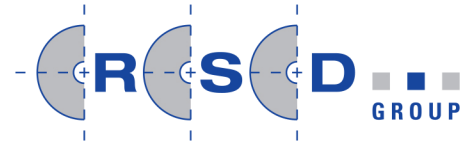




W. GILLIES TECHNOLOGIES



High Speed Marking on the fly with Fiber Laser Technology up to 500 m/min



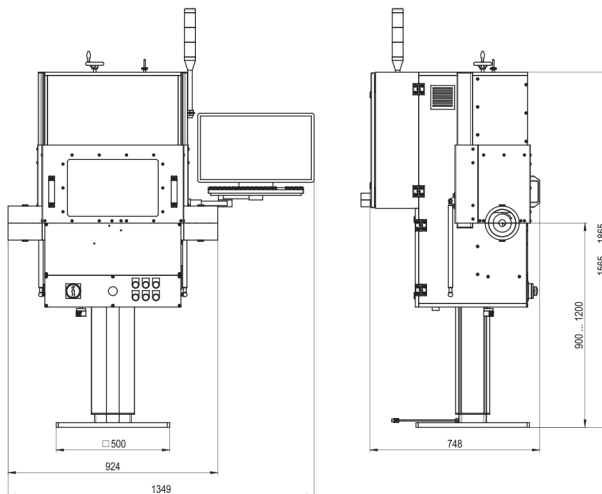
- Economic Laser
- Maintenance free
- Remote service and diagnostics
- Remote helpdesk and training
- Network installation
- Multiple wavelength available
- Browser based webinterface

Special features

- Meter marking
- Data and time marking
- Barcodes
- Company logos
- Cable specific symbols
- TrueType Fonts

Technical data

- Laser sources exchangeable
- NdYag 1064 nm
- Unique proprietary optic design
- Power supply 110 V - 230 V · 50/60 Hz
- Extraction system
- Ambient temperature 10 °C - 40 °C
- Air cooled
- Manual focus drive
- Class 1 laser apparatus
- Marking height 0,2 mm - 3,5 mm
- Lift column electronically adjustable



RSD GROUP USA

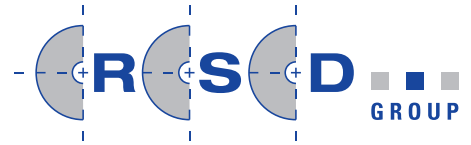
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How to mark on cables and hoses with RSD CP LM 1064 Laser Marker

1* The CP LM 1064 is a standalone marking unit that can be placed anywhere in the extrusion or winding line. The laser marker automatically synchronizes the marking speed to the line speed detected by an encoder. The marking data can be entered directly at the unit by the operator or sent via network.

2* Laser marking is not based on a specific polymer but can be applied on various materials. The key factor is the rate of laser sensitive additives (pigments) – without pigments you cannot get any visible marking.

The laser beam activates the laser sensitive pigment, i.e. laser beam changes the molecular structure of the pigment thus causing the color change.

The laser beam power, the pigment rate and the marking height are crucial for the marking result. Currently, the color of the marking result cannot be precisely defined. Generally the color change results in black or white. Other colors such as yellow or green are presently not available.

3* Any kind of marking such as alphanumeric texts, numbering (also in vertical direction alternatingly upside down with base line), logos, dates, and meter markings can be applied. The line thickness is much finer than with the state-of-the-art printing process and allows even very small markings heights ($\leq 0,5$ mm).

4* With regard to the technical structure, theoretically any marking speed is feasible. As mentioned above, the crucial factors are the pigment rate, the marking height and the laser power. If the implemented laser power is too high, the polymer might get burned.

Currently, at a pigment rate of 3% in the material a marking speed of up to 400 m/min can be achieved. For each individual application, it should be considered that a pigment shows different reactions in combination with different material types.

Increasing the marking speed is a constantly progressing process in which the supplier of the pigments is also an important figure. This kind of laser application is relatively new with infinite possibilities still lying ahead so that our R&D focuses on pushing enhancements. Every single application requires close cooperation between our customer, the pigment supplier and RSD Technik GmbH for achieving optimum customization and results.

We will gladly provide test markings on your cable samples supplied to us. Then we will find out if your material probably already contains a suitable pigment rate.

We kindly recommend you to consult your material supplier or directly the pigment supplier (e.g. Merck) for information on the pigment rate of your batch material. Our laser marker LM 1064 is equipped with a NdYag 1064 Nm fiber laser, so please ask for a laser sensitive pigment suitable for the wavelength of 1064 Nm.

We look forward to receiving your inquiries and providing information and test markings. If you look for a pigment supplier in your country, do not hesitate to contact us for support.

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