

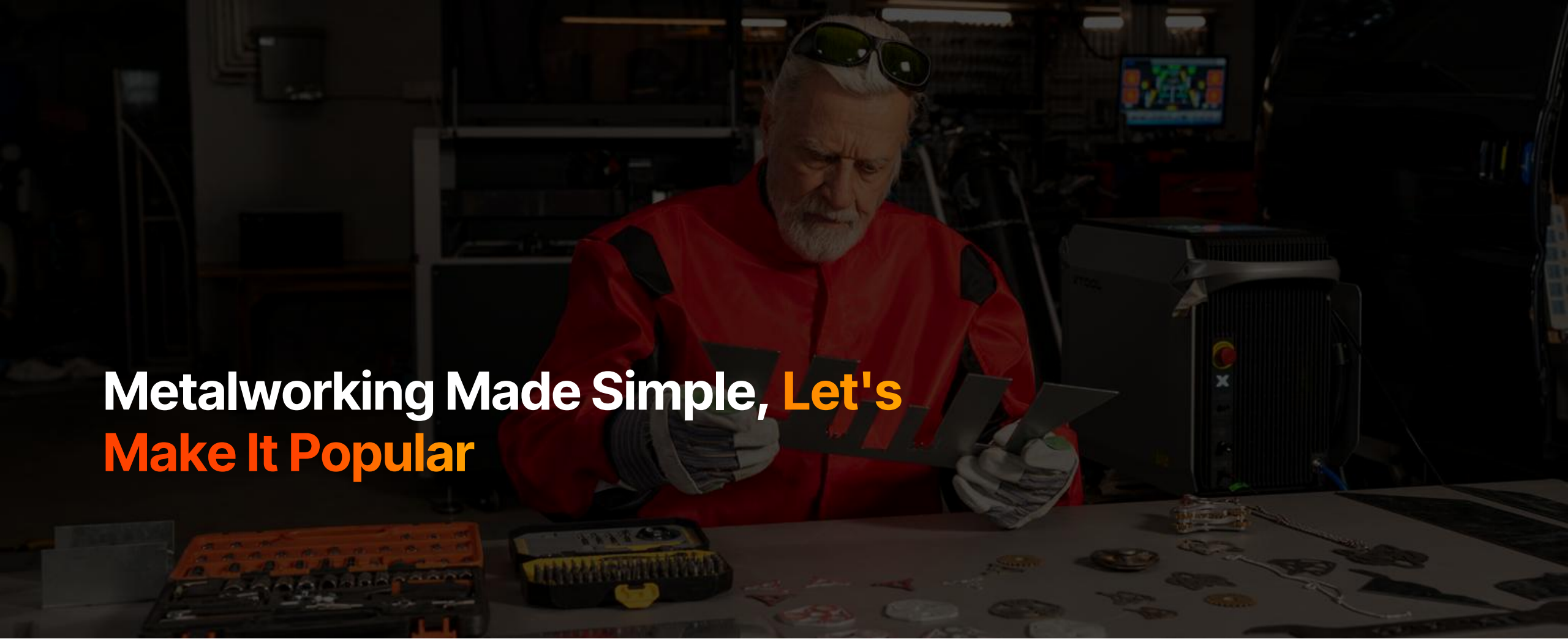
xTool MetalFab

Your All-in-One Metal Workshop: Cut, Weld, Clean, and Engrave.



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- 2** Key Features
- 3** TCO & ROI Analysis
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A man with a white beard and sunglasses on his head, wearing a red protective suit and gloves, is working on a metal project in a workshop. He is holding a piece of metal and looking at it intently. The workshop is filled with various tools and equipment, including a large industrial machine on the right and a workbench with many small metal parts in the foreground.

Metalworking Made Simple, **Let's** **Make It Popular**

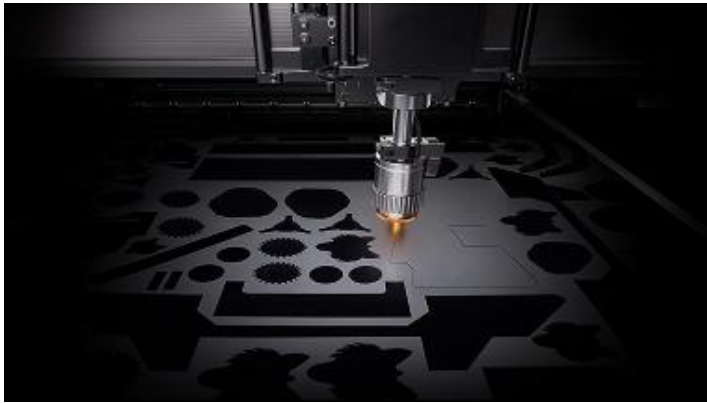
Metalworking used to be daunting—complex tools that stifle creativity, unfriendly to beginners, and prohibitively expensive.

With Tool MetalFab, that changes. Industrial power meets garage simplicity. Weld and cut with pro-level precision from Day 1. No jargon. No frustration. Just pure, limitless creativity.

Together, let's turn metalworking into the next woodworking—accessible, inspiring, and completely yours.

Wide Applications

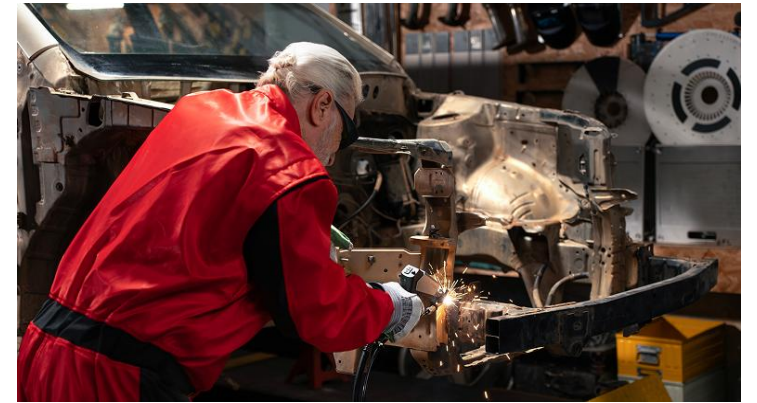
Sheet Metal Fabrication



Custom Sign Making



Repair and Maintenance



Wide Applications

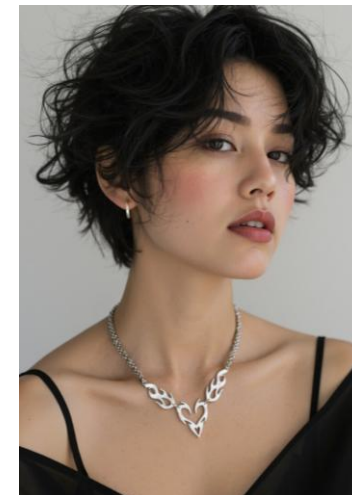
Home Decor & Furniture



Metal Arts & Sculpture



Jewelry Making



Key Features

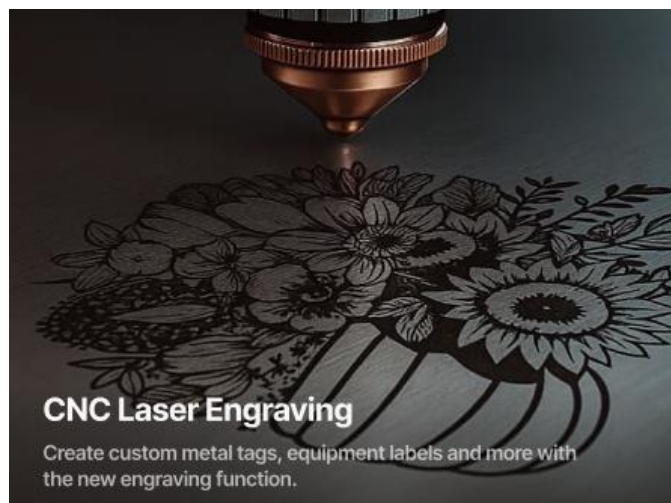
- All-in-One Metal Workshop: Cut, Weld, Clean, Engrave
- Industrial-Grade Technology: Weld Perfectly, Cut Precisely
- Dual-Camera: Accurate Cutting, Saving Your Metal
- Exclusive SaveGas™ Solution Cuts Your Cost Down
- Powerful Software Makes Creating Effortless
- Highest Safety Standards with 10 Features



All-in-One Metal Workshop

The xTool MetalFab Laser Welder combines welding, cutting, and cleaning functions in one device. When paired with the xTool MetalFab CNC Cutter, it offers CNC cutting, cleaning, and engraving functions. This all-in-one solution is designed to meet all your metal fabrication needs with ease and efficiency.

Only applicable to non highly-reflective metals like stainless steel, carbon steel, galvanized sheet, anodized aluminum, etc. Not for brass, copper, silver, etc.

