



ORIGINAL METHOD MODERNIZED

PERFECTIONIZED FOR TRUE RESULTS

ACHIEVING FINEST PRINTING QUALITY

100% NICKEL-FREE PRINTING TECHNOLOGY

MONARCH.RB20

THE NEW ART OF FLAT SCREEN PRINTING

MADE IN AUSTRIA



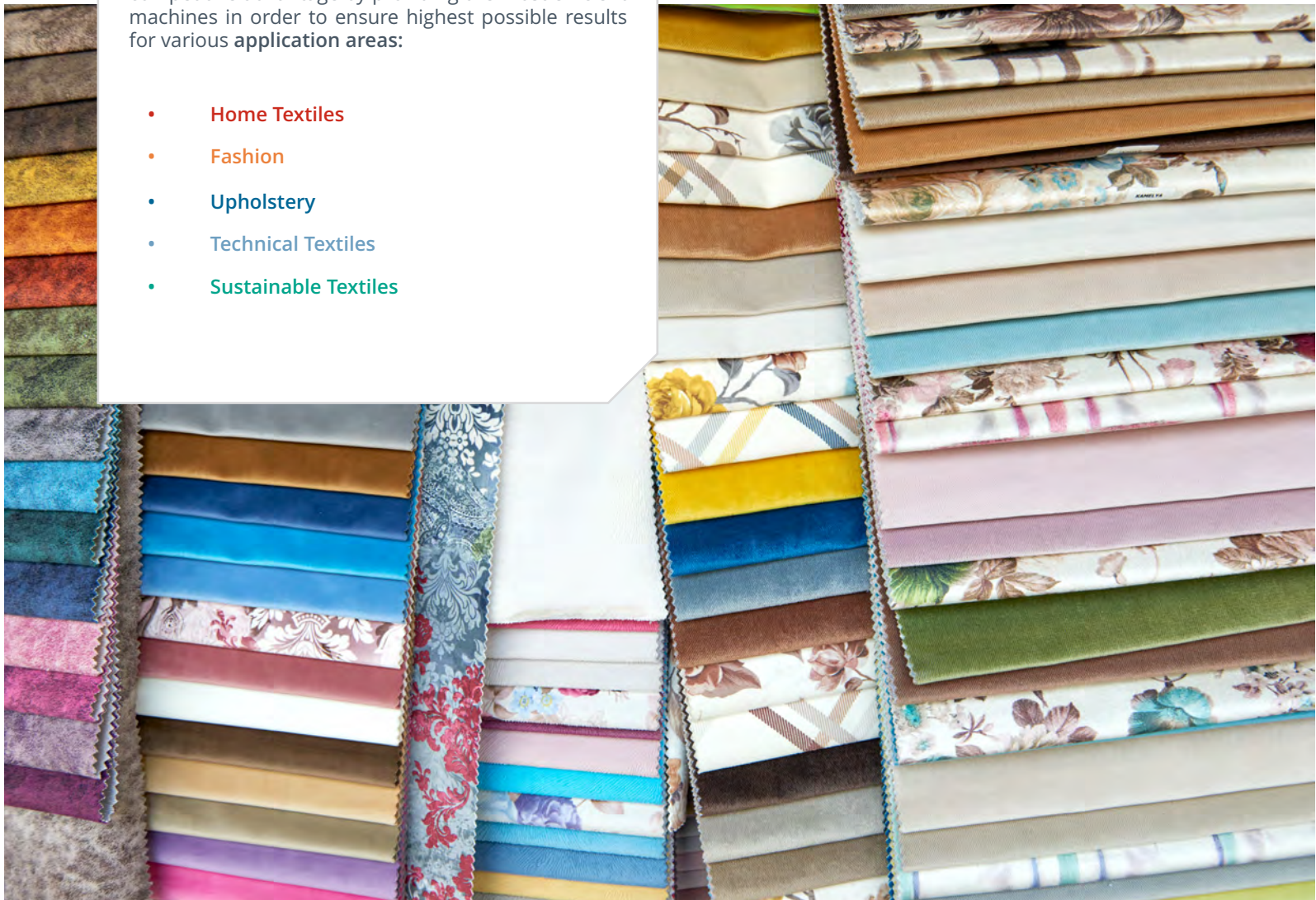
DRIVEN BY PERFECTION

Driven by perfection and committed to our 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 industry. We have shaped the market with **pioneering innovations and revolutionary technologies**.

In our century of digitalisation, industry 4.0 and rising environmental challenges, ZIMMER AUSTRIA 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 of over 140 years ZIMMER is constantly endeavouring to enhance our customer's competitive advantage by providing the most efficient machines in order to ensure highest possible results for various application areas:

- **Home Textiles**
- **Fashion**
- **Upholstery**
- **Technical Textiles**
- **Sustainable Textiles**



