What is Hybrid Laser GMAW?
Hybrid Laser GMAW welding is an automated, high-performance welding process which results in a very narrow heat-affected zone (HAZ) with deep penetration and high travel speeds relative to traditional processes. This breakthrough approach combines the highly focused intensity of a laser with the joint filling capability of the traditional MIG process. By combining the two, hybrid laser welding provides a unique opportunity for thicker welds with less filler metal or higher travel speeds than typical welding, depending on the material thickness.

As an extension of the revolutionary Power Wave® Waveform Control Technology®, Lincoln Electric’s patent-pending Hybrid Laser GMAW process allows for the use of a single controller to manage the synergic operation of BOTH welding current and laser power, unlike conventional offerings. This seamless control architecture and synchronized starting and ending results in increased productivity and a higher quality weld than with other Hybrid Laser GMAW systems.

SYNERGIC WAVEFORM CONTROL™
Both welding current and laser power are precisely controlled for optimal results.

EASY INTEGRATION
Seamless Adaptive Control Architecture™ provides integration of the power source, laser, robotics, hard automation and many other elements through one process controller.

PRECISION CONTROL
Heat input, deposition and travel speed are all tightly monitored and controlled for seamless operation and the highest quality welds.

DEDICATED EQUIPMENT
Lincoln’s state-of-the-art Power Wave® i400L is designed specifically for Hybrid Laser GMAW applications.

HIGHEST QUALITY CONSUMABLES
Lincoln’s commitment to quality standards is unmatched in the welding industry. With welding consumables available to match any application, you’re sure to get a high-quality weld that meets your specific demands.

INDUSTRY-LEADING APPLICATION KNOWLEDGE & SUPPORT
As the Welding Experts®, Lincoln Electric is the global leader in the development of custom arc welding solutions and processes for your application to help improve your bottom line.

STRONG INDUSTRY PARTNERSHIPS
Working closely with companies like FANUC Robotics, IPG Lasers and II-VI/HighYAG processing heads and optics allows Lincoln Electric to offer flexible and comprehensive solutions.
CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers’ particular purpose is specifically disclaimed.

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