

# HP DesignJet Z6dr & Z9+dr 44-in PostScript Printer Vertical trimmer User Guide



## Introduction

For the first time in the large format printing industry, HP has introduced an embedded vertical trimmer in the HP DesignJet Z6dr and Z9+dr printers. This brand-new asset has changed the way to print and has elevated the printing experience to another level of simplicity: with one single device, you will be able to print and trim simultaneously.

In this document you will find all the necessary information about the vertical trimmer and how to use it, as well as basic troubleshooting steps to solve any issues that might appear.

This document applies to the following printer models:


- HP DesignJet Z6dr 44-in PostScript Printer with Vertical trimmer
- HP DesignJet Z9+dr 44-in PostScript Printer with Vertical trimmer

## Summary

1. How to enable/disable the vertical trimmer with the available printing solutions
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  - 1.2. HP Click
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  - 1.4. HP Certified RIPs
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  - 2.2. Media waste management
3. Unsupported vertical trimmer use cases
4. Basic troubleshooting advice
5. Vertical Trimmer Calibration

## 1. How to enable/disable the vertical trimmer with the available printing solutions

The Vertical trimmer can be enabled/disabled by default in the front panel of the printer. To do it follow these steps:

- a) Go to the front panel and select the **Settings** icon 
- b) Select **Default printing configuration > Cutters**
- c) Enable/disable the **Vertical trimmer**



**NOTE:** If the horizontal cutter is disabled, the vertical trimmer will be automatically disabled. The vertical trimmer cannot work without the horizontal cutter.

The Vertical trimmer can also be enabled/disabled from the Embedded Web Server. To do it follow these steps:

- a) Open the Web browser in your computer and enter the printer's IP address in the browser's address bar.



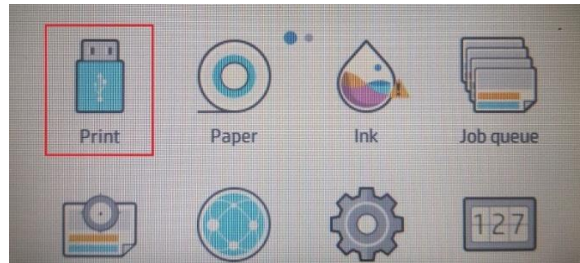
**NOTE:** Your browser may display a security warning when you enter the IP address. If you have entered the correct address, it is safe to ignore the warning and continue to access the Embedded Web Server.

- b) Go to **Settings** tab.
- c) Scroll down to find the **Output options** menu.
- d) Enable or disable the Vertical trimmer

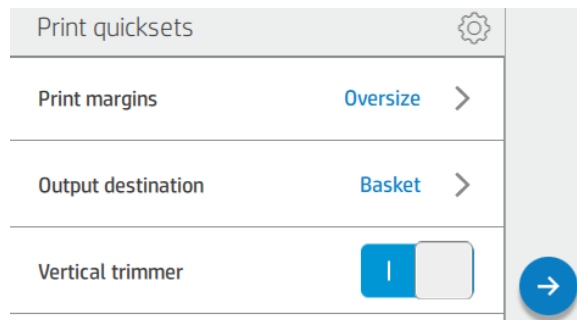
## 1.1 Printing from a USB device

When printing from a USB device (using the USB port next to the front panel), you can configure your desired job settings in the **Print** menu:

- a) Go to the front panel of the printer and select **Print**.



- b) Insert a USB device with the image that you want to print in a supported file format (TIFF, JPEG, HP-GL/2, RTL, PDF, or PostScript).
- c) Select the image that you want to print.
- d) In the list of settings, you can enable/disable the vertical trimmer just for this job:



## 1.2 HP Click

HP Click is the easiest printing path due to its simplicity.

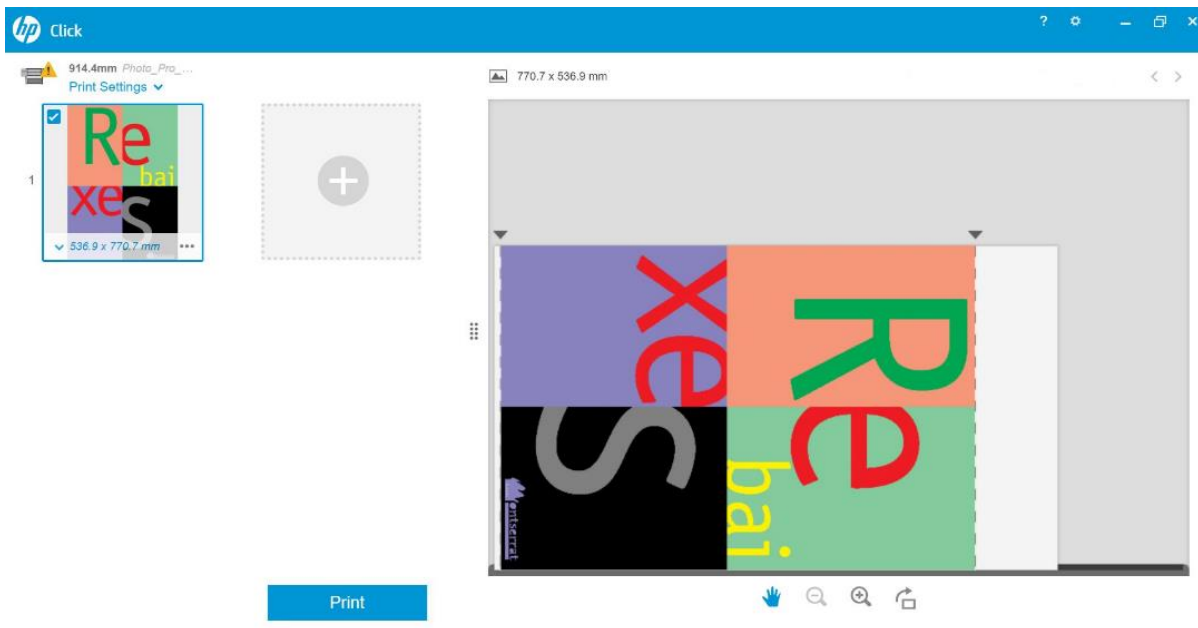
Starting with version 3.2, which will be available in April 2020, it will be possible to enable/disable the Vertical trimmer directly in the application.