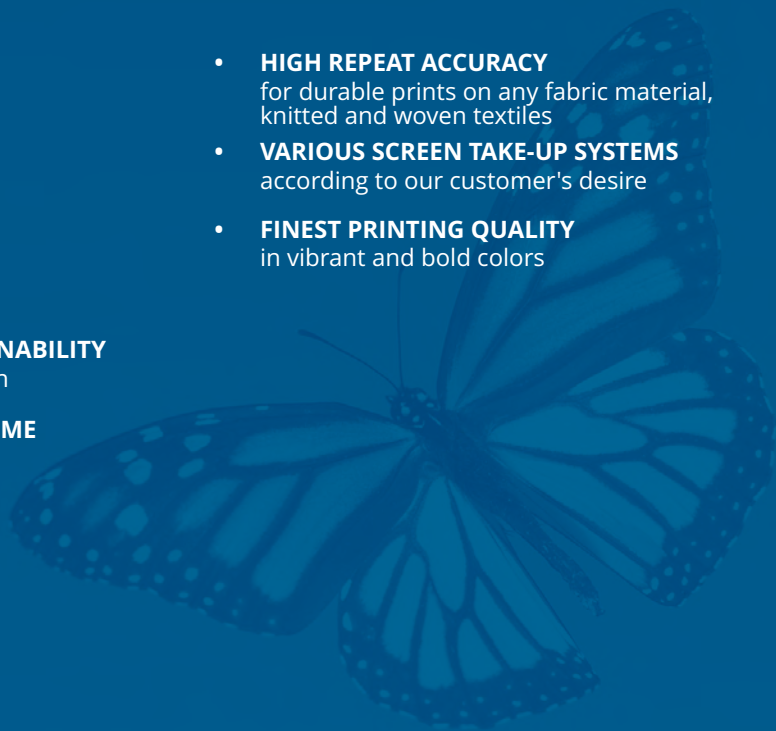
THE NEW ART OF FLAT SCREEN PRINTING

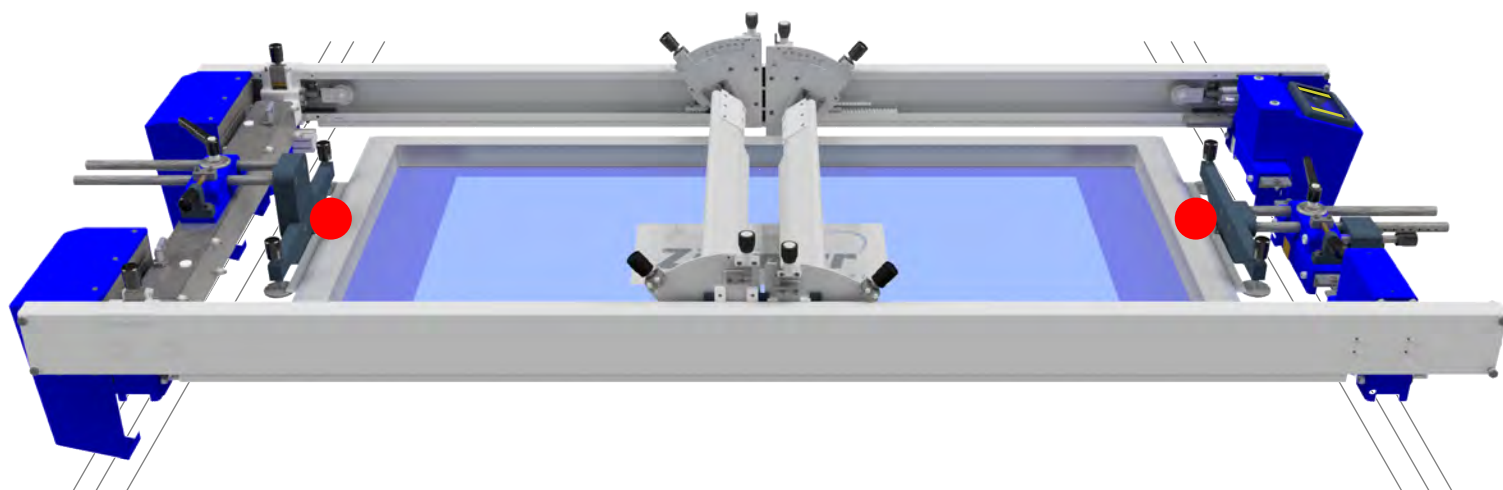
MONARCH.RB20

Original method, modernized, and brought to perfection for true results. Taking advantage of our pioneering scientific know how, which combine the advantages of the original Flat Screen printing technologies with a revolutionary squeegee technique. It guarantees finest printing quality and deep penetration. Automatic Flat Screen Printing Machine adaptable with different squeegee and screen take-up systems.

MONARCH KEY-FEATURES

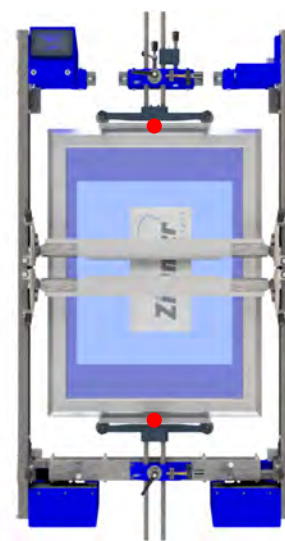
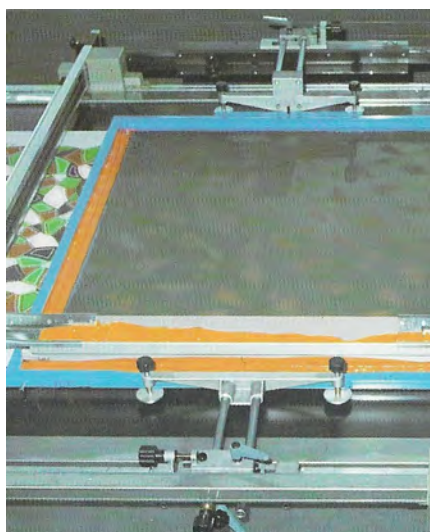
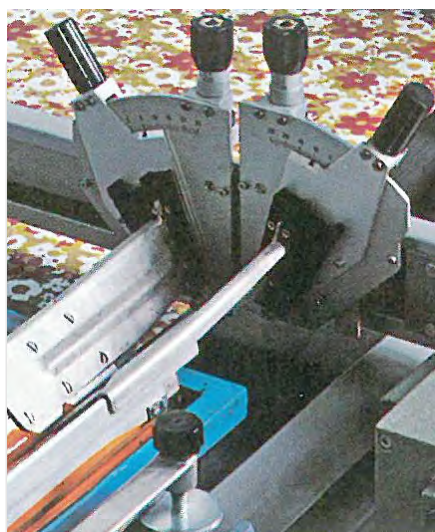
- **HIGH SPEED PRINTING**
up to 30 m/min
- **MULTI-COLOR PRINTING**
with up to 24 printing stations
- **WORKING WIDTH UP TO 3200 MM**
- **STABLE, RELIABLE & FLEXIBLE**
- **HIGH DEPENDABILITY AND SUSTAINABILITY**
due to compact and solid construction
- **EASY HANDLING & SHORT SET-UP TIME**
- **HIGH REPEAT ACCURACY**
for durable prints on any fabric material, knitted and woven textiles
- **VARIOUS SCREEN TAKE-UP SYSTEMS**
according to our customer's desire
- **FINEST PRINTING QUALITY**
in vibrant and bold colors

