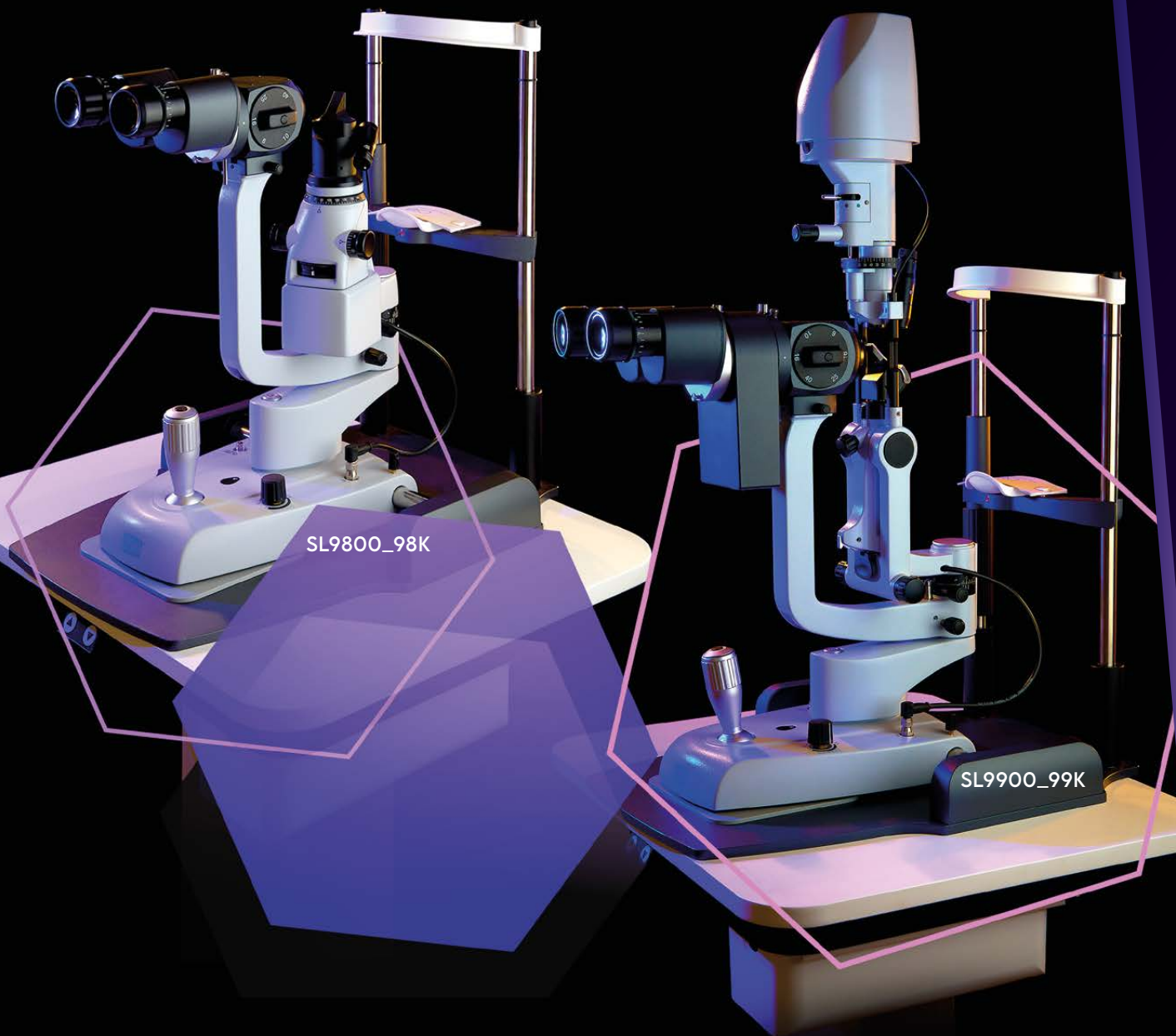




CS@

SL9800_98K
SL9900_99K

SLIT LAMPS

SL

SL9800_98K SL9900_99K SLIT LAMPS

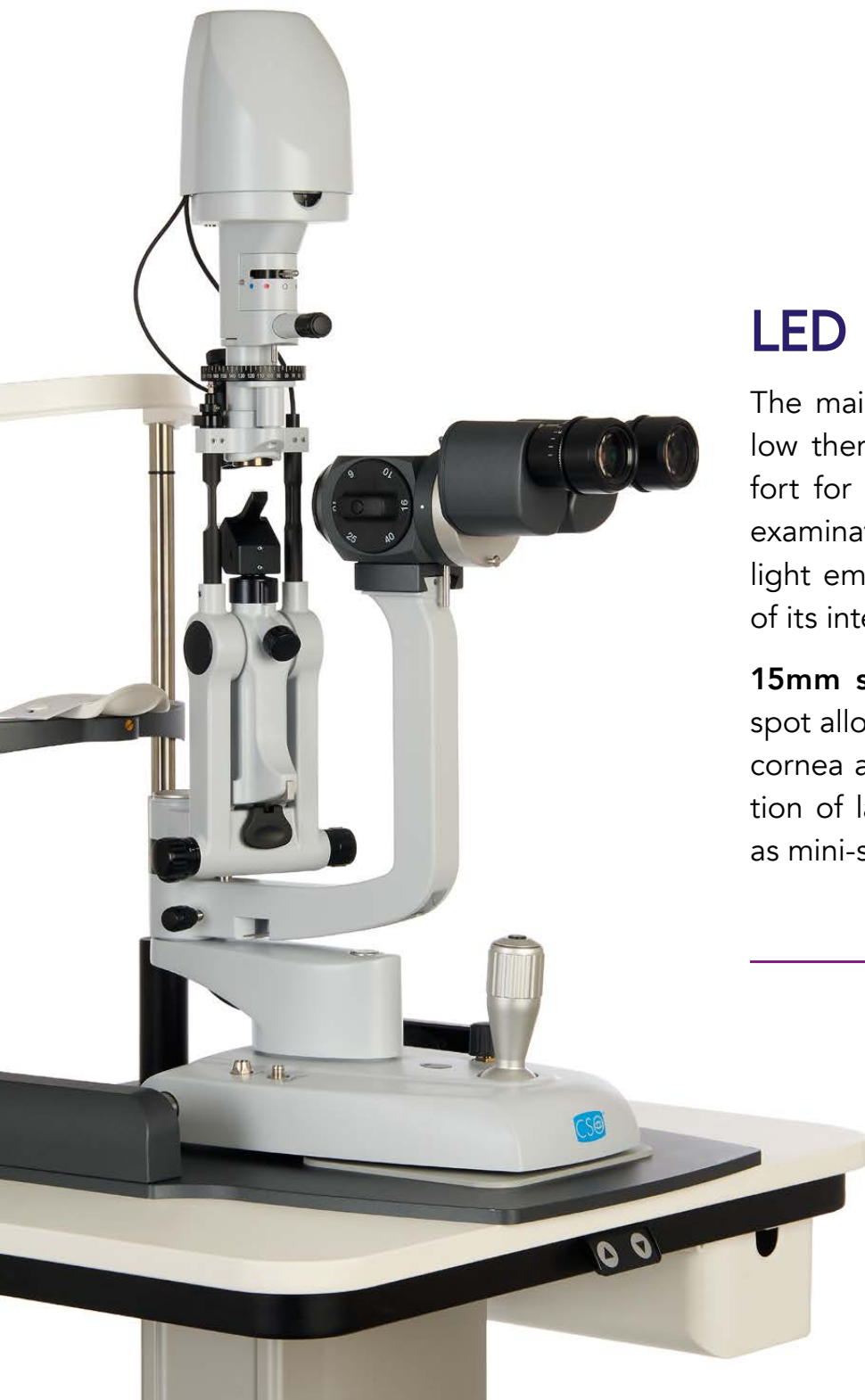


SL9900_99K



SL9800_98K

CSO slit lamps meet elevated manufacturing standards and are equipped with advanced LED illumination. Their ergonomic design, high-quality optics, and precision mechanical components provide users with an unparalleled experience when performing slit lamp examinations.



LED LIGHT SOURCE

The main LED illumination source, with its low thermal emission, provides high comfort for the patient during biomicroscopic examination. The color temperature of the light emission remains constant regardless of its intensity.

15mm spot: A wider-than-traditional light spot allows simultaneous illumination of the cornea and ocular adnexa, or the examination of large-diameter contact lenses such as mini-scleral and scleral lenses.



2X MICROSCOPE

Converging Keplerian microscope with 10x and 16x magnifications

