CASE STUDY

THINKY SR-500
Solder Paste Mixer & Conditioner

More efficient operations at EMS provider with consistent solder paste conditioning

An Electronics Manufacturing Services (EMS) provider’s original process included workers manually stirring solder paste to prepare it for use. As a result of the manual stirring, the solder paste would have variations depending on which worker was stirring, producing a problem for the manufacturer. The EMS manufacturer decided to introduce the THINKY SR-500 to its process.

Solder paste conditioning requires bringing the paste up to room temperature from refrigerated storage, and ensuring an even, homogeneous mix of the solder particles and flux.

One of the features of the SR-500 is that it can store the number of revolutions and operation time, meaning that solder paste was processed under the same conditions every time, conditioning was completed in a few minutes, and anyone could operate it with the push of a button. The SR-500 could provide consistency that manual mixing couldn’t. For over 10 years now, the SR-500 has been used in the manufacturer’s mounting process 10 to 20 times per day.

The factory operates 24 hours a day, Monday to Saturday. Prior to the introduction of the SR-500, daytime and night-time workers had to bring solder paste back to room temperature for those working the next shift. Those who worked the Monday morning shift were required to come in early to remove the solder paste from the refrigerator.

With the SR-500, the solder paste can be optimised in a few minutes, even directly from the refrigerated state. This offers the EMS provider a more efficient process as the workers no longer need to take the solder paste out of the refrigerators for
those working on the next shift. The workers can concentrate on production during their working hours and not on preparing the solder paste for the next shift.

By generating powerful acceleration and convection currents, the SR-500 carries out mixing and degassing simultaneously. It achieves this by revolving the container at a high speed and rotating at the same time, without the need for a mixing blade. Solder powder that settled during storage is uniformly dispersed and returns to a near factory-delivered high quality state. Solder paste can be conditioned directly in its original 500g container.

The EMS manufacturer said:

“Our solder paste conditioner has been used for over 10 years without any trouble such as breakdown. Recently, we took advantage of a consultation with our THINKY representative, and were given suggestions towards further improvement of our production processes. We are greatly satisfied.”

THINKY SR-500 Solder Paste Mixer & Conditioner

- Easy and quick – in just a few minutes, anyone can condition homogeneous mixed solder paste
- Helps eliminate solder balls and soldering defects caused by non-uniform solder paste
- Five programme profiles, each with five-level step mixing, ensure optimal temperature and viscosity outcome
- Solder paste straight from the refrigerator can be used almost immediately, without the normal wait to return to room temperature
- Adjustable weight balance allows mixing of solder paste in different batch sizes
- With an optional adapter, solder paste filled in a syringe can be mixed
- Standard 500g solder paste containers can be conditioned without repackaging