

SCHWIND

eye-tech-solutions

SCHWIND Carriazo-Pendular – Perfection down to the smallest detail



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Technologically sophisticated: the mechanical Carriazo-Pendular microkeratome offers unequaled precision. The result is a convincing and highly predictable treatment quality for the refractive surgeon and his patients.

Highly predictable flap thickness

Cutting head and blade are designed in a convex form similar to the cornea itself. Due to the unique pendulum motion of the Carriazo-Pendular, the cornea becomes more applanated in the center than in the periphery. This is the only way to ensure a uniform as well as precise cut. Combined with the optimal settings for cutting speed and blade oscillation, this technology provides a homogeneous and highly predictable flap thickness and very smooth cutting edges. Even very thin cuts can be performed in an extraordinarily reliable way.



Convexly formed blade



Innovative blade box

The Carriazo-Pendular not only impresses with a very low standard deviation between 10 and 12 μm . Considering the mostly neglected limit values like minimal and maximal flap thickness, the expected maximal flap thickness values are well within a safe range for the operator. These results are obtained by means of detailed monitoring and the specific interaction of blade and cutting head manufacturing tolerances.

A special vacuum chamber located in the suction ring minimizes stress on the eye and increases cutting safety.

The hinge position can be freely selected (360 degrees). Even narrow palpebral fissures and small corneas can be treated successfully.

Optimized and economical

The hand piece of the Carriazo-Pendular consists of just five components (suction ring, drive shaft, cutting head, motor and blade). Components of different hand pieces are compatible and are therefore individually interchangeable. Optimal performance of the treatment is ensured thanks to flexible application. Furthermore, consequential costs are reduced considerably due to completely interchangeable components and, thus, profitability is increased.

Trust your eyes.

Unique pendulum motion provides precise cut



Monitoring sets standards

A microprocessor inside the control panel monitors the application of the Carriazo-Pendular continuously before and during treatment, ensuring safe, standardized and professional treatment performance for both doctor and patient.

Customized cutting

With the innovative Carriazo-Pendular software for PC and notebook, the user is able to illustrate different suction and cutting phases in an uniquely detailed way. Even beginners are able to accurately obtain the desired results for different indications. SCHWIND eye-tech-solutions offers cutting heads designed precisely to the micrometer, not only for the default versions 90, 110, 130, 150 and 170 µm, but for all requested flap thicknesses.

Interactive display

The functionality of the microkeratome is automatically checked prior to each application. The interactive display of the control panel, available in five languages, not only indicates possible errors, but also the respective solutions.

Quality that convinces

An innovative blade box provides increased safety during the performance of the treatment: The blade is always protected in the box, starting with assembly, during the cut itself and right up to disposal. Thereby, cutting complications and risk of injuries are avoided.

Each blade is marked with a barcode with a serial number. This way, the surgeon can prove to the patient that the blade is new and unused.



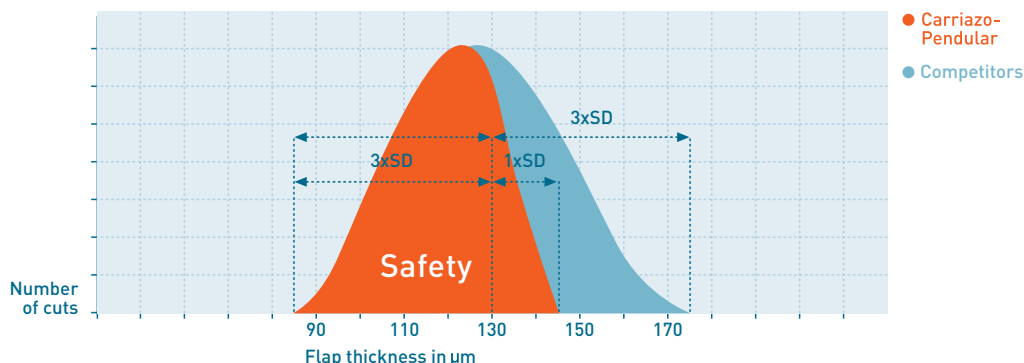
Interactive display



Detailed monitoring

Distribution of flap thickness for cutting head 130 µm

Maximal flap thickness values are well within a safe range



CARRIAZO-PENDULAR

At a glance

Device type	Microkeratome
Method	Pendular technology
Equipment	
Control unit	Microprocessor-controlled unit with multiple functions for monitoring and documentation, as well as an interactive display
2 Sets	Each set includes: 1 cutting head, 4 suction rings (2 x 9 mm, 2 x 10 mm), 1 lid speculum, 1 tonometer, 1 motor, 1 motor cable, 1 drive shaft
Footswitch	Forward and return motion, vacuum
Details	
Cutting head	90, 110, 130, 150, 170 micrometer
Suction ring	Outside diameter: 19 mm Flap diameter: 9 mm and 10 mm right & left (standard)
Hinge position	360° selectable
Drive	2 separate motors for oscillation and motion
Lid speculum	Ergonomically designed for Carriazo-Pendular, suitable for aspiration
Blades	First-class quality – laser-proven, blade box for easy and safe application
Software for PC and Notebook (optional)	Documentation and print function for several phases of cutting and suction, parameter settings, serial and charge numbers
Control unit	Dimensions (l x w x h): 28 x 23 x 21 cm Weight: 8.8 kg Power: 115 VAC/60 Hz or 230 VAC/50 Hz, 160 VA, integrated UPS Languages: English, German, Italian, Spanish, French
Settings	
Oscillation	9000 – 15000 rpm (Default: 15000 rpm)
Advance motion	2 – 5 mm/sec. (Default: 3 mm/sec.)
Compliance	CE conformity in accordance with Medical Device Directive (MDD) 93/42/EEC, FDA 510(k)-cleared