

OnsetX3

OnsetX3HS

Onset X3 HS builds on the trusted Onset platform to take productivity to another level

Increasing the Onset X3 productivity by over 50% to 1,450m²/hr* (equivalent to 283 full-bed sheets/hr) and providing new features enabling fast 30 second job turnaround

* Based on an approximate 4.4 second material handling time

Inca
an **AGFA** Agfa company

Features

Up to
1450

Throughput
(m²/hr)*

30s

Job Setup
Time

C Y
M K

Maximum
CMYK x3

392

Maximum
Printheads

14

Maximum
Channels

84

Printheads Per
CMYK Colour

14 40

Nominal
Drop Sizes (pL)

25

Vacuum Table
Zones

2

UV Mercury
Lamps

One Platform. Infinite Potential - Onset X3 HS enables single cycle printing pushing productivity up to 1,450m²/hr 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.

Automation Options - Utilise robotic technology to offer solutions for different production and material handling requirements and include: Laytable and Unload Robot, Hostert® Loader and Unload Robot, or Dual Robot.

30 Second Job Setup - Automated robot effectors and side shutters adjust automatically according to substrate setup, eliminating the need for manual intervention. A twenty-five zone vacuum table coupled with an autosliding skin greatly reduce the need for manual masking.

Dimatix Printheads - Deliver exceptional drop placement accuracy and reliability. Uses the 14-picolitre printhead and the white 40-picolitre recirculating printhead to provide optimum print speed and quality.

AGFA Inks - High quality range of inks to suit different applications and materials.

IncaConnect - Compatible with IncaConnect, which offers a powerful suite of tools to allow remote job setup, detailed production monitoring, bespoke automation, and integration into existing MIS and prepress systems.

Channel Configurations

C	C	C	C	C
M	M	M	M	M
Y	Y	Y	Y	Y
K	K	K	K	K
C	C	C	C	C
M	M	M	M	M
Y	Y	Y	Y	Y
K	K	K	K	K
C	C	C	C	C
M	M	M	M	M
Y	Y	Y	Y	Y
K	K	K	K	K
O	W	O	Lc	
W	W	Lm		

OnsetX3HS

FAST JUST GOT FASTER

Onset X3 HS

Increasing the Onset X3 productivity to 1,450 m²/hr

Technical Specification

Features

- High quality, high speed flatbed inkjet printing press
- Full-width printhead array and dual UV lamps
- Automated side shutters mask along table length to reduce setup time
- Automated sliding top table skin to reduce air flow through vacuum table and the need for masking on some substrates
- Customisable UV curing to achieve preferred substrate finish and optimize adhesion
- Intuitive yet powerful user interface
- Patented Print-a-Shim technology to achieve near-perfect table flatness and best possible print quality
- Twenty-five zone vacuum table includes vacuum sequencer to optimize substrate hold down
- Automatic nozzle mapping technology to eliminate effects of defective nozzles by compensating with nearby functional nozzles
- Automated printhead cleaning to protect and/or recover defective nozzles
- Substrate height detection system to monitor for obstructions that exceed the height of the substrate when printing

Media	
Max Print Size	3.22 m x 1.6 m (126.8 in x 63 in)
Max Substrate Thickness	46 mm (1.81 in), 18 mm (0.71 in) with automatic handling
Maximum Substrate Weight	20 kg (44 lb) at full table speed manual operation 80 kg (176 lb) at reduced table speed manual operation 10 kg (22 lb) using automatic handling
Types ¹	Foam PVC, PVC sheets, foamboard, corrugated cardboard, display board/cardstock, compressed cardboard, polystyrene, paper, synthetic paper, banner material, corrugated polypropylene, polycarbonate

¹ Satisfactory adhesion dependent on ink type and cure settings. List not exhaustive - check specification and test performance of media before printing - media handling is automation dependent.

