



08/2017 S300GB171S00

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S300 |
Innovation inspired by perfection

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INNOVATION IS POWER



**HEALTH FACILITY
MANAGER**

"Stern Weber just keeps on getting better. That's why it's the benchmark brand in the Dentistry Department".



ENDODONTICS SPECIALIST

"First-rate materials, user-friendly controls, all-round hygiene safeguards. Stern Weber gives me everything. Workplace safety at all times."



IMPLANTOLOGIST

"Cutting-edge instruments, perfect control and precise settings plus a patient chair that really makes the difference. For my specialisation, Stern Weber is the very best."

Evolution aims at perfection, finest details and rigorous constant improvement. Stern Weber's DNA is based on the wonders of technology, on enthusiasm for innovation, on the strength of genuine novelty. Rigour and precision are the key aspects of each new product, and the shapes of new design infuse such products with life. We believe in flexible working, in the perfection of true talent, in the importance of concrete steps being made towards true progress. We foresee the future today to guarantee a more innovative tomorrow.

A man in a white lab coat is walking away from the camera down a bright, modern hallway. The hallway has white walls and a light-colored floor. The lighting is soft and even, creating a clean and professional atmosphere. The man's back is to the camera, and he is walking towards the end of the hallway.

PROGRESS ZONE

Not everyone sees technology as an end in itself. On the contrary, the true value of innovation lies in solutions that lead to tangible development, to new professional horizons. The S300 offers a flexibility that provides just the progress you're looking for. We combine comfort and ergonomics to ensure swift workflows, we merge design and innovation to provide a dental unit built around your needs. Together with you for even better results. Our technology is designed for your progress.



* The dental unit in the photo is the Short Arm version





Full Touch multimedia
With the integrated intraoral camera or integrated X-ray sensor, the Full Touch control panel microprocessor supports image management and adjustment of their basic parameters.



Apex locator
With dedicated contra angle, the apex locator lets users view file positioning in the root canal on the display and, where the multimedia system is used, also on the dental unit monitor. Warning beeps indicate that the apex is drawing nearer.



USB Port
The Guest profile makes it possible to save a set of personalised parameters on a USB storage device. This gives a consultant operator permanent access to his/her chosen settings even if they have not been stored on the control panel memory.

Towards new technological horizons

Now more advanced than ever, touch-screen interfaces let the dentist manage all the dental unit functions with a simple tap. As standard on the S300, the Smart Touch instrument control panel is divided between a touch-sensitive zone that allows user-friendly display and interaction with dental unit parameters and a more traditional keypad that controls patient chair movement and positioning. Alternatively, the latest-generation Full Touch control panel is available: this features a 5.7" glass capacitive-type touch screen that links the dentist to the on-board computer governing the entire dental unit and all its integrated devices. On the Continental version an incorporated accelerometer allows this instrument to be flipped from the horizontal to the vertical and vice versa. Both control panels are available on Continental and International models.



A database of certified contra-angles is provided, as is a wide selection of generic ratios. Parameter control and data display are optimised thanks to the outstandingly user-friendly browsing system and graphics on the new control panel. The instrument control panel can also be used to control, in addition to work parameter settings, peristaltic pump operation and flow rate.



In endodontics mode, the Full Touch software sets combined torque/speed values according to the selected file by drawing on data in preloaded library files. The S300 can also incorporate reciprocating mode movement in its micromotor to allow use of the special files. Where a Full Touch console is present, the endodontic files, reciprocating systems included, can be selected directly from the libraries.



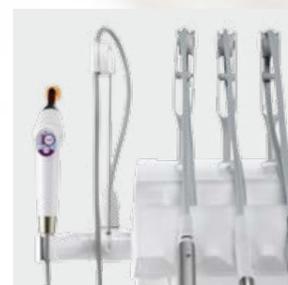
Brushless micromotor i-XS4
Ultra-light and manageable, i-XS4 provides a speed range from 100 to 40,000 rpm and, with the appropriate contra-angle, can, when used for implantology work, reach torques of up to 70 Ncm.



Peristaltic pump
Thanks to incorporation of the peristaltic pump on the dentist's module, everything needed to practice implantology is comfortably within arm's reach.



Smart Touch
With regard to the brushless micromotor and peristaltic pump, the same functions can also be accessed via the Smart Touch display.



Sixth instrument
Available in both Continental and International versions, the additional sixth instrument unit is fitted on the dentist's module side and can house a camera or curing light.

