



**PLANMECA**  
Sovereign



## *Superior functionality*



The Planmeca Sovereign dental unit family incorporates unique ergonomic features made possible by the sophisticated design concept. The unit adapts to all user needs and every working environment, providing optimised flexibility. The automated movements promote enjoyable yet efficient workflow allowing for the dentist and the assistant to change their working postures according to the requirements of the operation. So, unlike in the past, there is absolutely no need to maintain the same static posture throughout the day.

You can drive the unit with a high degree of accuracy exactly to your liking. With the intelligent graphical user interface (GUI) and its customisable user-specific settings and parameters, the unit truly complies with any present and future requirement within modern dentistry.



*Patient comfort with no compromise*

Regardless of their size, all patients will appreciate the synchronised backrest, headrest, and legrest movements. The synchronised backrest length adjustment ensures comfortable positioning for all; from very small to very tall patients, and for everybody in between. The exclusive motorised headrest was designed to adapt to different patient sizes and neck anatomies. Finally, to top it all off, the viscoelastic Ultra upholstery provides superb patient comfort.



## *Planmeca Sovereign*

When ergonomics is put foremost, Planmeca Sovereign is the solution. The firm over-the-patient delivery arm with balanced instruments ensures exceptional ergonomics. As the instrument console is easily accessed, a natural and effortless working posture can be maintained during the whole treatment session and no unnatural movements are required. The balanced instrument arms keep the instrument hoses in place, assuring an effortless treatment situation.





## *Planmeca Sovereign Reach*



Planmeca Sovereign Reach with hanging tube instruments provides uncompromised comfort for both practitioner and patient. With a design allowing for smooth and easy adjustment of the instrument console, the innovative Planmeca Sovereign Reach delivery arm keeps the instruments always within instant reach. As the instrument delivery arm is employed from the right side of the chair, the instruments remain out of the patient's view at all times for additional comfort.

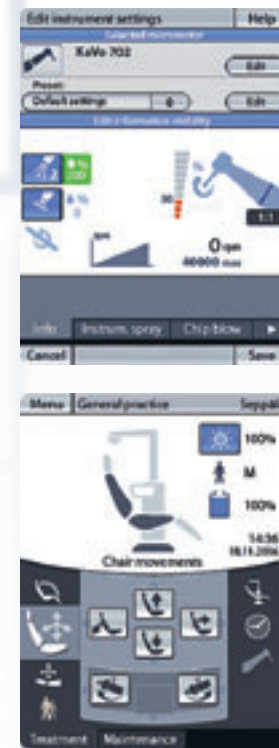
*Effortless usability*



## *Planmeca Sovereign Side*



The side delivery arm of Planmeca Sovereign Side is designed to carry up to ten kilograms; the arm is exceptionally sturdy, yet very easy to maneuver. The instrument console has six interchangeable instrument places with adjustable instrument holders; hence Planmeca Sovereign Side is optimal for a user investing in flexibility. For optimum patient comfort, the delivery arm and the instrument console are placed at the side, out of the direct view of the patient.

