



Jetmaster-wood

Modular digital printing systems



Video





Jetmaster-wood

The contact-free printing system based on the BII Single-Pass technology prints digital images on multiple substrate types easily at an industrial level.

The BII printers are a new concept in comparison to conventional industrial printing systems. They allow to make your production capacity more flexible and increase the quantity of designs you offer currently.

With the Barberan Digital Single-Pass Technology you will be able to react very fast to trend changes in the market and attend better customer's demands in matters of design and production quantities. All this having your production costs under control.

Barberan S.A was one of the first developers of Single.Pass application systems and create its own technologies in mechanics, electronics and software.

Aside from this fact, Barberan owes also a large experience in the treatment of surfaces, being able to achieve an optimum printing quality on any type of substrate (melamine, MDF, particleboard, etc.).

Thus Barberan does not offer just a printing machine but a complete solution for each one of the processes involved in a printing line.

Remarkable features

- High quality printing of digital images on multiple substrate types.
- Speed from 10 up to 60 linear metres per minute at maximum printing quality.
- Excellent relation between color intensity and drop size.
- Over 1400 dpi optical resolution.
- Modular printing head construction
- Color management integrated in the industrial process.
- Instantaneous design changes during printing process.
- Controlled and visualized ink costs .
- Minimum maintenance and personnel costs.



DIGITAL IMAGE OF
PHOTOGRAPHY OR ESCANNER
IMAGEN DIGITAL DESDE
FOTOGRAFIA O ESCANER



OPTIONAL
OPCIONAL

IMAGE EDITING
RETOQUE
DE IMAGEN

OPTIMIZATION AND ADDITIONAL INFORMATION
OPTIMIZACIÓN E INFORMACIÓN ADICIONAL

COLOR MANAGEMENT AND PROCESSING
GESTIÓN DEL COLOR Y PROCESADO

RIP - ICC → BDIP

(white layers, 3D
lacquers, 5th colors)
(capas de blanco,
barniz 3D, 5º color)

FILE BIJ
FICHERO BIJ



IMAGE BIJ
IMAGEN BIJ

PRODUCTION
PRODUCCIÓN



PRINTING
IMPRESIÓN

Especificaciones del sistema: System specifications:

Printing system:	Digital Single Pass
Resolution:	360 dpi, 3 drop sizes equivalent to 4 grey levels (horizontally and vertically).
Optical resolution:	>1400 dpi
Colors:	CMYK 360dpi +Option of additional compatible colors +Option of white color +Option of 3D lacquer
Inks:	UV dried inks approved by the manufacturer of the printing heads. Solvent based inks.
Ink supply:	Standard commercial tanks.
Printing line control software	BIJ printer (Barberan S.A.)
Image processing software	BDIP (Barberan S.A.)
Color management software:	Productionserver of ColorGate (Digital Output Solutions GmbH)
Formato Archivo de Entrada:	TIFF, JPEG, PSD, BMP, EPS, PDF
Working modes:	-Piece: Prints one image on each piece -Roller: Virtual roller of high dimensions (over 20 meters of development). -Random: Prints on each piece a different area of an image.
Production capacity:	-Up to 60 linear meters per minute in all printing widths with the maximum quality. -Instantaneous printing image change.



Digital printing of boards

The digital printing lines for boards are for a lot of applications the best solution to make your production capability more flexible being able to attend the needs of any customer fast and easy having the costs under control.

A digital image can be printed on endless different types of substrates like MDF, boards overlayed with: melamine, wood veneer or paper, plastic, glass and similar materials. The process can be adapted to the requirements of each customer and each type of substrate he wishes to use (the conveyor belt includes a vacuum system to hold down the workpieces).

These substrates are prepared so that the digital printing is performed as efficient as possible (ink consumption and printing quality). The inks that were duly tested and approved by Barberan for his digital printing system are UV type. This type of ink helps that the printing heads work with high stability and strength so that no unwished effects appear inside them.

The range of possibilities that Barberan offers before and after the printing is very wide. You can use for instance paper foil laminating systems to improve the MDF or PB surface, machines for the application of filler, lacquer, HotCoating®, etc. always counting with Barberan's technical advice to achieve the most suitable composition.