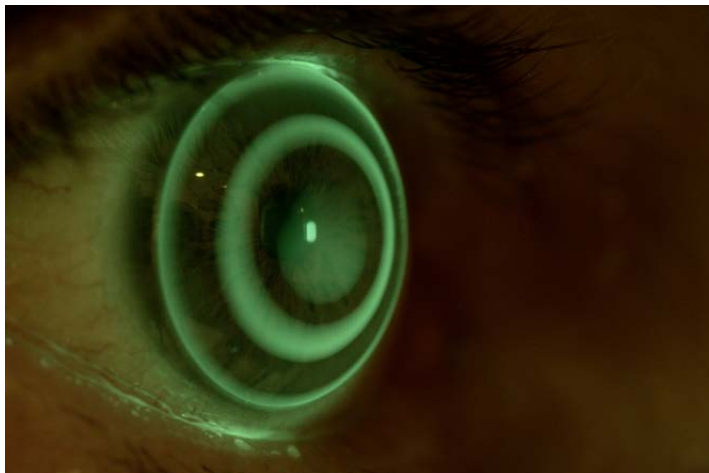


3X | 5X | ZOOM MICROSCOPE

Converging Galilean microscope optics with 3X, 5X or ZOOM magnification system

YELLOW BARRIER FILTER

Equipped in all the 3X | 5X | ZOOM | STEREO VARIATOR 5X microscopes, It allows to increase contrast during biomicroscopic examination with fluorescein and blue filter.



A close-up photograph showing a person's hand adjusting a white, curved chin rest on a medical device. The device has a vertical scale with markings from 0 to 60. A black cable is attached to the top of the device.

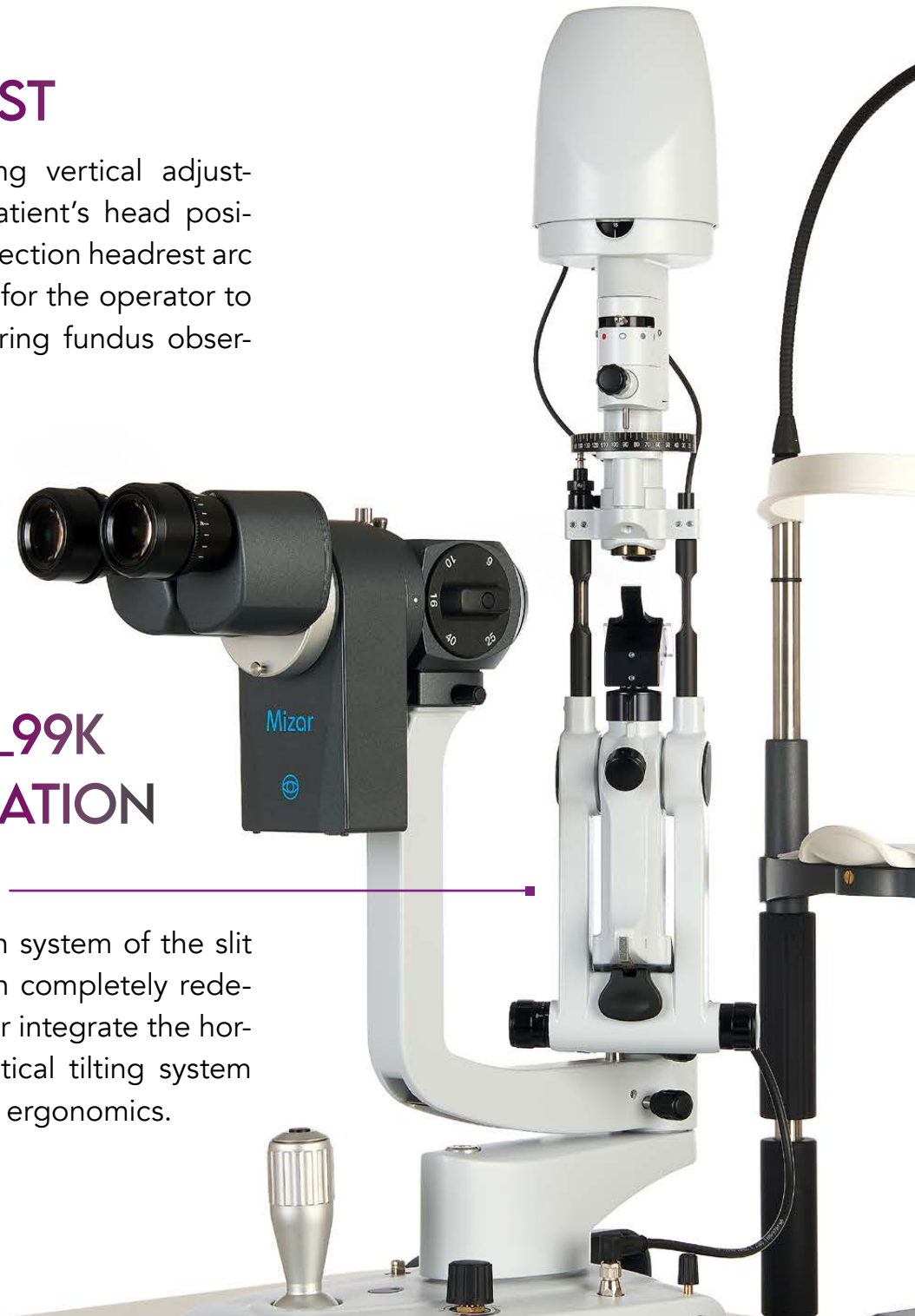
CHIN REST

Besides allowing vertical adjustment of the patient's head position, the wide-section headrest arc makes it easier for the operator to hold lenses during fundus observation

A close-up photograph showing a person's hand holding a black lens in front of a slit lamp microscope. The hand is positioned to adjust the lens. The microscope has a white frame and a black handle.

