



Media & Signage Solutions

- LASER ENGRAVING
- LASER NON METAL CUTTING
- LASER MARKING
- LASER METAL CUTTING
- LASER LETTER WELDING
- CNC ROUTER

India's First Registered **Laser** Machine Manufacturer



About Us

SIL is pioneer in laser technology with 30 years of vast experience in Laser, Optics, Electro-Optics & Opto-Mechanical equipment's which makes us to manufacture all kind of laser machines for material processing solutions to our customers since 1990.

Dr. Suresh T Shah, an eminent Indian Laser expert who has Designed, Developed and Produced Various Lasers Systems for Industrial and Research Applications Since 1975, has promoted SIL.

Why SIL

- 1st in India to registered as a Laser Machine Manufacturing Company.
- An ISO 9001:2015 certified & CE Mark Certified Company.
- we stands for quality, excellent products, highly efficient processes, and outstanding results.
- Strong and Professional R&D Team since inception.
- Inhouse parts production to precision manufacturing.
- Very well known name in the field of Defense, Aerospace and R & D sector.
- Dedicated R&D Center/Application Lab for new developments in Pune.

Where We Focus

We provides manufacturing solutions to the various Industries and its Applications for

- | | | |
|-----------------------------|----------------------------|----------------------------|
| · Automotive | · Sheet Metal Processing | · Defence & Aerospace |
| · Machine Tools | · Electrical & Electronics | · Print & Packaging |
| · Medical & Pharmaceuticals | · Signage & Gifting | · Interior & Constructions |
| · Die - Mould | · Railways | · Jewellery & many more... |

Our Range of Products

★ Laser Cutting Solutions

- Metal Sheet Cutting
- Metal Tube Cutting
- Robotic Metal Cutting

★ Laser Welding Solutions

- Fiber Laser Welding
- QCW/CW Laser Welding
- Nd: Yag Laser Welding
- Robotic Laser Welding

★ Laser Precision Cutting Solutions

★ Laser Cleaning Solutions

★ Laser Cladding Solutions

★ Laser Marking Solutions

- Fiber Laser Marking
- CO2 Laser Marking
- Textile Laser Marking

★ Laser Engraving - Cutting Solutions



Explore US

Laser Engraving and Cutting Machine



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Fiber Laser Marking Machine



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CO₂ Laser Marking Machine



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Fiber Laser Cutting Machine F Series



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Laser Welding Machine



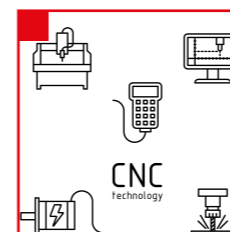
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Laser Engraving - Cutting Machine



