XTOOL

MetalFab CNC Cutter

Quick Start Guide

Kurzanleitung | Guía de inicio rápido | Guide de démarrage rapide | Guida rapida | Korte handleiding | Manual de referência rápida | Skrócona instrukcja obsługi | クイックガイド | 빠른 시작 가이드 | 快速入門指南 | 快速使用指南

XTOOL

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01

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다중 언어 버전 및 추가 정보

다중 언어로 된 사용 설명서와 추가 도움말을 찾으려면 support.xtool.com/article/1913 페이지를 방문하거나 QR 코드를 스캔하십시오.

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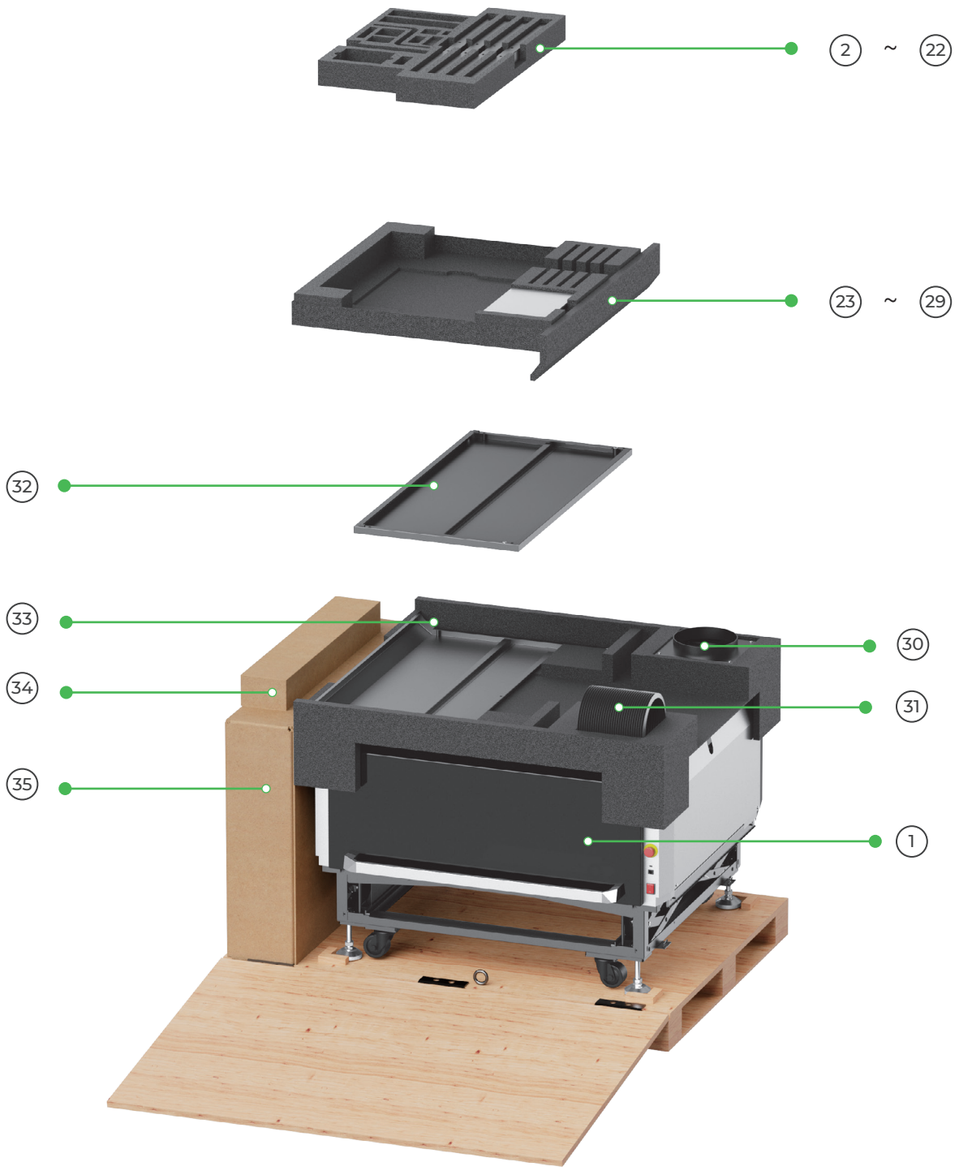
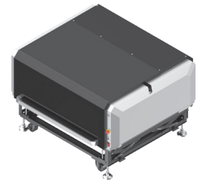
如需获取其他语言版本的用户指南或更多帮助信息，请访问 support.xtool.com/article/1913 或扫描二维码。你也可以访问 yuque.com/makeblock-help-center-zh/xtool-cnc-cutter 查看在线帮助。

support.xtool.com/article/1913

02

List of items





The power cable may vary according to kits. The illustration is for reference only.

1 xTool MetalFab CNC Cutter

2 Power cable

3 Communication cable

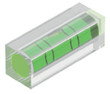
4 Z-shaped wrench

5 External antenna

6 Cable fixing block

7 Hook

8 Laser alignment card
Red stamp pad



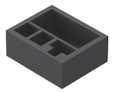
9 Level

10 Computer connection cable

11 Hex key 3 mm

12 Hex key 4 mm

13 Wrench



14 Storage box

15 Cutting tip

16 Cleaning nozzle

17 Telescopic cutting nozzle

18 Ceramic ring

19 Screw M4*30

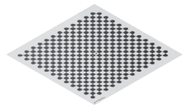
20 Screw M4*10

You can get 16 more M6*12 screws after removing the fixing bars at the bottom corners of the main unit.

21 Screw M6*12

22 Long fixing bar

23 Short fixing bar



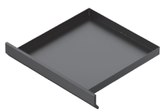
24 Camera calibration board

25 Metal sheets

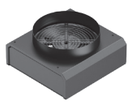
26 Quick Start Guide

27 Safety Instructions

28 Pipe clamp

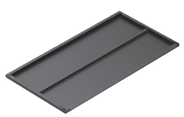


29 Baseplate

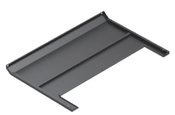


30 Exhaust fan

31 Smoke exhaust pipe

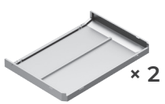


32 Front plate of the riser base



33 Back plate of the riser base

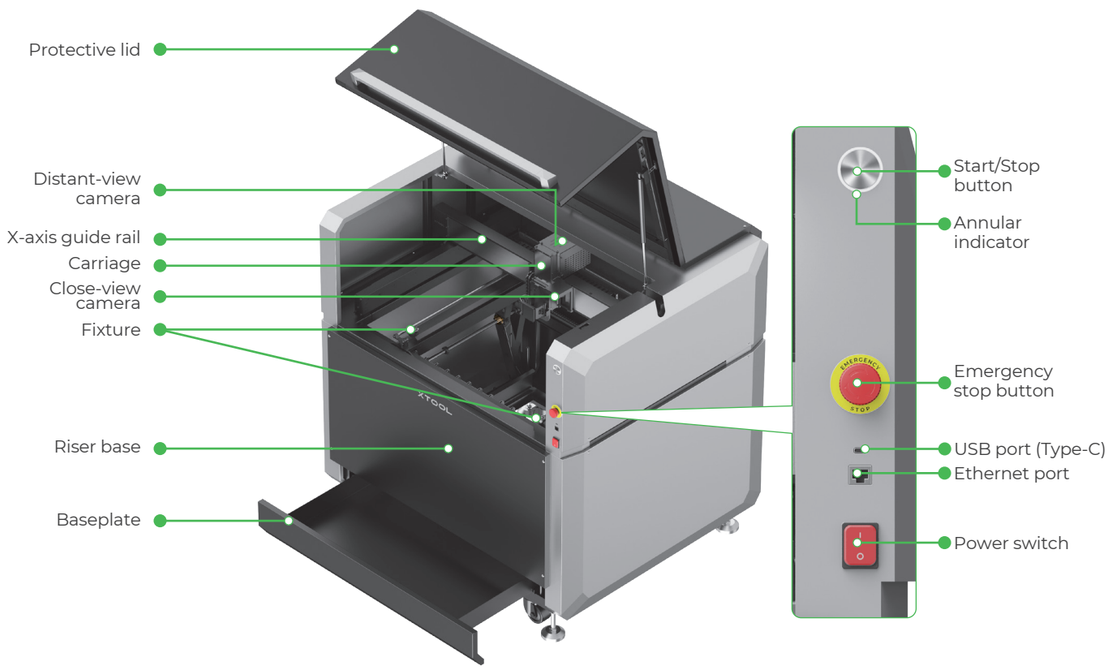
34 Slat

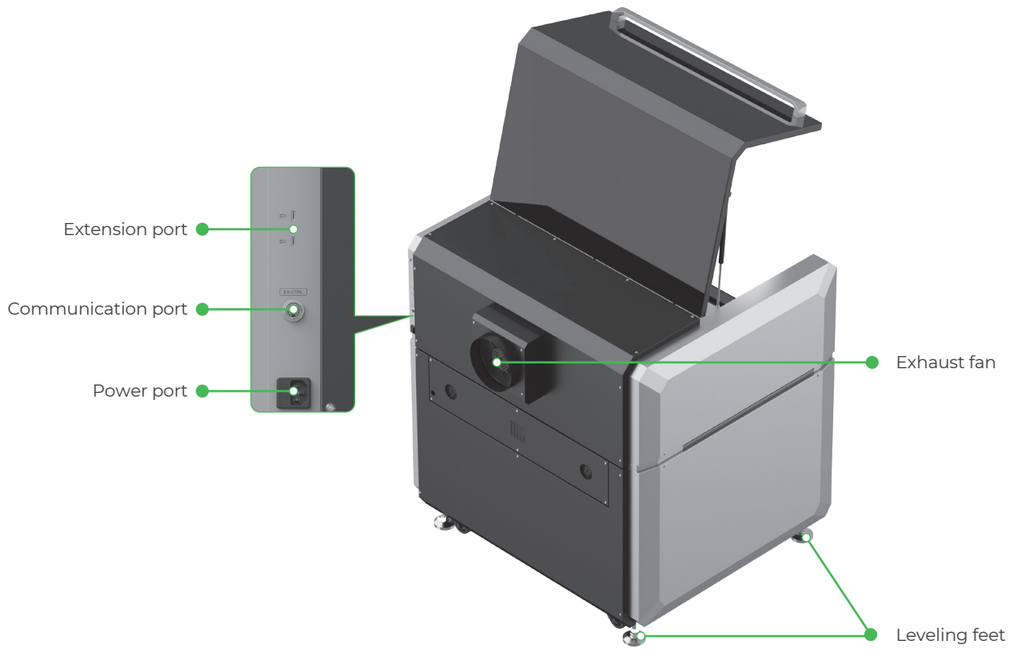


35 Side plates of the riser base

Meet xTool MetalFab CNC Cutter

Structure of the main unit





Annular indicator

Effect	Machine state
Solid white	■ Standing by ■ Initializing ■ Calibrating ■ Processing cancelled
Off	Sleeping
Blinking blue slowly	■ Ready for processing ■ Processing paused
Solid blue	■ Processing ■ Framing
Solid green	Processing done
Blinking yellow slowly	Configuring network
Solid purple	Upgrading
Blinking red slowly	Abnormal
Solid red	Emergency stop button pressed

Buzzer

Effect	Machine state
1 beep	Reminding users to operate
3 consecutive beeps	Abnormal

Specifications

Product name	xTool MetalFab CNC Cutter
Dimensions	1175mm × 1157mm × 749mm (W × D × H)
Dimensions (riser base included)	1175mm × 1157mm × 1230mm (W × D × H)
Internal working area	610 mm × 610 mm (W × D)
Maximum processing speed	400 mm/s
Input power	Voltage range: 100 V to 240 V Full-load current: 2.5 A
Connection mode	USB, Wi-Fi, Ethernet port

Preparation before assembling

Power

xTool MetalFab CNC Cutter requires 2.5 A, 100 V – 240 V single phase AC power.
As for xTool MetalFab Laser Welder, refer to its ***Quick Start Guide*** for power specifications.

- Do not connect xTool MetalFab Laser Welder to a standard household circuit, as it may damage both the product and the circuit.
- To ensure safety, it is recommended to install a 32 A air circuit breaker between the power supply and xTool MetalFab Laser Welder.

Shielding gas

The shielding gas should be dry, oil-free, and clean. Please prepare gas cylinders or gas generators that meet requirements.

Supported gas types:

- Nitrogen
- Argon
- Oxygen
- Compressed air

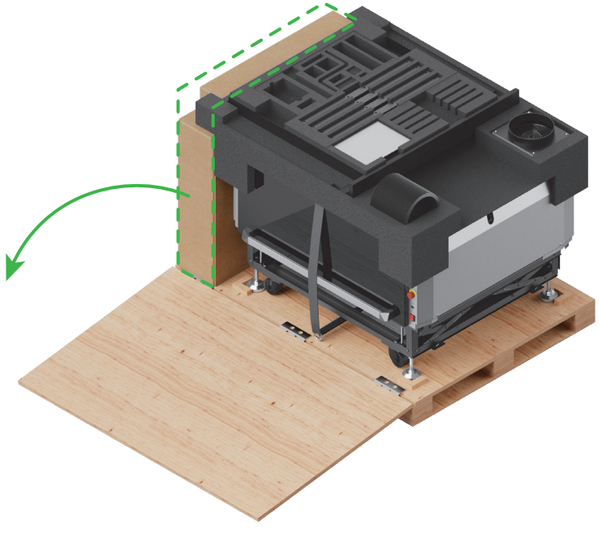
The product does not come with a gas cylinder or gas generator. Please purchase one separately.

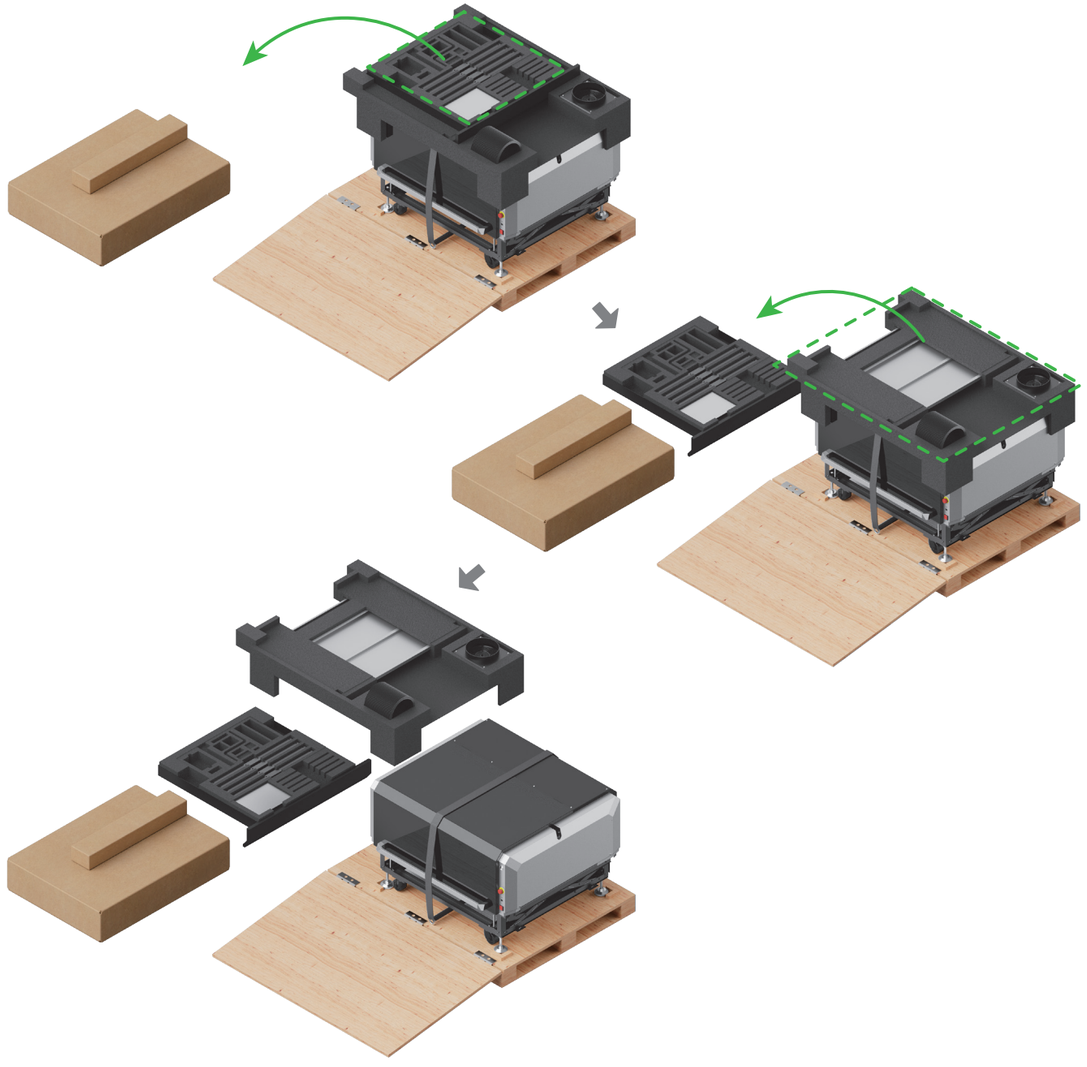
xTool MetalFab Laser Welder

- xTool MetalFab CNC Cutter needs to work with xTool MetalFab Laser Welder. During laser processing, xTool MetalFab Laser Welder is responsible for emitting laser, while xTool MetalFab CNC Cutter for controlling the processing.
- Since only the metal cutting function of xTool MetalFab Laser Welder is needed, it does not need to be assembled according to its own ***Quick Start Guide***. If you have already assembled it, disconnect its power and remove unnecessary components.

