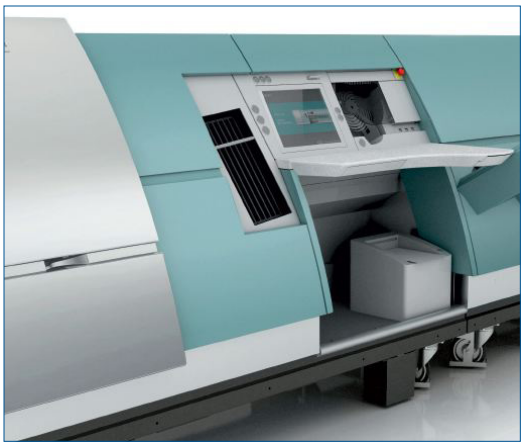
Giesecke & Devrient's BPS® M5

Unsurpassed Productivity for Commercial Cash Centers

Milestone in Banknote Processing

The BPS® M5 is the successor to BPS® 1000, the undisputed global market leader in the high-speed banknote processing sector with over 1,400 systems sold. Like many other BPS® products, it has been extremely successful and is a viable and profitable investment for efficient banknote processing.

The BPS® M5 is a dedicated version for cash centers operated by commercial banks, cash-in-transit (CIT) companies and casinos. Based on the modular design of the BPS® 1000 and BPS® M7, it constitutes a unique solution for reliable operation and unsurpassed productivity to provide you with a competitive edge.



Benefits of the BPS® M5 at a Glance

- *The rugged components of the BPS® M5 are designed for continuous 24/7 operation.*
- *Feature a narrow footprint, integrated operator table and display.*
- *The caster platform makes it easy to relocate the BPS incase of process changes or system servicing. There is no need to disassemble and reassemble the system to move it.*
- *Low power consumption — relaxed ambient requirements reduce the amount of infrastructure needed as well as operating costs.*
- *Counterfeits are reliably detected at the lowest possible reject rates, while fit banknotes are dependably identified.*
- *Robust design and automatic sensor self-testing ensure repeatable fitness detection based on our in-depth experience as a leading central bank supplier. Extremely accurate defect detection results in proven banknote quality for reliable ATM performance.*
- *Ease of use, optimum ergonomic design, and standing operation help maintain operator productivity, performance, and health*
- *Operator interface: Brilliant 15" TFT touchscreen; Electrically adjustable for optimum viewing angle; Graphical user interface.*
- *Dust vacuuming (optional): The suction unit removes and filters dust from the system; Dust is vacuumed directly where it accumulates during processing so less dust is released, adverse health effects are minimized, and the machine and the sensors stay clean; Integrated vacuum hose simplifies cleaning of the sensor section.*
- *Configurations and operation modes optimized for seamless material and data flow to suit the specific needs of your process: Processing modes with on-line and off-line reconciliation are supported; Results are immediately transferred to the vault management system for quick balancing of customer deposits; Optional compact and smart packing solutions increase security and reduce labor costs.*
- *Speed option of 22 or 33 banknotes per second, with an actual rate of up to 75,000 or 105,000 banknotes per hour.*

Even greater performance for the automated cash cycle.

Banknote Feeding

- *Up to 4,000 banknotes of any substrate, quality, or format can be placed in the singler — the pneumatic singler unit feeds and aligns fully automatically.*
- *Continuous feeding without singling gap and automatic reloading at the press of a button for optimum operator ergonomics and consistently high processing performance.*
- *Automatic opening and closing of singler cover for noise and dust reduction.*
- *The use of header cards* enables nonstop processing of customer deposits*
- *Re-running rejected banknotes reduces the time required for manual inspection and minimizes the risk of missing counterfeits rejected by the BPS®.*

** The separator card technology used in this product is licensed under U.S. Patent No. 5.917.930 and other foreign patents, all assigned to Currency Systems International, Inc. of Irving, Texas.*

Operation Modes

A variety of operation modes can be selected for the efficient processing of small, medium, or large deposits.

■ Header card deposit processing (HDP):

HDP is the preferred operation mode when the priority is machine utilization and processing costs for small deposits.

In a special preparation area, the banknotes making up a deposit are assigned to a machine-readable header card (HC) with a unique identification number (HC ID). Several deposits are combined in one continuous banknote flow, starting with the HC as the leading item.

The BPS operator loads the singler tray with stacks of banknotes. Then this stack is automatically added to the banknotes already in singling position with a simple push of a button for uninterrupted singling. The BPS® identifies the header cards, and separately records and balances the stacked banknotes. The HCs are stacked in the reject compartment along with the rejects to identify which rejected banknotes belong to each deposit. As the magnetic detector is capable of detecting any HC, even if there are multiple items, there is no need for an additional trailer card.

