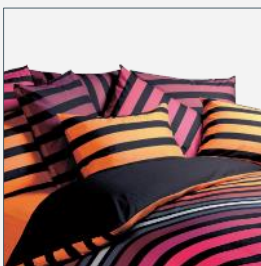# COLARIS.INFINITI
HIGH QUALITY PRINTER AT A BUDGET PRICE

Fashion Decoration

Home Textiles Flags & Banners

ZIMMER AUSTRIA

140 years of revolutionary innovation and developments with well-known quality and service for the textile industry on a global scale.

The COLARIS.INFINITI design stands for

- "out-of-the-box" or "of-the-shelf"

- Budget priced

- Entrance level printing solution

- For your start-up business or used as a sampling machine for volume production

- A printer supporting small, medium and high capacity digital textile print houses alike

With the layout concept, special attention has been given to the needs of the rough industrial textile printing environment.

APPLICATIONS		Reactive	Disperse	Acid
Fashion Printing	Fashion clothing	●	●	●
	Underwear	●	●	
	Sportswear	●	●	●
	Swimwear		●	●
	Active wear		●	●
	Bottom wear			●
	Winter jacket			●
	Raincoat			●
Home Textiles	Bed sheets	●		
	Window fashion fabrics	●		
Flags & Banners	Flags		●	
	Graphic designs		●	
	Shop interiors		●	
	Outdoor displays		●	

COLARIS.INFINITI (ENG)

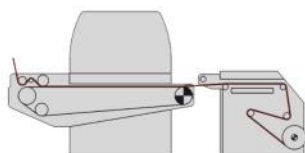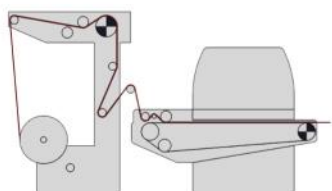| Technical Data	COLARIS.INFINITI 1800	COLARIS.INFINITI 2600
Printing line	Customized combination of digital textile printing line A-Frame unwinder, Entry, Digital Printer, Infrared Dryer or Hot Air Dryer	
Printing width	**1,800 mm** (maximum width 1,850 mm)	**2,600 mm** (maximum width 2,650 mm)
Print head technology	Seiko SPT 1024GS industrial print head	
Number of print heads	min. 8, max. 32 print heads	
Droplet size	Variable 4 level greyscale of 7, 14 or 21 pl	
Print head maintenance system	Automatic purging and cleaning system	
Printing resolution	x/360 dpi, **x/720 dpi**, x/1,080 dpi, x/1,440 dpi	*x = 360, 720*	
DyStar® colors	min. 4, max. 8 colors DyStar® CMYK, orange, light magenta, red, blue, grey, etc.	
Ink types	Reactive, Disperse or Acid	
Ink system	Transparent ink tanks with pumps and filters 8 freely fillable channels with own degassing and filter	
Ink capacity	10 liters per color channel	
Printing blanket	Endless belt with permanent adhesive and infrared glue activation	
Belt cleaning	Industrial washing/drying unit	
Power supply	TN-S System, 3/N ~ 50/60 Hz, 400 VAC ± 5 %, 15 kVA, 35 A	TN-S System, 3/N ~ 50/60 Hz, 400 VAC ± 5 %, 15 kVA, 45A
Compressed air	6 bar	
Temperature control	Heating and cooling system for the heads	
Operation environment	Temperature 18 - 26°C, Humidity 55 % - 75 %	
Net weight / Dimensions (L x W x H)	4,200 kg / 2,400 x 5,900 x 2,450 mm	5,500 kg / 3,200 x 6,600 x 2,450 mm
RIP software (supplied by customer)	Photoprint, Onyx, NeoStampa, Caldera, etc.	
Printing software	File based communication between RIP and printing software Job manager ready for *.prn and *.prt files	
Control functions	Remote diagnostic, nozzle check on paper	
Fabric types	Depending on ink type all kinds of woven and knitted fabrics, such as cotton, linen, wool, silk, viscos, nylon, polyester, etc.	
Fabric entry system	Heavy duty entry with optional A-frame unwinder	
Fabric thickness	Max. 10 mm	
Fabric roll diameter / weight entry	Max. 600 mm / max. 200 kg	
Dryer	Infrared Dryer with heavy duty winder or Hot Air Dryer	

