

TITAN CAN DO MORE

Laser Engraving

- Photo Engraving
- Rubber Stamp
- Glass Etching
- Leaf Engraving
- EVA Flip Flop
- Clothes Etching
- Tumblers
- Keyboard Caps
- Coasters
- Stone Engraving
- Engrave Mirror
- Wine Bottle Etching

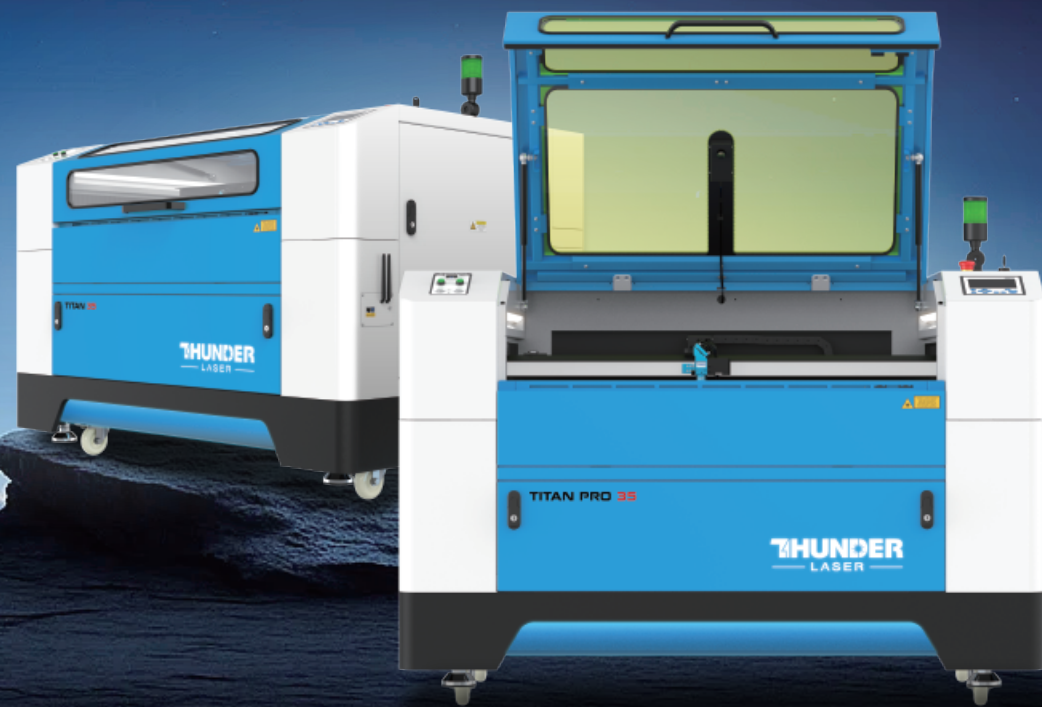
Laser Cutting

- Wood Cutting
- Photo Frames
- Paper Artwork
- Festival Decoration
- Film Cutting
- Architectural Models



Titan Series

Industrial Power, Precision Performance.
Built for Professionals.



Why Choose Titan Series?

A powerhouse laser machine engineered to outperform. With industrial-grade technology, precision components, and intelligent software integration, Thunder Laser TITAN Series is built for professionals who demand the highest standard in engraving, cutting, and production versatility. It isn't just a laser—it's your production advantage.



Titan Pro dual-laser design breaks material limits, delivering next-level versatility, performance, and return on investment.



Whether engraving, cutting, or marking—on acrylic, wood, or metal—Titan unleashes creativity across all production scales.



With 10 breakthrough innovations, Titan delivers results—faster, cleaner, and smarter.



Technical Data

Models	Titan 27	Titan 35	Titan 51
Laser Source	50W CO ₂ RF	60W CO ₂ RF	80W CO ₂ RF
Working Area	700*500mm	900*600mm	1300*900mm
Machine Size	1350*1070*1100mm	1550*1170*1110mm	1950*1470*1110mm
Z-depth	230mm	230mm	230mm
Pass-through Door	65mm	65mm	65mm
Machine Net Weight	306kg (674.6 lb)	356kg (784.8 lb)	485kg (1069.2 lb)
Max Speed	3000mm/s Engraving, 300mm/s Cutting, 8G (80000mm/s²)		
Cooling and Air Assist	Air Cooling; Dual-channel Air Blowing, Inside & Outside Air Assist		
Motorized Table	Vacuum-Supported Honeycomb & Low-Reflection Solid Metal Blade Bed		
Lens	2.5"		
Camera System	5MP Top Camera*1 & 5MP Head Camera*1		5MP Top Camera*2 & 5MP Head Camera*1
Rotary	Rotary Compatible		
Software	Laser Maker, LightBurn, RDWorks		

