

# CASE STUDY

## DE LA RUE

Lake Image Systems and Ross Manufacturing develop an Innovative Printing System with Automated in-line Print Inspection for De La Rue Plc

Lake Image Systems Ltd., in partnership with the UK based Ross Manufacturing Ltd., is pleased to announce that they have developed a highly flexible, sheet-fed inkjet printing and inspection system, incorporated onto a modular, air vacuum transport conveyor, for De La Rue plc. The system automates the print production and in-line inspection of secure documents, certificates, tax stamps and authentication labels. The new inkjet printing and inspection machine consist of 3 key components:

- 1. Modular air vacuum transport conveyor:** Ross Manufacturing Ltd. has built a highly flexible, vacuum conveyor for the transport of sheets, leaflets, labels, cards and packaging from 115x60mm up to 540x720mm in size. A high capacity feeder utilises adjustable universal suction pads that can deal with a wide range of paper, card and plastic substrates ranging from 30 - 230 GSM. An automated reject gate and a high capacity stacker placed at the end of the conveyor ensure continuous operation. Together with Ross's overall system management software, the equipment can operate at speeds up to 4000 sheets per hour. A highly modular design allows for a cost-effective, flexible way to configure the line for variable widths and overall lengths to meet customer requirements.
- 2. Inkjet Print Heads:** from all major printer suppliers can be mounted on the conveyor with either B&W, spot colour or fluorescent ink for full variable data printing. Two Inkjet heads can be mounted on rails for easy operation and continuous printing.
- 3. A Print Inspection System from Lake Image Systems Ltd.:** which is integrated onto the transport conveyor belt incorporating high resolution linescan cameras and high intensity LED white, colour or UV lighting as required. The camera and lighting are enclosed in a metal housing for stable and safe operation. Lake Image's Discovery Multiscan software is deployed to track, read and verify variable data and inspect every item for print quality defects. If an error is detected, the defective piece is tracked by Multiscan zonal tracking module to the reject gate, which diverts the suspect item for subsequent inspection by the operator. The nature of the error, location and associated information is logged and a full inspection report is available at the end of the job run.



“Our innovative design and modular construction have enabled us to offer a highly cost-effective and flexible transport system to meet the needs of our client,” said Ross Baker, Owner of Ross Manufacturing Ltd. “By incorporating inkjet technologies from a variety of suppliers and Lake Image’s print inspection system, we believe we have a world-class printing solution for the growing security document and label printing market - delivering significant flexibility and productivity.”

“We are once again delighted to be a part of this exciting new innovation from Ross Manufacturing,” added Martin Keats, Managing Director at Lake Image Systems. “Our reputation as a print inspection technology supplier, within the security and label industry, has seen exceptional growth. Print inspection is now seen as an essential component in reducing production costs and waste, but more importantly, for mitigating the potential risks associated with faulty documents and labels for both the security printer and the end client. We are delighted that De La Rue has chosen us for this critical part of their business.”

**About De La Rue Plc. :** De La Rue's purpose is to enable every citizen to participate securely in the global economy. As a trusted partner of governments, central banks and commercial organisations, De La Rue provides products and services that underpin the integrity of trade, personal identity and the movement of goods. As the world's largest designer and commercial printer of banknotes, De La Rue designs, manufactures and delivers banknotes, banknote substrates and security features to customers in a world where currency will continue to be a key part of the developing payments eco-system. De La Rue is the world's largest commercial designer and printer of passports, delivering national and international identity tokens and software solutions for governments in a world that is increasingly focused on the importance of a legal and secure identity for every individual. De La Rue also creates and delivers secure product identifiers and 'track and trace' software for governments and commercial customers alike to help to tackle the challenge of illicit or counterfeit goods and the collection of revenue and excise duties. De La Rue is listed on the London Stock Exchange (LSE:DLAR). For further information visit [www.delarue.com](http://www.delarue.com).

**About Ross Manufacturing Ltd. :** Ross Manufacturing is based in Cirencester, UK and designs and develops of special purpose machinery and assemblies for variety of industries including Defence, Medical, Transportation, Electronics and Food processing.



DeLaRue

Lake Image Systems Ltd  
The Forum Icknield Way Tring  
Hertfordshire HP23 4JX England  
T: +44 (0)1442 892700  
F: +44 (0)1442 892792  
E: [sales@lakeimage.com](mailto:sales@lakeimage.com)



Lake Image Systems Inc  
205 Summit Point Drive Suite 2  
Henrietta NY 14467 USA  
T: 001 585 321 3630  
F: 001 585 321 3788  
E: [salesna@lakeimage.com](mailto:salesna@lakeimage.com)

Lake Image Systems France  
165 Avenue du Prado  
13272 MARSEILLE  
CEDEX 08 FRANCE  
T: +33 (0)4 91 17 90 62  
F: +33 (0)4 91 17 90 63  
E: [euLIS@lakeimage.com](mailto:euLIS@lakeimage.com)

Lake Image Systems Asia  
21 Woodlands Close  
#02-24 Primz Bizhub  
SINGAPORE 737854  
T: +65 97 22 34 90  
E: [LISasia@lakeimage.com](mailto:LISasia@lakeimage.com)

All product names, logos, and brands are property of their respective owners.

Copyright ©2019 Lake Image Systems. All rights reserved.

25  
YEARS  
1994-2019

