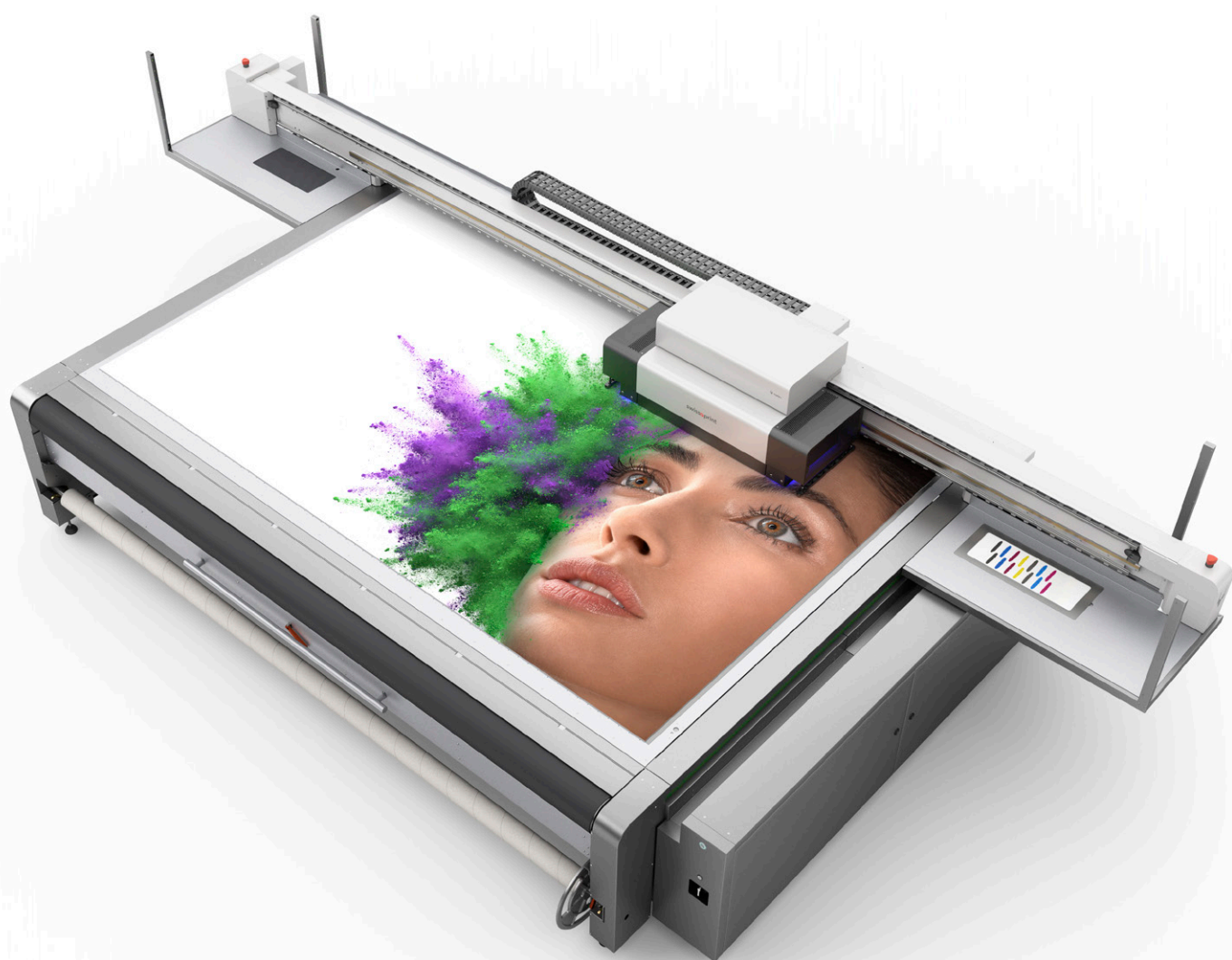


Product Portfolio

High-End LED Inkjet Systems



swissprint

LED large-format printers of the future

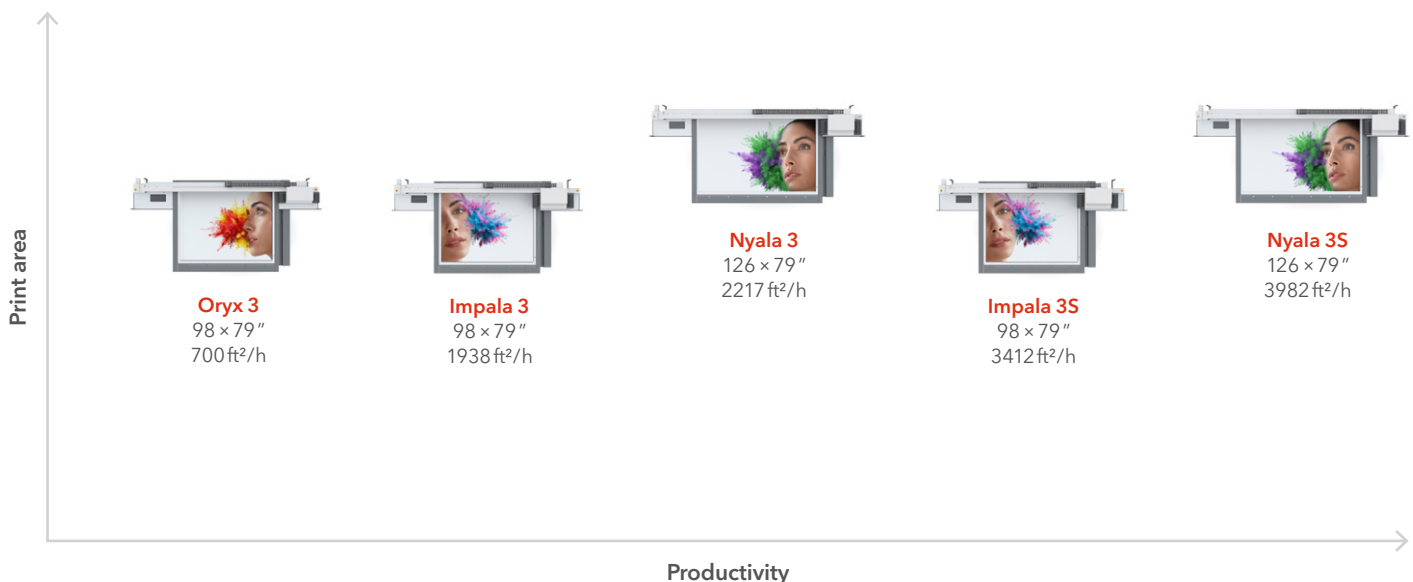
Ready for the future? You are with the third generation from swissQprint. You will be capable of handling even the most original ideas and delivering top results with dependable process reliability. And all this at the productivity level that is right for your business. You decide how much to expand your system, while still keeping options open for future developments – both in your business and innovations from our side.

Productivity

	Oryx 3	Impala 3	Nyala 3	Impala 3S	Nyala 3S
Top speed	700 ft ² /h	1938 ft ² /h	2217 ft ² /h	3412 ft ² /h	3982 ft ² /h
Production	215 ft ² /h	969 ft ² /h	1109 ft ² /h	1830 ft ² /h	2109 ft ² /h
Quality	151 ft ² /h	517 ft ² /h	581 ft ² /h	958 ft ² /h	1087 ft ² /h
Fine art	97 ft ² /h	301 ft ² /h	344 ft ² /h	549 ft ² /h	613 ft ² /h
Flatbed productivity with 1 × CMYK configuration (Oryx 3) or 2 × CMYK (Impala 3/ Nyala 3)			Flatbed productivity 4 × CMYK configuration		

Scalable

Each swissQprint machine is unique. The flatbed forms the basis for building a customized configuration. And the beauty is: the printer stays open to change. If necessary, it can be extended with options so that users always have exactly the solution they need.



