

How to create window graphics with the HP Latex 2700 and HP Latex 2700 W Printer Series

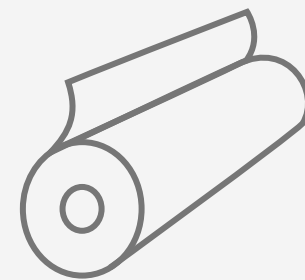
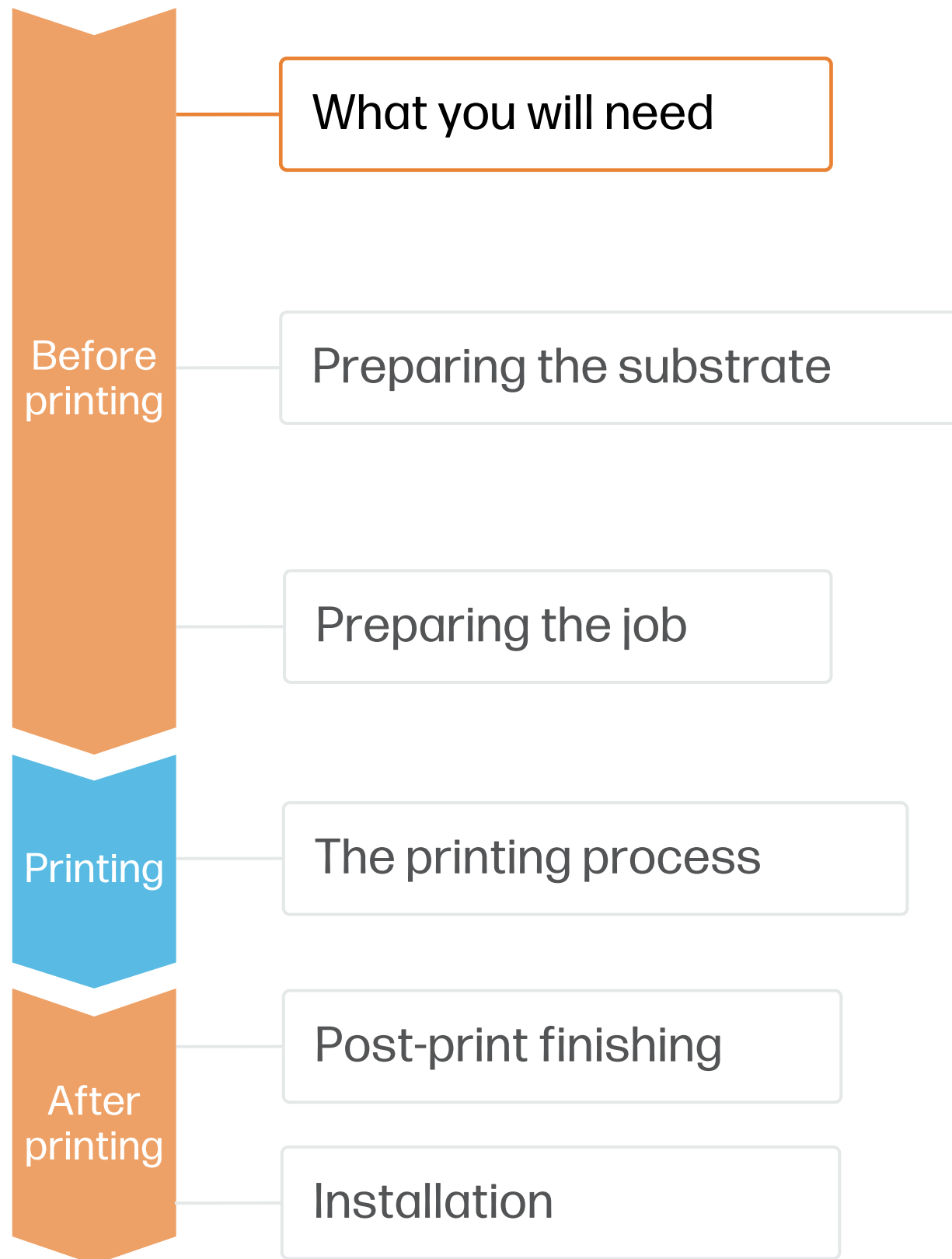
This document will explain how to print on clear substrates—either self-adhesive vinyl or polyester films—to create window graphics.

A deep-dive training about window graphics on the [HP Latex 2700/2700 W Printer series](#) – [Window graphics](#) is available in the Learn App from your PrintOS account.



How to create window graphics

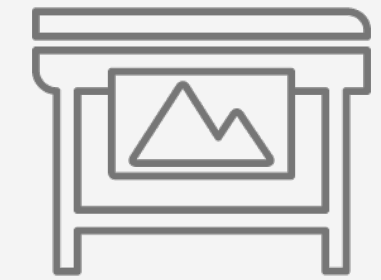
What you will need



Clear self-adhesive vinyl or polyester film



SW tools (RIP, editor, etc.)



Printer



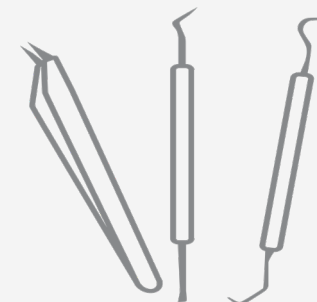
Cutting device - HP Latex Cutter Plus



Film laminate (optional)



Film laminator (optional)



Weeding tool (optional)



Transfer tape (optional)



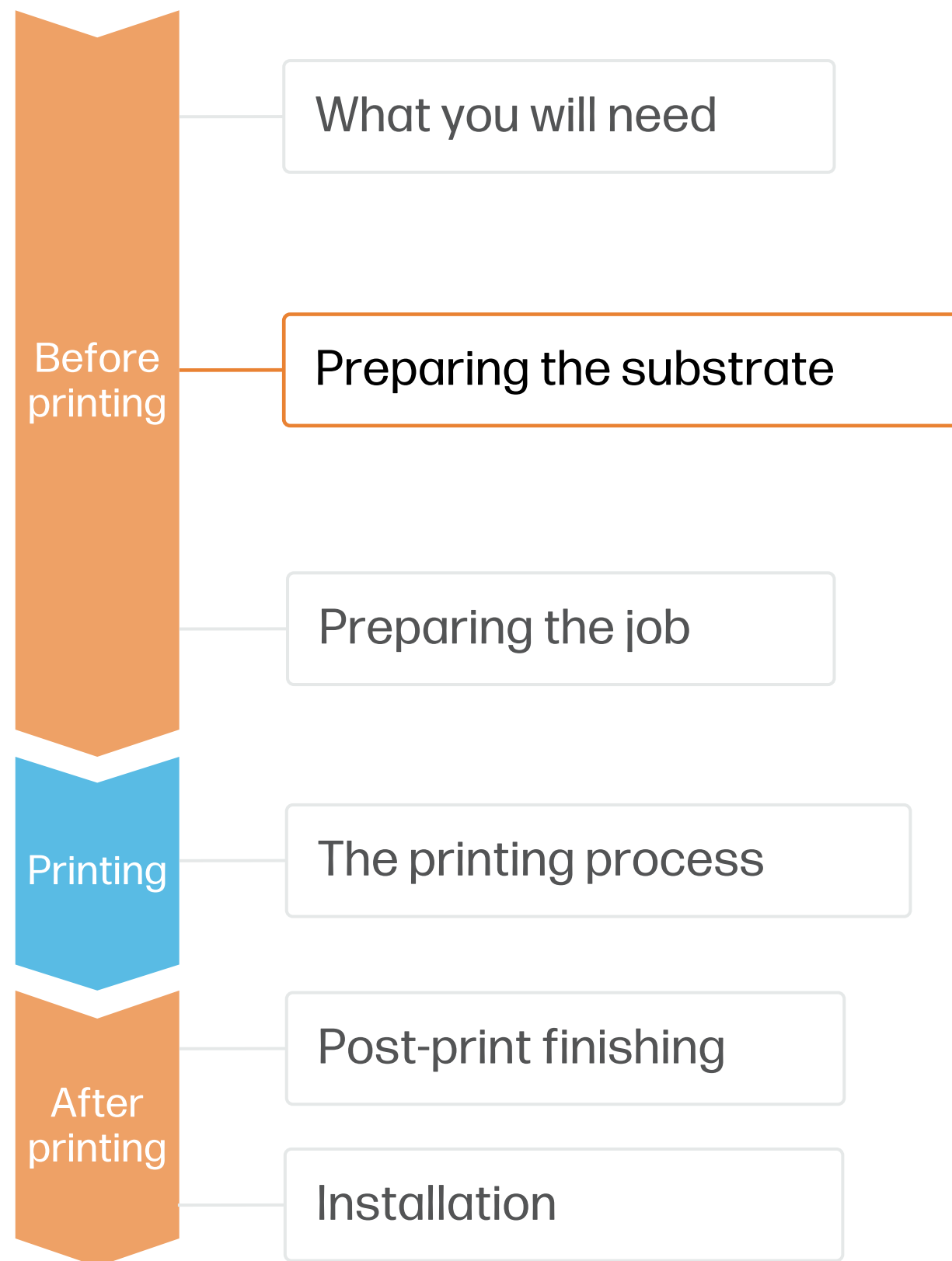
Plastic squeegee with low-friction sleeve



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: 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

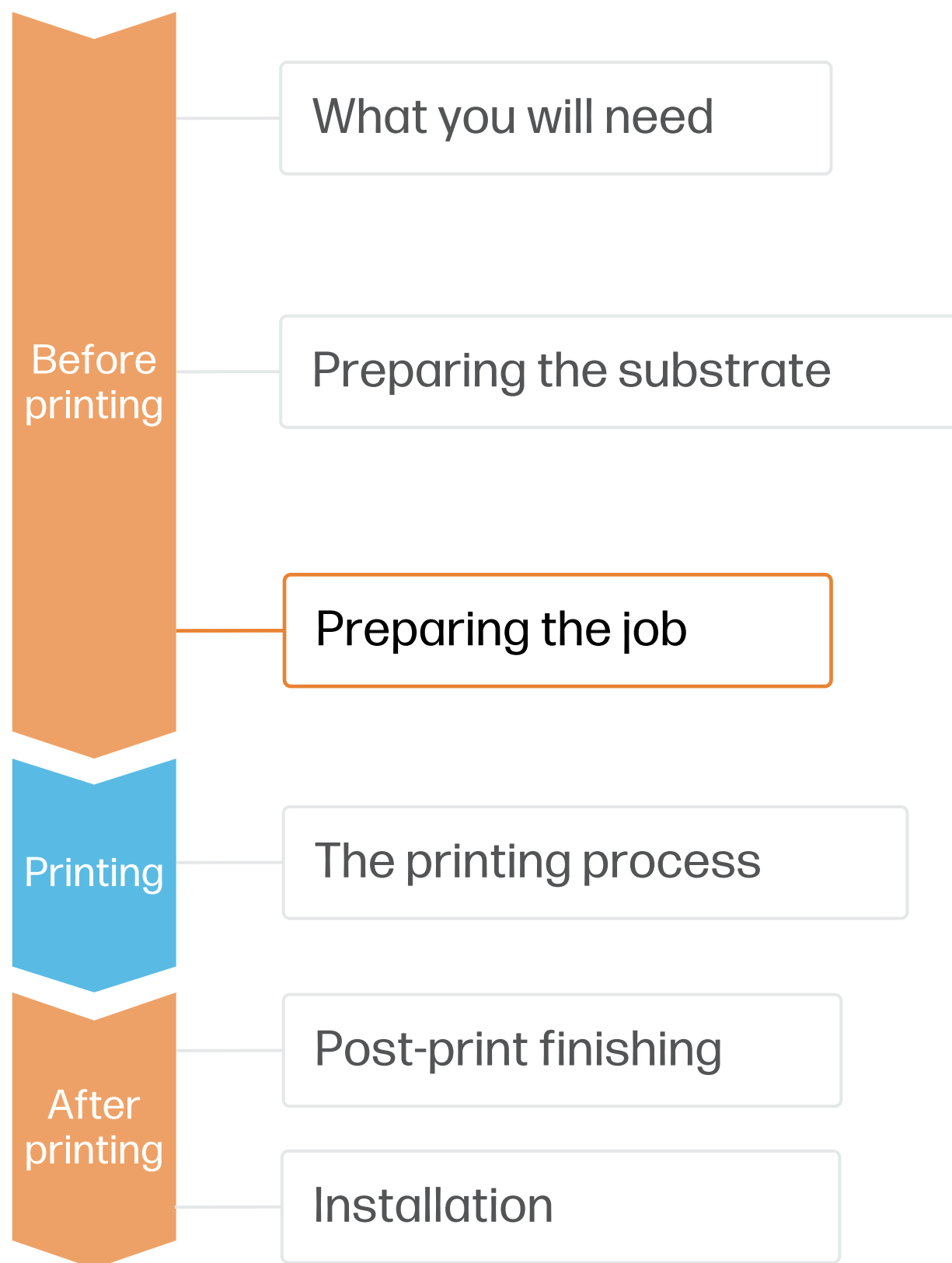
- Check that the material you are going to use has its own substrate preset:
 - a) On the **web**, in the HP PrintOS Media Locator: www.printos.com/ml/#/medialocator
 - b) On the **web**, from the substrate vendor's or RIP vendor's websites
- Download and install.

