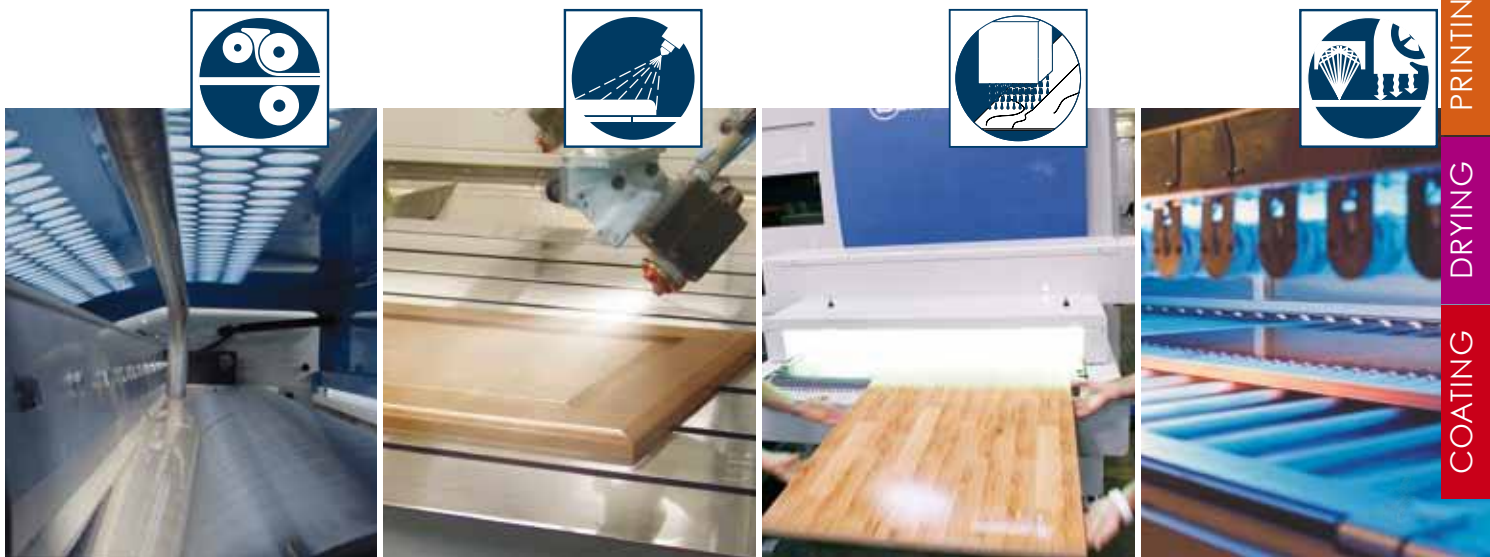


Coating, Printing and Drying Systems



INTRODUCTION

BARBERAN delivers nowadays the best solutions in coating, printing, drying, profile wrapping, laminating, post-forming and profile sanding, as well as a wide range of complementary machines. Our machines can be found in more than 3,000 factories for furniture, doors, windows, panels, flooring, profiles, packages, boats, toys, cars, appliances, glass, etc. More than 85% of them are located outside Spain. Our lines are designed to improve productivity and reduce manufacturing costs, taking always into consideration our respect for the environment.

We have an independent manufacturing plant exclusively dedicated to produce our coating and printing machines, drying tunnels as well as complementary machines. At this facility, we manufacture from single machines to the most comprehensive lines according to customer's needs.

We are the company who developed the last technology of indirect printing either for wooden packages, printing over profiles of PVC, glass, , flooring, profiles, doors, PVC, etc., as well as a wide range of furniture printing systems.



Quality and Service

QUALITY. BARBERAN, S.A. Number one objective is to offer each client with highest quality products. With this philosophy, we undertake each step with strict quality control, from the acquisition of the raw material, production, machines installation till the after sales service. The iso 9001 certification governs each manufacturing step and guarantees our quality at international level.

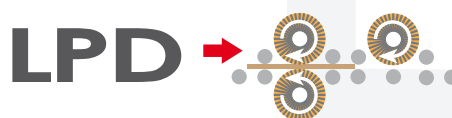
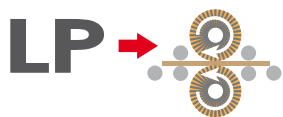
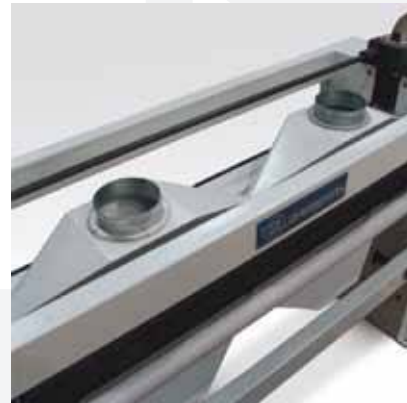


LP

widths 600 up to 2400 mm

BRUSH CLEANING MACHINES.

Machines for the cleaning of flat surfaces by means of an upper and a lower vegetal fibre brushes, that rotate in the opposite direction to the workpieces. The lower brush is also adjustable in height in order to compensate the wear down. The machine includes a driving roller conveyor for the transport of the workpieces.



IBX

BRUSH TABLE FOR STAIN INTRODUCTION AND DISTRIBUTION

Machine for a regular stain introduction and distribution on the whole wood surface to achieve effects like rustic, deep pore, etc.



IBX-R

BRUSHING MACHINE FOR STAINING AND IMPREGNATION PROCESSES.

The brushes extend the product surplus at the same time that it is introduced inside the wood pores.



Wandres

CLEANING SYSTEM FOR FLAT SURFACES

The effective and gentle removal of dust, fibres and minute particles from industrial surfaces is a must for a great number of subsequent processes painting, laminating etc.



COATING

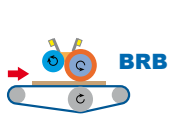
BRB

widths 600 up to 2400 mm

ROLLER COATER.

Machine designed for the application of uniform coats of stain or lacquer on flat surfaces by means of one head with a smooth rubber application roller. The metallic dosing roller has a switch for reverse turning in order to increase the grammage adjusting capabilities. Antistatic solvent resistant belt conveyor with centering system and variable advance speed for the transport of the panels. This machine can operate in a lacquering line with compatible working height, width and feed speed.





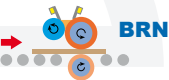
Roller coating machine with belt conveyor.



Roller coating machine with belt conveyor, Rill-Roller system.



Roller staining machine with belt conveyor.



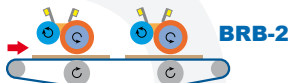
Roller coating machine with rollers conveyor.



Top and bottom roller coater with roller conveyor.



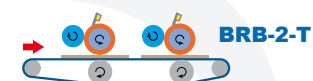
Roller coating machine with rollers conveyor, Rill-Roller system.



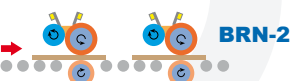
Roller coating machine with belt conveyor and two application heads.



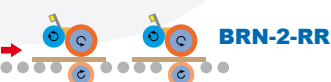
Roller coating machine with belt conveyor and two application heads, Rill-Roller system.



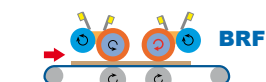
Roller staining machine with belt conveyor.



Roller coating machine with rollers conveyor and two application heads.



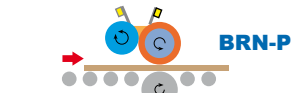
Roller coating machine with rollers conveyor and two application heads, Rill-Roller system.



Roller coating machine with belt conveyor, Reverse system.



Roller coating machine with rollers conveyor, Reverse system.



Compact coating center.

MER widths 600 up to 2400 mm

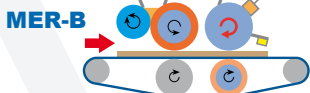
FILLER APPLICATION MACHINE.

