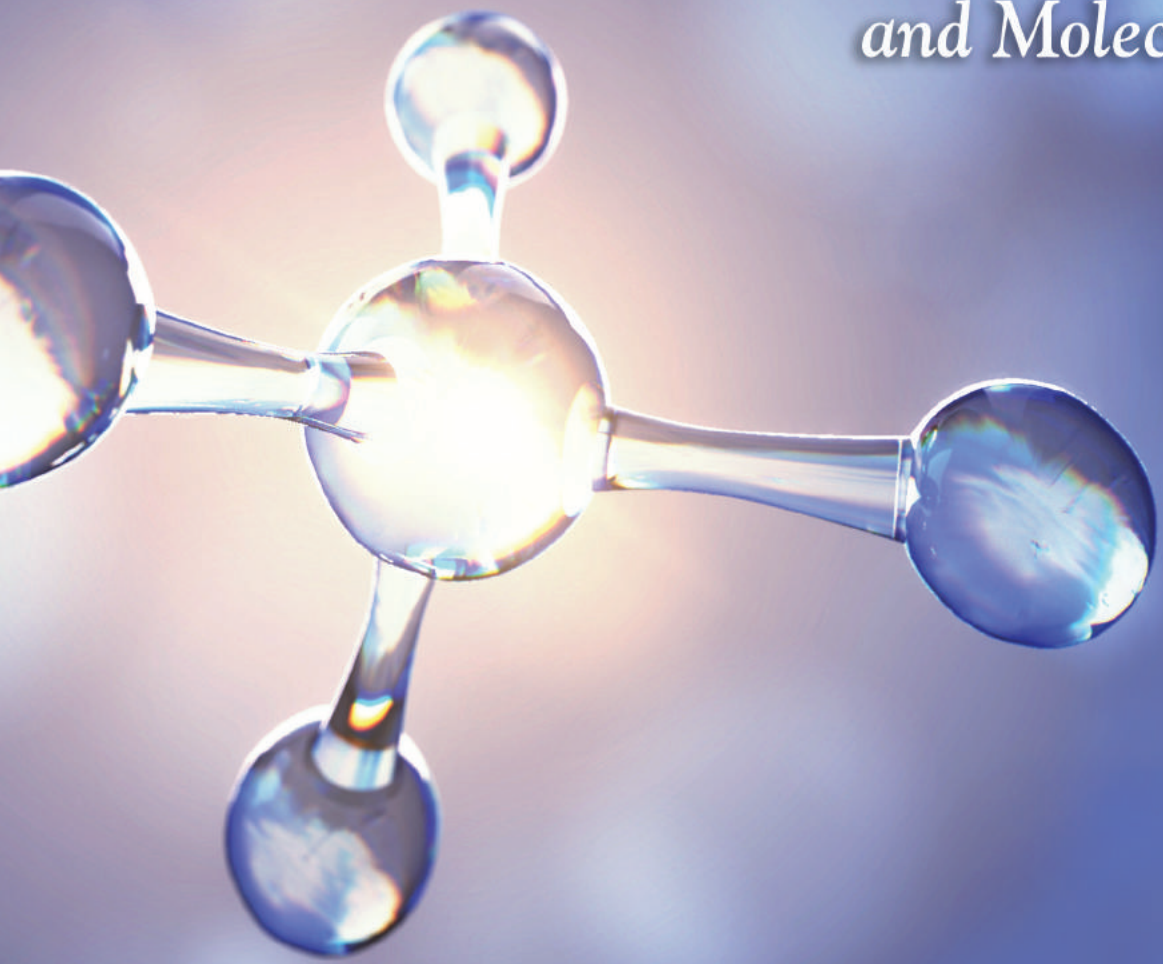
"The Clinical Advantage" ™

CATALOG 123
2018

BIODEX

Nuclear Medicine and Molecular Imaging

Devices and Supplies



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"The Clinical Advantage"™

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- Storage Cabinets and Containers
- Syringe Shields
- Dose Drawing and Preparation Systems
- Unit Dose Pigs
- Vial Pigs
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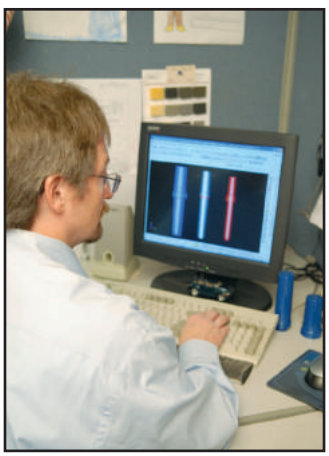
"The Clinical Advantage"™

Biodex Medical Systems, Inc., has been providing customers with innovative products and service excellence for more than 60 years. Our dedicated employees work as a team to bring the promise of functional and elegant design to life.

It all begins with our belief in science-based solutions. Once the Biodex development team isolates a problem or requirement in the field we begin exploring possible responses. After a review of the literature and feedback from field luminaries, our engineers use cutting-edge technology to create products that are exceptionally functional, durable and user-friendly.

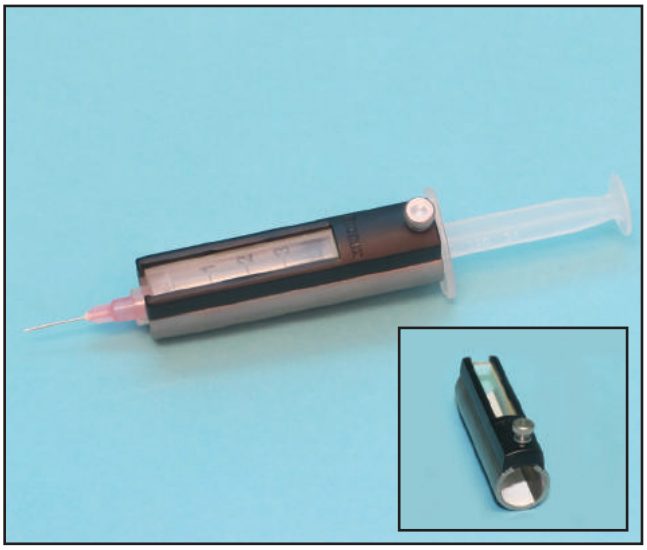
Having passed a design review and rigorous testing, the products are manufactured in our state-of-the-art, 120,000 sq. ft facility. We are committed to the continuous education of our employees. Our manufacturing team follows strict quality control guidelines in making each item ready for use. Biodex is certified for ISO 9001:2008, ISO 13485:2003 with specific products certified to UL 60601-1, EN 60601-1 and EN 60601-1-2, or other appropriate standards.



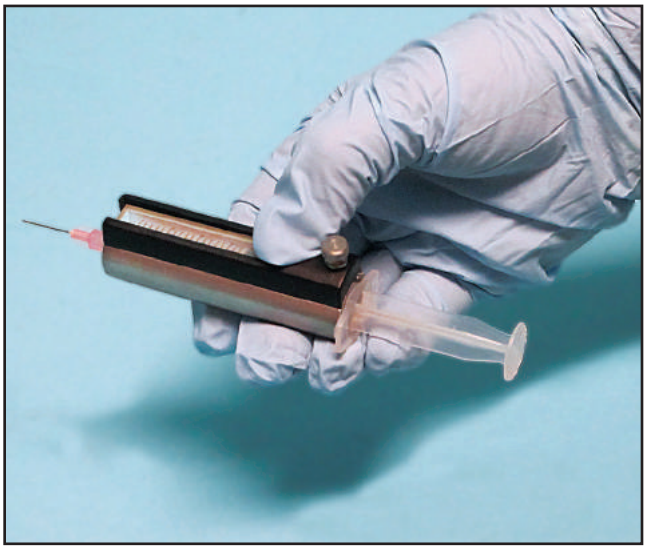
At Biodex, customer satisfaction drives every decision. Over 200 employees strive to keep our customers at the forefront of the art and science of medicine. No wonder so many world-class facilities call Biodex first.

If you are an existing customer, we thank you for your support and promise to continue our tradition of excellence. If you are a new customer, we invite you to try our products and realize they are engineered and manufactured to the highest standards. Dependability and exceptional performance allow you to forget about the product and focus on the patient – that's your "Clinical Advantage."™

PRO-TEC™ II
SYRINGE SHIELD



A thumbscrew holds syringe firmly in place.



Unobstructed visibility to tip of syringe

- *2 mm thick Tungsten shielding*
- *5.05 density lead glass window*
- *Lightweight*
- *Fits most disposable syringes*
- *Unobstructed visibility to tip of syringe*
- *Replacing scratched or broken glass is simple – no gluing required*
- *Easily sanitized with alcohol wipes*

Thin, lightweight and easy to use, the Pro-Tec II is designed to reduce hand exposure for clinicians during preparation and administration of radiopharmaceuticals.

The barrel of the shield is constructed of 2 mm thick tungsten that will reduce radiation exposure from Tc-99m by more than 99% attenuation for Tc-99 tested with TLD chips. A 5.05 density lead glass window provides protection and visibility. A white reflective surface on the shield interior improves viewing of the syringe's markings and fluid content. A bezel around the lead glass helps protect it from scratching or breaking. A thumbscrew holds syringes firmly in place.

Pro-Tec™ II Syringe Shields accommodate the standard sized 3 cc and 5 cc syringes.

Pro-Tec™ II Syringe Shields with lead glass window:
007-800 Syringe Shield, 3 cc
007-900 Syringe Shield, 5 cc
U.S. Patent #4,062,353

Pro-Tec™ II Syringe Shields without lead glass window:
007-801 Syringe Shield, 3 cc
007-901 Syringe Shield, 5 cc

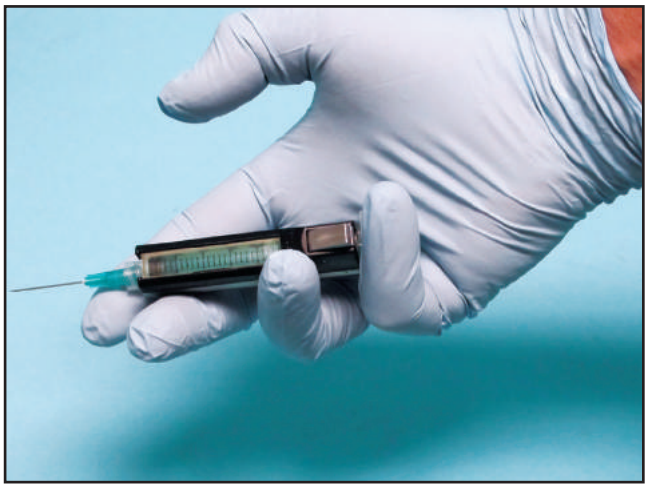
Replacement Glass for Pro-Tec™ II Syringe Shields:
127-735 Syringe Shield Replacement Glass, 3 cc and 5 cc

Replacement glass for previous generation Pro-Tec II Syringe Shields with clip: www.biodex.com/syringeshields

PRO-TEC™ III
SYRINGE SHIELD

Upon insertion, Safe-T-Lock automatically secures syringe; release with the push of a button.

Design accommodates most 1 cc, 2.5 cc, 3 cc, 5 cc and 10 cc syringes



Lightweight

- *2 mm thick Tungsten shielding*
- *5.05 density lead glass window*
- *Safe-T-Lock firmly secures syringe to avoid rotating*
- *Safe-T-Lock design reduces exposure with faster handling*
- *Unobstructed visibility to tip of syringe*
- *Replacing scratched or broken glass is simple – no gluing required*
- *2.5 cc syringe shield accommodates HSW brand syringes*
- *Easily sanitized with alcohol wipes*

The Pro-Tec™ III Syringe Shield is designed to reduce hand exposure in clinicians preparing and administering radiopharmaceuticals. With its lightweight, sleek design, this syringe shield is easy to use.

The barrel of the shield is constructed of 2 mm thick tungsten that will reduce radiation exposure from Tc-99m by more than 99% attenuation for Tc-99 tested with TLD chips. A 5.05 density lead glass window provides protection and optimal visibility. A white reflective surface on the shield interior improves viewing of the syringe's markings and fluid content. A bezel around the lead glass helps protect it from scratching or breaking.

The quick release, Safe-T-Lock is designed to facilitate minimal handling, thereby reducing hand exposure. Upon insertion, the Safe-T-Lock grips and securely locks the syringe into place. Disposing of used syringes is easy; invert the syringe shield over a sharps container, press the release button and the syringe freely disengages.

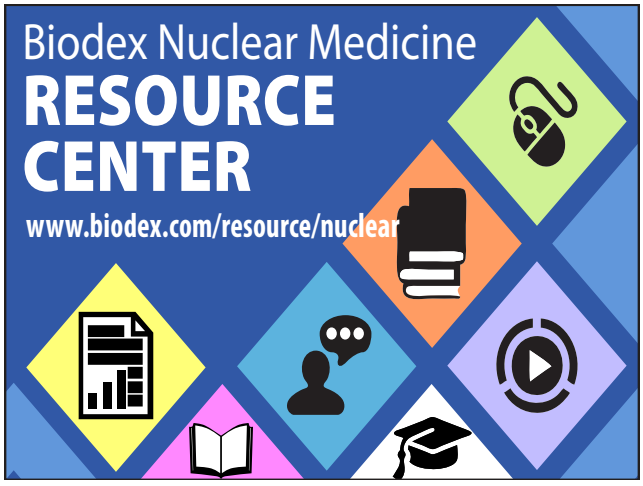
Pro-Tec™ III Syringe Shields accommodate the standard sized 1 cc, 3 cc, 5 cc and 10 cc syringes.

Pro-Tec™ III Syringe Shields:

007-723 Syringe Shield, 1 cc (BD luer lock)
007-734 Syringe Shield, 1 cc (press fit)
007-755 Syringe Shield, 2.5 cc
007-735 Syringe Shield, 3 cc
007-736 Syringe Shield, 5 cc
007-738 Syringe Shield, 10 cc

Replacement Glass for Pro-Tec™ III Syringe Shields:

127-734 Syringe Shield Replacement Glass, 1 cc
127-735 Syringe Shield Replacement Glass, 3 cc and 5 cc
127-738 Syringe Shield Replacement Glass, 10 cc



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PRO-TEC™ IV
SYRINGE SHIELD

High density lead glass with a full 360° view - all the features you want combined in a single shield

Complete visibility of syringe contents

- *5.6 High density lead glass shielding; 360-degree barrel view*
- *Lightweight*
- *Fits most disposable syringes*
- *Safe-T-Lock design reduces exposure with faster handling*
- *5 cc syringe shield – ideal for Quadramet®*
- *Easily sanitized with alcohol wipes*

Convenient to use, the Pro-Tec™ IV Syringe Shield reduces hand exposure and maximizes the viewing area

The barrel of the shield is constructed of optically clear, 5.6 high-density lead glass. The 360° view and a tapered end on the lead glass barrel provide complete visibility of the syringe contents, allowing for faster and easier venipuncture. The high density lead glass significantly reduces radiation exposure from Tc-99m by more than 99% attenuation for Tc-99 tested with TLD chips.

The Safe-T-Lock is designed to facilitate minimal handling, reducing hand exposure. Upon insertion, the Safe-T-Lock grips and securely locks the syringe into place. Disposing used syringes is easy; invert the syringe shield over a sharps container, press the release button and the syringe freely disengages.

Pro-Tec™ IV Syringe Shields accommodate standard sized 1 cc to 10 cc syringes.

Pro-Tec™ IV Syringe Shields:
007-670 Syringe Shield, 1 cc
007-675 Syringe Shield, 3 cc
007-680 Syringe Shield, 5 cc
007-685 Syringe Shield, 10 cc

BETA
SYRINGE SHIELD

- *Lead and plastic shielding, designed for Beta*
- *Clear plastic window*
- *Fits most disposable syringes*
- *Suitable for Ra-223 Xofigo®*
- *Ideal for Zevalin Y-90*
- *Easily sanitized with alcohol wipes*

This Beta Syringe Shield reduces hand exposure from syringes containing Strontium 89, P-32, and other beta-emitting radiopharmaceuticals. The barrel of the syringe shield is constructed of clear plastic with a .062" thick embedded lead lining, which attenuates Beta emission and errant bremsstrahlung. The lead lining is interrupted at the viewing window for clear visibility when drawing and administering the dose. A thumbscrew holds syringes firmly in place.

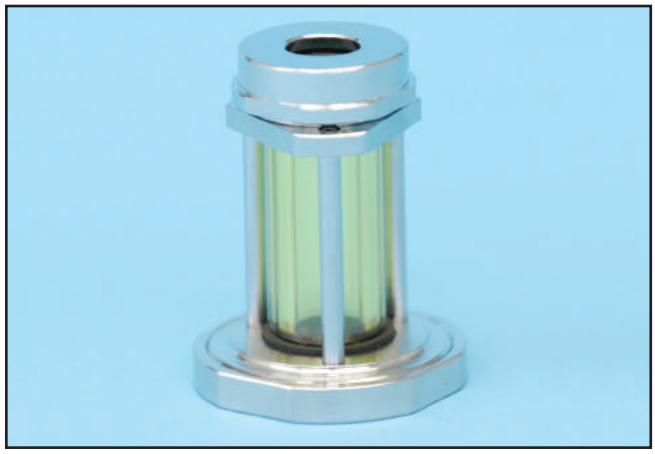
SPECIFICATIONS:
Dimensions: 1.625" dia x 3.25" l (4.1 x 8.3 cm)
Shielding:
007-956: .422" plastic, .062" lead, .125" plastic (1.07 x .16 x .32 cm) with .86" (2.2 cm) plastic window
007-957: .25" plastic, .062" lead, .125" plastic (.64 x .16 x .32 cm) with .70" (1.8 cm) plastic window
Weight:
007-956: 10.4 oz (297 g)
007-957: 9.6 oz (274 g)

007-956 Syringe Shield, Beta, 1 cc
007-957 Syringe Shield, Beta, 10 cc

DOSE DRAWING
SYRINGE SHIELDS

For drawing a dose from a shielded vial

Dose Drawing Syringe Shield (glass non-replaceable)



Dose Drawing Syringe Shield with replaceable glass

Dose Drawing Syringe Shields reduce hand exposure when drawing doses from a shielded vial. Constructed of optically clear high density lead glass, the barrel of the syringe shield offers complete 360° visibility while reducing radiation exposure from Tc-99m by more than 99%. The bottom of the lead glass barrel features a .125" lead flange that provides additional shielding between a shielded vial and the syringe shield.

The shield features quick and smooth syringe insertion with an O-ring seal and anti-roll cap.

The shields are constructed with an elastomer material that acts as a shock absorber between the metal and glass, improving the resistance to breakage.

Dose Drawing Syringe Shields:
Accommodates luer and non-luer lock syringes
007-661 Syringe Shield, 3 cc
007-663 Syringe Shield, 5 cc and 6 cc
007-665 Syringe Shield, 10 cc and 12 cc

Dose Drawing Syringe Shields with Replaceable Glass:
Accommodates luer and non-luer lock syringes
007-691 Syringe Shield, 3 cc
007-693 Syringe Shield, 5 cc and 6 cc
007-695 Syringe Shield, 10 cc and 12 cc

Replacement Glass for Dose Drawing Syringe Shields:
127-691 Syringe Shield Replacement Glass, 3 cc
127-693 Syringe Shield Replacement Glass, 5 cc and 6 cc
127-695 Syringe Shield Replacement Glass, 10 cc and 12 cc

HIGH DENSITY LEAD GLASS
SYRINGE SHIELD

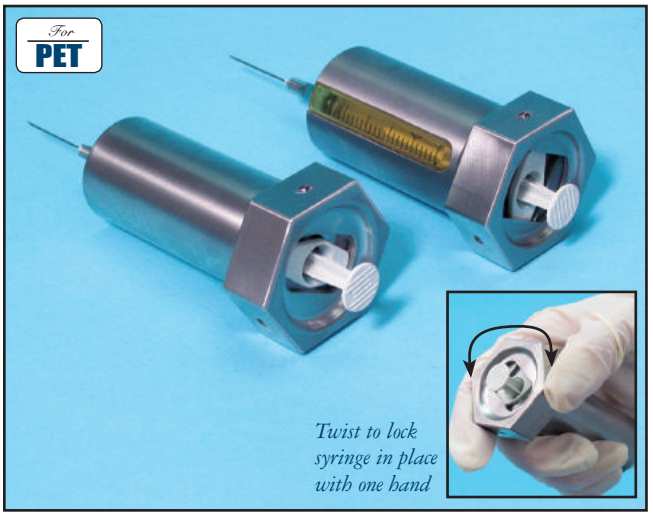
Offers 360° syringe visibility; model 007-635 shown

- *Lead glass provides clear visibility*
- *Accommodates most vials*
- *Centering action holds vials securely*

The High Density Lead Glass Syringe Shield reduces hand exposure from Tc-99m by more than 99%, allows a large viewing area and is easy to use. The barrel of the syringe shield is constructed of optically clear high density (5.6) lead glass and offers complete 360° visibility. The end of the barrel is tipped with steel to protect it from breaking or scratching. This lightweight shield features quick and smooth syringe insertion with an 0-ring seal and an anti-roll cap.

High Density Lead Glass Syringe Shields:
Accommodates luer and non-luer lock syringes
007-620 Syringe Shield, 1 cc
007-635 Syringe Shield, 3 cc
007-652 Syringe Shield, 5 cc and 6 cc
007-612 Syringe Shield, 10 cc and 12 cc

GAARD LOCK™
PET SYRINGE SHIELD



Available with or without high-density lead glass

- ***Unique flange locking design reduces exposure with faster handling***
- ***Constructed of .34" thick tungsten, attenuates FDG F-18 by 88%***
- ***Available with or without a high density lead glass window***
- ***Easily sanitized with alcohol wipes***

The Gaard Lock™ PET Syringe Shield reduces hand exposure from syringes containing 511 keV radionuclides FDG F-18. The barrel of the shield is constructed of .34" thick tungsten that attenuates FDG F-18 by 88%.

The syringe shield is offered with or without a high density (5.6) flush mounted lead glass window that provides protection and visibility. A white reflective surface on the shield interior improves viewing of the syringe's markings and fluid content.

The syringe shield features a unique flanged locking mechanism that speeds the loading and unloading of the syringe, further reducing hand exposure.

Gaard Lock PET Syringe Shields accommodate the standard sized 3 cc, 5 cc and 10 cc syringes.

SPECIFICATIONS:
Shielding: .34" tungsten (9 mm)
Lead glass: 5.6 density

007-711 & 007-716 Gaard Lock Syringe Shield, 3 cc
Dimensions: 2.9" l (74 mm)
Weight: 1.7 lb (.77 kg)

007-712 & 007-717 Gaard Lock Syringe Shield, 5 cc
Dimensions: 3" l (76 mm)
Weight: 2 lb (.91 kg)

007-713 & 007-718 Gaard Lock Syringe Shield, 10 cc
Dimensions: 3.6" l (91 mm)
Weight: 3 lb (1.4 kg)

Gaard Lock™ PET Syringe Shields with lead glass window:
007-716 Syringe Shield, 3 cc
007-717 Syringe Shield, 5 cc
007-718 Syringe Shield, 10 cc

Gaard Lock™ PET Syringe Shields without lead glass window:
007-711 Syringe Shield, 3 cc
007-712 Syringe Shield, 5 cc
007-713 Syringe Shield, 10 cc

Replacement Glass:
007-974 Glass, Replacement
For Pro-Tec PET and Gaard Lock PET Syringe Shields 007-973, 007-975, 007-980, 007-716, 007-717 and 007-718

Z-PET SYRINGE SHIELD

Extra thick wall for extra protection

- ***Constructed of .55" thick tungsten, attenuates FDG F-18 by 97%***
- ***Easily sanitized with alcohol wipes***

The Z-PET Syringe Shield greatly reduces hand exposure from syringes containing 511 keV radionuclides. The barrel of the shield is constructed of .55" thick tungsten that attenuates FDG F-18 by 97%. The shield accommodates standard 5 cc syringes.

SPECIFICATIONS:
Dimensions: 2.75" l x 1.7" dia (7 x 4.3 cm)
Shielding: .55" thick (14 mm) tungsten
Weight: 3.7 lb (1.7 kg)

007-945 Syringe Shield, Z-PET, 5 cc*

**Z-PET Syringe Shield was conceived by Michael Zimmer, Ph.D.*

PRO-TEC™
PET SYRINGE SHIELD

- *Constructed of .34" thick tungsten, attenuates FDG F-18 by 88%*
- *Available with or without a high density lead glass window*
- *Fits most disposable syringes*
- *Easily sanitized with alcohol wipes*

The Pro-Tec™ PET Syringe Shield reduces hand exposure from syringes containing 511 keV radionuclides. The barrel of the shield is constructed of .34" thick tungsten that attenuates FDG F-18 by 88%.

The syringe shield is offered with or without a high density (5.6) flush mounted lead glass window that provides protection and visibility. A white reflective surface on the shield interior improves viewing of the syringe's markings and fluid content. A thumbscrew holds syringes firmly in place.

Pro-Tec™ PET Syringe Shields accommodate the standard sized 1 cc, 3 cc, 5 cc and 10 cc syringes.

SPECIFICATIONS:
Shielding: .34" thick (9 mm) tungsten
Lead Glass: 5.6 density
Weight:
007-973 & 007-985: 1.4 lb (.64 kg)
007-969, *007-975 & 007-990*: 1.7 lb (.77 kg)
007-980 & 007-995: 2.3 lb (1.05 kg)

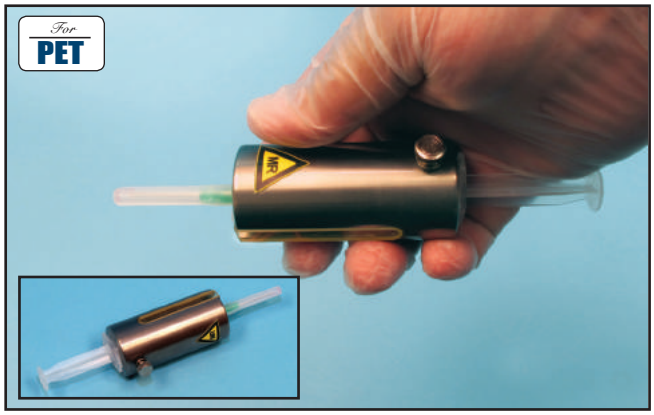
Pro-Tec™ PET Syringe Shields with lead glass window:
007-973 Syringe Shield, 3 cc
007-969 Syringe Shield, 5 cc HSW
007-975 Syringe Shield, 5 cc
007-980 Syringe Shield, 10 cc

Pro-Tec™ PET Syringe Shields without lead glass window:
007-983 Syringe Shield, 1 cc
007-985 Syringe Shield, 3 cc
007-990 Syringe Shield, 5 cc
007-995 Syringe Shield, 10 cc

Replacement Glass:
007-974 Glass, Replacement
For Pro-Tec PET and Gaard Lock PET Syringe Shields 007-969, 007-973, 007-975, 007-980, 007-716, 007-717 and 007-718

Note: Syringe Shields available for a selection of international syringes. Contact Biodex at 631-924-9000 or e-mail sales@biodex.com.

PRO-TEC™
PET/MR SYRINGE SHIELD



- *MR Conditional for 3T*
- *Ideal for the administration of high-energy isotopes for PET/MR imaging*
- *Constructed of .34" thick tungsten; attenuates FDG F-18 by 88%*
- *Easily sanitized with alcohol wipes*

This non-magnetic, Pro-Tec PET/MR Syringe Shield reduces hand exposure from syringes containing 511 keV radionuclides. The barrel of the shield is constructed of .34" thick tungsten, which attenuates FDG F-18 by 88%. The shield is clearly labeled and engraved as MR safe to avoid confusion.

A 5.6 high density, flush-mounted, lead-glass window provides additional protection and optimal visibility. A white reflective surface on the shield interior improves viewing of the syringe's markings and fluid content. A thumbscrew holds syringes firmly in place.

Pro-Tec PET/MR Syringe Shields accommodate the standard sized 3 cc and 5 cc syringes.

SPECIFICATIONS:
Shielding: .34" thick (9 mm) tungsten
Lead Glass: 5.6 density

Pro-Tec™ PET/MR Syringe Shields with lead glass window:
007-961 Syringe Shield, 3 cc
007-962 Syringe Shield, 5 cc

Pro-Tec™ PET/MR Syringe Shields without lead glass window:
007-966 Syringe Shield, 3 cc
007-967 Syringe Shield, 5 cc

Replacement:
007-974 Glass, Replacement
For Pro-Tec PET and Gaard Lock PET Syringe Shields 007-969, 007-973, 007-975, 007-980, 007-716, 007-717 and 007-718

NEW LEAD

VIAL SHIELD WITH MAGNETIC CAP

Color coding for easy identification

- *Magnetic cap designed to facilitate minimal handling*
- *.31" lead shielding*
- *Virtually unbreakable tungsten top*
- *Available with or without glass window*
- *Includes multi-colored labels for easy identification*

Designed to facilitate quick and easy access, the Lead Vial Shield features a tungsten screw top with a magnetic cap. For easy identification, a recessed hole is located on the top of the cap to accommodate a colored label.

The body of the vial shield is machined with .31" thick lead, accommodating most 10 ml vials.

A 4.2 density lead glass window provides protection and visibility.

SPECIFICATIONS:

Dimensions:
O.D.: 1.7" dia x 3.0" h (4.3 x 7.6 cm)
I.D.: 1.05" dia x 2.24" h (2.7 x 5.7 cm)
Lead Shielding: 0.31" thick (.79 cm)
Lead Equivalency: 0.286" thick lead for Tc-99m
Weight: 2.2 lb (1 kg))

053-610 Vial Shield, 0.31" lead, Magnetic Cap
Includes a sheet of colored labels

053-611 Vial Shield, 0.31" lead, Magnetic Cap, with glass
Includes a sheet of colored labels

NEW TUNGSTEN

VIAL SHIELD WITH MAGNETIC CAP

Magnetic cap designed to facilitate minimal handling

- *Significantly reduces hand exposure*
- *Virtually unbreakable*

Designed to reduce exposure when handling vials containing liquid radioisotopes, the Tungsten Vial Shield features a removable screw top with a magnetic cap to facilitate quick and easy access. Machined with 0.2" thick tungsten, the vial shield accommodates most 10 ml vials.

SPECIFICATIONS:

Dimensions:
O.D.: 1.44" dia x 2.99" h (3.7 x 7.59 cm)
O.D.: (at grip ring): 1.74" dia x 2.99 (4.4 x 7.59 cm)
I.D.: 1.02" dia x 2.25" h (2.6 x 5.7 cm)
Attenuation: > 99% for Tc-99m
Tungsten Shielding: 0.2" thick (.51 cm)
Lead Equivalency: 0.286" thick lead for Tc-99m
Accommodates Vial Size: 10 ml
Weight: 1.75 lb (0.80 kg)

053-806 Vial Shield, 0.2" Tungsten, Magnetic Cap

053-806-E Vial Shield, 0.2" Tungsten, Magnetic Cap
Custom engraving available for quantities of five or more. Customer must supply a Vector image.

Note: Engraved vial shields are not returnable.

VIAL SHIELD

For heated preparation of Sulphur Colloid, MAG-3, Cardiolite, AcuTect and NeoTect

This Vial Shield is designed to aid in preparation of radiopharmaceuticals that require boiling.

Vents are located to minimize scatter leakage, boiling water can circulate freely around the vial, heating the solution rapidly and uniformly. The carrying handle makes it easy to lower and remove the vial from the boiling water bath.

The vial is constructed of lead .25" thick. A 5.6 density flush mounted lead glass window provides protection and visibility. The radiation level for 25 mCi of Tc-99m is reduced to background.

SPECIFICATIONS:
Dimensions: 2" dia x 3.875" h (5 x 9.8 cm)
Lead Shielding: .25" thick (.64 cm)
Accommodates Vial Sizes: up to 1.5" dia x 3.125" h (3.8 x 7.9 cm)
Weight (including handle): 3 lb (1.4 kg)

001-236 Vial Shield, .25" lead

TUNGSTEN
VIAL SHIELD

- *Virtually unbreakable*
- *Safe handling of radioactive liquids*

The Tungsten Vial Shield is designed to greatly reduce exposure to vials containing liquid radioisotopes. The shield is constructed of .19" thick tungsten, equivalent to .271" lead at 140 keV.

Vials can be loaded from the top or bottom of the shield. A loss-proof slide injection port on the top allows easy access to the vial septum.

The tough tungsten will retain its shape under the roughest handling conditions and is virtually unbreakable.

SPECIFICATIONS:
Dimensions: 1.44" dia x 2.8" h (3.7 x 7 cm)
I.D.: 1" x 2.25" (2.5 x 5.7 cm)
Lead Equivalency: .271" (.69 cm) for Tc-99m
Accommodates Vial Size: 10 ml
Weight: 1.65 lb (0.75 kg)

053-805 Vial Shield, Tungsten

HIGH DENSITY LEAD GLASS
VIAL SHIELD

- *Lead glass provides clear visibility*
- *Accommodates most vials*
- *Centering action holds vials securely*

The High Density (5.6) Lead Glass Vial Shield reduces hand exposure and offers complete 360° visibility. The lead glass vial shield is suitable for low-energy radioisotopes.

The shield has a removable cap that makes cleaning and needle insertion as simple as possible while maintaining a sleek attractive appearance.

Automatic centering action positions vials within the shield and holds them securely for extra safety and convenience.

SPECIFICATIONS:
Lead Equivalency: .12" (3 mm)
HVL for 99m-Tc: 10
Accommodates Vial Sizes: 5 thru 30 ml
Weight: 3 lb (1.4 kg)

001-075 Vial Shield, .12" lead equiv

VIAL PIG

Compatible with the PET Shipping System

Vials containing PET or other high-energy radionuclides can be safely transported in this 10/30ml Vial Pig. The pig offers a minimum of 1" of lead shielding to accommodate the concentrated energy.

The Vial Pig can be used independently or with the Biodex PET Shipping System, which meets DOT II Type A packaging requirements.

SPECIFICATIONS:
Dimensions:
Exterior: 6.63" h x 4.15" dia (16.8 x 10.5 cm)
Interior: 2.76" h x 1.51" dia (7 x 4.4 cm)
Lead Shielding:
Sides and Bottom: 1" thick (2.5 cm)
Top: 1.75" (3.8 cm)
Weight: 21.3 lb (9.7 kg)

001-706 Pig, Vial, PET, 10/30 ml, 1" lead
For 30 ml vials
Includes: 001-707 Vial Pig Adapter, to accommodate 10 ml vials and three Absorbent Sheets

Related:
001-771 Sheets, Absorbent, 100/pkg

COLOR-CODED
SYRINGE LABELS

Labels quickly identify the radiopharmaceutical

MDP	MAA	SC	DTPA	GH	Tc04	PYP	Ga
212-001 Purple	*212-002 Light Orange*	*212-003 Yellow*	*212-004 Olive Green*	*212-005 Red*	*212-006 Pantone Purple*	*212-007 Blue*	*212-008 Orange*

Tl		HIDA	HDP	MIBI	DMSA	MAG-3	I-131
212-009 Reflex Blue	*212-011 Unmarked White*	*212-012 Brown*	*212-013 Purple*	*212-014 White*	*212-015 Green*	*212-016 Blue*	*212-017 White*

CARDIOLITE	CHOLETEC	Tc RBC	MYOVIEW	Neurolite	In-111	Saline	FDG
212-019 Pink	*212-023 Orange*	*212-026 White*	*212-027 White*	*212-028 White*	*212-030 White*	*212-031 White*	*212-032 White*

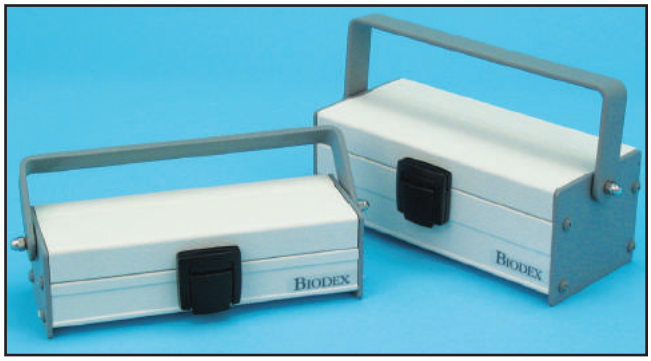
This color-coded system has been designed to quickly identify radiopharmaceuticals. The .5" diameter circles are colored, labeled with the radiopharmaceutical name, and easily affixed to the plunger top of syringes. The colors have been selected as a standard most representative of radiopharmaceutical manufacturers' packaging schemes.

Color-Coded Syringe Labels (500/roll):

212-001 Label, MDP
212-002 Label, MAA
212-003 Label, SC
212-004 Label, DTPA
212-005 Label, GH
212-006 Label, Tc04
212-007 Label, PYP
212-008 Label, Ga
212-009 Label, Tl
212-011 Label, (blank)
212-012 Label, HIDA
212-013 Label, HDP
212-014 Label, MIBI
212-015 Label, DMSA
212-016 Label, Mag-3
212-017 Label, I-131
212-019 Label, Cardiolite
212-023 Label, Choletec
212-026 Label, Tc RBC
212-027 Label, Myoview
212-028 Label, Neurolite
212-030 Label, In-111
212-031 Label, Saline
212-032 Label, FDG

SHIELDED
SYRINGE CARRIERS

Two sizes, each offered in .125" and .25" lead shielding for added protection



Shielded Syringe Carriers, small and large

Shielded Syringe Carriers reduce exposure while storing or transporting radioactive material. The overlapping lid design with snap-latch closure prevents streaming. There are two sizes and thicknesses of lead to choose from. The ends of the carriers are double thick to reduce the exposure from the ends of syringes.

SPECIFICATIONS:

001-179 Shielded Syringe Carrier, Large
Dimensions:
I.D.: 8.25" l x 3" w x 2.9 h (21 x 7.6 x 7.4 cm)
O.D.: 9.5" l x 4.4" w x 3.5" h (24 x 11.2 x 8.9 cm)
Lead Shielding:
Sides, top and bottom: .125" thick (.32 cm)
Ends: .25" thick (.64 cm)
Weight: 11.3 lb (5.1 kg)

001-181 Shielded Syringe Carrier, Small
Dimensions:
I.D.: 8" l x 1.9" w x 1.97" h (20.3 x 4.8 x 5 cm)
O.D.: 9.25" l x 3.4" w x 2.6" h (23.5 x 8.6 x 6.6 cm)
Lead Shielding:
Sides, top and bottom: .125" thick (.32 cm)
Ends: .25" thick (.64 cm)
Weight: 7.5 lb (3.4 kg)

001-182 Shielded Syringe Carrier, Small
Dimensions:
I.D.: 7.5" l x 1.7" w x 1.7" h (19 x 4.3 x 4.3 cm)
O.D.: 9.25" l x 3.4" w x 2.6" h (23.5 x 8.6 x 6.6 cm)
Lead Shielding:
Sides, top and bottom: .25" thick (.64 cm)
Ends: .5" thick (1.3 cm)
Weight: 11 lb (4.9 kg)

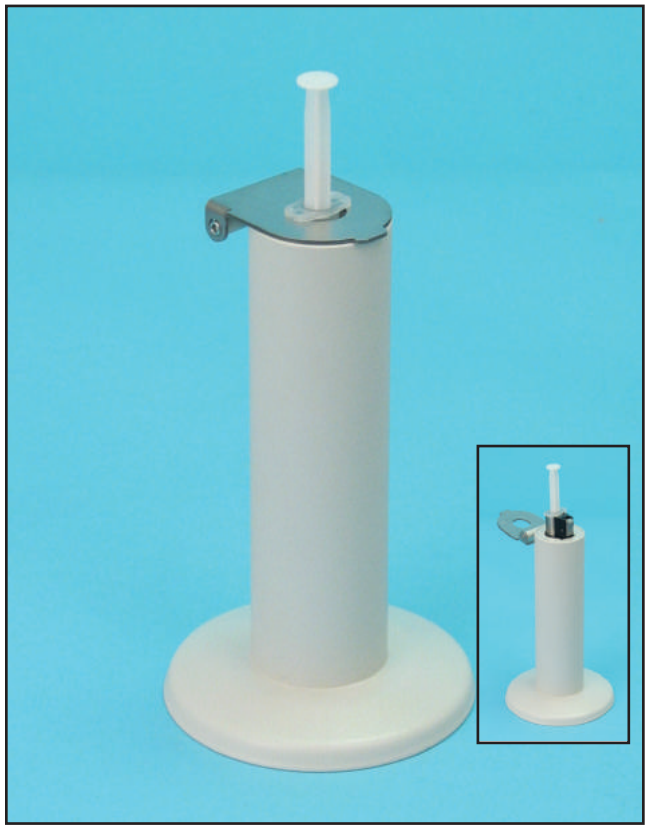
001-180 Shielded Syringe Carrier, Large
Dimensions:
I.D.: 7.7" l x 2.6" w x 2.7" h (19.6 x 6.6 x 6.9 cm)
O.D.: 9.5" l x 4.4" w x 3.5" h (24 x 11.2 x 8.9 cm)
Lead Shielding:
Sides, top and bottom: .25" thick (.64 cm)
Ends: .5" thick (1.3 cm)
Weight: 17 lb (7.7 kg)

Shielded Syringe Carrier, .125" lead:
001-181 Syringe Carrier, Small
001-179 Syringe Carrier, Large

Shielded Syringe Carrier, .25" lead:
001-182 Syringe Carrier, Small
001-180 Syringe Carrier, Large

SHIELDED
SYRINGE HOLDER

Accommodates shielded and unshielded syringes



For added protection, store loaded syringes in the Shielded Syringe Holder

This Shielded Syringe Holder will accommodate unshielded syringes and syringes in a syringe shield.

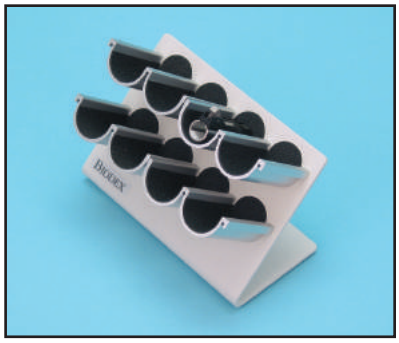
The Syringe Holder is constructed of lead shielding, encased in steel. The shielding tapers from .25" - .5" lead. The large diameter base ensures stability.

SPECIFICATIONS:
Dimensions: 6.5" h (16.5 cm)
I.D.: .84" dia. x 5.6 h (2.1 x 14.3 cm)
Lead Shielding: .25" - .5" thick (.64 cm - 1.3 cm)
Accommodates Syringe Shields:
Pro-Tec II: 1 cc, 3 cc, 5 cc
Pro-Tec III: 1 cc, 3 cc, 5 cc
Pro-Tec IV: 1 cc
Weight: 6 lb (2.7 kg)

009-205 Syringe Holder, Shielded

SYRINGE SHIELD HOLDER

Protect your investment



Don't let your syringe shields roll around on the counter. The Syringe Shield Holder offers a means of protecting syringe shields from scratches or misplacement while freeing up extra work space. The Syringe Shield Holder will support up to eight shields and is counter-balanced to prevent tipping. Know exactly where syringe shields are when you need them.

SPECIFICATIONS:
Dimensions: 7.5" w x 4" depth x 6" h (19 x 10.2 x 15.2 cm)
Weight: 5 lb (2.3 kg)

007-999 Syringe Shield Holder

SYRINGE RECAPPER

Syringe recapping device

Don't put yourself at risk with an accidental needle stick! The Syringe Recapper is a safe and inexpensive way to protect yourself when recapping a used syringe. Used either hand-held or placed on a flat surface, such as a procedure tray, the Recapper is made of a lightweight plastic that is easily carried anywhere.