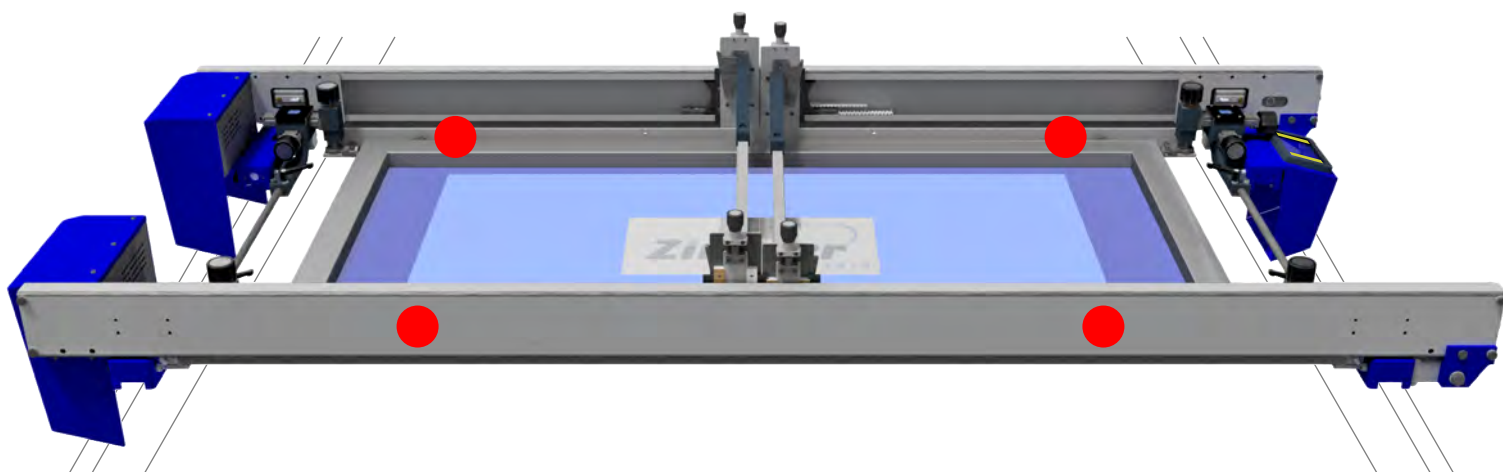




RUBBER SQUEEGEE - SYSTEM 2P

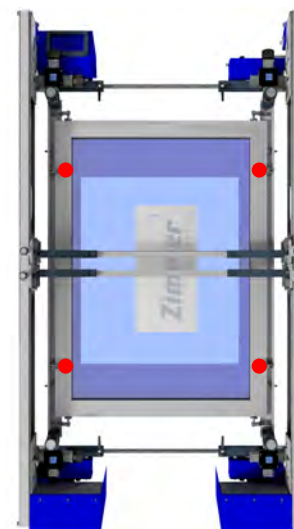
System 2P relies on a screen take-up system, based on 2 points. One point is executed as a hole and the other one as a slot for correct positioning of the screens. The squeegee system allows very specific positioning of angle and height of the rubber squeegee. Together with different squeegee types, this system provides a very big range of setting possibilities.

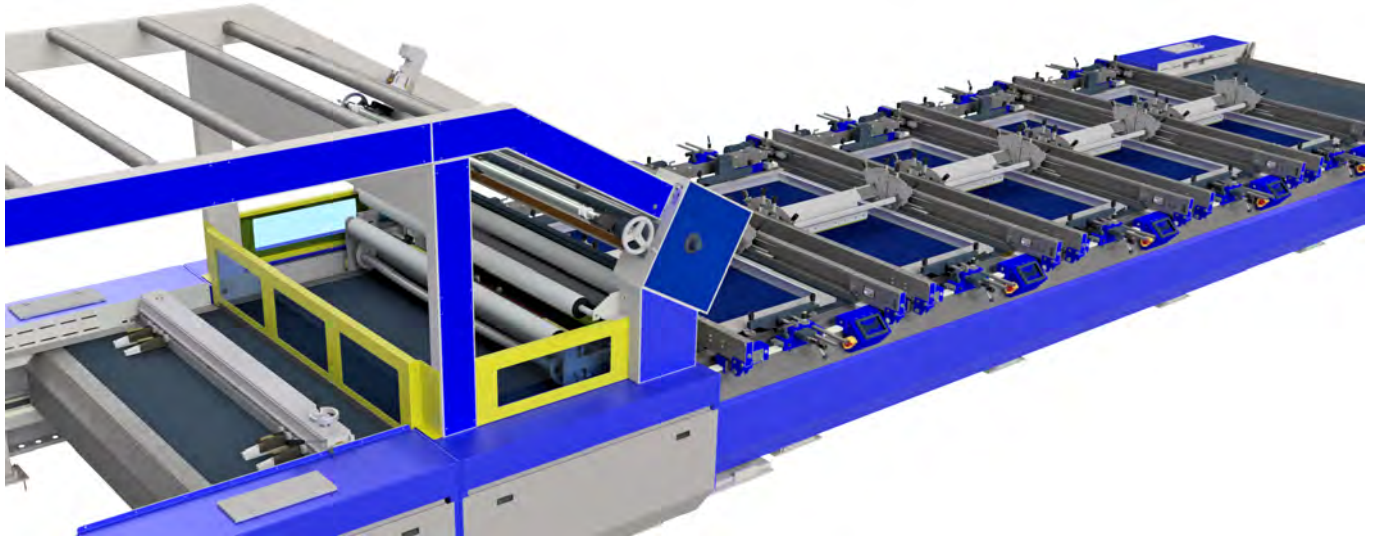




RUBBER SQUEEGEE - SYSTEM 4P

The system 4P offers another screen take up system, which is also well established in the textile industry. The screen is fixed on 4 points to the printing unit. The system 4P offers fast, safe handling and set-up of the screens. This system is for customers who require a high amount of flexibility in their production process.