With previous versions, this option is not available, and the job is printed according to the Vertical trimmer setting configured on the printer's front panel.

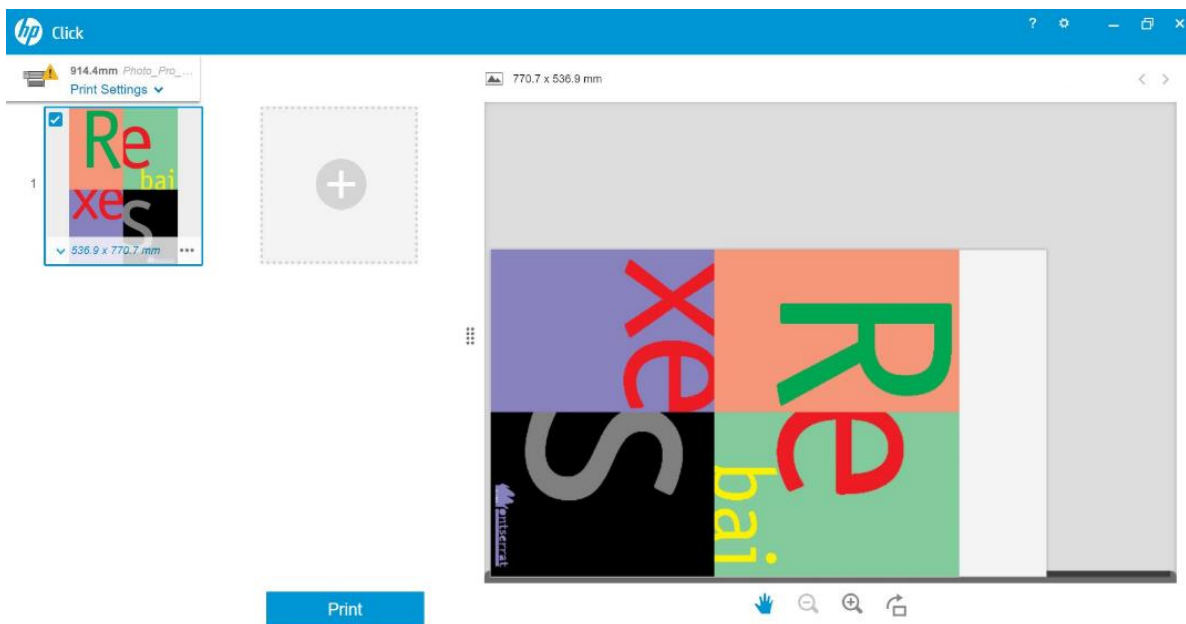
If the vertical trimmer is enabled, the HP Click preview will show the crop lines indicating where the vertical trimmer will cut.



**NOTE:** Do not confuse the crop lines mentioned above with the **Cutting lines** option. If the **Cutting lines** option is enabled, manual cutting guide lines will be printed, but these lines will not appear where the vertical trimmer will cut. Vertical trimmer and **Cutting lines** settings are not compatible.



If the vertical trimmer is disabled, the preview will not show the vertical crop lines.



