

# ISO

# Calibration Phantoms



*Standard test phantoms representing parts of human bodies with regard to back-scattering of incident radiation*

## Features

- ▶ Comply with the standard ISO 4037 part 3<sup>1</sup>
- ▶ Represent parts of human bodies with regard to back-scattering of the incident radiation
- ▶ Suitable for calibrations and type tests of personal dosimeters, because they measure the quantities  $H_p(0.07)$  and  $H_p(10)$

The ISO calibration phantoms comply with the standard ISO 4037 part 3<sup>1</sup> which describes standard test phantoms for calibration and type tests of personal dosimeters, that measure the dose quantities  $H_p(0.07)$  and  $H_p(10)$ . The phantom composition is acrylic material (PMMA). Three types representing parts of human bodies in regard to back-scattering of incident radiation are available:

- ▶ Slab phantom: The water slab phantom represents the human torso and consists of a 300 mm x 300 mm x 150 mm cube, which is filled with water. The front wall is 2.5 mm thick; all other walls are 10 mm thick.
- ▶ Pillar phantom: The water pillar phantom represents a lower arm or leg and consists of a circular cylinder with 73 mm diameter and 300 mm length, which is filled with water. The wall is 2.5 mm thick; the bottom and cover plates are each 10 mm thick.
- ▶ Rod phantom: The acrylic rod phantom represents a finger and consists of a circular acrylic cylinder with 19 mm diameter and 300 mm length.

<sup>1</sup> ISO 4037-3:1999 "X and gamma reference radiation for calibrating dosimeters and doserate meters and for determining their response as a function of photon energy -- Part 3: Calibration of area and personal dosimeters and the measurement of their response as a function of energy and angle of incidence"

## Ordering Information

- T41007 ISO water slab phantom, representing a torso
- T41011 ISO water pillar phantom, representing arm and leg
- T40009 ISO acrylic rod phantom, representing a finger