008-300 Syringe Recapper
3.25" l x 2.75" w (8.3 x 7 cm)

INJECTION STAND

Convenient, adjustable and portable for safe injections; includes a Lead-Lined Multi-Syringe Holder for convenient radionuclide injections

The Injection Stand allows fast, comfortable arm positioning for radionuclide injections. The clear plastic armrest rotates 180° facilitating convenient angling while the cradle design holds the patient's arm firmly in place. A utility tray sits adjacent to the armrest to place various supplies and includes a shielded Multi-Syringe Holder, which accommodates up to four syringes.

The stand is height adjustable to accommodate patient comfort. Smooth rolling casters allow the stand to roll easily into position or out of the way for storage when not in use. The stand is structurally balanced to help prevent tipping.

SPECIFICATIONS:
Height Adjustable: 29" h to 44" h (74 to 112 cm)
Stand Base: 17.5 x 17.5 (44.5 x 44.5 cm)
Construction: Stable, chrome plated tubular steel
Shipping Weight: 21 lb (10 kg)

135-022 Stand, Injection

INJECTION CHAIR

Injection Chair features an easy to clean, one piece plastic drawer. Drawer and arm can be mounted on either side of the chair.

Designed specifically for injections and blood drawing, this chair is a comfortable solution for patient seating and positioning. The flat surface of the armrest prevents backbending of the elbow and subsequent flattening of the vein. The armrest is height adjustable to accommodate all patient sizes with a knob adjustable double pivot swing arm. The seat itself is one piece of plastic which makes it easy to clean. A stiffener bias limits backrest flexibility to ensure stable seating.

SPECIFICATIONS:
Dimensions:
23" l x 43" w (58.5 x 109 cm)
Seat Dimensions: 16" l x 17" w x 20" h (40.6 x 43 x 51 cm)
Arm Height (adjustable): 27" h to 33" h (69 to 84 cm)
Width between arms: 20" (51 cm)
Construction (frame): Heavy steel tubing 1.25" (3 cm) square, with chromed steel uprights for stability
Weight:
35 lb (15.9 kg)
Patient Weight Capacity: 250 lb (113.4 kg)

214-220 Chair, Injection with Storage Drawer

INJECTION / RESTING CHAIR

A comfortable rest between injection and imaging

Most protocols require that prior to imaging, a patient rest for up to one hour after an injection of FDG F-18. Typical injection chairs are not designed for comfort, making rest difficult.

The Injection/Resting Chair is a comfortable resting spot for patients to wait between injection and imaging. The chair achieves three recline positions and features an infinitely adjustable back. For patient safety, deep recline and Trendelenburg positions can only be achieved by the attendant. A quick release handle that spans the entire width of chair back allows effortless position change from either side of the chair.

SPECIFICATIONS:
Dimensions: 35" w x 49" h (89 x 125 cm)
Seat: 20" depth x 25" w x 21" h (51 x 64 x 53 cm)
Back: 25" w x 34" h, above seat (64 x 86 cm)
Upholstery: Blueridge, fire retardant
Frame: Welded powder-coated steel
Casters: Four 5" heavy-duty with positive locking swivel and wheel brakes
Warranty: Five-year on frame
Patient Capacity: 450 lb (204 kg)
Weight: 116 lb (52.6 kg)

214-210 Chair, Injection / Resting

SHIELDED STORAGE CONTAINERS

For beta and gamma radiation

Eliminate clutter and reduce safety hazards with convenient Shielded Storage Containers

Molded plastic liner with threaded lid fits Storage Container 050-250.

Shielded Storage Containers are useful for storing used syringes, alcohol wipes, etc., that may be contaminated with low-energy gamma or beta radiation residue prior to disposal.

The 050-200 and 050-250 Storage Containers are constructed of stainless steel lined with .125" lead (.32 cm.).

The 050-205 is constructed of stainless steel lined with .25" lead (.64 cm) and .0625" aluminum (1.6 mm). This shielding combination attenuates gamma radiation, beta radiation and errant bremsstrahlung.

SPECIFICATIONS:

050-200 Shielded Storage Container, Gamma, Small
Dimensions: 6.5" h x 5" dia (16.5 x 12.7 cm)
Lead Shielding: .125" thick (.32 cm)
Weight: 7 lb (3.2 kg)

050-250 Shielded Storage Container, Gamma, Large
Dimensions: 7" h x 6" dia (17.8 x 15.2 cm)
Lead Shielding: .125" thick (.32 cm)
Weight: 9 lb (4.1 kg)

050-205 Shielded Storage Container , Beta/Gamma, Small,
Dimensions: 6.5" h x 5" dia (16.5 x 12.7 cm)
Lead Shielding: .25" thick (.64 cm)
Aluminum Shielding: .0625" thick (1.6 mm)
Weight: 12 lb (5.4 kg)

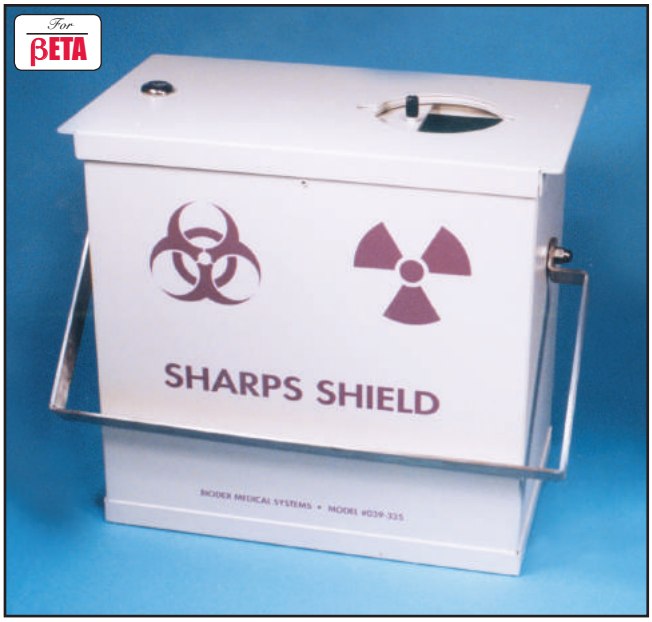
050-200 Storage Container, Gamma, Small, .125" lead
050-250 Storage Container, Gamma, Large, .125" lead
050-205 Storage Container, Beta/Gamma, Small, .25"lead/.0625" al

Related:
007-007 Liner, Molded Plastic, 12/pkg
040-315 Liner, Poly Bag, 50/pkg
Measures 6" x 3" x 15"
Fits 050-200, 050-250 and 050-205

SHARPS CONTAINER SHIELD

KEY-LOCKED

For beta and gamma radiation



This Sharps Container Shield is a simple way to dispose of used syringes that may be contaminated with low-energy gamma and beta radiation residue. The shield is constructed of steel, lined with .125" lead and .0625" aluminum. The shielding combination attenuates gamma radiation, beta radiation and errant bremsstrahlung.

The shield features a top with sliding port and a swing hand for easy transport. It is designed to accommodate small and medium Monoject Sharps containers.

SPECIFICATIONS:

Shield accommodates small and medium Monoject Sharps containers
Dimensions: 7.5" l x 11.75" w x 10" h (19 x 30 x 25 cm)
I.D.: 7" l x 11.25" w x 9.5" h (18 x 29 x 24 cm)
Lead Shielding: .125" thick (.32 cm)
Aluminum Shielding: .0625" thick (1.6 mm)
Security: Key-locked
Finish: Powder coat
Weight: 48 lb (22 kg)

039-330 Sharps Container Shield, Beta/Gamma
For Monoject Containers 039-338 and 039-388

Related:
039-338 Monoject Container, 4 qt., 10/pkg
Fits 039-325, 039-326, 039-350 and 039-330
039-388 Monoject Container, 8 qt., 20/pkg
Fits 039-325, 039-326 and 039-330

SHARPS CONTAINER SHIELDS

Key-lock design meets OSHA standards

Transfer the full Sharps Container to the Decay Module for syringe decay storage.

Sharps Container Shields are a simple, safe and convenient way to dispose of used syringes that may contain low-energy gamma radiation residue. The shields are constructed of steel, lined with .125" (.32 cm) lead. They feature a top with sliding port and a swing handle that allows easy transport.

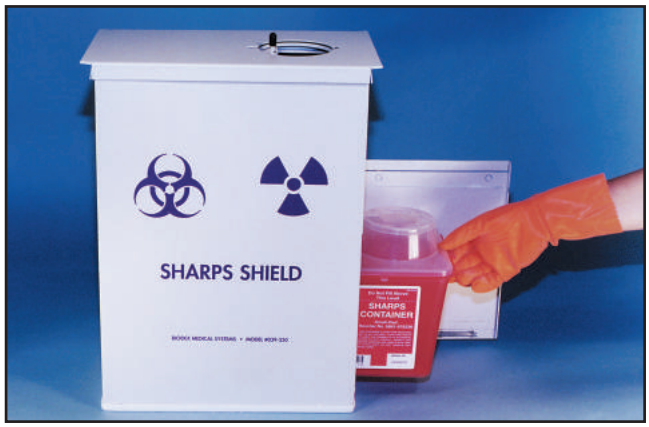
Two models are available for one sharps container:

- Model 039-325 accommodates small and medium Monoject Sharps Containers.
- Model 039-335 accommodates Sharpstainer* containers.

One model is available for two sharps containers:

- Model 039-350 accommodates two small Monoject Sharps Containers simultaneously for decay rotation.

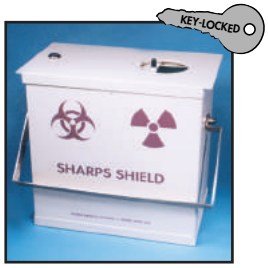
The sharps containers are stacked inside the shield. When the top container is filled, the bottom decayed container is removed for proper waste disposal. The top container is then shifted to the lower position for decay while a fresh container is placed on top for immediate use. Spring clamps hold containers securely in place.



Dual Container Sharps Shield houses two containers for decay rotation.

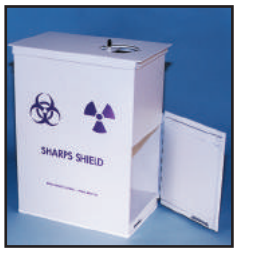
SPECIFICATIONS:

039-325 Sharps Container Shield
Shield uses 039-338 and 039-388 Monoject Sharps containers
Dimensions: 7.5" l x 11.75" w x 10" h (19 x 30 x 25 cm)
I.D.: 7" l x 11.25" w x 9.5" h (18 x 29 x 24 cm)
Lead Shielding: .125" thick (.32 cm)
Security: Key-locked
Finish: Powder coat
Weight: 48 lb (22 kg)



039-335 Sharps Container Shield
Shield uses 039-341
Dimensions: 7.5" l x 12.5" w x 13" h (19 x 32 x 33 cm)
I.D.: 6.875" l x 10.75" w x 12.5" h (17.5 x 27 x 32 cm)
Lead Shielding: .125" thick (.32 cm)
Security: Key-locked
Finish: Powder coat
Weight: 53 lb (24 kg)

039-350 Sharps Container Shield, Dual
Shield uses two 039-338 Monoject Sharps containers
Dimensions: 7.375" l x 12" w x 16.75" h (19 x 30.5 x 42.5 cm)
I.D.: 7" l x 11.5" w x 14.875" h (18 x 29 x 38 cm)
Lead Shielding: .125" thick (.32 cm)
Finish: Powder coat
Weight: 60 lb (27 kg)



Sharps Container Shields:

039-325 Sharps Container Shield, .125" lead
For Monoject containers 039-338 and 039-388

039-335 Sharps Container Shield, .125" lead
For Sharpstainer container 039-341*

039-350 Sharps Container Shield, Dual, .125" lead
For Monoject containers 039-338

Related:

039-338 Monoject Container, 4 qt., 10/pkg
Fits 039-325, 039-326, 039-350 and 039-330

039-388 Monoject Container, 8 qt., 20/pkg
Fits 039-325, 039-326 and 039-330

039-341 Sharpstainer* Container, 6.2 qt., (#182), 12/pkg
Fits 039-335

**Note: Sharpstainer formerly Winfield*

HIGH-ENERGY
SHARPS CONTAINER SHIELD

KEY-LOCKED

This Sharps Container Shield is a simple, safe and convenient solution for disposal of used that may be contaminated with high-energy isotopes such as I-131. The shield is constructed of steel lined with .5" of lead (1.3 cm).

The shield features a hinged top with a sliding port and side handles which allow for easy transport. It will accommodate both small and medium Monoject Sharps containers.

SPECIFICATIONS:
Dimensions:
I.D.: 7" l x 11.38" w x 11.25" h
O.D.: 9.19 " l x 15.25" w x 13.31" h
Lead Shielding: .5" thick (1.3 cm)
Security: Key-locked
Finish: Powder coat
Weight: 160 lb (72.3 kg)

039-326 Sharps Container Shield, .5" lead
For Monoject Containers 039-338 and 039-388

Related:
039-338 Monoject Container, 4 qt., 10/pkg
Fits 039-325, 039-326, 039-350 and 039-330
039-388 Monoject Container, 8 qt., 20/pkg
Fits 039-325, 039-326 and 039-330

HIGH-ENERGY PET
SHARPS CONTAINER SHIELD

KEY-LOCKED

Designed to stand on, or recess into, a countertop

Sharps Container Shield shown recess mounted in countertop.

The Sharps Container Shield for PET is a simple, safe and convenient solution for disposal of syringes that have been contaminated with high-energy radionuclides. The shield is constructed of steel and lined with 1" thick (2.5 cm) lead.

The shield is designed to be used with 039-413 sharps containers. It features a lockable sliding cover for container removal and a hinged top door for syringe disposal.

The shield can stand independently or can be recessed into a cabinet or countertop.

SPECIFICATIONS:
Dimensions: 12" h x 8.75" dia (30.5 x 22.2 cm)
Lead Shielding:
Sides and Bottom: 1" thick (2.5 cm)
Rotating Cover: .875" thick (2.2 cm)
Hinged Door: .625" thick (1.5 cm)
Security: Key-locked
Weight: 175 lb (79.4 kg)
Shipping Weight: 222 lb (100.6 kg)

039-412 Sharps Container Shield, PET, 1" lead
Uses one 039-413 Sharps Container

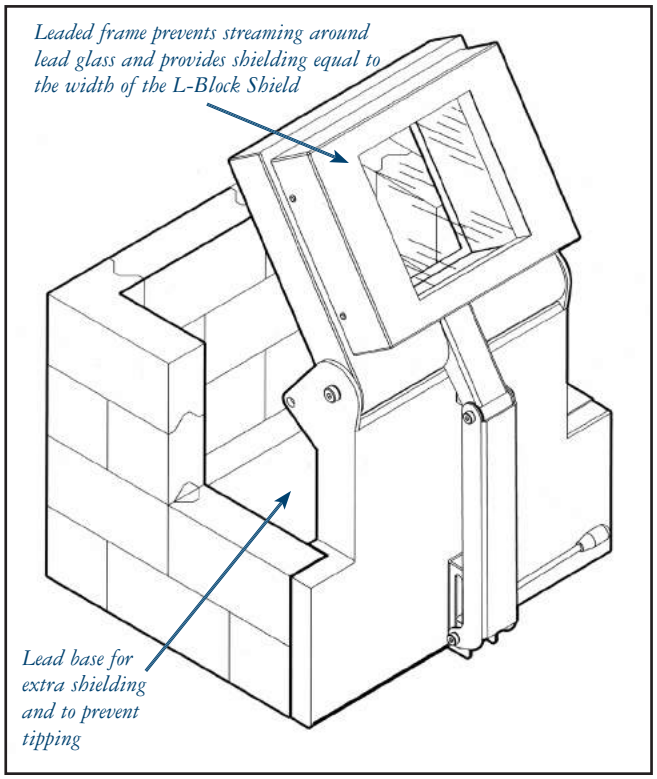
Related:
039-413 Sharps Container, 3.2 qt., 30/pkg
Fits 039-412

DELUXE L-BLOCK SHIELD

Ideal for PET pharmacies

- *2.4" lead shielding in front and in base*
- *8" x 8" x 4" easily adjustable lead glass window*
- *Optional Lead Brick Cave for complete lateral shielding*

The Deluxe L-Block Shield is designed for managing large quantities of high-energy radionuclides. The shield is constructed of 2.4" thick lead encased in steel, and features a large 8" x 8" x 4" lead glass window. A convenient lever allows quick adjustment of window to optimal angle for any user and procedures. The optional 042-417 Lead Brick Cave fits neatly into the sides of the vertical section to provide lateral shielding around the full perimeter of the L-Block's base. A special plate with a hex-shaped recess is mounted on the base to facilitate one-handed loading and unloading of dose pigs incorporating hex-shaped bottoms.



SPECIFICATIONS:

042-413 Deluxe L-Block Shield
Dimensions: 20" w x 17.88" depth x 28.75" h (50.8 x 45.4 x 73 cm)
Lead Shielding: 2.4" thick (6 cm)
Lead Glass Window:
Dimensions: 8" w x 8" h x 4" thick (20.3 x 20.3 x 10.2 cm)
Density: 5.2 g/cm3
Lead Equivalency: 1.6" (4.1 cm) at 662 KeV
Finish: Powder coat
Weight: 550 lb (250 kg)
Shipping Weight: 702 lb (318.4 kg)

042-417 Interlocking Lead Brick Cave
Dimensions:
I.D.: 15.3" w x 13.6" depth x 16" h (38.9 x 34.5 x 40.6 cm)
Lead Shielding: 2.4" thick (6 cm)
Finish: Paint
Weight: 611 lb (278 kg)

042-407 Steel Table
Dimensions: 36.75" w x 24" depth x 36" h (93.5 x 61 x 91.5 cm)
Shipping Weight: 195 lb (88 kg)
Detailed specifications on page 25

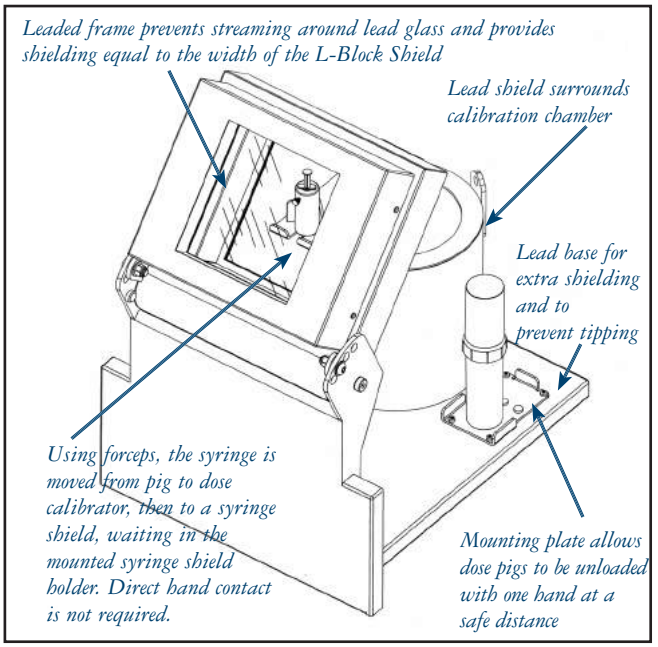
042-413 L-Block Shield, Deluxe, 2.4" lead

Related:
042-417 Lead Brick Cave, 3-wall, 2.4" lead
Fits 042-413 L-Block Shield
042-407 Table, Steel

Biodex L-Block Shields incorporate a hex-shaped plate to facilitate one-handed loading and unloading of Biodex PET Pigs.

COMPACT
L-BLOCK WITH DOSE CALIBRATOR SHIELD

Space-saving design – Ideal for mobile units



- *1.5" thick lead shielding in front, 1" in base*
- *8" x 8" x 4" adjustable lead glass window*
- *1" thick lead shield surrounds calibration chamber*
- *Optional Lead Brick Cave for complete lateral shielding*

The unique Compact L-Block with Dose Calibrator Shield is designed to maximize space in facilities receiving and preparing doses of high-energy nuclides such as FDG F-18. This unit provides convenient access and viewing of the work area and incorporates a built-in calibration chamber shield. The special shield is designed to accommodate a chamber that is through-mounted in a countertop (customer responsible for installation). The chamber shield accommodates all Atomlab chambers and many others (check chamber shield specifications to determine fit). This combination of L-Block and dose calibrator shield eliminates the need to purchase interlocking shielding rings. This unit is constructed of lead encased in steel. It features a large 8" x 8" x 4" lead glass window with adjustable window angle, 1.5" thickness lead shielding in front, and 1" thick lead in the base and in the chamber shield. A special plate with a hex-shaped recess is mounted on the L-Block base to facilitate one-handed loading and unloading of dose pigs incorporating hex-shaped bottoms. The optional 042-434 Lead Brick Cave fits neatly into the sides of the vertical section to provide lateral shielding around the full perimeter of the L-Block's base. For hot labs in mobile vans, the optional Brick Cave Cover will prevent the cave from shifting when the vehicle is in motion.

SPECIFICATIONS:

042-433 Compact L-Block with Dose Calibrator Shield
Dimensions: 18" w x 21.5" depth x 26" h (45.7 x 54.6 x 66 cm)
Lead Shielding:
Front: 1.5" thick (3.8 cm)
Base: 1" thick (2.5 cm)
Calibrator Shield: 1" thick (2.5 cm)
Calibrator Shield Inside Dimensions: 6.85" I.D. x 10.25" h (17.4 x 26 cm)
Lead Glass Window:
Dimensions: 8" w x 8" h x 4" thick (20.3 x 20.3 x 10.2 cm)
Density: 5.2 g/cm^3
Finish: Powder coat
Weight: 570 lb (259 kg)
Shipping Weight: 590 lb (267.6 kg)

042-434 Interlocking Lead Brick Cave
Dimensions:
I.D.: 14" w x 20.5" depth x 16" h (35 x 52.1 x 40.6 cm)
Lead Shielding: 2" thick (5 cm)
Finish: Paint
Weight: 597 lb (271 kg)

042-433 Compact L-Block with Dose Calibrator Shield, 1.5" lead
With built-in Dose Calibrator Shield

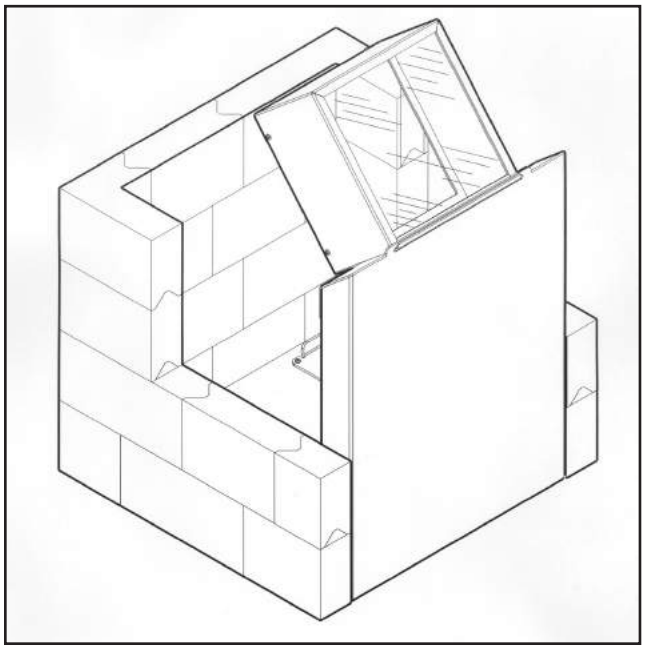
Related:
042-434 Lead Brick Cave, 3-wall, 2" lead
Fits 042-433 L-Block Shield
042-435 Lead Brick Cave Cover
Fits 042-434 Lead Brick Cave

Biodex L-Block Shields incorporate a hex-shaped plate to facilitate one-handed loading and unloading of Biodex PET Pigs.

L-BLOCK SHIELDS

For handling unit doses of high-energy radionuclides

042-419 L-Block Shield



- ***Lead shielding choices:***
  1.5" – 2" thickness in front
  1" thickness in base
- ***Lead glass window:***
  8" x 8" x 4"
- ***Installs easily***
- ***Optional Lead Brick Cave for complete lateral shielding***

Designed for receiving and preparing unit doses of high-energy radionuclides, these L-Blocks provide a choice of 1.5" or 2" thick lead shielding in front, and 1" thick lead in the base. The L-Block features an 8" x 8" x 4" lead glass window. A special plate with a hex-shaped recess is mounted on the base to facilitate one-handed loading and unloading of dose pigs incorporating hex-shaped bottoms. An optional Lead Brick Cave may be added to provide lateral shielding around the full perimeter of the L-Block's base. These L-Blocks are shipped in modular form for easy installation without lifting equipment. No component weighs more than 50 pounds. After placing the base frame in its location, pre-cut lead sheets are loaded into the horizontal and vertical portions of the steel frame. The window module is mounted, and assembly is completed by securing window unit and steel end cap with four Phillips head screws. A Phillips screwdriver is the only tool needed. Assembly instructions are provided.

SPECIFICATIONS:
042-419 L-Block Shield (8" x 8" x 4" window)
Dimensions: 14" w x 15" d x 24.7" h (36 x 38 x 62 cm)
Lead Shielding:
Front: 1.5" (3.8 cm) thick
Base: 1" (2.5 cm) thick
Lead Glass Window:
Dimensions: 8" w x 8" h x 4" thick (20 x 20 x 10 cm)
Density: 5.2 g/cm^3
Finish: Powder coat
Weight: 290 lb (131 kg)
Shipping Weight: 355 lb (161 kg)

042-449 2" L-Block Shield
Dimensions: 14" w x 18" depth x 24.7" h (36 x 46 x 62 cm)
Lead Shielding:
Front: 2" thick (5.08 cm)
Base: 1" thick (2.5 cm)
Lead Glass Window:
Dimensions: 8" w x 8" h x 4" thick (20 x 20 x 10 cm)
Density: 5.2g/cm^3
Finish: Powder Coat
Weight: 345 lb (156 kg)
Shipping Weight: 420 lb (191 kg)

042-419 L-Block Shield, 1.5" lead
With 8" x 8" x 4" lead glass window
042-449 L-Block Shield, 2" lead
With 8" x 8" x 4" lead glass window

Related:
042-425 Lead Brick Cave, 3-wall, 2" lead
Fits 042-419 L-Block Shield
042-426 Lead Brick Cave, 3-wall, 2" lead
Fits 042-449 and 042-419 L-Block Shields
Accommodates 042-466 PET Dose Drawing System
042-407 Table, Steel
Note: For detailed specifications on Interlocking Lead Brick Caves see page 25.

TABLETOP SHIELD

For Beta and Gamma Radiation

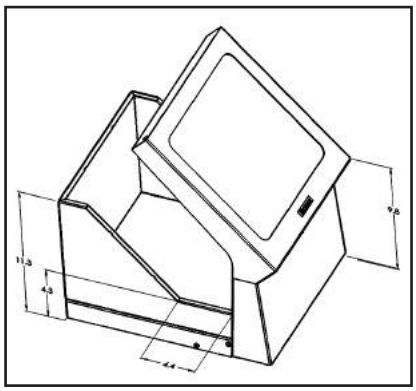
Protects face and body when working with radioactive material. Seamless work area is easy to clean/decontaminate.

- ***Shields both Beta and Gamma Radiation***
- ***Seamless work area for easy cleaning and decontamination***
- ***Work surface features a built in splash tray with a lip for fast, contained cleanup***

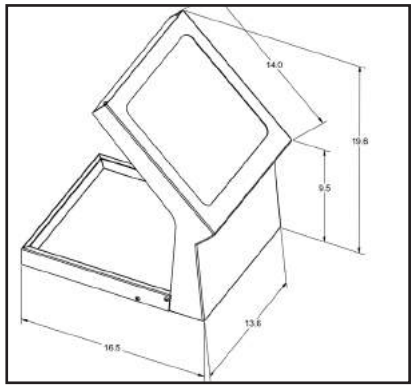
This Tabletop Shield provides protection while working with mid to low-energy beta and gamma radioactive materials. The shield is designed to resist tipping and incorporate shielding overlap to eliminate radiation streaming. The entire interior work surface is one continuous piece of steel designed with a built in splash tray containing a lip for fast, contained cleanup.

The front wall of the shield is constructed of .5" thick lead and completely encased with powder-coated steel. A lead glass window (2 mm LE) and a Plexiglas® panel are included. This shielding combination attenuates gamma and beta radiation, and errant bremsstrahlung, with unimpaired viewing of the work area. An optional 2 mm LE lead glass window is available to achieve 4.0 mm lead equivalency.

Optional side and bottom shields offer additional protection. Manufactured to be durable, the Beta/Gamma Tabletop Shield is framed in steel with a powder-coat finish.



Tabletop Shield shown with optional side shield, 042-227



Dimensions of Tabletop Shield

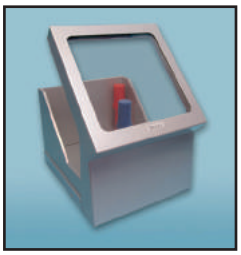
SPECIFICATIONS:

Tabletop Shield
Dimensions: See drawings featured
Lead Shielding: .5" thick (1.2 cm)
Viewing Panel:
Lead Equivalency: 2 mm (an optional lead glass panel can be paired to achieve 4.0 mm lead equivalency)
Clear Plexiglas®: For Beta Shielding
Viewing area: 11.1" x 11.1" (28.2 x 28.2 cm)
Finish: Silver powder coat

Side Shield
Dimensions: See drawings featured
Lead Shielding: .25" thick (.64 cm)
Finish: Silver powder coat

Bottom Shield
Dimensions: 12.78 x 12.91 (32.5 x 32.8 cm)
Lead Shielding: 0.25 thick (.64 cm)

Shipping Weight:
042-224: 79 lb (35.8 kg)
042-228: 10 lb (4.5 kg)
042-227: 42 lb (19 kg)
042-226: 10 lb (4.5 kg)

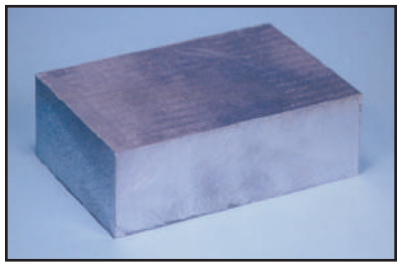


Tabletop Shield shown with optional side shield.

Tabletop Shield:
042-224 Shield, Tabletop, .5" lead
With 2.0 mm lead equivalent glass and Plexiglas® panel

Optional:
042-228 Lead Glass Plate, 8 mm thick, 12" x 12"
042-227 Side Shield, .25" lead
042-226 Bottom Shield, .25" lead

RECTANGULAR
LEAD BRICKS



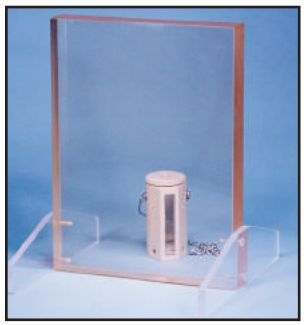
Lead Bricks are a convenient solution to temporary or permanent shielding/storage situations. Easy to stack, unstack and relocate, lead bricks provide maximum protection wherever needed. Produced from the highest quality lead, each brick is standard hardness with a flat, smooth surface, allowing a perfectly flush fit, even at sharp right angles.

SPECIFICATIONS:
002-246 Rectangular Lead Brick
Dimensions: 6" l x 4" w x 2" h (15 x 10 x 5 cm)
Weight: 21 lb (9.5 kg)

002-248 Rectangular Lead Brick
Dimensions: 8" l x 4" w x 2" h (20 x 10 x 5 cm)
Weight: 27 lb (12.5 kg)

002-246 Lead Brick, Rectangular, 6" long
002-248 Lead Brick, Rectangular, 8" long

GAMMA
BENCH TOP SHIELD



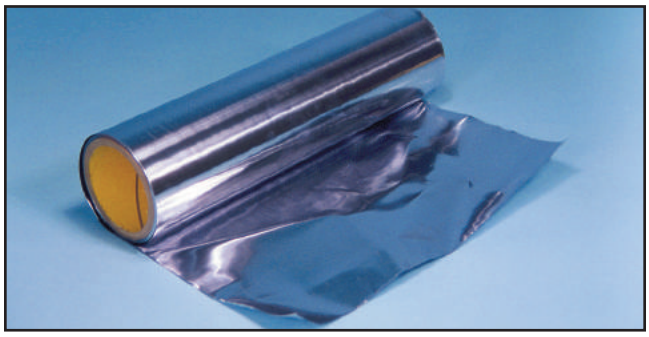
The Bench Top Shield for gamma radiation is constructed of 1.375" thick (35 mm) lead acrylic, providing the equivalent of 0.060" (1.5 mm) lead for shielding gamma radiation. Lead acrylic can be used with low-energy gamma emitters. Lead acrylic is not recommended for beta emitters. This lightweight, sturdy shield is ideal for use in hoods, on laboratory benches or any "hot" area where local shielding is needed. Side legs give the shield exceptional stability.

SPECIFICATIONS:
Dimensions: 9" w x 12" h x 1.375" thick (230 x 305 x 35 mm)
Weight: 9 lb (4 kg)

Radionuclide	Approximate Attenuation Factor
I-125	10^{25}
Xe-133	10^{10}
Co-57	10^{3}
Tc-99m	75
I-123	6
Ga-67	2

042-710 Shield, Bench Top, Gamma

LEAD FOIL



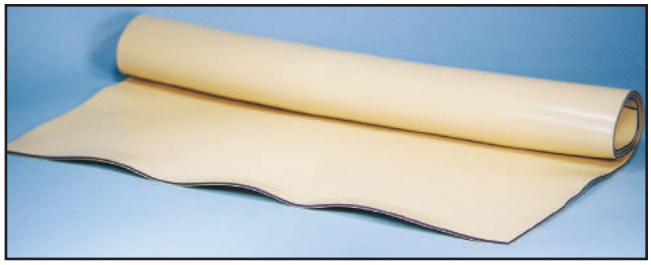
Easily cut and shaped

Lead Foil has a myriad of uses around the laboratory. It is easily cut and formed into almost any shape for shielding areas or objects.

SPECIFICATIONS:
Dimensions: 6.7' l x 14" w x .03" thick (2 m x 36 cm x .76 mm)
Weight: 13.7 lb (6.2 kg)

104-030 Lead Foil
6.7' l x .030" thick (2 m x .76 mm)

LEAD VINYL SHEETS



Lead Vinyl Sheets are 10% lighter in weight than lead rubber with the same lead equivalent. The sheets feature uniform density throughout with an abrasion resistant, non-absorbing, smooth surface on both sides. Easily cut to any shape for protective applications, the Lead Vinyl Sheets are acid and alkali resistant, odorless and have an indefinite shelf life.

SPECIFICATIONS:
Dimensions: 2' l x 3' w (.61 x .92 m)
Nominal Thickness: .156" (.39 cm)
Lead Equivalency: 1.00 mm
Color: Beige
Weight: 22 lb (10 kg)

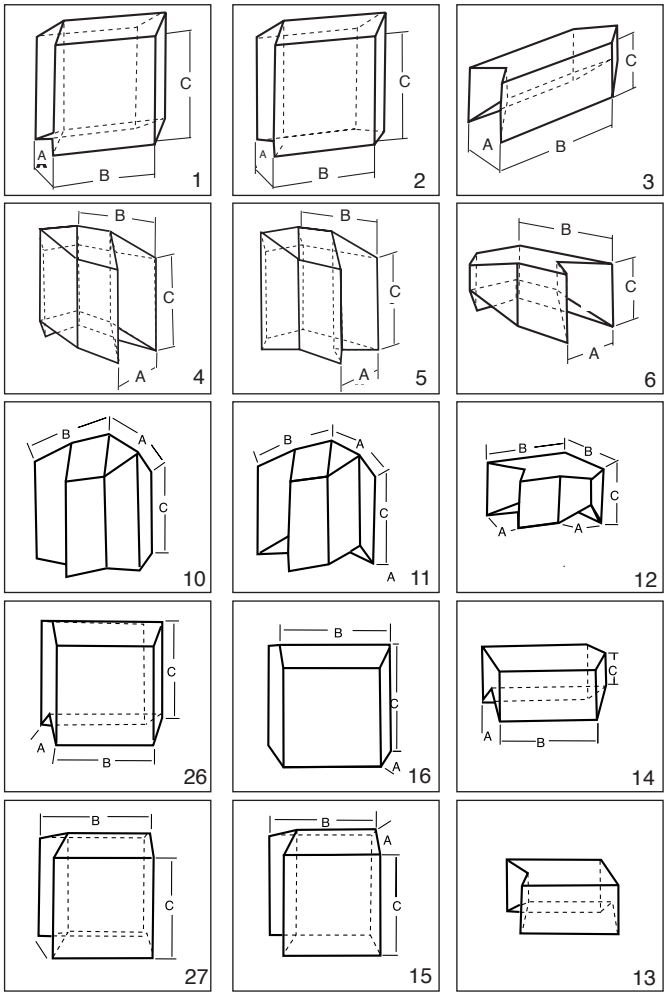
055-903 Lead Vinyl Sheet
Note: Product contains lead. Handle with gloves and avoid skin contact.

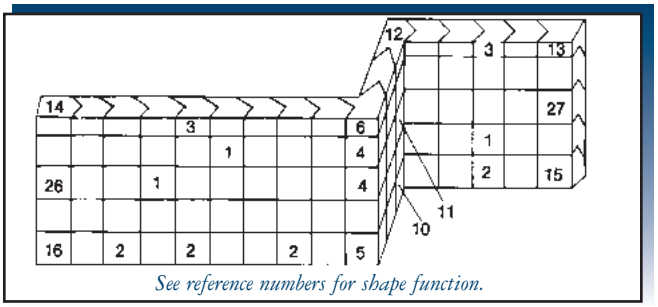
INTERLOCKING LEAD BRICKS

DURABLE PAINT FINISH

Interlocking design prevents leakage and assures stability

Interlocking Lead Bricks make it easy to erect, modify and relocate protective walls and caves of any size. Their V-shaped edges (A) eliminate the danger of leakage, common to all straight-edged bricks. Interlocking Lead Bricks create sturdy walls for a safe, protective enclosure.





See reference numbers for shape function.

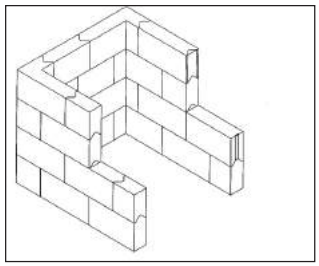
This wall demonstrates the dimensions and alternative positions of all variations of the standard brick wall. The walls should be built with male chevrons directed upwards and to the right, as viewed from the outside of the cell.

1	**001-100**	Brick, Standard, Wall ***Weight:*** *13.2 lb (6 kg)*	2" x 4" x 4"
2	**001-200**	Brick, Standard, Base ***Weight:*** *14.9 lb (6.9 kg)*	2" x 4" x 4"
3	**001-300**	Brick, Standard, Top ***Weight:*** *5 lb (2.3 kg)*	2" x 4" x 2"
4	**001-400**	Brick, Corner, Wall ***Weight:*** *13.2 lb (6 kg)*	2" x 4" x 4"
5	**001-500**	Brick, Corner, Base ***Weight:*** *14.9 lb (6.9 kg)*	2" x 4" x 4"
6	**001-600**	Brick, Corner, Top ***Weight:*** *5 lb (2.3 kg)*	2" x 4" x 2"
11	**001-132**	Brick, Reverse Corner, Wall ***Weight:*** *13.2 lb (6 kg)*	2" x 4" x 4"
10	**001-130**	Brick, Reverse Corner, Base ***Weight:*** *14.9 lb (6.8 kg)*	2" x 4" x 4"
12	**001-135**	Brick, Reverse Corner, Top ***Weight:*** *5 lb (2.3 kg)*	2" x 4" x 2"
26	**001-148**	Brick, Left End Cap, Wall ***Weight:*** *14.9 lb (6.9 kg)*	2" x 4" x 4"
16	**001-147**	Brick, Left End Cap, Base ***Weight:*** *13.2 lb (6 kg)*	2" x 4" x 4"
14	**001-142**	Brick, Left End Cap, Top ***Weight:*** *5.2 lb (2.4 kg)*	2" x 4" x 2"
27	**001-149**	Brick, Right End Cap, Wall ***Weight:*** *14.9 lb (6.9 kg)*	2" x 4" x 4"
15	**001-145**	Brick, Right End Cap, Base ***Weight:*** *13.2 lb (6 kg)*	2" x 4" x 4"
13	**001-140**	Brick, Right End Cap, Top ***Weight:*** *5.2 lb (2.4 kg)*	2" x 4" x 2"

INTERLOCKING LEAD BRICK CAVES

DURABLE PAINT FINISH

Design your own enclosure or select from these most popular 3-walled caves.



042-434 Interlocking Lead Brick Cave, 2" lead (fits L-Block Shield 042-433)

The optional Lead Brick Caves fit neatly in the sides of the vertical section to provide lateral shielding around the perimeter of the L-Block's base. For hot labs in mobile vans, the optional Brick Cave Cover will prevent the cave from shifting when the vehicle is in motion.

SPECIFICATIONS:

042-434 Interlocking Lead Brick Cave
Dimensions:
I.D.: 14" w x 20.5" depth x 16" h (35 x 52.1 x 40.6 cm)
Lead Shielding: 2" thick (5 cm)
Finish: Paint
Weight: 597 lb (271 kg)

042-425 Interlocking Lead Brick Cave
Dimensions:
I.D.: 14" w x 15" depth x 16" h (35 x 38.1 x 40.6 cm)
Lead Shielding: 2" thick (6 cm)
Finish: Paint
Weight: 492 lb (223 kg)

042-417 Interlocking Lead Brick Cave
Dimensions:
I.D.: 15.3" w x 13.6" depth x 16" h (38.9 x 34.5 x 40.6 cm)
Lead Shielding: 2.4" thick (6 cm)
Finish: Paint
Weight: 611 lb (278 kg)

042-426 Interlocking Lead Brick Cave
Dimensions:
I.D.: 14" w x 17.8" depth x 13.8" h (35.5 x 45.3 x 34.6 cm)
Lead Shielding: 2" thick (5 cm)
Finish: Paint
Weight: 532 lb (241 kg)

042-434 Lead Brick Cave, 3-wall, 2" lead
Fits 042-433 L-Block Shield
042-425 Lead Brick Cave, 3-wall, 2" lead
Fits 042-419 L-Block Shields
042-417 Lead Brick Cave, 3-wall, 2.4" lead
Fits 042-413 L-Block Shield
042-426 Lead Brick Cave, 3-wall, 2" lead
Fits 042-449 and 042-419 L-Block Shields
Accommodates 042-466 PET Dose Drawing System

Related:
042-435 Lead Brick Cave Cover
Fits 042-434 Lead Brick Cave

STEEL TABLE

- ***Strong and sturdy***
- ***Ideal for L-Block Shields and Lead Brick Caves***
- ***Use in PET, nuclear medicine or radiation therapy departments***
- ***Upper and lower shelf to accommodate small and large items, including PET shipping containers***

Sturdy as they come, this steel table can be used for just about any application requiring a strong, level platform. Ideal for holding heavy L-Block shields and caves, the surface is powder coated and the front legs feature adjustable levelers. Use the middle shelf to hold small items and the bottom shelf to support shipping containers or other large objects.