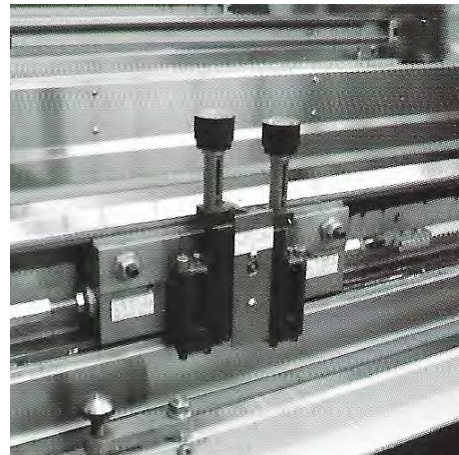


SQUEEGEE SYSTEMS

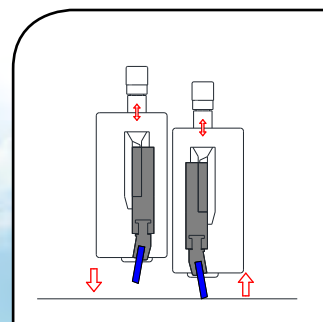
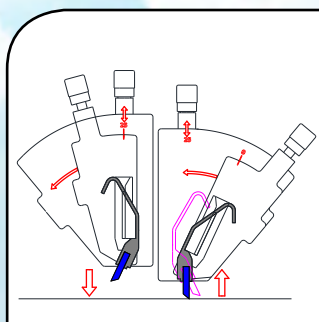
Two systems - Maximize your productivity while taking care for the environment at the same time!

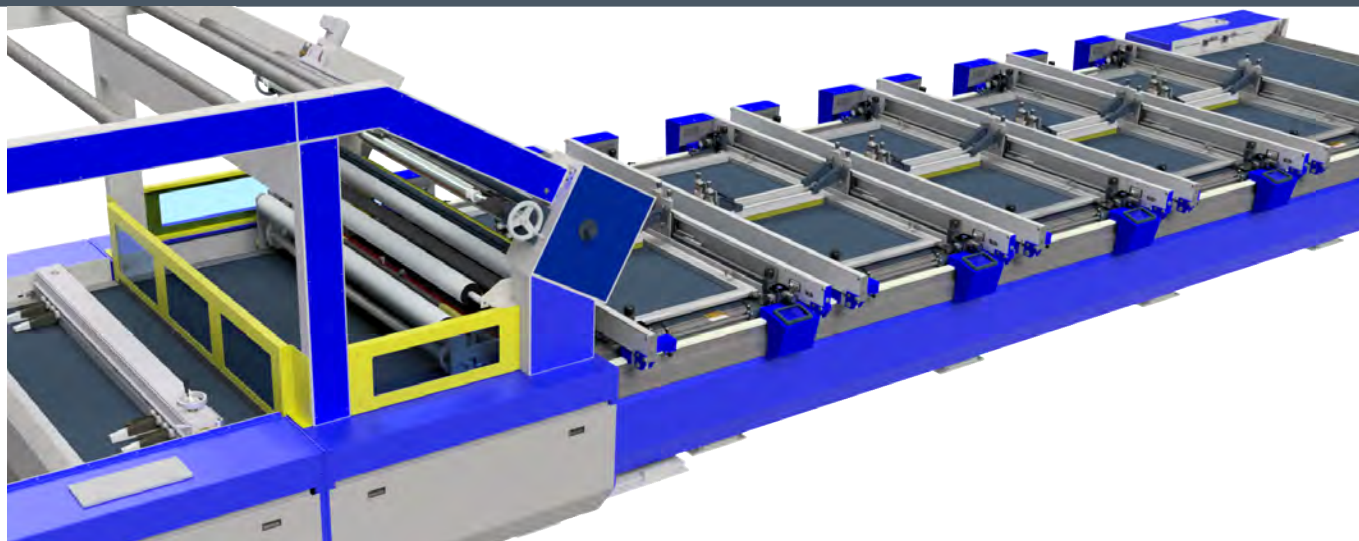


SYSTEM 2P



SYSTEM 4P





MONARCH SPECIFICATIONS	System 2P 2 Point Frame Fixing	System 4P 4 Point Frame Fixing
Working width	165 / 185 / 225 / 245 / 280 / 320 cm	
Effective length	from 7 m to 59 m	
Number of printing stations	up to 24	
Repeat size adjustment	from 60 cm to 300 cm	
Print head	2P	4P
Squeegee speed, variable	up to 3,5 m/sec	
Blanket speed	up to 100 m/min	
Control system	Lenze	
Dryer	Various dryer layouts for all kinds of fabrics	

MONARCH.RB20 MACHINE DETAILS - FEEDING DEVICE OPTIONS

Different feeding and exit device options, adaptable to various textile qualities. Standard woven, sensitive knits, terry towels and even blankets, single-strand or double-strand tubular goods will be guided from the roll or box and glued onto the printing blanket. Furthermore ZIMMER AUSTRIA is the new and exclusive manufacturer of the worldwide recognized KÄLIN fabric cleaning appliances, since the merger in spring 2016.



1 | The unbatching device comes with a stepless automatic digitally controlled speed control drive system, which transports any kind of woven and knits from small or large rolls onto the printing machine.



