Mitsubishi Electric explained Industrial Sewing Machines which Use the “Industrial Internet of Things” to Increase Quality and Boost Productivity in Texprocess 2017

Industrial Sewing Machines from Mitsubishi Electric in the context of Industry 4.0

Technology pioneer Mitsubishi Electric performed the European launch of the "Industrial Internet of Industrial Sewing Machines" application at the International Textile Equipment and Technologies Fair Texprocess 2017 held in Frankfurt on May 9-12, and explained its advantages. Visitors have had the opportunity to see the productivity and quality enhancements of Mitsubishi Electric industrial sewing machines and automation solutions in the context of Industry 4.0 which were provided through the Industrial Internet of Things (IIoT) connection.

The new industrial sewing machines used in many different sectors, especially in the textile and automotive sectors, are becoming more and more intelligent. At this point, the pioneer of technology, Mitsubishi Electric, is highlighted by its industrial sewing machines enriched with automation technology that offers enhanced intelligence. Mitsubishi Electric welcomed its visitors at Texprocess 2017, International Textile Equipment and Technology Fair, Frankfurt, Germany, from May 9th to 12th, and has presented the European launch of the "Industrial Internet of Industrial Sewing Machines" application, which responds to current industrial requirements. Noting that industrial sewing machines are no longer purely stand-alone devices in today's market conditions where competition is high and high...
value added products are preferred, Mitsubishi Electric explained how industrial sewing machines and automation solutions compatible with Industry 4.0 boost the productivity and quality through Industrial Internet of Things (IIOT) and how it can help reduce maintenance costs.

**Live demo with six industrial sewing machines**

In Texprocess 2017, a live demo was performed with six Mitsubishi Electric industrial sewing machines connected to a higher level control system. The actual process data was transferred to the HMI, a touch screen of the Mitsubishi Electric GOT2000 series, which is located on each of the sewing machines and displays MELSEC PLC data. This practice allows manufacturers to see if quality standards are being met and whether there is any other action that needs to be applied to increase quality. Visitors have also been able to see how the data of industrial sewing machines exhibited at the fair is put together with the help of Mitsubishi Electric's MAPS SCADA software.

**Industrial internet of sewing machines**

With Mitsubishi Electric's "Industrial Internet of Industrial Sewing Machines" application, manufacturers can see the working time of each machine and determine which workstations are more efficient than others and why. Thanks to the production data collected in the system, manufacturers can take appropriate steps to increase performance or machine suitability based on real information instead of assumptions. In addition, the information provided by these intelligent machines makes it possible to plan service and maintenance activities if requested. Such a way of working instead of predetermined maintenance programs has a positive impact on productivity and profitability by helping to increase the working hours of the machines and to reduce costs.

"**Quality Assurance**" instead of "**Quality Control**"

The high productivity that Mitsubishi Electric provides in industrial sewing machines also brings consistent high quality in production processes. The new generation of sewing machines can easily be integrated into a wider range of quality assurance processes, such as systems that remove selection errors. These faults can occur, for example, when picking up pieces of material for the frame to be sewed, by taking the wrong part or by using the wrong sewing frame to load the machine.

With the Poka-Yoke (Error Prevention) System, Mitsubishi Electric, which aims to
contribute to reducing the margin of error, allows operators to select the right material parts for frame loading on the sewing machine. The barcodes on the sewing frame are scanned by the controller to ensure that the correct frame is used to load the machine for a specific sewing operation. In addition, the machine control system, as an additional quality assurance measure before the start of sewing, controls the material thickness according to predetermined parameters. As another quality control method, manufacturers can capture images of finished products with special cameras and compare the quality of the sewing with the stored high resolution image.

Thanks to all these features and functions found in Mitsubishi Electric's Industry 4.0-compatible next-generation industrial sewing machines, textile manufacturers can switch from quality control to quality assurance. It will also be possible to store the complete production information to enable traceability in the entire supply chain.

About Mitsubishi Electric Corporation

With over 95 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation is a recognised world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, as well as in products for the energy sector, transportation and building equipment. Mitsubishi Electric aims to be a global and leading environmentally friendly company in the direction of its corporate principle "Changes for the Better" and the environmental policy "Eco Changes" and to enrich the society with its technologies. The Company has achieved group sales of Yen 4,238.6 billion ($ 37.8 billion *) in the fiscal year end on March 31, 2017. For more information; www.MitsubishiElectric.com

* It was calculated from the exchange rate 1 USD = 112 yen declared on March 31, 2017 of the Tokyo Currency Exchange.

About Mitsubishi Electric’s Activities in Turkey

Mitsubishi Electric's main areas of activity in Turkey are; air conditioning systems, factory automation systems, CNC mechatronic systems, and advanced robotics. In addition to these activities, the company also supports satellite, elevator, visual data systems, power supplies and transport infrastructure. Mitsubishi Electric, the producer of Turksat 4A and 4B satellites, which contributes to the communication and publishing infrastructure of Turkey and neighboring countries, is notable for its satellites as well as the automation technology used in the Marmaray project. In April 2016, Mitsubishi Electric, which has established a domestic air conditioning development and production company in Turkey, is preparing to make production in January 2018 in the Manisa factory. For more information; tr.mitsubishielectric.com

About Mitsubishi Electric Turkey Factory Automation Systems

Mitsubishi Electric Turkey Factory Automation Systems; provide added value in terms of rapid integration,
productivity, flexibility and productivity to the leading industrial companies in Turkey in various fields such as automotive, food, packaging, metal and PVC processing machines. The new industry, also called "Industry 4.0", responds with e-Factory, i.e. the digital factory concept. For more information; tr3a.mitsubishielectric.com