Powerful by nature.

ONSET
PANTHERA
FB3216

Type	Flatbed
Speed	➔ ➔ ➔ ➔ ➔
Width	Up to 322 x 160 cm – 127 x 63"
Colors	3x CMYK | Optional white
Automation	Yes

With the speed of its namesake, the Panthera sweeps through print jobs, ready to strike with fierce precision. Designed for both graphics and packaging, this true flatbed press effortlessly adapts to every demand, mastering high volumes with smart automation. Its advanced LED curing ensures a wide color gamut, stunning high-gloss prints, high productivity and minimal energy use.

Rely on the power of the Panthera to leap ahead.

AGFA Agfa

> A beast for every need

Whatever environment you operate in, whatever your markets or applications, whether seeking high productivity, quality, or versatility, we have the right beast for you.
Our inkjet printers are powerful by nature, each with unique strengths built into its design.
These beasts will deliver impressive results without compromise, boosting your business.

m²/h
ft²/h

printer Speed

7000 75,347 — **SpeedSet Orca 1060** | sheetfed water-based inkjet printer →→→→→→→

1500 16,146

ONSET
PANTHERA FB3216

→→→→→

> Flatbed inkjet press
> Up to 1,514 m²/h – 16,297 ft²/h*
> Up to 322 x 160 cm – 127 x 63"
> 3 x CMYK | Optional white
> Automatable

* Subject to change

> Leap ahead

1300 13,993 — **Jeti Tauro H3300** | hybrid →→→→→

700 7,535 — **Jeti Condor RTR5200** | roll-to-roll →→→→

300 3,229 — **Jeti Bronco H3300** | hybrid →→

Avinci CX3200 textile printer | roll-to-roll textile →→

Oberon RTR3300 | roll-to-roll →→

200 2,152 — **Anapurna Ciervo H3200** | hybrid →→

Anapurna Ciervo Family | hybrid →→

Anapurna RTR3200 | roll-to-roll →

100 1,076 — **Anapurna FB2540** | flatbed →

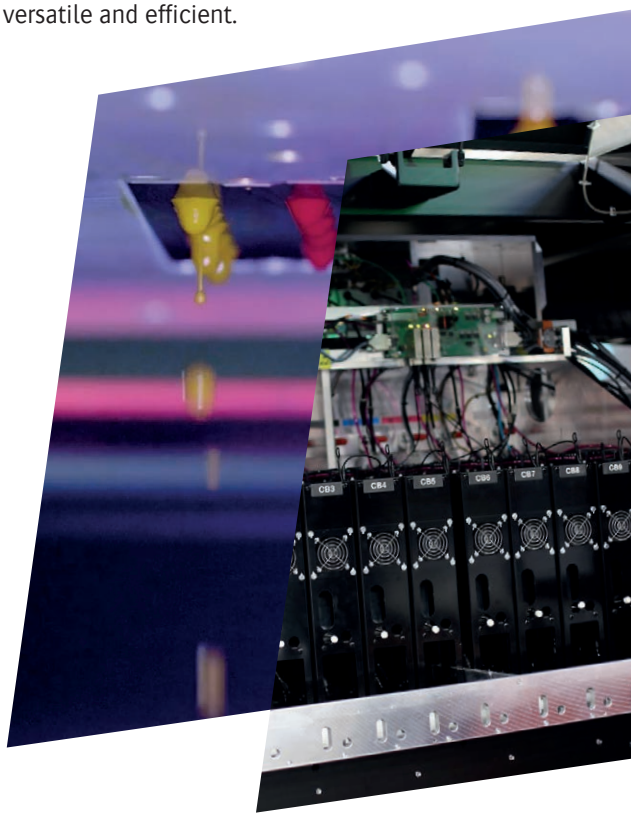
> Why Agfa

Inkjet experts

We are a leading company in imaging technology and IT solutions with over 150 years of experience. We have been developing and manufacturing state-of-the-art inkjet printing systems for over two decades, empowering print service providers to become both more versatile and efficient.