Full screen performance

Controlling the dental unit, personalising settings, selecting and precision-adjusting instrument parameters via the Full Touch instrument control panel is the simplest and fastest way to bring out the full potential of an integrated treatment centre that lets you practice conservative dentistry, endodontics and surgery. Control and precision ensure each task is completed safely and, in the case of surgery or implantology, the level of interaction provided by the software covers clinical parameter settings, peristaltic pump adjustment and other functions that smooth preparation of the implant site and actual placement.



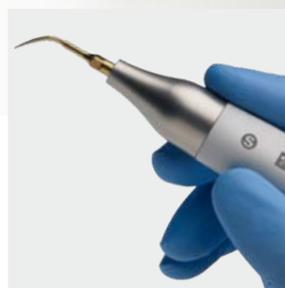
In addition to endodontic mode, the dentist can also carry out pocket cleaning in paradontic mode.



The instrument control panel allows personalised settings to be applied for each instrument: optic fibre intensity, fixed or gradual foot control speed, water, air or combined spray.



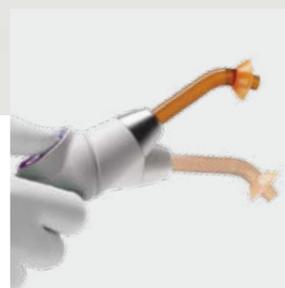
Smart Touch
Parameters can be controlled and displayed, and the incorporated apex locator displayed, on the Smart Touch too.



SC Scalers
Ultrasound scalers suitable for supragingival prophylaxis, periodontal tasks, the preparation of small cavities and root canal cleaning techniques.



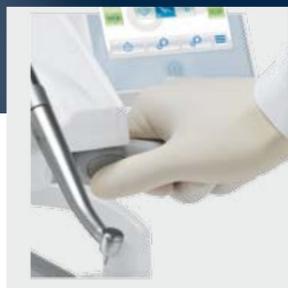
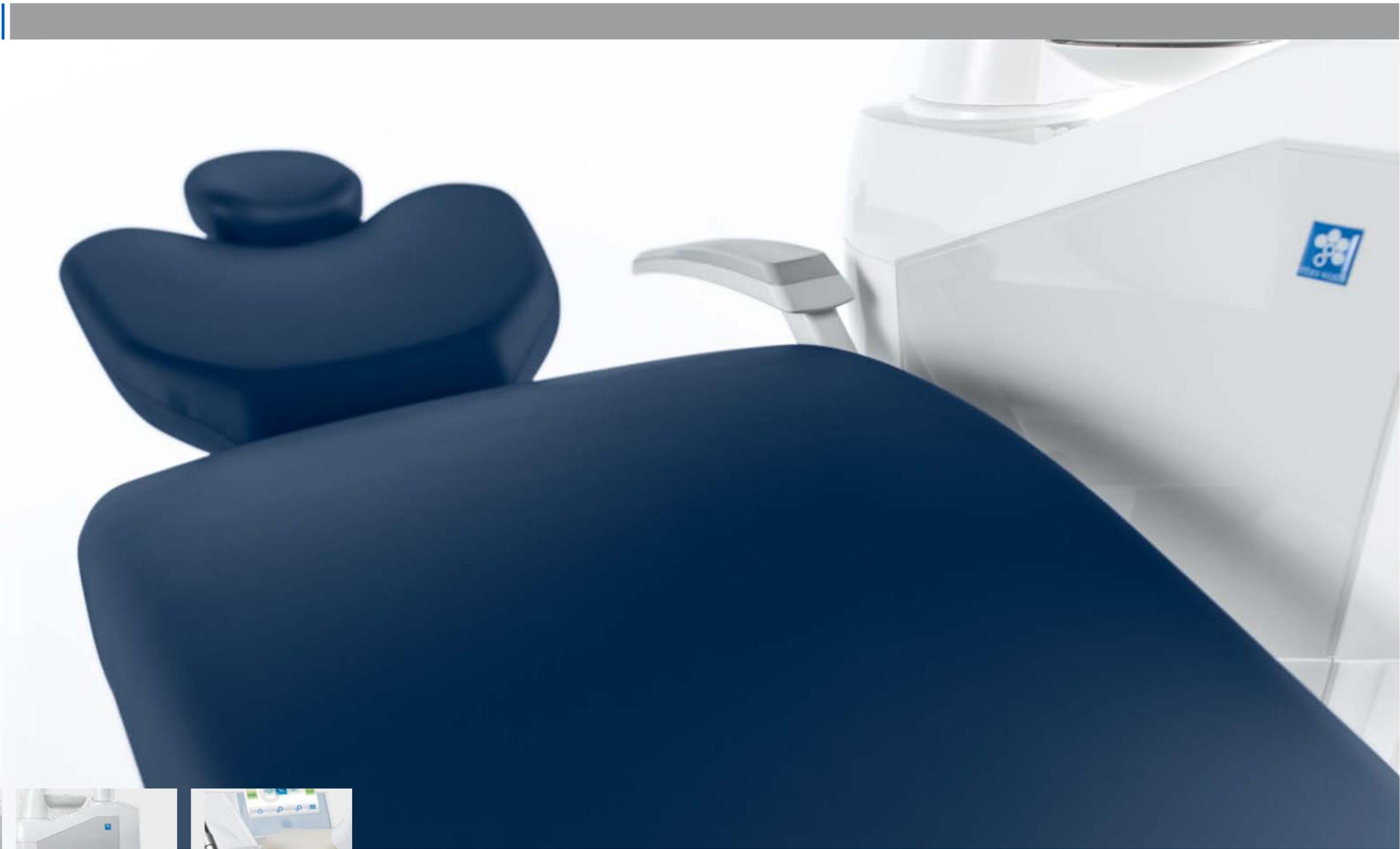
Brushless micromotor
Light and compact, i-XR3L is suitable for conservative and prosthetic dentistry. The i-XR3L model also incorporates LED lighting.



