

PIONEERING INNOVATIONS
FOR 150 YEARS

ZIMMER AUSTRIA | SCREEN & COATING SYSTEMS

Zimmer
AUSTRIA



THE MOST VERSATILE

TEXTILE FINISHING SYSTEMS

FOR EFFECTIVE APPLICATIONS WITH

LIQUIDS, PASTES, LACQUERS AND FOAMS

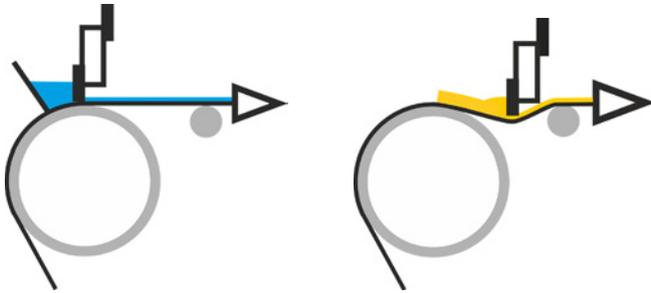
COATING.SYSTEMS

| HIGH QUALITY COATING MACHINES & LINES

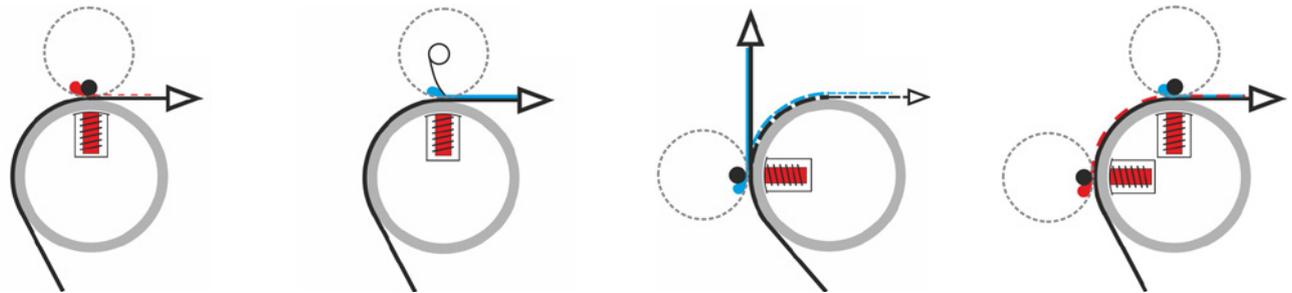


www.zimmer-austria.com

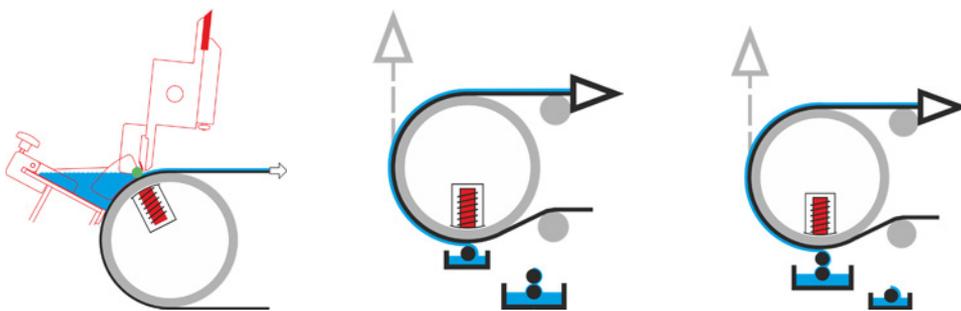
KNIFE COATING PAGE 5-6



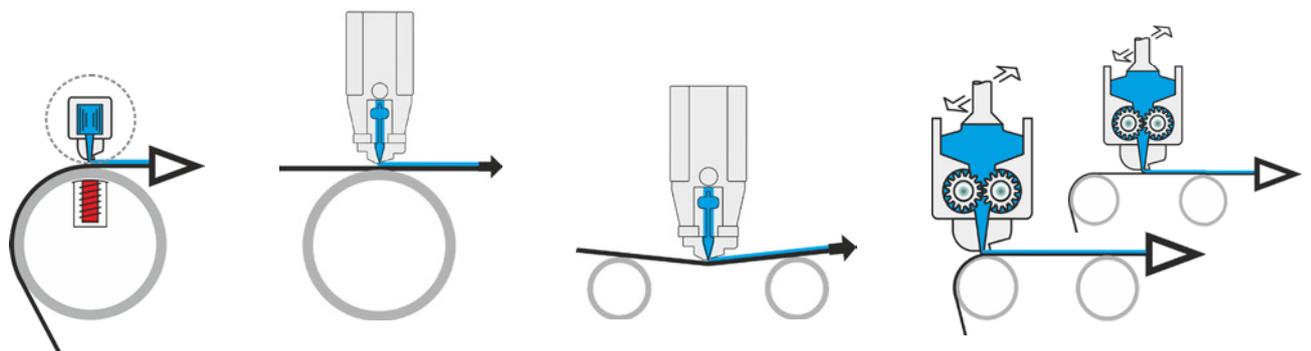
