



UNISON

DISCOVER OUR
PRODUCTS
AND SOLUTIONS

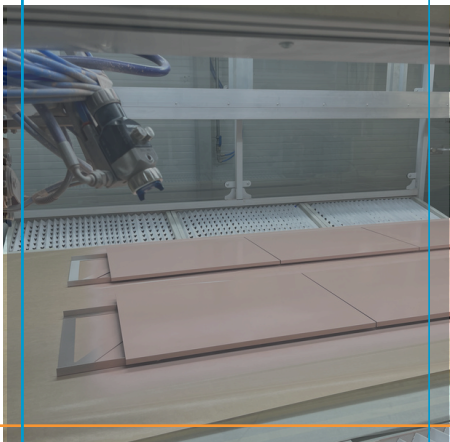
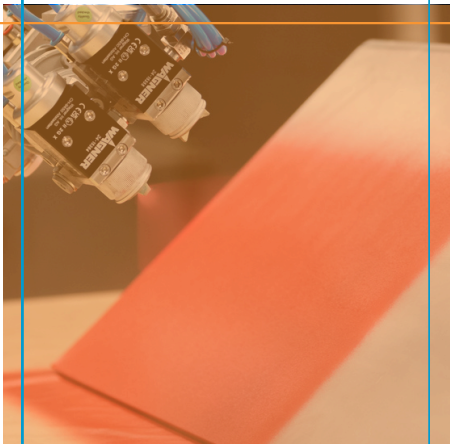


Efficiently and cost-effectively.

That's how our equipment can paint your parts.

It's simply a matter of finding the right solution.





What do you get?

BENEFITS OF AUTOMATION



High quality and precision

Properly configured machines leave no streaks or underpainting.

Each painted component is characterised by a uniform, high quality.



Repeatability

The consistency of the painting robot remains the same in the first hour as in the eighth hour of operation.

Minimizing touch-ups brings real benefits: improved product quality, along with time and paint savings.



Reduction in material and labour costs

Our machines use up to half the paint compared to manual painting. Reducing material waste translates into significant savings for the company.

Often, only one operator is needed to run the equipment – replacing an entire team of painters.



Profit maximisation

The painting robot works faster and more efficiently. You produce more in less time.

This maximizes profit while strengthening your market position.

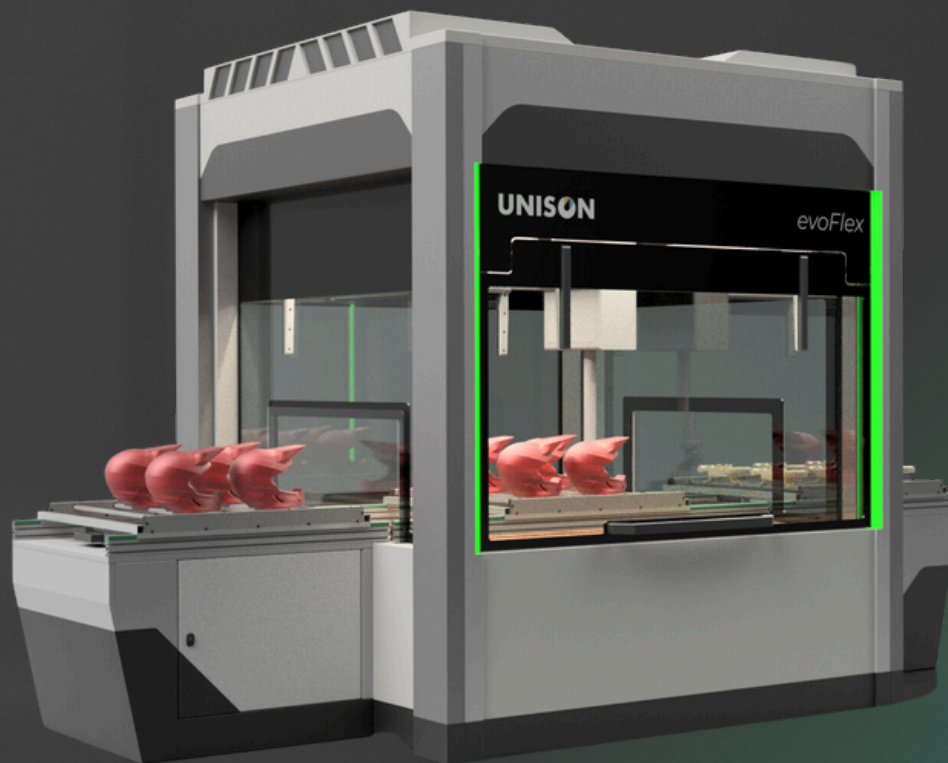


Process control

Our systems enable you to accurately monitor and adjust your painting parameters.

You know the statistics associated with the entire process, so you can manage your production easily and efficiently.

Painting robot evoFlex



An absolute novelty on the market.

evoFlex is a painting robot that combines the evolution of solutions and flexibility in painting.

The robot is dedicated to small parts which are placed on trays.

Thanks to the active trays - regardless of the shape of the products - the workpieces can move during painting, ensuring even coverage.

Equipped with a full 5-axis CNC controlled system.

evoFlex is the only one of its kind on the market, offering repeatability, precision and versatility.

The robot is designed to reduce the need for human labour as much as possible - requiring only one operator.

