

# LASER CUTTING AND ENGRAVING SYSTEMS

## MARS90



- 1000mm/s
- Servo Motors
- Auto focus
- 900x600mm working area
- Super Smooth Cutting Quality
- Auto focus
- Red Dot And Alarm Lamp
- Motorized Table
- Energy Saving



THUNDER LASER

# Possible Applications And Materials

## Some Possible Applications

Electronics Engraving  
 Wood Engraving & Cutting  
 Marble & Stone Etching  
 Glass Etching  
 Corporate Giveaways  
 Acrylic & Wood Signage  
 Wedding Memorabilia  
 Nameplates & Desk sets  
 Appliqués  
 Toys & Games  
 Wooden Models  
 Photo Albums  
 Holiday Decorations  
 Laser Cut Cards & Invitations  
 Custom Jewelry  
 Corporate & Sporting Awards  
 Acrylic Plaques  
 Photo Frames  
 One-of-a-Kind Gifts  
 Engraved Mirrors  
 Architectural Models  
 Custom Pet Tags  
 Inlaid Signage  
 3D Models  
 Engraved Denim Jeans  
 Photo Engraving  
 Barcode Engraving  
 Logo Engraving on Parts  
 Tool Identification  
 Medical Part Marking  
 Laptop & MP3 Player Customization  
 And many other possibilities !



## Materials

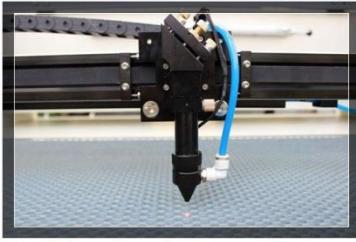
Almost all non-metal materials, and some metallic, can be engraved and/or cut by using a Thunder Laser System. Below is a selection of them. (See notation for metals)

	Engrave	Cut
Wood	✓	✓
Acrylic	✓	✓
Delrin	✓	✓
Cloth	✓	✓
Leather	✓	✓
Mat Board	✓	✓
Melamine	✓	✓
Paper	✓	✓
Mylar	✓	✓
Pressboard	✓	✓
Rubber	✓	✓
Wood Veneer	✓	✓
Fiberglass	✓	✓
Plastic	✓	✓
Cork	✓	✓
Corian	✓	✓
Twill	✓	✓
Anodized Aluminum	✓	
Painted Metals	✓	
Tile	✓	
Glass	✓	
Coated Metals	✓	
Ceramics	✓	
Marble	✓	
Stainless Steel	*	
Brass	*	
Titanium	*	
Bare Metal	*	

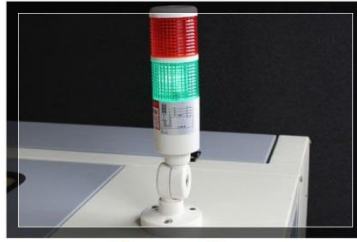
\* If you need to mark on bare metal directly, please contact us for more information.



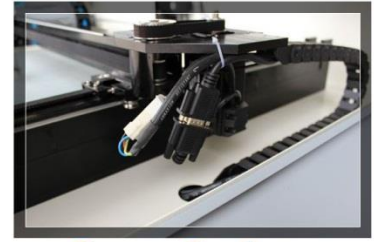
# Features



**Visible Red Dot Pointer**  
Make the laser beam "visible".



**Alarm Lamp**  
Show the work state and tell when the job is done, more safe for you.



**Servo System**  
1000mm/s speed for engraving photo, super smooth vector cutting quality.



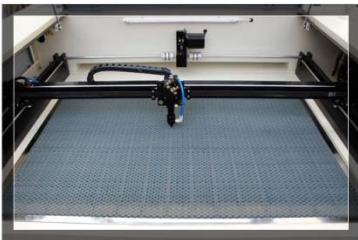
**Open flap protection**  
Laser will stop working if you open the front cover.



