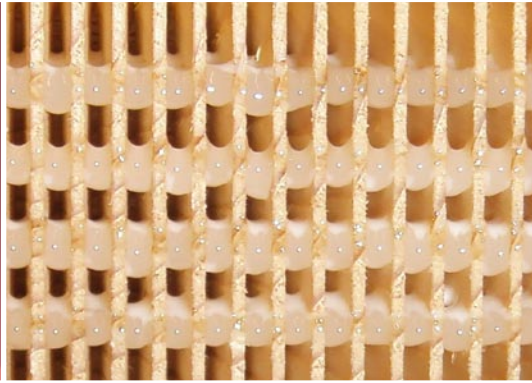
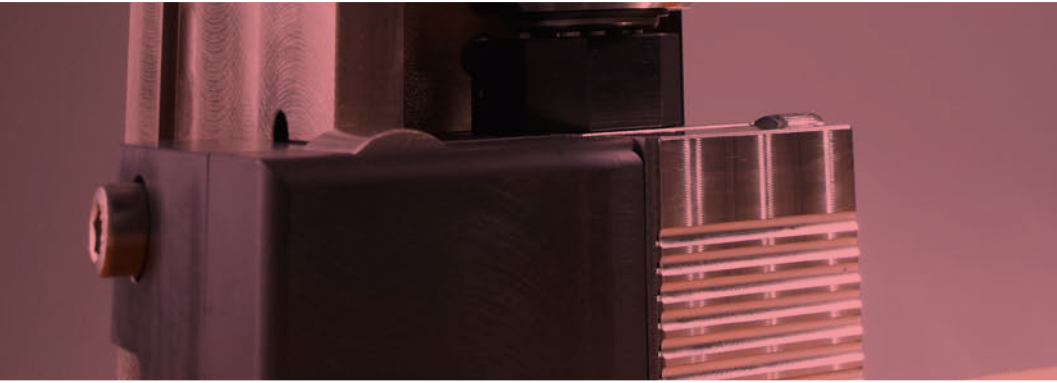


Innovative  
**Technologies**



Perfectly connected  
to wood





## OEST mechanical engineering

# Machines for dosing and application of adhesives

Innovations start with ideas. New ideas are growing where creative thinking is assisted. This principle has right of way in our company.

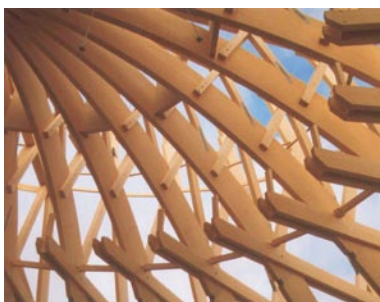
The idea of developing a dosing machine for producing ready-for-use glue mixtures arose from the paraffin wax dispersions used in the applica-

tion technology of the chip board industry.

Since the early 1960's, the technologies have been optimised continuously and have been adjusted to the changing requirements of the market.

Our experienced team is constantly involved in reengineering processes for the most different requirements of the wood-working industry.

Today we hold a leading position regarding dosing and mixing equipment as well as application systems for glue mixtures and PUR adhesives.



Solid wood industry



Furniture and door industry



Panel and plywood industry

# Perfectly connected to wood. High-tech solutions from OEST.

Our customer-specific equipment plays an important role in the glulam industry as well as in the production of solid structural timber and window frames.

We are also a competent partner for manufacturers in the furniture and

door industry. Customised solutions made by OEST are applied worldwide in the production of formed plywood, solid wood panels and formwork.

Besides that, we supply other markets with our specialised applications. This applies for the production know-

how for sandwich elements for the caravan and insulating wall panel industry and also for example for the mixing of 2C-varnish.

As a member in the German Engineering Association (VDMA), we have a strong partner at our side.

## Dosing, mixing and application units

- Tailor-made solutions for the supply of surface, finger joint, edge and I-Beam applications
- Precise dosing
- Homogeneous mixing
- Minimum cleaning effort



## Ribbon Coater

- Flexible systems for work pieces from small-sized dimensions up to large-scale applications
- For one or two component adhesives
- For mixed or separate application
- Precise dosing
- High feeding speeds possible
- Independent from work piece thickness



## Mechanisations

- Static or moving portals available
- For feeding speeds from 10-90 m/min
- Roller conveyor
- Feeding devices
- Complete solutions





## Surface application for 1C adhesive systems Series OA 100 T

OEST mechanical engineering offers dosing and application units for one component adhesives for the automatic gluing of surfaces of all kinds. Mainly, polyurethane adhesives as well as PVAc glues are being processed.