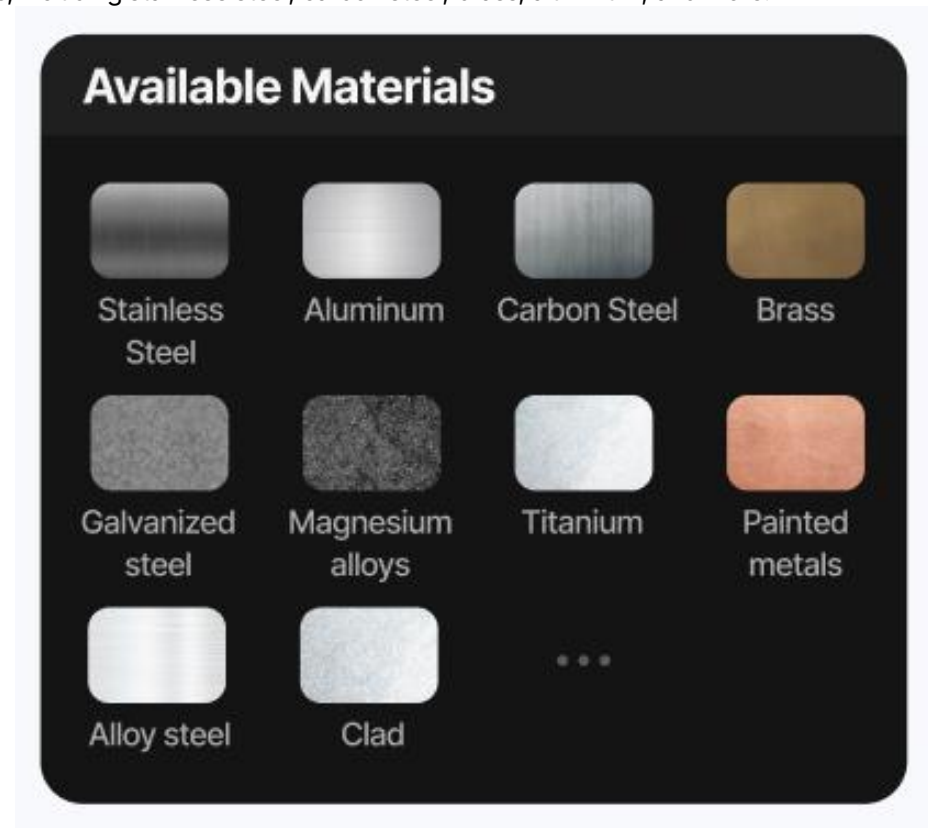


Cut. Weld. Stunning Metalwork in One Seamless Workflow



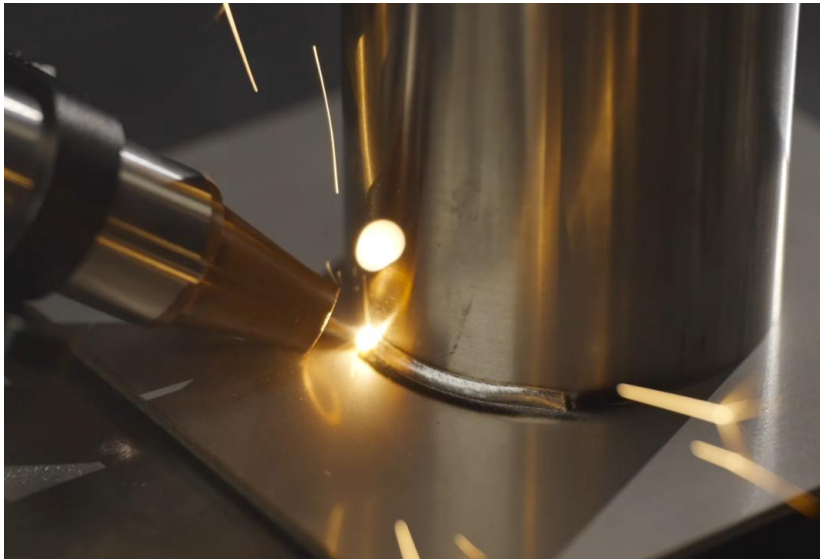
Industrial-Grade Technology Weld Perfectly, Cut Precisely

The xTool MetalFab features **industrial-grade Coherent chips** that efficiently convert electrical energy into a powerful 1200W, 1080nm fiber laser beam. With dynamic galvo-mirror oscillation technology, it ensures stable and precise cutting and welding. It is suitable for various metal materials, including stainless steel, carbon steel, brass, aluminum, and more.



Master Every Weld, No Matter the Metal, Thickness, or Joint Type

Fiber laser technology minimizes heat-affected zones to ≤ 0.002 inches (0.05mm), enabling precise welding of thin metals without distortion. Its high-energy output ensures rapid metal melting, allowing **single-pass welding for materials up to 0.2 inches (5mm) thick**. This technology produces deep and narrow welds, regardless of the metal or joint type, delivering consistent and reliable welding quality.

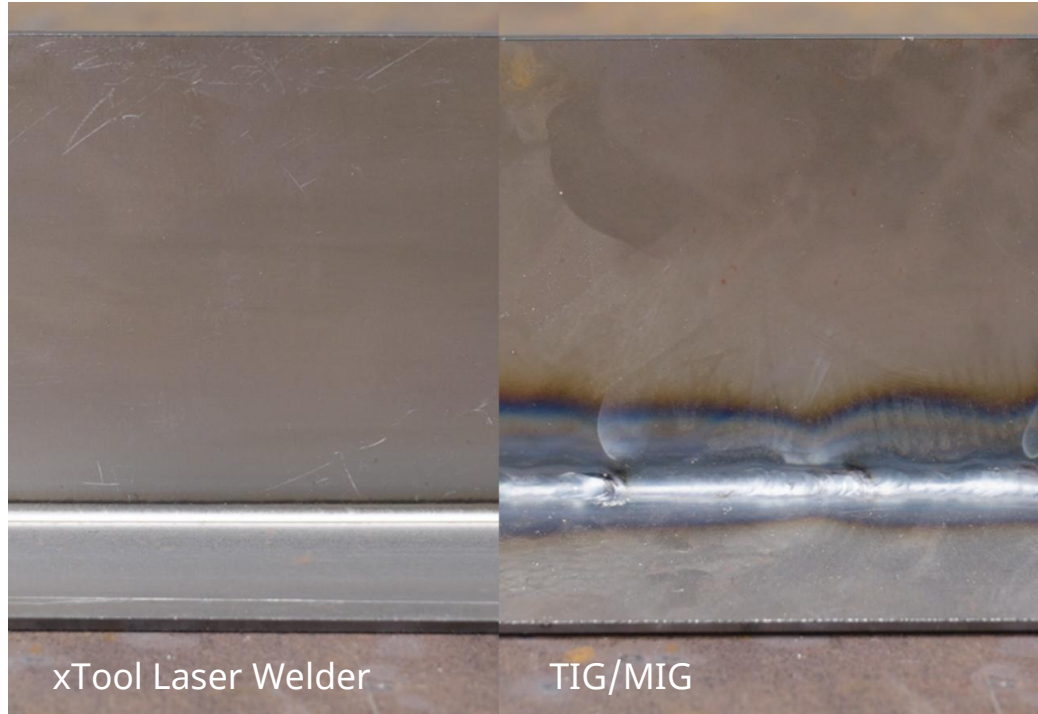


xTool MetalFab vs. Traditional TIG/MIG:

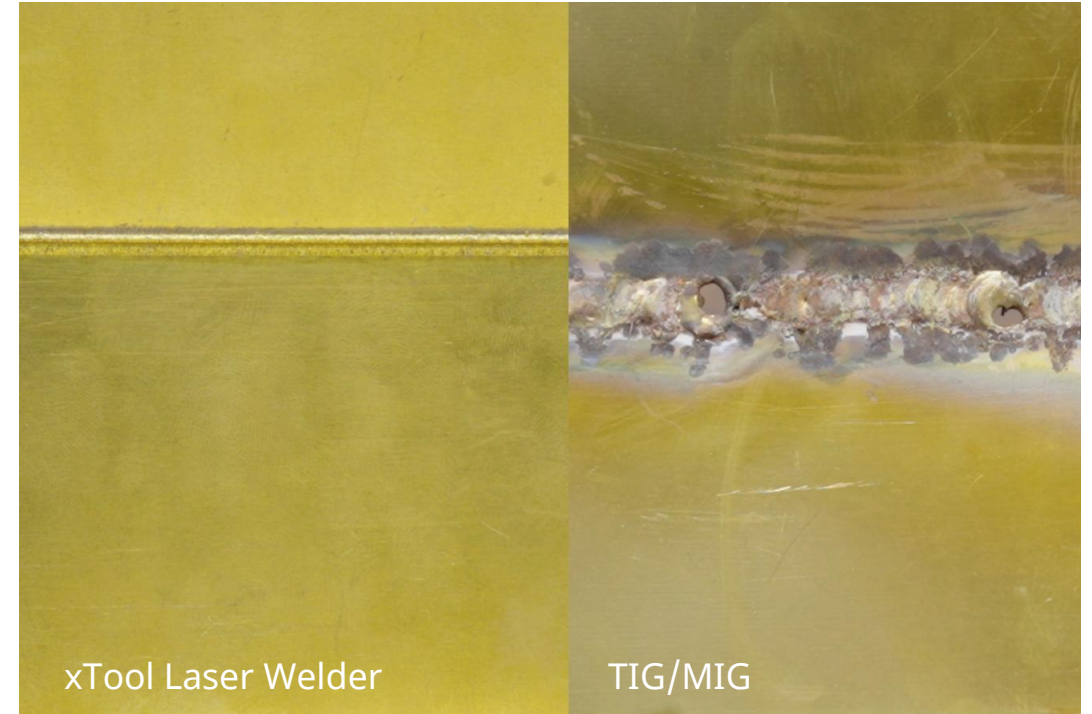
- **Easier to Use**
- **Faster Speed**
- **Better Results**

	 xTool Laser Welding	 Traditional Welding (TIG/MIG)
Learning Curve	Master in 30 mins Beginner Friendly	Master in 3 months Experience Required
Welding Speed	4-8X Faster than TIG/MIG	Low Welding Speed
Welding Seams	Perfect, Smooth Seams No Grinding Required	Imperfect, Ugly Seams Heavy Post-processing Required
Thin Metal Welding	Perfect, Min. 0.05 mm HAZ Almost No Deformation	Failed, 1-10 mm HAZ Obvious Deformation
Wire Feeding Method	Auto Wire Feeding Just Follow the Torch	Manually Wire Feeding Speed Adjustment Required
Welding Settings	108+ Ready-to-use Presets No Tests Required	Current Adjustment Required Repeated Tests

