



SIRIUS  SCHEIMPFLUG  
Tomographer & Topographers



MADE IN ITALY



# TOMOGRAPHER

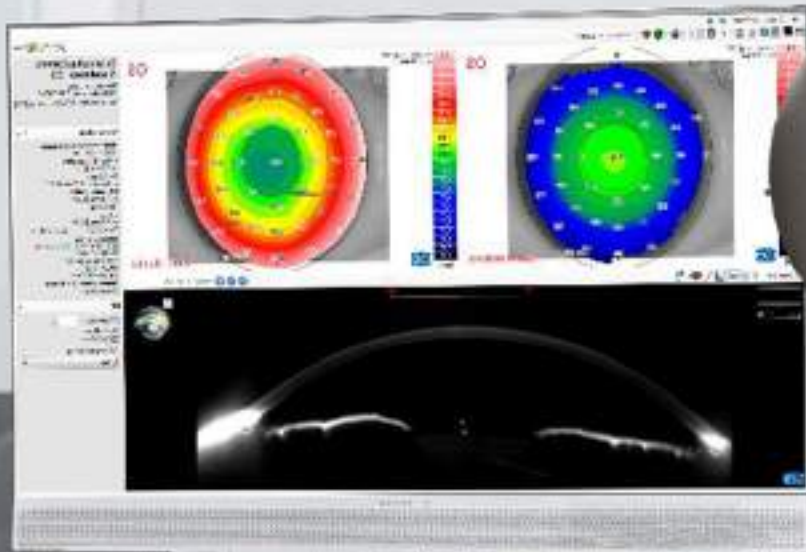


TOPOGRAPHER

## ABOUT SIRIUS+



SIRIUS examinations provides an accurate measurement of pupil diameter in scotopic, mesopic and photopic conditions. When combined with the corneal map they can be used for refractive surgery planning and follow up. All biometric measurements of the anterior chamber are calculated using 25 sections from the cornea.