SCREEN COATING / PRINTING PAGE 7-8



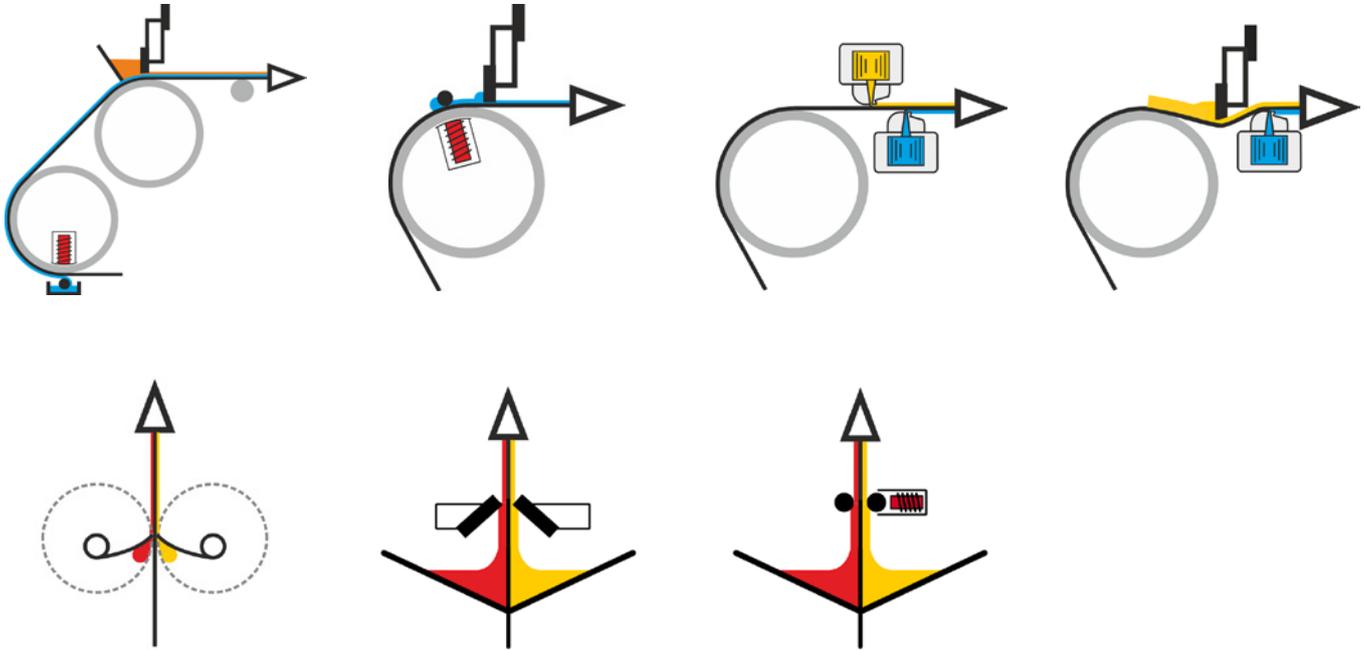
MAGNET ROLL COATING, FINISHING & LACQUERING PAGE 9-10



SLOT FOAM / PASTE COATING PAGE 11-12

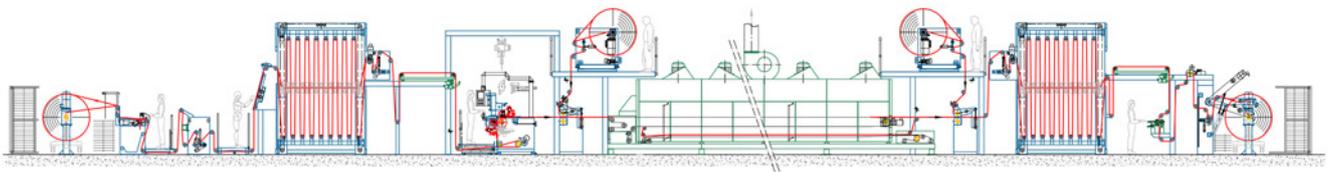


SPECIAL EXECUTION & UNIQUE COATING PRINCIPLES PAGE 13-14

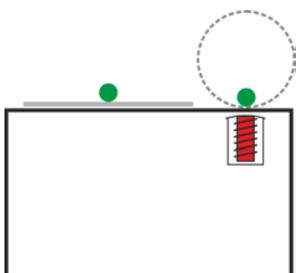


COATING, PRINTING & FINISHING LINES PAGE 15-16

Tailor-made coating lines at a minimum resource and energy consumption (e.g. nonwoven coating / printing line)



