

# How to create window graphics with the HP Latex 700 and HP Latex 800 Printer Series

This document will explain how to print on clear substrates—either self-adhesive vinyl or polyester films—to create window graphics.

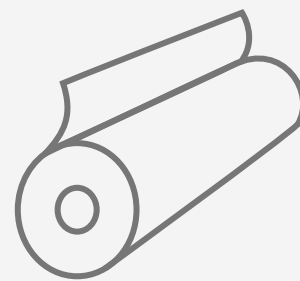
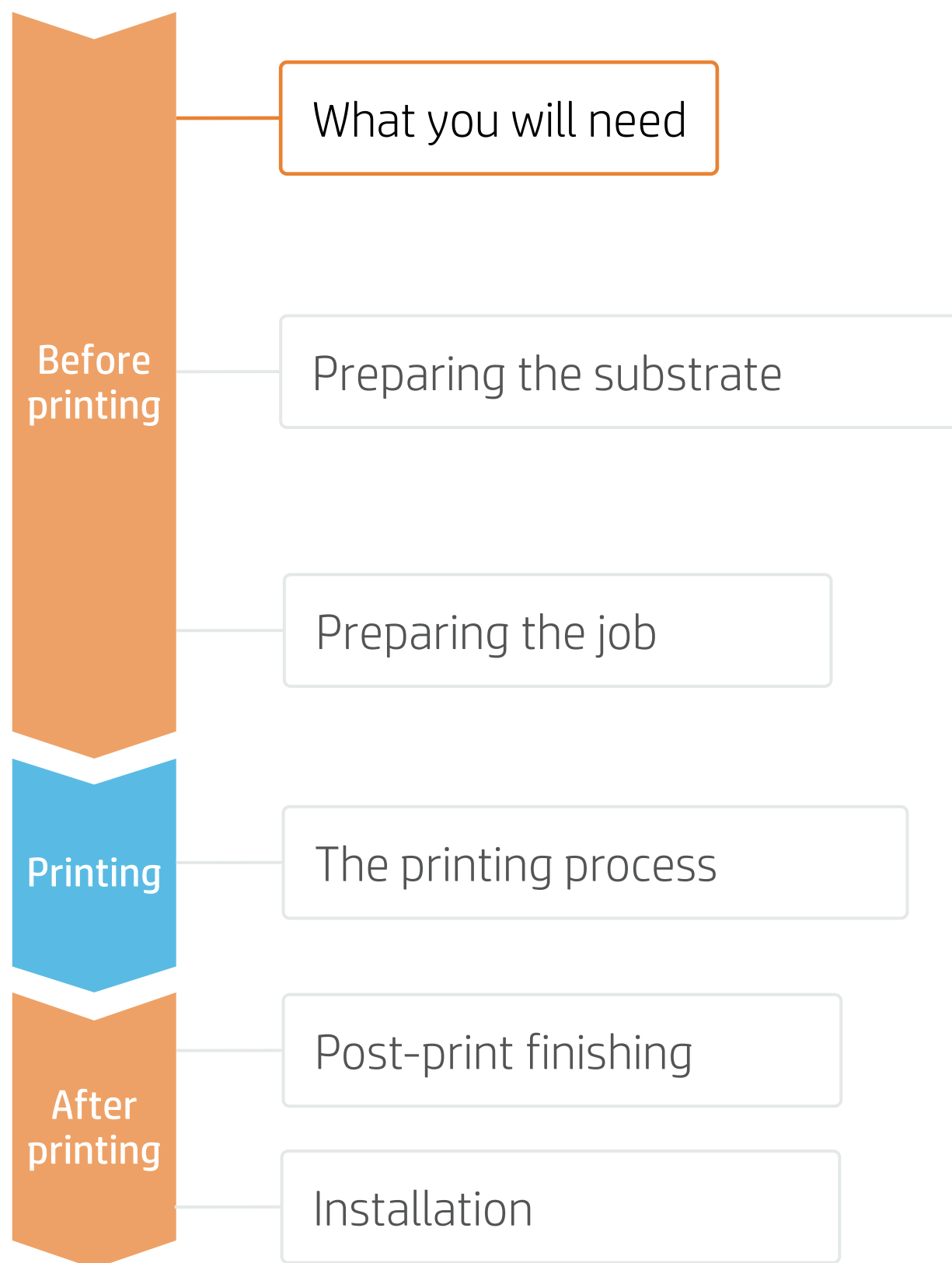
A deep-dive training about [window graphics on the HP Latex 700/800 Printer series](#) is available in the Learn App from your PrintOS account. See more details in [this article](#).





# How to create window graphics

## What you will need



Clear self-adhesive vinyl or polyester film



SW tools (RIP, editor, etc.)



Printer



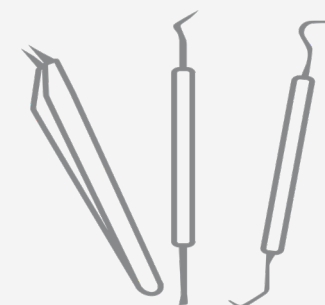
Cutting device - HP Latex Cutter Plus



Film laminate (optional)



Film laminator (optional)



Weeding tool (optional)



Transfer tape (optional)



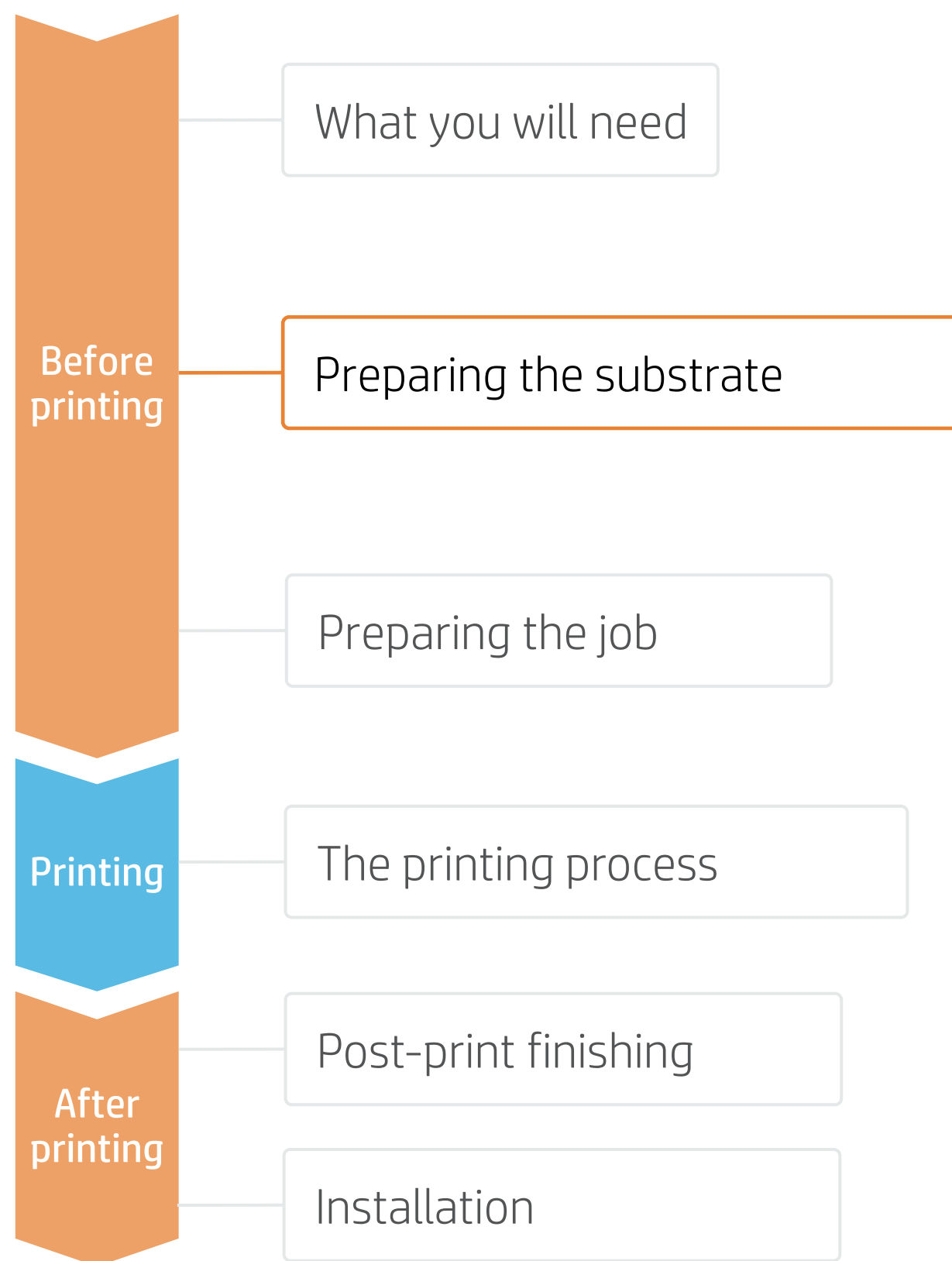
Plastic squeegee with low-friction sleeve



Water or installation fluid (optional)

# How to create window graphics

## Preparing the substrate



### 1. Types of clear self-adhesive films

#### By raw material

- Calendered monomeric
- Calendered polymeric
- Cast vinyl
- PVC-free substrates
- Polyester films (PET)\*

#### By surface finish

- Transparent gloss
- Transparent matte
- Frosted

#### By adhesive type (clear for window graphics)

- Permanent
- Removable
- Cling (adhesive free)

⚠ **IMPORTANT NOTE:** Clear PET's are generally available with 2 types of coating: a) for UV inks and b) for Solvent inks. **Latex inks are mainly compatible with PET's with coatings for Solvent inks.** We cannot guarantee full compatibility with PET's for UV inks, especially when they're applied following the wet technique.

### 2. Usage

- Normally, Clear Vinyl provides an economical solution while Clear PET has a higher transparency.
- For **mid- and long-term** uses or **high-transit areas**, it is recommended to protect the graphics with **film lamination**.

### 3. Substrate presets

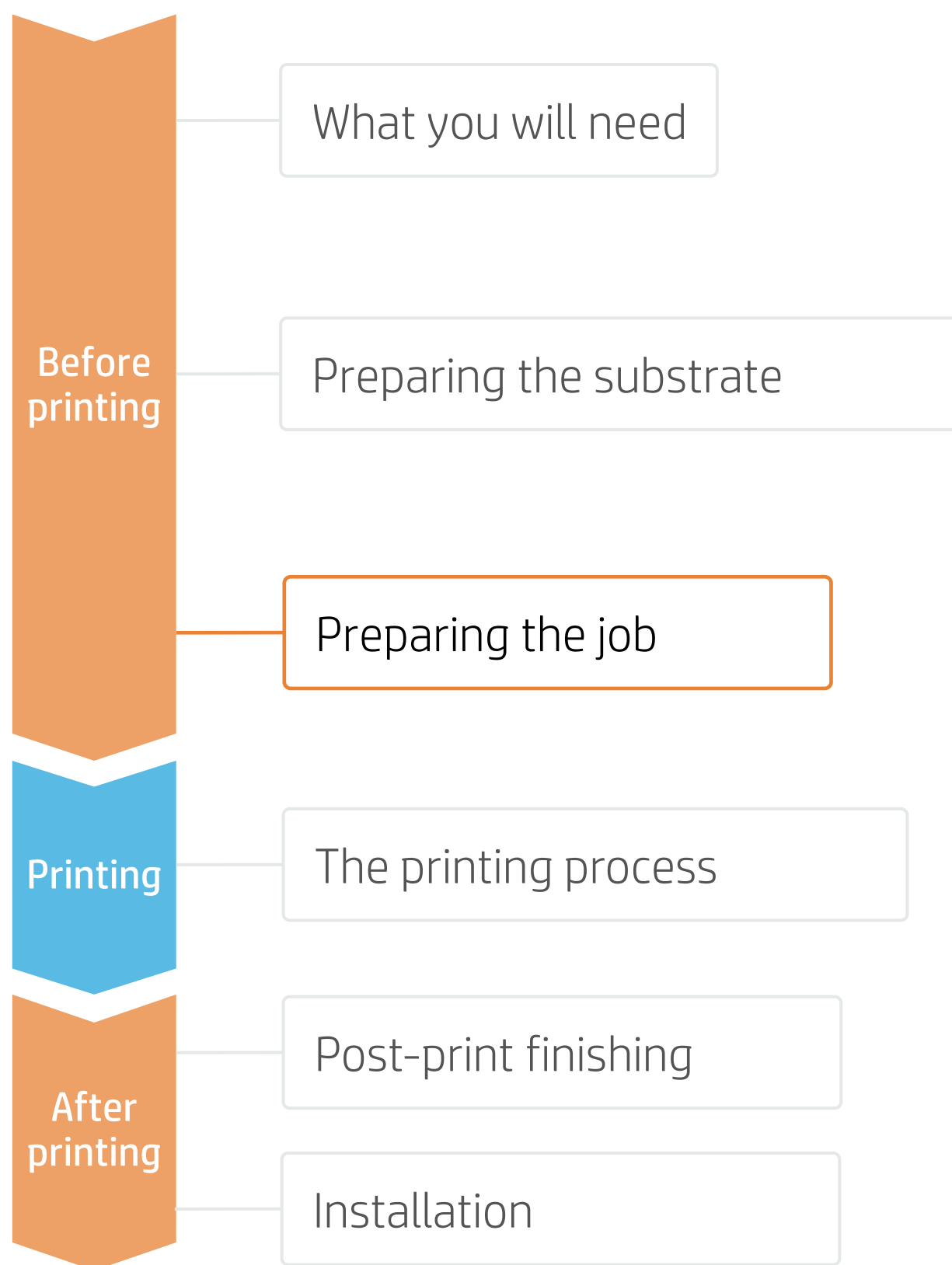
- Check that the material you are going to use has its own substrate preset:
  - a) On the **web**, in the HP PrintOS Media Locator: [www.printos.com/ml/#/medialocator](http://www.printos.com/ml/#/medialocator)
  - b) On the printer's **front panel** online search (Substrate Library)
  - c) On the **web**, from the substrate vendor's or RIP vendor's websites
- Download and install.

📄 **NOTE:** If you cannot find the substrate presets, you can always use the **generic presets for transparent self-adhesive vinyls or transparent polyester films** already installed in your printer. If you need to fine-tune some settings, clone the existing generic preset and modify it, or create a new one with the **Add new substrate** function on the front panel.

💡 **TIP:** Learn how to customize your profile by enrolling on the available training: "HP Latex 700/800 Printer series – Advanced main tasks and maintenance routines" on the [Learn with HP website](#).

# How to create window graphics

## Preparing the job



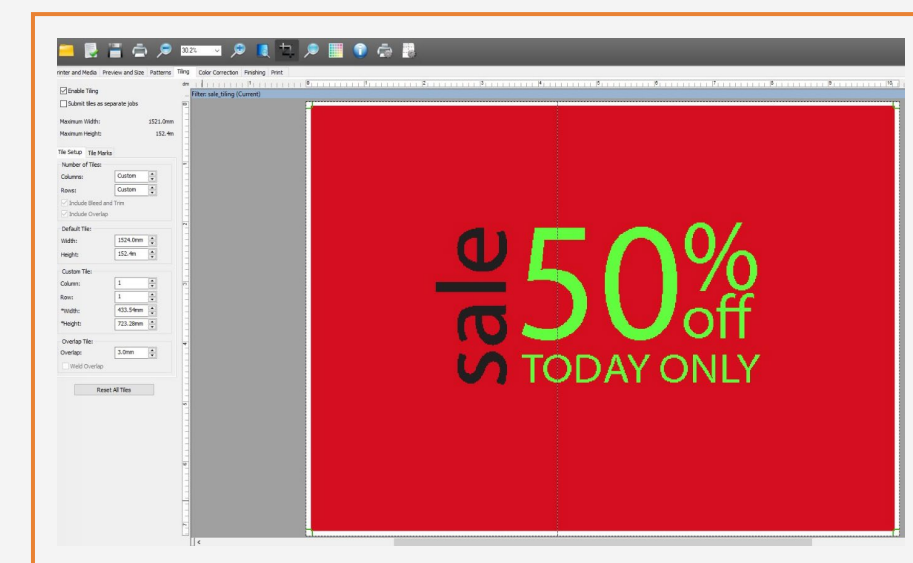
### 1. Measure the window

Measure the size of the window and adjust the graphic to that size. If covering a window from edge to edge, leave a 2-3 cm excess margin on each edge.



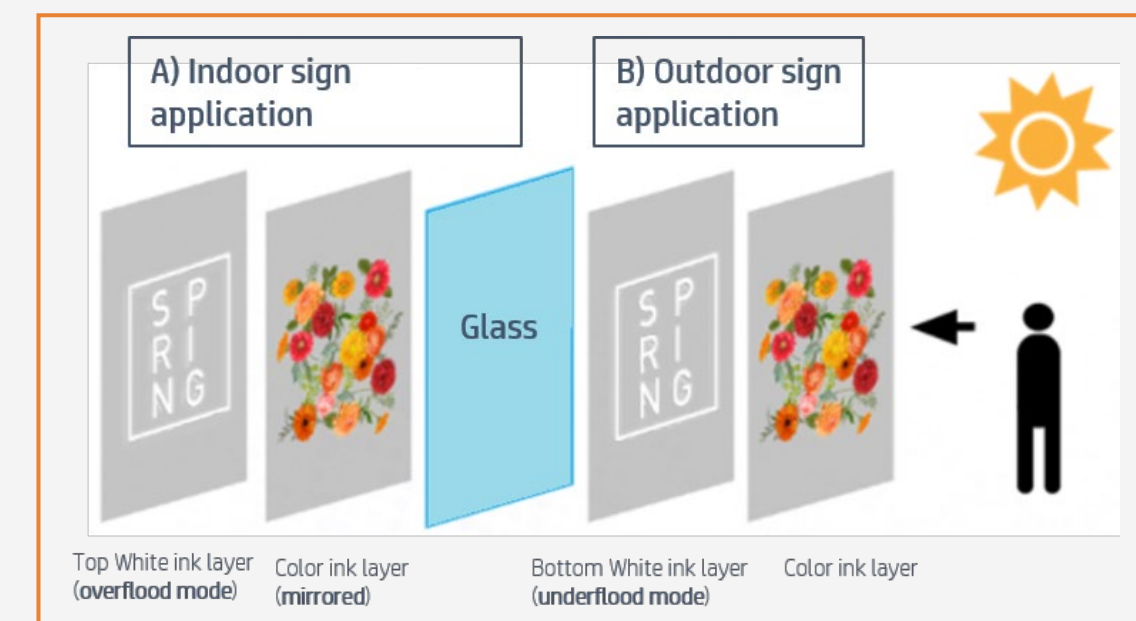
### 2. Big windows

When more than 1 piece of film is needed, adjust the image to allow 2-3 cm overlap between the different tiles that compose the whole image.