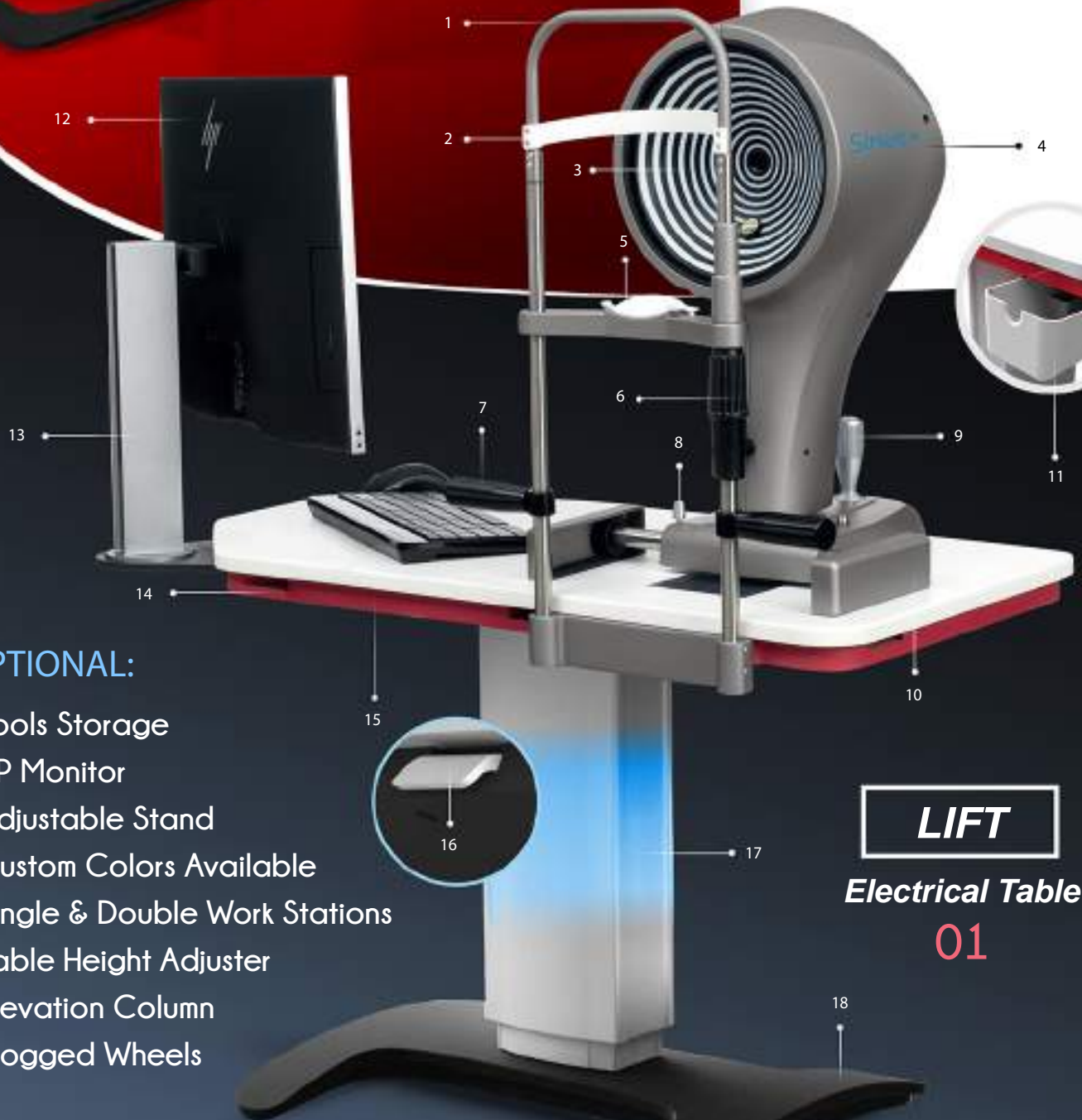
# **+** **P**RODUCT OVERVIEW

## **INCLUDED:**

1. Chinrest Module
2. Head Rest
3. Capturing Channel
4. Resolution (1280x960)
5. Chinrest Cup
6. Knob Adjuster
7. Patient's Handle
8. Device Blocking Knob
9. Capturing Trigger Joystick
10. Slide Guide Guards



**LIFT**  
*Electrical Table*  
**02**



## **OPTIONAL:**

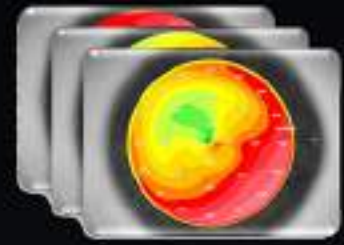
11. Tools Storage
12. HP Monitor
13. Adjustable Stand
14. Custom Colors Available
15. Single & Double Work Stations
16. Table Height Adjuster
17. Elevation Column
18. Cogged Wheels

**LIFT**  
*Electrical Table*  
**01**



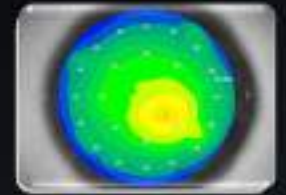
# CHEIMPFLUG TOMOGRAPHY

**100 HR**  
Corneal Sections

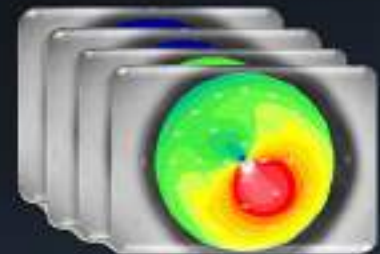


Corneal Thickness

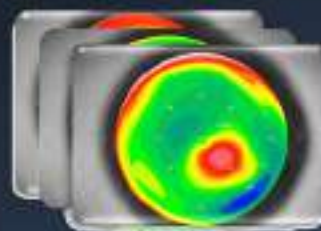
SIRIUS is a fully featured multi-functional placido disk topographer and Scheimpflug's tomographer with a dedicated software designed to help in the detection and analysis of Dry Eyes.



Anterior, posterior and total refractive power map reports



Anterior chamber depth and posterior corneal surface elevations



Tangential and axial curvature of anterior and posterior corneal surface

## PRECISE SURFACES

SIRIUS is able to obtain the accurate measurement of elevations, curvature, power and thickness for the whole cornea surfaces over a 12mm in diameter.



## CORNEAL Measurements

The most common uses are for refractive and cataract surgery, and IOL calculation module is available. Photos and videos with blue & white diffuse light.