Nyala 3

Hardly any other printer on the market offers better price/performance than Nyala 3, capable of handling a virtually limitless variety of applications, formats and media. Operators praise the printer's user-friendliness that shows itself in the numerous details. Nyala 3 is highly productive and economical at the same time – not least thanks to energy-efficient LED technology.



Nyala has been Europe's best-selling printer model in its class for the past three years.

Max. productivity 2217 ft²/h

Colors CMYK + 5 colors

Print area 126 × 79"

Impala 3

For its compact size, Impala 3 is a surprisingly multi-talented and powerful flatbed printer. Not only are its space requirements modest, the system is also economical to operate and maintain. Profitability is the name of the game. All the more so when Impala 3 is running at full capacity - thanks to automation, integrated workflows and efficient printing modes.



Max. productivity 1938ft²/h

Colors CMYK+ 5 colors

Print area 98 × 79"

Oryx 3

If there is any machine that does its job with stoic care, it's the Oryx 3. This LED UV printer is the ideal choice for low-volume creative environments. Yet in terms of the variety of applications it can handle, it stands eye to eye with its larger and faster siblings. And is just as reliable, robust and low-maintenance.



Max. productivity 700ft²/h

Colors CMYK + 5 colors

Print area 98 × 79"

Nyala 3S

This large-format printer is the new output champion of the swissQprint family. Nyala 3S offers the speed solution for impressive mega posters, yet also produces flawless backlits. It delivers printing results of a high standard, adapted to the functional quality requirements of the medium, at a consistently fast tempo and best of all across multiple shifts.



Max. productivity 3982 ft²/h

Colors CMYK + 1 color

Print area 126 × 79"

Impala 3S

It's ingenious how Impala 3S combines speed and print density. Fast delivery times are the specialty of this compact flatbed printer. Output quality is impressive even in the fastest mode. Impala 3S makes a great fit with any digital printing operation that needs high output and fast throughput.

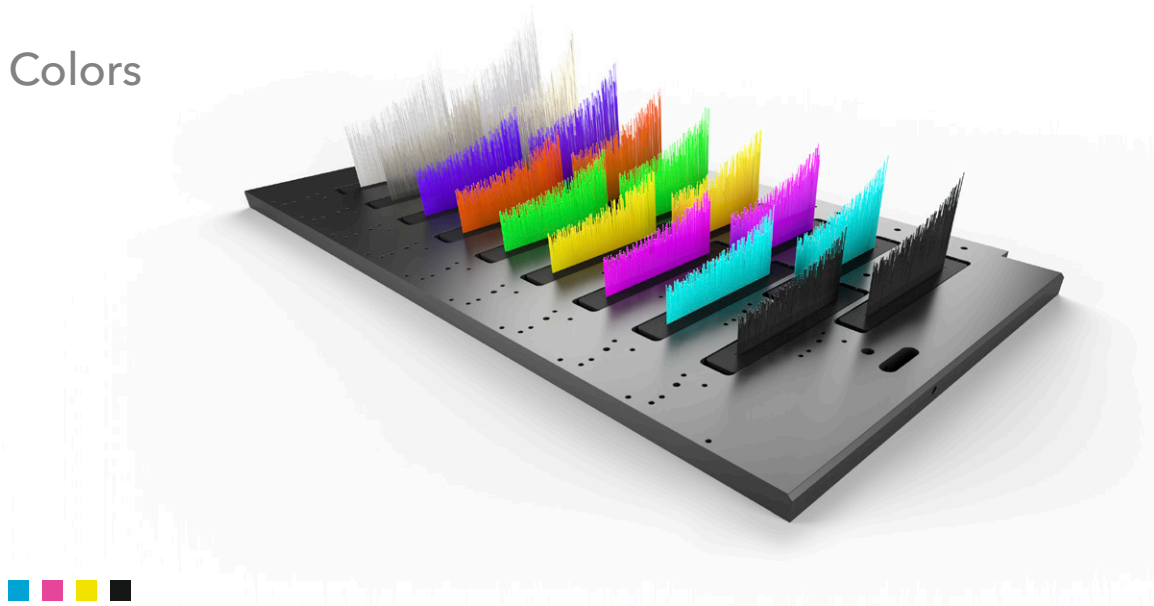


Max. productivity 3412 ft²/h

Colors CMYK + 1 color

Print area 98 × 79"

Colors



Process colors

Inkjet printing is as colorful as the world around us. The systems' CMYK standard is expandable, either when a printer is initially equipped or later when the requirements change. Nine freely configurable color channels are available.



