **Angular Spacing:** 60°

ITEM NUMBERS
ACR Small Flangeless SPECT Phantom™...................................5250-0172
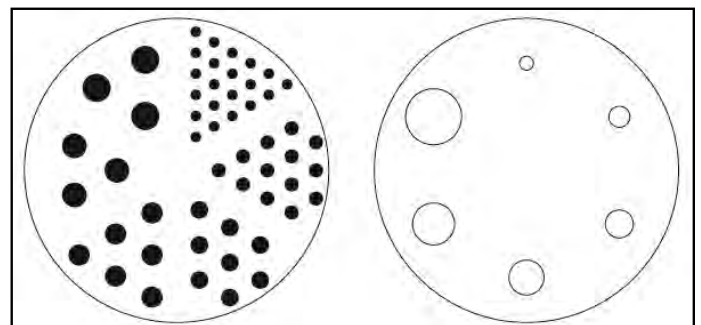
Cold Rods   **Cold Spheres**

JASZCZAK STANDARD
SPECT PHANTOM™

ECT phantoms with protruding flanged top and 3.2 mm cylinder wall thickness.

MAIN APPLICATIONS
- For use with SPECT and PET systems
- System performance evaluation (collimator, artifacts, calibration, reconstruction parameters)
- Acceptance testing
- Routine quality, assurance and control
- Evaluation of center-of-rotation error
- Evaluation of non-uniformity artifact
- Evaluation of changes of radius-of-rotation on spatial resolution
- Evaluation of reconstruction filters on spatial resolution
- Evaluation of attenuation and scatter compensation
- Research

SPECIFICATIONS OF CYLINDER
- All clear material: PMMA
- Cylinder inside diameter: 21.6 cm
- Cylinder inside height: 18.6 cm
- Cylinder wall thickness: 3.2 mm

SPECIFICATIONS OF INSERT
- All clear material: PMMA
- Rod diameters: Vary with insert
- Height of rods: 8.8 cm
- Solid sphere diameters: Vary with inert
- Height of center of spheres from base plate: 12.7 cm

ITEM NUMBERS
Ultra Deluxe Jaszczak Phantom™...5250-0168
For use with ultra-high spatial resolution SPECT and PET systems.
Rod diameters: 3.2, 4.8, 6.4, 7.9, 9.5 and 11.1 mm
Solid sphere diameters: 9.5, 12.7, 15.9, 19.1, 25.4, and 31.8 mm
Deluxe Jaszczak Phantom™..5250-0167
For use with high to very high spatial resolution SPECT and PET systems.
Rod diameters: 4.8, 6.4, 7.9, 9.5, 11.1 and 12.7 mm
Solid sphere diameters: 9.5, 12.7, 15.9, 25.4, and 31.8 mm
Standard Jaszczak Phantom™...5250-0157
For use with medium to high spatial resolution SPECT and PET systems.
Rod diameters: 6.4, 7.9, 9.5, 11.1, 12.7 and 19.1 mm
Solid sphere diameters: 12.7, 15.9, 19.1, 25.4, 31.8, and 38 mm
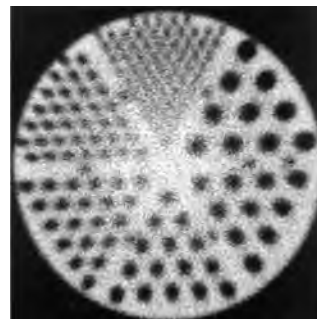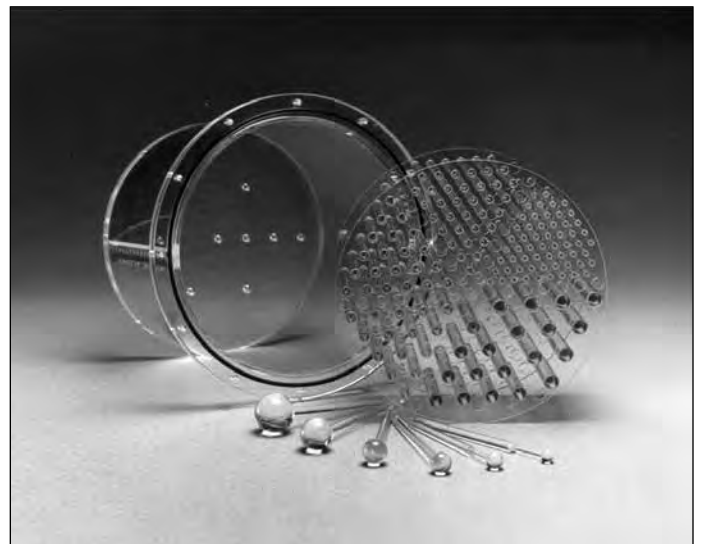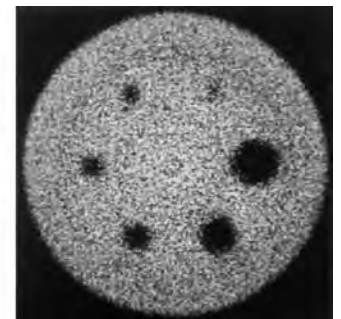
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@CapintecInc

