THE LINCOLN ELECTRIC COMPANY

Pitt Community College

Success Story

Lincoln Electric's Virtual Welding System Helps Put New Welders on Solid Career Track

North Carolina's Pitt Community College Uses VRTEX® 360 to Introduce Basic Welding Skills Before Students Enter the Actual Welding Booth

At Pitt Community College in Eastern North Carolina, the shortage of skilled welders combined with aftershocks from the area's challenged economy have created a perfect scenario: rapidly growing enrollments in the school's welding associate's degree and certification training programs.

"We've had a tremendous surge in welding enrollments for at least the past couple of semesters," notes Roy Lanier, welding department chair at the college, based in Winterville, North Carolina. "Right now we have more than we ever have had—230 students for the spring semester, and that's not including students enrolled in our high school vocational education and tech prep training programs."

Many joint configurations are possible using the available VR Coupons and multi-position Weld Arm and Table.

The college, which has an annual enrollment of roughly 10,000 students, offers two-year college transfer, two-year technical and one-year vocational degrees, as well as short-term certificate programs and extensive continuing education programs. It serves one of every seven adults in the county each year and is a leader in local workforce training, ranging from basic skills updating to high-tech coursework designed for small businesses and new and expanding industries.

Pitt's welding technology curriculum provides its diverse student base with a sound understanding of the science, technology and applications essential for successful employment in the welding and metal fabrication industries. The surrounding region offers a variety of welding career options, including heavy and light industrial, job shop work and construction. Because Pitt County is less than 90 miles from the Atlantic Ocean, the area also has a number of boat fabrication facilities.

"For years we have had a shortage of skilled welders," Lanier notes. "Some of this is because the needs of our local industry are so different and widespread. Local construction work requires MIG, stick and TIG skills, while the production section relies heavily on just MIG."

Consequently, the school's welding degree program, as well as its related certification programs cover stick (SMAW), TIG (GTAW), MIG (GMAW) and pipe welding. Because the needs of the local industry, not to mention the college's student base, are so diverse, Lanier looked into adding a virtual reality arc welding trainer as a tool to not only get existing students introduced to the fundamentals of all types of welding before actually going into the welding booth, but also to introduce potential new students to the welding industry.

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A desert base is one of several virtual environments available with the VRTEX® 360.

The VR Helmet immerses the student in a virtual reality welding world through 3D stereo eye pieces and sound.

He immediately was sold on Lincoln Electric's VRTEX® 360 virtual reality arc welding training system and acquired a unit for the school. The VRTEX® 360 is a VRAW™ (Virtual Reality Arc Welding) training solution that provides a "virtual" hands-on training experience that allows students to complete more passes than traditional training.

The unit feeds computer-generated data to a VR Welding Helmet equipped with internal monitors. Welding technique variables data are provided by sensors in the VR Welding Gun or VR Stinger. Students can practice in a variety of virtual reality welding environments, including simulated welding booth training or field welding applications such as a construction site or desert base. ■

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