

TECHNOLOGICAL SOLUTIONS FOR PROFILE WRAPPING

# How to achieve optimal glue application as a starting point for high-quality wrapping results



A COMPANY OF CEFLA

The perfect application of glue is an essential requirement for high-quality end products. Important prerequisites are also the smooth and even profile surfaces as well as the cleanliness of the decor materials. When using, for example, an unsuitable separation system for the exact division of the decor material, contamination from sharp particles can occur at the edges.

In addition, both the surfaces of the profile and the decor material have to be preheated to enable a homogeneous glue application and a strong adhesive bond.

**DÜSPOHL HAS DEVELOPED TECHNOLOGIES WHICH HELP YOU ACHIEVE THE IDEAL GLUE APPLICATION.**

These solutions have also been equipped with many process-related advantages in order to:

- Significantly improve your output, assure high-quality results
- Enhance the efficiency of your production
- Increase your ROI
- Lower ongoing costs, for glue / energy efficiency



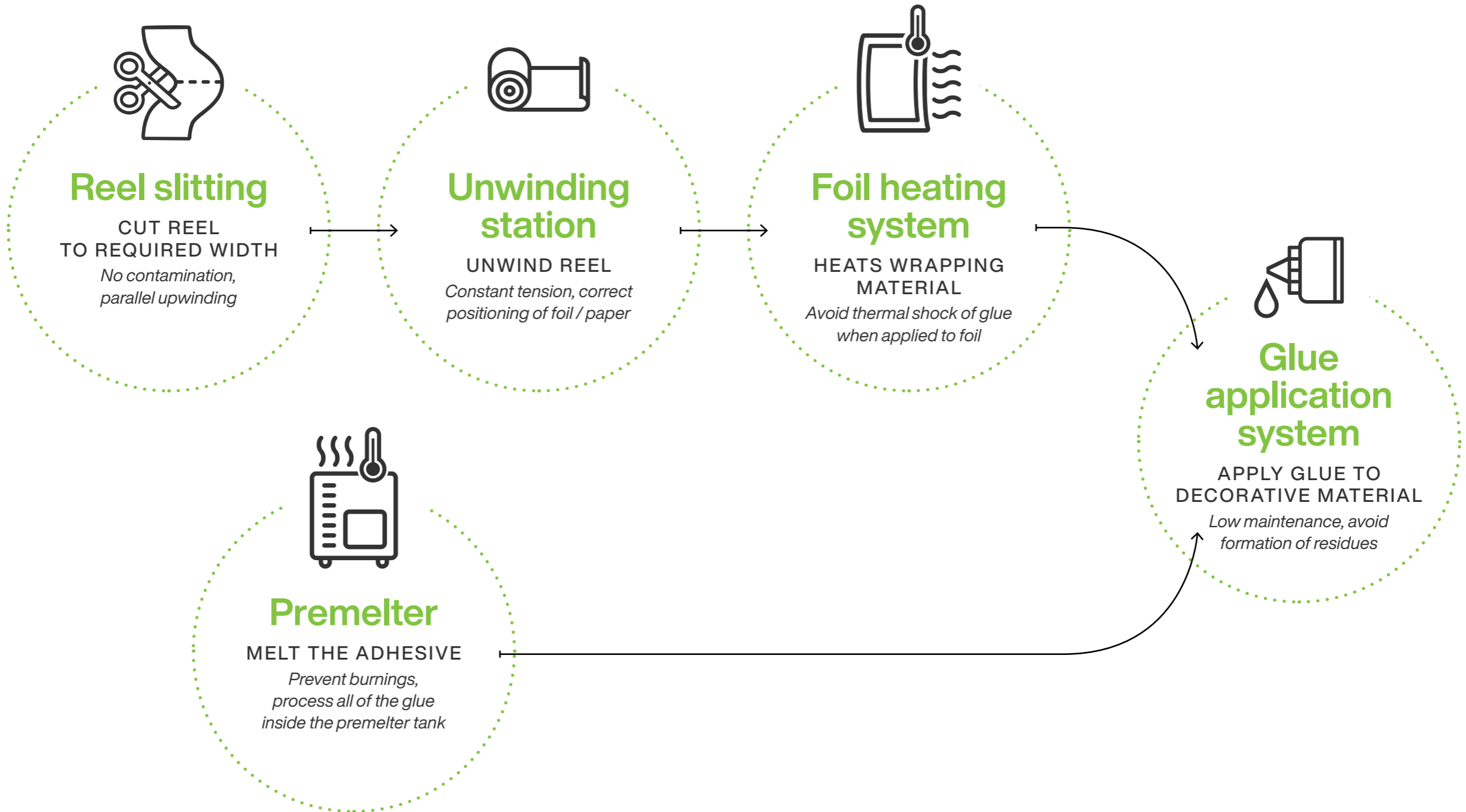
**DISCOVER OUR SOLUTIONS FOR OPTIMAL GLUE APPLICATION**

The presented solutions are available as components of Düspohl wrapping machines or as a retrofit system for existing machines (Düspohl or other).