Cold Rods   **Cold Spheres**

FLANGELESS DELUXE JASZCZAK
SPECT PHANTOM™
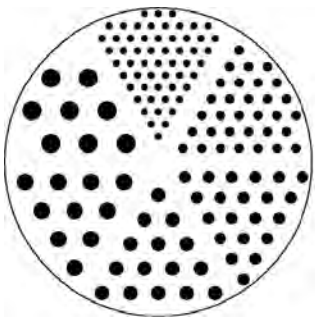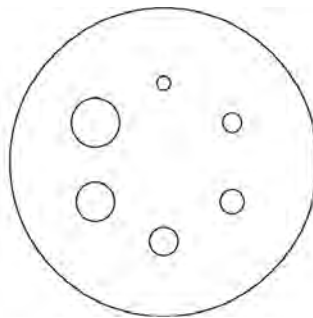
Cold Rods   **Cold Spheres**

Deluxe ECT phantom without protruding flange.

MAIN APPLICATIONS
- For use with high spatial resolution SPECT and PET systems
- System performance evaluation (collimator, artifacts, calibration, reconstruction parameters)
- Acceptance testing
- Routine quality assurance and control
- Evaluation of center-of-rotation error
- Evaluation of non-uniformity artifact
- Evaluation of changes of radius-of-rotation on spatial resolution
- Evaluation of reconstruction filters on spatial resolution
- Evaluation of attenuation and scatter compensation
- Research
- ACR recommended phantom

SPECIFICATIONS OF CYLINDER
- Cylinder inside diameter: 20.4 cm
- Cylinder inside height: 18.6 cm
- Cylinder wall thickness: 6.4 mm

SPECIFICATIONS OF INSERT AND SPHERES
- Rod diameters: 4.8, 6.4, 7.9, 9.5, 11.1 and 12.7 mm
- Height of rods: 8.8 cm
- Solid sphere diameter: 9.5, 12.7, 15.9, 19.1, 25.4 and 31.8 mm
- Height of center of spheres from base plate: 12.7 cm

ITEM NUMBERS
Flangeless Deluxe Jaszczak Phantom™ 5250-0169

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

ITEM MEASUREMENTS
- **Dimensions:** 1.75" x 4" x 4.25" (4.5 x 10.2 x 10.8 cm)
- **Weight:** 1.2 lbs. (0.55 kg)

ITEM NUMBERS
Mammographic Accreditation Phantom 0695-0128

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
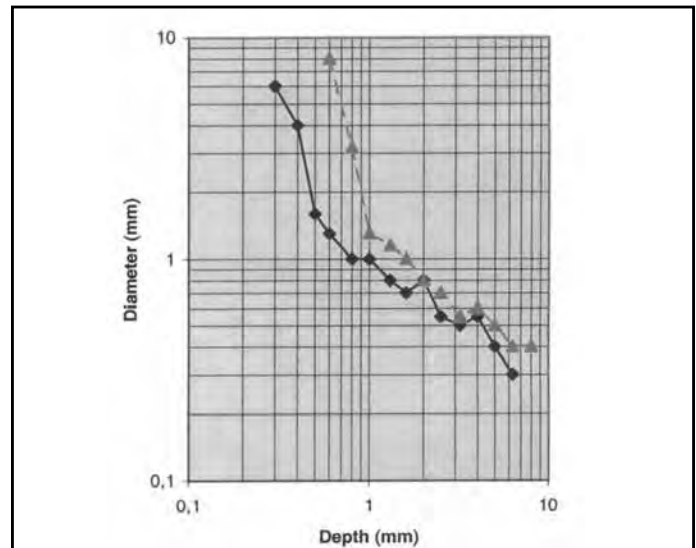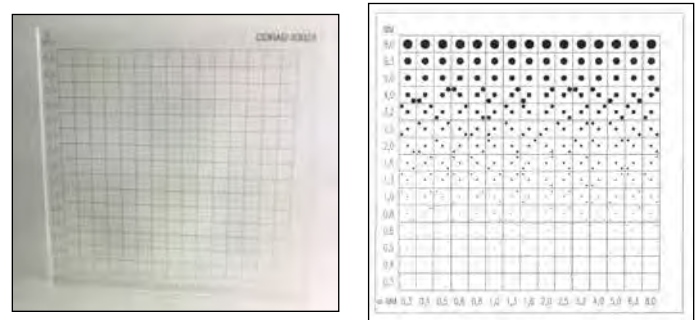
Figure 2: Contrast detail lines of monitor image (   ) and the hard copy image (- - - -) of the same DSA equipment

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)

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.

ITEM NUMBERS
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.

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.

