

UNLOCK THE POSSIBILITIES:

A STEP-BY-STEP GUIDE TO MERCH BRANDING

KNOWLEDGE HUB



**KICK^{AND}
RUSH**

Wondering which branding technique is best for your merch? This guide has all the answers.

YOUR LOGO HERE

Brought to you by

**KICK^{AND}
RUSH**



**KICK^{AND}
RUSH**

INTRODUCTION

Our guide is here to inspire you with the possibilities of printing techniques, serving as a wellspring of ideas for what your branded merchandise can become.

At Kick And Rush, we believe that every product can be a canvas for your brand's story. That's why we've created this guide, designed to be your go-to resource for exploring the world of product personalisation.



"Carpenter Screen Printing", 1907, Unknown.

INTRODUCTION



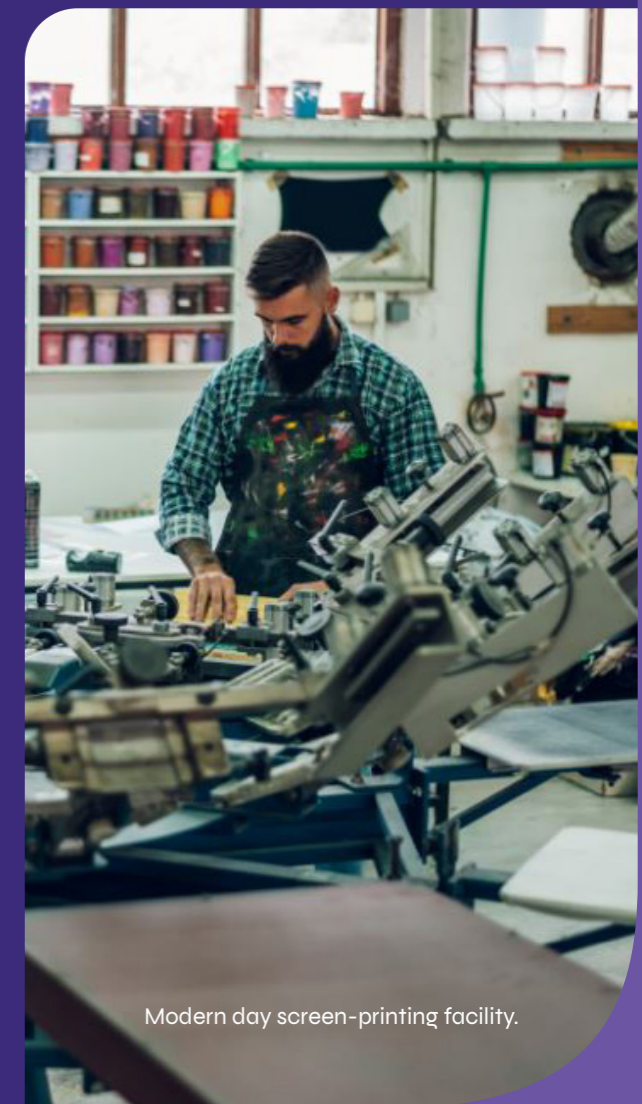
Silkscreen-printing technique

While it's enlightening to know about these techniques, you might not want to dive into the technicalities of the execution on your own. That's where we come in as your **trusted partners**.

We've curated a collection of industry **know-how, insights, and real-world examples** that will show you how to elevate your brand through **strategic personalisation**.

So **sit back, relax, and discover** the world of **printing techniques**.

The Kick And Rush Team



Modern day screen-printing facility.

TABLE OF CONTENTS

Introduction 04-05



Pad printing
08 - 13



Screen printing
14 - 19



Sublimation
20 - 25



Digital printing
26 - 31



Laser engraving
32 - 37



Embroidery
38 - 43



Heat transfer
44 - 49



Ceramic transfer
50 - 51



Embossing & debossing
52 - 57



Hot foil stamping
58 - 61



UV Led printing
62 - 67

Bonus: 3D printing 68 - 73

Glossary 74

“Create
with the heart,
build with
the mind.”

Criss Jami



Pad printing on porcelain.

PAD PRINTING

PAD PRINTING

PAD PRINTING

PAD PRINTING

→ Materials

- Plastic
- Glass
- Ceramic
- Metal
- Silicone
- Wood
- Paper

→ Common items

- Pens
- Clocks
- Mugs
- Keychains
- And more



Pad printing, also called tampography, is a printing technique where flexible **silicone stamps** are used to **transfer** your design onto the desired surface.

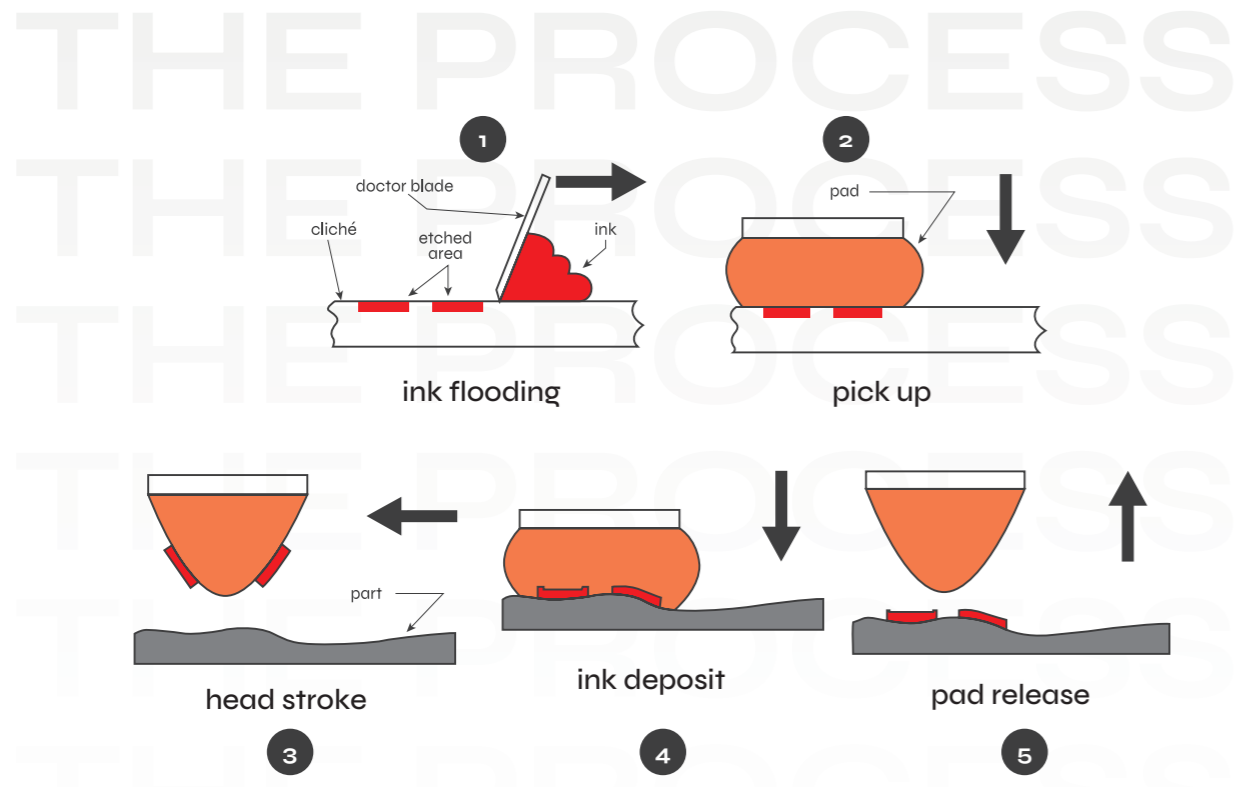
Pad printing requires that your design is first etched onto a metal plate. Your

design is then transferred onto the substrate via the silicone pad, as ink does not adhere to silicone --but it will to your merchandise.

While transferring the image, the silicone pad wraps around and/or takes the shape of the merch item

without distorting the image. Pad printing normally takes up to 4 spot colours (pre-mixed ink colours). However, each colour of the design must be printed separately.





→ Step-by-step

1. Design Preparation:

Create or provide a digital design that meets the requirements of pad printing. The design should be in a suitable file format.

2. Plate Creation:

Generate a printing plate for each colour in the design. Each plate corresponds to a specific colour or element in the design.

3. Ink Mixing:

Prepare the ink by mixing it to match the desired colour in the design.

4. Setup:

Set up the pad printing machine, making sure it's adjusted to the size and shape of the promotional item. Position the ink cups and clichés.

5. Ink Transfer:

Ink is applied to the printing plates, and excess ink is removed to leave ink only in the etched design areas of the clichés.

6. Printing:

The silicone pad presses onto the inked cliché, picking up the design, and then transfers the ink to the promotional item. This process is repeated for each colour.

7. Curing:

If necessary, the ink is cured or dried to ensure it adheres to the item.

8. Finishing:

Post-printing processes, such as assembly or additional touches, may be added based on the specific requirements of the promotional item.



GOOD TO KNOW

Pros & Cons



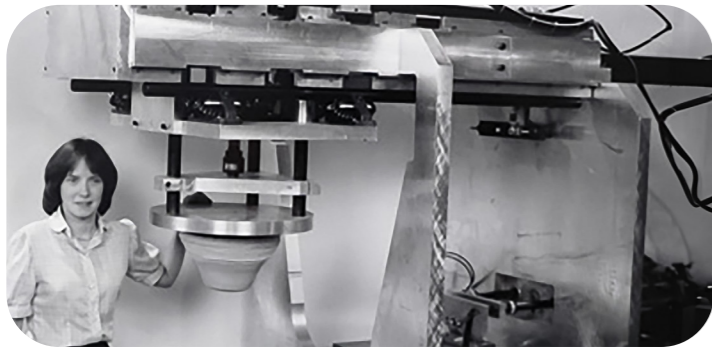
Array of products customised with pad printing. Comec.

→ Advantages

1. Pad printing is incredibly **versatile**, as it can adapt to a varied array of materials, shapes, and sizes.
2. **Precision** is guaranteed, and so is the freedom of customisation.
3. Pad printing machines are **easy** to use and are relatively low maintenance.

→ Disadvantages

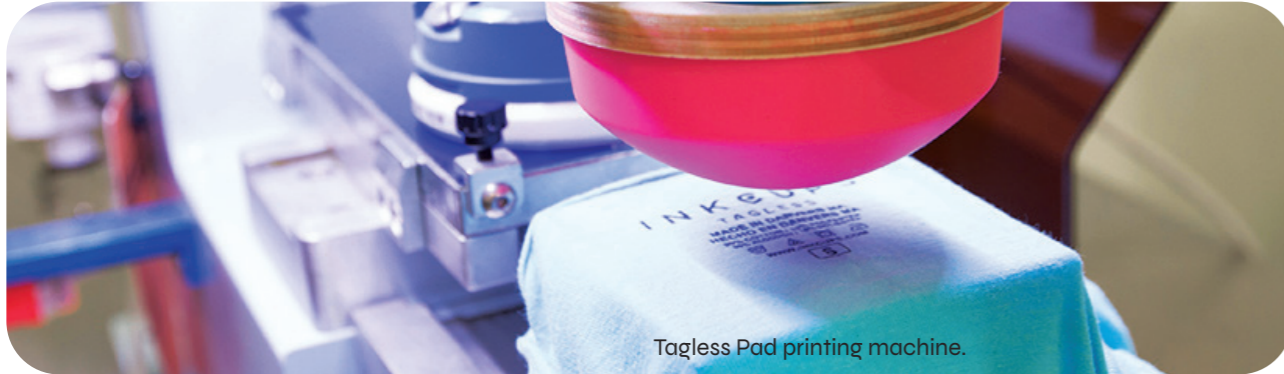
1. You can only use up to **4 colours** when pad printing.
2. Only Pantone colours are possible (**without gradients**).
3. Post-treatment is **required** for certain materials, such as for hard plastics, metals, and soft touch items, otherwise the ink will not dry properly on its own.



A worker next to a pad printing machine, 1970's.

The Pad Printing Boom:

While forms of pad printing have been around for centuries, pad printing truly took off in the 20th century, in the early 60's and 70's, after World War II.



Tagless Pad printing machine.

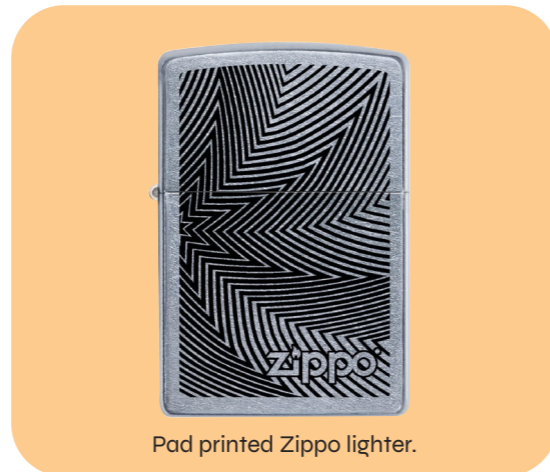
EXAMPLES



Pad printed bowls.



