

FEMTO LOV Z8 Cornea Cataract

THE MOBILE LASER FOR CORNEAL AND CATARACT SURGERY

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EYE SURGERY ESSENTIALS.



COMFORT AND FLEXIBILITY ON A NEW LEVEL

Flexible adaptation to workflow and patient

Liquid interface for cataract surgery

Applanating interface for corneal surgery

Laser power adaptable to the tissue

True mobility for multi-site use

Applications à la carte

Surgical planning by OCT imaging

Remote support

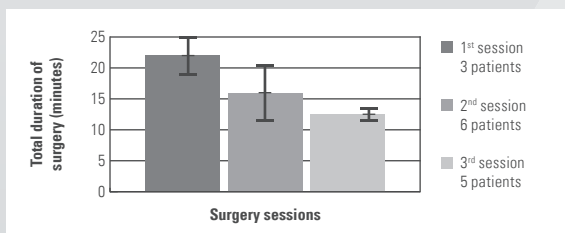
Made in Switzerland

Ziemer nanoJoule laser technology

Flexible adaptation to workflow

The highly flexible and intuitive articulated arm and the FEMTO LDV Z8's unique architecture enable for seamless integration into your established surgical workflow and to be as efficient as with conventional surgery¹.

No patient relocation is required ensuring the highest degree of comfort for both the surgeon and the patient as well as a sterile and more efficient procedure.



Total duration of cataract surgery (patient in/out):
12.5 ± 1.1 minutes per patient after only three surgery sessions²

True mobility for multi-site use

The FEMTO LDV Z8 is compact and easy to mobilize. The calibration is done automatically with every start-up so it only needs to be switched on when it is needed.

This makes the FEMTO LDV Z8 the optimal partner for your laser business.

- Share investment costs between different departments or even practices
- Enhance your offering no matter if you want to perform refractive, therapeutic or cataract surgery
- Establish your laser business without additional investment in your infrastructure

Flexible adaptation to patient

The unique handpiece is mounted to the articulated arm and enables for:

- Intuitive docking to the patient's eye unaffected by patient size or positioning
- Perpendicular docking to the patient's eye making the occurrence of situations like lentodonesis easily manageable
- Stable, computer controlled vacuum system even in difficult cases

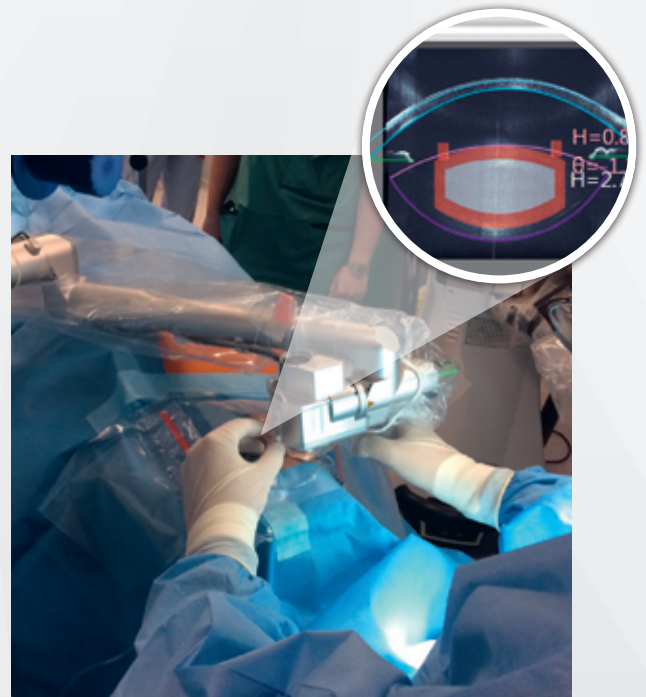
Custom-made for the perfect fit

To ensure the best possible surgical results and patient comfort, advanced patient interfaces have been developed especially for the FEMTO LDV Z8.