Machine designed for the application of fillers to cover the grain in flat surfaces of natural wood, veneer, chipboard, MDF and similar materials. The machine is equipped with two roller heads: the first one includes a 40 sh. rubber application roller and a reversible dosing roller and the second head fits one chromed and polished steel reverse smoothing roller. An antistatic solvent resistant belt conveyor with centering system and variable advance speed is used for the transport of the panels. This machine can operate in a lacquering line with compatible working height, width and feed speed.

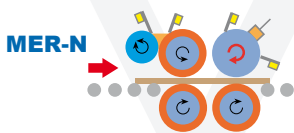




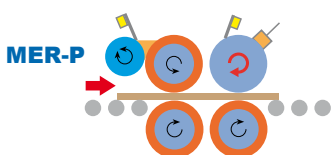
widths 600 up to 2400 mm



Filler / lacquering and roller coating machine with belt conveyor.



Filler / lacquering and roller coating machine with rollers conveyor.

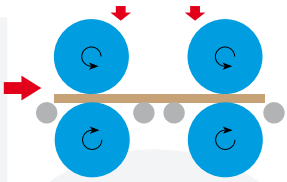


Heavy duty roller filler / lacquering machine.

Calendering

CAL

widths 600 up to 2400 mm



Calendering machine with cold metallic rollers (optionally heated), for the improvement of the surface before gluing or to press the glued panels.

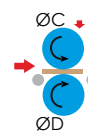


OPTIONAL
Foil cut at the outfeed.

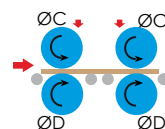


4 Heated rollers (option).

CAL-2



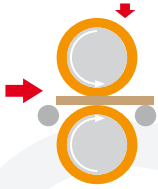
CAL-4



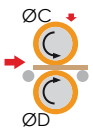
MOD.	A.mkg	Ø C	Ø D	kW
CAL-2-800	700	248	248	6
CAL-2-1100	1000	248	248	9
CAL-2-1400	1300	248	248	12
CAL-2-1600	1500	248	248	13
CAL-2-2200	2100	290	290	19
CAL-2-2400	2300	290	290	23
CAL-2-2600	2500	290	290	24
CAL-2-3200	3100	358	358	30
CAL-4-800	700	248	248	12
CAL-4-1100	1000	248	248	14
CAL-4-1400	1200	248	248	22
CAL-4-1600	1500	248	248	25
CAL-4-2200	2100	290	290	36
CAL-4-2300	2200	290	290	38
CAL-4-2600	2500	290	290	40
CAL-4-3200	3100	358	358	50

CAL-H widths 600 up to 2400 mm

Calandering machine with cold rubber rollers to press, calander the panels glued with hotmelts.

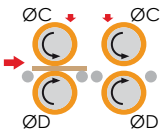


CAL-H-2



MOD.	A. máq	Ø C	Ø D	kW
CAL-H-2-800	700	238	248	2
CAL-H-2-1100	1000	238	248	2
CAL-H-2-1600	1500	238	248	2
CAL-H-2-2000	1900	350	350	3
CAL-H-2-2300	2200	350	350	3
CAL-H-2-2600	2500	350	350	3
CAL-H-2-3200	3100	400	400	4
CAL-H-4-800	700	238	238	4
CAL-H-4-1100	1000	238	238	4
CAL-H-4-1600	1500	238	238	4
CAL-H-4-2000	1900	350	350	6
CAL-H-4-2300	2200	350	350	6
CAL-H-4-2600	2500	350	350	6
CAL-H-4-3200	3100	400	400	8

CAL-H-4



Option upper unwinding station.



Digital Control of the roller temperature (option).



Top rollers raising through motorized spindle with analogical comparator read out.



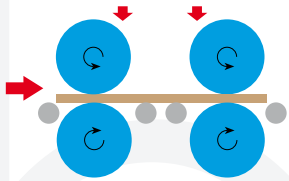
Single motor driving to the 2 or 4 pressing rollers.



Speed regulation through INVERTER with digital display.

Calendering

CAL-4-2200

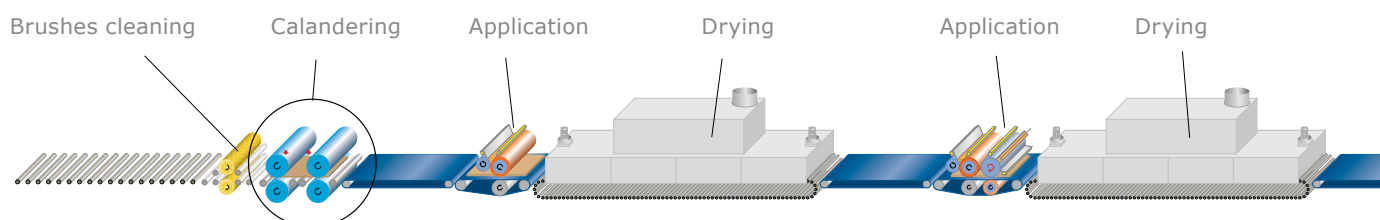


Calender machine with metallic unheated rollers (optionally heated) to improve the surface of the panels before they are glued or for pressing glued panels together. The rollers press the wood or particleboard panels so that the resin content seals their surface achieving an effect comparable to the application of filler avoiding the intermediate sanding as well.

This method achieves important savings in lacquers and sanding belts and minimizes the risk of peelings. The upper pressing rollers are made of chromed, rectified steel.

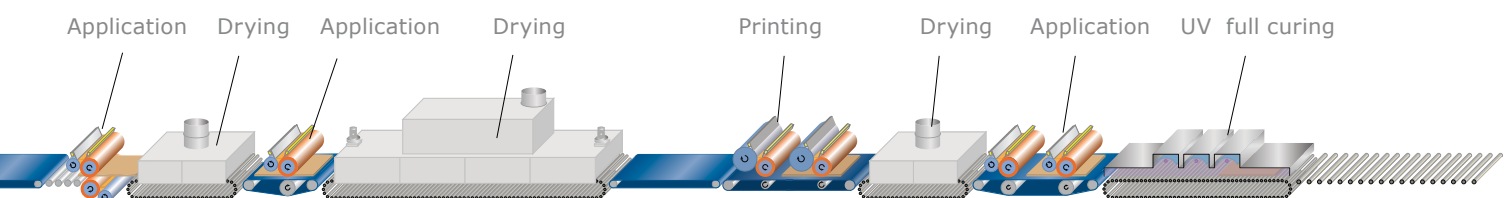


Preparation for the roller assembling Ø500.



Situación de una CALANDRA en una línea de impreso de paneles.
Location of calender machine in a panel printing line.

widths 600 up to 2400 mm



COATING

High Gloss





matt finish



COATING



mirror finish

High Gloss



HIGH GLOSS ROLLER LACQUERING SYSTEM FOR FINISHING MELAMINE SURFACES.

This completely new process, patent pending by Barberan, uses the product HotCoating® from the german adhesive manufacturer Kleiberit, which allows to apply this product directly on the melamine surface without the need to apply primer first. The HotCoating® presents exceptional adhesion properties, providing an excellent strength at the same time. The process is interesting, not only for melamine surfaces on MDF boards, but also melamine laminated particleboard panels. For this kind of finishing, Barberan has developed a specific roller coater that achieves, with a single application, the finish quality that is so far only possible when spraying guns or lacquer curtains are used. The roller application system is smaller, saves more than 50% coating product, as far 100% solid content lacquers are used, and involves a much more efficient and solvent-free application.



Different line configurations are possible but always depending on production requirements. Starting from the application of UV top coat directly on the HotCoating® up to the combination of HotCoating®, UV base and top coat and sanding for a spectacular finish quality. The effectiveness of this process was duly tested on different application fields of the furniture and decoration industries where a melamine coated particleboard or MDF board was involved. This process solves the typical difficulties of this type of treatment, with a simple and compact line that improves the product properties, resistance and durability, above those results obtained with conventional UV systems. Combined with the BIJ digital printing technology, this system allows to create totally customized boards eliminating the stocks with a high versatility when it comes to deliver different designs or small quantities without increasing costs.

