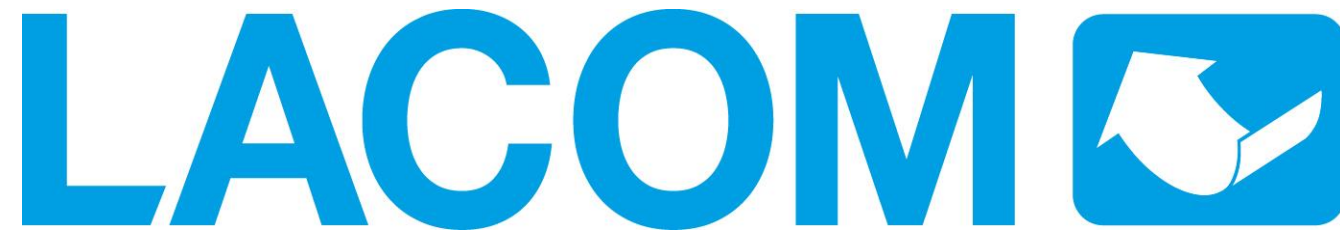




# 31. Hofer Vliesstofftage

9<sup>th</sup> and 10<sup>th</sup> of November 2016

Freiheitshalle – Hof



Machine and production line  
concepts for solvent free coatings of  
technical textiles with functionalized  
hot melts

## Content

- Application techniques and their suitability for the production of technical laminates
- Structures and geometries and their texture for the fulfilment of presumed requirements
- Continuous treatment of rolled goods
- Machine concepts – under the focus of efficiency and ecology
- Discontinuous treatment of format goods – Robot based applications
- Technology shift and market demands

# Kiener Group



<p><b>Kiener Maschinenbau GmbH</b></p> <ul style="list-style-type: none"> <li>• Lauchheim</li> <li>• Bopfingen</li> <li>• Neunheim</li> </ul>	<p><b>Kiener Hungária Fémipari Kft.</b></p> <ul style="list-style-type: none"> <li>• Lébény</li> </ul> <p>100% subsidiary company</p>	<p><b>Lacom GmbH</b></p> <ul style="list-style-type: none"> <li>• Lauchheim</li> <li>• Dinkelsbühl</li> </ul> <p>100% subsidiary company</p>	<p><b>Kiener Shanghai Mechanical and Electrical Equipment Co. Ltd.</b></p> <p>100% subsidiary company</p>	<p><b>COMAG Engineering GmbH</b></p> <ul style="list-style-type: none"> <li>• Wien</li> <li>• Saalfelden</li> </ul> <p>100% subsidiary company</p>
<p>assembly machines/ testing technology</p> <ul style="list-style-type: none"> <li>▪ development</li> <li>▪ construction</li> <li>▪ production</li> <li>▪ assembly</li> <li>▪ commissioning</li> </ul>	<p>assembly machines/ testing technology</p> <ul style="list-style-type: none"> <li>▪ development</li> <li>▪ construction</li> <li>▪ production</li> <li>▪ assembly</li> <li>▪ control cabinet</li> <li>▪ commissioning</li> </ul>	<p>laminating and coating machines</p> <ul style="list-style-type: none"> <li>▪ development</li> <li>▪ construction</li> <li>▪ production</li> <li>▪ assembly</li> <li>▪ commissioning</li> <li>▪ automation and robotic</li> </ul>	<ul style="list-style-type: none"> <li>▪ assembly</li> <li>▪ commissioning</li> <li>▪ service</li> </ul>	<p>Tools and machines for laminating, punching, edge folding and welding of automotive interior parts</p>
<p>360 Employees</p>	<p>120 Employees</p>	<p>35 Employees</p>	<p>25 Employees</p>	<p>35 Employees</p>
<p>Annual turnover: 105 million €</p>	<p>Annual turnover: 12 million €</p>	<p>Annual turnover: 10 million €</p>	<p>Annual turnover: 1 million €</p>	<p>Annual turnover: 4,5 million €</p>



<p><a href="http://www.kiener-online.de">www.kiener-online.de</a></p>	<p><a href="http://www.kiener-online.de">www.kiener-online.de</a></p>	<p><a href="http://www.lacom-online.de">www.lacom-online.de</a></p>	<p><a href="http://www.kiener-shanghai.com">www.kiener-shanghai.com</a></p>	<p><a href="http://www.comag.at">www.comag.at</a></p>
---	---	---	---	---

**CEO:** Dipl.-Ing. Waldemar Kiener  
**CTO:** Dipl.-Ing. Stefan Kiener  
**CFO:** Dipl.-Kfm. techn. Jürgen Kiener

---

## Lauchheim:

**Sales** Dipl.-Ing. Achim Schaile  
**Marketing** Sleiman Khalil  
**Product Management** Johannes Maier



Headquarter of LACOM GmbH in Lauchheim, Germany.

## Dinkelsbühl:

**Sales** Patrick Bosch



Plant of LACOM GmbH in Dinkelsbühl, Germany.

