

LASERmark LM-s

CO₂ laser marker

- **LASERmark** series „S“ is CO₂ laser marker designed to be integrated into production lines, automatic production machines and other OEM industrial applications.
- The equipment comprises of 19 inch cabinet containing control electronics and PC. The second part is formed by the actual laser and a scanning head in heavy duty execution and an enhanced cover. As a stand-alone unit is installed water-air cooling (laser output > 40W) and fume extractor. The laser is interconnected with the cabinet by a single integrated cable.
- It is assumed that the „S“ version will be equipped with a suitable safety cover. The installed user interface is designed to be connected to and communicate with a master control system.



Cabinet with electronics.

Situated on top of the cabinet are an LCD display and a keyboard.



Laser and scanning head.

The sealed 30W laser is air cooled. The scanning head can be rotated around the laser axis in 90° increments.

- Available in output versions ranging from 30W to 200W
- Optional marking field of 60 x 60 mm to 160 x 160 mm
- Scanning head which can be rotated around the laser's axis – the marking field can be tilted
- The laser's compact size allows it to be easily integrated into other equipment
- Increased resistance against vibrations, penetration by dust and aerosol, maintenance-free
- Software – Windows environment, extensive set of functions, user support
- Option of connecting the equipment to a master control system – autonomous operation without LCD and keyboard



Technical data of laser

Laser Type: Wavelength: Resonator: Power: Power control: Frequency:	CO ₂ , quasi continuous 10,57–10,63 μm Sealed tube RF excited Options 30, (40, 60, 100, 200 W)* PWM, 0 ÷ 100 % 5 kHz fixed, (programmable 0 ÷ 25 kHz)*	Focusing optics Type: Marking field: Beam expander: Spot size:	“Near” F-theta lens, F-theta lens* 60x60 mm* 90x90 mm 120x120 mm* 160x160 mm* 6x Typically 0,11 mm 0,09 ÷ 0,35mm depending on optics configuration
Scanning Head Principle: Type: Marking speed: Resolution: Repetition accuracy:	Galvanometric beam deflection in X and Y axes Fast scanners 0–4000 mm/s 2 μm 25 μm	Cooling Air: Water cooling*:	Laser power ≤ 40 W, direct air cooling by fans Laser power ≥ 30 W, closed water circle, external cooling unit water- air type

Technical data LASERmark version „S“

System control Internal: Master control computer: Monitor: Network:	Control system checks and sets all equipment operation parameters PC, Intel Core i3 @ 3,1 GHz, 4 GB RAM, USB, SSD 80 GB LCD displej, 19“ Ethernet 1000	Laser and head Cover: Laser dimensions, weight: Scan head dimensions: Working orientation: Head connection length: Connection type: Mechanical connection:	IP54 537x191x200 [lxhwx], 24 kg 162x156x160 [lxhwx] Horizontal or vertical 3 m*, 5 m, 10 m* Polyamide, steel cord* Al profile Bosch type 180x45/10 using „T“ groove
Software Operating system: Design software: Control software:	Windows 7 Corel Draw WMark – the marking control program, Windows environment, full setting of all marking parameters comprehensive set of commands and functions	Cabinet Power supply: Input: Cover: Dimensions: Weight: Operating conditions:	100 - 240 V, 50/60 Hz 700 W ÷ 1800 W, depending on laser type and type of cooling IP40 318x577x577 mm [lxhwx] 41 kg Temperature 15 °C ÷ 35 °C non-condensing humidity

Selected accessories*

Connection Logical: Serial: Axis control:	Galvanized insulated input and output signals for external start- up and control RS232, communication protocol. The laser is fully controlled by a master system Step motor, DC motor with optical encoder	Exhaust system Exhauster Type1: Exhauster Type 2: Other accessories	180 m ³ /h, regulation 230 V, 1,3 kW 400 m ³ /h, no regulation 380 V, 3,4 kW Refer to accessory product brochures and technical data
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* alternative or optional accessories



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