



BUILDING A WELDING PROGRAM BUILDS COMMUNITY

Small town advances bilingual welding program with local and industry support.

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Summit High School's welding program appeals to students who want to pursue a welding career and builds confidence to help students learn a practical skill.

Breckenridge — a small Colorado town with mountain appeal, six ski areas and plenty of all-season recreation. People come as visitors, fall in love and move here. Unfortunately, new residential construction consumes an unfair share of the area's limited workers, resulting in a mounting shortage of skilled tradespeople. When locals need a plumber or electrician, or when metal fabricators, contractors or mining companies need a welder, there are none to be found.

“When our principal engaged with the community, he would hear over and over about the lack of people in skilled trades and knew we needed to do something about it. The motivation for starting a welding program and increasing our continuing technical education (CTE) programs came from our community,” says Oakley Van Oss, a welding and construction technology teacher and Spanish language teacher at Summit High School in Breckenridge.

The school has about 1,500 students drawn from half a dozen towns. In response to community demand, Van Oss has created the bilingual Summit Welding 1 and Summit Welding 2 classes from the ground up. Welding 1 covers safety, the basics of MIG, cutting metal, equipment maintenance, and individual and group projects. Welding 2 covers Stick welding, quality control, oxy-fuel cutting and individual and group projects.



Oakley Van Oss, a welding and construction technology teacher and Spanish language teacher at Summit High School, teaches a student adjust her welding helmet.

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FINDING PARTNERS

Starting a welding program requires community engagement, and that includes reaching out to find partners like local welding distributors, nonprofit and educational organizations and local industry.

“We have Climax Molybdenum Company, a massive mill and mine up the road from us, and they have donated generously. So has The Summit Foundation, a local non-profit,” says Van Oss. “My advice to other schools starting out, after you cover your local bases, is to reach out to every tool provider you can.”

As part of ESAB’s Future Fabricators Program, ESAB supported Summit High School by donating a Rebel EMP 205ic AC/DC all-process welder (MIG, flux cored, Stick, DC TIG, pulsed DC TIG and AC TIG for aluminum), a Rogue EM 190 PRO MIG/flux cored welder, five Savage A40 auto-darkening welding helmets and plasma and oxy-fuel cutting equipment.

The Rebel 205 is ideal for CTE because its multi-process output enables equipping a welding station with one machine to Synergic mode enables “one knob control,” which helps students master the mechanics of MIG welding. Both units offer the types of process controls found in industry, so students can train more realistically.

“Welding and other technical skills provide the foundation for fulfilling financially rewarding careers,” says Eleanor Lukens, ESAB President of the Americas. “They also teach teamwork, safety, discipline and pull through reading and math skills. Our donation will help make welding classes at Summit High School accessible to more students.”



The “Summit-Welding 2” class covers Stick welding, quality control, oxy-fuel cutting and individual and group projects.



By donating equipment such as plasma cutters, Summit High School can train students on technologies that they will find out in industry.

“For ESAB to come into a school like ours gives us a big leg up. The donation enables our students to train on professional equipment,” says Van Oss. “A lot of people think that high school programs are fully funded and that we don’t need help. I did not find that to be the case. When I started this program, I felt like I was on an island. I didn’t know where to turn. Now I know how to find community and corporate partners.”

ESAB’s Future Fabricators program provides tools, equipment, scholarships, training and educational materials to technical and trade education programs from high schools to four-year welding engineering programs across America. By showcasing schools, teachers and students through contests, giveaways, nominating a teacher, student or school and inspiring stories, ESAB is helping to create a strong foundation of skilled tradesmen for generations.

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Van Oss became hooked on Spanish after studying in Costa Rica and earning a degree in Spanish and International affairs. A 24-year public education veteran, Van Oss taught Spanish for the first two-thirds of his career. However, he has always been a “hands-on” guy. His dad and stepdad are carpenters. He did general contractor work on weekends and during summers as a side-hustle, and that included building his own house.

When the principal wanted to start a welding program, Van Oss agreed. While he hadn’t welded before, he knew his construction and teaching experience would bring a lot to a welding program. To start the process, he met with the school’s facilities director. The initial plan called for the director to provide the welding experience, but that changed after Van Oss got under the hood. “We ran some beads, and it changed my life. It absolutely blew my doors off. I got hungry really fast,” says Van Oss.



Students learn to use oxy-fuel cutting through project work that helps them express their creativity.

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Project-based learning keeps students more engaged while they learn skills such as MIG welding.

HOOKED ON SPANISH AND WELDING

So hungry that Van Oss quickly obtained his 1G GMAW certification at Eastern Wyoming College. He spent hours welding, watching welding and studying with local welders. His certification, welding time and building experience allowed Van Oss to move forward with certifying the program through the Colorado Department of Education (which enables obtaining Perkins grants, a source of Federal CTE funds). “We started with 15 kids, one welder, two grinders, one cutoff saw and we shared a room, but interest was strong right away,” says Van Oss. “The following year we had 40 kids. The year after that we had two sections that ran both semesters.”