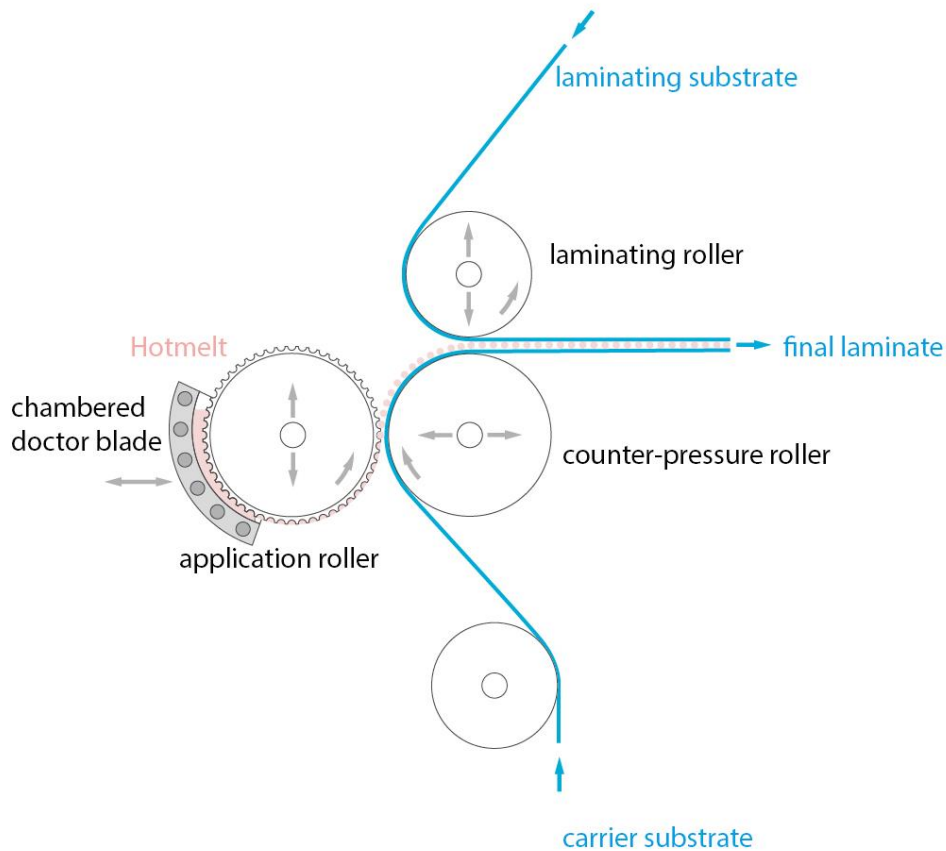
## Application techniques

### Hot melts

- Gravur-Roller - System
- Multi-Roller - System
- Multi Purpose - System
- Slot die System

### Dispersion

- Blade -System
- Multi-Roller – System
- Slot die – spray – System

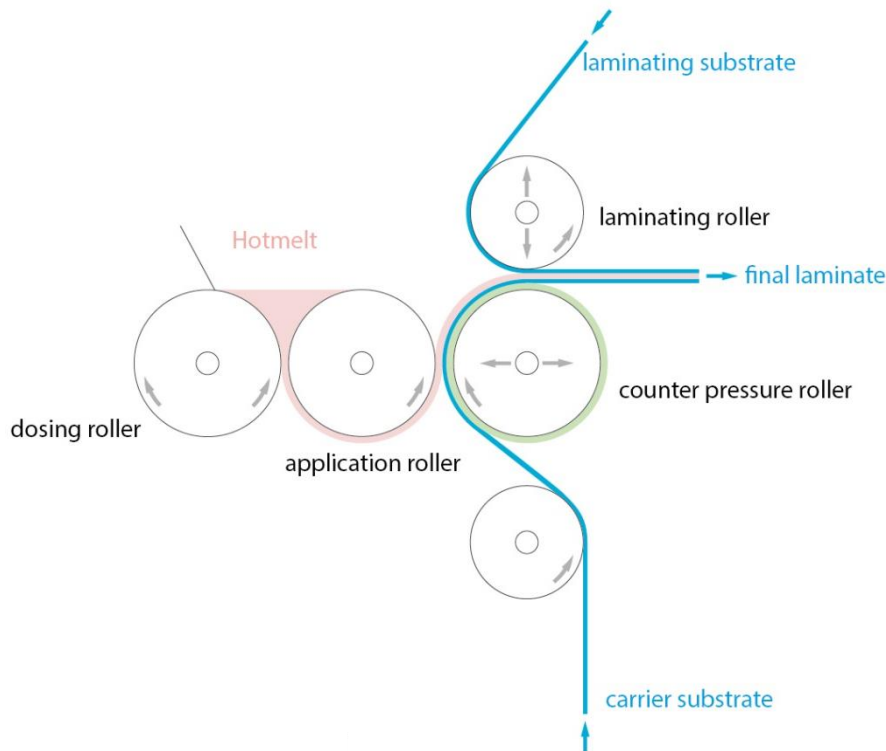


## Gravure-Roller System

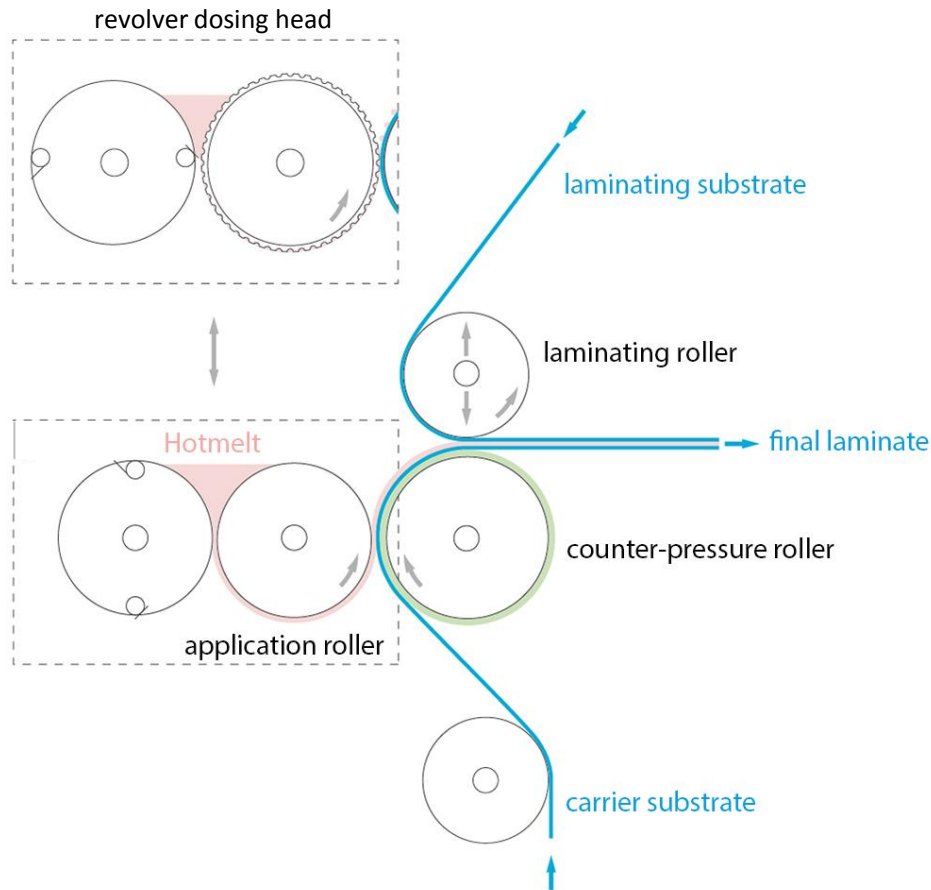
- Dot coating
- Production of duplex and triplex laminates by thermoplastic or reactive hot melt adhesives
- Air permeable laminates
- Low energy consumption
- Application of thermoplasts- and reactive hotmelts
- Application weight from 3-40g/sqm