LAB MACHINES PAGE 16-17



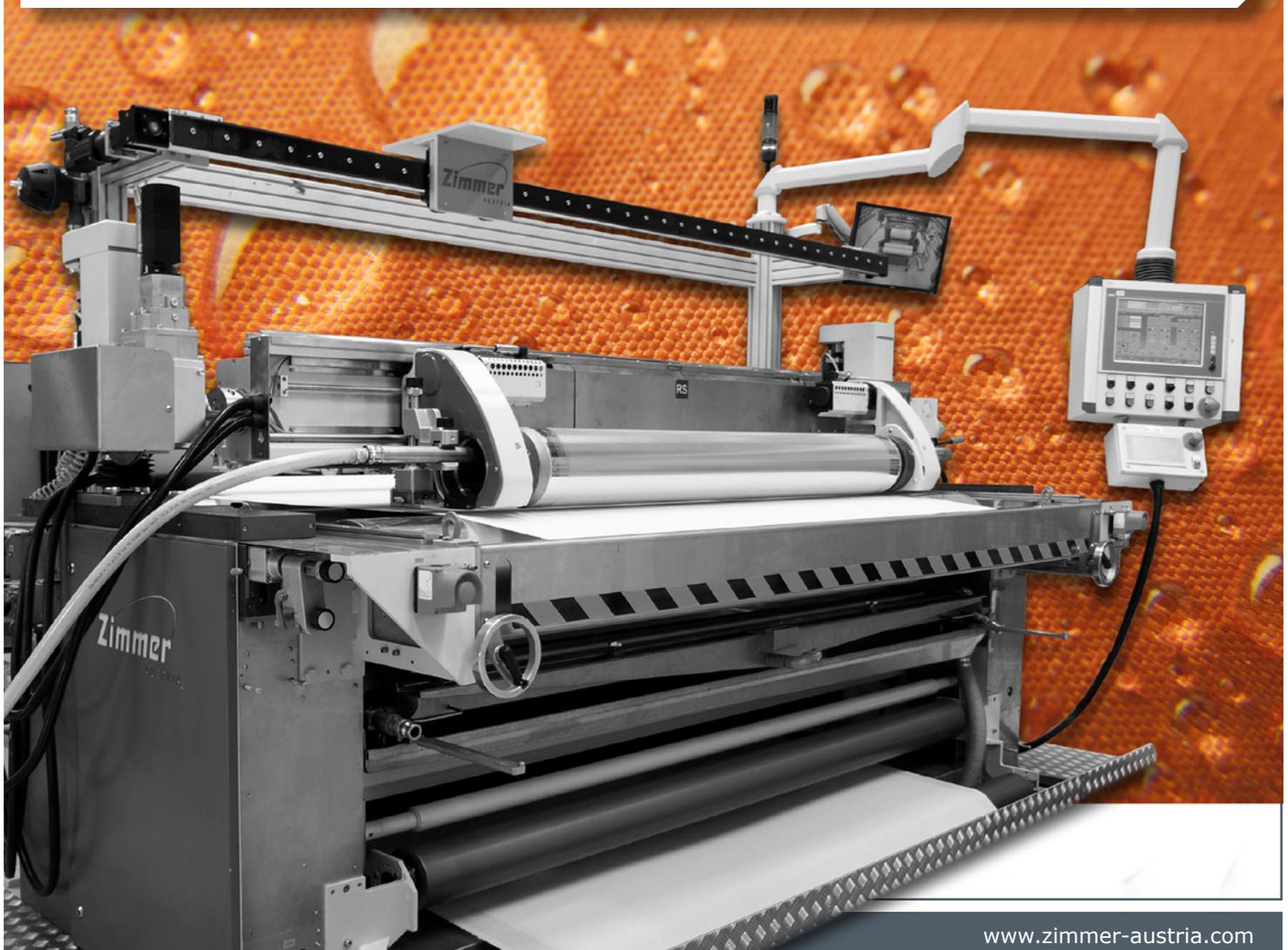
DRIVEN BY PERFECTION

Driven by perfection and committed to the credo – **First in Quality & First in Service** – the machine manufacturer **ZIMMER AUSTRIA** has become the benchmark for dependable high-class machines in the textile printing and finishing industry. The fast growing market requires reliable and innovative coating solutions. ZIMMER has the required know-how, the global business partner network and the profound technologies to cope with the market needs of **cost-effectiveness, quality, flexibility and sustainability**.

With the **knowledge for 150 years** ZIMMER is constantly endeavouring to enhance our customer's competitive advantage by providing the most efficient machines. Regarding the individual requirements and coating techniques, especially for technical textiles, ZIMMER has developed **unique and innovative multipurpose coating systems in modular design** to guarantee optimal results for each application.

Reliable solutions for coating with **liquids, pastes, lacquers and foams** on various substrates such as:

- **Technical Textiles**
- **Foils**
- **Carpets**
- **Nonwovens**
- **Paper**
- **Other innovative materials**



ONE MACHINE - ENDLESS POSSIBILITIES

ONE MACHINE - ENDLESS POSSIBILITIES

ZIMMER AUSTRIA offers high quality multipurpose coating machines in an unique **modular design** execution, to combine **various coating techniques within just one machine**. From one-color printing to coating with paste or foams (instable, meta-stable, stable).

Different coating modules such as – **knife, screen, slot or magnet roll coating** – can be changed by a few simple steps. This minimizes machine downtimes and ensures quick adaptation to specific requirements.

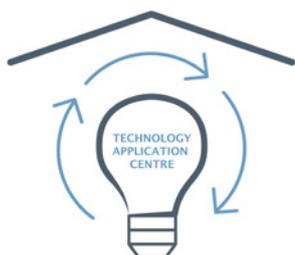
WITH ZIMMER AUSTRIA YOU CAN MAKE THE DIFFERENCE

3 SUCCESS PILLARS FOR SUSTAINABLE ADDED VALUE



HIGHEST PRECISION, EVEN ON LARGE WORKING WIDTHS

Concentricity accuracy and precision is crucial for high quality results, especially when applying coatings on large working widths. The world-famous **ZIMMER MAGNET SYSTEM PLUS** with up to 3 magnet bars incorporated in one roller sleeve, guarantees a 100% uniform application. **ZIMMER AUSTRIA** coating systems ensure the needed concentricity accuracy and precision for applying coatings also on working widths larger than 5 meters.



FROM IDEA TO INNOVATION - OWN APPLICATION CENTRE

Accelerating our client's success is at the heart of our DNA. Therefore, **ZIMMER AUSTRIA** provides the opportunity to run trials or even smallscale productions at our Technology.Application Centre in Klagenfurt. Depending on the individual requirements we offer a variety of standard and special coating techniques to be tested together with our expert technologists.



QUALITY ALWAYS - THROUGH DECADES OF EXPERIENCE

Outstanding coating results require attention to every detail and the highest quality in every step of the process. **ZIMMER AUSTRIA** has decades of experience in the manufacturing of coating systems, where we achieved many breakthrough innovations that our customers benefit from. We believe that quality makes the difference. Therefore, we offer tailor-made systems, manufactured with high-class materials, equipped with state-of-the-art operating software to bring our customers the highest level of quality.

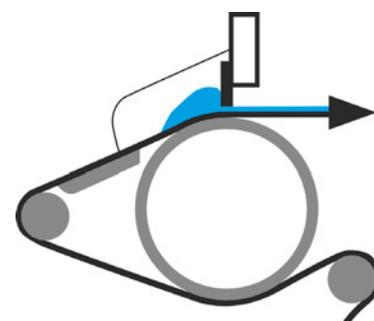
KNIFE COATING

MAGNOKNIFE Over-Roll or Over-Air coating, executed with reversible high precision knife holder, suitable for all types of coating squeegees as well as different special coating devices, such as round knives or smoothing squeegees. This reversible high precision beam is equipped with two knives (available in different executions) and ensures perfectly even application and fast adaptation for different products. The precision beam is adjustable 360° and can be locked at any position by pneumatically operated breaks.



