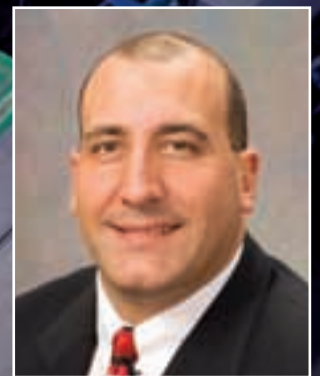


# GLOBAL SMT & PACKAGING

The Global Assembly Journal for SMT and  
Advanced Packaging Professionals

Volume 8 Number 4 April 2008

ISSN 1474 - 0893



**Brian D'Amico**  
Interview Inside

**CLEANING PROCESS INTEGRATION OF CLEANING  
MATERIAL WITH CLEANING EQUIPMENT**

**THERMAL PROFILING OPTIMIZES PRINTED  
CIRCUIT BOARD ASSEMBLY**

**CHALLENGES FOR HIGH DENSITY POP  
(PACKAGE-ON-PACKAGE) UTILIZING SOP  
(SOLDER-ON-PAD)**

**NEW PRODUCTS**

**INDUSTRY NEWS**

**INTERNATIONAL DIARY**



# New Product Focus: VERSAPRINT screen printer from ERSA

*SMT process responsibility and process control at a new level*

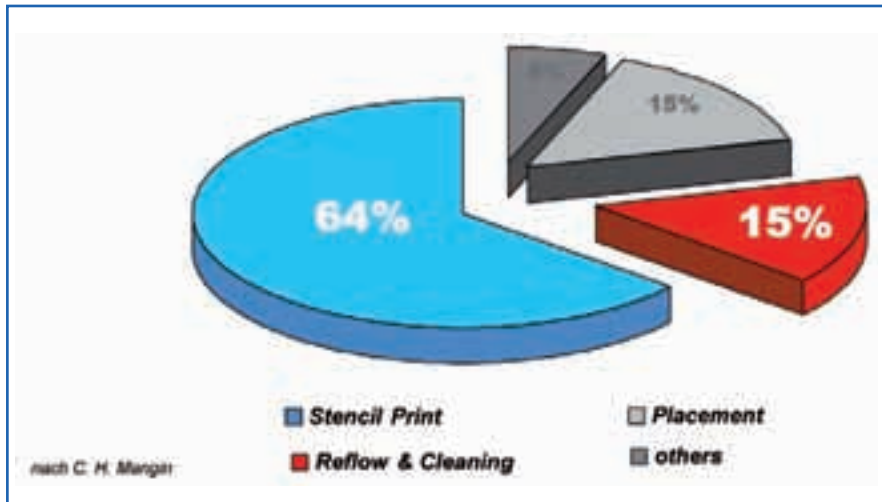


Figure 1. Process errors in the SMT line—causes as per C.H. Mangin.<sup>1</sup>

At last November's Productronica, after just 20 months of development, ERSA unveiled its VERSAPRINT product line. This month ERSA launches the innovative technology in North America at the APEX 2008 show. This new line of screen printers represents ERSA's strategic commitment toward assuming greater process responsibility in the SMT production line.

According to C.H. Mangin<sup>1</sup>, almost 80% of process errors in the SMT line today are due to the screen printing and reflow processes. Accepting this fact, ERSA, which has been developing solutions for the PCB manufacturing industry for 87 years, set itself the challenge of attacking these process problems at their roots in order to take over complete line responsibility for these two critical steps. ERSA's strategic move into the screen printing area was a logical consequence and one that has now brought the VERSAPRINT technology into the marketplace.

As a complete newcomer to the printer business, the foremost objective for ERSA was to bring an innovative

printer to the market that offered true added value as well as excellent value for the money. That the customer would need to receive guaranteed increased process safety and a modular concept that not only saves investment dollars but also factory floor space was a given; ERSA's R&D team took the innovative step of integrating 100% 'in-line, in-process' automated optical inspection (AOI) into the VERSAPRINT PI printer, making it the first printing machine in the world that has fully integrated AOI capability. The new and patent pending LIST (Line Scanning Technology) and TRT (Triple Rail Transport) technologies focus on the core competences of the ERSA printer: time saved through true parallel processing and 100% inspection at the line cycle.

The VERSAPRINT's use of a high resolution line sensor camera provides images of graphical information for PCB detection and post-print AOI at a speed that had been unknown until now. Where standard cameras take many pictures of a very small area, the LIST camera scans the entire length of 260 mm at a speed of



Figure 2. The revolutionary VERSAPRINT S1 with integrated 100% post-print AOI.

