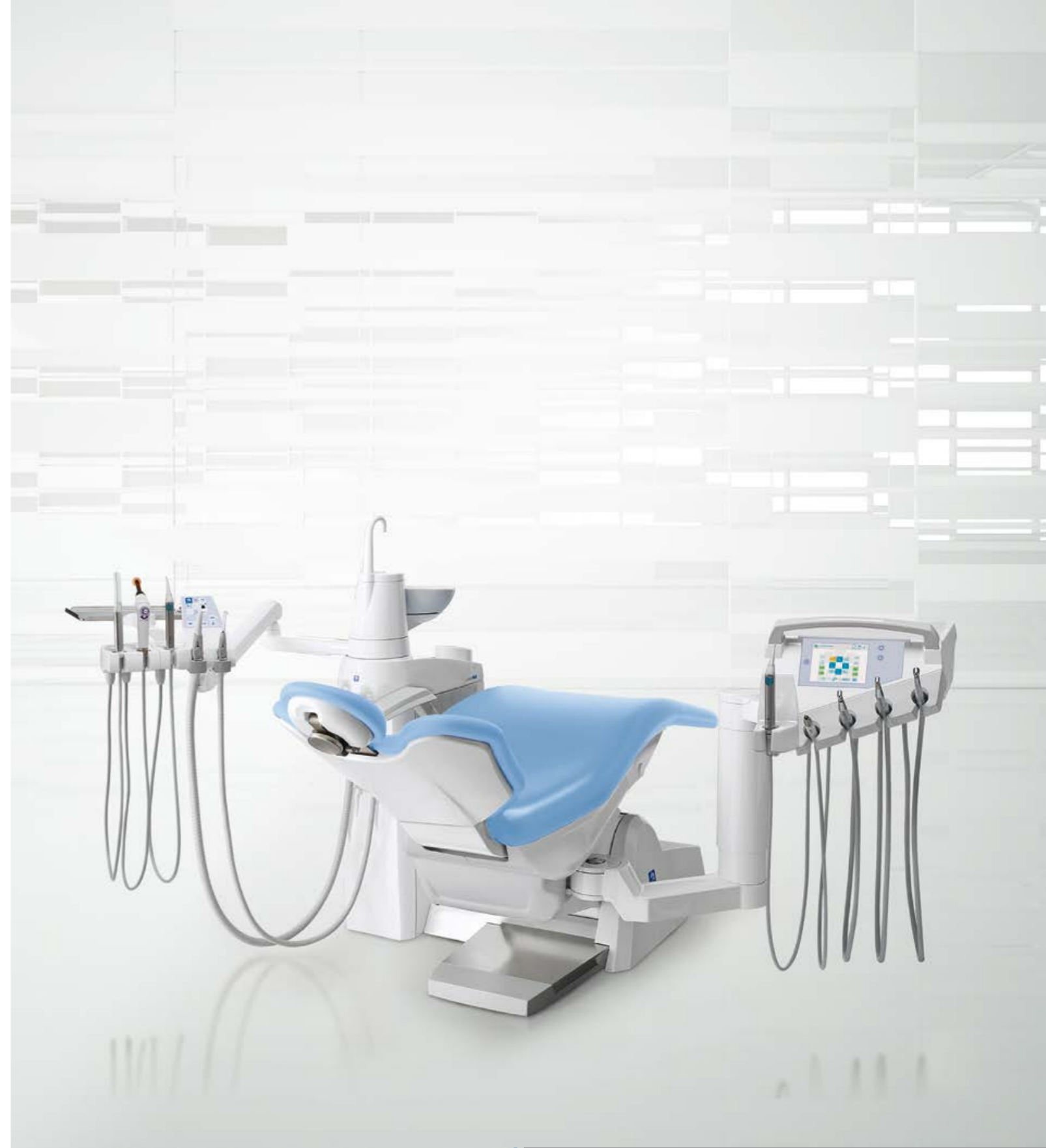




02/2015 S320GB151500  
Our policy of constant technological upgrading means that technical specifications may be subject to change without prior notice.



**S320TR** | Professionalism deserves the best

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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.



# TECHNOLOGY ZONE

Our philosophy is founded on the perfection of a technology modelled around your work. A world of functions that can be personalised to suit your specific operating style and skills. We believe in maximised simplicity and integration to ensure a perfect match of efficiency and speed. You imagine it, we create it: the S320TR is ever-evolving – just like you.