Best cost of ownership

Inks, print heads, substrates, and color management software are perfectly tuned to each other to guarantee spot-on print quality, reliable production, low consumable usage and limited maintenance. In sum: we guarantee you the best possible cost of ownership.



One-stop shop

Opt for peace of mind with a complete solution from a single supplier: printer, software, inks, service and support. We even offer attractive financing options.

Spot-on inks

- Large color gamut and high vibrancy
- Low ink consumption thanks to Thin Ink Layer technology
- Reliable jetting & batch-to-batch consistency
- Resistant to wear and tear
- Highly opaque white
- Primer option for difficult media
- Compliant with health & environment standards, including GREENGUARD Gold

Asanti workflow & color management

- Streamlines the printing process from prepress to production
- Guarantees error-free job handling and consistent color reproduction
- Parameter-based Calibrated Print Modes enable automatic job creation
- Production Dashboard offers overview of job status, and ink and media consumption
- Includes latest Adobe PDF Print Engine

More software options:

- **Asanti StoreFront**
  cloud-based web-to-print solution
- **PrintSphere**
  cloud-based file sharing
- **PrintTune**
  print standardization

World-class training and support

- Expert support worldwide minimizes downtime with fast response times and remote troubleshooting capabilities
- Comprehensive training during setup and production, tailored to your needs
- Your feedback shapes our partnership

Find your local sales & support team: **www.agfa.com/printing/worldwide**

> Why the Panthera is the right beast for you

The Onset Panthera is the only true flatbed high-productivity inkjet printer in the market, combining phenomenal throughput with consistently great print quality.

- > Heavy-duty build for 24/7 printing with impressive productivity and print quality
- > Versatile printer: tackles sign & display, as well as packaging jobs on wide range of materials
- > Page-wide system eliminates bidirectional pass build-up for smoother, banding-free prints
- > 30-second job setup thanks to automated robot end effectors and UV lamp shutters, plus advanced vacuum table technology
- > Multiple automation options – including loaders and robots – for different production and material handling requirements
- > Wide color gamut and high-gloss modes for extra impactful prints
- > LED curing: instant-on efficiency, lower energy use and reduced environmental impact

High-volume applications

Onset is ideal for companies producing a mix of fast-turnaround POS and retail graphics, as well as corrugated POP display and packaging up to 3.22 x 1.6 m (126.8 x 63”), and with a weight/thickness ranging from 200 g/m² coated paper to 46 mm thick board.

Retail POS graphics

Retail graphics are pivotal in business visual communication strategies, attracting and engaging customers. **Signage, displays, banners**, and more convey **brand identity and promote products**. Through bold typography, vibrant imagery, and strategic placement, they captivate attention and drive sales.

Corrugated POP displays

Direct-to-board corrugated displays are crucial in retail, offering versatile **product showcases**. They’re **durable and flexible**, featuring vibrant graphics for effective promotion. **Lightweight and easy to assemble**, they adapt to temporary or permanent fixtures, aiding retailers in meeting evolving marketing needs.

Corrugated packaging

Corrugated packaging ensures **strength, durability, and customization** for various products. It safeguards items during transit and offers **branding opportunities** through printed logos and product info. Recognized for **sustainability**, it lets businesses reduce environmental impact.

“The operatives find the automation excellent. With complete automation you eliminate the time you lose by someone manually feeding a machine. Also, manually feeding cardboard onto a printing machine can get very intensive: some of the boards are 1.5 x 2.8 m and the operative must lift 4-5 boards at a time, so automation is a lot better in that respect too.”

> N Smith, UK

“We’ve run everything from corrugate displays to SBS paperboard projects. We’ve also noticed quite an uptick in business for brands and retailers. The Onset has increased our ability to turn these projects around much quicker and more cost-effectively.”

> Flower City Group, USA

“The new Onset we welcomed is the 6th since 2012. We renew the machines every 3-4 years. They run in 3x8 shifts. It’s a real technological continuity that satisfies us. We are very happy with Agfa’s technical service, and we are very pleasantly surprised by the decrease in ink consumption.”