35 mm per second. The fastest inspection speed in a printer until now has been 1,200 mm<sup>2</sup>/sec. The LIST camera in the VERSAPRINT achieves the world's fastest inspection speed at an unbelievable 9,100 mm<sup>2</sup>/sec.

LIST also provides comprehensive new functions for image support for the operator during set-up, operation and process optimisation. The design of the graphic user interface (GUI) together with the E95-1101 SEMI standard and LIST guarantee the user a rapid teach-in process. The bottom line advantages of this revolutionary machine meet ERSA's goals of being able to offer the highest printing quality with 100% AOI integration, saving both money and floor space while reducing SMT process errors.

After successfully implementing a rigorous beta testing phase for the VERSAPRINT, the market acceptance in Europe for this machine concept has been outstanding. Already nominated as a finalist for the SMT Vision Award 2008, ERSA expects a tremendous response at this year's APEX exhibition. The company

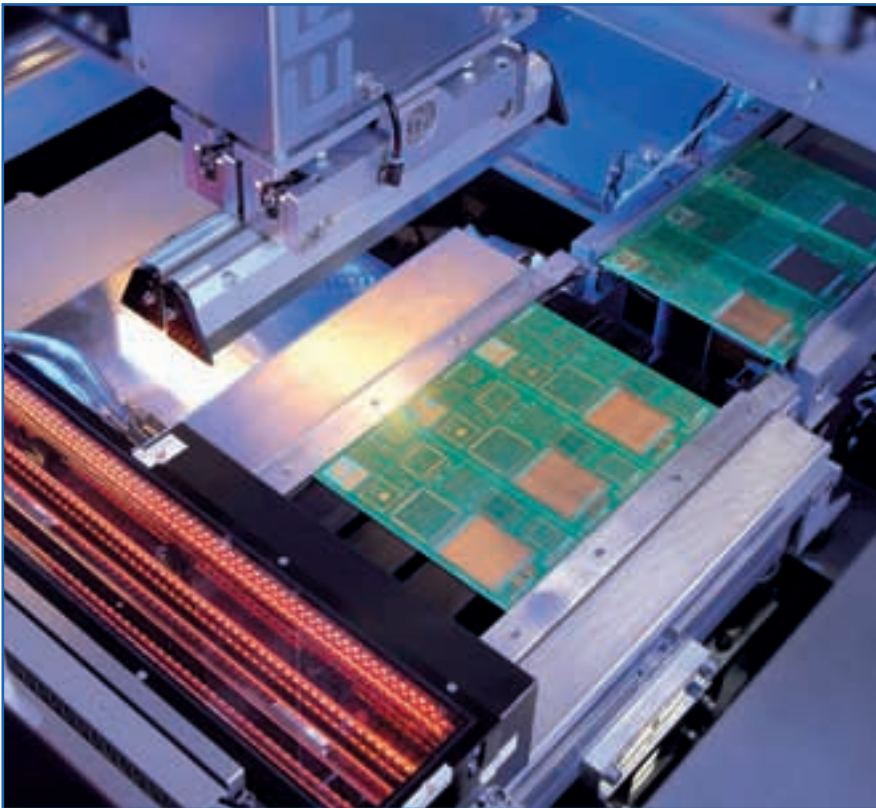


Figure 3. The high resolution, high speed LIST line camera provides a new level of process security.

presents itself for the first time in North America as the SMT specialist for the screen printing and reflow processes, all from a single source. In addition to the VERSAPRINT screen printer, ERSA presents the complete, new reflow system series ERSA HOTFLOW 3 in a single line and thus provides its customers with real added value in line with corporate vision: "our technological leadership improves quality, costs and delivery service in our customers' manufacturing process."

1. Mangin, C.H., "Where quality is lost on SMT boards", Circuit Assembly, February 1991, p 63-64.

A white industrial machine, the SCS Precisioncoat selective spray coating system, is shown in a clean, professional setting. The machine has a large glass window and a control panel. A computer monitor is connected to the machine, displaying a control interface. The background is a blue and white gradient with a red diagonal stripe on the right side.

## Complex components need reliable protection.

When you need to precisely spray and dispense liquid coatings, **SCS Precisioncoat** selective spray coating systems provide maximum accuracy and flexibility. The systems apply solvent-based, water-based and 100% solids coatings via three to five axes. Optional features, such as offline programming and barcode reader capability, meet any production requirement.

SCS Precisioncoat systems connect seamlessly with SCS thermal and UV cure units, enabling components to move from coating to curing without operator intervention.

Contact SCS to find out more about our innovative solutions for your advanced technologies.

World Headquarters (US): 317.244.1200  
[www.scsequip.com/coat](http://www.scsequip.com/coat)

**RoHS COMPLIANT** **SCS** **SPECIALTY COATING SYSTEMS™**