For over twenty years, Mettler-Toledo PCE has been a market leader in the implementation of track & trace solutions for the pharmaceutical packaging industry.

PCE’s exacting expectations of coding technology, highly reliable optical monitoring instruments and use of intelligent data management software are key components of this success. For the effective implementation of printing solutions, PCE relies on Wolke Thermal Inkjet (TIJ) printers, recently upgrading to a new-generation Wolke m600 optimized for integrated track & trace applications.

Track & trace systems are the most reliable and effective method when it comes to protecting the authenticity of products, and protecting the health and safety of pharmaceutical customers. Batch level scanable codes used for this purpose greatly enhance the traceability and security of the products, with full serialization offering even more protection. While traditional static codes only allow for tracing information at point of manufacture, serialized codes provide entire supply-chain traceability via a single unique product number.
After its foundation in 1989, the company quickly became one of the market leaders for these specific industry solutions. For almost as long, it has installed Wolke TJ printers in them.

In 2011, the company from Hessen, Germany, merged with the U.S. Mettler Toledo group, whose “Vision Inspection” business unit joined in October 2014. PCE is directed from its headquarters in Zwingenberg and has two other German locations: one in nearby Heppenheim, the other in Oberlungwitz in Saxony, where it manufactures complete track & trace systems and the related smart cameras.

The market demand for PCE products is continuing to grow, demonstrating the near certainty that the future belongs to serialization.

In some regions (including North America, Brazil, China, and South Korea) serialization has been made mandatory for a whole series of pharmaceutical or food products.

Europe is following with a considerable lag, which Brussels is seeking to minimize in the coming years. Reinhold van Ackeren, Head of Product Management & Marketing at Mettler-Toledo PCE, thinks that 2018 will be a “tipping point” in this context. By then, EU-Directive (2011/62/EU), which stipulates the serialized identification for prescription-only medicines, must be implemented.

According to van Ackeren, the short life cycles typical for the packaging industry are the main reason why pharmaceutical producers and their packaging partners in many places are still so reluctant to implement serialization solutions. “Many companies are not yet aware of the extent of the changes involved in the conversion to serialization. The integration of track & trace solutions concerns marketing and product management, as well as purchasing and the entire production line.”
Nevertheless, van Ackeren takes a relaxed view of the growing need for serialization. According to van Ackeren, PCE has sufficient know-how and capacities to handle even high order loads. The company boasts the installation of more than 600 track & trace units to date and is prepared for many more. “If you take a look at the production facilities, you’ll find Wolke printers everywhere.”

Often when a manufacturer or packager begins to think about serialization, they will turn to PCE or a PCE partner for expertise. After evaluating the packager’s objectives, PCE will guide them through the implementation process, providing a complete integrated track & trace station or line. For the code marking portion of that solution, PCE often relies on thermal inkjet systems from Wolke.

Van Ackeren, the PCE manager, considers reliable performance a top priority wherever printers are part of track & trace units. For the manufacturer of complete serialization packaging lines, the product quality largely depends on the quality of the individual components.

Mettler-Toledo PCE and Wolke by Videojet is a combination that works well. One who shares this view is Rudi van Laer. The Managing Director of the Belgian company Codivex markets coding systems from Wolke as well as complete PCE systems.

“It is precisely the combination of the two brands that offers customers the highest added value. For example, we have excellent experience with integrating the Wolke m600 advanced in track & trace systems from PCE.”

With the new Wolke m600 oem, PCE and Wolke have taken their proven cooperation one step further. During development of the machine, PCE and Codivex conducted comprehensive trials to confirm the product’s suitability in terms of integration, performance, and control. This type of trials helped ensure both development of a print system that retained the attributes of the trusted m600 advanced but also provided an entirely new suite of capabilities for the future of serialization and track & trace projects.
In developing the new machine, Wolke built directly from the legendary m600 advanced. The longtime industry-standard for TIJ serialization coding, the m600 advanced has seen thousands of installations into track & trace applications worldwide.

Backwards compatible with the m600 advanced platform, the new Wolke m600 oem can continue utilizing the same printheads, bracketry, label files and Wolke remote commands that have been time-tested by that machine.

And yet, the m600 oem represents an entirely new type of coding system. For the first time, a Wolke machine has been designed from the ground up for seamless integration into complex track & trace lines. The small size, flexible panel mounting orientations, utilization of 24V DC power for low heat emissions, and complete integration into the host line HMI all create a solution uniquely suited for operation within a complex track & trace system.

With a view to better meet the physical constraints of track & trace OEMs, integrators and vision experts, characteristics of the thermal inkjet printer were adapted specifically to their needs. The most visible change is the new dimensions of the m600 oem.

Measuring a mere 220mm x 200mm x 80mm and weighing just 2.2 kilograms, the new printer is as much as 60% smaller than comparable legacy print controllers.

Due to these optimal dimensions, the integration of this device into limited spatial conditions is made significantly easier. In addition, countless mounting orientations and DIN rail options offer installers a range of possibilities for secure integration of the machine directly into the host electrical panel or cabinet.

“Of course, this amount of flexibility is a bonus,” van Ackeren points out, “This way, we are not the ones who have to adapt.”

The m600 oem offers innovative new possibilities to add surplus printheads (up to six printheads total) to enable electronic changeover between batches that require different packaging or print locations. With no manual printhead setup required to change print locations, changeover times and risks can be substantially reduced.

“It is precisely the combination of the two brands that offers customers the highest added value.”

Rudi van Laer, Managing Director
Codivex
According to Drew Weightman, Global Business Unit Manager of Wolke Thermal Inkjet, the recent development is characteristic of the Wolke approach. “Partnership with complete solution experts such as PCE is part of Wolke’s history and DNA. We will take every step to help ensure that our product continues to meet their exacting standards for track & trace applications.”

Beyond the increased variety of mechanical integration possibilities, critical data handling capabilities of the m600 oem have been developed. Featuring powerful processing hardware, a formidable data buffer for serialized record management, validated Wolke remote commands and data handling protocols, Unicode TrueType® fonts for global projects, and innovative asynchronous communication practices, the Wolke m600 oem delivers the powerful serialization and communication capabilities that a partner such as PCE demands.

In addition to improvements in serialized data management, a special focus in the development of the m600 oem was placed on operational security, a key focus of many pharmaceutical projects.

Rather than an interactive interface on the device, the m600 oem is fitted solely with a 3.5-inch display for presenting machine diagnostics, but with no ability to input data or to access printer control. Rudi van Laer considers this improvement a key factor: “In this way, system owners can be sure that users are not capable of accessing printer or order data at any time. By eliminating this potential source of error, the validation reliability of the m600 oem was significantly increased.”

All printer parameters, job selection and print commands are controlled via the HMI of the inspection system, serialization station or host packaging line. Should a partner such as PCE or Codivex choose to use the included WebInterface for printer configuration or control, operator access is automatically restricted via password control on four user levels.
According to van Laer, it is the sum of many advantages that ultimately makes the Wolke printer particularly attractive for serialization projects and reliable for integrators like them to implement. Reinhold van Ackeren points out another factor that is the result of a long-term partnership of trust:

“We have been working with Wolke for many years. Our developers, designers, and service staff are familiar with the various printer models and value the capabilities and benefits they provide. For us, this means that there are plenty of good reasons to continue the partnership with Wolke by Videojet, and not a single reason to terminate it.”