> SDPS Poinçon, France

> LED curing: boosting quality, productivity, and sustainability

With LED curing technology, the Onset Panthera takes high-end flatbed printing to the next level. You get faster production, lower energy costs, and stunning print quality—all while reducing your environmental impact.

Expand your color range, achieve vibrant results

The Onset Panthera enables you to achieve a wide color gamut with powerful reds and purples, and precise details. It also effortlessly manages to bring hard-to-reach colors such as Pantone 485 into gamut. Whether you're producing eye-catching signage or high-end display graphics, you can count on consistent, stunning results.

Unparalleled high-gloss finishing

With LED curing, the Onset Panthera delivers exceptional high-gloss modes, giving prints a premium, polished look. This capability makes a real difference for applications where visual impact matters, from luxury packaging to high-quality retail displays. Even spot varnish can be emulated by combining high-gloss and satin printing modes—at a phenomenal speed of more than 800 m^2/h (8,611.1ft^2/h).

Increase productivity, reduce downtime

LED lamps turn on and off instantly, eliminating warm-up time and increasing operational efficiency. So not only is the gloss higher with the Panthera, it is also laid down and cured faster. That means a 2-pass high-gloss 'Production Mode' print delivers sellable quality, helping you meet tight deadlines with ease.

Cut energy costs, print sustainably

Because LED lamps can be turned on and off instantaneously, they consume no energy during returning passes, load/unload cycles, or while waiting for the next job. By using up to 60% less power than previous Onset printers with bulb curing during printing—and up to 80% less in standby mode—the Panthera significantly lowers operational costs while reducing your carbon footprint. Additionally, LED lamps last up to 10,000 hours, eliminating the need for frequent bulb replacements and thus reducing standstill time for maintenance. With no hazardous mercury or ozone emissions, LED curing is also a safer and more sustainable technology.

Existing Onset printers (54K serial numbers) can be upgraded with the LED curing option. Talk to your sales & service team for all details.

Unique LED concept

The Onset Panthera's LED curing process ensures efficient, high-quality results through a staged approach. With two LED units at the front and one at the rear, each printed layer is cured in multiple steps, allowing for consistent drying and strong adhesion. This controlled curing sequence optimizes efficiency, **and results in a wider color gamut and higher gloss modes, while saving energy.**

Inks tuned to your needs

As an Onset Panthera user, you will have the option to choose between different inks, depending on the type of application you print most.

> Sweep through workloads

Onset Panthera FB3216

> PRINT ENGINE TECHNOLOGY

Shuttle safety sensors

Height detectors mounted on both the leading and trailing edge of the print carriage avoid damage.

Full-width print carriage

The print carriage is equipped with print heads over the full width of the vacuum bed. This creates the unique advantage that the full bed is printed in one pass, eliminating the risk of bi-directional artefacts. Multiple bed movements are used to boost the resolution and thus image quality. Express mode using 2 passes takes under 9 seconds.

Printhead cleaning station

Two automated cleaning stations, each covering half the print carriage, take care of both wet and dry cleans of the printheads when needed.

Automated nozzle mapping

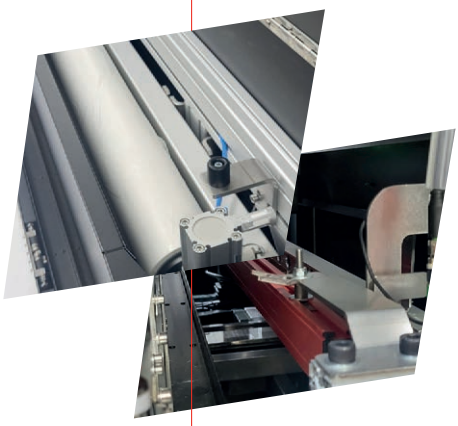
Calculates the best alternative nozzles and carriage offset to use between passes. It automatically remaps nozzle usage in case of a missing nozzle, eliminating the risk of print artefacts.

