The unique design of the Lemer Vial Shield offers maximum visibility and ease-of-use, while giving the optimum isotope storage with minimum exposure to the pharmacist and/or technologist. The specially designed double-top system permits insertion of the needle through a shielded inner top, making unnecessary exposure to the operator obsolete.

Various models available to accommodate elutions from different types of $^{99m}$Tc generators.

**Specifications**
- 360° leaded glass protection
- Upper and lower stainless steel protection
- Double-top system utilizes friction type O-rings
- Includes Plastic adapters to accommodate vials from 10 to 30 ml (5 pieces)

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Height</th>
<th>$\varnothing$ Leaded glass</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-419</td>
<td>Low energy</td>
<td>4.33 in</td>
<td>51 mm</td>
<td>1 lb (0.45 kg)</td>
</tr>
<tr>
<td>56-420</td>
<td>Medium energy</td>
<td>4.33 in</td>
<td>61 mm</td>
<td>3.65 lb (1.66 kg)</td>
</tr>
<tr>
<td>56-421</td>
<td>High energy</td>
<td>4.33 in</td>
<td>80 mm</td>
<td>6.55 lb (3 kg)</td>
</tr>
</tbody>
</table>

**Stainless Steel Vial Shield**

Model 56-418

This stainless steel vial shield is ideally suited for nuclear medicine. It offers 0.25 inch of lead protection with an attached tungsten dovetail slide that allows the operator to access the vial.

The lead shielding material is encased in stainless steel. It features screw caps at the top and bottom for ease of use. It is as durable as tungsten but as affordable as lead.

The stainless steel and lead construction makes this vial shield virtually unbreakable.

**Specifications**
- **Shielding**: 0.25 inch lead; 0.19 inch tungsten dovetail
- **Exterior**: Stainless steel
- **Hardware**: Stainless steel
- **Color**: Brushed stainless
- **Height**: 3.44 in (8.74 cm)
- **Outside diameter**: 1.88 in (4.78 cm)
- **Inside diameter**: 1.09 in (2.77 cm)
- **Weight**: 2.55 lb (1.15 kg)
- **Available model(s)** 56-418 Stainless Steel Vial Shield

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.9300, 800.850.4608, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA.

Specifications are subject to change without notice.

© Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved. 56-419 ds rev 1 12 mar 03
The EluTer Elution Vial Shield for Bristol Myers Squibb TechneLite® Generator
Model 56-302

Solid tungsten vial shield designed to shield multi-curie elutions. The tough tungsten will retain its shape under the roughest handling and is virtually unbreakable. For use with the Bristol Myers Squibb TechneLite Generator. Magnetic cap keeps the lid on even when inverted.

Specifications
Weight 3.97 lb (1.8 kg)
Optional accessories
- EluTer Shield Ring (Model 52-712)
- EluTer Top (Model 52-714)
- EluTer Bottom (Model 52-715)

Available model(s)
56-302 The EluTer Elution Vial Shield for Bristol Myers Squibb TechneLite Generator

Hamilton Vial Heating Shield
Model 53-801

Made from Tungsten, this Vial Heating Shield holds vials the size of 2.65 cm in width. Fits within standard aluminum heat blocks. Easy button top and vial cut to lift vials with the use of forceps.

Specifications
Weight 1.1 lb (0.5 kg)
Available model(s)
53-801 Hamilton Vial Heating Shield

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.9300, 800.850.4608, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA.
Specifications are subject to change without notice.
TechneLite is a registered trademark of E.I. Du Pont de Nemours and Company.
© Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved.
56-302-ds rev 1 12 mar 03
**NeRD® Needle Recapping Device**  
**Model 67-605**

- Small size makes it easily transportable and it won’t clutter the work area
- Made of solid rubber with a highly visible color, it is easily cleaned and decontaminated
- Autoclavable

This innovative needle recapping device facilitates OSHA compliant one-handed needle recapping. The suction cup base provides stable positioning and it accepts most needle brands, sizes and gauges.

**Specifications**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Weight</th>
<th>Available model(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hole top 0.325 in Ø (0.825 cm)</td>
<td>0.11 lb (0.05 kg)</td>
<td>67-605 NeRD® Needle Recapping Device</td>
</tr>
<tr>
<td>Hole depth 0.865 in Ø (2.2 cm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Rubber</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


---

**SECURE® Bio Cap Dispenser**  
**Model 52-725**

You can never find the right Bio Cap when you need it. Now with the SECURE Bio Cap Dispenser it mounts on the wall right where you need it. It’s made of a durable plastic and can hold up to long and/or short Bio Caps in one unit. No more need to look around; they are right on the wall.

