



Selected innovations

CEFLA FINISHING SOLUTIONS



Making Your Life Better.



Cefla Finishing

BUSINESS UNIT OF CEFLA S.C.

**The most trusted
surface finishing
partner, in everything
you see.**

We supply integrated lines or customised solutions ranging from coating equipment, wrapping and lamination machinery to industrial digital printers. However large or small your company is, whatever the substrate may be, whatever the industry, our goal is to bring you **greater efficiency, better quality and increased sustainability.**

Our strength lies in the **wealth of experience** we can share with you together with the **specific expertise** to support your key requirements. A team of researchers, designers, engineers, process experts, software specialists, sales professionals and qualified technicians will interact and offer a **unique solution, tailored to respond to your needs today and in the future.**

Batch One



In a market where one day you are spraying high volumes with the same colours and the next day you may need to solve a batch 1 situation, we have a machine that will support your production schedule in all instances:

With our new Easy with FCS – Fast change system, we can change colour without stopping the line.

Thanks to different components we install on our machine, we can manage a colour change on the guns extremely fast, even separating first arm from the second arm.

Colour change capabilities are increasingly necessary.

Every colour change takes time, so production is lost and on top of this money is lost (product to be unloaded and solvent for cleaning).

This is always true and more so in the case of 2K lacquers.

Thanks to this solution we are able to reduce both to a minimum

- ✓ **The time required** to perform the colour change
- ✓ **The monetary loss**, considering you are working with a 2K lacquer

We install the colour change valve and the static mixer on our reciprocating arms, as close as possible to the guns. Thanks to this solution, we will minimise waste and the time needed for the colour change. We also reinforce the body/frame of the machine, in order to guarantee the highest reliability possible even considering the extra weight of these components installed.

Easy



A new two-arm oscillating sprayer with a completely new, reinforced design, frame and axles, able to accommodate on-board mixing and colour change systems. Equipped with 4, 8 or 12 spraying guns, with CFB or paper transport, dry or water filtration, Easy is suitable for companies with high production levels and requirements for product recovery or frequent colour changes. It offers its users the highest quality performance and consistency in finishing, combined with high ease of use. It guarantees high transfer efficiency thanks to the patented Plenum coupled with the enlarged cabin dimensions.

- ✓ Automatic paint recovery and belt cleaning system
- ✓ Automatic belt alignment system
- ✓ Equipped with patented "Airsphere" Plenum for perfect extraction of overspray
- ✓ High transfer efficiency

- ✓ With 4-8 or 12 spray guns on 2 arms
- ✓ Up to 4 independent circuits or colour change
- ✓ Belt or paper conveyor
- ✓ Dry or water filters
- ✓ Productivity: up to 3,000 m²/shift

ARM-MOUNTED MIXER SYSTEM



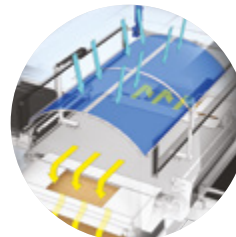
PAPER TROLLEY



CFB RECOVERY TROLLEY



PATENTED PLENUM



HMI 15" MULTITOUCH



Perfect Match



One way to **obtain the perfect match between a panel surface and the panel's edge** is to use the very same technology for both parts of the process, vacuum coating technology.

This is exactly what we implement with **two highly innovative machines** built into a line featuring **edge** and **surface coating** equipment and **sanding capabilities**, all in a fully automated solution.

It is an innovative **basecoat application technique on flat surfaces**, as an alternative to the range of spray, roller or curtain coating machines, with **different advantages depending on the type of process**.

This new technology makes the coating process



Simple



Eco-friendly



Clean



Cost-efficient

Smartvacuum



Vacuum technology allows lacquer to be deposited onto a moving panel, without any contact with the substrate.

The amount of 100% UV acrylic paint applied in a single pass can vary, on average, between 100 and 140 g/m².

Smartvacuum can improve the junction seam between the panel surface and the edge, making it softer to the touch, compared to other applications based on known technologies.

- ✓ Production flexibility
- ✓ Perfect match between the flat panel surface and the edge (single product)
- ✓ Short drying time
- ✓ Shorter production lead time
- ✓ Lower environmental impact

- ✓ Single pass operation with 100-140 g/m² of product applied
- ✓ Use of a 100% solid UV product
- ✓ More stable product over time compared to Polyurethane or Polyester-based products

Why choose the "Perfect Match" process?

Today's market requires just-in-time production, while the necessary stabilisation and storage of material will impact flexibility and extend production times.

Smartvacuum is an alternative, or rather, complementary application technology, with several advantages.

- ✔ No more corner rounding after drying - which in other systems is a necessary step after roller coating applications and before sanding
- ✔ Fewer machines to manage, and consequently, less cleaning required and reduced overall consumption
- ✔ Clean edge at machine inlet when compared to the curtain application technique
- ✔ Shorter production lead time
- ✔ Fewer steps and panel handling requirements
- ✔ Lower sanding costs and less waste
- ✔ Smaller footprint
- ✔ A completely eco-friendly process

Smartvacuum and Smartedge use the same technique and the same lacquer. That makes it simple to achieve the best junction seam between the flat surface and the edge of the panel. Softer to the touch than what can be achieved using other techniques, the quality of the finish on panels with rounded edges is improved and fewer operations are required to obtain the perfect finish.