2 | Dust and lint removal device, new and improved, for most efficient fabric cleaning results. In various executions: brushing – suction – blowing with bevelled suction mouthpiece for one or both-side simultaneous cleaning of the fabric.



3 | The oscillating cloth pressure roller comes with a special silicon rubber coating surface, assuring to avoid cross marks on textile goods. The electronically controlled servo drive with automatic speed adjustment guarantees continuous oscillating roller movement without any stop ever.

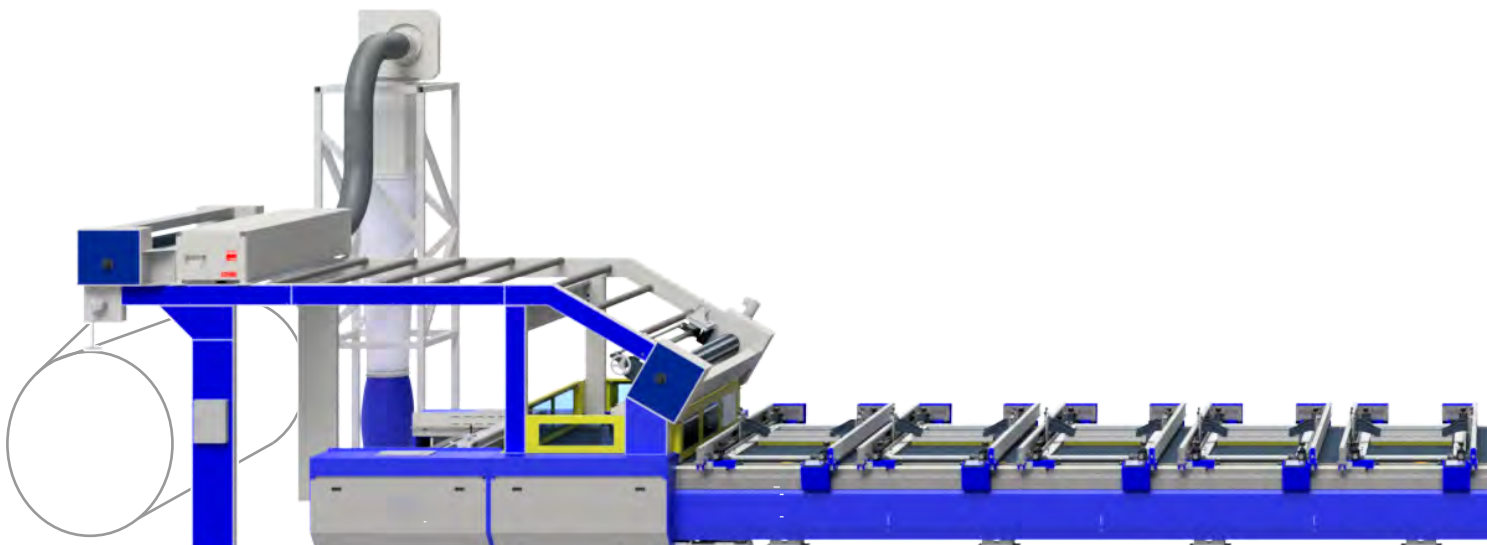
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4 |

5 | 3 |

8 |



MONARCH.RB20 MACHINE DETAILS - GLUEING AND WASHING



4 | Wet glueing device with optimized squeegee application system and automatic glue feeding pump.



5 | Thermoplast glueing device with cloth heating shield and infrared heating elements. For perfectly uniform glueing of synthetic fabrics.

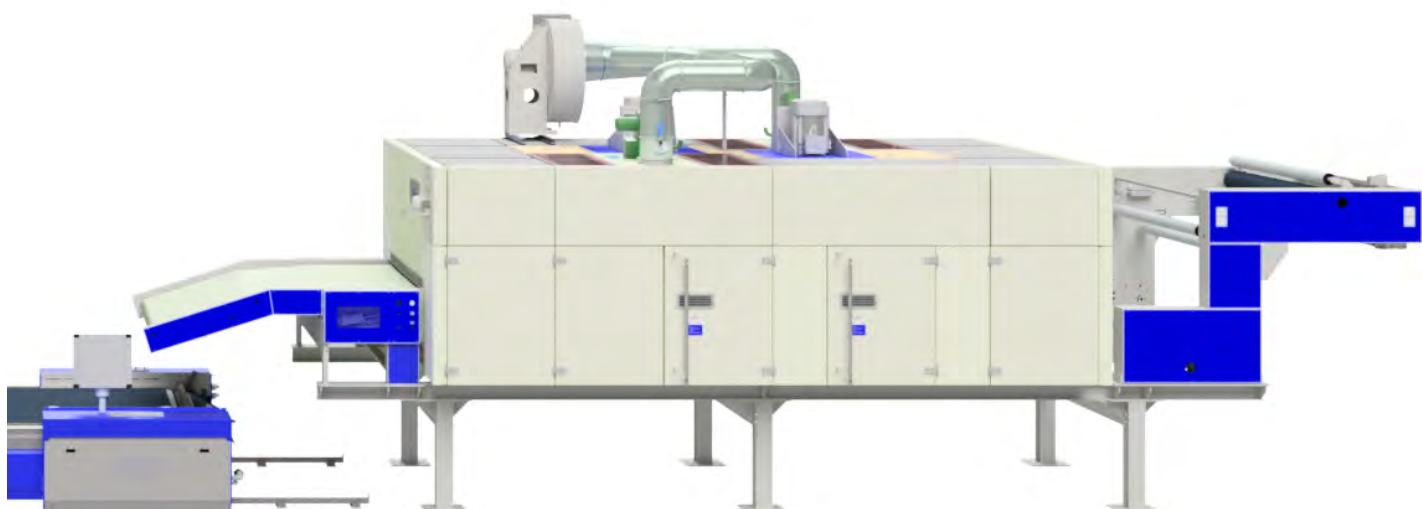


6 | Printing blanket washing device with high quality brushes and water recycling system for a minimum of fresh water consumption.

