

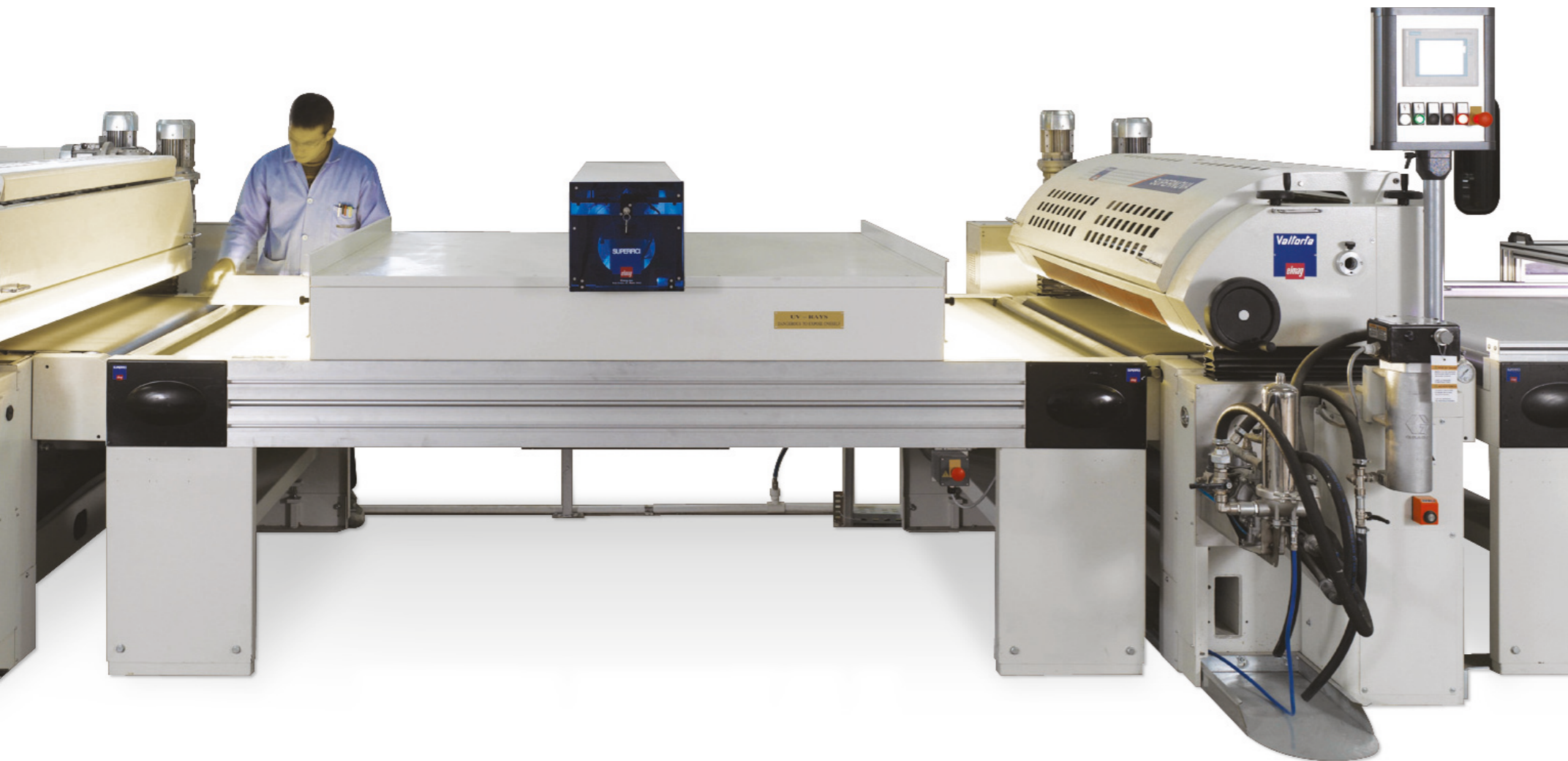


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This is the state of the art advanced technology in the field of the photo-polymerization.





- **HIGHEST VERSATILITY IN THE APPLICATIONS**

Thanks to the possibility of choosing among a wide range of UV modular units of various lengths (from 200 to 2300 mm.) and of different reflector types. Available are modules with high focal yield reflectors suitable to be used on flat lines, modules to achieve a “cold” polymerisation in case of thermo-sensitive materials and modules for the three-dimensional curing.

- **ENERGY SAVING**

Thanks to optimized reflectors, to use in the most effective way the energy emitted by the lamp and to address concentrate the energy according to the needs of the specific application. Furthermore, the use (optional) of electronic power supply systems is more efficient in terms of energy consumption if compared with traditional transformers.

