

MR.CARVE

A1 Operations Manual

Please carefully read this Operations Manual before use and keep it properly.



Model: A1

Contents

Safety Precautions	03
Assembly steps	04
Product parameters	05
product structure	06
Parts List	07
Steps for usage	08
Focus	09
Software Acquisition and Installation	10
Software interface introduction	11
Shape Drawing	12
Text Drawing	13
Text Filling	14
Picture Import	15
Picture Processing (People Photos / Color Photos)	16
Image processing (general bitmap)	17
Importing vector files	18
Mark Control	19
Engraving parameter reference	20
FAQ	23

Installation and use of online video viewing



This Operations Manual is subject to change without prior notice if the machine is improved.

Safety Precautions

To prevent damage to your personal and property safety and ensure safe and correct use of the product, please read the Operations Manual carefully and follow the steps in the Operations Manual.

Safety Precautions

- ★ Before operating the machine, users must read the Operations Manual carefully and strictly follow the operating instructions.
- ★ Laser machining may be risky, and users should carefully consider whether the object to be machined is suitable for laser operation.
- ★ The objects to be machined and emissions shall comply with local laws and regulations.
- * Four types of lasers are used by the machine (intense laser radiation), which may cause the following consequences:
 - ① Setting fire to combustible materials around it;
 - ② The different objects to be machined may generate other radiating and toxic and hazardous gases during laser machining;
 - ③ Direct laser radiation may cause personal injury. Firefighting equipment must be equipped at the site. Do not pile inflammable and explosive objects around the workbench and equipment, and ensure good ventilation.

* The equipment should be placed in an environment which is dry and free from pollution, vibration, strong electricity and strong magnetism.

Working environment temperature: -10-45°C; working environment humidity: 5-95% (no condensate).

- ★ Working voltage of equipment: AC100-240V.

The engraving machine and other related equipment must be safely grounded before the start of operation

- ★ When the equipment is on, it should be attended at all times. All the power must be cut off before personnel leave to prevent unusual conditions.

If any, please cut off the power immediately.

Do not place any irrelevant total reflection or diffuse reflection object on the equipment to prevent the laser from reflecting onto human body or flammable objects.

* The equipment should be kept away from electrical equipment sensitive to electromagnetic interference, in case of possible electromagnetic interference.

* Non-specialized personnel are prohibited from disassembling the laser equipment for high voltage hazard or other potential hazards.

Assembly steps



1. Place the lifting column here



2. Fix the lifting column with four screws



3. Place the laser on the column bracket



4. Four screws to fix the laser



5. Insert the connecting line behind the laser

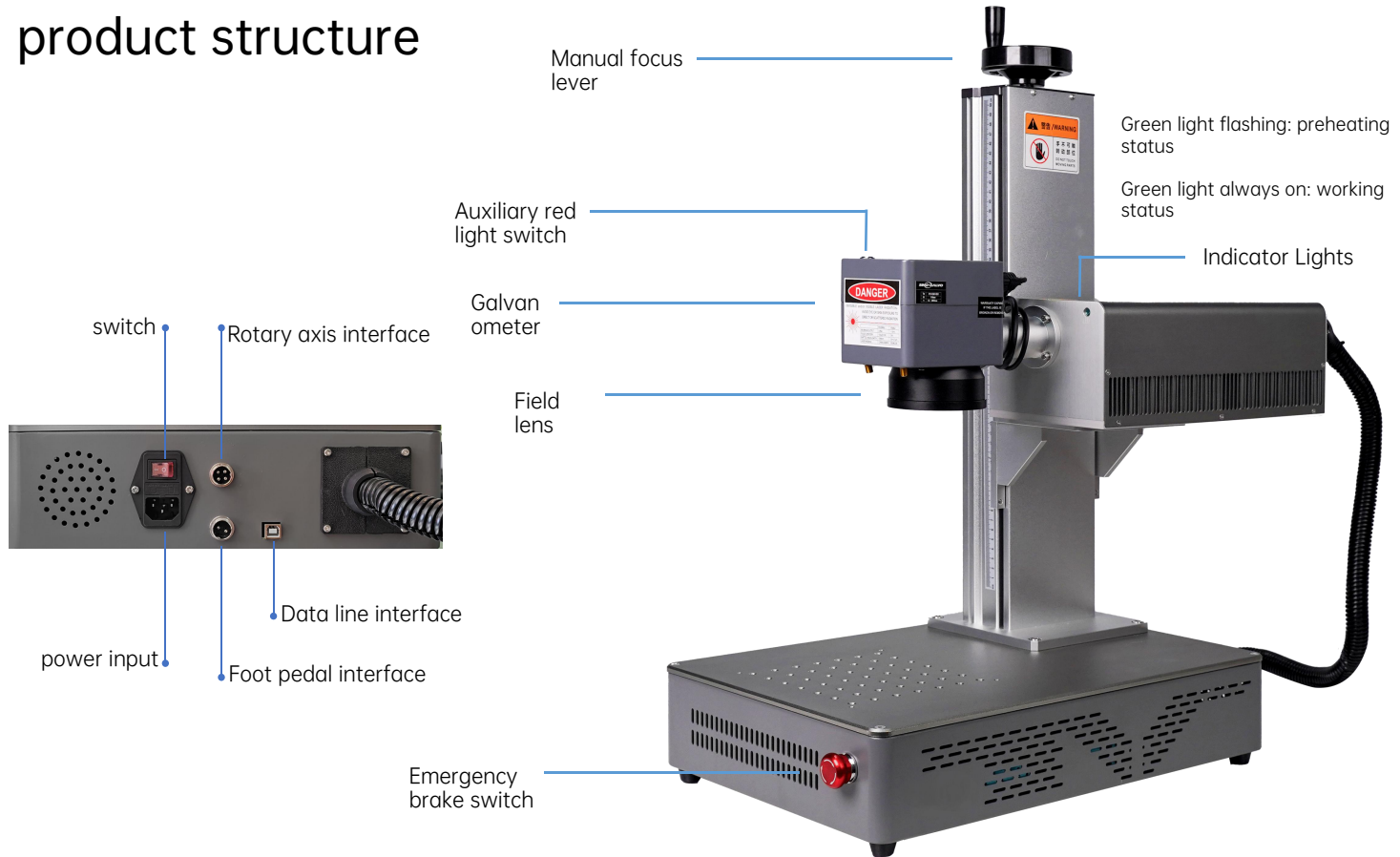


6. Installation Complete

Product parameters

Machine detailed parameters	
Laser power	3W / 5W
Ambient temperature	-10°C~45°C
Operating Voltage	110V-240V
Power consumption	>350w
Repeatability	≤0.001mm
Marking depth	0.015-0.3mm
Marking accuracy	≤0.001mm
Marking speed	≤10000mm/s
cooling method	Air cooling
Laser wavelength	355nm
Marking area	150*150 mm
Marking line width	0.001-0.05mm
Machine Net Weight	22kg
Machine size	500*330*720mm (L*W*H)

product structure



Parts List



Focus Fixing Test Pieces



USB Drive



Hexagon Wrench



Foot switch



USB Cable



Power Cord



Locator



ruler



Steps for usage



1. Plug in the power supply and connect the data cable to the computer



2. Turn on the power switch



3. Turn according to the arrow to open, press to close



4. Remove the protective cover



5. Press to turn on the auxiliary red light



6. Wait for the indicator light to light up and start working

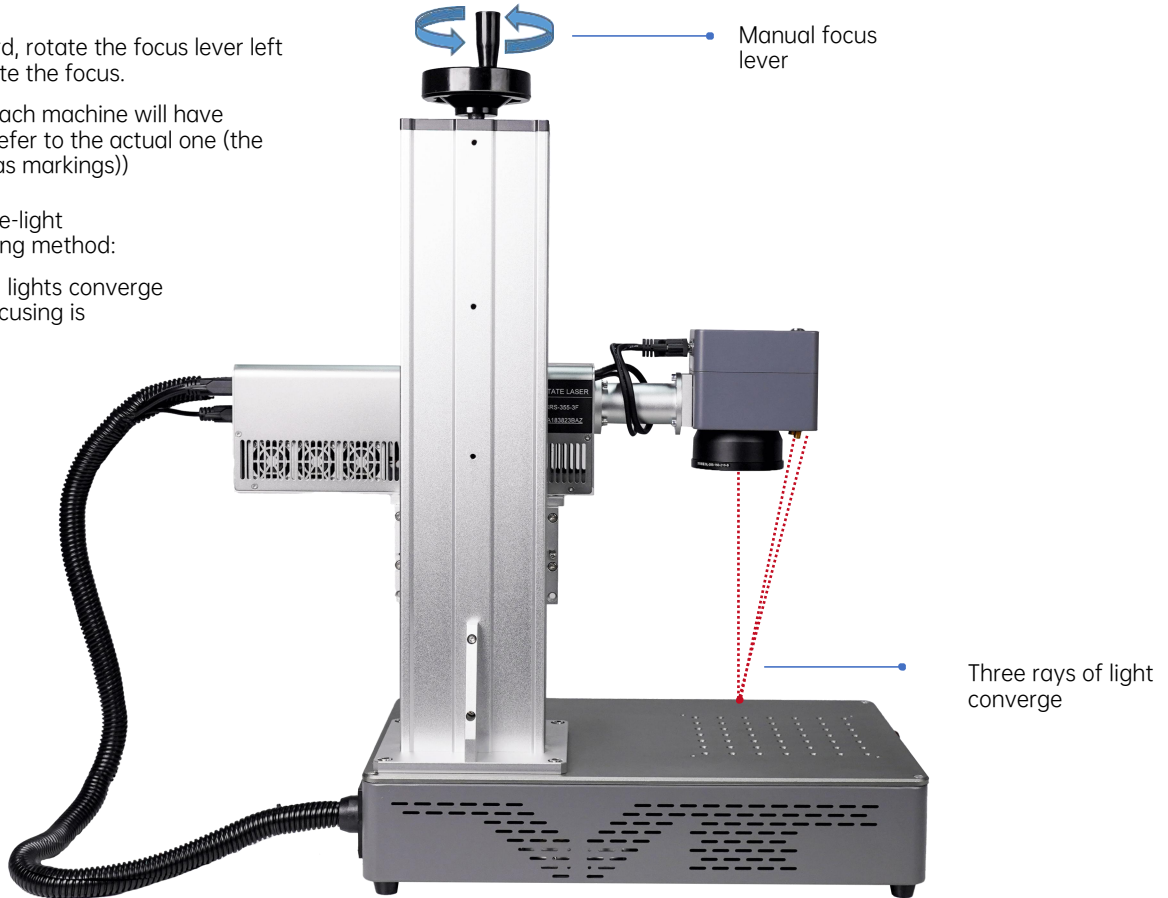
Focus

1. Put in the test card, rotate the focus lever left and right to complete the focus.

(The same lens of each machine will have deviations, please refer to the actual one (the parameter paper has markings))

2. Observe the three-light convergence focusing method:

When the three red lights converge at one point, the focusing is completed.