## ILLUMINATION

Placido Disk	LED @400-700nm
Scheimpflug	LED @475nm UV-free
Pupillography	LED @940nm
Auxiliary Lighting	LED 400-700nm
Fluorescence Lighting	LED @470nm





PHOENIX

SOFTWARE

### CONNECT YOUR TWO DEVICES

SIRIUS+ uses the Phoenix Software platform allowing patient data to be saved for future review and analysis, shared by all CSO devices. Enables both comfort and flexibility with CSO's optional single and double electrical tables designed for all ophthalmic instruments.



Windows

Cornea			
Mean K	43.72 D	R	4.28 mm
Flat Steep	51.82 D 185°	R1	4.51 mm
Steep Steep	35.62 D 65°	R2	4.07 mm
Angle	3.81 D	e <sup>2</sup> (-Q)	1.86
Mean K	-8.36 D	R	4.78 mm
Flat K	-7.97 D 185°	R1	5.00 mm
Steep K	-8.76 D 65°	R2	4.57 mm
Angle	-0.78 D	e <sup>2</sup> (-Q)	2.49
Total Corneal Power (Rays Traced)			
Mean TOPDOL	55.89 D	Central	52.46 D
Flat TOPDOL	46.13 D 185°	Mid	49.36 D
Steep TOPDOL	33.64 D 65°	Periph	45.64 D
Angle	3.51 D		
Asphericity			
α Thickness	46µm	location x,y	0.44 mm -0.48 mm
Central	496µm	OCF	477µm
Mid	580µm		
Periph	671µm		
Anterior Axial Curvature Zones			
Central	34.46 D	6.20 mm	
Mid	48.19 D	7.00 mm	
Periph	44.09 D	7.66 mm	
Kmax	62.64 D	5.57 mm	location x,y 0.01 mm -0.80 mm
Anterior Chamber and Dioptery			
WPK, N-T	11.61 mm	Mean Angle	36.6 °
ACV	119mm <sup>2</sup>	Kappa Dist	0.50 mm
AQD	2.96 mm	ABL, mm	n/a
+ Pupil Diam	2.40 mm	location x,y	0.15 mm 0.45 mm
Biometric Variables			
RPE 100.0 %		Kprob 100.0 %	
CLH1a	3.31 D	PRK 100.0 %	



COBRA+





# ANTERIOR SEGMENT DIAGNOSTICS

Anterior and posterior corneal topography information are available for diagnosis, for refractive/ cataract pre-operative planning or for follow up purposes.

Pupillography		<b>What does it do?</b> <ul style="list-style-type: none"><li>• Map of Anterior Chamber Depth &amp; Analysis</li><li>• Refractive &amp; Cataract Surgery Planning Tools</li></ul>
Dry Eye Report		<ul style="list-style-type: none"><li>• IOL calculation with Ray Tracing Techniques</li><li>• Automatic Calculation of Iridocorneal Surface and works with already treated eyes (e.g. LASIK)</li></ul>
Tear meniscus & Ocular Redness		<ul style="list-style-type: none"><li>• Advanced Topography Ring Editing System</li><li>• Corneal Pachymetry (12 mm diameter)</li><li>• Contact Lenses Application Module</li></ul>
RGP lens fitting		<ul style="list-style-type: none"><li>• OPD Analysis and Visus Simulation</li><li>• Scheimpflug's Images Comparison</li><li>• Summary of Acquisition Reliability</li></ul>
Tear Film Analysis		<ul style="list-style-type: none"><li>• Intra Stromal Rings Summary</li><li>• Phoenix Software Platform</li><li>• IOP Correction Formulas</li></ul>
Meibomian Glands Analysis		<ul style="list-style-type: none"><li>• 4 maps + image summary</li><li>• 24 Rings Placido's Disk</li><li>• Contact Lenses Autofit</li></ul>
Densitometry		<ul style="list-style-type: none"><li>• Keratoconus Summary</li><li>• Corneal Aberrometry</li><li>• Glaucoma Summary</li></ul>
Topographic Maps & Summary		<ul style="list-style-type: none"><li>• Videokeratoscope</li><li>• Cataract Summary</li></ul>



