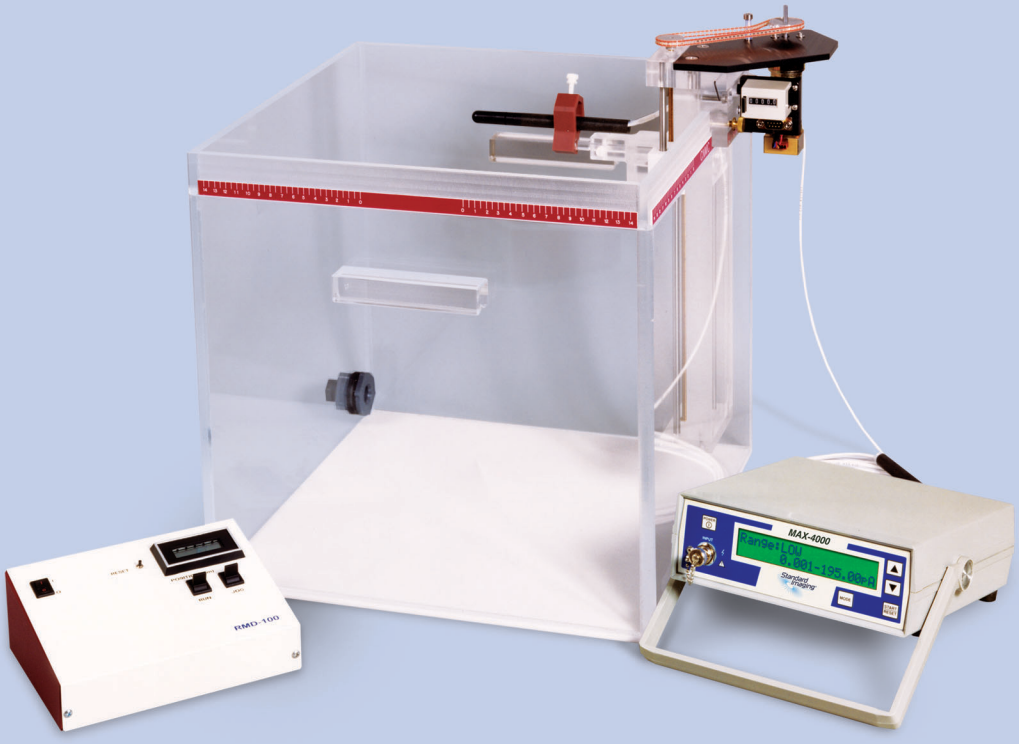
Complete Water Calibration Systems

TG51/TRS398

High Energy Photon and Electron Beam Dosimetry

- A variety of water phantoms suited to TG51 and TRS398 measurements
- Exradin® line of ion chambers – 25 years of uncompromising quality, scientific integrity and dependability
- The MAX 4000 electrometer – a superior instrument for accurate measurements in a variety of radiation therapy applications
- Expertly trained representatives who make sure that you receive a water phantom configuration that fits your individual requirements



Model WP 3040 water phantom with RMD-100 remote motor drive, Exradin® A12 ion chamber and MAX 4000 electrometer

Radiation Calibration and QA Instruments

COMPLETE SOLUTIONS PROVIDED *for health care*

Standard Imaging®

Distributed by SeeDOS Ltd
Please contact
cwalters@seedos.com

TG51/TRS398

Model WP 3040 Water Phantom with Remote Motor Drive

- 30 cm x 40 cm x 30 cm (other sizes available)
- Convenient drain valve
- 25 cm depth positioning assembly
- Sturdy acrylic handles, portable and easy to use
- Control detector depth of your water tank from outside the room saving you time and effort
- Six digit Digital Readout and Zero Re-Set buttons
- 0.1 mm positioning accuracy also allows continuous run and intermittent run to establish reference position
- Easy installation

ARM 1-D Calibration Phantom, Model 1000

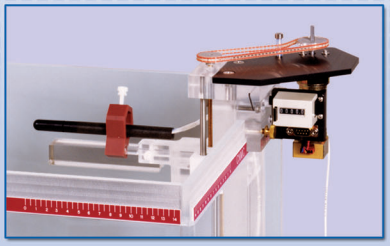
- 30 cm x 30 cm x 30 cm (other sizes available)
- Controlled by a single digital pendant
- Embedded electronics and firmware inside the actuator
- Rugged stainless steel rail ensures years of reliable, trouble free use
- No electronic boxes
- Accurate to 1/20 of a mm