Automation Options ²	
Laytable + Unload Robot (¾ automation)	Manual load of substrate onto laytable. Substrate transferred to vacuum table with Unload Robot
Hostert® Loader + Unload Robot (full automation)	Loader collects, feeds and aligns substrate. Substrate transferred to vacuum table with Unload Robot
Dual Robot (full automation)	Dedicated robots for load and unload substrate transfers
Dual-Flex (full automation with integrated flexible loading)	Fully integrated laytable for flexible and rigid material loading with robot unload AND full automation with dual robots loading and unloading

² Please refer to separate datasheets for further details on available robot substrate handling systems.

Printing			
Printheads per CMYK Colour	84	Technology	Piezoelectric DOD inkjet
Nominal Printhead Drop Sizes	14 pL	White Only	40 pL
Configurations	3 x CMYK 3 x CMYK plus a choice of Lc, Lm, W and O		
Finishes	2 x UV lamps with user-defined UV configurations to provide satin and variable gloss finishes		

Productivity ³ (l/hr)				
Mode	Finish	Beds	m ²	ft ²
2 pass	Satin	283	1,449	15,597
3 pass ⁴	Gloss	160	819	8,816
4 pass	Satin	213	1,091	11,743
5 pass ⁴	Gloss	137	701	7,546
6 pass	Satin	160	819	8,816

³ Productivity up to the quoted values is based on an approximate 4.4 second material handling time using 14pL printheads and a Relative Ink Density (RID) of 100%. Image and substrate dependent to achieve satisfactory curing.

⁴ Gloss curing based on one 800mm/s curing pass.

Inks and Curing			
Ink	AGFA inks	Colours	Cyan, yellow, magenta, black, light cyan, light magenta, white and orange
Curing	Dual mercury lamps	Outdoor Durability	Up to 2 years UV with fade and water resistance

RIP (not included with machine)	
Software Options	ColorGATE® Production Server, Caldera GrandRIP+, PrintFactory™ and ONYX™
Input Formats	Most popular graphic file formats including PostScript, EPS, TIFF, PSD, PDF, and JPG. RIP whilst printing, queuing and double sided

Environment	Temperature	Humidity ⁵
	20-30°C / 68-86°F Ambient	45-80% RH (non-condensing)

⁵ Print quality can be affected by relative humidity (RH). When below 45% RH, printing on some plastics may require additional cleaning. In addition, anti-static bars (when fitted) will become less effective below 45% RH.

Power Consumption	Idle	Shutdown	Printing
	10 kW (UV lamps on standby, vacuum pump at 30Hz, printheads and heaters on)	1.72 kW (controls, printheads and heaters on)	36 kW (satin mode)

Physical Characteristics (machine only)						
Dimensions	Length	12.48 m (491.5 in)	Width	4.43 m (174.5 in)	Height	2.2 m (86.6 in)
Footprint	15.04 m x 5.93 m (592.1 in x 233.5 in) including space for exclusion zones, door opening and access. Excludes automation.					
Weight	7,800 kg (17,196 lb), 5,800 kg (12,787 lb) max. lift weight (uncrated)					

Services (machine only)	
Machine Power	Rated voltage: 400 VAC; 3-phase and Protective Earth/Ground; 125 A per phase. Supply voltage tolerance: 380-480 VAC. 300 mA earth leakage protection required in some regions
Chiller Power	3-phase; 380-480 VAC, 50/60 Hz, supplied via 30 Amp circuit breaker
Chilled Coolant Supply ⁶	28±5°C at max 5 bar, 30 litres/minute, min. 18.5 kW capacity (above dew point)
Compressed Air	Printer only - 6 Bar, 0.3 m ³ /minute, ISO8573.1: Class 1.4.1
Network	Minimum 1000 Base T

⁶ To ensure adequate corrosion protection, all chillers (internal/external) must be filled with a concentration of 25% Havoline® XLC Concentrate (or 50% if XLC 50/50 is used).

While every reasonable effort has been made to ensure the accuracy and appropriateness of the content of this document, Inca Digital Printers Limited cannot be held responsible for any errors, omissions or consequential loss/damage howsoever caused. The information supplied is subject to change without notice due to on-going design improvement and a unit may differ in detail from that described.

