



## **VISULAS YAG III from ZEISS**

Precision laser workstation  
for secondary cataract and glaucoma therapy





# Inspiring excellence in vision preservation.

ZEISS VISULAS YAG III

// INSPIRATION  
MADE BY ZEISS







## ZEISS VISULAS YAG III

Disruption in just 4 nanoseconds.  
Clear-cut. Controlled. Focused.

The VISULAS® YAG III photodisruption laser from ZEISS brings together third-generation optical experience, technological excellence and a deep understanding of practical applications. Its superbly focused yet gentle cutting action has earned the device its reputation as the “sensitive scalpel” amongst secondary cataract lasers.







### Optimized energy

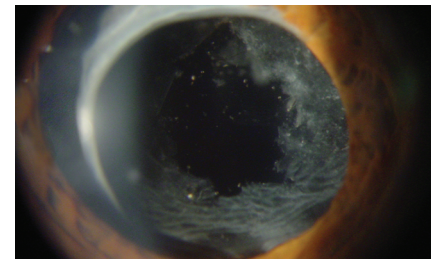
The high-precision Super-Gaussian beam profile of the ZEISS VISULAS YAG III focuses the optimum amount of laser energy onto the point of treatment: only as much as necessary. This allows successful disruption – optical breakdown – to take place at just 2.5 mJ in air. In turn, this allows you to offer sensitive, high-precision treatment to your patients using a minimum of laser energy. The pulse repetition frequency of 2.5 Hz also facilitates a fast workflow and short treatment times.

### Fine adjustment of energy

Offering 22 levels of energy attenuation, the ZEISS VISULAS YAG III provides ample flexibility for different treatment techniques. The fine gradations at the lower end of the output range permit optimum regulation of the laser energy for the sensitive, minimally invasive treatment of your patients.

### Accurate focusing

The variable focus shift sets the focal point of the aiming beam precisely and reproducibly before, behind or directly at the focal point of the disruption laser. No more clumsy, manual de-focusing based on the position of the rear membrane. Thanks to this “safety distance”, damage to the tissue and intraocular lens during treatment is now also a thing of the past. This means greater comfort for you and your patients.



*Posterior capsulotomy*



*Variable focus shift*



## ZEISS VISULAS YAG III

Hitting the target within 4 nanoseconds.  
Fast. Simple. Successful.

For posterior capsulotomy or for iridotomy: the VISULAS® YAG III from ZEISS gets straight to the point. Its smooth power makes it ideal for use in ophthalmic practices – even busy ones with high patient volume.

