

VACUMAT®  
process engineering  
has set the standards.  
We were the ones  
to invent it.

## VACUMAT MasterCoat®



**VACUMAT® technology is unique.**

**Yesterday. Today. Tomorrow.**

## VACUMAT MasterCoat®

Vacuum coating of profile elements and surfaces regardless of the profile, without waste and overspray.

Various coating mediums can be employed.

All round coating and coating of individual segments are possible all in one pass, without having to interrupt the production process. Brilliant surfaces are the result.

### Capability characteristics

- Highest standard of coating quality through reliable Schiele VACUMAT® application technology that has been proven successful for decades.
- All-over coating without interruption of production procedure in one working process.
- Targeted application of individual work piece segments with push-push operation.
- Single component coating is an optional feature.
- The highest standard of flexibility in the processing of various work piece dimensions by easily interchangeable VACUMAT® templates.
- Superb efficiency. Feed rates of up to 200 m/min and more can be obtained depending on the work piece.
- Brilliant surfaces, coating strength of 10 to 200 g/m<sup>2</sup>, depending on the coating system.
- Waste free use of the material inventory.
- Diverse coating mediums can be used, e.g., water based varnish, UV varnish, water UV varnish, oil, wax, etc.
- Machine cooling in the application wet area and external medium management are possible.
- The VACUMAT Master Coat® can be fitted with a special interior coating, which makes cleaning easy when changing the coating medium.
- High production reliability. The VACUMAT® has been designed for a 24-hour operation.



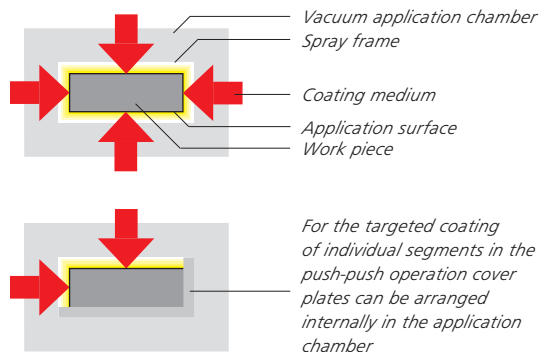
*The VACUMAT® coating chamber makes all-over coating possible in one working process. Even undercut profile segments are coated with high application reliability.*

A number of system components can be selected for optimizing quality and increasing efficiency, e.g., coating medium heater to influence the rheology, UV dryer for all-over drying, automatic coating medium filter, automatic coating medium refill.

### Ranges of application

Priming, varnishing and coating of work components made of wood, e.g., window and door elements, profile boards, moldings, flooring, casings, paneling and interior finishing elements, etc. For application use outside the wood processing industry Schiele offers the VACUMAT SpecialCoat®, a technically perfected machine concept that is universally usable.

### The VACUMAT MasterCoat® offers an optimum of efficiency and flexibility



### VACUMAT MasterCoat® Functioning principle

A VACUMAT® coating chamber is installed in the production line. Modular construction and individually manufactured connection components make integration easy. The VACUMAT® coating chamber is connected with the VACUMAT®. At the entrance and exit the coating chamber templates that are a few millimeters larger than the work piece are installed. The work piece is guided through without touching the templates.

A low pressure created in the VACUMAT® causes suctioned air to flow along the profile. The coating medium, inserted into the air stream at the same time as the profile, settles homogeneously and safely on the application surface under the vacuum effect. Every angle, even undercut profile segments, is coated with high precision.

