

PLANMECA

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 minimise 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:

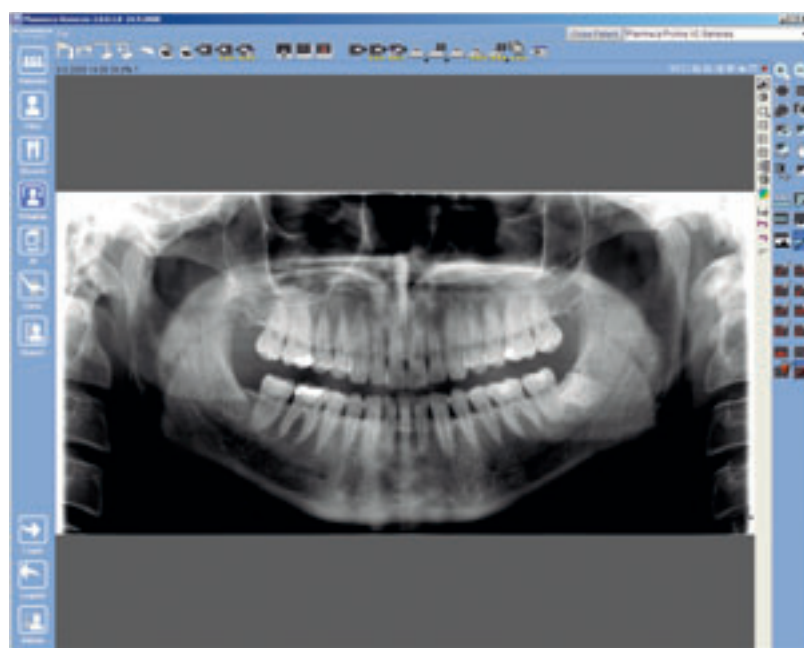
- The midsagittal plane positioning beam shows the correct sideways alignment of the patient's head to guarantee that the image will be symmetric and undistorted in left-right direction.
- The Frankfort horizontal plane positioning beam shows the correct forward tilt of the patient's head.
- The focal 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.



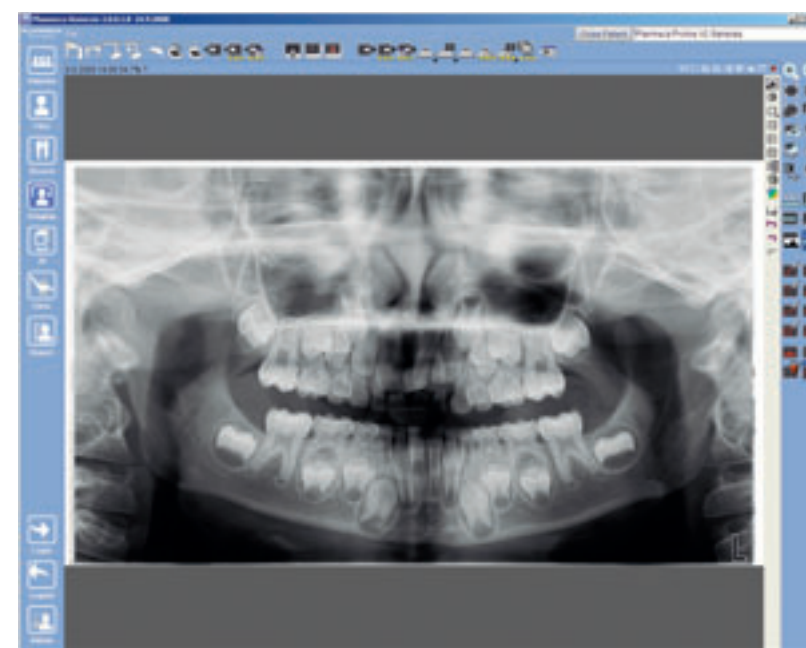
Intuitive graphical user interface

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.

