OnsetX HS

FAST JUST GOT FASTER

inca
an AGFA company

CORE PRODUCT VALUES

WE DESIGN AND MANUFACTURE OUR PRODUCTS TO THE HIGHEST STANDARD. WHEN YOU CHOOSE INCA, YOU WILL GET THE BENEFITS OF OUR CORE PRODUCT VALUES ACROSS THE PORTFOLIO

Quality is Key

Technologies found on all of our products have been refined to give our customers the best print quality. Onset's print engine and fast moving vacuum bed are built on a very robust chassis which enables pin-point drop placement accuracy of billions of drops per second, all day, every day.

Inca's patented "print-a-shim" process takes the technology to the next level, optically mapping and adjusting for optimum quality across the bed.

Inca's nozzle-mapping feature minimizes print quality issues caused by deviated, unstable or blocked nozzles. It automatically identifies defective nozzles; the software scans and analyses a printed test pattern, prevents jetting from affected nozzles and compensates with adjacent functional nozzles. By dramatically minimising the use of deviating nozzles, we are confident that our printers will maintain their maximum throughput.

Print into the Future

Inca printers have a justified reputation for extraordinary reliability and unmatched production uptime. The combination of compatible hardware, software and inks on a well maintained machine can mean that the printheads can potentially last the lifetime of the printer. The Automated Cleaning Station helps maintain printheads without manual operator intervention and the in-built Maintenance Scheduler displays and plans tasks for the operator, which can be logged and tracked.

A major contributor to this performance is IncaVision, a software-based customer support service unique to Inca Digital. IncaVision allows Inca to remotely and regularly remotely monitor and diagnose printer issues in the field, conducting diagnostics to determine how well they are performing and – often even before customers know they have a problem – decide whether there is a need for engineering support.

Why choose us?

The ability to utilise robotic technology to offer solutions for different production and material handling requirements which include: Laytable and Unload robot (POP robot), Hostert® Loader and Unload robot or Dual robot.

ONSET X SERIES PRODUCT RANGE

In 2021 Inca added the X1 HS to the Onset product family. This followed on from 2019 when Inca initially launched the world-beating Onset X HS platform. Today, the HS product, built on the stability of the original Onset and X series, provides a single-platform, scalable architecture that users can configure to provide the combination of speed and colours they need. Key to its flexibility is the unique 14-channel potential built into every Onset. Inca has engineered modularity into the new platform meaning that upgrades can be carried out at customers' sites and completed in just a few days.

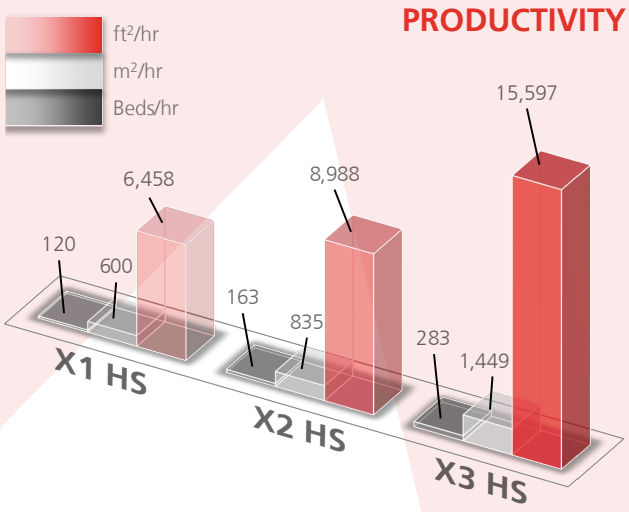
Onset X HS – Ability to increase productivity, boost efficiency and maximise the job changeover process with automated robot effectors and side shutters which adjust automatically according to substrate setup, eliminating the need for manual intervention synchronised with the automatic adjustment of the printer and the print bed. The 30 second set up also takes advantage of the twenty-five zone vacuum table coupled with an auto-sliding skin, which significantly reduces the need for manual masking.

The Onset X HS enables print service providers to produce the widest spectrum of POS and other graphics, from everyday signage to the highest-quality backlit displays for demanding markets such as cosmetics and luxury consumer goods. The Onset X HS can print on a wide range of materials, including: foam PVC, PVC, foamboard, corrugated board, display board, Reboard, polystyrene, banner materials and Dibond®.

