



Sintec Optronics Pte Ltd

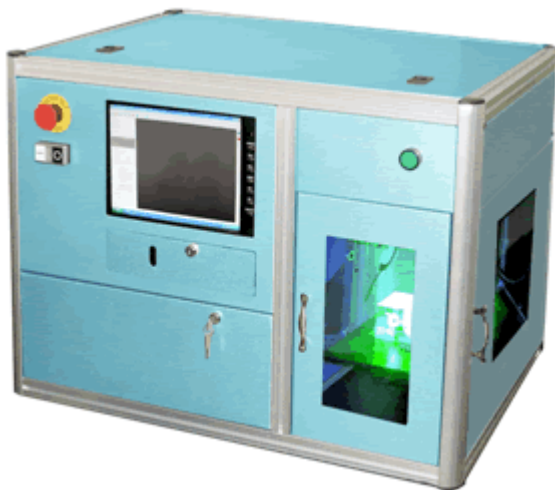
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ST-C1 3D/2D Laser Subsurface Engraving Machine

ST-C1 3D/2D Laser Subsurface Engraving Machine is a type of laser processing equipment that combines laser technology, computer technology and integrates optics, machinery and electronics together.

The machine combines with German, Russian, Italian technology and it adopts servo-controlling system with high precision and efficiency under the computer control, which has the features of high production efficiency and stable processing performance.



Specifications:

Laser Medium:	Diode-pumped solid-state laser
Cooling:	Air cooled
Laser Wavelength:	532nm
Pulse Repetition Rate:	2 kHz
Pulse Width:	7ns
Pulse Energy:	1.2mJ
Laser Beam Quality:	TEM ₀₀ , M ₂ <1.5
Resolution:	500 DPI
Engraving Field:	200mm*200mm*100mm
Engraving Speed:	12000 dots/min
Input Electricity:	220VAC/110VAC, 50Hz
Power Consumption:	0.6KW
Dimension(L*W*H):	760mm*560mm*560mm
Weight	65kg

ST-C2 3D/2D Laser Subsurface Engraving Machine

ST-C2 3D/2D Laser Subsurface Engraving Machine is a new laser processing equipment that combines laser technology & computer technology and integrates optics, machinery and electronics together.

It adopts pulse laser and focuses the laser beam inside transparent materials such as glass or quartz to produce nanometer points of vaporous burst. Because the points can constitute splendid picture, pattern and words inside the material controlled by a computer, ordinary transparent material can be made into grade luxurious art wares.

Our series laser subsurface engraving machines are usually used in glass decoration industry, crystal gift industry, glass gift industry, and glass and Plexiglas signs industry. It can also be used in secondary process industry of all kinds of bottles and other transparent materials.



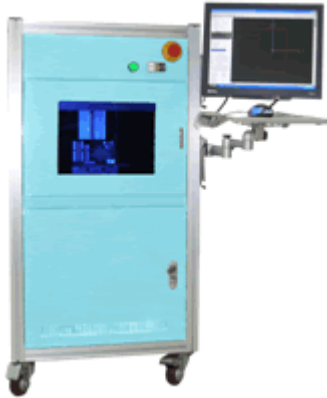
Specifications:

Laser Medium	Diode-pumped solid-state laser
Cooling	Air cooled
Laser Wavelength	532nm
Pulse Repetition Rate	2 kHz /3 kHz
Pulse Width	7ns
Pulse Energy	1.2mJ
Laser Beam Quality	TEM ₀₀ , M ₂ <1.5
Resolution	500 DPI
Engraving Field	200mm*200mm*100mm/200*160*100mm
Engraving speed	1500 dots/second
Input Electricity	220VAC/110VAC, 50Hz
Power Consumption	0.6kW
Dimension	760mm*560mm*560mm
Weight	65 kg

ST-C3 3D/2D Laser Subsurface Engraving Machine

ST-C3 3D/2D Laser Subsurface Engraving Machine with full automation and high reliability can work continuously for a long time and engrave at high speed.