### 1.3 Drivers

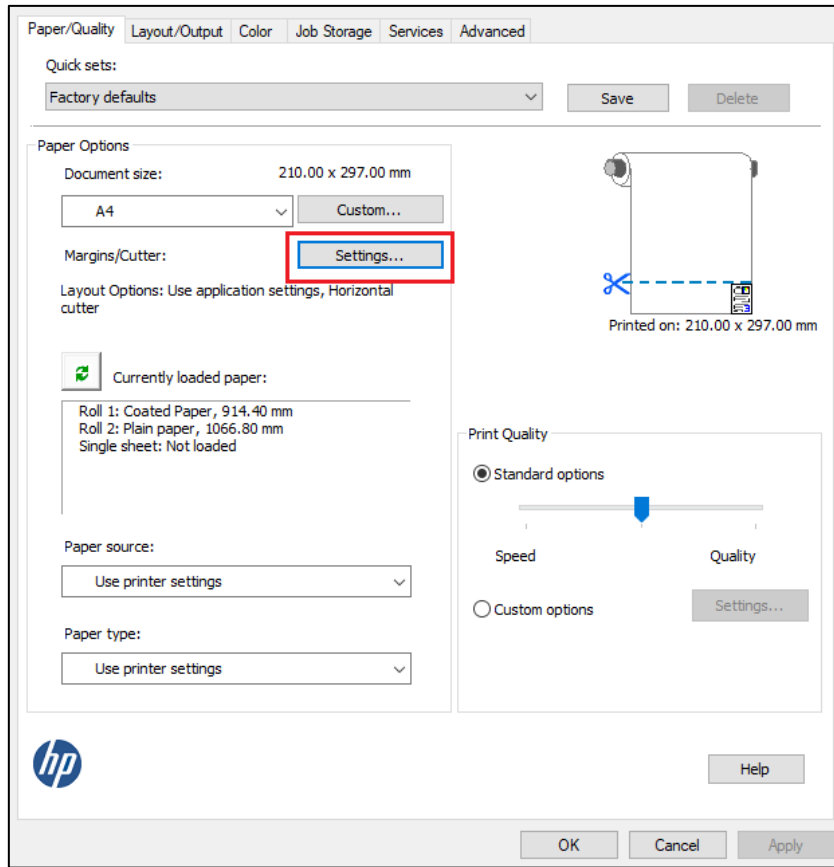
Independently of what has been set on the front panel of the printer, the vertical trimmer can be enabled or disabled for each job from the HP drivers.

The drivers available for your printer are:

- V3 drivers (Windows 7): PostScript and PCL3
- V4 drivers (Windows 8, 10): PDF and PCL3

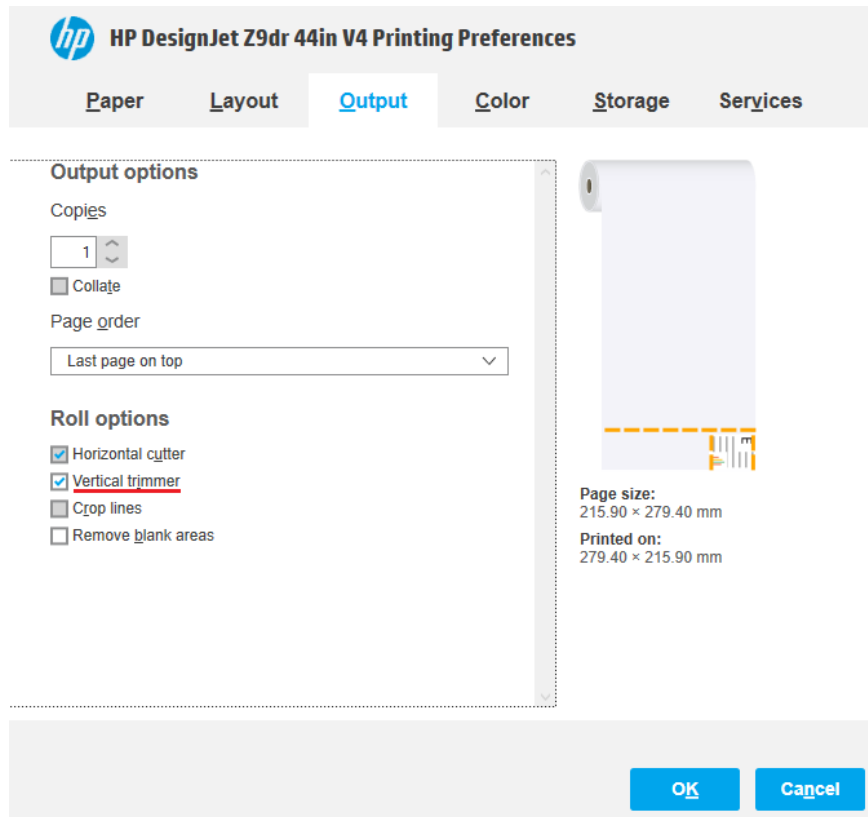
To enable the vertical trimmer from V3 drivers select the checkbox of the Vertical trimmer option found in **Layout and cutter options**.

*Paper/Quality > Settings... > Vertical trimmer*



To enable the vertical trimmer from V4 drivers check the Vertical trimmer option found under Roll options in the Output tab.