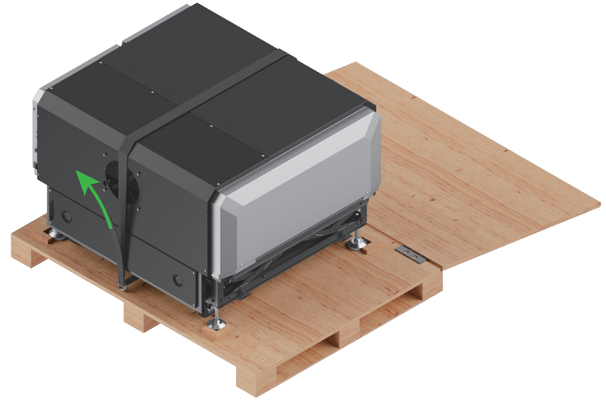
Unbox and place the main unit

(1) Remove the items around the main unit in sequence.





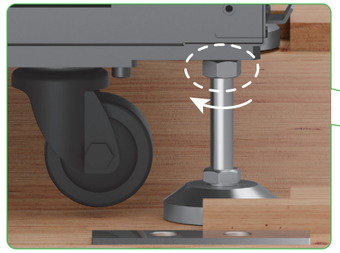
(2) On the back of the main unit, tear open the black securing strap and unfasten it completely.



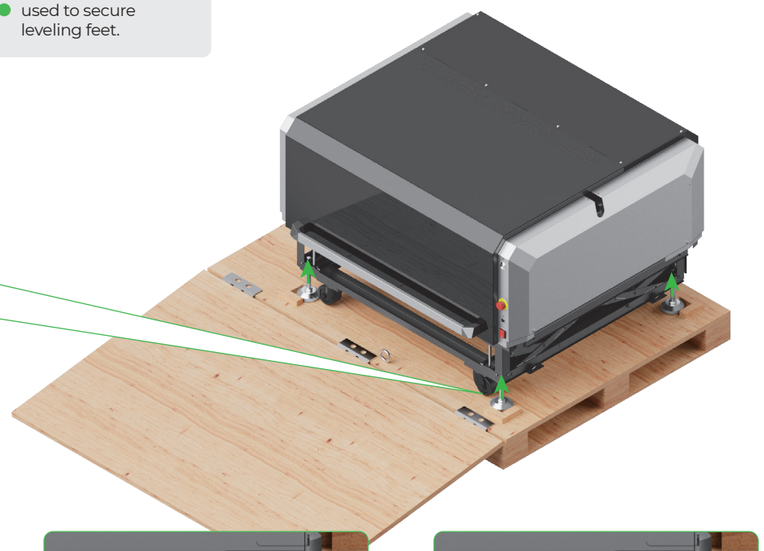
(3) Lift four leveling feet.

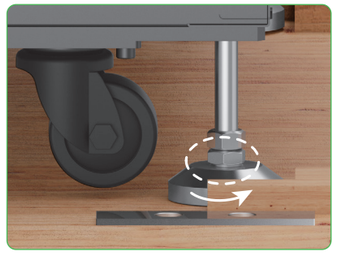
The top nuts are used to hold against the main unit base plate.

The lower nuts are used to secure leveling feet.

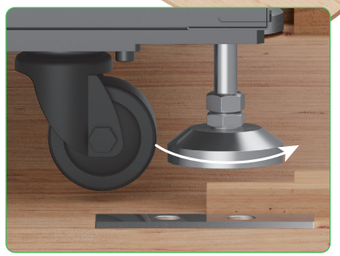


Use the wrench to turn the top nuts clockwise until they touch the lower nuts.

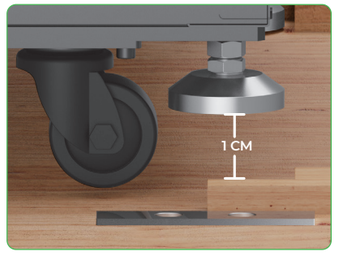




Use the wrench to loosen the lower nuts counterclockwise.



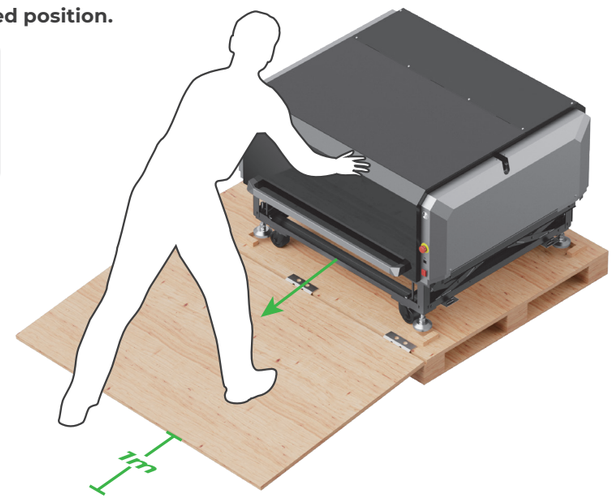
Manually turn the leveling feet counterclockwise to lift them.



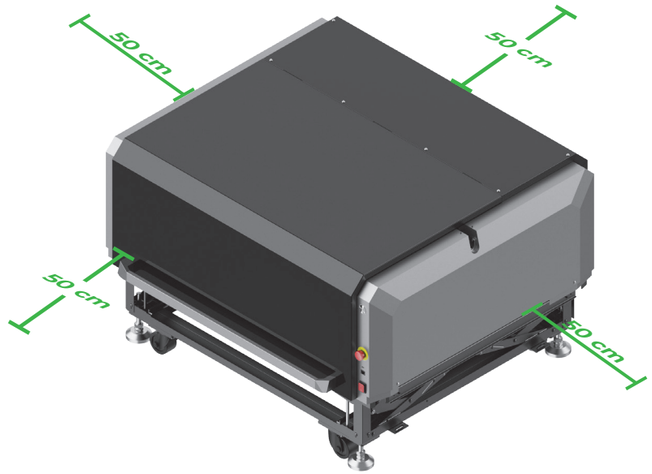
The leveling feet should be about 1 cm above the limit blocks.

(4) Move the machine to the desired position.

- Reserve at least 1 m in front of the wooden box.
- The machine will go downhill by inertia. Please control the moving speed.

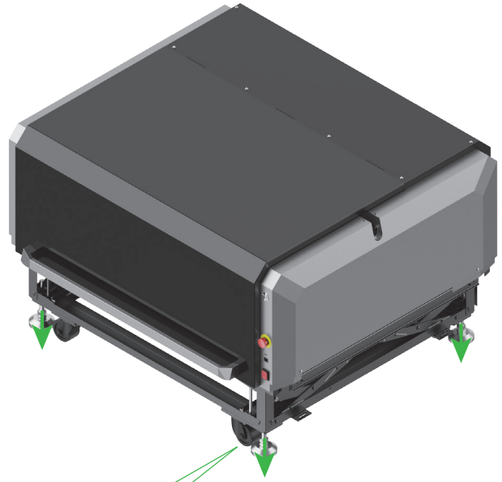


Leave a clearance of at least 50 cm on all sides of the machine for subsequent assembly and operations.

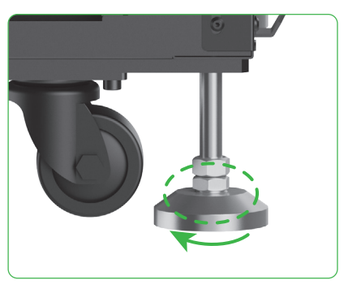


Cutting a material near the edges of the working area may cause sparks to splash out from the bottom of the device. Keep flammable materials, explosives, and solvents away from the device. Operators must stay at least 50 cm away from the spark-splashing zone.

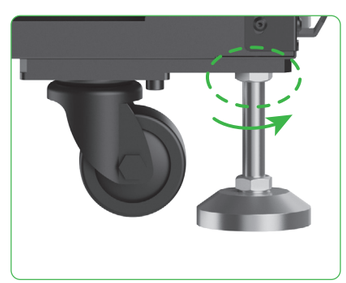
(5) After moving the machine to the desired position, lower the leveling feet to secure the machine.



Manually turn the leveling feet clockwise to lower them until they touch the ground.



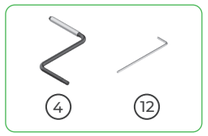
Use a wrench to tighten the lower nuts clockwise.



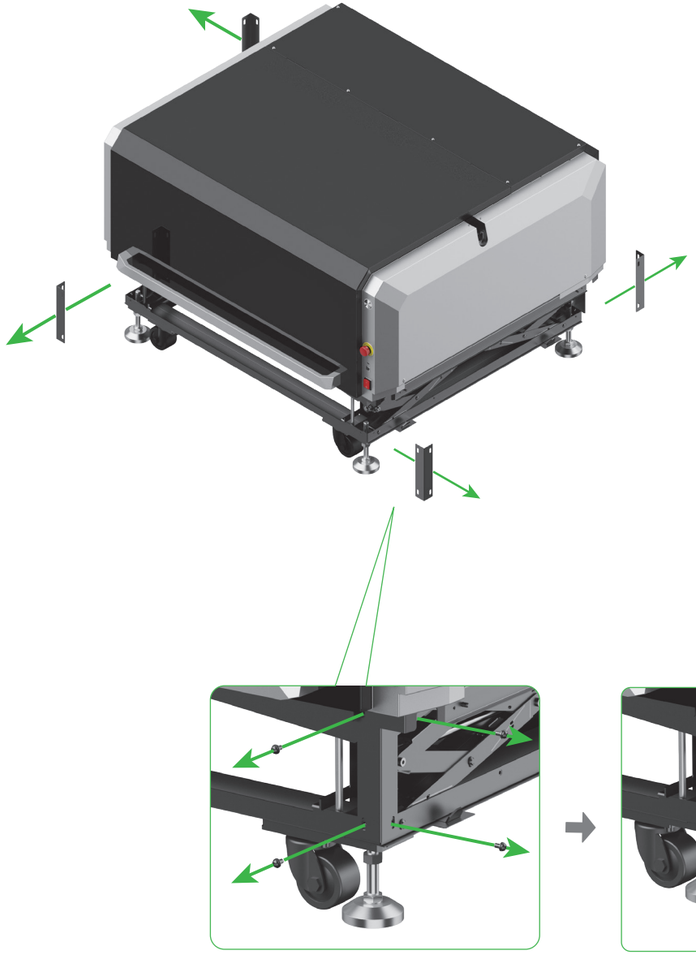
Turn the top nuts counterclockwise until they touch the main unit base plate and use a wrench to secure them.

Assemble the riser base

1 Lift the main unit



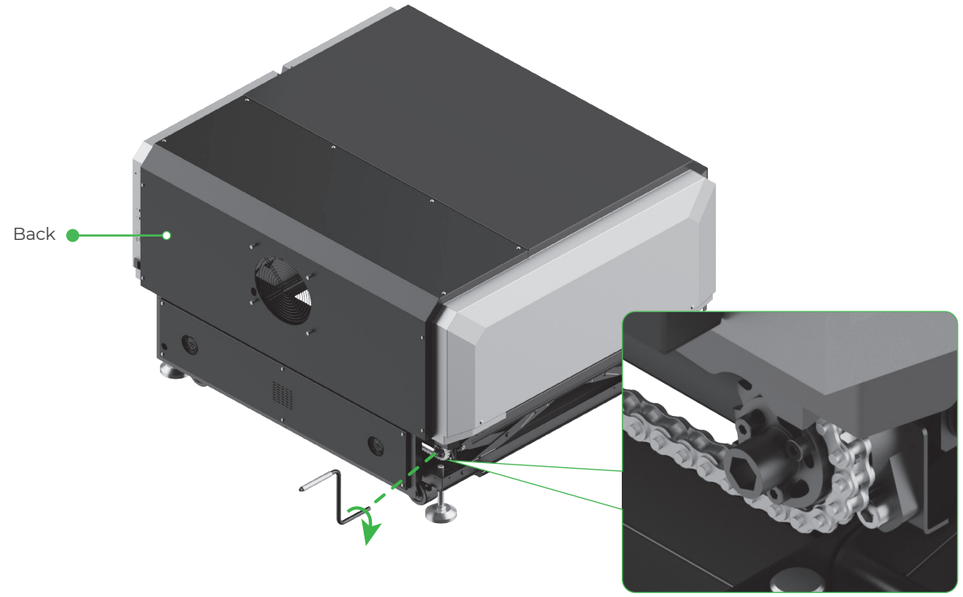
(1) Use a hex key to loosen the screws and take out the four fixing bars at the bottom corners.



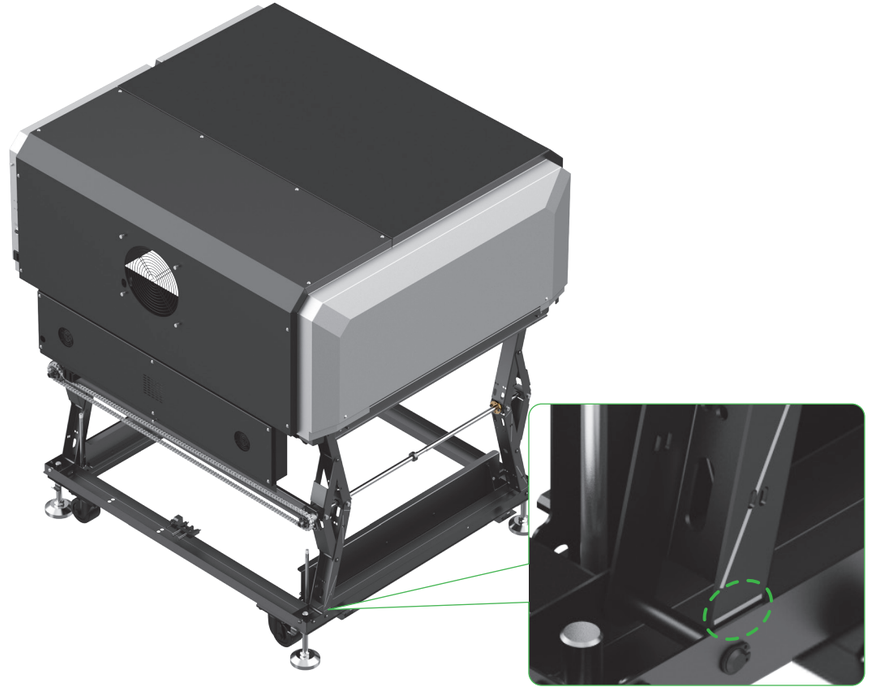
Sixteen M6*12 screws are taken out in this step. Please reserve them properly for subsequent use.