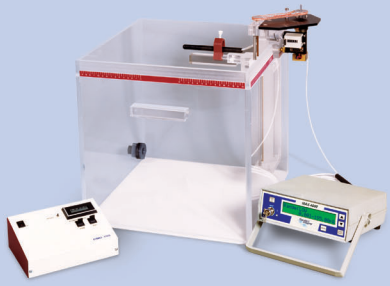
Standard Imaging®

Distributed by SeeDOS Ltd
Please contact
cwalters@seedos.com
www.seedos.com

STANDARD IMAGING PROVIDES A VARIETY OF WATER PHANTOMS WHICH ARE SUITED FOR TG51 AND TRS398 MEASUREMENTS. CONSULT A STANDARD IMAGING SALES REPRESENTATIVE FOR A WATER PHANTOM CONFIGURATION BASED ON YOUR INDIVIDUAL REQUIREMENTS.

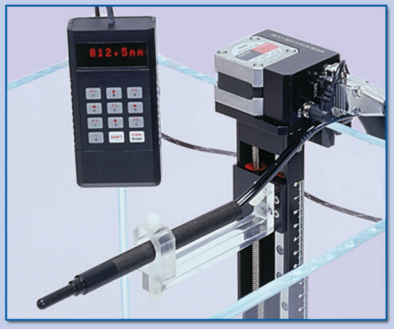
Model WP 3040 Water Phantom

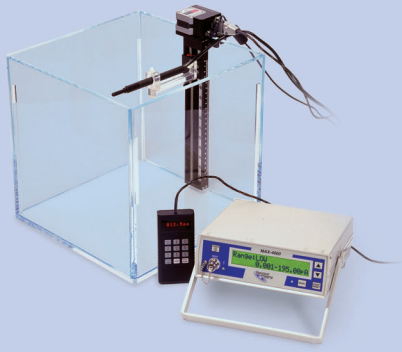




- The model WP-3040 is a water phantom with a convenient manual ion chamber depth positioning assembly.
- The depth positioning assembly is unique in construction and operation. The ion chamber holder consists of Teflon® block slides on two stainless steel rods and is driven by a brass lead screw. One turn of the crank quickly and accurately moves the chamber holder block 1 mm.
- A mechanical counter with push-button reset capability indicates depth to the nearest 0.1 mm.
- The horizontal off-center positioning is achieved by sliding the depth positioning assembly along the edge of the water tank to the desired position, as indicated on the horizontal scale mounted on the side of the tank.
- WIth the model RMD-100-5 Remote Motor Drive, it is now possible to upgrade the manual crank mechanism of the WP-3040 depth positioning assembly to allow ion chamber positioning from outside the treatment room, adding convenience and significant time savings to your monthly routine.

ARM 1-D Calibration Phantom, Model 1000





- Complies with the requirements of TG51
- Simplicity – only one digital pendant and small power supply controls pre-programmed motions inside or outside of the room
- A single serial cable links the actuator with either the pendant or a PC
- Programmable remote with stepping function from 1/10 mm to over 200 mm.
- Reinforced acrylic and stainless steel construction for years of reliable trouble free use.
- Direct coupling of the motor to a high precision lead screw
- Total system weight including positioning assembly is only 15 pounds

EXRADIN®
IONIZATION CHAMBERS

25 YEARS OF UNCOMPROMISING QUALITY, SCIENTIFIC INTEGRITY AND DEPENDABILITY

A12 Farmer-type Chamber, 0.65 cc

- Improved geometry with better uniform field characteristics
- Characterized for TC51 and TRS 398 applications
- Rugged and reliable – survives the One Meter Drop Test[1]

1. Tello, Lawyer, Chu, BenComo and Watson; AAPM Mtg: 1996

Model 1 Miniature Shonka Ion Chamber, 0.056 cc
Model 2 Spokas Thimble Chamber, 0.5 cc