Reconciliation is then performed off-line. The reconciler scans the HC ID, checks for counterfeits, and then enters the number of verified genuine banknotes per denomination for each deposit.

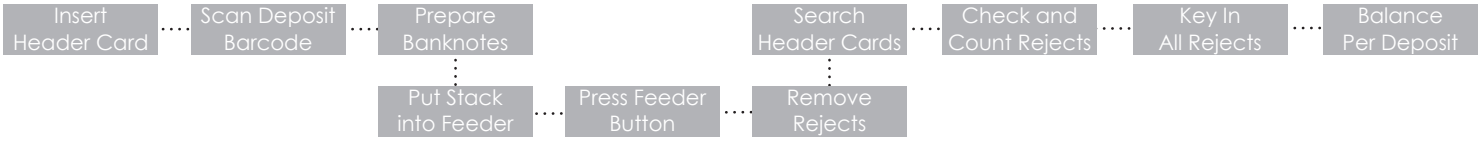
The HDP application is supported by the following software, hardware, and material:

- *Handheld barcode reader to recover the HC ID number in the event of a machine misread*
- *Work area(s) with PC for preparation (ie. assigning the HC IDs to the deposit data)*
- *Work area(s) with PC for off-line reconciliation (can be shared with preparation)*
- *Vault management system (ex. Compass VMS®) or another tool supporting HDP (ex. BPS® Connect) The BPS® M5 supports the use of HC05 or HC10 header cards. HC10 is compatible with the BPS® 200 and BPS® C4.*

Each HC includes:

- *Magnetic bars (black) to allow detection of header cards by the M10 sensor*
- *A barcode to read the HC ID with a standard scanner*
- *Machine-readable ID number by OCR ID (HC05) or blue pattern (HC10)*
- *Holes to instantly identify any remaining banknotes within a stack of HCs (HC 10)*

G&D Header Card Process



■ Fast deposit processing (FDP):

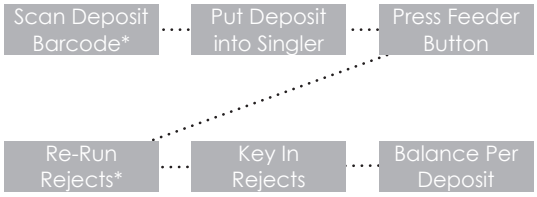
FDP is the preferred operation mode when the priority is on operator efficiency, maximum deposit integrity, and process security. The operator work area is ergonomically designed: it is located near the singler and reject compartment and features an auto-positioning singling fork. Re-running rejected banknotes ensures the greatest reliability in detecting counterfeits and minimizing the number of rejected banknotes. The singling fork is set to the default position to receive the rejected banknotes for a re-run while another stack of banknotes (the next deposit) is already in the singler tray.

FDP with Off-Line Reconciliation:

FDP with off-line reconciliation uses original deposit documents and HDP features and is the preferred operation mode when the priority is on balancing high deposit integrity and machine utilization, offering case-by-case flexibility for each deposit.

The deposits are identified using the HC and/or the original deposit documents with a barcode. The BPS® operator uses a handheld scanner to read the barcode, and then loads the deposit into the singler; banknotes can also be re-run if desired. The remaining rejected banknotes are physically assigned to the HC and/or deposit document and then passed on to the off-line reconciliation station, using the same procedure as HDP.

FDP with On-Line Reconciliation



Standard Delivery Modules

Up to 20 delivery stackers are possible, in the following combinations:

▪ Modules with 4 stackers with: Reliable automatic on-line banding; Configurable band printing for customer identification and tracking data.

▪ Large delivery module (LDM) with 2 stackers, each holding up to 2,000 loose banknotes, with removable cassettes for fast and safe banknote removal. The stacked banknotes can be directly filled into ATM cassettes.

Stackers may be assigned to work in tandem (for high volumes up to the maximum speed) or on their own (for low volumes). This saves on the number of stackers required and provides maximum flexibility for sorting multiple currencies, denominations, orientations, and fitness consumablesclasses in one pass. Thanks to its modular design, the BPS® M5 can be easily retrofitted with additional stackers and bundlers or upgraded for increased speed within one day. This allows for agility in terms of process flow and banknote volumes.

High performance and ease of operation at every process step.