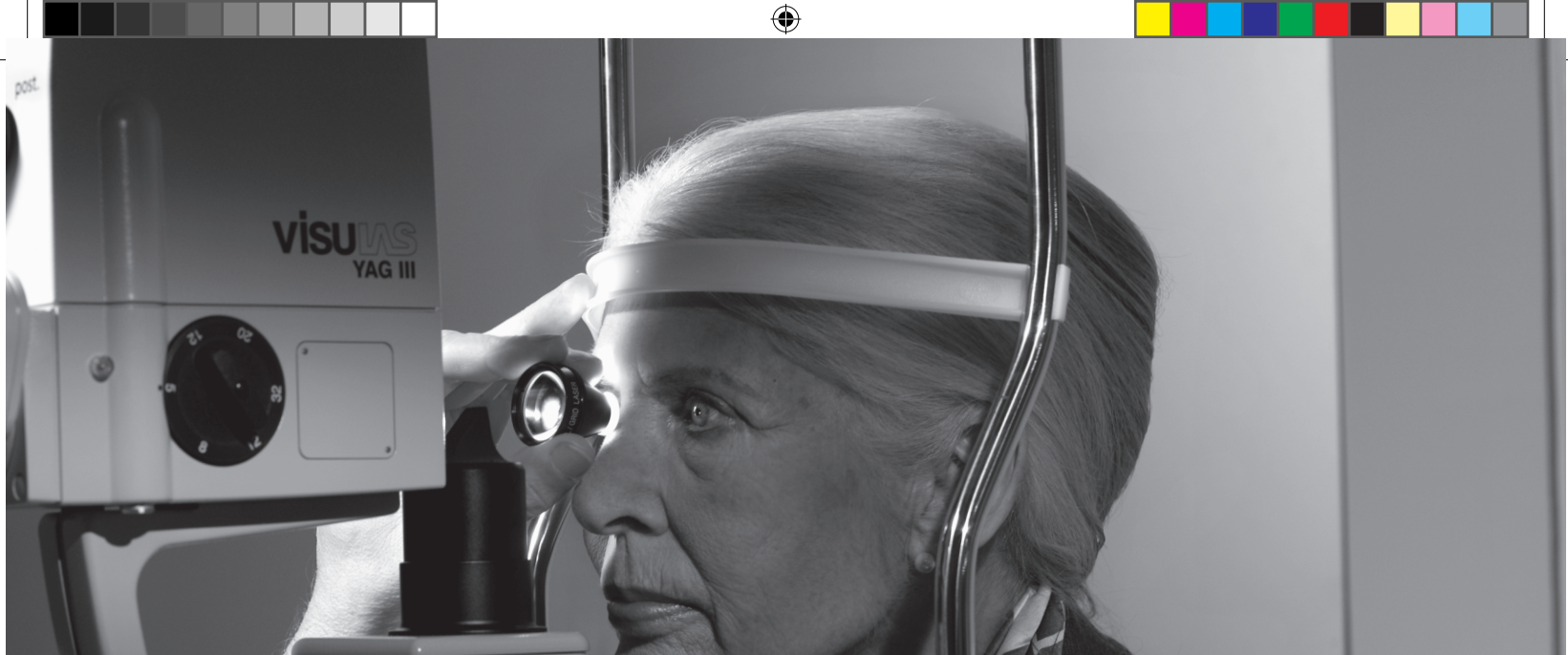


*Lamp housing of LSL YAG III*

### **Laser integrated slit lamp**

The high-grade laser beam source of the VISULAS YAG III is fully integrated into the laser slit lamp. A top quality ZEISS product, the laser slit lamp was designed primarily for use in laser therapy, yet can also be used as a fully-equipped diagnostic slit lamp. Its lowered illumination prism, short corneal microscope and slim design make it ideal for daily clinical use.





### Precision targeting

The unique 4-point aiming beam of the VISULAS YAG III ensures a high degree of aiming accuracy. Astigmatic distortions are clearly highlighted by the 4-point aiming beam and the selected energy level can be corrected accordingly before the laser beam is fired. The advantages are obvious: gentler treatment for your patients and extended life time for the laser source by avoiding “double firing”.

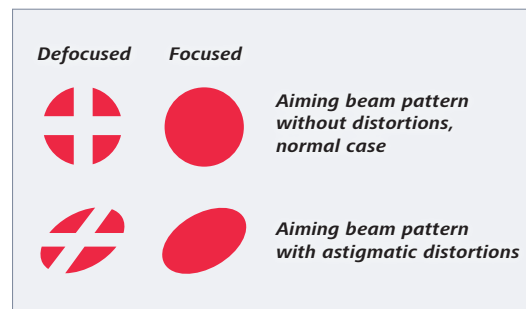


Illustration: 4-point aiming beam

### Perfectly coordinated processes

The flexibly positionable control panel is the intelligent nerve centre of the VISULAS YAG III. Its compact format offers handy and convenient control of the user-friendly interface. The laser energy is always clearly visible on the illuminated and reflection-free touchscreen. The selected laser parameters can be finely adjusted using the ergonomically designed rotary knob.



Control panel of VISULAS YAG III

## ZEISS VISULAS YAG III

Expanding the range of functions.  
Sensible. Considerable. Convincing.

The VISULAS® YAG III from ZEISS is more than a disruption laser. It offers an outstanding range of diagnostic possibilities and permits high-precision examinations to be carried out immediately before and after treatment – without the need to move the patient. The extensive selection of optional accessories and the mobile transport case perfectly complement the laser's wide functional scope.