OnsetX2

OnsetX2HS

Onset X2 HS builds on the trusted Onset platform to take productivity to another level

Increasing the Onset X2 productivity to 835 m²/hr* (equivalent to 163 full-bed sheets/hr) and providing new features enabling fast 30 second job turnaround

* Based on an approximate 4.4 second material handling time

Inca
an **AGFA** company

Features

Up to
835

Throughput
(m²/hr)*

30s

Job Setup
Time

C Y
M K

Maximum
CMYK x2

392

Maximum
Printheads

14

Maximum
Channels

56

Printheads Per
CMYK Colour

14 40

Nominal
Drop Sizes (pL)

25

Vacuum Table
Zones

2

UV Mercury
Lamps

One Platform. Infinite Potential - Onset X2 HS enables printing of up to 835 m²/hr 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.

Automation Options - Utilise robotic technology to offer solutions for different production and material handling requirements and include: Laytable and Unload Robot, Hostert® Loader and Unload Robot, or Dual Robot.

30 Second Job Setup - Automated robot effectors and side shutters adjust automatically according to substrate setup, eliminating the need for manual intervention. A twenty-five zone vacuum table coupled with an autosliding skin greatly reduce the need for manual masking.

Dimatix Printheads - Deliver exceptional drop placement accuracy and reliability. Uses the 14-picolitre printhead and the white 40-picolitre recirculating printhead to provide optimum print speed and quality.

AGFA Inks - High quality range of inks to suit different applications and materials.

IncaConnect - Compatible with IncaConnect, which offers a powerful suite of tools to allow remote job setup, detailed production monitoring, bespoke automation, and integration into existing MIS and prepress systems.

Channel Configurations

C	C	C	C	C	C	C	C
M	M	M	M	M	M	M	M
Y	Y	Y	Y	Y	Y	Y	Y
K	K	K	K	K	K	K	K
C	C	C	C	C	C	C	C
M	M	M	M	M	M	M	M
Y	Y	Y	Y	Y	Y	Y	Y
K	K	K	K	K	K	K	K
	W	W	Lc	W	Lc	Lc	Lc
		W	Lm	W	Lm	Lm	Lm
			Lc	O	Lc	Lc	W
				Lm	O	Lm	W
					W	O	O
						W	O

OnsetX2HS

FAST JUST GOT FASTER

Onset X2 HS

Increasing the Onset X2 productivity to 835 m²/hr

Technical Specification

Features

- High quality, high speed flatbed inkjet printing press
- Full-width printhead array and dual UV lamps
- Automated side shutters mask along table length to reduce setup time
- Automated sliding top table skin to reduce air flow through vacuum table and the need for masking on some substrates
- Customisable UV curing to achieve preferred substrate finish and optimize adhesion
- Intuitive yet powerful user interface
- Patented Print-a-Shim technology to achieve near-perfect table flatness and best possible print quality
- Twenty-five zone vacuum table includes vacuum sequencer to optimize substrate hold down
- Automatic nozzle mapping technology to eliminate effects of defective nozzles by compensating with nearby functional nozzles
- Automated printhead cleaning to protect and/or recover defective nozzles
- Substrate height detection system to monitor for obstructions that exceed the height of the substrate when printing

Media	
Max Print Size	3.22 m x 1.6 m (126.8 in x 63 in)
Max Substrate Thickness	46 mm (1.81 in), 18 mm (0.71 in) with automatic handling
Maximum Substrate Weight	20 kg (44 lb) at full table speed manual operation 80 kg (176 lb) at reduced table speed manual operation 10 kg (22 lb) using automatic handling
Types ¹	Foam PVC, PVC sheets, foamboard, corrugated cardboard, display board/cardstock, compressed cardboard, polystyrene, paper, synthetic paper, banner material, corrugated polypropylene, polycarbonate

¹ Satisfactory adhesion dependent on ink type and cure settings. List not exhaustive - check specification and test performance of media before printing - media handling is automation dependent.

