شرکت دانش بنیان بهیار صنعت سپاهان

دزیمتری (فانتوم سه بعدی آب)

3D Water Phantom

کاتالوگ:

Behyaar Sanaat Sepahan

Behyaar 3D Water Phantom

The Behyaar 3D water phantom system, is intended for radiotherapy dosimetry measurements. The acquired data could be used for LINAC acceptance testing, TPS beam data commissioning, monitor calibration and accelerator QA.

Features:

- **Accurate & Reliable:**
Behyaar 3D water phantom system is the right solution for crucial LINAC commissioning.
- **Consistently accurate measurements in all dimensions:**
Small ionization chambers and diodes ensure scanning accuracy in any direction, regardless of detector movement and orientation (according to TG-106 report)
- **MCU (Main Control Unit):**
Its compact design integrates a controller and two independent electrometers, simultaneous support of diodes and ionization chambers
- **Computer Software:**
Behyaar 3D water phantom system has a user friendly software with many useful tools.
- **Android Application:**
By the Android App on tablet or smart phones with an attractive graphical media user can control all movements of system from chamber location to table height and leveling the tank.
- **Detector Holders:**
The Universal Holders enable fast and flexible mounting of all chambers and detectors in vertical and horizontal orientation.
- **Water Reservoir:**
Separate tank trolley on wheels with a polyethylene water reservoir and a pump for bi-directional water transport. It's capable to turn of automatically when the phantom tank is empty
- **Lift Table:**
The system is convenient in positioning and leveling. The stability of water tank is accrued by 4 Legs out of Isocentric rotation axis of treatment table. The required leveling is performed by two individual motors under water tank, the system sensors measures water surface relative to the scanning mechanism and automatically adjusts the water tank leveling using the electric motors

Specifications

Water Tank	
Outer tank Dimensions (L×W×H)	670mm × 760mm × 750mm
Inner tank Dimensions (L×W×H)	580mm × 610mm × 580mm
Scanning volume	480mm × 480mm × 480mm
Approximate volume	200 L
Wall thickness / material	15 mm / PMMA
Weight (empty)	50 kg

Dual-Channel Electrometer	
Maximum resolution	100 fA at 3nA full scale (16-bits)
Full scale range	3nA
Leakage current	typically <50 fA
Time constant	47 ms
Bias voltage range	±50 to ±400 V
Dimensions (L×W×H)	160mm × 100mm × 33mm

Scanning Mechanism	
Motors	DC + Encoder
Position resolution	0.1 mm
Position accuracy	± 0.1 mm
Position reproducibility	± 0.1 mm
Positioning Speed	max. 30 mm/s