### 3. Sign-installation side

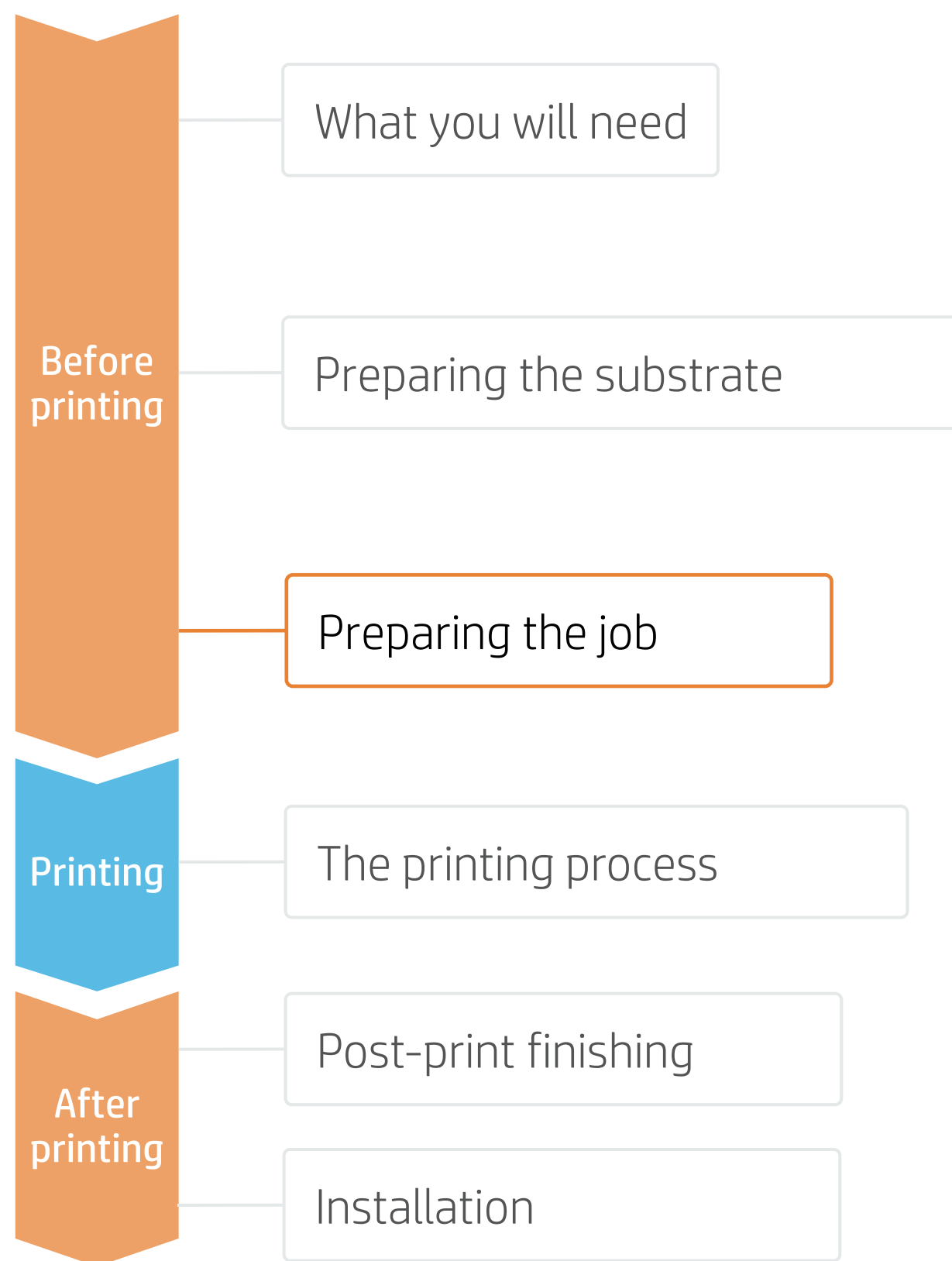
- A. If sign installation is done indoors and the sign is viewed from outdoors, the image needs to be **mirrored** and the white print mode selection should be **overflow or spot**.
- B. If installation and viewing side are outdoors, the image does not need to be mirrored and the white printmode selection should be **underflood or spot**.
- C. In both situations (A or B), if the image has to be **viewed from both sides**, then the white printmode to use is **sandwich mode**.



**TIP:** Play with different amounts of white ink density to modify the opacity of the white layer and its light diffusion capability.

# How to create window graphics

## Preparing the job



## 1. Software for designing and editing

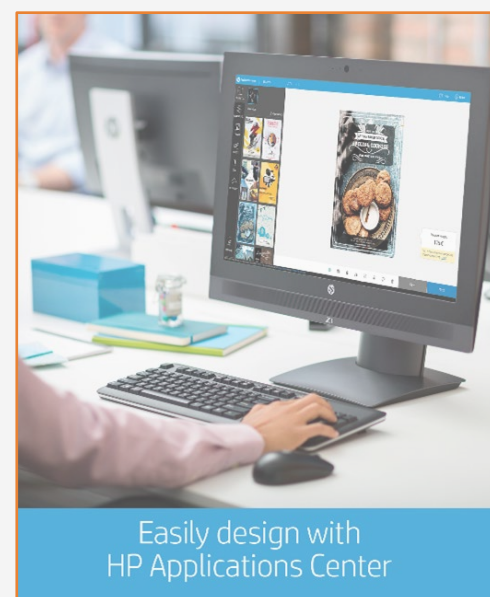
Tools such as HP Applications Center (HP Signage Suite apps), Adobe Illustrator, Photoshop, and InDesign help you design and edit jobs and adapt them to your needs.



Make your decision based on your needs

### A. HP Signage Suite

HP Signage Suite is part of HP Applications Center, a complete package of tools to boost your business



#### How does it work?

1

##### Join the platform

Simple, easy sign-in with your HP printer serial number.

2

##### Choose a web app

Select the standalone decorative web apps you want to produce with and allow your customers to create and visualize the design with a simulation for each unique environment.

3

##### Manage orders

Manage production efficiently with automatic, reliable, print-ready PDF generation, as well as customer, order, and content management tools.

**EXPAND YOUR KNOWLEDGE:** For further detailed information regarding HP Applications Center and how to log in for the first time, check out the **webinar** available at this [link!](#)

## 2. Create White ink layers

You can use several tools to create the white ink layer in your image:

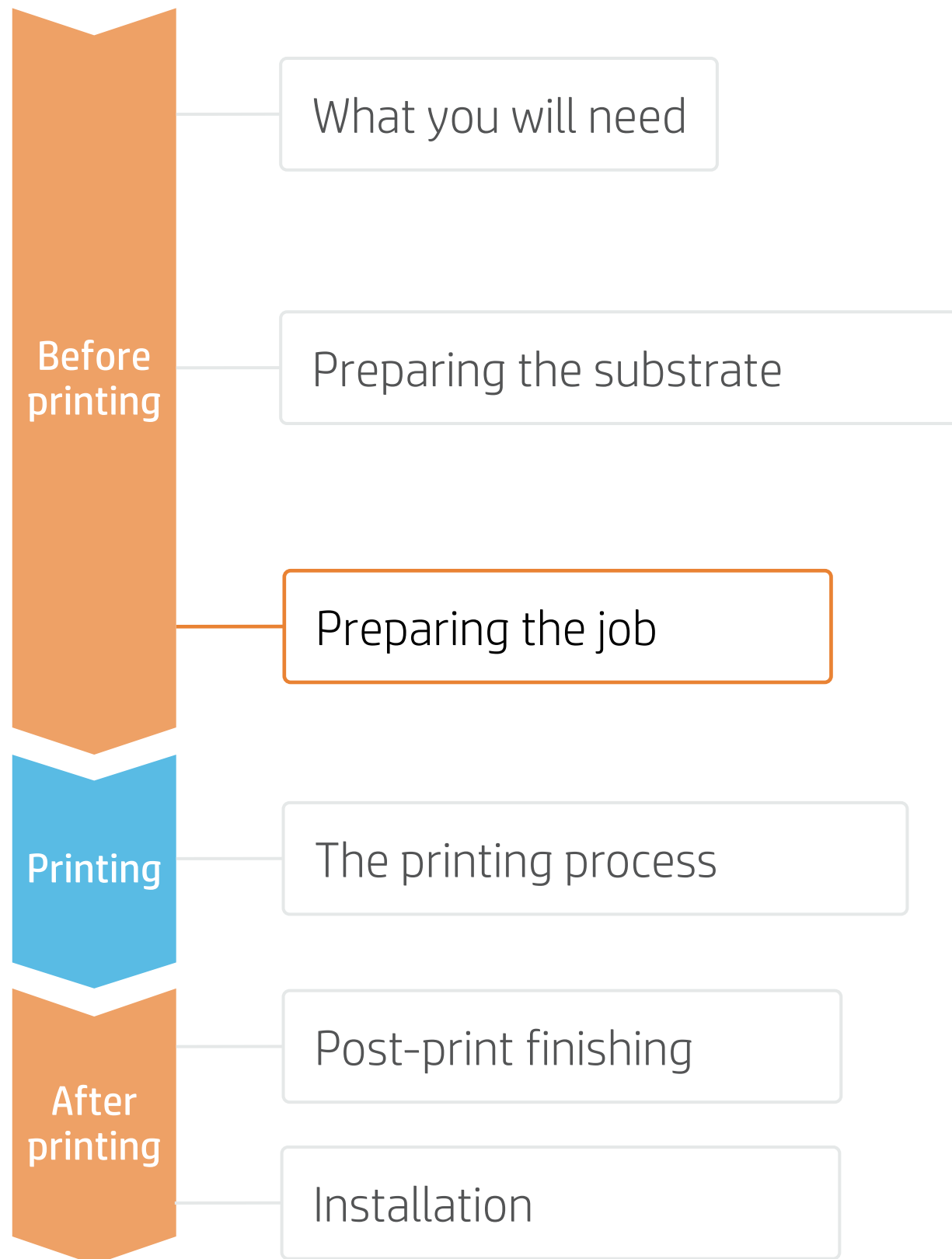
1. Using **Adobe** - it permits you to allocate the white ink on all the desired places of your image.
2. Using the **RIP** - it is a more simple and easy way but offers fewer design options.

**NOTE:** To work with white ink layers, learn how to create one with Illustrator and Photoshop by enrolling in the available training: "HP Latex 700/800 Printer series - White ink" on the [Learn with HP website](#), or also refer to the cookbook [How to print on white](#).



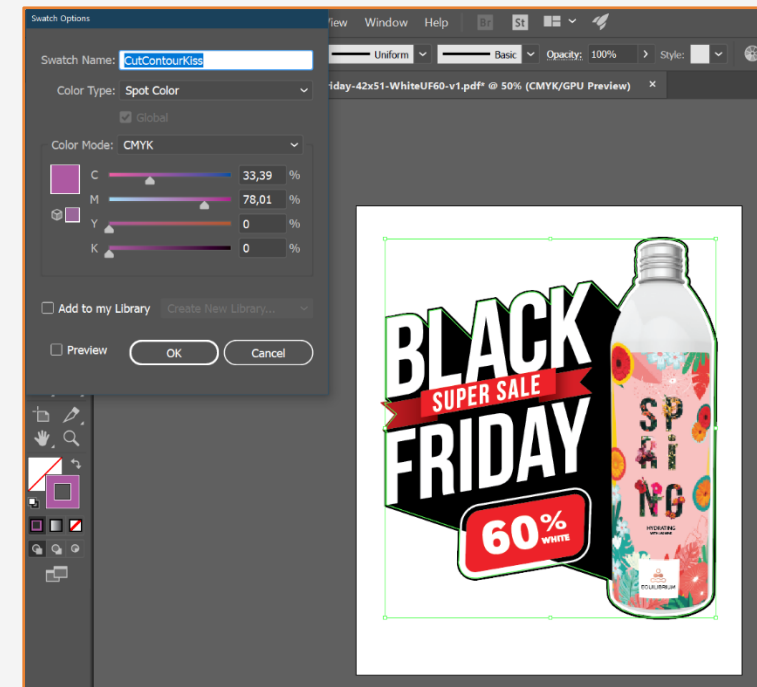
# How to create window graphics

## Preparing the job

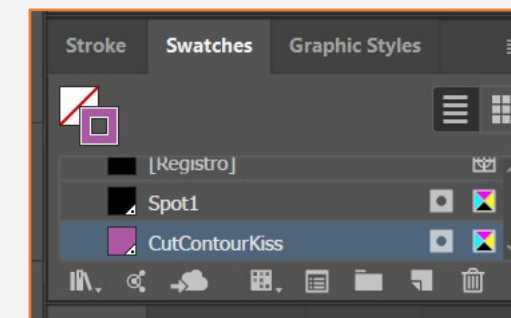


## 3. Add contour cut paths for automatic cutting

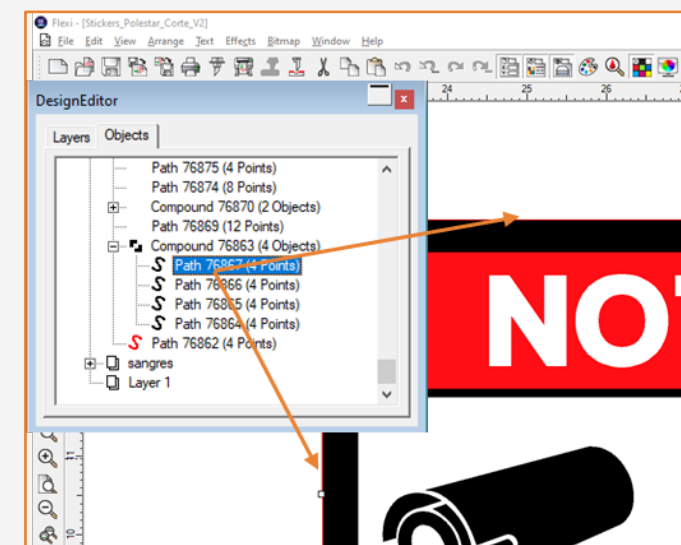
### A. Using Adobe Illustrator



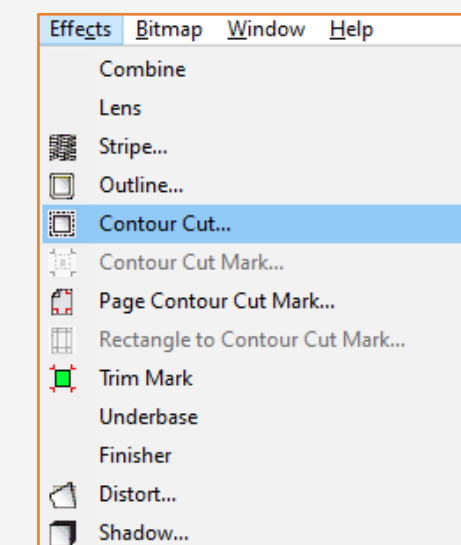
- Create a new color swatch
- Assign an identifiable name, e.g. CutContourKiss
- Select color type: **Spot Color**
- Create the cutting path with that color swatch



### B. Using SAi HP Flexi Print and Cut Editor

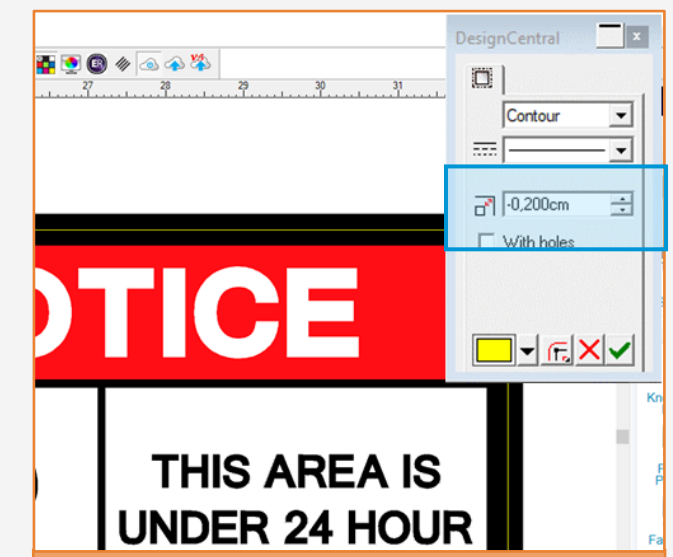


1. Select the path  
It will be highlighted in the **Design Editor** window



2. Add the Contour Cut  
From the **Effects** tab in the menu bar

**TIP:** To avoid cutting inaccuracies, add **bleed** to the contour line where the cutting path goes, so the cut will not fall in undesired areas



