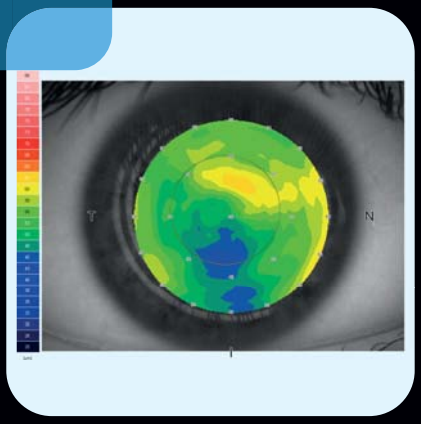
The Placido-OCT

MS-39

Anterior Segment OCT / Cornea Topographer



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Anterior Segment OCT / Cornea Topographer

Accurate Analysis

The MS-39 is the most advanced device for the analysis of the anterior segment of the eye. It combines Placido disc corneal topography, with high resolution OCT-based anterior segment tomography.

The sheer clarity of the 16 mm diameter cross-sectional images together with the highly detailed imaging of the corneal structure in all its layers make the MS -39 a very powerful diagnostic tool for the anterior segment specialist.

Image acquisition is exceptionally fast, with very easy operation.

Reliable Readings

MS-39 provides dependable information on pachymetry, elevation, curvature and dioptric power of both corneal sufaces.

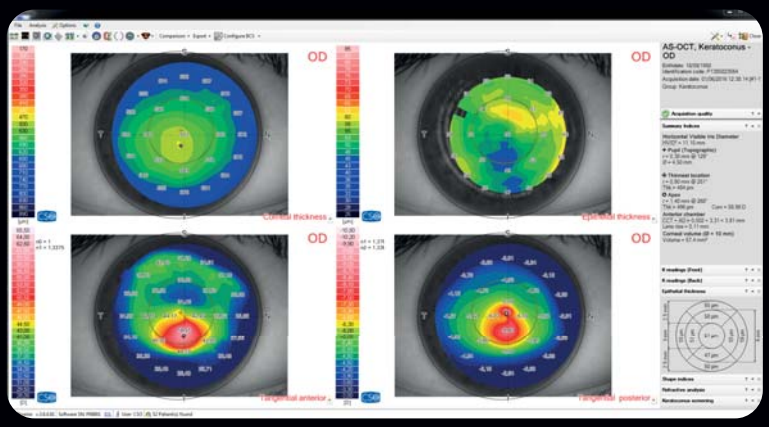
In additional to the anterior segment clinical diagnostics, MS-39, with its Ray-Tracing based IOL calculation module tool, lends itself perfectly to surgical planning on all (even post refractive) eyes.

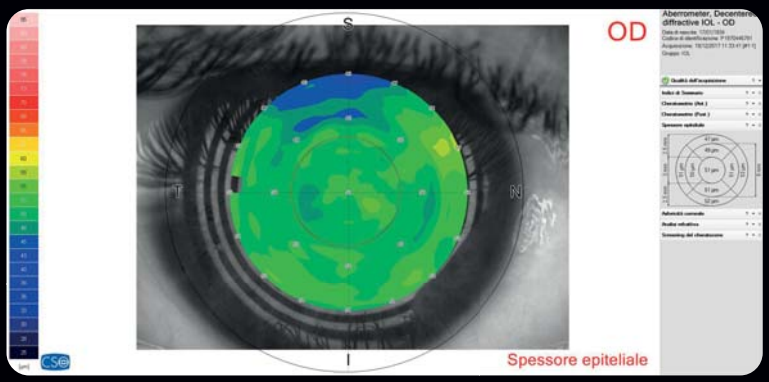
Additional tools allow MS-39 to perform accurate pupil diameter measurements and advanced tear film analysis.

The Phoenix Software

MS-39 uses the Phoenix software platform allowing patient data to be saved for future review and analysis, shared by other bon devices, e.g. as the DigiPro slit lamp or the Antares topographer.