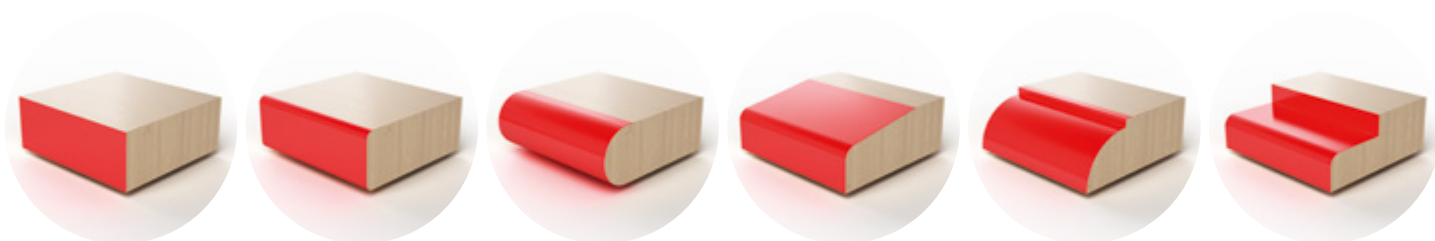
Smartedge

PATENTED



Full technology for the finishing and sanding of straight and shaped panel edges. It replaces manual coating in stacks by offering great advantages in terms of saving, quality and constant application. Machine configuration by modules to meet the different quality and productivity requirements. It can be equipped with the new “Edge&Go” system, i.e. the application head with straight or shaped interchangeable blades, patented, for the coating of any type of edge.

- ✓ Roller and vacuum technology
- ✓ Patented soft roller units
- ✓ Constant and reproducible quality and consistency
- ✓ Shorter lead time
- ✓ Smaller footprints
- ✓ Less product handling requirements
- ✓ Lower cost per linear metre
- ✓ Edge & Go: application head with interchangeable blades
- ✓ Simple and quick change of the vacuum head with little setup time
- ✓ Disc sanding units for infeed and outfeed corners
- ✓ Oscillating belt units for straight and shaped edges
- ✓ Different roller application units including edge filling



Soft and matt



Maximum versatility and minimum downtime on the world's favourite spray robot: iBotic.

One of the principal issues today regards efficiency, productivity and how to manage so many small batches.

This demands a high degree of flexibility and the need to reduce downtime as much as possible, especially during frequent colour changeovers.

This is why we invented **TIMESKIP** and fitted it to the new **iBotic**, our Cartesian spraying robot.

So that you do not stop spraying even while changing the colour of the lacquer.

Interpolated axis cartesian spraying robot

iBotic has been completely revamped to expand its already excellent performance. Created to process wooden and wood-based, plastic or composite material products, the new **iBotic**, and our fine-tuned spraying technology, is suitable for high production capacities and ensures the best quality to customers seeking substantially higher performance than achieved with a lower-end spray coating machine or robot.

- ✔ 30 more production hours per month thanks to **TIMESKIP**, the colour change system which avoids production downtime
- ✔ Internal camera to monitor the application from any device
- ✔ New and more intuitive HMI
- ✔ 20% reduction in energy costs thanks to **Powerback** which recovers energy from the axes during deceleration

iBotic

PATENTED



A cartesian spraying robot, iBotic is the last word in panel spraying technology; it ensures a top quality coating finish even with shapes and edges of particular complexity.

Various work modes are available: synchronised with identical products, independently on different products or continuous for high productivity.

Available in different sizes with variable working lengths.

- ✓ Work modes: load at standstill or tracking
- ✓ 2D or cVision 3D reading barrier
- ✓ 5 arm movement axes
- ✓ Generous plenum for optimal in-booth air flows
- ✓ Proprietary made-in-Cefla software
- ✓ Automatic paint recovery and belt cleaning system
- ✓ 1 or 2 five-axis cartesian arms, each with 4 spray guns for the surface and 1 for the edge
- ✓ A sixth spray gun can be mounted for recessed or grooved areas or for fast colour changeovers
- ✓ Paper or CFB conveyor
- ✓ Dry or water filters

**WORKING THICKNESS:
3D OBJECTS UP
TO 180 MM**



**ARMS ARE REMOVABLE/
INTERCHANGEABLE
WITH QUICK COUPLING**



**AUTOMATIC AND
PROGRAMMABLE GUN
CLEANING SYSTEM**



**TIMESKIP:
ZERO DOWNTIME WHILE
CHANGING COLOUR**



Matting all three axes

Since deep matt, soft-touch finishes that resist scratches and fingerprints have been popular, Exydry, our excimer matting oven, has been part of a finishing line.

We renew the Exydry in order to treat raised panels and more complex shapes much easier than in the past.

Until today, washing off the oxygen was easy on flat panels, even if you needed to use a lot of nitrogen.

Our technology washes away the oxygen using much less nitrogen and raised or flat panels transit the oven without stopping.

This makes the process far more sustainable, you need much less nitrogen and your line productivity increases. And the end result is a below-five gloss finish, a smart solution and a superb finish.

- ✔ High-performance surface finish for long-term scratch and abrasion resistance
- ✔ Soft-touch, fingerprint-proof effect on flat and raised panels.
- ✔ Deep matt finish reaching below 5 gloss on a 0-100 scale
- ✔ Minimal nitrogen consumption (65% less than average) reduces costs
- ✔ Chemical resistance
- ✔ Strong adhesion



Exydry

PATENTED



Oven with excimer technology for the reduction in sheen of photosensitive products. Exydry uses a lamp with specific emissions in an inert atmosphere.

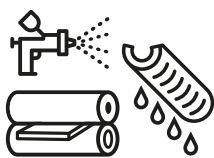
One-stop solution that can also treat raised panel surfaces (e.g. protrusions, milled sections, bas relief) and edges.

