DIAGNOMATIC

www.diagnomatic.com

Dentistry

ISO 9001 ISO 13485 ISO 14001 ISO 45001 ISO 27001

Dentistry

Quality Control kits

Powered by:

DIAGNOMATIC ONLINE

We have prepared several QA / QC kits consisting of must-have phantoms, accessories and software that you can use in different situations depending on your requirements.
These can be your go-to selections when you are not sure what to choose for tests of a given modality.
We have introduced gradation of kits depending on the purpose and level of sophistication required:

BASIC: these sets are meant for constancy level testing purposes - tests that can be done practically by everyone who can use a diagnostic device
PRO: sets meant for acceptance and specialized testing - performed by specialized personnel, for example a medical physicist

Pro-Dent 2D BASIC kit

01-001

Powered by:

DIAGNOMATIC ONLINE

This kit is a versatile set of phantoms and software for carrying out constancy tests of intra-oral and OPG dental X-ray units. Thanks to the Diagnomatic subscription, all tests can be quickly and effortlessly automatically analysed online.

Standard kit configuration:

- Pro-Dent set All (01-203)
- Diagnomatic ECO annual subscription
- carrying case with foam inlay

The kit can be used to measure:

- dose reproducibility
- development process stability
- alignment and beam geometry
- spatial resolution
- low contrast resolution

Product features:

- Complies with:
  - OEC 61223-2-7 and IEC 61223-3-4
  - DIN 6868-5 and DIN V 6868-151
  - ÖNORM S 5240-5 and ÖNORM S 5240-11
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Pro-Dent 3D BASIC kit

01-011

Powered by:

DIAGNOMATIC ONLINE

This kit is a versatile set of phantoms and software for carrying out constancy tests of CBCT, DVT and other 3D imaging devices. Thanks to the Diagnomatic subscription, all tests can be quickly and effortlessly automatically analysed online.

Standard kit configuration:

- Pro-Dent CT MINI (01-303)
- Diagnomatic ECO annual subscription
- carrying case

The kit can be used to measure:

- image geometry
- pixel (matrix) size
- artefacts, noise
- homogeneity
- linearity
- contrast
- high-contrast resolution
- low-contrast resolution (contrast sensitivity) dose reproducibility

Product features:

- Complies with:
  - IEC 61223-3-4 and IEC 61223-3-5
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Pro-Dent All BASIC kit

01-021

Powered by:

DIAGNOMATIC ONLINE

This kit is a versatile set of phantoms and software for carrying out constancy and acceptance tests of Intra-oral, OPG, CBCT, DVT and other 3D imaging devices. Thanks to the Diagnomatic subscription all tests can be quickly and effortlessly automatically analysed online.

Standard kit configuration:

- Pro-Dent set All (01-203)
- Pro-Dent CT MINI (01-303)
- Diagnomatic BASIC annual subscription
- carrying case with dedicated foam inlay

The kit can be used to measure:

- dose reproducibility
- development process stability
- alignment and beam geometry
- image geometry
- pixel (matrix) size
- artefacts, noise
- homogeneity
- linearity
- contrast
- low-contrast resolution (contrast sensitivity)

Product features:

- Complies with:
  - IEC 61223-3-4, IEC 61223-3-5 and IEC 61223-2-7
  - DIN 6868-5 and DIN V 6868-151
  - ÖNORM S 5240-5 and ÖNORM S 5240-11
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Pro-Dent All PRO kit

01-022

Powered by:

DIAGNOMATIC ONLINE

This is a versatile set of phantoms and software for carrying out constancy and acceptance tests of intra-oral, OPG, CBCT, DVT and other 3D imaging devices. Thanks to the Diagnomatic subscription, all tests can be quickly and effortlessly automatically analysed online.