*ACCENTO eyepiece with parameters displayed into field of view*

### Expanded insight

- The ACCENTO™ eyepiece for parameter adjustment allows you to maintain a clear overview of the treatment area and the levels of energy applied or the treatment parameters during the entire laser therapy.
- The oblique viewing angle of the ACCENTO ergo tube allows you administer treatment in a comfortable and relaxed position – even after several hours of laser therapy.
- The DigiCam Adapter, which allows standard camcorders and digital cameras to be connected, is designed for demonstrations to larger groups and digital documentation.



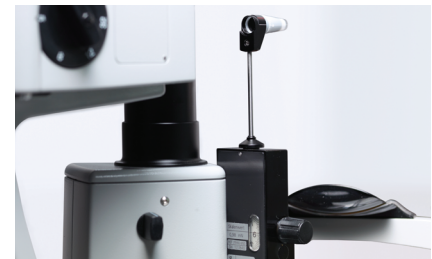


#### Expanded diagnosis

- The AT 030 applanation tonometer extends the diagnostic capacities of your laser slit lamp. It permits direct measurement of the intraocular pressure without the need to move the patient.
- The high-grade contact lenses for therapeutic laser applications – such as capsulotomy, iridotomy, trabeculoplasty or for observation of the fundus – have an optimized anti-reflective coating suitable for all common laser wavelengths.

#### Expanded protection

- The laser safety goggles for the YAG laser wavelength of 1064 nm provide appropriate DIN EN 207 standard protection, have an attractive design and are very comfortable to wear.
- The laser warning lamp outside the laser treatment room clearly indicates when the laser is switched on and warns unauthorized persons not to enter the treatment zone.
- The carrying case can be used to store and transport your laser plus accessories to the next location – keeping them well protected at all times.



*Applanation tonometer AT 030*



*DigiCam system with commercially available camera*



*ACCENTO ergo tube*



## ZEISS VISULAS YAG III Combi

Laser therapy at both poles.  
Compact. Comfortable. Consistent.

The VISULAS® YAG III Combi from ZEISS is the “multi-purpose” laser for photocoagulation and secondary cataract treatment and for established glaucoma therapies. At the push of a button you can switch between posterior and anterior laser treatment – a space-saving and efficient solution.



### Space-saving and flexible

The VISULAS YAG III Combi is a high-performance dual device which is designed for use even in rooms where space is at a premium, both lasers – the VISULAS YAG III and the VISULAS 532s – fit snugly beneath the instrument table, freeing up a large amount of space and ensuring ample freedom of movement. Both lasers also function effectively as individual units. The VISULAS 532s can be used in the operating room while the VISULAS YAG III can continue to be used with the combi slit lamp.





### Clear and simple controls

The treatment parameters for both lasers are set using the central control panel. With its clear structure and simple, symbol-based buttons, the graphic user interface simplifies your daily work. All the treatment parameters are conveniently displayed at your finger-tips. The electronic micromanipulator integrated into the joystick of the Combi slit lamp is used to control the coagulation laser – quickly and precisely. Naturally, the trigger button for the YAG laser is built into the slit lamp joystick.



*VISULAS YAG III Combi joystick*

### Key and impressive details

The VISULAS YAG III Combi from ZEISS was designed for frequently alternating laser applications. The effective combination of both laser sources in the exclusive ZEISS slit lamp design is

impressive on account of many useful features:

- The appropriate true-to-color physician's safety filter for the selected application is always active.
- The symmetrical arrangement of the control elements makes all slit lamp functions ergonomically accessible.
- The coagulation laser is always visible in the center of the illuminated treatment zone thanks to the coaxial illumination and electronic micromanipulator.
- The parfocal system always shows the laser spot sharply in the target area, ensuring homogenous and reproducible coagulation centers.





## ZEISS VISULAS Trion Combi

Impressive flexibility.

Striking. Expert. Made to last.

Space is often limited in many busy doctors' practices and clinics. For the first time the VISULAS® Trion Combi from ZEISS bundles four different treatment wavelengths in a single device – for even greater efficiency in the smallest of spaces.

