

ARTRIX PRIME OMNI

Textile Direct Printer



DESIGN INNOVATION



Front



Rear

Refill + Printer(With Unwinder)+ Dryer(With Winder)

MARKET ANALYSIS

Next Era of Textile Printing

*** Strategic shift to a one-stop solution:**

Bridging economic efficiency and environmental compliance to lead the maturing digital textile market with a high-impact winning move."



Simplification

Process Simplification
Maximizing Production
Efficiency
Customized Process Design



Eco-friendliness

Water and Energy
Conservation



Cost-effectiveness

Flexibility for High-Mix
Low-Volume Production
Stable Operation and
Maintenance

PERFORMANCE

145 m²/h (3-pass, 8 color, 726×900)

Performance Engineered

Advanced Head Array

Equipped with up to 24 Ricoh Gen5 printheads in a 4x6 staggered configuration to maximize print width coverage per pass

Linear Motor Carriage

Low-noise, High-precision Linear Motor:

Provides accurate movement and guarantees uniform print quality during high-speed operation

Multiple Print Modes

Maximum Production Speed: 145 m²/h at 3-pass mode

Superior Print Quality and Exceptional Versatility

01

Quality & Versatility

All-in-One Pre-treatment and Printing System

✓ Reduce procurement costs for pre-treated fabrics

✓ Minimize defect rates by preventing color migration and contamination

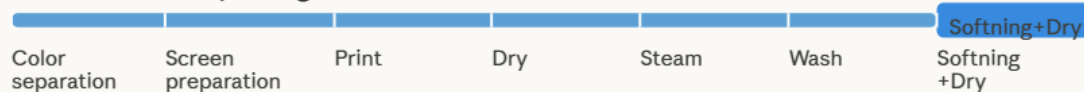
* Real-time Inline Pre-treatment: Simultaneous application on raw fabrics during printing.

* Streamlined Workflow: Eliminates separate pre-treatment steps to simplify production.

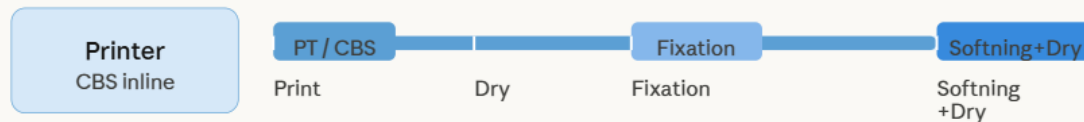
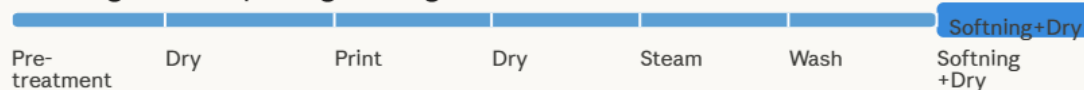
* Superior Quality: Maximizes color brilliance and image definition.

Inline Pre-treatment

Traditional textile printing



Other digital textile printing (Non Pigment)