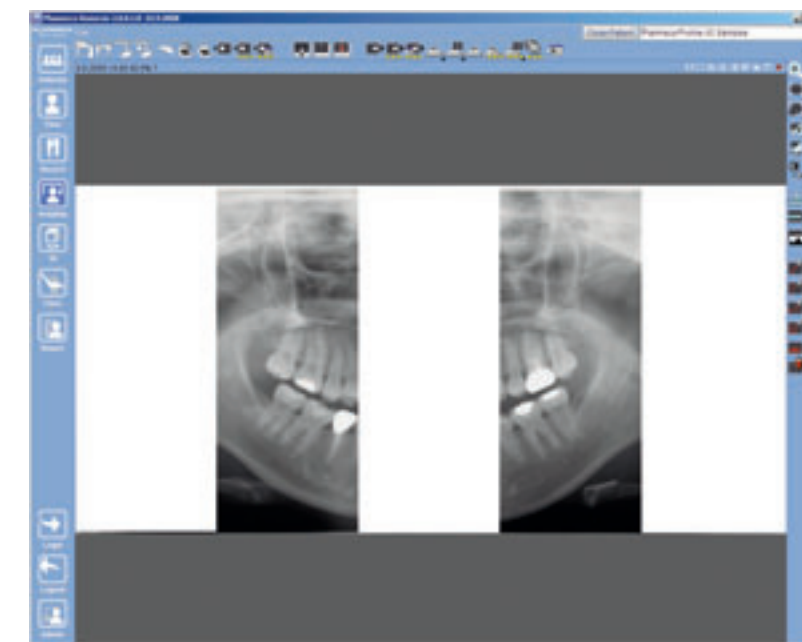
Functional choice of exposure programs



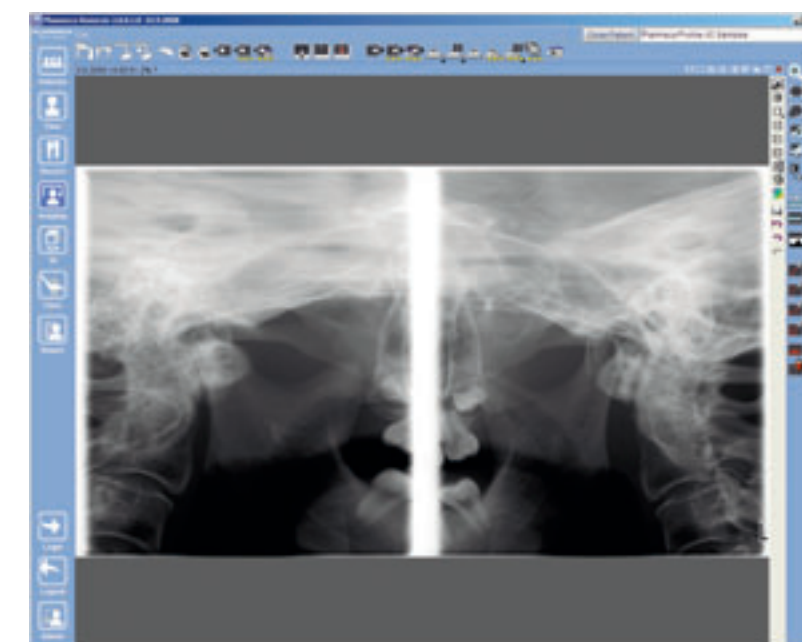
Standard panoramic program produces clear panoramic images from the teeth and jaws.