The scope of delivery also includes two network licences, which can be extended as required.



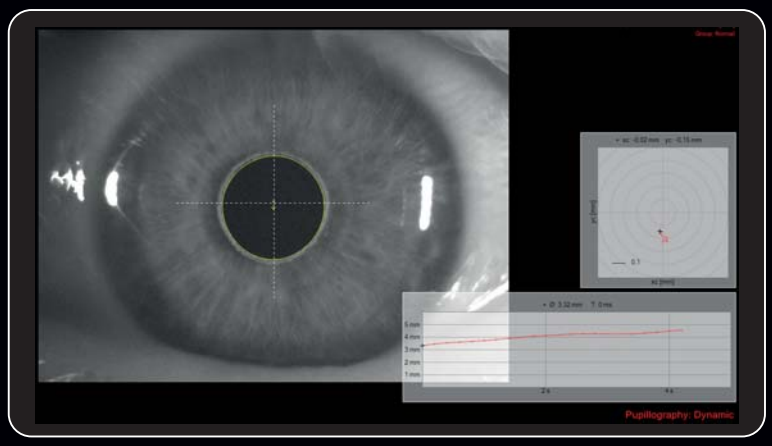


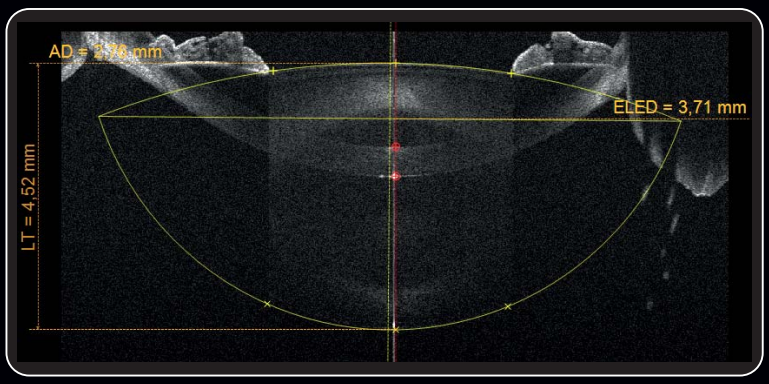
Epithelial Map

MS-39 includes the advanced measurement of the epithelial layer. The epithelial masking effect is a well known phenomenon, thus knowledge of its morphology is a very useful way to assess corneal surface abnormalities.

Pupillography

Accurate data on pupil center and diameter is essential for most procedures seeking to optimize visual quality. MS-39 has a built in pupillography measurement software. The measurement of the pupil in scotopic (0.04 lux), mesopic (4 lux), photopic (50 lux) conditions and in dynamic mode.



