**PRESS ARTICLE**

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**BOBST Inkjet Printing: A printing cluster changing label production**

Compact, reliable, connected, upgradable, green. Those would be my first priorities in any technology choice these days! From a vacuum cleaner to a car!

And the more high-tech you go, the more these criteria have to be made a reality – indeed, they are practically inseparable from each other, and the foundation for successful and sustainable innovations.

BOBST has developed the Mouvent Cluster based on these exact principals.

For the first time in inkjet history, utilizing the advancements of 3D Printing technology, we are able to develop such a compact and effective printing device. The Mouvent Cluster is a unit comprising of four inkjet heads and their ink control system, encapsulated in one very compact design. And compactness is not only a size advantage. It indicates that there are minimum moving parts, well positioned internal elements and precise organized cables and connections.

This unique design logic brings unique advantages

**Fewer moving parts** means less maintenance and less risk of failure. But the precisely positioned internal elements means faster and more accurate temperature control and shorter distribution lines of fluids (less temperature loss and pressure equalization).

In addition, the **embedded ink and temperature control units** of the Mouvent Cluster follow a very simple architecture rule. Each unit is autonomous, and each inkjet head is controlled in a separate closed loop, with its own individual pressure and temperature control systems.

This is a radical technology shift in the inkjet world, leading to full jetting control which provides total independence on speed of printing, ink coverage or levels of details of the printed file.

The main advantage of controlling the ink in such a short distance from the jetting and in a closed loop manner, is the **consistency on the ink drop size** and the efficiency of the system in long production shifts.

It also enables elimination of ink mist, absolute print head temperature control and uninterrupted production without the need of pauses to clean or cool down.

**Connectivity** is also a fundamental design principal for reliable performance. Performance is based on on-the-fly data analysis and algorithmic calculations, which leads to powerful control and immediate adaptation.

Simply described, the cluster system has its own **modular advanced intelligence** to readapt when and where needed and at the same time is connected on a high-speed mainframe and image data stream.

The brain of the system, **the electronics, is a fully programmable system**. The system was built with deterministic compute approach, scalable performance, low power consumption and functional safety considerations.

**Updates** and adaptations can take place directly on the press and triggered even by remote support engineers, ensuring that the technology will always deliver on its promise.

So, BOBST Cluster technology is taking inkjet printing to the next level, opening new horizons in the packaging industry.

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**About BOBST**

We are one of the world’s leading suppliers of substrate processing, printing and converting equipment and services for the label, flexible packaging, folding carton and corrugated board industries.

Founded in 1890 by Joseph Bobst in Lausanne, Switzerland, BOBST has a presence in more than 50 countries, runs 19 production facilities in 11 countries and employs more than 5 800 people around the world. The firm recorded a consolidated turnover of CHF 1.563 billion for the year ended December 31, 2021.

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