## Multi Roller System

- Back coating of textiles, film and paper
- Full-cover coating
- O.C.S. (Open Coating Structure)
- Breathable coatings and laminates
- Application of thermoplastic - and reactive hotmelts
- Application weight from 5 - 1500g/sqm(RV)

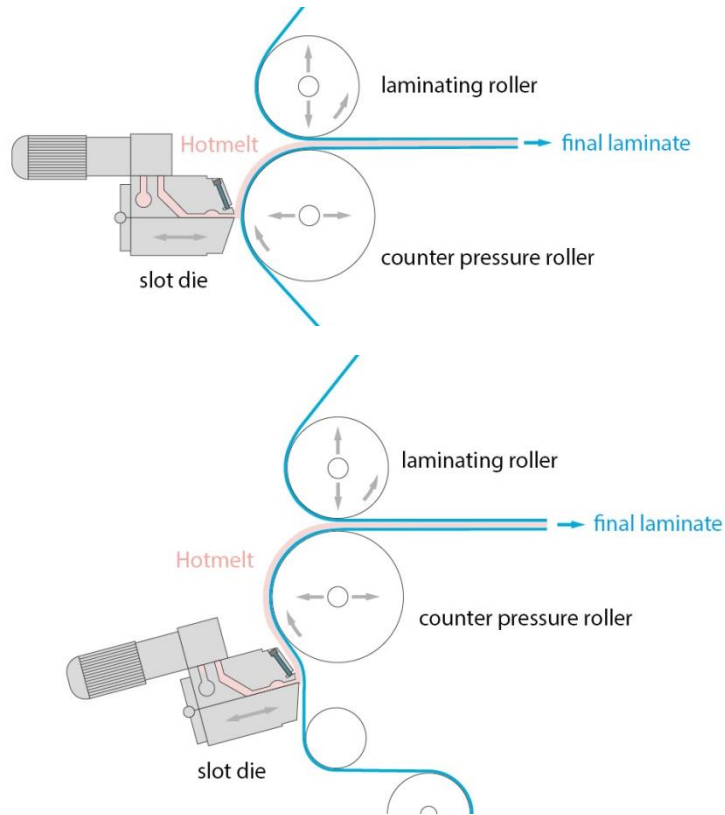






## Multi Purpose System

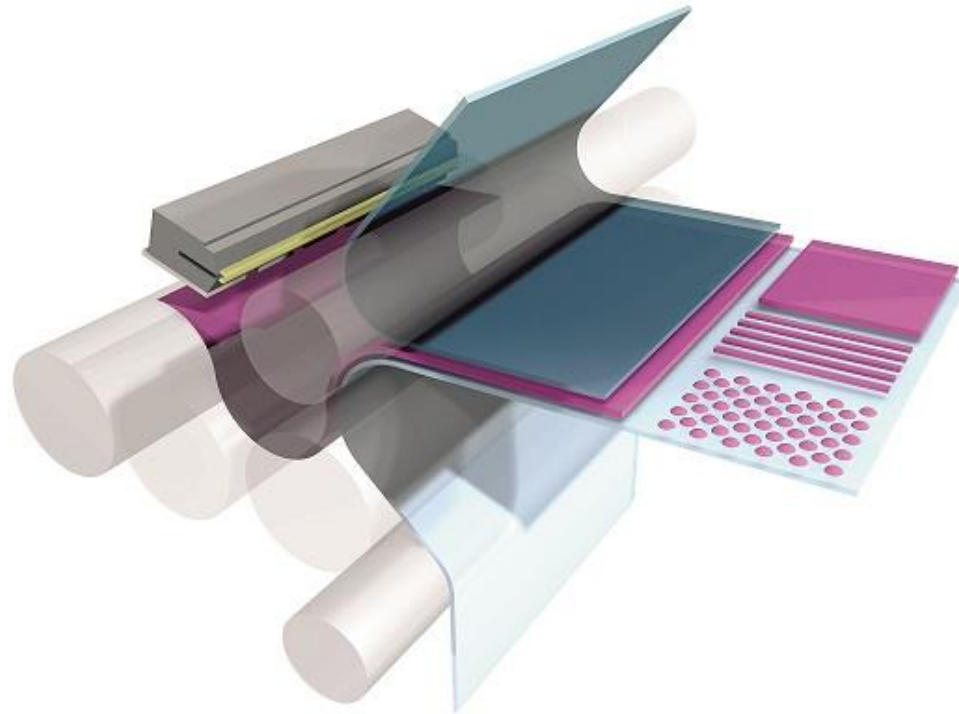
- Combined Gravure- and Multi Roller Coating unit
- Easy and fast setup of respective coating modus
- dot coating O.C.S. (Open Coating Structure)
- Breathable laminates and full cover coatings
- Application of thermoplastic- and reactive hotmelts (PUR)