Light colors

Light cyan, magenta and black reproduce natural skin tones, subtle gradients and shading.



Additional colors

Adding orange, green and violet to the mix significantly expands the color space for extra-vibrant results as well as corporate colors.



Spot colors

White, as a base layer or printed selectively, is a highlight with transparent and dark media. Effect varnish, applied partially or across the whole substrate, produces visual and tactile experiences. Primer applies the foundation for printing onto glass and metal. Placed where the ink will later go, it preserves the character of the substrate.

All of the UV-curing inks are VOC free. They bond on acrylic, aluminum composite panels, wood, tarpaulins, polyester, polycarbonate, polystyrene, (rigid foam) PVC, vinyl films, flexible foam panels and numerous other media. Suitable materials may be stretched after printing without any signs of stress whitening in the color thanks to the adequately flexible ink.

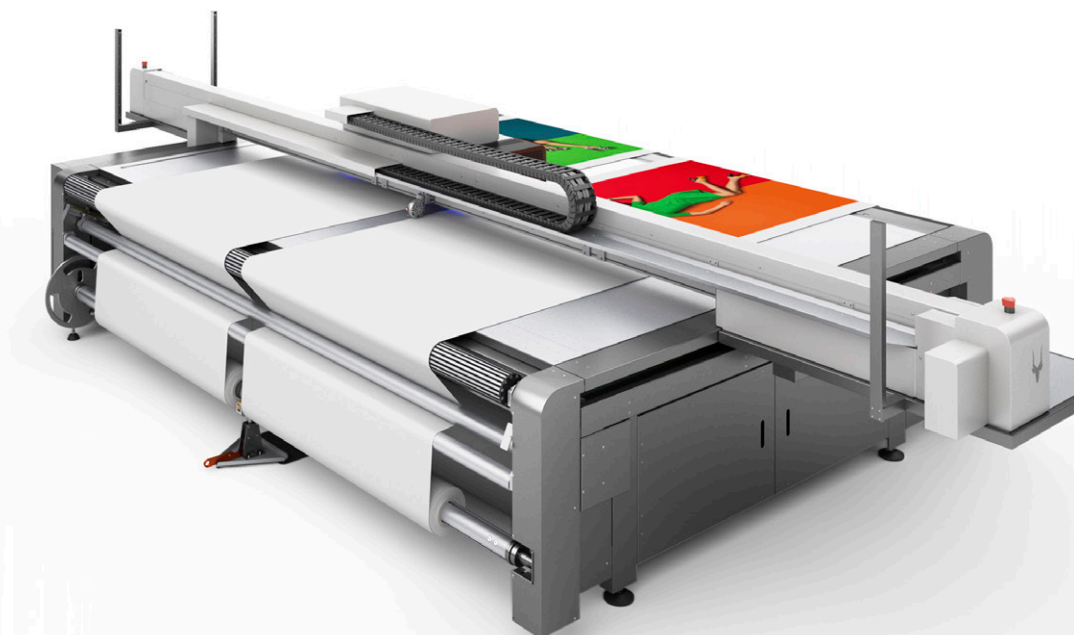


Roll to roll option

Whether films, tarpaulin, mesh or other roll stock up to 397 lb, swissQprint systems can handle them all - even the heat-sensitive ones thanks to LED curing. And that across the full printing width of 98 inches (Oryx/Impala) or 126 inches (Nyala). Setting up and changing rolls is easy, and once the job is started the machine continues working without supervision.

