BPS® X9
Maximum precision at record speed

www.gi-de.com/bps-x9
Perfection has never been so efficient

Achieving flawless quality is essential when issuing new banknotes. With the BPS X9, banknote printers now have a system that combines an outstanding level of security with ultimate efficiency and speed.

The BPS X9 operates at a speed of 44 banknotes per second. Optimized operating procedures, reduced set-up times, and minimized interruptions enable a world-record throughput of more than 150,000 banknotes per hour.

High-resolution sensors ensure that the printed image, all machine-readable authentication features, the substrate, and the cutting accuracy of each individual banknote are inspected 100% reliably. The result: verified quality and guaranteed fitness for circulation.

The future of automatic final processing of banknotes
The BPS X9, a central component of the end-to-end “Banknote Finishing Solution”, allows fully-automated final processing – from the printed sheet, to the provision of banknote bricks ready for dispatch, and online destruction of nonconforming notes. The degree of automation is based on individual requirements, and offers flexible expansion to meet future needs.

“High speed meets maximum security: let’s shape the future of cash together – from a solid platform built on trust.”
The BPS X9 individually inspects each banknote’s quality and security features – at a rate of 44 banknotes per second.

100% VERIFIED BANKNOTE QUALITY
The future is also a question of technology

**Productivity, precision, security:** the BPS X9 sets standards, for today and into the future. Giesecke+Devrient (G+D) sets great store on flexible expansion options and adaptability to meet future requirements, in order to protect our customers’ investments.

**Productive and efficient**
The record speed of 44 banknotes per second and effective throughput of more than 150,000 banknotes per hour forms the basis for unprecedented productivity in quality inspection, with consistently high inspection quality.

Its visionary, user-friendly design also features an array of functions for enhancing efficiency: automatic lifting doors, see-through windows, and the graphical user interface allow easy, intuitive operation.

And that’s not all: automation options throughout final processing reduce personnel requirements, risks, and costs to a minimum.

**Well-designed and secure**
The BPS X9 not only offers an outstanding level of security when determining inspected banknotes’ fitness for circulation, but also during processing itself. The fully-automated expansion stage removes the need for manual intervention between inserting the printed sheet stack and placing banknote bricks onto a pallet, ready for dispatch.

The system is protected against operator error, unauthorized access, and unauthorized amendment of data and parameters, to secure banknote quality.

Redundant data management enables maximum data integrity, for example in the event of power failure, hard drive failures...
fault, or other malfunctions. All relevant production data is recorded and this allows individual banknotes to be traced, even after several years.

**Reliable and precise**
BPS X9 sensors are specifically optimized for the quality inspection of freshly-printed banknotes. They reliably evaluate the print quality, security features, and tolerance deviations of each individual note. The visible and machine-readable features are inspected according to precisely those criteria defined by the customer for optimal output.

Alongside this precision, the system features flawless quality. Mechanical parts, sensors, electronics, and software are closely inspected and tested. All these elements dovetail to provide users with outstanding performance over the course of many years.

Professional service solutions ensure that the system remains available round the clock year after year, virtually without interruption.
The BPS X9 can be adapted in a variety of ways to meet banknote printers’ individual requirements. Perfectly coordinated with upstream and downstream components, the system enables fully-automated processes with a continuous flow of material and data at a maximum level of security. On request, the options shown here can be combined to create a customized overall package.

Cutting system
The BPS X9 provides interfaces for directly connecting cutting systems at different expansion stages.

CutLink X example
Optimization in real-time: When measuring banknotes, the BPS X9 detects cutting deviations and sends them in real-time to CutLink X, which optimizes the cutting process on this basis.

Data analysis
SeriTrack® LUNA from G+D is a piece of banknote quality analysis software. It can be used to consolidate all data from single note inspection. Powerful algorithms (Big Data Analytics) enable the flexible analysis of production data for statistical quality analysis. Highlighting batch flaws and their causes supports both continuous process improvement and output optimization. The analytical data can also verify product quality for central banks.
Automated packaging
The NotaPack® 10 packaging system is an integral part of the “Banknote Finishing Solution”. It automatically transfers banknotes from the BPS X9, applies a label, and packs them in shrink film. The label with plain text data and barcode forms the basis for further product tracking. Downstream systems cover the process from packaging in larger units, to placement onto pallets. This means no manual intervention is required, from inserting printed sheets into the cutting system, to packing onto pallets.

High-performance sensors
The sensors are designed for the specific inspection requirements of freshly-printed banknotes. The core of the system, NotaMaster® Image, inspects all optical features of modern banknote designs, and detects printing flaws with exceptional precision. A whole range of other NotaScan® sensors analyze the machine-readable features, just as they are verified later in circulation to combat forgeries. The sensor calibration tool enables quick, secure adjustment of specific sensors.

Second delivery module
The BPS X9 can be operated with a second delivery module. This can be used to stack defective banknotes or collect samples, for example.

Online destruction
On request, an integrated shredder ensures that defective banknotes are securely destroyed online. All flaws and actions are recorded and documented electronically, and the complete disposal of shreds and waste from the cutting system, e.g. in the form of compact briquettes, can be seamlessly integrated.

A PARTNERSHIP YOU CAN RELY ON
With responsible consultancy and professional service solutions, G+D ensures that you will gain optimum benefit from the performance of the BPS X9 – from commissioning to flawless operation, over the course of many years.

G+D CONSULTING SERVICES: perfectly tailored solutions
Our experts analyze individual needs, existing processes, special requirements, and the system environment. Based on this analysis, they work together with you to develop precisely the right solution to meet your needs.

G+D SERVICE: any place, any time
Our close-knit, global service network offers customer support round the clock, and we make sure your systems are always up-to-date with updates and upgrades.

G+D REMOTE SERVICE: impressive precision
Optimize the availability of your systems. The majority of faults can be repaired immediately through G+D Remote Access. Our service specialists identify the problem and resolve it straight away.
Creating Confidence

Giesecke+Devrient (G+D) is a global security technology group headquartered in Munich. As a partner to organizations with highest demands, G+D engineers trust and secures essential values with its solutions. The company's innovative technology protects physical and digital payments, the connectivity of people and machines, the identity of people and objects, as well as digital infrastructures and confidential data.

G+D was founded in 1852. In the fiscal year 2020, the company generated a turnover of 2.31 billion euros with around 11,500 employees. G+D is represented by 74 subsidiaries and joint ventures in 32 countries.

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