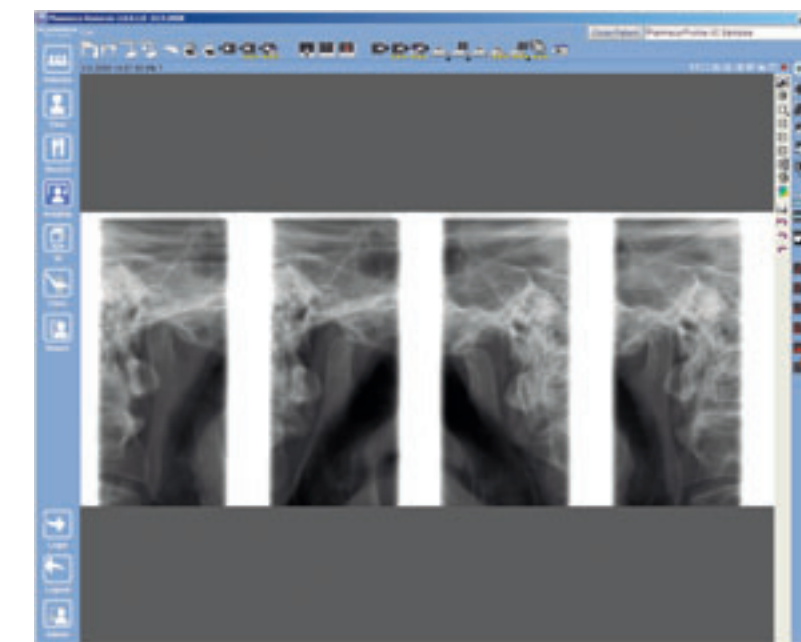
The paediatric mode of the panoramic program automatically reduces the exposure area resulting in 20% lower patient dosage, without loss of diagnostic information.



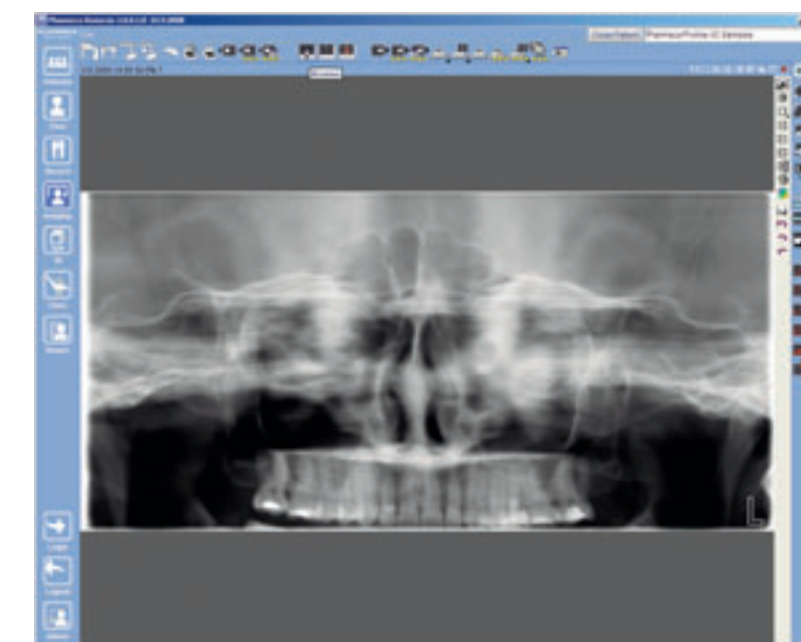
With vertical segmenting, the exposed area for panoramic images can be limited only to the area of diagnostic interest. With a simple selection on the main display, the patient dose can be reduced by up to 80% compared to a full area panoramic exposure. This is highly advantageous when a follow-up image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