Software Acquisition and Installation

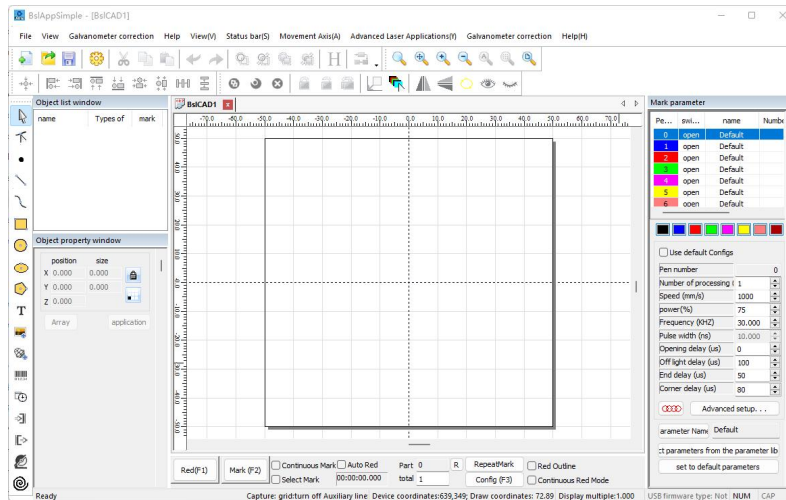
Method I:

- 1.Installing the driver files on the USB stick"Drive\CypressDriverInstaller.exe"
- 2.Copy the folder "*Software BslAppSimple*" from the USB stick to the desktop of your computer, open the folder and double click on "*BslAppSimple.exe*" to start the software;

Method II:

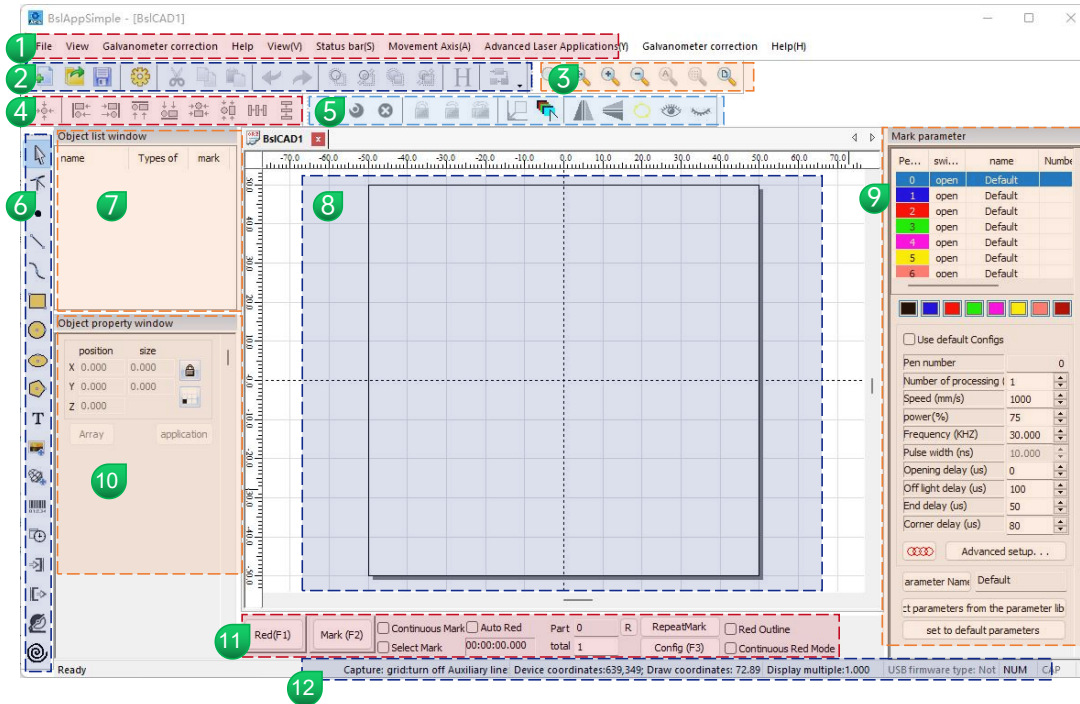
If the supplied USB stick is inadvertently lost, or the software is deleted by mistake.

It can be obtained by visiting the official website "<http://www.mr-carve.com/download/>" and the installation procedure is the same as method 1.



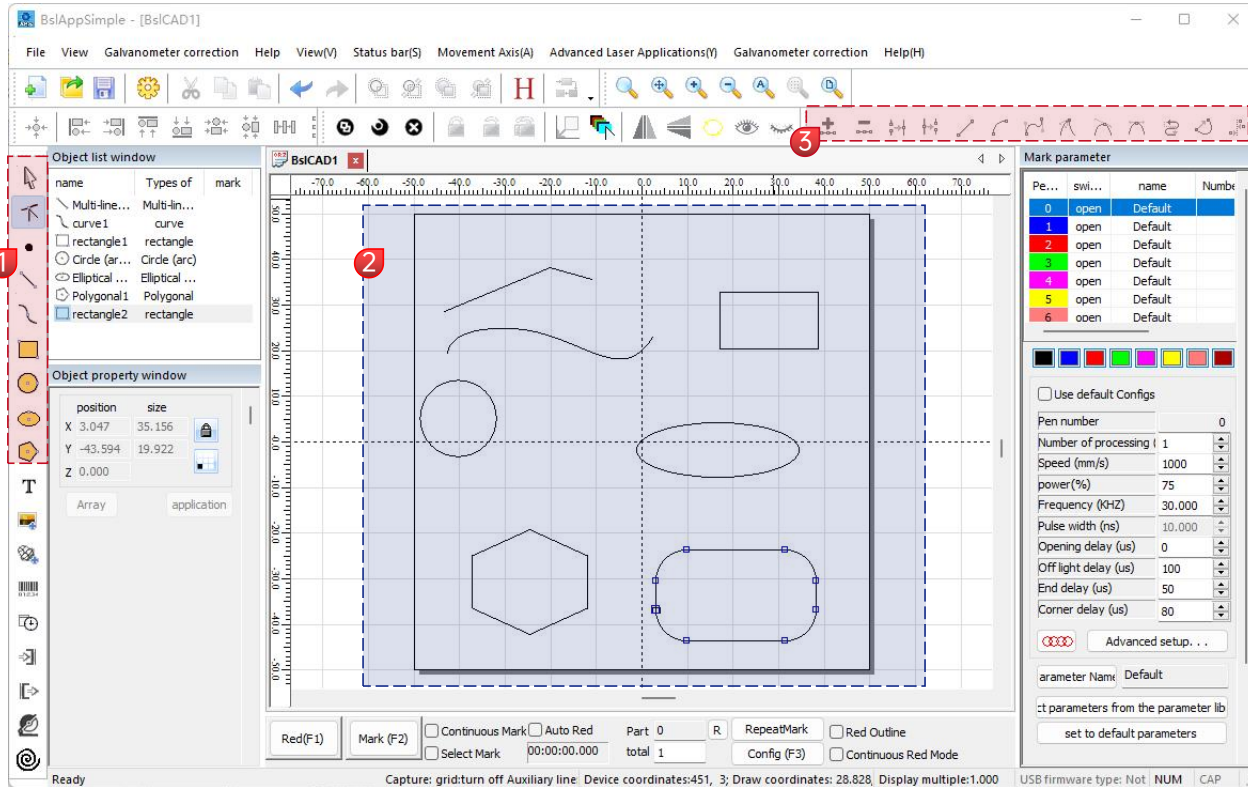
Software interface introduction

Hovering over a function icon will display the corresponding usage instructions for that icon



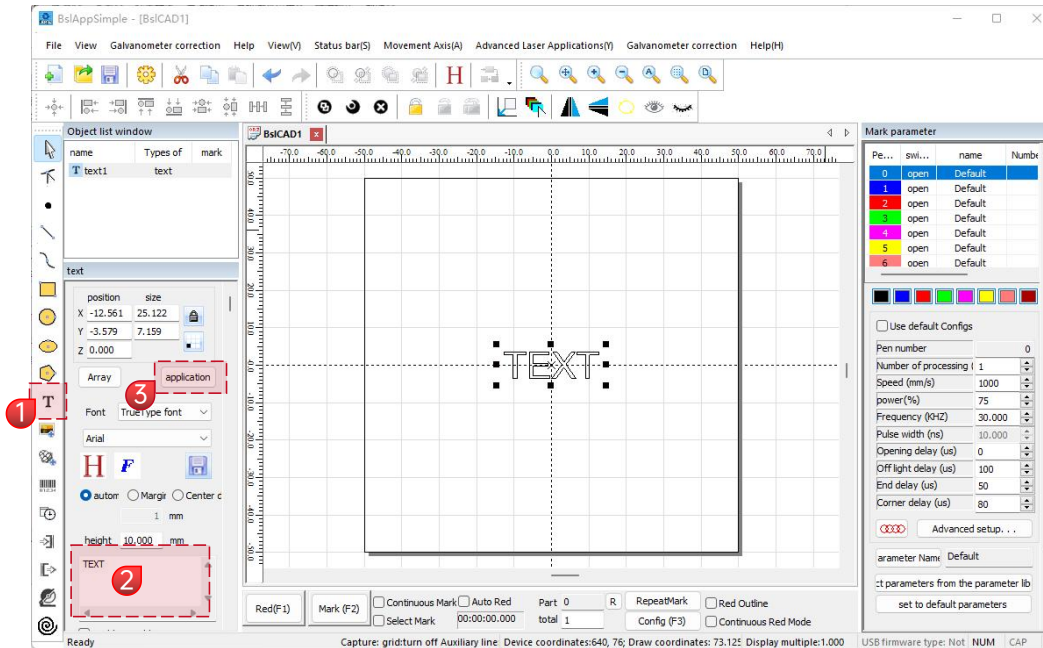
- 1 Menu bar
- 2 System Toolbar
- 3 Zoom Toolbar
- 4 Align Toolbar
- 5 Auxiliary toolbar
- 6 Draw Toolbar
- 7 Object List Window
- 8 Content display box
- 9 Mark parameter
- 10 Object Property Bar
- 11 Marking control bar
- 12 Status Bar

