



FORZA

Engraver X

V250813

Datasheet
Model E3030PXX



FORZA Engraver X

Fast-marking fiber laser for metallic and non-metallic materials

ENGRAVING / OUTLINING

The FORZA Engraver X is a fiber laser machine for fast engraving. It features a light source that generates a beam with a variable wavelength range, capable of engraving metallic materials and some non-metallic materials that meet the conditions of a dark color and textures.

Main Features

FEATURES	DETAIL
Application	Laser engraving / Laser outlining
Nominal working area	4.3 x 4.3 in 110 x 110 mm ⁽¹⁾ 11.8 x 11.8 in 300 x 300 mm ⁽²⁾
Nominal laser power	30W o 50W
Engraving depth per pass ⁽³⁾	≤ 0.039in 1mm
Maximum engraving speed	157in/s 4000mm/s
Engraving accuracy ⁽⁴⁾	± 0.006in 0.15mm

1. Working area corresponding to a 160mm focal length.
2. Working area corresponding to a 430mm focal length.
3. The indicated engraving depth corresponds to a 50W machine. This value may decrease due to factors such as the laser power and the specific properties of the materials used. Likewise, the engraving quality may be affected by these conditions.
4. Engraving accuracy considers the machine's repeatability and precision. An accuracy of 0.15mm means that when engraving an area of 100mm, it may measure between 99.85 mm and 100.15mm.



Special Features

Zero Maintenance



Designed to operate without consumables or regular maintenance, it ensures high durability, consistent performance, and lower long-term operating costs.

Integrated computer



Equipped with an industrial PC, monitor, keyboard, and mouse, along with specialized software ready to use. No external computer is required, allowing start working immediately and without complications.

Low Power Consumption



Consumes an average of 0.5kWh, providing excellent engraving performance with high energy efficiency. Ideal for reducing electricity costs without compromising quality or work speed.

High Precision & Speed



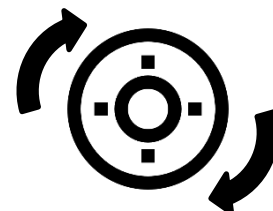
Due to its galvanometer mirror system, it achieves exceptional speeds and high precision, making it ideal for fine, detailed, and consistent engravings in any production

Versatile production



Capable of engraving on a wide range of materials, both metallic and non-metallic. It works on virtually any non-translucent surface, providing flexibility for multiple industries and applications.

Rotary Axis (Opcional)



An additional rotary axis can be integrated to precisely engrave cylindrical objects, making it ideal for items such as tables, glasses, bottles, shafts, and curved components.

General Specifications

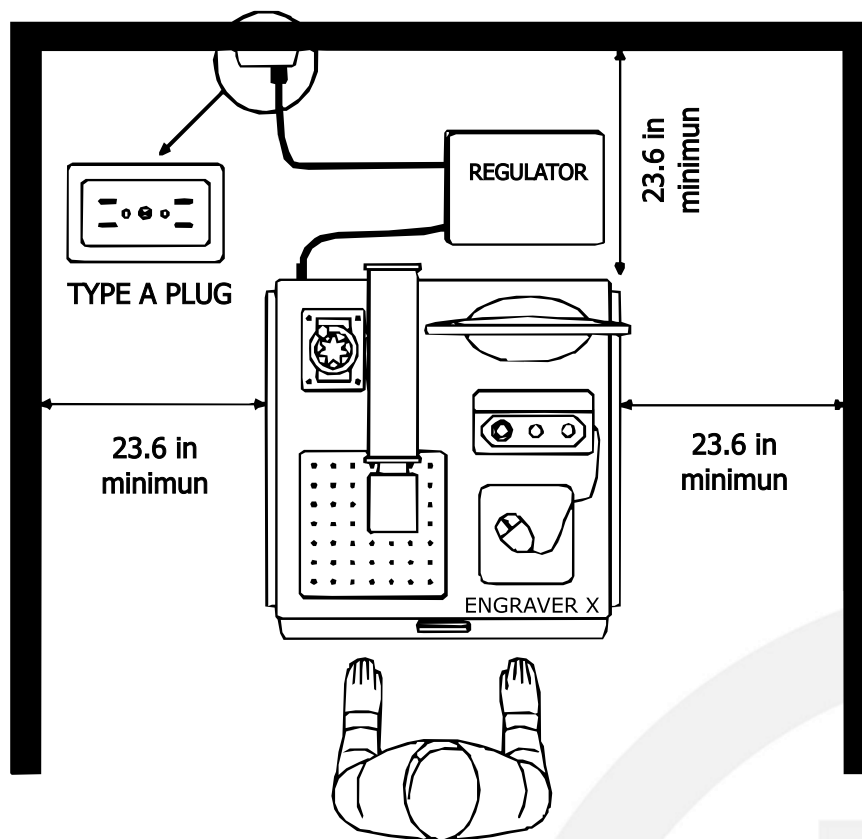
SPECIFICATION	DETAIL
Model	FORZA Engraver X – E3030Pxx
Laser type / Laser technology	Fiber laser 1064nm – 1085nm
Nominal fiber laser power	30W or 50W
Fiber laser power range	5 to 100%
Output power stability	± 0.5W
Laser source protection level	IP54
Laser source model	30W MAX PHOTONICS 50W MAX PHOTONICS
Working modes	GRABADO / DELINEADO
Engraving depth per pass ⁽¹⁾	≤ 0.02in 1mm
Engraving accuracy ⁽²⁾	± 0.006in 0.15mm
Nominal working area	4.3 x 4.3 in 110 x 110 mm ⁽³⁾ 11.8 x 11.8 in 300 x 300 mm ⁽⁴⁾
Maximum engraving speed	157in/s 4000mm/s
Laser motion system	Galvanometer mirrors
Translation motion system	Rack and pinion
Transmission system	High-strength aluminum rails