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)
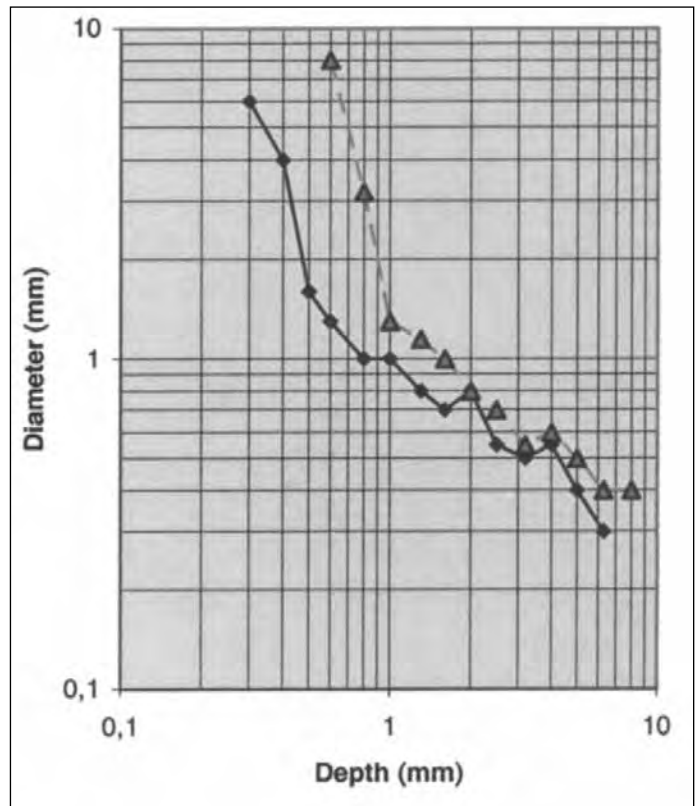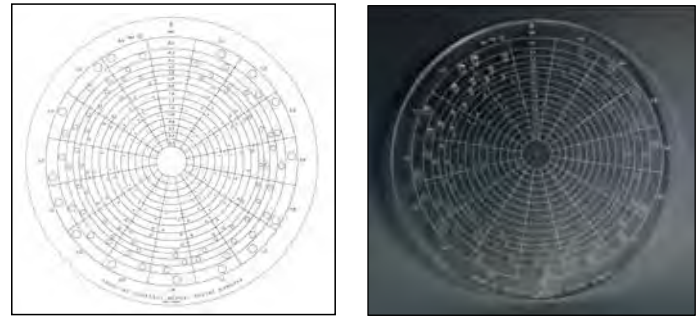
Figure 2: Contrast detail lines of monitor image (   ) and the hard copy image (- - - -) of the same equipment

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 diagram.

ITEM NUMBERS
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.

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

Pixy... Opaque 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.
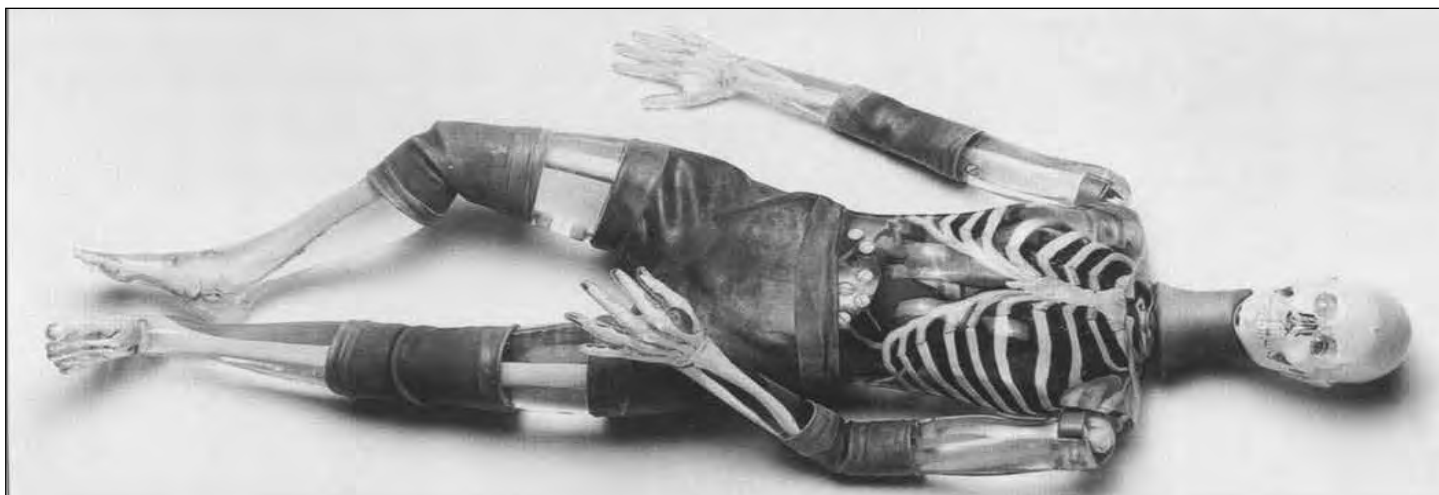
Pixy... Transparent Phantom

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 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.

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.