T-LED
Usable in either a straight or angled position thanks to 180° rotation around the central pivot, the patented T-LED curing light is perfect for polymerisation and bonding tasks. Each of the 6 programmes has been fine-tuned to prevent the phenomena of compound shrinkage (anomalous hardening and volume loss).

Enhancing control intuitively

Large icons and easy-to-understand browsing make interaction with software and access to control menus simple, letting the dentist explore and make full use of the outstanding potential of the S300. Comfort does not depend on the excellent user-friendliness of the new interface alone: it is also enhanced by smooth integration of instruments, software and dental unit. All systems - instruments, hygiene devices, operating lights, patient chair and cuspidor bowl - can be fully controlled via the instrument control panel.



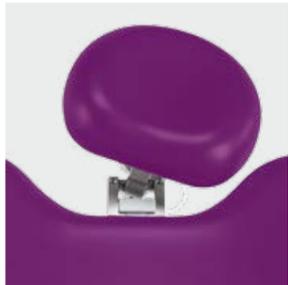
Armrests
Both patient chair armrests are made of painted die cast aluminium with surfaces in soft-touch material; they can easily be rotated forwards to facilitate patient access.

Capacitive sensor
The capacitive sensor, inserted inside the handle underneath the instrument control panel, is used to deactivate the pneumatic brake and then accurately lock the dentist's module in position.

Comfort: a pleasure worth sharing

Whatever the situation, Stern Weber never forgets that comfort plays a constant, mutual role. The patient must feel at ease while both dentist and assistant must be able to operate without physical stress or discomfort. Memory Foam padding supports patients correctly throughout the entire treatment session, resulting in enhanced comfort and relaxation. Where built on wellbeing, interpersonal relations reinforce patient trust and collaboration during treatment; that trust translates into better results and heightened patient involvement.

The innovatively shaped patient chair allows medical staff to move in closer to the patient during treatment. The Trendelenburg position is reached by way of synchronised movements and the reinforced structure allows patients weighing up to 190 kg to be lifted.



Ataxis
 With the simple press of a button the dentist can release the pneumatic mechanism and position the patient's head, gently accompanying its natural articular movement. Since it has no levers or mechanical brakes, adjusting the headrest vertically so it suits the patient's height is equally easy.



Continental ergonomics
 Carefully balanced instruments on the Continental version and the end-of-stroke lock system minimise traction on the dentist's wrist.



Assistant's module
 The 3-holder assistant's module, fitted on the vertically adjustable articulated arm, can be positioned at a height that best suits medical staff.



Additional module
 An optional add-on unit with 2 instrument holders for camera and T-LED light is also available.



Short Arm
 The optional version with short arm enhances fluidity of movement and is suitable for surgeries with limited space.

Ergonomics, the key to your wellbeing

Simple, precise motions, made possible by Stern Weber innovation. The second-generation Ataxis headrest is one of the hallmark elements of a brand renowned for its attentiveness to the ergonomics of treatment and patient comfort. Constant research into sophisticated solutions is seen in every last detail: pantograph arm excursion is aided by two special bearings and vertical travel has been increased; the dentist's module can be positioned precisely via the pneumatic brake, released via a touch-activated sensor. Similarly, the assistant's module also features several solutions, such as the articulated arm to allow optimal instrument positioning.