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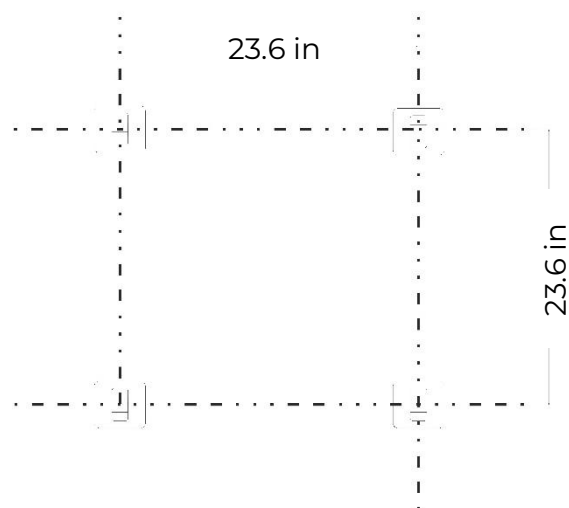
Peak machine power	1kW		
Average energy consumption ⁽⁵⁾	0.5kWh		
Operating voltage	220V 1ph 50Hz-60Hz		
Minimum line current	5.1A @ 220VAC 1ph		
Conductor wire gauge to the thermal-magnetic circuit breaker (MCCB) ⁽⁶⁾	Up to 140°F 60°C (TW, UF)	Up to 194°F 90°C (THHW, THHN)	Voltage
	3 x 14AWG	3 x 18AWG	220VAC 1ph
Recommended MCCB and grounding conductor	MCCB	PE Conductor (Copper)	Voltage
	15A	14AWG	220VAC 1ph
Required voltage regulator	5000 VA		
Compatible design formats	Vectors: AI, PLT, DXF, JPC, SVG, NC, G, GBR, BOT, DST		
	Images: BMP, JPG, JPEG, GIF, TGA, PNG, TIF, TIFF		
Communication type	USB 3.0		
Software used	EZCAD		
Control interface	Integrated PC – mouse and keyboard		
Cooling method	Air-cooled		
Machine weight	~154lb ~70kg		
Machine dimensions	2.4 x 2.6 x 4.9 ft 720 x 800 x 1500 mm		
Relative humidity	< 85%		
Operating temperature	50 – 104 °F 10 - 40 °C		
Certifications	CE, RoHS		

5. The average consumption is calculated based on 50% of the peak consumption, as not all components remain on during operation. The on/off interactions of systems such as servomotors and the power supply reduce this value. For calculating hourly electricity consumption, use the average consumption
6. The cable gauge sizing was done based on NEC 310-16 for maximum conductor temperatures of 140°F and 194°F, considering conduit installation. If installing cables in open air, a smaller gauge may be used upon consultation with FORZA Laser's technical department.

Required space



Support points



Applicable Materials



NOTE: The machine can engrave on a wide variety of materials except translucent ones (such as a glass or clear acrylic).

Packing list

- ☐ 1 x FORZA Engraver X Machine 
- ☐ 1 x Industrial CPU 
- ☐ 1 x PC monitor 
- ☐ 1 x Mouse and keyboard 
- ☐ 1 x Mouse Pad 
- ☐ 1 x Control Pedal 

- POWER CABLES AND TRAYS -

- ☐ 1 x Machine power cable 
- ☐ 1 x Monitor power cable 
- ☐ 1 x VGA-VGA cable 

- PERIPHERALS -

- ☐ 1 x 5kVA regulator 

- TOOLBOX -

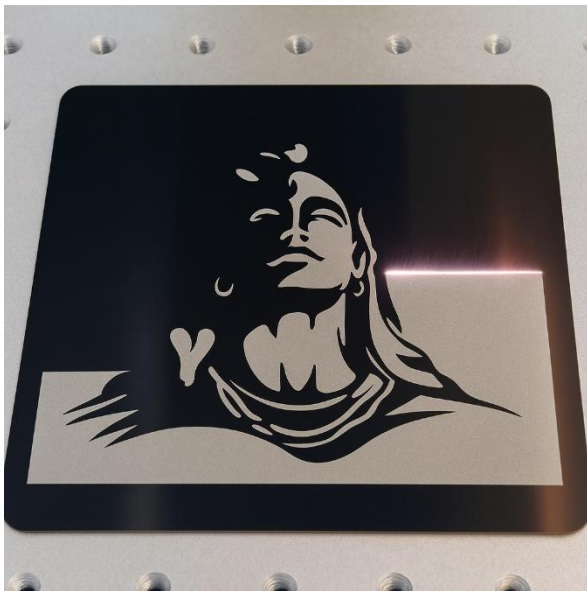
- ☐ 1 x Jaw set 
- ☐ 1 x Metal ruler 
- ☐ 4 x M6 x 20mm bolts 
- ☐ 1 x Metric Allen key set 