ITEM NUMBERS

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.
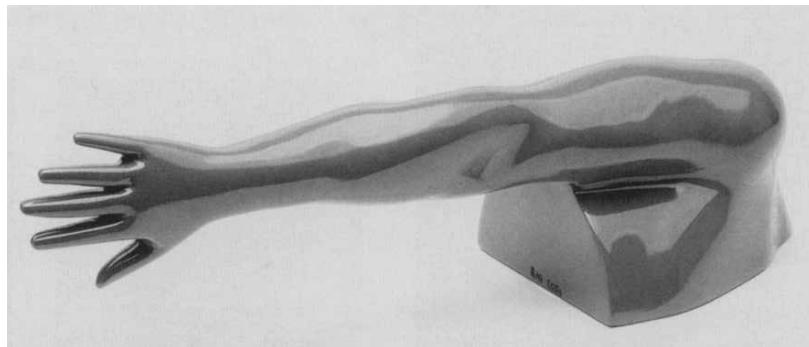
ITEM NUMBERS

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	0695-0030	0695-0031
Complete Arm/Shoulder; natural position	0695-0032	0695-0033
Complete Leg/Hip; natural position	0695-0034	0695-0035

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.

ITEM NUMBERS
IB-10 Brain Phantom........5230-0052

PH-24
MYOCARDIAL PHANTOM

This is the cardiac muscle phantom for PECT in Nuclear Medicine. This provides the experiment how the high integrated IR in the liver effects the SPECT image of the cardiac muscle. The cold defect can be set in the left cardiac muscle. This structure allows the phantom to create the background in each the lung field, the mediastinum and the cardiac right ventricle.

SPECIFICATIONS
• Material: Acrylic

ITEM MEASUREMENTS
• **Dimensions:** 11.8" x 7.8" x 8.2" (h) (300 x 200 x 210 mm)

ITEM NUMBERS
PH-24 Myocardial Phantom 5250-0165

Digital Catalog and Literature Downloads

http://www.capintec.com/support/product-literature-and-catalogs/

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
• Brain activity distribution: 1.97" (5 cm) thick

ITEM DIMENSIONS
• **Dimensions:** Skull container: 3.94" h x 8.07" w x 6.10" d (10 x 20.5 x 15.5 cm)

ITEM NUMBERS
IB-20 Brain Phantom 5230-0051

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.

ITEM NUMBERS
CAPTUS Neck Phantom 5230-0038

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
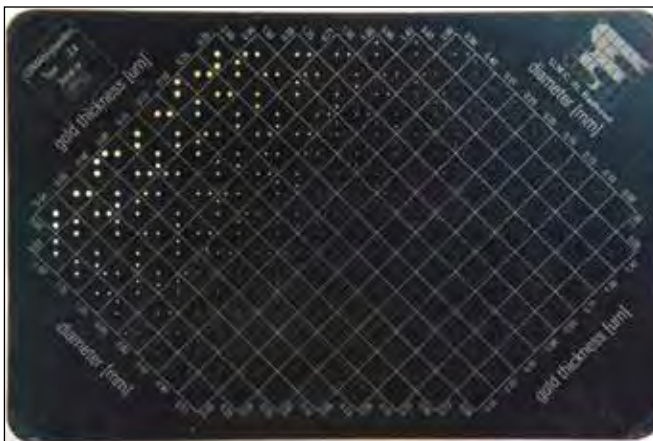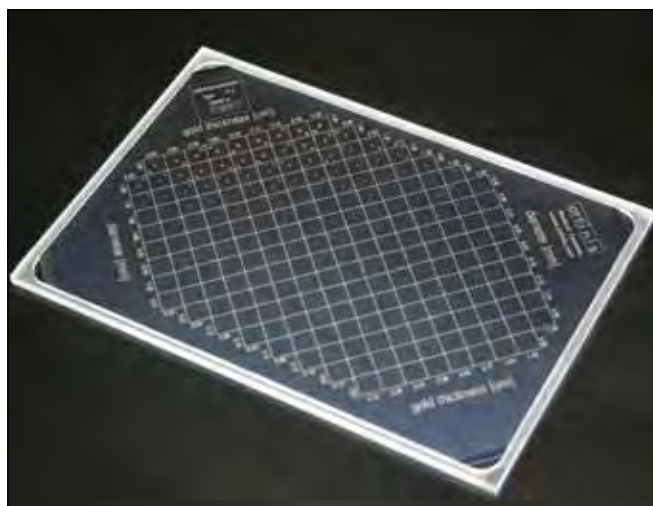
positioned on the bucky with the smallest disc diameters at the thorax side.

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

ITEM NUMBERS
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.