× 16

(2) At the back of the main unit, use a Z-shaped wrench to lift the main unit.

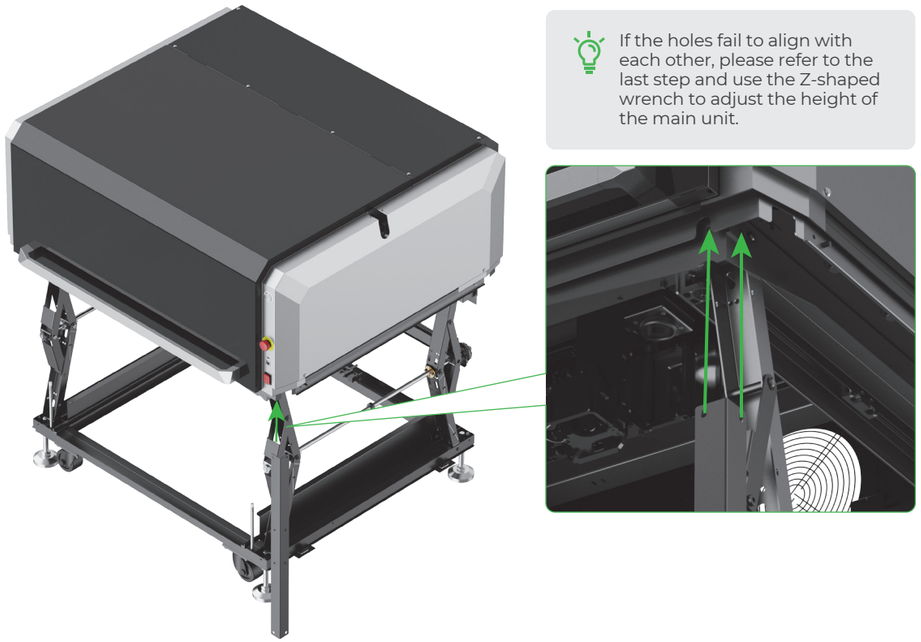


Get at eye level with the base beam to observe the white line. If the white line is level with the base beam, it indicates that the main unit has been lifted into the correct position.



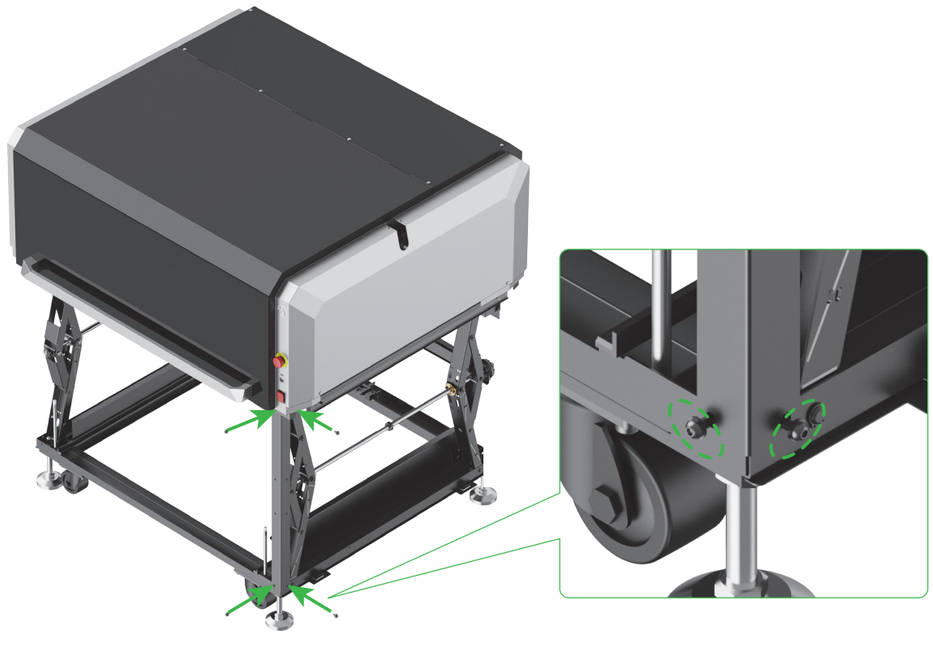
2 Install the long fixing bars

(1) Align the holes on the long fixing bars and the main unit.

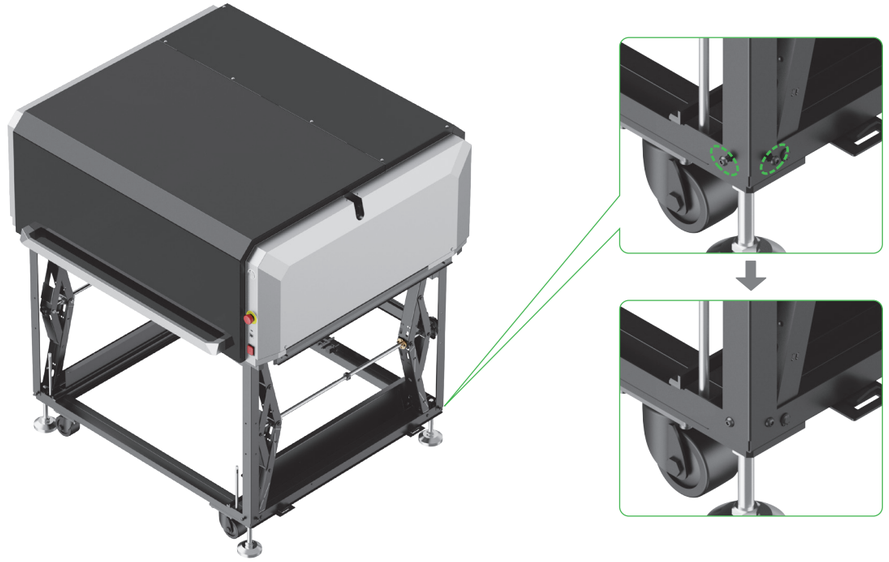


If the holes fail to align with each other, please refer to the last step and use the Z-shaped wrench to adjust the height of the main unit.

(2) Use the hex key to screw in four screws to secure a long fixing bar in place. Do not tighten the screws yet.

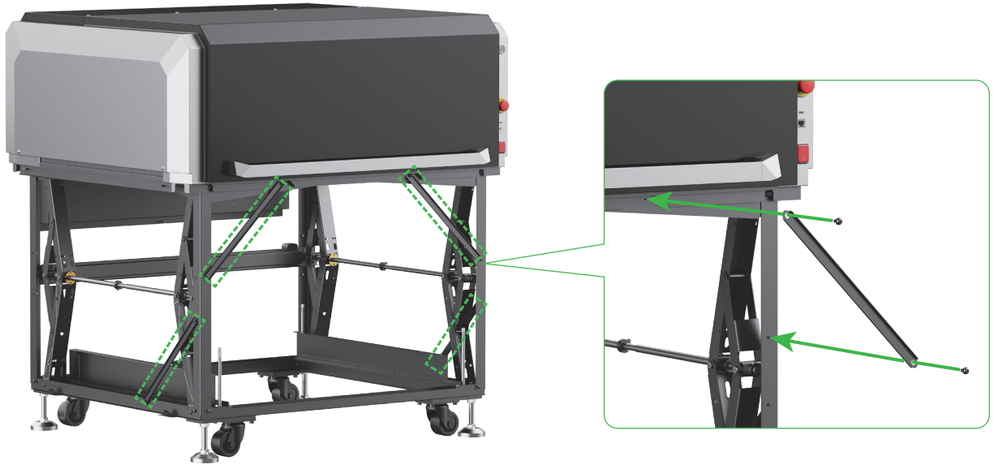


(3) Secure the remaining three long fixing bars in the same way. Then, use the hex key to fully tighten all the screws on the four long fixing bars.

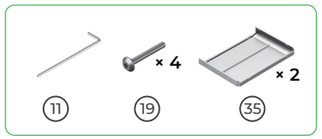


3 Install the short fixing bars

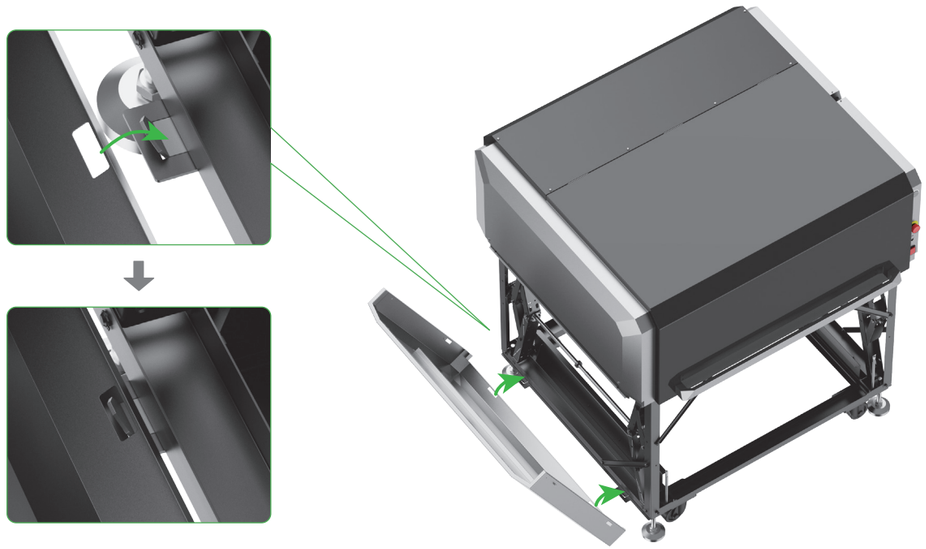
Attach the four short fixing bars to the front, left, and right sides of the machine.

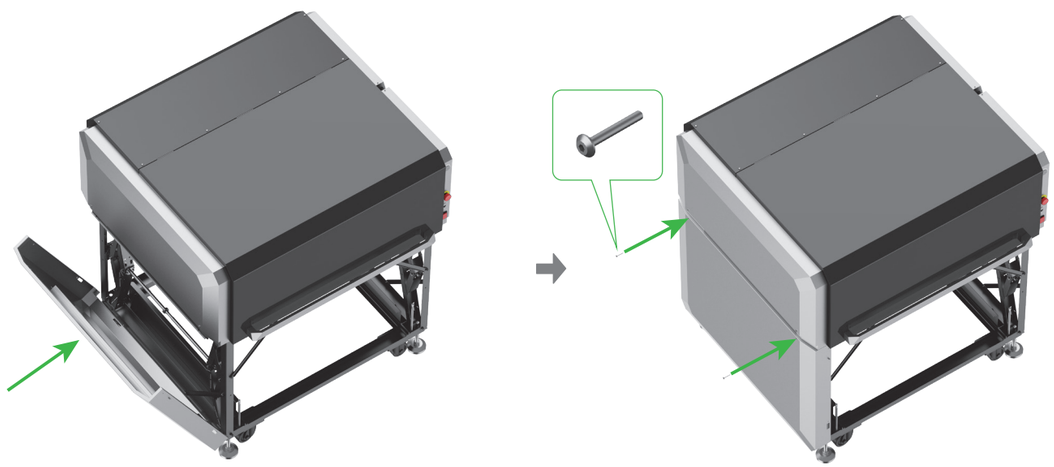


4 Install the side plates

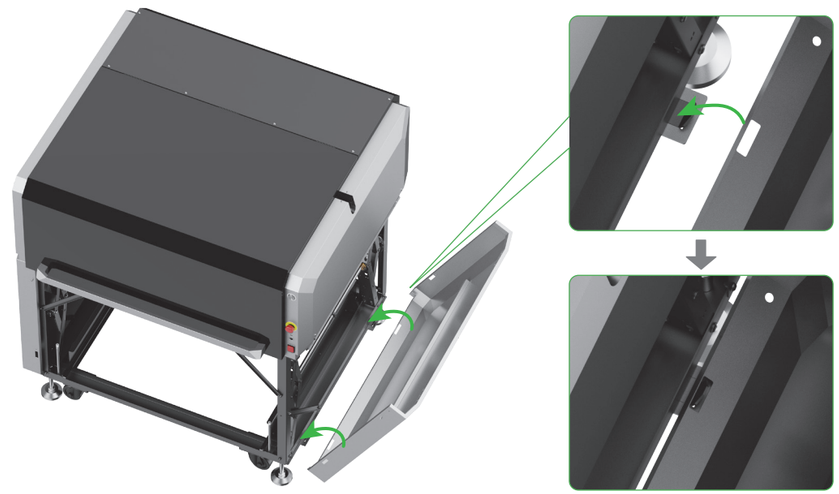


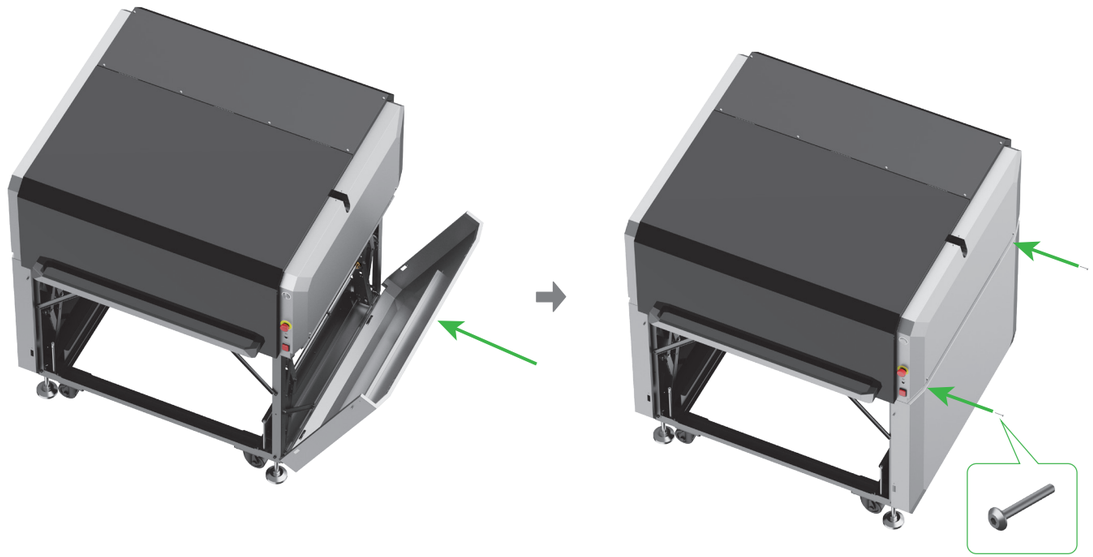
The side plates are applicable to both the left and right sides.





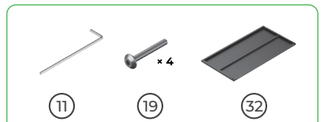
Insert and tighten the screws.