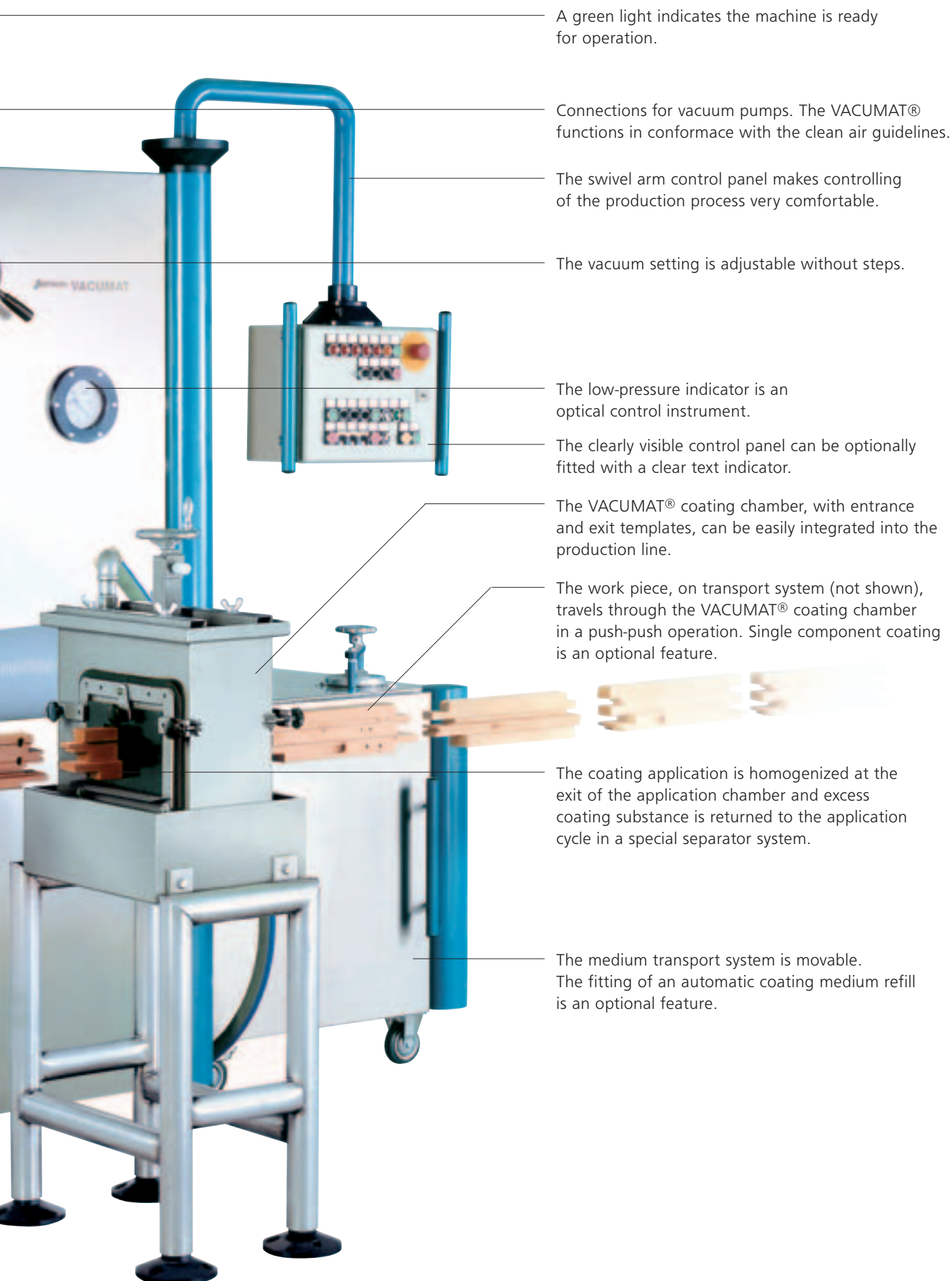
At the exit of the application chamber suctioned air flows along the surface. The coating application is reliably homogenized and excess coating substance is returned to the application cycle. This results in a waste free use of the material inventory in the VACUMAT® system.



VACUMAT® application chamber with an installed exit template that is formed for a work piece



Interchangeable  
VACUMAT®  
Template



A green light indicates the machine is ready for operation.

Connections for vacuum pumps. The VACUMAT® functions in conformance with the clean air guidelines.

The swivel arm control panel makes controlling of the production process very comfortable.