CRC®-PC Smart Chamber

0.35 uCi

Turn to Page 6 for Details

DIGITAL MAMMOGRAPHIC PHANTOM
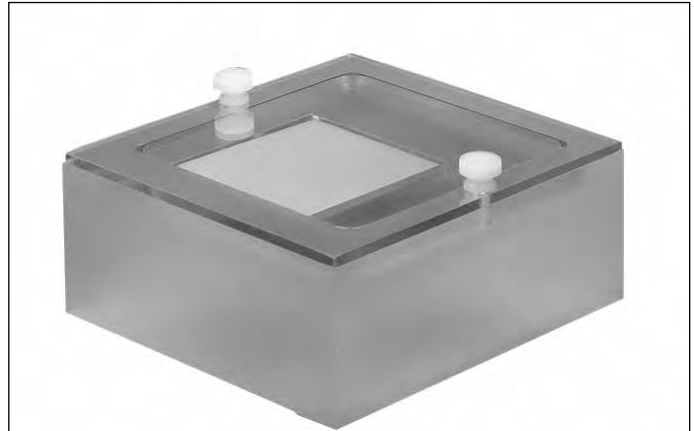
The Digital Mammography Phantom is a small version of the Mammographic Accreditation Phantom. The Phantom is used for monitoring digital mammography systems currently used for stereotactic biopsy and localization.

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

ITEM MEASUREMENTS
- **Dimensions:** 1.75" x 4" x 4.25" (4.5 x 10.2 x 10.8 cm)
- **Weight:** 1.2 lbs. (0.55 kg)

Digital Mammography Phantom.. 0695-0129

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
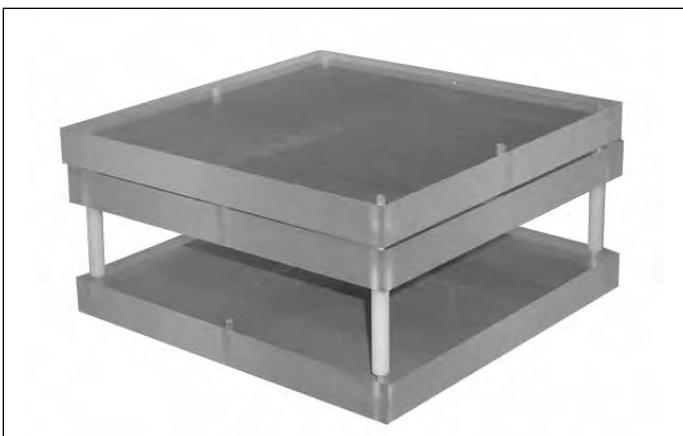
The Chest Phantom consists of four sheets of 25cm x 25cm x 2.54cm clear acrylic. One sheet of 25cm x 25cm x 1 mm and one sheet of 25cm x 25cm x 2mm type 1100 high-purity aluminum and spacers to provide a 5.08 cm air gap. Clinical testing of the phantom has shown it to be equivalent to a 23 cm patient for the PA chest projection.

ITEM MEASUREMENTS
• **Weight:** 17.5 lbs (8 kg)

ITEM NUMBERS
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.

ITEM MEASUREMENTS
• **Weight:** 37 lbs (17 kg)

ITEM NUMBERS
Abdomen/Lumbar Spine Phantom 0695-0181

Phantoms conform to AAPM recommendations contained in Report #31, "Standardized Methods for Measuring Diagnostic X-Ray Exposure."

These Phantoms are recommended in AAPM Report #60, "Instrumentation Requirements of Diagnostic Radiological Physicists."

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.

ITEM MEASUREMENTS
• **Weight:** 26.5 lbs (12 kg)

ITEM NUMBERS
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.

ITEM MEASUREMENTS
• **Weight:** 10 lbs (4.5 kg)

ITEM NUMBERS
Extremity X-Ray Phantom 0695-0183

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)

ITEM NUMBERS
CT Head Dose Phantom..0695-0113
CT Body Dose Phantom..0695-0114

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 polystyrene 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.

ITEM MEASUREMENTS
- **Dimensions:** 15 1/2" long x 8 1/2" diameter
- **Weight:** 17.25 lbs.

ITEM NUMBERS
CT Performance Phantom with Resolution Insert (to .4mm) 0695-0105
External (Whole-Body) Resolution & Noise Ring 0695-0107

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.

SPECIFICATIONS

CE

ITEM NUMBERS
Vari-Weight Apron, .25 mm, .5 mm, 1.0 mm 0680-0012
Thyroid Collar (Removable) 0680-0013

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.

SPECIFICATIONS

CE

ITEM NUMBERS
Utility Tie Apron 0680-0014
NOTE: To place order please specify size and color.
Sizing chart and colors are listed below.

LEAD APRONS

For Wrap-Around- Measure length from top of shoulder to rear hem.

