

PHARMA



**HSA** A UNIQUE IMPRINT  
SYSTEMS

PAC 1844

Mfg.date: 11-2008

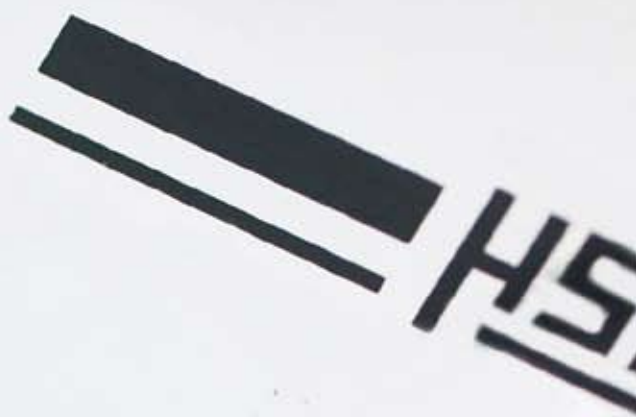
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## A Unique Imprint

HSA Systems was founded in 1993 in Denmark. Since then, the company has grown to approximately 60 people in Europe including our head and branch offices in Denmark, our subsidiary in Paris, and our production facilities in the Czech Republic.

The company's core business remains developing and manufacturing high resolution inkjet printers and a range of other products for Coding, Marking and Commercial Printing applications.

Many leading international companies can be found among HSA Systems' customers. These customers expect the highest level of flexibility, efficiency and support in their partners. HSA Systems continues to meet these needs by satisfying the customer requirements with the right solution – effectively and within budget.

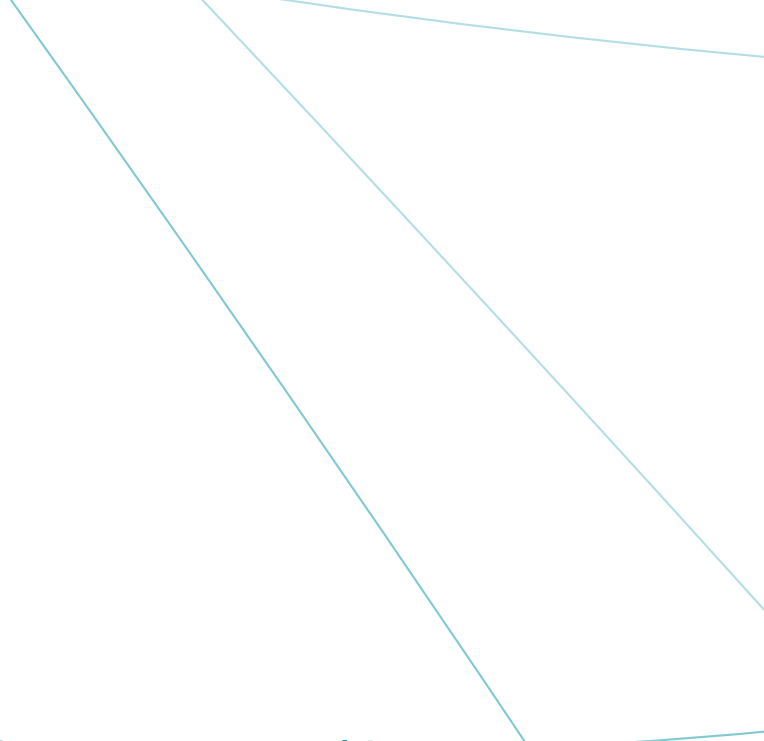
## Global network

Our products and services are available through our offices in Denmark and France as well as a global network of distributors and integrators in other countries. Additionally HSA Systems Inc., based in Atlanta, Georgia, USA has recently been established to offer an additional level of support for our customers in the USA.

Thanks to these partners, HSA Systems is supplying stand-alone printing systems and integrated solutions to companies around the world.

## Service & Support

HSA Systems understands the need for timely support in today's demanding world. Therefore, every organization supplying our equipment is required to have factory trained technicians to provide immediate assistance as needed. Furthermore the factory is available always for extended support.



## HSAJET™ - HP TIJ 2.5 Inkjet technology advantages

Our pharmaceutical printing systems are based on Hewlett-Packard Thermal Inkjet (TIJ) technology. These cartridge based printers deliver unmatched quality with time-proven reliability in production environments at a cost effective price.

With minimal maintenance requirements and maximum up time, HSA Systems' products offer a simple cost-justification and low total cost of ownership.

HP print heads consistently provide high-resolution imprints for sharp text and crisp linear and 2D bar codes. A wide variety of available inks provide many options for challenging substrates and applications.