Powerful engraving software can make various three-dimensional, plane characters and images etc.



Specifications:

Laser Medium	Diode-pumped solid-state laser
Cooling	Air cooled
Laser Wavelength	532nm
Pulse Repetition Rate	3 kHz
Pulse Width	7ns
Pulse Energy	1.2mJ
Laser Beam Quality	TEM ₀₀ , M ₂ <1.5
Resolution	500 DPI
Engraving Field	300*240*100mm
Engraving speed	1500 dots/second
Input Electricity	220VAC/110VAC, 50Hz
Power Consumption	0.6kW
Dimension	L 570mm*W 780mm*H 1000mm
Weight	<110kg

ST-C5 3D/2D Laser Subsurface Engraving Machine

ST-C5 3D/2D Laser Subsurface Engraving Machine is a new laser processing equipment that adopts pulse laser and focuses it inside transparent materials to produce nanometer points of vaporous burst.

Combined with German, Russian, Italian machines' technology, it adopts servo-controlling system with high precision and efficiency under the computer control, which has the features of high production efficiency and stable processing performance. It adopts laser processing technology, which makes the crystal and laser focus point move correspondingly. Laser focus point gasifies the crystal by optical effect, and then forms countless ordered spots, which make up an exquisite and perfect three-dimensional picture.

Because the points can constitute splendid picture, pattern, and words inside glass controlled by computer, ordinary transparent materials can be made into grade luxurious art wares. Its products can give person Crystal-clear and fine noble visual image, that's elaboration for your decoration.



Specifications:

Laser Type	Diode-pump solid-state laser
Laser Wavelength	532nm
Pulse Width	8ns
Pulse Repetition Rate	3kHz (Optional 2k-5kHz)
Engraving Speed	120000-300000 dots/min
Engraving Field	300*250*200mm
Number of Laser Scanner	1
Cooling	Air cooled
Power Consumption	≤ 0.6 W
Control	Servo-controlled
Focused Beam Diameter	0.02mm
Repeated Precision	0.05 mm
Dimension	880*480*780mm
Weight	100 kg

ST-SUB08 and ST-SUB16 Laser Subsurface Engraving

Laser subsurface engraving machine is laser processing equipment integrating optics, machinery and automation. Since it adopts laser technology, automation and computer science, the machine can engrave all kinds of exquisite & perfect 3-dimensional pattern inside the transparent crystal glass in different specs and shapes.

ST-SUB series laser subsurface engravers are sixteen-head or eight-head green laser crystal subsurface engraving machines, which can engrave sixteen or eight crystal glass products at the same time. The engravers can make person crystal-clear and fine noble visual image, that's elaboration for your home decoration.

Characteristics

- With high automation & high reliability, it can work continuously for a long time and engrave at high speed.
- With powerful software, it can make various three-dimensional, plane characters and images.
- Non-touch style process ensures that the surface of the crystal keeps bright.
- The engraved pattern is exquisite, crystal-clear and 3-dimensional.

Application fields

Craft gifts, decoration, mirror and glass industry, etc.



Specifications

Engraving Range:	L250×W250×H80mm
Engraving Speed	4800 dots/min (ST-SUB08) / 9600 dots/min (ST-SUB16)
Engraving Head	8 heads (ST-SUB08) / 16 heads (ST-SUB16)
Laser Type	Lamp-pumped Nd:YAG laser
Laser Wavelength	532nm
Pulse Repetition Rate	100Hz
Input Electricity	4KW (ST-SUB08) /6KW (ST-SUB16)
Control System	Servo-controlled

ST-SUB200B Laser Galvanometer-scanned Sub-surface Engraving Machine

Characters

- High laser pulse repetition rate, high engraving speed.
- With high automation & high reliability, it can work continuously for long time.
- Non-touch style process ensures that the surface of the engraved crystal keeps bright and clean.
- Suitable for large shopping malls, tourist attractions and the place of big population so that the machine makes the personalized portrait.