## Slot Die System

- Full cover Coating
- O.C.S. (**O**pen **C**oating **S**tructure)
- Production of Duplex and Triplex laminates
- Breathable laminates
- Application of thermoplasts- and reactive hotmelts (PUR)
- Application weights 5 to 3.500g/m<sup>2</sup>

## Structures and Geometries



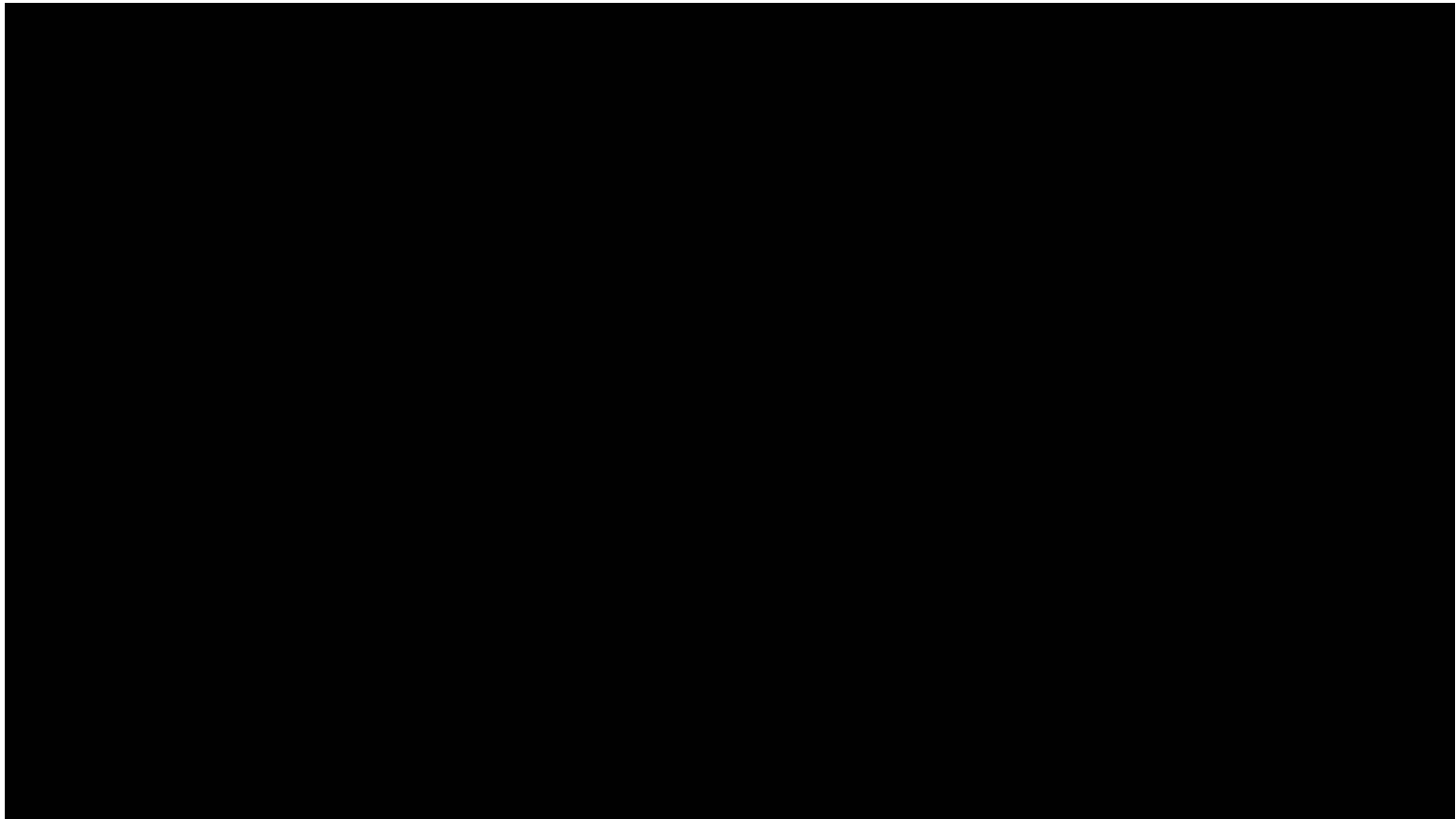
### Coating Results

- Dot
- Stripes
- O.C.S
- Full cover

### Features

- Breathability
- Hydrostatic head
- Additional functions

## Continuous treatment of rolled goods



## Machine concepts under the focus of efficiency and ecology

**LACOM  
COMPACT** VERSION 



- Modular Design
- Integrated unwinders, winder and edgguiding system
- Working Width: 800 - 1000 – 1800 – 2100-2400-3.200 mm
- Production Speed: 5 - 40 m/min.

**LACOM  
DUPLEX** VERSION 



- Modular Design
- Working Width: 1800 – 3300 mm
- Production Speed: 5 - 150 m/min

**LACOM  
VARIO** VERSION 



- Modular Design
- Working Width: 1000 – 3200mm
- Production Speed: 5 – 150m/min

## Machine concepts under the focus of efficiency and ecology

LACOM  
STANDARD VERSION



- Modular Design
- Working Width:  
2.000 – 2.400mm
- Production Speed:  
5 - 60 m/min.