**Full Touch multimedia**

In addition to transmitting the operational data of the dental unit, the display also allows X-ray images to be viewed in full screen mode. The user can adjust image brightness, contrast, zoom and orientation and save.

**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.

**Future-oriented design and performance**

A 5.7" glass touch-screen display for user-friendly piloting of all integrated systems, from instruments to hygiene devices: select personalised settings, display information just the way you want and enjoy simple yet precise dental unit control.

Decidedly forward-thinking, the Full Touch control panel is a technological bridge that provides sophisticated connectivity between the dental unit and its peripheral systems. The images transmitted by the incorporated camera or X-ray sensor are shown on the control panel display where the dentist can adjust simple parameters or send them to the medical monitor (optional) on the dental unit.

The accelerometer on the instrument control panel also allows the screen to be positioned horizontally.





In Surgery mode, the i-XS4 micromotor electronic controls include speed, torque, plus flow rate/operation of the peristaltic pump. The auto-reverse and auto-forward functions are controlled directly via the control panel. A full range of operational parameters is shown on the display.



The software contains a database of certified contra-angles plus a wide selection of generic ratios. Parameter control and data display are optimised thanks to easy-to-use menus and user-friendly graphics on the Full Touch panel.



**i-XS4 brushless micromotor**  
For classic conservative dentistry, prosthetic, endodontic or surgical operations. Torque up to 70 Ncm for implantology tasks with appropriate contra-angle. Speed range from 100 to 40,000 rpm.



**Peristaltic pump**  
Integration of the peristaltic pump on the dentist's module eliminates the need for any further modules or carts around the patient chair during oral surgery and implantology.



**Sixth instrument**  
On each version, it's also possible to complete the dentist's module with an optional sixth instrument: camera or curing light.

**Simplicity of control through technological innovation**

Whatever the treatment in progress, the Full Touch control panel ensures clear, comprehensive display of both operational instrument and integrated system data; what's more, it makes immediate, precise setting of primary and secondary parameters extremely easy. Controlled directly via the display, the brushless micromotor is a sophisticated, high-performance instrument of exceptional potential. Suitable for conservative dentistry, endodontics and surgery, it provides up to 7 settings corresponding to the most frequently used contra-angles or burs. Where used for implantology, personalised settings are available for execution of the guide hole, the drilling stages and implant placement.



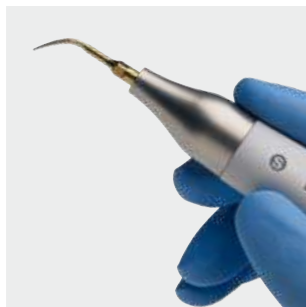
If, in endodontics mode, the selected file is present in the database, the software automatically sets the torque/speed ratios; alternatively, these ratios can be set by the dentist to suit personal requirements.



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.

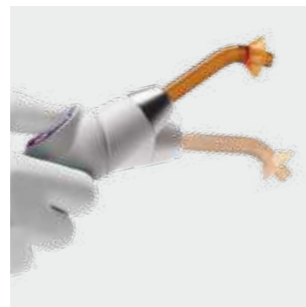


Set cycle times and check integrated hygiene system device parameters via the dedicated screens.



#### SC Scalers

Ultrasound scalers ideal for supragingival prophylaxis and periodontal tasks. They are also used for the preparation of small cavities and in endodontic root canal cleaning techniques.



#### T-LED

The T-LED curing light features 6 polymerisation and bonding programmes with either immediate or gradual start. 180° rotation allows use in straight or tilted version.



#### Apex locator

Software developments allow the integrated apex locator to be shown on the Full Touch display.

#### Technology: the simpler the better

Select optic fibre intensity, set foot control/instrument spray modes or personalise and control automatic disinfection procedures: with the Full Touch, it's all incredibly simple.

What's more, the user can switch between essential and detailed information as required; to toggle between one viewing mode and the other all that's needed is a light touch of the screen. For example, during treatment it may be necessary to show only essential micromotor data, while the more detailed screen, which allows adjustment of secondary work modes, will be more appropriate for refining parameters and personalising settings.



**Atlaxis**  
The new Atlaxis headrest allows natural positioning of the patient's head, smoothly accompanying the movement of the neck joints. The absence of any mechanical levers or brakes allows for easy vertical adjustment of the headrest to adapt it to patients of different heights.



