

Laser Marking Systems



www.laserisse.com



LASER ISSE



LASER ISSE
TURKEY



LASER ISSE
GERMANY



LASER ISSE
USA

Innovative Simplified Solutions for Efficiency

Laser ISSE was founded in 2003 as the pioneer laser job shop company in Turkey with laser engraving and welding systems, to service and support the rapidly expanding use of laser technology in a wide range of industries.

Whereby, with European suppliers, we became a spare parts vendor for equipment such as laser lamps, rods, filters, mirrors, protective windows, lenses, flow tubes, fiber optic cables and goggles to the laser machines from different brands in many countries: Turkey, the Middle East, Europe and Asia.

Since 2008, we have been producing and providing engraving, cutting and welding systems like 2D engraving and cutting, coil fed cutting, robotic applications and turnkey solutions

with different types of laser such as Fiber Lasers, Diode Pumped Solid State, Nd:YAG, UV, Disc and CO₂. Thanks to our international young and dynamic team; we had delivered and run more than 1250 systems and exported to 33 different countries from USA to China in 10 years.

Our aim is to become more engaged in the field of laser technology on a global scale so we exhibited in many trade shows worldwide, we also have the presence in 14 countries, in addition to offices in USA and Germany.

Taking the satisfaction of customers as our topmost priority, we always try to offer more than they may expect. With our innovative and creative approach we always fulfill the demands of our customers.



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- ✓ Reliable support and service network
 - ✓ 1000+ system installations in over 33 different countries
 - ✓ Easy to use software
 - ✓ Long term operation of 24/7 non-stop production
 - ✓ No consumable spare parts are required for fiber lasers
 - ✓ Long and maintenance free life for fiber laser
 - ✓ Customized systems
 - ✓ 3D deep engraving
 - ✓ Easy integration to automation
 - ✓ Project based production line solutions
 - ✓ Full support for X, Y, Z and C-motion
 - ✓ Robotic integration



Fiber Laser Systems

	F20	F50	F70	F100	F200
LASER SPECIFICATION					
Laser Source	Yb: Fiber - SPI				
Average Power	20 W	50 W	70 W	100 W	200 W
Beam Quality M²	<1,6				
Max Peak Power (kW)	>10				
Max Pulse Energy (mJ)	>1				>1,5
Pulse Repetition Frequency Range	1-1000				1-4000
PulseTune Waveforms	40	38	37	32	40
Pulse Duration Range (ns)	3 - 500	6 - 500	9 - 500	12 - 500	9 - 2000
Output Power Stability %p-p	<5				
Air Cooled or Water Cooled	Air			Water**	Air
Wavelength	1060 nm				
Marking Field*	120 mm x 120 mm				
Working Distance*	163 mm +/- 2 mm				
WORKING CONDITIONS					
Electricity Supply	AC 220V +/- 10%, 50 Hz - For USA, 110V +/- %5, 60Hz				
Ambient Temperature Range (°C)	0 - 45	0 - 40		15 - 35	10 - 40
Relative Humidity	5 - 95% RH (non condensing)				
Control System and Plug-In	Windows-based software with PC				
OPTIONAL EQUIPMENTS					
Clamping Device, Rotary Axis, Class 1 Enclosure, Lens Options, Extraction Unit, X-Y Stage, Rotary Index, Autofocus, Auto Feeder					
Lens Options	F-theta 100	F-theta 163	F-theta 254	F-theta 330	F-theta 420
Marking Field	70 mm x 70 mm	120 mm x 120 mm	180 mm x 180 mm	240 mm x 240 mm	300 mm x 300mm
Working Distance	100 mm ± 2	163 mm ± 2	254 mm ± 2	330 mm ± 2	420 mm ± 2

* It varies according to the model and optional equipment.

** Chiller included with F100

Sectors

Automotive
Kitchenware
Home Appliances
Machining
Jewelry
Textiles
Marketing
Plastic Goods
Metal Goods
Electrical
Electronic
Labeling
Aviation Industry
Hand Tools
Furniture
Footwear
Cutting Tools
Defence Industry
Molding
Medical



LASER ISSE

Fiber Laser Applications

Metal Marking



Button Marking



QR Code Marking



Label Marking



Battery Marking

Plastic Marking

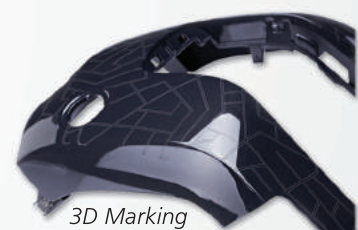


Animal Tag Marking



Seal Marking

Day & Night Marking



3D Marking

2D - 3D Engraving



Steel Engraving



3D Engraving

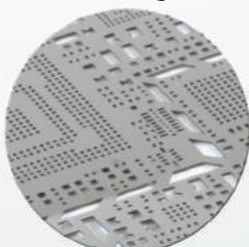


Accessories Engraving



Aluminium Engraving

Micro Cutting



UV Laser Systems



Laser Source
Average Power
Beam Quality M ²
Energy (μJ)
Specified Repetition Rate (kHz)
Repetition Rate (kHz)
Pulse Width (ns)
Cooling
Wavelength
Marking Field*
Working Distance*