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



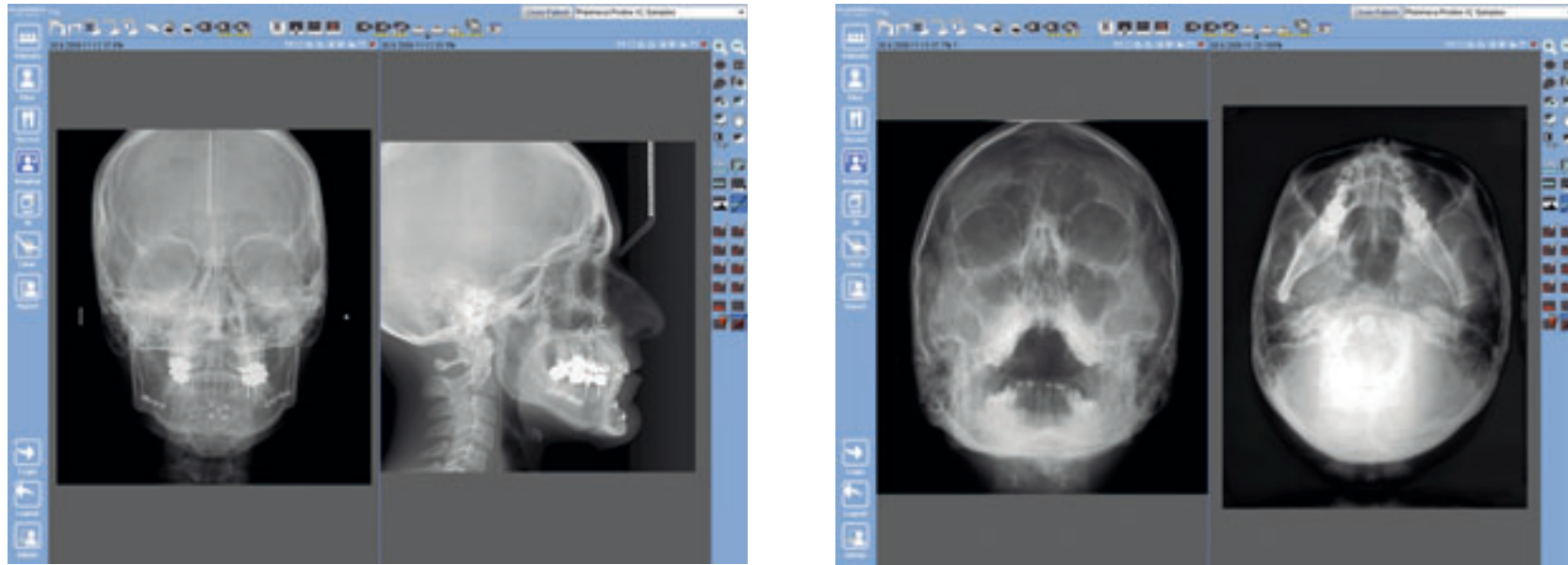
The automatic Double TMJ program produces a lateral view of open and closed temporomandibular joints in one radiograph. The straightforward imaging procedure generates clear radiographs for easy diagnosis of the TMJ condition.



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

* Absorbed dose reduced by sliced exposure using sector selector system with rotational panoramic radiography, Y. Hayakawa, N. Kobayashi, Y. Kousuge, H. Fujimori, and K. Kuroyanagi, Bulletin of Tokyo Dental College, Vol. 35, No. 3, pp. 127-131, August, 1994

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.

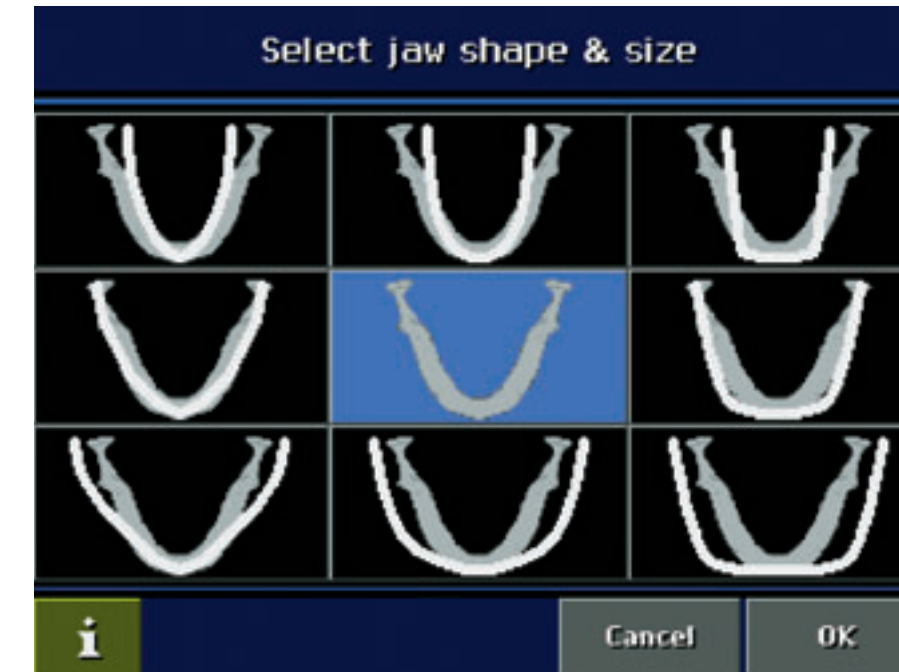
Any Planmeca Proline XC unit can be easily equipped with cephalometric system at any time in the future. The digital unit can be equipped with one movable sensor or with two fixed sensors.