SL9900_99K ILLUMINATION SYSTEM

The illumination system of the slit lamps has been completely redesigned to better integrate the horizontal and vertical tilting system and to improve ergonomics.



STEREO VARIATOR 5X MICROSCOPE

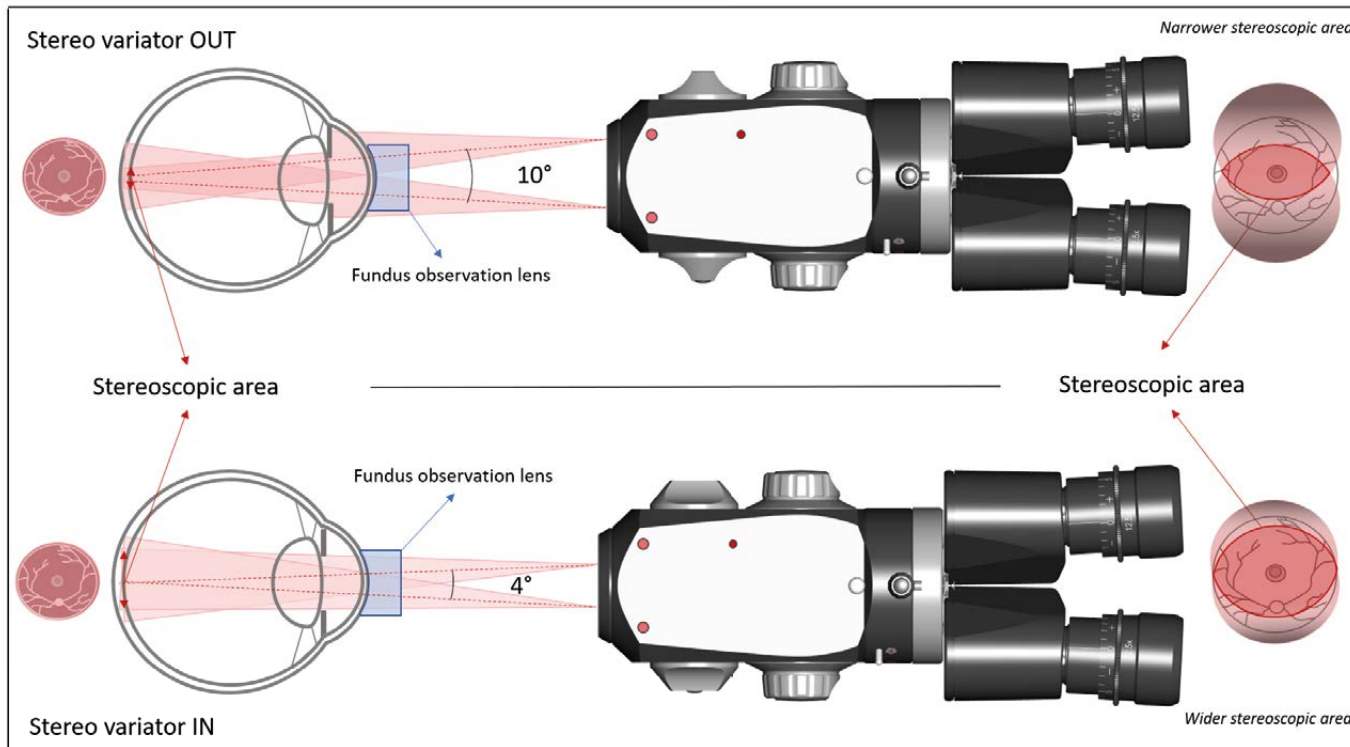
This Converging Galilean microscope, equipped with a stereoscopic variator, is particularly useful for retinal examinations with hand-held lenses.

