



Programmable thermo-shaker

TS-100C Pro



TS-100C Pro

Programmable heating and cooling thermo-shaker designed for repeatable sample preparation

From extraction to reaction.

The proven TS-100C platform combines precise temperature control, high-speed mixing, interchangeable thermoblocks and an optional heated lid in one compact platform, reducing manual handling and the need to move samples between instruments.



TS-100C Pro specifications

Temperature setting	+4...+100°C*
Control range	Ambient -15...+100°C
Stability at +37°C	±0.1°C
Setting resolution	0.1°C
Above-ambient heating speed	up to ~10.7°C/min**
Below-ambient cooling speed	up to ~4.1°C/min**
Mixing speed	250-2500 rpm*
Speed resolution	1 rpm
Orbit diameter	2 mm
Time setting	1 min-168 h
Display	3.5" TFT touchscreen, 320×480 px
PC connection	USB-C tether
Dimensions	220×240×150 mm
Weight	5.2 kg (±10%)
Unit input/consumption	12 V DC, 11.5 A / 138 W
External PSU input	100-240 V AC, 50-60 Hz

* Depends on the selected thermoblock. | ** Empty-block test value; actual performance varies with load and conditions.

A clear step beyond TS-100C

- **Efficient mixing and controlled temperature handling**

Maximum speed of 2500 RPM and faster block heat-up/cool-down speeds. Selectable 3 temperature-rate modes help users to match settings to the protocol. The optional heated lid minimises condensation and improves thermal stability when installed.

- **Accessible Pro-level platform**

Advanced programming, user management, traceability and guided operation combined in a platform that is practical for laboratories to understand, operate and maintain.

- **Modern touchscreen**

Easy to set parameters according to your protocol needs. Set and actual parameters will always be visible on the main screen. Each user can now save their most-used settings in multi-step programmes or single-step presets.

- **Smart accessory ecosystem**

Quick-change blocks, an optional heated lid with automatic block/lid recognition, support flexible setup. Selected TS-100C blocks remain compatible, subject to block-specific speed limits.

Applications suitable for TS-100C Pro

DNA/RNA sample preparation	Supports high-speed thermal lysis before DNA purification.
Enzyme reactions	Supports controlled enzyme-substrate mixing for activity and hydrolysis assays.
PCR & microplate incubation	Use the heated lid to limit condensation, optimise heat distribution, and improve the environment for samples.
Protein & immunoassay workflows	Control incubation, resuspension and precipitation steps. The lid protects samples from light exposure when needed.
NGS library preparation	Support repeatable mixing, bead resuspension, incubation and clean-up steps.
Metabolite extraction	Increase sample-solvent contact with high-intensity orbital mixing. Lid is used when operating with light-sensitive samples.



Interchangeable thermoblocks and new easy exchange mechanism



TSP-8/5

5 ml
conical tubes

Max. Temp.: 100
Max. RPM: 1200



TSP-8/15

15 ml
conical tubes

Max. Temp.: 80
Max. RPM: 1100



TSP-4/50

50 ml
conical tubes

Max. Temp.: 80
Max. RPM: 1000



TSP-20/RB12

Ø12 mm round
bottom tubes

Max. Temp.: 100
Max. RPM: 1400



TSP-20/0.5+12/1.5

Both 0.5 ml
and 1.5 ml tubes

Max. Temp.: 100
Max. RPM: 2500



TSP-20/0.2+12/1.5

Both 0.2 ml
and 1.5 ml tubes

Max. Temp.: 100
Max. RPM: 2500



TSP-32/0.5

0.5 ml tubes

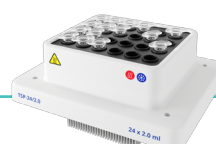
Max. Temp.: 100
Max. RPM: 2500



TSP-24/1.5

1.5 ml tubes

Max. Temp.: 100
Max. RPM: 2500



TSP-24/2.0

2 ml tubes

Max. Temp.: 100
Max. RPM: 2500



TSP-96/PCR

Non-skirted and semi-skirted
PCR plates, 0.2 ml strips & tubes

Max. Temp.: 100
Max. RPM: 2500



TSP-20/CV10

10 mm square
cuvettes

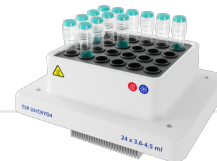
Max. Temp.: 80
Max. RPM: 1100



TSP-24/CRYO1.8

1–1.8 ml
cryotubes

Max. Temp.: 100
Max. RPM: 1400



TSP-24/CRYO4

3.6–4.5 ml
cryotubes

Max. Temp.: 100
Max. RPM: 1300



**Block compatible
with Heated lid**





No PC required

Set parameters, create and load presets, monitor runs and manage users on-device.



