



# WaxJet 510 XHD

## Preventative Maintenance Guide



This guide is only applicable to FLASHFORGE WaxJet 510 XHD 3D printer

Note: Please read this User Guide carefully before operating the product. Please keep this Guide properly for future reference.

# Machine Maintenance

Some routine maintenance for the WaxJet 510 XHD is necessary.



**Note: For routine maintenance, the printer must be on standby and a clean build plate must be installed.**

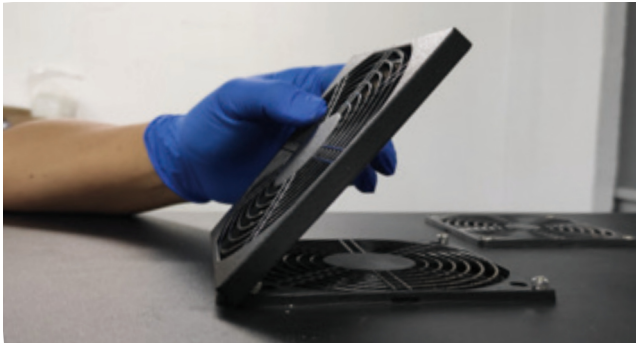
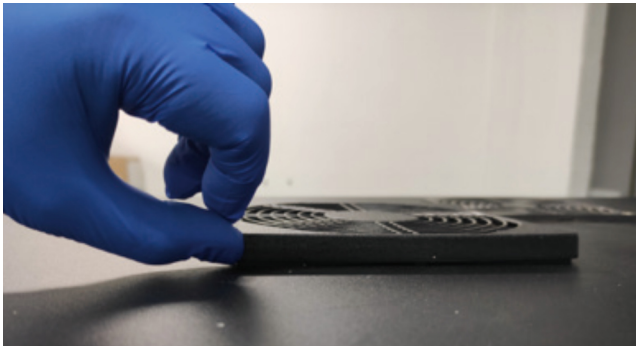
## Maintain the schedule

**Note: Maintenance tasks must be performed regularly to ensure good operation of the equipment and the accuracy of printed objects.**

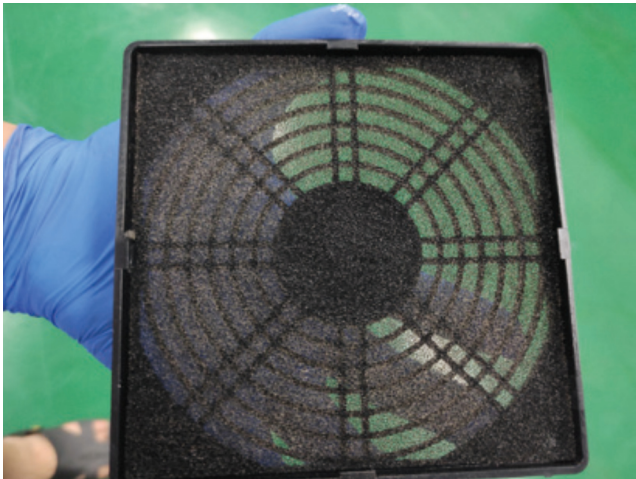
Maintenance task	As needed	Every day	Every week	Every month	Every half year
Clean top fans filter			√		
Clean the primary efficient filter			√		
Replace the primary efficient filter					√
Clean the waste box	√				
Daub oil for X-axis guide					√
Daub oil for Y-axis guide and the motor screw rod					√
Daub oil for Z-axis guide and the motor screw rod					√
Clean the X-axis base		√			
Clean internal dust		√			
Clean dust around the sensors		√			
Clean the outer surface			√		
Clean build chamber		√			
Clean build plate	√				
Clean the touchscreen				√	
Clean MDM			√		
Clean the bottom side of Y-beam			√		
Powder Removal for Pipes			√		
Clean the blade at HMS			√		
Clean the planarizer and its blade			√		
The recommended operating environment recommends operating temperature range: 18-26 degrees C (64-79 degrees F) Recommended temperature range: 18-24 degrees C (64-75 degrees F) Recommended humidity range : 30%-70%					

### Clean top fan filter

Open the protective fan cover along the corner of the fan shield.