Substrate dust prevention

Dust prevention devices reduce the number of lost nozzles and waste, ensure consistent print quality and increase machine uptime.

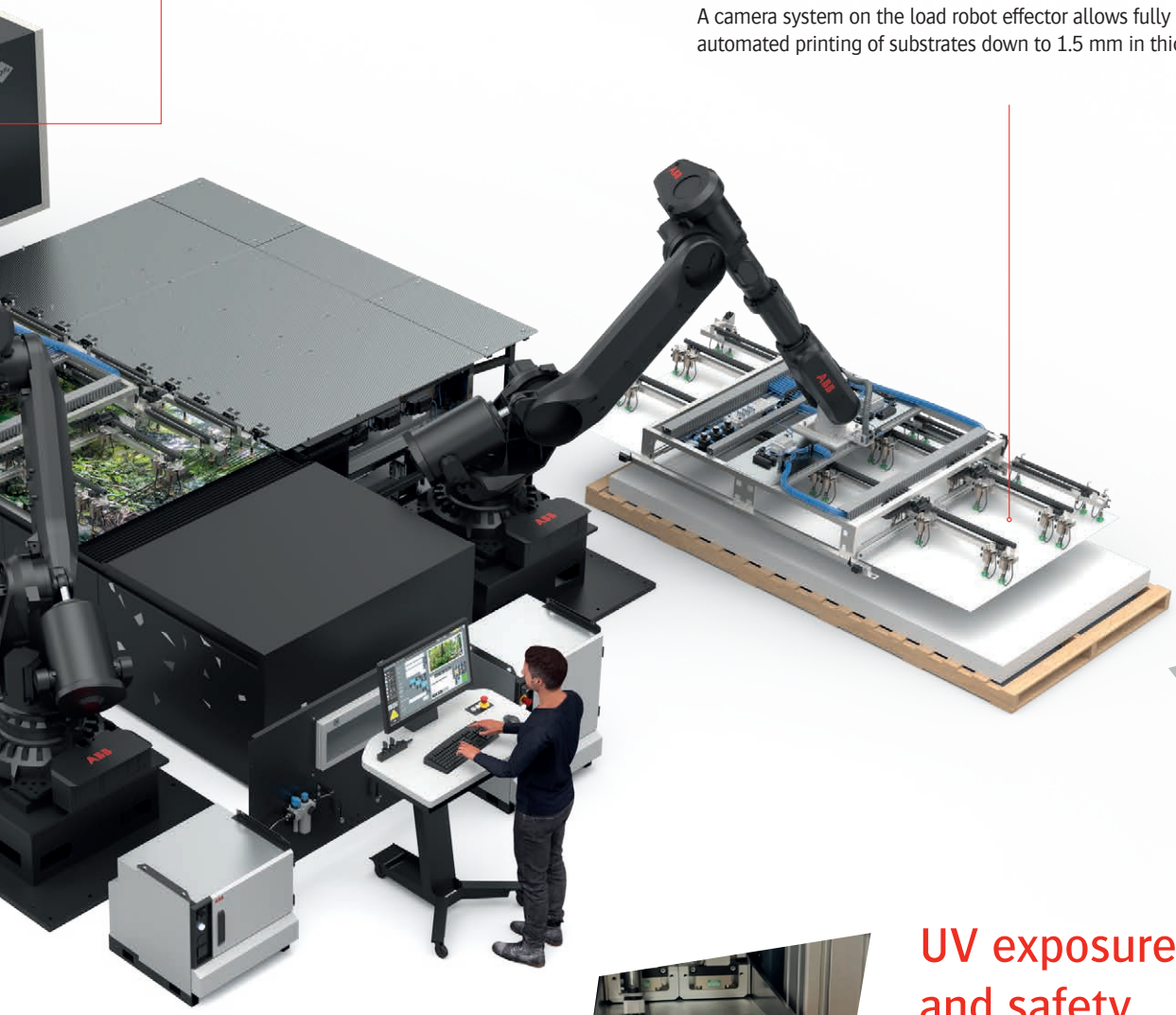
> Two **ionizer bars** on the print carriage on the outer side of each UV lamp remove static electricity.