- **ENVIRONMENT FRIENDLY**

Thanks to the possibility of using high solid UV lacquers, whose hardening is achieved through the exposure to a certain UV energy amount emitted in specific wave lengths. In this case there is no or only minimal evaporation of volatile components.

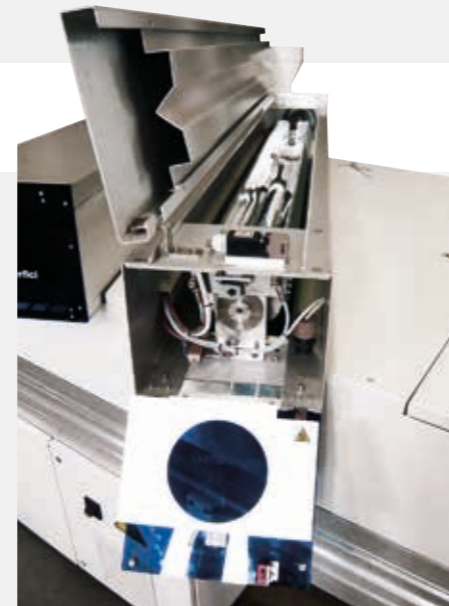
selecure

Technical benefits



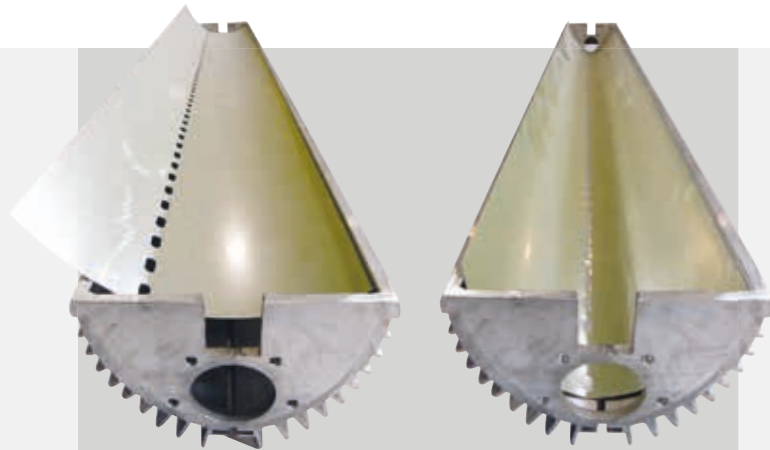
MODULAR SYSTEM WITH WIDE RANGE OF REFLECTORS

The selection of the most suitable module, of the most efficient reflector and of the most appropriate power supply system, always leads to the ideal solution for each need, so to optimize energy consumption and efficiency in each application.



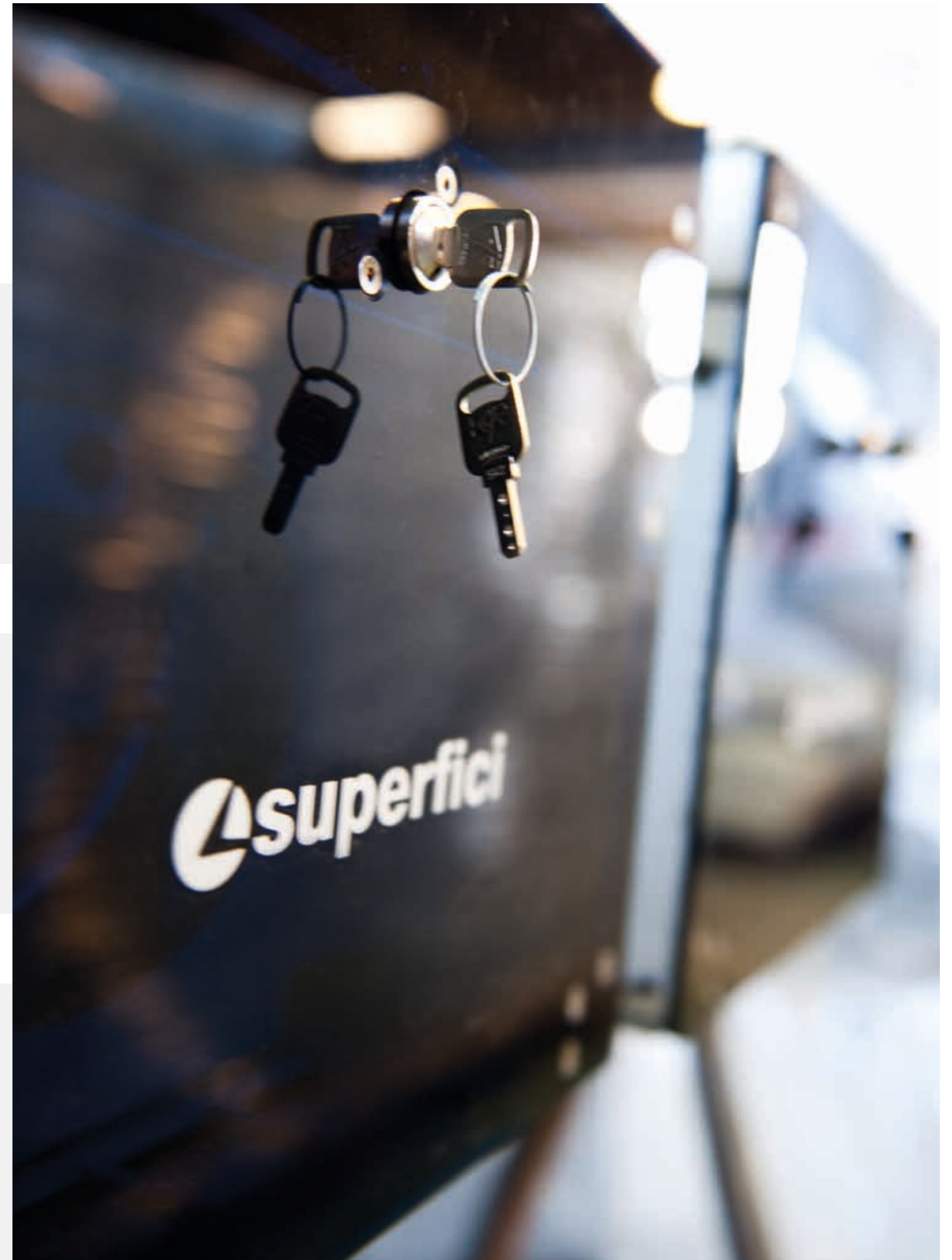
HINGED DOORS (TOP AND FRONT) ON EACH MODULE