AccuCut 1212

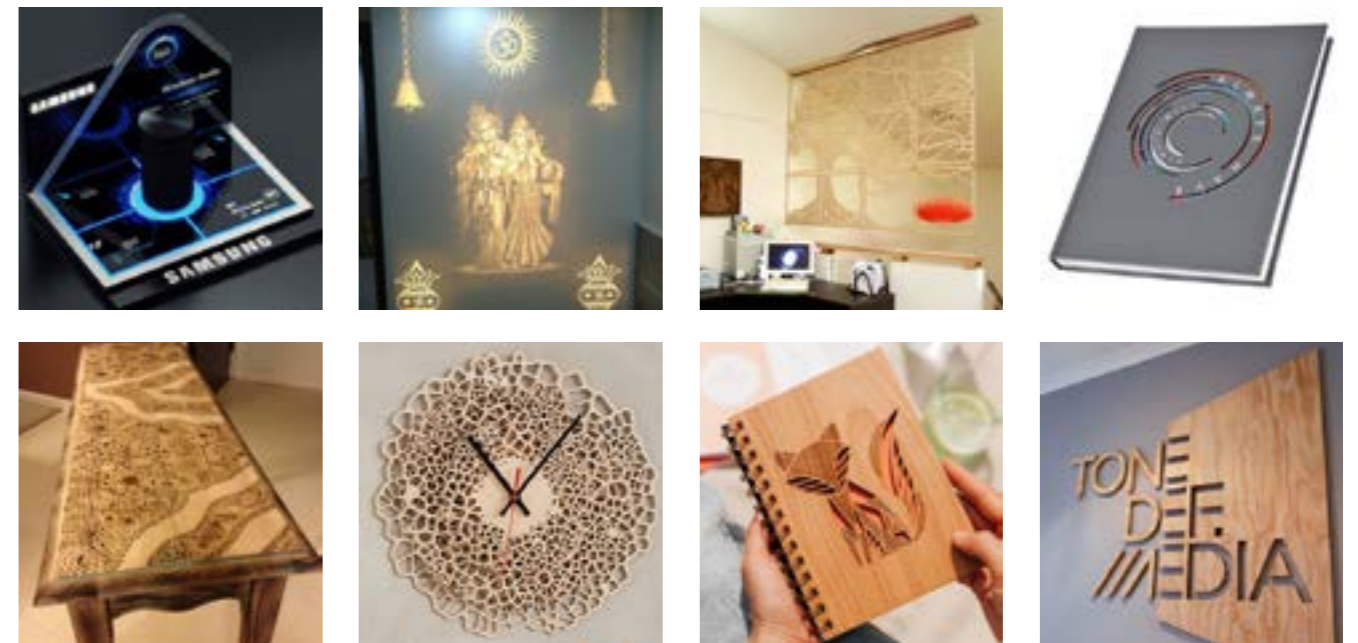


AccuCut 1325

Features:

- High cutting precision and positional accuracy
- Improved edge quality and surface finish
- Higher repeatability
- Advanced laser tools for material processing applications
- Drilling and engraving in addition to cutting
- Negligible workpiece degradation
- Cost-effectiveness
- Minimal thermal stress zone
- Shapes High Speed belt drive plotting unit with precise micro stepping drives
- Red beam pointer
- Z- Axis (Optional)

Samples:



SPECS/MODEL	AccuCut 1325	AccuCut 1212	AccuCut 1390	AccuCut 6090	AccuCut 6040
Working Area	1300x2500mm	1200x1200mm	1300x900mm	600x900mm	600x400mm
Laser Type	Co2 DC Glass Laser Tube / RF Metal Laser Tube				
Laser Power Option	Glass Tube - 60/80/100/130/150 Watt Metal Tube - 40/60/80/100/200 Watt				
Wave Length	10.6 μm				
Supply Voltage	AC 230 V ±0.05% / AC 415 V ±0.05%				
Reposition Accuracy	0.1 mm (Max)				
Cutting Speed	0 ~ 30000 mm/min				
Engraving Speed	0 ~ 64000 mm/min				
X, Y Axis	LM Guide Rails SIL Brand				
Cooling	AIR/Water Cooled				
Work Environment	Temp: 0 c ~ 45 c. Humidity: 5% ~ 95%				
Acceleration Speed	1 G				
Graphic File Support	PLT, CDR, AI, DWG, DST, DXF, BMP, JPEG, TIFF, GIF, PCX				