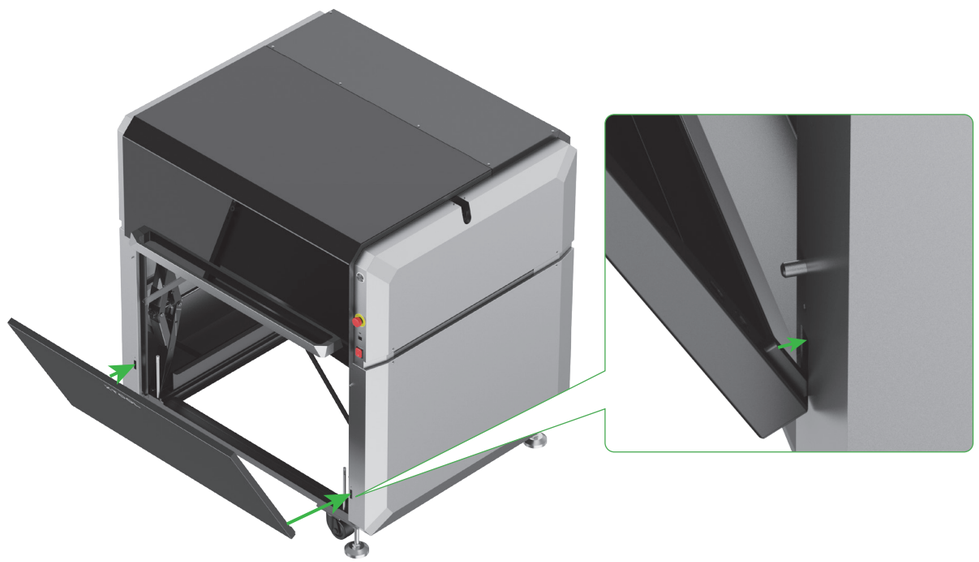


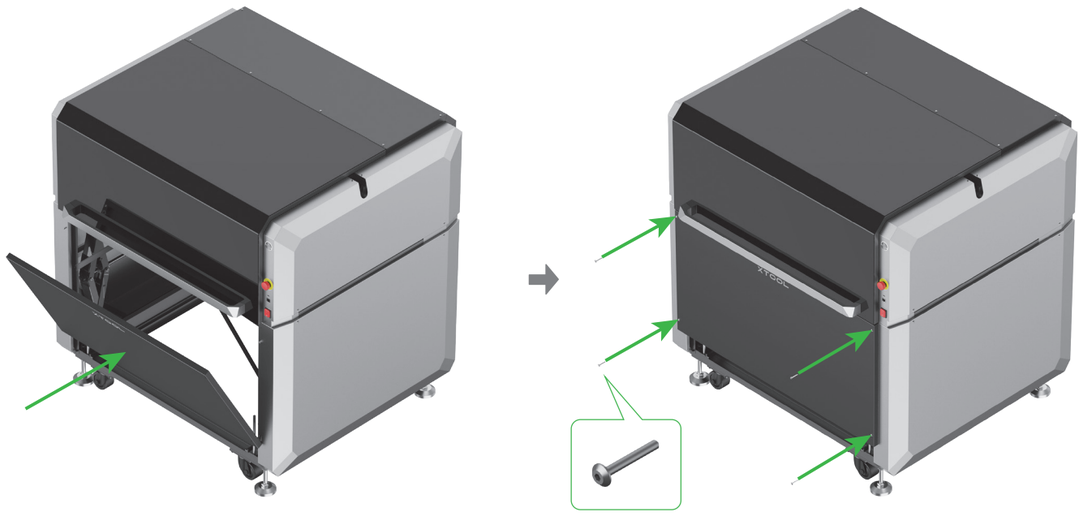


Insert and tighten the screws.

5 Install the front plate

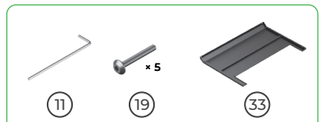


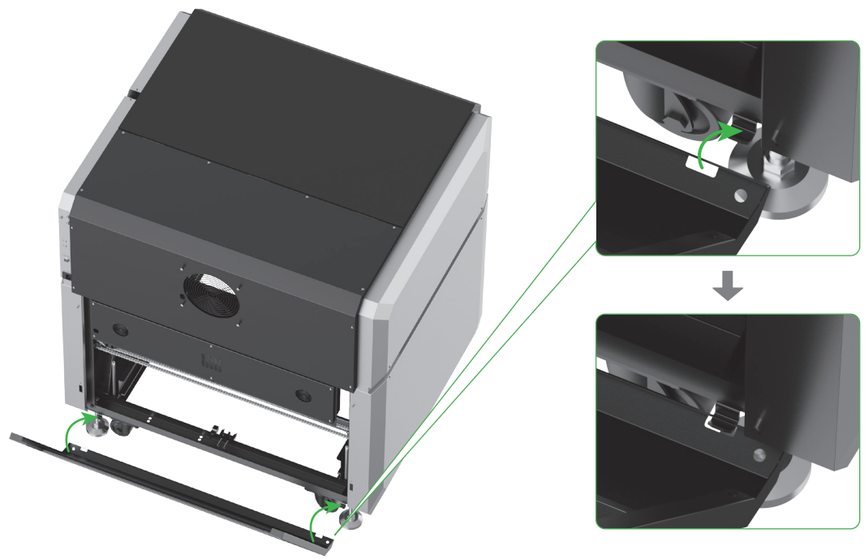


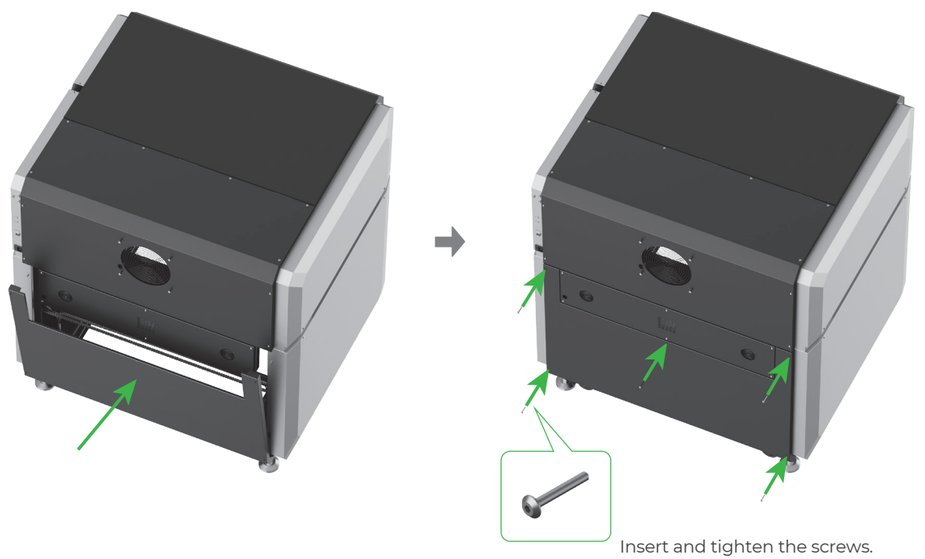


Insert and tighten the screws.

6 Install the back plate

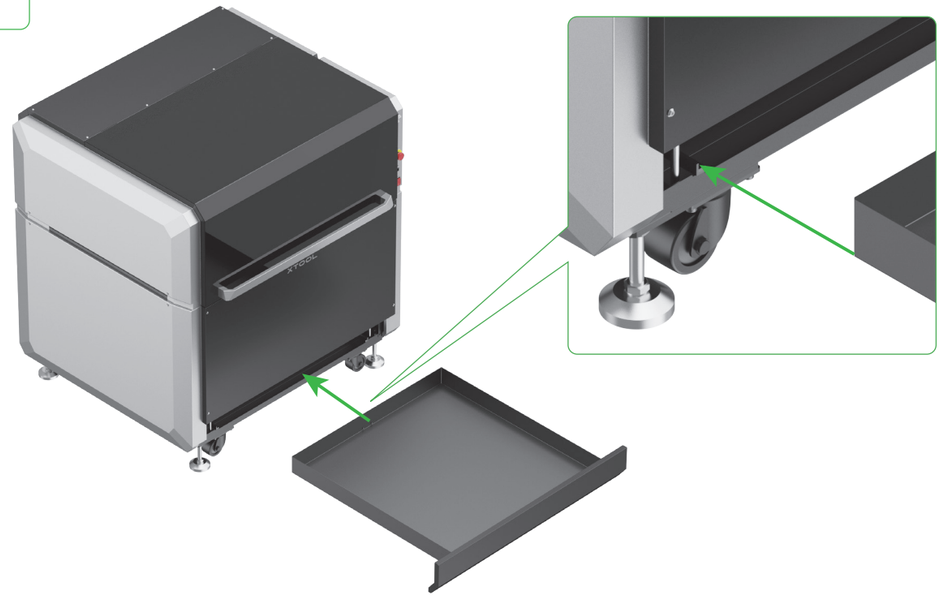






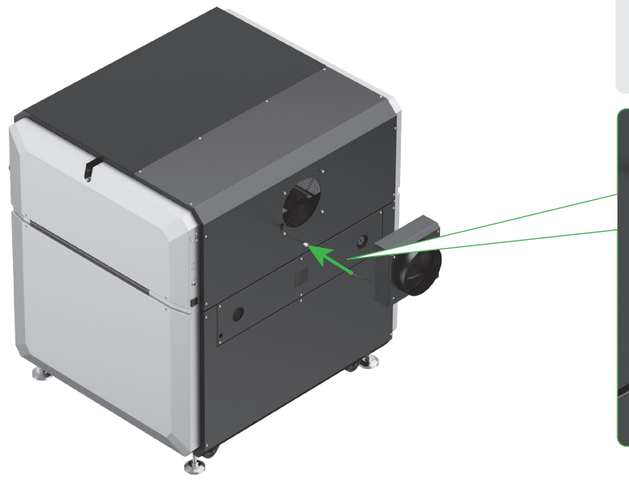
Insert and tighten the screws.

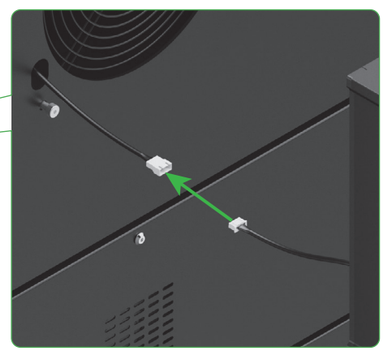
7 Install the baseplate



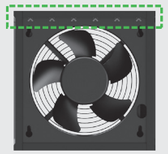
8 Install the exhaust fan

(1) Attach the connector of the exhaust fan to that of the main unit.

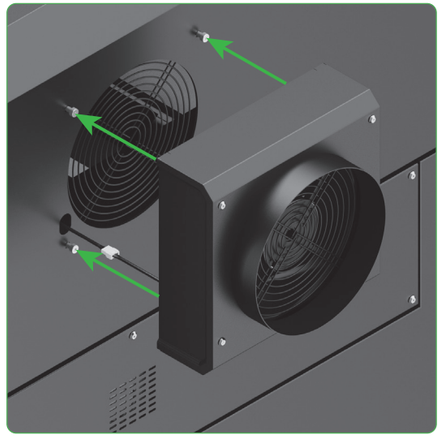


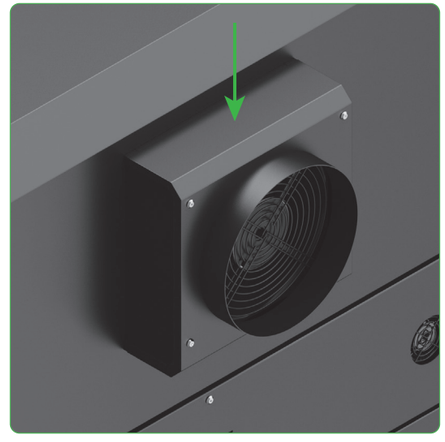


Ensure that the side with arrows is facing up. Do not install it upside down.

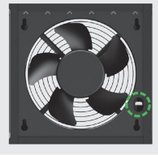


(2) Align the four grooves of the exhaust fan with four fixing pins of the main unit and install the fan. Then, gently press the fan down to make it fully seated.

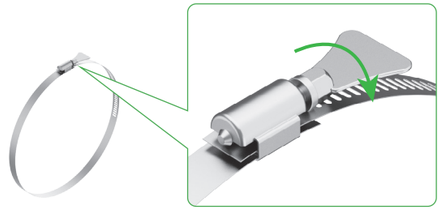


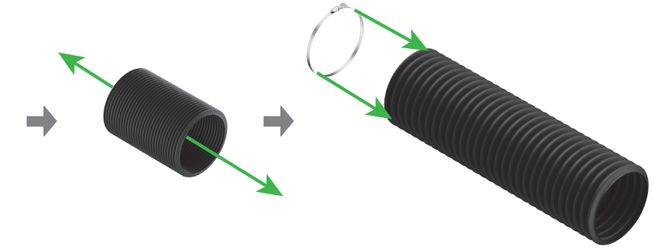


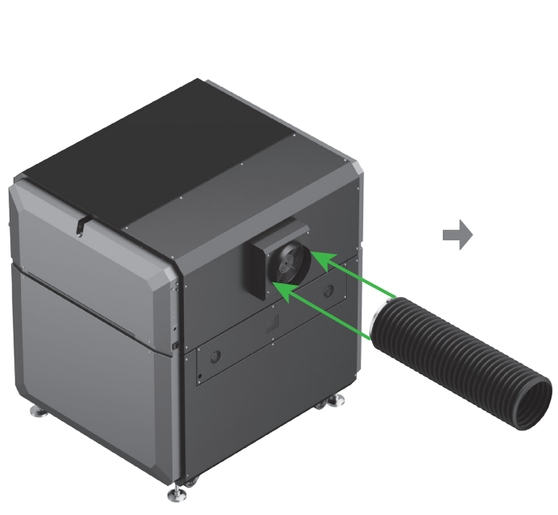
Before snapping the exhaust fan into place, tuck the excess connecting wire into the hole of the exhaust fan.

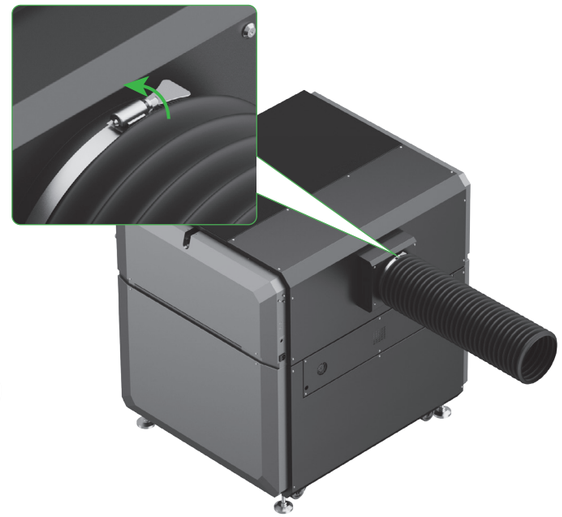


(3) Install the smoke exhaust pipe to the exhaust fan.