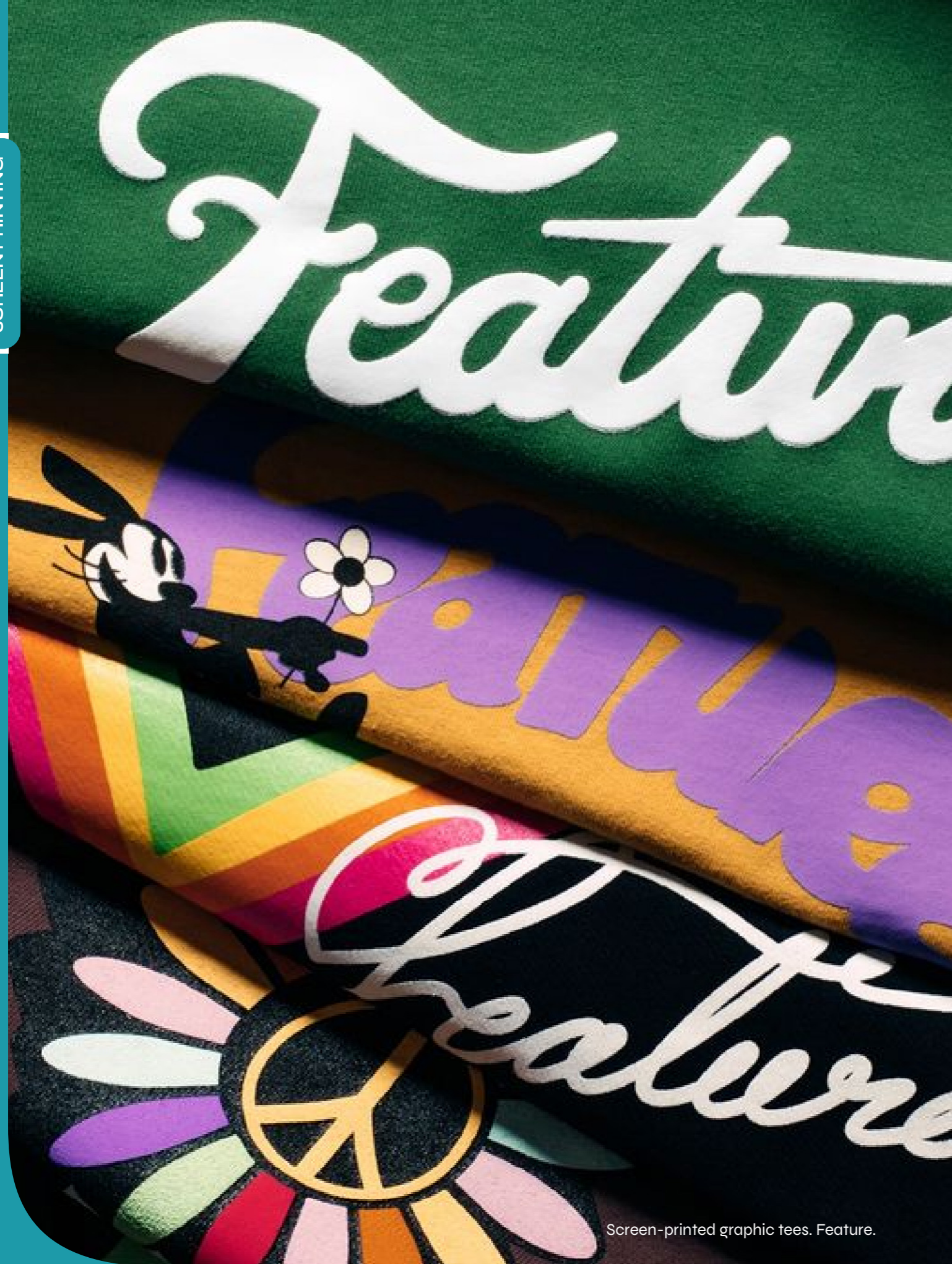
Pad printed baseball. Inkcups.



Pad printed Zippo lighter.



Pad printed merch of different shapes.



Screen-printed graphic tees. Feature.

SCREEN PRINTING

SCREEN PRINTING

SCREEN PRINTING

SCREEN PRINTING

SCREEN PRINTING



Manual screen printing machine

(SILK)

Materials

- Textiles
- Plastic
- Metal
- Glass
- Ceramic
- Wood
- Paper

Common items

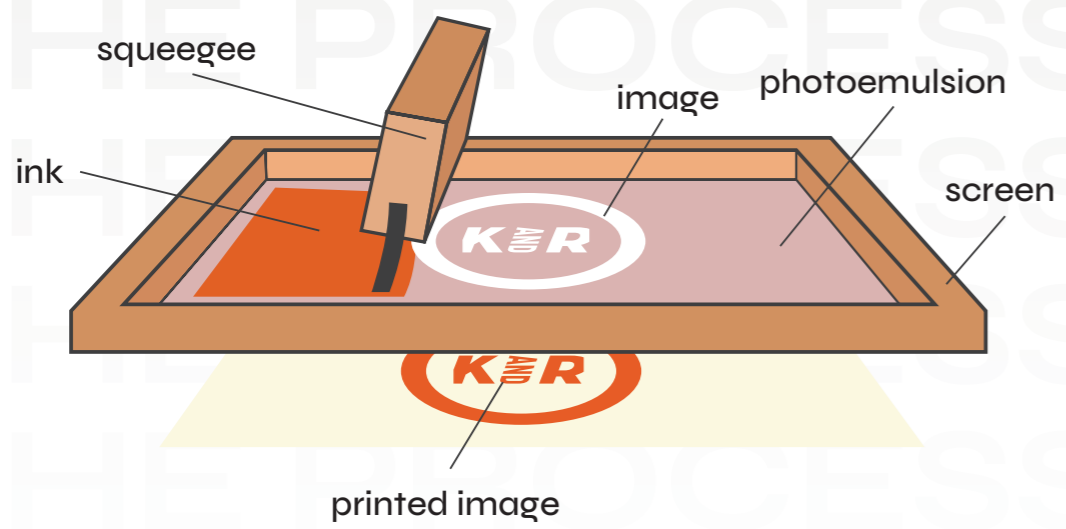
- Bags
- T-shirts
- Caps
- Umbrellas
- Inflatables
- And more

Silkscreen printing, also known as screen printing, is a printing technique that uses a **mesh screen** with an ink blocking stencil in order to transfer your design onto your merchandise.

The ink is then placed on the stencil and pushed through the mesh screen in order

to print your design. Nearly any single ink image, logo or design can be transferred onto a screen. You can only print one colour at a time, as new colours require other silk screens. Silk-screening is printed with Pantone spot colours (pre-mixed ink colours).

THE PROCESS



→ Step-by-step

- 1. Design Preparation:**
Create or adjust the artwork to fit the desired print area. This design is usually divided into separate colours.
- 2. Screen Preparation:**
Each colour in the design corresponds to a separate screen. Screens are coated with a light-sensitive emulsion and the design is transferred onto them using a UV light.
- 3. Printing Setup:**
Position the item to be printed (e.g., a T-shirt) on the printing press and ensure it's flat and secure.

- 4. Ink Application:**
Place the screens over the item, aligning them correctly. Apply ink to the screens, one colour at a time.
- 5. Squeegee Process:**
Use a squeegee to press the ink through the screen, transferring the design onto the item.
- 6. Repeating for Multiple Colours:**
If the design has multiple colours, repeat steps 3 to 6 for each colour, ensuring proper alignment.



→ Advantages

- 1. Screen printing is highly **durable**, and the printed designs can withstand frequent washing. This makes it ideal for clothing.
- 2. Screen printing allows for the use of **vibrant**, opaque **inks** that can create bold and colourful designs.
- 3. It is versatile and can be used for a wide range of applications.
- 4. It can reproduce **intricate details** and fine lines accurately.
- 5. It becomes more **cost-effective** when producing a large quantity of items with the same design due to lower setup costs.
- 6. When properly cured, screen printing inks can maintain their **vibrancy** and adhesion for a long time.

→ Disadvantages

- 1. The **initial setup costs** for screen printing, including creating screens and stencils, can be relatively high.
- 2. Each colour in a design requires a **separate screen**, which increases both costs and production time.
- 3. Achieving **gradients** and colour blending can be challenging with screen printing.
- 4. The more **complex** and detailed the design, the more **expensive** the printing process becomes.
- 5. Screen printing is most cost-effective for larger quantities.
- 6. The process involves **multiple steps**, including screen creation, setup, and manual printing. This can be labor-intensive.

Types of SCREEN printing

Spot Color Screen Printing:

A single colour is printed per screen, offering precise colour matching and bold designs, perfect for making a statement with your personalised items.



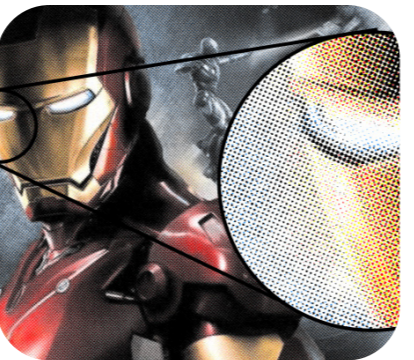
Sponge Effect Printing:

This type of ink is a plastisol based ink that has been modified by including a heat reactive foaming additive --which then makes the ink expand to give you that 'Puffy' look.



Simulated Process Screen Printing:

A combination of spot colour and halftone printing techniques creates a photorealistic effect, perfect for adding a touch of realism to your personalised items.



Glitter Printing:

Add a touch of sparkle to your custom items with glitter ink, perfect for adding a little extra excitement to your designs.



Foil Printing:

Make your personalized items shine with foil printing, a technique that uses a special foil ink and transfer process to create a metallic finish.



Plastisol Ink:

Plastisol ink is a popular choice for screen printing because of its versatility and ability to produce vibrant, long-lasting prints. Whether you're looking to make a bold statement or add a pop of color to your custom items, plastisol ink is an excellent choice.

Flock Effect Screen Print:

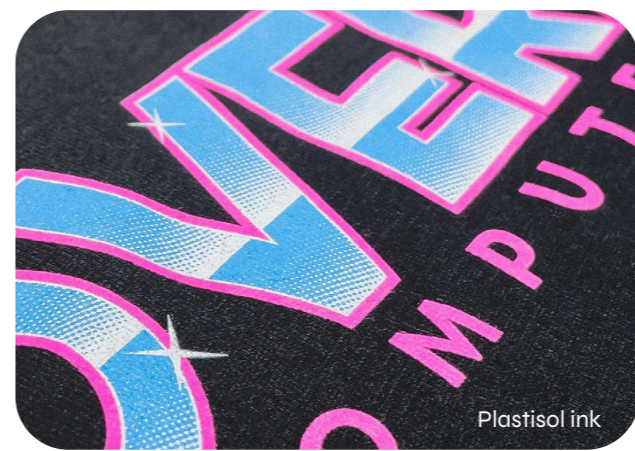
Also called "Flocking" is where we apply colour, adhesive and deposit many small fibre particles (called flock) onto the apparel. Flock is made from natural or synthetic materials like cotton, rayon, nylon or polyester. Flocking provides a velvety, soft texture, and thus enhancing the feel & colour of the product.



Flock printing

Glow in the Dark Screen Print:

Glow in the Dark Screen Print is simply screen printing using a certain type of plastisol ink. For this method, the plastisol ink has a substance called phosphor, which absorbs light. This is what gives the finish the glow in the dark effect.



Plastisol ink

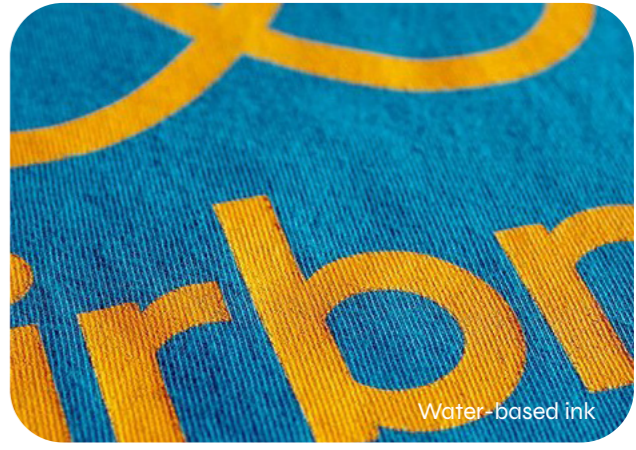
Water-Based Inks: a Sustainable Choice

Water-based inks use water as a base (as opposed to a plasticiser, like plastisol). Water based inks also lay down a thin, soft, flexible layer of ink, which makes it perfect for custom clothing and accessories.

Water based inks are safer for the environment as they need have little to no chemical use. Good for the Earth.



Water-based ink



Water-based ink

Dye sublimation is popular for sportswear merch.