SPECIFICATIONS:
Dimensions: 36.75" w x 24" depth x 36" h (93.5 x 61 x 91.5 cm)
Front legs incorporate adjustable levelers
Finish: Powder coat
Weight Capacity: 1550 lb (730 kg)
Weight: 200 lb (90.9 kg)
Shipping Weight: 254 lb (116 kg)

042-407 Table, Steel

SHIELDED
WASTE CONTAINER

For low-energy gamma waste

The Shielded Waste Container is a must-have item for any facility that generates low-energy gamma radiation waste. Constructed entirely of 18-gauge stainless steel and lined with .125" lead, this 20-quart container can be placed on the floor or counter. Simply lift off the shielded cover for quick disposal of waste. Plastic liners make it easy to transfer waste to a decay or disposal site once the container is filled.

SPECIFICATIONS:
Dimensions: 11.9" w x 9.9" depth x 15.25" h (30.2 x 25.1 x 38.7)
Lead Shielding: .125" thick (3 mm)
Capacity: 20 qt (18.9 L)
Weight: 51 lb (22.6 kg)

039-106 Waste Container, Shielded, .125" lead
Includes 20 Poly Liners

Replacement:
040-108 Liner, Poly, 20/pkg

SHIELDED
WASTE CONTAINER

For low-energy beta and gamma waste

KEY-LOCKED

This Shielded Waste Container is used in facilities that generate low-energy beta and gamma radiation waste.

The interior of the container is constructed of .063" aluminum and .25" lead. The shielding combination attenuates gamma radiation, beta radiation and errant bremsstrahlung.

Extra protection is provided with a specially designed hatch door that protects the user from container contents even while open. Convenient side handles let you easily lift the container top to empty decayed contents. Sleek and sturdy, the exterior is constructed of steel, with a powder-coat finish.

SPECIFICATIONS:
Dimensions: 12" w x 22" h x 9" d (30 x 56 x 23 cm)
I.D.: 10.5" w x 14.5" h x 8.5" d (27 x 37 x 22 cm)
Lead Shielding: .25" thick (6 mm)
Aluminum Shielding: .063" thick (1.6 mm)
Finish: Powder coat
Shipping Weight: 120 lb (54 kg)

039-110 Waste Container, Shielded, .25" lead
Includes 20 Poly Liners

Replacement:
040-108 Liner, Poly, 20/pkg

SHIELDED
DECAY DRUMS

- *Completely shielded*
- *Large drop port*

The Shielded Decay Drum provides safe handling and storage of radioactive waste material.

The drum features a top-loading, handled lid with a 6.5" x 8" drop port. Each drum includes three 30-gallon plastic liners.

With two Shielded Decay Drums on hand, a rotation system can be instituted for an even more practical storage and decay process.

The optional dolly simplifies transport of the decay drum.

SPECIFICATIONS:
Dimensions: 30" h x 19.5" dia (76 x 50 cm)
Lead Shielding:
039-287: .125" thick (.3 cm)
039-288: .25" thick (.64 cm)
039-289: .5" thick (1.3 cm)
Drop Port: 6.5" x 8" (16.5 x 20.3 cm)
Weight:
039-287: 160 lb (72 kg)
039-288: 280 lb (128.8 kg)
039-289: 480 lb (217.7 kg)
Shipping Weight:
039-287: 238 lb (107 kg)
039-288: 358 lb (162.7 kg)
039-289: 558 lb (253.6 kg)

039-287 Decay Drum, .125" lead
Includes: Three 039-286 Plastic Liners
039-288 Decay Drum, .25" lead
Includes: Three 039-286 Plastic Liners
039-289 Decay Drum, .5" lead
Includes: Three 039-286 Plastic Liners

Related:
039-599 Dolly, Transport

Replacement:
039-286 Liner, Plastic, 30-gal capacity

CLEAR-LEAD™
MOBILE NUCLEAR MEDICINE BARRIER

Protection against patient-emitting radiation, a must have for every nuclear medicine department

- *1.0 mm lead equivalent protection*
- *Features 23.5" x 46.5" Clear-Lead™ viewing area*
- *Lightweight, with hand-shaped edges for easy maneuvering and cleaning.*

Ideal for use during nuclear medicine procedures, the Clear-Lead™ Mobile Radiation Barrier provides complete protection against patient-emitted radiation. Safe, durable and shatter resistant, the Clear-Lead window is a transparent acrylic containing 30% lead by weight.

With its handle-grab edges and large casters, the Clear-Lead™ Mobile Barrier is effortless to maneuver, offering protection wherever it's needed.

SPECIFICATIONS:
Dimensions:
Overall Dimensions: 49.5" w x 61.1" h (126 x 155 cm)
Window: 48" w x 23.5" h (121.9 x 60 cm)
Opaque Panel: 48" w x 32.5" h (122 x 82.5 cm)
Shielded Area: 48" w x 56" h (122 x 142 cm)
Window: 1.0 mm lead equivalency
Opaque Panel: 1.1 mm lead
Leg Depth: 10.5" (26.7 cm)
Casters: Four hospital grade, locking
Weight: 161 lb (73.2 kg)
Warranty: one year parts and labor

042-585 Barrier, Mobile, Clear-Lead, Wide Window
For patient-emitting radiation, 1.0 mm LE
Window size 48" w x 23.5" h

www.biodex.com/nm-mobile-barrier

MOBILE RADIATION SHIELD

Adjustable height, compact shield

The Compact Adjustable Height Radiation Shield is a versatile addition to any PET site. The 1" thick lead panel is 22" w x 19" h. The panel can be height adjusted within a 10" range. The shield can be used to protect technologists from sitting or lying "hot" patients. A fold down shelf is conveniently located to hold syringe shields, carriers and injectors, etc. Place shielding where and when it is needed. Wheel and swivel locks on each caster provide secure placement.

SPECIFICATIONS:
Dimensions: 24" w x 24.25" deep x 32.5" h (61 x 62 x 83 cm)
Shield: 22" w x 19" h (56 x 48 cm)
Folding Shelf: 24" w x 5" deep (61 x 12.7 cm)
Height Adjustable: 35" to 45" (89 to 114 cm)
Lead Shielding: 1" thick (2.5 cm)
Finish: Powder coat
Weight: 230 lb (104 kg)
Shipping Weight: 366 lb (166 kg)
Warranty: one year parts and labor

042-522 Radiation Shield, Mobile, Adjustable Height, Compact, 1" lead

MOBILE RADIATION SHIELD

Adjustable height shield

Rolling convenience with height adjustability

The Adjustable Height Mobile Radiation Shield puts shielding where it is needed. Roll into place, secure the wheels and adjust to the desired height. Panel can be height adjusted within a 4.5" range. Wheel and swivel locks on each caster provide secure placement.

SPECIFICATIONS:
Dimensions: 37.75" w x 29" depth x 40.5" h (95.9 x 73.7 x 102.9 cm)
Shield: 36" w x 19" h (91.4 x 48.3 cm)
Height Adjustable: 36" to 40.5" (91.4 to 103 cm)
Lead Shielding: 1" thick (2.5 cm)
Finish: Powder coat
Weight: 446 lb (202.3 kg)
Shipping Weight: 560 lb (254 kg)
Warranty: one year parts and labor

042-519 Radiation Shield, Mobile, Adjustable Height, 1" lead

SHIELDED STORAGE CABINET

View contents without opening doors

The Lead-Lined Storage Cabinet is a must for any laboratory that handles radioactive materials. The lead shielding provides an extra measure of safety over the use of lead pigs alone. The .25" lead glass sliding doors allow the viewing of materials without the extra exposure of having to open doors. Seeing before opening also decreases the time spent with the door open during material retrieval. Handsomely crafted with adjustable shelves, the white formica surface blends with any decor.

SPECIFICATIONS:
Dimensions: 15.5" w x 10" h x 7.5" depth (39 x 25 x 19 cm)
I.D.: 14.125" w x 7.75" h x 5.75" depth (36 x 20 x 15 cm)
Lead Shielding: .0625" thick (.15 cm)
Lead Glass Window: .25" thick (.64 cm)
Weight: 35 lb (16 kg)

154-090 Cabinet, Storage, .0625" lead

RECTANGULAR CONTAINER

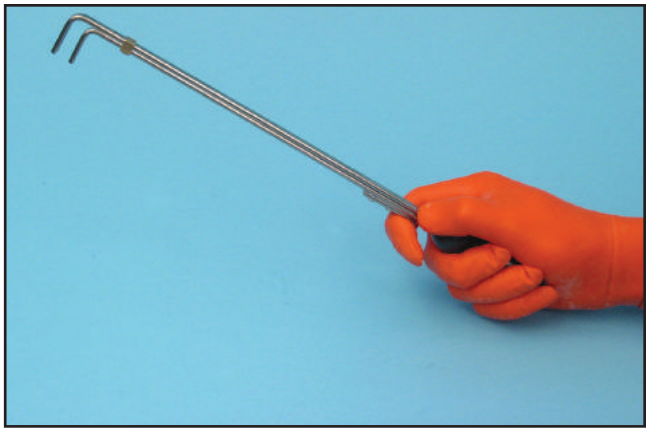
The Rectangular lead and steel wall container is designed for storage and shipment of radioactive materials. The container has 1" lead shielding and offers adequate protection for most radioisotopes.

Hinged cover may be locked with padlock.

SPECIFICATIONS:
Dimensions:
I.D.: 6" l x 6" w x 8" h (15 x 15 x 20 cm)
O.D.: 8" l x 8" w x 11" h (20 x 20 x 28 cm)
Lead Shielding: 1" thick (2.5 cm)
Weight: 175 lb (80 kg)
Shipping Weight: 180 lb (82 kg)

001-001 Container, Rectangular, 1" lead

NIPTONGS



These low-cost tongs are used to handle small radioactive or otherwise dangerous objects up to 1" diameter. The tongs have a 45° v cut groove on each jaw. The compression spring maintains a strong grip on the object until the tension is released by squeezing the finger bar. Niptongs are made of chrome-plated, high carbon steel with hardwood handles and are easily disassembled for decontamination and cleaning.

011-012 Niptongs, 12" (30 cm)
011-036 Niptongs, 36" (91 cm)

FORCEPS

Surgical forceps are excellent handling devices for small items in the hot lab. No need to physically touch vials, ampules, etc. Forceps are made of surgical grade steel.

066-533 Forceps, Curved, locking, 9.5" l (24.1 cm)
066-535 Forceps, Straight, locking, 9.5" l (24.1 cm)
066-536 Forceps, Curved, non-locking, 12.5" l (31.7 cm)

LEAD-LINED
STORAGE SAFE

KEY-LOCKED

Conveniently loaded from the front, this Storage Safe is ideal for storing large quantities of high-activity radioisotopes. Shielded with a thickness of 2" of lead, the safe is encased in a powder-coated steel jacket and features an adjustable shelf. The lead-lined door is hung with heavy duty non-sagging hinges and is key-locked to prevent unauthorized access.

Transporting this half-ton safe is made easier with the built-in lifting handles for use with a hoist or other means.

SPECIFICATIONS:
Dimensions: 17.4" w x 17" depth x 19" h (44.2 x 43.2 x 48.3 cm)
I.D.: 12" w x 12" depth x 12" h (30.5 x 30.5 x 30.5 cm)
Lead Shielding: 2" thick (5 cm)
Finish: Powder coat
Door: Key-locked
Weight: 1050 lb (476 kg)

244-006 Safe, Storage, 2" lead

RADIOIODINE FUME HOOD

Ample work space for comfortable use

The Radioiodine Fume Hood meets the demands of iodination procedures. Constructed of 3/8" clear, rugged Plexiglas, the fume hood provides a large internal work area with spacious arm ports to allow maximum uninhibited manipulation of material within the unit. A swing-away front door permits easy placement and retrieval of items.

The air baffle assures even flow speed of air out of the box while negative air flow speed can be adjusted from 0 to a maximum of 50 CFM. The Fume Hood includes a disposable 12" x 12" x 1" metal frame filter that contains TEDA charcoal, trapping 90% of the radioiodine produced. The Fume Hood can accommodate two filters if needed.

SPECIFICATIONS:
Dimensions: 24" w x 21" depth x 36" h (61 x 53 x 91 cm)
Front Door (Swing-Away): 24" l x 13" h (61 x 33 cm)
Motor: 115 VAC, 50/60 Hz, 1 amp fuse; 230 VAC uses a separate external step down transformer
Weight: 90 lb (40.8 kg)
Shipping Weight: 114 lb (51.7 kg)

190-210 Radioiodine Fume Hood, 115V
Includes: Charcoal filter, TEDA

Related:
087-112 Converter, 230V

Replacement:
112-036 Filter, Charcoal (TEDA)
12" x 12" x 1" metal frame

"The Clinical Advantage"™

Lead-Lined Laboratory Furniture

Compact, attractive and offering benefits and options targeted at improving departmental efficiency and safety.

All Lead-Lined Cabinets:

- *Are available with 0.25", 0.5" or 1" lead shielding*
- *Have key-locking doors and drawers; label slots for ID*
- *Support up to 1500 lb*
- *Can be moved with a standard pallet jack*
- *Have built-in seismic anchor brackets*
- *Have lead shielding fully encased in steel - no exposed lead*
- *Have durable powder-coat finish and stainless steel tops*
- *Measure 36.5" high, 24" deep (except Phantom Cabinet)*
- *Can stand alone or in combination with other lead-lined or conventional cabinets (except Phantom Cabinet)*

Biodex Lead-Lined Laboratory Furniture is compact, attractive and offers benefits and options targeted at improving department efficiency and safety. Choose the appropriate shielding thickness to satisfy your particular radiation safety needs. Mix and match cabinets to improve workflow and procedural efficiency. These 24" depth cabinets are sized to industry standards for neat configuration with existing furniture. Stainless tops with backsplash and lips help control spills and reduce cleanup and decontamination time. The durable powder-coat finish resists scratching, ensuring a clean, aesthetic appearance for years to come. Install any of these units in the smallest hot lab without special lifting or moving equipment - a simple pallet jack will do the job.

VERSATILE - All cabinets can be used individually, or in any combination to meet your storage, decay, and workbench requirements. Unified stainless steel countertops with 4" backsplash and 0.5" lip are available for multiple cabinet configurations. Tops can be ordered 6" deeper than cabinets to accommodate pipes and services.

SAFE - Completely shielded with lead on all six sides, most units are available with shielding thickness of 0.25", 0.5" and 1".

MODULAR - As needs change, so may department layouts. Biodex Lead-Lined Laboratory Furniture can stand alone or be combined with additional units at any time – without costly room alterations.

SECURE – All doors have key locks for security. All cabinets include a set of brackets for seismic anchoring.

BIODEX
www.biodex.com
1-800-224-6339
Int'l 631-924-9000

www.biodex.com/cabinets

LEAD-LINED PET UNIT DOSE CABINET

KEY-LOCKED

Available with .25", .5" and 1" lead shielding.

Items show are sold separately.

- *Designed for PET hot labs with limited space*
- *Accommodates:*
  - *Compact L-Block Shield with Built-in Dose Calibrator Shield*
  - *PET Sharps Container Shield*
  - *Lead Brick Cave*
  - *Atomlab Dose Calibrators and most others*
- *Sliding shelves for:*
  - *PET shipping containers*
  - *Small items*
- *Lead shielded on all six sides*
- *Key-locked doors*

Designed for PET hot labs with limited space, the PET Unit Dose Cabinet provides a space-efficient work area over a fully shielded storage cabinet.

The cabinet supports the 042-433 Biodex Compact L-Block with Built-in Dose Calibrator Shield, the 039-412 Sharps Container Shield, the 042-434 Lead Brick Cave, and accommodates all of our Atomlab Dose Calibrators and many others. The dose calibrator display unit mounts on a stand above the countertop to maximize work space.

The lower cabinet has key-locking doors, two sliding bottom shelves, and two sliding upper shelves. The bottom shelves will accommodate PET shipping containers. The top shelves conveniently store syringes, syringe shields, and other small items. This cabinet is completely shielded on all six sides with .25", .5" and 1" lead, and can stand alone or be grouped with other cabinets.

All cabinets in this product line are built to the industry standard height of 36.5". All units include a stainless steel countertop incorporating a 0.5" lip and 4" backsplash. When ordering multiple units for grouped configuration, a unified countertop may be ordered to provide a continuous work surface.

Upon request, Biodex will factory mount* the L-Block and Sharps Shield in place eliminating the need for on-site lifting equipment. A simple pallet jack is all that is required to move the unit.

SPECIFICATIONS:
Dimensions: 36.5" w x 24" depth x 36.5" h (93 x 61 x 93 cm)
Lead Shielding: .25" thick (.64 cm)
Finish: Powder coat
Doors: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) lip
Weight Capacity: 1550 lb (703 kg)
Weight: 1240 lb (562 kg)

244-200 Cabinet, PET, Unit Dose, .25" lead
Does not accommodate Lead Brick Cave
244-205 Cabinet, PET, Unit Dose, .25" lead
Accommodates Lead Brick Cave 042-434
Note: The cabinet is also available with .5" and 1" lead shielding. Call for quote.

Related:
042-433 L-Block Shield, Compact, 1.5" lead
With built-in Dose Calibrator Shield
042-434 Lead Brick Cave, 3-wall, 2" lead
Fits 042-433 L-Block Shield
086-332 Dose Calibrator, Atomlab™ 500*Plus*, 100-240 VAC
Includes: Smart Display, ionization chamber, wipe test counter, RS-232 port, vial/syringe dipper and well insert.
039-412 Sharps Container Shield, PET, 1" lead
Uses one 039-413 Sharps Container
039-413 Sharps Container, 3.2 qt., 30/pkg
Fits 039-412

Offer applies to the Continental United States only.

www.biodex.com/cabinets

LEAD-LINED
RADIOISOTOPE STORAGE CABINET

KEY-LOCKED

Designed for safely storing radioactive materials.

The Radioisotope Storage Cabinet is designed for safely storing radioactive materials. It features 12 key-locked drawers. Each drawer is easily removed for cleaning or decontamination. A card slot identifies contents.

SPECIFICATIONS:
Dimensions: 30.5" w x 24" depth x 36.5" h (77.5 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Drawer Dimensions: I.D.: 6" w x 11.88" depth x 4.5" h (15.2 x 30.2 x 11.4 cm)
Drawers: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-110: 1069 lb (486 kg)
244-111: 1415 lb (642 kg)
244-112: 2558 lb (1160 kg)

244-110 Cabinet, Radioisotope Storage, .25" lead
244-111 Cabinet, Radioisotope Storage, .5" lead
244-112 Cabinet, Radioisotope Storage, 1" lead

LEAD-LINED
DECAY CABINET

KEY-LOCKED

Can be used to decay sharps containers prior to disposal

The Decay Cabinet is designed for long and short term storage of decaying radioactive material. Two adjustable shelves support up to 100 lb each. The door is key-locked to prevent unauthorized access. The cabinet will accommodate sharps containers and other boxed waste prior to disposal. It can also be used to store flood sources.

SPECIFICATIONS:
Dimensions: 30.5" w x 24" depth x 36.5" h (77.5 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Shelf Dimensions: 24.25" w x 18" depth (61.5 x 45.7 cm), 100 lb (45.4 kg) capacity, adjustable height
Door: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-140: 1010 lb (458 kg)
244-141: 1267 lb (575 kg)
244-142: 2125 lb (964 kg)

244-140 Cabinet, Decay, .25" lead
244-141 Cabinet, Decay, .5" lead
244-142 Cabinet, Decay, 1" lead
Note: Reverse door swing available.
Call for quote.

LEAD-LINED PREPARATION ENCLOSURE BASE CABINET

KEY-LOCKED

Built to support the Preparation Enclosure

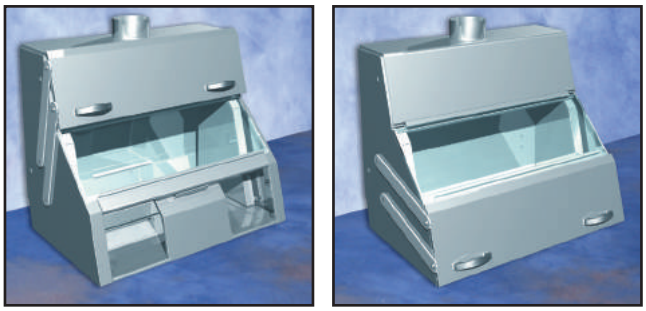
This Cabinet is designed to support the Lead-Lined Preparation Enclosure. Full height, overlapping double doors with key locks open to an adjustable shelf with a 100 lb capacity. The cabinet may be used for decay and storage.

SPECIFICATIONS:
Dimensions: 36.5" w x 24" depth x 36.5" h (92.7 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Shelf Dimensions: 30" w x 18" depth (76.2 x 45.72 cm), 100 lb (45.4 kg) capacity, adjustable height
Doors: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-190: 1063 lb (483.2 kg)
244-191: 1540 lb (699 kg)
244-192: 2433 lb (1104 kg)

244-190 Cabinet, Preparation Enclosure Base, .25" lead
244-191 Cabinet, Preparation Enclosure Base, .5" lead
244-192 Cabinet, Preparation Enclosure Base, 1" lead

LEAD-LINED PREPARATION ENCLOSURE

Connects to external ductwork



Adjustable 12" shield can fold forward to load large objects. The hood can also be completely closed and used for storage. Preparation Enclosure features built-in electrical outlets.

The Lead-Lined Preparation Enclosure is designed for applications that require handling gaseous radioactive materials. The interior provides ample floor space. A large lead glass window and halogen light allow safe and unobstructed viewing. The enclosure opening has an adjustable shield that creates access ports. A swing down shield covers the ports when not in use.

Gaseous materials are directed by a baffle (eliminating dead space) through a stainless steel chimney. The chimney is connected to external blowers (not supplied) and ductwork (not supplied). The blowers create a negative pressure preventing gas leaks.

SPECIFICATIONS:
Dimensions: 36" w x 24" depth x 30.5" h (91.4 x 61 x 77.5 cm)
Interior Floor Space: 31" w x 19" depth (78.7 x 48.3 cm)
Lead Shielding: .25" thick (.64 cm)
Adjustable Shield: 12" w x 10" h x .5" thick (30.5 x 25.4 x 1.3 cm)
Exhaust: 6" dia (15.2 cm) chimney, fixed upper and adjustable lower baffles. Blower and filter not included
Lighting: Halogen lamp with two 25 watt bulbs, UL listed.
Lead Glass Window:
Dimensions: 34.5" w x 11.8" h x .75" thick (87.6 x 30 x 1.9 cm)
Density: 5.05 g/cm3
Finish: # 3 brushed, stainless steel
Weight: 733 lb (332 kg)

244-007 Preparation Enclosure, .25" lead, 115V
244-008 Preparation Enclosure, .25" lead, 230V

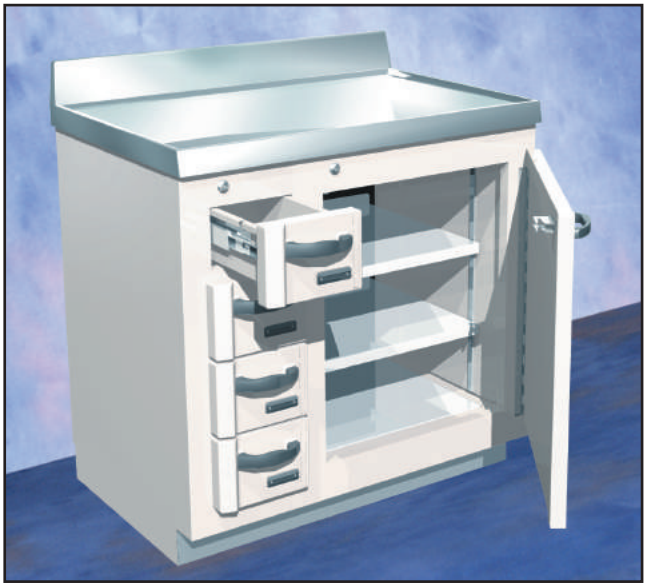
Sample Floor Plan: *Drag and drop cabinets to meet exact room requirements.*

Configuration drawings with detailed dimensions available for each cabinet.

www.biodex.com/cabinets

LEAD-LINED
DECAY AND STORAGE CABINET

KEY-LOCKED



The Decay and Storage Cabinet performs two functions. Radioisotopes can be safely stored in drawers, while the cupboard section is for the storage of decaying material.

Drawers are easily removed for cleaning and decontamination. The decay section includes two heavy duty adjustable shelves.

SPECIFICATIONS:
Dimensions: 36.5" w x 24" depth x 36.5" h (92.7 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1"(2.5 cm) thick on all six sides
Drawer Dimensions: I.D.: 6" w x 11.88" depth x 4.5" h (15.2 x 30.2 x 11.4 cm)
Shelf Dimensions: 22" w x 18" depth (55.9 x 45.7 cm)
Door and Drawers: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-160: 1103 lb (501.4 kg)
244-161: 1421 lb (645 kg)
244-162: 2500 lb (1134 kg)

244-160 Cabinet, Decay and Storage, .25" lead
244-161 Cabinet, Decay and Storage, .5" lead
244-162 Cabinet, Decay and Storage, 1" lead

LEAD-LINED
WASTE CABINET

KEY-LOCKED

The Waste Cabinet is designed for storing "non-sharps" radioactive waste. A spacious chute with shielded cover allows waste to be dropped directly into a polyethylene container prior to decay and disposal.

SPECIFICATIONS:
Dimensions: 30.5" w x 24" depth x 36.5" h (77.5 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Chute: 6.5" dia (16.5 cm) with .5" thick (1.3 cm) lead shielded cover
Container: 22" h x 17" dia (56 x 43 cm) polyethylene, 16 gal capacity
Door: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-150: 913 lb (415 kg)
244-151: 1282 lb (583 kg)
244-152: 2290 lb (1039 kg)

244-150 Cabinet, Waste, .25" lead
244-151 Cabinet, Waste, .5" lead
244-152 Cabinet, Waste, 1" lead
Note: Reverse door swing available.
Call for quote.

LEAD-LINED
WASTE AND STORAGE CABINET

KEY-LOCKED

The Waste and Storage Cabinet performs two functions. Radioisotopes can safely be stored in drawers, while the cupboard section is for the storage of "non-sharps" radioactive waste.

Drawers are easily removed for decontamination. The cupboard section includes a shielded port and a 16 gallon polyethylene container.

SPECIFICATIONS:
Dimensions: 36.5" w x 24" depth x 36.5" h (92.7 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Drawer Dimensions: I.D.: 6" w x 11.88" depth x 4.5" h (15.2 x 30.2 x 11.4 cm)
Waste Section:
Chute: 6.5" dia (16.5 cm) with .5" thick (1.3 cm) lead shielded cover
Container: I.D.: 22" h x 17" dia (56 x 43 cm) polyethylene, 16 gal capacity
Door and Drawers: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-170: 863 lb (391 kg)
244-171: 1439 lb (653 kg)
244-172: 2462 lb (1117 kg)

244-170 Cabinet, Waste and Storage, .25" lead
244-171 Cabinet, Waste and Storage, .5" lead
244-172 Cabinet, Waste and Storage, 1" lead

LEAD-LINED
SINK AND WASTE CABINET

KEY-LOCKED

Two sections for hot and cold waste

The Sink and Waste Cabinet performs three functions. A stainless steel sink allows the convenience of running water in the hot lab. The space under the sink is used for cold storage. Separated from the sink section by a lead barrier, the waste section includes a shielded port that allows waste to be dropped into a polyethylene container for storage until decayed.

SPECIFICATIONS:
Dimensions: 30.5" w x 24" depth x 36.5" h (77.5 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Sink Section: 10" w x 14" depth x 10" h (25.4 x 35.6 x 25.4 cm)
Integral stainless steel sink with gooseneck faucet and wrist blades; suitable for cold storage
Waste Section:
Chute: 6.5" dia (16.5 cm) with .5" thick (1.3 cm) lead shielded cover
Container: I.D.: 20.5" h x 11.25" dia (52 x 28.6 cm), polyethylene, 7 gal capacity
Door: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-130: 849 lb (386 kg)
244-131: 1253 lb (569.5 kg)
244-132: 2260 lb (1027.3 kg)

244-130 Cabinet, Sink and Waste, .25" lead
244-131 Cabinet, Sink and Waste, .5" lead
244-132 Cabinet, Sink and Waste, 1" lead
Notes: Reverse door swing available.
Call for quote.

Sample Floor Plan:
Drag and drop cabinets to meet exact room requirements.

www.biodex.com/cabinets

Configuration drawings with detailed dimensions available for each cabinet.

LEAD-LINED
GENERATOR AND STORAGE CABINET

KEY-LOCKED

Larger generator drawer will accommodate the Mallinckrodt Generator with Elution Shield.

The Generator and Storage Cabinet provides hot lab radiation protection without hampering the elution process. The left drawer accommodates top or side loading generators. In addition to the .5" or 1" lead shielding in front, the drawer has .25" lead shielding on the remaining three sides and bottom. A removable drawer top allows generator replacement. Trap doors on the top and sides of this drawer provide safe access to the generator. The cabinet has two shielded compartments on the right side for storing decaying generators prior to disposal.

SPECIFICATIONS:
Dimensions: 36.5" w x 24" depth x 36.5" h (92.7 x 61 x 92.7 cm)
Lead Shielding:
Cabinet: .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Drawer: .25" thick (.64 cm) on five sides
Dividers: .5" thick (1.3 cm)
Drawer Dimensions: I.D.: 15.5" w x 11.9" depth x 18.2" h (39.4 x 30.2 x 46.2 cm)
Doors and Drawer: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-181: 1917 lb (869.5 kg)
244-182: 2815 lb (1277 kg)

244-181 Cabinet, Generator and Storage, .5" lead
244-182 Cabinet, Generator and Storage, 1" lead

LEAD-LINED
UNIT DOSE CABINET

KEY-LOCKED

The Unit Dose Cabinet is designed for hot labs with limited space.

The upper left compartment holds two sharps containers to facilitate decay rotation. A small chute with removable shielded lid allows syringe disposal into the front container. A large rear port allows safe removal of the second decayed container. The upper right compartment is for bulk storage of unit dose ammo boxes. The shielded door provides access without additional exposure.

Side-by-side middle drawers can be used for storage of syringes, sources, pigs, radioisotopes and other small items requiring lead shielding.

Phantoms and flood sources can be stored in the bottom drawer which runs the full width of the cabinet.

SPECIFICATIONS:
Dimensions: 30.5" w x 24" depth x 36.5" h (77.5 x 61 x 92.7 cm)
Lead Shielding: .25" (.64 cm), .5" (1.3 cm) or 1" (2.5 cm) thick on all six sides
Drawer Dimensions:
Bottom Drawer: I.D.: 23.5" w x 21.8" depth x 4.5" h (59.7 x 55.4 x 11.4 cm)
Left & Right Drawers: I.D.: 9.38" w x 17.88" depth x 4.5" h (23.8 x 45.4 x 11.4 cm)
Upper Doors: I.D.: 11.5" w x 17.62" depth x 11" h (29.2 x 44.7 x 27.9 cm)
Doors and Drawers: Key-locked
Countertop: Stainless steel with 4" (10.2 cm) backsplash and .5" (1.3 cm) spillproof lip
Finish: Powder coat
Weight:
244-120: 1156 lb (524.3 kg)
244-121: 1614 lb (732 kg)
244-122: 2328 lb (1056 kg)

244-120 Cabinet, Unit Dose, .25" lead
244-121 Cabinet, Unit Dose, .5" lead
244-122 Cabinet, Unit Dose, 1" lead

Related:
039-338 Monoject Container, 4 qt., 10/pkg
Fits 039-325, 039-326, 039-350 and 039-330
039-388 Monoject Container, 8 qt., 20/pkg
Fits 039-325, 039-326 and 039-330

PET UNIT DOSE TABLE

More Features, More Shielding

- ***Designed for PET hot labs with limited space***
- ***Lead shielding under calibration chamber***
- ***Shipped Completely Assembled*:***
  - ***Compact L-Block Shield with Built-in Dose Calibrator Shield***
  - ***PET Sharps Container Shield***
- ***Shelf space for:***
  - ***PET shipping containers***
  - ***Small items***

Designed for PET hot labs with limited space, the PET Unit Dose Table includes added features to help maximize the work area and the protection. The table includes the 042-433 Biodex Compact L-Block with Built-in Dose Calibrator Shield and the 039-412 Sharps Container Shield.

The compact L-Block with dose calibrator shield features a large 8" x 8" x 4" lead glass window with adjustable window angle, 1.5" thickness lead shielding in front, and 1" thick lead in the base and in the chamber shield. It is designed to accommodate a chamber that is through mounted in the countertop. The chamber shield accommodates Atomlab chambers and many others.

The Sharps Container Shield is constructed of steel and lined with 1" thick lead. It features a lockable sliding cover for container removal and a hinged top door for syringe disposal.

**Applies to the United States only.*

Shipped completely assembled*, the Unit Dose Table eliminates the need for on-site lifting equipment. A simple pallet jack is all that is required to move the unit. Once the dose calibrator chamber is placed in the shield, the chamber support shelf provides 1" thick lead shielding. The dose calibrator display unit mounts on a stand above the countertop to further maximize work space.

A spacious bottom shelf can hold several PET shipping containers. The middle shelf provides convenient storage for syringe shields and other small items.

In applications where additional shielding is required, the optional 042-434 Lead Brick Cave is available.

SPECIFICATIONS:

042-448 PET Unit Dose Table:
Dimensions: 36.75" w x 24" depth x 36" h (93.5 x 61 x 91.5 cm)
Front legs incorporate adjustable levelers.
Lead Shielding: 1" thick (enclosed in chamber mounting shelf)
Finish: Powder coat
Weight Capacity: 1550 lb (703 kg)
Weight: 294 lb (133.3 kg)

042-433 Compact L-Block with Dose Calibrator Shield:
Dimensions: 18" w x 21.5" depth x 26" h (45.7 x 54.6 x 66 cm)
Lead Shielding:
Front: 1.5" thick (3.8 cm)
Base: 1" thick (2.5 cm)
Calibrator Shield: 1" thick (2.5 cm)
Calibrator Shield Inside Dimensions: 6.85" I. D. x 10.25" h (17.4 x 26 cm)
Lead Glass Window:
Dimensions: 8" w x 8" h x 4" thick (20.3 x 20.3 x 10.2 cm)
Density: 5.2 g/cm^3
Finish: Powder coat
Weight: 590 lb (259 kg)
Detailed Specifications on page 20

039-412 High-Energy PET Sharps Container Shield:
Dimensions: 12" h x 8.75" dia (30.5 x 22.2 cm)
Lead Shielding:
Sides and Bottom: 1" thick (2.5 cm)
Rotating Cover: .875" thick (2.2 cm)
Hinged Door: .625" thick (1.5 cm)
Security: Key-locked
Weight: 175 lb (79.4 kg)
Detailed Specifications on page 18

042-448 Table, PET, Unit Dose
Includes: 042-433 Compact L-Block with Dose Calibrator Shield and 039-412 Sharps Container Shield

Related:
042-434 Lead Brick Cave, 3-wall, 2" lead
Fits 042-433 L-Block Shield
042-435 Lead Brick Cave Cover
Fits 042-434 Lead Brick Cave
086-332 Dose Calibrator, Atomlab™ 500*Plus*, 100-240 VAC
Includes: Smart Display, ionization chamber, well counter, RS-232 port, vial/syringe dipper and well insert.
039-413 Sharps Container, 3.2 qt., 30/pkg
Fits 039-412

LEAD-LINED PHANTOM CABINET

KEY-LOCKED

Shown with Decay Module

The Phantom Cabinet stores flood sources and phantoms* on their ends. The interior is sectioned by an adjustable divider. The Lead-Lined Phantom Cabinet cannot be ordered separately, it must be part of a multiple cabinet configuration.

**Note: Phantom Cabinet does not accommodate 24" circular phantoms.*

SPECIFICATIONS:
Dimensions: 11.6" w x 24" depth x 36" h (29.5 x 60.9 x 91.4 cm)
Lead Shielding: .25" thick (.64 cm)
Door: Key-locked
Finish: Powder coat
Weight: 319 lb (145 kg)

244-009 Cabinet, Phantom, .25" lead
Note: Must be ordered as part of a multiple cabinet configuration

LEAD-LINED REFRIGERATOR

KEY-LOCKED

Freestanding or under-the-counter unit

- ***Touch pad digital controls***
- ***5.3 cubic foot capacity***
- ***Automatic defrost***
- ***Energy Star qualified – saves energy, money and natural resources***
- ***Two adjustable stainless steel shelves***

Our 5.3 cubic foot capacity Lead-Lined Refrigerator is ideal for storing radiopharmaceuticals, tagged biologicals and other radioactive materials. The two adjustable stainless steel shelves allow you to make the most of your refrigerator capacity.

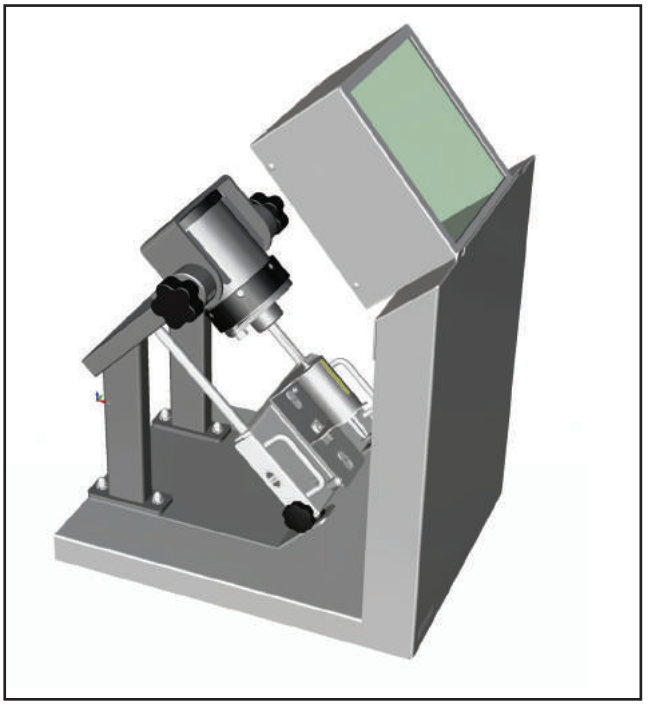
SPECIFICATIONS:
Dimensions: 24.18" w x 25.5" depth x 34.25" h (61 x 64.8 x 87 cm)
Lead Shielding: .125" thick (.32 cm)
Capacity: 5.3 cu ft
Door: Key-locked
Power:
244-004: 120V, 60 Hz, 1.1 amps
244-005: 230V, 50 Hz, 1.2 amps
Finish: Powder coat
Weight: 340 lb (154.5 kg)
Shipping Weight: 390 lb (177.2 kg)
Warranty: one year parts and labor

244-004 Refrigerator, Lead-Lined, 120V
244-005 Refrigerator, Lead-Lined, 230V
Drawing can be accessed at www.biodex.com/cabinets

PET DOSE DRAWING SYSTEM

For drawing FDG F-18 from a vial into a syringe

042-466 Dose Drawing System



042-467 Dose Drawing System with 2" L-Block

The Dose Drawing System is used to draw FDG F-18 doses from a vial. It consists of a specially designed Dose Drawing Syringe Shield, vial shield and stand.

When drawing FDG F-18, the vial shield and syringe shield remain on the stand. The stand allows the vial shield to rotate and has a fixed stop at the 45-degree downward angle. The vial shield is constructed of 1" lead encased in steel. The shield's top is threaded to allow quick insertion and removal of vials. The top cover incorporates a pivoting shield for septum access that allows the use of a vent needle, if desired, along with the needle from a 5 cc syringe.

The tungsten syringe shield mounts on a stainless steel rotating platform that slides the syringe into the vial and locks in position. The dose can then be drawn with forceps to minimize hand exposure. The syringe shield is constructed of .55" tungsten. A high-density lead glass window allows viewing up to the 5 cc mark on a 5 cc syringe.

The PET Dose Drawing System provides a safe and shielded environment while making it easy to draw a FDG F-18 dose.

If transported in a Biodex PET Vial Shipping System, the vial shield is placed in the stand.

Vial shield shipping cover is replaced with the drawing shield cover.

Syringe is placed in the Dose Drawing Syringe Shield. The vial shield rotates to 45-degree downward angle. Swing open the cover for vial septum access.

Syringe shield slides upward, allowing the syringe to puncture the vial septum. Dose is drawn.

SPECIFICATIONS:
007-984 Dose Drawing Syringe Shield
Dimensions: 1.7" dia x 5.5" l (4.3 x 14 cm)
Shielding: .55" thick (1.3 cm) tungsten
Lead Glass Window: .25" thick (.64 cm), 5.6 density
Construction:
Exterior: Tungsten
End Cap Mechanism: Stainless steel
Weight: 4 lb (1.8 kg)

001-855 Dose Drawing Vial Shield
Dimensions:
Exterior: 6.1" h x 4" dia (15.5 x 10.2 cm)
Interior: 2.76" h x 1.51" dia (7 x 3.8 cm)
Lead Shielding:
Cylinder: 1" thick (2.54 cm)
Top End Cap: 1" thick (2.5 cm)
Cover: .75" thick (1.9 cm)
Construction:
Exterior: Steel
Interior: Molded lead
Top End Cap: Aluminum
Bottom End Cap: Plastic
Finish: Powder coat
Weight: 20 lb (9 kg)

042-455 Dose Preparation Stand
Dimensions: 12.6" w x 10.6" depth x 12.6" h (32 x 26.9 x 32 cm)
Construction: Stainless steel and steel
Finish: Stainless steel and powder coat
Weight: 21 lb (9.5 kg)

042-449 2" L-Block Shield
Dimensions: 14" w x 18" depth x 24.7" h (36 x 46 x 62 cm)
Lead Shielding:
Front: 2" thick (5.08 cm)
Base: 1" thick (2.5 cm)
Lead Glass Window:
Dimensions: 8" w x 8" h x 4" thick (20 x 20 x 10 cm)
Density: 5.2g/cm^3
Finish: Powder Coat
Weight: 345 lb (156 kg)
Shipping Weight: 420 lb (191 kg)

042-426 Interlocking Lead Brick Cave
Dimensions:
I.D.: 14" w x 17.8" depth x 13.8" h (35.5 x 45.3 x 34.6 cm)
Lead Shielding: 2" thick (5 cm)
Finish: Paint
Weight: 532 lb (241 kg)

042-466 Dose Drawing System, PET
Includes: 007-984 Dose Drawing Syringe Shield, 001-855 Dose Drawing Vial Shield, 042-455 Dose Preparation Stand and 001-707 Vial adapter to accommodate 10 ml vials.
042-467 Dose Drawing System, PET, with L-Block Shield (042-449)

Components:
007-984 Syringe Shield, Dose Drawing, PET, 5 cc
001-855 Vial Shield, Dose Drawing, PET, 30 ml
042-455 Stand, Dose Preparation
042-449 L-Block Shield, 2" lead
With 8" x 8" x 4" lead glass window

Related:
007-986 Syringe Shield, Dose Drawing, PET, 3 cc
042-426 Lead Brick Cave, 3-wall, 2" lead
Fits 042-449 and 042-419 L-Block Shields
Accommodates 042-466 PET Dose Drawing System
066-536 Forceps, Curved, non-locking, 12.5 l"

CYCLOTRON WORKBENCH

- ***Includes 2" lead storage safe***
- ***Ideal for target decay***
- ***Use in PET, nuclear medicine or radiation therapy departments***

Sturdy as they come, this steel table can be used for just about any application requiring a strong, level platform. Ideal for holding heavy L-Block shields and caves, the surface is powder coated and the front legs feature adjustable levelers.

The middle shelf features a storage safe that is ideal for storing large quantities of high-energy radioisotopes and/or target decay. Shielded with a thickness of 2" of lead, the safe is encased in a powder-coated steel jacket and features an adjustable shelf. The lead-lined door is hung with heavy duty non-sagging hinges and is key-locked to prevent unauthorized access.