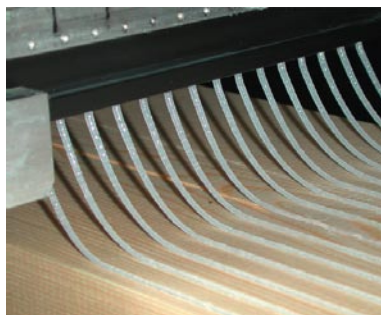
Our flexible systems are used for the manufacture of various components, from small-sized dimensions up to large-scale applications.

**Designed for the manufacture of glued solid wood elements, such as:**

- Glulam
- DUO-/TRIO-beams
- Cross laminated timber
- Laminated scantlings
- Other building panels



Ribbon coater ECOTOP D



Application in parallel threads



Dosing unit KONTITOP with gear pump for continuous processes

# Customised solutions with OEST systems.

## Characteristics:

Our systems for dosing and application of 1C adhesives onto surfaces are marked by high process reliability, easy-to-use control systems and low-maintenance operation.

## Benefits:

Exact dosing volumes, high feeding speeds as well as precise application are the main benefits of our systems for surface applications.

## Accessories:

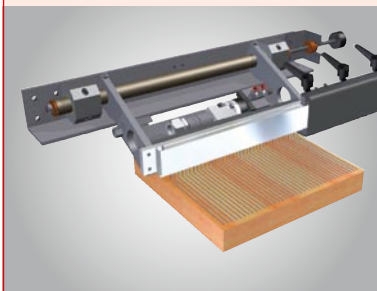
Available accessories for 1C-PUR surface applications are water dosing and spraying devices.

Next to dosing and application units, OEST's product range comprises full mechanisations, e.g. conveyor belts, feeding devices, moving portals and height adjustment devices for extruder heads.

### VALUETAC G

#### 1C PUR extruder head for surface application

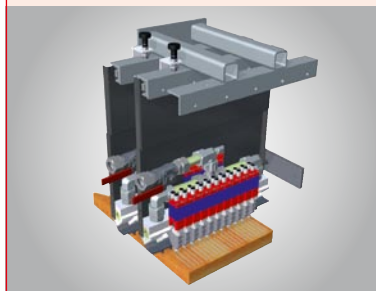
- Spreading bar with one material valve for each segment
- Application width up to 300 - 1800 mm
- Application width manually adjustable via shutter-bar in steps of 8 mm
- Simple and cost-effective design
- For feeding speeds up to 150 m/min



### PROFITAC FN

#### 1C PUR extruder head for surface application

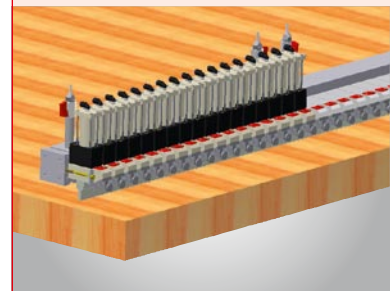
- High-pressure needle-valve
- Standard application width up to 300 mm
- Application width automatically adjustable via selection of the adhesive valves in steps of 8 or 12 mm
- Precise adhesive application
- For feeding speeds up to 300 m/min



### FACETAC FG

#### 1C PUR extruder head for surface application

- Combination of fixed and adjustable segments
- For application widths up to 3600 mm
- Application width automatically adjustable via selection of adhesive valves in steps of 36 mm at the boundary areas
- Low-maintenance due to quick-exchange nozzles
- For feeding speeds up to 100 m/min





© Grossmann/Rosenheim

## Surface application for 2C adhesive systems Series OC 100 T

OEST's range of services also includes dosing and application units for two component adhesives for the automatic gluing of surfaces of all kinds.

Adhesives can be processed mixed or unmixed. Systems are available with either start-stop operation or with circulation pouring operation.

