Zimmer AUSTRIA

thermoCURE
DRYING STEAMING CURING SYSTEM

High Capacity Hot Air Dryer

MADE IN AUSTRIA

Hot air dryer type: Compact HC

The modular construction of the high efficiency and powerful hot air nozzle dryer is designed to dry any sort of printed and wet textiles, papers, nonwovens and even plastic foils. It may be installed with any kind and brand of screen printing-, coating- and wet application machines.

Characteristics

- Robust industrial design, manufactured with durable high quality materials.
- Modular design for individual adaption and tailor-made dimensioning of capacity needs and overall sizes.
- Optimized interior geometry for high energy efficiency and uniform chamber temperature.
- Self-monitoring and state of the art measuring and regulation techniques.
- Compact outside dimensioning and optional adaptation to local situation needs.
- Operator friendly design in excellent service accessibility.

Compact HC - 4 segments, gas heating

- Optional extension of capacity with adaptation and additional units are possible at any later point of time.
- Optional installation with wet finishing lines and existing lines of any possible brand and make.
- Modular segmented design ready-for-assembly and short installation time.
- Up-to-date stepless parameter regulation technology.
- Nozzle arrangement adaptable to various drying methods.
- Large side doors for easy accessibility.
- Tensionless fabric guiding by an included optional fabric transport system.
- Broad selection of optional dryer types according to any special application technology on the substrate.

Technical data

Available working width		1000 mms to 3400 mms
Heating medium options		steam, thermal oil, hot water, direct gas burner
No. of fabric passages		3 (standard), 1, 2, 5, or 7 (optional)
Operating temperature		90°C to 200°C
Web guiding system		Standard: teflon-coated fibre glass mesh conveyor belt *Optional: contact-free "lay-on-air" nozzle system*
Production speed		4 m/min to 120 m/min
Drying capacity		200 kgs to 1500 kgs of water/ h (depending on the number of drying chambers installed and overall working conditions)

Configuration

- High capacity circulation ventilators with 2-speed AC-drives and nozzles optimized for the heat transfer
- All-around heat insulation lining (120 mm thickness)
- Large inspection doors, removable nozzle elements (pull-out-system) for fast and easy cleaning
- Electronic temperature regulation
- Frequency controlled drive for the exhaust volume

Dryer segment

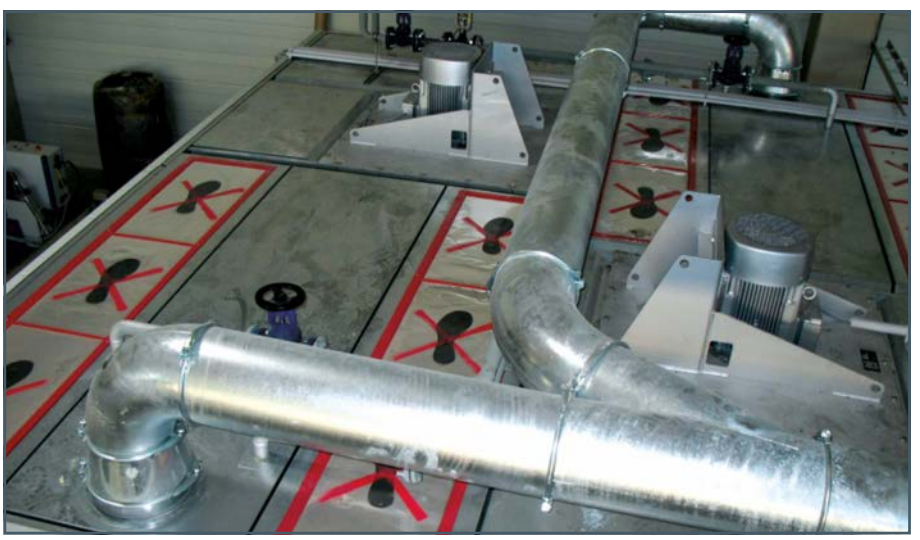
Hot air nozzles

Availability of optional additional units

- Frequency control for the circulation ventilator drives for an optimum performance and utilization of electric energy
- Moisture measuring and control unit of the exhaust air for an optimum utilization of energy. This system guarantees most
- economical utilization of energy and thus a great amount of energy savings
- Conveyor belt cleaning device

