

MiniSealer



User Manual



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A Introduction

The 'MiniSealer' is a manual heat sealer, used for sealing any kind of microplate to prevent evaporation, contamination or freezer burn.

It thermally bonds a number of different foils to microtitre, cell culture, PCR or even deep well plates.

The digital temperature and timer control allows user selection of parameters for different foils and plates.

Because of the inbuilt Pressure Sensing Press (PSP), the system is able to exert the same force (150kg) in each cycle, transferring heat evenly to the foil whether using shallow PCR plates or deep well plates – a consistent seal, every time.

B Safety

YOU MUST READ THIS

- 1 Do not attempt to operate this system until you have read this manual thoroughly.
- 2 When any service or maintenance is being done, ensure that the power supply is off and power cord removed.
- 3 Please be aware that the HEATER head stays HOT for up to one hour after the power supply is disconnected.
- 4 Do not modify the system without our prior written approval.
- 5 Do not use the system for any other purpose than as described in the introduction.
- 6 Do not exceed 9.9 seconds or 200 °C on the time/temperature controllers.
- 7 The system weighs 68 lbs or 31 kgs – do not attempt to lift on your own.

C Installation

- 1 Unpack the sealer carefully and place on a level stable surface that can withstand its weight. Do not block ventilation openings.
- 2 Remove all other parts from the box – See H.
- 3 The sealing table is taped to the guide rails. Remove the tape and screw in the handle.
- 4 Fix the guide bracket to the right hand side front with u-shaped mounting bracket down using the Allen screws provided – check that the sealing table moves freely from side to side.
- 5 Remove protective plastic film.
- 6 Plug in the power cord and switch to 'ON'.

D Operation

The user can adjust both temperature and sealing time.

- 1 SET THE TEMPERATURE by pressing the up/down arrows to the desired temperature (SV). Press the SEL button to store in memory. PV is the heating plates actual temperature.



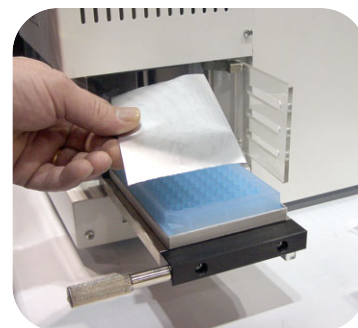
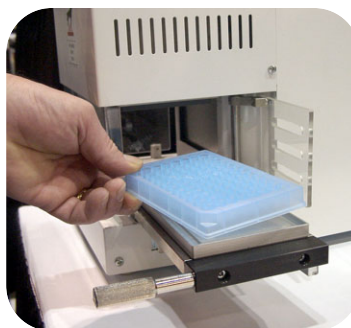
- 2 SET THE SEALING TIME by pressing the buttons relating to the digit you wish to change on the face of the timer. Values increment only – going beyond 9 leads to a 0 !

When the desired value is shown, press reset (on this display) to store the time in memory.

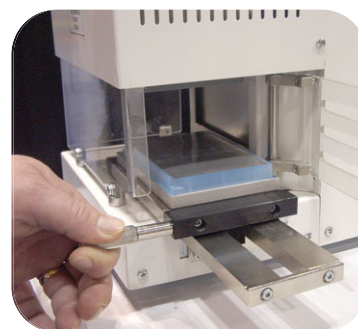
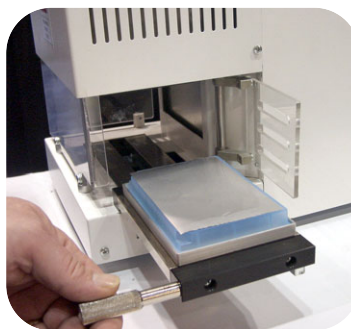
NOTE Please take care here that the display is showing seconds and that only one decimal place is showing. If this is not the case, increment the buttons until MODE I DOWN and RANGE are showing on the display. Press the right hand button and cycle through 0 s, 0:00 min/s, 0:00 h/min, 0 hr, 0.000 s and 0.00 s until reaching 0.0s. Press MODE (DOWN will flash), MODE (KP OFF will flash), and MODE. You can now increment the time value by pressing the correct column button and press reset on this display to store that value in memory.

