

Printing and Encoding Solutions



FARGO® HDP8500
Industrial Card Printer/Encoder



Produce IDs reliably and continuously—even in the most demanding environments.



High Definition printing

delivers the highest image quality—layered on the highest functioning cards. HDP Film fuses to the surface of proximity and smart cards, conforming to ridges and indentations formed by embedded electronics.



Rugged and Robust

The HDP8500 looks and feels more solid than other desktop printers. Its solid metal cabinetry and precision-engineered interior components provide improved resistance to parts fatigue and general wear from routine and repeated use.

High Duty Performance

With the new FARGO® HDP8500 Industrial Card Printer/Encoder, HID Global delivers the most reliable, high duty performance ID card printer in the industry.

The FARGO HDP8500, featuring HID's High Definition Printing™ (HDP) technology, is the superior industrial ID printer for extended-run, high throughput credential personalization and issuance. It's especially suited for the high duty cycle requirements of large government ID card programs, laborious service bureau conditions, and demanding university and large enterprise environments.

With the FARGO HDP8500, you'll get a print system loaded with features that ensure reliability, from enhanced card and consumable material handling to air filtration. You'll get a system that performs—it has one of the highest card input capacities in the industry and requires minimal operator intervention, saving time and money. And, you'll get a system that's designed for operational and issuance security. The HDP8500 is enabled within the HID Global Trusted Identity Platform™ (TIP). With its built-in security features from operator PIN number access and multi-locking entry points, to data encryption and resin ribbon data-erase functionality, you'll know your system is secure.

Wherever high duty cycle and throughput is required, the FARGO HDP8500 delivers. Backed by HID Global's 45 years of

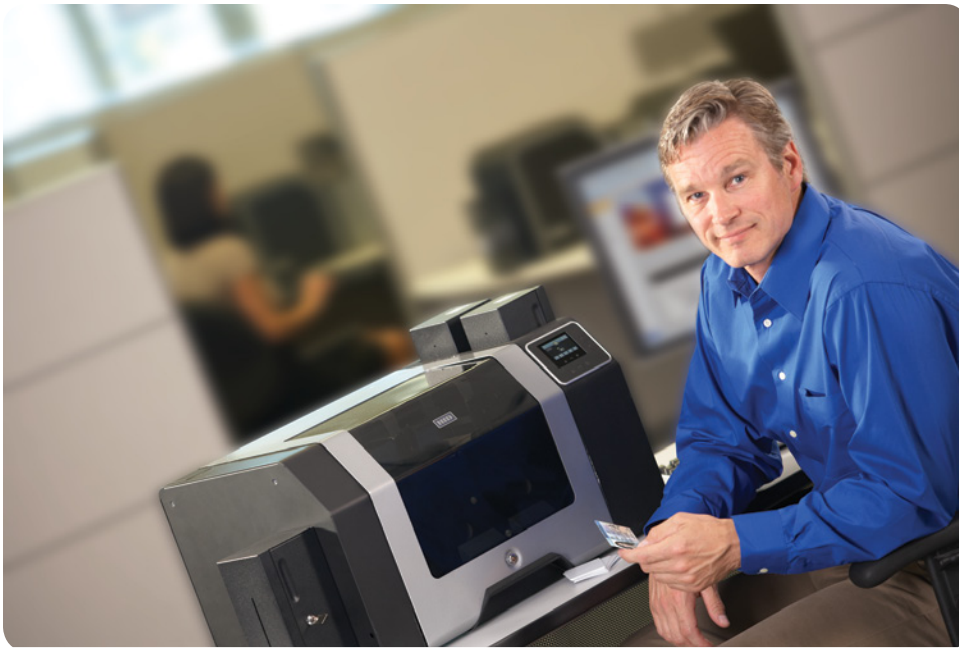
manufacturing excellence and three-year hardware warranty, it's the ideal solution for unparalleled quality, performance and security.

High Definition Printing Quality

HID Global pioneered High Definition Printing, also called retransfer print technology in desktop ID card printers. Now, HID leverages the technology to introduce its fifth generation HDP print engine in the FARGO HDP8500. Retransfer technology works with a wide variety of card materials, giving you greater printing flexibility. And, you'll be able to produce crisp, high definition images on technology cards—even cards with surface imperfections. The FARGO HDP8500 is the clear choice for ID issuance operations where the highest print quality is required.

High Durability Results

The FARGO HDP8500 is designed to work with the most durable consumables, ensuring long-life card provision for small and large government ID programs. Clear and holographic overlaminates provide higher card durability and longer life to ID credentials. An optional durable retransfer film provides even greater abrasion resistance. The highest-level security features, including secure printing and secure lamination, provide lasting protection from fraud. The FARGO HDP8500 is the ideal printing system for ID cards that need to last.



