

FIBERSCAN

... the Laser



SiroLasertec *

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Since 1993, Siro Lasertec has been pioneer in the jewelry industry. Marking lasers have been an integral part of our product range since 1996. Constant further development, our long-standing experience and the ongoing dialogue with our customers have made our laser systems a virtually unrivalled product.

Since 2012, our product range also includes fiber technology as it has established as standard with most manufacturers. The FiberScan fiber laser is a valuable complement to our FireScan diode laser.

FiberScan SQ

Our standard fiber laser system for cost-efficient and effective engraving. Particularly when engraving greater depths, the FiberScan SQ works many times faster compared to traditional diode laser technology.

FiberScan HQ

However, the market standard does not offer the necessary accuracy for finest, detailed engravings in immaculate quality. Out of this reason we have, additionally to the already existing standard fiber laser, developed a new high-end version. It enables very fast and deep engravings and at the same time offers very fine and filigree quality. With the previous standard, combining these characteristics in one device has been impossible in fiber laser technology. The FiberScan HQ therefore has proven to be the ideal solution for highest demands.

Software

Equally important as a functioning laser system is the suitable software. The software forms the interface between human being and machine. The user shall have the possibility to use different applications completely individually – and as intuitive as possible. Therefore, absolutely no compromises have been made with the marking software. Our marking software V3 has particularly been developed for our customers from the jewelry and watch making industry. The focus is here on rotational marking technology. Our V3 is an open source software which is constantly being up-dated and improved. By doing so, we always take into account our customers wishes.

Equipment

All types and performance classes of our lasers can be equipped completely individually with different laser safety housings and other additional equipment. This is done almost like purchasing a new car: at first the customer chooses the laser type, then the suitable safety housing and finally the equipment needed. Following this modular design principle offers many different system configuration possibilities and the system can be assembled completely individual just for its specific intended use – being a simple manual work station or a fully automatic 4-axis system.

Our customers include the largest jewelry and watch manufacturers worldwide; accordingly, very high are their expectations. This is our permanent motivation.



Please do not hesitate to contact us. We will be pleased to advise you on the configuration of your complete individual laser system.

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Variations



FiberScan
with set of accessories Pro, with autom. Z-axis (100mm) and rotating module, Laser class 4.



Flexlift
open system with 2 Axis support (Z = 180mm, X = 240mm), comfort operation panel, Laser class 4.



Classic Safety Housings
With autom. Z-axis (100 mm), autom. lift door, aluminum T-slotted clamping plate, comfort operation panel, LED illumination, laser class 1.



Comfort Safety Housings
With autom. Z-axis (100 mm), autom. lift door, aluminum T-slotted clamping plate, comfort operation panel, extra-large safety window, LED illumination, laser class 1.



Professional Safety Housings
Autom. Z-axis (450 mm), autom. X-axis (550 mm), autom. Y-axis (350 mm), autom. lift door, aluminum T-slotted clamping plate, comfort operation panel, large safety window, LED illumination, laser class 1.

Working Examples

Application possibilities for our Fiber-Scan are versatile and individual. Faster operating speed with deep engravings is the decisive difference compared to traditional diode lasers. The HQ-version of our FiberScan convinces with finest laser engravings in perfect quality.



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| Description | Standard Series | | Advanced Series | | |
|--|-----------------|----------------|-----------------|-------------|-------------|
| | 10SQ | 20SQ | 20HQ | 30HQ | 50HQ |
| Performance (W) | 10 | 20 | 20 | 30 | 50 |
| Beam profile | Single Mode | Low-Order Mode | Single Mode | Single Mode | Single Mode |
| Beam quality M2 | < 1,3 | < 1,8 | < 1,3 | < 1,3 | < 1,3 |
| Pulse peak power (kW) | 6 | 12 | 7,0 | 9 | 9 |
| Pulse energy (mJ) | 0,5 | 0,8 | 0,57 | 0,66 | 0,71 |
| Wavelength (nm) | 1064+-5 | 1064+-5 | 1064+-5 | 1064+-5 | 1064+-5 |
| Operation mode | pulsed | pulsed | pulsed | pulsed | pulsed |
| Pulse repetition frequency red. power (kHz) | 1 ... 20 | 1 ... 25 | 1 ... 35 | 1 ... 45 | 1 ... 70 |
| Pulse repetition frequency max. power (kHz) | 20 ... 200 | 25 ... 200 | 35 ... 290 | 45 ... 290 | 70 ... 580 |
| Pulse length defined (nsec) | 170 | 200 | - | - | - |
| Pulse length variable (nsec) | - | - | 15 ... 220 | 15 ... 220 | 15 ... 220 |
| Fiber length (m) | 2 | 2 | 2 | 2 | 2 |



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