



A smart factory for Yamato Scientific Co.Ltd. Realized by HOMAG Japan.

In an era characterized by rapid technological advancement and an ever-growing need for efficiency in manufacturing processes, the story of Yamato Scientific Co. Ltd.'s visionary expansion and partnership with HOMAG Japan emerges as a symbol of innovation and forward-thinking. This partnership marks a significant milestone in the field of manufacturing.

Yamato Scientific Co., Ltd. is a company that specializes in providing scientific and industrial equipment, laboratory facilities, and system integration services. With a global presence and a focus on quality and usability, Yamato plays a significant role in the scientific and technological fields. Founded in Japan, Yamato Scientific has a rich history in supporting scientific research and industrial advancements through its diverse product offerings.

Yamato Scientific, embarked on an ambitious journey to expand its manufacturing capabilities. The inception of this dream took shape with the conception of the Yamato Mirai Factory Shizuoka, a facility destined not just to be a production unit but a testament to the future of smart manufacturing.



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We would like to send this letter of appreciation to HOMAG JAPAN for improving production capacity, realizing smart factory, and archiving batch size one production. We thank you for these accomplishments.



Letter of Appreciation from Yamato Scientific to HOMAG JAPAN.

The start of construction in July 2023, with operations planned to begin in July 2024, marks the beginning of a new era for Yamato Scientific. The strategic location close to the Shin-Tomei Expressway enhances logistical efficiency, reinforcing the factory's foundation of operational performance and technical collaboration. And Yamato Scientific infused its new venture with a deep commitment to environmental stewardship. The Yamato Mirai Factory stands as a model of sustainability, boasting solar panels across its roof and a partial reliance on hydroelectric power, all while implementing recycling practices that underscore the company's dedication to ecological responsibility.

Situated in Shimizu-ku, Shizuoka Prefecture, the new factory sprawls over an impressive site area of 11,996.66 m², with a total floor area of 3,408.70 m². The vision for this facility was not only to double the production capacity of its predecessor but also to optimize the production process through the integration of cutting-edge technology geared towards high-mix, batch size one production capabilities.

For the realization of this complex project, Yamato Scientific required a partner that could handle everything from the

planning of the factory furnishings to the implementation of manufacturing execution systems and the processing equipment. After meticulous research and consultation, Yamato Scientific found HOMAG Japan to be the perfect partner that could breathe life into the concept of a "DX Smart Factory."

From planning to production - A turn-key solution

HOMAG Japan's contribution to the Yamato Mirai Factory was profound, supplying a suite of sophisticated software and machinery.

Established in 1999, HOMAG's Japan branch provides industrial machines for the woodworking and furniture industry including the networking of machines and plants, e.g., from house design to data preparation for production, production control technology and digital assistants.

The challenging part of installation was data construction of HOMAG iX implemented by a Homag Japan engineer and FMS which was realized with support from HOMAG China and installation the manual sorting buffer which was not digitally

connected. The installation of HOMAG panel diving saw SAWTEQ B-300, edge banding machine EDGETEQ S-500, with return conveyor LOOPTEQ O-600, CNC processing center DRILLTEQ H-600, the manual Sorting system, and a case clamp CABTEQ S-250 underscores a harmonious blend of technology whereby all machines are interlinked vertically via FMS (Factory Management System) and the flexible 3D software HOMAG iX, and horizontally through barcode technology.

Now, the core systems FMS (Factory Management Software) Standard & HOMAG iX ensure seamless integration and oversight of manufacturing operations. Barcode printed at the saw will assist operator all processing steps to complete production. It includes processing sequence of each workpiece, process itself with all the needed production steps, the CNC processing and edge banding, as well as sorting information - which cart to use, the information for cabinet press information and how to pack the final product. Even dust extraction was provided by HOMAG Japan thus, a turn-key solution.

Celebrating success: a partnership that has been strengthened.

In a gesture of recognition and appreciation, Yamato Scientific conferred a Letter of Appreciation upon HOMAG Japan in July 2024, acknowledging the contribution towards realizing the vision of a turn-key solution for their new factory. The

partnership's worth was etched in stone with the celebration of the factory's opening, an event that saw the symbolic planting of a tree by the managing director of Yamato Scientific and a distinguished guest from HOMAG Japan, symbolizing the birth of a resilient and fruitful collaboration.

The collaboration between Yamato Scientific and HOMAG Japan is an example of what can be achieved and stands as an example to the power of strategic partnership and technological know-how.

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As Yamato Scientific requested digital factory and turnkey solution by HOMAG, our focus was how we can digitally assist operator for furniture designing, production planning, optimization calculation, machine operation and for all workpiece manual handling (buffer and sorting to different orders).

Koichi Ura, Project Manager HOMAG Japan

Managing director and factory owner planting a tree by the new factory in the opening ceremony.