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 trainings HP Latex 2700/2700 W Printer series. [Basic](#) or [Advanced](#) certifications

How to create window graphics

Preparing the job



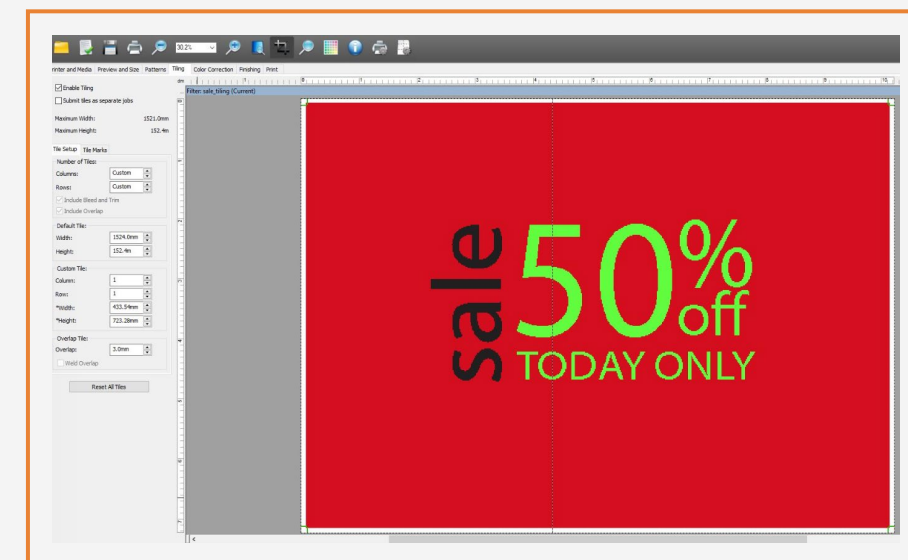
1. Measure the window

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.



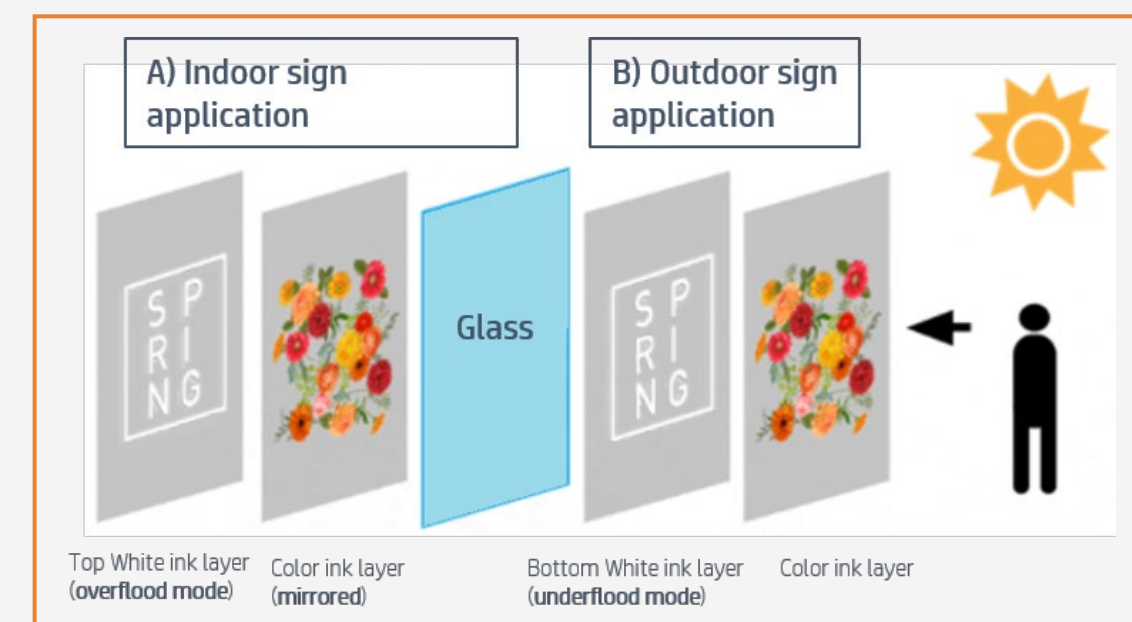
2. Big windows

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

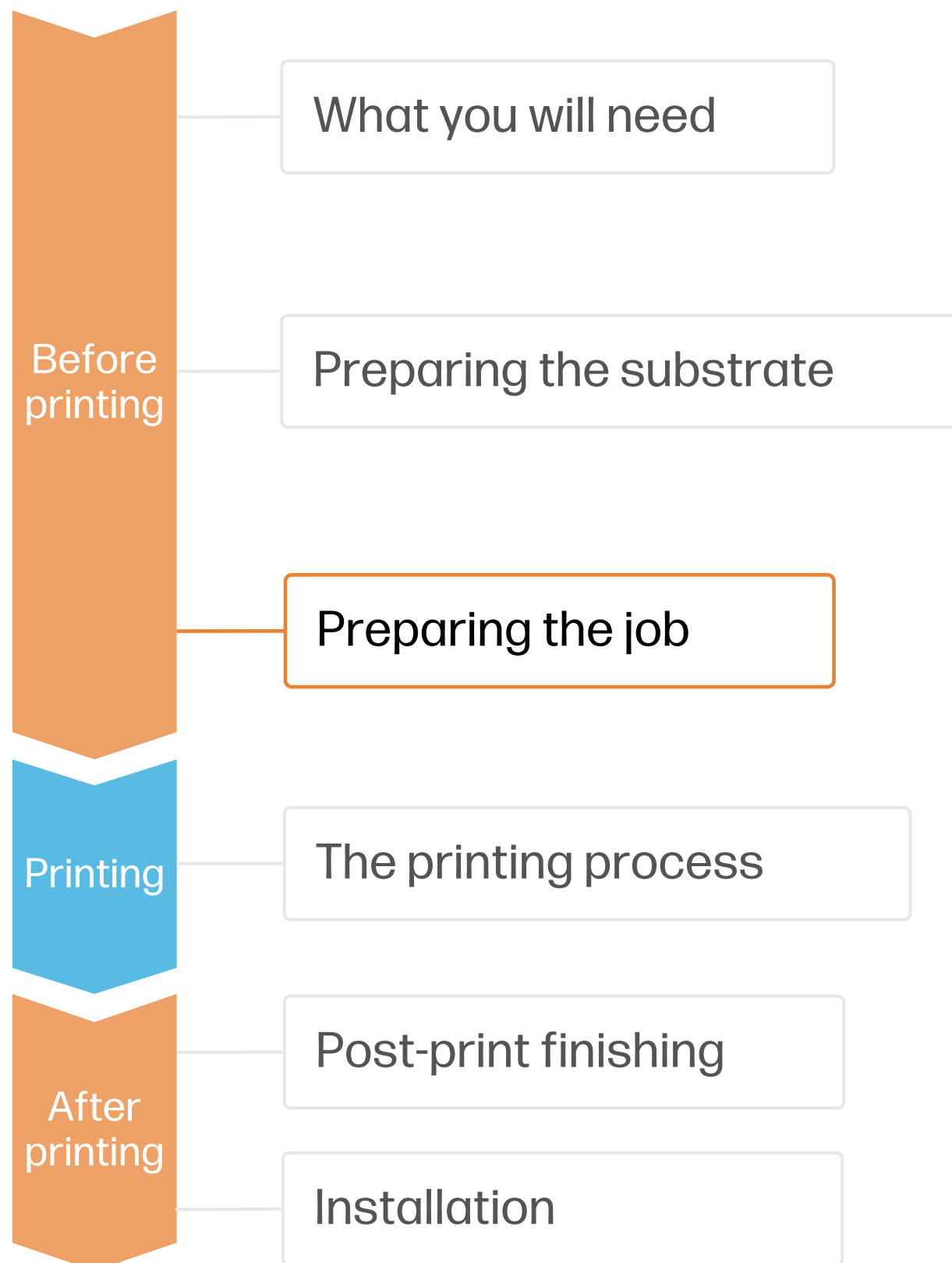
- A. If sign installation is done indoors and the sign is viewed from outdoors, the image needs to be **mirrored** and the white print mode selection should be **overflow or spot**.
- B. If installation and viewing side are outdoors, the image does not need to be mirrored and the white printmode selection 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 Adobe Illustrator, Photoshop, and InDesign help you design and edit jobs and adapt them to your needs.



Make your decision based on your needs

2. Create White ink layers

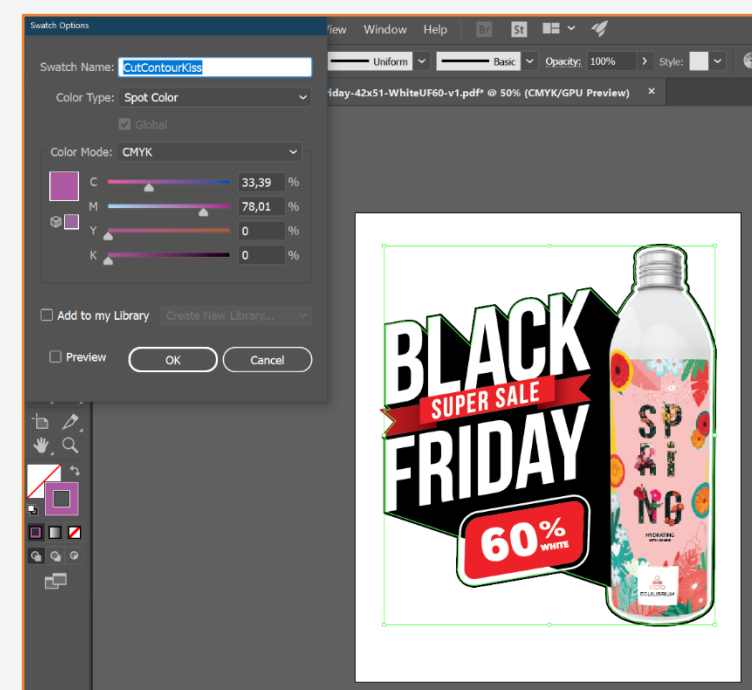
You can use several tools to create the white ink layer in your image:

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.

