VILLA
SISTEMI
MEDICALI

Dental
Line

ROTOGRAPH evo

ROTOGRAPH evo

Dental Panoramic - Digital & Film

ROTOGRAPH evo

Evolution comes from experience
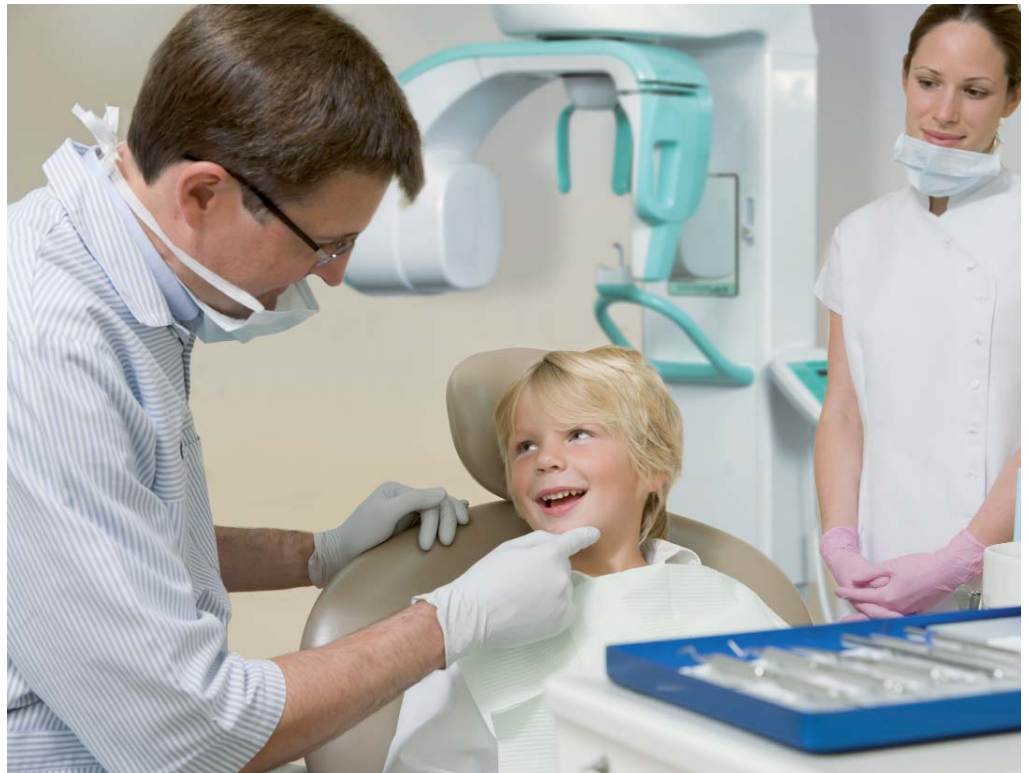
Rotograph Evo takes the experience of five decades of dedication to X-ray diagnostic imaging to the next level. You can rely on over 25.000 manufactured panoramic units that have been successfully operating worldwide for years, from the smallest dental practice to the largest university hospital.

And the Villa experience extends far beyond dental imaging. From general purpose radiological rooms to direct digital real time angiographic X-ray systems, Villa products help saving patient lives in thousands of hospitals worldwide.

A history of Evolution

Since the very first model introduced in 1974, the Rotograph name has always been synonymous with panoramic radiography.

1974 Rotograph I   1983 Rotograph 230   1997 Rotograph Plus

- *Diagnostic accuracy*
- *Flexible examination programs*
- *Straightforward operation*
- *Undisputed reliability*
- *Investment protection*
- *Implant program for transverse layers*
- *Digital upgradeable to Cone Beam 3D*

Rotograph Evo easily integrates into your practice under any aspect, from digital network connection, to room layout and of course your budget.

Diagnostic Accuracy

Your patient relies on you for dental treatment and you can rely on Rotograph Evo for an accurate diagnosis.