Rotating cuspidor bowl
As an optional function, the bowl together with the chair automatically rotate when recalling the rinse and home positions.



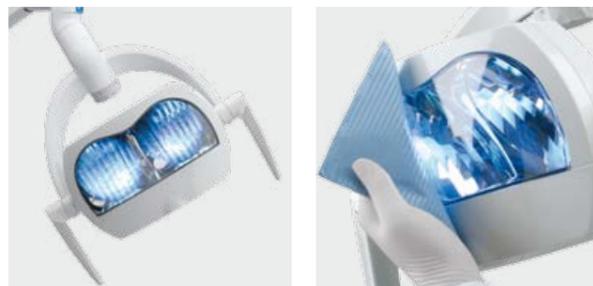
External tank
The independent feed tank is accessed from the outside of the unit body to make its replacement or top-up easier.



Easy access
The side door provides easy access to the systems inside the unit body.

Design plus practicality

The S300 line features a unit body designed to aid access to hygiene systems and make routine maintenance easier. Reduced overall dimensions also means more space around the patient and greater freedom of movement for medical staff. In its standby position, the cuspidor bowl contributes to overall unit body compactness by remaining outside the operating zone, preventing any interference with the assistant's workflow. The S300 combines the tangible advantages of industrial design with meticulous styling.



Venus Plus – L LED

- Light intensity from 3,000 to 50,000 Lux
 - Colour temperature 5,000 K
 - Low-thermal emission LED light sources
 - Silent running because there is no forced ventilation
 - LEDs guaranteed to work 50,000 hours
- Hermetically sealed front screen. This makes external cleaning easier and stops any dust or spray fluid getting inside the dish.

Choices that make every day better

Visual comfort essentially depends on two aspects of light: its brightness and quality. That's why Stern Weber offers a choice of two operating lights with different technologies: halogen or LED lighting. On both systems ergonomic aspects regarding optical performance and positioning of the light, which can be moved on three axes, are honed to perfection.

A broad illuminated spot and homogeneous light distribution play a key role in preventing situations that can lead to severe eye strain. While brightness on the Venus Plus is adjusted via a manual potentiometer, on the optional dual-reflector LED operating light it is regulated by a no-touch infrared sensor.



Power Pedal Foot Control

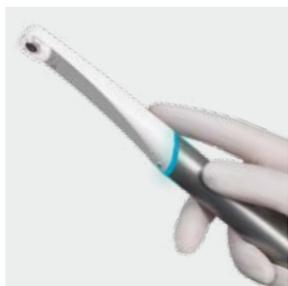
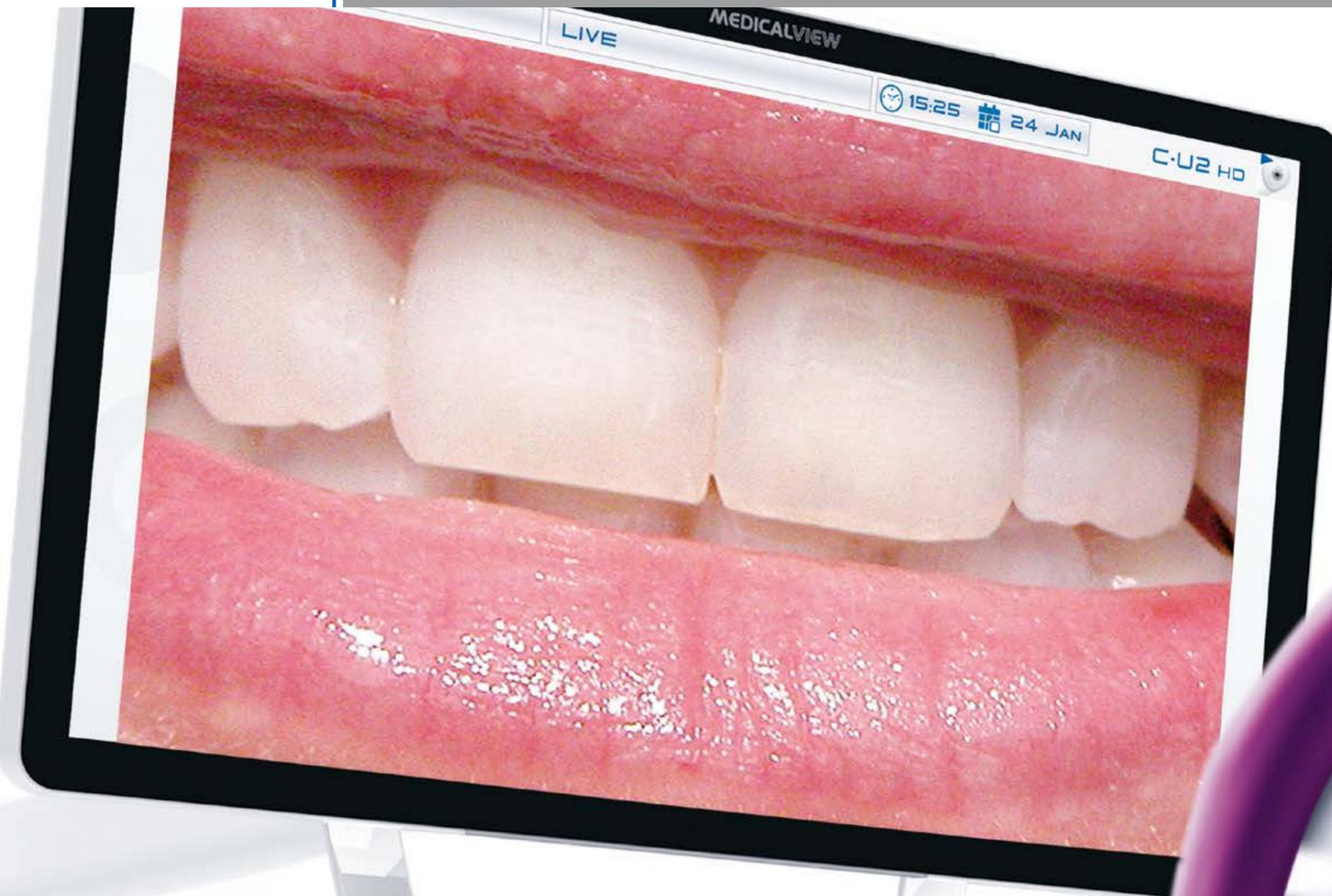
Multi-function Foot Control