Flexible Technology for Improved Options and Security

The FARGO HDP8500 uses HDP technology to print a dye-sublimation image onto an intermediate transfer film that is retransferred to the card surface. This flexible technology works with a wider choice of card materials, is more resistant to identity adulteration and attack, and is the optimal choice for smart cards because it easily handles surface or embedded electronics irregularities.

Enhanced System Reliability for Challenging Environments

Non-climate controlled areas, high heat, dirt and debris can routinely impact performance, affecting your productivity as well as overall print quality and reliability. The FARGO HDP8500 is designed to safeguard against the most challenging operating environments. Its airflow and filtration system, canopy dust seals and internal temperature sensors maintain ideal printing conditions in the harshest conditions. Multiple in-line cleaning stations that eliminate unexpected blank card surface debris and a special cover protecting card path sensors help prevent defective card prints and printer jams. Powerful stepper motors give you improved card handling over long print shifts. And the printer's gearbox design, metal shaft spindle components and supply cartridges ensure reliable consumable materials handling.

Advanced System Performance for Enhanced Security, Throughput and Durability

In addition to demanding the highest level security features for their printer systems, governments need stable and consistent throughput as well as longer-life cards. HID Global delivers.

The FARGO HDP8500 has physical locks on all access points to protect the ribbon and film consumables, as well as the cards, before and after printing. It offers secure PIN access to electronically lock the printer from accepting print jobs. It has several features for data protection. It uses advanced encryption standard (AES) 256 to protect electronic data, and it has a resin-erase feature to eliminate personal data on used ribbon panels. And it offers secure printing and laminating, including UV printing with fluorescing (F) panel ribbons, holographic retransfer film, and holographic thin films and overlaminates to provide up to three levels of security: overt, covert and forensic.

The FARGO HDP8500 by HID Global has multiprocessing capabilities to greatly increase card yield per shift. The system can encode one card while printing a second card and laminating a third. It offers two additional print modes—along with the standard print mode—to meet your needs. Performance mode provides the fastest throughput speed of approximately 1,000 full-color, single-side cards per shift. Premium mode provides enhanced print



Peak Performance

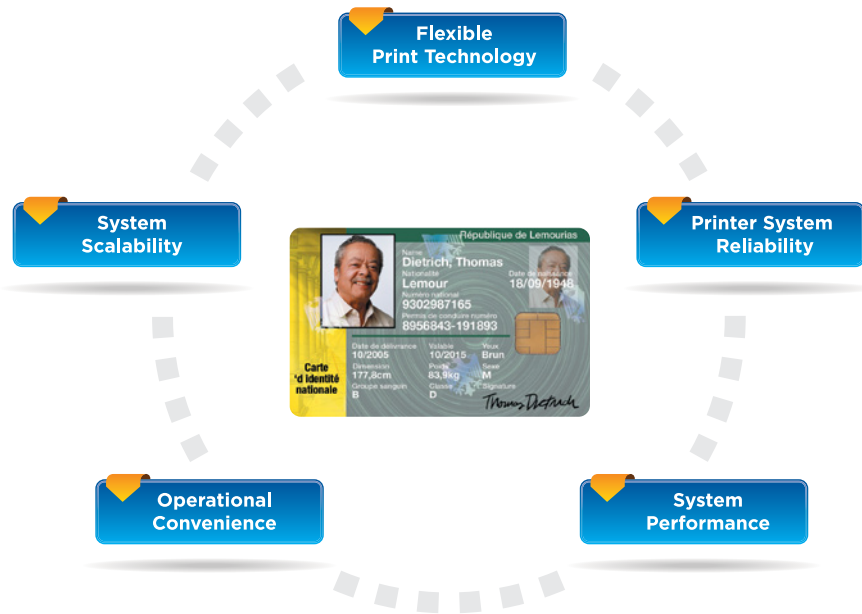
The HDP8500 sustains longer, uninterrupted, high-yield batch print runs. Large-capacity consumables and card input hoppers help minimize downtime. A clean, stable print environment and internal card flattener ensure consistently high-quality card output.



Maximum Security

Special features of the HDP8500 make it compliant with the security requirements of government ID issuers worldwide. The printing materials and the cards in the input and reject hoppers are all protected by physical locks. Printed cards are delivered into a concealed output hopper, and misprinted or misencoded cards are secured in an internal reject bin, protected from identity theft.

