

# LabX

## — Reasons to — UPGRADE

### HUBER HIGH PRECISION THERMOREGULATION

The new line of Unistat® dynamic temperature control systems

In comparison to other thermal control systems, Unistats differ considerably in their thermodynamic characteristics. In practice, Unistats offer definite advantages in your work: noticeably shorter heating and cooling times, better stability and reproducibility through the entire process chain, greater safety for expensive glass reactors and the contained substances, together with simple and easy operation.



The new Unistat range offers temperature control solutions from the smallest process up to production volumes with temperatures from -125 °C up to +425 °C and cooling capacities from 0.7 to 130 kW.

The range offers over 60 models, in sleek tower housings, or flat-build, for flexible scale-up in Research, Kilolabs, Miniplant, Pilot-Plant, and Production.

While the Unistats grow with the application, their operation and the Unistat principle remain the same.

## — Unistat — ADVANTAGES

1

### Process Safety

Unistats provide an option to allow the circulation pump and compressor to continue to work despite an over temperature trip. This allows controlled heat removal and protects your thermally controlled products from being destroyed.

10

### Heat Transfer

Powerful circulation pumps and a large hose cross section ensure maximum flow rates and optimum heat transfer.

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### De-Gassing

Unistats only require de-gassing after each application set up. As a result uncontrolled conditions during normal operation will be minimised.

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### Space Saving Design

Unistats have a compact design requiring little space. The power to volume ratio (Watts/cm<sup>3</sup>) according to DIN 12876 documents the extremely small space requirement of the Unistats.

3

### Hydraulically Sealed

Volume changes due to fluid temperature fluctuations are equalised by the expansion vessel. The fluid in the expansion vessel hydraulically seals the fluid circuit and prevents early Oxidation.

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### Power/Volume

Unistats have a high power to volume ration (Watts/Litre). In practice, Unistats offer a very high speed of temperature change in the region of several hundreds of Kelvin per hour.

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### Touchscreen Colour Display

The large, graphic touchscreen aids operation and shows convenient display of temperature runs directly on the machine. Therefore essential application parameters are always in view.

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### Pressure Control

The pressure control VPC continuously monitors the pressure in the connected application and therefore protects the sensitive glass reactor from breakage.

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### Data-Communication

Unistats offer numerous possibilities for data communication. RS232, Ethernet and USB interfaces are fitted as standard, as well as arious analogue interfaces.

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### Temperature Control

The intelligent temperature control TAC analyses the controlled fluid circuit continuously, and adjusts the control parameters automatically. The result is the best control results even with difficult applications.

**Unistats® should not be compared to conventional technology.  
Thermodynamically there is no alternative.**