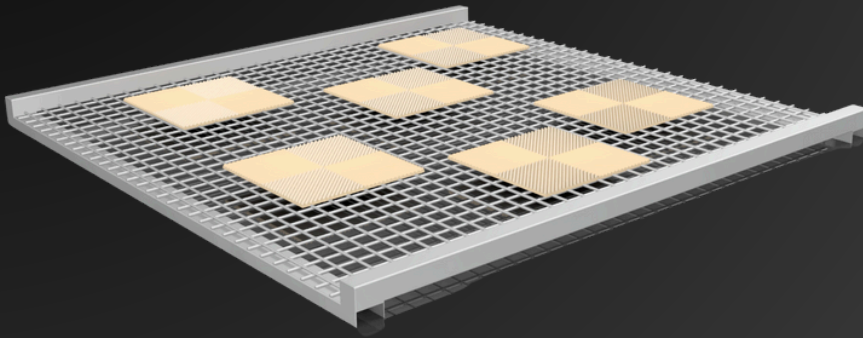


evoFlex painting robots

TYPES OF TRANSPORT TRAYS

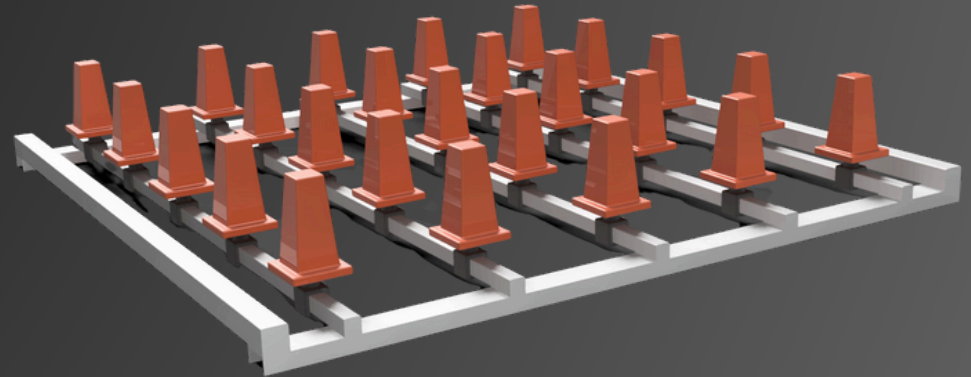
PASSIVE TRAYS WITH A GRID

- ideal for workpieces that can lie firmly on the grid and the bottom surface is not important for painting



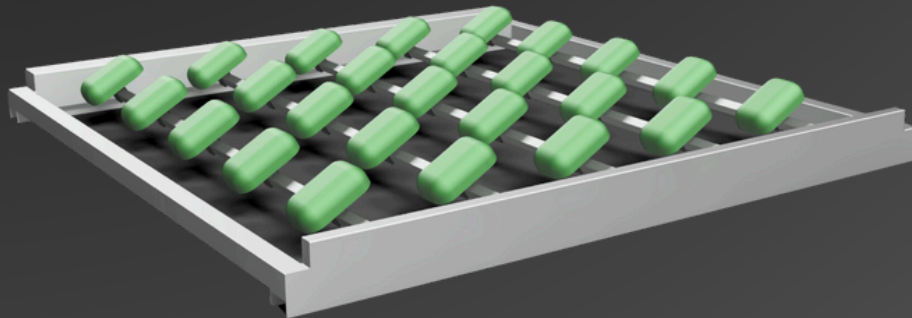
PASSIVE TRAYS WITH CROSSBARS

- ideal for components that need to be securely clamped



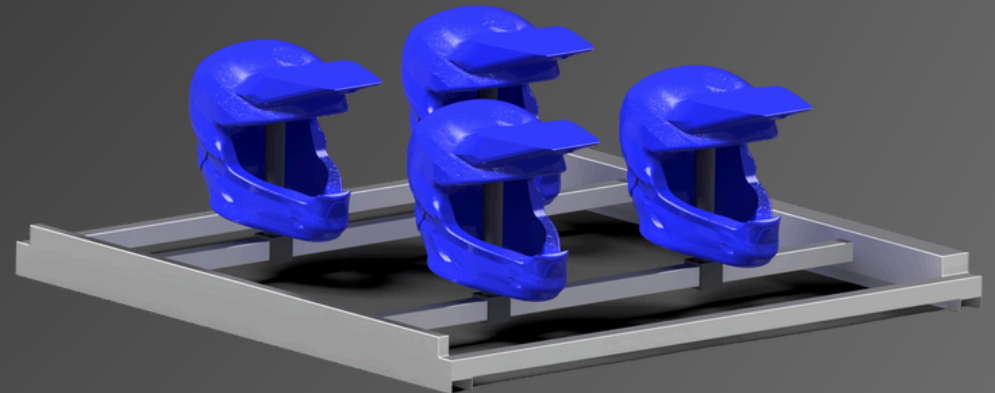
HORIZONTAL ACTIVE TRAYS

- allow rotation of components in the horizontal axis
- ideal for components requiring painting of lower edges and surfaces



VERTICAL ACTIVE TRAYS

- allow movement of components in the vertical axis
- making the parts rotate helps to achieve an even coating and reduce painting time



3D SCANNER

Automatic recognition of the shape and position of workpieces eliminates the need for manual positioning and parameterisation. This significantly reduces the risk of human error, while increasing process efficiency.

RFID TRAY IDENTIFICATION

Recognition of the trays of parts to be painted allows the process to be even more automated.

COMPONENT CLEANING STATION

Immediately prior to paint application, it removes fine contaminants from the parts, resulting in a higher quality final product.