The vacuum setting is adjustable without steps.

The low-pressure indicator is an optical control instrument.

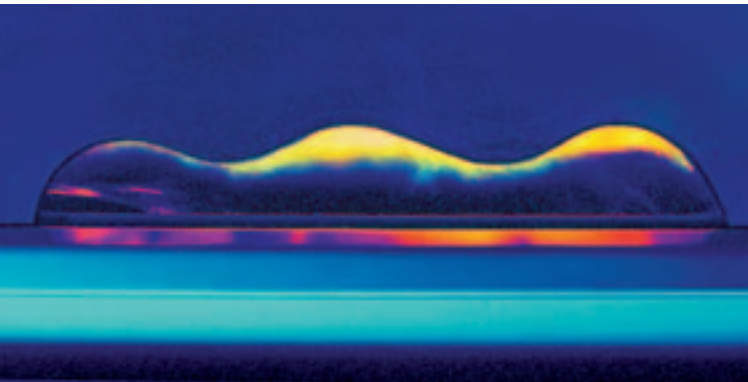
The clearly visible control panel can be optionally fitted with a clear text indicator.

The VACUMAT® coating chamber, with entrance and exit templates, can be easily integrated into the production line.

The work piece, on transport system (not shown), travels through the VACUMAT® coating chamber in a push-push operation. Single component coating is an optional feature.

The coating application is homogenized at the exit of the application chamber and excess coating substance is returned to the application cycle in a special separator system.

The medium transport system is movable. The fitting of an automatic coating medium refill is an optional feature.



*The photo shows the discharge matrix and the fine mist of the coating medium during the vacuum application process.*



*In Schiele's pilot plant, new developments are tested and application-oriented trials with new mediums, materials and work pieces are carried out.*

### **Each VACUMAT® is an original – unique in its technical design**

More than 40 years of development work have gone into the innovative VACUMAT® application technology produced by the company Schiele. The world of coating has been revolutionised by VACUMAT®; this system has been setting standards from machine generation to machine generation, and continues to do so. Yesterday. Today. Tomorrow. We are making sure of that. Approximately 20 of the technical details of the system have been patented. That guarantees progress, application safety and satisfied customers around the globe.

VACUMAT® process engineering is unique, just as every VACUMAT® system that leaves our company is unique. It cannot be adapted, because every order is designed to the specifications and exact application requirements expected by the customer – the optimal standard in functional quality and application safety.

Schiele VACUMAT® coating installations correspond to the regulations of the 'TA-air' and the high international standards.

The VACUMAT® was developed for the automated coating of surfaces, profiles and edges in the wood processing industry. Its potential possibilities are by no means limited to this, however. With the same precision, the VACUMAT® can coat steel, synthetic materials and... Simply tell us what its capabilities should be. It is highly unlikely that there are any requirements in the area of vacuum coating technology that we cannot fulfil.

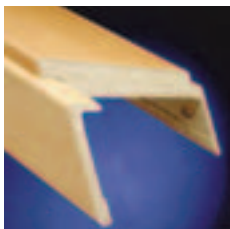
Schiele's service begins with a consultation session long before an order is placed, and does not end with its delivery. 'Training on the job' as well as application-oriented tests are part and parcel of this service. If for some reason it does not live up to its expectations, Schiele service technicians are always at hand. Customer service is guaranteed on the spot, never mind your location.

## VACUMAT® – vacuum coating technology in a nutshell, unlimited in its range of applications.



### VACUMAT MasterCoat®

Vacuum coating of profile elements and surfaces regardless of the profile, without waste and overspray. Various coating mediums can be employed. All round coating and coating of individual segments are possible all in one pass, without having to interrupt the production process. Brilliant surfaces are the result. Depending on the coating system, layer thicknesses of 10 to 200g/m<sup>2</sup> can be achieved.



