

# TREATMENT OF POWDER PAINT

THERMO LACQUER

We design and manufacture your industrial equipment for Gelling (Doping), Thermal-Polymerisation, for all your powders (Epoxy, polyester, mixed, UV, ULB, etc.), either : by radiation technology.

Thermo-ventilated electric infrared, convection by hot air mixing, or by combined technology of infrared radiation followed by hot-air convection.

Our installations are suitable for all types of products and media (glass, composites, metals and alloys, cross-laminated wood, medium density fibreboard, etc.).



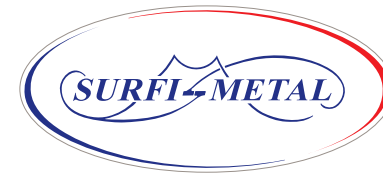
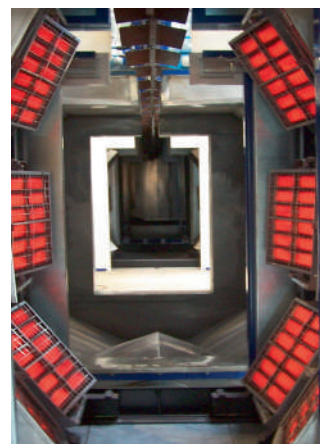
## THICK COATINGS

To give you high-performance coatings (high thickness), we have developed tunnels, gelling (or doping), and MOBILES (retractable on rails) to be inserted between two powder-coating cabins.

## SENSITIVE SUBSTRATES

(composites, cross-laminated wood, medium density fibreboard, etc.) can be treated by the powder-coating process.

We deploy our know-how in the study, design and realisation of gelling tunnels specific to this type of medium, followed by a curing tunnel for your powders, using UV radiation technology (Gallium, iron, mercury, etc.).



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## REDUCTION & OPTIMISATION OF PRODUCTION COSTS

Technologies developed or incorporated by  
SURFI-METAL

Feedback from our customers allows us to develop, optimise and incorporate new technologies and designs, reducing production costs while optimising the overall performance level.

## IMPROVING HEAT EXCHANGES AND MAINTENANCE COSTS

SURFI-METAL has developed an innovative process, by way of ultra-efficient electric infrared emission technologies which are used during the desolvation, pre-polymerisation and thermal-polymerisation stages.

Effective technology for all kinds of paints (liquid, powder, UV, etc.), allowing a reduction of 20% to 40% of your energy costs.

Optimising the positioning of emitters to improve the absorption of radiation by the treated media.

Use of high strength materials, greatly improving the life of your equipment.

Optimised design, for a significant reduction in maintenance costs.

Uniform, stable and targeted ventilation flows aimed at the components to be treated.



## IMPROVEMENT OF PULVERISATION PERFORMANCE

Optimisation of detection solutions for your components, combined with a thorough management of spraying instructions.

Optimisation of the components support, improving the precision of the detection.

Incorporation of an air atomisation system by heating and ionisation (Patented technology).

Optimisation of pistol support, offering stability, repeatability and better positioning accuracy, etc.

Reduction of the quantity of paints sprayed (less soiling of the cabins), resulting in a significant reduction in consumable costs and cleaning time.

Conception : Lead BioB - Lu Yi-Ling



## A LEVEL OF PERFORMANCE

## FROM THE DEFINITION OF YOUR PROJECT TO THE ACCEPTANCE OF YOUR INSTALLATION

## ENGINEERING DESIGN & REALISATION OF SURFACE TREATMENT INSTALLATIONS

For all types of paints & Metallisations for all industrial sectors  
paint application plants - High efficiency infrared radiation  
Ultraviolet Radiation - VOC treatment and reduction  
paint saving system

## TO REACH THE DESIRED PERFORMANCE LEVELS

We support you in the definition, engineering design and realisation of your industrial installation projects for liquid paints, powder coatings and metallisation, all the way until the acceptance of your equipment.

## OUR EXPERTISE

Engineering • Definition of your specifications • Design & realisation  
• Modifications • Compliance • Transformation • Incorporation of the most appropriate technologies • Maintenance • After-sales service

## OUR FIELDS OF ACTIVITIES

Cosmetics, perfumes, spirits, automobiles, furniture, tableware, small hardware, telephony, electrical appliances, general industry, etc.

# INSTALLATIONS FOR APPLICATIONS AND TREATMENT OF LIQUID PAINTS

Applications of all types of coatings in liquid paints, base coat, top coat (PU, Epoxy, Acrylic, lacquer, varnish, solvent-based or water-based, UV, etc.).