- 3 Wait for 10 minutes after initial switch-on to allow the temperature to become stable at the set point.

- 4 Place plate on Sealing Table and position the required foil (normally shiny side up) on the microplate on the correct adaptor on the sealing table.



- 5 Using the handle, slide the sealing table all the way to the left to position it correctly under the heater head. You will notice that the safety guard door closes automatically.



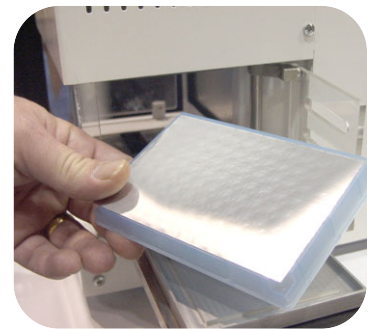
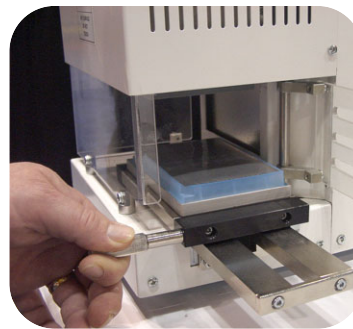
- 6 Press the large green 'START' button. The heater head travels down to contact and applies heat and pressure to the foil. You will see the time display decrement to show seal time left. When that reaches zero, the heater head will lift back to its original position.

NOTE: The user can interrupt the sealing cycle at any time by pushing the large yellow reset button on the main panel. This is intended as a safety device that lifts the heating head back to its start position should there be a problem in the seal cycle identified by the user.



- 7 Move the sealing table to the right (opening the door) and remove the sealed plate.

NOTE: Take care, as the foil may still be hot – please allow to stand to cool before processing/ piercing/ peeling or storing.



- 8 Apart from normal visual inspection, it is not recommended for users to service this machine – cleaning should be done using a mild detergent and damp cloth only. Please do not attempt to touch hot internal surfaces !

E Troubleshooting

Symptom

Possible cause

No lights or temperature display

Power not on
Power cord not plugged in
Blown fuse

No reaction when START pushed

Sealing table not in correct position under heater head
Parameters incorrectly set (see D)

Plate wells melted or damaged

Plate not on adaptor correctly
Temperature too low (see D1)
Seal time too short (see D2)

Plate is sealed too well

Temperature too high (see D1)
Seal time too long (see D2)

Inconsistent sealing across plate

Plate warped (try increasing seal temperature and/or time)
Call Service Centre

Plate sticks and travels up with heater head

Foil upside down (see D4)
Temperature too high (see D1)
Seal time too long (see D2)
Heater head dirty (see D8)

F Hints

In our tests, best results have been found with the following parameters :-

MF – 100 Easy peel (100/pack) 150-170°C, 2-4 seconds

MF – 200 Durable (100/pack) 160-180°C, 2-5 seconds

MF – 300 Paper backed (100/pack) 125-140°C, 1-4 seconds

Please note that ideal conditions vary dramatically depending on plate type.

G Specifications

	US	Other
Dimensions (whd)	(inches)	(mm)
	10 (allow 14) x 17 x 18	25 (allow 36) x 43 x 46
Weight	(lbs)	(kg)
	68	31
Power	120 VAC/60Hz	230 VAC/50Hz
Temperature	-- Room to 200°C in degree increments --	
Time	-- 0.1 to 10 seconds in 0.1 increments --	
Plate sizes	-- 128 x 86 mm base, up to 50 mm high --	

