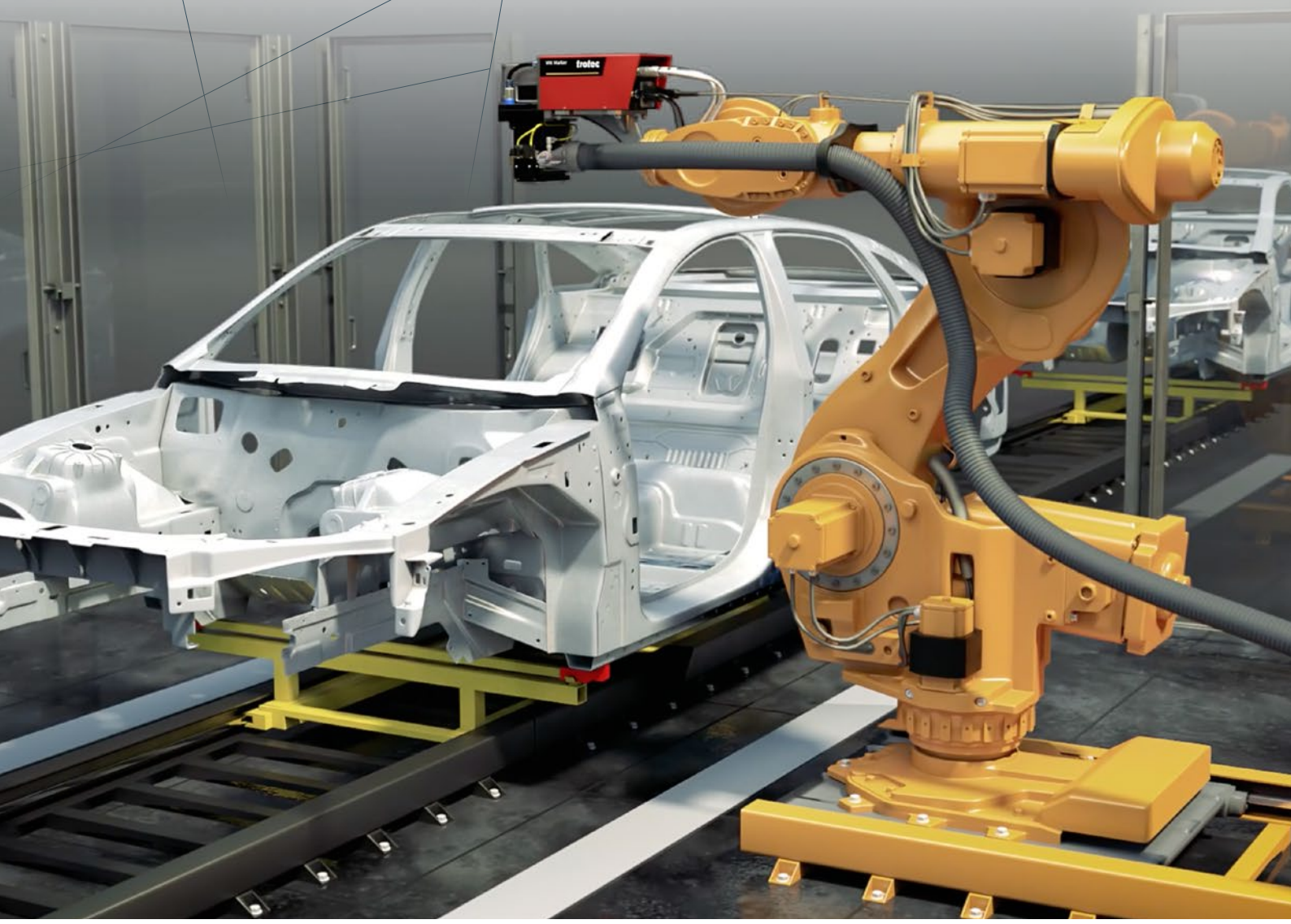
trotec

VIN Laser Marking

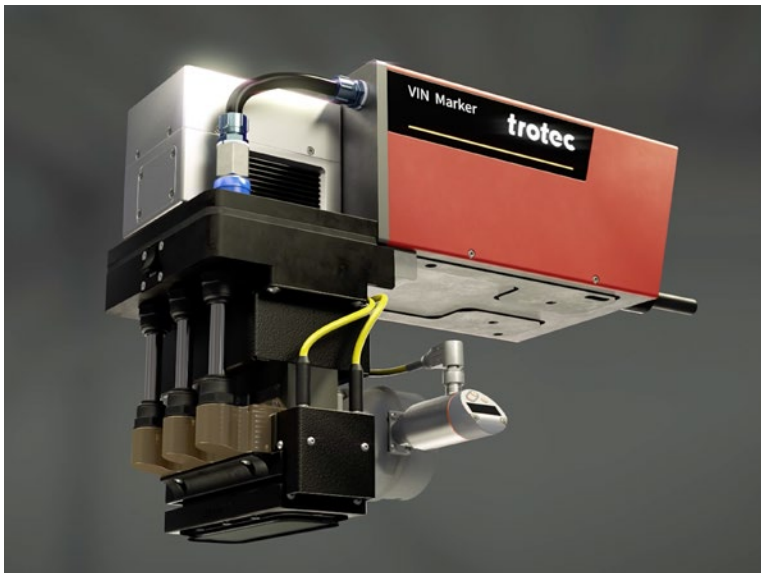
Secure in-line VIN deep engraving



SETTING NEW STANDARDS

What is the VIN Marker?