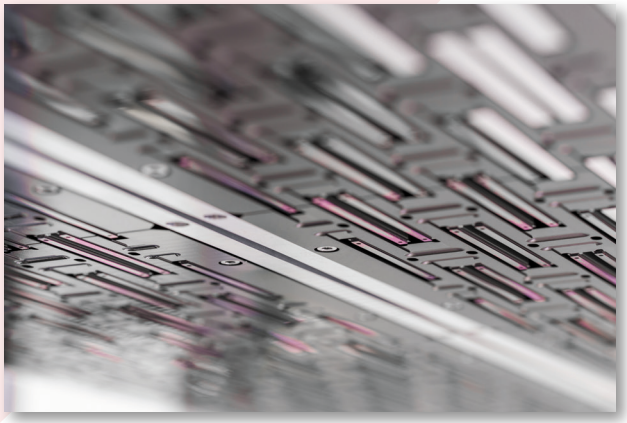
Onset X1 HS With a maximum throughput of up to 600 m²/hr[1] (equivalent to 120 full-bed sheets/hr), Onset X1 HS is ideal for companies producing a mix of fast-turnaround retail graphics, high-quality images for close-up viewing and direct-to-board corrugated display and packaging. 'HS' features drive down job turnaround time while maintaining the market leading reliability, consistency and high print quality synonymous with the Onset platform. Of the eight channels, four print CMYK and the remainder can be configured as required using light cyan (Lc), light magenta (Lm), white (W) and orange (O).

Onset X2 HS Onset X2 HS enables printing of up to 835 m²/hr[1] along with the flexibility to add white, orange, light cyan and light magenta for superb print quality. 'HS' features drive down job turnaround time while maintaining the market leading reliability, consistency and high print quality synonymous with the Onset platform.

Onset X3 HS Onset X3 HS enables single cycle printing pushing productivity up to 1,449 m²/hr[1] along with the 'HS' features to drive down job turnaround time while maintaining the market leading reliability, consistency and high print quality synonymous with the Onset platform.



[1] Based on an approximate 4.4 second material handling time.



KEY FEATURES AND BENEFITS

High Quality, High Speed

The Onset X HS Series flatbed printing press offers high quality and high speed output using new pass modes and jetting ink at the higher frequency of 57 kHz.

Full Width UV Lamp System

Fast, full width bi-directional printing with adjustable print finishes from a matt satin all the way up to a vibrant gloss on a wide range of media. Sensors monitor the amount of UV light exposure around the print carriage and control the cleaning cycles in the daily schedule to maintain optimum performance and printhead life.

Mechanical Substrate Height Detectors (MSHDs)

Two pairs of mechanical substrate height detectors protect the printheads and carriage from damage while printing. These monitor for potential obstructions that exceed the substrate height during printing. Any obstruction that exceeds this height will trigger a detector and cause the printer to immediately stop all movement.

25 Zone Vacuum Table with Automated Sliding Skin

Features a powerful vacuum system and automated (top) sliding table skin to reduce the need for bed masking - the skin can be moved sideways to purposely misalign vacuum holes and reduce air loss. This greatly reduces set-up times for the most common POS substrates and increases throughput of short-run, fast-turnaround print. Vacuum zones are independently controlled and the auto zone function allows it to be easily managed by the operator. Frequently-used formats can be automatically programmed and stored in a user-created database.

Vacuum Level Monitoring

Stops the printer if the vacuum pressure is too low to hold the material securely. This helps to prevent possible damage to the print carriage when printing porous and/or materials that are not completely flat.

Easy to Use Graphical User Interface (GUI)

The multi-language capable GUI for the Onset X Series provides a powerful yet easy-to-use printer and job management tool, which allows the operator to initiate and finalise jobs as well as save settings, create print queues while managing and optimising every stage of the print process.

IncaGUI V8
Print window

Automated Side Shutters

Automated side shutters limit the effective width of the UV lamps by blocking UV, allowing substrate to be printed with reduced or no masking for UV. Controllable from the GUI, over 600 mm of shielding from one side of the table is available.