Shape Drawing



- 1 Drawing bar: draw line, curve, rectangle, circle, polygon
- 2 Content display box
- 3 Node editing bar: node editing for the drawn figure

Text Drawing

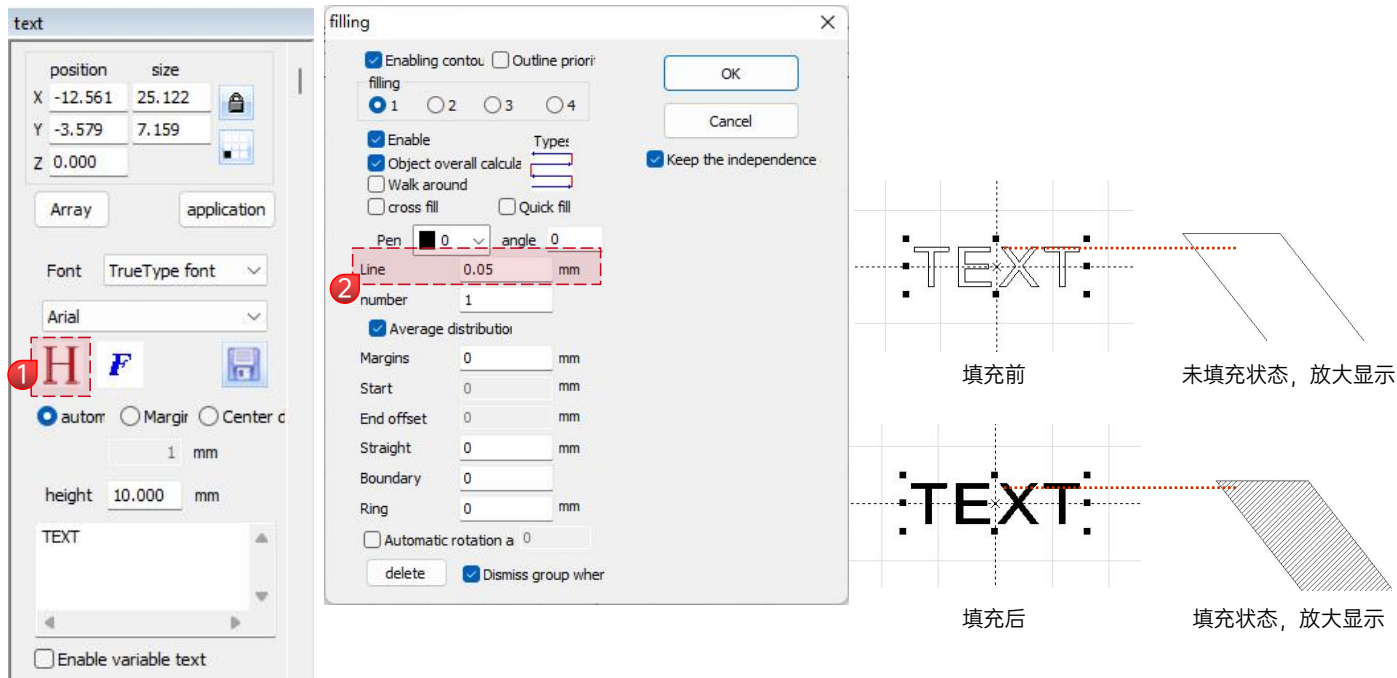


1. Click **T** and the "TEXT" appears by default. Enter the words in the text field and click **application** to complete text entry.

H Text filling must be filled to work on the object to be carved.

F A text tool to set alignment, character spacing, arc text, angle and other parameters.

Text Filling



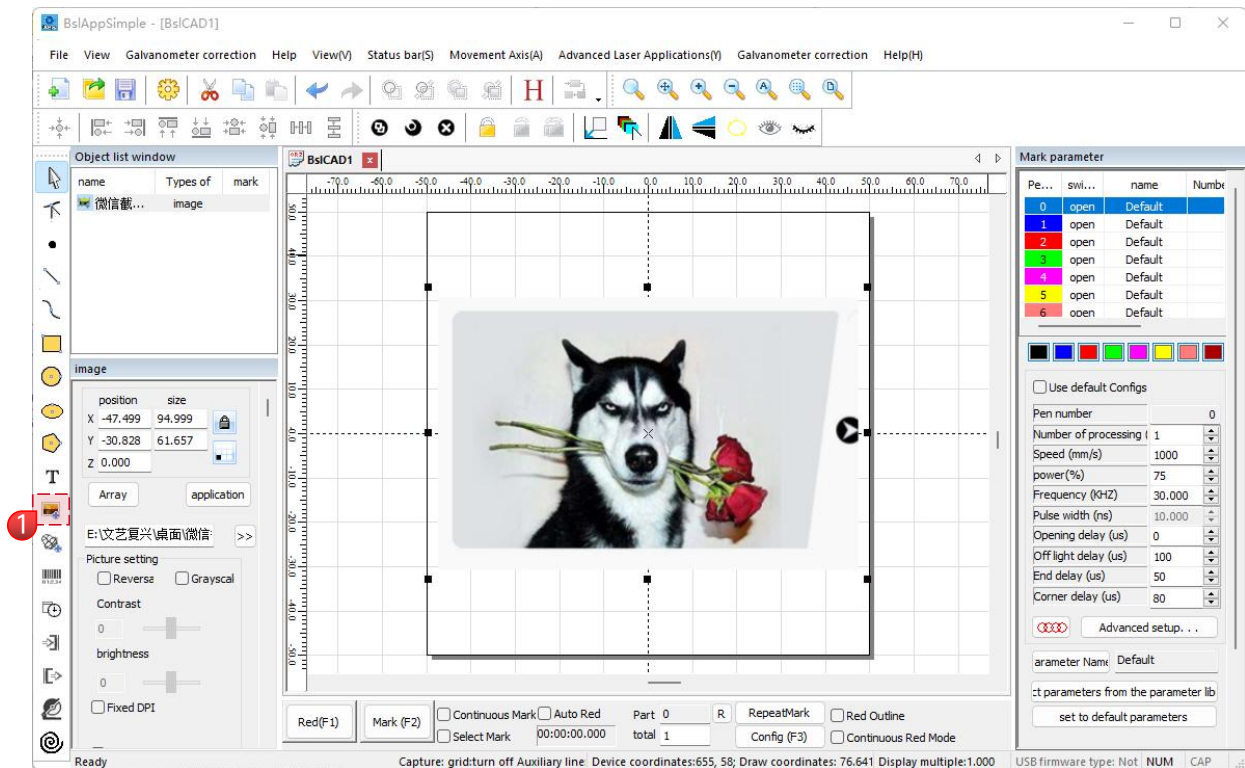
1. Click **H** to open the Filling Settings window.


2. There is no need to set other parameters for text carving. Only "line" needs to be changed. The default value is 0.05.

Notes: "Line" is the text filling density. The greater the value, the higher the carving speed, the lighter the carving color; the smaller the value, the lower the carving speed, the deeper the carving color;

Carving on primary color metal, paint and baking paint, oxidized paint surface, electroplating metal, plastic, leather and other paint materials provide the best effects.

Picture Import



1. Click  to bring up the "Image Properties" Window, select the image you need, and click **application** to import the image.

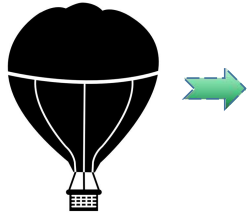
Picture Processing (People Photos / Color Photos)

The screenshot shows a software interface for processing images. On the left, a color photo of a man with glasses is shown. A green arrow points to the right, where the same photo is displayed in a software window. The software window has a grid background and a dashed box around the photo. On the left side of the software window, there are several panels: 'Image' (position, size, array), 'Picture setting' (Reverse, Grayscale, Contrast, brightness, Fixed DPI, Outlets, Threshold), and 'Mark Configs' (Two-way scanning, Dotting time, Adjustment pc, Point power mapping). On the right side, there is a 'Pe...' panel with a table of parameters and a 'Carving' panel with various settings like Pen number, Speed, Power, Frequency, Pulse width, etc. A red circle '1' is around the 'Picture setting' panel, and a red circle '2' is around the 'Carving' panel.

1. Adjust the picture to a proper size;
2. Check "[Reversal](#)", "[Grayscale](#)" and "[Fixed DPI](#)" (enter parameter [500](#) for X and Y) and "[Outlets](#)" in the Picture Settings window;
3. Check "[Two-way scanning](#)" in the "[Mark Configs](#)" window and enter 0.4 in "[Dotting time](#)"; Click to enter parameters
4. Carving parameter setting. Set "[speed\(mm/s\)](#)" as [500](#) and "[power\(%\)](#)" as [100](#).

*Notes: Carving of portrait/colored photo on paint and baking paint metal/oxidized paint electroplating metal can produce the best effects. The higher the DPI value, the clearer the engraving effect; the larger the dotting time, the deeper the engraving effect.

Image processing (general bitmap)



position size
X -31.766 63.533
Y -31.766 63.533
Z 0.000

Array application

E:\文艺复兴\桌面图片 >>

Picture setting
 Reverse Grayscale

1 Contrast
brightness
 Fixed DPI
X 300 Y 300
 Outlets
Threshold 128

Mark Configs
 Two-way scanning
Dotting time 0.400 ms
 Adjustment pc
Point power mapping
Expand...
 Dynamically input

2
Speed (mm/s) 500
power(%) 100

application

Ready Capture: grid:turn off Auxiliary line Device coordinates:628,266; Draw coordinates: 70.31 Display multiple:1.000