- High performance innnovating concept to increase the product offer, achive more production flexibility and reduce costs.

- The production capability becomes more flexible because no machine or new design preparation times are needed. Investments in new printing rollers are no longer necessary.

- Production on demand (customized products, repetitions).

- Different designs on the same type of substrate (stock reduction).

- Fast adaptation to new market trends.

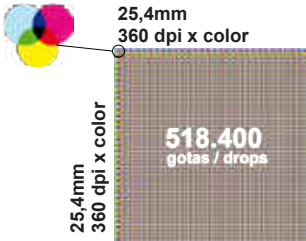

- Substrate type storage reduction (less stock, production on demand).

- Reduction of manpower.

- The designs will be prepared starting from a digital image, which can be edited so many times as you wish (modifying color, woodgrain, etc.)

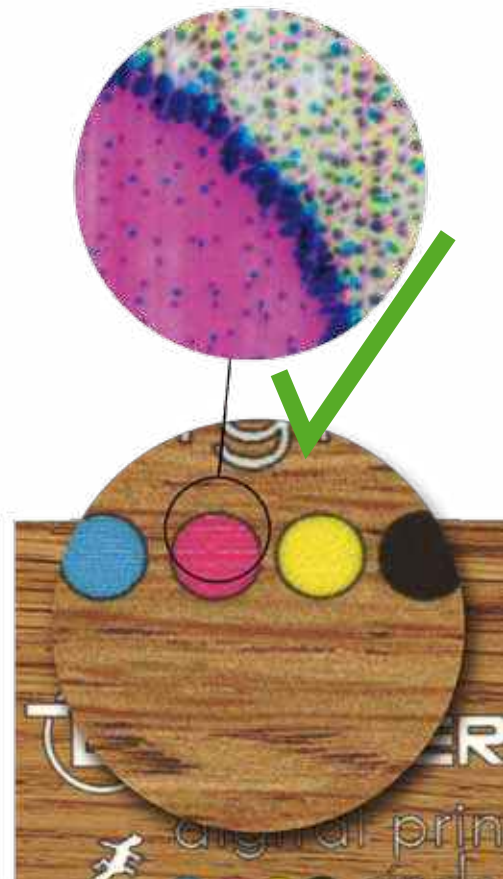
- Controlled color environment management for high fidelity monitoring and printing of scanned.



Gama de modelos/Range of models	
Modelo/ Model	Ancho efectivo de impresión Effective printing width MAX. mm
BIJ-210	210
BIJ-420	420
BIJ-630	630
BIJ-840	840
BIJ-1050	1050
BIJ-1260	1260
En todos los modelos In all models	
Resolución de impresión Printing resolution	 <p>25,4mm 360 dpi x color</p> <p>518.400 gotas / drops</p>
Resolución óptica Optical resolution	>1400 dpi
Tamaño de gota variable Variable drop size	 <p>7pl/14pl/21pl/28pl/35pl</p>
Velocidad de impresión Print speed	Hasta 60 m/min lineales (con máxima calidad) Up to 60 linear m/min (with maximum quality)



-Detail of a digital print on a substrate with **unsuitable pretreatment**.



-Detail of a digital print on a substrate with **optimum pretreatment**.

Jetmaster-wood



INKJET



Printing lines

The digital printing process could depend as well of the substrate pretreatment process. Printing at a resolution of 360 dpi means to accumulate more than 500.000 ink drops of different sizes in a square inch area (25,4 mm x 25,4 mm).

The proper treatment of the substrate to be able to absorb and position such quantity of ink drops is the factor that decides finally the printing quality.

Barberán S.A. is also specialized in the surface pretreatment. We offer tailor-made solutions according to the needs of each customer in each one of the processes involved in a printing line in order to achieve the best efficiency and quality from the beginning up to the end.

Different applications of the substrates printed with the BIJ INKJET technology.