MAGNOROLL coating machine with MAGNOKNIFE

MAGNOKNIFE Over-Roll



The **MAGNOKNIFE** can be positioned horizontally and vertically by each two servo motor drives. The knife can be regulated via the vertical adjustment with a device for weight monitoring on the moving product, in order to guarantee first-class coatings on a constant level.

Standard basic execution with manually operated side limiters and counterbars for accurate bordering and reliable sealing.

Optional:

- with motorized limiters for fast and easy handling.
- with edge sensing on both sides, for automatic correction of any material deviation or material width change on the right and left independently of one another.



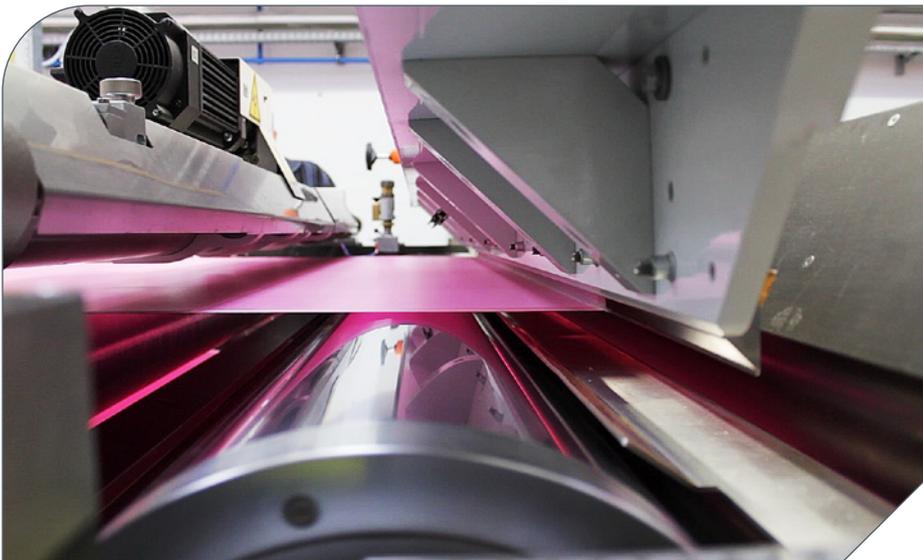
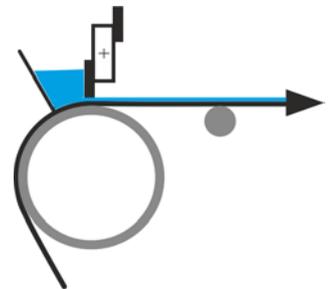
MAGNOROLL coating machine with MAGNOKNIFE Over-Roll

Working width: up to 5200 mm



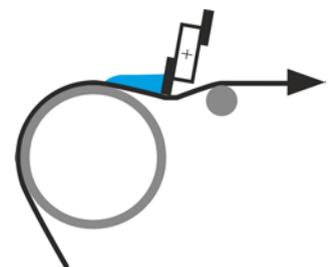
Knife coating with trough

Foam / paste coating with MAGNOKNIFE Over-Roll



MAGNOKNIFE Over-Air

Foam / paste coating with MAGNOKNIFE Over-Air



COATING ACCESSORIES

available in different executions



Foam mixer



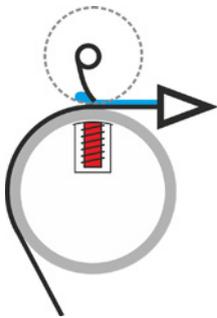
Standard paste pump

SCREEN PRINTING & COATING

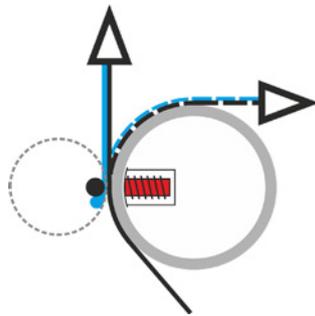
MAGNOROLL coating machines with Single or Double Screen Coating / Printing for paste or any kind of foams. 100% uniform application is ensured by the world famous **ZIMMER MAGNET SYSTEM PLUS roll rods or magnet blade squeegee** (optional with mechanical blade squeegee in vertical or horizontal position). Available in different executions and **working widths from 500 mm to 4800 mm** with repeat sizes of 640 mm to 914 mm, and special repeat sizes on demand.

Achieve unique results such as low-weight add-ons, or anti-slip patterns through dot coating.

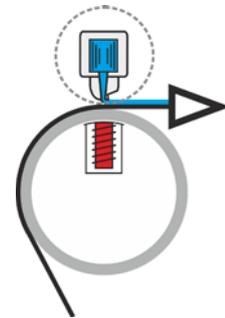
*Single Screen Coating
with magnet blade squeegee*



*Single Screen Coating
with magnet roll rod*



*Single Screen Coating
with MAGNOJET slot coating system*



*Touchscreen main control panel,
with state-of-the-art operating software*



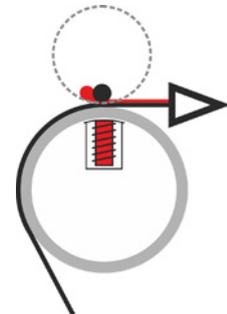


MAGNOROLL coating machine with screen coating module



Squeegee holding device

Single Screen Coating with magnet roll rod

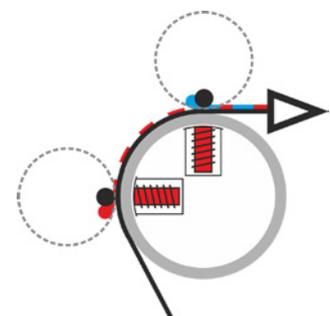


The MAGNOROLL machine can be optionally equipped with two rotary screens for simultaneous application.



