

FAB-PAR

SYSTEMS

2 | Lincoln Electric Automation: Fab-Pak Robotic Welding Systems

Understanding Drives Solutions

Here at Lincoln Electric Automation, we provide comprehensive expertise and product portfolios to be the one-stop shop for manufacturers looking to automate their business. Whether you are a single-shop manufacturer turning to automation for the first time or an international corporation designing a completely automated facility, our standard and custom solutions in collaborative robots, robotic welding systems, automated guided vehicles (AGVs), and more can make that happen. Processes such as build-to-print, finishing, assembly, and cutting simply scratch the surface of what we can do with your manufacturing.

The Fab-Pak Robotic Welding Systems

Lincoln Electric Automation currently has four standard Fab-Pak® robotic welding system offerings that ship in as little as four weeks. They accommodate different consumable sizes, orientation needs and workspace configurations. The standard systems were designed with modularity and flexibility in mind to help drive competitive pricing and fast lead times. These include the Fab-Pak CDZ (Compact Dual Zone), Fab-Pak XFT (Indexing Fixed Table), Fab-Pak XHS-CM (Indexing Fixed Headstock-Center Mount) and Fab-Pak FHS-B2B (Fixed Headstock- Back-to-Back) robotic welding systems.

About Lincoln Electric

Lincoln Electric is the world leader in the engineering, design, and manufacturing of advanced arc welding solutions, automated joining, assembly and cutting systems, plasma and oxy-fuel cutting equipment, and has a leading global position in brazing and soldering alloys. Lincoln is recognized as the Welding Expert[™] for its leading materials science, software development, automation engineering, and application expertise, which advance customers' fabrication capabilities to help them build a better world. Headquartered in Cleveland, Ohio, Lincoln operates 71 manufacturing and automation system integration locations across 21 countries and maintains a worldwide network of distributors and sales offices serving customers in over 160 countries. For more information about Lincoln Electric and its products and services, visit the Company's website at https://www.lincolnelectric.com.



FAB-PAK CDZ

(COMPACT DUAL ZONE)

The Fab-Pak® CDZ standard robotic welding system is ideal for small- to medium-sized parts that need reorientation.

SYSTEM INCLUDES

- · Power Wave® R450 power source
- · AutoDrive® 4R100 wire feeder
- · Magnum® PRO robotic torch
- · Power Ream® II torch maintenance unit
- · FANUC® welding robot
- · Robot basic software package
- · Wire mesh panels with weld curtains
- · Push button control

- · Thru Arc Seam Tracking
- · Virtual or in-person training
- · Headstock positioner in each zone
- · LaserTouch (requires water-cooled torch)
- · Water-cooled torch
- TouchSense
- · Touchscreen HMI
- · Fume filtration
- · Tooling tables and beams
- · ABB® welding robot





FAB-PAK FHS-B2B

(FIXED HEADSTOCK BACK-TO-BACK)

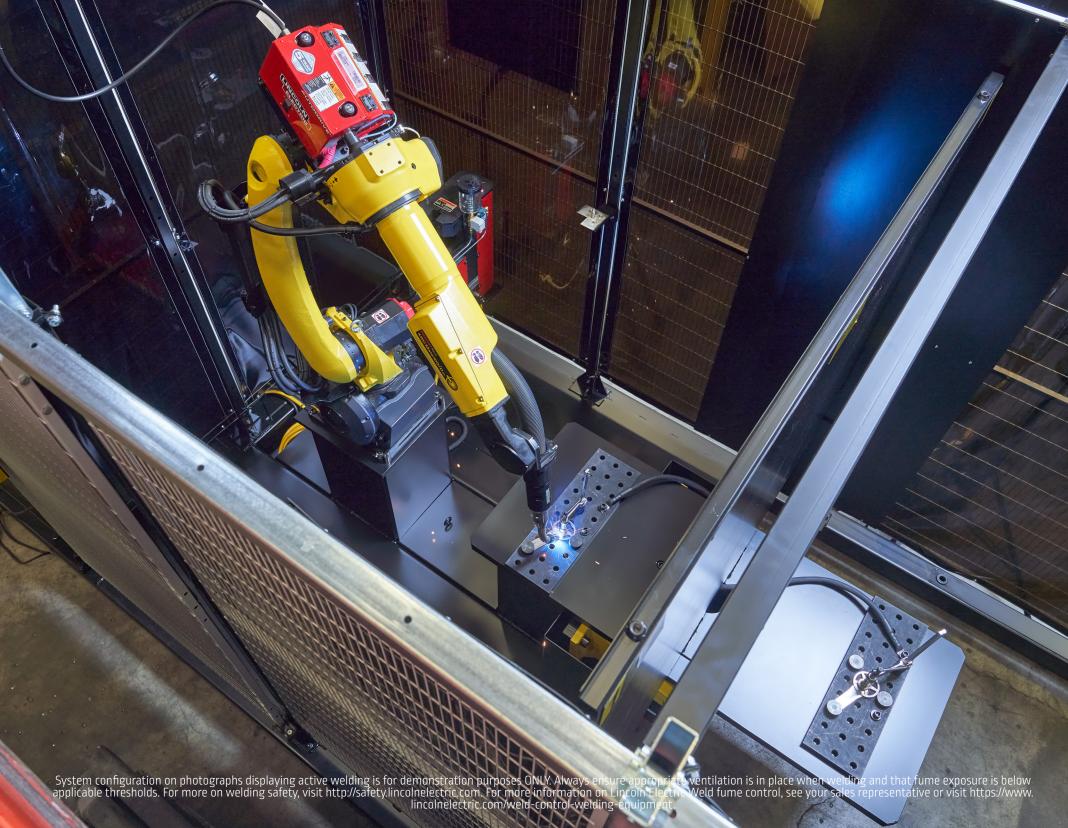
The Fab-Pak® FHS-B2B standard robotic welding system is ideal for medium- to large-sized parts that need reorientation.

