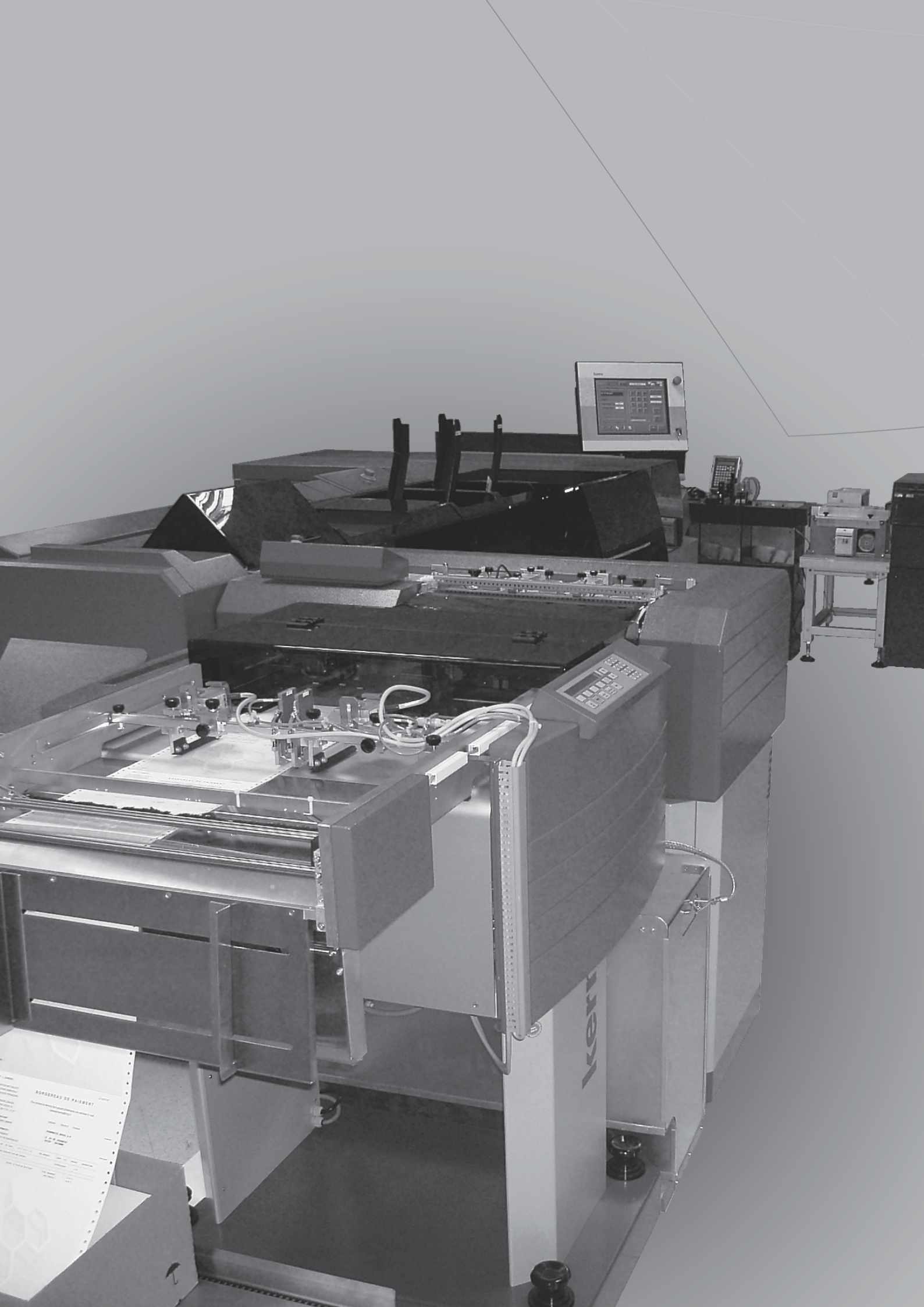


PRINTING SOLUTIONS FOR KERN INSERTERS



HSA A UNIQUE IMPRINT
SYSTEMS



A Unique Imprint

HSA Systems was established in 1993 in Denmark. Since then the company has continuously grown.