Set up & run

- Top information panel – shows date and time, current user profile, any errors and block information.
- Clear run dashboard – set and actual temperature, speed, time and run state remain visible together on screen.
- Quick features are easily accessible on screen – whether Quick Mix is needed or lid heating, screen lock/unlock.
- Guided parameter entry – use the touchscreen keypad to set desired parameters and see temperature or speed modes.
- Accessory recognition and automatic limits – permitted temperature and speed ranges follow selected accessory.

Save, share & connect

- On-device presets – create and add routine settings directly from the touchscreen.
- Complex workflows – construct multi-step programs with up to 20 steps including holds, repeats and transitions.
- User profiles – organise individualised operations in shared laboratories.
- System information – view firmware version and motor runtime on screen.
- Optional PC connection – use the USB-C tether for supported PC workflows when needed; standalone operation remains complete.



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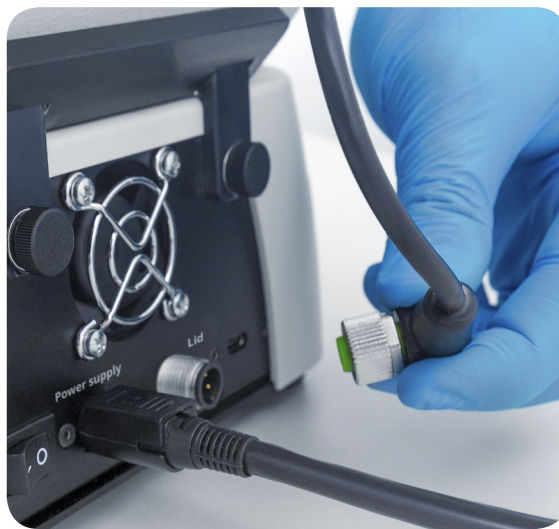
Optional heated lid

Condensation control and improved thermal performance



Quick benefits:

- When installed, the user can choose to switch the heated lid on or off.
- Lid helps to prevent condensation at tube caps and plate seals and reduces evaporative loss during small-volume and prolonged high-temperature work.
- In testing, the heated lid improved accuracy at +37°C and +100°C and provides a more stable environment for samples.
- In-sample +25 → +100°C heating improved from 4.4 °C/min (TS-100C) to 5.3°C/min in the tested setup.
- Especially useful for PCR plates and microtubes in condensation-sensitive workflows.
- Heated lid can also be used in workflows with light-blocking needs.



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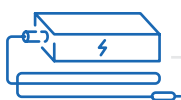
What's included & Accessories



Included in a set



TS-100C Pro



Power supply



Instructions

Optional accessories



13 blocks



Heated lid

Ordering information

Model	Description	Catalog No.
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Main Units

TS-100C Pro	Programmable thermo-shaker with cooling for various tubes and PCR plates	BS-010178-A01
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Optional Accessories (To be purchased separately):

Heated lid	Heated cover for supported thermoblocks	BS-010178-NK
TSP-96/PCR	1 × 96-well PCR plate, 12 × 0.2 ml strips or 96 × 0.2 ml tubes	BS-010178-HK
TSP-20/0.5+12/1.5	20 × 0.5 ml + 12 × 1.5 ml microtubes	BS-010178-MK
TSP-20/0.2+12/1.5	20 × 0.2 ml + 12 × 1.5 ml microtubes	BS-010178-LK
TSP-32/0.5	32 × 0.5 ml microtubes	BS-010178-EK
TSP-24/1.5	24 × 1.5 ml microtubes	BS-010178-KK
TSP-24/2.0	24 × 2.0 ml microtubes	BS-010178-JK
TSP-24/CRYO1.8	24 × 1–1.8 ml cryotubes	BS-010178-BK
TSP-24/CRYO4	24 × 3.6–4.5 ml cryotubes	BS-010178-CK
TSP-20/RB12	20 × Ø12 mm round-bottom tubes	BS-010178-AK
TSP-20/CV10	20 × 10 mm cuvettes	BS-010178-DK
TSP-8/5	8 × 5 ml conical tubes	BS-010178-IK
TSP-8/15	8 × 15 ml conical tubes	BS-010178-FK
TSP-4/50	4 × 50 ml conical tubes	BS-010178-GK

Interchangeable thermoblocks



**High quality customer
service and fast support**



**Partners in over
150 countries**



**Wide selection of spare
parts for sustainable use**



**Developed and
manufactured in Latvia**

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