

LABDRYER TYPE «LTE»

DRYING AND SETTING MATERIAL SAMPLES

EFFICIENT APPLICATION

Owing to its minimal space requirement and simple operation, the Labdryer type «LTE» can be used both in mill laboratories and in research institutes.



POSSIBLE APPLICATIONS

The «LTE» is used anywhere that textiles, nonwovens, foils or papers are thermally treated.

The «LTE» is used for the following operating procedures:

- Drying, setting and thermolising at temperatures up to 250 °C.

SCOPES OF APPLICATION

The scopes of application of the «LTE» are the textiles industry, the pharmaceutical industry, foil and paper manufacturers, but also research institutes and development departments of most branches.

DRYING IN CONTROLLED HOT AIR

Preparing of samples

The material samples treated with the «2-Roll Padder type HVF» with a maximum size of 33 × 43 cm are fixed on the appropriate material holder. The material holder is mounted in the transport frame.

Process flow

The necessary process parameters such as dwell time, temperature and fan speed are entered at the «Univision Touch S» of the process controller.

The start button is pressed, the transport frame moves into the treatment room and the process is thus started. At the end of the process the transport frame moves out automatically.



«LTE» Drying with controlled hot air up to 250 °C / 300 °C

HEART OF THE «LTE» – THE TREATMENT CHAMBER

An efficient circulation fan, combined with heating at an ideal setting, enables the heat treatment of various materials in controlled hot air.

A regulating flap is placed in the air channel and can be set in such a way to achieve even or variable ventilation of the upper and lower sections.

The temperature control is based on the resistance measurement. To achieve a precise temperature measurement, the sensor is attached just in front of the air outlet.

An additional temperature sensor acquires the temperature of the heating element and protects this against overheating.

The heating is dimensioned so that the required drying temperature is reached and maintained quickly.

OPTIONAL, PROCESS-ORIENTATED ADD-ON COMPONENTS

Exhaust fan

Special exhaust fans for the application in heat treatments with powerful air load are available.

Infrared radiation pyrometer

For the contactless measuring of the material sample surface temperature.

The IR radiation pyrometer enables the exact and current determination of the surface temperature and from this the resulting

residual moisture. Its emission factor can be adapted individually to the sample to be treated via the «UNIVISION Touch S» process controller.

Material holders in various designs

Material holders such as pin frames adjustable in length and width, pin frames adjustable in length, foil frames and sieve frames are available for standard sample sizes.

Automatic positioning device for the regulating flaps

The regulating flap in the air channel can be adjusted by an electric motor.

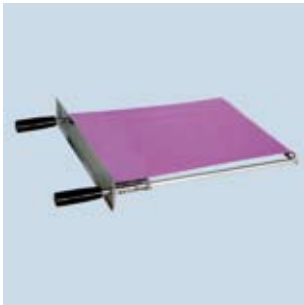
The advantage is better air and temperature distribution as well as easier reproducibility of the settings chosen.



Additional process-oriented components, mounted on the «LTE» cover



MATERIAL HOLDER



Pin frame, length adjustable
«NR-L»

Material holder for woven goods and materials that is dimensionally stable.

Sample size: max. 33 x 43 cm



Paper and Foil frame, length adjustable
«FR-L»

Material holder for release paper, foils, fleece etc.

Sample size: max. 33 x 43 cm



Pin frame, length and width adjustable
«NR-L+B»

Material holder for knitted goods and materials that is not dimensionally stable.

Sample size: max. 33 x 43 cm



Sieve frame «SR»

The sieve frame with a removable upper part is useful for the insertion of loose items.

Sample size: max. 30 x 35 cm



«UNIVISION TOUCH S» – THE USER-FRIENDLY PROCESS CONTROLLER

The programmable «UNIVISION Touch S» process controller is optimally adapted to the requirements of its user and to the functionality of the «LTE». It is very simple in operation, thanks to:

- Clearly laid out graphic illustration of the process with all functions.
- Simple and easily remembered function pictograms.
- Menu-driven parameter entry.
- Updating and display of all process data during the operation.
- Information displays (error and fault displays) in plain text.
- Call up of a comprehensive help.
- Update-capable software.
- Import and export of process data to other «UNIVISION Touch S» or to PC.

The «LTE» in combination with the «UNIVISION Touch S» is ready for the present as well as future processes in your business.

OPTIONAL FUNCTIONS OF THE «UNIVISION TOUCH S»

Process programmer

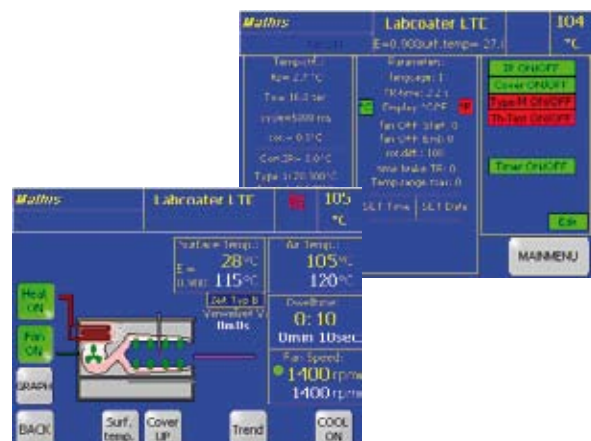
Recurring processes consisting of several treatment intervals can be saved and recalled when required.

Day and week programmer

Not only recurring individual processes, but also complete day and week programs can be predefined and started. For example, the «LTE» can already be preheated at the start of the week before work begins.

Process control using PC

It is possible to connect the «UNIVISION Touch S» with a LAN network using Interface RS232C or Ethernet Interface TCP/IP connection. Process data as well as complete programs are thus created centrally and transferred to the «UNIVISION Touch S». Even a running process can be changed this way. Over a connected PC e.g. reports of the processes of the «UNIVISION Touch S» can be created for ISO 9001.



«UNIVISION TOUCH S» the clear, user-friendly process controller

OTHER DOCUMENTATION

LABCOATER type «LTE-S»

Laboratory hot air oven type «LTH»

2-Roll Padder type «HVF»

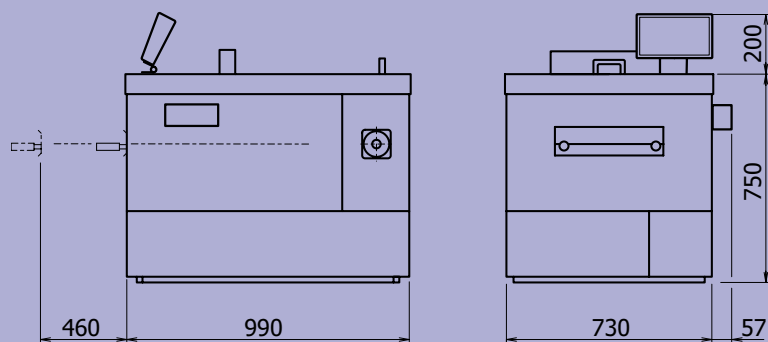
Continuous dryer type «KTF» / «TH» / «THS»

TECHNICAL INFORMATION

Sample size for heat treatment:	max. 33 x 43 cm
Temperature range:	up to 250 °C (300 °C)
Dwell times:	3 s – 999 min
Circulation air quantity:	up to 1000 m ³ /h
Exhaust air quantity:	up to 50 m ³ /h
Heat capacity:	~7.2 kW
Weight:	~260 kg

«UNIVISION Touch S»

Operating system:	Windows CE
Storage capacity:	16 MB RAM
Touchscreen:	5.7" TFT
Interfaces:	TCP/IP connection (Ethernet Interface), USB

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