brother

DTRX

BOOK

*We share our experience to give you the **best support***

DTRX100 PRINTER/ DTRX001 POWDER SHAKER COOKBOOK

CONTENT

1 GENERAL INFORMATION 2
- 1.1 Software 2
- 1.2 Network & PC Requirements 2
- 1.3 Environmental Conditions 3
- 1.4 Storage of Liquids 3
- 1.5 Power Supply Rules 4
- 1.6 Explanation of the Control Panel 5
- 1.7 Setting values for Printer-Linked Op. 7

2 GENERAL SETUP & PC CONNECTION 8

3 PRE-PRODUCTION ACTIONS 9
- 3.1 Visual inspection 9
- 3.2 Checking and Refilling Cleaning Solution 9
- 3.3 Check Waste Ink Tank 10
- 3.4 White ink agitation 11
- 3.5 Setup Film - DTRX100 Printer 12
- 3.6 Setup Film - DTRX001 Dryer/Shaker 15
- 3.7 Powder Refilling Guide 16

4 HOW TO PRINT PROCESS 18
- 4.1 Perform Printing Test 18
- 4.2 White Ink Circulation Procedure (Optional) 19
- 4.3 Shaker Automation (Automatic Drive) 20
- 4.4 Heater Warm-up 20
- 4.5 Initiating the Print (RIP Execution) 21
- 4.6 Take-Up Synchronization 21
- 4.7 INK pouch replacement 22
- 4.8 Rule: The 5-Minute Window 23

5 END PRODUCTION & SHUTDOWN 24

6 MAINTENANCES 25
- 6.1 Daily maintence 25
- 6.2 Weekly maintence 30
- 6.3 Monthly Maintenance 35
- 6.4 Periodic Maintenance (3-6 Month) 41

7 CONSUMABLES 41

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

Be sure that you use the latest Cookbook version.

1 GENERAL INFORMATION

The printer should only be used by **operators** who are appropriately **trained** in its safe operation.
The printer is **not suitable** for use in places where **children** are present.
The machine use **powerful servo motors**, inappropriate use may cause **severe injuries**.
The **security keys** of the doors have to be kept by **trained persons only**.

1.1 SOFTWARE

Always make sure that you use the latest software for your **DTRX100.**

You find the latest versions here:

https://base.brother.digital/dtrx100/

https://base.brother.digital/software-tools/

1.2 NETWORK & PC REQUIREMENTS

Network:

- **LAN:** Ethernet 1000BASE-T
- Stable network connection required for RIP software

PC Requirements:

- Windows 11 [64bit] (Compatible to the RIP Software)
- Network access to printer
- Minimum System Requirements:
  - CPU of 4 GHz (Multicore)
  - 16 GB RAM
  - Graphics requirements depends on the RIP Software

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

1.3 ENVIRONMENTAL PRINTING CONDITIONS

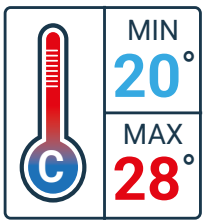
Mandatory temperature and air humidity for the best print result:

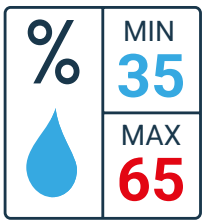
Operation Environment:

- Temperature: 18–30 °C
- Humidity: 20–85 % (no condensation)

Recommended Print Environment:

- Temperature: 20–28 °C
- Humidity: 35–65 % (no condensation)





Additional Requirements:

- No direct sunlight
- Low dust environment
- Designed for 24/7 operation

Recommended Setting for Transfers:

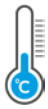
- 130°C
- 15 Sec

Depends on the film and powder in combination with the textile

Required to keep your warranty for the printer!
Temperature & air humidity are recorded in the log file!

1.4 STORAGE OF LIQUIDS

- **Initial check:** Determine if the ink has been stored at temperatures below 10°C



- **Conditioning environment:** If stored below the limit, move the ink to an environment maintained above 20°C

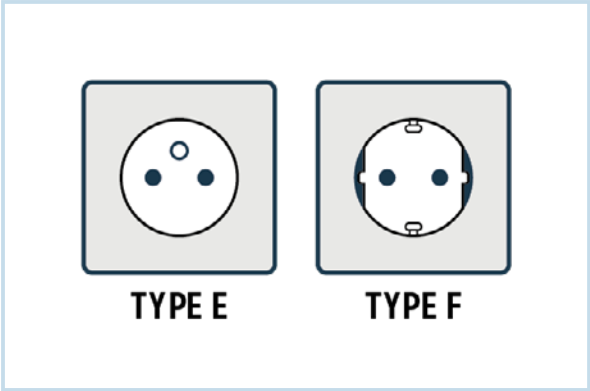
- **Mandatory resting period:** The ink must stay in the warm environment for at least 6 hours and reach a minimum temperature of 20°C before use.

Pre-Installation Requirement: A stable temperature within the specified range must be reached to guarantee optimal flow during the filling process.

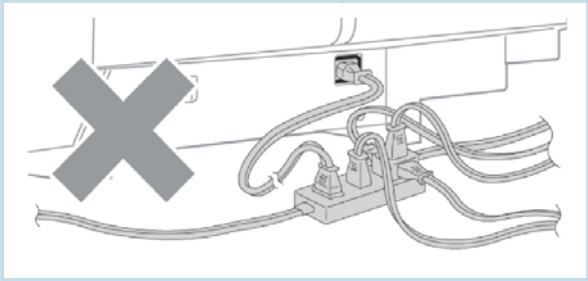
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

DTRX100 PRINTER

- Single-phase 200-240 V power supply with a maximum 7.5 A capacity.
- Continuous 24/7 power supply required
- The power cable connector must be compatible with the local power outlet type.

- 

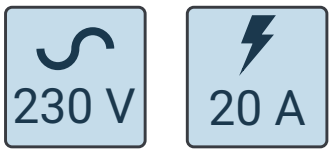
Standard

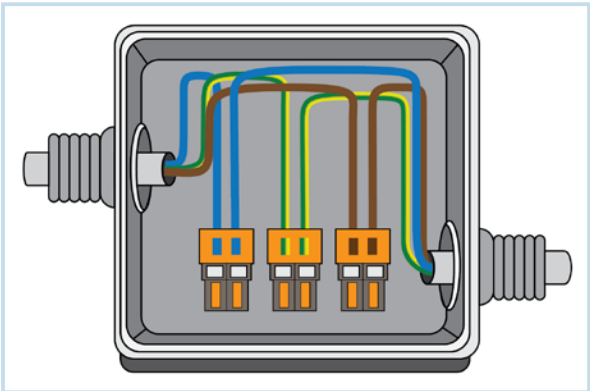
- 

Do not use an extension cable.

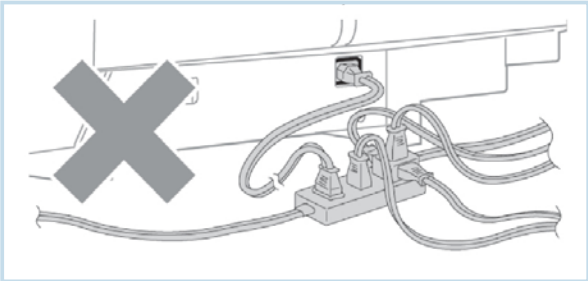
DTRX001 DRYER/SHAKER

- Single-phase 200-240 V power supply with a 20 A capacity.
- A qualified electrician must perform an electrical connection.
- Use an approved adapter to connect rigid and flexible cables.



- 

Connection via junction box only!

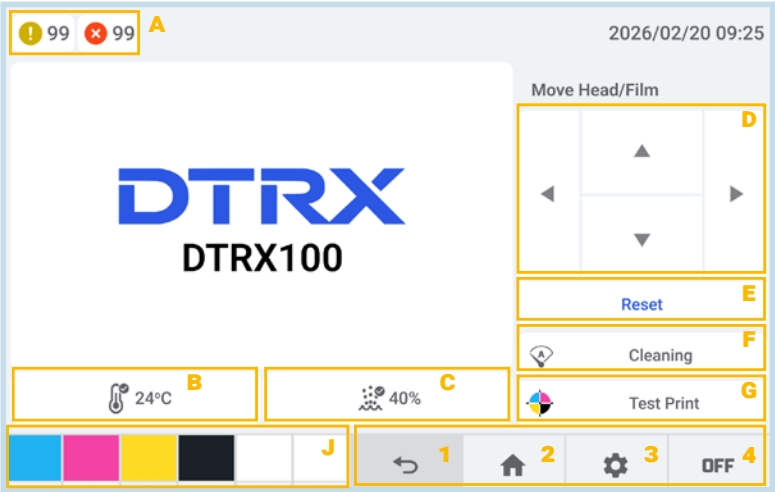
- 

Do not use an extension cable.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

DTRX100 PRINTER

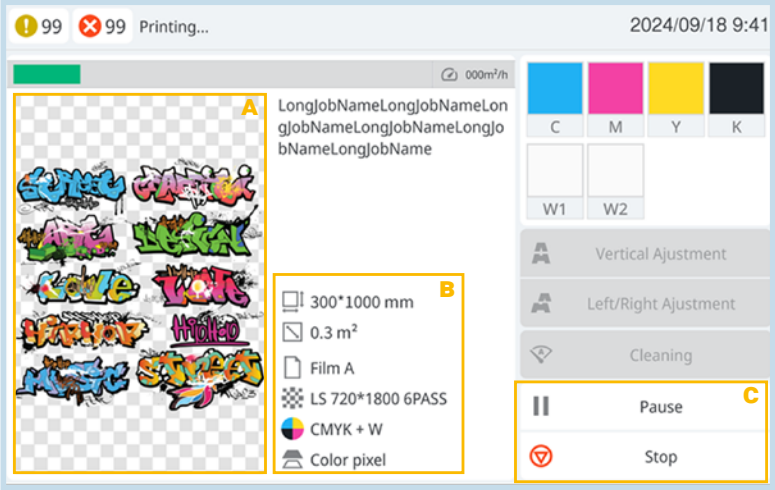
Main Screen



A: Error/Warning History
B: Environmental temperature
C: Air humidity
D: ▲ ▼ – Media feed
◄ ► – Carriage movement
E: Carriage home shift
F: Cleaning menu display
G: Test Print for the nozzle drop-out check
J: Remaining Ink Level indication area

1: Return to the previous screen
2: Home screen
3: Settings
4: Power OFF

Print Process Screen

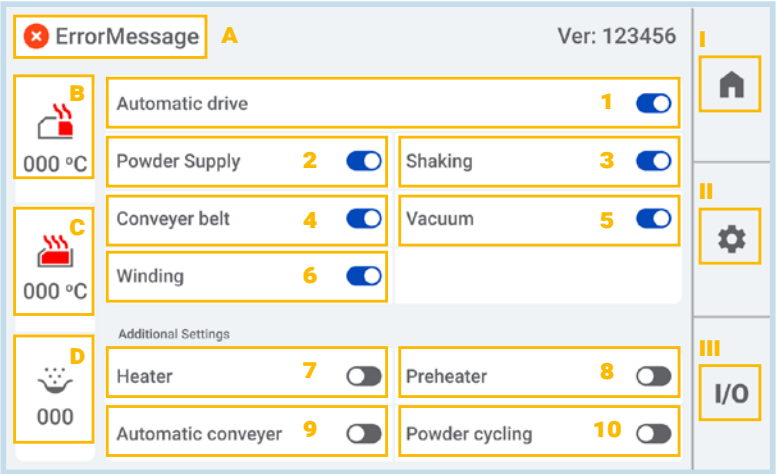


A: Preview
B: Print Information
C: Print Pause and Stop

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

DTRX001 DRYER/SHAKER

Main Screen



I: Home
II: Settings
III: Input/Output Check

A: Shows error message
B: Preheater Status Temperature
C: The oven temperature status
D: Powder amount on the media (%)

1: Automatic (on) /Manual (off) operation
2: Powder appliance on the film
3: Powder shaking operation
4: Move the conveyer belt
5: Vacuum to move the film
6: Media winding
7: Heater/Dryer
8: Preheater
9: Print Pause and Stop
10: Cycling/move powder from bottom to the top

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

1.7 SETTING VALUES FOR PRINTER-LINKED OPERATION

When using the Brother DTRX100 printer, configure the settings recommended for the DTRX001 Shaker according to your media width and print mode (number of passes).

Temperature Targets: *Set the Heater temperature to* ***130°C (266°F)*** *and the Preheater temperature to* **40°C (104°F)** *across all print modes.*

MEDIA WIDTH: 23.6 IN. (600 MM)

Print Mode	Powder Supply Speed	Powder Shaking Speed	Conveyer Belt Speed	Winding Speed
5 pass	50	80	66	47
6 pass	50	80	50	33
9 pass	50	80	21	10
12 pass	80	50	7	1

MEDIA WIDTH: 31.5 IN. (800 MM)

Print Mode	Powder Supply Speed	Powder Shaking Speed	Conveyer Belt Speed	Winding Speed
5 pass	50	80	54	34
6 pass	50	80	40	23
9 pass	50	80	15	4
12 pass	50	80	5	1

IMPORTANT:
Do not set the „Conveyer belt speed" or „Winding speed" of this machine slower than the transport speed on the printer. Media may accumulate between the printer and shaker or at the heater oven outlet, causing contact between printed surfaces and resulting in severe media contamination.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

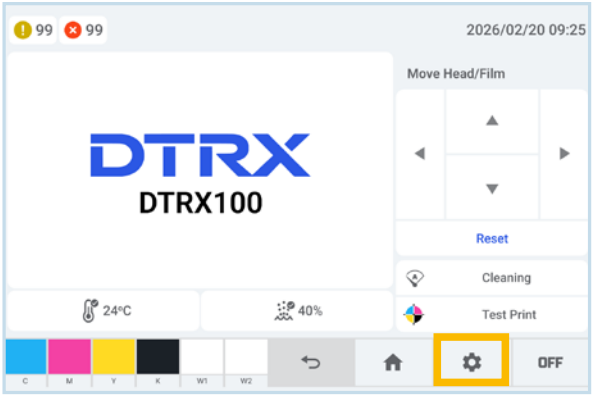
Hardware Link:

Physical Connection: Connect your PC to the printer using a LAN cable to establish a network connection.

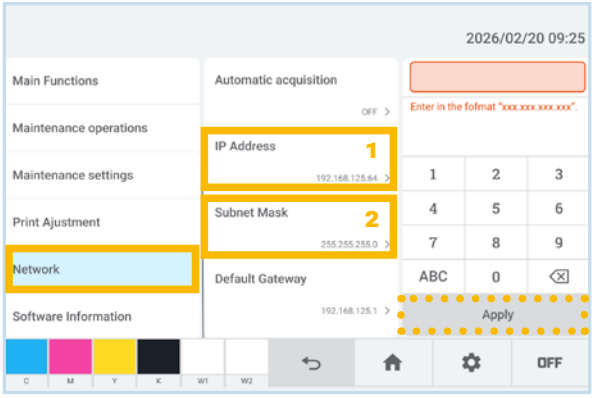
Power On: Turn on the main power switch for the printer.

Never turn off the main power.

Printer Side:



On the operation panel, press the **[Settings]** button.