Superior Print Quality and Exceptional Versatility

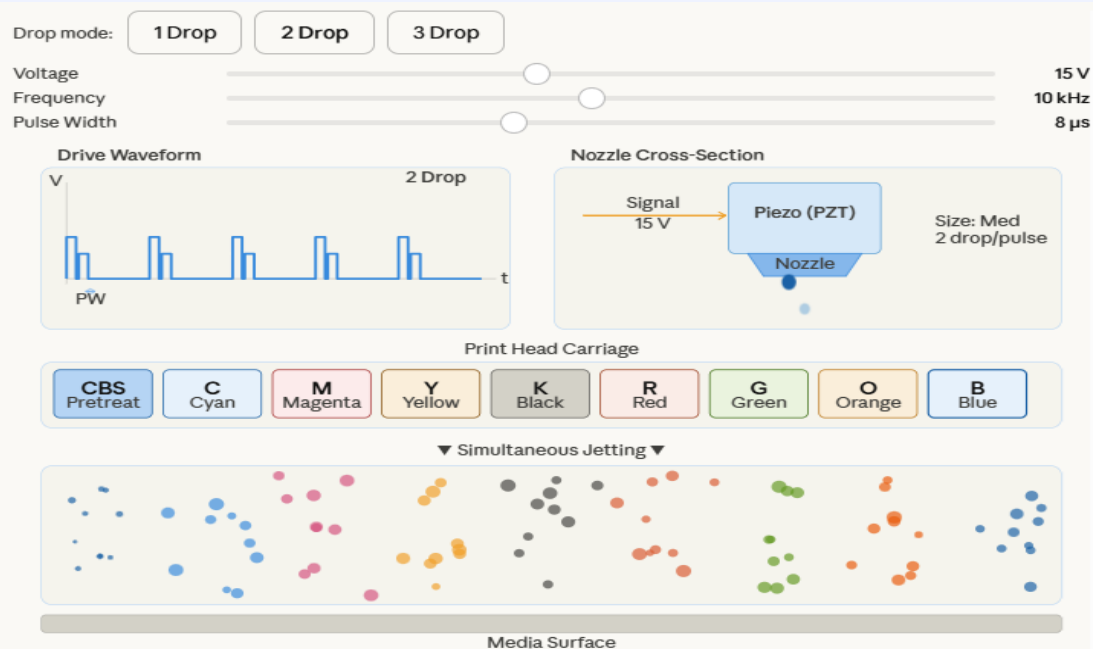
01

Quality & Versatility

Optimized Head Waveform Control for Direct-to-Fabric Printing

- ✓ Guarantees high-resolution output quality
- ✓ Capable of reproducing fine color gradations
- *Precision Waveform: Optimized for direct-to-textile to enable intricate image rendering
- *Maximizing Accuracy: Enhances ink jetting precision for sharp and clear results
- *Production Reliability: Ensures color reproducibility and sustained nozzle performance

Waveform Technology



System Stability and Operational Cost-efficiency

02

Stability & Economy

Type	Main functions	Expected effects
Unwinder	Automatically optimizes material supply for diverse fabric types. Handles everything from lightweight wovens to heavy-duty knits with zero manual intervention.	Compatible with a wide range of fabric types → Ensures smooth media feeding through various spreading methods and precise rear tension control.



System Stability and Operational Cost-efficiency

02

Stability & Economy

Type	Main functions	Expected effects
Dust Control	Features an integrated dust and debris removal system that provides dual-layer protection. By shielding belts and critical components from foreign materials, it significantly extends the equipment's lifespan.	Enhanced Belt Maintenance and Core Component Protection → Extended Equipment Lifespan and Reduced Maintenance Costs

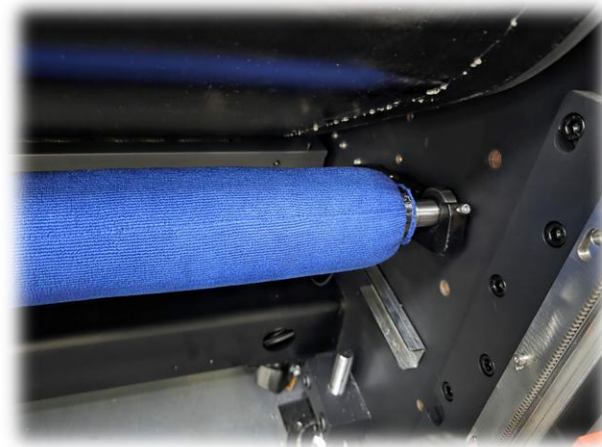
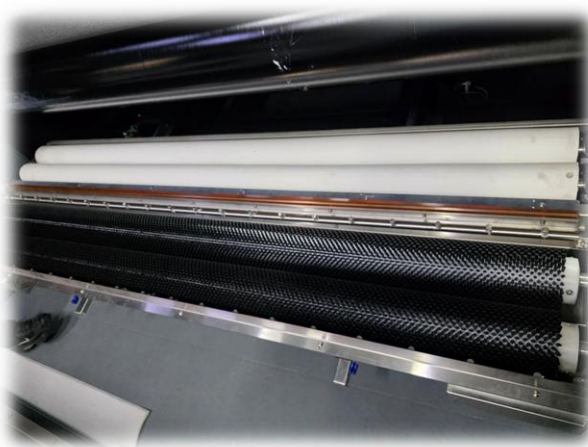


Maximized Operator Convenience and Maintenance Efficiency

03

Operational Efficiency

Type	Main functions	Expected effects
Washing System	All-in-One Belt Cleaning: Integrated brush, blade, and sponge roller system for superior dust and ink removal. Auto Back-Roller System: Eliminates back-side bleeding and contamination through automated roller control.	Reduces defect rates by preventing fabric color migration. Enhances belt maintenance performance: → Effective belt management through superior dust and contamination control. → Reduced maintenance costs by optimizing waxing frequency and management.

