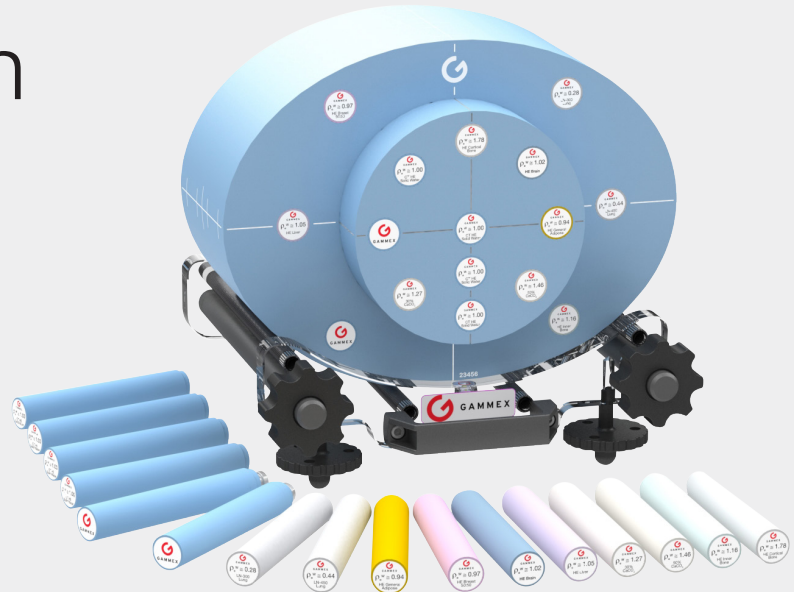


# Advanced Electron Density Phantom

Accurately Calibrate your CT for Treatment Planning

- Meets medical standards for human tissue mimicking materials: ICRU-44 and ICRP
- Expanded phantom size for wide beam systems
- Supports complete CT-to-density table automation with patent-pending rod marker technology
- Modular and flexible, easy to align and use



Generating accurate CT-to-density tables for radiation therapy is easier than ever with the new Advanced Electron Density Phantom from Gammex, a proven leader in Tissue-Mimicking Materials (TMM).

Our materials are manufactured to meet medical standards ICRU-44 and ICRP for human tissue densities. Material densities (and HU values) are used to calculate how much energy to put into the patient. Our exquisite adherence to these standards is critical to dose delivery.

From self-aligning rods designed to reduce human error, to a rolling case that protects the phantom's integrity, to high-equivalency materials that thoroughly test your modern wide-beam CT scanner, this phantom meets your clinical and workflow needs.

Processing CT-to-density tables is easier, too. Our patent-pending rod markers uniquely identify each material during the CT scan. This enables automated CT-to-density analysis, saving valuable time and reducing risk of error.



Patent-pending rods can be uniquely identified during the CT scan.



## Features and Benefits

- Expanded Size
  - Extends 16.5 cm in the superior/inferior direction
  - Full-length 16.5 cm rods, not just 5 cm
  - Oblate-shaped, 40 cm wide by 30 cm high
  - Removable 20 cm head section
  - Increases to 26.5 cm in length with optional extension plates
- Proven Gammex Materials
  - Constructed from zero HU CT Solid Water® HE
  - Materials developed in accordance with ICRU-44 and ICRP specifications
- Automation
  - Patent-pending rod markers uniquely identify each material in a CT scan
  - Automatically generate CT-to-density tables with upcoming RapidCHECK™ software support
  - Rod markers remove risk of misplaced rods, rotated phantoms, and incorrect selection of ROIs
- Ease of Use
  - Single-pour, no-drop design simplifies transport and setup
  - Self-aligning rods and sections lie flush for fast and reliable positioning
  - Custom wheeled case and deluxe stand included



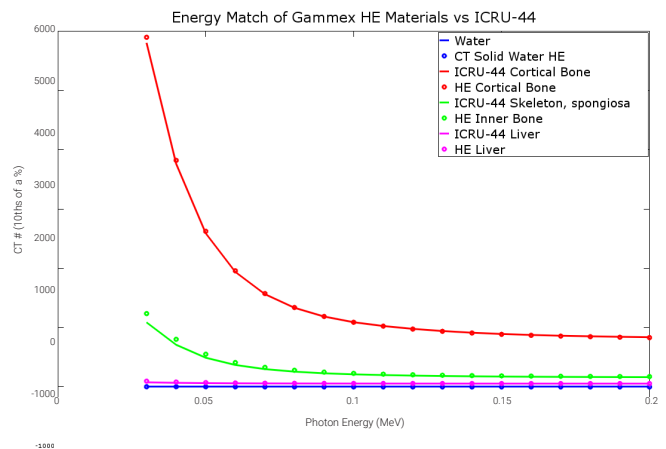
Shown with head section removed and compatible Advanced iqModules™

## Specifications

In-plane Dimensions:	40.0 cm (15.7 in) x 30.0 cm (11.8 in)
Depth:	16.5 cm (6.3 in), up to 26.5 cm (10.2 in) with optional extension plates
Diameter of Removable Head Section:	20.0 cm (7.87 in)
Material:	HE Energy-Matched CT Solid Water®
Interchangeable Inserts:	14 solid inserts plus 2 true water containers
Optional inserts include:	Aluminum, Stainless Steel, Titanium
Optional Accessories:	Extension plates Ion Chamber conversion rod
Weight:	15.5 kg (34.1 lbs)
Case:	Wheeled case is included
Stand:	Stand is included

## Standard Inserts

Material	Physical Density (g/cm <sup>3</sup> )	Electron Density Relative to Water
455 Lung LN-300	0.29	0.28
485 Lung LN-450	0.45	0.44
1553 HE Gen Adipose	0.96	0.94
1454 HE Breast 50:50	0.98	0.97
4 - 1451 HE CT Solid Water® Inserts	1.02	1.00
1481 HE Brain	1.05	1.02
1482 HE Liver	1.08	1.05
1456 HE Inner Bone	1.21	1.16
484 CB2 + 30% CaCO <sub>3</sub>	1.33	1.27
480 CB2 + 50% CaCO <sub>3</sub>	1.56	1.46
1450 HE Cortical Bone	1.93	1.78
2 - True Water Inserts	-1.000-	-1.000-



Gammex materials match the density characteristics of ICRU-44 materials **AND** their energy dependencies.

<sup>1</sup> American Association of Physicists in Medicine Radiation Therapy Committee Task Group 53: Quality Assurance for Clinical Radiotherapy Treatment Planning

<sup>2</sup> IAEA TECDOC-1583. Commissioning of Radiotherapy Treatment Planning Systems: Testing for Typical External Beam Treatment Techniques