SYSTEM INCLUDES

- · Power Wave R450 power source
- · AutoDrive 4R220 wire feeder
- · Magnum PRO robotic torch
- · Power Ream II torch maintenance unit
- · Headstock/Tailstock positioner
- Welding robot(s) (FANUC or ABB)
- · Robot basic software package
- · Wire mesh panels with weld curtains
- · Push button control

- · Water-cooled torch
- · LaserTouch (requires water-cooled torch)
- TouchSense
- · Thru Arc Seam Tracking
- · Touchscreen HMI
- · Fume filtration
- · Tooling tables and beams
- · Virtual or in-person training





FAB-PAK XFT

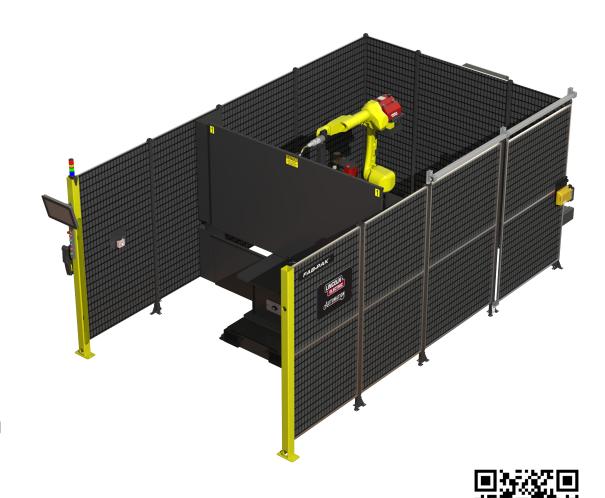
(INDEXING FIXED TABLE)

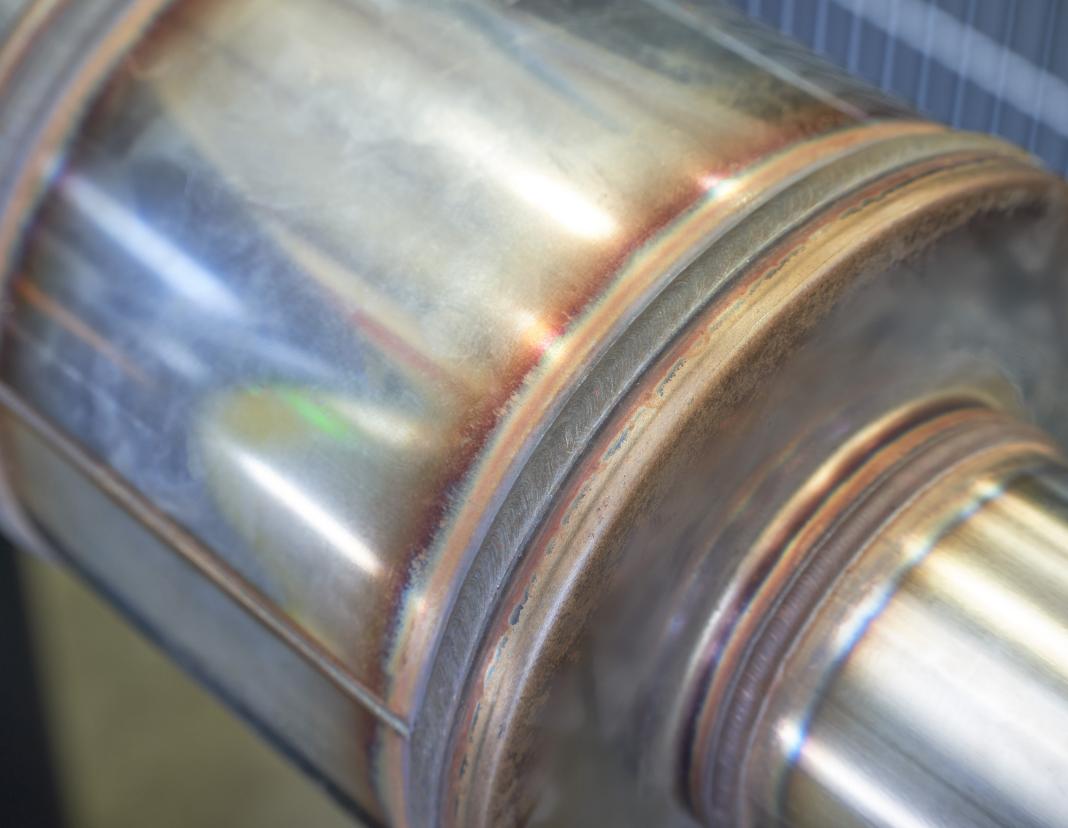
The Fab-Pak® XFT standard robotic welding system is ideal for small- to medium-sized parts that don't need reorientation.

