Improving Manufacturing Productivity with Autonomous Machine Vision

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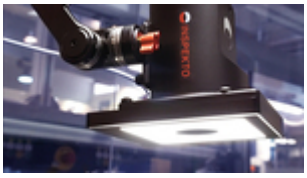

By Nir Zamir, VP of Marketing, Inspekto

Research from the University of Warwick found that happiness made individuals twelve per cent more productive. Having a happy workforce may be the first step to improving productivity, but proper tools and advanced technologies will take productivity significantly further, particularly for industrial manufacturers. This article explains how manufacturers can improve productivity with Autonomous Machine Vision systems.

Productivity is a measure of output per unit of input and manufacturing productivity is determined by several factors including equipment, machinery and the layout of the production line. To improve productivity, manufacturers must first identify where losses and scrap are made and then take action to increase output.

Applying Quality assurance as early as required is key to increasing yield and decreasing losses. With machine vision technologies reaching new peaks, visual QA is becoming increasingly popular, to provide consistent and accurate inspection of products for flaws. Machine vision solutions of the past are known to come with baggage including; long wait times, an agonizing reliance upon vision integrators, and excruciating high costs and downtime.

One key trend driving productivity in manufacturing since last year is the introduction of Autonomous Machine Vision. The immediacy of Autonomous Machine Vision systems allow manufacturers to release manpower from manual visual inspection, identify faulty components early on and directly reduce scrap.

Maximising Manpower

Autonomous Machine Vision systems serve manufacturers that are still running manual visual inspection, because they are too expensive or not possible, or those operating unsatisfactory traditional machine vision solutions.

Adding an Autonomous Machine Vision system to such a production line means that the manufacturer no longer requires employees to work on manual visual inspection. In the UK, for example, the average value added by each employee in automotive engineering is £100,000 per year. By assigning employees to tedious inspection tasks that add no value, the manufacturer loses £100,000 per year for each employee. Considering that most facilities will run multiple shifts and have several employees assigned to visual QA, over time, a simple investment in an Autonomous Machine Vision system can save a plant hundreds of thousands.

The Benefits of Total QA

Many Autonomous Machine Vision systems can be installed and set up in 30 to 60 minutes, without the intervention of a vision systems integrator. This means that

manufacturers can install an Autonomous Machine Vision system at every required point on the production line. This concept, known as Total QA, enables manufacturers to identify defects before they are buried into a product, meaning that fewer products will fail the end of line test. Total QA also prevents the manufacturer from wasting energy on a product that will inevitably be scrapped.

Research from the University of Warwick correctly stated that happiness is the key to unlocking productivity. What better way to increase employee happiness than giving them access to a product that is easy to install, operate and won't break the bank? In short, Autonomous Machine Vision makes QA managers love their jobs.