

# VRTEX<sup>®</sup> Mobile

## VIRTUAL REALITY ARC WELDING TRAINER

### BLENDING TRAINING SOLUTIONS FOR WELDING EDUCATION

The VRTEX systems are virtual reality arc welding training simulators. These computer based training systems are educational tools designed to supplement and enhance traditional welding training. They allow students to practice their welding technique in a simulated and immersive environment. The VRTEX systems promote the efficient transfer of quality welding skills and body positioning to the welding booth while reducing material waste associated with traditional welding training. The combination of realistic puddle, arc welding sound, and real-time feedback tied to the welder's movement provides a realistic and exciting, hands-on training experience.

The VRTEX<sup>®</sup> Mobile is a basic, entry level welding training system. It is designed to provide mobility in an easy to use and engaging welding training tool. The VRTEX Mobile is ideal for initial, basic welding training, as a recruitment and engagement tool for educational and industry and for employment and screening for human resources or as an evaluation tool for instructors and educators to get a baseline on student knowledge. The VRTEX Mobile is definitely on the move!

**EASILY TRANSPORTED** from classroom to classroom or to a recruitment event or open house. The VRTEX Mobile can be ready to go in a matter of minutes.

**TOUCHSCREEN USER INTERACTION** provides equipment and procedural set-up on an intuitive, resistive touchscreen. All screens mirror the VRTEX 360, making transfer of interaction seamless between the systems.

**UNIVERSAL GUN HANDLE** allows for connection of a MIG/MAG gun attachment for GMAW and FCAW, and a stick attachment for SMAW welding.

**TABLETOP COUPON STAND** easily attaches and stands on a standard table for welding and is taken apart for quick and simple storage inside the VRTEX Mobile.

### VRTEX MOBILE PROVIDES:

#### FLEXIBILITY

- » Multiple welding processes and positions
- » Variety of joint configurations
- » Instructor tools allow modification based on preferred welding program and style

#### INNOVATION

- » Realistic welding puddle appearance and sounds
- » Magnetic tracking system provides accurate measurements for student score and evaluation
- » Virtual weld discontinuities appear in the weld when improper welding technique is used

#### CLASSROOM PERFORMANCE

- » Visual cues give real-time technique feedback
- » Advanced scoring system for student evaluation
- » Encourages interaction – the instructor can coach the welder while conducting virtual weld inspection
- » Record, archive and verify student work.

#### CONSUMABLE AND ENVIRONMENTAL SAVINGS

- » No welding consumables, wire or waste
- » Track savings with the Weldometer™

#### LANGUAGE SUPPORT

English, French, German, Spanish, Turkish, Japanese, Chinese [Mandarin], Portuguese [Brazilian], Russian, Korean, Hindi and Arabic

#### DEMO MODE:

Allows the instructor or student to view an example weld or a demonstration of proper technique, prior to a weld being made

#### REPLAY MODE

Allows for instructor or student to review and analyze the welding process



The VRTEX Mobile system allow students of any age to try welding in a safe, virtual environment with realistic graphics, from a military base to a motorsports garage. Note: table not included.



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### SET-UP AND INSTALLATION REQUIREMENTS:

- The VRTEX system requires minimal space for set-up. Dimensions are 8 W x 8 D x 8 H ft. (2.4 x 2.4 x 2.4 m).
- When operating multiple units in one location, switch between standard and alternate frequency systems (unique part numbers are identified).
- The VRTEX Mobile system is not designed for operation in harsh environments. Recommendations are listed in the instruction manual.
- Avoid magnetic fields, conductive and high frequency objects and processes.
- An uninterruptible power supply (UPS) may be required for protection of the system from power irregularities and/or disruptions.

#### VRTEX<sup>®</sup> Mobile Orderable Items

VRTEX Mobile One-Pak <sup>®</sup>	AD2436-1 – VRTEX Mobile Standard Frequency One-Pak AD2436-2 – VRTEX Mobile Alternate Frequency One-Pak
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#### VRTEX<sup>®</sup> Mobile Welding Machine Components and Specifications