AUTOMATIC LOADING AND UNLOADING SYSTEM FOR TROLLEYS

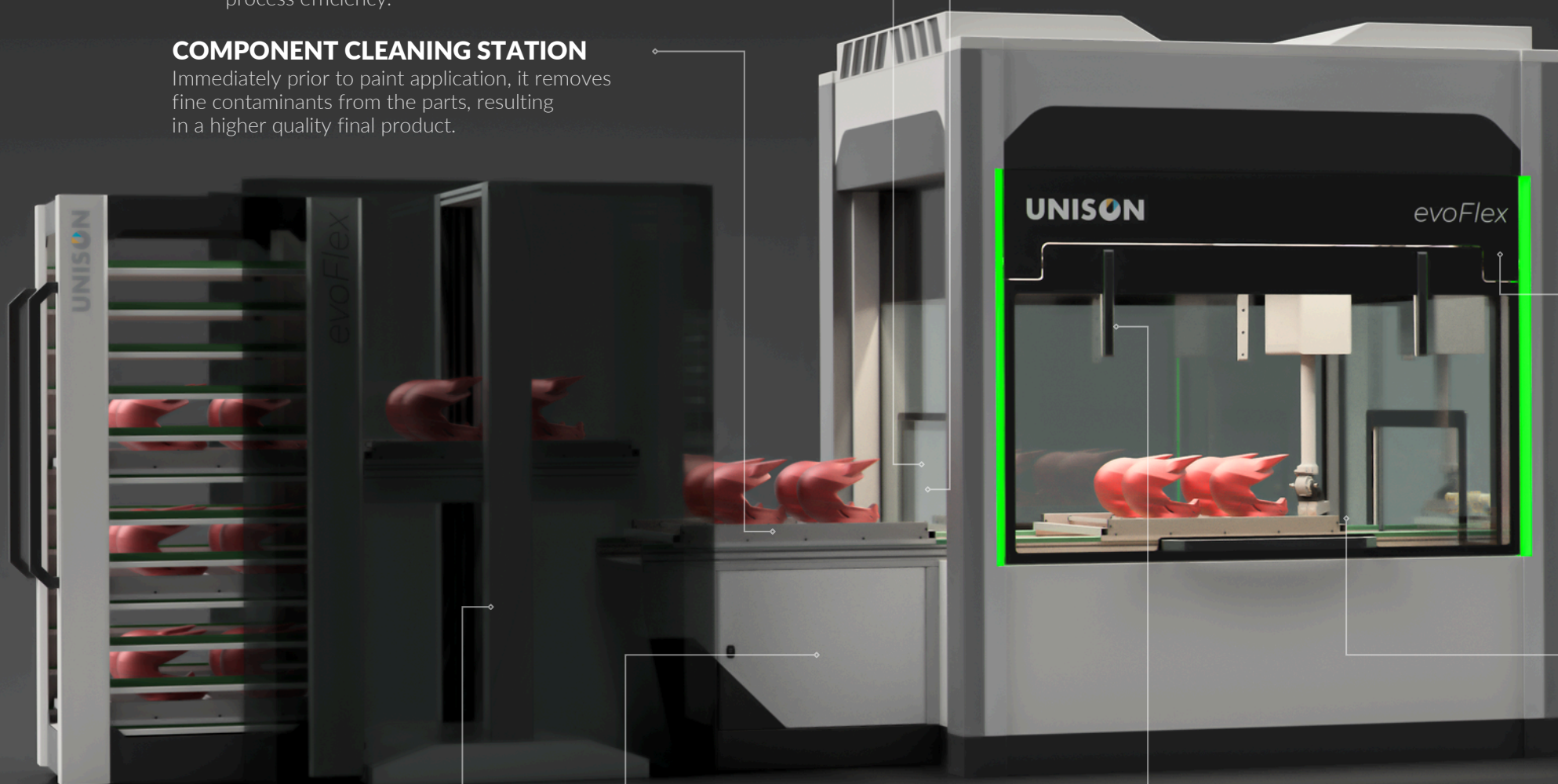
Integration with the rest of the equipment in the line ensures higher productivity through the smooth transport of components without human intervention.

ENERGY RECOVERY MODULE

It allows part of the electricity supplied to the machine to be recovered, ultimately reducing operating costs.

CUP FOR SHORT SERIES

Thanks to the low volume of the spray lines, material loss is kept to a minimum and little time is required to change the colour or flush the system.



AUTOMATIC CLEANING SYSTEM FOR PAINTING PISTOLS

The automatic brushes that cycle the nozzles minimise the risk of disruption to the spray guns, which ultimately contributes to the quality of the application and minimises errors.

TRAY TRANSPORT TROLLEYS

They optimise work organisation by being able to prepare fully loaded trolleys with parts to be painted at separate stations. They are an integral part of the automatic loading and unloading system.

DRYER

It increases process efficiency by significantly reducing paint drying time and minimises the risk of inclusions after the painting process.



ACTIVE TRAY SYSTEM

Enables multi-sided painting in a single load by moving parts along different axes.

SEMI-AUTOMATIC TRAY PREPARATION STATION

Thanks to its ergonomics, the specially designed stand speeds up the process of preparing components for painting, improving the efficiency of the entire process.

Paint robots UNI-CLEVER



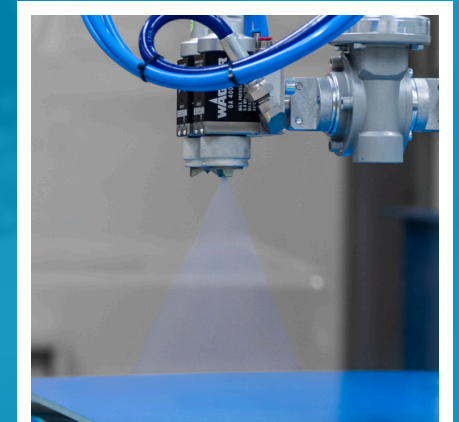
The UNI-CLEVER product line includes advanced painting robots that ensure precise and repeatable coating of various parts.

The speed of the robots and their commitment to the highest quality standards significantly reduce painting process times.

With paint guns operating on five axes, UNI-CLEVER devices are suitable for one-dimensional parts as well as complex surfaces and hard-to-reach areas.

The robots are compatible with all materials suitable for spray application.

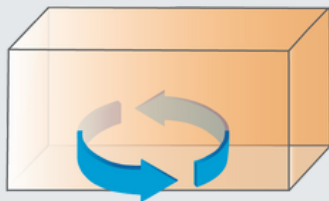


Extensive configuration options for the loading system, part positioning, and additional equipment make them an excellent solution for many industries.



