



Press release

Paint application via printing: with PRiNTEC™, SAMES KREMLIN makes unlimited customization available to industry

SAMES KREMLIN announces the development of PRiNTEC™, a range of products and services based on a patented printhead technology for paint application. This technology makes unlimited customization possible for the high-speed printing of stripes (horizontal or vertical) and patterns of all kinds on 2D or 3D surfaces. It can also be used to print adhesives and sealants.

PRiNTEC™ is targeted at the automotive, railway, aeronautics, furniture, and ceramics markets, among others. Customers benefit from productivity gains and make a significant contribution to preserving the environment. Commercial launch is planned for 2022, with 2021 devoted to product industrialization and validation.

Patterns positioned to within one tenth of a millimeter

The EPJet® printhead is what sets PRiNTEC™ products and services apart. This electro-pneumatic mechanism releases drops of paint through the movement of a micro membrane controlled by a high-frequency piezoelectric micro-air valve, for applications as fast as 1 m/s. Its compact size and nozzle density make very high resolution and pattern positioning possible to within one tenth of a millimeter. The size of the outlet ports ranges from 100 to 500 microns, perfect for the application of all types of single- or double-component paints.

The proprietary EPJet® technology was acquired from the German company Epainters and its founder, Dr. Burkhard Büstgens, inventor of the Bosch ESP sensor's micro-mechanical design. Epainters began as a start-up at IMTEK, the microtechnology department of the University of Freiburg. SAMES KREMLIN will receive support from Dr. Büstgens for industrialization and deployment.

Unlimited customization and high productivity

While the few printing technologies already available are limited to the application of stripes on horizontal surfaces, PRiNTEC™ can draw vertical stripes, checkered patterns, circles, and much more. It just needs the right printhead to do the job. SAMES KREMLIN responds to the

growing need for delayed differentiation and customization of industrial products with a high-productivity solution that makes masking obsolete.

Printing adhesives and sealants

The PRiNTEC™ range can also be used to apply viscous products such as adhesives and sealants with precision and no retouching or waste. Its ease of use and flexibility allow for new manufacturing processes that are difficult or even impossible to imagine with traditional technologies, such as adhesive beads whose width varies according to the geometry of the parts to be assembled.

Reduced environmental impact

With its 100% deposition efficiency, PRiNTEC™ reduces paint consumption and VOC emissions. Masking materials are eliminated, as is waste from overspray capture. In addition, conditioned air volumes are reduced by two thirds, resulting in significant energy and space savings.

Initial on-site beta testing in 2021

Customization is of great interest to the automotive, railway, aeronautics, furniture, and other industries and to makers of product manufacturing machinery. SAMES KREMLIN has a robotic application center in Grenoble, where it puts the finishing touches on its products with the help of input from its customers.

This center reproduces a wide range of paint application conditions, such as conveyor speed, air temperature, part geometry, and part material (metal, wood, leather, polymer, ceramics, etc.). At the same time, a team works on automatic robotic arm trajectory generation.

The first on-site beta tests are scheduled for 2021 with marketing of the PRiNTEC™ range in 2022 for new installations or retrofits into existing channels.

Contacts:

Christophe DENIS-BOSIO

Communication Manager

Christophe.denis-bosio@sames-kremlin.com

Philippe PROVENAZ

PRiNTEC Manager

Philippe.provenaz@sames-kremlin.com

About SAMES KREMLIN: www.sames-kremlin.com

For 90 years, SAMES KREMLIN has been bonding, protecting and beautifying products in the finishing industry, for automotive and industrial customers.

We have provided a wide range of pumps and spraying solutions dedicated to the protection of materials and applications of powder, paint, sealant and adhesives.

We are visible in 50+ markets over five continents and provide our customers with manual spray guns, robotic applicators, a wide range of pumps & machines for fluid handling, dosing, mixing & dispensing. We allow you to “Apply Your Skills” to achieve the best performance possible.

SAMES KREMLIN employs 700 people through 15 business locations worldwide. We have 1000 valued partner companies to combine a total workforce of 10,000 people worldwide. We are located in close proximity to our customers manufacturing premises.