3. Specify Contour properties  
From the **Design Central** window. Select the color and click **Apply** ✓

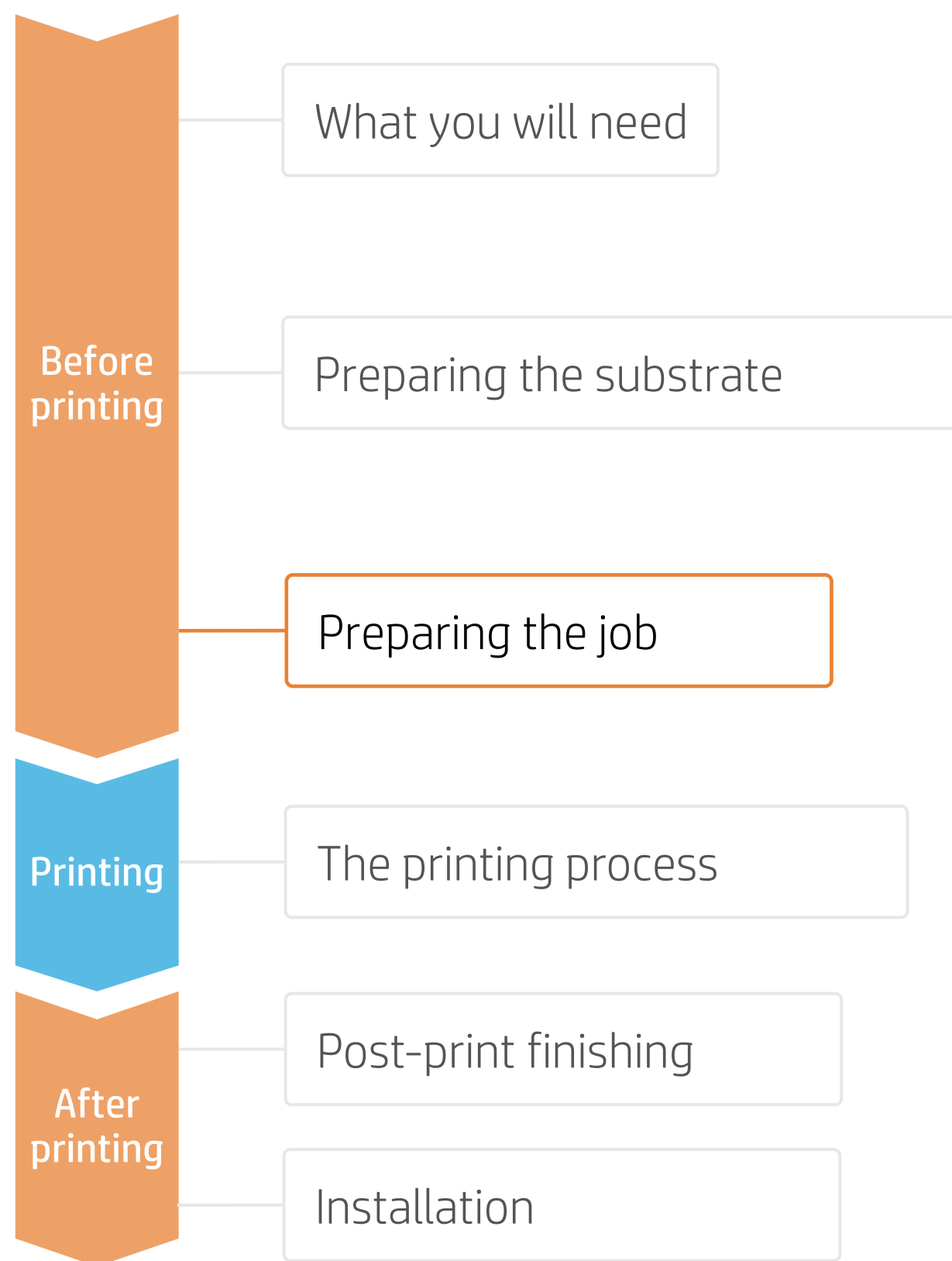


Make your decision based on your needs



# How to create window graphics

## Preparing the job



## 4. RIP processes

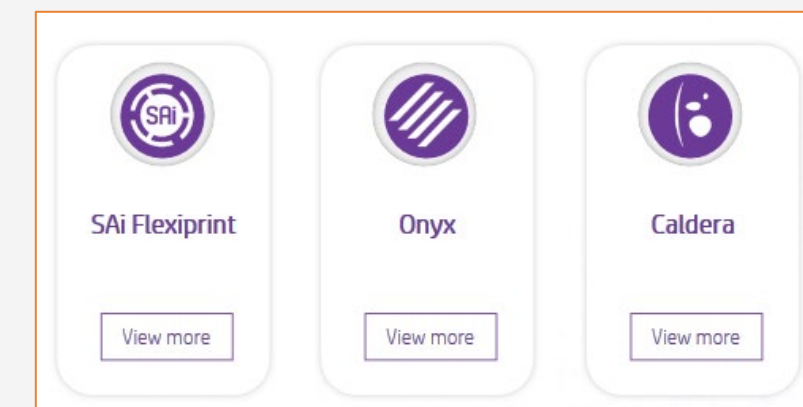
ONYX, Caldera, and SAI RIPs have been certified for HP Latex 700/800 series printers. All these RIPs have specific options for job editing.



Make your decision based on your needs

### A. Substrate & Printmode selection

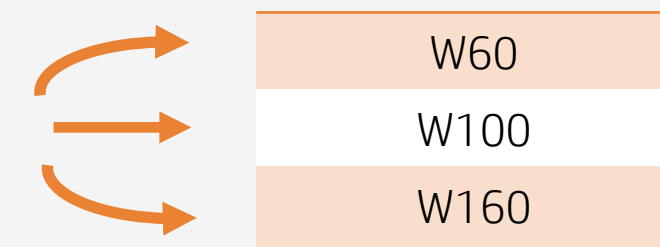
- Choose the substrate type (Generic Transparent Self-adhesive Viny or Generic Transparent Polyester Film), then select the specific substrate you have loaded on the printer.
- Next, choose the printmode. There are several printmodes that are available to choose from based on how the white ink is placed.



**NOTE:** Before selecting the substrate in the RIP, it must be loaded on the printer

<p><b>Underflood Mode</b> Select this mode on substrates <b>installed and viewed from the same side</b> (generally outdoors). In this mode, a white ink layer is printed first and then a color layer is printed on top of it.</p>	<p><b>Overflood Mode</b> Select this mode on substrates <b>applied on one side and viewed from the other side</b> (generally applied indoors and viewed from outdoors). In these modes a color layer is printed first and then a white layer is applied on top.</p>	<p><b>Spot Mode</b> Select this mode to print images where white is <b>not</b> mixed with other colors in the same area and/or printed with only white.</p>	<p><b>Sandwich Mode</b> There are 2 Sandwich modes to choose from depending on the application's need: <b>Sandwich 3 Layers</b> (also known as 3L) for <b>day and night</b> applications, and <b>Sandwich 5 Layers</b> (also known as 5L) for <b>dual-sided</b> applications</p>
--	---	---	--

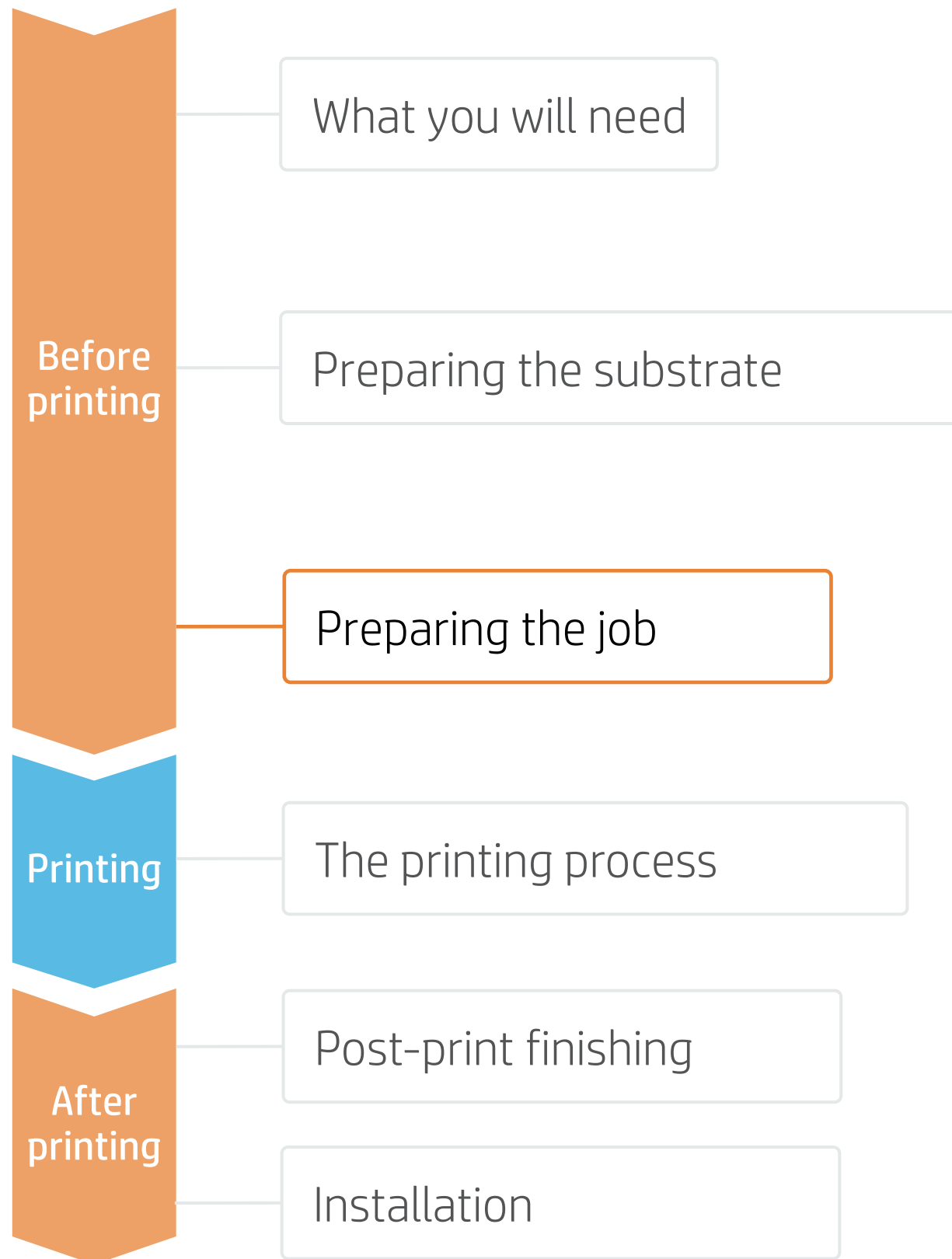
- You can also choose the white ink levels depending on the desired speed, opacity and available printmodes



**NOTE:** More information on how to print with Sandwich mode here: [How to Print Sandwich Mode](#)

# How to create window graphics

## Preparing the job



## B. The Choke functionality

Choke is used to shrink the white layer if there is a misalignment between the color layer and the white layer in the printed output, such as in the examples below.



Make your decision based on your needs

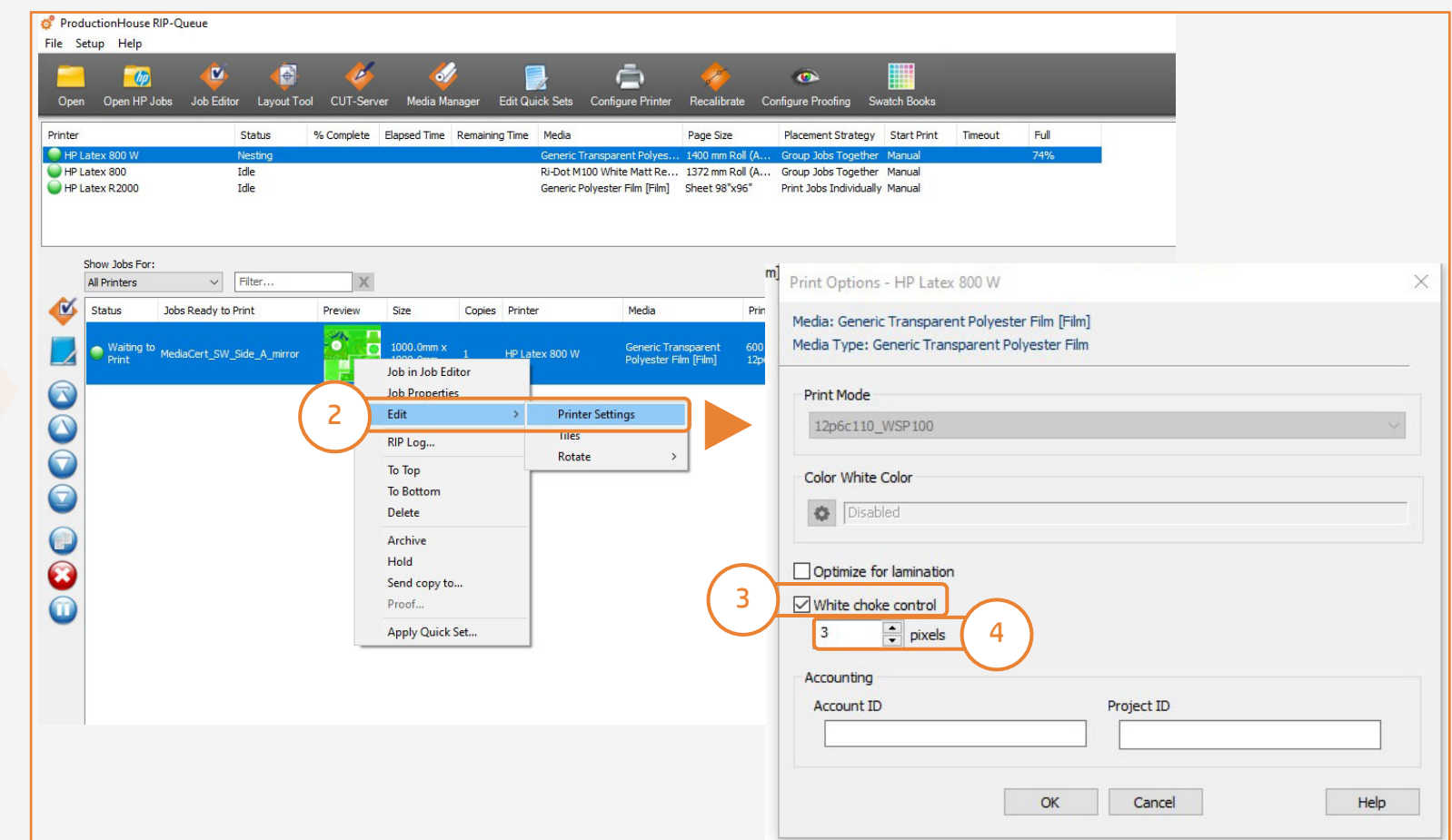


- By default, the RIP applies a default value of 3 pixels for choke.
- If a different value is required, you can modify the value in the RIP.

### ONYX

In the job queue:

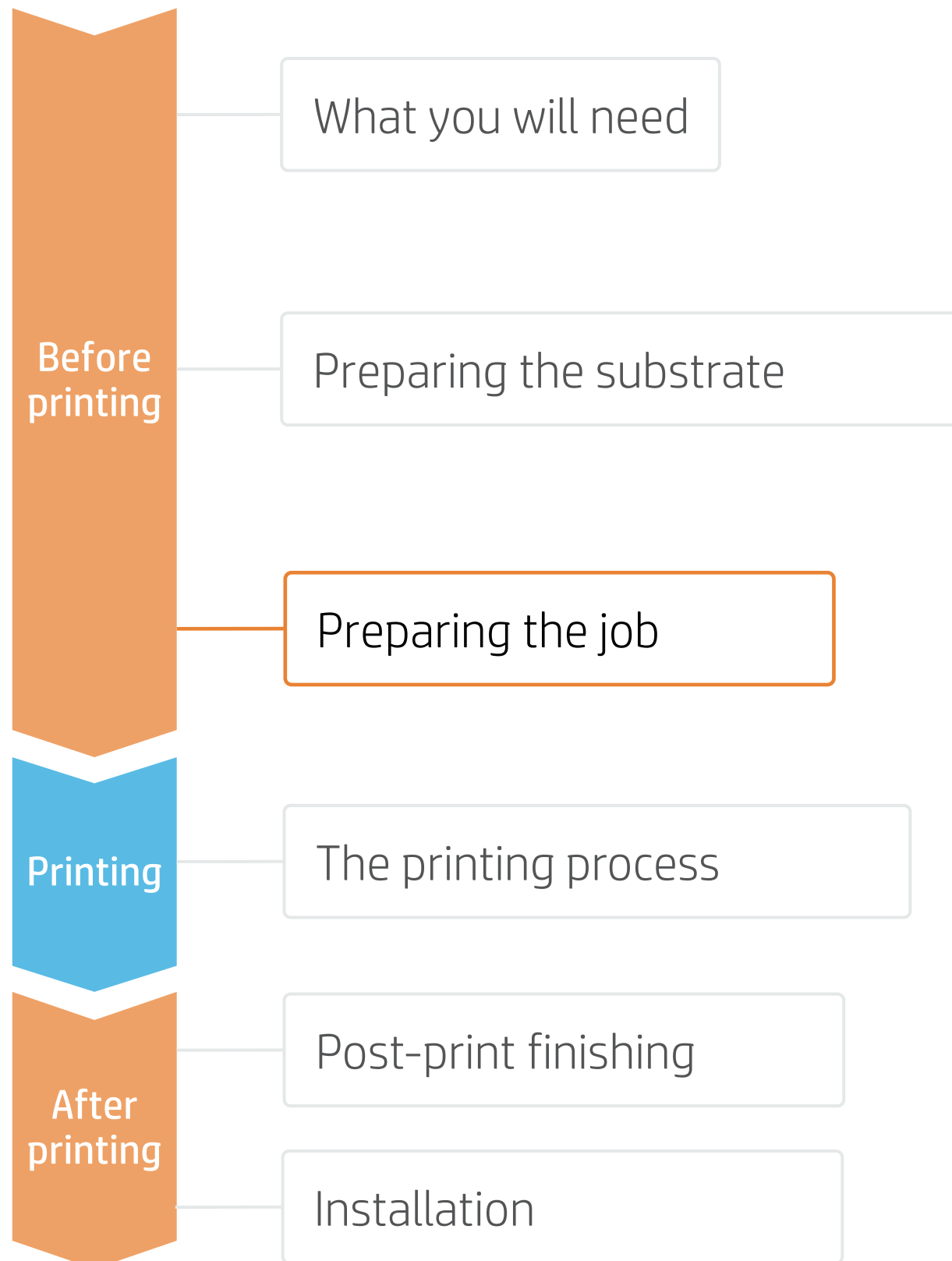
1. Right-click on your job.
2. Select **Edit > Printer Settings**.
3. Check **White choke control**.
4. Adjust the number of pixels you want to reduce.