With the VIN Marker, the VIN marking on your timed production line is performed by deep laser engraving. Laser VIN marking increases the efficiency of your production line, thereby reducing manufacturing costs. You achieve this due to less downtime (e.g. on account of needle breakage), shorter setup times and less finishing. Integrating the VIN Marker into your timed production is very easy, as the VIN Marker allows for communication via fieldbus systems such as Profinet. Safety in your production environment and the associated costs are a key issue. Our VIN Marker is a product in which all prerequisites for laser safety class 1 are in place. Thanks to the easily adjustable laser parameters, you can also adapt the VIN marking quickly and flexibly to the individual material being used. This means that you are also ideally equipped for future material challenges in deep engraving.



How does the VIN Marker work?

The Trotec VIN Marker is a fully integrated laser system for VIN deep engraving. The compact marking head can be mounted on an industrial robot. Communication with the system takes place via Profinet

Scan the QR code to see the VIN Marker in action!

Efficiency | **Reliability** | **Safety**

↓ ↓ ↓

Cost effectiveness

Created for efficiency

Short cycle times due to special laser equipment

Depending on project implementation, the VIN Marker requires only about 15 seconds of laser time for a complete VIN. The interaction of safety cone, exhaust system and air assist ensures that smoke and particles are efficiently removed and the greatest possible laser power strikes the material. This enables the short cycle times.

Shorter setup time thanks to contactless engraving

Unlike other engraving technologies, the chassis does not have to be fixed in place, since the laser operation is contactless. Moreover, it can be used flexibly, and can be positioned as required – even on cross-model production lines.

Wear-free laser minimizes downtime

Thanks to contactless deep engraving, there are no needles or similar parts that could wear out. This reduces possible downtime and increases productivity.

Design-to-service approach enables rapid replacement for maintenance work

The VIN Marker is designed in such a way that main components can be installed separately during maintenance. Simply remove the safety cone, replace components and reinstall the cone. The system is operational and ready to use again.

Designed for reliability

Stable and replicable inline VIN marking solution

The VIN Marker's contactless laser technology enables consistently replicable engraving on every chassis. In the event of external faults, the job can be restarted on a repair line. This avoids the cost and time-consuming removal of vehicle.

Highest engraving quality, from aluminum to high-alloy steel thanks to flexible parameters

Chassis materials tend to change. Not a problem for the VIN Marker! The laserparameters can be flexibly adjusted to changing requirements in car body construction.

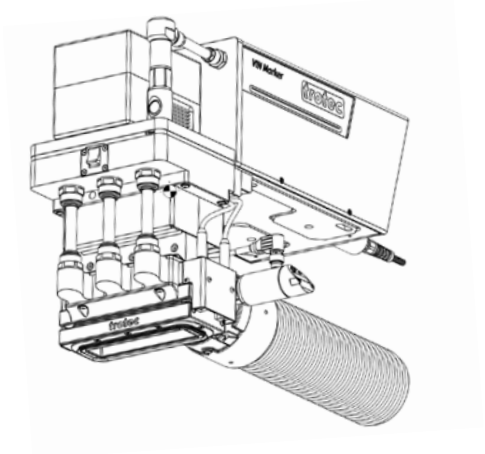
No separate finishing thanks to contactless engraving

Using the VIN Marker makes production interruptions caused by broken or worn needles, as is the case with scratch embossing, a thing of the past. Faulty engravings can be easily repeated and the chassis remains in the production line. No more downtimes and disposal costs.

Designed for safety

Operation in laser class 1

The VIN Marker can be integrated so that it may be operated in laser class 1. The VIN Marker's local safety cone saves you the costs of an additional laser safety housing. Operation in laser class 1 has been tested by independent third parties.



Complete, comprehensive safety documentation

It goes without saying that Trotec supplies complete safety documentation for the VIN Marker. It includes, among other things, installation declaration, assembly manual and Sistema module. The complete assembly manual with step-by-step instructions provides optimal support for the integrator so that the system can be operated in laser class 1.

VIN Marker: Compact solution and simple integration

Designed for shift operation in an industrial environment

Our customers work in 24/7 operations. And the VIN Marker is made for this.