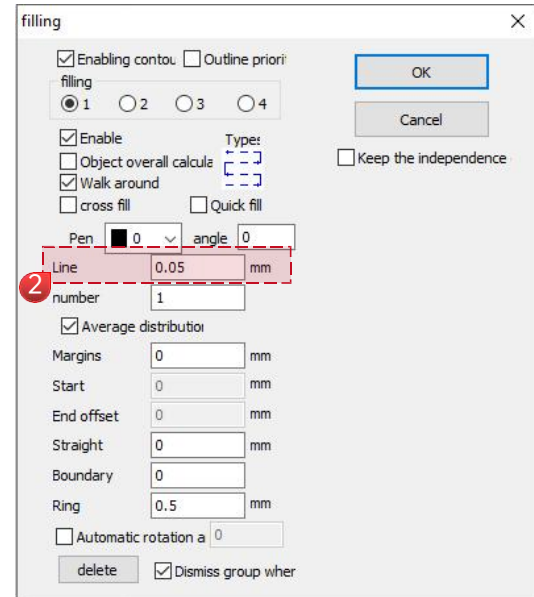
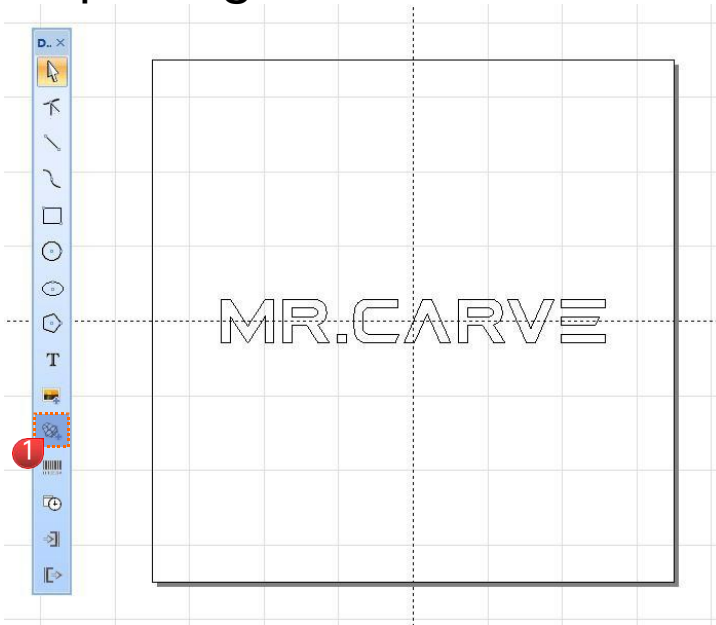
Adjust the picture to a proper size;


Check "[Grayscale](#)" and "[Fixed DPI](#)" (enter parameter [300](#) for X and Y) and "[Outlets](#)" in the Picture Settings window;

Check "[Two-way scanning](#)" in the "[Mark Configs](#)" window and enter [0.4](#) in "[Dotting time](#)"; Click [application](#) to enter parameters Carving parameter setting. Set "[speed\(mm/s\)](#)" as [500](#) and "[power\(%\)](#)" as [100](#).

*Notes: Carving on primary color metal, paint and baking paint, oxidized paint surface, electroplating metal, plastic, leather and other paint materials provide the best effects.

Importing vector files



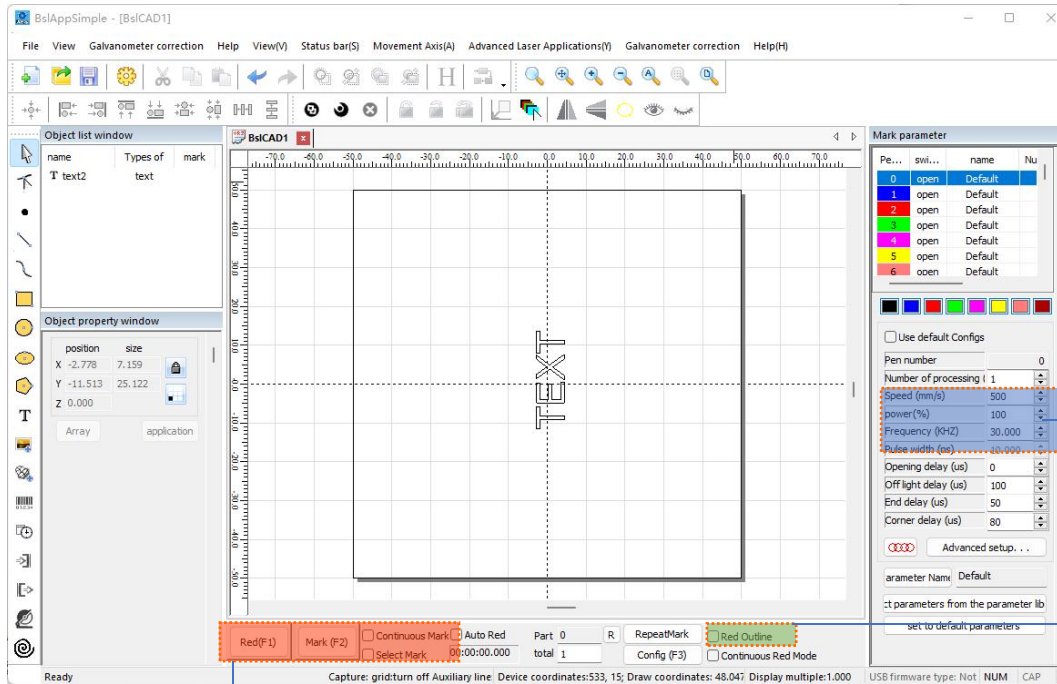
1. Click  to import vector files; support PLT, DWG, AI and other formats;
2. The imported vector file needs to be filled in order to complete the marking.



3. For vector file filling, no other parameters need to be set. You only need to modify the "line spacing", and the default parameter is 0.05;

Note: Line spacing is the filling density. The larger the value, the faster the marking speed and the lighter the engraving color; on the contrary, the smaller the value, the slower the marking speed and the darker the engraving color; it is best to mark on original color metal, spray paint, oxidized paint, electroplated metal, plastic, leather and other painted materials.

Mark Control



Recommended Parameter Adjustment

Speed(mm/s):500

power(%):100

Frequency(KHZ):30

When checked,
set to outline preview mode

Red light (F1): Preview the current carving position, red light rectangular preview mode

Mark(F2): Start carving

Continuous Mark: Repeat engraving

Select Mark: When there are multiple objects on the canvas, select one of them to engrave

Engraving parameter reference

Text, vector graphics			
Material	Line	power	speed
Metal	0.05/ 0.01/ 0.005	100	500~1000
Painted Metal	0.05 / 0.01	100	1000
plastic	0.05	100~70	1000 ~ 1500
leather	0.05	100~70	1000 ~ 1500
Stone	0.005/0.001	100	200
Painted glass	0.05	100~80	1000
Paint material	0.05	100~80	1000

- Parameter explanation:
1. The larger the fill line spacing value, the sparser the fill density, which affects the engraving speed. If it is faster, the engraving color will become lighter.
 2. The smaller the fill line spacing value, the denser the fill density, which slows down the engraving speed. If it slows down, the engraving color will become darker.
 3. Power is used to control the intensity of the laser output. A parameter of 0 means 100% laser output; a parameter of 50 means 50% laser output
 4. Speed refers to the marking speed. The larger the parameter, the faster the engraving speed, and the smaller the parameter, the slower the speed.

Black and white image (normal bitmap)

Material	Picture Settings	power	speed
Metal	Grayscale (checked) Fixed DPI (x300 y300) Dots (checked) Bidirectional scanning (checked) Dot time (0.2~2)	100	200~400
Painted metal		100	400~1000
Plastic		50~30	1000~1500
Leather		60~40	1000~1500
Stone		100	200~400
Painted materials		100~50	1000~1500

Color images (landscapes, people images)

Painted Metal	Invert (check) Grayscale (check) Fixed DPI (x500 y500) Dots (check) Bidirectional scanning (check) Dot time (0.2~0.5~1)	Metal parameters 100~80 Plastic parameters 50~30	1000
Electroplating Metal			
Oxidized Metals			
ABS plastic			

Engraving text/vector

Parameter explanation:

1. Fill line spacing: The larger the value, the sparser the filling density, which will increase the engraving speed and make the engraving color lighter.
2. Fill line spacing: The smaller the value, the denser the filling density, which will slow down the engraving speed and make the color darker.
3. Power is used to control the intensity of the laser output. A parameter of 0 means 100% laser output. A parameter of 50 means 50% laser output.
4. Speed refers to the marking speed. The larger the parameter, the faster the engraving speed, and the smaller the parameter, the slower the speed.

Engraving bitmap/character image

Parameter explanation:

1. Fixed DPI; X Y value parameter refers to adjusting the picture pixel. The larger the parameter, the higher the pixel, and the slower the engraving speed. Because the pixel is dense, it will engrave every point, which will cause the engraving speed to slow down. Generally, when engraving color photos or portrait photos, it is recommended to adjust the fixed DPI parameter value to X: 500; Y: 500 or X: 800; Y: 800.
2. Engraving white background bitmap, the picture composed of lines is called bitmap. Generally speaking, the pixel does not need to be too high. The recommended reference value is X:200;Y:200 or X:300;Y:300
3. Dotting time controls the engraving speed. The smaller the parameter, the faster the engraving speed, and the larger the parameter, the slower the engraving speed.

FAQ

I. The machine does not respond when powered on.

1. Power connection failure: check the socket, switch and socket on the machine body to ensure that they have been properly plugged and connected to power; check the Power button on the panel to make sure it is pressed and the button light is on.

II. Unable to connect to the computer

1. Not connected to the USB cable: check the computer and machine interface of the USB cable to ensure that it is properly connected. The USB interface on the front panel of some desktop computers is invalid, so it needs to be connected to the socket at the rear of the host.

2. The driver is not installed properly: install the driver according to the instructions. If the computer identifies the device as a serial port after installation, the hardware connection is OK.

3. Other special cases: disconnect the USB cable and power supply. After the equipment is completely powered off for 5 seconds, connect it to the power again.

III. Light carving or no carving

1. Inaccurate focusing: read the focusing section of the Operations Manual for accurate focusing.

2. Carving speed: a result of too high speed or too short burning time. Read the carving parameters section of the Operations Manual to readjust the parameters.

3. Shallow picture: the imported picture needs to be clear. If the lines too fine and the color is too light, the carving effect will be affected directly.

4. Placement of object: as the laser focal distance is fixed, the object to be carved needs to be flat, parallel to the machine body. If the object to be carved is titled, the focal distance is inaccurate, resulting in abnormal carving effect.



All information in this material has been carefully reviewed, if there are any typographical errors or misunderstandings in the content, please contact us.

Notes: Technical improvements (if any) of the product will be added to the new Manual without further notice. The appearance and color of the product are subject to change.