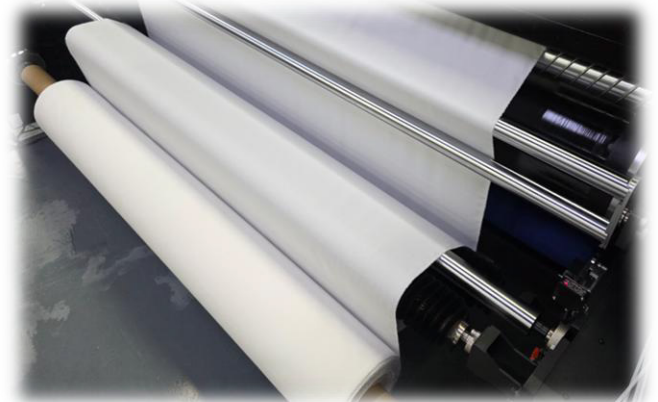
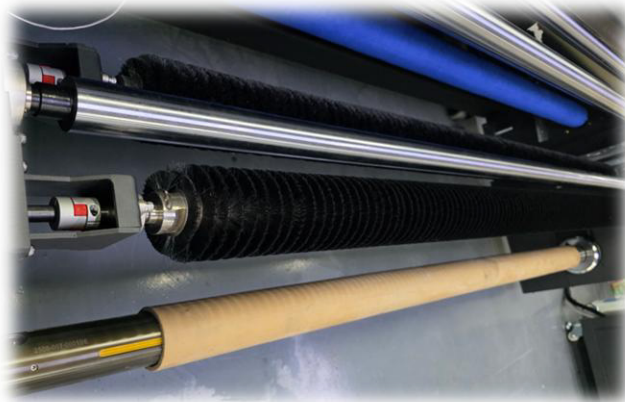


Maximized Operator Convenience and Maintenance Efficiency

03

Operational Efficiency

Type	Main functions	Expected effects
Fabric Dust Removal System	A dual-sided brush cleaning system that removes surface dust from both side of media.	Enhances belt maintenance by removing dust and debris from the fabric. Proactively removes dust that may adhere to the printhead surface to optimize head maintenance

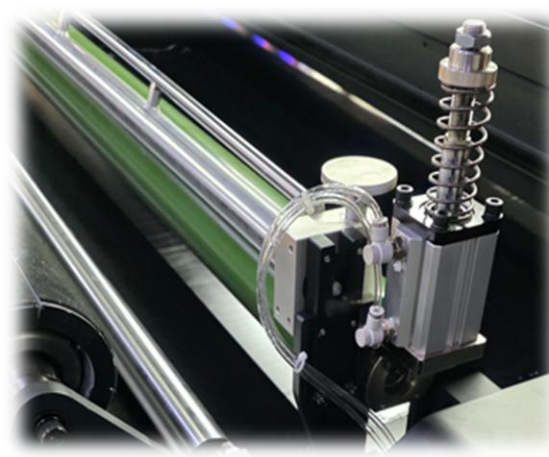
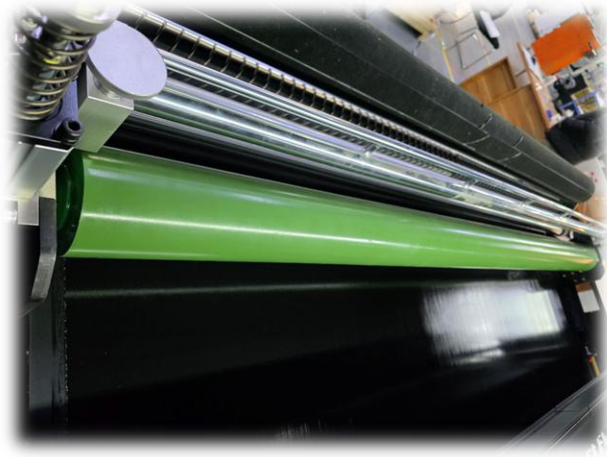