UNI-CLEVER painting robots

POSSIBLE CONFIGURATIONS

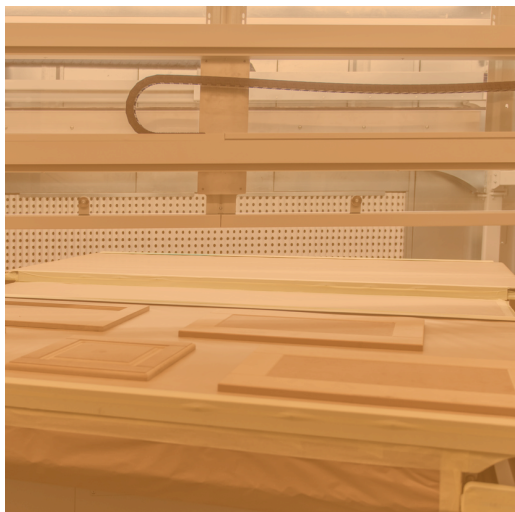


| TYPE OF ROBOT | ROTATING | INLINE-THROUGH | CROSS-THROUGH |
|---------------------------------------|--|---|---|
| Loading direction |  |  |  |
| Transport system to the painting area | <ul style="list-style-type: none"> ✓ Turntable with paper ✓ Turntable with openwork table with pins ✓ Door turntable with a turnstile ✓ Coffin turntable | <ul style="list-style-type: none"> ✓ Belt conveyor with paper ✓ Conveyor belt with paint recovery ✓ Chain conveyor | <ul style="list-style-type: none"> ✓ Chain conveyor |
| Positioning of elements | <ul style="list-style-type: none"> ✓ 2D/3D scanner ✓ Laser indicators ✓ Coffin positioner + hydraulic lift | <ul style="list-style-type: none"> ✓ 2D/3D scanner ✓ Coffin positioner + hydraulic lift ✓ Trays | <ul style="list-style-type: none"> ✓ Coffin positioner + hydraulic lift ✓ Trays |
| Possible additional equipment | ✓ | ✓ | ✓ |



UNI-CLEVER painting robots

COMPONENT TRANSPORT SYSTEMS



Turntable

It allows already painted parts to be unloaded and new parts to be loaded without interrupting the painting area.



Paper table

The paper helps prevent contamination of the inside of the paint machine, which saves time. What's more, it prevents the left side of the workpiece from becoming dirty.



Openwork table with pins

Pins with a strong magnet allow individual positioning on the table each time. This makes picking up the parts more convenient and minimises human error during this step.



Turnstile

It enables the door leaf to be turned 180 degrees and the other side to continue to be varnished during a single load. The process takes place without the need for employee intervention.



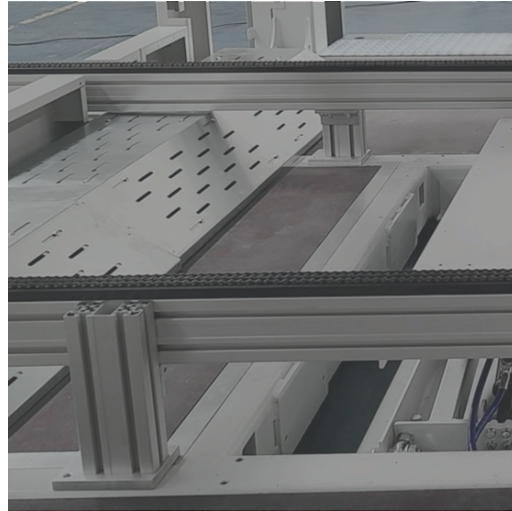
Coffin option

It has special handles for larger blocks. They provide stability during painting and work in conjunction with a positioner and a hydraulic lift, which are responsible for the efficiency of the process.



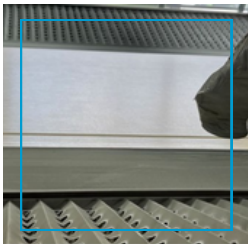
Belt conveyor

The conveyor belt ensures smooth movement of parts for painting, minimizing the risk of product damage.



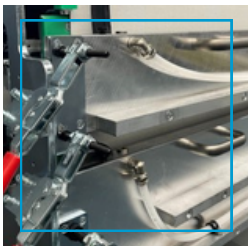
Chain conveyor

The transportation system is based on chain conveyors, allowing for self-cleaning of the chain and the handling of heavy or large parts. These conveyors ensure smooth movement of components in the painting area and between devices.



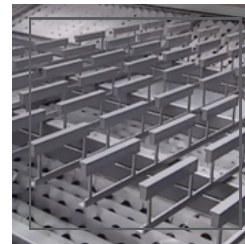
Option with paper

Allows parts to be painted on an always clean strip. The vacuum system holds the paper, minimising paint dripping, and also stabilises the workpieces during application. Paper rewinding only takes place during loading and unloading, optimising paper consumption.



Option with paint recovery

The main conveyor is equipped with scrapers that collect leftover paint from the painting area, allowing for paint recovery.



Option with trays

The use of trays allows for the recognition of the arrangement of painted parts on the conveyor, facilitating the selection of appropriate parameters and, as a result, minimizing the consumption of coating materials.



Option for large blocks

The transportation system for coffins or large blocks, based on chain conveyors, ensures reliable movement of heavy and oversized parts. This solution utilizes the self-cleaning properties of the chain and its high durability.



UNI-CLEVER painting robots

ADDITIONAL EQUIPMENT OPTIONS



2D/3D scanner

The scanner recognizes the length, width, and position of parts to be painted. This minimizes the risk of human error and saves time spent on careful positioning and parameterization of the components.



Paint recovery system

The system is designed to collect excess paint from the main conveyor and reuse it. With a scraper cleaning system for the belt, the system effectively collects paint and thoroughly cleans the belt, preparing it for further operation.



Parts cleaning station

The blow-off with deionization prepares the components before painting. The system effectively removes all contaminants from the surfaces of the parts. Deionization eliminates electrostatic charges, preventing particles from settling back on the prepared components.



Interchangeable low-pressure container system

Ideal for short runs. The small capacity of the paint hoses minimizes paint waste, and changing colors or flushing the system is quick. The use of disposable cartridges eliminates the need for cleaning, saving time and reducing solvent consumption.



Automatic nozzle cleaning system

Automatic brushes that periodically clean paint guns prevent nozzle clogging, significantly affecting the final outcome of the process. The system minimizes the risk of human errors caused by irregular nozzle cleaning.



