

Quality progress

SPC software provides quality data and pinpoints areas of further improvement in core processes at manufacturers, Rittal and Lisi.

Until recently, long term users of Powerway's SPC software, Rittal CSM and Lisi Aerospace, thought they had taken the deployment of SPC and the software as far as they could go. But that has all changed thanks to the innovation of Powerway's UK solution partner, Synchronology.

Both Rittal and Lisi implemented Powerway SPC some years ago and have used the tool to help drive quality and key process improvements. Although in two completely market sectors (Rittal are the world's largest manufacturers of cabinets for the IT industry whilst Lisi produce a diverse range of fasteners for aerospace customers including Airbus in Europe) both companies found that the nature of their products and manufacturing processes was making further deployment of SPC very difficult, if not impossible.

In the case of Lisi, they are mandated by customer requirement to carry out SPC on several key characteristics at different stages of manufacturing on each and every part and this coupled to the need to keep any technology on the shop floor as user friendly as possible means that an integrated solution is needed if the momentum and further deployment of process control is to be maintained.

Dave Wootton, Lisi Rugby's plant Quality Assurance Manager, takes up the story. "Our biggest problem is that we have so many different product lines flowing through the plant on any given day. This places a big burden on the user of the Powerway software in having to constantly log-in to different products before data can be collected. We have a big range of electronic gauges that we use to capture key characteristic data. The challenge is to reduce the whole process of log-in, product selection and data entry from minutes to seconds without any risk of bad data



penetrating the system."

Synchronology's Technical Director Paul Alston quickly saw the opportunity to develop a solution that would leverage existing systems and conditions at Lisi so as to implement a solution quickly and easily and through various discussions with Dave Wootton and the Lisi IT team the solution was created.

We will have access to quality data for every single part we make."

From now on, instead of manually logging into Powerway and searching for the correct product, the Lisi user will be able to scan his security entry card bar code and gain immediate entry to the system, via the correct password of course. Two further bar codes on the manufacturing job card are then scanned and the user will move instantly to the correct product and then process. Synchronology's integration piece will then capture the electronic gauge data and beyond that it's pretty much job done.

What historically has taken several

precious minutes will soon take a matter of seconds, a point underlined by Dave Wootton. "The new system will make the deployment of SPC and the Powerway software so much easier. Going forward, we will have access to quality data relating to every single part we make. This will be of tremendous value to us in helping to pin point what areas of

our core processes can be further improved and it will also give us the opportunity to expand on the range of reporting we offer our customers, which is something else we are working with Synchronology on.

An uncannily similar situation existed at Rittal. Their Lean programme has resulted in the implementation of a single piece flow manufacturing process that was always going to put added strain on the issue of good quality data collection.

Andy Gill, Rittal's engineering manager at their Plymouth facility

explains: "One of the places we had never previously been able to deploy Powerway was in the automated weld bay areas. We pull one cabinet off the weld bay every twenty minutes and carry out a series of measurement inspections using a variety of Mitutoyo gauges, some as long as 1 metre in length. The physical location of the weld bay means that we are just too far from the PC to be able to use the Powerway software so these readings would be written down by hand and only minimal querying of that data would ever take place. A complete set of measurements would mean about 3 and half minutes of one inspector's time. What we really wanted was a way of capturing that data quickly and somehow getting it into Powerway. Once it was in Powerway we wanted to link it to some kind of visual and audio warning device like a traffic lights system so that we had immediate notification of when there were issues or problems"


Similar to the Lisi Aerospace scenario, Rittal's single piece flow meant that a wide range of customer's products were moving through the plant at any one time. Once again the ability of the user to scan bar codes on the production documentation meant they could very quickly and accurately access switch to the correct product within Powerway in readiness of the data being collected. However, the physical problems posed by the location of the weld bay still had to be solved and this was done by adding a specially developed radio transmission device to the digimatic port on the gauge. This was able to send data in real time up to 100 metres - more than enough to reach the PC terminal where the data could be consumed by Powerway. By being able to send the data at the very moment the measurement was taken, cycle time was reduced from three and half minutes



Visit our website:
www.qtbuyersguide.co.uk

down to one minute - a very nice contribution towards Rittal's Lean objectives. The real value to Rittal though is in the data; whereas before the handwritten material made reporting and evaluation very difficult, the data now resides inside Powerway ready to be queried and used to the full.

Andy Gill even got his linkage to the warning traffic lights system; now if the data strays out of control, an immediate alarm is raised. "The traffic lights are excellent - they give us the immediate status we are looking for. The audio buzzer is useful too - we've designed it so that the buzzer recognises good readings as well as out of control ones - that way our inspector doesn't even need sight of the Powerway screen - he can hear that it is in control.

"The new additions will prove very beneficial to us. The savings alone in inspection time are significant but the thing that means the most to us is having the data in electronic format so we can do some meaningful work with it." 

► Visit: www.synchronology.com