SUBLIMATION



Roland Texart XT-640 High-Volume Dye-Sublimation Printer

→ Used for

- Any polyester surfaces
- Any materials covered by a polyester layer
- Light coloured textiles

→ Common items

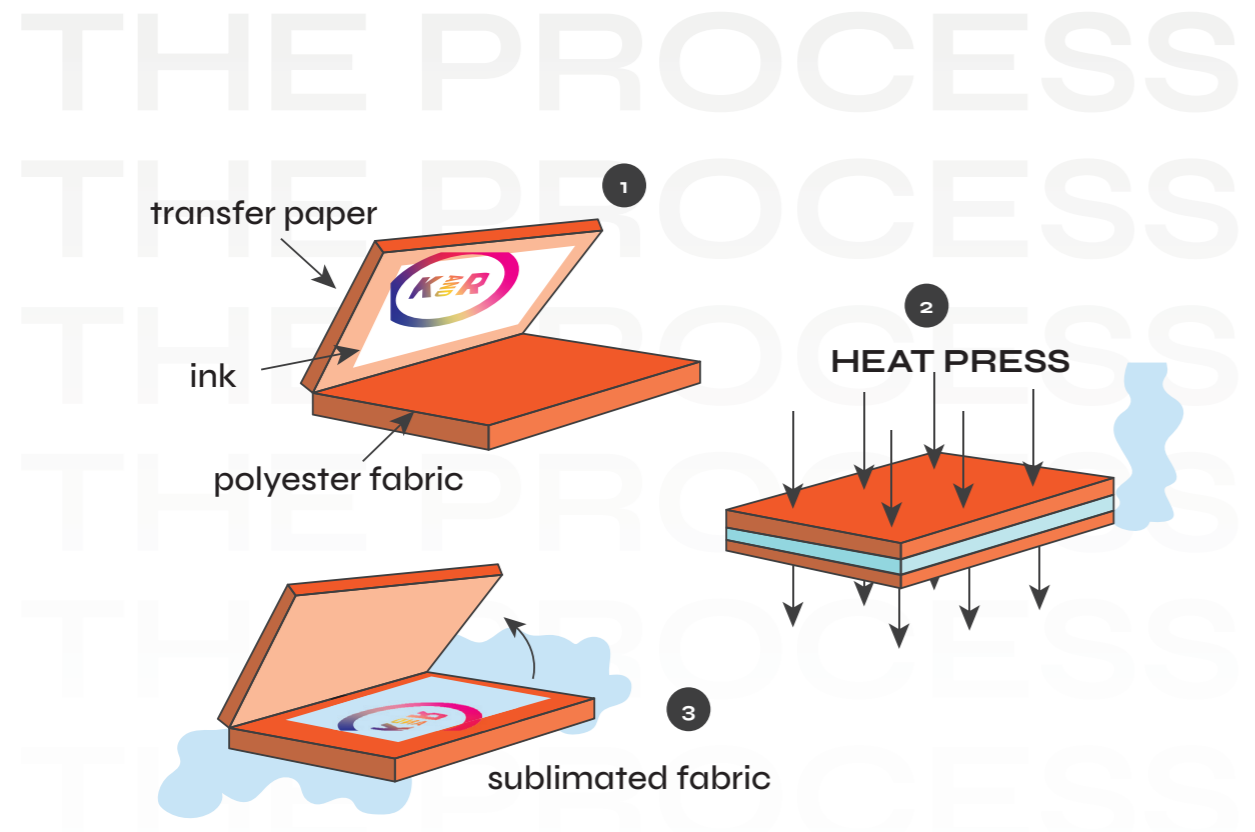
- Bags
- T-shirts
- Mugs
- And more

Technically, sublimation refers to the state of particles changing from solid to gas. In printing, sublimation entails that a **full colour image** is first infused onto a “transfer” paper, which is then placed onto the desired surface and ran through a

series of **pressure rollers** and **high heat**. The pressure, combined with the heat, permanently bonds the image directly onto the fibres of the product via the process of sublimation.



Sublimation printing machine



→ Step-by-step

- 1. Design Creation:**
Create a digital design or artwork that you want to transfer onto your promotional item. Ensure the design is in a suitable format for sublimation.
- 2. Printing:**
Use a sublimation printer and special sublimation ink to print the design onto sublimation transfer paper. The design will appear in reverse on the paper.
- 3. Preparation of your Promotional Item:**
Ensure the promotional item is made of a material that can accept sublimation ink. Ensure the item is clean and free from any contaminants.
- 4. Positioning:**
Place the printed sublimation transfer paper with the design facing down onto your promotional item. Secure it in place to prevent movement during the heat transfer process.

- 5. Heat Press Transfer:**
Use a heat press machine to apply even heat and pressure to the promotional item and transfer paper. The heat causes the sublimation ink to turn into a gas and penetrate the item's surface.
- 6. Cooling:**
Allow the item to cool down after the heat transfer. This helps the ink solidify and bond with the item's surface.
- 7. Transfer Paper Removal:**
Gently peel away the sublimation transfer paper. The design should now be permanently infused into the item.
- 8. Finishing:**
As needed, perform any post-processing steps like assembling different components of the item, stitching, or packaging.



→ Advantages

- 1. Sublimation offers **brilliant** and **long-lasting** colours. The inks are infused into the fabric or substrate, creating durable and fade-resistant prints.
- 2. Sublimation allows for high-resolution and **detailed designs**.
- 3. Sublimation doesn't create a noticeable layer on the surface, **maintaining** the fabric's **softness**.
- 4. Sublimation can be used on a **wide range** of materials.
- 5. Sublimation can cover the entire surface of a garment, providing **all-over design**.
- 6. Sublimation allows for an **unlimited range** of colours and gradients.

→ Disadvantages

- 1. Sublimation works best on **polyester** or materials with a high polyester content.
- 2. Sublimation requires a **white** or very **light-coloured** base for the colours to appear accurately.
- 3. The equipment for sublimation printing can be relatively **expensive**, particularly for high-quality setups.
- 4. Sublimation is most cost-effective for **larger production runs**.
- 5. Sublimation **requires a heat press** machine to transfer the ink, which can be labor-intensive.

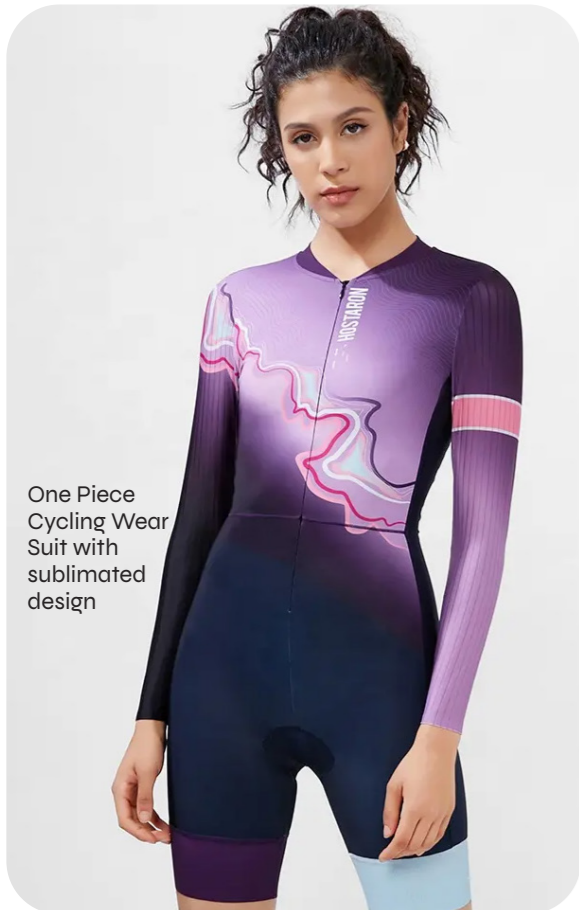


Design printed onto a transfer paper, ready to be pressed onto the final product, mugs.



Quilted bedding set. Merchize.

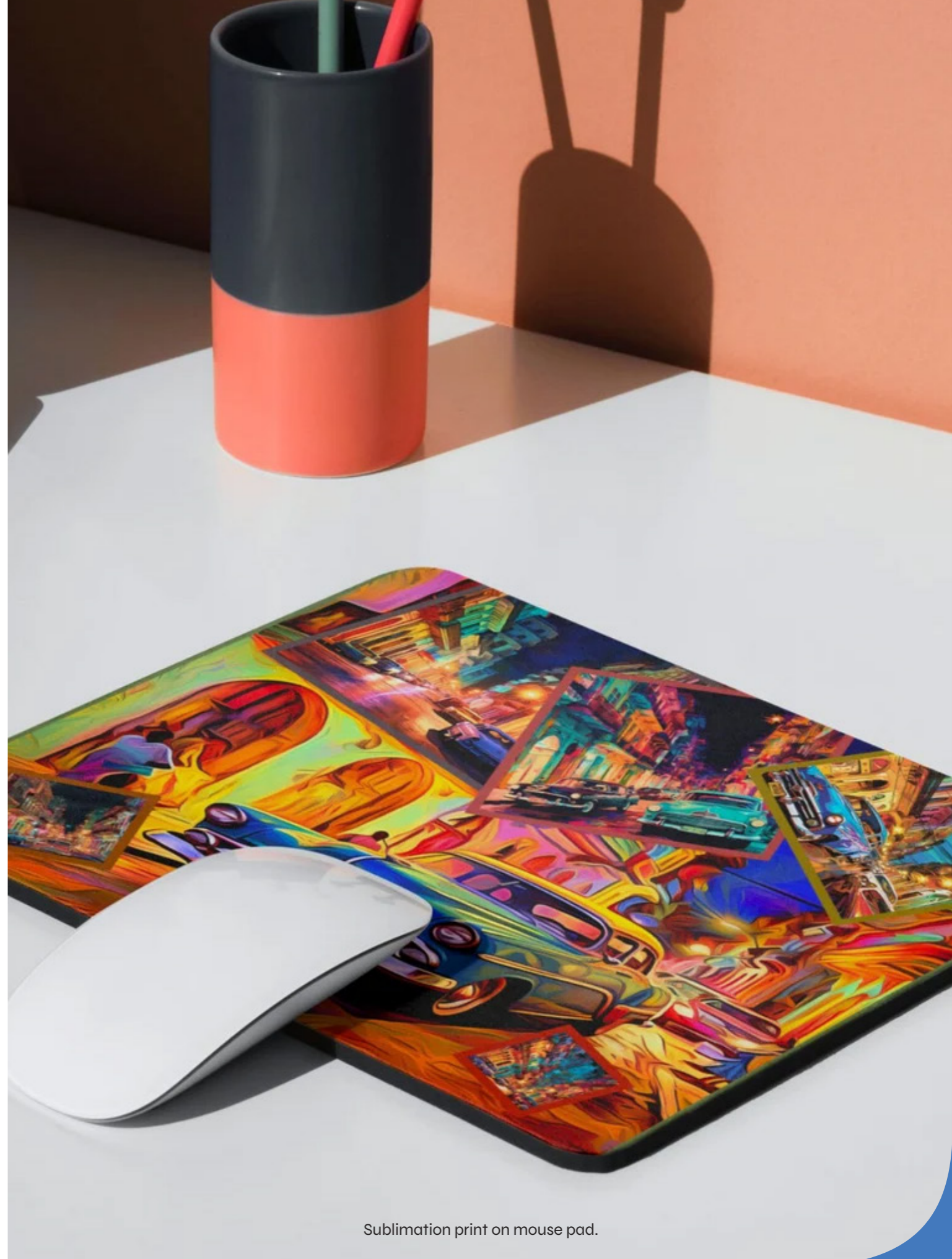
what SUBLIMATION looks like



One Piece Cycling Wear Suit with sublimated design



Sublimation printing on cushion



Sublimation print on mouse pad.



Digital printing on phone case with stunning design.

DIGITAL PRINTING



Large Format Cotton Fabric Digital Printing Machine Dx7

Digital printing is a rather modern printing method. Digital printing consists of placing the substrate under a **full-colour, digital printer**, so the product can be branded directly. Although there are several types of digital printing, most of which we will touch upon later, this first section will tackle **inkjet digital printing**, as it is one of the most common digital printing methods.

360 Digital Printing: On its own, digital printing is only viable for flat surfaces, as the distance from the printhead to the item is fixed. However, digital printing is possible on cylindrical items, such as bottles, with 360 digital printing.