Bundling and Packing (Optional)

- Automatic on-line bundling of 10 packages or optionally 5 packages
- Number of categories (e.g. by denomination and/or fitness) for bundling, only limited by the number of stackers
- NotaPack® for fully automatic packing with tamperproof shrink-wrapping of bundles of 5 or 10 packages
- Up to 4 BPS® M5 systems may be connected to one NotaPack® — saving space and investment costs
- Different banknote formats and substrates may be processed together, without any adjustments to the bundling or packing systems
- Intuitive operation and simple replenishment of consumables.

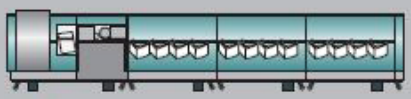
Solution Components

In addition to bundling and packing solutions, customers can choose from various hardware and software components and related services. Every solution focuses on the highest possible productivity with seamless flow of material and data.

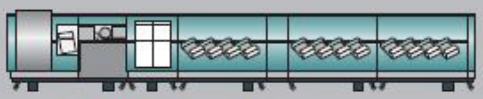
For example, the optimal organization of cash center processes is supported by two different software solutions:

- The Compass VMS® vault management system supports the management of vault stocks and customer accounts, deposit processing and balancing, and header card processing
- The BPS® Connect software supports processing and reporting, ex. balancing of deposits including preparation and reconciliation with header card processing. It also provides dashboard displays for accumulated processing volumes

BPS M5 configuration examples



BPS M5-12



BPS M5-14LB or BPS M5-14LB-33

BPS M5-12B-33

BPS M5-16LL or BPS M5-16LL-33

BPS M5-14L-33

BPS M5-20B-33

BPS® M5 Technical Data.

■ Dimensions (L/W/H):
BPS M5-12: 6,518 x 1,063 x 1,488 mm
BPS M5-14LB-33: 7,588 x 1,010 x 1,488 mm
(can be dismantled for transport purposes)

■ Weight (Including Caster Platform):
BPS M5-12: Approx. 1,859 kg
BPS M5-14LB-33: Approx. 2,593 kg

■ BN sizes accepted:
Length: 100–180 mm
Width: 60–90 mm

■ Effective throughput:
BPS M5-22: Up to 75,000 BN/h
BPS M5-33: Up to 105,000 BN/h

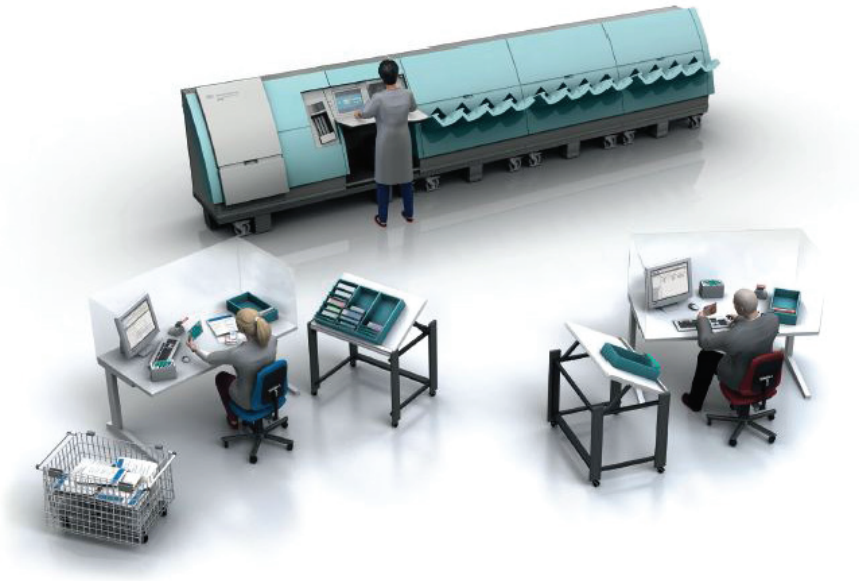
■ Power supply options:
230 V/400 V, 50/60 Hz
120 V/208 V, 50/60 Hz

■ Power consumption:
BPS M5-12: Approx. 3.0 kW
BPS M5-14LB-33: Approx. 5.3 kW
LVM pneumatic module: 3.3 kW
(Can be located outside processing room)

■ Ambient conditions (continuous operation):
Ambient temperature: 15 – 30 °C
Relative air humidity: 30 – 80%

■ Noise emission at workstation:
BPS M5-22: 64 – 71 dB(A)
BPS M5-33: 64 – 75 dB(A)

■ Certifications:
CE mark; GS certificate for approved safety,
UL on request



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