Automation Options ²	
Laytable + Unload Robot ('¾' automation)	Manual load of substrate onto laytable. Substrate transferred to vacuum table with Unload Robot
Hostert® Loader + Unload Robot (full automation)	Loader collects, feeds and aligns substrate. Substrate transferred to vacuum table with Unload Robot
Dual Robot (full automation)	Dedicated robots for load and unload substrate transfers
Dual-Flex (full automation with integrated flexible loading)	Fully integrated laytable for flexible and rigid material loading with robot unload AND full automation with dual robots loading and unloading

² Please refer to separate datasheets for further details on available robot substrate handling systems.

Printing			
Printheads per CMYK Colour	56	Technology	Piezoelectric DOD inkjet
Nominal Printhead Drop Sizes	14 pL	White Only	40 pL
Configurations	2 x CMYK or 2 x CMYK plus up to six from Lc, Lm, W and O		
Finishes	2 x UV lamps with user-defined UV configurations to provide satin and variable gloss finishes		

Productivity ³ (/hr)					
Mode	Finish	Beds	m ²	ft ²	
6 pass	Satin	163	835	8,988	
	Gloss	102	522	5,619	
8 pass	Satin	120	614	6,609	

³ Productivity up to the quoted values is based on an approximate 4.4 second material handling time using 14pL printheads and a Relative Ink Density (RID) of 100%. Image and substrate dependent to achieve satisfactory curing.

Want to print at up to 1,450 m²/hr? **Onset X3 HS**

Inks and Curing			
Ink	AGFA inks	Colours	Cyan, yellow, magenta, black, light cyan, light magenta, white and orange
Curing	Dual mercury lamps	Outdoor Durability	Up to 2 years UV with fade and water resistance

RIP (not included with machine)	
Software Options	ColorGATE® Production Server, Caldera GrandRIP+, PrintFactory™ and ONYX™
Input Formats	Most popular graphic file formats including PostScript, EPS, TIFF, PSD, PDF, and JPG. RIP whilst printing, queuing and double sided

Environment	Temperature	Humidity ⁴
	20-30°C / 68-86°F Ambient	45-80% RH (non-condensing)

⁴ Print quality can be affected by relative humidity (RH). When below 45% RH, printing on some plastics may require additional cleaning. In addition, anti-static bars (when fitted) will become less effective below 45% RH.

Power Consumption	Idle	Shutdown	Printing
	9.1 kW (UV lamps on standby, vacuum pump at 30Hz, printheads and heaters on)	1.72 kW (controls, printheads and heaters on)	27 kW (satin mode)

Physical Characteristics (machine only)						
Dimensions	Length	12.48 m (491.5 in)	Width	4.43 m (174.5 in)	Height	2.2 m (86.6 in)
	Footprint	15.04 m x 5.93 m (592.1 in x 233.5 in) including space for exclusion zones, door opening and access. Excludes automation.				
Weight	7,800 kg (17,196 lb), 5,800 kg (12,787 lb) max. lift weight (uncrated)					

Services (machine only)	
Machine Power	Rated voltage: 400 VAC; 3-phase and Protective Earth/Ground; 125 A per phase. Supply voltage tolerance: 380-480 VAC. 300 mA earth leakage protection required in some regions
Chiller Power	3-phase; 380-480 VAC, 50/60 Hz, supplied via 30 Amp circuit breaker
Chilled Coolant Supply ⁵	28±5°C at max 5 bar, 30 litres/minute, min. 18.5 kW capacity (above dew point)
Compressed Air	Printer only - 6 Bar, 0.3 m ³ /minute, ISO8573.1: Class 1.4.1
Network	Minimum 1000 Base T

⁵ To ensure adequate corrosion protection, all chillers (internal/external) must be filled with a concentration of 25% Havoline® XLC Concentrate (or 50% if XLC 50/50 is used).