COLARIS.INFINITI (ENG)

PRINTING.LINES
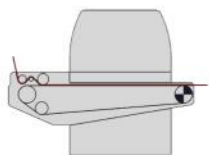
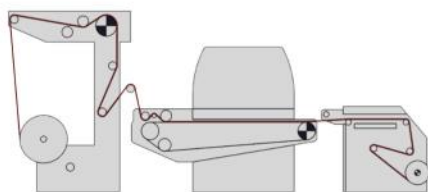| **COLARIS.**INFINITI 1800 | Total length: approx. 2.4 m |

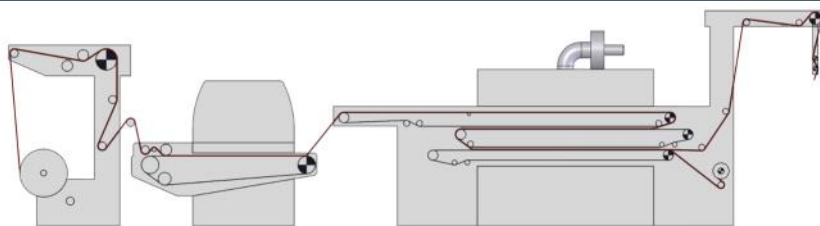| **COLARIS.**INFINITI 1800 with IR-Dryer | Total length: approx. 3.8 m |

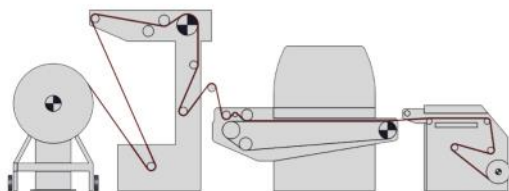| **COLARIS.**INFINITI 1800 with a Fabric Entry System | Total length: approx. 3.9 m |

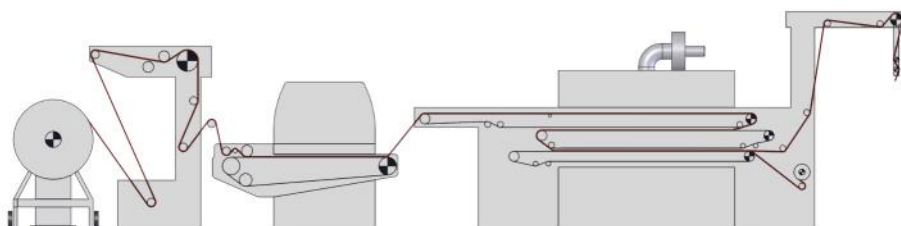| **COLARIS.**INFINITI 1800 with a Fabric Entry System and IR-Dryer | Total length: approx. 5.3 m |

| **COLARIS.**INFINITI 1800 with a Fabric Entry System and Industrial Hot Air Nozzle Dryer | Total length: approx. 10.3 m |

| **COLARIS.**INFINITI 1800 with a A-Frame, Fabric Entry System and IR-Dryer | Total length: approx. 6.3 m |

| **COLARIS.**INFINITI 1800 with a A-Frame, Fabric Entry System and Industrial Hot Air Nozzle Dryer | Total length: approx. 11.3 m |

HIGH.PERFORMANCE

INDUSTRIAL.INKJET PRINT HEADS

- Seiko SPT1024GS industrial print head
- Up to 32 print heads installed
- 1,024 nozzles in each print head
- Variable 4 level greyscale drop size of 7, 14 and 21 pl

PRINTING.CAPACITY (M²/H)