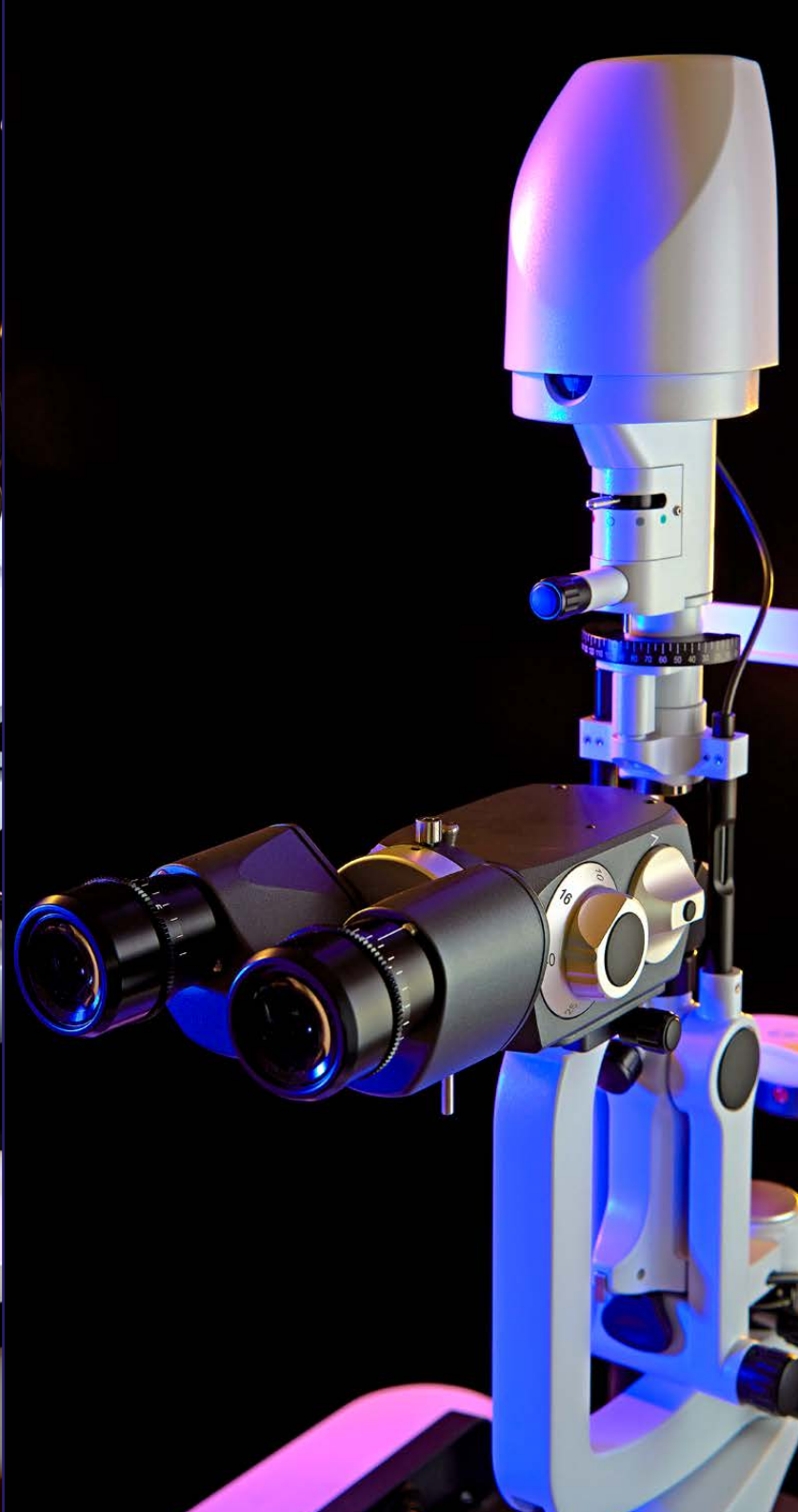
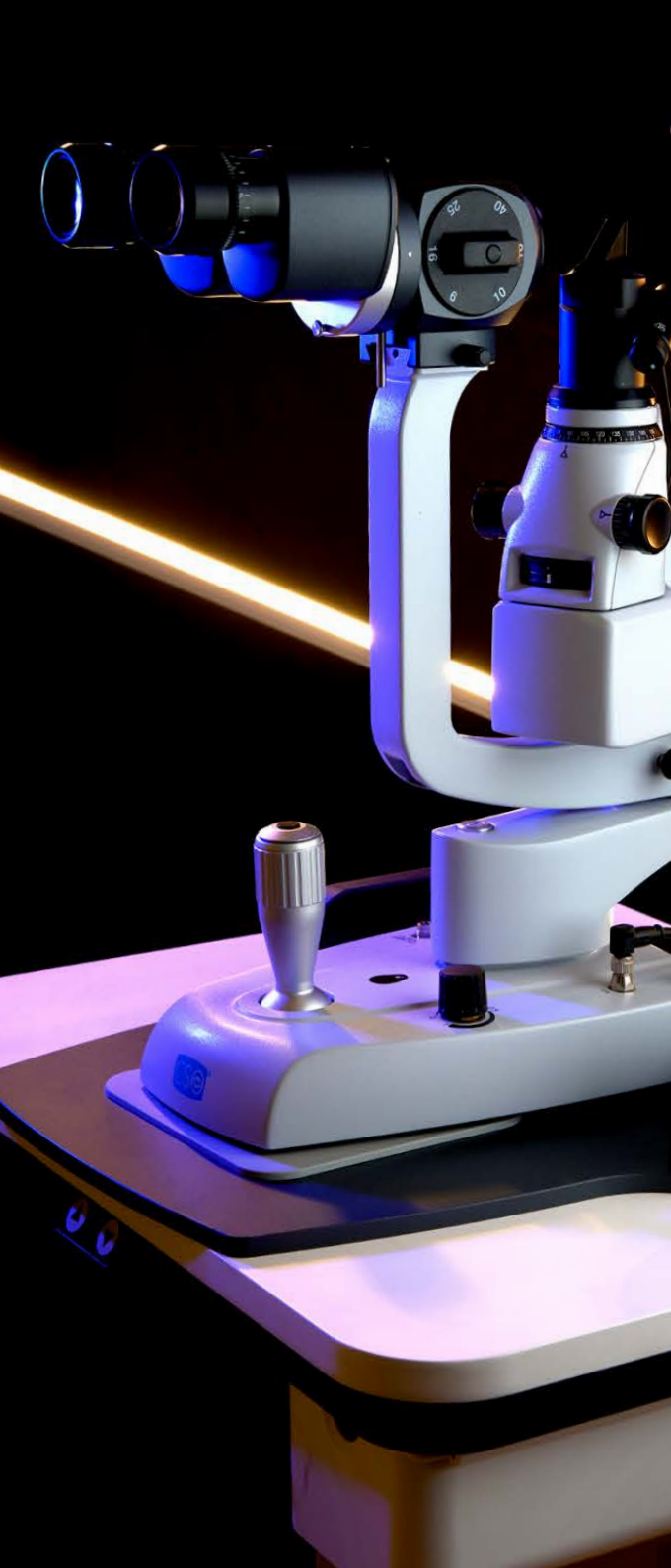
In these situations, the field of view of the slit lamp's two optical channels, may be limited by the patient's iris diameter, and the binocular viewing area may



be reduced due to the wide stereoscopic angle of optics optimized for anterior-segment examination.

By reducing the stereoscopic angle, the stereoscopic variator minimizes these limitations, improving image brightness and uniformity while providing a wider stereoscopic field of view.