After an extended period of use, dust will build up in the filter. Remove the dust build up with a vacuum cleaner.

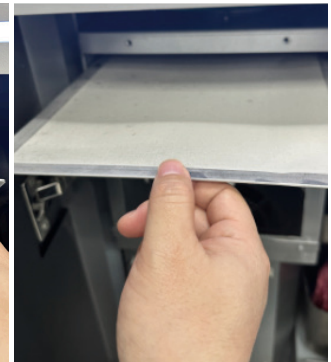


### Clean the primary efficient filter

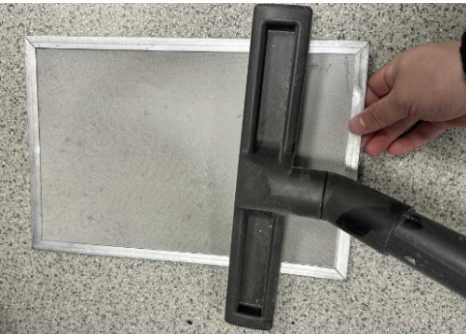
Open the left door of printer first, then loose two screws by hand.



First remove the filter cover, then uninstall the filters.



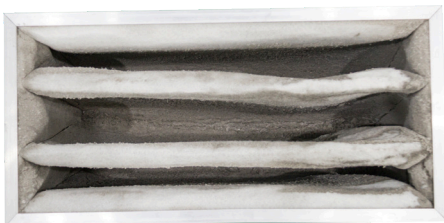
After an extended period of use, dust will build up in the filter. Remove the dust build up with a vacuum cleaner.



### Replace the Primary Efficient Filter

The primary efficient filter is used to remove particles, odors, and gases from the printing area. This filter can be found behind the machine on the right. Open the door and remove the black cover and the initial filter. Replace the new filter and install the initial filter and the black cover back into place.

**⚠ Note: it is a replacement part. PTFE filter-P/N61000289001.**



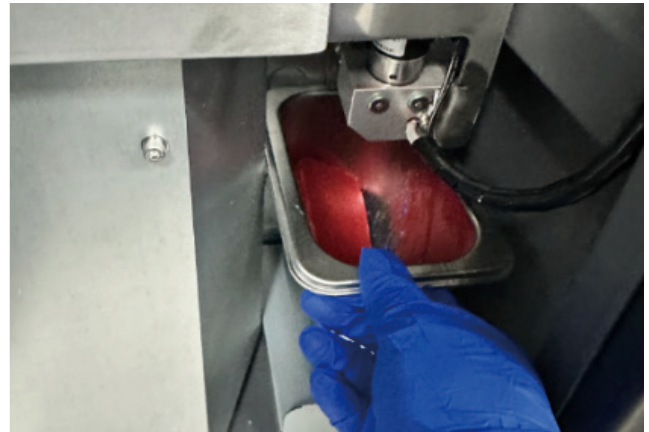
The filter that needs to be replaced



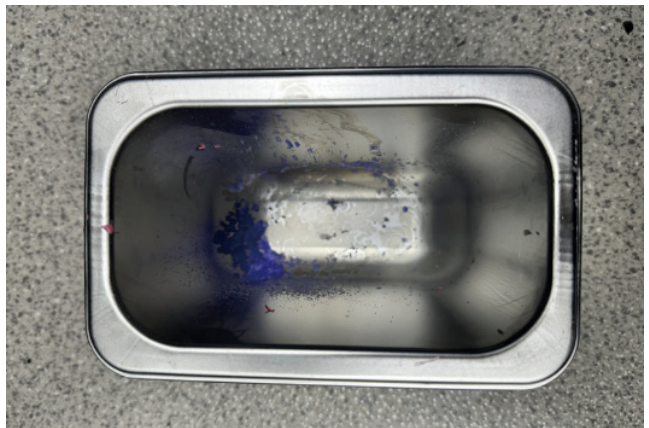
The new filter

### Clean the Waste Box

Open the left door of printer and remove the waste box



The waste wax produced in the process of printing and stored in the waste box. Install the clean waste box back to the printer after cleaning the waste box.

