

Right on target.

Faster. Robotic.

Connected.



ZEISS VISUMAX 800



zeiss.com/visumax800

Seeing beyond

Fast performance.

Open more opportunities with confidence.

VISUMAX® 800 from ZEISS¹ lets you create a comfortable patient experience and gain confidence in your workflow. It represents a new evolution of ZEISS femtosecond lasers, offering reduced laser time in comparison to its predecessors while making tissue separation with SMILE® pro from ZEISS easier than before².

Increased laser frequency and faster cut speeds.

Create the lenticule in less than 10 seconds³ and complete a flap cut in approximately 5 seconds⁴. This performance is driven by a faster laser pulse repetition rate of 2 MHz and an innovative scanner system.

All this ensures a very short overall suction time.

Shorter suction time and reduced stress.

The faster cutting speed leads to a shorter suction time, which reduces the probability of a potential suction loss. This can increase peace of mind and reduce stress for you and your patients during the laser treatment.

“The biggest advantage, I think, is the laser time – 10 seconds³. It’s unbelievable. For us, the surgeons, and also for the patients. By the time I start talking, it’s done. Brilliant.”

Rainer Wiltfang, MD, Smile Eyes Augenklinik,
Munich Airport, Munich, Germany

¹ VISUMAX 800: CE available for flap cut and SMILE. CE certification for further applications, e.g. ICR, KP and CIRCLE expected in 2022.

² Data on file, narrow spot and track spacing.

³ Data on file, myopia with optical zone 6.5 mm.

⁴ Data on file, flap diameter ≤ 8.0 mm, spot distance 4.5 μm, track distance 2.0 μm.

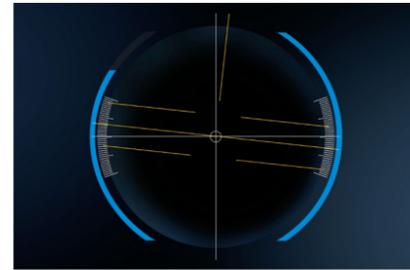
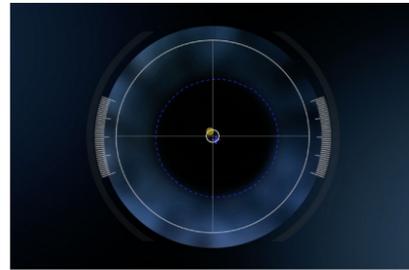
Smart robotic assistance.

Get in position to take control.

Intelligent robotic assistant systems, such as cyclotorsion and centration aid, can help in enhancing control during your procedures. In every way, the device has been designed to deliver state-of-the-art performance that adds efficiency and ergonomics.

Easy patient access with comfort and control.

From the start of a procedure, ZEISS VISUMAX 800¹ makes the surgical experience comfortable and reassuring for everyone in the OR. While patients comfortably lie on the surgical bed, you can access patients without difficulty. And as soon as the patient is situated properly, the arm required can be brought into working position – either the laser arm or the OPMI arm for manual surgery.



Tracking distances positioning made easy.

Ultrasound sensors assist in actuating the robotic arms. Integrated top-view, side-view and therapy cameras allow you to intelligently observe the surgical environment between device and patient. You are able to observe the patient with ease and ergonomic comfort while docking the cornea correctly.

CentraLign system for easy centration with little effort.

The CentraLign[®] assistant system is a computer-controlled function for easy centration. It uses pupil center and vertex position, giving you full control of centration already during the docking phase. There is no need to shift the cutting pattern after docking.

Scan the QR code to watch the simulation.



OcuLign system for easy cyclotorsion alignment.

ZEISS VISUMAX 800 features the intuitive OcuLign[®] pattern rotation. The sophisticated yet easy-to-use system automatically re-calculates the treatment pattern and helps to counter cyclotorsion that may occur.

Scan the QR code to watch the simulation.



Digitally connected workflow.

Take advantage of integrated efficiency.

The VISUMAX 800 connects seamlessly with different products and solutions from ZEISS. The reliable integration can help you achieve faster procedures and more efficiency in a streamlined workflow while assisting you in reducing sources of error.

ZEISS Refractive Workplace

Easily manage, evaluate, store and transfer data.