Lamp and reflector of any module can be easily accessed to proceed with the ordinary cleaning operations. Easy cleaning and maintenance operations mean keeping the UV module always in optimal working conditions.



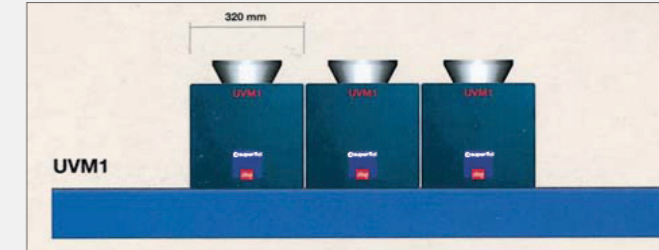
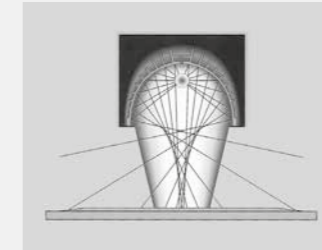
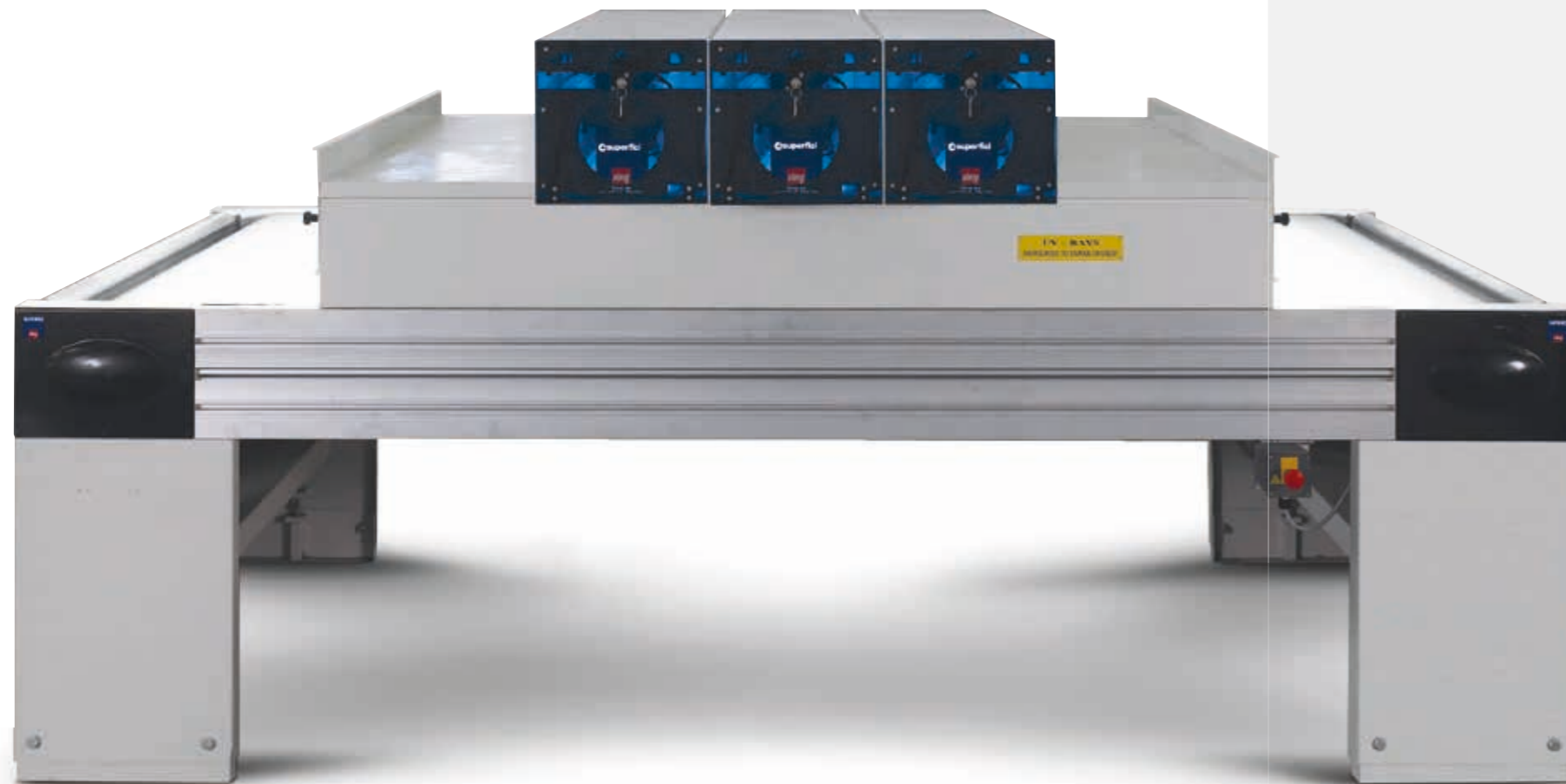
EASILY REMOVEABLE REFLECTING SHEET