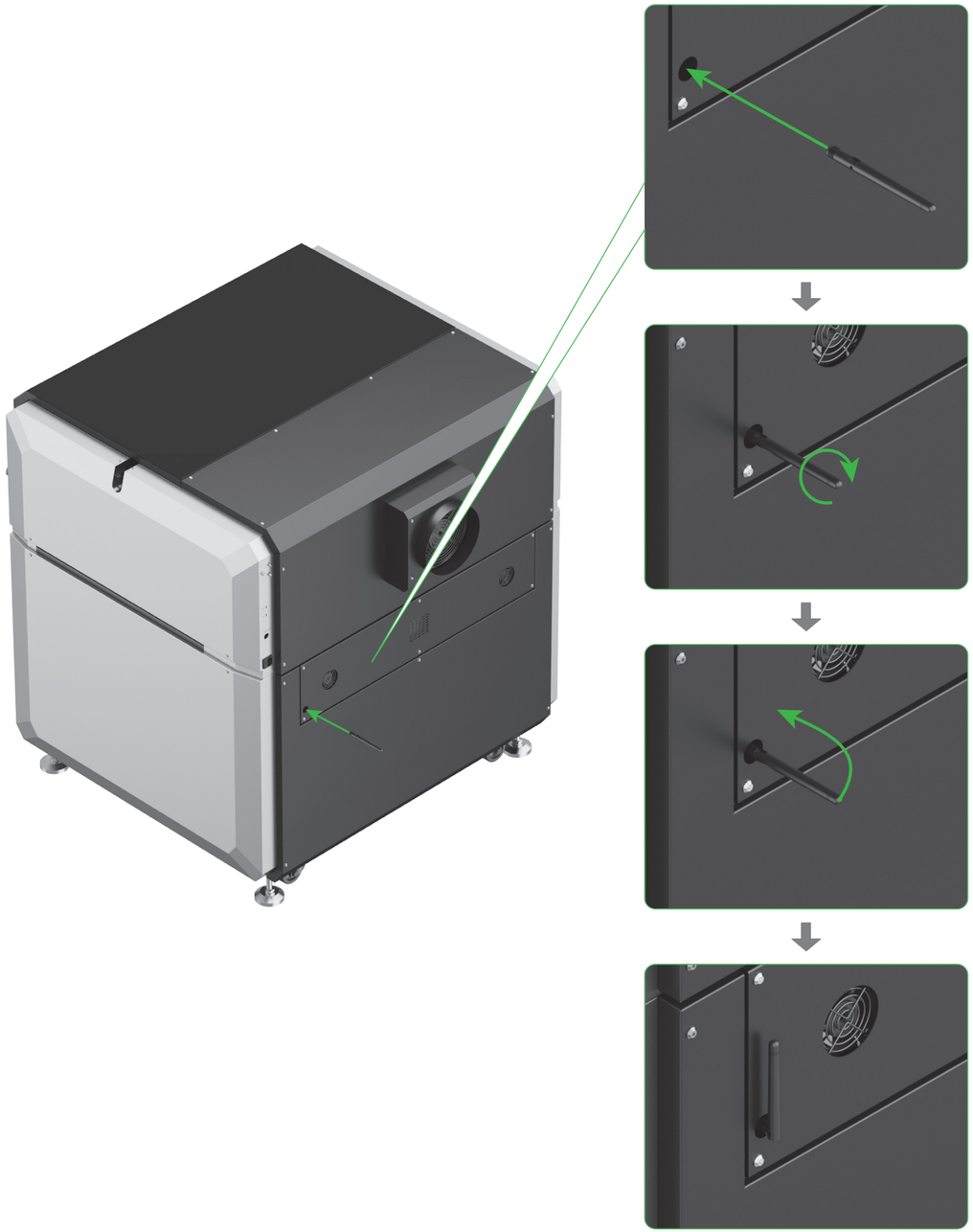






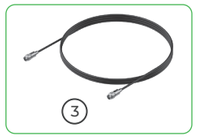


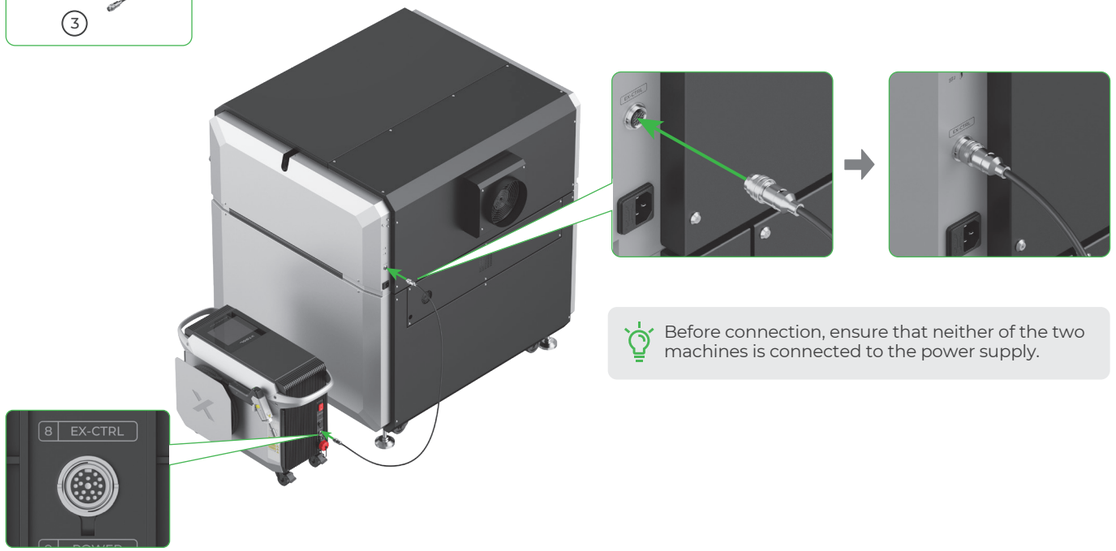
9 Install the external antenna



Install the welding head

1 Connect to xTool MetalFab Laser Welder

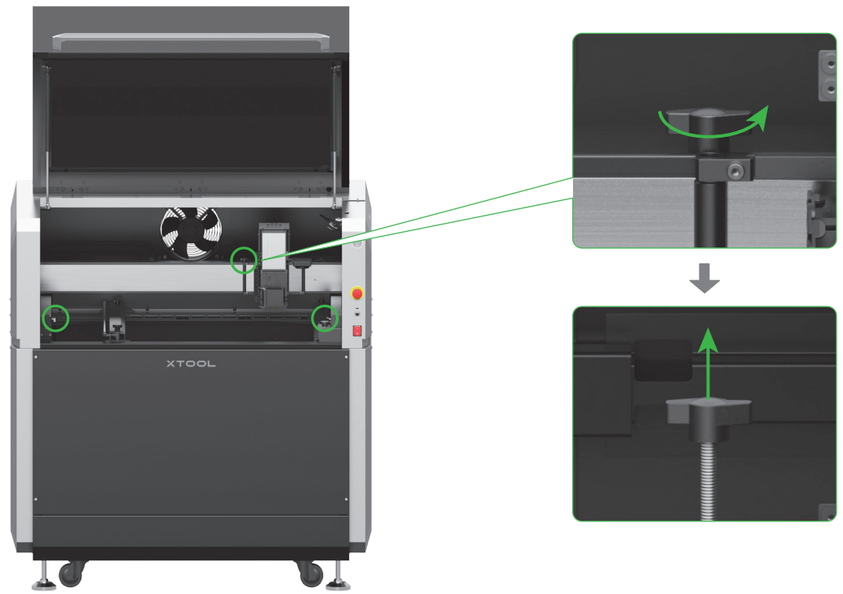




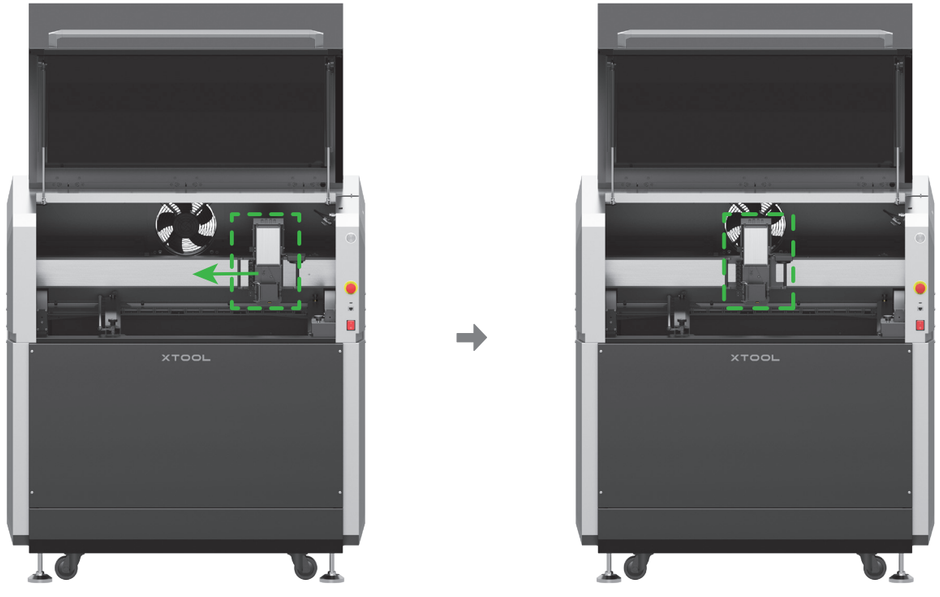
Before connection, ensure that neither of the two machines is connected to the power supply.

2 Prepare to secure the welding head

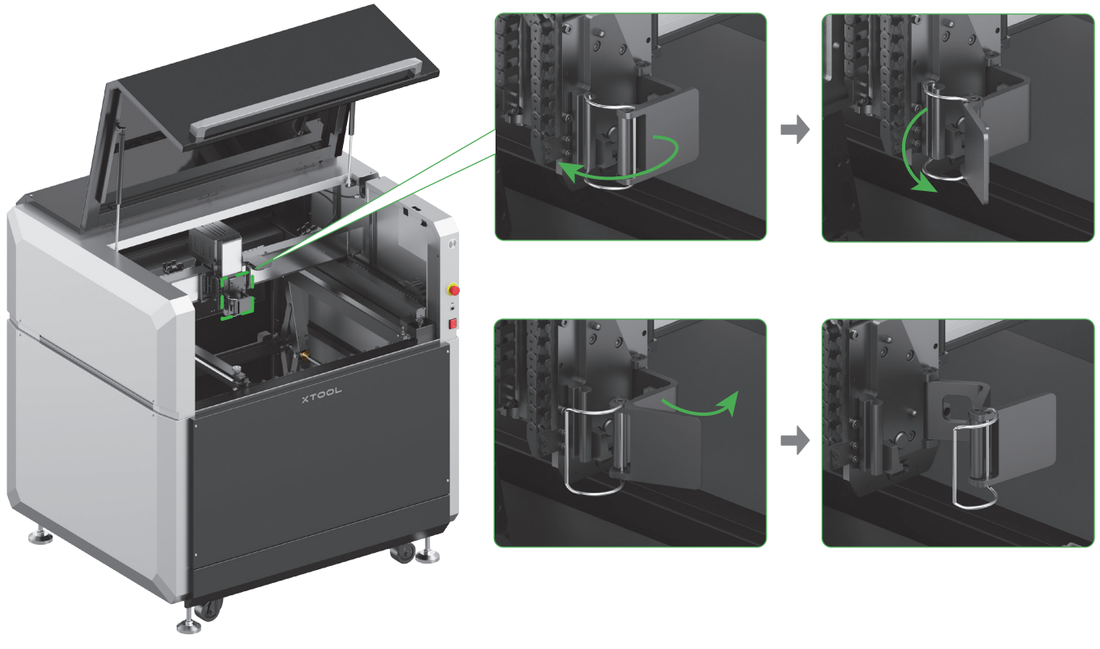
(1) Rotate the three wing bolts counterclockwise to take them out.



(2) Move the carriage to the center.



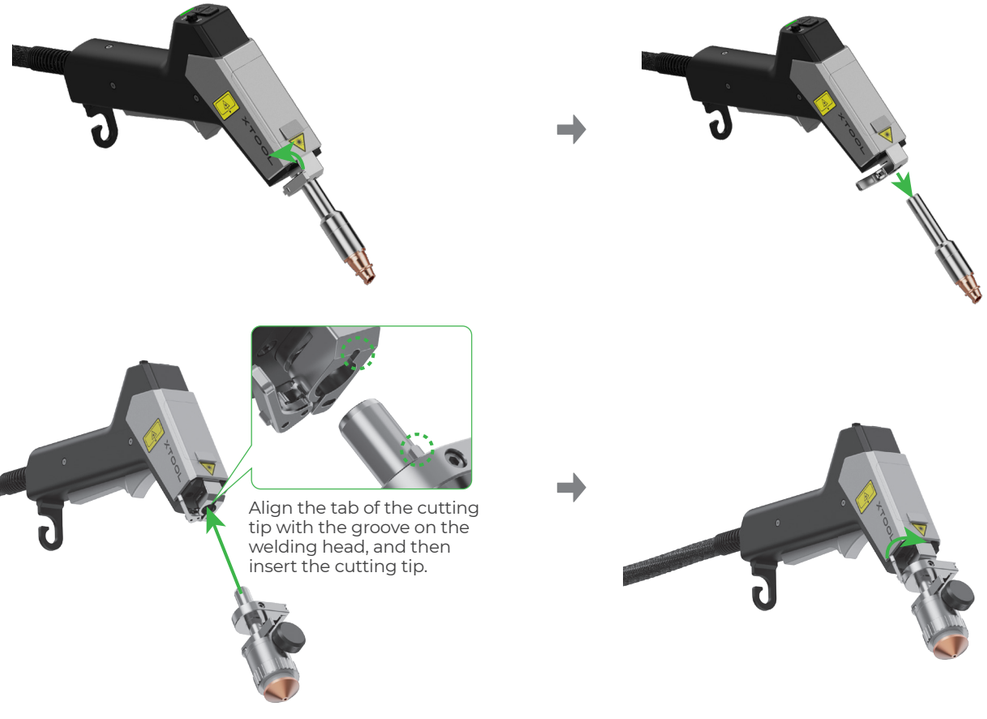
(3) Open the toggle latch.



3 Install the cutting tip

15

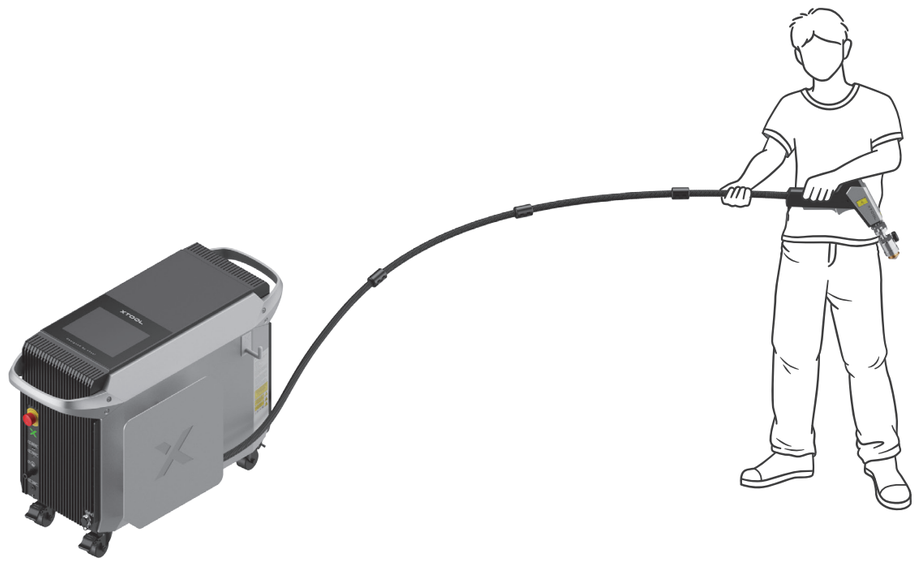
Take out the welding head from the xTool MetalFab Laser Welder and replace the welding tip with the cutting tip.



4 Secure the welding head

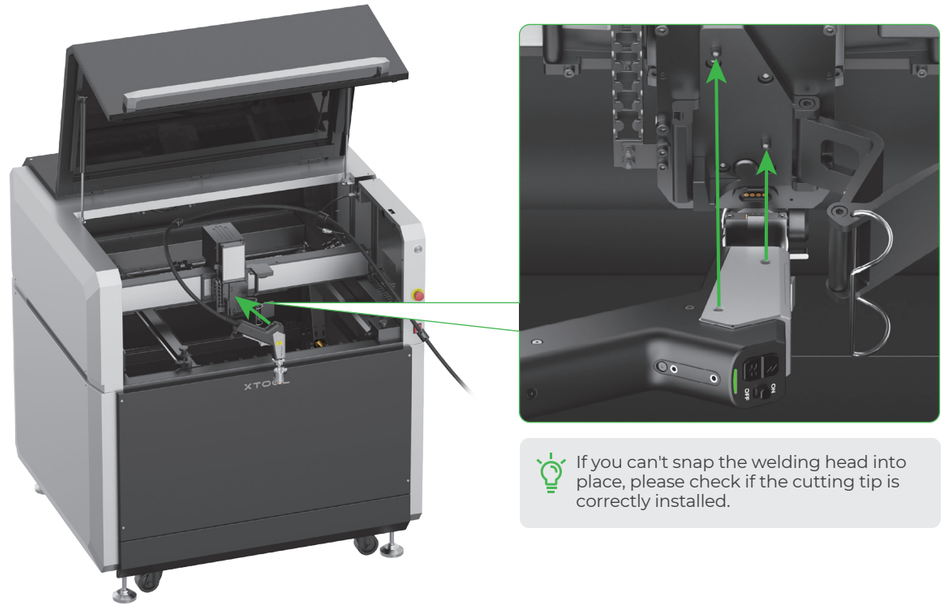
⑥

(1) Straighten the welding head cable. Ensure that the welding head does not hit the ground.