SYSTEM INCLUDES

- · Power Wave R450 power source
- · AutoDrive 4R100 or 4R220 wire feeder
- · Magnum PRO robotic torch
- · Power Ream II torch maintenance unit
- · FANUC welding robot
- · Robot basic software package
- · Wire mesh panels with weld curtains
- · Push button control

- · Water-cooled torch
- · LaserTouch (requires water-cooled torch)
- TouchSense
- · Thru Arc Seam Tracking
- · Touchscreen HMI
- · Fume filtration
- · Tooling tables and beams
- · Virtual or in-person training
- · ABB welding robot (for certain configurations)





FAB-PAK XHS-CM

(INDEXING HEADSTOCK CENTER MOUNT)

The Fab-Pak® XHS standard robotic welding system is ideal for small- to medium-sized parts that need reorientation.

SYSTEM INCLUDES

- · Power Wave R450 power source
- · AutoDrive 4R220 wire feeder
- · Magnum PRO robotic torch
- · Power Ream II torch maintenance unit
- · Servo-driven H-Frame indexing unit
- · FANUC welding robot
- · Robot basic software package
- · Wire mesh panels with weld curtains
- · Push button control

- · Water-cooled torch
- · LaserTouch (requires water-cooled torch)
- TouchSense
- · Thru Arc Seam Tracking
- · Touchscreen HMI
- · Fume filtration
- · Tooling tables and beams
- · Virtual or in-person training







CHOOSE YOUR FAB-PAK SYSTEM

Here are some key features with each system to help you decide!

Do you need a system with a compact footprint to weld small parts?

If so, the **Fab-Pak CDZ** system is for you!



Do you need to load parts for the next cycle while the robot welds small parts?

If so, the **Fab-Pak XFT** system is for you!



Do you need to load parts for the next weld cycle while the robot welds medium-sized parts?

If so, the **Fab-Pak XHS-CM** system is for you!



Do you need a system with a dual-zone work area to weld large parts?

If so, the **Fab-Pak FHS-B2B** system is for you!



WHICH SYSTEM IS RIGHT FOR YOU?

Explore the different families of robotic welding systems designed to fit your needs, no matter how simple or complex your welding is!

Pro-Pak Robotic Welding Systems

The Pro-Pak® family of pre-engineered robotic welding systems from Lincoln Electric Automation enhance part production by helping to improve productivity, quality, and safety. Pro-Pak systems are the solution for high-volume and low- or high-mix welding automation or a new standard addition to your production process.



Cooper Welding Cobots

Cooper™ welding cobots help improve weld productivity, quality, and repeatability in a collaborative way. We developed the Cooper App for easy-to-use programming. The Power Wave® R450 robotic welding platform runs the systems with industry-leading performance. Cooper welding cobots are for those who value flexibility, workplace safety, and cost-efficiency.