The machine requires an inert atmosphere to carry out treatment; the main advantages of this patented technology concern the lowest possible consumption of nitrogen and the consequent reduction of running costs.

- ✓ Very high opacity
- ✓ Extremely tough surface (scratch and stain resistant)
- ✓ Ultra-soft to the touch
- ✓ Fingerprint-resistant surface
- ✓ Can process edges up to 50 mm and raised surfaces up to 10 mm
- ✓ Less nitrogen consumption
- ✓ Patented

1

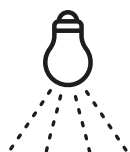
COATING APPLICATION



LIQUID COATING FILM

2

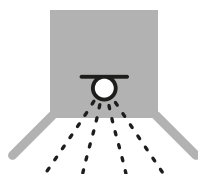
GELLING WITH UV-LED



GELLED COATING FILM

3

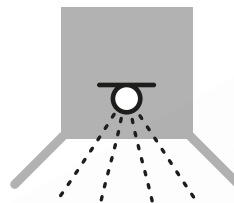
EXCIMER LAMP



UV SURFACE CURING

4

UV CURING



FULL FILM CURING

5

SURFACE UNDER THE MICROSCOPE



Substrate



Soft rubber application roller

Well, the Smartcoater PRO now features a soft rubber application roller which handles raised panels, too.

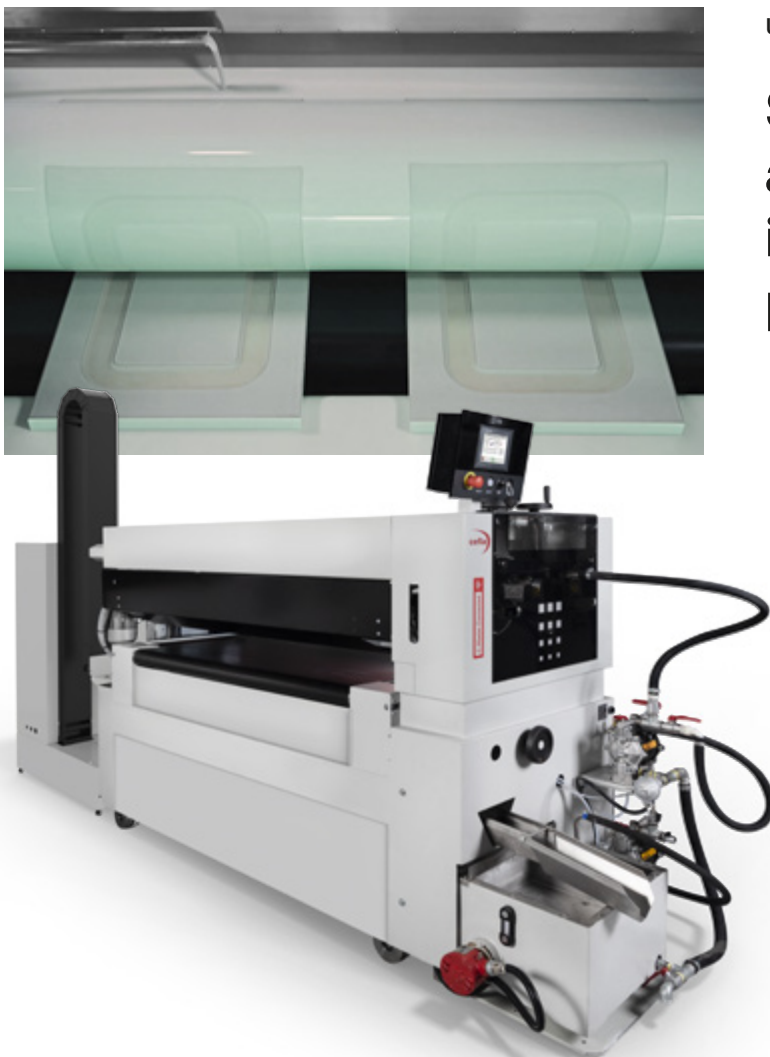
This technology, which includes a special floating pneumatic system and 4 screw jacks to give better stability, provides many benefits.

