

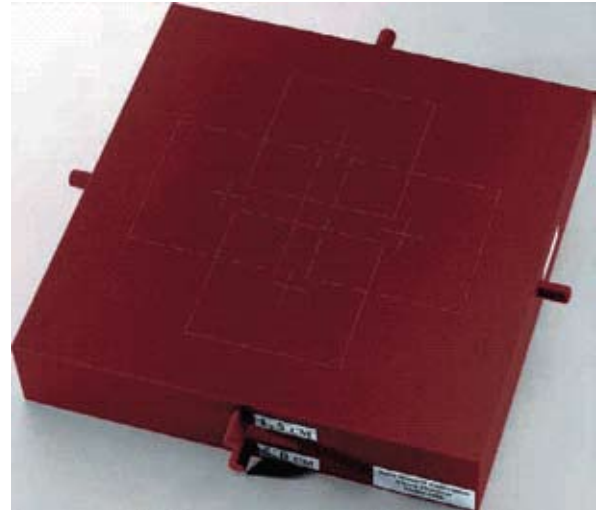
## Model 458 Solid Water® Check Phantom

The Model 458 Calibration Check Phantom is a quality control test tool constructed of Solid Water®, designed to be used for energy checks and calibration of megavoltage machines in a radiotherapy department. The epoxy resin-based Solid Water® material has attenuation characteristics equivalent to water for both electrons and photons.

The Solid Water® Calibration Check Phantom consists of a slab with six cavities and six matching positives made of Solid Water® material which serve to plug the cavities that are not being used. An additional positive is provided which is constructed to fit a cylindrical ionization chamber specified at the time of purchase of your Model 458 Calibration Check Phantom to serve as a chamber adapter.

The six cavities with Solid Water® plugs are located at depths of 1.2 cm, 1.5 cm, 2.0 cm, 2.5 cm, 3.2 cm and 5.0 cm, allowing measurements at dmax for photon beams. Each plug can be replaced with the Solid Water® chamber adapter and ionization chamber combination, allowing measurements at a specific depth while the other Solid Water® plugs remain inserted so that the phantom is a consistent slab of Solid Water®. When this is done, the reference point of the ionization chamber will be located under the appropriate center cross hair on the surface of the phantom slab. The 10 x 10 cm squares inscribed on the slab are used to set your light field.

All six Solid Water® cavity plugs may be used to make the Solid Water® Calibration Check Phantom a solid piece of material, and the conveniently selected 30 x 30 cm size allows this phantom to be used in place of a standard 6 cm thick slab within a calibration phantom assembly. To enable the use of a second ion chamber of a different design, only an additional chamber adaptor custom drilled to match the chamber dimensions needs to be purchased.



### Features:

- ▶ Photons and electrons measurements at 1.2, 1.5, 2.0, 2.5, 3.2 and 5.0 cm depths
- ▶ Supplied with a custom adapter to accommodate most ion chambers
- ▶ Versatile – may be utilized as part of your Solid Water® calibration phantom

### Specifications

#### PHANTOM

Material: .....	Solid Water®, 457 type
Cavities: .....	16.5 mm dia. cavities, located at; 1.5 and 5 cm depth in one side, 1.2 and 3 cm depth in opposite sides, 2 cm depth in the third side, 2.5 cm depth in the remaining side
Dimensions: .....	30 x 30 x 6 cm (11.8 x 11.8 x 2.4 in)
Weight: .....	5.65 kg (12.4 lbs)

#### PLUGS AND CHAMBER ADAPTER

Material: .....	Solid Water®, 457 type
Plugs: .....	16.5 mm dia. 127 mm long, (0.65 in x 5 in)
Chamber adapter: .....	16.5 mm dia. 127 mm long, drilled to fit chamber type, specified at the time of purchase

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