Pressure-operated Foot Control

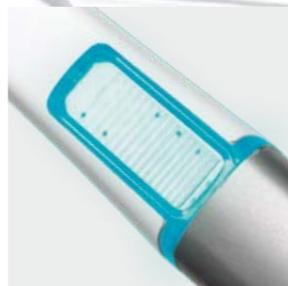
Available in wireless versions powered by lithium batteries, multi-function and pressure-operated foot controls can also be cable-connected to the dental unit for either control or recharging purposes.

Flexible configuration, secure control

Control of dental unit and individual instruments needs to be smooth and instinctive. Stern Weber has developed foot controls with three different ergonomic solutions, two of which are available in a wireless configuration to maximise freedom of movement during treatment. In addition to the improved hand hygiene that comes from transferring functions to the foot control, Stern Weber foot controls offer numerous dental unit system management possibilities: these sophisticated units allow the dentist to control patient chair movement, the Chip Air and Chip Water functions and, with the instrument extracted, invert micromotor rotation or switch on the operating light. Moreover, in surgery mode the peristaltic pump can be opened and closed.



C-U2 HD camera
The C-U2 digital camera with HD sensor provides high-resolution images directly on the Full Touch display or in full-screen mode on the Full HD 16:9 22" monitor with a resolution of 1920 x 1080 pixels. Slim handpiece design, with a tip measuring just 9.5 mm, allows distal areas to be reached with ease.



Multi-function key
The backlit multi-function key lets the operator capture freeze frame images and then save them. The camera provides extraoral, intraoral and macro images.



Glass optics
The optical system, with 7 glass lenses and an F/8 aperture, ensures excellent brightness and an extensive depth of field without any need for manual focusing. Thanks to the partial retroflex and the 90° angle view, exploration of the oral cavity is simple and complete.



22" LED Monitor
Certified as per CE 93/42, the monitor can be cable-connected to a PC. For the multitouch version the dual-articulation support arm is recommended. Thanks to IPS technology, the broad screen viewing angle allows optimal image display from any angle.

High definition communication

Then highly advanced Stern Weber multimedia system stems from the development of sophisticated electronics that manages images on both the monitor and the Full Touch display. A high definition camera and latest-generation X-ray systems, all connected and controlled via the Full Touch panel. The dentist controls the images directly on the touch panel, medical monitor or external PC, thus speeding up diagnostics considerably.



Wireless handheld unit
The handheld wireless control device features 4 keys to adjust exposure and another key to take the X-ray. The RXDC automatically calculates the correct exposure on the basis of the selected anatomic area.