SPECIFICATIONS:
042-456 Cyclotron Workbench
Dimensions: 36.75" w x 24" depth x 36" h (93.5 x 61 x 91.5 cm)
Front legs incorporate adjustable levelers
Finish: Powder coat
Weight Capacity: 1,600 lb (725.76 kg) includes 1,050 lb for safe
Weight: 1200 lb (544.32 kg)
Shipping Weight: 1250 lb (567 kg)

244-006 Lead Storage Safe, 2"
Dimensions: 17.4" w x 17" depth x 19" h (44.2 x 43.2 x 48.3 cm)
I.D.: 12" w x 12" depth x 12" h (30.5 x 30.5 x 30.5 cm)
Lead Shielding: 2" thick (5 cm)
Finish: Powder coat
Door: Key-locked
Weight: 1050 lb (476 kg)

042-456 Workbench, Cyclotron
Includes: Storage Safe, 2" lead (244-006)

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COMPACT PET SHIPPING SYSTEMS FOR ONE TWO OR THREE UNIT DOSE PIGS

For shipping syringes with or without needles attached

The system meets DOT Yellow II Type A packaging requirements when shipping up to 500 mCi (18.5 GBq) of FDG F-18.

The system meets DOT Yellow II Type A packaging requirements when shipping up to 160 mCi (5.92 GBq) in one pig and 235 mCi (8.70 GBq) in the other, totaling 395 mCi (14.62 GBq) of FDG F-18.

The system meets DOT Yellow II Type A packaging requirements when shipping up to 235 mCi (8.70 GBq) in one pig, and 160 mCi (5.92 GBq) in the second pig and 140 mCi (5.18 GBq) in the third pig, totaling 535 mCi (19.80 GBq) of FDG F-18.

The Compact PET Shipping Systems transports one, two or three 3 cc or 5 cc doses containing high-energy radionuclides such as FDG F-18. Dose syringes fit into the pig with or without an attached needle. The shipping container is designed to conserve space and minimize weight. An important feature is that the shipping container can be left at a convenient height while the pig (9 lb) can be easily removed from the container. The pig is then placed behind an L-Block Shield for dose loading and unloading.

Compact PET Shipping Systems for one, two or three unit dose pig(s) consists of:

- PET Unit Dose Pig(s)
- Absorbent sheets
- Shipping container with lead shielding

SPECIFICATIONS:

001-786 PET Shipping System, Single Dose
Dimensions:
Container: 11.75" l x 11.75" w x 12.5" h (29.8 x 29.8 x 31.8 cm)
Cubic Feet: ~1 cu ft (.03 cu meters)
Weight (Combined): 38.3 lb (17.5 kg)

Regulations:
- Meets DOT Yellow II Type A packaging requirements when shipping up to 500 mCi (18.5 GBq) of FDG F-18

001-787 PET Shipping System, Double Dose
Dimensions:
Container: 11.75" l x 11.75" w x 12.5" h (29.8 x 29.8 x 31.8 cm)
Cubic Feet: ~1 cu ft (.03 cu meters)
Weight (Combined): 55.2 lb (25.2 kg)

Regulations:
- Meets DOT Yellow II Type A packaging requirements when shipping up to 160 (5.92 GBq) and 235 mCi (8.70 GBq) of FDG F-18

001-739 PET Shipping System, Triple Dose
Dimensions:
Container: 11.75" l x 11.75" w x 12.5" h (29.8 x 29.8 x 31.8 cm)
Cubic Feet: ~1 cu ft (.03 cu meters)
Weight (Combined): 95 lb (43.1 kg)

Regulations:
- Meets DOT Yellow II Type A packaging requirements when shipping up to 235 (8.70 GBq), 160 (5.92 GBq) and 140 mCi (5.18 GBq) of FDG F-18

- Meets IATA Dangerous Goods Regulations, 58th Edition Sections 5.0.4.3, 10.5, and 10.6.1 thru 10.6.3.5

Compliance reports for radioactive materials packaging are available by request or visit our website: www.biodex.com.

001-786 Shipping System, PET, Single Dose
For single Unit Dose Pig
Includes: 001-785 Unit Dose Pig, absorbent sheets and shipping container with lead shielding

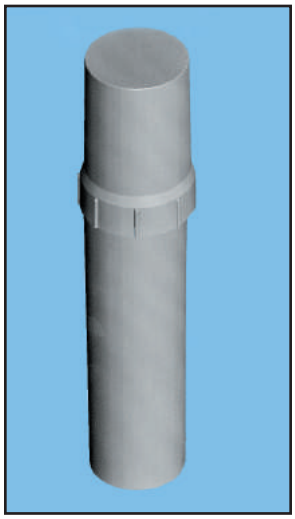
001-787 Shipping System, PET, Double Dose
For two single Unit Dose Pigs
Includes: Two 001-785 Unit Dose Pigs, absorbent sheets and shipping container with lead shielding

001-739 Shipping System, PET, Triple Dose
For three single Unit Dose Pigs
Includes: Three 001-785 Unit Dose Pigs, absorbent sheets and shipping container with lead shielding

Related:
001-284 Pig Rack, PET
001-730 Cart, Transport, PET Shipping System
001-771 Sheets, Absorbent, 100/pkg
001-726 Tags, Wire Security, 25/pkg
Used to identify unauthorized access
001-721 Document Protector, 100/pkg

U.S. Patent No. 6,586,758
U.S. Patent No. 6,822,253
U.S. Patent No. 6,963,073
U.S. Patent No. 7,019,317

PET UNIT DOSE PIG



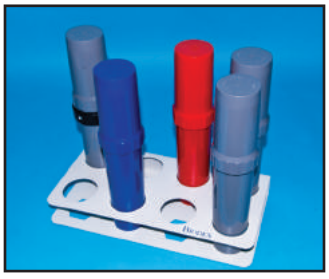
001-785 PET Unit Dose Pig also sold separately.

The PET Unit Dose Pig is encapsulated in durable, high-impact Lexan and polypropylene:

- Single twist thread to open and close
- No exposed lead
- Compatible with automatic washing equipment

The 001-785 Unit Dose Pig is encapsulated in durable, high-impact Lexan and polypropylene, making the pig durable, easy to clean and compatible with automatic washing systems. All Biodex PET L-Block Shields incorporate a hex-shaped plate that corresponds with the hex shape at the base of the pig. This design element allows one-handed loading and unloading of syringes. A single twist opens or closes the pig, reducing handling time.

SPECIFICATIONS:
Dimensions: 10.2" h x 2.4" dia (26 x 6 cm)
Lead Shielding:
Body: .5" thick (1.3 cm)
Ends:
Top: 1.44" thick (3.6 cm)
Bottom: 1.2" thick (3 cm)
Weight: 8.7 lb (4 kg)



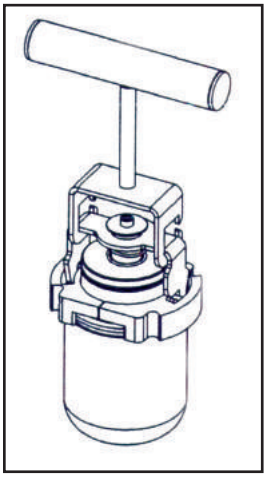
PET Unit Dose Pig shown in optional PET Pig Rack. For details see page 49.

001-785 Pig, Unit Dose, PET, 3/5 cc, .5" lead
Accommodates syringes with or without needle
Note: Each Pig is sold in multiples of three.

Related:
001-284 Pig Rack, PET
001-771 Sheets, Absorbent, 100/pkg

INTEGO™
VIAL SHIPPING SYSTEM

The PET shipping system for use with the Medrad® Intego PET infusion system.



SPECIFICATIONS:

001-708 Vial Shield with Lifting Handle
Weight: 15.2 lb (6.89 kg)

001-723 Intego Shipping Container
Dimensions:
Container: 11.75" l x 11.75" w x 12.5" h (29.8 x 29.8 x 31.8 cm)
Cubic Feet: ~1 cu ft (.03 cu meters)
Weight: 48.8 lb (22.1 kg)
Weight (Combined): 64 lb (29 kg)

Regulations:
- Meets DOT Yellow II Type A packaging requirements when shipping up to 2.5 Ci (92.5 GBq) of FDG F-18

- Meets IATA Dangerous Goods Regulations, 58th Edition Sections 5.0.4.3, 10.5, and 10.6.1 thru 10.6.3.5

Compliance reports for radioactive materials packaging are available by request or visit our website: www.biodex.com.

The Vial Shipping System employs a unique Tungsten Vial Shield for use with the Medrad® Intego™ PET Infusion System. Manufactured to Medrad's specifications, the Vial Shield transports a 30 ml Hospira vial.

To lift or lower the vial within the container or the Intego™ Infusion System, a detachable handle is provided. Accommodation is made for the handle to travel with the shipping container.

The system meets DOT Yellow II Type A packaging requirements when shipping up to 2.5 Ci (92.5 GBq) of FDG F-18.

001-708 Shield, Vial, Tungsten, Intego™
For 30 ml Hospira vials.
Includes lifting handle.
001-723 Shipping Container, Intego™

Related:
001-730 Cart, Transport, PET Shipping System
001-726 Tags, Wire Security, 25/pkg
Used to identify unauthorized access
001-721 Document Protector, 100/pkg
U.S. Patent No. 6,586,758

COMPACT PET SHIPPING SYSTEM FOR VIAL PIG

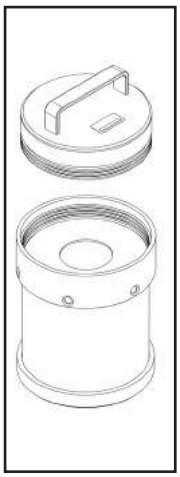
Transport up to a 30 ml vial of PET pharmaceutical in the PET Shipping System. The complete system offers 1.55" lead shielding to accommodate 1.5 curies of FDG F-18 and meets DOT II Type A packaging requirements.

The PET Shipping System for Vial Pigs is designed to transport a 10 ml or 30 ml vial containing high-energy radionuclides. Designed to conserve space and minimize weight, the entire system weighs only 50 lb. An important feature is that the shipping container can be placed at a convenient height while the pig is easily removed from the shipping case. For added safety and convenience, the vial pig can then be placed in the 042-466 Dose Drawing System for drawing doses from the vial.

The system meets DOT Yellow II Type A packaging requirements when shipping up to 1.5 Ci (55.5 GBq) of FDG F-18.

PET Shipping System for Vial Pigs consists of:

- PET Vial Pig
- Absorbent Sheets
- Shipping Container with lead shielding



SPECIFICATIONS:

001-706 Vial Pig
Dimensions:
Exterior: 6.63" h x 4.15" dia (16.8 x 10.5 cm)
Interior: 2.76" h x 1.51" dia (7 x 3.8 cm)
Lead Shielding:
Sides and Bottom: 1" thick (2.5 cm)
Top: 1.75" (4.4 cm)
Weight: 21.3 lb (9.7 kg)

001-724 PET Shipping System, Vial
Dimensions:
Container: 11.75" l x 11.75" w x 12.5" h (29.8 x 29.8 x 31.8 cm)
Cubic Feet: ~1 cu ft (.03 cu meters)
Weight (Combined): 49.7 lb (22.5 kg)

Regulations:
- Meets DOT Yellow II Type A packaging requirements when shipping up to 1.5 Ci (55.5 GBq) of FDG F-18

- Meets IATA Dangerous Goods Regulations, 58th Edition Sections 5.0.4.3, 10.5, and 10.6.1 thru 10.6.3.5

Compliance reports for radioactive materials packaging are available by request or visit our website: www.biodex.com.

001-724 Shipping System, PET, Vial*
For 10 or 30 ml vials
Includes: 001-706 Vial Pig and shipping container with lead shielding

Components:

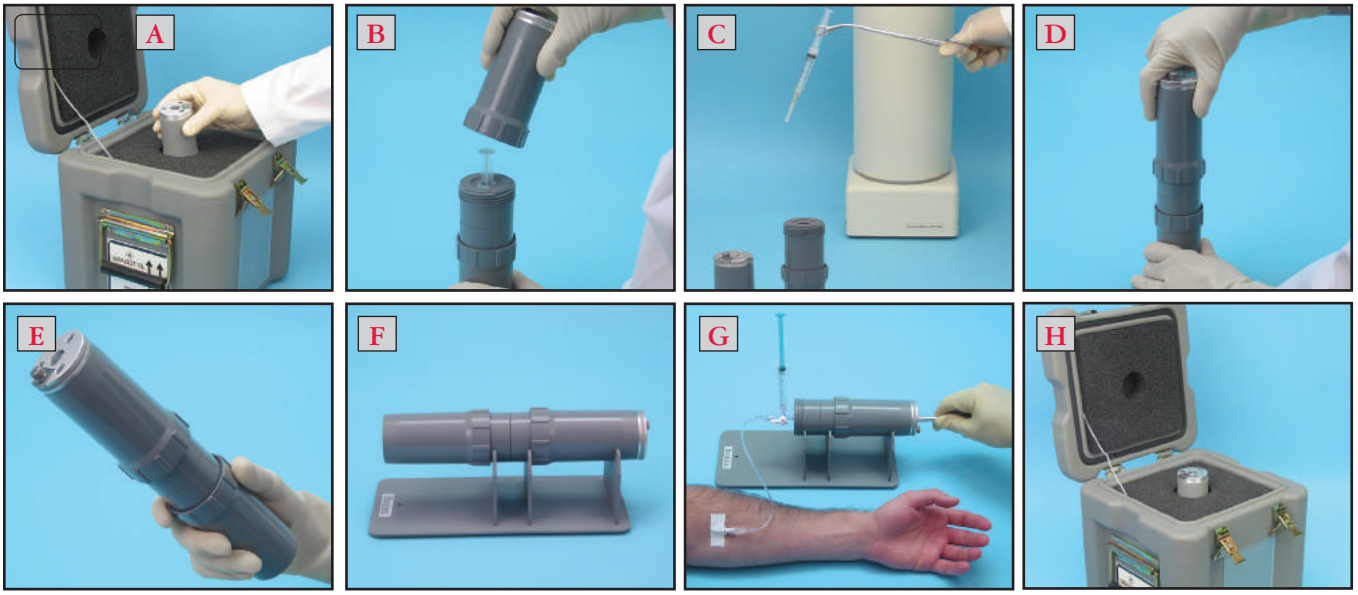
001-706 Pig, Vial, PET, 10/30 ml, 1" lead
For 30 ml vials
*Includes: 001-707 Vial Pig Adapter, to accommodate 10 ml vials, and three absorbent sheets**

Related:

001-707 Adapter, Vial Pig, 10 ml
Allows 001-706 Vial Pig to accommodate 10 ml vials
001-730 Cart, Transport, PET Shipping System
001-771 Sheets, Absorbent, 100/pkg
001-726 Tags, Wire Security, 25/pkg
Used to identify unauthorized access
001-721 Document Protector, 100/pkg
U.S. Patent No. 6,586,758

COMPACT PET SHIPPING SYSTEM FOR DOUBLE-ENDED PET PIG

One system for shipping and injecting FDG F-18



The Double-Ended PET Pig is an all-in-one solution for the safe transport and administration of 511 keV radionuclides, such as FDG F-18. The pig is constructed in three sections of .6" (1.5 cm) lead enclosed in durable Lexan. Depending on the stage of the injection process, only one section of the pig is removed. The injection itself is accomplished without removing the syringe from the pig. Simply open the administration port and push the tungsten plunger against the syringe plunger. During injection the pig is positioned on a stand. The Double-Ended Pig accommodates a 5 cc syringe and fits into its own compact shipping container. The system employs a unique design that decreases the weight and size of the container.

Here's how it works:

1. Remove the Double-Ended Pig from the compact shipping container. *(See dia. A.)*
2. Place behind an L-Block Shield.
3. Unscrew the top. *(See dia. B.)*
4. Remove the syringe and place into a dose calibrator. *(See dia. C.)*
5. Return the syringe to the pig and put the top back on. *(See dia. D.)*
6. Transport the pig to the patient injection area. *(See dia. E.)*
7. Place the pig into the Pig Cradle so the top section of the pig is over the long section of the cradle. *(See dia. F.)*
8. Remove the bottom of the pig and connect to your preferred injection device, butterfly, etc. *(See dia. G.)*
9. Open the plunger lock located on the top section by pulling the slide toward the edge of the pig. With a pen-like device, push the tungsten plunger to administer the dose. *(See dia. G.)*
10. Recap the syringe.
11. Put the bottom back on the pig.
12. Return the pig to the compact shipping container. *(See dia. H.)*

SPECIFICATIONS:

001-793 Double-Ended PET Pig
Dimensions: 9.5" h x 2.3" dia at maximum point (24 x 5.8 cm)
Shielding:
Sides: .6" thick (1.5 cm) lead
Bottom: 1.44" thick (3.7 cm) lead
Top: .875" thick (2.2 cm) tungsten
Weight: 9 lb (4 kg)

001-794 PET Shipping System, Double-Ended Pig
Dimensions:
Container: 11.75" l x 11.75" w x 12.5" h (29.8 x 29.8 x 31.8 cm)
Cubic Feet: ~1 cu ft (0.3 cu meters)
Weight: 36 lb (16.3 kg)

Regulations:

- Meets DOT Yellow II Type A packaging requirements when shipping up to 475 mCi (17.58 GBq) of FDG F-18.

- Meets IATA Dangerous Goods Regulations, 58th Edition Sections 5.0.4.3, 10.5, and 10.6.1 thru 10.6.3.5.

Compliance reports for radioactive materials packaging are available by request or visit our website: www.biodex.com.

001-794 Shipping System, PET, Double-Ended Pig, Single
Includes one 001-793 Double-Ended PET Pig and Shipping Container with lead.

Component:
001-793 Pig, Double-Ended, PET, .6" lead
Accommodates 5 cc syringes with or without needle.

Related:
001-797 Pig Cradle
Accommodates 001-793.
001-771 Sheets, Absorbent, 100/pkg

U.S. Patent No. 6,586,758 B2
Other patents pending

PRO-TEC™ UNIT DOSE PIG

Safety and efficiency – from the pharmacy to the patient… and back!

Designed to fit conventional syringes

Designed to fit safety syringes

- *Attractive design*
- *Overlapped lead eliminates streaming*
- *Durable, high-impact Lexan encapsulates lead components*
- *Opens and closes with a single twist*
- *0.25" thick lead shielding*
- *O-ring seal*
- *Fits into ammo cans (vertically and horizontally)*
- *Compatible with automatic washing equipment*
- *Accommodates the following syringes:*
  3 cc BD
  3 cc BD Safety-Lok
  3 cc Monoject
  3 cc Monoject Safety
  5 cc BD
  6 cc Monoject
  10 cc BD

The Pro-Tec Unit Dose Pig accommodates the most commonly used conventional and safety-engineered syringes. The lead components are fully encapsulated in durable Lexan, making this unit rugged and easy to clean. A single twist to open or close reduces loading/unloading time. The overlap design eliminates streaming regardless of the dose's position inside the pig.

A replaceable O-ring protects against leakage. Complete encapsulation of lead components in high-impact Lexan protects the lead shielding from physical damage during handling. The durable Lexan will not be damaged by automatic washing systems. Smooth plastic surfaces make the application and removal of adhesive labels easy. This product is designed to comply with IATA and DOT II requirements when transported in an appropriate shipping container.

Innovative and cost effective, the Pro-Tec™ Unit Dose Pig will help improve the safety and efficiency of radiopharmaceutical handling procedures

Pro-Tec™ shielding for safety syringes will help pharmacies and clinics adhere to ALARA principles and improve compliance with OSHA directives – without compromising efficiency.

SPECIFICATIONS:
Dimensions: 8.5" h x 1.94" dia (22 x 4.9 cm)
Lead Shielding: 0.25" nominal thickness (0.64 cm)
Construction: Lead, fully encapsulated with polycarbonate on the outside and polypropylene on the inside
Color: Red, White, Blue
Weight: 3 lb (1.4 kg)

001-280 Unit Dose Pig, Pro-Tec™, Red
001-281 Unit Dose Pig, Pro-Tec™, White
001-282 Unit Dose Pig, Pro-Tec™, Blue
Note: Each Pig is sold in multiples of six.
U.S. Patent No. 6,822,253
U.S. Patent No. 6,963,073
U.S. Patent No. 7,019,317

Related:
008-400 Wall Rack, Unit Dose Pig
001-283 Pig Rack, Pro-Tec™
001-754 Shipping Bag, Pro-Tec Pig
066-533 Forceps, Curved, Locking, 9.5" l (24.1 cm)

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PRO-TEC™ PIG
SHIPPING BAG

Accommodates up to 11 Pro-Tec Pigs

The durable, nylon, waterproof shipping bag is designed to accommodate up to 11 Pro-Tec Pigs containing syringes, ensuring safe, convenient handling of syringes from the pharmacy and back again. The system meets DOT 7A Type A packaging requirements.

SPECIFICATIONS:
Dimensions: 10.5" h x 5.75" w x 11.5 depth (26.7 x 14.6 x 29.2 cm)
Material:
Exterior: Nylon
Interior: Polyester

001-754 Shipping Bag, Pro-Tec™ Pig

Related:
001-280 Unit Dose Pig, Pro-Tec™, Red
001-281 Unit Dose Pig, Pro-Tec™, White
001-282 Unit Dose Pig, Pro-Tec™, Blue

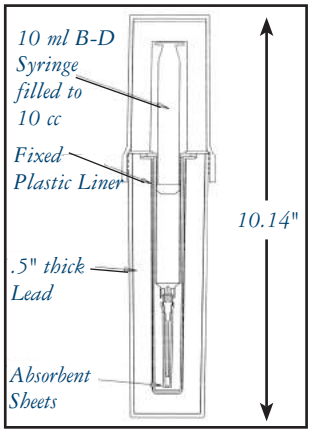
Replacement:
001-756 Placard, Type I, 100/pkg
001-757 Placard, Type II, 100/pkg
001-758 Covers, hook & loop fasteners, plastic, Sm, 90 x 130 mm, 50/pkg
001-759 Covers, hook & loop fasteners, plastic, Md, 130 x 40 mm, 50/pkg
001-779 Covers, hook & loop fasteners, plastic, Lg, 160 x 180 mm, 50/pkg

U.S. Patent No. 6,822,253
U.S. Patent No. 6,963,073
U.S. Patent No. 7,019,317

ZEVALIN™ UNIT DOSE PIGS
In-111 OR Y-90

Designed to reduce exposure from gamma emitting radiopharmaceuticals, the Zevalin In-111 Unit Dose Pig is constructed of lead, encased in a durable Lexan. The pig accommodates a 10 cc B-D syringe filled to capacity.

The Zevalin Y-90 Unit Dose Pig is constructed of lead and acrylic, encased in a durable Lexan. Reducing exposure from beta emitting radiopharmaceuticals, the pig accommodates a 10 cc B-D syringe filled to 9 cc.



001-789 Unit Dose Pig

SPECIFICATIONS:
001-789 Zevalin In-111 Unit Dose Pig
Dimensions: 10.3" l x 2.3" dia (26 x 5.8 cm)
Lead Shielding: .5" thick (1.3 cm)
Weight: 8.2 lb (3.7 kg)

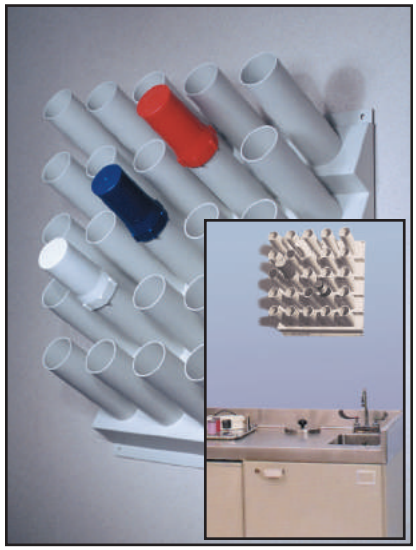
001-788 Zevalin Y-90 Unit Dose Pig
Dimensions: 10.3" l x 2.3" dia (26 x 5.8 cm)
Lead Shielding: .09" thick (2.3 mm)
Acrylic Shielding: .36" thick (9.1 mm)
Weight: 3 lb (1.4 kg)

001-789 Pig, Unit Dose, Zevalin In-111
Accommodates 10 cc syringe with or without needle, filled to 10 cc
001-788 Pig, Unit Dose, Zevalin Y-90
Accommodates 10 cc syringe with or without needle, filled to 9 cc

Related:
001-284 Pig Rack, PET
001-771 Sheets, Absorbent, 100/pkg

U.S. Patent No. 6,822,253
U.S. Patent No. 6,963,073
U.S. Patent No. 7,019,317

UNIT DOSE PIG
WALL RACK



Improve lab safety, efficiency and organization with the new Unit Dose Pig Wall Rack.

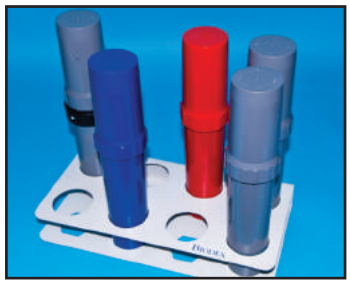
The wall rack improves work space with its pigeonhole design and reduces unnecessary handling. Unit doses can be identified at a glance. The rack's sturdy construction will hold up to 25 unit dose pigs.

Holds pigs up to 2.25" diameter.

SPECIFICATIONS:
Dimensions: 17" w x 18" h (43.2 x 45.7 cm)

008-400 Wall Rack, Unit Dose Pig

PET PIG RACK



Accommodates PET and Zevalin pigs.

Designed for countertop use, the PET Pig Rack holds up to eight PET pigs safely and conveniently.

The bottom of the rack has hexagonal cutouts that match the bottom of a pig to ensure each pig is held securely. When inserted into the rack, the pig can be easily opened or closed with a single twist.

SPECIFICATIONS:
Dimensions:
Overall: 12" w x 1.75"h x 6" depth (30.5 x 4.4 x 15.2 cm)
Upper holes: 2" dia (5 cm)
Lower holes: 1.625" hex (4.1 cm)
Weight: 2.8 lb (1.3 kg)

001-284 Pig Rack, PET

Related:
001-785 Pig, Unit Dose, PET, 3/5 cc, .5" lead
001-788 Pig, Unit Dose, Zevalin Y-90
001-789 Pig, Unit Dose, Zevalin In-111

U.S. Patent No. 6,822,253
U.S. Patent No. 6,963,073
U.S Patent No. 7,019,317

PRO-TEC™
PIG RACK

Designed for countertop use, the Pro-Tec Pig rack holds up to ten Pro-Tec Pigs safely and conveniently. The bottom of the rack has hexagonal cutouts that match the bottom of a Pro-Tec Pig to ensure each pig is held securely. When inserted into the rack, the pig can be easily opened or closed with a single twist.

SPECIFICATIONS:
Dimensions:
Overall: 12" w x 1.75" h x 6" depth (30.5 x 4.4 x 15.2 cm)
Upper holes: 1.5" dia (3.8 cm)
Lower holes: 1.2" hex (3.1 cm)
Weight: 2.8 lb (1.3 kg)

001-283 Pig Rack, Pro-Tec™

Related:
001-280 Unit Dose Pig, Pro-Tec™, Red
001-281 Unit Dose Pig, Pro-Tec™, White
001-282 Unit Dose Pig, Pro-Tec™, Blue

U.S. Patent No. 6,822,253
U.S. Patent No. 6,963,073
U.S. Patent No. 7,019,317

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TEC-CONTROL™ CHROMATOGRAPHY SYSTEMS

For radiopharmaceutical quality control

TEC-CONTROL™ ALUMINUM BREAKTHRU KIT

Simple 3-step procedure

The Aluminum Breakthru Kit provides a rapid, easy and inexpensive way to test aqueous solutions, particularly pertechnetate generator eluate, for trace quantities of aluminum. Aluminum forms an intense red precipitate with the indicator paper, and the intensity of the color is directly proportional to the amount of aluminum in the solution. The USP allows a concentration of aluminum ion in an injection ≤ 10 micrograms per milliliter (10 µg/ml) in technetium 99m eluate prepared from Molybdenum 99 formed as a result of uranium fission.

Simple Procedure:

1. Place a drop of the eluate or solution to be tested on the indicator paper. The best procedure is to form a hanging drop using a 19-22G needle.

2. Place a drop of the standard aluminum solution on the indicator paper. Use the same size drop.

3. Compare the intensity of the red spot formed. If the eluate spot is less intense than the standard solution, the eluate contains less than 10µg/ml aluminum.

150-780 Chromatography Kit, Tec-Control
Aluminum Breakthru Kit includes: Aluminum standard, 5 ml, 10 ug/ml, 50 indicator strips and manual

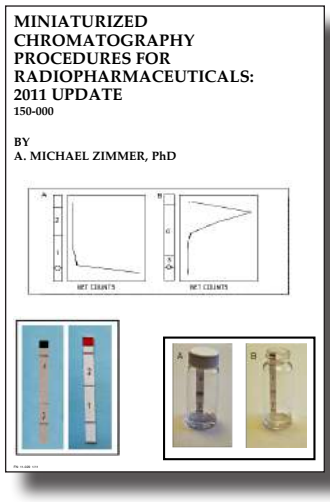
150-785 Chromatography Kit, Tec-Control
Aluminum Breakthru Kit includes: Aluminum standard, 5 ml, 5 ug/ml, 50 indicator strips and manual

References:
Miniaturized Chromatographic Quality-Control Procedures for Tc-99m Radiopharmaceuticals; A. Michael Zimmer and Dan G. Pavel, Journal of Nuclear Medicine, Vol. 18/12, Dec. 1977, pg. 1230.
Technical Parameters Associated with Miniaturized Chromatography Systems; Raimund A. Taukulis, A. Michael Zimmer, Dan G. Pavel and Bhupendra A. Patel, University of Illinois Medical Center, Chicago, Illinois, Journal of Nuclear Medicine Technology, Vol. 7/1.

Tec-Control™ Chromatography tests the radiochemical purity of specific Tc-99m-labeled radiopharmaceuticals. The accompanying chart shows which strips and solvents are required to perform each individual test. Some solvents must be purchased separately (see Sigma-Aldrich chart) due to hazardous material shipping restrictions.

Detailed instruction manuals are packaged with each strip container, although our Radiopharmaceutical QC Procedure Manual (150-000) explains paper chromatography in greater detail.

Radiopharmaceutical QC Manual



This detailed manual explains Paper Chromatography, a QC method for evaluating the radiochemical purity of currently used Tc-99m-labeled radiopharmaceuticals. Procedures are quick and easy to use, a simple quality control solution for any nuclear medicine department.

150-000 Procedure Manual, Radiopharmaceutical QC

CHROMATOGRAPHY QC FOR THE FOLLOWING RADIOPHARMACEUTICALS:

RADIOPHARMACEUTICAL	SOLVENT(S) REQUIRED*	STRIPS REQUIRED
Aluminum Breakthru	150-781	150-782
Aluminum Breakthru	150-783	150-782
Bicisate (Neurolite™)	Ethyl Acetate 99.%	150-130
Diphosphonate	Acetone (HPLC Grade), Distilled H2O	150-001 & 150-005
Disofenin (Hepatolite™)	150-160, Distilled H20	150-122 & 150-125
DMSA	Acetone (HPLC Grade),	150-025
DTPA	Acetone (HPLC Grade), Distilled H2O	150-001 & 150-005
Exametazine (Ceretec™)	Ethyl Acetate 99.%	150-130
Fluorodeoxyglucose (FDG)	Acetone (HPLC Grade)	150-127
Glucoheptonate	Acetone (HPLC Grade), Distilled H2O	150-001 & 150-005
HDP; HMDP and Octreoscan™ HDP	Acetone (HPLC Grade), Distilled H2O	150-001 & 150-126
MAA	Acetone (HPLC Grade),	150-001
MAG3 (Mertiatide™)	Acetone, (HPLC Grade), Chloroform 99.8% Tetrahydrofuran 99+%	150-951 & 150-952
MDP	Acetone (HPLC Grade), Distilled H2O	150-001 & 150-005
Mebrofenin (Cholotec™)	150-160, Distilled H20	150-122 & 150-125
Pyrophosphate	Acetone (HPLC Grade), Distilled H2O	150-001 & 150-005
Sestamibi (Cardiolite™ and Miraluma™)	Ethyl Acetate 99.%	150-991
Sulphur Colloid	Acetone (HPLC Grade),	150-001
Tc-99m (reduced)	Acetone (HPLC Grade),	150-001
Tc-99m Monoclonal Antibodies	0.9% Saline	150-771
Tetrofosmin (Myoview™)	Ethyl Acetate 99.%	150-971
In-111 Octreotide (Octreoscan™)	150-773 & 0.9% Saline	150-771 **
In-111 Monoclonal Antibodies	150-773 & 0.9% Saline	150-771 **
In-111/Y-90 Zevalin™	0.9% Saline	150-772
I-131 Monoclonal Antibodies and Neutrospec™	0.9% Saline	150-771

** See Sigma-Aldrich product matrix for solvents.*
*** Note: A Well Plate is suggested to perform QC on these radiopharmacueticals.*
Contact Fisher Scientific Corp. 800-766-7000 / www.fishersci.com / Item #14-245-71

Chromatography Strips

150-001 Strips, RED, 50/pkg
150-005 Strips, BLACK, 50/pkg
150-025 Strips, YELLOW, 50/pkg
150-122 Strips, ORANGE, 50/pkg
150-125 Strips, LIGHT BLUE, 50/pkg
150-126 Strips, BROWN, 50/pkg
150-127 Strips, GREEN, 50/pkg
150-130 Strips, GOLD, 50/pkg
150-771 Strips, DARK GREEN, 50/pkg
150-772 Strips, BLUE, 50/pkg
150-951 Strips, LIME, 50/pkg
150-952 Strips, PEACH, 50/pkg
150-971 Strips, TEAL, 50/pkg
150-991 Strips, PINK, 50/pkg
150-782 Strips, ALUMINUM, 50/pkg

Chromatography Solvents

150-160 Solvent, 20% Sodium Chloride, 30 ml
150-773 Solvent, DTPA, 5 ml
150-781 Solvent, Aluminum Standard, 5 ml, 10 µg/ml
150-783 Solvent, Aluminum Standard, 5 ml, 5 µg/ml

Related Items:

150-960 Developing Vials, 10 ml, 288/case
(used for all Tec-Control testing)
150-961 Developing Vials, 5 ml, 144/case
(used for Sestamibi & Tetrofosmin)
066-533 Forceps, Curved, locking, 9.5" l (24.1 cm)
066-535 Forceps, Straight, locking, 9.5" l (24.1 cm)
066-536 Forceps, Curved, non-locking, 12.5" l (31.7 cm)

Tec-Control Solvent Vendor:
Sigma-Aldrich Chemical Company
800-558-9160 / www.sigmaaldrich.com

Note: Customers outside the US should visit the Sigma-Aldrich web site to locate a regional office.

Solvent Description	Vendor Part #
Acetone HPLC Grade	27072-5
Ethyl Acetate 99.5% ACS Reagent	31990-2
Chloroform 99.8% ACS Reagent	31998-8
Tetrahydrofuran 99+% ACS Reagent	36058-9

To order, call Biodex toll free…
1-800-224-6339
Int'l 631-924-9000 • www.biodex.com

PORTABLE SHIELDED ISOLATOR USP<797>

Certified Shielded Barrier Laminar Flow Isolator

- *Small footprint*
- *Antechamber located under the Isolator*
- *Large, full-view shielded window*
- *Designed from the ground up for a Radiopharmacy*
- *Stainless Steel, inside and out*
- *Motorized height adjustable – 10 inch range*
- *Work sitting or standing-with correct ergonomics*
- *USP <797> compliant overcomes expensive ventilation renovations*
- *Internal IV bar*
- *Sealed shielded dose calibrator chamber in the work surface*
- *Fits Atomlab 500 Dose Calibrators*
- *Use for blood work or other compounding or drawing requirements*
- *Mobile, on four heavy-duty locking casters*
- *Electric outlets in work area*
- *HEPA air filtration*
- *Lead shielded (.25" thick) for compounding mid to low-energy sterile radiopharmaceuticals*
- *ISO Class 5 (Class 100) Isolator*

The Cleanroom Solution

The Biodex Germfree Shielded Isolator provides the ultimate in both product and operator protection. The shielded isolator functions as a "glovebox" using negative pressure to meet NIOSH recommendations while complying with USP<797> regulations for use outside a cleanroom.

HEPA filtered unidirectional (laminar) air bathes the work area to protect the product from contamination and removes any particulate generated by sample manipulation. The operator is provided a complete shielded barrier from materials being manipulated in the work area. The Biodex Germfree Shielded Isolator meets or exceeds ISO 14644-1, ISO Class 5 (Class 100) air quality. Each shielded isolator undergoes rigorous physical testing to assure the unit meets performance requirements as validated. It is required that independent certification be performed before use.

What is a Barrier Laminar Flow Isolator?

USP <797> changed the way facilities that prepare compound sterile preparations (CSPs) approach their work. As the first official and enforceable requirement for CSPs, USP <797> deals with policies and practices for preparing CSPs. It applies to all facilities that prepare CSPs, including clinics, hospital care units, main and satellite pharmacies. As facilities that prepare CSPs evaluate and change their procedures to meet USP <797> requirements, they are finding that barrier isolators provide an ideal alternative to more costly cleanrooms.

According to the Food and Drug Administration, a barrier isolator is "a decontaminated unit supplied with HEPA filtered air that provides uncompromised continuous isolation of its interior from the external environment, including surrounding cleanroom air and personnel."

By installing a certified barrier isolator, one can obtain cleanroom conditions within a contained workspace. Barrier isolators provide a ISO Class 5 (Class 100) environment for product preparation, with work occurring inside a closed, pressurized environment accessible only via sealed gloves that reach into the work area.

A Shielded Glovebox is not a certified barrier isolator. By choosing a certified barrier isolator, the requirement for a ISO Class 8 environment is eliminated. The Biodex Germfree Isolator is an excellent example of a well-designed shielded barrier Laminar Flow Isolator, meeting all standards and more.

Antechamber

- Sealed two-door air lock maintains complete environmental separation between work area and ambient conditions.
- HEPA filtered purge of trapped air-lock air eliminates cross contamination between the work area and the room during both material ingress and egress.

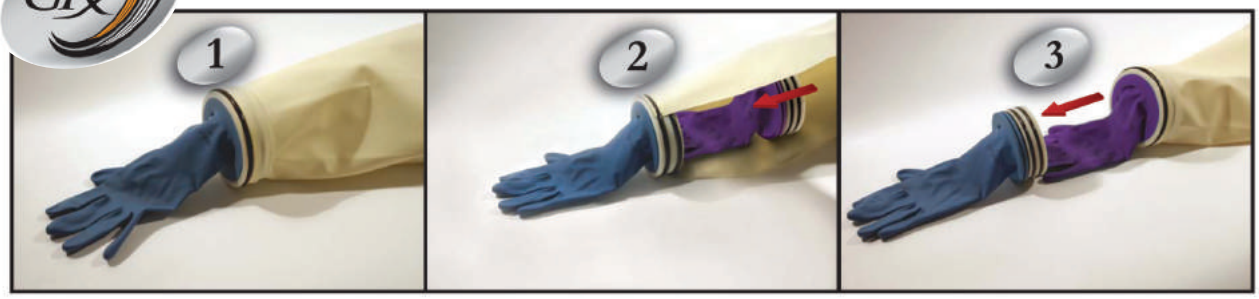
Filtration

- Full framed, standard size mini-pleat HEPAs filter 100% of inlet and exhaust air from both the work area and the antechamber to provide a fully contained environment.
- HEPA filters are full coverage and front loading for easy replacement by a certifier.

Ergonomics

- Hydraulic assist height adjusting stand offers a full 10" range, allowing operators to sit or stand comfortably for extended time periods.
- Stainless steel sliding tray inside the antechamber air lock that pulls forward for loading and unloading items into the air lock, eliminating reaching strains. The sliding tray lifts up 7.5" when the interior antechamber door is opened.

GERMFREE Rapid Exchange Glove System



The GRx offers a fast, easy, efficient solution to the traditional glove changing methods. Gloves can now be changed in seconds, maintaining a clean environment.

- Two part sleeve/glove system allows the use of most types and sizes of commercially available gloves for better dexterity and tactility.
- Extra large, oval glove ports are placed with bottoms together to provide an anthropometrically correct configuration that accommodates a wide range of body types and increases range of movement.
- Glove ports have a 3" armrest to reduce operator fatigue.
- Large viewing panel is at an angle to reduce glare and operator strain.

Sharps Container

- One sharps container in a locking shielded holder, located under the isolator in a .25" lead shield.
- Sharps tube is a straight 2.5" diameter tube to facilitate quick drop of the largest syringes with an easily removable shielded seal/stopper to maintain work area containment.

Safety

- Lockout handle requires key for access to work area and sharps container.
- Digital pressure readout with low pressure alarm for work area.
- Inward face velocity is 95-100 LFM at glove port opening, to protect operator/product during massive breach of containment.
- Glove changes can be made without breaking containment.
- Locking casters are standard; seismic anchors are available.

Cleaning

- Front viewing panel is top hinged and self supporting for easy access to the work area for cleaning and equipment ingress and egress.
- All filter diffuser / guard panels are removable for easy cleaning.
- Straight sides and back maximize work area to accommodate the many types and shapes of equipment and dose calibrators.
- All corners in work area, antechamber and work surface are easily reached and cleaned.

Configuration Options

- Overall work area pressure is negative with the option to externally exhaust.
- Optional Thimble Exhaust Transition Kit is available for connection to external exhaust systems
- Fits Atomlab and other dose calibrators

SPECIFICATIONS:

Dimensions:
Overall Dimensions: 36" w x 32.5" depth x 79 " h (91.4 x 82.5 x 200.7 cm)
Designed to fit through standard door openings and elevators.
Height Adjustment: 79" – 89" (200.7 x 226 cm)
Work Area Dimensions: 35" w x 25" depth x 28" h (88.9 x 63.5 x 71 cm)
Viewing window:
Dimensions: 30" w x 23" h (76.2 x 58.4)
Lead Acrylic Shielding: 1.8" thick (46 mm)
Lead Equivalency: 2 mm for Tc-99m
Construction: Stainless steel with a pharmaceutical grade finish
Lead Shielding: .25" thick (.64 cm) on back, sides, bottom and front
Fluorescent Lights: High efficiency; externally mounted to minimize heat build up. Separate lighted power ON/OFF switch.
Motor/Blower: High capacity with speed control to extend HEPA filters life. Separate lighted power ON/OFF switch.
Power: 115 VAC, 60 Hz (Optional 220 VAC, 50-60 Hz is available), 15 AMP line, running amperage = 6 AMP. Includes ten foot hospital grade power cord with molded grounded plug. Sealed outlet in work area.
Weight: 1600 lb (725.7 kg)
Warranty: Two years parts; one year labor*

190-215 Shielded Isolator, 115 VAC
190-214 Shielded Isolator, 220 VAC

Related:

086-332 Dose Calibrator, Atomlab™ 500*Plus*, 100-240 VAC
Includes: Smart Display, ionization chamber, well counter, RS-232 port, vial/syringe dipper and well insert.
190-219 Total Customer Care Plan*
Includes installation and training (see web for details)
190-220 Thimble Exhaust Transition Kit
For connection to external exhaust systems

Replacement:

190-217 GRX – Rapid Exchange Glove System
Includes one pair of isolator sleeves, two outer rings, six inner rings and all necessary O-rings
039-413 Sharps Container, 3.2 qt., 30/pkg
190-218 Hypalon Sleeves (pr)

**Offer applies to Continental United States only.*

NEW ATOMLAB™ 500 DOSE CALIBRATOR

One dose calibrator that can be used for a wide variety of nuclear medicine, PET and radioimmunotherapy applications.