Fiber Laser Marking Machine



Fiber Laser Galvo Head



Fiber Laser Galvo Lens



EZ Card for Marking



Scaps Card for Marking



Fiber Laser Marking Machine



Fiber Laser Marking Machine Desktop

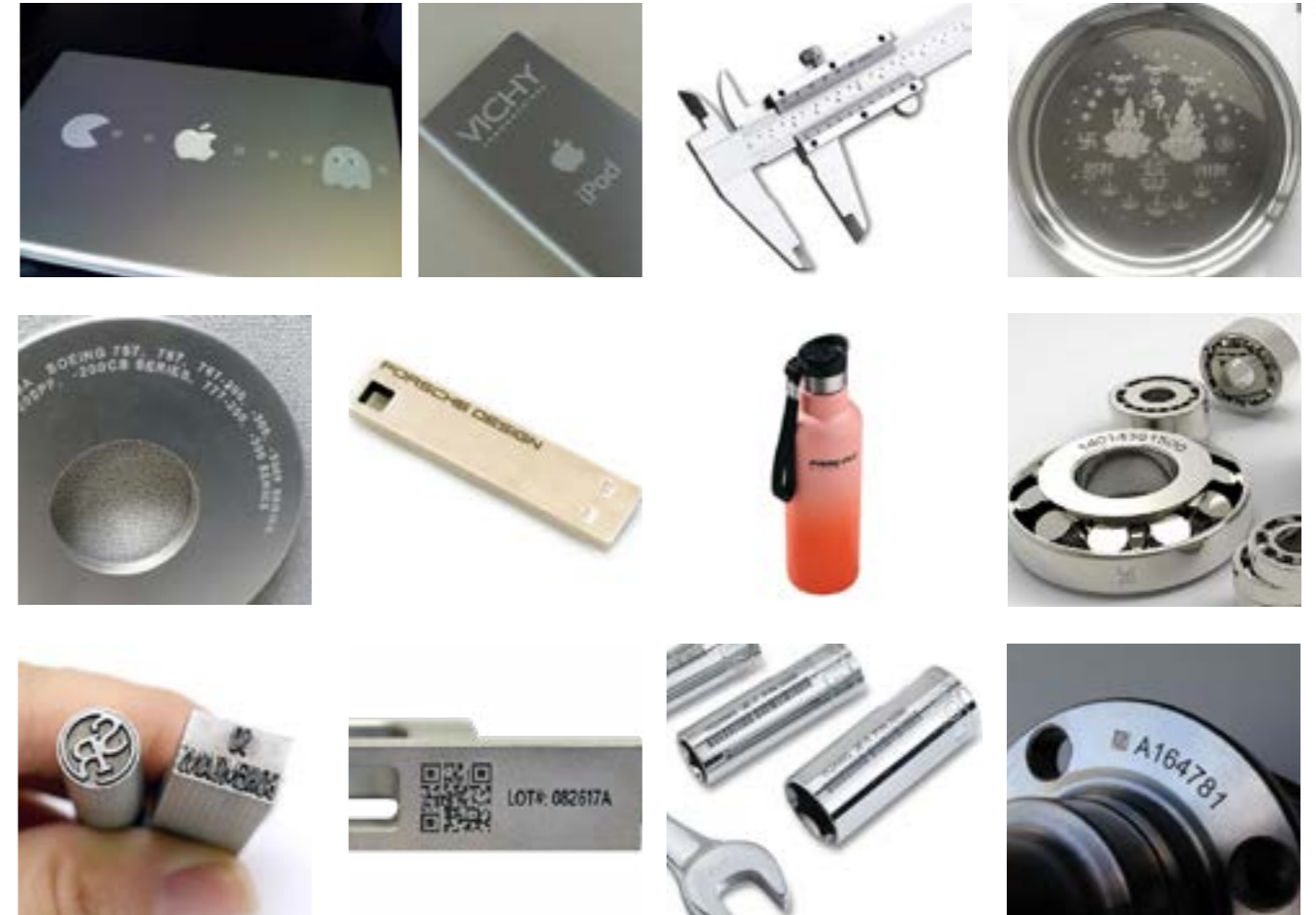


Fiber Laser Marking Machine with Adjustable Height

Features:

- Low operating Cost & zero maintenance cost
- Applicable on materials like metal, non-metal, ceramics, plastics, etc.,
- Permanent Marking Processing / Online- Marking Process
- Minimize damage to the product and enhance the quality
- High speed marking for mass production

Samples:



SPECS/MODEL	ACCUWRITE F - 20/30/50/60/100
Power	20 W to 100 W
Wavelength	1064 ±3 nm
Beam Quality	<1.2 (M2)
Pulse Repetition Rate	20 - 400KHz
Power Stability	<±1%
Focus Spot Diameter	<0.05mm
Working Area	70 X 70/100 X100/150 X 150/200 X 200/300 X 300 mm
Max marking Depth	1.2mm
Max marking speed	1500 standard characters / second
Minimum Line Width	0.05mm
Minimum Character	0.05mm
Repetition Accuracy	±0.003 mm
Cooling Mode	Air cooling
Ambient Temperature	15o- 35o C
Power Requirement	220V/single phase/50Hz/<600W
Life of Laser Module	>100000Hrs
Guide Laser/Red Aiming Beam	Yes 660nm