  a) Execution for the cleaning of the conveyor belt during printing stops

  b) Execution for the cleaning of the conveyor belt during the production process



Exhaust pipes

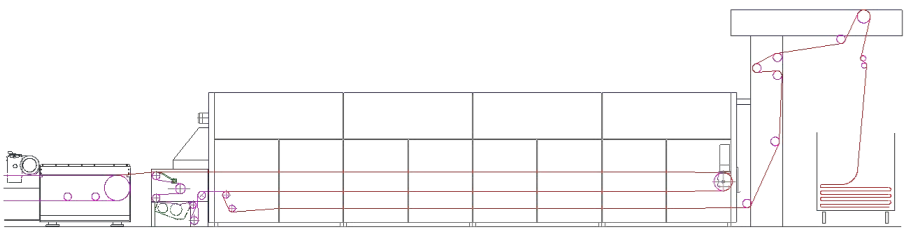
Removable nozzles for easy cleaning

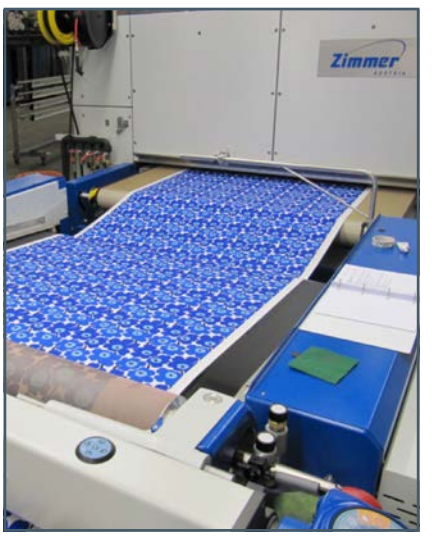
Various options of dryer layout and installation

Optionally available either on ground floor level or elevated on a substructure.

Layout | 1

Universal all-purpose layout with horizontal fabric entry. Dryer on ground floor level. Easy handling and maintenance. For all common fabric qualities like webs, knits, nonwovens, being printed with pigments, reactive dyes, acid dyes, dispersion and others onto products like fashion, apparel, home textile, decorative fabrics and similar. Also for plastic foils and paper.



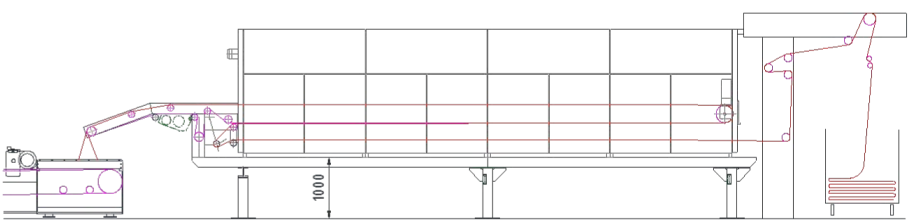


Layout | 1

Layout | 2

Vertical fabric draw-off for good visual control of the fabric. Dryer positioned on a substructure of approx. 100 cms height above ground floor level.

For all kinds of fabrics and dyestuffs according to layout No. 1, and additionally also for flatbet printing machines and flag printing machines.



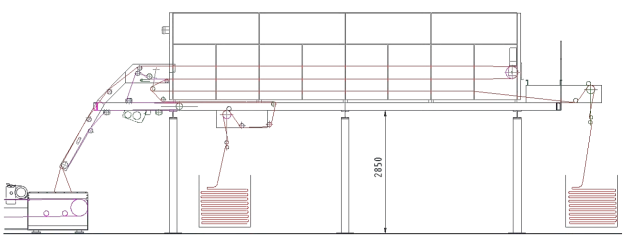
Layout | 2

Various options of dryer layout and installation

Optionally available either on ground floor level or elevated on a substructure.

Layout | 3

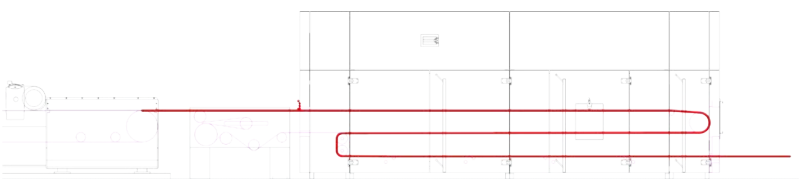
Vertical fabric draw-off for optimum visual control of the fabric. Dryer positioned on a substructure of approx. 280 cms height above ground floor level. Preferred option to achieve a free moving and handling area underneath the dryer. This layout allows the production of heavy materials like terry towels and blankets.