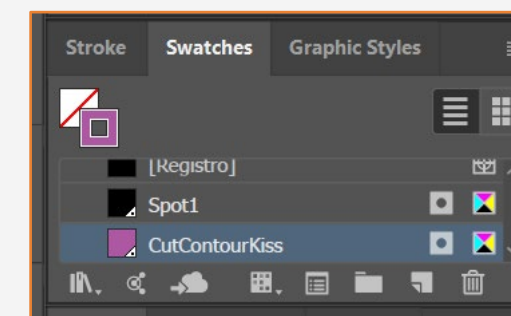
NOTE: To work with white ink layers, learn how to create it with Illustrator and Photoshop by enrolling on the available trainings HP Latex 2700/2700 W Printer series [White ink overview](#), [White ink modes](#) or [White ink maintenance tasks](#).

3. Add contour cut paths for automatic cutting

A. Using Adobe Illustrator

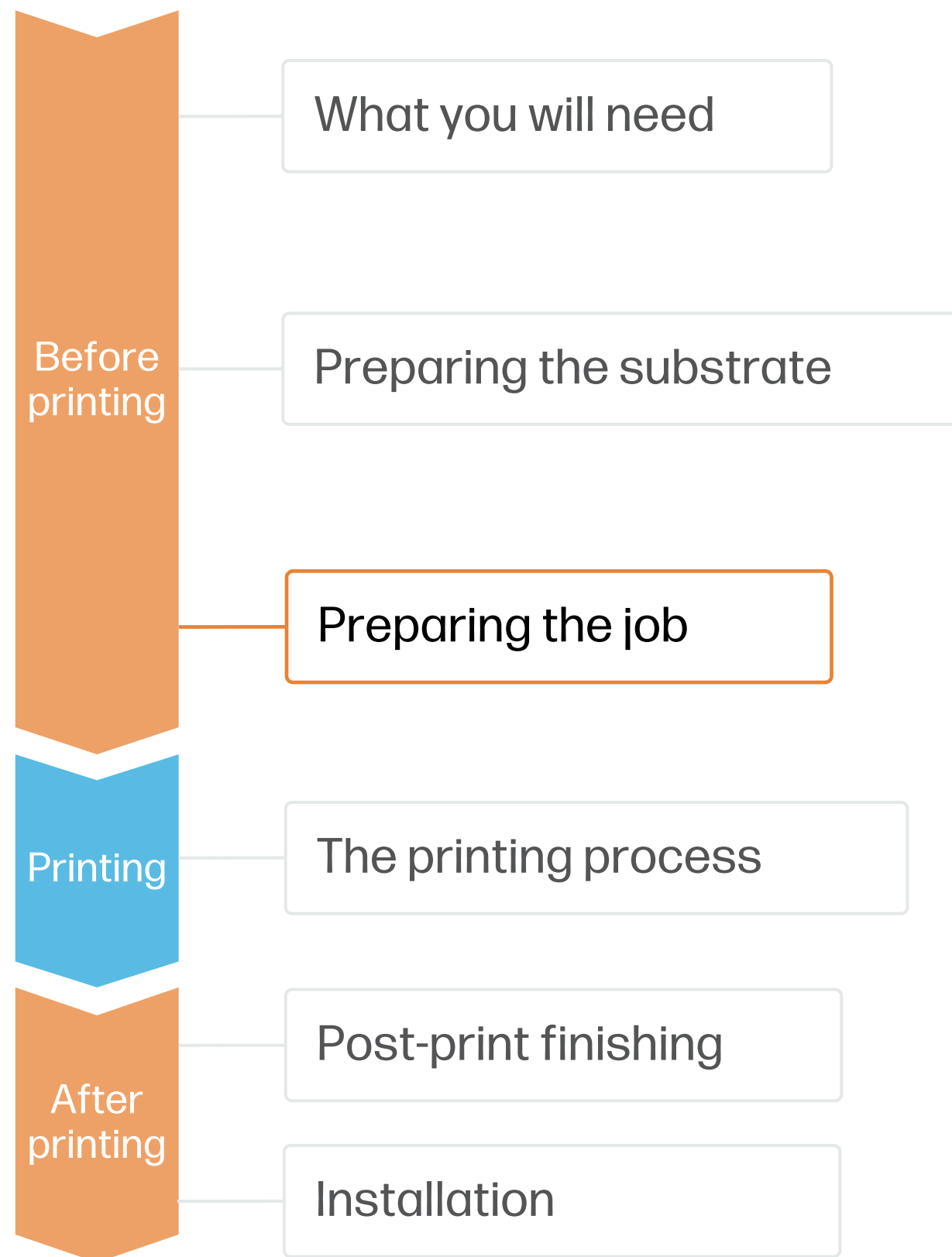


- Create a **new color swatch**
- Assign an identifiable name, e.g. **CutContourKiss**
- Select color type: **Spot Color**
- Create the cutting path with that color swatch



How to create window graphics

Preparing the job



4. RIP processes

ONYX, and Caldera RIPs have been certified for HP Latex 2700/2700 W series printers.

All these RIPs have specific options for job editing.

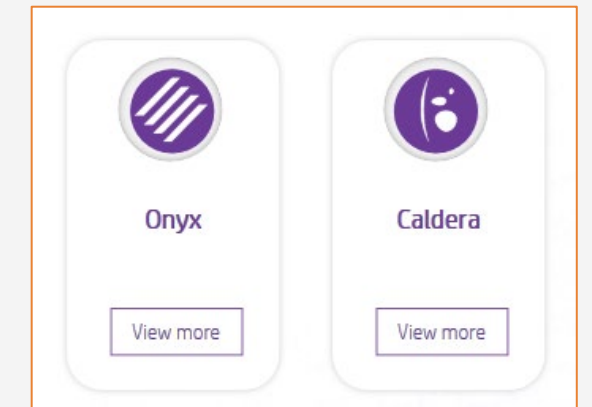
A. Substrate & Printmode selection

- Choose the substrate type (Generic Transparent Self-adhesive Vinyl 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

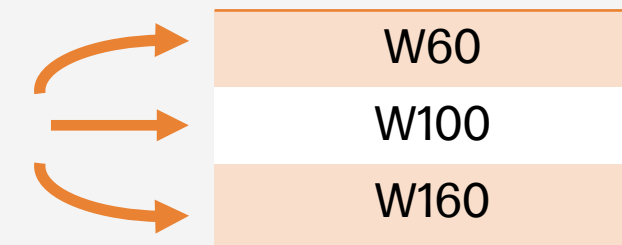


Make your decision based on your needs



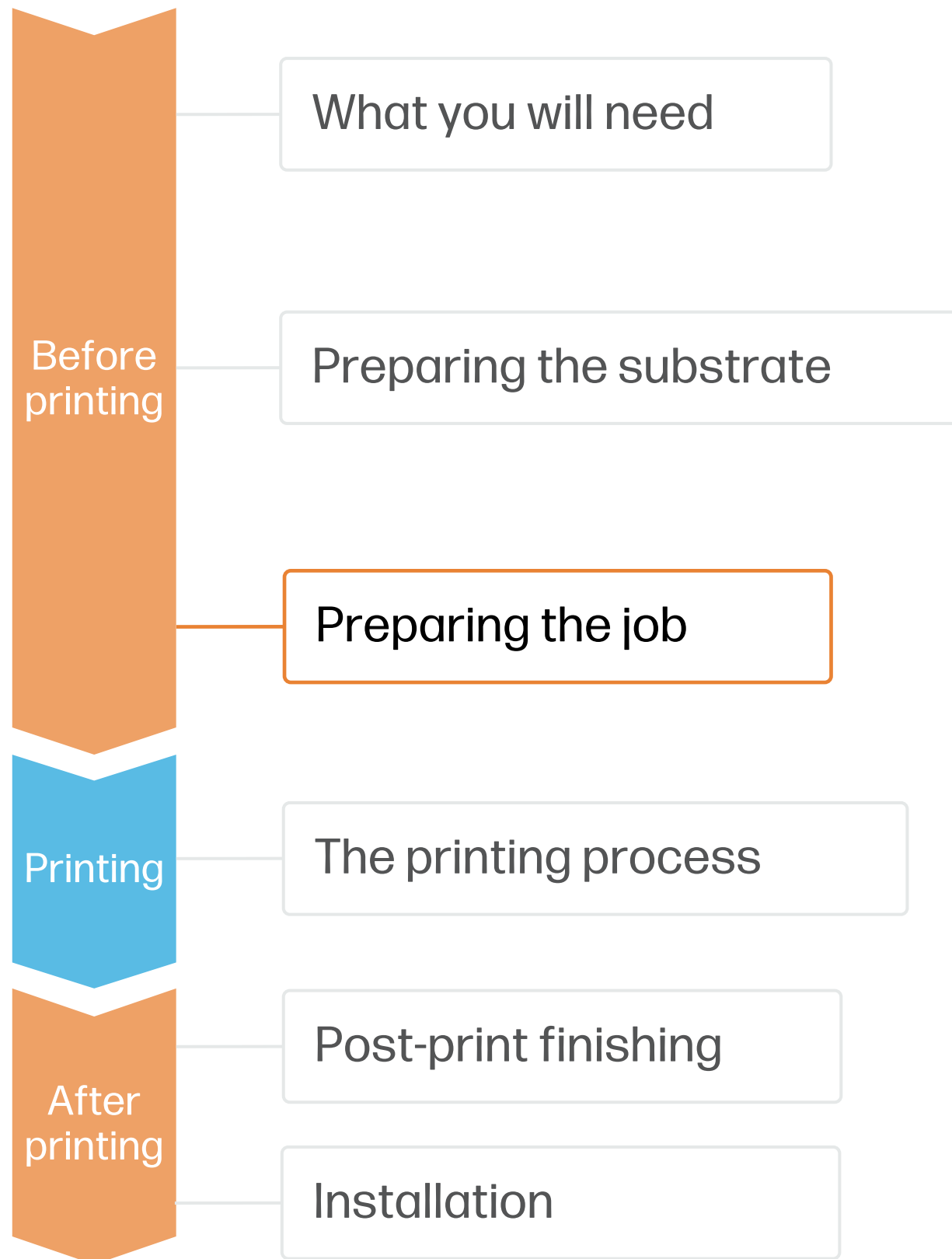
<p>Underflood Mode Select this mode on substrates installed and viewed from the same side (generally outdoors). In this mode, a white ink layer is printed first and then a color layer is printed on top of it.</p>	<p>Overflow Mode Select this mode on substrates applied on one side and viewed from the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



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.