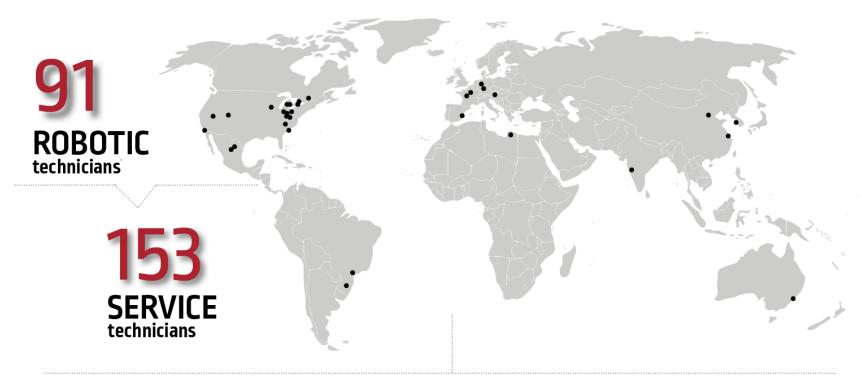
Laser-Pak Robotic Laser Systems

Designed for various industries including automotive, appliance, and aerospace, the Laser-Pak™ family offers our customers laser solutions that help sharpen their competitive edge. Ideal applications for these systems include laser welding, cladding, feature building, joining, brazing, and additive manufacturing. Free yourself from the arc with Precision Power Laser™ featured in Lincoln Electric Automation Laser-Pak systems!



Learn more at https://www.lincolnelectric.com/en/Products/Automation/Robotic-Automation/Standard-Robotic-Welding-Cells

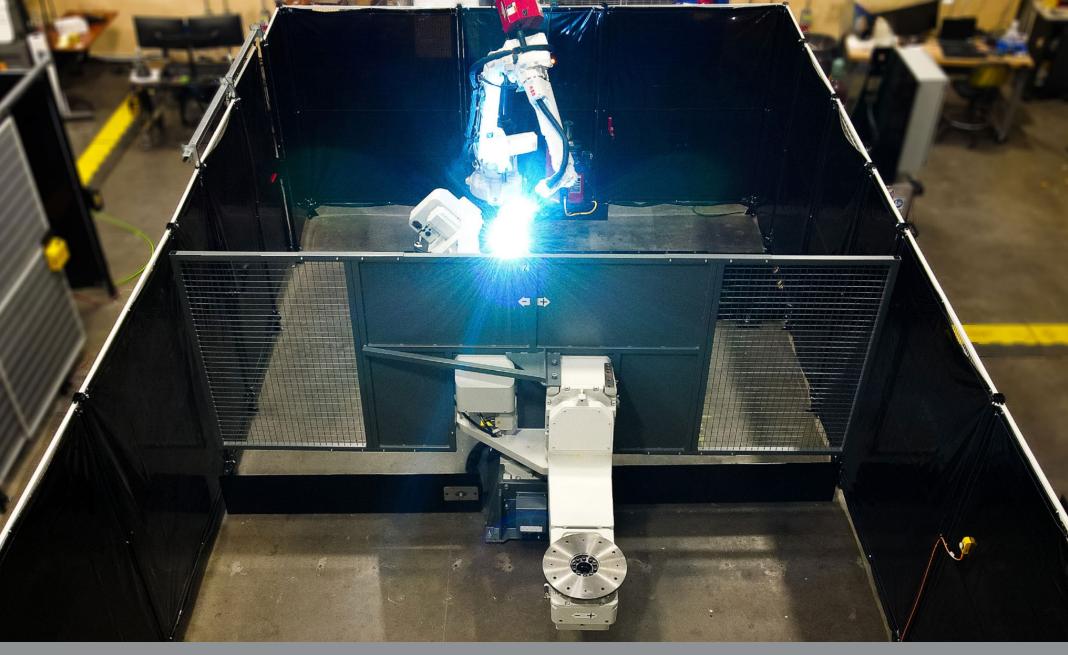
AUTOMATION MANUFACTURING LOCATIONS



Apodaca, Mexico
Beijing, China
Bettendorf, IA, USA
Caxias do Sul, Brazil
Chattanooga, TN, USA
Churubusco, IN, USA
Cleveland, OH, USA
Coldwater, OH, USA
Columbus, OH, USA
Essen, Germany
Fort Collins, CO, USA

Fort Loramie, OH, USA
Guarulhos, Brazil
Hamilton, ON, Canada
Ladson, SC, USA
Macomb, MI, USA
Merzig, Germany
Mississauga, ON, Canada
Parthenay, France
Pont-Sainte Maxence, France
Pune, India
Reno, NV, USA

Saltillo, Mexico
San Diego, CA, USA
Scheifling, Austria
Shanghai, China
Shelby Township, MI, USA
Siheung-Si, South Korea
Sydney, Australia
Valencia, Spain
Vankleek Hill, ON, Canada
Weiterstadt, Germany







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System configuration on photographs displaying active welding is for demonstration purposes ONLY. Always ensure appropriate ventilation is in place when welding and that fume exposure is below applicable thresholds. For more on welding safety, visit http://safety.lincolnelectric.com. For mo

The operation of weiging time control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific weiging procedure and application involved.

Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TIV limits.

IISTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purplesses may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, expenses, however, are not in a position to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or any vustomers, and the properties of the provision of such information includes any miningle warranty its required and the provision of times for any vustomers, and required any customers, its required and the provision of similar warranty is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the definition of specifications, and the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

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