OPTIONS

Robotic Substrate Handling Systems[1]

Robot substrate handling systems provide a range of standard load and unload options to maximise versatility and throughput for your Onset X series printer, allowing 'HS' models to load and unload media up to 3.22 m x 1.6 m in size with thicknesses of up to 50 mm and 10 kg in mass. *Bespoke non-standard configurations, including multiple stack pick capability are available at additional cost to suit your premises.*

Robots can load from a laytable or loader (for '¾' or full automation operation respectively) or a single stack to *multiple-ups* on the vacuum table. Unloading from the vacuum table can be to a single stack, an inspection table, cutting table or onto stacks on a conveyor belt.

- ***'¾' Automation Single Robot with Laytable***
  Manual Load and Automated Unload
  Substrate is loaded manually onto a laytable by the operator, which is then automatically transferred by the robot onto the vacuum table. After printing, the robot removes the substrate from the table. Supports the printing of 1, 2, 3 or 4 sheets (left or right-hand justified), (manual) double-sided printing and manual operation for short runs.

- ***Full Automation Dual Robot***
  Automated Load and Unload for Material 1.5-50.0 mm thick
  Substrate is collected by the Load robot from a single stack and loaded onto the vacuum table. After printing, the Unload robot removes the substrate from the table onto an uncollated stack. Supports the printing of 1, 2 or 3 sheets.

- ***Full Automation Single Unload Robot with Hostert® Loader***
  High Volume Operation for Display, POP and Sign Markets
  The loader collects, feeds and aligns substrate from an integrated scissor lift, which is then automatically transfered by the robot onto the vacuum table. After printing, the robot removes the substrate from the table. Supports the printing of 1, 2, 3 or 4 sheets (left- or right-hand justified), (manual) double-sided printing and manual operation for short-runs.

- ***Full Automation with Integrated Flexible Loading***
  Dual Robots AND '¾' Laytable
  For optimum flexiblity, the *Dual-Flex* solution allows for loading either from a laytable or from a single stack.

Colour Channels[2]

White, lights (cyan and magenta) and orange.

'High-5' Automatic Double-Sided Printing (Dual Robot only)

Substrate can be automatically 'flipped' to enable double-sided printing, that is, substrate is passed from one robot to the other.

Adhesive Substrate Cleaner

Removes dust and contamination from the substrate during the first print pass, thereby reducing lost production due to particulates causing lost or deviated nozzles. Helps to maintain print quality, reduce substrate wastage and increase uptime.

Anti-Static System

Reduces the static generated when handling and printing on problematic material, designed to reduce substrate contamination, improve print quality and reduce waste.

IncaConnect

A powerful suite of tools to allow remote job setup, detailed production monitoring, bespoke automation, and integration into existing MIS and prepress systems. Includes IncaAccess for job and queue management, IncaViewer to visualise printer data, IncaScript to bridge gaps between printer, workflow, RIP products and MIS, and IncaAPI for access via Representational State Transfer (RESTful) web API. *Integration Examples: Esko automation engine, Switch, Direct to cut with Zund and/or custom ERP integration.*

Working with a Smaller Budget?
The original *non-HS* Onset X machines X1, X2 and X3 are still available.

[1] For further details on each system, please refer to the specific robotic system datasheet available from www.incadigital.com.

[2] For further details on machine colour configurations, please refer to the specific machine datasheet available from www.incadigital.com.

WHO ARE INCA?

Founded in 2000, Inca is an industry leader in the design, development, manufacture and servicing of inkjet printers and automation solutions for the print industry.

Inca was a spin-out company from Cambridge Consultants funded from venture capital investment. Still based in Cambridge in the UK, Inca was part of the SCREEN Group from 2005 up to 2022 when the Cambridge based Inkjet Company was acquired by the Agfa-Gevaert Group. Inca is now part of the Digital Print & Chemicals Division within the Agfa-Gevaert Group.

First to market in the early 00's with a UV flatbed printer, Inca has continued to pioneer development throughout its history. This innovative approach maintains Inca's position as a technology leader. 2007 saw the launch of the revolutionary Onset Series, which has developed over a decade, leading to the launch of the Onset X Series in 2015 and Onset X HS in 2019.

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