**Patient chair**  
Thanks to special shaping between backrest and seat, the patient chair lets medical staff move comfortably closer to the patient during treatment. A reinforced patient chair frame allows patients weighing up to 190 kg to be lifted.



**Capacitive sensor**  
Handle with capacitive sensor for dentist's module pneumatic brake lock/release.

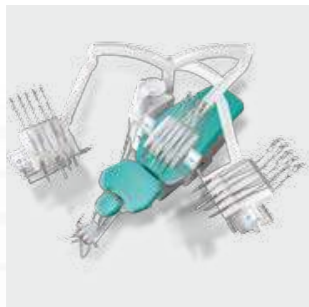


**Continental Ergonomics**  
End-of-stroke lock system for instruments. The dentist's module, fitted on a pantograph arm with extensive vertical excursion, is highly manageable

**The pivotal role of ergonomics**

Together, integration and ergonomics create a world where everything is within arm's reach; the end result is more space and valuable time savings. Efficient ergonomics is smoothly incorporated into a range of models to offer a design that is a function of the user's specific operating style.

The International model is ideal for dentists who operate in indirect vision mode. On the Continental version, instead, treatment is carried out with extreme fluidity thanks to the outstanding excursion and carefully calibrated balance of the instrument tubing. On the Side Delivery model the horizontal excursion of the dentist's module is complemented by the ability to set height via a motor-driven adjustment mechanism.



**Repositionable instrument control panel**

The hybrid ergonomics model features a repositionable instrument control panel that completes module transformation when configured for left-handed dentists. The S320TR HYBRID is only available in the Continental version.

**Quick coupling**

All that needs to be done is to detach the instrument control panel, rotate the quick coupling 180° and then reposition the former on the opposite side of the module.

**Beyond the confines of customary solutions**

Much more than just an ambidextrous model, the S320TR HYBRID is an explosion of versatility. The dentist's module rotates 340° to reach positions all around the patient while the assistant's module can be shifted right or left and remains independent from dentist's module rotation. Exceptional operating freedom whether working alone or with an assistant.



**Side Delivery**  
Access to the patient chair is comfortable and unhindered and the instruments are kept outside the patient's field of vision in the Side Delivery model.



**Rotating cuspidor bowl**  
The cuspidor bowl automatically rotates together with the patient chair when the rinse or home position is recalled. In its standby position it does not interfere with the operating zone.



**Assistant's module**  
Vertical excursion and the mobility of the articulated arm ensure perfect positioning of the assistant's instruments at all times.



**Additional module**  
Moreover, the assistant's module features an optional add-on unit able to house 2 additional instruments.

#### **From research to wellness**

At the heart of the technological development carried out at Stern Weber's research centres lies a quest for excellent materials and perfect practical design on every single component. Similarly, technological research also focuses on enhanced comfort for patient and medical staff alike.

Feeling relaxed operating without any physical duress and creating an environment in which the patient is at ease ensures numerous benefits: easier dentist-patient interaction and results appreciated by everyone. Featuring special Memory Foam upholstery, the patient chair provides an unparalleled level of comfort and anatomical support.



**Venus Plus**

- Light intensity from 8,000 to 35,000 Lux
- Potentiometer and soft-start device
- Colour temperature: 4,900 K
- 3-axis rotation



**Venus Plus - L LED**

Powerful dual-reflector LED operating light, adjustments via no-touch sensor and three-axis rotation. A solution that combines very low-emission light comfort and high lighting efficiency. Light intensity from 3,000 to 50,000 Lux. Colour temperature 5,000 K. 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.

**Enlightened by technology**

Light plays a pivotal role. In addition to brightness characteristics, essential for correct illumination and prevention of eye strain, ergonomic aspects play a key part in Stern Weber research. For example, on the Venus Plus-L LED, an infrared sensor reduces manual contact while the absence of forced ventilation makes operation completely silent.

The patented curing light features ultra-high efficiency light guides that ensure a homogeneous effect over the entire composite and each programme is optimised to avoid any composite shrinkage, thus ensuring outstandingly reliable results. During polymerisation, the dentist can select a preset lighting level via the instrument control panel so as not to influence the composite hardening process.



**Power Pedal Foot Control**



**Multi-function Foot Control**



**Pressure-operated Foot Control**

Foot controls also allow users to operate the Chip Air and Chip Water functions that trigger an air or water jet to the instrument. With the instrument extracted, micromotor rotation can be inverted and the operating light switched on. In surgery mode it's also possible to open and close the peristaltic pump.