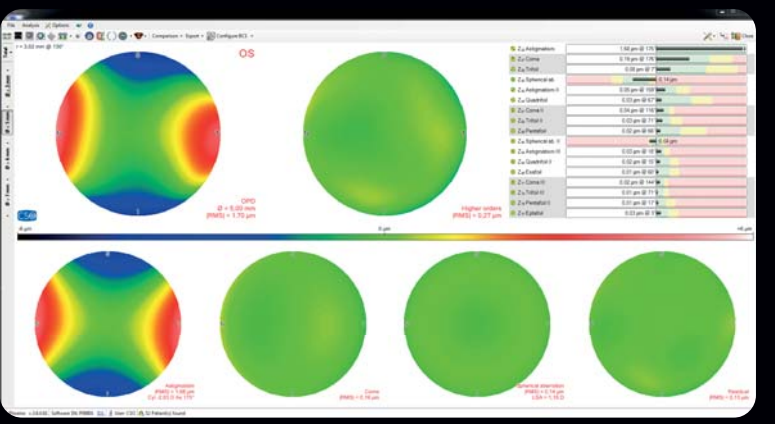


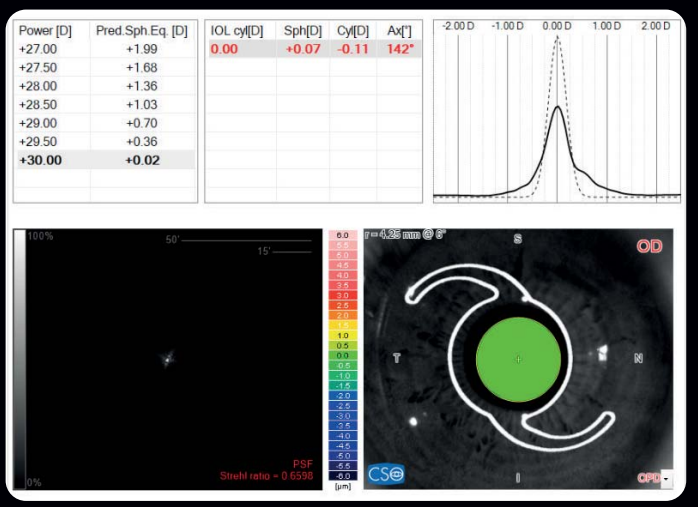
Crystalline Biometry

In order to more accurately determine the ELED, and consequently to refine the intra-ocular lens calculation, MS-39 provides an acquisition mode to measure the crystalline lens thickness and its distance from the cornea and its equator.

Corneal Aberrometry

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



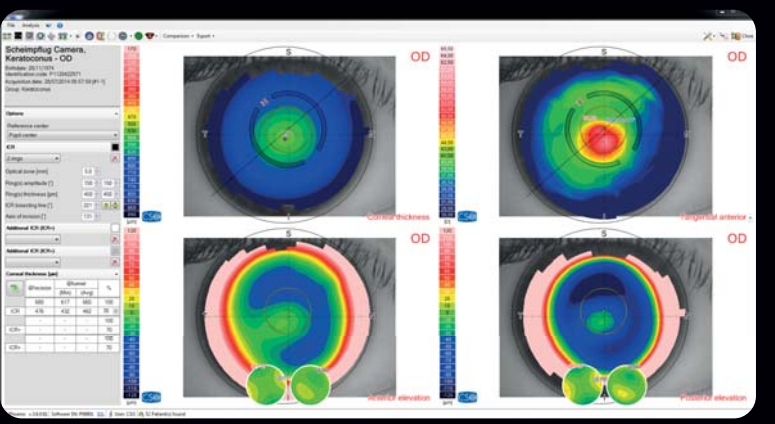


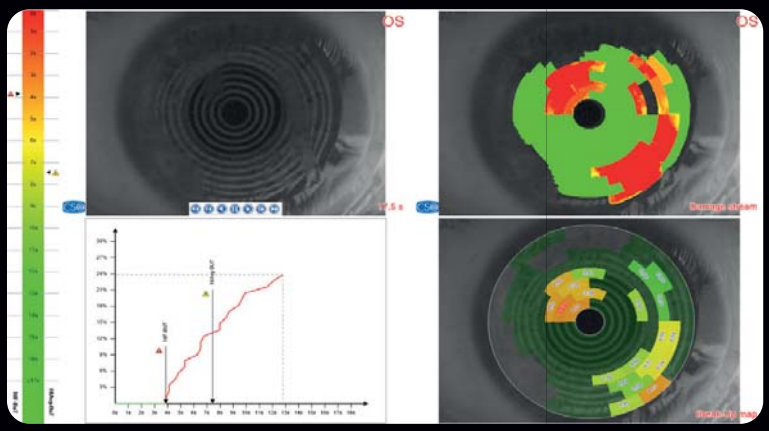
IOL Calculation Module

This module using Ray Tracing provides accurate iol calculations on untreated and post refractive eyes, providing the calculation of the spherical and toric power of the intraocular lens.

