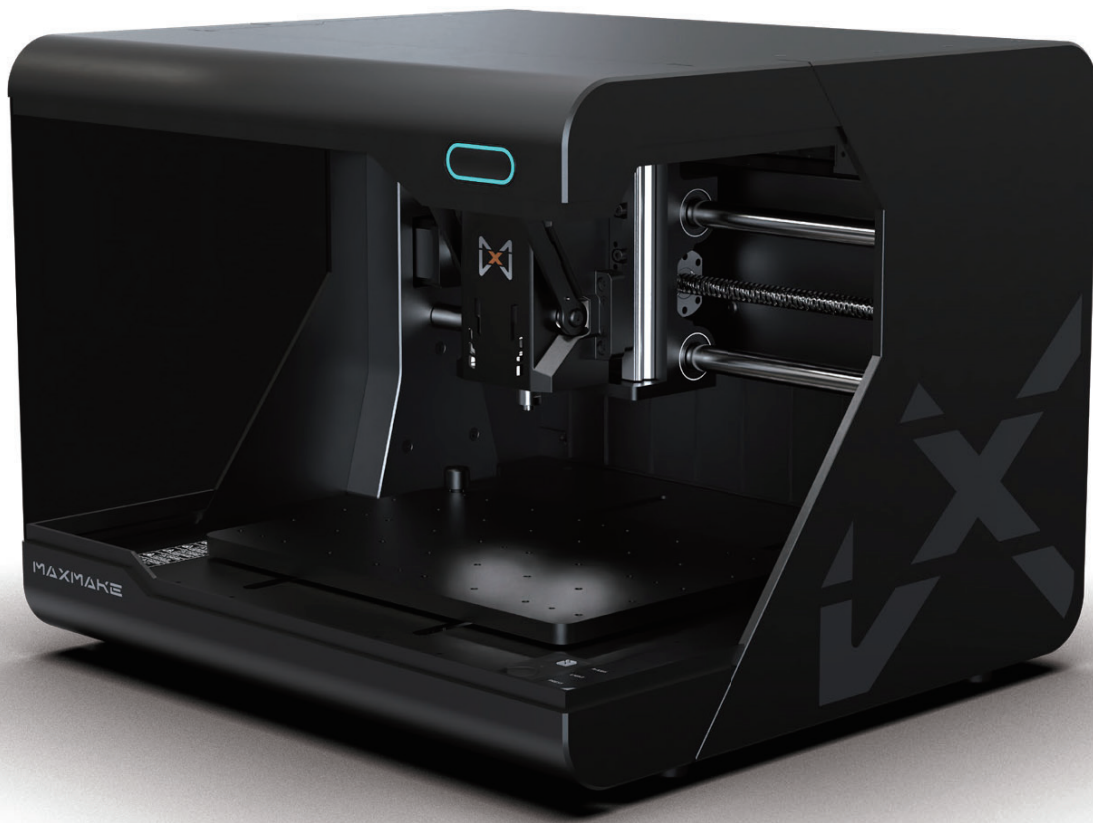


HiMill D1/D1S

PRODUCT MANUAL



Preface

Dear Valued User:

Hello! Thank you so much for your warm welcome and recommendation of the MAXMAKE HiMill D1 / D1S. Stepping into the world of CNC is truly exciting, and the precision and creativity brought by CNC technology will undoubtedly open up many new possibilities for designing and creating works.

I believe that with the support of the HiMill D1 / D1S, whether it is the creative process from conception to implementation, or the experience of the joy of combining technology with craftsmanship, it will be a very meaningful journey. I look forward to using it to realize more ideas, explore the boundless possibilities in the field of CNC, and thank you again for your support and encouragement!

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference;(2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, this equipment should be installed and operated with a minimum 20cm distance between the radiator and your body. Use only the supplied antenna.

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I. Get to Know MAXMAKE HiMill D1 / D1S

Welcome to consult the product manual of MAXMAKE HiMill D1 / D1S. In order to provide you with a better user experience, please read this manual carefully before operating HiMill D1 / D1S for the first time and use this machine tool in strict accordance with the operation specifications.

In line with the product concept of putting people first and making continuous progress, our company may revise and change the user manual without prior notice to users. We hope users will understand.

All product attributes and contents in this manual are provided according to the product situation at the specific delivery time, and generally no explicit or implied warranty of any type is made for the accuracy, reliability and content of the product.

NOTE

The content of this product user manual is protected by copyright laws and regulations. Without the written permission of our company, it shall not be copied, disseminated, distributed or used in any other form.

To the maximum extent permitted by law, under no circumstances shall our company be liable for any special, incidental or indirect losses.

All trademarks used in this manual are registered trademarks of our company and its cooperative companies. Without the written permission of our company, unauthorized embezzlement is strictly prohibited.

II.Safety Specifications

Please make sure to read this manual carefully and thoroughly before using Maxmake HiMill D1/D1S.

Basic Safety Specifications

- During the use of the equipment, all processes should comply with the product usage procedures.
- Children under 15 years old should be accompanied by an adult throughout when using this equipment.
- During the use of the equipment, please keep the safety door closed and do not drag the moving components of the equipment (such as the machine head parts) with your hands to avoid accidents.
- When the equipment starts processing and running, do not open the safety door except for tool changing operations to avoid accidents.

Electrical Safety Specifications

- Do not repair or modify the product without the guidance of professionals.
- When the equipment is damaged, turn off the switch and unplug the power cord immediately, and contact after-sales service.
- In case of any uncontrollable factors, turn off the power supply and unplug the power cord immediately.
- The power cord socket must be grounded, and ensure that the socket can withstand a load exceeding 1000W.
- If the equipment is not used for a long time, please unplug the power cord.

Equipment Placement Specifications

- Leave a distance of at least 50cm around to ensure machine heat dissipation and a distance for debugging.
- The keys have a pause function, please do not block the keys.
- If an external emergency stop switch is connected, please do not block the emergency stop switch.

Tool Usage Specifications

- Some tools are relatively sharp. Please pay attention to safety during tool changing and removal to avoid stabbing or cutting your hands.
- When the spindle is rotating, do not approach it with your hands to prevent injury from the tool.
- During tool use, tools of different diameters should use different collets. Do not mix them to avoid tool slipping during processing.

Usage Specifications for Dust Collection System

- Please install the dust collection hood correctly, ensure that the dust collection hood is magnetically attached to the correct position, and ensure that the air inlet is firmly connected to the dust collection hood.
- If a dust collection hood is used, the size of the dust collection hood needs to be considered when designing the tool path to prevent collisions.

Fixture Usage Specifications

- When using tools for processing, ensure that the fixture is properly positioned, and the consumables in the fixture are firm and will not loosen.
- Perform the clamping of consumables according to the appropriate size of the sheet.

Laser Usage Specifications

- Do not use laser to process flammable and explosive objects.
- Do not stack cutting consumables (for example, cutting two or more sheets at a time, as multiple sheets of paper are more likely to burn).
- Regularly clean processing debris to prevent combustion caused by residual debris.
- After processing is completed, do not touch the processed product with your hands until it has completely cooled down.
- High temperature is generated when the laser is working. Do not touch it to avoid burning your body.
- Do not observe the laser emitting point with the naked eye for a long time to avoid causing eye discomfort.
- Do not process materials containing chlorine such as PVC, polycarbonate, glass fiber, carbon fiber, uncoated metal, and materials containing halogens or heavy metals. Be sure to confirm the safety of the materials before processing.

Safety Sign Symbols

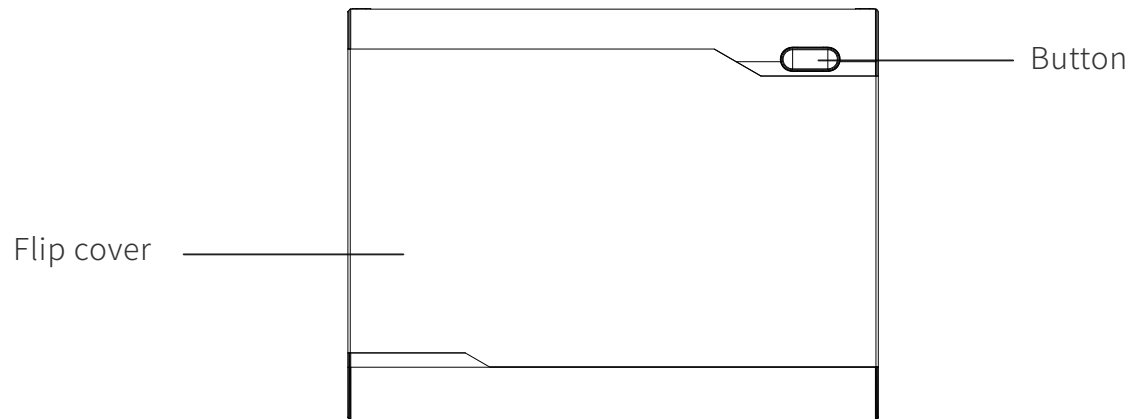
Icon Content	Meaning
  CAUTION DO NOT STARE INTO THE LASER BEAM	Beware of Laser
  CAUTION CLEAN WORKTABLE REGULARLY AVOID DEBRIS HAZARDS	Clean the Workbench Regularly
  CAUTION CHECK SCREW LENGTH PREVENT WORKTABLE SCRATCHES	Check the Length of Screws
  CAUTION DO NOT PULL THE HANDLE WHEN QTC SPINDLE IS OPERATING	Do Not Pull the Handle
  CAUTION SHARP TOOL TIP DURING TOOL INSTALLATION	Be Careful of Cuts
  CAUTION PINCH HAZARD DURING HOMING	Beware of Pinching Hands

