

## 3D Waterphantom System for Relative Dosimetry

# RTD

## Realtime Dosimetry



*RTD waterphantoms are available in five standard sizes. The 9060 Extra-Large Waterphantom System shown features the 9860 XL waterphantom, the largest waterphantom on the market.*

### Unsurpassed Resolution

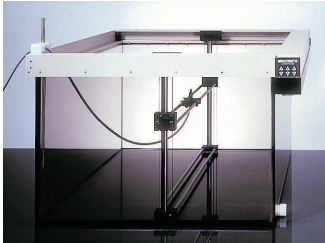
A Multidata 3D Waterphantom System delivers the highest standard in measurement precision with exceptional user convenience. The ideal tool for the medical physics professional.

- Fast setup with simple cable connection via USB
- Five standard waterphantom sizes available, full range of system expansions
- Re-usable acquisition plans (templates)
- Scan sequencing worklists & setup “wizards”
- Advanced data management tools
- Editing of scans, scan points
- Re-normalization and dataset re-sampling
- Drag-and-drop scan data management
- Export and import of scan datasets via MS Excel
- Dicom RT dataset import & export options
- Datalinks for data format and transfer to TPS

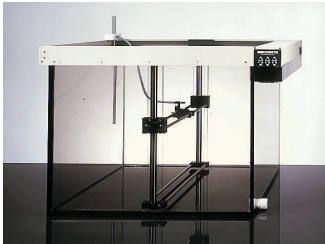
Simply Smarter

# RTD

## Waterphantom System Configurations Overview



9860-XL Extra Large Waterphantom



Universal 9850 Waterphantom



9855 Dual Channel Electrometer



9732-2 Ion Chambers, pair

## RTD WATERPHANTOM SYSTEM CONFIGURATIONS

Every RTD waterphantom system is Windows and PC-based and delivered with the RTD Beam Scanning and Data Management software package, installed either on a desktop or portable PC. Various transport and storage carts are available to accommodate the different tank sizes offered. All waterphantoms operate with the 9855 electrometer. All systems are delivered with two 9732-2 ion chambers and the standard cable and connector kit, custom lengths and connectors are available. A wide range of additional chambers and diodes is supported.

### 9860-XL/9850/9850-L/9840/9840-L SPECIFICATIONS

**Sampling Resolution** mechanical 0.1 mm increments, electronic 0.05 mm  
**Scanning Speed** 5 cm/sec slew rate maximum in each axis

9860-XL (Internal)	Tank Dimensions	Scanning Dimensions
Width (X-Axis)	75.0 cm	63.0 cm
Length (Y-Axis)	70.5 cm	62.5 cm
Height (Z-Axis)	49.5 cm	41.5 cm (Diagonal Scan 89.0 cm)

9850/9850-L (Long axis)	Tank Dimensions (Internal)	Scanning Dimensions (Internal)
Width (X-Axis)	(9850) / (9850-L) 60.0 cm / 75.0 cm	(9850) / (9850-L) 48.0 cm / 63.0 cm
Length (Y-Axis)	55.0 cm	48.0 cm
Height (Z-Axis)	49.5 cm	41.5 cm (Diagonal Scan 67.0 cm)

9840/9840-L (Long-axis)	Tank Dimensions (Internal)	Scanning Dimensions (Internal)
Width (X-Axis)	(9840) / (9840-L) 60.5 cm / 75.0 cm	(9840) / (9840-L) 48.0 cm / 63.0 cm
Length (Y-Axis)	41.0 cm	33.5 cm
Height (Z-Axis)	44.5 cm	35.5 cm (Diagonal Scan 47.0 cm)

Custom sizes also available.

### 9855 ELECTROMETER SPECIFICATIONS

- Single, wide dynamic range allows a complete set of scans to be acquired without adjustments, capturing the relationships between scans without post-processing.
- Compatible with a wide range of ion chambers, including pinpoint chambers and solid state (diode) detectors.
- Features two identical channels with very fast response and minimal signal phase shift, time-dependent signal conditioning.
- 300V, 150V or 0V (diode) modes, plus or minus polarity.
- Single USB cable between electrometer and computer.
- Reference class electrometer for relative dosimetry and absolute dosimetry (software option required).

### 9732-2 ION CHAMBER SPECIFICATIONS

Vented, rigid stem thimble chamber, 140cm cable length, triax-BNC connector

**Volume:** 0.125 cm<sup>3</sup>

**Sensitivity:** 4 x 10<sup>-9</sup> (Amp/Gray) x Sec.

**Polarizing Voltage:** Maximum 500 Volts

**Max. Dose at 99% & 300 V:** 9.1 Gy/Sec.

**Max. Dose Pulsed at 99.5% & 300 V:** 0.3 mGy

**Wall Thickness:** 0.75 mm

**Wall Material:** C<sub>5</sub>H<sub>8</sub>O<sub>2</sub> (Acrylic)

**Range of Temperature:** +10° to + 40°C

**Relative Air Humidity:** < 75%

Additional chambers, diodes, and build-up materials available