

CRS-Master

Your customized success system!



Optimized for custom ablation: the CRS-Master

A new direction

Carl Zeiss has embraced the goal to constantly improve the refractive outcomes of excimer laser surgery. To succeed, we continually analyze each component of the surgery process – from diagnosis through preparation and finally to the actual procedure – seeking opportunities to innovate and optimize results.

The CRS-Master™ – the basis for customized acuity correction using the MEL 80™ excimer laser – has now been decisively expanded and improved. It is an even more efficient system solution.

The intelligent combination of two diagnostic functions – aberrometry and topography – is a particularly impressive feature. It is designed to ensure that you never miss important details for customized ablation.

The new CRS-Master™ allows you to leave the previous limitations of treatment planning behind you. It is a unique tool for your future-oriented refractive laser surgery!



Two diagnoses in one: the integrated solution

Ideally suited for every situation

The comprehensive strategy of the CRS-Master™ provides you with all of the possibilities of customized diagnosis, treatment planning and refraction correction:

- Planning conventional treatments with or without the MEL 80™
- Wavefront- or topography-guided treatment, depending on the indication
- Exact placement of treatment using the innovative OcuLign™ eye registration
- Integration of all individual patient parameters

- System-internal networking for documentation and data backup
- Safe and intuitive treatment planning; can be optionally performed using a laptop computer
- Modular design permits user-oriented configuration of the instrument



Always one step ahead: the WASCA Analyzer

Benefit from the innovations

Wavefront-guided treatment has established itself as a first-class procedure in modern refractive laser surgery, particularly in the primary treatment of higher-order aberrations.

With its unique detail resolution and precision, the WASCA Analyzer provides an ideal basis for this procedure. In a single measuring process, the world's leading aberrometer records the optical characteristics of the entire eye – from the cornea to the retina.

And development doesn't stop there. The WASCA Analyzer is available with a variety of additional functions that open up new perspectives:

- OcuLign™ eye registration for exact positioning of the wavefront data
- Treatment of aberrations up to the 6th order
- Improved wavefront evaluation through zonal reconstruction
- Illustration of the visual defect through acuity simulation

Additional attractive optimizations can result from the interaction between the CRS-Master™ and the ATLAS corneal topographer.

Enhanced spectrum: the link to topography

Your patients can see the difference

Corneal topography is now an integrated element of the treatment planning with the CRS-Master™. As a supplement to wavefront analysis, even the slightest deviations in the corneal surface can be precisely recorded and successfully corrected. This is a real opportunity for patients with visual complaints based on extreme corneal irregularities.

The heart of the CRS-Master™ is the enhanced TOSCA II algorithm. The fully automatic treatment guidance function, as well as specific, fine settings, offer maximum comfort. In difficult cases, even when there is very little residual tissue, it is possible to perform a correcting ablation that achieves sustained improvement of the patient's vision.

The CRS-Master™ is designed to automatically control the centering of sphere and cylinder within the treatment zone. The difference between the pupil center and the visual axis is already considered during planning – which can be a decisive improvement for the customized treatment of your patients.



Faster to the goal: workflow optimization

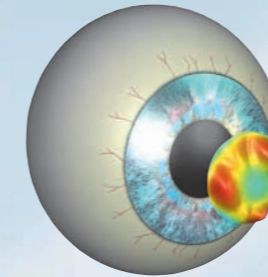
Efficient and comfortable for the OR

The CRS-Master™ can make your treatment planning easier and more efficient. All data is merged at the workstation, thus quickly creating a complete overview.

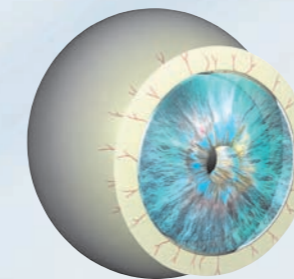
The intuitive menu guidance ensures a smooth workflow. Practical pre-settings can help you to easily reach your goal.

Of course, you can also influence single parameters. The Treatment Assistant functionality is designed to continually monitor your selected settings in the background, for example, the residual stromal thickness, thereby always keeping you on the safe side.

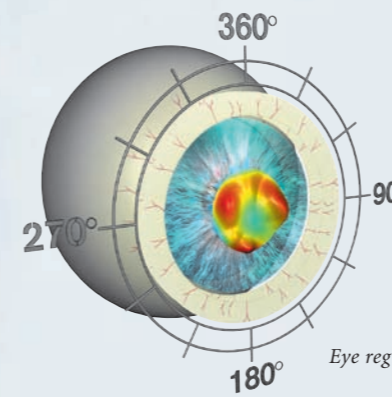
Best references: the OcuLign eye registration



Wavefront diagnosis



Reference generation



Eye registration

Remain safely on course

A state-of-the-art example of innovation in the enhanced CRS-Master™ is the OcuLign™ eye registration. It positions wavefront-guided or regular treatments precisely on the patient's eye.

- Automatic recognition of both the iris structure and the scleral blood vessels
- Unique combination of these anatomical references for the greatest possible independence from pupil size
- Compensation for cyclorotation and pupil center shift
- Centering the treatment using the limbus reference

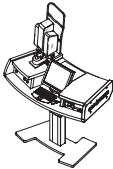
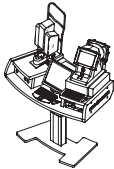
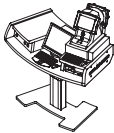
The ultra-fast eye tracker on the MEL 80™ is designed to immediately recognize and dynamically compensate for every pupil movement during the ablation.

This helps to ensure optimum results and satisfied patients!



CRS-Master technical data

Dimensions (w x d x h)	1.39 x 0.78 x 1.59 m	
Weight	max. 138 kg	
Input voltage	100, 120, 208, 220, 230, 240 VAC \pm 10% adjustable, single phase	
Input current	max. 6.3 A	
Rated frequency	50/60 Hz	
Ambient conditions	Temperature	10 . . . 40°C
	Relative humidity	< 90%
	Air pressure	700 . . . 1060 hPa
Data backup	CD/DVD	
Data transfer	USB flash memory drive (USB memory stick)	
Data printout	Color printer (optional)	

	Instrument configurations		
	CRS-Master WaveLine	CRS-Master TwinLine	CRS-Master TopoLine
Basic treatment sphere/cylinder with choice of optimized ablation profiles	✓	✓	✓
Wavefront-guided treatment WASCA Analyzer wavefront diagnosis	✓	✓	
Topography-guided treatment ATLAS corneal topography		✓	✓
OcuLign eye registration (optional)	✓	✓	
			

* Following transfer of the diagnostic data

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