Example of application:

High gloss: HotCoating 20 gr/m², UV base coat 40 gr/m², UV top coat 60 gr/m².

Matt – semi-glossy: HotCoating 30 gr/m², UV base coat 40 gr/m², UV top coat 20 gr/m².

High Gloss

BHG widths 600 up to 2400 mm
The most complete range of HIGH GLOSS finishing roller coaters.

ROLLER COATER FOR THICK HIGH GLOSS UV APPLICATION

Unique machine designed for the application of a thick HIGH GLOSS UV lacquer coat on flat surfaces in a Barberán finishing line.



BHG-1400-F



widths 600 up to 2400 mm



BHG-F or FM

Roller coater for high gloss top coat application (L version) or matt top coat (FM version).



BHG-L or R

Roller coater for high gloss base coat application (L version) or matt base coat (R version).



BHGP-F or FM

Roller coater for high gloss top coat application (L version) or matt top coat (FM version).

BHGP-L or R

Roller coater for high gloss base coat application (L version) or matt base coat (R version).

High Gloss

MHG widths 600 up to 2400 mm

HIGH GLOSS UV PUTTY APPLICATION MACHINE

Unique machine designed for the application of HIGH GLOSS UV putty coats on flat surfaces in a Barberán S.A. production finishing line.



MHG-1400

MENH

widths 600 up to 2400 mm

HOTMELT POLYURETHANE SPREADING-SMOOTHING MACHINE

This machine is specially designed for the application of hot melt Polyurethane (PU) on flat surfaces.

erom



COATING

MENH-1400

High Gloss

HIGH GLOSS ON MELAMINE BOARD APPLIED BY ROLLER.

High Gloss finished melamine boards with HotCoating®.

In this new developed technology, products from the company KLEBCHEMIE M.G.Becker GmbH "KLEIBERIT" are used in order to achieve a perfect adhesion on melamine, avoiding the usual problems that often appear in conventional processes, like bad adhesion or other problems during cutting and drilling, etc.

The special designed roller technology from BARBERAN is capable of applying a High Gloss UV finish, which was, up to now, only possible by the use of spraying guns or curtain coaters.

Characteristics

- "Mirror Finish" quality with best values in transparency and depth.
- Perfect adhesion of the UV High Gloss products on melamine.
- Extremely economic system with an overall cost lower than using traditional systems.
- Excellent properties to be cut.
- Immediate manipulation of finished boards.
- Flexibility; allows to be postformed.

FINISHED ON MELAMINE BOARD, ROLLER PRINTED BOARD, DIGITAL PRINTED BOARD, ETC.



erón



High Gloss

COMPLETE PROCESS FOR HIGH GLOSS OR MATT ROLLER FINISHING OF MELAMINE:

- Cleaning
- HotCoating® application
- Cooling
- Application of UV base coat 1
- UV Curing
- Application of UV base coat 2
- Conditioning in controlled environment
- UV Curing
- Sanding and cleaning
- UV High Gloss top coat application
- Conditioning in controlled environment
- UV High Gloss top coat curing

THIS PROCESS IS ALSO SUITABLE FOR DIFFERENT TYPES OF SUBSTRATES AS:

- Printed boards
- BIJ INKJET Digital printed boards
- Cork
- Wood veneer
- Decorative paper
- HPL/CPL



Video

melamine

erón



COATING

Curtain Coater

CURTAIN COATER WITH CURTAIN HEAD MOD. AV, L OR R.

Machine for the application of varnish or paint onto flat surfaces. It operates with one or two curtain heads type High Viscosity (AV) Overflow (R) or Lip (L) system. Equipped with conveyor belts resistant to cleaning solvents. Adjustable speed to vary the grammage of lacquer to be applied.



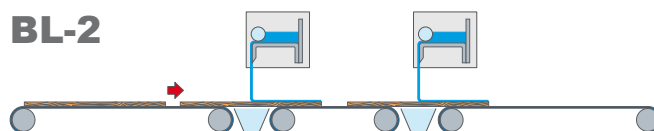
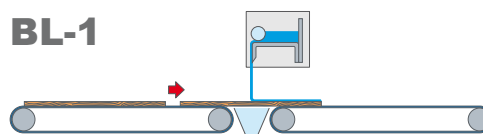
Curtain head HIGH VISCOSITY System, mod. AV, with chromed, high precision roller to regulate the curtain thickness.



Curtain coater head OVERFLOW system mod. R. Stainless steel construction with double adjustable and easy to clean overflow guide.



Curtain head LIP System mod. L, with stainless steel lips of a parallelism that is absolutely inalterable. The inner walls of the head are vitrified.



		AV	L	R	
BL-1					
BL-2		BL-2-AV	BL-2-L	BL-2-R	BL-2-AV-L BL-2-AV-R BL-2-R-L
BLD-1		BLD-1-AV	BLD-1-L	BLD-1-R	
BLD-2		BLD-2-AV	BLD-2-L	BLD-2-R	BLD-2-AV-L BLD-2-AV-R BLD-2-R-L
BLL-1-600		BLL-1-600-AV	BLL-1-600-L	BLL-1-600-R	
BLL-2-600		BLL-2-600-AV	BLL-2-600-L	BLL-2-600-R	BLL-2-600-AV-L BLL-2-600-AV-R BLL-2-600-R-L
BLM		BLM-200-AV	BLM-200-L	BLM-200-R	
BLK & BLKD			BLK-400-L BLK-2-400-L BLKD-400-L BLKD-2-400-L	BLK-400-R BLK-2-400-R BLKD-400-R BLKD-2-400-R	

Curtain Coater

CURTAIN COATER VARNISHING MACHINE WITH REMOVABLE AV, L OR R APPLICATORS.

Machine for the application of lacquer or paint on flat surfaces with removable curtain heads for cleaning or changing the lacquer or paint without having to stop the production. Made up of two completely independent groups: the transport group, that includes two or three conveyor tables and the application group, that includes a shiftable trolley with wheels for each curtain head of either High Viscosity (AV), Overflow (R) or Lip (L) type.

