



GREG SIEPERT

Welding Technology Instructor
Hutchinson Community College
Hutchinson, KS

"This system gives them real-time feedback on what they're doing and if it is right or wrong, and it builds their confidence."

-Greg Siepert

REALITYWORKS SUCCESS STORY

College Welding Instructor Uses In-Helmet Welding Guidance System to Boost Student Confidence

by Emily Kuhn

For Hutchinson Community College Welding Technology Instructor Greg Siepert, Realityworks' guideWELD real welding guidance system is a portable, easy-to-use way to rid seasoned welders of bad habits and boost the confidence of first-time welders.

"We struggle with confidence a lot," said Siepert, who teaches the first year of this Kansas vocational school's two-year welding program. "When students are in the booth, I can't tell them in the middle of a weld that they're right where they need to be, but when they don't know, even if it looks right, they aren't confident in their ability. This system gives them real-time feedback that what they're doing is right, and it builds their confidence."

That real-time feedback is provided inside the welding helmet on work angle, travel angle and arc speed during live, arc-on welding. It occurs in the user's periphery vision, similar to the manner in which video games communicate information to players on-screen. With the guideWELD helmet in place, users see real-time guides on the right and left sides of their vision, and can focus on those guides or their weld as needed during a weld.

The guideWELD system, which works with almost any MIG welding machine, consists of a welding helmet, speed sensor board and hand sensor.

Once the user has calibrated his or her welding gun, he or she can turn on all three indicators simultaneously or focus on one or two at a time.

"The big application for this system is for those who are struggling with



The guideWELD™ LIVE real welding guidance system being used as a training tool during live welding.

those basics," said Siepert. "You can give this to them, show them the indicators and watch them make the change."

According to Siepert, a lack of confidence is a common problem among his first-year welding students. He shared the story of one student who had the skills down but "didn't feel right about his welds."

"I gave him the guideWELD system to use, and got him set up," Siepert recalled. "I had him work with it

"The big application for this system is for those who are struggling with those basics. You can give this to them, show them the indicators and watch them make the change."

-Greg Siepert

for 30 minutes, and he came back and said he got it – and his welds had vastly improved. So did his confidence."

Although Siepert teaches a beginning welding program, his classes often include students with a range of backgrounds and experiences. In addition to reinforcing basic welding technique and positioning, Siepert also found the guideWELD system to be a useful supplement for retraining.

"This system is good for students who come out of industry or another program or from being taught at home and had bad habits," said Siepert. "Habits are hard to break, and this would help – they would know exactly what to correct in real time."

Being able to easily introduce the system to students of different technical abilities was key, according to Siepert, who started using it with a class of varying abilities. Some students had never welded before, some had some education and one was a displaced worker with no formal education but years of experience.

"The setup is phenomenal because it's quick and fast," said Siepert. "I could pick the system up and move it to a booth, and it didn't involve any modification of what I did. All I had to do was show the student how to use it."

As Siepert pointed out, however, being able to successfully introduce the system to a new student goes beyond just getting them started. For those who have never seen this kind of technology in a welding shop before, successful implementation can

mean establishing an understanding of why this type of tool works – and that it is OK to use.

"As welding education improves and technology improves along with it, and we slowly start moving away from how it's been done for years, there's still a consensus that if there are supporting teaching aids used, it's a walk of shame," said Siepert. "We're trying to fight that... this system adds another level to their education."

The guideWELD system includes curriculum, which features units on safety, welding defects and welding procedure specifications. Presentation slides, teacher guides, worksheets and tests are provided as well.

"Any time you can take away frustration and build confidence, you gain retention," said Siepert. "This system is a stepping stone from the virtual world to the real world."



The guideWELD™ LIVE real welding guidance system being used as a training tool during live welding.