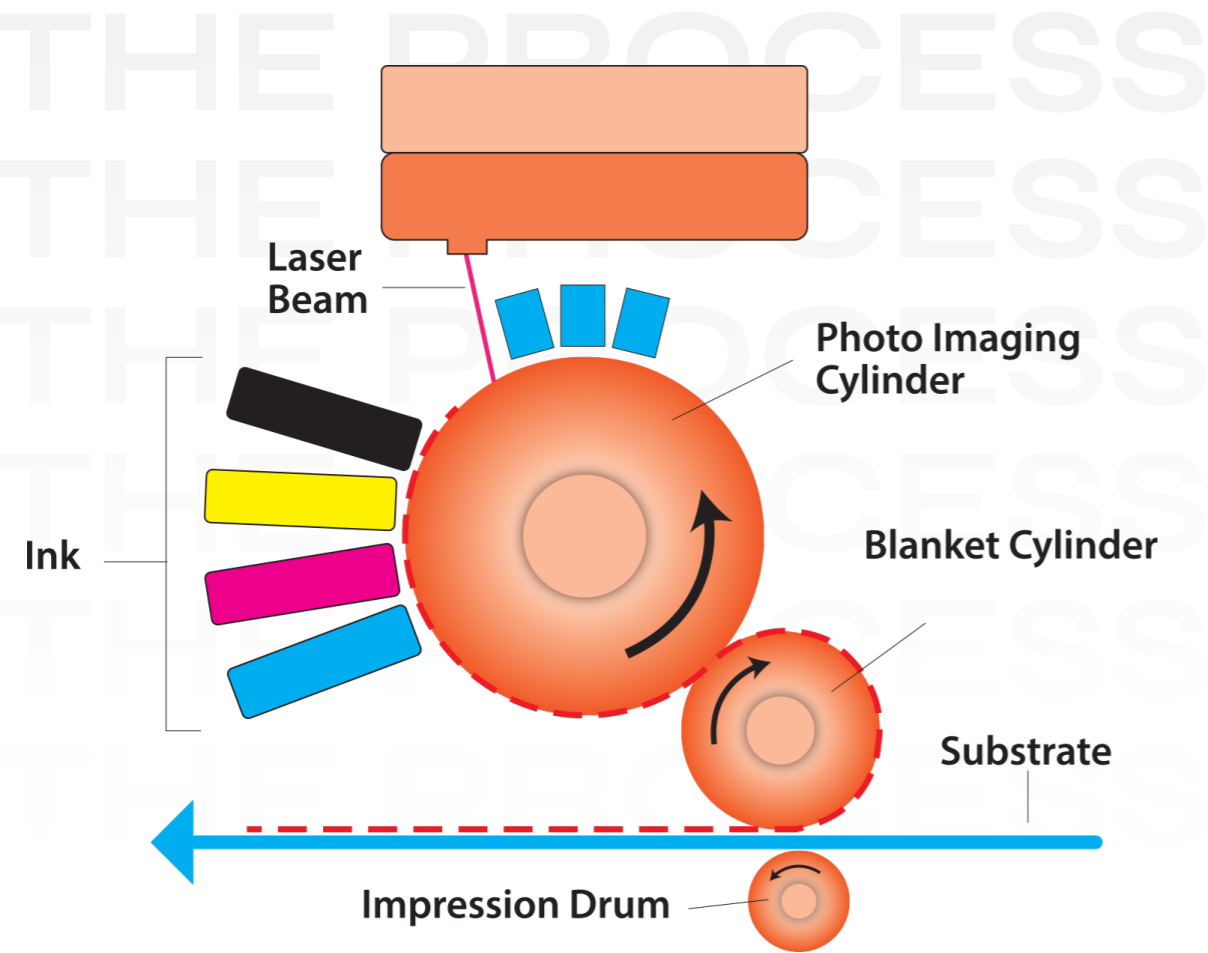


→ Used for

- Plastic
- Metal
- Wood
- Paper
- Polyurethane
- Glass

→ Common items

- Stationery
- Technology & other gadgets
- Bottles & drink-ware
- Keychains
- And more



→ Step-by-step

The digital printing process can slightly vary depending on the item to be printed on, and on the type of printing equipment.

1. Design Preparation:

Create or provide a digital design file that meets the requirements of the printing process. Ensure it is in the correct file format and resolution.

2. Design Adjustment:

The design may need to be adjusted to fit the dimensions and requirements of the promotional item.

3. Printing Setup:

Load the promotional items onto the digital printer, ensuring they are securely held in place.

4. Printing:

The digital printer applies ink directly to the surface of the item, following the design file's instructions.

5. Drying or Curing:

In some cases, the printed item may need to pass through a drying or curing process to set the ink.

6. Finishing:

After printing, the promotional items may undergo post-processing steps, such as cutting, sewing, or adding finishing touches.

WHAT TO KNOW



Digitally printed beach bags for the Tate enterprise. Paul Bristow.



Digitally printed cups & coasters. HP Indigo.

→ Advantages

1. Digital printing is very cost-effective, especially for smaller orders, since it doesn't require the creation of new printing plates.
2. It has a fast turn-around time, as set up time is greatly reduced.
3. Digital printing has a lower carbon footprint, as it requires less equipment than other traditional printing methods.
4. Digital printing provides full, vivid colours, as digital printers can produce a wider range than colours. Since the designs are digital, prints can be replicated with great quality.

→ Disadvantages

1. Orders with higher quantities will relatively cost more.
2. Digital printing works better on smaller printing surfaces. It's not as efficient with larger items (i.e., banners).
3. Heavily textured materials will not print well.

Types of DIGITAL printing

Inkjet printing:

An inkjet printer reproduces a design from a digital device (often a computer). The printer proceeds to recreate the design by sending hundreds of tiny jets of ink into the substrate.

Digital laser printing:

On the other hand, laser printing recreates a digital design using a laser. Within the printer, the laser is moved in order to copy the required design. This then develops static electricity, which releases ink on the substrate and prints the desired image.

Digital press:

The digital press is the digital version of the traditional printing press. While it offers high-quality prints, it's more expensive than inkjet printing.



UV digital printed phone cases. Direct Color Systems.

UV digital printing:

UV digital printing entails using special inks to brand the substrate, and using a burst of ultraviolet light via LED lights to dry the ink almost immediately. This technique is better suited for smaller orders, without colour limits, while maintaining high quality.



Bottles being printed on with 360° digital printing. Midocean.

What does DIGITAL PRINTING: look like



Digitally printed phone charger. Midocean.



Digitally printed fabrics. Richard Quinn.



Digitally printed tote bag for the Victoria & Albert museum, by Paul Bristow.

Divot repair tool with laser engraved personalisation.



LASER ENGRAVING

LASER ENGRAVING

LASER ENGRAVING

LASER ENGRAVING

→ Materials

- Metal
- Aluminium
- Wood
- Glass
- Fleece
- Felt
- Leather
- Some (hard) plastics
- Paper
- Polyurethane (PU)



LaserPecker 3 Suit Portable Laser Engraving Machine

→ Common items

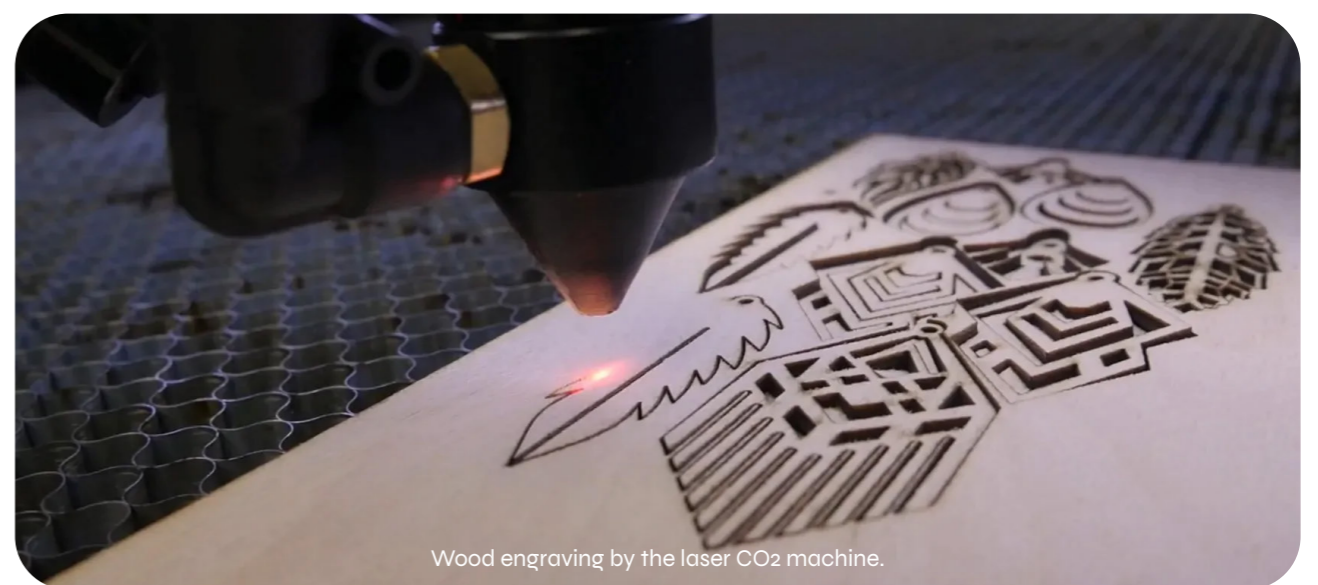
- Business card holders
- Key chains
- Pens
- Wine boxes
- Desk clocks
- Plus many more

Laser engraving works through replicating a **digital design** via **laser**. There are two types of lasers, **fibre laser** (or hard laser, mostly used for engraving hard surfaces, such as metal) and **CO2 laser** (or soft laser, used for engraving softer, organic materials).

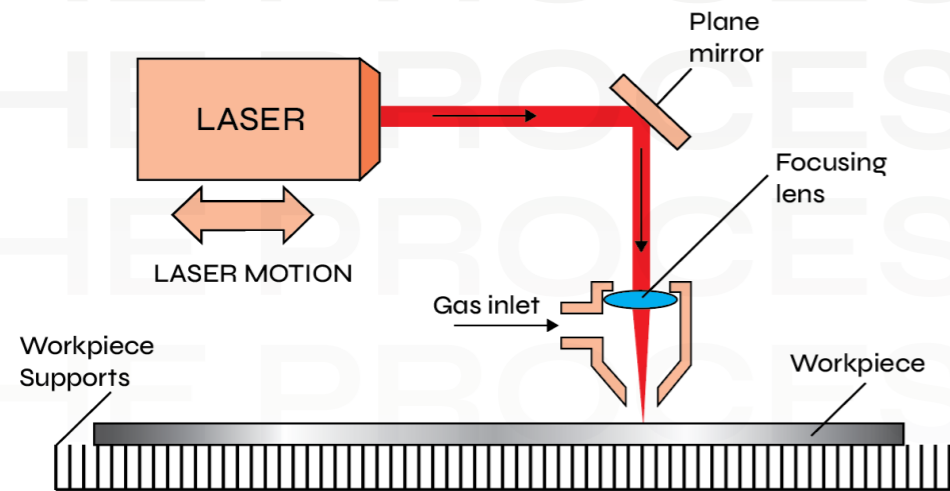
Essentially, the top layer of a material is burned off by the laser, and thus revealing the final design.

360 Laser Engraving:

On its own, digital printing is only viable for flat surfaces, as the distance from the printhead to the item is fixed. However, digital printing is possible on cylindrical items, such as bottles, with 360 digital printing.



Wood engraving by the laser CO2 machine.



→ Step-by-step

1. Design Preparation:

Create or obtain a digital design or artwork that you want to engrave onto your promotional item. Ensure it's in a compatible format for the laser engraving machine.

2. Item Selection:

Choose a promotional item made of materials suitable for laser engraving. Ensure the item's surface is clean and free from contaminants.

3. Laser Settings:

Set the laser engraving machine's parameters, including power, speed, and resolution, according to the material and design to achieve the desired engraving depth and quality.

4. Alignment:

Position and secure your promotional item within the laser engraving machine, making sure the designated engraving area is correctly aligned with the laser.

5. Engraving:

Start the laser engraving process, which uses a focused laser beam to remove material or create marks on the item's surface according to the design. The laser follows the design's path with precision.

6. Cooling and Cleaning:

Allow the item to cool down after engraving, as the process generates heat. Then, clean the item to remove any residue or debris created during the engraving process.

7. Finishing (Optional):

Depending on the item and the desired finish, additional steps like polishing, coating, or assembling different components may be performed.



Laser engraving for plastic, acrylic, glass and polymer

LASER ENGRAVING

Pros & Cons

→ Advantages

1. Permanent print solution.
2. Laser engraving can provide extremely detailed results.
3. The amount of detail contributes to a luxurious print result.
4. A great variety of materials can be laser engraved.
5. Laser engraving 360 is possible for cylindrical items.

→ Disadvantages

1. Laser technique permanently alters the surface of the item without using ink.
2. Uses More Energy: It requires much energy due to using a higher intensity laser engraving machine.
3. Because more energy is used, there is an increase in cost.



Crystal engraving. Gravotech.



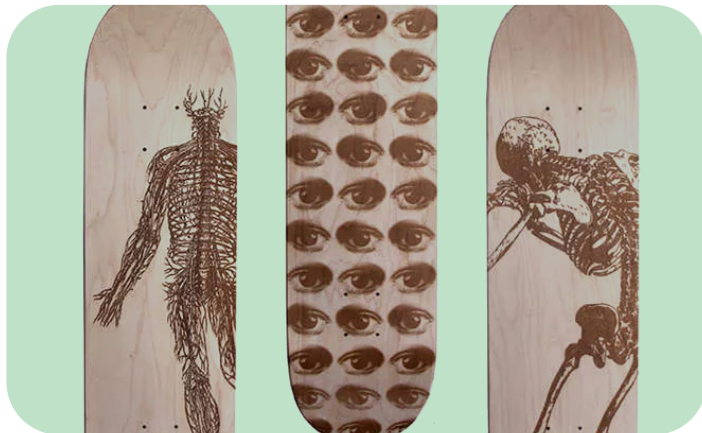
The History of Laser Technology.
Universal Laser Systems.

Laser engraving history:

Laser engraving emerged in the early 1960s with the invention of the 1st working laser. Over time, advancements in laser technology and computer-aided design (CAD) systems fuelled the growth of laser engraving.

From industrial applications to personalised gifts and art, laser engraving has revolutionised the world of marking and design.

