

Introducing the De La Rue 3400 Used banknote sorting machine

De La Rue, a name synonymous with banknotes and banknote machines throughout the world, brings all of its experience to the 3400 — a machine for sorting used banknotes. The 3400 has been designed incorporating features essential in money handling equipment.

Secure

The 3400 has resulted from a special development programme to handle circulated worn banknotes. This machine gently separates notes and feeds them rapidly through the transport system utilising the most reliable modern techniques. Notes are fed synchronously and the 3400 always records exactly where each note is at any time. The machine will only run when all covers are closed. Operator interventions are logged.

Accurate

The system is used to count, classify and separate banknotes according to condition, authenticity, denomination and bank of issue, depending upon the application.

Flexible

De La Rue has harnessed the power of a 16-bit micro-processor to give a flexible yet easy-to-use method of operation in what is essentially dirty and unhygienic work — Used Note Sorting.

Note Handling

Low vacuum transport drums and spiral stacking wheels provide a unique capability to handle extremely degraded currency with the minimum number of stops and operator interventions, thus increasing throughput and further enhancing accuracy and security.

Fitness detection

The basic machine incorporates a fitness detector for note condition which is also used to outsort distressed notes. This unit measures soil condition against an operator selected level and looks for tears, holes and dog-ears.

Authenticity detection

De La Rue Systems has a range of banknote authentication devices which can be attached to the 3400 machine. These devices will be defined in discussion with the user to look for the particular security features included in his note issue.



3400

Advantages

- Ability to process over 36,000 notes per hour
- Total security
- Can handle any size of note within wide minimum and maximum limits
- Minimal change from one note size to another
- Level of fitness detection may be set within a wide range to cope with seasonal demands
- Notes likely to cause jams are removed at an early stage, so increasing throughput and reducing downtime
- Visual Display Unit provides full control information
- Integral printer for audit purposes – a permanent record of the sort for security
- Can be fed batch by batch or continuously – the bank chooses whichever suits its operations
- Reliable operation
- Designed to allow fast repair and maintenance



The Inside Story



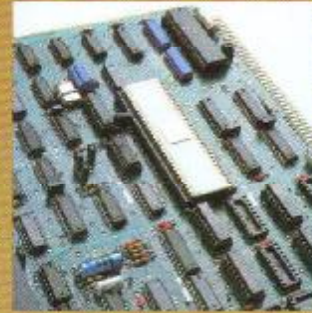
Stacker Table

Notes are driven out of the machine and presented to the operator when the preset quantity is collected. Return button re-positions stacker after notes removed.



Integrated logging printer

Printout gives statistics of note handling per batch or total quantity if in continuous mode. Highlights exceptions to normal running. Records operator interventions.



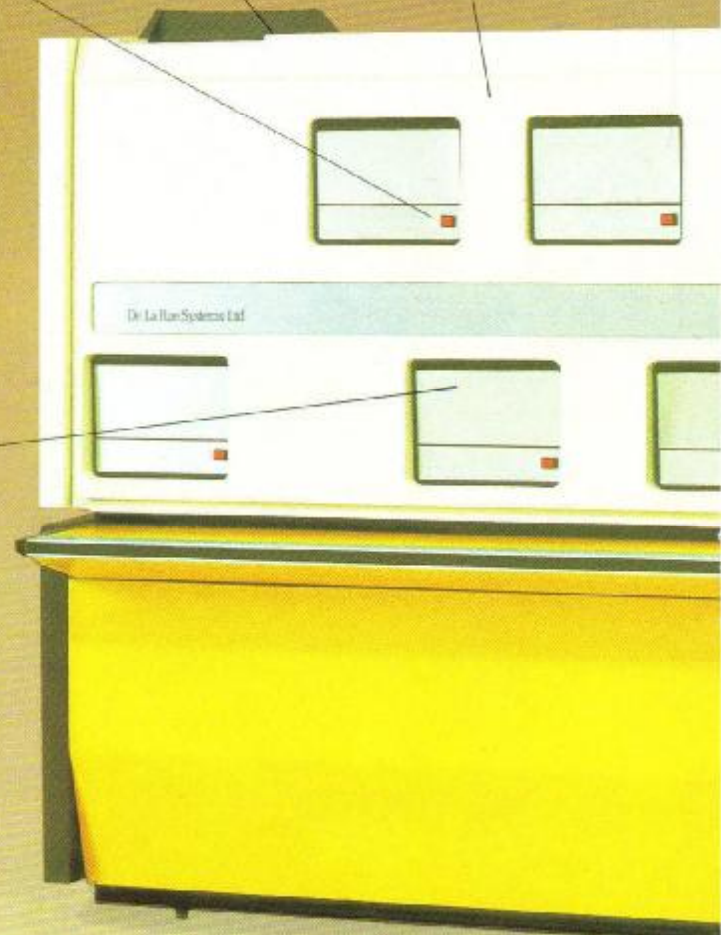
Electronics

Main system control uses 16-bit microprocessor. Other electronic control based on integrated circuit technology.