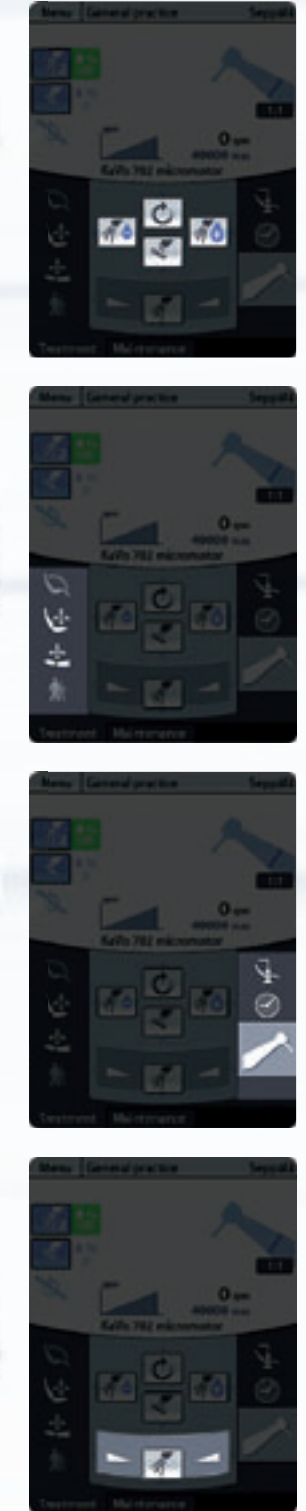


Unique concept

The Planmecha Sovereign dental unit family is unique in that the unit, chair, and bowl all come with motorised swivel movements. Thanks to these swivels, the unit adapts to all possible working environments as well as to a variety of user and patient needs. The swivels also allow an easy change of working postures throughout the day for enduring comfort. All unit functions are perfectly symmetrical, matched by no other dental unit. The innovative design even enables a motorised conversion from right-handed to left-handed use.

In the Planmecha Sovereign dental unit family, the backrest and legrest movements are fully synchronised. For enhanced patient comfort, the seat features an automatic vertical tilt which is coordinated with the legrest movement. The synchronised chair movements are highly appreciated, not only because of the maximised seating comfort, but also because they allow the patient to enter and exit the chair more easily. Furthermore, the unit can be driven to a consultation position for a face-to-face dialogue between the patient and the practitioner.

As for the instrument delivery, you can choose between over-the-patient and side delivery arm. Planmecha Sovereign features over-the-patient delivery with balanced instrument over arms, whereas Planmecha Sovereign Reach features an extended over-the-patient delivery arm with hanging tube instruments. For side delivery with hanging tube instruments opt for Planmecha Sovereign Side.



Graphical user interface

The well-designed graphical user interface offers ease-of-use and a multitude of user-specific settings and parameters. All instrument and unit functions can be controlled either from the GUI touch screen or from the unit foot control. While the GUI information screen displays the functions that are activated, the GUI control screen displays the functions operated from the foot control and/or the touch screen.

You can customise the interface to your liking by creating personal shortcuts for various procedures. Once you've saved your settings, the unit will automatically adjust the working position according to your preferences when you log in. The individual settings can also be saved to a USB memory stick to be instantly programmed to any other unit of the Planmecca Sovereign family.

Planmecca conducted an extensive usability test to ensure that the GUI is easy, and intuitive to use. Each command is accessible with a minimum number of clicks. As for backup guidance, the user always has access to the GUI context-sensitive help menu.

The foot control for the Planmecca Sovereign dental units is heavy and exceptionally sturdy. Equipped with three multidirectional control knobs and a bidirectional lever, it provides 100% hands-free access to all GUI commands minimising every potential risks of cross-contamination. For complete freedom of movement, a cordless foot control is available as an option.





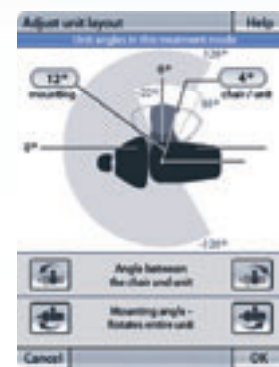
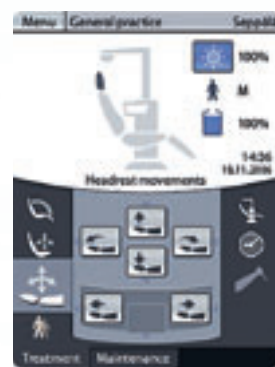
You can install up to six instruments on the instrument console and choose your instruments from a broad selection. The console is equipped with an instrument multiplexer offering highly precise speed and torque control: for example a unit-integrated brushless micromotor now provides torque and speed that were formerly available only with a tabletop micromotor.

For easy instrument interchange, each instrument hose features a new instrument quick connector which allows inserting the hose into the console simply with a gentle

push. The instruments are also provided with a USB connector that has been approved for medical use. You can change the balance of the instrument arm according to the instrument weight and personal preferences.