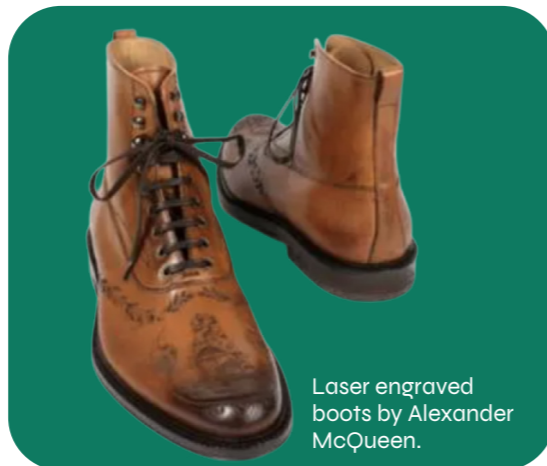
EXAMPLES



Laser engraved skateboards by Magnetic Kitchen.



Engraved rolling pins to customise baked goods.



Laser engraved boots by Alexander McQueen.



Laser engraved wooden business cards.



Laser engraved metal bottle opener.



This double embroidered logo enhances the design.

EMBROIDERY

EMBROIDERY

EMBROIDERY

EMBROIDERY

→ Used for

- Polyester
- Nylon
- Fleece
- Cotton



Ricoma MT Series
Embroidery Machines

→ Common items

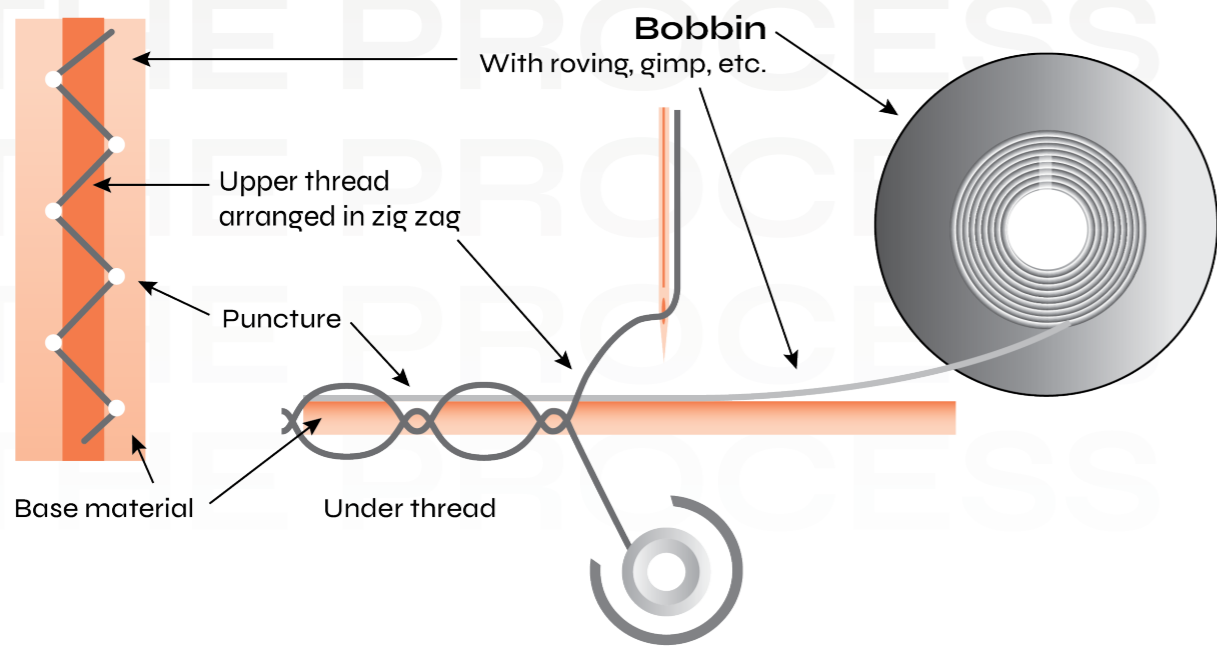
- Hats and caps
- Backpacks
- Laptop bags
- T-shirts
- Body warmers
- Other textiles

Embroidery is a technique in which **multiple stitches** are combined to create a design or logo. It is a very popular technique, especially used for caps, tote bags and other textile apparel.

To replicate designs, a special digital file is created. Said file contains all necessary

details (such as the desired design, or the settings) for the embroidery machine. The substrate is then put under a large sewing machine, which can have up to 12 sewing heads (So, 15 different threads (or colours) can be embroidered in one run).





Types of EMBROIDERY

Satin stitching

Satin stitch is a stitch that is used to create solid areas of colour. It is created by stitching closely spaced parallel lines that cover the area to be filled. Satin stitches are simple, yet elegant and are typically used to create a smooth, glossy texture.

This is perfect for accentuating smaller details, such as a complex logo or lettering.

Fill stitching

The fill stitch is used for large embroidery areas such as circles or squares. It is also used in lettering that has thick columns or being sewn onto thin material in order to prevent pulling and puckering of the garment.



Initials embroidered on linen. So Linen.



Below, the Stoney Clover Lane make-up bag, embroidered with chenille letters.

Balboa (trapunto) stitching

Balboa stitches are mainly used when embroidering on items with thickness to them (such as fleece or beanies). The balboa stitch is sewn down to hold the material down.

Chenille embroidery

Chenille embroidery, or just “chenille” is a kind of specialised embroidery, which is made with yarn, not typical embroidery threads - polyester or viscose. Because of the yarn, this embroidery method makes the pattern look optically thicker and more convex.

Step-by-step

1. Design Creation:

Begin by creating or obtaining a digital embroidery design in the appropriate format (commonly DST or PES). The design should match the size and specifications of your promotional item.

2. Hooping:

Secure your textile in an embroidery hoop, ensuring it is stretched taut without wrinkles. This hoop holds the item in place during the embroidery process.

3. Machine Setup:

Prepare the embroidery machine by selecting the appropriate thread colours and inserting the corresponding thread spools. Load the digitised design into the machine's software.

4. Thread Threading:

Thread the machine by passing the selected thread colours through the machine's needles and tensioners according to the design's requirements.

5. Design Placement:

Position the hooped item onto the embroidery machine's bed, ensuring that the design is correctly aligned and centered with the item's surface.

6. Embroidery:

Start the embroidery machine, which will follow the design's instructions to stitch the pattern onto the promotional item. The machine will automatically change thread colours as needed.

7. Trimming:

After the embroidery is complete, carefully remove the item from the hoop. Trim any excess thread from the design, both on the front and back of the item. and tensioners according to the design's requirements.

WHAT TO KNOW



"Oeuf" embroidered bucket hat. Fluff Alpaca.



Embroidered shirts. Embroly.

→ Advantages

1. Embroidery is extremely long lasting.
2. Not only is embroidery thread strong, but it also retains its colour well. This means that the colour will remain the same for the lifespan of the garment.
3. Embroidery is suited for thicker materials as well, such as fleece or heavy cotton.
4. Embroidery allows you to have multiple colours (sometimes up to 20) in one design with no extra cost.
5. This technique provides an undeniable high-quality feel.

→ Disadvantages

1. Embroidery is typically more expensive than printing.
2. Not all designs are suited to be embroidered. This includes very small, detailed designs, or on the other hand, extra large designs.
3. Embroidery doesn't support gradient designs.



Embroidered socks. Printful.

The many ways of EMBROIDERY



Embroidered aprons. Printful.



Below, monogrammed Turkish towel. RH.

Bart Simpsons Drippy design by Heat Transfer on the back side of the skateboard deck.



HEAT TRANSFER

HEAT TRANSFER

HEAT TRANSFER

HEAT TRANSFER

HEAT TRANSFER

HEAT TRANSFER



→ Used for

- Textiles
- Ceramic
- Wood
- Metal
- Paper

Delclynee 15" x 15" High Pressure Heat Press Machine

→ Common items

- Tote bags
- T-shirts
- Caps
- Plates
- Mugs

Heat transfer printing, also known as heat press printing or thermal printing, is a popular method of transferring designs, graphics, or images onto various surfaces. It involves using heat and pressure to apply

the design onto the material, creating a permanent bond. The process involves using a heat press machine to transfer the design from a printed transfer paper or vinyl onto the desired substrate.



Design on a t-shirt via heat transfer printer.

THE PROCESS



Step-by-step

1. Design Selection:

Choose or create a design that you want to transfer onto your promotional item. Ensure it's in a digital format suitable for heat transfer.

2. Printing:

Use a special heat transfer paper and an inkjet or laser printer to print your design. Make sure the design is a mirror image (flipped horizontally) so that it appears correctly after transfer.

3. Prepping the Item:

Place the promotional item on a clean, flat surface. Ensure it's wrinkle-free and clean, as any imperfections can affect the transfer.

4. Heat Press Setup:

Preheat your heat press machine to the recommended temperature for the type of transfer paper you're using.

5. Positioning:

Position the printed design face down on the item. Make sure it's centered and aligned as desired.

6. Heat Pressing:

Close the heat press over the item and apply even, firm pressure. The heat and pressure cause the ink on the transfer paper to release and adhere to the item's surface.

7. Cooling:

After the recommended pressing time, typically 20-30 seconds, lift the press and carefully remove the transfer paper. Allow the item to cool completely.

HEAT TRANSFER

Pros & Cons

Advantages

1. Heat transfer is a relatively sustainable printing method, as it requires minimal chemical use.
2. Produces high-quality prints in high resolution.
3. It's a cost-effective method for small orders due to its short set-up process.
4. Can print designs in multiple colours, as long as these don't overlap.

Disadvantages

1. Washing and drying can deteriorate prints over time.
2. Consumers need to be careful not to iron textile that's been heat transferred on for risk of ruining the image.
3. Prints can have a rubbery feel due to the printer ink coverage on the design.
4. Large orders are not well-suited for heat transfer, as set up then becomes more time-consuming and expensive.



Vinyl heat transfer on wood.



T-shirt with heat transferred logo. JUPmode.

Types of HEAT TRANSFERS

Vinyl transfer printing

Vinyl printing is useful when working with vinyl transfer inks like glitter, hologram, flock, reflective material, PU, and glow in the dark. However, this method of printing is only limited to just one colour printing.



Vinyl transfer



Digital transfer

Digital transfer printing

Digital transfer printing first recreates your design via a computer, and prints it digitally. The imprint will be printed in mirror image on a polyester layer, after which the transfer is applied on textile with a heat press.

Digital appliqué transfer

Glow in the Dark Screen Print is simply screen printing using a certain type of plastisol ink. For this method, the plastisol ink has a substance called phosphor, which absorbs light. This is what gives the finish the glow in the dark effect.



Transfer Print on skateboard



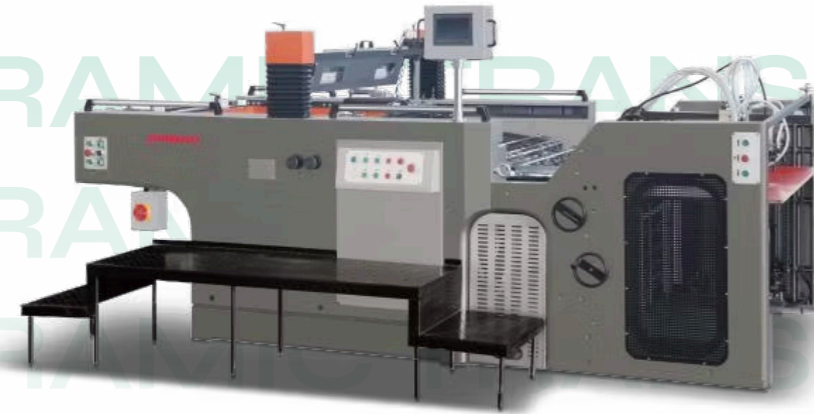
Canvas tote-bag for the New York Women's Foundation.

The results of HEAT TRANSFER



Glass perfume bottle with heat printed design. iPerfumePackaging.

CERAMIC TRANSFER



Wholesale Glass Ceramic Transfer Decals Screen Printing Machine

→ Used for

- Ceramic
- Porcelain
- Glass

Ceramic transfer is a technique used to apply detailed, colorful designs onto ceramic items like mugs, plates, or tiles. A design is printed on special transfer paper, similar to the normal transfer or digital process. The paper is made wet and carefully placed on or around the item.

→ Common items

- Mugs
- Plates
- Glasses
- Pots

The item is then baked in an oven at around 700°C, causing the pores of the material to open up. As the item cools, the pores close again, embedding the imprint permanently into the surface. This process creates a high-quality, durable finish that's vibrant, dishwasher-safe, and perfect for long-lasting branding or custom designs.



Ceramic transfer on mug. Midocean.

CERAMIC TRANSFER

Pros & Cons



→ Advantages

1. **100% dishwasher-proof** for long-lasting designs.
2. Can be applied **inside or on handles** of mugs for unique customization.
3. Allows for **large print sizes**, up to 20x7 cm on straight mugs.
4. **Vibrant and detailed designs** are achievable, great for high-quality branding.

→ Disadvantages

1. **Higher cost** compared to other printing methods.
2. **Time-consuming process**, making it unsuitable for rush orders or express services.
3. **Limited color accuracy**, as exact Pantone matching can be challenging (light colors may appear darker).
4. **Full-color printing requires a white background**, restricting design options on colored ceramics.



