



Product highlights

- High transmission through dense ocular media
- Repeatable macular and foveal laser sessions (Merilas 577 shortpulse only)
- Success with refractory and sub-clinical edema
- Low treatment power means increased patient comfort
- In short pulse mode tissue sparing treatment – no scarring

MERILAS 532 SHORTPULSE®
MERILAS 577 SHORTPULSE®



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MERILAS 532 / 577 SHORTPULSE® LASERS

Principle

MERILAS 532 shortpulse® (532 nm, green) and MERILAS 577 shortpulse® (577 nm, yellow) are solid state lasers that are capable of delivering continuous wave and short pulse impulses for ophthalmic applications.

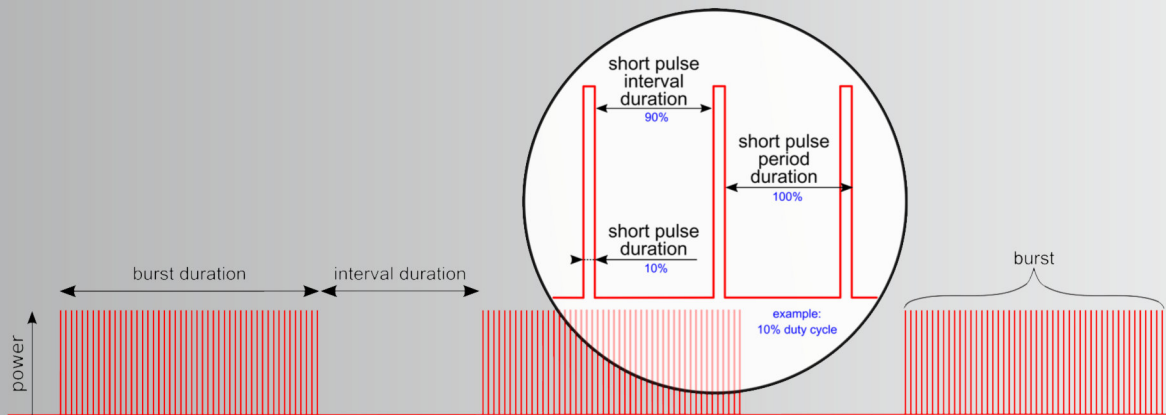
• Continuous wave

Laser emission is continuous during the entire time exposure.

• Short pulse

Short pulse is a sequence of bursts consisting of microsecond pulses.

$$\text{Duty Cycle [\%]} = \frac{(\text{short pulse duration})}{(\text{short pulse duration} + \text{short pulse interval duration})} \times 100$$



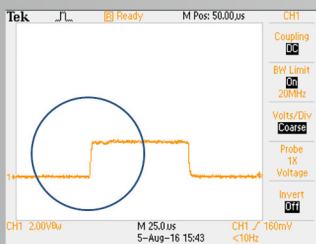
• Effects

Besides the power and total treatment time the duty cycle determines the energy applied. Short pulse is typically used to administer subvisible threshold laser treatments to macular and perimacular targets. The terms «subvisible», «subvisible threshold» or «subthreshold» refer to the fact that the desired endpoint is such that the treated tissue shows no ophthalmoscopically observable laser effects.

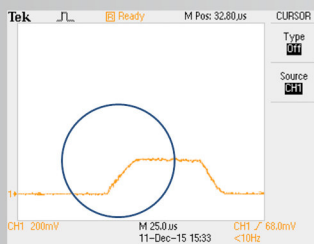
Nevertheless, 532 nm and 577nm studies have confirmed that subvisible laser treatment are clinically effective without inducing tissue damages.

Comparison: 2 W, 100 µs pulse

MERILAS shortpulse:



Competitor:



faster rise time proofs superior engineering and allows faster and tissue sparing treatment.

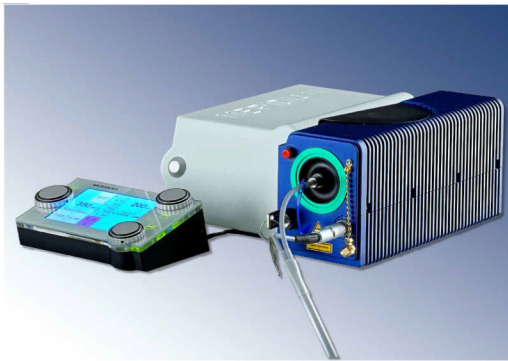
• Why choose yellow?

Considered as the optimal wavelength for retinal treatments, the 577nm wavelength aggregates the following advantages:

- Excellent combined absorption by both melanin and oxyhemoglobin (peak absorption of oxyhemoglobin)
- Very little absorption by macular xanthophylls pigments
- Excellent penetration through cataracts and hazy media

• Short pulse mode

Short pulse is a sequence of bursts consisting of microsecond pulses. The short pulse treatment mode is a tissue sparing treatment mode which avoids scarring due to non-visible, subthreshold laser impacts while treating most effectively various retinal pathologies.



