

A PERFECT SEAL - EVERY TIME!

The 4s² is a semi-automatic thermal sealer which is compatible with a wide range of seals and plates of differing designs and heights.

With variable temperature and time settings, sealing conditions are easily optimised to produce a 100% seal, eliminating sample loss.

Plate and seal are placed on the holder and once the draw is pushed closed, the sealing process is automatically controlled by an electric mechanism. This unique feature eliminates operator variation, giving a consistent seal every time and reducing the damage caused to microplates by over-sealing.

Features and Benefits

- Automatic sealing process for unmatched sealing consistency
- Selectable temperature and time settings for easy optimisation of sealing conditions
- Single action operation - closing the draw initiates the process
- Rapid heating element for fast start-up
- Real time temperature display
- Auto stand-by function to save energy
- Auto switch-off function for added safety
- Works with all plate types
- Full range of thermal seals available.

Technical Data

- **Weight:** 9kg
- **Dimensions:** H 310 x D275 x W 181mm
- **Voltage:** 110/230V
- **Power:** 300W
- **Sealing Temp.** 120-200°C



Code Pack Size/Dimensions

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|-----------------|---|
| 4ti-0650 | 4s ² thermal sealer incl. universal power supply, power cord, manual, standard plate adapter (4ti-0615) and seal platen (4ti-0602) |
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Sealing Accessories and Tools

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|------------------|---|
| 4ti-0615* | Adapter for deep-well and 384well plates |
| 4ti-0616 | Adapter for Roche 1536well PCR plate |
| 4ti-0602* | Weighted seal platen to hold down sealing sheets that have a tendency to curl |
| 4ti-0625 | Adapter for 96well PCR plates, includes sealing frame (4ti-0612) |
| 4ti-0612 | Sealing frame for use with 4ti-0625 adapter |

* These items are included with the 4s² thermal sealer

Plate Sealing

Real Time Display

The rapid heating element allows for a quick start up within minutes. The temperature is displayed in real time so that the heating up process can be monitored.

Energy Saving Functions

When the unit is left idle it automatically switches into stand-by mode during which the temperature of the heating element is reduced to 60°C to save energy. When the sealer is left idle for longer periods it switches off automatically for added safety. The times at which the unit switches into stand-by and switch-off modes can be adjusted to suit the user's needs.

Adapters and Sealing Aids

The 4s² employs a unique and cost saving adapter system. Deep-well plates and most other skirted plates can be sealed on the standard plate carrier (4ti-0615, supplied with the unit). For all 96well PCR plates an additional plate carrier (4ti-0625, optional extra) must be used. Both plate carriers can also be combined for easier handling of shallow well plates such as 384well PCR plates.

For better sealing of those films which have a tendency to curl we offer sealing aids. A weighted platen (4ti-0602) for use with deep-well blocks is provided with the unit and a sealing frame for use with all other plate designs is supplied when ordering the optional 4ti-0625 adapter.



Figure 1: 96well PCR plate adapter 4ti-0625 (optional)



Figure 2: Standard plate adapter 4ti-0615



Figure 3: 4ti-0615 and 4ti-0625 can be interlocked for easy handling of shallow well plates



Figure 4: Sealing frame 4ti-0612 (optional, but included when ordering 4ti-0625)



Figure 5: Weighted sealing platen 4ti-0602

Plate Formats

The following plate formats can be used.

- SBS standard polypropylene & polystyrene plates & deep-well blocks (incl. 384well PCR plates), use adapter 4ti-0615
- 96well PCR plates (incl. skirted, semi-skirted and non-skirted formats), use adapter 4ti-0625



4s² operation in 6 easy steps!



Step 01

Set time



Step 02

Set temperature



Step 03

Load plate & seal



Step 04

Push drawer in



Step 05

Plate is sealed automatically



Step 06

Remove sealed plate