At the inside of the reflector, an easily removeable reflecting sheet is installed. This makes it easier to keep the module always in optimal working conditions and reduces the maintenance costs.



selecure

UVM1 UV curing systems for flat panels



UVM1 MODULES

UV curing system with high focal yield reflector suitable to use in the most effective way the energy emitted by the lamp to efficiently cure lacquers applied onto the surface of panels in roller/curtain coating lines.

LABES REFLECTOR

The well-known reflector has been designed to achieve an outstanding field depth. The focusing of the irradiation in a certain area achieves a very good energy value and it guarantees anyway a constant energy level even when varying the distance between the radiating source and the substrate to be cured.

The ordinary ultraviolet sources produce a strong infrared radiation that may cause a relevant overheating of the irradiated substrates. Thanks to a refined device developed by our laboratories, it is possible to filter the emitted radiation taking away all the infrared portion. The result is a cold ultraviolet light which can be used with any kind of thermo sensitive material.

The above mentioned Coldcure system combined with the development of a special UV-Plus module achieves the possibility of positioning the reflector in three different positions :

- **DIRECT IRRADIATION**

on the surface to be cured. The reflector is oriented downwards. In this position we have the maximum of the specific power on the work-piece; all UV and IR range of the emission of the lamps reach the work-piece.

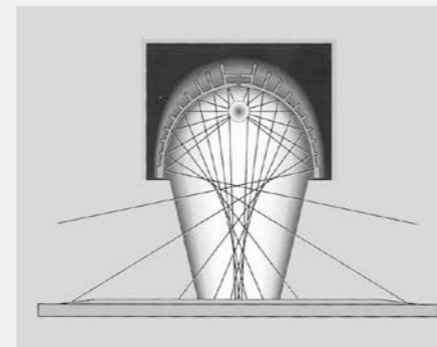
- **COLD CURE POSITION**

the radiating source is oriented towards a selective surface, which reflects only the UV range of the lamps emission, avoiding to transfer on the work-piece the heat generated by the IR range, thus obtaining a Cold polymerisation.

