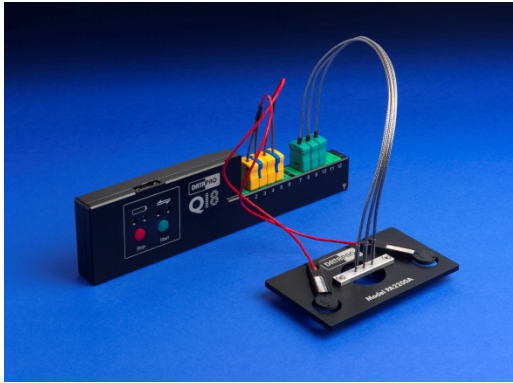


SUCCESS STORY 52

SELECTIVE SOLDERING



Q

How can the repeatability of the selective soldering process be measured?

A

Situation and background

Most electronic assemblies used in automotive applications will contain a mixture of surface mount components and conventional through hole connectors. Soldering the connectors has traditionally been conducted in a wave soldering machine or in some cases, by hand. Selective soldering is gaining in popularity as it has many advantages including repeatability and precision. Automotive manufacturers are increasingly asking suppliers for proof that all soldering processes are subject to some form of Statistical Process Control (SPC). To address this need, Datapaq® has worked with a tier 1 supplier to design and provide a sensor that enables the two key stages of the selective soldering process to be monitored.

The winning solution

- The end-user can for the first time measure the repeatability of this key soldering process.
- Datapaq® products are used to monitor all of the soldering processes in the manufacturing facility - reducing training costs to a minimum.
- The time to set up the process at each new product introduction is reduced, thus maximizing line utilization rates.
- The central process development engineers can compare measurements from all their assembly facilities, ensuring that best practices are established in each one.

Savings made

When margins are small and the costs of product failures are high, as they are in this industry segment, measuring and controlling every process becomes a priority. Datapaq provides a low cost solution that enables end-users to monitor this process and all other soldering processes with one system, providing maximum benefit and shortest return on investment.

KEY FACTS

Customer's End Product
Electronic assemblies

Max temperature reached
240°C/464°F

Duration of Process
2 minutes

PRODUCT AND BENEFITS

**PA2200 combined with Q18
Datalogger and Insight™
software**

- End-user now has repeatability data on this process for the first time
- Setup time is reduced
- Enables users to compare performance of different machines and ensure all are optimized
- One profiling system can be used to monitor all soldering processes in the facility