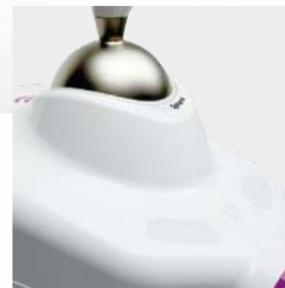
The dental unit in the photo is the Short Arm version



Zen-X
Digital sensor with three-layer technology and CMOS receptor available in 2 sizes. Built to last and featuring rounded edges, the sensor can be positioned in the patient's mouth easily and comfortably. Equipped with USB connection to provide greater versatility in the surgery. The sensor is IP67 certified.



RXDC - HyperSphere technology
Designed for digital X-ray imaging, the RXDC features a focal spot of just 0.4 mm which, together with the X-ray beam parallelism that stems from 30 cm collimation, ensures images of outstanding quality.



HyperSphere Technology
Gentle pressure on touch-sensitive areas on the front section releases the electromechanical tube head lock. The X-ray unit is then free to rotate around a ball joint, allowing easy repositioning: to lock the tube head in its new position all the dentist has to do is release the touch-sensitive areas.

The convenience of an integrated solution

Consisting of a DC X-ray unit with wireless control and a digital sensor housed on the dentist's module, this comprehensive integrated system eliminates all the inconveniences associated with separate installation of diagnostic equipment. X-ray investigation outcomes are shown on the multimedia monitor and, where the Full Touch control panel is in use, directly on the 5.7" display where the dentist can adjust contrast and brightness, rotate the image, enlarge it or save it. Stern Weber innovation combines cutting-edge diagnostic instruments and advanced performance by the sophisticated software which interfaces exclusive systems and devices.



W.H.E. (Water Hygienisation Equipment)
 A combination of a continuous disinfection system and a device that ensures an air gap between the mains water circuit and dental unit water circuits. The microbiological quality of the water inside the dental unit is guaranteed by utilisation of **Peroxy Ag+** [H₂O₂].
 Acts against all water-borne contaminants, including *Legionella*.
 With daily execution of an intensive **BIOSTER** disinfection cycle, checks made over a 90-day period on a working dental unit demonstrated a bacterial load of zero in the water delivered using the W.H.E. system.



Automatic Chip Air
 This system, featured as standard, automatically emits an air jet when you stop using dynamic instruments so as to clean any residual liquids or solids from the handpiece.



SANASPRAY
 Distilled water can be used by bypassing the mains water. To carry out rapid circuit sanitisation a second tank is available. Given its tried and tested effectiveness, the use of **Peroxy Ag+** disinfectant is recommended.



A.C.V.S.
 Automatic system that carries out suction system sanitisation cycles between one patient and another.