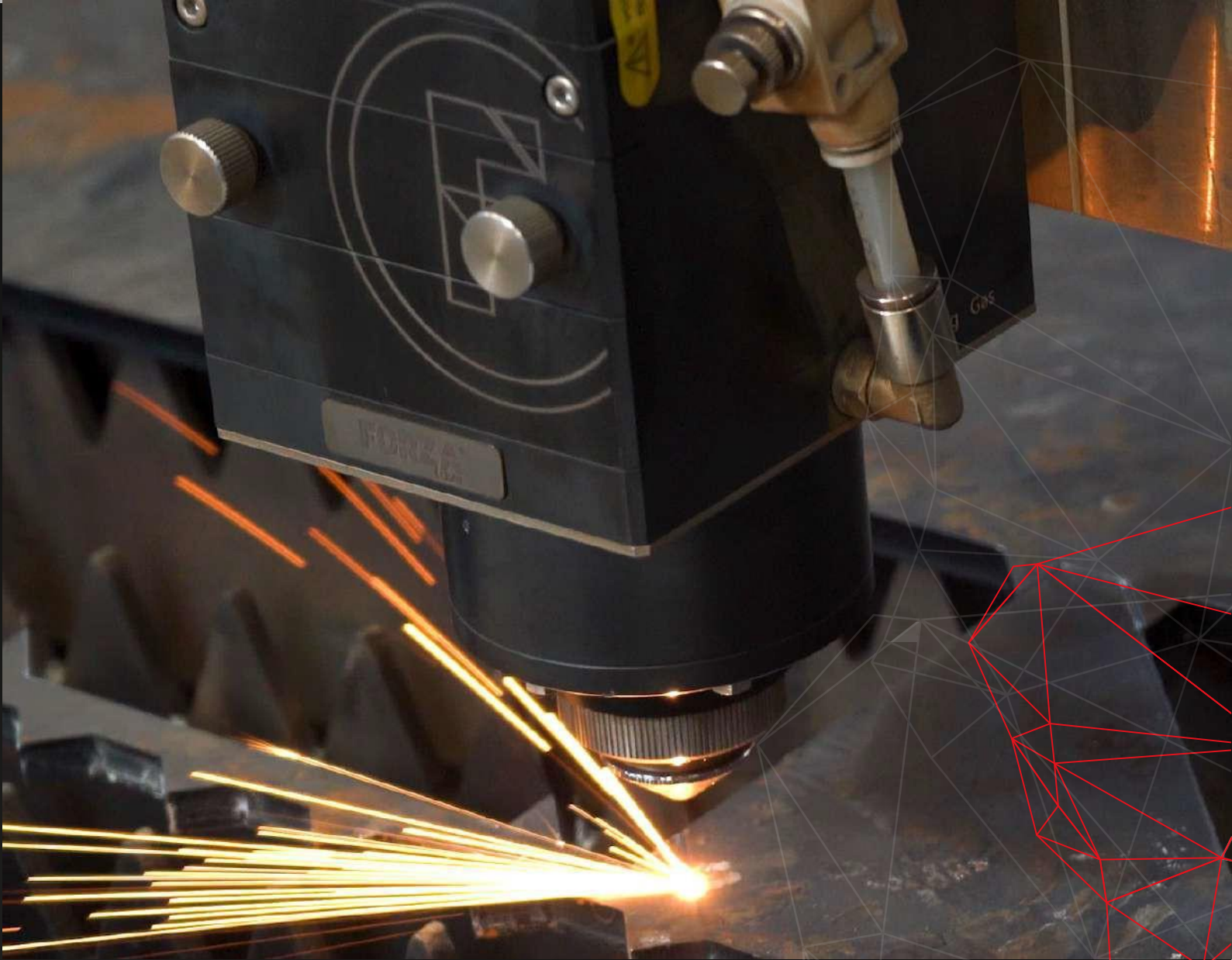
- LICENSES -

- ☐ 1 x **Software** license - lifetime
- ☐ 1 x **FORZA Vectors** license – 1 year
- ☐ 1 x **FORZA Academy** full license – 1 year
- ☐ 1 x **SOPORTE Super 7** license- 4 years

Transportation symbols:  (package),  (inside the package),  (installed on the machine).

Manufactured Parts





At FORZA Laser, laser specialists, our team has everything you need to take your business to the next level.

Find us on our social media



forzalaser.com

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Laser