*Output > Roll options > Vertical trimmer*



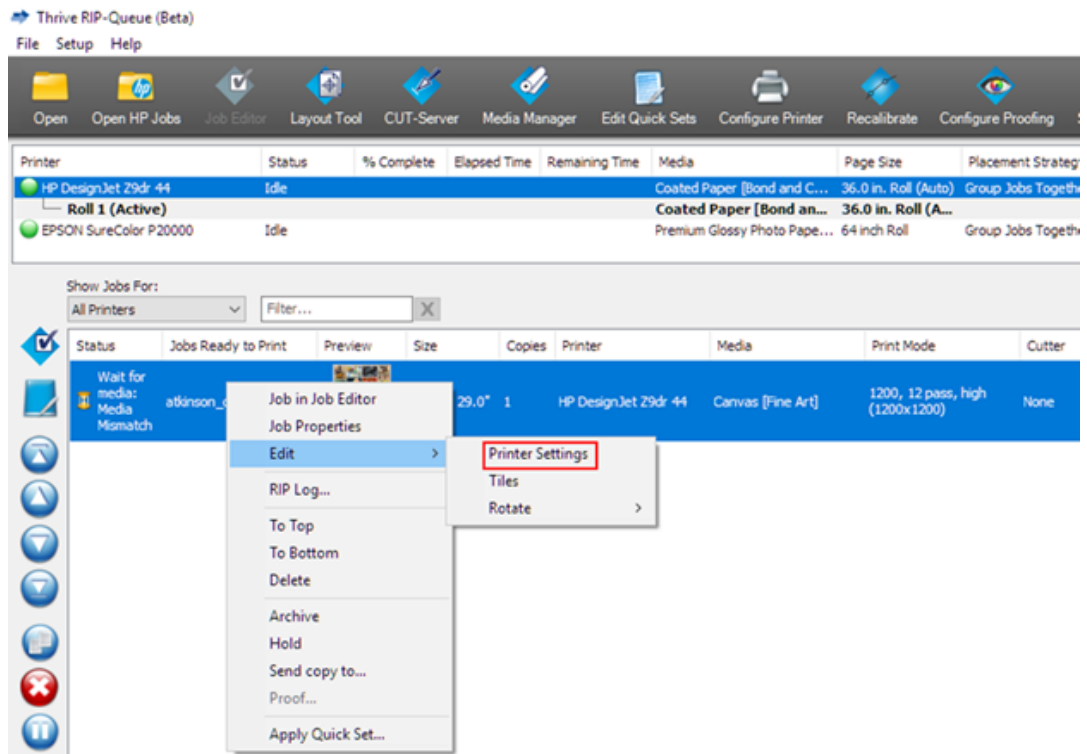
**NOTE:** When the vertical trimmer is ON, the **Crop lines** option is grayed out. This is the expected behavior. Crop lines are not needed when the vertical trimmer is used.

## 1.4 HP Certified RIPs

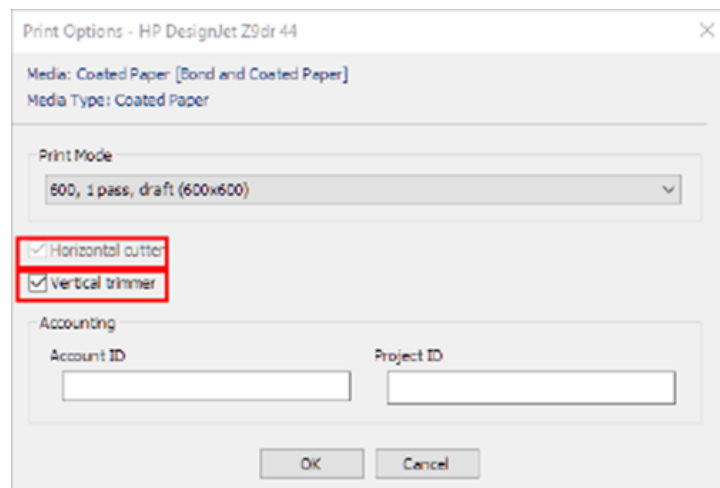
### ONYX

How to enable the Vertical trimmer:

- a) Right-click in the desired job > **Edit** > **Printer settings**.



- b) Select **Horizontal cutter** and **Vertical trimmer** (the horizontal cutter will be grayed out and enabled if the vertical trimmer is enabled).

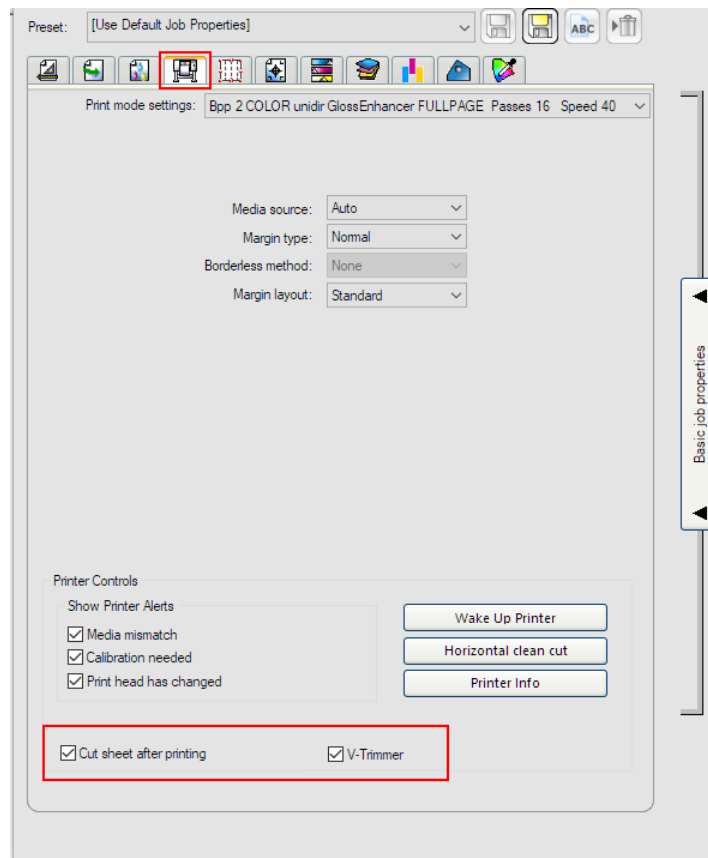
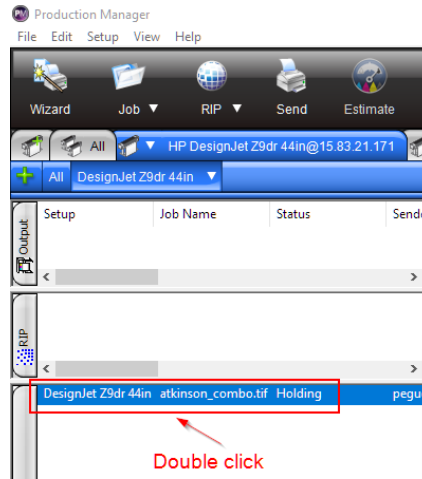