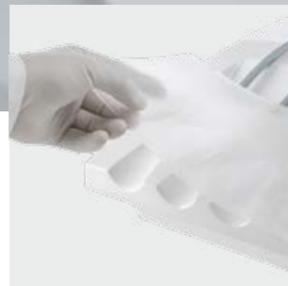
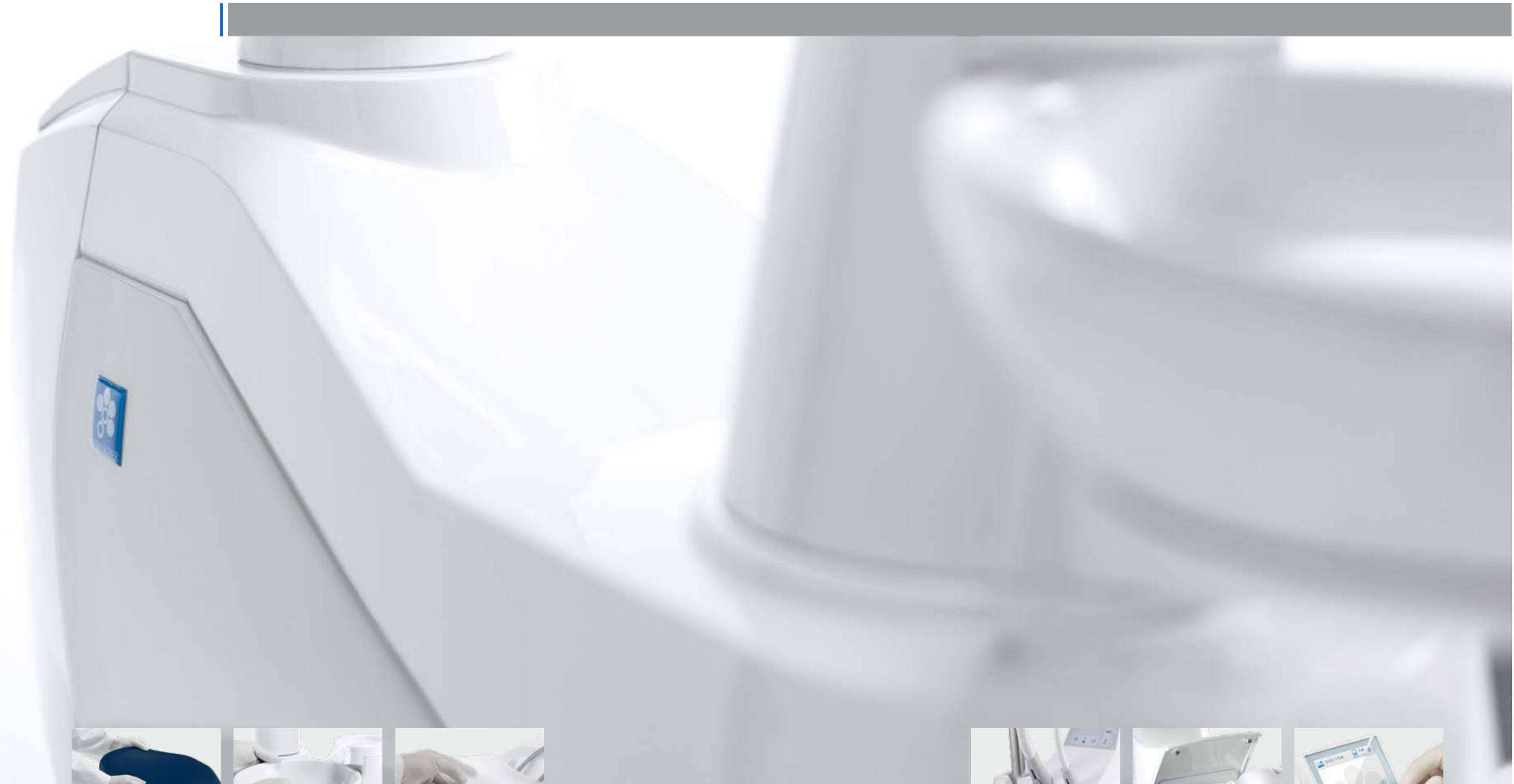


Double filters
 The double suction filters fit flush with the unit body. Extensive filtration surface area reduces emptying frequency. Automatic and independent selection of cannulae is available.

Active systems for enhanced defence

Stern Weber's continuous research into integrated hygiene systems has demonstrated the effectiveness of combining specific disinfection systems such as **W.H.E.** and **BIOSTER**. On the one hand, the application of a continuous disinfection system combined with air gap separation provides constant defence thanks to the bacteriostatic effect of **Peroxy Ag+**; on the other, the automatic **BIOSTER** device carries out the customary end-of-work disinfection tasks, executing programmable cycles to treat the spray water circuit. The **I.W.F.C.** device, incorporated in the **BIOSTER** system or available separately, ensures water circuits are kept clean after a period of machine idleness. The effectiveness of Stern Weber-developed systems has been documented in several scientific treatises published in the specialised press.

Orrù et al. - Evaluation of Antimicrobial - Antibiofilm Activity of a Hydrogen Peroxide Decontaminating System used in Dental Unit Water Lines - The Open Dentistry Journal, 2010; 4: 140-146
Orrù et al. - Valutazione dell'attività antimicrobica di un sistema decontaminante a base di perossido d'idrogeno. Risultati in vitro e su riunito odontoiatrico - Il Dentista Moderno 2006; dicembre: 60-71



Protected by a passive hygiene system

In addition to the active system, dental unit design also features numerous removable elements such as cuspidor bowl and upholstery, plus surfaces that are easily sanitised. The instrument holder panel is removable and the soft, silicon instrument mat is both removable and autoclavable. Other parts able to be sterilised in an autoclave include the Venus Plus-L-LED operating light handles and the stainless steel tray holder.



Cannula roller guides

The slide-wheel housing smoothens removal and replacement of the suction cannulae; it can easily be removed for disinfection and cleaning purposes. The cannulae terminals can be removed and autoclaved.



Tank filling

Located on the upper side, the small flap provides access for topping up the BIOSTER and W.H.E. system with hydrogen peroxide.

