

One chair fits all

Planmeca delivers the ultimate dream machine for the future-ready dental practice

By Danny Chan



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"Imagine you had a magic wand that could conjure up all the features that you need in a dental chair. What you end up with would be something pretty close to this one," says Andreas Schulz, Business Development Manager – Equipment, Henry Schein Halas.

Andreas couldn't have made a bolder statement heralding the arrival of the Planmeca Sovereign dental treatment unit, during its Australian launch party held at Henry Schein Halas' downtown Melbourne showroom. What promised to be a night of champagne and chocolates, serenaded by local music legend and Australian Hall of Fame inductee Russell Morris, was predictably just a grand excuse to view up close – and for some, to test-operate – Finnish equipment maker Planmeca's top range dental chair.

Planmeca Sovereign's exciting debut at IDS 2007 attracted a flurry of interest from the dental world. The first installation of the dental unit was completed in February this year. In Australia, Charles Sturt University purchased two units for its fully digital dental training facilities located on NSW campuses in Orange and Wagga Wagga. Aptly, the chairs are housed within purpose-built, futuristic surgeries known as 'Dream Rooms'.



"This is the ultimate dental chair. It is a highly ergonomic, flexible, robust and technologically advanced piece of equipment that is up for any challenge; it raises the bar on functionality yet was designed with optimum patient comfort in mind.

"There are chairs that offer certain features and functions that are excellent but no other chair combines all of them in a single unit like the Planmeca Sovereign," Andreas states emphatically.

Look Ma, No Hands

Combining sophisticated design, improved ergonomics, enhanced automation and future-proof technology, Planmeca Sovereign is an epitome of style and function.

The only fully motorized and wirelessly automated dental chair on the market, it allows automated left/right conversion, transforming the unit symmetrically from right-handed to left-handed use. The advanced modular design structure, formed by integrated satellite parts, ensures that the Planmeca Sovereign adapts to the dentist and not the other way around.

Configurations of two- and four-hand dentistry can be switched comfortably, enabled by the unit swivel that provides great flexibility in positioning the patient's head during a procedure. The slim backrest positions the patient



close to the dentist, while affording the operator ample legroom.

All instruments and functions can be controlled either from the touchscreen panel or the unit foot control – the latter offers a 100% hands-free operation.

The unique foot control system is the result of an intricate design concept that permeates every facet of this innovative product. With the option of a cordless version, the foot control comes equipped with three multidirectional control knobs and a dual functional lever, that notches sideways.

"Our designers incorporated this new lever system that helps to reduce the amount of strain exerted on your ankle muscles, as opposed to using the normal step-operated pedals.

"The foot control is very sturdy and easy to get accustomed to using. Nine out of ten people who use this new system would tell you what a great feature it is. But don't simply take my word for it, come and test it for yourself."

Braced for the future

The intuitively conceptualised graphical user interface or GUI displays all the control functions at one glance. The interface offers a multitude of customisable, user-specific settings.

Once settings are saved, Planmeca Sovereign will store all relevant information – including working position and other user preferences for various procedures – into a USB memory stick. "To recall the information," Andreas says, "simply slot the USB stick into the reader and the unit automatically adjusts itself, according to the individual settings that was previously programmed."

Poised for the future, Planmeca Sovereign boasts full IT Integration; with Ethernet and USB connectivity that allows flexible interfacing with other equipment and information networks. The unit is also compatible with the Planmeca Romexis clinical software, which runs on an integrated multi-media PC, opening up new vistas in treatment procedures and patient information management. Future innovations can be introduced through software upgrades.

Allowing up to six instruments, the instrument console is equipped with a multiplexer that offers precise speed and torque control. For example, the unit-integrated brushless micromotor affords such high speed precision previously only found in tabletop micromotors.

Andreas adds: "Controlled by an internal bus system, each instrument is equipped with USB connection so that whatever device developed in the future can be integrated into this unit.

"Being a modular system, the instrument console



can also adapt special instruments such as a digital apex locator."

Planmeca Sovereign makes use of a central CAN serial bus system to control the various modules. This messaging system has been approved for use in the automotive industry to control brake-locking protection systems on cars.

Planmeca is also the only dental chair manufacturer that uses induction motors to power its moving parts. Induction motors are used in changing the angulation of wings in the latest fleet of A380 Boeing passenger planes. As far as durability goes, these motors are practically indestructible, Andreas attests.

"This means that you won't ever need to change or repair the motors in the lifetime of the chairs."

In keeping with modern developments in microscope-assisted dentistry, Planmeca Sovereign is able to simultaneously connect to an x-ray machine and microscope.

"The solid construction of the unit allows for this dual connection that lets the patient remain in a relaxed position when the dentist moves seamlessly from a microscope-assisted procedure to taking an x-ray, without having to disrupt the flow of operation. It is probably the only dental unit in the world to offer this function."

As the premier model of its range, Planmeca Sovereign is obviously targeted at the high-end practitioner.

"It is by no means inexpensive. Still, when you consider its features and those offered by other up-market contemporaries, it becomes clear that you are paying a slight premium for significantly more."

Not one to curb his enthusiasm, Andreas proclaims: "The only thing it does not do is fly but besides that, it can go wherever the future takes it." ♦