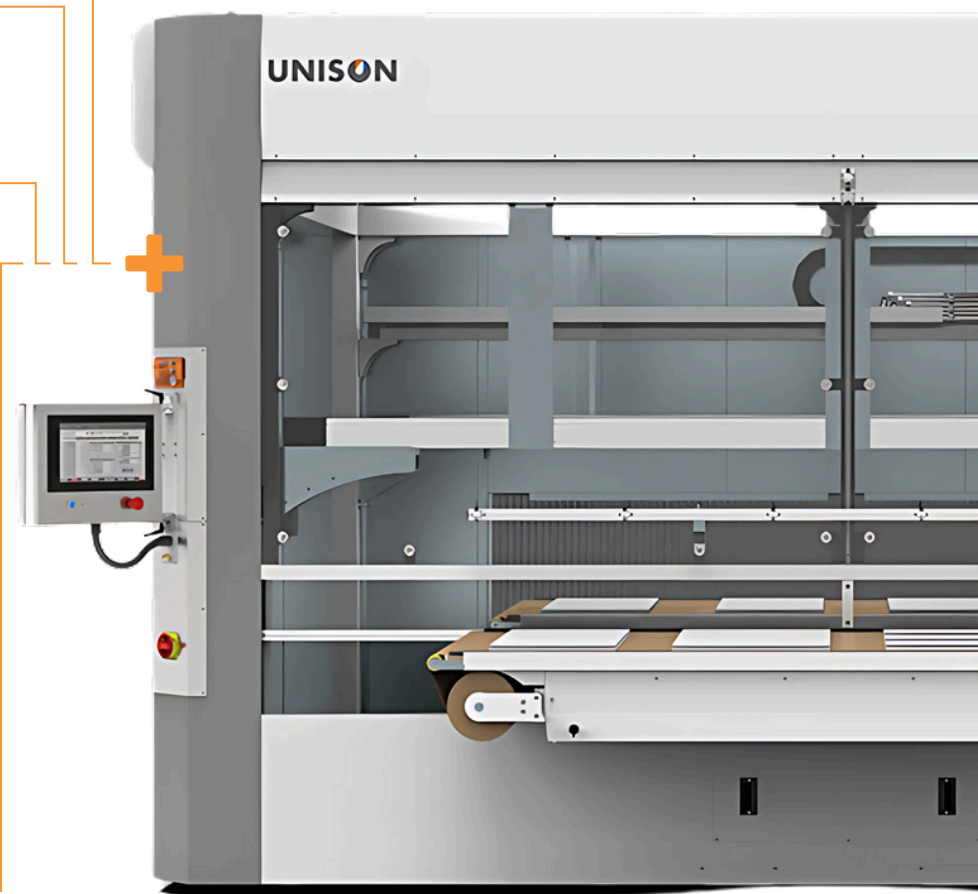
Additional painting equipment

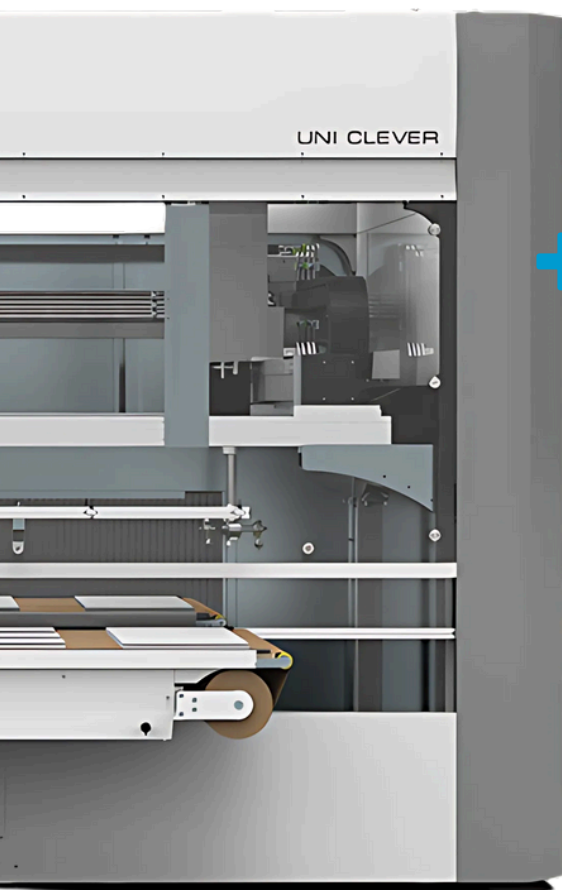
Additional equipment includes, among others, 2K and 3K mixing and dosing devices, color change blocks, paint material pressure regulators, and many more. Each of these elements contributes to the convenience and quality of the painting process.



Integration with barcode and RFID systems

The system enables fast and precise identification of products to be painted. Based on the transmitted information, the robot automatically verifies the component and paints it according to the parameters set for that specific part.





Washing tanks for scrapers

They remove leftover paint and other contaminants from the surface of the scrapers, which is essential for their continued effective use and maintaining precision in operation.



Recovered paint filtration station

It enables efficient cleaning of the paint collected from the application process so that it can be reused. The filtration removes all contaminants from the paint, allowing for the recovery of high-quality material for further use in accordance with technical requirements.



Intermediate components, e.g. trays, pins

They serve as transitional platforms for transporting and storing components during various stages of painting. They aid in the safe and stable transport of parts, protecting them from mechanical damage.



UV lamps

The lamps use ultraviolet radiation to cure coating materials, allowing for a quick transition from application to finished product.



Transport systems

They ensure efficient movement of components between various stages of production. They enhance productivity and minimize the risk of potential damage or contamination during transport.



Air humidification system

The system provides complete control of humidity in the painting area, which significantly affects the efficiency of the process. Maintaining the appropriate humidity level for a given paint is crucial to prevent issues related to its drying.



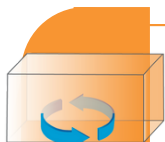
Remote control for point-to-point programming

The wireless pendant allows for intuitive path programming in a point-to-point system, providing quick and easy control of the robot's movements from point to point.