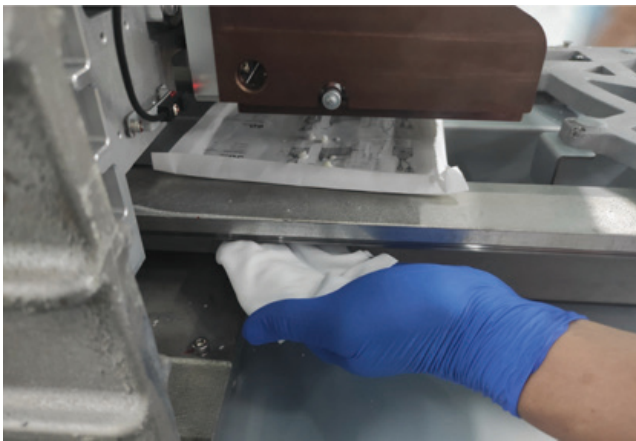


### Apply oil on the X-Axis Guide

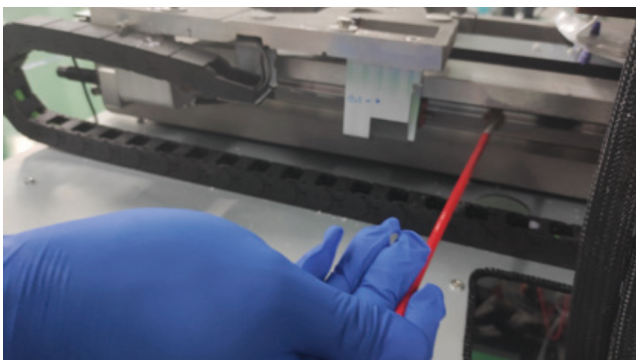
Using rubber gloves, apply a small amount of ethanol to a lint-free cloth.



Clean the guide with a lint-free cloth.



Apply oil to the X-Axis guide via brush.

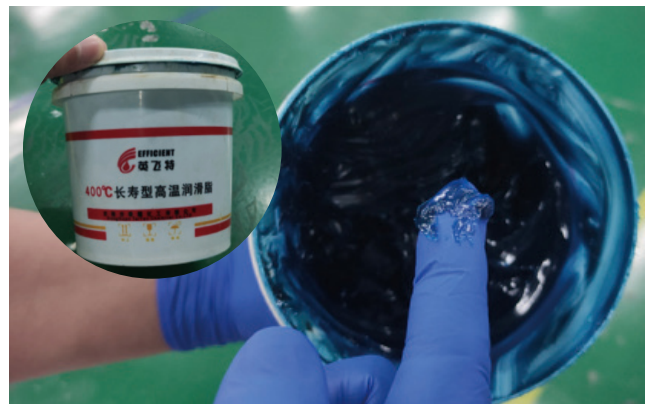


### Apply Oil to the Y-Axis Guide and the Motor Screw Rod

Apply oil to the Y-Axis guide via brush.



Use rubber gloves to apply grease to the Y-axis screw rod.