A1 使用说明书

使用产品前请仔细阅读本使用说明书，并妥善保管。



型号: A1

目录

保修条款	03
安全注意事项	04
产品参数	05
组装步骤	06
产品结构介绍	07
配件明细	08
使用步骤	09
对焦	10
软件获取与安装	11
软件界面介绍	12
绘制图形	13
绘制文字	14
文本填充	15
导入图片	16
导入矢量文件	19
标刻控制	20
材质雕刻参数参考	21
常见问题	24



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保修条款

感谢您选择购买我们的产品。为了确保您的权益和消费体验，在此向您提供产品保修条款如下：

1.保修期限:产品保修期从购买日期起算,保修三年，主机和激光器以外配件质保90天,具体以您购买时收到的保修条款为准。

2.保修范围:本保修适用于因产品设计、制造或材料缺陷引起的故障。我们将会免费修理或更换相应零部件，以满足产品正常使用的要求。

3.保修条件:

- a.产品必须在环境温度-10-45°下使用;
- b.产品必须按照产品手册和说明书中的使用指南正确操作;
- c.产品不得被非授权人员拆解或修理;
- d.产品没有经过人为破坏或改装。

4.不在保修范围内的情况:

- a.无法提供有效的购买记录（订单编号或者合同等资料）；
- b.由于意外事故、不当使用、修理或修改导致的损坏;
- c.不按照产品说明书操作而引起的损坏;
- d.自然灾害或不可抗力所导致的损坏。

5.保修服务流程:

- a如果您发现产品有故障，请立即联系我们的售后技术服务，并提供购买凭证以及故障描述;
- b.我们的售后技术服务团队将为您提供相应的解决方案，可能包括电话支持、远程维修、用户手动修理或送修等;
- c.如果需要寄修，请将产品妥善包装,将其送至指定地址;
- d.维修结果将由我们的技术团队进行评估，并根据保修条款提供相应维修或更换服务;
- e.维修完成后，我们将联系您安排产品返还或寄送。

安全注意事项

为了防止给您的人身及财产安全造成损害，为了您可以安全正确地使用本产品，请仔细阅读使用手册，并按照使用手册的步骤操作。

安全注意事项

★在操作设备之前，用户务必认真阅读使用手册，严格遵守操作规程。

★激光加工可能存在风险，用户应慎重考虑被加工对象是否适合激光作业。

★加工对象及排放物应符合当地的法律、法规要求。

*本设备使用四类激光器（强激光辐射），该激光辐射可能会引起以下情况：

①点燃周边的易燃物；

②激光加工过程中，因加工对象的不同可能会产生其它的辐射及有毒、有害气体；

③激光辐射的直接照射会引起人体伤害，使用场所必须配备消防器材，禁止在工作台及设备周围堆放易燃、易爆物品，同时务必保持通风良好。

*设备所处环境应干燥，无污染、无震动、无强电、强磁等干扰和影响。工作环境温度-10-45℃，工作环境湿度5-95%（无凝水）

★设备工作电压：AC110-AC220V。

*雕刻机及其相关联的其它设备都必须安全接地，方可开机操作。

★设备在开机状态下，需全程值守，人员离开前必须切断所有电源，防止异常状况发生，如有发生请立即断电处理！

*严禁在设备中放置任何不相干的全反射或漫反射物体，以防激光反射到人体或易燃物品上。

*设备应远离对电磁干扰敏感之电气设备，可能对其产生电磁干扰。

*激光设备内部有高压或其它潜在的危險，非专业人员严禁拆卸。

产品参数

机器详细参数	
激光功率	3W / 5W
环境温度	-10°C~45°C
工作电压	110V-240V
整机功耗	>350w
重复精度	≤0.001mm
打标深度	0.015-0.3mm
打标精度	≤0.001mm
打标速度	≤10000mm/s
冷却方式	风冷散热
激光波长	355nm
打标幅面	150*150 mm
打标线宽	0.001-0.05mm
机器净重	22kg
机器尺寸	500*330*720mm (L*W*H)

组装步骤



1.将升降立柱放置此处



2.四颗螺丝固定升降立柱



3.将激光器放置立柱托架上



4.四颗螺丝固定激光器



5.插入激光器后方连接线



6.安装完成

产品结构介绍



配件明细



调焦测试片



U盘



六角扳手



脚踏开关



数据线



电源线



定位器



尺子



使用步骤



1. 插上电源，数据线 with 电脑连接



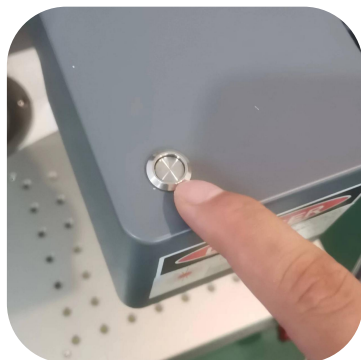
2. 开启电源开关



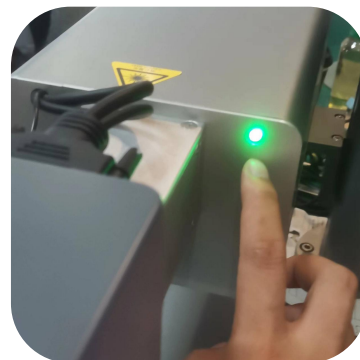
3. 按照箭头旋转开启，按下关闭



4. 取下保护盖



5. 按下开启辅助红光



6. 等待指示灯常亮即可开始工作

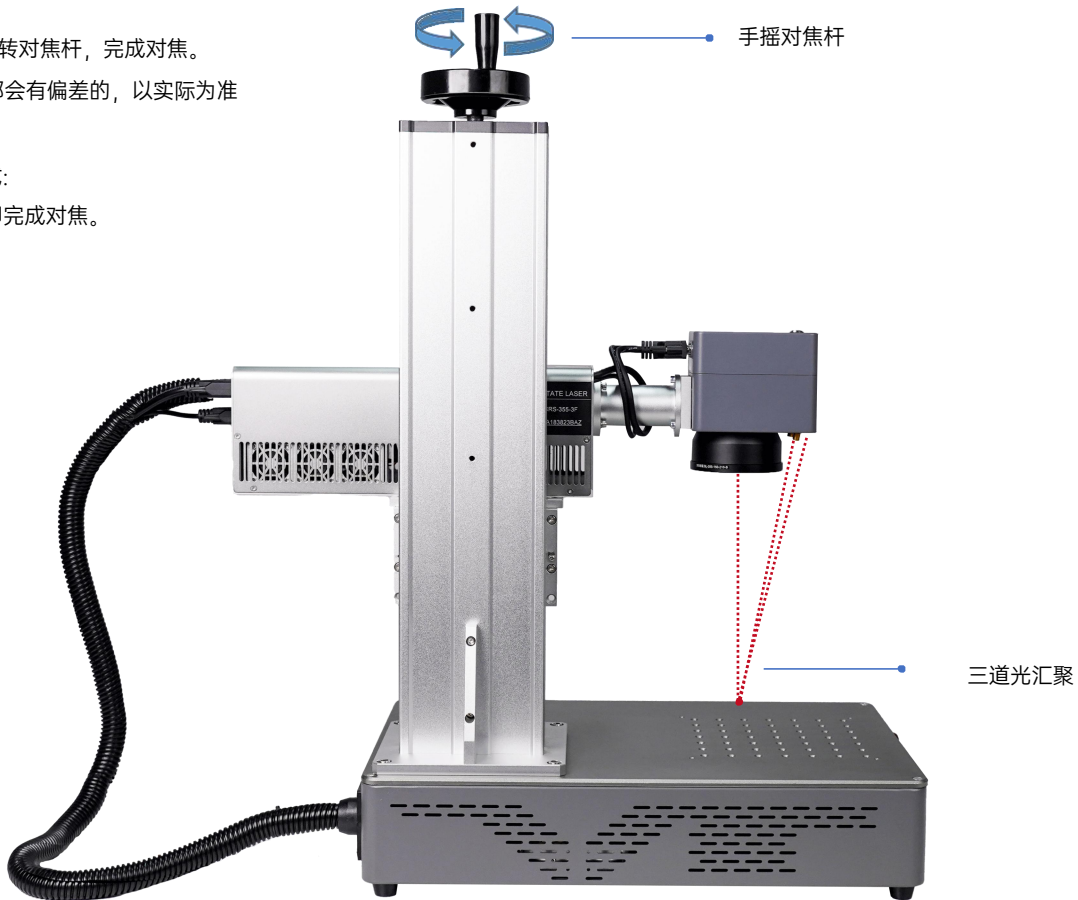
对焦

1.放入测试卡片，左右旋转对焦杆，完成对焦。

(每台机器相同的镜头都会有偏差的，以实际为准
(参数纸有标识))

2.观测三光合一对焦方式:

三道红光汇合一点，即完成对焦。



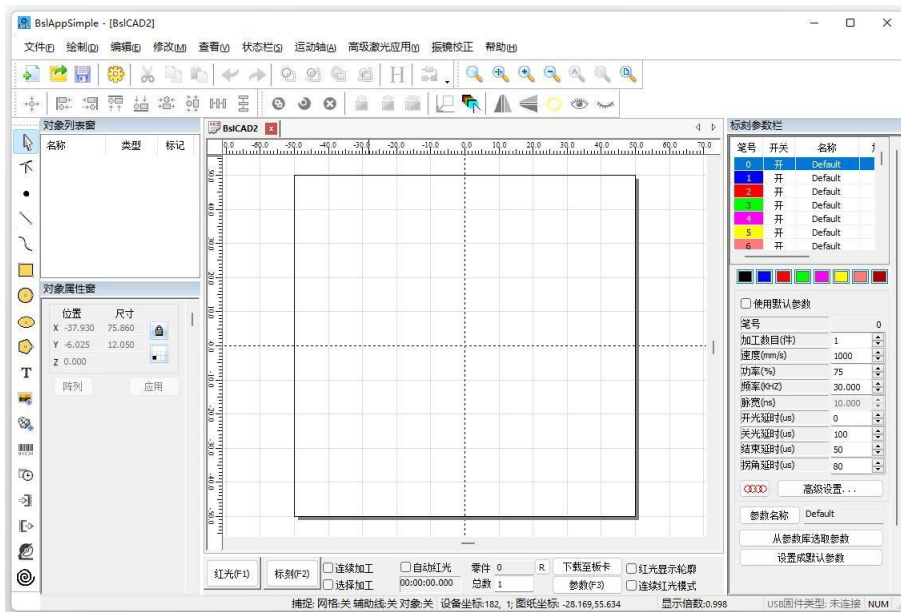
软件获取与安装

方法一：

1. 安装U盘里的驱动文件“Drive\CypressDriverInstaller.exe”
2. 将U盘里的文件夹“复制到电脑桌面，打开该文件夹，找到BSLAPP 软件图标，选中按鼠标右键，发送到桌面快捷方式即可