Navigate to **[Network]**.
Ensure **[Automatic acquisition]** is set to **OFF**.
1. Select **[IP Address]** and set a static IP (e.g., 192.168.125.64), press **[Apply]**
2. Select **[Subnet Mask]** and set the subnet mask (255.255.255.0), press **[Apply]**.

PC Side:

- Go to **Network Connections > Ethernet Properties > IPv4**. Set a manual IP in the same range (e.g., 192.168.125.65) with the same Subnet Mask.
- **Register in RIP Software:** Open your RIP software on the PC and register the printer by entering another IP address than the PC address (e.g., 192.168.125.64). Refer to your specific RIP software's manual for detailed registration steps.

For more detailed instruction on how to connect the printer to the PC, please refer the **DTRX100 Instruction Manual.**

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

3 PRE-PRODUCTION ACTIONS

Goal: Ensure the delivery system and print heads are in peak condition before the first drop of ink hits the film.

Always Check Panel Messages!

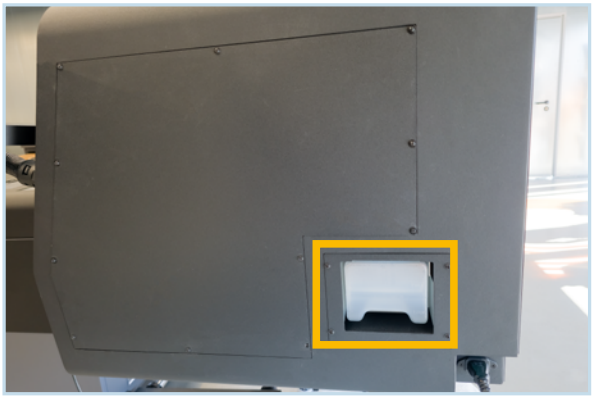
Before doing anything, read the DTRX100 Printer panel. Perform any „Daily Maintenance“ tasks displayed.

3.1 VISUAL INSPECTION

- Regularly **check all moving parts** of the machine and look for ink leaks.
- **Inspect the Wiper and Flushing Foams**. If the panel prompts or they look saturated/deformed, replace them immediately.
- **Check Environment**: Ensure the room is between 20ºC and 28ºC and humidity is between 35 and 65% without condensation.

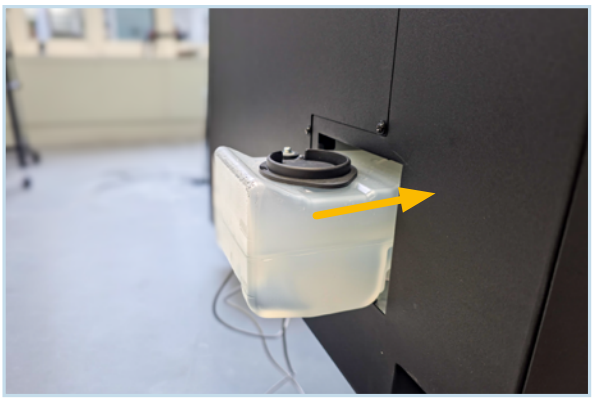
3.2 CHECKING AND REFILLING CLEANING SOLUTION

The cleaning liquid tank should be checked regularly to ensure it is at the proper level. The tank must be refilled if the amount falls below this level or if a warning message is displayed on the operation panel.



Pull Out Tank: Locate the cleaning liquid tank on the right side of the printer and pull it out.

Add Cleaning Solution: Open the lid of the tank and pour in the cleaning liquid until it reaches the „Full“ line.



Secure and Reinstall: Close the lid securely and slowly slide the tank back into its original position in the printer.

Do Not Overfill: Never exceed the „Full“ line when refilling.

Use Correct Liquid: Only use the specified Brother cleaning liquid and ensure it is not expired. Always check the Consumables list.

Storage Warnings: Keep away from heat, oxidizing agents, explosives, and children.

Personal Safety: Avoid eye and skin contact. Wear protective gloves and safety glasses when handling maintenance liquids.

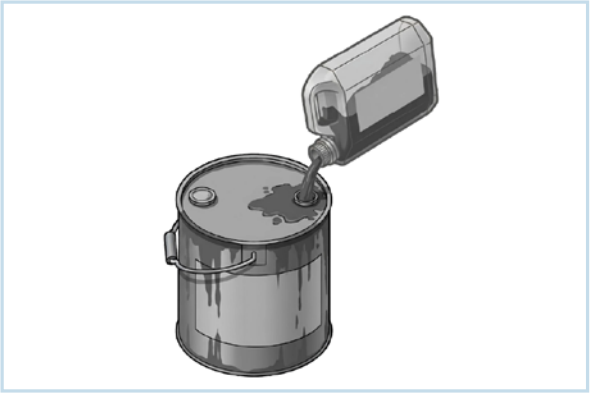
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

3.3 CHECK WASTE INK TANK

Check the waste ink tank regularly. If it is filled to one-half or higher, it must be emptied.

Protect Floor: Place a rag or similar material under the waste ink holder to prevent any remaining ink from dripping onto the floor.

Remove Tank: Carefully lift the tank so that tube slides inside, then tilt the tank and remove the tank from its holder. **Do not bend the tube.**



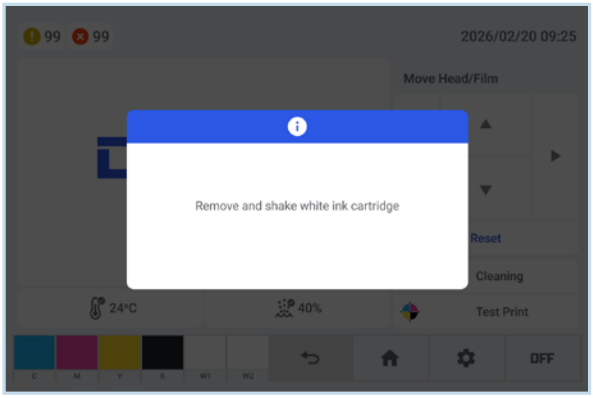
Dispose Properly: Discard the waste ink as water-based waste fluid according to your local laws and ordinances.

Reinstall: Return the tank to its holder the same way like it was taken off.

Tube Position: Ensure the tip of the waste ink tube is not immersed in liquid. If it is submerged, it will block the flow of waste fluid and disable the printer's head cleaning function.

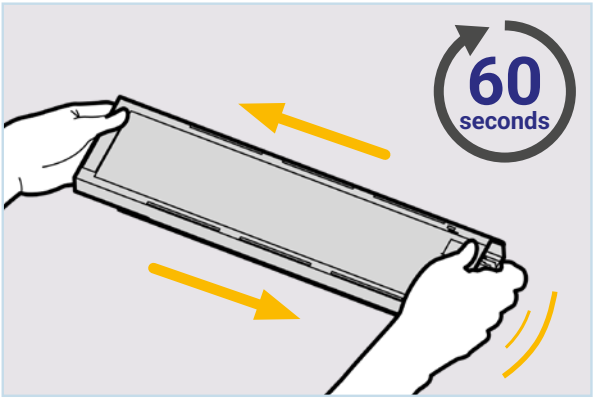
Avoid Kinks: Do not bend or kink the waste liquid tube, as this will prevent ink from flowing properly.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

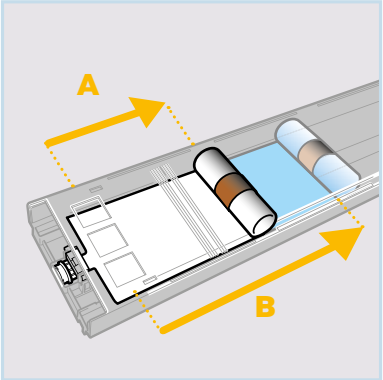


To agitate the white ink before printing, the following procedure should be performed, if a stirring message is displayed on the operation panel

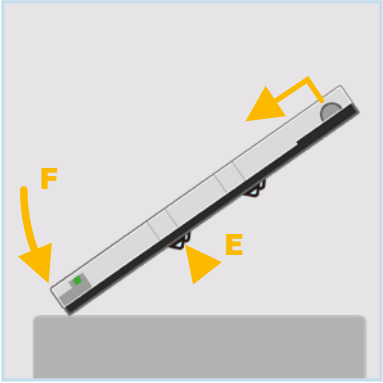
Remove Cartridges: The white ink cartridges (W1 and W2) are removed from the printer.



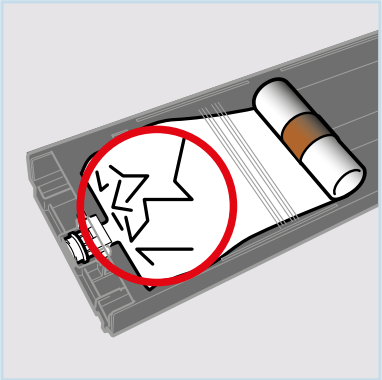
Shake the Cartridges: Each cartridge is held horizontally and shaken side to side 100 times to stir the ink. This typically takes approximately **60 sec., with a swing distance of about 5 cm.**



A: 15 cm
B: If the pouch is only filled up to 15 cm, please roll it out a little before shaking.



E: Push on the 2 upper metallic latches
F: **Gently** tap the front end of the cartridge on the base so that the bag rolls up a little more and creates enough pressure for the ink.



Make sure that there are no wrinkles caused by tapping. Wrinkles block the ink flow and lead to poor printing results.

- **Reinsertion:** Gently slide the cartridges back into their designated slots (**W1 cartridge to the W1 slot and W2 cartridge to the W2 slot**) to until they click into place.
- **System Check:** Confirm the printer panel recognizes the ink levels and that no “Ink Error” messages remain.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

Important Precautions:

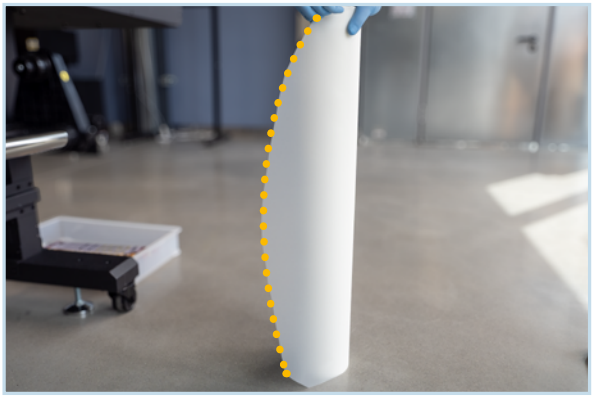
- **Horizontal Handling:** The cartridge must be held horizontally during agitation; shaking it roughly or holding it upside down could break the internal ink pouch.
- **Safety:** Gloves should be worn while performing this work.
- **Avoid Clogging:** If ink is found on the tip of the pouch, it should be wiped off with a dry lintfree cloth.
- **Proper Placement:** Misplacing the W1 and W2 cartridges can lead to printer malfunctions.

3.5 SETUP FILM - DTRX100 PRINTER

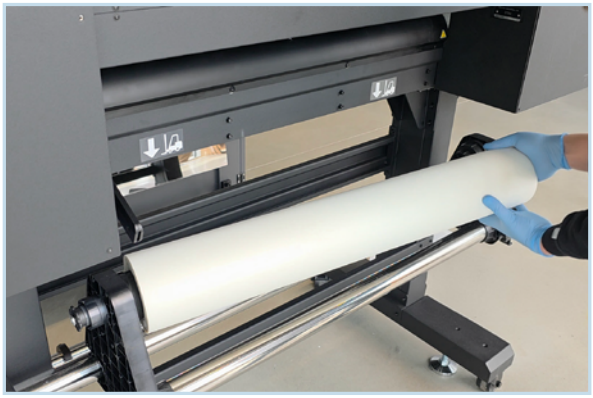
Before starting, ensure your roll media weighs no more than 13 kg (29 lb) to prevent the printer from tipping or the media from falling.

FILM PREPARATION & REAR ROLL MOUNTING

- A successful run starts at the back of the machine. Taking a few extra seconds to prepare the film edge and mount the core properly prevents tracking errors from compounding down the line.

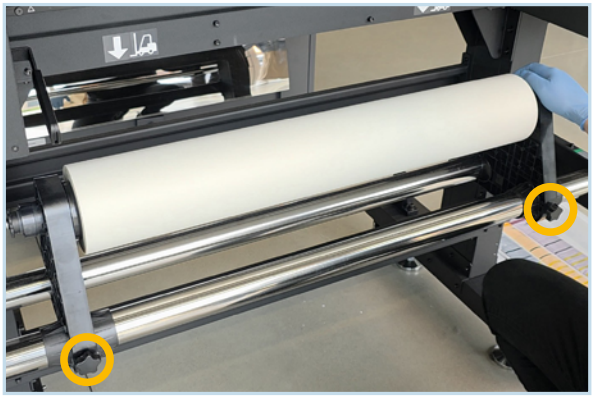


Oval Leading Edge Cut: Do not cut the leading edge of the PET film in a straight line. Trim the end into a smooth oval shape.
This oval tip glides easily over the transport belt and heater rollers without catching or lifting, allowing for smooth initial tracking.



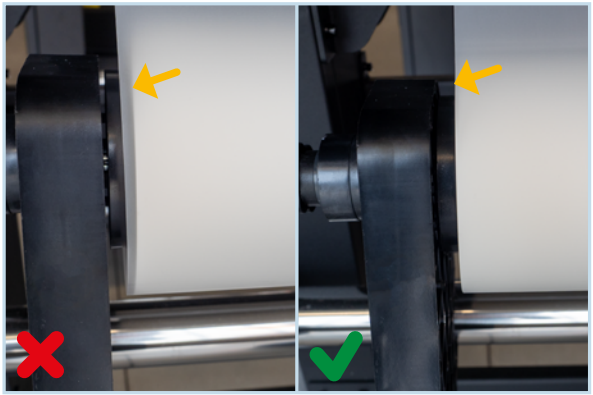
Mount Roll to Media Holders: Place the PET film roll onto the media holders located on the back side of the printer.

Secure the Core: Firmly press the media holders from both sides into the cardboard tube. The core of the tube must sit completely inside the cylindrical recessed section of the holders.



Keep Holders Unlocked: Ensure the holder locking levers are not engaged at this stage. They must remain loose so the entire assembly can be slid side-to-side for micro-adjustments.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

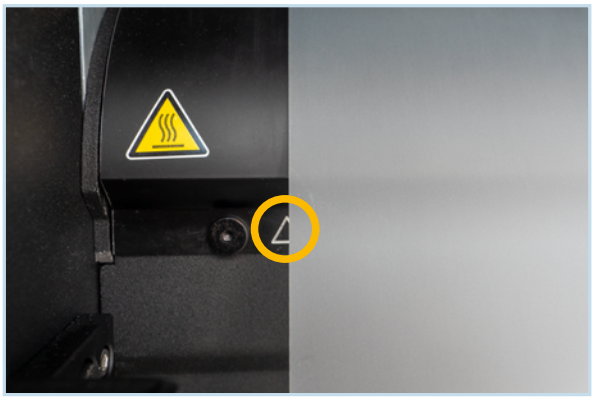


Check Roll Wound Straightness: Visually inspect the loaded roll. The film must be tightly and evenly wrapped on its paper core—no protruding edges or stepped layers should be visible on the sides of the cylinder.