Actual Welding Results Comparison



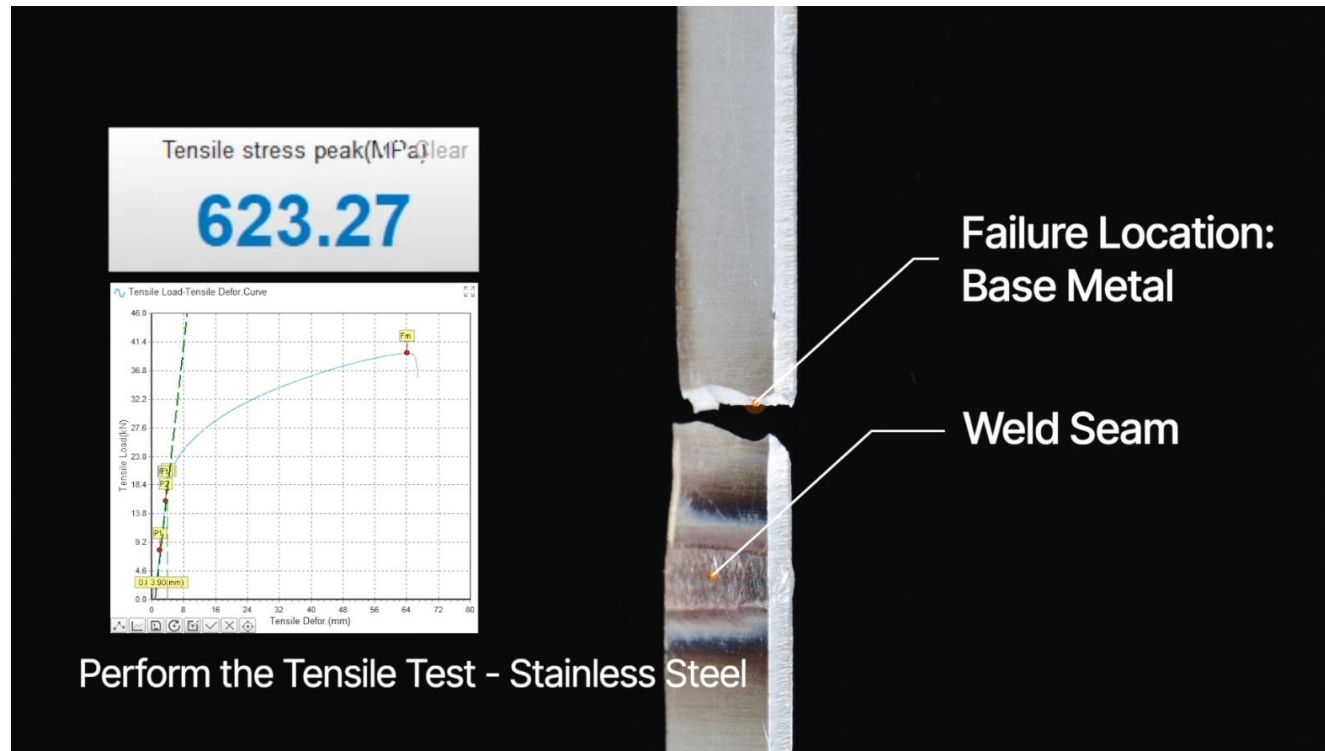
2mm Carbon Steel Welding



1mm Brass Welding

SGS-certified Welding Quality You Can Trust

xTool MetalFab delivers reliable welding performance, verified through rigorous tests conducted to industry standards. All tests were performed in the xTool Lab, with results certified by SGS — a globally recognized authority in testing and certification. So never worry about laser welding quality as they can achieve welds **even stronger than traditional MIG or TIG**.



2. Tensile Test

Test Method: ISO 15614-1:2017+A1:2019

Specimen	Width× Thickness (mm)	Maximum force (kN)	Tensile strength (MPa)	Fracture location	Requirement (MPa)	Con.
001	24.98×4.94	76.85	623	Weld	≥540	Pass

Note: 1. The requirement is to refer to EN 10088-2:2024 type 1.4301 product form C.
2. The results comply with the requirement of ISO 15614-1:2017+A1:2019 chapter 7.4.1.

*This Inspection Report is Provided by SGS.

4. Macroscopic examination of welds:

Test Method: ISO 15614-1:2017+A1:2019

Macroscopic etchant: FeCl₃ + HCl + H₂O

Results:

Macro-examination	Cracks	Lack of fusion	Excess penetration	Excess weld metal	Others	Con.
Without etching	()	()	()	()	()	Pass
With etching	()	()	0.98mm	()	()	Pass
Req.	Not permitted	Not permitted	≤2.35mm	≤1.45mm	Required	-

Note: 1. The symbol () means the kind of defect wasn't found in welding zone, while the symbol X means the kind of defect exist in welding zone.
2. The results comply with the requirement of ISO 15614-1:2017+A1:2019 level 2.

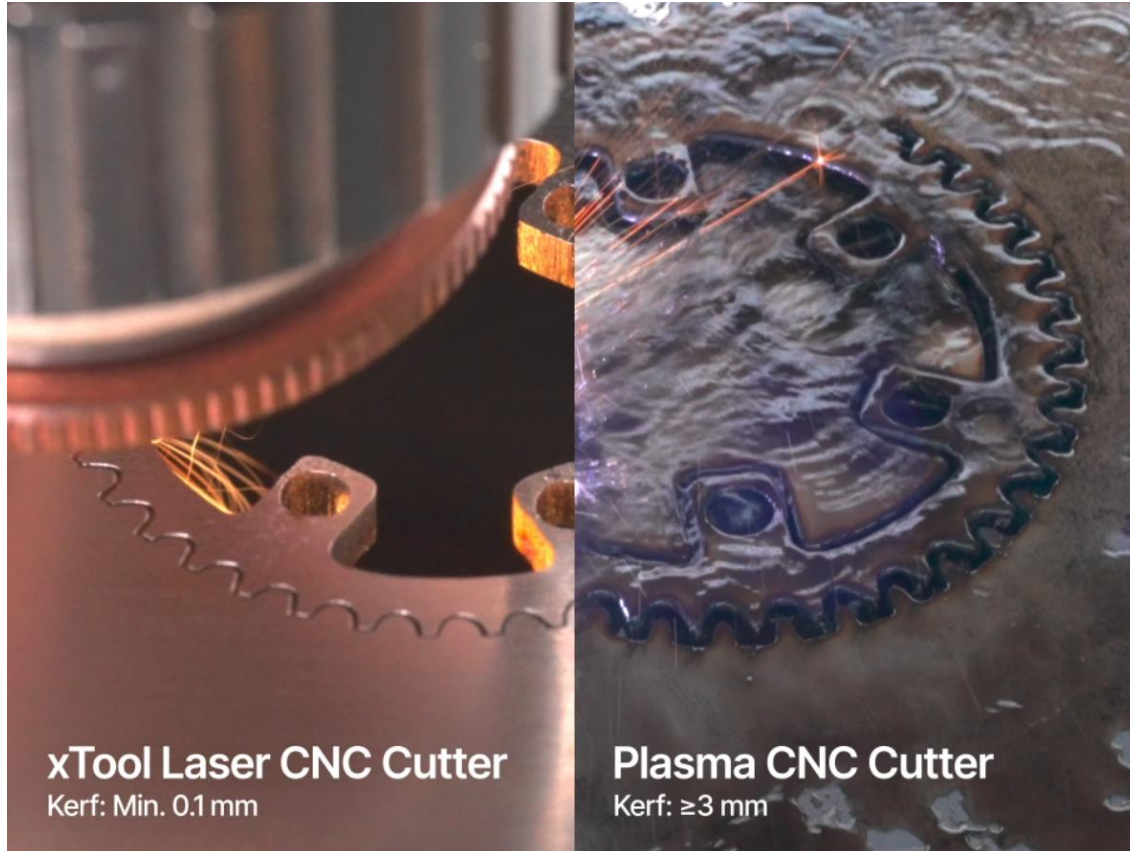
*This Inspection Report is Provided by SGS.

From 0.008" to 0.39" Thickness, Every Cut is Smooth, Clean, and Flawless

The 1200W high-energy fiber laser effortlessly **cuts carbon steel up to 0.39 inches (10mm) thick** in a single pass. With its minimal heat-affected zone and high laser power, it ensures precise cutting results, delivering smooth, clean surfaces while effectively preventing deformation in thin metals. This significantly reduces the need for post-processing.

CNC Burr-free Cutting Thickness	With 1200w welder	With 800W welder
Stainless Steel	0.008-0.2 in (0.2-5 mm)	0.008-0.16 in (0.2-4 mm)
Carbon Steel	0.008-0.39 in (0.2-10 mm)	0.008-0.31 in (0.2-8 mm)
Galvanized Sheet	0.008-0.39 in (0.2-10 mm)	0.008-0.31 in (0.2-8 mm)
Aluminum	0.008-0.16 in (0.2-4 mm)	0.008-0.12 in (0.2-3 mm)
Brass	0.008-0.12 in (0.2-3 mm)	0.008-0.08 in (0.2-2 mm)
Titanium	0.008-0.2 in (0.2-5 mm)	0.008-0.08 in (0.2-2 mm)

Precision You Can See, Ultra-Fine in **Every Detail**



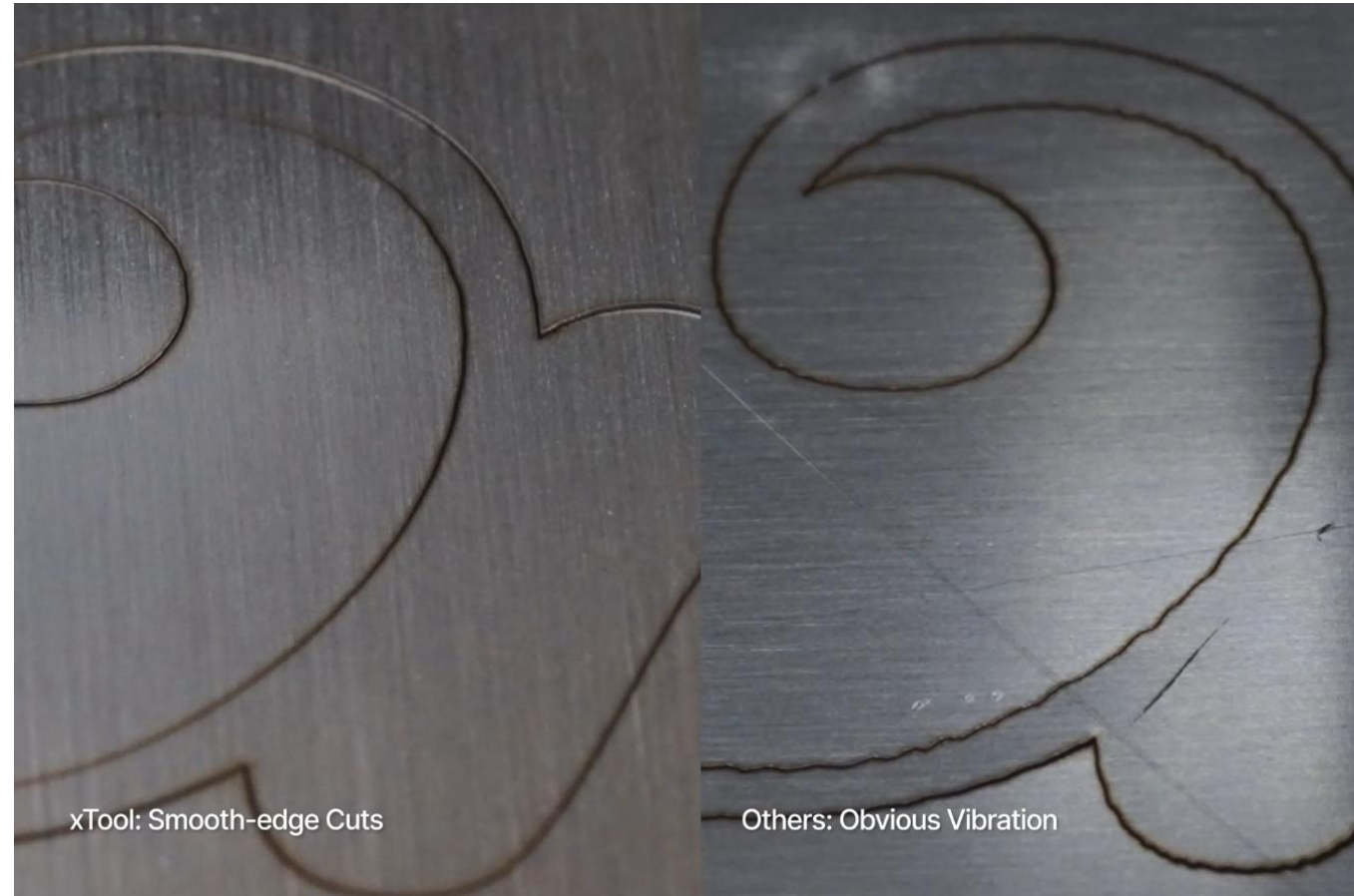
Industrial-grade Technologies

The secret behind precision cutting lies in the exclusive VibeFreeCut™, FlexiTrack™, and ObstacleFree™ technologies, designed to work together to deliver unmatched precision, making every cut flawlessly accurate and effortlessly smooth.

