

XTOOL

xTool F2 Ultra

The 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.



One Powerful Machine Does It All

F2 Ultra is the ultimate dual laser for any material. It's built for powerful metalwork—perfect for color engraving, deep carving, relief, and cutting. It also handles wood, acrylic, glass, and more with high precision.

AI-Powered. Simple. Safe

Powered by AI and dual 48MP cameras, F2 Ultra is easy, efficient, and safe to use. It auto-detects materials and sets the best parameters for you. With a fully enclosed, smoke-free system, anyone can operate it with ease.

The Ultimate ROI Machine

With 15,000 mm/s speed and Auto Streamline™ Production, F2 Ultra streamlines batch work with an 8.6" × 19.6" conveyor workspace — ideal for industrial-grade output. Built for metal and jewelry creators, studios, and sellers ready to scale.

Specifications

| Type | Details | |
|-----------------------------|--|--------------------------------------|
| Laser type | F2 Ultra Dual Laser: 60W MOPA & 40W Diode | F2 Ultra Single Laser: 60W MOPA Only |
| Weight | F2 Ultra Dual Laser: 21.6kg | 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 | |