### Four wavelengths.

### Three treatments. Two poles.

The VISULAS Trion Combi integrates the professional laser treatment techniques for both the anterior and posterior eye segment. It combines the multi-wavelength VISULAS Trion laser for posterior photocoagulation with the VISULAS YAG III laser for anterior photodisruption. For the first time this provides you with four different wavelengths for the three most common therapeutic laser applications in a single compact workstation.







#### **One applicator.**

#### **One control panel. One workflow.**

The Trion Combi laser slit lamp is the joint applicator for both lasers. It is compact and also does away with the need for time-consuming changes or relocation of the patient. The greatest strength of the ZEISS VISULAS Trion Combi is apparent when performing iridotomies with pre-coagulation: a single touch of the laser display switches the interface from coagulation to disruption mode. The coagulation laser is controlled quickly and accurately using the joystick-integrated electronic micromanipulator. Naturally, the trigger for the YAG laser is incorporated in the slit lamp joystick.

#### **One slit lamp. Four filters.**

#### **Full image quality.**

But the Trion Combi laser slit lamp has even more to offer: as a powerful diagnostic slit lamp it further extends the range of possibilities of your VISULAS Trion Combi.

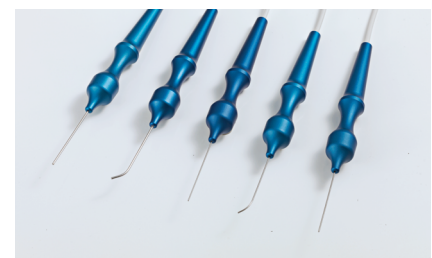
#### **One investment. Many possibilities.**

The VISULAS Trion Combi gives you the full range offered by a versatile coagulation laser for the treatment of retinal disorders. Its three different colors mean that you always have the appropriate wavelength for all clinical cases at your disposal. The VISULAS YAG III laser is perfectly designed for applications in the anterior segment. Capsulotomies can be carried out accurately and with minimum discomfort to the patient, using the lowest possible levels of power.

\* Not for sale in the U.S.