**NOTE:** In order to enable the vertical trimmer, the media must allow it. If a media that does not support vertical trimmer is chosen, the option to select it will not appear.

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How to enable the vertical trimmer:

- a) Double click on the name of the job and enable the options **Cut sheet after printing** and **Vertical trimmer**.



**NOTE:** In order to enable the vertical trimmer, the media must allow it. If a media that does not support vertical trimmer is chosen, the option to select it will not appear.



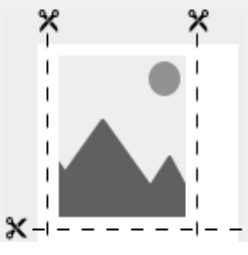
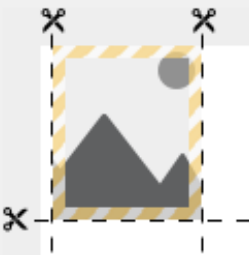
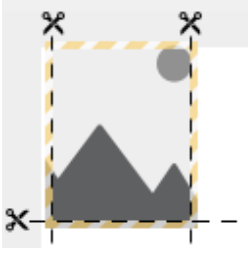
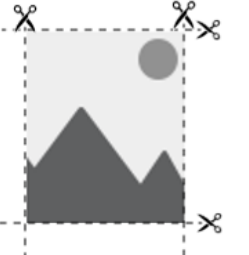
## 2. Vertical trimmer margins and media waste

### 2.1 Margins

To change **Margins** option in the different printing paths, follow these steps:

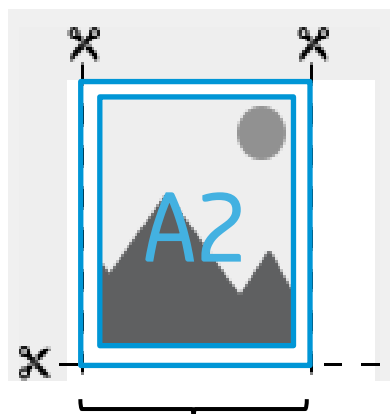
- From the Front Panel of the printer: **Settings > Default printing configuration > Margins**
- From HP Click: **Print Settings > Layout**
- From V3 drivers: **Paper/Quality tab > Paper options > Margins/Cutter > Settings...**
- From V4 drivers: **Layout tab > Layout mode > With margins / Borderless**

In this section, you will find details about the different types of margins and a graphic representation showing where the horizontal cutter and the Vertical trimmer will cut.

| Layout         | Oversize   | Clip contents by margins   | Borderless Scaling up   | Borderless Keeping scale   |
|----------------|--|--|---|--|
| <b>Margins</b> | 5 mm   | 5 mm   | None  | None   |
|                |  |  |  |  |

**Oversize:** with this setting, a margin of 5mm will be added to the original size of the image. This setting respects the scale of the original file and avoids clipping part of the job.

E.g.: if the original size of the job is A2 and this option is selected, the output size will be an A2+5 mm in all the four sides. Therefore, the scale will not be affected.



Total size of the job:

$$594 \text{ mm} + 5 \text{ mm (top margin)} + 5 \text{ mm (bottom margin)} = 604 \text{ mm}$$

$$23.39 \text{ in} + 0.2 \text{ in (top margin)} + 0.2 \text{ in (bottom margin)} = 23.79 \text{ in}$$

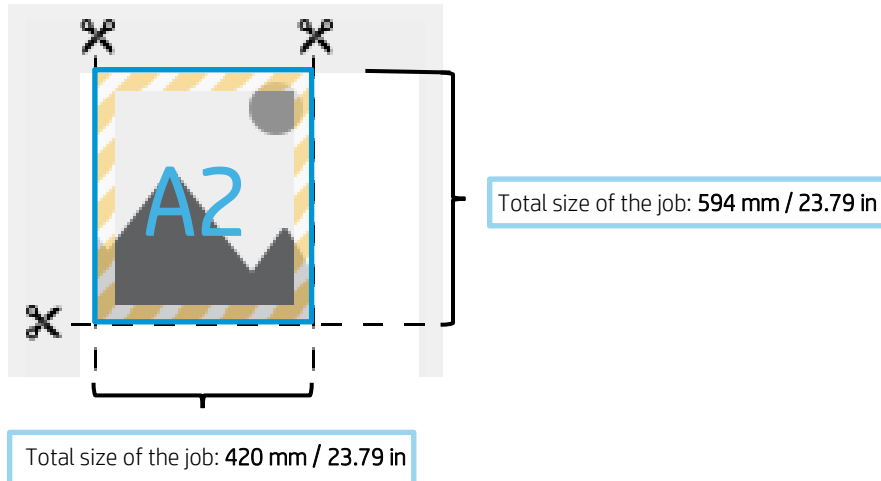
Total size of the job:

$$420 \text{ mm} + 5 \text{ mm (left margin)} + 5 \text{ mm (right margin)} = 430 \text{ mm}$$

$$16.53 \text{ in} + 0.2 \text{ in (left margin)} + 0.2 \text{ in (right margin)} = 23.79 \text{ in}$$

