efi *Cretaprint 5.0*
The smart printer for ceramic decoration

The 5th generation of ceramic printing technology
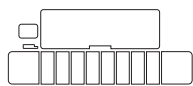
Connectivity, integration and a great user experience

The Cretaprint 5th generation of ceramic printers represents a qualitative leap in tile decoration. By focusing R&D on end user needs, we've developed this easy-to-use printer that works at full capacity without stopping and includes significant improvements aimed at providing maximum performance.

Human technology:

Reliability
Usability

DIGITAL CERAMIC DECORATION ECOSYSTEM

PRINTERS	COLOR MANAGEMENT	INKS	CUSTOMER CARE

EFI™ is the only company able to offer the ceramic industry a complete solution. Designed and adjusted for the specific needs of the industry and focused on efficiency and productivity, we offer a whole range of tile printers, ceramic inks, colour management software, and complete service programmes to help you increase productivity and quality and meet environmental requirements.

At the same time, platform 5 ceramic printers are the start of future evolution, leading to connectivity and relationship with the immediate environment. That is why the new printers include solutions to move forward in Industry 4.0:

- Integrated solutions: Scada application
- Independent: EFI Go
- Plus a traceability tool: ID printing

Open to future development:

Ready to communicate
Cloud solutions

Cretaprint M5

Reliability and connectivity:

e·D5 printhead

To achieve maximum performance and integration, EFI has developed our first-ever printhead.

- **Plug & play:** e·D5 was designed to assure better alignment and to avoid future adjustments by providing better printing precision and greater image quality.
- **New nozzle shape:** Ensures printing uniformity which is achieved thanks to a lower ink drop deviation and also to the reduction of head obstruction.
- **Speed:** The new e·D5 head works at higher speeds while maintaining printing resolution.
- **EFI Cretacolor Ceramic Inks:** The e·D5 has been developed for EFI Genuine Inks with specific waveforms that improve ink drop behaviour.
- **Fiery proServer Colour Management for Ceramics**: Creates better colour separation thanks to a new algorithm specially developed for the e·D5, resulting in lower ink consumption.
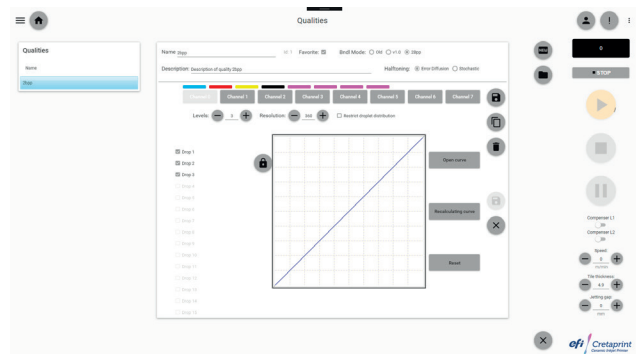
Superb printing technology

High performance goes beyond the printhead. The 5th generation of ceramic printers achieves major improvements in printing technology.

- **Mechanics:** High precision plate for a real plug & play printhead. Printing bars use a new plate thermos stable that reduces the need for adjustments.
- **Ink delivery system:** Refined system that is even more efficient and ready to work with high-productivity and high-discharge printheads, and includes total recirculation, zero sediments, and total temperature control needed to achieve the high performance of platform 5 tile printers.
- **Easy usability:** The simple design makes it easy to use both for daily operations and maintenance tasks.
- **New software and electronics:** Constant bidirectional communication with printhead enables automatic alignment.

User interface

Our new interface makes operation much more intuitive:

- Direct access to main functions.
- Bars, transport and alarm status always on screen.
- New menu configuration to make navigation easy and help accessing to advanced options.
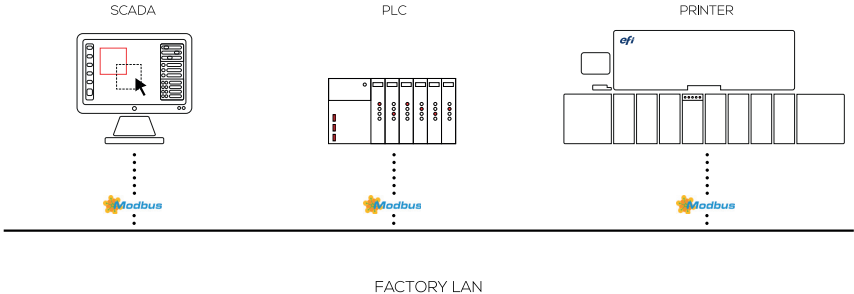- Multi-language and touchscreen.