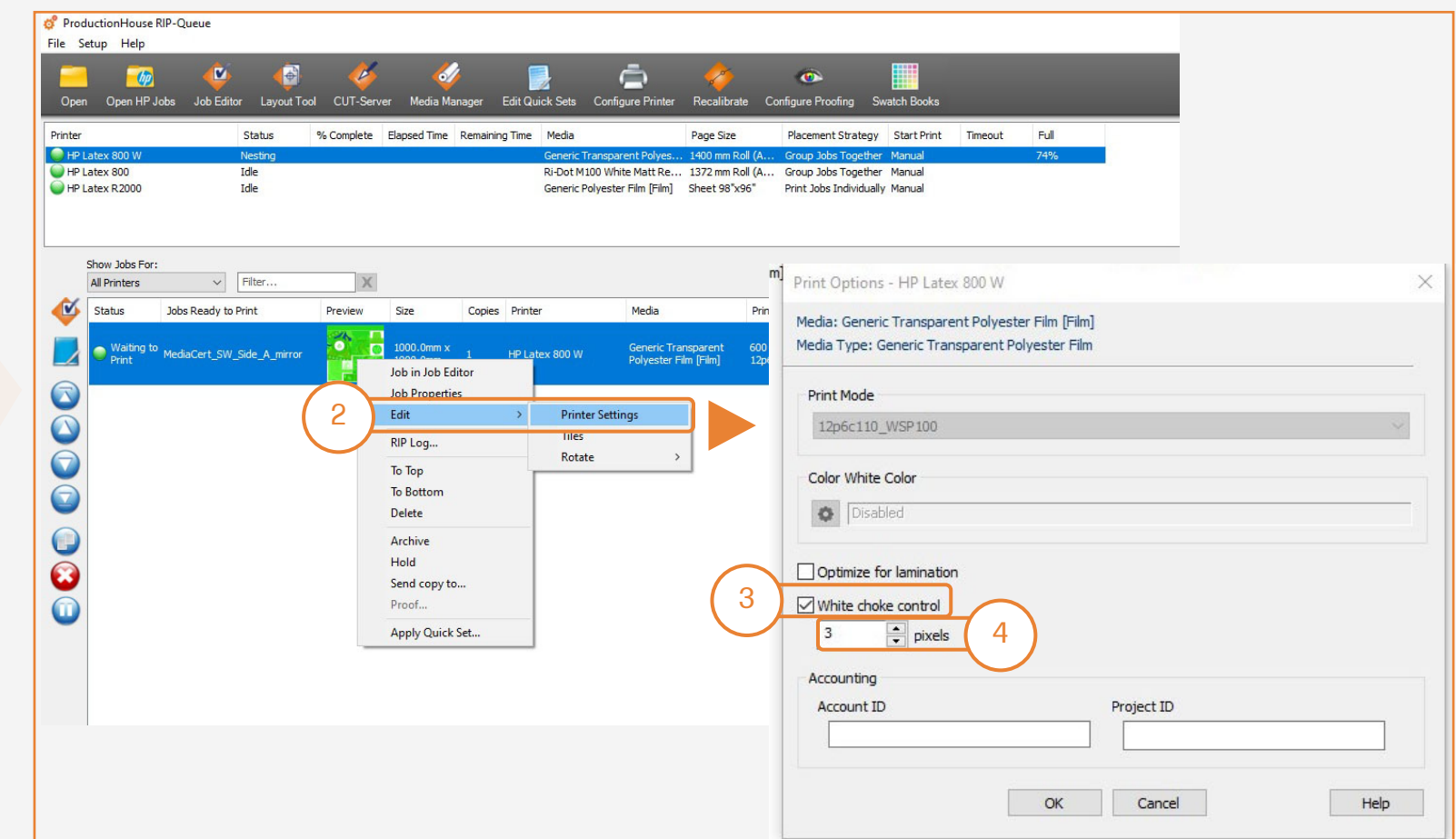


- By default, the RIP applies a default value of 3 pixels for choke.
- If a different value is required, you can modify the value in the RIP.

ONYX

In the job queue:

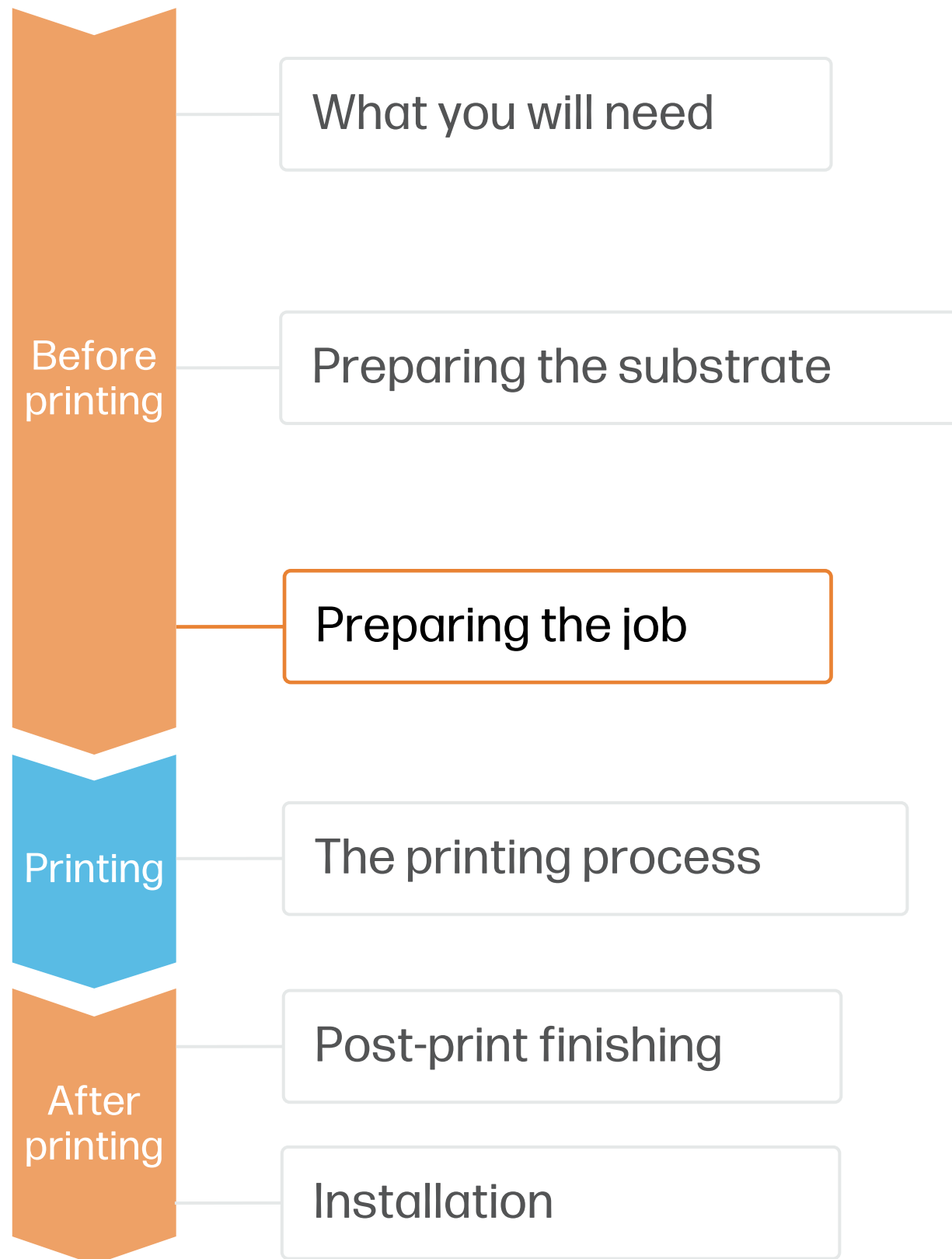
1. Right-click on your job.
2. Select **Edit > Printer Settings**.
3. Check **White choke control**.
4. Adjust the number of **pixels** you want to reduce.



Make your decision based on your needs

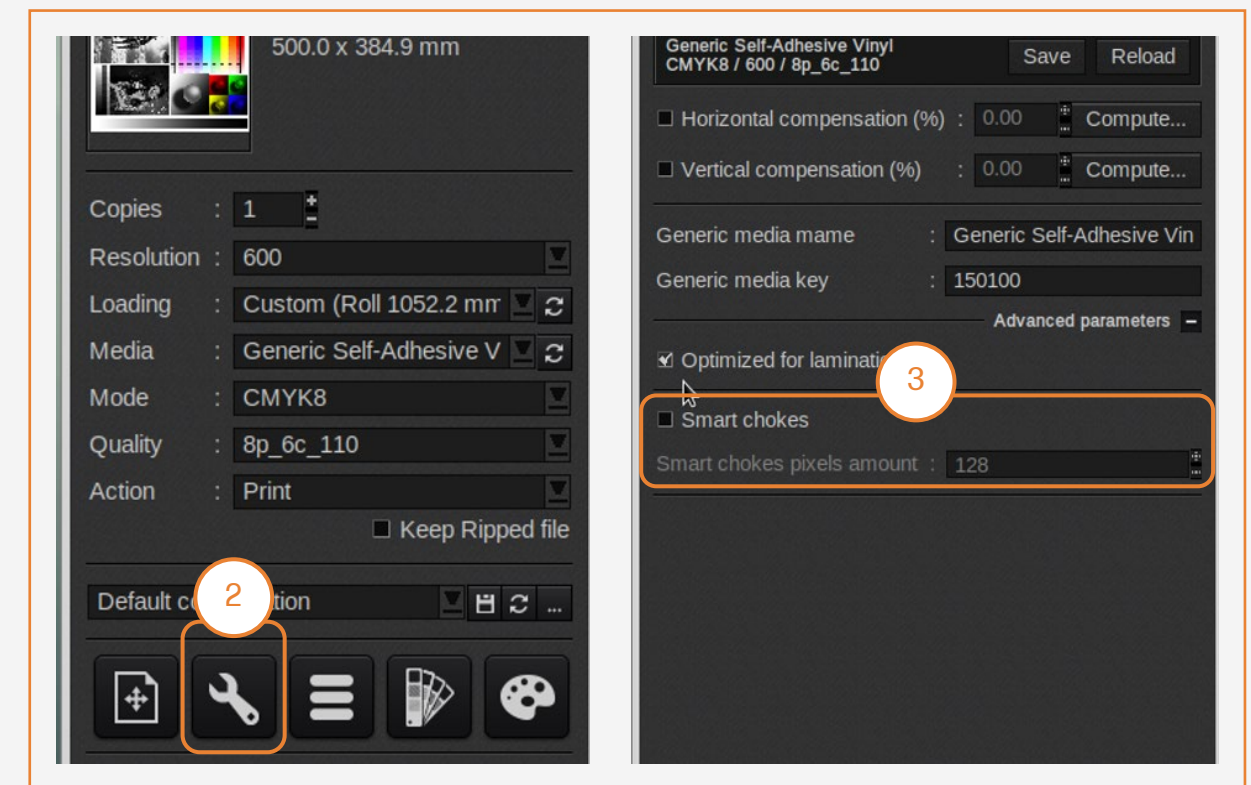
How to create window graphics

Preparing the job

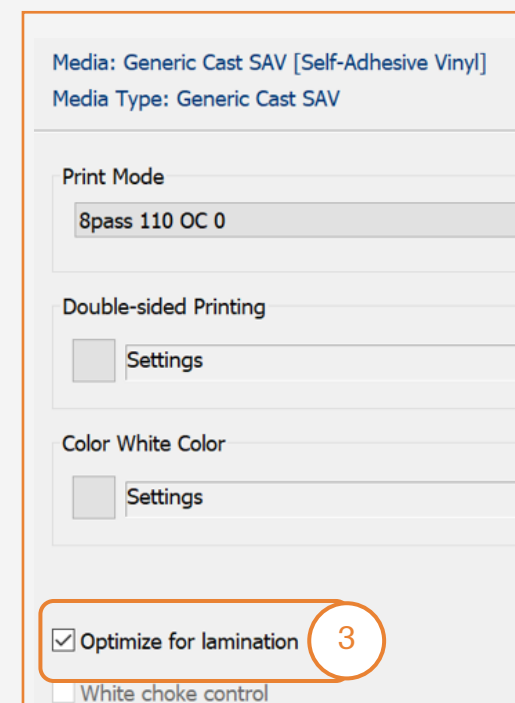


Caldera

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.