LACOM  
EVO



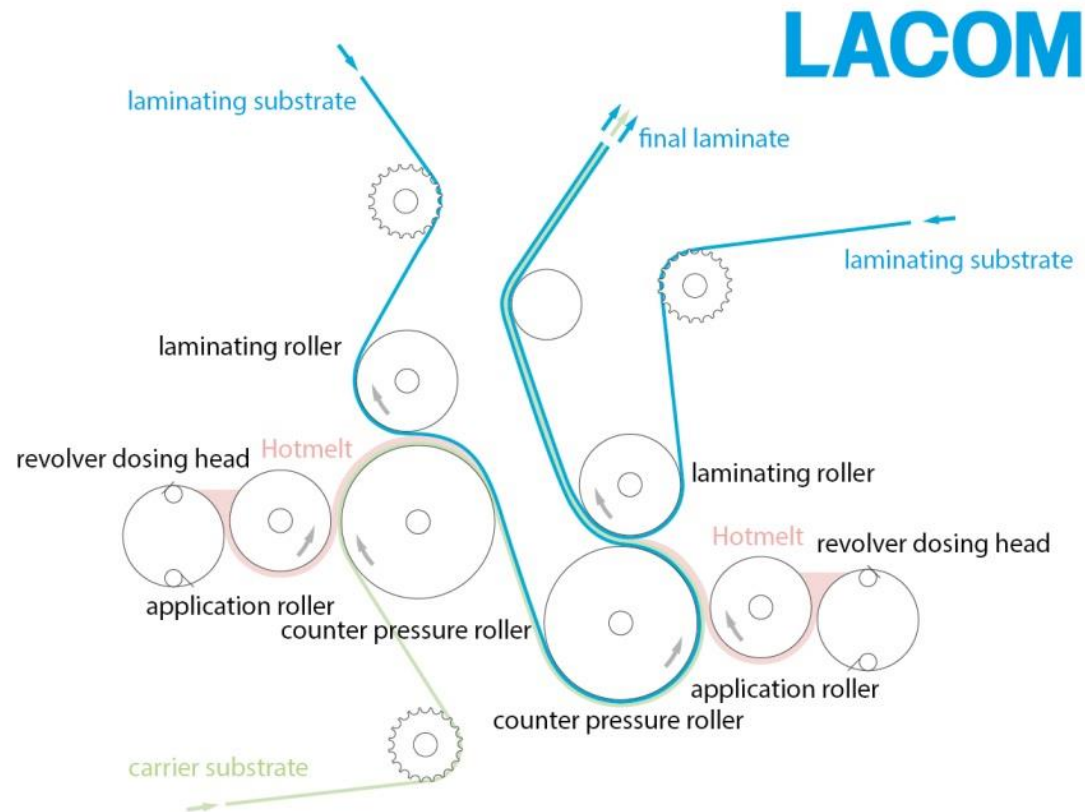
- Modular Design
- Working Width:  
4.200 - 5.200mm
- Production Speed:  
up to 20m/min

LACOM  
MRC VERSION



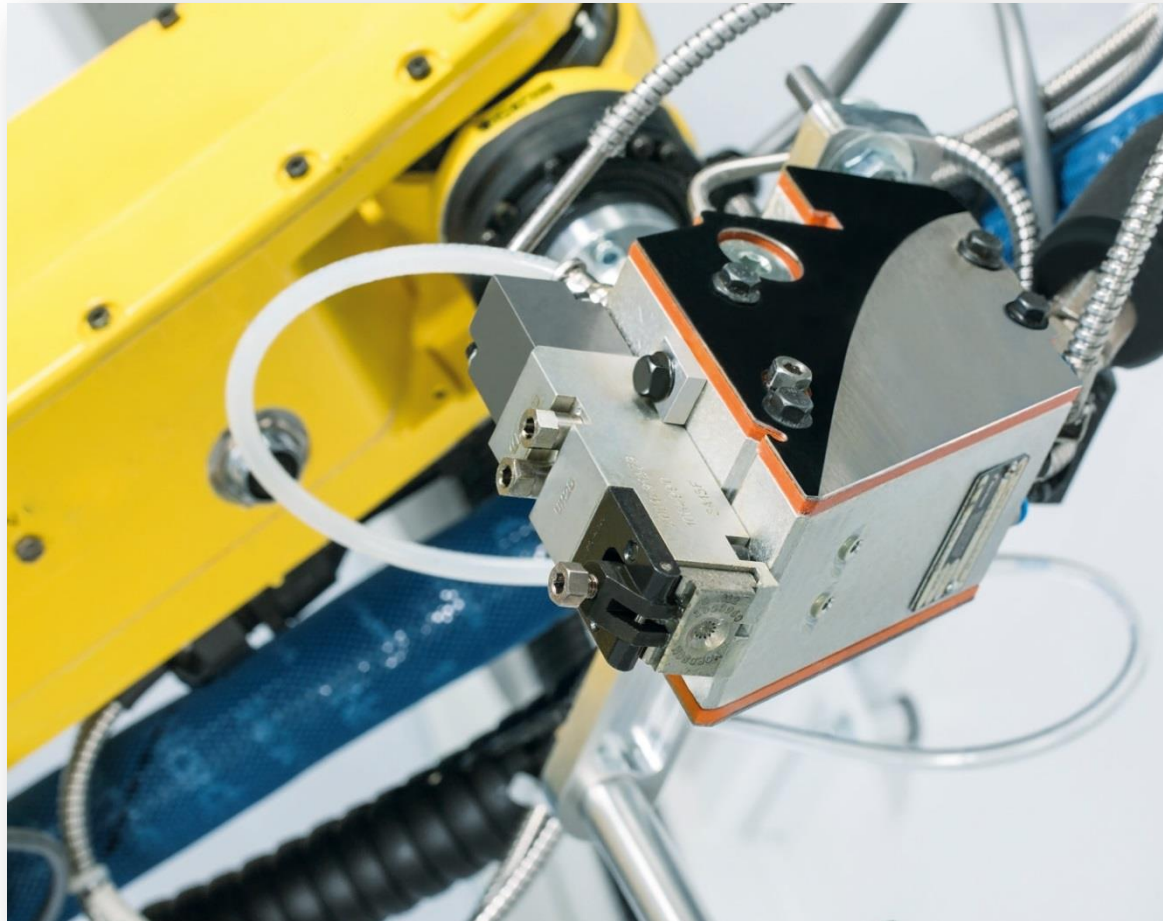
- Modular Design
- Working Width:  
4.000 – 5.200mm
- Production Speed:  
up to 20m/min

