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**Mitsubishi Electric exhibits its new generation automation solutions in
Packaging Fair**

**HIGH SPEED AND HIGH PRECISION AUTOMATION TECHNOLOGY
FOR PACKAGING INDUSTRY**

A recognized world leader in electric, electronic and automation industry, Mitsubishi Electric exhibited its new generation automation solutions for packaging in Eurasia Packaging Fair, known as the largest meeting for the packaging industry in the territory. Distinguished for its digital factory platform and high robot technologies capable of communicating with each other, Mitsubishi Electric has become quite popular with the industrial actors thanks to its high precision and high speed packaging solutions which come with easy programming advantages creating cost efficiency and providing seamless production advantages to factories.

Mitsubishi Electric, recognized for its new generation factory automation solutions providing high added value for Turkish industry and especially for the “Station Information and Management System Project” implemented at Marmaray, introduced its high technology to the packaging industry at Eurasia Packaging Fair. Becoming highly popular among the participants of the fair which was held on November 2 to 5 at TÜYAP Exhibition and Congress Centre, Mitsubishi Electric exhibited its digital factory platform e-F@ctory and iQ Automation Platform, an automation strategy inherent to e-F@ctory

platform, intercommunicating high robot technologies, MAPS (Mitsubishi Electric Adroit Process Suite) and MELSEC Safety solutions.



Mitsubishi Electric Turkey Factory Automation Systems General Manager

Şevket Saraçoğlu, who provided insightful information about the fair, pointed out that the brand provides a number of advantages to factories throughout the world in terms of fast integration, productivity, flexibility and efficiency. Highlighting the fact that Mitsubishi Electric is prepared to meet the needs of fast evolving Turkish industry for high technology and energy efficient factory automation solutions, **Şevket Saraçoğlu** said:

“Mitsubishi Electric Factory Automation Systems division provides services to leading Turkish industrial enterprises operating in different fields. Packaging is one of the prioritized industries. We offer high technology automation solutions for all packaging processes including bottling, vertical and lateral packaging, labelling, etc. We are recognized for high precision and high speed packaging solutions which come with easy programming advantages creating cost efficiency and providing seamless production advantages to factories.

“As a company that aims to ensure more flexible manufacturing operations, reduce costs and increase employee comfort with high robot technologies capable of intercommunication, we are distinguished for our high speed robots capable of performing operations with high precision close to human arms or hands in packaging, foodstuff, pharmaceuticals, white goods and various other industries. We provide various solutions involving robots for a number of operations such as packaging wet tissues and packaging pharmaceuticals and sugar cubes and other food and packaging industries requiring mass production, dosaging and packaging.”

“Turkey can build the digital factories of the future today”

Saraçođlu underlined that the most important agenda item for the industrial actors is to build production lines that can meet the fast evolving and customized human needs in the fastest and most effective manner possible and said:

“The new industrial phase which is known as Industry 4.0 requires Turkey to design digital factories equipped with high robot technologies capable of intercommunication in order to reinforce its production power. Turkey can actually build the digital factories of the future today. Mitsubishi Electric responds to Industry 4.0 with its digital factory platform, e-F@ctory. The platform makes it possible to design a factory that shall meet all the requirements accompanying the new industrial phase in addition to creating a virtual factory prior to actual installation process so as to steer the investment accurately. e-F@ctory platform ensures intercommunication between all new generation factory automation products including robots. Thus, it is easier than ever to keep up with the competition environment in the market by optimizing the production lines according to personal requirements.”

Referring to the fact that Mitsubishi Electric’s high tech new generation factory automation, robot and CNC solutions are combined with the engineering skills of the company on design, project design, software and commissioning processes, **Saraçođlu** expressed once more that the company is willing to support manufacturers intending to promote their competitive power.

Distinguished items in the fair...

Attracting participants with its digital factory platform e-F@ctory and intercommunicating high robot technologies in Eurasia Packaging Fair, Mitsubishi Electric also became quite popular with its iQ Automation Platform, MAPS (Mitsubishi Electric Adroit Process Suite) and MELSEC Safety solutions.



iQ Platform for maximum efficiency and cost effective manufacturing operations

iQ Automation Platform, an automation strategy developed with the global expertise and know-how of Mitsubishi Electric on manufacturing operations, is a unique product family that combines all the important automation components in a single structure and it is known to be the precursor of e-F@ctory platform. As an automation platform, the most significant advantages provided by iQ are minimum TCO (total cost of ownership), full and seamless integration between factory automation management systems, maximum efficiency and fast communications. The platform makes it possible to reduce the costs at every phase of the automation cycle enabling maximum return on investment. iQ Platform allows robot systems to control larger and more complicated programmes. The platform facilitates collective management of multiple robots in order to control robots in a more detailed and coordinated manner by accelerating data transfer between robots.