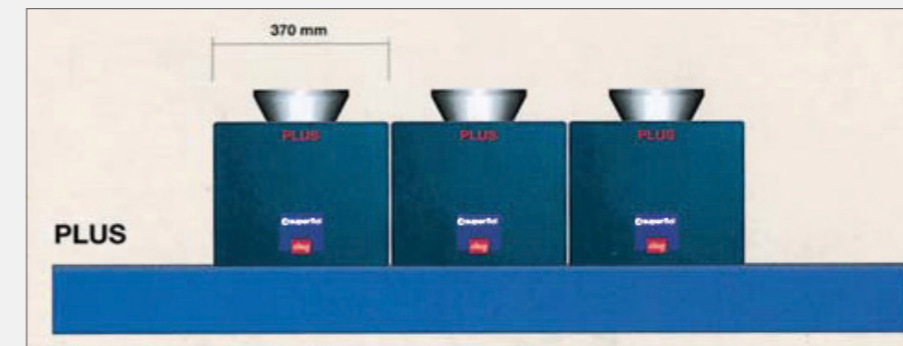
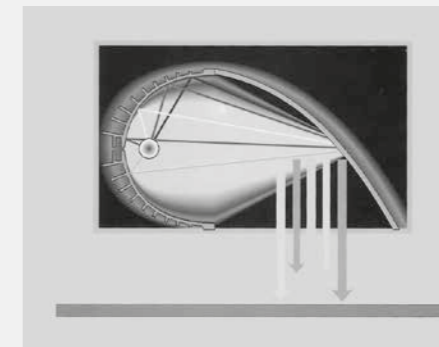
- **STAND BY POSITION**

this position enters automatically whenever there is a conveyor stop. The lamp power supply decreases to 50% or to other previously fixed values.