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

Including head office, branch office, a subsidiary in Paris and production facilities in the Czech Republic, the group employs approximately 60 people.

Among HSA Systems' customers are many leading international companies within different industry market sectors, all having the highest requirements of flexibility, efficiency and logistics.

At HSA Systems we approach a new co-operation in a professional and open-minded way.

We believe in the importance of combining the customers' requirements and expectations with our knowledge to provide a solution which can fulfill their needs.

Global network

The equipment is available through our own offices or a network of distributors and integrators.

Thanks to these partners, HSA Systems is now supplying stand alone systems and integration kits to companies around the globe.

Service & Support

Service and support is provided through technicians and support staff who have all been specially trained on the HSA Systems equipment. HSA Systems appreciate the demand for fast back-up, this is why the factory is available always for extended support.

CHALLENGE

Date & Text printing solution for Kern inserters

HSA Systems France received a request from Kern France for printing date and text in accordance to the French postal regulations called **Industrial Mail**. Industrial mail is formerly known as Tempost.

A printer for making a 1" high print should be mounted on a KERN 3500 running up to 120 m/min generating an output of 22.000 envelopes per hour.

Data had to be sent and updated via the Valipost TCP/IP service.

A scanner should read data on envelopes and via Ethernet send a set of commands for a printer to print data accordingly.

Regardless of the line speed the printed data had to be of high quality for ensuring as few miss readings as possible.

SOLUTION

HSA supplied the right solution

HSA Systems France responded with a MiniTouch solution, which via the Ethernet connection and communication protocol provided the interface for the Valipost TCP/IP service. The MiniTouch is based upon HP TIJ2.5.

With a Plug & Play integration kit made especially for the KERN reject station the printhead and controller were mounted on the reject station.