# Step by step, before wrapping takes place

OPTIMAL GLUE APPLICATION FOR WRAPPING

WHITE PAPER BY DÜSPOHL





# How to cut the reels

## AN IMPORTANT STEP BEFORE THE WRAPPING EVEN STARTS.

The glue application can only succeed if the wrapping material is free from particle contamination.

This is why the quality of the glue application – and, as a consequence, of the final product – also depends on the performance of the machine which divides the mother roll into the reels with the desired working widths.

## Focus on

- 1 **AVOID PARTICLES**  
The cutting tools must separate the material without producing particles.
- 2 **PARALLEL STRIPS**  
The process has to be designed in a way that guarantees that the foil or paper will be parallel. Only then it will cover the required wrapping zone.
- 3 **TENSION CONTROL**  
If the cutting process includes an unwinding-rewinding process, the tension has to stay constant while the diameter changes. It has to be adjustable to enable ultratight rewinding, but also to rewind delicate materials with acrylic layers.

## Our solution

### AutoCut

- Slitting machine for PVC, PP, PE, PU, sandwich foils, laminates, some textiles, metal foils
- Standard widths: 400, 700, 1600 mm
- Connection to your ERP
- Friction winding shafts for optimal tension
- Disc knives for high slitting quality
- High level of automation



## Your benefits

- ✓ **PRECISE AND AUTOMATIC KNIFE POSITIONING**
- ✓ **FAST SET-UP**
- ✓ **BEST CUTTING QUALITY**
- ✓ **LOW HAZARD POTENTIAL**



# Optimal unwinding for optimal results

**THE UNWINDING SYSTEM PLAYS A LEADING ROLE IN THE GLUE APPLICATION PROCESS.**

On one hand, it has to make sure that the foil's tension remains constant, which is indispensable for a homogeneous application. On the other hand, it has to move the decorative material to its assigned position to ensure that glue will be spread from edge to edge.

## Focus on

- 1 **FOIL TENSION, BREAK FORCE**  
The break force of the unwinding station has to be controlled to make sure that the tension of the foil stays constant - independent from the diameter of the reel.
- 2 **EDGE CONTROL**  
Compensates the lateral drift of telescopically rewound rolls so the foil will cover the designated wrapping area on the profile.
- 3 **AUTOMATIC REEL CHANGE**  
To improve the output significantly, the ideal unwinding station enables an automatic change of decorative material.

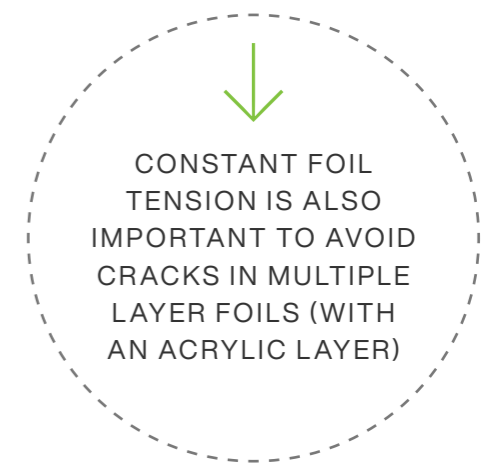
## Our solutions

OUR BRAND FOR PROFILE WRAPPING, DÜSPOHL, HAS DESIGNED UNWINDING SYSTEMS THAT MEET ALL THESE REQUIREMENTS: unwinding stations with automatic break force control, web edge control and set-up aid as well as manual or automatic reel changing systems for wrapping interruption-free.



## Your benefits

- ✓ **CORRECT FOIL POSITION ON THE PROFILE**
- ✓ **HOMOGENEOUS GLUE APPLICATION THANKS TO CONSTANT FOIL TENSION**
- ✓ **NO INTERRUPTION OF WRAPPING PROCESS DUE TO REEL CHANGE**
- ✓ **LESS WASTE OF MATERIALS, MORE SELLABLE PROFILES**
- ✓ **EMPLOYEES FREE TO FOCUS ON OTHER AREAS OF THE PRODUCTION PROCESS**





# Warming-up for the profiles and decorative material

**THE OPTIMAL TEMPERATURE OF PROFILES AND DECORATIVE MATERIAL IS AN IMPORTANT PREREQUISITE FOR SUCCESSFUL GLUE ADHESION.**

Strong adhesion is essential to prevent delamination and subsequent claims. It also helps you to save up to 30% of hot melt glue and improves the quality of the application. Considering the costs of claims and good adhesive, the investment in an intelligent warming-up technology pays off fast.

