

# NEMA PET Scatter Phantom Set™

## NEMA PET Sensitivity Phantom™

### NEMA PET Scatter Phantom™

Model PET/NEMA-SCT/P

#### Main Features:

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

#### Main Applications:

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



*NEMA PET Scatter Phantom™*

#### Specifications:

Outside diameter: 203 cm  
Length: 70 cm  
Hole size: 6.4 mm  
Offset distance: 4.5 cm

#### Line source insert:

Length: 80 cm  
Inside diameter: 3.2 mm  
Outside diameter: 5 mm

### NEMA PET Sensitivity Phantom™

Model PET/NEMA-SEN/P

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

#### Specifications:

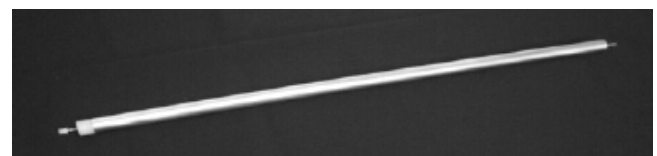
5 internally stacked aluminum tubes all 700 mm in length  
1<sup>st</sup> Tube inside diameter 3.9 mm, outside diameter 6.4 mm  
2<sup>nd</sup> Tube inside diameter 7.0 mm, outside diameter 9.5 mm  
3<sup>rd</sup> Tube inside diameter 10.2 mm, outside diameter 12.7 mm  
4<sup>th</sup> Tube inside diameter 13.4 mm, outside diameter 15.9 mm  
5<sup>th</sup> Tube inside diameter 16.6 mm, outside diameter 19.1 mm  
The innermost tube, a fillable polyethylene tubing has an inside diameter of 1 mm, outside diameter 3 mm



*Close up end of NEMA PET Sensitivity Phantom™*



*Set of aluminum tubes used in NEMA PET Sensitivity Phantom™*



*NEMA Sensitivity PET Phantom™*

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