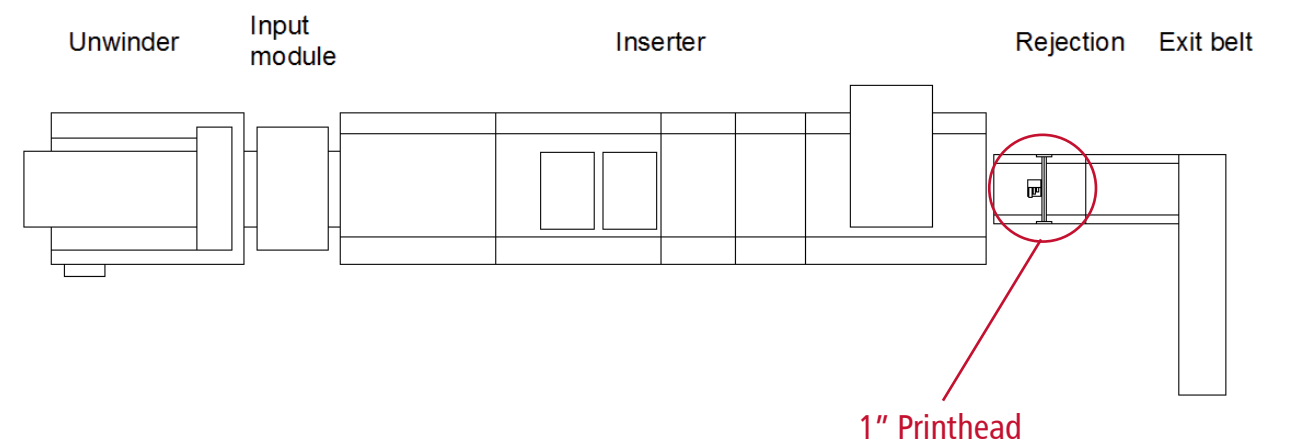
Seamless integration

- Using the Minitouch communication protocol communicating with the Valipost TCP/IP service a seamless integration was provided.
- The MiniTouch MTHP4 has an integrated 5.7" touch screen from where the unit manually can be controlled. An intuitive menu structure requires a minimum of skill and training to use.
- The MiniTouch provides a print quality up to 600 x 600 DPI at a line speed of 38 m/min, 300 x 300 DPI up to 152 m/min and 300 x 150 DPI up to 305 m/min.
- The HP Thermal Ink Jet 2.5 technology is based upon cartridge printing why print head service issues is reduced to a minimum. The TIJ 2.5 is a "clean" type of system where ink is contained in the cartridge itself. No bottled ink and no ink spill on the machines.

RESULT



The shown installation is made with a CU controller



CHALLENGE

Printing of addresses, barcodes and logos

A customer in Lithuania having two KERN 2500 installed, wanted to add a printing system for printing a mix of addresses, barcodes and logos.

The demand was that the printing system had to follow the inserter speed of 12 000 envelopes per hour, providing a high quality print.

Variable data was to be provided via Excel spreadsheets.

Further the system had to be movable so that it could be used in combination with both the inserters as well as being used off-line.

Flexible solution

Via Mailsystems in Finland HSA Systems provided a mail-table solution with a printer controller based upon HP TIJ 2.5 technology.

A one metre long vacuum table with heavy duty casters providing the option of rolling the unit to and from the inserter, became the base for the printing solution. The vacuum table was equipped with miscellaneous accessories for ensuring stable and reliable paper transport.

The printer controller chosen for this project was a controller board (CB) solution, mounted in a Rack style PC (RPC). A CB solution is a fully variable printing solution capable of running a wide variety of databases as well as having both serial and ethernet connections for interacting with the controller using the communication protocol.

The RPC solution in combination with a 1.5" print head provides enough print area to do both addressing as well as barcodes on the same layout.

Complete package

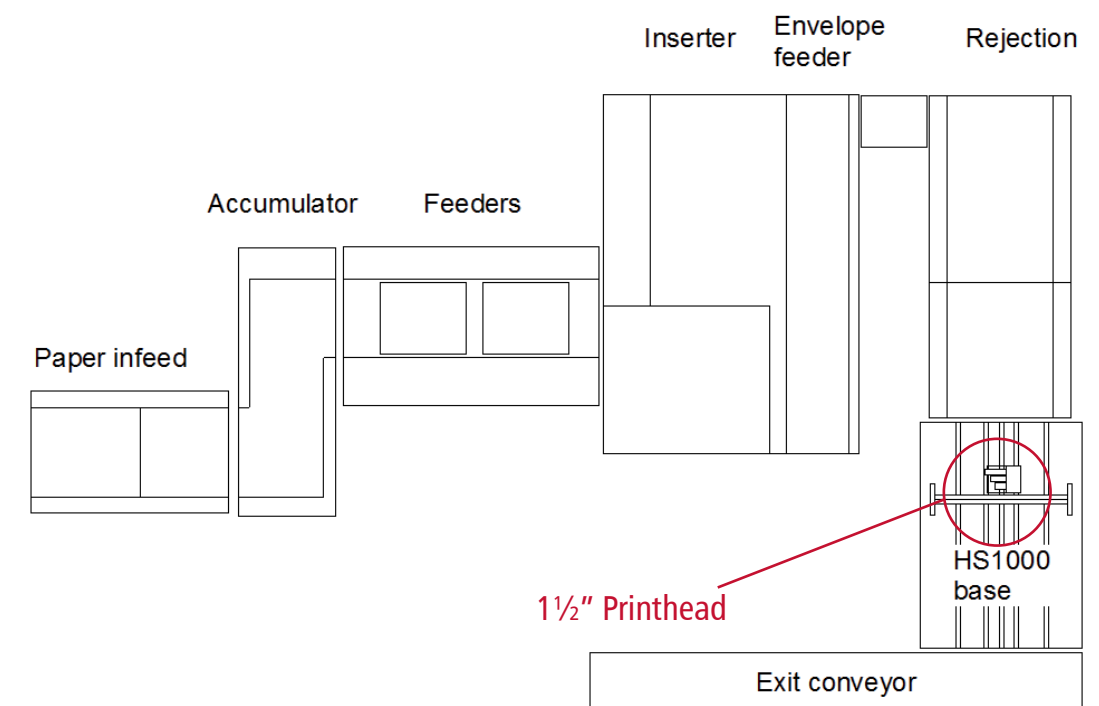
- A customer specific system made from HSA Systems standard equipment.
- Since HSA Systems could provide both printer, transport unit as other peripheral equipment, the customer only had to turn towards one supplier.
- The printing system makes it possible to comfortably follow the speed of the KERN 2500 as well as providing high speed printing running off-line. The system is capable of running 38 m/min at 600 x 600 DPI, 78 m/min at 600 x 300 DPI, 152 m/min at 300 x 300 DPI.
- The customer prefers running at a speed not exceeding the maximum speed of 300 x 300 DPI, but if need be the controller can do up to 305 m/min at 300 x 150 DPI.

