



Printing sovereign currencies is that most rarefied domain where the art of printing melds with science. The machines are cutting edge, the paper and ink are high tech, and the anticounterfeiting security threads are the most sophisticated in the world. All of these elements are put together with unsurpassed expertise by siderographers, rheology technicians, and a host of specialists in other esoteric fields. The three elemental printing processes – offset lithography, intaglio and letterset – are combined to yield levels of artistry and security found nowhere else. Because the product is actual money, ultra is the watchword in every facet of production.

For the utmost in artistry and security, more and more central banks, state printing works and commercial banknote printers are specifying Komori as their printing machinery provider. Komori's decades of experience – as the exclusive supplier of presses to the National Printing Bureau of Japan since the 1950s and as the partner of major currency issuers throughout Asia and Europe since the 1980s – have earned the trust of the industry.

Machines at the top of the world of printing – offering the reliability and print quality needed for the most mission-critical application conceivable. Komori, of course, is the preferred platform.

The Currency LC32 is an innovative multicolor double-deck offset press with a maximum printing speed of 12,000 sheets per hour that is available in 8, 10 or 12 colors.



The Currency IC532/// is a five-color indirect intaglio sheetfed press equipped with a nonstop feeder and two delivery piles along with one delivery sampling pile for continuous production at the maximum printing speed of 10,000 sheets per hour.



Komori's numbering press, the Currency RN332///, is a three-color machine featuring a double-size common impression cylinder, a photopolymer plate cylinder, and an inspection cylinder that works together with a high precision inspection camera.



The Currency 40CC is a perfecting sheetfed varnishing press that lays down an even film of either aqueous or UV varnish on both the front and back sides of the sheet regardless of the type of substrate, either cotton or polymer.





Komori's first currency printing machine was a two-color sheetfed dry offset press delivered to the National Printing Bureau of Japan in 1958. This was followed by the delivery of four-color dry offset, multicolor dry offset and intaglio presses. Such steady success enabled Komori to become the leading supplier of currency printing machinery to Japan's Ministry of Finance. It was the mainstay behind the country's supply of money during the critical period of high growth from 1955 to 1973. In the 1980s, Komori began supplying production lines to the central banks of other countries, including Korea, Russia, China, India and Nigeria. More recently, the company has delivered currency printing presses to the state printing works of the Philippines, Indonesia and Vietnam.



# De La Rue to Print UK Banknotes on Komori Currency Presses

## Komori presses to print Bank of England notes in Debden facility

Komori Corporation of Japan recently announced that De La Rue International Limited, one of the largest security printers in the world, has ordered new banknote printing equipment following its recent contract award to print the Bank of England notes. This order, to be installed in the Bank's printing facility in Debden, follows the great success of the previous installation at De La Rue's facility in Gateshead, UK, where Komori supplied a full line of banknote printing equipment.

Komori will harness this opportunity to reinforce its brand of 'quality and trust' and build on its position as the competitive security press supplier in the worldwide security printing industry. The order follows a technical agreement between the two companies that will see Komori work closely with De La Rue not only to fundamentally improve quality, productivity and cost reduction but also to further develop innovative security printing technology.

Komori Corporation is delighted to be associated with such a well-respected company in this industry and is looking forward to enhancing the partnership in the coming years.

## Gateshead line leads to Debden order

The new Komori print line inaugurated in October 2013 at De La Rue's Gateshead facility consists of the Komori Currency LC-1232 multicolor double-deck offset press in a 12-unit

configuration, the Currency IC-532/// multicolor intaglio press and the Currency RN-332/// three-color numbering press.

De La Rue was founded as a newspaper publisher in Guernsey, Channel Isles, in 1813, and moved into security printing in 1853 when it was awarded the contract to print the UK's first surface printed and perforated stamps. In 1860 De La Rue began currency printing, with its first contract being banknotes for the Government of Mauritius. The company now prints polymer notes for Mauritius, Lebanon, Trinidad and Tobago, Cape Verde, Scotland (Clydesdale Bank) and The Gambia.

Today, De La Rue is the world's largest commercial banknote printer and passport manufacturer. It employs over 4,000 people worldwide, prints over 6 billion banknotes a year and has facilities in numerous countries across multiple continents.

## Staying ahead with technology

The De La Rue Group opened a new state-of-the-art technology center in October 2013 in its Overton facility in the UK. The center was designed to enable the company to extend its offering of secure solutions and further grow its patent portfolio. The De La Rue physical science team operates from this facility using the latest cutting-edge technology and equipment to develop creative and innovative features for use across its range of security products and services.

The business continuity management system operated at De La Rue's head office in Basingstoke, UK, and at the Bank's printing facility in Debden, where the new Komori lines are being located, has been certified to ISO 22301.