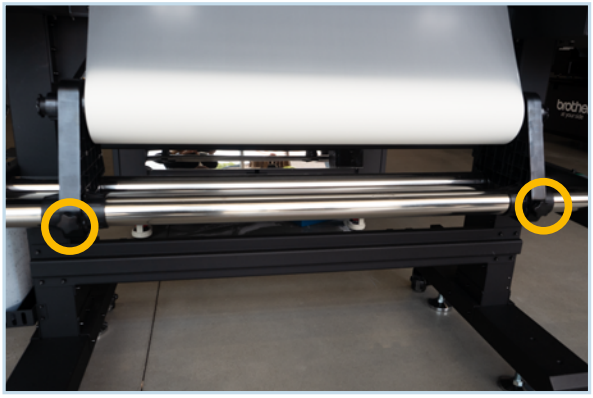
THREADING AND REAR ALIGNMENT

Force must never be applied unevenly across the width of the film when sliding it through the internal path.

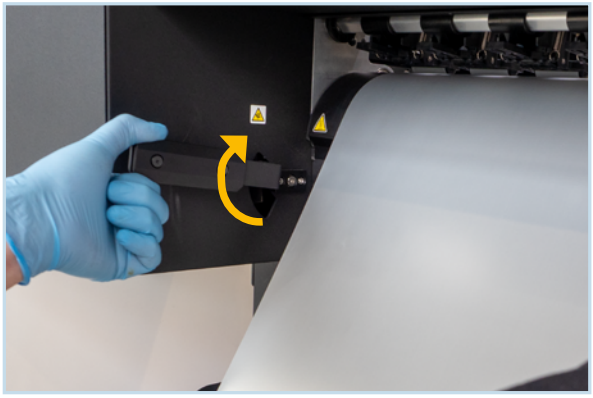
Middle-Push Threading: Gently thread the leading edge of the film through the entry slot of the printer. Push the film exclusively from its center point to feed it smoothly toward the front platen.



Rear Origin Alignment: Align the right edge of the film exactly with the first triangle marked on the rear plate of the printer.



Stabilize Holder Position: Once the film is aligned straight along its entry path, tighten and fix the roll holders firmly onto the bar.



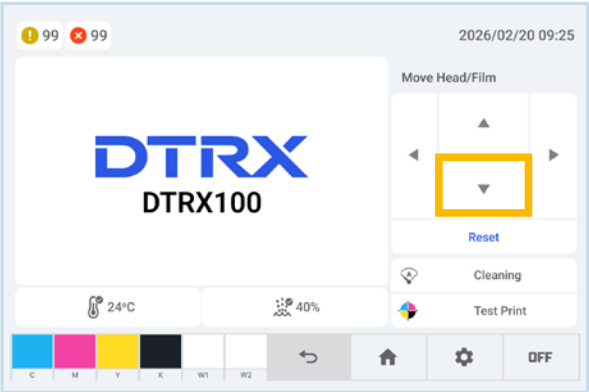
Lock the Media Holders: Lift the media holder levers up to secure the media roll position.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

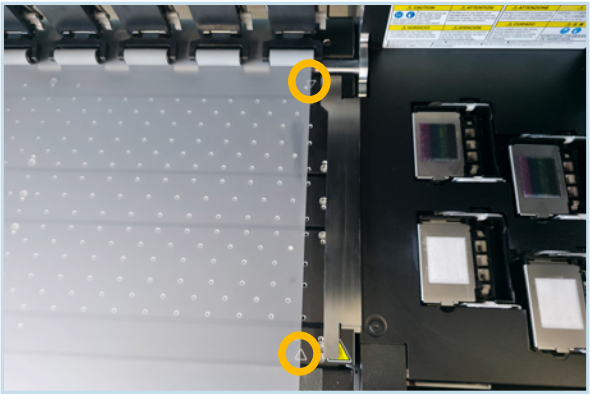
- **Tension Verification:** Manually test the pull of the film. Grab the left and right corners simultaneously; the tension must be perfectly equal on both sides of the film. If one side feels looser than the other, unlock the holders and realign.

FRONT PLATEN ALIGNMENT & MEDIA CLAMPING

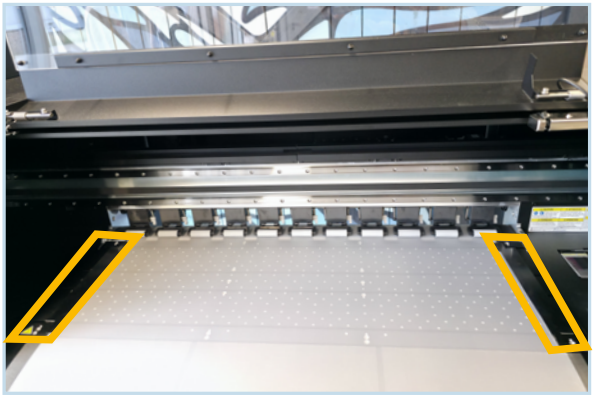
The media clamps keep the film flat at the print boundaries. Misplaced clamps will cause direct physical contact with the travelling print heads



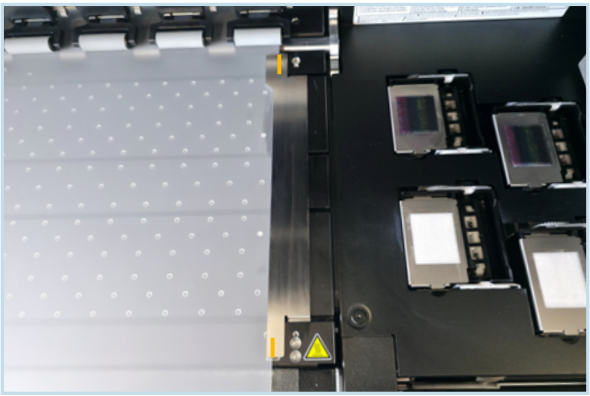
Advance Film: Access the printer touch panel and use the navigation arrows to move the film forward onto the main printing platen.



Front Origin Check: Inspect the front right edge of the film. Confirm it aligns precisely with the two alignment triangles.



Apply Metal Media Clamps: Place the two metal media clamps over the left and right edges of the film.



Clamp Positioning: Center the film edge in each media clamp using the alignment marks on the clamps. Ensure the clamp holds the film edge securely without entering the print area.

- **Close the cover.**
- **Advance to Shaker:** Using the printer control panel again, select the forward movement function to drive the oval lead edge out of the printer platen and feed it directly toward the shaker entrance.
- **Straightness Verification:** Look at the film path from the printer exit to the shaker inlet. It must be perfectly parallel to the machine sides. If skewed, release the pinch roll lever and realign.

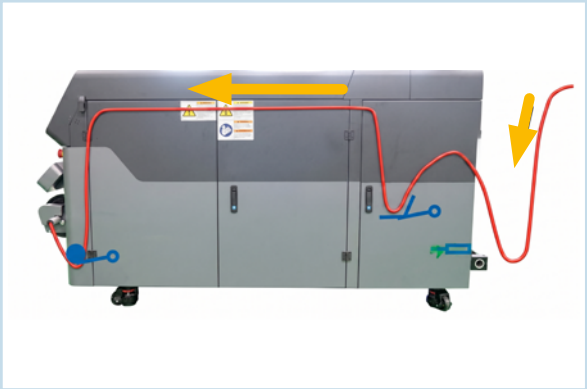
TIP:

Avoid any contact between the print heads and the DTF film. This can cause damage and nozzle failure. If contact occurs, stop printing immediately. Stop the print job via the control panel. In an emergency, open one of the printer's front covers.

- **For more detailed information, see the DTRX100 Instruction Manual**

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

The shaker uses three critical sensors (Film, Powder, and Winding) to control its movement. If the film is routed incorrectly, the machine will stay in „Idling“ mode, or worse, the film may lift and touch the 125°C heater tubes, causing a fire hazard or equipment damage.

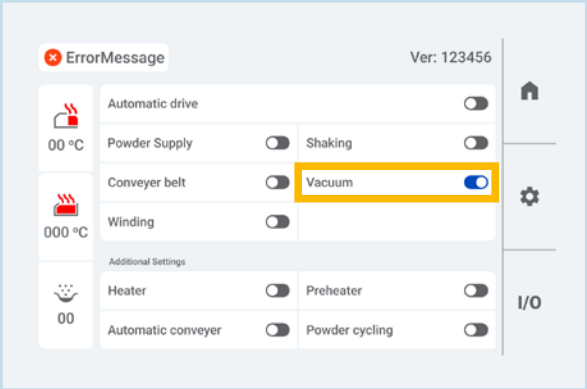


The image illustrates the media transport path from a side view, highlighted by the red line.

- Open the Heater Oven Cover and ensure the heater is off or sufficiently cooled.
- Move the magnetic Guide Brackets at the shaker inlet to match your media width (e.g., 600mm or 800mm).

Extend the film forward until the leading edge reaches the Vacuum roll / Platen area at the front section of the shaker.

- Verify that the media tension is identical on both left and right edges. If one side is slack, realign the media at the printer holders before proceeding.
- Power On the Machine



On the touchscreen panel home screen, toggle **[Vacuum]** to ON. The suction will instantly lock the film down flat against the transport surface.

TIP:

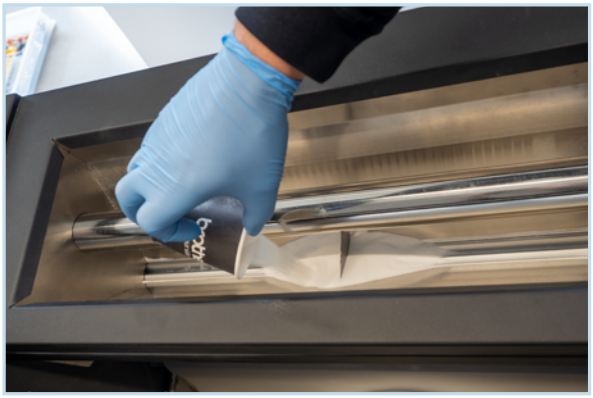
To correct the straightness in the shaker during production process, switch off the **[Vacuum]** at the shaker panel and wait until the feed mechanism has pulled the film back into the correct position. Turn the vacuum back on.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

3.7 POWDER REFILLING GUIDE

The DTRX001 Shaker uses an automated powder recirculation loop. It must detect a specific weight of powder on the film to „know“ it is ready for production. Proper priming ensures the machine enters automatic mode correctly and that the first few prints have a consistent, high-quality adhesive layer.

Before beginning, ensure you are wearing vinyl gloves, a mask, and protective goggles. Powder will scatter during this process, so ensure the work area is well-ventilated.

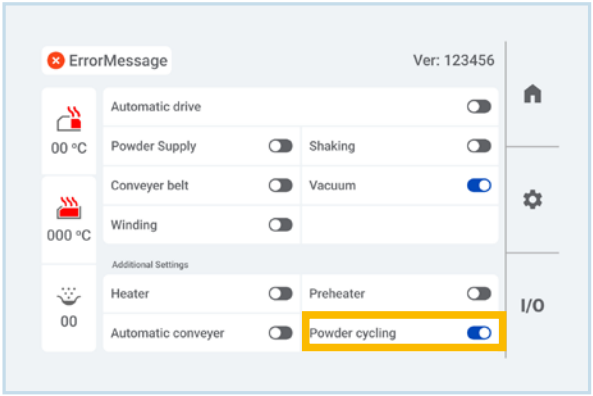


Open the top cover and load approximately 2 kg of thermoplastic polymer powder into the box.

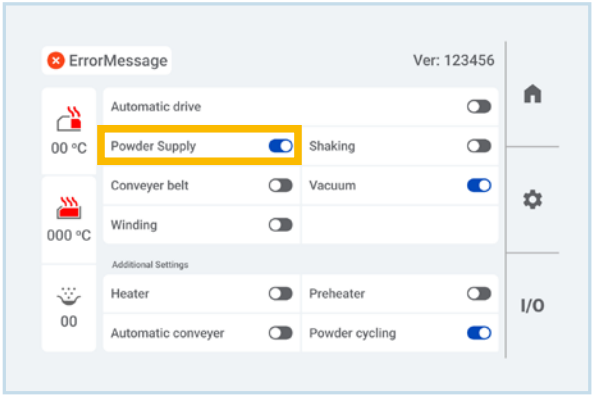
Spread the powder evenly across the full width of the box. Ensure the powder height does not touch the bottom of the metal pipe inside the box.

Option 1: Powder Cycling (Preferred Method)

Use this method if there is already a sufficient amount of powder in the bottom collection tray.



Activate Cycling: On the touch panel, set **[Powder cycling]** to **ON**.
The internal mechanism will transport powder from the bottom collection tray to the upper powder box.



Automatic Drop: Once the top box is supplied, the scattering roller will begin dropping powder onto the media if **[Powder Supply]** is active.

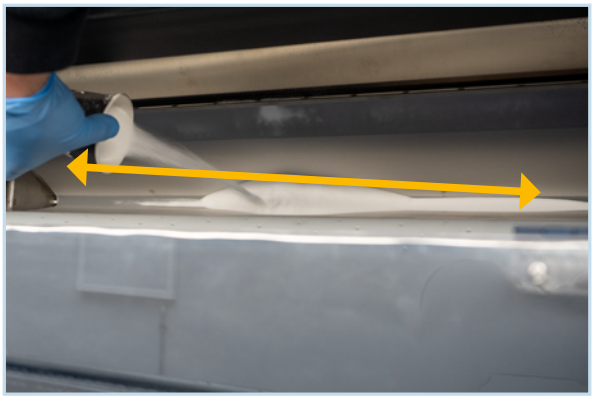
- **Confirm Detection:** Continue until the Powder Sensor detection sensitivity reaches a value between **65 and 100**.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

Option 2: Manual Priming (Quick-Start Alternative)

Use this method if the collection tray is empty or if you need to reach detection sensitivity faster.

Take approximately **800 g** of powder and scatter it manually onto the media.



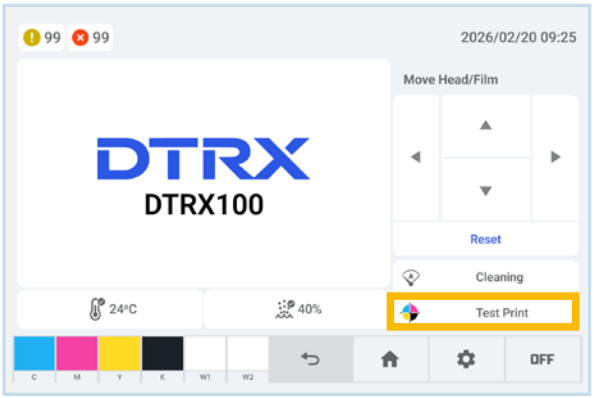
Spread the manual powder evenly across the width of the media directly over the sensor area.

- **Sensor Verification:** Check the panel to ensure the detection sensitivity has stabilized between 65 and 100.
- **Fine Tuning:** Turn **[Powder Supply]** to **ON** to allow the machine to maintain this level automatically during the run.