**Clip content by margins:** with this option, the size of the plot is not modified, but the margins of 5 mm (0.19 in) are applied into the image. If part of the image is found within less than 5 mm from the edges, it will be clipped.

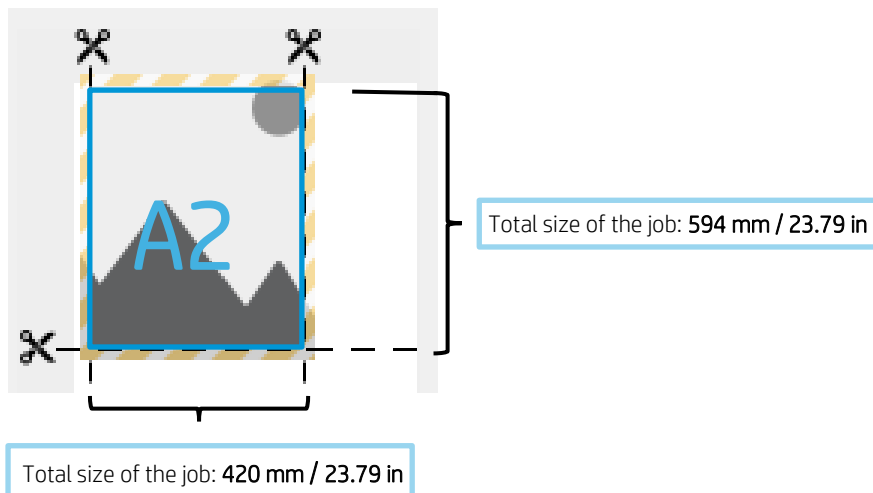
See an example below of an A2 size job:



**Borderless Scaling up:** to make sure that the final job covers all the paper and no blank areas are left in the final printout, the image is enlarged 3 mm (0.12 in) more in each of the 4 sides. Then, these 3 mm are cut with both the vertical trimmer and horizontal cutter.

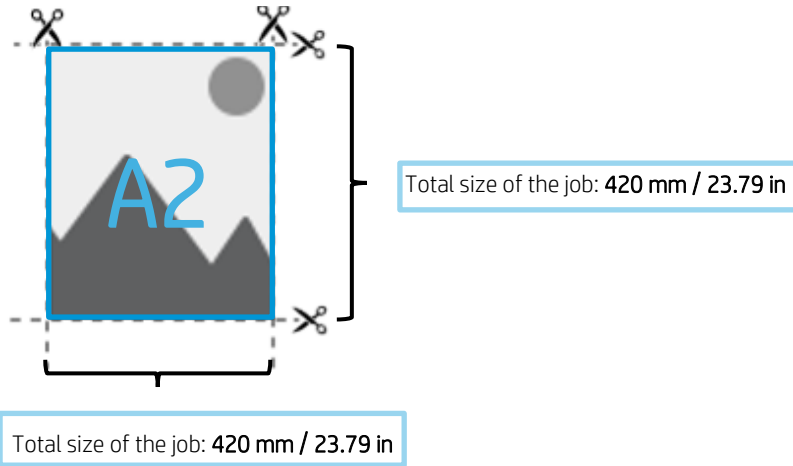
The size of the final output is the original one selected in the printing path. The scale of the image will be expanded.

See an example below of an A2 size job:



**Borderless Keeping scale:** with this borderless method, the job is printed keeping its original scale and preserving the output size. In addition, all the content is printed avoiding clipping part of the image.

See an example below of an A2 size job:



**NOTE:** The Keeping scale borderless method will be available in the future driver versions (V4 in November 2019 and V3 in June 2020).

Currently, with firmware version JGR\_06\_19\_41.2 or newer, it can be selected from the front panel of the printer. **Settings > Default printing configuration > Margins**

In the table below you will find a summary of how the different margin options affect job scaling, content, printout size and accuracy:

|                               | Oversize                                 | Clip content by margins   | Borderless Scaling up  | Borderless Keeping scale       |
|-------------------------------|--|---|--|--------------------------------|
| Preserve scale                | ✓  | ✓   | ✗<br>Original is expanded 3 mm (0.12 in) in X and 3 mm (0.12 in) Y | ✓                              |
| Preserve content              | ✓  | ✗<br>5 mm (0.19 in) at edge of original content gets blanked on all 4 edges | ✗<br>3 mm (0.12 in) get trimmed off in four sides due to expansion | ✓                              |
| Preserve paper size           | ✗<br>5 mm (0.19 in) added to all 4 sides | ✓   | ✓  | ✓                              |
| Printing and cutting accuracy | ✓  | ✓   | ✓  | Low risk of edge white stripes |

## 2.2 Media waste management

**Width with vertical trimmer enabled:** The minimum width of a trimmed paper strip is 10 mm to ensure a quality cut.



**NOTE:** In the case of nested jobs, the vertical trimmer will only trim off the sides of the media and it will not separate the jobs laying side by side. Also, both sides of the nested job have to be beyond 10 mm from each edge of the media for the vertical trimmer to operate.

