



GULLCO Publishes Practical Guide to Tank Welding Automation for Fabricators

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GULLCO International, a manufacturer of welding automation, carriage, and plate beveling equipment, has released a new guide titled "Tank Welding Automation: A Practical Guide to Improving Quality, Productivity, and Consistency." The downloadable eBook, now available on the company's website, is intended to help tank fabricators evaluate where mechanized welding can strengthen their operations.

The guide arrives as fabricators of storage tanks, pressure vessels, and process equipment face steady demand alongside a limited supply of experienced welders. Industry groups, including the American Welding Society, have repeatedly pointed to a growing gap between the number of skilled welding professionals needed and the number entering the trade. For many shops, that gap has made consistent output on long, repetitive weld seams more difficult to maintain.

According to GULLCO, the new resource focuses on how tank welding automation can improve weld consistency, increase productivity, reduce rework, and make better use of skilled labor. Rather than presenting automation as a replacement for welders, the guide frames mechanized equipment as a way to let experienced personnel focus on setup, inspection, and more complex joints.

"Tank fabricators are under pressure to deliver more work with the same crews, and the long seams on a tank shell are exactly where inconsistency and fatigue tend to show up," said Jeff Zook, Director at GULLCO International. "This guide is meant to be a practical starting point. It walks through how to identify the right applications, choose the right process, and build a realistic business case before a shop spends any money on equipment."

The eBook is organized around three core areas of decision-making. The first covers how to identify welding applications suited to automation, such as longitudinal seams, circumferential girth welds, and other joints with predictable geometry and long travel distances. The second addresses process selection, including considerations for submerged arc welding, flux-cored arc welding, and gas metal arc welding in tank and vessel work.

The third section outlines how fabricators can develop a business case for an automation investment. It discusses factors such as travel speed control, deposition rates, arc-on time, repair rates, and labor allocation, which together influence the return on investment for mechanized welding equipment. The guide encourages shops to look at the full production picture, including joint preparation and fit-up, rather than the welding step alone.

Joint preparation receives particular attention because weld quality on thick tank plate depends heavily on consistent bevels and proper backing. GULLCO manufactures equipment across that workflow, including the KAT® automated welding carriage, KBM plate beveling machines, KATBAK ceramic weld backing, and electrode stabilizing ovens. The guide references how these steps connect to produce repeatable weld beads and fewer defects.

Consistency is a recurring theme throughout the publication. Manual welding on long seams can produce variation in bead profile, penetration, and heat input from one section to the next, which can lead to inspection failures and costly rework. Mechanized carriages hold a steady torch angle and travel speed, helping fabricators meet the requirements of codes and standards commonly applied to tank construction, such as API 650 and the ASME Boiler and Pressure Vessel Code.

"Most of the shops we talk to are not asking whether automation works," Zook added. "They want to know where it fits in their process and how to justify it. Giving them a clear framework for that conversation was the goal of this guide."

The guide is written for a range of readers, including shop owners, production managers, welding engineers, and quality control personnel. It is designed to be useful both to fabricators taking a first look at mechanized welding and to those looking to expand existing automation across more of their production line.

GULLCO International has more than seven decades of experience designing and manufacturing welding and cutting automation equipment. The company serves customers in shipbuilding, tank fabrication, infrastructure, military, oil and gas, and power generation. GULLCO has invested more than \$12 million in CNC manufacturing equipment to support its production capabilities.

The company operates facilities in Macedonia, Ohio, and Newmarket, Ontario, and supports customers through a network of distributors worldwide. Its product line includes welding carriages, oscillators, plate and pipe beveling machines, weld backing products, and related accessories used in heavy fabrication.

The release of the tank welding automation guide is part of GULLCO's broader effort to provide educational resources that help fabricators make informed equipment decisions. The eBook can be downloaded by completing a short request form on the company's website.

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Gullco International

Gullco International is a leading manufacturer and world supplier of welding automation, with over 70 years in business, available in 80 countries worldwide.

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