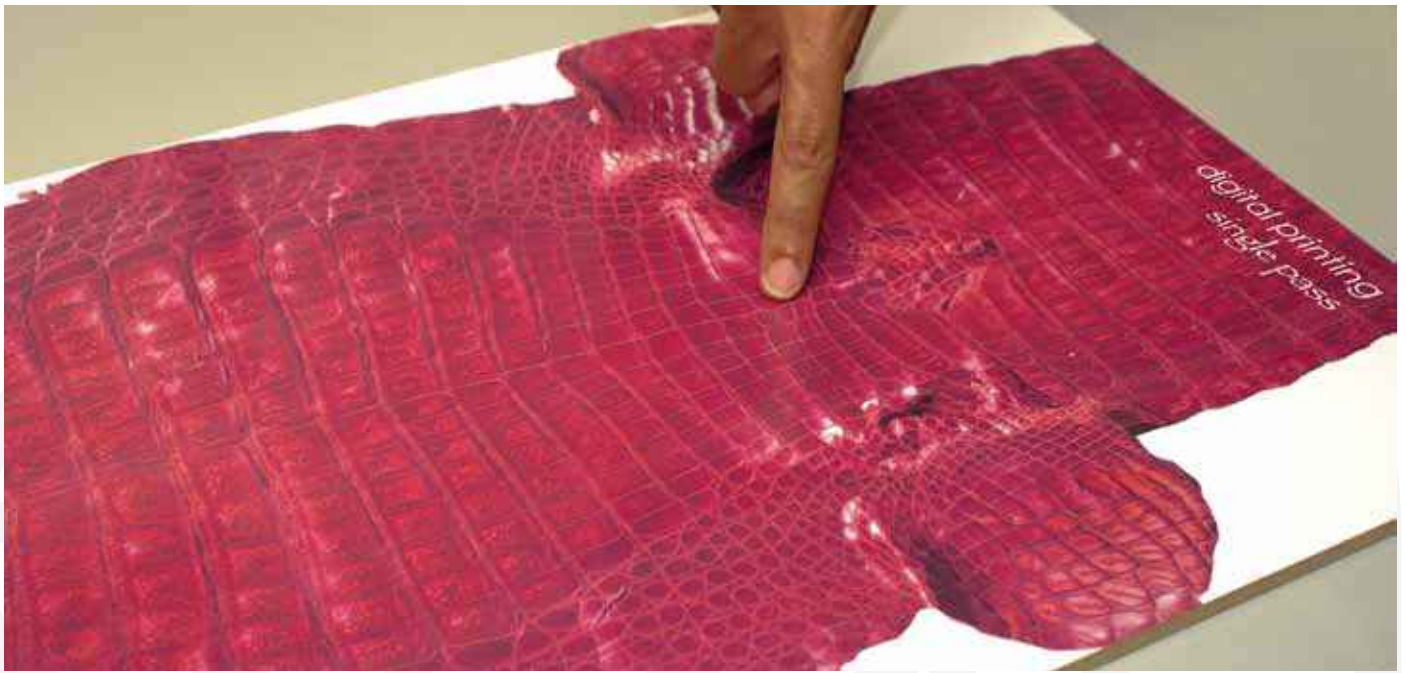




Digital Printing

BIJ INKJET





PRINTING

Digital Printing

Inkjet

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

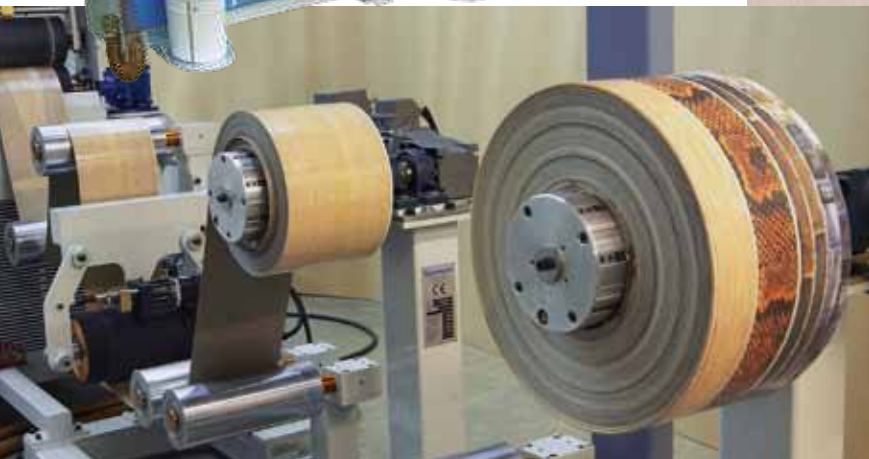
The BII printers are a new concept in comparison to conventional industrial printing systems. They allow to make your production capacity more flexible and increase the quantity of designs you offer currently.

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 FOTOGRAFÍA 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, 5^o color)

FILE BIJ
FICHERO BIJ



IMAGE BIJ
IMAGEN BIJ

PRODUCTION
PRODUCCIÓN



PRINTING
IMPRESIÓN

Especificaciones del sistema:
System specifications:

Sistema de Impresión: <i>Printing system:</i>	Digital de una sola pasada	<i>Digital Single Pass</i>
Resolución <i>Resolution</i>	360 dpi, 3 tamaños de gota equivalente a 4 niveles de gris (horizontal y vertical).	<i>360 dpi, 3 drop sizes equivalent to 4 grey levels (horizontally and vertically).</i>
Resolución óptica: <i>Optical resolution:</i>	>1400 dpi	<i>>1400 dpi</i>
Colores : <i>Colors :</i>	CMYK 360dpi +Opción de colores compatibles +Opción de blanco +Opción de Barniz 3D	<i>CMYK 360dpi +Option of additional compatible colors +Option of white color +Option of 3D lacquer</i>
Tintas: <i>Inks:</i>	Tintas de Secado UV homologadas por fabricante de cabezal. Tintas al disolvente.	<i>UV dried inks approved by the manufacturer of the printing heads. Solvent based inks.</i>
Suministro de tintas: <i>Ink supply:</i>	En bidones comerciales de modelos estándar	<i>Standard commercial tanks.</i>
Software de control de la línea de impresión <i>Printing line control software</i>	BIJ printer (Barberan S.A.)	<i>BIJ printer (Barberan S.A.)</i>
Software Procesado de imagen <i>Image processing software</i>	BDIP (Barberan	<i>BDIP (Barberan S.A.)</i>
Software de gestión de color: <i>Color management software:</i>	Productionserver of ColorGate (Digital Output Solutions GmbH)	<i>Productionserver of ColorGate (Digital Output Solutions GmbH)</i>
Formato Archivo de Entrada:	TIFF, JPEG, PSD, BMP, EPS, PDF	<i>TIFF, JPEG, PSD, BMP, EPS, PDF</i>
Modos de Trabajo: <i>Working modes:</i>	-Pieza: Imprime una imagen en cada pieza. -Roller: Rodillo virtual de grandes dimensiones (superior a 20 metros de desarrollo). -Pieza Aleatoria: Imprime en cada pieza un tramo diferente de una imagen.	<i>-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.</i>
Capacidad de producción: <i>Production capacity:</i>	-Hasta 60m/min lineales en todos los anchos de impresión con la máxima calidad -Cambio de imagen de impresión instantáneo	<i>-Up to 60 linear meters per minute in all printing widths with the maximum quality. -Instantaneous printing image change.</i>

Digital printing on 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 overlaid 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.

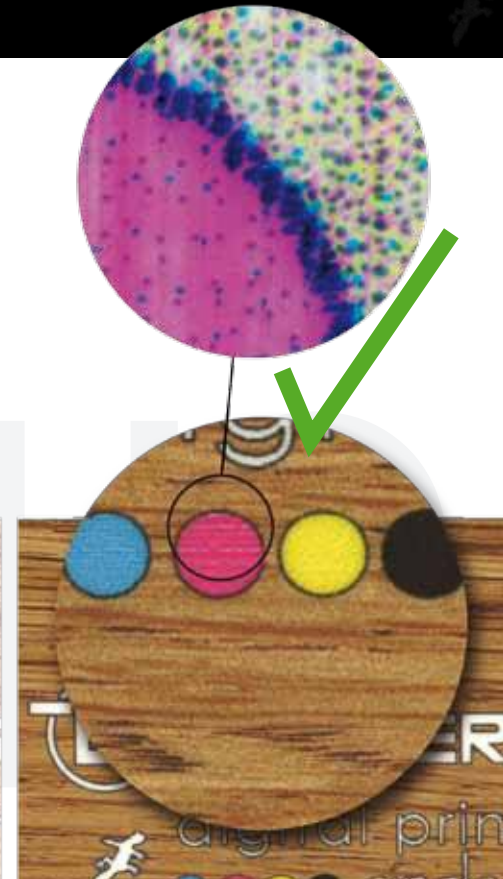
- High performance innovating concept to increase the product offer, achieve more production flexibility and reduce costs.
- The production capability becomes more flexible because no machine or new design preparation times are needed. Investments in new printing rollers are no longer necessary.
- Production 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 surfaces.



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	<ul style="list-style-type: none"> • 7pl/14pl/21pl/28pl/35pl
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 **unproper pretreatment.**



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



Digital Printing

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).