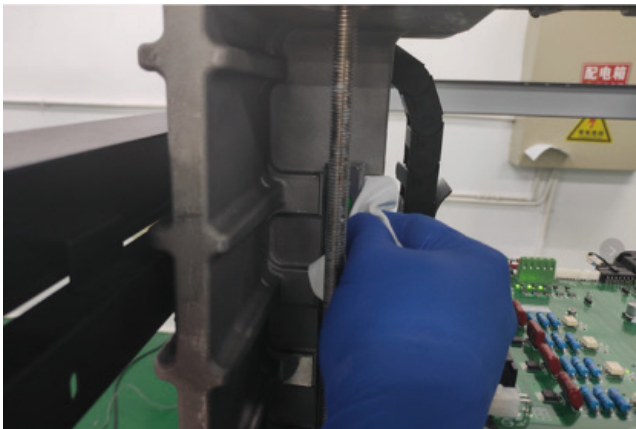


### Apply Oil to the Z-Axis Guide and the Motor Screw Rod

Using rubber gloves, apply a small amount of ethanol to a lint-free cloth.



Clean the guide using a lint-free cloth.



Apply oil to the Z-axis guide via brush.



### Clean the X-Axis Base

Check that the X-axis base is clean before each printing, follow these steps to clean the X-axis base:

1. Open the right door and move the build plate to home position;
2. Use a stainless steel scraper to clean the wax drops or wax blocks on the X-axis base.

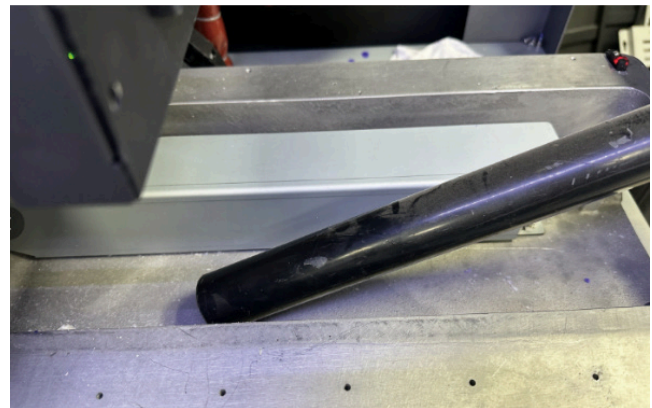


3. Close the door.

### Clean Internal Dust

- ⚠** Too much dust inside the equipment or failure to clean up the internal dust for an extended period of time can cause nozzle damage, please follow these steps to clean up the internal dust:

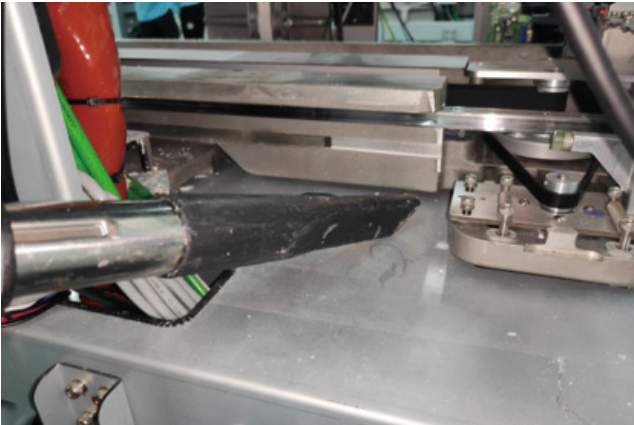
Use a vacuum cleaner to clean the residual wax from the X-axis base.



Use a vacuum cleaner to clean the dust from the filter.



Use a vacuum cleaner to remove the dust from inside the printer.



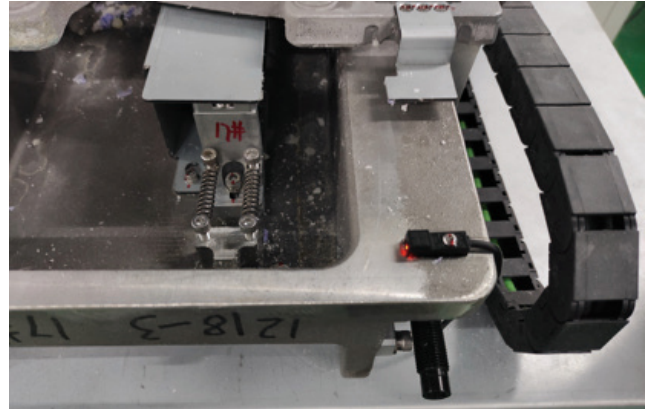
### Clean dust around the sensors

After long-term use, dust will accumulate near the sensor and must be cleaned up to ensure proper operation. Follow the procedures below to clean.