III.Product Specifications and Parameters

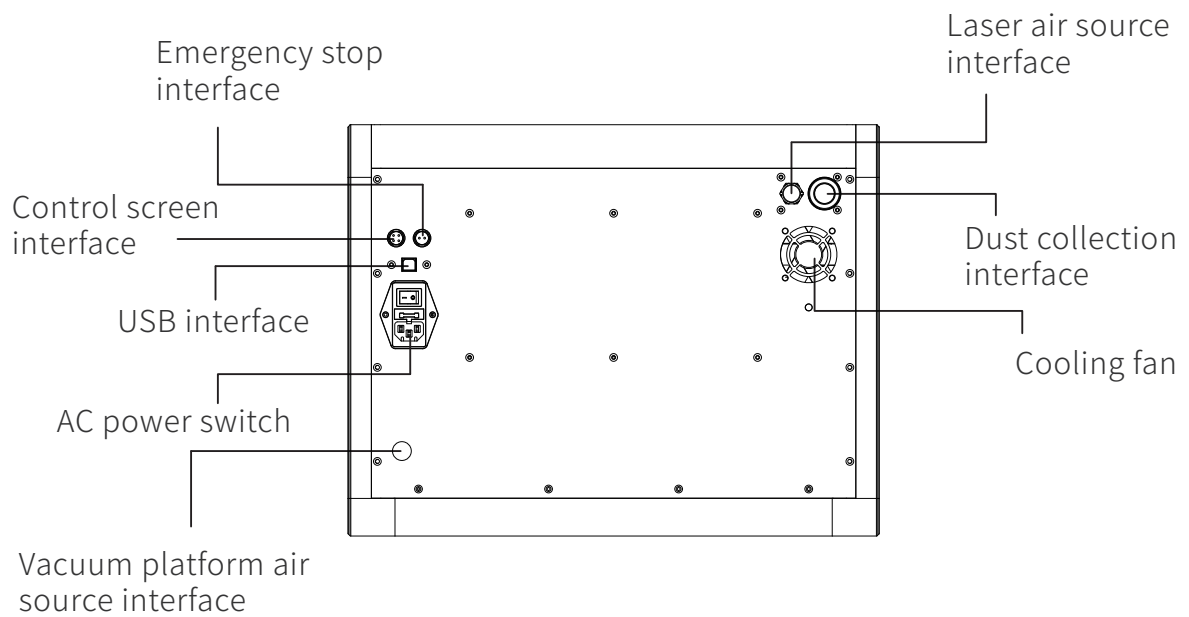
Product Parameter Table		
Product Name	HiMill D1	HiMill D1S
Overall Dimensions	452mm*425mm*350mm	452mm*425mm*350mm
Maximum Speed	1000mm/min	1000mm/min
Working Table Size (XYZ)	280mm*200mm*80mm	280mm*200mm*80mm
Passable Height	82mm (3.2in)	82mm (3.2in)
Product Weight	17kg	19kg
Overall Structure	Cast aluminum base + visible window cover	Cast aluminum base + visible window cover
Precision	±0.04mm	±0.02mm
Input Voltage	100-240V; Average power 200W	100-240V; Average power 200W
Spindle	250W air-cooled brushless spindle	250W air-cooled brushless quick tool change spindle
Collet	ER11,1/8"(3.175mm)	ER11,1/8"(3.175mm)
Transmission Components	T-type lead screw + rigid anti-backlash solution	Precision ball screw
Control Software	MaxmakeLab	MaxmakeLab
Compatible CAD/CAM Software	Fusion360, SolidWorks, AutoCAD, VCarve Pro, Aspire, Easel, etc.	Fusion360, SolidWorks, AutoCAD, VCarve Pro, Aspire, Easel, etc.
Connection Method	USB/WIFI	USB/WIFI
Controller System	Supports iOS, Android, Mac OS, Windows and other operating systems	Supports iOS, Android, Mac OS, Windows and other operating systems

IV. Unboxing and Usage

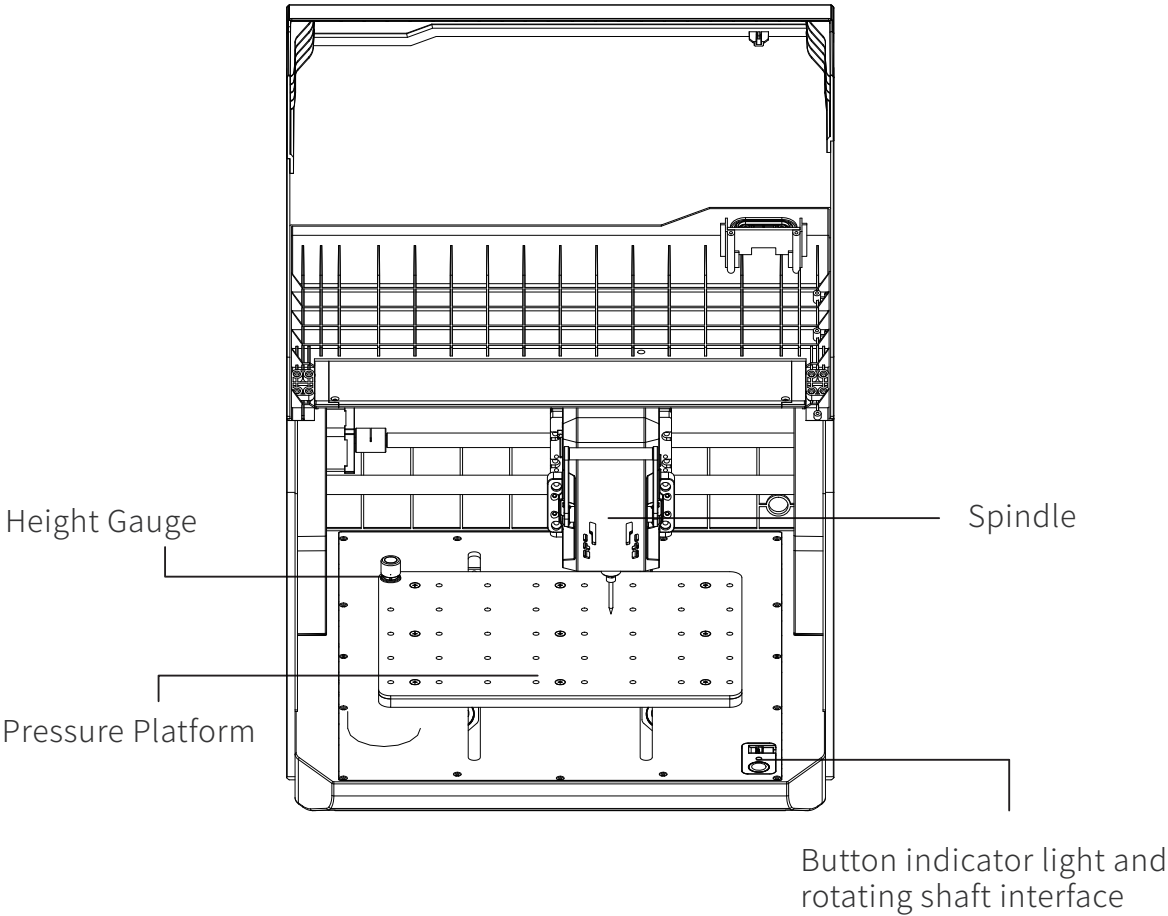
Product Structure and Description



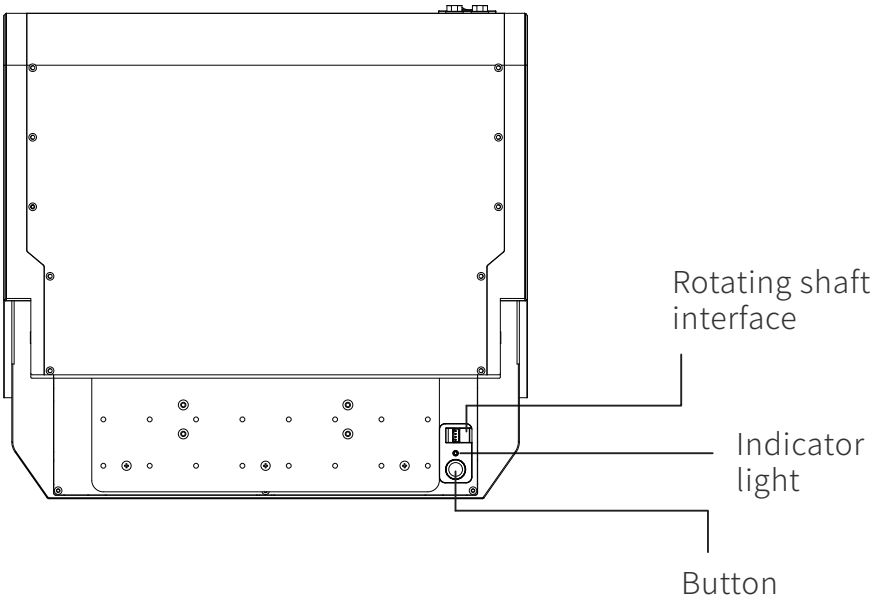
Front View of the Product



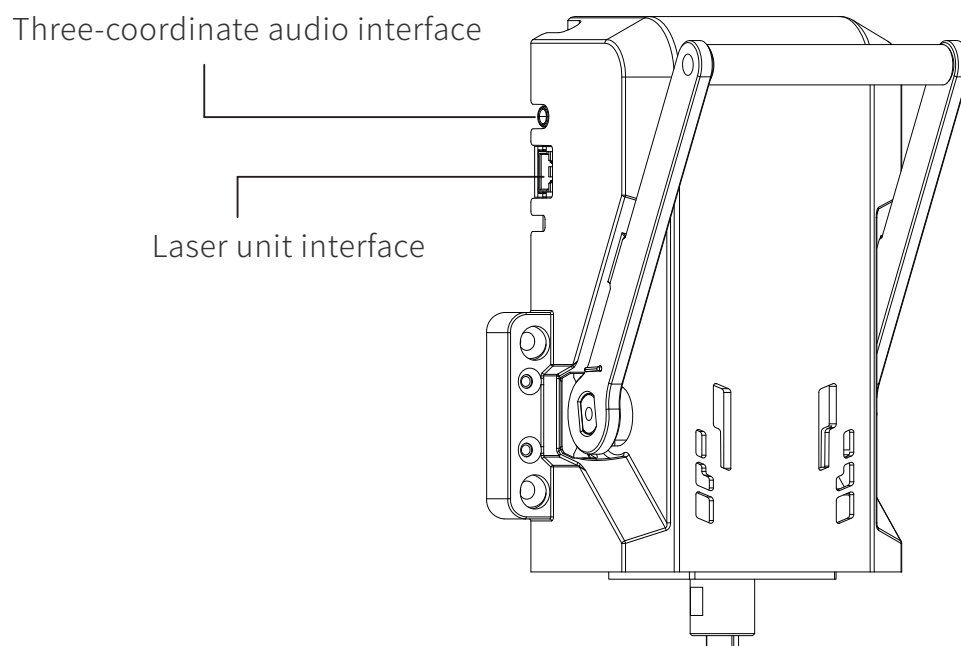
Rear View of the Product



View with Cover Opened



Top View with Cover Opened



Spindle side view

V. Accessories List

Maxmake HiMill D1

Serial Number	Name	Quantity
1	Substitute Wood Board	2
2	Small-leaf Boxwood 46 Cards	2
3	Woodworking Base Plate	1
4	Instruction Manual	1
5	TF Card	1
6	TF Card Reader	1
7	Square USB Cable	1
8	AC Power Cord	1
9	Single-flute Spiral Milling Cutter A	2
10	Single-flute Spiral Milling Cutter B	2
11	Flat-bottom Pointed Cutter	2
12	Wood Wax Oil	1
13	Pendant Hanging Rope	2
14	13# Single-head Flat Wrench	1
15	17# Single-head Flat Wrench	1
16	Press Plate	4
17	M5*20 Button Head Allen Screw	5
18	M5*25 Button Head Allen Screw	5
19	M5*30 Button Head Allen Screw	5
20	M5*35 Button Head Allen Screw	5
21	M5*40 Button Head Allen Screw	5
22	M5*45 Button Head Allen Screw	5
23	M5*50 Button Head Allen Screw	5