Not only high frequency: we give you high efficiency, too

The 200kHz High Frequency generator provides accurate and efficient X-ray emission and produces excellent images with lower tube current than previous generation products. Detail-rich images can be obtained with minimum patient dose and reduced energy consumption.

Spine compensation

Shadows produced by the spinal column are reduced by an effective modulation of the kV value during the rotation of the overhead assembly. The result is a more uniform image in the incisors area.

Constant Magnification

Panoramic images are acquired with constant magnification, translating into an accurate geometrical representation of anatomic structures.

Short exam time

You know how important it is to avoid image blur caused by patient movement. The exposure time for panoramic exam is particularly short to reduce the effects of patient movement. When your diagnostic target is limited within the dentition area, the examination time can be further reduced, with the additional benefit of a substantial dose reduction to the patient.

Automatic collimator

The correct collimator is automatically set for each exam, without any manual intervention from the operator.
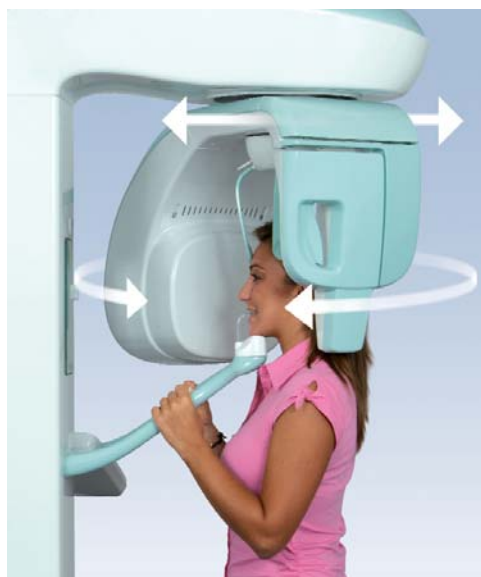
Multi-motor technology

Based on a multi motor technology, Rotograph Evo has all the examination programs you need and easily adapts to the individual characteristics of each patient.


Precise movements

The motorized telescopic adjustment of the column has sufficient range to accommodate all kind of patients, including small children and wheelchair bound patients. Progressive speed allows gentle adjustments when the patient is in position.

The key to a good panoramic image

Focal layer adjustment

Patients with different jaw structure are not a problem. The focal layer adjustment allows to compensate different arc shapes in the anterior region. The focal layer is electronically adjusted, without repositioning the patient.
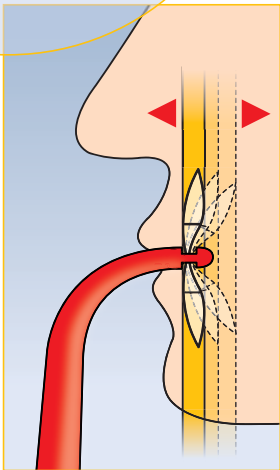
Accurate alignment

A good patient alignment to the reference axis is the most important factor for a good panoramic image. Two laser beams are used for proper centering of mid-sagittal and Frankfurt planes, without the need for a third positioning light.

Anatomic programs

Exposure factors and movement geometry can easily be adapted to the individual characteristics of each patient by selecting between adult and child programs and three patient sizes. The result is an optimal compromise between X-ray dose and image quality.

Self-centering

As the patient can see him/herself reflected in the mirror, he/she automatically tends to self-centre the mid-sagittal plane, resulting in faster positioning.

Chin rests

A complete range of chin rests are supplied with the unit, to accommodate all patients and applications.
- *Standard chin rest with bite: provides stable chin support and accurate location of the incisors in the focal layer*
- *Edentulous chin rest: provides a reference position for the patient chin when use of bite is not possible.*
- *Reduced chin rest: for Sinus and TMJ exams*
- *Implant positioner*

Stable positioning

The patient support structure makes use of multiple contact points to ensure correct patient alignment and stability during the exam.
- Three-point headrest provides centering of mid-sagittal and Frankfurt planes
- Chin rest and bite stick provide stability and proper localization of the focal layer
- Angulated hand grips provide for a natural extension of the cervical vertebræ to reduce image shadows in the incisor area.