# How to create window graphics

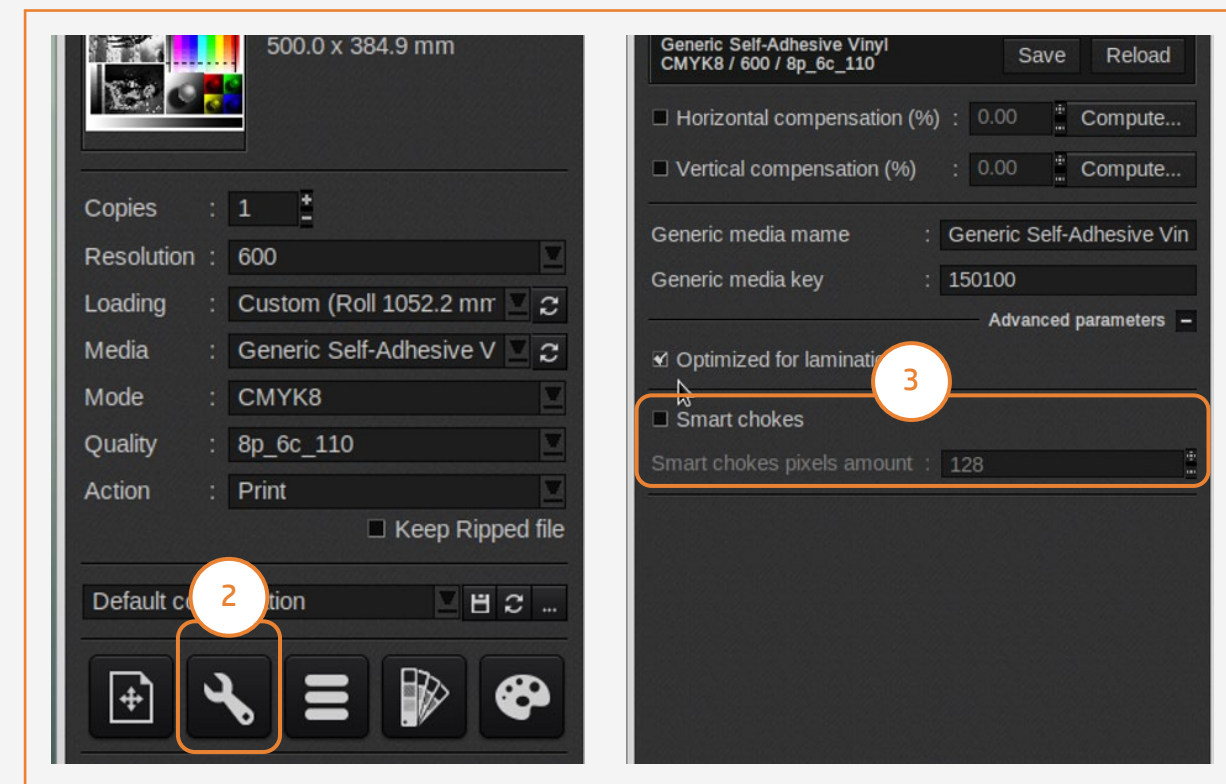
## Preparing the job



Make your decision based on your needs

### Caldera

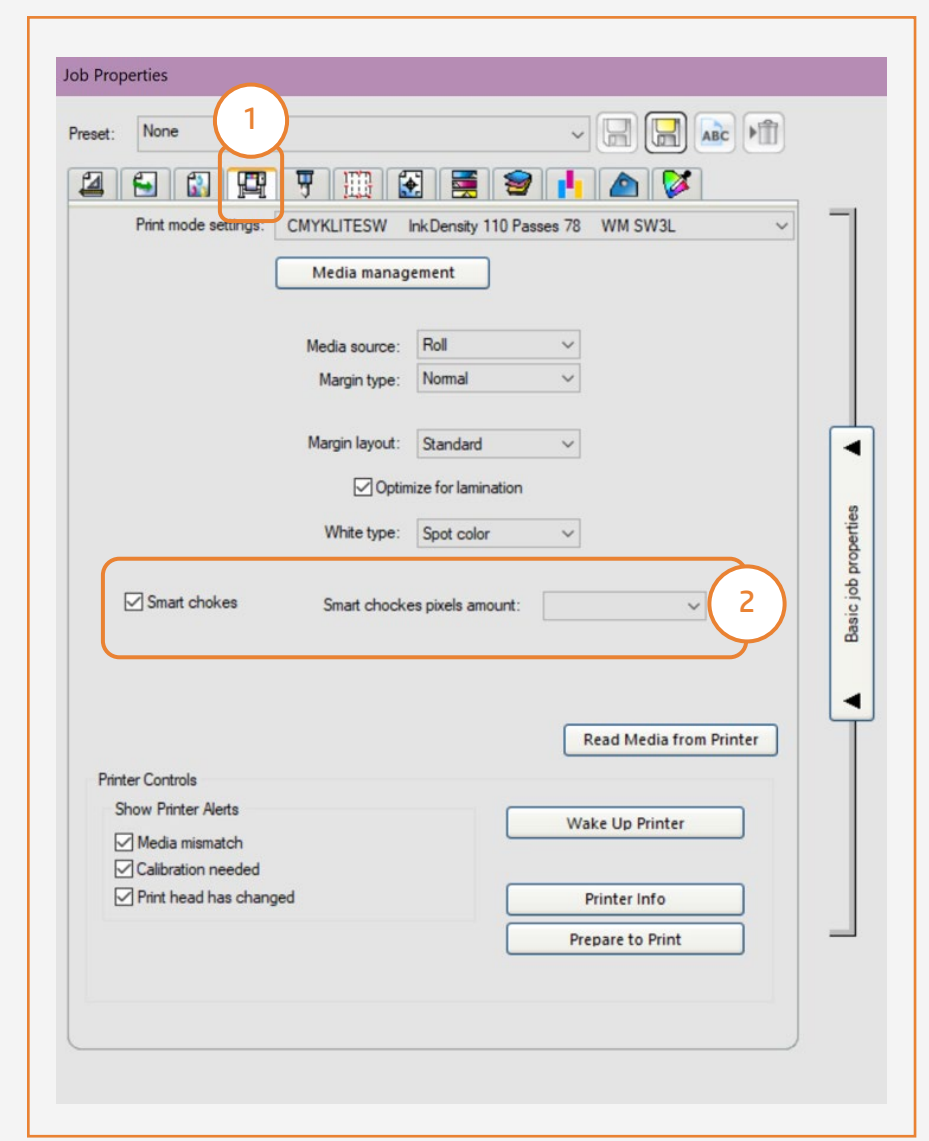
1. Open your printer options menu.
2. Click on **Specific settings for printer** (wrench icon).
3. Under the **Advanced parameters** menu, select **Smart Chokes** and adjust the pixel amount that needs to be reduced.



### SAi

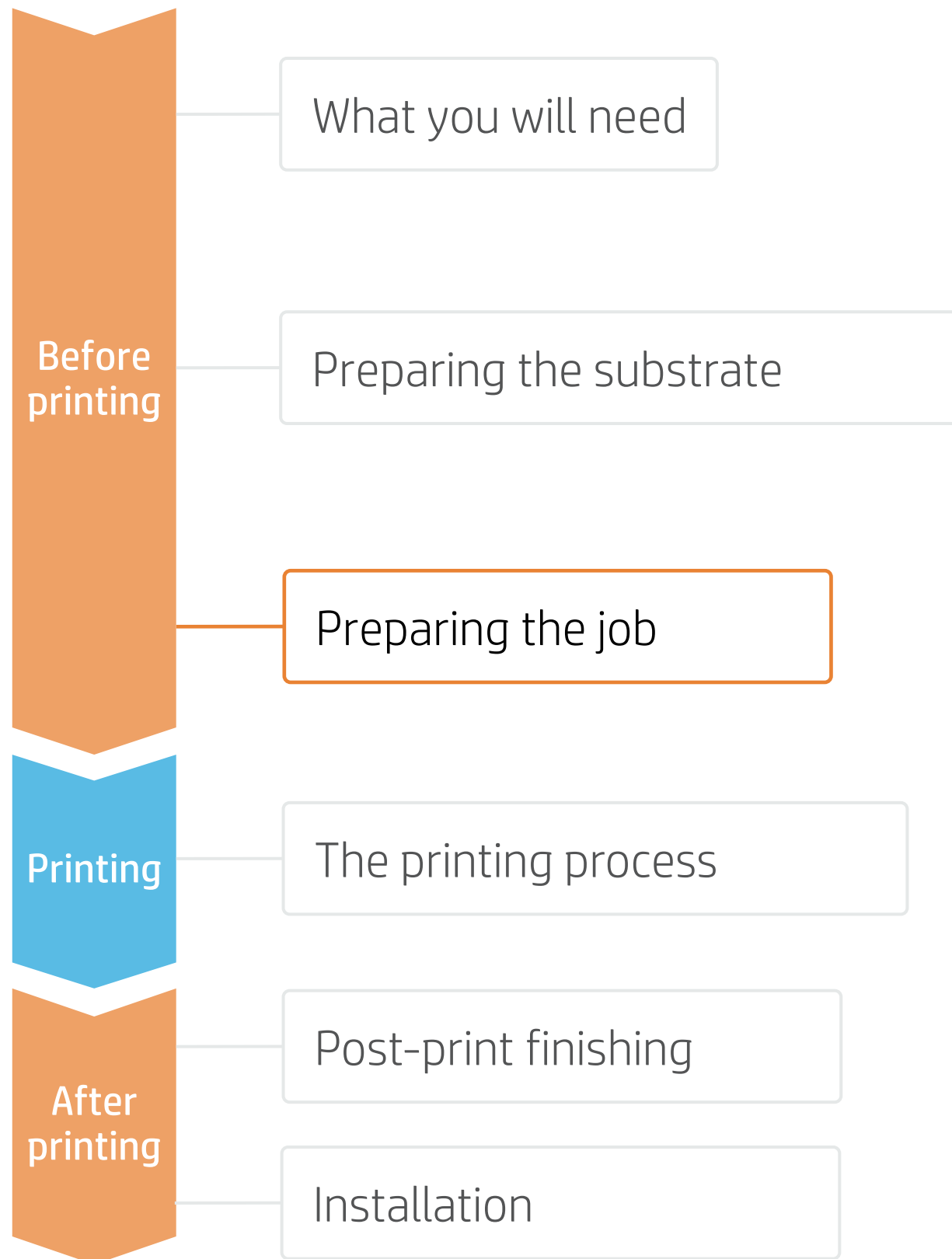
In the job properties menu:

1. Click the **Printer Options** tab.
2. Select **Smart Chokes** and adjust the pixel amount to be reduced.



# How to create window graphics

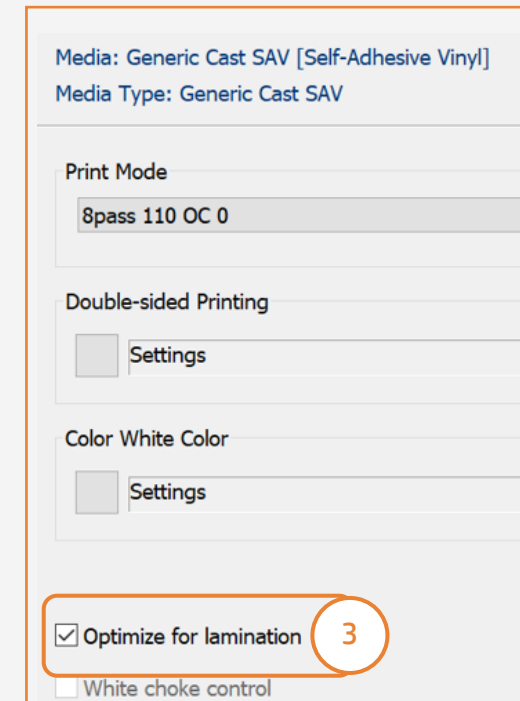
## Preparing the job



## C. Option to optimize lamination



Make your decision based on your needs



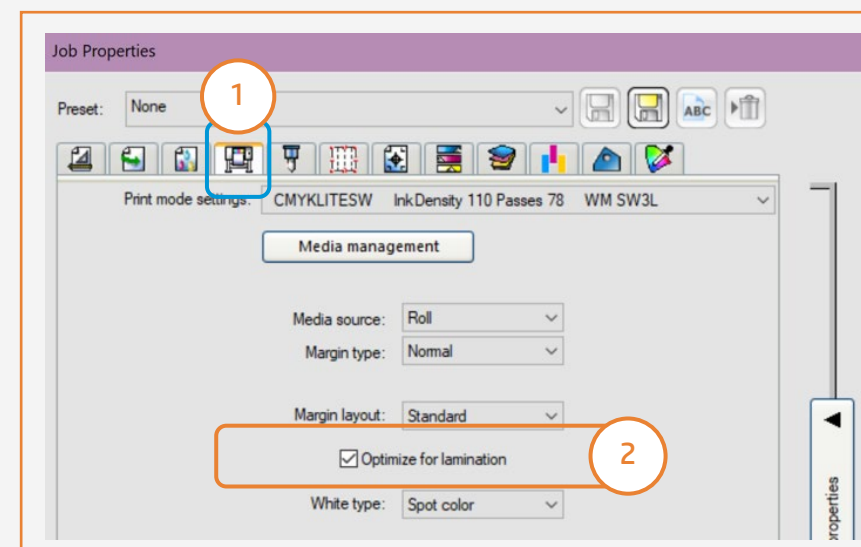
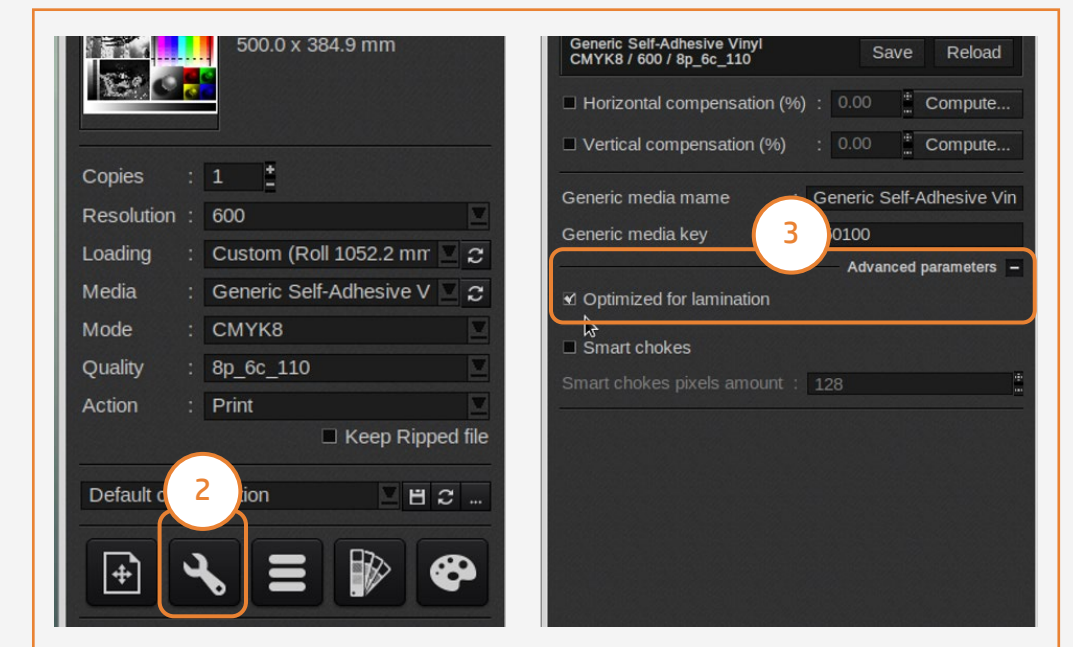
### ONYX

In the job queue:

1. Right-click on your job.
2. Select **Edit > Printer Settings**.
3. Click **Optimize for lamination**.

### Caldera

1. Open your printer options menu.
2. Click on **Specific settings for printer** (wrench icon).
3. Under the **Advanced parameters** menu, select **Optimized for lamination**.