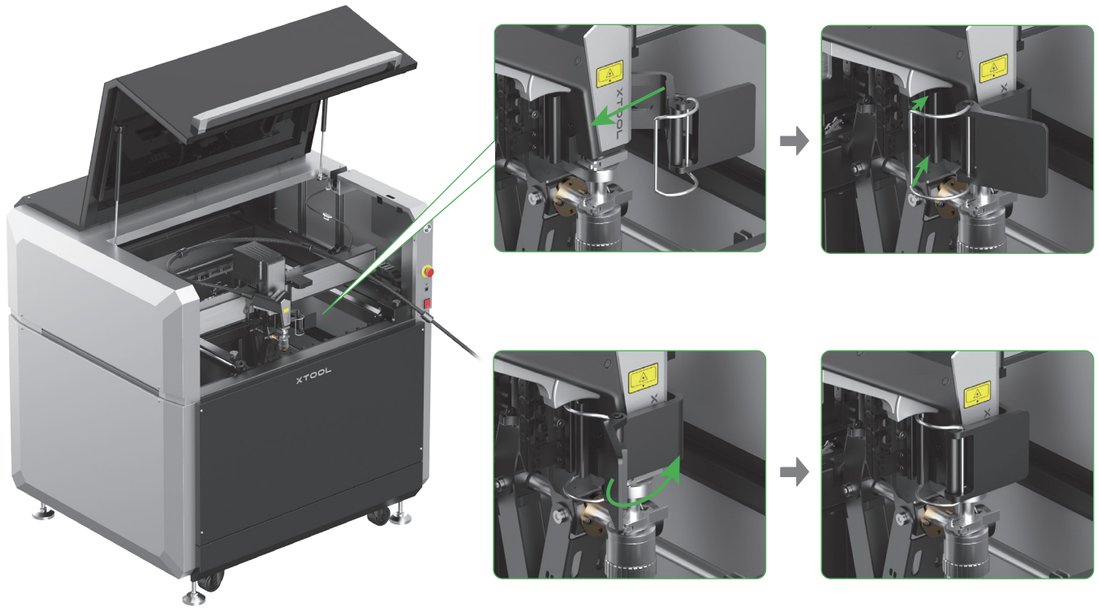
(2) Loop the welding head cable around the back of the carriage.

(3) Align the two grooves on the side of the welding head with the two fixing pins of the carriage.

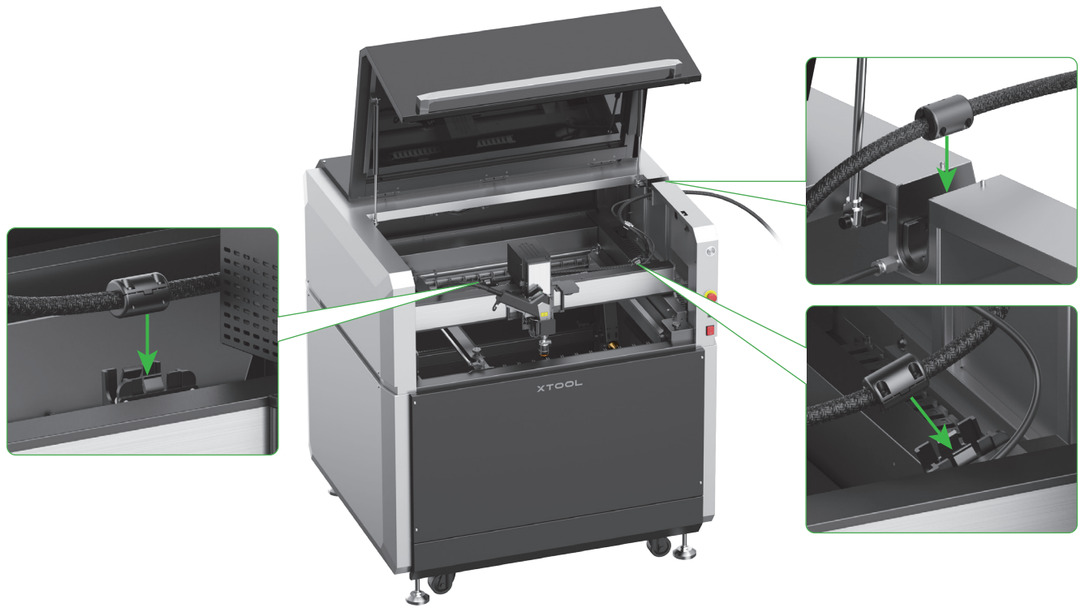


If you can't snap the welding head into place, please check if the cutting tip is correctly installed.

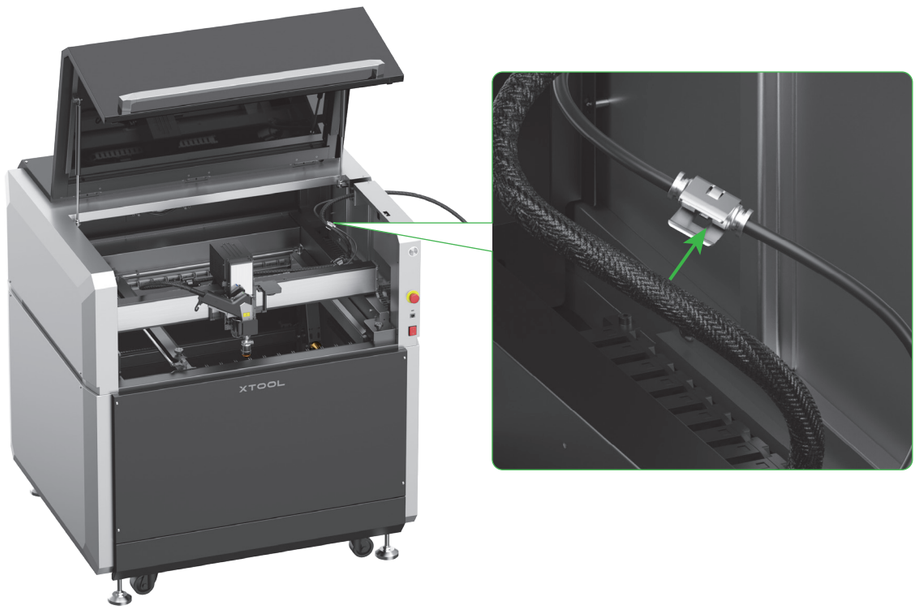
(4) Close the toggle latch.



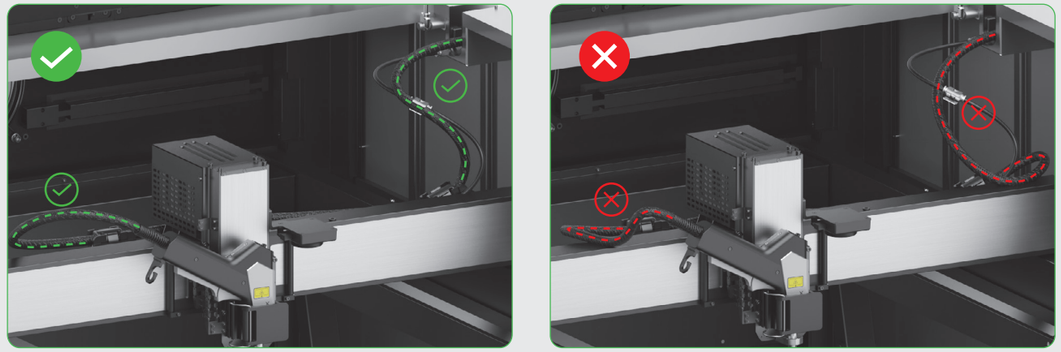
(5) Secure the three fixing rings on the welding head cable to the corresponding slots inside the machine.



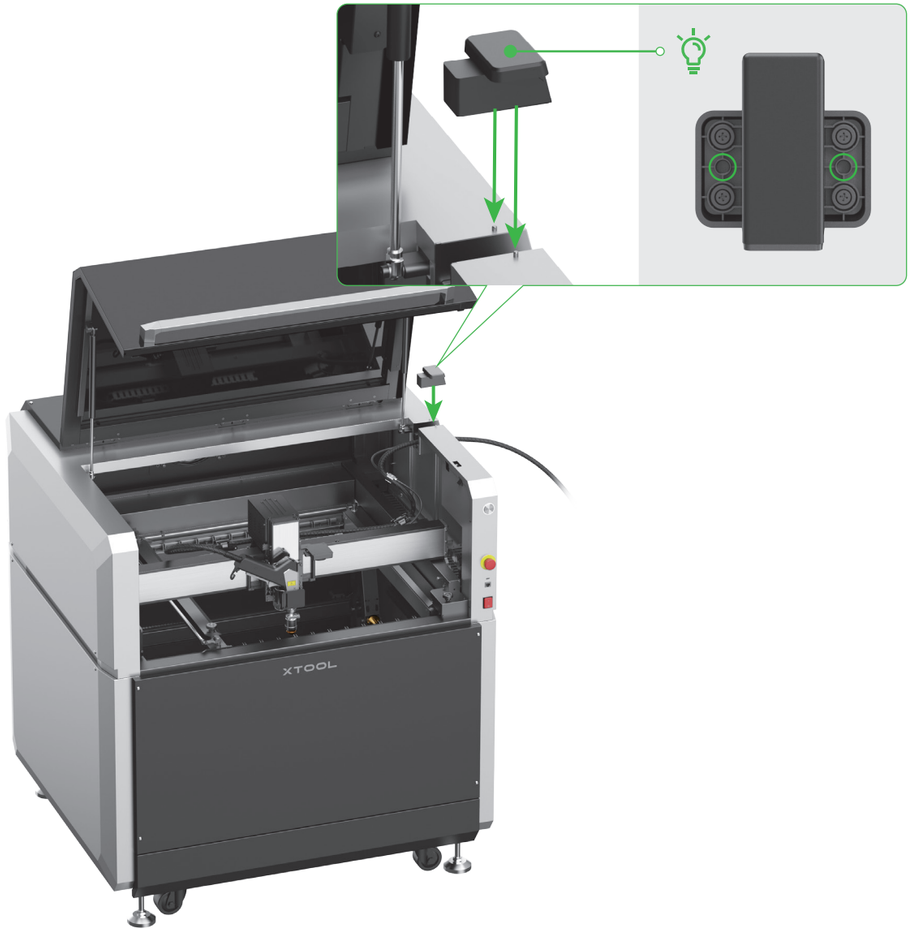
(6) Snap the cable into the clamp.



Ensure that the cable is fixed in place and doesn't touch the x-axis guide rail.

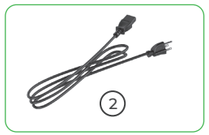


(7) Use the cable fixing block to secure the fixing ring in the right slot of the machine.

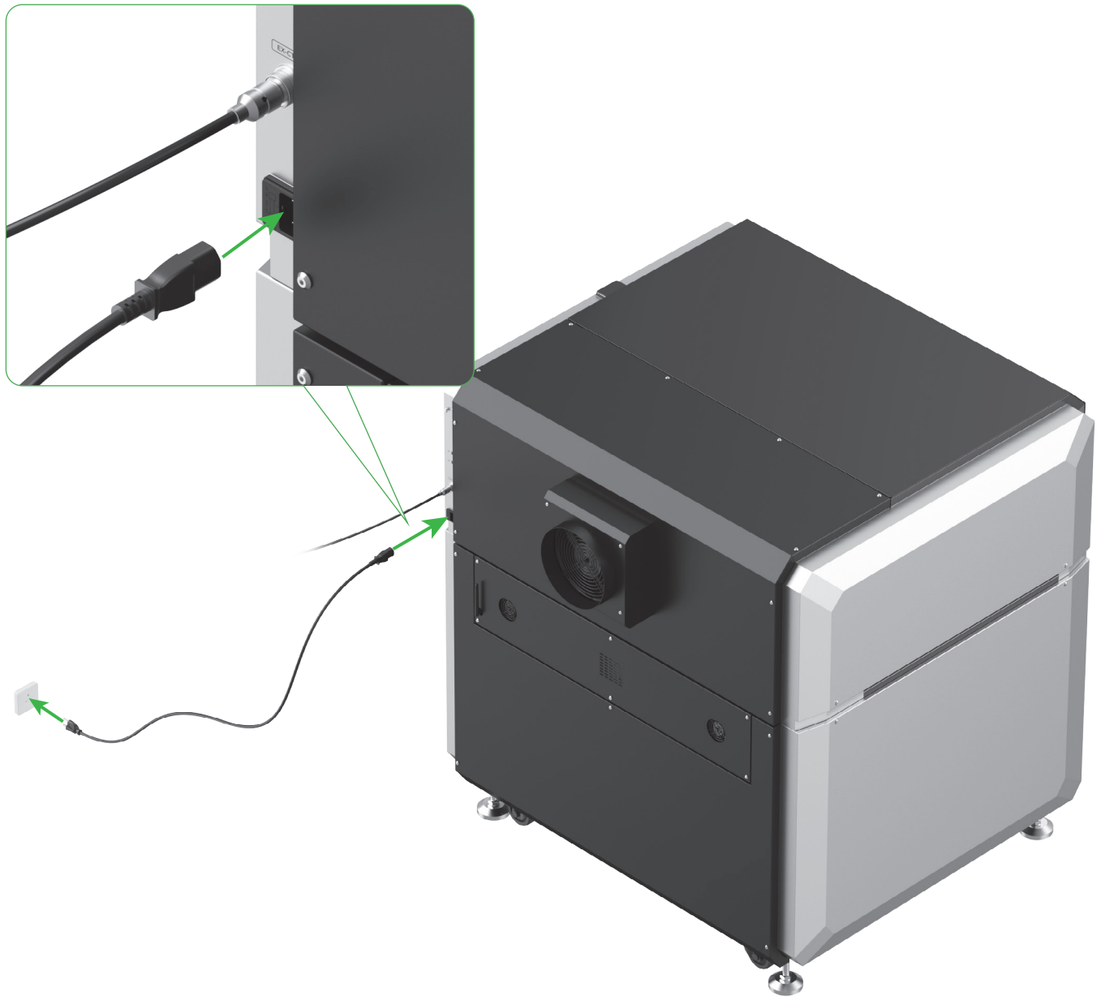


Before use

1 Connect to a power supply

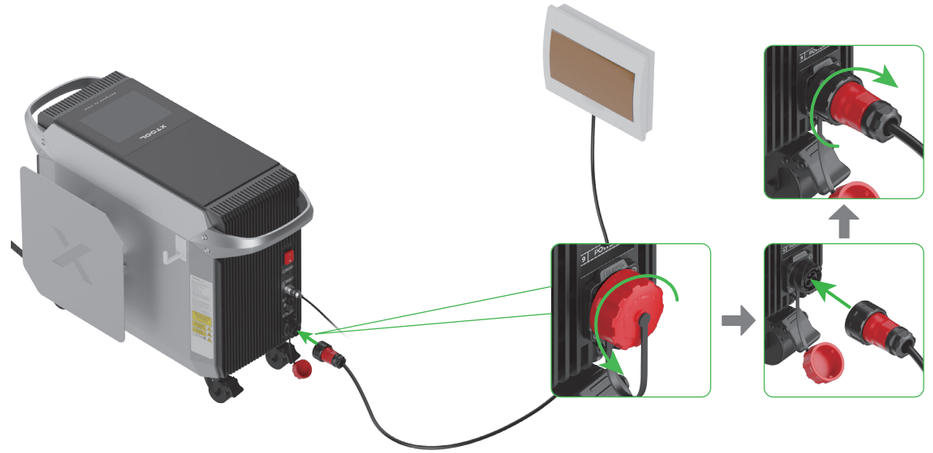


(1) Connect xTool MetalFab CNC Cutter to a power supply.