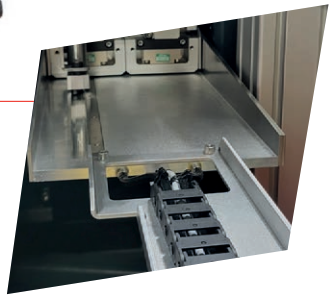
> The optional **adhesive substrate cleaner** fitted to the front of the gantry removes dust and other contamination from the substrate during the first print pass.



Accurate substrate pick-up

A camera system on the load robot effector allows fully automated printing of substrates down to 1.5 mm in thickness





UV exposure and safety

Different automated features control the UV light to warrant both safety and printhead life.

> **Sliding shutters** on the sides of the LEDs limit exposure to the width of printed area.

> The vacuum table includes light dumps (black light traps) to minimise stray reflections.

Accurate substrate placement

The robots have outstanding position and movement control for loading to the table and unloading to the stack with a ±1 mm accuracy.

> Sweep through workloads

Onset Panthera FB3216

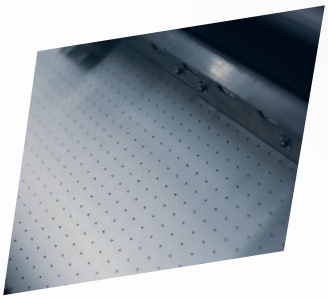
> FLATBED TABLE TECHNOLOGY

Print-a-shim

A patented system creates a custom 'shim' to ensure perfect flatness of the vacuum table.

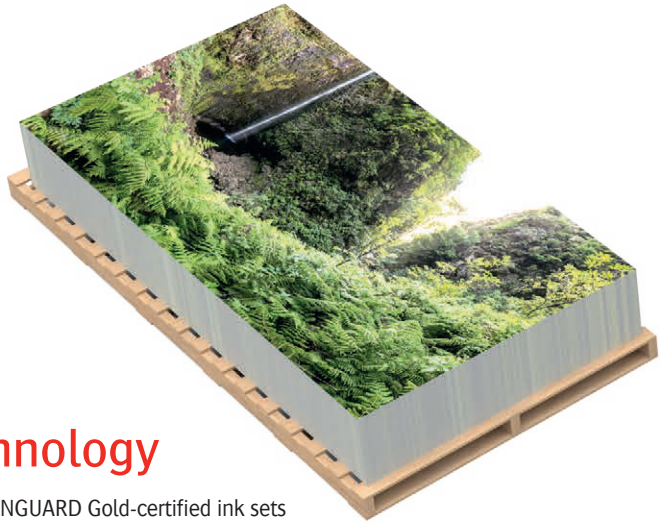
Table before scan

Table after scan



Powerful vacuum table

The vacuum table has 25 independently controlled zones to minimize masking requirements. The zones are set automatically by the GUI depending on the number, size and position of the substrate sheets. A manual override is possible.

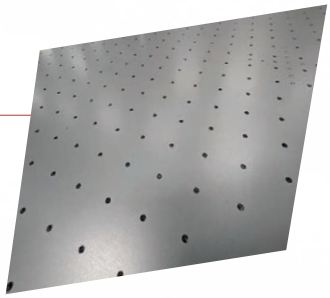


Ink technology

- > Multiple GREENGUARD Gold-certified ink sets
- > Optimal saturation and coverage with limited ink volumes thanks to Agfa's unique pigment dispersion technology.
- > A wider color gamut than the standard CMYK space in gloss mode, enabling you to hit even notoriously difficult colors such as Pantone 485C red
- > Superior print quality with sharp dot edges, fine details, and smooth solids
- > Excellent flexibility, adhesion and scratch resistance
- > Satin or gloss finish