For Single-Sided- Measure length from center of neckline to length required
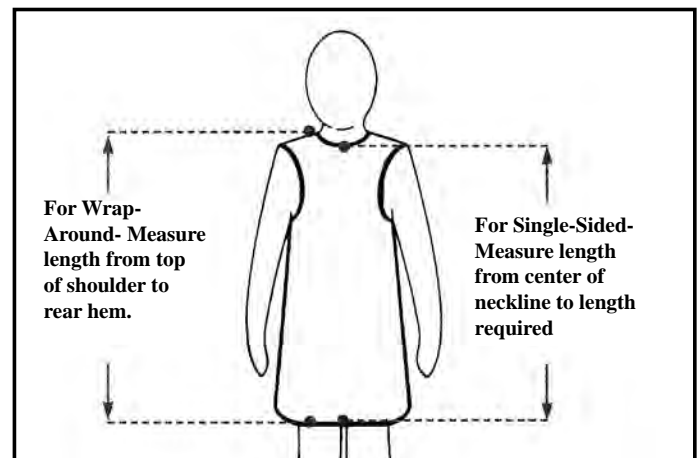
COLORS
& THEIR NUMBER
Royal Blue- 5
Beige- 43
Charcoal- 34
Purple- 21
Gray-10
Green- 9

APRON SIZING CHART

Frontal Apron Size	Actual Apron Size	Fits Dress Size	Fits Suit Size	Max Chest/Hip Measurement	Fits Max Height
Small	20" x 32"	4 - 6	34 - 36	36"	5' 6"
Medium	22" x 34"	8 - 10	38 - 40	40"	5' 10"
Large	24" x 36"	12 - 14	42 - 44	44"	6' 0"
X-Large	26" x 38"	16 - 18	46 - 48	48"	6' 2"
XX-Large	28" x 40"	20 - 22	50 - 52	52"	6' 4"

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)

ITEM NUMBERS
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.

ITEM NUMBERS
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. Universal size and elastic top give secure protection while holding covers in place. Both come in white in boxes of 100 or cases of 300.

ITEM NUMBERS
Shoe Covers 0680-0006
Boot Covers 0680-0005

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.

ITEM NUMBERS
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
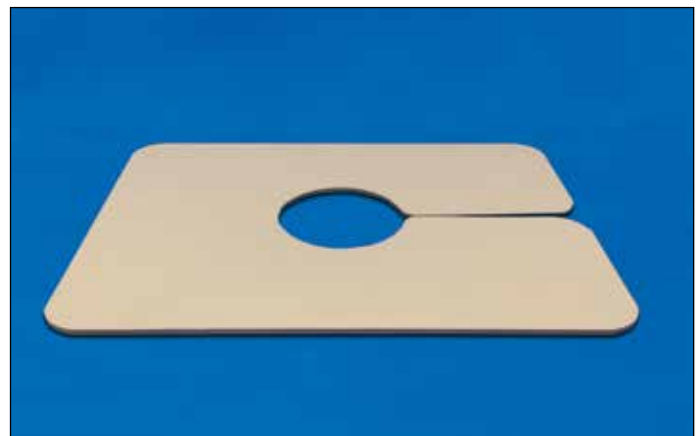
This pre-cut garment effectively prevents a patient's body background from affecting the image obtained during a cardiac procedure, or when placed over the shoulders, during a vertex brain scan. The cape is made of 1/8" thick Lead Vinyl (1.0 mm lead equiv.) whose light weight and pliability assure minimal 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.

ITEM NUMBERS
Lead Vinyl Scanning Cape..8100-7851

RADIATION ALERT
MONITOR 4 AND MONITOR 4EC

Easy to use, great general purpose radiation detector for a wide array of applications. The Monitor 4 Family of radiation detectors has been put to the test by decades of use in numerous industries.

SPECIFICATIONS

- **Detector:**
  - **Monitor 4:** Halogen-quenched uncompensated GM tube with thin mica window 1.5-2.0 mg/cm2 thick; Effective diameter of window is 9.1 mm (.36 in.).
  - **Monitor 4EC:** Halogen-quenched GM tube, energy compensated sidewall 2mm thin filter. Thin mica window 1.5-2.0 mg/cm2 thick. Effective diameter of window is 9.1 mm (.36 in.).
- **Operating Range:** 0-.5, 0-5, 0-50 mR/hr 0-500, 0-5,000, 0-50,000 CPM or 0-5, 0-50, 0-500 µSv/hr (SI Scale Meter Option)
- **Energy Sensitivity:** 1000 CPM/mR/hr (Cs137). M4EC is the same as M4 except the energy response for gamma and x-rays 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. M4 & M4EC meter scales shown below. Both Detect beta at 50 keV with typical 35% detection efficiency and beta at 150 keV with typical 75% detection efficiency.
- **Accuracy:** Typically ±15% of reading (Cs137)
- **Range Switch:** X1, X10, X100, Battery Check. Meter Face Options
- **Display:** Analog Meter holds full scale in fields as high as 100X maximum reading. CPM & mR/hr scale. Optional SI Scale Meter Available
- **Audio Indicator:** Internally mounted beeper (can be turned off for silent operation).
- **Power Requirements:** 9-volt alkaline battery. Approx. 2,000 hrs. at normal background
- **Temperature Range:** -20° to 55°C (-4° to 131°F)
- **Outputs:** 3.5 mm jack with pulse out.
- **Includes:** Carrying Case w/ Belt Clip
- **Options:** SI Meter Option, Observer Software, Mini-USB Option w/ USB Observer Software
- **Limited Warranty:** 1 year limited warranty
- **Monitor 4 Kits:** Build your own Monitor 4! Learn about how a geiger counter works!