C. Option to optimize lamination



ONYX

In the job queue:

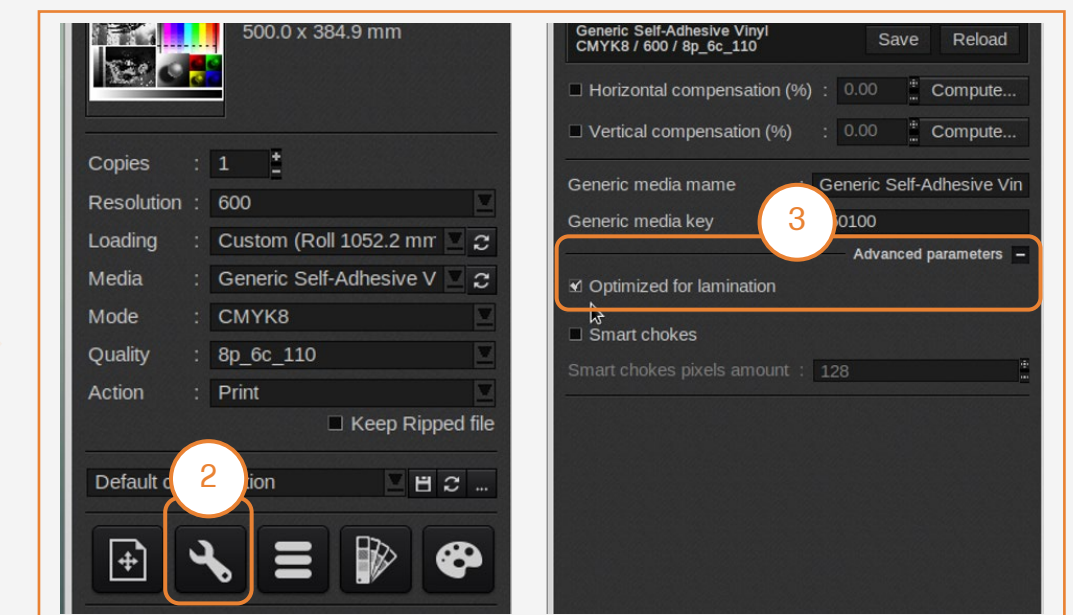
1. Right-click on your job.
2. Select **Edit > Printer Settings**.
3. Click **Optimize for lamination**.



Make your decision based on your needs

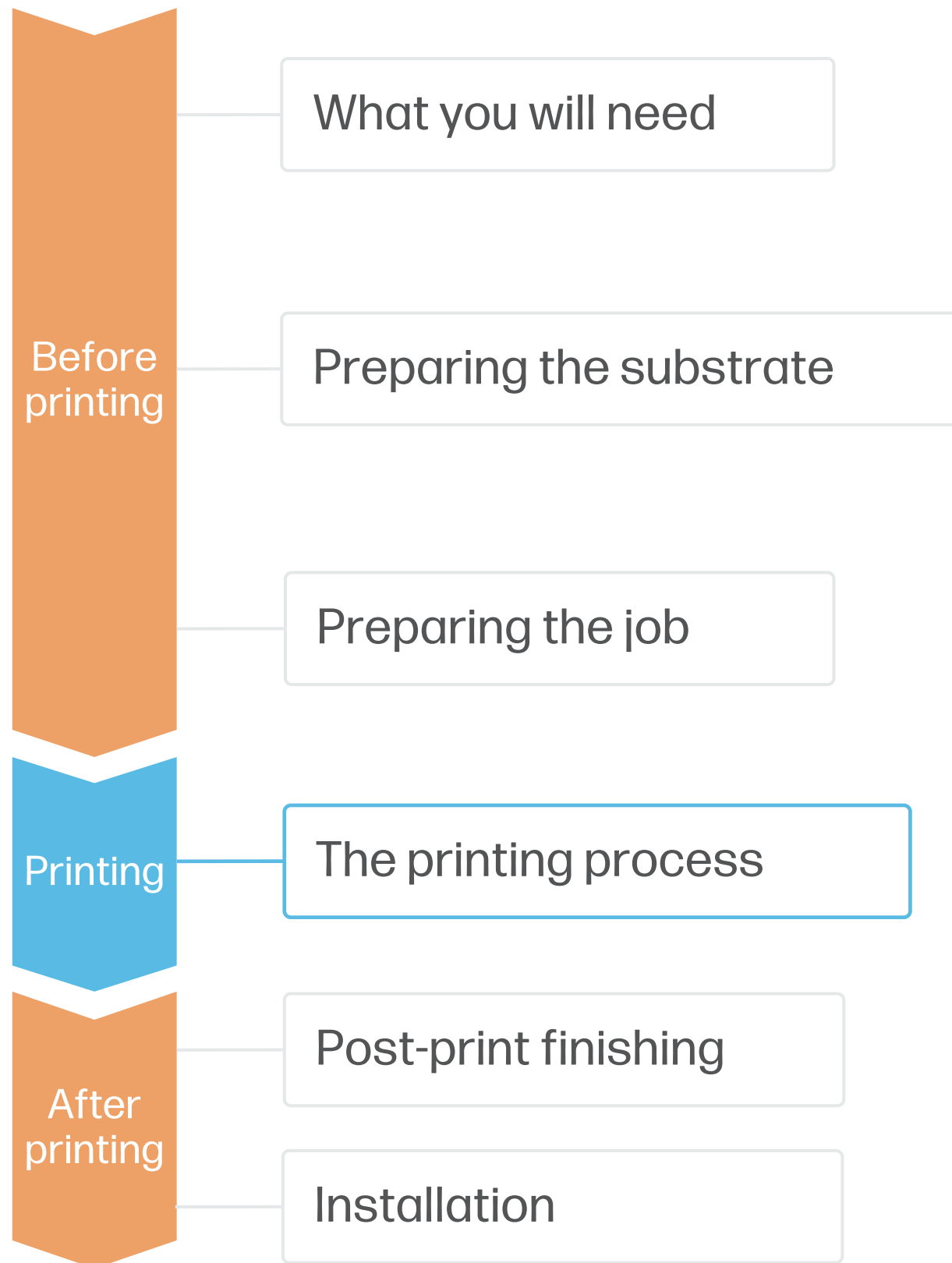
Caldera

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



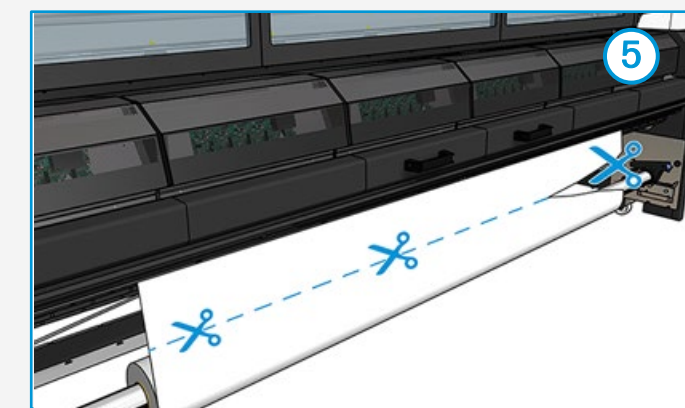
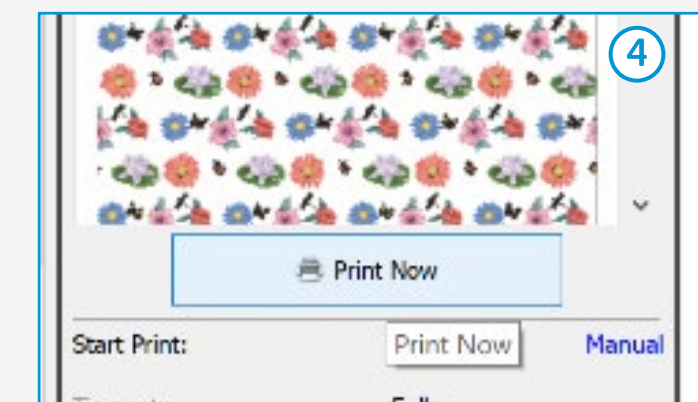
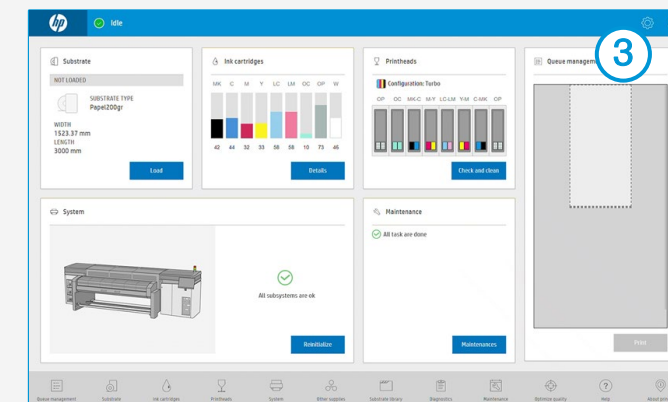
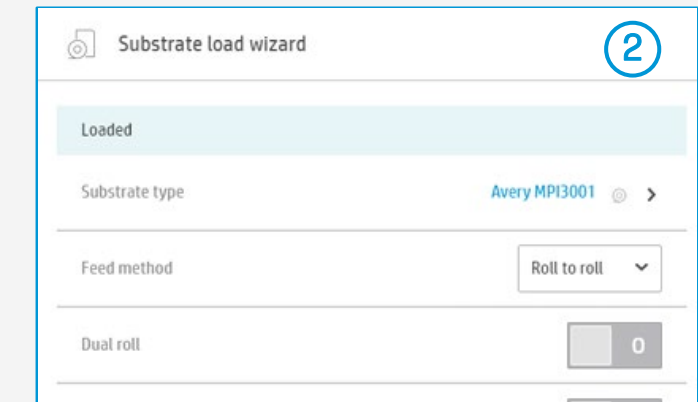
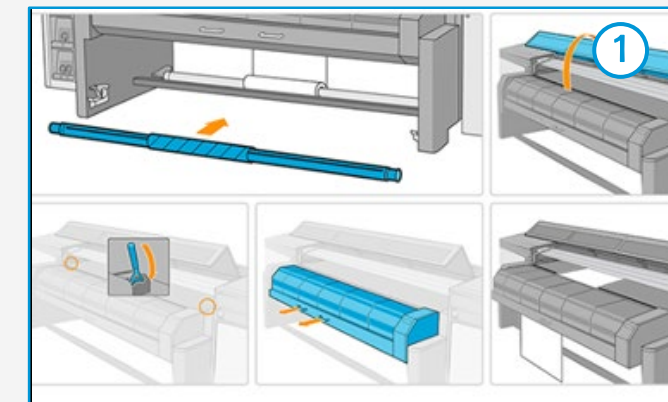
How to create window graphics

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 roll** into the printer using the roll-to-roll configuration, if you need help the wizard in the IPS will guide you through this process.
2. **Select the right media preset**
If your media is new, select the **Generic Self-Adhesive Vinyl** preset.
3. **Check print IQ status**
Perform the printhead nozzle check and printhead alignment.
4. **Send job to print from RIP**
 - Check the RIP has synchronized the loaded substrate with the printer.
 - Select the correct printmode and set any other settings (copies, placements, etc.).
 - Click **Send to print**.
5. **Cut & retrieve printed roll**
This can be done manually.