Layout | 3

Layout | 4

The modular construction of this high efficiency hot air dryer is designed to dry especially thick permeable substrates such as printed and wet textiles or nonwovens. The drying technique is based on a hot-air-flow through the substrate. For those kind of substrates the water evaporation capacity can be increased tremendously. This results in a much shorter design on the dryer. It may be installed with any kind and brand of screen printing-, coating- and wet application machines.



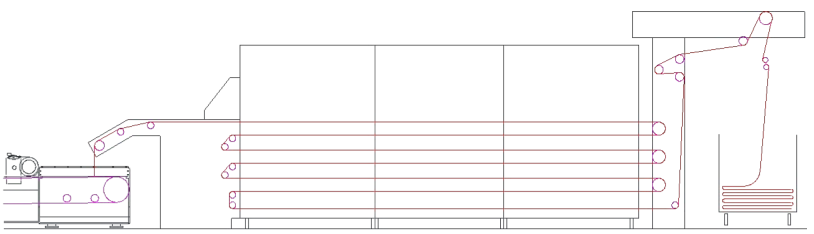
Layout | 4

Various options of dryer layout and installation

Optionally available either on ground floor level or elevated on a substructure.

Layout | 5

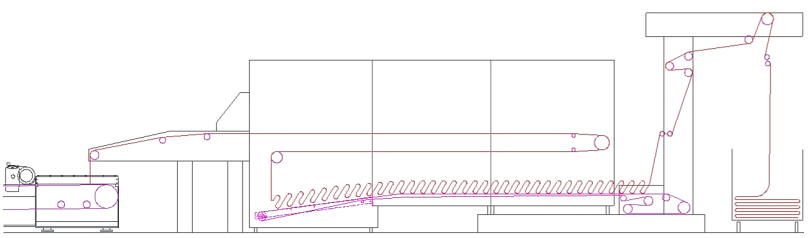
For up to 5 or even 7 fabric passages in order to achieve a longer dwelling time inside of the hot air zone. Drying and fixation of pigments and dispersions can be accomplished within one single working process.



Layout | 5

Layout | 6

Dryer with polymerizing unit included. Suitable for the hot-air-fixation of pigments. The polymerization unit is designed as a curing area within the last (third) fabric passage for a usual dwelling time of approx. 3 minutes. Drying and fixation of pigments can be accomplished within one single working process.



Layout | 6

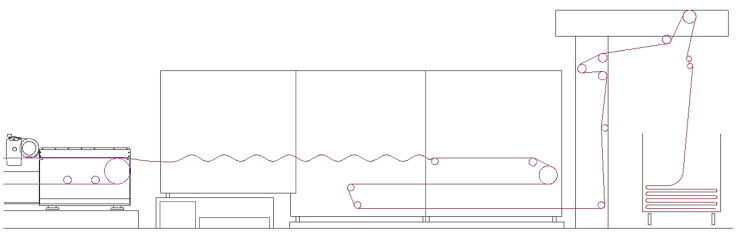
After having passed the drying zone, the fabric is being plaited onto the second conveyor belt moving at very slow speed through the curing zone. The fabric temperature is being controlled simultaneously and any possible deviation will be transmitted to the operator by means of visual and acoustic signals. After having passed the fixation zone, the fabric passes the curing zone with permanent hot-air blowing throughout the necessary dwelling time.

Various options of dryer layout and installation

Optionally available either on ground floor level or elevated on a substructure.