SOLUTION

RESULT



Mail table shown with 2" + 1½" printheads



Compact Integration Kit for Inserters
Mail Indicia & logo printing
MiniTouch with ½" to 2" printheight



Ideal compact solution
typically used for printing:

- Mail Indicia
- Logos
- Date & Time
- Numbering
- Text messages

Robust design

The elegant black aluminium-casing underlines the robust design perfect for installation in production environments. The USB port is found on the side of the MiniTouch. A small cover protects it when not in use.

5.7" Touch Interface

Use the touch pen or simply a pointed finger to control the MiniTouch printer. Illustrative, easy to understand icons lead you through all phases of building your printjob making printing simple and fast.

Easy to integrate and use

With its small size, the printer fits where you want it. With the printheads mounted externally the printer can be used for downprint as well as sideprint.

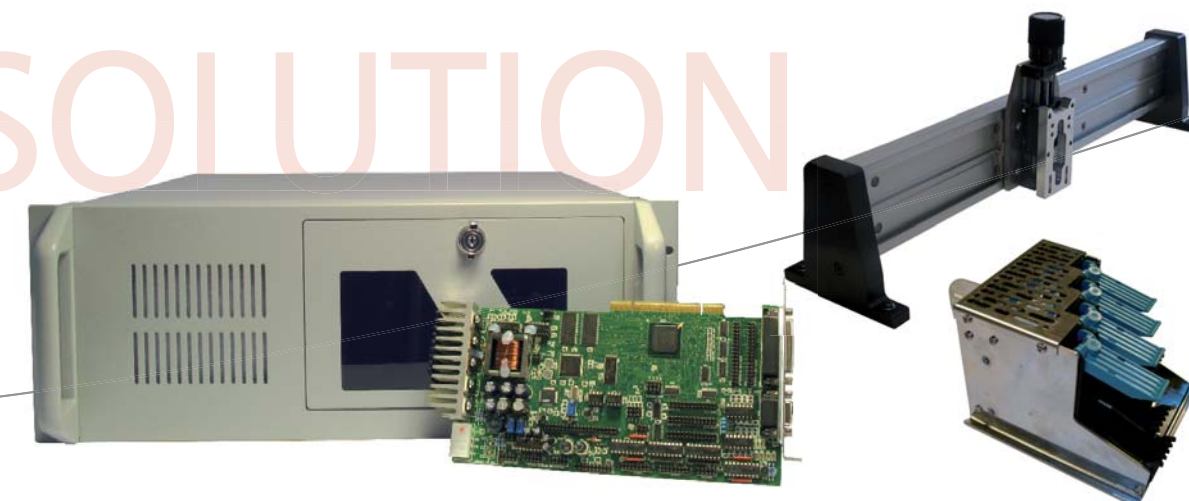
Choose from ½" - 2" printheight

The HSAJET® MiniTouch MT-HP4 can control up to 2" printheight. Utilize the flexibility of the MiniTouch to connect up to 4 pens to the controller, either as single heads or with a distributor box in a combination of 1, 2, 3 and 4-pen printheads.