The spreading roller is new and helps prevent crashes. It rests above the unwinding unit and smooths the material before it runs crease-free over the print bed and is rewound cleanly on the opposite side. One part of ensuring a flawless print image is stable system control, which continuously regulates the tension. Meanwhile, the spreading roller dissipates static charge from the material, aiding precise droplet placement. And another thing: when necessary, multiple color layers can be applied in one pass and are absolutely register-true as a result.

The dual roll option is also new. When it comes into play, the printer processes two rolls in parallel. You spotted it: this doubles the productivity.



Board option

swissQprint systems equipped with the ingenious board option hold oversized panels firmly in place under full-power vacuum during the printing process. When the printing beam reaches the end of the table, a sophisticated feed system takes over and advances the substrate automatically. Printing continues seamlessly as soon as the substrate is positioned automatically and exactly at the new zero origin.

The appeal of this process lies in a combination of absolute precision and high efficiency. Flawless end-to-end printing on rigid media up to 157.5 inches long is a standard routine. The system really comes into its own when handling stretchy, heat-sensitive or very slippery substrates. Compensation mechanisms built into the control system assist the user in this regard.

Help is likewise at hand with positioning and moving: vacuum inversion creates a cushion of air so that materials weighing up to 220 lb literally float over the print bed, making it easy to handle the heavyweights.



Rob

The robot loads and unloads media onto swissQprint flatbed printers. Practically any sufficiently rigid material with a non-porous surface can be handled. Just a few simple steps and within ten minutes Rob is docked to the printer and ready to go. Another few mouse clicks to set up the job and then things can get started - without headaches or additional effort. Because this is where the output software takes over. It communicates both with trainable Rob and the printer.

The operator can easily switch to other tasks in the meantime, or even go home for the evening. Rob and the printer handle the extra shift all by themselves. Rob is ready for action 24 hours a day, 7 days a week. He takes care of routine work uncomplainingly - with consistent precision and high efficiency.

Rob gets even higher utilisation out of every swissQprint machine. Customers benefit from shorter delivery times, while providers earn higher returns.



Features



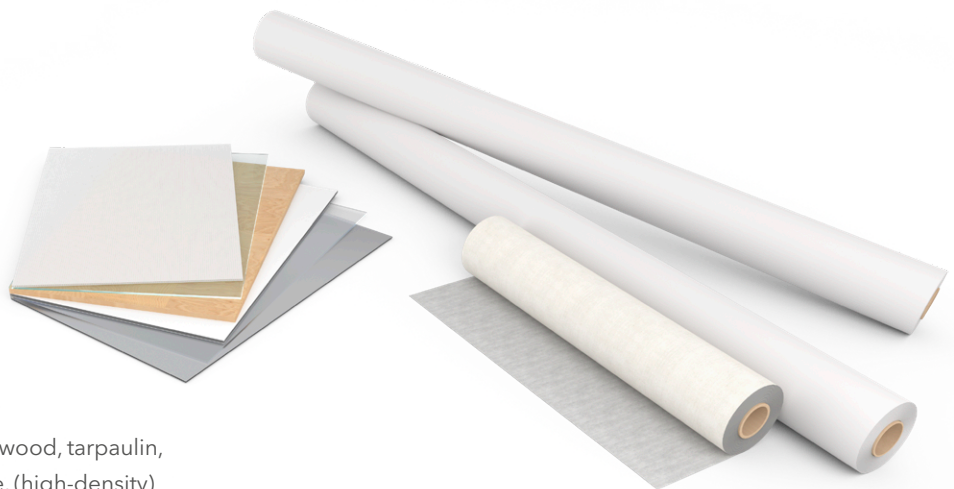
Profitable LED technology

LED curing is cool. This means heat-sensitive media can join the portfolio and open up lucrative markets. LED lamps are always ready to go, with neither a warm-up nor a cool-down time. In addition, they are mechanically robust and maintenance-free. LED also pays dividends due to high system availability and low maintenance requirements.



