

Model L-629-15 Rotating Spoke Test Tool



Ludlum Measurements, Inc.

Introduction

The Ludlum Model L-629-15 Rotating Spoke Test Tool is designed to evaluate the performance of the fluoroscopic imaging systems. The tool demonstrates screen image lag, motion blur, contrast, and related distortions encountered in fluoroscopic examinations. **

When combined with aluminum or acrylic block attenuators the rotating spoke test tool provides the user with a means to simulate the movement of guide wires and radiopaque catheters, seen in angiography or cardiac catheterization patient procedures.

The rotating spoke test pattern consists of a circular 14 cm (5.5 in.) diameter acrylic disk with steel 12 wires arranged on its surface in 30 degree intervals. The wire diameters range from 0.51 mm (0.02 in.) to 0.127 mm (0.005 in.). There are two wires of each size directly opposite each other on the disk. Lead numbers (1-6) appear on each half of the disk near the perimeter. The disk is mounted on a synchronous motor with a speed of 15 RPM to simulate movement of wires.

The visibility of smaller diameter wires 0.356 mm (0.014 in. or less) will confirm the system performance. [0.356 mm (0.014 in.) is a common guide wire size].

** As described in AAPM Rpt. 60



Part Number 99-9487

Specifications

POWER: 115 V/60 Hz

WIRE DIAMETERS: 0.005; 0.008; 0.010; 0.014; 0.016; and 0.022 inches

DISK SIZE: 14 x 0.6 cm (5.5 X 0.25 in.)
(Dia x Thickness)

Model L-760 Acrylic X-ray Phantom

Introduction

The modular Acrylic X-ray Phantom is made of a series of acrylic and aluminum plates that provide various attenuation characteristics. Varying the number of acrylic plates and/or spacers can create a simulation of a standard chest, abdomen, skull, or extremity.

The phantoms conform to AAPM recommendations noted in report # 31 (Standardized Methods for Measuring Diagnostic X-ray Exposure); and also those noted in Report #60 (Instrumentation Requirements for Diagnostic Radiological Physicists). The Phantom set is also useful for making exposure technique charts for commonly used projections, a long-standing requirement of the JCAHO (Joint Commission on Accreditation of Health Care Organizations). These phantoms are ideal for adjusting automatic exposure and automatic brightness controls on diagnostic and fluoroscopic systems.



Includes

Part Number 99-9413

The Modular Phantom contains the following components

- Five Acrylic Sheets: 25 cm x 25 cm x 2.54 cm thick
- One Acrylic Sheet: 25 cm x 25 cm x 5.08 cm thick
- One Aluminum Sheet: 25 cm x 25 cm x 1 mm thick
- One Aluminum Sheet: 25 cm x 25 cm x 2 mm thick
- One Aluminum Sheet: 7 cm x 25 cm x 4.5 mm thick
- Spacers for a 5.08 cm air gap