方法二：

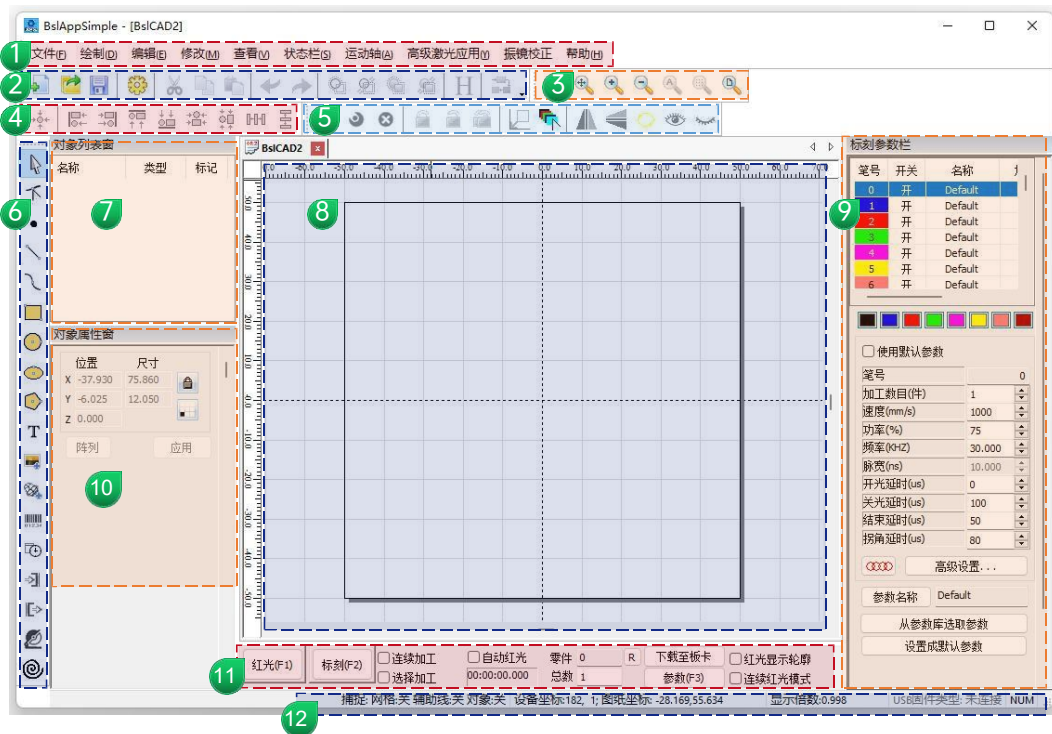
如果随机附赠的U盘不慎遗失，或者软件误删除。可通过访问或者联系本公司工作人员获取



软件打开状态页面

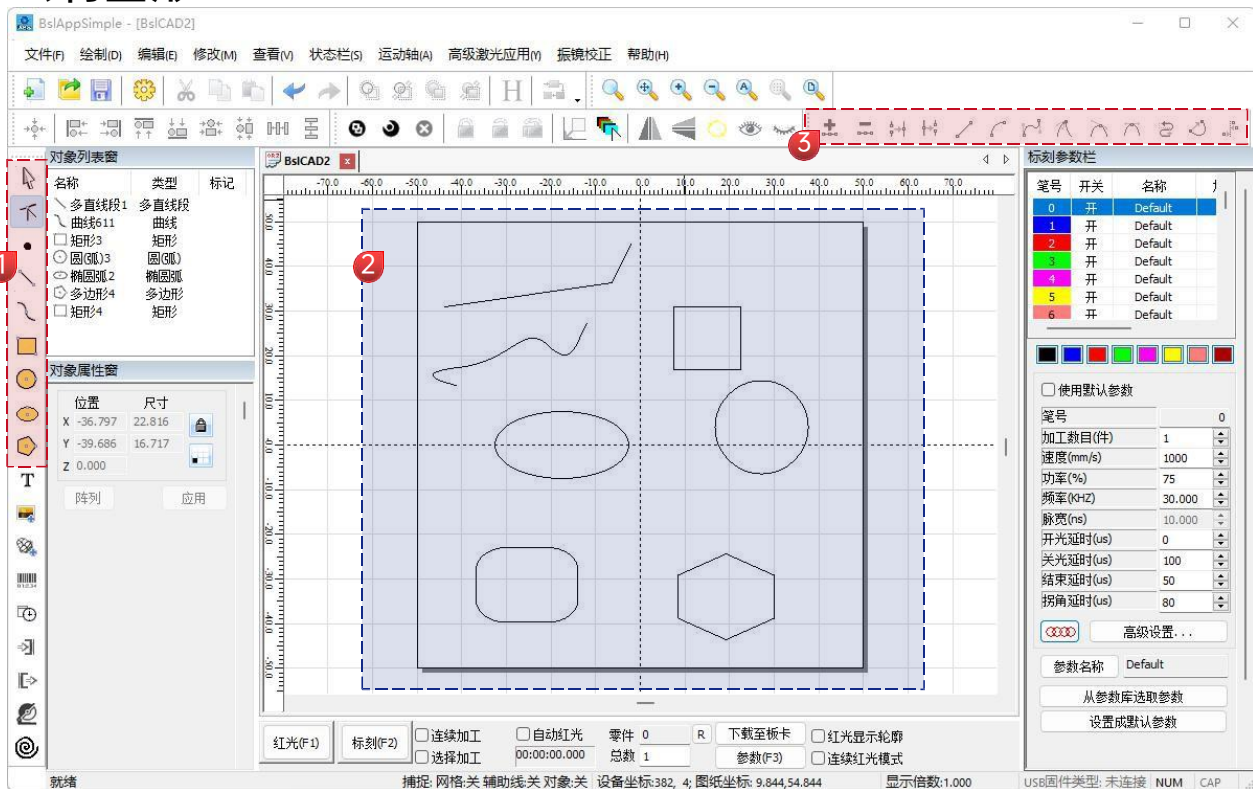
软件界面介绍

鼠标在功能图标上停留，会显示该图标对应的使用说明



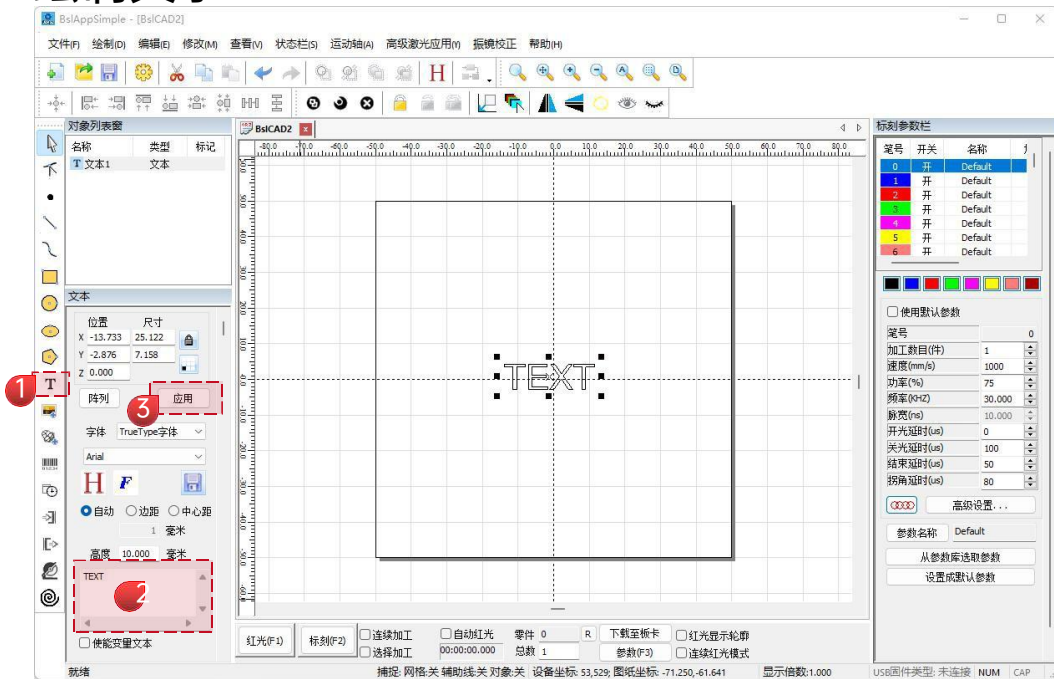
- 1 菜单栏
- 2 系统工具栏
- 3 缩放工具栏
- 4 对齐工具栏
- 5 辅助工具栏
- 6 绘图工具栏
- 7 对象列表窗
- 8 内容显示框
- 9 标刻参数栏
- 10 对象属性栏
- 11 标刻控制栏
- 12 状态栏

绘制图形



- 1 绘图栏：绘制直线、曲线、矩形、圆形、多边形
- 2 内容显示框
- 3 节点编辑栏：对绘制的图形，进行节点编辑

绘制文字

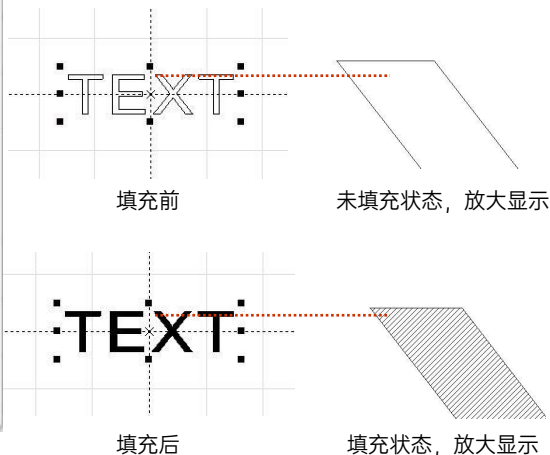
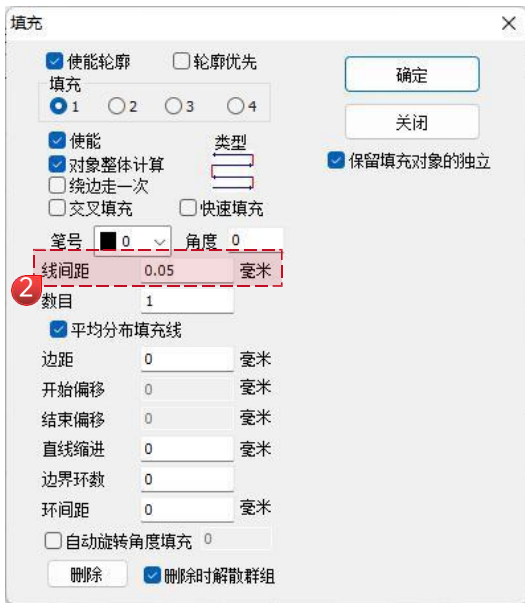


