

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:

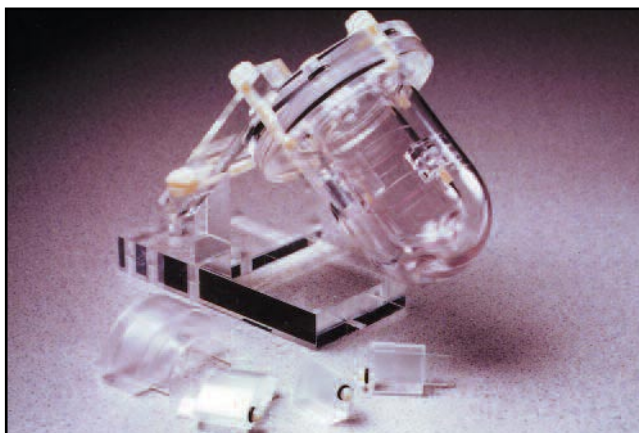
Useful Height of Line Sources: 2.76" (7 cm)
Diameter of Insert: 7.3" (18.6 cm)
Diameter of Line Sources: ~1 mm
Spacing of Line Sources: 2.95" (7.5 cm)
Shipping Weight: 3 lb (1.3 kg)

043-730 Phantom Insert, Triple Line

Related:

043-765 Phantom, SPECT, ACR
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, ACR
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

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