



design award  
winner  
1999

# BPS<sup>®</sup> 1000

Banknote Processing System



Giesecke & Devrient

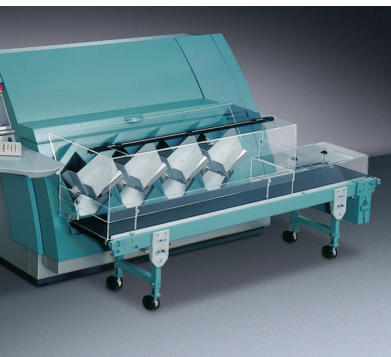


# Giesecke & Devrient – 150 years of experience

In the high-speed processing market, the BPS 1000 from Giesecke & Devrient (G&D), with over 900 system installations, is the undisputed global market leader. It is a new development and succeeds the highly successful ISS 300, sold widely across the world for over 20 years. The BPS 1000 is one of G&D's BPS family of coordinated products.

## Our competence – your advantage with the BPS 1000

The modular design of the BPS 1000 allows the system to be supplied in numerous variations, enabling it to meet the requirements of central banks, commercial banks, security transport companies, and casinos. With up to 20 stackers, it offers a high degree of flexibility and ideal configurability.



## Benefits of the BPS 1000 at a glance

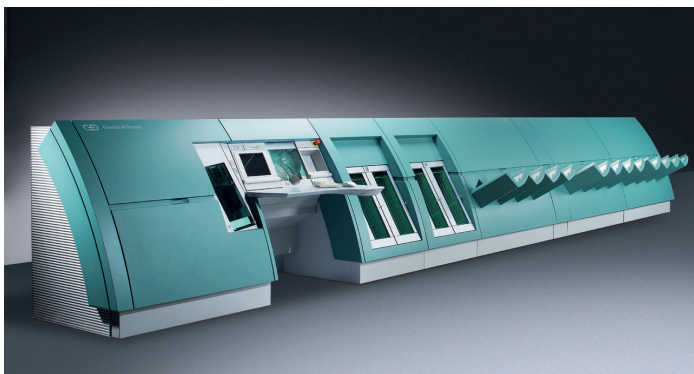
- High level of flexibility and productivity
  - Several different currencies and mixed denominations can be processed in 4 orientations
  - High processing speeds allow for easy handling of large volumes (400,000 to 700,000 banknotes per system and shift)
  - A wide range of customer applications is provided or can be programmed
  - Software is easily updated for the processing of new series or additional currencies
- High-performance sensors
  - Extremely sensitive CCD color sensors (NotaScan®) scan and evaluate the complete face of each banknote, both front and back
  - Banknotes are inspected to ensure fitness, and soiled or damaged notes are sorted out, thereby maintaining a high level of quality of the currency in circulation
- Each banknote undergoes thorough authentication. Suspected counterfeits are sorted out
- Reliable sorting results based on automatic self-testing and centrally administered software adaptations
- High degree of automation level
  - Banknotes are banded in packages of 100 (standard)
  - Online bundling (optional)
  - Automatic transport and wrapping (optional)
  - Electronic report generation and direct data transfer for subsequent processing
- Highly developed security concept
  - Online shredder for internal destruction of unfit banknotes
  - Machine and sensor software as well as sensitive customer data are protected against manipulation
  - Smart card, PIN-based access control system restricts use of the machine to authorized personnel
  - Optimum counting accuracy enhances security
- Ergonomically designed and easy to use





### Standard modules and components

- Up to 20 delivery stackers possible, in combinations of
  - Modules with 2 or 4 stackers
  - Large delivery module (LDM) with 2 stackers for up to 2,000 loose banknotes per stacker



- Interchangeable cartridges for fast and safe banknote removal
- One bundler per stacker
- Online shredder module

### Banknote feeding

- Up to 2,000 loose banknotes can be placed in the singler; continuous feeding during singling is possible
- Non-stop processing of customer deposits is enabled by the use of header cards\*

- Re-run of rejected banknotes reduces the time required for manual inspection

### Sensors

- 10 slots for modular sensors allow tailor-made solutions
- Customized adaptation possibilities for banknotes
- The NotaScan® CCD color sensor for full-face scanning of one banknote side in red, green, blue, and infrared spectrums, detecting:
  - Denomination, orientation
  - Banknote size
  - Infrared properties (authenticity)
  - Soil
  - Stains, graffiti (optional)
  - Missing parts, dog-ears
- Thickness sensor for detection of double or multiple items, adhesive tape, tears
- Other optional sensors
  - Additional NotaScan® CCD color sensor for full-face scanning of the reverse side of the banknote
  - Sensors detecting ultraviolet dullness, fluorescence/phosphorescence, magnetic and mechanical properties, electrical conductivity
  - Special sensors for the G&D high-level security features
  - Third-party sensors can also be integrated