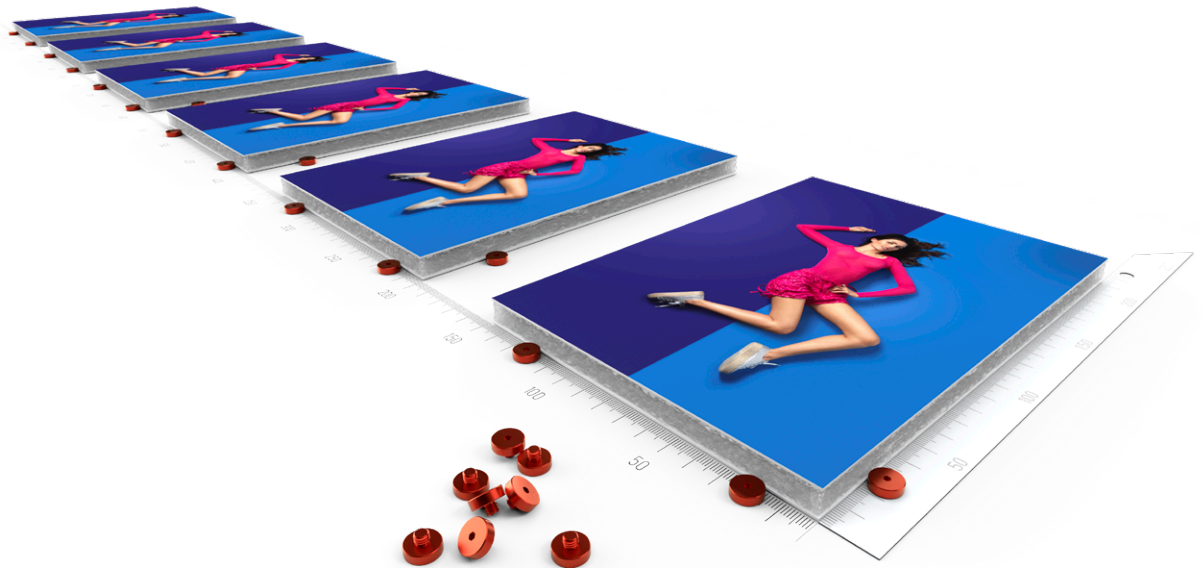
Economical and environmentally friendly

With swissQprint, you can print with a clear conscience. Zero harmful components and ozone, barely any rejects or waste, and modest maintenance requirements keep the environmental footprint small. Energy efficiency is demonstrably very high (ISO 20690:2018).



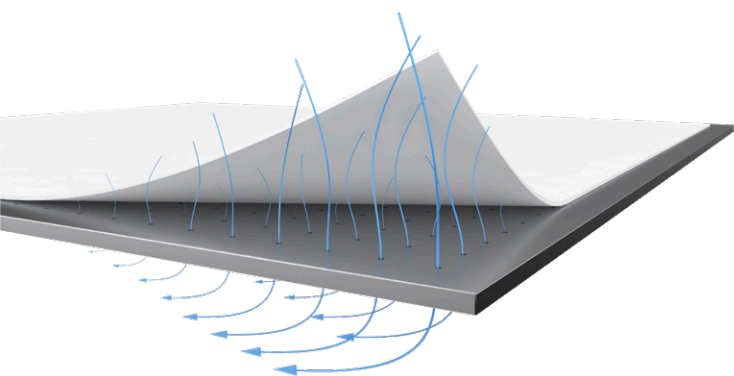
Media diversity

Acrylic, aluminum composite panels, wood, tarpaulin, polyester, polycarbonate, polystyrene, (high-density) PVC, flexible foam panels, glass and metal – all routine work with swissQprint. Printing onto difficult, heat-sensitive materials such as textiles, films and paperboard is equally stress-free.