**Technology down to the last detail**

In every detail, from the foot control to the interior of the smallest accessory, technology reaches into every corner of the Stern Weber world. Like every peripheral dental unit device, the foot control has been the focus of intense research and is available with three different ergonomic set-ups. Two versions communicate with the dental unit wirelessly. While powerful lithium batteries ensure exceptional autonomy, the foot control can be lead-connected to the dental unit at any time, also for recharging purposes. Foot controls are multi-purpose devices, allowing dentists to control instruments, the patient chair and other dental unit functions.



**RXDC HyperSphere+**  
Integrated on the dental unit, the X-ray unit and wireless handheld control unit require no further installation points. X-ray beam parallelism, attained with 30 cm collimation, ensures, together with a focal spot of just 0.4 mm, outstanding images. Locked and unlocked by two touch-sensitive areas, the tube head rotates freely around the spherical joint and can be positioned exactly as desired, even vertically.



**Wireless handheld unit**  
The handheld digital control unit provides a complete range of user-friendly exposure programmes. The RXDC automatically calculates the correct exposure on the basis of the selected anatomic area. Four keys to set up the examination, one to make the exposure.



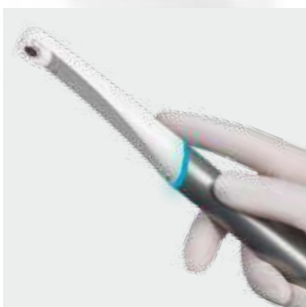
**Zen-X**  
Pocketsize X-ray sensor housed on the dentist's module. Easily removed and sanitised, it can be transferred and installed on other sensor-ready units. Available in two sizes; rounded shaping ensures both comfort and correct positioning. Hard-wearing thanks to a protective shell and a reinforced cable attachment on the sensor back.



**Dental unit evolution**

Stern Weber combines technology with practicality, providing the dental unit with a sophisticated X-ray system concentrated in a single work area while smooth integration enhances diagnostic potential and allows shortened treatment times. Employing the most advanced X-ray diagnosis technology, the system includes the RXDC HyperSphere X-ray unit, a 19" LED monitor with optional touch-screen operation and a CMOS digital sensor. Zen-X sensor, with its technologically advanced 3-layer structure, captures high resolution images, with minimum X-ray doses and features the latest generation of silicon digital receptors. The X-ray image can be shown on both the 19" monitor and the 5.7" display on the Full Touch control panel.





**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 19" LED monitor. 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.



**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.



**19" LED Monitor**

CE 93/42 certified, a touch-screen version of the monitor is also available; for this version the optional double-articulated arm is recommended to move the screen closer or further away.

**HD images and investigation**

Seeing, communicating and understanding are essential components of the patient-dentist relationship. The clearer and more fluid the image-based communication, the greater the degree of cooperation from the patient. Stern Weber technology, the technology that reassures.

Flanked by a latest-generation HD camera, the tilt-adjustable 16:9 flat screen medical-grade monitor comes ready for cable connection to a PC. LED light sources ensure excellent contrast and brightness.

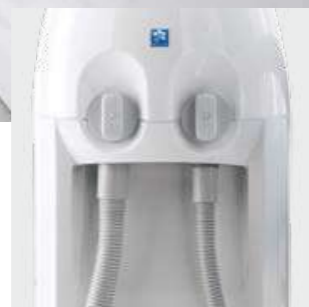


**W.H.E. (Water Hygienisation Equipment)**

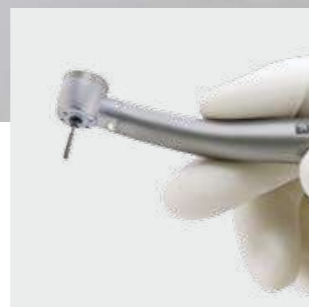
A combination of a continuous disinfection system and a device that ensures an air gap between the mains water circuit and dental unit water circuits. The microbiological quality of the water inside the dental unit is guaranteed by utilisation of **Peroxy Ag+** (H<sub>2</sub>O<sub>2</sub>).  
 With daily 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.