**Designed for the manufacture of glued solid wood elements, such as:**

- Glulam
- DUO-/TRIO-beams
- Cross laminated timber
- Laminated scantlings
- Other building panels



Ribbon coater ECOTOP TD for the unmixed application of resin and hardener



Separate application of resin and hardener to glulam lamellas



Dosing unit HYDROMIX

# Surfaces: Ready, steady, go!

## Adhesive systems:

In addition to melamine adhesives, urea and resorcinol adhesives, PVAc adhesives, EPI and 2C-PUR systems can be used as well.

For highly efficient adhesive application, all dosing devices are equipped with an accurate automated quantity control.

## Innovative separate application:

This process involves adhesives with two liquid components. Glue is applied to one side of the finger joint and hardener on the other.

Mixing of the components is done by the pressure of uniting the workpieces.

The vital application related parameters are dosing volume, mixing ratio of adhesive components, feeding speed and application width.

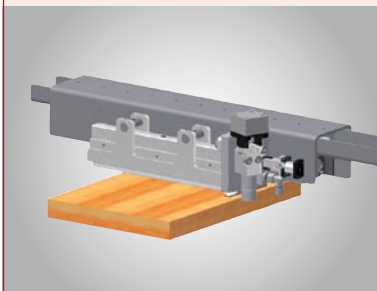
## Benefits:

- Faster, more reactive adhesive systems can be used since the mixing of the glue is only done during the pressing procedure
- Increase of productivity due to low cleaning effort
- Reduction of glue waste. Waste disposal of glue in the extruder head is not required

### FACETAC MD

**Extruder head for surface application for 2C mixed adhesives**

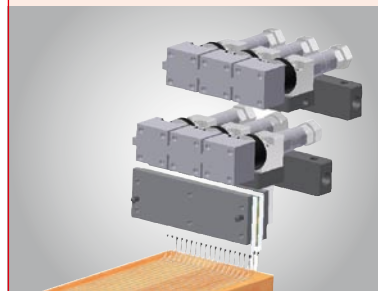
- Spreading bar with integrated static mixer
- Standard application width up to 300 mm
- Application width manually adjustable via exchangeable spreading bars
- Designed for optimal fluid flow
- For feeding speeds up to 200 m/min



### FACETAC T

**Extruder head for separate application of MUF adhesive and hardener**

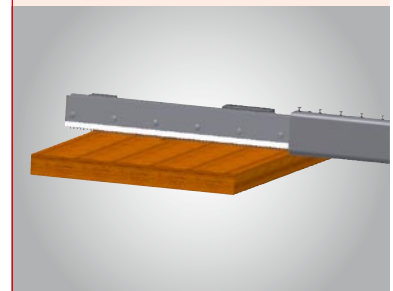
- Spreading bar with one material valve for adhesive and hardener for each segment
- For application widths up to 1800 mm
- Application width automatically adjustable via selection of adhesive valves in steps of 50 mm
- Insensitive to clogging
- For feeding speeds up to 100 m/min



### VALUETAC GT

**Extruder head for separate application of MUF adhesive and hardener**

- Spreading bar with one material valve for adhesive and hardener
- For application widths up to 800 mm
- Application width manually adjustable via shutter-bar in steps of 8 mm
- Simple and cost-effective design
- Insensitive to clogging
- For feeding speeds up to 100 m/min





## Finger joint application for 1C adhesive systems Series OA 300 T

OEST mechanical engineering offers dosing and application units for one component adhesives. For the automatic gluing of finger jointings of all kinds.

Mainly, polyurethane adhesives (1C-PUR) as well as PVAc glues (white glues) are being processed. According to each field of use, adhesives are applied to one side or from both sides, without contact or with comb.

**Designed for the manufacture of glued solid wood elements, such as:**

- Glulam
- Solid structural timber
- DUO-/TRIO-beams
- Laminated scantlings
- Solid wood panels



Glue threads on the finger peaks, crosswise to the profile



Camera monitoring systems



Dosing unit HYDROTOP



# High-quality dosing technology.

## Special benefits of our dosing and application units:

- Optimal distribution with minimum application amount through adhesive application in parallel threads
- Precise dosing via adjustable parameters
- Low-maintenance material valves
- Reduction of adhesive and cleaning costs due to precise and controllable adhesive application
- Easy-to-use operating panels with text display

## Available monitoring systems:

- Glue application monitoring
- Glue supply monitoring in the monitoring vessel
- Pressure monitoring
- Consumption counter
- Container monitoring
- Camera monitoring device