7 | 6 |

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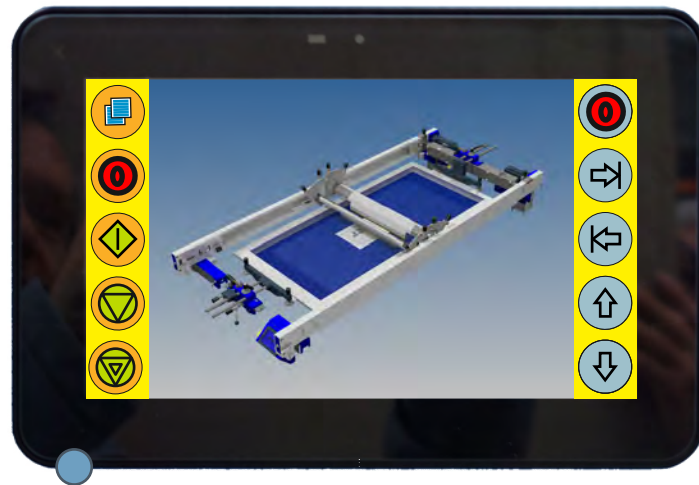


MONARCH.RB20 MACHINE DETAILS - OPERATING

An automatic high-speed printing machine is as good as its electronic control systems. Therefore the new MONARCH printing machine comes with a totally integrated, but simple to handle computer control system. The control system permits easy handling, short set-up time, automatic repeat setting, design memory and quick reproduction of re-orders. In order to avoid all negative possible heat influences, all top quality electronic components are mounted in air-conditioned cabinets.



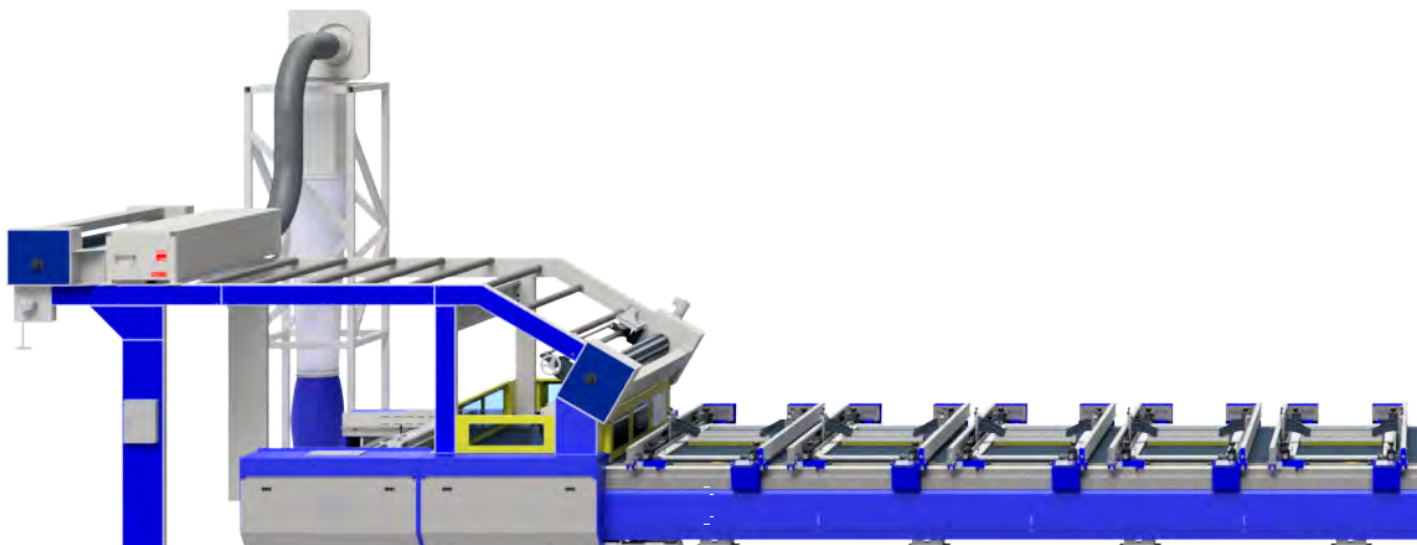
7 | The touchscreen main control panel as well as all adjustment buttons on the machine come in your mother language. The Lenze system connects all controls, drives and sensors on the printing machine.



8 | Operating panel on each printing station to ensure easy handling and quick adjustment of:

- the **working width** and other printing parameters
- the **automatic repeat-setting** (with design memory for quick re-production of designs)

8 |



MONARCH.RB20 MACHINE DETAILS - THERMOCURE DRYING

The drying process has a major influence on the final quality of the printed fabrics. Therefore ZIMMER AUSTRIA developed several dryer layouts to guarantee even and perfectly controlled drying of all kinds of fabrics. The modular construction of the high efficiency COMPACT.HC hot air nozzle dryer is available with:

- various heating medium options - steam, thermal oil, gas, hot water, electricity
- various options of fabric exit units - e.g. plaiter for single-web, batcher and/or center winder, ...
- various configurations - e.g. removable hot air nozzle elements, additional polymerizing zone, ...