COLARIS.INFINITI	Color set up with 4 to 8 colors				
Number of print heads per color bar		**360/720dpi (2 pass)**	**360/1,080 dpi (3pass)**	**360/1,440 dpi (4 pass)**	**720/720 dpi (4 pass)**
INK LIMIT per COLOR		8 ml/m²	13 ml/m²	17 ml/m²	17 ml/m²
COLARIS.INFINITI 1800	2	150 m²/h	100 m²/h	75 m²/h	75 m²/h
	4	300 m²/h	200 m²/h	150 m²/h	150 m²/h
COLARIS.INFINITI 2600	2	180 m²/h	120 m²/h	90 m²/h	90 m²/h
	4	360 m²/h	240 m²/h	180 m²/h	180 m²/h

INK.LAY-DOWN

Most people are talking about resolution and dpi only. In textile printing most important is to have the right ink amount to get a good penetration and vibrant colors. The actual ink demand, determined by the fabric is identified by the calibration print.

The ink amount or (ink lay-down) is specified by the following parameters

- Resolution in X and Y axis
- Drop size in pico liters
- Number of passes (used to increase the x-dpi and therefore to increase ink amount)

The maximum ink lay-down on a single color can be calculated as follows:
Ink lay-down (ml/m²) = X-dpi * 1,000 mm / 25.4 mm * Y-dpi * 1,000 mm / 25.4 mm * dropsize (pl) / 1E9
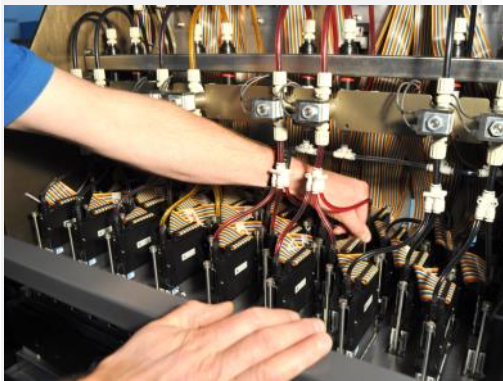**Simplified: Lay-down (ml/m²) = x-dpi * y-dpi * dropsize / 645,000**

Example

2 passes with smallest drop size at 360 * 720 dpi: 360 dpi * (2 * 360 dpi) * 7 pl / 645,000 = 2,8 ml/m²

4 passes with biggest drop size at 360 * 1,440 dpi: 360 dpi * (4 * 360 dpi) * 21 pl / 645,000 = 17 ml/m²
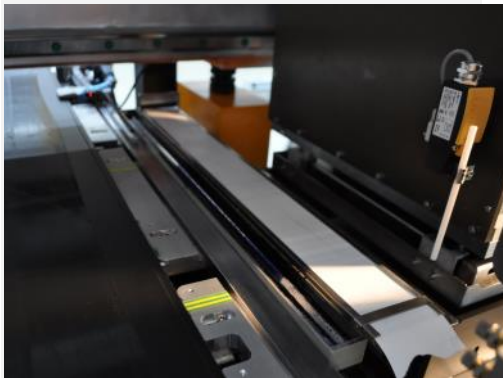
COLARIS.INFINITI (ENG)

COLARIS.INFINITI COMPO-

Print head carriage with easy access for service and maintenance.
Easy print head replacement by the operator, without need of support by a service engineer.

Test pattern printed on a paper strip allows a quick nozzle check.
Ink and fabric saving, increased efficiency, ensuring print quality at any time.

Ink reservoir in front of the print heads with active ink pressure control. Gravity ink flow from ink reservoir though inline degassing system to the print heads.

COLARIS.INFINITI (ENG)

Auto-capping and auto-purging integrated into the print head capping and cleaning station, with ink collection system for reduced ink wastage, to ensure perfect print head condition and economic printing.

Stable print head carriage moving on linear bearings, mounted on a solid beam. Carriage movement is operated by a servo-motor, controlled through an inductive linear encoder. This guarantees highest precision in printing and a sharp and clear print image.

Print carriage is height adjustable through a servo-motor, controlled and positioned through an inductive linear encoder to ensure precise height setting for accurate uni- and bi-directional printing.

Fabric seam detection by a laser sensor to protect the print heads from high seams or other obstacles on the conveyor belt that could cause risk of damage to the print heads.

