

# Case Study

## Application: Digital Printing On Cylindrical Objects



Cylindrical Object



Phoseon FireEdge™



Phoseon FireJet™

- Proven Reliability
- Superior Performance
- Innovative Technology

### Fermac Utilizes Both Pinning and Full Curing from Phoseon

Fermac introduces the JET ART full digital printing machine equipped with two printing stations. This CNC (Computerized Numerical Control) based machine includes white ink jet plus four-color CMYK ink jet printing with UV LED (ultraviolet light-emitting-diode) curing technology. The JET ART currently prints onto cylindrical parts, but it is designed to print onto any developable shape.

The JET ART digital printer utilizes UV LED curing technology from Phoseon for both pinning and full curing.

#### JET ART

The first printing station includes white ink jet printing from Konica Minolta with automatic feeding unit. The Phoseon FireEdge™ FE200 air-cooled UV LED light source is utilized for the pinning process to 'freeze' ink drops before overlaying other colors or doing a full cure.

The second station includes

four-color process with CMYK ink jet printing from Konica Minolta with automatic feeding unit. This station includes both UV LED pinning with the Phoseon FireEdge FE200 and full cure with the Phoseon FireJet™ FJ200 UV LED light source. The FireJet offers high peak irradiance designed for full cure digital ink jet applications where reliability and simple integration are key requirements. It offers uniform output and flexible scaling.

Characteristics of the printed objects for the JET ART:

- Max height: 340 mm
- Max diameter: 120 mm
- Max printing height: 72 mm
- Max printing speed: 27 m/min

#### UV LED Curing

UV LED curing technology is integrated into printing units for a variety of label applications, including bottle labeling machines and systems designed for direct printing on cylindrical containers. The small size of the light sources makes them ideal for machines with

limited space. It also allows for printing on heat-sensitive substrates and ever-thinner labels. These solutions enable users to process a variety of materials at maximum production speeds, with low-input power requirements.

Direct bottle printing technology eliminates the need for label substrates, offering a new solution for innovative bottle designs and consumer engagement.

#### About Fermac

FERMAC designs and manufactures screen printing machines for glass objects such as: tumblers, bottles or cosmetic jars and bottles. The range of machines offers from 4 up to 8 colors semi-automatic or full automatic printing machines. For more information regarding Fermac, please visit:

[www.fermac.it/](http://www.fermac.it/)