Maxmake HiMill D1S

Serial Number	Name	Quantity
1	Substitute Wood Board	2
2	Small-leaf Boxwood 46 Cards	2
3	Woodworking Base Plate	1
4	Instruction Manual	1
5	TF Card	1
6	TF Card Reader	1
7	Square USB Cable	1
8	AC Power Cord	1
9	Single-flute Spiral Milling Cutter A	2
10	Single-flute Spiral Milling Cutter B	2
11	Flat-bottom Pointed Cutter	2
12	Wood Wax Oil	1
13	Pendant Hanging Rope	2
14	9# Single-head Flat Wrench	1
15	15# Single-head Flat Wrench	1
16	Press Plate	4
17	M5*20 Button Head Allen Screw	5
18	M5*25 Button Head Allen Screw	5
19	M5*30 Button Head Allen Screw	5
20	M5*35 Button Head Allen Screw	5
21	M5*40 Button Head Allen Screw	5
22	M5*45 Button Head Allen Screw	5
23	M5*50 Button Head Allen Screw	5

Extended Tool Kit (Optional)**10W Laser Module**

Serial Number	Name	Quantity
1	10W Laser Module	1
2	Exquisite Goggles	1
3	Laser Cable	1

Fourth Axis Module Kit

Serial Number	Name	Quantity
1	Fourth Axis	1
2	Chuck Wrench	2
3	420 Substitute Wood Block	2

Vacuum Suction Platform

Serial Number	Name	Quantity
1	Vacuum Suction Platform	1
2	Vacuum Generator	1
3	Silicone Seal Ring	1
4	PU Air Pipe	1

Vise Module

Serial Number	Name	Quantity
1	Vise	1
2	Square Nut	4
3	M6*50 Cylinder Head Allen Screw	1

Three-coordinate Kit

Serial Number	Name	Quantity
1	Three-coordinate	1

VI. Function Introduction

Lighting System

Inside the upper cover of the equipment, there is an internal light source, which is convenient for observing the interior when the cover is closed. The light will automatically turn on when the equipment is powered on.

Below the spindle, there is a spindle light, which is convenient for observing the workpiece when setting the machining zero point. The light will automatically turn on when the equipment is powered on.

Quick Tool Change

The D1S is equipped with a quick tool change spindle. When the tool can be changed, pull down the handle to take out the tool; then install a new tool and slowly release the handle upward until it is in place.

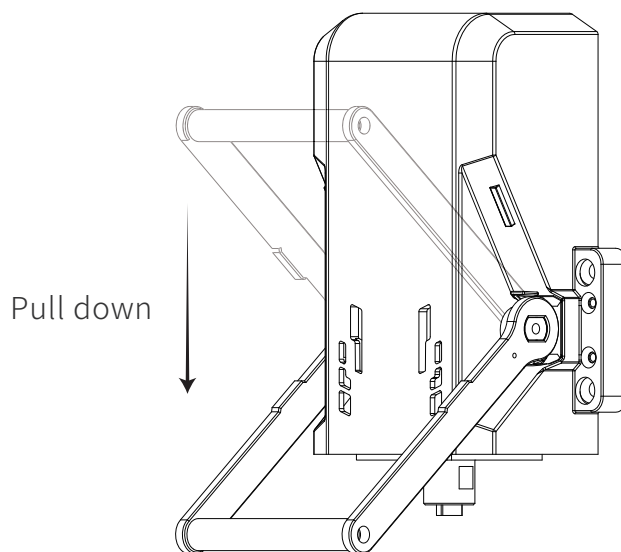
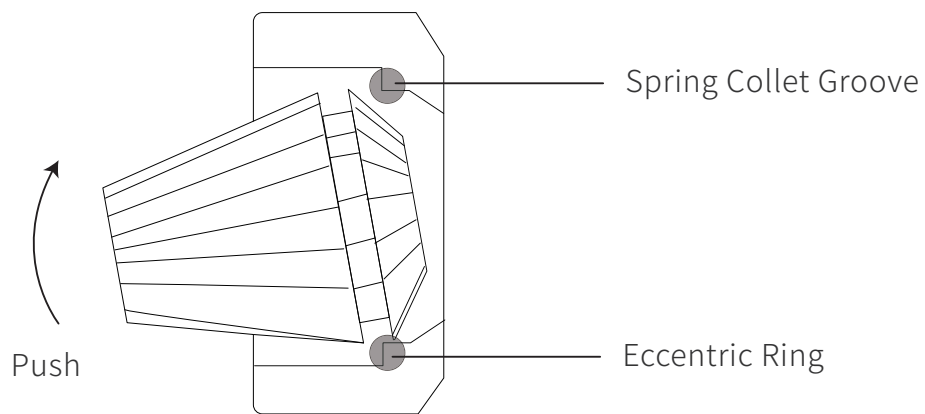


Diagram of Pulling Down the Handle

For the D1, use a 13mm open-end wrench and a 17mm open-end wrench to remove the collet and then replace the tool.

Disassembly and Assembly of Spring Collet

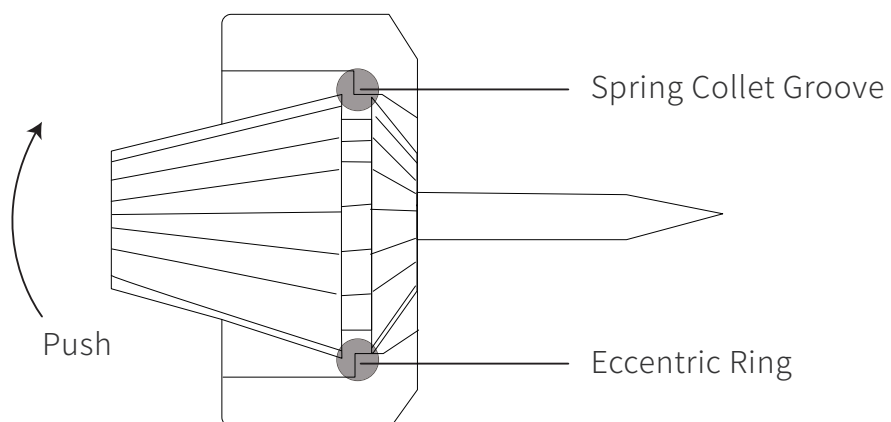
Insert the groove of the spring collet into the eccentric ring position of the nut. Push the spring collet in the direction indicated by the arrow until a click is heard, which means the spring collet is installed in place.



Collet Replacement 1

Installing the Tool

Attach the spring collet to the tool, and make sure the tool is installed in place.



Collet Replacement 2

Install the nut onto the tool shank and then tighten it with a wrench.

Note: When changing tools, if the tool shank diameters are the same, you can loosen the nut, directly pull out the tool, and then insert the tool to be replaced. However, since the tool is sharp, this operation has certain risks, so be careful to avoid cuts!

Button Indicator Unit

Buttons can control the network configuration of the machine, as well as the operation and pause of the machine. The indicator light will change its lighting effect according to the state.

When idle, a single click shows whether the machine is connected to the network; when idle, a long press enters the network configuration state.

Online processing: After processing starts, a single click on the button can pause and resume processing. When idle, a blue breathing light is displayed; during processing, a green breathing light is displayed; when paused, a yellow breathing light is displayed.

Offline processing: After sending the file, a rainbow light is displayed, waiting for triggering to start processing; after processing starts, a green progress light is displayed.

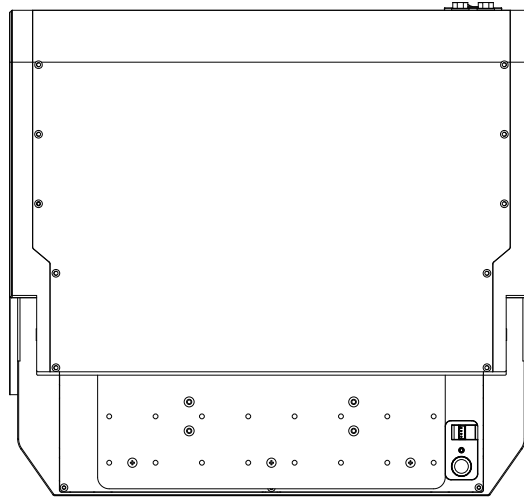
Precision Tool Setter Unit

The precision tool setter unit is a high-precision contact sensor with high repeated positioning accuracy. Its main function is to sense the relative height of the tool after it is actually clamped. After each tool change operation, the tool needs to make contact with the precision tool setter for measurement once to ensure that the equipment always knows the tool clamping height.

Note: If multiple tools are used in processing, the first tool needs to be set as the reference tool. After measuring the height, set the Z-axis zero point.

Safety Door System

At the front right front of the equipment, there is a safety door detection system and an indicator light.