- Axially symmetric design, homogeneous construction and complete guarding for uniform field lines
- Small volumes allow for excellent spatial resolution and exact characterization of a small area of the beam in depth-dose measurements
- May also be used in high energy photon and electron beam calibration
- Characterized for TRS 398

Model 11 Parallel Plate Ion Chamber, 0.62 cc

- Meets TC51 and TRS398 requirements for a parallel plate chamber for energies below 6 MeV
- Exceptionally wide 4.14 mm guard rings
- No perturbation of field lines ensures precision of depth dose measurements
- Larger volume is ideally suited for routine electron field measurements in a water phantom
- Characterized for TC51 and TRS398 applications

Model A10 Markus™ Type Parallel Plate Chamber, 0.05 cc

- Small volume provides excellent spatial resolution
- Ideally suited for small electron fields in a water phantom
- Capable of measuring the zero depth in the build up region of an electron field
- Requires a waterproof cap

MAX 4000 Electrometer

- The MAX 4000 electrometer is a superior instrument for accurate measurements of an extremely wide range of external beam applications. It has excellent sensitivity with the ability to capture and display the signal from a 0.009 cc ion chamber, giving a typical reading of 8.001 pA. The MAX 4000 can also be used with low and high activity brachytherapy isotopes.
- A simple and straightforward user interface that is intuitive so you can do your work quickly. A few buttons control the operations and the MAX 4000 features an easy to read LCD display which is visible from a distance and in low light.
- Excellent resolution, down to 1 fA

TG51/TRS398

Exradin® Ion Chambers

- Inherently waterproof
- Manufactured from the highly acclaimed "Shonka" Air Equivalent and Tissue Equivalent plastics
- Fully guarded for uniform field line measurements
- Constructed of rugged, homogeneous, conductive plastic for years of durability
- *For additional detailed technical specifications for the Exradin Chambers, please request the Exradin Ionization Chamber brochure*

MAX 4000 Electrometer

- Excellent sensitivity – 0.001 pA to 195.00 nA 0.01 pC to 999,999 nC
- A digital filter virtually eliminates the effect of noise
- Comprehensive display shows amp, coulomb, and collection time simultaneously
- *For additional detailed technical specifications for the MAX 4000 Electrometer, please request the MAX 4000 flyer*

Standard Imaging®

Distributed by SeeDOS Ltd
Please contact
cwalters@seedos.com
www.seedos.com

Water Phantom Specifications

	Model WP 3040	ARM 1-D Calibration Phantom, Model 1000
Tank Dimensions:	30 cm wide x 40 cm long x 30 cm high (other sizes and models available)	30 cm wide x 30 cm long x 30 cm high (other sizes and models available)
Materials:	Sides - 3/8" clear acrylic Bottom - 3/8" white acrylic	3/8" clear acrylic
Drain Valve:	Ball type, PVC with Teflon seats and 1/2" PVC barbed nipple	no drain valve
Weight:	9.3 kg (20.5 lbs) empty 66.8 kg (146 lbs) filled	6.8 kg (15 lbs) empty
Travel:	25.0 cm vertical	20.4 cm vertical
Counter:	Mechanical, 5 - digit, 0.10 mm precision	Portable programmable electronic remote, 5 - digit, 0.05 mm precision
Chamber Holder:	Cylindrical chamber holder accommodates 3 mm to 20 mm diameters - parallel plate ion chamber holders are available as an option	Cylindrical chamber holder accommodates 3 mm to 20 mm diameters - parallel plate ion chamber holders are available as an option

Specifications subject to change

Also available from Standard Imaging

1mm lead foil

- Used for absorbing electrons according to TG51 procedures
- Easily slides inside wedge tray or tape to collimator
- 20 cm x 20 cm x 1 mm
- Protective coating provides strength so lead is rigid

For information about TG51, review the AAPM website page:
http://aapm.org/medphys/resources/TG51/tg51indx.htm

For information about TRS398, review the website page:
http://www.iaea.org/worldatom/Books/2001Pubs/medphys2001.shtml

Standard Imaging®

Distributed by SeeDOS Ltd
Please contact Colin Walters at cwalters@seedos.com
www.seedos.com Tel: +44 (0)1525 850670 Fax: +44 (0)1525 850685

Doc. No. 1203-00 4 pgs. 09-02