Intrastromal Rings

Using the pachymetry map and corneal altimetric data, MS-39 provides intrastromal ring planning in Keratoconus and refractive correction cases.



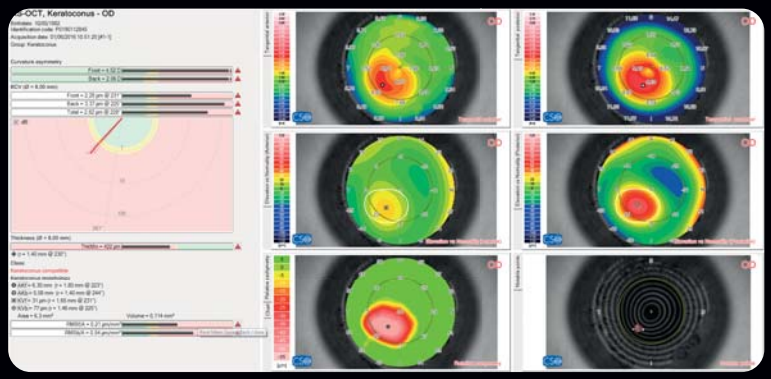


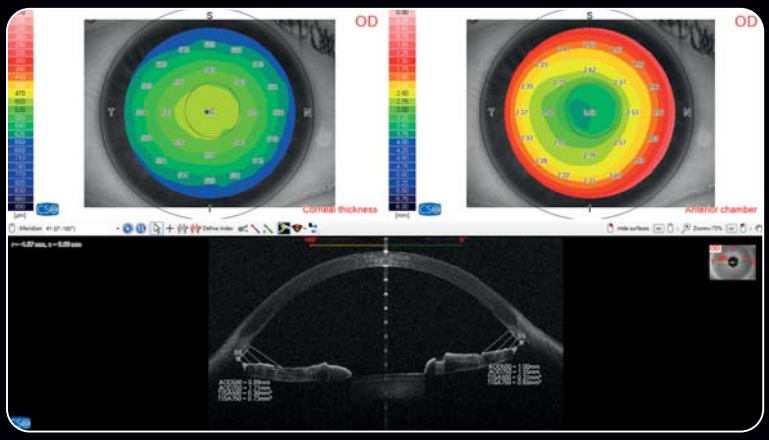
Advanced Tear Film Analysis

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

Keratoconous Screening

Keratoconous screening provides the clinician with important information about the patient's cornea. Gaining an understanding prior to surgery can help prevent eventual complications associated with ecstasia.





Glaucoma Screening

For glaucoma specialists MS-39 enables the measurement of AOD, TISA and corneal pachymetry. These values are useful in the diagnosis of the disease.

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Technical Data MS-39
Anterior Segment OCT / Cornea Topographer

Data transfer	USB 3.0
Power supply external power source	In: 100-240Vac - 50/60Hz - 2A Out: 24Vdc - 100W
Power cable	IEC C14 plug
Dimensions (HxWxD)	505 x 315 x 251mm
Weight	10.4 Kg
Chin rest movement	70mm ± 1mm
Minimum height of the chin cup from table	23cm
Base movement (xyz)	105 x 110 x 30mm
Working distance	74mm

Light Sources

Placido disk illumination	Led @635nm
OCT source	SLed @845nm
Pupillographic illumination	Led @950nm

Topography

Placido disk rings	22
Measured points	31232 (anterior surface) 25600 (posterior surface)
Topographic covering	10mm
Dioptric measurement range	from 1D to 100D
Measurement accuracy	Class A according to UNI EN ISO 19980-2012

Tomography (OCT)

Image field	16mm x 8mm
Axial resolution	3.6 µm (in tissue)
Transversal resolution	35 µm (in air)
Image(s) resolution	Keratoscopy (640x480) + 25 radial scans on a 16mm transversal field (1024 A-scan)
Section	on 16mm (1600 A-scan) on 8mm (800 A-scan)
Operating system	Windows 10 (64 bit)

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