Layout | 7

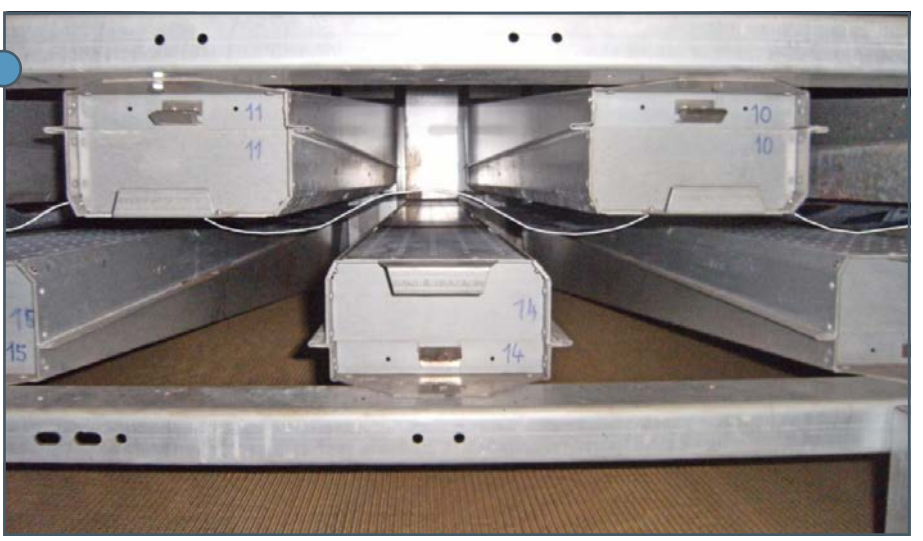
Lay-on-air floating fabric guiding in the entry zone of the dryer. Combined with a conveyor belt for contact free surface drying. Especially developed for fully penetrated fabrics, as for example African Prints.



Layout | 7

Lay on air nozzles

Lay on air nozzles for a contact free surface drying of through penetrated qualities, like flags or African prints, to get no markings and equal colour appearance on both fabric sides. (Pls. see also layout No. 4)



Lay on air nozzles

Fabric exit units

Smooth web guiding for a reliable transport of the fabric into trolleys at a speed of up to 100 m/ min. Equipped with a sensitive tension control unit and easy adaptation to any required working condition. Optional available either plaited and/or rewinding on batches (max. diameter: 200 cms)

Plaiter for single web operation

Plaiter for double-strand operation

Plaiter

Robust high performance AC-Drives, sensitive fabric guiding and antistatic-devices ensure uninterrupted and secure operation. This plaiter is combinable with an optional J-Box and/ or an inspection table for visual control of the printed fabric.

J-Box & re-batching arm

J-Box & re-batching arm

Any cloth exit device may be equipped with a J-box and a re-batching unit. Optionally with surface-drive or central drive. High-performance AC-Drive Technology with stepless speed and tension control. Comes with monitoring equipment for secure operation controls.

Special executions

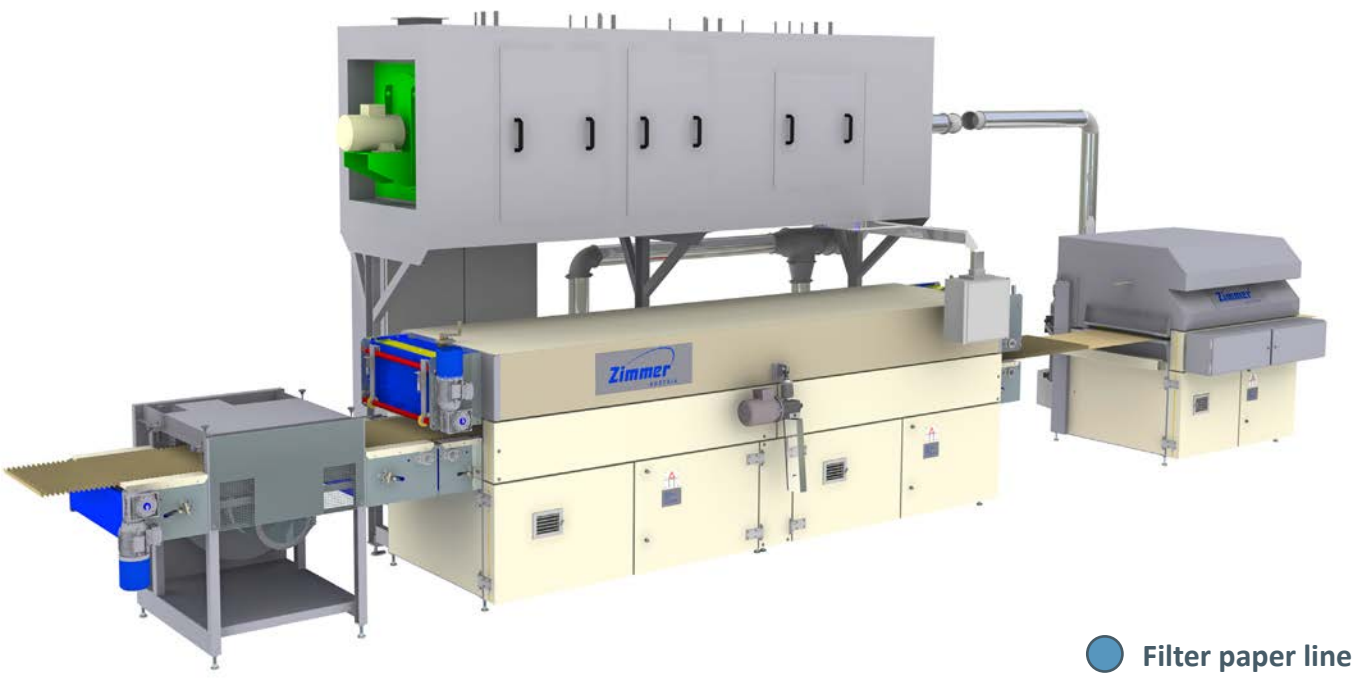
Custom designed high efficiency modules for the heat treatment of textile-, paper-, foils- and many more materials in single and double strand operation of up to 600 mm working width. Heating medium may optionally be gas or electric power. This dryer can also be installed in existing production lines.

