AUTOMATE ABSORBED DOSE TO WATER MEASUREMENTS

Automatically acquire depth-dose measurements in a durable, TG-51 and TRS-398 compliant 1D water scanning system.
**More Accurate Scans, In Less Time**

**Design Ensures 0.05 mm Accuracy and Repeatable Scans**
- 0.05 mm precision over the entire arm travel distance.
- Engraved vertical lines expedite phantom alignment with room lasers.
- Two fill lines accommodate 20 cm and 25 cm depth measurements.

**Easily Adapts to Fit Range of Detectors**
- The water equivalent ion chamber bracket fits most thimble ion chambers and rigid stem parallel plate chambers.
- Alignment lines help quickly place the centroid of a detector at isocenter.
- Optional brackets available for vertically-oriented and stemless detectors.

**Remote Operation with Handheld Controller**
- Establish origin position and automatically return to origin with the press of a button.
- Three movement modes; fast, slow and step (0.01 mm to 100 mm).
- Easily toggle between cm/mm.
- Controller recalls the saved position for operation outside the vault.

1D Water Scanning System features precise chamber positioning and fast, easy alignment and operation.
Automatic 1D Scanning Routines with DoseView 1D Software

Fully Automate Depth Dose Data Collection With Doseview 1D and the Supermax or Max 4000 Electrometers

- Customize step sizes.
- Automatically accounts for water settling.
- Multiple measurements at each probe position.
- Percent Depth-Dose data plotted in real-time.
- Quickly export data to a spreadsheet (.csv).
- Optional Chart displays: View rate or chart measurements plotted against depth (Table View) or time (Real-time View).
- Averaging mode: Automatic averaging of sequential readings.
- Streaming rate mode: Record unfiltered 10 hz rate readings for immediate measurement feedback.

Remote Operation of Scanning Arm

- View detector depth in real-time.
- Set/move to origin.
- Move to specific depth.
- Step probe by customizable distance.

Operate Electrometers (SuperMAX/MAX 4000) via Software

- View rate/charge measurement data in real-time.
- Set range and bias voltage.
- Perform charge collection using all modes. (timed + repeating, continuous, triggered)
- Automatic recording of data.

The unique handheld controller with internal memory stores chamber depth when moved outside of the treatment room.
Additional Accessories

EXRADIN Ion Chambers
- Inherently waterproof
- Fully guarded for uniform field line measurements
- Constructed of rugged, homogeneous, conductive plastic for years of durability
- Manufactured from Shonka air equivalent and tissue equivalent plastics
- 5 year warranty

SuperMAX Electrometer
- Two independent measurement channels for ratio-based acquisition
- Easy-to-use touch-screen interface
- Comprehensive chamber library
- 5 year warranty

1 mm Lead Foil
- Absorb electrons according to TG-51 procedures
- Easily slide inside wedge tray or tape to collimator
- 20 cm x 20 cm x 1 mm
- Protective coating provides rigid strength to lead

DOSEVIEW 1D SPECIFICATIONS

DIMENSIONS

<table>
<thead>
<tr>
<th>Component</th>
<th>Height</th>
<th>Width</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1D SCANNING ARM</td>
<td>48.26 cm (19.0 in)</td>
<td>6.77 cm (2.67 in)</td>
<td>9.44 cm (3.72 in)</td>
</tr>
<tr>
<td>WATER TANK REF 91800</td>
<td>36 cm (14.17 in)</td>
<td>30 cm (11.81 in)</td>
<td>34 cm (13.39 in)</td>
</tr>
<tr>
<td>WATER TANK REF 91810</td>
<td>36 cm (14.17 in)</td>
<td>40 cm (15.75 in)</td>
<td>42 cm (16.54 in)</td>
</tr>
</tbody>
</table>

WATER TANK MATERIAL: Clear acrylic 0.95 cm (0.375 in)

WEIGHT

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1D SCANNING ARM</td>
<td>1.36 kg (3 lbs)</td>
</tr>
<tr>
<td>HANDHELD CONTROLLER</td>
<td>0.23 kg (0.5 lbs)</td>
</tr>
<tr>
<td>WATER TANK (ref 91800, empty)</td>
<td>6.35 kg (14 lbs)</td>
</tr>
<tr>
<td>WATER TANK (ref 91810, empty)</td>
<td>10.43 kg (23 lbs)</td>
</tr>
</tbody>
</table>

MAX SCANNING ARM TRAVEL: 27.5 cm (10.8 in)

IONIZATION CHAMBER HOLDER DIAMETER ACCOMMODATION
Max: 20 mm (0.79 in) Min: 6 mm (0.24 in)

BACKSCATTER CLEARANCE AT 25 CM DEPTH
~ 8 cm (3.1 in) including phantom base

ACCURACY OF POSITION: ± 0.05 mm (0.002 in) over entire 275.00 mm

REPEATABILITY OF POSITION: ± 0.05 mm (0.002 in) over entire 275.00 mm

OPERATING CONDITIONS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESSURE</td>
<td>680 – 800 mm Hg</td>
</tr>
<tr>
<td>TEMPERATURE</td>
<td>10 – 40 °C</td>
</tr>
<tr>
<td>RELATIVE HUMIDITY</td>
<td>30 to 75%, non-condensing</td>
</tr>
</tbody>
</table>

STORAGE CONDITIONS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMPERATURE</td>
<td>-40 to 70 °C</td>
</tr>
<tr>
<td>RELATIVE HUMIDITY</td>
<td>0 to 95%, non-condensing</td>
</tr>
</tbody>
</table>

CABLING: 100 ft extension cable provided (standard RS-232 configuration)

POWER REQUIREMENTS

| Standard                   | AC OUTPUT 12 VDC @ 1.25 A |

OPTIONAL DETECTOR BRACKETS

- PTW Markus® (ref 70850)
- PTW Roos® (ref 70852)
- Vertical Diode Holder (ref 70851)

SOFTWARE REQUIREMENTS

Operating System: Windows Vista®, Windows® 7

Connectivity: 9-pin, RS-232 serial port or USB port with USB to RS-232 adapter

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