



## X-Check RAD X-ray Test Phantom

*Test object for constancy tests of  
general direct radiographic  
X-ray equipment*

### Features

- ▶ Suitable for constancy tests of general direct radiographic X-ray equipment
- ▶ Complies with IEC 61223-2-11\*
- ▶ Simulates the patient with respect to attenuation and hardening of the radiation beam
- ▶ Provides information related to the imaging geometry and quality by containing specific detailed test components
- ▶ Suitable for overcouch, undercouch and wallstand installations
- ▶ Can be used together with the dosimeters e.g. CONNY II or DIADOS

X-Check RAD is a test object for constancy tests of general direct radiographic X-ray equipment. It includes special structures and attenuation plates according to the IEC standard 61223-2-11\*. The test object consists of 2 structure plates, a 30 mm thick acrylic attenuation phantom, a 1.3 mm Cu plate and parts to assemble it as a measuring stand. Instead of the included acrylic phantom, a 25 mm Al absorber, which is available as an option, might be used. This absorber can be slid into the collimator rails.

The construction of the X-Check RAD makes it possible to check the field alignment, the perpendicular position, the resolution and the optical density in one shot. For the test of the perpendicular position, both structure plates are used, which include cross wires and a concentric ring each and are mounted in a distance related to the size of the cross wires. The field alignment is checked by X-ray absorbing markings. The X-Check RAD also features a cassette holder for a cassette 'Q' according to IEC 61223-2-11\*.

For the required entrance dose measurements the dosimeters CONNY II or DIADOS are recommended. Determination of dose in the image reception area is made either by a dose measurement in an optional cassette adaptor or by means of a densitometer. The delivery includes a case and a manual in English. The X-Check RAD is also available in a combined package RAD/FLU which includes an additional structure plate to cover both applications, direct X-ray radiography and fluoroscopic/indirect radiography.

### Specification

- ▶ Type of product X-ray test object according to IEC 61223-2-11\*
- ▶ Application Constancy tests of general direct radiographic X-ray equipment
- ▶ Structures
  - 10 mm grid (radiologically viewable)
  - Film marker test device
  - Test device for perpendicular position
  - Alignment test device
  - High resolution test pattern (L659099)
- ▶ Attenuation plates
  - 30 mm PMMA (acrylic)
  - 1.3 mm copper
- ▶ Dimensions (H x W x D)
  - Structure plate 1 8 mm x 300 mm x 300 mm  
0.31 in x 11.81 in x 11.81 in
  - Structure plate 2 5 mm x 300 mm x 300 mm  
0.20 in x 11.81 in x 11.81 in
  - PMMA phantom 30 mm x 300 mm x 300 mm  
1.18 in x 11.81 in x 11.81 in
  - Cu plate 1.3 mm x 300 mm x 300 mm  
0.05 in x 11.81 in x 11.81 in
- ▶ Height over all 220 mm; 8.66 in
- ▶ Weight 6 kg; 13.2 lbs approx.  
including attenuation phantoms

### Ordering Information

- L981320 X-Check RAD base package  
test object for constancy tests of general direct radiographic X-ray equipment
- L981321 X-Check RAD/FLU base package  
test object for constancy tests of radiographic and fluoroscopic X-ray equipment

### Options

- T10007 CONNY II Dosimeter, battery operated
- L981912 Absorber 25 mm Al for overcouch tubes with rail distance 177 mm
- L981913 Absorber 25 mm Al for overcouch tubes with rail distance 170 mm
- T20002 Cassette adaptor for DIADOS detector, dimensions as of an 18 cm x 24 cm film cassette
- L991069 DensiX densitometer, power supply required
- L653003 Magnifying Glass

\*IEC 61223-2-11: "Evaluation and routine testing in medical imaging departments: Constancy tests - Equipment for general direct radiography"