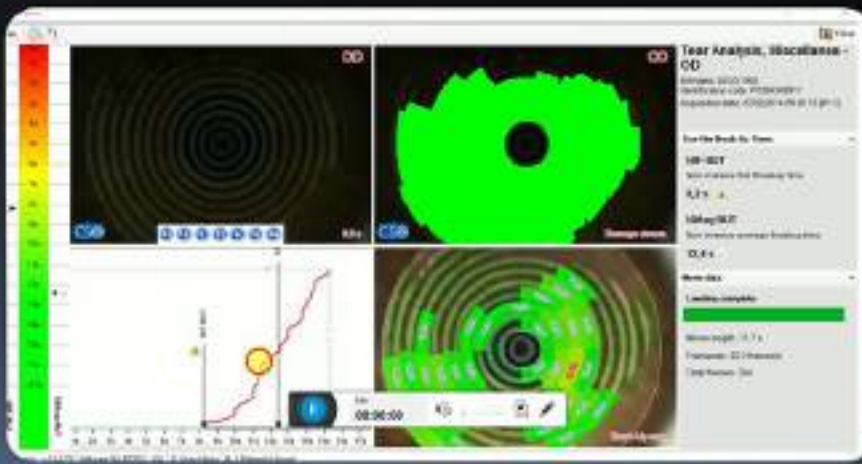
# R DRY EYE REPORT

OD

Thanks to the new color camera, allows the measure of tear film break-up time, meibomian glands analysis, conjunctival, limbar hyperemia and tear meniscus height. In addition, all functionalities merge together for all partial score to provide a complete Dry Eye report for comprehensive assessment of the patients corneal condition and helping the diagnosis of the Dry Eye Disease DED.





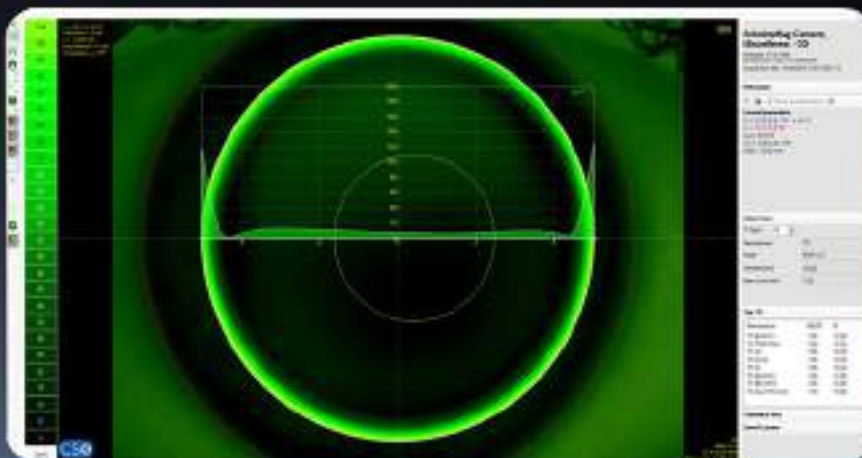
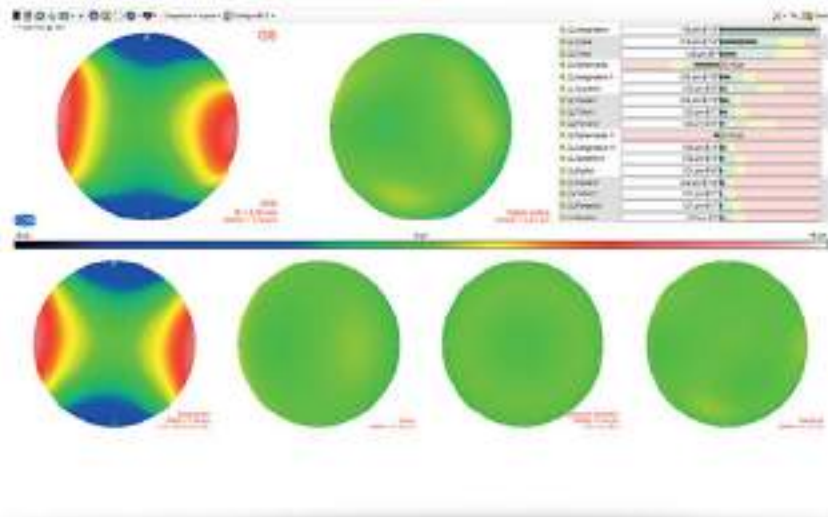


## ADVANCED ANALYSIS OF THE TEAR FILM

Placido disk technology allows for the advanced analysis of the tear film, such as NI-BUT (Non Invasive Break-up Time).