MAGNOROLL with two screen coating modules

Double Screen Coating with magnet roll rods



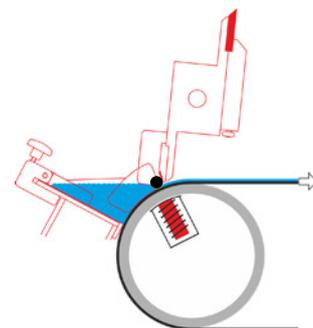
MAGNET ROLL COATING, FINISHING & LACQUERING

Highest precision, maximal efficiency and uniform application can be achieved evenly with different viscosity coatings. Therefore, **ZIMMER AUSTRIA** developed the **Full-Surface Roll Coating** and **Low-Add-On Coating** modules, with the **ZIMMER MAGNET SYSTEM PLUS**. These techniques ensure high-class results while optimizing the amount of resources used, especially for minimum quantity application.



MAGNOROLL coating machine with MR 11 technology

Magnetic Full-Surface Roll Coating MR 11



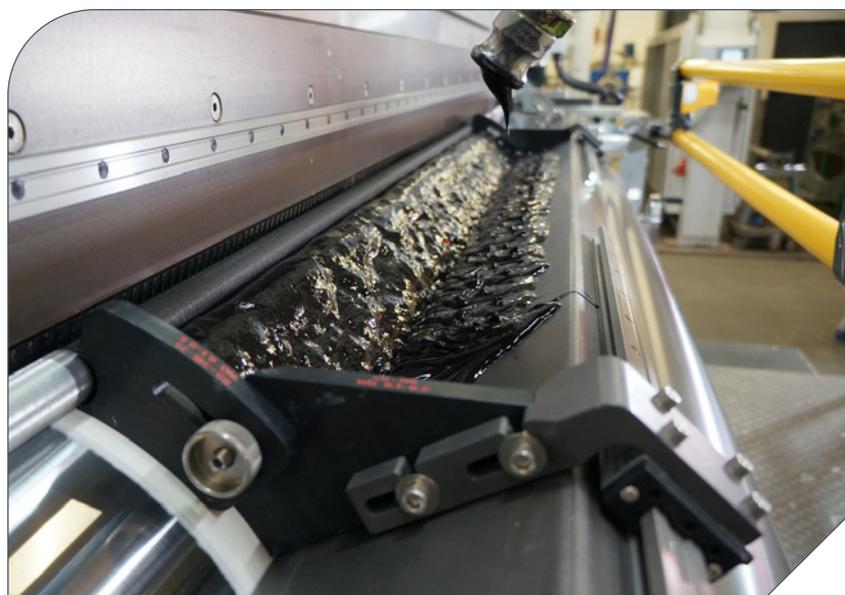
Paste reservoir with side limiters

Magnetic Full-Surface Roll Coating with the **ZIMMER MAGNET SYSTEM PLUS** can be applied in an adjustable range from 11 o'clock to 12 o'clock position.

The roll squeegee is positioned with side limiters and can be either free revolving or driven by a servomotor, to adjust the speed to the fabric.

The application medium is pumped through an oscillating feeding device controlled by a level sensor.

Working width: up to 5600 mm

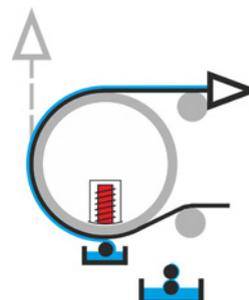


Magnetic Full-Surface Roll Coating MR 11



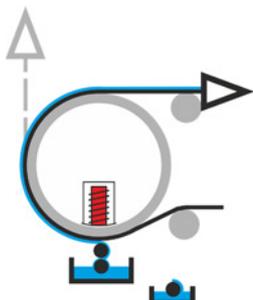
Magnetic Full-Surface Coating MR 6

Magnetic Full-Surface Coating MR 6 with one roll rod



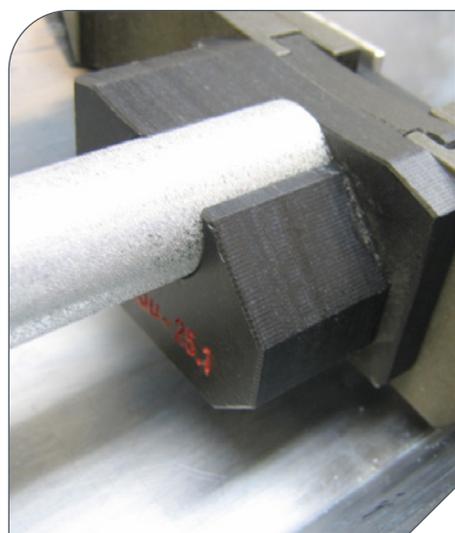
Coating, finishing and lacquering for minimum quantity application

Magnetic Full-Surface Coating MR 6 with two roll rods



The **Magnetic Low-Add-On** module MR6 is designed to achieve maximal efficiency by using less resources. This technique can be operated with the magnet roll rod, either with one or two roll rods. Perfect and optimum uniform application amount of various coating chemicals, which will reduce costs and minimize the rejection rate. Therefore overall productivity can be enhanced tremendously, while having less impact on the environment.

The amount applied to the fabric is regulated through the surface structure of the roll rods that are attracted by the **ZIMMER MAGNET SYSTEM PLUS**, that guarantees a 100% uniform application. Optimal for very low viscosities and minimal application.