Technical Parameters:


Laser Type	Lamp-pumped Nd:YAG laser
Laser Wavelength	532nm
Pulse Repetition Rate	200Hz (Optional 300Hz)
Engraving Speed	6000-10000dots/min
Engraving Range	110*110*80 mm (optional :220*220*80mm)
Number of Laser Scanner	1
Cooling	Cooled using a chiller
Power Consumption	4kW
Weight	130 kg

GS-C Series 3D Camera

Easy Editing: With one key strike to build 3D Model. Dynamically watching the result when adjusting point-cloud data effect. Finish a 3D Portrait point-cloud data for about 1 min under automatic mode.

Abundant of Functions: 3D Vision include almost all the editing functions you may need for engraving crystal arts, include 3D Portrait, 2D Photo, add text, logo and 3D decoration models.



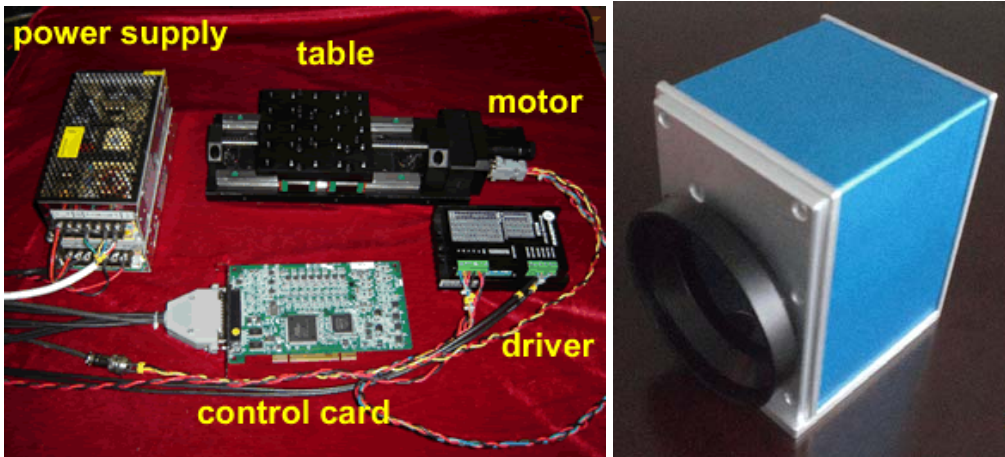
	
JPEG-format picture resolution	5.2 Mega-pixel
3D reconstruction resolution	0.5 mm
Maximum Vision Scope	640mm×480mm, 1~2 persons
Distance to object	1.3m
Continuous shooting interval	0.6s
Exposal time	1/60s
Memory size	32Mb (about 26 photos) (extendable to 512 MB, about 500 photos)
Scalability	3D Reconstruction include: face/ hair/ eye/ teeth and so on.
3D Reconstruction angle scope	from 0~180° at only one view direction optional: 360°
Dimension	127mm×255mm×353mm
Weight	7.8kg
Data output format	3DS, DXF, OBJ, CAD, ASC, and 3DV, etc;
Configuration (Recommended)	O/S: Windows 2000 / XP CPU: P4-2.0 G; RAM: 512M; Independent Display Card (Video Card): 128MB (Higher configuration will assure the faster processing)

Operation Step



Main Parts of 3D Engraving Systems

We can provide OEMs and system integrators with a range of high performance components and sub-assemblies of 3D laser engraving systems at more attractive prices. The main parts and sub-systems include a control card, a table with driver, a 2D marking head and DC power supplies.



The control card is used to control the table (step motor), position limits of the table, marking head and laser beam on/off. It is inserted onto the mother board of a computer. The drive software and laser engraving software comes with the control card.

The dimension of the table is 365x120x55mm. The length of the screw is 230mm and the travel range is 120mm. There is a position limit on both ends. The signals are given via DB9

Engraved Samples