## Focus on

### 1 FOIL HEATING SYSTEM

It is important to make sure that decorative material is heated up to a certain level, regardless of production speed. On the other hand, the temperature transfer has to be interrupted when the production process stops in order to avoid burnings.

### 2 PROFILE HEATING SYSTEM

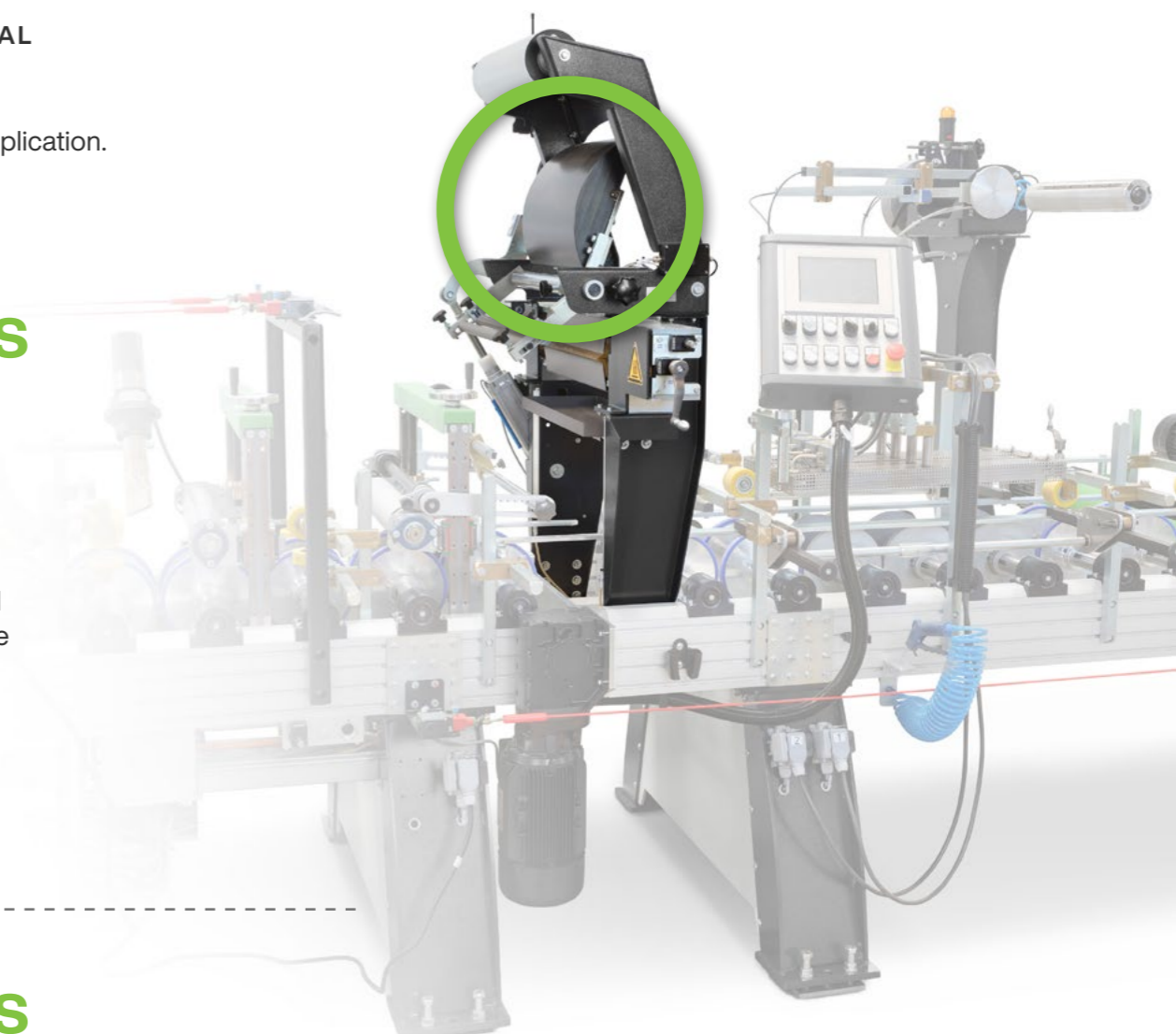
Powerful infrared heaters should be employed to make sure that the profiles reach the temperature that is required for strong glue adhesion. The specific maximum temperature depends on the type of material and profile geometry.