Standard kit configuration:

- Pro-Dent set All (01-203)
- Pro-Dent CT mk II (01-501)
- Diagnomatic PRO annual subscription
- carrying cases with dedicated foam inlay

The kit can be used to measure:

- dose reproducibility
- development process stability
- alignment and beam geometry
- image geometry
- pixel (matrix) size
- artefacts, noise
- beam hardening artefacts
- homogeneity
- linearity
- contrast
- high-contrast resolution in XY and Z plane
- low-contrast resolution (contrast sensitivity)
- line spread function
- point spread function
- MTF
- contrast to noise for different materials
- focal spot size

Product features:

- Complies with:
  - IEC 61223-3-4, IEC 61223-3-5 and IEC 61223-2-7
  - DIN 6868-5 and DIN V 6868-151
  - ÖNORM S 5240-5 and ÖNORM S 5240-11
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Dentistry

Phantoms

Pro-Dent Set

01-201 - intra-oral devices
01-203 - intra-oral and OPG devices

The Pro-Dent set is a universal set of phantoms for carrying out constancy and acceptance tests of conventional and digital dental X-ray units (intra-oral, panoramic and cephalometric).

This is not an all-in-one device where results of tests blur each other out. This is the only solution on the market that makes it possible to measure the X-ray beam collimation with a dental film or a digital detector.

Technical data (can be modified to customer specifications):

Pro-Dent Alpha phantom

- 3 step wedge (first step made of copper foil 0.3 mm thick, the next ones are made of polytetrafluoroethylene 8 mm and 16 mm thick)
- cover made of PMMA

Pro-Dent Beta phantom (optional)

- cone for perpendicular X-Ray beam control in the range of 0° ÷ 1.5°
- pattern for beam radius estimation
- cover made of PMMA

Pro-Dent Gamma phantom

- pattern for line pair resolution evaluation (from 4 to 8 LP/mm)
- optional second pattern for line pair resolution evaluation (from 1.6 to 3 LP/mm) – OPG units
- four holes in 0.5 mm Al foil for low contrast resolution tests
- additional 6 mm aluminium filter
- cover made of PMMA

With the Pro-Dent set you can do the following tests:

- dose reproducibility
- development process stability
- perpendicular X-ray beam (range 0° ÷ 1.5°)
- limitation and alignment of the X-Ray beam (including beam radius measurement)
- spatial / line pair resolution (perpendicular, parallel and rotated 45° to anode-cathode line)
- low contrast resolution

Accesories:

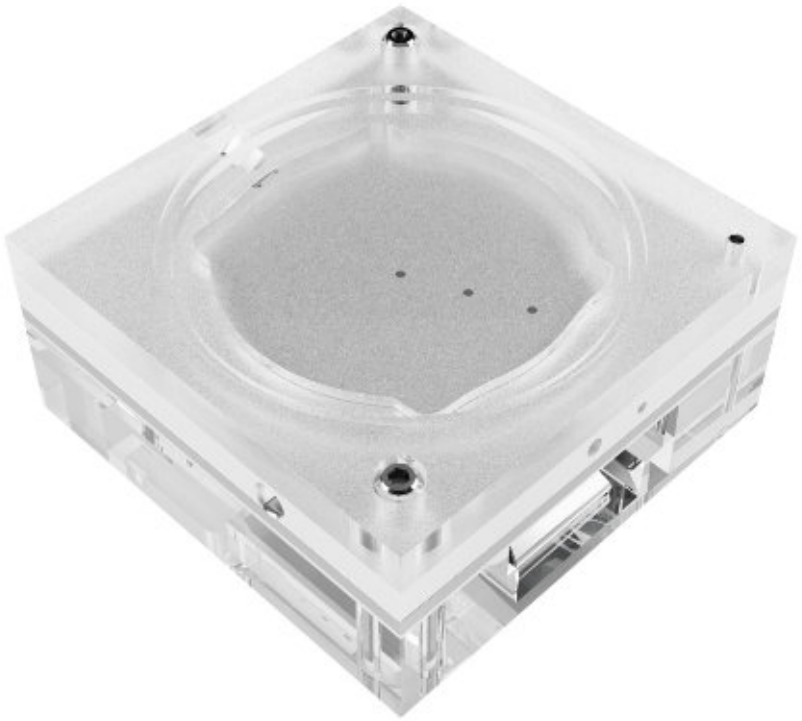
- 0.8 mm copper filter – patient's head equivalent
- positioning stand with a space for an analogue film or a digital detector
- band for firm, perpendicular attachment of the phantom to the X-Ray unit's beam applicator
- rings for centering phantoms on the X-Ray unit's beam applicator
- CD with documentation
- elegant and convenient box for storing phantoms