VibeFreeCut™ integrates advanced motion control algorithms with system recognition technology to eliminate vibrations in real time, ensuring unparalleled stability and precision.

FlexiTrack™ continuously checks the distance between the laser head and the metal surface in real time, automatically adjusting the Z-axis to maintain accurate focus, ensuring precise cuts and smooth results every time.

ObstacleFree™ features a proprietary path-avoidance algorithm that intelligently bypasses potential obstacles, ensuring continuous operation and equipment safety.



Compressing Project Time from One Week to One Hour—**Super Fast**

2.5 hrs

Step 1: 135 mins (CNC Cutter)

Step 2: 15 mins (Laser Welder)



Laser technology enables fast, precise cutting and welding with high energy and stability, minimizing defects and reducing rework. Featuring a minimal Heat-Affected Zone (HAZ) of ≤ 0.002 (0.05mm) inches, it prevents overheating and eliminates extended cooling times, significantly improving efficiency.

15.75 ips
Cutting Speed

8X Faster
Welding Speed than TIG

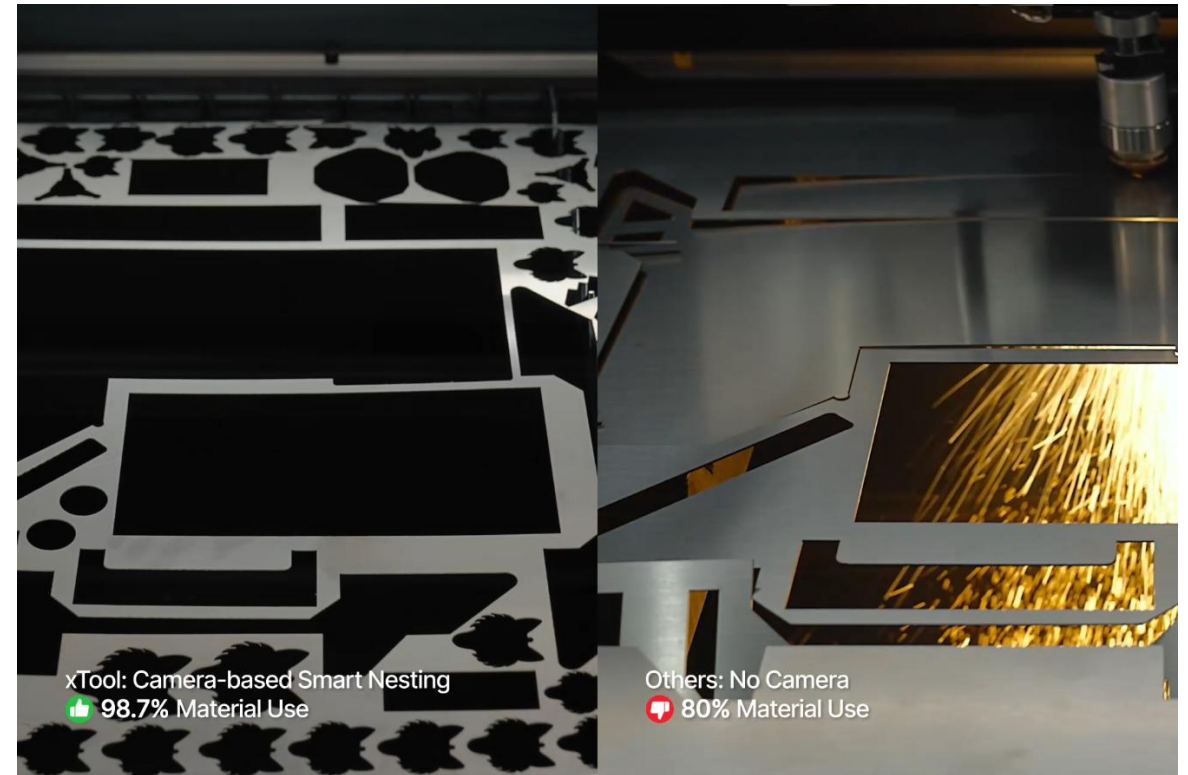
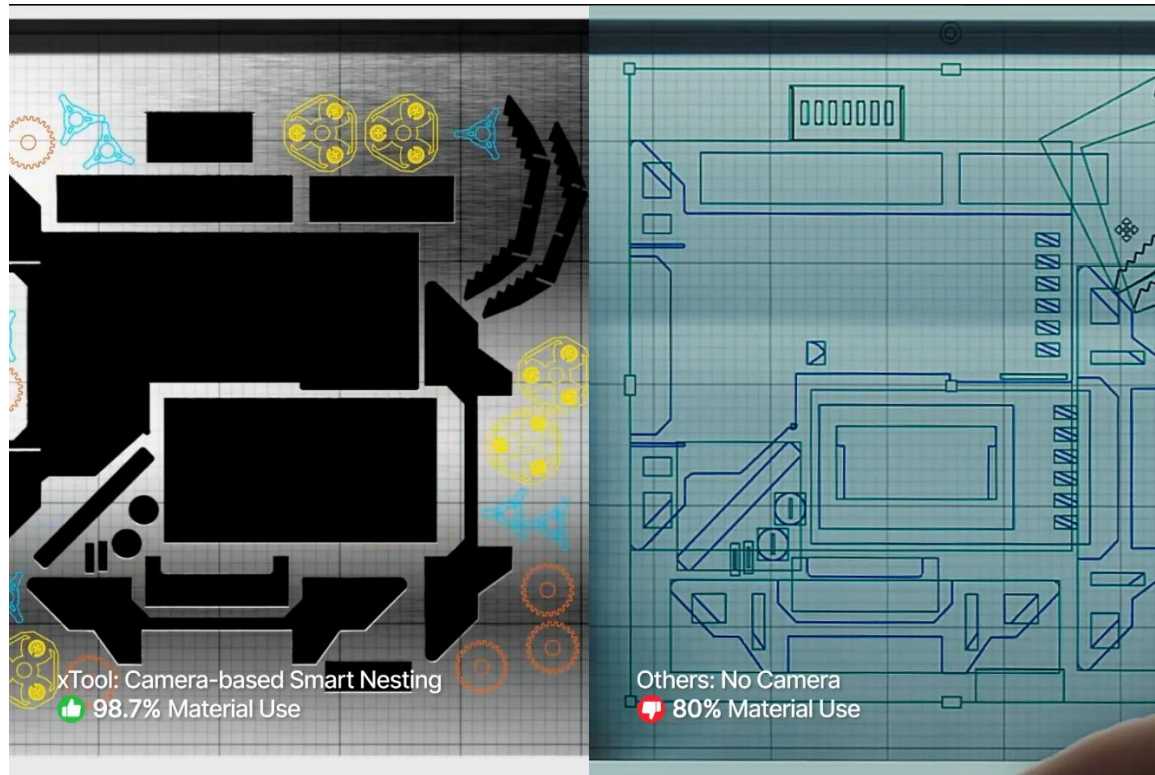
Ultra-Low
Rework
Rate

Zero Cooling
Wait Time

Dual-Camera: Accurate Cutting, Saving Your Metal

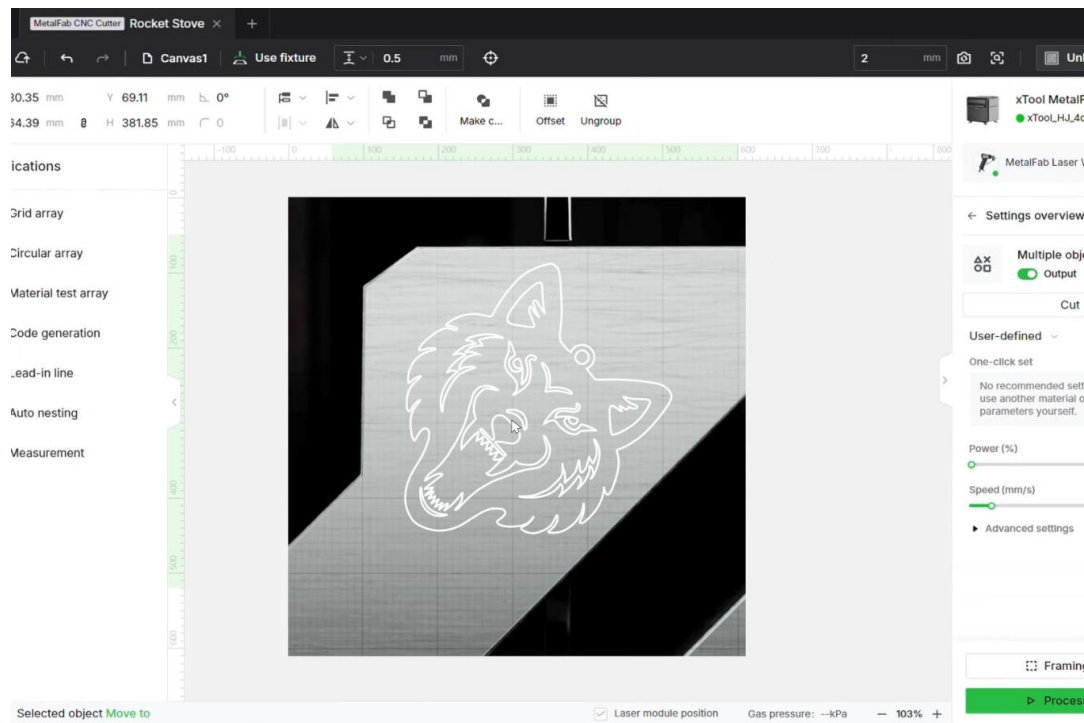
One-Click Smart Layout Optimization: Save More, Waste Less

Equipped with a **16MP panoramic camera** and **AI algorithms**, the system analyzes materials and generates optimal cutting layouts with one click, achieving a 98.7% material utilization rate.