Technical Data:

Interface:	100 Mbit Ethernet, RS232, USB
Memory:	250 Mb (min) internal 4 Gb (optional)
Screen resolution:	1/4" VGA 320 x 240 pixel colour touch screen
MT-HP4:	
Dim (LxWxH)	145 x 135 x 40 mm
Weight	0.8 kg
MT-HP power supply:	
Power supply:	85-240V 50/60Hz
Dim (LxWxH)	203 x 110 x 89 mm
Weight	1.8 kg

Flexible Integration Kit for Inserters
Variable addressing & logo printing
CB/RPC with up to 8" printheight



A flexible and powerful solution
for variable printing:

- Addresses & Logos
- Barcodes
- Date / time & Counters
- Fixed text
- Multiple fonts
- 2D codes Incl. datamatrix

Expand the printheight

Each CB board is PCI based and can control up to 2" of print height. For additional print height more CB's can be installed providing up to 8" print height from one controller.

The CB is available as a board for integration but HSA Systems also offers 2 versions of pre-configured windows based controllers. The OPC in either 2" or 4" printheight version, and the RPC in 6" or 8"printheight version.

Advanced features

With a CB based solution you have full freedom in head offset as well as a high accuracy in X and Y stitching. Each CB has encoder, sensor and serial connection. Ethernet communication is made through the PC's LAN.

HSAJET Software

CB solutions are controlled from our mail printing software Mail INKdraw. Mail INKdraw is specially designed for mailing applications printing variable addresses, logos, barcodes etc. Up to 8 output signals for controlling external equipment like feeders and conveyors are available.

Remote control

If required the printers can also be controlled remotely via our comprehensive ethernet or serial communication protocol.

Print capability of Controller Board:

Number of messages:	unlimited
Message length:	max 2700 mm
Print height (1CB):	max 50.8 mm
Technology:	HP TIJ 2.5
Interface:	I/O connector Ethernet /Serial Product sensor 5-24V Encoder input 5-24V CB connection in PCI-slot CB or Mail INKdraw
Software:	

Technical Data - RPC:

19" Industrial casing	
Dim (LxWxH):	450 x 439 x 177 mm
Weight:	16.4 kg
Software:	Windows XP Pro



HSAJET® and HP TIJ 2.5 technology

HSAJET® controllers in combination with HP thermal inkjet technology gives a very high print quality.

The HSAJET® printers are based upon the reliable HP TIJ2.5 technology which delivers consistent, high-quality, fast printing, exceptional value, and ease of use.

Resolution(DPI)	Max. speed (m/min)
600 x 600	38
600 x 300*	76
300 x 300	76
300 x 300 HS	152
300 x 600*	38
300 x 150	306

*) not applicable for MiniTouch

Printing systems for industries like:

- Lettershops
- Postal Services
- Commercial printing
- Newspapers
- Graphic art

Turn-key and integration solutions for:

- Mailing bases
- Printing presses
- Inserters
- Sorting machines
- Converting lines

HP key-features:

- Cost-effective: No warm-up cycle and no down time
- Easy to use: No special training required to operate and maintain thermal inkjet printers
- Fast: Hundreds of tiny nozzles firing at High frequency allows high-quality printing at high speeds
- Reliable: TIJ is less sensitive to air bubbles in the firing chamber than other printing technologies, avoiding print quality problems and delays caused by trapped air

- Flexible: Supports a wide variety of media
- High quality: TIJ places smaller drops more accurately, producing consistently superb image and text quality
- Environmentally safe: With thermal inkjet, there is no need for service technicians qualified to handle volatile solvents, and no noxious fumes
- Lower cost of ownership: A thermal inkjet printer can cost much less than other printing equipment, reducing the market entry cost

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