



ATOM[®] Max Dental & Diagnostic Head Phantom

711-HN

- Ideal for assessment and training of dental cone beam computed tomography (CBCT) and panoramic X-ray applications
- Supports commissioning of X-ray, panoramic X-ray, CT, and CBCT systems
- Enables evaluation of reconstruction techniques and algorithms for implant planning and maxillofacial reconstruction



The ATOM Max Dental and Diagnostic Head Phantom is a reference standard for diagnostic radiology applications involving the head. It supports technical and clinical staff in the selection, training, verification, and monitoring of scanning parameters for imaging procedures that require fine anatomical detail.

The phantom provides a consistent tool for researchers, clinicians, and technologists. It is well-suited for optimizing system settings, commissioning new imaging equipment, monitoring system performance, and conducting training for dental X-ray, panoramic X-ray, CT, and cone beam CT applications.

An included adjustable stand enables accurate positioning within cone beam CT and panoramic X-ray systems. The jaw is slightly open, with the front teeth vertically aligned to replicate proper positioning with a bite guide.

Note: an actual bite guide cannot be used with this product.

Constructed from proprietary tissue-equivalent materials, the ATOM Max phantom mimics the X-ray attenuation properties of human tissue across both CT and therapy energy ranges (50 keV–25 MeV). The phantom approximates the average adult male human head in size and anatomical structure.

The phantom features detailed anthropomorphic anatomy, including the brain, bone, larynx, trachea, sinus cavities, nasal cavities, and teeth. Skeletal structures incorporate both cortical and trabecular bone. The teeth include distinct dentin, enamel, root, and nerve structures, and the sinus cavities are fully open to support realistic imaging and evaluation.

Key Benefits

- Intricate anatomical structures
- Frankfort plane identified for proper alignment
- Tissue-equivalent materials support imaging from 50 keV to 25 MeV
- Includes phantom case, positioning stand, and soft-sided carry case

ATOM Max Dental & Diagnostic Head Phantom

A reference standard for diagnostic radiology applications involving the head

Specifications

Approximate Dimensions	18 x 22.3 x 27 cm (7.1" x 8.8" x 10.6")
Weight	Stand: 4 kg (9 lbs) Phantom: 6.4 kg (14 lbs) Shipping: 14.1 kg (31 lbs)
Materials	Epoxy resin

Optional Accessories

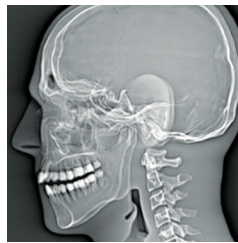
038-20	SRS Frame Support Cups
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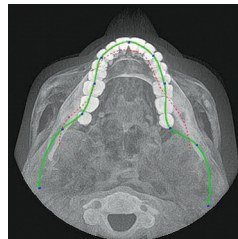
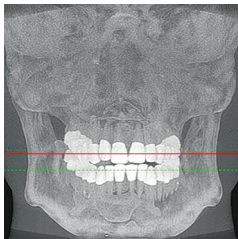
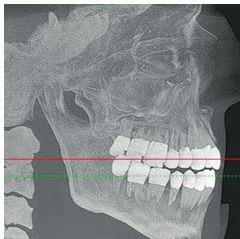
Model 711-HN phantom



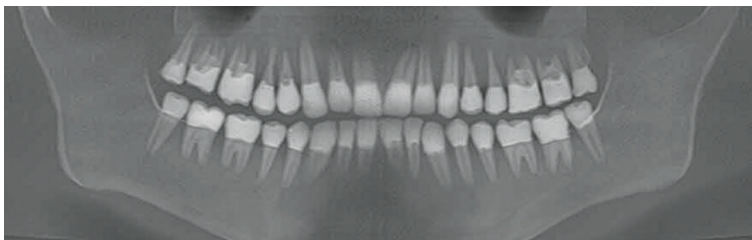
3D CT reconstruction



Sagittal view



Lateral, Anterior Posterior, Superior Inferior, and Orthopantomogram 3D cone beam CT reconstructions



Positioning Stand

The positioning stand supports simple setup and operation, enabling accurate and reproducible phantom positioning. The stand is adjustable along the x-, y-, and z-axes and allows rotational movement about each axis for precise alignment. The phantom securely attaches to the stand and locks into place for stable positioning during use.



Note: Stand legs are not fully extended