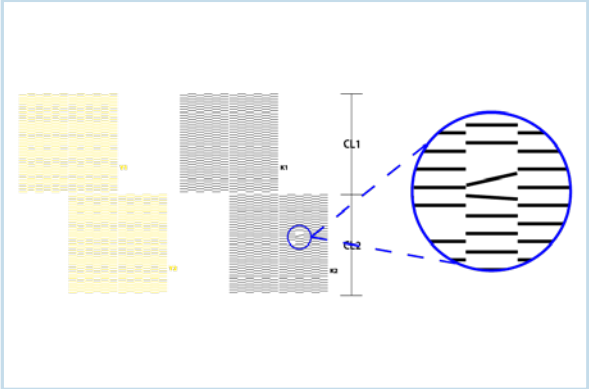
Safety Note: Only use recommended thermoplastic polymer powders and always verify their heat resistance before use to prevent discoloration, odors, or fire hazards.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

4.1 PERFORM PRINTING TEST



Start Test Print: On the operation panel's home screen, press the **[Test Print]** button. The printing of the test pattern will begin immediately.

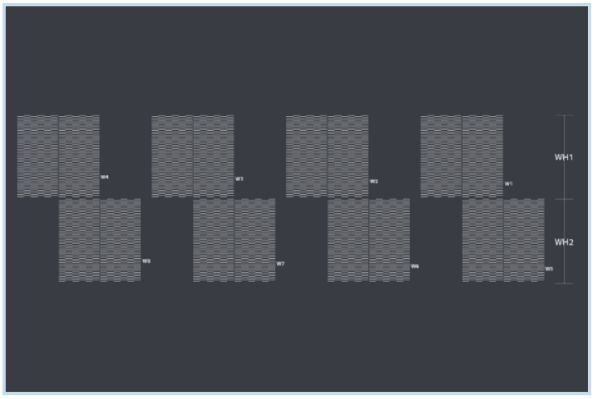


Examine the printed pattern for any gaps or „deflections" (lines that aren't straight).

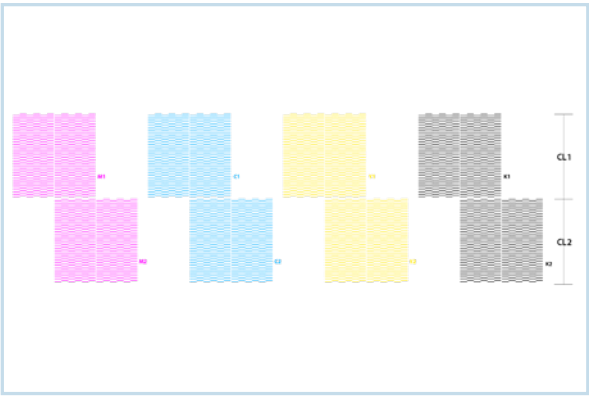
TIP:

Close Covers: If you opened the front cover to inspect the print, ensure it is closed before continuing operations.

- **The „100% Rule":** If any dot is missing, perform a **[Normal Cleaning]** and re-test.
  Do not print production files until the pattern is perfect.
- If Normal Cleaning does not resolve the issue, follow the manual instructions to fix it.



For checking the white ink pattern, placing a sheet of black paper under the film makes the results much easier to interpret.



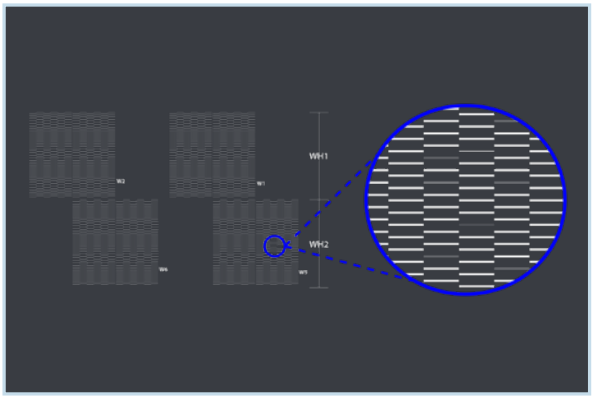
If the results are hard to see, check them in a bright location using the Digital Magnifier

- **Finish:** If no issues are found, the operation is complete. Press the **[Home]** icon to return to the main screen.

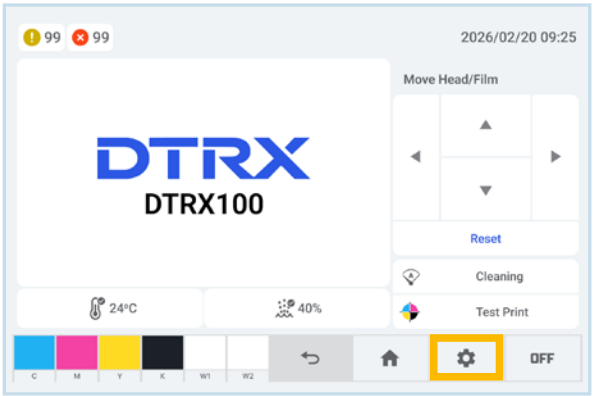
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

4.2 WHITE INK CIRCULATION PROCEDURE (OPTIONAL)

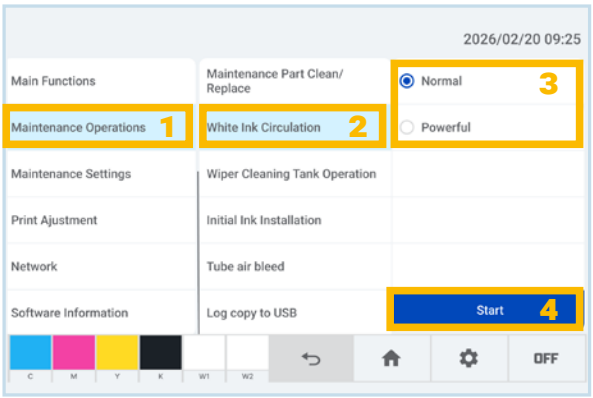
White ink circulation should be performed if insufficient whiteness is observed in your prints.



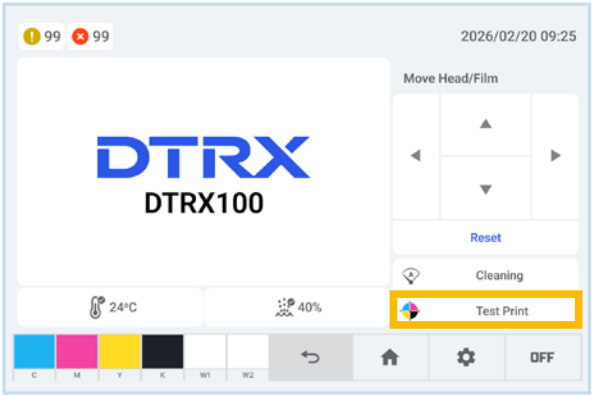
Check the white print test. If areas with low opacity are visible on some nozzles, perform a white ink circulation.



Open the **Settings Menu**.



1. Navigate to **[Maintenance Operations]**
2. Then select **[White Ink Circulation]**
3. Choose Mode:
[Normal]: Used for routine circulation to prevent ink component sedimentation.
or
[Powerful]: Used if printing quality (whiteness) does not recover after a normal circulation.
4. Press **[Start]** to begin the circulation.



Perform a **Test Print immediately** after the process completes to verify the white density.

Important Tips:

▶ **Automatic Circulation:** The printer is designed to automatically circulate white ink for 4 minutes every 2 hours and for 20 minutes every 24 hours.

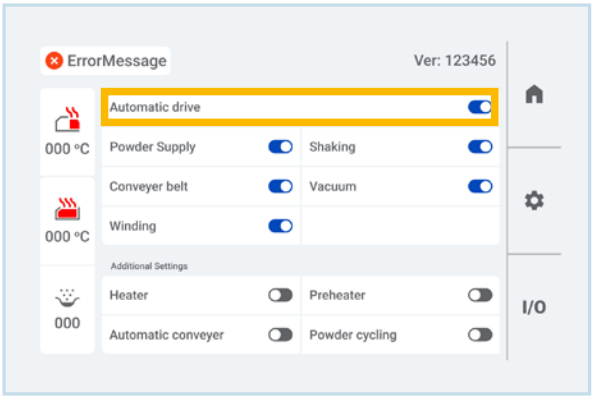
▶ **Initial Power-On:** If the printer has been turned off for a long period, the initial circulation process may take up to 40 minutes.

▶ **Do Not Power Off: Never turn off the main power during maintenance operations, as this may lead to printer failure or head damage.**

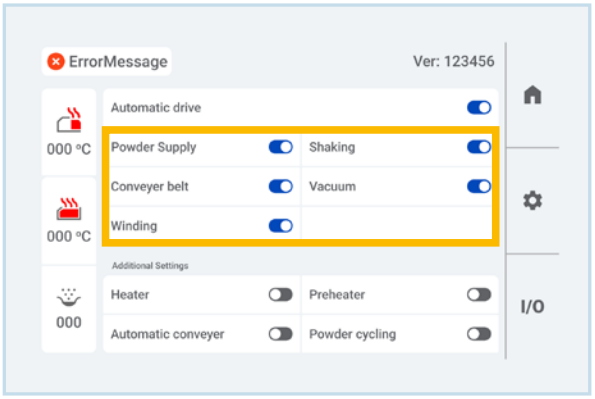
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

4.3 SHAKER AUTOMATION (AUTOMATIC DRIVE)

This setting synchronizes the shaker's internal components to respond as one unit to the printer's movement.



On the shaker touch panel, toggle **[Automatic drive]** to **ON**.

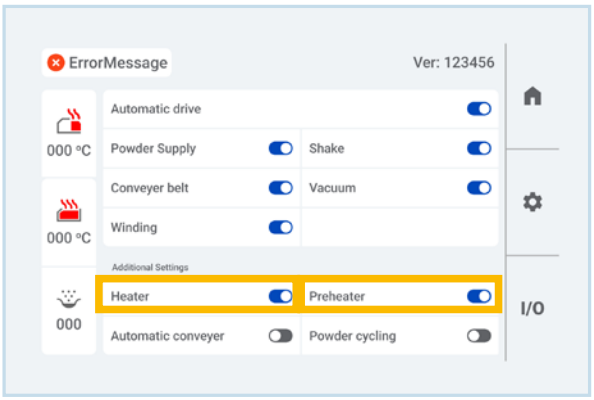


Confirm that **[Powder supply]**, **[Shaking]**, **[Conveyer belt]**, **[Vacuum]** and **[Winding]** have all automatically switched to **ON**.

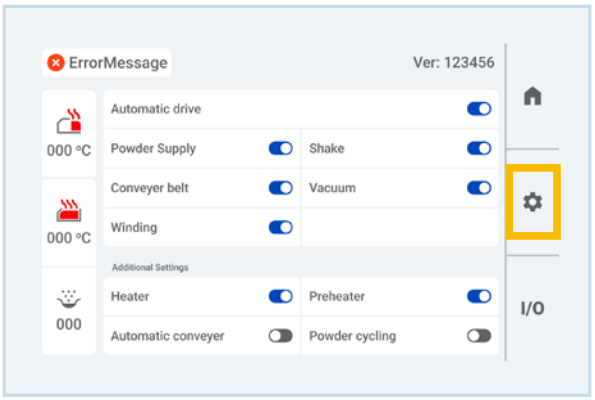
- **Idling State:** The system will now sit in an „Idling" state until the Film (media) sensor detects printed film entering the shaker.

4.4 HEATER WARM-UP

Correct curing depends on stable heat. Operating before reaching target temperatures will result in „tacky" or under-cured prints.

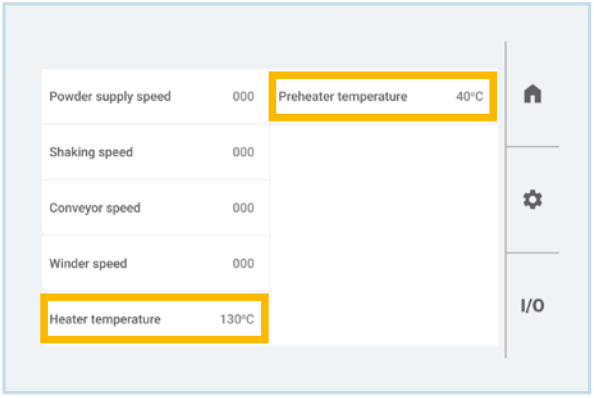


Toggle the **[Heater]** and **[Preheater]** to **ON.**
Note: These do not activate automatically with the drive



Open the **Settings Menu**

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany



Verify targets are set to **130°C (Heater)** and **40°C (Preheater)** via the parameter screen.

NOTE:
Specific temperatures depend on the type of powder and film being used (typically between 100°C and 150°C).

Do not touch the heater glass or the metal surfaces near the heating elements, as they become extremely hot.

Ensure the exhaust fan is running to manage fumes generated during the heating process.

- **Stabilization Period:** Wait for the oven to reach temperature. This typically takes **15 to 20 minutes**. Production should only begin once the detected temperature is stable and within 10°C of the target.

4.5 INITIATING THE PRINT (RIP EXECUTION)

- Open your RIP software on the PC.
- Load the image and ensure the White Ink layer and Mirroring are correctly set.
- Send the prepared file from your RIP software to the printer's IP address.
- Start the printing process.
- **Feed Observation:** Watch the first few inches of media to ensure the vacuum is holding the film flat as it enters the shaker.

WARNING

Never open any cover during the print process. This will cause interruption of the process, a termination of the process, or malfunctions.

4.6 TAKE-UP SYNCHRONIZATION

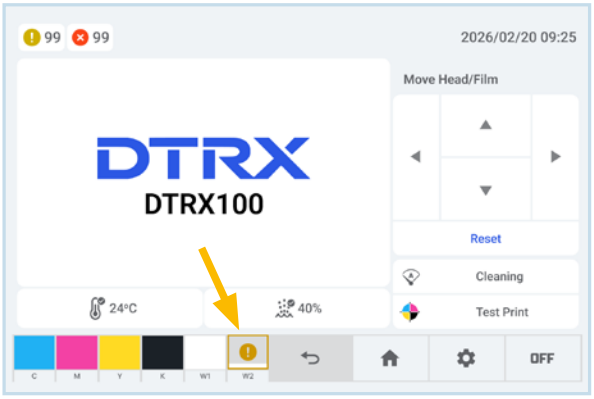
Proper take-up prevents „ghosting" caused by film dragging and allows the cured prints to be stored safely on the roll.

- **Path Routing:** As the cured film exits the rear cooling fans, guide it under the Winding Sensor Roll (Tension Bar).
- **Core Attachment:** Secure the lead edge to the cardboard take-up core. Ensure the printed surface is wound inward to protect the image.
- **CRITICAL Taping: Use only one strip of tape in the middle of the film.**
  This allows the film to expand naturally from the heat. Taping the edges will cause the film to „buckle" or „wave," leading to tracking errors.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

4.7 INK POUCH REPLACEMENT

The DTRX100 is designed for high-volume production. Manage ink levels without stopping production to maintain thermal stability.



Watch for the „Empty Pouch“ indicator on the printer panel.

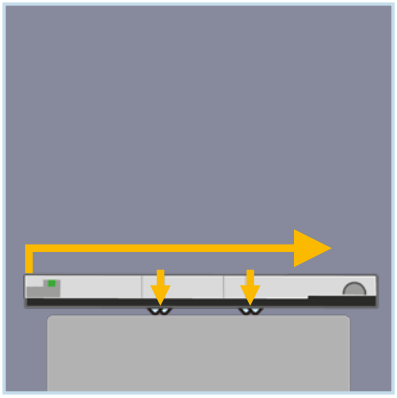
Hot-Swap Procedure: You can replace ink pouches while the printer is active. Do not remove a pouch until the „Empty“ message is explicitly displayed.