### SAi

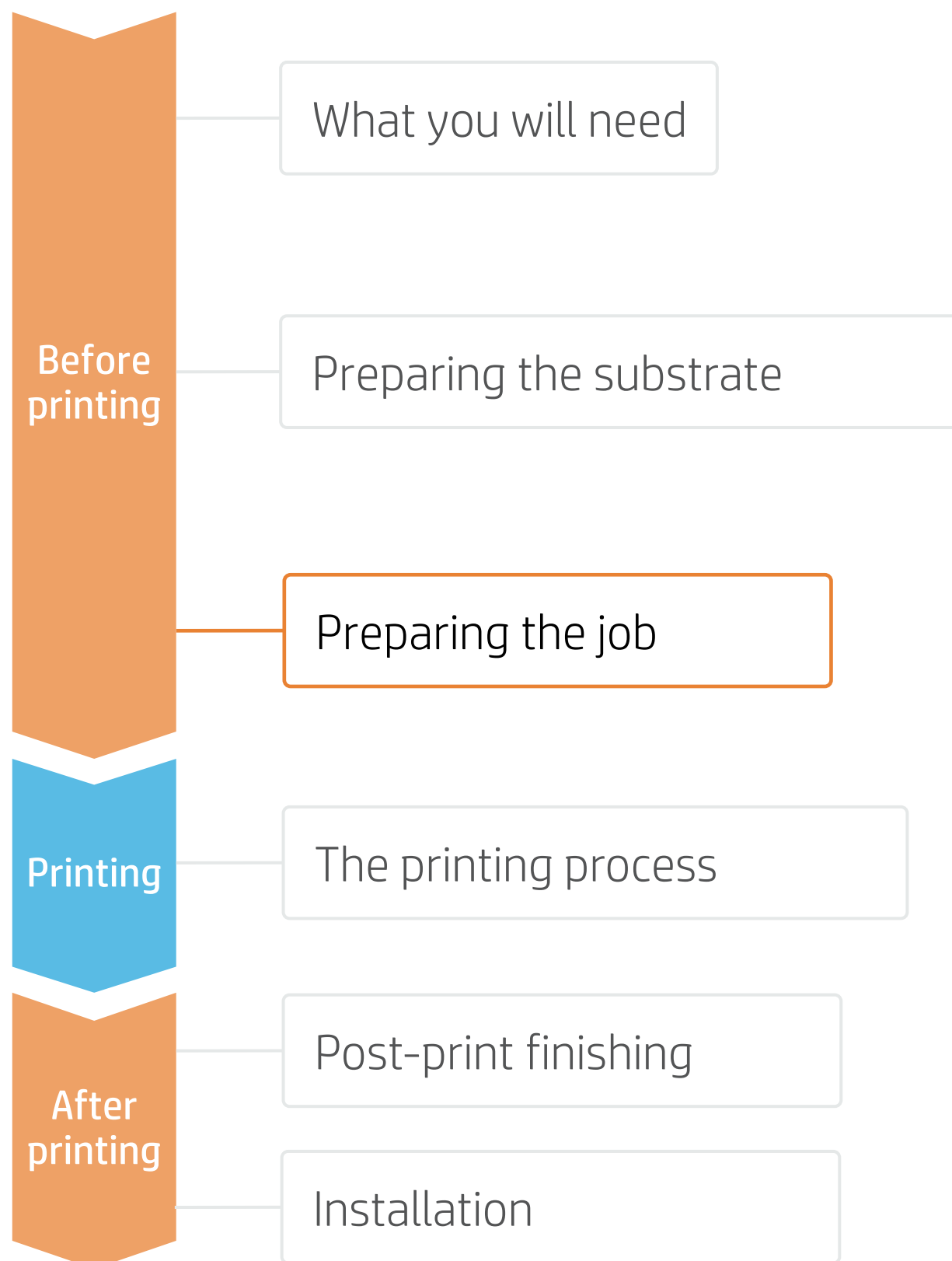
In the job properties menu:

1. Click the **Printer Options** tab.
2. Select **Optimize for lamination**.



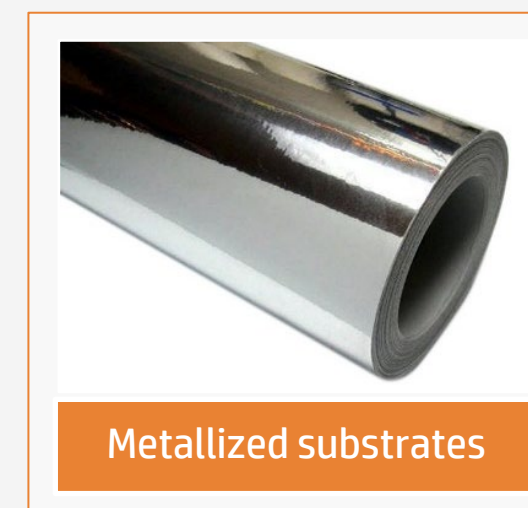
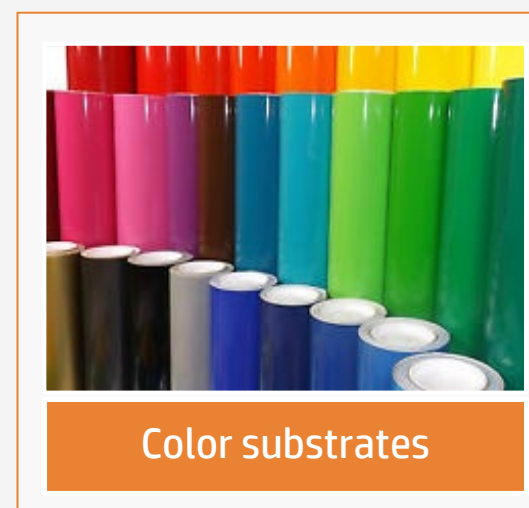
# How to create window graphics

## Preparing the job



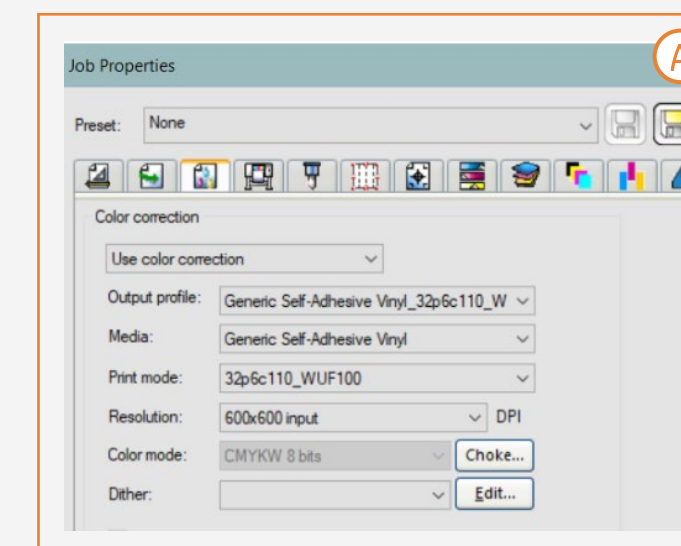
## 4. Tips for Print&Cut jobs with white ink on special substrates - SAi

Some specific settings are required to work with substrates such as:



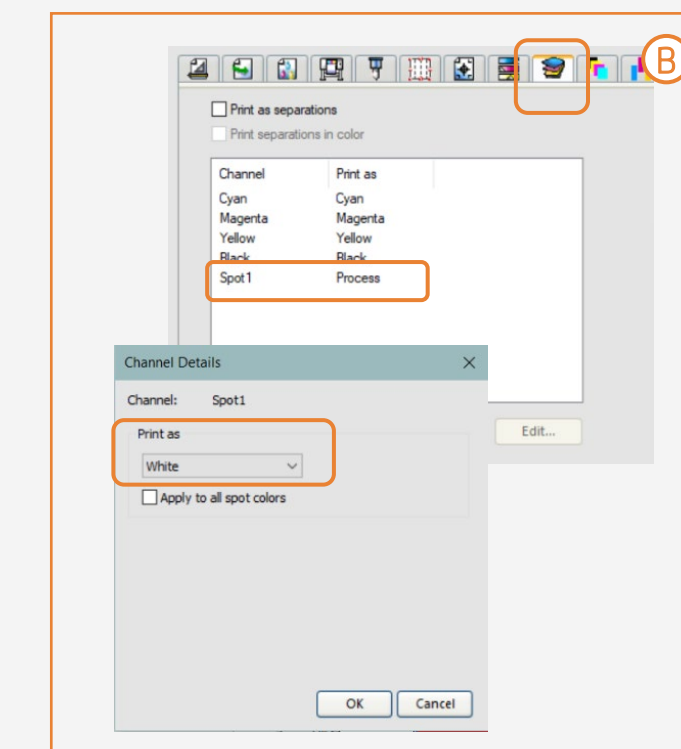
### A. Select printmodes

- Select a white printmode: UF, SP, OF or SW of W100 density



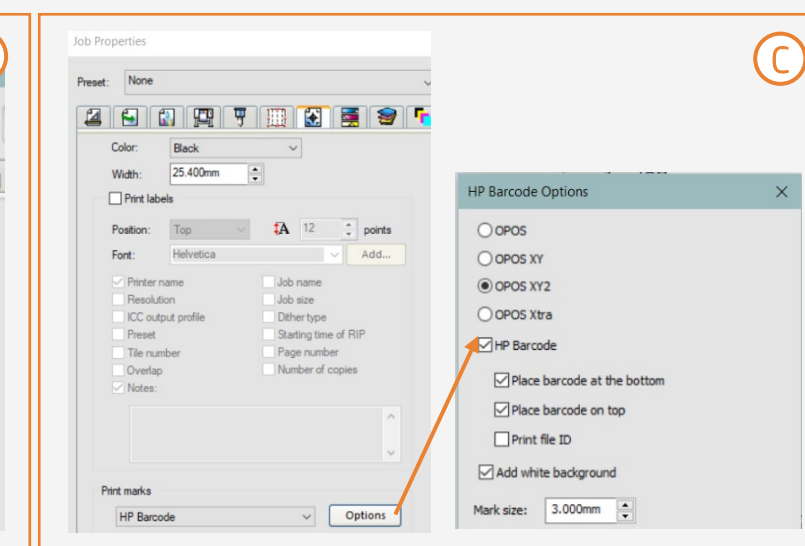
### B. Color separation

- Select the Channel Spot1
- Edit
- Select Print as White



### C. HP barcode

- Select the OPOS desired and HP barcode
- Select Add white background



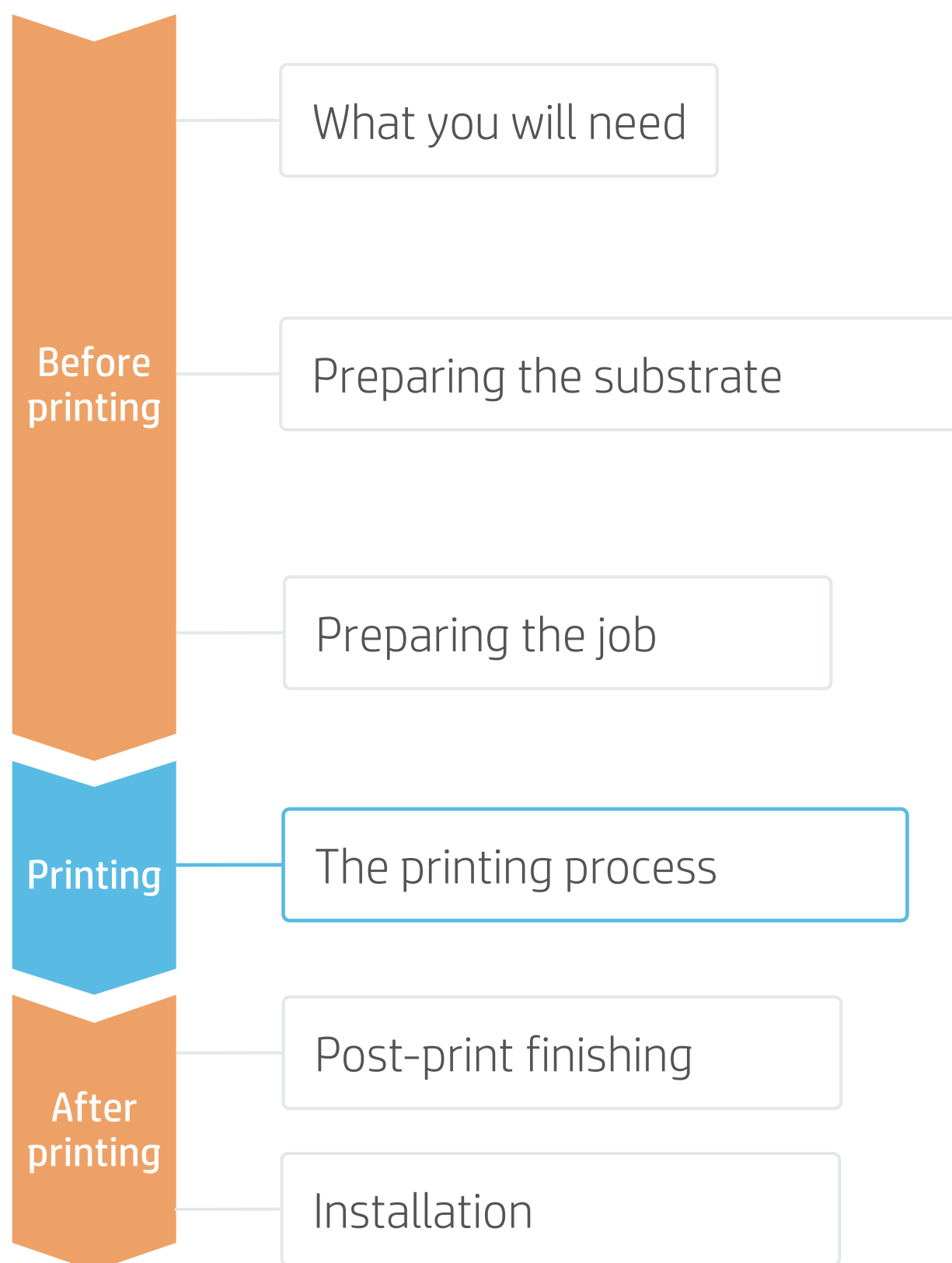
### D. HP barcode

- OPOS and HP barcode are printed with white borders so they can be read by the OPOS sensor



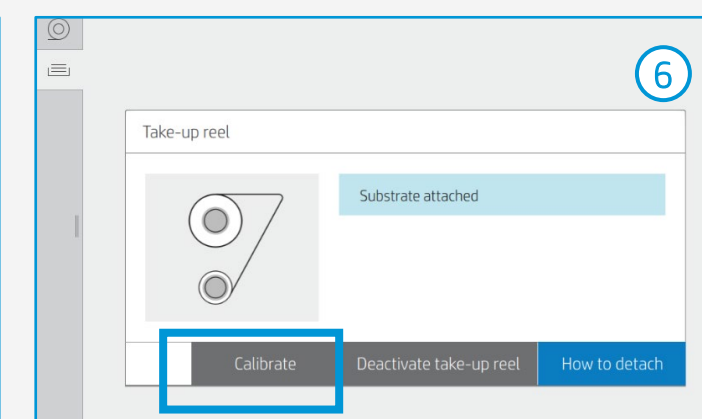
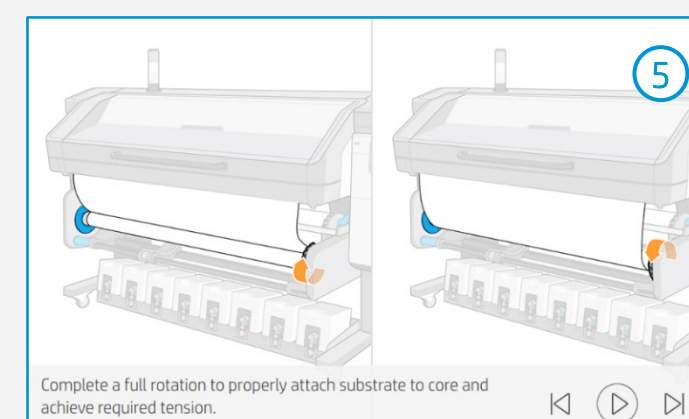
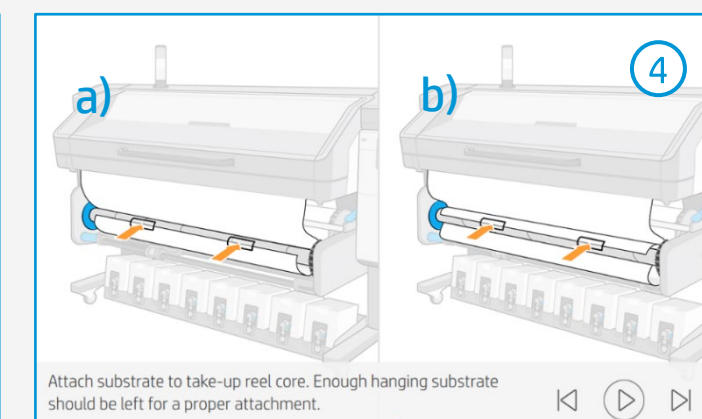
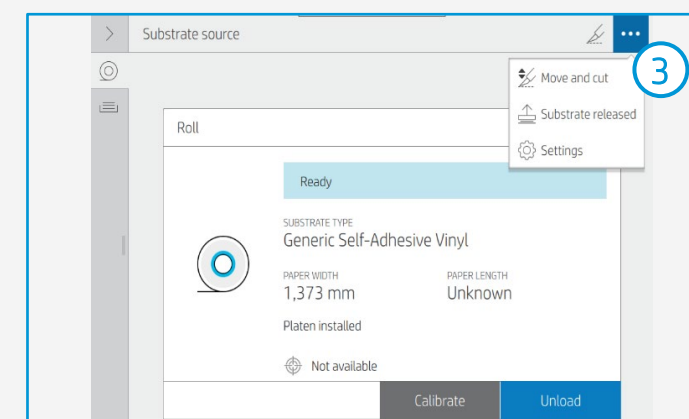
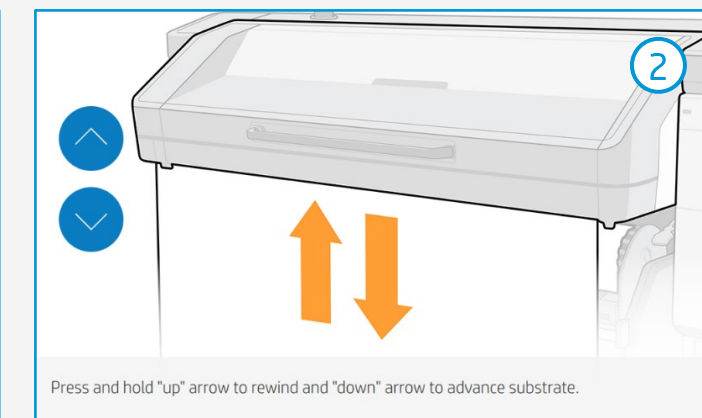
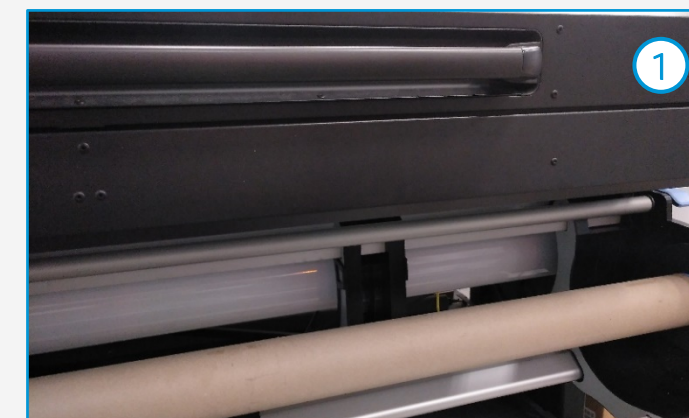
# How to create window graphics

## The printing process



## Loading substrate | Connecting to the take-up reel (TUR)

- 1. Prepare the TUR**
  - Attach an empty core on the TUR.
- 2. Move substrate**
  - Advance the substrate until the leading edge levels with the TUR.
- 3. Release substrate from pinches**
  - Lift the pinchwheels.
  - Align the right edge of the substrate with the right edge of the input roll.
  - Tap **Done** in the front panel to lower the pinchwheels.
- 4. Attach substrate to the TUR (optional)**
  - You can attach the substrate so that the printed side is **in (a)** or **out (b)** (out is the most common).
- 5. Activate the TUR**
  - Complete a full rotation of the TUR.
- 6. Calibrate the TUR**
  - Select **Calibrate** on the front panel.