The printer is architected within HID Global's Trusted Identity Platform (TIP) to provide highly secure print job authorization at the point of issuance. Data is also protected with AES-256 bit encryption as it passes to the printer, and a unique data-erase feature renders information on used print ribbons illegible. Optional Custom Secure Consumables create a proprietary, secure link between printers and consumables used in your unique large ID project.



Key Elements for Successful Government ID Personalization Programs

With the HDP8500, designed for networking into a high duty cycle distributed card issuance system, HID took into account five key feature areas to ensure the productivity, security and reliability of your operation.

quality for challenging images. Also, the HDP8500 has a patented dual input hopper feature, making it the only retransfer printer to allow automatic selection from two different card types without user intervention.

Finally, the FARGO HDP8500 offers clear and holographic overlaminates patches in 0.6 mil and 1.0 mil to provide higher card durability and longer-life ID credentials.

Operational Convenience for Lower Costs

Governments require printing solutions that focus on lowest cost of operation. They need printer/encoders with predictable maintenance schedules and or limited service requirements—all supported by industry-leading product warranties. The FARGO HDP8500 has among the highest card capacity with dual 200-card input hoppers providing 400-card total input capacity and requiring less user intervention during continuous card runs. It provides an industry-first touch-screen display, giving you superior printer status, diagnostics and maintenance information for easier and faster service. It also has a fully accessible card path, allowing you to monitor card throughput visually for convenient troubleshooting. An optional andon lighting system provides operators with visual remote printer status feedback across wider, secure print environments. Plus, the FARGO HDP8500 is backed by the longest warranty in the industry, so you know it's built to last.

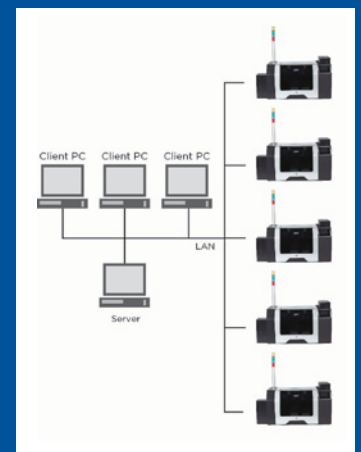
System Scalability

Not all IDs are the same. Some may require only single-side printing, while others need technology card encoding along with dual-side printing and laminating. Some organizations need a printer system that fits particular needs now, while also having the capacity to meet additional needs over time. The FARGO HDP8500 is that printer system. It has several options that can be added to meet your specialized requirements, including:

- ISO magnetic encoding
- Contact or contactless card encoding
- ISO card flattening mechanism
- Andon light remote operator feedback
- Lamination module

The FARGO HDP8500 provides all of these system options as field upgrade modules. That means the print system scales as your needs evolve, and you don't need to purchase another solution when your needs shift in the future.

What's more, the HDP8500 is fully interoperable with Genuine HID technology. This guarantees the printer's compatibility with other products within the HID ecosystem, enabling organizations to leverage existing HID technology investments.



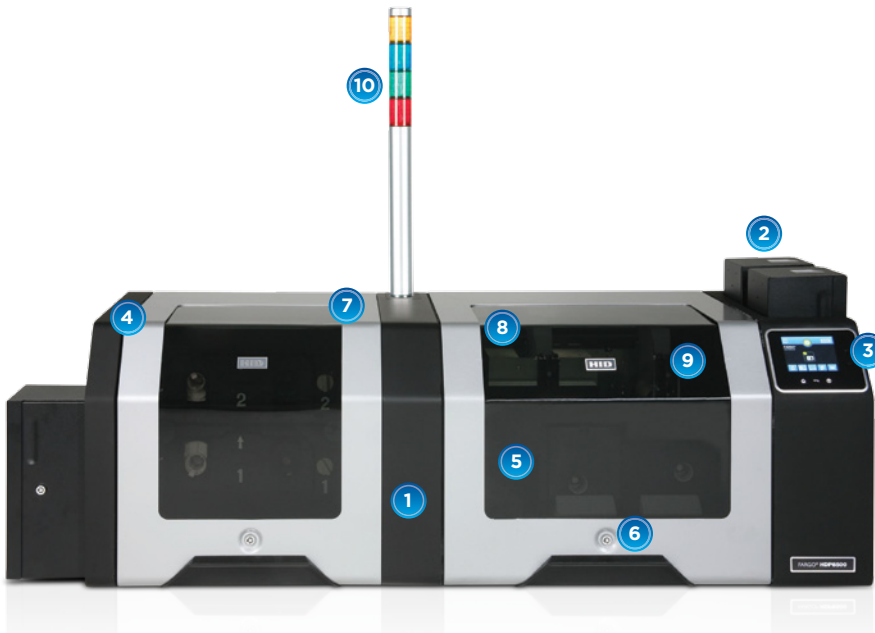
Produce secure High Definition IDs anywhere

Secure government-to-citizen ID card production is no longer limited to a single high-volume printer system in a central location.