Child friendly

Dedicated paediatric exams ensure consistent dose reduction and reduced exam time.
The analog version is also equipped with a specific collimator, limiting the X-ray beam to further reduce dose to patient. Color combination and rounded shapes of the unit help in creating a comfortable and stress free environment for the patient, thereby contributing to successful exams.

The Power of Digital

All the Tools you need

Rotograph Evo D comes bundled with the QuickVision software package that offers all the image processing tools required for your professional activity.


Environment and budget friendly

Say goodbye to films and polluting chemicals and contribute to the preservation of both the environment and your budget.

Images can be displayed and shown to the patient in seconds and become an important tool to show treatment planning and progress. If needed, printouts can easily be produced using inexpensive inkjet printers.

Less dose to patient

The high sensitivity of the Cs-I digital detector makes for a reduced X-ray dose and in case of wrong exposure settings, the digital image allows to extract useful information without retakes. Rotograph Evo D is already compliant to existing regulations on patient dose monitoring. The dose readout is calculated for each exposure and stored with the image without the need for add-on DAP measuring devices.
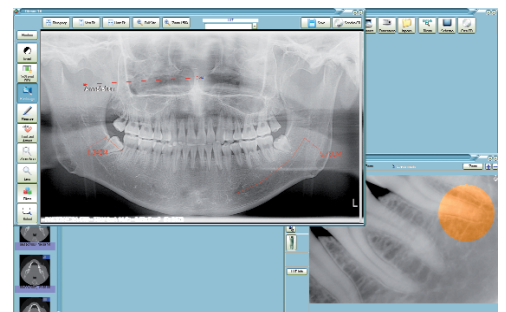
Even more tools

The Dental Studio software package (option) brings additional possibilities to image treatment. The 16-bit image processing engine allows a more precise control of image contrast. Patient archive and image database are extremely powerful and can be integrated with practice management software.

DICOM functionalities (option) can also be added for integration into hospital networks.

Simple is beautiful

The integrated keyboard features large, easy to find pushbuttons and a clear display. Controls are grouped in logical areas consistent with the typical operating workflow: patient selection, exam protocol, exposure adjustments.

A virtual version of the keyboard can also be displayed on the PC screen and allows the operator to preset exposure parameters from within the image acquisition program.

Instant network integration

Rotograph Evo is easily deployed into your network environment. The integrated Ethernet connection is compatible with existing computer networks and requires no dedicated boards to be installed in the computer, making it possible to acquire images from any PC, including notebooks.

With integrated networking capability, images can be acquired and transferred from any workstation in your practice.

Dual storage

Rotograph Evo offers the unique capability of saving images directly to a USB memory stick, without interrupting your workflow. Images can then be transferred to the PC at any time, even if the PC or network was momentarily unavailable at the time of the exam.

Cephalometric Imaging

Versatile upgrade paths

Predisposed digital pan units can be upgraded to ceph with several upgrade options to help you plan your budget according to your needs, protecting your investment over time.

Precise geometry

The digital ceph imaging principle of Rotograph Evo combines the scanning movement of the detector with the stationary position of the X-ray source. This method provides the same projection geometry as with a regular film, allowing precise orthodontic analysis.

Single or Dual Detector: it's your choice

What are your requirement for ceph exams? If you're doing just a few studies per week, or are bound to a limited budget, the single detector unit is your choice. The same digital detector can be moved from the Pan to the Ceph position with a quick and simple operation. If orthodontics is your field of expertise, or you just want to avoid handling the detector, than a dual detector unit is what you need.

Carpus Exam

Bone age can be assessed with the dedicated Carpus Exam. A dedicated hand support plate makes positioning fast and easy.

Fast and detailed

Depending on the exam type and patient size, several image areas can be chosen, from 18x22 to 22x30cm.
Two scanning modes can be selected:
- high resolution mode delivers highly detailed images
- high speed mode acquires a standard lateral ceph in just 4.5 seconds, and is especially suitable for children

No unnecessary exposure

During the digital ceph scan, each portion of the skull is exposed for just fractions of a second by a perfectly collimated x-ray beam, limiting the overall patient exposure to a minimum. This is particularly beneficial for children and teenagers, who are often subject to ceph exams.