- Furniture
- Kitchens
- Flooring, laminated flooring and skirting boards
- Doors and windows
- Frames and profiles
- Decorations with plastic and glass.
- Decoration sectors
- Customized design on foils for wrapping profiles.
- Interior designs

**pretreatment of the base +
printing +
drying +
top coat**





INKJET BIJB-630 Printing and finishing line for melamine panels.



INKJET BIJB-840 pretreatment /printing and finishing.



Pretreatment with HotCoating, INKJET BIJB-1260 printing and high gloss finishing.





Digital printing of decorative foil

BIJC-INKJET digital printing machine series suitable for printing decorative paper foil rolls used in the wrapping process of moldings or profiles made of wood, particleboard, MDF, PVC or similar materials for manufacturing skirting, decorative elements, picture frames, door frames, multi-functional parts, etc. which require a customized design or for small productions with acceptable costs due to its short preparation times.

The BIJC-INKJET printing machines can be equipped with an additional head for the application of 3D lacquers to achieve a texture effect on the printed surface.

The maximum printing width is up to 210 mm (model BIJC-210-β). There is also a beta version for maximum printing widths of 420 mm (model BIJC-420β). On the other hand, the possibility to manufacture printing machines for special widths, according to customer's production requirements, is not excluded.

The experience of Barberan in both, digital printing and profile wrapping, allows us to offer complete and customized solutions for each customer. The great advantage is that the customer deals with a unique machine supplier for the whole project, being able to perform all necessary tests in our laboratories in order to define which machines are necessary to produce the desired product.

Our machines apply in the foil pretreatment and finishing processes, for instance, HotCoating, to increase the surface resistance, as well as base and top coats, fillers, etc. Furthermore, our profile wrapping machines can adapt to any production requirement gluing the paper foil with PUR hotmelt glue (model PUR-33-L, PUR-46-L, etc.) or EVA hotmelt glue (models RP-30, PL-32, PL-45, etc.).



Profile wrapping machine



Jetmaster-paper



UV-Varnish-210



INKJET



Color management

The color management system in the printing processes allows to create a design environment so that the images you see in the monitor have the maximum similarity with the images you are printing, independently of the used substrate type.

The use of above technologies and the experience in the treatment of surfaces of Barberan, allows to maximize the color spectrum that can be printed on each one of the substrates used by the customer with minimum possible ink costs.

Once a color management system is installed, the creation of printing files for different substrates is fast and easy as the preparation times are very short.

Furthermore the BIJ system allows, once the printing files are created, immediate and automatic image changing according to the programmed working orders.

Production changes without mechanic manipulation.

Software

Barberan supplies following software applications:

BIJ Printer: Printing line control software developed by Barberan for all components of the line including the control of the printing system and the rest of machines involved in the processes of substrate pretreatment and finishing.

Features:

- Centralized configuration and monitoring of all line parameters.
- Management of the printing files.
- Production management for different jobs.
- Production recipe management for simultaneous switching over to different line configurations depending on the job to be performed.
- Multiple working modes according to the production requirements of each customer.
- Information about productivity and ink consumption.
- FLASH/SD cards persistent in the system for image storage.
- Instantaneous image changes during printing.
- Printing roller simulation.
- Image uploading system optimized for modular Single Pass systems.

BDIP Technology (Barberán Digital Image Processing): Software for the processing and conversion of image files like TIF, JPEG, BMP, PDF and EPS to BIJ format developed by Barberan.

The BIJ format file optimizes the image information making it suitable for Barberan Single-Pass systems. Apart from this, the existing CMYK data and the information about white color or 3D effect lacquer can be included as well.



Printing machines for special applications



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Worldwide service and parts supply.

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Barberán Single Pass Digital Printing System, totalmente desarrollado (I+D) por BARBERAN S.A.
Y SUS DEPARTAMENTOS DE TRATAMIENTO DE SUSTRATOS, COLORIMETRIA, SOFTWARE Y ELECTRONICA

Barberan Single Pass Digital Printing System, entirely developed (I+D) by BARBERAN, S.A.
AND ITS DEPARTMENTS FOR SURFACE TREATMENTS, COLORIMETRY, SOFTWARE AND ELECTRONICS.

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