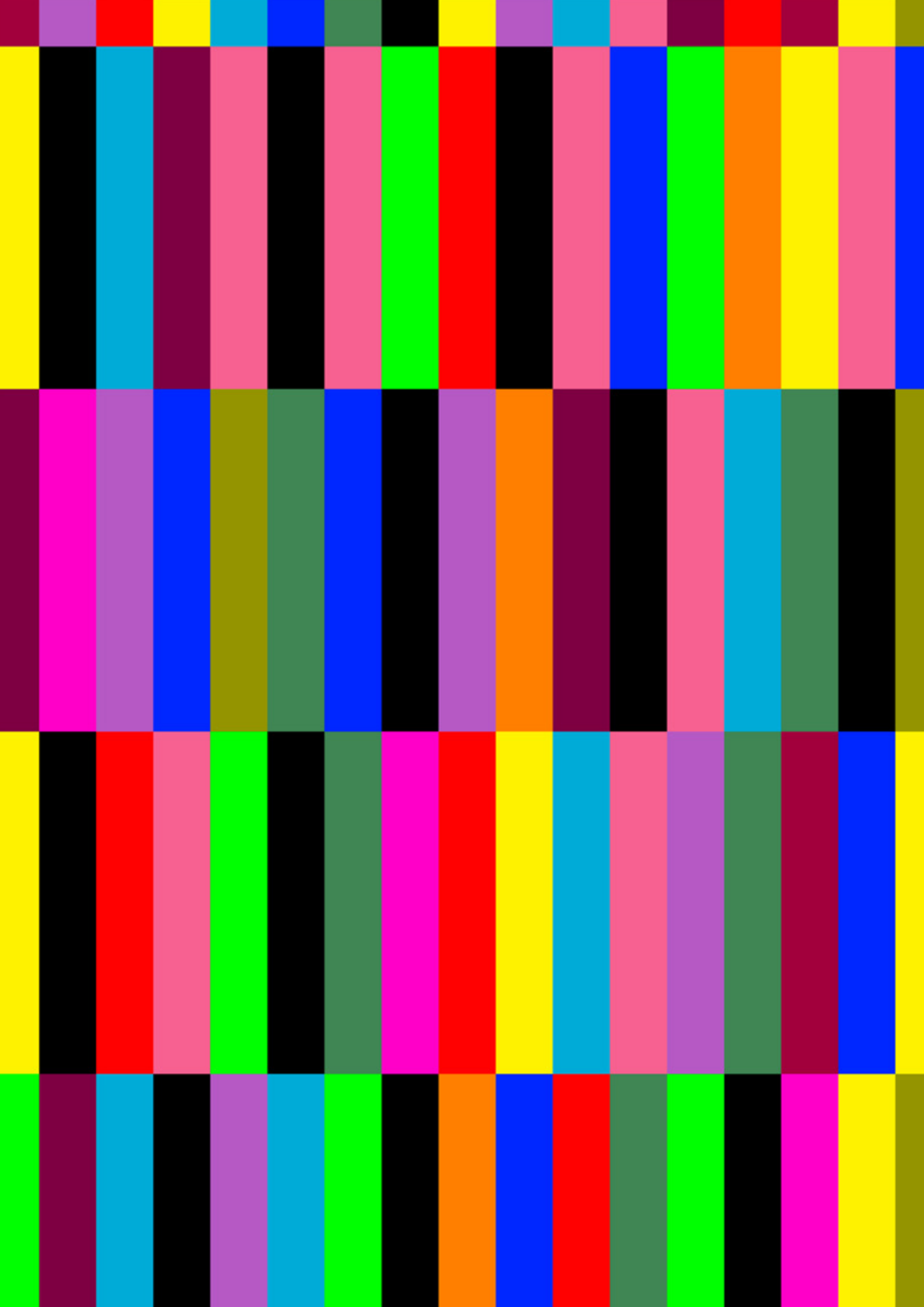
Firstly, you can install hybrid finishing lines with one or two roller coating stations and one spray coater for the top coat. This means fewer handling operations, so lower costs.

Secondly, it means less manual labour and allows you to gain factory floorspace.

Last but not least, transfer efficiency is so high with a roller coater that your lacquer consumption is reduced and less solvent is used, so you achieve even more savings

Smartcoater PRO with a soft rubber roller is ideal for flat, raised and poorly calibrated panels.







Other technologies

Smartclean PRO



Top and bottom dusting machine.

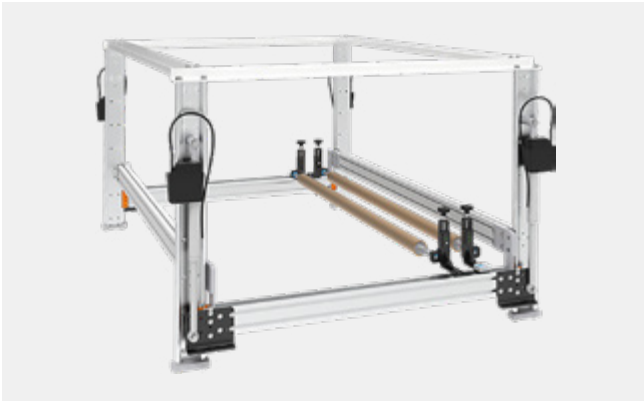
Smartclean PRO allows you to clean with dry and wet brushes, as well as other available aggregates, laminate panels, unfinished panels, sanded after painting and destined for gloss and matt finishes with known roller, spray and curtain-coater techniques, with high performance. It guarantees high productivity combined with easy handling of all work elements.

The machine is particularly suitable for dusting wooden panels before the painting process, as well as for the thorough cleaning of all surfaces in general.

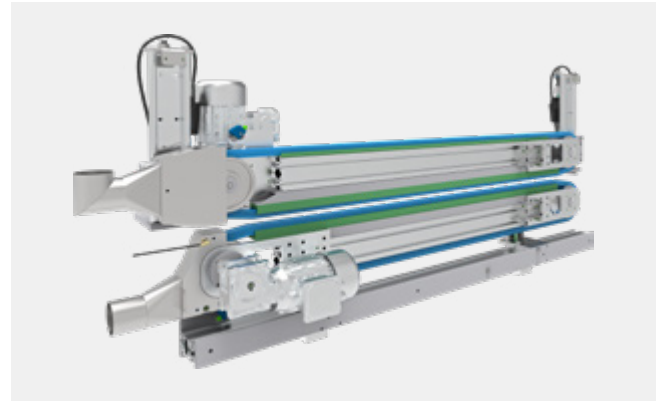
Each function is controlled from the control desk with touch-screen display.

Localized extraction hoods to prevent the dispersion of dust in the environment.

