

GS: Chamfermatic celebrated its 10th anniversary last October. How did you come to found the company?

MM: I've always been a machine tool builder. At one time Rockford, Illinois, was the machine tool capital of the world, so I grew up being a machinist and learning to put machinery together. I was working for another company that built gear deburring machines, and I'd decided that I was going to go into business for myself by the time I was 50. I'd worked my way to the top at that company, and my choices were to either buy it or go out on my own. So when I found out they weren't interested in selling, that's when I started Chamfermatic.

GS: Did you have an idea for building a better deburring machine?

MM: Yes, I did. One of the biggest challenges for any deburring machine is the setup, because there are so many different types of gears out there, so when I built my first machine I thought things out quite thoroughly. I wanted to keep it simple, but at the same time I wanted it to be versatile, so we've got four axes on each head that are all very easily put into place. The result is that changeover from one gear to another only takes a couple of minutes on my machine, when it might take 20 minutes on another make. I also wanted it to be fairly simple to operate, so that it wouldn't take a lot of time to train workers to run it. Another thing is that I went to 40,000-rpm air turbines and carbide deburring tools, so that added a third method in addition to brushes and grinding wheels. You can just use one of them or a combination of all three, which is one of the major improvements we were able to introduce. Our machines can also wash the part and apply a rust preventative before it emerges from the chamber so that it's ready to go straight to the next step in the process. And people have really responded to what we're doing, because we've got machines in place all over the world.

GS: Have you seen many changes in the process over the last decade?

MM: Oh, yes. One thing is that a lot of our customers are moving the deburring machine into the production cell, instead of having it in a separate area. We've designed a lot of fully automated systems, where a conveyor belt will carry the part to the deburring machine, and then a pick and place will put it on the chuck where it's deburred and washed at the same time, and then an exit conveyor carries it out the other end. We've even incorporated optic scanners into the feed system that will identify the part to be deburred before the process begins, so we've seen a lot of improvements. Deburring was basically stagnant for a long time there, but many advances in terms of automation and speed have been made in the past 10 years. At the same time, though, you've got to keep it simple. There's a fine line between taking advantage of all the latest technologies and trying to pack too many bells and whistles into your machine, or trying to sell your customer on some new deburring process or material. It's got to make sense and be cost effective, and I'm not going to lie to anybody.

GS: Has Chamfermatic played an active role in these advances?


MM: Oh, absolutely. But rather than doing a lot of R&D, we've taken our lead from our customers—letting them tell us what they'd like to do, and then responding to their needs. BorgWarner came to us, for instance, and said "we want to deburr five different places on this part, we want the machine to have a particular footprint, and we want the parts to come out cleaned and ready to go." So we responded to that and designed four machines—two wet, and two dry—that met their specifications exactly.

GS: I would think that approach results in a lot of return business.

MM: It has, but I've also got to say that our business has basically doubled since the last



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Gear Expo. We've had the best year in the company's entire history. I had contacts that I made at the show calling me before I even got back to the office, wanting to go ahead and get a machine on order. I was getting orders for two and four machines at a time, it was unbelievable. So the show was excellent for us. But I'm not really in this to get rich. I'm a machine tool builder, first and foremost, and I just like what I'm doing and the people that I deal with. The gear manufacturing community has been very good to me, and to Chamfermatic, and they've allowed me to be successful at something that I really enjoy doing. 

FOR MORE INFORMATION:

Contact Mike Magee at (815) 636-5082, or send e-mail to chamfer96@aol.com. Go online to www.chamfermatic.com.