*Detachable display of VISULAS Trion Combi*



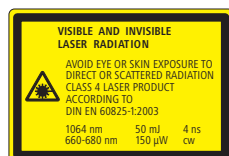
*Endoprobes 20g, 23g, 25g \**





# Technical data

	VISULAS YAG III	VISULAS YAG III Combi	VISULAS Trion Combi
<b>Disruption laser</b>	<b>VISULAS YAG III</b>	<b>VISULAS YAG III</b>	<b>VISULAS YAG III</b>
<b>Laser wavelength</b>	1064 nm	1064 nm	1064 nm
<b>Mode</b>	Super-Gaussian	Super-Gaussian	Super-Gaussian
<b>Optical breakdown</b>	Typically 2.5 mJ in air	Typically 2.5 mJ in air	Typically 2.5 mJ in air
<b>Pulse length</b>	< 4 ns (typically 2–3 ns)	< 4 ns (typically 2–3 ns)	< 4 ns (typically 2–3 ns)
<b>Max. laser energy</b>	Single pulse: typically 10 mJ, double pulse: typically 23 mJ, triple pulse: typically 35 mJ	Single pulse: typically 10 mJ, double pulse: typically 23 mJ, triple pulse: typically 35 mJ	Single pulse: typically 10 mJ, double pulse: typically 23 mJ, triple pulse: typically 35 mJ
<b>Energy attenuation</b>	22 levels	22 levels	22 levels
<b>Pulse repetition frequency</b>	Max. 2.5 Hz	Max. 2.5 Hz	Max. 2.5 Hz
<b>Focus diameter</b>	10 µm in air	10 µm in air	10 µm in air
<b>Exit aperture angle</b>	16°	16°	16°
<b>Aiming beam</b>	Diode approx. 670 nm, power 5 µW–150 µW; 4-point aiming beam focusing system	Diode approx. 670 nm, power 5 µW–150 µW; 4-point aiming beam focusing system	Diode approx. 670 nm, power 5 µW–150 µW; 4-point aiming beam focusing system
<b>Focus shift</b>	Variable: +150 µm; 0; -150 µm	Variable: +150 µm; 0; -150 µm	Variable: +150 µm; 0; -150 µm
<b>Electrical connection</b>	100–240 V, 50/60 Hz	100–240 V, 50/60 Hz	100–240 V, 50/60 Hz
<b>Control panel dimensions</b>	(H 135 x W 210 x D 330) mm (H 5.3 x W 8.3 x D 13.0) inches	(H 135 x W 210 x D 330) mm (H 5.3 x W 8.3 x D 13.0) inches	(H 135 x W 210 x D 330) mm (H 5.3 x W 8.3 x D 13.0) inches
<b>Control panel weight</b>	4 kg (8.8 lbs)	4 kg (8.8 lbs)	4 kg (8.8 lbs)
<b>Coagulation laser</b>		<b>VISULAS 532s</b>	<b>VISULAS Trion</b>
<b>Laser type</b>	–	Frequency doubled solid state laser	Frequency doubled solid state laser
<b>Max. power at cornea</b>	–	1.5 W (GREEN, 532 nm)	1.5 W (GREEN, 532 nm), 0.8 W (YELLOW, 561 nm), 1.0 W (RED, 659 nm)
<b>Aiming beam</b>	–	Diode, 620–650 nm, adjustable brightness, max. 1 mW	Diode, 620–650 nm, adjustable brightness, max. 1 mW
<b>Pulse duration</b>	–	Adjustable, 10–2,500 ms, cw, single pulse or auto-repetitive	Adjustable, 10–3,000 ms, single pulse or auto-repetitive
<b>Electrical connection</b>	–	100–240 V, 50/60 Hz	100–240 V, 50/60 Hz
<b>Laser console dimensions</b>	–	(H 150 x W 300 x D 400) mm (H 5.9 x W 11.8 x D 15.7) inches	(H 785 x W 330 x D 670) mm (H 30.9 x W 13.0 x D 26.4) inches
<b>Laser console weight</b>	–	14 kg (30.9 lbs)	48 kg (105.8 lbs)
<b>Laser slit lamp</b>	<b>LSL YAG III</b>	<b>LSL YAG III Combi</b>	<b>LSL Trion Combi</b>
<b>Laser beam delivery of coagulation laser</b>	–	Coaxially with slit illumination system	Coaxially with slit illumination system
<b>Laser spot diameter of coagulation laser</b>	–	Continuously adjustable, 50–1,000 µm (without contact lens), parfocal, larger spot diameters depending on contact lens used	Continuously adjustable, 50–1,000 µm (without contact lens), parfocal, larger spot diameters depending on contact lens used
<b>Magnification</b>	5/8/12/20/32 x	5/8/12/20/32 x	5/8/12/20/32 x
<b>Illumination</b>	12 V, 30 W, brightness continuously adjustable	12 V, 30 W, brightness continuously adjustable	12 V, 30 W, brightness continuously adjustable
<b>Slit length control</b>	Slit length: variable in steps of 1/3/5/9/14 mm Slit width: continuously adjustable from 0 to 14 mm Slit image rotation: 0°, ±45°, 90°	Slit length: variable in steps of 1/3/5/9/14 mm Slit width: continuously adjustable from 0 to 14 mm Slit image rotation: 0°, ±45°, 90°	Slit length: variable in steps of 1/3/5/9/14 mm Slit width: continuously adjustable from 0 to 14 mm Slit image rotation: 0°, ±45°, 90°
<b>Physician's safety filter</b>	Color fidelity	Color fidelity, ClearView	Color fidelity, ClearView
<b>Micromanipulator</b>	–	Servo-electric	Servo-electric
<b>Dimensions</b>	(H 623 x W 350 x D 400) mm (H 24.5 x W 13.8 x D 15.7) inches	(H 623 x W 350 x D 400) mm (H 24.5 x W 13.8 x D 15.7) inches	(H 623 x W 350 x D 400) mm (H 24.5 x W 13.8 x D 15.7) inches
<b>Weight</b>	11 kg (24.2 lbs)	12 kg (26.5 lbs)	12 kg (26.5 lbs)



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