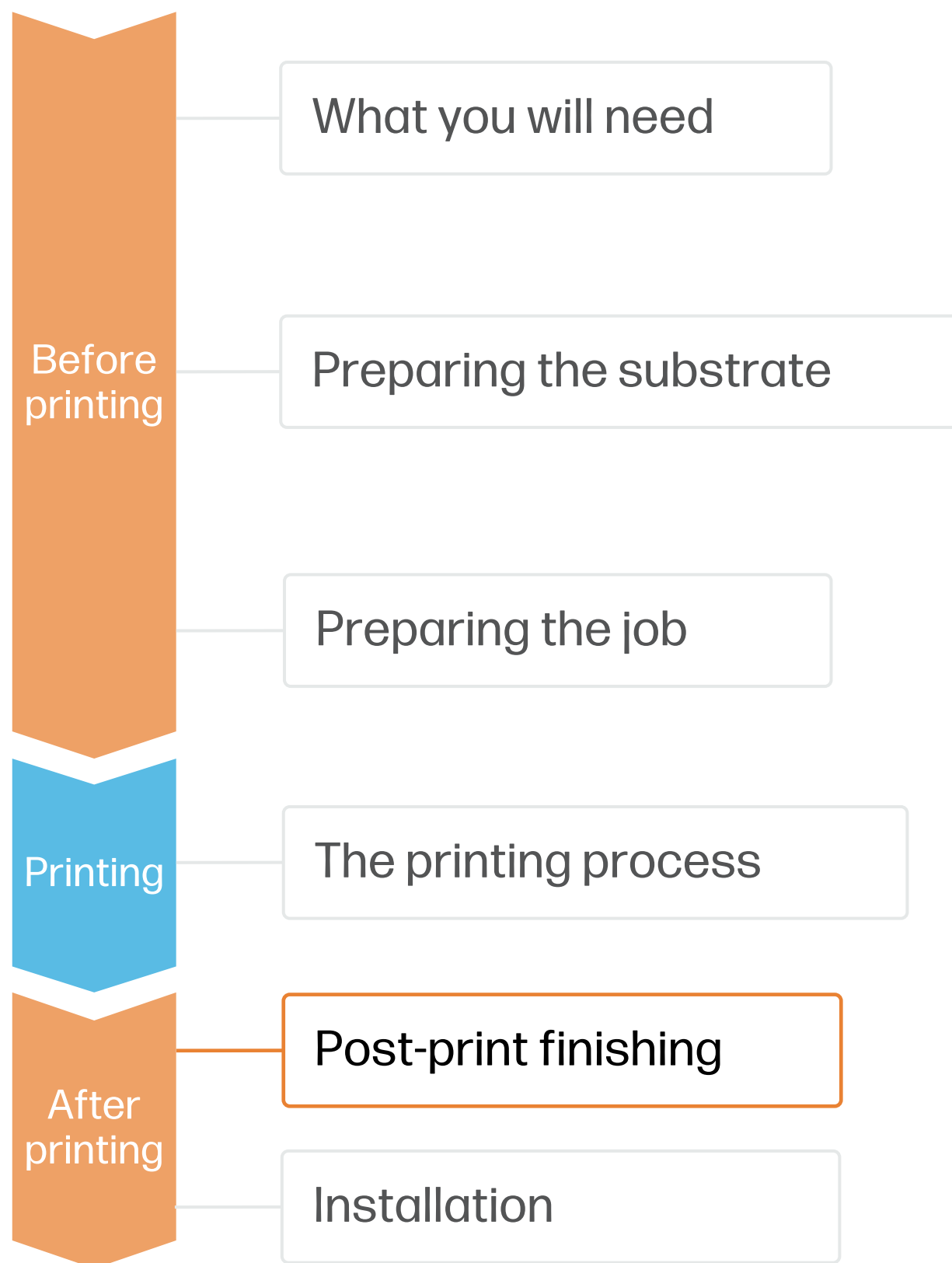


TIP: Before cutting the printed job, advance the substrate so you protect the printed roll when unloaded.
For further information, click on the following link to see the video to learn about how to load a roll into the printer [here](#)

NOTE: To work with white ink layers, learn how to create it with Illustrator and Photoshop by enrolling on the available trainings HP Latex 2700/2700 W Printer series [White ink overview](#), [White ink modes](#) or [White ink maintenance tasks](#).

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.



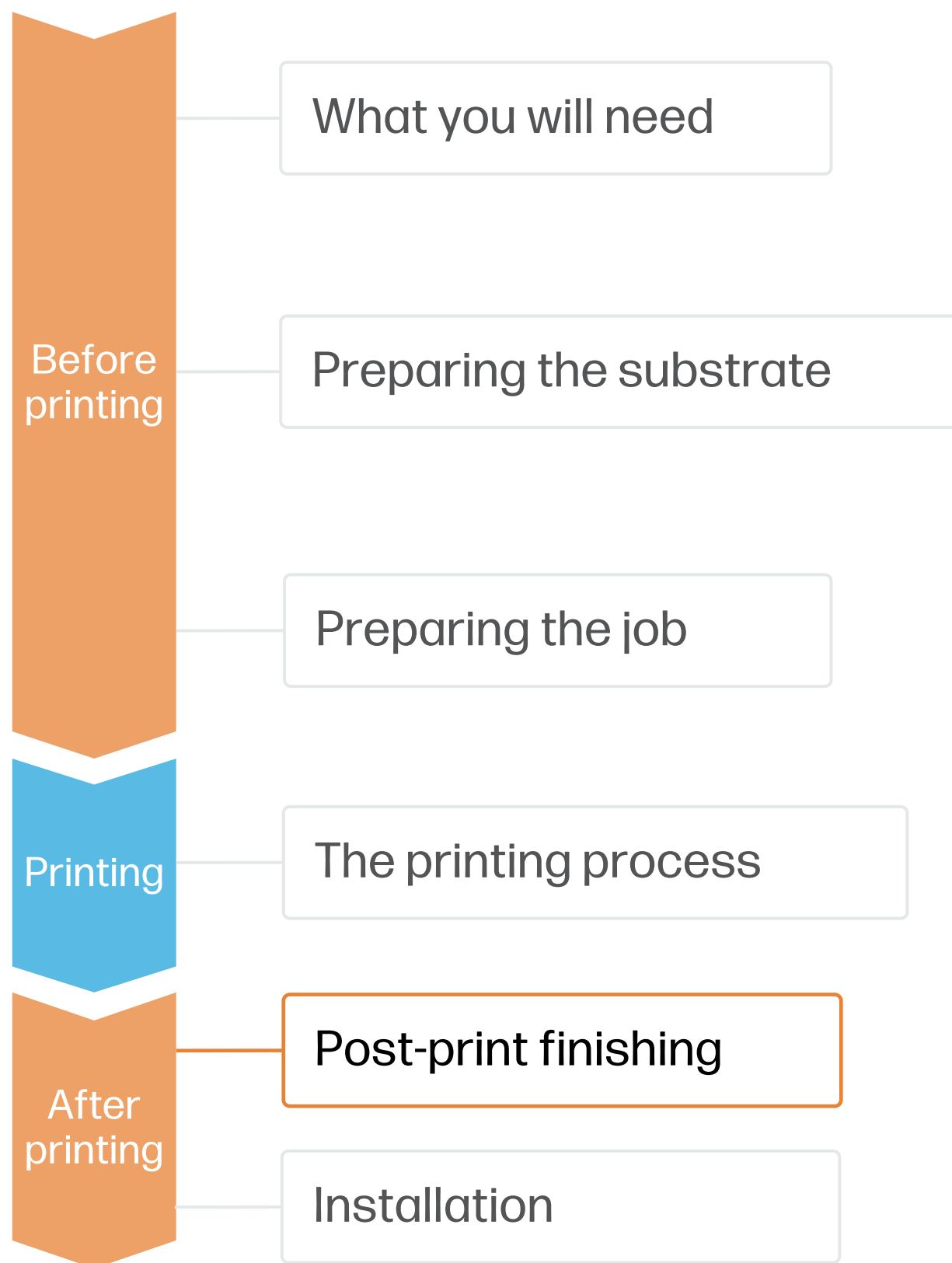
Weeding after a kiss cut



Sticker with cut through

How to create window graphics

Post-print finishing



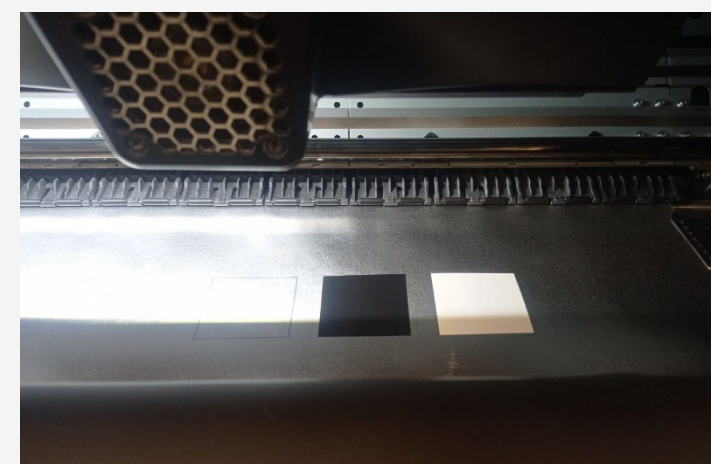
3. Cutting special medias – white ink OPOS

A. Load the plot correctly

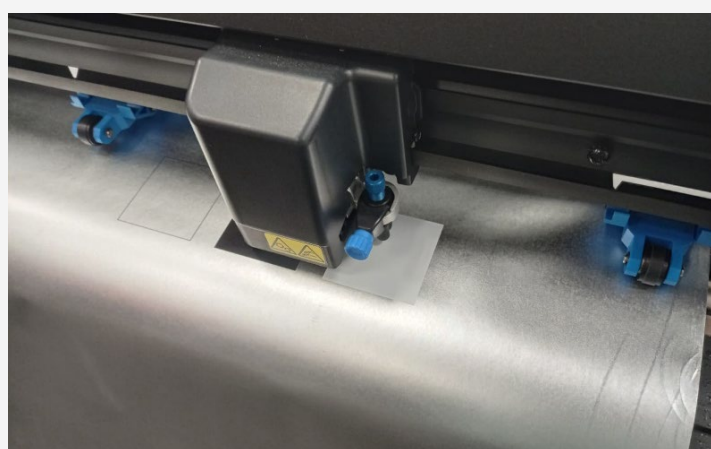


Position the plot so that the first pinch partly rolls over the white part of the HP barcode (see picture).

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.