**⚠ Always wear rubber gloves when cleaning the proximity sensor.**

1. Open the printing chamber.
2. Find the home sensor and the maximum position sensor.

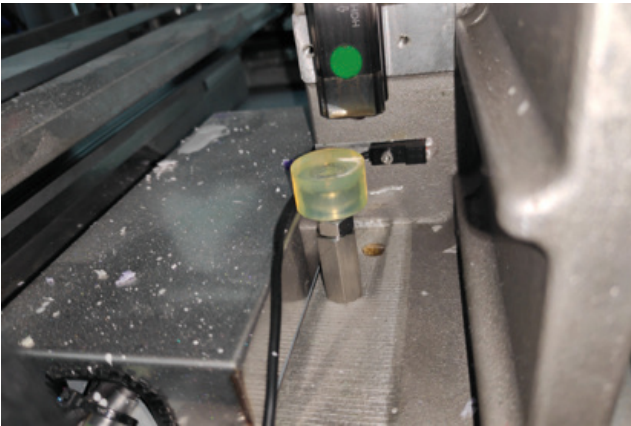
Clean photoelectric switch in the front of X-axis.



Clean photoelectric switch in the front of Y-axis.



Clean photoelectric switch in the front of Z-axis.



Clean photoelectric switch in the back of X-axis.



3. Use a cotton swab to extract isopropyl ethanol and gently wipe away all dust surrounding the sensor.
4. After removing any dust from around the sensor, close the printing chamber.

### Clean the Outer Surface

**⚠ Note: The device must be on standby before cleaning to avoid disruption of printing.**

Do not remove any external panels while cleaning the printer. The panel can only be removed by a qualified FlashForge technical support representative.

**⚠ Note: Only use non-abrasive, non-ethanolic cleaners to clean the surface. Never use multi-purpose cleaners that contain crude oil-based polishes such as wax water.**

Wipe with a dry, clean, lint-free cloth to remove dust from the outside surface of the printer. Spray the clean cloth with a multi-purpose cleaner and gently wipe away the dust and oil stains on the outside surface of the printer.

### Clean Build Chamber

Use a dust-free cloth to extract isopropanol to clean the building door. Gently wipe off the dust from the surface using a damp cloth.

### Clean Build Plate

**⚠ Note: before installation and use, please keep the build plate clean and keep the room temperature steady.**

After each finish of printing, it is suggested to clean up the build plate and reinsert it into the printer. Follow these steps to clean up the build plate:

1. Use a flat blade or greased knife to remove excess auxiliary material from the build plate surface.
2. Spray the build plate with isopropanol (IPA) and wipe it with a paper towel.
3. Make sure that both sides of the build plate are cleaned.

### Clean the Touchscreen

Remove all printed parts before cleaning the screen. Prevents any operation on the printer from accidentally pressing the control key.

Spray water-based solvents, dust-free cloths, and never wipe or spray detergent directly onto the touch screen with a dry cloth.

Gently wipe with a clean, dust-free cloth containing amino glass cleaners to remove dust and structural material residue from the touch screen.

**⚠ Note: The following cleaning products will cause damage to the touch screen, do not use!**

- Dry cloth;
- any cleaning product containing acetone, butronone or ethanol ;
- Any abrasive cleaning product.