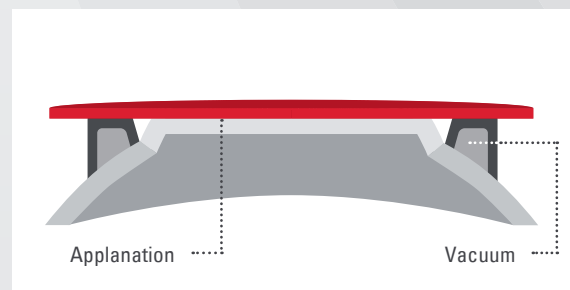
Liquid patient interface



- Relaxed, non-deformed cornea without posterior folds
- Reduced IOP rise during surgery^{3,4}
- Prevention of blackouts and subconjunctival hemorrhage²



Applanating patient interface



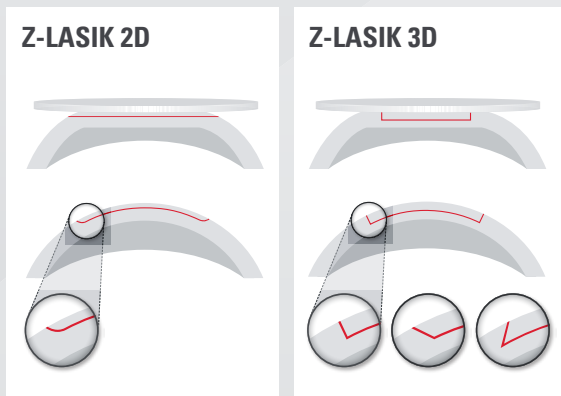
- Stable position of the cornea
- Docking in one or two steps possible
- Optimized for refractive surgery

VERSATILITY THAT MEETS YOUR DEMANDS

The FEMTO LDV Z8 can be customized with application modules according to your requirements. More applications can be added to your laser at a later time at your convenience.

Refractive surgery

The refractive options cover the Z-LASIK package which includes all our LASIK options from the unique Z-LASIK 2D, the flexible Z-LASIK 3D to the newest addition Z-LASIK OPTIMA as well as diverse options for the creation of intrastromal pockets (e.g. KAMRA™).



Therapeutic procedures

Z8 users can choose from multiple options of therapeutic corneal surgery like tunnel creation for intracorneal rings and keratoplasties including the following options:

Lamellar keratoplasties



Penetrating keratoplasties



Laser Cataract surgery

The FEMTO LDV Z8 can be used for a complete laser-assisted cataract pre-treatment including:

- Lens fragmentation
- Capsulotomy
- Clear corneal incisions
- Arcuate incisions

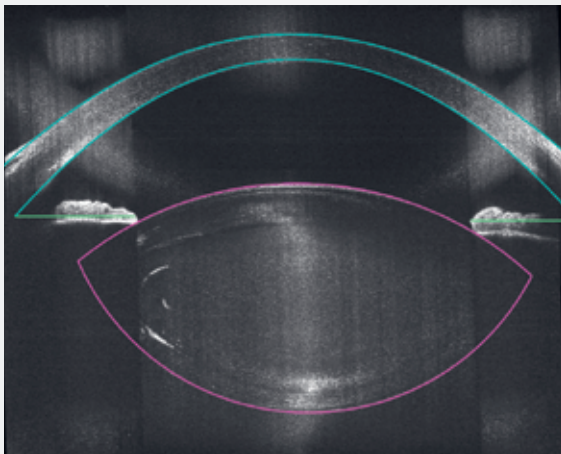


Scan this QR-Code to see the FEMTO LDV Z8 in action

IMAGE-GUIDED SURGERY

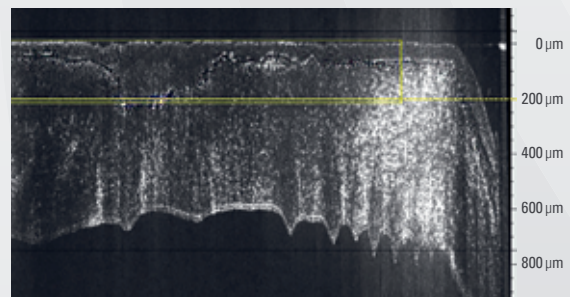
Surgical planning by OCT imaging

The Ziemer spectral domain OCT system is highly specialized for corneal and lens surgery and custom made for the FEMTO LDV Z8. Advantages are:



OCT-guided planning for cataract surgery

- Enhanced surgical planning
- Clear visualization of previous resections (e. g. LASIK-flaps or keratoplasties) and scars
- Increased planning options for ultra-thin resections of 80 microns or less
- Automatic edge detection (pupil, limbus, cornea, lens and iris)
- Resection geometry placement automatically suggested by the planning software based on the individual surgeon's preferences



