

News Release

Yamaha's 1st Class Smart Solution powers high-tech manufacturing in Lithuania

Vilnius-based Elgama builds world-class smart meters and delivers advanced manufacturing services, with help from Yamaha and local representative Etama

Recently rated by Bloomberg as second in the world for tertiary efficiency, with a high proportion of its population entering university-level education, Lithuania is home to a multitude of advanced design and manufacturing companies. They include Elgama-Elektronika Ltd, based in Vilnius capital city.

Typical of the high-tech businesses driving Lithuania's modern economy, Elgama develops and produces smart electricity meters for home, industrial, and utility applications, which are certified in accordance with leading international standards and exported to more than 25 countries. Over 20% of Elgama's workforce are directly engaged with new-product development to ensure that successive generations of the company's smart meters always set the pace in markets worldwide.

Working with selected partner companies, Elgama also delivers complete Advanced Metering Infrastructure (AMI) solutions that help utilities manage large numbers of installed meters and handle data collection, storage, and analysis. These solutions bring together MDMS, communication infrastructure, and smart metering devices, and are based on open standards to ensure scalability and flexibility.

The smart meters and AMI equipment are manufactured in-house using state-of-the-art electronic assembly facilities at Elgama's headquarters. Moreover, leveraging its investment in advanced automation, the Company provides electronic manufacturing services (EMS) for Lithuania's thriving technology-focused community. Its current client base includes well known companies that are active in fields such as industrial networking, automation, and precision high-speed lasers.

To meet the expectations of global smart meter markets, deliver co-developed AMI projects, and ensure great value for its high-tech EMS customers, Elgama relies on surface-mount assembly facilities that are fast, efficient, and can maintain consistent accuracy and quality when working with the latest component types.

CEO Martynas Čereška, says, "We are equipped to meet exacting technical requirements and deliver competitively priced products and services that represent great value for customers and end users. We invest in the best possible manufacturing technology to extend our capabilities and strengthen our reputation for quality."

Accordingly, Elgama has recently installed a complete new surface-mount assembly line. Anchored by Yamaha's compact YCP10 high-speed printer, the line also contains two Yamaha YSM20R premium compact component mounters, and the YSi-V high-resolution 3D automatic optical inspection (AOI) system. Together, they make up Yamaha's unique 1-Stop Smart Solution. "The Yamaha equipment works extremely well and integrates so effectively that the entire line is working together to increase throughput while minimising defect rates," confirms Martynas Čereška.

Mindaugas Palisaitis of Etama takes up the story. “We spent time with the team at Elgama to understand their needs and priorities, the types of assemblies and components they are working with, the product mix, and production volumes. We then worked with Yamaha to configure a solution that delivers high throughput, enables fast changeovers, minimises the operator workload, and provides excellent visibility of line performance and quality information.”

The YCP10 compact printer delivers high throughput and ease of use within a small footprint, enabling efficient use of the factory floorspace. Selecting the YSM20R, the premium mounter in the YSM series, delivers class-leading 95,000 cph and ensures a broad component-handling capability without changing the head. Elgama’s two YSM20R mounters, positioned inline (figure 1), raise the overall throughput and enhance flexibility when setting up feeders to minimise changeover times.



Figure 1. The two YSM20R mounters work in series to maximise throughput and flexibility.

“We recommended the optional sATS30 auto-tray sequencer to maximise productivity and help handle a large mix of assemblies,” adds Etama’s Palisaitis. By automatically ejecting pallets with empty trays and loading new pallets at the press of a button, the sATS30 allows non-stop operation and greatly simplifies replenishing the machine with components presented in trays, such as large ICs.

The YSi-V 3D AOI machine (figure 2) is highly respected and provides features that ensure accuracy and reduce false calls. These include multi-wavelength illumination, a laser for component-height measurement, and an optional four-angle camera that enables detailed assessment of individual solder joints. The data from the YSi-V can be fed back to enable process issues to be fixed quickly using software tools such as QA Option and the Mobile Judgement smartphone app that lets operators implement decisions from wherever they are in the factory.

