Shopfloor-Online MES helps world-leading silicon wafer machine manufacturer improve productivity

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Lighthouse Systems is working with SPTS Technologies in Newport, Wales, to implement a manufacturing execution system (MES) to support their hi-tech manufacturing process from assembly, testing, to shipping.

SPTS are award-winning designers and manufacturers of etch, physical vapour deposition (PVD), chemical vapour deposition (CVD) and thermal wafer processing systems using patent-protected technology. Their equipment is used by the microelectronics industry to produce devices such as motion sensors, power management and LEDs. These devices are in a wide variety of consumer end-products including smart-phones, tablet computers, digital cameras, games consoles, automotive gyros and sensors, and medical devices.

With manufacturing operations in Newport, South Wales, San Jose, California and Allentown, Pennsylvania, SPTS is a fast-growing company with decades of semiconductor wafer processing experience from companies. The wafer processing equipment is sold to semiconductor device manufacturers, universities and research organisations worldwide.

SPTS' range of products can be configured to many variations and options, depending on requirements of the device manufacturer. Each machine is built to the customer's order with unique sets of engineering drawings for each machine. This leads to complex configuration management that flows through to assembly and test. The bill-of-materials (BOMs) are multi-level, typically containing thousands of parts and sub-assemblies. Therefore effective management of the manufacturing process flow is critical for on-time delivery.

The main aims of the MES project are to improve productivity through:
• Saving non-productive time preparing documentation for the shop floor
• Support the assembly teams directly by providing ordered work instructions based on the actual BOM
• Going paperless – providing direct access to engineering drawings, obviating the need to print in advance, saving a huge amount of non-productive time
• Link to ERP, identifying any material shortages and news on expected deliveries
• Remove numerous cumbersome Excel spreadsheets used to drive and capture test results
• Improve visibility of manufacturing progress and any outstanding issues
• Improve visibility and management of quality-related issues in the process

In addition to productivity, there are benefits in terms of traceability and support for continuous improvement. With Shopfloor-Online's powerful reporting tools, all the data captured is available for analysis. The project is well underway, scheduled to go live early 2013.

Lighthouse Systems
Lighthouse Systems (www.lighthousesystems.com) is one of the world's leading developers of Manufacturing Execution Systems (MES) with offices in London, Singapore, Rochester, NY.

Lighthouse Systems Shopfloor-Online is web based modular software that provides real time visibility of the entire manufacturing operations environment. Applications include Maintenance Management, Concern Management, Quality, SPC, Downtime, OEE, Spoilage and Inventory Traceability. Shopfloor-Online is being used in a wide range of industries with some of the biggest manufacturing companies; it is deployed in 15 languages in 28 countries.

For more information please contact Fiona Keys on 07814 727211 or email keys.fiona@gmail.com