UNI-CLEVER painting robots

EXAMPLE CONFIGURATIONS



ROTATING



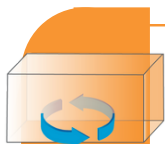
UNI-CLEVER O/P

➤ turntable with paper



UNI-CLEVER O/D

➤ turntable with a turnstile



ROTATING



UNI-CLEVER O/C

➤ turntable with positioner



CROSS-THROUGH



UNI-CLEVER T/C

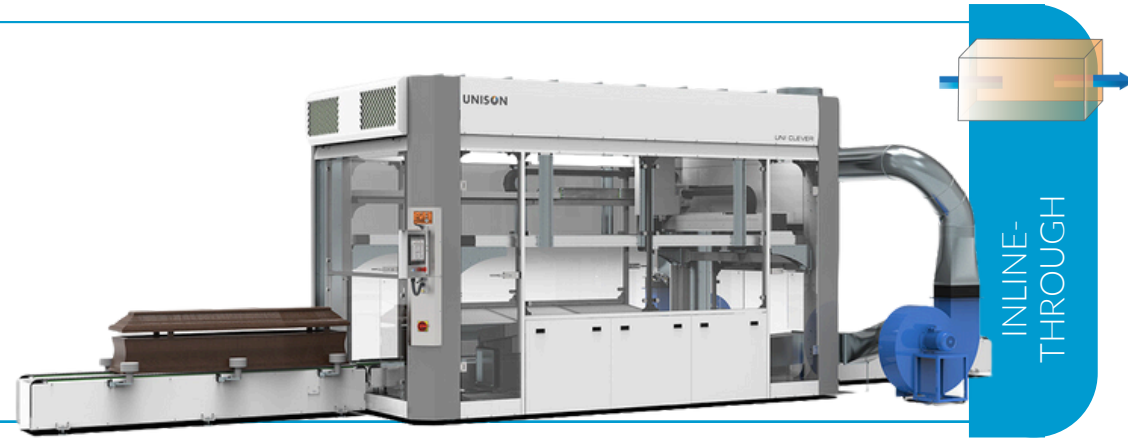
➤ cross-through

UNI-CLEVER painting robots

EXAMPLE CONFIGURATIONS



UNI-CLEVER L/H
➤ chain conveyor with trays



UNI-CLEVER L/C
➤ chain conveyor with positioner



UNI-CLEVER L/P
➤ belt conveyor with paper



UNI-CLEVER L/R
➤ belt conveyor with paint recovery system



UNI-CLEVER painting robots

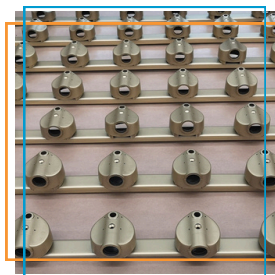
IDEAL FOR



FURNITURE FRONTS
AND COMPONENTS



DOOR PRODUCTION



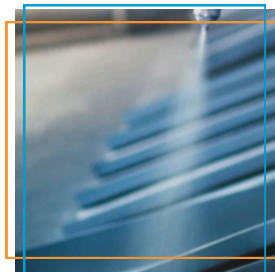
PLASTICS



PRODUCTION
OF COFFINS



PLATES AND
COUNTERTOPS



APPLICATION OF
ADHESIVES



AND MANY OTHER



PRODUCTION OF
GLASS AND MIRRORS



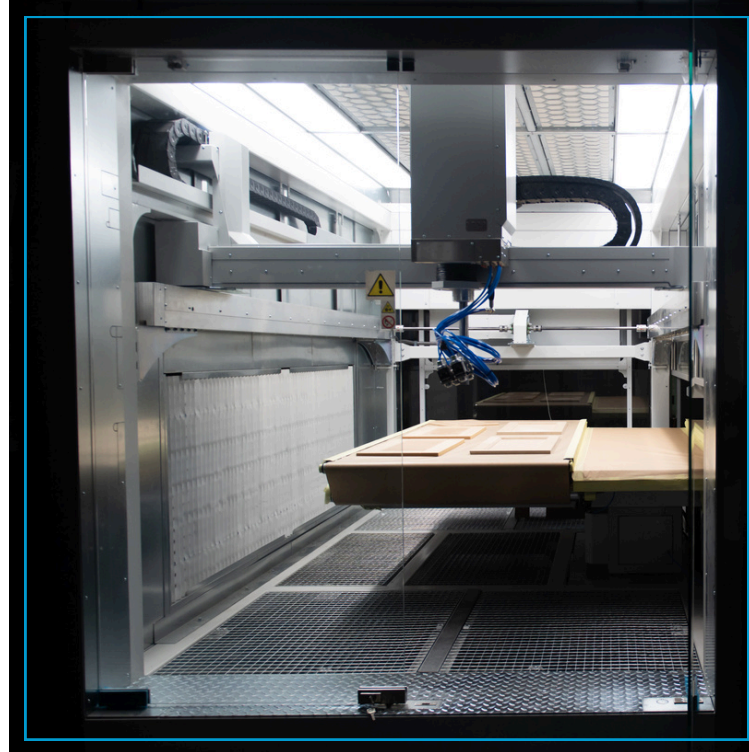
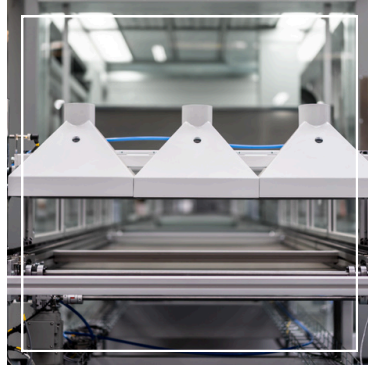
AUTOMOTIVE



HEAVY INDUSTRY

**Ask if we have
a solution for your
industry.**

UNI-CLEVER painting robots SELECTED IMPLEMENTATIONS



Watch the video of a selected
UNI-CLEVER robot at work:



Automatic oscillating machines UNI-ONE / UNI-SLIM



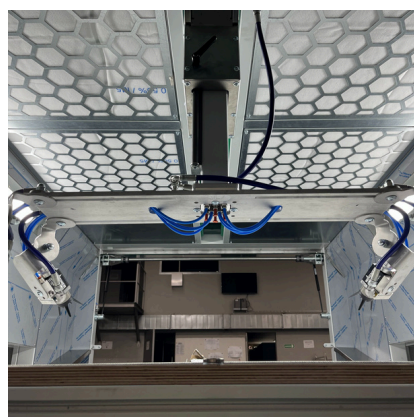
The UNI-SLIM and UNI-ONE product families are oscillating painting machines designed for efficient throughput operation. The paint guns operate along the Y-axis of the device—perpendicular to the direction of part movement.

