

THIEME

THIEME DryTech



Drying System to cure and dry screen printed surfaces

THIEME DryTech Components

The THIEME DryTech is available in nine standard belt widths from 70 cm (27.5") up to 270 cm (106"). Due to its fully modular design, almost every dryer combination is available with either warm-air modules, cold-air modules or UV cold-air modules.

Control Unit

All modules are linked to a master control panel. The easy-to-read display allows for a very simple operation. Optimal drying parameters are achieved by the means of a PLC-control unit.

Conveyor Belt

The conveyor belt is made of a UV-resistant, antistatic and teflon-coated fibre glass mesh. The belt speed is fully programmable and has a digital readout of the actual speed. Smooth and flutter-free sheet transportation will be achieved for an 80 g/m² ("20 lb") sheet A4 size (Letter) and larger.

Inlet Section

The standard 1.2 meter (3.9 ft) inlet section is equipped with a vacuum support for accurate take-over and positioning of the printed sheet. The belt position and tension is easily adjustable without the aid of any tools. Hassle-free connection of the screen printing machine is possible through the built in electrical socket.

Warm-Air Module

The 2-meter (6.6 ft) long warm-air module used for drying solvent-based inks provides an evenly distributed accurate temperature over the entire belt width, controlled by a PID-controller. Special air nozzle positioning provides for a well-dimensioned airflow and creates a fast, even and "textureless" drying process. In addition, the combination of the high volume airflow with a moderate heat assures an efficient and almost distortion-free drying process.



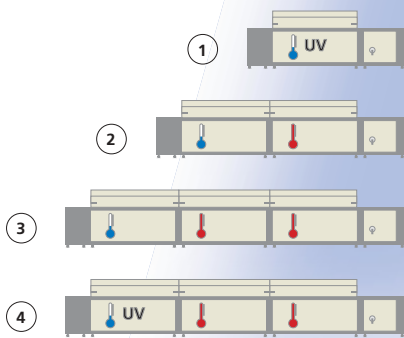
Cold-Air Module

The high efficiency cooling in the 2-meter (6.6 ft) long cold-air module is realized by means of powerful blowers which air feed from ambient or atmospheric air. If a lower exit temperature is required, the module can be equipped with an optional air conditioning unit.

UV Cold-Air Module

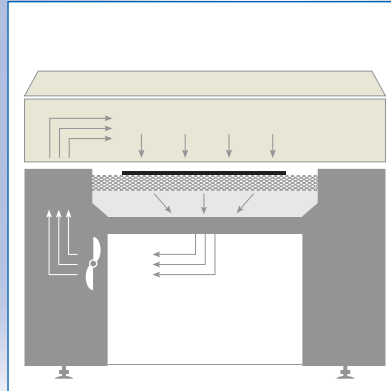
The 2-meter (6.6 ft) long UV cold-air module for drying UV inks utilizes two UV-lamps running

at 120 watts/cm (300 watts/inch) and an integrated cooling zone. Therefore, it is possible to replace a conventional cold-air module with a UV cold-air module of the same length. It is also possible to utilize the UV cold-air module in combination with an inlet and outlet section as a freestanding UV dryer. The UV-lamps run at 120 watts/cm (300 watts/inch) at high power (100%) and at 84 watts/cm (210 watts/inch) at low power (70%). A tremendous decrease of the power consumption, while



Example Configurations of the Dryer Modules

1. Freestanding UV-Dryer (1 UV Cold-Air Module)
2. Forced Air Dryer (1 Warm-Air Module, 1 Cold-Air Module)
3. Forced Air Dryer with double drying rate (2 Warm-Air Modules, 1 Cold-Air Module)
4. Forced Air/UV Combination Dryer with the same overall length as version 3



Air Circulation

- Optimal flow conditions through a universal drying tunnel
- Smooth and flutter-free sheet transportation for an 80 g/m² ("20 lb") sheet in A4 size (Letter) and larger.
- Even temperature distribution
- Low energy costs are achieved through insulation and recirculating the majority of the air inside the warm-air module
- Excellent chilling effect via high air throughput in the cold-air module



UV-Lamp System

- Robust high power reflectors
- Quartz glass filter
- Safe operation through electronically controlled UV-lamps and vacuum supported sheet transport
- Easy access and cleaning
- Minimized power consumption with the optional standby feature (30% lamp power)



experiencing any production irregularities, is possible with an optional standby feature (30% lamp power).

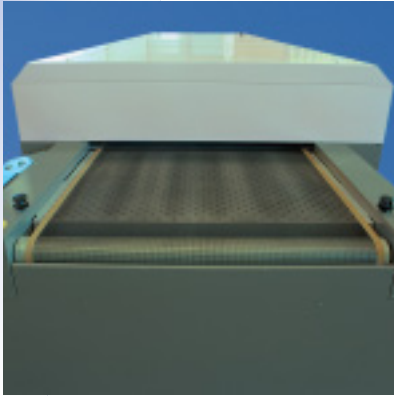
The lamp housing incorporates a quartz glass filter, which separates the lamp cooling air from the substrate. This results in a minimized thermal deformation and stress of the substrate.

Outlet Section

The 0.5-meter (1.6 ft) outlet section contains the belt drive motor. An integrated socket allows the easy connection of a stacker or a vibrating collection system.

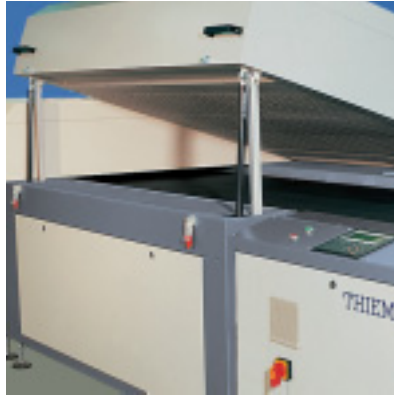
THIEME DryTech can be used for a variety of applications. Machine features are based on the requirements of each individual customer and are governed by the type and composition of substrates and inks used. Please note that the use of substrates and inks that differ from those defined at the time of purchase may influence the performance of the machine.

dry screen printed surfaces



Material Transport

- High quality teflon-coated fibre glass conveyor belt
- Easy belt adjustment through a simple to operate positioning and tensioning device
- Optimal sheet delivery via a fixed positioned guide roller and integrated vacuum support



Ergonomics

- Easy access to all modules via a gas cylinder strut-assisted hood opening
- Fully sound and thermal insulated dryer panels



Operating Panel

- Easy to read operating panel with a generous display dimension and integrated PLC-controller
- Maintenance friendly module connection via a bus-system, which makes a possible upgrade simple and easy





The modular designed THIEME DryTech for drying screen printed surfaces is both comprehensive and versatile. It can be effectively installed in a wide range of graphic and industrial applications.

The DryTech modules can be configured in several combinations:

- Forced Air Dryer
- UV-Dryer
- Forced Air/UV Combination Dryer

Forced Air Dryer characteristics:

- High velocity air
- Economical energy consumption
- Smooth sheet transport
- High precision temperature control

UV-Dryer characteristics:

- High-efficiency reflectors
- Quartz glass filter
- Cool running system
- Energy savings via optional standby feature

THIEME DryTech – It's more than hot air!

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