Additionally the print head carriage is equipped with analog sensors to minimize the risk of fabric collision with the print heads carriage.

COLARIS.INFINITI (ENG)
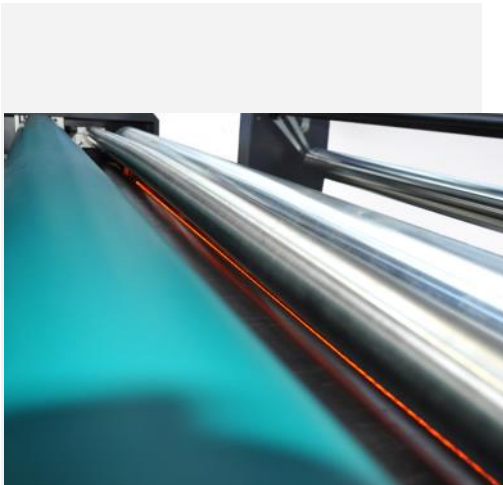
Thermic activated glue creates a sticky belt for fabric fixation throughout the printing process. Glue application and stripping devices are included in the scope of supply. Infrared heating system permits control of stickiness of belt according to different fabrics needs.
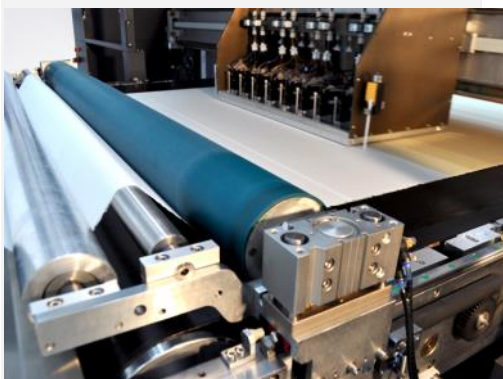
Traversing fabric press roller with pneumatically adjustable pressure. Soft rubber surface ensures perfect fabric fixation onto the sticky transport belt.

Printing blanket drive and control system by a servo drive with reduced backlash gear torque transmission for accurate printing blanket transport. Printing blanket transport controlled by an inductive linear encoder for permanent measuring and control of actual printing blanket movement. High precision, dimension stable printing blanket with Kevlar fiber base and TPU (Thermoplastic Polyurethane) coated surface, for perfect fabric transport throughout the printing process.

COLARIS.INFINITI (ENG)
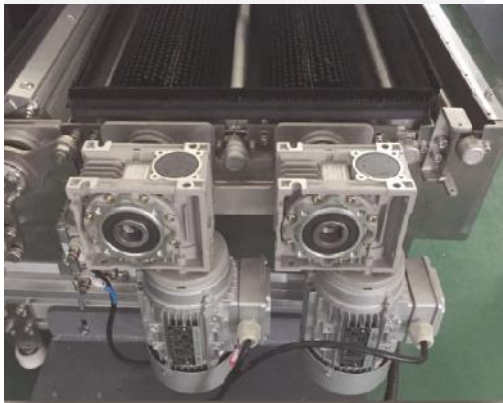
Heavy duty printing blanket washing device incl. pre washer, driven brush rollers and pneumatically operated drying doctor blade.
Additional textile covered roller ensures dry printing blanket.

Ink tank station on wheels for easy movement, with transparent ink containers, refillable without machine stop. Ink pumps with inline ink filtration transporting the inks to the ink reservoirs in front of the print heads.

Computer workstation used as a print server for queuing the print jobs and for setting the print parameters. Side by side installation of a touch screen to control and set machine parameters including supervision of all technical parameters incl. service and maintenance functions.

Printer is accessible online for remote diagnostics.

COLARIS.INFINITI (ENG)

FABRIC.FEEDING
AND GUIDING SYSTEM

For a perfect alignment and fixation of the fabric on the printing blanket.