In addition, the instrument console can hold special instruments, such as the Implantmed surgical micromotor. A quick connect tray table allows supplementing the console with a sturdy tray to hold additional instruments needed for the treatment situation.





The Planmecha Sovereign dental unit family's unique left/right conversion concept allows the unit to be driven from right-handed to left-handed use. All the functions are symmetrical to ensure equal working comfort for left-handed and right-handed users.

The unit swivel enables truly ergonomic two and four-hand dentistry and provides great flexibility in positioning the patient's head for the procedure to be performed. Added working ergonomics is ensured with the ultraslim backrest and the motorised

headrest. The slim backrest brings the patient as close to the dentist as required and allows plenty of legroom. Foot-operated for maximum hygiene, the motorised headrest gives better vision in all areas of the oral cavity. The design also allows length, tilt, and height adjustment, so it is the headrest, not the dentist, that adapts to each patient's length and neck morphology. The anatomical tilt adjusts the angle of the head to the area to be treated, giving the dentist ergonomic access to all quadrants, still with no compromise in patient comfort.

*Adapts to user needs*



The GUI can be adjusted to specific operation modes required of different specialised fields of dentistry. The interface offers the following five operation modes with pre-programmable controls: general dentistry, endodontics, parodontology, surgery, and prosthetics. In the endodontic mode, for example, you may use the GUI to control the apex locator.

As for the assistant element, it can hold two suction tubes and up to three instruments. Select among a variety of dynamic instruments: micromotors, turbines, intraoral cameras, and scalers. With the pivot

point on the bottom side of the cuspidor, the assistant element swivels through approximately 230°, optimising the working area for the specific operation to be performed. The assistant may have a GUI and a personal foot control and hence a whole new working experience.

Exceptionally sturdy, the delivery arm is constructed to carry instruments, gas burners, trays, and other accessories. The arm can carry up to 10 kilograms. The pylon construction also allows for mounting rather heavy satellite devices, like LCD monitor, operating light, microscope, or intraoral X-ray unit. Nevertheless, the ease

of movement never gets hindered. Installing or even retrofitting of additional equipment on the pylon is extremely simple.

In addition, the Planmeca quick lock connector system allows for easy integration of a variety of satellite elements, such as multiple graphical user interfaces, data input and voice control devices. The connectors are situated in different locations on the unit creating a truly flexible dental unit.



The motorised backrest length adjustment makes comfortable positioning of patients with all types of anatomies easier than ever. Each user can program positions for four different patient sizes. When the backrest is extended or shortened, the headrest may also be programmed to move synchronically. Moreover, the backrest and legrest movements are perfectly synchronised. The legrest is available in two lengths.

The seat inclination allows the seat to be lowered or raised in conformity with the backrest movement.

This provides the patient with extra comfort when reclined. The synchronised backrest and legrest movements enable two Trendelenburg positions. The first is the emergency Trendelenburg position used in case of a patient collapse. The second is the more comfortable Trendelenburg position in which the backrest is not lowered to its lowest position or, alternatively, the legrest not raised to its highest position.

The headrest mould and cushion shape was designed with special care to comply with the morphological requirements of all types of patients.



The motorised cuspidor bowl movement brings the bowl very close to the patient, letting him/her perform mouth rinsing more hygienically. The intelligent cup fill automatically fills the cup to the pre-programmed level. The cup fill is disabled, unless the cup is positioned in its place.