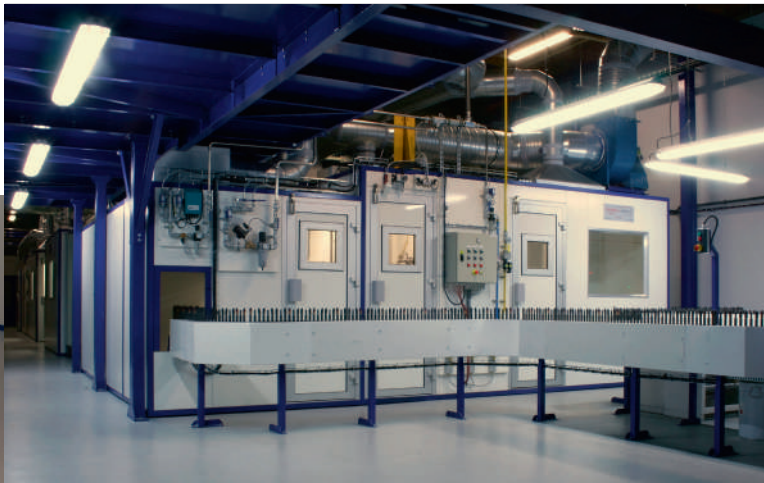
Dry filtration technology cabins  
High-efficiency vacuum air cleaning cabins  
Equipment with manual or automatic spraying stations

A load-lock assembly for preparation of parts before painting (ionisation, blowing, brushing, flame, plasma, cryogenisation, etc.)



We design and manufacture your industrial painting equipment for the protection or finishing of your products.

Our installations are suitable for all products and all media (glass, thermoplastics, composites, metals and alloys, wood, etc.).



Drying or cooking ovens and tunnels for polymerisation :

By thermo-ventilated electric infrared radiation.

By hot air mixing (convection) followed by forced or refrigerated air coolers.

By UV radiation (or curing).

Transporting and handling of components by inverted conveyor or air conveyor.



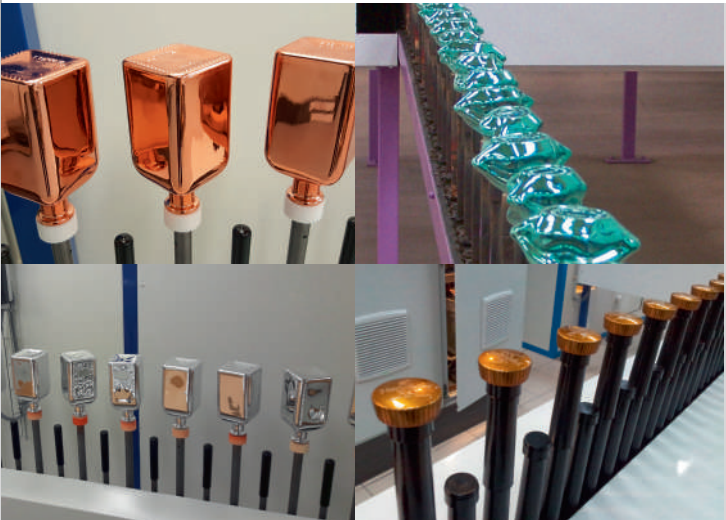
# METALLISATION

## INTEGRATION OF METALLISATION PROCESS

We offer more than 35 years of experience in design and realisation of lacquer coating, metallisation and top coating systems, incorporating the new continuous or offline metallisation technologies.

Unified integration of vacuum metallisation process, PVD, and Sputtering.

Unified integration of robotic handling equipment for transfer, and automated loading/unloading of your components and media.



Design of new metallisation and drying modules developed from liquid metallisation technologies.

Project management for the incorporation of in-line liquid metallisation equipment and effluent treatment.

These modules are incorporated into your lacquering installation projects or added to your existing lines.

# VOC TREATMENT

A technology redeveloped by SURFI-METAL  
(Study, design and implementation, fully integrated)

Biofiltration: A GREEN technology to meet environmental standards.

This biological treatment uses bacteria to degrade gaseous effluents naturally.

The principle is to pass the polluted gases through a porous surface, the BIOMASS, which contains bacteria.

This technology is particularly useful in the treatment of VOCs. It does not require any reagents other than water, which is mainly used to maintain moisture and biomass life.



The nature of the biomass may vary depending on the type of pollutant to be treated. It is therefore possible to use bark of different wood species «chopped into chips of different sizes», coconut fibre, or fibrous peat.

The structure and the enclosure of the bio-filter can be made of metal sections entirely covered with plastic materials, or covered with wood, as seen in certain civil engineering projects.



The bio-filter can be closed (container type) or «open air».

Our design & technical department determines the suitable bio-filter according to the exact nature and the load of the pollutants handled, the extract air flow to be treated, and the space available for the implantation of the bio-filter.