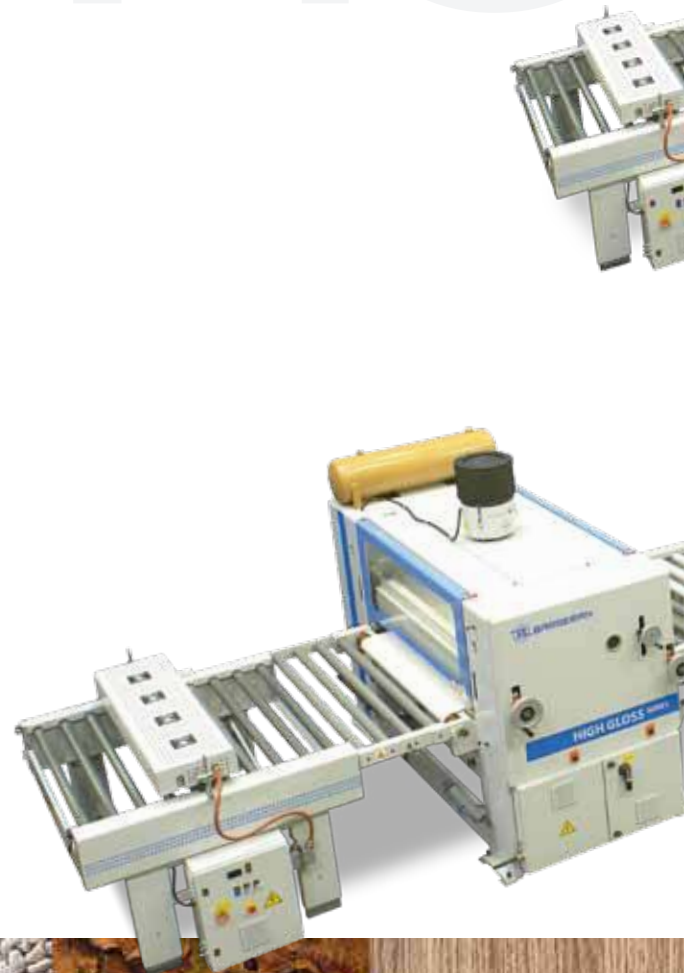
The proper treatment of the substrate to be able to absorb and position such quantity of ink drops is the factor that decides finally the printing quality.

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.

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

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





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.

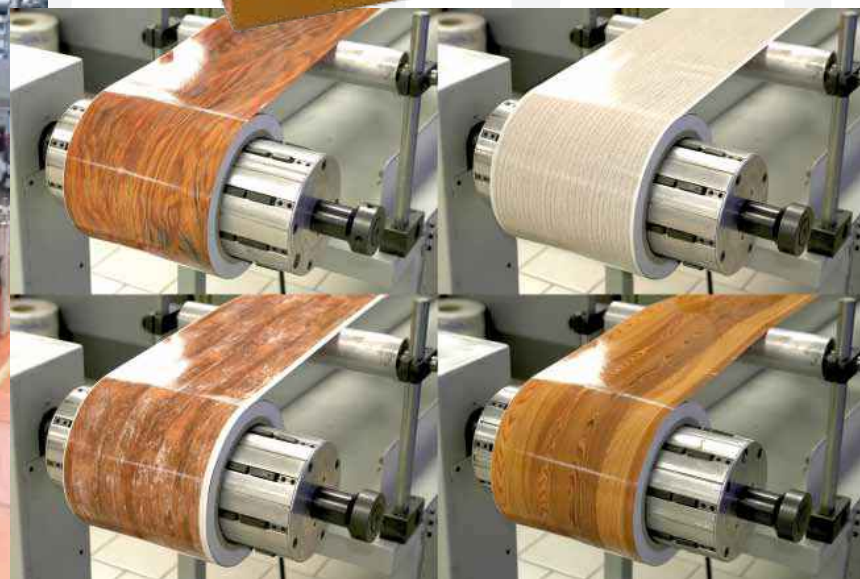
The experience of Barberan in both, digital printing and profile wrapping, allows us to offer complete and customized solutions for each customer. The great advantage is that the customer deals with a unique machine supplier for the whole project, being able to perform all necessary tests in our laboratories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





Digital Printing

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.



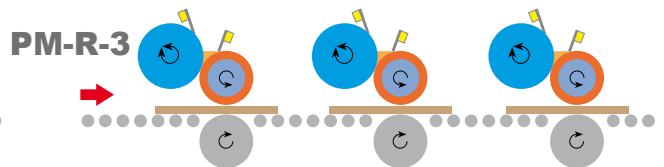
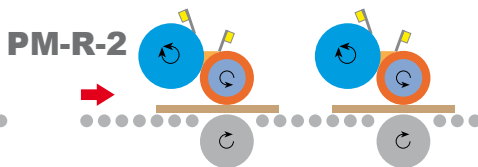
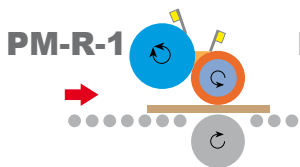
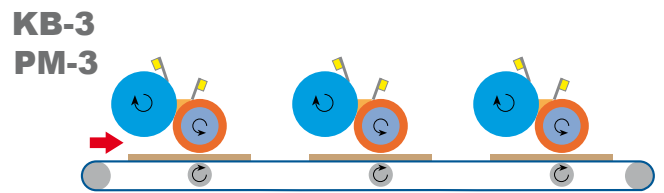
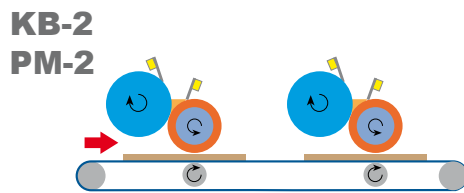
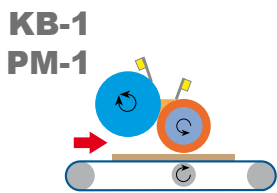
Printing machines operating



Printing

ROLLER PRINTING SYSTEMS

Heavy duty high precision printing machines for printing patterns of natural wood, marble or other decorative designs on flat surfaces. ALLOWS TO FIT ENGRAVED ROLLERS WITH A DIAMETER FROM 220 UP TO 500 mm. The machine can be supplied with one, two or three printing heads. Application width versions from 1400 up to 2400 mm with roller or belt conveyor.



KB



Two-head printing machine

PM



Three-head printing machine with belt conveyor

PM-R



Printing machine with roller conveyor

PRINTING

Cedar



Rosewood



Ash



Walnut



Fir



Oak



PM4-G

3D PRINTING MACHINE

Laboratory multi-function printing machine with 4 synchronized printing heads (2 heads for water based ink, 1 head for the 3D relief which is ready to apply base coat and relief at the same time, 1 head for the application of synchronized optical effects and 1 embossing head) for 3D prints with different finishes (3D pore, synchronized gloss/matt, lacquered 3D, embossing) model PM4-G with vacuum belt conveyor for a better hold down of the panels.



Lacquered 3D pore



Embossing head



PRINTING



3D pore



Lacquered 3D pore



Synchronized gloss/matt



Embossing

DUOflex

PRINTING MACHINE FOR PACKAGING WITH INDUSTRIAL FLEXOGRAPHIC PRINTING SYSTEM. WITH WATER BASE INKS.

Printing machine with automatic feeding system and four offset heads. Designed to obtain a good printing quality and a very high production. Complete printout on the surface, with water base INKS. It prints small alphanumeric texts and bar-codes in high definition.

Following materials can be printed: paper, cardboard, solid wood, MDF, veneer plywood, etc. Preferably being used in fruits and vegetable packaging. Each one of the heads is driven by independent servomotors. The transport belt and the board feeder have also their own drive motors.



The production capacity can vary depending on the drying speed of the inks.(4000 to 10000 boards /h).