Included in the package of xTool MetalFab Laser Welder

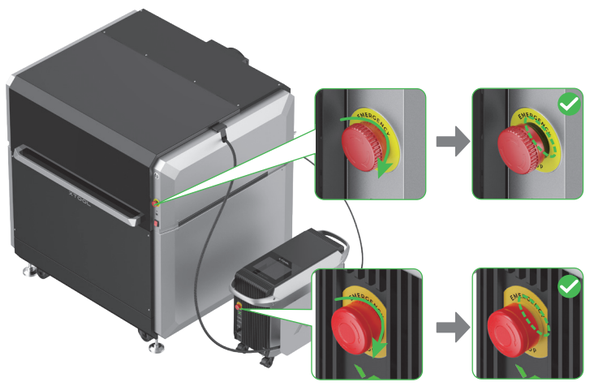
(2) Rotate to unscrew the dust cap from the power connector, insert the power cable and rotate to secure it. Connect the other end of the power cable to a circuit that meets requirements.



- Do not connect the product to a standard household circuit, as it may damage both the product and the circuit.
- Wiring operations should be performed by a professional electrician.
- For more details, see xTool MetalFab Laser Welder's ***Quick Start Guide***.

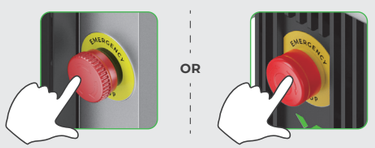
2 Check the emergency stop button

Ensure that the emergency stop buttons of the two machines are released. If they are pressed, rotate to release them.



Emergency stop button

If an emergency occurs, press any of the emergency stop buttons to shut off the corresponding device.



After dealing with the emergency, rotate the emergency stop button to release it.

4 Insert the key

Included in the package of xTool MetalFab Laser Welder

Insert the key into its designated port of xTool MetalFab Laser Welder.

You can use the key either as an access-control key or a remote interlock connector.

Access-control key

Removing the key can disable the machine's processing and related functions.

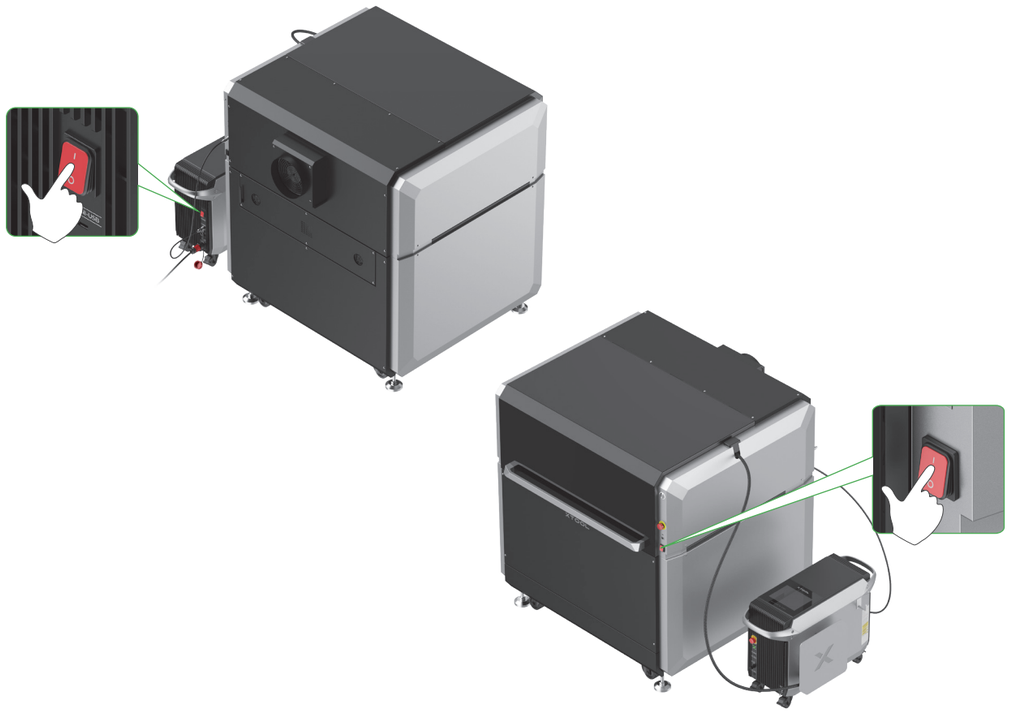
Remote interlock connector

For detailed instructions, scan the QR code or visit the link.

support.xtool.com/article/1367

5 Power on

Press the power switches to turn on the two machines.

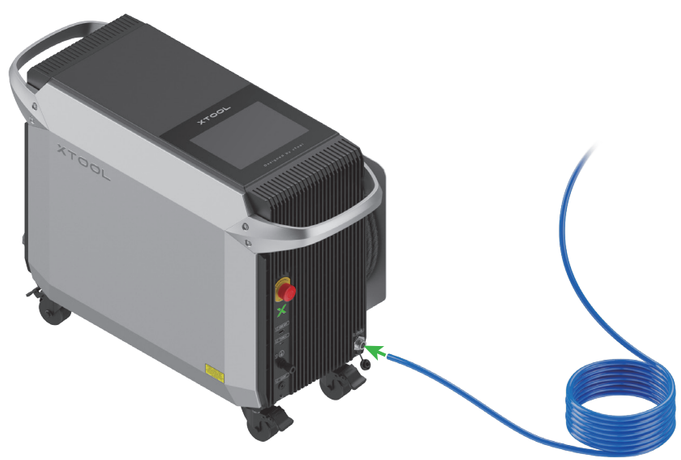


6 Connect the gas cylinder

Included in the package of xTool MetalFab Laser Welder

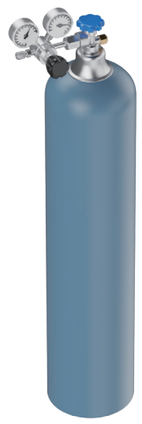
Not included

(1) Insert one end of the tube into the shielding gas inlet on xTool MetalFab Laser Welder.

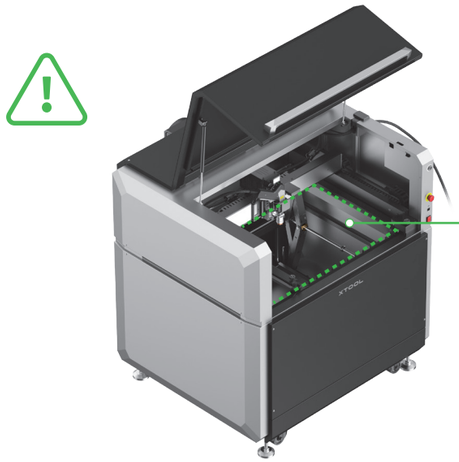


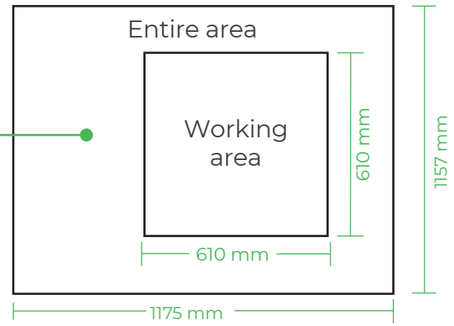
To learn more about the structure and detailed operations of the welding machine, please refer to the *Quick Start Guide* of xTool MetalFab Laser Welder.

(2) Connect the other end to the gas cylinder. Then, open the valve according to the instructions for the cylinder.

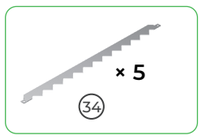


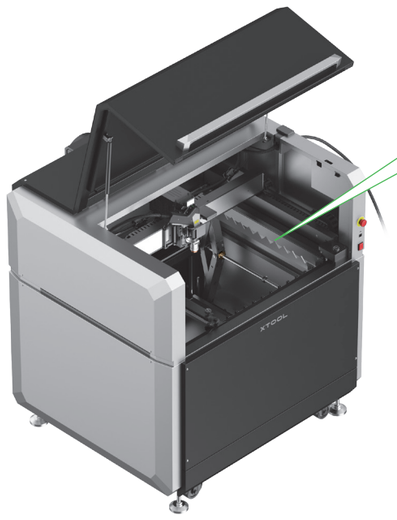
Place a material

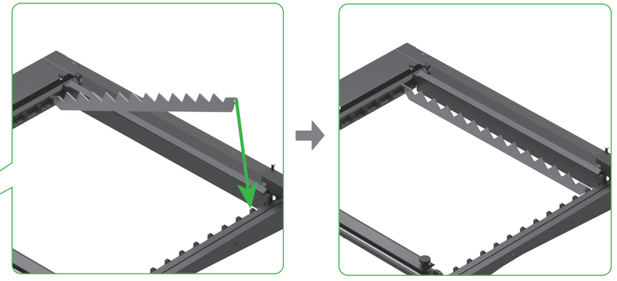




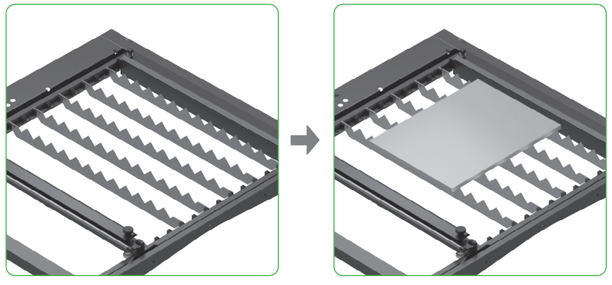
Scenario 1: Place a thick material







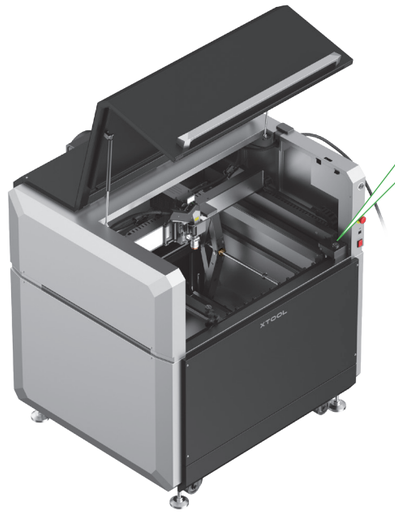
(1) Place a slat with its teeth facing up and its ends fitting snugly into two slots in the working area.



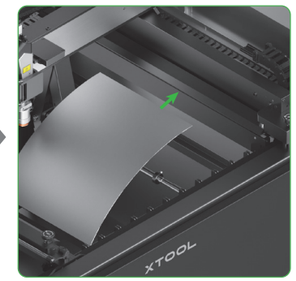
(2) Place slats with one slot apart. Decide the number of slats to be placed as required.

(3) Place a material on the slats.

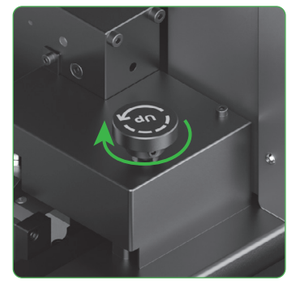
Scenario 2: Place a thin material



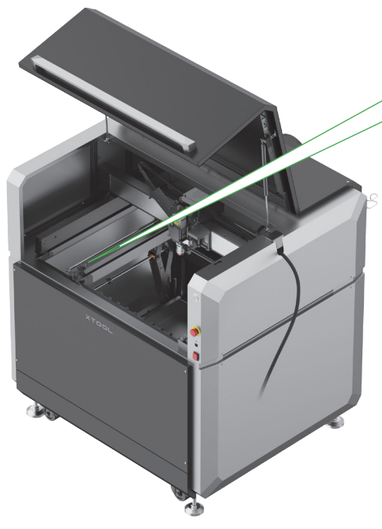
(1) Rotate the right fixture knob counterclockwise.



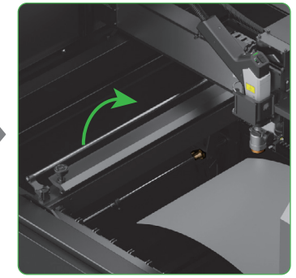
(2) Insert the right side of the material into the right fixture.



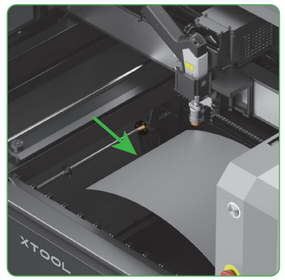
(3) Rotate the knob clockwise to tighten the right fixture.



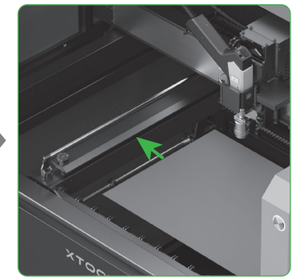
(4) Rotate the left fixture knob counterclockwise.



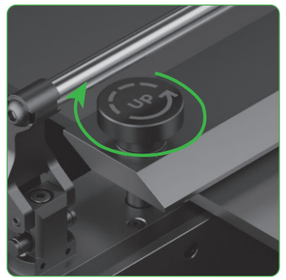
(5) Lift the linkage lever.



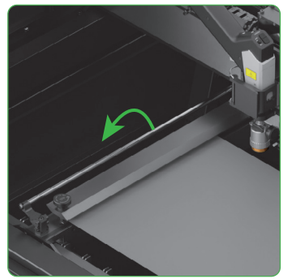
(6) Move the left fixture to the right.



(7) Insert the left side of the material into the left fixture.

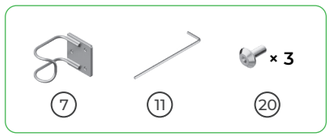


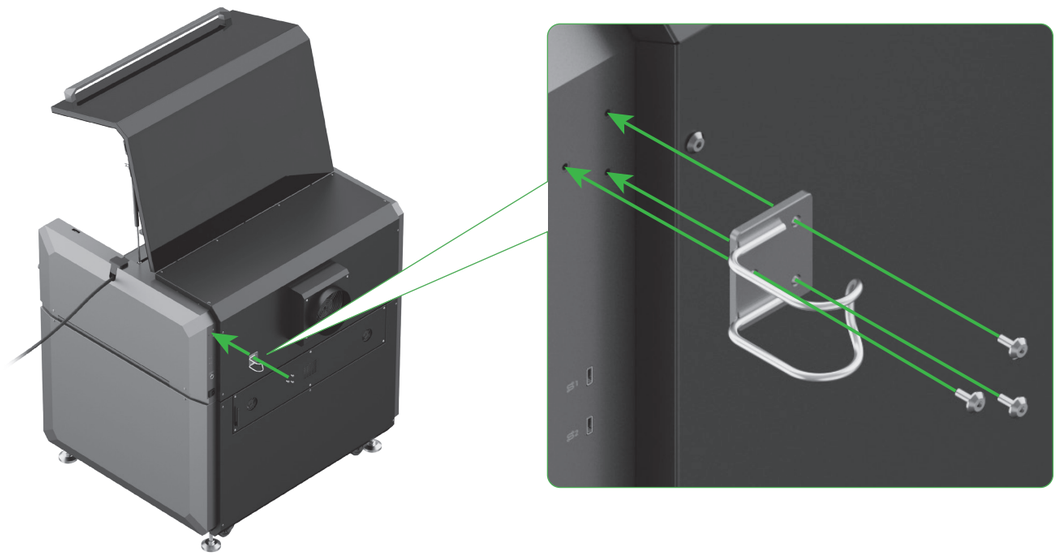
(8) Rotate the knob clockwise to tighten the left fixture.