Models	Titan Pro 27	Titan Pro 35	Titan Pro 51
Laser Source	50W CO ₂ RF 100W MOPA	60W CO ₂ RF 100W MOPA	80W CO ₂ RF 100W MOPA
Working Area	700*500mm	900*600mm	1300*900mm
Machine Size	1350*1070*1100mm	1550*1170*1110mm	1950*1470*1110mm
Z-depth	230mm	230mm	230mm
Pass-through Door	65mm	65mm	65mm
Machine Net Weight	317kg (698.8 lb)	376.5kg (830.1 lb)	498.5kg (1098.9 lb)
Max Speed	3000mm/s Engraving, 300mm/s Cutting, 8G (80000mm/s²)		
Cooling and Air Assist	Air Cooling; Dual-channel Air Blowing, Inside & Outside Air Assist		
Motorized Table	Vacuum-Supported Honeycomb & Low-Reflection Solid Metal Blade Bed		
Lens	3" for Dual Laser		
Camera System	5MP Top Camera*1 & 5MP Head Camera*1		5MP Top Camera*2 & 5MP Head Camera*1
Rotary	Rotary Compatible		
Software	Laser Maker, LightBurn, RDWorks		



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THAN YOU CAN IMAGINE...

Laser Marking

- Signage
- Name Plate
- 3D Models
- Wood Puzzles
- Wedding Gifts
- Toys & Games
- Custom Jewelry
- Leather Wallet
- Metal Pet Tag
- Card Holder
- Metal Wax Seals
- Flasks
- Ceramic Mug
- Titanium Color Engraving
- Guns Marking
- Blade Marking
- Souvenir Coins
- Medical Part Marking

AND MUCH MORE!



10 Key Innovations

01. Dual Laser Sources

Titan combines an up-to 120W CERAMICORE® RF CO₂ laser with a 100W MOPA fiber laser in one chassis — allowing seamless processing of both non-metal (wood, acrylic, leather) and metal (aluminum, stainless steel, anodized materials) without switching machines. Ideal for operations that need versatility with industrial reliability.



02. Dual-Camera Vision System

A 5MP overhead camera captures the entire workspace for job preview and alignment, while a 5MP head-mounted camera enables mark point recognition for printed material contour cutting. Even with the lid closed, operators can monitor jobs remotely via wireless streaming.

03. 0.01mm High Precision

Titan delivers pinpoint accuracy using reinforced mechanical architecture, servo-driven motion, and factory-calibrated alignment. The 120W RF CO₂ tube's ceramic core maintains stable energy output, enabling ultra-sharp lines, clean cuts, and consistent results across long runs — ideal for luxury goods and electronics engraving.

04. Ultra-Fast Productivity

Driven by high-precision AC servo motors and HIWIN linear guides, Titan reaches engraving speeds of 3000 mm/s with a peak acceleration of 8G. Quick-release laser heads and mirrors reduce changeover time, while barcode/serial automation in LaserMaker software boosts batch production speed and consistency.

05. Intelligent Quad Air Assist System

Four independent air assist channels control airflow during different job types. Dual internal assists reduce smoke buildup during engraving and eliminate discoloration during cutting. External air control clears optics in real time, protecting lenses and reducing costly maintenance and rework.

06. Integrated LaserMaker™ Software

LaserMaker is optimized for Titan with real-time hardware integration, a built-in material database, and productivity tools like variable text, QR/barcode generators, and camera registration alignment. It streamlines workflow, reduces setup time, and improves accuracy in high-volume operations.

07. Full Wireless Connectivity

Titan supports Wi-Fi job transfer, wireless camera streaming, and real-time control — all via stable TCP protocol (not UDP), ensuring reliable communication with your computer, tablet, or network. No tangled cords, no lag, just pure convenience.

08. Certified Industrial Safety Architecture

Titan uses dual-lid sensors, safety interlocks, and dual laser-source isolation to prevent unintended operation. A double-layer laser window with tempered glass and fiber shield blocks radiation and resists physical damage. Fully CE and FDA safety compliant — meeting global industrial safety standards.

09. 65mm Pass-Through Height

Titan handles thicker or pre-assembled pieces with its spacious Z-axis clearance and pass-through door design. Ideal for cutting structural parts, foamboard stacks, layered composites, or anything tall that standard desktop lasers can't reach.

10. Dual Working Platforms

The honeycomb vacuum table ensures stable holding for thin or lightweight materials, while the knife-blade platform minimizes reflection and is ideal for rigid substrates. Swapping platforms takes seconds — keeping your workflow efficient and your cuts flawless.

The Cores of High-Performance

Thunder Titan Series has equipped CERAMICORE® RF laser tube, offering high precision and ultra processing speed. For Thunder Titan Pro Series, the MOPA fiber laser is the finishing point of this industrial monster, making it achieve the advanced versatility.

50W - 120W CERAMICORE® RF Laser

Fast Part Production

Experience some of the fastest rise and fall pulse times in the industry — perfect for high-speed engraving and cutting cycles.

Consistent Beam Quality

Maintains stable, high-quality beam performance across long production runs, ensuring clean cuts and uniform engraving every time.

High Duty Cycle for Industrial Use

Built for continuous operation, the RF tube supports long-duty production shifts without thermal drift or loss in precision.

Non-Consumable Design

No need for frequent gas refills or fragile glass components — the sealed ceramic core ensures minimal maintenance and long-term reliability.