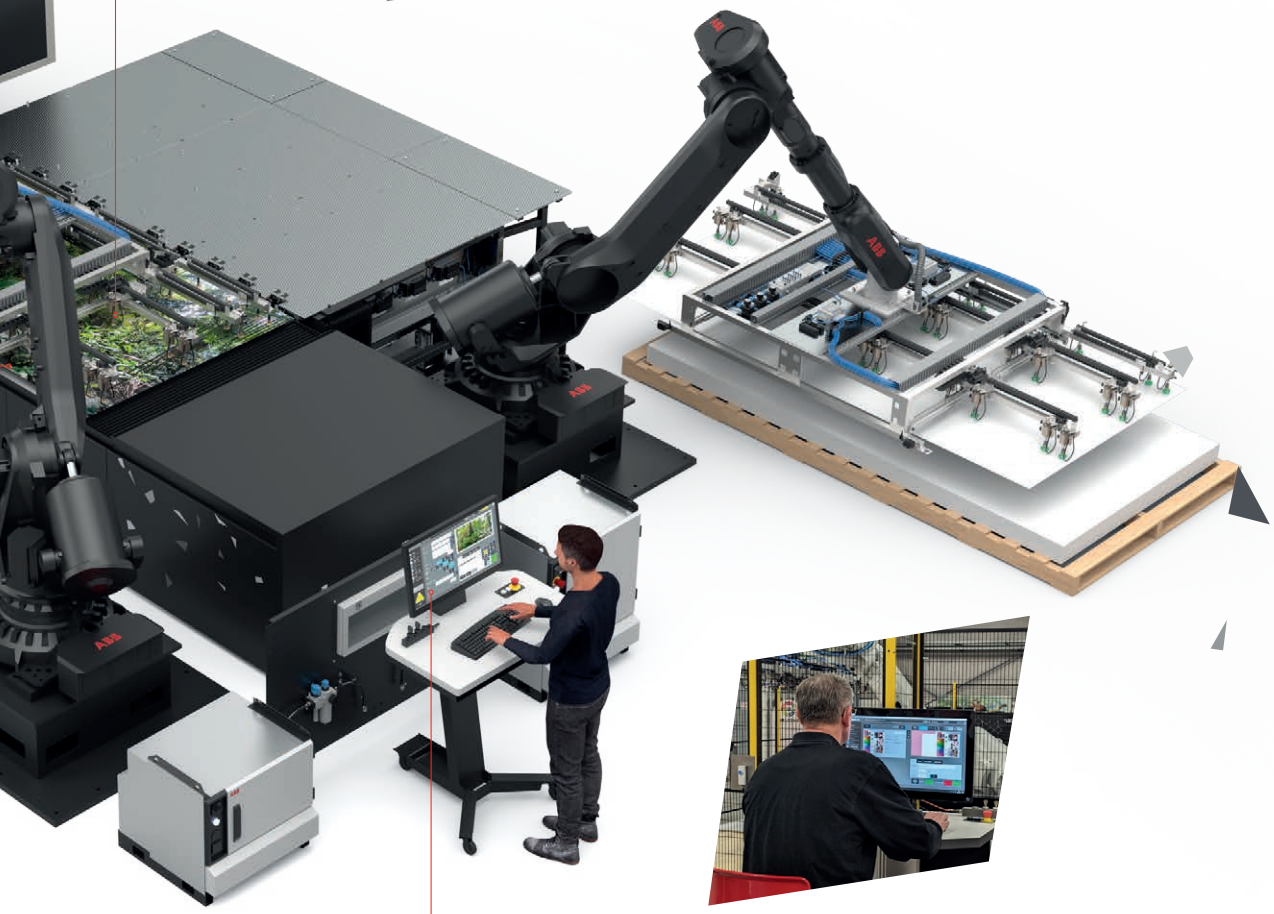
Safety system

- Breaking the load & unload area infra-red light curtains stops printer and robot operation
- Laser scanning system monitors motion and presence of obstacles
- Protective hard guarding prevents incursion into the load/unload areas
- Emergency stop
- Fixed guards and doors on all equipment



Sliding skin

A second movable table skin fitted on top of the main skin ensures optimal hold-down without masking of the vacuum – also for non-porous substrates. Saving the settings of this skin enables fast job setup.



