

Model L-901

NEMA SCA & I Fluoroscopic Phantom



Ludlum Measurements, Inc.

Introduction

The NEMA-SCA&I was developed to evaluate and standardize the interventional fluoroscopic image. The design is the result of a collaboration of efforts between the Society for Cardiac Angiography and Interventions and the National Electric Manufacturers Association. Use of the phantom provides voluntary compliance with published NEMA standard XR21.

The phantom is primarily manufactured from PMMA (acrylic) with X-ray absorption properties similar to soft tissue at standard diagnostic energies. There are a variety of static and dynamic test targets designed to assess spatial resolution, motion unsharpness, and radiation exposure.

The 12 PMMA plates provide a variety of phantom thicknesses, allowing simulation of child to adult configurations.



Part Number 99-9000

Model L-903

Fluoroscopic Phantom

Introduction

The Model L-903 Fluoroscopic Phantom provides a quick but comprehensive assessment of fluoroscopic contrast, detail, and resolution. The PMMA equivalent plates offer the necessary attenuation properties needed to simulate various patient thicknesses. The various contrast and detail test objects and high-contrast resolution mesh targets are ideal for routine image assessment. They help the medical physicist and associated QA personnel ensure that physicians are receiving accurate, high-quality images.

The overall phantom measures 25 x 25 x 20.7 cm (63.5 x 63.5 x 52.6 in.) (H x W x L). The phantom consists of three attenuation plates and one 8.9 cm x 6.1 cm test object plate (3.5 x 2.4 in.).



Part Number 99-9001

Specifications

High Contrast Mesh Lines/ Inch (9 Patterns)

- A – 80
- B – 12
- C – 16
- D – 20
- E – 24
- F – 30
- G – 40
- H – 50
- I – 60

Low Contrast Hole Depths (Hole Depths / Center Disk)

- 1 – 1.727 mm (0.068 in.)
- 2 – 1.245 mm (0.049 in.)
- 3 – 0.889 mm (0.035 in.)
- 4 – 0.635 mm (0.025 in.)
- 5 – 0.457 mm (0.018 in.)
- 6 – 0.318 mm (0.0126 in.)
- 7 – 0.231 mm (0.0091 in.)
- 8 – 0.16 mm (0.0063 in.)
- 9 – 0.102 mm (0.0040 in.)