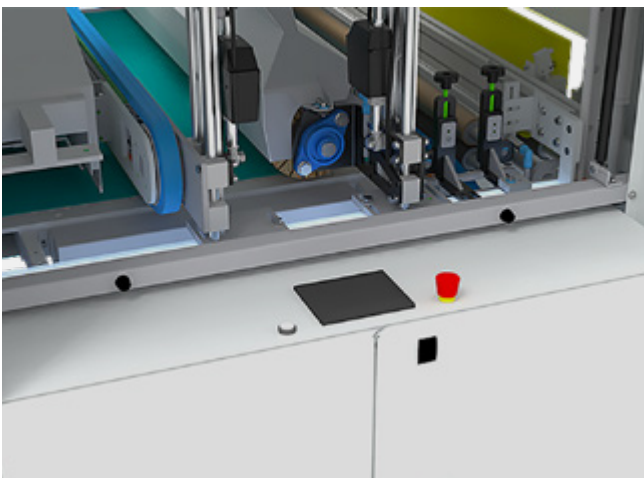
- ✓ Unique structure able to accommodate a working platform with a variety of aggregate compositions in order to meet all cleaning requirements.
- ✓ Top brushes equipped with independent lifting to vary their position in relation to the press roller plane.
- ✓ High cleaning performance compared to machines with only dry rotating brushes.
- ✓ The surfaces are electrostatically discharged thanks to the contact with the humidified transverse brushes.
- ✓ Possibility of working with several panels together and of small dimensions.
- ✓ Enclosed and complete machine with all safety devices.
- ✓ Inverter control on the conveyor and on all brushes, with the possibility of independent adjustment.
- ✓ Management and control of all work functions from the control desk with touch-screen display.



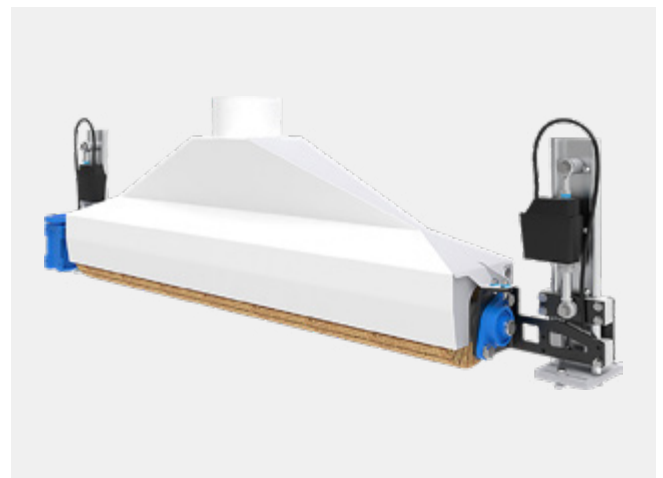
**PLATFORM WITH PRESSURE ROLLERS
INDEPENDENT OF BRUSH UNITS**



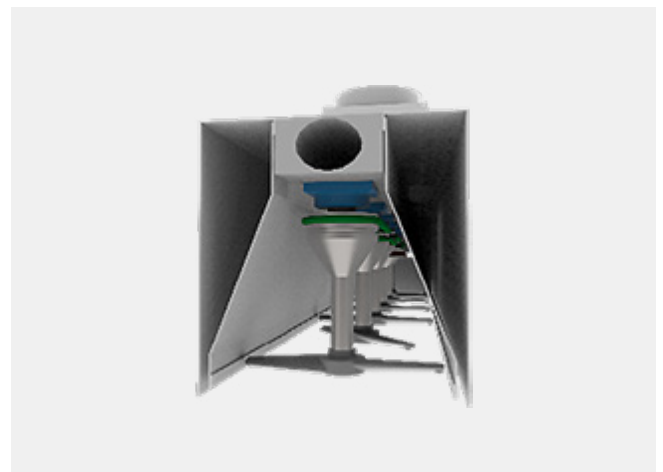
**CLEANING SYSTEMS WITH HUMIDIFIED
TRANSVERSE BRUSHES MOD. T-BRUSH**



**UNITS COMPLETELY HOUSED
IN A SINGLE STRUCTURE**



**ROTARY BRUSH WITH BRUSH
CLEANING AND SUCTION**



**MOTORISED ROTARY BLOWER WITH
FORCED SUCTION SYSTEM**

iGiotto Mirror



Extending the product range of iGiotto and iGiotto DUO is iGiotto Mirror. iGiotto Mirror offers all the versatility needed by today's manufacturers who need to increase productivity compared to traditional front-rotating solutions. Thanks to this upgrade, the 6-axis anthropomorphic robot is centrally positioned at two spray booths in which two bars are positioned with the parts hanging.

The production advantage is achieved thanks to iGiotto that paints for as long as it has available without waiting for the parts to rotate or for the bar to enter and exit the booth. Through the reading barrier positioned in advance the robot detects the trajectories and the painting recipes are associated for both bars. The bar rotation unit is positioned outside the spray booth and takes place in masked time while iGiotto is painting.

BENEFITS

- ✓ Increased productivity
- ✓ Proprietary software made in Cefla /Automatic trajectory generation
- ✓ 2D reading system and CVision 3D, state-of-the art reading system
- ✓ Spraying gun cleaning and product unloading device
- ✓ Wrist equipped with 2 or 3 spraying guns
- ✓ In-line tracking
- ✓ Mono and bi-component product management
- ✓ Quick product changeover

Finishing line for panels-stacks



Painting 'stacked edges' is still very much in demand in the market, many high and low productivity lines need such a solution to complete the painting process.

Usually developed for water- and solvent-based products, the line allows the complete painting process to be handled fully automatically by anthropomorphic robots, thus reducing all manual steps.

The certainty of iGiotto's repeatability allows full control over productivity, the quantity of paint applied and the resulting quality of the final product.