**Specifications**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Weight</th>
<th>Available Model(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 (w) x 19.75 (d) x 11 in (h) (17.8 x 50.2 x 28 cm)</td>
<td>2.9 lb (1.3 kg)</td>
<td>52-725 SECURE Bio Cap Dispenser</td>
</tr>
</tbody>
</table>

---

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.9300, 800.850.4608, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA.

Specifications are subject to change without notice.  
NeRD and SECURE are registered trademarks of Cardinal Health, Inc. or one of its subsidiaries.  
© Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved.

67-605-ds rev 1 12 mar 03
Needle Capping Block*
Model 67-601

It has been estimated that over one million needle stick injuries are reported each year, and each needle stick has the potential to be dangerously infectious. Healthcare workers who are responsible for accessing venous blood, have the highest potential for contracting a blood-borne infection. Nuclear medicine technologists are responsible for the injection of radiopharmaceuticals into the patient's vein. Therefore, they too, are within the high-risk category of healthcare workers.

Various products have addressed this problem but have come up short, especially in the field of nuclear medicine. An easy-to-follow practice would be simply not to recap a needle, but in nuclear medicine this is impossible. Recapping a needle is a necessary practice in this field due to the potential for radiation contamination from dripping. There is also the chance of a needle stick when removing the used syringe with an exposed needle from the syringe shield.

After much research and study of the available devices on the market, a new needle capping block was designed to solve these major problems. The all new Needle Capping Block became the optimal choice for use in both the nuclear medicine and nuclear pharmacy laboratories. It can also be used successfully in the ER and anywhere prevention of needle sticks is critical.

Features
- **Small circular size & shape** The small size and circular shape of the new Needle Capping Block allows it to fit into any area where injections may be given to a patient - even when space is limited. It's small enough to fit in a lab coat pocket
- **Sturdy design** The Needle Capping Block is constructed of a heavy plastic, which adds extra weight to the capping block, making it sturdier than any other needle capping block on the market
- **Non-slip feet** The Needle Capping Block is designed with nonslip feet on the bottom, making it steady on any type of surface
- **Two different sized holes** The larger hole is used to hold regular needle caps for safe recapping post-injection. It’s the first capping block of its kind to be equipped with a smaller hole for use in recapping butterfly needles
- **Shorter height of needle-cap holes** The shorter height of the needle cap hole allows for the hub of the needle cap to be exposed, thereby allowing a shielded syringe to be easily and securely recapped

Specifications
- **Weight** 0.25 lb (0.11 kg)
- **Available model(s)** 67-601 Needle Capping Block
- **Quantity discounts available**

For Nuclear Medicine and Nuclear Pharmaceutical Laboratories. The sensible solution to a major concern and growing problem—needle sticks

* Works well with heavy lead or tungsten shielding used in radiopharmaceutical injection

* Small size allows close placement to injection site to help avoid room contamination

**Operation**
**Easy as 1-2-3**
1. Just uncap the needle and place the cap in the proper opening—larger hole for regular needles and smaller hole for butterfly needles.
2. After the injection is given, push the needle securely into the needle cap in the block, making sure the free hand is always away from the exposed needle.
3. Dispose of syringe in a sharps container—no contamination to the work area with radioactive or biohazardous material.

It's just that easy to avoid a potentially dangerous accident that could put your life in jeopardy.

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.9300, 800.850.4608, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA. Specifications are subject to change without notice. Mayo Clinic is a registered trademark of Mayo Foundation. © Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved.

* Designed by Joseph C. Hung, PhD, BCNP Nuclear Medicine, Dept. of Diagnostic Radiology, Mayo Clinic®, Rochester, MN 55905. Manufactured under licensing agreement with Mayo Foundation for Education and Research.
Gamma-Vue® Vial Shields for 99mTc-Sulfur Colloid Preparation*
Models 56-236 to 56-237

- Permit heating and drawing of 99mTc-Sulfur colloid preparations (and similar solutions) without radiation exposure to technologists
- Allows a 99mTc-sulfur colloid solution to be continuously shielded before, during and after colloid preparation

The unit consists of a lead cylinder and a lead-glass panel which provides the user with optimum shielding. The shielding is sufficient to reduce the radiation level for 25 mCi of 99mTc to near background. In this model, several opening vents in the lead wall allow boiling water to circulate freely around the vial, heating the solution rapidly and uniformly. The vents are located so as to minimize radiation leakage.

A carrying handle makes it easy for the shield to be lowered into and removed from the boiling water bath.