Computer	» Windows <sup>®</sup> 7 Professional » Intel <sup>®</sup> Core <sup>™</sup> i5 Quad Processor » 4 GB DDR Memory	» 60 GB Solid State Hard Drive » High Powered Graphics Card
Monitor	17 inch LCD Monitor – Resistive Touch Screen	
Speakers	2.0 USB Powered Speakers	
VRTEX Mobile Stand	Detachable Coupon Stand with Fixed Height	
VRTEX Welding Handle & MIG/MAG Attachment	Simulates GMAW, SMAW, FCAW-S and FCAW-G GMAW » Short Arc: SuperArc <sup>®</sup> L-56 <sup>®</sup> , 0.035 in (0.9 mm) » Axial Spray: SuperArc L-56, 0.045 in (1.1 mm) » Pulse: SuperArc L-56, 0.045 in (1.1 mm) FCAW » Gas-shielded: UltraCore <sup>®</sup> 71A85, 0.045 in (1.1 mm) » Self-Shielded: Innershield <sup>®</sup> NR <sup>®</sup> -232, 5/64 in (2.0 mm) Simulated SMAW » E6010 (Fleetweld <sup>®</sup> 5P+); » E6013 (Fleetweld 37); » E7018 (Excalibur <sup>®</sup> 7018)	
Demo and Replay Modes	» Allow the instructor or student to view an example weld or a demonstration of proper technique prior to a weld being made » Allow the instructor or student to review and analyze the welding process	
Language Support	English, French, German, Spanish, Turkish, Japanese, Chinese (Mandarin), Portuguese (Brazilian), Russian, Korean, Hindi and Arabic	
Welding Coupons	Tee joint, Flat plate, Groove joint	
Helmet	VRTEX helmet including face mounted display (FMD) with monoscopic output	
VRTEX New Lessons in Welding	VRTEX curriculum contains spiral bound guide and videos » K3205-1 SMAW Edition; » K3206-1 GMAW/FCAW Edition	
VRTEX Project Based Lessons	Project based lessons for the VRTEX Welding Training Systems is a workbook containing 15 lessons that can be implemented with a welding curriculum. » K4057-1 Project Based Lesson 1 – Student Workbook » K4058-1 Project Based Lesson 2 – Student Workbook » K4057-2 Instructor Guide for Project Based Lesson 1	

#### VRTEX<sup>®</sup> Mobile Operating and Shipping Specifications

Input Power	115/230/1/50/60
Input Current	4 A at 115, 2 A at 230
Net Weight	Machine: 125 lbs (56.7 kg); Monitor: 20 lbs (9 kg); Crate: 155 lbs (70.3 kg); Armrest: 7 lbs (3.1 kg)
Dimensions (H x W x D)	Machine: 32.5 x 19.5 x 38.5 in (826 x 496 x 978 mm); Monitor: 14.4 x 15.4 x 8.0 in (366 x 392 x 204 mm); Coupon Stand with Arm: 17 x 12 x 14 in (431 x 305 x 356 mm)
Packaged Weight	312 lbs (141.5 kg)
Packaged Dimensions	48 x 24 x 48 in (1220 x 610 x 1220 mm)

#### 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.

Lincoln Electric is a responsive manufacturer, but 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.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.

### JOIN THE VRTEX<sup>®</sup> COMMUNITY!



Sign up for the First Pass<sup>™</sup> Newsletter at [www.vrtex.com](http://www.vrtex.com):

See upcoming events, customer highlights, Lincoln Electric activity, updates and tips and tricks to help with your implementation of virtual reality welding training in your environment.

[twitter.com/VRTEX](https://twitter.com/VRTEX)

Interact with us on Twitter<sup>®</sup> and let us know how, where and when you are using your VRTEX welding training products.

[facebook.com/VRTEX](https://facebook.com/VRTEX)

Join us online and hear what others are saying. Interact and like posts and updates that you find exciting and interesting. We'd be happy to hear from you.

### EXCEPTIONAL CUSTOMER SERVICE

Lincoln Electric has a global network of facilities and people to provide quick response and personalized attention. No matter where your welding operations are located today, no matter where they will be tomorrow, Lincoln Electric experts are ready to provide local support and create and implement solutions to fit your needs.

### SERVICE AND SUPPORT THAT YOU CAN COUNT ON

- 24/7 Phone Support 1-888-935-3878
- Contact us with comments or questions [vrtex@lincolnelectric.com](mailto:vrtex@lincolnelectric.com)
- Online Tips and Tricks ([www.vrtex.com](http://www.vrtex.com))
- Warranty and Service Support
- Train-the-Trainer programs held regularly in facilities or on-site training and set-up can be purchased.



22801 Saint Clair Avenue  
Cleveland, Ohio • 44117 • U.S.A.  
Phone: +1 216 481 8100  
[www.lincolnelectric.com](http://www.lincolnelectric.com)

### FOR MORE INFORMATION CONTACT US!



58 East South Street,  
Rossville, IN 46065  
800-251-9935  
[info@aidex.com](mailto:info@aidex.com)  
[www.aidex.com](http://www.aidex.com)