- *Windows® 10 Operating System*
- *Microsoft SQL Database*
- *Communicates with most commercially available NM management systems via ethernet or serial port*
- *Pre-programmed for 98 most commonly used radionuclides; any 12 can be conveniently touch selected*
- *Extensive isotope libraries*
- *Automatic range selection up to 100 Curies of Tc-99m or 25 Curies of F-18*
- *Ultra-fast response*
- *Displays in Curies or Becquerels*
- *USB connectivity for external monitor, printer, and software upgrades*
- *Report and label printers available*
- *Small footprint economizes workspace*
- *Upgradeable at any time to include a wipe test counter*
- *Two-year warranty*

Standard Apps for Atomlab 500 include:

- *Automated Quality Assurance Apps*
  - *Constancy and Expanded Constancy*
  - *Linearity and Auto Linearity*
  - *Accuracy*
  - *Geometry*
- *Nuclear Pharmacy Apps*
  - *Future dose and volume computation*
  - *Moly Assay*
  - *Half-Life Verification*

The Atomlab 500 can be used for a wide variety of nuclear medicine, PET and radioimmunotherapy applications, with proven performance for fast, accurate measurements. The system consists of a low pressure ionization chamber, electrometer with extraordinary linearity, and an auto-ranging color touchscreen display. Additionally, there are advanced, but easy-to-use programs for nuclear pharmacy.

Activity measurements are performed by the microprocessor controlled electrometer located within the chamber assembly. The chamber is shielded with .25" (6.3 mm) lead. It can be located up to eight feet away from the display unit. Chamber bias is generated by an electronic high voltage supply, eliminating the need for expensive battery changes.

Every element of the design and technical development will increase dose accuracy, department productivity and regulation compliance. The attractive and intuitive human interface guides the user through each operation. Software can easily be updated via the Biodex website or by using a convenient USB memory device.

In addition to powerful self-diagnostics, the Atomlab 500 includes an exclusive chamber monitoring technology to ensure longer life and accuracy. Integrated pressure and temperature sensors feedback data so that the influence of gas pressure change will not affect an accurate reading.

Operation

The system is easy to use. There are 12 isotope selection touch keys pre-programmed for the most commonly used radionuclides. Any of those keys can be reprogrammed by the user for a desired isotope. There are 98 isotope-specific dial values listed in the library. Dial values can easily be changed if required.

Activity is displayed on the touchscreen color display in either Curie or Becquerel units. Background correction is performed at the touch of a button. Range selection is automatic, from .01 microcurie to 100 Curies of Tc-99m or 25 Curies of F-18.

Quality Assurance

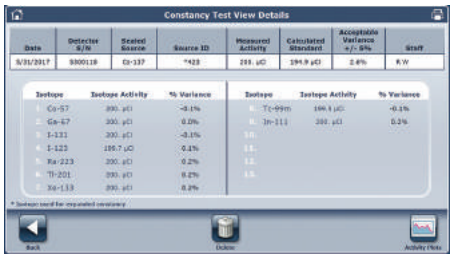
The Atomlab 500 has been designed to make life easier. The extensive selection of quality assurance applications streamlines and simplifies hot lab administration requirements. The system stores and decay corrects multiple reference sources and compares the measured activity to the calculated activity for the daily constancy test.

Linearity tests can be performed in the traditional manual method or by a fully automated program that allows for readings from a source to be taken, and automatically recorded at specified intervals. The system will graph the results.

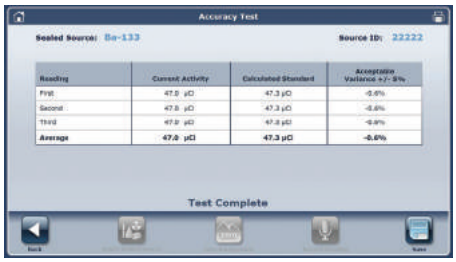
The attenuation tube test for linearity can be performed using software that will guide the user through the procedure, store the values and make all calculations.

Accuracy

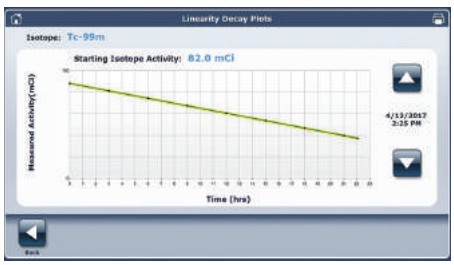
Atomlab Dose Calibrators have a reputation for being extremely accurate. Biodex and chamber manufacturer Sun Nuclear Corporation have participated in the isotope program sponsored by National Institute of Standards and Technology. Each month a certified isotope is received from National Institute of Standards and Technology and is measured in the Atomlab™ Dose Calibrator, producing direct traceability to National Institute of Standards and Technology.



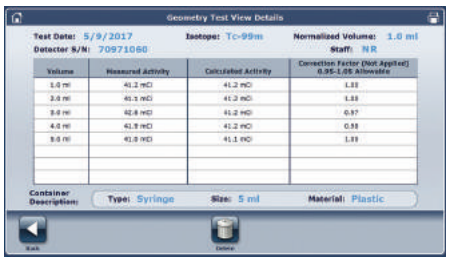
Constancy Data



Accuracy Test



Linearity Decay



Geometry Test

NEW ATOMLAB™ 500 DOSE CALIBRATOR

An extensive selection of quality assurance applications streamlines and simplifies hot lab administration requirements.

Easy to use, touchscreen display with intuitive menus.

Commercial Nuclear Pharmacy

The Atomlab 500 Dose Calibrator features a nuclear pharmacy "Dose Calculation Screen" to meet the needs of a commercial nuclear pharmacy. All the information needed to draw doses efficiently is readily available on one screen. The feature easily performs pre- and post-decay calculations, volume calculations for specific times and isotope changes all with minimal screen touches. No calculators needed!

Atomlab Dose Calibrators can read up to 100 Curies of Tc-99m, thereby eliminating the need for an aliquot preparation, a significant time saver every time a generator is milked.

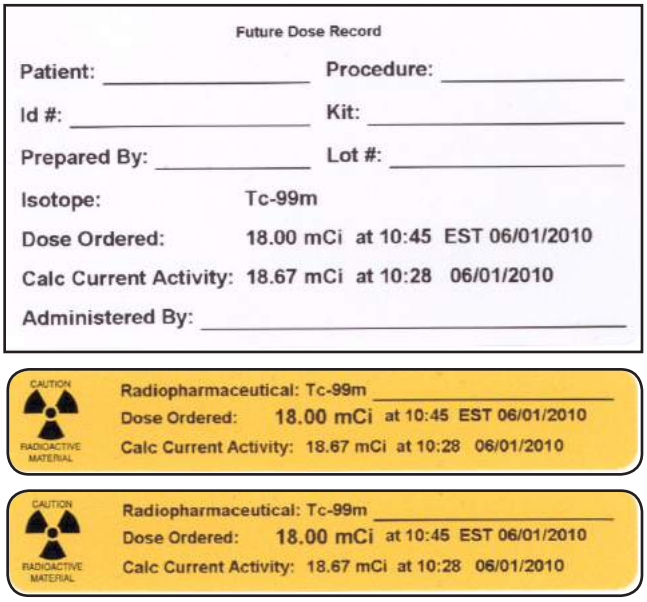
Communications

Ethernet and serial port to communicate with most commercially available nuclear medicine management systems. USB connectivity for external monitor, printer and software upgrades.

Sample Labels

Optional label printer (086-341), for Atomlab 500 and Atomlab 500 Plus.

Future Dose



SOFTWARE UPDATES

Your Atomlab 500 Dose Calibrator is upgradable.
You can easily install software updates via the Biodex website or by using a convenient USB memory device.

SPECIFICATIONS:
All-In-One Flat Panel Touchscreen Display with Windows 10 Operating System and USB connectivity.
Auxiliary Ports: USB, RS-232 and Ethernet
Isotope Selection Keys: Twelve pre-programmed – Tc-99m, Tl-201, I-123, I-131, Cs-137, Co-57, Xe-133, Ga-67, In-111, F-18, Y-90s, Ba-133, 25 user-defined isotopes and a full alphabetical list of 98 isotopes.
Activity Range: 0.01 µCi to 100 Ci (.0004 MBq to 3700 GBq) of Tc-99m or 25 Ci of F-18
Energy Range: 25 keV to 3 MeV photons
Response Time: One to two seconds for doses greater than 200 µCi; three seconds for doses greater than 20 µCi; 50-100 seconds below 20 µCi of Tc-99m with default threshold; threshold adjustable to reduce counting time
Electrometer Linearity: ± 1% or 0.2 µCi, whichever is greater, up to 40 curies of Tc-99m, ± 1.5% up to 100 curies of Tc-99m
Electrometer Accuracy: ± 1% or 0.2 µCi, whichever is greater
Overall Accuracy: ± 3% or 0.3 µCi, whichever is greater; overall accuracy is affected by such factors as the accuracy of the specific source calibration, geometric variations due to sample volume or configuration, detector linearity, electrometer accuracy and readout accuracy
Repeatability: ± 0.3% above 1 mCi short term (24 hr); 1% long term (one yr)
Detector:
- **Unit:** Well-type pressurized ionization chamber, with Argon fill gas
- **Dimensions:** 6" dia x 15.5" h (15.24 x 39.37 cm)
- **Well I.D.:** 2.75" dia x 10.5" h (7 x 26.7 cm)
- **Well I.D. with Liner:** 2.5" dia x 10.25" h (6.35 x 26 cm)
- **Shielding:** .25" (6.3 mm) lead on all sides except top well opening; supplementary shielding available
- **Linearity:** ± 1% or 0.2 µCi, whichever is greater
- **Weight:** 35 lb (16 kg)

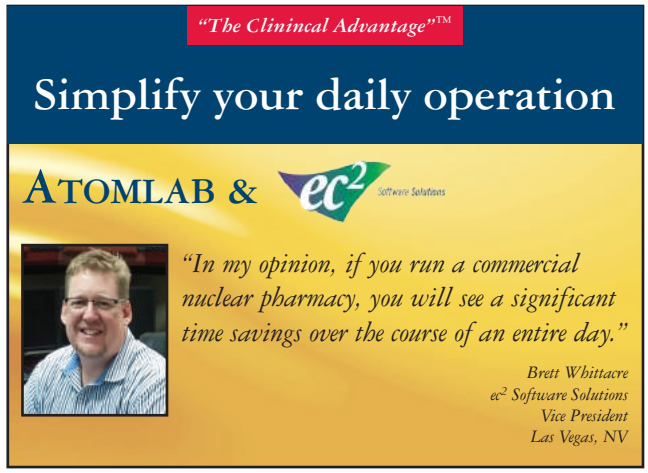
Power Requirements: 100 to 240 VAC, 0.38 – 0.15 amps, auto switching
Certification: ETL listed to UL 60601-1 and to CAN/CSA C22.2 No. 601.1.M90 IEC 60601-1, IEC 60601-1-4 and IEC 60601-1-2 and CE marked
Warranty: Two years parts and labor

CE 0413 ETL Intertek

UPGRADE-ABILITY

The Atomlab™ 500 Dose Calibrator can be upgraded to include a fully functioning Atomlab™ Wipe Test Counter. The "Smart Display" recognizes the chamber / detector configuration and instantly reconfigures the screen to the appropriate icons.

For physics tests, sample reports, testimonals and warranty information, visit us on the web
www.biodex.com/dosecalibrators



086-330 Dose Calibrator, Atomlab™ 500, 100-240 VAC
Includes: Smart Display, ionization chamber, RS-232 port, vial/syringe dipper and well insert.

Related:
086-336 Chamber, Dose Calibrator
075-594 Chamber, Wipe Test
086-338 Shielding Rings, Interlocking, 2.25" lead
For additional protection from high energy activity
086-509 Lineator
086-435 Moly Shield, Syringe, .3" lead
086-243 Copper Dipper, Vial/Syringe
086-423 Moly Shield, Vial, .3" lead
086-341 Printer, Label, Dymo
Includes one roll 086-343 labels; two rolls 086-344 label
086-339 Printer, Ink Jet (report)
086-334 Cable, European to Wall Outlet

Replacement:
086-242 Vial/Syringe Dipper
086-241 Well Insert
086-343 Label, Blank, Lg, 300/roll
(For Dymo Printer, 086-341)
086-344 Label, "Radioactive", Sm, 260/roll, 2/pkg
(For Dymo Printer, 086-341)

Atomlab Dose Calibrators utilize low-pressure chambers and are shipped air or ground as standard goods.

NEW ATOMLAB™ WIPE TEST COUNTER

Eliminate the tedium of wipe testing

UPGRADE-ABILITY

The Atomlab™ Wipe Test Counter can be upgraded to include a fully functioning Atomlab™ Dose Calibrator simply by adding a new chamber. The "Smart Display" detects which chambers are connected and instantly reconfigures the screen to the appropriate icons.

- *Windows® 10 Operating System*
- *Microsoft SQL Database*
- *Communicates with most commercially available NM management systems*
- *USB connectivity for external monitor, printer, and software upgrades*
- *64 Channel MCA*
- *Expandable library of 33 commonly used isotopes*
- *Adjustable wide window and individual isotopes*
- *2x2 NaI drilled-well detector*
- *Remote shielded well*
- *Energy spectrums with individual ROI*
- *Ability to help identify isotopes causing contamination*
- *Wipe testing results stored*
- *User-specific wipe locations and trigger levels*
- *Wipes that exceed trigger levels are immediately recognized*
- *Detailed wipe reports including cpm and dpm*
- *Upgradable at any time to a dose calibrator by adding an ionization chamber*
- *Report printer available*
- *Two-year warranty*

Standard Apps for Atomlab Wipe Test Counter include:

- *Automated Quality Assurance Apps*
  - *Full Width at Half Max (FWHM)*
  - *Chi Square*
  - *Minimum Detectable Activity (MDA)*
- *NEW Manual MCA Program*

The Atomlab® Wipe Test Counter is easy to use, easy to understand, fast and dependable. A color touchscreen display utilizing intuitive software eliminates the tedium of wipe testing. Simply perform a daily calibration and background count, then count the wipe for each predetermined location. Trigger levels can be set for any isotope at any location including 200 dpm for iodine. In seconds the system will determine if the location is above or below the user defined trigger level.

When performing a wipe test, the full spectrum is displayed. A wide window that includes the isotope energies expected in a particular department is set by the user. The efficiencies of the isotopes selected for the window can be either factory defaults or user determined using an integrated detector efficiency program. Individual isotope ROIs along with the wide window can be set. This feature helps identify the isotope(s) causing contamination.

The user may define an unlimited number of "Area" names and wipe "Locations" and designate them as restricted area, unrestricted area, sealed source or package. The Wipe Test Program automatically calculates net contamination levels and reports results in dpm, uCi and Bq.

The system consists of a lead shielded 2" x 2" sodium iodide NaI (Tl) well detector and a 64 channel multichannel analyzer. The displayed energy range (spectrum) is 0-800 KeV, which is typically found in nuclear medicine departments.

The wipe counter is designed to meet or exceed all NRC (10 CFR 35.70, 10 CFR 20.1906 and 10 CFR 35.2067) and state wipe test requirements. There are automated programs for the quality assurance functions: calibration, FWHM, chi-square and minimum detectable activity (MDA).

Wipe test results and QA test data can be stored in memory and printed at any time.

Manual MCA Program

For performing sample counts and analysis beyond the scope of the standardized programs.

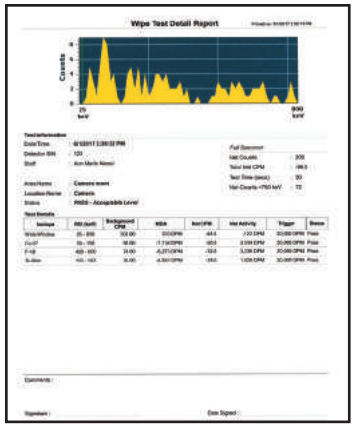
- Expandable library of 33 commonly used isotopes
- Unlimited user-defined isotopes
- Three counting methods: preset time, preset ROI, and continuous counting

In addition to providing "standardized" programs for routine test and survey procedures, the Atomlab Wipe Test Counter now offers a "manual" program to accommodate other counting and spectrum analysis tasks. The user can select from three counting methods: preset time, preset ROI counts, and continuous counting. After any count, the Spectrum Analysis option can be used to produce a Spectrum Analysis Report. The monitor shows when a test is in progress, and graphically displays the spectrum, time, counts and cpm.

SPECIFICATIONS:
All-In-One Flat Panel Touchscreen Display with Windows 10 Operating System and USB connectivity.
Auxiliary Ports: USB, RS-232 and Ethernet
Memory: Stores wipe, calibration, background, high voltage, isotope specification, isotope efficiency, Chi-Square testing results, technologist list, wipe locations list and latest MDA calculation. Results can be displayed and printed.
Preset Radionuclides: 33 including Tc-99m, Co-57, Cs-137, Ga-67, Tl-201, I-123, I-125, I-131, In-111, F-18

WELL COUNTER
Dimensions: 6" dia. x 11" h (15.24 x 27.9 cm)
Weight: 29 lb (13.2 kg)
Detector: 2" x 2" NaI (Tl) integral line scintillation detector with a 0.75" dia x 1.44 " depth well (1.9 x 3.7 cm)
Style: Remote Detector
Channels: 64
MCA: Integral to Well Counter
Spectral Resolution: FWHM 10%
Count Rate: (Maximum) 30,000 cps
Lead Shielding: 0.5" thick (1.2 cm) integral lead shield

Certification: ETL listed to UL 60601-1 and to CAN/CSA C22.2 No. 601.1-M90, IEC 60601-1, IEC 60601-1-4 and IEC 60601-1-2 and CE marked
Warranty: Two years parts and labor



Printed report

Sample reports available at www.biodex.com/wipetestcounter

Wipe Test Chamber shown with optional Lead Shield.

086-331 Atomlab™ Wipe Test Counter
Includes: Smart Display, well counter and RS-232 port.

Related:
086-336 Chamber, Dose Calibrator
075-596 Lead Shield, Wipe Test Chamber
086-339 Printer, Ink Jet (report)
086-334 Cable, European to Wall Outlet
063-139 Rod Source, Cs-137, Calibrated, 0.1 µCi
006-350 Wipe Test Kits, 500/pk
086-342 Well Liners, Disposable, 100/pk

NEW ATOMLAB™ 500*Plus* DOSE CALIBRATOR

Dose Calibration and Wipe Testing combined…it's a complete Hot Lab Management System.

- *Windows® 10 Operating System*
- *Microsoft SQL Database*
- *Communicates with most commercially available NM management systems via ethernet or serial port*
- *Preprogrammed for 98 most commonly used radionuclides; any 12 can be conveniently touch selected*
- *Extensive isotope libraries*
- *Automatic range selection; up to 100 Curies of Tc-99m or 25 Curies of F-18*
- *Remote shielded ionization chamber*
- *Ultra-fast response*
- *Displays in Curies or Becquerels*
- *64 Channel MCA*
- *Expandable library of 33 commonly used isotopes*
- *Remote shielded well*
- *Adjustable wide window and individual isotopes*
- *Energy spectrums with individual ROI*
- *Ability to help identify isotopes causing contamination*
- *2 x 2 NaI drilled-well detector*
- *User-specific wipe locations and trigger levels*
- *Wipes that exceed trigger levels are immediately recognized*
- *Detailed wipe reports including cpm and dpm*
- *Wipe testing results stored*
- *Intuitive software with extensive functionality*
- *USB connectivity for external monitor, printer, and software upgrades*
- *Report and label printers available*
- *Small footprint economizes workspace*
- *Two-year warranty*

Standard Apps for Atomlab 500*Plus* include:

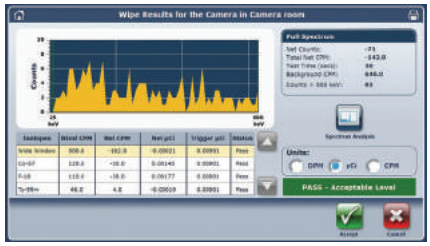
- Automated Quality Assurance Apps
  - Constancy and Expanded Constancy
  - Linearity and Auto Linearity
  - Accuracy
  - Geometry
  - Full Width at Half Max (FWHM)
  - Chi Square
  - Minimum Detectable Activity (MDA)
- Nuclear Pharmacy Apps
  - Future dose and volume computation
  - Half-Life Verification
  - Moly Assay
- *NEW Manual MCA Program*

The Atomlab 500*Plus* combines the industry gold standard Atomlab 500 Dose Calibrator and Wipe Test Counter, offering you a complete and cost-effective solution for all of your molecular imaging needs. The intuitive Atomlab 500*Plus* provides fast, accurate radionuclide activity measurements with performance that complies with the most stringent regulatory requirements. It's comprehensive, easy-to-use and feature rich. The software mirrors the way you think and work. It guides when necessary, but does not burden the advanced user. The touchscreen and easy-to follow on-screen prompts mean you won't need "cheat sheets."

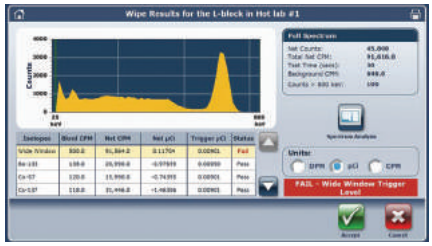
When required, you can be confident that every operation is captured and documented. That documentation makes compliance a breeze. The Atomlab 500 Dose Calibrator software is upgradable. You can easily install updates via the Biodex website or by using a convenient USB memory device.

SPECIFICATIONS:
Atomlab™ 500 Dose Calibrator
See page 57 for complete listing.

Atomlab™ Wipe Test Counter
See page 59 for complete listing.



Wipe Test Passed



Wipe Test Failed

QA Display (Dose Calibrator)


*The Atomlab™ 500*Plus* display can be mounted on a wall or placed on a desktop.*

086-332 Dose Calibrator, Atomlab™ 500*Plus*, 100-240 VAC
Includes: Smart Display, ionization chamber, well counter, RS-232 port, vial/syringe dipper and well insert.

Related: Dose Calibrator
086-336 Chamber, Dose Calibrator
075-594 Chamber, Wipe Test
086-338 Shielding Rings, Interlocking, 2.25" lead
For additional protection from high energy activity
086-509 Lineator
086-435 Moly Shield, Syringe, .3" lead
086-243 Copper Dipper, Vial/Syringe
086-423 Moly Shield, Vial, .3" lead
086-341 Printer, Label, Dymo
Includes one roll 086-343 labels; two rolls 086-344 label
086-339 Printer, Ink Jet (report)
086-334 Cable, European to Wall Outlet

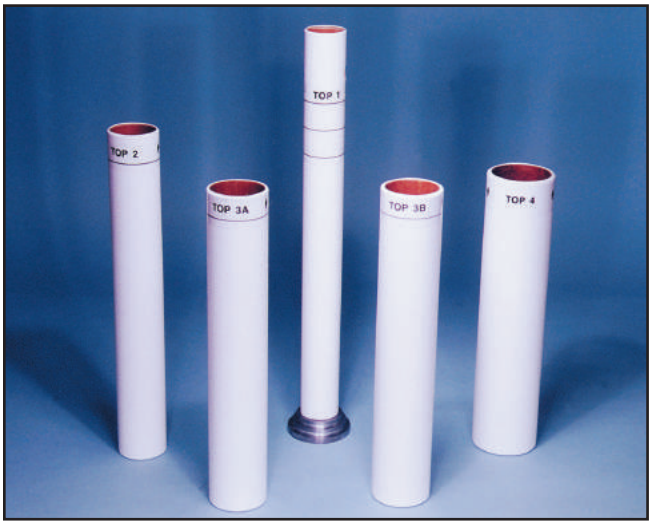
Replacement:
086-242 Vial/Syringe Dipper
086-241 Well Insert
086-343 Label, Blank, Lg, 300/roll
(For Dymo Printer, 086-341)
086-344 Label, "Radioactive", Sm, 260/roll, 2/pkg
(For Dymo Printer, 086-341)

Related: Wipe Test Counter
063-139 Rod Source, Cs-137, Calibrated, 0.1 µCi
075-596 Lead Shield, Wipe Test Chamber
006-350 Wipe Test Kits, 500/pkg
086-342 Well Liners, Disposable, 100/pk

Atomlab Dose Calibrators utilize low-pressure chambers and are shipped air or ground as standard goods.

LINEATOR

Simulates eight different source strengths — using only one source



- ***Simplifies compliance with NRC and state requirements***
- ***Checks linearity without sample decay or fractioning***
- ***Covers diagnostic or therapeutic quantities in a single pass***

The Lineator is a simple device to accurately and reliably verify the linearity of your dose calibrator. Test results are available in minutes, without waiting days for decay, making it feasible to perform a linearity test more often. Early identification can prevent problems before they occur.

The Lineator is a set of five tubes. Four tubes are used to perform the test and an interchangeable tube is used depending on the dynamic range needed to cover.

To perform a linearity test, insert a source of Tc-99m of the maximum activity to be measured into the central tube, then place the tube into the chamber of your dose calibrator and count. The remaining lead-lined tubes are placed, one at a time, concentrically over the central tube and counted individually or in combination. The readings are then normalized with predetermined factors, and the degree of linearity can be seen virtually at a glance.

Using only one source, the Lineator can simulate up to eight different source strengths. Each outer tube absorbs a portion of the source radiation and reduces the effective source activity seen by the dose calibrator.

SPECIFICATIONS:
Weight: 6 lb (3 kg)

086-509 Lineator

MOLY ASSAY SHIELD

Model 086-435 shown

Moly Assay Shields are a convenient method to verify a unit dose. Whether working with syringes or vials, either unit will fit into the well chamber of any Atomlab Dose Calibrator.

The leaded shields are cradled by a metal holder for easy handling to ensure proper placement inside the chamber.

SPECIFICATIONS:
086-435 Moly Assay Shield, Syringe
Dimensions: 9.125" h x 2.125" dia (23.2 x 5.4 cm)
Lead Shielding: .3" thick (7.6 mm)

086-423 Moly Assay Shield, Vial
Dimensions: 3.5" h x 2" dia (8.9 x 5.1 cm)
Lead Shielding: .3" thick (7.6 mm)

086-435 Moly Assay Shield, Syringe, .3" lead
086-423 Moly Assay Shield, Vial, .3" lead

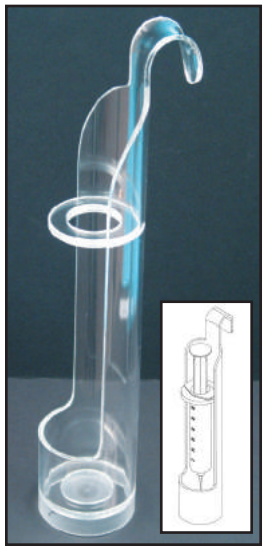
VIAL/SYRINGE DIPPER

This rugged, Vial/Syringe Dipper has a comfortable handle and it will hold 1 cc to 10 cc syringes or up to a 30 ml vial. Included with every Atomlab Dose Calibrator, the Vial/Syringe Dipper will also fit any well chamber with 2.5" x 10" interior dimension. The material used will not cause attenuation problems and is very resistant to breaking.

086-242 Dipper, Vial/Syringe

SYRINGE DIPPER

Accommodates B-D and Monoject 60 cc syringes



The Syringe Dipper will hold a 60 cc syringe in the correct position in most commercial dose calibrators with 2.5" x 10" well chamber interior. The material used will not cause attenuation problems and is very resistant to breaking.

008-015 Dipper, Syringe, 60 cc

DOSE CALIBRATOR
SHIELDING RINGS

Especially suited for PET applications

Shielding Rings are 2.25" lead.

The Dose Calibrator Shielding Rings offer an additional 2.25" of lead shielding around the remote chamber for working with 511 keV radionuclides, such as FDG F-18.

SPECIFICATIONS:
Dimensions: 10.6" dia x 14.9" h (27 x 37.9 cm)
I.D.: 6.1" dia (15.5 cm)
Lead Shielding: 2.25" (5.7 cm) thick
Weight: 359 lb (162.5 kg)
Shipping Weight: 388 lb (175.7 kg)

086-338 Shielding Rings, Interlocking, 2.25" lead
Fits Atomlab Dose Calibrators 500 and 500Plus.
For additional protection from high energy activity

COPPER
SYRINGE DIPPER

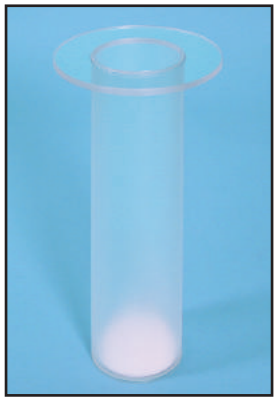
- ***For use with I-123 and In-111***
- ***Eliminate variations due to type of container***

Designed for use with I-123 and In-111, the Copper Dipper removes variation in readings caused by attenuation differences from different materials and thicknesses used in syringes and vials.

SPECIFICATIONS:
Dimensions: 10.25" h x 1.63" dia (26 x 4.1 cm)
Weight: .75 lb (.34 kg)

086-243 Copper Dipper, Vial/Syringe

WELL INSERT



The Well Insert is included with the purchase of any Atomlab Dose Calibrator. The durable, clear Plexiglas insert is designed to protect the chamber from contamination and can be easily removed for cleaning. The insert will fit any well chamber with 2.5" x 10" interior dimension.

Keep a spare on hand for use while the other insert is being decontaminated.

086-241 Well Insert

ATOMLAB™ 960
THYROID UPTAKE SYSTEM

A complete, mobile, self-contained Medical Spectrometer System

FEATURES

- Unique Positioning LED for accurate thyroid centering – A First in Thyroid Uptake System Design
- Distance measurement rod with incremental markings (detector-to-patient)
- The combination of positioning LED and distance bar assure accurate, repeatable patient positioning and uptake measurements
- All-in-one flat panel PC with solid state hard drive featuring Windows® Operating System
- Count rate: 150,000 cps
- Color touchscreen adjustable height monitor - medical grade tactile touch
- Extremely intuitive menus follow conventionally established nuclear medicine procedures
- Compact mobile platform requires little floor space - easy to move
- Innovative multi-axis and height adjustable arm for easy patient positioning of seated or supine patients
- Calibration/Constancy fixture for simple and automated calibration
- Convenient storage positions for Neck Phantom and Calibration/Constancy Fixture
- 1024-channel multichannel analyzer
- Software programs for Thyroid Uptake, Wipe Test, Quality Assurance, Manual MCA and Bioassay
- Controlled and monitored via Ethernet or Serial Port
- DICOM Compliant (optional) – Government approved to interface with VistA Imaging
- 2" x 2" NaI(Tl) detector with collimated shield (meets IAEA specifications)
- Heavy duty locking casters
- Smart cable management
- Industry exclusive two-year warranty

Thyroid Uptake System shown with Optional Well Counter and Phantom

The Atomlab 960 Thyroid Uptake System is an advanced multi-purpose spectrum analysis instrument designed for diverse nuclear medicine applications. Uptake studies, wipe tests, and other user-defined tasks are accomplished with speed and precision using this fully integrated computer-controlled instrument and its comprehensive selection of application software.

Innovative multi-axis and height adjustable arm makes patient positioning easier than ever before. Combined with unique Positioning LED and Distance Measurement Rod, the Atomlab 960 allows for repeatability in uptake measurements.

The system's multi-channel analyzer has 1024 channels, with individual MCAs for the probe and optional well counter. Engineered for mobility, durability and operational efficiency, the Atomlab 960 handles clinical tests, safety compliance tasks, and system administration procedures quickly and accurately. Intuitive menus follow conventionally established nuclear medicine procedures, providing step-by-step guidance throughout all defined procedures. The system automatically performs calculations, stores patient information and test results, and outputs clear, concise reports. User-defined uptake protocols can be initiated.

The self-contained Atomlab 960 system is configured on a compact mobile platform with locking casters and a base that measures only 26" w by 34" l (66 x 86.4 cm). An upper shelf supports the flat panel PC with touch-screen display and keyboard. The stand provides convenient storage positions for Neck Phantom, Calibration/Constancy Fixture, and optional well counter. A 2" x 2" NaI(Tl) detector with collimator shield articulates on a multi-axis and height adjustable counterbalanced arm. The 24.5" (62.2 cm) of vertical travel allows the probe to be positioned from 30.5 to 55" (77.5 to 139.7 cm) in the horizontal position from the floor to accommodate seated or supine patients. The probe swings more than 180° on the horizontal plane, and extends outward up to approximately 31" (78.7cm) horizontally from the support column. This design makes positioning for uptake studies simple and comfortable for both patient and technologist. The combination of positioning LED and distance measurement rod assures accurate, repeatable patient positioning and uptake measurements.

COMPREHENSIVE CLINICAL SOFTWARE

Extremely intuitive menus follow conventionally established nuclear medicine procedures. All programs provide clear, concise reports for referring physicians, insurance providers, patient records and a database for physician and technologist identification. PDF reports allow for easy electronic distribution.

THYROID UPTAKE PROGRAM

- *Supports multiple time-stamped uptake measurements*
- *Auto decay correction*
- *User-defined uptake protocols*
- *On-screen spectrum acquisition and analysis*
- *Reports include normal ranges, notes/comments, facility/physician/technologist*

The Atomlab 960 provides intuitive menus with provision to modify any procedure to suit specific requirements. Atomlab software guides the user through each step of any defined procedure. Automatic decay correction calculates elapsed time between dose count and actual patient thyroid count, and then automatically computes uptake percentage.

ADMINISTRATION/QUALITY ASSURANCE PROGRAM

- *Automatic daily calibration using Cs-137 source*
- *Automatic high voltage adjustment*
- *Automatic Chi-Square test, with report*
- *Automatic MDA calculation*
- *Administration summary QA report*
- *Isotope efficiency calculations*

There are a multitude of administration functions, each designed to minimize the time normally spent maintaining accurate use of the system. There is an automated high voltage setting for each detector, and an automatic calibration program using a Cs-137 source. The system will advise the user when a daily calibration has not been performed. The Chi-Square test program automatically performs the Chi-Square calculations and generates a printed report. Site information is entered in the administration program containing the facility name, address, and a list of the technologists and physicians in the department. Customized administrative and clinical reports can be printed or saved in PDF format.

MANUAL MCA PROGRAM

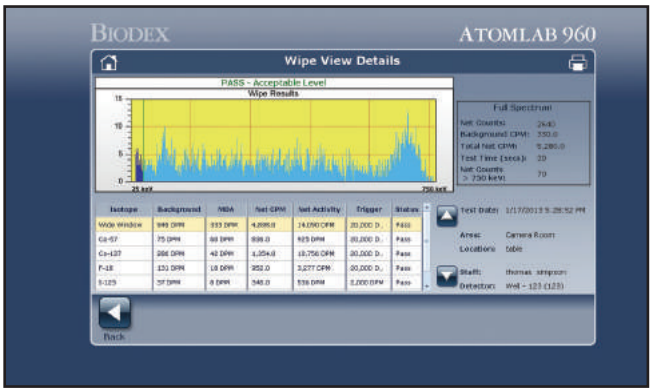
For performing sample counts and analysis beyond the scope of the standardized programs.

- *Expandable library of 28 commonly used isotopes*
- *Unlimited user-defined isotopes*
- *Three counting methods: Preset Time, Preset ROI, and Continuous Counting*

In addition to providing "standardized" programs for routine test and survey procedures, the 960 has a "manual" program to accommodate other counting and spectrum analysis tasks. The user can select from three counting methods: Preset Time, Preset ROI Count, and Continuous Counting. After any count, the Spectrum Analysis option can be used to produce a Spectrum Analysis Report. The monitor shows when a test is in progress and graphically displays the spectrum, time, counts and cpm.

ATOMLAB™ 960 THYROID UPTAKE SYSTEM

WIPE TEST PROGRAM



- *Meets NRC/State regulations*
- *Energy spectrums with individual ROIs*
- *Ability to identify isotopes causing contamination*
- *User-specific wipe locations and trigger levels*
- *Wipes that exceed trigger levels are immediately recognized*

Designed for use with the optional well counter, the Wipe Test Program makes it easy to comply with regulations for counting and reporting results of wipes taken for contamination surveys.

The user may define an unlimited number of "Area" names and wipe "Locations" entered within these areas for testing and documentation. Each area may be designated as "restricted", "unrestricted", "package" or "sealed source". The user may specify count times, activity units, wide window, and individual isotopes and geometric efficiencies or simply utilize the wide range of factory default options.

The program displays and stores the full spectrum with each wipe, automatically calculates net contamination levels and reports results in dpm, uCi or Bq. Wipes above the user defined trigger levels are easily identified. A detailed spectrum analysis may also be performed for any wipe to help identify isotopes causing contamination. Customized reports can be printed or saved in PDF format.

BIOASSAY PROGRAM

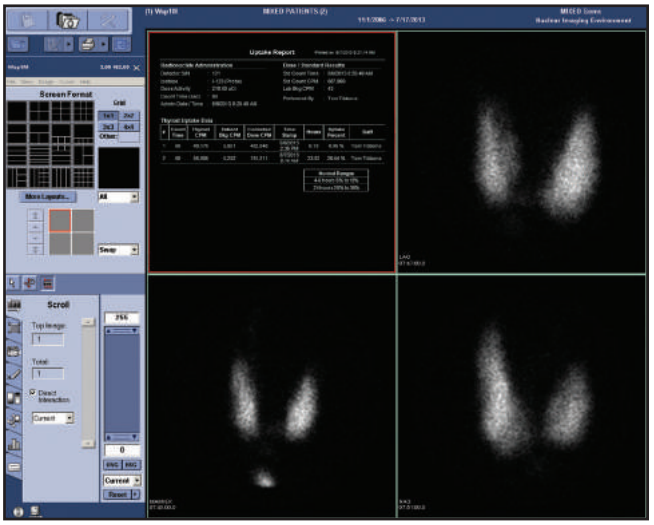
For individual patients or employee groups.

- *Reports can be printed or saved as PDF files.*

The Bioassay program for the Atomlab 960 allows for quick and efficient measurement of the staff thyroid burden for I-123, I-125 and I-131. Measurement results can be reported in cpm, dpm, uCi, or Bq. Action levels may be set by the user for each isotope. Report choices include single bioassay report, summary of multiple bioassays on an individual staff member, and summary report on multiple staff members. Reports can easily be printed or saved as PDF files.

DICOM INTERFACE

Optional - compliant to DICOM requirements.



- *Streamlines workflow and improves staff productivity*
- *Thyroid scans and uptake reports may be displayed simultaneously*
- *Completely integrated for seamless operation*
- *Government approved to interface with VistA imaging*

The optional DICOM Interface integrates the Atomlab 960 Thyroid Uptake System with your hospital management system, streamlining workflows and improving communication. The program allows you to retrieve patient information from the worklist and upload patient results, without exiting the clinical software, increasing staff productivity and efficiency. DICOM allows the uptake reports to be transferred, stored and queried/retrieved throughout a facility. Physicians can view both thyroid scans and uptake reports simultaneously.

Unique Positioning LED for accurate thyroid centering.
A First in Thyroid Uptake System Design.

SPECIFICATIONS:

MEDICAL SPECTROMETER HARDWARE
All-In-One Flat Panel PC:
15.6" Color Touchscreen, Windows Operating System, Solid State Hard Drive, Ethernet, USB, Video/Audio Out, Built-In Speakers and Color Printer.

Multichannel Analyzer:
Channels: 1024
Spectral Resolution: FWHM 8%
Count Rate: (Maximum) 150,000 cps for Tc-99m
Count Rate Stability: 99%
Gross Count Rate Linearity: Within 5% up to 150,000 cps
Pulse Height Linearity: Within 2% (independent of detector)
Detector High Voltage Adjustment: Automatic adjustment for both probe and well; uses 10 µCi Cs-137 as the calibration source.

MEDICAL SPECTROMETER SOFTWARE
Radionuclides:
Factory Programmed: Au-198, Ba-133, Ba-133 (well), Co-57, Co-57 (w), Co-58 (w), Co-60, Cr-51, Cs-137, Fe-59, F-18, Ga-67, Hg 197, I-123, I-125, I-131, In-111, Ir-192, K-42, Lu-177, Na-24, Pd-103, Ra-223, Se-75, Sr-85, Tc-99m, Tc-99m (w), Tc-99m/Tl-201, Tl-201, Yb-169, wide window.
User Set: Unlimited user defined isotopes, setting ROI, half life, name, efficiency and range.

OTHER HARDWARE:
Probe: 2" x 2" NaI (Tl) integral line scintillation detector

Uptake Stand:
Dimensions:
Arm down and retracted: 34" l x 26" w x 55" h (86.4 x 66 x 139.7 cm)
Maximum Height: 60" (152.4 cm)
Maximum Length: Arm Extended: 61" (154.9 cm)
Collimated Shield: Flat field collimator meeting IAEA specifications
Positioning: Distance bar and positioning light
Arm: Counterbalanced, two section arm, moves 24.5" (62.2 cm) vertically and extends 31" (78.7 cm) horizontally from stand's vertical column.
Casters: 4" Total locking
Weight: 280 lb (127 kg)
Combined weight with Well Counter: 330 lb (150 kg)
Power: Low voltage transformer with hospital grade power cord and plug.
Line Voltage:
120 VAC, 60 Hz, 2 AMP circuit breaker
230 VAC, 50 Hz, 1 AMP circuit breaker

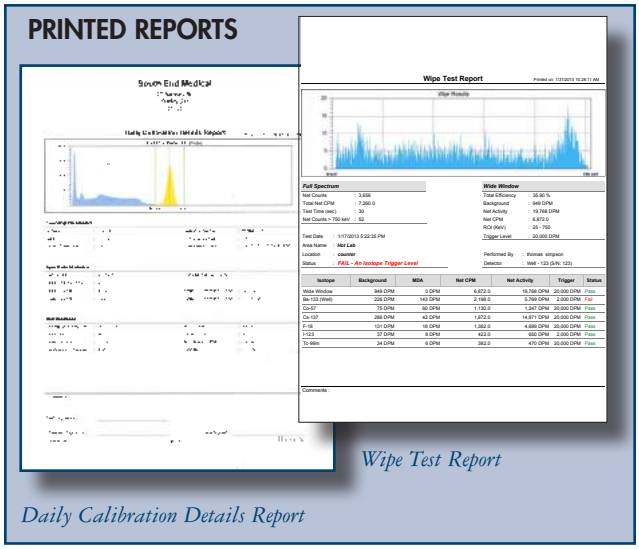
OPTIONAL:
187-602 Well Counter:
Detector: 2" x 2" NaI (Tl) integral line scintillation detector with a .75" dia x 1.44" deep well (1.9 x 3.7 cm)
Lead Shielding: 1" thick (2.5 cm)
Cover: .125" thick (.32 cm)
Weight: 50 lb (22.7 kg)

187-603 Lead Shield, Well Counter:
Detector: 2" x 2" NaI (Tl)
Lead Shielding: 1" thick (2.5 cm)
Weight: 69 lb (31.4 kg)

Certification: ETL Listed to AAMI Std. ES 60601-1 3rd Edition and CAN/CSA C22.2. No. 60601-1 and IEC 60601-1 and CE Marked.
Warranty: Two-years parts and labor

CE 0413 c ETL us Intertek

For sample reports, brochure and warranty information, visit us on the web
www.biodex.com/thyroiduptake



Full-size sample reports can be viewed at www.biodex.com/thyroiduptake/reports

187-600 Thyroid Uptake System,
Atomlab 960, 120 VAC, Mobile, PC
- *All-in-one flat panel PC featuring Windows® Operating System, Atomlab 960 PC software, printer and 1024 channel multichannel analyzer*
- *2" x 2" tube assembly and base*
- *Mobile support stand with collimator*

187-601 Thyroid Uptake System,
Atomlab 960, 230 VAC, Mobile, PC
- *All-in-one flat panel PC featuring Windows® Operating System, Atomlab 960 PC software, printer and 1024 channel multichannel analyzer*
- *2" x 2" tube assembly and base*
- *Mobile support stand with collimator*

Optional:
187-146 Interface, Atomlab 960 DICOM
187-602 Well Counter, 1" Lead (2.5 cm)
Includes cover and calibration fixture.
187-603 Lead Shield, Well Counter,
1" Lead (2.5 cm)

Related:
063-139 Rod Source, Cs-137, Calibrated, 0.1 µCi
101-103 Check Source, Cs-137, 10 µCi *
Uncalibrated, 1" dia x .25" thick (2.5 x .64 cm)
043-365 Thyroid Uptake Neck Phantom
(Complete with bottle carrier, capsule holder and 12 polyethylene bottles)

**Recommended Check Source for calibration of probe and well*

VENTI-SCAN™ IV

Radioaerosol Delivery System

The Venti-Scan™ provides greater protection and uses a special disposable Radioaerosol Convenience Kit for greater trapping efficiency and unrestricted breathing.