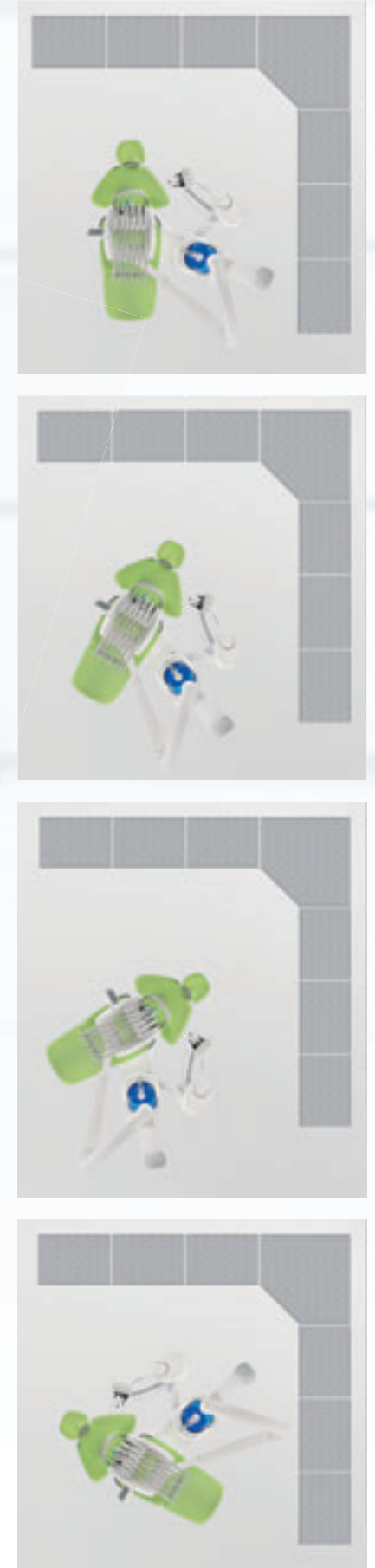
The viscoelastic Planmecca Ultra upholstery truly responds to the patient's weight and body heat, providing extra comfort much appreciated especially in long treatment sessions. When the patient has left the chair, the foam will restore its original shape.

*Adapts to patient*



The dentist benefits from the chair swivel in many ways. Firstly, the swivel allows positioning the patient's head in accordance with the cabinetry and the specific treatment procedure. Secondly, the swivel allows driving the chair to a consultation position in which the patient sits facing the screen or opposite the dentist for a natural dialogue. Thirdly, the chair swivel enables choosing the direction by which the patient enters and exits the chair, regardless of the unit position. Fourthly, this feature is particularly useful for prosthetics, as it allows the patient to be observed from the left, right, and front.

The unit swivel allows the unit to pivot through 270° to fit to the cabinetry and treatment room layout. As a result, the unit can be ergonomically positioned for all types of procedures. It also allows clearing the environment for wheelchair access and mobile cabinets, such as anaesthetic equipment, and gives the assistant plenty of room.



*Adapts to treatment environment*

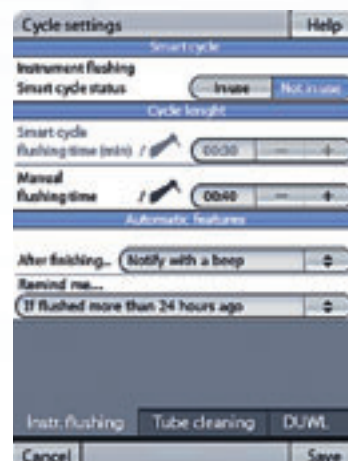


Executed	Time	Note	Status
2006-09-30 13:30	0206 Sc	-	OK
2006-09-30 13:42	0202 Sc	-	OK
2006-09-30 13:47	0240 M	-	OK
2006-09-30 10:39	0120 M	2	Flush OK
2006-09-30 09:55	0240 M	-	OK
2006-09-30 09:05	0321 Sc	-	OK
2006-09-30 16:08	0340 M	1	Flush OK
2006-09-30 16:09	0211 Sc	-	OK
2006-09-30 15:19	0108 M	2	Flush OK
2006-09-30 14:28	0204 Sc	-	OK
2006-09-30 13:45	0240 M	-	OK
2006-09-30 12:57	0223 Sc	-	OK
2006-09-30 11:23	0211 Sc	-	OK
2006-09-30 10:22	-	-	cancelled
2006-09-30 09:51	0211 Sc	-	OK

Viewed by flushing sequence

Instr. flushing Tube cleaning DU/WL

Back



Meets the strictest hygiene standards

Planmea's comprehensive Water Management System (WMS) fully isolates the unit waterlines from public waterlines, fulfilling even the strictest infection control and prevention requirements. The system is designed to measure the water consumption and adapt the flushing times accordingly. The WMS includes Planmea Waterline Cleaning System, a system efficiently controlling the microbial cleanliness. If you so wish, you may use the WMS container as a clean water supply.

