

The world of interior design is undergoing a revolution with the rise of digital inkjet printing on glass

This innovative technology offers endless possibilities for creating stunning and functional glass panels

pushing the boundaries of both aesthetics and functionality.



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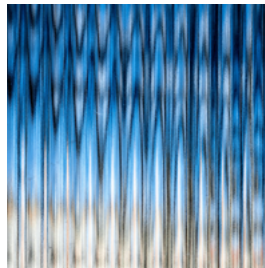
# T.A.O. NEWSLETTER



## The Future of Glass Interior Design with Industrial Digital Inkjet Printing



### Benefits of Direct Inkjet Printing on Glass decor

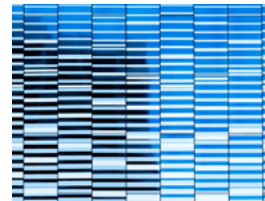


#### Versatility

Allows printing of virtually any design, image, or pattern onto glass panels.

#### Color Vibrancy

Digital printing produces sharp, high-resolution images with a wide color gamut.



#### Customization

Enables one-off pieces or limited-edition designs, catering to a personalized aesthetic.

#### Efficiency

Faster turnaround times compared to traditional methods. (Current Printing Processes).

#### Durability

Modern inks offer excellent resistance to fading, scratching, and moisture, ensuring long-lasting results.

### Application for Glass Interior Decor

- 1 Glass tabletops
- 2 Glass partition
- 3 Glass door and windowpanes
- 4 Glass Signs and Photo Prints
- 5 Glass Marker Boards
- 6 Cabinet Glass

### What Digital Inkjet Printing can create

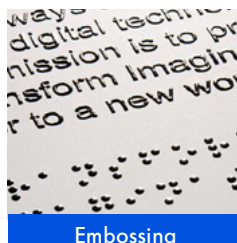
- 1 Multicolor/ Photographs print
- 2 Texture & emboss effect
- 3 Spot UV with high gloss
- 4 Matt surface
- 5 Able to print on convex & concave materials
- 6 Allow max height 24 cm of material to print on



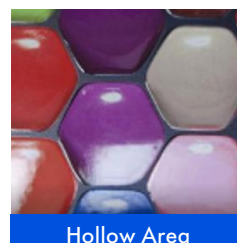
Gloss Finish



Matt Finish



Embossing



Hollow Area



## Case Study: Direct Digital Printing On Glass Panel

**We have recently achieved a breakthrough in direct printing with UV digital inkjet on glass panels.**

This innovative technique eliminates the limitations of conventional glass printing methods, which often rely on thick laminate layers and time-consuming lamination processes.

Inkjet printer: Roland VersaOBJECT CO-300i/640i →  
Ink: ECO UV EUV5 PrWhCMVReGI



## This groundbreaking advancement offers a multitude of benefits:

### Eliminates the need for thick laminate layers

By printing directly onto the glass surface, we can achieve stunning visuals without the added bulk and weight of laminate. This results in a more elegant and streamlined aesthetic for a variety of applications.

### Streamlines the production process

Direct printing significantly reduces the time and complexity involved in glass printing. This translates to faster turnaround times and lower production costs.

### Expands creative possibilities

Direct printing on glass opens up a world of creative possibilities. We can now create intricate designs, vibrant colors, and even photorealistic images with exceptional clarity and detail.

## Product Solution



Take object customisation to new heights with the VersaOBJECT CO-i Series of UV flatbed printers. Digital UV printing has never been more versatile and the CO-i Series is the perfect solution for customising boards, objects up to 242 mm. in height and can even handle irregular surfaces.

## Screen printing ink and finishing surface coating

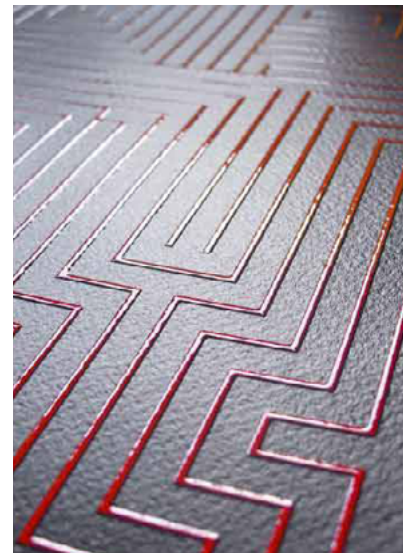
Although, Digital inkjet printing provide us the wide range of design, Printing solid background is time consuming. Screen printing is recommended for combination use for this case. T.A.O. supplies both quality UV and Solvent based screen-printing ink which give the high chemical and mechanical resistance as well as color brightness.