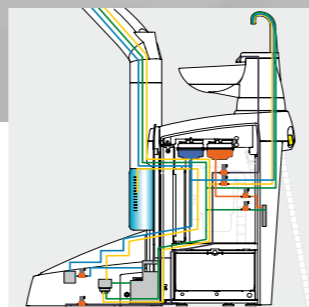
**SANASPRAY**  
 Distilled water can be used by bypassing the mains water. To carry out rapid circuit sanitisation a second tank is available. Given its tried and tested effectiveness, the use of **Peroxy Ag+** disinfectant is recommended.



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



**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.



- BIOSTER
- W.H.E.
- SANASPRAY
- A.C.V.S.
- Mains water

**When it comes to hygiene, we never let our guard down**

Complete with its integrated systems - the effectiveness of which is scientifically proven - the Stern Weber dental unit provides maximum protection. Specific settings for each individual device are made via the interactive control panel, and it's you who makes them. The continuous sanitisation system is, instead, automatic and also guarantees air gap separation from the mains water in compliance with European standards; the system is also DVGW-certified. The **BIOSTER** system carries out end-of-work disinfection by executing automatic spray water circuit disinfection cycles. 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. Each device is put through intensive trials at Stern Weber test facilities before being confirmed as an option.

*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*



**Cannula roller guides**  
The slide-wheel housing smooths removal and replacement of the suction cannulae; it can easily be removed for disinfection and cleaning purposes.



**Easy access**  
The unit body covers the entire side of the unit. Makes access for maintenance tasks easier.



**Disposable covers**  
Disposable instrument control panel covers. To clean without interfering with controls, deactivate the touch screen function on the Full Touch unit by pressing the special key.



**Padding**  
Surfaces coated with polyurethane paint or made of techno-polymers highly resistant to chemical disinfectants. Upholstery is removable and easily sanitised.



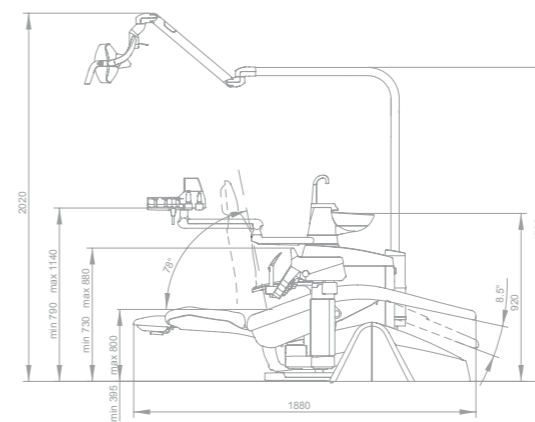
**Instrument support**  
The instrument holder panel is removable and the soft, silicon instrument mat is both removable and autoclavable.



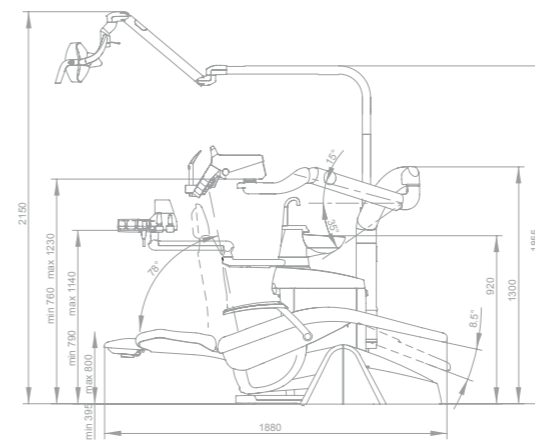
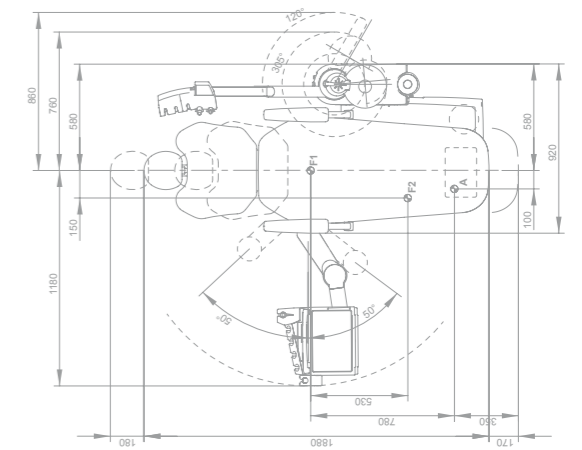
**Double filters**  
The double suction filters fit flush with the unit body. Extensive filtration surface area reduces emptying frequency. Automatic and independent selection of cannulae is available.

