

BOTTLENECK BREAKTHROUGHS

VFD ENHANCES BOTTLING
LINE EFFICIENCY

YASKAWA SUCCESS STORIES

A leading beverage producer faced a critical challenge: modernize its aging drive line to improve efficiency—without triggering costly production downtime.

To solve the problem, Yaskawa and a local distributor combined their expertise in bottling lines and industrial networking to deliver a reliable, easy-to-deploy solution.

Product GA500 Series VFD

Industry Food and Beverage

Application Bottling Line

CHALLENGE

The company needed to integrate a modern variable frequency drive (VFD) solution with its existing programmable logic controllers (PLCs) to maintain continuous processing and avoid costly downtime. Leadership was concerned that drives from other manufacturers might not integrate smoothly with the current PLC infrastructure.

Additionally, the customer wanted to adopt modern network topologies to reduce wiring complexity and lower installation costs. The entire conversion also had to be completed during night shifts to minimize disruption to the production line.

SOLUTION

Yaskawa drive specialists and a local distributor identified the GA500 as the ideal solution for the application. They partnered with the beverage company to lead a focused training session for key personnel, emphasizing the drive's intuitive programming, proven reliability, and robust networking capabilities.

A standout feature was the GA500's support for Ethernet/IP via the SI-EN3D dual-port Ethernet card. With two ports per drive, the team implemented a linear (daisy-chain) network topology—reducing cabling and installation costs. PLC integration was streamlined using Yaskawa's pre-engineered Add-On Instruction (AOI), enabling faster setup and easier control.



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RESULTS

Yaskawa GA500 drives were successfully commissioned within the scheduled downtime window. The linear network topology reduced installation time, enabling the project to be completed during night shifts as required—without disrupting production.

Expert guidance from Yaskawa and their distributor on grounding, bonding, and cable routing, paired with strong startup support, kept the project on track. The customer now benefits from reliable drive performance, improved machine control, and real-time data feedback, resulting in a more efficient and optimized bottling line.

KEY GA500 FEATURES

- Standard control inputs which include seven digital, two analog, two safe torque off, and one pulse input
- The Overvoltage Suppression feature eliminates typical VFD faults related to the excess energy of overhauling loads
- Stall Prevention & Torque Limit features to manage motor current and limit machine stress to acceptable levels
- Capable of controlling various motor types, including induction, permanent magnet (both SPM & IPM), and synchronous reluctance motors
- Alternate acceleration and deceleration times along with s-curves to tailor speed changes and reduce shock loading during acceleration
- Standard monitor outputs include three digital, one analog, one pulse, and a 24 Vdc supply
- The GA500 Series VFD allows programming without connecting main power by use of the DriveWizard® Mobile application. Simply plug into one of your PC's USB ports or any USB on-the-go device and start programming
- Yaskawa's award-winning 24-hour technical support department is free of charge

Looking to enhance efficiency at your food and beverage-adjacent business? Contact Yaskawa today.



SCAN HERE



For more information on the GA500 Series VFD visit: www.yaskawa.com/ga500

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