## Clean MDM

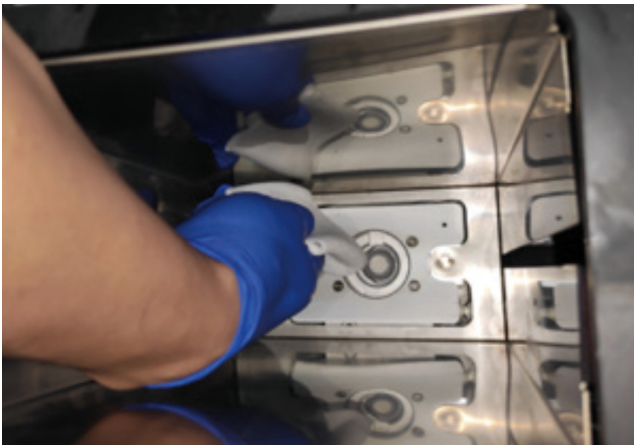
**⚠ Note:** When replacing the material box, there may be material that leaks into the feed silo socket after removing the box. If there is a large amount of material (the bottom is covered and touched to the box wall), do not place a cleaning material box in the socket, contact your dealer or FlashForge Account Manager.

**⚠ Note:** The material chamber is kept warm and avoid touching the side of the base during cleaning. Wear heat-resistant gloves and goggles.

Using rubber gloves, apply a small amount of ethanol to a lint-free cloth.



Remove the wax and dust from the nozzle mounting plate with a lint-free cloth.

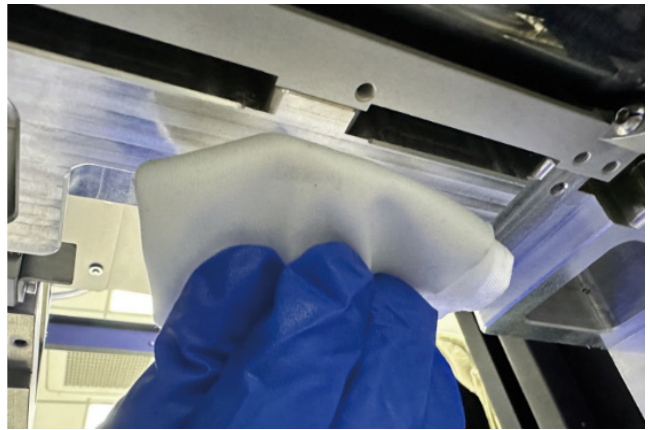


## Clean the Bottom Side Of Y-Beam

Using rubber gloves, apply a small amount of ethanol to a lint-free cloth.

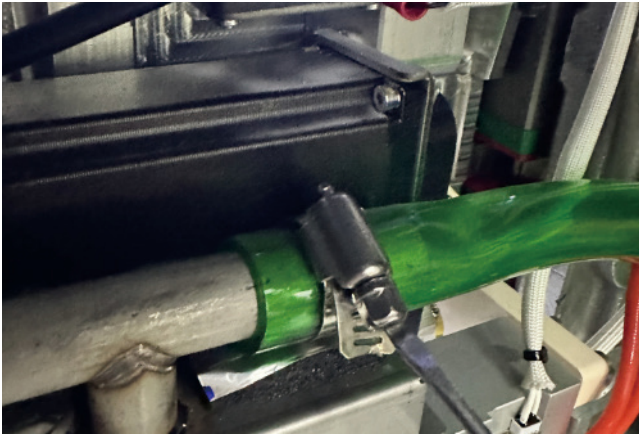
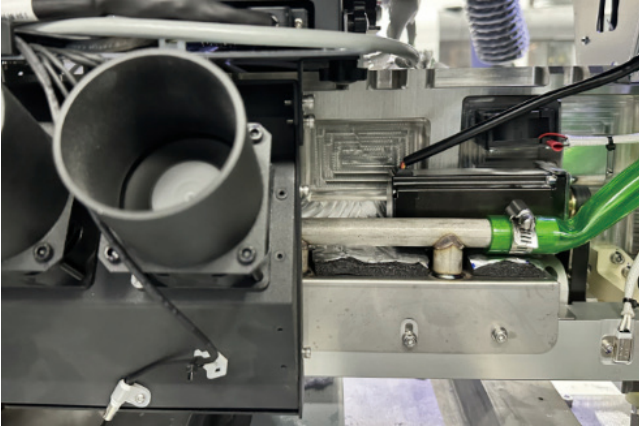


Remove the wax and dust on the whole Y-beam with the lint-free cloth.