One roll rod



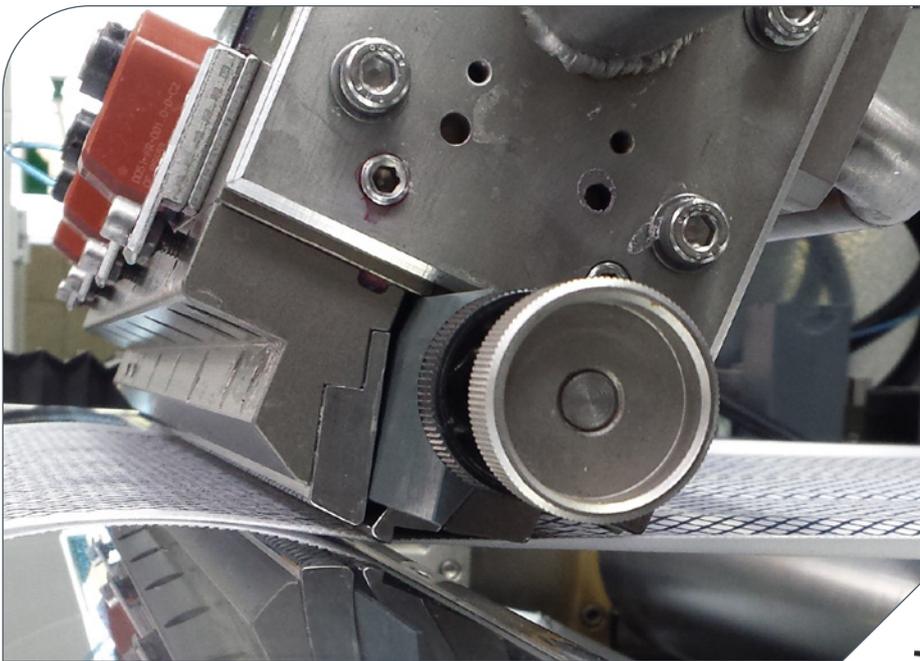
Two roll rods



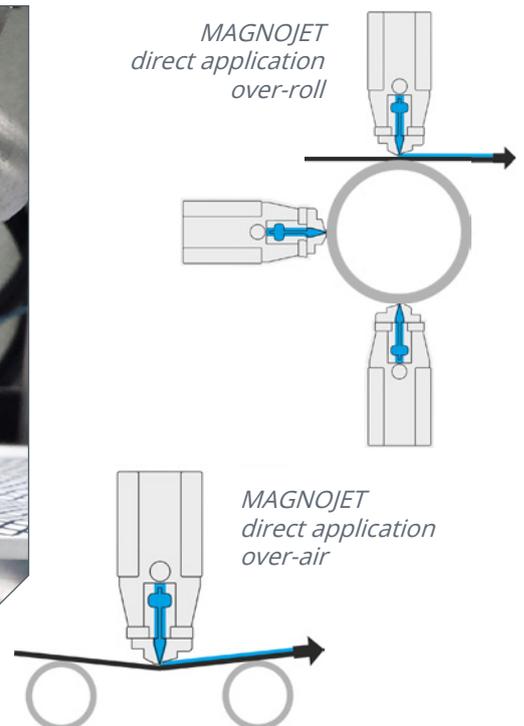
Two roll rods

MAGNOJET SLOT FOAM / PASTE COATING

The **MAGNOJET slot coating system** was especially designed for controlled application with foam or paste and can be installed in different working positions, either **directly over-roll** for surface coating or **directly over-air** for deep penetration coating, as well as **inside a screen**. The integrated automatic inline washing unit ensures increased productivity. For enhanced efficiency throughout the entire coating process additional accessories are recommended, such as a foam mixing unit with software controlled weight measuring system or a constant substance feeding pump with an inline flow meter for optimal paste coating results.

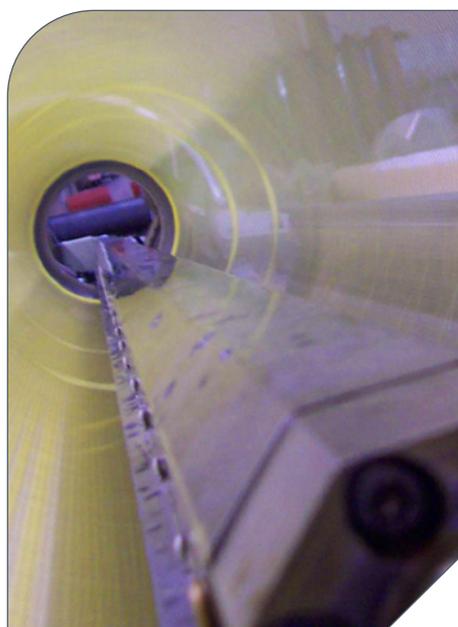


MAGNOJET direct application



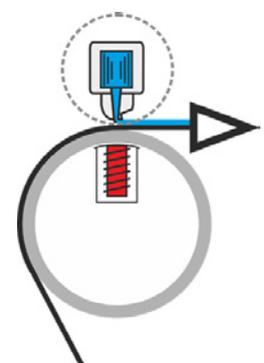
MAGNOJET ADVANTAGES

- No contact with air till the outlet of the slot
- No pollution, no creation of foam during paste application and no extra amounts of application media necessary
- Hassle-free processing of foam or paste
- Avoids evaporation of liquids
- Controlled pressurized application
- High speed application possible
- Fast installation due to slim design



MAGNOJET inside a screen

Screen Coating with MAGNOJET slot coating system





MAGNOJET with inline washing unit



MAGNOJET foam coating unit installed in stenter frame line

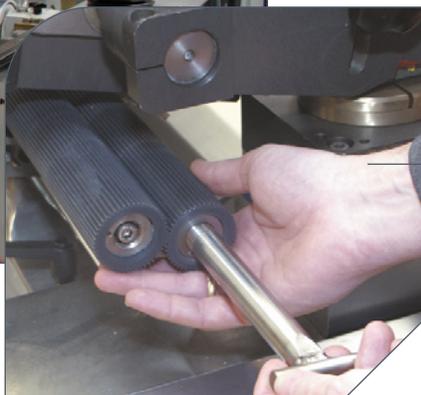
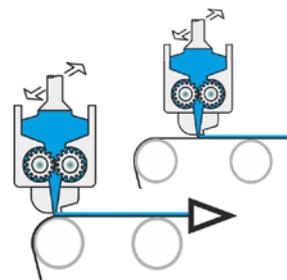
VARIOPRESS | FOAM APPLICATION SYSTEM

Especially designed for **coating with stable and meta-stable foams**. **VARIOPRESS** is a high precision unit, that gives 100% control of the foam application amount, independent of line speed, web tension and/or absorbance characteristic of the coated web. Determined by the speed of the tooth gears, the foam application amount and penetration into the material is adjustable from 0% to 100%. Thereby, the **VARIOPRESS** foam application system ensures optimum foam coating results on a constant level.



