Planmeca Proline XC
Leader in panoramic X-ray units

Since its introduction, the Planmeca Proline series of panoramic X-ray units sets standards for high-quality, practical, and user-friendly extraoral dental X-ray units. Innovative technical solutions, easy patient positioning, and exceptionally clear radiographs have made Planmeca Proline X-ray units incredibly popular among dental professionals. Today, there are more than 35,000 units installed around the world.

Supreme choice for panoramic imaging

Planmeca Proline XC provides well-proven panoramic imaging capabilities and ease of use for any dental practice:

- Easy and practical positioning
- Functional exposure programs
- Quality cephalometry for orthodontics
- Clear and accurate images
Easy patient positioning

Easy and practical positioning

The side entry and the open positioning concept minimize errors caused by incorrect patient positioning, one of the most frequent reasons for failed radiographs. The operator can monitor the patient freely from the front, back, and side, making patient positioning quick, precise, and easy.

Side entry allows easy access to the X-ray unit for all types of patients. The exposure can be performed with patient standing or seated. It is also possible to take an exposure of a patient seated on a wheelchair or a hospital bed. No mirrors are needed for positioning. Instead, the patient has an open and comfortable view, so that for instance a child can see an accompanying adult throughout the procedure.

A triple laser beam system accurately indicates the correct anatomical positioning points:

- The midsagittal plane positioning beam shows the correct sideways alignment of the patient’s head to guarantee that the image will be symmetric and undistorted in left-right direction.
- The Frankfort horizontal plane positioning beam shows the correct forward tilt of the patient’s head.
- The focal layer positioning beam indicates the focal layer’s position in the incisor region, helping in positioning the patient correctly inside the focal layer for sharp and clear images.

Intuitive graphical user interface

The graphical user interface (GUI) with full-colour display guides the operator with clear text and graphical symbols. All keys and controls are logically grouped and easy to understand. This makes the imaging procedure quick and allows the operator to fully focus on patient positioning and communication. All necessary information is shown on the main display.
**Functional choice of exposure programs**


- Standard panoramic program produces clear panoramic images from the teeth and jaws.

- With vertical segmenting, the exposed area for panoramic images can be limited only to the area of diagnostic interest. With a simple selection on the main display, the patient dose can be reduced by up to 80% compared to a full area panoramic exposure. This is highly advantageous when a follow-up image is needed on a limited part of the jaws.*

- The optional True Profile TMJ program enables optimising the TMJ imaging angles for each patient individually producing specific perpendicular radiographic projections of the condyles.

- The paediatric mode of the panoramic program automatically reduces the exposure area resulting in 20% lower patient dosage, without loss of diagnostic information.

- The automatic Double TMJ program produces a lateral view of open and closed temporomandibular joints in one radiograph. The straightforward imaging procedure generates clear radiographs for easy diagnosis of the TMJ condition.

- The specially designed image layer in the sinus program produces a radiograph with a clear view of the maxillary sinuses.

Quality cephalometry for orthodontics

Planmeca Proline XC cephalostat
- The functional and easy-to-use head positioner enables accurate positioning in all cephalometric projections.
- The carbon fibre ear posts and nasal positioner are extremely durable, hygienic, and fully transparent to radiation.
- The digital cephalostat scans the patient’s head horizontally with a narrow X-ray beam lowering effective dose. Exceptional flexibility in image formats, with field sizes of up to 27 x 23 cm (11 x 9 in.).
- The wide dynamic range of the digital sensor makes the soft tissues visible in the Planmeca Romexis imaging software. This means the images can be viewed with or without the filter.
- The unit automatically aligns itself for cephalometric exposures and selects a corresponding collimator.

Any Planmeca Proline XC unit can be easily equipped with cephalometric system at any time in the future. The digital unit can be equipped with one movable sensor or with two fixed sensors.

Used with film-based unit, Planmeca Proline Cephalostat CM provides motorised aperture and soft tissue filter selection from the main display.