Exact register

swissQprint registration pins. They are set in no time and help to make full and efficient use of the print bed. Pegged onto a fine grid, they provide precise mechanical anchors for any format. Used in concert with the flip function, they even allow double-sided printing with absolute registration accuracy.



Clever media retention

A powerful vacuum holds substrates flat and firmly in place. The vacuum system is split into two sections and is steplessly adjustable along the width for a minimum of masking. Suction is freely adjustable, yet reduces as soon as there is sufficient negative pressure to cut down on noise and wasted energy. The system can also blow, so heavy media float across the table. This makes for effortless positioning.



Total control

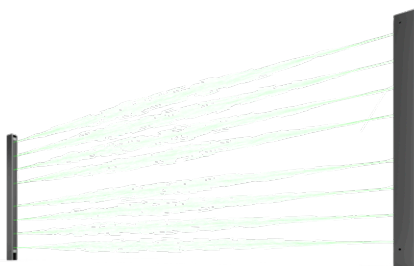
The control system provides the operator with plenty of handy assistance, such as the vacuum control button: this blinks and changes color to signal how effective the negative pressure is at any given moment.

Features



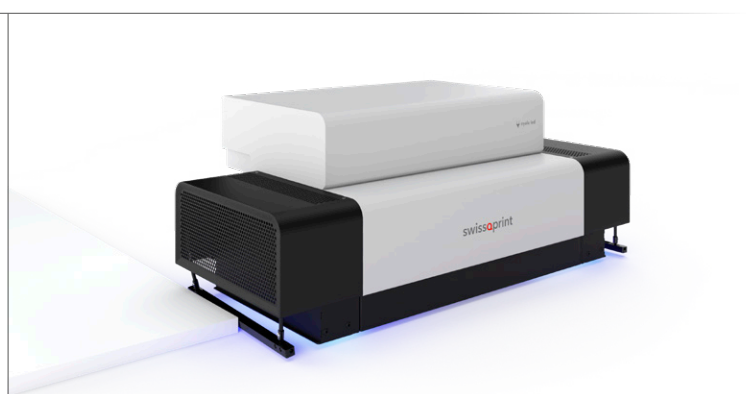
Just repeat

Printing a series of identical or different subjects with no additional RIP process? Nothing could be simpler with the 'step and repeat' and 'shadow files' functions included in the output software. Just select the files, enter the number of repetitions desired, and off it goes.



Safety for people and processes

Should something or someone breach the light curtain at the beam, the print head carriage slows down to warn as well as protect the operator. Meanwhile, printing continues. There is no loss of time or material.



No crushing crashes

Crash Sensor Technology prevents damage and rejects if the material thickness was entered incorrectly or corners on the medium are sticking out, for instance. The print head carriage stops if there is a hazard, and later continues at the exact pass position.

Applications



Worth seeing from both sides

Transparency can be highly effective: multilayer printing comprised of process colors, foundation layer, blocking layer, foundation layer, and process colors again. And it is so easy to achieve. The layers are printed in one pass, by the way. So they overlap exactly – no chance of bleed-through.



Visual and tactile enhancement

Effect varnish lends printed items that certain extra. The scope is vast: printed selectively or across the whole expanse, as a light or heavy layer, with a matte to high-gloss finish – everything is possible. Besides, ink layering is able to produce Braille text and relief prints.



Constant print quality

swissQprint large-format printers comply with the Fogra PSD. They can integrate with a PSD workflow and deliver constant print quality with faithful color results.

Tandem

In tandem operation, machine and operator join forces for continuous, non-stop action: maximum productivity by the system, fitness training for personnel. The principle is straightforward: media can be loaded onto the printing table from both the front and rear. While printing is underway on one side, the operator loads the other side, and vice versa – so work continues without interruption.

The vacuum table has front and rear sections, both with the usual continuous adjustment. A side benefit is that vacuum to the rear section can be shut off when normal jobs are being printed on the front section only – no masking needed.



With tandem:
245 panels/hour

Without tandem:
143 panels/hour

Practical test

Producing 27.55 × 39.37" panels on a Nyala 3 in speed mode.