Operator console

All operations are controlled from a single, movable console featuring a 27" touch-screen monitor. An easy-to-use graphic user interface lets the operator control the printer's setup, optimize material handling and follow up print jobs.

Stay in control with AgfaHub

Monitor your Panthera printer's performance in real time with this web-based tool. Track ink consumption, job status, and potential errors across single or multiple engines, all from your browser. AgfaHub seamlessly integrates with ERP/MIS systems and other RIP software for streamlined operations.

> Configurations

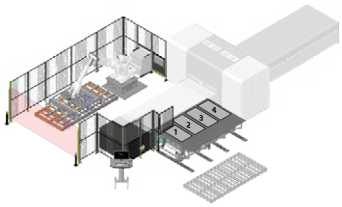
Manual

Both loading and unloading are done manually.

Automated

There are several automation configurations for materials up to 18 mm thick and with a maximum weight of 10 kg. The choice for a particular configuration will depend on your substrate usage requirements.

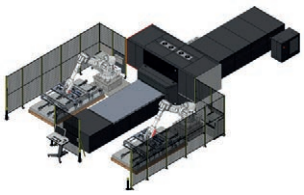
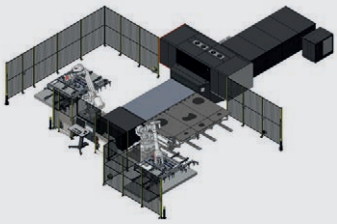
¾ automation: laytable + unload robot



The 3/4-automated operation mode enables printing of a large range of flexible materials using manual loading.

The laytable is used to manually position up to four sheets ready for transfer to the vacuum table by the unload robot. For fully manual loading, the laytable can be unlocked and rolled back.

Full automation for maximum versatility

Autoloader + unload robot	Loading & unloading robots	Dual-flex: laytable for flexible loading + dual robots
		
> The autoloader can handle material from 0.1 mm (100µm)-which make handling of sheets/ thin material possible-and up to 18mm thick and up to 10 kg in weight > The autoloader matches the highest throughput speed of the printer > Up to four sheets can be positioned ready for transfer to the vacuum table by the unload robot. > Ideal for handling B1 format sheets in 4-up mode, producing more than 1,000 sheets/hour > Customizable setup	> Robots accurately load the substrate from a single stack to 1-, 2- or 3-up on the vacuum table and unload it to a pallet > Automated end effectors, and optimised robot and printer synchronisation minimise job change-over time > Customizable setup	> The Dual-Flex configuration combines a laytable with the dual-robot mode > Customizable setup

Smooth substrate handling

> A camera system on the load robot effector allows fully automated printing of substrates down to 1.5 mm in thickness
> Optional load effector upgrades optimize sheet separation for problematic substrates

High five! Automated double-sided printing

Fully automated and accurate double-sided printing for substrates up to 5 kg is supported by the optional ‘High-5’ function.

