


| Specification | xTool F2 Ultra |
|---|---|
| Laser type | F2 Ultra Dual Laser: 60W MOPA & 40W Diode<br>F2 Ultra Single Laser: 60W MOPA Only |
| Weight | F2 Ultra Dual Laser: 21.6kg<br>F2 Ultra Single Laser: 20.8kg |
| Processing Mode | Laser Engraving & Laser Cutting |
| Supported Materials | Stainless Steel, Brass, Aluminum, Wood, Leather, Acrylic, Paper & More |
| Max. Laser Cutting Capacity | 2mm Metal/23mm Basswood/20mm Acrylic in Multiple Passes |
| Max. Working Speed | 15,000 mm/s |
| Working Area | 220 mm × 220 mm, 220 mm × 500 mm with conveyor |
| Built-in Camera | 48 MP Dual Cameras |
| Preview Method | Smart Camera Preview |
| Accuracy | Positioning Precision: 0.2 mm, Motion Accuracy: 0.00482 mm |
| Product Size | 294 mm x 429 mm x 521 mm |
| Supported Software | Atomm & xTool Creative Space |
| Operating System | Windows & macOS |

# xTool F2 Ultra

First 60W MOPA + 40W Diode Dual Laser with AI



# The Most Powerful Dual Laser with AI

F2 Ultra is a powerful dual-laser engraver and cutter (60W MOPA + 40W Diode) — a true all-in-one solution for all materials. The 60W MOPA laser enables advanced techniques like color engraving, embossing, and thick metal cutting with precise control. 40W diode laser enables finer processing of non-metal materials and cuts thicker materials effortlessly. AI takes it further by streamlining every part of your workflow — making production faster, smarter, and more efficient.

Cut & Emboss on Metal



Color Engraving



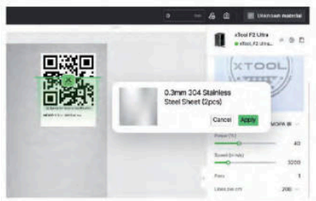
Other applications



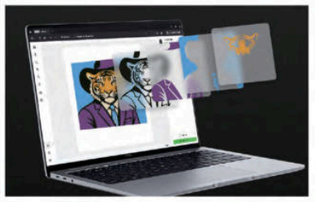

# The First AI-Powered MOPA Laser, Simplifies Laser to the Max

AI drives the entire process with one click — from material detection to parameter settings and live preview, every step is streamlined. Equipped with two 48MP cameras, F2 Ultra delivers 0.2 mm accuracy — 60% better than single-camera systems.

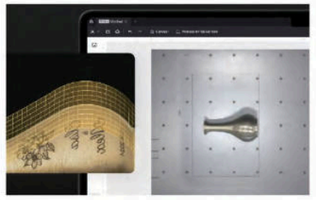



Auto-ID Materials for Best Settings



AI Color Recognition & Auto Segmentation



AI Modeling Powers 3D Engraving

# The Ultimate ROI Machine, Built for Your Business

**Faster:**

15,000 mm/s engraving speed for higher output.

**Larger:**

220×500 mm conveyor workspace for large projects.

**Smarter:**

Batch processing for industrial-grade efficiency.

**Safer:**

Fully enclosed with filtration for clean, worry-free use.





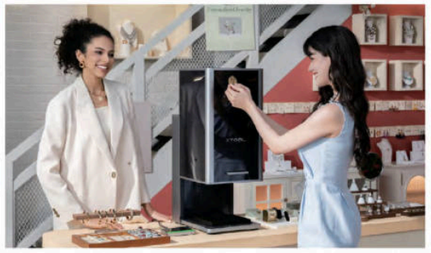

**120 pcs/hour**
Wooden Keychain



**180 pcs/hour**
Glass Perfume Bottle




**12 pcs/hour**
Metal Necklace



**Jewelry Maker**

Create stunning jewelry with deep metal engraving, embossing, and metal cutting



**Shop Owner**

Easily personalize all materials with safe, enclosed design and friendly controls.



**Craft Seller**

15,000 mm/s batch engraving with conveyor in a safe, enclosed design.




**Metalworker**

60W MOPA can easily achieve vibrant color engraving, true black marking, 3D embossing, and cut thicker metals. It only takes 6 minutes to cut a 1 mm brass name necklace.