Electricity Supply
Ambient Temperature Range (°C)
Relative Humidity
Control System and Plug-In

Lens Options
Marking Field
Working Distance

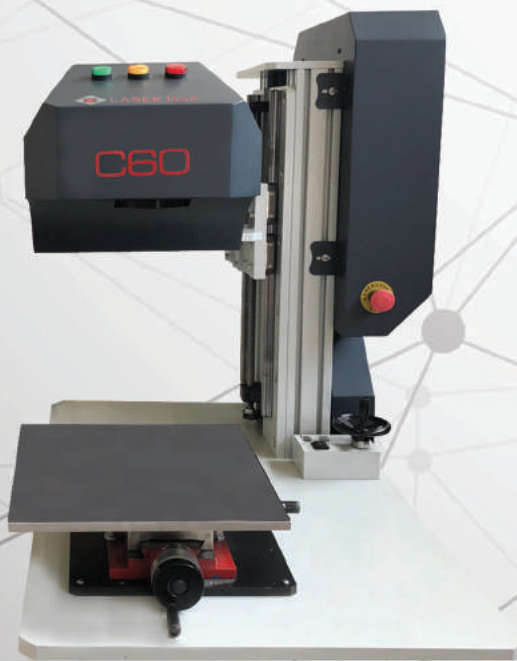
*It varies according to the model and optional equipment.
** Chiller included

U3	U5	U10
LASER SPECIFICATION		
UV - ISSE		
3 W	5 W	10 W
	<1,2	
100	167	333
	30	
Single Shot to 300		
<15	<15	<20
Air	Water**	
	355 nm	
	120 mm x 120 mm	
	163 mm +/- 2 mm	

WORKING CONDITIONS
AC 220V +/- 10%, 50 Hz - For USA, 110V +/- %5, 60Hz
15 to 30
20 - 80 non-condensing
Windows-based software with PC

OPTIONAL EQUIPMENTS		
Clamping Device, Rotary Axis, Class 1 Enclosure, Lens Options, Extraction Unit, X-Y Stage, Rotary Index, Autofocus, Auto Feeder		
F-theta 254	F-theta 330	F-theta 420
180 mm x 180 mm	240 mm x 240 mm	300 mm x 300mm
254 mm ± 2	330 mm ± 2	420 mm ± 2

CO₂ Laser Systems



Laser Source
Average Power
Wavelength
Power Stability
Beam Quality M ²
Cooling
Marking Field*
Working Distance*

Electricity Supply
Ambient Temperature Range (°C)
Relative Humidity
Control System and Plug-In

Lens Options
Marking Field
Working Distance

*It varies according to the model and optional equipment.

C30	C60	C125
LASER SPECIFICATION		
CO ² - ROFIN		
30 W	60 W	125 W
	10.57-10.63 μm	
	± 7%	
	<1,2	
	Air	
	140 mm x 140 mm	
	200 mm +/- 2mm	

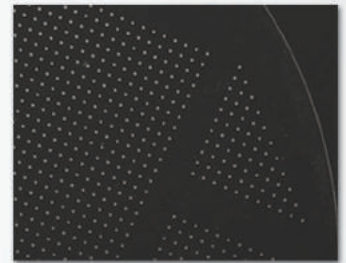
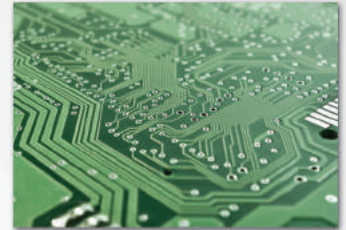
WORKING CONDITIONS
AC 220V +/- 10%, 50 Hz - For USA, 110V +/- %5, 60Hz
15 - 30
20 to 80 non-condensing
Windows-based software with PC

OPTIONAL EQUIPMENTS	
Clamping Device, Rotary Axis, Class 1 Enclosure, Lens Options, Extraction Unit, X-Y Stage, Rotary Index, Autofocus, Auto Feeder	
F-theta 200	F-theta 400
140 mm x 140 mm	300 mm x 300mm
200 mm ± 2	400 mm ± 2