Available model(s)

56-236 Gamma-Vue Vial Shield. Has 0.25 inch lead walls; accepts containers up to 3.125 inch high x 1.5 inch OD; measures 3.875 inch high x 2 inch OD; weight is 3 lb (1.4 kg); includes handle

56-237 Gamma-Vue Vial Shield. Has 0.19 inch lead walls; accepts containers up to 2.75 inch high x 1.25 inch OD; measures 3.625 inch high x 1.625 inch OD; weight is 1.5 lb (0.7 kg); includes handle

Piglet® Popper
Model 52-700-1240

- Stainless steel remote handling tool designed to remove and replace the snap-cap lid within the Piglet or Piglet2†
- Reduces your exposure by keeping fingers clear while opening container, but allows the dose to remain completely shielded

Weight 0.11 lb (0.05 kg)  
Available model(s)  
52-700-1240 Piglet Popper

Cardiolite® Booster Seat
Model 56-303

When placed inside the Vial Shield, this booster seat positions short Cardiolite vials in the proper position for easy dispensing.

Weight 0.08 lb (0.03 kg)  
Available model(s)  
56-303 Cardiolite Booster Seat

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.9300, 800.850.4606, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA. Specifications are subject to change without notice. Gamma-Vue and Piglet are registered trademarks of Cardinal Health, Inc. or one of its subsidiaries. Cardiolite is a registered trademark of Bristol-Myers Squibb Medical Imaging, Inc. © Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved.

56-236-ds    rev 1    12 mar 03

† US Patent 5,834,788.
All-Vue™ Vial Shield and Cylindrical Vial Shields
Models 56-230 to 56-234

Introduction
The All-Vue Vial Shield and Cylindrical Vial Shield ensure the greatest safety and convenience for personnel who must handle radionuclides in vials. Each consists of a lead container with a large lead-glass window for viewing the exact liquid level in the enclosed vial. An opening in the screw-on cover permits the insertion of a syringe for withdrawing the radionuclide.

Applications
Vial shields are ideal for use with isotope generators. The generator supplier’s container is placed directly in the vial shield and milked in normal fashion. Though shielded, the contents of vials are observable at all times. Vial shields are also widely used for storing activity received from radiotracer suppliers. By transferring the vials from the supplier’s opaque shield to a vial shield, the volume remaining in the original container can be seen at a glance.

Replacement lead glass windows

- **56-230-1000** All-Vue Vial Shield
  0.25 inch, Replacement Lead Glass

- **56-232-1000** Cylindrical Vial Shield
  0.25 inch, Replacement Lead Glass

- **56-234-1000** Cylindrical Vial Shield
  0.5 inch, Replacement Lead Glass

Available model(s)

- **56-230** All-Vue Vial Shield. Has 0.25 inch lead walls; accepts vials up to 3.13 inch high x 1.5 inch deep; measures 4 inch high x 2 inch OD; weight is 2.25 lb (1 kg)

- **56-232** Cylindrical Vial Shield. Has 0.25 inch lead walls; accepts vials up to 3.13 inch high x 1.5 inch deep; measures 4 inch high x 2 inch OD; weight is 2.5 lb (1.1 kg)

- **56-234** Cylindrical Vial Shield. Has 0.5 inch lead walls; accepts vials up to 2.25 inch high x 1.5 inch deep; measures 3 inch high x 3 inch OD; weight is 5.5 lb (2.5 kg)

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.9300, 800.850.4608, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA.

Specifications are subject to change without notice. All-Vue is a trademark of Cardinal Health, Inc. or one of its subsidiaries.

© Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved.

56-230-ds rev 1 12 mar 03
Iodine Dispensing System*
Model 52-710

The Iodine Dispensing System permits dispensing of radioiodine without having to hold the pig. The 2.5 cm thick solid tungsten container holds a 10 ml vial and safely shields up to Curie quantities of iodine $^{131}$I. With its tungsten "cork" magnetically held in place, it is designed to be held inverted in the dispensing station to permit safe compounding of iodine capsules or solutions. The stainless steel base provides shielding when standard lead bricks are in place. It’s fully adjustable armature permits positioning to any height or angle.

System components (Model 52-710*)
- Iodine Dispensing Pig* (Model 52-710-1090)
- Iodine Syringe Shield 0.5 and 1 cc* (Model 52-710-1100)
- Base, Armature, and Ring* (Model 52-710-1110)

Multi-Product Dispensing Carousel
Model 52-713

This rotating carousel is designed to hold 6 tungsten vial shields with magnetic lids, permitting the easy withdrawal of patient doses. Once the morning technologist has made all of the required kits, anyone can select the proper product for each patient scan by simply spinning the carousel. Stainless steel base accommodates standard lead bricks. The vertical stainless steel pole has multilevel height adjustments. Accepts Tungsten Vial Shield (Model 56-301) or Tungsten Vial Shield with Swivel Lid (Model 56-238), (vial shields are not included).

Available model(s)
- 52-713 Multi-Product Dispensing Carousel

Deluxe Tungsten Vial Shield
Model 56-423

This unit is completely made of tungsten. It is designed to house 5 cc, 10 cc, 20 cc, and most 30 cc vials. It is perfectly suited for the temporary storing of 511 keV PET isotopes. Note: Additional shielding may be desired when used with higher activity levels.

