

# VIAL SHIELDS



The growing use of short half life isotopes in PET imaging has created new and more stringent requirements for timely and safe transport of radioisotopes from the production site to the point of end use. The need to provide dependable protection against the more penetrating 511 keV radiation has additionally dictated the use of thicker shielding than needed for many of the nuclear medical procedures of the past.

While lead has been the predominant shielding material and still enjoys widespread

use, many nuclear pharmacies and end users alike have opted for lead-free shielding materials in view of the recognized toxicity of lead. An attractive aspect of tungsten-based shielding is the freedom from materials accountability concerns related to the use of lead in returnable shipping containers.

In recognition of these needs within the nuclear medicine community, ATI Firth Sterling has developed a proprietary line of tungsten heavy alloy vial shields for PET isotopes that offer a number of benefits.



1297 County Line Road • Madison, Alabama 35756  
Phone: 800-221-4273 • Fax: 800-221-1895  
e-mail: [sales@firthsterling.com](mailto:sales@firthsterling.com)

[www.atifirthsterling.com](http://www.atifirthsterling.com)

2cc



10, 20,  
& 30cc

**T**ungsten heavy alloy is completely lead-free, being comprised of tungsten with minor amounts of nickel and iron. It offers a number of advantages as a radiation shielding material for clinical use:

- Good corrosion resistance under ambient conditions
- Low toxicity and completely lead-free
- Superior radiation attenuation compared to lead
- Damage resistant due to much higher mechanical properties than lead

ATI Firth Sterling vial shields are available in two sizes to accommodate the commonly used range of sizes of vials. The smaller size is specifically designed to

contain a 2 cc vial whereas the larger vial shield can accommodate 10, 20, and 30 cc vials through the use of an internal spacer. Both ATI Firth Sterling vial shields were designed with convenience and efficiency of use in mind. Instead of using a pull ring, the dose drawing cap is machined with an integral knob for easy and secure gripping with a gloved hand. Likewise, when vial insertion or removal is needed, the cover is machined with a series of rings for easy, ergonomic gripping.

When your facility requires vials shields that offer low toxicity, good attenuation at 511 keV, ease of handling, and superior durability, think of ATI Firth Sterling.



1297 County Line Road • Madison, Alabama 35756  
Phone: 800-221-4273 • Fax: 800-221-1895  
e-mail: [sales@firthsterling.com](mailto:sales@firthsterling.com)

[www.atifirthsterling.com](http://www.atifirthsterling.com)