Reduced space requirement due to compact laser engraving system

The laser head of the VIN Marker measures only 180 x 145 x 450mm and therefore lends itself to space-saving integration into the production line. The safety cone is mounted directly on the laser head. This saves additional space. Attached to an industrial robot, VIN markings can be applied to almost any desired area - even in hard-to-reach places.

Complete inline integration

The VIN Marker can be integrated directly into the production line. This saves you time-consuming control of the car bodies.

Simple integration process

A complete installation declaration and safety documentation are supplied. With appropriate installation, the VIN Marker is operated in laser class 1.

Communication and control system

The VIN Marker is controlled by a higher-level control system. This means there are no unnecessary displays, and no need for additional employees.

No additional safety control system

The safety-oriented communication takes place via a standardized Profisafe interface.

Many decades of experience in laser integration

We have been producing laser systems for industrial environments for several decades. A team of specialists is available to support your project. Trotec is part of TroGroup, a proprietor-managed company that has been operating for over 100 years.

More than just a laser

Trotec has always considered laser systems to be a total package. Because our customers are specialists in their fields and do not want to have to focus on the finer points of laser marking. That's why the VIN Marker is more than just a laser. It is a complete package:

Technical support & consulting	**Training for operators and integrators**	**Individual service and maintenance contracts**
Cleaning station including test site	**Filter and exhaust system**	**Customer-specific documentation**

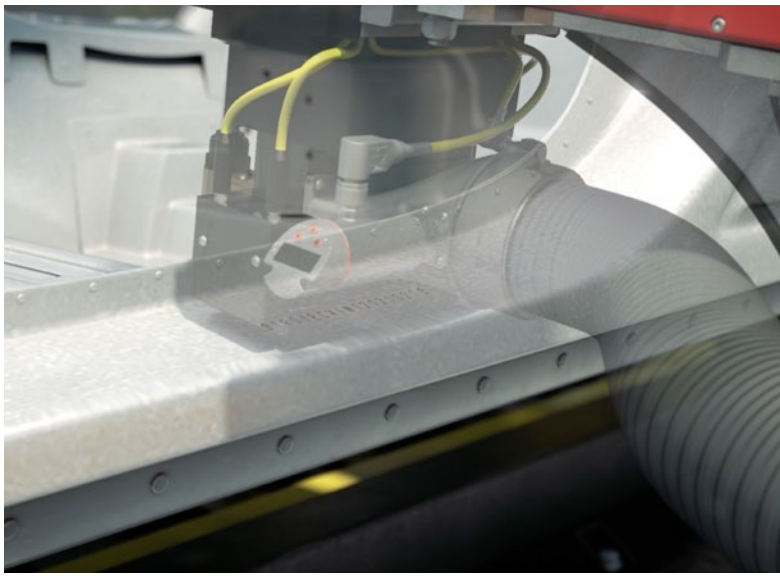
Available worldwide

Trotec is an internationally leading developer and manufacturer of laser machines and is headquartered in Marchtrenk, Austria. The birth of laser technology in the corporate group was back in 1991, when the then revolutionary idea of using CO_2 lasers to produce text panels precisely and to the highest quality standards laid the foundations for Trotec's development history and the digitization of the stamp industry. Today,Trotec has 16 sales offices with a total of more than 750 employees, and generates sales of € 161 million. The export quota is nearly 98 %. The machines are being used in over 90 countries around the globe.

Technical Data

Applied standard and guidelines	IEC EN 60825-1 Machinery Directive 2006/42/EG Operation in laser class 1 when integrated according to the installation declaration As delivered, laser class 4 with installation declaration
Laser source	Pulsed Yb-fiber laser
Max. pulse energy	2mJ
Max. average output power	200 W
Wavelength	1064 nm
Cooling	Actively air cooled
Connection pack for head/rack	Fiber length: ~ 8.3m Connection cable set : ~ 8.5m
Marking field with laser protection	Marking field XxY: 120 x 20 mm Support surface: 150 x 50 mm
Connection rack/rack	Hybrid cable 1.5 m
Focal distance	163mm
Laser rack	Integrated interfaces Integrated power supply
Safety cone	Integrated interfaces Integrated power supply
Operating surroundings of marking head	15-45°C not condensing
Operating environment racks	15-35°, 0-60% not condensing

		w x h x d in mm	**kg**
Dimensions and weights	Laser rack 19“ 4HE Control rack 19“ 4HE Safety cone Marking head	450x177x540 450x177x540 205x220x230 180x145x450	23.4 16.5 4.9 11
Packaging dimensions and weights	Laser rack 19“ 4HE Control rack 19“ 4HE Marking head incl. safety cone Suction hose overall system incl. euro pallet	560x370x510 560x370x510 610x410x320 610x660x320 1200x800x900	27 32 20 8 110



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