

Process Controls Roundup

compiled by the Editors at *Fastener Technology International*

Suppliers have responded to our call for the state-of-the-art in process control equipment and technology.

More Data Collected, Less Time to Control with Equipment Suppliers SPC Family

Alex Bar of Dimac Srl, Tortona (AL), Italy, says, "Statistical Process Control (SPC) is a methodology that allows companies to monitor production processes in real-time to guarantee the quality of their parts, forecasting the progress of production and intervening with the logic of continuous improvement.

"As recommended by the IATF 16949:2016 standard, the revised quality management system in the automotive sector developed by the **International Automotive Task Force**, the effectiveness of the SPC methodology depends on the use of statistically significant and reliable data.

"To meet this goal Dimac developed its SPC-LAB family to perform human error-free SPC controls directly in the shopfloor beside the production machinery while objectifying and integrating the data collected into the company ERP system.

"The SPC-EVO is the automatic mobile unit designed for SPC control of flat parts like washers, retaining rings, and components produced in multiple figures by fine blanking. The automatic measurement of multiple parts - fast and accurate - leads to incredible time-saving.



"The Dimac SPC-EVO allows the control of small batches of five to 20 parts in a row, fed in by interchangeable blisters filled off-line. SPC dimensional control and surface inspection are performed on both faces of each piece by two high-resolution digital cameras with bi-telecentric optics and collimated illuminators.

"The SPC-LAB is a mobile unit for SPC controls, suitable for parts with cylindrical

geometry made by cold forging or turning. Rapid and accurate, SPC-LAB allows the PPAP (Production Part Approval Process) by measuring simple and complex geometries in the shopfloor: no metrology room or technical skills are required. One-click and all the measures are immediately available for the company ERP system, allowing to detect any deviation from the process trend and to apply the corrective actions, with a time saving of approximately 90%.

"The SPC-ROBOT is the innovative mobile and cobotized unit conceived for Industry 4.0, perfect for the automation of statistical reports and centralized data collection through non-contact automatic measurements without human intervention. As an option on demand, this mobile unit can house an NDT Eddy current station for Heat Treatment Control or Cracks Detection. For more information on Dimac' SPC solutions, visit the company's website."

www.firstarticleinspection.dimacsrl.com



How New Process Controls Can Be Implemented in Older Machinery

Cindy Maga of Cinco Industries, Inc., says, "Automating machinery built before most companies owned a personal computer can be more trouble than it's worth, and often more costly than the machine being automated. This is why the cost analysis for implementing modern process controls in the manufacturing process often begins and ends with new capital machinery acquisition. Although a lot has changed as technology advances, and it might be much more frugal to take a second look at how new process controls can be implemented in older machinery.

"One such example of this is the specially designed line of process monitors for the fastener industry from **Helm Instrument** in Maumee, OH, USA. With over 60 years of experience developing monitors and control systems for manufacturers across different industries, Helm has now delivered their affordable solution for the thread rolling industry with the Threadgard. Developed in collaboration with leading fastener manufacturers, the Threadgard is designed to deliver the functionality of a modern process monitor to virtually any new or used thread rolling machine currently in operation.

"The fundamental design concept for any process con-