Ultra-Accurate Cutting for Small Objects

The **close-range camera** ensures precise positioning with a **center deviation of less than 0.008 inches (0.2mm)**, delivering exceptional accuracy and reliability—perfectly suited for even the smallest objects.



SaveGas™ Solution: Cut Your Gas Costs Down

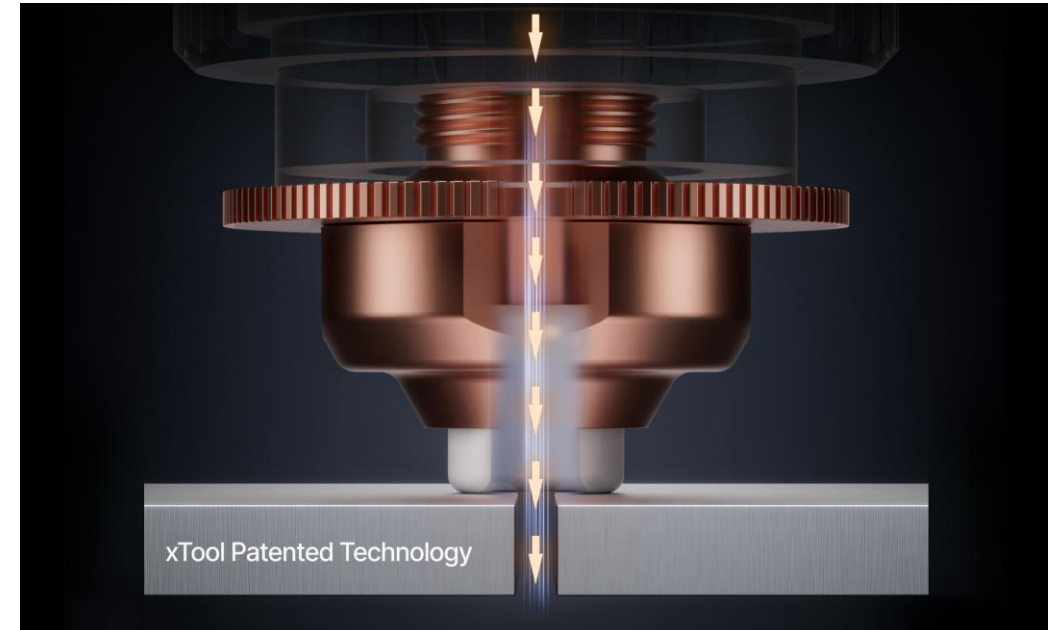
xTool Selected Air Compressor & Air Dryer

The most cost-efficient gas solution for metal cutting: Provides stable, clean, free air over 0.6MPa to ensure burr-free cutting.



xTool Self-developed SaveGas™ Cutting Nozzle

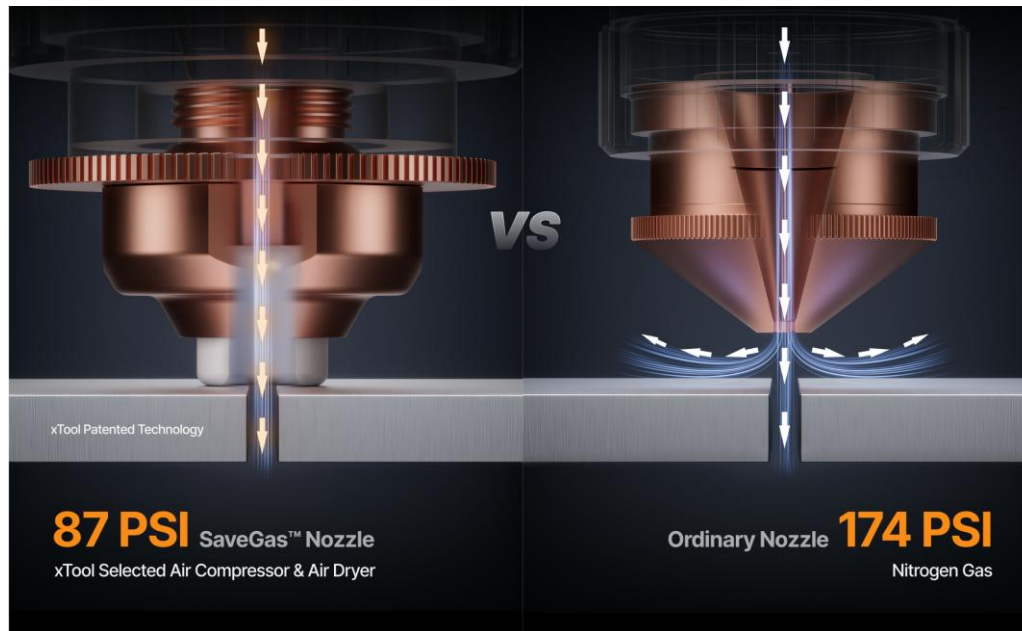
Featuring a unique telescopic design that minimizes gas leakage and concentrates airflow for precise cuts.



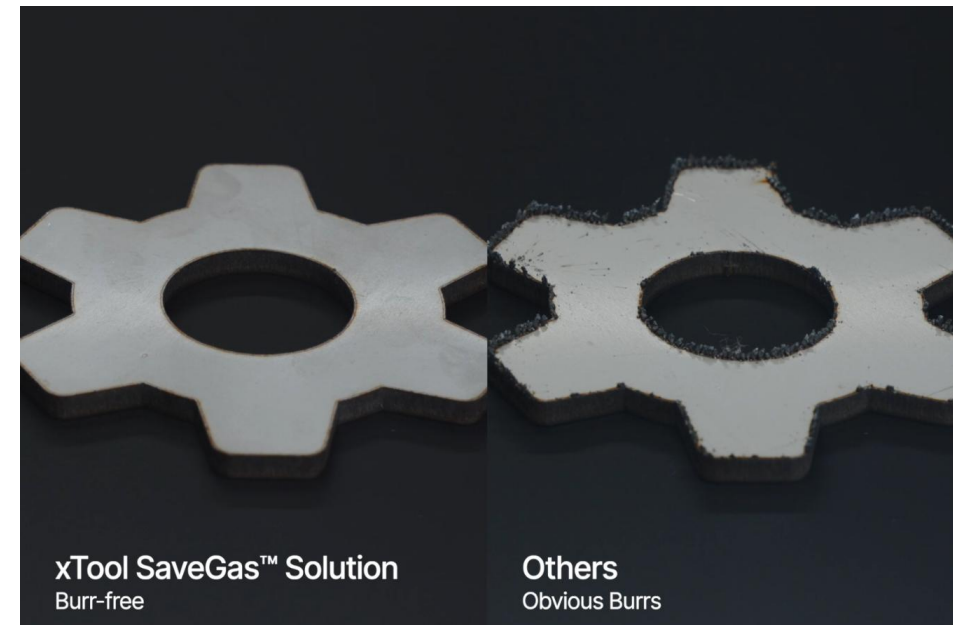
SaveGas™ Solution: Cut Your Gas Costs Down

Our proprietary SaveGas™ Solution combines the SaveGas™ nozzle with the xTool-selected air compressor and dryer, designed to maximize cutting efficiency. When cutting 0.16 inches (4 mm) stainless steel to a burr-free finish, xTool accessories require only 87 PSI (0.6 MPa)—saving up to 50% in gas compared to nitrogen cutting at 174 PSI (1.2 MPa).

Half Pressure, Same Results



0.6 MPa Burr-free Cutting Marvel



Save \$20, 000+ /year than Gas Cylinders

A single 40L nitrogen cylinder lasts just 30 minutes, costing over \$20K annually for continuous metal cutting. So why not switch to xTool SaveGas™ solution and stop wasting money on gas tanks?

No more nitrogen, argon or oxygen refills. Invest once, cut forever.

xTool SaveGas™ Solution **Best Value**

≈\$1,000 / year

 \$1,700 machine investment

 Free Air

 Continuous application

 \$1.5 electricity per day

Nitrogen Cylinders

≈\$21,000 / year

\$100 40L Nitrogen cylinder

Expensive Nitrogen

40L lasts for 30min @174 PSI

\$96 Nitrogen per day

Industrial Compressed Air System

≈\$4,000 / year

\$7,000 machine investment

Free Air

Continuous application

\$4.5 electricity per day

Calculation method: 4-hour processing per day, 248-day processing per year. The cost of nitrogen gas charging is calculated at \$0.30 per liter. The actual usage duration and costs vary by region.