## Our solutions

DÜSPOHL'S PRE-HEATING SYSTEMS FOR PROFILES AND FOIL GUARANTEE HIGH PROCESS SAFETY regardless of transport speeds and ambient temperatures as well as the work pieces and surface materials. Also, they do not require any control by the operator during the production process.

## Your benefits

- ✓ **STRONG BONDING, AVOID CLAIMS**
- ✓ **ECONOMISE UP TO 30% GLUE**
- ✓ **IMPROVED ADHESIVE APPLICATION QUALITY**
- ✓ **LESS SCRAP PARTS, LOWER OPERATING COSTS**
- ✓ **INCREASED PROFIT**





# The perfect premelter

**CAREFUL MELTING OF HOT MELT GLUE ON-DEMAND AND JUST-IN-TIME FOR MAXIMUM ADHESION.**

The premelter's job is to heat up hot melt glue in blocks or granulate form according to process needs. Its job is to avoid burnings in the glue, which would cause lines in the glue application. These would degrade the adhesion quality and lead to cost-intensive claims

## Focus on

- 1 **ADHESIVE QUALITY**  
Only freshly melted adhesive has to be applied. A small reservoir for melted glue guarantees that it need not wait too long.
- 2 **MELTING CAPACITY**  
Another requirement is the fast automatic adjustment of the melting capacity without thermic overload of the glue. Premelters should be able to adapt to low and high production speeds.
- 3 **PROCESS ADVANTAGES**  
The liquid glue should quickly be available after a short time for heating-up. Refilling has to be possible without interrupting production.

## Our solutions



### UniMelt

- For EVA and PUR
- Up to 40 / 80 / 160 kg/h melting capacity
- No maintenance required since it is designed without sealings or gaskets
- Integrated protection system to prevent curing of PUR glue



### Power Melt

- For all glues in granulate form
- Up to 60 / 120 / 300 kg/h melting capacity (EVA)
- Only 30% of energy consumption compared to other systems
- Self-cleaning system

**Extremely efficient**

## Your benefits

- ✓ **CONSTANT QUALITY OF ADHESIVE FOR GOOD, STABLE WRAPPING RESULTS**
- ✓ **LESS CLAIMS, LESS SCRAP PARTS**
- ✓ **ENERGY SAVINGS, LESS MAINTENANCE**
- ✓ **FAST START-UP IN THE MORNING**



# The heart of the machine: the glue application system

## THE SLOT COATER IS CRUCIAL FOR THE FINAL RESULT.

It should be designed in a way that guarantees that the glue is constantly moving and internally exchanged. The adhesive must not get stuck in any dead areas to avoid burnings.

## Focus on

### 1 AVAILABILITY

With an intelligent design, the slot coater allows you to do without maintenance. Being made out of very solid material, it offers a long lifetime. It should also continue to work faultlessly after changing to a larger application width.

### 2 SLOT COATER POSITIONING

The permanent and automatic adaption of the slot coater's position to the foil's edges ensuring maximum accuracy is a special add-on.