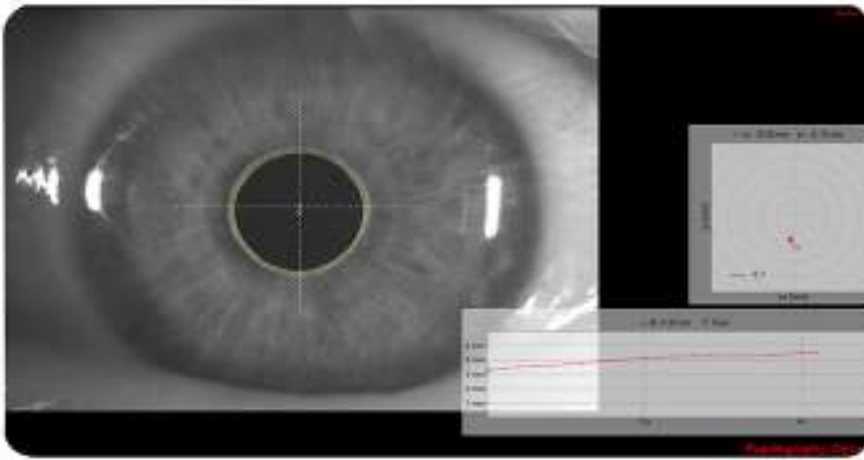
## CORNEAL ABERROMETRY

Offers a complete overview of the corneal contribution to the vision. Anterior, posterior or total corneal aberration are selectable for several pupil diameters. The OPD/ WFE map and the simulated vision functions (Spot Diagram, PSF, MTF, Image convolution) help the clinician understanding and explaining the visual discomfort to the patient.



## CONTACT LENSES APPLICATION MODULE

A contact lens fitting module is available which simulates the fit of rigid lenses based on an internal database of many lens manufacturers.

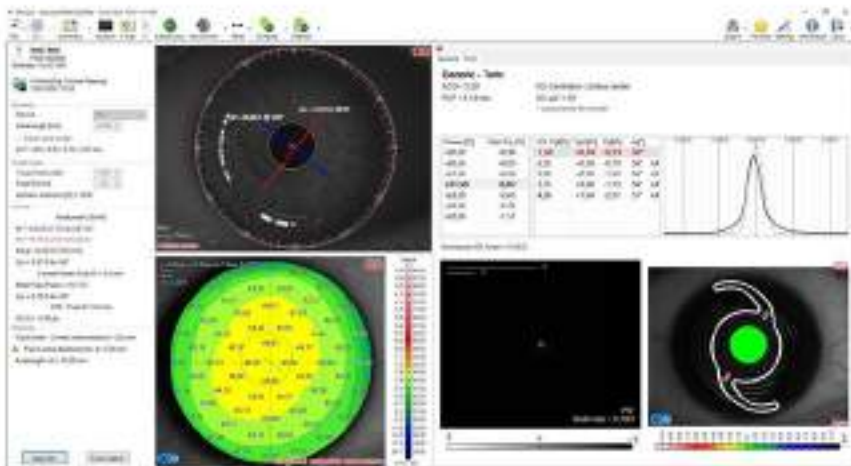
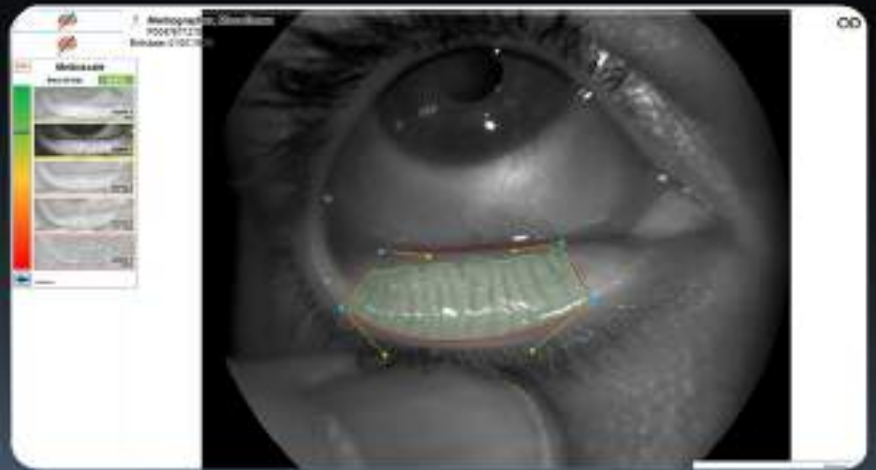


## PUPILLOGRAPHY

Sirius has built-in pupillometry with pupil measurement of scotopic (0.04 lux), mesopic (4 lux), photopic (50 lux) conditions and in dynamic mode. Knowing the center and the diameter of the pupil, is essential for many clinical procedures which seek to optimize vision quality.