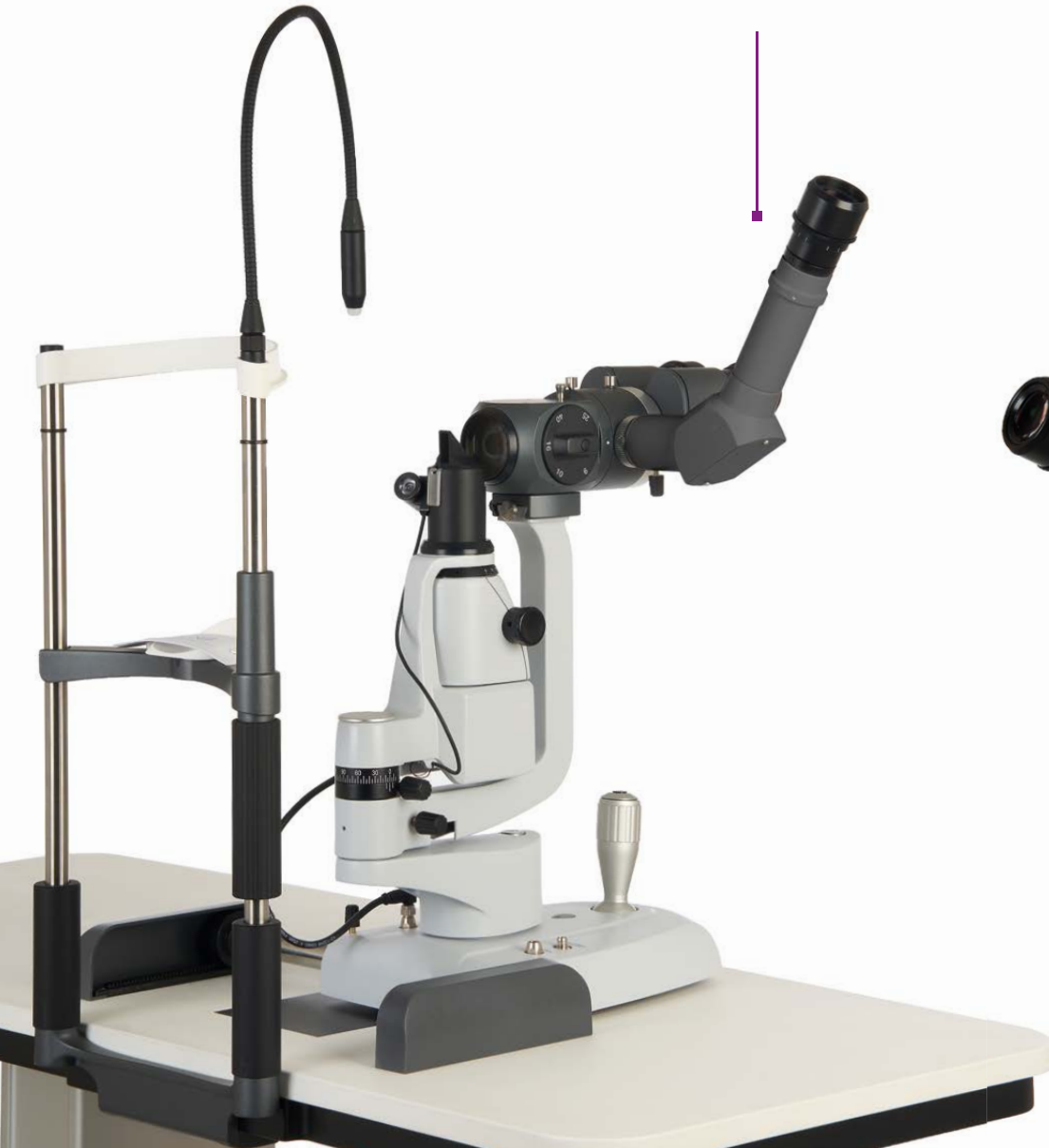


ACCESSORIES

Polaris: allows for the analysis of the lipid layer of the tear film and the assessment of break-up time.



Co-observation eyepiece: an additional optical channel designed for teaching purposes, allowing a second observer to view the eye simultaneously during the examination.

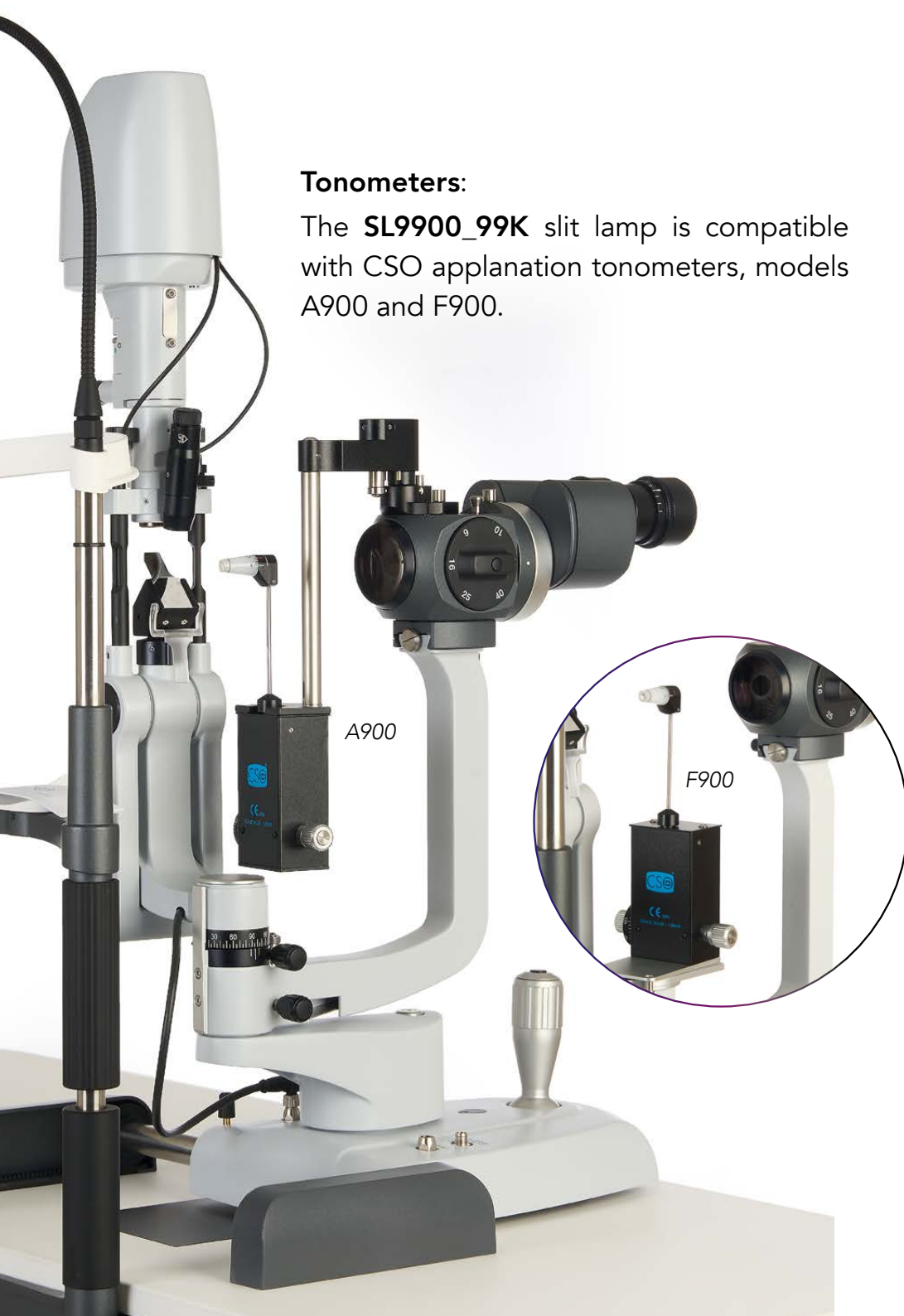


20° eyepieces tilter: tilting the eyepieces by 20° allows the operator to maintain a more comfortable neck and back posture during the examination.



Tonometers:

The **SL9900_99K** slit lamp is compatible with CSO applanation tonometers, models A900 and F900.