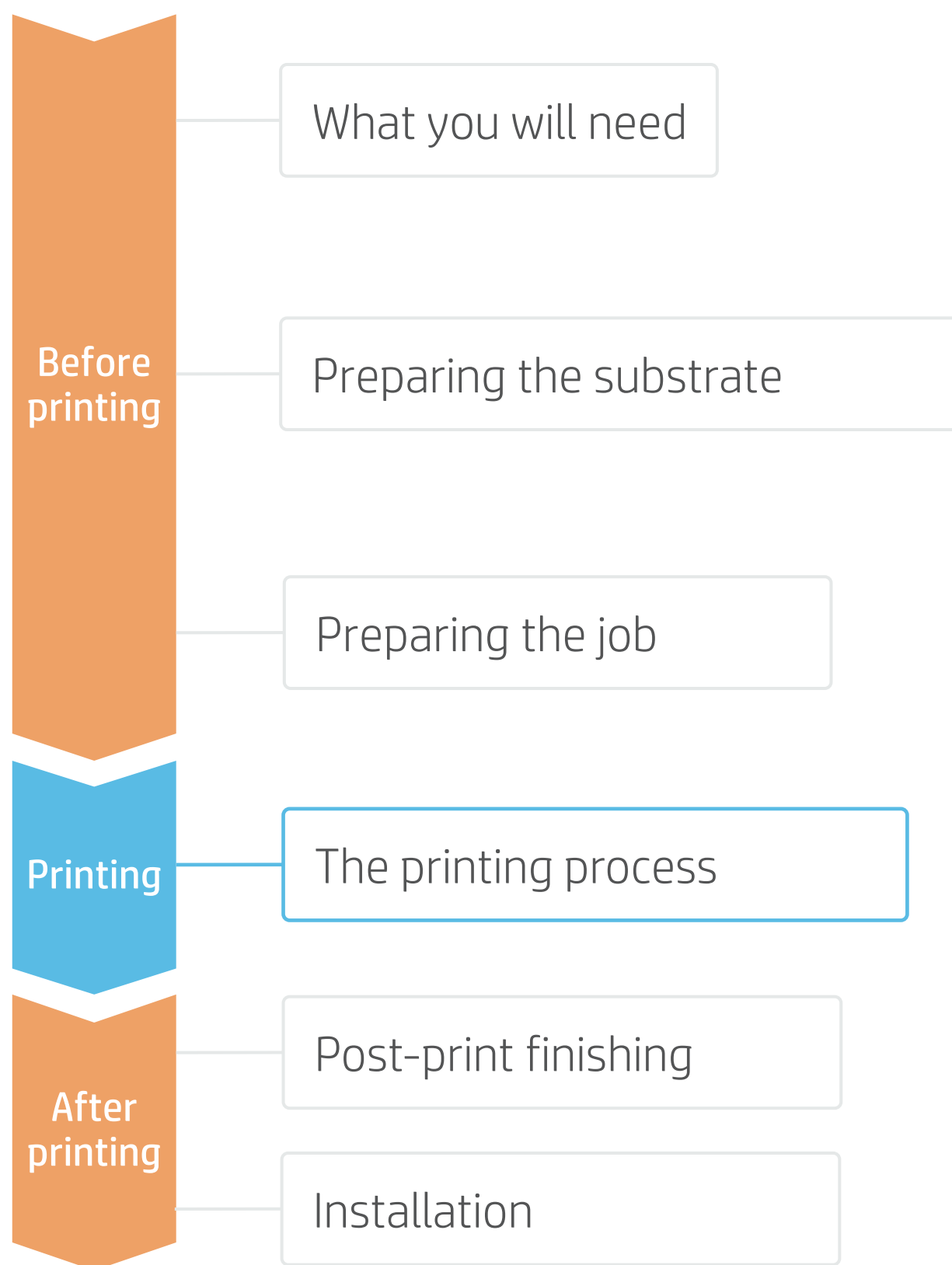


**TIP:** For long jobs, connect the substrate to the take-up-reel (TUR). For tiling applications, connect the TUR before starting to print.



# How to create window graphics

## The printing process



**NOTE:** Perform the printhead nozzle check and printhead alignment on white self-adhesive vinyl **before** loading a transparent film with transparent liner.

- 1. Load the substrate roll**  
By default, this is in automatic mode.

**NOTE:** In cases where you are loading very thin films, you might need to load them manually with the help of the loading accessory.

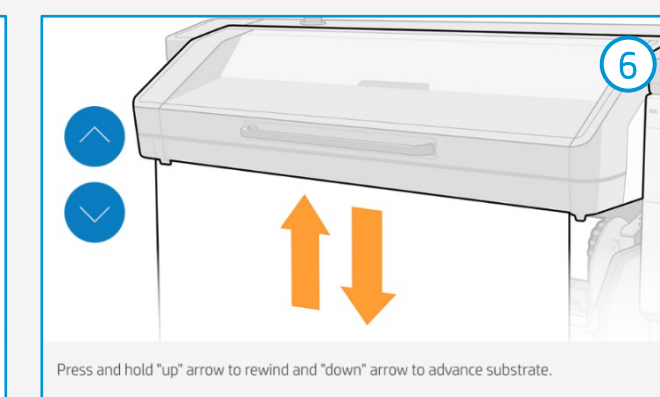
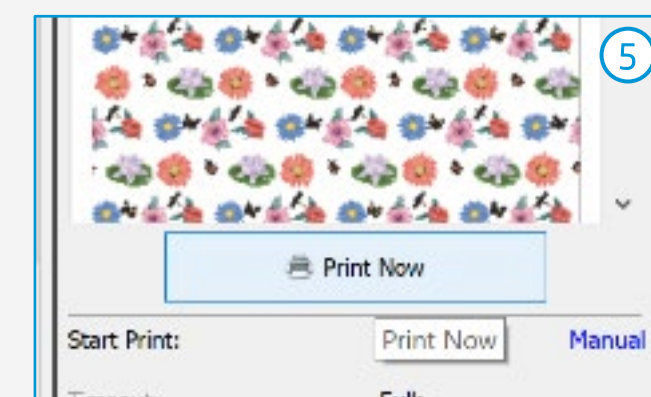
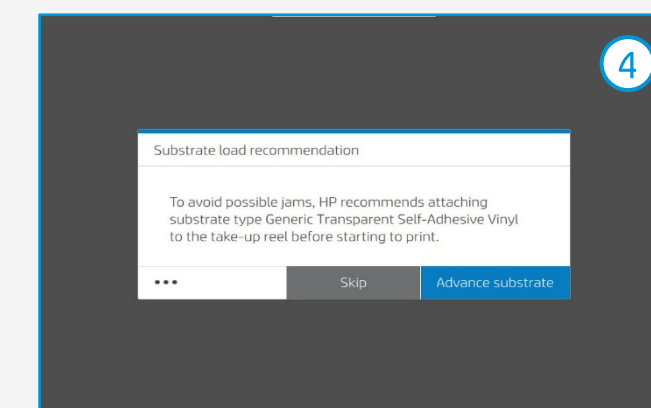
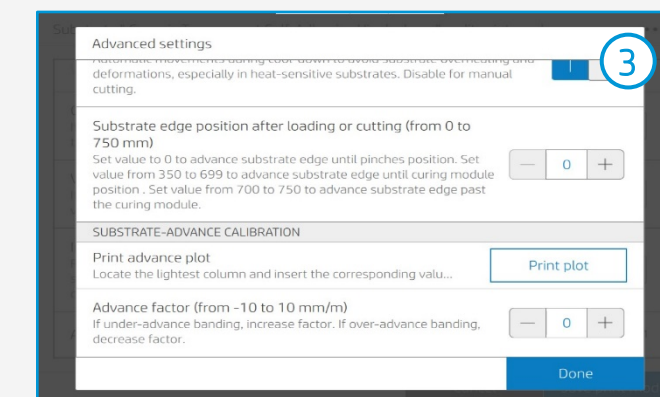
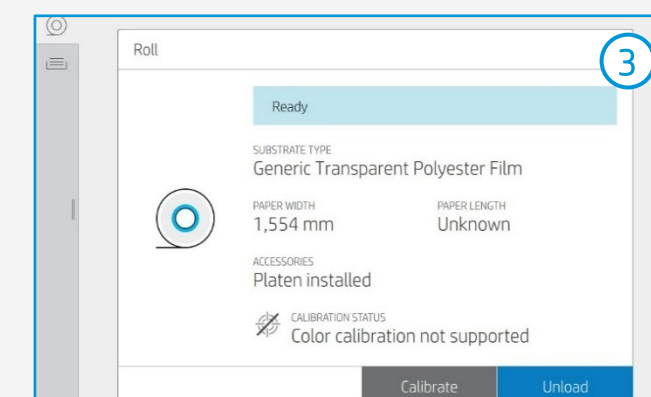
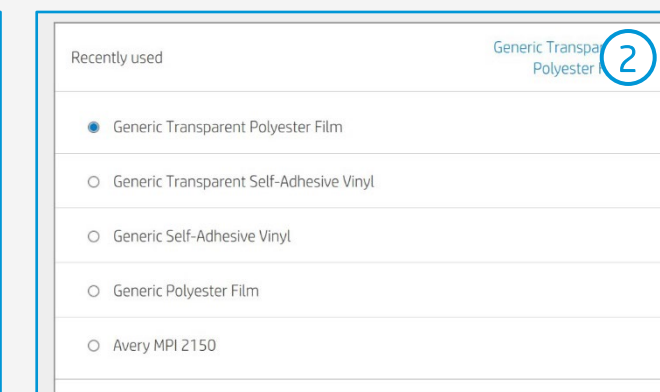
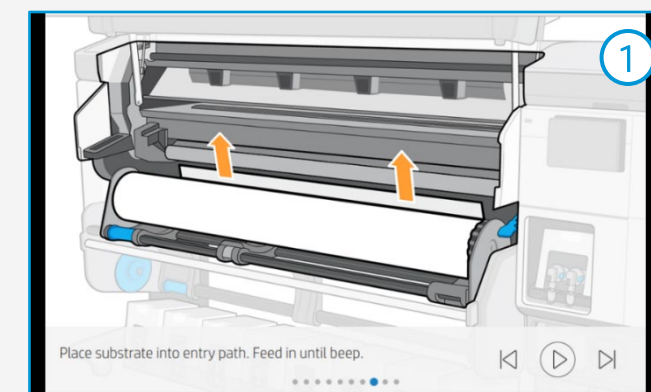
- 2. Select the right substrate preset**  
If your substrate is new, select the type (Generic Transparent Self-adhesive vinyl or Generic Transparent Polyester Film).

- 3. Calibrations**
  - Color calibration is not supported for transparent substrates.
  - Perform advance calibrations.

- 4. Loading Position**  
Normally, transparent films can be printed from the **pinches**, but some films may need to be positioned after the curing zone or even be attached to the TUR to avoid a substrate crash. For Transparent vinyls, the **TUR** is recommended.

- 5. Send the job to print from the RIP**
  - Click Send to print.

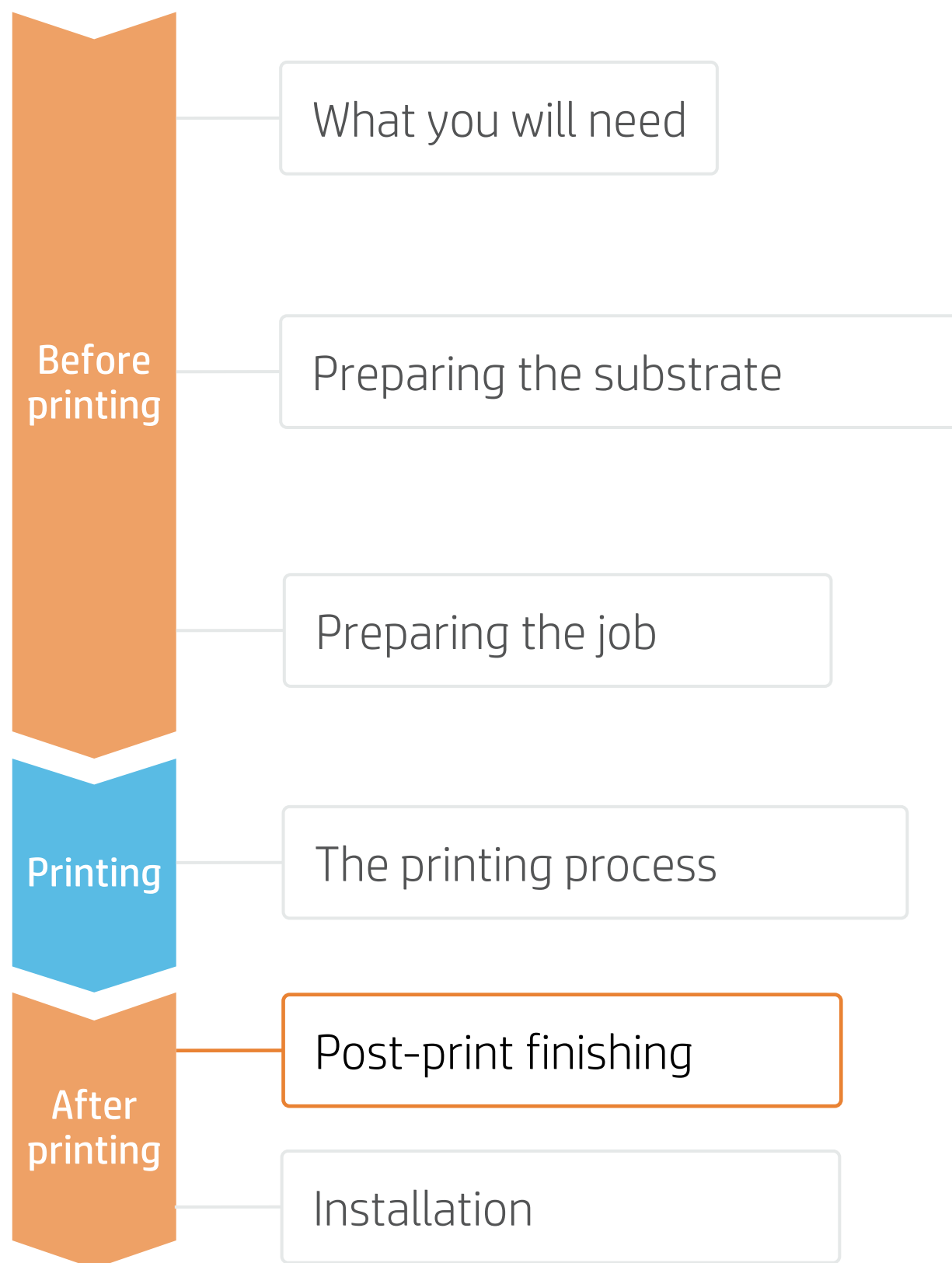
- 6. Cut & retrieve the printed roll**  
This can be done in automatic mode or manually.



**TIP:** Before cutting the printed job, advance the substrate so that you protect the printed roll when it is unloaded.

# How to create window graphics

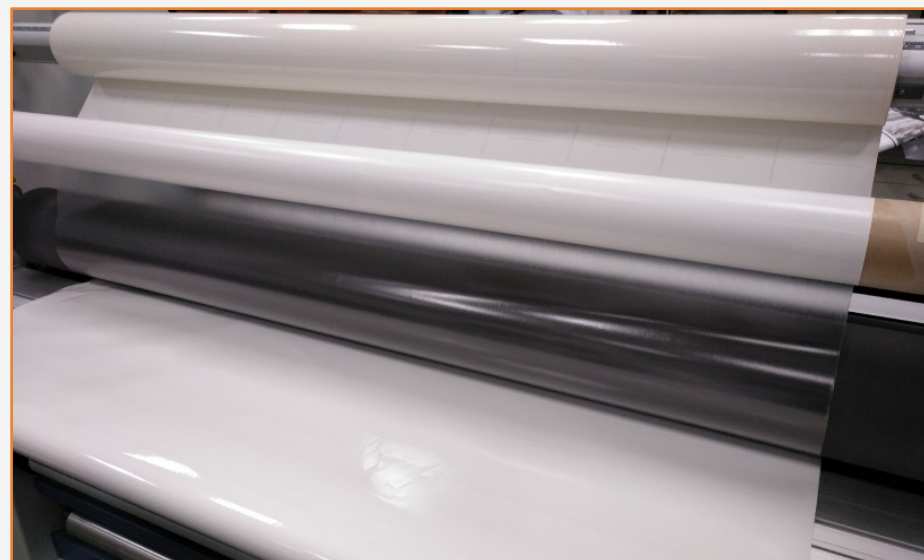
## Post-print finishing



### 1. Lamination (optional)

Use the film laminate recommended by the film manufacturer.

Follow the lamination settings (speed, pressure, and temperature) specific for the SAV+laminate combination.