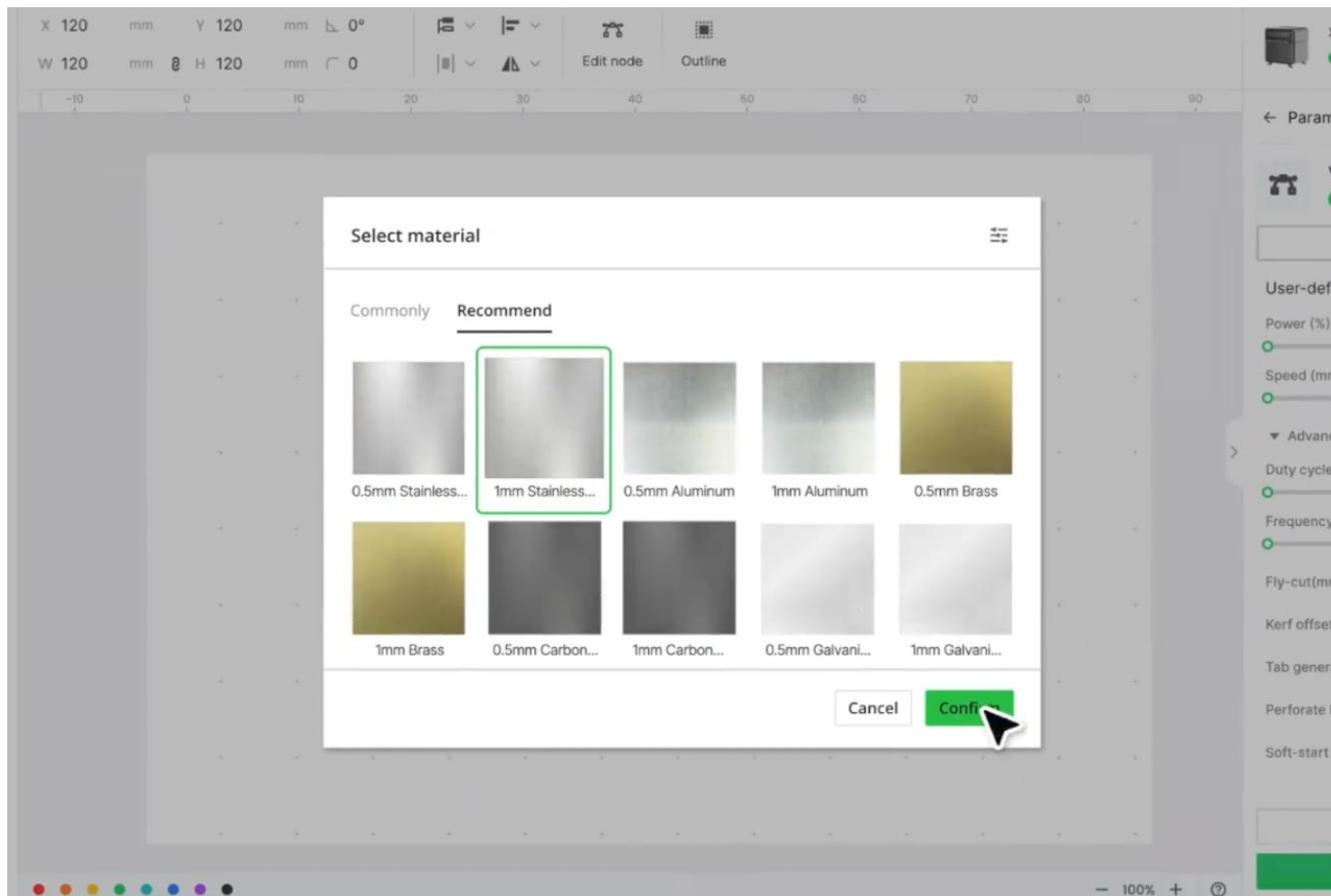
Powerful Software Makes Creating Effortless

One-Click Parameter Setup, No Material Testing Required

No more wasting time testing parameters or wasting materials! Simply select the corresponding material in the software, and apply it instantly with just one click.



Download xTool Software

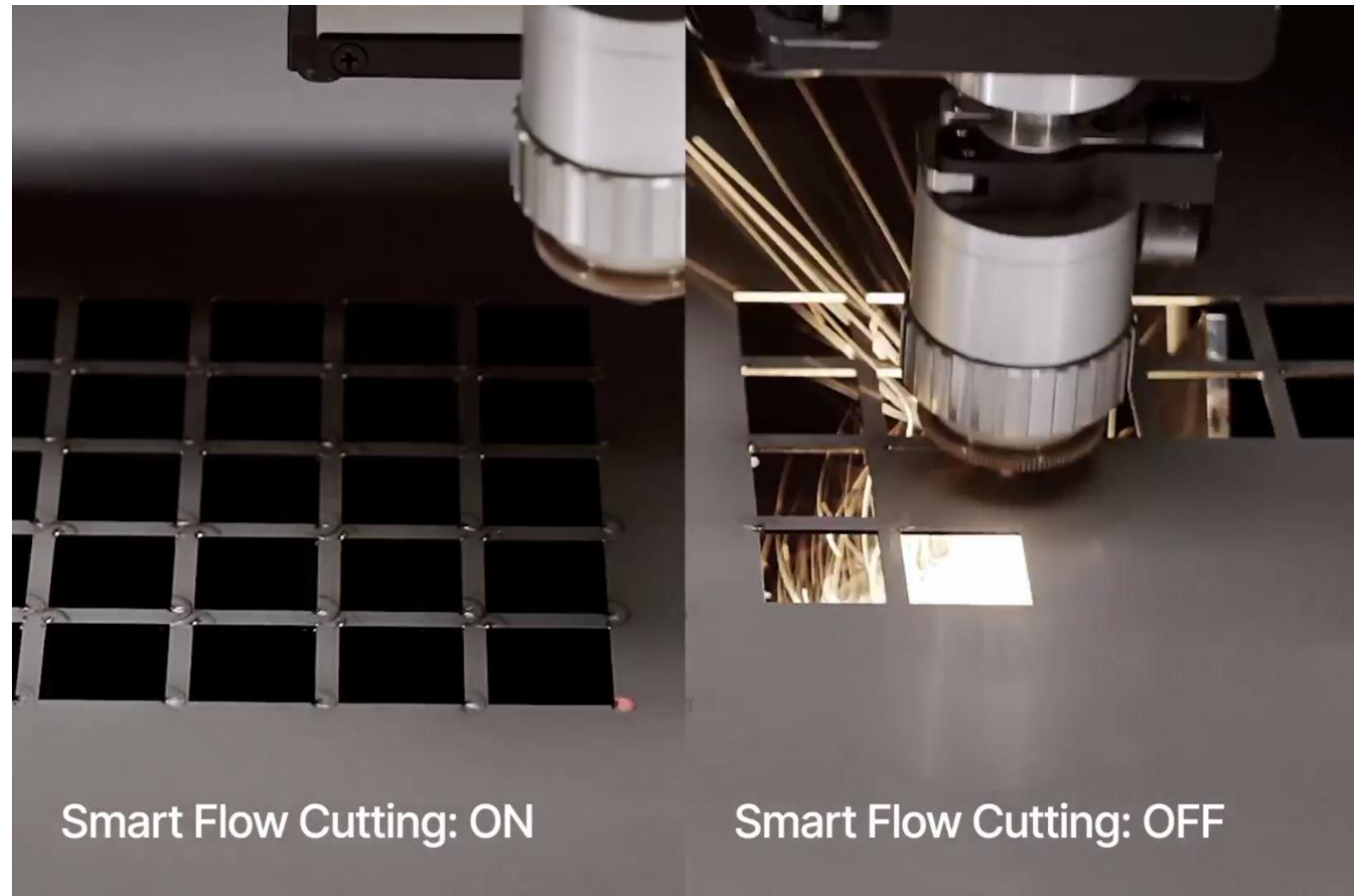


One-Click Smart Flow Cutting: Up to 50% Faster Cuts

When cutting multiple regular shapes (such as rectangles or circles), the Smart Flow Cutting mode connects line segments in the same direction for continuous cutting. By minimizing redundant movements, it increases efficiency by 50% and significantly enhances productivity.



Download xTool Software



Create Laser-Ready Designs in Just Seconds with **Almake**

No more struggling with AI using complex prompts—just state your needs in one sentence, and Almake generates precise, ready-to-use designs in seconds!



Download xTool Software

Choose Style

Vector

3D engraving

Logo

Text & graphics

Monochrome

Blade cutting

Typography

Colorful printing

Screen printing



Photo to Line Art
(Outline only)



Popular

Photo to Line Art



Photo to
Papercut Decor



Photo to Minimal
Line Decor



Photo to Stitch
Art



Popular

Photo to Kawaii
Stickers



Photo to Van
Gogh Painting



Photo to Retro
Chalk Sketch

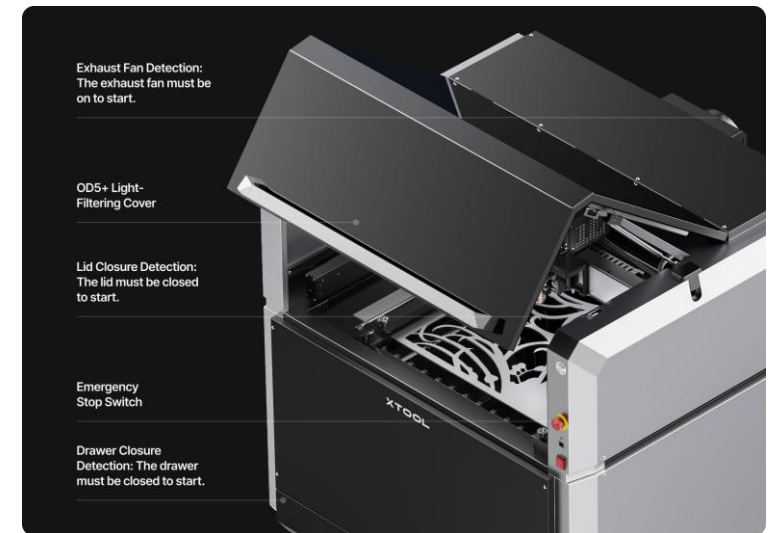
Control Everything With Just **One Touch**. It's That Simple.

8-inch smart touchscreen with an intuitive interface for effortless operation. Preloaded with 108 material parameters, ready to use instantly. Easily switch between three welding modes with a single click, and fine-tune parameters with precision. Save custom settings and access them effortlessly with just one tap.



Highest Safety Standards with 10 Features

The xTool Metalfab are certified with CE, FCC, and FDA approvals, meeting rigorous safety and quality standards. These certifications provide peace of mind, allowing you to tackle your welding tasks with confidence and dependability. Enjoy professional-grade protection that lets you concentrate on creativity and performance, free from safety concerns.



LASER DIODES BY
COHERENT



CE

FDA

FC

ICES

SGS

TCO: What Do You Need to Invest in?

Machine Purchase: Starts from \$5999



800w welder: \$5999



1200w welder: \$7999



800w combo: \$13999



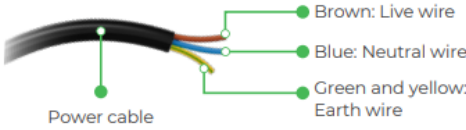
1200w combo: \$15999

*The costs of electricity setup may vary from regions.

Electricity Setup: About \$300-\$500

xTool MetalFab laser welder can work with the voltage of 200-240v, operating at full power of 4200W, the max. current is 21A. It is recommended to set an independent circuit of 220V-25A or higher.

For US or CA, we provide a NEMA6-50p or NEMAL6-30 plug, for others, we provide power cables, so an electrician is required to install the correct circuit.

US standard 	■ Use a NEMA6-50R outlet
Other standards 	Choose one of the following methods: ■ Use a 32 A CEE industrial socket (blue, IP44 or higher) ■ Use the hardwiring method  Do not connect the device to a 16 A domestic circuit, as it may cause overload tripping or cable overheating.

TCO: What Do You Need to Invest in?