BENEFITS

- ✓ Increased productivity
- ✓ Proprietary software made in Cefla
- ✓ Automatic trajectory generation
- ✓ iGiotto Brush with rough brushing tool and base coat
- ✓ iGiotto painting tool
- ✓ Hot air drying oven
- ✓ Automatic tilting system, to avoid panels sticking

The painting of edges in stacks normally requires several manual operations, which is time-consuming compared to automatic solutions. The line in question consists of a loading phase where an aligner compacts the stacks of panels where the edges will then be automatically sanded by iGiotto; this is followed by another iGiotto will do the painting and the process is completed by means of a drying oven.

LineFlow & Dryflow

IMPREGNATION OF UNASSEMBLED PARTS



New rapid process consisting of the Lineflow application machine and its Dryflow drying oven. This process, which is implemented immediately after the processing steps, provides greater protection for the part and facilitates the subsequent overhead painting steps.

LineFlow & Dryflow are an horizontal solution used to apply impregnating or intermediate lacquer. Performing this horizontally, as opposed to on an overhead line, enables pieces to remain in line for the following brushing and coating stages.

The fibre-lifting operation is made easier and only light brushing is then required. Woodgrain is also better stabilised, improving the subsequent spray-coating stages on the overhead line

- ✓ Profiles are better protected thanks to impregnation of unassembled parts.
- ✓ Operations performed horizontally, such as the first brushing, are more effective.
- ✓ Automatic colour-change available
- ✓ Flexible choice of hold times thanks to oven's modularity
- ✓ Short flash-off or total drying times
- ✓ User-friendly operation
- ✓ Low maintenance
- ✓ Low initial investment costs
- ✓ No emissions and/or radiation in working environment

J-Print

DIGITAL PRINTING TECHNOLOGIES



Industrial digital printing is important in our lives because it plays a pivotal role in decorating the places where we live and work, from wooden floor surfaces, furniture, skirtings and glass to fibre cement, ceramic, plastics and packaging.

Today, industrial, decorative and functional printing demand effective mass customisation, and in this regard digital printing offers outstanding advantages.

Digital printing technologies are growing fast and our experience enables us to provide the most advanced solutions available today. This means superb natural looking effects, a realistic textured feel to each surface and even the most lavish customisation can be achieved at competitive costs. One of the key issues is the need to combine high productivity with low-volume batches, even single pieces.

MATERIALS

- ✓ Rolls for edges
- ✓ Inert materials
- ✓ Ceramic
- ✓ Plastic materials
- ✓ Metal
- ✓ Wood
- ✓ Cardboard
- ✓ Flexible packaging

Varnishing and digital printing line on ABS/PVC coils

WE TALK TO

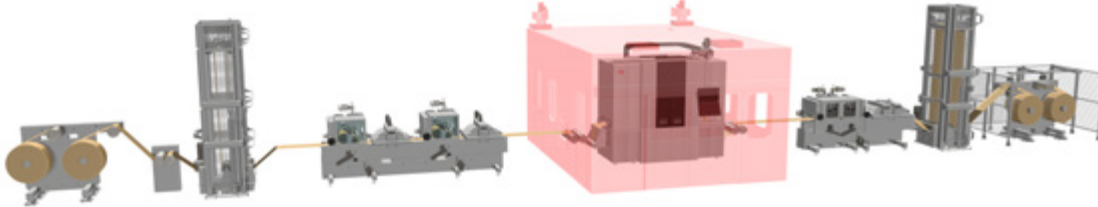
- ✔ Edgeband producers

MATERIALS PROCESSED (coils)

- ✔ ABS, PVC, PS, PE

ADVANTAGES

- ✔ Extreme flexibility
- ✔ Small lots (down to 1 single coil) @ high quality
- ✔ Reduced lead-time, from idea to production: few hours / 1day
- ✔ No stock



Varnishing and digital printing line on large «wood» panels

WE TALK TO

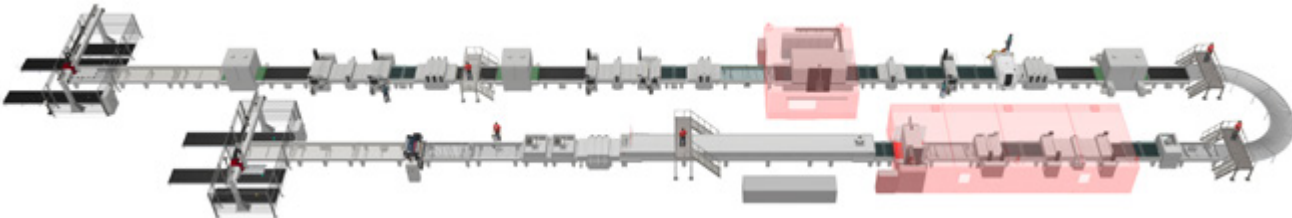
- ✔ Panel producers and converters

MATERIALS PROCESSED

- ✔ MDF, Chipboard

ADVANTAGES

- ✔ Extreme flexibility
- ✔ Small lots (from 10 to 100 sqm) @ high quality
- ✔ Reduced lead-time, from idea to production: 2 h / 2 days
- ✔ Reduced stock



Varnishing and digital printing line on PVC sidings or other plastic profiles

WE TALK TO

- ✔ Sidings producers, Folding doors producers, etc

MATERIALS PROCESSED

- ✔ PVC profiles

ADVANTAGES

- ✔ Extreme flexibility
- ✔ Small lots (down to few pieces) @ high quality
- ✔ Reduced lead-time, from idea to production: few hours / 1day
- ✔ No stock