UV Laser Applications



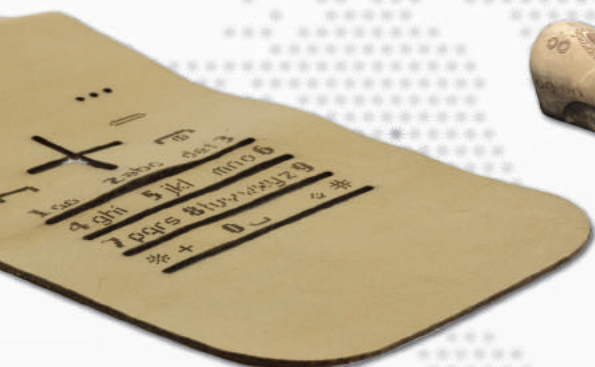
Thin-film Ablation



Micro Drilling

Fine Plastic Marking

CO₂ Laser Applications



Leather Cutting



Wood Marking



Leather Marking

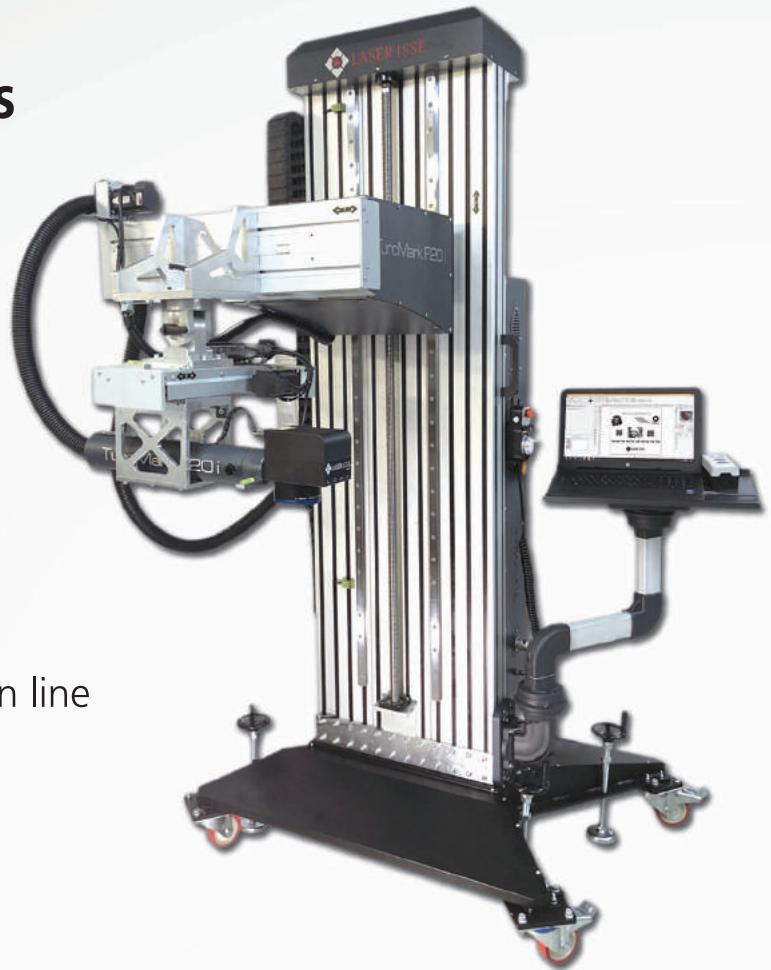


Wood Cutting



Customized Laser Systems

- ✓ Robotic integration
- ✓ Rotary indexing table
- ✓ Marking on the fly
- ✓ Auto - feeder solutions
- ✓ Precision with granite table
- ✓ Integration to existing production line



Optional Equipment



Rotary Axis

Rotary stage is incorporated into the system to mark on cylindrical items like rings, bracelets and bearing. Our software ensures precise circular movement.

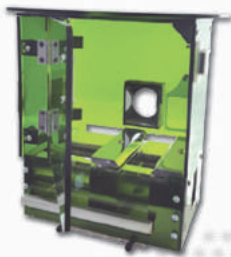
- High accuracy
- Customized inner & outer diameters
- Maximum load depends on application
- Pneumatic gripper for easy load/unload



Extraction Unit

A variety of toxic fumes and particles are generated when different materials are being lasered. Fume, dust and particles need to be removed to protect the operator and ensure the quality of application.

- Synchronized operation with the laser
- Additional HEPA Filter can be fitted to the fume extractor
- Lockable cabinet design
- Recycling of particles generated during the cutting and engraving processes on precious metals by collecting them in the tank



Clamping Device

The clamping device minimizes movement of the part due to heat expansion which occurs during the marking and cutting process.

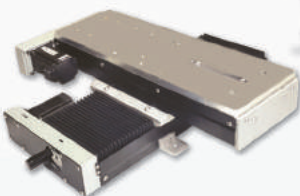
- Adjustable width
- Pneumatic clamps, 6 bar pressure
- Easy access to work area
- Encloses by laser safety glass providing protection against 1064 nm beam
- Drawer allows easy recovery of cut outs



Auto Feeder

You can engrave and cut objects from a metal sheet continuously without repositioning the parts in every cycle.