Direct irradiation



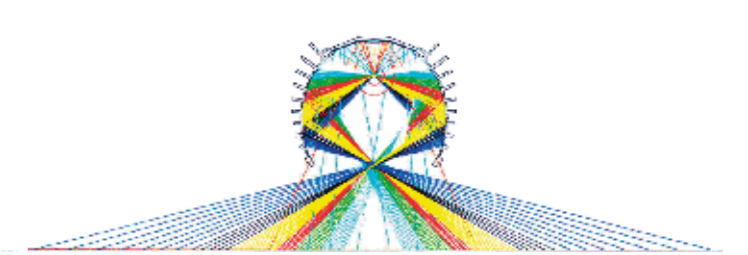
Coldcure position



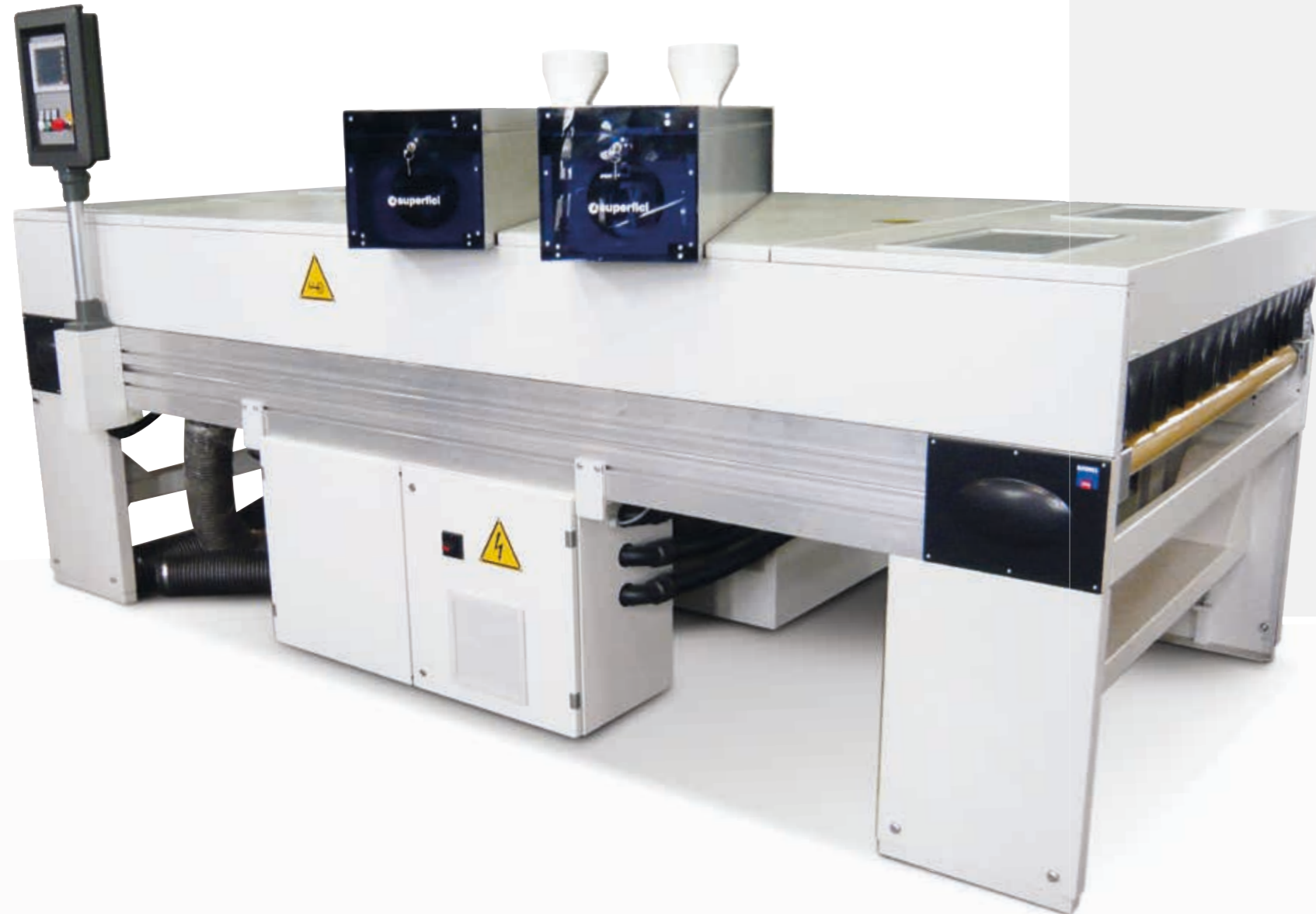
Reflector UVM1



Reflector Poliedra



Newly developed among the UV modules, the POLIEDRA system was studied to achieve the UV curing on three-dimensional pieces with thicknesses from 80 to 100 mm., conveyed on flat conveyors. Traditional 3D curing systems generally apply energy in excess on the flat surface of the panel, with the aim of reaching the right hardening on the edges too. The result is the over-exposure of the flat surface, often implying over-heating. The Poliedra module was engineered to improve the energy distribution on the surface and on the edges of the board. Very important it is the angle of the UV rays, when they hit the different parts of the work-piece. The special shape of the reflector makes it possible to reach the different faces of a presumed parallelepiped with an inclination of 30°. This system guarantees the optimized use of each lamp on the entire surface of the work-piece, thus meaning that the applied energy is uniformly increased at the increase of the number of lamps used.

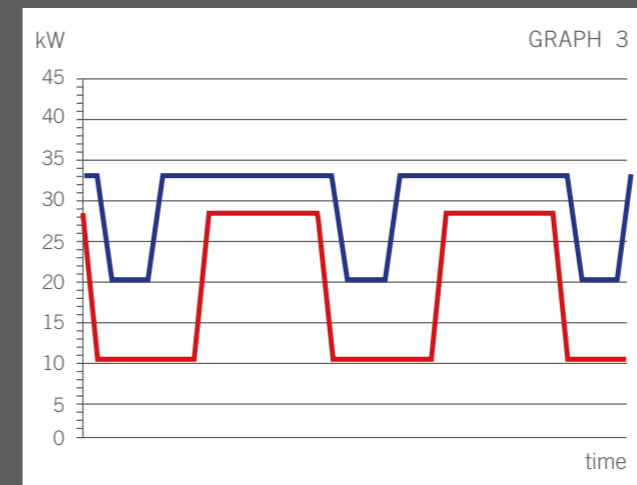
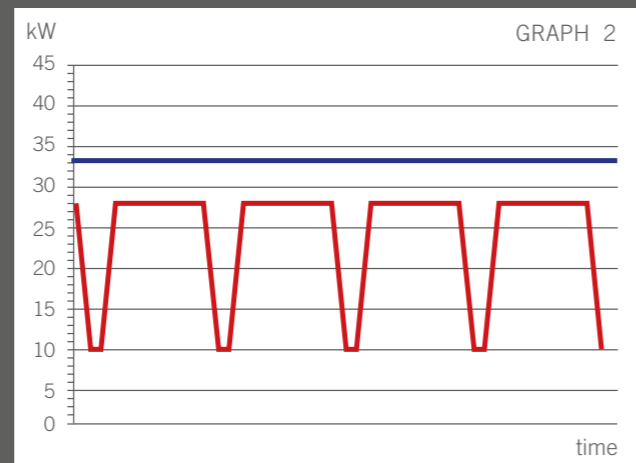
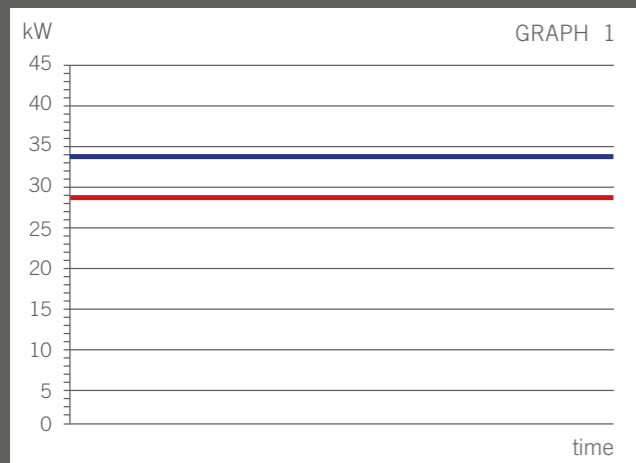