Advancing in Industry 4.0

Communication 4.0

AEFI Cretaprint printers include interfaces with a standard Modbus protocol to allow third party SCADAs and PLCs access to printer parameters.
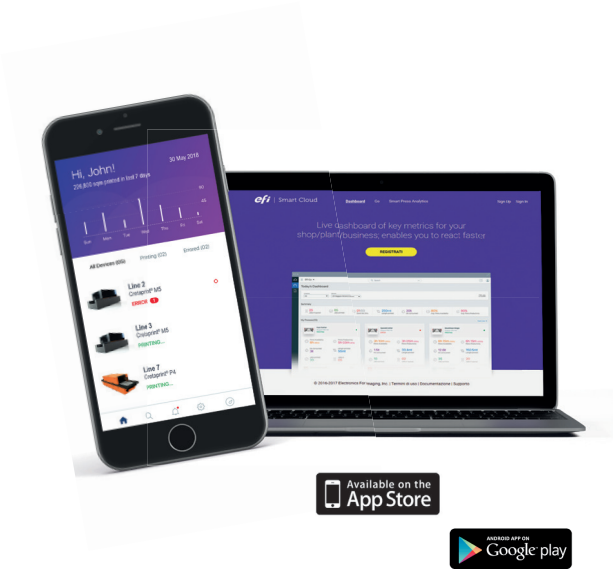
The Communication 4.0 application provides access to root data such as machine status, models printed on each line, tile characteristics, ink levels, printed metres, and alarms.

EFI Go

Our mobile app allows printer operators to monitor the status of the printers as well as analyse production statistics in an easy and friendly way. A complementary solution for real-time plant control:
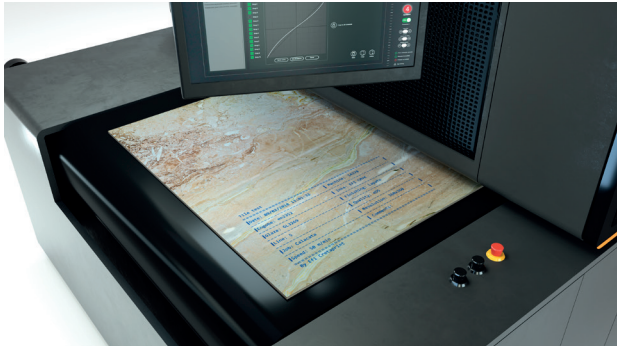
- Printing status
- Alarms
- Statistics

ID Printing

ID Printing allows the user to create templates with information such as date, time, file name, print profile, ink temperature, and printing speed. These templates can be edited and uploaded by the operator whenever a master piece printing is required. This is useful for:

- Master tiles and production control
- Traceability
- Adjustment and monitoring of machines

Technical Data

MACHINE SPECS	M5	C5	D5	N5
Max. printing width (mm) [1]	Up to 1138	Up to 710	Up to 710	Up to 1138
Max. Number of printing bars	Up to 8	Up to 8	Up to 12	Up to 12
Max. tile length (mm)	1650	1450	1450	1650
Print speed (m/min)	Up to 60	Up to 60	Up to 60	Up to 50
Print direction	Right/Left			
Min. tile thickness (mm)	xFrom 3 mm			
Max. tile thickness (mm)	Up to 30 mm			
Centering printing precision	<0.3 mm			

[1] *Final printing width may differ depending on the printhead.*

DIMENSIONS	M5	C5	D5	N5
Width (mm)	2,100	1,650	1,650	2,100
Height (mm)	2,050	1,950	2,050	2,270
Length (mm)	4,900	4,000	5,000	6,100

CABIN DIMENSIONS	M5	C5	D5	N5
Width (mm)	4,700	3,700	3,700	4,700
Height (mm)	2,800	2,800	2,800	3,300
Length (mm)	5,900	5,500	6,500	7,700

MACHINE ASSEMBLY	M5	C5	D5	N5
External power supply	Variable (380/400/440/480V)			
Max power consumption (8 colours)	24 KVA	18 KVA	24 KVA	34 KVA
Electrical phases	3F+GND			
Power connection frequency	50/60 Hz			
Pneumatic connection	7 bar			Line 1: 5–8.5 bar Line 2: 7–8.5 bar
Cabin recommended temperature	25-35°C			
UPS included	Yes			

SOFTWARE	
Image file type	TIFF and RPF
Rendering time	VARIABLE
Image loading time	1 - 15 s
Image changing time during production	1 s
Parallel riping and printing	Yes
Number of images per model	100
Print an image without stopping	Yes
Cretavision: reliefs recognition system	Optional
Double tile printing	Optional

PRINTHEADS			
Printhead Model	Seiko RC 1536	Seiko RC 1536·L	e·D5
Printheads width (mm)[1]	108.3	108.3	108.3
Number of nozzles	1536	1536	1536
Native resolution (dpi)	360	360	360
Drop size range (pL)	13-98	25 - 225	23 -100
Greyscale levels	Up to 8	Up to 10	Up to 6
Firing frequency (kHz) jetting max drop volume	10.2-28	Up to 37	Up to 41
gr/m^2 (25 m/min)	45	80	55

[1] *Information according to printhead manufacturer.*
Printer in development; specifications subject to change without notice

Upgrades

Available at any time to existing bars or add new bars to change printing widths, add new colours to the bars, or increase the drop volume for applying special effects.

For more information

For more information on EFI Cretaprint products or to speak to an EFI Cretaprint specialist directly, please call +34 964 340 264 or email cretaprintsales@efi.com.

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