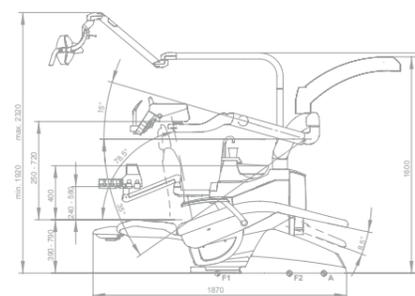
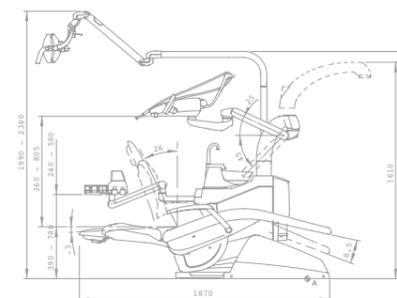
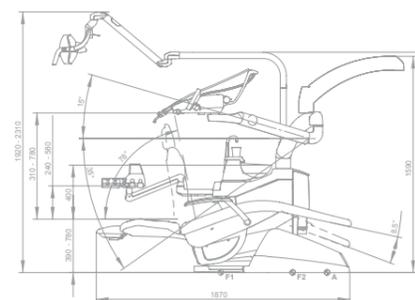


Disposable covers

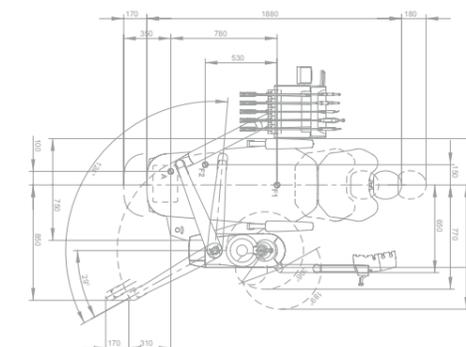
Disposable covers for dentist's and assistant's control panels. On the Full Touch version a special key temporarily deactivates the touch-sensitive screen to allow cleaning without interfering with the controls.

S300	INTERNATIONAL	CONTINENTAL ^[**]
HYGIENE SYSTEMS		
BIOSTER	*	*
A.C.V.S.	*	*
SANASPRAY	*	*
W.H.E.	*	*
I.W.F.C.	*	*
DENTIST'S MODULE		
Full Touch display	*	*
Micromotor i-XR3 L with f.o. (100 – 40,000 rpm)	●	●
Micromotor i-XS4 with f.o. (100 – 40,000 rpm)	*	*
Peristaltic pump module	*	*
6-way syringe with f.o.	*	*
Sixth instrument	*	*
X-ray viewer for panoramic X-rays	*	–
Integrated sensor	*	*
Integrated Apex locator	*	*
UNIT BODY		
Glass cuspidor bow	●	●
Ceramic cuspidor bowl	*	*
Cuspidor bowl drive system	*	*
Cup water heater	●	●
Spray heating	*	*
Independent cannulae selection	●	●
Suction stop device on chair base	●	●
Multimedia applications wiring	●	●
Transthoracic tray holder	*	–
Assistant's tray holder	*	*
Venus Plus-L LED operating light	*	*
Venus Plus operating light	●	●
PATIENT CHAIR		
Atlaxis headrest	*	*
Mobile, removable right armrest	*	*
Left armrest	●	●
Child's cushion	*	*
Multi-function foot-control	●	●
Pressure-operated foot control	*	*
Power Pedal foot control	*	*
Multi-function foot-control (wireless)	*	*
Pressure-operated foot control (wireless)	*	*
Full seat cover for patient chair	*	*

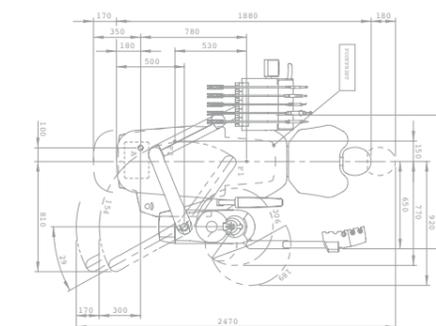
● as standard * optional – not available ^[**]Short Arm version also available



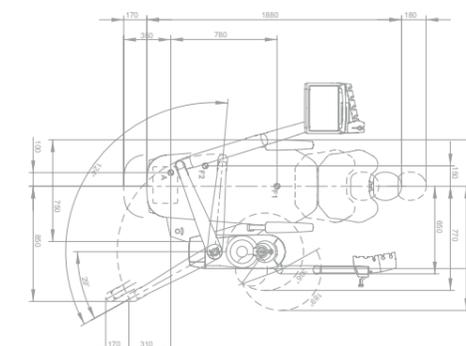
CONTINENTAL



SHORT ARM



INTERNATIONAL



Dimensions are quoted in millimetres.