These machines combine ease of use with advanced technology, providing high precision and efficiency in the painting process.




The UNI-ONE features a wide working area, with a transfer speed of up to 6 meters per minute. These parameters make the UNI-ONE a highly efficient painting machine, ideal for large production runs.

The UNI-SLIM is a more compact model, which, due to its design and dimensions, is perfect for smaller production facilities.

Both models are well-suited for full automation, helping to enhance efficiency and quality in production while reducing operational costs.





| | THROUGHPUT OPERATION | CONVEYOR WITH PAPER | SYSTEM WITH PAINT RECOVERY | CONFIGURATION WITH OTHER MACHINES | WORKING WIDTH | POSSIBLE ADDITIONAL EQUIPMENT |
|--|-------------------------|------------------------|-------------------------------|---|-----------------------|---|
|  UNI-SLIM L/P | ✓ | ✓ | ✗ | ✓ | 800 mm 31.5 inch | Transport systems Parts cleaning station Set of carts for quick paper replacement |
|  UNI-SLIM L/R | ✓ | ✗ | ✓ | ✓ | 800 mm 31.5 inch | Washing tanks for scrapers Recovered paint filtration station UV lamps |
|  UNI-ONE L/P | ✓ | ✓ | ✗ | ✓ | 1350 mm 53.15 inch | Interchangeable holder for the second set of paint guns Low-pressure exchangeable tank system |
|  UNI-ONE L/R | ✓ | ✗ | ✓ | ✓ | 1350 mm 53.15 inch | Additional painting equipment Extra set of scrapers for quick color change Air humidification system |



UNI-SLIM / UNI-ONE oscillating machines

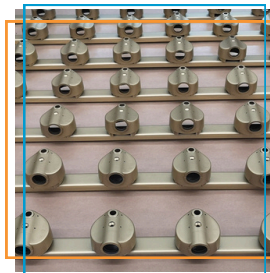
IDEAL FOR



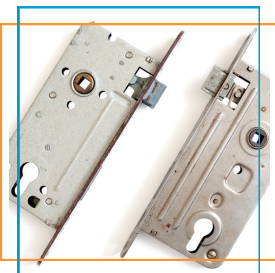
FURNITURE FRONTS
AND COMPONENTS



DOOR PRODUCTION



PLASTICS



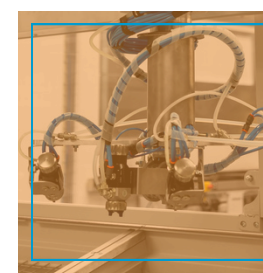
METAL COMPONENTS



PLATES AND
COUNTERTOPS



APPLICATION OF
ADHESIVES



AND MANY OTHER



PRODUCTION OF
GLASS AND MIRRORS



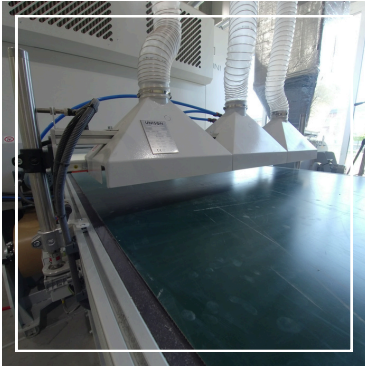
AUTOMOTIVE



HEAVY INDUSTRY

**Ask if we have
a solution for your
industry.**

UNI-SLIM / UNI-ONE oscillating machines
SELECTED IMPLEMENTATIONS



Watch the video
of the selected oscillating
machine in operation:



Dryers

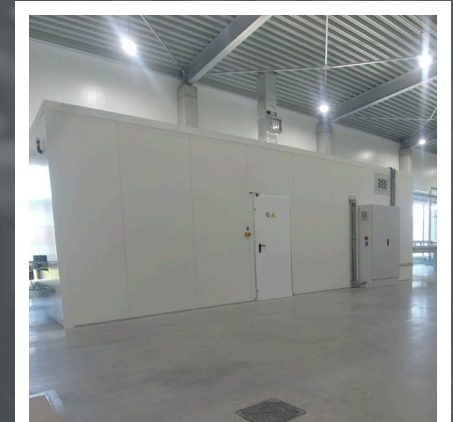
UNI-LIFT / UNI-VERTIC / UNI-LEVEL



Our dryers are technologically advanced devices that are an integral part of painting lines, ensuring quick and efficient drying of components after painting.

All models feature high performance, modern design, and the ability to be customized to meet individual production requirements.

Each of them has been designed with the goal of optimizing the drying process—from efficient air flow and precise temperature control to advanced filtration systems that prevent the accumulation of dust and contaminants in the chambers.





Higher quality of coated components

Air filtration and extraction systems effectively remove dust and all contaminants from the environment.

As a result, the products are free from unwanted inclusions.



Higher production efficiency

Multi-shelf structures and airflow systems enable effective drying, even with high production intensity.

You dry faster, store more, and produce more efficiently.



Flexibility in adapting to component

We configure the drying chamber with consideration for the specifics of the business and the coated components.

The ability to adjust drying chamber parameters is essential to meet the client's individual requirements and optimize production processes.



Complete control over drying conditions

Precise control of temperature, airflow, and humidity allows adjustment of parameters to the specific coating material and characteristics of the coated components.



Real cost reduction

Ventilation and heat recovery systems are not only efficient but also energy-saving.

Supply and recirculation filters ensure efficient energy use, leading to reduced operational costs.





Dryers

SELECTED MODELS

UNI-LEVEL

The pass-through design enables efficient flow of components throughout the entire drying process.

The shelves are covered with a smooth belt, facilitating the movement of components.

The drying chamber is equipped with a water heater and an advanced filtration and ventilation system, enhancing drying efficiency and the quality of the coated component.