URGENT Action:

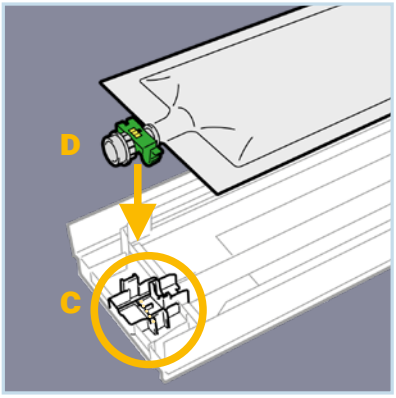
Replace the empty pouch immediately after the message appears.

The „Restart“ Warning: If the pouch is not replaced promptly, the printer will eventually enter a hard stop. Because the film is sitting in a 125°C oven, a prolonged stop may cause the film to melt or warp, and **the process cannot be restarted without potential damage to the print heads or media.**

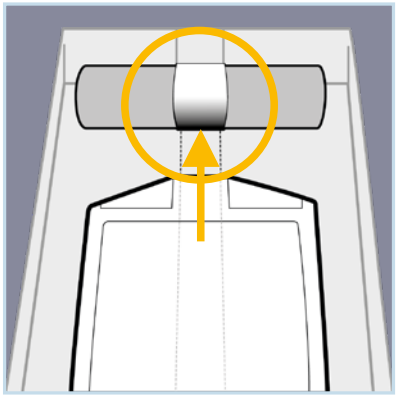
In case of white ink replacement you have to shake the white ink package 100 times.



Place the cartrige on a flat surface. Open the cartridge with a slight pressure downwards and then slide the lid. Remove the empty pouch.

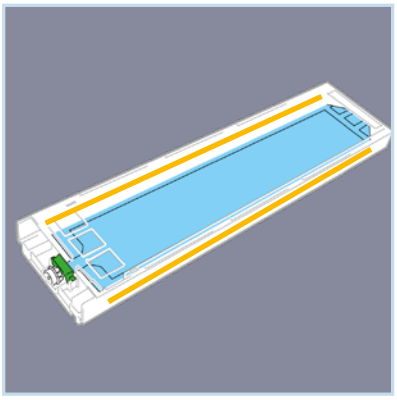


C: Clean with a cleaning stick and a tweezer.
D: Insert the new ink pouch and fix the green connector in the holder, gently pushing it down until it clicks.
Do not touch the Chip!

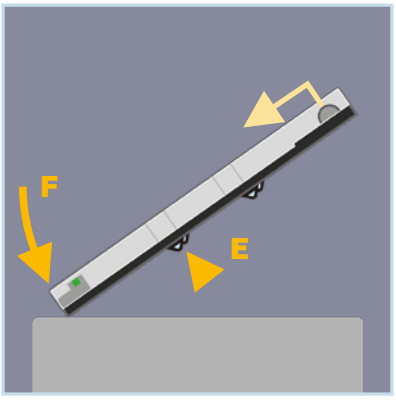


Align the ink pouch centrally in the cartridge and place its end in the rewinder by pulling it by hand.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany



▶ Make sure that the pouch has no creases or wrinkles at the edges. Close the cartridge by pushing back the lid till it clicks.



▶ **E:** Push on the 2 upper metallic latches
F: Gently tap the front end of the cartridge on the base so that the bag rolls up a little more and creates enough pressure for the ink.

▶ **Insert the cartridge gently to avoid damaging the ink needle and chip reader in the slot.**

4.8 RULE: THE 5-MINUTE WINDOW

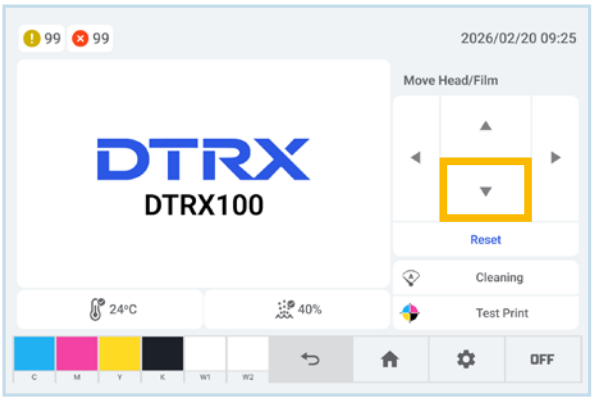
Maintain consistent curing and avoid „Cold Starts“ mid-job

- **Data Flow:** Monitor the PC. Ensure the printer is constantly receiving data from the RIP.
- **Movement is Safety:** The film must never sit stationary in the drying unit for long.
- **Idle Temperature Rule:** The default heater temperature is 130°C. The idle temperature should remain at 93% of the heater temperature (121°C) to maintain thermal stability and consistent print quality.
- **Maximum Pause:** Never pause production for more than **5 minutes**. If a longer delay is needed, finish the current roll.

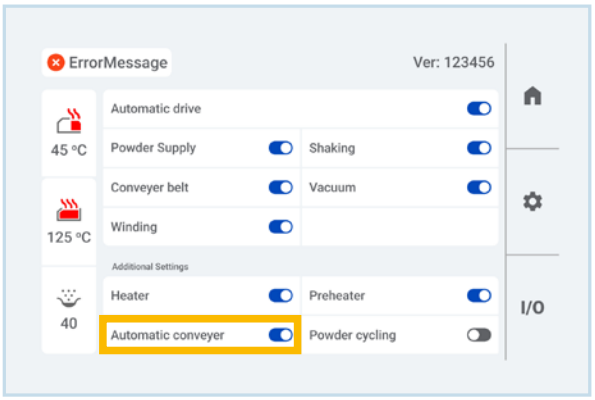
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

5 END PRODUCTION & SHUTDOWN

Safely cool and protect the print heads for the next shift.

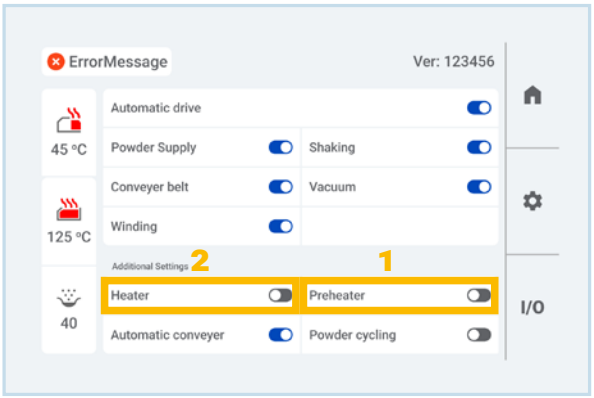


After the final print, use the panel to move the film 1 meter forward. The end of the print must be inside the shaker inlet, above the preheater.

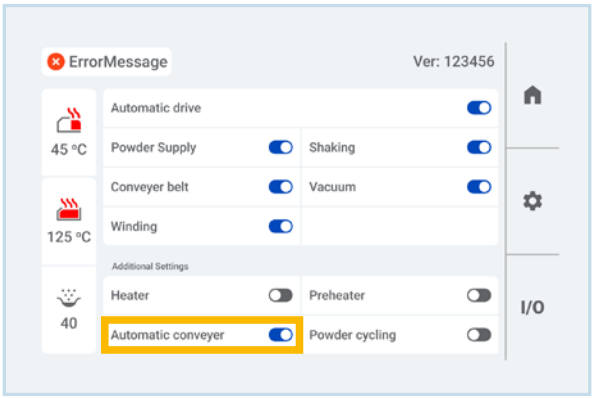


Switch on **„Automatic Conveyer“** at the shaker. This disables sensors and moves the remaining film through to the take-up unit.
TIP: Wenn automatic conveyer is activated do not change any setting or open any cover of the shaker. This will interupt the finsihing prozess.

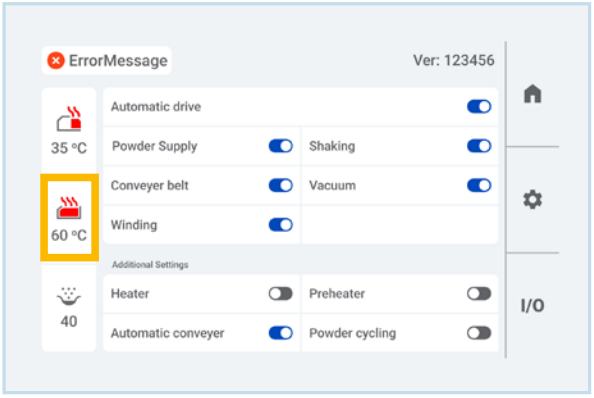
System Health Check: While the film is clearing the shaker, run a Test Print on the printer. If the panel shows errors or the test is poor, perform a head cleaning now—don't wait until tomorrow.



1. Once the film is wound up, **turn OFF the Preheater.**
2. Turn OFF the Heater.



IMPORTANT: Keep the **Belt Running**. This prevents the belt from warping or burning in one spot.



Switch the shaker **OFF** only when the temperature drops **below 60°C**.

TIP:

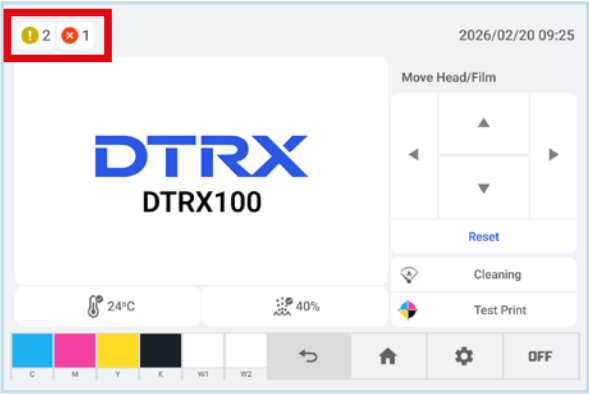
Open the main shaker cover to cool down faster.
Warning: caution — the parts inside are hot.

Run the heater with belt running 15-20 minutes after production to remove all condensed air. This prevents excessive contamination of the exhaust air ducts

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6 MAINTENANCES

Goal: To maintain peak output quality and extend the operational life of the printer and shaker through disciplined upkeep.



Note: Always check notes/ messages at the control panel first and perform any task that is displayed.

6.1 DAILY MAINTENANCE

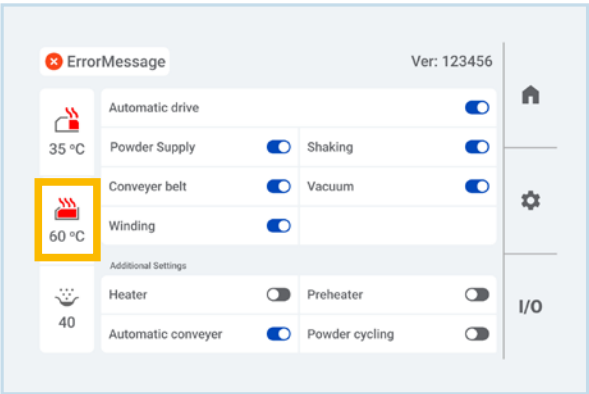
Perform these tasks every morning before production and every evening after production.
Never turn off the power of the printer!

Timing	Action	Machine	Technical Note
Morning	**Check Consumables**	BOTH	Confirm cleaning fluid is above „Low“ and the shaker powder box is replenished. (*See paragraph 3.2*)
Morning	**Check Waste Ink Bottle**	PRINTER	Empty waste ink bottle if >1/2 full. (*See paragraph 3.3*)
Morning (Following the message)	**Agitate White Ink**	PRINTER	Remove cartridges and shake horizontally for 60+ seconds to prevent pigment settling. (*See paragraph 3.4*)
Morning	**Ink Status**	PRINTER	Check levels/winding of pouches; prepare new ones if needed. ***(Check notifications at the Control Panel)***
Morning	**Nozzle Check**	PRINTER	Run a [Test Print]; perform [Normal/Strong Cleaning] only if gaps are present. (*See paragraph 4.1*)
After Production	**Shaker Internal Clean**	SHAKER	Open heater oven cover (only when <80°C) and wipe condensed oil from inside cover and stainless-steel parts. (*See paragraph 6.1.1*)
After Production	**Waste Oil Disposal**	SHAKER	Empty the waste oil tray at the shaker base. Dispose of oil according to local environmental regulations. (*See paragraph 6.1.2*)
AM/PM	**Powder Recovery**	SHAKER	Return powder from the bottom collection tray to the top powder box.
Evening	**Media Path Clean**	PRINTER	Wipe Pinch Rollers, Grit Rollers, and Platen with a damp cloth. (*See paragraph 6.1.3*)
Evening	**General Wipe-down**	SHAKER	Remove scattered powder and oil from all exterior surfaces.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6.1.1 SHAKER INTERNAL CLEAN

Before beginning, ensure you are wearing vinyl gloves, a mask, and protective goggles (essential to block airborne powder and vapors)

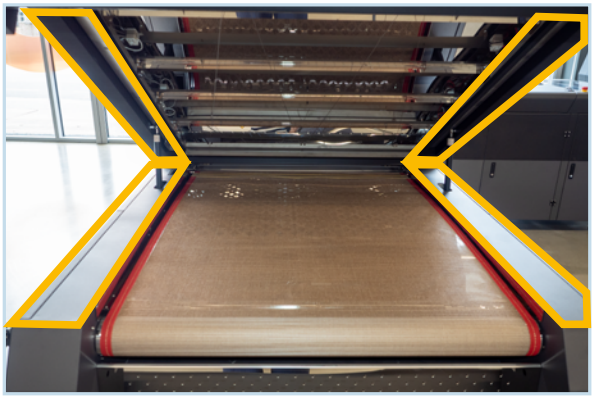


Verify that the internal oven temperature has decreased **below 60°C** before opening the cover or touching components.

Turn off the shaker's main power.

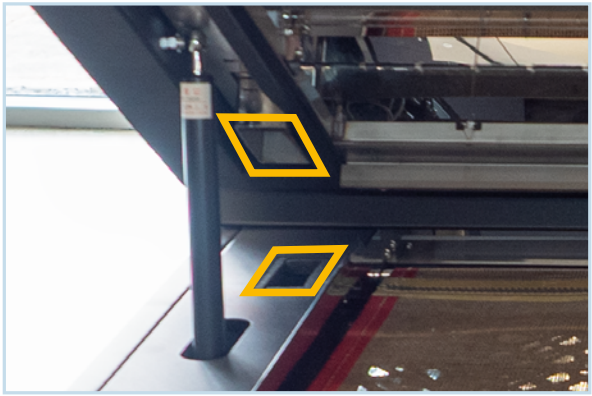
- Prepare clean, dry, lint-free microfiber cloths.
- **Fragility Warning: The heating tubes are made of thin, delicate glass.**
  Handle them with absolute care during cleaning to prevent breakage, cracks, or mechanical failure.

1. Disengage the quick-release toggle fasteners on the left and right sides of the Oven Cover.
2. Carefully fully raise the Heater Oven Cover.



Wipe oil and condensation from the inside of the cover with a dry cloth.

Clean the lower edges where the cover meets the shaker chassis.