High-Quality Embossed Hoodies

EMBOSSING & DEBOSSING



Fabric Embossing & Debossing Machines

→ Used for

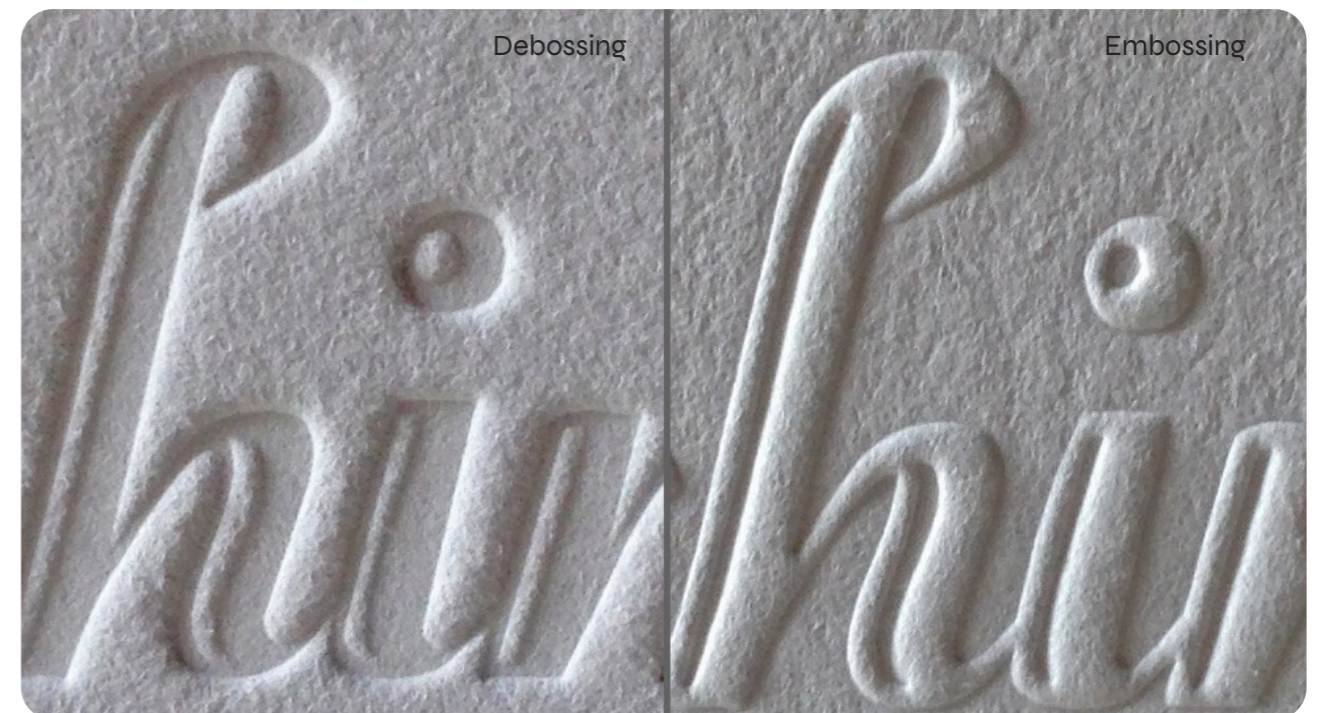
- Paper
- Leather
- Polyutherane
- Carton
- Metals (Aluminium & brass)
- Fabric (Suede & felt)
- Vinyl

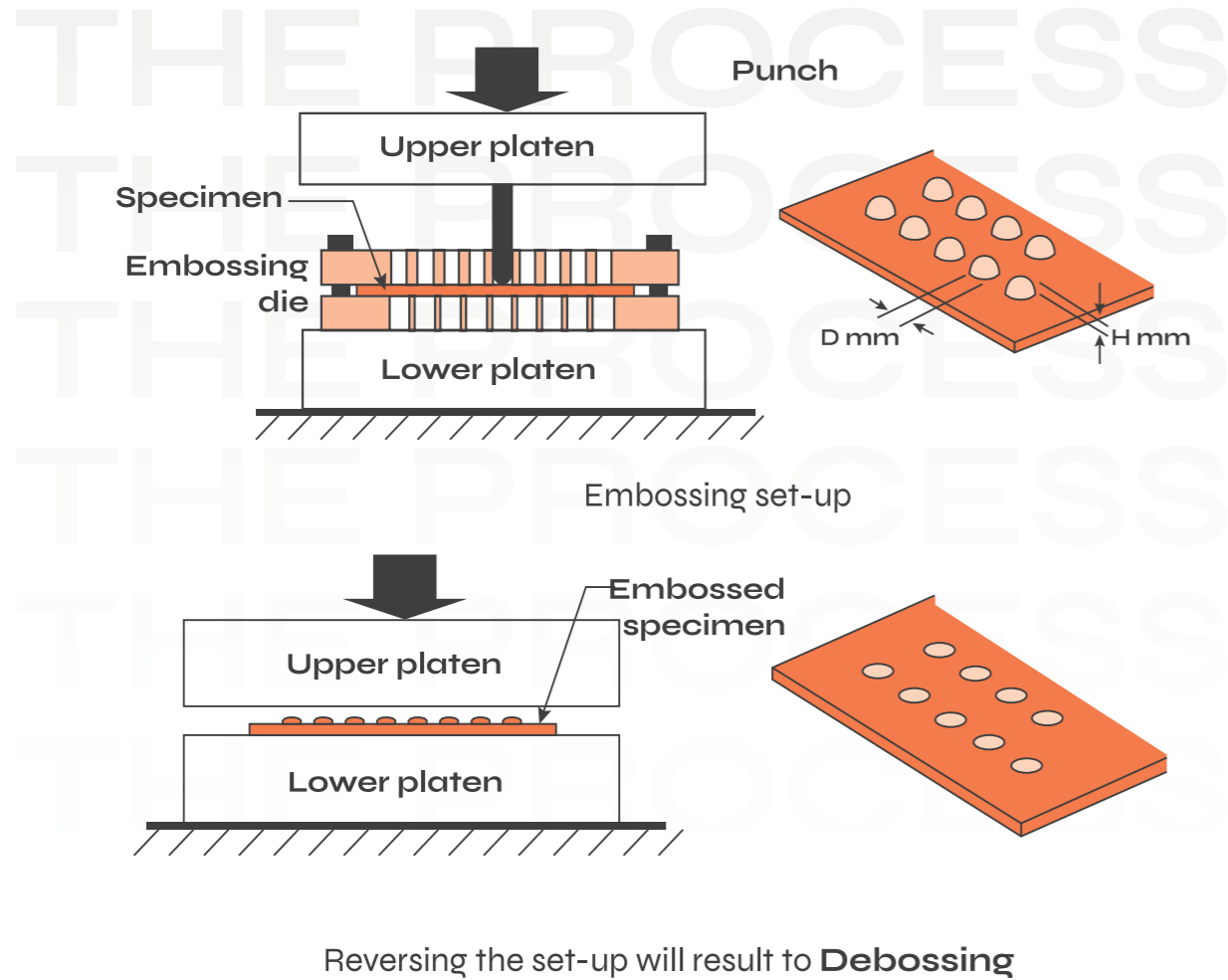
→ Common items

- Business cards
- Stationery
- Packaging
- Leather goods

Embossing involves creating raised or three-dimensional patterns or images on a material's surface. It is achieved by applying pressure to the material using a customised plate (called a die), which raises the selected areas.

On the other hand, debossing involves creating recessed or sunken patterns or images on a material's surface. It is also achieved by pressing the material against a die, which consequently indents the selected areas.





Reversing the set-up will result to **Debossing**

→ Step-by-step

1. Design Creation:

Create a digital design or artwork that outlines the desired pattern or logo.

2. Plate Preparation:

Create a metal or polymer plate (die) with the design raised for embossing or recessed for debossing.

3. Material Selection:

Choose the substrate (material) to be embossed or debossed, such as paper, leather, or fabric.

4. Heating (for embossing):

Preheat the plate if necessary, depending on the material and desired effect.

5. Alignment:

Position the substrate accurately under the die to ensure precise placement of the design.

6. Pressure Application:

Use a press or machine to apply even pressure on the substrate and die. This step can vary in intensity based on the material and design.

7. Cooling/Setting:

Allow the material to cool (if heated) or set to ensure the design holds its shape.

8. Inspection:

Check the final product for quality, ensuring the design is clear and accurately represented.

9. Finishing Touches:

If needed, add any additional finishing, such as trimming or coating, to enhance the final appearance.

EMBOSSING & DEBOSSING

Pros & Cons



Embossed leather wallet. Vivienne Westwood.



Embossed business card. Elegante press.

→ Advantages

1. Embossing easily transfers the finest details of the design.
2. Adding a splash of colour with ink is an easy way to embellish your debossed design.
3. Digital printing has a lower carbon footprint, as it requires less equipment than other traditional printing methods.
4. Both offer permanent designs that are bound to last.

→ Disadvantages

1. Limited number of colours available (No Pantone colours).
2. Print cannot be removed or modified after created.
3. Both techniques require skilled technicians, with the correct (often expensive) tools in order to avoid problems with alignment, or pressure.
4. Not all substrates are made equal -- some substrates will have more limits when it comes to these printing techniques.

THE SPECIFICS

Types of Embossing & Debossing:

Blind:

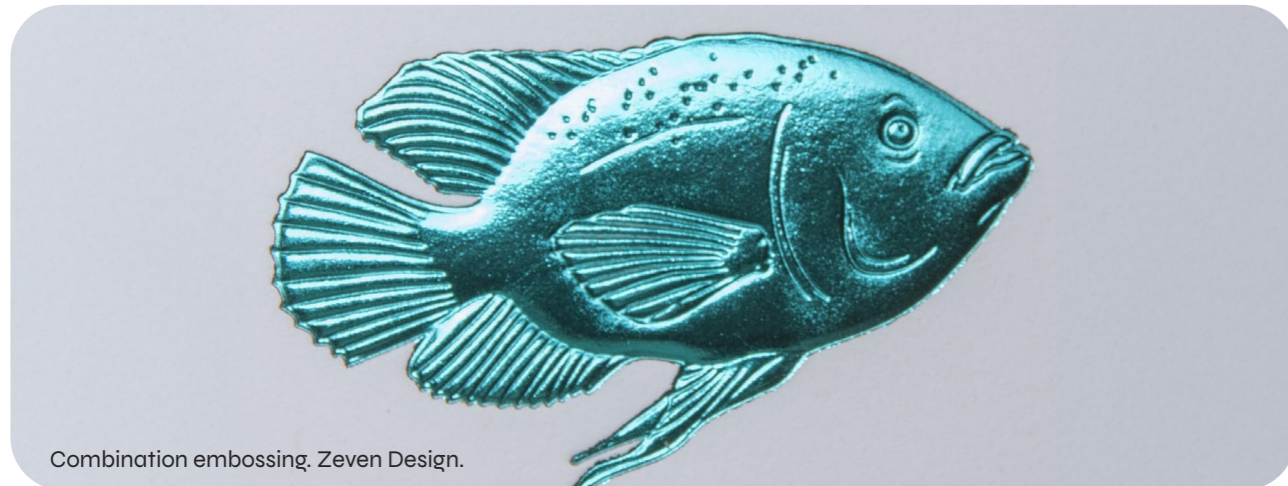
'Blind' means the impression does not directly include to any printed, inked or foiled elements. The desired effect is simply raised or recessed on the substrate.

Registered:

'Registered'; means the impression combines (or 'registers') to an already printed or foiled element. Think of it as adding texture to an already existing embellishment.

Combination:

'Combination' is a process where an emboss or deboss—plus a foil or ink—are done at the same time using the same blocks, or dies.



Foil printing:

Foil printing is the process of transferring a 'foil' (an extremely thin material film) onto an embossed/debossed substrate. It's a type of combination embossing/debossing.



What does Embossing and Debossing look like





Give your shirts some shine by including a foil print that's bound to make you stand out in a crowd.

