

CLASSMATE LASER

CLASSROOM LASER WELDING SYSTEM



LIGHTING THE WAY FOR THE NEXT GENERATION OF WELDERS.

A complete, all-in-one laser-welding cell designed for training students in advanced laser welding technologies. Utilizing both a laser system and robotic arm, the laser welding process is programmable and integrated via the teach pendant. A laser welding cell complete with everything each student needs including fume extraction, laser optics, water chiller- all in one cart!

- Complete educational software assets at an affordable price.
- Everything you need to teach the class safely and productively.
- Advanced manufacturing and technology capabilities.
- Transformational capabilities and processes.
- CDRH Class 1 Laser Safe Enclosure.
- Laser Cell door with interlock: no chance for exposure to laser.
- Small footprint: fits into a 36" doorway.

Processes »

Laser

Applications »

Education

Input »

240 VAC, 1-Phase,
60Hz, 60A Single
Disconnect

120 VAC Wall
Outlet Supply

80 PSI Compressed
Air Supply

Output »

1000 W Maximum
Average Power

5 - 100% Power
Tunability

[at 1070 nm (\pm 10 nm)
Wavelength]

Product Numbers »

AD2446-15

KEY FEATURES

- » **Compact and portable**
- » **Fully integrated, turnkey training system**
- » **Great for introducing students to lasers and advanced material processing**
- » **Suitable for laser processing on many different materials including:**
 - **Steel, stainless steel and other ferrous alloys**
 - **Thin-walled aluminum, and other non-ferrous alloys**
 - **Dissimilar material joining applications**
 - **Non-metallic materials**

SYSTEM INCLUDES

- Compact robotic welding system
- Laser Welding Solution – Advanced Tech
- Mobile cart, small footprint
- Fanuc 50iD/7L Robot - R30iB+ Mate Controller
- nLIGHT CFL-1000 Fiber Laser Oscillator
- 240VAC-1P for System Operation
- 50 W to 1000 W Output
- Laser Mechanisms FiberMINI® 2.0 Processing Head
- SMC HRS030-AN-20 Compact Thermo Chiller
- X-Tractor Mini® Fume extraction included
- 2 Instructor seats in our automation/laser course

OPTIONS AVAILABLE

- Educational WeldPRO Package
- Jumpstart Package
- Camera & Monitor
- Cutting Package

PRODUCT SPECIFICATIONS

Product Name	Product Number	System Type	Laser Type	Output Range	Rated Output	Overall Footprint in (mm)	Fixed Table Work Envelope in (mm)	Payload Per Zone lb (kg)
Classmate Laser	AD2446-15	Fixed Table	Multimode Rackmount Fiber Laser Oscillator	1000 W Maximum Average Power [5 - 100% Power Tunability]	Constant Wattage (CW): 1000 W [at 0% to 100% Duty Cycle] Modulation (Pulse) Frequency: ≤ 100 kHz [with Rise and Fall Times ≤ 5μs]	35 x 78 [889 x 1981]	30 x 30 [762 x 762]	495 [225]

For best welding results with Lincoln Electric® equipment, always use Lincoln Electric consumables. Visit www.lincolnelectric.com for more details.

CUSTOMER 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, purchasers 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, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. 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 technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or 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.

The Lincoln Electric Company
22801 St. Clair Avenue · Cleveland, OH · 44117-1199 · U.S.A.
www.lincolnelectric.com