

A Welder's Dream Trip

By Darrell Smith
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The trip of a lifetime? Well, that might be a slight exaggeration. Two days of welding instruction in Appleton, Wis., wouldn't rank high on most people's list of vacation activities and destinations.



For the winners of Farm Journal and Miller Electric Manufacturing Company's Welding University drawing, however, a trip to Miller headquarters ranks right up there. The trip itinerary included two days of trying out the latest welding and cutting equipment, receiving hands-on training from expert welders and, last but certainly not least, choosing their prize.

The grand prize winners were Stan Smith of Lewiston, Minn., Brian Harlan of Bunker Hill, Ind., and Dennis Brabec of Colon, Neb. They were chosen from a random drawing of 4,600 Farm Journal readers, who qualified by completing a survey published in the December 2006 and January 2007 issues or online at AgWeb.com.

Prizes were a choice of three Miller products: a [Bobcat™ 250](#) welder/generator, a [Spectrum® 625](#) plasma cutter or a [Millermatic® 210](#) MIG welder with a spool gun. They also received a Miller auto-darkening welding helmet and a set of Arc Armor protective apparel.

All the winners were essentially self-taught welders. "I learned by trying something and, if it didn't work, trying it again," Smith says. "It was really good to be with someone who knew what they were doing."

Take-home lessons, in addition to new experiences, were plentiful. "I learned I have to keep my welding rod closer to the material I'm working on," Smith says. "I discovered it was easy to set the correct amperage on the Bobcat welder/generator—something I had thought would be difficult. However, my biggest surprise was that DC welding is easier than AC. I had never tried DC welding before."

New technology like the [Thunderbolt® XL 225/150](#) AC/DC welder from Miller makes DC power available for only about \$200 more than a comparable AC welder, points out Miller welding engineer Adam Laabs.

Harlan got some real-world assistance by bringing along a broken point from a subsoiler. “I welded it back home, and it looked fine, but it broke as soon as I used it,” he says.

Harlan suspected the point might be made of some unusual kind of metal. But, that turned out not to be the case.

“The problem was the thickness of the metal and the preparation of the joint,” says Laabs, who spent several hours working on the broken piece to use it as a teaching tool.

Brabec was equally enthusiastic. “I picked up a lot of pointers about how to weld,” he says. “I learned how to adjust the heat setting and which welding rod to use for various jobs. I had never used a 7018 rod before.”



Teaching the classroom portion of the welding training, Laabs explained the differences in three common types of welding rods. “Use a 6013 for welding thin metal with moderate penetration and a 6011 for deeper penetration in thick or thin metal,” he advises. “A 7018 rod is ideal for out-of-position welding and applications where multiple passes are necessary.”

That doesn’t even scratch the surface of Laabs’ class, which covered arc length, travel speed, work angles, welding technique and more. We’ll share more advice from Laabs and his

colleagues, Chris Roehl, who taught MIG welding, and John Leisner and Chris Wierschke, who covered welder/generators, in future Farm Journal stories.

“I had never done any MIG welding before, and I really enjoyed that part,” Smith says. “It is so much easier [than stick welding]. They showed me how to do a vertical weld, and then I tried it, and it was the easiest vertical welding I’ve ever done.”

“I had heard about plasma cutters, but this was the first time I got to work with one,” Brabec says. “In the sessions, the instructors were accommodating, and they answered all our questions.”

Smart helmets. The winners were obviously expecting to learn about welding and cutting, but something else came as a surprise during the event.

“The best part,” Harlan says, “was something I hadn’t even expected—learning about the differences in auto-darkening welding helmets. For example, Miller’s [Elite Series] helmet has four sensors.”

Miller’s [Elite™](#) and [Performance™](#) Series of auto-darkening helmets include an “auto-on” feature that eliminates the need to turn them on after periods of inactivity. “Grind mode” lets the helmets function as face shields for grinding. Replaceable battery/solar assist lens technology results in long battery life without recharging.

“I couldn’t get over how easy it was to weld with those helmets,” Harlan says. “You no longer have to fumble around in the dark.”

Brabec was equally impressed. “I was amazed at how quickly the helmets darkened the instant you struck an arc,” he says. “You no longer have to flip your helmet up when you finish welding. If I hadn’t won one, I would have bought one when I got home from welding school.”

Harlan adds, “I actually scoffed about the value of an auto-darkening helmet. I thought the old duct-taped helmet I had was fine. But, I’m not scoffing anymore!”

Oh yes—the prizes. All three winners chose a Bobcat 250 welder/generator and were planning new projects to tackle as they headed home. Brabec and Smith plan to build fences and corrals to make cattle handling easier. After he’s done with spring planting, Harlan looks forward to building forklift tines for a bucket loader to use for moving brush.

Farm Journal columnist, farmer and host of U.S. Farm Report, John Phipps—another self-taught welder—accompanied the winners through their training. One lesson jumped out at him: “New technology such as we saw at Miller makes it easier to become a skilled welder,” Phipps says. “That technology is even more beneficial for someone like me than it would be for a more experienced welder.”

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