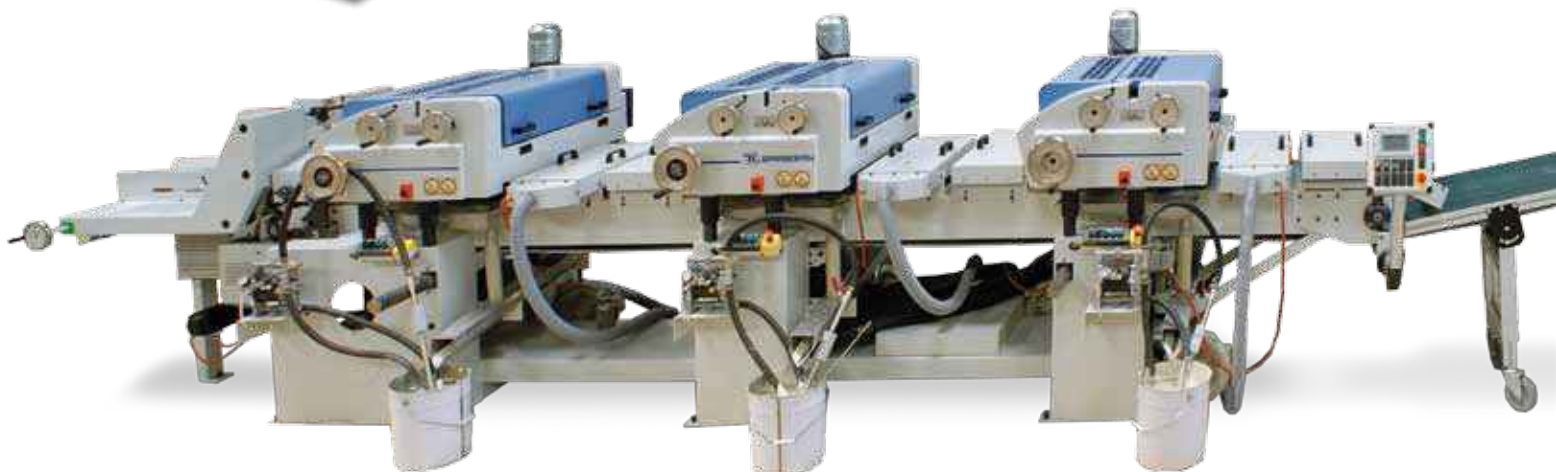


PRINTING

MCB3 + DUOflex

INSTALLATION FOR PRE-PAINTING, PRINTING AND LACQUERING SMALL BOARDS FOR PACKAGES MADE OF MDF.

Installation for printing small boards for building packages composed of a pre-painting station for the application of the base color on the boards with three roller application heads, a printing station with four roller heads for different colors. Both stations are equipped with a belt conveyor with exhaustion system to hold down the boards during the application and hot air drying system after each application stage, belt transfer from one station to the other, outfeed conveyor, roller coater for the application of UV top coat and ultraviolet lamp drying tunnel for curing the boards in full. Board length from 250 up to 600 mm. Width 70 up to 480 mm. Thickness from 2.5 up to 5 mm and working speed from 10 up to 70 m /min.



Each PRINTING HEAD is composed by an applicator roller (or ANILOX roller) and the STENCIL HOLDER ROLLER (with a maximum development of 634mm), supported by the exclusive four-column-system from BARBERAN to achieve the maximum stability. Coupling and tensioning system for the stencil by means of flaps. Manual adjustment of the lateral positioning of the STENCILHOLDER. The separation between the applicator or ANILOX roller and the STENCILHOLDER is performed automatically. The doctor blades of the rollers are adjustable from the side. Continuous automatic feeding of the ink, using funnels and trays for recirculation.



PRINTING

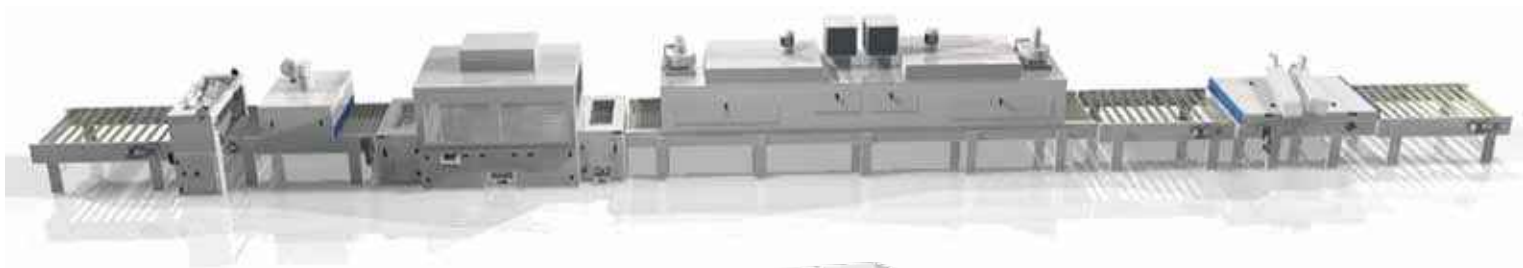


Spraying machine

ROBOT B8 & B4

AUTOMATIC SPRAYING MACHINE ROTARY SYSTEM

Spraying machine with improved visual checking capability and redesigned structure with two circuits and eight arms for assembling up to 16 spraying guns. The spraying system is rotary type with a new performance patented by Barberan: the Push Pull System®. Thanks to this system, the sprayed lacquer or stain arrives to all corners of the pieces eliminating dead zones, which are difficult to reach with conventional rotary spraying machines. The low spraying height contributes to improve the precision and the product savings achieving a finish of highest quality. Its effective cleaning system recovers 98% of the product laying on the steel belts or conveyor belt, decreasing the time to be spent in the maintenance of the machine.





B4

4 Arms.

1-2 circuits. Production speed 2 to 7 m/min.
For or water, solvent based materials.

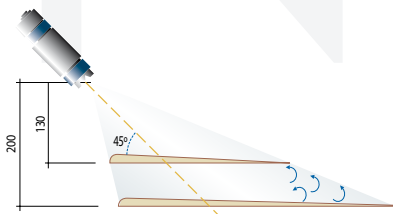


B8

8 Arms.

1-2-3-4 cuits. Production speed 4 to 10 m/min.
For all water-or solvent based materials.

The B4 and B8 spraying robots belong to the highest range of spraying machines manufactured by BARBERAN. Thanks to its compact design, they are actually an effective solution to space constraints in any workshop.



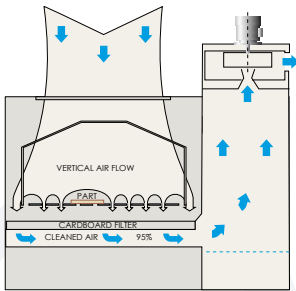
The spray pattern is better.
This reduces the spraymist turbulence and overspray.
The opening-closing accuracy or spray guns is improved.
The side and length overshoots are reduced.



COATING

Spraying machine

ROBOT B8 & B4



THE VERTICAL VENTILATION = SAVING ON CLEANING TIME

A segmented conveyor allows a perfect evacuation of the spraymist and overspray. Thanks to a simple ventilation principle, with out turbulence or bounce of the overspray laden air, the inside or the chamber remains clean longer.



9 WIDE STAINLESS STEEL BELTS
 Total width 1600 mm
 Gap between belts 20 mm
 Ensuring transportation of the small parts as well as the recovery of the product.
 Being segmented, it allows the perfect ventilation of the enclosure. It withstands any product.
 It has a very Long lifetime. It is easy to clean.