CE

ITEM MEASUREMENTS
- **Weight of the Monitor 4:** 7.1 oz (200 grams)
- **Weight of the Monitor 4EC:** 7.9 oz (224 grams) without battery
- **Dimensions:** 8.2" x 2.8" x 1.9" (209 x 71 x 50 mm)

ITEM NUMBERS

Radiation Alert Monitor 4	0695-0050
Radiation Alert Monitor 4EC	5250-0046
Radiation Alert Monitor Kit	0695-0051
Belt Clip	0695-0052
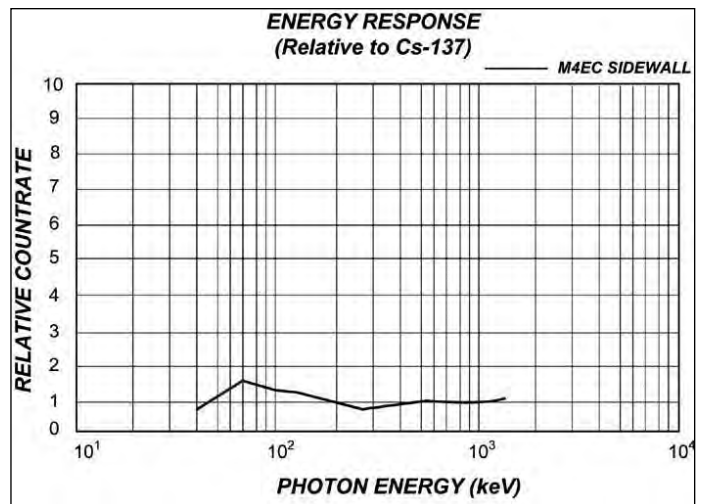
Monitor 4EC: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6 MeV is greater than 80%. Detects gamma and x-rays down to 10 keV typical through the window (non-compensated), 40 keV through the sidewall.
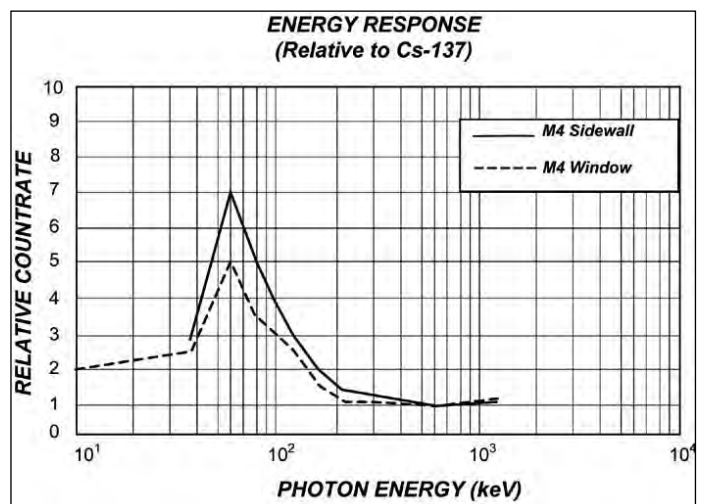
Monitor 4: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6 MeV is greater than 80%. Detects gamma and x-rays down to 10 keV typical through the window, 40 keV minimum through the case.

DIGILERT 200

The Digilert 200 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 GM tube with thin mica end window. Mica window density 1.5-2.0 mg/cm2. Effective window diameter is .360 inch. Side wall is .012 inch thick.
- **Display:** Backlit 4-digit liquid crystal display with mode indicators. Display updates every 3 seconds.
- **Count Light:** Red LED flashes with each count.
- **Audio Indicator:** Sounds with each count (can be switched off for silent operation)
- **Alert:** Pulsating beeper sounds the alert. Adjustable alert levels are used for mR/hr / CPM, and µSv/hr / CPS. Alarm will sound when in Timer Mode when set alarm threshold is reached.
- **Operating Range:** mR/hr - .001 (1µR) to 200 mR/hr; µSv/hr - .01 to 2000; CPM - 0 to 214,000; CPS - 0 to 3575
- **Total/ Timer:** 1 to 9,999,000 counts
- **Accuracy:** Typically ±15% from factory. , ±10% (NIST)
- **Energy Sensitivity:** 1070 CPM/mR/hr referenced to Cs137
- **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 typical 75% detection efficiency.
- **Detects gamma and x-rays down to 10 keV** typical through the window, 40 keV minimum through the case.
- **Outputs:** Dual miniature jack sends counts to CMOS- compatible devices, including computers, data loggers, and educational data collection systems. USB for use with Observer USB Software for PCs
- **Anti-Saturation:** Readout will OVERRANGE in radiation fields as high as 100 times the maximum reading.
- **Power Requirements:** One 9-volt alkaline battery. Battery life is approx. 2000 hours at normal background radiation levels.
- **Temperature Range:** -10° to +50°C (14° to 122°F)
- **Options:** Xtreme Boot & Stand
- **Limited Warranty:** 1 year limited warranty