With the Planmea Sovereign dental unit family, the user can select between three instrument water supplies: clean water, sterile water, and special fluid supply. This allows choosing an independent supply for each instrument as well as changing the supply depending on the operation mode. The instrument flushing holder is integrated and located conveniently under the glass bowl.

The sophisticated assistant element, a novelty among corresponding concepts, is designed for cleaning

the suction tubes and the assistant instruments. The assistant element automatically doses the right amount of cleaning agent. To simplify the user's daily routines, the unit also displays a reminder when it is time to perform instrument flushing, waterline cleaning, or suction system cleaning. The GUI with its context sensitive help will provide more detailed instructions.

All cleaning and flushing activities are stored in a history log with time stamps, so the user is provided with automated traceability and documentation.



### Identify with colour

Unit and upholstery colourings provide a wide selection of colour combinations which help in creating a convenient and unique treatment environment to every clinic. Whether the choice is the traditional Standard or the Ultra upholstery, there's a colourful selection to choose from.

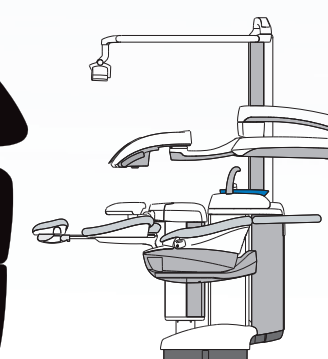
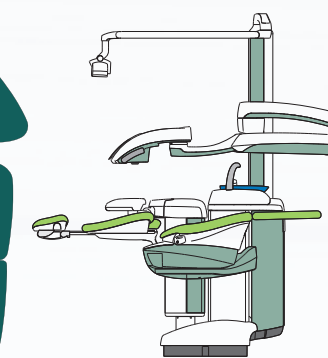
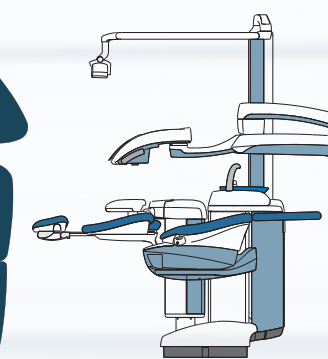
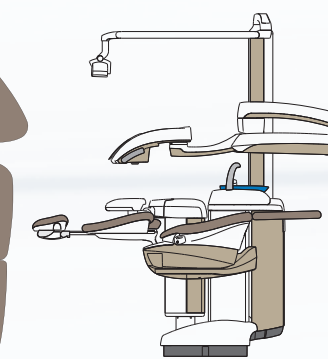
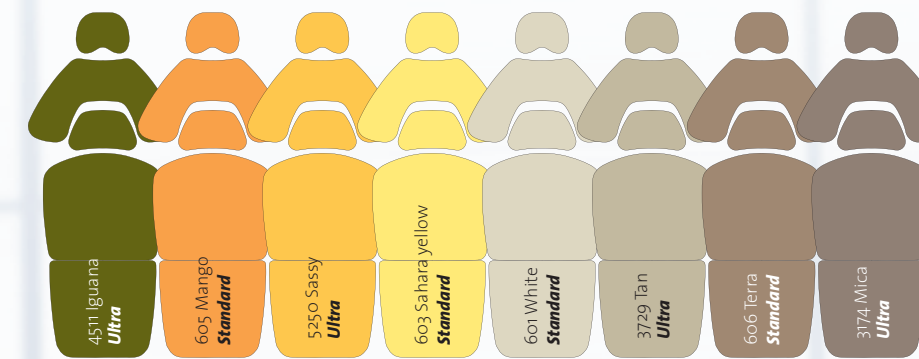
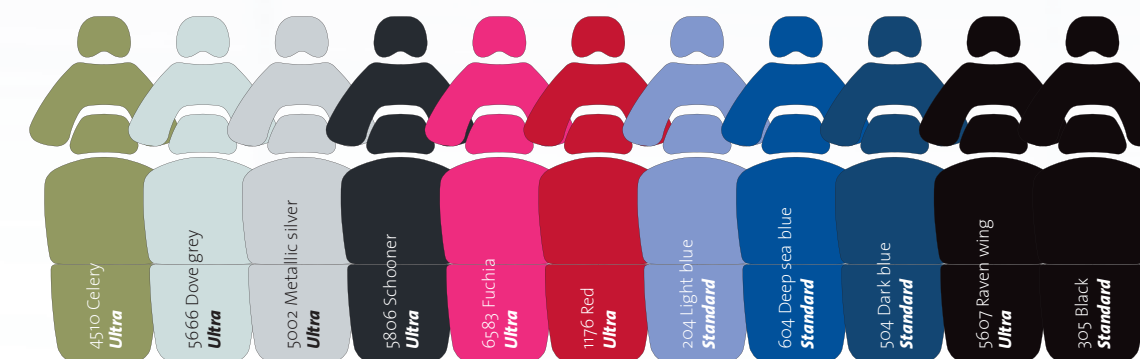
The four colour schemes present a variety of cool, warm and fresh combinations, for an elegant, natural or exciting look. The unit colouring options are Topaz, Sapphire, Jade, Crystal, or pure white Pearl, and they can be combined with any of the selection's Standard or Ultra upholstery colourings. The Identify with colour-scheme gives you the possibility to design a unique world of colours to welcome the patient.