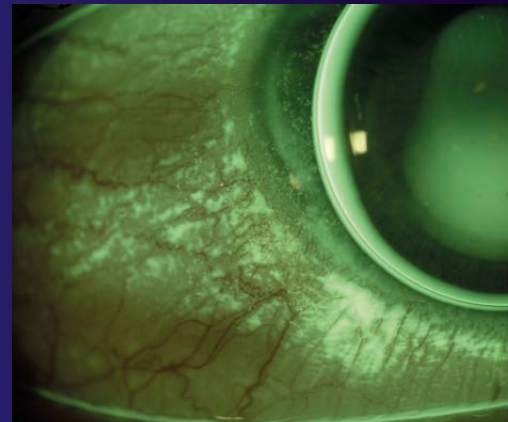
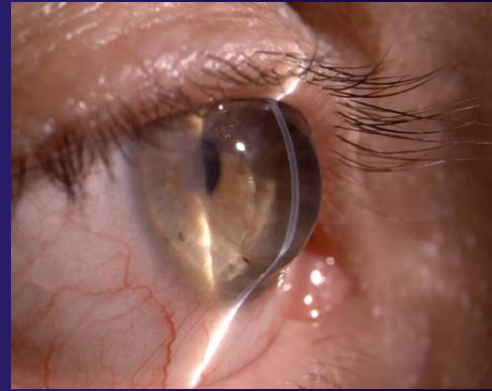
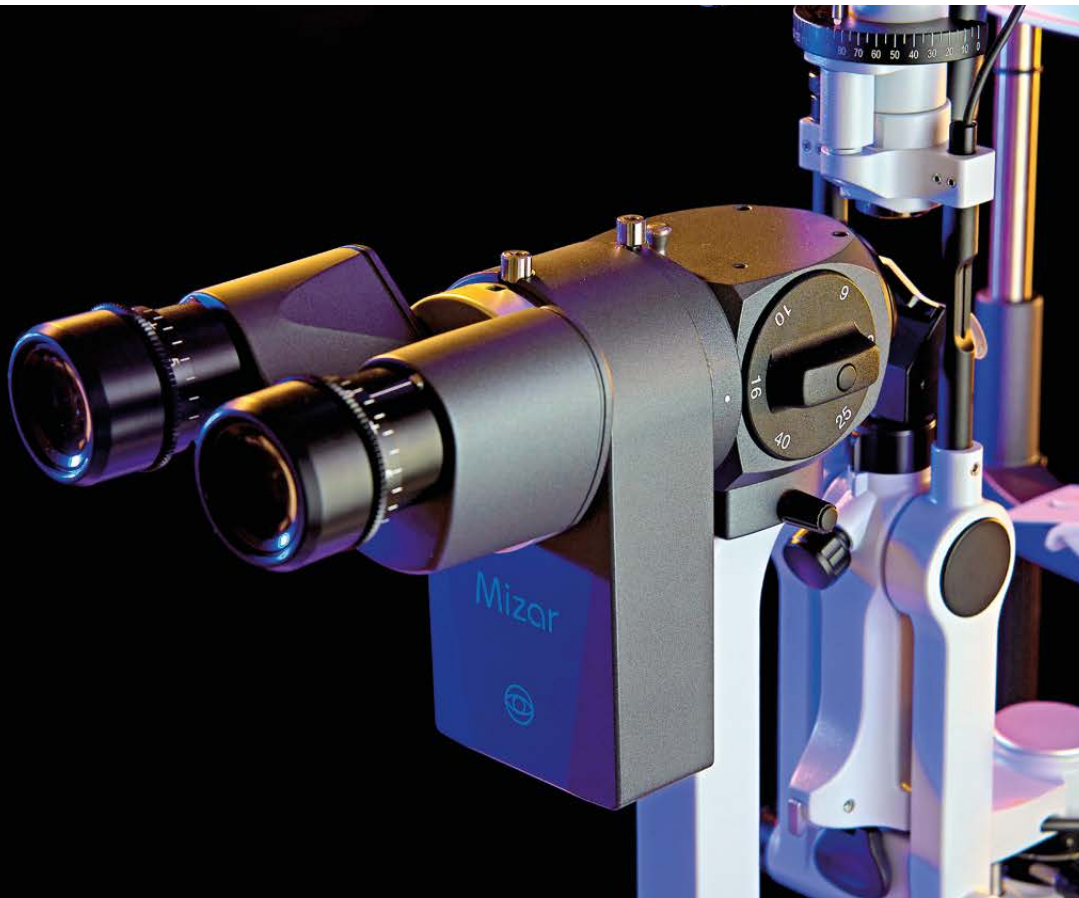
The **SL9800_98K** slit lamp is compatible with the CSO applanation tonometer, model Z800.



MIZAR DIGITAL CAMERA

The Mizar digital camera, thanks to its high resolution and automatic exposure adjustment, enables high-quality video and image capture of ocular structures.

*Available as optional for digital ready slit lamps.
Not compatible with 2X microscope*