Optimized protocols

A total of eight digital cephalometric programs gives you the flexibility you need for all patients, with the best combination of image area, acquisition speed and resolution.
The cephalostat provides simple and gentle patient alignment for all projections, including lateral, frontal and postero-anterior.
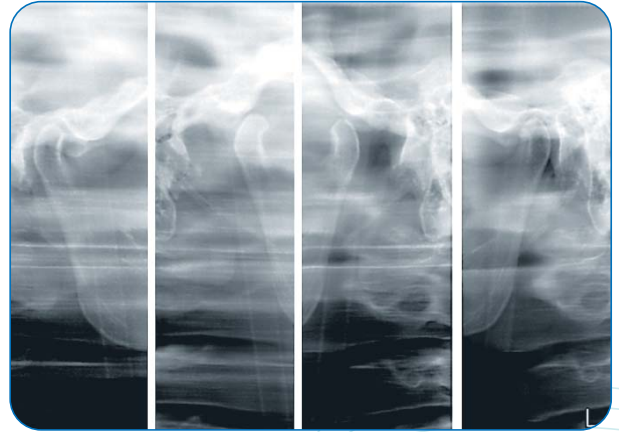
Automatic soft tissue filter

For lateral projections a copper filter is automatically inserted into the x-ray beam to enhance the visibility of the patient's profile and a calibrated ruler is superimposed on the image for proper geometric calibration.

Examination Programs
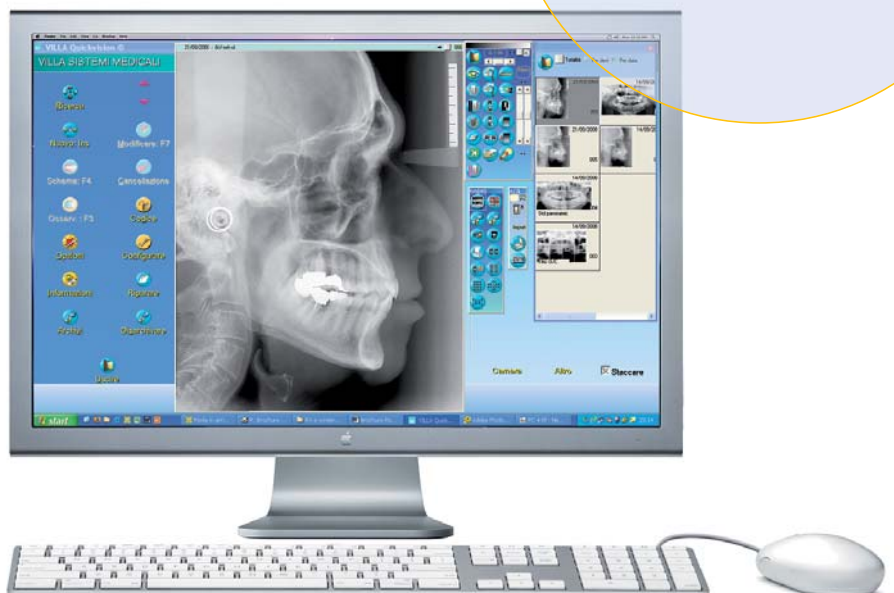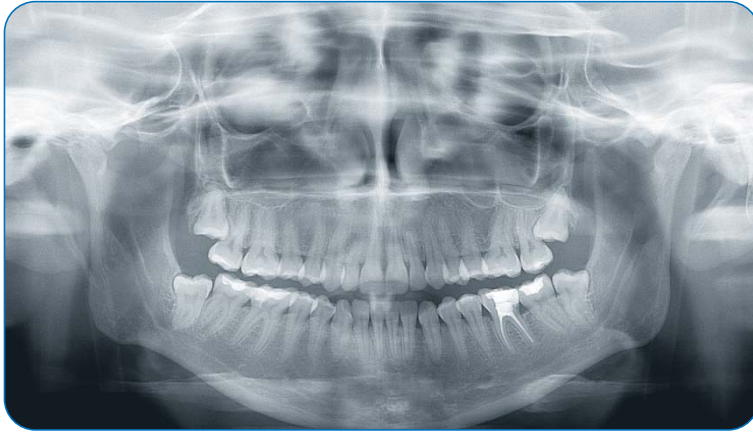
Standard Exams