As De La Rue explains, "The management system defined by this ISO standard gives us a robust preparedness by identifying contingencies for critical activities. This protects against and reduces the impact of a disruptive event, while ensuring our business continues with minimal effect on customers. The award of this certification is a significant achievement for De La Rue, and we understand that we are the first company in the banknote industry to achieve this standard."



Seated, from left: Rupert Middleton, Chief Operating Officer of De La Rue; Satoshi Mochida, Representative Director, President and COO of Komori. Standing, from left: Takeo Uehara, Sales Manager, Security Press Sales Group of Komori; Lynda Fagan, Group Strategy Director of De La Rue; Yoshiharu Komori, Representative Director, Chairman and CEO of Komori; Junya Shimada, Group General Manager, Security Press Sales Group of Komori

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Above: Headquarters of the Bank of England in London's main financial district, the City of London, on Threadneedle Street, where it has been located since 1734.

Below: Komori Currency LC-1232 multicolor double-deck offset press in 12-unit configuration installed in 2013 at De La Rue's facility in Gateshead, Tyne and Wear.

### **Banknotes – a market that continues to grow**

According to De La Rue's research, the global demand for banknotes continues to grow on average by about four percent annually, although the rate of growth for individual countries varies, reflecting local economic circumstances.

The demand for banknotes and the substrates on which they are printed is largely satisfied by state print works (SPWs), state paper mills (SPMs) and a small number of commercial manufacturers such as De La Rue.

SPWs or SPMs may turn to commercial providers to supplement their own production capacity to satisfy demand they are unable to meet, known in the industry as 'overspill.' In addition to the supply of finished banknotes to Central Banks and substrates to SPWs, De La Rue also supplies products and services to state manufacturing works, including a range of substrates, component security features such as threads and holograms, and other solutions, including single-note inspection machines. With the experience gained from running five currency printing factories, producing their own security threads and holograms in-house, deploying an award-winning design team as well as running their own papermaking operation, De La Rue is ideally placed to assist the state manufacturing sector with expertise, services and products.





The £5 banknote featuring Sir Winston Churchill will be printed on polymer and introduced in the second half of 2016. Also to be printed on polymer, the new £10 note featuring Jane Austen will be introduced a year later. Both notes will be printed on Komori Currency series presses by De La Rue.



Variability in demand is a feature of the market, with short-term fluctuations in the timing and size of orders, including overspill, reflecting decisions taken by Central Banks. This variability in demand has the potential to create material volume variations year on year.

Key factors affecting banknote issuance by Central Banks are note retirement, changes in the underlying level of GDP, and changes in using cash as a means of payment.

Of these, note retirement is the most important and is affected by:

- The timing and frequency of changes in note design
- Changes in cash circulation policy and technology
- Growth in automated cash handling, requiring notes to be in good condition
- Changes in 'clean note' policy
- Changes in denomination structure
- The introduction of new anticounterfeiting security features

### Breakdown of De La Rue operations

De La Rue's 2014 revenue was £513.3m. The breakdown by sector was: Currency 66 percent and Solutions 34 percent (comprising identity systems 15 percent, cash processing solutions 11 percent, and security products 8 percent).

*Currency*, the major sector, provides printed banknotes, banknote paper, polymer substrates and a comprehensive portfolio of banknote security features. This sector also advises on critical issues of currency strategy such as design, demand forecasting, denomination structure and protection against counterfeiting.

*Identity systems* develops and delivers sophisticated identity management solutions. As a specialist systems integrator, De La Rue works with governments around the world to secure personal identities, focusing on systems for passports, ePassports, national IDs and eIDs, driving licenses and voter registration.

*Cash processing solutions* provides Central Banks and bulk cash handling organizations with a range of sophisticated high-

speed cash sorting and authentication systems as well as software solutions, consultancy, service and support. De La Rue also manufactures its own inspection equipment for banknote printing facilities, the most recent development being the DLR9000 single-note inspection system that enables new notes to be quality assured prior to issue.

*Security products* delivers solutions critical to the authentication of products and documents to protect revenues for governments, commercial organizations and financial institutions around the world. It supplies authentication labels, brand licensing products, and government and financial documents along with the associated software and systems.

### De La Rue and The Bank of England

The Bank of England first outsourced its banknote printing in 2003, when the contract for the supply of banknotes (and purchase of the Bank's printing machinery) at the Bank of England's printing site in Debden, Essex, was awarded to De La Rue. De La Rue (via acquired papermill Portals) has been supplying banknote paper to the Bank of England since 1725.

The Bank began a competitive tender process for a new contract in November 2012. In September 2014 it announced that De La Rue had been identified as the preferred bidder for its banknote printing when the existing contract expired in March 2015 and subsequently entered into a new 10-year contract with De La Rue to continue to print banknotes at the Bank's Debden facility starting in April 2015. The new Komori machinery will be used in the production of the new polymer £5 and £10 sterling banknotes.