### Standard upholstery

Standard upholstery is durable and due to its seamless surface, easy-to-clean. It provides comfort and support for the patient during every treatment.

### Ultra upholstery

Ultra upholstery is filled with special viscoelastic foam that adapts to the patient's body shape and restores its original shape after the treatment. The Ultra upholstery provides extra comfort, which is especially appreciated in long treatment sessions.





### Full IT integration

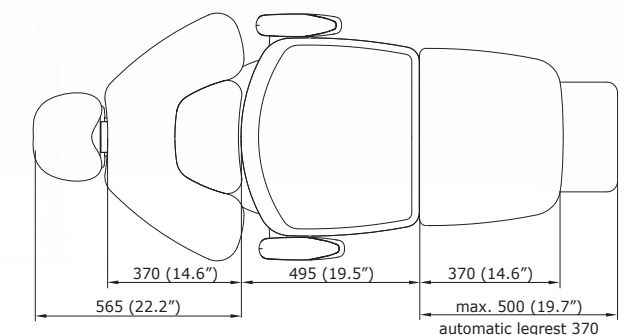
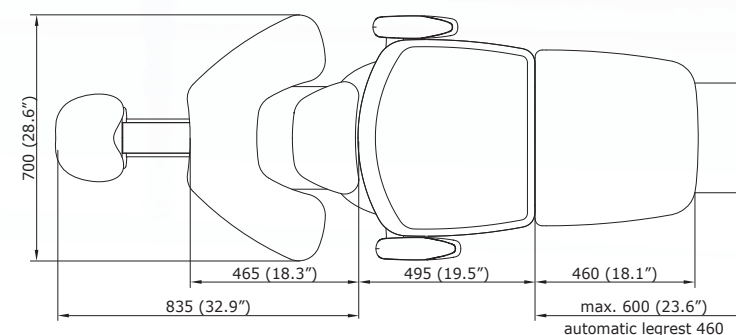