HOT FOIL STAMPING

→ Used for

- Paper
- Leather
- Cardboard
- Plastic
- Certain textiles
- Wood
- Glass
- Acetate
- Metal
- Glazed ceramic



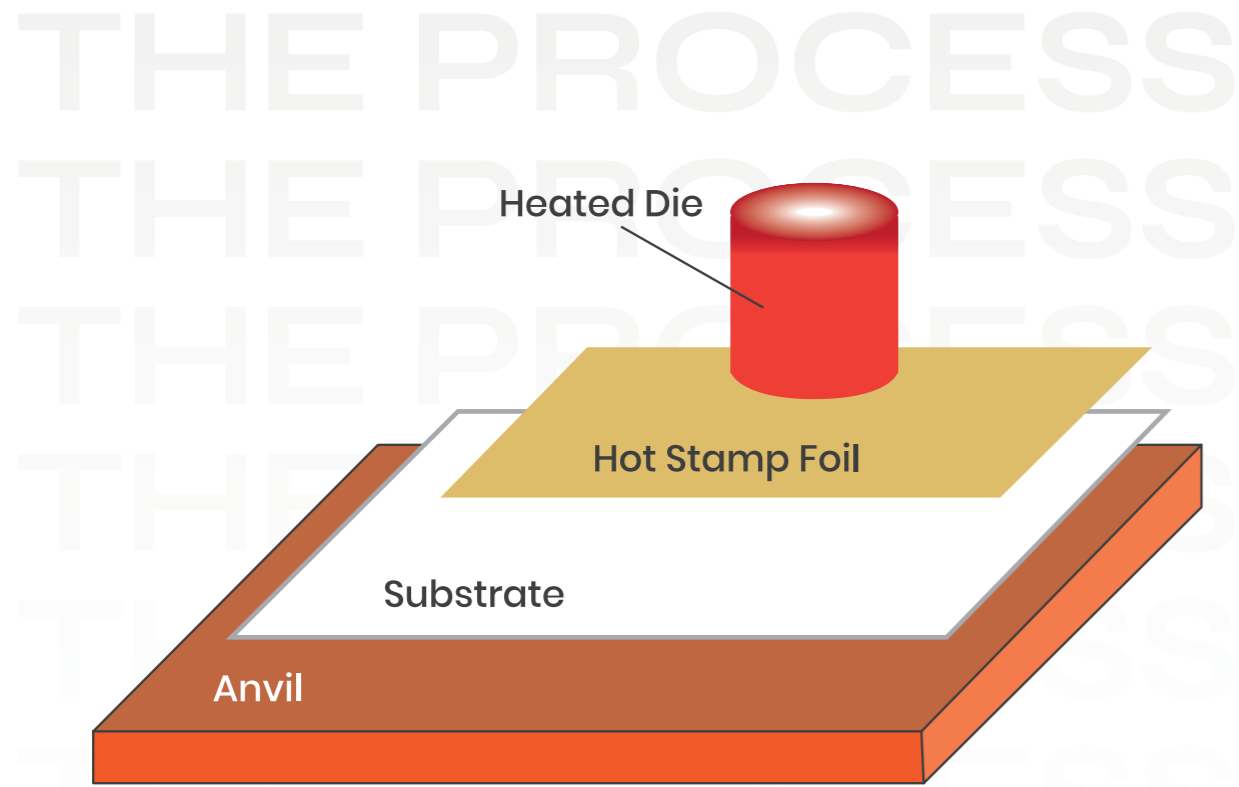
Desktop Pneumatic Hot Foil Stamping Machine

→ Common items

- Business cards
- Stationery
- Bags
- Packaging
- Leather goods
- Plastic goods

Hot foil stamping is a printing method where a specialised machine applies heat and pressure in order to transfer a thin layer of metallic or coloured foil onto the surface.





→ Step-by-step

1. Design Preparation:

The process starts with creating or preparing the design or logo you want to add to your product. This design is often in digital format.

2. Foil Selection:

You choose a foil colour that complements your design. Foil comes in various metallic shades, matte, gloss, or holographic finishes.

3. Machine Setup:

The chosen design is engraved or etched onto a metal die or plate. This die is loaded onto a hot foil stamping machine. The machine has to be set to the right temperature and pressure for your specific material.

4. Foil Placement:

A roll of foil in the selected colour is loaded onto the machine. The substrate is placed

precisely under the machine's stamping head.

5. Stamping:

When everything is set up, the machine brings the hot stamping die in contact with the foil and your product. The combination of heat and pressure causes the foil to transfer from the roll onto the product, adhering to the areas where your design is located.

6. Cooling and Removal:

Once the stamping is complete, the product is allowed to cool for a moment. Then, the foil waste (the part that didn't adhere to the design) is removed, leaving your design in place.

HOT FOIL STAMPING

Pros & Cons

→ Advantages

1. Foil stamping provides a premium, **luxurious look** that adds elegance and to promotional items.
2. It can be used on a **wide range of materials**, making it suitable for various products.
3. It allows for **precise customisation** with intricate designs, logos, and text.
4. Foil-stamped designs are **durable** and long-lasting.
5. Foil stamping comes in a **variety of colours**, including metallic shades, matte, gloss, and holographic finishes
6. Foil stamping machines can be set up relatively **quickly**.

→ Disadvantages

1. Foil stamping can be more **expensive** than some other customisation methods.
2. Foil stamping is best suited for **flat** or **slightly curved surfaces**.
3. Extremely **fine details** and small text may not be suitable for foil stamping, as the process relies on the transfer of heat and pressure.
4. Foil stamping is **less practical** for **large**, full-coverage **designs**.
5. While there is a variety of foil colours available, it may **not offer** the same **colour spectrum** as digital printing or other methods.





Personalised pet photo keyring, dog/cat photo UV printed.

UV LED PRINTING



→ Used for

- Paper
- Plastic
- Vinyl
- Wood
- Glass
- Textiles
- Leather
- Rubber

→ Common items

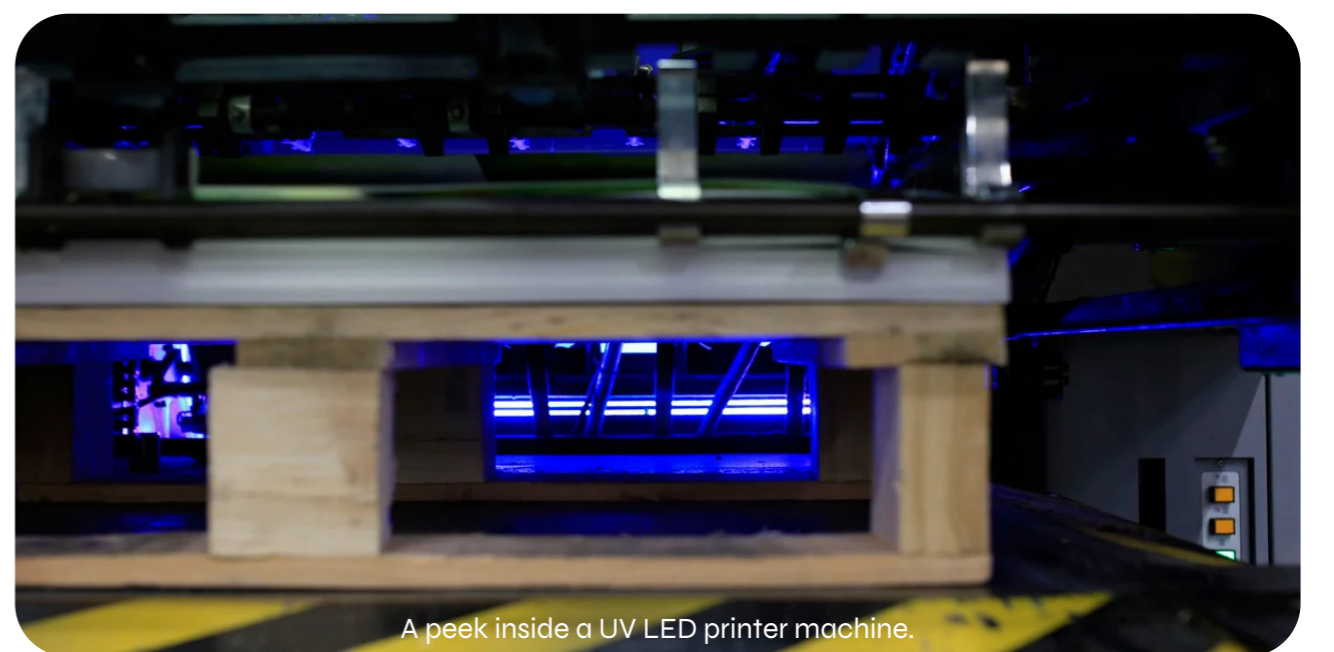
- Pens
- Keychains
- USBs
- Custom apparel

Jucolor 6042 Uv Impresora UV LED flatbed Printer Machine.

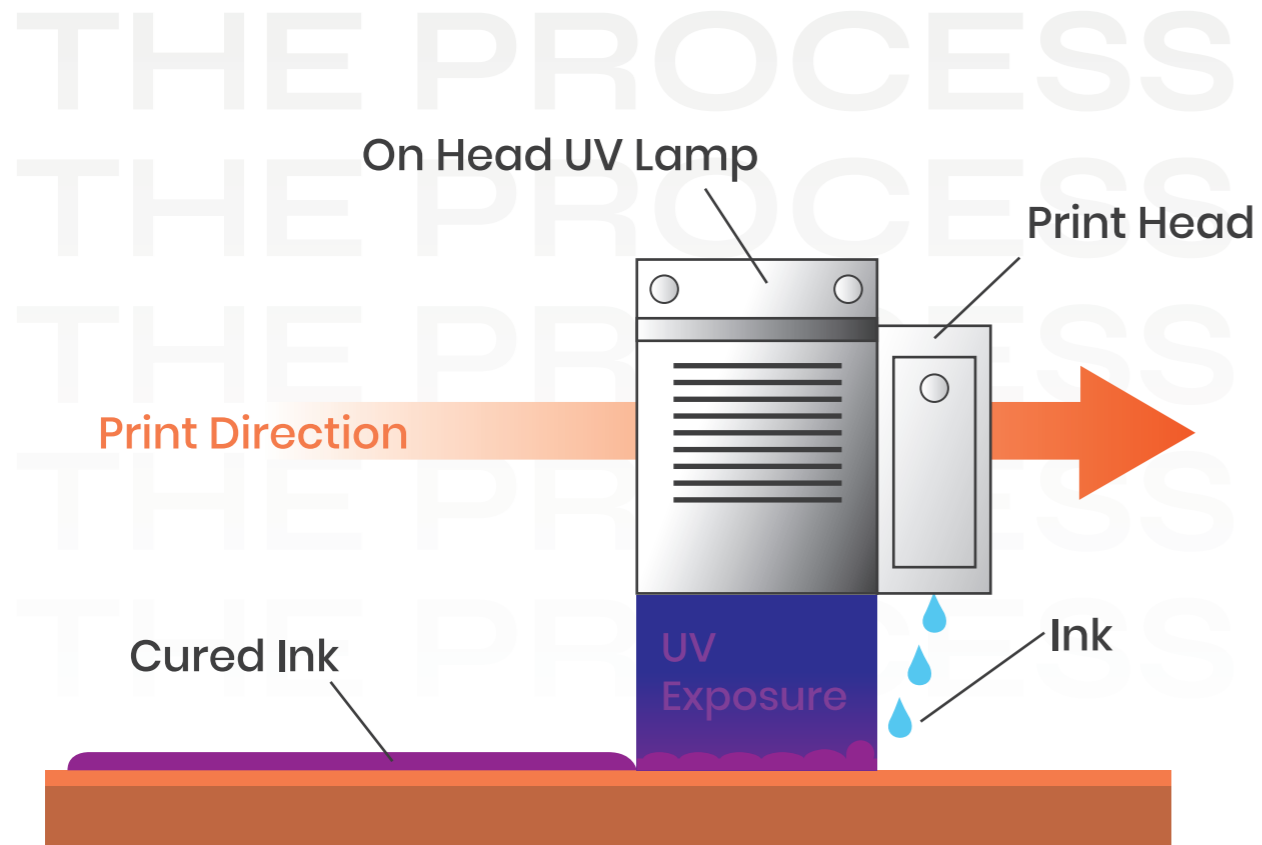
LED UV printing involves the use of UV (ultraviolet) LED lights to instantly cure (dry and harden) UV ink on a variety of surfaces.

This process allows for high-quality, durable, and vibrant prints on a wide range of materials, including plastics, metals,

textiles, glass, and more. LED UV printing is known for its eco-friendliness, quick curing times, and the ability to produce intricate and detailed designs, making it a popular choice for customising promotional items with logos, intricate graphics, and accurate branding.



A peek inside a UV LED printer machine.



→ Step-by-step

1. Preparation:

The design or artwork to be printed is prepared digitally using specialised software. This design is then transferred to the UV LED printer

2. Printing:

The promotional product is loaded onto the UV LED printer's flatbed or conveyor belt. UV ink, which contains special photo-initiators, is applied to the surface of the product

3. UV Curing:

After the ink is applied, UV LED lamps emit ultraviolet light that instantly cures or dries the ink. This process hardens the ink, ensuring it adheres firmly to the product's surface.



Professional Design Impresora Uv Led - RB-3250
A3 UV Flatbed Printer Machine

UV LED PRINTING

Pros & Cons

→ Advantages

1. UV LED printing produces vibrant, high-resolution prints with sharp details and rich colours.
2. UV LED ink dries instantly when exposed to UV light, allowing for faster production and reduced waiting time.
3. It can print on a wide range of materials.
4. UV LED printing emits fewer volatile organic compounds (VOCs) and uses less energy compared to traditional printing methods.
5. UV ink adheres well to surfaces, making the print resistant to fading, scratching, and weathering.

→ Disadvantages

1. UV LED printers can be more expensive to purchase and maintain compared to traditional printers.
2. May have limitations in reproducing like metallics or fluorescent colours.
3. UV LED printing requires specialised knowledge and equipment.
4. Some surfaces may require additional preparation, like cleaning or coating, for optimal printing results.





What does UV LED PRINTING look like?



Add extra value to your products by presenting them in custom UV printed packaging.



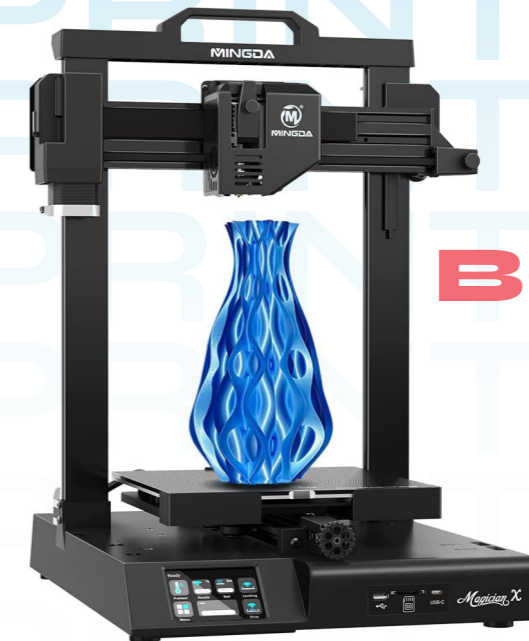
Oak & Honey silver foil stamped packaging.