Maximized Operator Convenience and Maintenance Efficiency

03

Operational Efficiency

Type	Main functions	Expected effects
Pressure Roller System	Maximize Adhesion: Front and rear pressure rollers ensure ultimate bonding between the fabric and belt. Adjustable Curved Bar: Precision angle control for the upper banana roller during the adhesion process.	Stable media transport without fabric lifting even during high-speed printing, enabling precision output with zero material waste. Enhanced adhesion performance across a wide range of fabric types.



Maximized Operator Convenience and Maintenance Efficiency

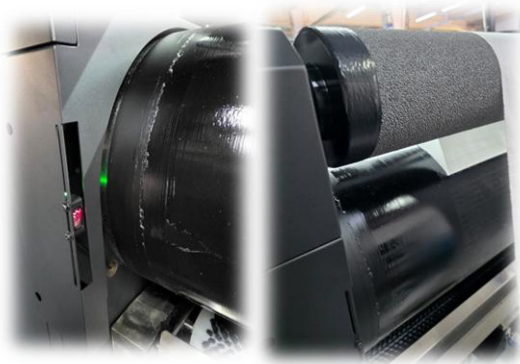
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Operational Efficiency

Front-Side Media Detection and Separation System

Equipped with real-time sensors to monitor fabric status, the front roller automatically activates upon print completion to ensure stable media supply.

✓ Preventing defects through real-time error detection.



Pneumatic System Optimization

Minimizes reliance on external air supplies by utilizing a high-efficiency internal pneumatic system.

✓ Eliminates the need for large compressor installation and maintenance, resulting in significant cost savings



Optimized Continuous Printing (Pause)

In case of an emergency, the system allows for a pause and resumes the job exactly from the point of interruption once the issue is resolved

✓ Ensures uninterrupted operational flow after emergency handling



Expected Outcomes — ARTRIX PRIME OMNI

04

01

Zero-Defect Production

Quality Stability

Eliminates fabric pre-treatment defects through an integrated inline system.

Fundamentally blocks defects from color migration and contamination via a highly stable cleaning system.

Ensures nozzle stabilization and maintains superior print quality by implementing optimized head waveforms.

02

Operating Cost Reduction

Cost Optimization

Reduced reliance on external pneumatic systems for more stable operation.

No investment required for compressor facilities, lowering initial setup costs.

Eliminates the cost of purchasing pre-treated fabrics separately.
Minimizing Operational Costs

03

Maximizing Operational Efficiency

Operational Productivity

Stable media supply tailored to various fabric types.

Maximizes equipment efficiency through the advanced Pause & Resume function.

Maintains a stable printing environment by activating the integrated fabric dust removal system.

ARTRIX PRIME OMNI — Quality, Stability, and Efficiency—Integrated into One System.

Specification

05

No.	Category	Item	Specification	Remarks
1	Basic Information	Model Name	ARTRIX PRIME OMNI	
2	Basic Information	Max Printing Width	1,850mm	
3	Head Configuration	Number of Printheads	24 / 18	
4	Head Configuration	Head Manufacturer / Model	Ricoh / Gen5	
5	Head Configuration	Drop Size	5 / 10 / 15 pl	
6	Printing Speed	3 Pass	145 m2/h	TBD
7	Ink & Color	Ink Type	Reactive, Acid, Pigment	
8	Ink & Color	Color Configuration	Y, R Or, M, K, B, Gn, C	
9	Media Feeding System	Feeding System	Front-Rear Motion Type	
10	Media Feeding System	Belt Cleaning System	Brush + Sponge Type	
11	Option	Fixation	Includes Fixation Function	
12	Roll Specification	Max Dia. / Weight	400mm / 150kg	
13	Electrical Requirements	Power / Voltage	TBD	
14	Software	RIP Software	TBD	

Thank you



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