Gas Equipment: Vary from Materials and Processing Modes

	or					
xTool Air System: \$1698		Industrial system: \$3000+	99.99% N2/Ar (Must): \$100-\$200/40L	Flow Valve (Must): About \$30	Pressure Valve (Optional): About \$30	99.99% O2 (Optional): \$100-\$200/40L

*Please refer to the appendix I for detailed gas suggestions. The price of gas may vary from regions.

*xTool MetalFab comes with the gas hose with an OD 10mm so adapters will be needed if your gas cylinders or hoses come with different diameters.

*Please choose the valve according to processing modes: For cutting with oxygen, the gas pressure should be at 0.05-0.06 MPa; for cutting with nitrogen or argon, the pressure should be over 1.2MPa; for welding, the gas flow should be at 15-30L/min or 0.1MPa-0.2MPa.

*Gas cylinder consuming speed reference: A 40L nitrogen cylinder can last for about 30min continuous cutting at 1.2MPa pressure with ordinary cutting nozzle. Actual consuming speed may vary from use, nozzle, and pressure.

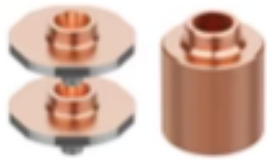
TCO : What Do You Need to Invest in?

Consumables: Vary from Frequency

Necessary Equipment



Protection Lens:
\$99/10 pcs



Double-layer Set:
\$99



SaveGas™ Nozzle
Set: \$99



Ordinary Nozzle Set:
\$69/10 pcs



Laser Welding
Helmet: \$109.99



Welding Table:
About \$150



Laser Welding
Goggles: \$29.99



MaxClean™ Lens:
\$119/5 pcs



CNC Cutter Slats:
\$119/5 pcs



CNC Cutter Slats:
\$119/5 pcs



Welding Nozzle Set:
\$69



Laser Welding
Gloves: \$14.99



AP2 Max Air Purifier:
\$2499

*Please refer to the appendix II for lifespans of different accessories.

*The costs for metal pieces may vary from using frequency and purchasing channels.

*For your health, we highly recommend to use the AP2 Max air purifier with the CNC cutter.

ROI Analysis: How Fast Your Machine Pays for Itself?

If you use it improving your business with in-house production:



Custom Brass Chandelier

Unit Making Costs: \$60

Unit Selling Price: \$300

Monthly Sales Volume: 20

Paid Back Time: 3.4 Months



Metal Art Sculpture

Unit Making Costs: \$250

Unit Selling Price: \$1500

Monthly Sales Volume: 2

Paid Back Time: 5.2 Months



Custom Metal Signs

Unit Making Costs: \$50

Unit Selling Price: \$150

Monthly Sales Volume: 50

Paid Back Time: 3.2 Months



Custom Wall Shelf

Unit Making Costs: \$30

Unit Selling Price: \$100

Monthly Sales Volume: 50

Paid Back Time: 4.6 Months

*The costs, prices, sales may vary from regions, market, and business owners. The data are only for your reference.

ROI Analysis: How Fast Your Machine Pays for Itself?

If you use it for business like selling signs or projects:



3mm 304 Stainless Steel

Outsourcing Costs: \$7

In-house Costs: \$4.2

Monthly Demands Volume: 750

Paid Back Time: 7.6 Months



2mm C28000 Brass

Outsourcing Costs: \$14.5

In-house Costs: \$8

Monthly Demands Volume: 500

Paid Back Time: 4.9 Months

In-house Production Saves
20-30%
Compared to Outsourcing Costs

*The costs, prices may vary from materials, market, and volume.. The data are only for your reference.

Real User Stories: Real Success, Real ROI



——@Josh E. Clark, the founder of AnglingAI.com

"No more spending \$250K on outsourcing "

Making tiny metal parts for our fishing lures was difficult with our old CNCs. Now with MetalFab, I can easily make 1,000+ parts in-house and no more outsourcing vendors. It's a game-changer, giving me a quick ROI and making my business much more profitable.



Products Josh made with xTool MetalFab



[Learn more](#)

Real User Stories: Real Success, Real ROI



——@David Picciuto, Make Something

"Almost no learning curve, totally worth it"

Coming from traditional plasma and TIG, the time I get back is unreal. MetalFab's cuts and welds are so clean they're nearly perfect, slashing my post-processing and finishing work. The software is incredibly easy, massively boosting my workflow and efficiency.



Projects David made with xTool MetalFab

[Learn more](#)

Real User Stories: Real Success, Real ROI



——@James Hodge, the founder of Javik Laser Ltd

"From Weeks to Hours, More Value In-house"

Waiting on suppliers for jigs and parts killed our workflow and budget. MetalFab changed everything. Now, we take designs from CAD to finished metal components entirely in-house, slashing our prototype lead times. It's a game-changer!



Projects James made with xTool MetalFab



[Learn more](#)

Real User Stories: Real Success, Real ROI



——@Tony Smiley

" The easiest welder I have ever used."

With over 40 years in welding, this is "by far the easiest welder I have ever used." The CNC adds a whole new level of production and sellable items. Its speed and accuracy slash project times, reduce labor costs and boost my profits. It's a real money-maker that can pay for itself quickly.



Projects Tony made with xTool MetalFab



[Learn more](#)

Why xTool MetalFab is Your **Best Choice?**

Industrial-grade chips and aerospace-grade materials ensures 30% longer lifespan than others, cutting your maintenance costs. Smart dual cameras achieve 98.7% usage rate, while built-in 108+ presets free you from endless testing and wastes, saving your material costs—**xTool MetalFab helps cut down your costs from every aspect.**



Maximize Returns Over the Lifetime



Over 10,000 Hrs Lifespan



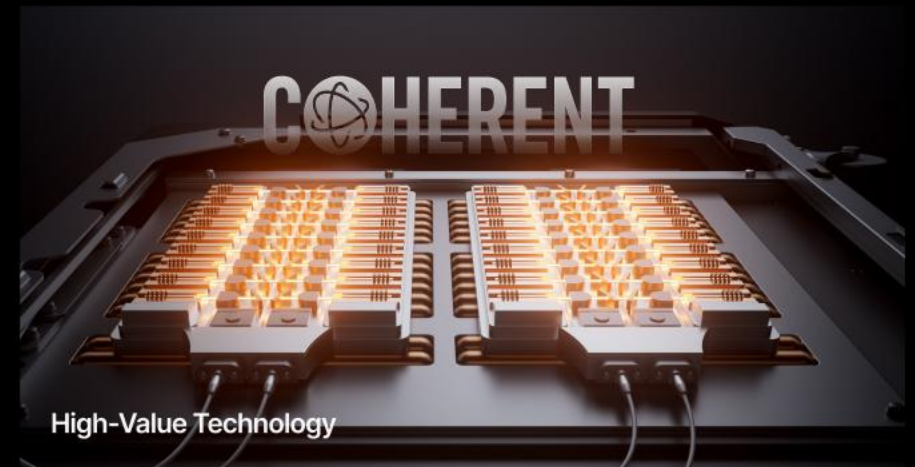
Continuous Update



Comprehensive Service & Support



Ease of Use



High-Value Technology

Affordable, Profitable, Durable: Empowering Small Businesses

Triple the Power, One-Third the Price: 1
Machine = 3 Industrial Machines
+ Free Engraving Mode



Start from

\$13,999

xTool MetalFab

=

Laser Cleaner \$2,000

+

Laser Welder \$15,000

+

Laser CNC Cutter \$20,000



\$37,000

Others

Outperforms Others from Every Aspect

 xTool MetalFab		 Other Laser Machines
Laser Power	1200W	1200W
Max. Welding Depth (Carbon Steel)	0.2 in	0.16 in
Max. Welding Depth (Stainless Steel)	0.2 in	0.16 in
Max. Welding Depth (Aluminum)	0.16 in	0.13 in
Max. Welding Depth (Brass)	0.12 in	0.06 in
Max. Cleaning Width	1.77 in	Not Supported
Max. Handheld Cutting Thickness	0.2 in	0.12 in

Last 30% Longer Than Others. Stable Output under -10°C to 40°C

Built with high-quality industrial-grade materials, a Coherent chip, advanced temperature adaptability, intelligent thermal control, and high-performance cooling, the device delivers stable performance even in extreme temperatures (-10°C to 40°C). The design minimizes overheating risks, ensuring long-term reliability and cost-efficiency during high-load and extended operations. With a lifespan exceeding 10,000 hours, it outlasts competitors by 30%.



Trusted by Top Medias & Brands



Specification

xTool MetalFab

Laser Welder



Laser Power 1200W	Laser Type Fiber Laser	Processing Mode Welding / Cutting / Rust Removal & Cleaning	Welding Mode Continuous Welding / Spot Welding / Pulse Welding	Supported Materials Stainless steel, aluminum, carbon steel, titanium, nickel alloy, brass, galvanized sheet, magnesium, etc.
Processing Thickness 0.0078 - 0.197 in (0.2 - 5 mm)	Wavelengths 1080 ± 10 nm	Photoelectric Conversion Rate 36%	Recommended Gases Nitrogen and Argon	Cooling System Air-cooling
Safety Certification Class 4 Laser Safety	Rated. Machine Input Power 4200W	Power Adapter Input Voltage 200 - 240V, AC 50/60Hz	Full-load Current Max. 21A	Storage Temperature 14 °F - 140 °F (-10 °C - 60 °C)
Operation Temperature 14 °F - 104 °F (-10 °C - 40 °C)	Machine Dimensions 28.66 × 12.87 × 20.16 in (728 × 327 × 512 mm)	Machine Weight 38.2 kg	Integrated Wire Feeder No (Free Wire Feeder Machine Included)	Cable Length 196.85 in (5 m)

Specification

xTool MetalFab

Laser Welder



Laser Power 800W	Laser Type Fiber Laser	Processing Mode Welding / Cutting / Rust Removal & Cleaning	Welding Mode Continuous Welding / Spot Welding / Pulse Welding	Supported Materials Stainless steel, aluminum, carbon steel, titanium, nickel alloy, brass, galvanized sheet, magnesium, etc.
Processing Thickness 0.0078 - 0.157 in (0.2 - 4 mm)	Wavelengths 1080 ± 10 nm	Photoelectric Conversion Rate 36%	Recommended Gases Nitrogen and Argon	Cooling System Air-cooling
Safety Certification Class 4 Laser Safety	Rated. Machine Input Power 3000W	Power Adapter Input Voltage 200 - 240V, AC 50/60Hz	Full-load Current MAX 15A	Storage Temperature 14 °F - 140 °F (-10 °C - 60 °C)
Operation Temperature 14 °F - 104 °F (-10 °C - 40 °C)	Machine Dimensions 24.88 × 11.97 × 18.58 in (632 × 304 × 472 mm)	Machine Weight 35 kg	Integrated Wire Feeder Yes	Cable Length 137.8 in (3.5 m)