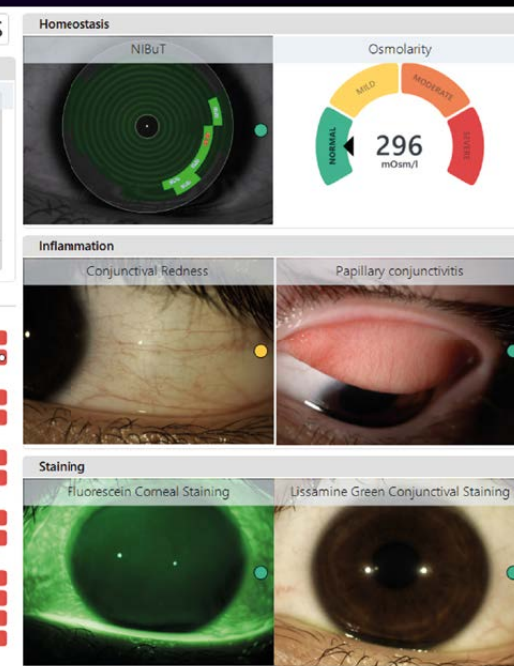
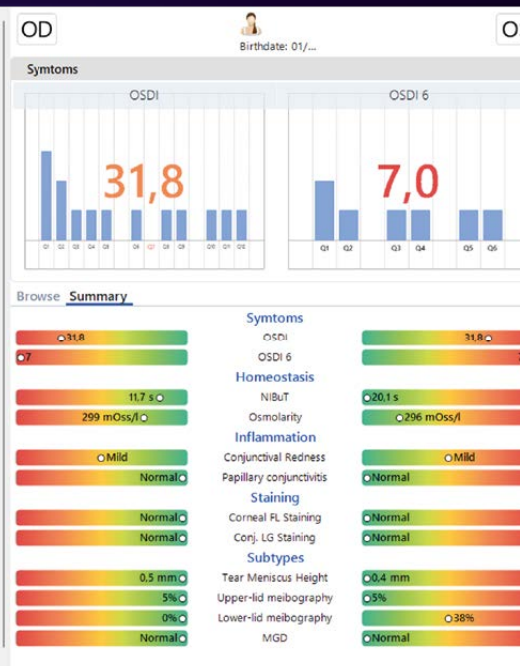
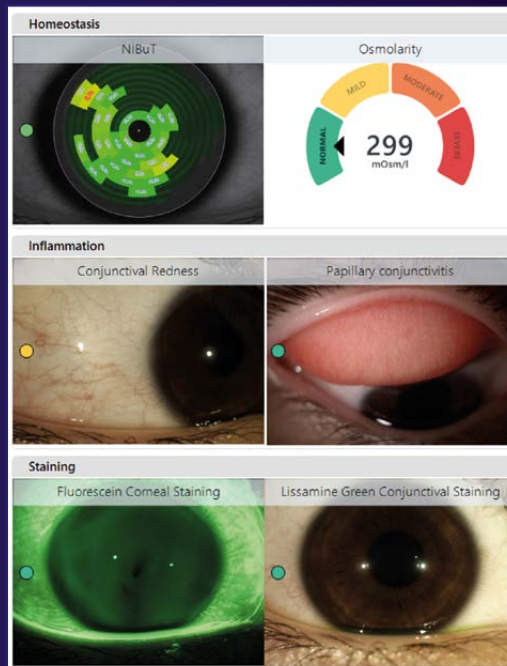
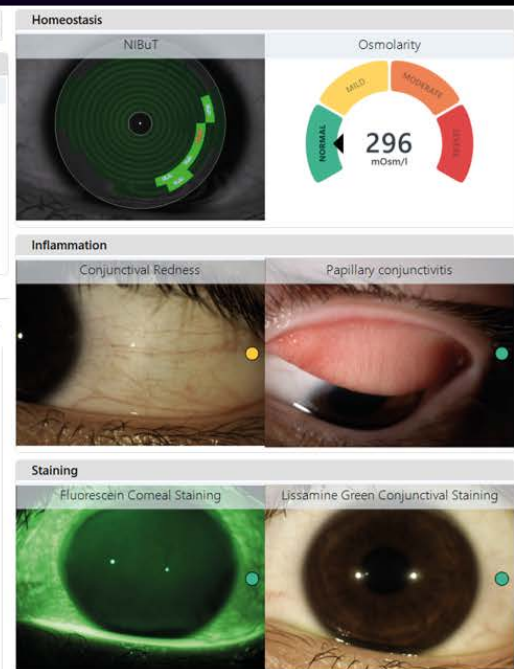
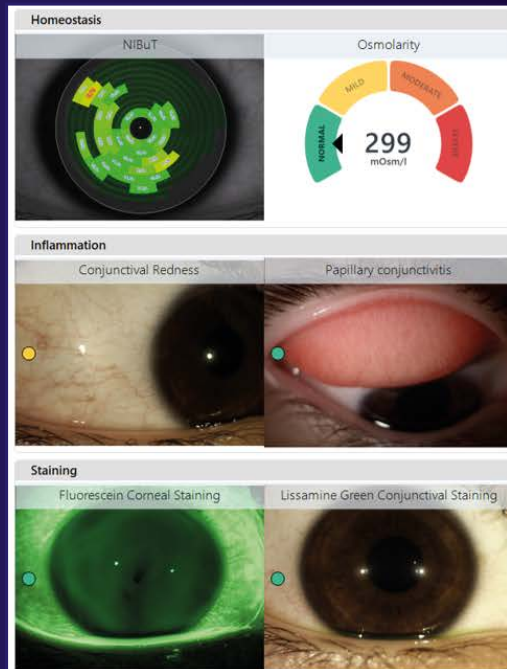


PHOENIX APPLICATION SOFTWARE INTEGRATION

Phoenix application software allows for the management of CSO slit lamps equipped with Mizar camera and for the integration of all CSO devices into a single platform for a shared storage of patients and exams. Phoenix facilitates the analysis, comparison, and follow-up of patients' clinical conditions and merges data from different CSO devices to create combined diagnostic summaries. CSO slit lamps, in combination with other CSO devices, enable the evaluation and classification of dry eye disease according to the DEWS III criteria (Dry Eye Workshop III) through a wide range of tear film tests.

	Antares+	Sirius+	MS-39	Osiris-t	SL9900_99K ELITE	SL9900_99K with Mizar camera
OSDI questionnaire	✓	✓	✓	✓	✓	✓
NIBut	✓	✓	✓ *	✓	✗	✗
Conjunctival redness	✓	✓	✗	✗	✓	✓
Papillary conjunctivitis	✓	✓	✗	✗	✓	✓
Corneal fluorescein staining	✓	✓	✗	✗	✓	✓
Conjunctival lissamine green staining	✓	✓	✗	✗	✓	✓
Lid Wiper	✓	✓	✗	✗	✓	✓
Meibomian glands ducts analysis	✓	✓	✗	✗	✓	✓
Meibography	✓	✓	✓	✗	✓	✗
Lipid layer interferometry	✓ It requires the Placido light diffuser	✓	✗	✗	✓ It requires Polaris	✓ It requires Polaris
Tear meniscus height	✓	✓	✗	✗	✓	✓
Blink rate	✓	✗	✗	✗	✗	✗
Osmolarity To be Imported by 3° party devices	✓	✓	✓	✓	✓	✓
MMP-9 To be Imported by 3° party devices	✓	✓	✓	✓	✓	✓
IgE To be Imported by 3° party devices	✓	✓	✓	✓	✓	✓
LT-a To be Imported by 3° party devices	✓	✓	✓	✓	✓	✓