3. Clean the rear hinges inside the cover.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

Wipe the central glass heater tubes with a clean, dry microfiber cloth using light pressure to remove powder film, dust, and oil.
Check Heater Bulbs on the visual damages. They should be clean and transparent.

Wipe the stainless-steel reflector panels behind the heater tubes to remove oil and restore heat reflection.

CRITICAL WARNING

Never rub the glass forcefully or use abrasive tools.

This can scratch the quartz glass shell or misalign the electrical elements.

6.1.2 WASTE OIL DISPOSAL

Before beginning, ensure you are wearing vinyl gloves, a mask, and protective goggles (essential to block airborne powder and vapors)

Open the lower filter-side cover to access the **Waste Oil Drain Tube** and the **Waste Oil Tray**.

Locate **Waste Oil Tray**

Ensure the white **drain tube** runs straight down into the tray without any sharp bends or kinks that restrict oil flow.

Carefully remove the tray and transfer the collected oil into a sealable plastic or metal container to prevent leakage.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

Place a rag directly beneath the open drain tube while cleaning the tray to stop lingering oil from dripping onto the floor.

Wipe and Reinstall: Wipe the yellow tray clean with a dry paper wipes, then place it flat on the floor directly under the tube outlet.

- **Dispose Safely:** Place all oil-contaminated rags and wipes into a plastic bag and seal it tightly. Dispose of the waste oil and bags as specialized industrial waste according to your local regulations.

6.1.3 MEDIA PATH CLEAN

- **Dispose Safely:** Place all oil-contaminated rags and wipes into a plastic bag and seal it tightly. Dispose of the waste oil and bags as specialized industrial waste according to your local regulations.
- **Cleaning Agent:** Soft lint-free cloth and a neutral detergent heavily diluted with water.

Never use gasoline, alcohol, paint thinner, or volatile solvents. These create fire hazards near heaters and damage platen coatings. Do not oil or lubricate any internal parts.

Fully raise the **(1)Front Cover** and **(2)Upper Right Cover.**

Go to the back side of the DTRX100 Printer

1. Lift loading levers and release clamps.

2. Remove the PET film roll to clear the path.

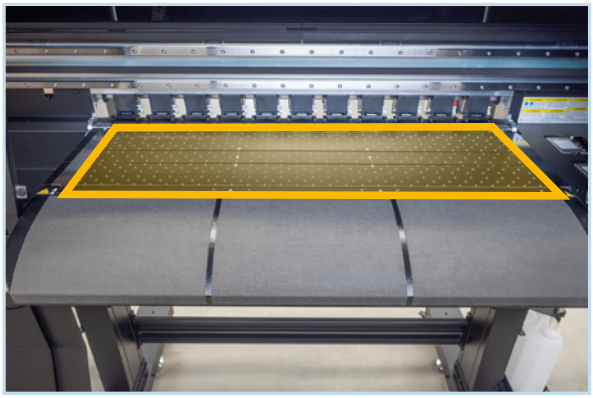
- **Dampen Cloth:** Dip the cloth in the diluted detergent and wring it tightly until damp, not wet.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

Wipe the rubber surface of each **Pinch Roller** to remove ink splatters and sticky grime.

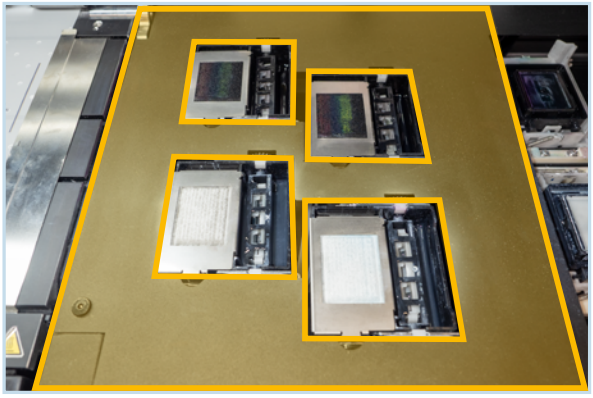
Use a non-metal brush to sweep dust, powder, and film fragments out of the metallic **Grit Roller** grooves.

CRITICAL WARNING: Never use a metal wire brush. It will dull the diamond-cut tracking texture, causing permanent film skewing.



Clean the main **Platen surface**, focusing on tracking grooves and vacuum suction holes.

Wipe both metal **Media Clamps**. Ensure the undersides are completely free of ink residue so they do not snag film edges.



Carefuly wipe the area **around the Wiper Tray** to remove film shavings generated during trimming cycles.

- **Dry & Close:** Use a separate dry lint-free cloth to remove remaining moisture. Close all covers. Reload media only when the path is entirely dry.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6.2 WEEKLY MAINTENANCE

Scheduled deep-cleaning to prevent hardware failure.

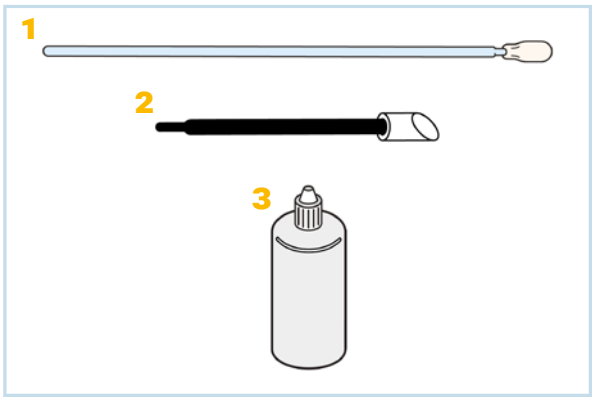
Timing	Action	Machine	Technical Note
Weekly (Following the message)	Perimeter Cleaning	PRINTER	Execute [Nozzle Guard/Cap Cleaning]. Use sticks and solution to clean Nozzle Guards, Cap Tops, and Flushing Frames. *(See paragraph 6.2.1)*
Weekly	Surface Deep-Clean	BOTH	Thoroughly clean all exterior system surfaces to prevent dust and powder ingress.
Weekly	Full Powder Purge	SHAKER	Remove all powder from the shaker. Clean the powder box and cycling path of any clumps or contaminants. *(See paragraph 6.2.2)*
Weekly	Stock Rotation	PRINTER	Flip all white ink pouches in storage 180° to prevent pigment hardening.

6.2.1 MAINTENANCE PART CLEAN

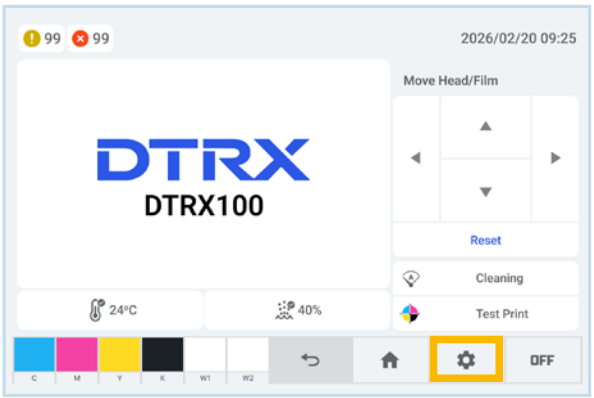
Before beginning, ensure you are wearing vinyl gloves, long sleeves, and protective goggles.

The 30-Minute Rule:
Finish the process in 30 minutes or less.
Leaving print heads exposed longer causes nozzles to dry out and clog permanently.

REQUIRED TOOLS:



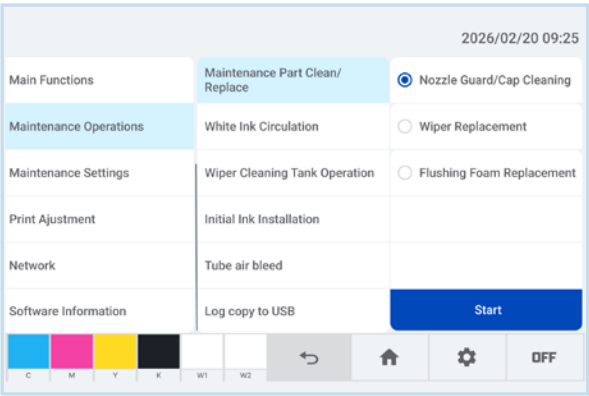
1. **Cleaning Stick T:** For Cap Tops and Flushing Frames
2. **Cleaning Stick R:** For Nozzle Guards
3. **Mini Bottle** filled with cleaning solution.



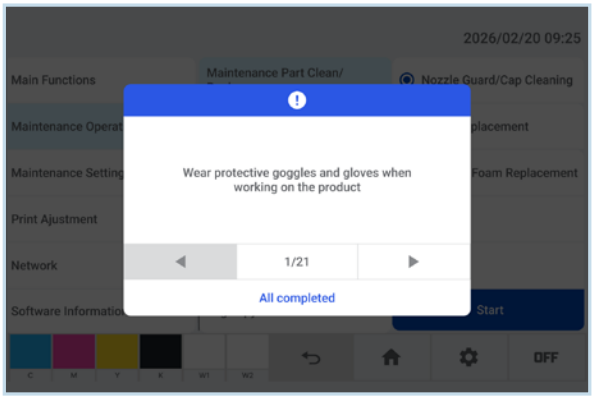
Open the **Settings Menu**.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

CAPPING UNIT MAINTENANCE (RIGHT SIDE):

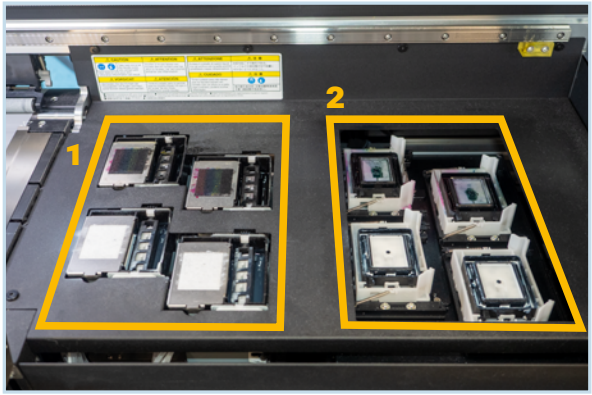


Go to **[Maintenance Operations] > [Maintenance Part Clean/Replace] > [Nozzle Guard/Cap Cleaning],** then press **[Start].**
Wait for the carriage to move to the far left.



Step-by-step instructions will appear on the screen. Be sure to follow each step in the procedure.

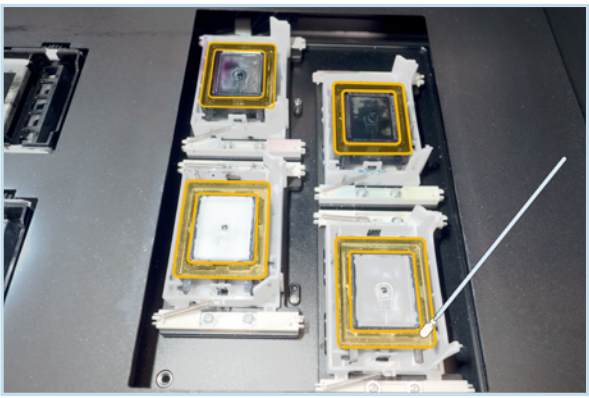
Raise the **Upper Right Cover** to access the Capping Unit and Wiper Unit.



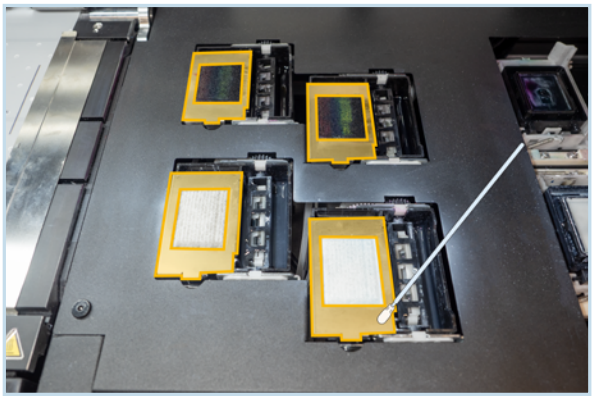
1. Wiper Unit
2. Capping Unit

Prep Cleaning Stick T: Dip the tip of Cleaning Stick T lightly into the cleaning solution inside the small cup.
Press the foam tip gently against the inner wall of the cup to squeeze out any excess liquid.

NOTE: The stick should be damp, not dripping wet, to prevent excess fluid from pooling in the capping station. ***Do not use the same stick for the white and color Caps or Flushing Frames.***



Clean Cap Tops: Gently wipe the **top rubber edges (orange highlight)** of both the color and white print head caps to remove all crusty ink build-up. Do not pinch or deform the rubber.



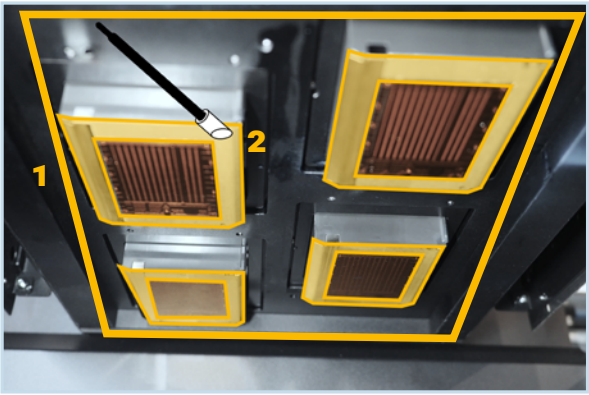
Clean Flushing Frames: Use the same Stick T to clean ink residue off the **plastic frames (orange highlight)** surrounding the flushing foam inserts.
Discard the stick.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

PRINT HEAD UNIT MAINTENANCE (LEFT SIDE):

Close the right cover and open the printer's **Left Cover.**

Prep Cleaning Stick R: Dip a new Stick R lightly into the cleaning cup, removing excess fluid against the inner wall.



1. Locate the Color and White ink print heads.
2. Gently wipe the metallic **Nozzle Guard plates (orange highlight)** surrounding the head boundaries with the Stick R.
Do not use the same stick for white and color print heads.

CRITICAL WARNING: Never touch, rub, or press the delicate black nozzle face itself. Clean only the surrounding metal plate. Discard the stick.

Reset System: Close the left cover. Press **[All Finish]** on the touch panel.
The carriage will return to the right and run a brief automatic refresh cycle.

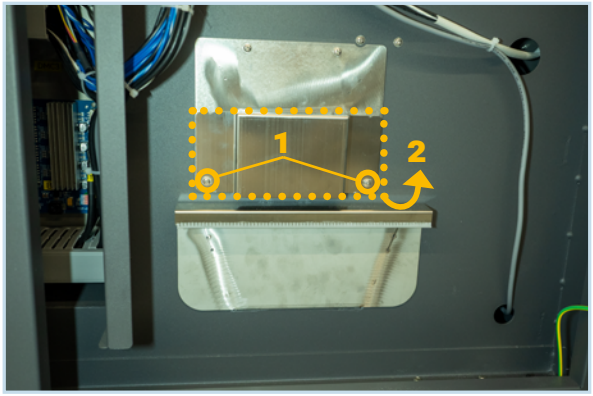
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6.2.2 FULL POWDER PURGE

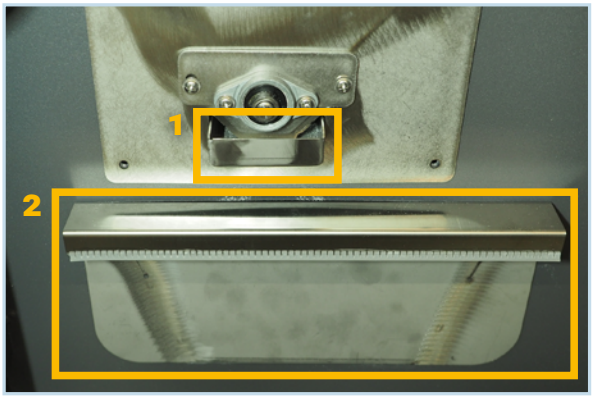
Before beginning, ensure you are wearing vinyl gloves, long sleeves, and protective goggles.