Furthermore, we offer both matt and gloss water-based finish coatings that can be integrated into the inline spray unit of a digital inkjet machine.

## Industrial test required for glass panel

- 1 Tape test & Cross cut
- 2 Bake test
- 3 Pull up test
- 4 Pummel test
- 5 Humidity test
- 6 Lamination process
- 7 Pencil hardness
- 8 Household chemicals test

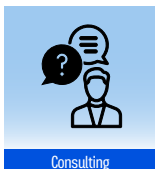
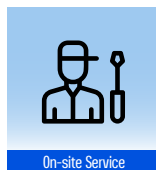
Ink usage:  
1.24 ml/ft<sup>2</sup> (PrWhCMVReGI)  
Printing speed:  
15min/ft<sup>2</sup> (PrWhCMVReGI)



## Craft your vision with T.A.O. digital printing solution

Collaborate with our team of experts to develop customized solutions through universal ink options designed for use across myriad applications. Join us in shaping the future of innovation.

## Services



## The Laser marking on Closure caps

The process that uses laser technology to create marks, patterns, or codes on the surface of Closure caps.

## This technique used for various purposes

such as promotional, marketing communication, product identification.



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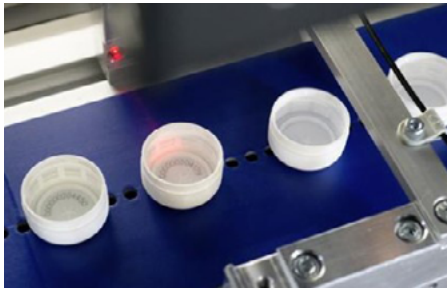
# T.A.O. NEWSLETTER



## Laser Marking On Closure Caps For Beverages

### Laser Marking on Closure Caps Offers Several Advantages

#### Laser Marking is non-contact process :



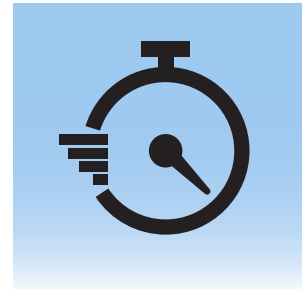
There is no physical contact between the marking device and the bottle cap and without using the inks. This reduces the risk of contamination to contained drink.

#### Various of Marking :



Laser Marking is able to create various types of marks, including letters and numbers, logos, QR codes, and the other graphical elements.

#### High Speed :



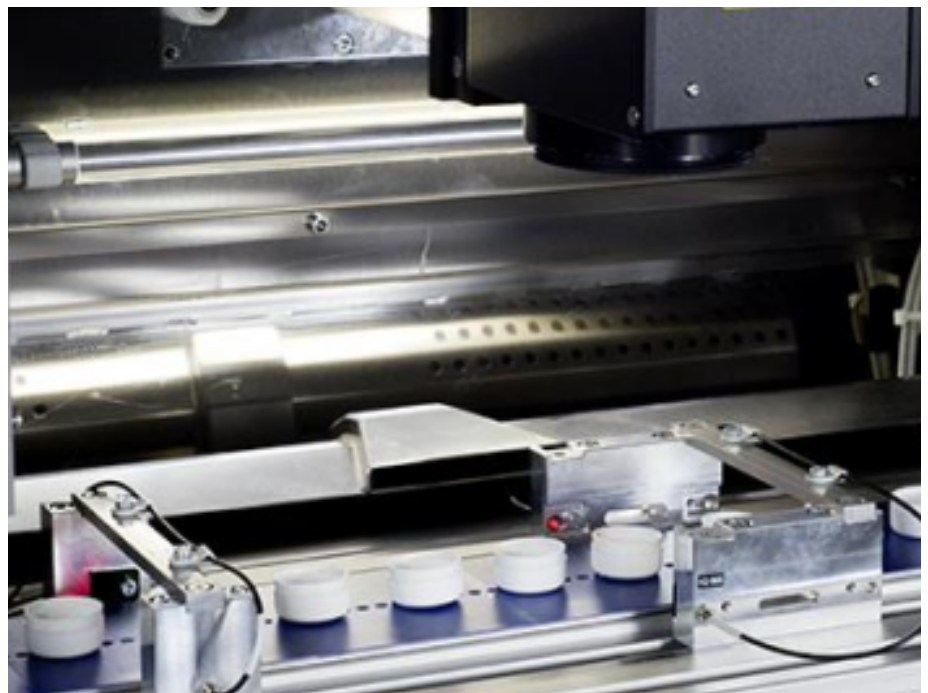
Laser Marking is a fast and efficient process, making it suitable for high-volume production such as in beverage industry.