Standard Panoramic with Constant Magnification

TMJ - Temporo-Mandibular Joint with open and closed mouth. The true Lateral view shows the exact location of the condyle

Child Panoramic. Reduced examination time

Sinus. Extended visibility of the paranasal sinuses

Implant package

The **Implant** package for Rotograph EVO D is a valuable tool for taking transversal cross sections of the dental arch for preliminary implant evaluation and follow up.

Differently from other machines that only limit this kind of exam to posteriors, the Implant exam on Rotograph EVO can be performed on **any dental element.**
The patient is steadily held in place by two dedicated positioners (maxillary and mandibular) that don't require time consuming impressions or expensive disposable materials as is the case with other systems.

Three layers are acquired for each exam. One in the theoretical center of the dental element and two others at a distance of 4mm from the center for incisors and canines and 6 mm for premolars and molars.

Exams with Ceph Arm

Lateral Ceph with Soft Tissue Filter

Postero-Anterior Ceph

Carpus Exam. A removable hand support is supplied with the ceph arm

Additional exams with Evo XP eXtended Package

The optional Evo XP exams package increases the scope of application of your unit with the addition of the following exams:

Half Panoramic, left and right. Provides reduced exposure when the diagnostic target is in one or the other half of the dentition

Double bitewing projection, left and right (only for digital version). It shows both bitewing views in sequence, joining them on the same image

Single bitewing (only for digital version). It can be taken on either left or right side of the mouth

Orthogonal projection. Reduced overlapping of adjacent teeth for improved detection of interproximal caries

Reduced dose. A panoramic limited to the dentition only. Used when the diagnostic target does not require the visibility of the Condyles

Frontal dentition. A segmented panoramic of frontal dentition area

Highly compatible

The analog version of Rotograph Evo accepts
all standard 15x30cm flat cassettes. If your
practice is equipped with CR phosphor plates
not compatible with 15x30 format, you can
request a specific cassette holder for using
24x30cm cassettes for panoramic images.
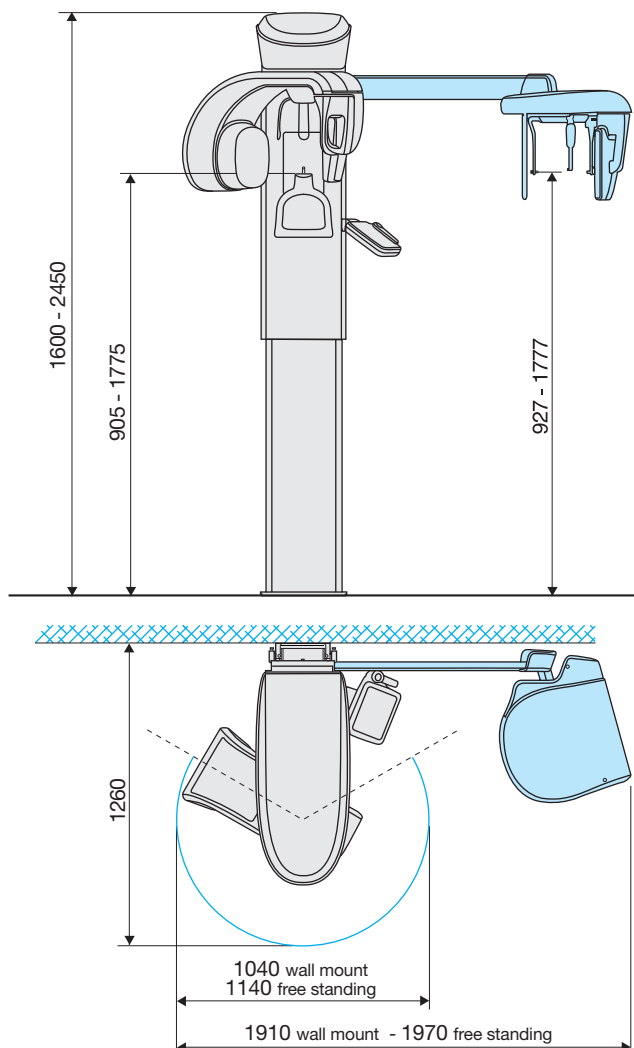Your investment is always protected.

