## Advanced filters and Multi Level vision

Thanks to innovative X-VS image processing software, dentists benefit from better diagnostics, meeting their needs more accurately. A user-friendly software interface makes reading high resolution images simpler and easier. The Multi-Layer-Filters function provides a response to dentists' real needs. By using proprietary algorithms optimised for the X-VS sensor, this function lets dentists simultaneously capture, display and share a set of images (up to 5), each with a specific improvement that can be used to highlight various anatomical details with different degrees of sharpness. After image capture - or by automatically setting preferred parameters - users can customise image contrast to suit their diagnostic or visual preferences, allowing for improved diagnosis. Equipped with iRYS software, X-VS now offers the most advanced, versatile image processing filter pre-setting on the market. Users can select which filters to use from among the pre-set families and define any further customisations, all from the iRYS image display window. This provides individual dentists with a customised comfort zone for every situation.

| SENSOR X-VS | Size 1 - Regular | Size 2 - Large |
|---|---|---|
| External dimensions (mm) | 38.9 x 24.9 | 41.9 x 30.4 |
| Thickness (mm) | 5.3 | 5.7 |
| Pixel matrix | 1500 x 1000 | 1700 x 1300 |
| Pixel size (µm) | 20 | 20 |
| Maximum resolution (lp/mm) | 25 | 25 |
| Grey levels depth | 14-bit acquisition – 16384 maximum grey levels | |
| Scintillator technology | CsI (Cesium Iodide) with micro-columnar structure | |
| Direct exposure pro-tection | FOP (Fibre Optics Plate) | |
| Protection rating | IP 67 (Guaranteed against liquid or dust infiltration) | |
| Compatibility with X-ray generators | Any AC or DC technology X-ray generator with values in the 60 – 70 kV and 1-8 mA range and precision control of exposure times | |
| Connectivity | Direct USB to PC | |
| Image capture software (for PC) | iCapture with dedicated filters for third party soft-ware | |
| Image management software (for PC) | iRYS (as per ISDP©10003:2020 in compliance with EN ISO/IEC17065:2012 - certificate number 2019003109-2) and iPad iRYS viewer app (free) | |
| Supported protocols | DICOM 3.0, TWAIN, VDDS | |
| DICOM nodes | IHE compliant (Print; Storage Commitment, SR document; WorkList; MPPS; Query/Retrieve) | |
| **Minimum system re-quisites** | | |
| Supported operating systems | Microsoft® Windows® 10 Professional 64 bit | |
| Display settings | 1280x1024; 1344 x768 or greater, 16 million colours | |
| Port | USB 2.0 or subsequent | |
| Power supply | 5 V DC, 500 mA (via USB) | |

| RX DC X-RAY UNIT | |
|---|---|
| Generator | Constant potential, microprocessor-controlled |
| Working frequency | 145 - 230 kHz with self-adjustment (typically 175 kHz) |
| Focal spot | 0.4 mm (IEC 336) |
| Total filtration | 2 mm @ 60 kV / 2 mm @ 65 kV / 2 mm @ 70 kV  (*) |
| Anode current | 4 / 8 mA |
| Voltage at X-ray tube | 60 / 65 / 70 kV (*) |
| Exposure times | 0.020 – 1.000 seconds, R'10 and R'20 scale |
| Source-skin distance | 20 and 30 cm |
| Irradiated field | Ø 60 mm and Ø 55 mm (with round cone) |
| Additional collimators | 35 x 45 mm (with rectangular cone for size 2 sensors), 31 x 41 mm and 22 x 35 mm, for size 1  and size 0 sensors |
| Power supply | 50/60 Hz, 115-120 V AC ±10% or 230-240 V AC ±10% |
| Duty Cycle | Continuous operation with self-adjustment up to 1s/90s total |
| Arms (for Standard version only) | Available in 3 lengths: 40 cm – 60 cm – 90 cm |
| Max. arm extension | 230 cm, from wall |
| Versions | Standard (wall mounted) or Mobile (on portable cart) |

(*) values depend on the country where the product is marketed.

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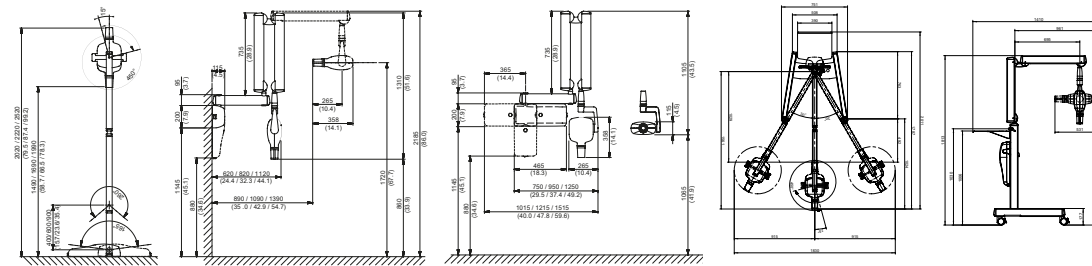
**BU Medical Equipment**
**Sede Legale ed Amministrativa / Headquarters**
CEFLA s.c.
Via Selice Provinciale, 23/a
40026 Imola (BO) - **Italy**
**t.** +39 0542 653111
**f.** +39 0542 653344
sternweber@sternweber.com
sternweber.com

