

Miss nothing!



Reduce production downtime

Save on maintenance

Waste fewer rolls

Eliminate defects

NIPSON
INNOVATIONS

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Smijet® application sheets

Missing or deflected jets?

Current techniques are purely visual, which is a disadvantage

Here, who checks? The human eye is responsible for detecting missing or deflected jets whether in a sample or on a screen, enlarged by RGB cameras. This slow process lacks repeatability and creates waste.

And when? Often missing or deflected jets are detected too late when all or part of the roll is wasted, and a roll can be worth 800 €.

But that's not all. We have to spend time changing and adjusting the head, and report the faulty parts of the reel to the processing department. Avoiding such an incident would have allowed you to bill for more work in the day. A missing or deflected jet slows down not only printing, but also processing, sometimes generating up to 10% of waste.

The resolution is insufficient, which is a disadvantage!

A 20µm-wide missing jet will be visible to a customer on a solid surface.

Extremely expensive and unable to control 100% of the printing web, current systems (camera-based or not) are unable to detect such defects because their resolution is not sufficient. This kind of missing jet will remain undetected. However, it certainly will be detected by Smijet®.

Smijet inline color control

- Resolution up to 1200 dpi
- 36-band 10 nm check
- Color measurement accuracy: $\Delta E \leq 1$ in the $L^*a^*b^*$ ($L^*c^*h^*$) space
- Illuminant: any profile (D50, D65, etc.)
- Speed: up to 120 m/min
- Inspection accuracy: 1 mm²
- Control distance: 10 mm
- Power supply: 220 VAC
- 340 mm-wide modules
- WxHxD (mm): 405 x 350 x 200.

Smijet control screen with automatic positioning of drift areas.



At last, a non-visual technology with high resolution and high speed!

Completely different from conventional systems, Smijet is a compact multispectral color scanner, patented and endowed with artificial intelligence. It represents a significant step forward in reducing printing waste and machine downtime.

At last, a continuous control over 100% of the production, whatever the substrate

With an inspection accuracy of 1 mm², Smijet detects the slightest color deviation from the selected sample, while automatically highlighting the missing jets on its HD screen. Everything is done in-line, during the entire production and under Illuminant D50 integrated.

Understand the source of the defect and predict the next one!

Installed on the printing line, Smijet ensures continuous monitoring of production and provides real-time alarms when color variations exceed the limits set by the user.

It also performs the following functions:

- Automatic registration of inkjet heads
- Detection of missing or deflected jets
- Faster set-up of replacement heads

Data collected by Smijet help identify the faulty head number and the color concerned. This avoids replacing an expensive head unnecessarily.