Our capabilities include a single controller option with integrated camera which increases throughput and lessens the risks of errors when sending data to multiple systems. Using one control system also simplifies operator training, validation, and the IQ/OQ process.

## Track & Trace

Including GS1 codes, evolving global standards continue to address the challenges of brand authentication and supply chain integrity in the pharmaceutical industry.

Individual packages can be traced through the supply chain from manufacturer to pharmacy and consumer – whatever the legal requirement, HSA Systems' provides printing and verification systems as part of complete Track & Trace solutions.



## Advantages of using 2D codes

- Compact code, requiring minimum space on the package
- Hidden codes using UV or IR invisible ink
- Enhances Track & Trace Capability
- Easy to read and verify

## Clean Room & Green Packaging Initiatives

Most TIJ inks do not require any special handling. The cartridge technology we employ, unlike other technologies, eliminates the need to run printers continuously to heat the heads or recirculate inks. This saves both ink and utility expenses. Additionally, the majority of these products can be simply disposed of or recycled for future use.



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## Demands from the Industry

The pharmaceutical industry's coding requirements have grown in complexity as the need to eliminate counterfeit products from distribution has grown. HSA Systems offers both stand-alone solutions and simple printers which are easily integrated into other Track & Trace solutions – enabling a “cradle to grave” audit trail from the point of manufacturing through distribution.

## HSA Systems responds

In response to the needs of the industry, HSA Systems has developed specially adapted printing systems that guarantee the high quality images needed for Track & Trace with virtually no maintenance. Our systems are designed with “ease of use” and security in mind.

Our pharmaceutical Coding & Marking systems, built on HP technology, provide quality printing day in and day out.

The integrated vision system verifies bar code quality to programmable standards, and offers a variety of output options for misreads.



Additionally we can ensure data integrity by checking images against an internal database and logging the results.

Complete production information on the images printed can be exported for quality assurance programs.

Our Pharmaceutical systems include all required security features:

- User-level access control
- Double approval of prompts
- Expanded logging

Security features can be set by the system administrator to match your regulatory environment.

Our solutions to the pharmaceutical industry make it possible for customers to comply to relevant requirements within GAMP and other regulatory requirements, such as 21 CFR Part 11 and E-Pedigree.



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Size: 42x19x107 mm  
Format No.: PAC1851  
Barcode No.: 112690

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Barcode No.: 112690

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## HSA Systems Product Keywords

The TIPC15 with Pharma INKdraw software is a turnkey pharmaceutical solution which is controlled with a 15-inch touch screen.

A single user-interface controls set-up, printing, verification, rejection, and all output options. Pharma INKdraw controls message creation, camera functions, and complete run specifications through a user-programmable HMI screen/display ensuring ease of use and high visibility production status.

The TIPC15 features an intuitive interface and job templates that make it easy to create new jobs. Both network and locally stored data bases including formats such as SQL, Access, XLS, CSV and more are also supported.

The optional integrated HSA Vision system grades and verifies bar codes to customer defined thresholds and includes reject, alert, line stop and a number of other options. All HSA Systems software and printers support 2D encoding to GS1 standards.

In addition to the TIPC15, our range of controllers is unmatched in the industry. The MiniTouch, MiniKey, and TCU options can handle other printing challenges – from simple lot & expiry date printing to complex coding and verification applications. Our complete line is designed to guarantee that HSA Systems offers a cost-effective solution to meet your needs.



## H. Lundbeck A/S selects HSAJET

H. Lundbeck is an international pharmaceutical company with headquarters in Copenhagen, Denmark.

The company is engaged in research, development and production of pharmaceutical drugs.

Printing equipment manufactured by HSA Systems was selected when the company, H. Lundbeck, was to implement 2D coding according to the GS1 system.

After a successful pilot project H. Lundbeck has introduced the GS1 systems 2D coding on all pharmaceutical packaging.

The industry has made it a legal requirement that each pack sold in the pharmacy, must be marked with specific information, e.g., batch number, expiration date, possibly production date, etc. H. Lundbeck has put in the effort to having the right printer solution developed and finding a supplier who could provide all the process engineering requirements, for example printing of the 2D code is carried out at a speed that corresponds to their machines.



Pilot project test were successfully completed on product for the Turkish and Belgian markets. A parallel test at one of the company's contract packers was also successfully completed. H. Lundbeck installed first system at the end of 2008, and has continued to install systems on other production lines as a satisfied HSA customer.

Source: "Paa Stregen" GS1 Denmark.

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