S320TR	SIDE DELIVERY	INTERNATIONAL	CONTINENTAL	HYBRID
<b>HYGIENE SYSTEMS</b>				
BIOSTER	*	*	*	*
A.C.V.S.	*	*	*	*
SANASPRAY	*	*	*	*
W.H.E.	*	*	*	*
I.W.F.C.	*	*	*	*
<b>DENTIST'S MODULE</b>				
Micromotor i-XR3L with f.o. (100 – 40,000 rpm)	-	-	-	●
Micromotor i-XS4 with f.o. (100 – 40,000 rpm)	●	●	●	*
Peristaltic pump module	*	*	*	*
6-way syringe	●	●	●	●
6-way syringe with f.o.	*	*	*	*
Sixth instrument	*	*	*	-
X-ray viewer for panoramic x-rays	*	*	-	-
Integrated sensor	*	*	*	*
Integrated apex locator	*	*	*	*
<b>UNIT BODY</b>				
Glass cuspidor bowl	●	●	●	●
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	-	*	●	●
Professional tray holder	*	-	-	-
Assistant's tray holder	*	*	*	*
Venus Plus light	●	●	●	●
Venus Plus-L LED operating light	*	*	*	*
Add-on assistant's module	*	*	*	*
<b>PATIENT CHAIR</b>				
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	*	*	*	*

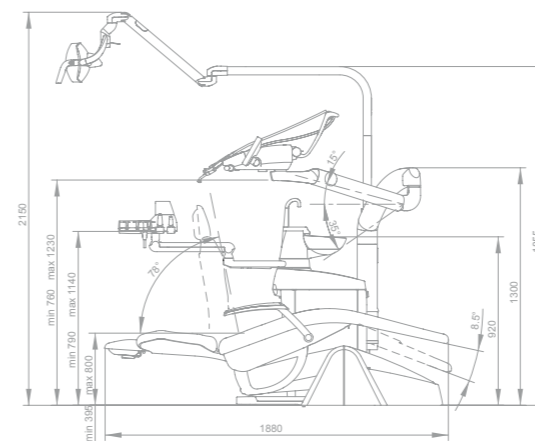
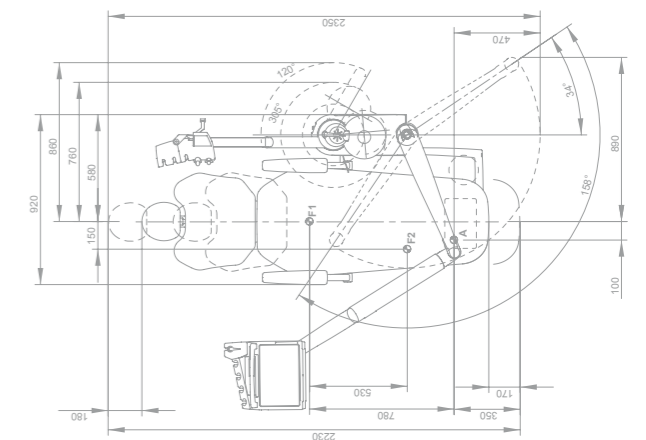
● as standard \* optional - not available



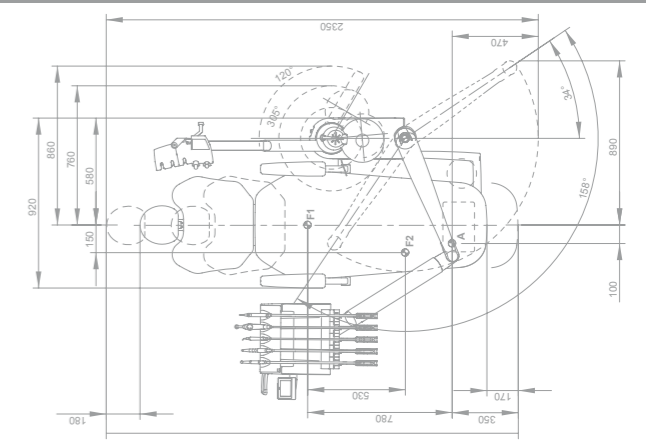
**SIDE DELIVERY**



**INTERNATIONAL**



**CONTINENTAL**



Dimensions are quoted in millimetres.