Indoor use only

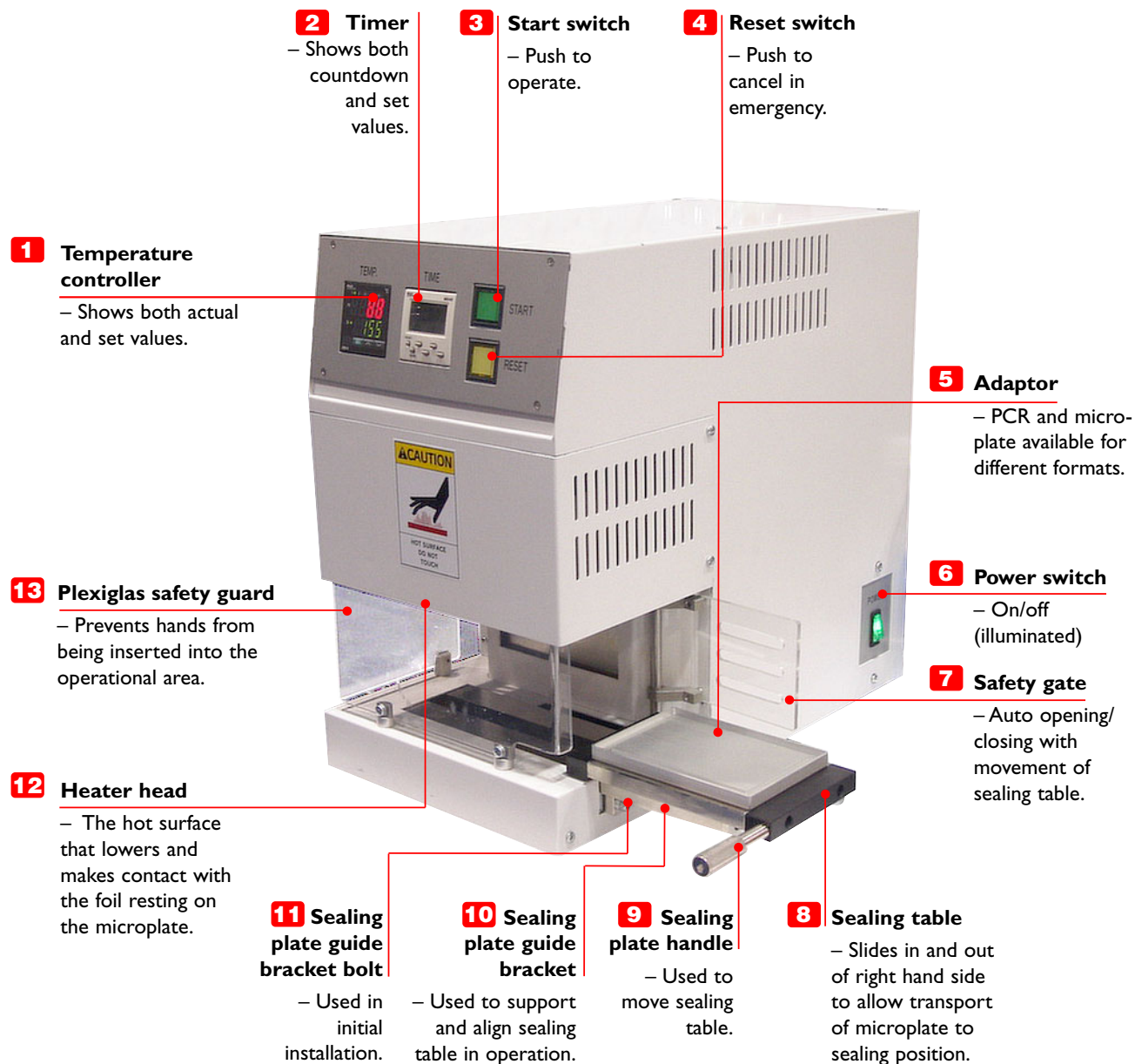
Up to 2000 metres above sea level

Only operate between 5 and 40°C

Only operate with less than 80% RH.

H Technical data

Drawing as before with these definitions



At Rear

- 14** Name/rating plate – Shows serial number etc.
- 15** Concentric plug – Country specific (SI80 type, 15 A minimum)