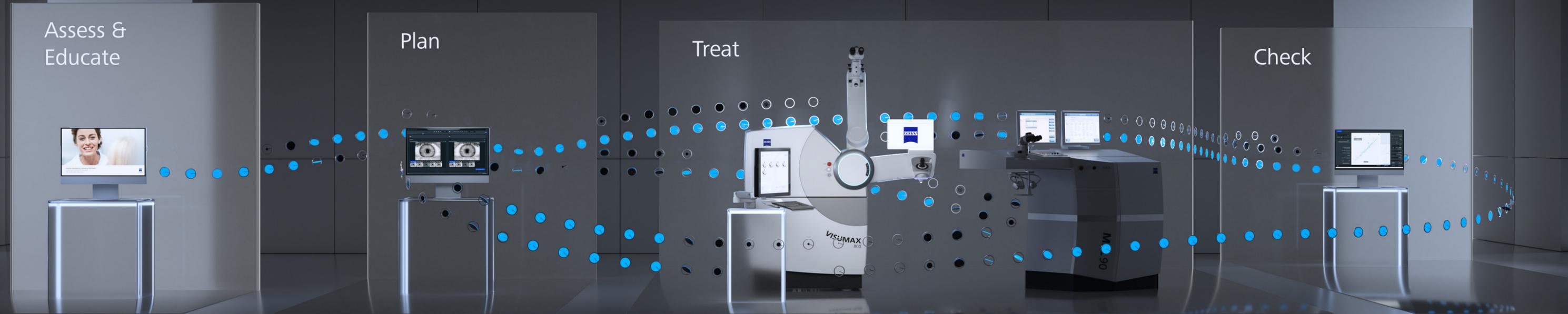
VISUMAX 800 connects to the powerful Refractive Workplace software⁵, which runs on the FORUM[®] data management solution from ZEISS. Before and after laser vision correction treatments, all relevant surgical procedure documentation, including all videos, is assigned to each respective patient, and stored after confirmation in ZEISS FORUM. You can streamline your workflow and carry out patient data management and treatment planning from anywhere in your clinic. Additionally, you get support in reducing the amount of administrative tasks performed in the OR.



⁵ CE certification Refractive Workplace planned in 2022.

Streamline your refractive workflow.

The new ZEISS Corneal Refractive Workflow offers a digital connected infrastructure and improves efficiency with the right solution for any eligible patient.



ZEISS Patient Communication Materials

Helping you to interact with patients at each step of the patient journey for better understanding of treatment options and expectation management.

ZEISS Practice Development

Our ZEISS Practice Development consultants will provide you with an unbiased evaluation of the patient experience in your clinic and collaborate with you to define improvements tailored to your specific needs.

ZEISS Refractive Workplace

Refractive Workplace⁵ with connectivity to FORUM is the treatment planning software for our refractive lasers. It offers comprehensive remote planning outside the OR with the option to align integrated diagnostic data. The remote planning station supports an efficient workflow and comfortable treatment strategy.

ZEISS VISUMAX 800 – MEL 90 combination

The digital connection of the VISUMAX 800 femtosecond laser¹ and MEL 90 excimer laser⁶ to FORUM gives you the freedom for easy remote treatment planning via ZEISS Refractive Workplace. The combination allows you to perform a broad range of laser vision corrections: Lenticule Extraction with ZEISS SMILE pro, Femto-LASIK, PRK/LASEK, and ZEISS PRESBYOND up to 500 Hz repetition rate.

ZEISS VISULYZE⁷

The software VISULYZE[®] from ZEISS provides a clear overview of your clinical results and generates nomograms customized to each user with a simple and intuitive interface. The comprehensive software collects, stores and statistically analyzes your own clinical data in a standardized way – helping you to examine and verify refractive outcomes.

⁶ CE certification for MEL 90 and connectivity to FORUM expected in 2022.

⁷ CE certification for VISULYZE in progress.

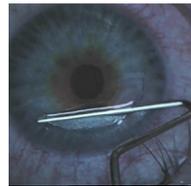
Building on an already groundbreaking system.

Additional highlights and accessories of our new evolution femtosecond laser.



SMILE pro for Lenticule Extraction.

With SMILE® pro, the ZEISS VISUMAX 800 offers Lenticule Extraction¹ for patients with myopia and astigmatism. During the procedure a lenticule is created inside the cornea. The lenticule is subsequently extracted through a small incision, thereby achieving the desired vision correction.



Flap cut for Femto-LASIK.

For treatments such as Femto-LASIK, the ZEISS VISUMAX 800 delivers highly precise flaps¹. Every surgeon has the opportunity to use their preferred flap configuration. This creates the possibility of widely adjustable flap diameter, thickness, hinge position and side cut angle. Thanks to the high cutting precision, the flap lift is easy to perform, facilitated by the high cutting speed and optimized parameter settings.



Tunnel incisions for ICR.

The femtosecond laser technology of the ZEISS VISUMAX 800 is also ideally suited to create incisions¹ in preparation for intracorneal ring (ICR) implantations. It provides the possibility of creating corneal tunnels quickly, precisely and with a high degree of flexibility. When defining tunnel parameters, it even performs inclined cutting geometries and full circle tunnels as well as tunnel segments of 90 to 270°. This allows the implantation requirements of various kinds of ring segments to be met.



Keratoplasty option for corneal transplant.

With the Keratoplasty option¹, the ZEISS VISUMAX 800 covers several corneal transplant procedures. It enables smooth lamellar and circular incisions for Penetrating Keratoplasty (PKP) and Anterior Lamellar Keratoplasty (ALK). High-precision cutting quality and a rapid incision speed enable the efficient preparation of precision corneal grafts and recipient corneas.



The practical Keratoplasty adapter provides a robust and sterile work surface for preparing corneal grafts and the specially designed curved contact glass (type KP) prevents unnecessary compression of the corneal tissue.

CIRCLE for retreatment.