## LACOM DUPLIX VERSION 6



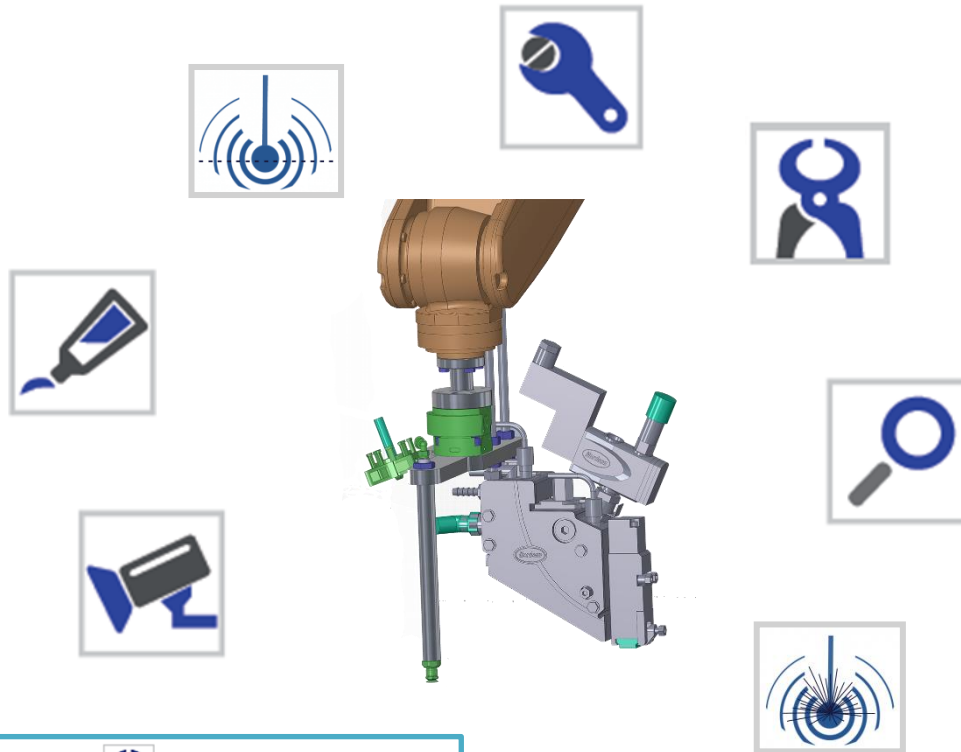
**Multi Purpose Duplex application head**