1. 点击 **T**，默认出现“TEXT”，在文本输入框内输入相关文字，点击 **应用**，完成文本输入。

H 文本填充，需要填充才能作用到雕刻物上；

F 文本工具，设置对齐方式、字符间距、圆弧文本、角度等参数。

文本填充



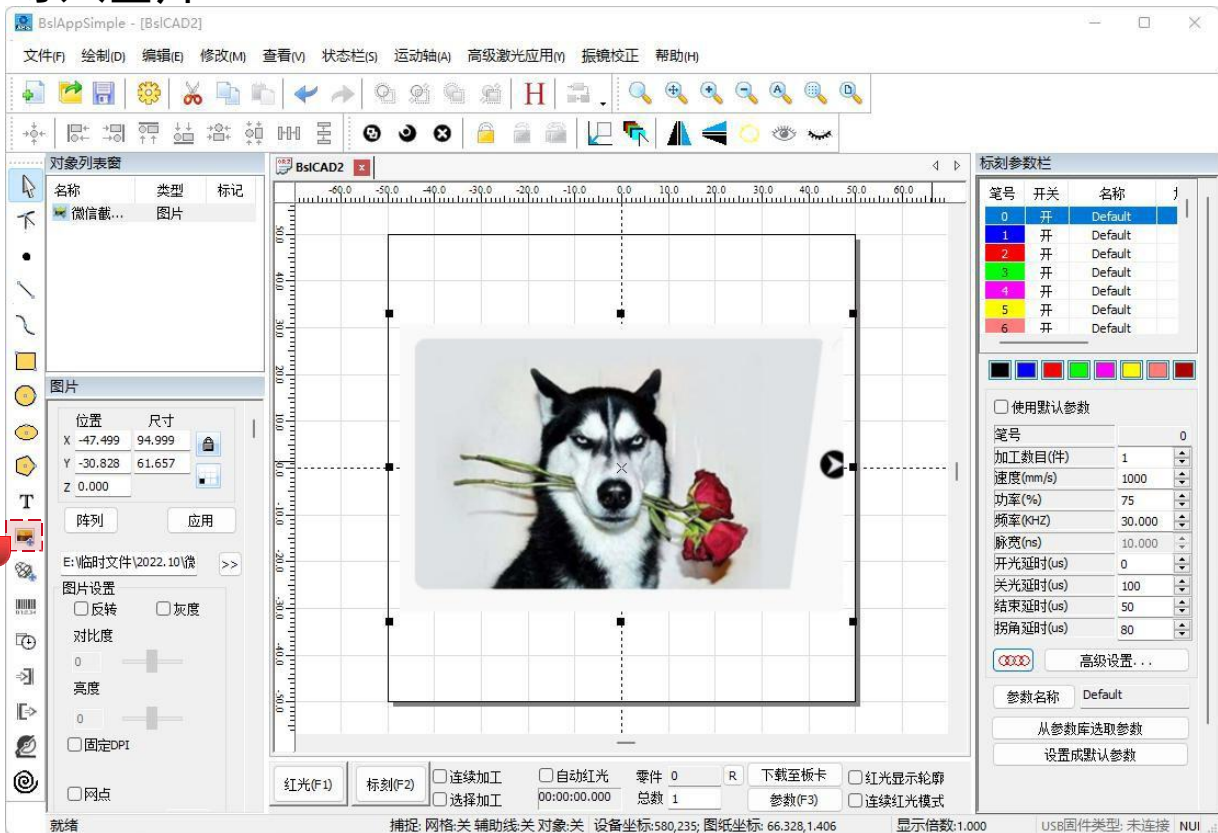
1. 点击 **H**，打开填充设置窗口；

2. 文字打标不需要设置其他参数，只需要修改“线间距”，默认参数为0.05；

说明：线间距是文字填充密度。数值越大，打标速度越快，雕刻颜色越浅；反之数值越小，则打标速度越慢，雕刻颜色越深；

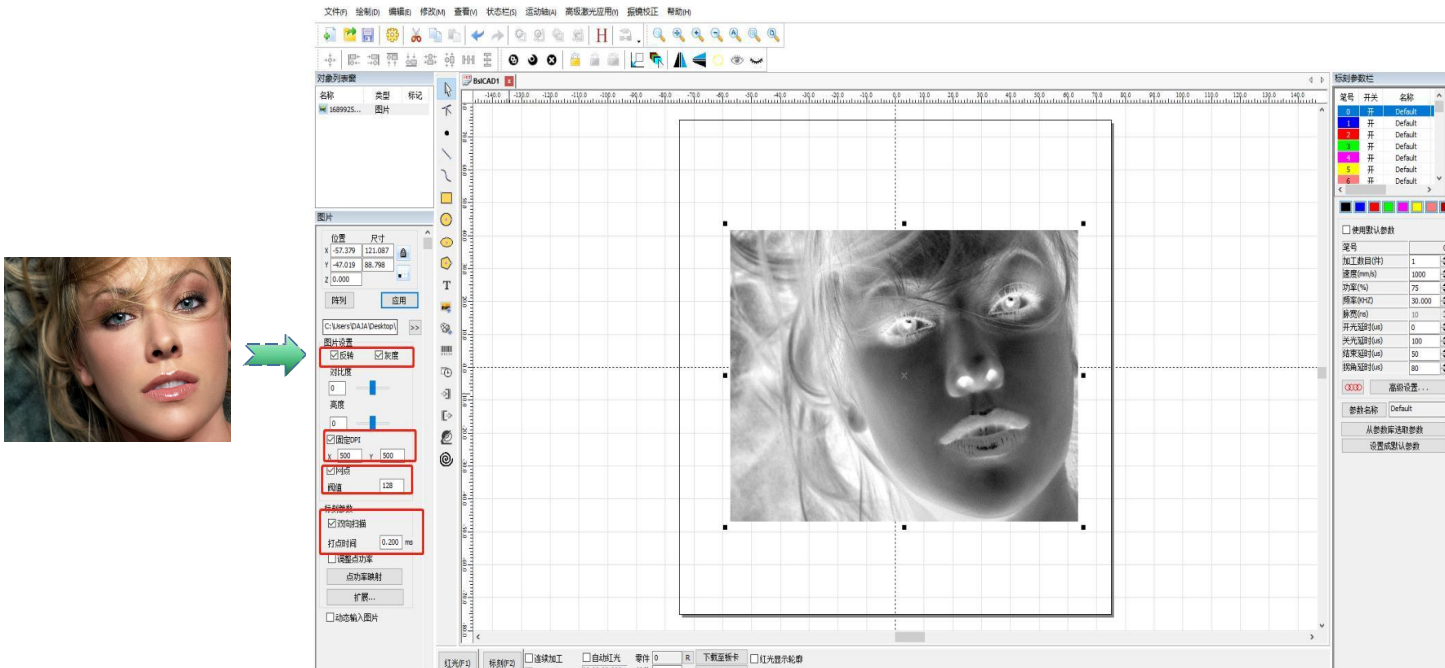
在原色金属、喷漆烤漆、氧化漆面、电镀金属、塑料、皮革、其它漆面材质上标刻，效果最佳。

导入图片



1. 点击 ，弹出“图片属性”窗口，选择自己所需的图片，点击 **打开(O)** 导入图片。

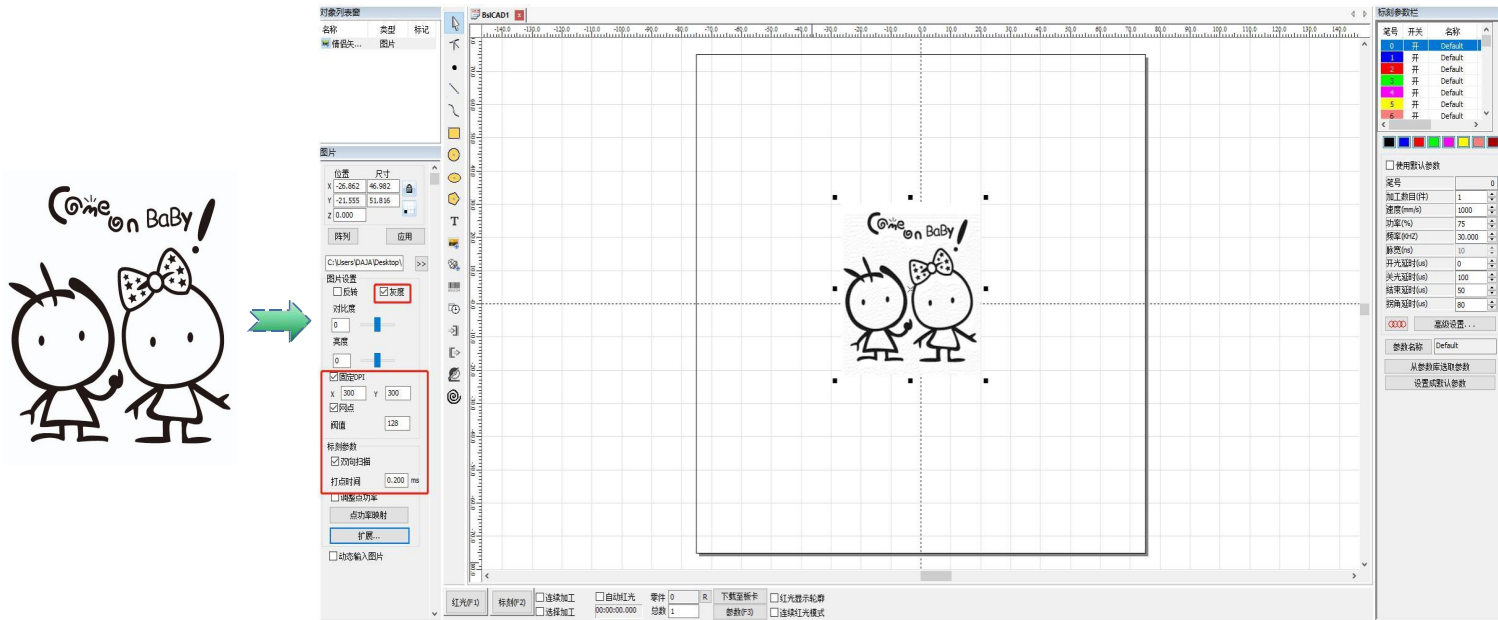
图片处理（人物照片/彩色照片）



- 1.调整图片至合适的大小尺寸;
- 2.在“图片设置”窗口里，勾选“反转”、“灰度”，“固定 DPI”(XY分别填入参数500)，“网点”;
- 3.在“标头参数”窗口里，勾选“双向扫描”、在“打标时间”填入0.2，点击 确定输入参数;
- 4.标头参数设置，“速度(mm/s)”设置为1000，“功率(%)”设置为0~50;