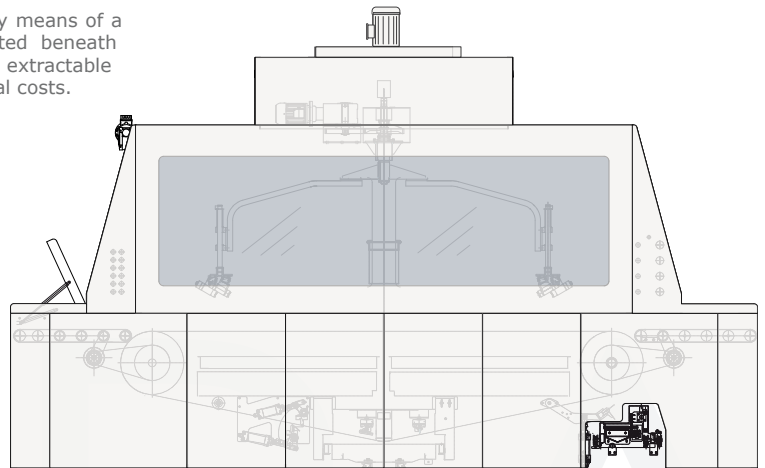


THE CLEANING OF THE AIR.

Primary filtration to 95% by means of a wide cardboard filter located beneath the conveyor in an easily extractable box. Reduced waste disposal costs.



Without vibration and without mechanical speed limit, it shows an extraordinary lifetime and requires only a reduced maintenance of the sweeping system.
 The overlapping pitch of the spraying gun passes is reduced to less than 50 mm, thus ensuring a perfect application.



BELT CONVEYOR CLEANING SYSTEM.

Sistema de limpieza sobre los flejes, especial para productos al agua. **Opcional**

Cleaning system on the steel belts, specially for water based products. **Opcional**



BELT CONVEYOR CLEANING SYSTEM.

Cleaning by means of a simple purposeful and efficient steeping, low solvent consumption, extractable for a limited maintenance.



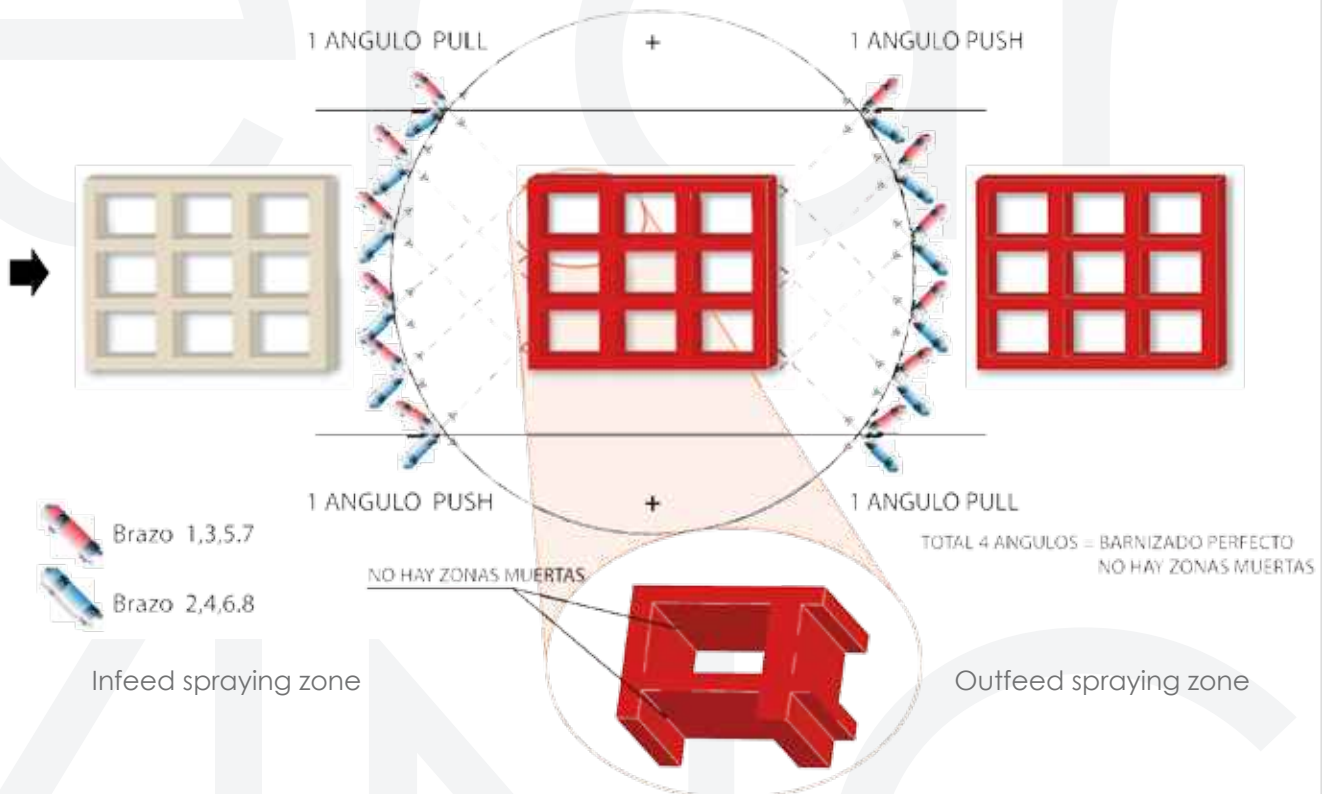
THE PRODUCT RECOVERY.

Scraping the conveyor with or oscillating blade. Simple, efficient and maintenance-free system.

New generation rotary edge spraying

TOP VIEW OF AN EDGE SPRAYING PROCESS

Patente nº. P-200700800



COATING

Graphic Arts

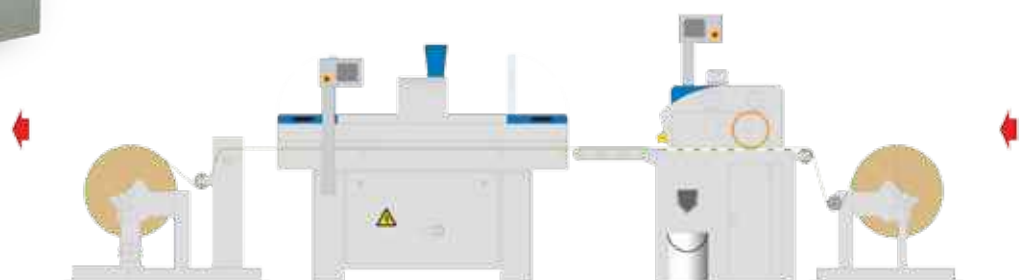
UV LACQUERING AND DRYING SYSTEM

System for the lacquering of rigid, semi-rigid or flexible materials like paper, vinyle, canvas, etc. in rolls. The installation is composed of a motorized uncoiling station with braking device, a roller coater with roller conveyor, a drying tunnel equipped with a power adjustable UV lamp and a steel bar conveyor and a rewinding station for finished product.

This system is specially suitable to improve the finish of big size prints in the graphic industry, being the ideal complement for flat printers that use UV inks.



erón



COATING

Drying

HOK

UV drying tunnel.



HOK-X

UV tunnel special for drying the panel surface and edges



HOK-E

Ultraviolet volumetric curing tunnel.



Energy savings **80%**

HOK-B

-**Compact ultraviolet drying tunnel.**

-**Smart power management.** Reduces the consumption and optimizes the regulation increasing the stability and response speed of the lamp.

-Adaptative cooling. The cooling system of the power is regulated automatically according to the needed power, decreasing the consumption and increasing the working life of the lamp.

-Smart stand by mode. The power cooling system detects the presence of panels in the line. If the line is empty, the stand by mode will be automatically activated. **This allows to achieve up to 80% of energy savings.** When it is necessary, the system return to the normal working conditions immediately without the need of stabilisation times.



DRYING

Drying High Gloss

HOKG

Compact ultraviolet curing tunnel with automatic stand-by power switching for energy saving.



THG

This tunnel has been designed for levelling the UV high gloss finish lacquer spread by BHG machines, with sliced belt conveyor.

THGF

This tunnel has been designed to cool down the hot coat spread in a high gloss finishing line, with belt conveyor.

THGP

This tunnel has been designed for levelling the UV high gloss finish lacquer spread by BHG machines, with sliced belt conveyor.