## Discontinuous treatment of format goods – Robot based applications







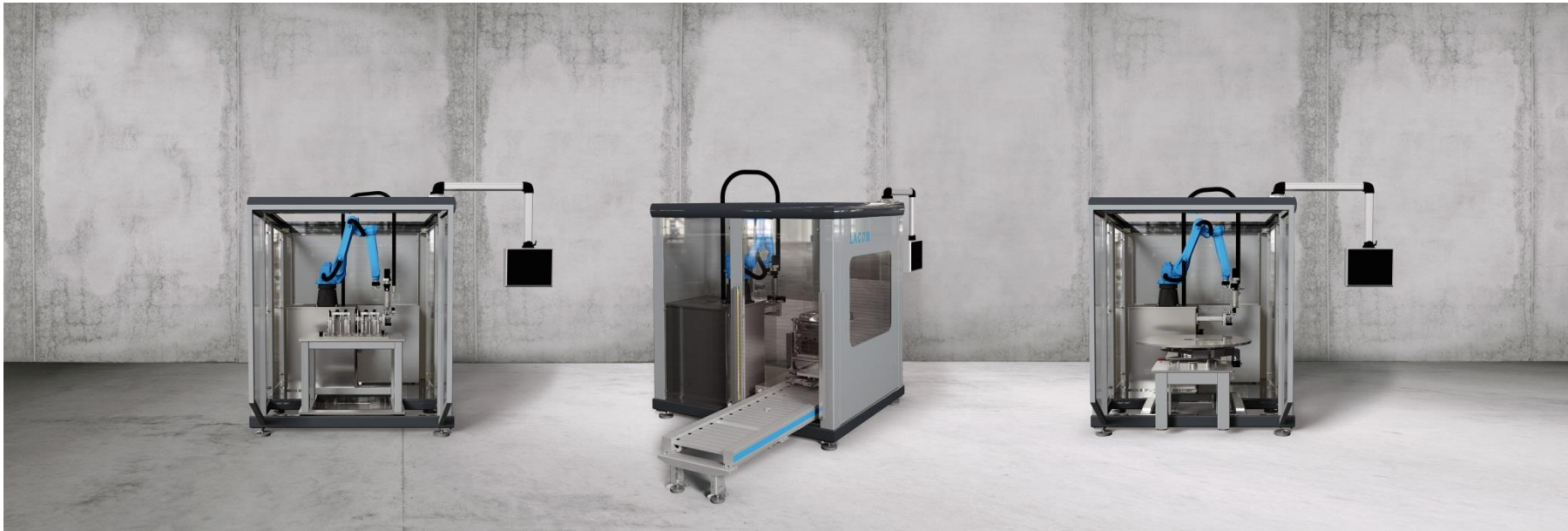
## Robot based applications



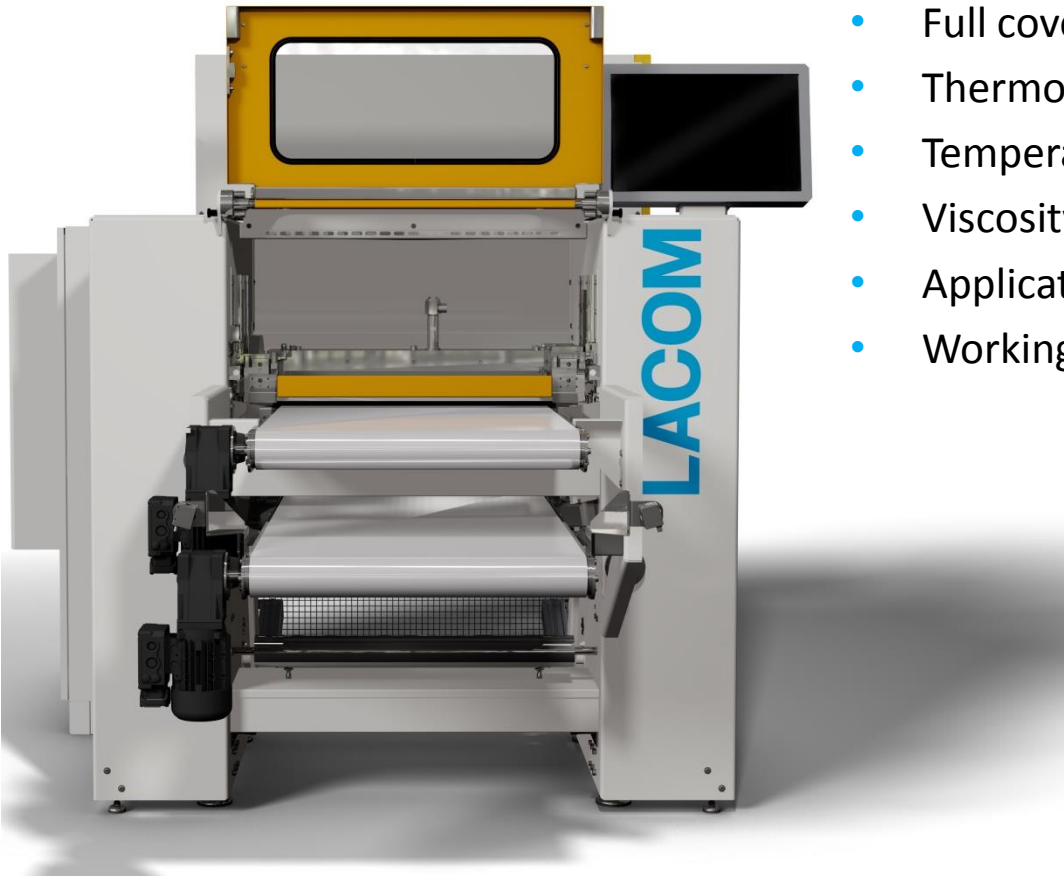
-  Pick & Place
-  Positioning
-  Assembly
-  Sorting

-  Coating
-  Ultra sonic welding

## Robot based applications



## LACOM Microroller System



- Roller application system
- Full cover as well as dot coating
- Thermoplastic and reactive hot melts
- Temperature: 80°-200°
- Viscosity: 3.000-60.000 mPa
- Application weight: 10-200 g/m<sup>2</sup>
- Working width: 650-1200 mm

## Technology Shift and market demands



Clothing



Building &  
Construction



Automotive



Agrar & Geo



Activewear



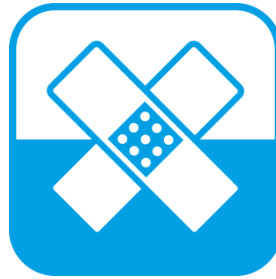
Heatprotection



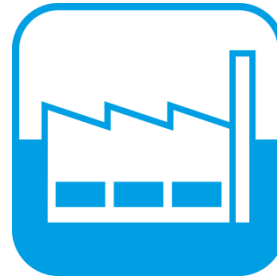
Transportation



Shoes



Medical



Industry



Home &  
Living

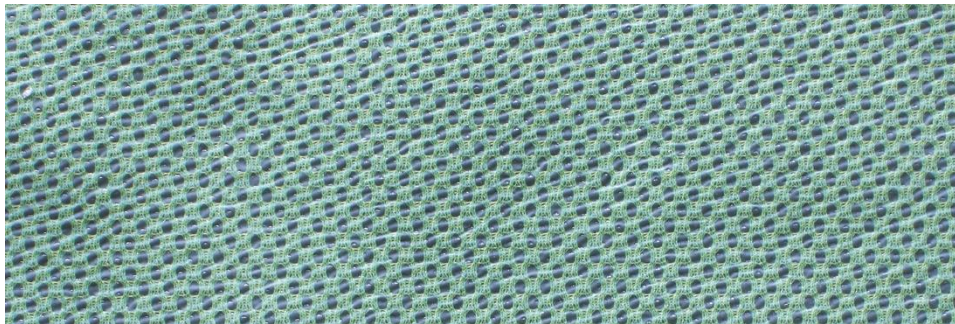
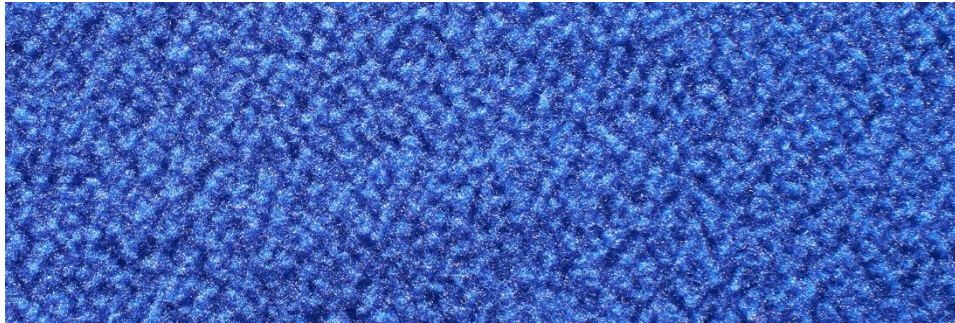