Top View with Cover Opened

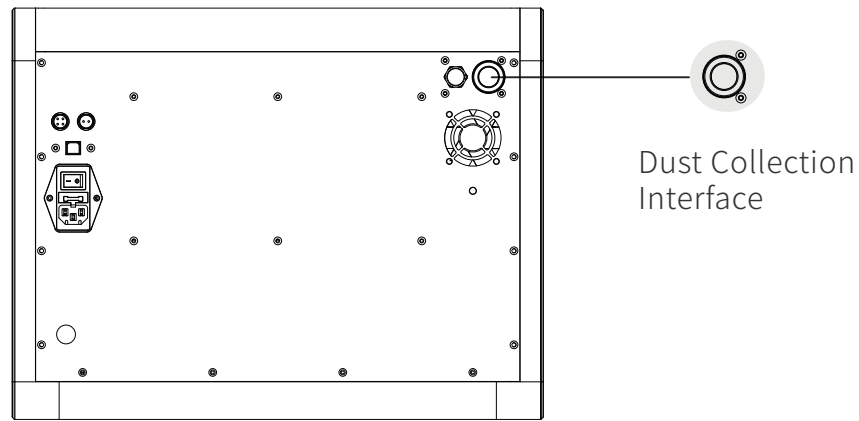
By default, the safety door system of the equipment is enabled. At this time, processing operations can only be carried out when the upper cover is completely closed; otherwise, the equipment cannot perform processing. The safety door system is a protective system, whose main purpose is to protect the operator's safety during use. If you are performing debugging work or are very proficient in operating the equipment, you can turn off the safety door system in the software, which will make the operation and use of the machine more convenient.

Dust Collection System

When processing objects that generate a lot of debris and dust, such as wooden blocks and substitute wood, the dust collection system can be used.

The dust collection cover adopts a magnetic installation. After connecting the air duct, simply attach it magnetically under the spindle.

At the interface at the rear of the equipment, a vacuum cleaner or a fan can be connected. A transfer pipe can be used if necessary.

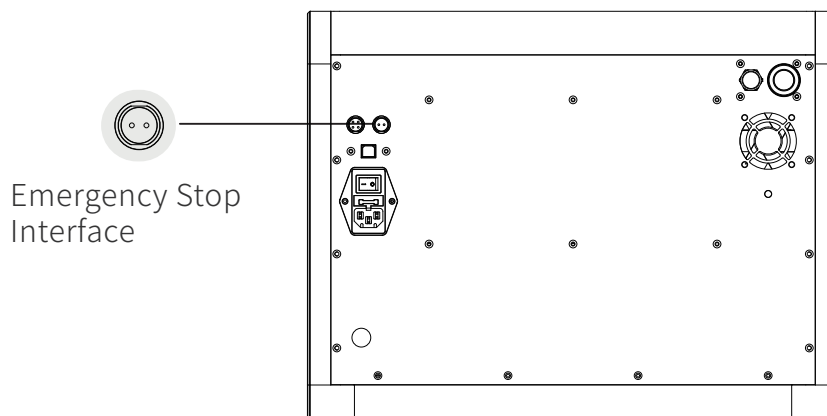


Rear View of the Product

Note: If connecting a vacuum cleaner, ensure it can work for a long time to avoid danger from overheating.

Emergency Stop (External Connection Required)

This machine can be connected to an external emergency stop switch. The interface is a 2-pin aviation plug, located at the rear of the equipment.



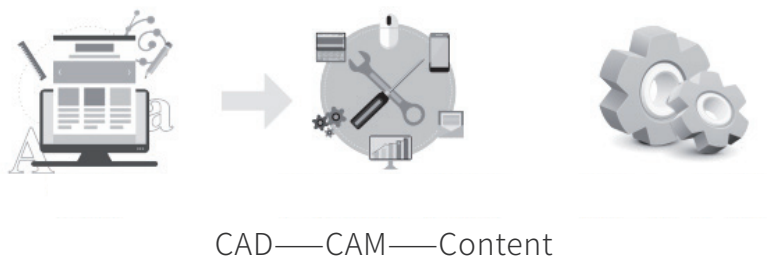
Rear View of the Product

During normal processing and operation, place the emergency stop switch in a prominent and easily operable position. If any emergency or dangerous situation occurs during processing, press the emergency stop switch immediately.

VII. Usage Guidance

CNC Machining Principle

The D1/D1S is essentially a desktop - level CNC machine tool. Before using the equipment for machining, we need to prepare a design file (CAD file). Generally, a CAD file can be a two - dimensional design file or a three - dimensional design file. Then, the design file is converted into machining codes (NC codes or G - code) recognizable by the machine tool through CAM software.



Common CAD Software and CAM Software

Category	Software Name	Software Description	Target Users
2D CAD Software	Microsoft Paint 3D	Easy-to-get-started 2D design software	Beginners
	SketchUp	Professional 2D design software	Advanced users, practitioners
	AutoCAD, etc.	Professional 2D design software	Advanced users, practitioners
	...	...	...

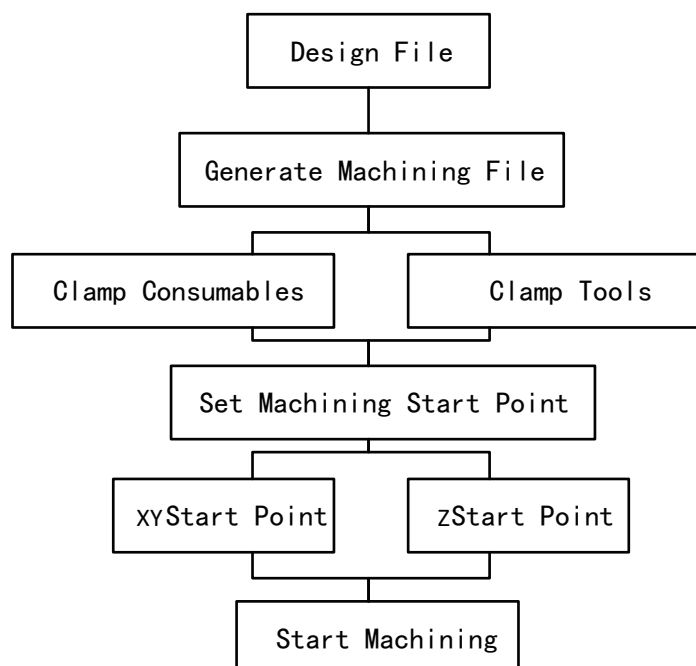
3D CAD Software		Professional 3D design software	Advanced users, practitioners
		Professional 3D design software	Advanced users, practitioners
	Fusion 360	Professional 3D design software	Beginners, advanced users, practitioners
	Artcam	Relief 3D design software	Beginners, advanced users, practitioners
	Surfmill	Relief and professional 3D design software	Beginners, advanced users, practitioners
	...	...	...
PCB Design Software	PCBWeb Designer	Entry-level PCB design software	Beginners
	Altium Designer	Professional PCB design software	Advanced users, practitioners
	...	...	...

Clamping of Consumables

CAM Software	Artcam	Relief 3D design software	Beginners, advanced users, practitioners
	Surfmill	Relief and professional 3D design software	Beginners, advanced users, practitioners
	AutoCAD, etc.	Professional 3D design software	Advanced users, practitioners
	...	...	...

Operation process

Starting from the design file, the entire operation process can be simplified into the following steps, including five major steps: designing CAD files, generating machining files, clamping consumables and tools, setting machining start points, and starting machining.



Different types of consumables have different clamping methods, and users can also be flexible according to specific situations. Here are several common clamping methods recommended and suggested.

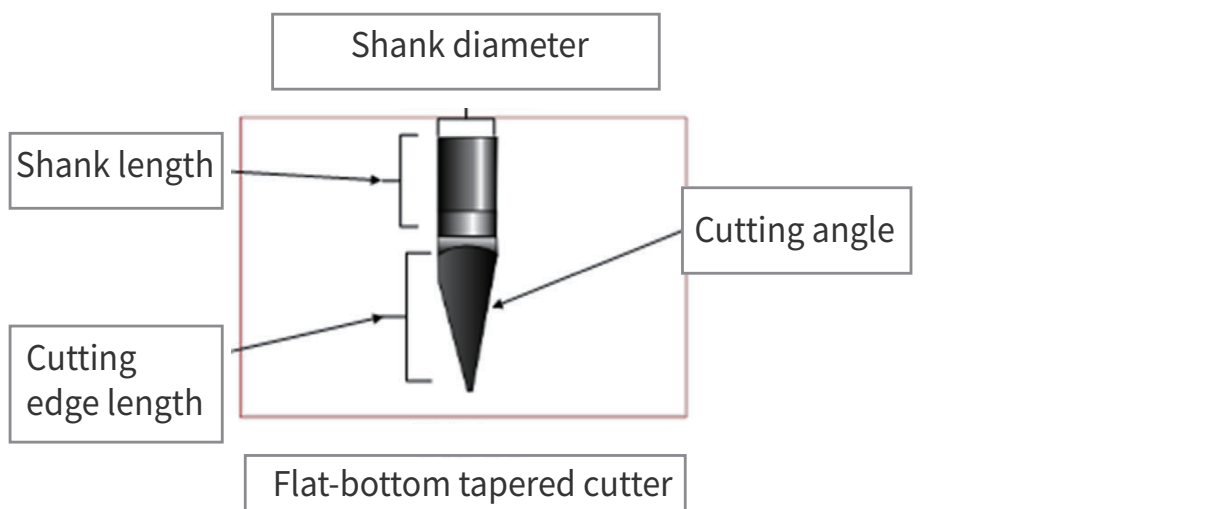
Clamping Type	Clamping Size	Clamping Tools	Remarks
Thin Plate Clamping	Size: Thickness: 0 - 8mm	Fixed Press Plate	The press plate screws should be of appropriate length to avoid insufficient fixation due to overly long screws.
Thin Plate Clamping	Size: Thickness: 0 - 30mm	Fixed Press Plate	The press plate screws and fixing screws should be of appropriate length to avoid insufficient fixation due to overly long screws.
Vise Clamping	Size: Thickness: 0 - 104mm	Vise	The vise needs to be fixed with screws or press plates, and the vise surface should be cleaned in advance before clamping.
PCB Clamping	Size: Thickness: 0 - 2mm	Fixed Press Plate Double - sided Tape	It is recommended to use adhesive on the back of the PCB, and the adhesive should be as uniform and firm as possible; If necessary, place a wooden board under the PCB, mill out the processing datum plane, or use a three - coordinate probe to calibrate the plane.
...	...	...	...