Product features:

- Complies with:
  - OEC 61223-2-7 and IEC 61223-3-4
  - DIN 6868-5 and DIN V 6868-151
  - ÖNORM S 5240-5 and ÖNORM S 5240-11
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Pro-Dent DIN 2D

01-220



The Pro-Dent DIN 2D is a universal phantom for carrying out constancy and acceptance tests of conventional and digital dental X-ray units (intra-oral, panoramic and cephalometric).

Technical data (can be modified to customer specifications):

- Size 80 x 80 x 36 mm
- 3 centring rings with different diameters to fit standard tubes
- Slots for digital storage screen, intra-oral sensor, dose detector
- 45° Line Pair test (2.5 / 2.8 / 3.1 / 5.0 / 5.8 / 6.3 LP/mm; 0.05 Pb)
- 4 Low Contrast objects (Ø 2.5/2/1.5/1 mm)
- Integrated filtration 6 mm Al (purity 99.5 %)

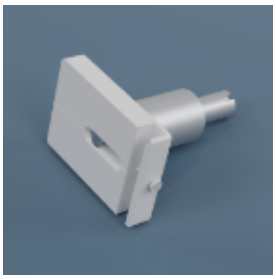
Test Parameters:

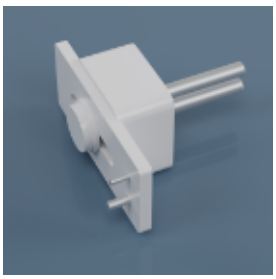
- spatial resolution
- low-contrast resolution
- radiation field alignment
- image homogeneity
- dose equivalency check
- artefacts, image flaws, etc.

Product features:

- complies with:
  - IEC 61223-2-7 and IEC 61223-3-4
  - DIN 6868-5 and DIN V 6868-151
  - ÖNORM S 5240-5 and ÖNORM S 5240-11
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Accessory holders





Pro-Dent CT MINI

01-303

Pro-Dent CT MINI phantom is a versatile quality control tool of dental Cone-Beam CT, Dental Volume Tomography (DVT). and other 3D imaging devices with even the smallest FOV (Field Of View).

The phantom consists of a main PMMA cylinder that houses modules with different test objects.

It allows performing most important imaging quality tests such as:

- image geometry
- slice geometry
- pixel (matrix) size
- artefacts, noise
- homogeneity
- linearity
- contrast
- high-contrast resolution
- low-contrast resolution (contrast sensitivity)

Accessories:

- test stand with spirit level for accurate placing of the phantom in the test position
- convenient, portable case for storing and transporting the phantom

Product features:

- complies with:
  - IEC 61223-3-4 and IEC 61223-3-5
- CE certified
- the manual provides detailed guidelines for carrying out each test, results assessment and registration

Technical data (can be modified to customer specifications):

Main cylinder

- contains markings for easy positioning in the dental unit and geometric distortion section
- an array of 2.0 mm diameter, 3.0 mm long holes uniformly pitched at 10.0 mm intervals
- diameter: 110 mm
- length: 130 mm
- made of PMMA (1.19 g/cm3)

Noise / uniformity module

- 20 mm thick

Linearity module

- containing 15 mm rods made of PTFE, polyamide, LDPE, air and water emulating epoxy embedded PMMA - pixel intensity / HU values samples

High contrast resolution module

- containing 7 objects for resolution evaluation: 10, 11, 12, 13, 14, 15, 16 LP/cm
- 0.3 mm bead for Modular Transfer Function (MTF) calculation

Low contrast section

- containing rods of a different diameter: 2, 3, 4, 6, 8, 10, 12 mm, filled with a substance whose density is 3% different from the body of the module

Slice geometry module

- 4 air rods, 3mm in diameter, placed in vertices of the 30mm square
- two aluminium wire ramps