**NOTE:** rubber marks from the vertical trimmer modules can appear on the waste strip of the paper. It is not an issue and will never affect the final output.

## 3. Unsupported vertical trimmer use cases

The vertical trimmer gets disabled when:

- The document width is smaller than 200 mm
- The job width is less than 20 mm from the media roll width
- The TUR (take-up-reel) is installed and enabled
- Adhesive media and non-HP (generic) canvas are loaded in the printer
- The media grammage is out of printer specifications (heavier than 500 gr/m<sup>2</sup> or lighter than 80 gr/m<sup>2</sup>)

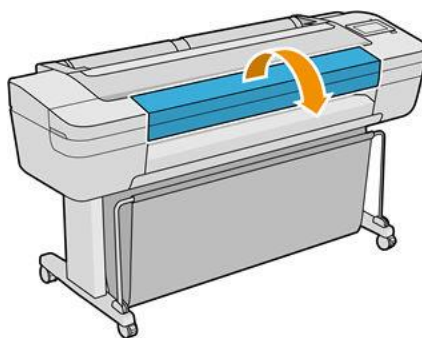
## 4. Basic troubleshooting advice

**Issue:** Vertical trimmer does not cut

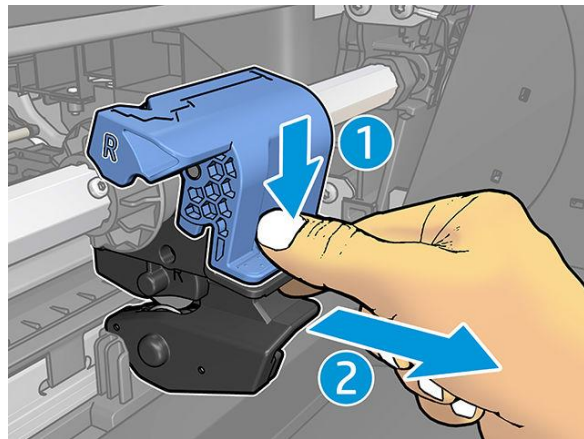
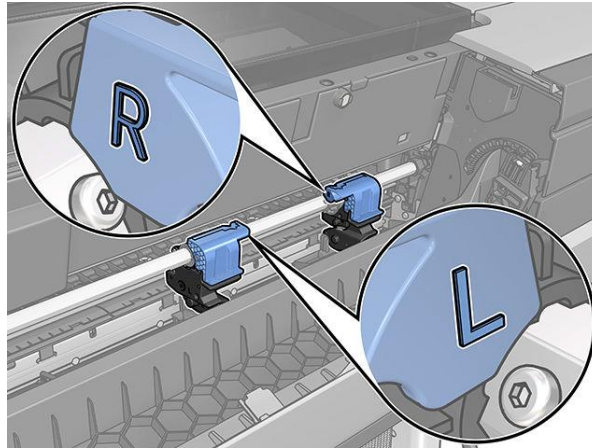
### Troubleshooting:

If the Vertical trimmer is turned on but not cutting, try these suggestions:

1. Turn off the printer at the front panel.
2. If there is a jam, open the vertical trimmer window and remove the pieces of paper from the platen.



3. If necessary, you can remove the modules from the bar and check that they are clean. To remove a module, pinch the latch and slide it out.