**Emergency stop**  
Turn off the machine immediately when there is an accident.



**Smart Board**  
Control the exhaust fan, air assist, and alarm lamp automatically, energy saving.



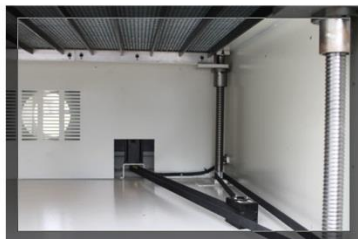
**Honey comb table**  
Allows the laser beam to pass through the material you are cutting and reduces underside reflections.



**High quality rails**  
Keep the engraving/cutting precise and very durable.



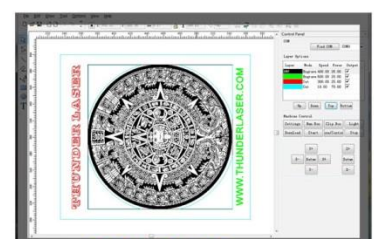
**Auto focus**  
Help the user to set the focus Easier. (based on motorized table).



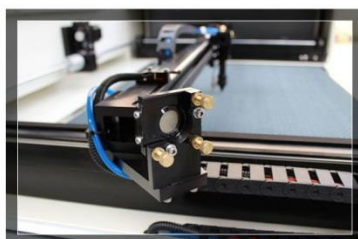
**Motorized table**  
Control the table up/down from LCD panel directly.