Government organizations and service bureaus can issue IDs from multiple sites—centrally and remotely—in combinations that satisfy population centers of all sizes.

With an Ethernet port and internal print server, HDP8500 printer/encoders can be securely networked together to produce high volumes of ID cards in continuous batch runs, sharing one or more common or centrally managed databases.

FARGO® HDP8500 Industrial Card Printer/Encoder Features



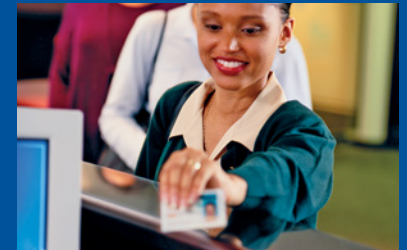
- 1 Multi-processing capability: encode/print/laminate simultaneously
- 2 Dual locking input hoppers with 400-card total capacity
- 3 3.5-inch graphical touch-screen display with PIN access
- 4 3-year full warranty and lifetime printhead warranty
- 5 Print protection with durable HDP consumables
- 6 Physical hardware locks
- 7 Airflow and filtration system: dense air filter, high-flow fans, door dust seals and internal temperature sensor
- 8 Multiple in-line card cleaning stations
- 9 Resin-erase, data protection feature
- 10 Multiple field upgradable printer options

Print Method	HDP Dye-Sublimation/Resin Thermal Transfer
Print Platform	Dual-sided printing (standard)
Resolution	300 dpi (11.8 dots/mm)
Colors	Up to 16.7 million/256 shades per pixel
Print Speed (batch mode)**	<ul style="list-style-type: none"> • Up to 1200 cards per shift/24 seconds per card (YMC with transfer)* • Up to 992 cards per shift/29 seconds per card (YMCK with transfer)* • Up to 720 cards per shift/40 seconds per card (YMCKK with transfer)*
Simultaneous Printing/Encoding	Standard
User Interface	Touch-Screen Display
Accepted Standard Card Sizes	CR-80 (3.370" L x 2.125" W/85.6 mm L x 54 mm W)
Accepted Card Thickness	.030" (30 mil) to .050" (50 mil)/.762 mm to 1.27 mm
Dual Input Card Cartridges/Capacity	(2) 200-card hoppers; Total capacity 400 cards (.030"/.762 mm)
Output Hopper Card Capacity	(1) 200-card hopper (.030"/.762 mm)
Software Drivers	Windows® XP/Server 2003/Vista (32 & 64 bit)/Server 2008 R2 (64 bit)/7 (32 & 64 bit); Mac OS X v10.4/v10.5; and Linux***
Print Area	Over-the-edge on CR-80 cards
Warranty	<ul style="list-style-type: none"> • Printer—Three years • Printhead—Lifetime; unlimited pass
Options	<ul style="list-style-type: none"> • Card lamination module—dual-sided (simultaneous) • Secure Proprietary Consumables System • Magnetic stripe encoding • Custom Secure Holographic HDP Film and Overlaminate • Smart card encoding (contact/contactless) • Andon Production Status Light • iCLASS® Programming Platform Kit • ISO Card Flattener • Printer cleaning kit • Laser Engraving (Q4, 2012)

* Indicates the ribbon type and the number of ribbon panels printed where Y=Yellow, M=Magenta, C=Cyan, K=Resin Black, I=Inhibit, F=Fluorescing, H=Heat Seal.

** Print speed indicates an approximate print speed and is measured from the time a card drops into the output hopper to the time the next card drops into the output hopper. Print speeds do not include encoding time or the time needed for the PC to process the image. Process time is dependent on the size of the file, the CPU, amount of RAM and the amount of available resources at the time of the print.

*** Linux versions: Ubuntu 7.10, Red Hat Enterprise Desktop 5, Fedora Core 7, Fedora Core 8, openSUSE 10.3.



HID Global: The trusted source for the delivery of secure identity

HID Global is in an ideal position to participate in large-scale secure government-to-citizen ID issuance programs, from national IDs and driver licenses to e-health and electronic benefit transfer (EBT) cards. With over 200,000 FARGO ID printers installed worldwide, we offer a unique mix of secure ID technologies, including secure card production hardware, software and services. Hundreds of governments around the world trust HID Global as their source for the delivery of their citizens' secure credentials every day.

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