

# HSAJET® PRINT & VERIFY SYSTEM

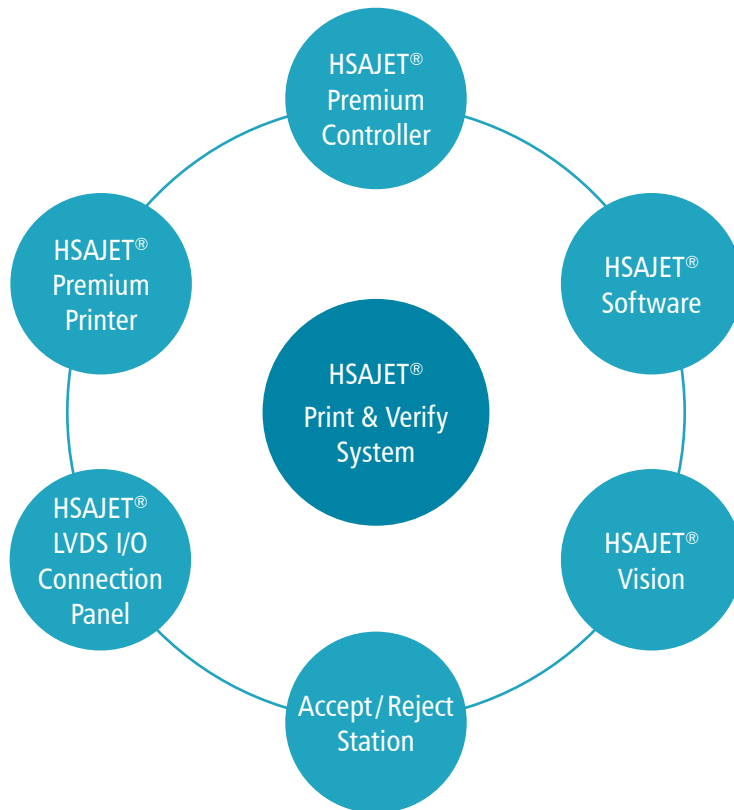
...matching the demands of  
the pharmaceutical industry



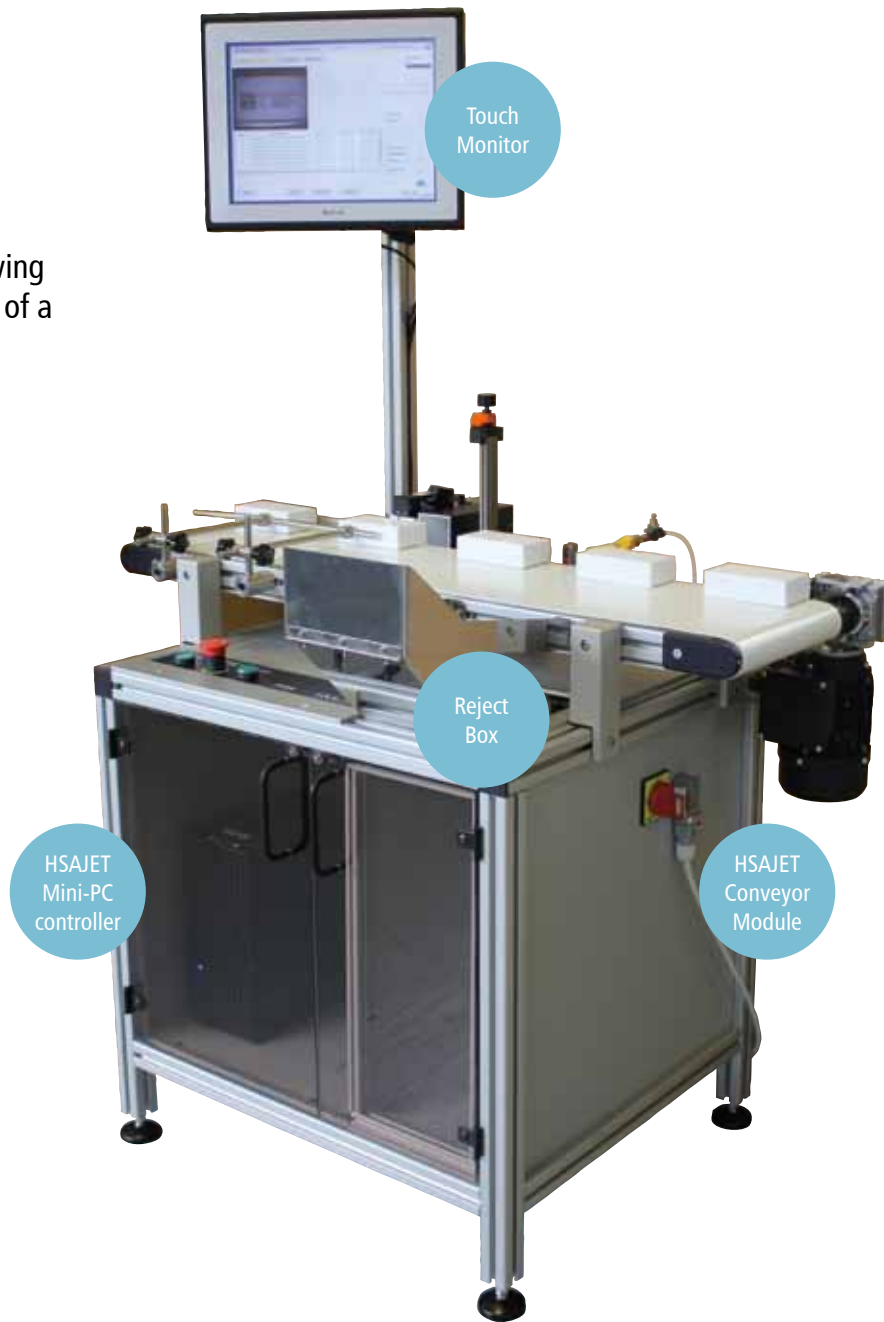
## Why a pharmaceutical solution from HSA Systems?