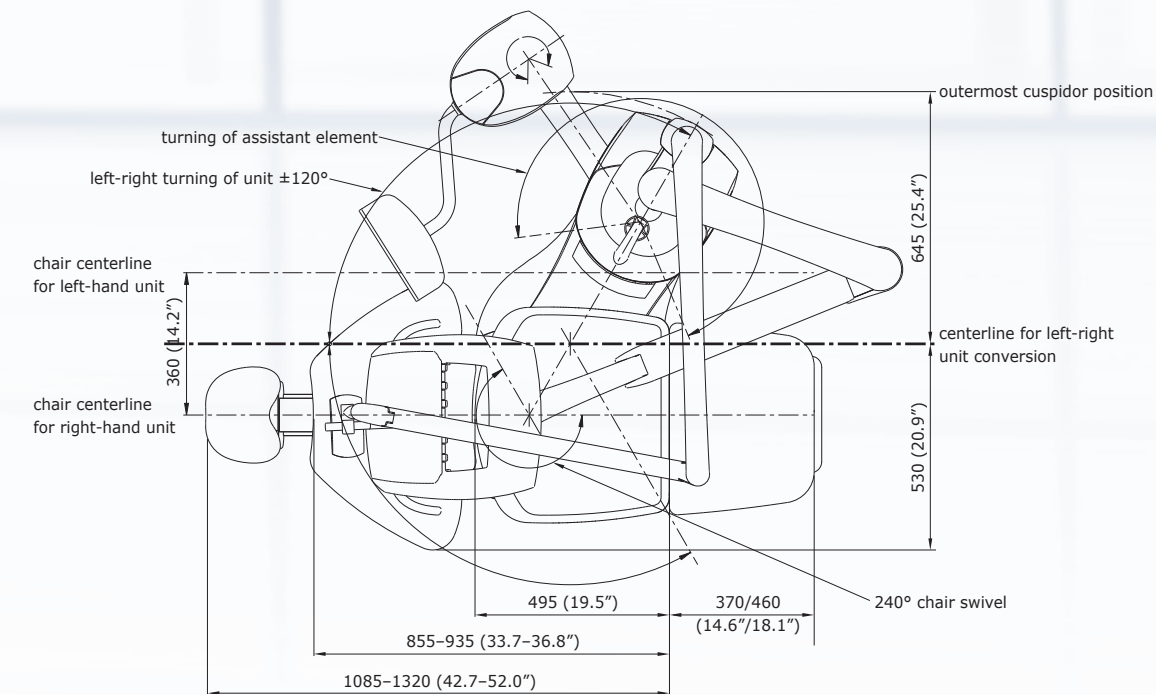
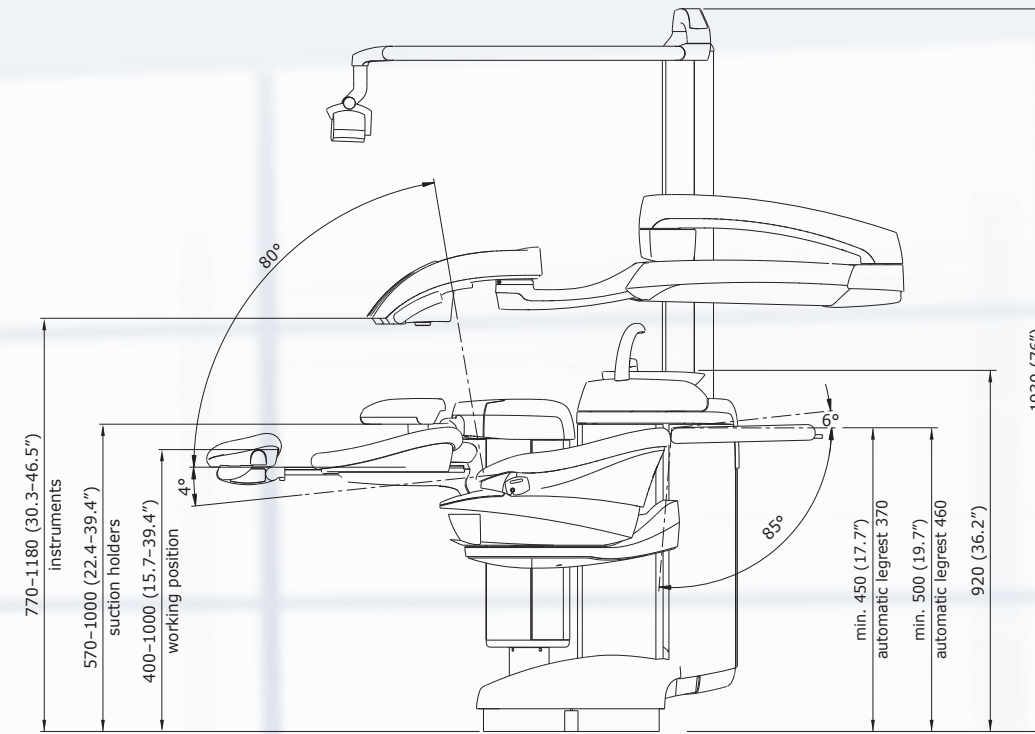
Full IT integration enables Planmeca Sovereign to communicate with any related hardware or software. Being completely integrated into data network, the unit can be monitored and maintained remotely through an Ethernet connection. The design also provides USB connectivity for flexible interfacing with other equipment and information networks. Future innovations can be introduced through software upgrades. A media PC can be installed internally, eliminating the need for an external computer.