**LCD panel**  
Set speed, power, and more directly from the LCD panel.



**Color mapping**  
Change the working speeds and power by using color settings.



**Mirror mount**  
Easily re-adjusting 3D mirror mounts.



**Water protection**  
Laser will stop working if the water cooling system is not working.

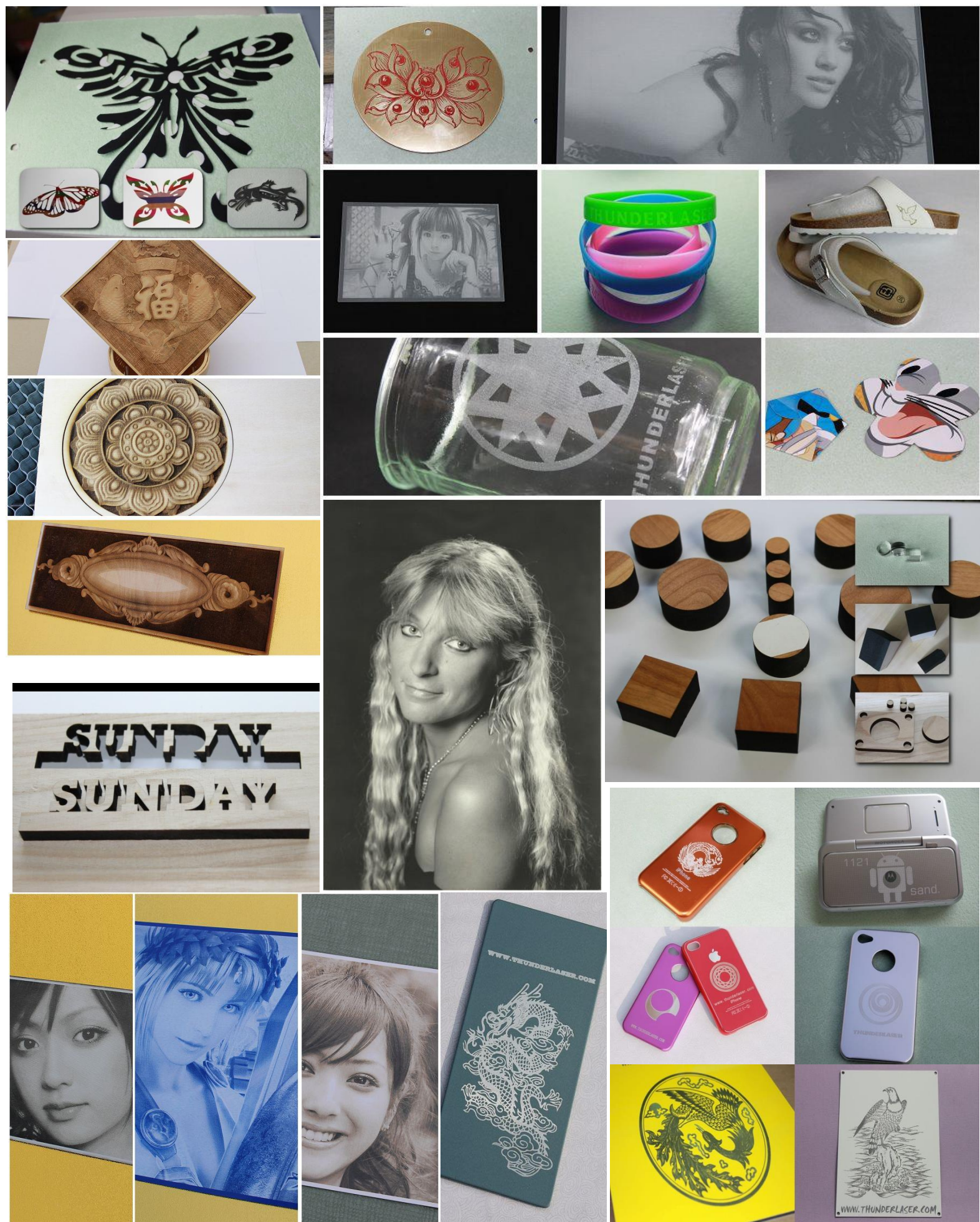


**3D engraving**  
Engrave high quality 3D photos directly.



# Samples

What can you create?





# Technical Specifications

## Optional Items



**Water Chiller**

**Rotary Axis**

**HR Head**

Laser Tube Wattage	80-100Watt	
Laser Type	Sealed Co2 Glass Laser Tube	
Cooling	Water Cooled	
Work Area	900x600mm(35.4" x 23.6")	
Max Part Size (WxLxH)	Front door closed	1000x730x270mm(39.4" x 28.7"x10.6")
	Pass-through door	1000x∞x30mm(39.4" x ∞"x1.2")
Table Size	1000x730mm(39.4" x 28.7")	
Z Axis Height	230mm(9.1")	
Dimensions(WxDxH)	1450x1085x1105mm(57.1" x 42.7" x43.5")	
Motion Control System	High-Speed Servo Motors	
Maximum Speed	1000mm/S(39.4IPS)	
Speed and Power Control (engraving depth)	Computer or manually controlled speed and power from 0-100%. Vector color mapping sets speed and power settings using RGB color mapping.	
Operating Modes	Optimized raster, vector, and combined mode	
Resolution(DPI)	User controlled from 100 to 500DPI(standard laser head), up to 1000 DPI(HR head)	
Computer Interface	Ethernet and USB Connection	
Compatible Operating Systems	Windows XP/2000/Vista/7/8	
Buffer Memory	128MB Standard	
Display Panel	3" LCD panel showing current file, total working time, laser power, speed etc.	
Net Weight	230kgs(507lbs)	
Electrical Requirements	110 to 240 volts, 50 or 60 Hz, single phase	
Ventilation System	Integral exhaust fan. There is 1 output port, 5.7" (145 mm) in diameter in the rear of the case.	
Standard Features	Servo system, Alarm lamp, Smart board, Red dot pointer, Auto focus, Motorized table, Pass-through Door, Air Assist, Water pump ,Exhaust fan, Honeycomb Table, 2" (50.8 mm) Focus Lens, Easily adjustable Home position, LCD Display, Water protection, Emergency stop, Open cover protection	
<b>Optional Features</b>		
High Resolution Head	Increases the resolution up to 1000DPI	
Rotary Axis	Used to engrave on round items	
Water Chiller	keep the laser power stable and prolong life time of the laser tube	



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Thanks to Thunder laser systems  
lasering has become so easy



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