**! IMPORTANT!:** Recommended for long-term usage, high-transit areas, and surfaces that will be cleaned frequently.

**💡 TIP:** Remember to select a printmode with NO overcoat when you are going to be laminating your job later, or check the option “Optimize for lamination” in the RIP’s printer settings.

### 2. Cut

To cut the graphics automatically, you can use XY cutters or flatbed contour cutters.

The “Kiss cut” cutting type will be the most common, but on some occasions, a “cut through” can be added to separate each sticker.



New HP Latex Cutter Plus



Weeding after a **kiss cut**

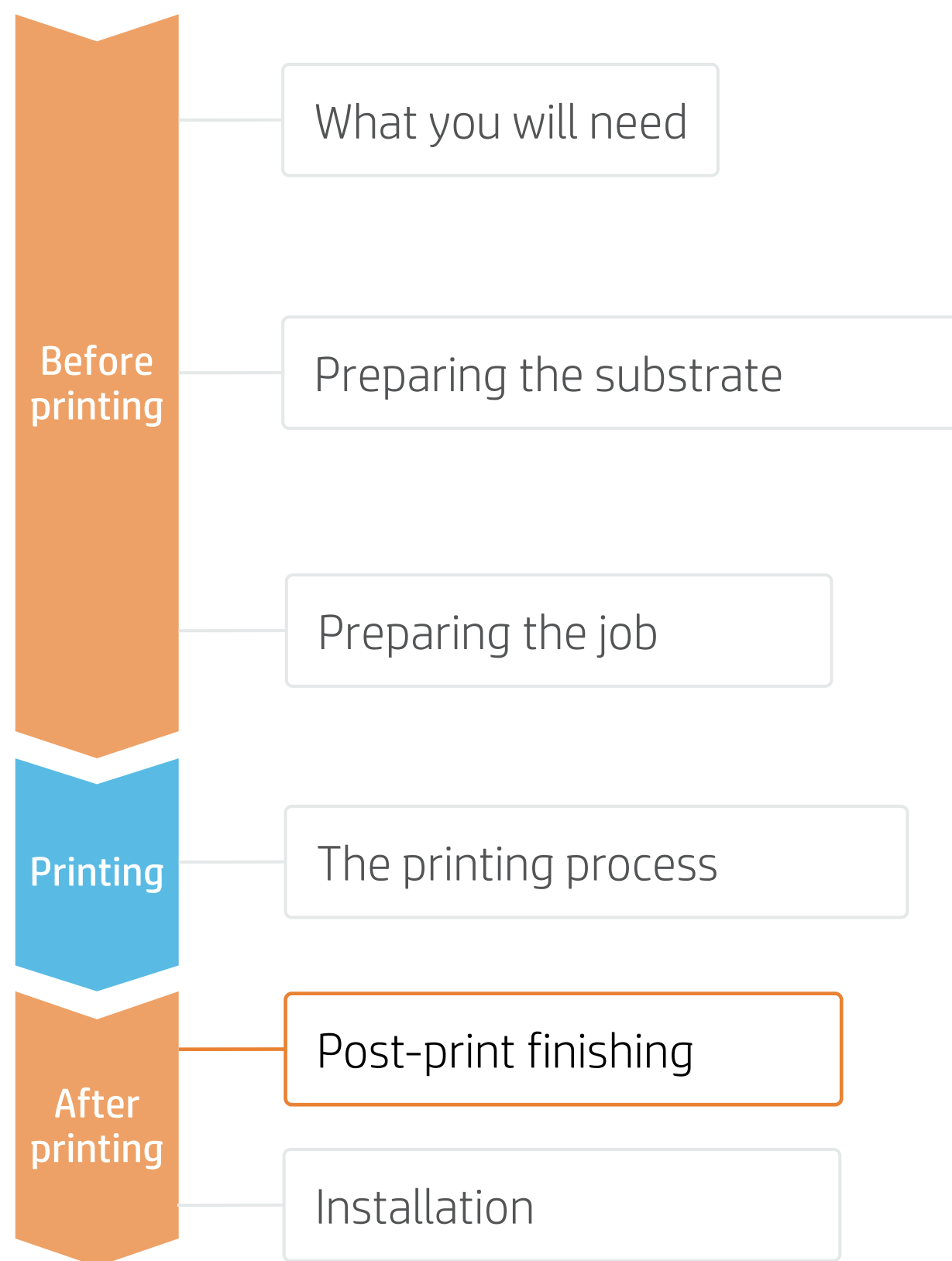


Sticker with **cut through**



# How to create window graphics

## Post-print finishing



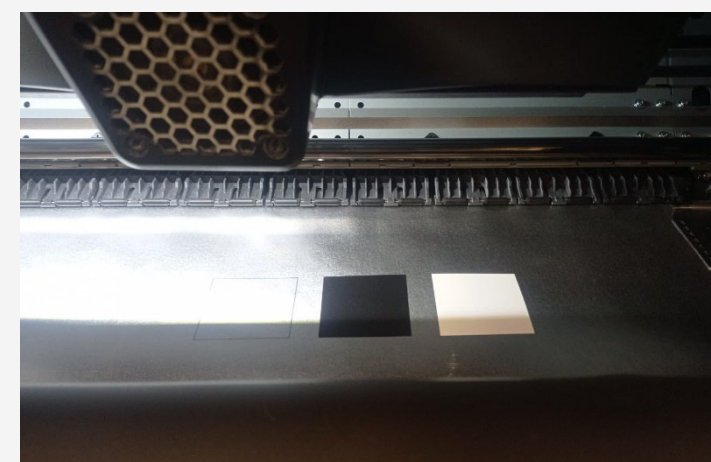
### 3. Cutting special medias – white ink OPOS

#### A. Load the plot correctly

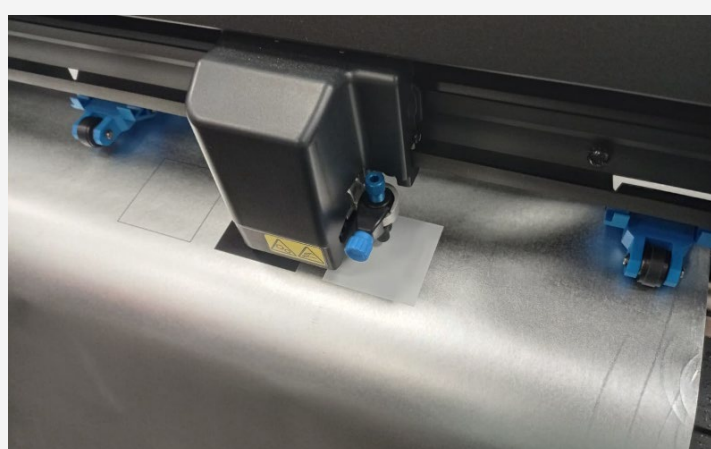


Position the plot so that the first pinch partly rolls over the white part of the HP barcode (see picture).

#### B. Calibrate media (OPOS)



Print calibration boxes (3x3 cm) in black (100 CMYK) and white (Spot W100) on the substrate for your print&cut jobs.



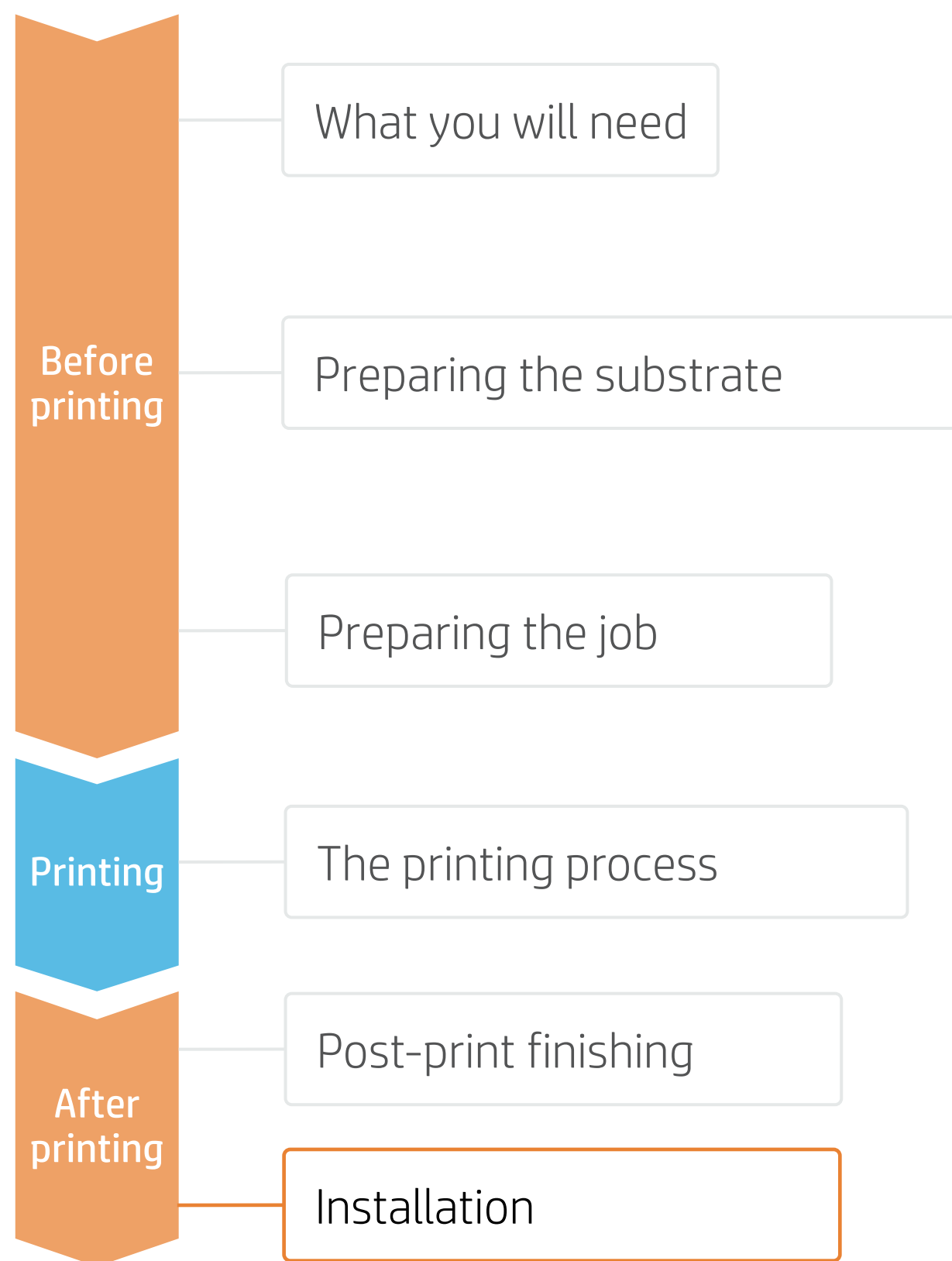
On the cutter's front panel, tap: **Calibrations > Calibrate media (OPOS)**. Follow the front panel instructions; you will be asked to position the OPOS sensor above each color patch, including the non-printed area.

**⚠ IMPORTANT!** The unattended workflow will not work with the HP barcode with a white background. After the first job is cut, you will have to position the OPOS sensor just below the HP barcode of the next job.

**💡 TIP:** Perform all the necessary calibrations on your cutter before continuing with your print&cut job. For further information, check the HP Cutter [user guide](#).

# How to create window graphics

## Installation



### 1. Handling Samples

- Handle samples with care! It is recommended to use gloves to prevent leaving fingerprints on the surface. We recommend rolling the printed samples on the outside of an empty core to prevent leaving accidental folding marks.
- Follow media vendor instructions to protect and store rolls.



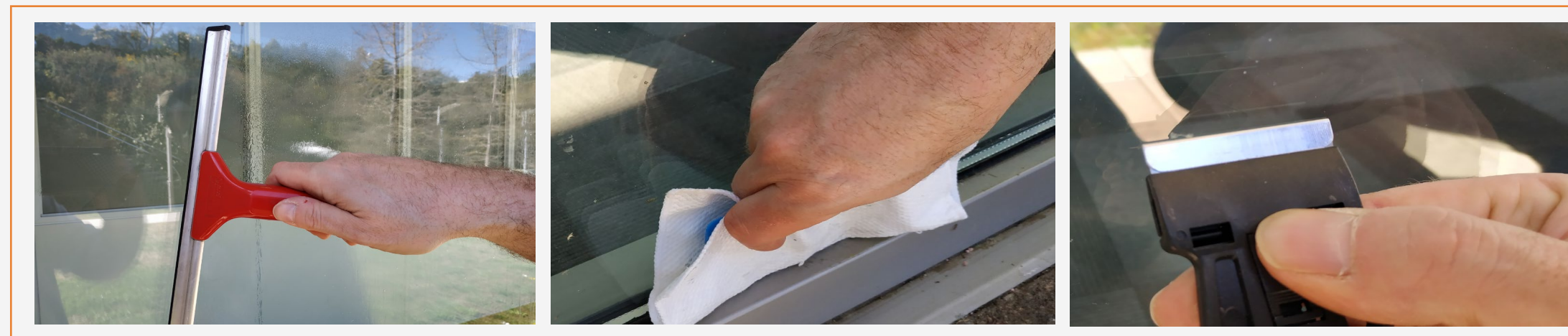
### 2. Pre-Cut samples



- In case of wrapping windows from edge to edge, pre-cut samples leaving 2-3 cm margins on the edges close to the window frame.
- In case of contour cuts, cut the samples to its final dimensions, leaving 2-3 cm margins on the edges close to the window frame.

### 3. Clean the window

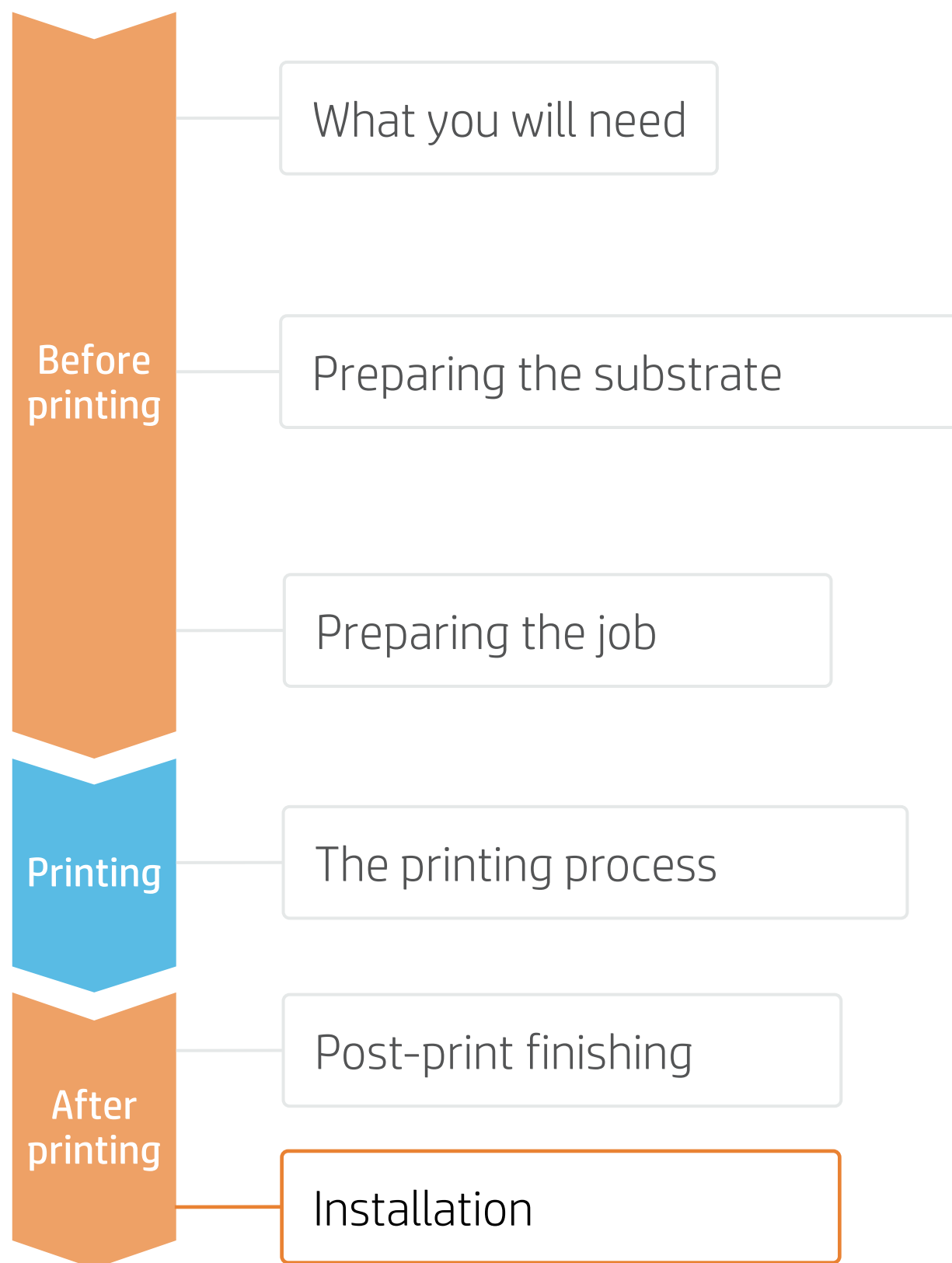
- Dust particles present on the glass will cause a visible bubble in the film.
- Clean the window using a specific window cleaner or soapy water. Use a window scraper to remove adhered dust if needed. Remove the water using a rubber squeegee and a lint-free cloth.
- Pay extra attention to the dirt present on the window glass edges and frame.





# How to create window graphics

## Installation



### 4. Registering the sign's position

- Place the sign on the window, without removing the liner yet, and with the help of a bubble level, place the sign in its final position.
- Apply 2 pieces of tape to fix the sign in its position.
- Carefully cut the tape on the edge of the sign with a sharp cutter. Do not apply pressure in order to not scratch the glass. The tape left on the window will be used as reference together with the tape on the sign.
- Align the 2 pieces of tape to ensure proper registering and apply the sign.

