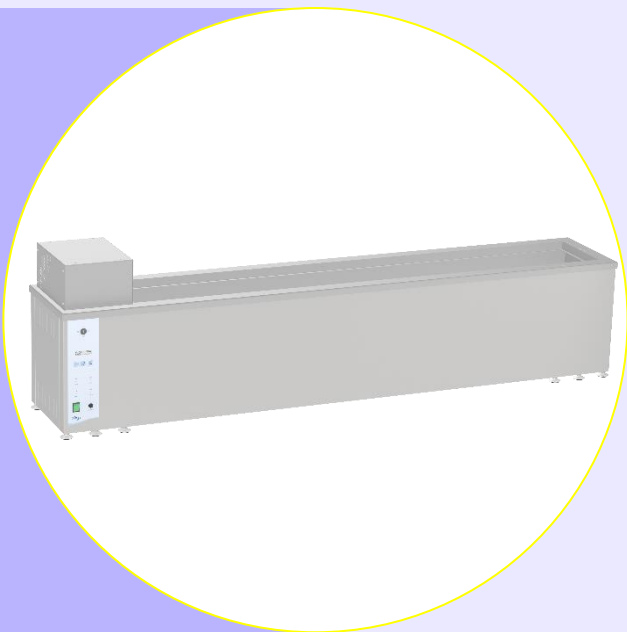


### Specifications T17000



- ⊕ Stainless steel inner bath
- ⊕ High precision stability
- ⊕ Easy to operate
- ⊕ RS232 communication
- ⊕ Drain and overflow outlet

#### General

Tamson T17000 thermostatic bath is specially designed for tests that require ultra-precise temperature control and when a large bath opening is required. The bath has a volume of 170 Litres.

One of the applications is to use the T17000 as a diffusion bath for making dynamic gas mixtures with volatile organic components. Another application is to place stirrers on the edge of the bath to heat various cups with samples at the required temperature. The bath can also be used to simultaneously do various tests, because of its large opening.

#### Construction

The stainless steel construction ensures an exceptionally stable bath temperature which is further improved by an ingenious stirring mechanism with baffle plates. All wetted parts are made from stainless steel, providing resistance against all usual bath fluids. The bath is fitted with adjustable feet for levelling. To work at temperatures below ambient, use of cooling must be made.

| Item                          | Unit  | T17000                              |     |
|-------------------------------|-------|-------------------------------------|-----|
| P/N<br>230V/50~60Hz           |       | 00T0731                             |     |
| P/N<br>115V/60Hz              |       | 00T0732                             |     |
| Power                         | [kW]  | 2.9                                 | 2.9 |
| Heating                       | [kW]  | 2.8                                 | 2.8 |
| Used materials<br>inside bath |       | Stainless steel, brass bearings     |     |
| Range                         |       | Ambient..150°C<br>Ambient..248°F    |     |
| Reading                       |       | °C or °F                            |     |
| Setting ±                     | [°]   | 0.01                                |     |
| Stability ±                   | @50°C | 0.005°C Water                       |     |
| Bath volume                   | [L]   | 170                                 |     |
| Top lid                       |       | Included                            |     |
| Opening bath                  | [mm]  | 243 * 1768 (effective use)          |     |
| Depth                         | [mm]  | 310                                 |     |
| Length                        | [mm]  | 358                                 |     |
| Width                         | [mm]  | 2067                                |     |
| Height                        | [mm]  | 583                                 |     |
| Weight                        | [kg]  | 87                                  |     |
| CE                            |       | All models conform to CE regulation |     |

Cooling fluid can be pumped through the cooling coil inside the apparatus. Tap water or a combination with the external Tamson TLC15-5 cooling circulators can be used for this purpose.

#### Agitation

A vane type stirrer with brass bearings moves the bath fluid past the heaters and then from under the main baffle plate, thus directing the freshly heated bath fluid to the walls as well as other areas and is creating an optimal temperature uniformity inside the bath.

#### Span

The bath can be operated from ambient +5°C up to +150°C (41..302°F). With the use of the built-in cooling coil, span lies 5°C above the temperature of the cooling liquid.

#### Accuracy and set point

The set point can be set in steps of 0.01°. The system overall accuracy is within ± 0.01°C. Please see the graphs for more details. After the temperature control is stable, the offset can even be adjusted with ± 0.005°C.

### Specifications T17000

#### Safety

The bath conforms to CE regulations. It also is equipped with a mechanical adjustable and resettable safety thermostat. Advanced safety features are microprocessor control of:

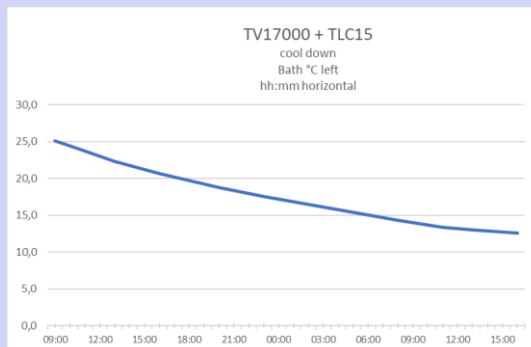
- Electronic- and processor system,
- Control and feedback from each heating,
- System accuracy.