- Pneumatic valves and motorized movement
- Faster process without stand by operator
- Non-stop process capability
- Drawer makes easy recovery of cut outs possible



XY Translation Stages

XY stage offers a much larger marking area (up to 500mm x 500mm). The travel requirements of the XY stages can be produced to any size and precision according to the requirements of the customer's application.



Autofocus

Autofocus regulates the distance to the part which to be processed. The system can adjust the focus distance automatically with laser displacement sensor.

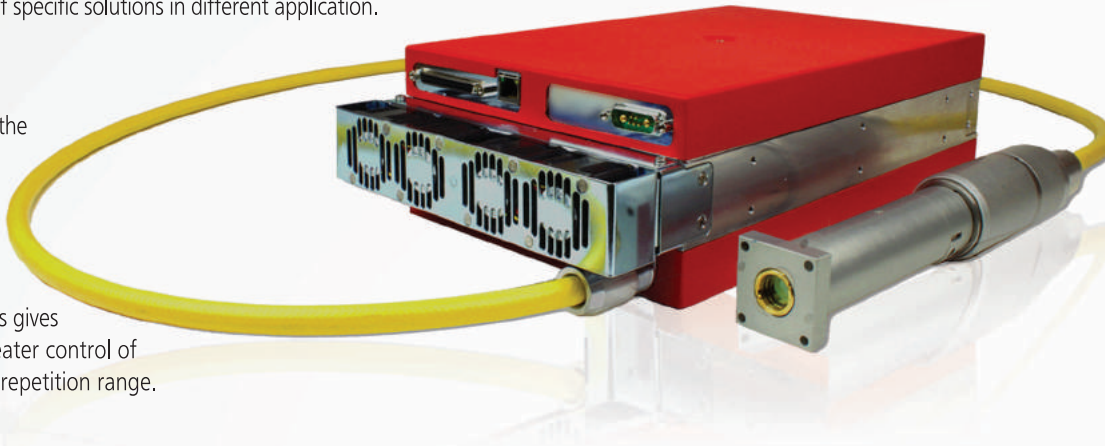


Fiber Laser Source

We are the exclusive representative of the English SPI Lasers which is owned by Trumpf, the world leader in MOPA pulsed fiber laser sources. As a service center and application partner together with SPI we can produce hundreds of specific solutions in different application.

Pulse-Tune Technology

Our Pulse-Tune technology provides the ability to select waveforms, offering up to 40 pulse widths from 3ns up to 2000ns. Each pulse waveform is optimised for maximum peak power and pulse energy at its preferred operational frequency. This gives users of the HS/EP series Lasers greater control of pulse conditions over the full pulse repetition range.



Laser Beam Deflection Units

We have been working with German Raylase company which has been a pioneer in scanner head production for more than 10 years. We are the repair and service center of Raylase which can produce customized solutions for application.

As a global market leader Raylase develops galvanometer-scanner based components and subsystems for laser beam deflection, modulation and control. Raylase offers robust and reliable 2-axis laser beam deflection units and 3-axis subsystems with high performance and quality scan solutions.

2-AXIS Deflection Units

3-AXIS Deflection Units

Focus Shifter



Software

Software ensures complete control and automation of laser marking systems.

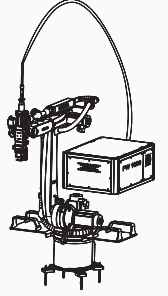
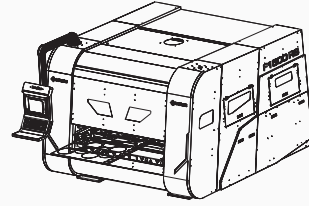
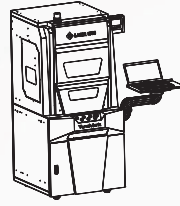
- Simple, user friendly interface
- Import of vector file formats such as .dwg, .dxf, .psd, .plt, .cnc, etc.
- Direct marking of pictures with extensions such as .jpeg, .bmp, .tiff, etc.
- Importing and processing CAM (G-Code) data
- Remote control via RS-232 or TCP / IP
- User level selection
- All common formats 2D - 1D barcodes
- Different language options

Controller

- Rotary axis support
- X, Y, Z axis control
- Easy adaptation to serial production lines
- 16 Input - 16 Output signal connection
- Adjustable speed, frequency and waveform

Optional Functions

- 2.5D / 3D Object marking
- Large area marking with 3D scanning head
- Computer vision positioning
- Library function
- Dual head marking
- Chart divided function



ENGRAVING CUTTING WELDING



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