Result: 71% higher productivity with tandem.

Equipment and options

Inkjet machines from swissQprint are built on modular lines. The flatbed construction provides a stable foundation for every model, from economy to top-of-the-line. Options can be added as required. That includes the continuous addition of newly developed features. Whichever machine is purchased, it will be a future-proof investment.

	Oryx LED	Impala LED	Nyala LED
Flatbed, full bleed	98 × 79.9"¹		126 × 79.9"¹
Clearance	maximum 1.97"		
Substrate weight	maximum 20.4lb/ft²		
Roll width	98"		126"
Roll weight	maximum 397 lb / dual roll 220 lb each		
Roll diameter	maximum 14.2"		

Equipment/Options

Tandem function	standard		
Print area, Tandem each zone	98 × 39.9"¹		126 × 39.9"¹
Vacuum pumps²	2 pcs integrated		
Roll to roll option³	98" × endless		126" × endless
Dual roll option	2 × 47" × endless		2 × 60" × endless
Board option with extension tables	98 × 157.5" / maximum 220 lb		126 × 157.5" / max. 220 lb

Colors

Color channels	maximum 9	
Print heads	maximum 9	maximum 18
Print heads per channel	1	1 or 2
Light Cyan, light Magenta, light Black ⁴	✓	
White	✓	
Varnish	✓	
Primer	✓	
Orange, Green, Violet ⁴	✓	

Software

Step and Repeat/Shadow files	✓
Multilayer	✓
Material and Quality database	✓
Statistics/ink consumption	✓

¹ in most print modes

² optional sound absorber boxes

³ with a conveyor belt and extension tables boards up to 98/126 × 157.5" can be printed

⁴ not with S models



swissQprint large-format printers contain 100 percent Swiss engineering and machine-building work. At our headquarters, people with inventive minds develop the entire system: from the mechanics to the control system and the output software. Each element is carefully matched to the cleverly thought-out overall concept.

Our internal lines of communication are short, which makes us agile and effective. Working right next door to the development department, our production team assembles each printer by hand from over 2200 individual parts, over 90 percent of which come from Switzerland.

swissQprint stands for precision, reliability and durability.

Technical specifications

Resolution	Oryx	Impala	Nyala
Variable drop size	9-42 picoliter		
Addressable resolution	360 dpi-1080 dpi		
Visual resolution	up to 2160 dpi		

Print technology

Piezoelectric inkjet technology (DOD)	✓
Binary or greyscale	✓

Software/RIP

Output software on integrated PC	✓
Caldera RIP server (Linux or macOS) Other RIPs available	✓
Interface (data)	Fast Ethernet 1000 Base-T

Inks

Integrated ink supply	CMYK in 5 liter containers/OGV, white, varnish 5 or 1 liter containers/primer 1 liter container
White feed and maintenance system	fully automated
Low-odour UV-curable inks	✓
Optimized for flexible & rigid media	✓
Indoor and outdoor applications	✓
Solvent-free (no VOCs)	✓

Dimensions and weight

Dimensions (L × W × H)	98.81 × 198.43 × 55.90"	98.81 × 225.19 × 55.90"
Weight ¹	2866-3527 lb	3086-3968 lb
Safety standards	meets or exceeds industry standards	

Installation environment

Power supply	3 × 380-400V, 3L+N+PE 50/60 Hz, 32 A (CEE 32)/ 3 × 480V, 3L+N+PE 60 Hz/3 × 208V, 3L+PE 50/60 Hz
Power consumption	13 kVA (effective power draw depending on the print mode approx. 5.3 kVA)
Temperature range	+59 °F to +86 °F
Relative humidity	35 % to 80 % non-condensing

¹ depending on configuration



info@us.swissqprint.com 2521 Technology Dr, Suite 210
www.swissqprint.com Elgin, IL 60124, USA

Subject to technical change. Images are not color binding. Photos and graphics are copyrighted.
swissQprint is a registered trademark. ©swissQprint 12-2018