Technical data

Examination Programs

Basic unit	Adult Panoramic Child Panoramic Open-Closed mouth lateral TMJ P-A Sinus (rotational)
Evo XP package	Half Panoramic adult Half Panoramic child Orthogonal Projection Low Dose Panoramic Frontal Dentition Single Bitewing (only for digital version) Double Bitewing (only for digital version)
Ceph version	Lateral Ceph A-P and P-A Ceph Carpus (hand)
Implant	3 transverse layers on any dental element (only for digital version)

Floor stand

The optional self-supporting floor stand can be used when wall mount is not possible and allows to perform exams on wheelchairs.

1600 - 2450

905 - 1775

927 - 1777

1260

1040 wall mount
1140 free standing

1910 wall mount - 1970 free standing

	Rotograph Evo D - Digital	Rotograph Evo - Analog
Exposure time	PAN 7.3 – 13.8 sec CEPH 4.5 – 15 sec	PAN 7.3 – 13.8 sec CEPH 0.7 – 2 sec
Dose x area evaluation (DAP)	Standard	Option
Image area	PAN 14.6 x 30cm CEPH 18x22, 24x22, 29x22 cm	PAN 15x30 or 24x30cm CEPH 18x24 cm, 24x30cm, 8"x10" Preferred cassette size to be specified at order
Image transfer	Ethernet – USB memory stick	N/A
Sensor technology	CCD with high resolution Cs-I (Cesium Iodide) scintillator	N/A
CCD Pixel size	48 µm	N/A
Effective image resolution	5.2 lp/mm	N/A
Image size	1536x2800 (standard PAN) - 3000 x 2305 (CEPH, max)	N/A
Acquisition depth	12 bit (4096 levels)	N/A
DICOM connectivity (option)	Print, Store, Worklist	N/A
Generator	High frequency, 200kHz constant potential	
High Voltage	60 – 86kV	
Current	6 – 12 mA	
Focal spot	0.5 IEC 336	
Spine compensation	Automatic kV modulation	
Weight	PAN 157kg (346 lb.) CEPH 177kg (390 lb.)	
Power supply voltage	110-120 / 220-240 Vac, 50/60Hz	
Absorbed current	6.6 A @ 220-240 V – 15A @ 110-120 V	

VILLA SISTEMI MEDICALI

Villa Sistemi Medicali long-standing experience at the service of our customers

Competence in x-ray systems

Villa Sistemi Medicali specialists can provide qualified information on new x-ray systems, room structure and installation and equipment positioning.

A wide range of equipment

Villa Sistemi Medicali is among the major European manufacturers of radiological systems and offers a wide range of products, such as:

- Digital radiographic and angiographic systems
- Remote controlled tables
- Classical tilting tables
- General rad floating tables
- Chest stands
- Mobile units
- Surgical C arms
- HF Generators
- Dental units: Intra-oral, panoramic and 3D

Our priority: Technical Service

A wide network of highly skilled service engineers ensures effective and reliable maintenance of all Villa Sistemi Medicali equipment installed worldwide.
Preventive maintenance programs and Service Contracts are adapted to the needs of our customers

Logistic services: a widespread presence

Spare parts, accessories and consumables are shipped daily by Villa Sistemi Medicali to all its customers worldwide.

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