Specification

xTool MetalFab

CNC Cutter



Processing Mode CNC Laser Cutting & Cleaning & Engraving	Cutting Thickness Up to 0.39 in (10 mm) with xTool MetalFab Laser Welder 1200W	Cutting Thickness Up to 0.31 in (8 mm) with xTool MetalFab Laser Welder 800W	Working Area 24.02 × 24.02 in (610 × 610 mm)	Pass-Through Size 24.02 × ∞ in (610 × ∞ mm)
Max. Working Speed 15.75 ips (400 mm/s)	Motion Accuracy ± 0.0039 in (± 0.1 mm)	X/Y Axis Max Acceleration 0.1G	X-Axis Travel 24.02 in (610 mm)	Y-Axis Travel 24.02 in (610 mm)
Z-Axis Travel 3.54 in (90 mm)	Exhaust Fan Capacity 2800RPM (± 10%)	Safety Certification Class 4 Laser Safety	Rated. Machine Input Power 250W	Power Adapter Input Voltage 100 - 240V, AC 50/60Hz
Full-load Current MAX 2.5A	Storage Temperature 10 °F - 140 °F (-10 °C - 60°C)	Operation Temperature 0 °F - 104 °F (0 °C - 40 °C)	Machine Dimensions 46.26 × 45.55 × 48.43 in (1175 × 1157 × 1230 mm)	Machine Weight 150kg

Welding Ability Differences between 1200w & 800w (Laser Welder only)

	1200w welder	800W welder
Stainless Steel	0.2 in (5 mm)	0.16 in (4 mm)
Carbon Steel	0.2 in (5 mm)	0.16 in (4 mm)
Galvanized Sheet	0.2 in (5 mm)	0.16 in (4 mm)
Aluminum	0.16 in (4 mm)	0.08 in (2 mm)
Brass	0.12 in (3 mm)	0.12 in (3 mm)
Titanium	0.12 in (3 mm)	0.08 in (2 mm)

*For detailed cutting or welding parameters, please click the [google sheet](#) or download the [xTool Studio](#) for reference.

Cutting Ability Differences between 1200w & 800w (Laser Welder + CNC Cutter)

	With 1200w welder	With 800W welder
Stainless Steel	Max. 0.39 in (10 mm) / Burr-free 0.2 in (5 mm)	Burr-free 0.16 in (4 mm)
Carbon Steel	Max. 0.47 in (12 mm) / Burr-free 0.39 in (10 mm)	Burr-free 0.31 in (8 mm)
Galvanized Sheet	Max. 0.47 in (12 mm) / Burr-free 0.39 in (10 mm)	Burr-free 0.31 in (8 mm)
Aluminum	Max. 0.28 in (7 mm) / Burr-free 0.16 in (4 mm)	Burr-free 0.12 in (3 mm)
Brass	Max. 0.16 in (4 mm) / Burr-free 0.12 in (3 mm)	Burr-free 0.08 in (2 mm)
Titanium	Max. 0.28 in (7 mm) / Burr-free 0.2 in (5 mm)	Burr-free 0.08 in (2 mm)

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We Are #1 in Sales

About xTool - The NO.1 Laser Brand

Amazon's #1 Bestseller. Connecting people in 62 countries with our elegantly designed products, honored with both Red Dot and iF Design Awards.

NO.1 laser engraver & cutter brand on Amazon. Data from Amazon, 2022-2023 QMS history.



We Inspire Creations from Every Aspect



We Innovate for Unparalleled User Experience

We introduce 12 world-first inventions. Every xTool product is an industry first, including the world's first 10W 20W, and 40W diode lasers, dual lasers, and the 4-in-1 crafting machine, etc. We never follow, we lead.



We Empower 500K+ Users to Build Their Dreams

Over 500,000 users have chosen us, and 23.53% have shown their continued trust by purchasing two or more xTool machines. With a 4.7/5 Trustpilot rating, we are the highest rated brand in the desktop laser market.

User data based on xTool backed, as of September 2024



We Promise Reliable Quality in Every Product

We use advanced technology to ensure reliability. With over 72.4 million uses by real customers, our products are optimized to meet high standards and backed by ISO 9001 certification.



We Pioneer Innovations for a Safe, Clean Workspace

Your safety is our priority. Our innovative Fire Safety Set features automatic fire suppression, and the SafetyPro" AP2 is the best in class for odor and dust removal. Both offer unmatched peace of mind.

Professional Tools, Backed by Professional Service



US&EU Based Local Service



24/7 1-on-1 Expert Support



Pre-sale Product Demo



Machine Training



The CNET logo, featuring the word "CNET" in a bold, red, sans-serif font.

The U.S. News & World Report logo, featuring the text "U.S. News" in white on a blue background, with "& WORLD REPORT" in smaller text below it.

The iF DESIGN AWARD 2024 logo, featuring the "iF" logo in white on a red background, with "DESIGN AWARD 2024" in smaller text to the right.

The YD YANKO DESIGN logo, featuring the letters "YD" in a large, bold, black font, with "YANKO DESIGN" in a smaller, black font below it.

The reddot winner 2024 best of the best logo, featuring a red and white striped sphere icon, with the text "reddot winner 2024" and "best of the best" below it.

The PC MAG logo, featuring the text "PC MAG" in white on a red background.

The TWICE Picks AWARDS WINNER logo, featuring the text "TWICE Picks" in white on a blue background, with "AWARDS WINNER" in smaller text below it.

The FOX BUSINESS logo, featuring the word "FOX" in a large, bold, blue font, with "BUSINESS" in a smaller, blue font below it.

The LE FIGARO logo, featuring the text "LE FIGARO" in a bold, blue, sans-serif font.

The yahoo! logo, featuring the word "yahoo!" in a purple, sans-serif font.

The MUD MAKE USE OF logo, featuring the text "MUD" in white on a red background, with "MAKE USE OF" in smaller text to the right.

The tom's HARDWARE logo, featuring the text "tom's" in a lowercase, black font, with "HARDWARE" in a bold, red, sans-serif font.

The techradar logo, featuring the text "techradar" in a lowercase, black font, with a pink radar icon to the right.

The El Confidencial logo, featuring the text "El Confidencial" in a bold, black, sans-serif font, with "EL DIARIO DE LOS LECTORES INFLUYENTES" in smaller text below it.

Appendix I: Gas Suggestions for xTool MetalFab

Processing Type	Material Type	Recommended Gas	Recommended Pressure	Recommended Nozzle
CNC Cutting	Stainless Steel Aluminum Brass Carbon Steel Galvanized Sheet (0.2mm-1mm)	99.99% Nitrogen or 99.99% Argon or Compressed Air	Over 87 PSI (0.6 MPa)	Ordinary cutting nozzle (included in CNC cutter package)
	Stainless Steel (2mm-5mm) Aluminum (2mm-4mm) Brass (2mm-3mm)	99.99% Nitrogen or 99.99% Argon or Compressed Air	Over 174 PSI (1.2 MPa)	Ordinary cutting nozzle (included in CNC cutter package)
			Over 87 PSI (0.6 MPa)	SaveGas™ Nozzle ((included in CNC cutter package)
	Titanium Alloy TC4 (1mm)	99.99% Argon	Over 174 PSI (1.2 MPa)	Ordinary cutting nozzle (included in CNC cutter package)
	Titanium Alloy TC4 (2mm-5mm)			SaveGas™ Nozzle ((included in CNC cutter package)
	Carbon Steel (2mm-10mm) Galvanized Sheet (2mm-10mm)	99.99% Oxygen	8.7 PSI-10.2 PSI (0.06 MPa-0.07 MPa)	Double-layer Nozzle & focus extension tube (add-on)
CNC Rust Removal	Stainless Steel Aluminum Brass Carbon Steel Galvanized Sheet	99.99% Nitrogen or 99.99% Argon or Compressed Air	87 PSI-116 PSI (0.6 MPa-0.8 MPa)	CNC Cleaning Nozzle (included in CNC cutter package)
Handheld Welding	Stainless Steel Aluminum Brass Carbon Steel Galvanized Sheet	99.99% Nitrogen or 99.99% Argon	15-30L/min flow rate or 14.5 PSI-29 PSI (0.1 MPa-0.2 MPa) pressure	Welding Nozzles (included in laser welder package)
Post-weld Cleaning				Cleaning Nozzle (included in laser welder package)
Handheld Rust Removal with MaxClean™		99.99% Nitrogen or 99.99% Argon or Compressed Air	43.5 PSI-87 PSI (0.3 MPa-0.6 MPa) pressure	MaxClean™ Accessory (add-on)
Handheld Cutting			Over 116 PSI (0.8 MPa) pressure	Handheld Cutting Tip (included in laser welder package)

*For detailed cutting or welding parameters, please click the [google sheet](#) or download the [xTool Studio](#) for reference.

Appendix II: Accessory Lifespans of xTool MetalFab

Accessory	Image	Lifespan reference	If Included in the Package
Ordinary Cutting Nozzle		About 3 months/1pc	Yes, 1pcs in the CNC cutter package
SaveGas™ Cutting Nozzle		About 3 months/1pcs nozzle, 15 days/10pcs white ceramic rings	Yes, 1pcs nozzle + 10pcs ceramic rings in the CNC cutter package
CNC Cleaning Nozzle		About 3 months/1pcs	Yes, 1pcs in the CNC cutter package
Double-layer Cutting Nozzle Set		About 3 months/1pcs	No, add-on
CNC Cutter Slats		About 3 months/5pcs	Yes, 5pcs in the CNC cutter package
Handheld Cleaning Nozzle		About 3 months/1pcs	Yes, 1pcs in the laser welder package
Handheld Cutting Tip		About 3 months/1pcs	Yes, 1pcs in the laser welder package
Handheld Wireless Welding Nozzle		About 3 months/1pcs	Yes, 1pcs in the laser welder package
Handheld Wired Welding Nozzle		About 3 months/1pcs	Yes, 1pcs in the laser welder package
Protection Lens		About 2 months/10pcs	Yes, 10pcs in the laser welder package
MaxClean™ Cleaning Lens		About 15 days/1pcs	Yes, 1pcs in the MaxClean™ Accessory Package (add-on or purchase for free)