- One powerful controller - complete integrated solution
- Includes printing, vision and machine control
- ISO 15415 compliant verification and grading system
- The Print & Verify system provides easy to achieve customer compliance to GAMP and 21 CFR part 11
- Optimum print quality utilizing HP45 thermal inkjet
- Easy and intuitive system operation, with wizard based job creation
- Verification software made in accordance with international standards
- User level control and full traceability
- Real-time status monitoring and SQL data logging
- System configurable for in-line and off-line use or for integration with other systems
- Solutions for both un-folded and folded boxes
- Full and complete system from one vendor, including machine control and HMI. All hardware and software products developed and manufactured by HSA Systems

## Pharma Print & Verify Architecture



Conceptual picture showing the various components of a Print & Verify system



Blow out module



HSAJET Premium Printhead



HSAJET Vision Camera

HSAJET Software



## HSAJET® Premium Powerful Controller

The mini-PC controller is the nerve centre of the system. It runs with an Intel CORE i7 processor and is based on the proven industrial HSAJET® Premium controller board.

## HSAJET® PV Software & HMI

The 'control centre' manages the complete unit, providing real-time status and logging, parameter setting and adjustment with seamless shifting between HMI (Human Machine Interface), Printing and Vision using the simple GUI interface.



## Job Wizard

The 'Pharma Wizard' is the HSA application to create and edit jobs. It requires no special software skills or complex design software. The wizard provides troublefree creation of Datamatrix codes that follow the GS1 structure.

## Datamatrix and text verification

The vision inspection module ensures correct content and quality of a print and that the Datamatrix is in accordance with ISO 15415. All events are logged in the built in SQL database for later review or proof. Text is captured by the camera for verification that can be set to an acceptance score level between 1 & 100.



## Fast communication via I/O Connection Panel (LVDS I/O module)

This unit is the interface between the controller inputs and outputs for the ejector, sensors, motors and cameras.

The module gathers from up to 24 inputs and distributes to as many as 16 outputs while monitoring the states of connected units.

## Vision System

A complete vision unit with integrated light source and stray light block. Developed and manufactured in accordance with the international standards for verification and quality control of printed data.

## HSAJET® Premium HP Print heads

The HSAJET Premium print heads are based on HP TIJ 2.5 technology, provide high resolution images.

## Premium Black Ink for pharmaceutical boxes

The new HSAJET® K3010 Premium Black ink ensures optimum print image quality for use on pharmaceutical boxes and was developed in corporation with Collins Ink. Produces a crisp and sharp image requiring little maintenance.

## Solvent inks for blister packs

There are solvent inks available that are designed to work on the different aluminium and plastics blister packs.

## HSAJET® Print & Verify system

The following pictures show the Print & Verify system being used for box printing. The system below have been built into hardware integrated by HSA OEM partners, the system pictured over page is built by HSA to a customer specified end to end process.



HSAJET Print & Verify System  
through Condot, India



System integration with MV100 from  
Exmore, Belgium



End-to-end solution for print on lay-flat boxes installed at LEO Pharma A/S, Denmark.  
 Feeding of lay-flat boxes > Print of 2D Datamatrix - Logo - Product type > Vision control > Label >  
 Label position check > Accept or Reject

## Summary of HSA Systems solutions for the pharmaceutical industry

- Complete solution comprises printers, cameras, central machine control with print & verification software, HMI and validation package.
- Printing of pharmaceutical data including the ECC200 Datamatrix code in accordance with the GS1 symbology standard.
- Verification of imprint, by checking content as well as quality of the printed data, Datamatrix verification and grading in accordance with ISO 15415, text verification and grading with 100 score levels.
- Straight forward customer GAMP certification and 21 CFR part 11 compliance.
- Queue management system ensuring that a specific product is always in the right and expected position with reject system for removing failed products.
- Counterproof check of accepted and rejected products, with extensive logging and data management capabilities.
- Solutions with multiple print heads and cameras.
- The HSA solution makes it possible for customer to meet the global harmonisation requirements.

## A Unique Imprint

HSA Systems is a leading manufacturer of industrial inkjet equipment. We were founded in Denmark in 1993 and our 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.

We understand that cost is critical to sales success. Our goal is to provide economical high resolution inkjet printing systems. This combined with our wide range of products make us an ideal partner.

Over the last 18 years, our product portfolio has grown so that we have products for the simplest date coding to the most complex serialization applications and everything in between.

Our goal of providing cost effective, high resolution inkjet printing systems has enabled us to sell products in most parts of the world.

We encourage you to visit our website [hsasystems.com](http://hsasystems.com) where you can see our complete product line as well as specific application successes.

## Technology

Today, we are Hewlett-Packard's largest independent industrial printing technology partner in Europe. In addition to HP thermal inkjet, we offer a wide range of Xaar based printheads and an extensive range of accessories for the coding/marketing and commercial printing industries.

## 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.

## Global Network

Our equipment is available through a global network of distributors and integrators.

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



## DISTRIBUTOR:



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