



# Model L-823

## PET/SPECT Performance Phantom Source Tank

*Radiation Detection for a Safer World*



### Introduction

Part Number: 99-9419

The Ludlum PET/SPECT Performance Phantom is designed to measure resolution, linearity, and the uniformity of PET (Positron Emission Tomography) and SPECT (Single Photon Emission Computed Tomography) systems.

The Model L-823 source tank is the basic component of this phantom. When combined with the source tank, the Model L-824 Resolution Insert set, and the Model L-825 Cardiac Insert, the PET/SPECT performance phantom provides the user with a comprehensive test tool. The phantom can be filled with a  $^{99m}\text{Tc}$  or  $^{201}\text{Tl}$  and water solution to simulate cold and hot lesions and for measuring linearity and uniformity performance of the PET/SPECT system.

### Specifications

SOURCE TANK: 21.6 x 20.3 x 30.5 cm (8.5 x 8 x 12 in.) (OD x ID x L)

LINEARITY/UNIFORMITY: 19.1 x 5.1 cm (7.5 x 2 in.) (OD x ID); cross grid channels (waffle shape) are cut in a 3.8 cm (1.5 inch) square pattern

HOT LESION: 19.1 x 6.5 cm (7.5 x 2.5 in.) (OD x ID)

COLD LESION: 19.1 x 7.6 cm (7.5 x 3 in.) (OD x ID) plastic rods, each of the seven rods is 25% larger than the rod proceeding it

ROD DIAMETERS: 5.9 mm, 7.3 mm, 9.2 mm, 11.4 mm, 14.3 mm, 17.9 mm, and 22.4 mm

CARDIAC INSERT: 25.4 x 20.3 x 15.2 cm (10 x 8 x 6 in.) (H x W x L)

SOURCE TANK/INSERTS WEIGHT: 6.8 kg (15 lb)

MATERIAL: acrylic; sections are sealed with "O" rings for leak-proof assembly

Model	Description	Part Number
L-823	Source Tank	99-9419
L-824	Resolution Insert Set	99-9420
L-825	Cardiac Insert	99-9421