Stackers

Any quantity of notes from 1 to 500 can be accumulated. Note quantity and stacker use default to a standard configuration if not set by operator at initialisation.



3400



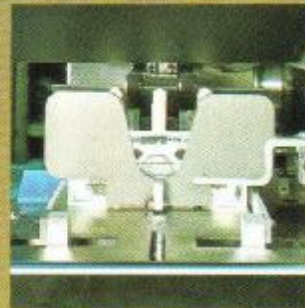
Visual Display Unit (V.D.U.)
Instant operator information.
Features 80 columns, 24 lines.
Swivels through 90° for operator convenience.
Displays current batch activity.



Feed Hopper
Easily adjustable for different note sizes.
Notes can be fed continuously.
Notes can be batched in any quantity up to 10,000 (Maximum hopper capacity 2000 notes).
Separators can be used if required.
Vacuum pick-up technique.



Keyboard
Easy to use operator procedures: e.g. to initiate, the operator enters:
Operator identification
Date
Denomination
Input mode - batch or continuous
Pre-set stacker allocations
Fitness level



Cull Stacker
Mutilated notes extracted at an early stage.



Interrogation Area
Whole note area interrogated for fitness.
Both sides of note are scrutinized for security features.
Low vacuum drums hold the note gently.
Several different detection units may be installed.

Ease of Operation and Maintenance

3400

Operation

All operator initiation and communication is by the keyboard and Visual Display Unit.

When the parameters for a particular operation have been set, they remain valid until the end of that operation without alteration. If the machine is working on one particular denomination and in one mode all day, the parameters only need to be set once, at the start of the day. The machine is capable of storing the details of up to 10 different banknotes - more than enough for any bank. If, however, a new or foreign note is issued or received, basic details of this note may be keyed in directly.

Changing from one note size to another involves height and width adjustments which take a mere two minutes. The machine will not permit operation if the output stacker width guides do not match those of the input hopper.

Environment

The warm air exhausted from the system may require ducting in confined areas.

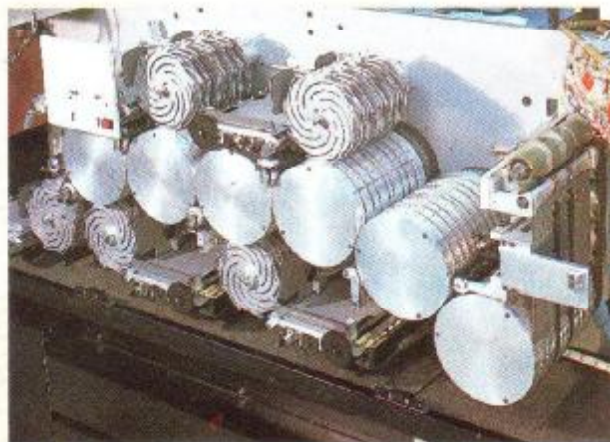
The De La Rue Systems 3400 is designed to operate within the limits contained on the specification sheet and, in more extreme climates, will require air conditioning.



Loading notes



Banding notes



Ease of access

Maintenance

As expected from a machine designed to handle the world's currency, maximum utilisation has been very much at the forefront of the designer's thoughts. All over the world, maintenance and repairs are serious problems to users of modern technology. The 3400 cannot eliminate maintenance - this is impossible - but what has been done is to build in tolerance factors in the design and use of components and to make parts, both mechanical and electrical, as accessible and easy to replace as possible.

This philosophy has been allied to built-in diagnostic programs, so providing optimum serviceability and longer machine operating time.

Other De La Rue Products and Services

- 9100 Used Note Sorter
- 9300 Document Reader
- 2000 Series Banknote Counting Machines
- 120 Series Banknote Verification Machines
- 1300 Series Cash Dispensers
- Printing of Banknotes, Travellers Cheques, Stamps, Passports and other security documents
- SPrint plant and data processing systems for encoded funds transfer documents
- Printing machinery and ancillary equipment for banknote and other security documents
- Supply of coins, metals and minting machinery
- Security consultancy service, including destruction of withdrawn banknotes and coins
- Security vehicles
- Security microfilm systems
- Identity card systems
- Cash-in-transit service
- Graphics electronic equipment for printing industry



De La Rue Systems Ltd