Varnishing and digital printing line on fibercement panels

WE TALK TO

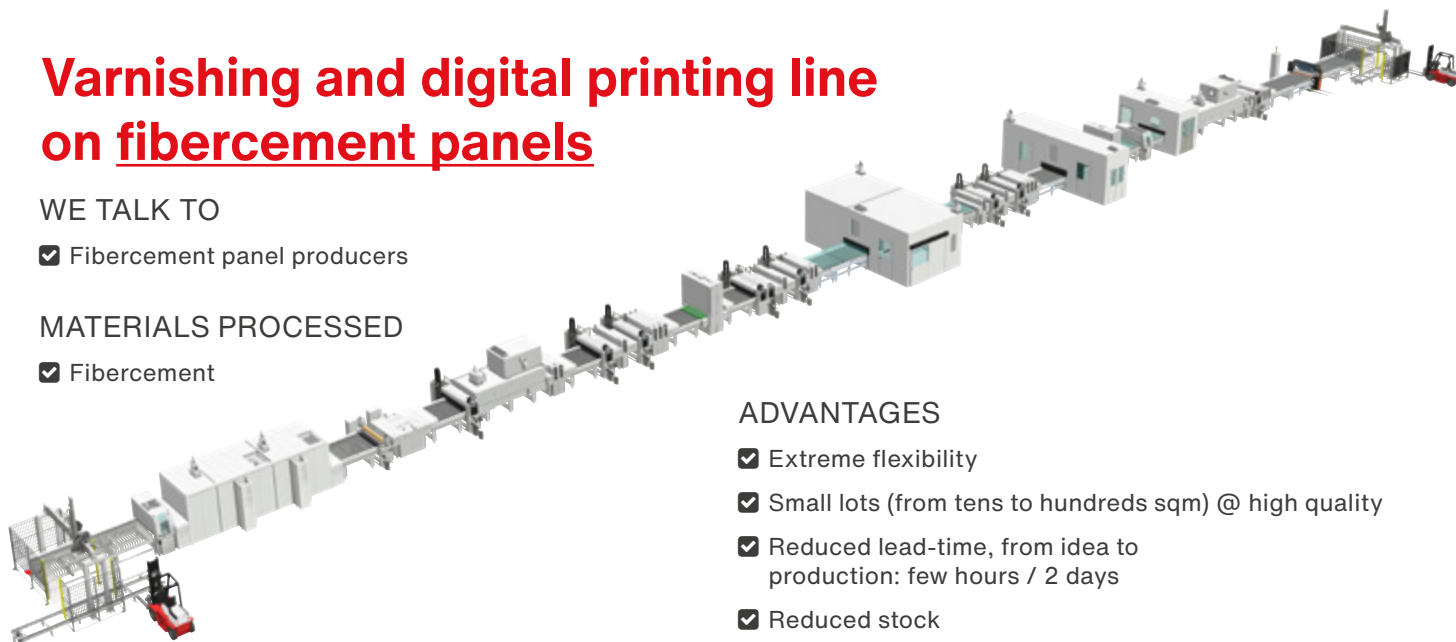
- ✔ Fibercement panel producers

MATERIALS PROCESSED

- ✔ Fibercement

ADVANTAGES

- ✔ Extreme flexibility
- ✔ Small lots (from tens to hundreds sqm) @ high quality
- ✔ Reduced lead-time, from idea to production: few hours / 2 days
- ✔ Reduced stock



Varnishing, digital printing & texturing line on SPC

WE TALK TO

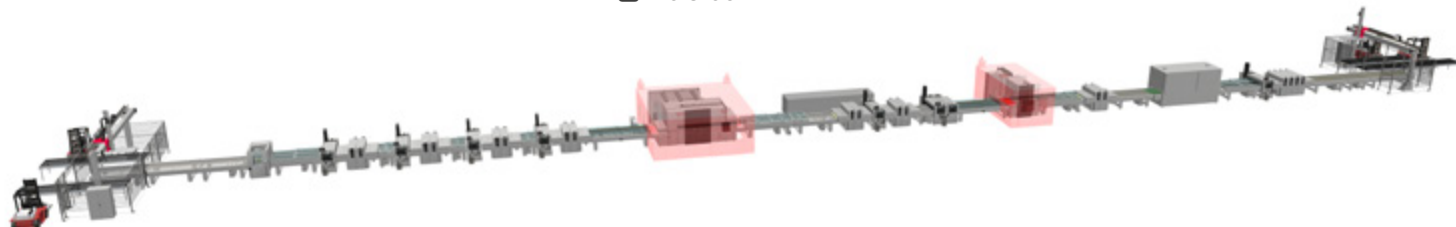
- ✔ Flooring producers

MATERIALS PROCESSED

- ✔ SPC panels

ADVANTAGES

- ✔ Extreme flexibility
- ✔ Small lots (usually some hundreds sqm) @ high quality
- ✔ Reduced lead-time, from idea to production: few hours / few days
- ✔ No stock



Digital printing line on metal coils (or sheets)