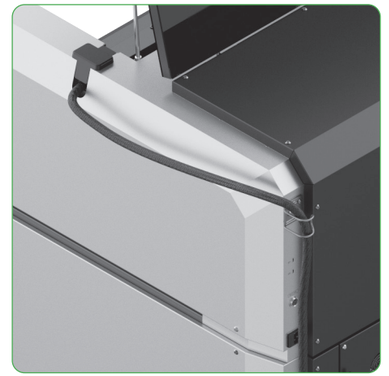


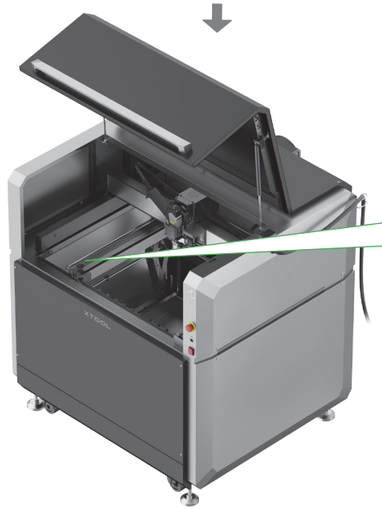
(9) Lower the linkage lever.

Scenario 3: Place a large material

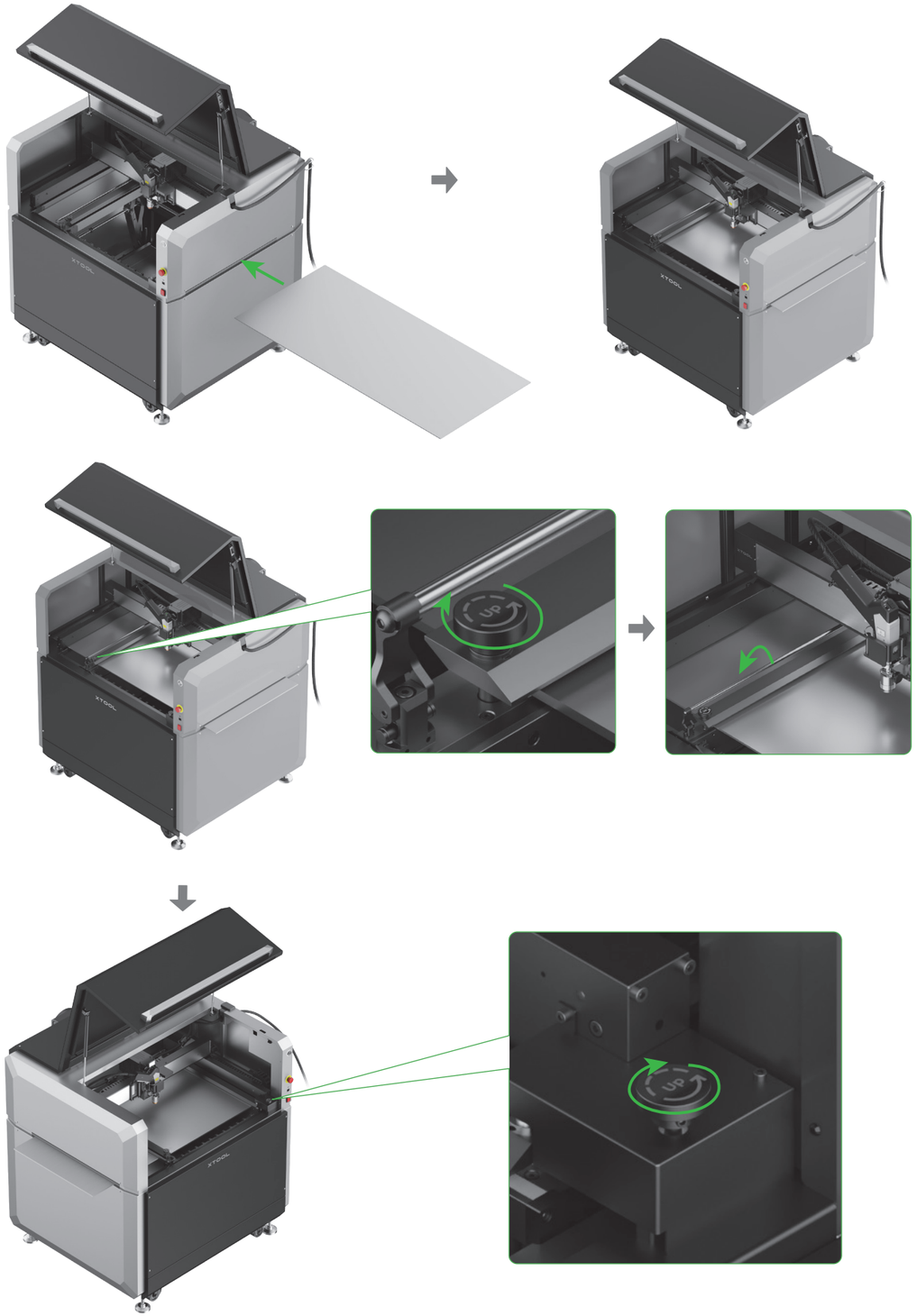








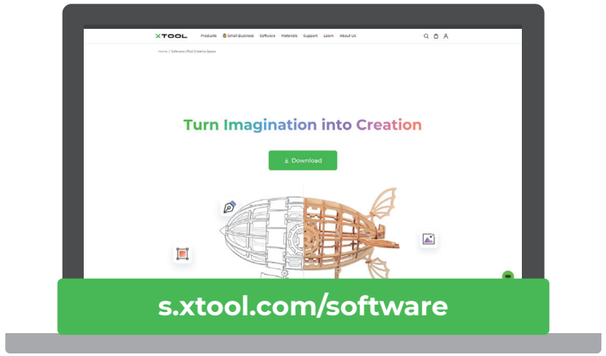
You're advised to place slats for support before feeding the material.



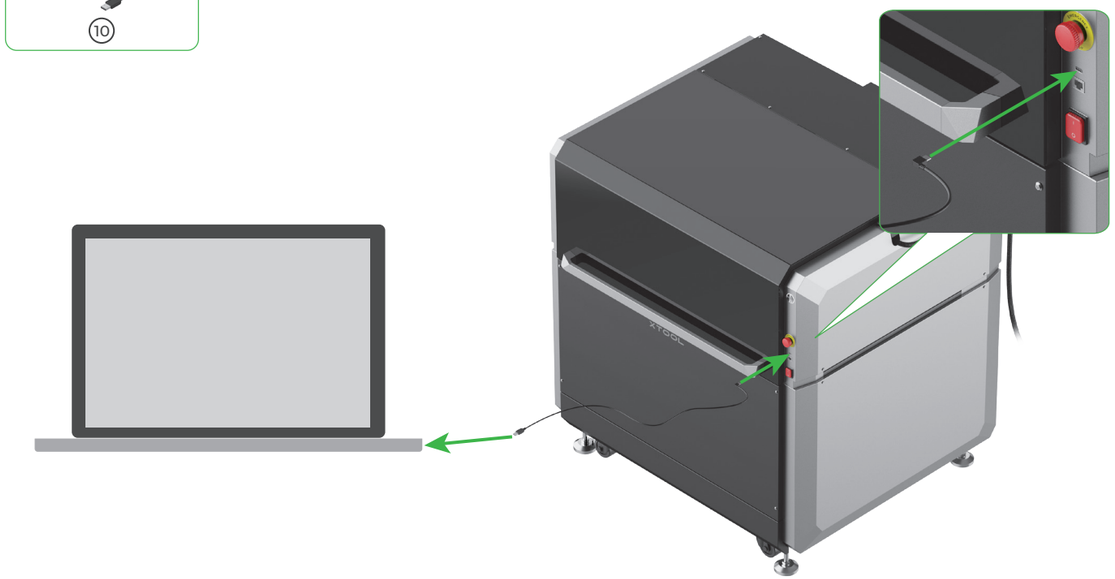
Use xTool MetalFab CNC Cutter

Get xTool software

(1) Visit **s.xtool.com/software** to get xTool software.



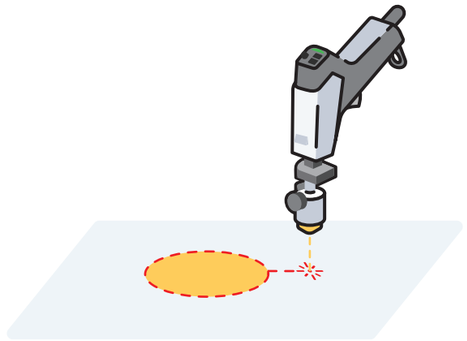
(2) Connect xTool MetalFab CNC Cutter to your computer with the USB cable. Then, open xTool software and connect the product.



Popular operations

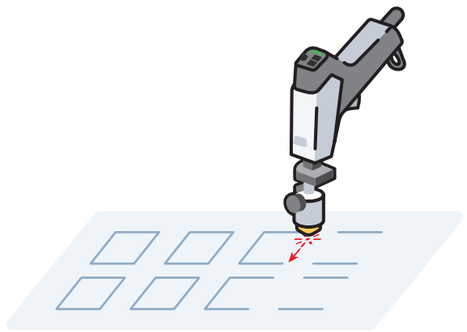
Cutting with lead-ins

Before cutting, the laser pierces the material from the outside or inside of the target design. Then, starting from this point, the laser cuts the material following the cutting trajectory, avoiding incomplete cutting or uneven cutting surfaces.



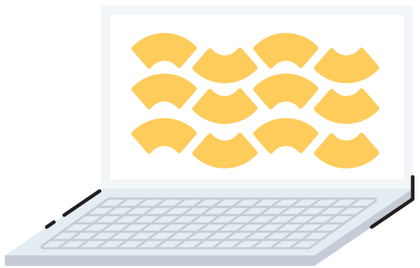
Fly cutting

When the shapes to be cut are regular shapes (such as rectangles and circles) and arranged in a certain pattern, fly cutting can cut these shapes in the same direction altogether to increase cutting speed and save processing time.



Auto nesting

xTool software supports automatic nesting of objects to be processed, so as to make full use of materials.



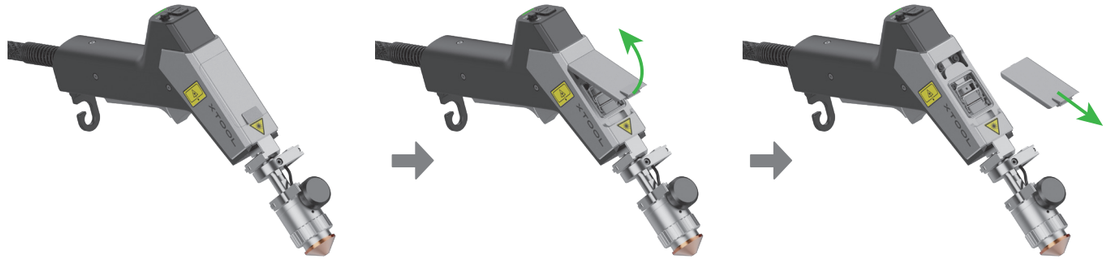
For more information on how to use the unmentioned accessories and operate xTool MetalFab CNC Cutter with software, scan the QR code or visit
support.xtool.com/product/55

Maintenance

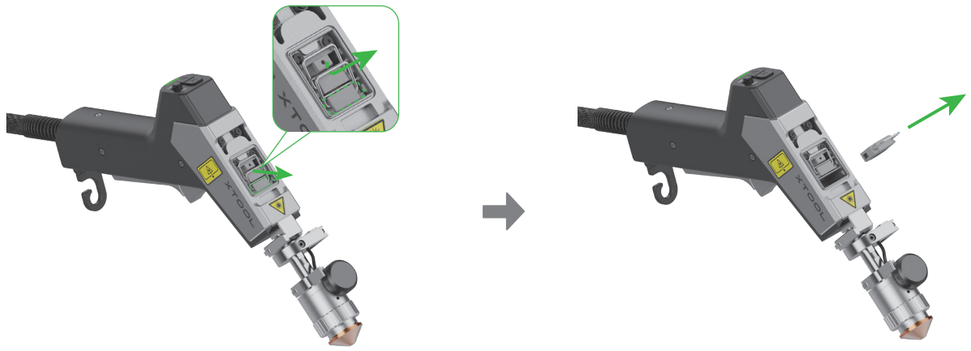
Replace the lens protector in the welding head

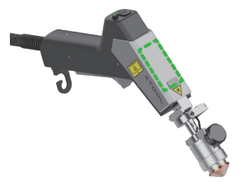
Included in the package of xTool MetalFab Laser Welder

(1) Remove the cover on the top of the welding head.



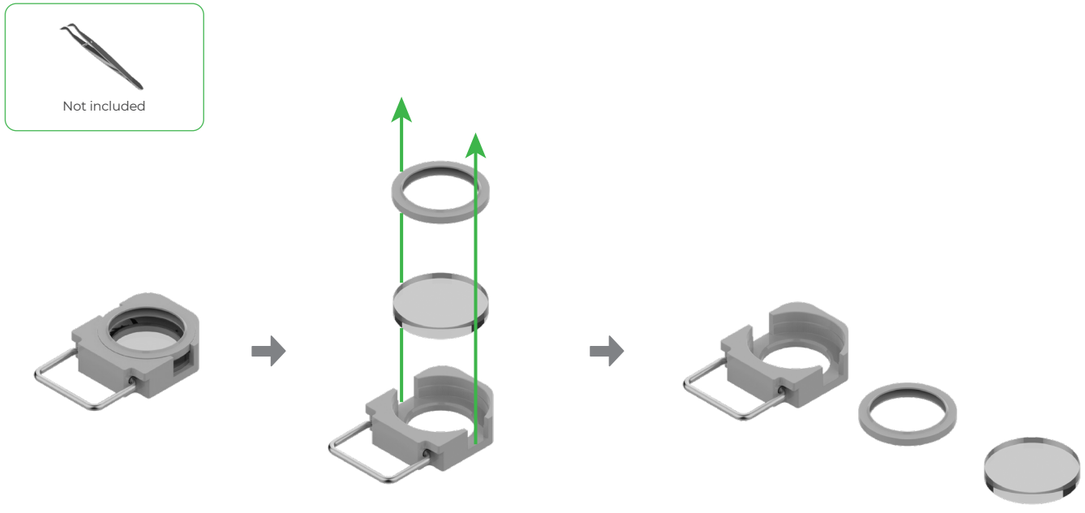
(2) Remove the lens protector closer to the nozzle.





After the lens protector is removed, it is recommended that you put the cover back to prevent dust from falling inside the welding head and causing damage.

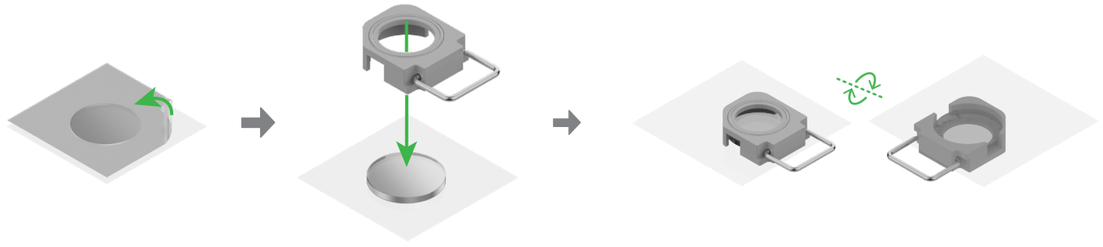
(3) Use a tweezer or other tools to remove the gasket and lens protector.



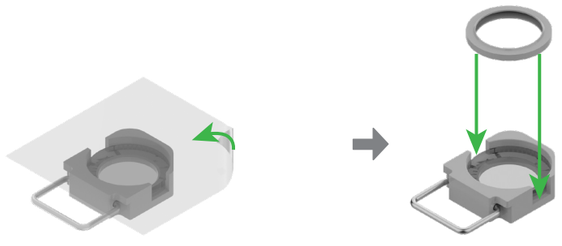
(4) Install a new lens protector.

Do not touch the glass with your fingers or other tools during replacement as the glass may get dirty. If the glass accidentally gets dirty or dusty, use a cotton swab to clean it.

Remove the protective film on the top



Remove the other protective film



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xTool HJ003_快速指南_V2.1_D3.2.7
料号：KD010984000
成品尺寸：210*280mm
展开尺寸：420*280mm
材质：封面250g铜版纸，内页105g铜版纸
工艺：封面覆哑膜，双面CMYK印刷，骑马钉