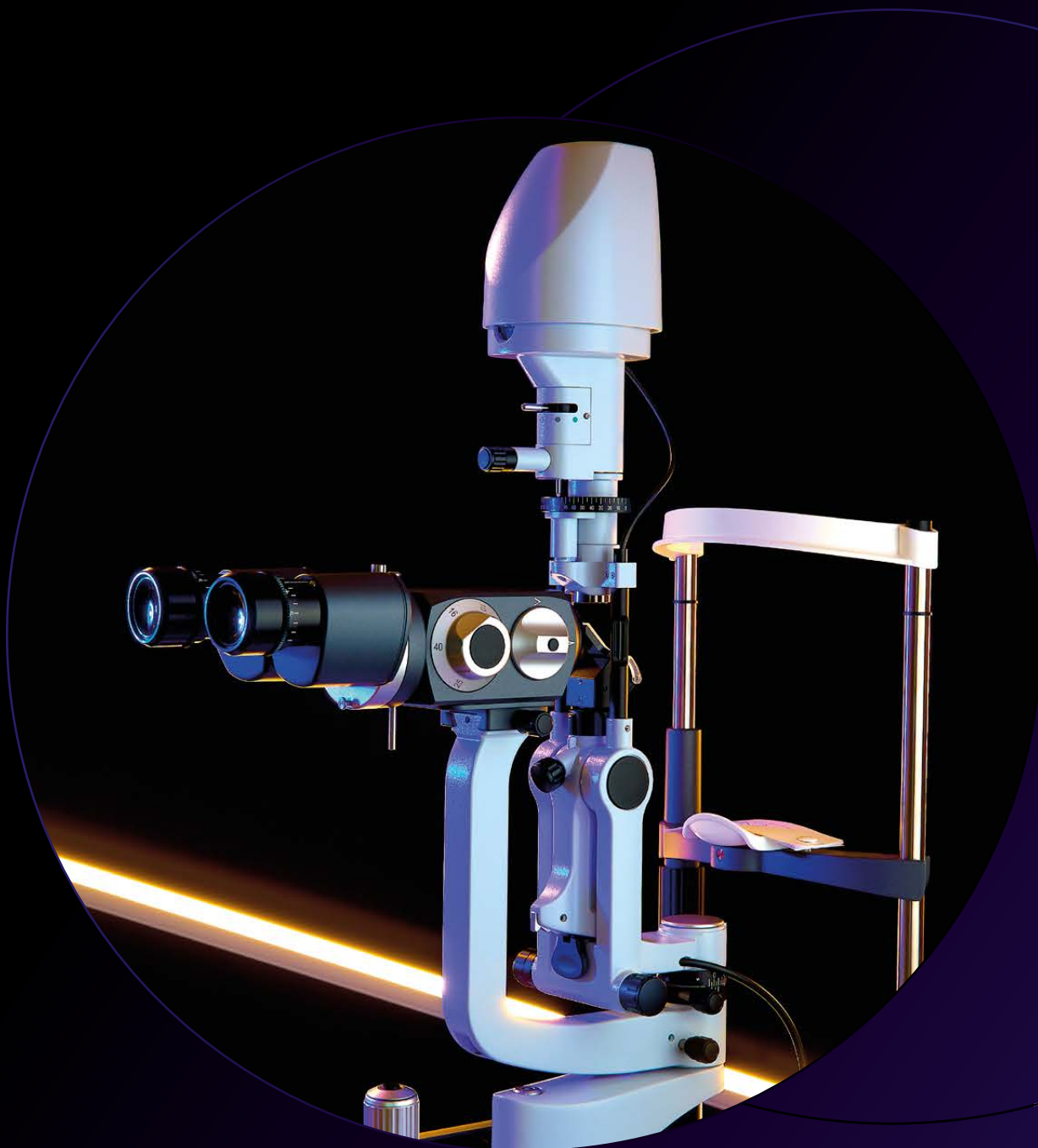
* This feature is not available in the U.S. market



TECHNICAL DATA		
	SL9800_98K	SL9900_99K
Supply voltage	AC input voltage: 100-240V ±10% 50/60 Hz 1.4 A Output voltage: 24V 4A	AC input voltage: 100-240V ±10% 50/60 Hz 1.4 A Output voltage: 24V 4A
Size (HxWxD)	421 x 313 x 335 mm	650 x 313 x 335 mm
Device weight	7.4 kg	8.6 kg
Base movement (x, y, z)	114 x 108 x 30 mm ± 1 mm	114 x 108 x 30 mm ± 1 mm
Precise movement (x, y)	19 mm ± 1 mm	19 mm ± 1 mm
Consumables	paper pads for chinrest	paper pads for chinrest
ILLUMINATION UNIT		
Illuminator	White LED	White LED
Slit projection index	1.35 x	1.25 x
Slit length (continuous setting)	1 – 15 mm continuous	1 – 15 mm continuous
Slit width (continuous setting)	0 – 15 mm continuous and fixed apertures	0 – 15 mm continuous and fixed apertures
Maximal length of the slit	15 mm	15 mm
Aperture diaphragms	ø 15 / 9 / 5.5 / 0.3 mm	ø 15/10 / 5 / 3 / 1 / 0.2 mm
Filters	Blue, red, green (red free)	Blue, red, green (red free), ND50%
Swivel range of slit projector	±90°, click stop at 0°	±90° click stop at 0° / ±30° / ±60°
Slit rotation	0-180°, click stop at 0°, 90°, 180°	0-180°, click stop at 0°, 45°, 90°, 135°, 180°
Vertical tilt		0° / 5° / 10° / 15° / 20°
Horizontal tilt		± 10° reference on 0°
Operation distance (mirror/patient's eye distance)	69.5 mm	80 mm
Luminosity adjustment	Continuous adjustment	Continuous adjustment
CHIN REST		
Fixation point	Optional. Steady or flashing red light	Optional. Steady or flashing red light
Chin rest stroke	75 mm ±5	75 mm ±5
ACCESSORIES		
Tonometry	applanation tonometer Z800	applanation tonometer A900 / F900
Other	Polaris (tear film lipid layer analyzer), 20° eyepieces tilter, auxiliary LED illumination, fixation light, Mizar camera, co-observation tube, paper pads for chinrest, mounting plate	Polaris (tear film lipid layer analyzer), 20° eyepieces tilter, auxiliary LED illumination, fixation light, Mizar camera, co-observation tube, paper pads for chinrest, mounting plate
MIZAR CAMERA		
Resolution	5 Mpx	5 Mpx
Pixel resolution	2448×2048	2448×2048
Frame rate	35 fps	35 fps
Communication port	USB 3.0	USB 3.0
DICOM (Mizar camera)	DICOM Version 3 ; IHE integration profile: Unified Eye Care Workflow (Eye Care Image, Broad Worklist Query, Patient Based Worklist Query, Encapsulated PDF Option for Evidence Documents, Imaging Procedure Status Update (DICOM), Procedure Status Tracking (DICOM MPPS) Option	DICOM Version 3 ; IHE integration profile: Unified Eye Care Workflow (Eye Care Image, Broad Worklist Query, Patient Based Worklist Query, Encapsulated PDF Option for Evidence Documents, Imaging Procedure Status Update (DICOM), Procedure Status Tracking (DICOM MPPS) Option

MICROSCOPE CONFIGURATIONS	Microscope 2x	Microscope 3x	Microscope 5x	Zoom	Microscope 5x stereo variator Only for SL9900_99K
Type	Convergent 2 positions magnification change	Galilean convergent with magnification change system 3 positions	Galilean convergent with magnification change system 5 positions	Galilean convergent with continuous variable magnification change system	Galilean convergent with magnification change system – 5 positions
Ocular convergence angle	13°	6°	6°	6°	6°
Stereoscopic angle	13°	10°	10°	10°	10° – 4°
Eyepieces	10x	12.5x	12.5x	12.5x	12.5x
Compensation of ametropia	±8 D	±8 D	±8 D	±8 D	±8 D
Magnification	10x / 16x	10x / 16x / 25x (3 levels)	6x / 10x / 16x / 25x / 40x (5 levels)	From 7x to 30x continuous	6x / 10x / 16x / 25x / 40x (5 levels)
Visual field	18.5 / 12 mm	26.5 / 15.1 / 8.7 mm	41 / 26.5 / 15.1 / 8.7 / 5.7 mm		41 / 26.5 / 15.1 / 8.7 / 5.7 mm
Interpupillary distance	From 51.5 mm to 87 mm	From 50 mm to 80 mm	From 50 mm to 80 mm	From 50 mm to 80 mm	From 50 mm to 80 mm
Barrier filter		Yellow	Yellow	Yellow	Yellow
Inclined eyepiece		Optional	Optional	Optional	Optional





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