One fixed panoramic focal layer form cannot be optimal for everyone as jaw shape and size vary depending on the morphology, gender, and age of the patient. In Planmeca Proline XC, the operator may adjust the shape of the focal layer according to the jaw shape and size characteristic to the patient.*

Self-diagnostic control system
A self-diagnostic control system continuously monitors the unit. The system guides the user by displaying help messages thus enabling its correct use. In case of abnormal operation the system displays error messages that are stored in a log helping both the operator and the technical service.

Automatic exposure control
The bone density and tissue thickness vary among each individual. The unique Automatic Gain Control (AGC) system in the digital Planmeca Proline XC unit optimises the sensitivity of the digital sensor to produce optimum images quality in every circumstances. The Planmeca Proline XC film unit can be equipped with optional Automatic Exposure Control (AEC), which measures the patient’s radiation transparency and correctly adjusts exposure values to achieve the desired film darkness and contrast.

Anatomically correct radiographs
Planmeca Proline XC provides anatomically correct panoramic radiographs. The focal layer follows the scientifically assessed form of the human jaw, which results in images with clearly superior clinical quality.*

The imaging geometry eliminates redundant shadows and ghost images caused by objects outside the image layer. The shadow of the cervical vertebrae is automatically eliminated. This computer-controlled correction ensures that the image sharpness is exceptional also in the central maxilla region.

Anatomically correct panoramic radiographs

**Planmeca Proline XC**

**Generator**
- Constant potential, microprocessor controlled, operating frequency 80 kHz

**X-ray tube D-052SB**
- Focal spot size 0.5 x 0.5 mm according to IEC 336
- Total filtration 2.5 mm Al
- Anode voltage 60–80 kV
- Anode current 4–12 mA DC
- Exposure time Pan 2.5–18 s
  - Ceph 0.2–23 s
- Film size Pan 15 x 30 cm
  - 12.5 x 30 cm
- Ceph 18 x 24 cm
  - 8 x 10 in.
- Cassette Flat
- SID Pan 480 mm (19 in.)
  - Ceph 163–170 cm (64–67 in.)
- Magnification Pan constant 1.2
  - Ceph 1.08–1.13
- Line voltage 100/117/220–230/240 V, 50 or 60 Hz
- Regulation Automatic, ±10%
- Line current 8–16 A
- Colour White (RAL 9016)

**Planmeca Proline XC with film-based cephalostat**

**Planmeca Proline XC with digital cephalostat**

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**Planmeca Romexis**

Planmeca Romexis is comprehensive software for acquiring, viewing and processing 2D and 3D images. Full support for both MS Windows and Apple Mac OS operating systems provides additional freedom in operating your clinic.

**Supported 2D X-ray modalities**
- Panoramic
- Cephalometric
- 2D linear tomography

**Supported 3D X-ray modalities**
- CBVT
- 3D photo
- 3D surface scan

**Supported photo formats**
- Still camera

**Operating systems**
- Windows XP
- Windows Vista
- Windows 7
- Windows 2003 Server
- Windows 2008 Server
- Mac OS X

**Image formats**
- JPEG or TIFF (2D images)
- DICOM (3D images)
- TIFF, JPEG, PNG, BMP (import/export)

**Image size**
- 2D X-ray image: 7–9 MB
- 3D X-ray image: typically 250 MB

**DICOM 3.0 support**
- DICOM Import/Export
- DICOM Device Class (DICOM Structured Storage)
- DICOM Print (option)
- DICOM Storage SCU (option)
- DICOM Worklist SCU (option)
- DICOM Query/Retrieve (option)
- DICOM Storage Commitment (option)
- DICOM Worklist Retrieve (option)

**Interfacing**
- FNBridge (patient information and images)
- VCOGS (patient information and images)
- InfoCarrier (patient information)
- Deligate (patient and user information)

**Installation options**
- Client-Server
- Java Web Start deployment

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**Planmeca Proline XC with film-based cephalostat**

**Planmeca Proline XC with digital cephalostat**
Planmeca Oy designs and manufactures a full line of high technology dental equipment, including dental care units, panoramic and intraoral X-ray units, and digital imaging products. Planmeca Oy, the parent company of the Finnish Planmeca Group, is strongly committed to R&D, and is the largest privately held company in the field.