VARIOPRESS foam application

VARIOPRESS foam application over-roll or over-air

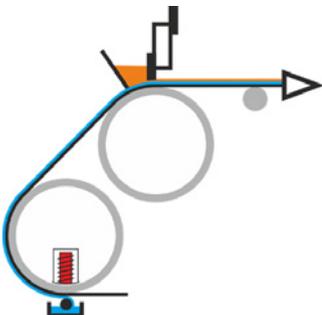


Tooth gears are driven with adjustable speed

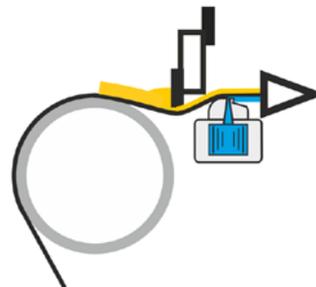
SPECIAL DESIGNS & UNIQUE COATING PRINCIPLES

SUCCESS THROUGH TECHNOLOGY - With solutions from **ZIMMER AUSTRIA** you can produce faster, more precise, and thus more efficiently. From the first consultation, the delivery, the installation and continuous service, we offer you outright support. Together with our clients we constantly work on further enhancing the coating process to develop breakthrough solutions to shape the world of tomorrow. Innovative products require unique coating principles. A few examples of specially designed coating systems or combinations of different coating systems are shown below.

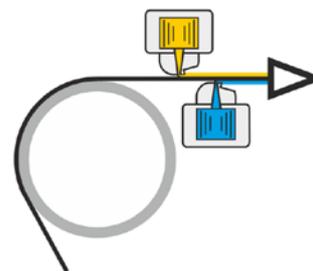
Wet-In-Wet



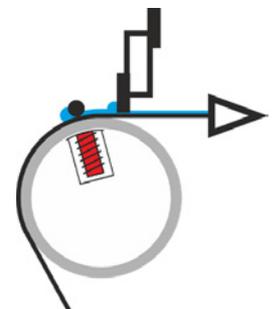
Knife on top / MAGNOJET from bottom in horizontal position



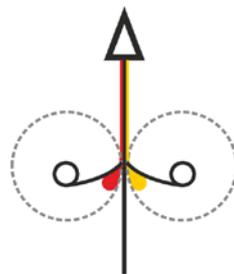
MAGNOJET on top and from bottom in horizontal position



Magnetic Roll Coating MR11 with Knife on top



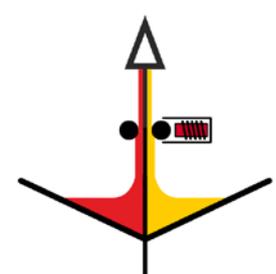
Double-Sided Screen Coating with blade squeegee in vertical position



Double-Sided Knife Coating in vertical position



Double-Sided Magnetic Roll Rod Coating in vertical position



MAGNOJET direct application

Work together with our experienced technologists and test innovative coating techniques, such as double-sided screen coating (as illustrated on the picture to the left), at our **TECHNOLOGY.APPLICATION CENTRE** in Klagenfurt.

FROM IDEA TO INNOVATION

Accelerating our client's success is at the heart of our DNA. At our **TECHNOLOGY.APPLICATION CENTRE** in Klagenfurt (Austria) we provide you with comprehensive support and advice from the initial idea right up to your production print- or coating line as well as the development of new applications. Depending on the specific requirements we offer a variety of standard and special coating techniques to be tested together with our expert technologists. **Run trials or even small-scale productions** to consequently improve your products or even develop new innovative solutions. Our experts will advise you which solution fits best to your needs.

TECHNOLOGY.APPLICATION CENTRE KLAGENFURT: R&D | Sampling | Workshops & Training | Convention



Overview of the technology centre in Klagenfurt (Austria)



Multipurpose coating line 700 mm



Multipurpose coating line with stenter frame 2200mm

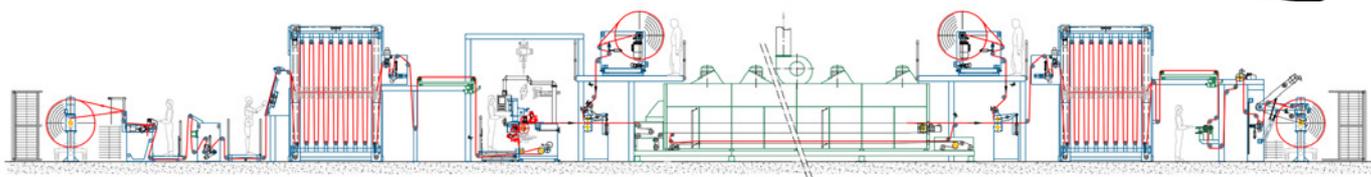
COATING LINES



The complex requirements and different technologies involved in the total coating process need to be synchronized and adapted on each other in order to achieve high quality results. Therefore, **ZIMMER AUSTRIA** offers **high quality coating lines as one stop solutions** for absolutely uniform liquid, paste, lacquer and foam application on various substrates, such as nonwovens, textiles, plastics, carpets, glass fibre, foils and other innovative materials. We provide combinations of unwinding and winding machineries, web guiding solutions, coating machines, **energy efficient dryer** (see p. 18 dryer for coating lines), cooling systems or various after treatment machines as complete coating lines designed to your needs. Examples of high quality coating lines designed by **ZIMMER AUSTRIA** are illustrated below.