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



Clear and accurate images

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.*



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 incisor region.

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.

* Standard Forms of Dentition and Mandible for Applications in Rotational Panoramic Radiography, U. Welander, P. Nummikoski, G. Tronje, W.D. McDavid, P.E. Legrell, and R.P. Langlais, Dento-Maxillofacial Radiology, 1989, Vol. 18, May

** Dental and Mandibular Arch Widths in Three Ethnic Groups in Texas: A Radiographic Study, P. Nummikoski, T. Prihoda, R.P. Langlais, W.D. McDavid, U. Welander, and G. Tronje, Oral Surgery & Oral Medicine & Oral Pathology 1988; 65:609-17

** Standard Forms of Dentition and Mandible for Applications in Rotational Panoramic Radiography, U. Welander, P. Nummikoski, G. Tronje, W.D. McDavid, P.E. Legrell, and R.P. Langlais, Dento-Maxillofacial Radiology, 1989, Vol. 18, May

Technical specifications

Planmeca Romexis imaging software

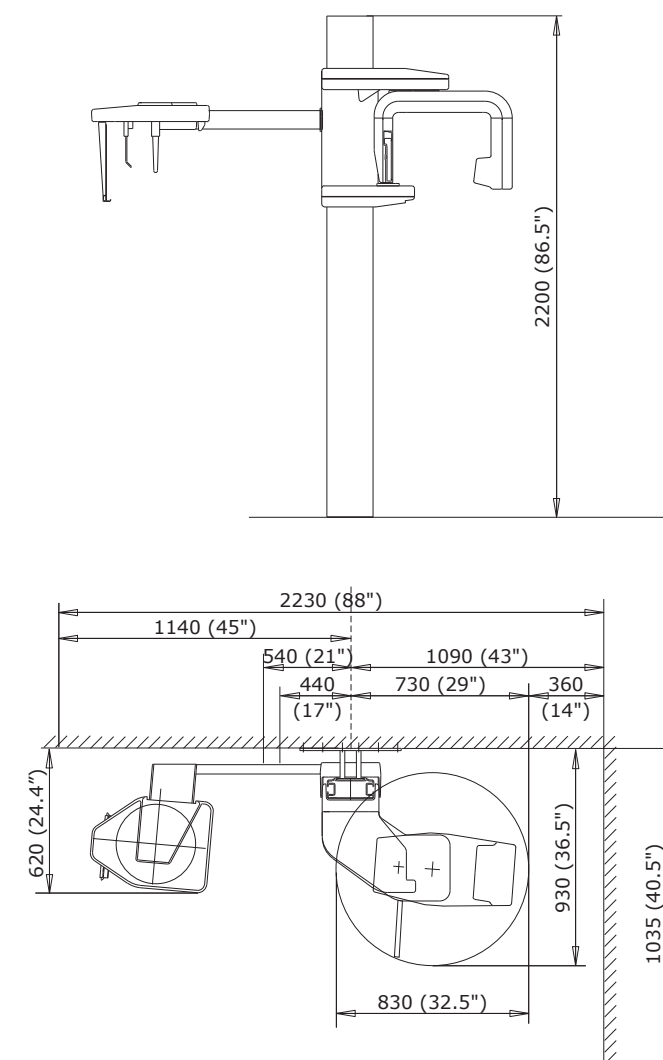
Planmeca Romexis is comprehensive software for acquiring, viewing and processing 2D and 3D images. Full support for both **MS Windows** and **Apple MacOS** operating systems provides additional freedom in operating your clinic.