### Powder Removal for Pipes

Unload the rubber pipe from the direct connection.

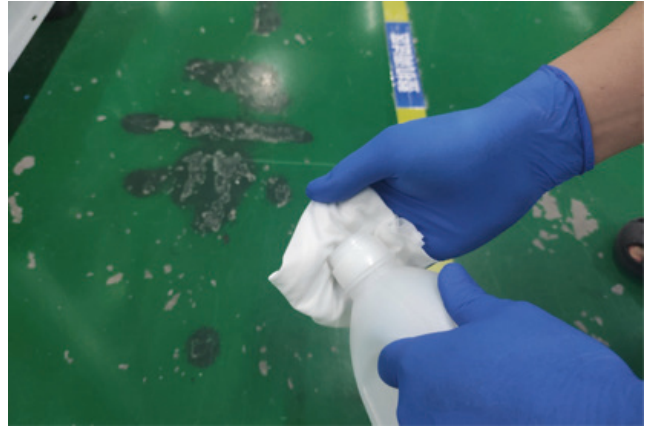


Clean up the dust in the pipe via the vacuum.



### Clean the Scraper

Using rubber gloves, apply a small amount of ethanol to a lint-free cloth.



Wipe the rubber scraper clean with the cloth.

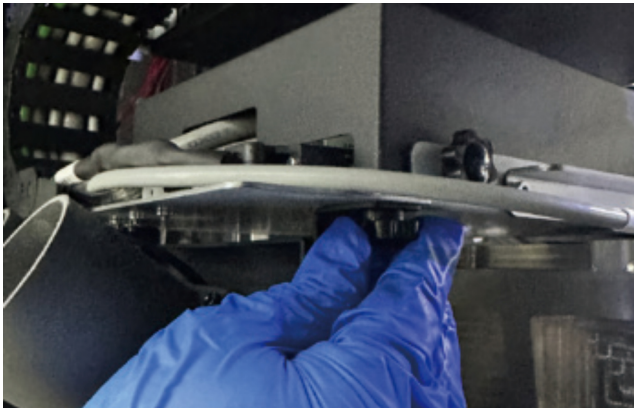


### Clean the Planarizer and Its Blade

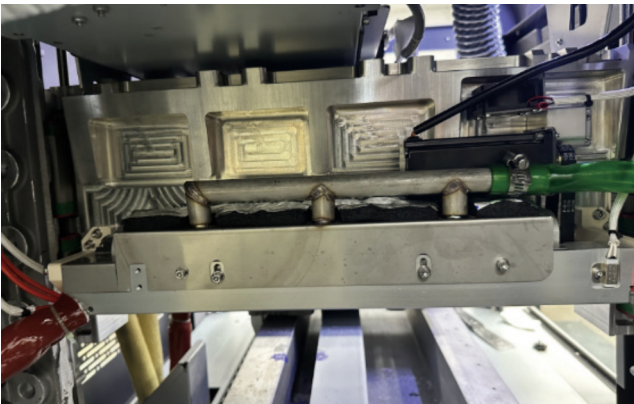
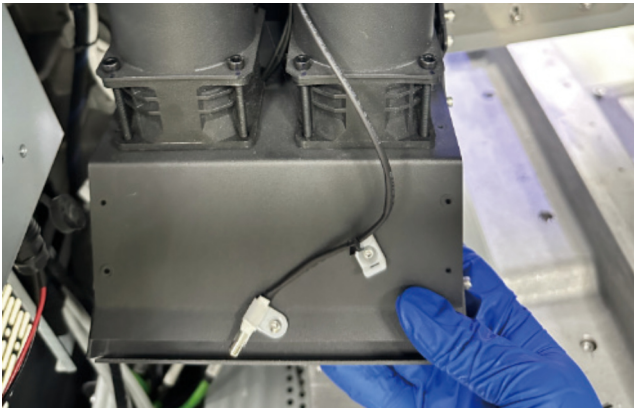
Using rubber gloves, apply a small amount of ethanol to a lint-free cloth.