MAPS as an added value to engineering and integration phases

MAPS (Mitsubishi Electric Adroit Process Suite) is a life cycle software tool that creates value for the entire value chain. It eliminates the shortfalls of various PLC SCADA integration tools thanks to the value it adds to engineering and integration phases. It extends the integrity of the solution and provides the customers with the opportunity to manage the ordinary extension and maintenance activities for any automation solution.

Mitsubishi Electric's packaging solutions

Acknowledged for its wide range of high quality automation products, Mitsubishi Electric offers comprehensive solutions for all aspects of packaging such as filling, labelling, vertical and lateral packaging, and preparation for distribution. Mitsubishi Electric's wide range of products enables industrialists to find suitable solutions for all kinds of requirements easily.

High precision and speed for bottle filling operations

One of the most challenging steps for filling bottles is to fully synchronize the control of filling cap with rotating conveyor and flow controller. It is essential to control the flow rate and cap height precisely in the course of filling operations so as to make sure that the controller feeds the fluid into the mouthpiece of the bottle properly and eliminate potential bubbles and outpours. In that respect, Mitsubishi Electric's iQ Platform based motion control CPU provides a significant advantage. In addition to motion control, the real transfer phases of the applications are controlled by means of Mitsubishi Electric's smart energy efficient drives. Bottles fed into the machine rapidly can be put under control on CC-Link network system through System Q so as to provide 1 Gigabit high transfer speed thanks to program speed at millisecond level.

Fast and correct labelling

High speed labelling machines make it possible to stick labels on target products correctly with minimum deviation. The important point is to feed the labels to the machine at a fixed rate so that they are placed on the products correctly without being subject to any bending, distortion or tear on the label film layer. Coming in various sizes, labels can be put with different methods such as cold and hot glue, flexible film or ordinary wrap. When it comes to designing a labelling machine, it is of utmost important to ensure that the control architecture supports all those different systems with minimum interruption on efficiency. In that respect, Mitsubishi Electric's iQ Platform meets all those requirements efficiently. Q motion series guarantees that labels are placed correctly thanks to its high speed recording functionality.

Cost effective packaging technology

Apart from bottle filling applications, the most widely used packaging machine type is cushion packaging machines used for various products including chocolate bars, bread and pharmaceuticals. Mitsubishi Electric's Q motion controller easily meets the high precision requirements of those machines. The system which enables packaging blades to operate concurrently with the feeding speed of the conveyor seamlessly provides high speed and high precision cutting operations. Mitsubishi Electric offers highly functional solutions by reducing costs as well as eliminating installation concerns which may generally occur in such systems.

Suitable solutions for complex systems

Generally, products necessitate a final packaging phase such as paperboard or cardboard box. Box packaging machines must not only be high speed but also provide a soft rhythm so as to prevent damage to products while placing or wrapping them with a solid material. Mitsubishi Electric's Q series motion systems provide an ideal solution for such complex systems comprised of multiple components in motion. Those systems also ensure high level of synchronization required for avoiding errors with processes such as opening boxes, putting tapes or transfer conveyors.

About Mitsubishi Electric Corporation

With over 90 years of experience in providing reliable, high-quality products, Mitsubishi Electric Corporation is a recognized 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, energy, transportation and building equipment. Embracing the spirit of its corporate statement, Changes for the Better, and its environmental statement, Eco Changes, Mitsubishi Electric endeavours to be a global, leading green company, enriching society with technology. The company recorded consolidated group sales of 4,394.3 billion yen (US\$ 38.8 billion) in the fiscal year ended March 31, 2016. For more information visit: www.MitsubishiElectric.com*

** At an exchange rate of 113 yen to the US dollar, the rate given by the Tokyo Foreign Exchange Market on March 31, 2016.*

About Mitsubishi Electric Turkey Operations

Mitsubishi Electric concentrates on sales and after-sales services for HVAC systems, factory automation systems, CNC-Mechatronics systems and advanced robot technologies in Turkey. In addition, the company provides support for satellite, elevator, visual data systems, power sources and transportation-based infrastructure projects. Mitsubishi Electric, the acknowledged manufacturer of Turksat 4A and 4B satellites contributing to communication and broadcasting infrastructure of Turkey and neighbouring countries, is also recognized for the automation technology used for Marmaray project. Having incorporated a company for development and manufacturing of room air-conditioners in Turkey in April 2016, Mitsubishi Electric intends to start manufacturing operations in Manisa plant by January 2018. For more information visit: www.mitsubishielectric.com.tr

About Mitsubishi Electric Turkey Factory Automation Systems

Mitsubishi Electric Turkey Factory Automation Systems division provides added value to leading industrial corporations in Turkey in a range of fields including automotive, foodstuff, packaging, metal and PVC

processing machinery in terms of fast integration, efficiency, flexibility and productivity. It has adapted to "Industry 4.0", the new industrial phase, with its digital factory platform known as e-F@ctory.

About Mitsubishi Electric Turkey CNC Mechatronics Systems

Mitsubishi Electric provides CNC products and engineering solutions to the leading machinery manufacturers in Turkey. It sets the standards in various industries globally including automotive and metal processing industries with its high tech CNC products.