Clean Edges, Less Post-Processin

Delivers sharp vector cuts with minimal charring or melting, reducing finishing work and increasing overall throughput.



60W - 100W Mopa Fiber Laser

Ultra-Fast Metal Marking

Achieve high-speed direct marking on metals, plastics, and coated surfaces — ideal for serial numbers, barcodes, and logos in industrial settings.

Color Marking on Stainless Steel

Fine-tuned pulse control enables vibrant, repeatable color marks on stainless steel surfaces without additional chemicals or treatments.

Deep Engraving Capability

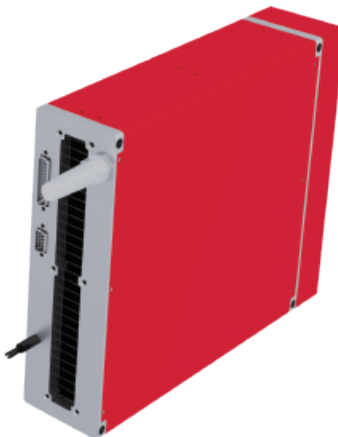
High peak power and adjustable pulse duration make it perfect for deep, precise metal engraving with minimal heat-affected zones.

Stable, Maintenance-Free Operation

Designed for industrial uptime — air-cooled, solid-state architecture means zero alignment, low noise, and no consumables.

Pulse Shaping for Material Versatility

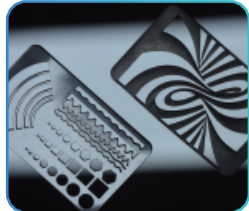
Adjust pulse width and frequency to suit a variety of materials, including brass, aluminum, plastic, and coated metals — all from a single source.



High-Precision and Powerful for Any Occasion

Industrial Film Processing

Unlock new possibilities in functional materials. Titan integrated CO₂ and fiber system makes it easy to cut and mark PET, PI, PVC, PC, and other industrial films with clean edges, sharp detail, and consistently reliable performance.



STEAM Education

From STEM classrooms to maker-spaces, Titan empowers students and educators to prototype, create, and explore with industrial-grade precision — from wood engraving to robotics parts.

Workshop Upgrade

Workshop Upgrade your workshop with the Thunder Titan. Perfect for precise engraving and batch producing on various materials, it's a MUST for any Professionals and Experts!



Industrial Part Marking

Need fast, permanent traceability? Titan Pro delivers high-contrast marking on metals and composites — perfect for serial numbers, QR codes, and compliance labeling at scale.

Customization Business

Engrave premium products with stunning detail — from branded wood boxes to metal tags. Titan empowers personalization studios to deliver flawless results across a wide range of client requests.



Small-Batch Manufacturing

Scale without complexity. Titan handles custom and repeat jobs with equal ease, making it a game-changer for small manufacturers working with diverse material types and tight deadlines.

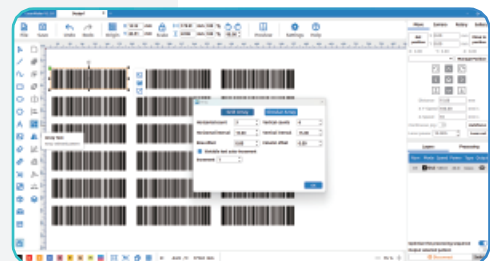
LaserMaker:

Built by Thunder. Optimized for Titan.

LaserMaker isn't just compatible — it's deeply integrated into the Titan platform, with features designed specifically for high-efficiency engraving, batch coding, and smart alignment. It gives operators powerful tools with a clean interface and automates what used to take extra steps.

Key Advantages of LaserMaker on Titan:

- Auto Device Detection — Automatically recognizes Titan model and laser power, applies correct parameters.
- Mark Point Recognition — Automatically detects registration marks for accurate alignment in print-and-cut applications.
- Material Library Built-In — Tested parameters for different materials reduce trial-and-error time.
- Smart Variable Data Support — Effortlessly generate barcodes, QR codes, serial numbers, and dynamic text from CSV or templates for efficient batch engraving.
- Advanced Output Optimization — Fine-tune images, add lead-in/out lines, and apply kerf offset for cleaner cuts, accurate fits, and professional engraving results.



⚡ **LaserMaker + Titan = Faster setup, fewer errors, and smoother workflow — right out of the box.** ⚡

Metal & Non-Metal, All Done With Titan

Materials	Model	Titan Series		Titan Pro Series	
	Wood	○	●	○	●
	Cork	○	●	○	●
	Acrylic	○	●	○	●
	Fabric		●		●
	Glass		●		●
	Plastic	○	●	○	●
	Mirror		●		●
	Food		●		●
	Ceramics		●		●
	Stone		●		●
	Leather	○	●	○	●
	Rubber	○	●	○	●
	MDF	○	●	○	●
	Cardboard	○	●	○	●
	Anodized Aluminium		●		●

Slate		●		●
Stainless Steel			●	
Titanium Sheet			●	
Brass			●	
Nickel			●	

○=Cutting ●=Engraving ●=Marking/Etching

Unlimited Possibilities Unlocked by Titan