Contract &  
Workwear

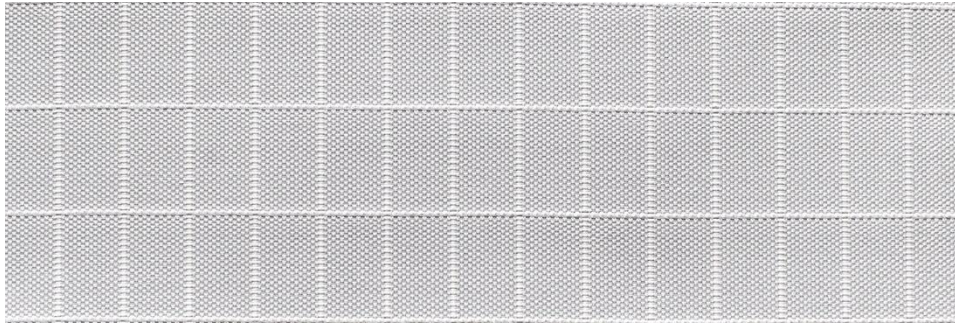
## General technical requirements

- Breathability
- Water tightness
- Abrasion resistance
- Recyclability / Cradle 2 Cradle
- Flame retardence
- Slip resistant
- Improved stability
- Sound dampening
- Tear strength and cut resistance
- Ultraviolet filter
- Shock resistance
- Insulation
- Concrete reinforcement

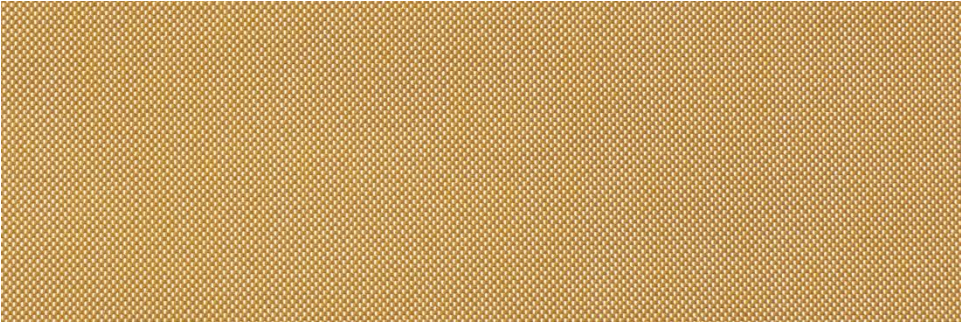
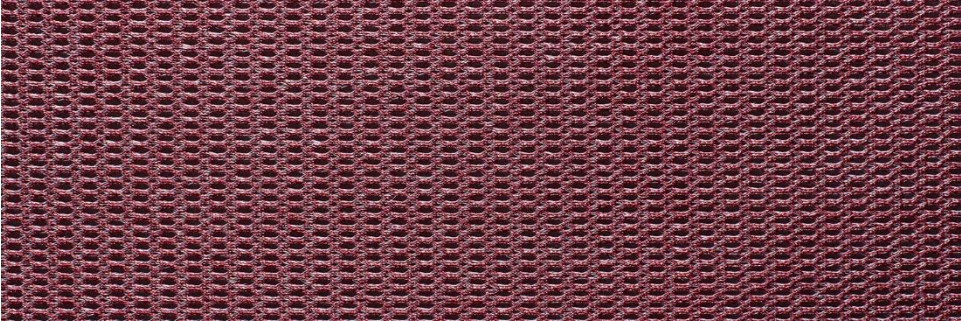
## Multifunctional fabrics



## Contract & Workwear

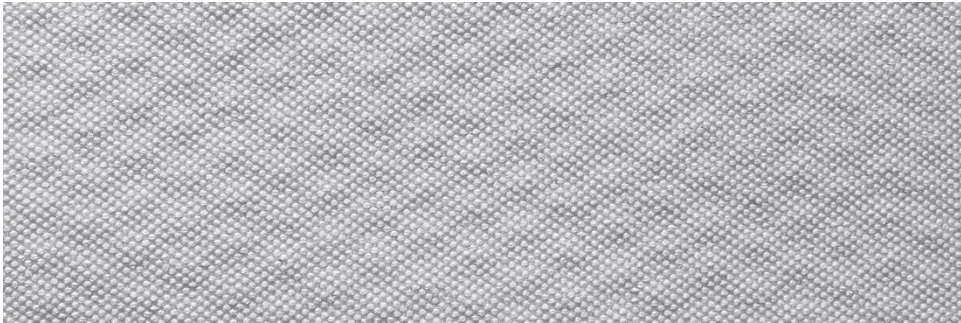
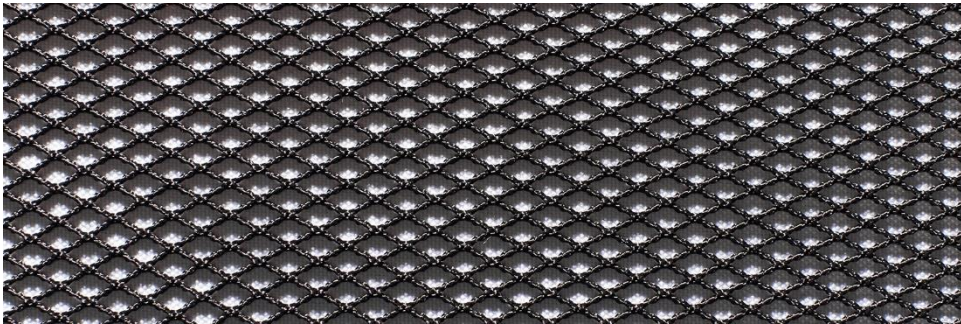


## Automotive

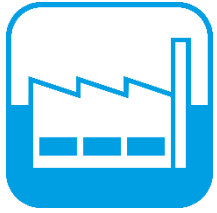




## Transportation



## Abrasive



## Flooring systems



## Building & Construction



**Thank you for your attention!**  
**LACOM GmbH**

**Sleiman Khalil**

Anton-Grimmer-Straße 7  
73466 Lauchheim  
Germany

---

Winnettener Straße 5  
91550 Dinkelsbühl  
Germany

Tel.: +49 7363 951-0  
Fax: +49 7363 951 481  
email: [info@lacom-online.de](mailto:info@lacom-online.de)  
[www.lacom-online.de](http://www.lacom-online.de)