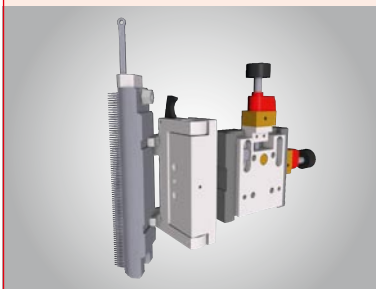
## Accessories:

- Container and drum connection with moisture filter
- Material supply system for flexible positioning of the glue container
- Remote maintenance interface
- Networking with other control systems and host computers via bus systems
- Adhesive heating systems

### ECOTAC C

#### 1C application comb for finger joint profiles

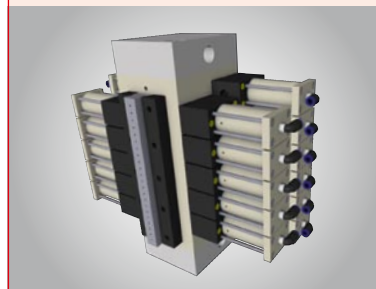
- New comb design with single metal sheet-layer
- 45° alignment of the metal sheets according to the wood
- Reduced adhesive consumption
- Insensitive to clogging
- For all types of finger jointer



### COMBITAC KBE

#### 1C application comb for the contactless application to finger joint profiles

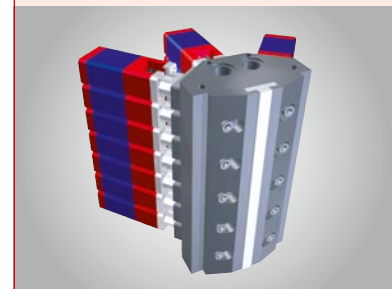
- Combination of adhesive valves and nozzle-bar
- Application height automatically adjustable via selection of the adhesive valves in steps of 8 mm
- Single row nozzle-bar
- Adhesive threads crosswise to the finger joint profile
- Monitoring via camera systems



### PROFITAC KBN

#### 1C application comb for the contactless application to finger joint profiles

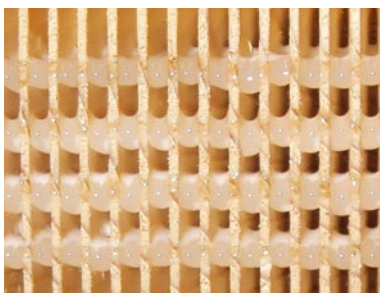
- Single-needle valve for high pressure volumes
- Application height automatically adjustable via selection of the adhesive valves in steps of 8 mm
- Optimized fluid flow with single row nozzle-bar
- Adhesive threads crosswise to the finger joint profile
- Monitoring via camera systems



## Finger joint application for 2C adhesive systems Series OC 300 T

The portfolio of OEST mechanical engineering includes dosing and application units for two component adhesives, for the automatic gluing of finger jointings of all kinds.

Mainly melamine adhesives are being processed. Either mixed or unmixed. According to each field of use, adhesives are applied contactless or by our comb system ECOTAC.

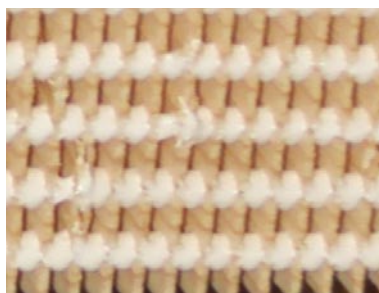


Contactless application  
2C Melamine-separate

Furthermore, urea adhesives, PVAc adhesives, EPI systems can be processed as well.

**Designed for the manufacture  
of glued solid wood elements,  
such as:**

- Glulam
- Solid structural timber
- DUO-/TRIO-beams
- Laminated scantlings
- Solid wood panels



Contactless application  
2C EPI-mixed



Dosing unit HYDROMIX

# Separate application for high productivity.

## Comb system ECOTAC:

A double-acting application unit is used for each glue component. The application unit has two outlet ports per tooth and spreads the metered glue/hardener amount into the finger-joint profile. A special metal distributing sheet is used to enable each individual finger joint to move out of the way if there are defects in routing, such as loose knags which impede distribution. This prevents the whole distributing unit from moving out of the way.

## Innovative separate application:

While separately operating with combs, glue is applied to one side of the finger connection and hardener on the other. For the contactless separate application the glue and hardener will be applied to only one side. Glue and hardener lie on top of each other. Mixing of the components is done by the pressure of uniting the fingerjoint.