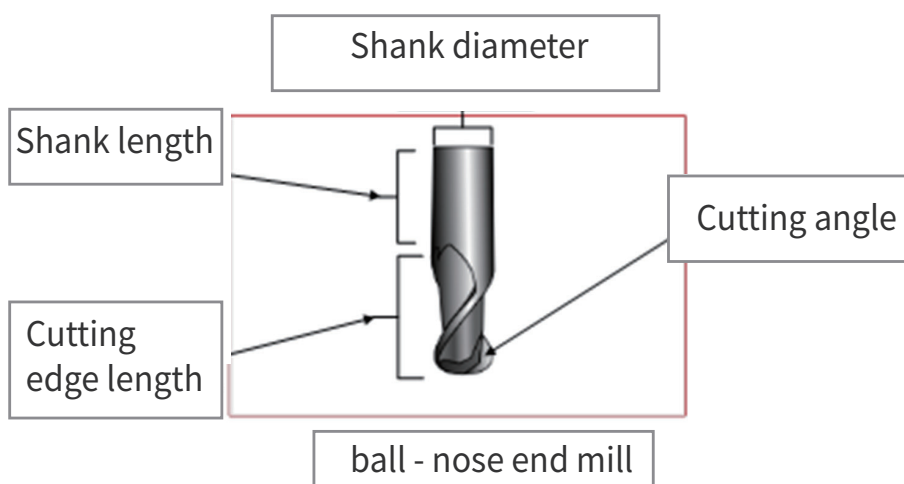
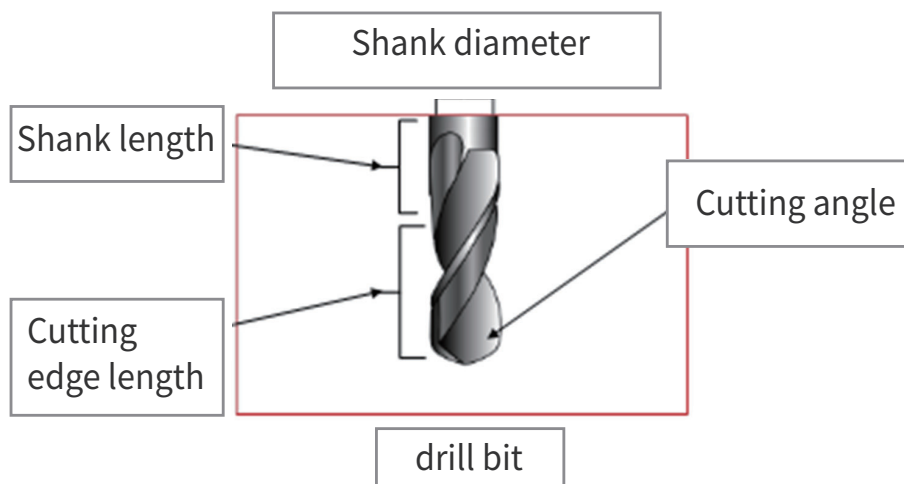
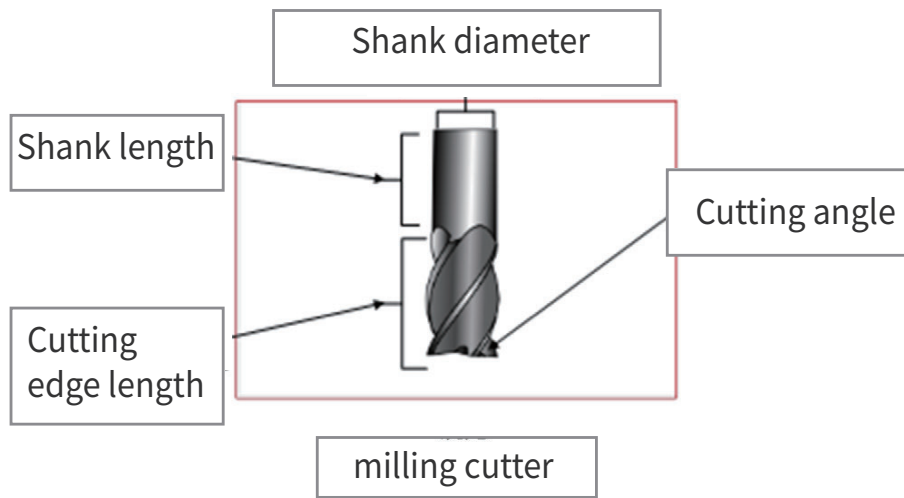
Precautions

- It is particularly important to select suitable clamping screws. Considering that the threaded holes at the bottom of the machine are through holes, overly long screws will damage the table base plate.
- During the clamping process, it is necessary to ensure that the consumable itself is clamped stably, and the screws should be tightened.
- When performing the task of cutting to the bottom of the workpiece, it is recommended to place a wooden board (with a thickness of 1 - 2mm) under the workpiece. This can prevent damage to the table and extend the service life of the table.
- The recommended clamping method is not the only one. It can be flexibly adjusted according to experience to ensure stable fixation and avoid collisions.

Introduction to Tools

The spindle tools of D1/D1S use standard collets to clamp the tools, and generally, the corresponding tool shank diameter is 3.175mm.





Recommended Machining Parameters

There are some common - sense concepts regarding the machining parameters of equipment. For example, when the diameter of the milling cutter is small and the material hardness is high, the machining speed is slow, and it is recommended to use a small value for the depth of cut. When the diameter of the milling cutter is large and the material is soft, generally, the speed can be faster, and the depth of cut can also be correspondingly larger.

The following are some of our current recommended parameters:

Material	Tool	Depth of Cut	Feed Rate	Plunge Rate	Spindle Speed
Pattern Wood	Single - Flute Spiral Milling Cutter	1-2mm	500-1000mm/min	400mm/min	10000RPM
Wood	Corn Milling Cutter	0.5-2mm	400-800mm/min	300mm/min	10000 RPM
Plastic	Single - Flute Spiral Milling Cutter	0.5-1.5mm	400-800mm/min	300mm/min	10000 RPM
PCB	Flat - Bottom Tapered Cutter	0.01-0.1mm	200-400mm/min	200mm/min	10000 RPM
Aluminum/ Brass	Spiral Milling Cutter for Aluminum	0.1-0.5mm	200-500mm/min	100mm/min	10000RPM
Carbon Fiber Board	Corn Milling Cutter	0.3-0.5mm	500-800mm/min	300mm/min	10000RPM

It is recommended to start testing machining from the lower limit of the parameters when setting machining parameters. For example, when machining aluminum alloy, it is recommended to start testing with a plunge depth of 0.1mm, a feed rate of 200mm/min, a plunge rate of 100mm/min, and a spindle speed of 10000rpm, then gradually increase the plunge step and speed. If there is a明显 sharp noise or vibration from the tool tip, it indicates that the tool is approaching its limit. It is important to summarize and analyze based on multiple tests.

For more tool parameters, you can refer to the tool parameter library in the software.

VIII. Quick Start Guide

Next, we will conduct a quick start guide through a case machining.

Preparation Work

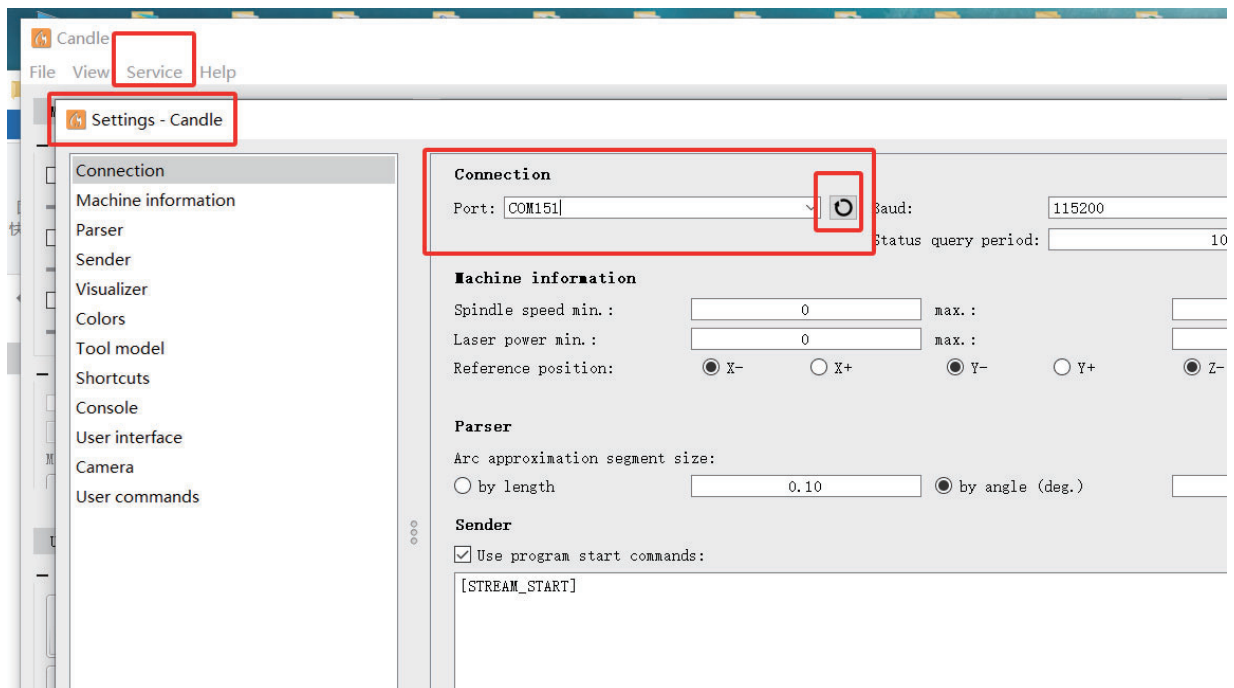
Preparation Content	Tool Description
Consumables	Boxwood plaque, size 40*60mm
Tools	1.5mm single - flute spiral milling cutter, 3.175mm single - flute spiral milling cutter, 30° flat - bottom tapered cutter 0.2mm
Clamping	Press plate clamping

Machine Preparation

- 1、Connect the USB cable to the computer.
- 2、Insert the AC power cord into the AC power socket at the back of the device and press the switch.