## MEIBOGRAPHY

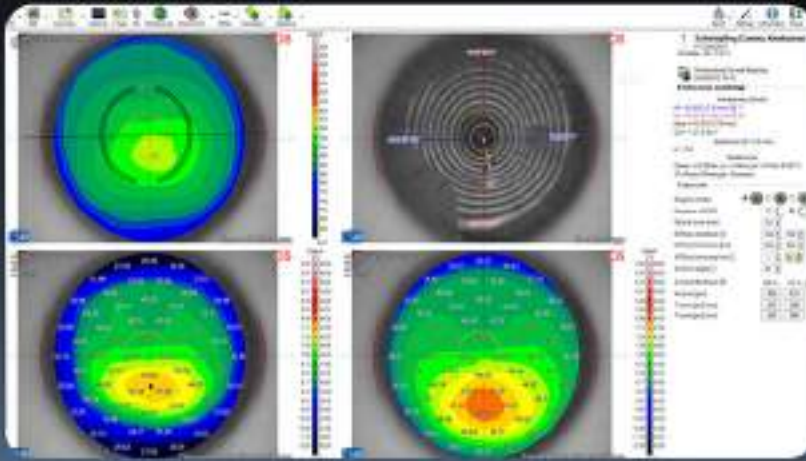
Meibomian glands can be viewed under infrared light once the image is captured, you can use the software to aid in the analysis of the condition of the glands



## IOL CALCULATION MODULE

(OPTIONAL)

This module is based on Ray-Tracing techniques, regardless of the state of the cornea (untreated or previously treated for refractive purposes), provides the calculation of the spherical and toric power of the intraocular lens.

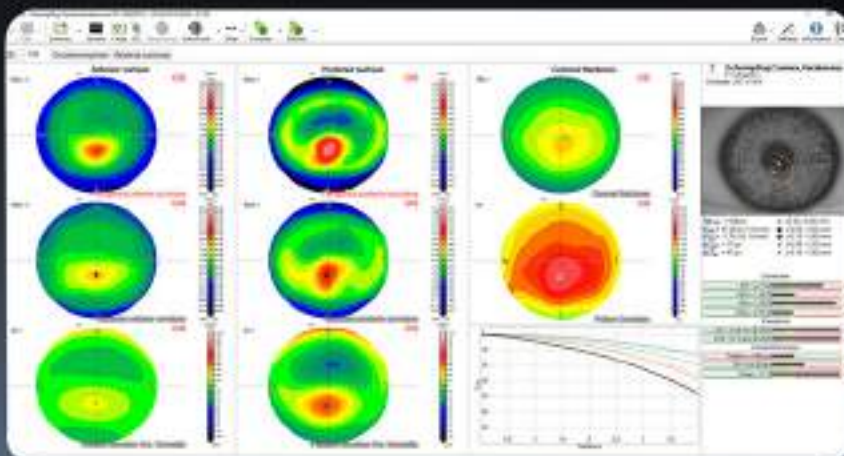
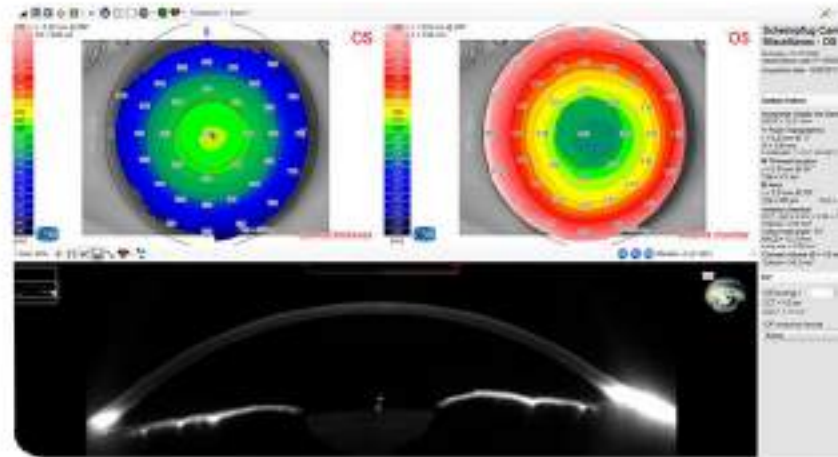


## INTRASTROMAL RINGS

On the basis of the pachymetry map and corneal alti - metric data, SIRIUS allows for intrastromal rings system planning, with variable options for the correction of refractive defects and some forms of keratoconus.