System error results in total cut-off from the power supply.

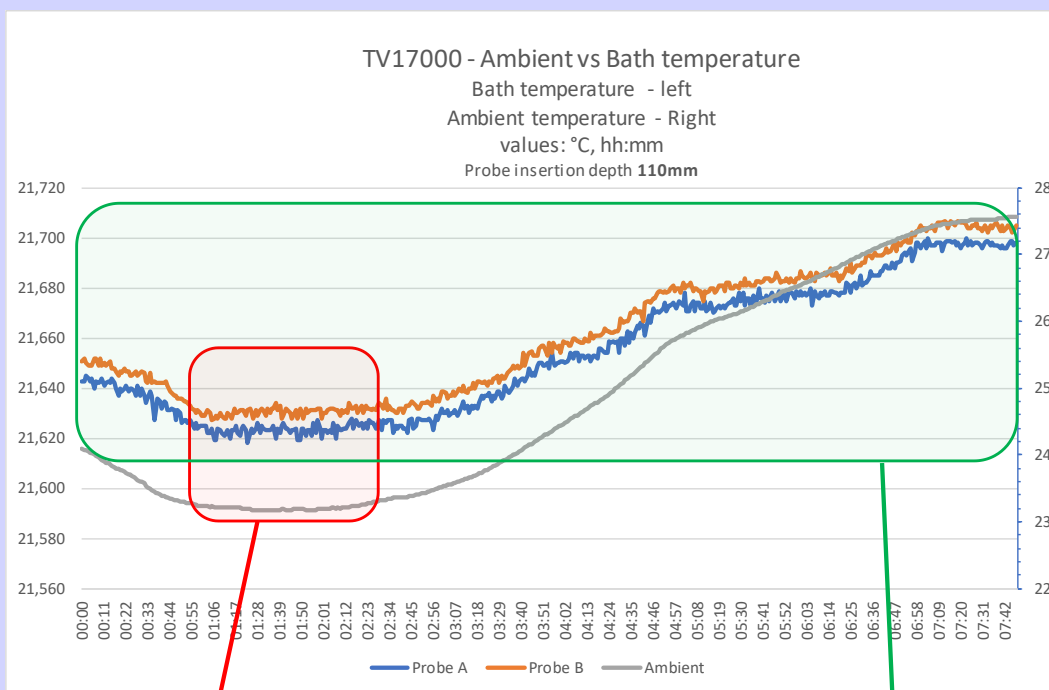
#### Optional equipment

See below.

#### Cooling down with TLC15-5, ambient @ 25°C



#### Temperature stability versus ambient drift.


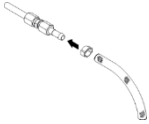


| Stability when ambient $\Delta < 0,2^\circ\text{C}$ |          |          |           |
|---|----------|----------|-----------|
|   | Probe A  | Probe B  | Ambient   |
| Max   | 21,628   | 21,636   | 23,344 °C |
| Min   | 21,618   | 21,628   | 23,168 °C |
| $\Delta$  | 0,010    | 0,008    | 0,176 °C  |
| $\pm$   | 0,005    | 0,004    | 0,088 °C  |
| stdev   | 0,002156 | 0,001664 | 0,0437 °C |
| Duration  | 01:28    |          | [hh:mm]   |

| Stability over 7:42 hrs |         |         |           |
|-------------------------|---------|---------|-----------|
|                         | Probe A | Probe B | Ambient   |
| Max                     | 21,700  | 21,707  | 27,573 °C |
| Min                     | 21,618  | 21,627  | 23,168 °C |
| $\Delta$                | 0,082   | 0,080   | 4,405 °C  |
| $\pm$                   | 00:59   | 00:57   | 2,203 °C  |
| stdev                   | 00:38   | 00:37   | °C        |
| Duration                | 07:48   |         | hh:mm     |

# Tamson Instruments

## Specification sheet

| Accessories |   |   |
|-------------|---|---|
| P/N         | Picture   | Description   |
| 00T0565     |  | Cooling circulator TLC15-5 - 230V/50Hz                                      |
| 00T0567     |   | Cooling circulator TLC15-5 - 230V/60Hz                                      |
| 00T0570     |   | Cooling circulator TLC15-5 - 115V/60Hz                                      |
| 12T1075     |  | Tubing with connectors and clamps to be used between a TLC15-5 and a T17000 |

# T17000