- The fabric feeding system is a stand-alone unit
- With a lattice guiding roller incl. drive and synchronization unit, enables feeding of any textile substrate
- The fabric edge is detected by a photocell that is controlling and signaling side positioning of the fabric for a precise fabric alignment

Technical Data	Feeding and Guiding System 1800	Feeding and Guiding System 2600
Technology	System with fabric feeding roller and slat roller for all woven fabrics	
Production speed	Synchronized with printer	
Fabric roll diameter / weight	max. 600 mm / max. 200 kg	
Expander shaft diameter	75 mm	
System weight / Dimensions (L x W x H)	1,100 kg / 1,600x2,400x2,300 mm	1,320 kg / 1,600x3,950x2,310 mm
Power supply	TN-S System, 3/N ~ 50/60 Hz, 400 VAC ± 5 %, 0.5 kVA, 0.5 A	

A-FRAME.UNWINDER
(OPTIONAL)

For large fabric bales

- With an integrated drive and control system for synchronization of speed with the printing line
- It includes auto detection for the drive in case the A-Frame isn't connected with the unwinder by the universal joint cardan shaft

Technical Data	A-frame unwinder
Technology	Industrial unwinder for jumbo media rolls
Production speed	Synchronized with printer
System weight / Dimensions (L x W x H)	110 kg / 600 x 300 x 1,300 mm
Power supply	TN-S System, 3/N ~ 50/60 Hz, 400 VAC ± 5 %, 0.7 kVA, 1.5 A

COLARIS.INFINITI (ENG)

ELECTRICAL.HEATED
IR (INFRARED) DRY-

- Mounted on wheels for easy transport and positioning according to the needs of operation such as sampling or continuous production
- Electronic control for drying on demand
- Fabric tension control through a pneumatically controlled pendulum roller
- Pneumatically operated expander shaft for take-up of cardboard rolls for re-rolling of fabrics
- Quick release system for expander shaft with safety lock during printing operation
- Geared motor for automatic re-rolling of fabric after drying

Technical Data	Infrared Dryer 1800	Infrared Dryer 2600
Technology	3-field infrared dryer with winder (max. 120°C)	
Production speed	Synchronized with printer	
Fabric roll diameter / weight	Max. 500 mm / max. 200 kg	
Expander shaft diameter	75 mm	
System weight / Dimensions (L x W x H)	540 kg 1,720 x 2,700 x 1,310 mm	750 kg 1,720 x 3,420 x 1,310 mm
Power supply	TN-S System, 3/N ~ 50/60 Hz,	TN-S System, 3/N ~ 50/60 Hz,

INDUSTRIAL.HIGH CAPACITY HOT AIR
NOZZLE DRYER | (GAS, STEAM, ELECTRICITY)

- High performance insulation
- Guide and support rollers for transport conveyor and fabric guidance
- High performance conveyor belt for fabric transport
- Fabric pulling roller with geared motor and plating device including speed synchronization

Technical Data	Hot Air Nozzle Dryer 1800	Hot Air Nozzle Dryer 2600
Technology	High capacity hot air dryer with winder and plaiter (max. 150°C)	
Production speed	Synchronized with printer (max 5 m/min)	
Heating media (consumption)	Natural gas (6 m³/h), Steam (60 kg/h)	Natural gas (8 m³/h), Steam (90 kg/h)
System weight / Dimensions (L x W x H)	4,230 kg / 6,060 x 3,900 x 3,000 mm	5,000 kg / 6,060 x 4,700 x 3,000 mm
Power supply Gas/Steam Electricity	TN-S System, 3/N ~ 50/60 Hz, 400 VAC ± 5 % 6.6 kVA, 10 A 60 kVA, 57 A	TN-S System, 3/N ~ 50/60 Hz, 400 VAC ± 5 % 8.25 kVA, 10 A 68.25 kVA, 82 A

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FIRST IN QUALTIY **| FIRST** IN SERVICE

All machines and components from **ZIMMER AUSTRIA** are strictly inspected and tested before shipping to customers to ensure efficient installation and best performance with 100% satisfaction.

COLARIS.INFINITI on-site customer support is guaranteed by service partners and **ZIMMER AUSTRIA** engineers and technologists.

This setup guarantees a short response time on a service call from a customer.

INNOVATION	QUALITY	SERVICE

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