WE TALK TO

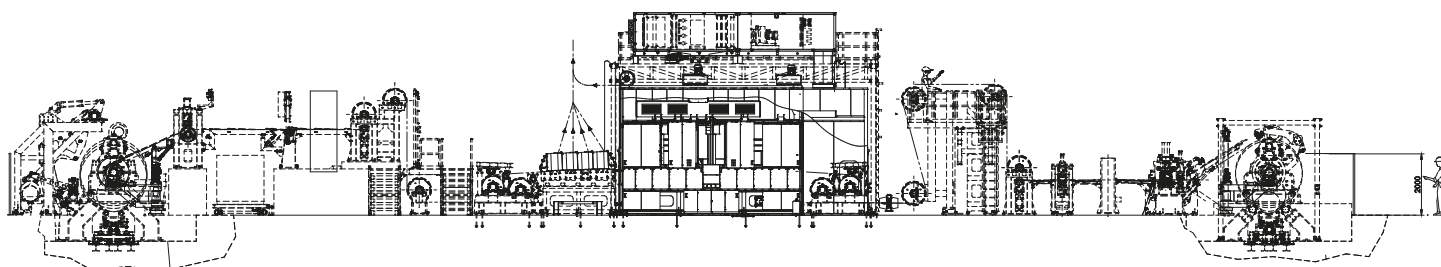
- ✔ Metal coil producer (or metal sheets manufacturer)

MATERIALS PROCESSED

- ✔ Steel, Aluminium

ADVANTAGES

- ✔ Suitable for Indoor & Outdoor application, Extreme flexibility
- ✔ Small lots (usually few hundreds sqm, but even down to 1 single image printed) @ high quality
- ✔ Reduced lead-time, from idea to production: few hours / few days
- ✔ No stock









Cefla LAB

The LAB is more than just a space where our partners can run tests on our equipment or a laboratory where we develop the next patent or technology.

The LAB is a place where we have forged a bond between ourselves and our partners. The LAB is a facility where we are able to **test entire processes and share our expertise** with leading industry players, ultimately investing resources to shape the future of finishing.

The LAB is where you can come and put everything to the test: your product, your coating, a process and our machines. The LAB is where we **stretch the limits of technology** to bring the market new, unique opportunities.



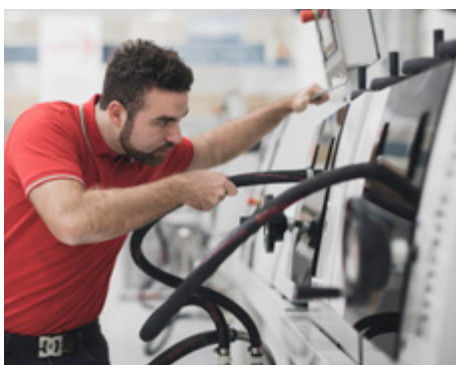
ITALY, Imola



USA, Charlotte



CHINA Suzhou



Cefla finishing subsidiaries and branch offices

● MANUFACTURING SITES

● SALES OFFICES

● LAB

Italy

CEFLA FINISHING HQ ●●●

Via Bicocca 14/C
40026 Imola (BO) - Italy
Tel. +39 0542 653441
Fax +39 0542 653444
cefla.finishing@cefla.it

CEFLA FINISHING PESARO ●●

Pesaro (PU) - Italy

Germany

DÜSPOHL ●●

Schloss Holte-Stukenbrock - Germany

CEFLA DEUTSCHLAND ●

Meckenheim - Germany

France

CEFLA EUROPE ●

Bischwiller, F-67240 France

Spain

CEFLA FINISHING SPAIN ●

Valencia - España

Poland

CEFLA FINISHING POLSKA ●

Warszawa - Poland

United Arab Emirates

CEFLA FINISHING MIDDLE EAST FZE ●

Jebel Ali Free Zone Dubai - UAE

Singapore

CEFLA FINISHING ASIA ●

Singapore

China

CEFLA FINISHING EQUIPMENT ●●●

(SUZHOU) CO. LTD.

Suzhou New District, Jiangsu - China

USA

CEFLA NORTH AMERICA ●●●

Charlotte, NC - USA

Brazil

CEFLA FINISHING BRAZIL ●

Curitiba-Paraná-Brasil



Cefla s.c.

Making Your Life Better. This is our Promise.

WE'RE AN INTERNATIONAL MULTI-BUSINESS COMPANY OPERATING IN THE FOLLOWING SECTORS: CIVIL AND INDUSTRIAL PLANT ENGINEERING; FINISHING SYSTEMS FOR WOOD, PLASTIC AND GLASS; MEDICAL EQUIPMENT AND LIGHTING SOLUTIONS WITH LED TECHNOLOGY.

Engineering Business Unit

Designs and constructs complex civil and industrial plants, creating practical, innovative solutions that safeguard the environment and enhance quality of life. The Engineering BU also designs and produces efficient energy production and recovery systems, with a sharp focus on alternative and renewable sources as well as multi-year management and maintenance of our installed technological plants.

Finishing Business Unit

World leader in the finishing of wood and non-wood surfaces. We design and construct tailor-made turnkey coating and finishing systems for the woodworking sector. We also lead the way in the glass and plastics finishing sector.

Medical Equipment Business Unit

The leader in dental equipment. For more than over 60 years we've developed, produced and marketed solutions – via different brands – that include a complete range of cutting-edge dental units, digital imaging and radiology systems.

C-LED

Company of Cefla Group dedicated to LED powered solutions.



3

Business Units



17

Production sites



1860

Employees



91

Years of History



25

Locations worldwide



800

Active patents



Making Your Life Better.

Pursuing the constant improvement of its production range, the manufacturer reserves the right of modifying its products without notice. Additionally, the information, the technical specifications, the drawings and the pictures shown in this brochure serve just as an indication and are not binding for the manufacturer who expressly reserves the right of changing this brochure without notice.

Cefla s.c.

Via Selice Prov.le, 23/A - 40026 IMOLA (BO) Italy
Tel. +39.0542.653111 - Fax +39 0542 653128
www.cefla.com - www.ceflafinishing.com

Follow Cefla Finishing on