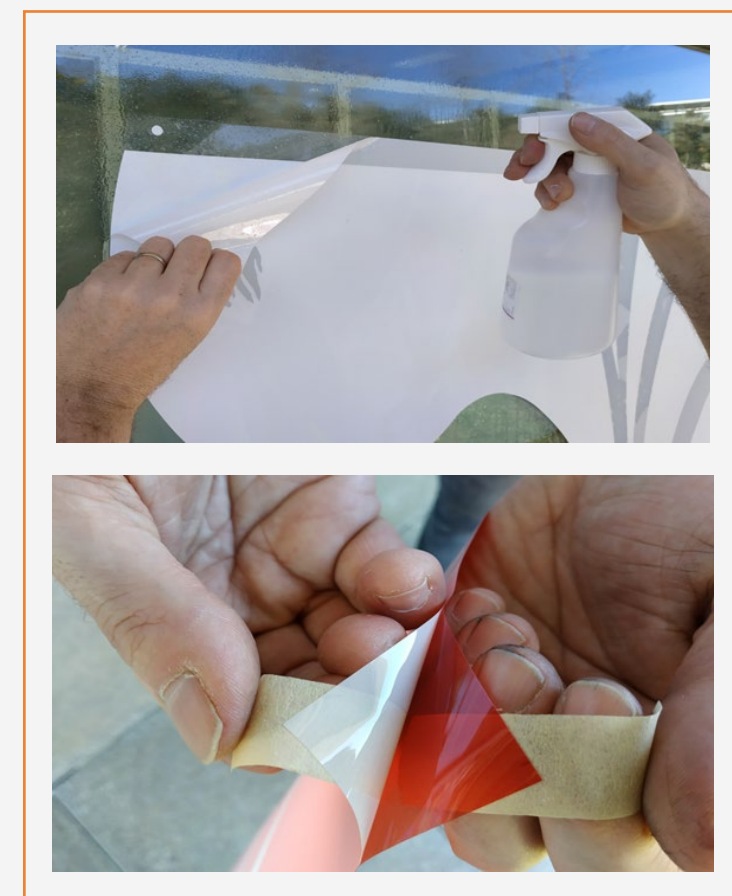


### 5. Remove the liner

- Remove the film's liner on a clean surface. When removing the liner from the printed film, static charges may be created and some dust may adhere to the adhesive. In order to prevent the dust from adhering, spray soapy water on the exposed adhesive while the liner is being removed.

**NOTE:** If sign is applied using the wet technique, ensure that you use a substrate with a solvent adhesive. Water-based adhesives may leave a milky finish when they come in touch with water.

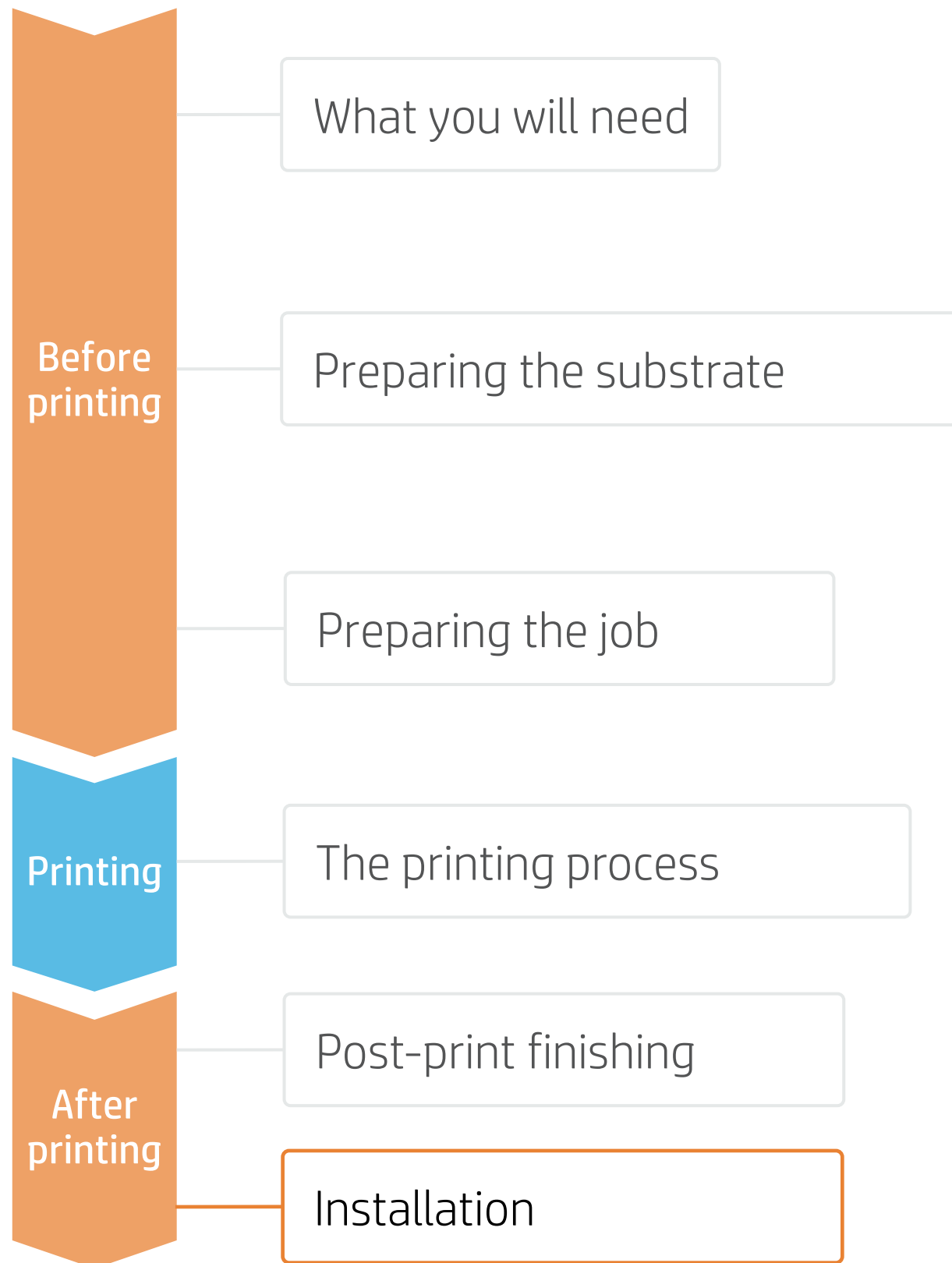
**TIP:** To remove the liner easily you can use 2 pieces of tape adhered on both sides of the sign. Place those pieces on a corner and pull them away from the sign.





# How to create window graphics

## Installation



### 6. Apply the sign

- Spray water on the center of the window, trying not to wet the window's edges.
- Place the sign in its final position using the registers previously marked. In case the film is adhering to the window, spray some more water on the window.
- With the help of a soft squeegee, remove the water, moving the squeegee from the center to the edges of the sign.

**TIP:** For lettering jobs, use transfer tape for perfect placement of each piece.

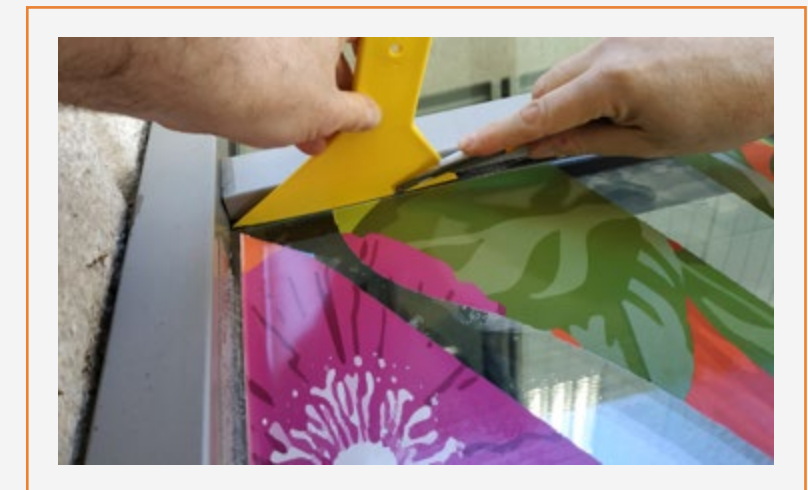


### 7. Cut to final size

With the help of a 5-way tool or with a long squeegee, press the excess of film to the edge of the window frame.

Place the 5-way tool or the long squeegee between the cutter and the window edge. Use the 5-way tool as a guide to cut the excess of film.

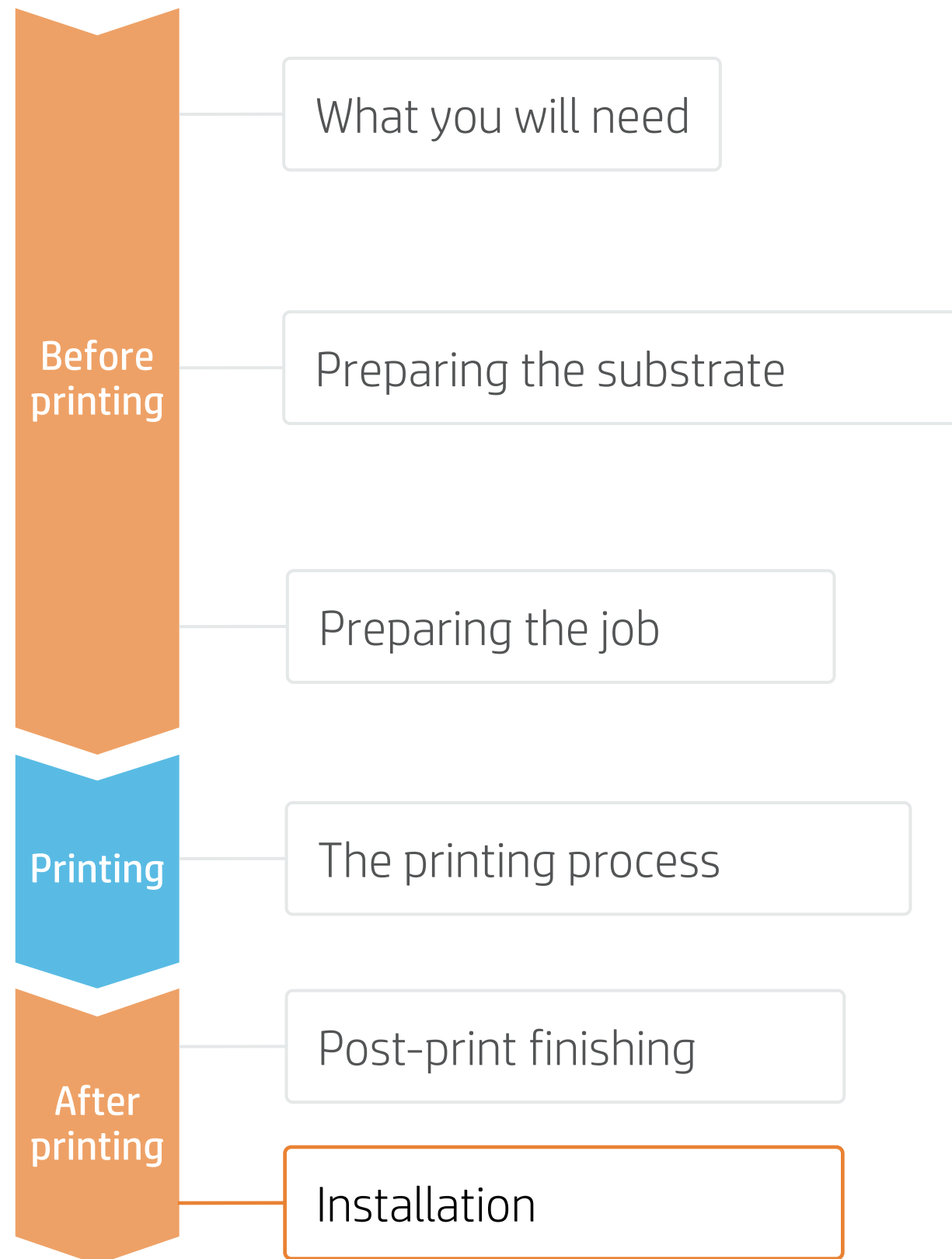
**NOTE:** Following this step, the film won't touch the edge of the window, and this space will become almost unnoticeable.



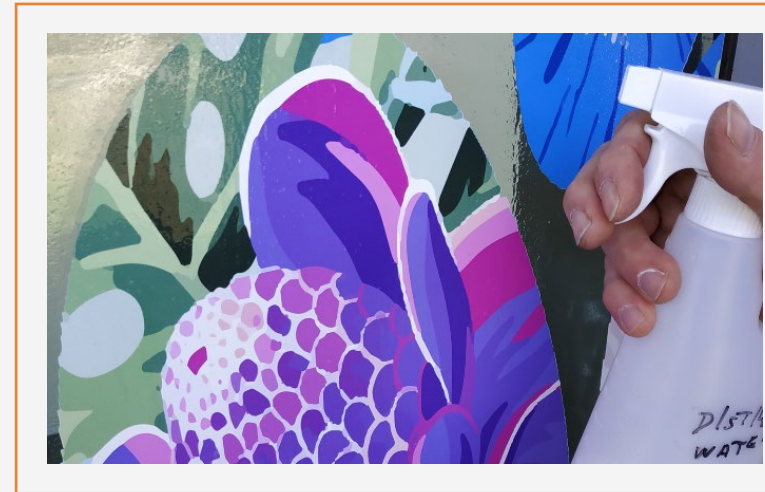


# How to create window graphics

## Installation

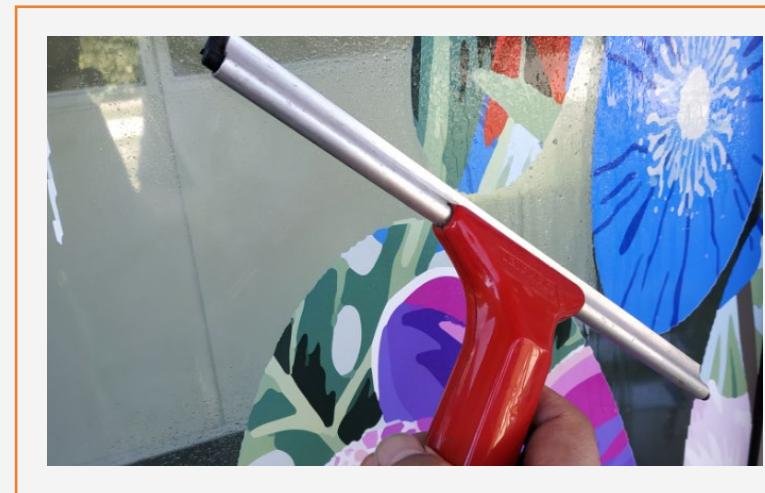


### 8. Re-squeegee the sign



Spray some soapy water on the installed sign and re-squeegee it until removing the excess of water that might remain between the window and the sign.

### 9. Cleaning



During the life of the sign, it will probably be needed to clean the window and the sign. We recommend cleaning it with soapy water and a soft cloth. We do not recommend use aggressive, alcohol-based cleaners to clean the sign.

### 10. Signs with multiple panels



In case of using multiple panels, follow the same steps. Allow 2-3 cm overlap between the different tiles that compose the image.



# How to create window graphics

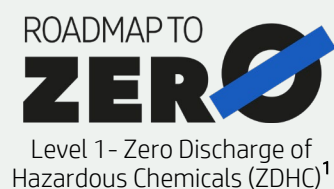
## Remarks

- High opacity true white, without yellowing over time.
- High flexibility white with strong scratch resistance.
- Automatic white maintenance & low waste solution.
- The new HP Latex inks are ideal for safe indoor applications. The newest HP Latex Inks are UL ECOLOGO and UL GREENGUARD GOLD certified, and conform to the Zero Discharge of Hazard Chemicals (ZDHC) manufacturing restricted substances list v1.1.
- We recommend protecting your prints with film lamination for long-term usage and high-transit areas.

### Learn more at:

- [HP Latex Knowledge Center](#)
- [Learn with HP](#)

## Certifications:



Level 1- Zero Discharge of Hazardous Chemicals (ZDHC)<sup>1</sup>



Inks meet stringent health and environmental criteria<sup>2</sup>



Unrestricted, full room. No-wait installation or lamination<sup>3</sup>

<sup>1</sup>Zero Discharge of Hazardous Chemicals. Applicable to HP Latex Inks. The ZDHC Roadmap to Zero Level 1 demonstrates that an ink conforms to or meets the standards of the ZDHC Manufacturing Restricted Substances List (ZDHC MRSL) 1.1, a list of chemical substances banned from intentional use during production. ZDHC is an organization dedicated to eliminating hazardous chemicals and implementing sustainable chemicals in the leather, textile, and synthetics sectors. The Roadmap to Zero Program is a multi-stakeholder organization which includes brands, value chain affiliates, and associates, that work collaboratively to implement responsible chemical management practices. See [roadmaptozero.com](http://roadmaptozero.com).

<sup>2</sup>Applicable to R Series and 700/800 Printer series HP Latex Inks. UL ECOLOGO® Certification to UL 2801 demonstrates that an ink meets a range of multi-attribute, lifecycle-based stringent criteria related to human health and environmental considerations (see [ul.com/EL](http://ul.com/EL)). HP is the only printing company with UL ECOLOGO® Certified inks in the "Printing Inks and Graphics Film" product category, see [spot.ul.com/main-app/products/catalog/](http://spot.ul.com/main-app/products/catalog/).

<sup>3</sup>Applicable to HP Latex Inks. UL GREENGUARD Gold Certification to UL 2818 demonstrates that products are certified to UL's GREENGUARD standards for low chemical emissions into indoor air during product usage. Unrestricted room size—full decorated room, 33.4 m<sup>2</sup> (360 ft<sup>2</sup>) in an office environment, 94.6 m<sup>2</sup>(1,018 ft<sup>2</sup>) in a classroom environment. For more information, visit [ul.com/gg](http://ul.com/gg) or [greenguard.org](http://greenguard.org).

## In partnership with:





