



Techne offer the most comprehensive range of liquid baths on the market with a choice of four different temperature controllers and five stainless steel baths with a capacity from 8 to 48 litres.

Open Liquid Calibration Baths

Twenty different combinations of bath offer temperature management over the range of -40°C^* to $+200^{\circ}\text{C}$ to suit most laboratory calibration applications.

Each model has a rugged splash proof case, with all submerged parts being made from stainless steel or high temperature engineering plastic. Powerful pressure circulation pumps with external circulation connections are fitted as standard on all models (excluding the TU-20HT).

Inlet and outlet pipes at the rear of the controller can be used for external circulation to control the temperature of other apparatus or sealed for circulation within the bath itself. (excluding the TU-20HT).

The baths are also suitable for below ambient temperature applications with a cooling coil (optional extra) or with a Dip or Flow Cooler, for temperatures down to -35°C , please see page 16 or contact our Sales Office for further information.

The software package 'Thermsoft' is available as an accessory with the TU-20D and standard with the TU-20HT allowing the user to program via a PC, temperature, ramp rates and hold time. Control packs for refrigeration units and cooling coils allow for programmed rates of cooling.

Portable Thermoregulators Inventors of the “Clip On” thermoregulator in 1948, Techne now offer four new “Clip On” units. These new thermoregulators will convert your existing liquid bath or container into a precision temperature controlled bath with an exceptional thermal performance and offer a full range of options such as external circulation, analogue or digital set/readout, high pump output and RS232 interface.



Stability $\pm 0.01^{\circ}\text{C}$

TE-10A

The Tempette® clip-on thermoregulator offers a temperature range of -20°C^* to $+95^{\circ}\text{C}$ covering most routine laboratory calibration applications. A circulating pump with external circulation connections is standard, as is an adjustable over temperature cut-out.



Stability $\pm 0.01^{\circ}\text{C}$

TE-10D

This Tempunit® offers a temperature range of between

-40°C^* to $+120^{\circ}\text{C}$. There is a digital temperature selector, circulating pump with external circulation connections, adjustable over temperature cut-out and low liquid level cut-out.



Stability $\pm 0.005^{\circ}\text{C}$

TU-20D

A wide temperature range of -40°C^* to $+200^{\circ}\text{C}$ can be digitally selected with this model of the Tempunit®. This unit incorporates the additional feature of RS232 connection.

* Cooling water or refrigeration is required for below ambient temperatures.

Portable Thermoregulators cont.



Stability $\pm 0.005^{\circ}\text{C}$

TU-20HT

This Tempunit covers the temperature range -40°C* to +250°C, is designed for internal circulation only and has an audible alarm fitted. Features RS232 connection and Thermsoft Software package and lead as standard.

TECHNICAL DATA

Specifications to DIN 58966

	TE-10A	TE-10D	TU-20D	TU-20HT
Temperature range °C*	-20 to +95	-40 to +120	-40 to +200	-40 to +250
Temperature selection	analogue	digital	digital	digital
Temperature stability using water @ 40°C (°C)	± 0.01	± 0.01	± 0.005	± 0.005
Pump capacity litres/minute Flow	10	10	10	N/A Internal Circulation Only
Pump capacity (mbar)	145	145	145	-
Method of control	Proportional	PID	PID	PID
Temperature sensor	Thermistor	PRT	PRT	PRT
Adjustable over-temperature cut-out	Yes	Yes	Yes	Yes
Low liquid level cut-out	Yes	Yes	Yes	Yes
PC Interface	No	No	Yes RS232	Yes RS232
Cooling coil	option	option	option	option

Dimensions (mm)

Extension below base	145	145	145	145
Overall size (lxxwxh)	237x124x260	237x124x260	237x124x260	237x124x260
Thermsoft software package	No	No	Accessory	Standard

* Refrigeration or cooling coil required for below ambient cooling (see page 16 – for Techne Flow Coolers and Dip Coolers).

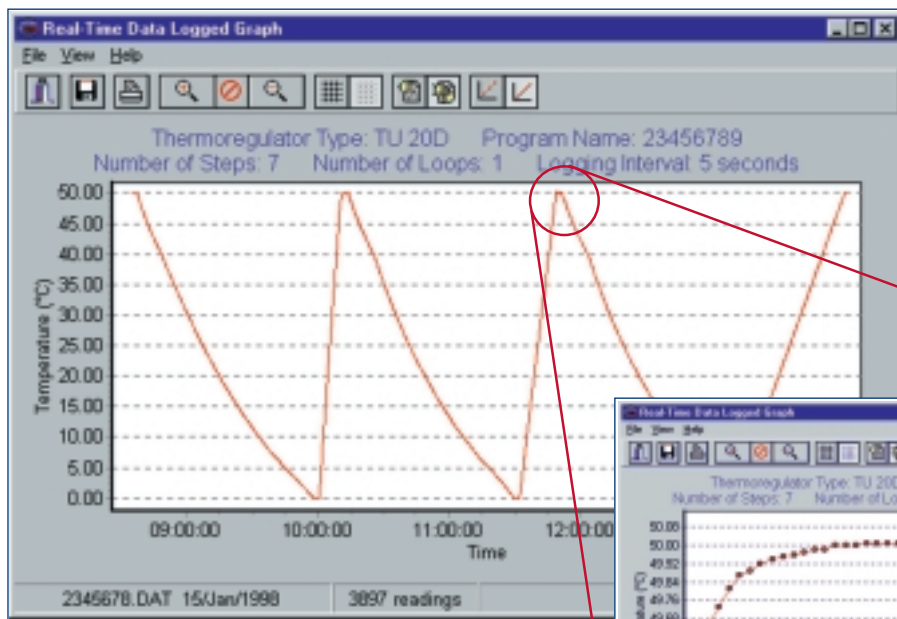
Note: LCB baths fitted with TU-20HT are not suitable for use with Dip/Flow Cooler.

UNHEATED BATHS SPECIFICATIONS

SPECIFICATIONS	8 LITRE	12 LITRE	18 LITRE	26 LITRE	48 LITRE
Overall size lxxwxh (mm)	265x325x172	354x325x172	530x325x172	530x325x222	594x365x298
Top of bath to liquid level max depth (mm)	65	65	65	65	65
Internal dimensions lxxwxh (mm)	240x300x150	329x300x150	505x300x150	505x300x200	559x330x274
Working length to thermoregulator (mm)	115	205	380	380	430
Working depth-max/min (mm)	130/100	130/100	130/100	180/150	255/224
Working capacity-max/min (litres)	8.0/6.0	11.6/8.4	18.0/13.2	26.0/20.5	48.5/42.5

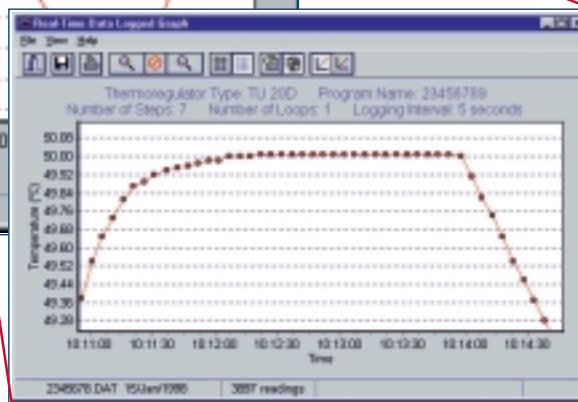
Maximum working temperature 200°C. For temperatures up to 250°C we recommend the use of the LCB range of baths.

Thermsoft has been designed for use with Tempunit® models TU-20D and TU-20HT control units and thermostatic baths.



Screen 1

Shows step 7 of 7-step program with a single loop (runs program twice). Step 7 has a ramp speed of 1.0°C/min to a set point of 80°C. Using a Techne refrigeration unit in conjunction with a refrigeration/water control pack the control unit can be programmed to operate over a range of -40°C to 100°C (250°C without cooler).



Thermsoft is a windows based program that connects via an RS232 connection to your computer.

Programs can be created, saved and recalled at any time as well as running in real time mode, time, temperature and ramp rates can all be set up.

Temperatures can be set to two decimal places using Thermsoft (ie. 250.00°C)

Temperatures within the range of -40°C* to 250°C can be programmed. Cooling coils and refrigeration units are available for connection to the system and controlled via Thermsoft.

NOTE: The minimum temperature of the TU-20HT when used with an LCB bath is ambient +10°C or +10°C with CH-5 Chiller

Thermsoft enables you to:

- Create, open, save and print programs
- Open, save, print and view logged data as a line graph
- Open, print and view logged data in a text format
- Create calibration certificates
- Run a program in real time mode
- Send programs to the thermostatic bath
- Retrieve programs from the thermostatic bath
- Retrieve test results from the thermostatic bath
- Erase test results
- Password protect
- Obtain full on-line help

Screen 2

Typical logged data from a programmed run. Ability to zoom in on any area of the graph. Clicking on any point will display the reading number, the temperature and time reading was taken.

* (the ability to reach -40°C is application dependent)



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



UK Office

Keison Products,

P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.

Tel: +44 (0)330 088 0560

Fax: +44 (0)1245 808399

Email: sales@keison.co.uk

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.