### The Types of Laser

The **Fiber Laser** operates at 1064 nanometers wave length.

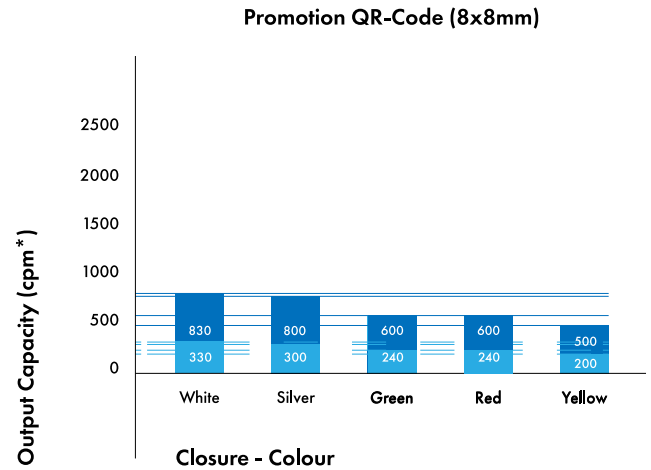
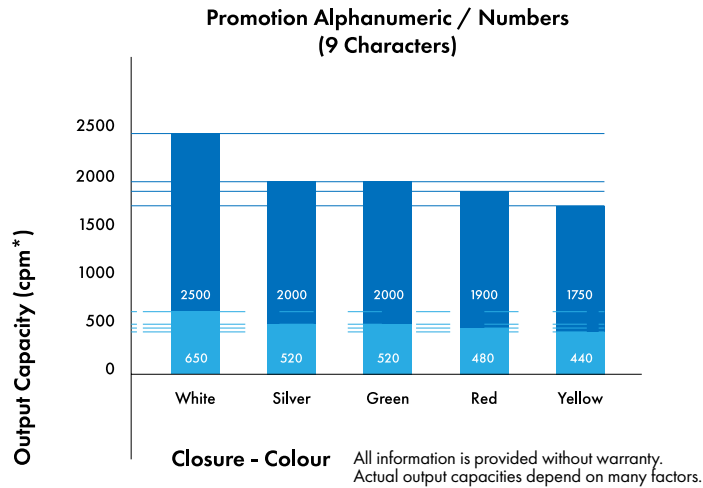
The **UV Laser** operates at 355 nanometers wavelength.

The choice of laser type for marking on Closure caps depends on the material and the desired marking result.



## The comparison UV Laser & Fiber laser the TAMPOPRINT machine in MOF series.

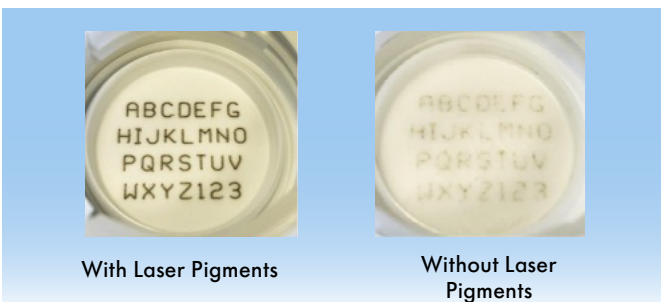
UV LASER \_ MOF Promo 380  
FIBER LASER \_ MOF Promo HP200



### Laser Pigments in Masterbatch (for Fiber laser type)

To achieve a marking with the high-contrast and high output capacity. It is important to add laser pigments to the masterbatch. These pigments absorb the laser energy and a dark contrast can be achieved.

Most of the time a dosage level of 0.5% - 2.5% is used. Laser pigments are needed for nearly all colors, except for (usually) : gold, silver and black.



### T.A.O. Solution

Our company proudly offers High performance Laser marking machine from TAMPOPRINT. With the procedure "Mark-on-the-fly"