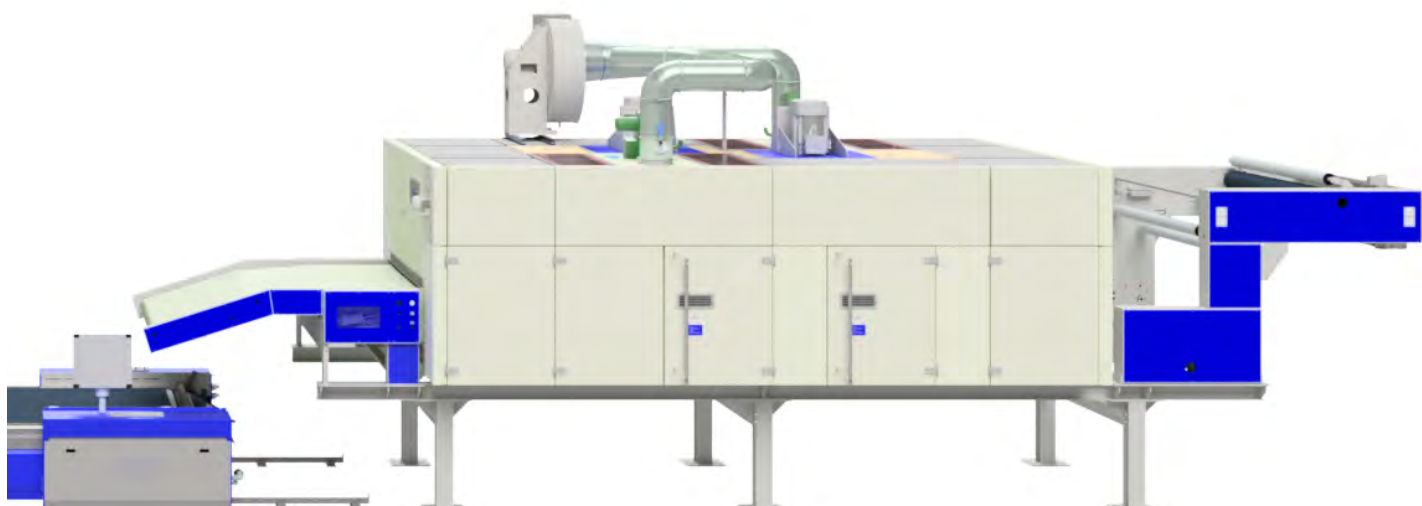
9 | The COMPACT.HC dryer with an operating temperature of 90°C to 200°C is available on ground floor level or elevated on a substructure. With optimized interior geometry for high energy efficiency and uniform chamber temperature. Self-monitoring and state-of-the-art measuring and regulation techniques. (For more details please see our separate dryer leaflet)

10 | Various fabric exit devices for smooth and reliable web guiding at any speed. E.g. with J-Box, antistatic devices, inspection table or center winder.

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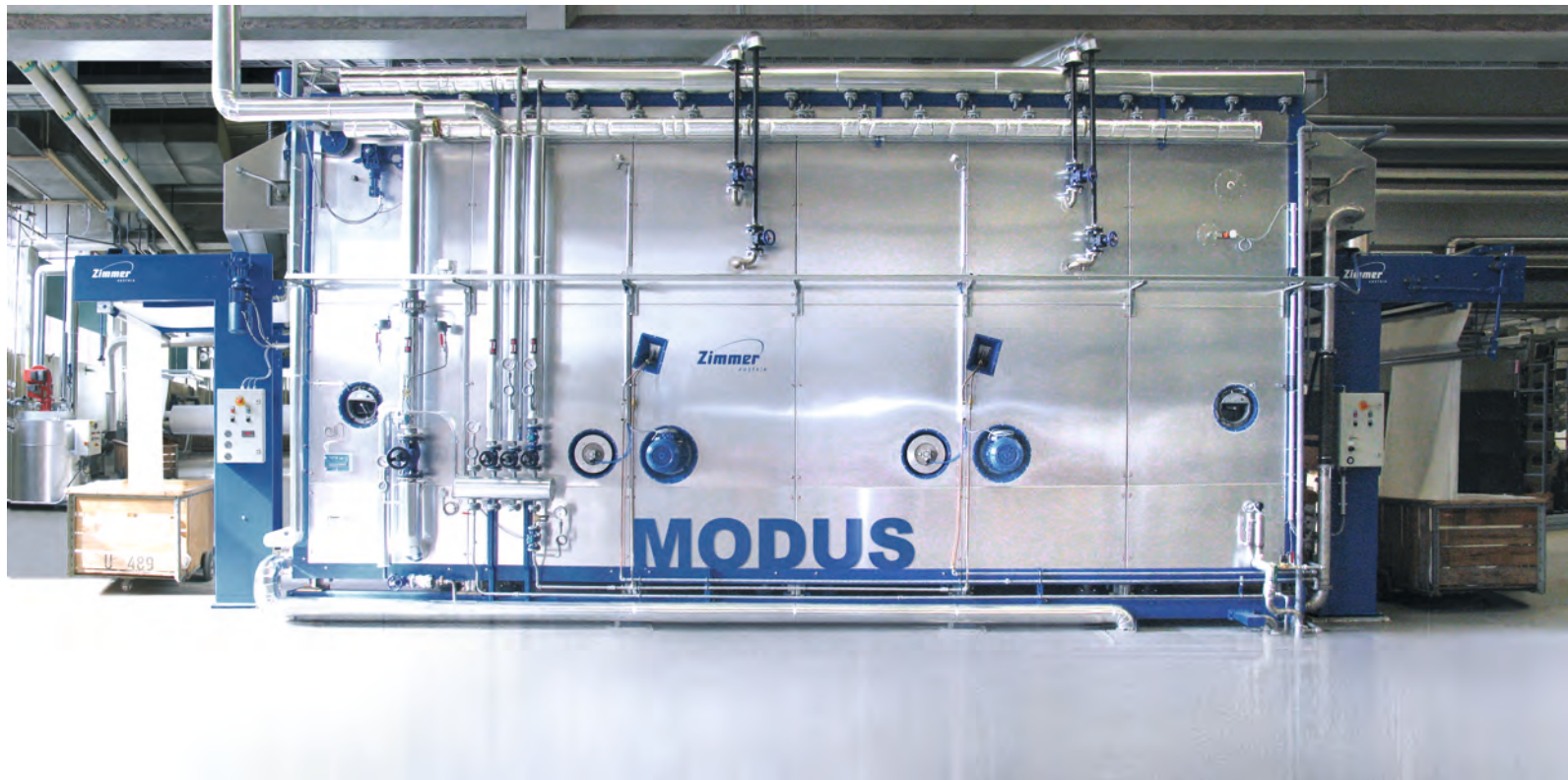
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ADDITIONAL EQUIPMENT FOR PRINTED TEXTILES

