



SMP50

Automatic Melting Point

Part of the extensive range of Stuart laboratory melting points.



The SMP50 Automatic Melting Point

Stuart has been instrumental in making the automatic melting point a commonplace piece of laboratory equipment. By utilising the latest in digital imaging technology, users for the first time, had the opportunity to record a video of the melt. This provides proof of measurement for traceability, and more importantly allows scientists to trust the automatically obtained result.

To ensure that the Stuart automatic melting point continues to be at the cutting edge of technological advancements, we have released the SMP50 to replace the already successful SMP40.

■ Storage

The SMP50 features a useful storage drawer to house all standard capillary tubes. The drawer also contains a small glass cutter that can be used to accurately cut capillary tubes sealed at both ends. Not only will the glass cutter always get the cut in the centre of the tube, but it will also reliably give a clean cut making sample loading cleaner and safer.

■ Camera

The latest digital camera technology is employed to produce a high resolution video of the sample melt, this allows the intelligent melt algorithm to identify the smallest of changes within the sample, accurately and reliably determining the melting point of up to three samples simultaneously.



■ Secure

The sample chamber is protected by a safety hood that not only protects your sample from accidental sideswipes but also acts as a light shield, ensuring that any adjustments to the ambient lighting conditions don't affect the automatic melting point determination.

■ Samples

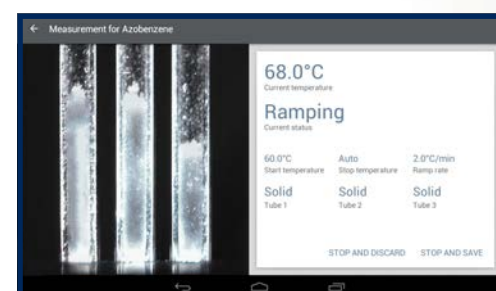
The unit also features handy storage for pre-prepared samples, safely away from the heat source eliminating accidental sample melting.

■ Display

All operation is via the 7" high definition colour touchscreen. Once programmed, users can leave the SMP50 to complete the melt analysis independently. Alternatively the melt can also be observed on the screen live or post-melt. During post-melt review additional measurement tags, such as meniscus point, can be added if required or the automatically obtained result can be overwritten.

■ Interface design

The SMP50 has a custom designed user interface based on an established Android platform for intuitive setup and navigation. The familiar elements of an Android operating system help the user to feel comfortable, with everything where you would logically expect it.



■ Measurement

The user interface, whilst aesthetically pleasing, is logical and well laid out, with all common tasks easily accessed from the home screen. New measurements can be quickly programmed or by editing saved methods. For those samples that you haven't managed to identify and therefore aren't able to set a plateau temperature, you can use the rapid ramp mode. The entire temperature range is quickly scanned through at 20°C/min until your sample melts, providing users with the data required to setup another more accurate measurement.



■ Digital Media

A generous 8GB on-board storage is included, which should comfortably hold approximately 300 melt files including videos. Results can also be transferred via USB stick on to a PC for a more permanent long term record. All video files include a temperature stamp, so whatever device you view them on you can confirm the automatically obtained result.

Printer

While all measurement files can be easily transferred onto a PC from the SMP50 there is also an accessory printer for direct printing of the results directly from the unit.



All units are factory supplied with a calibration certificate showing individual serial number for traceability. The SMP50 also conforms to Pharmacopeia and GLP.

Technical Specification



SMP50 Automatic Melting Point

No of samples	3 simultaneously
Temperature range	Ambient to 400°C
Temperature resolution	0.1°C
Display	7 inch HD Colour
Ramp rates	0.1-20°C in 0.1°C increments
Temperature sensor	PT1000 Platinum resistance
Memory	8GB (approx. 300 results with video)
Cool down time 350-50°C	~12 mins
Heat up time 50-350°C	~ 6 mins
Oven control	Closed loop PID
Data transfer	USB Flash drive
Sample level	2-3mm in 50mm or 100mm length capillaries
Electrical supply	120V / 230V, 50-60Hz
Temperature units	°C or °F
Size (h x d x w)	164 x 360 x 300mm
Net Weight	4.6Kg
Languages	English / French

Ordering Information

Model	Description
SMP50	Automatic melting point
SMP50/IQOQ	Automatic melting point with IQ/OQ documentation
SMP50/PRINTER	Accessory Printer
SMP2/1	Glass melting point tubes, closed at both ends, pack of 100
SMP10/1	Glass melting point tubes, closed at one end, pack of 100



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