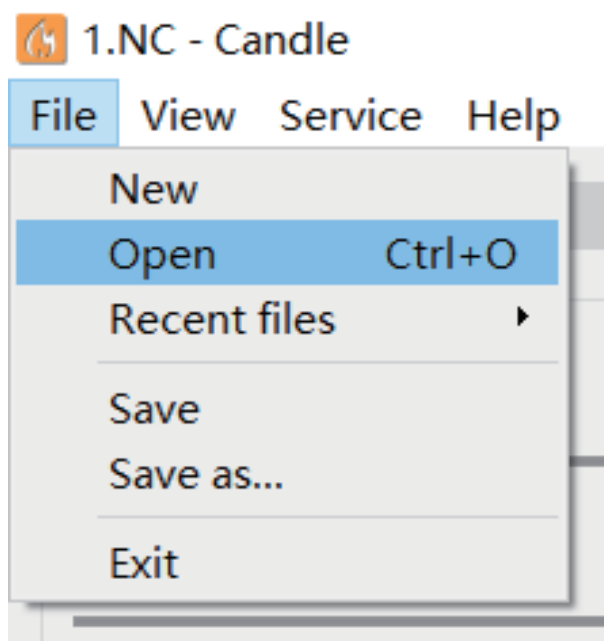
Software Installation

- 1.Insert the USB flash drive from the package into the computer, and decompress the compressed package of the control software: Candle software. It can be used after decompression.
- 2.If the machine cannot be connected, install the corresponding serial port driver. The driver program is also in the software package.
- 3.Click Service - Settings. In the connection option of the first row, generally, select the largest serial port number, which is the device. If not, try clicking the refresh button.

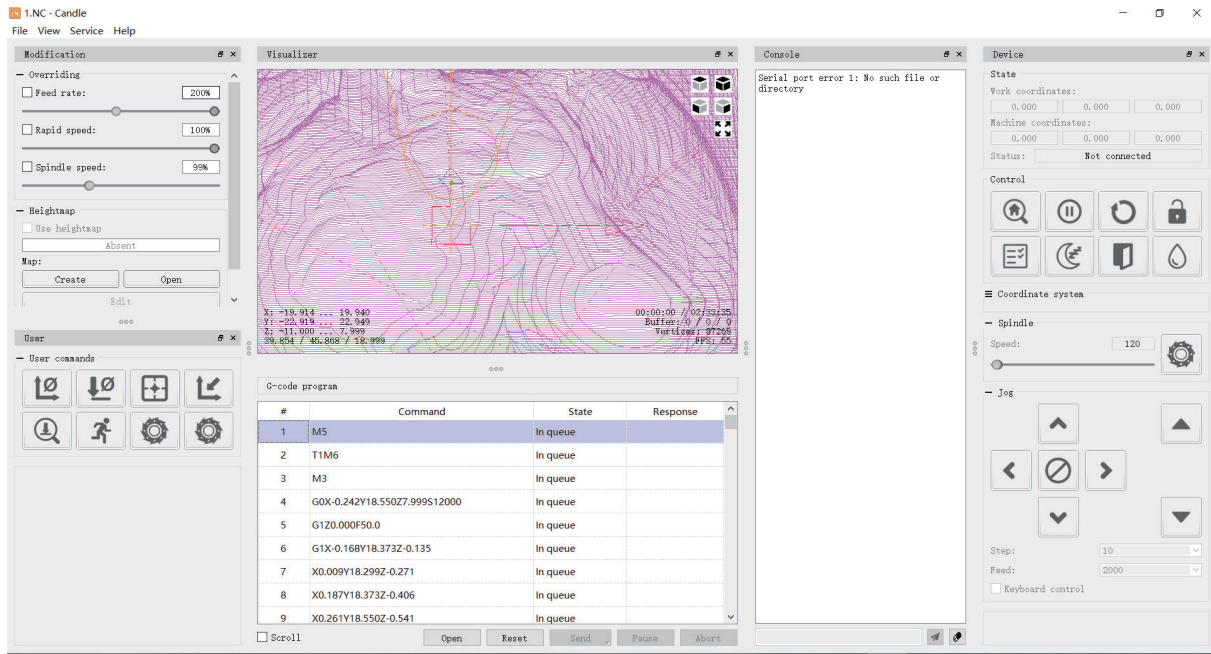


Open Machining File

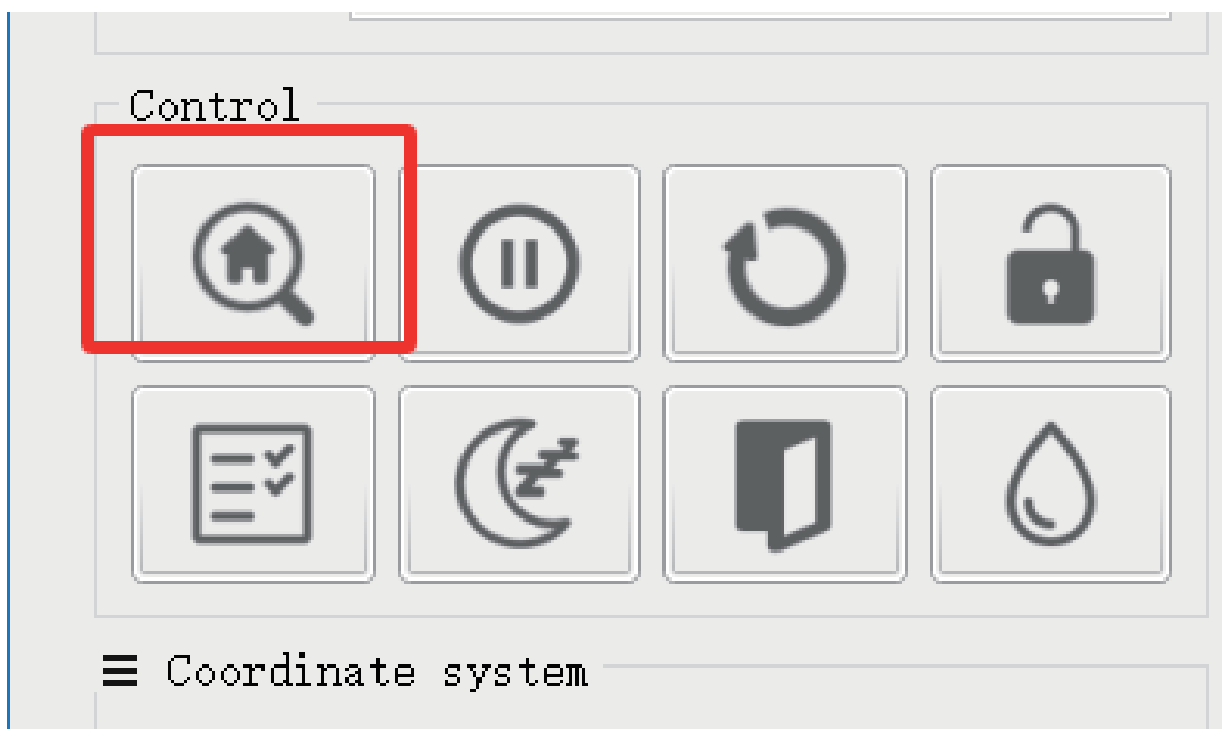
1. Click "Open" in the software and select the machining file (Machining File 1) in the USB flash drive. You can also directly drag the Gcode file to the Gcode program box below.



2、After importing the file, you can view the corresponding tool path details in the software.

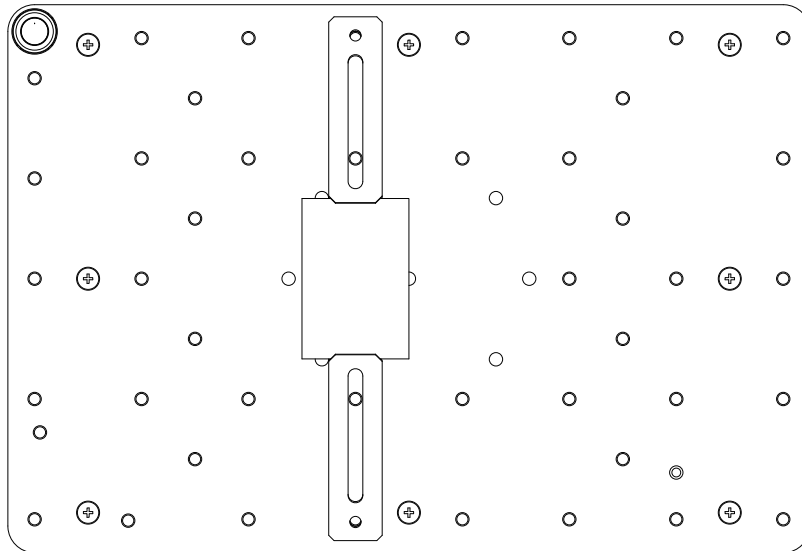


3、Click Reset (at this time, the machine will reset to the machining origin).



Clamping Consumables

Clamp the consumables on the platform. At this time, we choose a pressure plate to fix them. The wooden plaque is clamped as shown in the following figure.



Clamping the wooden plaque

Tool Clamping

A total of three tools will be used in this file.

The first one is a 1.5mm single - flute spiral milling cutter, used for rough machining and drilling; denoted as T1.

The second one is a 30° flat - bottom tapered cutter with a diameter of 0.2mm, used for finishing; denoted as T2.

The third one is a 3.175mm single - flute spiral milling cutter, used for contour cutting; denoted as T3.

Before machining, we must first install the first tool. Send T1M6 on the console and wait for the machine head to move to the tool - changing position to install the first tool.

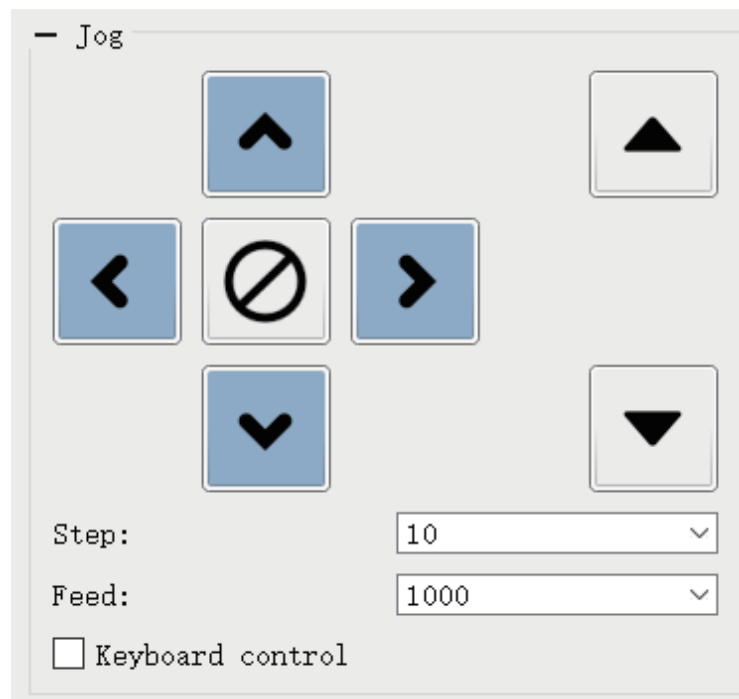


After installation, press the button of the stand - alone device, and the spindle will automatically move above the height setter for height measurement. After the height measurement is completed, set the machining origin.