**Stabilimento / Plant**
Via Bicocca, 14/C
40026 Imola (BO) - **Italy**
**t.** +39 0542 653441
**f.** +39 0542 653601

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# IMAGING
## X-VS SENSOR
## AND RX DC X-RAY UNIT

HD sensor

## WE FORESEE THE FUTURE TODAY TO GUARANTEE A MORE INNOVATIVE TOMORROW.

## RX DC, THE INTUITIVE X-RAY UNIT, AND X-VS, THE EFFICIENT SENSOR, HAVE ARRIVED.

### Technology at the service of innovation

High quality imaging, low X-ray doses, versatility and ergonomic design: the best technology can offer. The RX DC is a cutting-edge X-ray unit, designed to maximise surgery efficiency.

The RX DC provides top-drawer imaging with outstanding detail thanks to a constant potential high frequency generator (DC). With a very small focal spot (0.4 mm) it's possible to obtain sharp images with ultra-high definition. The RX DC maximises both imaging performance and patient comfort while significantly lowering the X-ray doses he/she is exposed to.

Highly versatile and simple to install, the X-ray unit has arms with an integrated self-balancing system that allows them to be pointed in 4 directions - available in the following lengths: 40, 60 and 90 cm. Thanks also to the protractor with graduated scale, positioning of arms and tube head is stable and easy.

**Freedom of movement**
Thanks to the cart, the RX DC moves in perfect synchronism with the workstations, adapting to the demands of a dynamic surgery.
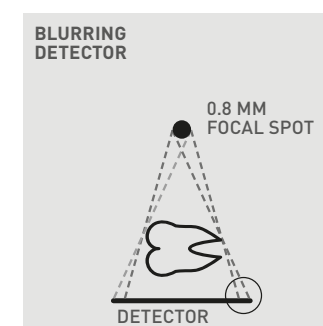
**Automatic parameters**
Optimal results, personalised according to patient build and the region under investigation. Automatic exposure parameter modulation and accurate power selection make this the perfect X-ray unit in any situation.
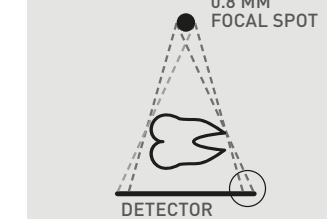
**Intelligent control**
The handheld control unit with large display allows for fast, user-friendly selection of the most suitable X-ray image capture programme and verification of the administered X-ray dose. The fast, dynamic duty cycle also allows real-time control of head tube temperature.

**High Definition Images**
Precise details, excellent image definition, sharp edges and X-ray doses for patients.
Thanks to the small focal spot (0.4mm) and the incorporated collimator, the RX DC increases X-ray parallelism, giving a source-to-skin distance of 30 cm.

BLURRING DETECTOR
0.8 MM FOCAL SPOT
DETECTOR

DEFINITION DETECTOR
0.4 MM FOCAL SPOT
DETECTOR

**Dual format**
The X-VS is equipped with a sensor, available in two sizes - ergonomic and with smoothed edges - which adapt it to the anatomy of the patient's oral cavity, guaranteeing outstanding positioning comfort. Reduced dimensions and a maximum active area ensure advanced-ray diagnosis.
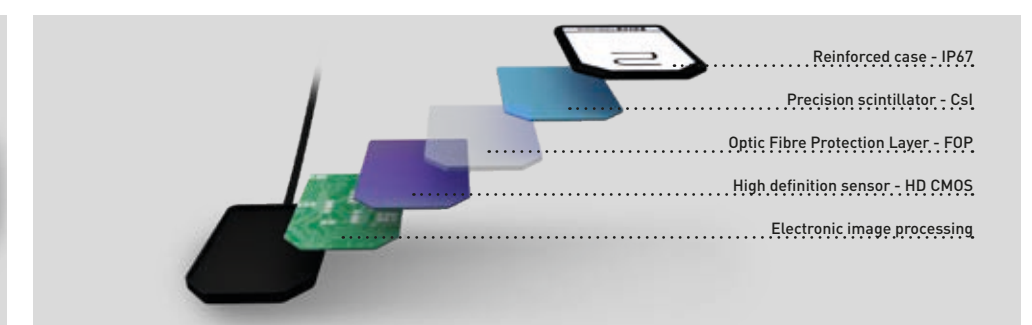
**Five-layer sensor**
Five-layer technology, for high-contrast images and precision detail. Cesium Iodide (CsI) scintillator made up of column-like micro-structures that preserve image quality; it first intercepts the X-ray beam and converts it into visible light. The fibre optics layer (Fibre Optics Plate) collimates the radiation onto the sensor and protects it against direct X-ray penetration. The third layer is the (CMOS HD) acquisition device which converts the light into a digital image with 16,384 grey levels. The fourth layer pre-processes the image and converts it into a USB signal. The last layer has a protective function.

Reinforced case - IP67
Precision scintillator - CsI
Optic Fibre Protection Layer - FOP
High definition sensor - HD CMOS
Electronic image processing