The plug top can be easily removed, exposing the septum of the vial, to withdraw from the shielded vial. The entire top can also be simply removed to replace the vial when a new one is needed. This shield has a Delron plastic bottom for ease of movement along counter tops.

Specifications
- Outside 3 in Ø x 3.7 in (h) (7.6 x 9.4 cm)
- Wall thickness 0.75 in (1.9 cm)
- Inside 1.5 in Ø x 2.9 in OD (3.8 x 7.4 cm)
- Bottom thickness 0.77 in (2 cm)

Opening in top 1.45 inch with taper to 0.86 inch
Weight 13 lb (6 kg)
Available model(s)
- 56-423 Deluxe Tungsten Vial Shield

For additional information, please contact Cardinal Health, Radiation Management Services customer service at 440.248.3300, 800.650.4666, or fax: 440.349.2307; located at 6045 Cochran Road, Cleveland, Ohio 44139-3303, USA.
Specifications are subject to change without notice.
© Copyright 2003 Cardinal Health, Inc. or one of its subsidiaries. All rights reserved.
52-710-ds rev 1 12 mar 03
Leaded Glass Vial Shield Dispensing Station
Model 56-422

The LemerPax stainless steel wall stand is designed to receive the three lead glass vial shields (56-419, 56-420, 56-421) in order to eliminate the need for the technologist to hold the vial in their hand. The lower tray can hold small material such as syringe shields. The dispensing station will rotate the vial shields around a fixed axis to keep the vials upside down for syringe drawing. The unit can be attached to the wall, inside a glove box or fume hood or simply put on the top of a bench.

Specifications
Dimensions 5 (w) x 5.5 (d) x 15.7 in (h)
12.7 x 14 x 40 cm
Weight 8.35 lb (3.8 kg)

Available model(s)
56-422 Leaded Glass Vial Shield Dispensing Station

PET Shipping Systems for Single Unit Doses or Vials
Model 54-720 & 54-745

These transportation systems are designed to transport Single Unit Dose Pigs (System U) or Vials containing up to 30 ml (System V) of PET radiopharmaceuticals. Each System allows transport as DOT Yellow II.

Specifications

Single Unit Dose System U

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Dose Pig</td>
<td>0.431 inch lead shielding, 8.3 lb (3.8 kg)</td>
</tr>
<tr>
<td>Unit Dose Pig dimensions</td>
<td>2.18 in Ø x 9.9 in</td>
</tr>
<tr>
<td>Unit Dose Pig Shipping Insert</td>
<td>0.437 inch lead shielding</td>
</tr>
<tr>
<td>Unit Dose Pig Shipping Insert dimensions</td>
<td>5.5 in Ø x 12.87 in, with locking top</td>
</tr>
<tr>
<td>Combined shielding for Shipping System U</td>
<td>0.8685 in</td>
</tr>
<tr>
<td>Weight</td>
<td>48.6 lb (22.4 kg)</td>
</tr>
</tbody>
</table>

PET Vial Shipping System V

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vial Pig</td>
<td>1.0 inch lead shielding, 19.9 lb (9.2 kg)</td>
</tr>
<tr>
<td>Vial Pig dimensions</td>
<td>6.07 in x 4 in Ø, with screw-secure top</td>
</tr>
<tr>
<td>Vial Pig Shipping Insert</td>
<td>0.55 inch lead shielding</td>
</tr>
<tr>
<td>Vial Pig Shipping Insert dimensions</td>
<td>15.5 in Ø x 12.87 in, with locking top</td>
</tr>
<tr>
<td>Combined shielding for Shipping System V</td>
<td>1.55 in</td>
</tr>
<tr>
<td>Weight</td>
<td>77.1 lb (35.5 kg)</td>
</tr>
</tbody>
</table>

Universal Shipping Container

| Overall dimensions | 13 x 13 x 19.5 in (33 x 33 x 49.5 cm) |
| Cubic feet         | 1.9 cu ft                                 |
| Components sold separately |
| PET 30 ml Vial Pig  | (Model 54-714)                             |
| Shipping Insert for 30 ml Vial Pig | (Model 54-747)                        |
| Shipping Insert for Unit Dose Pig | (Model 54-722)                         |
| Universal Shipping Container | (Model 54-744)                         |

Available model(s)
54-720 PET Shipping System U, includes Unit Dose Pig, Shipping Insert for Unit Dose Pig, and Universal Shipping Container
54-745 PET Shipping System V, includes PET 30 ml Vial Pig, Shipping Insert for 30 ml Vial Pig, and Universal Shipping Container

See also, Tungsten FDG Transport Container (Model 56-430) and FDG Transport Trolley (Model 56-431).