Set Machining Origin

1. In the Jog control interface, select a step size of 10 (you can also change it yourself) and a speed of 1000. Move the spindle head to the center point of the consumable by moving XY. (This case machining has no precision requirement, and the center point can be determined by drawing diagonals.) (When selecting the step size, follow the principle of first using a large step size and then a small step size.)

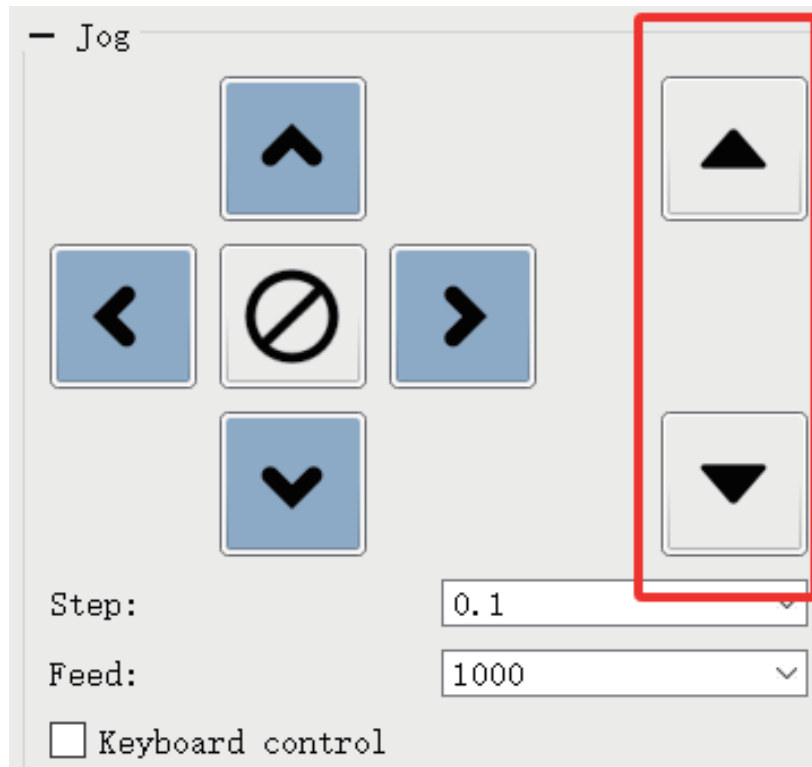
2. Set the step sizes (10, 5, 1, 0.1), move Z downward, and move the tool head close to the surface of the consumable. (Pay special attention to avoiding the Z axis moving too fast and hitting the consumable.)



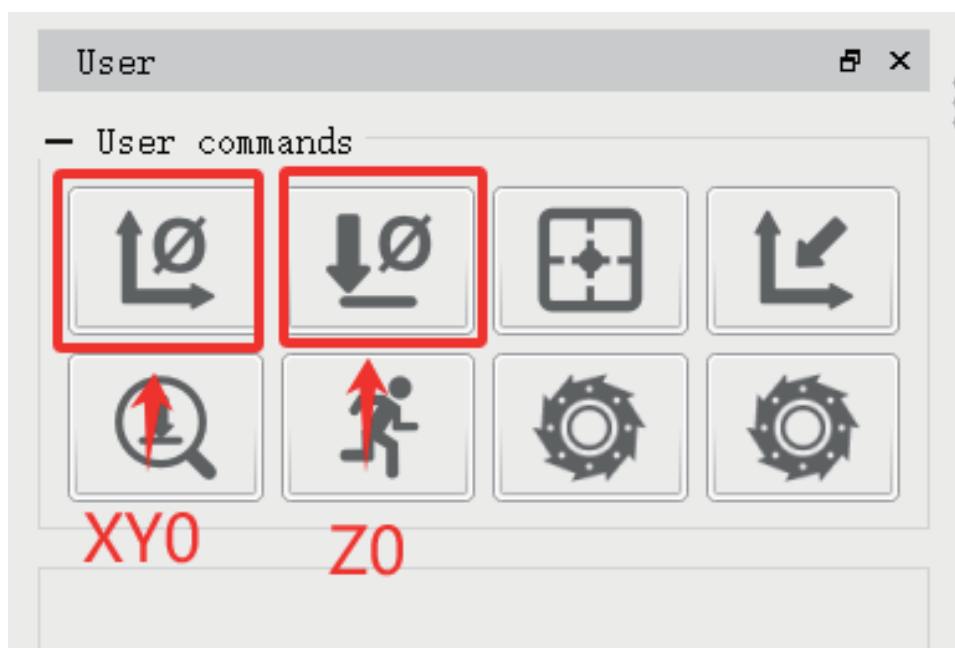
3. Set the spindle speed to 10000, then click the button to start the spindle (click again to stop it).



4. Set the step size to 0.1, slowly move Z downward incrementally. When the tool tip slightly frays the surface of the consumable or touches the surface of the consumable, stop the movement.



5. Click to set XY = 0, and click to set Z = 0.



Start Machining

1. Click "Send" to start machining.
2. When machining with the second tool, the spindle will turn off and automatically move to the tool - changing position to wait for tool changing.
3. After tool changing, press the button, and the spindle will move to the height setter for height measurement.
4. After the height measurement is completed, continue machining.
5. When using the third tool, the above steps will be performed in the same way.

Note: Be sure to press the button after changing the tool properly.

G-code program			
#	Command	State	Response
1	M5	In queue	
2	T1M6	In queue	
3	M3	In queue	
4	G0X-0.242Y18.550Z7.999S12000	In queue	
5	G1Z0.000F50.0	In queue	
6	G1X-0.168Y18.373Z-0.135	In queue	
7	X0.009Y18.299Z-0.271	In queue	
8	X0.187Y18.373Z-0.406	In queue	
9	X0.261Y18.550Z-0.541	In queue	

☐ Scroll

Open Reset **Send** Pause Abort

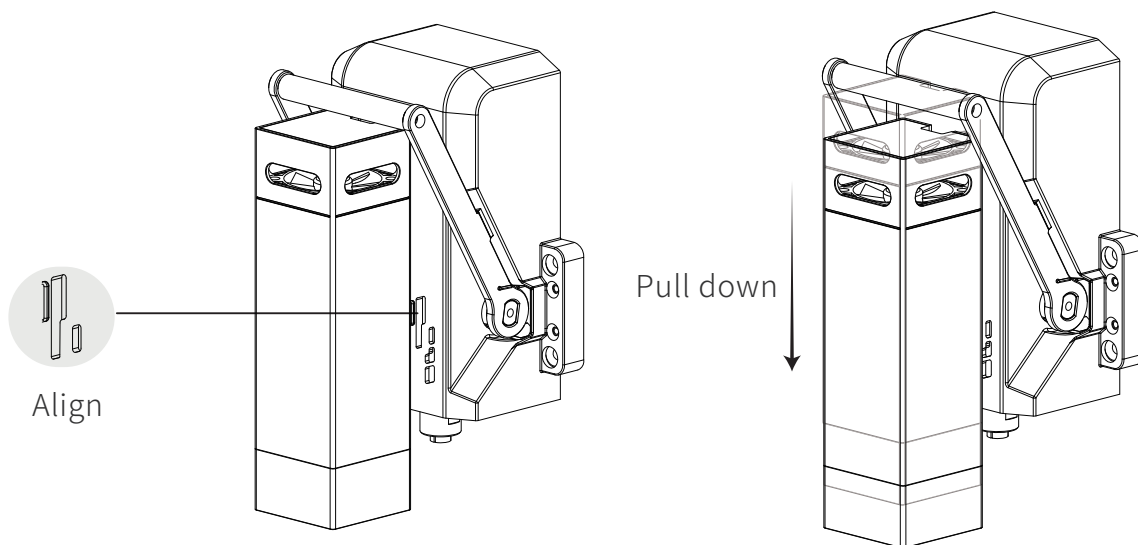
The above is a complete set of machining process. The settings for other machining consumables and contents are mostly similar. Users still need to use it more to achieve proficient mastery. For other software - related contents and detailed details, please refer to the software manual.

IX. Instructions for the Use of Optional Accessories

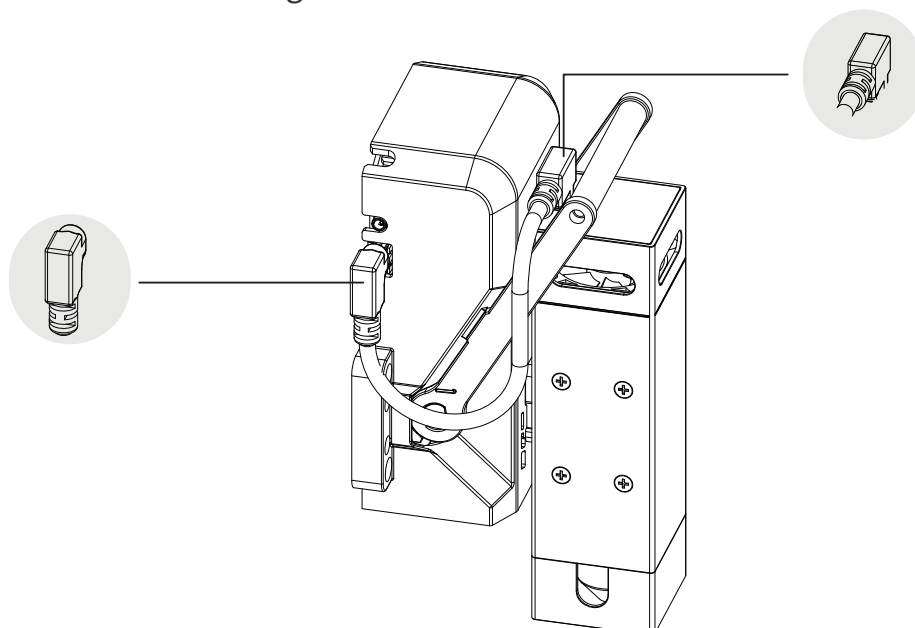
Laser Unit (Optional)

The 10W laser module is equipped with the adapter plate for D1S and D1, and can be quickly installed on D1/D1S products without disassembling and assembling the spindle unit.