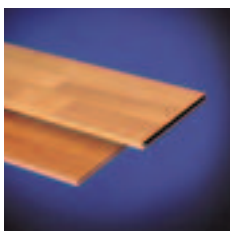
### VACUMAT FutureCoat®

Vacuum segment coating of profile elements and surfaces, without waste and overspray. The high precision of the coating process guarantees maximum surface results. In the execution of the VACUMAT FutureCoat Vario® process, work pieces of varying widths can be coated with the minimum of change-over time, without the coating head having to be changed.



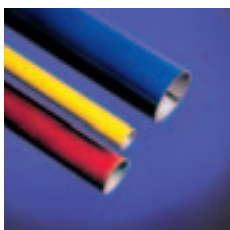
### VACUMAT EdgeCoat®

Vacuum coating without waste and overspray from the edges up to the adhesive joint, or up to a fixed border – this means that separate protective masking of pieces is not necessary. Various coating mediums can be employed. In the execution of the VACUMAT EdgeCoat Vario® process, the axis-controlled coating head adjusts itself automatically to different-shaped edges and rabbet shapes. Exceptionally minimal space requirements. Equally suitable for push-push coating and the coating of individual parts.



### VACUMAT LaminateCoat®

Vacuum hydrophobation of the edges of laminated flooring elements with sealing agents, without waste and overspray. VACUMAT® technology consists of a unique method of controlling precisely and effectively the amount of coating medium being distributed. It guarantees that the middle layer of the supporting plate, where a high measure of effective protection is essential, receives a constant application of the necessary amount of moisture-repellent agent to the cross-section of the profile.



### VACUMAT SpecialCoat®

Schiele provides vacuum coating systems modified to specific products or coatings, which apart from being used within the wood processing industry, can also be employed in countless other fields of application. The most varied coating agents can be applied to the most varied work pieces. There are no limits in terms of the shape of the work piece. Considerably high feed rate speeds can be accomplished.

### **Complete door frame varnishing**

By simply exchanging the VACUMAT® coating head, the facing strips and lining plates can be varnished on one installation: feed rate speed up to 40m/min; lower use of varnish – e.g. 12g/m<sup>2</sup> of covering varnish, 22g/m<sup>2</sup> of base varnish – with very good optical results. Variable coating systems for a simple adjustment to differing dimensions and edge shapes.

### **The primary coating of window parts, 6-sided**

The work pieces are transported with the aid of an appliance especially developed for this purpose. The pieces are individually time-fed through the application chamber by means of logical operation. Profile-oriented templates (necessary for shading with the primary coat) and templates automatically adjustable to the varnishing of the window edges can be employed. Smoothing down by machine is possible. Lower use of varnish. Primary coating from all sides with adjustable layer thicknesses. Single components operation – up to 8 parts/min. Optional automatic width and height settings.



### **Three dimensional coating**

The three dimensional coating of edges is possible with the VACUMAT EdgeCoat® when a free programmable axle-control system is used in conjunction with it. The outstanding feature of the special application unit is its small dimensions.

### **The long service life of the coating material is made possible by the VACUMAT® separation system**

Because the air current is isolated from the colour tank, the air does not flow over the separated material. As a result, the service life of the coating agent is notably increased. Furthermore, special metal air-conveying plates cause a reduction in the transverse force on the coating material.

### **A coating heater optimizes rheology**

The viscosity of the coating material is positively affected by the Schiele coating heater. The application strength can be decreased. The Schiele coating heater is particularly recommended with the use of UV varnishes.

### **UV dryer for all round drying and a patented transport system**

Minimal points of contact on the underside. All-electronic control system. Continuously adjustable. Automatic shut down to a minimum performance with the halt of production. UV water-based lacquers can be dried directly as they pass through the machine.

### **Automatic lacquer-filtering and its automatic refill for the uninterrupted running of production**

When the equipment reaches a certain level where it needs to be cleaned, it automatically switches over to a second filter which is indicated by a control light. The VACUMAT® automatic refill of lacquer enables the coating agent to be topped up without the application flow having to be interrupted. The filter can be cleaned during the running of operations.