- ***System design reduces setup time:***
  - ***kit automatically locks into position***
  - ***one step oxygen connection to dedicated external port***
  - ***precise injection port alignment***
  - ***push button disposal of used kit***
- ***Fully enclosed lead shielding from top to bottom***
- ***Uses HEPA filter for increased trapping efficiency and resistance-free breathing***
- ***Trapping efficiency greater than 99.9%***
- ***Small baffle design ensures homogeneous distribution***
- ***Mean particle size = 0.50 microns***
- ***Lightweight and portable, weighs only 8 lb (3.7 kg)***

Sharp, Clear Images - Easy Breathing

The Venti-Scan™ IV Radioaerosol Delivery System features a small baffle within the nebulizer to produce an optimal particle size, resulting in a sharp image, quickly. In addition, the kit includes a pleated hydrophilic HEPA filter which traps moisture. This makes it ideal for radioaerosol studies by impeding the exhaled radioaerosol particles from passing through. Tried and tested, the pleated contour increases surface area to decrease breathing resistance, making it virtually resistance-free with exceptional trapping efficiency.

Designed For Efficiency

The Venti-Scan IV is designed to make performing a study more convenient for the technologist while providing superior images. When the kit is inserted into the Venti-Scan IV canister it automatically locks securely into position, assuring all port alignments. Oxygen connection is a simple attachment to a dedicated external port. The injection site on the kit is precisely angled to align with the canister port. They are positioned perfectly for a bull's eye every time. The system also offers a quick, safe disposal method. Unplug the oxygen hose, invert the canister over a shielded waste container and push the release button to free the contaminated kit. This minimizes handling and exposure.

Venti-Scan IV shown mounted on IV Pole

Full Technologist Protection

The Venti-Scan IV shield is an enclosure providing lead-shielded protection from top to bottom. The Venti-Scan IV Disposable Kit includes everything needed for a single study including a comfortable, natural contour mouthpiece, HEPA filter, nose clip and disposal bag. The system uses clean-bore straight path tubing (superior to corrugated) to ensure that particles cannot get trapped in any internal ridges that typically cause clumping. The top of the canister has a shielded sliding port to accommodate the Venti-Pak Accessory Kit for ventilator-assisted patients. An IV pole mount is included with the shield for convenient positioning and administration.

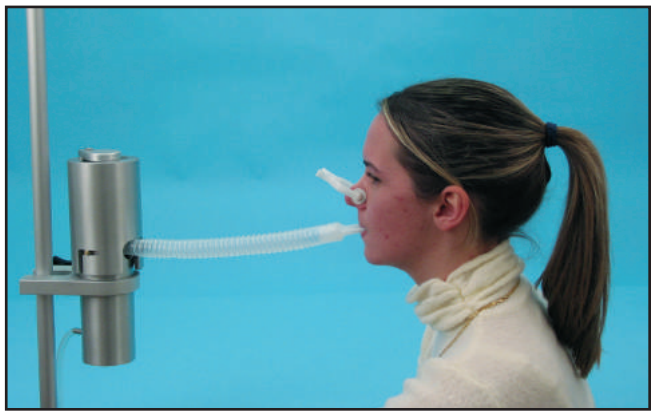
Patients and technologists have always been comfortable and confident with the Venti-Scan. And, when the patient is comfortable, the procedure goes smoothly, without interruption. The end result is a superior study.

CE

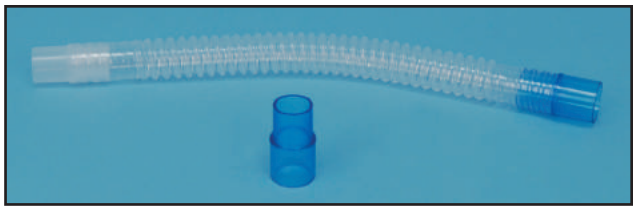
Simple Steps to Perform a Study

1 *Insert Venti-Scan™ IV Kit in canister*

2 *Inject Tc-99m DTPA*



3 *Connect to O_2 supply; position patient comfortably for resistance-free breathing*



177-075 Venti-Pak for ventilator assisted patients.

Venti-Scan™ IV Radioaerosol Administration System:

177-090 Venti-Scan™ IV
Includes: Shielded canister with IV pole mount

RADIOAEROSOL CONVENIENCE KITS™

177-091 Convenience Kit, Venti-Scan IV Ⓢ
LATEX FREE
Includes: 12" (30.5 cm) tubing, small particle delivery system with mouthpiece, HEPA filter, nose clip and disposal bag

177-092 Convenience Kit, Venti-Scan IV Ⓢ
LATEX FREE
Includes: 24" (61 cm) tubing, small particle delivery system with mouthpiece, HEPA filter, nose clip and disposal bag

NOTE: Each kit is sold in multiples of 10 and 25.

Related:

177-075 Convenience Kit, Venti-Pak for Venti-Scan IV (adapter kit for ventilator assisted patients) Ⓢ

NOTE: Each kit is sold in multiples of 5.

SECTION 7

For physics tests visit us on the web at www.biodex.com/lungventilation

*CALL FOR FREE SAMPLE**

PURCHASING TIPS

Budgeted Savings

A recent cost comparison of departments averaging 20 studies per month resulted in an annual savings between $2,000 and $5,000. Biodex radioaerosol disposables are already the most inexpensive kits available and can be even more time-effective by establishing a blanket order.

Blanket Order**

ONE PHONE CALL...ONE P.O. #...ONE YEAR

Custom tailored to your department's volume, a blanket order assures that the disposables are there at the same time each month - when you need them.

- There is no binding contract. You can cancel at any time without penalty or change the quantities throughout the life of the blanket.
- You set the quantities and delivery intervals – based on your department needs.
- A single purchase order establishes a tailored blanket for up to one year.
- A Blanket Order exempts you from price increases on blanketed items.
- Disposables are there when you need them. No more rush orders, expensive overnight shipping charges or equipment downtime.
- Maximize your storage space by using ours.

For more information, call 800-224-6339 or email sales@biodex.com.

Ⓢ Denotes Single Use Only

**Offer applies to the United States only.*

To order, call Biodex toll free…

1-800-224-6339

Int'l 631-924-9000 • www.biodex.com

AEROTECH™ I RADIOAEROSOL ADMINISTRATION SYSTEM

The original Cadema Radioaerosol System

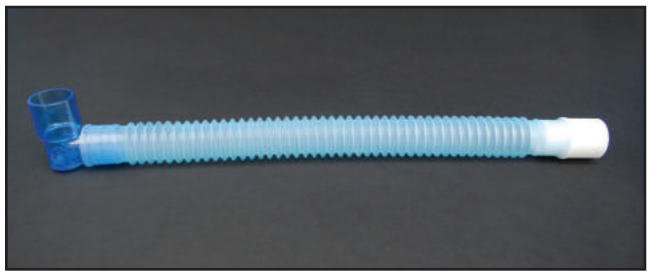
Shown with kit# 177-124, sold separately

- ***Enhanced Imaging***
- ***Multiple views from one diagnostic study***
- ***Completely portable and respirator compatible***
- ***Completely Shielded***

Aerosol inhalation for radioimaging studies is an important tool for use in the localization and diagnosis of lung disease. AeroTech I puts information in the hands of the user to assist in diagnosis of a variety of lung diseases.

Enhanced Imaging
The AeroTech I delivers an even distribution of radioaerosol throughout the lungs, reaching the respiratory bronchioles and alveolar ducts and sacs. Excellent aerosol deposition allows the acquisition of multiple views from each diagnostic study. The end result is high quality imaging for confidence in patient diagnosis.

Respirator Compatible
For patients on a respirator, AeroTech I is easily adapted to fit on line using a single accessory tube.



177-325 Venti-Pak for ventilator assisted patients.

Ⓢ Denotes Single Use Only

Designed for Patient Comfort
Aerosol inhalation studies allow the patient to breathe normally throughout the procedure, minimizing the likelihood of patient non-compliance.

Superior Safety
Shield construction, disposable components and rapid aerosol delivery time combine to minimize radiation exposure to the patient and technologist. AeroTech I helps meet ALARA radiation protection objectives.

Flexibility
AeroTech I is available with a choice of designs. The 177-324 Delivery System generates a smaller MMAD particle than the standard 177-124 Delivery System. Use the 177-324 model for procedures where delivery time is not significantly restricted.

AeroTech I Radioaerosol Administration System:
177-095 AeroTech™ I Shield

RADIOAEROSOL CONVENIENCE KITS™

177-124 Convenience Kit, AeroTech™ I Ⓢ
LATEX FREE
Includes 24" (61cm) tubing, standard nebulizer delivery system with mouthpiece, bacteria filter, nose clip and disposal bag

177-324 Convenience Kit, AeroTech™ I with small particle delivery system Ⓢ
LATEX FREE
Includes 24" (61 cm) tubing, small particle nebulizer delivery system with mouthpiece, bacteria filter, nose clip and disposal bag

NOTE: Each kit is sold in multiples of 5.

Related:
177-325 Convenience Kit, Venti-Pak for AeroTech™ I (adapter kit for ventilator assisted patients), 5/pkg Ⓢ

For blanket order information, see page 69.

Welcome to the Biodex Cleanroom

Sometimes, it's not just what goes into a product that makes it great. It's also what stays out. That's why the Biodex Cleanroom, dedicated to assembly of our lung ventilation kits, is maintained at the highest standards.

The Biodex Cleanroom uses a system where conditioned and filtered air is forced downward by ceiling diffusers and exhausted at floor level. This allows achievement of three to five pounds of pressure, limiting the number of airborne particulate on products being assembled. Atmospheric conditions including temperature, humidity and airborne particles within a specific area, are monitored and charted daily to ensure no variation. Classified as an ISO 07 - Class 10,000 Cleanroom, as defined by Federal Standard 209E, this is an exceptionally clean environment.

"We take a lot of pride in keeping our Cleanroom operating at peak efficiency," explains the Consumer Assembly Supervisor at Biodex. "Every employee that enters this room adheres to strict guidelines and is required to wear cleanroom garments to protect the product and minimize the particulate in the environment. They are trained in appropriate operating procedures from putting on a hair net, frock, gloves and face mask, to proper assembly of each individual product. Nothing is left to chance."

As for having to "suit up" when entering and leaving the cleanroom on each shift, as well as being in an area where interaction with other Biodex personnel is somewhat limited, the staff really doesn't mind.

It's a very clean job, but somebody has to do it.

Biodex

PULMONEX® II XENON SYSTEM

- *Resistance-free breathing with 25-liter capacity*
- *Complete .125" lead shielding in upper cabinet for patient and operator safety*
- *Easy access to replace Drierite and Soda-Lime cartridges*
- *Effortless mobility for easy patient positioning*
- *Stylish steel cabinet*
- *Convenient built-in stainless steel tray for holding disposables, xenon gun, syringe, etc.*

The Pulmonex II® Xenon System is the best choice for the performance of all regional ventilation studies. It's safe, simple to operate and affordable.

Resistance-Free Breathing

The injected bolus of xenon will reach the patient exactly when desired. Oxygen may be added to the system any time during the study with the press of a button. An in-line cartridge containing Soda-Lime absorbs CO^2, preventing acidosis. Large breathing passages, two 10-liter breathing bags (air-in and air-out) and motor-assisted airflow combine to provide resistance-free breathing.

Simple to Operate

All three steps of a Pulmonex II study (start up, equilibrium imaging and washout) are controlled by a single valve handle on the front panel. The valve directs the motor-assisted flow of gases throughout the system. A manually adjusted 15-minute timer initiates all functions, then automatically shuts down the system to complete the study after patient and system washout. With controls conveniently located on the front panel, the user can operate the system and observe the patient and gamma camera from one position. Panel controls are clearly marked for each mode of the procedure with large viewing windows to make it easy to monitor the patient's breathing. A trim, clean design, large handles and total mobility permit easy positioning of the system for studies in both seated and supine positions.

Easy access to Soda-Lime and Drierite cartridges, supplied with the system. Xenon Convenience Kits, including pre-filled Soda-Lime and Drierite cartridges for single use only, are also available

Pulmonex II is a completely closed system that provides maximum, reliable test results with minimal effort

Designed for Safety

Internal systems of the Pulmonex II are shielded for patient and operator safety. The system features two built-in gas traps that operate with a blower fan. Exhaled xenon is pulled through activated charcoal housed within two .125" lead shielded "U"-shaped traps. The double traps extend the life of your charcoal and provide a lengthy migration path for xenon effluent, allowing greater decay and absorption before exhaustion. A cartridge containing Drierite serves as a moisture absorber for air passing into the trap. The charcoal trap can then more effectively remove xenon effluent after each study. Airflow regulation of the trap blowers assure complete patient and system washout. Averaging 30-50 studies per month, the charcoal trap will last approximately one year; charcoal traps are easily replaced.

A disposable bacteriostatic filter, used in conjunction with a disposable mask or mouthpiece, prevents system contamination.

SPECIFICATIONS:
Dimensions: 20.5" w x 22" depth x 48.5" h (52.1 x 55.9 x 123.2 cm)
Motor: UL approved. 12 volt DC
Electrical Requirements: 115 VAC, 1 amp, 50/60 Hz
Casters: locking
Shipping Weight: 375 lb (172.5 kg)
Certifications: ETL and cETL listed to UL 60601-1 to CAN/CSA C22.2 No. 601.1.M90, EN 60601-1.
Warranty: one year parts and labor

For warranty information, visit us on the web www.biodex.com

132-503 Xenon System, Pulmonex® II, Double-Trap, 115 VAC
Includes sampling of xenon products.

Related:
136-755 Xenon Trap Monitor
150-315 Dispenser, Xenon, Automatic
Includes 48" Flexible Tubing with Luer-Lock Adapter
130-900 Pulmonex Kit, Free Breathing Hose

Replacement:
132-319 Charcoal Trap*
For any Pulmonex II
132-555 Cartridge, Refillable, Soda-Lime or Drierite

AUTOMATIC XENON DISPENSER

Assures quick, accurate and easy delivery of xenon directly to the patient

The Automatic Xenon Dispenser is easily attached to the front of the Pulmonex System without the use of tools. Preload the xenon vial into the supplied plunger. At the precise moment you want the xenon delivered to the patient, simply press the dispense button.

150-315 Dispenser, Xenon, Automatic
Includes 72" Flexible Tubing with Luer-Lock Adapter

XENON TRAP MONITOR

Mounts directly to the Pulmonex II Xenon System for continuous monitoring

The Xenon Trap Monitor continuously monitors trap effluent during a xenon study, meeting compliance requirements in most states. An exhaust hose connects from the Pulmonex II exhaust port to the Xenon Trap Monitor's intake port, making it the perfect complement to the Pulmonex II® Xenon System to ensure a safe environment.

The Monitor is simple to operate; all controls are located on the front panel. Counting results are displayed with both audible and visual signals to indicate when the xenon trap exhaust port exceeds the threshold of 99 pCi/mL. The unit can also check background levels and perform a self-test for proper operation using a check source. A 10 µCi Cs-137 check source is required to calibrate the monitor.

The Xenon Trap Monitor includes all the hardware necessary to mount the unit directly to the Pulmonex II Xenon System.

SPECIFICATIONS:
Dimensions: 7" l x 6" w x 4" h (17.8 x 15.2 x 10.2 cm)
Lead Shielding: .5" thick (1.3 cm)
Input: 22 mm Hose Adapter
Detector: Halogen Quenched GM Tube, 1.1 cm dia, 2 mg/cm2 mica window
Voltage: 500 volts regulated
Buttons: On/Off, Next/Mute
Display: 4 Digit LED, 4 RGB Function LEDs (Self Test, Background, Check Source or Count)
Readings: pCi/ml or counts
Speaker: Internal, beeps in alarm mode
Background Count Time: 1 minute
Power: 18 volts, UL approved, external; 115 VAC power adapter
Weight: 5.25 lb (11.55 kg)
Warranty: One year

136-755 Monitor, Xenon Trap
Mounts to Pulmonex II Xenon Systems

Related:
101-103 Check Source, Cs-137, 10 µCi
Uncalibrated, 1" dia x .25" thick (2.5 x 64 cm)

XENON CONVENIENCE KITS™

Face Mask or Mouthpiece Kits - your choice, your convenience.

- ***Air-Cushioned Face Mask Kits with clear ultra-flex expandable tubing from 6" to 24"***
- ***Mouthpiece Kits with Direct Dose Administration adapter for leak-proof Xenon delivery***

Biodex Xenon Convenience Kits™ bring together all the components needed to complete a single xenon study. Xenon can be administered via direct dose administration, that conveniently luer locks without the use of a needle; or by injection port, which requires a syringe needle. Easy to use, simple to order and disposable, Biodex Xenon Convenience Kits™ are more than a bargain, they are a sensible and time-saving investment. In fact, our complete kits can prolong the life of your xenon charcoal traps by ensuring that the pre-filled Drierite cartridges are fresh for every scan while the pre-filled Soda-Lime (CO^2 absorber) cartridges eliminate possible break-down of granules that can lead to a clogged system and hinder patient air flow.

XENON CONVENIENCE KITS™

AIR-CUSHIONED™ Face Mask

132-680 Convenience Kit, Face Mask ®
Includes: Bacteria filter
132-681 Convenience Kit, Face Mask ®
Includes: Bacteria filter and ultra-flex tubing (shown)
132-781 Convenience Kit, Face Mask ®
Includes: Bacteria filter, ultra-flex tubing, Drierite & Soda-Lime cartridges

NOTE: Each kit is sold in multiples of 25.

XENON CONVENIENCE KITS™

AIR-CUSHIONED™ Face Mask w/Injection Port

132-690 Convenience Kit, Face Mask with Injection Port ®
Includes: Bacteria filter (shown)
132-691 Convenience Kit, Face Mask with Injection Port ®
Includes: Bacteria filter and ultra-flex tubing
132-784 Convenience Kit, Face Mask with Injection Port ®
Includes: Bacteria filter, ultra-flex tubing, Drierite & Soda-Lime cartridges

NOTE: Each kit is sold in multiples of 25.

XENON CONVENIENCE KIT™

AIR-CUSHIONED™ Face Mask
w/Luer-Lock Injection Port

132-684 Convenience Kit, Face Mask with Luer-Lock Injection Port ®
Includes: Bacteria filter, ultra-flex tubing and 90° luer-lock injection port

NOTE: Each kit is sold in multiples of 25.

*CALL FOR FREE SAMPLE**

® Denotes Single Use Only
Offer applies to the United States only.

XENON CONVENIENCE KITS™

Direct Dose Administration for leak-proof xenon delivery

XENON CONVENIENCE KITS™

AIR-CUSHIONED™ Face Mask
w/Direct Dose Administration

132-699 Convenience Kit, Face Mask with Direct Dose ®
Includes: Bacteria filter

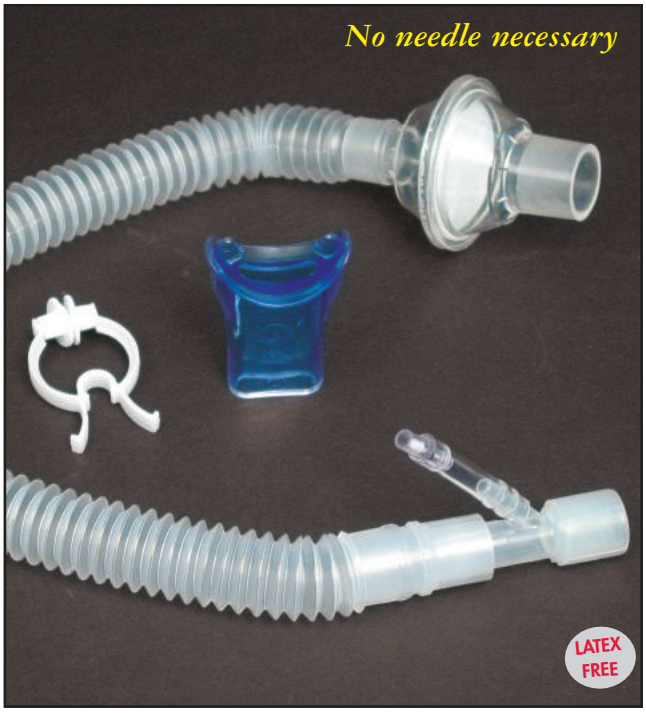
132-692 Convenience Kit, Face Mask with Direct Dose ®
Includes: Bacteria filter and ultra-flex tubing

132-793 Convenience Kit, Face Mask with Direct Dose®
Includes: Bacteria filter, ultra-flex tubing, Drierite & Soda-Lime cartridges (shown)

NOTE: Each kit is sold in multiples of 25.

XENON CONVENIENCE KITS™

with Mouthpiece and Direct Dose Administration Adapter



132-770 Convenience Kit, Mouthpiece®
Includes: Bacteria filter and nose clip

132-774 Convenience Kit, Mouthpiece and Administration Adapter®
Includes: Bacteria filter, nose clip and ultra-flex tubing (shown)

132-771 Convenience Kit, Mouthpiece and Administration Adapter®
Includes: Bacteria filter, nose clip, ultra-flex tubing, Drierite & Soda-Lime cartridges

NOTE: Each kit is sold in multiples of 25.

XENON CONVENIENCE KIT™

AIR-CUSHIONED™ Face Mask and Direct Dose Administration Adapter:

134-772 Convenience Kit, Face Mask and Administration Adapter®
Includes: Bacteria filter and ultra-flex tubing

NOTE: Each kit is sold in multiples of 25.

*CALL FOR FREE SAMPLE**

® Denotes Single Use Only

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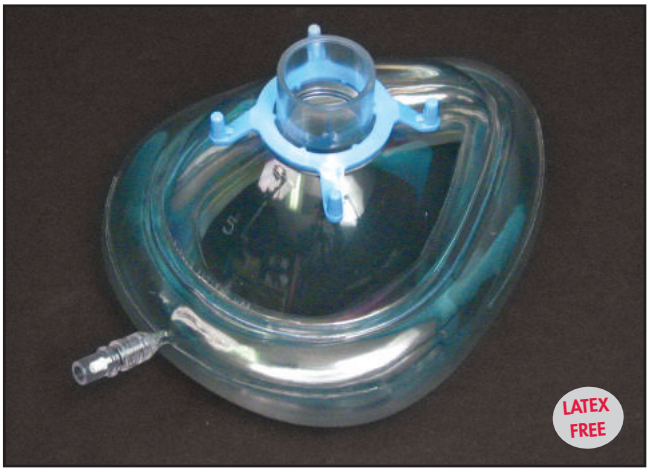
AIR-CUSHIONED™

FACE MASK



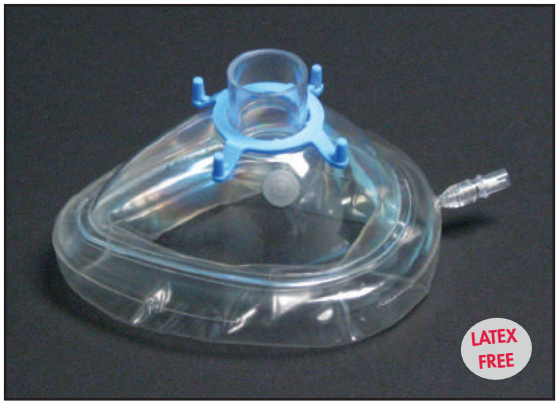
The air-cushioned face mask has a pre-filled air-cushion (medium inflation pressure) that molds to the contour of the patient's face providing a tight, leak-proof and comfortable seal. Cushion pressure is easily adjusted by inserting a standard syringe without needle in the two-way valve located on the mask bottom. The flexibility of cushion pressure allows optimum surface contact for every patient. Transparency of the entire mask allows continuous visual identification of patient's vital signs.

132-685 Face Mask without Injection Port, Adult ℗
NOTE: Each mask is sold in multiples of 25.

AIR-CUSHIONED™

FACE MASK

with Injection Port



132-695 Face Mask with Injection Port, Adult ℗
NOTE: Each mask is sold in multiples of 25.

AIR-CUSHIONED™

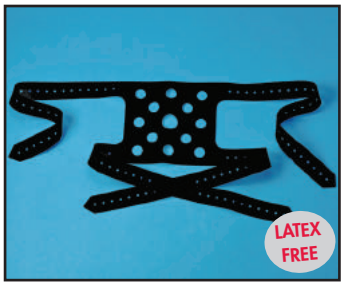
FACE MASK

with Direct Dose Administration

In addition to the patient comfort provided by the soft, pliable air cushion of the disposable face mask, the direct dose feature reduces patient anxiety because no needle is used. The syringe luer locks tightly to the direct dose tube, away from the patient's face. The one-way valve prevents the gas from reversing through the mask luer connector, allowing the technologist to disconnect immediately after injecting.

132-698 Face Mask with Direct Dose Administration, Adult ℗
NOTE: Each mask is sold in multiples of 25.

FACE MASK HARNESS



This traditional Face Mask Harness is made of soft rubber and can be adjusted for any head size. The square rubber base is comfortably positioned on the back of the patient's head and the harness tails are brought around to the front. The small holes provide a snug fit on the hook ring, holding the mask firmly in place.

139-677 Face Mask Harness, Adult

℗ Denotes Single Use Only

TRU-FIT DISPOSABLE MOUTHPIECE

Contoured to the natural shape of the mouth, this mouthpiece can be held gently, but securely – eliminating the need to clamp down or the possibility of "popping" out of the patient's mouth and interrupting the study. The soft plastic material is transparent so that any obstruction can be immediately detected by the technologist. Pleasantly scented with vanilla, this mouthpiece makes the procedure a little more comfortable for the patient.

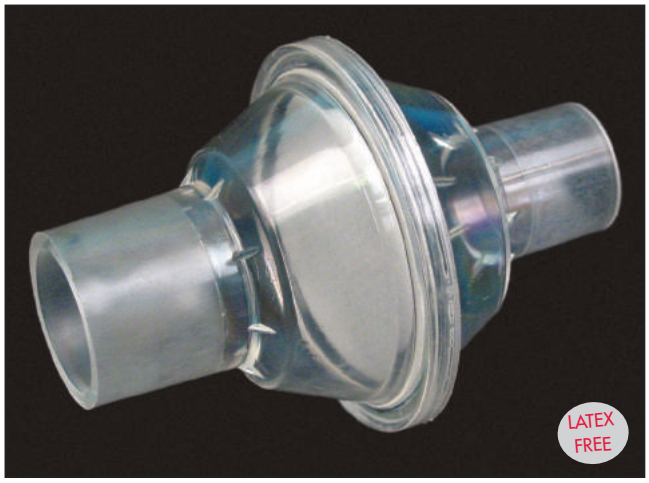
130-551 Mouthpiece, Disposable, Vanilla Scented ®
NOTE: Each mouthpiece is sold in multiples of 25.

DISPOSABLE NOSE CLIP

Economical, this nose clamp is all plastic for single patient use. Used with any mouthpiece.

130-100 Nose Clip, Disposable, 100/pkg ®

DISPOSABLE BACTERIA FILTER



Bacteria filters are used to reduce the possibility of cross contamination. The single-use filter is placed in line between a delivery tube and disposable mouthpiece or face mask. Electrostatically charged filter media is 99.9% effective in bacteria/virus retention while maintaining low breathing resistance. Two filters can be piggy-backed together for potential high-risk studies.

132-750 Bacteria Filter®
NOTE: Each filter is sold in multiples of 25.

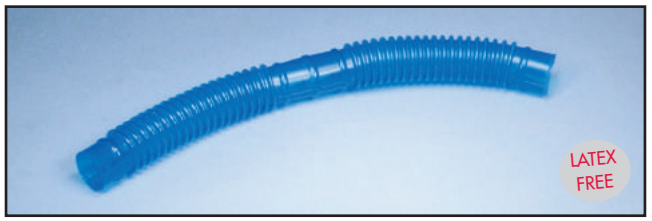
BLANKET ORDERS*

- There is no binding contract. You can cancel at any time without penalty or change the quantities throughout the life of the blanket.
- You set the quantities and delivery intervals – based on your department needs.
- A single purchase order establishes a tailored blanket for up to one year.
- A Blanket Order exempts you from price increases on blanketed items.
- Disposables are there when you need them. No more rush orders, expensive overnight shipping charges or equipment downtime.
- Maximize your storage space by using ours.

**Offer applies to United States only.*

® Denotes Single Use Only

CORRUGATED TUBING



Corrugated Tubing is scored and capped at 6" intervals for easy cutting and firm attachment to fittings.

139-680 Tubing, Corrugated, 100 ft/roll ®

TUBING SPLICE

Tubing Splice is used to connect sections of 22 mm corrugated tubing to individual mask and filter.

130-639 Tubing Splice, 22 mm Male, 10/pkg ®

"Y" CONNECTOR

The "Y" Connector has a one-way valve and plug. It is used to connect two 22 mm tubes to a mouthpiece, face mask or bacteria filter.

185-302 "Y" Connector, luer plug ®
139-102 "Y" Connector, solid plug ®
Note: Not for use with the Pulmonex II

® Denotes Single Use Only

DRIERITE

Moisture absorber - new blue and white blend

Drierite serves as a moisture trap for the air going into the charcoal trap of the Pulmonex Xenon System. Drierite is blue and white when dry and turns pink when it has absorbed maximum moisture. Available in two convenient sizes, Drierite is packaged in an air-tight container with a wide-access mouth.

139-101 Drierite, 1 lb
139-104 Drierite, 4.5 lb
132-772 Drierite, Disposable Cartridge ®

SODA-LIME

CO_2 absorber

Soda-Lime, a highly efficient CO_2 absorber, prevents patients from re-breathing carbon dioxide and subsequent acidosis. Available in two convenient sizes, Soda-Lime is packaged in an air-tight container with a wide-access mouth.

130-019 Soda-Lime, 1 lb
130-020 Soda-Lime, 4.5 lb
132-773 Soda-Lime, Disposable Cartridge ®

FREE-BREATHING PULMONEX® HOSE KIT

When unrestricted breathing is critical

The Free-Breathing Pulmonex Hose Kit features large bore tubing, which allows for minimal breathing resistance. This inexpensive, high quality, "free breathing" hose kit includes all required components and adapters.

The kit contains two 130-901 "Clean-Bore" hoses (36" l x 1 1/8" dia), two 130-904 hose clamps, and a 130-902 non-rebreathing anesthesia valve (inlet and outlet 7/8" O.D.), which permits the use of standard disposable bacteria filters and masks while providing unrestricted airway.

130-900 Pulmonex Kit, Free-Breathing Hose

Replacement:

130-901 Hose, "Clean-Bore"
36" l x 1.125" dia (91.4 x 2.9 cm)

130-902 Valve, Anesthesia
Hans Rudolph, non-rebreathing

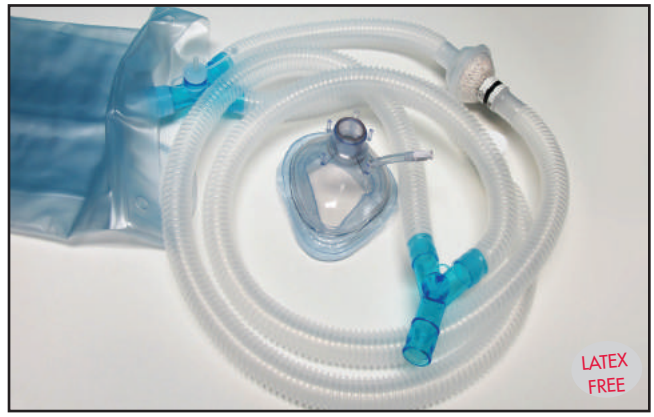
130-903 Adapter, Hose
.875" x 1.125" dia (2.2 x 2.9 cm)

130-904 Clamp, Hose

Ⓢ Denotes Single Use Only

XENON-133 REBREATHING SYSTEMS

Disposable pre-packaged kits



Shown with Air-Cushioned™ Face Mask with Direct Dose Administration

The Xenon-133 Rebreathing System provides the clinician with a simple, safe and inexpensive method of administering Xenon-133 to perform perfusion steady state and wash out studies. A 35 liter bag provides ample volume for patient maintenance and collection of expired Xenon-133.

This disposable system is constructed of a non-permeable plastic, thereby precluding xenon absorption or transfer through the device's components. The system is designed to accept any xenon syringe/gun administration system.

Choose the mouthpiece (060-133), the air-cushioned face mask with direct dose administration (060-137) or the kit for ventilator patients (060-139). Each kit comes as a complete disposable system including a pre-filled Soda-Lime absorber cartridge.

Xenon is administered directly to the patient for single breath and equilibrium imaging. Washout is accomplished by opening a valve, allowing room air into the intake side. Upon completion of the study, seal the system with an appropriate clamp or forceps (not included). The entire rebreathing system is disposed of in accordance with NRC regulations.

060-133 Xenon-133 Rebreathing System, Mouthpiece Ⓢ
Kit includes: Mouthpiece (130-551)

060-137 Xenon-133 Rebreathing System, Mask Ⓢ
Kit includes: Air-Cushioned™ Face Mask with Direct Dose Administration (132-698)

060-139 Xenon-133 Rebreathing System, Ventilator Patients Ⓢ
Kit includes: Ventilator-assist pump and endotracheal tube connection

NOTE: Each kit is sold in multiples of 5.

RECTANGULAR
FEATHERLITE™ COBALT-57 FLOOD SOURCE*

Improve quality control with superior camera calibration

- ***Environmentally safe***
- ***Proprietary Cobalt chemistry***
- ***Delivers superior source uniformity***
- ***Technological innovation***

The FeatherLite™ Cobalt-57 Rectangular Flood Source weighs up to 60% less than other flood sources. Lower weight means less strain to the back and greater maneuverability. This flood source provides a uniform field of radiation for evaluation of nuclear medicine gamma camera performance, allowing detection and correction of any camera malfunction prior to diagnostic use. The typical useful life of the Co-57 flood source is approximately two years. The Co-57 flood source meets the standards established by the manufacturers of the gamma cameras.

The flood source is shipped with a lead-lined cardboard container. An optional case is available for the FeatherLite™ flood source.

SPECIFICATIONS:
Dimensions: 25.2" l x 17.9" w (64 x 45.5 cm)
Active Dimensions: 23.9" l x 16.4" w (60.7 x 41.6 cm)

043-861 Flood Source, Rectangular, 10 mCi

Optional:
043-862 Case, Flood Shield, ProKase
Not available for export.

RECTANGULAR
RADLITE™ COBALT-57 FLOOD SOURCES*

- ***Lightweight, slim design***
- ***Dual head quality control acquisition***
- ***Expiration life up to 24 months***

The RadLite™ Cobalt-57 Flood Source features a new, slimmer design and weighs 60% less than previous models. Cobalt-57 flood sources are used to test the response uniformity of gamma cameras to ensure camera response is consistent over the total head area(s). Cobalt-57 is uniformly dispersed in an epoxy matrix fully sealed in a high integrity ABS encapsulation. Radionuclide purity is greater than 99.9% (combined Co-56/Co-58 is less than 0.08% at source reference date).

RadLite™ flood sources are supplied with a uniformity test statement, wipe test certificate, handling and storage information and a custom decay calendar. The sources are shipped with the patented RadShield, providing comparable shielding to traditional hard cases at half the weight.

SPECIFICATIONS:
Rectangular Flood Sources
Dimensions: 24.1" l x 16.7" w x .3" thick (61.2 x 42.4 x .76 cm)
Active Dimensions: 23.9" l x 16.5 " w (61 x 42 cm)

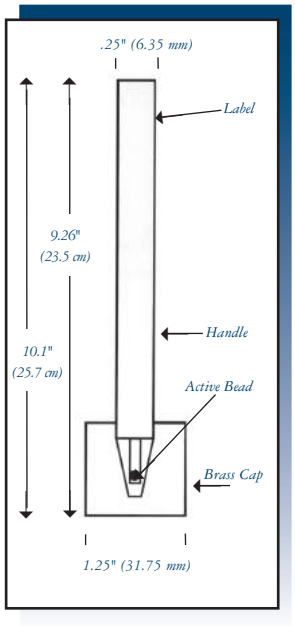
Cardiac Rectangular Flood Source
Dimensions: 15.8" l x 9.5" w x .3" thick (40.1 x 24.1 x .76 cm)
Active Dimensions: 15.5" l x 9.25 " w (39.4 x 23.5 cm)

Rectangular Flood Sources, Cobalt-57:
Includes: Shielded storage case
043-840 Flood Source, Rectangular, 10 mCi
043-855 Flood Source, Rectangular, 15 mCi
043-845 Flood Source, Rectangular, 20 mCi
043-860 Flood Source, Cardiac, Rectangular, 10 mCi
Not available for export.

FREE DISPOSAL WHEN YOU PURCHASE A NEW FLOOD SOURCE FROM BIODEX (Applies to United States Only).

**A photocopy of your NRC or Agreement State License must accompany orders for radioactive sources and must clearly indicate your authority to possess the source being ordered.*

PEN POINT
MARKER SOURCES*

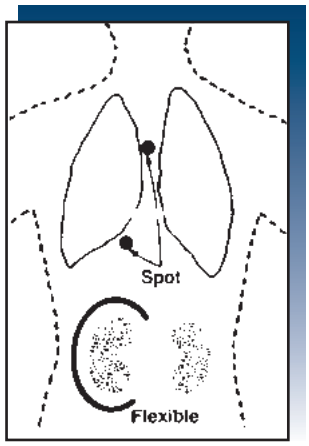


The Pen Point Marker Source contains Co-57 in a ceramic matrix at the end of a 9.26" (23.5 cm) anodized aluminum rod. The pen-shaped rod screws into a brass cap which shields the active point. The Pen Point Marker Source is used in tracing the outlines of anatomical features on a patient. The trace appears almost instantly on the camera display. Contained activity is supplied as a nominal value ±15%.

SPECIFICATIONS:
Dimensions: 9.26" l x .25" dia (235 x 6.35 mm)
Nuclide: Co-57
Source: 2 mm bead
Nominal Activity:
063-700 100 µCi
063-701 200 µCi
Source Cover: Brass cap

063-700 Marker Source, Pen Point, 100 µCi
063-701 Marker Source, Pen Point, 200 µCi
Not available for export..

SPOT
MARKER SOURCE*



A Spot Marker Source is easily taped to the patient for purposes of orientation while performing a camera study.

SPECIFICATIONS:
Co-57 Spot Marker Sources
Dimensions: 1" dia x .25" thick (25 x 6 mm) clear lucite disk
Spot: .125" dia (3 mm)
Activity:
099-289: 50 µCi
099-291: 100 µCi

099-289 Marker Source, Spot, Co-57, 50 µCi
099-291 Marker Source, Spot, Co-57, 100 µCi

**A photocopy of your NRC or Agreement State License must accompany orders for radioactive sources and must clearly indicate your authority to possess the source being ordered.*
Not available for export.

FILLABLE POINT
MARKER SOURCE

Save time for camera-to-patient alignment

Marker Sources are easily filled with the same radionuclide to be used in imaging procedures. Small clear plastic receptacle, 1" diameter x .5" thick, has a centered channel to contain 0.2 cc of the nuclide. A nylon screw-plug tightens against an O-ring completing a tight, safe seal.

Marker is re-usable or nuclide can be decayed or removed.

SPECIFICATIONS:
Dimensions: 1" dia x .5" thick
Volume: 0.2 cc

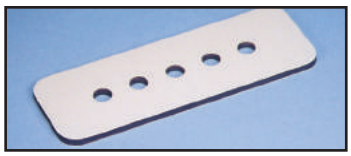
043-274 Marker Source, Fillable Point, 4/set

CHECK SOURCE

Instrument functionality is easily assessed with a Cs-137 Check Source. The activity is 10 µCi. No license is necessary.

101-103 Check Source, Cs-137, 10 µCi
(uncalibrated), 1" dia x .25" thick (2.5 x .64 cm)
Not available for export.

LIVER MARKER/RULER



The Liver Marker/Ruler is designed to mark, outline, and measure the liver while performing routine studies. When placed over the area of interest, a measurement is taken by counting the space between holes. The marker is made of vinyl-coated leaded rubber for flexibility and easy cleaning. Each unit is 5.5" long and 2" wide with holes 1 cm apart. Two units are supplied as a kit.

Note: Product contains lead. Handle with gloves and avoid skin contact.

SPECIFICATIONS:
Dimensions: 5.5" l x 2" w (14 x 5 cm)
Holes: 9 mm dia
Lead Equivalency: 1 mm

123-500 Liver Marker/Ruler

DOSE CALIBRATOR
VIAL REFERENCE SOURCES*

The daily calibration of dose calibrators is recommended to ensure accurate and reproducible instrument response. Calibration is easily achieved and maintained by the use of long-lived reference sources.

These sources are solid cast epoxy, 20 ml active volume in the 27 ml Vial E. They are calibrated with ±5% accuracy at the 99% confidence level, NIST traceable. Dose Calibrator Reference Sources are registered with the U.S. Food and Drug Administration Center for Devices and Radiological Health and the U.S. Nuclear Regulatory Commission.

Each source includes a certificate of calibration, a leak test certificate, and a radiation safety and handling sheet. The source is packaged in an individual lead shield that is color coded and vinyl covered to eliminate exposure to the lead. Dose Calibrator Reference Sources are available individually or as an economical set.

Vial Dose Calibrator Reference Sources:
All sources calibrated to ±5%
063-562 Source, Ba-133, 250 µCi
063-350 Source, Co-60, 50 µCi
101-356 Source, Cs-137, 200 µCi
063-261 Source, Co-57 simulated Tc-99m, 5 mCi
063-720 Source, Co-57 simulated Tc-99m, 10 mCi
063-586 Reference Source Set
Set includes: Co-57, 5 mCi; Cs-137, 200 µCi; Ba-133, 250 µCi
Not available for export.

Reference:
1. Guide for Preparation of Application for Medical Programs, U.S. Nuclear Regulatory Commission, Regulatory Guide 10.8 and American National Standard, Calibration and Usage of "Dose Calibrator" Ionization Chambers for the Assay of Radionuclides, ANSI N-42. 13-1986.

DOSE CALIBRATOR
SYRINGE REFERENCE SOURCES*

The daily calibration of your dose calibrator is recommended to ensure accurate and reproducible instrument response. Calibration, using long-lived standards, should be performed in a manner that most closely represents how you use your dose calibrator. The Dose Calibrator Syringe Reference Source was designed for imaging facilities that obtain their radiopharmaceuticals in unit dose syringes.