It adopts a buckle - type installation. First, align the laser unit with the hole position, and then buckle it downward to fix.



Use a connecting wire to connect the laser and the spindle. The connection position is as shown in the figure.



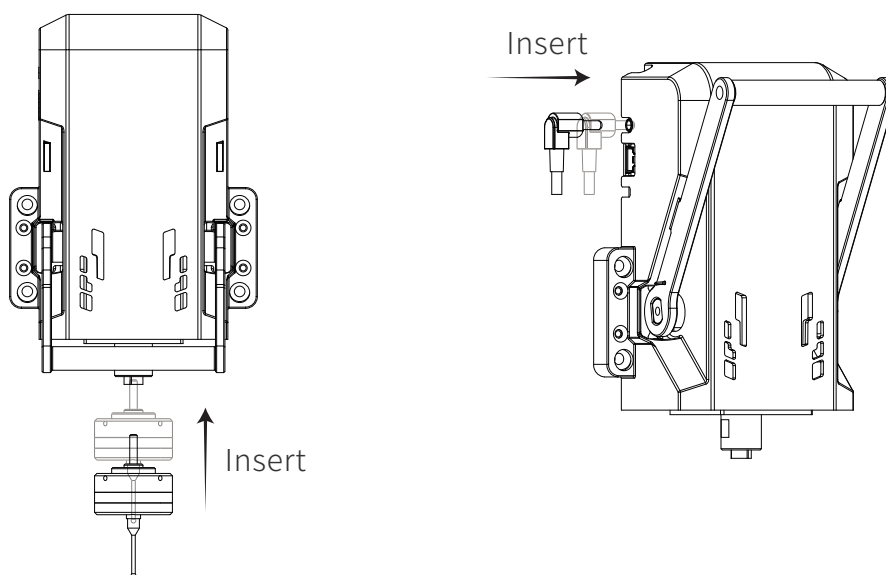
Switch to laser mode in the software to use laser processing. Alternatively, you can send T7M6 on the console (such as Candle) to use it.



After entering the laser mode, the machine simultaneously switches to the high - speed mode, and the running speed can be set to 2000mm/min or 33mm/s.

Three - Coordinate Probe Unit (Optional)

The three - coordinate probe unit is a high - precision probe device. In the software, click XXXX (which may be to switch to three - coordinate mode), wait for the machine head to move to a specific position, install the upper part of the three - coordinate into the spindle collet, and plug the connecting wire into the spindle.



After installation, you can click XXXX in the software. At this time, the three - coordinate probe will be clamped and lightly touched once on the precision tool setter to obtain the height of the three - coordinate probe. Then move to the specified position above the consumable and use the three - coordinate probe to set the tool, so that the precise position point during tool machining can be known.

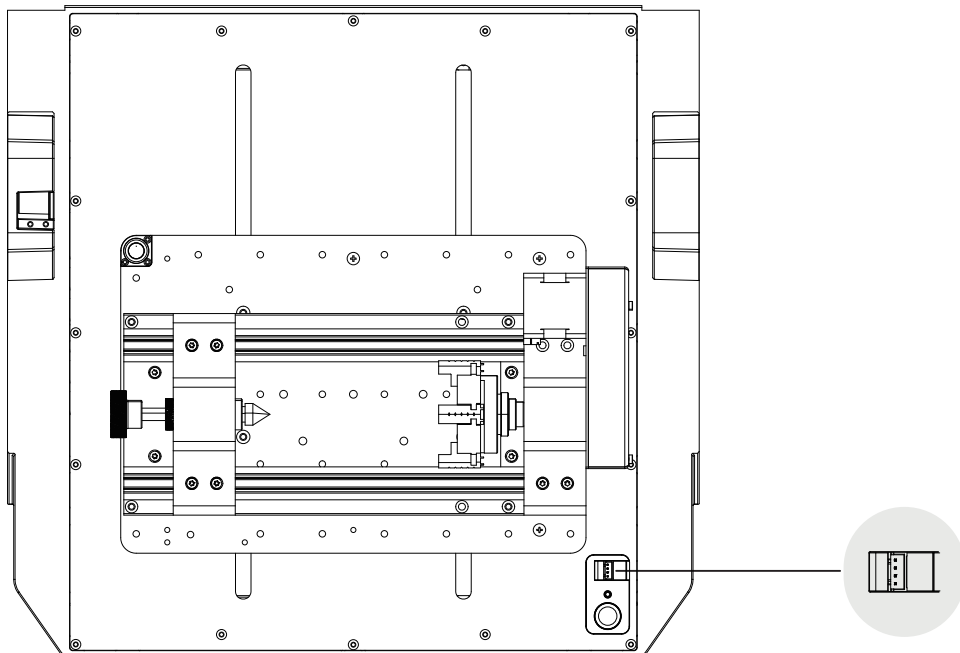
The three - coordinate probe can measure XXX (front, rear, left and right positions, automatic centering).

It can also measure XXX (surface height, automatically set the zero point and generate plane correction parameters).

Fourth Axis Module (Optional)

The fourth axis module can be quickly installed on D1/D1S products. The reduction ratio is 1:5, the clamping range is 1 - 33, and the tightening range is 16 - 50; the chuck has 4 jaws; it has its own drive.

Plug the connecting wire into the reserved socket at the safety door detection point.



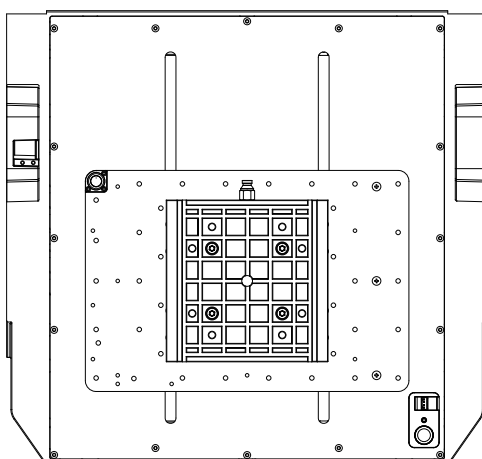
After connection, you can test whether the rotating shaft rotates normally through the software.

Import the programmed file into the software and set the machining origin to start machining.

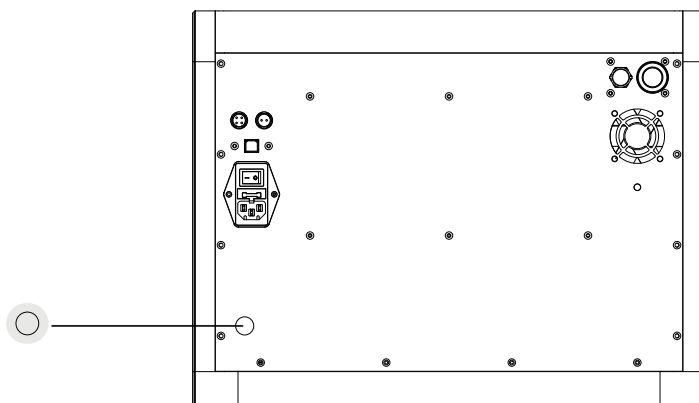
Note: If the rotating shaft is used, be sure to pay attention to the position of the spindle collet when designing the tool path to avoid collision. Measure the dimensions in advance, determine the maximum machinable distance, and leave a margin.

Vacuum Adsorption Platform

The size of the vacuum adsorption platform is 120*120mm, and it supports a maximum downward pressure of 200N.



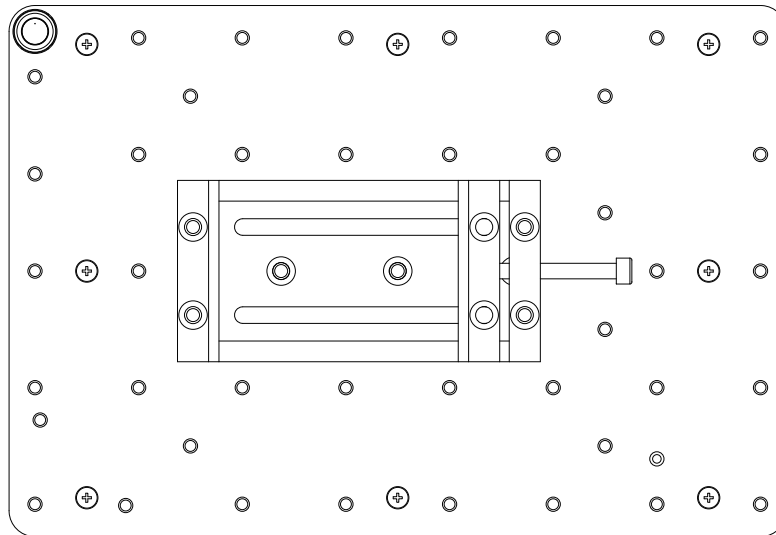
When in use, an external vacuum pump is required, and it is recommended to be able to reach at least -90 kPa.



Parallel Vise

The parallel vise is suitable for processing materials with a size within 100mm;

The parallel vise needs to be fixed with screws or pressing plates.



Clean the vise surface in advance before clamping.

X. Maintenance

Cleaning and maintenance of lead screws and slides

Cleaning after processing

XI. Common Problems and Solutions

XII. Whole Machine Quality Assurance Instructions

Commitment

MAXMAKE HiMill D1/D1S is an excellent CNC product. However, it is inevitable that all products may have problems. For the benefit of all users, we will provide the most convenient and fast after - sales service method for all users.

For all product - related technical questions or content you want to consult, you can first refer to the updated online materials and content. At the same time, you can also contact our after - sales service personnel or sales personnel, and we will answer your questions and solve your problems with the fastest response speed.

The actual product functions may not completely match the content in the manual due to technical upgrades and firmware updates.

To obtain the latest function introduction and safe use guidance information, please visit our company's official website or official forum to communicate with other users.