

# Elliptical Jaszczak Phantom™

## Elliptical Jaszczak Phantom™ Model ECT/ELP/P

### Main Features:

- Elliptical Jaszczak phantom with elliptical body shape

### Main Applications:

- For use with *high spatial resolution* SPECT and PET systems
- Evaluation of data acquisition using non-circular orbit
- System performance evaluation over larger field-of-view (collimator, artifacts, calibration reconstruction parameters)
- Study of the effects of regional variation in intrinsic system response using uniform portion of the elliptical cylinder
- Evaluation of the accuracy of body contour and attenuation compensation algorithms
- Study of spatial resolution variation within the field-of-view using portion of insert containing variable sized rods
- Evaluation of lesion detectability using portion of inserts containing multi-sized spheres
- Study of the effects of finite spatial resolution & Compton scatter on image quality
- Acceptance testing
- Routine quality, assurance and control
- Research

### Specifications:

Rod diameters: 6.4, 7.9, 9.5, 11.1, 12.7 and 19.1 mm

Height of rods: 8.8 cm

Solid sphere diameters: 12.7, 15.9, 19.1, 25.4, 31.8 and 38 mm

Height of center of spheres from base plate: 12.7 cm

Cylinder inside diameter along major axis: 30.5 cm

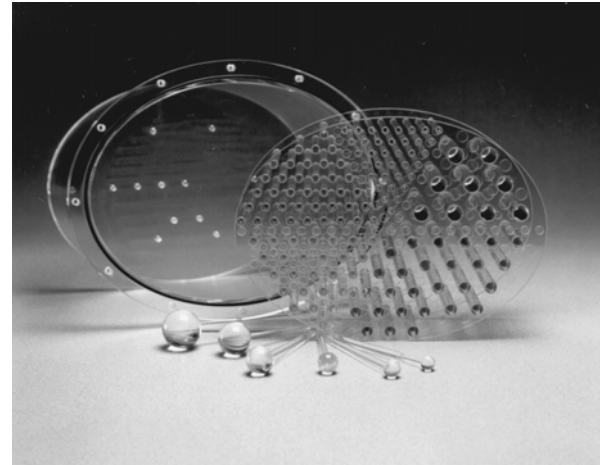
Cylinder inside diameter along minor axis: 22.1 cm

Cylinder inside height: 18.6 cm

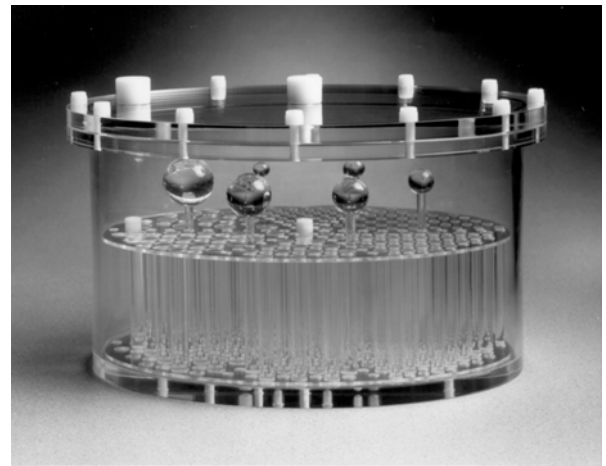
Cylinder wall thickness: 6.4 mm

Volume of empty cylinder: ~ 9.5 liter

Volume of cylinder with  
cold rod insert and cold spheres: ~ 8.3 liter

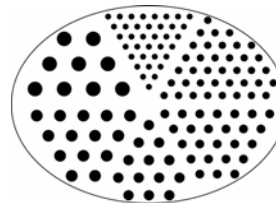


Components of Elliptical Jaszczak Phantom™

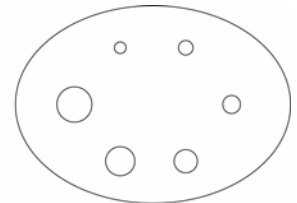


Elliptical Jaszczak Phantom™

### Cold Rods



### Cold Spheres



Elliptical