While every reasonable effort has been made to ensure the accuracy and appropriateness of the content of this document, Inca Digital Printers Limited cannot be held responsible for any errors, omissions or consequential loss/damage howsoever caused. The information supplied is subject to change without notice due to on-going design improvement and a unit may differ in detail from that described.

Onset X1

Onset X1 HS

Onset X1 HS builds on the trusted Onset platform bringing together productivity and quality

Capable of printing at up to 600 m²/hr* (equivalent to 120 full-bed sheets/hr) with one set of CMYK

* Based on an approximate 4.4 second material handling time

Inca
an **AGFA** company

Features

Up to
600

Throughput
(m²/hr)*

Up to
120

Throughput
(beds/hr)*

C Y
M K

Maximum
CMYK x1

224

Maximum
Printheads

8

Maximum
Channels

28

Printheads Per
CMYK Colour

14 40

Nominal
Drop Sizes (pL)

25

Vacuum Table
Zones

2

UV Mercury
Lamps

One Platform. Infinite Potential - With a maximum throughput of up to 600 m²/hr* (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).

Automation Options - Utilise robotic technology to offer solutions for different production and material handling requirements and include: Laytable and Unload Robot, Hostert® Loader and Unload Robot, or Dual Robot.

Dimatix Printheads - Deliver exceptional drop placement accuracy and reliability. Uses the 14-picolitre printhead and the white 40-picolitre recirculating printhead to provide optimum print speed and quality.

AGFA Inks - High quality range of inks to suit different applications and materials.

IncaConnect - Compatible with IncaConnect, which offers a powerful suite of tools to allow remote job setup, detailed production monitoring, bespoke automation, and integration into existing MIS and prepress systems.

Channel Configurations

C	C	C	C	C	C	C	C
M	M	M	M	M	M	M	M
Y	Y	Y	Y	Y	Y	Y	Y
K	K	K	K	K	K	K	K
W	O	W	Lc	W	Lc	Lc	Lc
		W	Lm	W	Lm	Lm	Lm
				O	O	W	W

Onset X1 HS

FAST JUST GOT FASTER

Onset X1 HS

Capable of printing at up to 600 m²/hr with one set of CMYK

Technical Specification

Want to print at up to 835 m²/hr? **Onset X2HS**

Features

- High quality, high speed flatbed inkjet printing press
- Full-width printhead array and dual UV lamps
- Automated side shutters mask along table length to reduce setup time
- Automated sliding top table skin to reduce air flow through vacuum table and the need for masking on some substrates
- Customisable UV curing to achieve preferred substrate finish and optimize adhesion
- Intuitive yet powerful user interface
- Patented Print-a-Shim technology to achieve near-perfect table flatness and best possible print quality
- Twenty-five zone vacuum table includes vacuum sequencer to optimize substrate hold down
- Automatic nozzle mapping technology to eliminate effects of defective nozzles by compensating with nearby functional nozzles
- Automated printhead cleaning to protect and/or recover defective nozzles
- Substrate height detection system to monitor for obstructions that exceed the height of the substrate when printing

Media	
Max Print Size	3.22 m x 1.6 m (126.8 in x 63 in)
Max Substrate Thickness	46 mm (1.81 in), 18 mm (0.71 in) with automatic handling
Maximum Substrate Weight	20 kg (44 lb) at full table speed manual operation 80 kg (176 lb) at reduced table speed manual operation 10 kg (22 lb) using automatic handling
Types ¹	Foam PVC, PVC sheets, foamboard, corrugated cardboard, display board/cardstock, compressed cardboard, polystyrene, paper, synthetic paper, banner material, corrugated polypropylene, polycarbonate

¹ Satisfactory adhesion dependent on ink type and cure settings. List not exhaustive - check specification and test performance of media before printing - media handling is automation dependent.

