rayjet

U Series

Simply laser marking

The speed of a galvo...

Precise marking – even with the smallest font sizes

Marking in recesses thanks to long focus distance

Permanent marking by re-coloring of plastics

Marking individual pieces

The U300 is an advanced galvo laser system characterized by high-speed performance, designed for permanent marking and engraving.

- Excellent for lasering individual pieces and small batches in a matter of seconds
- Compact design, featuring a working area up to 190 x 190 mm (7.5 x 7.5 in)
- Ideal choice for promotional product companies, engravers specializing in personalization and manufacturing

The speed of a galvo laser system meets the simplicity of the laser software Ruby®: Benefit from effortless operation, optimized productivity, and increased flexibility.

Exceptional flexibility for various geometries

Enjoy versatile marking and engraving on varying components, regardless of height or geometry. Its impressive focus tolerance makes it ideal for advertising materials, name plates, trophies, watches, signs, and more.

Optimized operational output and effortless adaptability

Within seconds, experience permanent and precise marking on metal and various plastics, whether for single pieces or small productions runs. Incorporate the U300 into your current workflow and ensure a consistently high level of quality.

...and simplicity of Ruby®

Cutting-edge laser software

Our Ruby® laser software ensures seamless connectivity and compatibility, making design import and transmission swift and efficient from anywhere and with any device.

Choose U300 to enhance your laser marking and engraving operations with precision, productivity, and a complete business solution.

A single software for your Trotec machine fleet

Ruby®, developed by Trotec, is a laser software designed to be compatible across various machines. This enables efficient operation of numerous Trotec lasers. Users of Speedy lasers equipped with Ruby® software can easily master the operation in a short period, ensuring swift productivity.

Seamless transition from concept to finished laser product

Ruby® laser software is your ultimate tool for efficient laser operation. No need to open customers' layouts separately. Drag and drop them into Ruby®, regardless of your graphic program's version. Split design and preparation from production. While the laser works on current jobs, prepare the next ones. Accessible from PC, Mac, tablet, or mobile, whether you're right by the machine or anywhere within your network.

Maximize machine efficiency

Select the Trotec machine that best suits your laser job, be it a plotter or galvo. For example, when using a Speedy, you can concurrently execute multiple tasks with a U300. Seamlessly oversee various jobs through a universal software, effortlessly distributing them between a Speedy and a U300 to optimize your laser processing capabilities.

Key Features and Options

Marked in seconds

Mark your objects contactless with the rapid processing speed of our galvo laser machines. Precision labeling, even with the smallest fonts, is completed within seconds. This unparalleled speed, in conjunction with the streamlined workflow and efficiency of our laser software Ruby®, guarantees a significant boost in your productivity.

Save time with border marking

A special highlight of the U300 marking laser is the preview of the designated marking area. The contours of the design are projected onto the component. For correct positioning, the border marking function allows real-time alignment. You can input text in our laser software, and the contour is instantly projected onto the piece. This eliminates the need for trial runs, saving both time and materials.

Ethernet cable simplifies laser control

The integrated Ethernet interface enables you to control your laser with a Windows PC. This liberates you from the limitations of an industrial PC. Our Ruby® laser software is accessible from PC, Mac, tablet, or mobile, whether you're right by the machine or anywhere within your network. Just plug in and start lasering – you will be amazed by time saved.

Effortless data processing

Process data directly from CSV and use the dynamic data function for your data plates. This function allows you to personalize separate parts automatically with consistent data in a serial production. Do the programming and processing of all dynamic data directly in the laser software - without the help of third-party programs. Ideal for small and medium quantities.

A reliable investment

The U300, made with premium components, ensures a lifetime of durability. Its robust design includes a fiber laser source and a housing with the highest European quality standards. Users of Trotec laser machines who are familiar with the Ruby® laser software can seamlessly integrate the U300 into their workflow, as most of Trotec laser machines are operated by Ruby®. The U300 is also ideal for laser beginners, simplifying work with additional Trotec machines in the future and making it a reliable investment.

All-in-one-solution from machine to service

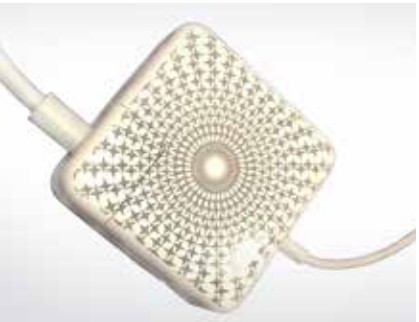
Opting for Trotec means more than simply acquiring a laser machine. Our comprehensive solution includes laser software, exhaust systems, materials, training, service, and support – all meticulously designed to ensure your immediate profitability.

Applications and Materials

The laser machines of the U series can be used to mark countless metals and plastics. In detail, plastics are re-colored or foamed, metals (deep) engraved or surfaces polished to ensure the best possible legibility and 100% traceability.

Metals suitable for laser engraving and marking:

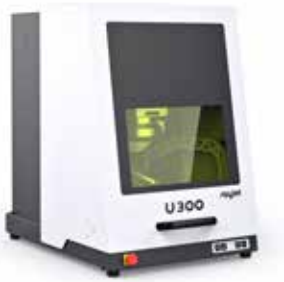
- Stainless steel
- Steel and hard metals
- Aluminum and anodized aluminum
- Precious metals
- Brass
- Copper
- Titanium and titanium alloys
- Other metals



Plastics that are suitable for laser marking:

- Polyamide (PA)
- Polycarbonate (PC)
- Polyoxymethylene (POM)
- Polyarylsulfones (PSU, PPSU)
- Polyetheretherketone (PEEK)
- Acrylonitrile butadiene styrene copolymer (ABS)
- Polyimide (PI)
- Polymethylmetacrylate (PMMA)
- Polyester (PES)
- Silicone

Technical Data



	U300 02F F160	U300 02F F254
Marking field	120 x 120 mm	190 x 190 mm
Laser power	20 W Pulsed Yb-fiberlaser	
Loading area	350 x 400 mm	
Max. height of workpiece	168 mm	61 mm
Max. loading weight	50 kg	
Max. marking speed	12 m/s	12 m/s
Z-axis	Software-controlled servo axis	
Door	manual	
Software	Ruby® (standard), UMark, and DirectMark printer driver (optional)	
System requirements	Depending on software used. Please check technical software datasheet for details.	
Supported fonts	all installed TrueTypeFonts	
Supported 1D barcodes*	Australian Post; Codebar; Code 11; Code 128; Code 39; Code 93; DAFT; Deutsche Post; DPD; EAN-13; EAN-14; EAN-8; GS1; HIBC; ISBN; GS1; Pharmacode * UMark laser software	
Supported 2D codes*	Datamatrix; QR-Code; Aztec; Codeblock-F; GS1 Databar; HIBC; Maxi Code; PDF 417 * UMark laser software	
Supported image formats	.pdf, .svg, .ai, .png, .jpg, .jpeg, .bmp, .tsf, .tld, .tlj, .zip, .cdr, .dxf Please check technical datasheet for details	
Interfaces	Ethernet; Laser-Interlock; Marking-Start, (24 VDC)	
Safety	CDRH Lasersafety, laser class 2, DE [EN 60825-1]	
Dimensions (L x D x H)	445 x 653 x 851 (U300), 449 x 559 x 117 mm (laser rack)	
Weight	56 kg	
Weight laser rack	20 kg	

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