Dryer for filter-paper

Filter paper lines and similar related industries

Special dryer for filter-paper with horizontal web passage with modern catalytic low-temperature exhaust air cleaning for the reduction of carbon hydride (according to the clean air act). Usually installed for the production of air filter systems within the automotive industry.

This unit may be opened on the top for easy operation.



Filter paper line

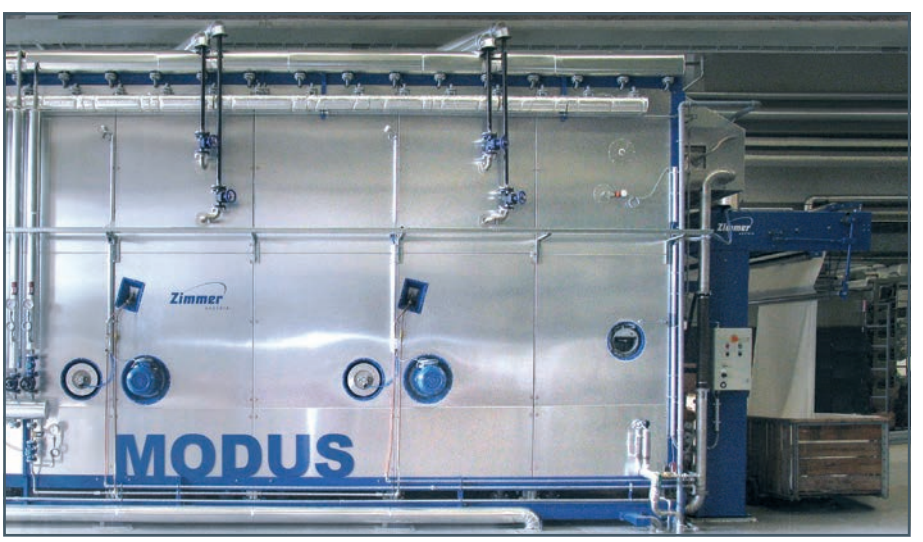
Loop Steamer „Modus“ (pls. see also separate leaflet)

The new Loop Steamer for your textile prints, developed by Zimmer Austria.

The Modus Midi Loop Steamer renders the following applications:

- Saturated Steam Modus (from 102°C to 105°C)
- Superheated Steam Modus (from 160°C to 180°C)
- Hot Air Polymerizing Modus (from 160°C to 180°C)

This steamer for printed textiles has been designed to facilitate the fixation of dyes in a continuous process onto any fabric printed by any type of printing machine available in the market today. The Modus Midi Loop Steamer enables you to obtain excellent quality of finishing results in brilliant colours while saving a lot of energy. A wide range of woven and knitted textile fibres in various weights may be processed. The excellent yield of colours tremendously improves the quality of your textile prints. An increased performance is being achieved even for the production with critical dyestuffs and substrates. This universally usable machine guarantees exactly reproducible temperature and humidity values as well as absolutely tensionless web guiding.



Modus

The daily use is simplified thanks to the computerized control system. Functionality sequences may be controlled continuously on the illuminated touchscreen panel, even during the production cycle. Any possible deviation of data is being detected immediately and corrected accordingly.

Top Quality materials, robust and durable execution, drop-free operation and lowest possible steam consumption ensure trouble-free fabric processing at minimized operating costs.

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PIONEERING INNOVATIONS FOR MORE THAN 135 YEARS

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