Supported 2D X-ray modalities	Intraoral Panoramic Cephalometric 2D linear tomography
Supported 3D X-ray modalities	3D CBVT 3D photo 3D surface scan
Supported photo formats	Intraoral camera Still camera
Operating systems	Windows XP Windows Vista Windows 7 Windows 2003 Server Windows 2008 Server Mac OS X For detailed information please see system requirements of Planmeca Romexis www.planmeca.com
Image formats	JPEG or TIFF (2D image) DICOM (3D image) 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 DIR Media Storage DICOM Print SCU (option) DICOM Storage SCU (option) DICOM Worklist SCU (option) DICOM Query/Retrieve (option) DICOM Storage Commitment (option) DICOM MPPS (option)
Interfaces	TWAIN Client PMBridge (patient information and images) VDDS (patient information and images) InfoCarrier (patient information) Datagate (patient and user information)
Installation options	Client-Server Java Web Start deployment

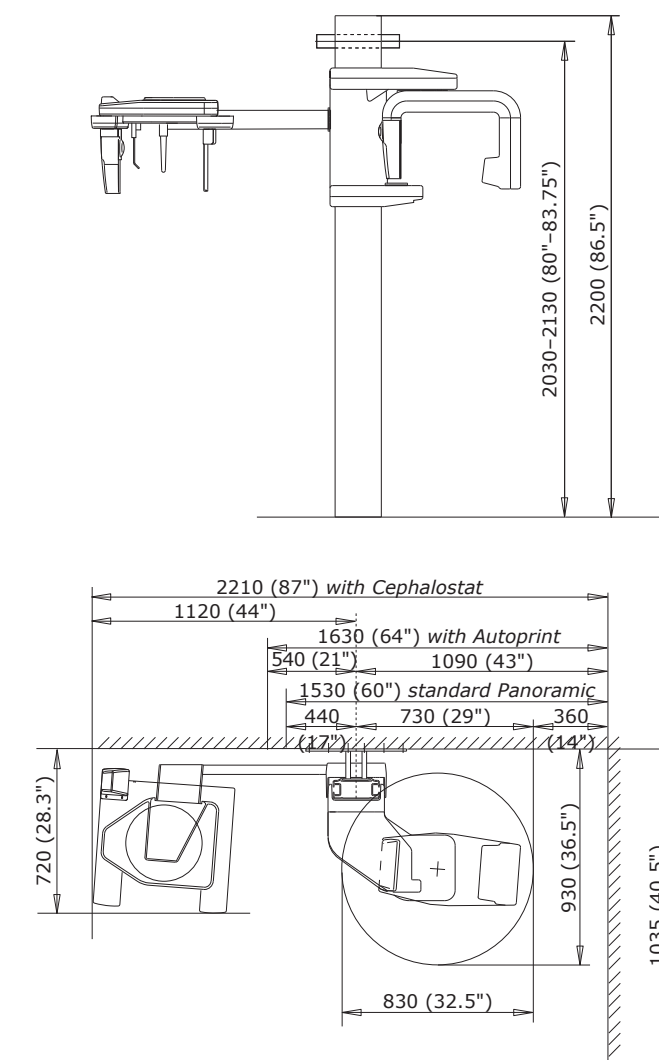
Planmeca Proline XC

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



	Physical space requirements			Weight
	Width	Depth	Height	
Planmeca Proline XC Panoramic	153 cm (60 in.)	103.5 cm (40.5 in.)	220 cm (86.5 in.)	108 kg (lbs 237)
Planmeca Proline XC Panoramic with Autoprint	163 cm (64 in.)	103.5 cm (40.5 in.)	220 cm (86.5 in.)	112 kg (lbs 249)
Planmeca Proline XC with Cephalostat	223 cm (88 in.)	103.5 cm (40.5 in.)	220 cm (86.5 in.)	126 kg (lbs 278)



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.



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