

EDM & Grinding



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Lineup of Tru Tech centerless grinders at Helfer Tool Company in Santa Ana, California. The grinders work 20-22 hours a day producing precision custom tools for Helfer customers.

Grinding Out Custom Tools

*How a Young Machinist Turned His
Grinding Know-how into a Successful
Cutting Tool Business.*

*Story and photos
by C. H. Bush, editor*

Ben Helfer, founder-president of Santa Ana, CA's Helfer Tool Company, in 1975 had no real desire to start a machining job shop, much less a company producing Swiss-style and other precision tools.

"I was just a kid back then," Helfer says. "I needed the money, so I worked as a machinist, as a grinder, while I was going to college. It's funny, but I swore that when I got out of college I would never go in another machine shop as long as I lived. I wanted something different, so I went to work for a company setting up distributors and helping the grinding wheel salesman. I wasn't interested in hanging over a machine, cranking handles for the rest of my life."

But one of Helfer's customers had other plans for him.

"He was in the electronics connector business, and he found out I was a machinist and that I was an experienced grinder," Helfer says. "He kept pestering me to make some small carbide Swiss tooling for him. I finally gave in and bought a couple of machines, including a centerless grinder, and put them in my garage."

Helfer didn't realize it at the time, but that move set him on a course for the rest of his life.

"I had a couple of other friends who worked for companies running CAM-type Swiss automatics," he recalls. "When they found out I had a shop in my garage, they

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Ben Helfer, left, and Derek Le, Tru Tech supervisor, discuss tolerances needed on parts being prepared to send to the Tru Tech grinding department.

came after me to make tools for them, too. I used to make the tools at night, then leave them in their cars, along with an invoice, for them to find the next morning. After that things just sort of progressed. I got so busy that I had to move out of my garage after only a couple of months.”

And the rest is history as they say. Helfer Tool Company was born, and like it or not, Helfer was now a businessman.

All About Friends

Friends helped Helfer get started, and over the years friendship has helped him grow.

“I know it may sound old-fashioned,” he says, “but we don’t make customers, we make friends. We’ve never had a salesman or a sales staff. People come to us and ask us to do things for them, and we do it the best way possible. We give them good service the way a friend would. We give them the best quality we can. If they’re in time trouble, we do everything in our power to meet their deadlines. We’ve grown strictly through word-of-mouth and by running a few ads in magazines. I believe your best sales tool is what you do for people and how you treat them.”

How well has Helfer’s friendly approach to business paid off?

“Well, we kept getting more and more different kinds of tooling projects,” he says. “Our customers kept asking us to do things for them, so eventually we built up some pretty broad capabilities.”

Helfer also built up a pretty big business. Today, he has 38 loyal and dedicated toolmakers and other employees working in his own 25,000 sq ft building. He runs dozens of grinding machines 20-22 hours a day. The custom tool-



ing he produces includes small precision carbide and high-speed Swiss tooling, polygon cutters, escomatic tooling, reamers and cutters, solid, brazed or high-speed I.D. form tools, dovetail form tools, cold heading punches and pins, roller dies, notching blades and broaches. Materials ground include carbide, high-speed steel, titanium and stainless, but mostly carbide.

“We have a simple catalog,” he says, “but it’s not like a cutting tool catalog you see from the big tool companies. Our catalog is just a lot of pictures, kind of like an idea book for people designing tools. The catalog lets them know the kinds of custom tools we’ve produced in the past, so they can know what kind of work we do.”

His major customers come from the automotive, electronics, medical, aerospace and Swiss machine tool industries, split between California, the rest of the states and international customers. Production volumes range from onesies to hundreds. He has a Kanban inventory system for customers who have long-term needs.

“Our customers like that,” he says. “That way they get their tools fast, and we can plan ahead with our production. Longer-term contracts really help us and our customers.”

In addition to the custom tools he makes, Helfer now offers job-shop grinding services, including brazed, CNC surface grinding, Blanchard grinding, O.D. form grinding, and centerless grinding.

“That was another thing we didn’t really plan,” Helfer says. “But when our customers ask us to do something, we usually do it.”

Grinding, Grinding and More Grinding

Virtually every productive machine in Helfer’s shop is a grinder of some kind.

Ken Nguyen, toolmaker, left, and Robert Allen, working at one of Helfer Tool’s Harig EZ Surf II surface grinders. Harig is now owned by Tru Tech Systems





Danny Lee, Tru Tech operator, checks a part just completed on one of Helper Tool's 12 Tru Tech Systems.

“We have a variety of grinders in house,” he says, “but the bulk of our equipment is either Harig surface grinders or Tru Tech centerless grinders. We’ve purchased twelve Tru Techs, about two per year, in the last few years, nearly a million dollars worth of equipment.”

Why so many centerless grinders?

“We bought the centerless grinders basically to prep our cutting tools before we put them on the CNC grinder,” he explains. “But then we started doing all these rivet punch pins for the aerospace industry, and suddenly we needed more and more of them. Once we got them, we started finding a lot more things to do with them. We’re running them twenty or more hours per day, seven days a week, so we needed rugged workhorses that could hold the precision we needed. Our reputation is built on providing high-precision, quality tools at reasonable prices, so we needed productive machines, too.”

Why Tru Tech Grinders?

With all the centerless grinders available on the market, why did Helper decide on Tru Tech?

“Well, Tru Tech’s normal machine holds 30 millionths concentricity guaranteed, and for a few bucks more you can get one that will hold ten millionths. We needed that kind of precision. Also, the owner of Tru Tech, Steve Smarsh, had run a grinding shop for years. He designed the Tru Tech

to work the way you need it to. They’re really easy to set up, and they have conversational programming. We can bring a trainee in and within a month or so he can do simple programming on the machine.”

Helper says that the Tru Tech service has been good, too.

“When you have twelve machines running virtually nonstop, you’re going to have problems, once in a while,” he says. “The Tru Techs have been very reliable, but when something does go wrong, they’re on it fast. When you first get the machine there’s a little cellular phone that comes with it. So, if you have a problem, you call Tru Tech, take a picture of the problem and message and send it to them. They usually fix it over the phone. Nowadays, of course, we don’t really need them much. We’re pretty expert on the machines ourselves.”

Will Helper buy another Tru Tech in the near future?

“I probably will buy another Harig surface grinder pretty soon,” he says. “Anyway, Tru Tech bought out Harig and the marriage has helped both companies. They’re making really good machines.”

And what about Helper himself? What does he see for his own future?

“Oh, I’ll just keep grinding away,” he says, smiling, “at least until it stops being fun. When it stops being fun, and I’m not making any new friends, I’ll just quit.” ■