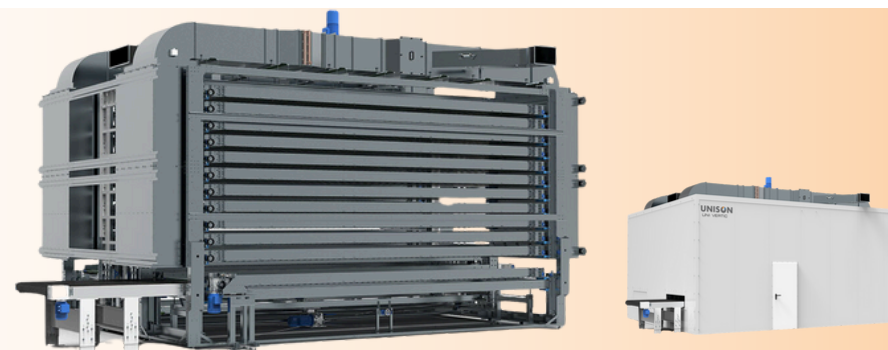


UNI-VERTIC

The drying chamber is equipped with work shelves that allow for quick and even drying of coated components.

Thanks to modern temperature and humidity control systems, the chamber provides optimal working conditions for every type of coating.

The sandwich panel construction, along with the supply and recirculation filter system, ensures high efficiency and energy savings.



UNI-LIFT H / UNI-LIFT C

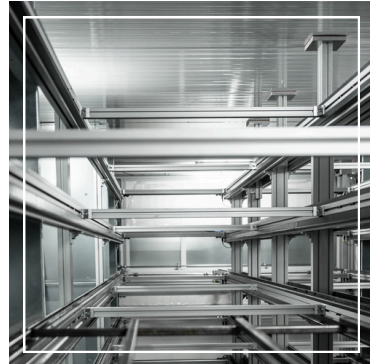
UNI-LIFT drying chambers are designed for efficient drying of large and spatial components after the coating process.

The pass-through design allows for effective airflow, accelerating the drying process.

Depending on the model, the lifting system enables transport of components at various levels, increasing capacity and reducing wait times for process completion.



UNI-LEVEL / UNI-VERTIC / UNI-LIFT
SELECTED IMPLEMENTATIONS



Watch the video of a selected
dryer in operation:





Complete painting lines

EXAMPLE CONFIGURATIONS

UNI-CLEVER L/P + dryer UNI-LEVEL 6

➤ ideal solution for furniture fronts

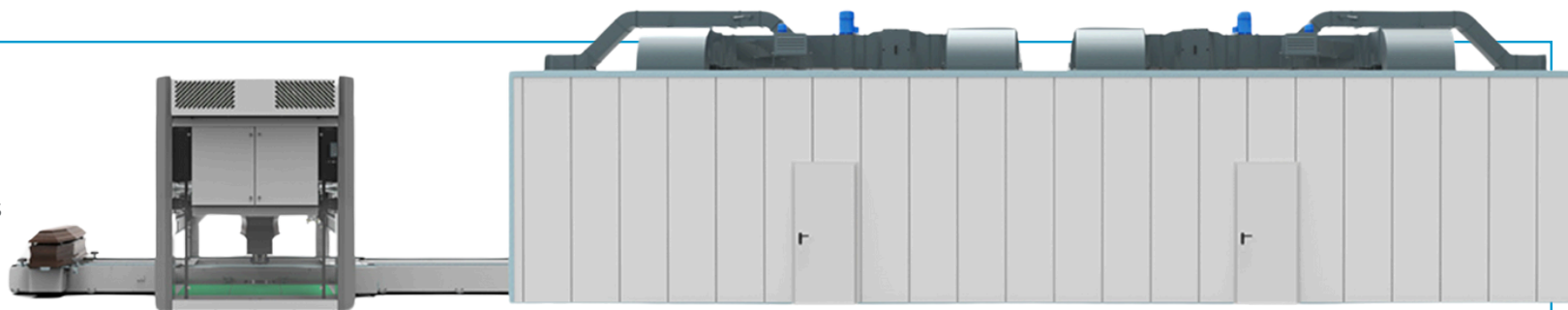


UNI-CLEVER L/R + dryer UNI-VERTIC

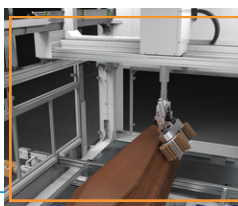
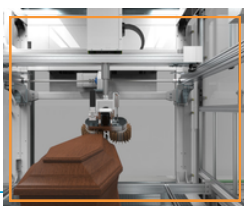
➤ ideal solution
for furniture components

UNI-CLEVER T/C + dryer UNI-LIFT C

➤ ideal solution
for coffin manufacturers



⊕ Possibility to extend
the line with a grinding robot
UNI-GRIND T/C



➔ **UNI-GRIND** is a 5-axis grinding robot designed for precise preparation of coffins before coating. The device ensures high accuracy and repeatability. The robot automates the production process, increasing efficiency and improving finish quality.



UNI-CLEVER L/H + dryer UNI-LIFT H

➤ ideal solution for plastics



**Our coating equipment can be configured in various ways.
Contact us, and we'll help you choose the best solutions for your facility!**



Cooperation

OUR PARTNERS



BECKHOFF

SIEMENS

EAT•N
Powering Business Worldwide

igus®

B&R

 **GRACO®**

HIWIN®

 **METAL
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P N E U M A T I C

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ELEKTRONIK**

 **MH
AUTOMATYKA**

 **PEPPERL+FUCHS**

HABERKORN

Cooperation
THEY TRUST US



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TWORZYWA SZTUCZNE

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CETOR

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SOTEX

EUREX::



How to find us?
CONTACT

UNISON



UNISON Sp. z o.o.

Przemysłowa 25 Street
83-031 Cieplewo, Poland

VAT ID: PL 604 011 96 38



+48 58 692 38 47



biuro@unison.com.pl

handlowy@unison.com.pl



www.unison.com.pl

CONTACT FORM:





ZBIGNIEW NOWAKOWSKI

Operating Director

 +48 512 413 642

 z.nowakowski@unison.com.pl



JAN RYCHLIK

Sales Representative


 +48 512 413 659

 j.rychlik@unison.com.pl



PAWEŁ JACKIEWICZ

Paint Process Technologist

 +48 512 413 672

 p.jackiewicz@unison.com.pl



www.unison.com.pl