### Instrument selection

- Ergo 6-way syringe
- Ergo 6-way syringe with light
- Ergo 3-way syringe
- Autoclavable 3-way syringe
- Fibre optic turbine hose S
- Planmeca brushless micromotor typ 801
- KaVo KL 702 brushless micromotor
- W&H EA-50 LT brushless micromotor
- BienAir MC-3 micromotor
- BienAir MX brushless micromotor
- KaVo 200 micromotor
- LM-ProPower Ultra LED scaler
- EMS i-Piezon scaler
- EMS i-Piezon LED scaler
- Satelec Newtron scaler
- Satelec Newtron LED scaler
- Satelec Mini LED polymerisation light
- Planmeca Starlight LED polymerisation light
- LM-ProPower Air LED air polisher
- Planmeca Intracam AF (PAL, NTSC)
- Dürr VistaCam PAL
- Surgical micromotor

### Assistant's instruments

- Ergo 6-way syringe
- Ergo 3-way syringe
- Autoclavable 3-way syringe
- Satelec Mini LED polymerization light
- Planmeca Starlight
- LED polymerization light
- Fibre optic turbine hose S
- Planmeca brushless micromotor typ 801
- KaVo KL 702 brushless micromotor
- LM-ProPower Ultra LED scaler
- EMS i-Piezon scaler
- EMS i-Piezon LED scaler
- Satelec Newtron scaler
- Satelec Newtron LED scaler
- LM-ProPower Air LED air polisher
- Planmeca Intracam AF (PAL, NTSC)
- Dürr VistaCam PAL



Unit type	Dental unit with cuspidor, patient chair, motorised headrest, motorised backrest length, automatic legrest, motorised unit, chair and bowl turn, foot control, DVGW+WCS+CWS, USB connectivity
Delivery type	Over-the-patient delivery with balanced instrument arms Over-the-patient delivery with hanging tube instruments Side delivery with hanging tube instruments
Power requirements	100VAC-240VAC
Mains frequency	50 Hz / 60 Hz
Frame	Cast aluminium alloy
Water inlet pressure	100-900 kPa (14.3-130 psi)
Air inlet pressure	550-900 kPa (80-130 psi)
Weight	About 285 kg (633 lbs)
Mounting	To be fixed on the floor
Electrical data	Digital control system with upgradeable software, reliable electrical design and cabling
Colour	Pearl (RAL 9016) Topaz, Sapphire, Jade, Crystal

Technical specifications

### Planmeca SingLED operating light

Planmeca SingLED operating light with a patented, faceted structure and a single LED construction provides perfect, uniform illumination for the treatment area. The ultra-sharp edges of the light beam ensure dazzle-free treatment. The faceted structure of the non-imaging mirror optics also provides uniform colour for the entire illuminated area.

Planmeca SingLED operates at very low power, without compromising the light intensity. The hands-free adjustment of the light intensity ensures perfect hygiene. The operating light can be controlled using the GUI, the foot control, or the on/off switch, or simply by waving a hand in front of the light head – whichever best suits the user's needs. In addition, the operations of the light can be pre-programmed to follow the automatic patient chair positions.

The horizontal arm of Planmeca SingLED is exceptionally long, ensuring perfect illumination of the entire mandibular area. The operating light has removable and autoclavable handles on both sides.





*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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