- **Perform this procedure after production is completed.**
- **Keep the Powder Shaker powered on during the entire procedure.**
- **Wait until the shaker cools down to below 60 °C before start the procedure.**

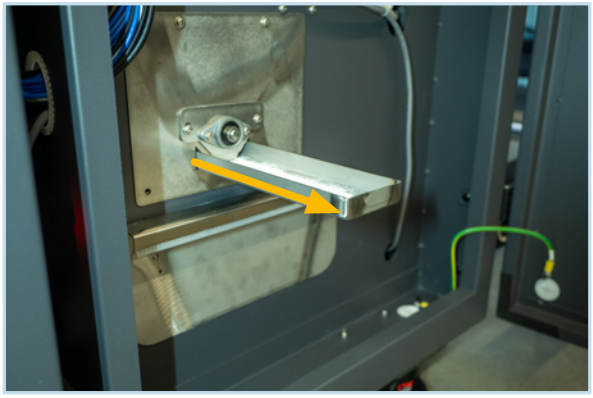
Open the door on the right side of the printer.



1. Unscrew 2 screws
2. Remove the cover below the winding system to access the small collection tray.

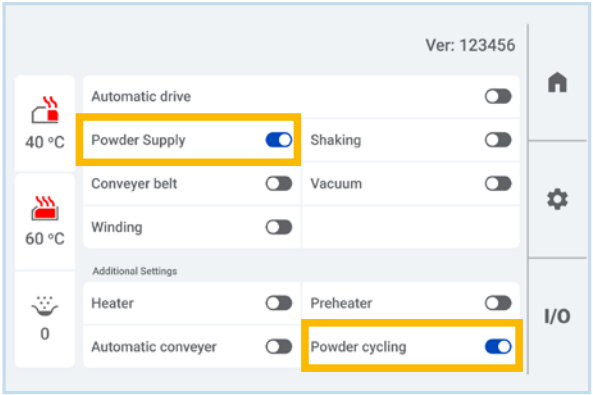


1. Small tray
2. Large tray

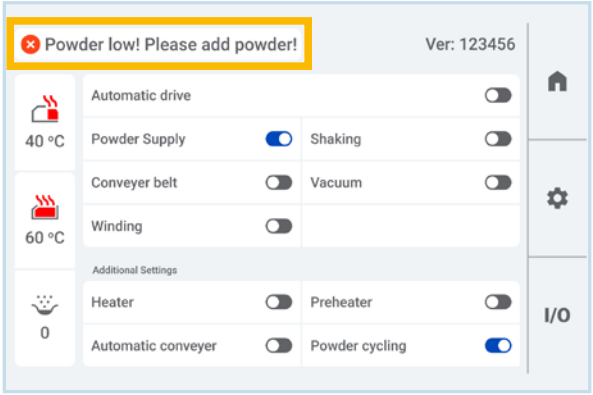


Remove the small tray and clean out all powder. Do not put the tray back.

- Allow the powder to move into the big tray.



On the touchscreen, enable **[Powder Supply]** and **[Powder Cycling]**.

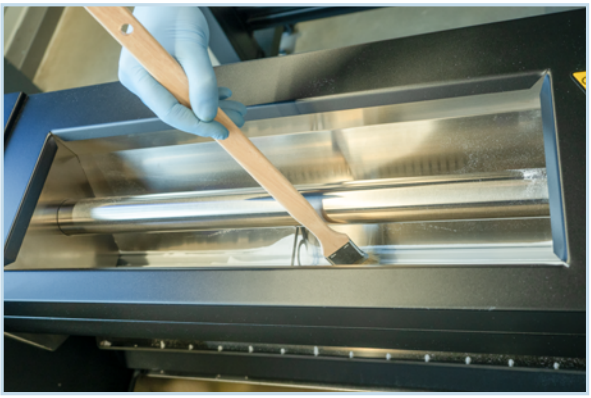


When the message **„Powder low! Please add powder!“** appears, switch **[Powder Supply]** OFF and then ON again.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

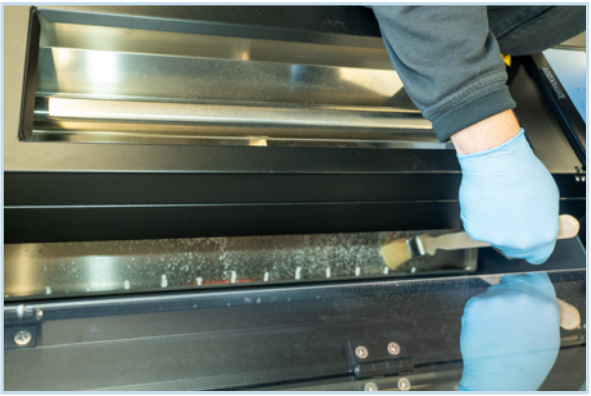
▶ Repeat it each time the message appears until the Powder Supply box is empty.

Note: This message appears because no film is loaded and the sensor cannot detect sufficient weight.

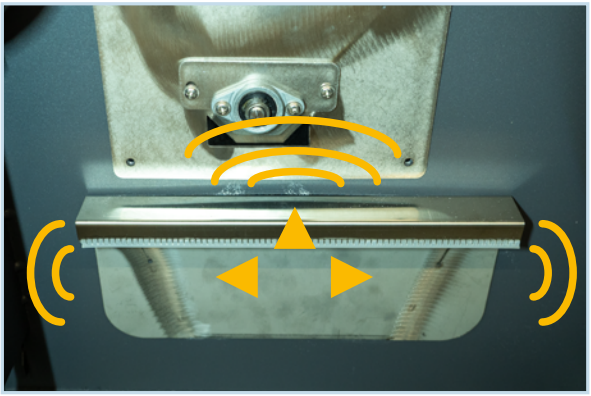
▶ 

Use a brush to sweep the remaining powder in the Powder Supply area downwards to the bottom.

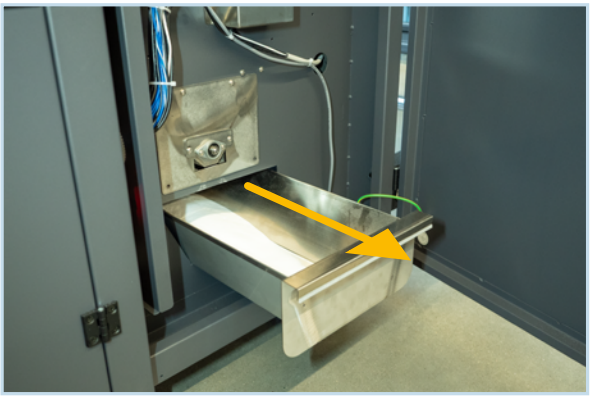
▶ Enable **[Powder Supply]** on the touch screen again to move the brushed powder into the collection tray.

▶ 

Brush the powder sliders thoroughly to remove all remaining powder.

▶ 

Gently shake the large powder tray to distribute the collected powder more evenly.

▶ 

Remove the large powder tray.

▶ **! Sift the powder through a sieve into a clean, dry and airtight container to protect it from moisture.**
Dispose of any impurities and lumps caught in the sieve.

▶ Reinstall powder trays and all covers after cleaning is complete.
Note: Make sure trays are pushed all the way in.

▶ Turn OFF the Powder Shaker.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6.3 MONTHLY MAINTENANCE

Component replacement and long-term health checks.

Frequency	Action	Machine	Technical Note
Monthly	Fluid Health Check	PRINTER	Refill cleaning liquid to the „Full“ line. Verify the fluid has not expired. (*See paragraph 3.2*)
Monthly	Powder Refresh	SHAKER	If clumping occurs, completely empty and clean the box; replace with fresh powder.
As Notified	Wear Parts Replacement	PRINTER	Replace Wiper and Flushing Foam immediately when the „Replacement“ message appears. (*See paragraph 6.3.1*)
3–6 Months	Filter Replacement	SHAKER	Replace the Activated Carbon Filter and HEPA Filter. Replace sooner if smoke or odor is noticeable. (*See paragraph 6.3.2*)

6.3.1 WEAR PARTS REPLACEMENT

Before beginning, ensure you are wearing vinyl gloves, long sleeves, and protective goggles.

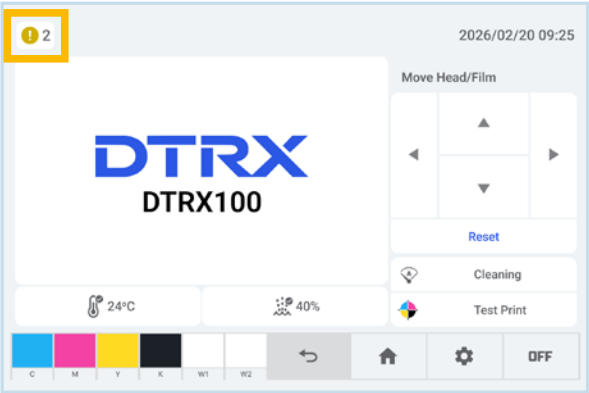
The 30-Minute Rule:
Finish the process in 30 minutes or less.
Leaving print heads exposed longer causes nozzles to dry out and clog permanently.

PARTS:

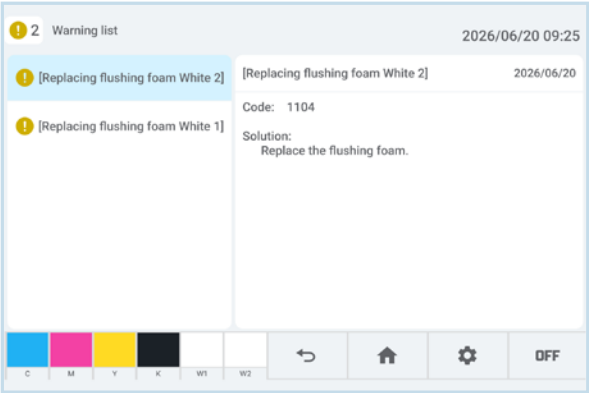
Wipers

Flushing Foams

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

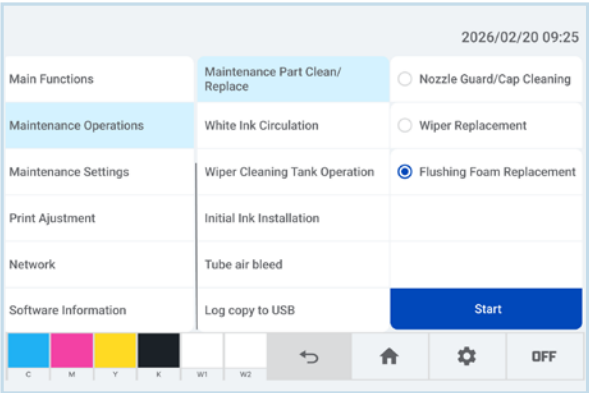


Press on the notification icon to see the message.



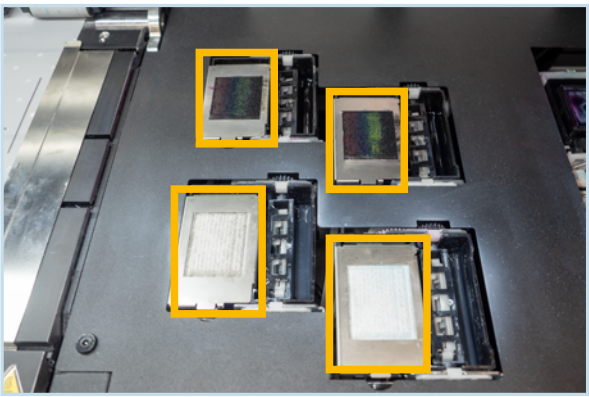
Read the message and follow the instructions

REPLACING THE FLUSHING FOAM

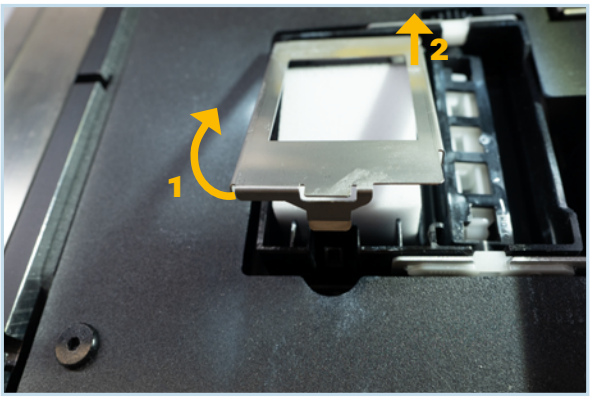


On the printer touch panel, go to **[Maintenance Operations] > [Maintenance Part Clean/ Replace] > [Flushing Foam Replacement]**, then press **[Start]**. Wait for the carriage to move to the maintenance area.

Raise the **Upper Right Cover** to access the wiper unit.

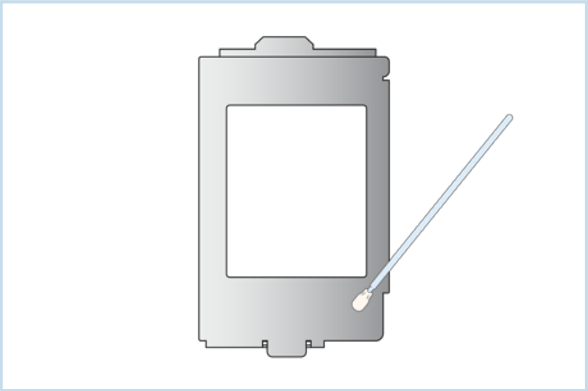


Locate the **Flushing Boxes** on the Wiper Unit.