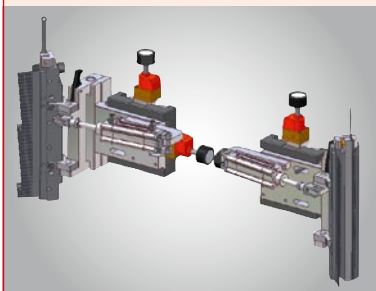
## Benefits:

- Faster, more reactive adhesive systems can be used since the mixing of the glue is only done during the pressing procedure
- Easy adjustment of application width. Since the glue components are processed separately, bore holes cannot be blocked with cured glue
- Increase of productivity due to low cleaning effort
- Reduction of glue waste and waste disposal

### ECOTAC CT

#### Extruder head for the separate application of MUF adhesive and hardener

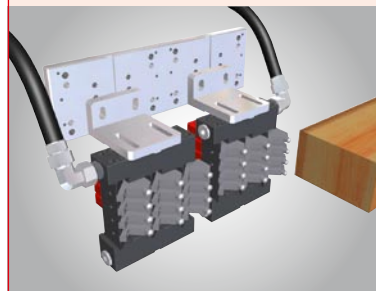
- New comb design with single metal sheet-layer
- 45° alignment of the metal sheets according to the wood
- Reduced adhesive consumption
- Insensitive to clogging
- Reduced cleaning costs



### PROFITAC KBT

#### Extruder head for the separate contactless application of MUF adhesive and hardener

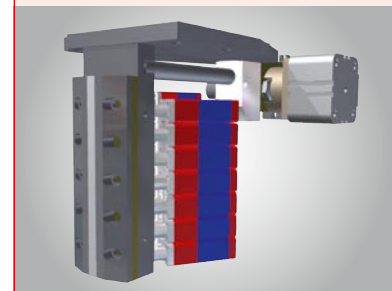
- Single needle valves
- Application height automatically adjustable via selection of the adhesive valves in steps of 8 mm
- Adhesive threads crosswise to the finger joint profile
- One-side application. Adhesive and hardener threads lie on top of each other
- Monitoring via camera systems



### PROFITAC KBM

#### Extruder head for the contactless application of mixed EPI adhesive, crosswise to the finger joint profile

- Combination from adhesives valves and nozzle-bar. Static mixer integrated
- Application height automatically adjustable via selection of the adhesive valves in steps of 8 mm
- Adhesive threads crosswise to the finger joint profile
- One-side application
- Monitoring via camera systems





© Stora Enso

## Special application for 1C and 2C adhesive systems

Every head is different. Especially when it comes to applying of one and two component adhesives to edges and in the production of I-beams where a wide range of individually designed application heads are required.

According to each field of use, adhesives are applied with or without

contact to the workpiece. The 2C adhesives can be processed and applied mixed or unmixed.

On the basis of our well-proven know-how we produce complete customised application units.

**Designed for the manufacture of glued solid wood elements, such as:**

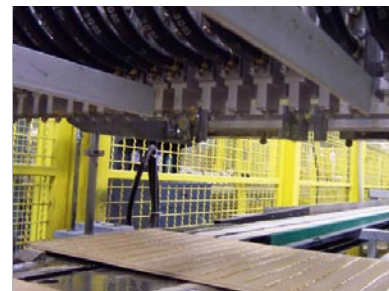
- I-beams
- Formwork beams
- Solid wood panels
- Panel cores
- Pallets



Edge application  
Series OA 500 T | Serie OC 500 T



I-Beams  
Series OA 700 T | Serie OC 700 T



Special application  
Series OA 900 T | Serie OC 900 T

# Adhesive application. Headed by OEST.

## Edge application:

One component adhesives, like 1C-PUR or 1C-PVAc can be applied effectively with needle valves to edges. The application takes place contactless.

Two component adhesives are supplied to edges with use of an extruder head. During this process,

the extruder head is in contact with the wood and especially carved outlet-channels form the adhesive threads onto the edges of the workpiece.