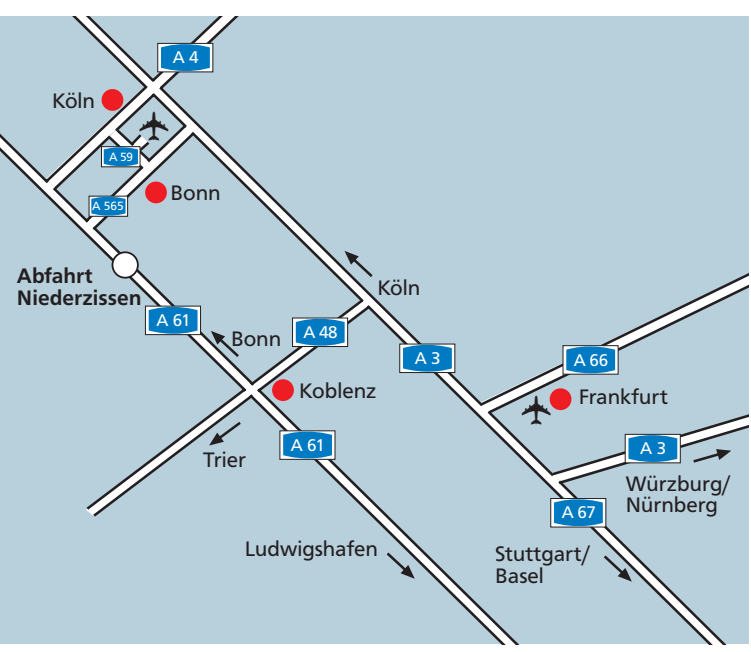
**There are many VACUMAT® system components available to optimise quality and increase performance. Those outlined here are only a few examples. Come and talk to us to find out more.**



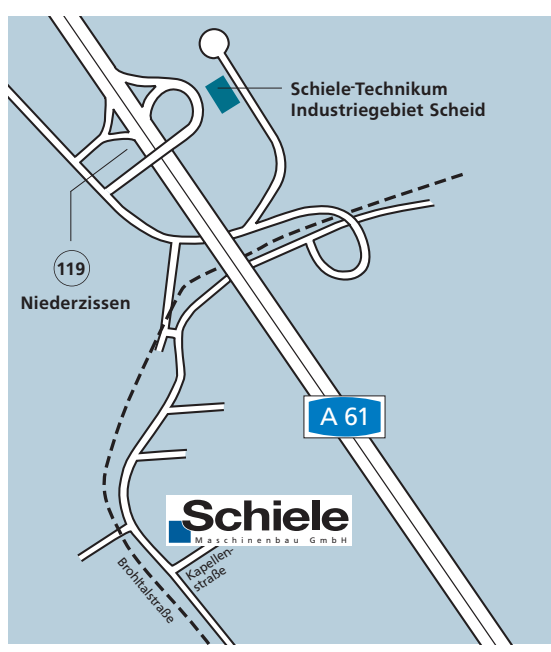
**The perfect surfaces for wood,  
metal, synthetic materials ...**

**We will design the exact VACUMAT®  
to suit your needs. Come and talk to us.**

The technical characteristics described in the prospect relate to the latest state-of-the-art known to Schiele at the time of the printing. The legal relationship is only valid for the agreed contractual technical characteristics. The rates or amounts described herein are the standards achieved under controlled operations and can vary during the practical operations. All rights are reserved by Schiele regarding modifications or changes to the tangible construction features.



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 Düsseldorf airport = 125 km, [www.dusseldorf-airport.de](http://www.dusseldorf-airport.de)  
 Frankfurt airport = 145 km, [www.frankfurt-airport.de](http://www.frankfurt-airport.de)  
 Luxembourg airport = 154 km, [www.airport.lu](http://www.airport.lu)



*In terms of accessibility, our company premises in Niederzissen are situated in a convenient position near to the A61 motorway, just 2 km from the Niederzissen motorway exit. We look forward to your visit.*



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