Reflector Poliedra



Electronic power supply system, it can be installed on any Superfici UV module with special benefits in terms of:

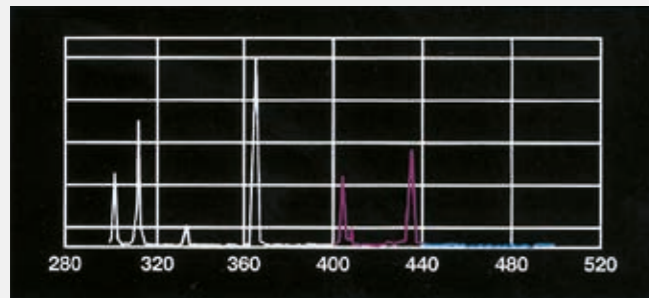
- longer UV lamp life thanks to the constant power supply tension.
- higher stability in the lamp emission values.
- lower power consumption thanks to the higher efficiency of the electronic power supply system if compared with a traditional transformer.
- instantaneous half power switch, which achieves the optimising of the power consumption especially in case of lines working step by step.
- balanced power supply on the three phases.



GRAPH 1
In case of a through-feed line with pieces fed continuously, the energy saving can be calculated around 15% thanks to the higher efficiency of the electronic power supply.

GRAPH 2
In case of a through-feed line with short stand-by times, the Energy saving can be calculated around 23%. Full power time 86% - stand by time 14%

GRAPH 3
In case of a line working in charges (step by step), the Energy saving can be calculated to be approx. 37%. Full power time 51% Stand by time 49%

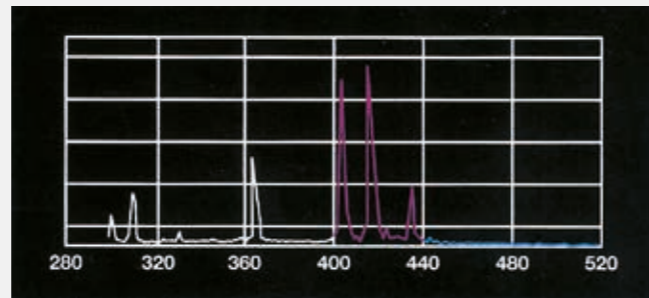


MEDIUM PRESSURE MERCURY LAMP

It is the ultraviolet source currently used for the photopolymerization of all kinds of clear varnishes and acrylate-based inks.

The emission from 200 to 250 nm is particularly important because it is absorbed by the majority of the photoinitiators. Between 250 and 500 nm all unsaturated and carbonyl bonds react changing into reactive excited species of the photoinitiators and monomers present in the vehicle.

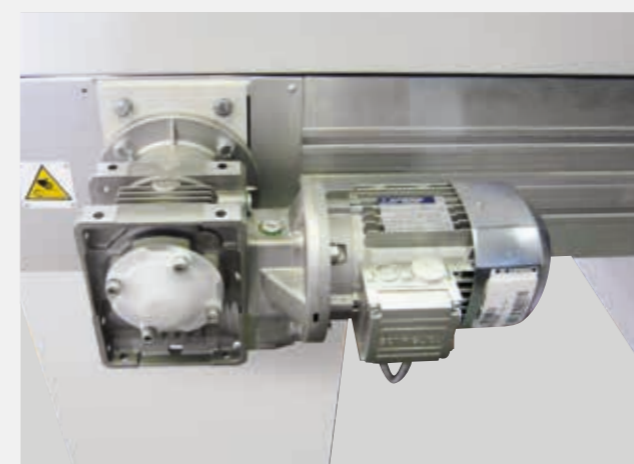
Over 400 nm react the polyester bonds.



HIGH PRESSURE COLOR LAMP

It is the most suitable radiating source for thick applications of pigmented lacquers and inks, by an adequate doping with transition elements like gallium, indium or thallium, without spoiling the photopolymerization capacity of the mercury vapours. A relevant light emission over 400 nm. Is thus achieved the activation of photoinitiators which are not completely covered by pigments.