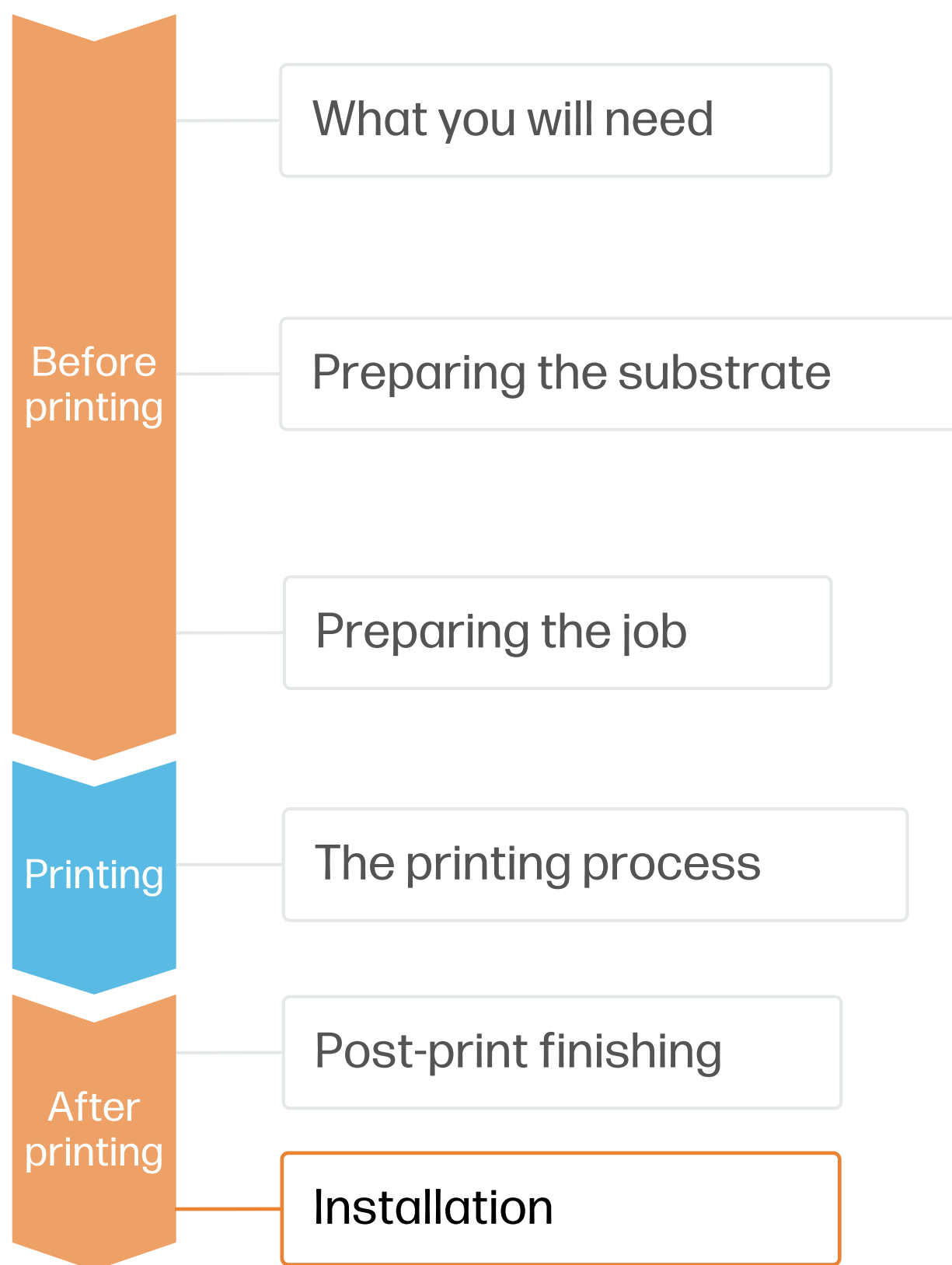
On the cutter's front panel, tap: **Calibrations > Calibrate media (OPOS)**. Follow the front panel instructions; you will be asked to position the OPOS sensor above each color patch, including the non-printed area.

⚠ 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.

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.



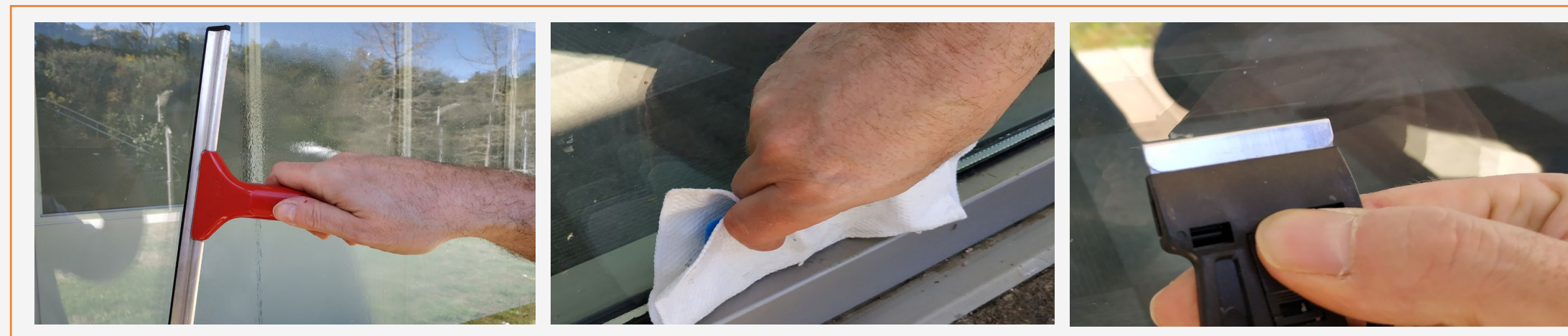
2. Pre-Cut samples



- 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.

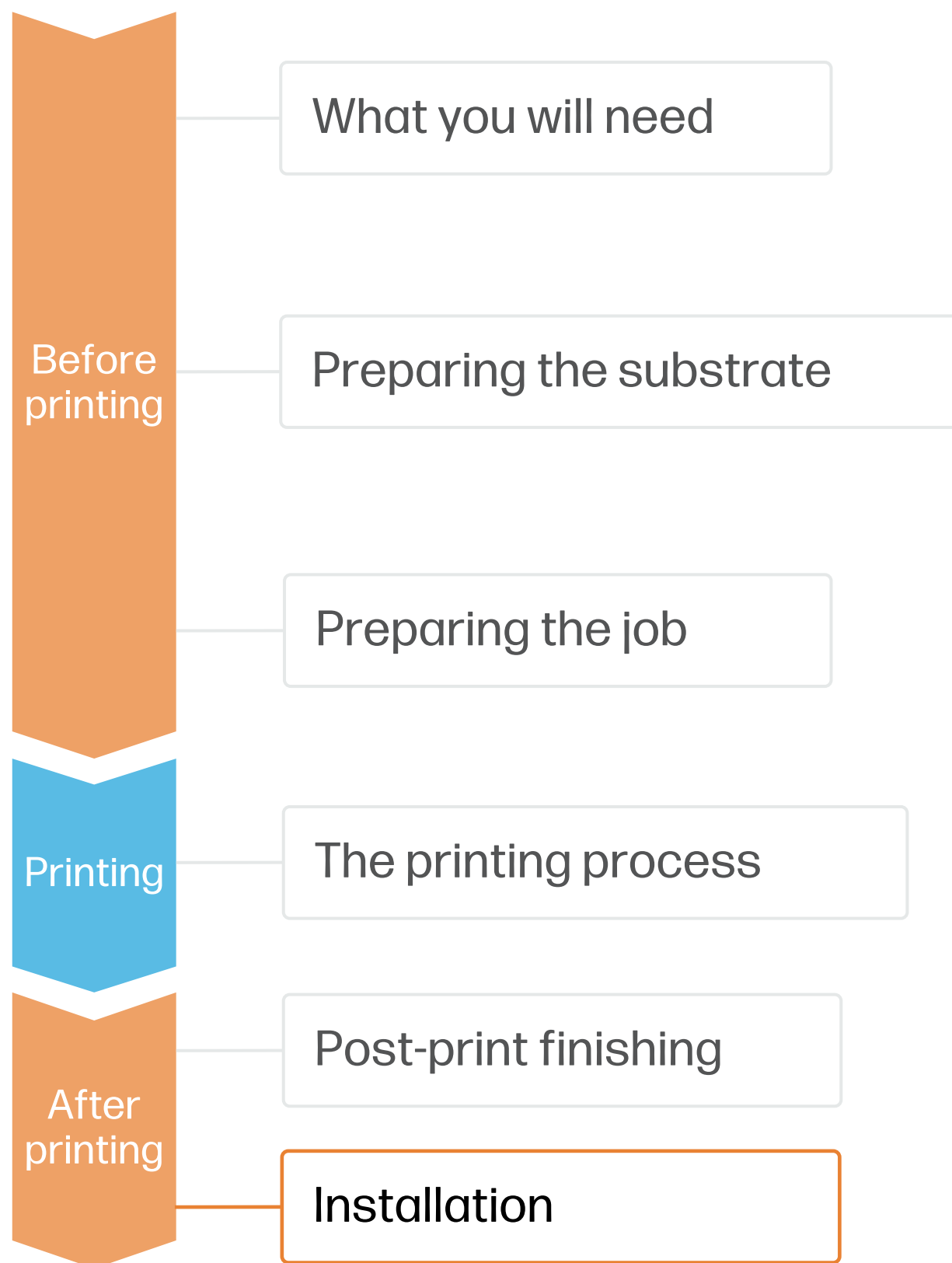
3. Clean the window

- 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.



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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.

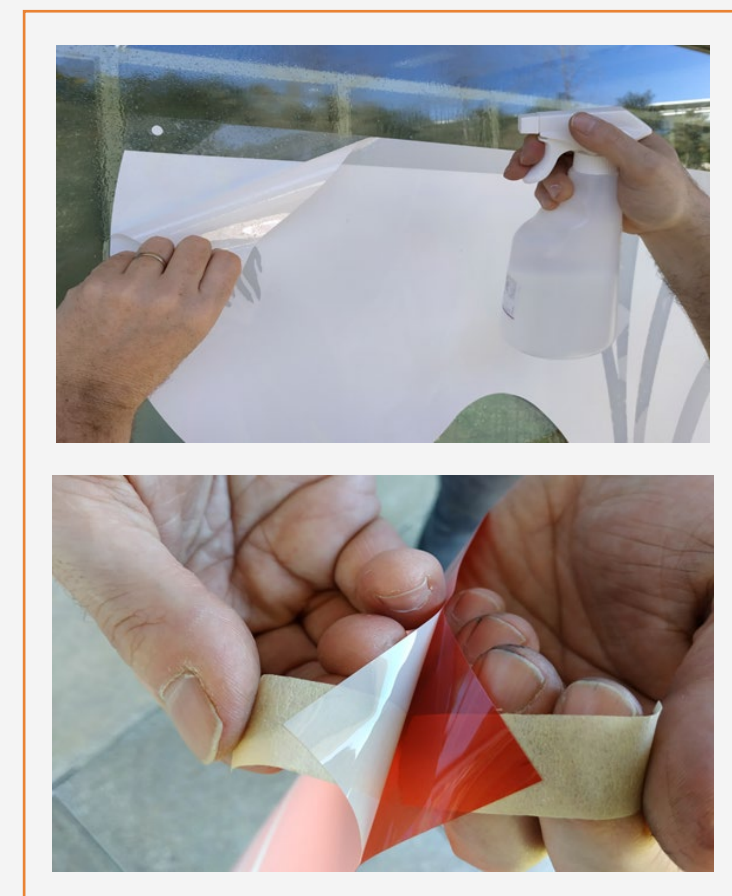


5. Remove the liner

- 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.