THGFP

This tunnel has been designed to cool down the hot coat spread in a high gloss finishing line, with sliced belt conveyor.



Drying

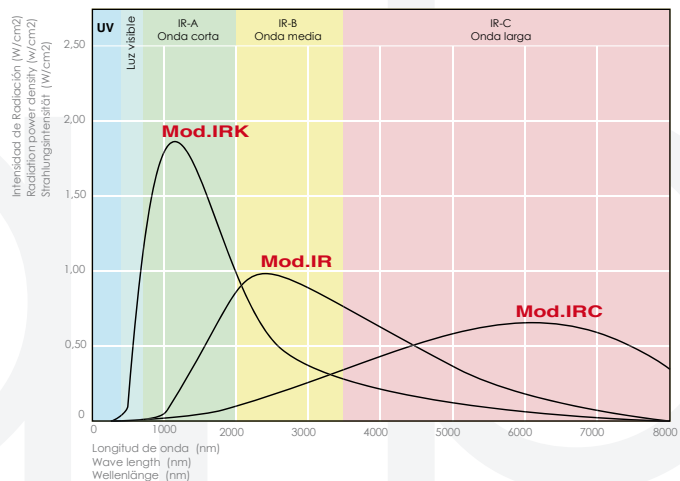
Preheating

IRK

Short wave infrared lamp module short wave infrared lamp module, for the preheating or drying of flat panel surfaces through infrared radiation.

IRC

Medium quartz wave infrared lamps tunnel. Smooth switching on and off, with spread heating, and medium power density.



IR

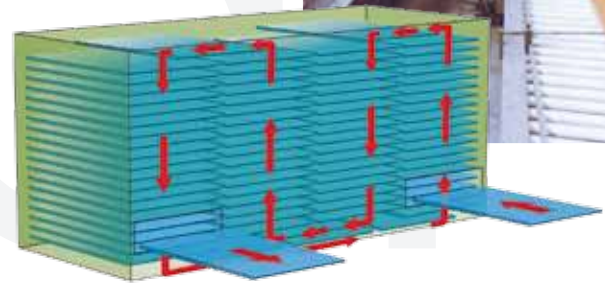
Medium wave infrared lamps tunnel. Smooth switching on and off, with spread heating, and high power density.



Vertical Drying Systems.

TV

Drying tunnel combining 3 zones (evaporation, drying and cooling) in one single structure, for products that needs long drying times.



MMC

Conveyor in curve of 90° and 180° to link two parallel machine lines in a continuous working process.



TC

Mod.TCE
Trolleys evaporation tunnel.

Mod.TCS
Trolleys drying tunnel.

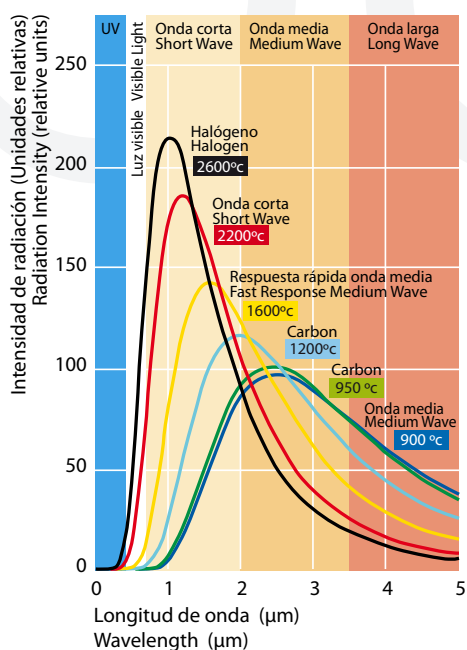
Mod.TCF
Trolleys cooling tunnel.

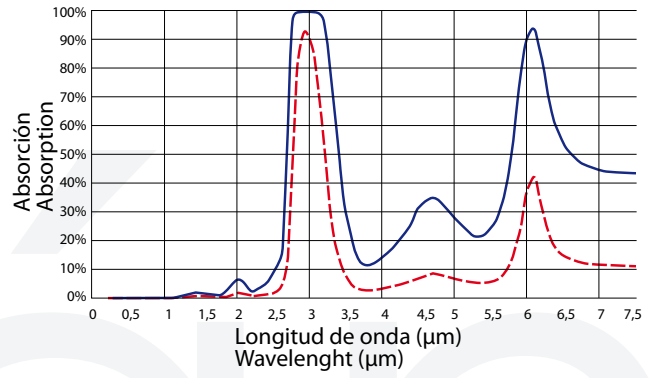


Drying

OPTIOVEN HYDRO PLUS

Drying tunnel for water-based products, with two independent zones for a better control of the curing.





Spectral absorption of water films in the wavelength range 0.2 up to 7.5µm. Film thickness 2µm and 10µm.

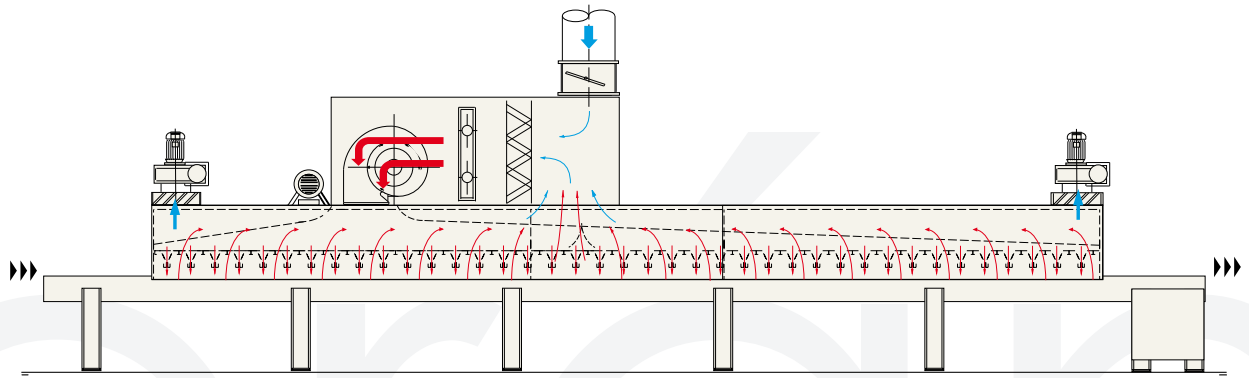


TSP

Hot air jet drying tunnel with battery for water at 90°C

For the continuous drying of lacquered pieces with products which contain a high rate of water. The same air flows repeatedly through the battery and the tunnel to raise its temperature to the optimum drying point at the minimum energy cost.





DRYING

Drying

TST

Hot air drying tunnel.



ECOVAP

UV lacquers evaporation tunnel.



TEV

Lacquer evaporation tunnel.



TL

Low pressure uv curing.



DRYING

Drying

TRANSPORT SYSTEMS

Roller transport.

MM

With motorized rollers.

MMPL

With free motorized rollers.

MMC & MMA

With motorized fin rollers for bend of 90° and 180°.

MG

With gravity rollers.



Mod. MM

Transportadores a barras Bars transport.

MT.

Bars transport table reinforced for tunnels.

MTP.

Bars transport table, model adapted to the UV and IR drying.



Mod. MTP.

1207 Optional

Tilt over roller table, with manually driven pneumatic lifting system.



Belt transport.

MTB

Belt transport table.

MAD

Belt transport table with acceleration and deceleration device.

MTB-PARQUET

Belt transport table with feeder for parquet, strips etc.

MTC

Belt transport table for evaporation and drying tunnels.



Mod. MTB



Mod. MTB-PARQUET

Alignment and synchronization tables.

MMI

Inclined roller transport table.

MMD-V

Split rollers transport table, V positional.

MTB-P

Belt transport table with start programmation for printers.



Mod. MMI

1208 Optional.

Tilt over belt table, with manually driven pneumatic lifting system.



Drying

SPECIAL MACHINES.





DRYING



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