THE DIRECT SLITLAMP ADAPTER FOR HAAG-STREIT BQ- AND BM 900 SLITLAMPS

Thanks to the direct entry in the lightpath of the Haag-Streit BQ- or BM 900 slitlamp, the adapter allows for easy operating without any interfering parts. A seamless spotsize from 50 μ m to 5000 μ m offers an extensive range displayed on the control panel of the laser.

Slitlamp Adapter Haag-Streit

- Large seamless spotsize range: 50 μ m to 5000 μ m
- Precise treatment due to internal beam path
- Unique protection filter without mechanics
- Unique «Clear View» user protection filter
- Best suited for performing retinal photocoagulation procedures, iridotomy and laser trabeculoplasty
- Directly linked to the illumination path of the Haag-Streit BM900 and BQ900 slitlamp – no additional obstacle between slitlamp front lens and patient's eye
- Safe treatment due to internal beam path – no external parts which can be misaligned



UNIVERSAL SLITLAMP ADAPTER

Mounted on an applanation tonometer pin. This adapter fits most of Haag-Streit type and Zeiss type slitlamps. A seamless spotsize from 50 μ m to 1000 μ m offers an extensive range. The spotsize is displayed on the control panel of the laser.

Universal Slitlamp Adapter

- Best suited for performing retinal photocoagulation procedures and ALT
- Large seamless range: 50 μ m to 1000 μ m
- Easy to mount on any applanation tonometer pin
- Integrated protection filter
- The spotsize is displayed on MERILAS touch screen
- Unique «Clear View» user protection filter



Laser Indirect Ophthalmoscope LIO 500

- Best suited for treating retinopathy of prematurity
- Ideal for treating patients in a supine position
- Fully enclosed optic for optimal protection

Endoprobes

- For endophotocoagulation procedures
- Straight and angled probes available
- Safety filters for full protection available

User protection filters

- Unique «Clear View» user protection filter for highest visibility and low colour distortion available for Haag-Streit slitlamps and a large range of surgical microscopes (Zeiss, Leica, Topcon, Haag-Streit surgical)
- Active (motor driven) user protection filter available for Haag-Streit slitlamps and a range of surgical microscopes (Zeiss, Leica, Topcon, Haag-Streit surgical).



Optional Accessories

- Mounting set for MICRORUPTOR 6 Nd: YAG laser
- Safety goggles
- Haag-Streit laser contact lenses
- Meridian Cooling System for hot and humid ambient conditions

SPECIFICATIONS FOR MERILAS 532 / 577 SHORTPULSE®

MERILAS 532 shortpulse® Part No. 100557

MERILAS 577 shortpulse® Part No. 100555

Treatment Laser

| | |
|-------------------------|--|
| MERILAS 532 shortpulse® | Wavelength: 532 nm (green) |
| MERILAS 577 shortpulse® | Wavelength: 577 nm (yellow) |
| Laser class | 4 |
| Laser power | 50 – 2500 mW |
| Pulse length | 10 µs – 5 s |
| Operating modes | – CW (continuous wave, chopped) Pulse duration: 1 ms – 5 s Idle (interval) duration: 1 ms – 5 s – Short pulse (continuous wave, chopped) Burst duration: 1 ms – 5 s Idle (interval) duration: 1 ms – 5 s Short pulse duration: 10 µs – 9.5 ms Short pulse interval duration: 100 µs – 9.5 ms |

Aiming Laser

| | |
|-------------|----------------------------|
| Aiming beam | Wavelength: 635 nm (Diode) |
| Laser class | 2 |
| Laser power | 0 – 1 mW (9 steps) |

General

| | |
|---------------------|---|
| Fiber connector | SMA |
| Fiber core diameter | ≥ 50 µm |
| Delivery systems | Slitlamp adapter, ophthalmoscope (LIO), endo fiber |
| Cooling | Thermo electrical (no fan, no noise) |
| Dimensions | 250 (L) x 220 (W) x 105 (H) mm |
| Net weight | 7 kg |
| Power rating | 100 – 240 V, 50 / 60 Hz, 2 A Max. |
| Packaging | Protective carrying / storage case (incl.) |



Combination unit MICRORUPTOR 6 on CSO slitlamp SL 9800 with Merilas 532 and slitlamp adapter resting on park station.



Caution: Federal law restricts this device to sale by or on the order of a physician.

MERIDIAN RANGE OF PRODUCTS

| | |
|---|--|
| MICRORUPTOR 6: | Nd:YAG laser |
| MERILAS Family: | Green laser photocoagulator shortpulse |
| LIO 500 (LED): | Laser Indirect Ophthalmoscope |
| SLA: | Slitlamp Adapter for MERILAS lasers |
| Protection Filters active and passive: | for MERILAS lasers |

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