CO₂ Laser Marking Machine



CO₂ Laser Galvo Head



CO₂ Laser Galvo Lens



CO₂ Laser Marking Machine



EZ Card for Marking



Scaps Card for Marking



CO₂ Laser Marking Machine Customizable



CO₂ Laser Marking Specifications

SPECS/MODEL	M - 10	M - 30	M - 50	M - 100
Max Laser Power	10W	30W	50W	100W
Laser Wavelength	10.6 μm	10.6 μm	10.6 μm	10.6 μm
Laser Repetitive Rate	≤ 20 KHz	≤ 20 KHz	≤ 20 KHz	≤ 20 KHz
Marking Range	100 x 100 mm~300 x 300 mm			
Marking Depth	≤2 mm	≤3 mm	≤5 mm	≤8 mm
Linear Speed	≤ 7000 mm/s	≤ 7000 mm/s	≤ 7000 mm/s	≤ 7000 mm/s
Min. Character	0.20 mm	0.40 mm	0.40 mm	0.40 mm
Minimum Linear Width	0.05 mm	0.10 mm	0.15 mm	0.15 mm
Repeatability	±0.01 mm	±0.01 mm	±0.01 mm	±0.01 mm
Power Consumption	800 W	1.2 KW	2 KW	4 KW
Electricity Requirements	220V/50Hz/3.5A	220V/50Hz/8A	220V/50Hz/11A	220V/50Hz/20A
System Dimensions	1170x540x1180	1170x540x1180	1170x540x1180	1170x540x1180

Samples:



Galvo CO₂ Laser Marking Specifications

SPECS/MODEL	C -100/C - 150 / C - 250
Laser type	CO ₂ RF metal laser tube
Laser power	100W / 150W / 250W
Working area	600 x 600mm
Working table	Feeder Zn-Fe alloy honeycomb working table
Working speed	Adjustable
Positioning Accuracy	±0.1mm
Motion system	Offline 3-D dynamic galvanometer motion control system, LCD screen
Cooling system	Constant temperature water chiller
Power supply	AC220V ±5% 50/60Hz / AC415V ±5% 50/60Hz
Format supported	AI, BMP, PLT, DXF, DST etc
Standard collocation	2 sets of 1100W exhaust fans, foot switch, Red light positioning system

Fiber Laser Cutting Machine F Series



Samples:



Item	Make	Optional / Equivalent
Laser source 500 - 1500 watt	IPG	RAYCUS
Motor X axis	Panasonic 1.5 Kwatt	Yaskawa 1300 watt
Motor X' axis	Panasonic 1.5 Kwatt	Yaskawa 1300 watt
Motor Y axis	Panasonic 1.5 Kwatt	Yaskawa 1300 watt
Motor Z axis	Panasonic 400 watt	Yaskawa 400 watt
Cutting head		Raytools BT 240
Rack and pinion		YYC module 2
Pinion	YYC	YYC
Gearbox	YYC	shimpo / stober eco
LM rails X		25mm
LM rails Y		20 mm
Z axis		Ball screw 200 mm stroke
CNC controller	FS CUT	Weihong
Pressure regulator 10 bar	SMC	ASCO 30 BAR
Gas line	HP/ LP	HP /LP/AIR
Gas fliter	30 bar	
Chiller	SIL CW 2000	NIL
Machine Gross weight		3000 KG

Laser Welding Machine



Laser Welding Machine

Samples:



SPECS/MODEL	ACCUWELD F - 400
Laser wave length	1064nm
Spotlighting cavity	English ceramin Spotlighting cavity
Max laser power	180W
Width of pulse	0.1-20 ms
Laser frequency	0.1-30Hz
Laser point area	0.3-2 ms
Power of cooling machine	1.5p
Working area	100x120mm
Total power	6KW(1way/3way)
Electricity	220V ±5%/50Hz/30A 380V ±5%/50Hz/20A
Size Machine	600x1400x1200mm
Cooling machine	400x650x700mm

CNC Router Machine



CNC Router Servo/Stepper Single Head



CNC Router Servo/Stepper Single Head with Rotary

- Excellent speed, efficiency, high precision CNC Engraver Router Machine Built in X, Y & Z Axis drive System rack and pinion with 20 mm square linear guides achieving high positioning motion accuracy & longer life.
- Working table aluminum T- slot and PVC sheet for protection of worktable which ensures longer life.
- Air / Water Cooled Spindle for longer life and better performance with various power options.
- Handheld DSP controller to set job parameter and download from computer via USB cable and pendrive also.
- Heavy and rigid structure for smooth and silent running with low vibration.
- Our new developments in this machine are Planetary gearbox with Servo replaced with belt drive gearbox.
- Increased both rapid and working speed.
- With new mechaism, maintenance of machine reduced to 50%.