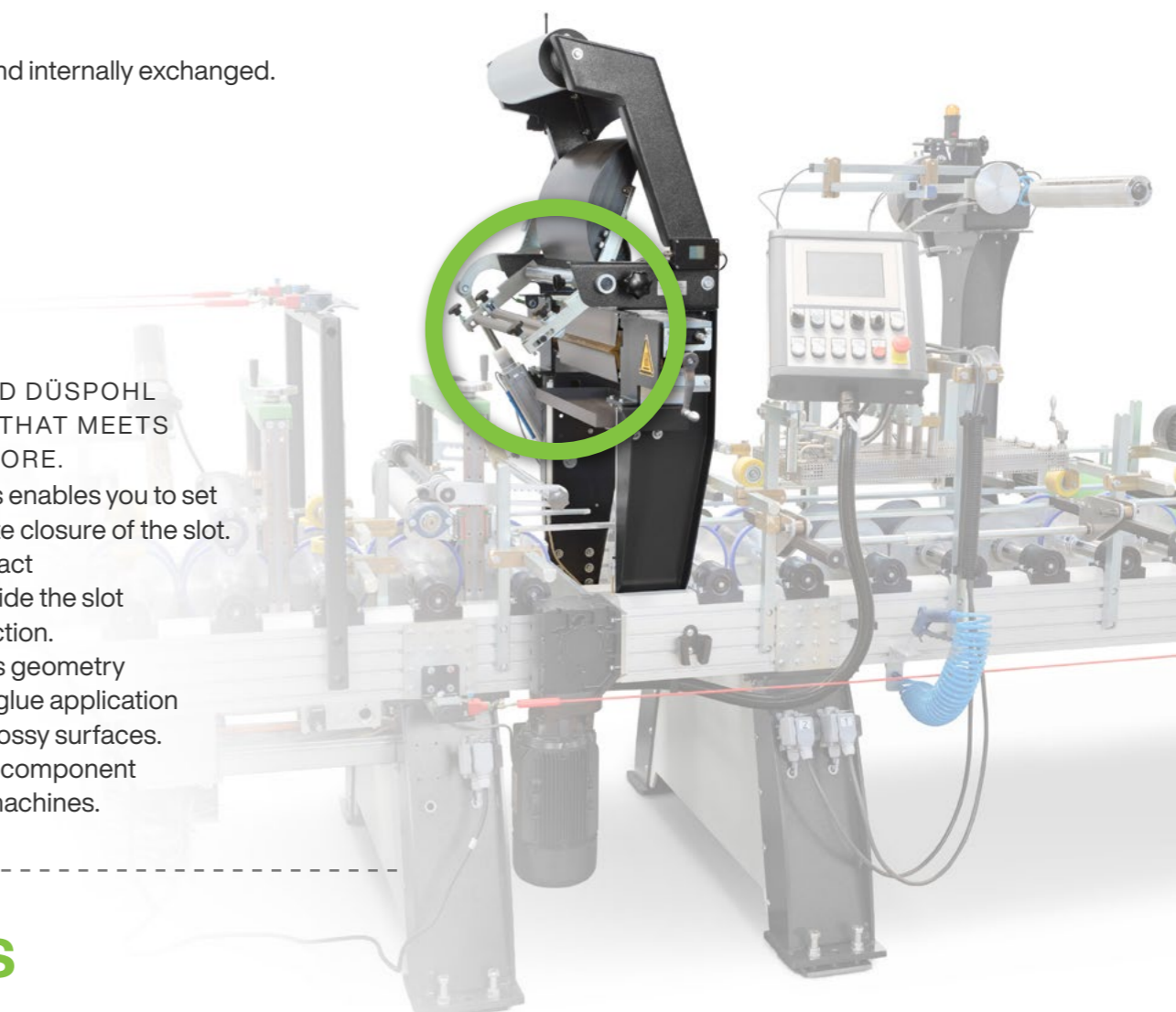
## Our solution

OUR PROFILE WRAPPING BRAND DÜSPOHL HAS CREATED A SLOT COATER THAT MEETS ALL THE CRITERIA AND EVEN MORE.

The working range of the gate valves enables you to set any required width up to the complete closure of the slot. This way you can easily prevent contact between the air and the adhesive inside the slot coater's body when stopping production. Furthermore, the special slot coater's geometry accomplishes highly homogeneous glue application layers which are indispensable for glossy surfaces. The slot coater is also a great retrofit component to enhance your existing wrapping machines.

## Your benefits

- ✓ COMPLETE PROCESSING OF THE GLUE
- ✓ CONSTANT HIGH QUALITY OF YOUR PRODUCTS
- ✓ NO MAINTENANCE BECAUSE DESIGNED WITHOUT SEALINGS AND WITHOUT VALVES
- ✓ EXTREMELY LONG LIFE TIME FOR A HIGH ROI







Contact us  
TO FIND OUT MORE



Book a visit to see  
**OUR WRAPPING MACHINES  
AT DÜSPOHL - GERMANY**



Book a visit to see  
**OUR OTHER FINISHING SOLUTIONS  
AT CEFLA LAB - ITALY**



**DÜSPOHL  
MASCHINENBAU GMBH**

An der Heller 7-13  
33758 Schloss Holte-Stukenbrock  
Germany

Tel. +49 5207 9291 0  
Fax +49 5207 9291 11

[duespohl.com](http://duespohl.com)

Follow: [Düspohl Maschinenbau GmbH](#)

**CEFLA**

Via Selice Prov.le, 23/A  
40026 IMOLA (BO)  
Italy

Tel. +39.0542.653111  
Fax +39 0542 653128

[cefla.com](http://cefla.com)  
[ceflafinishing.com](http://ceflafinishing.com)

Follow: [Cefla Finishing](#)