## GLAUCOMA SUMMARY

Aberrometric analysis offers a complete overview of the corneal aberrations. It is possible to select the contribution cornea of the anterior, posterior or total for different pupil diameters. The OPD/WFE maps and the visual simulations (PSF & MTF) can help the clinician in understanding or explaining the patient's visual problems.



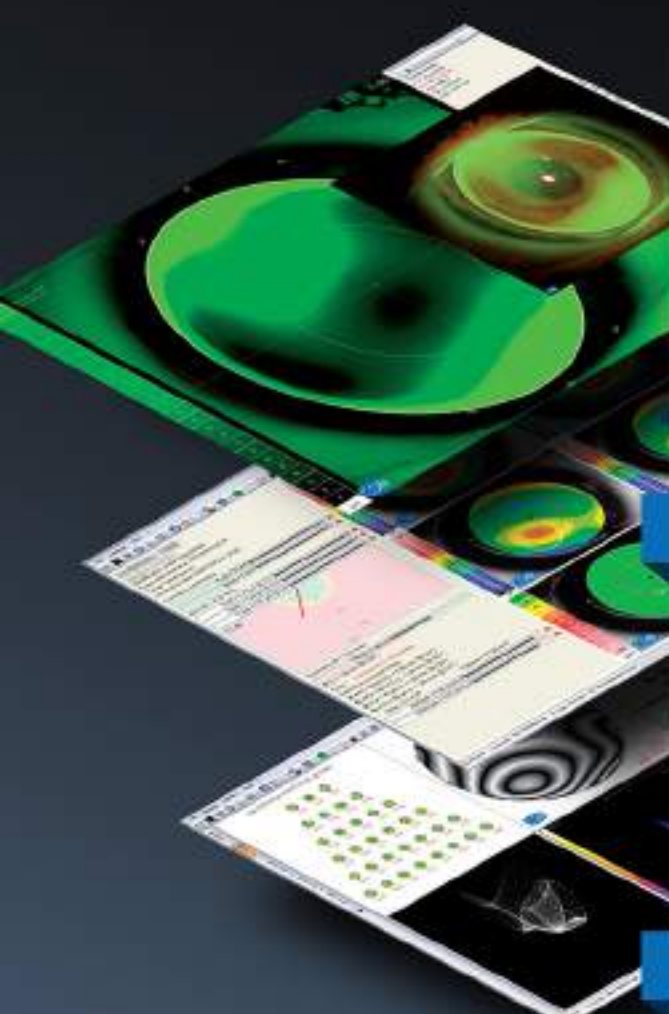
## KERATOCONUS SCREENING

Keratoconous screening provides the clinician with important information about the patients cornea. This will help prevent complications associated with ectasia before corneal surgery is undertaken.



# PRODUCT SPECIFICATIONS

MADE IN ITALY



## Technical Data

Data Transfer	USB 3.0
Power Supply	External power source 24 VCC
Power net cable	IEC C14 plug
Dimensions (HxWxD)	515 x 315 x 255mm
Weight	7 Kg
Chin rest movement	70mm ± 1mm
Base movement (xyz)	105 x 110 x 30mm
Working distance	74mm

## Light Source

Placido Disk	LED @400-700nm
Scheimpflug	LED @475nm UV-free
Pupilligraphy	LED @940nm
Fluoresceine Lighting	LED @470nm
Auxiliary Lighting	LED 400-700nm

## Topography

Placido rings	22
Topographic Coverage	12mm
Measured Points	Class A according to UNI EN ISO 19980-2012
Dioptric Measurement range	1D to 100DT
Measurement accuracy	Class "A" as per "ISO19980:2005 (E)
Power frequency	(50/60Hz) magnetic field IEC 61000-4-8
Power cable	Four-core cable conductors



## Accessories

Light Diffuser Filter	Auxiliary illumination & magnetic
Yellow Barrier Filter	Magnetic 530 nm filter
Additional Lens	Magnetic -6D lens
Calibration Tool	R8 mm calibration tool