An OCT scan allows for clear visualization of the corneal tissue (here: corneal scarring)

High definition images for tailor made surgery

A handpiece integrated camera high quality 24 bit color image used for:

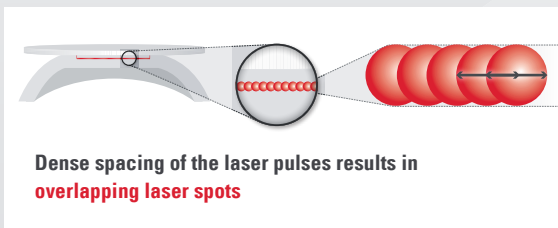
- Better visual control and simplified docking
- Live imaging between the steps of the cataract pre-treatment



ZIEMER LASER TECHNOLOGY FOR BETTER OUTCOMES

The FEMTO LDV Z8 is designed for maximal precision and gentle eye surgery. Ziemer laser technology is known for:

- Low energy per pulse in the nJ range for gentler treatments
- High repetition rate in the MHz range for fast procedures
- Overlapping laser spots for complete and smooth resections



The power to adapt

Due to the tissue adapted pulse management system, the power is put where it is needed:

- Lower power in the cornea (e.g. LASIK)
- Higher power in the lens (e.g. hard cataracts)

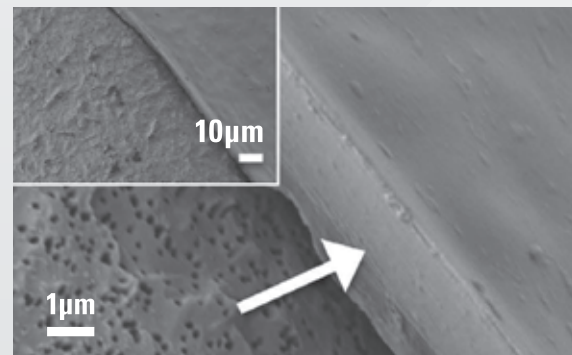
FEMTO LDV Z8 dimensions:

- Base footprint **1 m × 0.6 m**
- Height (floor to screen) **1.4 m – 1.7 m**
- Weight **250 kg**

High-density pulse raster

Different from other lasers, the FEMTO LDV Z Models feature overlapping laser spots⁵ that result in:

- Complete resections free of tissue bridges^{6,7}
- Smooth stromal beds⁸
- High precision and predictability⁹
- Capsule edges that are hard to distinguish from edges seen in conventional surgery¹⁰



FEMTO LDV Z8 created capsule edge morphology in human eye¹⁰



FREQUENTLY ASKED QUESTIONS

Does the laser need to be switched on permanently?

No. Contrary to other systems, the FEMTO LDV Z8 can be switched off and save up to 0.2 kWh energy. The cold-start including auto-calibration takes less than 20 minutes.

Do I need any hardware changes like a different handpiece to switch between applications?

No. There are different sterile casings for different applications that can be assembled without any additional tools.

Do I have to change any of my equipment or workflow routines to adapt to surgery with the FEMTO LDV Z8?

No. You can stick to the workflow you are used to. Due to the use of an articulated arm and a handheld docking system, the FEMTO LDV Z8 fits with all kind of surgical equipment and OR situations.

How often does the laser need to be maintained?

Preventive maintenance is suggested twice a year. For tasks like software updates, the FEMTO LDV Z8 features unique online remote support.



APPLICATIONS A LA CARTE

Choose the applications you need today – add more to your laser tomorrow

	Application Module	Z8 Options
Refractive	Z-LASIK Package	<input type="radio"/>
	Intrastromal Pocket (ISP)	<input type="radio"/>
Therapeutic	Intracorneal Rings (ICR)	<input type="radio"/>
	Penetrating Keratoplasty (PKP)	<input type="radio"/>
	Lamellar Keratoplasty (LKP)	<input type="radio"/>
Cataract	Clear Corneal Incisions (CCI)	<input type="radio"/>
	Arcuate Incisions (ARC)	<input type="radio"/>
	Capsulotomy and Lens Fragmentation	<input type="radio"/>



Scan this QR-Code to download the FEMTO LDV Application Brochure



Find us on YouTube:
www.femtoldv.com/youtube

The FEMTO LDV Z8 is CE marked and FDA cleared. For some countries, availability may be restricted due to regulatory requirements. Please contact Ziemer for details.

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