The sources are solid cast epoxy, 3 ml active volume in a 5 cc "mock" syringe. They are calibrated within ± 5% accuracy at 99% confidence level, NIST traceable.

Each source includes a certificate of calibration, leak test certificate, and radiation safety and handling sheet. The source is packaged in an individual lead shield that is color coded to the source. Dose Calibrator Syringe Reference Sources are available individually or as an economical set.

Syringe Dose Calibrator Reference Sources:
All sources calibrated to ± 5%
063-361 Source, Ba-133, 250 µCi
063-360 Source, Cs-137, 200 µCi
063-362 Source, Co-57, 5 mCi
063-364 Source, Ge-68, Simulated F-18,500 µCi
063-363 Syringe Source Set
Set includes: Ba-133, 250 µCi; Co-57, 5 mCi; Cs-137, 200 µCi

Not available for export.

ROD SOURCES*

To calibrate well type scintillation crystals, Biodex offers a variety of Rod Sources to meet department needs. You can count on consistent accuracy. Rod Sources are calibrated as NIST traceable with an accuracy of ±5% at the 95% confidence level.

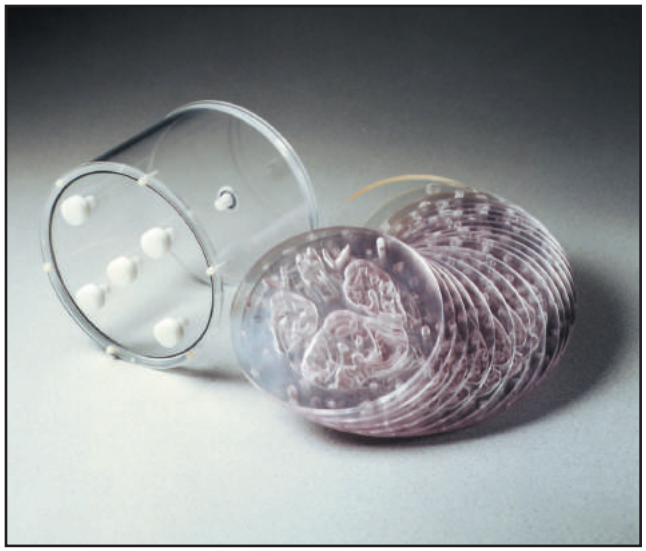
SPECIFICATIONS:
Dimensions: 2.96" l x 0.47" dia (76 x 11.9 mm)
Nominal Total Activity: 0.1 µCi

063-138 Rod Source, Ba-133
063-139 Rod Source, Cs-137
063-137 Rod Source, Co-57
063-140 Rod Source, Ge-68 simulated F-18
063-100 Rod Source Set
Set includes: Ba-133, Cs-137, Co-57, Na-22, Mn-54, Co-60 and Cd-109
Not available for export.

***FREE DISPOSAL** WHEN YOU PURCHASE A **NEW** REFERENCE SOURCE FROM BIODEX (Applies to United States Only).*

**A photocopy of your NRC or Agreement State License must accompany orders for radioactive sources and must clearly indicate your authority to possess the source being ordered.*

HOFFMAN
3-D BRAIN PHANTOM™



Precise simulation of activity distribution for SPECT, PET and MRI

The Hoffman 3-D Brain Phantom provides the anatomically accurate three dimensional simulation of the radioisotope distribution found in the normal brain. The Phantom allows quantitative and qualitative study of the three dimensional effects of scatter attenuation as they would appear in Iodine-123-IMP or Iodine-123-HIPDM imaging with single photon emission computer tomography or fluorine-FDG-F18 imaging with positron emission computed tomography. The phantom simulates the 4:1 uptake ratio in the gray and white matter, normal in these studies. Ventricles that are normally void of radioactivity are present.

The phantom is compromised of sturdy plastic and a single fillable chamber that eliminates the necessity of preparing different concentrations of radioisotope. Nineteen independent plates stack neatly within the cylindrical phantom for easy disassembly and assembly. The user can easily add his own custom defects to simulate clinical abnormalities.

The Phantom can be filled with the appropriate radioactive material or contrast material for SPECT, PET or MRI applications.

Each of 19 inserts is made up of five thinner slices. Two slices 0.03" thick interspersed in 0.6" thick slices to create a composite slice.

SPECIFICATIONS:
Cylinder Dimensions: I.D.: 6.9" h x 8.2" dia (17.5 x 20.8 cm)
Fillable Volume: ~ 1.2 L
Shipping Weight: 23 lb (10.4 kg)

043-790 Phantom, Hoffman 3-D Brain

NEMA
PET SCATTER PHANTOM™

- *Complies with NEMA 2012 Standard*
- *Acceptance testing*
- *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*

SPECIFICATIONS:
Cylinder Outside Dimension: 20.3 cm dia x 70 cm long
Cylinder Hole Size: 6.4 mm
Cylinder Hole Offset: 4.5 cm
Line Source Dimensions: 5 mm O.D. x 80 cm long
Line Source Inside Diameter: 3.2 mm
Shipping Weight: 52 lb (23.5 kg)

043-768 Phantom, PET Scatter, NEMA 2012

Performance Measurements of Positron Emission Tomographs, NEMA Standards Publication No. NU2, National Electrical Manufacturers Association (NEMA), Washington, DC - 2012

NEMA
PET SENSITIVITY PHANTOM™

- *Complies with NEMA 2012 Standard*
- *Ideal for PET camera sensitivity*

SPECIFICATIONS:
Five internally stacked concentric 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 mm
4th Tube	Inside Diameter: 13.4 mm	Outside Diameter: 15.9 mm
5th Tube	Inside Diameter: 16.6 mm	Outside Diameter: 19.1 mm
6th Innermost Tube (a fillable polyethylene tube)		
	Inside Diameter: 2 mm	Outside Diameter: 3.2 mm

Shipping Weight: 3 lb (1.3 kg)

043-769 Phantom, PET Sensitivity, NEMA 2012

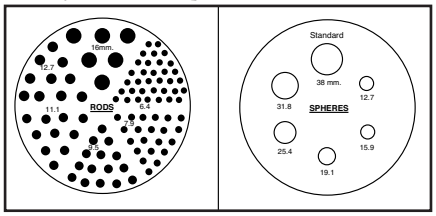
Performance Measurements of Positron Emission Tomographs, NEMA Standards Publications No. NU2, National Electrical Manufacturers Association (NEMA), Washington, DC, 2012

JASZCZAK
SPECT PHANTOM

ECT Phantom for PET and SPECT

Deluxe SPECT Phantom is shown

Inserts for PET and Spect Phantoms



Cold Rods *Cold Spheres*

The Jaszczak SPECT Phantom provides consistent performance information for any SPECT or PET system. Multiple performance characteristics of camera-based SPECT systems are evaluated from a single scan of the phantom.

On-axis and off-axis transverse line spread function may be easily measured without removing the cover plate. Measurements of full-width-half (or tenth) maximum can be readily determined, either in air or in water.

The Phantom is used for:
– System performance valuation of:
  Collimator, Artifacts, Calibration, and
  Reconstruction Parameters
– Acceptance testing
– Routine quality, assurance and control
– Evaluation of:
  - Center-of-rotation error
  - Non-uniformity artifact
  - Changes of radius-of-rotation on spatial resolution
  - Reconstruction filters on spatial resolution
  - Attenuation and scatter compensation
– Single slice volume sensitivity
– Total system volume sensitivity
– Lesion detectability

SPECT Phantoms are available in two models. The Deluxe Phantom is used for high resolution cameras. The Standard Phantom is used for lower resolution cameras.

SPECIFICATIONS:
Cylinder Interior Dimensions: 8.5" dia x 7.32" h (21.6 x 18.6 cm)
Cylinder Wall Thickness: 0.125" (3.2 mm)
Volume: 6.9 L
Volume With Inserts: 6.1 L
Cold Rod Insert Height: 3.46" h (8.8 cm)
Height of Spheres From Base Plate: 5" h (12.7 cm)

043-750 SPECT Phantom, Deluxe
Cold Rod Dimensions: 4.8 mm, 6.4 mm, 7.9 mm, 9.5 mm, 11.1 mm, 12.7 mm
Solid Sphere Diameters: 9.5mm, 12.7 mm, 15.9 mm, 19.1 mm, 25.4 mm, 31.8 mm
Shipping Weight: 15 lb (6.9 kg)

043-762 SPECT Phantom, Standard
Cold Rod Dimensions: 6.4 mm, 7.9 mm, 9.5 mm, 11.1 mm, 12.7 mm, 16.0 mm
Solid Sphere Diameters: 12.7 mm, 15.9 mm, 19.1 mm, 25.4 mm, 31.8 mm, 38 mm

043-750 Phantom, SPECT, Deluxe
043-762 Phantom, SPECT, Standard

Related:
043-763 Phantom Insert, Hollow Spheres
043-730 Phantom Insert, Triple Line
043-777 Phantom Insert, Cardiac
Phantom inserts are featured on page 88.

HOLLOW SPHERE INSERTS

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

SPECIFICATIONS:
Set: Six hollow spheres (each individually removable and fillable)
Diameter: I.D.: 9.9 mm, 12.4 mm, 15.6 mm, 19.7 mm, 24.8 mm, and 31.2 mm
Volume of Spheres: 0.5 ml, 1.0 ml, 2.0 ml, 4.0 ml, 8.0 ml, and 16.0 ml

043-763 Phantom Insert, Hollow Spheres

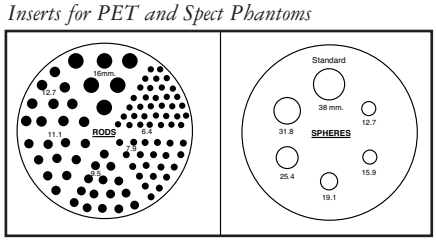
Related:
043-765 Phantom, SPECT, Flangeless
043-750 Phantom, SPECT, Deluxe
043-762 Phantom, SPECT, Standard
043-740 Phantom, Lung-Spine

JASZCZAK
FLANGELESS DELUXE SPECT PHANTOM

ECT phantom for SPECT, meets ACR requirements

Deluxe Flangeless SPECT Phantom

Inserts for PET and Spect Phantoms



Cold Rods *Cold Spheres*

The flangeless PET and SPECT phantoms provide consistent performance information for any PET or high-resolution SPECT system. Multiple performance characteristics of camera-based SPECT systems are evaluated from a single scan of the phantom.

On- and off-axis transverse line spread function may be easily measured without removing the cover plate. Measurements of full-width-half (or tenth) maximum can be readily determined, either in air or in water.

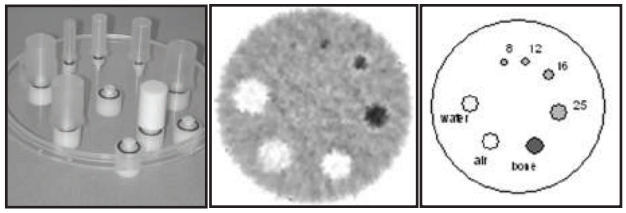
The flangeless phantoms for PET and SPECT meet the requirements set by the ACR.

– System performance evaluation of: Collimator, Artifacts, Calibration, and Reconstruction Parameters
– Acceptance testing
– Routine quality, assurance and control
– Evaluation of:
  - Center-of-rotation error
  - Non-uniformity artifact
  - Changes of radius-of-rotation on spatial resolution
  - Reconstruction filters on spatial resolution
  - Attenuation and scatter compensation
– Single slice volume sensitivity
– Total system volume sensitivity
– Lesion detectability

ESSER
FLANGELESS DELUXE PET PHANTOM

ECT phantom for PET, meets ACR requirement

Esser Flangeless PET Phantom™



Flangeless PET Phantom Lid™ *Image of PET Phantom Lid* *PET Phantom Lid Containers*

SPECIFICATIONS:

SPECT and PET Phantoms:
Cylinder Interior Dimensions: 8" dia x 7.32" h (20.4 x 18.6 cm)
Volume: 6.4 L
Cold Rod Insert Height: 3.46" h (8.8 cm)
Cold Rod Diameters: 4.8, 6.4, 7.9, 9.5, 11.1 and 12.7 mm
Height of Spheres From Base Plate: 5" h (12.7 cm)
Solid Sphere Diameters: 9.5, 12.7, 15.9, 19.1, 25.4 and 31.8 mm

Flangeless Esser PET Phantom Lid™
Refillable thin-walled cylinders: 8,12,16,25 (x3) mm
Solid cylinder (Teflon®): 25mm
Cylinder height: 1.5 in
Lid Closure: Bayonet-Style with Lock Screw

043-765 Phantom, SPECT, Flangeless, Deluxe
043-772 Phantom, PET, Flangeless, Esser
043-757 Phantom, PET/SPECT, Flangeless
Includes PET and SPECT phantom lids

Related:
043-763 Phantom, Hollow Spheres Set (6)
043-730 Phantom Insert, Triple Line
043-777 Phantom Insert, Cardiac
Phantom inserts are featured on page 88.

PET-CT PHANTOM™

PET-CT Phantom™

The PET-CT Phantom™ includes internal structures (three rods and six spheres) which, when imaged with both modalities, can demonstrate how accurately the two image sets are aligned.

In addition, a single sample of radioactive water is attenuated by water, bone and CT contrast material (as well as air only) to determine how accurately the CT-based PET attenuation correction works.

The Phantom is used for:

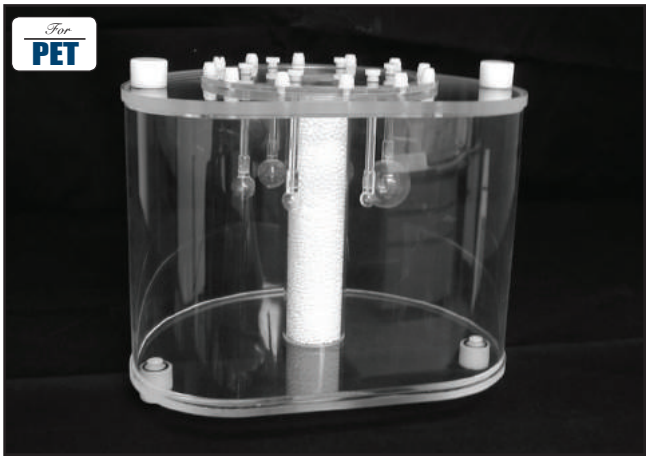
– Acceptance testing of PET/CT and SPECT/CT systems
– Routine quality evaluation of PET/CT and SPECT/CT systems
– Evaluation of new image fusion software
– Evaluation of new attenuation correction algorithms
– Aluminum tubes are for registration
– The outer 2" OD micro cylinder is for comparing attenuation region to non attenuation region
– The 6" ring is for contrast solution
– Research

SPECIFICATIONS:

Main Cylinder:
Interior length of phantom: 180 mm
Fillable spheres (5) inner diameter: 10 mm, 13 mm, 17 mm, 22 mm, and 28 mm.
Distance from sphere plane to inside wall: 70 mm
Volume of empty cylinder: 9.7 liters
Main Cylindrical insert dimension:
Outside diameter: 51 mm
Length: 180 mm
Top Cylinder:
Cylinder outside diameter: ~5.1 cm
Cylinder inside diameter: ~4. cm
Cylinder inside height: ~8.2 cm
Cylinder outside height: ~12.0 cm
Volume of empty cylinder: 408 cm^2
Three Aluminum Tubes:
One 5 inch long: ~1.7 cc
Two 7 inch (ea): ~ 2.5 cc
Stepped Bone Ring:
Pre-filled with liquid bone composition, not to be opened
The volumes for the bone ring are:
Outer volume: 15.6 cu inch: ~256 cc
Inner volume: 6.7 cu inch: ~110 cc

043-771 Phantom, PET-CT

NEMA 2012/IEC 2008
PET PHANTOM



- *Complies with NEMA 2012 Standard*
- *Simulation of whole-body imaging using PET and camera-based coincidence imaging techniques*
- *Evaluation of reconstructed image quality in whole-body 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*

SPECIFICATIONS:

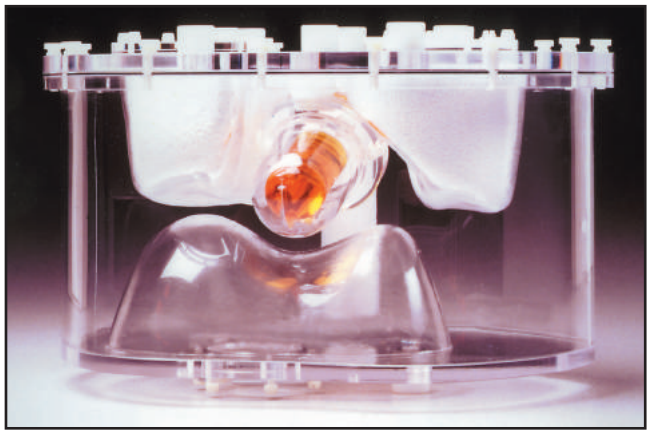
Dimensions: 9.5" h x 12" w x 9.5 depth (24.1 x 30.5 x 24.1 cm)
Interior Length of Phantom: 180 mm
Fillable Spheres (six) Inner Diameter: 10 mm, 13 mm, 17 mm, 22 mm, 28 mm and 37 mm
Distance From Sphere Plane to Inside Wall: 70 mm
Volume of Empty D Shaped Cylinder: 9.7 L
Cylindrical Insert Dimension: O.D.: 51 mm dia x 180 mm length
Shipping Weight: 11 lb (4.9 kg)

043-767 Phantom, PET, NEMA 2012/IEC 2008

Performance Measurements of Positron Emission Tomographs, NEMA Standards Publication No. NU2, National Electrical Manufacturers Association (NEMA), Washington, DC, 2012

International Standard: Radionuclide imaging devices- Characteristics and test conditions - Part I: Positron Emission Tomographs, International Electrotechnical Commission (IEC), 61676-1, Geneva, Switzerland, 1998 and IEC 61675-1 1.1 (2008)

SPECT ANTHROPOMORPHIC TORSO PHANTOM



Frontal view – shown with optional Cardiac Insert

- ***Evaluation of cardiac and lung ECT data acquisition and reconstruction methods***
- ***Evaluation of non-uniform attenuation and scatter compensation methods***

Top view – shown with optional Cardiac Insert

The Anthropomorphic Torso Phantom is used for the evaluation of non-uniform attenuation and scatter compensation methods. The phantom consists of a large, body-shaped cylinder with lung, liver and spine inserts. The phantom simulates the anatomical structures of radioactivity distributions for the upper torso of average to large male/female patients. Lung inserts can be filled with Styrofoam® beads and water to simulate lung tissue density.

When used with the optional Cardiac Insert, cardiac ECT data acquisition and reconstruction methods may also be evaluated.

SPECIFICATIONS:
Dimensions:
O.D.: 10.25" anterior-posterior x 15" lateral (26 x 38 cm)
I.D.: 9.5" anterior-posterior x 14.2" lateral (24 x 36 cm)
Wall Thickness: 0.37" (9.5 mm)
Volumes:
Left Lung (w/o Styrofoam® beads): ~ 0.9 L
Right Lung (w/o Styrofoam® beads): ~ 1.1 L
Left Lung (w/ Styrofoam® beads): ~ 0.36 L
Right Lung (w/ Styrofoam® beads): ~ 0.44 L
Liver: ~ 1.2 L
Background: ~ 10.3 L
Cylinder w/ Lung-Spine Insert: ~ 7.4 L

043-795 Phantom, Anthropomorphic Torso

Related:
043-777 Cardiac Insert
Phantom inserts are featured on page 88.

SPECT LUNG-SPINE PHANTOM

Lung-Spine Phantom shown with Cardiac Insert in place and Elliptical Cylinder

- ***Evaluation of cardiac and lung ECT data acquisition and reconstruction methods***
- ***Evaluation of non-uniform attenuation and scatter compensation methods***

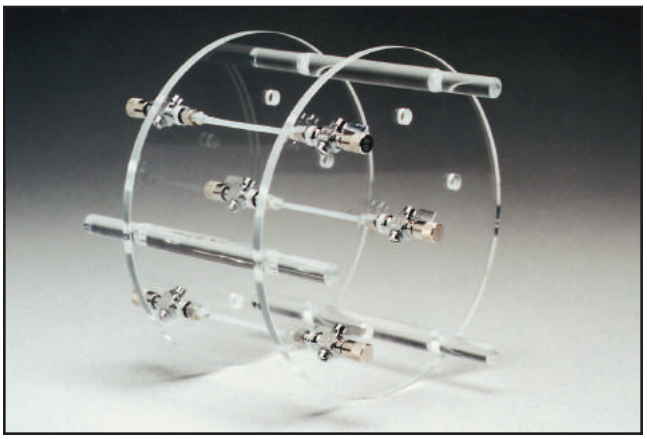
The Lung-Spine Phantom consists of two chambers that are shaped to simulate the lungs. The chamber can be filled with Styrofoam® beads and water that mimics the lung tissue. When filled with Styrofoam® beads and a radioactive solution, the lung chambers simulate lung tissue with density of ~ 0.3 gm/cm^3 and with any desirable radioactivity concentration. The Lung-Spine Phantom can be used with the optional Cardiac Insert (as shown) to realistically simulate the attenuation coefficients of any radioactivity uptake in various tissue in the human upper torso. Cardiac Insert is available separately.

SPECIFICATIONS:
Inside Diameter Elliptical Shape:
Dia Along Major Axis: 12.2" (30.5 cm)
Dia Along Minor Axis: 8.7" (22.1 cm)
Inside Height: 7.3" (18.6 cm)
Volume:
Empty Cylinder: ~ 9.4 L
Left Lung (w/o Styrofoam® beads): ~ 0.9 L
Right Lung (w/o Styrofoam® beads): ~ 1.1 L
Left Lung (w/ Styrofoam® beads): ~ 0.36 L
Right Lung (w/ Styrofoam® beads): ~ 0.44 L
Shipping Weight: 11 lb (4.9 kg)

043-740 Phantom, Lung-Spine

Related:
043-763 Phantom Insert, Hollow Spheres
043-730 Triple Line Insert
043-777 Cardiac Insert
Phantom inserts are featured on page 88.

TRIPLE LINE INSERT



- *Center-of-rotation error evaluation*
- *Evaluation of changes of radius-of-rotation on spatial resolution*
- *Spatial resolution measurement in air and in water, if mounted in cylinder*
- *Quantitative evaluation of reconstruction filters and scatter compensation method*

The Triple Line Insert is used to produce three 1 mm diameter parallel lines of tracer material spaced 7.5 cm apart. The locations of the fillable tubes are based on the recommendations in the NEMA Standards Publication for Performance Measurements of Scintillation Cameras, 1986.

Radioactive tracer liquid can be inserted into the line sources through surgical grade, stainless steel valves located at the ends of each line tube.

The cylinder can be filled with water to simulate the surrounding attenuating medium.

Quantitative measurements of on-axis and off-axis reconstructed line source resolutions can be performed in air by placing the triple line insert directly on the scanning bed.

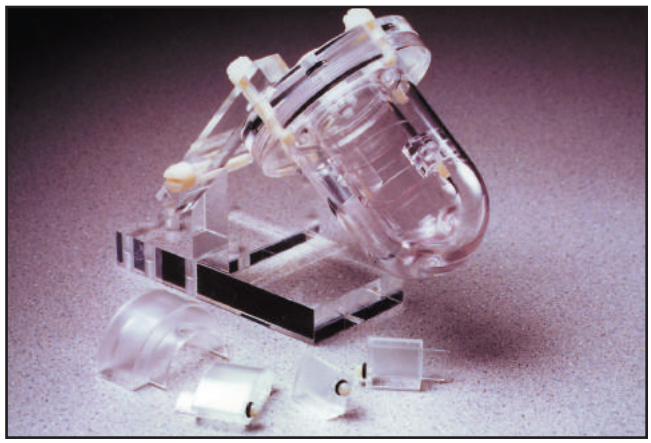
The triple line insert provides accurate, reproducible images to quantitatively evaluate the effects of errors in center-of-rotation and radius-of-rotation on scanners. Using the insert, the influence of the type of reconstruction filter on SPECT spatial resolution measurements can be evaluated.

SPECIFICATIONS:
Useful Height of Line Sources: 2.76" (7 cm)
Diameter of Insert: 7.3" (18.6 cm)
Diameter of Line Sources: ~1 mm
Spacing of Line Sources: 2.95" (7.5 cm)
Shipping Weight: 3 lb (1.3 kg)

043-730 Phantom Insert, Triple Line

Related:
043-765 Phantom, SPECT, Flangeless
043-772 Phantom, PET, SPECT, ACR
043-750 Phantom, SPECT, Deluxe
043-762 Phantom, SPECT, Standard
043-740 Phantom, Lung-Spine

CARDIAC INSERT



- *Evaluation of cardiac ECT data*
- *Evaluation of attenuation and scatter*
- *Simulates normal and abnormal myocardial uptake*
- *Solid inserts simulate transmural and non-transmural cold abnormalities*
- *Fillable inserts simulate transmural and non-transmural cold or hot abnormalities*

This insert provides a multi-function simulation of the left ventricle, and can be used to evaluate SPECT imaging of cold defects within the "myocardium." Two solid acrylic sectors (45 and 60 degrees) are supplied with the insert, each one cm thick and two cm long. These non-filling defects may be placed at various positions within the "ventricle wall", either anteriorly or posteriorly. The long axis of the "ventricle" is adjustable from 30 to 60 degrees from the long axis of the cylinder. Four fillable defects are also included.

SPECIFICATIONS:
"Ventricle" Overall Dimensions: 3.7" l x 2.4" dia (9.3 x 6.1 cm)
"Ventricle" Volume: ~ 60 ml
"Myocardium" Thickness: 0.4" (1.0 cm)
"Myocardium" Volume: ~ 110 ml
Solid Defect Set (three pieces):
1. 60° x 2 cm (h) x 10 mm (thick)
2. 45° x 1.53 cm (h) x 10 mm (thick)
3. 60° x 2 cm, with 5 mm wall thickness (non-transmural defect)

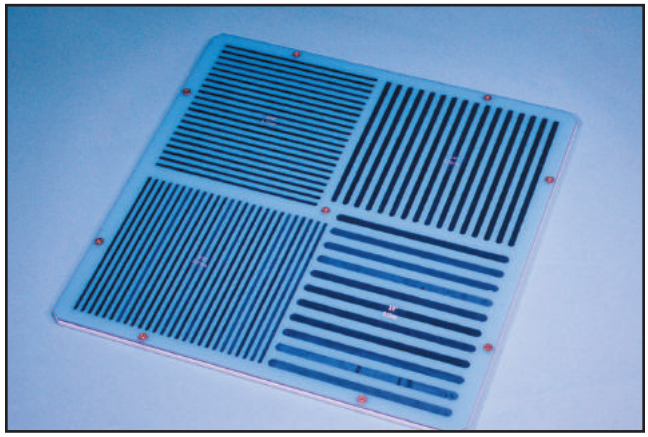
Fillable Defect Set (four pieces):
1. 180° x 2 cm (h) x 10 mm (thick) / Vol ~ 13 ml
2. 90° x 2 cm (h) x 10 mm (thick) / Vol ~ 5.4 ml
3. 45° x 2 cm (h) x 10 mm (thick) / Vol ~ 3.8 ml
4. 45° x 2 cm (h), with 5 mm thick chamber / Vol ~ 1.4 ml

043-777 Phantom Insert, Cardiac
Includes: Defect Set

Related:
043-765 Phantom, SPECT, Flangeless
043-772 Phantom, PET, SPECT, ACR
043-750 Phantom, SPECT, Deluxe
043-762 Phantom, SPECT, Standard
043-740 Phantom, Lung-Spine
043-795 Phantom, Anthropomorphic Torso

BAR PHANTOMS

Determines resolution of scintillation cameras



Four-quadrant Bar Phantoms offer precise determination of camera intrinsic resolution, collimator spatial resolution, field size and linearity. We offer a range of sizes manufactured to the highest quality standards.

RECTANGULAR BAR PHANTOM
Dimensions: 22.25" l x 17" w x .5" h (56.5 x 43.2 x 1.27 cm)
Lead Bar Widths: .079", .098", .118" and .138" (2, 2.5, 3 and 3.5 mm)
Field Across Bar Configurations: 21" l x 15.9" w (53.3 x 40.5 cm)
Shipping Weight: 21 lb (10 kg)

243-935 Bar Phantom, Rectangular

STANDARD HIGH RESOLUTION BAR PHANTOM
Dimensions: 16.875" l x 16.875" w x .5" h (43 x 43 x 1.28 cm)
Lead Bar Widths: .25", .187", .156", and .125" (6.4, 4.8, 4 and 3.2 mm)
Field Across Bar Configurations: 15.875" l x 15.875" w (40.3 x 40.3 cm)
Shipping Weight: 14 lb (6 kg)

243-800 Bar Phantom, Standard, High Resolution

CARDIAC BAR PHANTOM
Dimensions: 15.5" l x 9.25" w x .5" h (39.4 x 23.5 x 1.27 cm)
Lead Bar Widths: .079", .098", .118" and .138" (2, 2.5, 3 and 3.5 mm)
Field Across Bar Configurations: 14.5" l x 8.25" w (36.8 x 21 cm)
Shipping Weight: 15 lb (6.80 kg)

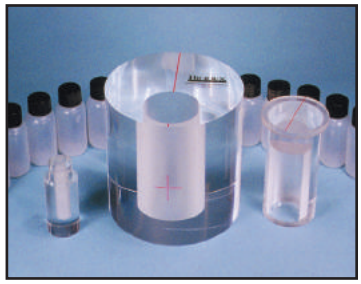
243-955 Bar Phantom, Cardiac, High Resolution

NEW SYMBIA AND E-CAM BAR PHANTOM
Includes two removable screw knobs for insertion/removal of phantom from camera head.
Dimensions: 16" l x 21" w x .5" h (40.6 x 53 x 1.27 cm)
Lead Bar Widths: .079", .098", .118" and .138" (2, 2.5, 3 and 3.5 mm)
Field Across Bar Configurations: 20.3" l x 14.875" w (51.6 x 37.8 cm)
Shipping Weight: 19 lb (8.7 kg)

243-987 Bar Phantom, Symbia and E-Cam

THYROID UPTAKE
NECK PHANTOM

Designed to simulate a patient's neck



The Neck Phantom is designed to simulate a patient's neck. The phantom is constructed of lucite. It has a two part insert that allows counting from a bottle, vial or capsule. A capsule holder is supplied to enable the user to count capsules directly, without having to dissolve them. The phantom's cylinder and carrier have scribelines for accurate alignment. A flat surface on the cylinder allows either vertical or horizontal positioning. Twelve 30 ml bottles are included with the phantom.

Proposed by the International Atomic Energy Agency (I.A.E.A.) and the American National Standards Institute

SPECIFICATIONS:
Dimensions: 5" h x 5" dia (127 x 127 cm)
I.D.: 4" h x 2" dia (10 x 5 cm)

043-365 Thyroid Uptake Neck Phantom
Includes bottle carrier, capsule holder and 12 polyethylene bottles

Replacement:
043-361 Polyethylene Bottles, 30 ml, 50/pkg

FLOOD PHANTOMS

Determines field uniformity of scintillation cameras

Flood Phantoms provide a means of lighting scintillation camera's crystal to determine response uniformity over the entire field.

Our Flood Phantoms feature extra strength side walls and clear lucite for easy positioning. Easy to fill and easy to drain, the phantoms are leak proof and are excellent for transmission imaging.

SPECIFICATIONS:
Dimensions: 20.5" x 28" x 1.25" thick (52 x 71.1 x 3.2 cm)
Cavity: 16.5" x 24" x .5" (41.9 x 60.9 x 1.3 cm)

043-054 Flood Phantom, Rectangular
131-010 Phantom Funnel, Flood
Screws directly into the flood phantom for safe, easy, fast filling

DIGITAL AREA MONITOR

With built-in GM Gamma Detector for continuous monitoring

Digital Area Monitor - available in mR/hr or µSv/h

- ***Detects gamma radiation***
- ***LOW and HIGH alarms with yellow and red lights, adjustable audible tones***
- ***0.1 mR/hr – 1000 mR/hr or 1 µSv/h – 9999 µSv/h***
- ***Detector failure light and tone to signal detector overload or instrument failure***
- ***Threshold adjustment from 2 to 100 mV***
- ***Battery continuously trickle charges when unit is operating and connected to wall current***
- ***Low battery warning***

SPECIFICATIONS:
Internal Detector: Halogen quenched GM gamma detector, sensitivity: 1000 cpm/mR/hr (Cs-137 gamma), energy response (60 keV – 3 MeV): within ±25% of true value
Display: Four-digit LED display with 0.8" (2 cm) character height
Display Range: 000.0-9999
Display Units: Available in mR/hr or µSv/h
Linearity: Reading within ±10% of true value with detector connected
Response: Typically three seconds from 10% - 90% of final reading
Status: (Green light) instrument functioning properly
Alarm: Low alarm - indicated by yellow light and slow beep (one per second) audible tone (can be set at any point from 0.0 - 9999); high alarm - indicated by red light and fast beep (4 per second) audible tone (can be set at any point from 0.0 - 9999); NOTE: Audible indicators can be configured as a single beep if desired
Det Fail: Detector overload, no count from detector, or instrument failure – indicated by red light and audible tone (greater than 68 dB at 2 feet)
Low Bat: (Yellow) indicates less than two hours of battery power remaining
High Voltage: Adjustable from 200 - 2500 volts
Threshold: Adjustable from 2 - 100 mV
Dead Time: Adjustable to compensate for dead time of detector and electronics (can be read on display)
Overload: Senses detector saturation (indicated by display reading "-OL-")
Overrange: Indicates radiation field being measured has exceeded counting range of instrument (indicated by display reading "- - - -")
Data Output: 9 pin connector providing 5 decade logarithmic output, RS-232 output, signal ground connection, FAIL and ALARM signals (current sink), and direct connection to battery and ground
Calibration Controls: Accessible from front of instrument (protective cover provided)
Power: 90-260 VAC auto ranging or battery power
Battery Life: Typically 48 hours in non-alarm condition; 12 hours in alarm condition
Battery Charger: Battery is continuously trickle charged when instrument is connected to line power and turned on
Battery Dependence: <3% change in readings to battery endpoint
Construction: Wall mount aluminum housing with ivory polyurethane enamel paint
Dimensions: 7.4" h x 9.7" w x 2.5" depth (18.7 x 24.6 x 6.4 cm)
Weight: 6.7 lb (3 kg)

The Digital Area Monitor with built-in GM Gamma Detector provides continuous gamma radiation monitoring of rooms where radionuclides are received, stored, or dispensed, and in waste management areas where there is the possibility of radioactive contamination. The monitor is wall-mountable.

051-275 Monitor, Digital Area, 90-260 VAC
Includes: Built-in GM Gamma Detector display in mR/hr

051-273 Monitor, Digital Area, 90-260 VAC
Includes: Built-in GM Gamma Detector display in µSv/h

ALARM RATEMETER WITH PANCAKE GM PROBE AND FOOT MONITOR

Portable multi-purpose unit for area monitoring and surveying

- ***Monitors alpha, beta, and gamma radiation***
- ***Audible alarm with red indicator light for continuous area monitoring***
- ***Portable surveying with Pancake GM Probe (39" cable included)***
- ***0-500K cpm range***
- ***Operates on wall current or rechargeable battery***
- ***Equipped for simultaneous hand and shoe contamination monitoring***

This multi-function instrument can be used as a continuous area monitor, a portable survey meter, or a hand and shoe contamination monitor. It can be powered by wall current, or by its built-in rechargeable battery. Audio features include a built-in speaker with volume control providing click-per-event or an audible full-volume alarm. The alarm can be set at any point on the meter scale and locked. A red lamp on the meter's front panel also indicates an alarm condition. A push-button resets the alarm and zeros the meter. The built-in battery is continuously trickle charged when the unit is operating on line power.

The external pancake probe monitors alpha, beta, and gamma radiation, and is the preferred detector for the majority of medical surveying applications. The Pancake GM Foot Monitor serves as a convenient shoe contamination monitor. Four multiplier settings (x1, x10, x100, x1000), threshold adjustment from 10 to 100 mV, and a toggle switch for FAST (2.2 sec.) or SLOW (22 sec.) response make this unit suitable for a wide range of medical applications.

SPECIFICATIONS:

Alarm Ratemeter:
Dimensions: 8" w x 5" h x 6" l (20 x 13 x 15 cm)
Range: 0-500 cpm with multipliers of x1, x10, x100, x1000
Meter: 2.5" (6 cm) panel meter reading 0-500 cpm and BAT TEST
Response: FAST (2.2 sec.) or SLOW (22 sec.) for 90% of full scale
Input Sensitivity: Factory set at 40 mV, ±15 mV
Linearity: Typically ±2% of full scale
High Voltage: Adjustable from 400-1500 volts with HV readout
Reset: Zeros meter after over range or alarm reading
Speaker: Built-in unimorph speaker
Alarm: Indicated by a red lamp on the front panel (when in an alarm state, the speaker goes to full volume overriding the volume control); non-locking alarm available upon request
Alarm Set: Located on front panel and may be checked with Test Switch; alarm reading will be indicated by audio and visual alarms
Recorder: Correlated to meter movement and is adjustable to 1.5 volts at 1 mA
Data-out Connector: 9-pin type "D" type series plug with connections as follows: Pin 1: Battery terminal; Pin 2: Unregulated supply; **Pin 3:** Instrument common ground; Pin 4: Alarm sink; Pin 5: Pulse out; Pin 6: Unbuffered output; Pin 7: Recorder output; Pins 8 and **9:** Spare pins.
Power: 95 to 250 VAC wall adapter or battery power
Battery: 6 volt Gel-Cell rechargeable, with 50 hours typical life (not included)
Battery Charger: Continuously trickle charged when the power switch is in the ON position and the instrument is connected to AC power; optional external charger required for fast charge
Battery Dependence: Less than 3% calibration change when batteries read within battery test limits on meter
Finish: Polyurethane paint, beige
Weight: 4.2 lb (2 kg) including batteries

Pancake GM Probe:
Indicated use: alpha, beta, gamma surveying
Detector: Pancake type halogen quenched GM
Window: 1.7 ±0.3 mg/cm^2 mica
Window Diameter: 1.75" (4 cm)
Window Area: Active area approximately 15.5 cm^2
Efficiency: 10% for C-14, 45% for Sr-90, 38% for Tc-99, 70% for P-32, Alpha 30%
Sensitivity: Typically 3300 cpm/mR/hr for Cs-137 gamma
Protective Screen: 79% open, stainless steel
Mounting: Aluminum holder, handle and window protector
Detector Cable: 39" (99 cm), type "C" connectors
Dimensions: 8.5" l x 2.75" diameter (21 x 7 cm), handle diameter: 1" (3 cm)
Weight: 1 lb (0.5 kg)

Pancake GM Foot Monitor:
Indicated use: alpha, beta-gamma foot monitor
Detector: 3 ea. pancake type halogen quenched GM
Window: 1.7 ±0.3 mg/cm^2 mica
Window Area: Active 46 cm^2, open 27 cm$_2$
Sensitivity: Typically 9900 cpm/mR/hr
Energy Response: Energy dependent
Efficiency (2pi geometry): 10% for C-14, 45% for Sr-90, 38% for Tc-99, 65% for P-32, Alpha 30%
Housing: Aluminum
Dimensions: 10.8" h x 7" w x 9" l (27 x 18 x 23 cm)
Weight: 4.4 lb (2 kg)
Cable: 60" (152 cm), type "C" connectors ("T" connector included for simultaneous use with Pancake Probe)

051-027 Ratemeter, Alarm, 95-250 VAC
Includes: Pancake GM Probe and Foot Monitor

MODEL 14C
SURVEY METER WITH PANCAKE GM PROBE

Includes dose filter to flatten energy response

Ideal for Ra-223

- ***Monitors alpha, beta, and gamma***
- ***0-2 R/hr range***
- ***Five counting scales (x0.1, x1, x10, x100, x1000)***

The Model 14C Survey Meter meets the essential monitoring and surveying needs of most nuclear medicine facilities. The dose filter flattens the response for energies between 33 keV to 1.2 MeV. For background readings, the unit's built-in GM detector handles counts up to 2 R/hr. For beta emitters, the pancake probe has approximately twice the counting efficiency as an end-window detector. For high-range gamma detection, the internal detector with the x1000 multiplier range is used.

SPECIFICATIONS:

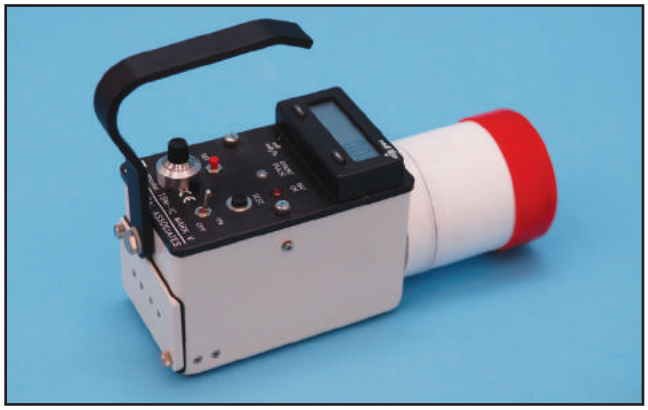
Survey Meter:
Compatible Detector: GM
Meter Face: 0-2 mR/hr, 0-2 mR/hr, 0-6.6k cpm
Meter Face Dimensions: 2.43" l x 1.43" w (6.1 x 3.6 cm)
Multiplier Ranges: x0.1; x1; x10; x100 for external detector; x1000 for internal detector
Internal Detector: Energy-compensated GM, for high range gamma detection only; 2000 mR/hr
Reset: Push button to zero meter after over-range exposure
Sensitivity: 2100 cpm/mR/hr for Cs-137dose**Batteries:** Two each, size "D", typical life 600 hours
Dimensions: 8.5" l x 3.5" w x 6.5" h (22 x 9 x 16.5 cm)
Weight: 3.5 lb (1.6 kg) including batteries

Pancake GM Probe:
Indicated use: Alpha, beta, and gamma surveying; sample counting
Detector: Pancake type halogen quenched GM
Window: 1.7 ±0.3 mg/cm2 mica with dose filter
Window Diameter: 1.75" (4 cm)
Window Area: 15.5 cm2 active, 12 cm2 open
Efficiency (4pi): 5% for C-14, 22% for Sr-90/Y-90, 19% for Tc-99, 32% for P-32, 15% for Pu-239
Dimensions: 1.8" h x 2.7" w x 10.7" l (4.6 x 6.9 x 27.2 cm)
Weight: 1 lb (0.5 kg)

051-045 Survey Meter, Model 14C
Includes: Internal Energy-Compensated GM Detector, External Pancake GM Probe with Dose Filter, cable and mounted check source (Cs-137, .25 µCi)

DIGITAL
CUTIE PIE SURVEY METER

Ion chamber detector for fast and reliable measurements of exposure and dose



- ***Detects alpha, beta, gamma, x-ray***
- ***Axial detection of gamma or x-ray below 5 keV***
- ***Rate Range: 0.1 mR/hr – 9.999 R/hr***
- ***Dose Range: 0.01 mR – 99.9 R***
- ***Digital LCD display – 8-digit rate, 8-digits integrate***

Based on stable and essentially drift-free electrometer technology, this sensitive ion chamber instrument has high sensitivity for alpha and low-to-high energy beta particles, and to gamma and x-ray radiation. The compact and lightweight Digital Cutie Pie is useful for measuring exposure and dose rates, determining shielding effectiveness, checking source containers, monitoring radiation areas, and checking results following decontamination procedures. Readout is in mR/hr or mR. Rate range is 0.1 mR/hr – 9.999 R/hr in a single range. Dose range is 0.01 mR – 99.9 R in a single range. Because of their energy independent response, ion chamber survey meters are recommended for any dose rate measurements made for regulatory compliance (i.e. licensing, state regulations).