3D PRINTING

BONUS

→ Used for

- Plastic
- Resin
- Metal



MINGDA 3D Printer Rock 3 Pro

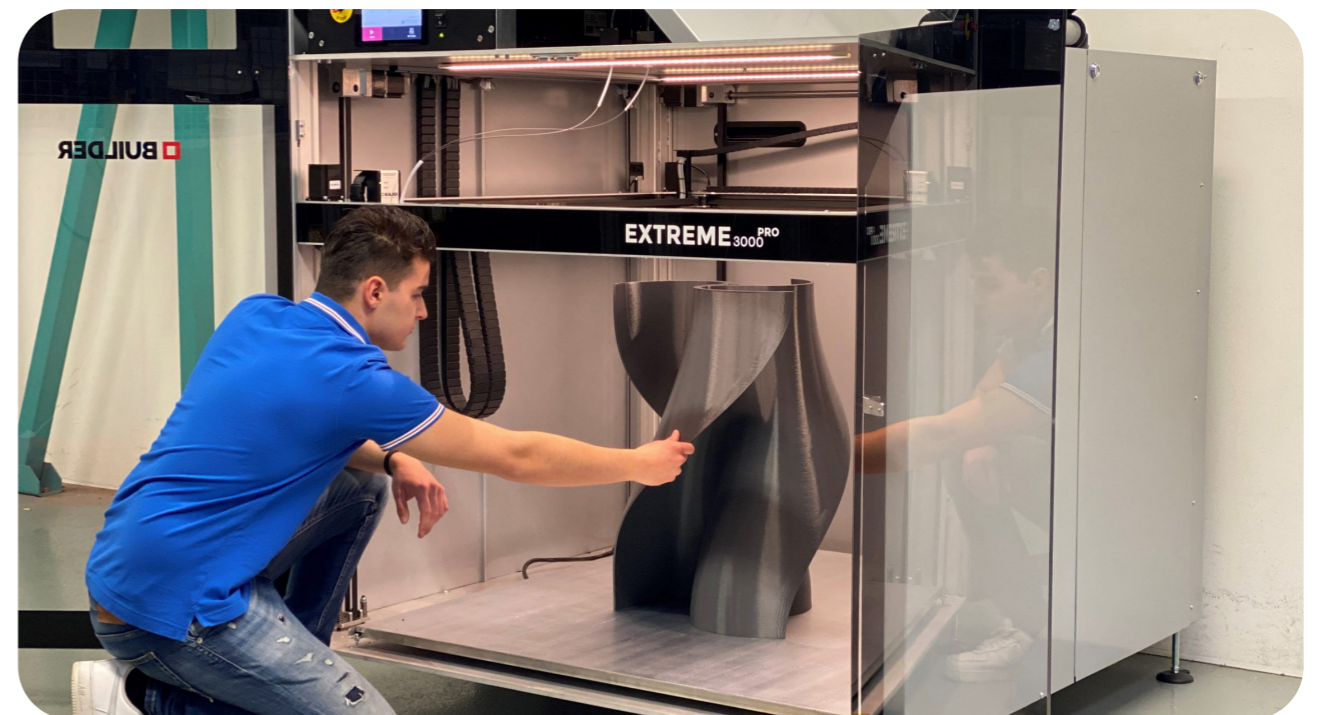
→ Common items

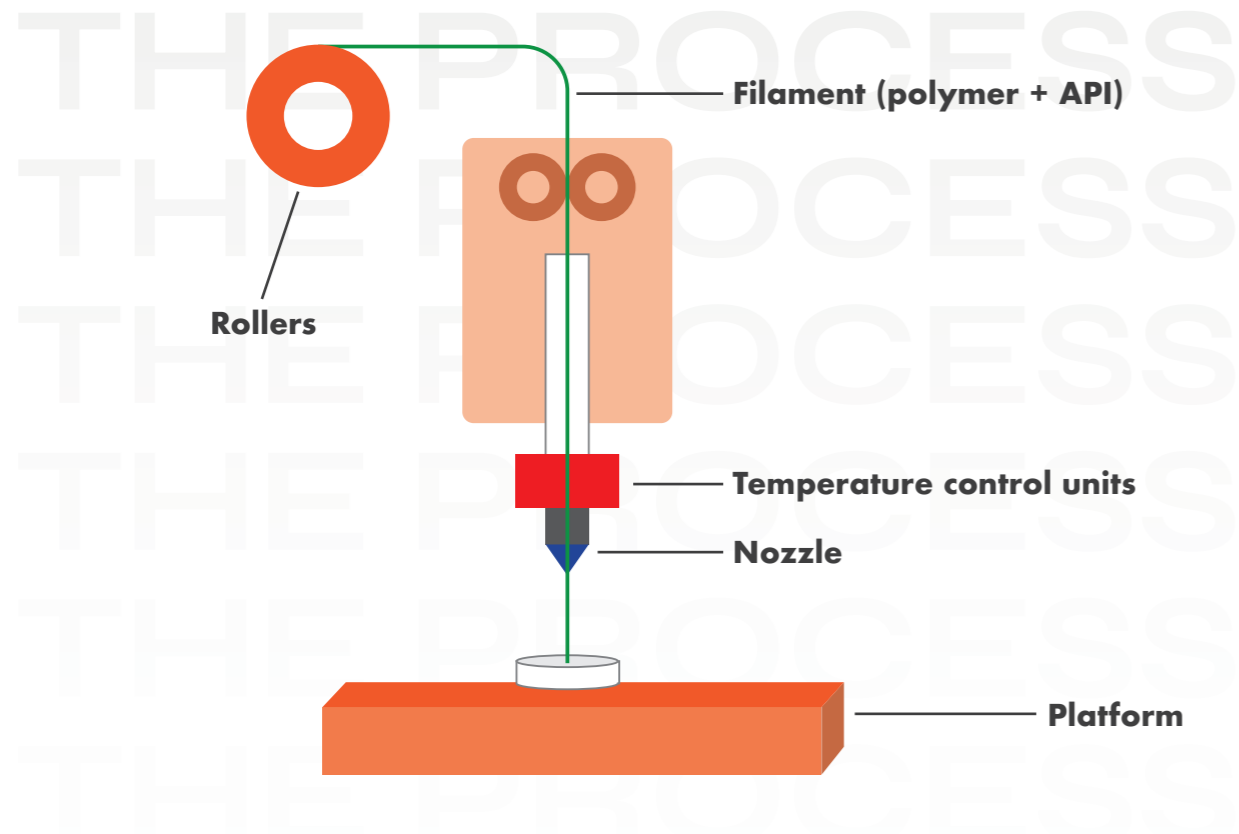
- Keychains
- Desk accessories
- Miniatures
- Prototypes
- Wrist bands/badges
- Limited edition collectibles

3D printing technology enables the creation of highly customised items with intricate designs and unique shapes that traditional manufacturing methods can't match (or will otherwise charge highly for).

It's perfect for prototyping and short-run production, allowing businesses to test and

refine their promotional ideas efficiently. This flexibility and creative potential make 3D printing a valuable tool for crafting promotional products that truly leave a lasting impression --and take your brand above and beyond.





→ Step-by-step

1. Design:

First, you create a digital 3D model of the object you want to make using computer-aided design (CAD) software. It's like designing a blueprint of your model.

2. Slicing:

The 3D printer takes this digital model and slices it into several, very thin, horizontal layers, as if slicing a loaf of bread into multiple thin slices.

3. Printing:

The 3D printer starts at the bottom layer and adds material, layer by layer, following the design. It's similar to a robot squeezing out tiny amounts of material, like melted plastic or resin, which hardens almost instantly. These layers stick together, and thus forming a 3D object.

4. Repeat:

The printer keeps adding layer upon layer until it completes the entire item.

5. Final Touches:

Once the printing is finished, you might need to do some finishing touches such as sanding down rough edges to make the object smooth and perfect.



Enclosed 3D printer klipper control 3D printing fast printing speed high precision stable core X-Y structure

3D PRINTING

Pros & Cons

→ Advantages

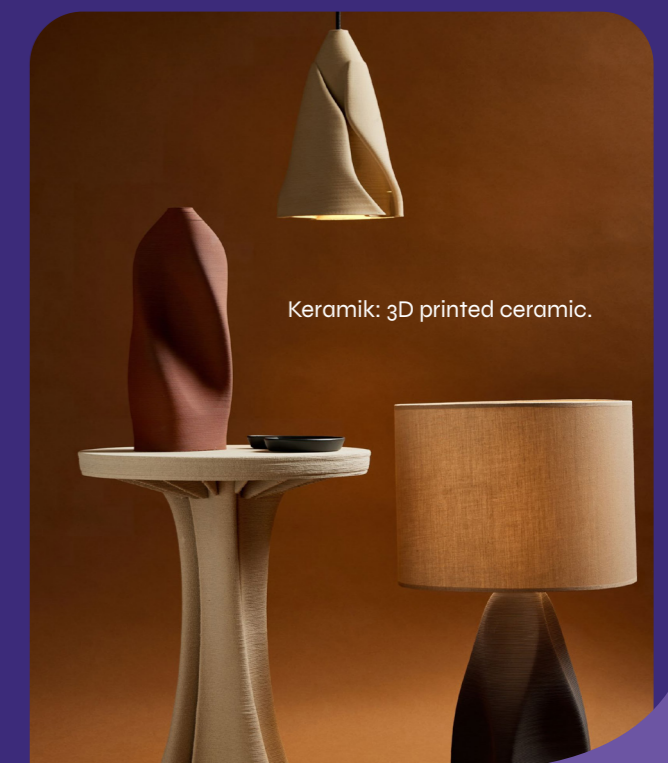
1. You can create unique and personalised promotional items tailored to your audience.
2. It's excellent for quickly prototyping new product ideas. This means you can test and refine your promotional items before a full-scale production run.
3. 3D printing can produce intricate and complex shapes that would be challenging with traditional manufacturing methods.
4. Low Setup Costs: For small production runs, 3D printing can be cost-effective.
5. 3D printing is an additive process, which means less material waste.

→ Disadvantages

1. 3D printing can be slow, especially for large or complex items. This may not be suitable for large-scale promotional item production.
2. The range of materials available for 3D printing is expanding, but it's still more limited than traditional manufacturing methods.
3. 3D printing can be expensive for large production runs due to the cost of materials and time.
4. Depending on the 3D printing technology used, the surface finish of items may require post-processing to achieve a polished look.
5. Creating 3D models for printing requires design expertise that not all promotional teams may have.



SMUN: An aromatic, 3D printed herbal inhaler.



Keramik: 3D printed ceramic.



A 3D printed pencil holder.

Examples of 3D PRINTING



Bambu: 3D printed plant pot.



Coil: A contemporary take on a classic tool. 3D printed.



The Neppa fan: Printed directly onto Japanese paper, this fan is both innovative & lightweight.



Add extra value to your products by presenting them in custom UV printed packaging.

GLOSSARY

CMYK colour model:

The abbreviation CMYK refers to the four ink plates used: cyan, magenta, yellow, and key. The colour model refers to the scheme used in printing.

Cure (rel. ink):

UV inks become dry-to-the-touch through a process known as curing, in which UV light reacts with molecules in the ink.

Die (in relation to Debossing/Embossing):

a personalised metal plate that's cut into the image you want to emboss.

Solvent-base:

Solvent-based paints are made up of liquefying agents that are meant to evaporate via a chemical reaction with oxygen.

Static electricity:

a stationary electric charge, typically produced by friction, which causes sparks or crackling or the attraction of dust or hair.

Sublimation (in science):

Sublimation is the conversion between the solid and the gaseous phases of matter, with no intermediate liquid stage.

Substrate:

Word to generally describe the base material onto which, e.g. images, will be printed.

Pantone colours:

Pantone colours provide a universal language of color that enables color-critical decisions.

Printing Plates:

Printing Plates are plates made from metal or polymer materials. These plates are pressed into a sheet of material to give it the appearance of being printed.

Plasticiser:

Plasticisers can help make ink softer, more flexible, and adherent.

Plastisol:

a liquid substance which can be converted into a solid plastic simply by heating, consisting of particles of synthetic resin dispersed in a non-volatile liquid.

Pre-mixed ink colours:

Spot colour applies a premixed ink to the page. Spot colour is useful for items that require only a few colours, such as newsletters, brochures and stationery.

RAL colours:

RAL is a colour management system used in Europe that is created and administered by the German RAL gGmbH. In colloquial speech, RAL refers to the RAL Classic system, mainly used for varnish and powder coating, but now plastics as well.

Ultraviolet Light:

UV (Ultraviolet) light is a form of electromagnetic radiation. It has a wavelength shorter than that of visible light, which makes it invisible to the naked eye, although it can be detected via its effects on various substances.

Your Brand, Our Expertise: A Perfect Match

There's nothing like perfectly customised branded merchandise.

→ Let's get in touch

DASSAULT
AVIATION

COLLECTION



KICK^{AND} RUSH



visit us at kickandrush.com

Antwerp | Brussels | Mauritius | Paris