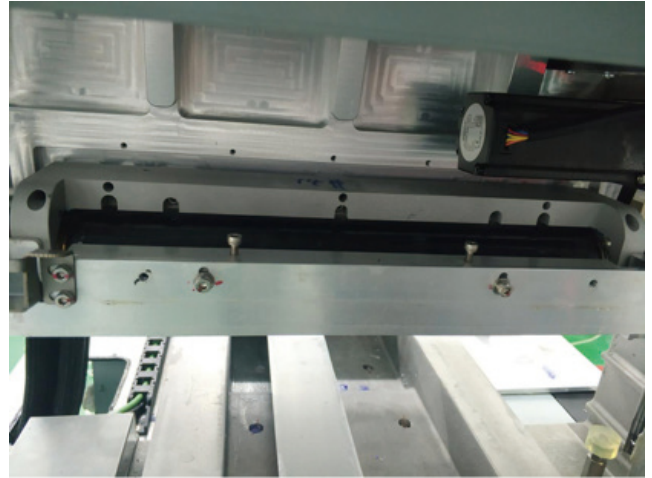
Loose the rear fan fixing screws



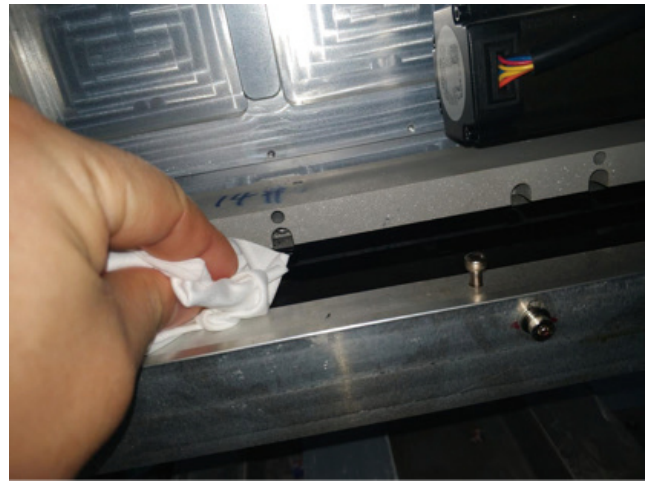
Remove the rear fan.



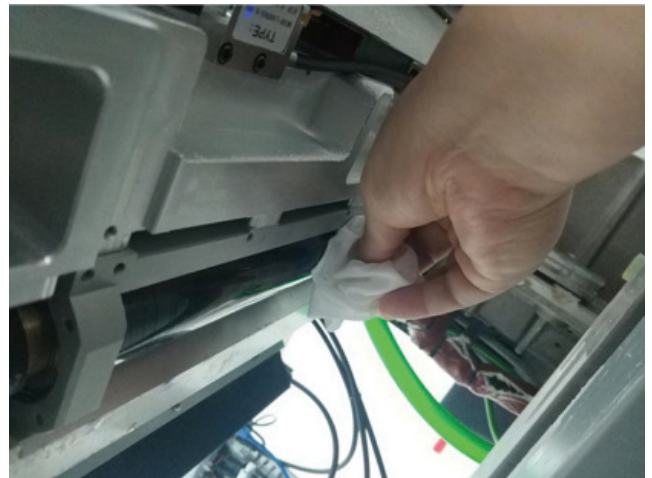
Unload the cover for powder filter.



Clean the blade with a lint-free cloth with ethanol applied.



Clean the planarizer from the back lower side of the printhead carriage using a lint-free cloth with ethanol applied.





After-Sales Service: [support@romanoff.com](mailto:support@romanoff.com)