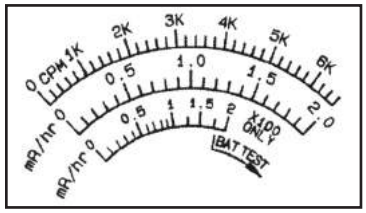
SPECIFICATIONS:

Detector: Free air ion chamber 2.5" diameter x 3.5" l (6.4 x 8.9 cm), 260 cc internal volume
Wall, Cap: Graphite-lined 180 mg/cm^2 walls, 540 mg/cm^2 cap
Window: 2.0" diameter x 0.5 mg/cm^2 Mylar
Readout: LCD 8-digit
Indicator Lamp: Green LED, 10 pulses/sec per mR/h
Range:
Rate: 8-digit, 0.1 mR/hr to 9.999 R/hr
Integrate: 8-digit, 0.01mR-99.9 R in a single range
Electrometer: Solid State MOSFET input
Electronics: A-D converter, LCD drivers
Batteries: 10 ea. (button) NEDA CR-1220 (7-yr shelf life), 6 ea. (AA) NEDA 15A (typically 1000 hr)
Dimensions: 5.5" h x 3.5" w x 8" l (14 x 8.9 x 20.3 cm) includes handle
Weight: 26 oz (.74 kg) with batteries

051-366 Survey Meter, Cutie Pie, Digital, mR/h

MODEL 14C
SURVEY METER WITH PANCAKE GM PROBE

Satisfies NRC requirements for nuclear medicine departments



- ***Monitors alpha, beta, and gamma***
- ***0-2 R/hr range***
- ***External pancake GM probe (39" cable included)***
- ***Internal energy compensated GM detector***
- ***Five counting scales (x0.1, x1, x10, x100, x1000)***

The portable Model 14C Survey Meter with Pancake GM Probe meets the essential monitoring and surveying needs of most nuclear medicine facilities. The external pancake probe is used to check hands, clothing, floors, furniture, equipment, and package surfaces for contamination. For background readings, the unit's built-in energy-compensated GM detector handles counts up to 2 R/hr. For beta emitters, the pancake probe has approximately twice the counting efficiency as an end-window detector. For high-range gamma detection, the internal detector with the x1000 multiplier range is used. The meter features a built-in speaker with ON/OFF switch, front-access calibration controls, push-button reset to zero the meter, and a toggle switch to select FAST (4 sec.) or SLOW (22 sec.) response.

SPECIFICATIONS:

Survey Meter:
Compatible Detectors: GM
Meter Face: 0-2 mR/hr, 0-2 mR/hr, 0-6.6k cpm
Meter Face Dimensions: 2.43" l x 1.43" w (6.1 x 3.6 cm)
Threshold: 30 mV ± 10 mV
Multiplier Ranges: x0.1; x1; x10; x100 for external detector; x1000 for internal detector
Internal Detector: Energy-compensated GM, for high range gamma detection only; 2000 mR/hr
High Voltage: 900V
Response: Toggle switch for FAST (4 seconds) or SLOW (22 seconds) for 90% of final reading
Reset: Push button to zero meter after over-range exposure
Audio: Built-in unimorph speaker with ON/OFF switch
Sensitivity: 2100 cpm/mR/hr for Cs-137
Batteries: Two each, size "D", typical life 600 hours
Construction: Painted aluminum housing
Dimensions: 8.5" l x 3.5" w x 6.5" h (22 x 9 x 16.5 cm)
Weight: 3.5 lb (1.6 kg) including batteries

Pancake GM Probe:
Indicated use: Alpha, beta, and gamma surveying; sample counting
Detector: Pancake type halogen quenched GM
Window: 1.7 ±0.3 mg/cm^2 mica
Window Diameter: 1.75" (4 cm)
Window Area: 15.5 cm^2 active, 12 cm^2 open
Efficiency (4pi): 5% for C-14, 22% for Sr-90/Y-90, 19% for Tc-99, 32% for P-32, 15% for Pu-239
Gamma Sensitivity: 3300 cpm/mR/hr for Cs-137
Energy Response: Energy dependent
Operating Voltage: 900 volts
Protective Screen: 79% open, stainless steel
Housing: Painted aluminum
Cable: 39" l (99 cm), type "C" connectors
Dimensions: 1.8" h x 2.7" w x 10.7" l (4.6 x 6.9 x 27.2 cm)
Weight: 1 lb (0.5 kg)

051-013 Survey Meter, Model 14C
Includes: Internal Energy-Compensated GM Detector, External Pancake GM Probe, cable and mounted check source (Cs-137, .25 µCi)

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SURFACE SURVEY METER

Easy contamination monitoring of bench-tops, clothing, and hands

- *Monitors alpha, beta, and gamma*
- *Built-in pancake detector*
- *Range: 0 to 50,000 cpm, 0 to 15 mR/hr*
- *Three multiplier ranges: x1, x10, x100*
- *Built-in speaker*
- *Anti-saturation circuit prevents false "zero" readings*
- *One-handed operation*

This compact 3-range surface rate meter is equipped with an internal 2-inch diameter pancake GM detector and built-in speaker. The detector's thin window is recessed and protected by an aluminum grill. Its small size, light weight, and one-hand operation make this unit an ideal tool for surveying bench tops and other surfaces, and for checking hands and clothing for radioactive contamination. The meter face reads in both cpm and mR/h. Anti-saturation circuitry keeps meter needle at full scale in high radiation fields.

SPECIFICATIONS:
Meter Dial: 2.5" (6 cm) rectangular
Ranges: Three linear: 0-500; 0-5,000; 0-50,000 cpm (0-0.15; 0-1.5; 0-15 mR/h)
Switch Positions: Off, Battery Test, X100, X10, X1
Audio: Internal speaker
Detector: Halogen-quenched pancake GM tube
Diameter: 2" (5 cm)
Window Diameter: 1.75" (4.5 cm)
Window Thickness: 1.5 mg/cm^2
Background: Typical 50 cpm
Efficiency: 100% for all betas and alphas that have the energy to penetrate the thin window
Gamma Sensitivity: Nominal is 3000 cpm/mR/h (based on Cs 137)
Calibration: Single master calibration potentiometer, individual potentiometers for each range
Voltage: 900V nominal
Current Drain: 3 mA typical
Power: 9-volt battery (Eveready 1222 carbon, E146X mercury, or equivalent)
Battery Life: Typically 100 hours under normal operation
Feet: Neoprene feet for placement on surface without contaminating bottom surface of unit
Handle: Swivel type, polished anodized aluminum
Dimensions: 3" w x 5.25" l x 2.25" h (8 x 13 x 6 cm) excluding meter and handle
Weight: 22 oz (625 g)

069-310 Survey Meter, Surface

RANGER
SURVEY METER

Low-level radiation sensitivity in a compact hand-held unit

078-513 Meter with wipe test plate shown with optional 078-514 shield

078-510 meter only

Excellent sensitivity to low levels of alpha, beta, gamma and x-ray radiation

- ***Count range: 1 to 9,999,000 counts***
- ***Range: 0-350,000 cpm***
- ***Red LED count light***
- ***Audible beeper (can be switched off)***
- ***External calibration controls***
- ***Adjustable timer from 1 to 24 hours; default is 10 minutes***
- ***User selectable display for mR/hr or µSv/hr, CPM and CPS***
- ***Internal memory***
- ***Observer USB software download***
- ***Includes case***
- ***Wipe test plate positions wipe directly in front of detector at 1 cm distance; protects GM from damage/contamination when meter is not in use***

The Ranger is a microprocessor controlled radiation measuring instrument which offers excellent sensitivity to low levels of alpha, beta, gamma and x-rays. The digital readout is displayed with a red count light and audible beep, providing instant indications of the radiation level. Additional benefits include an adjustable timer and external calibration controls. Now with USB and the included Observer USB Software, you can download your data from the internal memory, set computer alarms and calibrate your instrument.

Shielded Holder

Maintain full function of the 078-513 Inspector Survey Meter while shielding it laterally to reduce the influence of background radiation. Constructed of steel with 0.5" thick lead lining built into left and right sides, the holder conveniently supports the Ranger while allowing full operation of the optional sliding wipe test plate -- without having to lift the meter. This accessory is especially suited for use in mobile units, or locations where the meter is frequently used for standardized procedures in a single location. The unit is supplied with strips of reclosable fastening material for affixing to countertops or other surfaces.

SPECIFICATIONS:

Detector: Halogen-quenched uncompensated GM tube with thin mica window, 1.4-2.0 mg/cm2 areal density.
Window: 1.77" (45 mm) effective diameter
Display: Backlit graphic LCD with backlight
Averaging Periods: Display will update every three seconds. At low background levels, the update is the moving average for the past 30-second time period. Time period for moving average decreases as radiation level increases.
Gamma Sensitivity: 3340 cpm/mR/hr (referenced to Cs-137); smallest detectable level for I-125 is .02 µCi at contact
Operating Range:
mR/hr - .001 (1µR) to 100; CPM - 0 to 350,000
µSv/hr - .01 to 1000; CPS - 0 to 5000
Energy Sensitivity: Detects Alpha down to 2 MeV. Detects Beta down to 0.16 MeV; typical detection efficiency at 1 MeV is approx. 25%. Detects Gamma down to 10 KeV through the end window.
Accuracy (Referenced to Cs-137): Typically ± 15% from factory.
Timer: One minute to 24 hours, default is 10 minutes
Count Light: Red LED flashes with each radiation event
Audio Indicator: Internally mounted beeper (can be switched off for silent operation)
Outputs: USB
Menu: Options accessed by holding down menu button. Pressing the menu button toggles you through functions. Select "+" or "–" to change setting.
Built-In Efficiencies: (S-35), (Sr/Y-90), (Cs-137), (P-32), (C-14), (I-131), (Co-60), and alpha
Power Requirements: Two AA alkaline batteries, included.
Dimensions: 2.7" w x 1.3" depth x 5.5" h (68 x 33 x 140 mm)
Weight: 8 oz (227 grams) without battery
Warranty: One year

078-514 Inspector Survey Meter Shield:
Dimensions: 10.3" l x 4.8" w x 1.5" h (26 x 12 x 4 cm)
Construction: Steel, with lead lining in left and right side walls
Lead Shielding: 0.5" thick (1.3 cm) laterally
Weight: 7.8 lb (3.5 kg)

078-510 Survey Meter, Ranger
Includes: Case, boot, stand, mini USB cable, Observer USB software download and certificate of compliance

078-513 Survey Meter, Ranger
Includes: Wipe test plate

Related:
078-514 Survey Meter Shield, Ranger
For 078-513

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MONITOR 4
SURVEY METER

Pocket-sized monitor with meter, LED count light, and beeper

- ***Monitors alpha, beta, gamma, and x-ray radiation***
- ***Dual-scale analog meter (CPM and mR/hr)***
- ***Operating range: 0-50 mR/hr, 0-50,000 cpm***
- ***Multiplier selections: x1, x10, x100***
- ***Audible beep indicates rising radiation level***
- ***Weighs less than 9 ounces (including battery)***

The Monitor 4 Survey Meter is lightweight, ergonomically designed and includes its own carrying case. Used to measure alpha, beta, gamma and x-ray radiation, it provides extremely accurate results with both audible and visual indication. The easy-to-read scale features three ranges for maximum sensitivity and runs up to 2,000 hours on a 9V battery.

SPECIFICATIONS:
Detector: Halogen-quenched uncompensated GM tube with thin mica window 1.5-2.0 mg/cm² thick
Energy Sensitivity: Detects alpha down to 2.5 MeV; typical detection efficiency at 3.6 MeV is greater than 80%
Detects beta at 50 keV with typical 35% efficiency
Detects beta at 150 keV with typical 75% efficiency
Detects gamma and x-rays down to 10 keV typical through the end window, 40 keV minimum through the case
Accuracy: ±15% of full scale (referenced to Cs-137)
Visual Indicators: .875" x 1.75" (2 x 4 cm) dual scale analog meter, marked 0-500 cpm and 0-0.5 mR/hr; LED count light
Audio Indicator: Internally mounted beeper
(can be switched off for silent operation)
Range Switch: x1, x10, x100, battery check
Ranges: 0-500, 0-5,000, 0-50,000 cpm and 0-0.5, 0-5, 0-50 mR/hr
Current Drain: Typically 190µA at background radiation levels
Operating Voltage Range: 7-11 Volts DC
Voltage Regulation: High and low voltage fully regulated
Power Requirement: One 9-volt alkaline battery,
NEDA #1604A, or equivalent
Battery Life: Up to 2,000 hours at normal background radiation levels
Temperature Range: -4°F to +131°F (-20°C to 55°C)
Dimensions: 8.25" x 2.75" x 1.87" (210 x 70 x 48 cm)
Weight: 9.7 oz (.28 kg) including battery, 7.2 oz (.21 kg) without battery

078-400 Survey Meter, Monitor 4
Includes: Protective case (battery not included)

DIRECT READING
DOSIMETERS

For personnel working in radiation areas, Direct Reading Dosimeters provide an accurate and instantaneous indication of accumulated exposure.

Accurate to 10% of True Dose for Cs-137 or Co-60 gamma. Less than 0.5% leakage of full scale in 24 hours at 50° C. Hermetically sealed.

Resembling fountain pens in size and appearance, they contain a quartz fiber electrometer and compound microscope.

The fiber is set at zero with a battery operated charger. As X- or gamma rays strike the charged Dosimeter, the fiber moves up scale in proportion to the radiation exposure.

019-201 Dosimeter, Direct Reading, 200 mR
019-500 Dosimeter, Direct Reading, 500 mR
019-010 Dosimeter, Direct Reading, 2 R

DOSIMETER CHARGER

The Dosimeter Charger is used to "zero" all Direct-Reading Dosimeters. It includes two "AA" batteries, sufficient for thousands of chargings.

020-001 Dosimeter Charger
Note: "AA" batteries included

Radiacwash™ has been used extensively in hospitals, universities, laboratories and reactor facilities since 1951. It is the first and most popular general purpose decontamination solution specifically created for the fast and safe removal of the entire spectrum of nuclidic radioactivity.

Radiacwash is a concentrated solution designed to rapidly control radioactive contamination and remove radioactive particles from surfaces by a two-way action. First, it will sequester metallic ions which contaminate surfaces. Second, it lifts up and firmly suspends the contaminating particles, allowing contamination to be rinsed away with hard, soft or salt water.

Radiacwash will remove general laboratory contaminants such as soil, grease, oil, blood, resides, resins, and tissue. It can be used safely on all surfaces, either straight or diluted, including skin, cloth, all metals, glass, floors, walls, leather, rubber, porcelain, plastic, laboratory instruments, utensils and equipment.

Radiacwash is a synergic liquid compound that optimally combines a number of different chemical and physical principles causing it to act as a surface-wetting sequestering agent, chelater, carrier, ion-exchanger, emulsifier, solvent, complexer, peptizer and detergent.

Radiacwash has a pH of 5, less than .008% Halides, contains no phosphates, chromates, silicates, enzymes, borates, aluminates, carbonates and inert fillers that can interfere with sensitive analytical procedures.

Radiacwash is non-alkaline, non-corrosive and biodegradable.

RADIACWASH™

This compound is formulated to decontaminate the widest possible range of contamination from radioisotopes and fission products, without affecting surfaces as acids and reagents do.

005-100 Radiacwash™, bottle, 1 gal
005-155 Radiacwash™, drum, 55 gal

SPRAY MIST

Radiacwash™ Spray Mist combines the power and economy of Radiacwash with the convenience of aerosols. Radiacwash Spray Mist is a Radiacwash solution packed into a special high pressure mist applicator. When the activator is depressed, over 200 lb of pressure is created at the nozzle. The pressure misting effect allows Radiacwash to penetrate around and under contaminants and lift them off the surface into solution to be wiped up and disposed.

005-400 Radiacwash™, Spray Mist, 1 L bottle

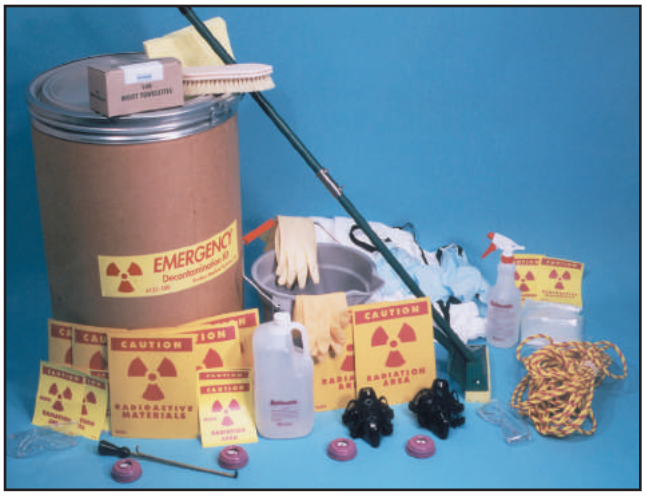
NEW DECONTAMINATING WIPES

- *Decontaminating wipes*
- *Pre-moistened with Radiacwash™ solution*
- *Ideal for hands and small objects*
- *75 wipes per canister*

Radiacwash™ Decontaminating Wipes are the most efficient and safest way to remove radiocontamination from hands and small objects. Simply dispense the Radiacwash pre-moistened wipes from the canister, scrub hands thoroughly and wash the contamination away with running water. Each wipe measures 7" x 8".

005-301 Radiacwash™, Wipes, 75/canister

DECONTAMINATION KIT



The essentials for decontamination

The Atomlab Decontamination Kit contains all the equipment needed to cope with a radioactive spill or routine decontamination problem in the laboratory. The drum serves as a container for the kit components and as a waste transfer/storage vessel.

Contents of Kit:

Quantity	Item
1	30 gallon fiber drum
2 pr	Coverall, Disposable
2 pr	Shoe Covers, Disposable
2	Respirators
4	Filters
2 pr	Gloves, Reusable
1 gal	Radiacwash
1 CSTR	Radiacwash Wipes
1 bottle	Radiacwash Spray Mist, 1 liter
10	Poly Bags
1	12" Niptong
1 ea	Sponge, mop, scrub brush, pail, rope, assorted signs

SPECIFICATIONS:
Drum Dimensions: 20" d x 29.5" h (50.8 x 74.9 cm)
Shipping Weight: 40 lb (18.5 kg)

121-180 Decontamination Kit

MINOR
EMERGENCY SPILL KIT

The Emergency Spill Kit is based on suggested contents described in NRC Regulations Guide 10.8, Revision 2: Medical Use Programs, Appendix J: Medical Spill Procedures. Designed to handle minor radioactive spills and routine contamination problems in the lab, it also includes the emergency procedures and forms to document the spill and decontamination clean up.

Contents of Kit:

Quantity	Item
6 pr	Gloves, Disposable
1 pr	Gloves, Anti-C/housekeeping
2	Lab Coats, Disposable
2	Head Covers, Disposable
2	Shoe Covers, Disposable
2	Mess Up Mitts
6	Plastic Trash Bags with Twist Ties
1 roll	Tape ("Caution Radioactive Material")
3	Pre-strung Tags ("Caution Radioactive Material")
1 pkg	Contamination Wipe Sample Supplies
1	Clipboard with "Emergency Procedures" instructions and forms

SPECIFICATIONS:
Shipping Weight: 6 lb (2.72 kg)

121-190 Emergency Spill Kit, Minor

COLLIMATOR PROTECTORS

Shown with Wall Dispenser, 114-017

Disposable plastic Collimator Protectors are designed to keep the face of the scintillation camera collimators from becoming contaminated by infectious fluids.

Protector sheets are backed with an adhesive for quick and easy application. After use, peel away the contaminated sheet and discard. Apply a new protector between each patient.

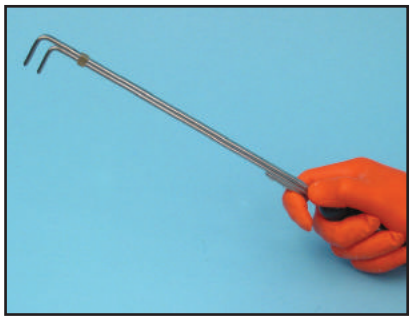
Protectors are packaged in perforated rolls. The optional dispenser is designed of heavy gauge polished stainless steel with an aluminum rod. Mount to any wall or door for easy access.

SPECIFICATIONS:
Dimensions: 17" x 17" (43 x 43 cm)
Weight: 9 lb (4 kg)

114-177 Collimator Protectors, 250/roll

Related:
114-017 Wall Dispenser, Collimator Protectors
Wall mounted

NIPTONGS



These low-cost tongs are used to handle small radioactive or otherwise dangerous objects up to 1" diameter. The tongs have a 45° v cut groove on each jaw. The compression spring maintains a strong grip on the object until the tension is released by squeezing the finger bar. Niptongs are made of chrome-plated, high carbon steel with hardwood handles and are easily disassembled for decontamination and cleaning.

011-012 Niptongs, 12" (30 cm)
011-036 Niptongs, 36" (91 cm)

ABSORBENT PAPER

Highly absorbent with plastic lining for fast, safe clean up

Protect any work surface with plastic lined Absorbent Paper. Spills and splashes are immediately contained without messy clean up. Available in pre-cut sheets or by the roll, Absorbent Paper is efficient for any work surface.

Together with the optional paper dispenser, the 300-foot Absorbent Paper Roll can be conveniently located to any wall or bench. It works like a common paper towel dispenser, yet is extra-strong to support the oversized 11 lb roll.

SPECIFICATIONS:
033-304 Absorbent Paper Rolls
Dimensions: 300' l x 20" w (91.5 m x 51 cm)
Shipping Weight: 26 lb (11.8 kg)

033-013 Absorbent Paper Sheets
Dimensions: 17" l x 13" w (43 x 33 cm)

033-304 Absorbent Paper, Rolls, 300 ft/roll, 2/pkg
033-013 Absorbent Paper, Sheets, 50/pkg

Related:
046-275 Dispenser, Absorbent Paper Roll
Wall mounted

WIPE TEST KITS

Wipe Test Kits may be used to perform wipe tests as indicated in NRC and Agreement State Regulations. They provide an efficient, convenient means of sampling contaminated areas with radioactivity on either wet or dry surfaces.

Each box of wipes includes 500 record folders which may be used to: (a) identify each sample wipe, (b) prevent cross-contamination of smears, (c) transfer the wipe to the counting facility, and (d) store the wipe until discarded.

Wipes are 1.75" dia cloth discs packaged in a box of five hundred.

006-350 Wipe Test Kits, 1.75" dia, 500/pkg

IMAGING CHAIR

Fully adjustable to accommodate all imaging procedures

Chair back and arms fold away from imaging area with the touch of a button

Armrests and seat back easily drop away from procedure area

For most imaging procedures, the patient lies on a table, which is then placed in the proper position. In some cases, the table restricts accessibility of the imaging equipment and patient comfort. The Imaging Chair puts the patient at ease, and provides alternative patient positioning for nuclear medicine procedures.

The Imaging Chair is fully adjustable. With the back support and armrests in place, it is a chair, which can swivel 360°. Once wheeled to the proper location, the chair can be anchored while the patient is seated by engaging the foot-operated wheel locks on the four casters. The height of the chair can be increased from 41" to 48" by stepping on the foot pump arm. Hold the arm down and the chair slowly lowers to its minimum height. If you raise the foot pump arm, it locks into that position, which restricts the swivel action of the chair. At the rear of the seat cushion is a locking handle which allows you to move the seat of the chair 4" to the left or right, while the base remains anchored. For lateral and posterior access, the back support and armrests drop out of the way with a simple tug of the corresponding pull pin.

The seat and back are upholstered with 2" foam and vinyl cover. The wide armrest allows the Imaging Chair to double as an injection chair.

SPECIFICATIONS:

Dimensions: 24" w x 41" h, (64 x 104 cm)
Seat Dimensions: 17" w x 11" deep (43 x 28 cm)
Height Adjustable: 19" h to 26" h (48 to 66 cm)
Backrest: 19" above seat top (48 cm)
Upholstery: 2" foam with gray vinyl cover
Finish: Black baked enamel
Wheels: Four locking swivel casters, 2" dia (5 cm)
Patient Capacity: 350 lb (159 kg)
Weight: 75 lb (34 kg)
Shipping Weight: 85 lb (38.5 kg)

214-610 Chair, Imaging

EASY MOVER

One person can transfer patient from table to table

SPECIFICATIONS:
Dimensions: 23" w x 73 l" x .19" thick (58 x 183 x .48 cm)
Shipping Weight: 16 lb (7.27 kg)

The Easy Mover is a high-density polyethylene patient transport board that offers high-impact strength, excellent abrasion resistance, tensile strength and resistance to stress cracks.

Semi-rigid and radiolucent, the Easy Mover allows the patient to remain on the board during imaging procedures. Often only one person is required to complete a move. Four strong straps, two on each side, are positioned for gripping and sliding the mover while the patient is on it. The straps are easily replaced for sanitation.

The Easy Mover is durable, lightweight and can be stored away when not in use.

056-352 Easy Mover

Replacement:
056-350 Straps, Handle, 4/set

ARM SUPPORT STRAP

- *Reduces patient fatigue*
- *Holds patients still during long procedures*

Patient fatigue can often result in procedure interruption. The Arm Support Strap is designed to reduce patient fatigue by immobilizing and supporting the arms at patient's side. This is especially important for procedures performed on narrow tables, like SPECT, CT or MRI.

The Arm Support Strap is a comfortable nylon with fastening straps that wrap around both the table and the patient. Its construction offers no attenuation to the image.

Wide enough to comfortably support the weight, the strap measures 12" wide and comes in an easy to clean royal blue.

SPECIFICATIONS:
Dimensions: 71" l x 12" w (180 x 30.4 cm)

056-786 Arm Support Strap

TABLE PAD

Virtually indestructible, the Table Pad is ideal for all patient handling applications. The Table Pad is a high density 1" polyurethane foam that ensures patient comfort by insulating from cold, hard table surfaces. The non-stick cover is made of "Gortex"-type material which resists liquid penetration for easy stain removal. The six double-stitched strap handles and the slick "Gortex"-type cover permit easy one-person patient handling on the x-ray table and also make transfers from bed to gurney to table easier on patients as well as personnel.

Nylon hook eyes are positioned for quick and easy hanging storage to keep the pad clean and out of the way when not in use.

SPECIFICATIONS:
Dimensions: 25" w x 81" l (63.5 x 205.7 cm)
Construction: 1" thick polyurethane foam

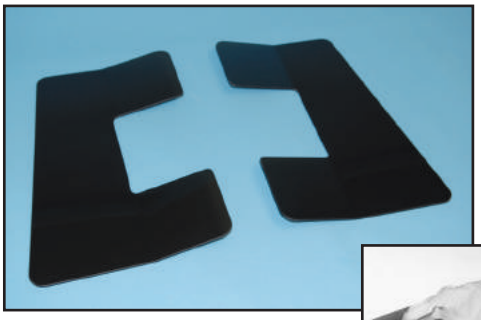
056-358 Mattress, Table Pad, 1" thick

ARM SUPPORT

Patient comfort is essential, especially during long nuclear, CT or PET procedures that can be costly if interrupted. The Arm Support is a proven design that provides anatomical comfort with correct arm and shoulder support. Accommodates single or dual head imaging systems.

056-791 Arm Support
For single and dual head imaging systems

SPECT ARM BOARDS



- *Enhanced patient comfort*
- *Stable arm support*

SPECT Arm Boards are designed to fit on all SPECT tables. They are positioned under the patient while lying on the table to effectively widen the surface. The patient's arms can then be held comfortably next to the body while imaging the head. The amount of overhang on the side of the table is adjusted by sliding the arm board further under the patient or pulling them further out for a wider surface.

The arm boards have been built with a convenient bend in them to aid in patient comfort and positioning.

SPECIFICATIONS:
Dimensions: 20" l x .25" thick (50.8 x .6 cm)
Width: Tapered 13.75" to 10.75" (34.9 to 27.3 cm)
Construction: Plexiglas
Weight: 4 lb (2 kg)

056-767 Arm Boards, SPECT, pair

POWDER-FREE
RADIATION ATTENUATING GLOVES

Reduced exposure, freedom of movement, natural latex free

Powder-Free Radiation Attenuating Gloves provide increased protection from direct x-ray beam and scattered radiation, and reduce harmful radiation exposure during any procedure requiring the use of fluoroscopy.

Just .007" thick, these gloves provide superior performance and dexterity over thicker, conventional radiation gloves. The reduced thickness allows for more flexibility and greater touch sensitivity while decreasing finger fatigue – all factors critical when working with delicate instruments. Applications include fluoroscopy, radioisotope handling, radiology and nuclear medicine.

Because these gloves are powder-free, lead-free and latex-free, they offer a reduced risk of natural rubber latex allergies and are an environmentally friendly alternative to leaded gloves.

Powder-Free Radiation Attenuating Gloves meet the following attenuation values:

58.7% attenuation at 60KVP HVL = 2.3 mm Al
49.9% attenuation at 80KVP HVL = 3.3 mm Al
44.6% attenuation at 100KVP HVL = 4.3 mm Al
40.6% attenuation at 120KVP HVL = 5.6 mm Al

All gloves are shipped sterile and ready to use in single pair packages.

208-065 Gloves, size 6-1/2, pr
208-070 Gloves, size 7, pr
208-075 Gloves, size 7-1/2, pr
208-080 Gloves, size 8, pr
208-085 Gloves, size 8-1/2, pr
208-090 Gloves, size 9, pr

HIGH HANDLE
FOOT STOOL

This lightweight, yet durable stool is the safe and easy way for patients to get on or off examination tables. Steel construction assures long life. Rubber caps on the legs and a non-slip surface further assure stability and patient safety.

Non-skid pad for patient safety

SPECIFICATIONS:
Shipping Weight: 12 lb (5.5 kg)
Patient Capacity: 250 lb (113.4 kg)

214-728 Foot Stool, High Handle

ADJUSTABLE HEIGHT
STOOLS

Preferential seating

This Adjustable Height Stool is made of a 1" diameter chrome plated steel. For versatility within the department, the stool features precision machined screw height adjustment from 19" to 27".

The cushioned 15" diameter seat is a plush 4" thick poly-foam for maximum comfort. The vinyl upholstery is extremely durable and easy to maintain. Beneath the seat is a protective ABS plastic shroud for asepsis.

The 4-legged stool sits atop a 19.5" diameter base with casters or rubber "tips" for added stability. Foot ring is standard.

SPECIFICATIONS:
Dimensions: 19.5" dia x 27" h (48 x 69 cm)
Height Adjustable: 19" to 27" (48 to 69 cm)
Seat Dimensions: 15" dia (38 cm)
Construction: Chrome plated steel
Weight: 18 lb (8.3 kg)

214-130 Stool, Adjustable Height with Casters
214-132 Stool, Adjustable Height with Rubber Tips

SOF-SKIN COAT
APRON

This comfortable, supple, protective apron is a pleasure to wear. The lead vinyl core is totally sealed in a tough, easy-to-clean, chemical, abrasion and aging resistant outer covering that is more pliable and lighter than standard lead rubber aprons.

The apron design differs from conventional aprons. There are no straps or buckles for support. Instead the apron is supported across the breadth of the shoulders, held snugly in any position the wearer assumes with the closures. The contour conforming principles assure the wearer of comfort and protection at all times.

SPECIFICATIONS:
Dimensions: 36" l x 24" w (91.4 x 61 cm)
Lead Equivalency: 0.5 mm
Color: Royal Blue (09)
Weight: 10 lb (4.6 kg)

103-701 Apron, Sof-Skin Coat

LEAD GLASS
GOGGLES

Comfortable protection

Designed to reduce radiation exposure to the eyes, these lead glass goggles are framed with soft, pliable vinyl and held on the head securely by an adjustable strap. Vents top and bottom of goggles to help prevent fogging. Eye shielding is provided by a 2" x 4.25" single sheet of fluoroscopic quality lead glass. The 4.2 density glass will effectively eliminate more than 95% of direct radiation produced by gamma rays. Glass provides 2.00 mm lead equivalency.

117-425 Goggles, Lead Glass

PRESSURE SENSITIVE
SHIPPING LABELS

030-001

030-002

030-003

- *Pressure Sensitive*
- *Peel-off backing*
- *Package of 20*

Comply with Federal Regulations, Title 49 - Transportation of Hazardous Materials Regulations, Dept. of Transportation, 49CFR, Part 173 as to wording, symbols, size and colors.

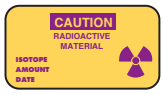
Labels, Shipping (Pressure Sensitive):

030-001 Label, Radioactive I, White, 20/pkg
030-002 Label, Radioactive II, Yellow, 20/pkg
030-003 Label, Radioactive III, Yellow, 20/pkg
4.25" w x 4.25" h (10.8 x 10.8 cm)

PRESSURE SENSITIVE
WARNING LABELS

028-002

026-015



026-014

Pre-cut labels are mounted on a paper backing. Simply peel off the pre-cut label and apply.

Labels, Warning (Pressure Sensitive):

028-002 Label, Caution, Radioactive Material, 20/pkg
5" w x 6" h (12.7 x 15.2 cm)
026-015 Label, Radioactive Material, 500/roll
3" w x 1" h (7.6 x 2.5 cm)
026-014 Label, Caution, Radioactive Material, 500/roll
2" w x 1" h (5 x 2.5 cm)

PERFORATED
WARNING TAPES

026-013

026-012

026-005

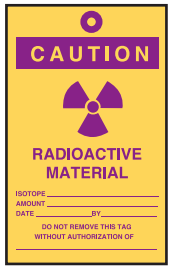
Pressure Sensitive adhesive plastic tapes stick to almost everything and are moisture resistant. All wording, symbols and colors conform to government regulations. Use ballpoint pen on tape labels for proper container identification. Continuous 180 ft. rolls.

Perforated Warning Tape:

026-013 Tape, Radioactive Material, 180 ft/roll
1" w x 3" l (2.5 x 8 cm)
026-012 Tape, Caution, Radioactive Materials, 180 ft/roll
1" w x 2" l (2.5 x 5 cm)
026-005 Tape, Caution, Radioactive Materials, 180 ft/roll
.5" w 1.38" l (1.3 x 3.5 cm)
Suitable for test tubes, bottle necks, etc.

PRE-STRUNG
TAG

Extra strength cardboard with reinforced string hole

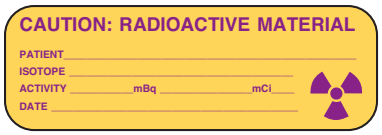


029-001

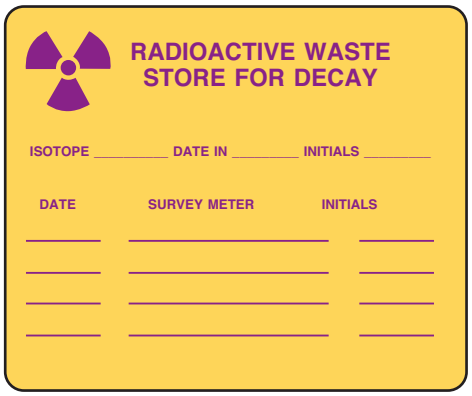
029-001 Tags, Container, 100/pkg
2.63" w x 5.25" h (7 x 13 cm)

RADIOACTIVE
WARNING LABELS

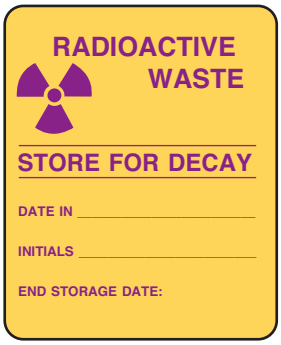
Protects staff and visitors



026-106



026-109 For documenting periodic checks of radioactive waste



026-108

Labels, Radioactive Warning:

026-106 Label, Caution, Radioactive Material, 320/roll
3" w x .875" h (7.6 x 2.2 cm)

026-109 Label, Radioactive Waste, 240/roll
4" w x 2.63" h (10.2 x 6.7 cm)

026-108 Label, Radioactive Waste, 320/roll
2" w x 3" h (5 x 7.6 cm)

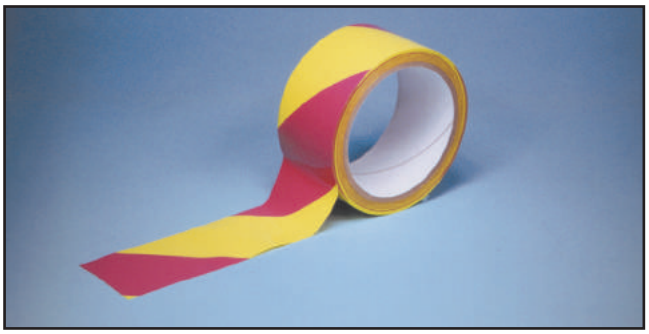
WARNING ROPE

- ***Brightly colored - magenta and yellow***
- ***Triple-strand strength***

Made of high quality polypropylene, this triple strand rope assures high visibility and remarkable strength.

121-073 Rope, Warning, 100'/pkg
.31" dia (.8 cm)
Conveniently packaged in 100' (31 meters) lengths

HAZARD TAPE



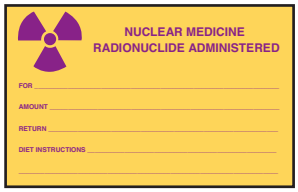
An inexpensive compliance with OSHA's code for nuclear hazard

Hazard Tape is a highly visible magenta and yellow warning tape that's perfect for identifying physical hazard areas and materials. Constructed of 6 mil. vinyl, the tape is durable to withstand long-term placement. The tape will easily affix to any clean, smooth, dry surface.

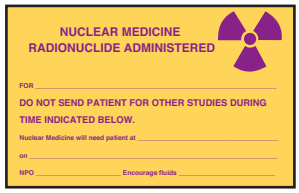
026-020 Tape, Hazard
2" w x 54' l (5 cm x 16.5 m)

NUCLEAR MEDICINE
LABELS

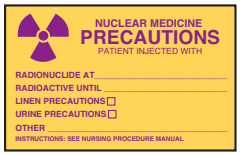
These labels are used for patients who have received gamma-emitting radionuclides. Printed in magenta ink on yellow background, labels are backed with a special adhesive for temporary adherence, without leaving a sticky residue. Copy recommended by National Council on Radiation Protection and Measurements.



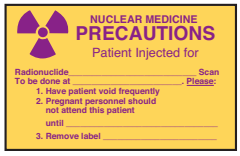
026-100



026-101



129-160



129-161

026-100 Label, Radionuclide Administered, 200/roll
4" w x 2.63" h (10.2 x 6.7 cm)

026-101 Label, Radionuclide Administered, 200/roll
4" w x 2.63" h (10.2 x 6.7 cm)

129-160 Label, Patient Injected With, 320/roll
3" w x 2" h (7.6 x 5 cm)

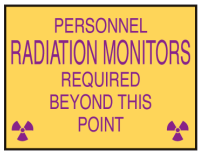
129-161 Label, Patient Injected For, 320/roll
3" w x 2" h (7.6 x 5 cm)

PLASTIC
CAUTION SIGNS

Convey the warning clearly

These signs are constructed of heavy-duty polyethylene with convenient holes for indoor or outdoor mounting.

024-914



024-957

024-948

024-999

024-900

024-923

024-910

024-911

024-916

Signs, Plastic Caution:

024-914 Sign, Caution, Radiation Area
14" w x 10" h (35.6 x 25.4 cm)

024-957 Sign, Radiation Monitors Required
14" w x 10" h (35.6 x 25.4 cm)

024-948 Sign, Caution, Radioactive Materials
14" w x 10" h (35.6 x 25.4 cm)

024-916 Sign, Caution, If you are Pregnant or Breastfeeding
14" w x 10" h (35.6 x 25.4 cm)

024-999 Sign, Caution, Radioactive Materials
7" w x 10" h (17.8 x 25.4 cm)

024-900 Sign, Caution, Radiation Area
7" w x 10" h (17.8 x 25.4 cm)

024-923 Sign, Caution, X-Ray Caution
7" w x 10" h (17.8 x 25.4 cm)

024-910 Sign, Caution, If you are Pregnant
14" w x 10" h (35.6 x 25.4 cm)

024-911 Sign, Precaucion, Si usted esta Encinta
Spanish version of 024-910
14" w x 10" h (35.6 x 25.4 cm)

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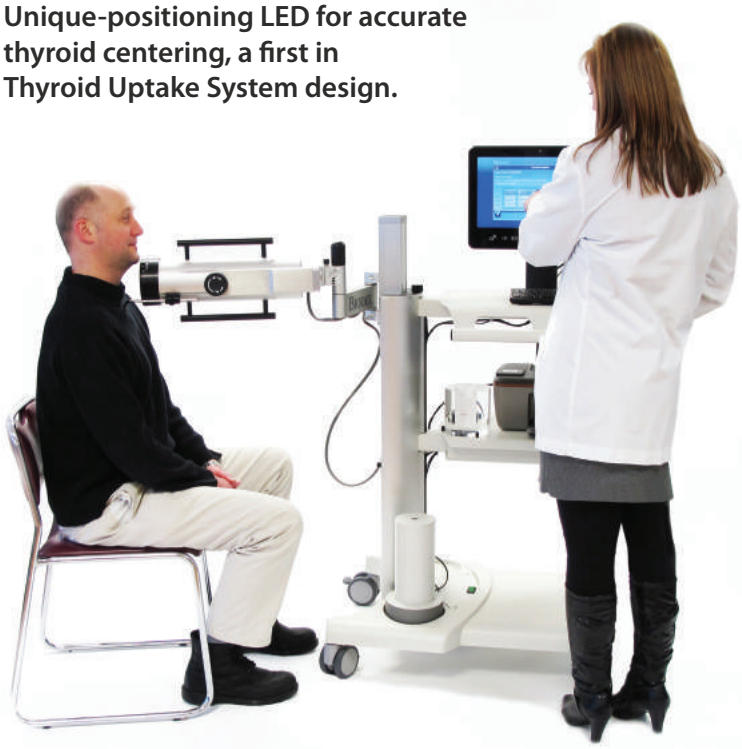

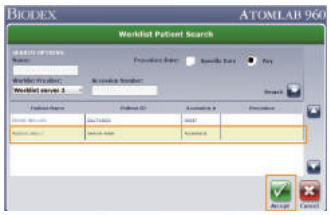

OPTIONAL
DICOM Interface

See pages 64-67 for details.

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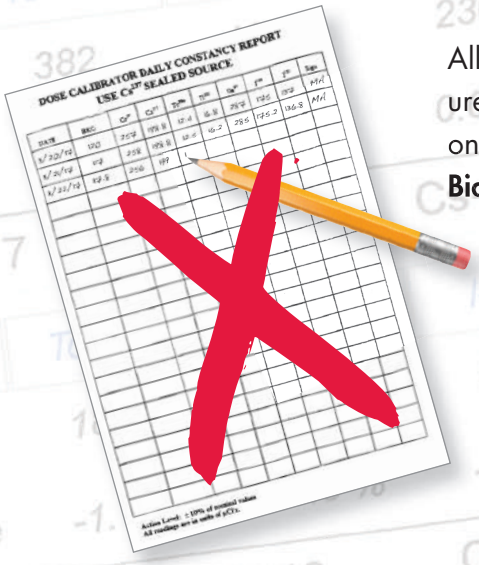

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