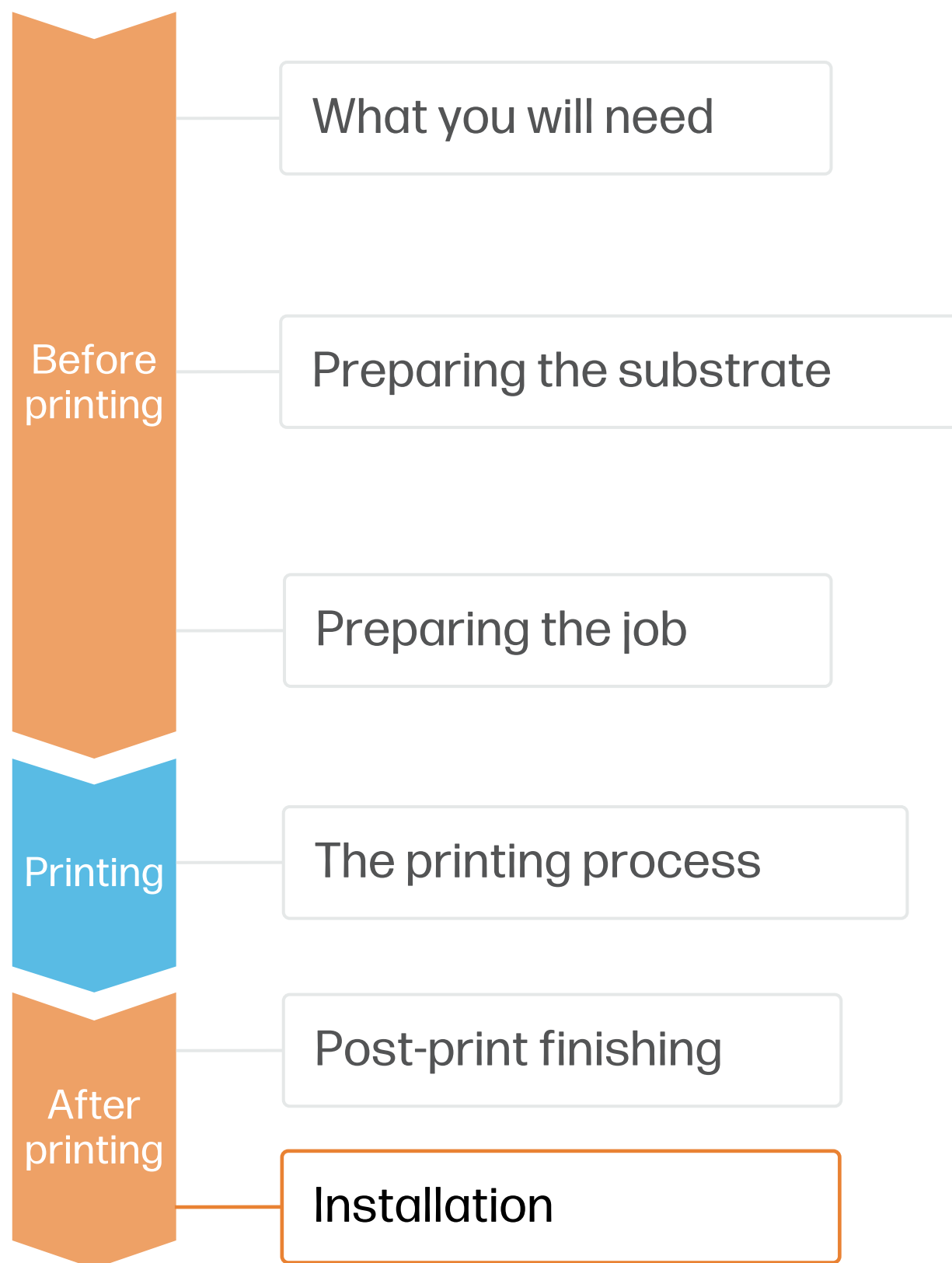
NOTE: If sign is applied using the wet technique, ensure that you use a substrate with a solvent adhesive. Water-based adhesives may leave a milky finish when they come in touch with water.

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.



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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.

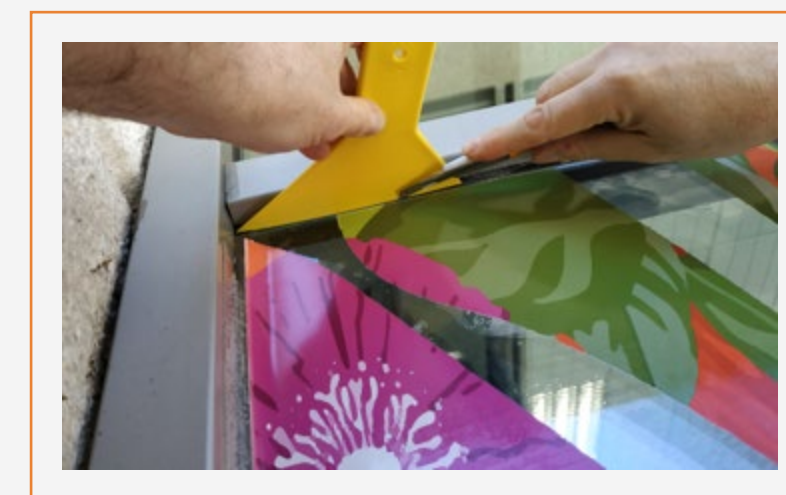


7. Cut to final size

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.

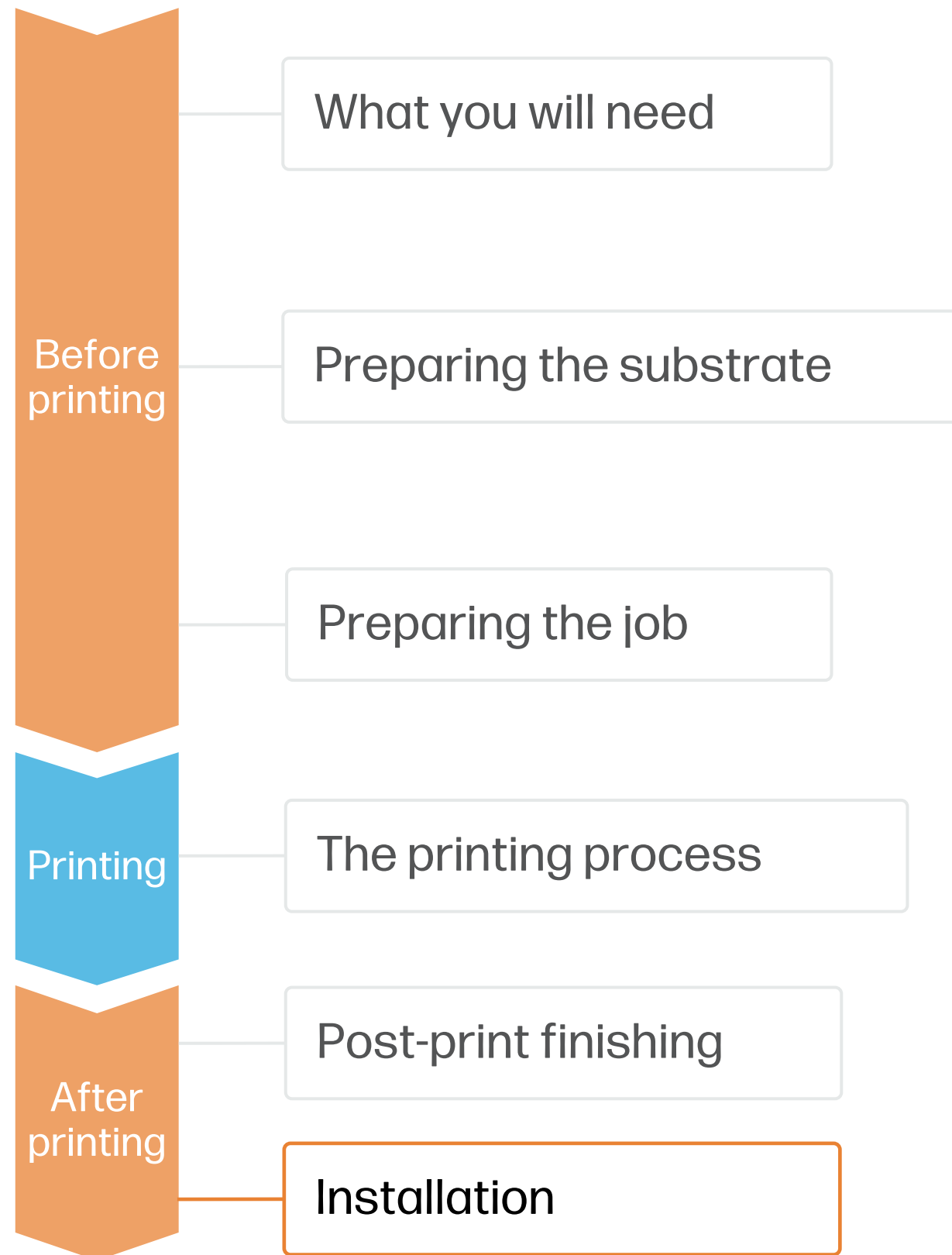
Place the 5-way tool or the long squeegee between the cutter and the window edge. Use the 5-way tool as a guide to cut the excess of film.

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

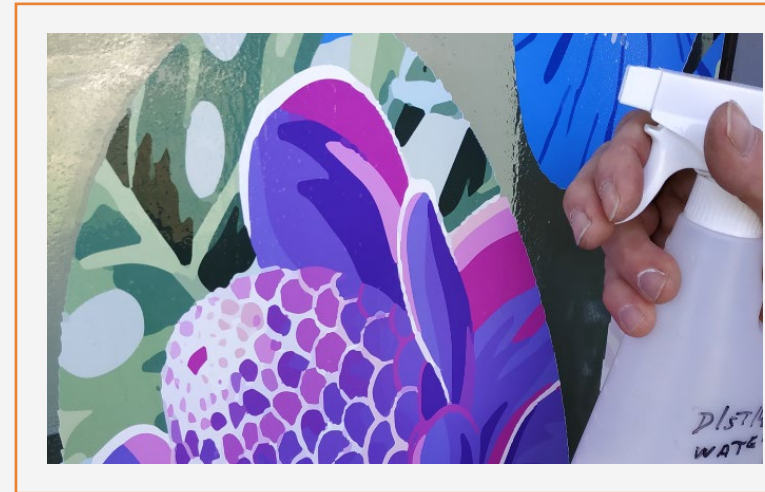


How to create window graphics

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.

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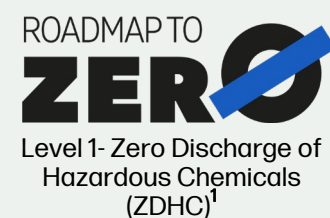
Remarks

- 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:



Inks meet stringent health and environmental criteria²



Unrestricted, full room. No-wait installation or lamination³

¹Zero 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](#).

²Applicable 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](#)). 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/](#).

³Applicable 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 m² (360 ft²) in an office environment, 94.6 m²(1,018 ft²) in a classroom environment. For more information, visit [ul.com/gg](#) or [greenguard.org](#).

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