## I-Beam application:

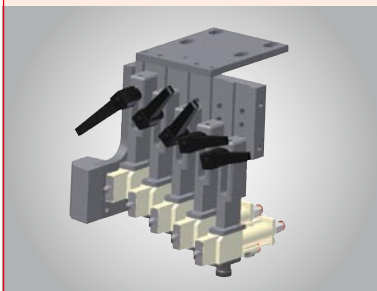
For the production of I-Beams or formwork beams 1C-PUR adhesives and 2C-MUF adhesives are most common.

The 2C-MUF adhesive is preferably applied separately. There are units for flange and web application available.

### PROFITAC-series

#### 1C extruder head for contactless edge application

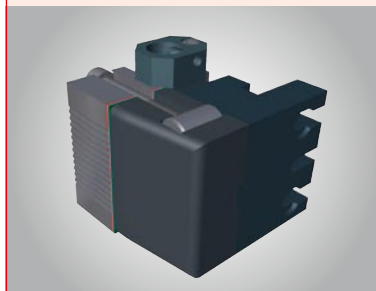
- Single needle valves
- For application heights up to 70 mm
- Application height automatically adjustable via selection of adhesive valves
- For feeding speeds up to 250 m/min



### CONTAC-series

#### 1C / 2C extruder head for edge application

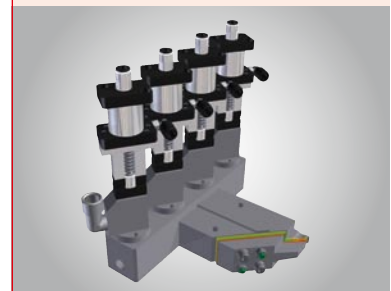
- For application heights up to 80 mm
- Application height manually adjustable via exchangeable metal sheet-layer
- Insensitive to clogging
- For feeding speeds up to 250 m/min



### ECOTAC-series

#### Extruder head for I-Beam productions

- For 1C-PUR adhesives or 2C-MUF separate application
- For flange and web applications
- Reduced adhesive consumption
- Insensitive to clogging
- For feeding speeds up to 150 m/min





## Mixing units for the automatic supply of glue spreaders

OEST mechanical engineering is specialised in offering universal mixers for the automatic supply of glue spreaders.

Our machines are designed to perfectly meet your individual requirements.

Our systems offer continuous mixing processes without glue mix storage. Exact dosing, homogeneous mixing

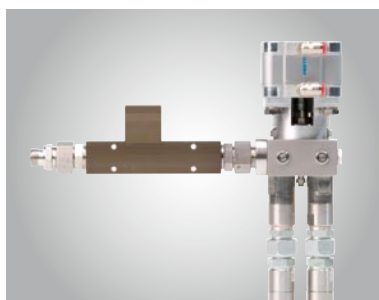
and low cleaning effort are the particular features of our systems.

**Designed for the manufacture of:**

- Furniture
- Doors
- Plywood
- Panels
- Parquet



Panel industry



Static mixer



Dynamic mixer

# Just the right mix.

## ECOMIX

Glue mixing unit for processing liquid and powder components

- Precise volumetric dosing, adjustable to a large number of glue formulas
- Powder dosing with dosing screw and stirrers to prevent the formation of powder bridges
- Dynamic stainless steel continuous flow mixer
- Integrated flushing unit with hot water / compressed air connections for easy cleaning



## DYNAMIX

Glue mixing unit for processing liquid resin and liquid hardener

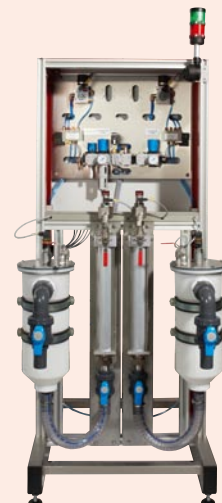
- Compact dosing unit for resin and hardener combined with the control cabinet
- Separate mixing unit for the direct mounting above a glue spreader
- Dynamic mixer with dispersing disc and special steel mixing funnel with free run-out, so that reactive adhesive systems can be used
- Easy-to-clean mixing head with quick closures



## HYDROMIX

Glue mixing unit for processing liquid resin and liquid hardener

- Mixing organ as static mixer for the mixing under absence of air
- Durable and maintenance friendly high pressure pump system
- Hydropneumatic pump-drive
- Level monitoring in the supply lines, to prevent a lack of material
- Dosing monitoring in the resin and hardener dosing lines
- Automated quantity control





Innovative technologies  
for dosing and application  
of adhesive systems.

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