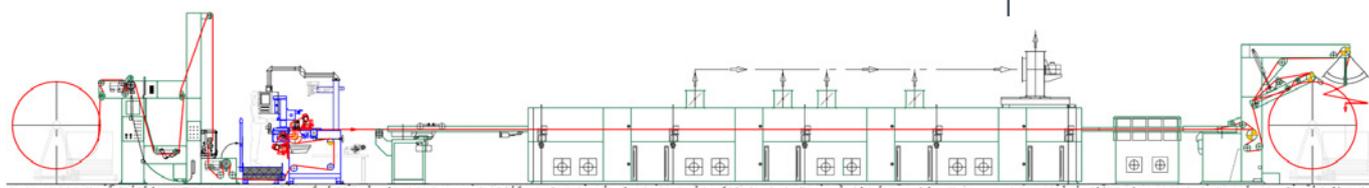
NONWOVEN COATING AND PRINTING LINE

Designed for all kind of coating, finishing, printing and laminating processes, especially for high-end products in the nonwoven industry.



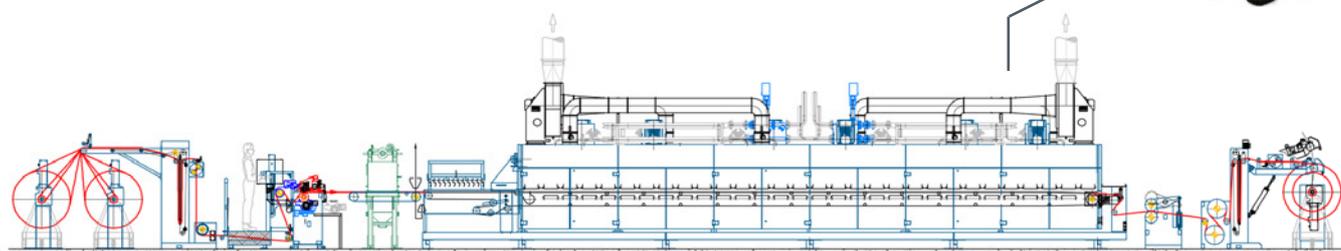
DENIM COATING LINE

Designed for heavy weight denim fabrics, as well as high-elastic fashion jeans.



DOUBLE DOT COATING AND LAMINATION LINE

Designed for light weight, sensitive and elastic interlining fabrics for the fashion and clothing industry.





Nonwoven coating and printing line

Make the difference with ZIMMER AUSTRIA

Based on **decades of experience**, we are able to offer tailor-made solutions of **perfectly designed** coating lines that empower our clients to produce **outstanding results** throughout the entire coating process at a **minimum resource and energy consumption**. With **ZIMMER AUSTRIA** you can make the difference and accelerate your success.

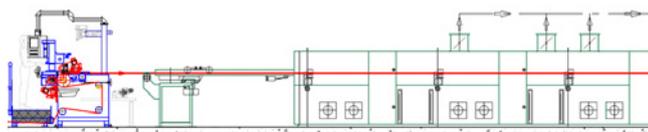
ENERGY EFFICIENT DRYING

The drying process has a major influence on the final quality of the coated material. If the coating lines require roller bed or conveyor belt dryer, **ZIMMER AUSTRIA** will be incorporating the in-house designed and built **COMPACT.HC dryer**.

ZIMMER AUSTRIA has developed high-quality dryer layouts with **THERMOCURE technology**, to guarantee a perfectly controlled drying process tailored to the specific product requirements. All dryers are designed with optimized interior geometry for high energy efficiency and uniform chamber temperature, equipped with self-monitoring and state-of-the-art measuring and regulation techniques.

STENTER FRAMES

ZIMMER AUSTRIA is combining the coating machines with different stenter frames from well known stenter frame manufacturers according to customer's request.



Stenter frame

COMPACT.HC



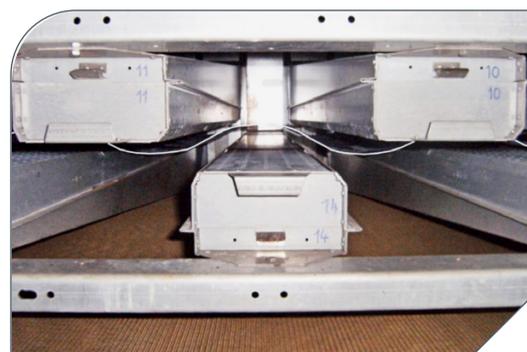
The modular construction of this high efficiency hot air dryer with conveyor belt can be designed with one, three, or up to seven passages for higher productivity. Especially for thick permeable substrates such as coated and wet textiles or nonwovens.



COMPACT.HC LAY-ON-AIR



Lay-on-air floating fabric guiding in the entry zone of the dryer, combined with a conveyor belt. Lay-on-air-nozzles for contact-free surface drying, especially for fully penetrated fabrics.



i Please see also separate leaflet | **THERMOCURE high capacity hot air dryer**

LABORATORY MACHINES

For the perfect preparation prior or during the coating process **ZIMMER AUSTRIA** offers a wide range of high quality sampling machines as well as laboratory machines and devices such as knife coating system, rotary screen application system with roll rod and blade squeegee, magnet roller application and foam application systems are available in working widths from 400 mm to 1000 mm.



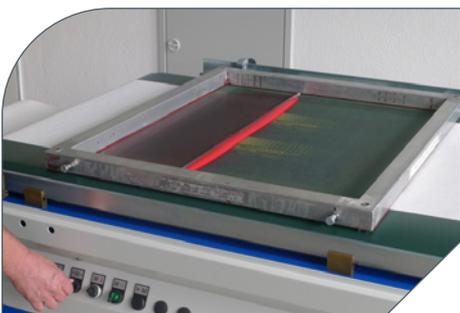
Laboratory knife coating line



Knife sample coating



Laminating



Flatscreen strike-off table



Rotary screen strike-off table

FIRST IN QUALITY & FIRST IN SERVICE

PIONEERING INNOVATIONS FOR 150 YEARS



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