Automation Options ²	
Laytable + Unload Robot (¾ automation)	Manual load of substrate onto laytable. Substrate transferred to vacuum table with Unload Robot
Hostert® Loader + Unload Robot (full automation)	Loader collects, feeds and aligns substrate. Substrate transferred to vacuum table with Unload Robot
Dual Robot (full automation)	Dedicated robots for load and unload substrate transfers
Dual-Flex (full automation with integrated flexible loading)	Fully integrated laytable for flexible and rigid material loading with robot unload AND full automation with dual robots loading and unloading

² Please refer to separate datasheets for further details on available robot substrate handling systems.

Printing			
Printheads per CMYK colour	28	Technology	Piezoelectric DOD inkjet
Nominal Printhead Drop Sizes	14 pL	White Only	40 pL
Configurations	1 x CMYK or 1 x CMYK plus up to four from Lc, Lm, W and O		
Finishes	2 x UV lamps with user-defined UV configurations to provide satin and variable gloss finishes		

Productivity ³ (/hr)					
Mode	Finish	Beds	m ²	ft ²	
8 pass	Satin	120	600	6,458	
	Gloss	86	440	4,736	
10 pass	Satin	95	486	5,231	
	Gloss	73	374	4,026	
12 pass	Satin	90	461	4,962	
	Gloss	67	343	3,692	
12 pass (High Quality)	Satin	74	379	4,080	
	Gloss	60	307	3,305	

³ Productivity up to the quoted values is based on an approximate 4.4 second material handling time using 14pL printheads and a Relative Ink Density (RID) of 100%. Image and substrate dependent to achieve satisfactory curing.

Inks and Curing			
Ink	AGFA inks	Colours	Cyan, yellow, magenta, black, light cyan, light magenta, white and orange
Curing	Dual mercury lamps	Outdoor Durability	Up to 2 years UV with fade and water resistance

RIP (not included with machine)	
Software Options	ColorGATE® Production Server, Caldera GrandRIP+, PrintFactory™ and ONYX™
Input Formats	Most popular graphic file formats including PostScript, EPS, TIFF, PSD, PDF, and JPG. RIP whilst printing, queuing and double sided

Environment	Temperature	Humidity ⁴
	20-30°C / 68-86°F Ambient	45-80% RH (non-condensing)

⁴ Print quality can be affected by relative humidity (RH). When below 45% RH, printing on some plastics may require additional cleaning. In addition, anti-static bars (when fitted) will become less effective below 45% RH.

Power Consumption	Idle	Shutdown	Printing
	9.1 kW (UV lamps on standby, vacuum pump at 30Hz, printheads and heaters on)	1.72 kW (controls, printheads and heaters on)	27 kW (satin mode)

Physical Characteristics (machine only)						
Dimensions	Length	12.48 m (491.5 in)	Width	4.43 m (174.5 in)	Height	2.2 m (86.6 in)
	Footprint	15.04 m x 5.93 m (592.1 in x 233.5 in) including space for exclusion zones, door opening and access. Excludes automation.				
Weight	7,800 kg (17,196 lb), 5,800 kg (12,787 lb) max. lift weight (uncrated)					

Services (machine only)	
Machine Power	Rated voltage: 400 VAC; 3-phase and Protective Earth/Ground; 125 A per phase. Supply voltage tolerance: 380-480 VAC. 300 mA earth leakage protection required in some regions
Chiller Power	3-phase; 380-480 VAC, 50/60 Hz, supplied via 30 Amp circuit breaker
Chilled Coolant Supply ⁵	28±5°C at max 5 bar, 30 litres/minute, min. 18.5 kW capacity (above dew point)
Compressed Air	Printer only - 6 Bar, 0.3 m ³ /minute, ISO8573.1: Class 1.4.1
Network	Minimum 1000 Base T

⁵ To ensure adequate corrosion protection, all chillers (internal/external) must be filled with a concentration of 25% Havoline® XLC Concentrate (or 50% if XLC 50/50 is used).

While every reasonable effort has been made to ensure the accuracy and appropriateness of the content of this document, Inca Digital Printers Limited cannot be held responsible for any errors, omissions or consequential loss/damage howsoever caused. The information supplied is subject to change without notice due to on-going design improvement and a unit may differ in detail from that described.