MEL 80 excimer laser
High performance meets versatility
Just what your clinic is looking for

Invest in the latest refractive excimer technology
The MEL® 80 is a top quality ZEISS product designed to make the correction of vision defects more patient-friendly and individual while providing optimized ablation profiles for quality outcomes. All of the parameters of this modern work platform are oriented towards increasing efficiency, achieving optimum treatment results and rapid recovery of vision. Key features include a high ablation rate and a high-performance eye tracker system.

The best outlook for you and your patients
Added to this are tangible benefits for your daily work such as the overall ergonomic design concept and the economical operation of the system. Reap the advantages of an investment which is forward-looking, practical and profitable.

Excimer excellence starts with ZEISS
Since 1846, the name ZEISS has stood for quality and precision in optics. In 1986, ZEISS unveiled the first excimer laser for refractive correction of the eye. Over the last 25 years the company has been at the forefront of advances in laser vision correction.
It couldn’t be simpler to operate
At ZEISS, we strive to make advanced technology applications as simple and ergonomic as possible for our customers. With the MEL® 80, you can take advantage of standardized treatment procedures for optimum results. The MEL 80 software has been specially developed for this robust and flexible workstation. The graphic user interface is clearly structured and takes you step-by-step through the treatment. A large number of other helpful features facilitate and support your work with the MEL 80: the ergonomically designed workstation, the individually positionable monitor and the integrated video camera.

Everything’s under control!
An active 1 kHz eye tracker with excellent feedback times and an ultra rapid IR camera provides exact positioning during the laser treatment. Thanks to automatic pupil recognition, you can adjust the desired centering point within seconds. This also includes the limbus. If the center of the pupil shifts with relation to the limbus during ablation – through asymmetrical contraction, for instance – the eye tracker compensates for this. In addition, no pupil-dilating medication and related waiting times are necessary prior to this treatment.

The faster the treatment, the lower the stress
The MEL 80 can significantly reduce the treatment duration for patients. This has the following benefits:
- The stromal bed is only open for a short period, thereby minimizing dehydration and shortening the regeneration process.
- The thermally optimized distribution of the laser firing pattern achieves an ideal balance between ablation speed, tissue heating and pulse energy.
- Patients only need to concentrate on the fixation light for a few seconds.
- Practices benefit from increased efficiency and patient throughput.
- Cone of controlled atmosphere (CCA+) plume removal system ensures consistent atmospheric conditions during treatment.

Streamlined procedures
And enhanced patient comfort
**MEL 80**
The excimer laser with a broad performance scope

## The benefits

### ... for patients
- Flying spot laser where the eye tracker’s response time is shorter than the time between two consecutive laser pulses
- Comfortable treatment, rapid vision recovery

### ... for eye care specialists
- Correction of myopia and hyperopia
- Can be combined with VisuMax® femtosecond system

### ... for workflow
- Short start-up time
- Swivel-type patient supporting system

### ... for ease of use
- Simple fluence test
- Intuitive software
- Ergonomically designed workstation
- No need for flushing gas systems and extra helium gas cylinders

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## Technical data

### Laser data
- **Type**: ArF excimer laser (laser class IV in accordance with 21 CFR 1040.10)
- **Wavelength**: 193 nm
- **Frequency**: 250 Hz
- **Aiming beam diode**: 650 nm (laser class 1 according IEC 60825-1)

### Device data
- **Weight of MEL 80**: 290 kg incl. gas cylinder
- **Weight of patient supporting system**: 232 kg
- **Dimensions (Laser, W x D x H)**: 800 x 1550 x 1490 mm
- **Dimensions including patient supporting system (W x D x H)**: 1800 x 3140 x 1490 mm
- **Power supply**: 100 V AC; 50/60 Hz; 17.5 A
  - 120 V AC; 50/60 Hz; 14.6 A
  - 208, 220, 230, 240 V AC; 50/60 Hz; 7.9 A
- **Approval**: CE mark as per Medical Device Directive 93/42/EEC
- **Gas supply**: Integrated ArF-Premix cylinder 10 l

### Equipment
- **Surgical microscope**: OPMI pico with integrated video camera
- **Active eye tracker**: Infrared, pupil and limbus tracking, 1050 frames per second (fps)
- **CCA+ (plume removal system)**: Integrated in device

### Spot scanning parameters
- **Beam dimensions**: 0.7 mm FWHM (Full width at half maximum), Gaussian beam profile
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**Perfect workflow**

With a smart swing

Efficient and individual at the same time! With the MEL® 80 excimer laser and VisuMax® femtosecond system, ZEISS has assembled a seamlessly coordinated systems solution for refractive laser surgery. For everything from precise flap creation to highly accurate refractive corrections, these two top-of-the-line products are designed to ensure convenient workflow, streamlined patient management and excellent treatment results.

**Equipped to outperform**

Through the combined use of the pivoting patient supporting system between the VisuMax femtosecond system and the MEL® 80 excimer laser, the patient experiences the surgery as an integrated process. Unnecessary waiting periods are eliminated and treatment efficiency increased.

**Systems that communicate with each other**

For efficient practice management you benefit from optimally co-ordinated product portfolio: the MEL 80 excimer laser and VisuMax femtosecond system, like thus offer an integrated solution from a single source – a solution with the potential to subsequently expand your networking capability with continuously enhanced data flow efficiency and individualized patient treatments.

**VisuMax**

**Precision in all facets**

The VisuMax femtosecond system allows creation of very accurate and smooth flaps in preparation of Femto-LASIK procedures. With its highly advanced laser technology and innovative optical design, the VisuMax supports maximum cutting precision, efficiency, predictability and patient comfort. Together with the MEL® 80, it forms a well-matched duo for a whole range of customized laser treatments.