In rare cases when a retreatment may be necessary, the software option CIRCLE from ZEISS¹ converts the initial cap created with SMILE or SMILE pro into a flap. The actual retreatment is then performed as a LASIK procedure, e.g. with the ZEISS MEL 90.

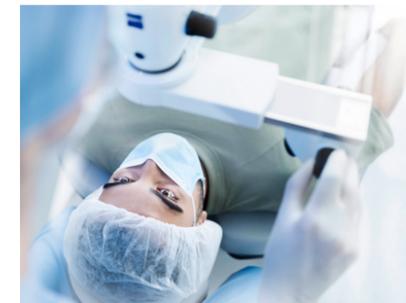


Interactive touchscreens a smart unit.

While smart robotic features continuously monitor the patient's position and make automatic adjustments, the interactive touchscreen and intuitive software assist the surgeon and the assistant at every step throughout the procedure.

Surgical microscope and digital video camera for brilliant visual control.

The integrated high-quality ZEISS surgical microscope ensures precise and complete visual control during every manual surgical manipulation. It offers 5 magnification steps and it additionally includes a digital video camera for recording surgical procedures.



Integrated slit projector for reassurance right on the spot.

As a universal workstation for corneal refractive surgery, the system features an integrated slit illumination with two different slit widths for immediate checking – without the patient needing to be moved.



Operating table Genius Eye Z

The headrest of the operating table "Genius Eye Z" can be adjusted in three dimensions to account for anatomic specifics of your patients. You can also re-adjust the patient position thanks to the automatic length adjustment of the head shell. Legroom and easy access for the surgeon provide comfortable working ergonomics. The Keratoplasty adapter perfectly fits to the operating table.

Surgeon's chair Balance Supreme

The arm rests of the surgeon's chair "Balance Supreme" can be swivelled forward and backward in addition to the height adjustment and rotation adjustment. Also, back rest as well as height and inclination of the sitting surface can be adjusted for an ergonomic position during the surgery.





Technical Data

Laser type	Femtosecond laser
Available treatment options	Flap, SMILE® pro, CIRCLE, ICR, Keratoplasty ¹
Digital assistant systems	Centration aid Centralign® Cyclotorsion adjustment OcuLign® import of VISULYZE® user nomograms

Optical data

Maximum laser repetition frequency	2 MHz
Wavelength	1043 nm
Pulse duration	220–580 fs

Surgical microscope

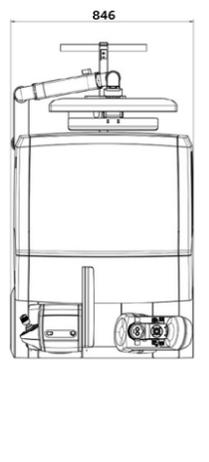
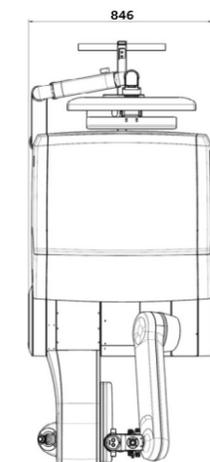
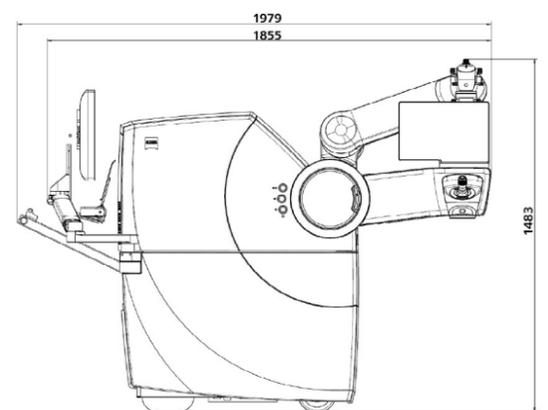
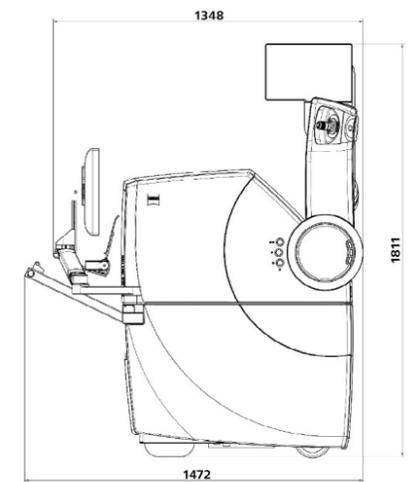
Magnification	0.7x
Factors for magnification change	0.4 / 0.6 / 1.0 / 1.6 / 2.5
Eyepiece magnification	12.5x (10x)
Filters	blue, barrier filter (yellow)
Slit illumination	slit width ≤ 0.3 mm / 0.7 mm slit height 11.0 mm

Ambient conditions for operation

Temperature	+18 °C to +25 °C
Humidity	30 % to 70 %

Measurements

Device mass	520 kg
Minimum floor load	2.5 kN/m ²
Footprint standalone	L x W: 1,710 mm x 925 mm



CE 0297

VISUMAX 800¹

MEL 90⁶

FORUM



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