Strike with precision

Awards

20 PINNACLE PRODUCT AWARD 24

Onset Grizzly X HS Autoloader
Material handling equipment category

•

Onset 560 ink set (CMYK+W)
Digital inks UV

20 PINNACLE PRODUCT AWARD 23

Onset X3 HS Dual Flex High 5
Material handling equipment category

•

Onset 560 UV inks
Digital inks UV

> Rule from shadow to spotlight

Specifications Onset Panthera FB3216

MODEL					
Continuous Improvement - Due to a policy of continuous improvement the right is reserved to change specifications at any time without notice.					
12 channels: 3 x CMYK 14 channels: 3 x CMYK + 2 x W					
PRODUCTIVITY					
Up to 1,514 m²/h – 16,297 ft²/h* (2 Pass Led) and 283 beds/hour. Productivity up to the quoted values is based on an approximate 4.4 second material handling time using 14 pL printheads and a relative ink density (RID) of 100%. Image and substrate dependent to achieve satisfactory curing. * Subject to change					
MEDIA & PRINTING SPECIFICATIONS					
Manual operation – dimensions					
Max length	3,220 mm (126.8″)				
Max width	1,600 mm (63″)				
Automatic operation – dimensions					
		Min length	Max length	Min width	Max width
1-up	Dual robot	805 mm (31.7″)	3,220 mm (126.8″)	800 mm (31.5″)	1,600 mm (63″)
	Laytable	700 mm (27.6″)	3,220 mm (126.8″)	800 mm (31.5″)	1,600 mm (63″)
	Autoloader	700 mm (27.5″)	3,200 mm (125.9″)	800 mm (31.5″)	1,600 mm (63″)
2-up	Dual robot	805 mm (31.7″)	1,565 mm (61″)	800 mm (31.5″)	1,600 mm (63″)
	Laytable	700 mm (27.6″)	1,565 mm (61″)	800 mm (31.5″)	1,600 mm (63″)
	Autoloader	700 mm (27.5″)	1,480 mm (58.2″)	800 mm (31.5″)	1,600 mm (63″)
3-up	Dual robot	805 mm (31.7″)	1,065 mm (41″)	800 mm (31.5″)	1,600 mm (63″)
	Laytable	700 mm (27.6″)	1,065 mm (41″)	800 mm (31.5″)	1,600 mm (63″)
	Autoloader	700 mm (27.5″)	1,000 mm (39.3″)	800 mm (31.5″)	1,600 mm (63″)
4-up	Laytable	700 mm (27.6″)	790 mm (31.1″)	800 mm (31.5″)	1,600 mm (63″)
	Autoloader	700 mm (27.5″)	700 mm (27.5″)	800 mm (31.5″)	1,600 mm (63″)
Thickness					
Manual operation					
Max thickness	48 mm (1.9″) (46 mm - 1.8″ when a sliding table skin is fitted)				
Automatic operation					
Max thickness	18 mm (0.71″ in)				
Min thickness	Dual robot: 1.5 mm (59 mil)				
	Laytable: 0.2 mm (8 mil)				
	Autoloader: 0.1 mm (4 mil)				
Max stack height: load/unload robots					
High stack	1,400 mm (55″)				
Low stack	900 mm (35.4″)				
Substrate weight					
Manual operation -When weight distributed evenly over table. When using maximum table vacuum, speed-dependent on substrate.					
At max print speed	max 20 kg (44 lb)				
At reduced print speed	max 80 kg (176 lb)				
Automatic operation					
Single-sided operation	max 10 kg (22 lb)				
At High-5 double-sided operation	max 5 kg (11 lb)				
Weight distribution	2 kg/m² (0.41 lb/ft²)				
Handling accuracy					
Loading	+/- 1 mm (39 mil) (both directions, as measured from the lay corner)				
	+/- 0.06° angular rotation along reference edge				
Stack placement	Accurate to +/- 1 mm (39 mil)				
MEDIA					
Media types	Rigid as well as flexible media. Check with your local Agfa representative for a detailed list.				
PRINTHEADS					
	CMYK: Dimatix QS14 piezo inkjet White: Dimatix QSR40 piezo inkjet (recirculating)				
INKS					
	Agfa UV inks: CMYK – white				
IMAGE QUALITY					
Finish modes	Gloss, satin and custom				
Text quality	4 pt text				
ROOM CONDITIONS					
Temperature	20-30 °C (66-86 °F)				
Relative humidity	45-80%				
SYSTEM INTEGRATION RIP/WORKFLOW SOFTWARE					
	Asanti, StoreFront, PrintSphere, third-party RIPs				

> Get a demo or print sample pack!