4. Some pieces of media could remain stuck in between the blades causing a paper jam.



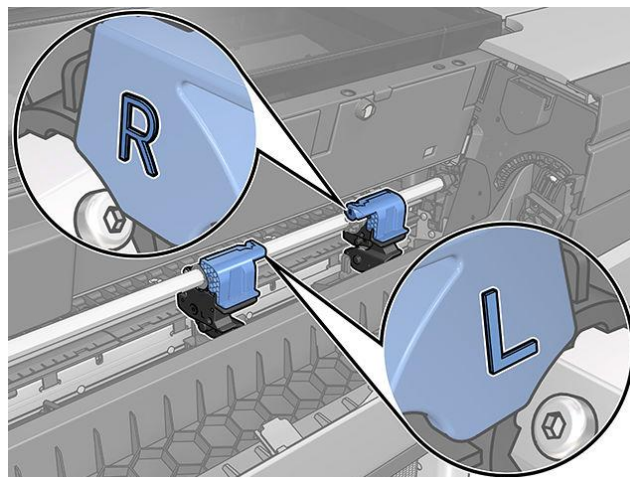
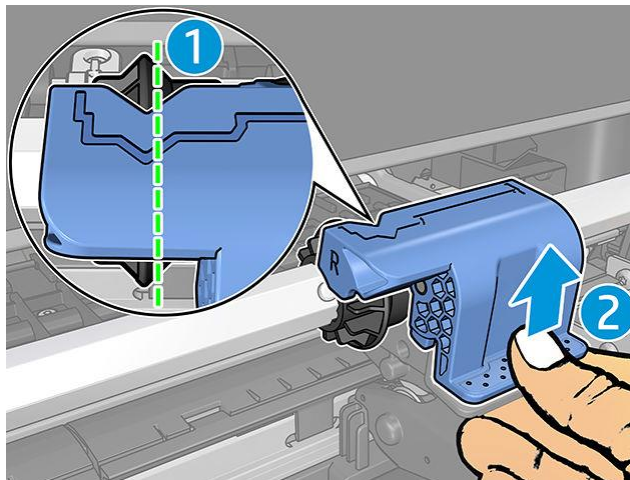
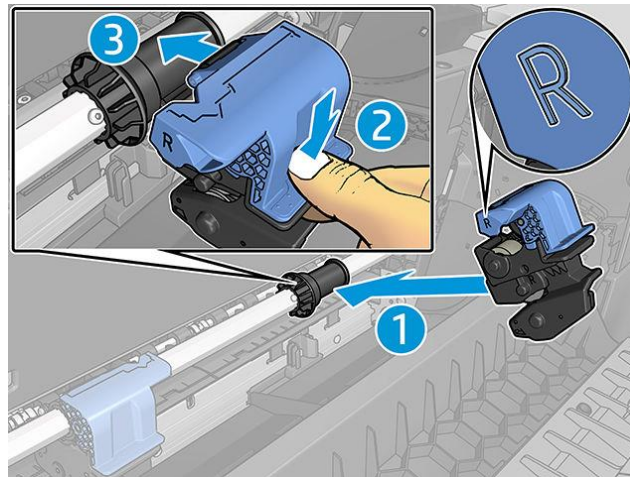
Remove any dust and pieces of paper from the modules.

5. To put a module back in place, pinch the latch and insert it into the cutter support.



**NOTE:** There is only one way to insert the modules.

**NOTE:** The cut-away blue part connects to the black plastic support in only one way.



6. Confirm that the modules are positioned correctly, then close the window.

7. Turn on the printer

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**Issue:** Some media strips could remain stuck in the modules, hanging outside the printer.

**Troubleshooting:**

1. Open Vertical trimmer cover and remove the module.
2. Remove media strip.
3. Insert the modules and close Vertical trimmer cover.



**NOTE:** Do not remove the strip directly without opening the vertical trimmer cover, it can damage the printer.

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**Issue:** Long plots could cause paper jams and Vertical trimmer issues, if the trailing edge of the plot remains in the output platen.



**Troubleshooting:** Do not stack more than 3 long plots with high ink density. When a long plot is printed, be aware of the printing process and stack printouts correctly.

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**Issue:** Some media strips could remain in the left end of the media path causing that the horizontal cutter is wrongly engaged.

**Troubleshooting:** with the printer turned off, open the top window cover, check and remove any paper strip from the left end of the media path every so often.

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**Issue:** Clean cut strip cannot fall correctly and remains in the vertical trimmer trench, causing jams.

**Troubleshooting:** review that the media used is supported and remove the strip from the trench.

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**Issue:** Pieces of media could remain in the output platen.

**Troubleshooting:** review that the media used is supported and check and remove paper strips as often as possible from the output platen with the printer turned off.

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**Issue:** System error 0070-0002-0xxx or other vertical trimmer errors

**Troubleshooting:** make sure that your printer has the latest firmware version and that the printer doesn't have paper strips blocking the vertical trimmer path. If the issue persists, call your HP support contact.

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**Issue:** Vertical trimmer leaves marks on waste paper

No troubleshooting is needed: in early use, the vertical trimmer may leave small marks on the pieces of paper that are cut off (to be discarded).

This is not a malfunction, but it is something that you may happen to notice.


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**Issue:** Vertical trimmer does not cut accurately



**Troubleshooting:** If the vertical trimmer does not cut the right and left edges of the paper accurately, you may need to calibrate the cutter.



## 5. Vertical Trimmer Calibration

To check the status of the vertical trimmer modules, go to the front panel, tap , then **Output options**, then click the vertical trimmer card. The global status of the cutter and modules will be displayed. If the status is **Calibration pending**, you should recalibrate the cutters.

### Automatic calibration:




1. From the front panel, tap , then **Output options**, then click the vertical trimmer card; tap , and then **Calibrate automatically**.
2. The printer automatically recalibrates the vertical trimmer modules, advances the paper, and cuts the paper several times. Follow the instructions on the front panel. The printer may prompt you to remove the paper from the platen.




**WARNING:** Do not insert your hands inside the print and cutting area.

### Manual calibration:

If you would like to fine-tune the calibration of the modules, you can calibrate the left and right modules manually.

1. From the front panel, tap , then **Output options**, then click the vertical trimmer card; tap , and then **Adjust trimmer modules manually**.
2. Use the buttons to move the left and right modules.
3. If you are satisfied with the recalibration, tap  to return to the home page, and reprint your job.

If you are not satisfied with the manual calibration, tap  at the top of the window, then **Restore values**.

Returning to the default calibration sets all the corrections made by the manual calibration to zero.

For additional support, please contact with your HP support representative.

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