说明：人物照片/彩色照片在喷漆烤漆面金属/氧化漆面电镀金属上雕刻，效果最佳。

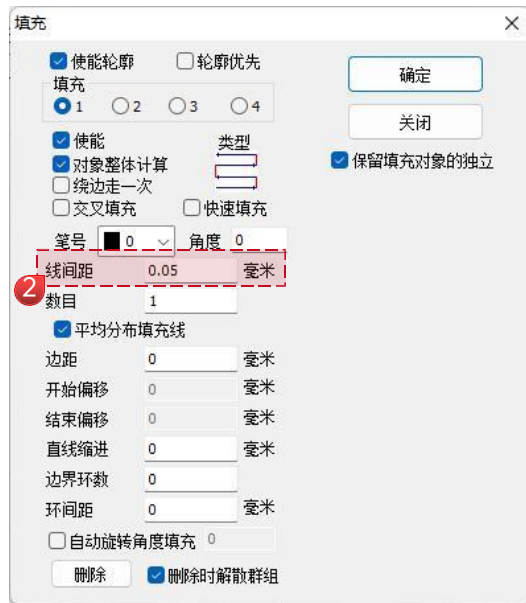
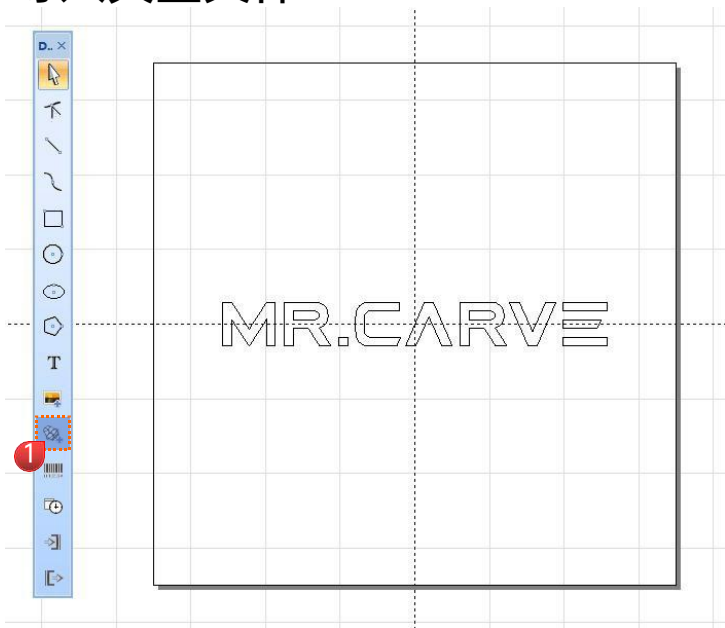
图片处理（普通位图）




1. 调整图片至合适的大小尺寸；
2. 在“图片设置”窗口里，勾选“灰度”，“固定 DPI”(XY分别填入参数300)，“网点”；
3. 在“标刻参数”窗口里，勾选“双向扫描”、在“打标时间”填入0.2，点击 确定输入参数；
4. 标刻参数设置，“速度(mm/s)”设置为1000，“功率(%)”设置为100；

说明：在原色金属、喷漆烤漆、氧化漆面、电镀金属、塑料、皮革、其它漆面材质上雕刻，效果最佳。

导入矢量文件



1. 点击 ，导入矢量文件；支持PLT、DWG、AI等格式；

2. 导入的矢量文件，需要填充才能完成标刻。

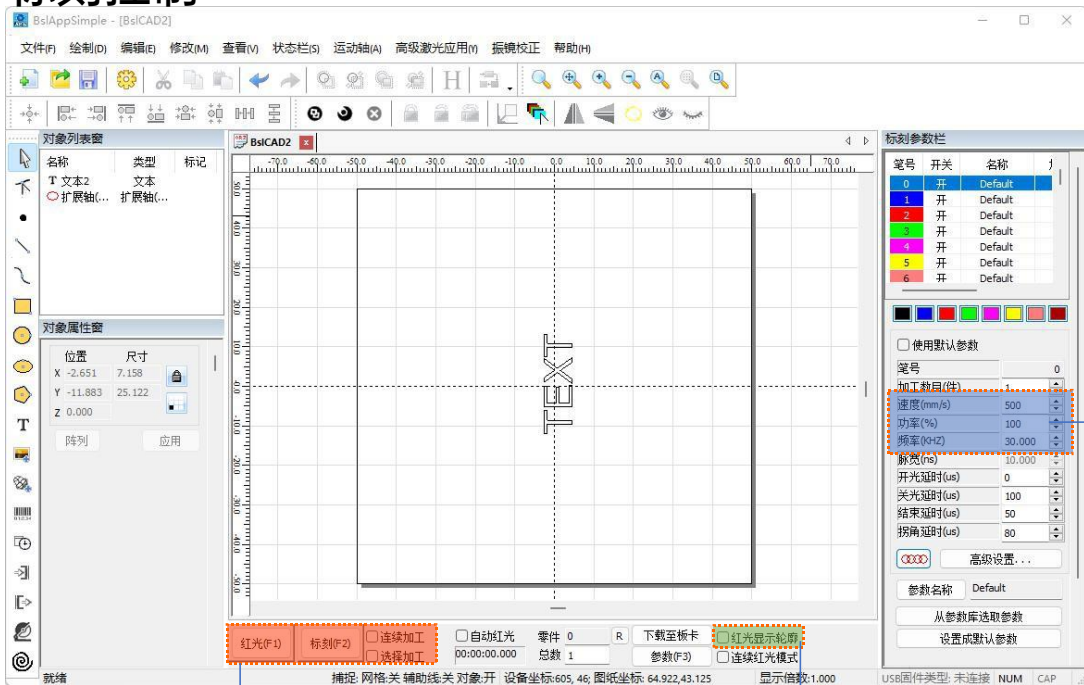


3. 矢量文件填充，不需要设置其他参数，只需要修改“线间距”，默认参数为0.05；

说明：线间距是填充密度。数值越大，打标速度越快，雕刻颜色越浅；反之数值越小，则打标速度越慢，雕刻颜色越深；

在原色金属、喷漆烤漆、氧化漆面、电镀金属、塑料、皮革、其它漆面材质上标刻，效果最佳。

标刻控制



建议参数调节:

速度(mm/s):

1000

功率(%):100

频率(KHZ):30

红光 (F1):预览当前雕刻位置, 红光矩形的预览模式

标刻(F2): 开始标刻

连续加工: 重复雕刻

选择加工: 多个对象, 选择其中一个雕刻

勾选后, 设置为轮廓预览模式

材质雕刻参数参考

文字、矢量图			
材料	线间距	功率	速度
金属	0.05/ 0.01/ 0.005	100	500~1000
漆面金属	0.05 / 0.01	100	1000
塑料	0.05	100~70	1000 ~ 1500
皮革	0.05	100~70	1000 ~ 1500
石材	0.005/0.001	100	200
漆面玻璃	0.05	100~80	1000
漆面材料	0.05	100~80	1000

- 参数讲解：
- 1.填充线间距数值越大 填充的密度也就越稀疏，影响雕刻速度变快，变快的话雕刻 颜色就会变浅
 - 2.填充线间距数值越小 填充的密度也就越稀密集，影响雕刻速度变慢，变慢的话雕刻颜色就会变深
 - 3.功率是控制激光器强度输出的 参数为0代表激光%100输出；参数为50代表激光%50输出
 - 4.速度是打标速度，参数越大雕刻速度越快，越小速度越慢

黑白图(普通位图)

材料	图片设置	功率	速度
金属	灰度 (勾选) 固定DPI (x300 y300) 网点 (勾选) 双向扫描 (勾选) 打点时间 (0.2~2)	100	200~400
漆面金属		100	400~1000
塑料		50~30	1000~1500
皮革		60~40	1000~1500
石料		100	200~400
漆面材料		100~50	1000~1500

彩色图(风景、人物图像)

漆面金属	反转 (勾选) 灰度 (勾选) 固定DPI (x500 y500) 网点 (勾选) 双向扫描 (勾选) 打点时间 (0.2~0.5~1)	金属参数 100~80 塑料参 数 50~30	1000
电镀金属			
氧化金属			
ABS塑料			

雕刻文字/矢量图

参数讲解：

- 1、填充线间距:数值越大,填充的密度也就越稀疏,影响雕刻速度变快,雕刻颜色就会变浅
- 2、填充线间距:数值越小,填充的密度也就越稀密集,影响雕刻速度变慢,颜色就会变深
- 3、功率是控制激光器强度输出的 参数为0代表激光%100输出 参数为50代表激光%50输出
- 4、速度是打标速度,参数越大雕刻速度越快,越小速度越慢

雕刻位图/人物图

参数讲解：

- 1、固定DPI; X Y 值参数,指的是调节图片像素点,参数越大,像素越高,雕刻速度也会变慢,因为像素点比较密集,它会每个点每个点都要雕刻,就会导致雕刻速度变慢。一般雕刻彩色照片或者人物照片,推荐固定DPI 参数值调节X: 500; Y: 500 或者X: 800; Y: 800
- 2、雕刻白底位图,由线条组成的图片就叫位图,一般来说像素不需要太高,建议参考值为X:200;Y:200或X:300;Y:300
- 3、打点时间是控制雕刻速度的,参数越小雕刻速度越快,越大雕刻速度越慢。

常见问题

I、机器通电无反应

1. 未通电：检查插座、开关、机身电源插座等，确保已插接到位且正常通电；检查面板上面的“紧急制动开关”是否开启，

II、无法连接电脑

1. USB线未连接：检查USB数据线电脑端和机器接口，确保插接到位，部分台式电脑前面板USB接口无效，需连接机身后方的插口。
2. 驱动未正常安装：按照操作指引完成驱动安装，安装完成后电脑将设备识别成串口则说明硬件连接OK。
3. 其他特殊情况：拔出USB数据线和电源，设备完全断电5S后，重新进行连接操作。

III、雕刻效果很浅或没有痕迹

1. 对焦不准：阅读使用手册对焦部分进行准确对焦。
2. 雕刻速度：过快，灼烧时间过短所致，阅读使用手册雕刻参数部分重新调整参数。
3. 图片过浅：导入的图片要清晰，线条过细，颜色过浅会直接影响雕刻效果。
4. 雕刻物摆放：被雕物体倾斜放置，激光的焦距是固定的，所以被雕物体要放平，与机身平行，反之则焦距不准，导致雕刻效果异常。



本资料上所有内容均经过认真核对，如有任何印刷错漏或内容上的误解，可向本公司咨询。

注：产品若有技术改进，会增进新版手册中，恕不另行通知。产品外观，颜色如有改动，以实物为准。