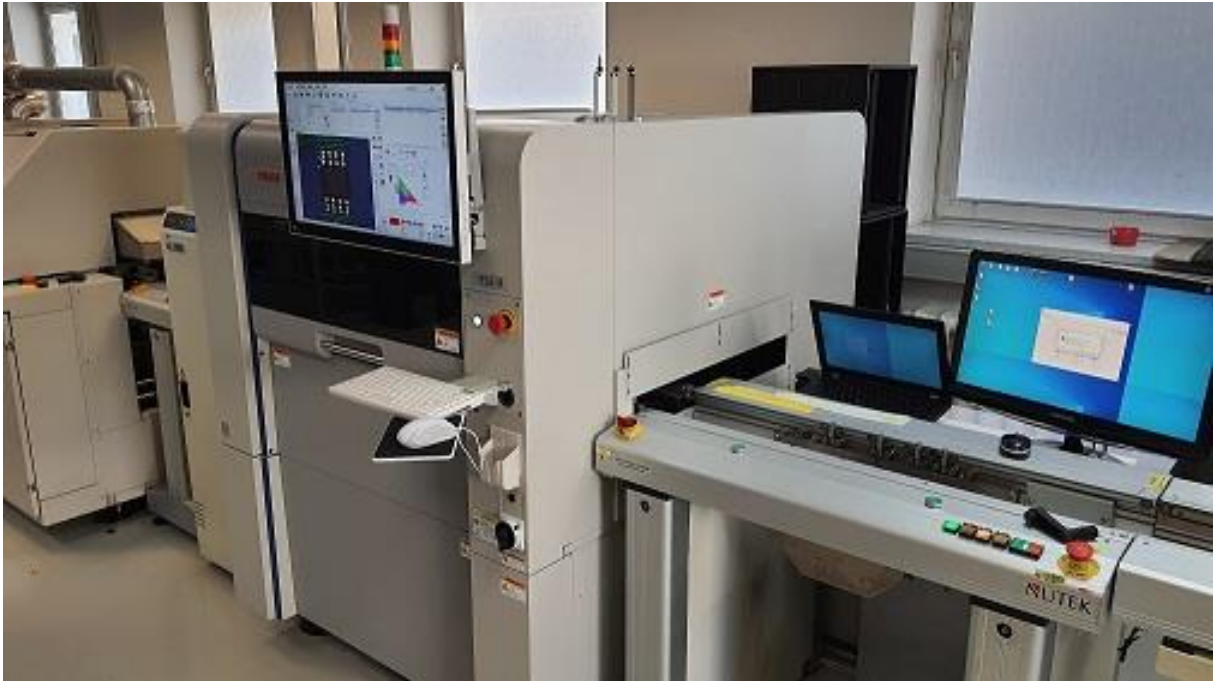


Figure 2. The Yamaha YSi-V AOI system checks each board in high-resolution and 3D.

“Understanding Elgama’s unique requirements as both an OEM and EMS business is the key to the success of this project,” comments Pierre Williams, Yamaha Area Sales Manager for Scandinavia, Baltic, UK, Ireland & South Africa. “Working with our distributor, Etama, we have delivered a solution that combines tremendous flexibility with high speed and scalability that will provide an excellent return on investment over its lifetime.”

Martynas Čereška of Elgama summarises, “Etama and Yamaha worked together to recommend a configuration that meets our needs both now and in the future, and the installation was fast and efficient. The support provided has helped us get the most from our investment, and our operators have quickly become productive with the new equipment. It’s difficult to imagine a team more committed to ensuring we are happy.”

About Yamaha Robotics SMT Section

Yamaha Surface Mount Technology (SMT) Section is a subdivision of Yamaha Motor Robotics Business Unit in Yamaha Motor Corporation. Yamaha surface mount equipment is highly acclaimed in the market for their “module concept” that enables them to keep pace with the trend toward smaller and more diverse electric/electronic parts being mounted on circuit boards.

Yamaha SMT Section has created a strong business in the surface mount industry that enables design and engineering, manufacture, sales and service to be conducted in one comprehensive system. Furthermore, the Company has used its core technologies in the areas of servo-motor control and image recognition technology for vision (camera) systems to develop solder paste printers, 3D solder paste inspection, 3D PCB inspection machines, flip chip hybrid placers, dispensers and intelligent SMD storage system. This allows Yamaha SMT Section to offer a full line of machines for electric/electronic parts mounting and propose optimum production-line makeup to answer the diversifying needs of today’s manufacturers.

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Yamaha SMT Section has sales and service offices in Japan, China, Southeast Asia, Europe and North America provide a truly global sales and service network that will safeguard best in class on-site sales & service support for clients.

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