### Banding

- Automatic online banding for each stacker
- Text for printing onto bands can be configured as needed (up to 80 characters)

### Bundling

- Automatic online bundling of 10, optionally 5 packages
- On-site retrofit for later upgrade possible
- Simple replenishment of consumables

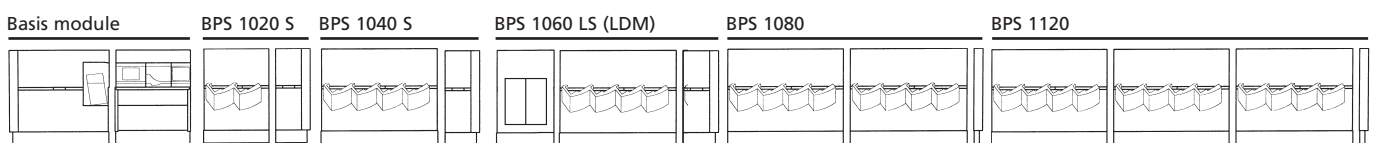
### Bundle delivery options

- Manual
  - Bundles are ejected onto each bundler's banknote collecting plate (maximum of 3 to 5 bundles per plate) and removed by the operator
- Automatic
  - Banknote packages are automatically stacked, bundled, ejected, and deposited onto a conveyor belt

### Reject compartment

- For direct inspection of rejected banknotes (e.g. suspected counterfeits or banknotes in poor condition)
- Capacity of up to 250 banknotes

### BPS 1000: configuration examples





- If header cards\* are used, rejects are subsequently processed together with the headercards

#### Hardware and software

- High-performance industry-standard computer with Windows NT® operating system, Oracle® database and GUI application software
- LAN/WAN connectivity (with Windows NT® support)
- Application based on an Oracle® database, allowing high flexibility in customer applications, e.g. data transfer, report configuration
- Large number of processing modes and reports
- Interface (XML reports) for data transfer to cash management systems such as G&D's CompassEntrée<sup>CM</sup> and others

#### System components

The BPS 1000 system is supplemented with various hardware and software components offered by G&D as a single-source provider. This ensures consistent processes for the flow of material and data.

Your regional contact:

- The CompassEntrée<sup>CM</sup> cash management system records and manages all deposit data for the accounting of the depositor and vault information. It also supports the inspection of rejected banknotes, permitting maximum utilization with the highest turnover
- The BDS 400 product family can vacuum shreds from destroyed banknotes and press these into briquettes as needed
- Conveyer belts guide the bundled banknotes to the NotaPack® banknote packaging system. There the banknotes are securely packed into tamper-proof foil without manual access and labeled (optional)
- The barcode reader permits fast and reliable identification of the individual deposits and speeds up the accounting of smaller units

#### Comprehensive customer service from G&D

- Low maintenance requirements and long maintenance cycles
- Installation and training by G&D specialists
- Customized maintenance agreements

#### Technical Data

**Based on the BPS 1040 S basis machine**

**Dimensions (L/W/H)**  
3,823 x 1,063 x 1,156 mm (can be dismantled for transport purposes)

**Weight**  
Approx. 860 kg

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

**Processing speed**  
Optionally 20 BN/s or 30 BN/s

**Transport speed**  
5 m/s or 7.5 m/s

**Theoretical throughput**  
72,000 BN/h or 108,000 BN/h

**Pneumatic module**  
Power consumption 5.4 kW

**System availability**  
Typically > 96%  
(depending on service status)

**Power supply**  
230 V/400 V, 50/60 Hz  
120 V/208 V, 50/60 Hz

**Power consumption**  
Basis machine 2.1 kW

**Ambient conditions**  
Ambient temperature:  
18–30°C  
Relative humidity:  
40–80%

**Noise level**  
67–77 dB (A)

**Spatial requirements**  
Approx. 25 m<sup>2</sup>

**Certifications**  
CE mark  
GS certificate for approved safety

\* The header card technology used in this product is licensed by Currency Systems International, Inc. of Irving, Texas on the basis of U.S. Patent No. 5,917,930 and further patents in other countries.

Giesecke & Devrient GmbH  
Currency Automation and Services  
Prinzregentenstrasse 159  
P.O. Box 80 07 29  
81607 Munich  
GERMANY

Phone: +49 (0)89 41 19-0  
Fax: +49 (0)89 41 19-85 20

gd.sales@de.gi-de.com  
www.gi-de.com

© Giesecke & Devrient GmbH, 2005.  
BPS®, NotaPack®, NotaScan®, and Compass<sup>CM</sup> are registered trademarks of Giesecke & Devrient GmbH.  
Windows NT® is a registered trademark of the Microsoft Corporation.  
Oracle® is a registered trademark of the Oracle Corporation. All technical data subject to change. G&D/GAO patents.