Van Oss was still teaching Spanish, civics and an economics class. The administration recognized the success of the program and shifted his class load to one dual language class, plus Welding 1 and Welding II.

“Our program had quadrupled to 60 students,” says Van Oss. “We needed more machines, tools, PPE and more of everything.” Affirming the demand for the class, the school district issued a bond and passed a property value levy in 2019. With the funds, the school converted an art room to a welding shop with eight booths, electrical and ventilation systems specifically for welding and a large compressor. Success began to show, and three years ago Van Oss became a full-time CTE teacher, splitting his time between welding and construction technology.

In 2023, the school connected with Careers in Construction Colorado (CICC), which is a state-wide push to link local tradespeople with schools. As part of CICC, Van Oss brings in trade schools, local welders, plumbers, electricians, carpenters, project managers and concrete workers to create a positive narrative of skilled trade careers.

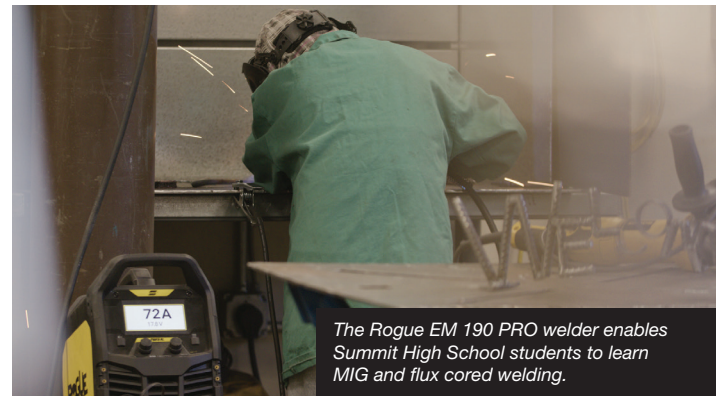
“We’re probably sending 10 kids a year to trade school and 30 kids out of a graduating class are going directly into the trades,” says Van Oss.

Previously a Spanish teacher, Van Oss offers the welding class as a dual-language credit, which means that outside of safety instructions, students can opt to take the entire course in Spanish. With 40% of the community being Hispanic (and many speaking Spanish since birth), Van Oss can also reach students who might otherwise struggle to learn because of a language barrier.

Students have already recognized the benefits of dual language competence in employment.



The ESAB Rebel EMP 205ic AC/DC enables instructor Oakley Van Oss (shown) to teach students any welding process: MIG, flux cored, Stick, DC TIG, pulsed DC TIG and AC TIG for aluminum.



The Rogue EM 190 PRO welder enables Summit High School students to learn MIG and flux cored welding.

“IT’S SUCH A GOOD THING FOR THESE KIDS AND THEIR PARENTS TO KNOW THEY’RE PART OF BUILDING THIS COMMUNITY, WHETHER BY FIXING THINGS AT THE SCHOOL OR BEING VOCAL ADVOCATES FOR THE PROGRAM.”



Welding students contribute community projects, such as building this rail for ski and snowboard students.

A BILINGUAL COMMUNITY

“One student, Tanner, who welds at his friend’s dad’s excavation company, is kind of a mentor because he’s bilingual,” says Van Oss. “He’s working with the guys who speak nothing but Spanish and he can translate. The work is getting done faster and better because there is communication now. This has given him a sense of importance in the trades, and knowing Spanish is a major component.”

Van Oss has seen support from the Hispanic parents as well, including a recent visit with a dad who is a local fabricator. Before joining the welding program, his son had only been interested in video games.

“My student brought his dad into our shop and showed him around. The son was super proud that he was doing something that his dad does. The dad was like, ‘Oh my God, maybe there is a chance my son will be a fabricator like his old man.’”

Support from the parents spills into the community, such as with the football team and the booster club.

“We have worked with them to repair broken parts around the stadium, and we’ve done projects to fix things in the school,” says Van Oss. “We’re also doing some cool welded welcome signs for kids new to the district, many of whom are newcomers to the country. When we go out into the community, there’s never a meeting where I don’t know someone’s kid or grandkid.”



Instructor Oakley Van Oss teaches a student how to maintain a proper MIG gun angle.

For all of his efforts, Van Oss was recently voted Outstanding Educator of the Year in Summit County, a source of pride for him, but also for the students and the community.

“Being a part of this program, even though it’s a small community, is incredible,” says Van Oss. “It’s such a good thing for these kids and their parents to know they’re part of building this community, whether by fixing things at the school or being vocal advocates for the program. It’s about taking pride in where you live and giving back when you can. I love it.”

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