thermoCURE DRYING STEAMING CURING SYSTEM

Loop Steamer Modus

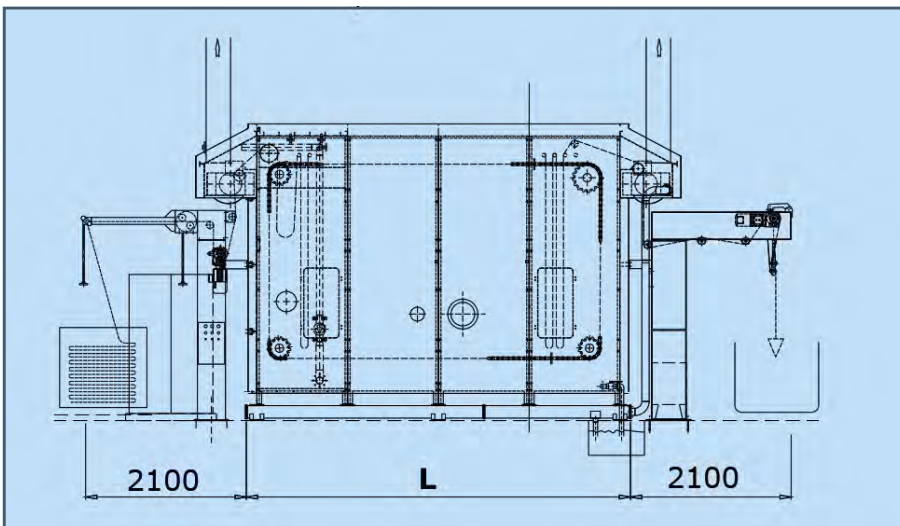


With the Loop Steamer MODUS MIDI by Zimmer Austria, your digital textile prints are being aftertreated even more professionally.

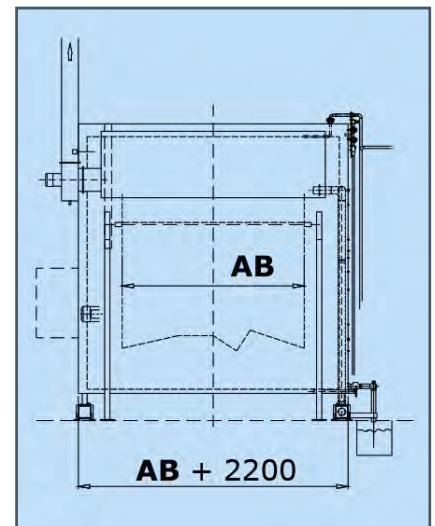
Enhanced colour yield improves digital textile prints of all type of fibres and weights for excellent finishing results and brilliant colours. Exactly reproducible temperature and humidity values are helping to save energy.

The Loop Steamer Modus Midi renders the following applications:

- Saturated steam modus (102°C to 105°C)
- Superheated steam modus (160°C to 180°C)
- Hot air polymerizing modus (160°C to 180°C)



Modus - side view



Modus - front view

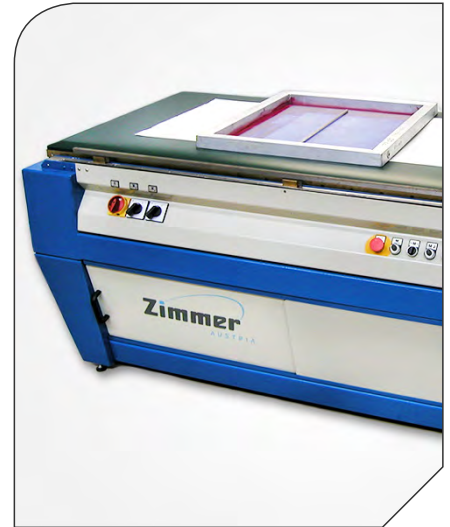
Working Width (AB)	mm	2000, 2600, 3000, 3400					
Fixation Time	min	5 - 40					
Loop Length	mm	500-1800			800-2800		
Superheating Capacity	kW	ca. 140 kW per zone					
Numbers Of Zones		1	1	1	2	3	4
Cloth Capacity	m	60	80	140	240	340	440
Length (L)	mm	4200	5500	5500	8000	10500	13000
Max. Mechanical Speed	m/min	25	25	30	50	60	70
Average Steam Consumption	kg/h	200-400	200-400	400-600	500-1000	700-1300	800-1400
Electrical Installation	kW	14	14	16	24	32	38

SAMPLE & LAB MACHINES - ADDITIONAL EQUIPMENT

For perfect preparation prior to the printing production **ZIMMER AUSTRIA** offers a wide range of high quality sampling and laboratory machines for real-size sample printing, development and verification of paste viscosities, color concentration and magnet power fine adjustment. Furthermore you may opt for additional equipment to enhance your production processes or screen washing machines for quick and efficient cleaning.



Midi-II-F sample printing machine



Mini-MD-F strike-off machine

ADDITIONAL EQUIPMENT

Washing and drying machines for flat screens, and automatic rubber squeegee grinding machine for excellent printing results.



Flat screen washing machine



Rubber Squeegee grinding machine

FROM IDEA TO INNOVATION - APPLICATION CENTRE KLAGENFURT

From Idea to Innovation - at our TECHNOLOGY.APPLICATION CENTRE in Klagenfurt we provide you with comprehensive support and advice from the initial idea right up to your production printing- or coating line as well as the development of new applications.

R&D - Sampling - Workshops - Training - Convention



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PIONEERING INNOVATIONS FOR MORE THAN 140 YEARS



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