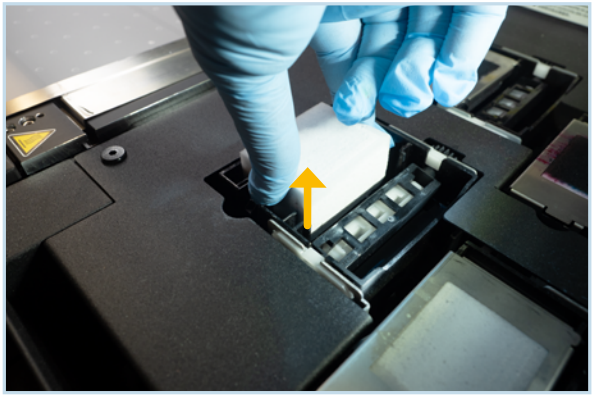


1. Detach the front side of the plate.
2. Remove the **Metal Plate** covering the flushing foam.

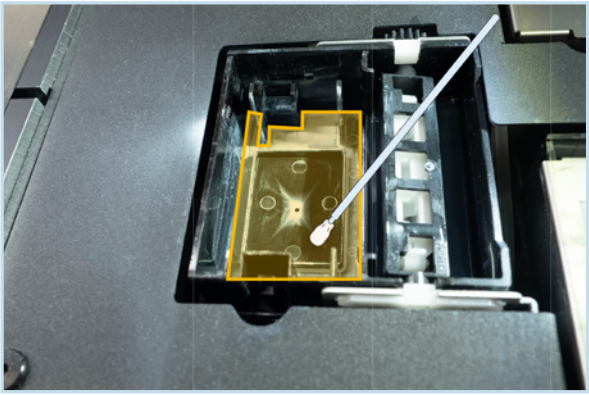
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany



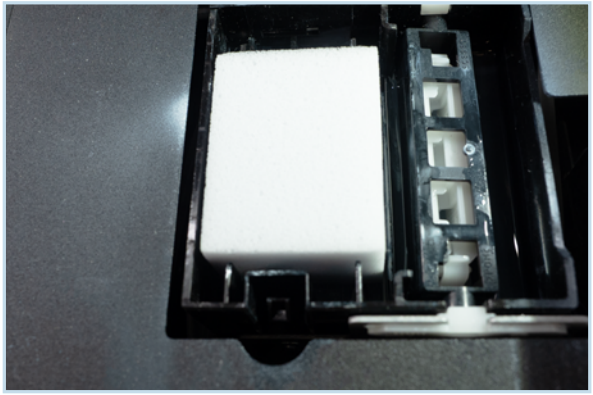
Using the Cleaning Stick T and cleaning solution clean the plate from the both sides.



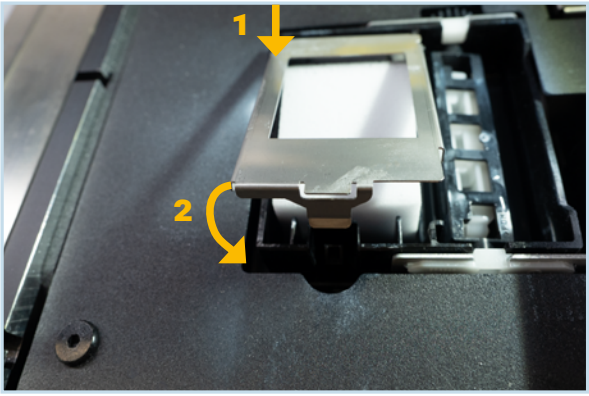
Use a gloved hand to lift the old, ink-saturated **Flushing Foam** out of its plastic frame tray. Discard it.



Clean the wiper box using the Cleaning Stick T



Take a fresh **Flushing Foam** piece, orient it flat, and press it firmly down into the plastic tray slot. Ensure it sits completely level and below the plastic frame rim.



Reinstall the Metal plate:

1. Attach the back side of the plate.

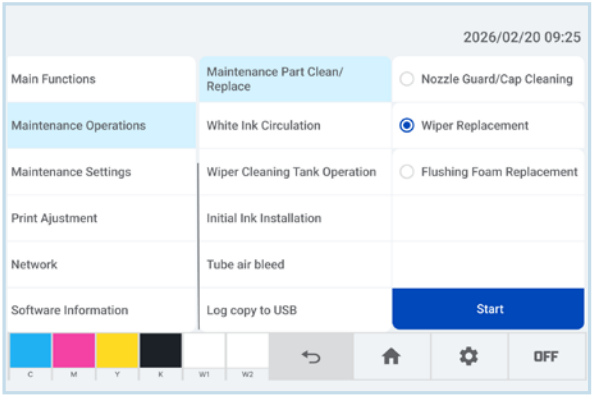
2. Then the front side.

If necessary, replace other **3 Flushing Foam** in the same way

Last step is: Pour all cleaning solution of the mini cleaning solution bottle onto the flushing foam.

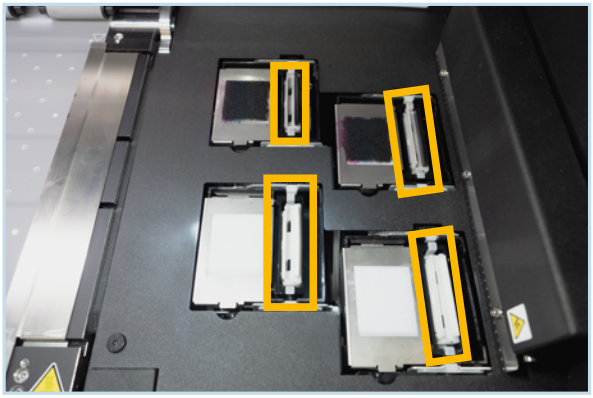
10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

REPLACING THE WIPER

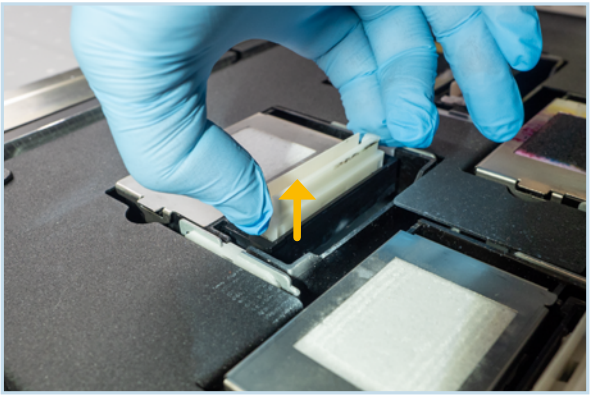


On the printer touch panel, go to **[Maintenance Operations] > [Maintenance Part Clean/ Replace] > [Wiper Replacement]**, then press **[Start]**.
Wait for the carriage to move to the maintenance area.

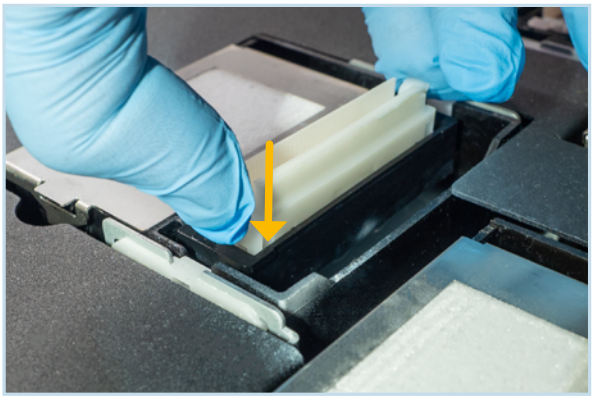
Raise the **Upper Right Cover** to access the wiper unit.



Find the flexible rubber **Wiper** assemblys on the Wiper Unit.



Gently squeeze the locking tabs on the sides of the plastic wiper holder base and pull the assembly straight up and out of its mounting track. Discard it.



Unpack the new Wiper from the pack.
Lock in Place: Align the bottom tabs with the mounting slot and push down until it clicks into place.

If necessary, replace other **3 Wipers** in the same way

Reset System: Close the upper right cover.
Press **[All Finish]** on the touch panel.
The carriage will return to its home position and run an automatic setup cycle to register the new wear parts.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6.3.2 SHAKER/HEATER FILTER REPLACEMENT

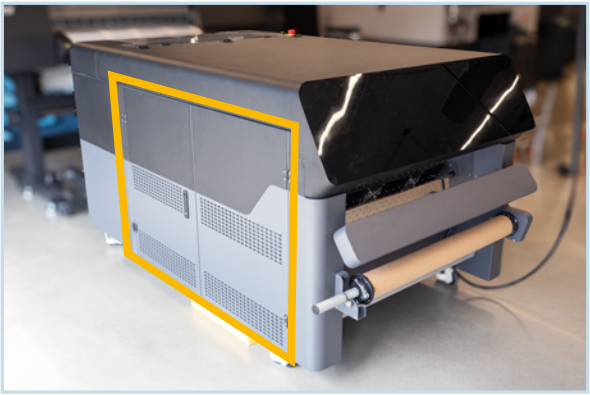
Before beginning, ensure you are wearing vinyl gloves, protective eyewear, and a safety mask to protect against loose powder and oil vapor residues.

PARTS:

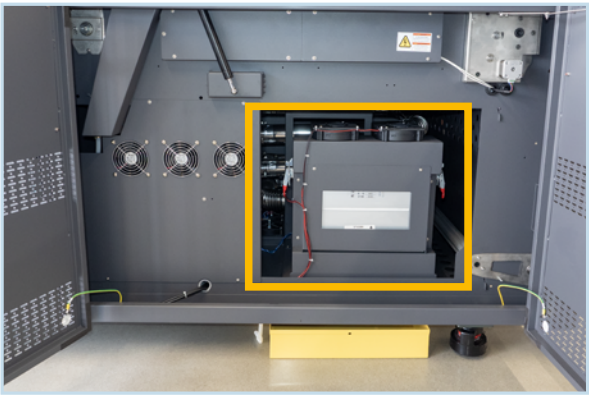
1x HEPA Filter

1x Activated Carbon Filter

Turn off the shaker's main power switch.



Open the maintenance panel door located on the left side of the machine to access Filters



Locate the Filter System

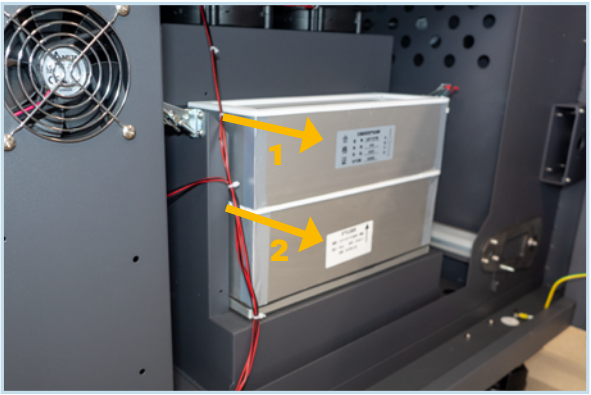
Remove the metal cover by unscrewing the **6 screws**

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

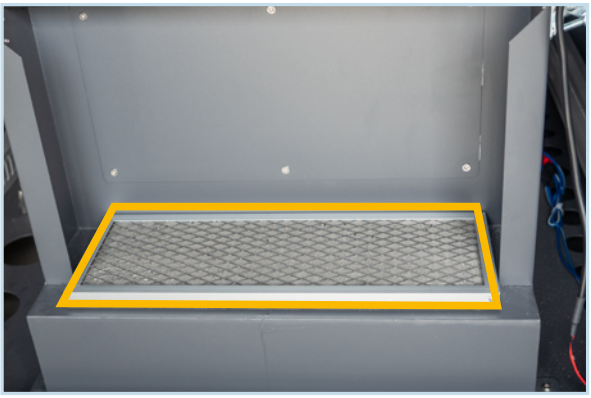
Disengage the quick-release toggle fasteners on the left and right sides of the exhaust duct fan unit.

Carefully slide the fan unit backward and set it down gently.

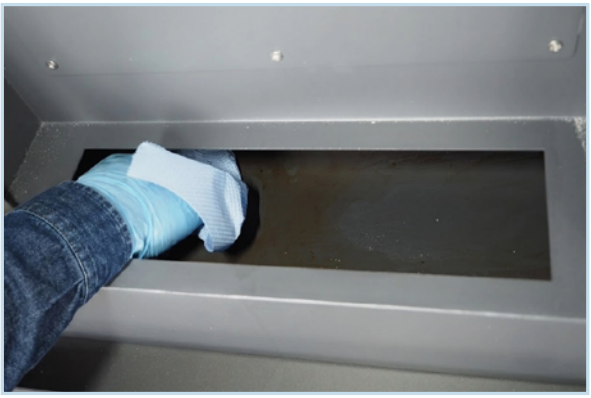
WARNING: Do not pull or strain the electrical wire harness connected to the fans, or you will damage the motor link.



1. Pull out the old **HEPA Filter**
2. Pull out the old **Activated Carbon Filter**



Inspect the **Permanent Mesh Pre-filter** at the very bottom. Pull it out and wipe any oil accumulation off it with a clean rag.



Clean the oil tank under the filters from waste oil with a dry rag or paper towels.

Stack and insert the filters into the slot in the exact required order:
1. **Clean Permanent Mesh Pre-filter on the bottom**
2. **New Activated Carbon Filter**
3. **New HEPA Filter placed directly on top.**

Reassemble & Close:
1. Slide the fan unit back into position,
2. Fasten both side toggle clamps
3. Reattach Metal cover back
4. Close the side panel door.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

6.4 PERIODIC MAINTENANCE (3-6 MONTH)

Component replacement and long-term health checks.

Issue	Action	Machine	Technical Note
Persistent Gaps	Powerful/Super Clean	PRINTER	Use via panel if dot drop-out persists after 2-3 normal cleanings. Warning: High ink consumption
Total Head Fail	Tube Air Bleed	PRINTER	Perform if the head stops firing. Note: Air bubbles in the lines are not visible to the operator.
Low Opacity	Wh-Ink Circulation	PRINTER	Run [Normal] or [Powerful] circulation if white ink remains translucent after agitation.

7 CONSUMABLES

▶ **Before installation, the customer must purchase and have all consumables required for initial startup, testing, and first production.**

	Description	Quantity	Order Number
C	DTR1C01-700 - DTF Cyan 700ml	1	5WSF1C72112
M	DTR1M01-700 - DTF Magenta 700ml	1	5WSF1M72112
Y	DTR1Y01-700 - DTF Yellow 700ml	1	5WSF1Y72112
K	DTR1K01-700 - DTF Black 700ml	1	5WSF1K72112
W	DTR1W01-700 - DTF White 700ml	2	5WSF1W72122
CS	WC1-40E 4L Cleaning Solution	4 L	BWCLB1E004L0041
	Film 80cm Roll	1	
	Powder	3 Kg	

Note: Only approved consumables may be used.
Use of non-approved consumables may affect print quality, reliability, or warranty.

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany

brother
at your side

Brother BASE - Your download area

If Firmware Updates, Graphics Lab or Cookbooks, at **Brother BASE** you can find all the knowledge and apps you need for a convinient expirience with your industrial printer from **Brother**. You will also find driver, apps, third-party manuals, TIP-Sheets, certificates and more.

https://base.brother.digital

TSC

Brother Technical Support Center - Knowledge Base

The Brother Technical Support Center is a central hub where technicians can access real-time, constantly updated troubleshooting guides, step-by-step instructions, cookbooks, and official product manuals, ensuring they always have the most fresh information at their fingertips.

https://brother.zohodesk.eu/portal/en/home

myze

Myze – On demand made easy
Sell more and produce more efficiently with the cloud platform for the on-demand market. Developed by Brother EMEA.

Do you want to produce more efficiently? Would you like to be able to create your own products quickly and always have an overview of all key figures? Then **Myze** is the solution. **Myze** supports **Brother** direct to garment printers with DTG and DTF, Embroidery and mug sublimation printing. **Myze** is the platform for Production Workflow, the connector to Online shops and Marketplaces and Analytics.

https://myze.brother.digital

Publisher of this document:
Brother Internationale Industriemaschinen GmbH
Düsseldorfer Straße 7-9
46446 Emmerich am Rhein
Germany

https://brother-ism.com/

10.2026/v8/DTRX100_COOKBOOK/©rother Internatiionale Industriemaschinen GmbH, Germany