Samples:



Specifications:

SPECS/MODEL	SIL - 1325	SIL - 1530
X, Y Z Working area	1300x2500x250 mm	1500x3000x250 mm
Resolution	± 0.03/300 mm	± 0.03/300 mm
Repeatability	± 0.03 mm	± 0.03 mm
CNC Spindle	5.5 KW / 12 KW Power Spindle with Air Cooling / Water Cooling mechanism	
Max. RPM	0-24000 rpm	
Max Working Speed	0-18000 rpm	
Max. Consume Power	5.5 KW	7.2 KW
lathe Structure	Welding Steel Structure	
X,Y,Z Structure	Rack Pinion, Ball Screw linear Rails	
Working Voltage	AC 220V, 50/60 Hz, Single Phase / AC 415V, 50/60 Hz, Three Phase	
Working Mode	Stepper/Servo	
Table	T-slot / Vacuum bed / Water bed	
Linear Guide	Hg 20 for X,Y & Z	
Command Code	G Code (*nc, *mmg, *plt, *cnc)	
Operating System	NC Studio or DSP Control System	
Interface	Printer Port 50 pins OR USB	
Memory	128 MB (or Flash Drive)	
Inverter	Crompton Greaves / Delta	
Optional 1:	Rotary Attachment Size Diameter 125mm, Length 1300mm	
Optional 2:	Vacuum Adsorption / Water bed with T- Slot Table	
Dust Collector	With Dust Collector Hood, 2.2 KW, Dual Bags, 220V,1ph	

Spares & Essentials

Laser Source:



CO₂ EFR Glass Tube

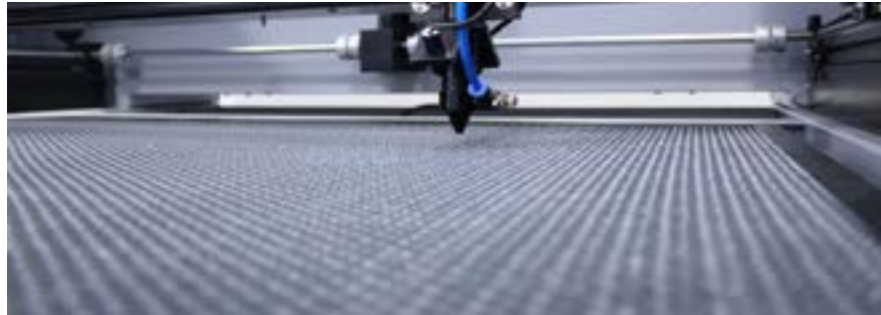


CO₂ RF Metal Laser Tube



Fiber Laser Source

Essentials:



Honeycomb Table



Motor Drives

Cutting & Marking Heads:



Fiber Marking Galvo Head



CO₂ Galvo Head



CO₂ Cutting Head



CNC Router Spindle

Lens & Mirrors:



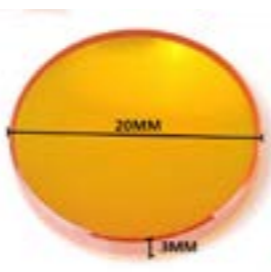
Fiber Galvo Lens



CO₂ Galvo Lens



CO₂ Laser Mirror



CO₂ Laser Lens

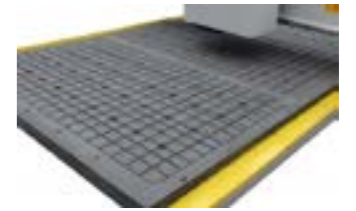
CNC Router Essentials:



Aluminium T-Slot Working Table



Aluminium T-Slot Water Bed



Partition Vacuum Adsorption Table



Bits



Dust Collector



Vacuum Bed Pump

CNC Controllers:



RDC Card for Engraving



EZ Card for Marking



NC Studio Card for Router

Air Compressors:



0.5 Bar Air Compressor



4 Bar Air Compressor

Chillers:



Engraver Chiller



CNC Router Chiller



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