ITEM MEASUREMENTS
- **Dimensions:** 6.1" x 3.1" x 1.2" (150 x 80 x 31 mm)
- **Weight:** 7.7 oz. (217 g)

ITEM NUMBERS
Digilert 200 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
- **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

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%

ITEM MEASUREMENTS
- **Dimensions:** 5.9" h x 3.2" w x 1.2" d (150 x 80 x 30 mm)
- **Weight:** 8 oz. (225 g) including 1 nine volt battery

ITEM NUMBERS
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

CE

ITEM NUMBERS
Wipe Test Plate.. 0695-0054

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

SPECIFICATIONS
- **Measurement Unit:** Sv and rem(rem is a factory setting option)
- **Measurement Item:** Accumulated Dose and Dose Rate
- **Measurement Range: PDM-127:** Dose: 1µSv to 1 Sv (.1mrem to 100 rem); Dose Rate: 1µSv/h to 100mSv/h (.1mrem/h to 10rem/h) **PDM-122:** 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)
- **Remaining Battery Level:** Battery Down mark; Remaining Battery Level (3 steps)

ITEM MEASUREMENTS
- **Dimensions**: Approx. 1.1" w x .4" d x 4.25" h (30 x 11 x 108 mm) (excluding clip)
- **Weight**: Approx. 1.4 oz. (40 g)

ITEM NUMBERS
Pocket Dosimeter PDM-127.. 5250-0011
Pocket Dosimeter PDM-122.. 5250-0020

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. 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.

MODEL 375 DESIGNER TR-90 NYLON FRAME

Designer style smaller sized premium frame. Durable TR-90 nylon plastic with head-hugging temple design offers excellent impact, splash, side and overall protection. Suitable for higher prescriptions.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

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ITEM NUMBERS
Model 375 Designer TR-90 Nylon Frame......................................0680-0070

MODEL 33 EUROLITE FITOVER

Comfortable, lightweight, and durable rubberized nylon frame that is designed to fit over most styles of prescription eyewear.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

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ITEM NUMBERS
Model 33 Eurolite Fitover..0680-0071

MODEL 703 ANGLED WRAP AROUND

Angled head-hugging wraparound frame with modern sharp corners and stylish angles. Perforated rubber nose pieces for increased breathability and grip.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

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ITEM NUMBERS
Model 703 Angled Wrap Around 0680-0072

MODEL MX30 EGM SPORTY WRAP

Premium extremely comfortable unisex wrap style frame with soft silicone padding inside the temple bars and nose bridge, adjustable and removable premium back strape. Suitable for higher prescriptions. Medium and large size.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

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ITEM NUMBERS
Model MX30 EGM Sporty Wrap..0680-0073

MODEL 206 CLASSIC SAFETY

Classic safety style that is solid, sturdy, and comfortable. Somewhat narrow-fitting frame is appropriate for men and women. Suitable for higher prescriptions.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

ITEM NUMBERS
Model 206 Classic Safety.. 0680-0074

MODEL RK2 GOGGLE

Large vented goggle with neoprene foam on the inside to protect against splashing and sweat. Flame-resistant elastic adjustable head band makes this frame extremely comfortable. Large lens pocket allows for maximum viewing area. Suitable for higher prescriptions.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

ITEM NUMBERS
Model RK2 Goggle 0680-0076

MODEL 55 SILICONE GOGGLE

Silicone goggle with soft foam on the inside to protect against splashing and sweat. Adjustable elastic head band makes this frame extremely comfortable. The large lens pocket allows for maximum viewing area.

SPECIFICATIONS
- Schott SF-6 HT 0.75mm lead equivalency, high-lite transmission clear leaded crystal glass lenses.
- Guaranteed to perform for one year under normal wear and tear.
- Available in prescription and non-prescription Plano lenses.

ITEM NUMBERS
Model 55 Silicone Goggle 0680-0075

FULL ACRYLIC FACE MASK

X-Ray protective acrylic mask eliminates blind spots caused by standard glasses and gives you a huge area of protection from radiation. Great for people who wear glasses or who want to protect more than just their eyes, also protects the neck.

SPECIFICATIONS
- Acrylic has 0.1mm lead equivalency.
- Guaranteed to perform for one year under normal wear and tear.

ITEM NUMBERS
Full Acrylic Face Mask.. 0630-0016

PANORAMIC ACRYLIC FACE MASK

X-Ray protective panoramic acrylic mask eliminates blind spots caused by standard glasses and gives you a huge area of protection. Great for people who wear glasses or who want to protect more than just their eyes. This panoramic-style mask offers excellent side protection, effectively protecting the entire head.

SPECIFICATIONS
- Acrylic has 0.1mm lead equivalency.
- Guaranteed to perform for one year under normal wear and tear.

ITEM NUMBERS
Panoramic Acrylic Face Mask.. 0630-0017

CAPINTEC, INC.

CAPINTEC, INC.

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.