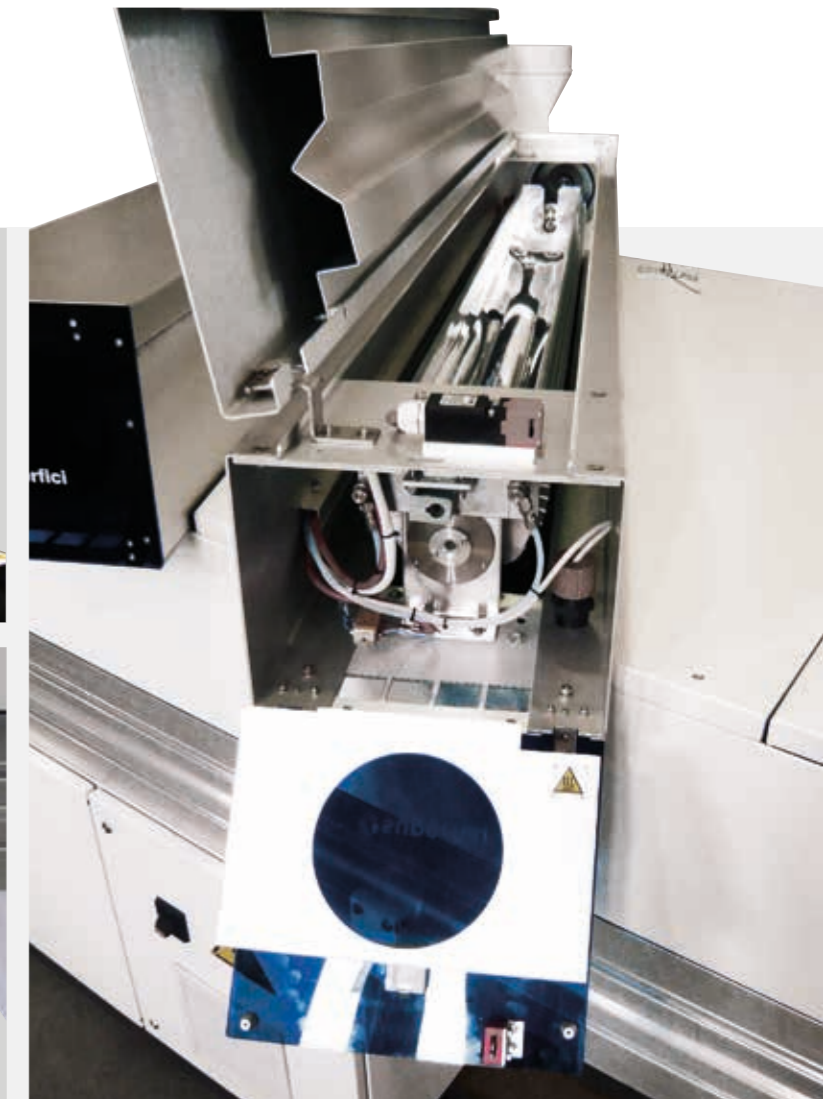
Lamp cooling fans



Conveyor drive

MODULE

UV modules are in anodized aluminum with hinged covering and front doors to ease access to reflector and lamp. All the modules are available with reflector swivelling and half power devices, in case of emergency line stop, necessary to prevent substrates and conveyor from overheating and to protect the radiating source from an early aging due to repeated ignitions.



UV module with open doors.



Control cabinet



YOUR ART OF FINISHING

Finishing lines signed off by Superfici add the most value to your product

Each Superfici finishing line is made with the most advanced technology and maximum versatility. Each solution is created from innovation and experience to add value to every detail and on any material. Many top brands in the world, which make quality their strong point, have chosen to rely on Superfici.



THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

SCM. A HERITAGE OF SKILLS IN A UNIQUE BRAND

Over 65 years of success gives SCM the centre stage in woodworking technology. This heritage results from bringing together the best know-how in machining and systems for wood-based manufacturing. SCM is present all over the world, brought to you by the widest distribution network in the industry.

- 65 years history
- 3 main production sites in Italy
- 300.000 square metres of production space
- 17.000 machines manufactured per year
- 90% export
- 20 foreign branches
- 350 agents and dealers
- 500 support technicians
- 500 registered patents

In SCM's DNA also strength and solidity of a great Group. The SCM Group is a world leader, manufacturing industrial equipment and components for machining the widest range of materials.

SCM GROUP, A HIGHLY SKILLED TEAM EXPERT IN INDUSTRIAL MACHINES AND COMPONENTS

INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.



WOODWORKING TECHNOLOGIES



TECHNOLOGIES FOR PROCESSING COMPOSITE MATERIALS, ALUMINIUM, PLASTIC, GLASS, STONE, METAL

INDUSTRIAL COMPONENTS

Technological components for the Group's machines and systems, for those of third-parties and the machinery industry.



SPINDLES AND TECHNOLOGICAL COMPONENTS



ELECTRIC PANELS



METALWORK



CAST IRON